

QUALIFIED GRID SUPPORT UTILITY INTERACTIVE INVERTERS AND CONTROLLERS MEETING MANDATORY FUNCTIONS SPECIFIED IN RULE 14H/IEEE1547-2018

Last Updated: 05/15/2024

The following list of certified advanced inverters has been approved by the Companies for use with all interconnection programs under Rule 14H, except for Customer Self-Supply (Rule 22), Net Energy Metering Plus (Rule 27), and Smart Renewable Energy Non-Export (Rule 32). The equipment manufacturers represent that the designated models with associated firmware have been formally certified to Underwriters Laboratories Standard 1741 ("UL 1741") 3rd Edition, per the Companies' interconnection requirements.

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	Alpha ESS Suzhou Co., LTD	Hawaii SRD V2.0	SMILE-SP7.6-INV	000019 or higher
Inverter	Alpha ESS Suzhou Co., LTD	Hawaii SRD V2.0	SMILE-SP9.6-INV	000019 or higher
Inverter	Alpha ESS Suzhou Co., LTD	Hawaii SRD V2.0	SMILE-SPB7.6-INV	000019 or higher
Inverter	Alpha ESS Suzhou Co., LTD	Hawaii SRD V2.0	SMILE-SPB9.6-INV	000019 or higher
Inverter	Altenergy Power Systems	Hawaii SRD V2.0	DS3	V5 or higher
Inverter	Altenergy Power Systems	Hawaii SRD V2.0	DS3-H	V5 or higher
Inverter	Altenergy Power Systems	Hawaii SRD V2.0	DS3-L	V5 or higher
Inverter	Altenergy Power Systems	Hawaii SRD V2.0	DS3-S	V5 or higher
Inverter	Altenergy Power Systems	Hawaii SRD V2.0	ELS-3K	V1.2.3.2 or higher
Inverter	Altenergy Power Systems	Hawaii SRD V2.0	ELS-5K	V1.2.3.2 or higher
Inverter	Altenergy Power Systems	Hawaii SRD V2.0	QT2 (208 Vp-p)	V3 or Higher
Inverter	Altenergy Power Systems	Hawaii SRD V2.0	QT2 (480 Vp-p)	V3 or Higher
Inverter	Altenergy Power Systems	Hawaii SRD V2.0	QT2-208	V3 or Higher
Inverter	Altenergy Power Systems	Hawaii SRD V2.0	QT2-480	V3 or Higher
Inverter	Anker Innovations Limited	Hawaii SRD V2.0	MI80	V5 Checksum BC061063 or higher
Inverter	Anker Innovations Limited	Hawaii SRD V2.0	MI80H	V5 Checksum BC061063 or higher
Inverter	Anker Innovations Limited	Hawaii SRD V2.0	MI80L	V5 Checksum BC061063 or higher
Inverter	Anker Innovations Limited	Hawaii SRD V2.0	MI80S	V5 Checksum BC061063 or higher
Inverter	Chint Power Systems	Hawaii SRD V2.0	CPS ECB200KTL-US-800	DSP firmware: V1.02.00 or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	Chint Power Systems	Hawaii SRD V2.0	CPS SCA25KTL-DO-R/US-480	DSP Ver 04.00 and higher
Inverter	Chint Power Systems	Hawaii SRD V2.0	CPS SCA25KTL-DO/US-208	DSP Ver 04.00 and higher
Inverter	Chint Power Systems	Hawaii SRD V2.0	CPS SCA36KTL-DO/US-480	DSP firmware: V1.18.00 or higher
Inverter	Chint Power Systems	Hawaii SRD V2.0	CPS SCA50KTL-DO/US-480	DSP Ver 17.00 and higher
Inverter	Chint Power Systems	Hawaii SRD V2.0	CPS SCA60KTL-DO/US-480	DSP Ver 17.00 and higher
Inverter	Chint Power Systems	Hawaii SRD V2.0	CPS SCH100KTL-DO/US-480	DSP Ver 12.00 and higher
Inverter	Chint Power Systems	Hawaii SRD V2.0	CPS SCH100KTL-DO/US-600	DSP Ver 12.00 and higher
Inverter	Chint Power Systems	Hawaii SRD V2.0	CPS SCH125KTL-DO/US-600	DSP Ver 12.00 and higher
Inverter	Chint Power Systems	Hawaii SRD V2.0	CPS SCH275KTL-DO/US-800	DSP Ver 01.00 and higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E10-TL-US (208Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E10-TL-US (240Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E10-TL-US(AC) (208Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E10-TL-US(AC) (240Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E10_BDI (208Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E10_BDI (240Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E4-TL-US (208Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E4-TL-US (240Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E4-TL-US(AC) (208Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E4-TL-US(AC) (240Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E4_BDI (208Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E4_BDI (240Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E6-TL-US (208Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E6-TL-US (240Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E6-TL-US(AC) (208Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E6-TL-US(AC) (240Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E6_BDI (208Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E6_BDI (240Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E8 Plus-TL-US (208Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E8 Plus-TL-US (240Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E8 Plus-TL-US(AC) (208Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E8 Plus-TL-US(AC) (240Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E8-TL-US (208Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E8-TL-US (240Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E8-TL-US(AC) (208Vp-p)	1.6.2 or higher

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Inverter	Delta Electronics	Hawaii SRD V2.0	E8-TL-US(AC) (240Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E8 BDI (208Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	E8 BDI (240Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	M10-4-TL-US (208Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	M10-4-TL-US (240Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	M10-TL-US (208Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	M10-TL-US (240Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	M4-TL-US (208Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	M4-TL-US (240Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	M5-TL-US (208Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	M5-TL-US (240Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	M6-TL-US (208Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	M6-TL-US (240Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	M8-TL-US (208Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	M8-TL-US (240Vp-p)	1.6.2 or higher
Inverter	Delta Electronics	Hawaii SRD V2.0	PCS125HV	2.0.0.1.0 or higher
Inverter	Duracell Power Center	Hawaii SRD V2.0	D-1500M4 (208Vp-p)	V01.00.00 or higher
Inverter	Duracell Power Center	Hawaii SRD V2.0	D-1500M4 (240Vp-p)	V01.00.00 or higher
Inverter	Duracell Power Center	Hawaii SRD V2.0	D-350M1 (208Vp-p)	V01.00.00 or higher
Inverter	Duracell Power Center	Hawaii SRD V2.0	D-350M1 (240Vp-p)	V01.00.00 or higher
Inverter	Duracell Power Center	Hawaii SRD V2.0	D-700M2 (208Vp-p)	V01.00.00 or higher
Inverter	Duracell Power Center	Hawaii SRD V2.0	D-700M2 (240Vp-p)	V01.00.00 or higher
Inverter	Enphase Energy	Hawaii SRD V2.0	ENCHARGE-10-1P-NA	V1.24.02, V1.27.01, V1.31.1, V3.24.01 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	ENCHARGE-10T-1P-NA	V1.24.02, V1.27.01, V1.31.1, V3.24.01 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	ENCHARGE-3-1P-NA	V1.24.02, V1.27.01, V1.31.1, V3.24.01 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	ENCHARGE-3T-1P-NA	V1.24.02, V1.27.01, V1.31.1, V3.24.01 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ7-60	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ7A (208 Vac)	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ7A (240 Vac)	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ7AS-66(240Vp-p)	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ7HS (208Vac)	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ7HS (240Vac)	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ7HS-66 (208Vp-p)	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ7HS-66 (240Vp-p)	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ7PD-72-2-US	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ7PD-84-2-US	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ7PLUS-72	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ7X-96	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ7XS-96	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ8-60	V2.19.01, V2.22.02, V2.23.01, V2.27.02, V2.38.02, V2.38.03, V2.39.01, V2.42.02, V2.45.02, V2.45.04 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ8A-72	V2.19.01, V2.22.02, V2.23.01, V2.27.02, V2.38.02, V2.38.03, V2.39.01, V2.42.02, V2.45.02, V2.45.04 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ8AC-72-M-US (208Vp-p)	V2.45.02 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ8AC-72-M-US (240 Vp-p)	V2.45.02 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ8D-BAT	V4.31.01 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ8D-BAT-240	V4.31.01 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ8H-208-72	V2.19.01, V2.22.02, V2.23.01, V2.27.02, V2.38.02, V2.38.03, V2.39.01, V2.42.02, V2.45.02, V2.45.04 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ8H-240-72	V2.19.01, V2.22.02, V2.23.01, V2.27.02, V2.38.02, V2.38.03, V2.39.01, V2.42.02, V2.45.02, V2.45.04 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ8H-3P-72	V2.57.03 or higher
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ8HC-72-M-US (208Vp-p)	V2.45.02 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ8HC-72-M-US (240 Vp-p)	V2.45.02 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ8M-72	V2.19.01, V2.22.02, V2.23.01, V2.27.02, V2.38.02, V2.38.03, V2.39.01, V2.42.02, V2.45.02, V2.45.04 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ8MC-72-M-US (208Vp-p)	V2.45.02 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ8MC-72-M-US (240 Vp-p)	V2.45.02 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ8P-3P-72	V2.57.03 or higher
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ8P-72-2-US	V7.04.01 or higher
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ8PLUS-72	V2.19.01, V2.22.02, V2.23.01, V2.27.02, V2.38.02, V2.38.03, V2.39.01, V2.42.02, V2.45.02, V2.45.04 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ8X-80 (208Vp-p)	V2.61.01 or higher
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ8X-80 (240Vp-p)	V2.61.01 or higher
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ8X-BAT-US	V1.24.02, V1.27.01, V1.31.1, V3.24.01 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQ8X-BAT-US-NB	V1.24.02, V1.27.01, V1.31.1, V3.24.01 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Enphase Energy	Hawaii SRD V2.0	IQBATTERY-5P-1P-NA	V4.31.01 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
Inverter	Fortress Power	Hawaii SRD V2.0	Avalon HV PC114	A2 or higher
Inverter	Fortress Power	Hawaii SRD V2.0	Avalon HV PC76	A2 or higher
Inverter	Fortress Power	Hawaii SRD V2.0	FP-ENVY-12K (208 Vp-p)	fA1.0 or higher
Inverter	Fortress Power	Hawaii SRD V2.0	FP-ENVY-12K (240 Vp-p)	fA1.0 or higher
Inverter	Fortress Power	Hawaii SRD V2.0	FP: eSpireMiniHV	fA1.0 or higher
Inverter	Fox ESS	Hawaii SRD V2.0	H1-11.4-US	V1.02 or higher Slave MCU (U1022)
Inverter	Fox ESS	Hawaii SRD V2.0	H1-3.8-US	V1.08 or higher Master MCU(U1000)
Inverter	Fox ESS	Hawaii SRD V2.0	H1-5.7-US	V1.08 or higher Master MCU(U1000)
Inverter	Fox ESS	Hawaii SRD V2.0	H1-7.6-US	V1.02 or higher Slave MCU (U1022)
Inverter	Fox ESS	Hawaii SRD V2.0	H1-9.6-US	V1.02 or higher Slave MCU (U1022)
Inverter	FranklinWH Technologies Co., Ltd	Hawaii SRD V2.0	aPower X, with aGate X (208Vp-p)	V10R00B00 or higher
Inverter	FranklinWH Technologies Co., Ltd	Hawaii SRD V2.0	aPower X, with aGate X (240 Vp-p)	V10R00B00 or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	Generac	Hawaii SRD V2.0	XVT076A03	V13845 checksum dce259439976a7ea17 60bc416551b6b3 with Grid Profile HECO SRD V2.0
Inverter	Ginlong Technologies	Hawaii SRD V2.0	S6-EH1P10K-H-US	Master DSP: A2 or higher, Checksum: D7CA3D39 Slave DSP: A2 or higher, Checksum: 7CAF9930
Inverter	Ginlong Technologies	Hawaii SRD V2.0	S6-EH1P11.4K-H-US	Master DSP: A2 or higher, Checksum: D7CA3D39 Slave DSP: A2 or higher, Checksum: 7CAF9930
Inverter	Ginlong Technologies	Hawaii SRD V2.0	S6-EH1P3.8K-H-US	Master DSP: A2 or higher, Checksum: D7CA3D39 Slave DSP: A2 or higher, Checksum: 7CAF9930
Inverter	Ginlong Technologies	Hawaii SRD V2.0	S6-EH1P5K-H-US	Master DSP: A2 or higher, Checksum: D7CA3D39 Slave DSP: A2 or higher, Checksum: 7CAF9930
Inverter	Ginlong Technologies	Hawaii SRD V2.0	S6-EH1P7.6K-H-US	Master DSP: A2 or higher, Checksum: D7CA3D39 Slave DSP: A2 or higher, Checksum: 7CAF9930
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC11.4-1U-US20	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC5.0-1U-US10	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC5.0-1U-US20	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC6.0-1U-US10	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC6.0-1U-US20	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC7.0-1U-US10	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC7.6-1U-US10	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC7.6-1U-US20	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC8.6-1U-US10	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC9.6-1U-US10	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC9.6-1U-US20	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH11.4-1U-US20	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH5.0-1U-US10	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH5.0-1U-US20	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH6.0-1U-US10	000019 or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH6.0-1U-US20	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH7.0-1U-US10	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH7.6-1U-US10	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH7.6-1U-US20	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH8.6-1U-US10	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH9.6-1U-US10	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH9.6-1U-US20	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP11.4-1-US30 (208Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP11.4-1-US30 (240Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP5.0-1-US30 (208Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP5.0-1-US30 (240Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP6.0-1-US30 (208Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP6.0-1-US30 (240Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP7.6-1-US30 (208Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP7.6-1-US30 (240Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP7.7-1-US30 (208Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP7.7-1-US30 (240Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP9.6-1-US30 (208Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP9.6-1-US30 (240Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW11K4-ES-US20	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW11K4-MS-US30 (208Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW11K4-MS-US30 (240Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW11K4-SBP-US20	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW5000-ES-US20	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW5000-MS-US30 (208Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW5000-MS-US30 (240Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW5000-SBP-US20	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW5000A-BP	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW5000A-ES	000019 or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW5000A-MS	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW5000H-ES	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW50K-SMT-US	00.00.01 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW6000-ES-US20	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW6000-MS-US30 (208Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW6000-MS-US30 (240Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW6000-SBP-US20	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW6000A-BP	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW6000A-ES	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW6000A-MS	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW6000H-ES	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW60K-SMT-US	00.00.01 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7000A-BP	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7000A-ES	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7000A-MS	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7000H-ES	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7600-ES-US20	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7600-MS-US30 (208Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7600-MS-US30 (240Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7600-SBP-US20	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7600A-BP	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7600A-ES	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7600A-MS	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7600H-ES	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7700-MS-US30 (208Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7700-MS-US30 (240Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW8600A-BP	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW8600A-ES	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW8600A-MS	000019 or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW8600H-ES	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW9600-ES-US20	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW9600-MS-US30 (208Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW9600-MS-US30 (240Vp-p)	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW9600-SBP-US20	000000 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW9600A-BP	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW9600A-ES	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW9600A-MS	000019 or higher
Inverter	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW9600H-ES	000019 or higher
Inverter	Green Solutions Inc.	Hawaii SRD V2.0	H12K-US (208Vp-p)	fA1.0 or higher
Inverter	Green Solutions Inc.	Hawaii SRD V2.0	H12K-US (240Vp-p)	fA1.0 or higher
Inverter	Hanwha Q CELLS America Inc	Hawaii SRD V2.0	Q.VOLT A3.8SX	Master DSP V1.05 (Slave DSP V1.03) or higher
Inverter	Hanwha Q CELLS America Inc	Hawaii SRD V2.0	Q.VOLT A5.0SX	Master DSP V1.05 (Slave DSP V1.03) or higher
Inverter	Hanwha Q CELLS America Inc	Hawaii SRD V2.0	Q.VOLT A6.0SX	Master DSP V1.05 (Slave DSP V1.03) or higher
Inverter	Hanwha Q CELLS America Inc	Hawaii SRD V2.0	Q.VOLT A7.6SX	Master DSP V1.05 (Slave DSP V1.03) or higher
Inverter	Hanwha Q CELLS America Inc	Hawaii SRD V2.0	Q.VOLT H3.8SX	Master DSP V1.05 (Slave DSP V1.03, AFCI V1.03) or higher
Inverter	Hanwha Q CELLS America Inc	Hawaii SRD V2.0	Q.VOLT H5.0SX	Master DSP V1.05 (Slave DSP V1.03, AFCI V1.03) or higher
Inverter	Hanwha Q CELLS America Inc	Hawaii SRD V2.0	Q.VOLT H6.0SX	Master DSP V1.05 (Slave DSP V1.03, AFCI V1.03) or higher
Inverter	Hanwha Q CELLS America Inc	Hawaii SRD V2.0	Q.VOLT H7.6SX	Master DSP V1.05 (Slave DSP V1.03, AFCI V1.03) or higher
Inverter	Hanwha Q CELLS America Inc	Hawaii SRD V2.0	Q.VOLT HOME HUB 200SX	Master DSP V1.05 (Slave DSP V1.03) or higher
Inverter	Holu Hou Energy LLC	Hawaii SRD V2.0	HH5000H-HI	000019 or higher
Inverter	Holu Hou Energy LLC	Hawaii SRD V2.0	HH6000H-HI	000019 or higher
Inverter	Holu Hou Energy LLC	Hawaii SRD V2.0	HH7000H-HI	000019 or higher
Inverter	Holu Hou Energy LLC	Hawaii SRD V2.0	HH7600H-HI	000019 or higher
Inverter	Holu Hou Energy LLC	Hawaii SRD V2.0	HH8600H-HI	000019 or higher
Inverter	Holu Hou Energy LLC	Hawaii SRD V2.0	HH9600H-HI	000019 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1000 (208Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_208V

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1000 (240Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_240V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1000N (208Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_208V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1000N (240Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_240V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1000NT (208Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_208V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1000NT (240Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_240V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1000T (208Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_208V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1000T (240Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_240V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1200 (208Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_208V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1200 (240Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_240V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1200N (208Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_208V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1200N (240Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_240V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1200NT (208Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_208V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1200NT (240Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_240V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1200T (208Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_208V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1200T (240Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_240V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1500 (208Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_208V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1500 (240Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_240V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1500N (208Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_208V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1500N (240Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_240V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1500NT (208Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_208V

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1500NT (240Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_240V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1500T (208Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_208V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1500T (240Vp-p)	V01.00.00 or higher, US_HECO SRD V2.0_240V
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-300NT (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-300NT (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-350NT (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-350NT (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-400NT (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-400NT (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-600NT (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-600NT (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-700NT (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-700NT (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-800NT (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-800NT (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-1000-2T (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-1000-2T (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-1000-2T-NA (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-1000-2T-NA (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-1600-4T-NA (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-1600-4T-NA (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-1800-4T-NA (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-1800-4T-NA (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-2000-4T-NA (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-2000-4T-NA (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-300-1T (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-300-1T (240Vp-p)	V01.00.00 or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-350-1A-NA (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-350-1A-NA (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-350-1T (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-350-1T (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-350-1T-NA (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-350-1T-NA (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-400-1A-NA (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-400-1A-NA (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-400-1T (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-400-1T (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-400-1T-NA (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-400-1T-NA (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-450-1A-NA (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-450-1A-NA (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-450-1T (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-450-1T (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-450-1T-NA (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-450-1T-NA (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-500-1A-NA (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-500-1A-NA (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-500-1T (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-500-1T (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-500-1T-NA (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-500-1T-NA (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-600-2T (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-600-2T (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-700-2T (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-700-2T (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-700-2T-NA (208Vp-p)	V01.00.00 or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-700-2T-NA (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-800-2T (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-800-2T (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-800-2T-NA (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-800-2T-NA (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-900-2T (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-900-2T (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-900-2T-NA (208Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-900-2T-NA (240Vp-p)	V01.00.00 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMT-1600-4T-208 (208Vp-p)	V01.00.03 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMT-1600-4T-208-NA (208Vp-p)	V01.00.03 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMT-1800-4T-208 (208Vp-p)	V01.00.03 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMT-1800-4T-208-NA (208Vp-p)	V01.00.03 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMT-2000-4T-208 (208Vp-p)	V01.00.03 or higher
Inverter	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMT-2000-4T-208-NA (208Vp-p)	V01.00.03 or higher
Inverter	LG Electronics	Hawaii SRD V2.0	RA768K00A10	LG P1 01.00.01.00 R85 53.32 or higher
Inverter	LG Electronics	Hawaii SRD V2.0	RBA008K0A00	V1.1.1712 or higher
Inverter	LG Energy Solution	Hawaii SRD V2.0	SHB-G1	000000 or higher
Inverter	Lion Energy	Hawaii SRD V2.0	50170168	V1.0.06(DSP), V1.03.06(ARM) or higher
Inverter	Northern Electric & Power Co.	Hawaii SRD V2.0	BDM-550	9200 or Higher
Inverter	Northern Electric & Power Co.	Hawaii SRD V2.0	BDM-650	9200 or Higher
Inverter	Northern Electric & Power Co.	Hawaii SRD V2.0	BDM-800 (208 Vp-p)	9200 or Higher
Inverter	Northern Electric & Power Co.	Hawaii SRD V2.0	BDM-800 (240 Vp-p)	9200 or Higher
Inverter	Panasonic Corporation of North America	Hawaii SRD V2.0	EVAC-I3	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
Inverter	Panasonic Corporation of North America	Hawaii SRD V2.0	EVAC-I5	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	Panasonic Corporation of North America	Hawaii SRD V2.0	EVAC-I6	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
Inverter	Panasonic Corporation of North America	Hawaii SRD V2.0	EVAC-I7	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
Inverter	Panasonic Corporation of North America	Hawaii SRD V2.0	EVHB-I3	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
Inverter	Panasonic Corporation of North America	Hawaii SRD V2.0	EVHB-I5	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
Inverter	Panasonic Corporation of North America	Hawaii SRD V2.0	EVHB-I6	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
Inverter	Panasonic Corporation of North America	Hawaii SRD V2.0	EVHB-I7	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
Inverter	SAJ Electric	Hawaii SRD V2.0	H2-10K-S4-US (208 Vp-p)	Master DSP: V1.002 or higher Checksum: 0x F4E69621 Slave DSP: V1.001 or higher Checksum: 0x1A983BE13
Inverter	SAJ Electric	Hawaii SRD V2.0	H2-10K-S4-US (240 Vp-p)	Master DSP: V1.002 or higher Checksum: 0x F4E69621 Slave DSP: V1.001 or higher Checksum: 0x1A983BE12
Inverter	SAJ Electric	Hawaii SRD V2.0	H2-12K-S4-US (208 Vp-p)	Master DSP: V1.002 or higher Checksum: 0x F4E69621 Slave DSP: V1.001 or higher Checksum: 0x1A983BE15
Inverter	SAJ Electric	Hawaii SRD V2.0	H2-12K-S4-US (240 Vp-p)	Master DSP: V1.002 or higher Checksum: 0x F4E69621 Slave DSP: V1.001 or higher Checksum: 0x1A983BE14
Inverter	SAJ Electric	Hawaii SRD V2.0	H2-5K-S3-US (208 Vp-p)	Master DSP: V1.002 or higher Checksum: 0x F4E69621 Slave DSP: V1.001 or higher Checksum: 0x1A983BE7

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	SAJ Electric	Hawaii SRD V2.0	H2-5K-S3-US (240 Vp-p)	Master DSP: V1.002 or higher Checksum: 0x F4E69621 Slave DSP: V1.001 or higher Checksum: 0x1A983BE6
Inverter	SAJ Electric	Hawaii SRD V2.0	H2-7.6K-S3-US (208 Vp-p)	Master DSP: V1.002 or higher Checksum: 0x F4E69621 Slave DSP: V1.001 or higher Checksum: 0x1A983BE9
Inverter	SAJ Electric	Hawaii SRD V2.0	H2-7.6K-S3-US (240 Vp-p)	Master DSP: V1.002 or higher Checksum: 0x F4E69621 Slave DSP: V1.001 or higher Checksum: 0x1A983BE8
Inverter	SAJ Electric	Hawaii SRD V2.0	H2-8.6K-S4-US (208 Vp-p)	Master DSP: V1.002 or higher Checksum: 0x F4E69621 Slave DSP: V1.001 or higher Checksum: 0x1A983BE11
Inverter	SAJ Electric	Hawaii SRD V2.0	H2-8.6K-S4-US (240 Vp-p)	Master DSP: V1.002 or higher Checksum: 0x F4E69621 Slave DSP: V1.001 or higher Checksum: 0x1A983BE10
Inverter	SAJ Electric	Hawaii SRD V2.0	SBU-200	Master DSP: V1.002 or higher
Inverter	Schneider Electric	Hawaii SRD V2.0	HY8K1NA1	V42 or higher
Inverter	Schneider Electric	Hawaii SRD V2.0	XW Pro 6848 NA (120 Vp-p)	V2.04BN17 or higher
Inverter	Schneider Electric	Hawaii SRD V2.0	XW Pro 6848 NA (240 Vp-p)	V2.04BN17 or higher
Inverter	Shenzhen Eternalplanet Energy Pingshan Ltd.	Hawaii SRD V2.0	EP CUBE NA-5-10-G-1	V2.0
Inverter	Shenzhen Eternalplanet Energy Pingshan Ltd.	Hawaii SRD V2.0	EP CUBE NA-5-10-W-1	V2.0
Inverter	Shenzhen Eternalplanet Energy Pingshan Ltd.	Hawaii SRD V2.0	EP CUBE NA-6-13-G-1	V2.0
Inverter	Shenzhen Eternalplanet Energy Pingshan Ltd.	Hawaii SRD V2.0	EP CUBE NA-6-13-W-1	V2.0
Inverter	Shenzhen Eternalplanet Energy Pingshan Ltd.	Hawaii SRD V2.0	EP CUBE NA-7-16-G-1	V2.0
Inverter	Shenzhen Eternalplanet Energy Pingshan Ltd.	Hawaii SRD V2.0	EP CUBE NA-7-16-W-1	V2.0
Inverter	Shenzhen Eternalplanet Energy Pingshan Ltd.	Hawaii SRD V2.0	EP CUBE NA-7-20-G-1	V2.0
Inverter	Shenzhen Eternalplanet Energy Pingshan Ltd.	Hawaii SRD V2.0	EP CUBE NA-7-20-W-1	V2.0

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 10000TL-XA-US	UE 1.0 or higher
Inverter	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 10000TL-XH-US	UE 1.0 or higher
Inverter	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 11400TL-XA-US	UE 1.0 or higher
Inverter	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 11400TL-XH-US	UE 1.0 or higher
Inverter	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 3000TL-XA-US	UE1.0(checksum:8CB43554CCBB5D85F0581EA268A5C28)
Inverter	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 3000TL-XH-US	UE1.0(checksum:8CB43554CCBB5D85F0581EA268A5C28)
Inverter	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 3800TL-XA-US	UE1.0(checksum:8CB43554CCBB5D85F0581EA268A5C28)
Inverter	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 3800TL-XH-US	UE1.0(checksum:8CB43554CCBB5D85F0581EA268A5C28)
Inverter	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 3800TL-XH-US(S)	UE 1.0 or higher
Inverter	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 5000TL-XA-US	UE1.0(checksum:8CB43554CCBB5D85F0581EA268A5C28)
Inverter	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 5000TL-XH-US	UE1.0(checksum:8CB43554CCBB5D85F0581EA268A5C28)
Inverter	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 6000TL-XA-US	UE1.0(checksum:8CB43554CCBB5D85F0581EA268A5C28)
Inverter	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 6000TL-XH-US	UE1.0(checksum:8CB43554CCBB5D85F0581EA268A5C28)
Inverter	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 7600TL-XA-US	UE1.0(checksum:8CB43554CCBB5D85F0581EA268A5C28)
Inverter	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 7600TL-XH-US	UE1.0(checksum:8CB43554CCBB5D85F0581EA268A5C28)
Inverter	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 7600TL-XH-US(S)	UE 1.0 or higher
Inverter	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 8200TL-XA-US	UE 1.0 or higher
Inverter	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 8200TL-XH-US	UE 1.0 or higher
Inverter	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 9000TL-XA-US	UE 1.0 or higher
Inverter	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 9000TL-XH-US	UE 1.0 or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	Shenzhen Lux Power Technology Co.,LTD	Hawaii SRD V2.0	LXP-LB-US 12K (208 Vp-p)	fA1.0 or higher
Inverter	Shenzhen Lux Power Technology Co.,LTD	Hawaii SRD V2.0	LXP-LB-US 12K (240 Vp-p)	fA1.0 or higher
Inverter	Sicon S.r.l. - SOCOMEC	Hawaii SRD V2.0	SUN-HES-L-480+1xSUN-HES-MOD50	V1.3.6 or higher
Inverter	Sicon S.r.l. - SOCOMEC	Hawaii SRD V2.0	SUN-HES-L-480+2xSUN-HES-MOD50	V1.3.6 or higher
Inverter	Sicon S.r.l. - SOCOMEC	Hawaii SRD V2.0	SUN-HES-L-480+3xSUN-HES-MOD50	V1.3.6 or higher
Inverter	Sicon S.r.l. - SOCOMEC	Hawaii SRD V2.0	SUN-HES-L-480+4xSUN-HES-MOD50	V1.3.6 or higher
Inverter	Sicon S.r.l. - SOCOMEC	Hawaii SRD V2.0	SUN-HES-L-480+5xSUN-HES-MOD50	V1.3.6 or higher
Inverter	Sicon S.r.l. - SOCOMEC	Hawaii SRD V2.0	SUN-HES-L-480+6xSUN-HES-MOD50	V1.3.6 or higher
Inverter	SINEXCEL INC	Hawaii SRD V2.0	PWS1-500K-NA-1M1	1400 or Higher
Inverter	SINEXCEL INC	Hawaii SRD V2.0	PWS1-500K-NA-1M4	1400 or Higher
Inverter	SINEXCEL INC	Hawaii SRD V2.0	PWS1-500K-NA-1M8	1400 or Higher
Inverter	SINEXCEL INC	Hawaii SRD V2.0	PWS1-500K-NA-8M1	1400 or Higher
Inverter	SINEXCEL INC	Hawaii SRD V2.0	PWS1-500K-NA-8M4	1400 or Higher
Inverter	SINEXCEL INC	Hawaii SRD V2.0	PWS1-500K-NA-8M8	1400 or Higher
Inverter	SINEXCEL INC	Hawaii SRD V2.0	PWS2-30P-NA	v1.0 or higher
Inverter	SMA America, LLC	Hawaii SRD V2.0	SBSE3.8-US-50 (208Vp-p)	CONT Application: 2.24.4.R, CONT Bootloader: 2.24.3.R or higher
Inverter	SMA America, LLC	Hawaii SRD V2.0	SBSE3.8-US-50 (240Vp-p)	CONT Application: 2.24.4.R, CONT Bootloader: 2.24.3.R or higher
Inverter	SMA America, LLC	Hawaii SRD V2.0	SBSE4.8-US-50 (208Vp-p)	CONT Application: 2.24.4.R, CONT Bootloader: 2.24.3.R or higher
Inverter	SMA America, LLC	Hawaii SRD V2.0	SBSE4.8-US-50 (240Vp-p)	CONT Application: 2.24.4.R, CONT Bootloader: 2.24.3.R or higher
Inverter	SMA America, LLC	Hawaii SRD V2.0	SBSE5.8-US-50 (208Vp-p)	CONT Application: 2.24.4.R, CONT Bootloader: 2.24.3.R or higher
Inverter	SMA America, LLC	Hawaii SRD V2.0	SBSE5.8-US-50 (240Vp-p)	CONT Application: 2.24.4.R, CONT Bootloader: 2.24.3.R or higher
Inverter	SMA America, LLC	Hawaii SRD V2.0	SBSE7.7-US-50 (208Vp-p)	CONT Application: 2.24.4.R, CONT Bootloader: 2.24.3.R or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	SMA America, LLC	Hawaii SRD V2.0	SBSE7.7-US-50 (240Vp-p)	CONT Application: 2.24.4.R, CONT Bootloader: 2.24.3.R or higher
Inverter	SMA America, LLC	Hawaii SRD V2.0	SHP 125-US-21	3.15.22 or higher
Inverter	SMA America, LLC	Hawaii SRD V2.0	SHP 150-US-21	3.15.22 or higher
Inverter	SMA America, LLC	Hawaii SRD V2.0	SHP 165-US-21	3.15.22 or higher
Inverter	SMA America, LLC	Hawaii SRD V2.0	SHP 172-US-21	3.15.22 or higher
Inverter	SMA America, LLC	Hawaii SRD V2.0	SHP FLEX-US-21	3.15.22 or higher
Inverter	SMA America, LLC	Hawaii SRD V2.0	STP 20-US-50	2.16.3.R or Higher
Inverter	SMA America, LLC	Hawaii SRD V2.0	STP 25-US-50	2.16.3.R or Higher
Inverter	SMA America, LLC	Hawaii SRD V2.0	STP 30-US-50	2.16.3.R or Higher
Inverter	SMA America, LLC	Hawaii SRD V2.0	STP 33-US-41	01.05.03.R and up
Inverter	SMA America, LLC	Hawaii SRD V2.0	STP 50-US-40	01.05.03.R and up
Inverter	SMA America, LLC	Hawaii SRD V2.0	STP 50-US-41	01.05.03.R and up
Inverter	SMA America, LLC	Hawaii SRD V2.0	STP 62-US-41	01.05.03.R and up
Inverter	Sol-Ark	Hawaii SRD V2.0	30K-3P-208V	MCU: Ver1057 or later and COMM: 101F - XXXX or later
Inverter	Sol-Ark	Hawaii SRD V2.0	60K-3P-480V	MCU: Ver1057 or later
Inverter	Sol-Ark	Hawaii SRD V2.0	Limitless 15K-LV (208Vp-p)	v7214 and higher
Inverter	Sol-Ark	Hawaii SRD V2.0	Limitless 15K-LV (240Vp-p)	v7214 and higher
Inverter	Sol-Ark	Hawaii SRD V2.0	Sol-Ark 12K-P (208Vp-p)	MCU xx22 or Higher
Inverter	Sol-Ark	Hawaii SRD V2.0	Sol-Ark 12K-P (240Vp-p)	MCU xx22 or Higher
Inverter	Sol-Ark	Hawaii SRD V2.0	Sol-Ark 5K-48-ST (208Vp-p)	MCU xx22 or Higher
Inverter	Sol-Ark	Hawaii SRD V2.0	Sol-Ark 5K-48-ST (240Vp-p)	MCU xx22 or Higher
Inverter	Sol-Ark	Hawaii SRD V2.0	Sol-Ark 8K-48-ST (208Vp-p)	MCU xx22 or Higher
Inverter	Sol-Ark	Hawaii SRD V2.0	Sol-Ark 8K-48-ST (240Vp-p)	MCU xx22 or Higher
Inverter	SolarEdge	Hawaii SRD V2.0	SE10000H-US (208Vp-p)	V2.100.1204, Checksum 0xFC5866C9 or higher
Inverter	SolarEdge	Hawaii SRD V2.0	SE10000H-US (240Vp-p)	V2.100.1204, Checksum 0xFC5866C9 or higher
Inverter	SolarEdge	Hawaii SRD V2.0	SE100KUS	2.20.710 or higher w/ Country Code Profile US/Hawaii
Inverter	SolarEdge	Hawaii SRD V2.0	SE10KUS	2.20.710 or higher w/ Country Code Profile US/Hawaii
Inverter	SolarEdge	Hawaii SRD V2.0	SE11400H-US (208Vp-p)	V2.100.1204, Checksum 0xFC5866C9 or higher
Inverter	SolarEdge	Hawaii SRD V2.0	SE11400H-US (240Vp-p)	V2.100.1204, Checksum 0xFC5866C9 or higher
Inverter	SolarEdge	Hawaii SRD V2.0	SE120KUS	2.20.710 or higher w/ Country Code Profile US/Hawaii

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	SolarEdge	Hawaii SRD V2.0	SE14.4KUS	2.20.710 or higher w/ Country Code Profile US/Hawaii
Inverter	SolarEdge	Hawaii SRD V2.0	SE17.3KUS	2.20.710 or higher w/ Country Code Profile US/Hawaii
Inverter	SolarEdge	Hawaii SRD V2.0	SE3000H-US	V2.100.1204, Checksum 0xFC5866C9 or higher
Inverter	SolarEdge	Hawaii SRD V2.0	SE30KUS	2.20.710 or higher w/ Country Code Profile US/Hawaii
Inverter	SolarEdge	Hawaii SRD V2.0	SE33.3KUS	2.20.710 or higher w/ Country Code Profile US/Hawaii
Inverter	SolarEdge	Hawaii SRD V2.0	SE3800H-US (208Vp- p)	V2.100.1204, Checksum 0xFC5866C9 or higher
Inverter	SolarEdge	Hawaii SRD V2.0	SE3800H-US (240Vp- p)	V2.100.1204 or higher, Checksum 0xFC5866C9 or higher
Inverter	SolarEdge	Hawaii SRD V2.0	SE40KUS	2.20.710 or higher w/ Country Code Profile US/Hawaii
Inverter	SolarEdge	Hawaii SRD V2.0	SE43.2KUS	2.20.710 or higher w/ Country Code Profile US/Hawaii
Inverter	SolarEdge	Hawaii SRD V2.0	SE5000H-US (208Vp- p)	V2.100.1204, Checksum 0xFC5866C9 or higher
Inverter	SolarEdge	Hawaii SRD V2.0	SE5000H-US (240Vp- p)	V2.100.1204, Checksum 0xFC5866C9 or higher
Inverter	SolarEdge	Hawaii SRD V2.0	SE50KUS	2.20.710 or higher w/ Country Code Profile US/Hawaii
Inverter	SolarEdge	Hawaii SRD V2.0	SE5700H-US (208Vp- p)	V2.100.1204, Checksum 0xFC5866C9 or higher
Inverter	SolarEdge	Hawaii SRD V2.0	SE5700H-US (240Vp- p)	V2.100.1204, Checksum 0xFC5866C9 or higher
Inverter	SolarEdge	Hawaii SRD V2.0	SE6000H-US (208Vp- p)	V2.100.1204, Checksum 0xFC5866C9 or higher
Inverter	SolarEdge	Hawaii SRD V2.0	SE6000H-US (240Vp- p)	V2.100.1204, Checksum 0xFC5866C9 or higher
Inverter	SolarEdge	Hawaii SRD V2.0	SE66.6KUS	2.20.710 or higher w/ Country Code Profile US/Hawaii
Inverter	SolarEdge	Hawaii SRD V2.0	SE7600H-US	2.100.1204 or higher w/ Country Code Profile US/Hawaii V2.100.1204, Checksum 0xFC5866C9
Inverter	SolarEdge	Hawaii SRD V2.0	SE80KUS	2.20.710 or higher w/ Country Code Profile US/Hawaii

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	SolaX Power Network Technology	Hawaii SRD V2.0	A1-AC-3.8K-G2	Master DSP V1.05(Slave DSP V1.03) or higher
Inverter	SolaX Power Network Technology	Hawaii SRD V2.0	A1-AC-5.0K-G2	Master DSP V1.05(Slave DSP V1.03) or higher
Inverter	SolaX Power Network Technology	Hawaii SRD V2.0	A1-AC-6.0K-G2	"Master DSP V1.05(Slave DSP V1.03) or higher"
Inverter	SolaX Power Network Technology	Hawaii SRD V2.0	A1-AC-7.6K-G2	Master DSP V1.05(Slave DSP V1.03) or higher
Inverter	SolaX Power Network Technology	Hawaii SRD V2.0	A1-HYB-3.8K-G2	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
Inverter	SolaX Power Network Technology	Hawaii SRD V2.0	A1-HYB-5.0K-G2	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
Inverter	SolaX Power Network Technology	Hawaii SRD V2.0	A1-HYB-6.0K-G2	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
Inverter	SolaX Power Network Technology	Hawaii SRD V2.0	A1-HYB-7.6K-G2	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
Inverter	Solectria Renewables, LLC (Yaskawa-Solectria Solar)	Hawaii SRD V2.0	PVI 25TL-208	DSP V01.04.00 or higher
Inverter	Solectria Renewables, LLC (Yaskawa-Solectria Solar)	Hawaii SRD V2.0	PVI 50TL-480	DSP V01.17.00 or higher
Inverter	Solectria Renewables, LLC (Yaskawa-Solectria Solar)	Hawaii SRD V2.0	PVI 60TL-480	DSP V01.17.00 or higher
Inverter	Solectria Renewables, LLC (Yaskawa-Solectria Solar)	Hawaii SRD V2.0	PVI-36TL-480-V2	DSP V19.0 or higher
Inverter	Solectria Renewables, LLC (Yaskawa-Solectria Solar)	Hawaii SRD V2.0	PVI25TL-480-R	DSP V00.05.00 or higher
Inverter	SunPower	Hawaii SRD V2.0	SPWR-A4 (240Vp-p)	Version 20.0 or higher with grid profile HECO_IEEE_1547-2018
Inverter	SunPower	Hawaii SRD V2.0	SPWR-A5 (208Vp-p)	Version 20.0 or higher with grid profile HECO_IEEE_1547-2018
Inverter	SunPower	Hawaii SRD V2.0	SPWR-A5 (240Vp-p)	Version 20.0 or higher with grid profile HECO_IEEE_1547-2018
Inverter	SunPower	Hawaii SRD V2.0	SV-BASE-13-12-0	V2.04BN17 or higher
Inverter	SunPower	Hawaii SRD V2.0	SV-BASE-13-12-A	V2.04BN17 or higher
Inverter	SunPower	Hawaii SRD V2.0	SV-BASE-13-12-B	V2.04BN17 or higher
Inverter	SunPower	Hawaii SRD V2.0	SV-BASE-13-C	V2.04BN17 or higher
Inverter	SunPower	Hawaii SRD V2.0	SV-BASE-19.5-C	V2.04BN17 or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	Syl Battery	Hawaii SRD V2.0	SU1147U125HV	2.0.0.1.0 or higher
Inverter	Syl Battery	Hawaii SRD V2.0	SU1147U375HV	2.0.0.1.0 or higher
Inverter	Syl Battery	Hawaii SRD V2.0	SU1147U500HV	2.0.0.1.0 or higher
Inverter	Syl Battery	Hawaii SRD V2.0	SU287U125HV	2.0.0.1.0 or higher
Inverter	Syl Battery	Hawaii SRD V2.0	SU573U125HV	2.0.0.1.0 or higher
Inverter	Syl Battery	Hawaii SRD V2.0	SU573U250HV	2.0.0.1.0 or higher
Inverter	Syl Battery	Hawaii SRD V2.0	SU860125HV	2.0.0.1.0 or higher
Inverter	Syl Battery	Hawaii SRD V2.0	SU860U375HV	2.0.0.1.0 or higher
Inverter	Syl Battery	Hawaii SRD V2.0	SU86U250HV	2.0.0.1.0 or higher
Inverter	Tesla	Hawaii SRD V2.0	Powerwall 3 1707000-XX-Y	c5773b136a9ef9be9057302a67258482 and dcq8OiBXbQWYnK9UhCAjvl02/py2MZymmwAQYOn8jSc=
Inverter	Tesla	Hawaii SRD V2.0	Tesla AC Powerwall 2 (240 V) 2012170-xx-y	1.7.0 and higher 3700B98CF516D8D8421D23891E9AD8D5 & dcq8OiBXbQWYnK9UhCAjvl02/py2MZymmwAQYOn8jSc=
Inverter	Tesla	Hawaii SRD V2.0	Tesla AC Powerwall 2 (240 V) 3012170-xx-y	1.7.0 and higher 3700B98CF516D8D8421D23891E9AD8D5 & dcq8OiBXbQWYnK9UhCAjvl02/py2MZymmwAQYOn8jSc=
Inverter	Tesla	Hawaii SRD V2.0	Tesla Megapack2 1748844-XX-Y	9IWD23njXAz+y3gW4k5ZNZ2Us+MSb5f+I5KNQtp7Yq0=
Inverter	Tesla	Hawaii SRD V2.0	Tesla Megapack2XL 1848844-XX-Y	9IWD23njXAz+y3gW4k5ZNZ2Us+MSb5f+I5KNQtp7Yq0=
Inverter	Tesla	Hawaii SRD V2.0	Tesla Powerwall+ 1850000-XX-Y	1217B43E9B859EAB26ECB10B5FBECC64 & 3700B98CF516D8D8421D23891E9AD8D5 & dcq8OiBXbQWYnK9UhCAjvl02/py2MZymmwAQYOn8jSc=
Inverter	Tesla	Hawaii SRD V2.0	Tesla PV Inverter 1534000-XX-Y	1217B43E9B859EAB26ECB10B5FBECC64 & dcq8OiBXbQWYnK9UhCAjvl02/py2MZymmwAQYOn8jSc=
Inverter	Tesla	Hawaii SRD V2.0	Tesla PV Inverter 1538000-XX-Y (240Vp-p, 3.8kW)	1217B43E9B859EAB26ECB10B5FBECC64 & dcq8OiBXbQWYnK9UhCAjvl02/py2MZymmwAQYOn8jSc=
Inverter	Tesla	Hawaii SRD V2.0	Tesla PV Inverter 1538000-XX-Y (240Vp-p, 5.7kW)	1217B43E9B859EAB26ECB10B5FBECC64 & dcq8OiBXbQWYnK9UhCAjvl02/py2MZymmwAQYOn8jSc=
Inverter	Tesla	Hawaii SRD V2.0	Tesla PV Inverter 1538000-XX-Y (240Vp-p, 5kW)	1217B43E9B859EAB26ECB10B5FBECC64 & dcq8OiBXbQWYnK9UhCAjvl02/py2MZymmwAQYOn8jSc=

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
Inverter	Tesla	Hawaii SRD V2.0	Tesla PV Inverter 1538000-XX-Y (240Vp-p, 7.6kW)	1217B43E9B859EAB26 ECB10B5FBECC64 & dcq8OiBXbQWYnK9Uh CAjvl02/py2MZymmww AQYOn8jSc=
Inverter	Tigo Energy	Hawaii SRD V2.0	TSI-10.0K-US	UE1.0
Inverter	Tigo Energy	Hawaii SRD V2.0	TSI-11.4K-US	UE1.0
Inverter	Tigo Energy	Hawaii SRD V2.0	TSI-3.0K-US	UE1.0 (checksum:8CB43554C CBB5D85F0581EA268 A5C28)
Inverter	Tigo Energy	Hawaii SRD V2.0	TSI-3.8K-US	UE1.0 (checksum:8CB43554C CBB5D85F0581EA268 A5C28)
Inverter	Tigo Energy	Hawaii SRD V2.0	TSI-5.0K-US	UE1.0 (checksum:8CB43554C CBB5D85F0581EA268 A5C28)
Inverter	Tigo Energy	Hawaii SRD V2.0	TSI-6.0K-US	UE1.0 (checksum:8CB43554C CBB5D85F0581EA268 A5C28)
Inverter	Tigo Energy	Hawaii SRD V2.0	TSI-7.6K-US	UE1.0 (checksum:8CB43554C CBB5D85F0581EA268 A5C28)
Inverter	Tigo Energy	Hawaii SRD V2.0	TSI-8.2K-US	UE1.0
Inverter	Tigo Energy	Hawaii SRD V2.0	TSI-9.0K-US	UE1.0
Inverter	Yotta Energy	Hawaii SRD V2.0	DPI-208	V3 or Higher
Inverter	Yotta Energy	Hawaii SRD V2.0	DPI-480	V3 or Higher

QUALIFIED GRID SUPPORT UTILITY INTERACTIVE INVERTERS AND CONTROLLERS AND EQUIPMENT FOR CUSTOMER SELF-SUPPLY AND NEM PLUS SYSTEMS

Last Updated: 05/15/2024

The following list of certified advanced inverters with associated equipment has been approved by the Companies for use with the Customer Self-Supply (Rule 22), NEM Plus (Rule 27), and Smart Renewable Energy Non-Export (Rule 32) programs. The equipment manufacturers represent that the designated models with associated firmware have been formally certified to Underwriters Laboratories Standard 1741 ("UL 1741") 3rd Edition, per the Companies interconnection requirements.

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
CSS System	Alpha ESS Suzhou Co., LTD	Hawaii SRD V2.0	SMILE-SP7.6-INV w/ Meter (AGF-AE-D/200 2CT)	000019 or higher
CSS System	Alpha ESS Suzhou Co., LTD	Hawaii SRD V2.0	SMILE-SP9.6-INV w/ Meter (AGF-AE-D/200 2CT)	000019 or higher
CSS System	Alpha ESS Suzhou Co., LTD	Hawaii SRD V2.0	SMILE-SPB7.6-INV w/ Meter (AGF-AE-D/200 2CT)	000019 or higher
CSS System	Alpha ESS Suzhou Co., LTD	Hawaii SRD V2.0	SMILE-SPB9.6-INV w/ Meter (AGF-AE-D/200 2CT)	000019 or higher
CSS System	Altenergy Power Systems	Hawaii SRD V2.0	DS3 w/ ECU-C, CT or ECU-R, Meter CT	V5 or higher
CSS System	Altenergy Power Systems	Hawaii SRD V2.0	DS3-H w/ ECU-C, CT or ECU-R, Meter CT	V5 or higher
CSS System	Altenergy Power Systems	Hawaii SRD V2.0	DS3-L w/ ECU-C, CT or ECU-R, Meter CT	V5 or higher
CSS System	Altenergy Power Systems	Hawaii SRD V2.0	DS3-S w/ ECU-C, CT or ECU-R, Meter CT	V5 or higher
CSS System	Altenergy Power Systems	Hawaii SRD V2.0	ELS-3K w/ CT or Meter	V1.2.3.2 or higher
CSS System	Altenergy Power Systems	Hawaii SRD V2.0	ELS-5K w/ CT or Meter	V1.2.3.2 or higher
CSS System	Altenergy Power Systems	Hawaii SRD V2.0	QT2 (208 Vp-p) w/ ECU-C, CT or ECU-R, Meter CT	V3 or Higher
CSS System	Altenergy Power Systems	Hawaii SRD V2.0	QT2 (480 Vp-p) w/ ECU-C, CT or ECU-R, Meter CT	V3 or Higher
CSS System	Altenergy Power Systems	Hawaii SRD V2.0	QT2-208 w/ ECU-C, CT or ECU-R, Meter CT	V3 or Higher
CSS System	Altenergy Power Systems	Hawaii SRD V2.0	QT2-480 w/ ECU-C, CT or ECU-R, Meter CT	V3 or Higher
CSS System	Anker Innovations Limited	Hawaii SRD V2.0	MI80 w/ ECU Zibee Dongle, Meter or CT	V5 Checksum BC061063 or higher
CSS System	Anker Innovations Limited	Hawaii SRD V2.0	MI80H w/ ECU Zibee Dongle, Meter or CT	V5 Checksum BC061063 or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
CSS System	Anker Innovations Limited	Hawaii SRD V2.0	MI80L w/ ECU Zibee Dongle, Meter or CT	V5 Checksum BC061063 or higher
CSS System	Anker Innovations Limited	Hawaii SRD V2.0	MI80S w/ ECU Zibee Dongle, Meter or CT	V5 Checksum BC061063 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E10-TL-US (208Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E10-TL-US (240Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E10-TL-US(AC) (208Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E10-TL-US(AC) (240Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E10_BDI (208Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E10_BDI (240Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E4-TL-US (208Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E4-TL-US (240Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E4-TL-US(AC) (208Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E4-TL-US(AC) (240Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E4_BDI (208Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E4_BDI (240Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E6-TL-US (208Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E6-TL-US (240Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E6-TL-US(AC) (208Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E6-TL-US(AC) (240Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E6_BDI (208Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E6_BDI (240Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E8 Plus-TL-US (208Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E8 Plus-TL-US (240Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E8 Plus-TL-US(AC) (208Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E8 Plus-TL-US(AC) (240Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E8-TL-US (208Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E8-TL-US (240Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E8-TL-US(AC) (208Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E8-TL-US(AC) (240Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E8_BDI (208Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	E8_BDI (240Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	M10-4-TL-US (208Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	M10-4-TL-US (240Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	M10-TL-US (208Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	M10-TL-US (240Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	M4-TL-US (208Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	M4-TL-US (240Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	M5-TL-US (208Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	M5-TL-US (240Vp-p)	1.6.2 or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
CSS System	Delta Electronics	Hawaii SRD V2.0	M6-TL-US (208Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	M6-TL-US (240Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	M8-TL-US (208Vp-p)	1.6.2 or higher
CSS System	Delta Electronics	Hawaii SRD V2.0	M8-TL-US (240Vp-p)	1.6.2 or higher
CSS System	Duracell Power Center	Hawaii SRD V2.0	D-1500M4 (208Vp-p) w/ PC-PRO-C or PC-PRO-WIFI and Three-phase electric meter	V01.00.00 or higher
CSS System	Duracell Power Center	Hawaii SRD V2.0	D-1500M4 (240Vp-p) w/ PC-PRO-C or PC-PRO-WIFI and Three-phase electric meter	V01.00.00 or higher
CSS System	Duracell Power Center	Hawaii SRD V2.0	D-350M1 (208Vp-p) w/ PC-PRO-C or PC-PRO-WIFI and Three-phase electric meter	V01.00.00 or higher
CSS System	Duracell Power Center	Hawaii SRD V2.0	D-350M1 (240Vp-p) w/ PC-PRO-C or PC-PRO-WIFI and Three-phase electric meter	V01.00.00 or higher
CSS System	Duracell Power Center	Hawaii SRD V2.0	D-700M2 (208Vp-p) w/ PC-PRO-C or PC-PRO-WIFI and Three-phase electric meter	V01.00.00 or higher
CSS System	Duracell Power Center	Hawaii SRD V2.0	D-700M2 (240Vp-p) w/ PC-PRO-C or PC-PRO-WIFI and Three-phase electric meter	V01.00.00 or higher
CSS System	Enphase Energy	Hawaii SRD V2.0	ENCHARGE-10-1P-NA w/ Envoy Communication Gateway, AC Combiner Envoy	V1.24.02, V1.27.01, V1.31.1, V3.24.01 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	ENCHARGE-10T-1P-NA w/ Envoy Communication Gateway, AC Combiner Envoy	V1.24.02, V1.27.01, V1.31.1, V3.24.01 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	ENCHARGE-3-1P-NA w/ Envoy Communication Gateway, AC Combiner Envoy	V1.24.02, V1.27.01, V1.31.1, V3.24.01 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	ENCHARGE-3T-1P-NA w/ Envoy Communication Gateway, AC Combiner Envoy	V1.24.02, V1.27.01, V1.31.1, V3.24.01 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ7-60 w/ Envoy, AC Combiner Box	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ7A (208 Vac) w/ Envoy, AC Combiner Box	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ7A (240 Vac) w/ Envoy, AC Combiner Box	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ7AS-66(240Vp-p) w/ Production and Consumption CTs PVS6	Version 20.0 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ7HS (208Vac) w/ Envoy, AC Combiner Box	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ7HS (240Vac) w/ Envoy, AC Combiner Box	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ7HS-66 (208Vp-p) w/ Production and Consumption CTs PVS6	Version 20.0 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ7HS-66 (240Vp-p) w/ Production and Consumption CTs PVS6	Version 20.0 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ7PD-72-2-US w/ Envoy, AC Combiner Box	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ7PD-84-2-US w/ Envoy, AC Combiner Box	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ7PLUS-72 w/ Envoy, AC Combiner Box	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ7X-96 w/ Envoy, AC Combiner Box	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ7XS-96 w/ Envoy, AC Combiner Box	v02.12.00, v02.14.02, v04.14.05, v04.17.01, v04.18.02, v04.20.03, v04.26.09, v04.27.04, V04.28.07, V04.30.22, V04.40.01 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ8-60 w/ Envoy, AC Combiner Box	V2.19.01, V2.22.02, V2.23.01, V2.27.02, V2.38.02, V2.38.03, V2.39.01, V2.42.02, V2.45.02, V2.45.04 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ8A-72 w/ Envoy, AC Combiner Box	V2.19.01, V2.22.02, V2.23.01, V2.27.02, V2.38.02, V2.38.03, V2.39.01, V2.42.02, V2.45.02, V2.45.04 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ8AC-72-M-US (208Vp-p) w/ Energy IQ Envoy, AC Combiner box	V2.45.02 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ8AC-72-M-US (240 Vp-p) w/ Energy IQ Envoy, AC Combiner box	V2.45.02 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ8H-208-72 w/ Envoy, AC Combiner Box	V2.19.01, V2.22.02, V2.23.01, V2.27.02, V2.38.02, V2.38.03, V2.39.01, V2.42.02, V2.45.02, V2.45.04 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ8H-240-72 w/ Envoy, AC Combiner Box	V2.19.01, V2.22.02, V2.23.01, V2.27.02, V2.38.02, V2.38.03, V2.39.01, V2.42.02, V2.45.02, V2.45.04 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ8H-3P-72 w/ Energy IQ Envoy, AC Combiner box	V2.57.03 or higher
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ8HC-72-M-US (208Vp-p) w/ Energy IQ Envoy, AC Combiner box	V2.45.02 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ8HC-72-M-US (240 Vp-p) w/ Energy IQ Envoy, AC Combiner box	V2.45.02 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ8M-72 w/ Envoy, AC Combiner Box	V2.19.01, V2.22.02, V2.23.01, V2.27.02, V2.38.02, V2.38.03, V2.39.01, V2.42.02, V2.45.02, V2.45.04 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ8MC-72-M-US (208Vp-p) w/ Energy IQ Envoy, AC Combiner box	V2.45.02 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ8MC-72-M-US (240 Vp-p) w/ Energy IQ Envoy, AC Combiner box	V2.45.02 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ8P-3P-72 w/ Energy IQ Envoy, AC Combiner box	V2.57.03 or higher
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ8P-72-2-US w/ Energy IQ Gateway, AC Combiner box	V7.04.01 or higher
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ8PLUS-72 w/ Envoy, AC Combiner Box	V2.19.01, V2.22.02, V2.23.01, V2.27.02, V2.38.02, V2.38.03, V2.39.01, V2.42.02, V2.45.02, V2.45.04 or higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ8X-80 (208Vp-p) w/ Energy IQ Envoy, AC Combiner box	V2.61.01 or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
CSS System	Enphase Energy	Hawaii SRD V2.0	IQ8X-80 (240Vp-p) w/ Energy IQ Envoy, AC Combiner box	V2.61.01 or higher
CSS System	Enphase Energy	Hawaii SRD V2.0	IQBATTERY-5P-1P-NA w/ Envoy Communication Gateway, AC Combiner Envoy, IQ Combiner 5/5C	V4.31.01 or Higher and with Grid profiles HEI SRD V2.0 CGS and HEI SRD V2.0 CSS
CSS System	Fortress Power	Hawaii SRD V2.0	FP-ENVY-12K (208 Vp-p) w/ eFlex 5.4 and eVault Max	fA1.0 or higher
CSS System	Fortress Power	Hawaii SRD V2.0	FP-ENVY-12K (240 Vp-p) w/ eFlex 5.4 and eVault Max	fA1.0 or higher
CSS System	FranklinWH Technologies Co., Ltd	Hawaii SRD V2.0	aPower X, with aGate X (208Vp-p)	V10R00B00 or higher
CSS System	FranklinWH Technologies Co., Ltd	Hawaii SRD V2.0	aPower X, with aGate X (240 Vp-p)	V10R00B00 or higher
CSS System	Generac	Hawaii SRD V2.0	XVT076A03 w/ LEM CT, CASR-50-NP, LEM S A CT, HLSR20P and Neurio Echun, 011.0021B.F	V13845 checksum dce259439976a7ea1760bc416551b6b3 with Grid Profile HECO SRD V2.0
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC11.4-1U-US20 w/ Meter or Goodwe Automatic backup device	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC5.0-1U-US10	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC5.0-1U-US20 w/ Meter or Goodwe Automatic backup device	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC6.0-1U-US10	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC6.0-1U-US20 w/ Meter or Goodwe Automatic backup device	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC7.0-1U-US10	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC7.6-1U-US10	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC7.6-1U-US20 w/ Meter or Goodwe Automatic backup device	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC8.6-1U-US10	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC9.6-1U-US10	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEC9.6-1U-US20 w/ Meter or Goodwe Automatic backup device	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH11.4-1U-US20 w/ Meter or Goodwe Automatic backup device	000000 or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH5.0-1U-US10	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH5.0-1U-US20 w/ Meter or Goodwe Automatic backup device	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH6.0-1U-US10	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH6.0-1U-US20 w/ Meter or Goodwe Automatic backup device	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH7.0-1U-US10	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH7.6-1U-US10	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH7.6-1U-US20 w/ Meter or Goodwe Automatic backup device	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH8.6-1U-US10	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH9.6-1U-US10	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEH9.6-1U-US20 w/ Meter or Goodwe Automatic backup device	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP11.4-1-US30 (208Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP11.4-1-US30 (240Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP5.0-1-US30 (208Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP5.0-1-US30 (240Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP6.0-1-US30 (208Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP6.0-1-US30 (240Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP7.6-1-US30 (208Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP7.6-1-US30 (240Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP7.7-1-US30 (208Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP7.7-1-US30 (240Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP9.6-1-US30 (208Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GEP9.6-1-US30 (240Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW11K4-ES-US20 w/ Meter or Goodwe Automatic backup device	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW11K4-MS-US30 (208Vp-p) w/ Meter	000000 or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW11K4-MS-US30 (240Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW11K4-SBP-US20 w/ Meter or Goodwe Automatic backup device	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW5000-ES-US20 w/ Meter or Goodwe Automatic backup device	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW5000-MS-US30 (208Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW5000-MS-US30 (240Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW5000-SBP-US20 w/ Meter or Goodwe Automatic backup device	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW5000A-BP	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW5000A-ES	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW5000A-MS	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW5000H-ES	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW50K-SMT-US w/ Meter	00.00.01 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW6000-ES-US20 w/ Meter or Goodwe Automatic backup device	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW6000-MS-US30 (208Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW6000-MS-US30 (240Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW6000-SBP-US20 w/ Meter or Goodwe Automatic backup device	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW6000A-BP	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW6000A-ES	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW6000A-MS	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW6000H-ES	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW60K-SMT-US w/ Meter	00.00.01 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7000A-BP	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7000A-ES	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7000A-MS	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7000H-ES	000019 or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7600-ES-US20 w/ Meter or Goodwe Automatic backup device	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7600-MS-US30 (208Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7600-MS-US30 (240Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7600-SBP-US20 w/ Meter or Goodwe Automatic backup device	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7600A-BP	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7600A-ES	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7600A-MS	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7600H-ES	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7700-MS-US30 (208Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW7700-MS-US30 (240Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW8600A-BP	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW8600A-ES	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW8600A-MS	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW8600H-ES	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW9600-ES-US20 w/ Meter or Goodwe Automatic backup device	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW9600-MS-US30 (208Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW9600-MS-US30 (240Vp-p) w/ Meter	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW9600-SBP-US20 w/ Meter or Goodwe Automatic backup device	000000 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW9600A-BP	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW9600A-ES	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW9600A-MS	000019 or higher
CSS System	GoodWe Technologies Co.,Ltd.	Hawaii SRD V2.0	GW9600H-ES	000019 or higher
CSS System	Hanwha Q CELLS America Inc	Hawaii SRD V2.0	Q.VOLT A3.8SX w/ Q.HOME HUB 200SX	Master DSP V1.05 (Slave DSP V1.03) or higher
CSS System	Hanwha Q CELLS America Inc	Hawaii SRD V2.0	Q.VOLT A5.0SX w/ Q.HOME HUB 200SX	Master DSP V1.05 (Slave DSP V1.03) or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
CSS System	Hanwha Q CELLS America Inc	Hawaii SRD V2.0	Q.VOLT A6.0SX w/ Q.HOME HUB 200SX	Master DSP V1.05 (Slave DSP V1.03) or higher
CSS System	Hanwha Q CELLS America Inc	Hawaii SRD V2.0	Q.VOLT A7.6SX w/ Q.HOME HUB 200SX	Master DSP V1.05 (Slave DSP V1.03) or higher
CSS System	Hanwha Q CELLS America Inc	Hawaii SRD V2.0	Q.VOLT H3.8SX w/ Q.HOME HUB 200SX	Master DSP V1.05 (Slave DSP V1.03, AFCI V1.03) or higher
CSS System	Hanwha Q CELLS America Inc	Hawaii SRD V2.0	Q.VOLT H5.0SX w/ Q.HOME HUB 200SX	Master DSP V1.05 (Slave DSP V1.03, AFCI V1.03) or higher
CSS System	Hanwha Q CELLS America Inc	Hawaii SRD V2.0	Q.VOLT H6.0SX w/ Q.HOME HUB 200SX	Master DSP V1.05 (Slave DSP V1.03, AFCI V1.03) or higher
CSS System	Hanwha Q CELLS America Inc	Hawaii SRD V2.0	Q.VOLT H7.6SX w/ Q.HOME HUB 200SX	Master DSP V1.05 (Slave DSP V1.03, AFCI V1.03) or higher
CSS System	Hanwha Q CELLS America Inc	Hawaii SRD V2.0	Q.VOLT HOME HUB 200SX	Master DSP V1.05 (Slave DSP V1.03) or higher
CSS System	Holu Hou Energy LLC	Hawaii SRD V2.0	HH5000H-HI w/ MEC, Meter, and Current Transformer	000013 or greater
CSS System	Holu Hou Energy LLC	Hawaii SRD V2.0	HH6000H-HI w/ MEC, Meter, and Current Transformer	000013 or greater
CSS System	Holu Hou Energy LLC	Hawaii SRD V2.0	HH7000H-HI w/ MEC, Meter, and Current Transformer	000013 or greater
CSS System	Holu Hou Energy LLC	Hawaii SRD V2.0	HH7600H-HI w/ MEC, Meter, and Current Transformer	000013 or greater
CSS System	Holu Hou Energy LLC	Hawaii SRD V2.0	HH8600H-HI w/ MEC, Meter, and Current Transformer	000013 or greater
CSS System	Holu Hou Energy LLC	Hawaii SRD V2.0	HH9600H-HI w/ MEC, Meter, and Current Transformer	000013 or greater
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1200NT (208Vp- p) w/ DTU Pro and three-phase Electric meter	V01.00.00 or higher, US_HECO SRD V2.0_208V
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1200NT (240Vp- p) w/ DTU Pro and split-phase Electric meter	V01.00.00 or higher, US_HECO SRD V2.0_240V
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1500NT (208Vp- p) w/ DTU Pro and three-phase Electric meter	V01.00.00 or higher, US_HECO SRD V2.0_208V
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-1500NT (240Vp- p) w/ DTU Pro and split-phase Electric meter	V01.00.00 or higher, US_HECO SRD V2.0_240V
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-300NT (208Vp-p) w/ DTU-Pro and Three-phase electric meter	V01.00.00 or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-300NT (240Vp-p) w/ DTU-Pro and Split-phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-350NT (208Vp-p) w/ DTU-Pro and Three-phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-350NT (240Vp-p) w/ DTU-Pro and Split-phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-400NT (208Vp-p) w/ DTU-Pro and Three-phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-400NT (240Vp-p) w/ DTU-Pro and Split-phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-600NT (208Vp-p) w/ DTU-Pro and Three Phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-600NT (240Vp-p) w/ DTU-Pro and Split Phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-700NT (208Vp-p) w/ DTU-Pro and Three Phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-700NT (240Vp-p) w/ DTU-Pro and Split Phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-800NT (208Vp-p) w/ DTU-Pro and Three Phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HM-800NT (240Vp-p) w/ DTU-Pro and Split Phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-1000-2T-NA (208Vp-p) w/ DTU-Pro-S, Three-phase Electric Meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-1000-2T-NA (240Vp-p) w/ DTU-Pro-S, Split-phase meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-1600-4T-NA (208Vp-p) w/ DTU-Pro-S, Three-phase Electric Meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-1600-4T-NA (240Vp-p) w/ DTU-Pro-S, Split-phase Electric Meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-1800-4T-NA (208Vp-p) w/ DTU-Pro-S, Three-phase Electric Meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-1800-4T-NA (240Vp-p) w/ DTU-Pro-S, Split-phase Electric Meter	V01.00.00 or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-2000-4T-NA (208Vp-p) w/ DTU-Pro-S, Three-phase Electric Meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-2000-4T-NA (240Vp-p) w/ DTU-Pro-S, Split-phase Electric Meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-350-1A-NA (208Vp-p) w/ DTU-Pro-S and Three-phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-350-1A-NA (240Vp-p) w/ DTU-Pro-S and Split-phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-350-1T-NA (208Vp-p) w/ DTU-Pro-S and Three-phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-350-1T-NA (240Vp-p) w/ DTU-Pro-S and Split-phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-400-1A-NA (208Vp-p) w/ DTU-Pro-S and Three-phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-400-1A-NA (240Vp-p) w/ DTU-Pro-S and Split-phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-400-1T-NA (208Vp-p) w/ DTU-Pro-S and Three-phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-400-1T-NA (240Vp-p) w/ DTU-Pro-S and Split-phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-450-1A-NA (208Vp-p) w/ DTU-Pro-S and Three-phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-450-1A-NA (240Vp-p) w/ DTU-Pro-S and Split-phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-450-1T-NA (208Vp-p) w/ DTU-Pro-S and Three-phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-450-1T-NA (240Vp-p) w/ DTU-Pro-S and Split-phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-500-1A-NA (208Vp-p) w/ DTU-Pro-S and Three-phase electric meter	V01.00.00 or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-500-1A-NA (240Vp-p) w/ DTU-Pro-S and Split-phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-500-1T-NA (208Vp-p) w/ DTU-Pro-S and Three-phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-500-1T-NA (240Vp-p) w/ DTU-Pro-S and Split-phase electric meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-700-2T-NA (208Vp-p) w/ DTU-Pro-S, Three-phase Electric Meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-700-2T-NA (240Vp-p) w/ DTU-Pro-S, Split-phase meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-800-2T-NA (208Vp-p) w/ DTU-Pro-S, Three-phase Electric Meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-800-2T-NA (240Vp-p) w/ DTU-Pro-S, Split-phase meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-900-2T-NA (208Vp-p) w/ DTU-Pro-S, Three-phase Electric Meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMS-900-2T-NA (240Vp-p) w/ DTU-Pro-S, Split-phase meter	V01.00.00 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMT-1600-4T-208 (208Vp-p) w/ DTU-Pro-S and Three Phase Meter	V01.00.03 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMT-1800-4T-208 (208Vp-p) w/ DTU-Pro-S and Three Phase Meter	V01.00.03 or higher
CSS System	Hoymiles Power Electronics Inc.	Hawaii SRD V2.0	HMT-2000-4T-208 (208Vp-p) w/ DTU-Pro-S and Three Phase Meter	V01.00.03 or higher
CSS System	LG Electronics	Hawaii SRD V2.0	RBA008K0A00 w/ Home 8 (RA768K16A11) and Smart Energy Box (REA200AP0)	V1.1.1712 or higher
CSS System	Northern Electric & Power Co.	Hawaii SRD V2.0	BDM-550 w/ BDM-NZ-SP-100 or BDM-NZ-SP-200	9200 or Higher
CSS System	Northern Electric & Power Co.	Hawaii SRD V2.0	BDM-650 w/ BDM-NZ-SP-100 or BDM-NZ-SP-200	9200 or Higher
CSS System	Northern Electric & Power Co.	Hawaii SRD V2.0	BDM-800 (208 Vp-p) w/ BDM-NZ-SP-100 or BDM-NZ-SP-200	9200 or Higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
CSS System	Northern Electric & Power Co.	Hawaii SRD V2.0	BDM-800 (240 Vp-p) w/ BDM-NZ-SP-100 or BDM-NZ-SP-200	9200 or Higher
CSS System	Panasonic Corporation of North America	Hawaii SRD V2.0	EVAC-I3 w/ EV-SB	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
CSS System	Panasonic Corporation of North America	Hawaii SRD V2.0	EVAC-I5 w/ EV-SB	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
CSS System	Panasonic Corporation of North America	Hawaii SRD V2.0	EVAC-I6 w/ EV-SB	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
CSS System	Panasonic Corporation of North America	Hawaii SRD V2.0	EVAC-I7 w/ EV-SB	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
CSS System	Panasonic Corporation of North America	Hawaii SRD V2.0	EVHB-I3 w/ EV-SB	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
CSS System	Panasonic Corporation of North America	Hawaii SRD V2.0	EVHB-I5 w/ EV-SB	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
CSS System	Panasonic Corporation of North America	Hawaii SRD V2.0	EVHB-I6 w/ EV-SB	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
CSS System	Panasonic Corporation of North America	Hawaii SRD V2.0	EVHB-I7 w/ EV-SB	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
CSS System	Schneider Electric	Hawaii SRD V2.0	XW Pro 6848 NA (120 Vp-p), w/ Conext Gateway, InsightFacility, InsightHome	V2.04BN17 or higher
CSS System	Schneider Electric	Hawaii SRD V2.0	XW Pro 6848 NA (240 Vp-p), w/ Conext Gateway, InsightFacility, InsightHome	V2.04BN17 or higher
CSS System	Shenzhen Eternalplanet Energy Pingshan Ltd.	Hawaii SRD V2.0	EP CUBE NA-5-10-G-1 w/ Internal Li-ion battery packs, smart gateway	V2.0
CSS System	Shenzhen Eternalplanet Energy Pingshan Ltd.	Hawaii SRD V2.0	EP CUBE NA-5-10-W-1 w/ Internal Li-ion battery packs, smart gateway	V2.0

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
CSS System	Shenzhen Eternalplanet Energy Pingshan Ltd.	Hawaii SRD V2.0	EP CUBE NA-6-13-G-1 w/ Internal Li-ion battery packs, smart gateway	V2.0
CSS System	Shenzhen Eternalplanet Energy Pingshan Ltd.	Hawaii SRD V2.0	EP CUBE NA-6-13-W-1 w/ Internal Li-ion battery packs, smart gateway	V2.0
CSS System	Shenzhen Eternalplanet Energy Pingshan Ltd.	Hawaii SRD V2.0	EP CUBE NA-7-16-G-1 w/ Internal Li-ion battery packs, smart gateway	V2.0
CSS System	Shenzhen Eternalplanet Energy Pingshan Ltd.	Hawaii SRD V2.0	EP CUBE NA-7-16-W-1 w/ Internal Li-ion battery packs, smart gateway	V2.0
CSS System	Shenzhen Eternalplanet Energy Pingshan Ltd.	Hawaii SRD V2.0	EP CUBE NA-7-20-G-1 w/ Internal Li-ion battery packs, smart gateway	V2.0
CSS System	Shenzhen Eternalplanet Energy Pingshan Ltd.	Hawaii SRD V2.0	EP CUBE NA-7-20-W-1 w/ Internal Li-ion battery packs, smart gateway	V2.0
CSS System	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 1000TL-XA-US w/ Smart Meter AGF-AE-D or SU-US-200	UE 1.0 or higher
CSS System	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 1000TL-XH-US w/ Smart Meter AGF-AE-D or SU-US-200	UE 1.0 or higher
CSS System	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 11400TL-XA-US w/ Smart Meter AGF-AE-D or SU-US-200	UE 1.0 or higher
CSS System	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 11400TL-XH-US w/ Smart Meter AGF-AE-D or SU-US-200	UE 1.0 or higher
CSS System	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 3000TL-XA-US w/ Smart Meter AGF-AE-D or SU-US-200	UE1.0(checksum:8CB43554CCBB5D85F0581EA268A5C28)
CSS System	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 3000TL-XH-US w/ Smart Meter AGF-AE-D or SU-US-200	UE1.0(checksum:8CB43554CCBB5D85F0581EA268A5C28)
CSS System	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 3800TL-XA-US w/ Smart Meter AGF-AE-D or SU-US-200	UE1.0(checksum:8CB43554CCBB5D85F0581EA268A5C28)
CSS System	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 3800TL-XH-US w/ Smart Meter AGF-AE-D or SU-US-200	UE1.0(checksum:8CB43554CCBB5D85F0581EA268A5C28)
CSS System	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 3800TL-XH-US(S) w/ Smart Meter AGF-AE-D or SU-US-200	UE 1.0 or higher
CSS System	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 5000TL-XA-US w/ Smart Meter AGF-AE-D or SU-US-200	UE1.0(checksum:8CB43554CCBB5D85F0581EA268A5C28)
CSS System	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 5000TL-XH-US w/ Smart Meter AGF-AE-D or SU-US-200	UE1.0(checksum:8CB43554CCBB5D85F0581EA268A5C28)
CSS System	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 6000TL-XA-US w/ Smart Meter AGF-AE-D or SU-US-200	UE1.0(checksum:8CB43554CCBB5D85F0581EA268A5C28)

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
CSS System	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 6000TL-XH-US w/ Smart Meter AGF-AE-D or SU-US-200	UE1.0 (checksum:8CB43554C CBB5D85F0581EA268 A5C28)
CSS System	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 7600TL-XA-US w/ Smart Meter AGF-AE-D or SU-US-200	UE1.0 (checksum:8CB43554C CBB5D85F0581EA268 A5C28)
CSS System	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 7600TL-XH-US w/ Smart Meter AGF-AE-D or SU-US-200	UE1.0 (checksum:8CB43554C CBB5D85F0581EA268 A5C28)
CSS System	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 7600TL-XH-US(S) w/ Smart Meter AGF-AE-D or SU-US-200	UE 1.0 or higher
CSS System	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 8200TL-XA-US w/ Smart Meter AGF-AE-D or SU-US-200	UE 1.0 or higher
CSS System	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 8200TL-XH-US w/ Smart Meter AGF-AE-D or SU-US-200	UE 1.0 or higher
CSS System	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 9000TL-XA-US w/ Smart Meter AGF-AE-D or SU-US-200	UE 1.0 or higher
CSS System	Shenzhen GroWatt New Energy Technolgy Co Ltd	Hawaii SRD V2.0	MIN 9000TL-XH-US w/ Smart Meter AGF-AE-D or SU-US-200	UE 1.0 or higher
CSS System	SMA America, LLC	Hawaii SRD V2.0	SBSE3.8-US-50 (208Vp-p) w/ SMA Energy Meter-US (EMETER-US-50)	CONT Application: 2.24.4.R, CONT Bootloader: 2.24.3.R or higher
CSS System	SMA America, LLC	Hawaii SRD V2.0	SBSE3.8-US-50 (240Vp-p) w/ SMA Energy Meter-US (EMETER-US-50)	CONT Application: 2.24.4.R, CONT Bootloader: 2.24.3.R or higher
CSS System	SMA America, LLC	Hawaii SRD V2.0	SBSE4.8-US-50 (208Vp-p) w/ SMA Energy Meter-US (EMETER-US-50)	CONT Application: 2.24.4.R, CONT Bootloader: 2.24.3.R or higher
CSS System	SMA America, LLC	Hawaii SRD V2.0	SBSE4.8-US-50 (240Vp-p) w/ SMA Energy Meter-US (EMETER-US-50)	CONT Application: 2.24.4.R, CONT Bootloader: 2.24.3.R or higher
CSS System	SMA America, LLC	Hawaii SRD V2.0	SBSE5.8-US-50 (208Vp-p) w/ SMA Energy Meter-US (EMETER-US-50)	CONT Application: 2.24.4.R, CONT Bootloader: 2.24.3.R or higher
CSS System	SMA America, LLC	Hawaii SRD V2.0	SBSE5.8-US-50 (240Vp-p) w/ SMA Energy Meter-US (EMETER-US-50)	CONT Application: 2.24.4.R, CONT Bootloader: 2.24.3.R or higher
CSS System	SMA America, LLC	Hawaii SRD V2.0	SBSE7.7-US-50 (208Vp-p) w/ SMA Energy Meter-US (EMETER-US-50)	CONT Application: 2.24.4.R, CONT Bootloader: 2.24.3.R or higher
CSS System	SMA America, LLC	Hawaii SRD V2.0	SBSE7.7-US-50 (240Vp-p) w/ SMA Energy Meter-US (EMETER-US-50)	CONT Application: 2.24.4.R, CONT Bootloader: 2.24.3.R or higher
CSS System	SMA America, LLC	Hawaii SRD V2.0	STP 20-US-50 w/ SMA Data Manager and Energy Meter	3.02.05.R or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
CSS System	SMA America, LLC	Hawaii SRD V2.0	STP 25-US-50 w/ SMA Data Manager and Energy Meter	3.02.05.R or higher
CSS System	SMA America, LLC	Hawaii SRD V2.0	STP 30-US-50 w/ SMA Data Manager and Energy Meter	3.02.05.R or higher
CSS System	SMA America, LLC	Hawaii SRD V2.0	STP 33-US-41Data Manager and Energy Meter	01.05.03.R and up
CSS System	SMA America, LLC	Hawaii SRD V2.0	STP 50-US-40 w/ Data Manager and Energy Meter	01.05.03.R and up
CSS System	SMA America, LLC	Hawaii SRD V2.0	STP 50-US-41 w/ Data Manager and Energy Meter	01.05.03.R and up
CSS System	SMA America, LLC	Hawaii SRD V2.0	STP 62-US-41 w/ Data Manager and Energy Meter	01.05.03.R and up
CSS System	Sol-Ark	Hawaii SRD V2.0	30K-3P-208V w/ No Additional Equipment	MCU: Ver1057 or later and COMM: 101F - XXXX or later
CSS System	Sol-Ark	Hawaii SRD V2.0	60K-3P-480V w/ 3 x 2 CT sensors (Model: CTK 160702)	MCU: Ver1057 or later
CSS System	Sol-Ark	Hawaii SRD V2.0	Limitless 15K-LV (208Vp-p) w/ No additional Equipment	v7214 and higher
CSS System	Sol-Ark	Hawaii SRD V2.0	Limitless 15K-LV (240Vp-p) w/ No Additional Equipment	v7214 and higher
CSS System	Sol-Ark	Hawaii SRD V2.0	Sol-Ark 12K-P (208Vp-p) w/ No Additional Equipment	MCU xx22 or Higher
CSS System	Sol-Ark	Hawaii SRD V2.0	Sol-Ark 12K-P (240Vp-p) w/ No Additional Equipment	MCU xx22 or Higher
CSS System	Sol-Ark	Hawaii SRD V2.0	Sol-Ark 8K-48-ST (208Vp-p) w/ No Additional Equipment	MCU xx22 or Higher
CSS System	Sol-Ark	Hawaii SRD V2.0	Sol-Ark 8K-48-ST (240Vp-p) w/ No Additional Equipment	MCU xx22 or Higher
CSS System	SolarEdge	Hawaii SRD V2.0	SE10000H-US (208Vp-p) w/ Export/Import Meter	V2.100.1204, Checksum 0xFC5866C9 or higher
CSS System	SolarEdge	Hawaii SRD V2.0	SE10000H-US (240Vp-p) w/ Export/Import Meter	V2.100.1204, Checksum 0xFC5866C9 or higher
CSS System	SolarEdge	Hawaii SRD V2.0	SE100KUS w/ Export/Import Meter	2.20.710 or higher w/ Country Code Profile US/Hawaii
CSS System	SolarEdge	Hawaii SRD V2.0	SE10KUS w/ Export/Import Meter	2.20.710 or higher w/ Country Code Profile US/Hawaii
CSS System	SolarEdge	Hawaii SRD V2.0	SE11400H-US (208Vp-p) w/ Export/Import Meter	V2.100.1204, Checksum 0xFC5866C9 or higher
CSS System	SolarEdge	Hawaii SRD V2.0	SE11400H-US (240Vp-p) w/ Export/Import Meter	V2.100.1204, Checksum 0xFC5866C9 or higher

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
CSS System	SolarEdge	Hawaii SRD V2.0	SE120KUS w/ Export/Import Meter	2.20.710 or higher w/ Country Code Profile US/Hawaii
CSS System	SolarEdge	Hawaii SRD V2.0	SE14.4KUS w/ Export/Import Meter	2.20.710 or higher w/ Country Code Profile US/Hawaii
CSS System	SolarEdge	Hawaii SRD V2.0	SE17.3KUS w/ Export/Import Meter	2.20.710 or higher w/ Country Code Profile US/Hawaii
CSS System	SolarEdge	Hawaii SRD V2.0	SE3000H-US w/ Export/Import Meter	V2.100.1204, Checksum 0xFC5866C9 or higher
CSS System	SolarEdge	Hawaii SRD V2.0	SE30KUS w/ Export/Import Meter	2.20.710 or higher w/ Country Code Profile US/Hawaii
CSS System	SolarEdge	Hawaii SRD V2.0	SE33.3KUS w/ Export/Import Meter	2.20.710 or higher w/ Country Code Profile US/Hawaii
CSS System	SolarEdge	Hawaii SRD V2.0	SE3800H-US (240Vp- p) w/ Export/Import Meter	V2.100.1204 or higher, Checksum 0xFC5866C9 or higher
CSS System	SolarEdge	Hawaii SRD V2.0	SE40KUS w/ Export/Import Meter	2.20.710 or higher w/ Country Code Profile US/Hawaii
CSS System	SolarEdge	Hawaii SRD V2.0	SE43.2KUS w/ Export/Import Meter	2.20.710 or higher w/ Country Code Profile US/Hawaii
CSS System	SolarEdge	Hawaii SRD V2.0	SE5000H-US (208Vp- p) w/ Export/Import Meter	V2.100.1204, Checksum 0xFC5866C9 or higher
CSS System	SolarEdge	Hawaii SRD V2.0	SE5000H-US (240Vp- p) w/ Export/Import Meter	V2.100.1204, Checksum 0xFC5866C9 or higher
CSS System	SolarEdge	Hawaii SRD V2.0	SE50KUS w/ Export/Import Meter	2.20.710 or higher w/ Country Code Profile US/Hawaii
CSS System	SolarEdge	Hawaii SRD V2.0	SE5700H-US (208Vp- p) w/ Export/Import Meter	V2.100.1204, Checksum 0xFC5866C9 or higher
CSS System	SolarEdge	Hawaii SRD V2.0	SE5700H-US (240Vp- p) w/ Export/Import Meter	V2.100.1204, Checksum 0xFC5866C9 or higher
CSS System	SolarEdge	Hawaii SRD V2.0	SE6000H-US (208Vp- p) w/ Export/Import Meter	V2.100.1204, Checksum 0xFC5866C9 or higher
CSS System	SolarEdge	Hawaii SRD V2.0	SE6000H-US (240Vp- p) w/ Export/Import Meter	V2.100.1204, Checksum 0xFC5866C9 or higher
CSS System	SolarEdge	Hawaii SRD V2.0	SE66.6KUS w/ Export/Import Meter	2.20.710 or higher w/ Country Code Profile US/Hawaii
CSS System	SolarEdge	Hawaii SRD V2.0	SE7600H-US w/ Export/Import Meter	2.100.1204 or higher w/ Country Code Profile US/Hawaii , Checksum 0xFC5866C9 or higher
CSS System	SolarEdge	Hawaii SRD V2.0	SE80KUS w/ Export/Import Meter	2.20.710 or higher w/ Country Code Profile US/Hawaii

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
CSS System	SolaX Power Network Technology	Hawaii SRD V2.0	A1-AC-3.8K-G2 w/ A1-BI-200-G2	Master DSP V1.05(Slave DSP V1.03) or higher
CSS System	SolaX Power Network Technology	Hawaii SRD V2.0	A1-AC-5.0K-G2 w/ A1-BI-200-G2	Master DSP V1.05(Slave DSP V1.03) or higher
CSS System	SolaX Power Network Technology	Hawaii SRD V2.0	A1-AC-6.0K-G2 w/ A1-BI-200-G2	Master DSP V1.05(Slave DSP V1.03) or higher
CSS System	SolaX Power Network Technology	Hawaii SRD V2.0	A1-AC-7.6K-G2 w/ A1-BI-200-G2	Master DSP V1.05(Slave DSP V1.03) or higher
CSS System	SolaX Power Network Technology	Hawaii SRD V2.0	A1-HYB-3.8K-G2 w/ A1-BI-200-G2	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
CSS System	SolaX Power Network Technology	Hawaii SRD V2.0	A1-HYB-5.0K-G2 w/ A1-BI-200-G2	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
CSS System	SolaX Power Network Technology	Hawaii SRD V2.0	A1-HYB-6.0K-G2 w/ A1-BI-200-G2	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
CSS System	SolaX Power Network Technology	Hawaii SRD V2.0	A1-HYB-7.6K-G2 w/ A1-BI-200-G2	Master DSP V1.05(Slave DSP V1.03,AFCI V1.03) or higher
CSS System	SunPower	Hawaii SRD V2.0	SPWR-A4 (240Vp-p) w/ Production and Consumption CTs PVS6	Version 20.0 or higher with grid profile HECO_IEEE_1547-2018 v01.1
CSS System	SunPower	Hawaii SRD V2.0	SPWR-A5 (208Vp-p) w/ Production and Consumption CTs PVS6	Version 20.0 or higher with grid profile HECO_IEEE_1547-2018 v01.1
CSS System	SunPower	Hawaii SRD V2.0	SPWR-A5 (240Vp-p) w/ Production and Consumption CTs PVS6	Version 20.0 or higher with grid profile HECO_IEEE_1547-2018 v01.1
CSS System	Tesla	Hawaii SRD V2.0	Powerwall 3 1707000-XX-Y w/ Gateway2 (1232100-xx-y) or Backup Switch (1624171) or Gateway3 (184100-xx-y)	c5773b136a9ef9be9057302a67258482 and dcq8OiBXbQWYnK9UhCAjvl02/py2MZymmwAQYOn8jSc=
CSS System	Tesla	Hawaii SRD V2.0	Tesla AC Powerwall 2 2012170-xx-y w/ Gateway2 (1232100-xx-y) or Backup Switch (1624171-xx-y)	1.7.0 and higher 3700B98CF516D8D8421D23891E9AD8D5 & dcq8OiBXbQWYnK9UhCAjvl02/py2MZymmwAQYOn8jSc=
CSS System	Tesla	Hawaii SRD V2.0	Tesla AC Powerwall 2 3012170-xx-y w/ Gateway2 (1232100-xx-y) or Backup Switch (1624171-xx-y)	1.7.0 and higher 3700B98CF516D8D8421D23891E9AD8D5 & dcq8OiBXbQWYnK9UhCAjvl02/py2MZymmwAQYOn8jSc=
CSS System	Tesla	Hawaii SRD V2.0	Tesla Megapack2 1748844-XX-Y w/ Site Controller Model: 1471208-XX-Y	9IWD23njXAz+y3gW4k5ZNZ2Us+MSb5f+I5KNQtp7Yq0=

Technology Type	Manufacturer	HI SRD Certification	Model	Firmware Version
CSS System	Tesla	Hawaii SRD V2.0	Tesla Megapack2XL 1848844-XX-Y w/ Site Controller Model: 1471208-XX-Y	9lWD23njXAz+y3gW4k5ZNZ2Us+MSb5f+I5KNQtp7Yq0=
CSS System	Tesla	Hawaii SRD V2.0	Tesla Powerwall+ 1850000-XX-Y w/ Gateway2 (1232100-xx-y) or Backup Switch (1624171) or Gateway3 (184100-xx-y)	1217B43E9B859EAB26ECB10B5FBECC64 & 3700B98CF516D8D8421D23891E9AD8D5 & dcq8OiBXbQWYnK9UhCAjvl02/py2MZymmwAQYOn8jSc=
CSS System	Tesla	Hawaii SRD V2.0	Tesla PV Inverter 1534000-XX-Y w/ Gateway2 (1232100-xx-y) or Backup Switch (1624171-xx-y)	1217B43E9B859EAB26ECB10B5FBECC64 & dcq8OiBXbQWYnK9UhCAjvl02/py2MZymmwAQYOn8jSc=
CSS System	Tesla	Hawaii SRD V2.0	Tesla PV Inverter 1538000-XX-Y (240Vp-p, 3.8kW) w/ Gateway2 (1232100-xx-y) or Backup Switch (1624171-xx-y)	1217B43E9B859EAB26ECB10B5FBECC64 & dcq8OiBXbQWYnK9UhCAjvl02/py2MZymmwAQYOn8jSc=
CSS System	Tesla	Hawaii SRD V2.0	Tesla PV Inverter 1538000-XX-Y (240Vp-p, 5.7kW) w/ Gateway2 (1232100-xx-y) or Backup Switch (1624171-xx-y)	1217B43E9B859EAB26ECB10B5FBECC64 & dcq8OiBXbQWYnK9UhCAjvl02/py2MZymmwAQYOn8jSc=
CSS System	Tesla	Hawaii SRD V2.0	Tesla PV Inverter 1538000-XX-Y (240Vp-p, 5kW) w/ Gateway2 (1232100-xx-y) or Backup Switch (1624171-xx-y)	1217B43E9B859EAB26ECB10B5FBECC64 & dcq8OiBXbQWYnK9UhCAjvl02/py2MZymmwAQYOn8jSc=
CSS System	Tesla	Hawaii SRD V2.0	Tesla PV Inverter 1538000-XX-Y (240Vp-p, 7.6kW) w/ Gateway2 (1232100-xx-y) or Backup Switch (1624171-xx-y)	1217B43E9B859EAB26ECB10B5FBECC64 & dcq8OiBXbQWYnK9UhCAjvl02/py2MZymmwAQYOn8jSc=
CSS System	Yotta Energy	Hawaii SRD V2.0	DPI-208 w/ ECU-C, CT or ECU R, Meter, CT	V3 or Higher
CSS System	Yotta Energy	Hawaii SRD V2.0	DPI-480 w/ ECU-C, CT or ECU R, Meter, CT	V3 or Higher



NTS Labs, LLC Test Report for Electromagnetic Interference (EMI) Testing of the 15K-2P-N

Prepared For

Sol-Ark | 1100 Professional Drive | Plano, TX 75074

Prepared By

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Technical Writer

EMI Project Engineer

Quality Management Representative

This report and the information contained herein represent the results of testing of only those articles/products identified in this document and selected by the client. The tests were performed to specifications and/or procedures approved by the client. NTS Labs, LLC makes no representations expressed or implied that such testing fully demonstrates efficiency, performance, reliability, or any other characteristic of the articles being tested, or similar products. This report should not be relied upon as an endorsement or certification by NTS Labs, LLC of the equipment tested, nor does it present any statement whatsoever as to the merchantability or fitness of the test article or similar products for a particular purpose. This document shall not be reproduced except in full without written approval from NTS Labs, LLC.



Revision History

Rev.	Description	Issue Date
0	Initial release	04/21/2023

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1.0 Introduction

This document presents the test procedures used and the results obtained during the performance of an Electromagnetic Interference (EMI) test program. The test program was conducted to assess the ability of the specified Equipment Under Test (EUT) to successfully satisfy the requirements listed in Section 2.0.

2.0 References

The following references listed below form a part of this document to the extent specified herein.

- Test Specification: MIL-STD-461G, *REQUIREMENTS FOR THE CONTROL OF ELECTROMAGNETIC INTERFERENCE CHARACTERISTICS OF SUBSYSTEMS AND EQUIPMENT*, dated 12/11/2015
- Sol-Ark Purchase Order(s) 1684
- NTS Labs, LLC Quote(s) OP0631996, dated 01/04/2023
- ISO/IEC 17025:2017(E) *General Requirements for the Competence of Testing and Calibration Laboratories*, dated 11/1/2017
- ISO-9001:2015, *Quality Management Systems Requirements*

3.0 Product Selection and Description

Sol-Ark selected and provided the following test sample(s) to be used as the Equipment Under Test.

Table 3.0-1: Product Identification - Equipment Under Test (EUT)

Item	Qty.	Name/Description	Part Number	Serial Number
1	1	15K-2P-N	Limitless 15KV-LV	NTS-001*

*NTS assigned serial number for tracking.

3.1 Security Classification

Non-classified

3.2 Source Inspection

NTS Labs, LLC QA

4.0 General Test Requirements

4.1 Test Equipment

The instrumentation used in the performance of these tests is periodically calibrated and standardized within manufacturer's rated accuracies and are traceable to the National Institute of Standards and Technology. The calibration procedures and practices are in accordance with ISO 17025:2017. Certification of calibration is on file subject to inspection by authorized personnel.

4.2 Standard Test Conditions

The EUT was configured using the method as described in MIL-STD-461G. The bonding measurements were measured and recorded in Table 4.2-1.

1. The EUT physical layout was performed by NTS Labs, LLC personnel with assistance from the customer's technical representative.
2. The EUT installation and operation were verified prior to start of testing by the customer's technical representative.
3. The customer's technical representative authorization was acquired prior to test commencement.
4. NTS Labs, LLC test personnel measured and recorded the voltage and current of the EUT, as shown in Table 4.2-2.

Table 4.2-1: MIL-STD-461G Bonding Summary

Measurement Points			Measurements	Units
From	To	Location	Bonding reading	mΩ
EUT	Table Top	Bench	4.0	
EUT	Chamber Floor		4.5	
Table Top	LISN 1		0.73	
Table Top	LISN 2		0.35	
Table Top	LISN 3		0.47	

Table 4.2-2: EUT Voltage/Current Measurements

Characteristic	Target	Measured		
Voltage	240 VAC	EUT		
		L1-L2	L1-L3	L2-L3
		240	122	120
Current (Amps)	1.5	EUT		
		L1	L2	L3
		1.5		



5.0 Test Descriptions and Results

Table 5.0-1: Summary of Test Information and Results

Section	Test	Specification	Test Facility	Test Date	Part #	Serial #	Test Result
5.1	CS115	MIL-STD-461G	Huntsville	03/08/2023	Limitless 15KV-LV	NTS-001	Complied
5.2	CS116			03/07/2023			
5.3	CS117			03/17/2023			

The decision rule for Test Results was based on the Test Specification used for testing.



5.1 CS115

5.1.1 Test Procedure

The EUT was tested to MIL-STD-461G.

5.1.2 Test Result

Test Result: Conducted Susceptibility per MIL-STD-461G was performed on the EUT. During testing, the EUT showed no signs of susceptibility, and no deviations were noted. The EUT was compliant with CS115.



5.1.3 Test Datasheets



DATA SHEET

NTS Project No.: PR169184

Start Date: 03/08/2023

Customer: Sol-Ark Temperature: 72°F Humidity: 26%
EUT: 15K-2P-N System Measurement Point: See Comments below
Model No.: Limitless 15KV-LV Interference Signal: Test Signal Applied for a Period of 1 Minute
Serial No.: NTS-001 Frequency Range: 30 Hz Repetition

Test Title: CS115 Conducted Susceptibility, Bulk Cable Injection, Impulse Excitation, per MIL-STD-461G

Test Frequency	Meets Limit		Susceptibility Threshold Level	Maximum Signal Applied	Comments (Line Measured)
(X) Hz () MHz () GHz	Yes	No	(X) A () V () kV () V/m () Vrms () dBμA () dBμV () dBμV/m () dBpT		
30	X		> 5.0	5.0	AC Bundle, AC L1, AC L2
30	X		> 5.0	5.0	DC Bundle, DC High Line
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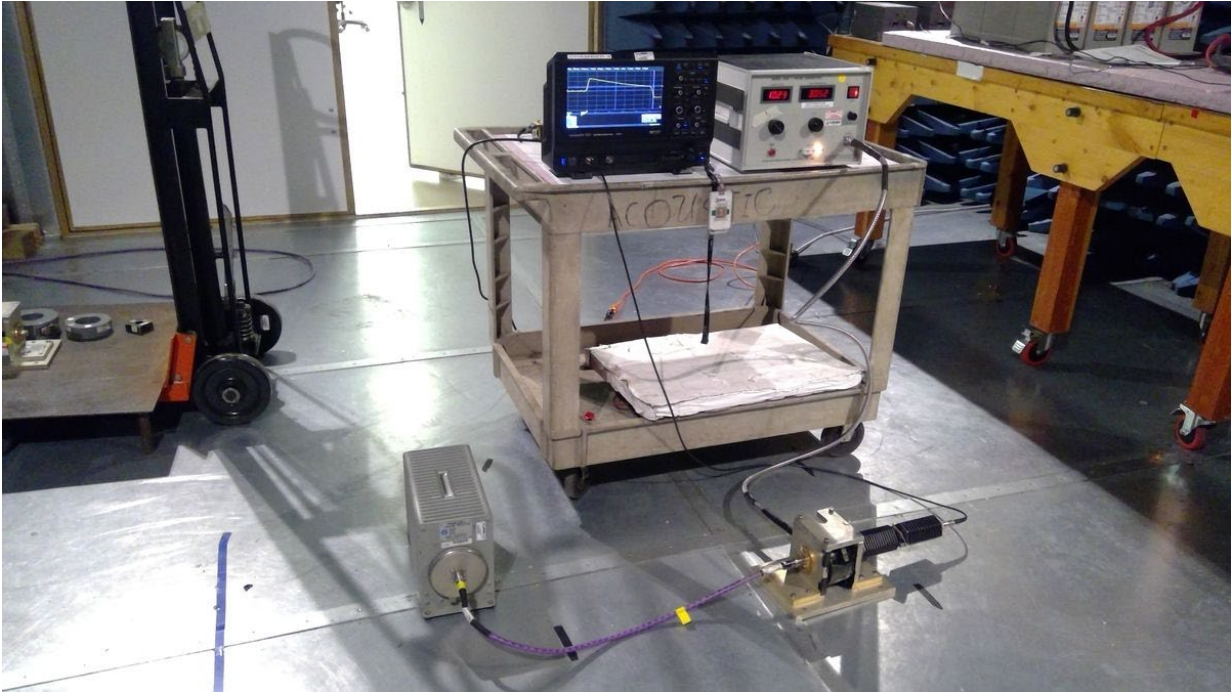
Notice of Deviation: N/A

Tested By: M. Tillery Date: 03/08/2023

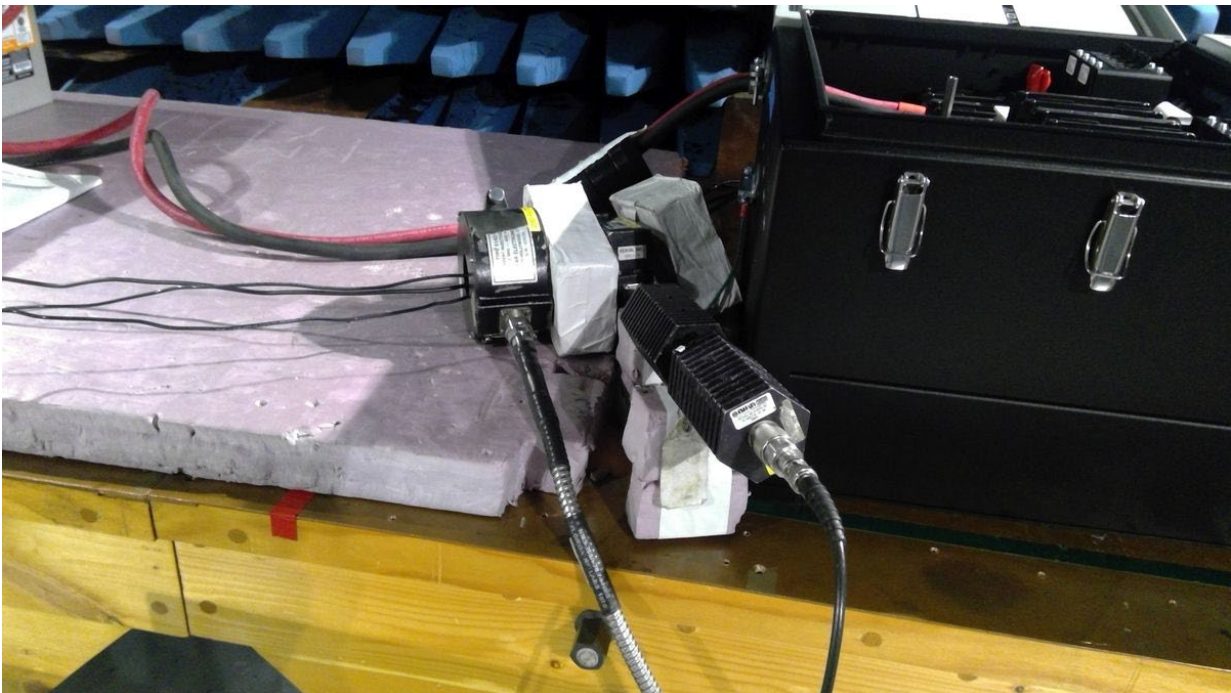
Witness: Dylan Hillman

Technician
Digitally signed by Devin Lee
Date: 2023.03.15 11:01:19 -0500
Approved: Project Engineer Date:

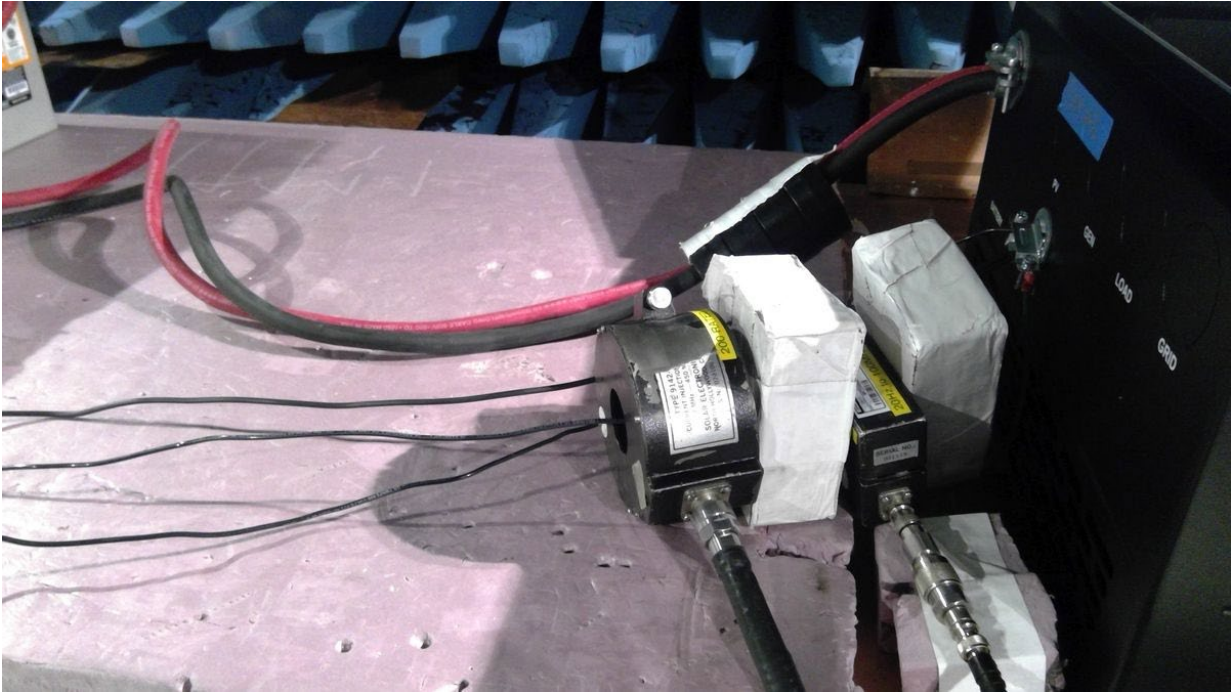
5.1.4 Test Photographs



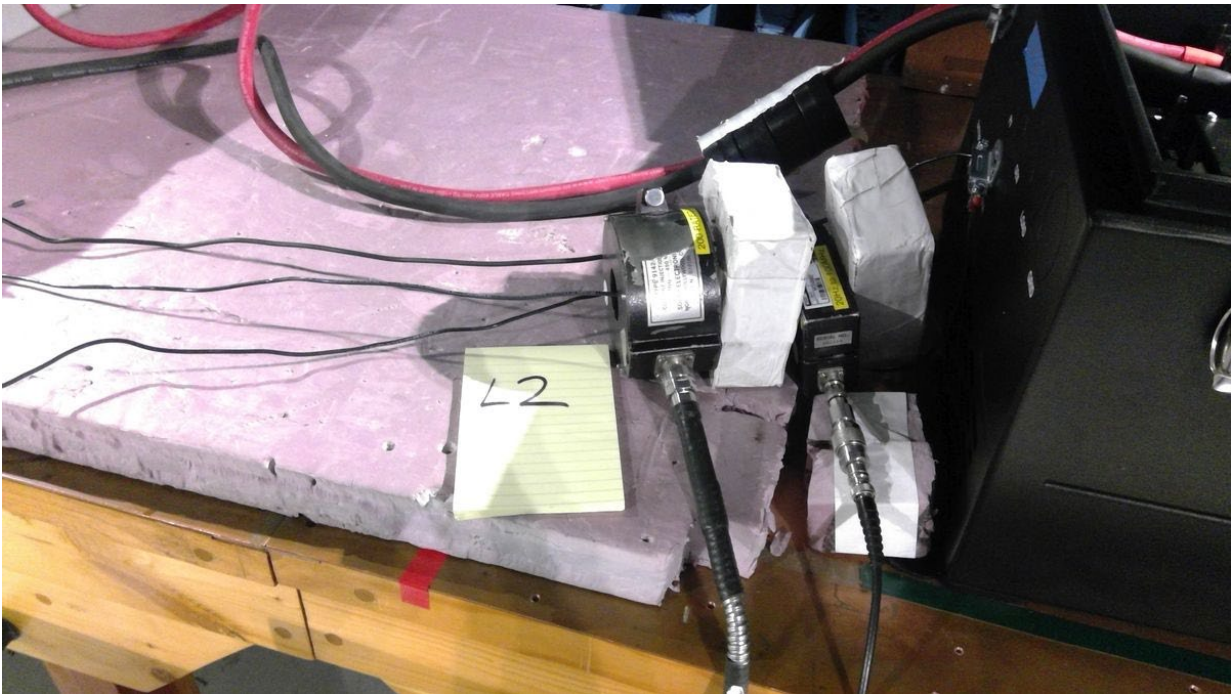
1 CS115 Cal Setup



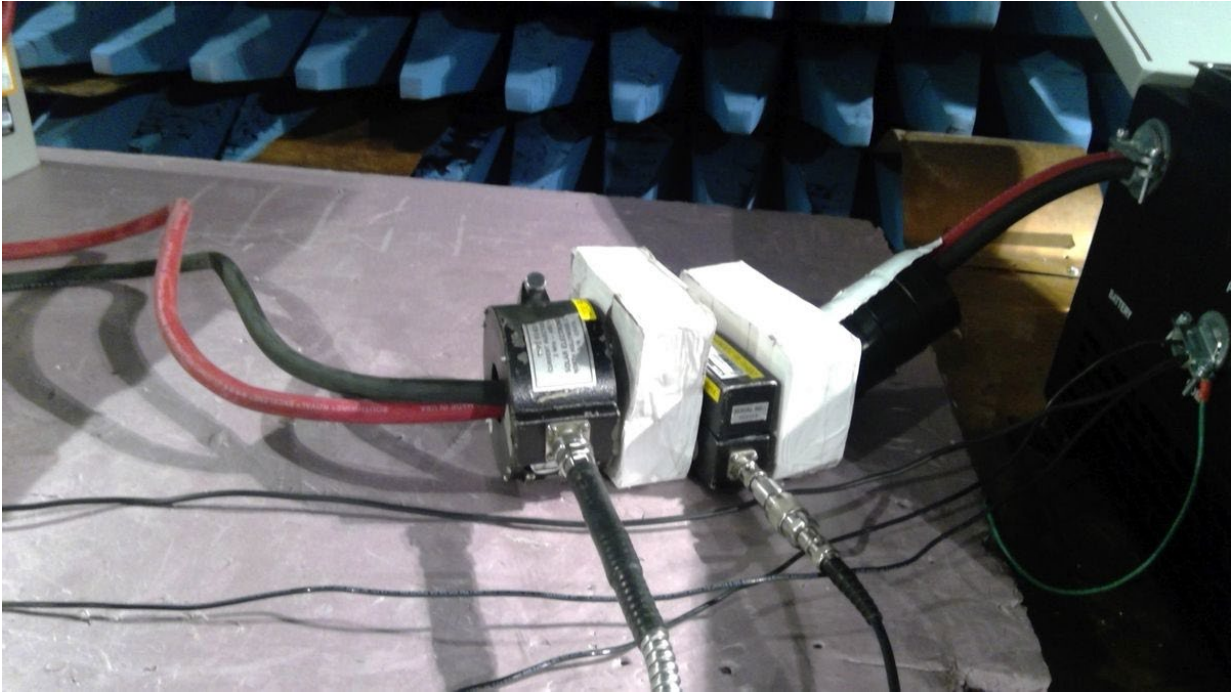
2 CS115 Active AC Bundle



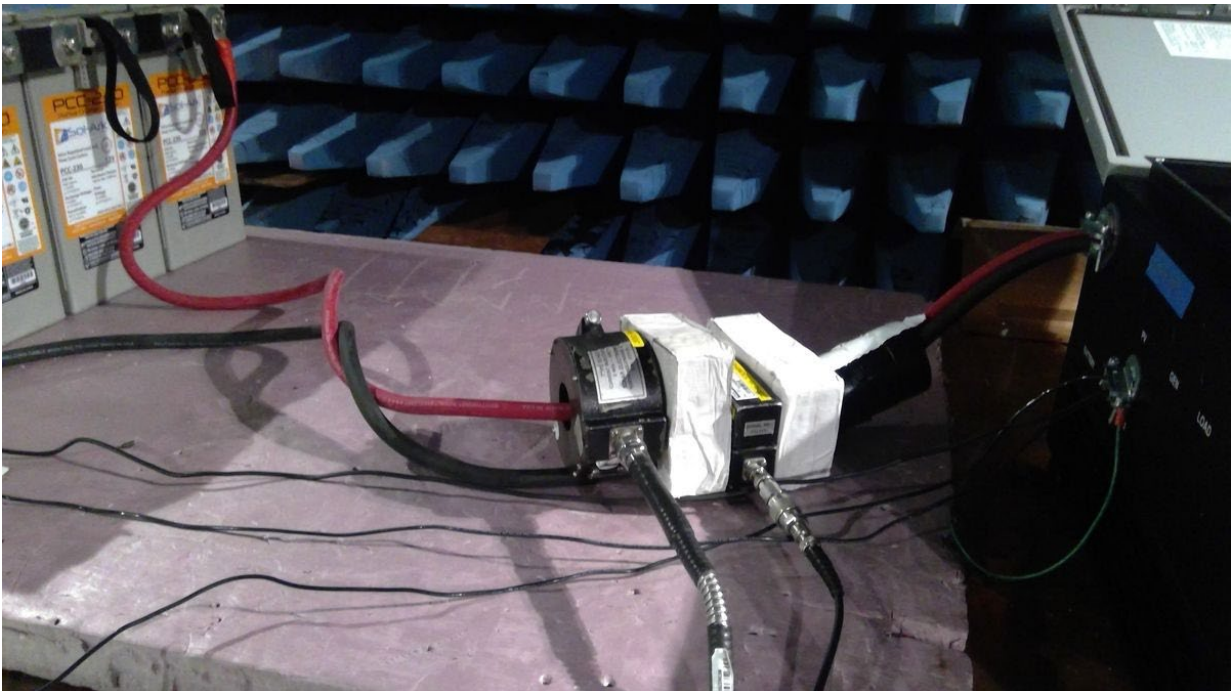
3 CS115 Active L1 AC Line



4 CS115 Active L2 AC Line

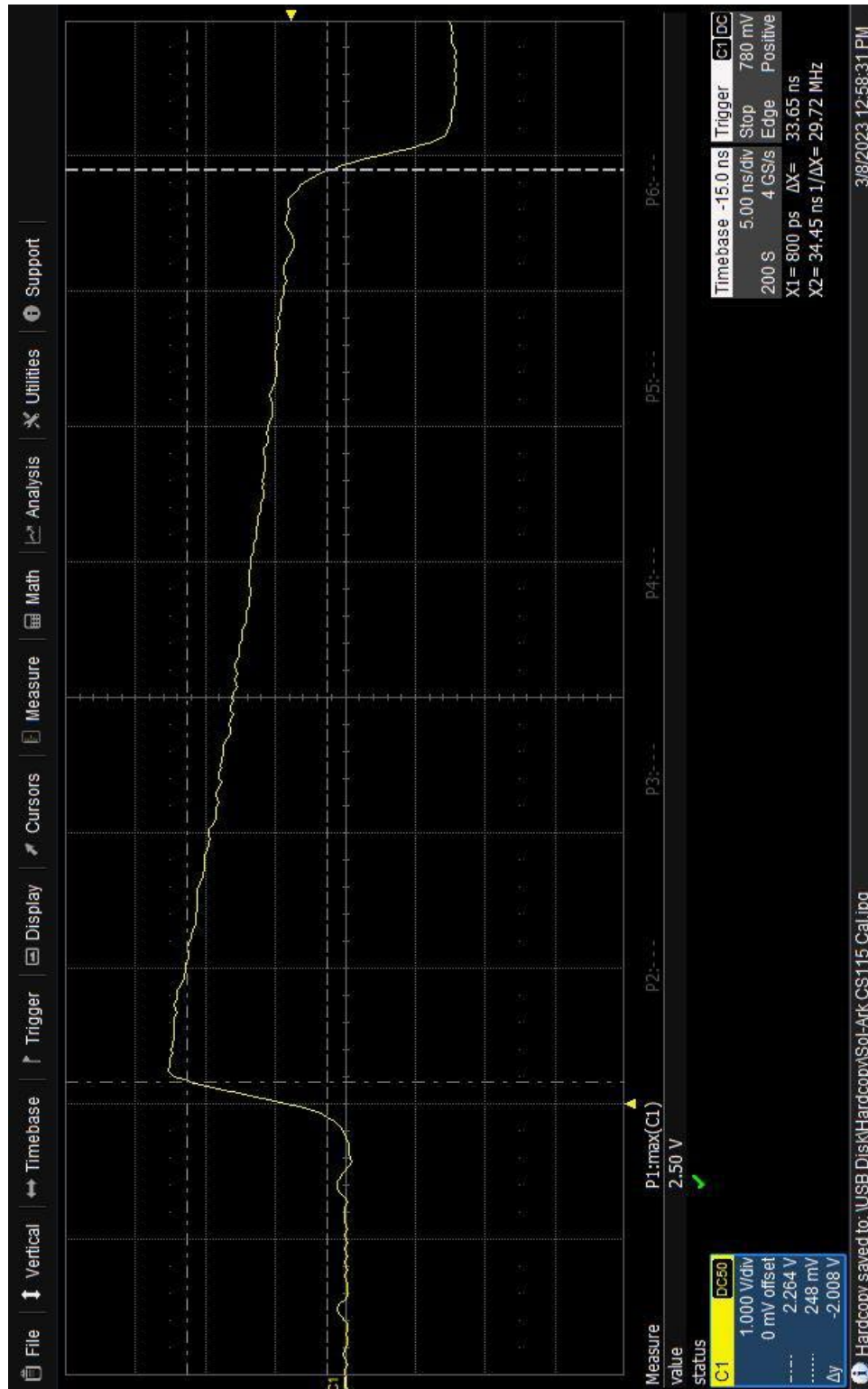


5 CS115 Active DC Bundle

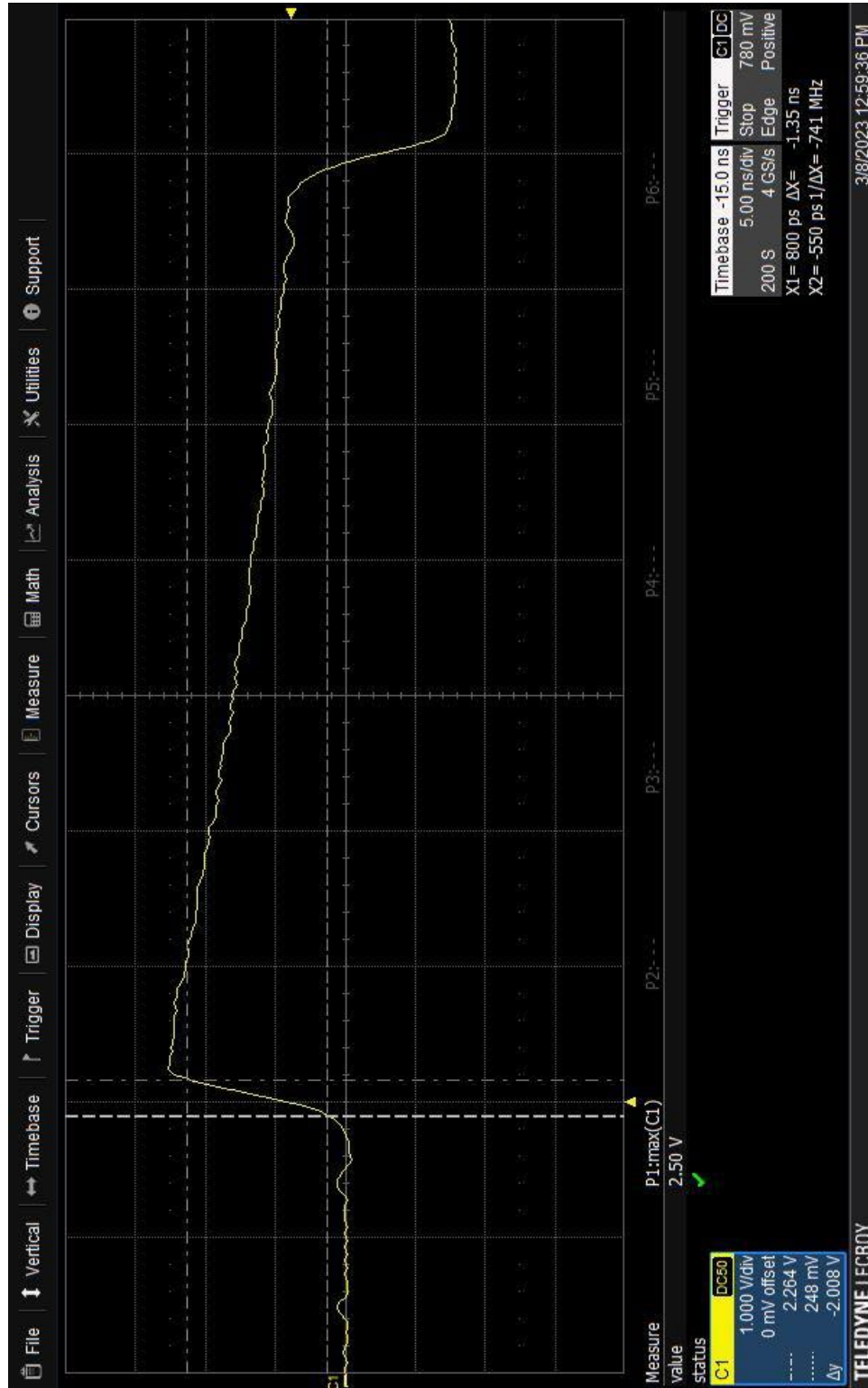


6 CS115 Active DC High Line

5.1.5 Test Waveforms



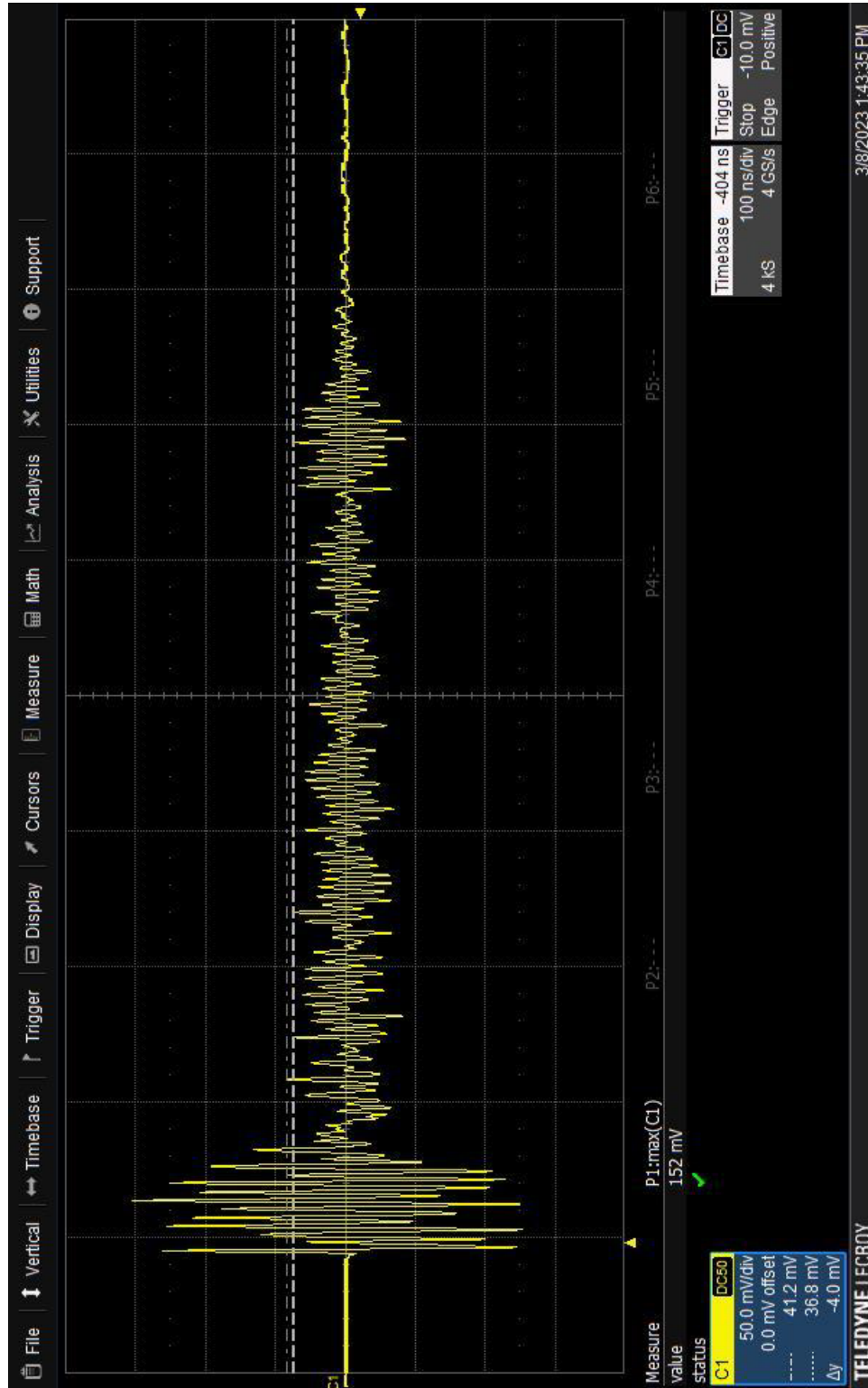
1 Sol-Ark CS115 Cal Duration



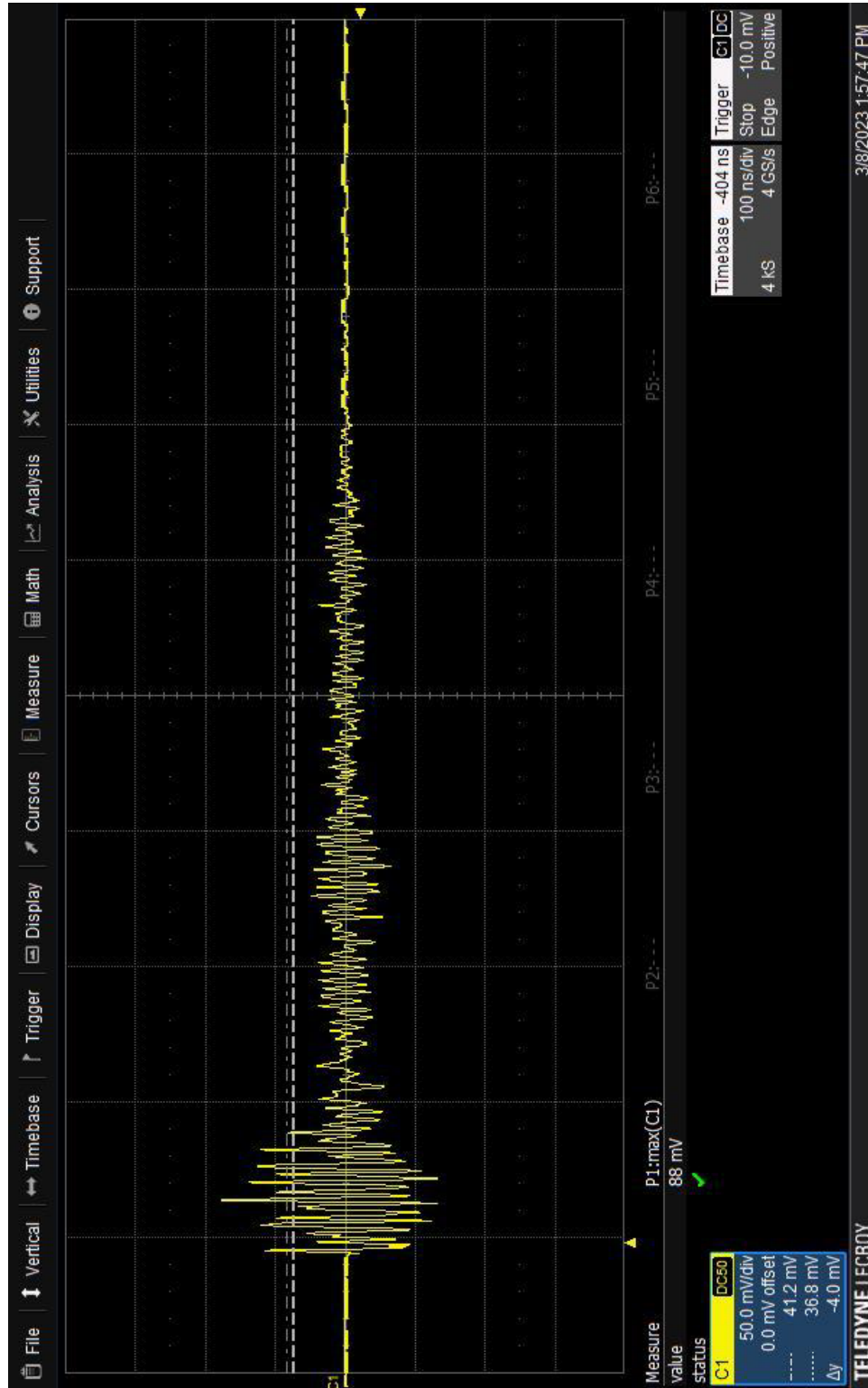
2 Sol-Ark CS115 Cal Rise Time



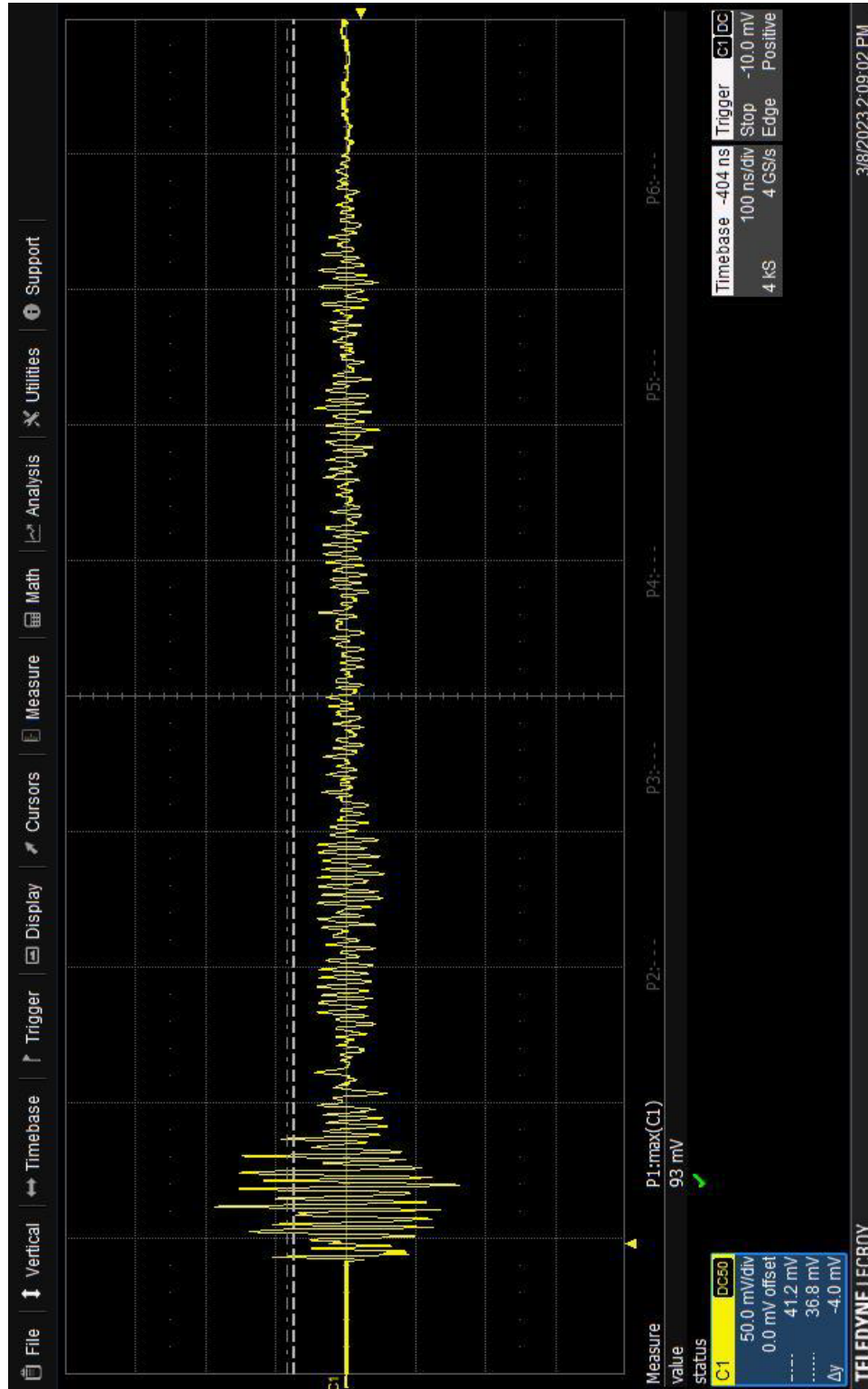
3 Sol-Ark CS115 Cal Fall Time



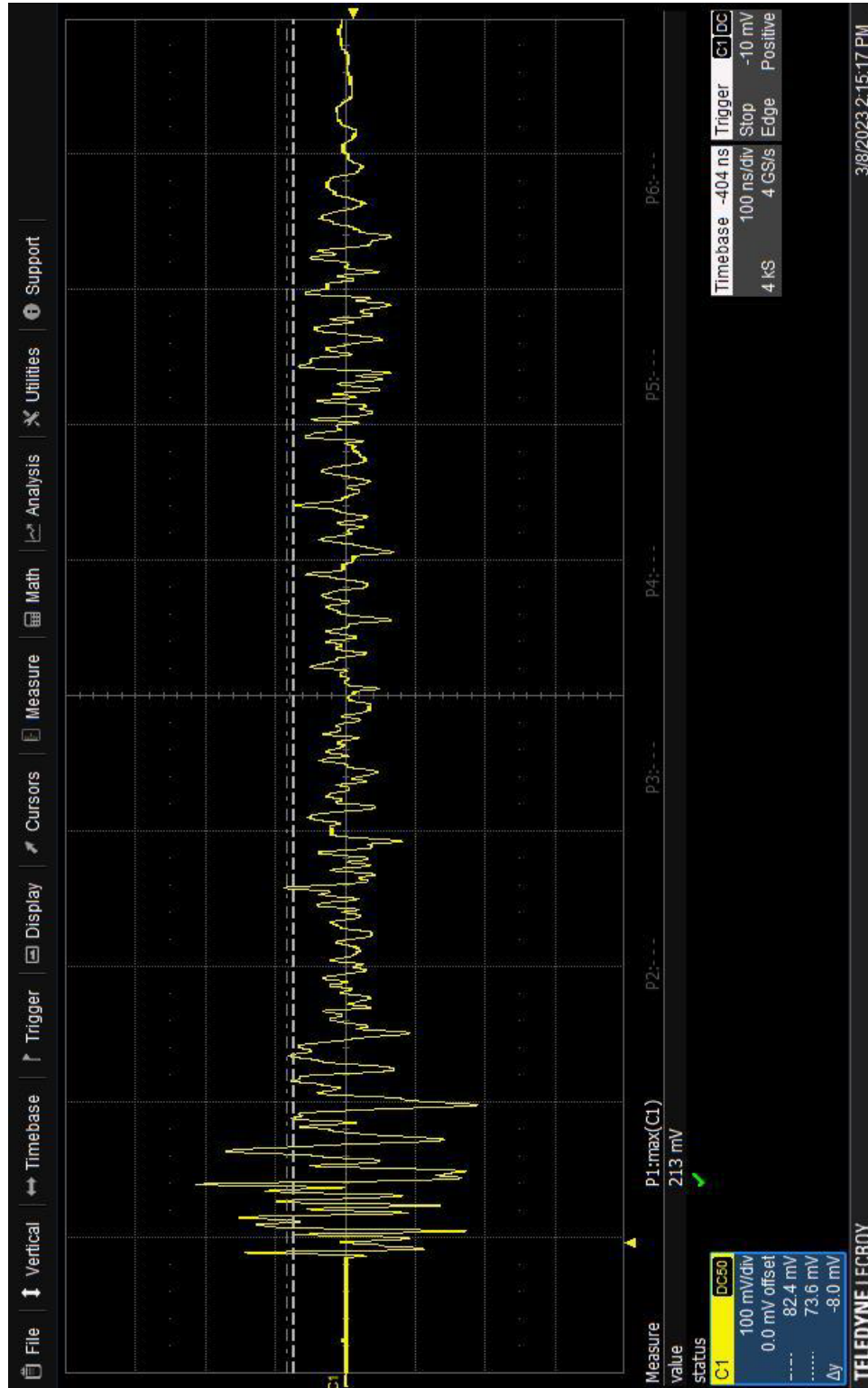
4 Sol-Ark CS115 Active AC Bundle



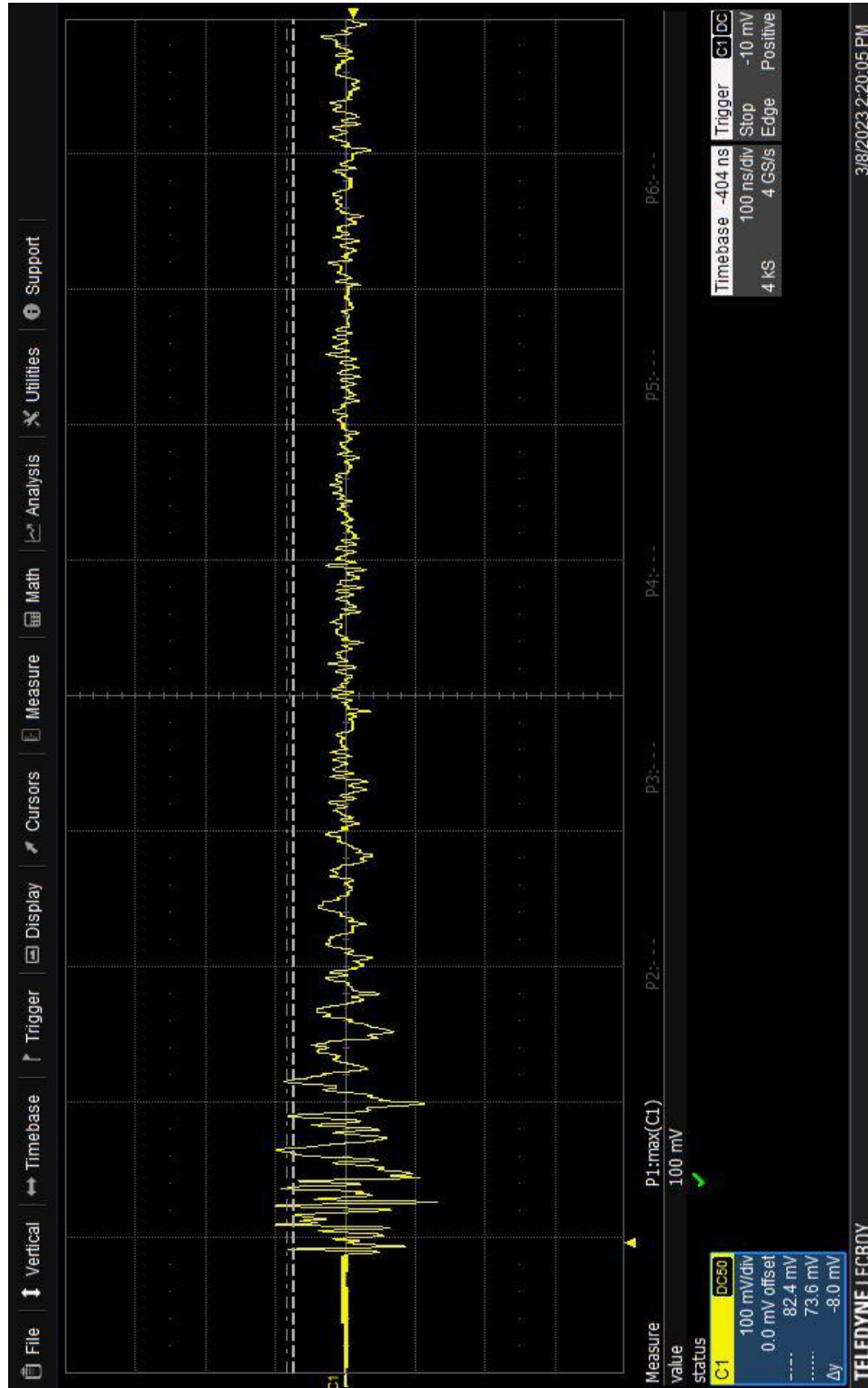
5 Sol-Ark CS115 Active L1 AC Line



6 Sol-Ark CS115 Active L2 AC Line



7 Sol-Ark CS115 Active DC Bundle



8 Sol-Ark CS115 Active DC High Line



5.1.6 Test Equipment List

Table 5.1-1: CS115 Test Equipment List

Asset Number	Asset Type	Manufacturer	Model	Calibrated	Due
WC042494	Chamber (EMI, Semi-Anechoic)	ETS-Lindgren	CH 1 (S201 8X8)	NCR	NCR
WC020482	Attenuator (Coaxial)	Bird Electronic	50-A-MFN-30	06/14/2022	06/14/2023
WC020524	Fixture (Calibration)	Solar Electronics	9125-1	NCR	NCR
WC042177	Oscilloscope (Digital)	LeCroy	WS3022	09/28/2022	09/28/2023
WC042499	Generator (Pulse)	Solar Electronics	9355-1	NCR	NCR
WC043253	Measurement Tools (Tape Measure)	Keson	PGT18M25V	02/23/2023	02/23/2025
WC048190	Attenuator (Coaxial)	Bird Electronic	50-A-MFN-30	04/08/2022	04/08/2024
WC048731	Resistor (Coaxial)	Bird Electronic	8201	02/14/2019	02/14/2024
WC049564	Stopwatch (Digital)	Sper Scientific	SP810022	08/15/2022	08/15/2023
WC049952	Probe (Current)	Solar Electronics	9134-1	01/26/2023	01/26/2025
WC049959	Probe (Current)	Solar Electronics	9142-1N	04/15/2021	04/15/2023
WC049968	Network (LISN)	Fischer Custom Communications	FCC-LISN-50-15-1-01-MS462E	08/16/2022	08/16/2023
WC049996	Network (LISN)	Fischer Custom Communications	FCC-LISN-50-15-1-01-MS462E	01/27/2023	01/27/2024
WC049997	Network (LISN)	Fischer Custom Communications	FCC-LISN-50-15-1-01-MS462E	01/23/2023	01/23/2024

Calibration Abbreviations

CAL: Calibration

NCR: No Calibration Required



5.2 CS116

5.2.1 Test Procedure

The EUT was tested to MIL-STD-461G.

5.2.2 Test Result

Test Result: Conducted Susceptibility per MIL-STD-461G was performed on the EUT. During testing, the EUT showed no signs of susceptibility, and no deviations were noted. The EUT was compliant with CS116.



5.2.3 Test Datasheets



DATA SHEET

NTS Project No.: PR169184

Start Date: 03/07/2023

Customer: Sol-Ark Temperature: 72°F Humidity: 29%
EUT: 15K-2P-N System Measurement Point: See Comments below
Model No.: Limitless 15KV-LV Interference Signal: Applied for a Period of 5 Minutes Per Frequency
Serial No.: NTS-001 Frequency Range: 10 kHz, 100 kHz, 1 MHz, 10 MHz, 30 MHz, 100 MHz

Test Title: CS116 Conducted Susceptibility, Damped Sinusoidal Transients, Cables and Power, per MIL-STD-461G

Test Frequency () kHz (X) MHz () GHz	Meets Limit		Susceptibility Threshold Level (X) A () V () kV () V/m () Vrms () dBμA () dBμV () dBμV/m () dBpT	Maximum Signal Applied	Comments (Line Measured)
	Yes	No			
0.01	X		> 0.1	0.1	AC Bundle, AC L1, AC L2
0.1	X		> 1	1	AC Bundle, AC L1, AC L2
1	X		> 10	10	AC Bundle, AC L1, AC L2
10	X		> 10	10	AC Bundle, AC L1, AC L2
30	X		> 10	10	AC Bundle, AC L1, AC L2
100	X		> 3	3	AC Bundle, AC L1, AC L2
0.01	X		> 0.1	0.1	DC Bundle, DC High Line
0.1	X		> 1	1	DC Bundle, DC High Line
1	X		> 10	10	DC Bundle, DC High Line
10	X		> 10	10	DC Bundle, DC High Line
30	X		> 10	10	DC Bundle, DC High Line
100	X		> 3	3	DC Bundle, DC High Line
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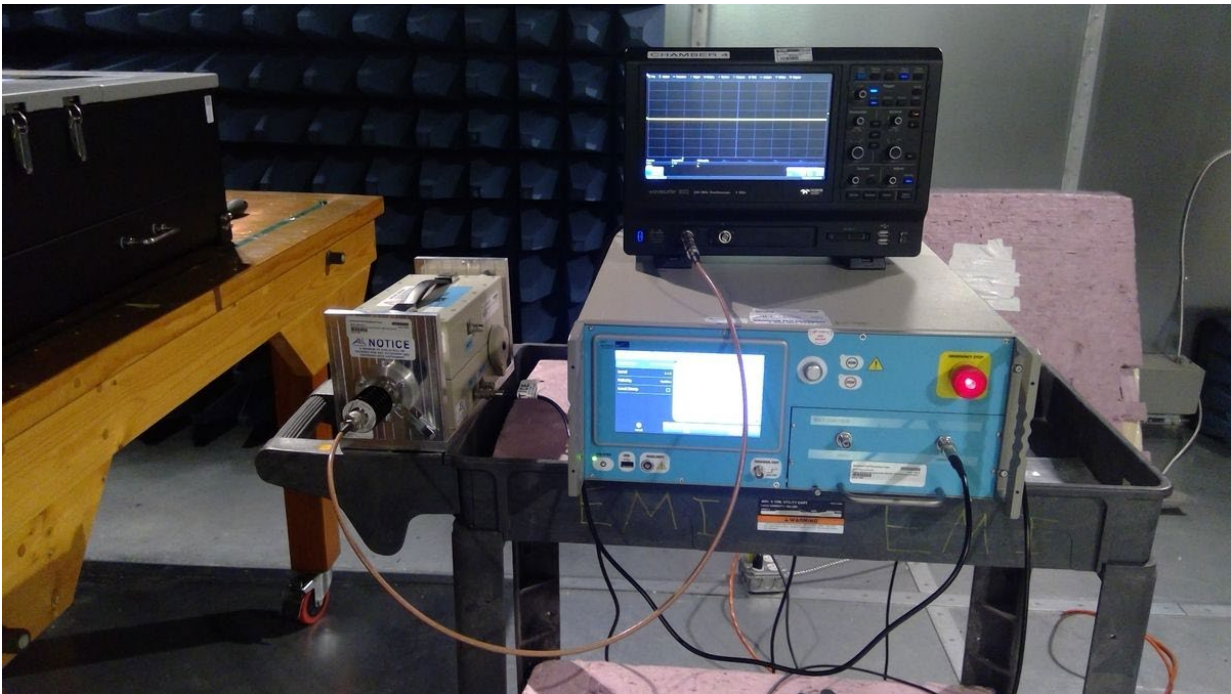
Notice of Deviation: N/A

Tested By: M. Tillery Date: 03/07/2023
Technician

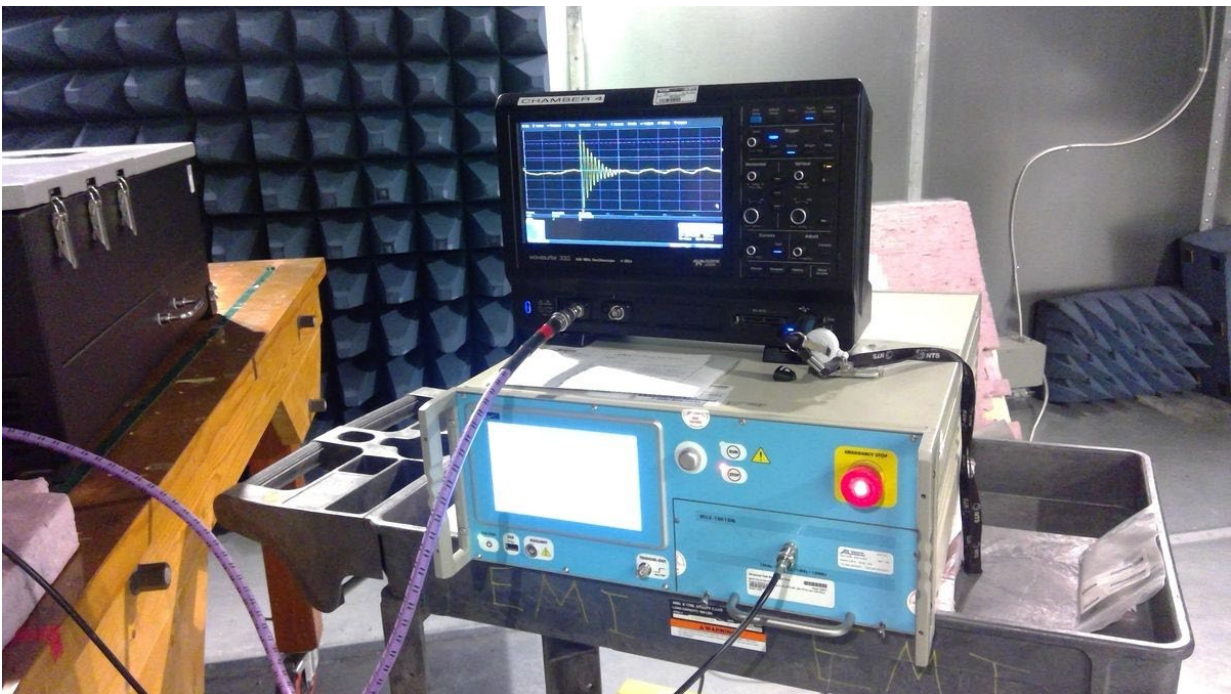
Witness: Dylan Hillman

Approved:  Date: 03/07/2023
Project Engineer

5.2.4 Test Photographs



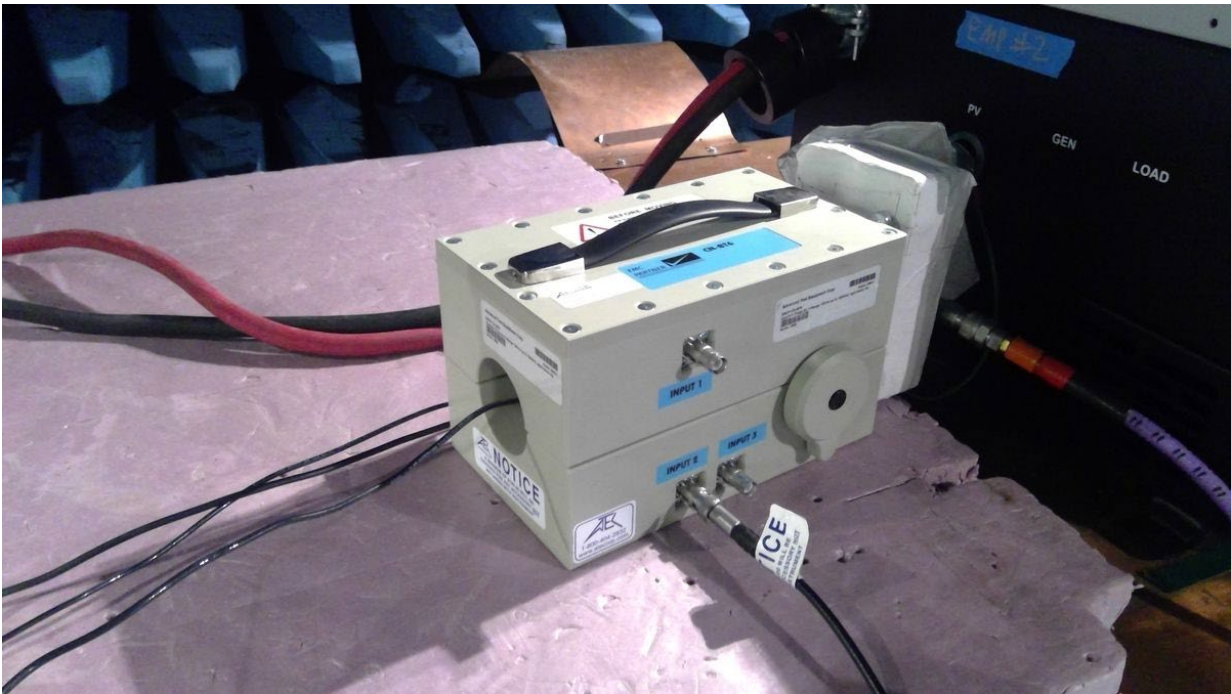
1 CS116 Calibration Setup



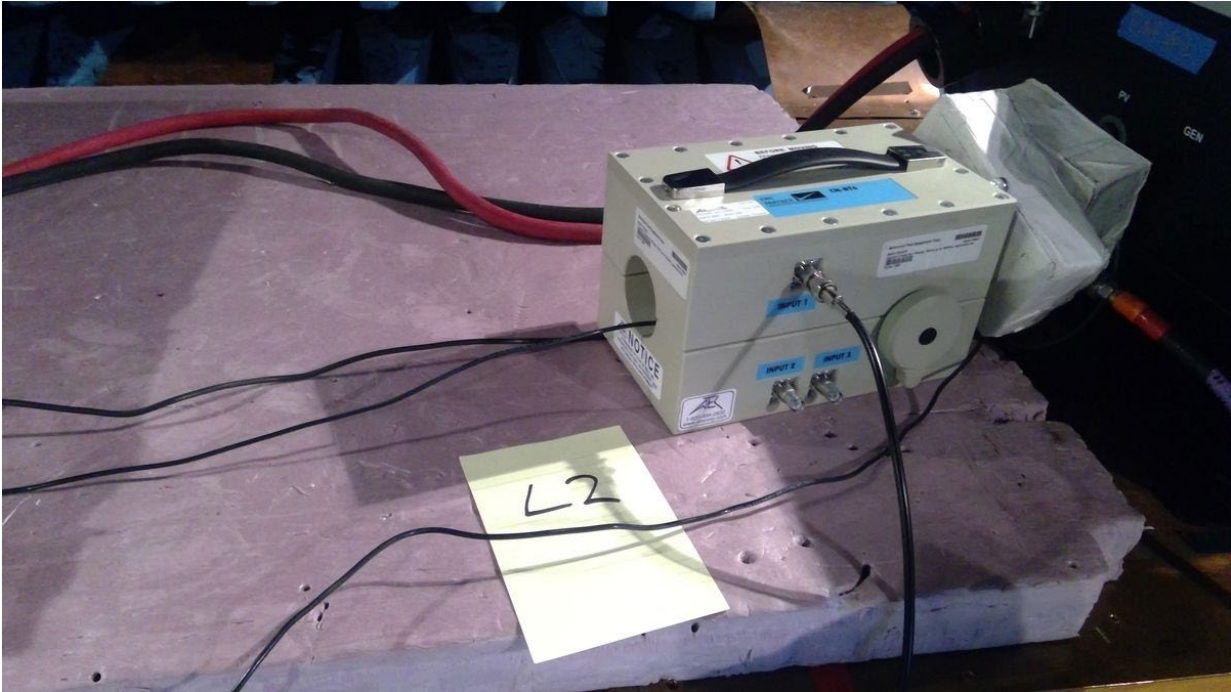
2 CS116 Active Setup



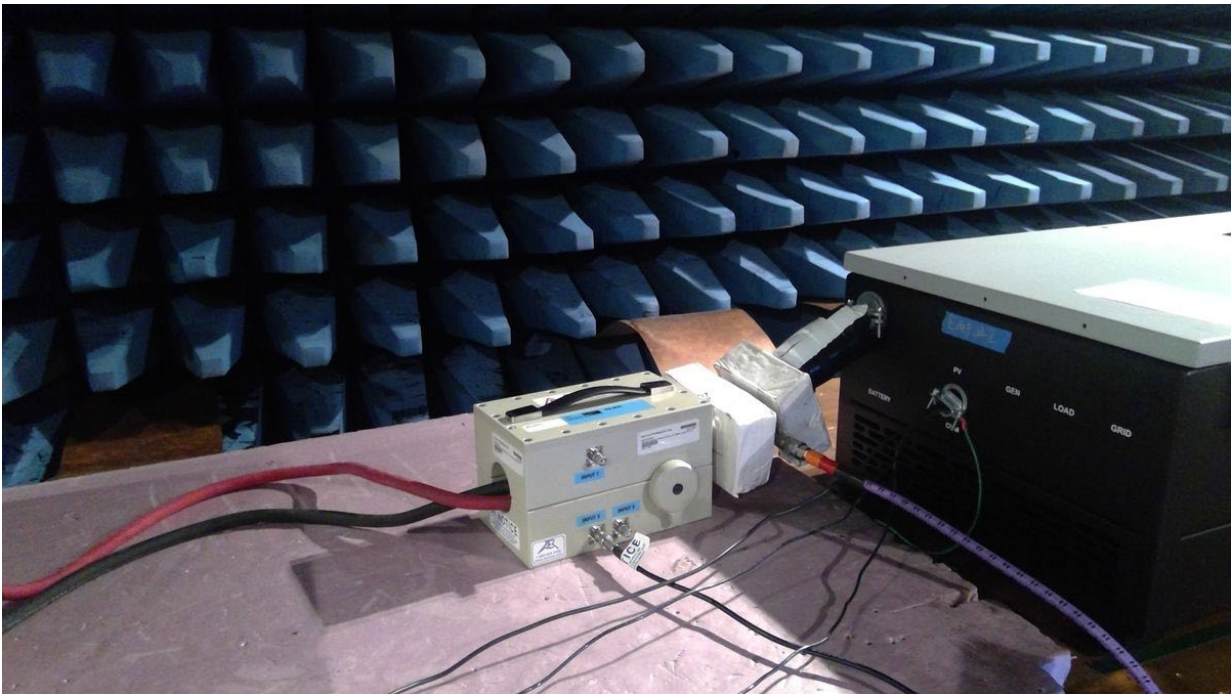
3 CS116 Active Power Bundle



4 CS116 Active AC Line L1



5 CS116 Active AC Line L2

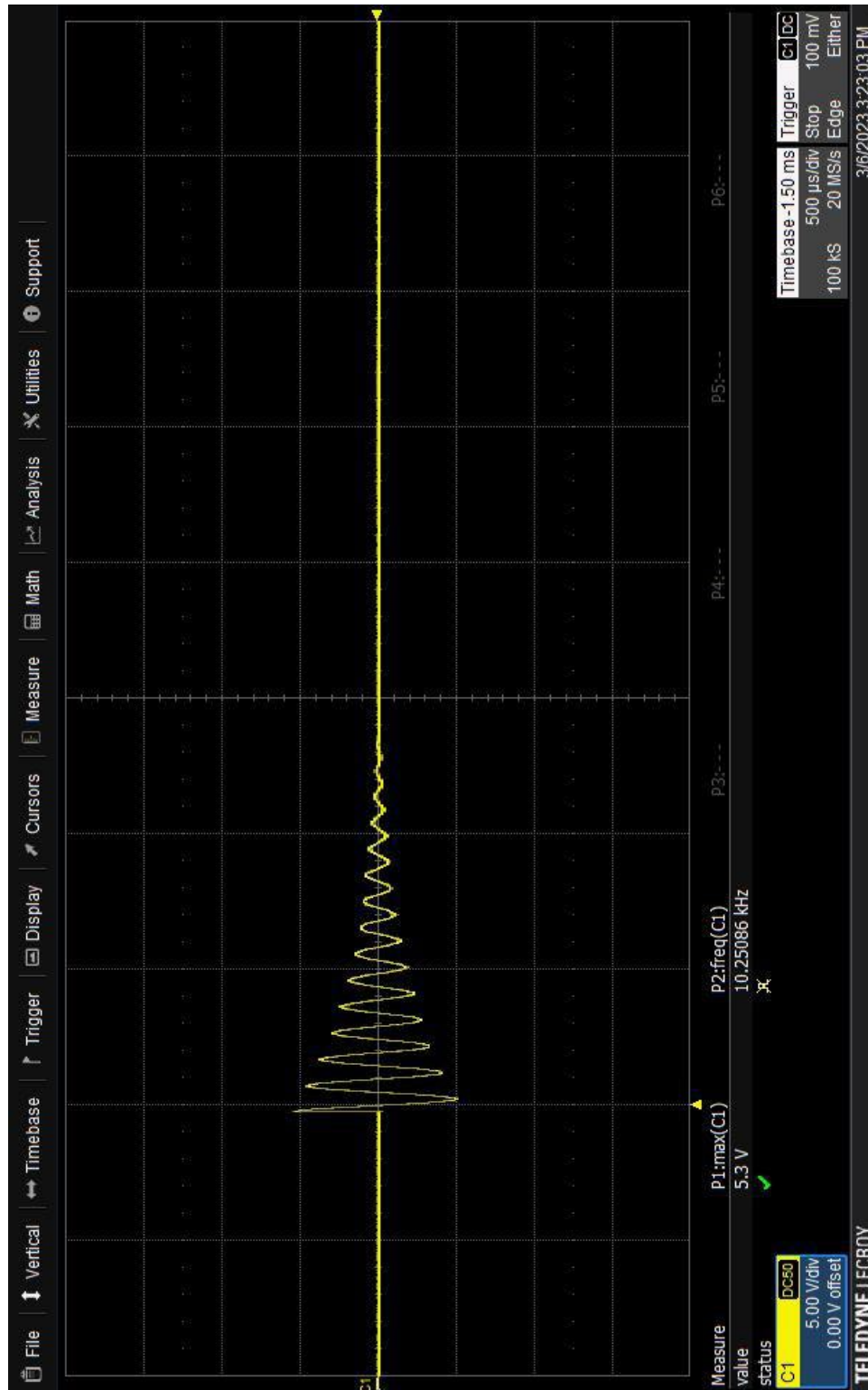


6 CS116 Active DC Power Bundle

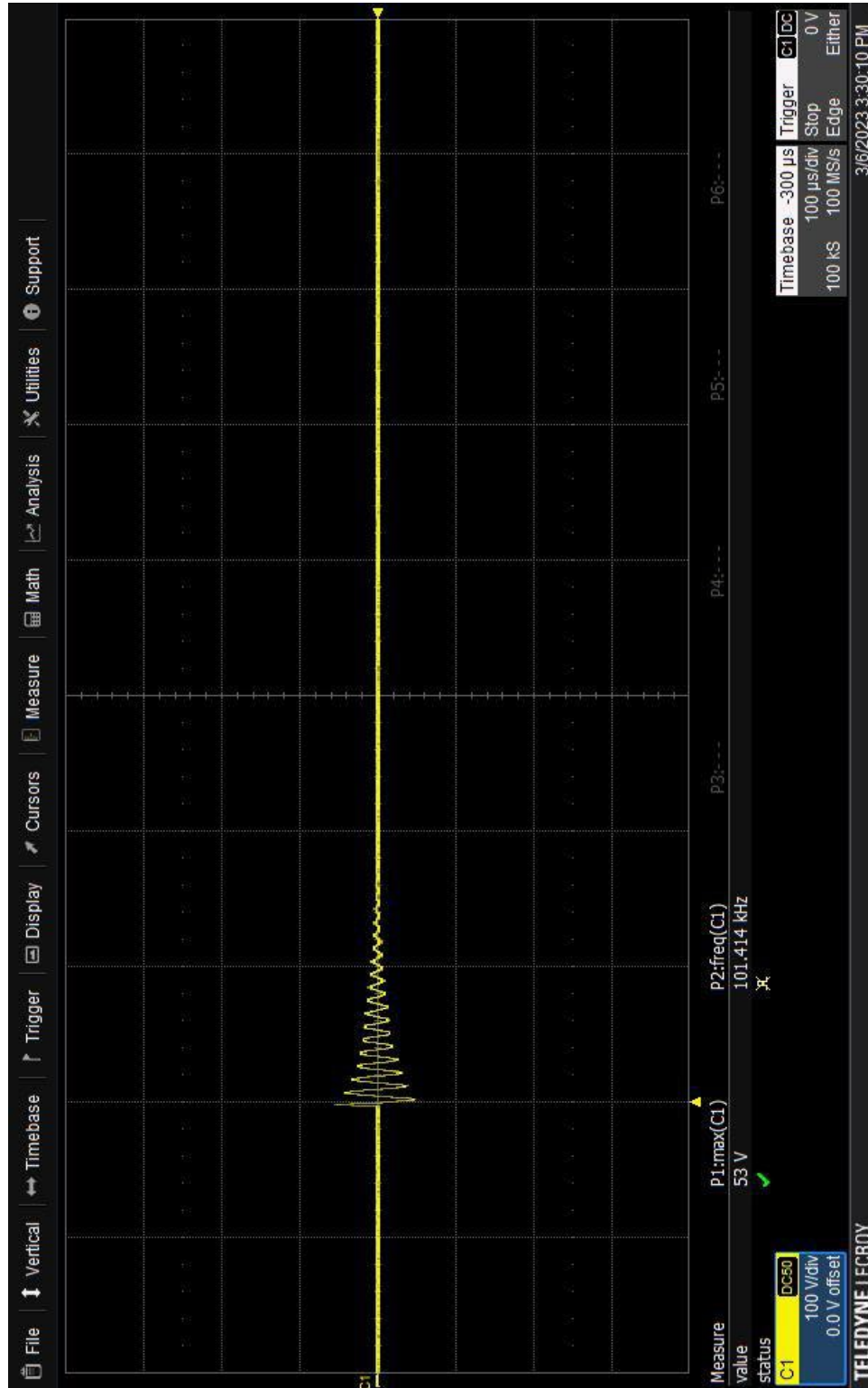


7 CS116 Active DC High Line

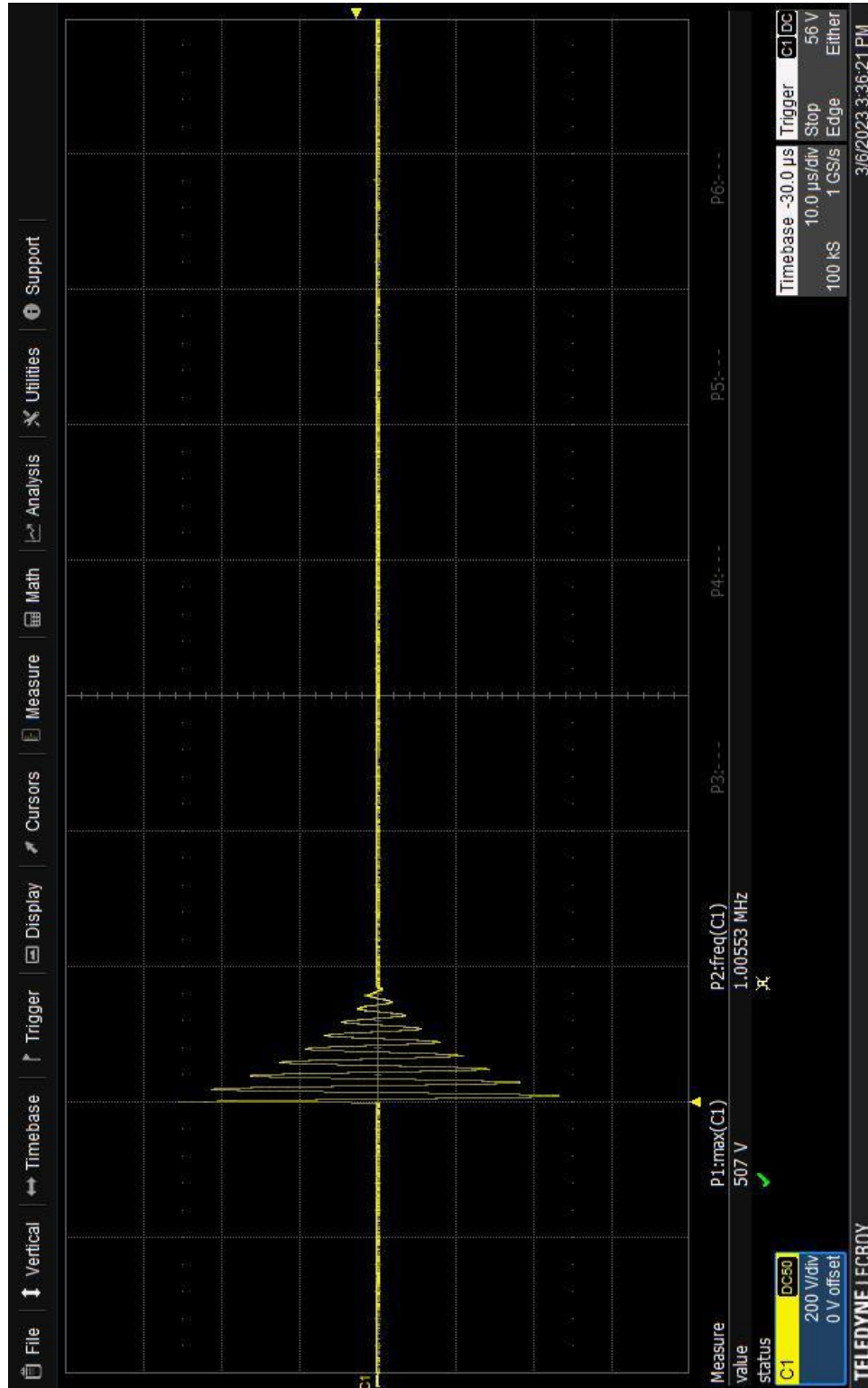
5.2.5 Test Waveforms



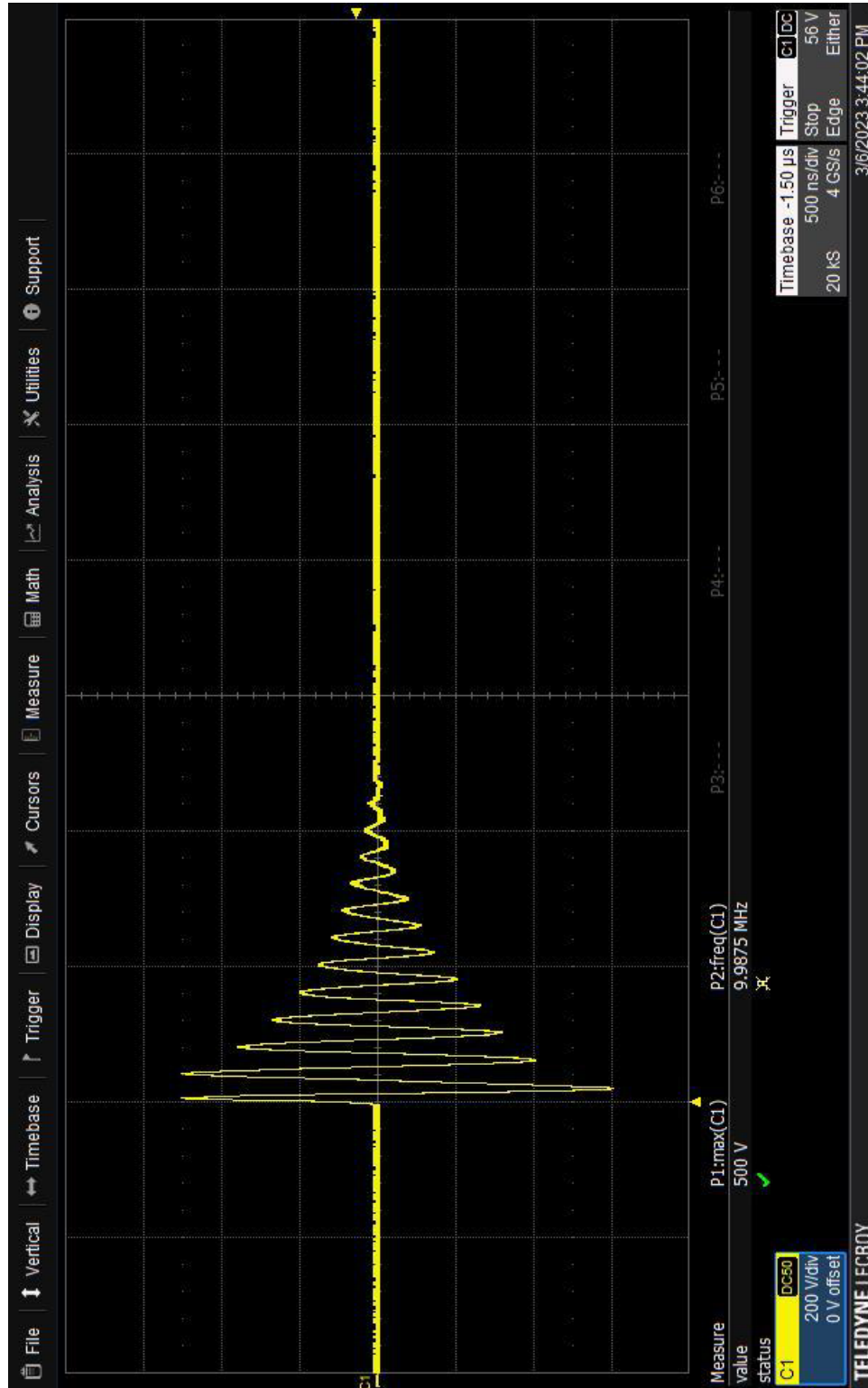
1 Sol-Ark CS116 10kHz Calibration



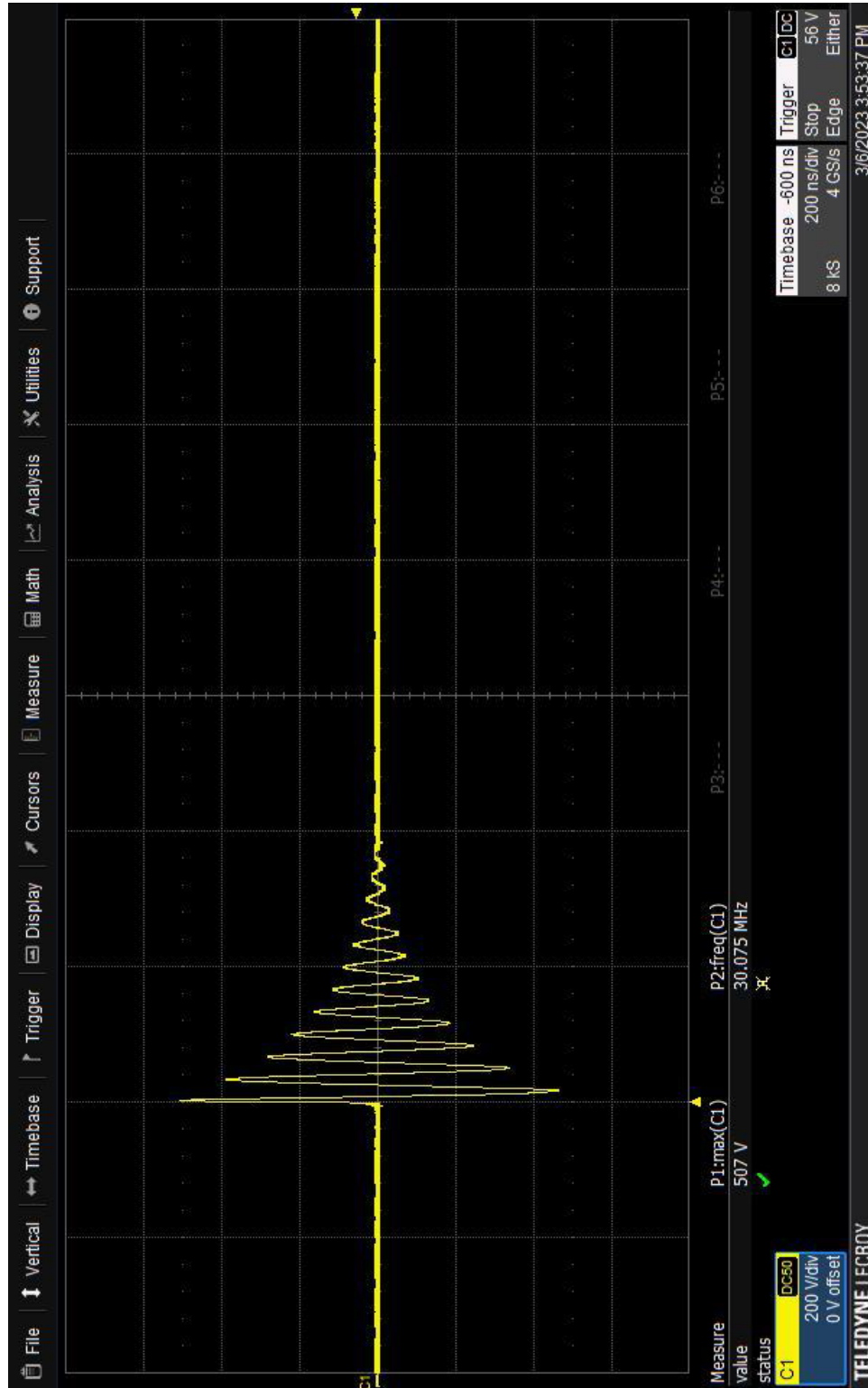
2 Sol-Ark CS116 100kHz Calibration



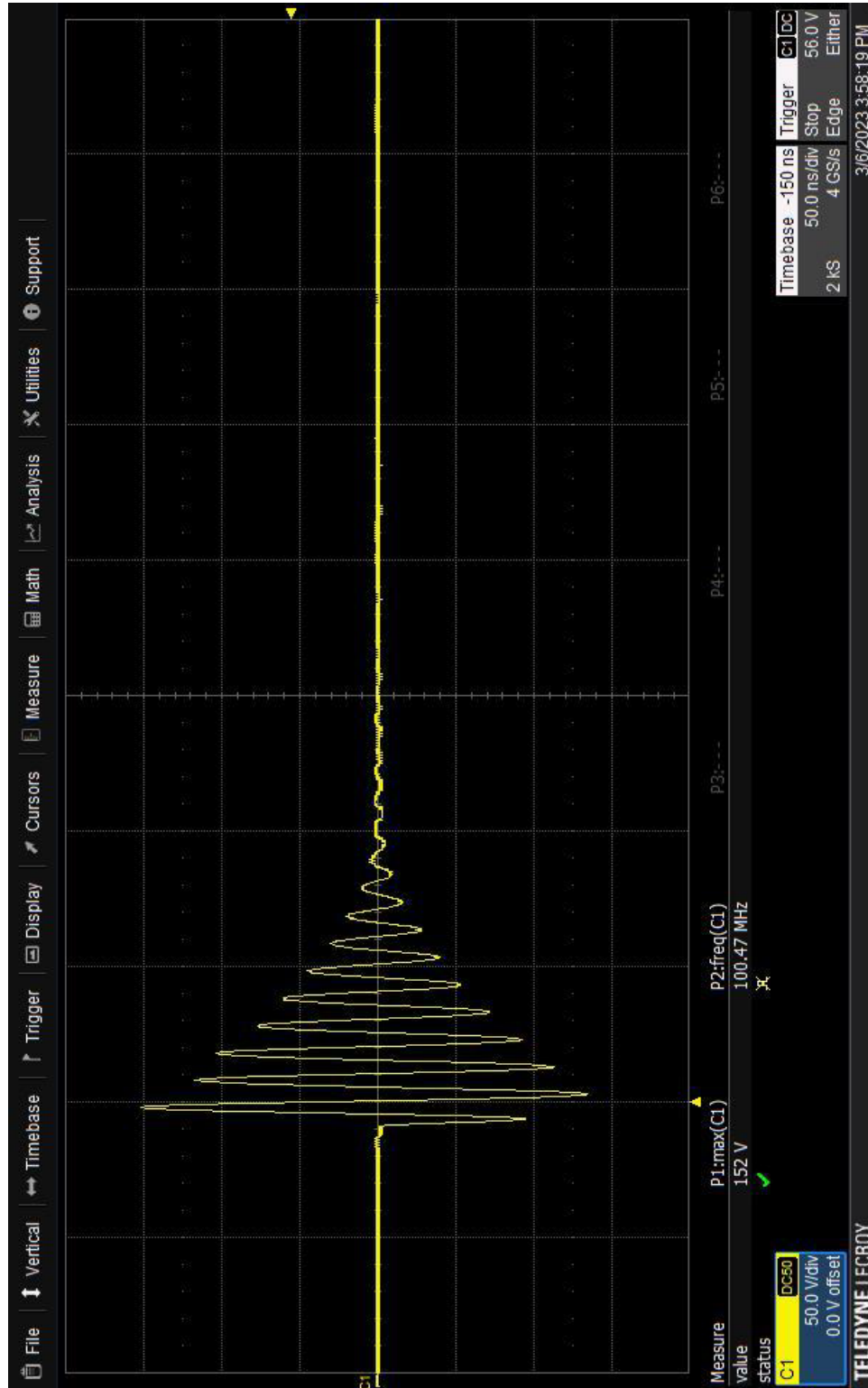
3 Sol-Ark CS116 1MHz Calibration



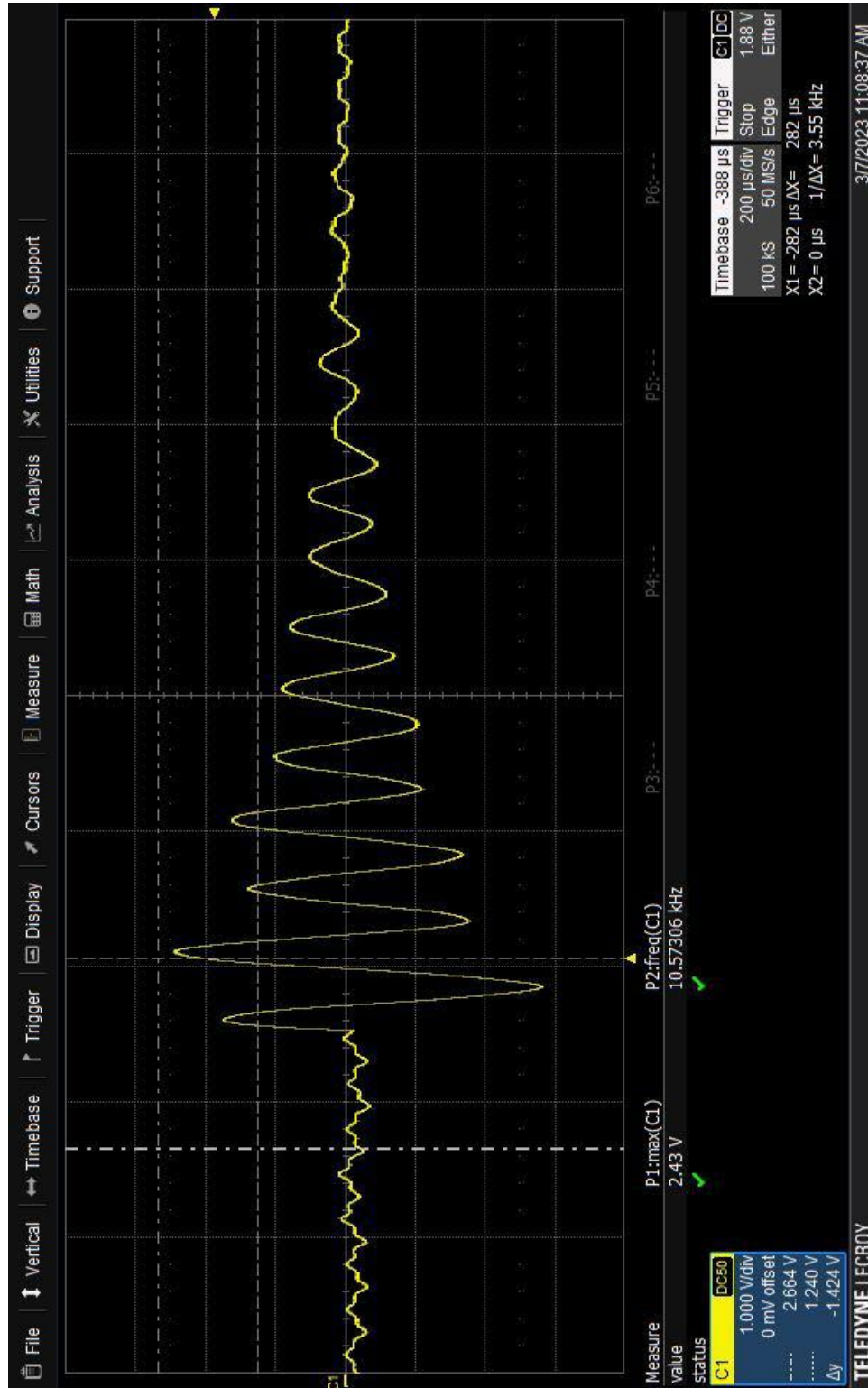
4 Sol-Ark CS116 10MHz Calibration



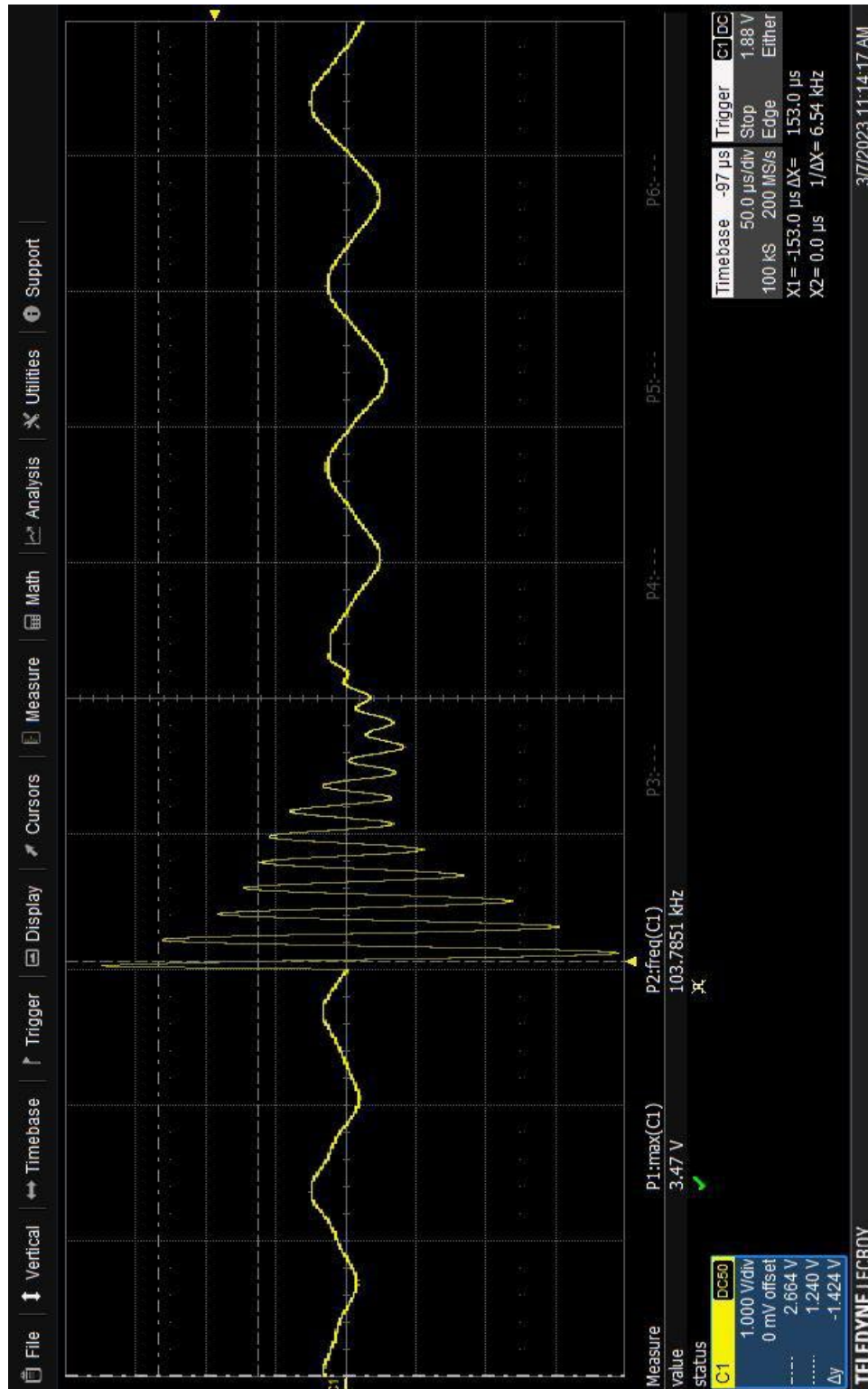
5 Sol-Ark CS116 30MHz Calibration



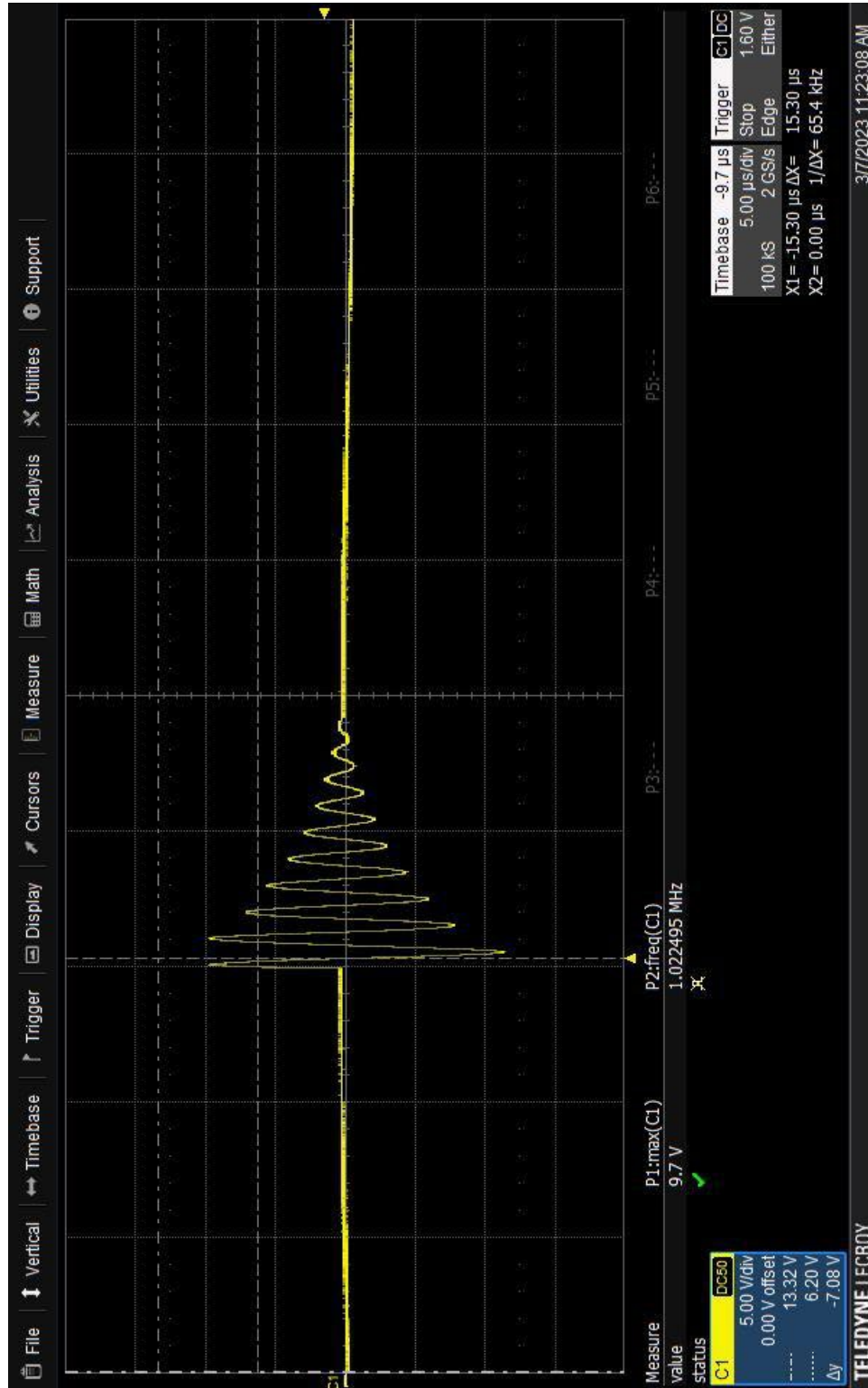
6 Sol-Ark CS116 100MHz Calibration



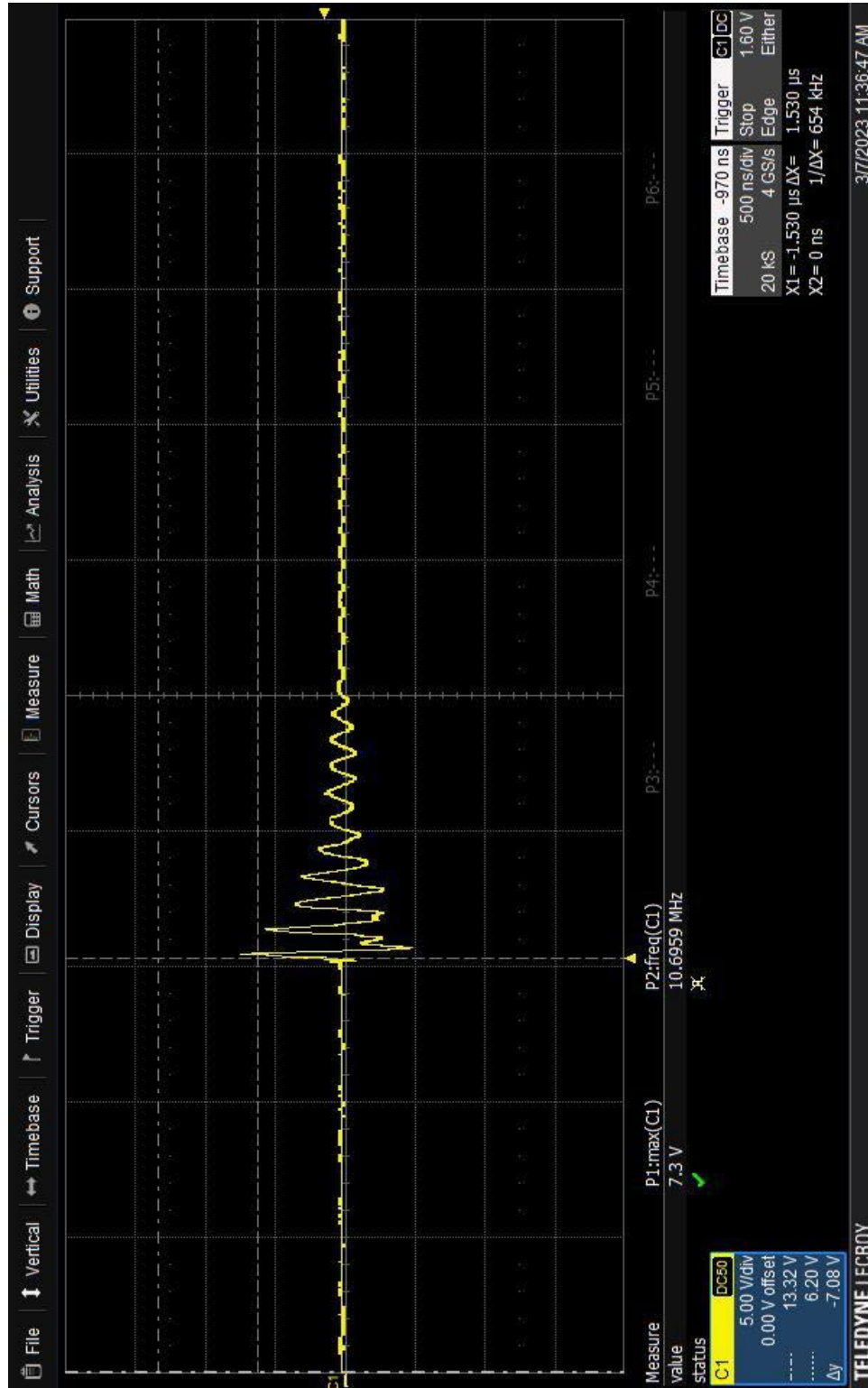
7 Sol-Ark CS116 10kHz AC Bundle



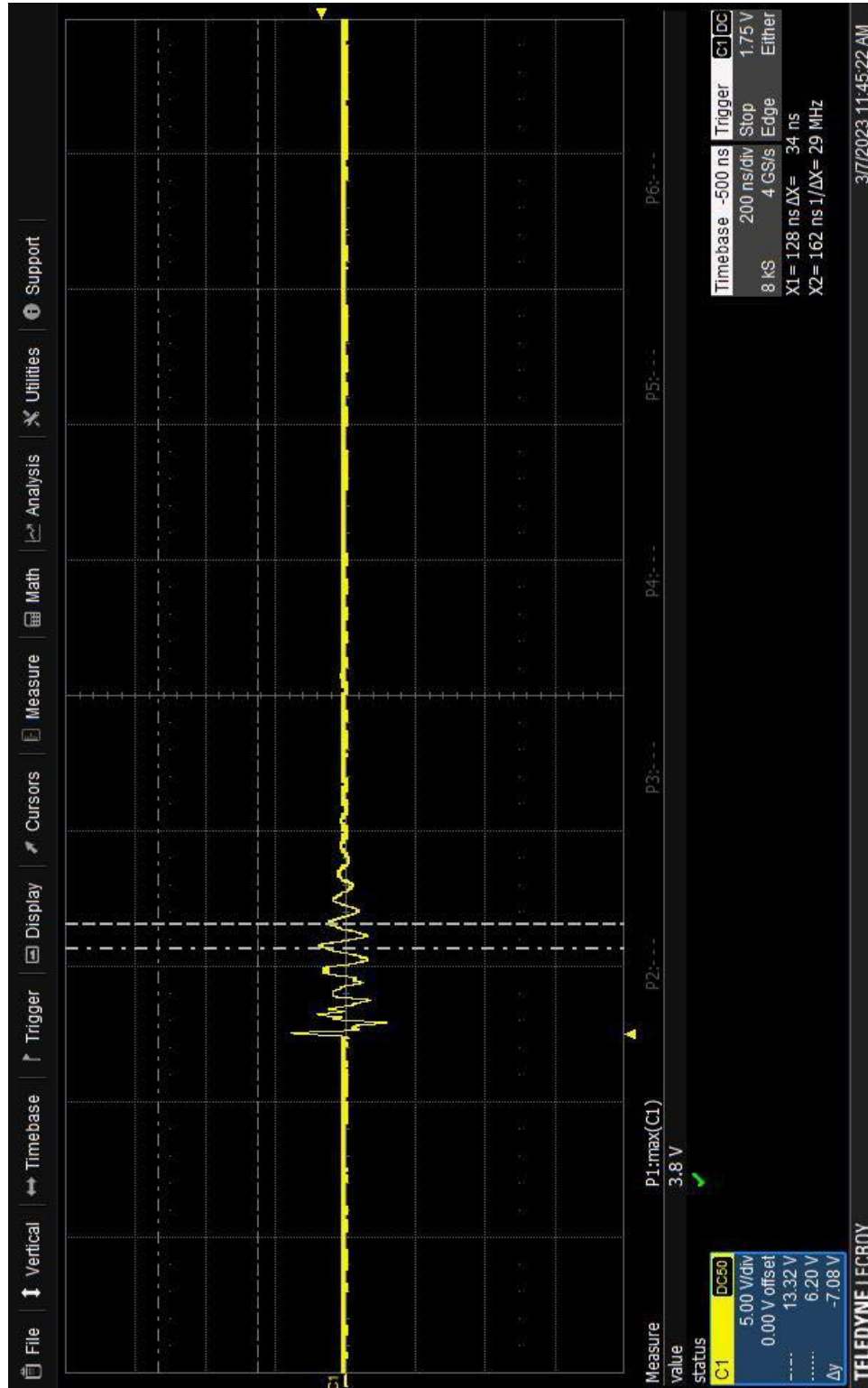
8 Sol-Ark CS116 100kHz AC Bundle



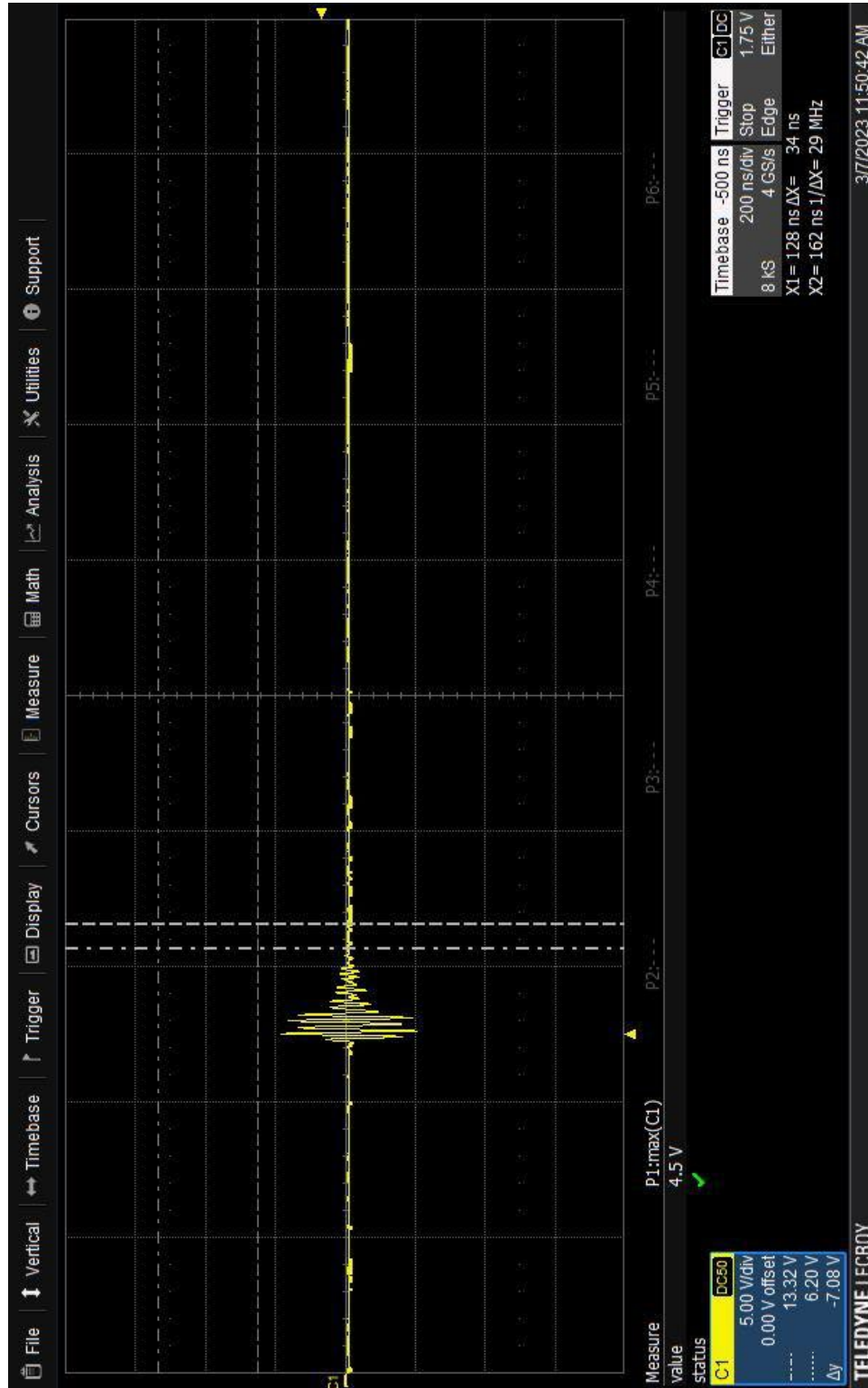
9 Sol-Ark CS116 1MHz AC Bundle



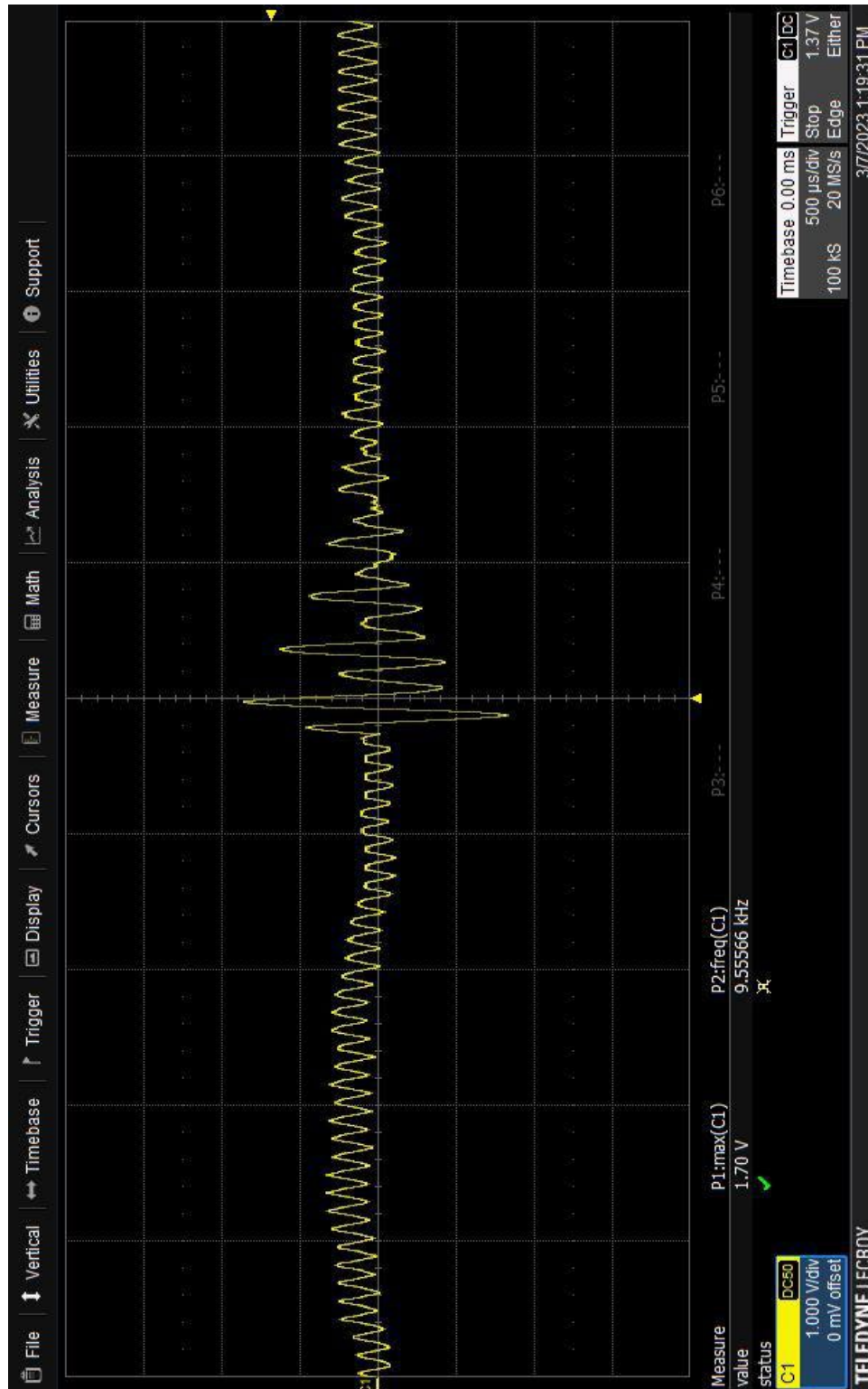
10 Sol-Ark CS116 10MHz AC Bundle



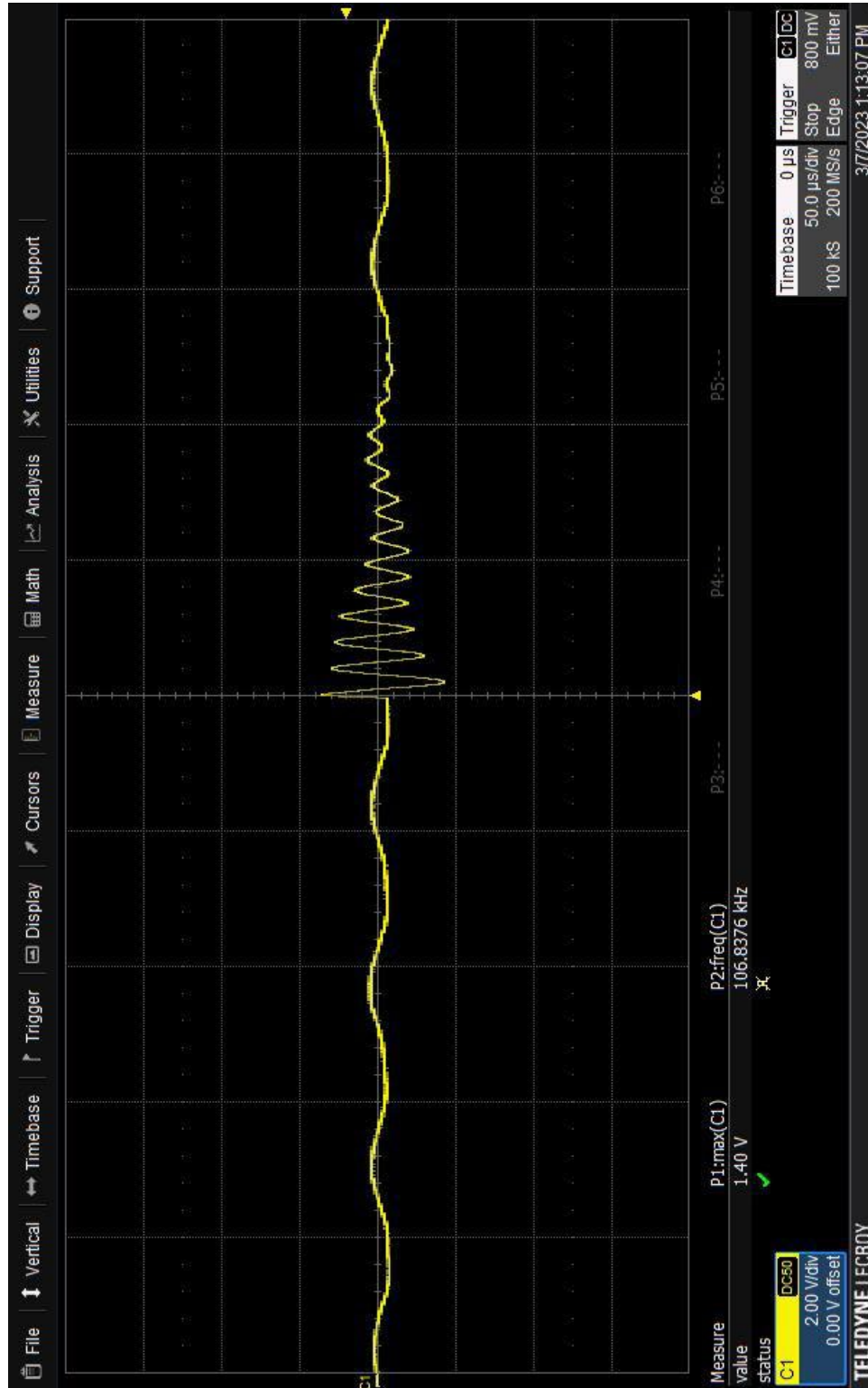
11 Sol-Ark CS116 30MHz AC Bundle



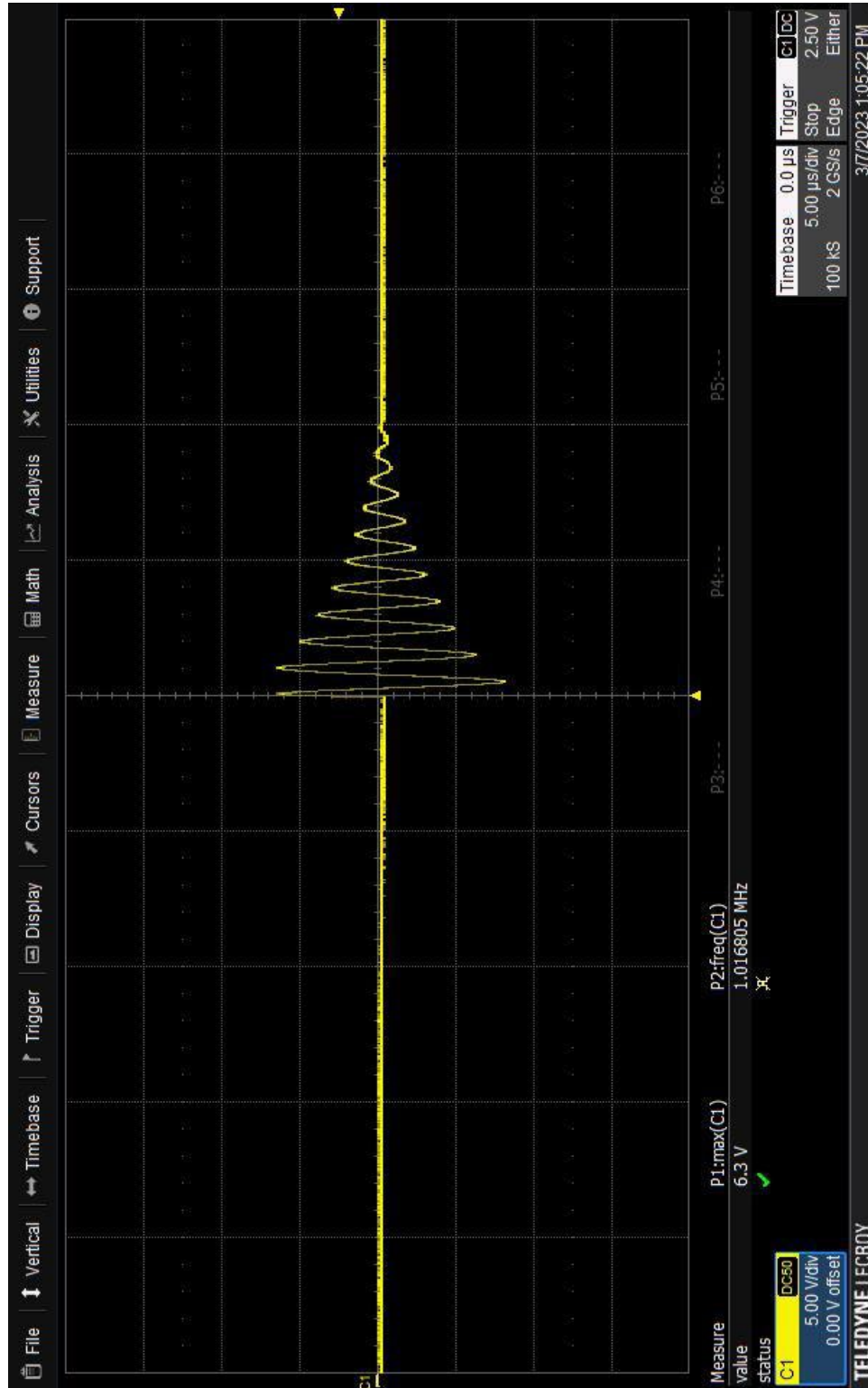
12 Sol-Ark CS116 100MHz AC Bundle



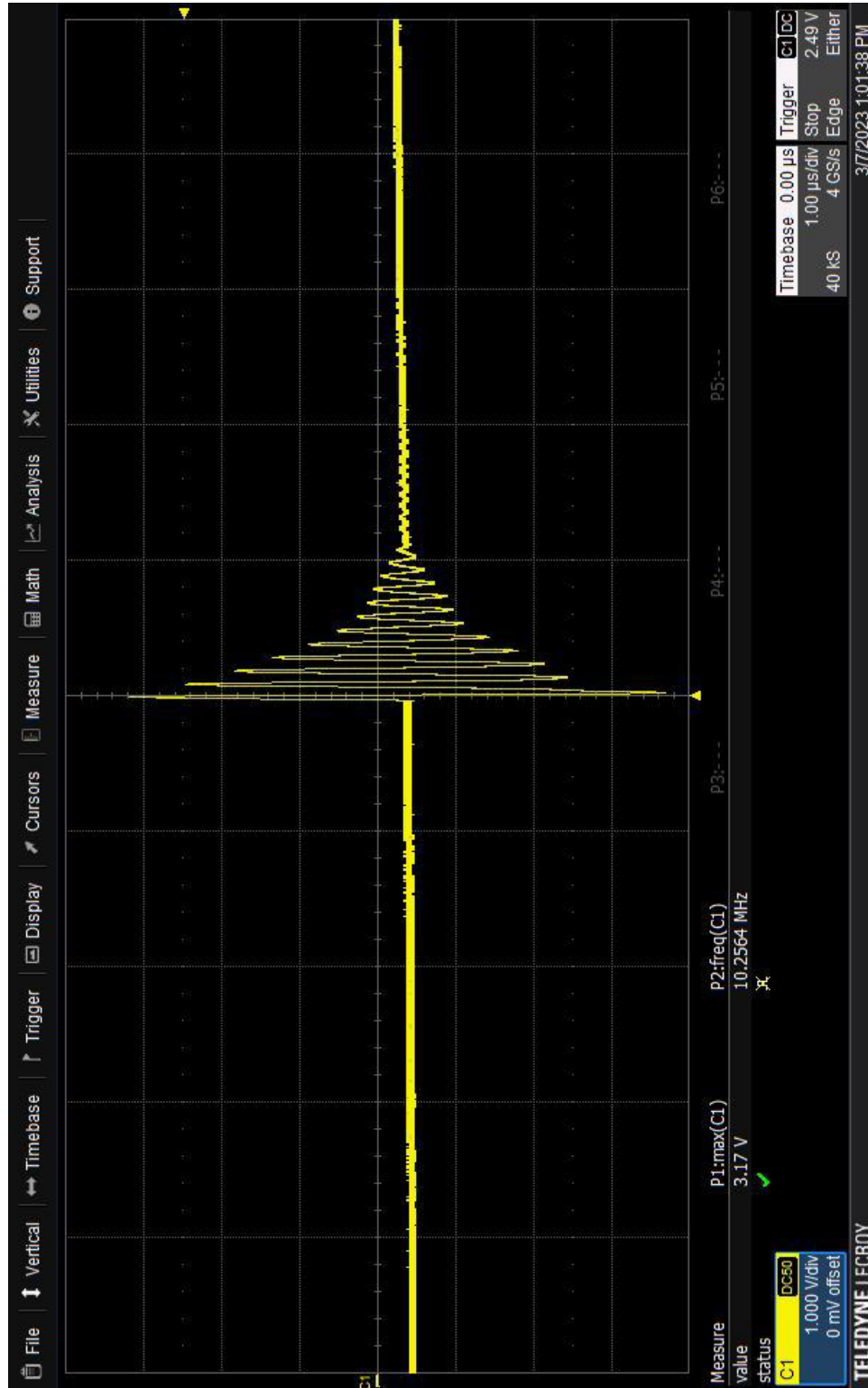
13 Sol-Ark CS116 10kHz AC L1 Line



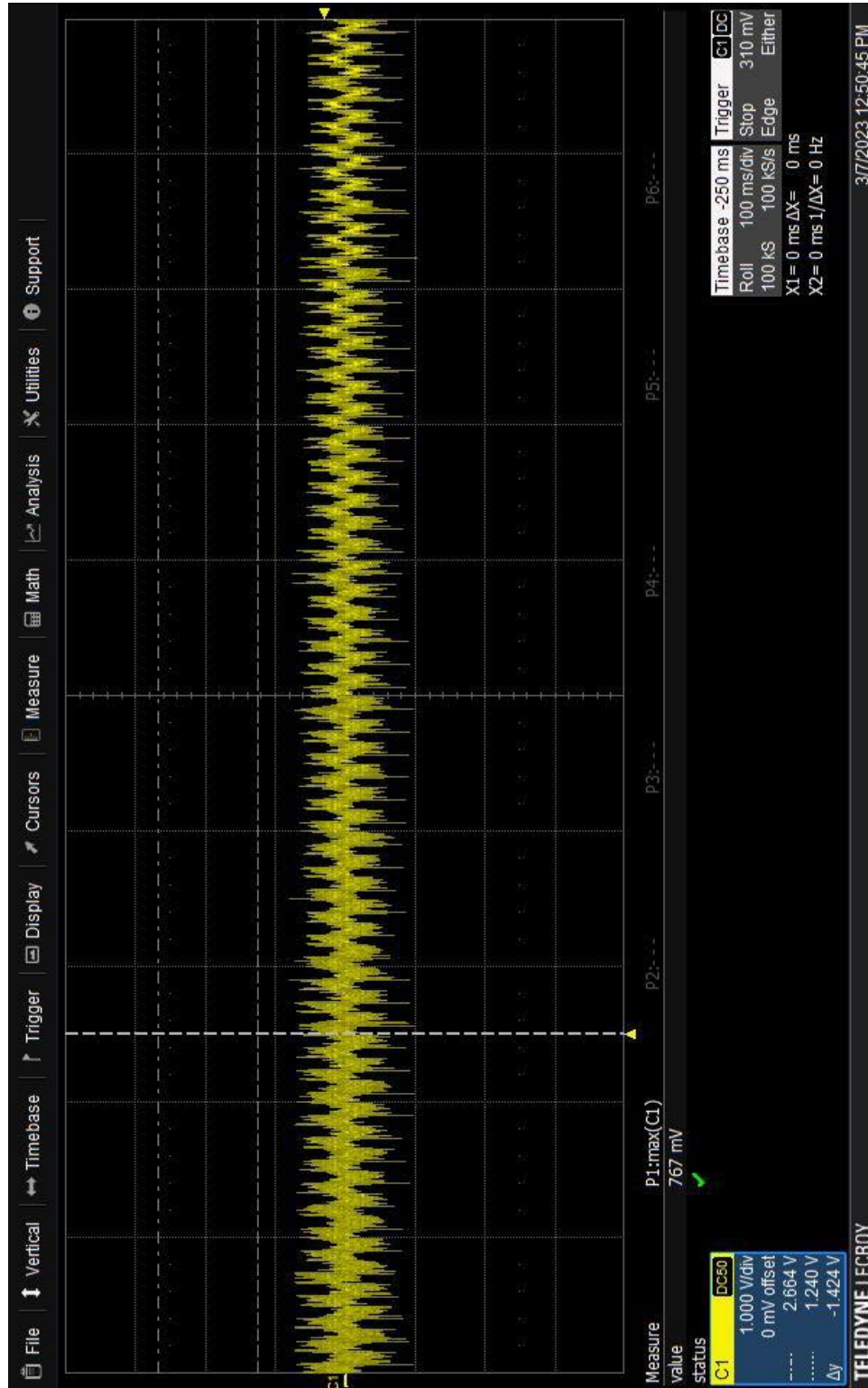
14 Sol-Ark CS116 100kHz AC L1 Line



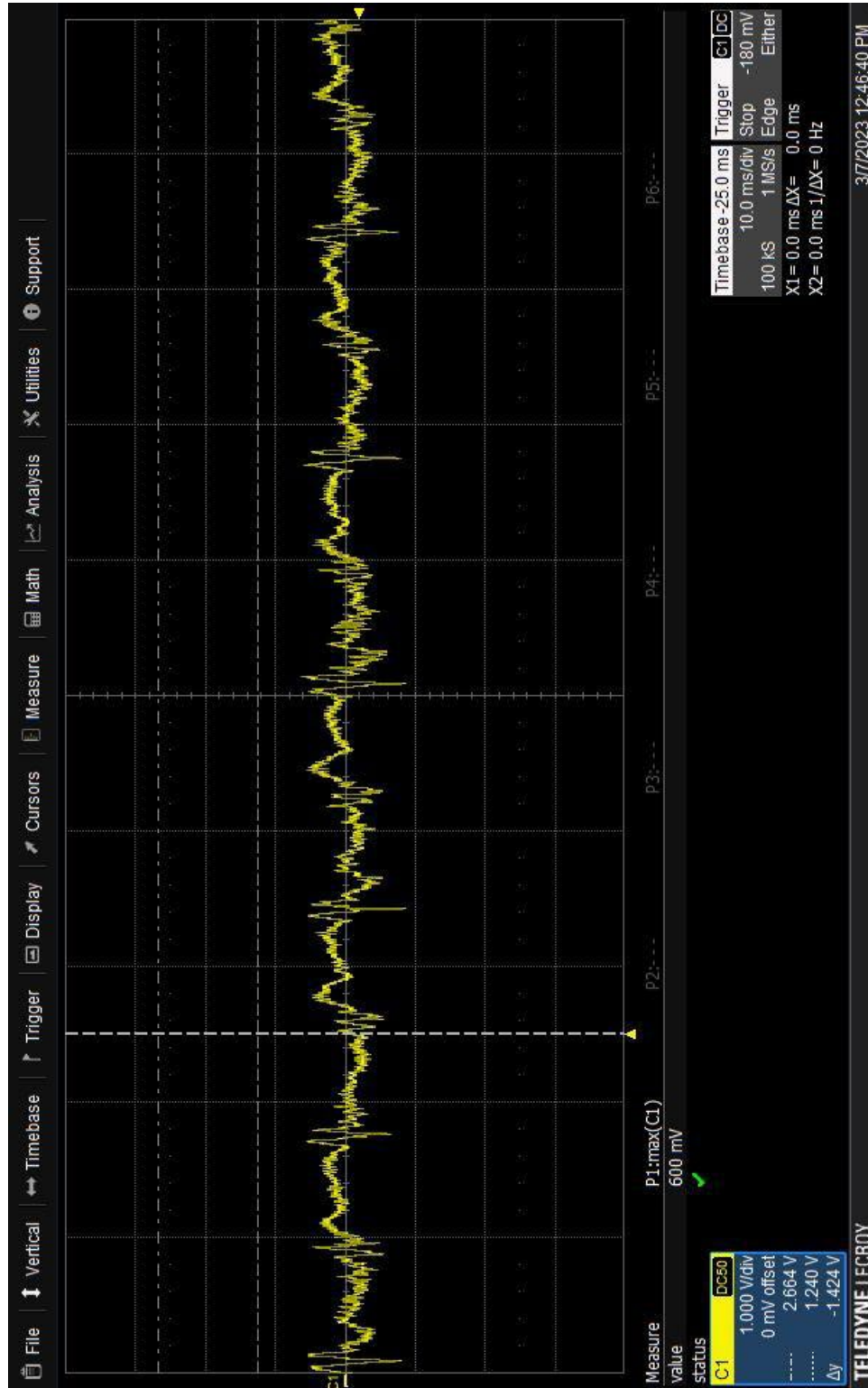
15 Sol-Ark CS116 1MHz AC L1 Line



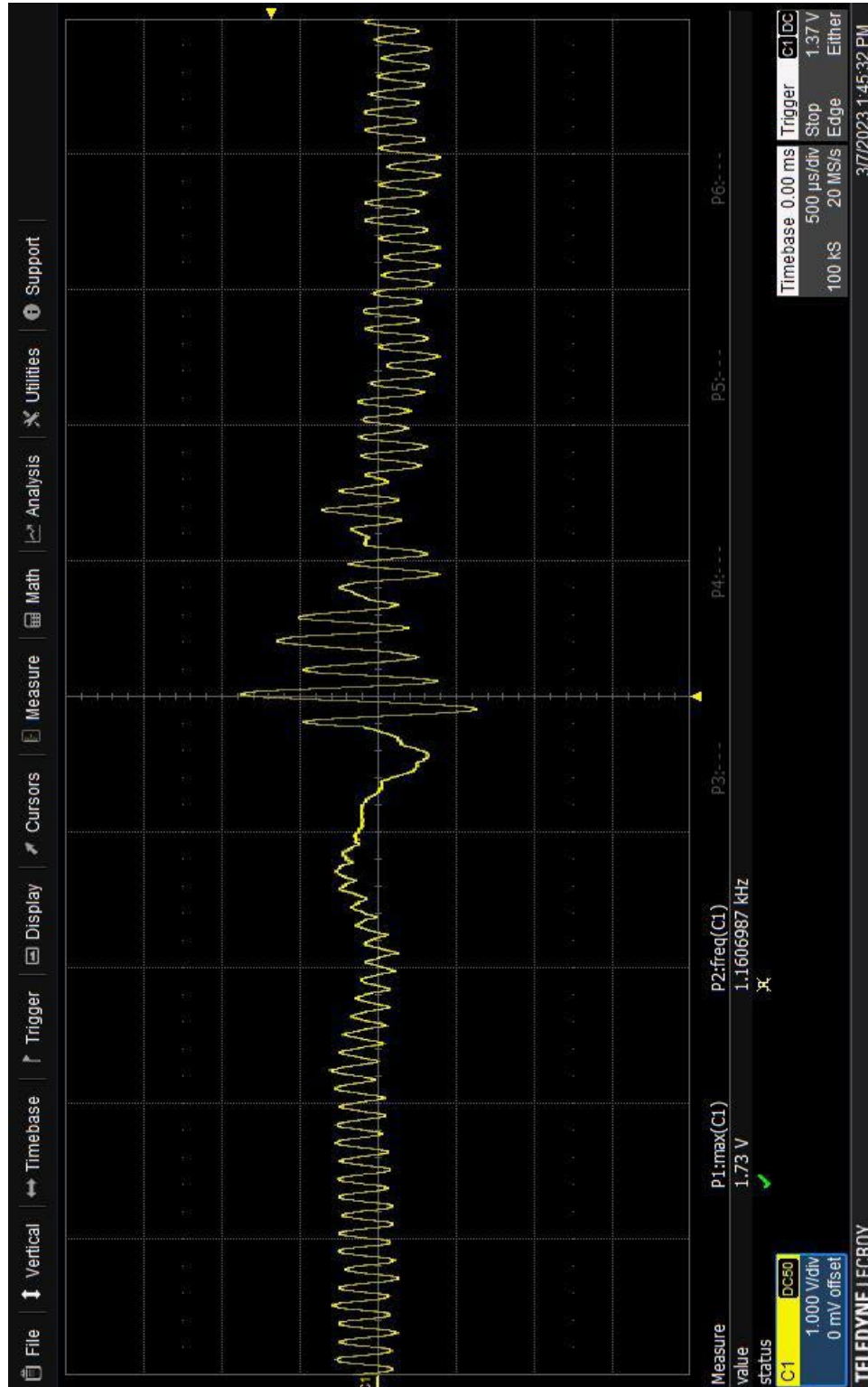
16 Sol-Ark CS116 10MHz AC L1 Line



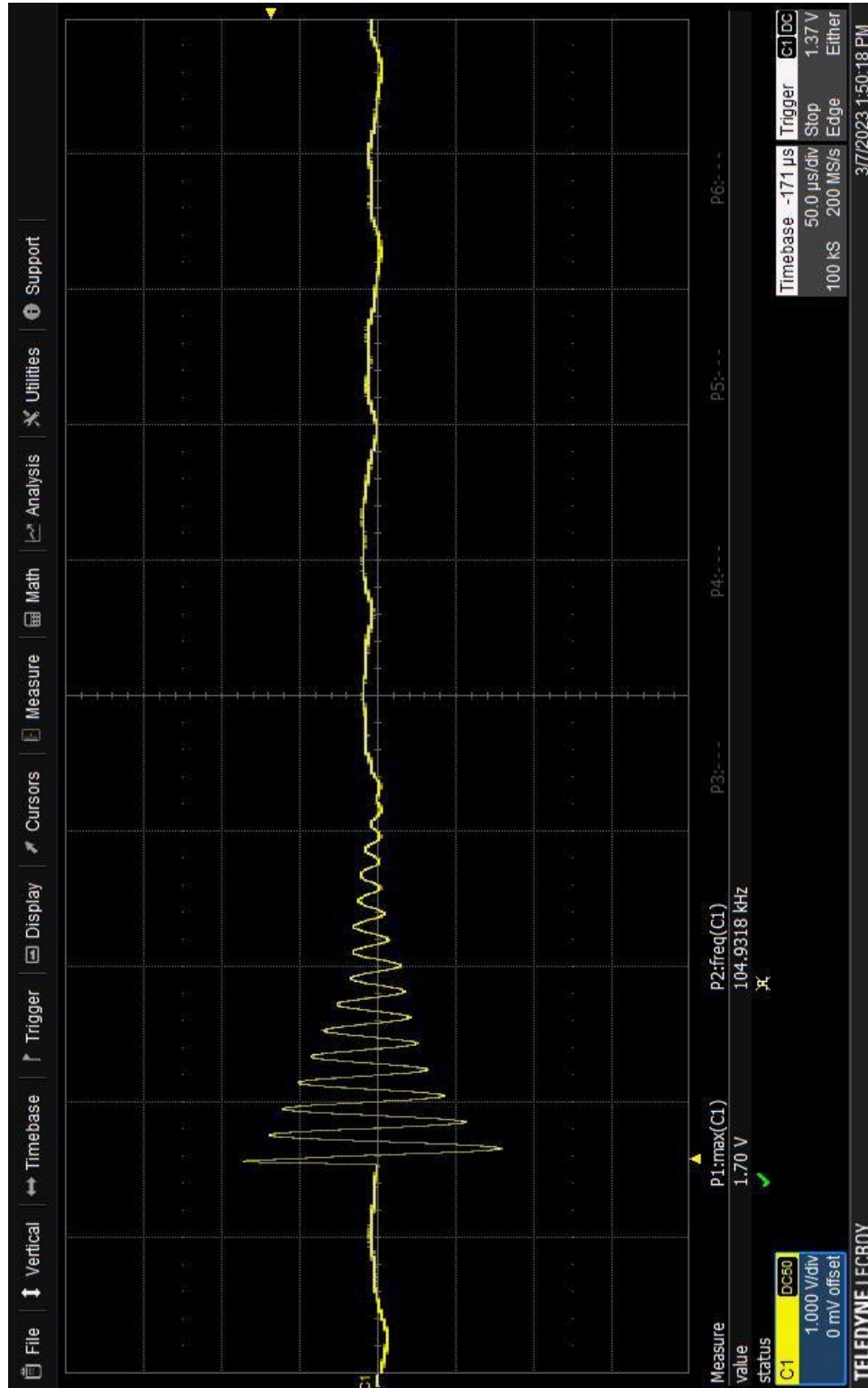
17 Sol-Ark CS116 30MHz AC L1 Line



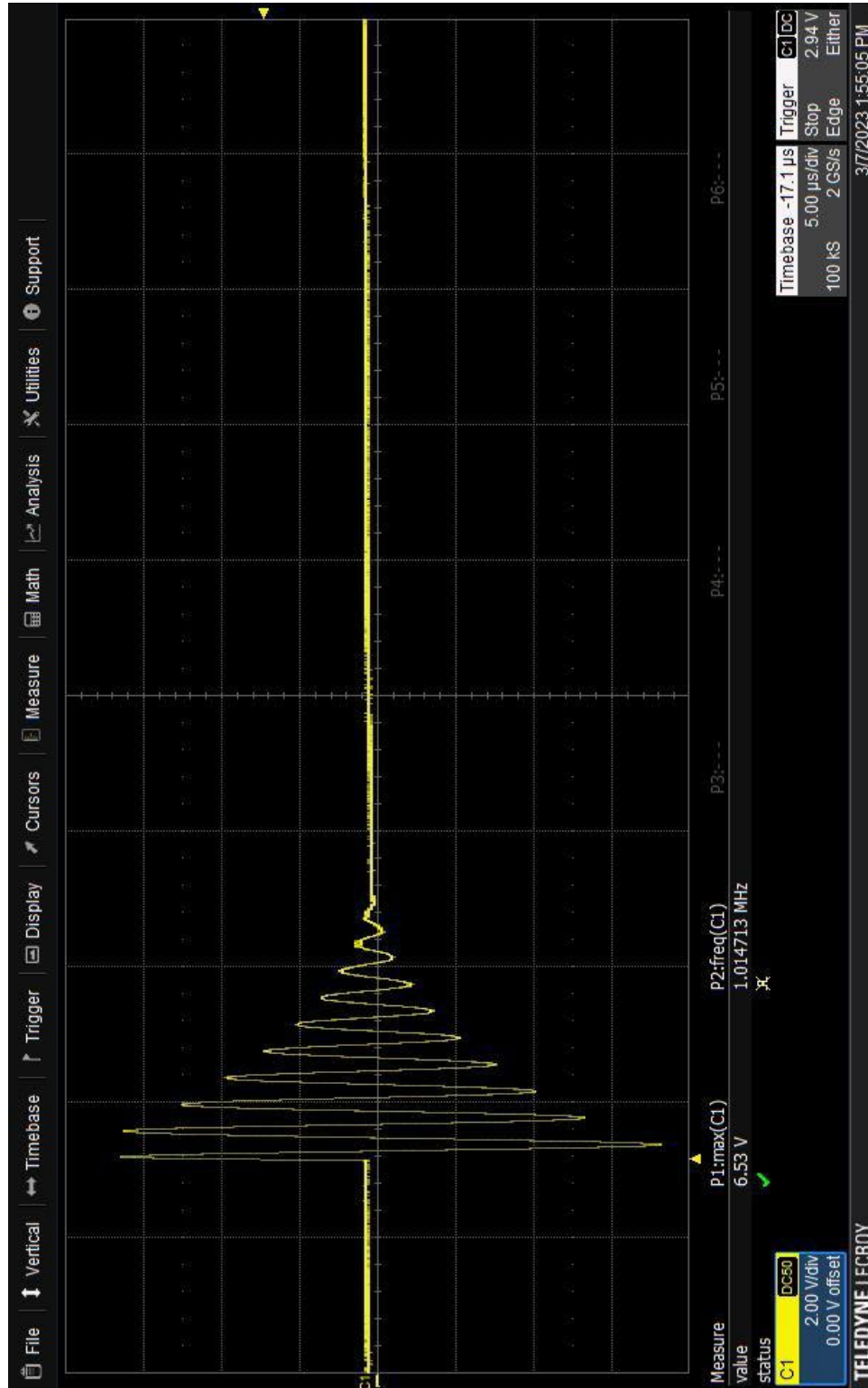
18 Sol-Ark CS116 100MHz AC L1 Line



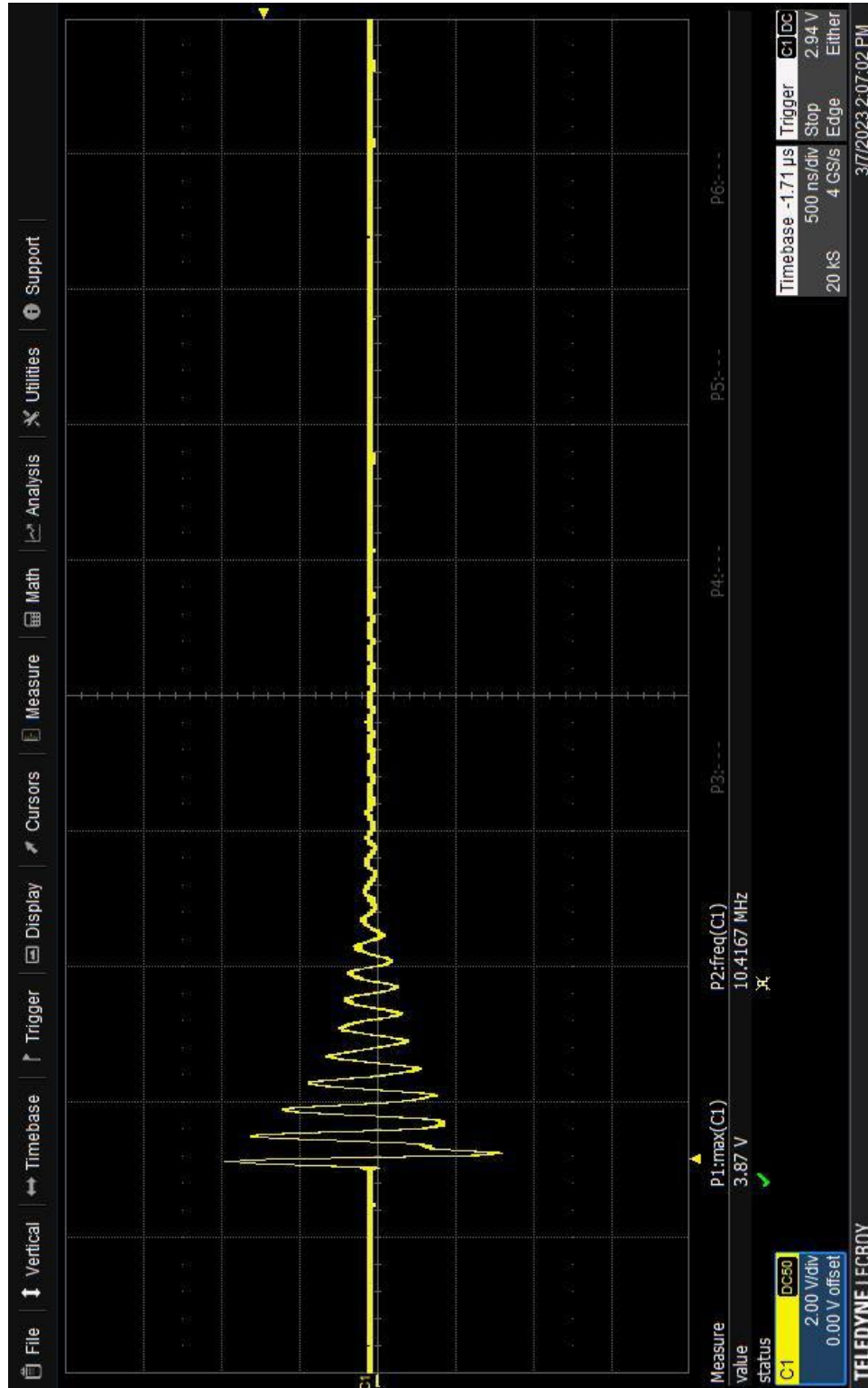
19 Sol-Ark CS116 10kHz AC L2 Line



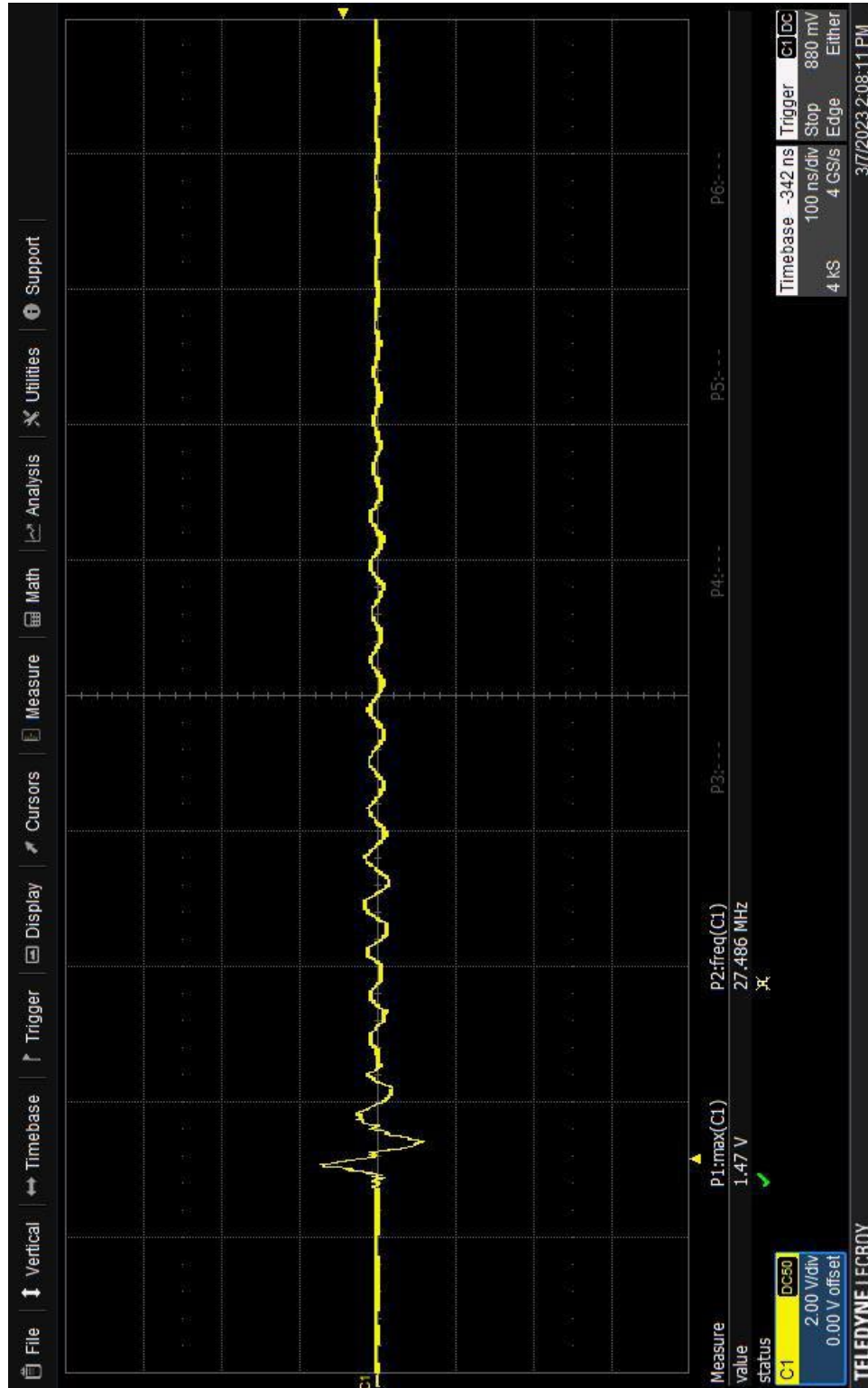
20 Sol-Ark CS116 100kHz AC L2 Line



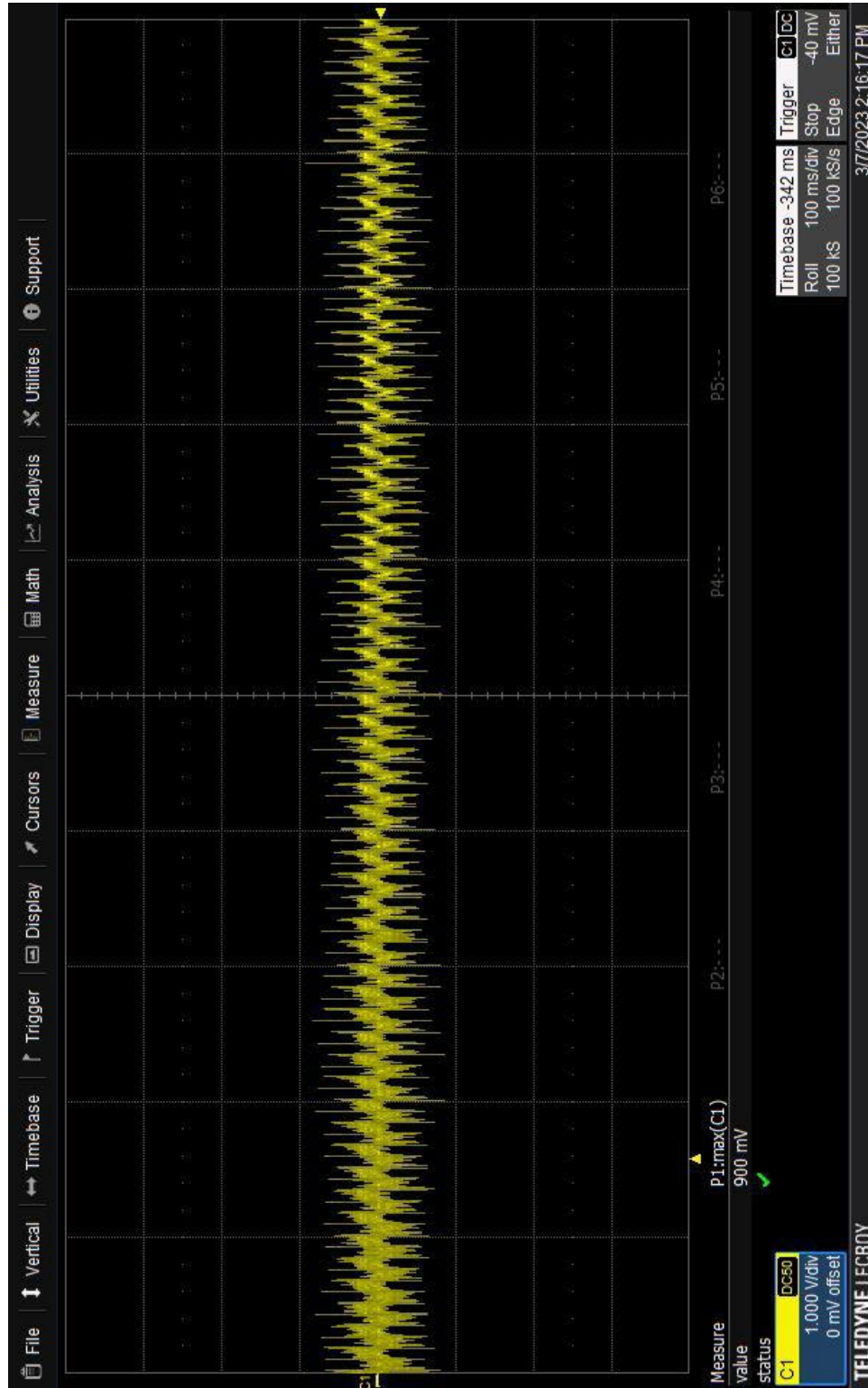
21 Sol-Ark CS116 1MHz AC L2 Line



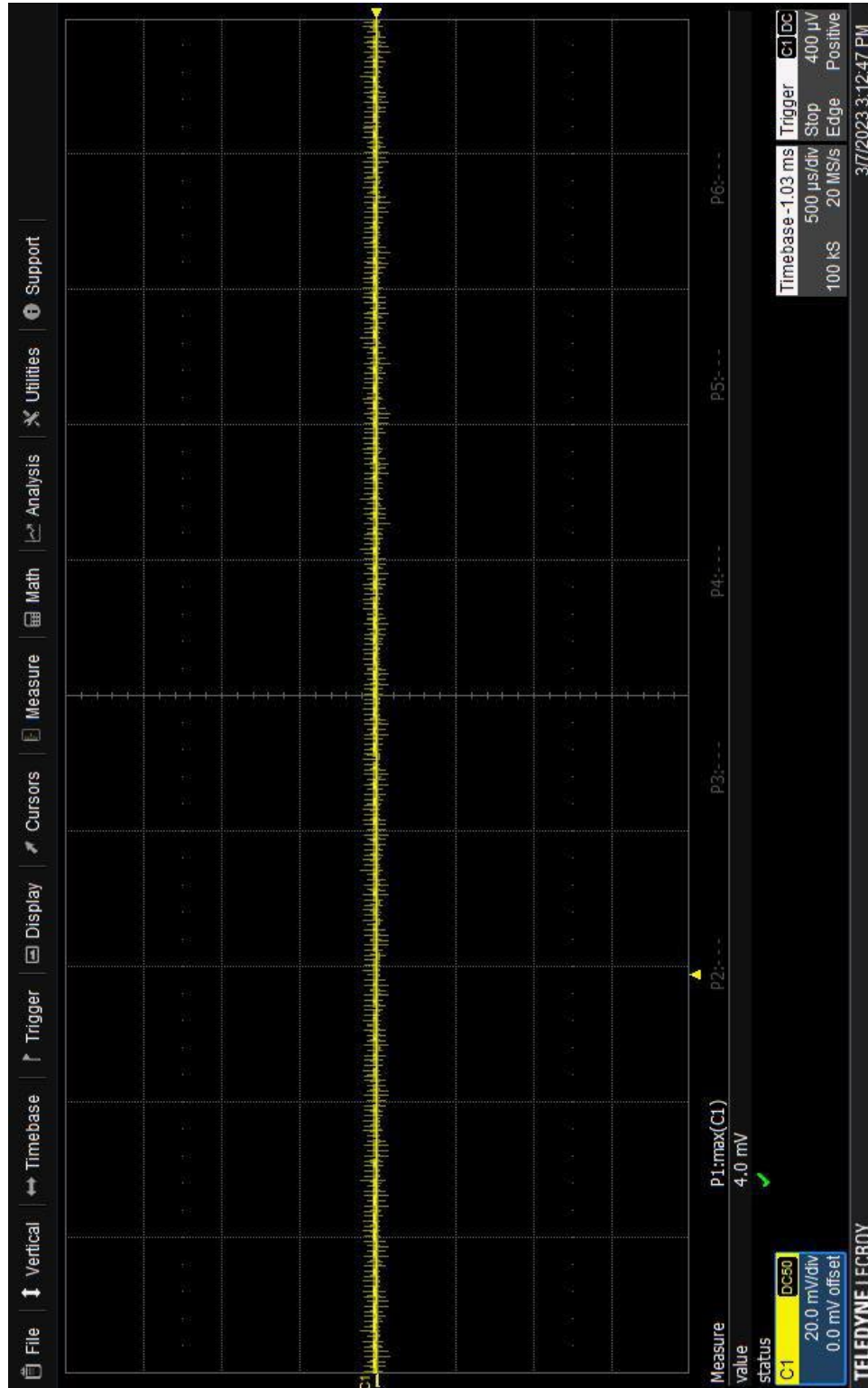
22 Sol-Ark CS116 10MHz AC L2 Line



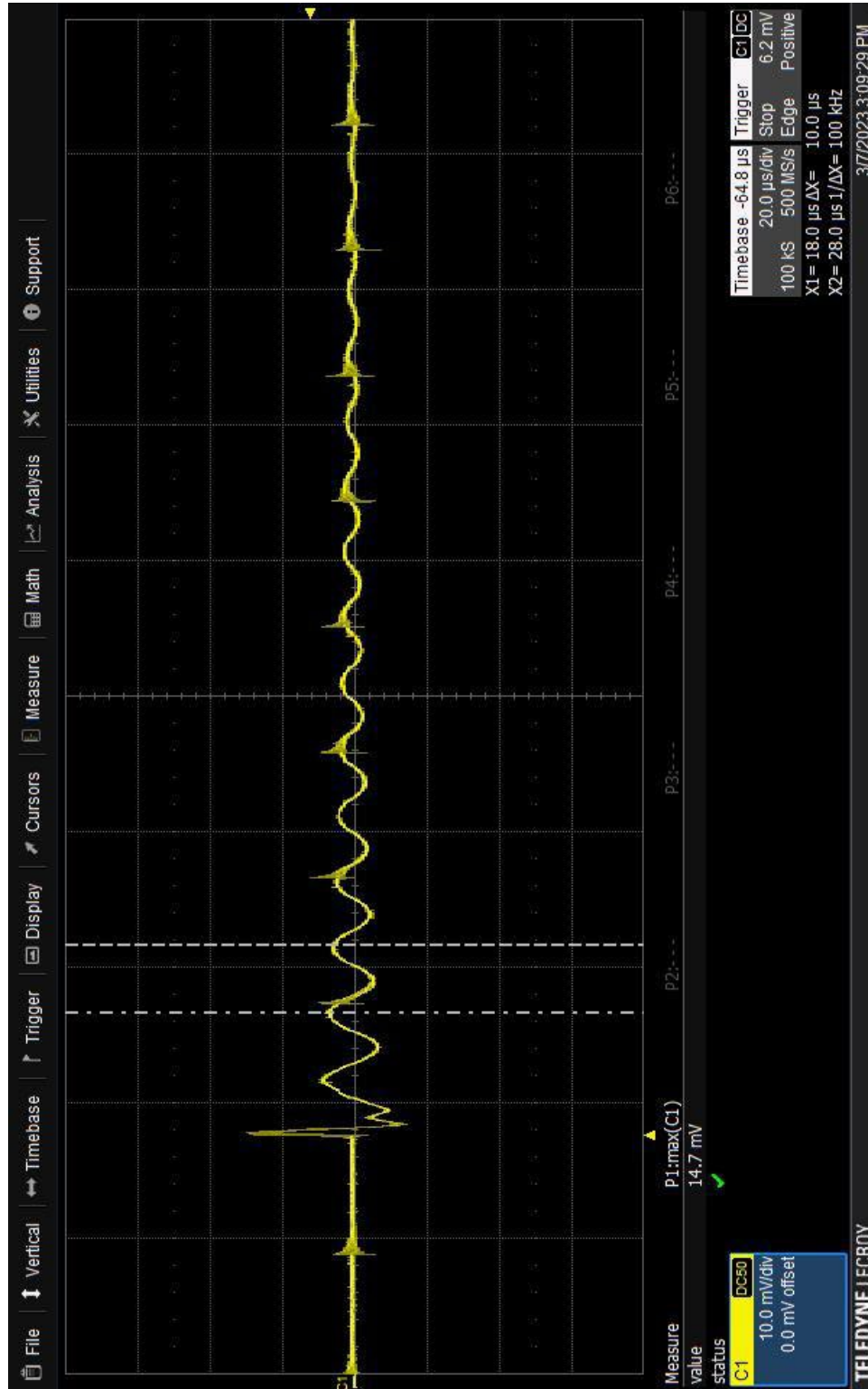
23 Sol-Ark CS116 30MHz AC L2 Line



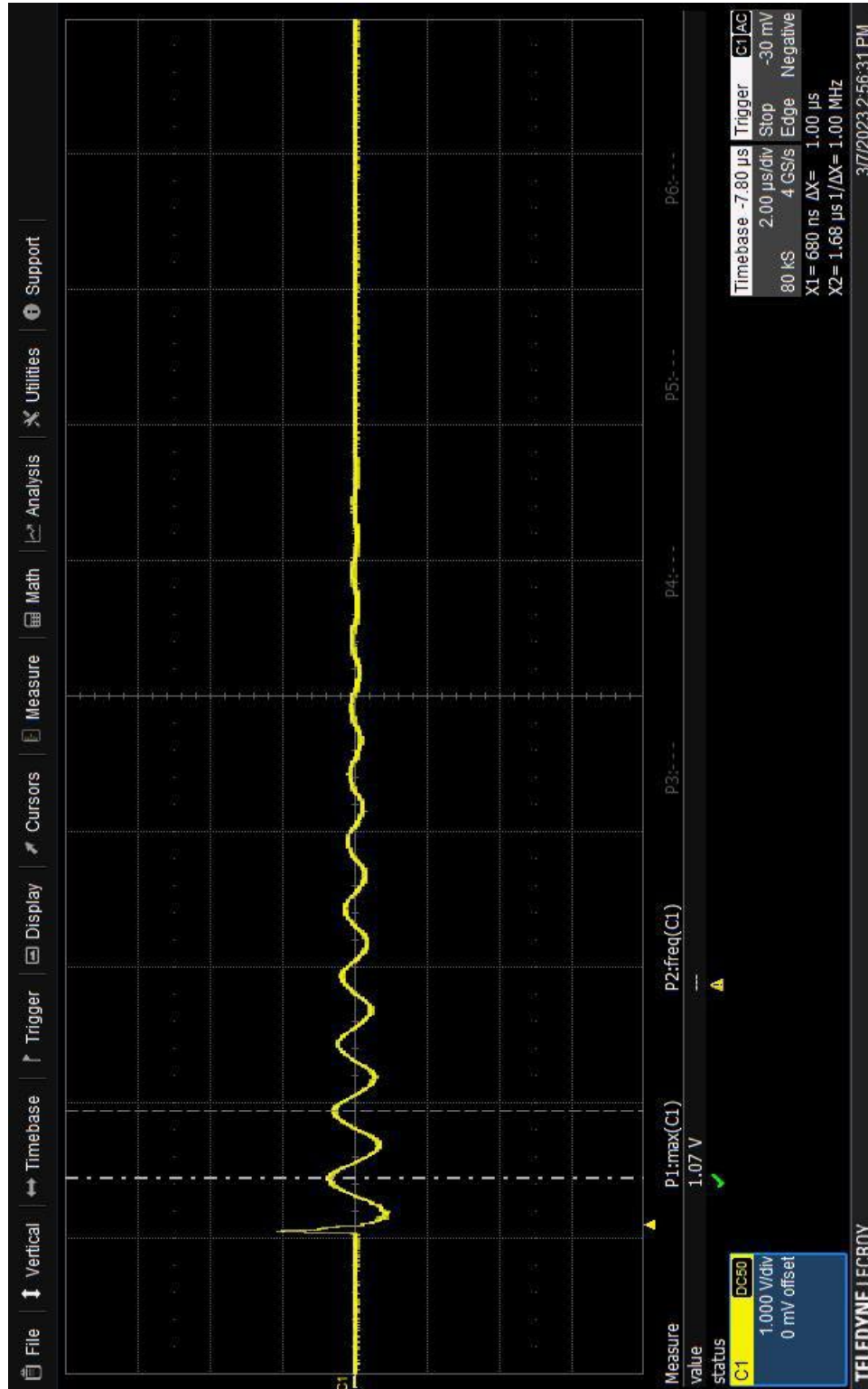
24 Sol-Ark CS116 100MHz AC L2 Line



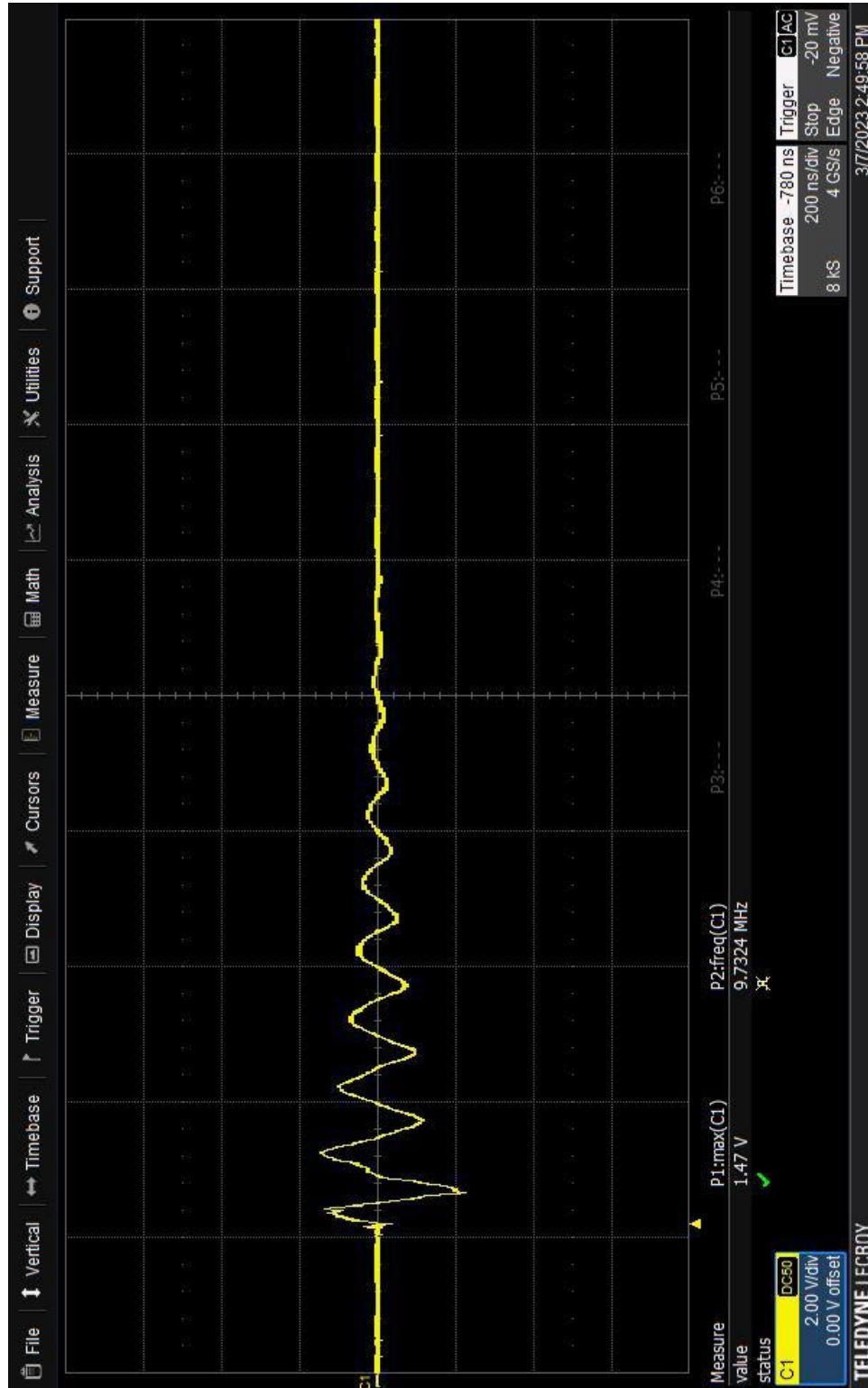
25 Sol-Ark CS116 10kHz DC Bundle Line



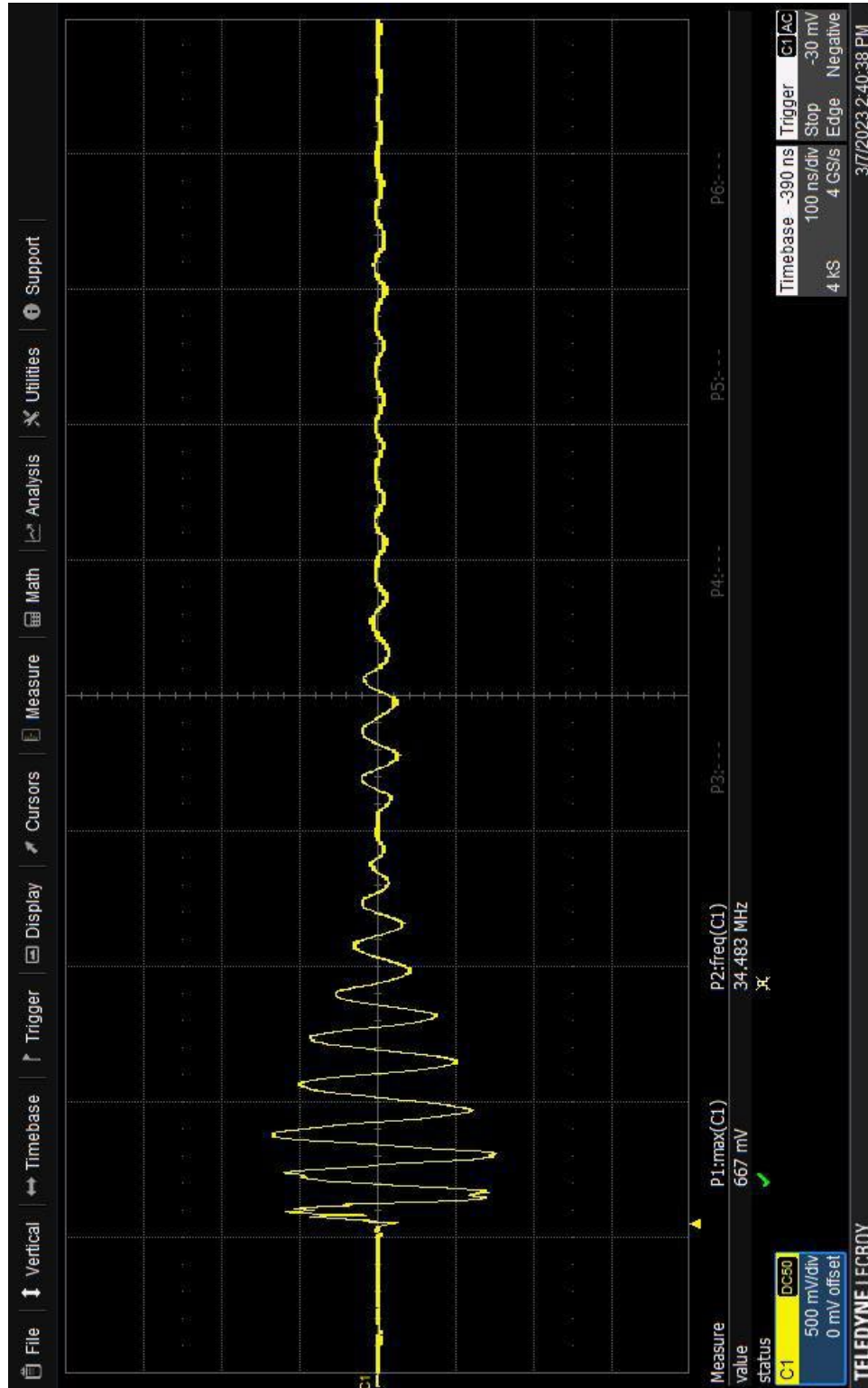
26 Sol-Ark CS116 100kHz DC Bundle Line



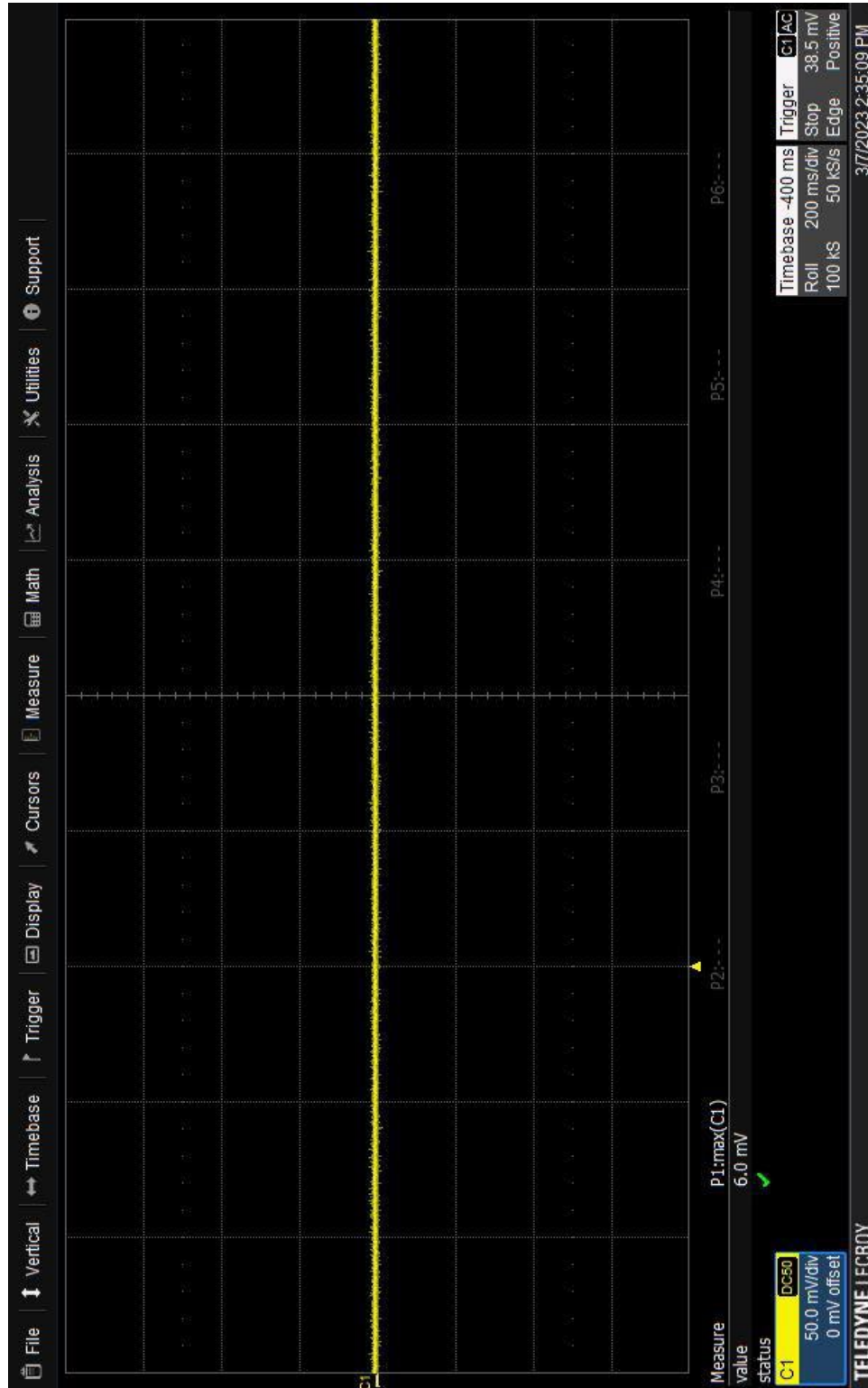
27 Sol-Ark CS116 1MHz DC Bundle Line



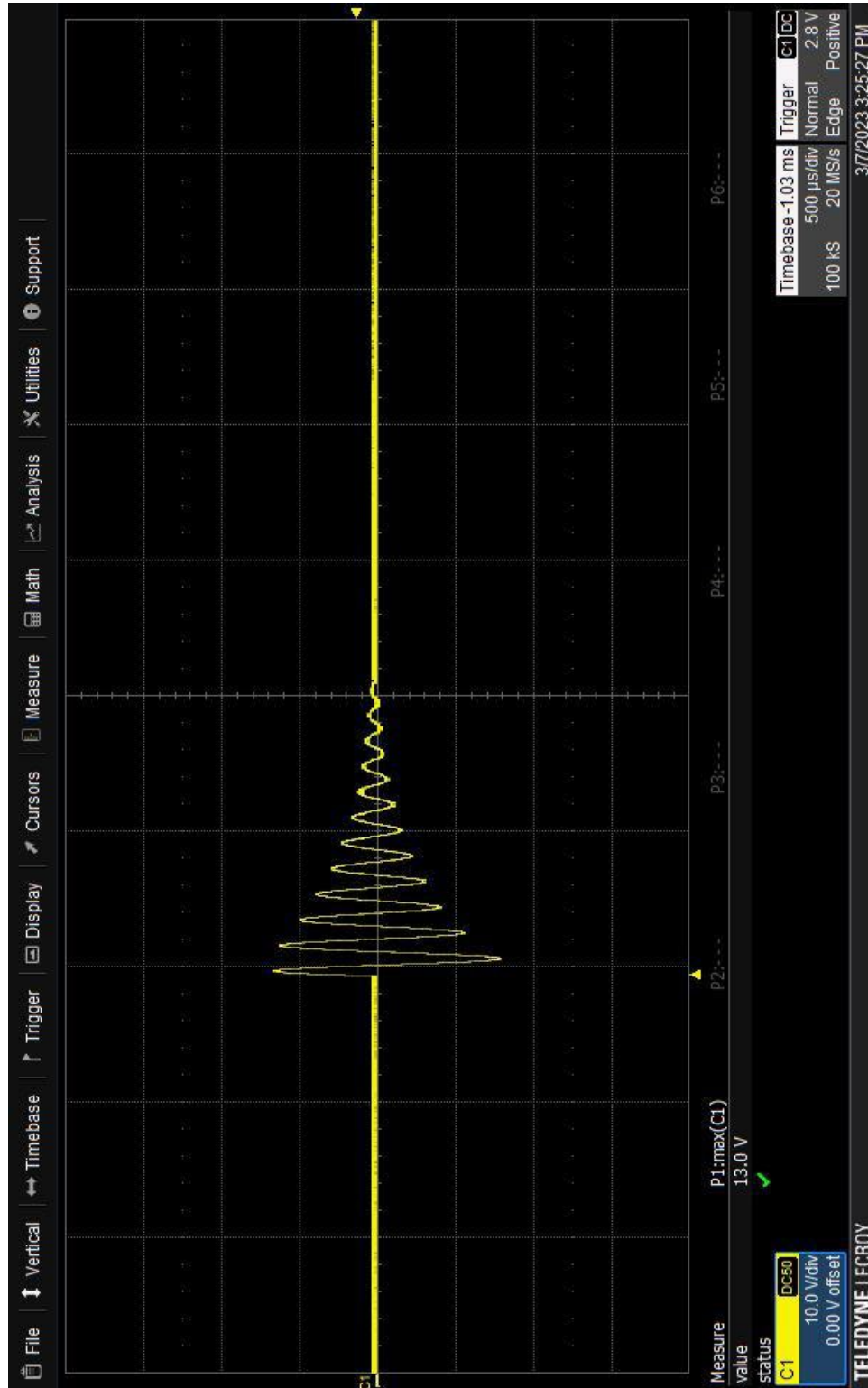
28 Sol-Ark CS116 10MHz DC Bundle Line



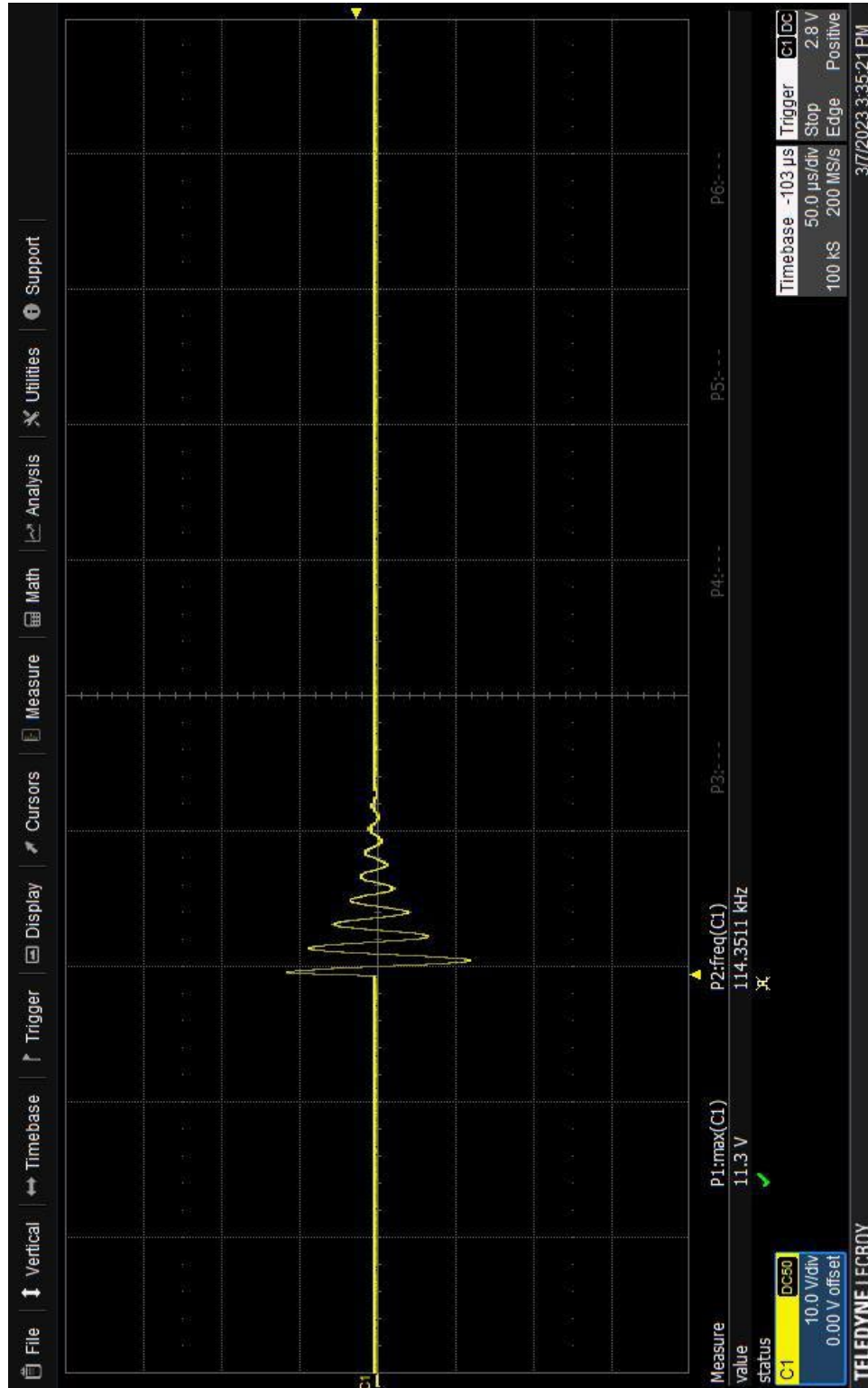
29 Sol-Ark CS116 30MHz DC Bundle Line



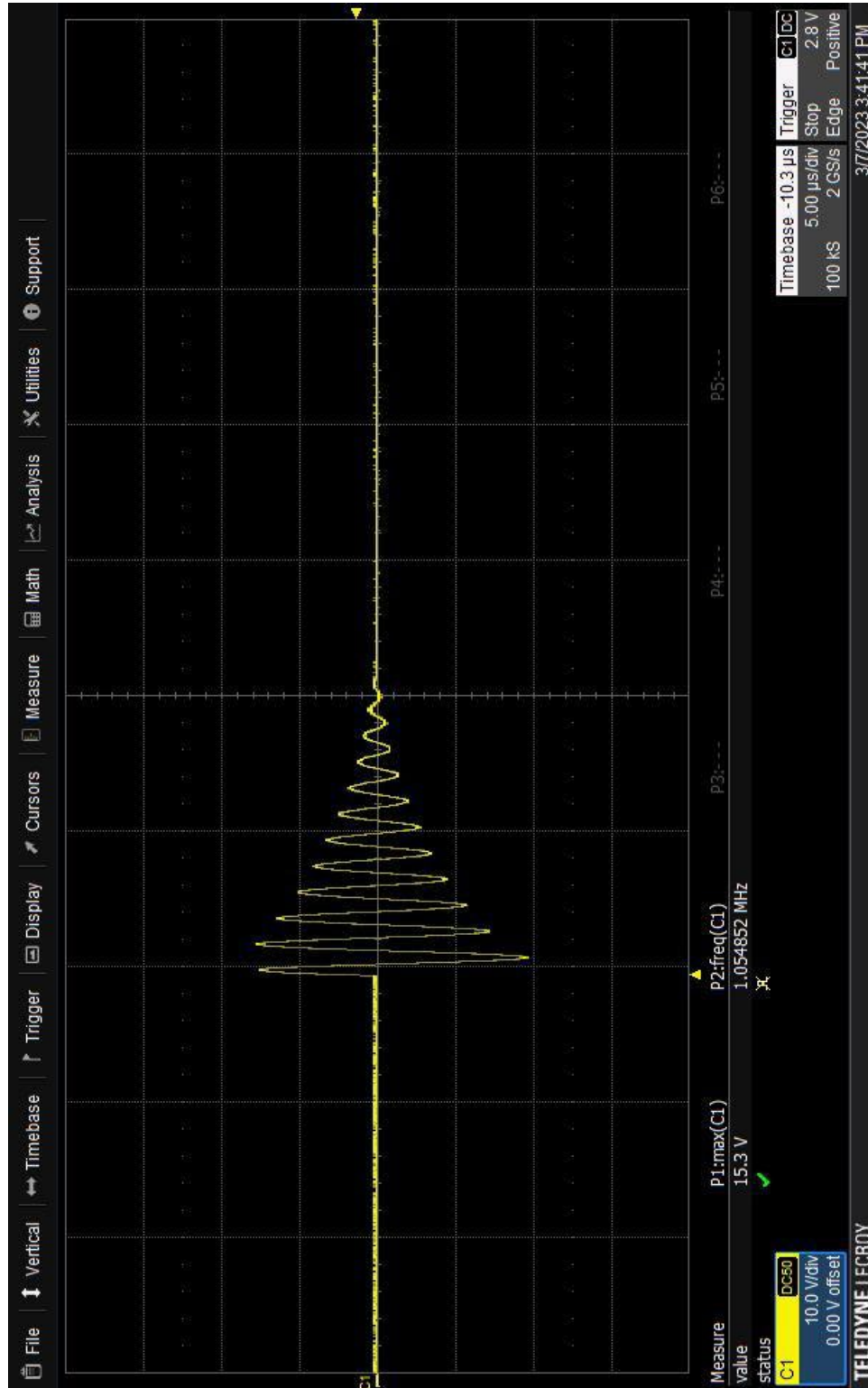
30 Sol-Ark CS116 100MHz DC Bundle Line



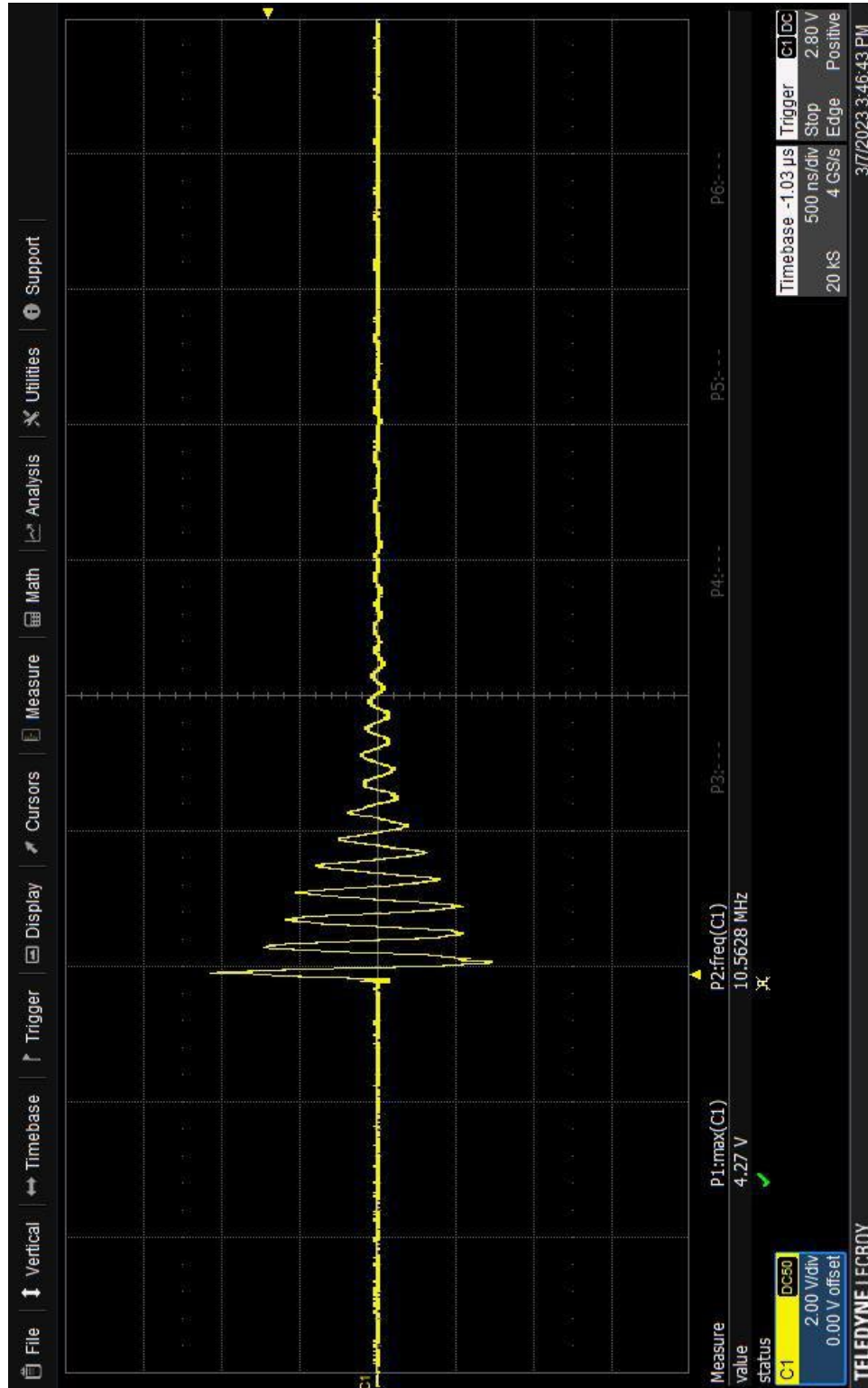
31 Sol-Ark CS116 10kHz DC High Line



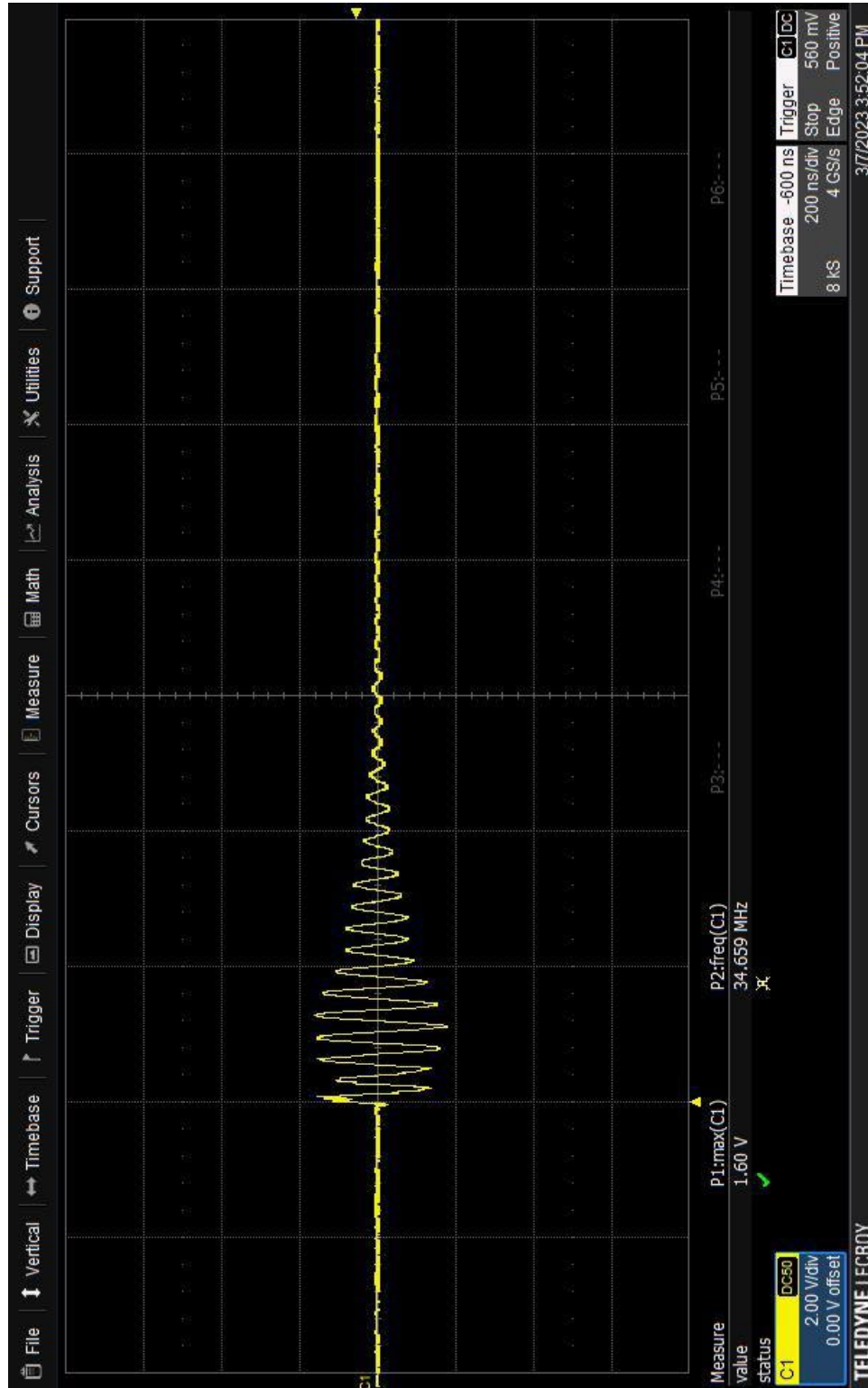
32 Sol-Ark CS116 100kHz DC High Line



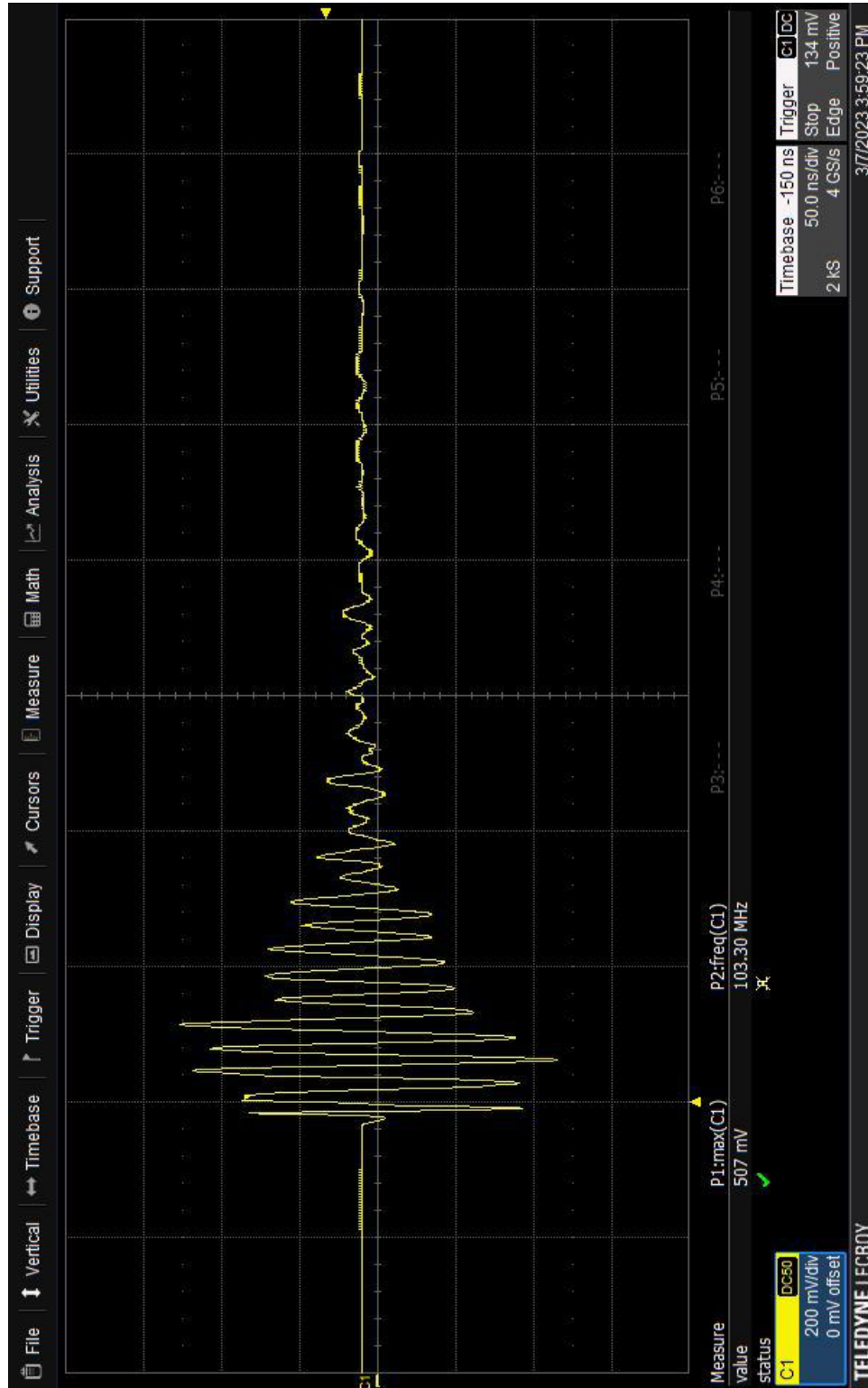
33 Sol-Ark CS116 1MHz DC High Line



34 Sol-Ark CS116 10MHz DC High Line



35 Sol-Ark CS116 30MHz DC High Line



36 Sol-Ark CS116 100MHz DC High Line



5.2.6 Test Equipment List

Table 5.2-1: CS116 Test Equipment List

Asset Number	Asset Type	Manufacturer	Model	Calibrated	Due
WC042494	Chamber (EMI, Semi-Anechoic)	ETS-Lindgren	CH 1 (S201 8X8)	NCR	NCR
WC042177	Oscilloscope (Digital)	LeCroy	WS3022	09/28/2022	09/28/2023
WC042230	Meter (Hygrometer)	Extech Instruments	445702	12/02/2022	12/02/2023
WC043253	Measurement Tools (Tape Measure)	Keson	PGT18M25V	02/23/2023	02/23/2025
WC049968	Network (LISN)	Fischer Custom Communications	FCC-LISN-50-15-1-01-MS462E	08/16/2022	08/16/2023
WC049971	Network (LISN)	Fischer Custom Communications	FCC-LISN-50-15-1-01-MS462E	08/16/2022	08/16/2023
WC049996	Network (LISN)	Fischer Custom Communications	FCC-LISN-50-15-1-01-MS462E	01/27/2023	01/27/2024
WC059964	Probe (Current)	Pearson Electronics	8590C	08/24/2021	08/24/2023
WC077720	Generator (EFT)	EMC-Partner	MIL-3000	04/12/2022	04/12/2023

Calibration Abbreviations

CAL: Calibration

NCR: No Calibration Required

5.3 CS117

5.3.1 Test Procedure

The EUT was tested to .

5.3.2 Test Result

Test Result: Conducted Susceptibility per MIL-STD-461G was performed on the EUT. During testing, the EUT showed no signs of susceptibility, and no deviations were noted. The EUT was compliant with CS117.



5.3.3 Test Datasheets



DATA SHEET

NTS Project No.: PR169184

Start Date: 03/09/2023

Customer: Sol-Ark Temperature: 71.6°F Humidity: 29%
EUT: 15K-2P-N System Measurement Point: See Test Points below
Model No.: Limitless 15KV-LV Interference Signal: See Applied Level
Serial No.: NTS-001 Frequency Range: N/A

Test Title CS117, Conducted Susceptibility, Lightning Induced Transients per MIL-STD-461G

Waveform	Polarity	Type	Meets Limit		Reached First: V _L / I _r	Test Level Applied	Test Levels	Comments / Test Point
			Yes	No				
WF1	Positive	Multiple Stroke	X		It=180A/Vl=280V	It=600A	180A	AC Bundle
WF1	Negative	Multiple Stroke	X		It= -180A/Vl= -288V	It= -600A	-180A	AC Bundle
WF2	Positive	Multiple Stroke	X		Vl=308V/Il= 24A	Vl=300V	308V	AC Bundle
WF2	Negative	Multiple Stroke	X		Vl=-308V/ Il= -21.6A	Vl=-300V	-308V	AC Bundle
WF3 (1 MHz)	Positive	Multiple Stroke	X		Vt=604V/Il=21.6A	Vt=600V	604V	AC Bundle
WF3 (1 MHz)	Negative	Multiple Stroke	X		Vt=-604V/Il= -20.4A	Vt= -600V	-604V	AC Bundle
WF3 (1 MHz)	Positive	Multiple Burst	X		Il=6A/Vl=152V	Vt=360V	6A	AC Bundle
WF3 (1 MHz)	Negative	Multiple Burst	X		Il= -6A/Vl= -152V	Vt= -360V	-6A	AC Bundle
WF3 (10 MHz)	Positive	Multiple Stroke	X		Vt=648V/Il=6.72A	Vt=360V	648V	AC Bundle
WF3 (10 MHz)	Negative	Multiple Stroke	X		Vl= -600v/Il= -8.0A	Vt= -360V	-600V	AC Bundle
WF3 (10 MHz)	Positive	Multiple Burst	X		Vt=360V/Il=5.12A	Vt=360V	360V	AC Bundle
WF3 (10 MHz)	Negative	Multiple Burst	X		Vt= -360V/Il= -4.48A	Vt= -360V	-360V	AC Bundle

Notice of Deviation: N/A

Tested By: M. Tillery Date: 03/16/2023
Technician

Witness: N/A

Approved: Jacob Martel Date: 4/3/2023
Project Engineer



DATA SHEET

NTS Project No.: PR169184

Start Date: 03/09/2023

Customer: Sol-Ark Temperature: 71.6°F Humidity: 29%
EUT: 15K-2P-N System Measurement Point: See Test Points below
Model No.: Limitless 15KV-LV Interference Signal: See Applied Level
Serial No.: NTS-001 Frequency Range: N/A

Test Title CS117, Conducted Susceptibility, Lightning Induced Transients per MIL-STD-461G

Waveform	Polarity	Type	Meets Limit		Reached First: VI / It	Test Level Applied	Test Levels	Comments / Test Point
			Yes	No				
WF1	Positive	Multiple Stroke	X		VI=304V/II=64.8A	It=600A	304V	AC L1 & L2
WF1	Negative	Multiple Stroke	X		VI= -304V/II= -61.2A	It= -600A	-304V	AC L1 & L2
WF2	Positive	Multiple Stroke	X		Vt=308V/II=75A	VI=300V	308V	AC L1 & L2
WF2	Negative	Multiple Stroke	X		Vt= -308V/II= -71A	VI=-300V	-308V	AC L1 & L2
WF3(1Mhz)	Positive	Multiple Stroke	X		Vt=636V/II=16.8A	VT=600V	636V	AC L1 & L2
WF3(1Mhz)	Negative	Multiple Stroke	X		Vt= -652V/II= -13.2A	Vt= -600V	-652V	AC L1 & L2
WF3(1Mhz)	Positive	Multiple Burst	X		II=6A/ VI=168V	Vt=360V	6A	AC L1 & L2
WF3(1Mhz)	Negative	Multiple Burst	X		II= -6.4A/VI= -244V	Vt= -360V	-6.4A	AC L1 & L2
WF3(10Mhz)	Positive	Multiple Stroke	X		VI=604V/II=6.4A	Vt=360V	604V	AC L1 & L2
WF3(10Mhz)	Negative	Multiple Stroke	X		VI= -604V/II= -9.6A	Vt= -360V	-604V	AC L1 & L2
WF3(10Mhz)	Positive	Multiple Burst	X		Vt=360V/II=4.8A	Vt=360V	360V	AC L1 & L2
WF3(10Mhz)	Negative	Multiple Burst	X		Vt= -360V/II= -3.52A	Vt= -360V	-360V	AC L1 & L2

Notice of Deviation: N/A

Tested By: M. Tillery Date: 03/16/2023
Technician

Witness: N/A

Approved: Jacob Martel Date: 4/3/2023
Project Engineer



DATA SHEET

NTS Project No.: PR169184

Start Date: 03/09/2023

Customer: Sol-Ark Temperature: 71.6°F Humidity: 29%
EUT: 15K-2P-N System Measurement Point: See Test Points below
Model No.: Limitless 15KV-LV Interference Signal: See Applied Level
Serial No.: NTS-001 Frequency Range: N/A

Test Title CS117, Conducted Susceptibility, Lightning Induced Transients per MIL-STD-461G

Waveform	Polarity	Type	Meets Limit		Reached First: VI / It	Test Level Applied	Test Levels	Comments / Test Point
			Yes	No				
WF1	Positive	Multiple Stroke	X		VI=300V/II=2.24A	VI= 300V	300V	MPPT Bundle
WF1	Negative	Multiple Stroke	X		VI= -300V/II= -1.6A	VI= -300V	-300V	MPPT Bundle
WF2	Positive	Multiple Stroke	X		VI= 300V/II= 1.92A	VI=300V	300V	MPPT Bundle
WF2	Negative	Multiple Stroke	X		VI= -300V/II= -1.6A	VI=-300V	-300V	MPPT Bundle
WF3(1Mhz)	Positive	Multiple Stroke	X		Vt= 600V/II= 1.92A	VT=600V	600V	MPPT Bundle
WF3(1Mhz)	Negative	Multiple Stroke	X		Vt= -600V/II= -1.6A	Vt= -600V	-600V	MPPT Bundle
WF3(1Mhz)	Positive	Multiple Burst	X		Vt= 360V/II=2.24A	Vt=360V	360V	MPPT Bundle
WF3(1Mhz)	Negative	Multiple Burst	X		Vt= -360V/II= -1.6A	Vt= -360V	-360V	MPPT Bundle
WF3(10Mhz)	Positive	Multiple Stroke	X		Vt=600V/ II=2.56A	Vt= 600V	600V	MPPT Bundle
WF3(10Mhz)	Negative	Multiple Stroke	X		Vt= -600V/ II= -1.92A	Vt= -600V	-600V	MPPT Bundle
WF3(10Mhz)	Positive	Multiple Burst	X		Vt= 360V/II=2.24A	Vt=360V	360V	MPPT Bundle
WF3(10Mhz)	Negative	Multiple Burst	X		Vt= -360V/II= -1.6A	Vt= -360V	-360V	MPPT Bundle

Notice of Deviation: N/A

Tested By: M. Tillery Date: 03/16/2023
Technician

Witness: N/A

Approved: Jacob Martel Date: 4/3/2023
Project Engineer



DATA SHEET

NTS Project No.: PR169184

Start Date: 03/09/2023

Customer: Sol-Ark Temperature: 71.6°F Humidity: 29%
EUT: 15K-2P-N System Measurement Point: See Test Points below
Model No.: Limitless 15KV-LV Interference Signal: See Applied Level
Serial No.: NTS-001 Frequency Range: N/A

Test Title CS117, Conducted Susceptibility, Lightning Induced Transients per MIL-STD-461G

Waveform	Polarity	Type	Meets Limit		Reached First: VI / It	Test Level Applied	Test Levels	Comments / Test Point
			Yes	No				
WF1	Positive	Multiple Stroke	X		VI= 300V/II= 1.92A	300V	300V	Load Bundle
WF1	Negative	Multiple Stroke	X		VI= -300V/II= -1.6A	-300V	-300V	Load Bundle
WF2	Positive	Multiple Stroke	X		VI=300V/ II=2.24A	VI=300V	300V	Load Bundle
WF2	Negative	Multiple Stroke	X		VI=-300V/II= -1.6A	VI= -300V	-300V	Load Bundle
WF3(1Mhz)	Positive	Multiple Stroke	X		Vt=600V/ II=1.92A	VT=600V	600V	Load Bundle
WF3(1Mhz)	Negative	Multiple Stroke	X		VI= -612V/II= -1.92A	Vt= -600V	-612V	Load Bundle
WF3(1Mhz)	Positive	Multiple Burst	X		Vt=360V/II=1.92A	Vt=360V	360V	Load Bundle
WF3(1Mhz)	Negative	Multiple Burst	X		Vt= -360V/II= -1.6A	Vt= -360V	-360V	Load Bundle
WF3(10Mhz)	Positive	Multiple Stroke	X		Vt=600V/ II=1.92A	Vt= 600V	600V	Load Bundle
WF3(10Mhz)	Negative	Multiple Stroke	X		Vt= -600V/ II= -1.6A	Vt= -600V	-600V	Load Bundle
WF3(10Mhz)	Positive	Multiple Burst	X		Vt= 360V/II=2.24A	Vt=360V	360V	Load Bundle
WF3(10Mhz)	Negative	Multiple Burst	X		Vt= -360V/II= -1.6A	Vt= -360V	-360V	Load Bundle

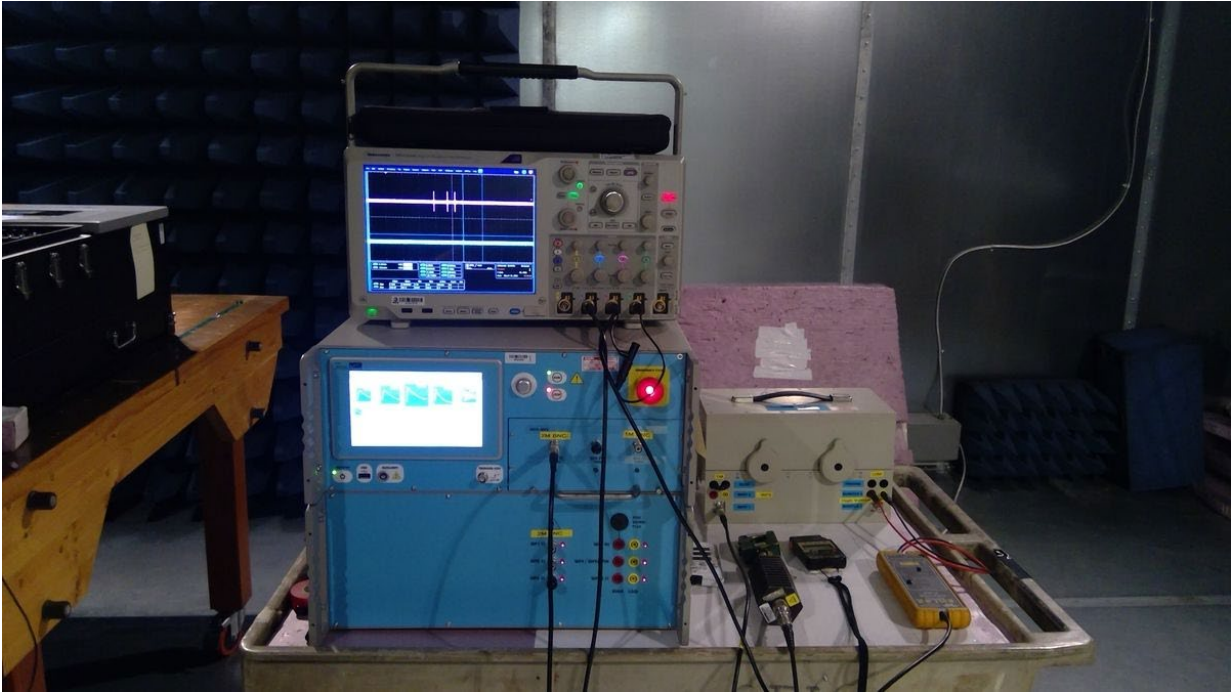
Notice of Deviation: N/A

Tested By: M. Tillery Date: 03/16/2023
Technician

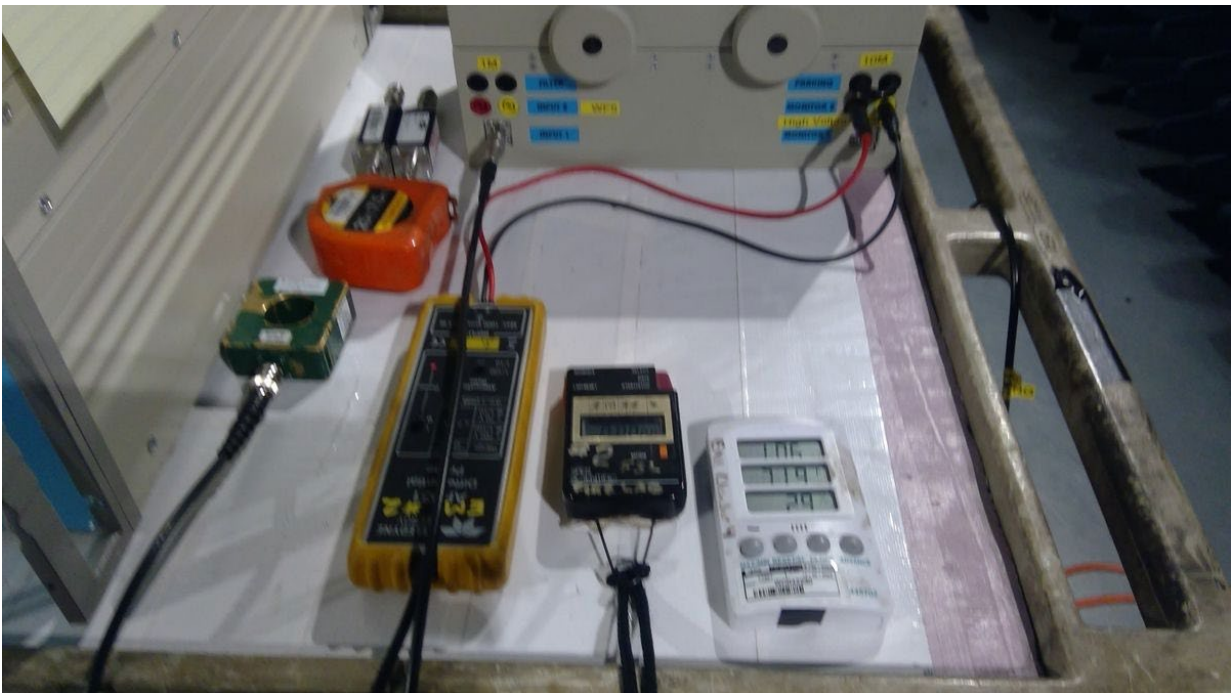
Witness: N/A

Approved: Jacob Martel Date: 4/3/2023
Project Engineer

5.3.4 Test Photographs



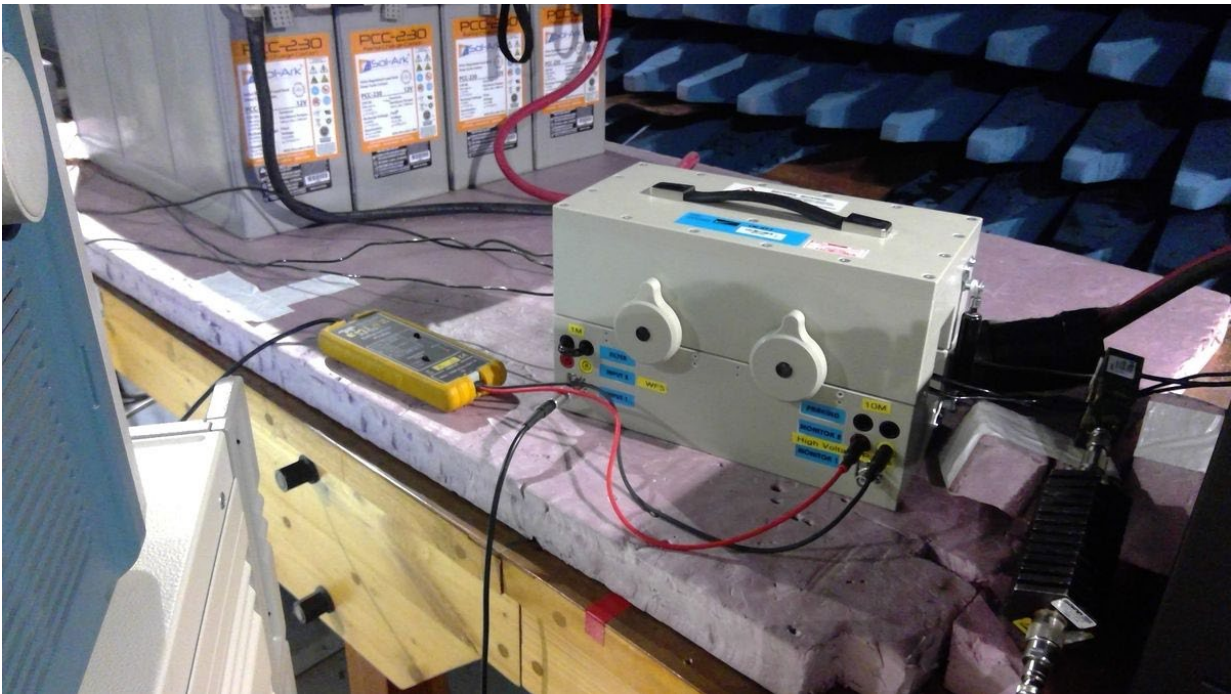
1 CS117 Calibration Setup-Overall View



2 CS117 Calibration Setup-Closeup



3 CS117 Active AC Bundle Testing



4 CS117 Active AC L1 & L2 Testing

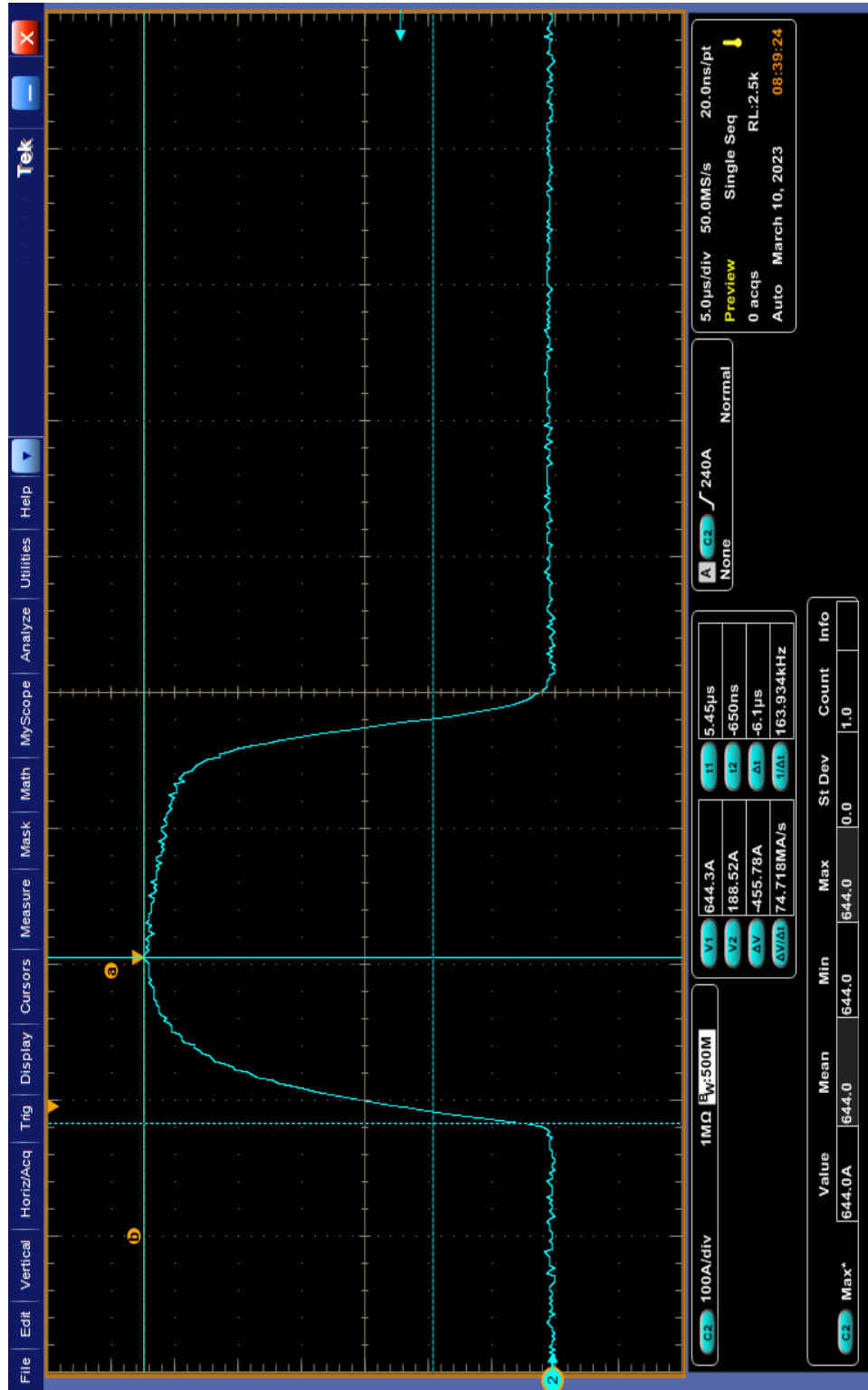


5 CS117 Active Load Bundle Testing

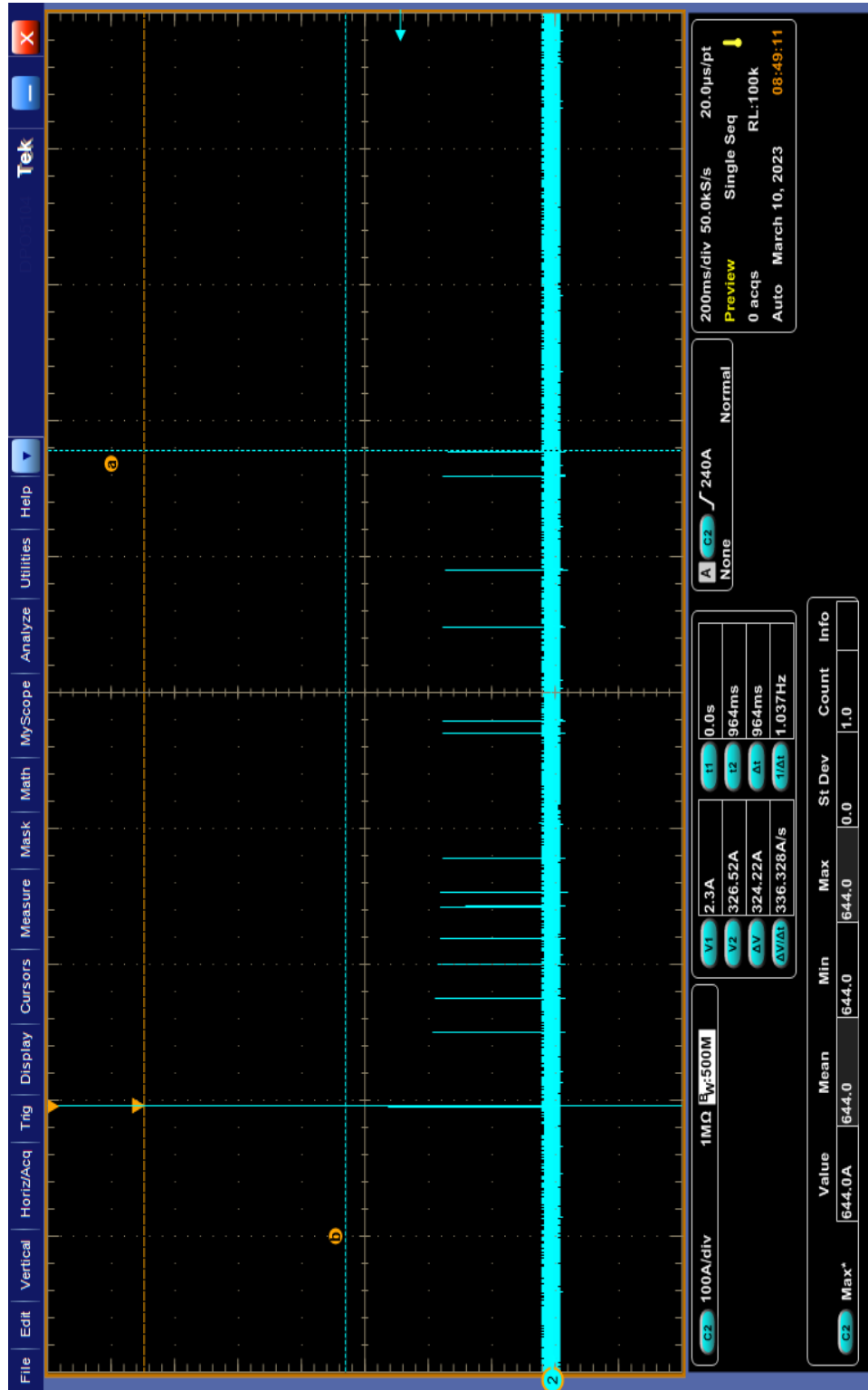


6 CS117 Active Load Testing

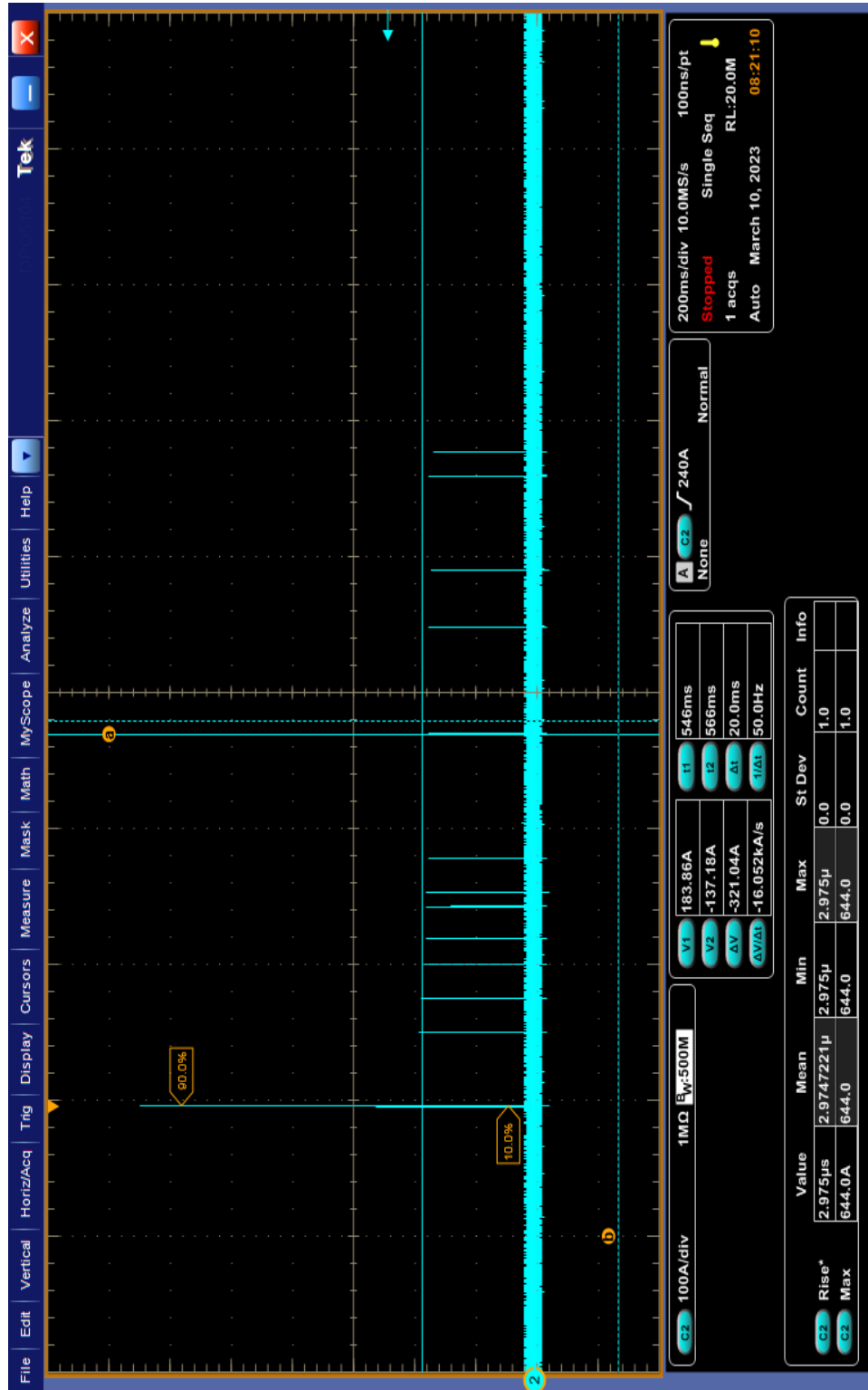
5.3.5 Test Waveforms



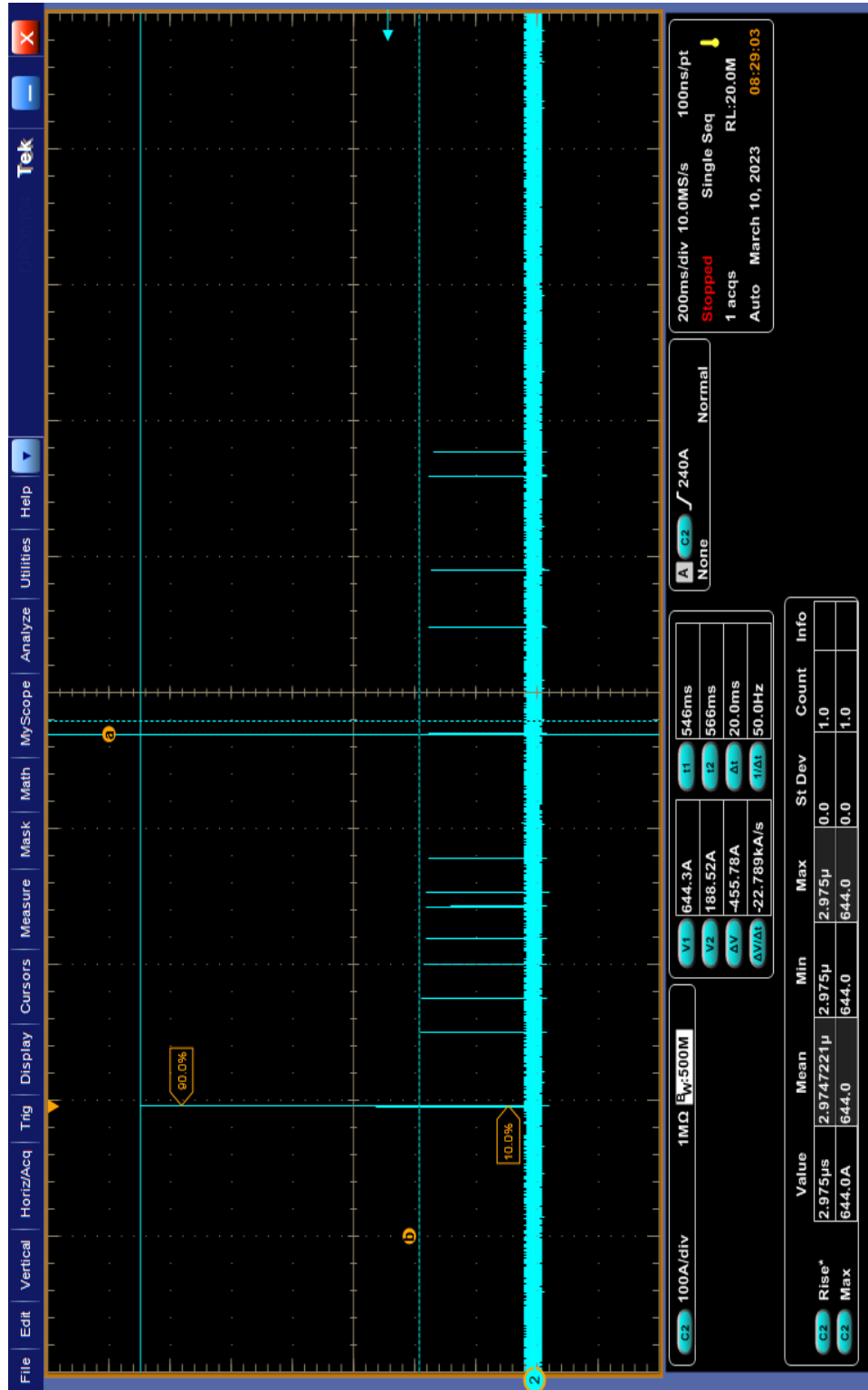
1-WF1 Positive T1



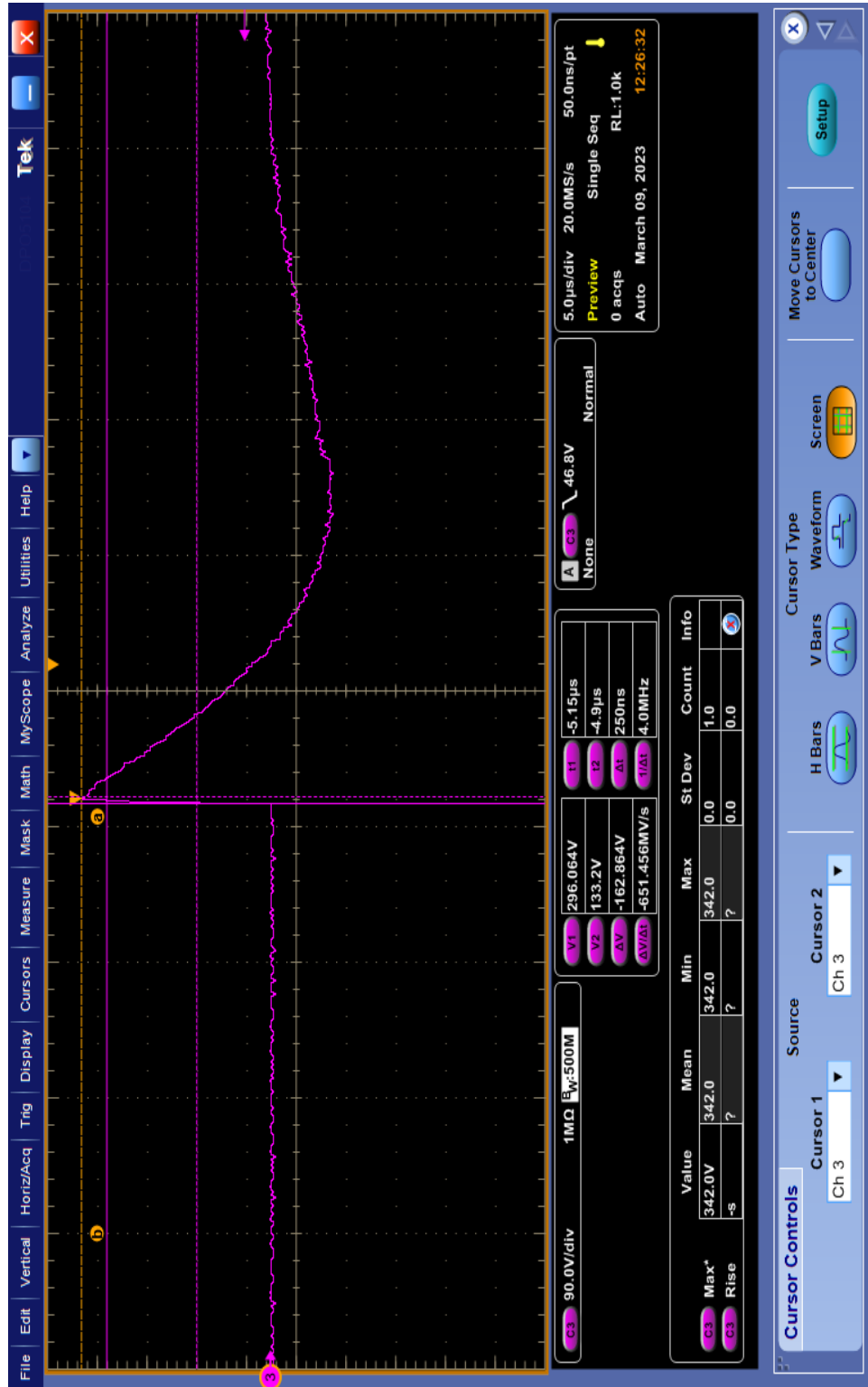
2-WF1 Positive Multistroke Time



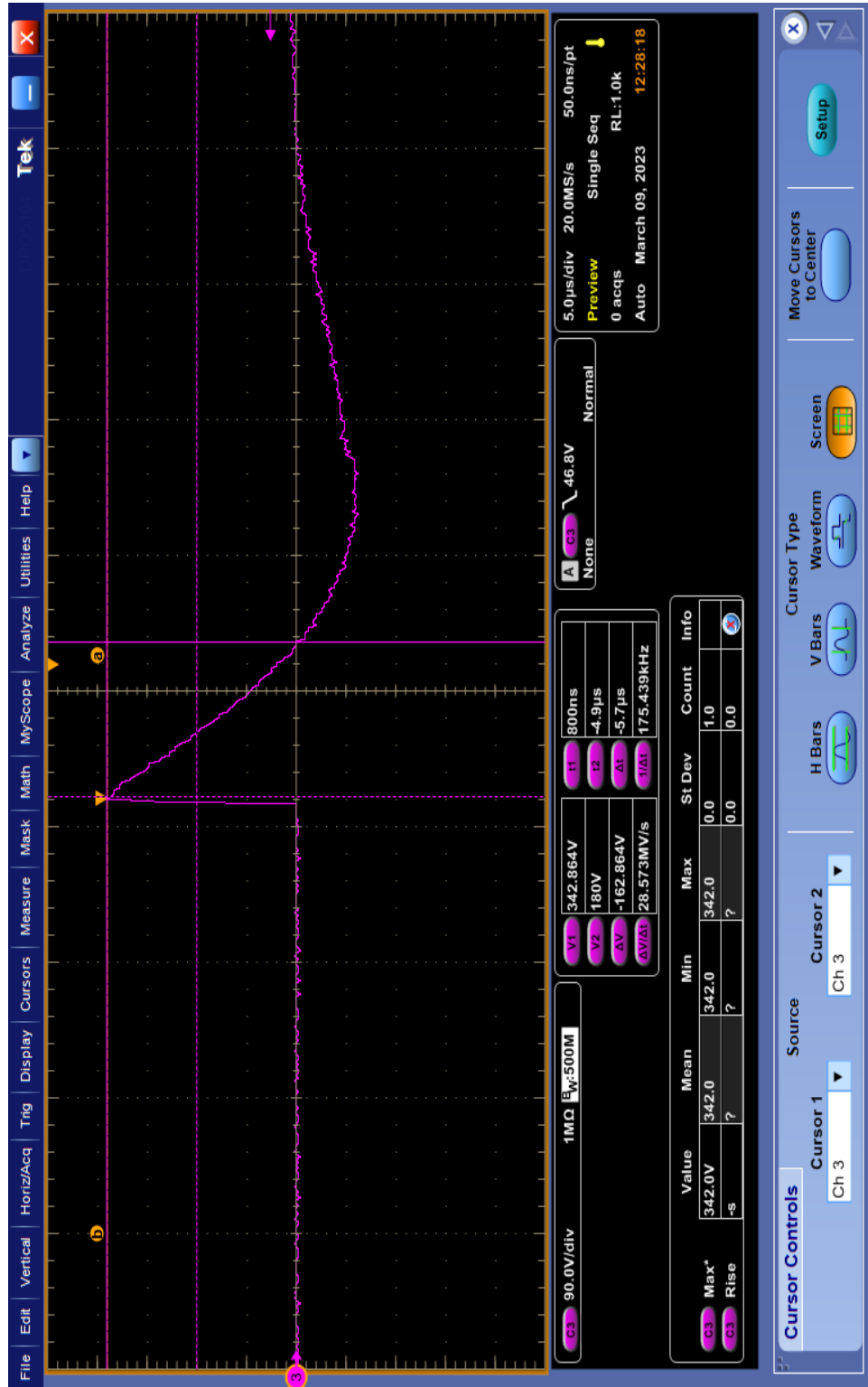
3-WF1 Positive Pulse Spacing



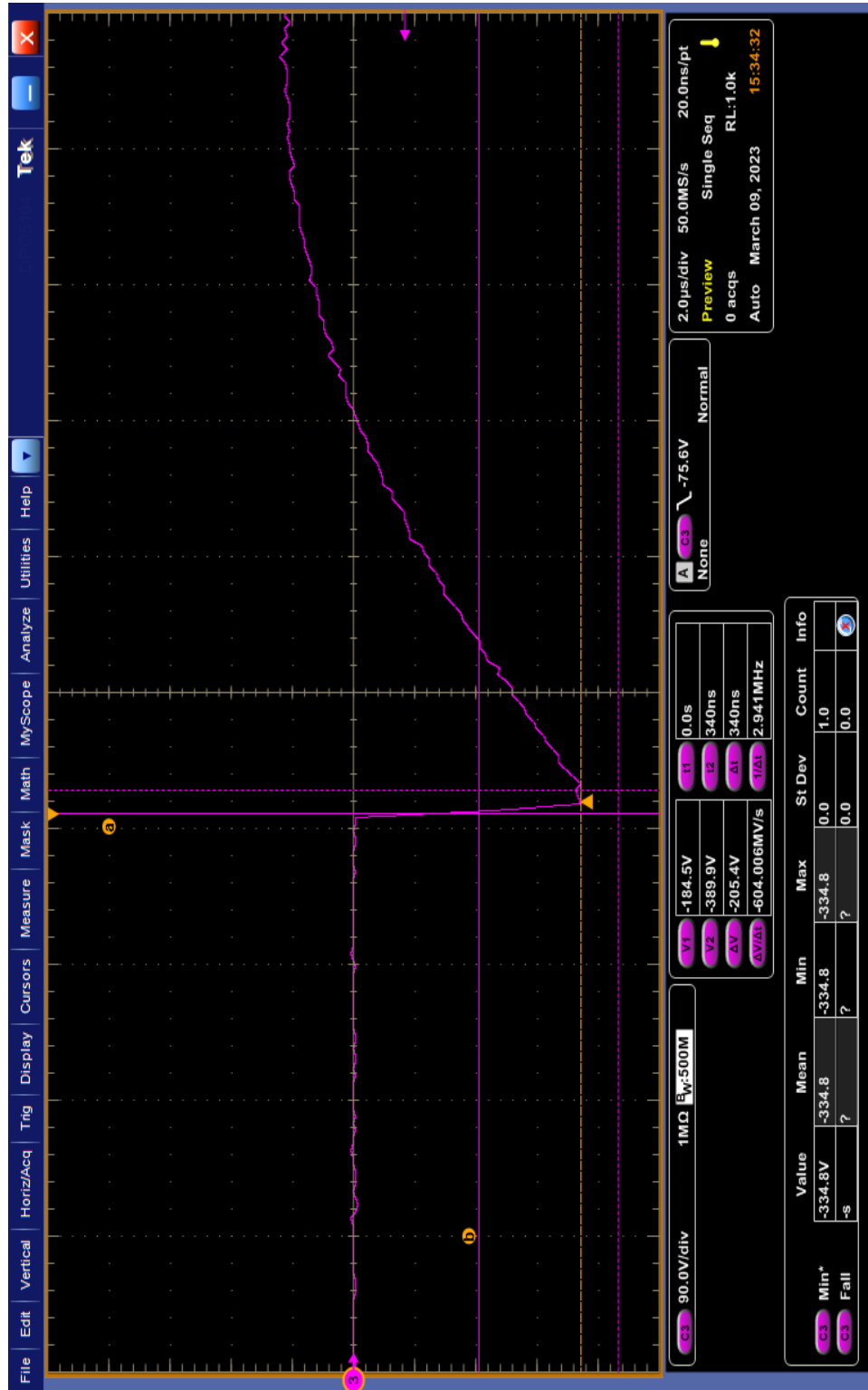
4-WF1 Positive 1st Stroke and Subsequent Stroke Amplitudes



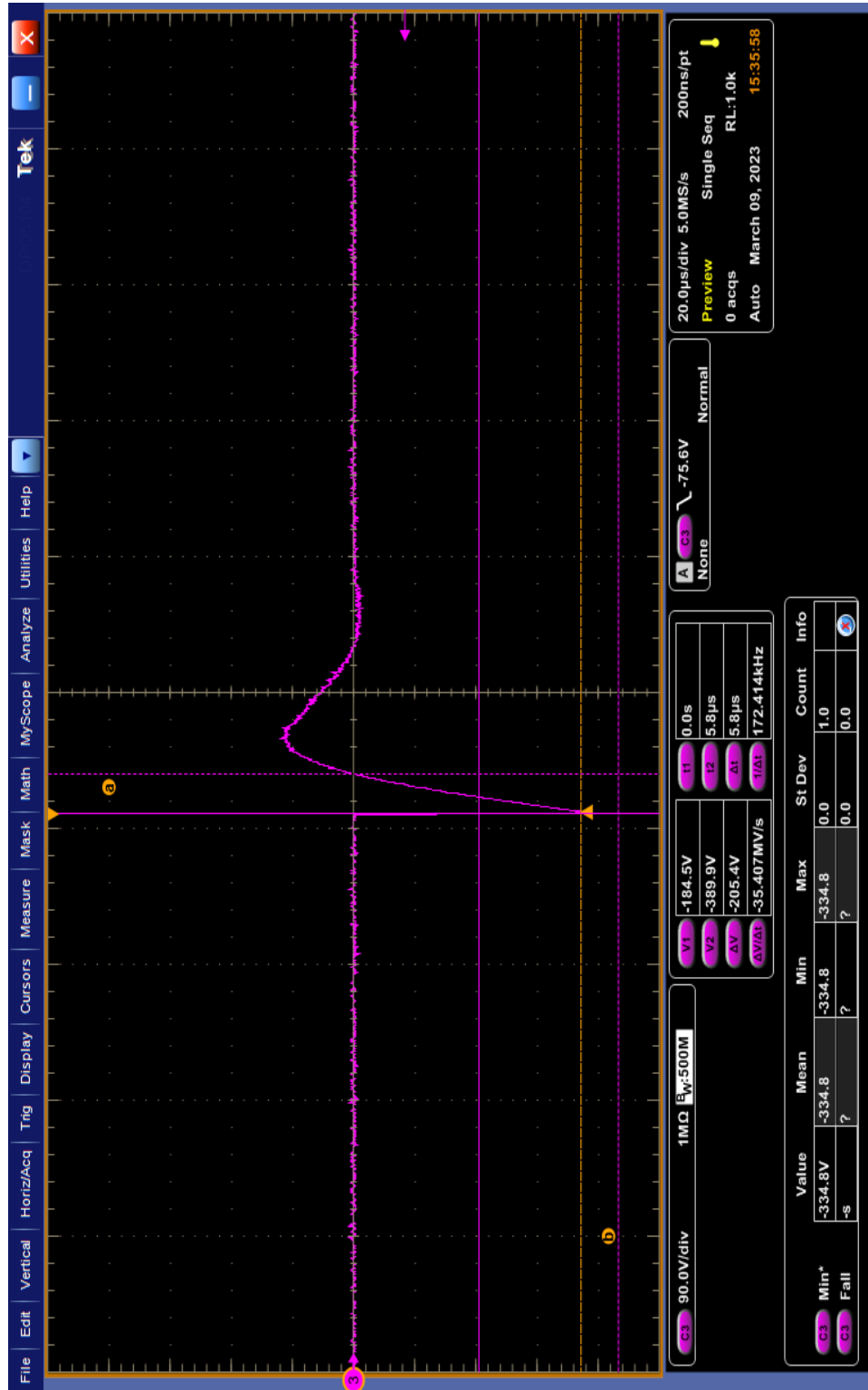
5-WF2 Positive T1



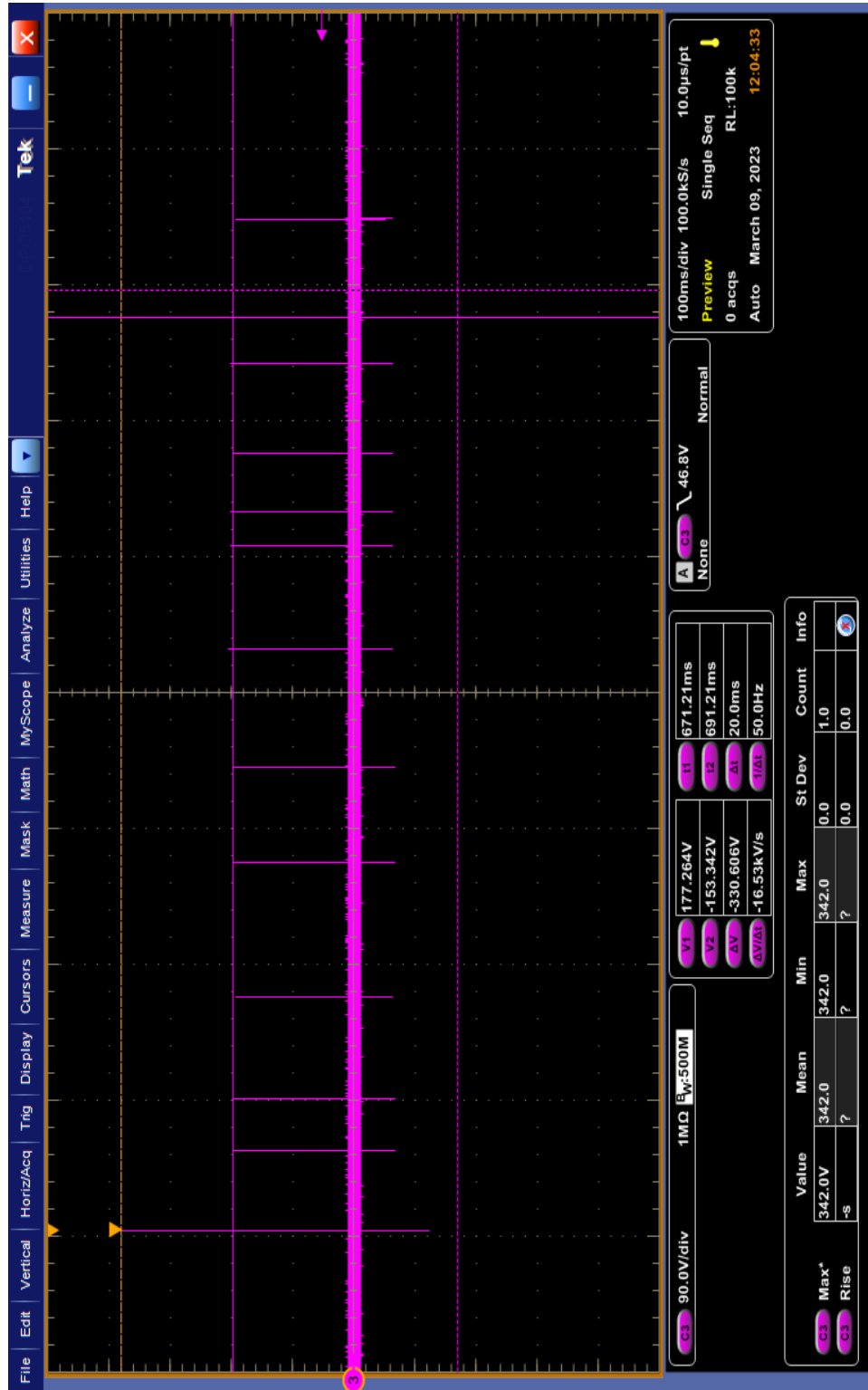
6-WF2 Positive T2



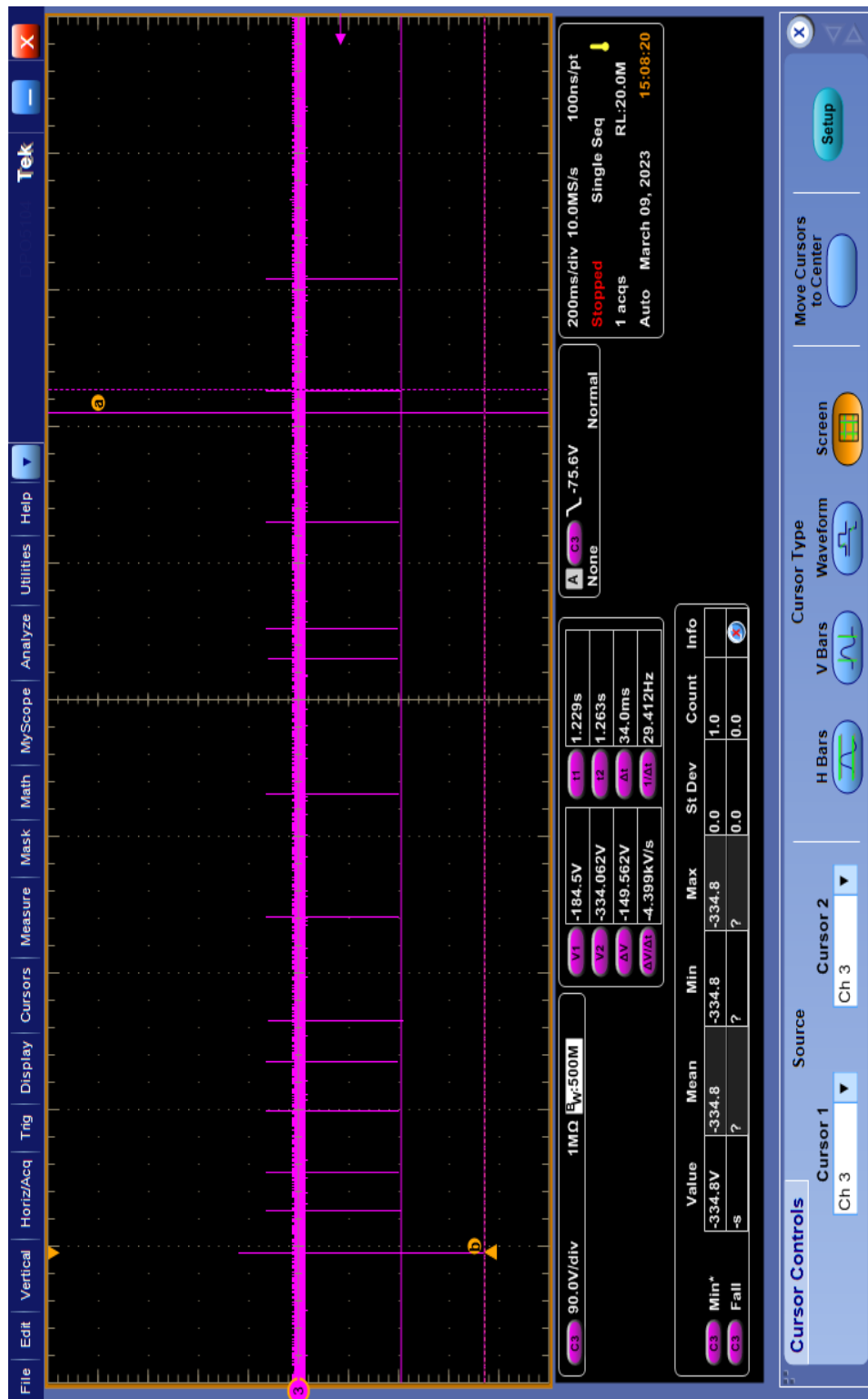
7-WF2 Negative T1



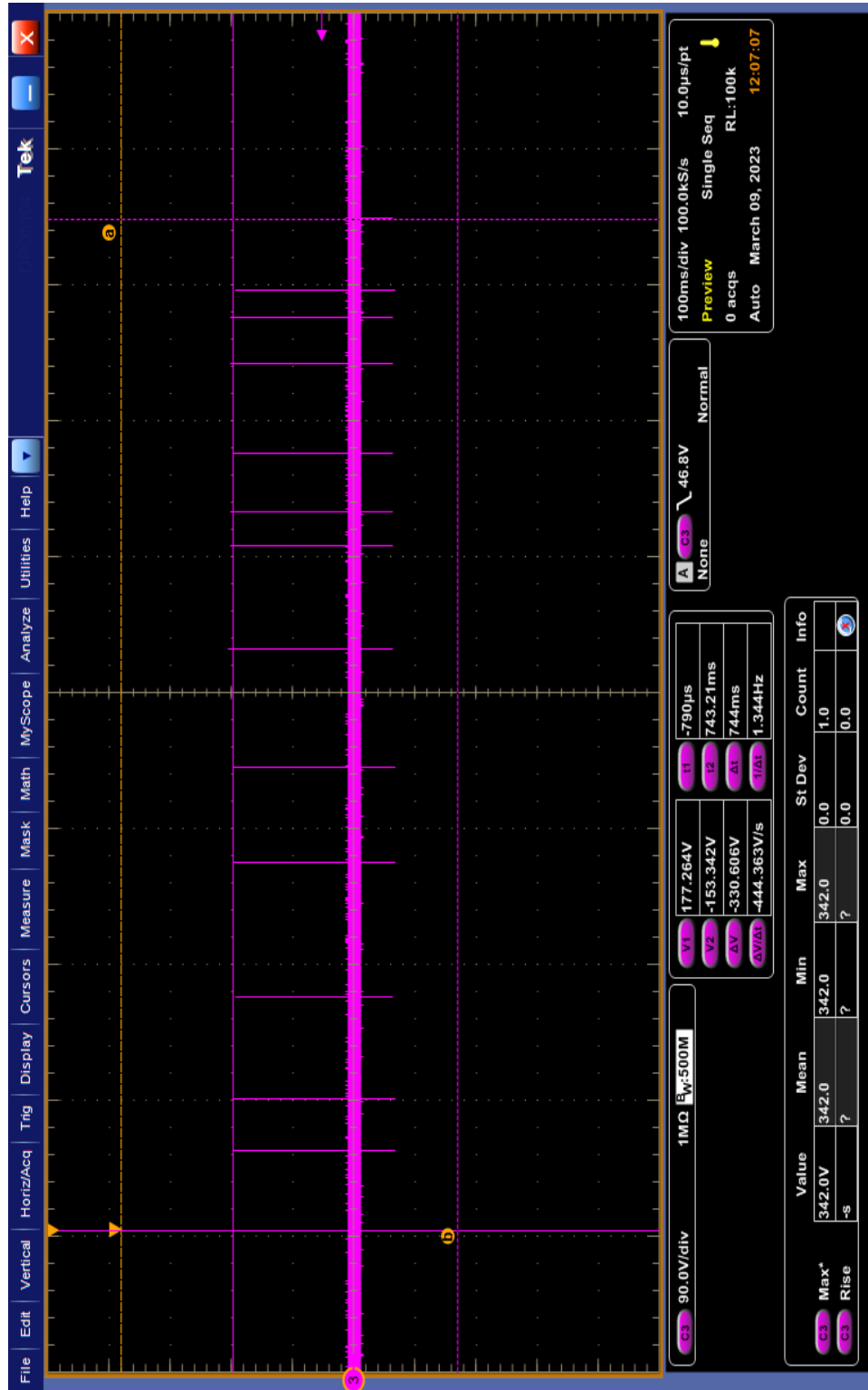
8-WF2 Negative T2



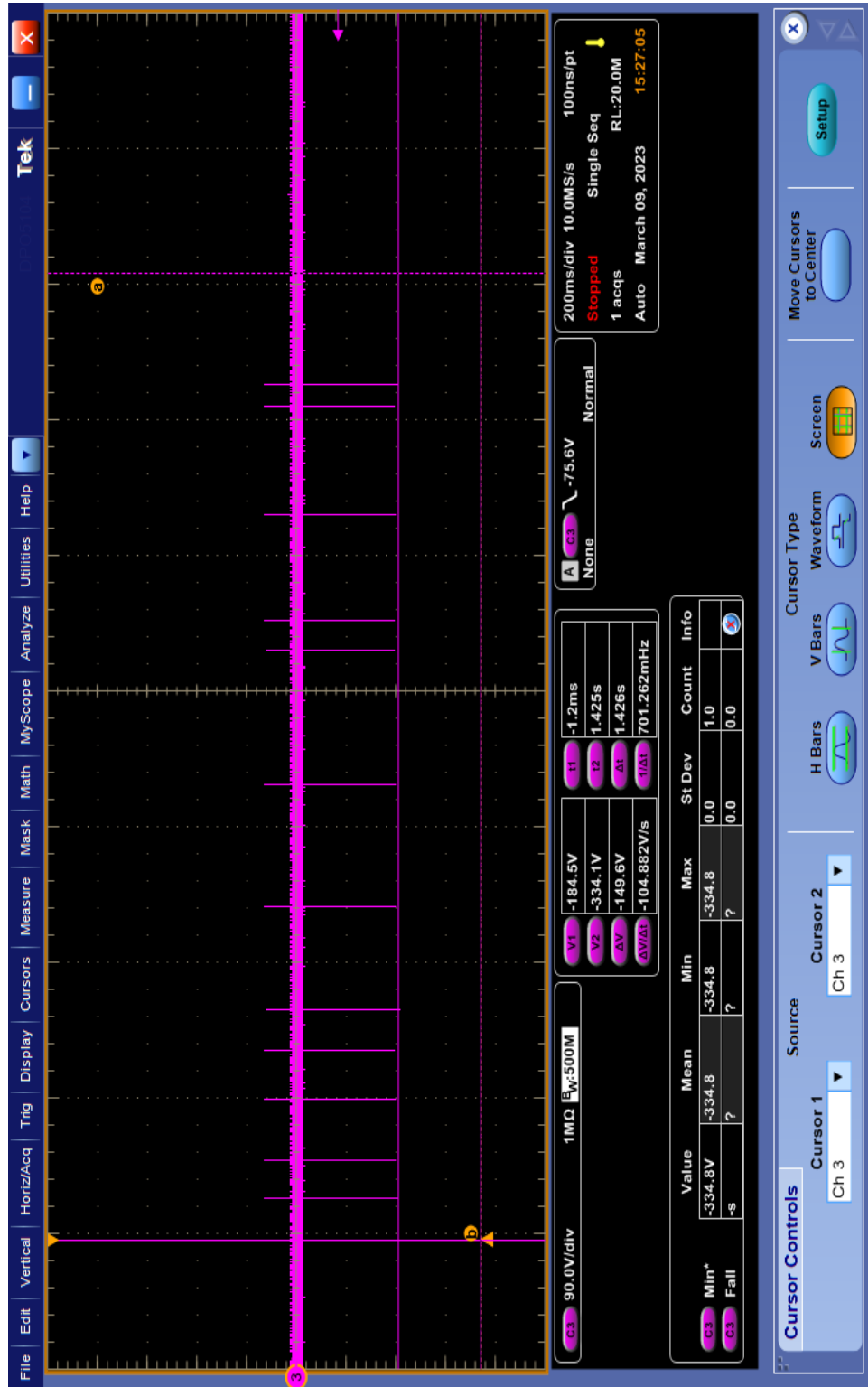
9-WF2 Positive Pulse Spacing



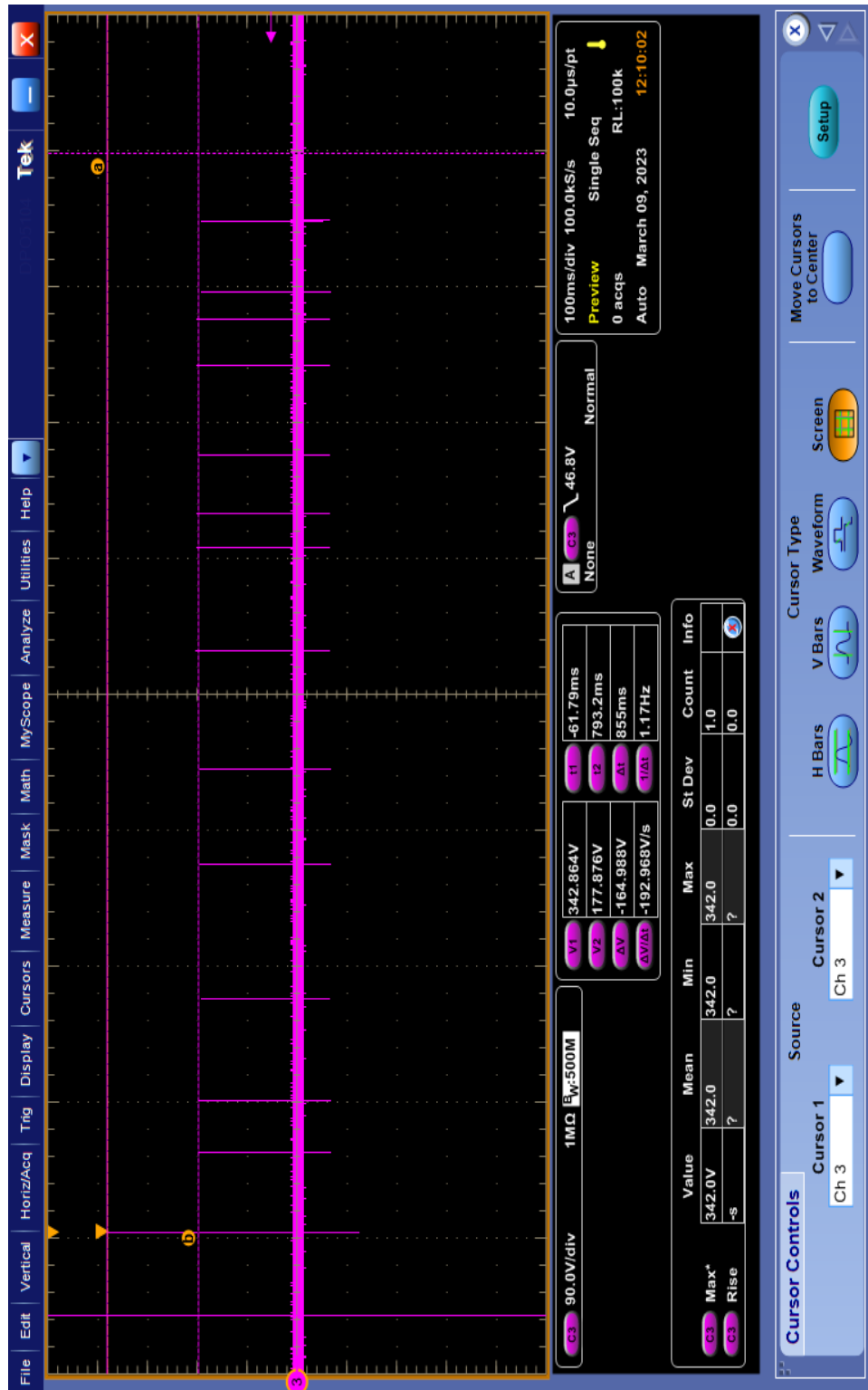
10-WF2 Negative Pulse Spacing

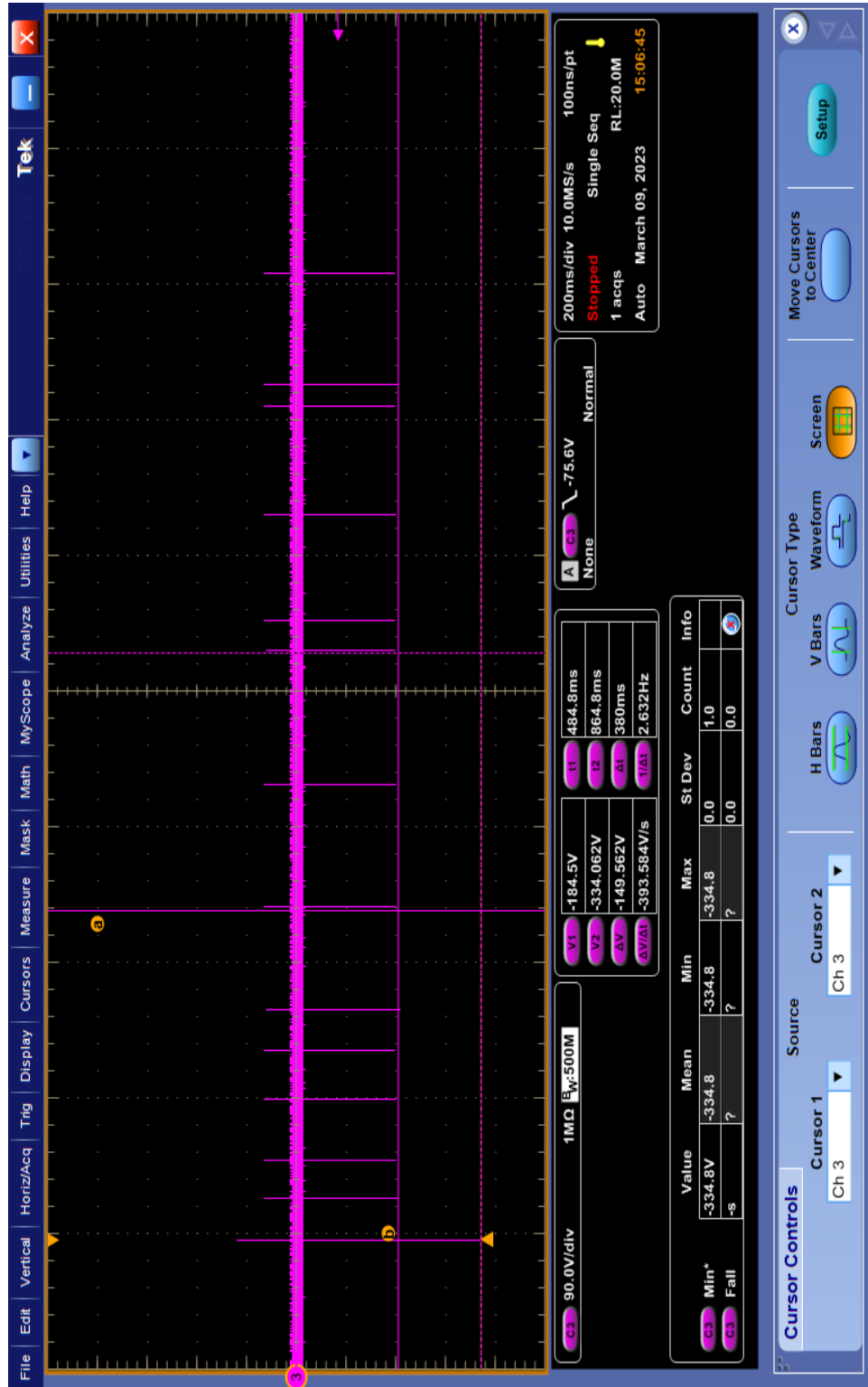


11-WF2 Positive Multistroke Time

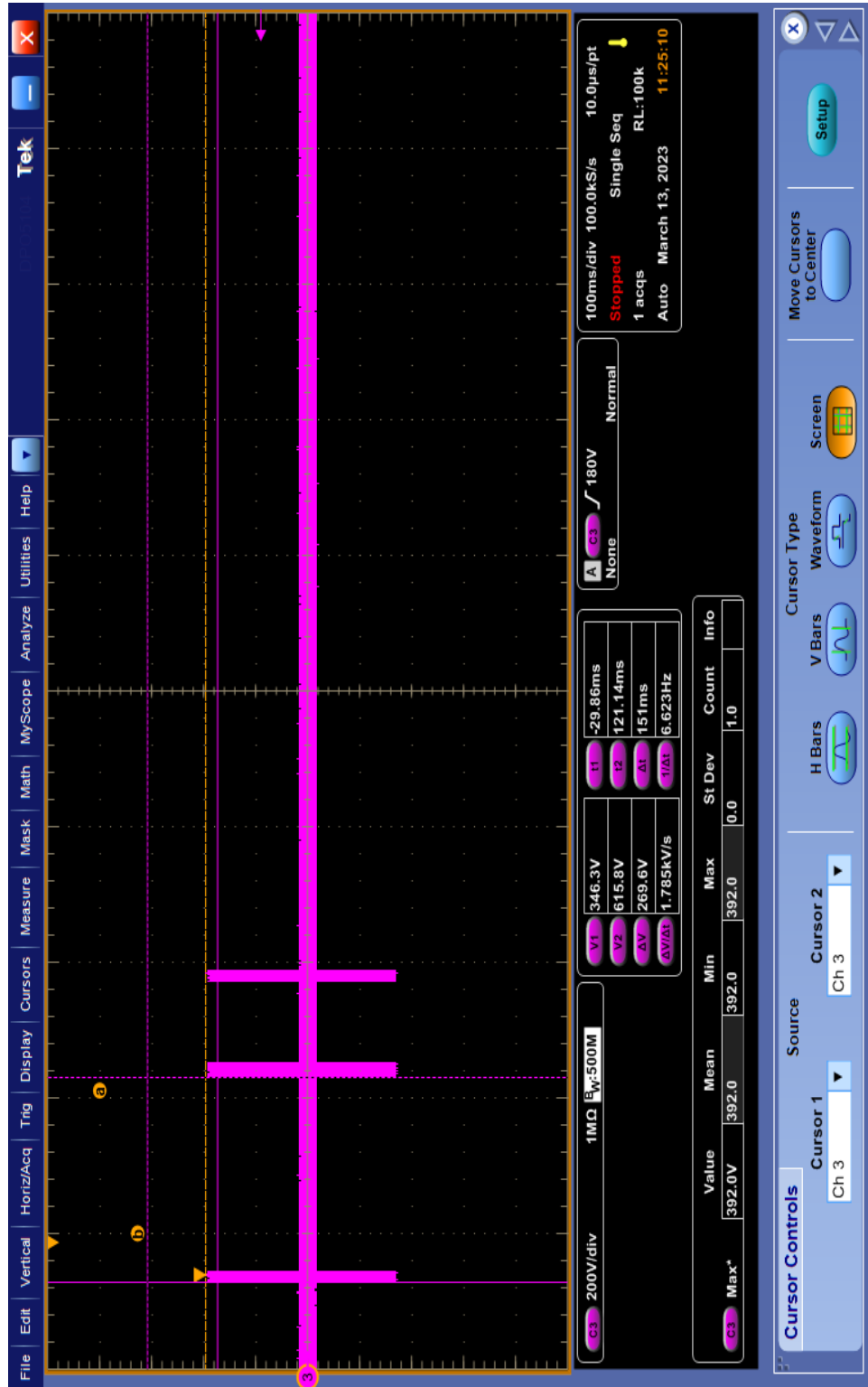


12-WF2 Negative Multistroke Time

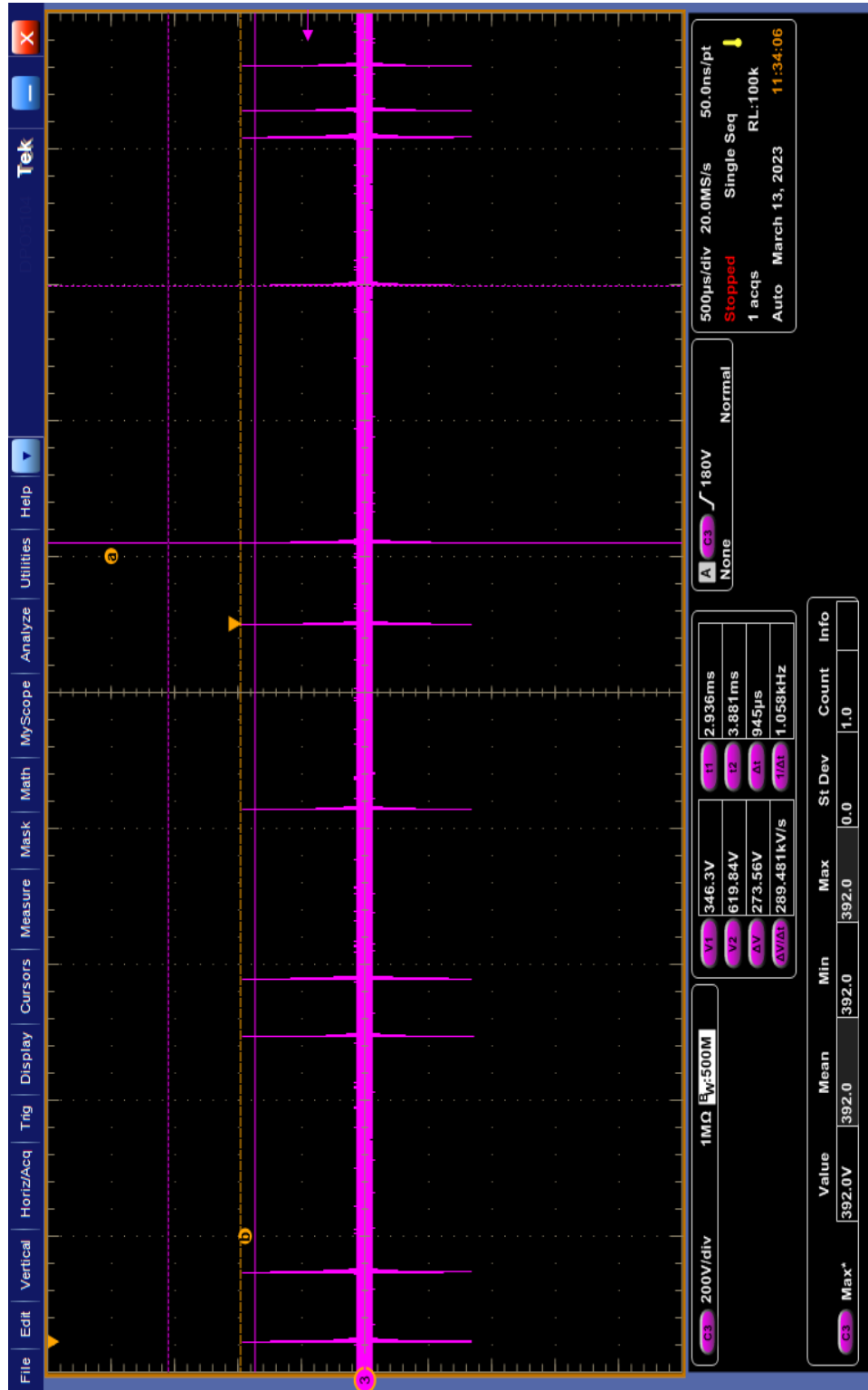




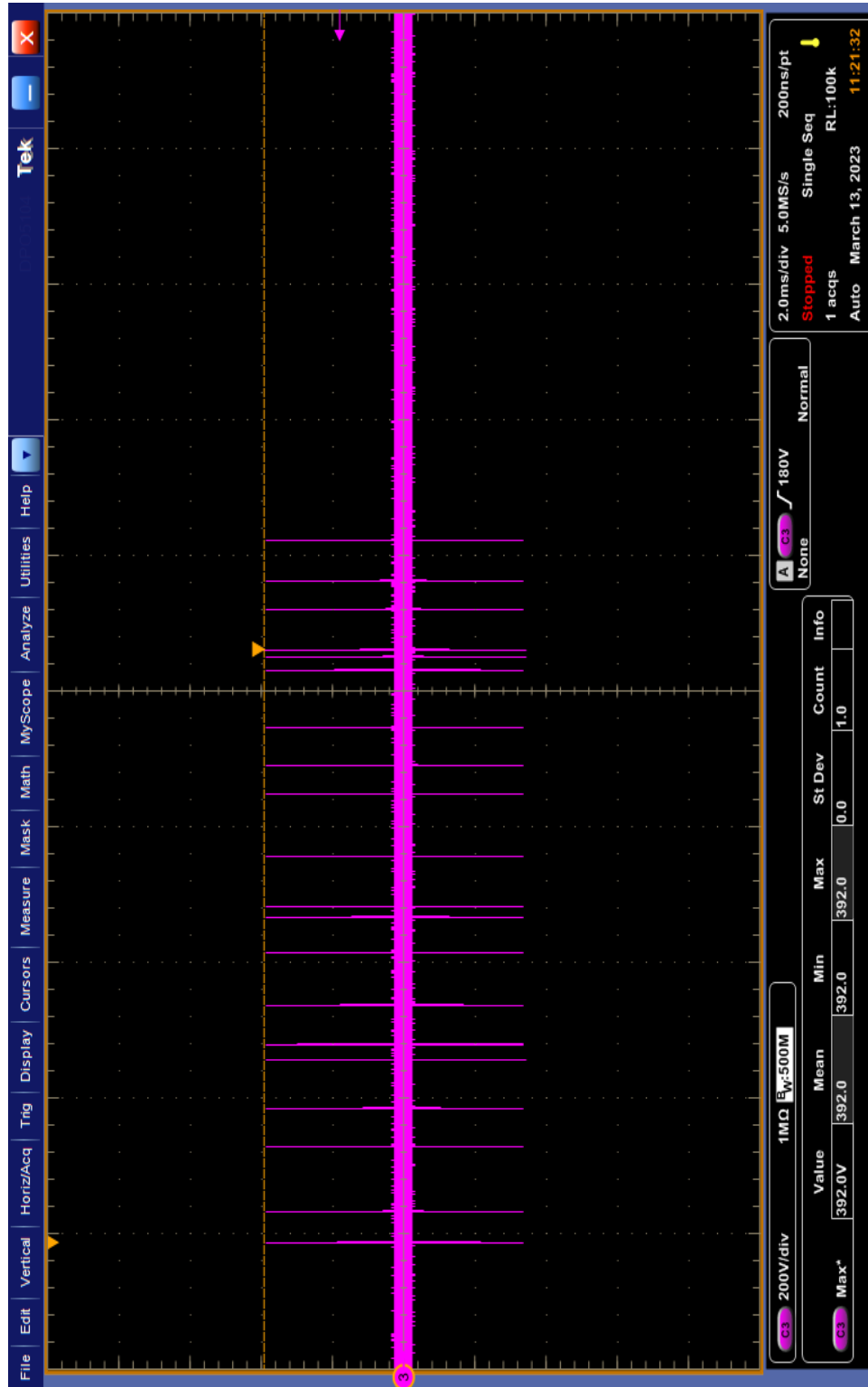
14-WF2 Negative 1st Stroke and Sub Stroke Amplitudes



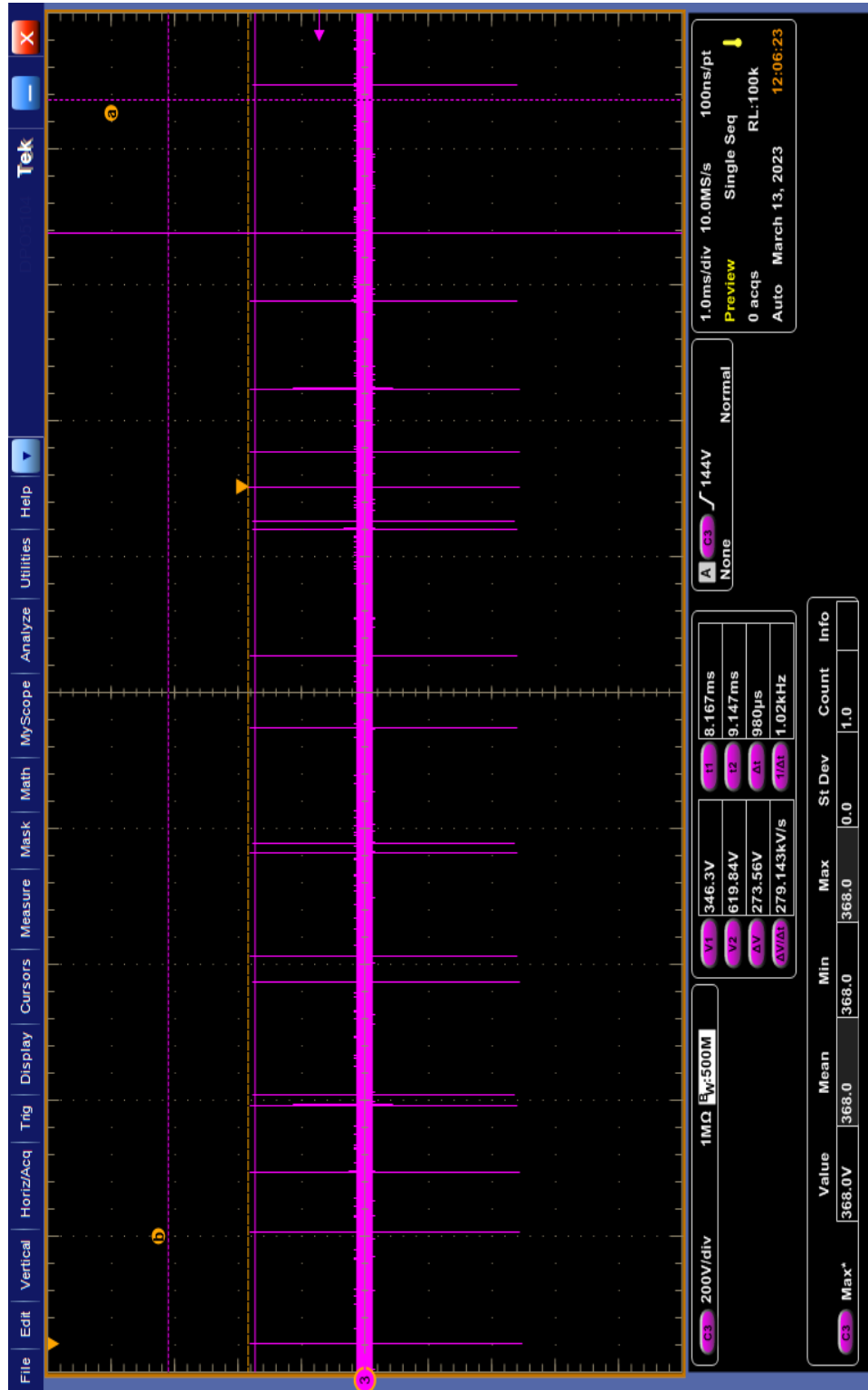
15-Multiburst WF3 Positive 1Mhz Spacing



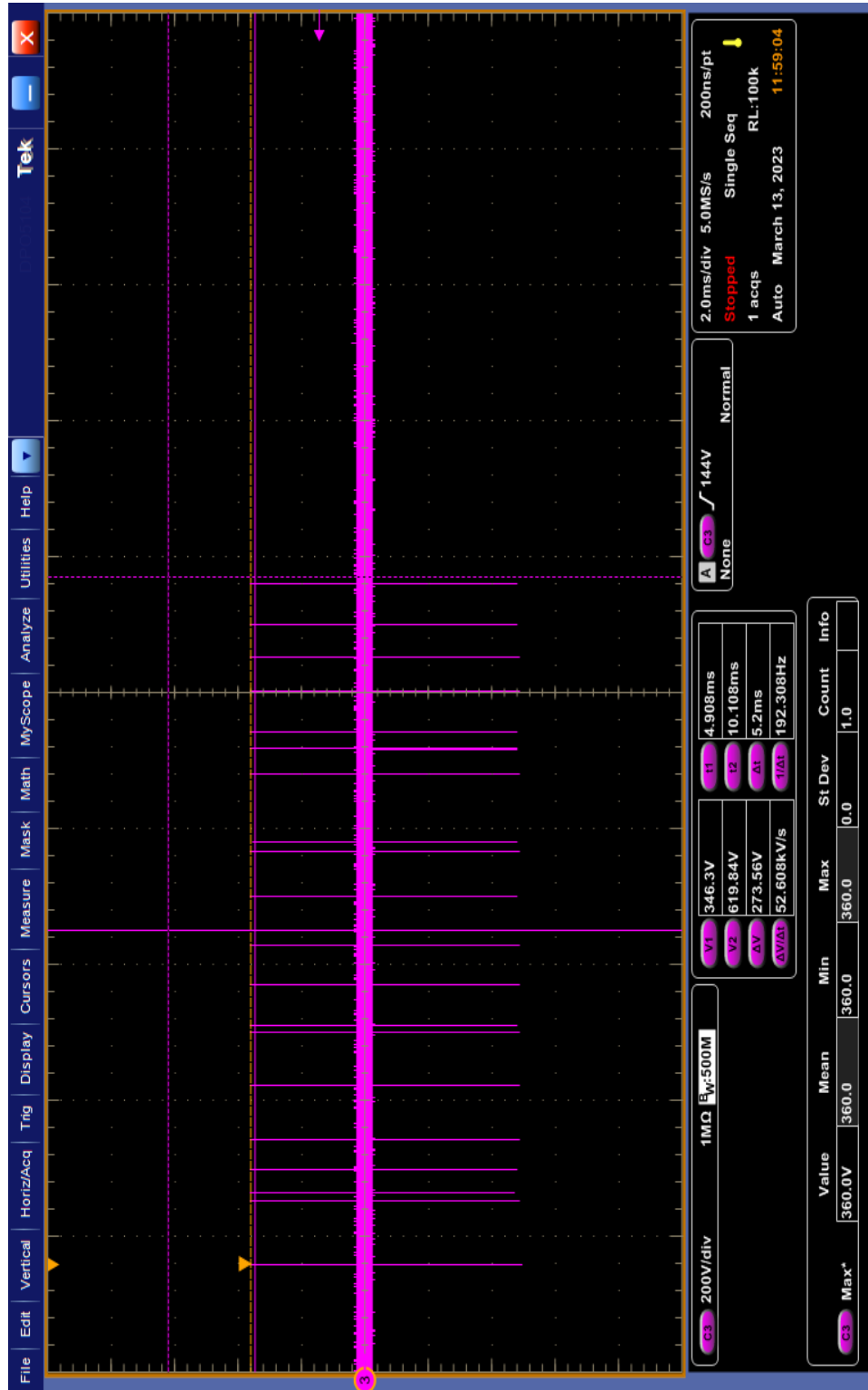
16-Multiburst WF3 Positive 1Mhz Single Transient Spacing



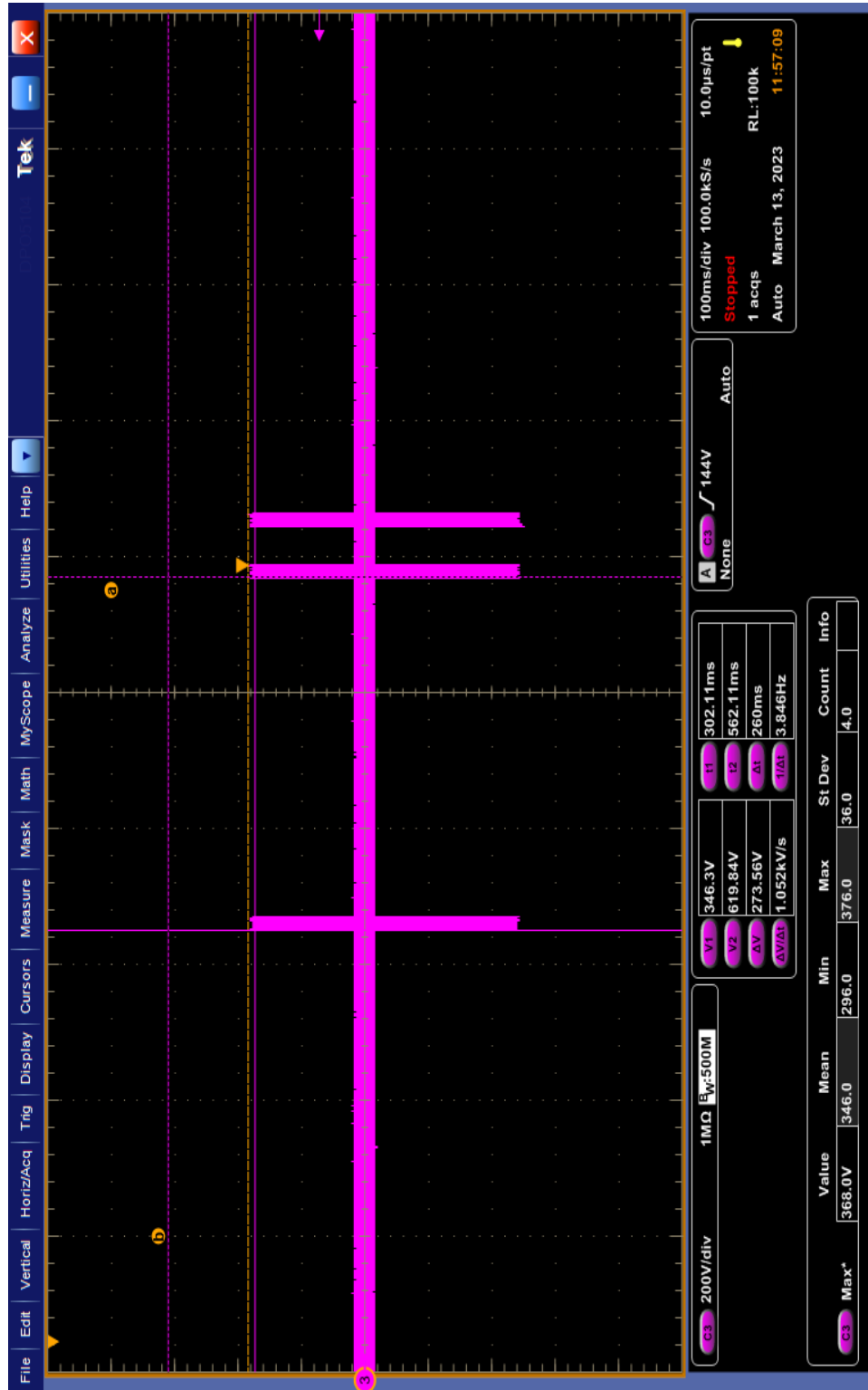
17-Multiburst WF3 Positive 1Mhz 20 Transients Per Burst



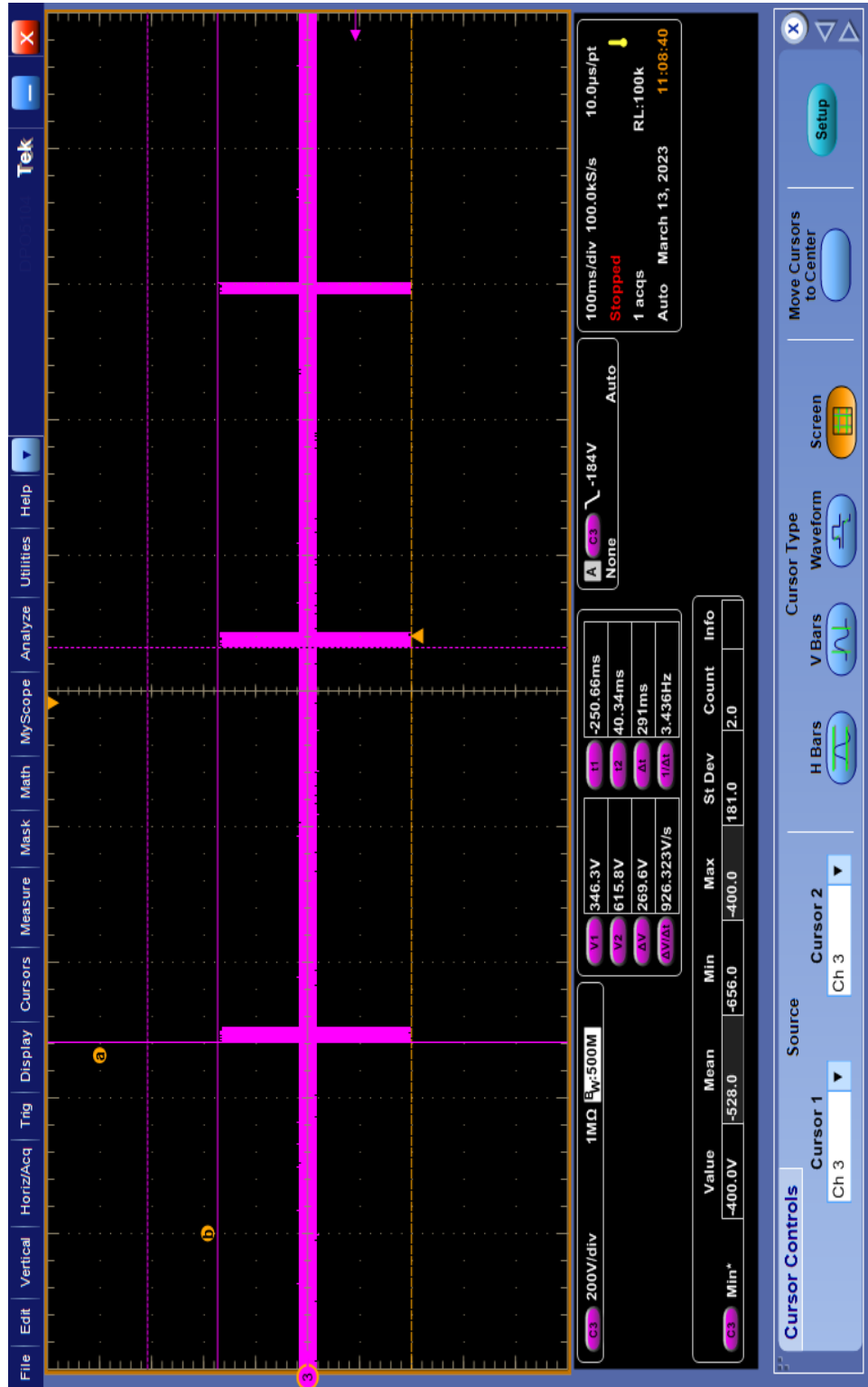
18-Multiburst WF3 Positive 10Mhz Single Transient Spacing



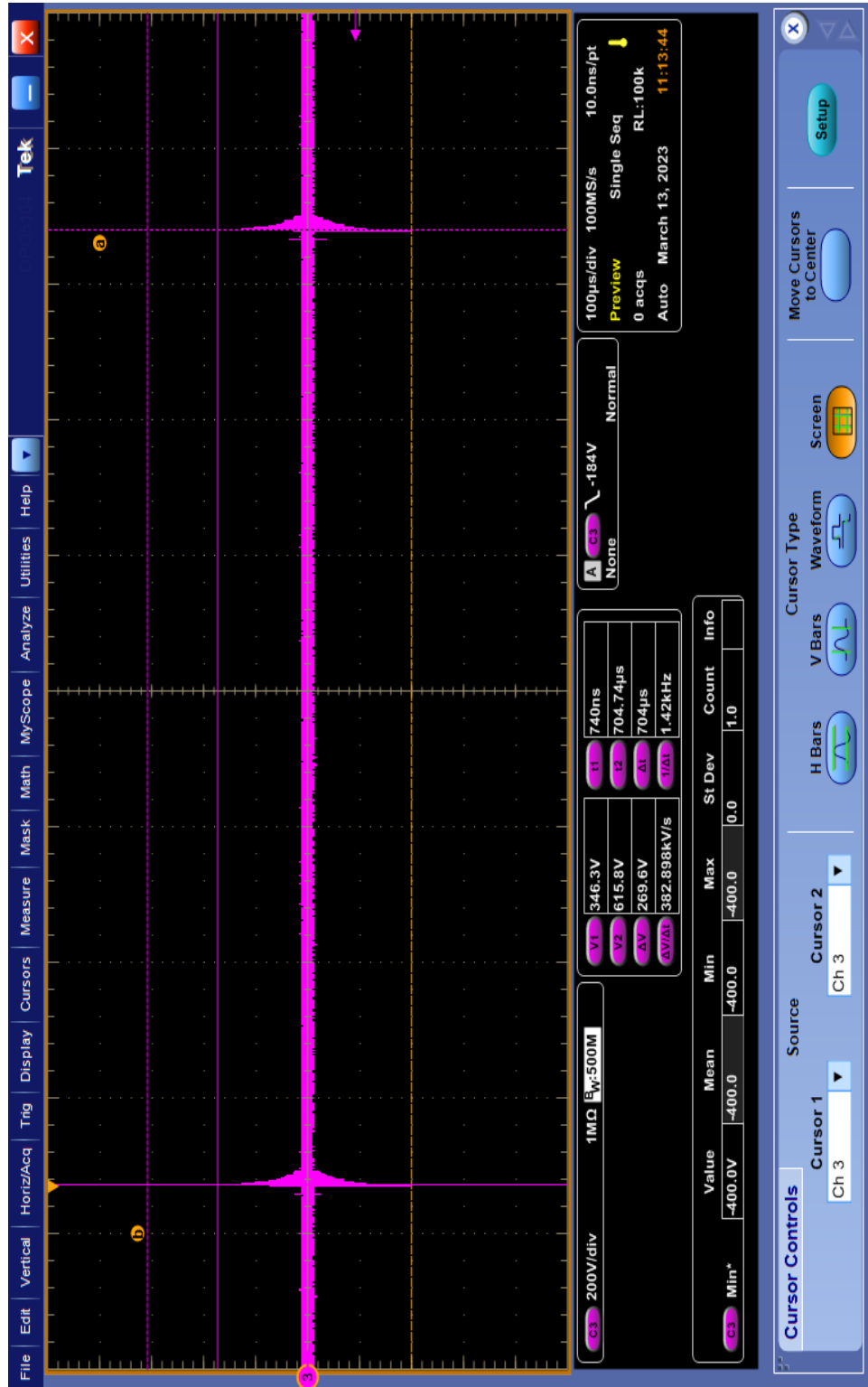
19-Multiburst WF3 Positive 10Mhz 20 Transients Per Burst



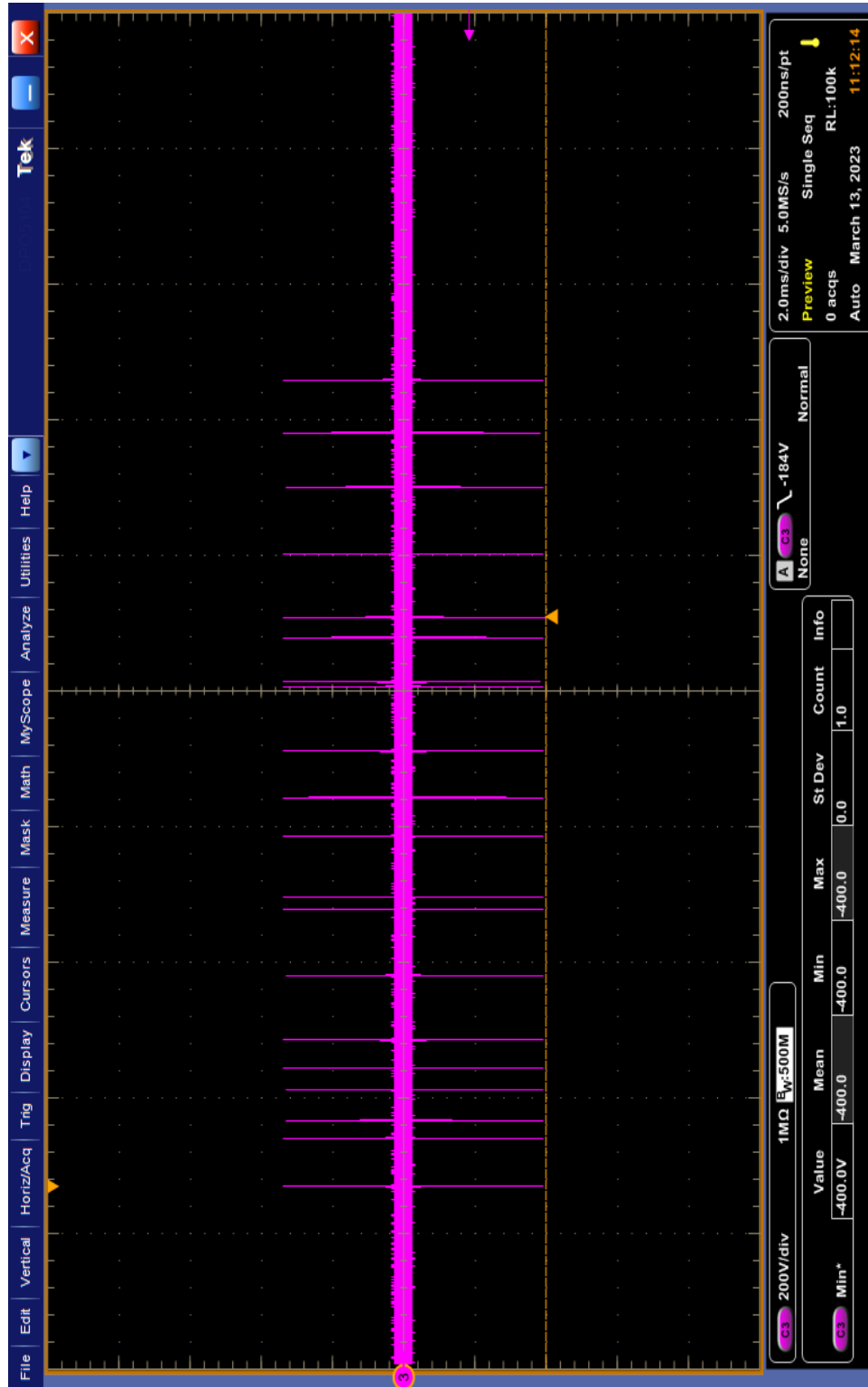
20-Multiburst WF3 Positive 10Mhz Spacing

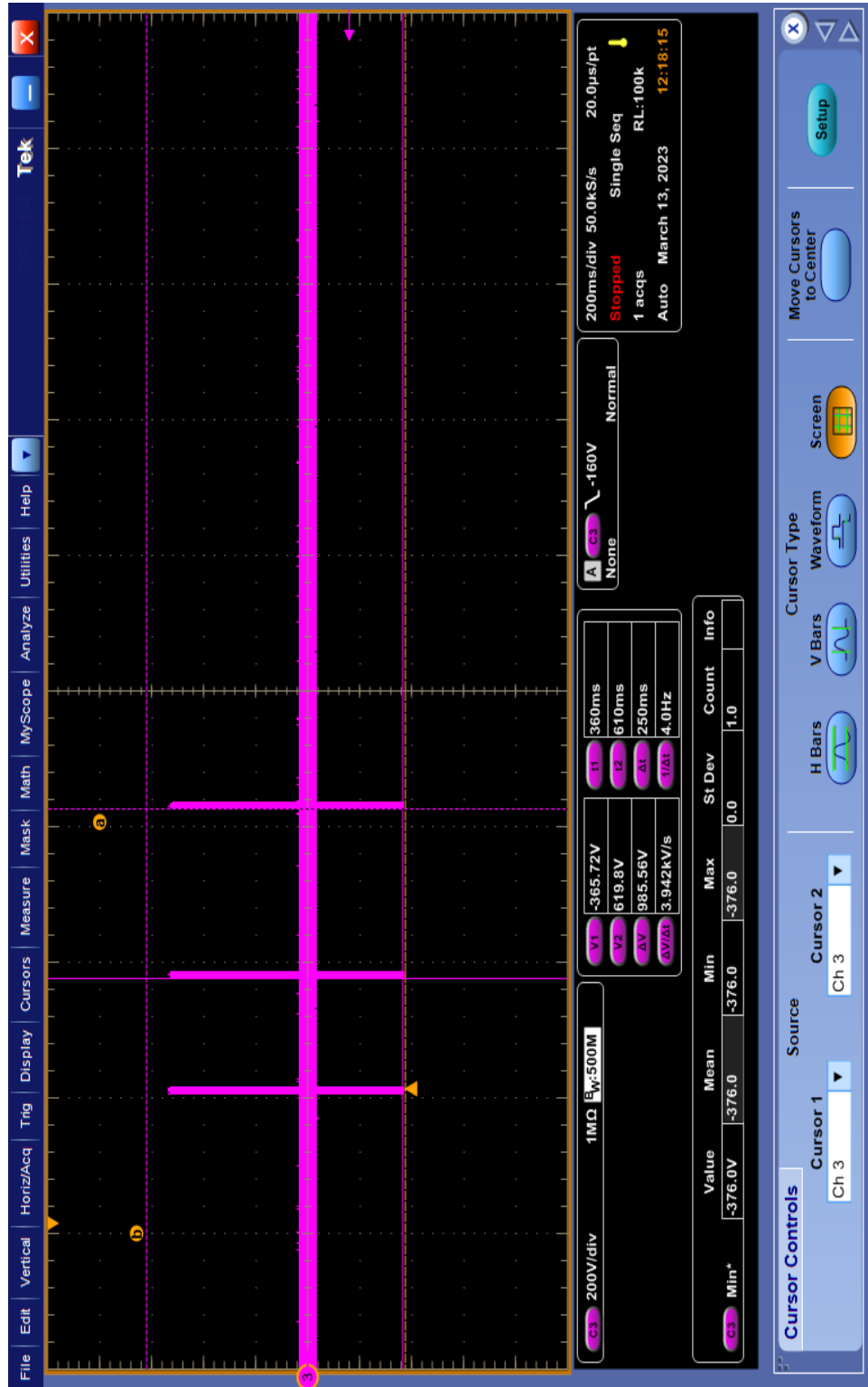


21-Multiburst WF3 Negative 1Mhz Spacing

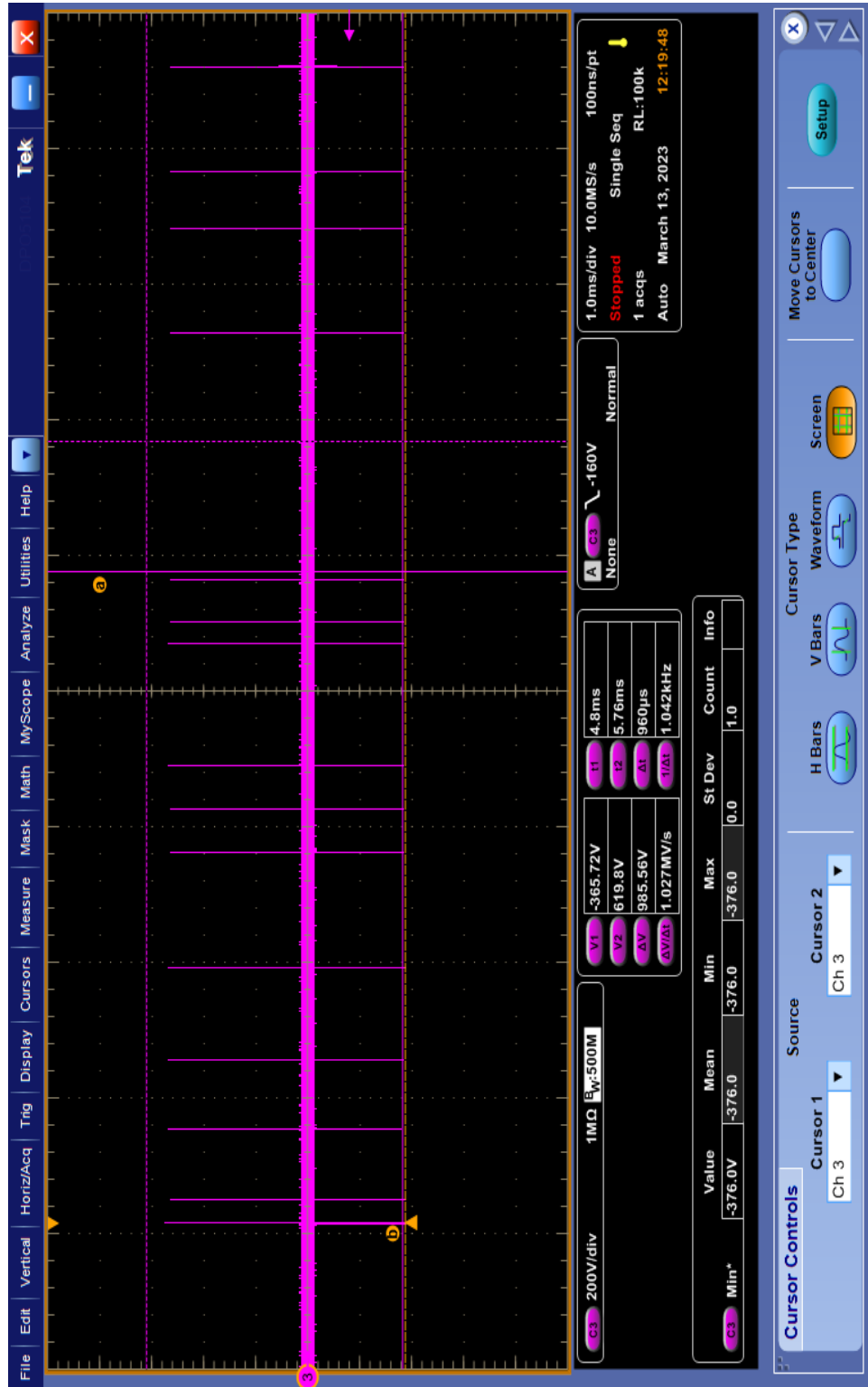


22-Multiburst WF3 Negative 1Mhz Single Transient Spacing

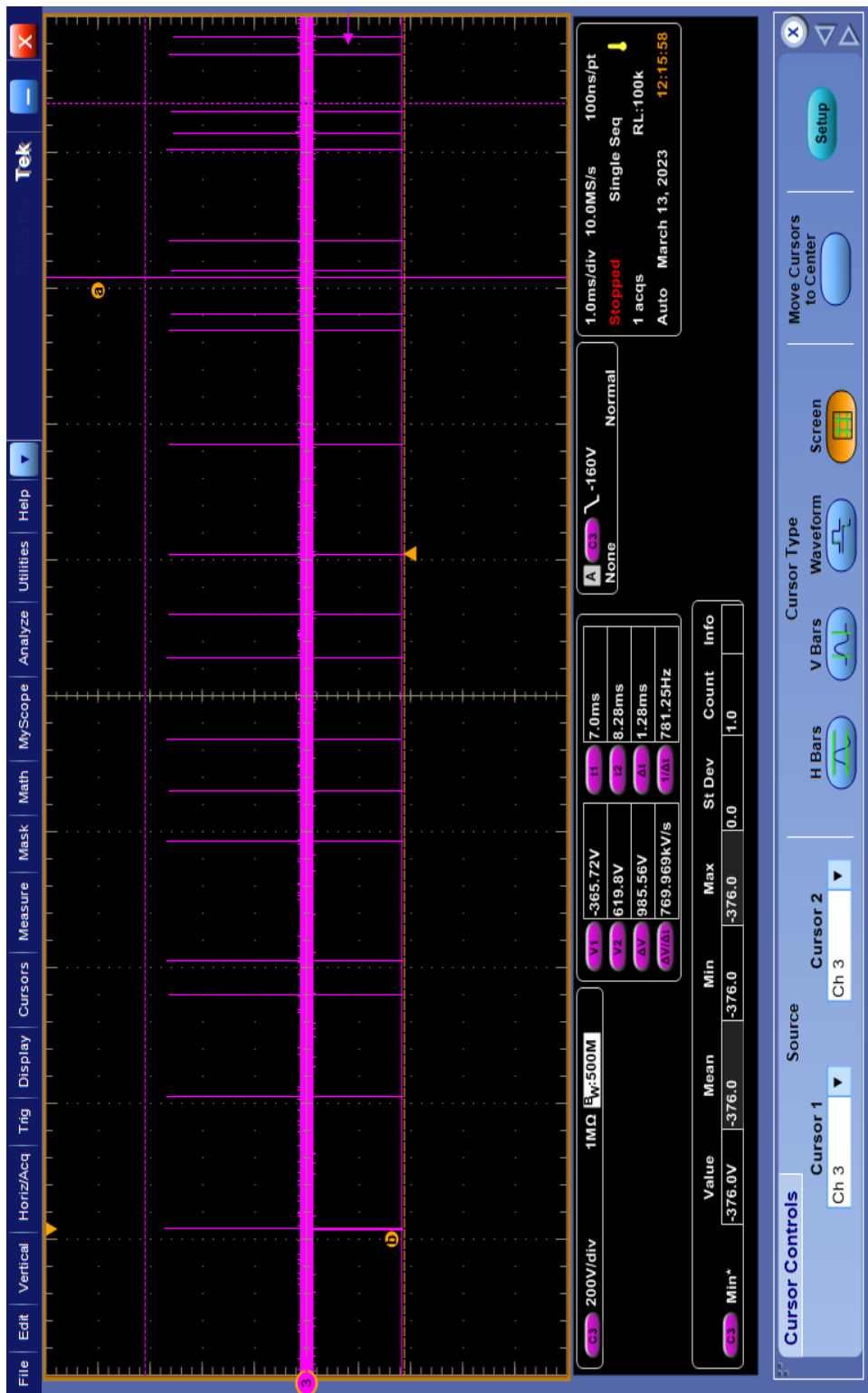




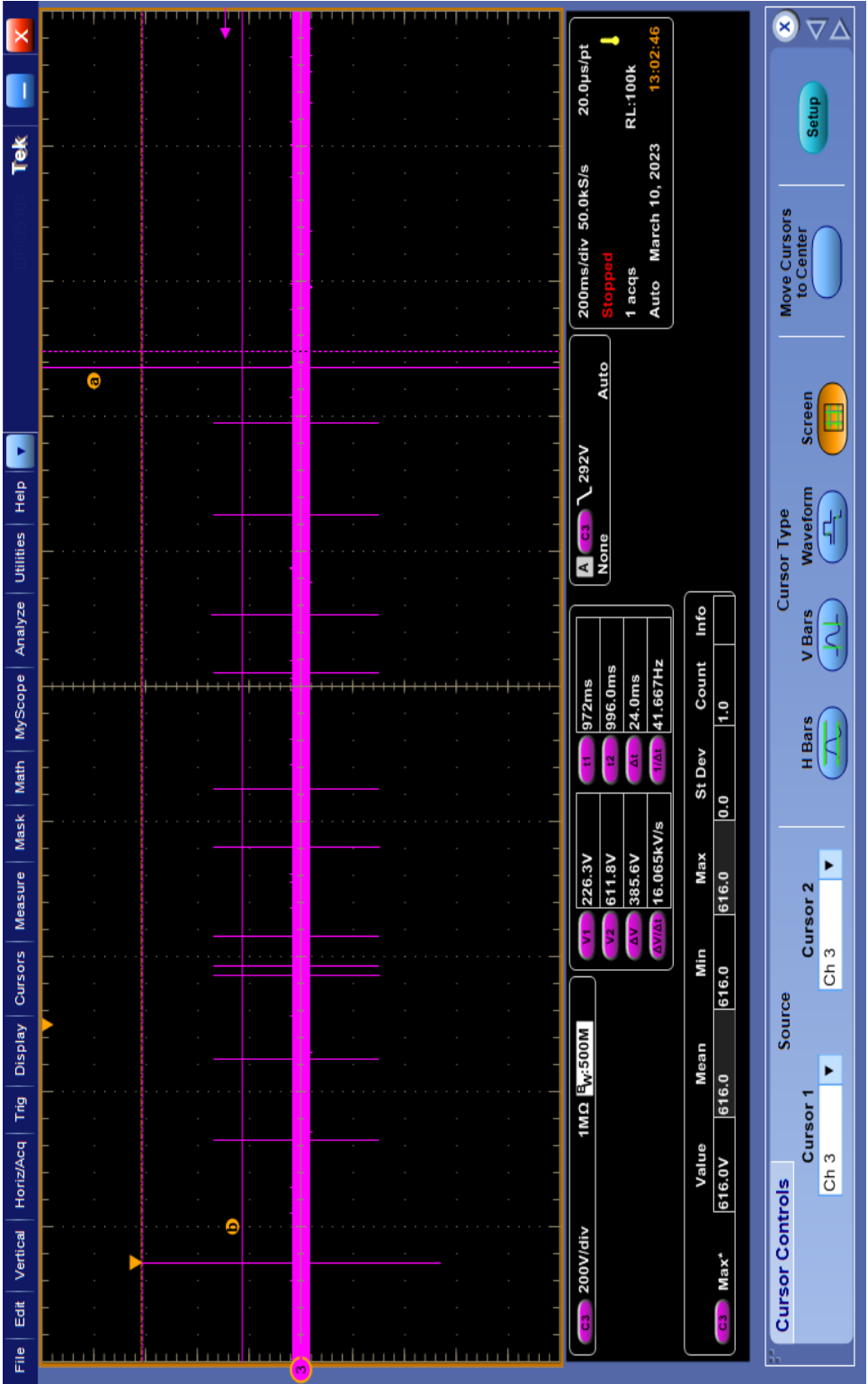
24-Multiburst WF3 Negative 10Mhz Spacing

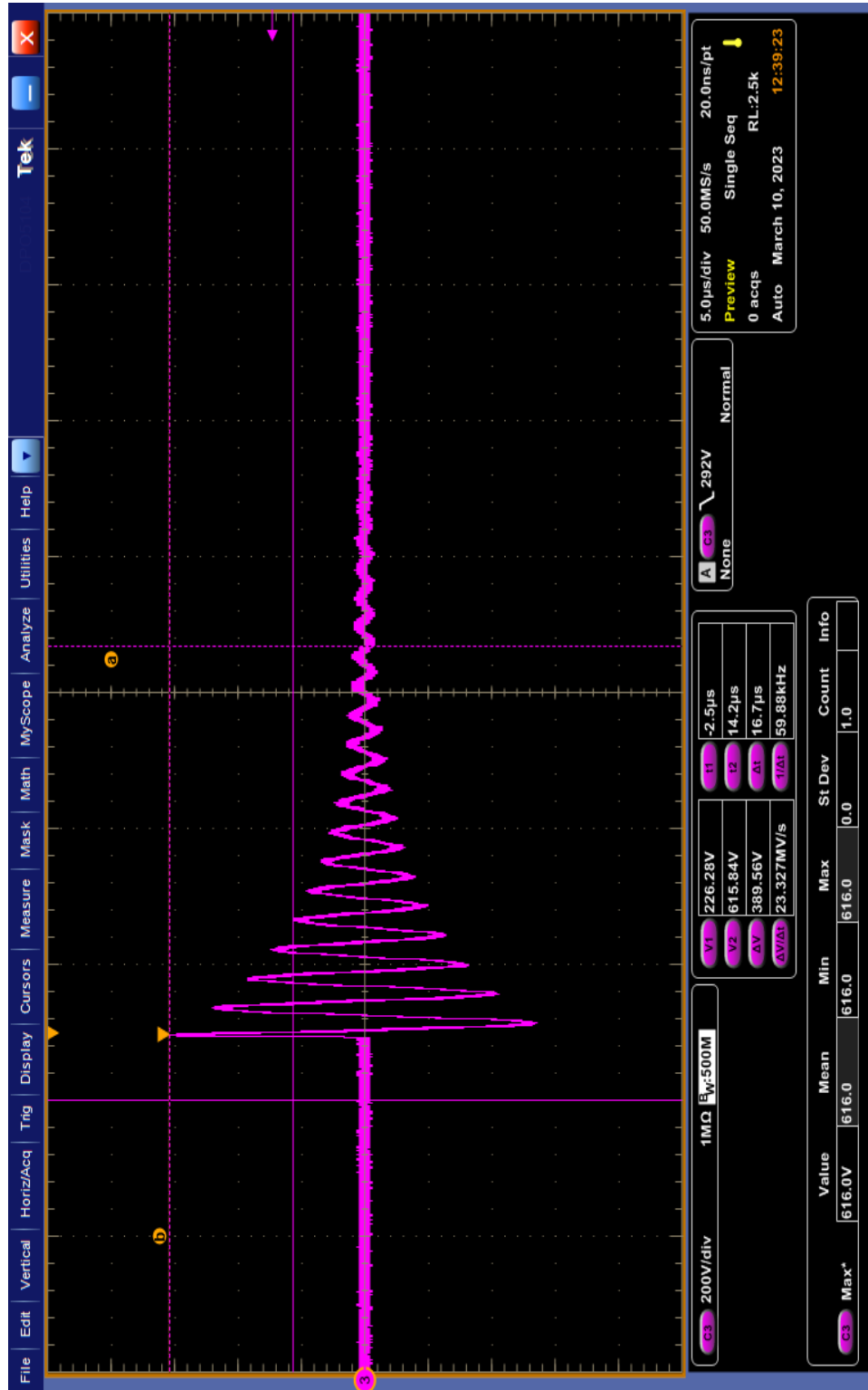


25-Multiburst WF3 Negative 10Mhz Single Transient Spacing

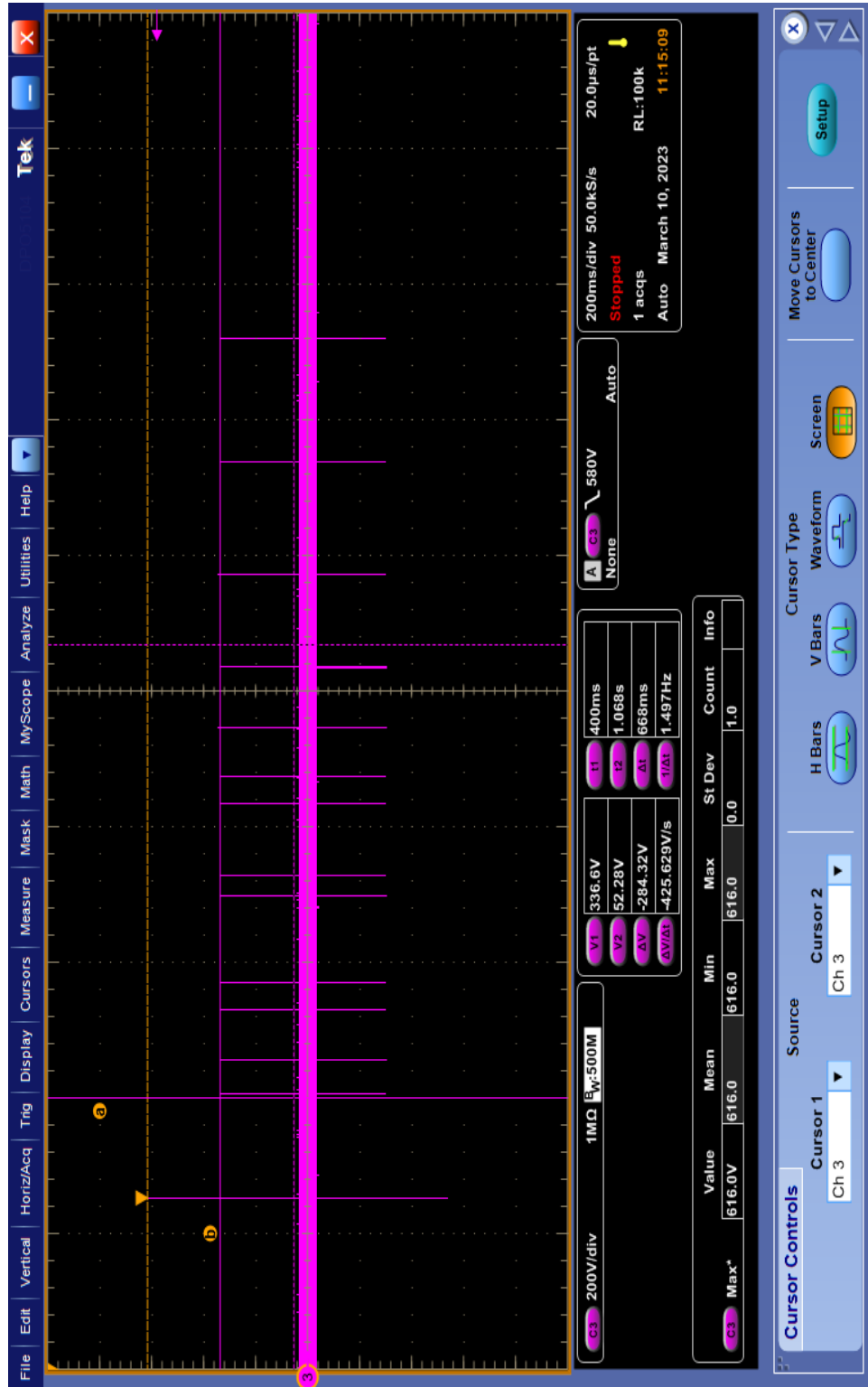


26-Multiburst WF3 Negative 10Mhz 20 Transients Per Burst

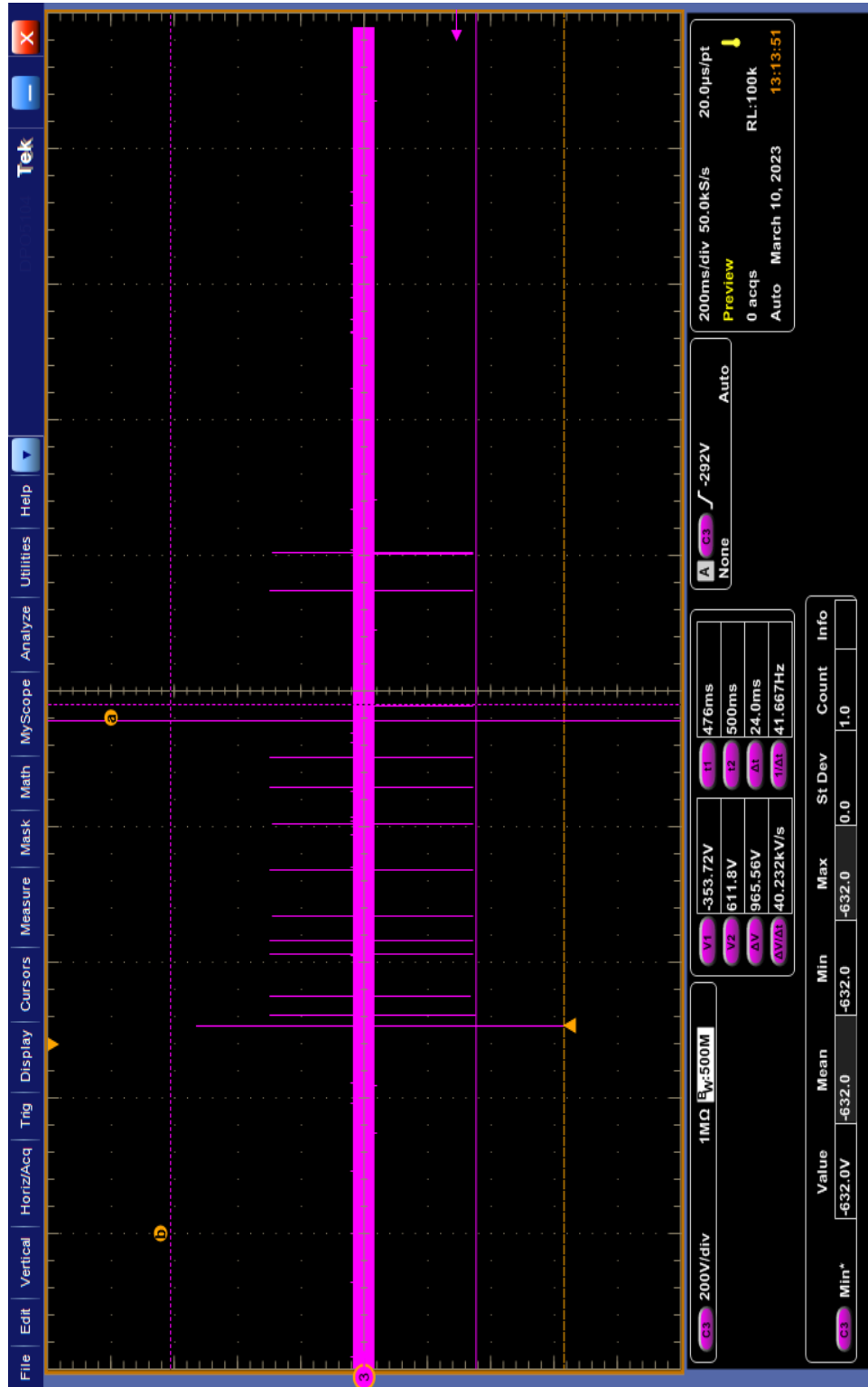




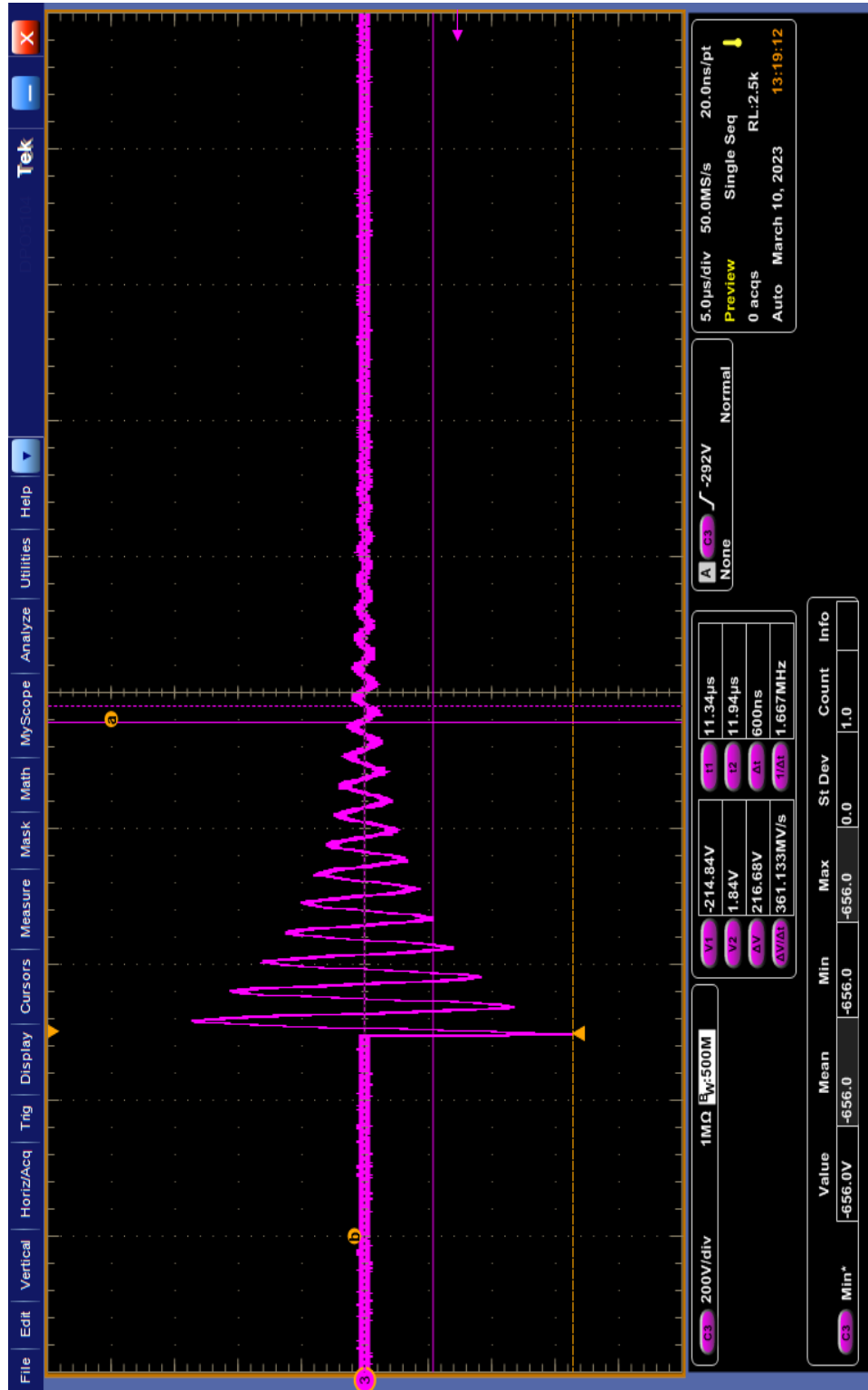
28-WF3 1Mhz Multistroke Positive 1st Stroke Characteristics



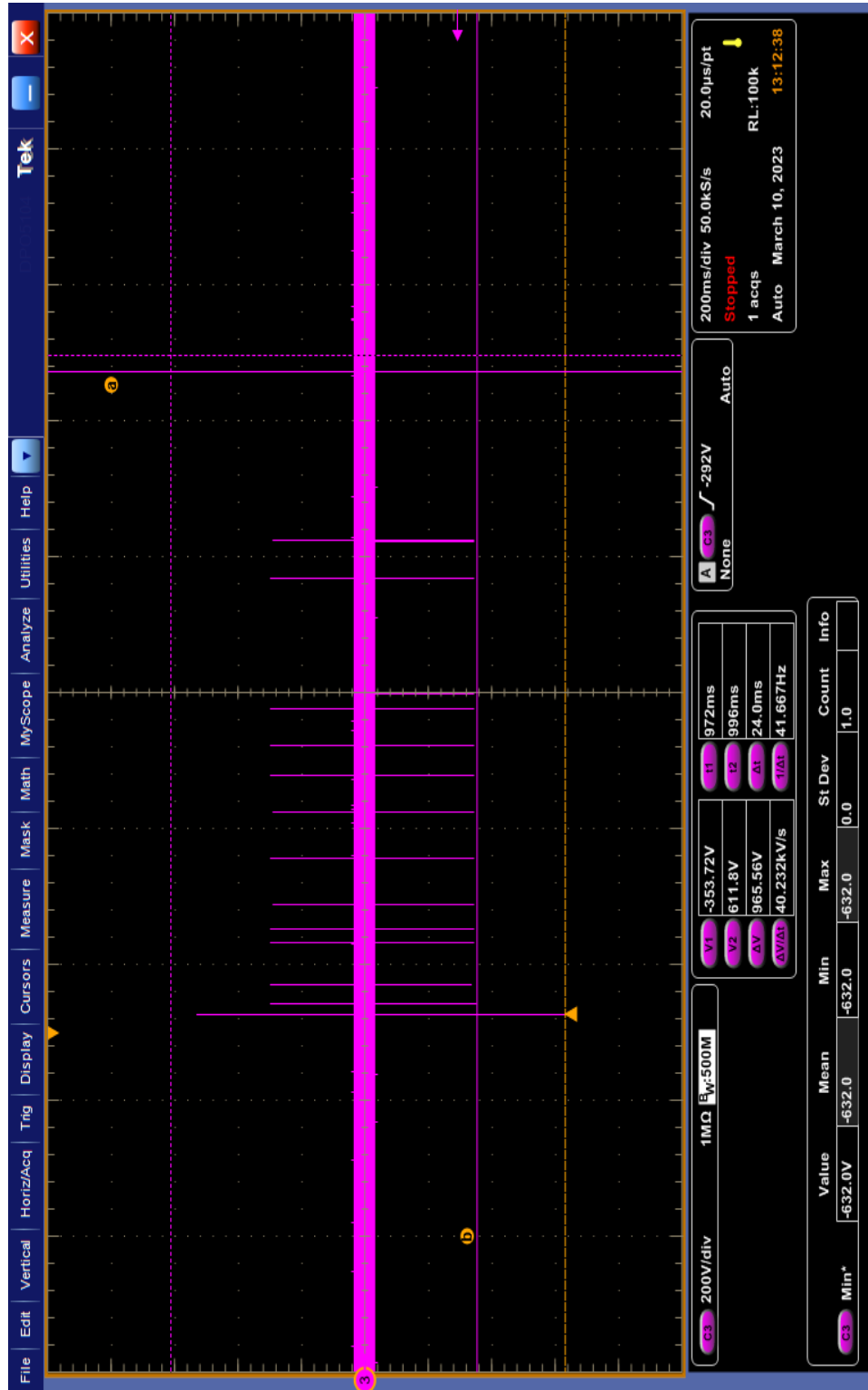
29-WF3 1Mhz Multistroke Positive 1st Stroke and Subsequent Amplitudes



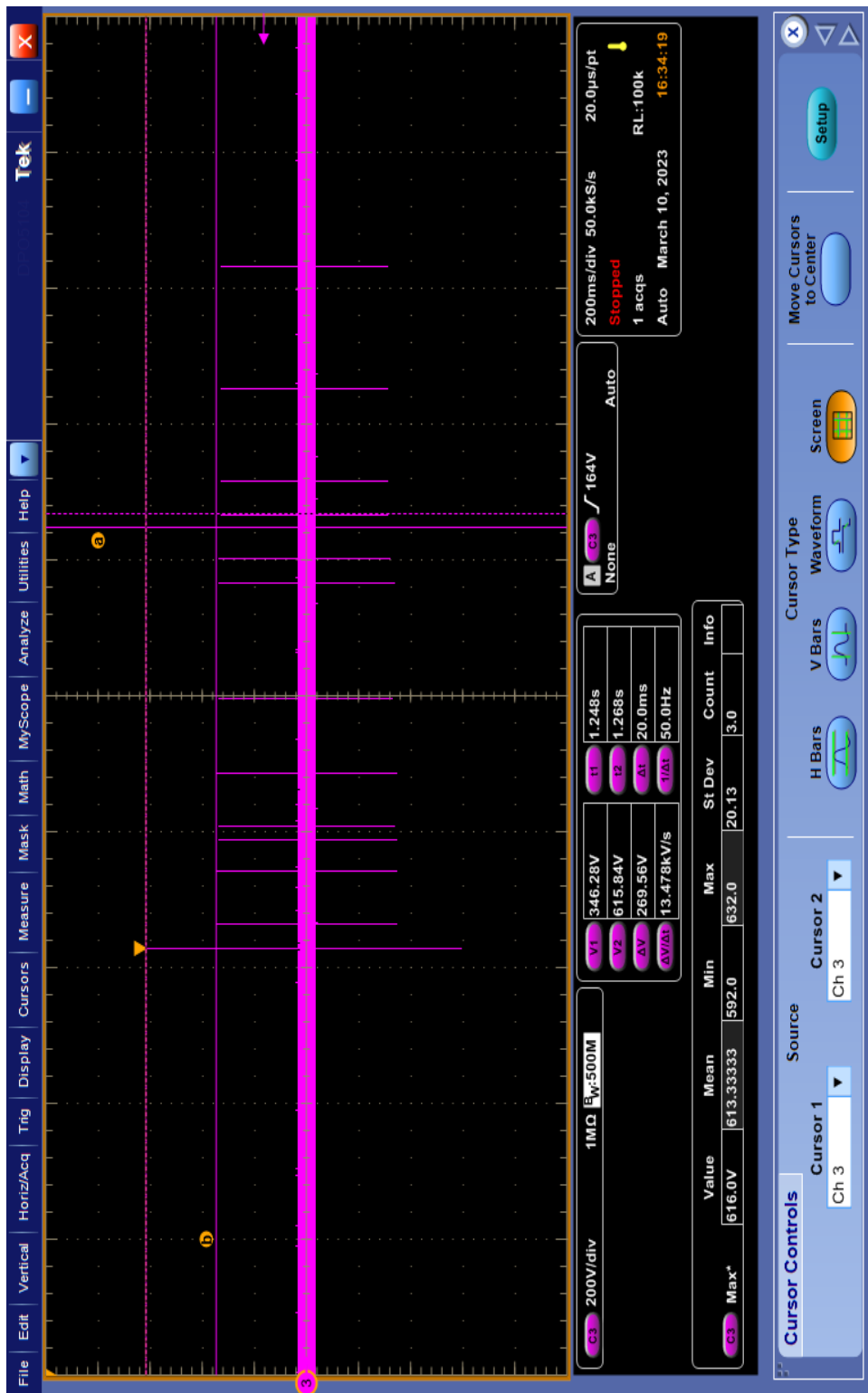
30-WF3 1Mhz Multistroke Negative Pulse Spacing



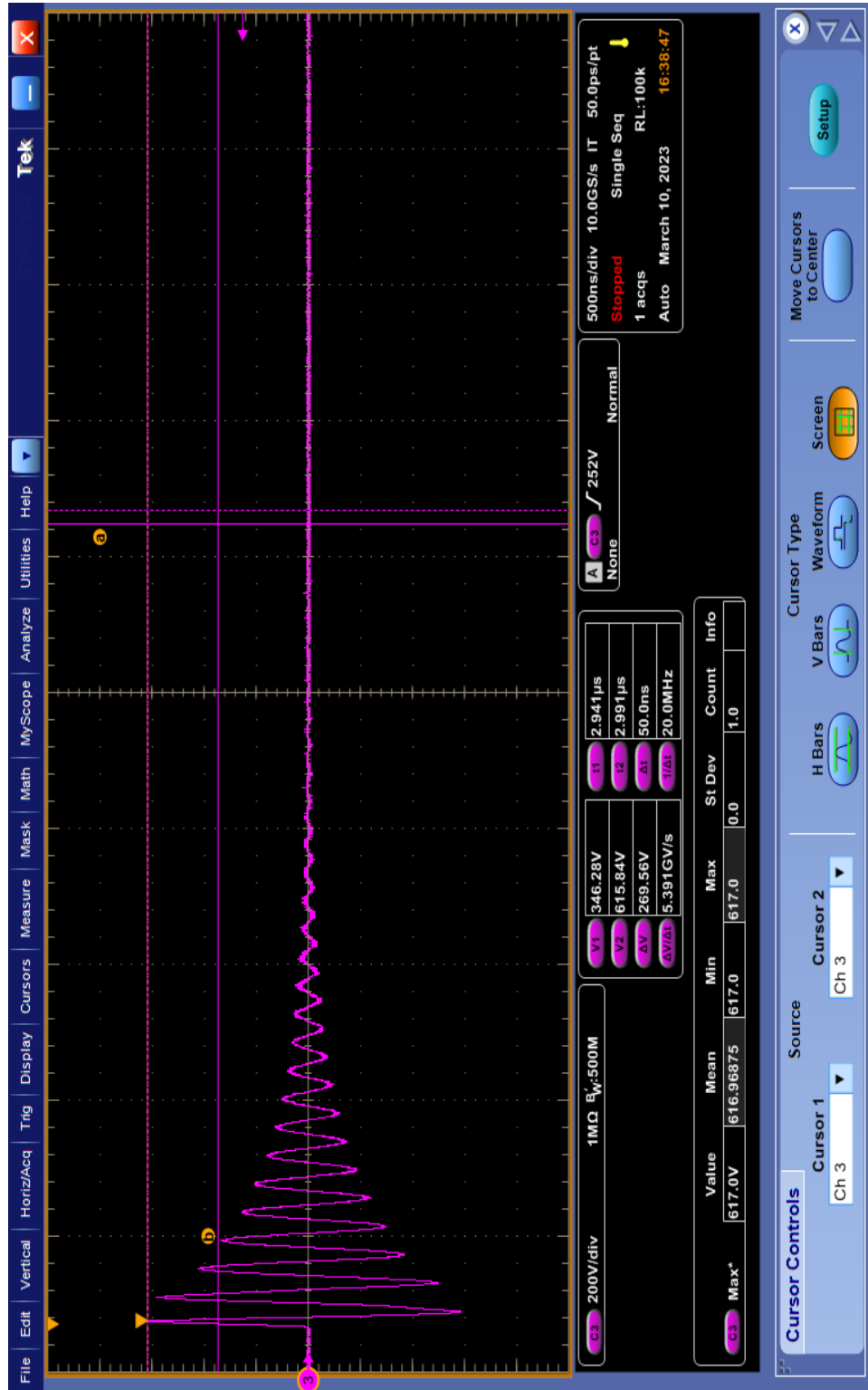
31-WF3 1Mhz Multistroke Negative 1st Stroke Characteristics



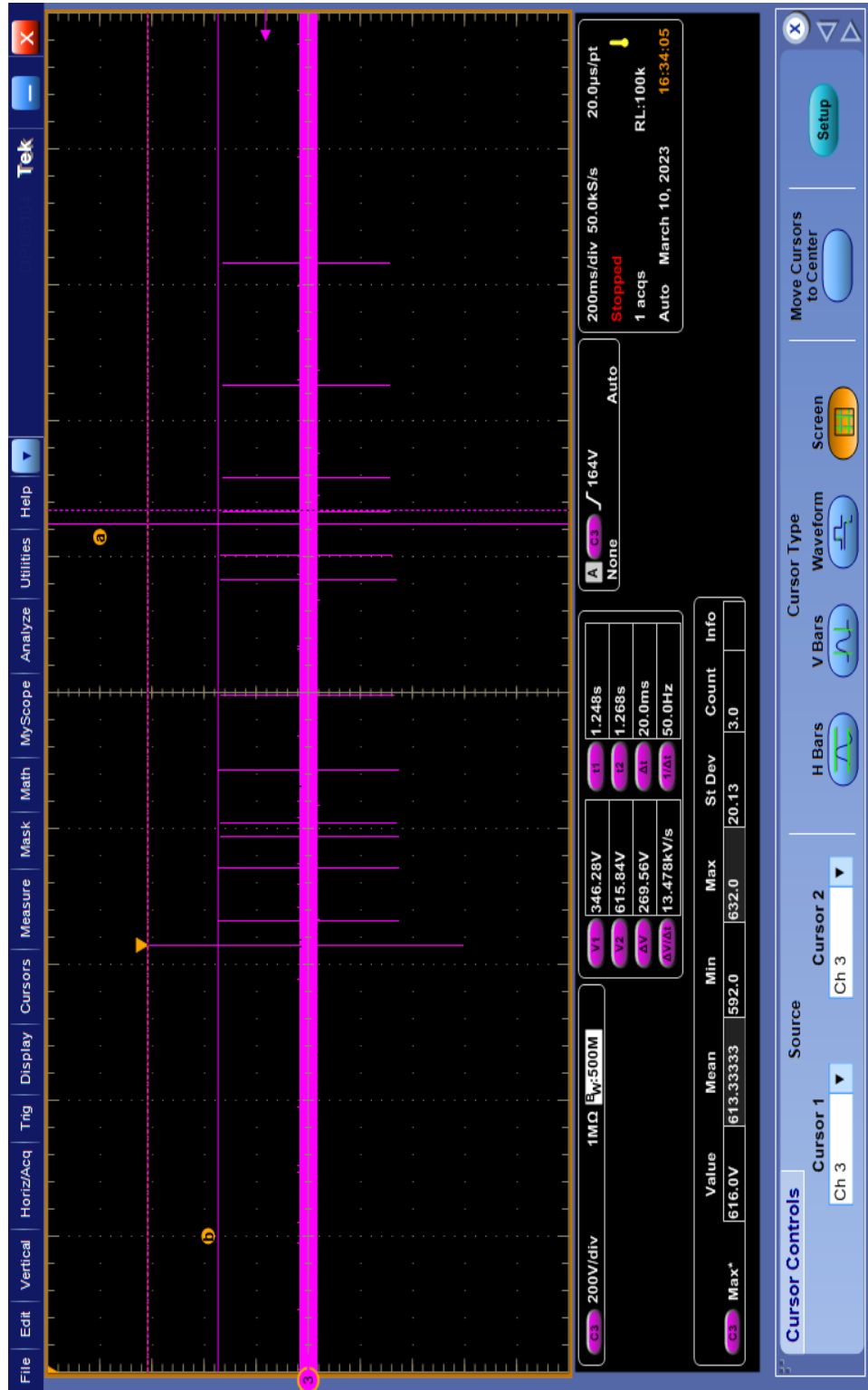
32-WF3 1Mhz Multistroke Negative 1st Stroke and Subsequent Amplitudes



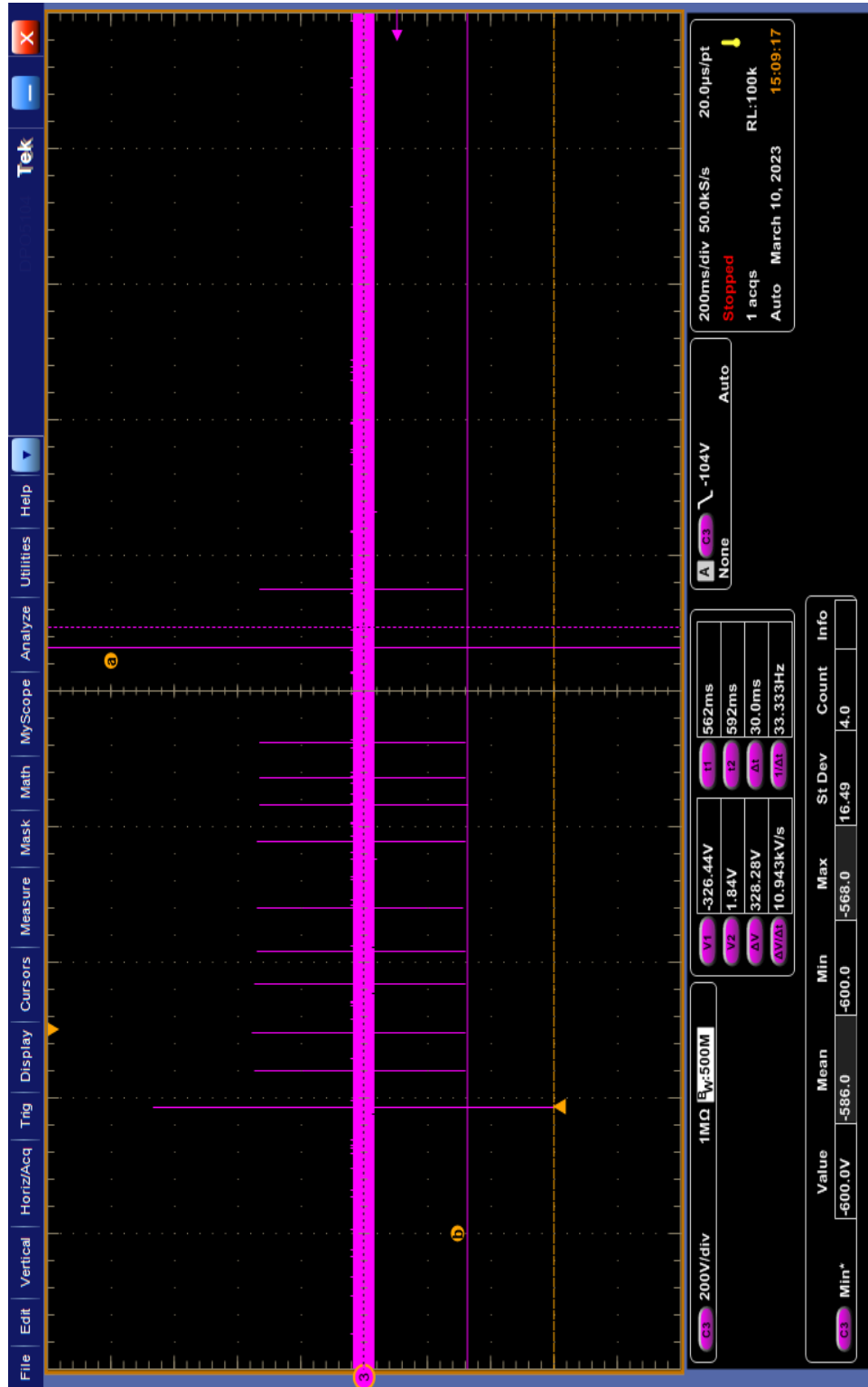
33-WF3 10Mhz Multistroke Positive Pulse Spacing



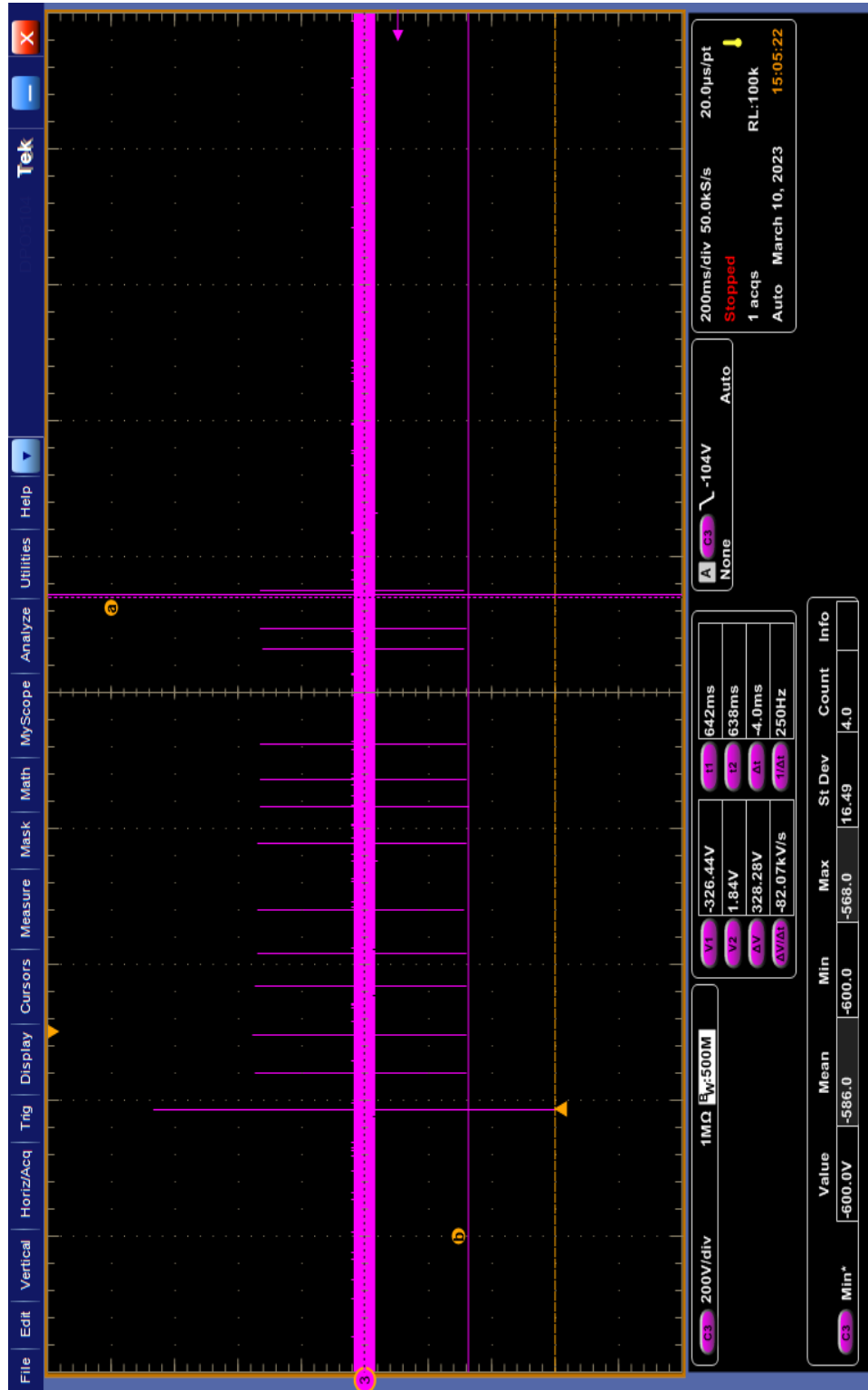
34-WF3 10Mhz Multistroke Positive 1st Stroke Characteristics



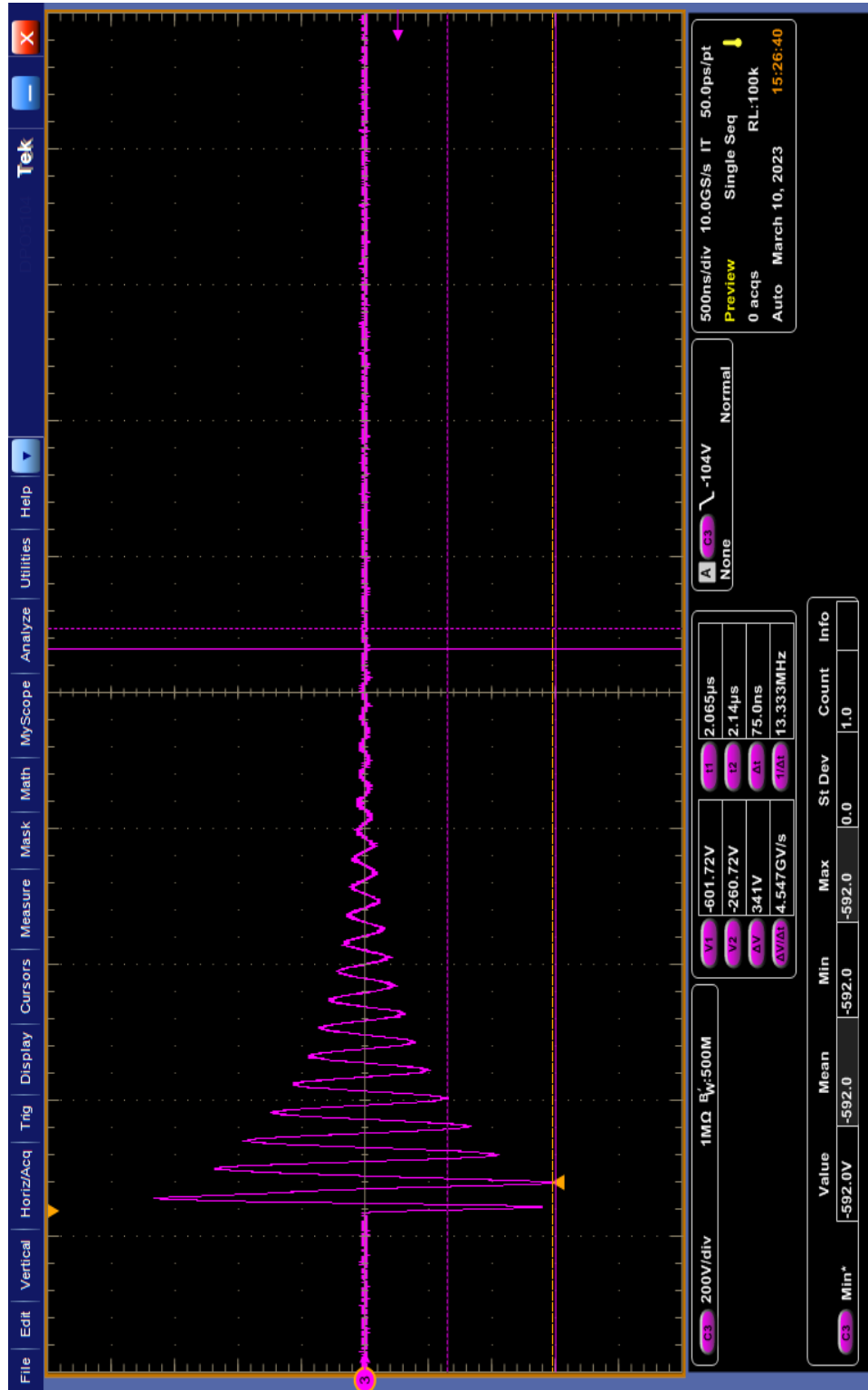
35-WF3 10Mhz Multistroke Positive 1st Stroke and Subsequent Strokes



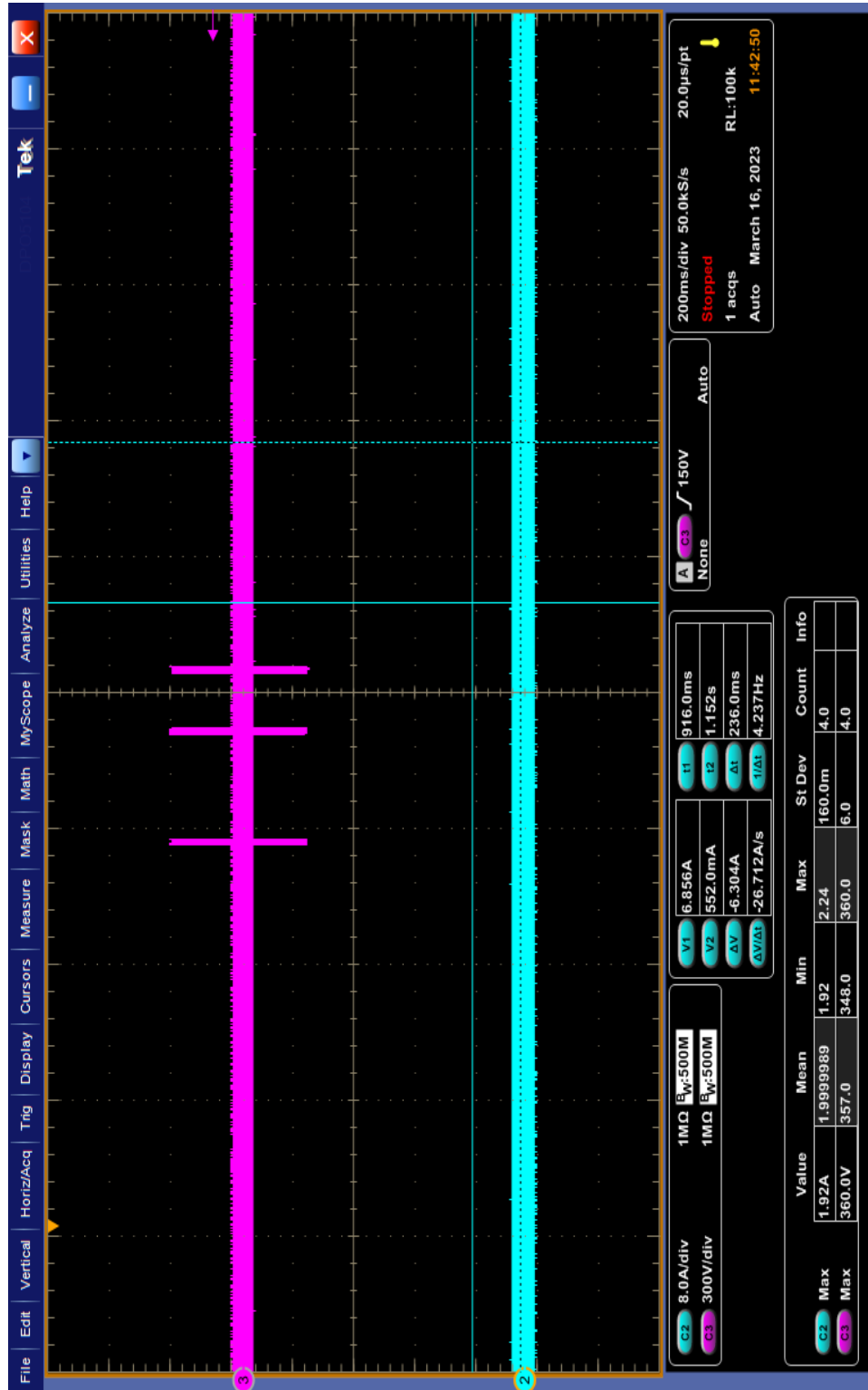
36-WF3 10Mhz Multistroke Negative Pulse Spacing



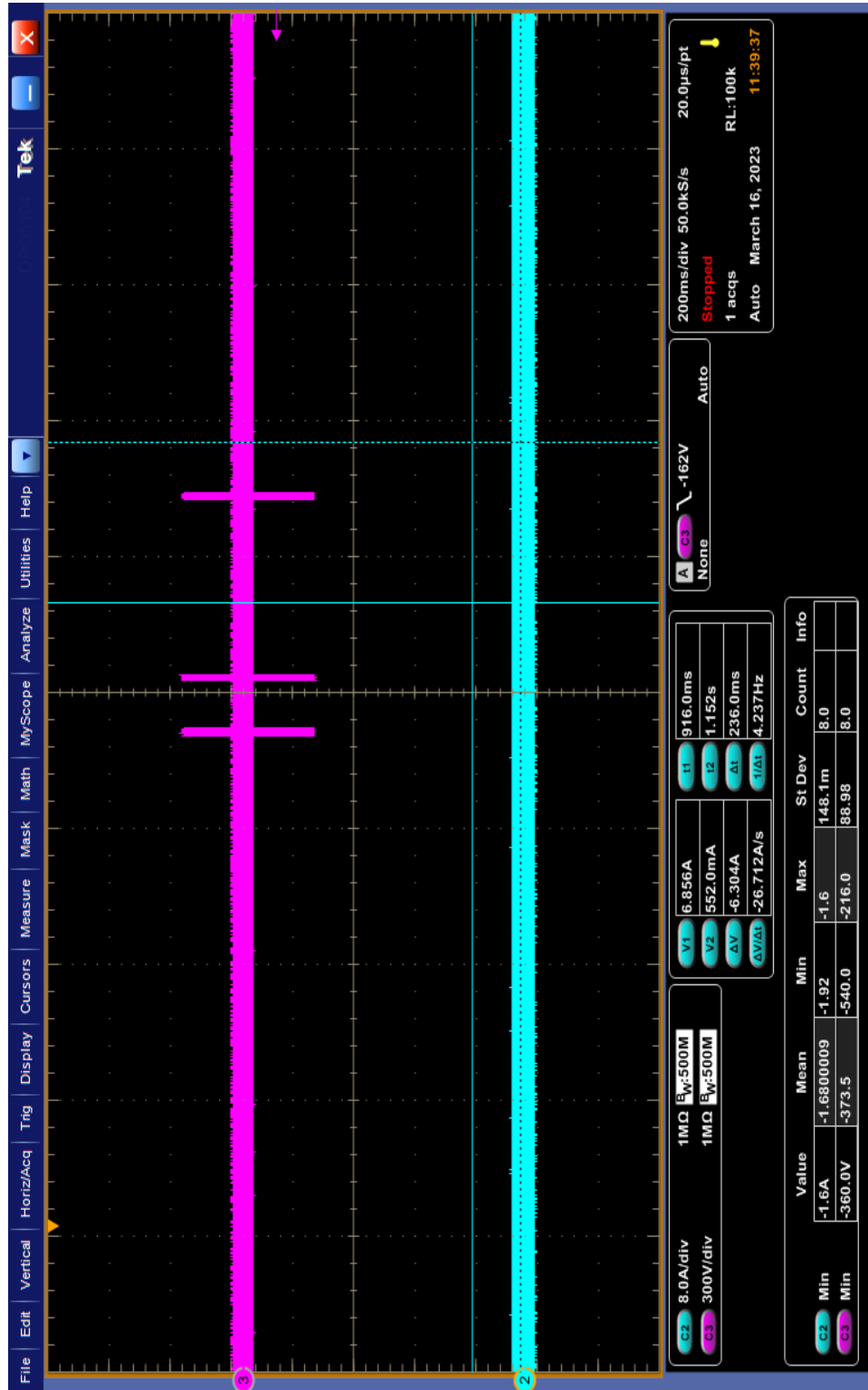
37-WF3 10Mhz Multistroke Negative 1st Stroke and Subsequent Stroke Amplitudes



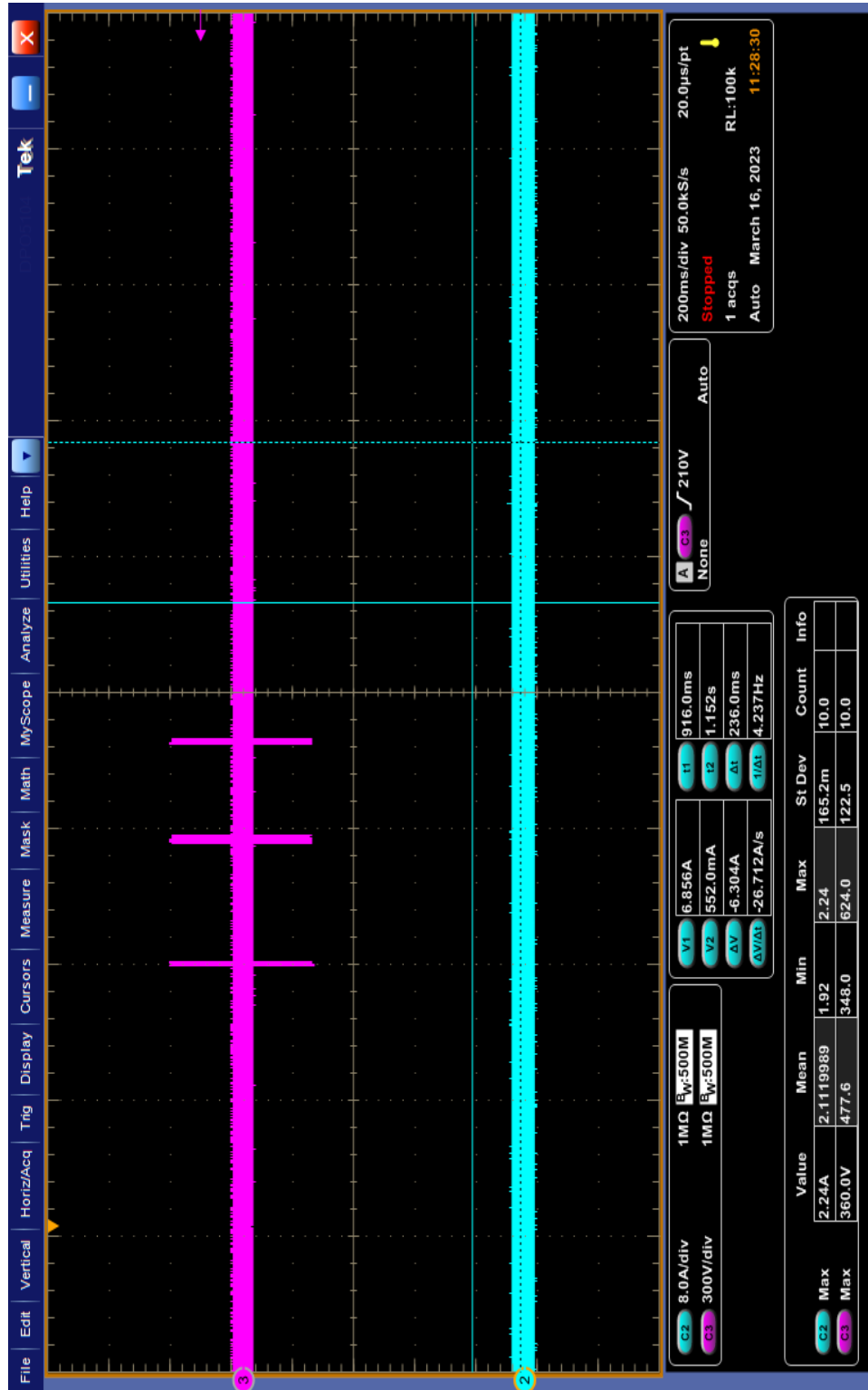
38-WF3 10Mhz Multistroke 1st Stroke Characteristic



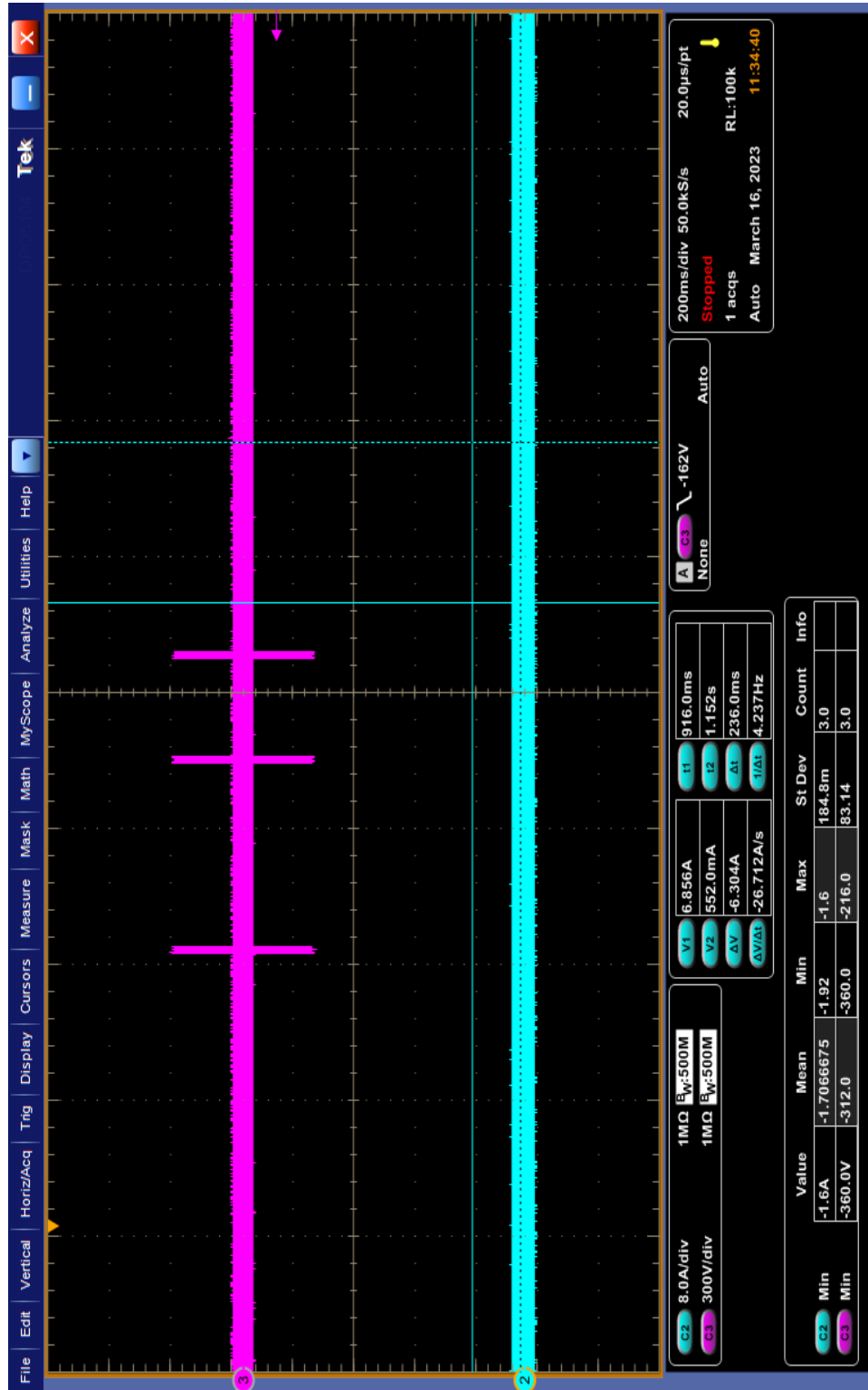
39-CS117 Active Load Bundle WF3 1Mhz Multiburst Positive



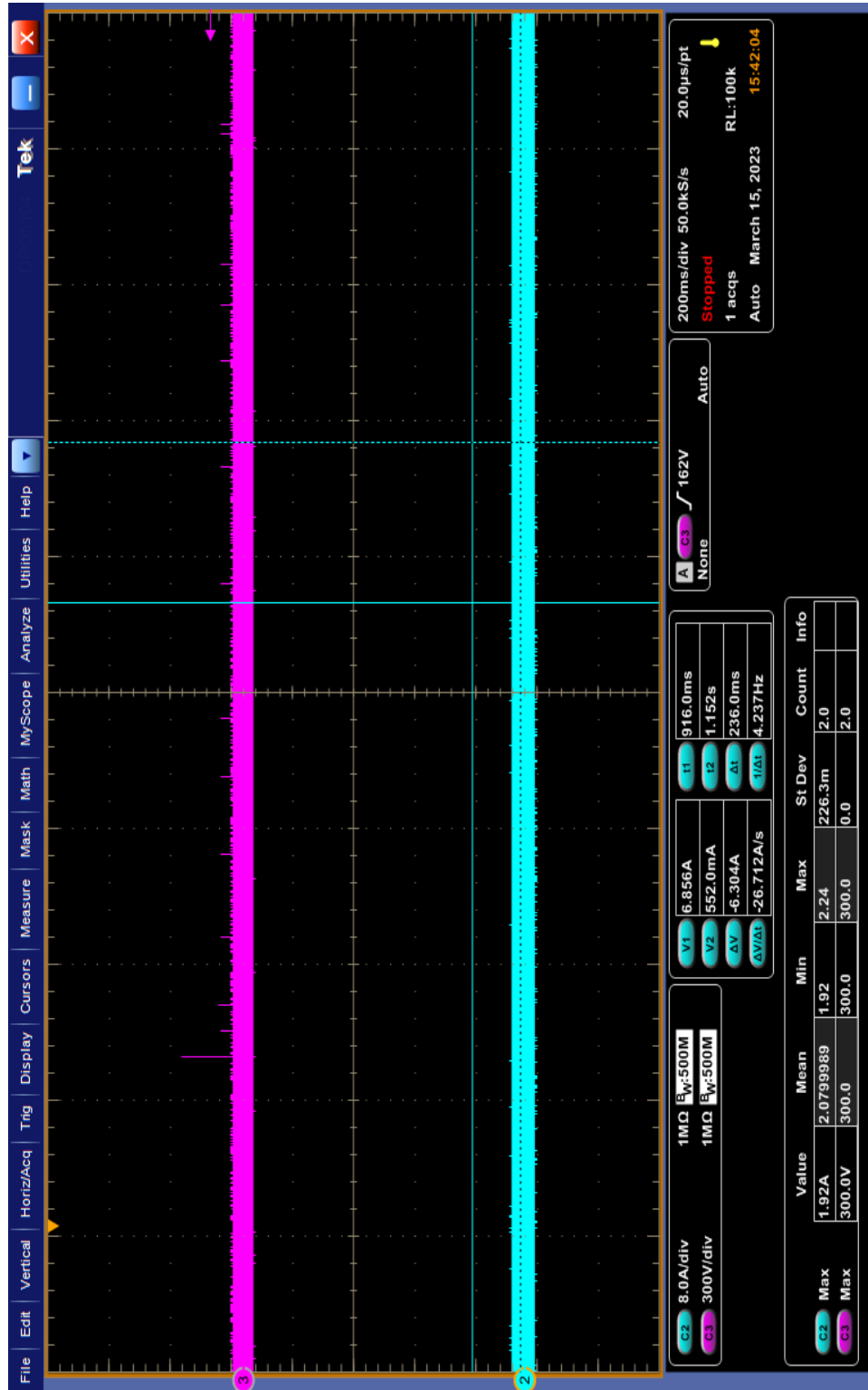
40-CS117 Active Load Bundle WF3 1Mhz Multiburst Negative



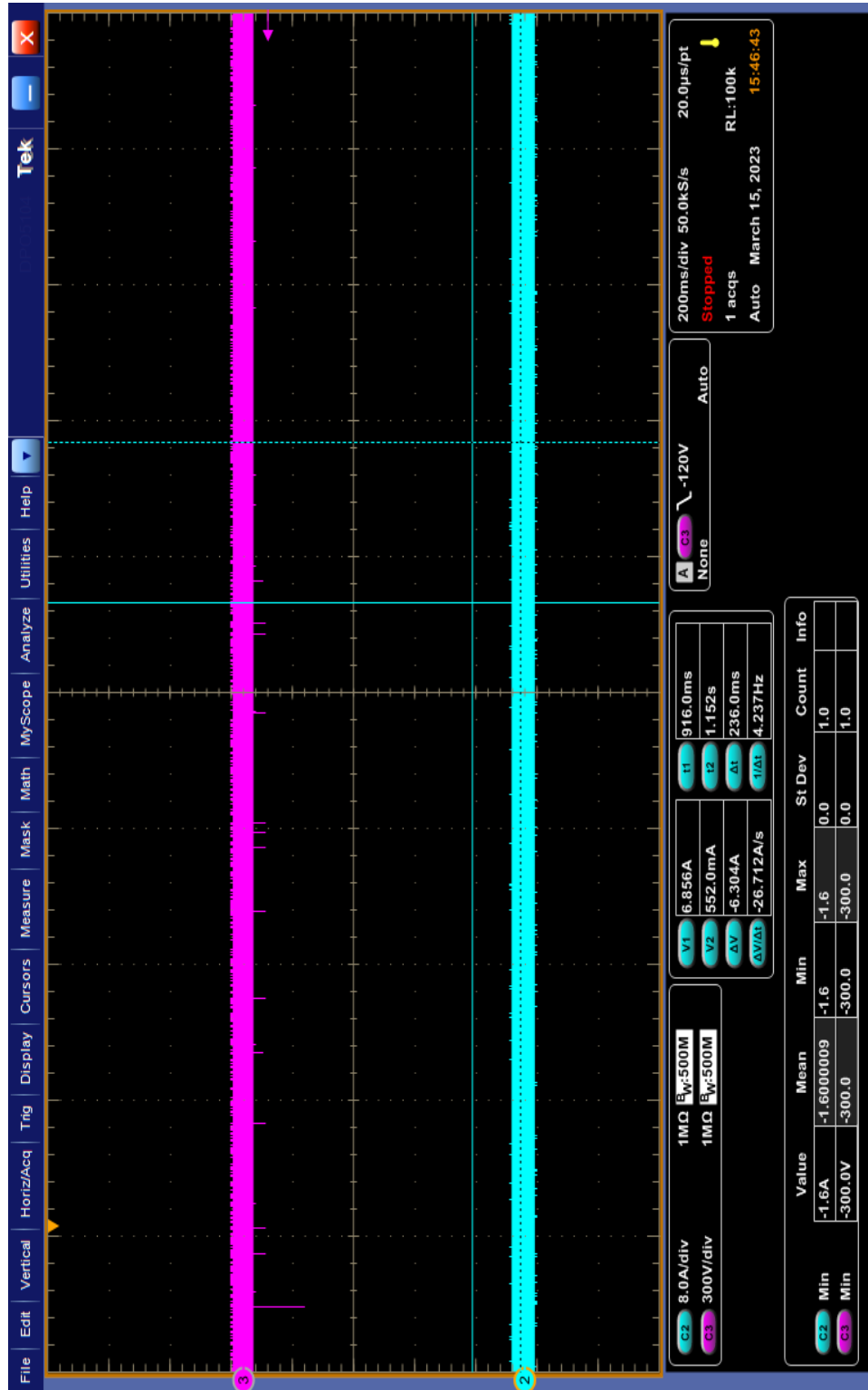
41-CS117 Active Load Bundle WF3 10Mhz Multiburst Positive



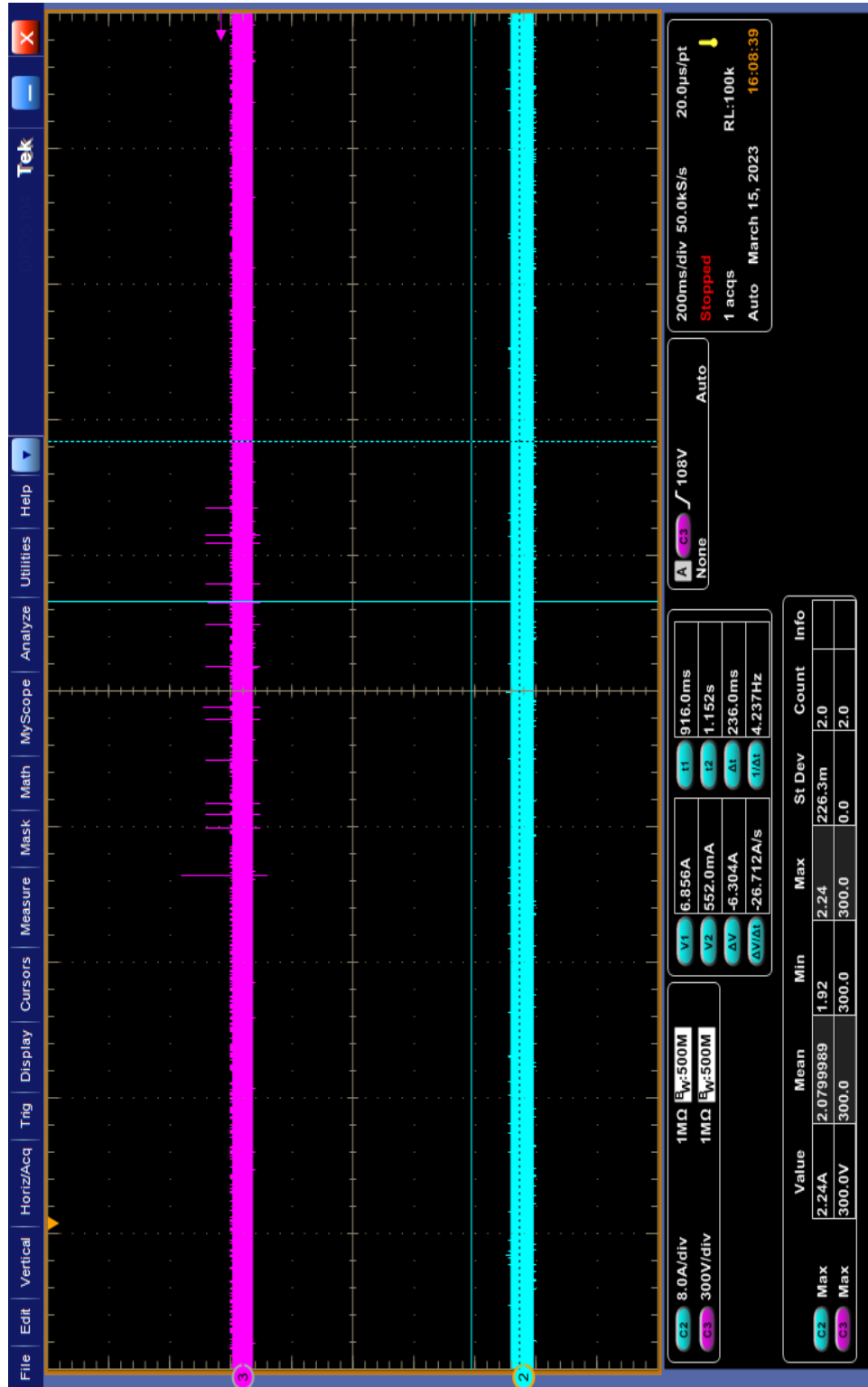
42-CS117 Active Load Bundle WF3 10Mhz Multiburst Negative



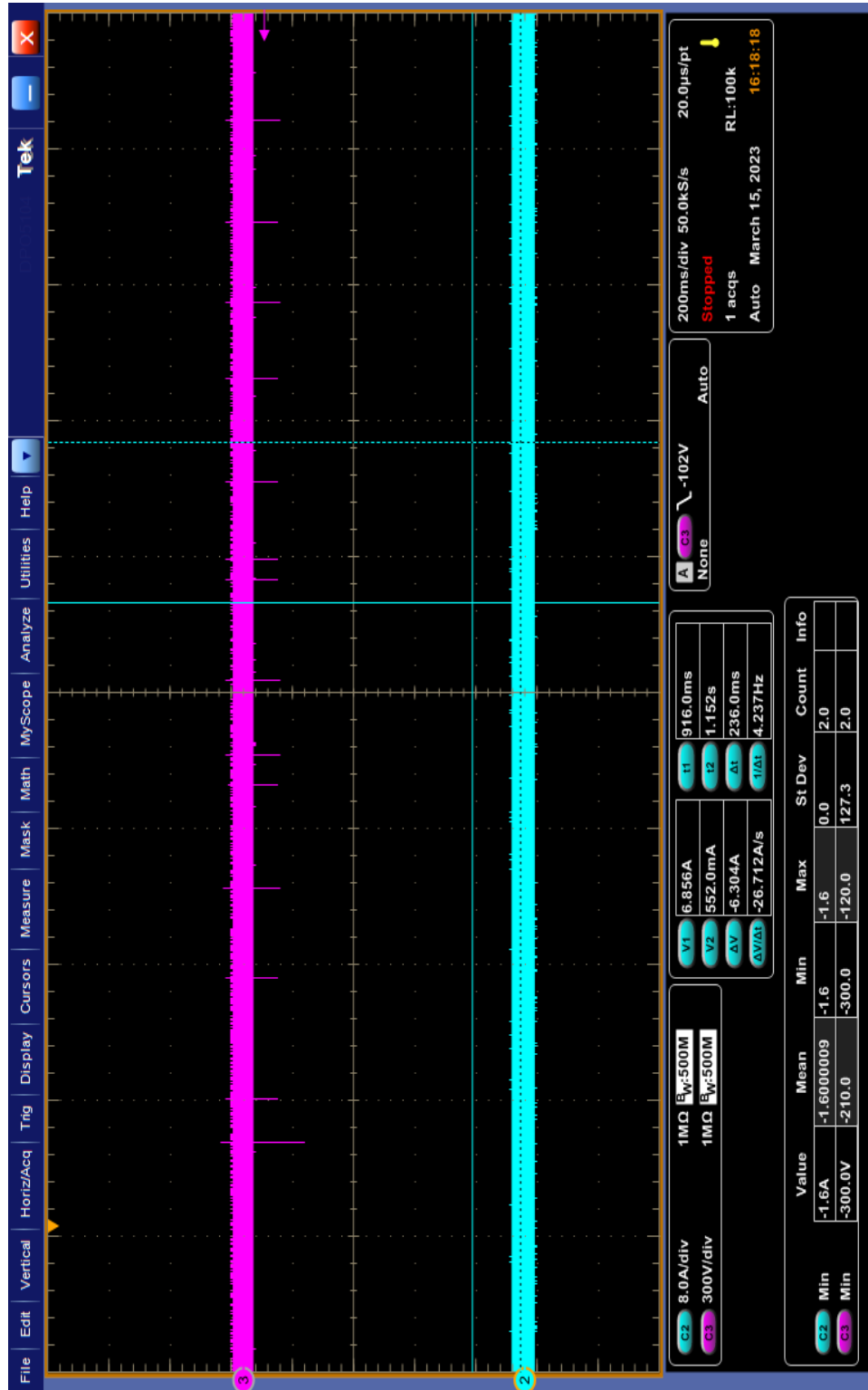
43-CS117 Active Load Bundle WF1 Multistroke Positive



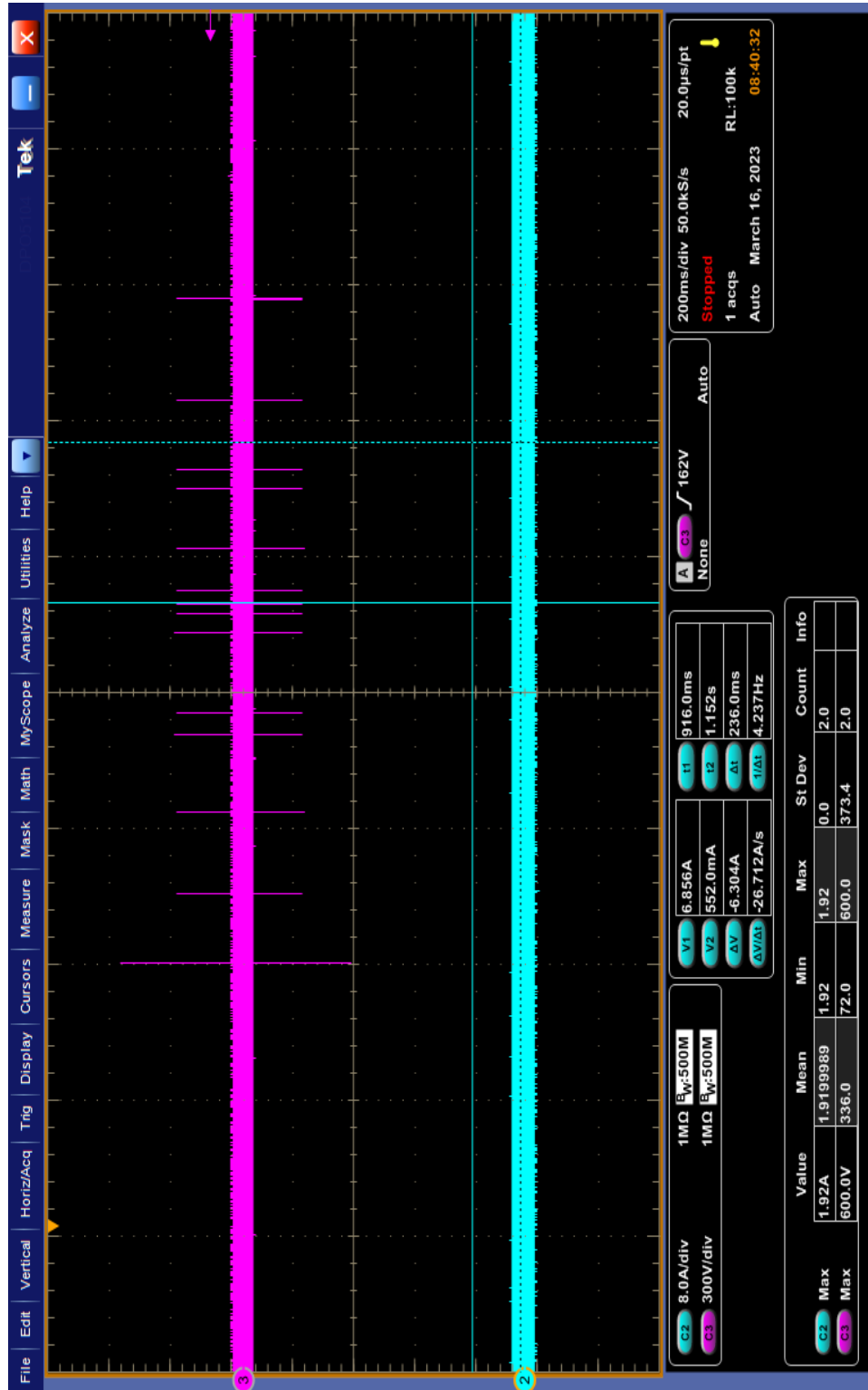
44-CS117 Active Load Bundle WF1 Multistroke Negative



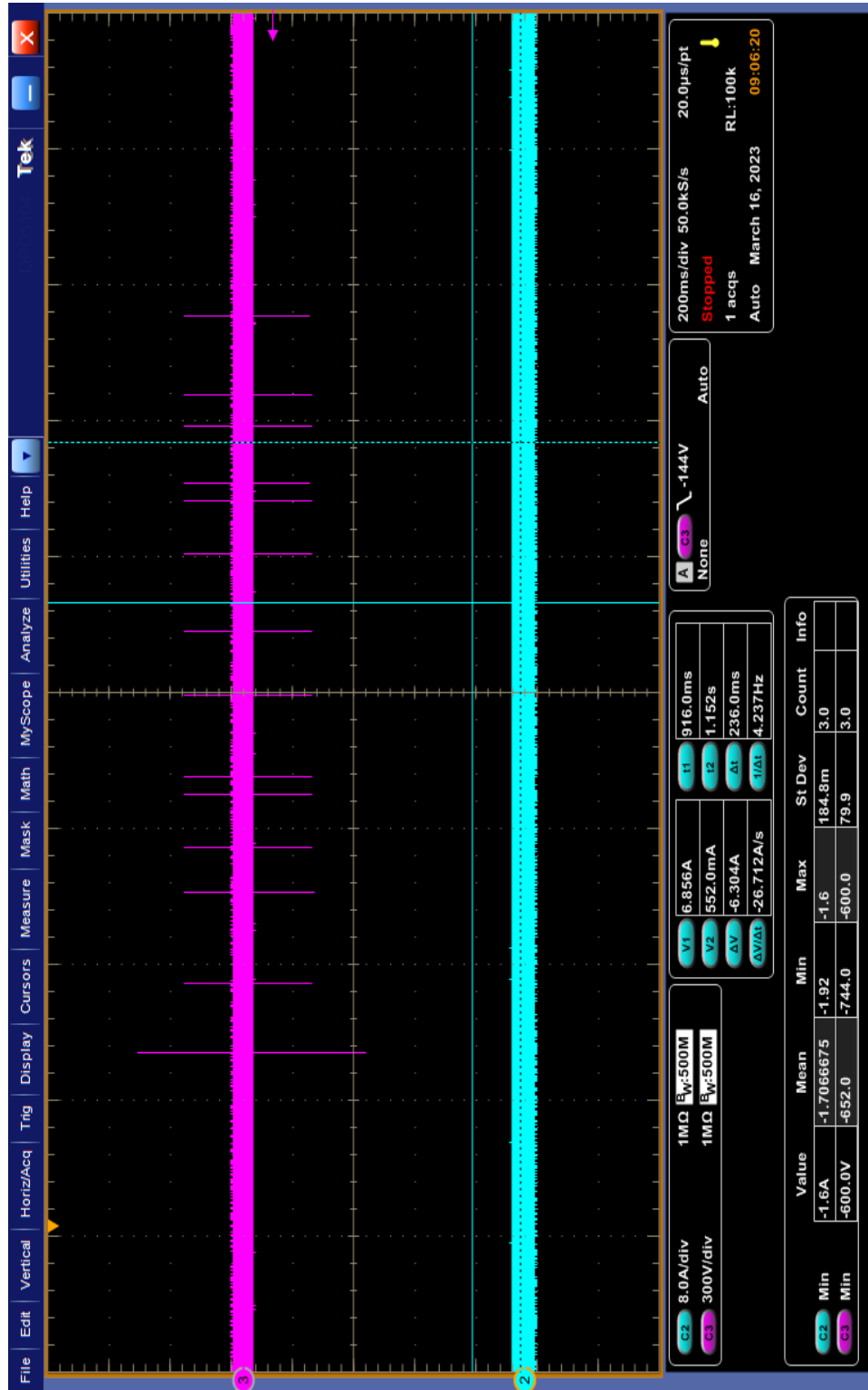
45-CS117 Active Load Bundle WF2 Multistroke Positive



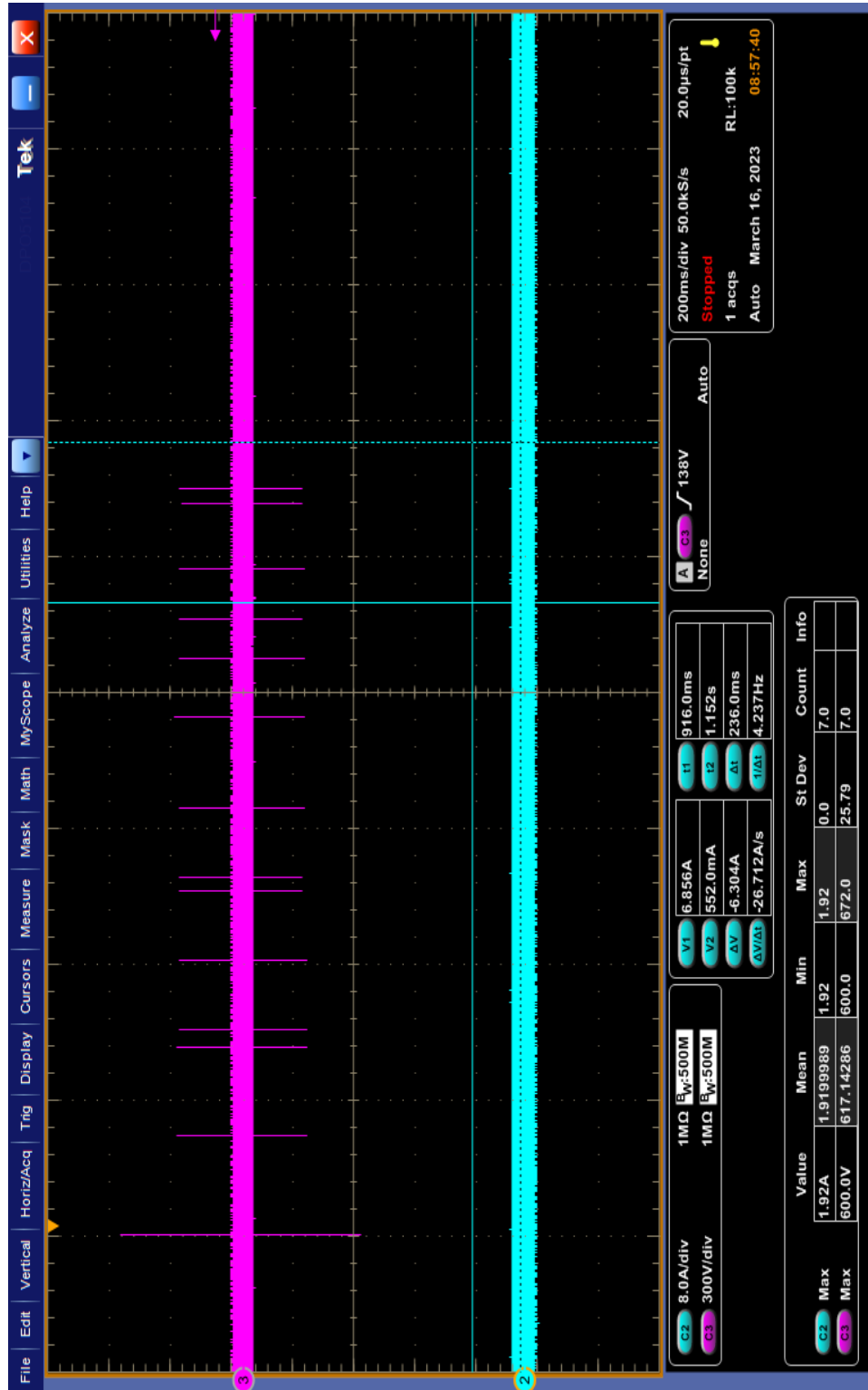
46-CS117 Active Load Bundle WF2 Multistroke Negative



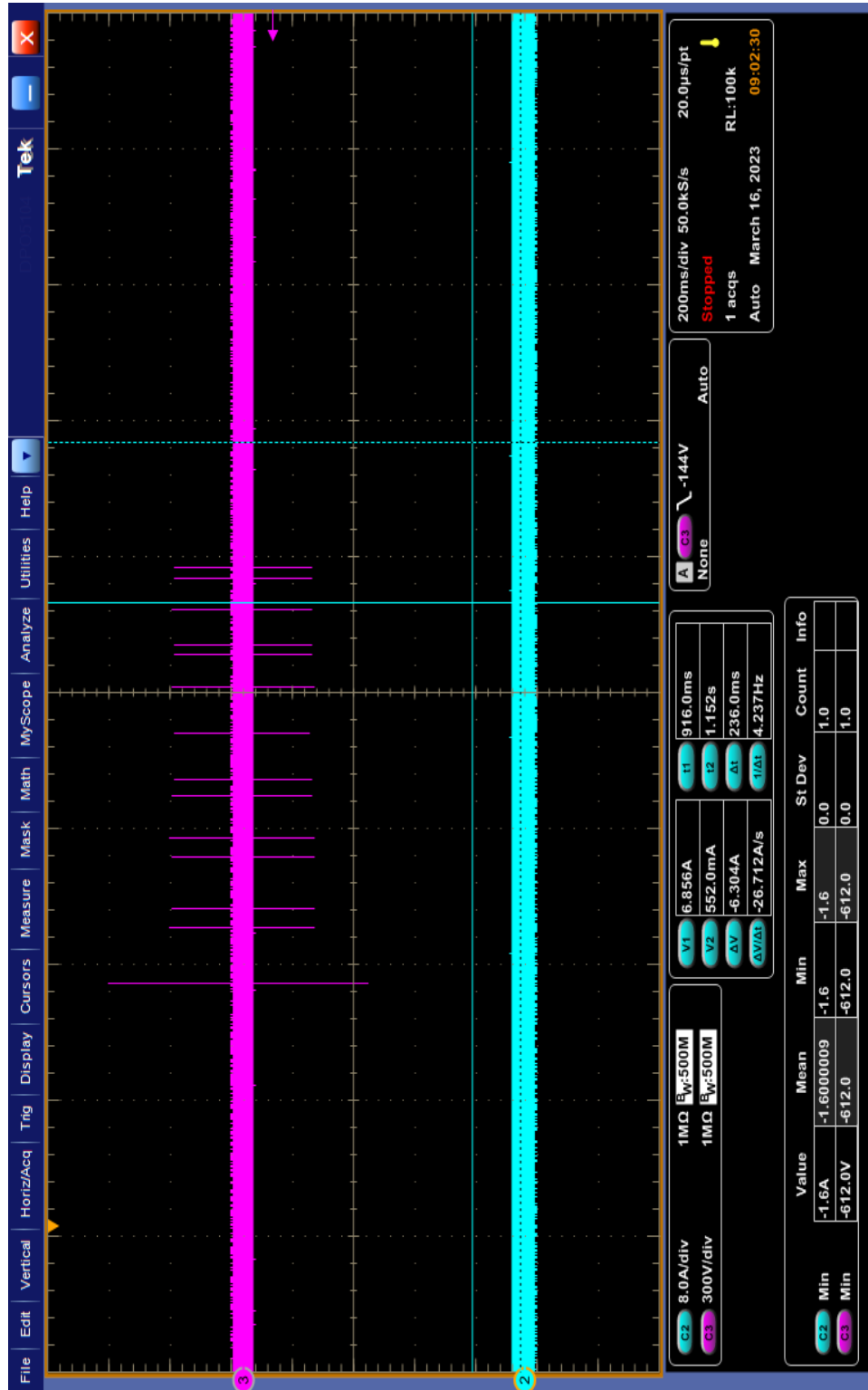
47-CS117 Active Load Bundle WF3 1Mhz Multistroke Positive



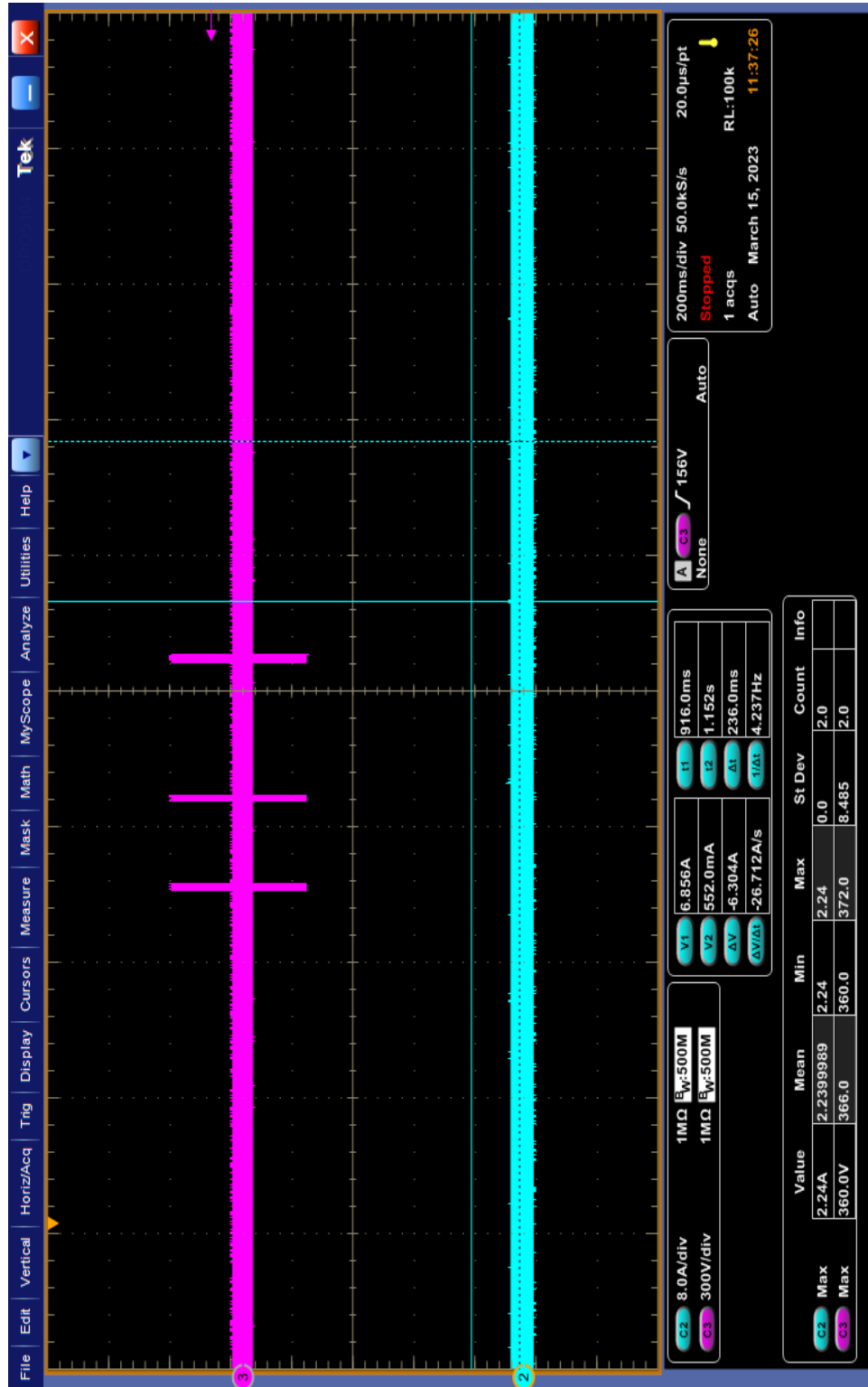
48-CS117 Active Load Bundle WF3 1Mhz Multistroke Negative



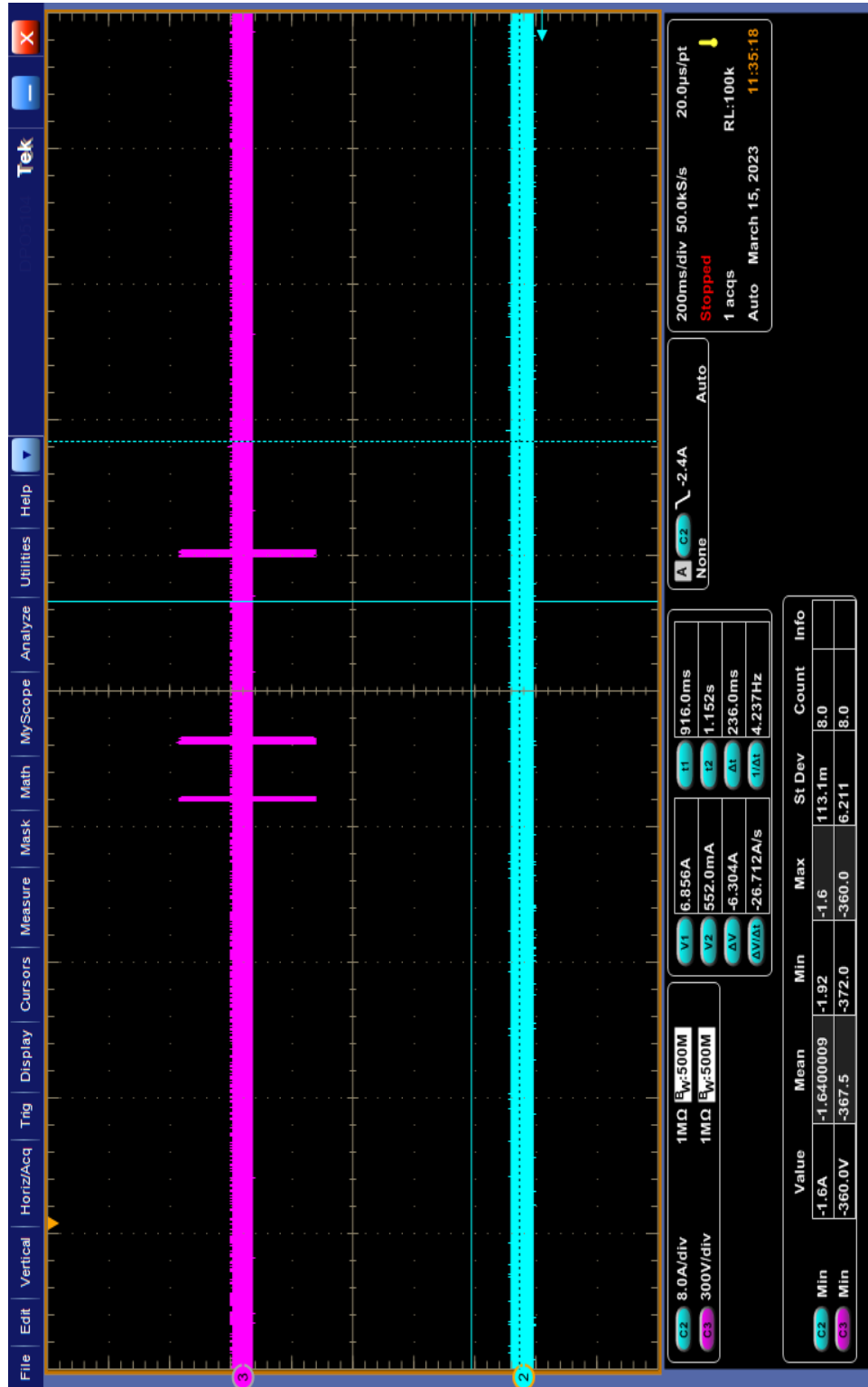
49-CS117 Active Load Bundle WF3 10Mhz Multistroke Positive



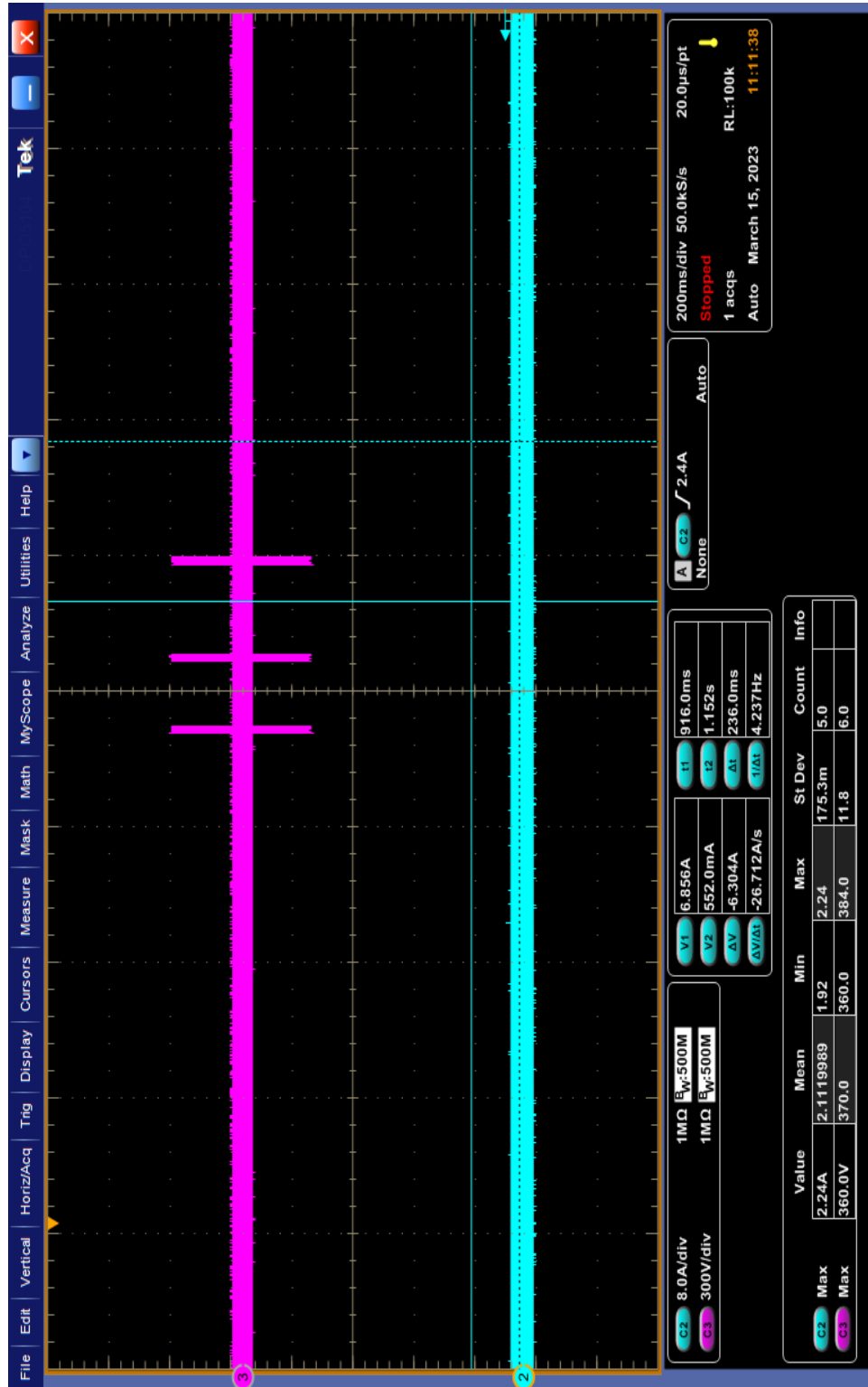
50-CS117 Active Load Bundle WF3 10Mhz Multistroke Negative



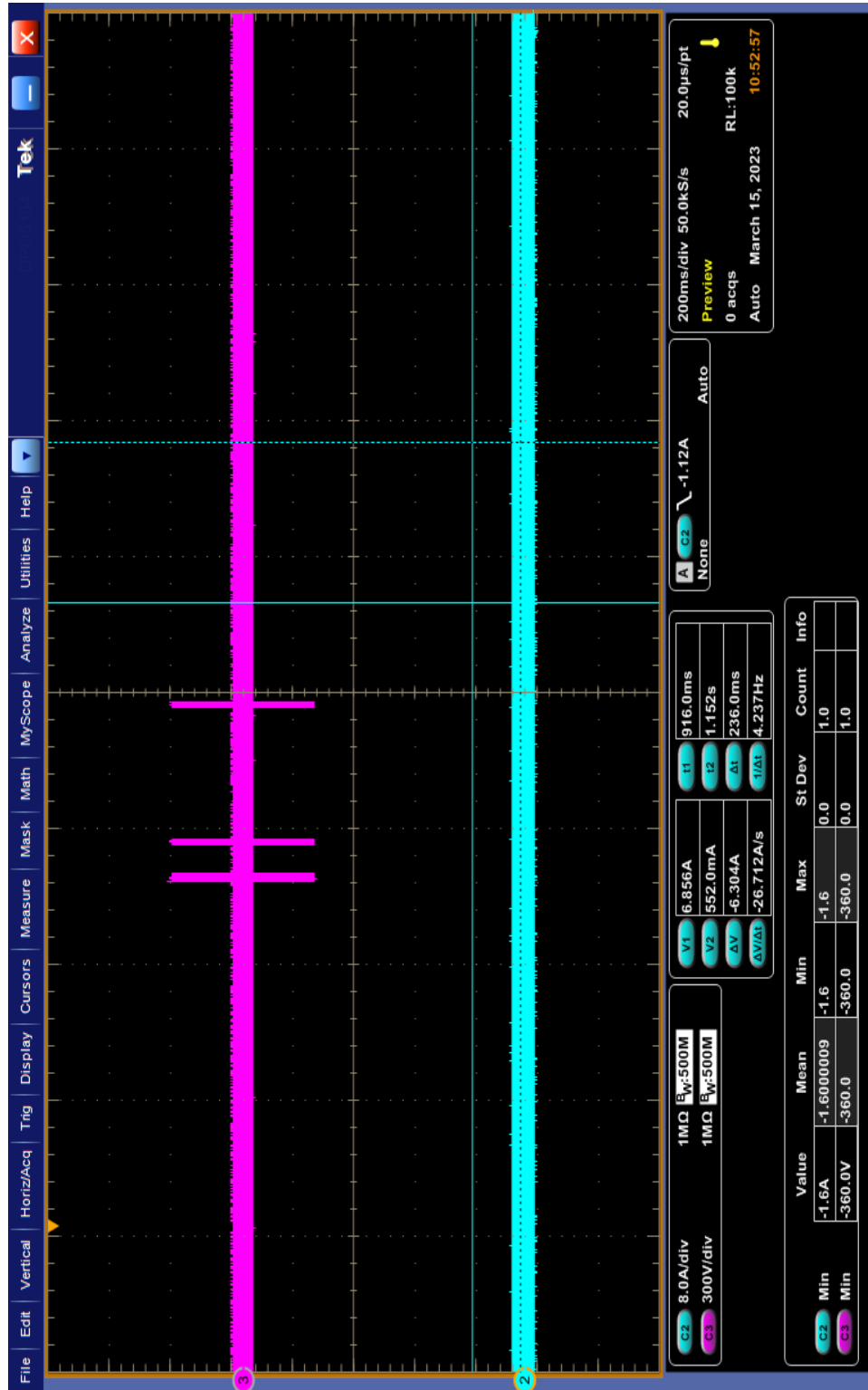
51-CS117 Active MPPT Multiburst WF3 1Mhz Positive



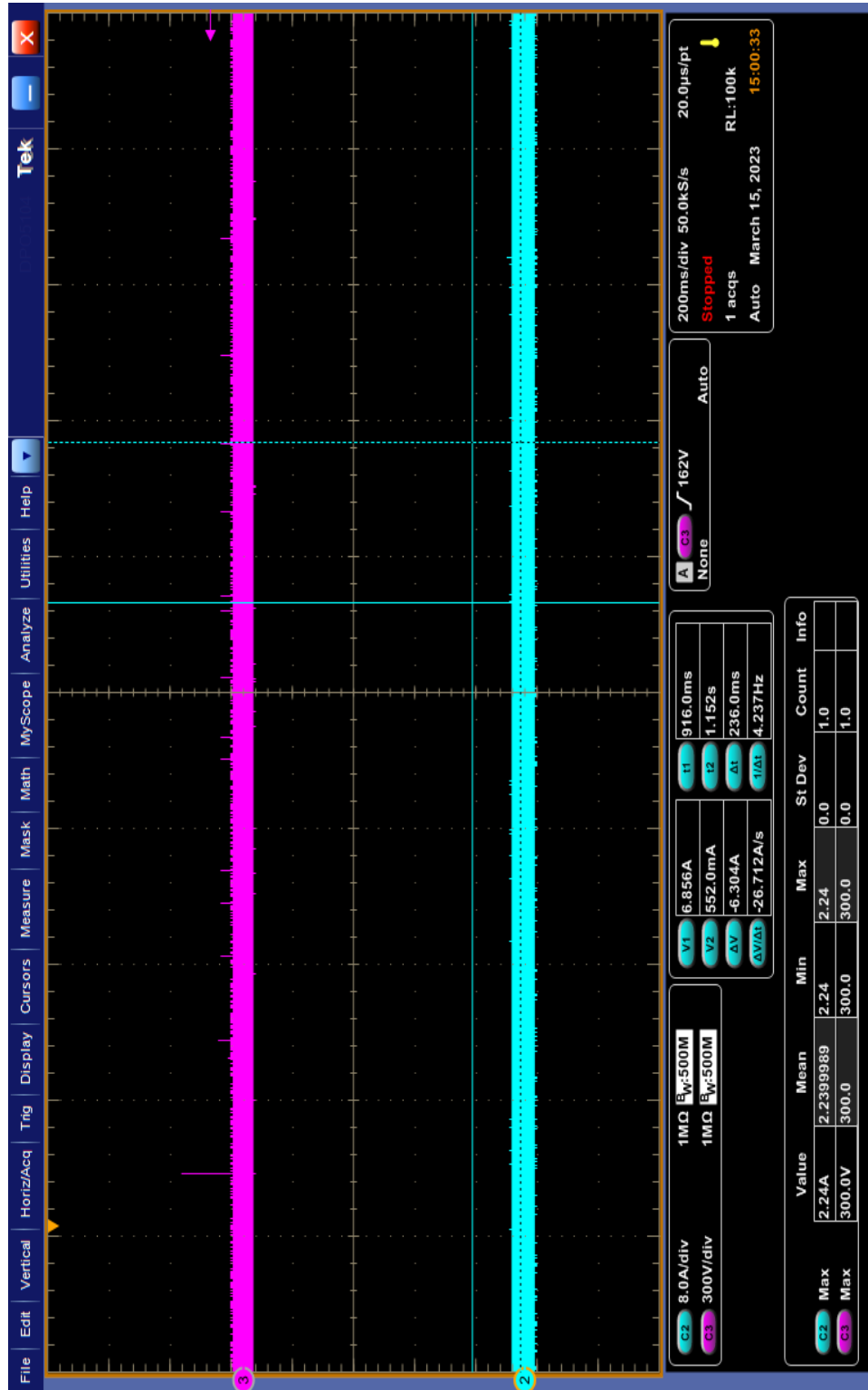
52-CS117 Active MPPT Multiburst WF3 1Mhz Negative



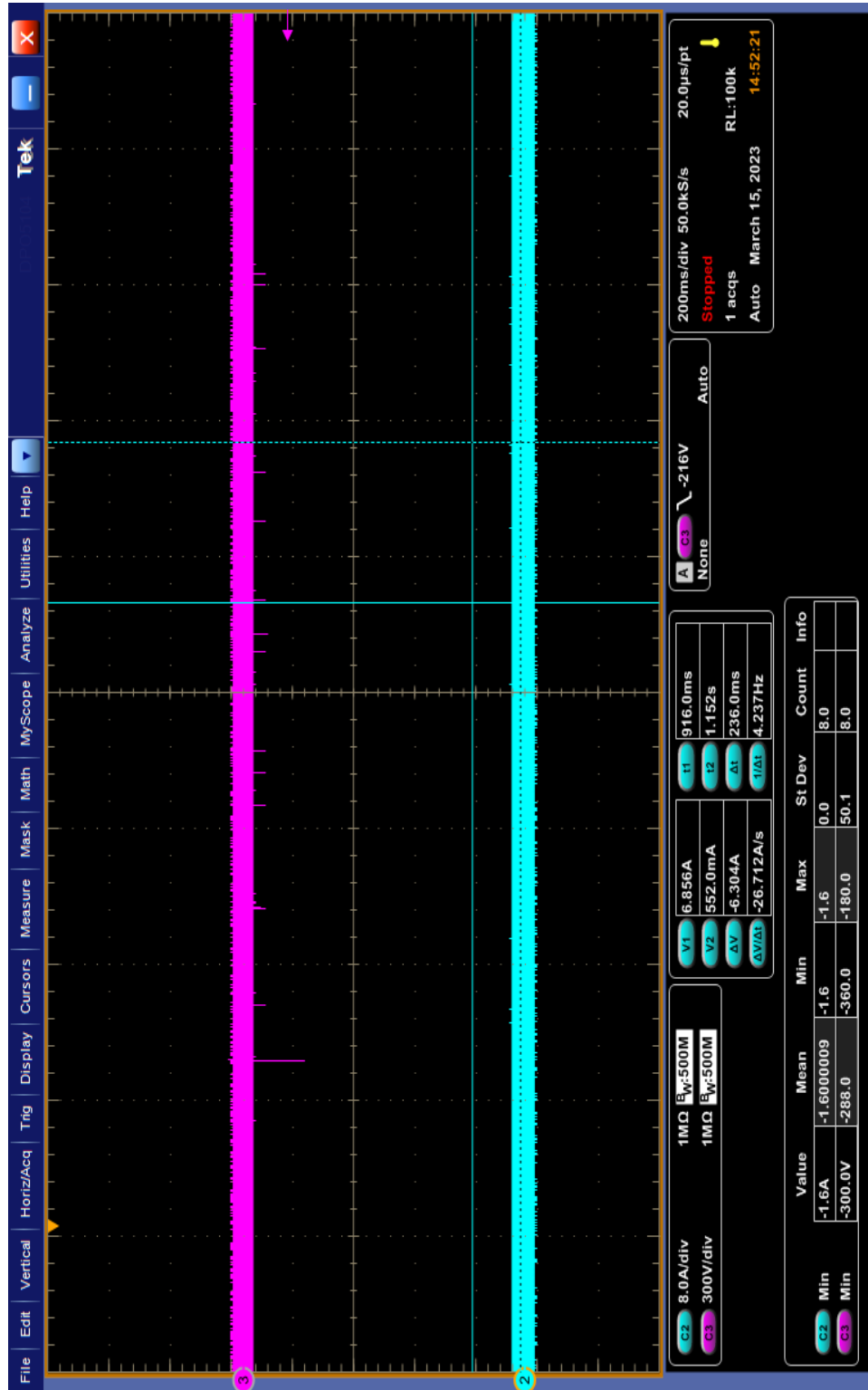
53-CS117 Active MPPT Multiburst WF3 10Mhz Positive



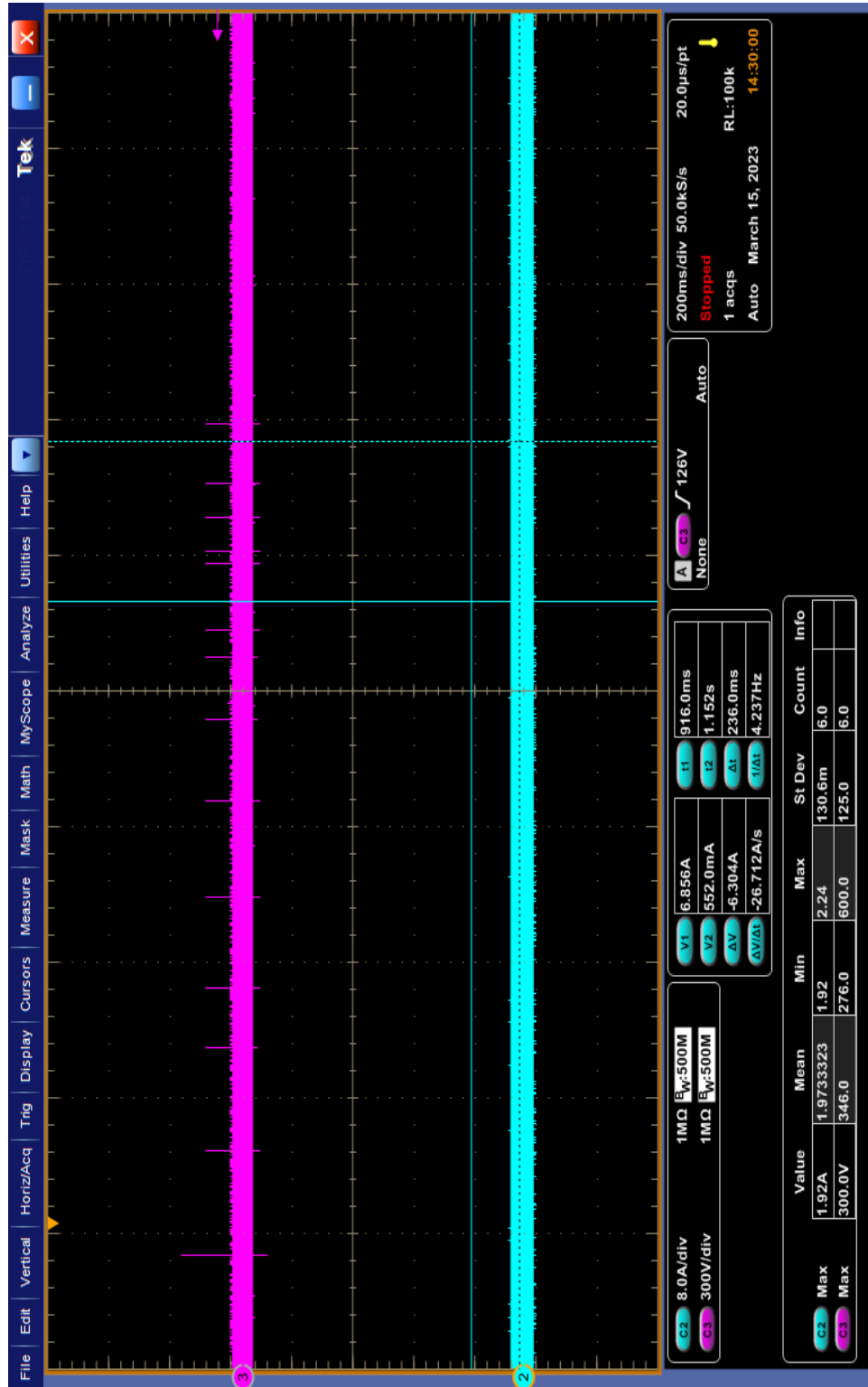
54-CS117 Active MPPT Multiburst WF3 10Mhz Negative



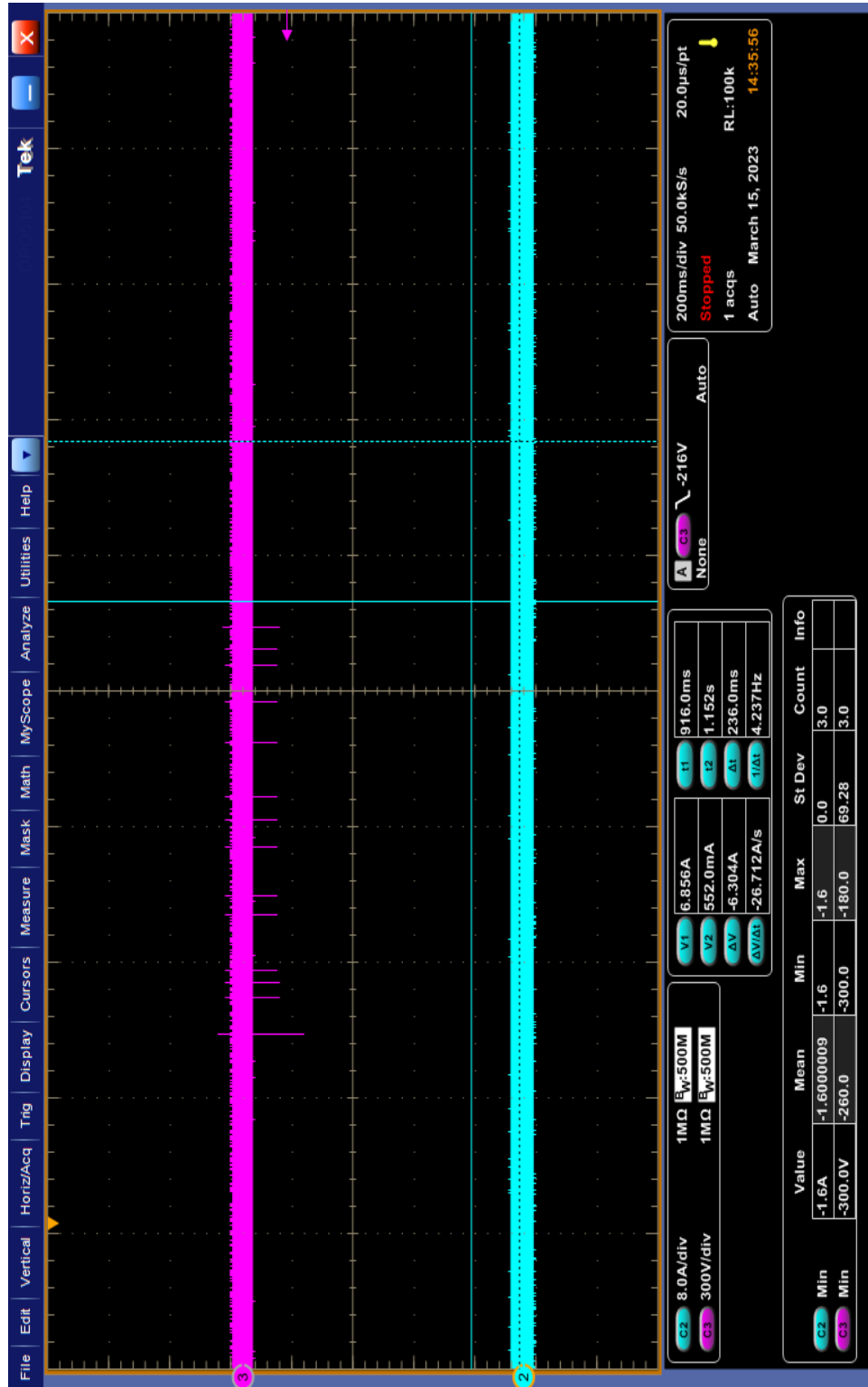
55-CS117 Active MPPT Multistroke WF1 Positive



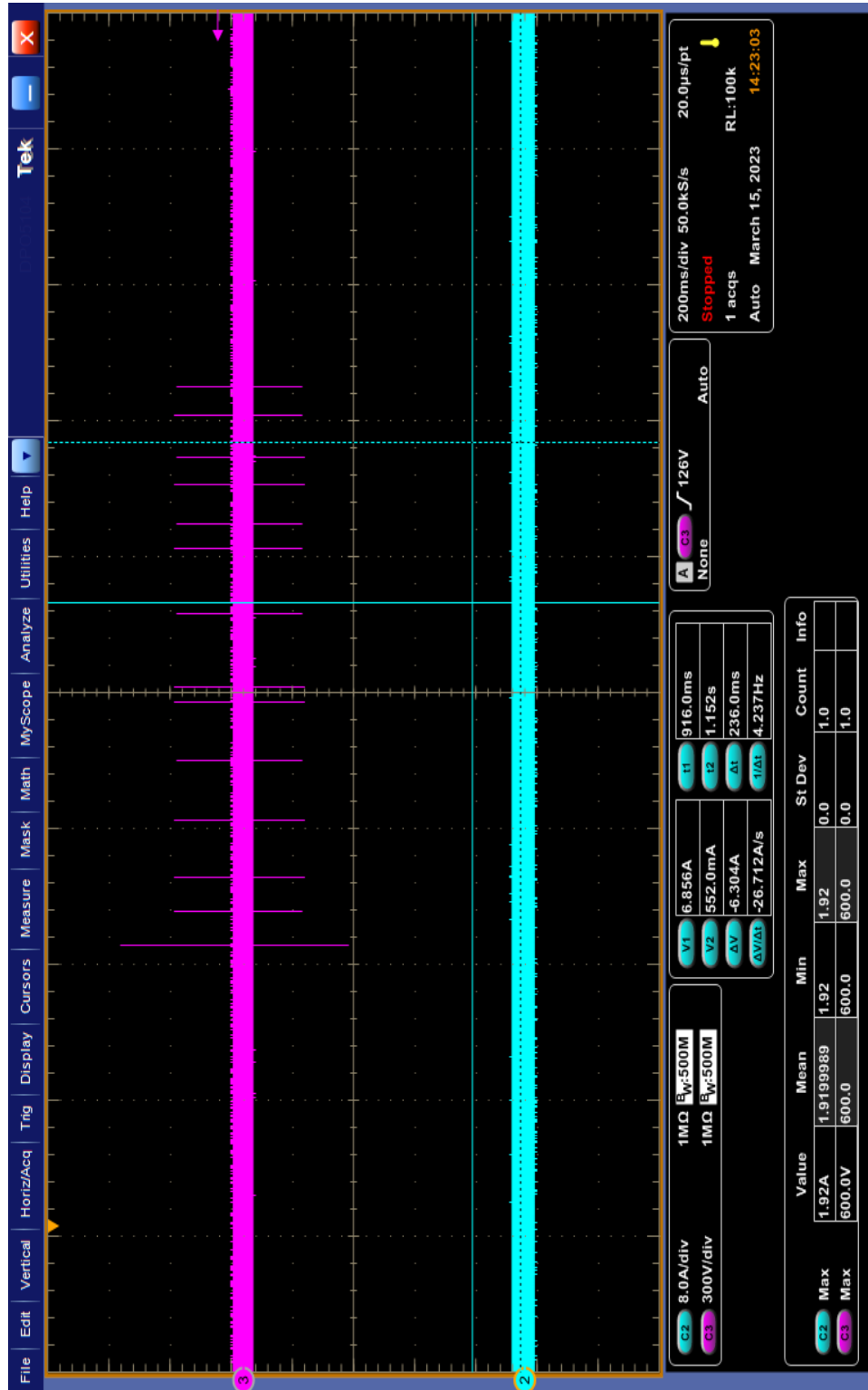
56-CS117 Active MPPT Multistroke WF1 Negative



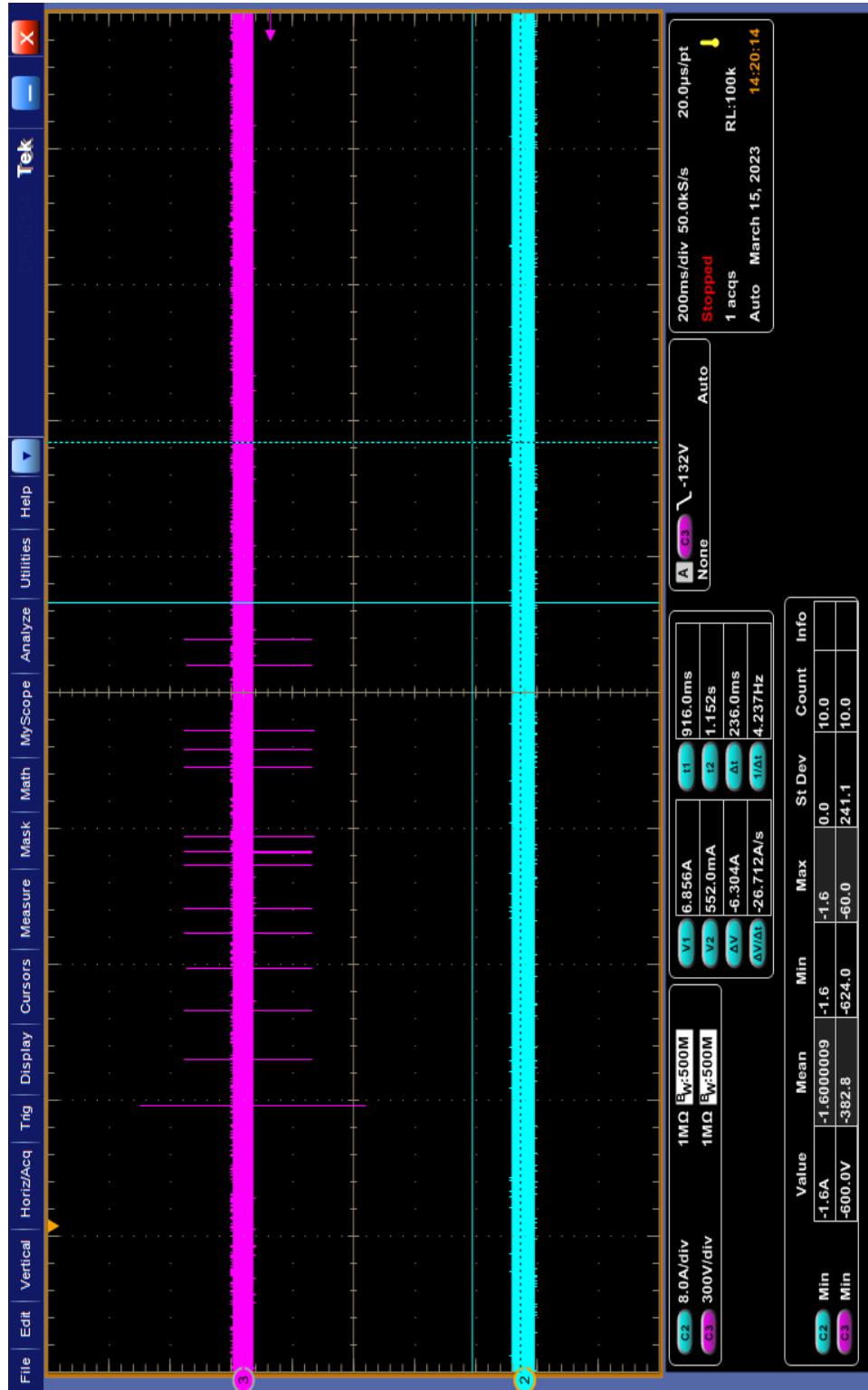
57-CS117 Active MPPT Multistroke WF2 Positive



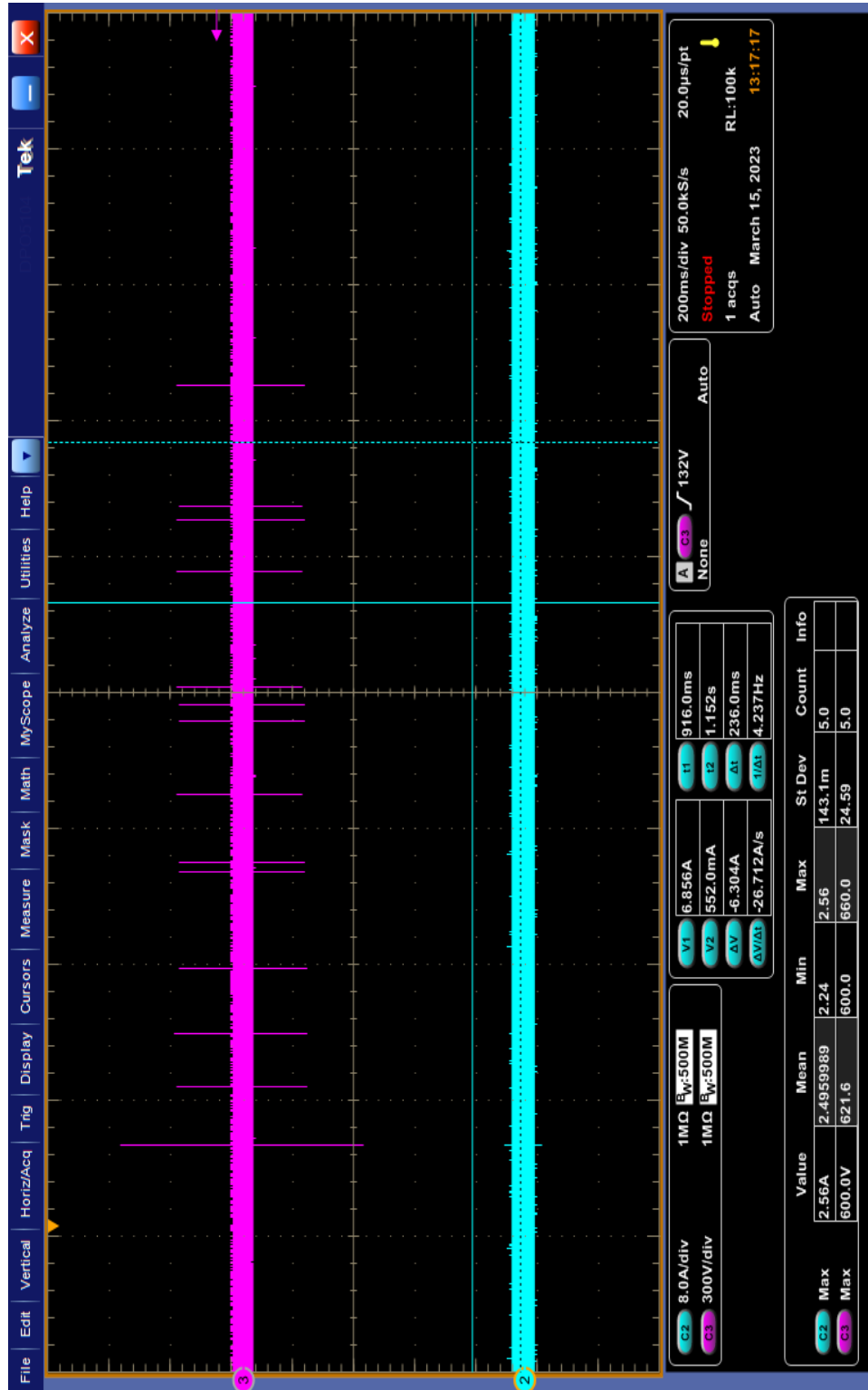
58-CS117 Active MPPT Multistroke WF2 Negative



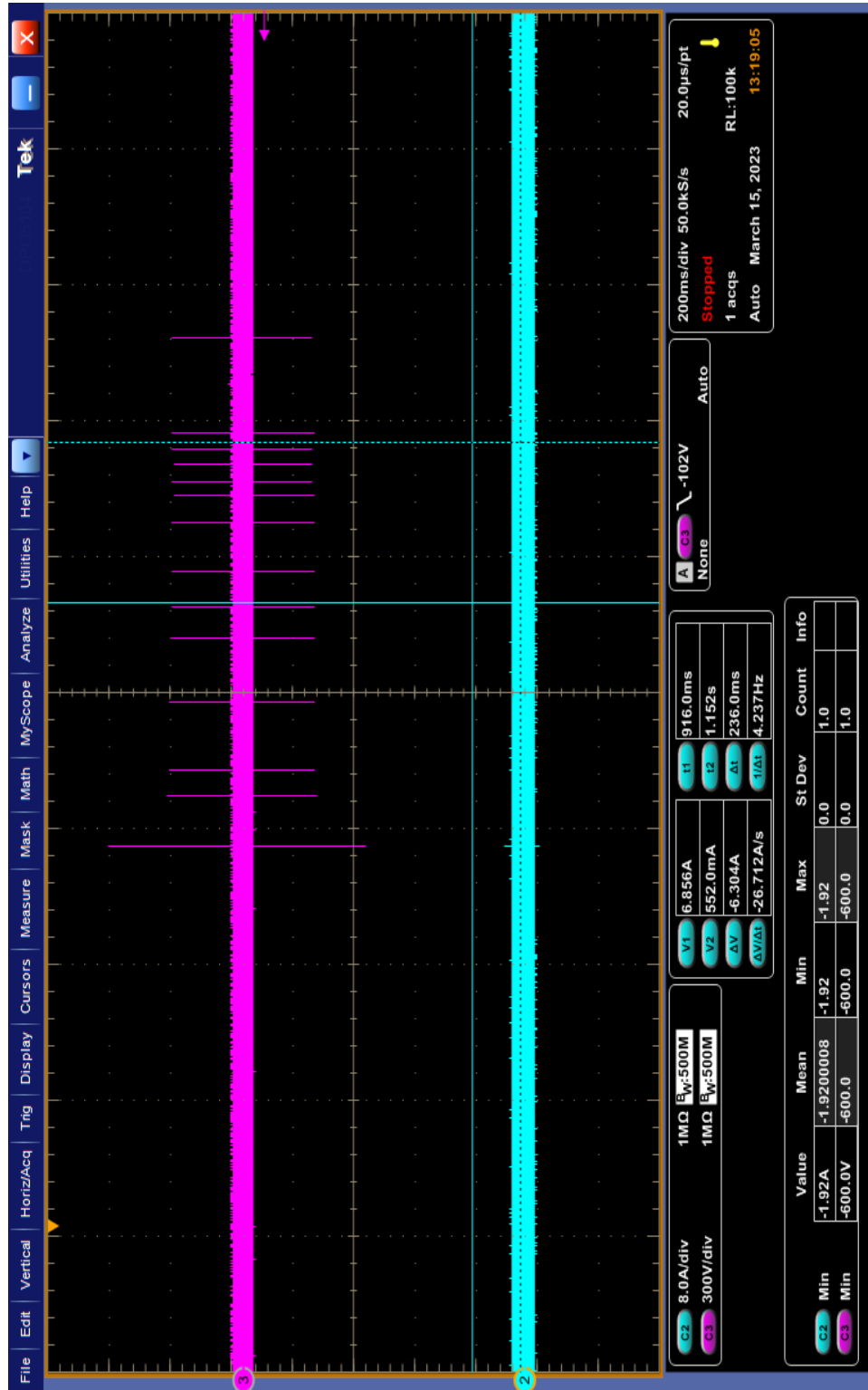
59-CS117 Active MPPT Multistroke WF3 1Mhz Positive



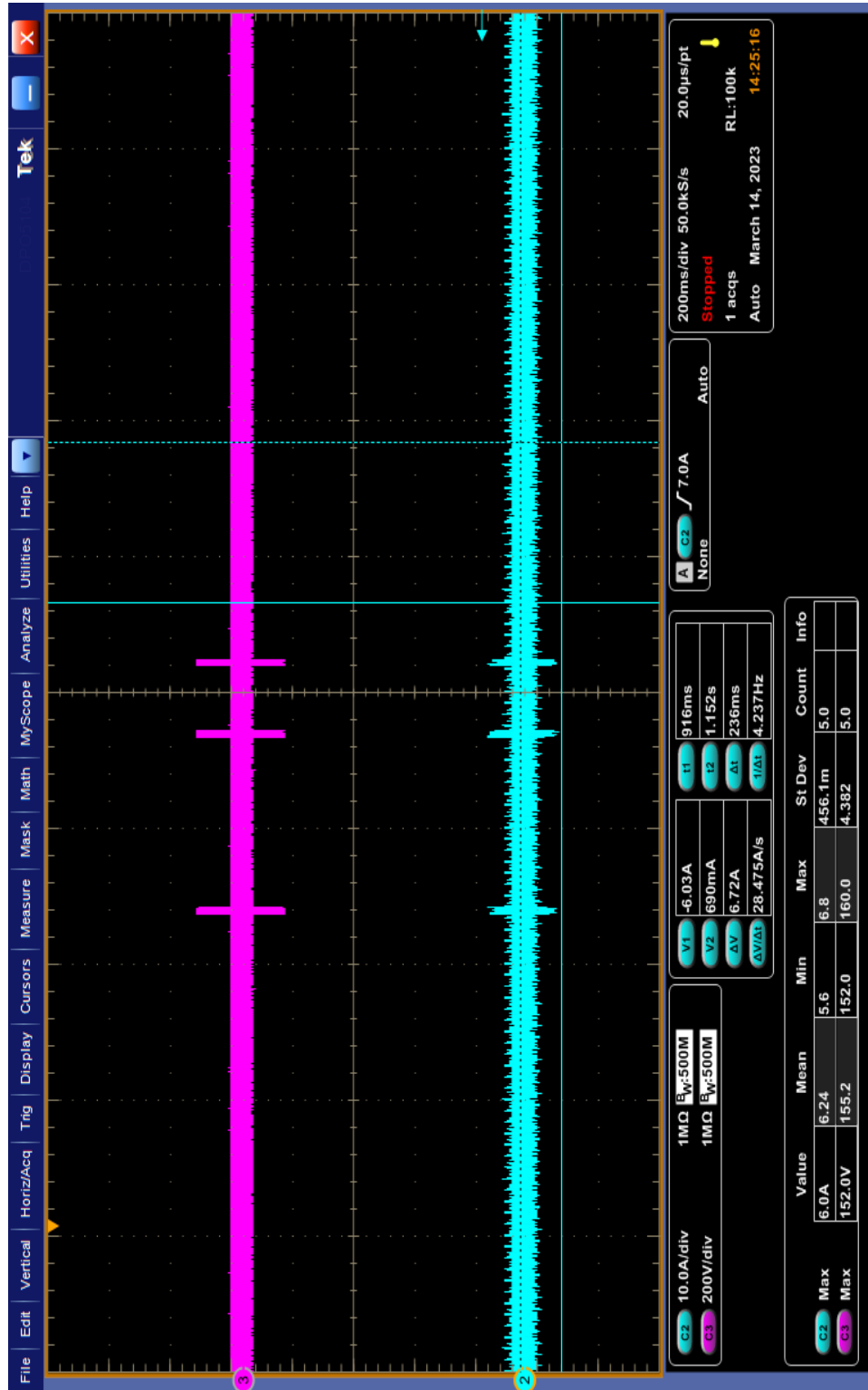
60-CS117 Active MPPT Multistroke WF3 1Mhz Negative



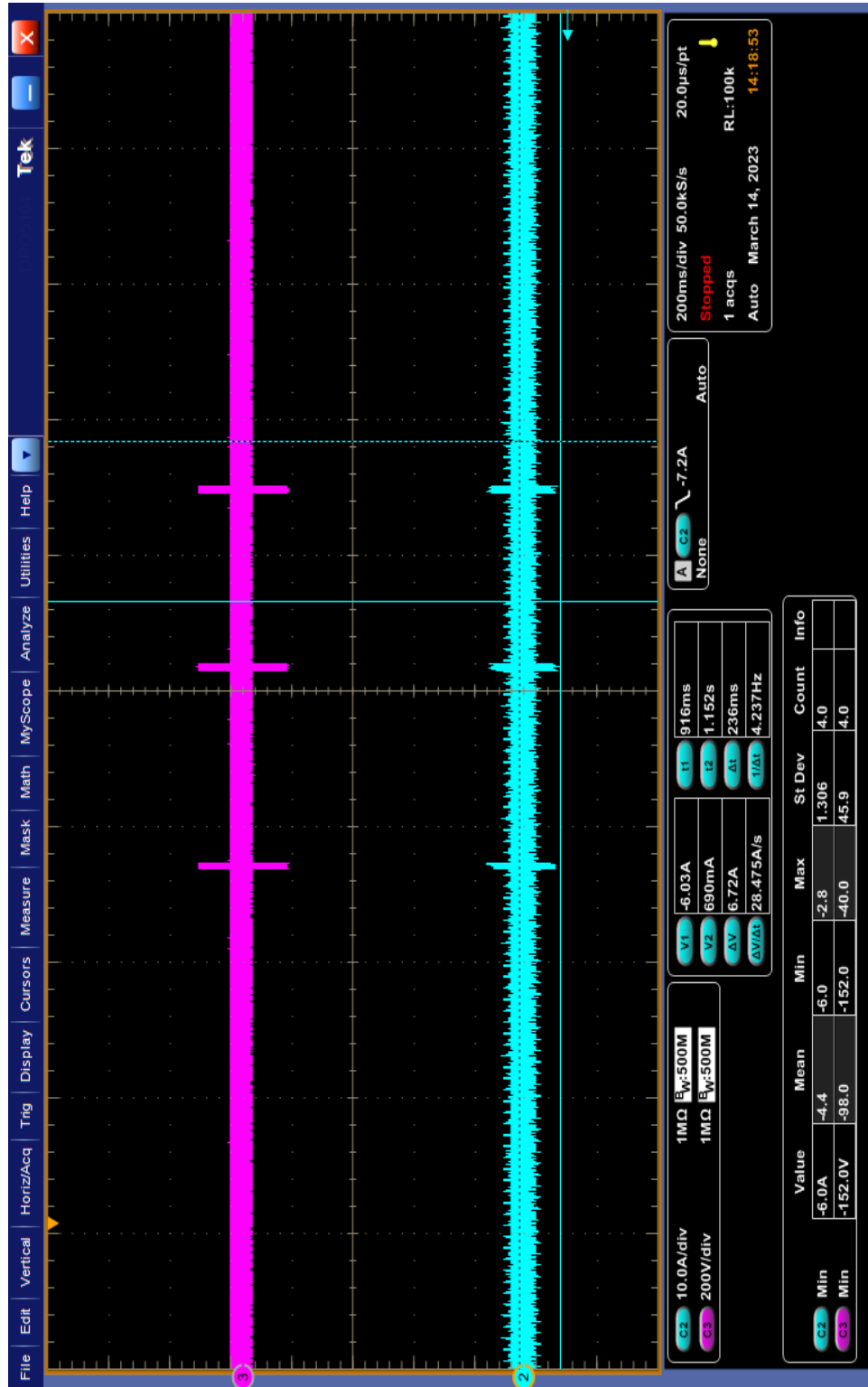
61-CS117 Active MPPT Multistroke WF3 10Mhz Positive



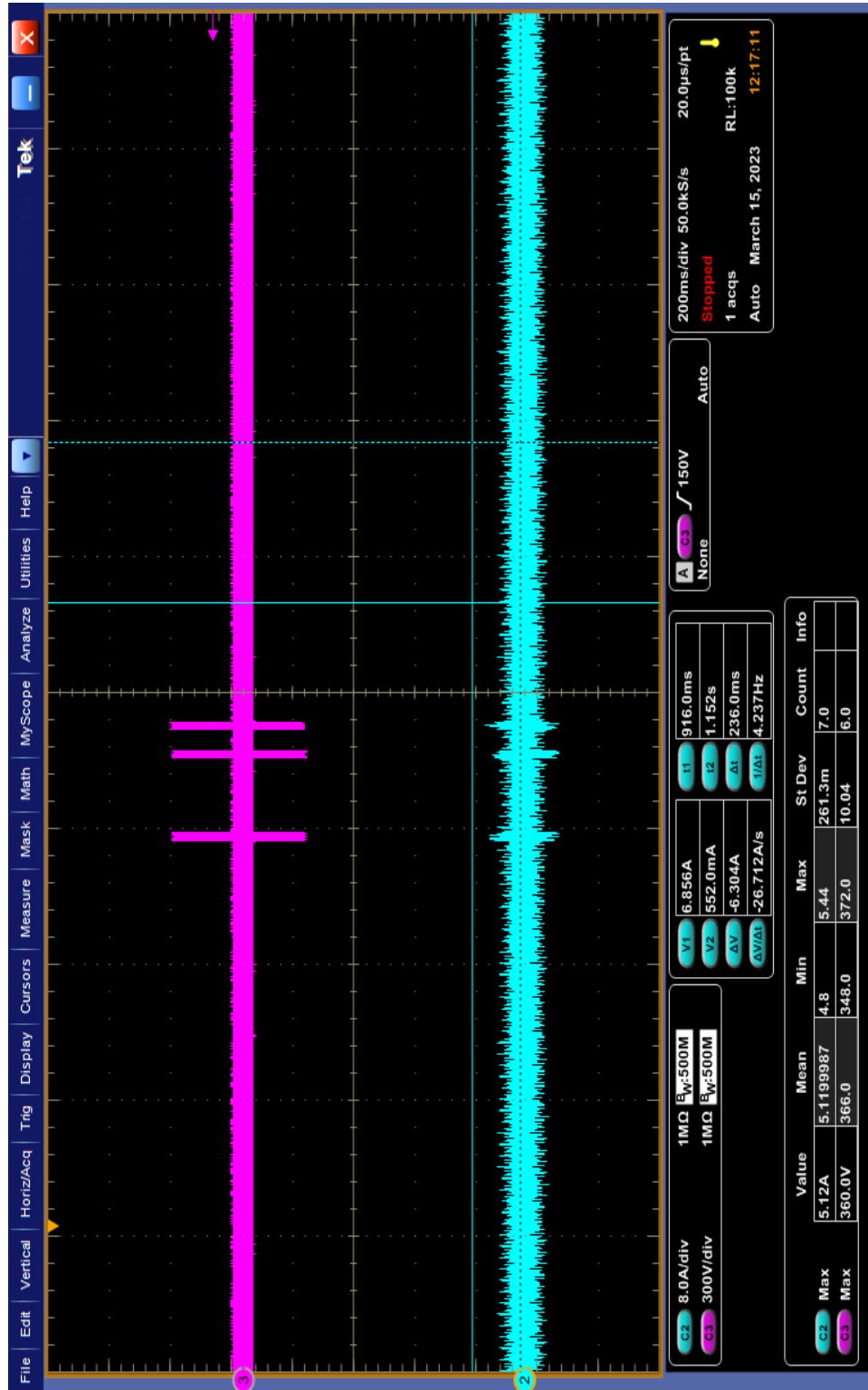
62-CS117 Active MPPT Multistroke WF3 10Mhz Negative



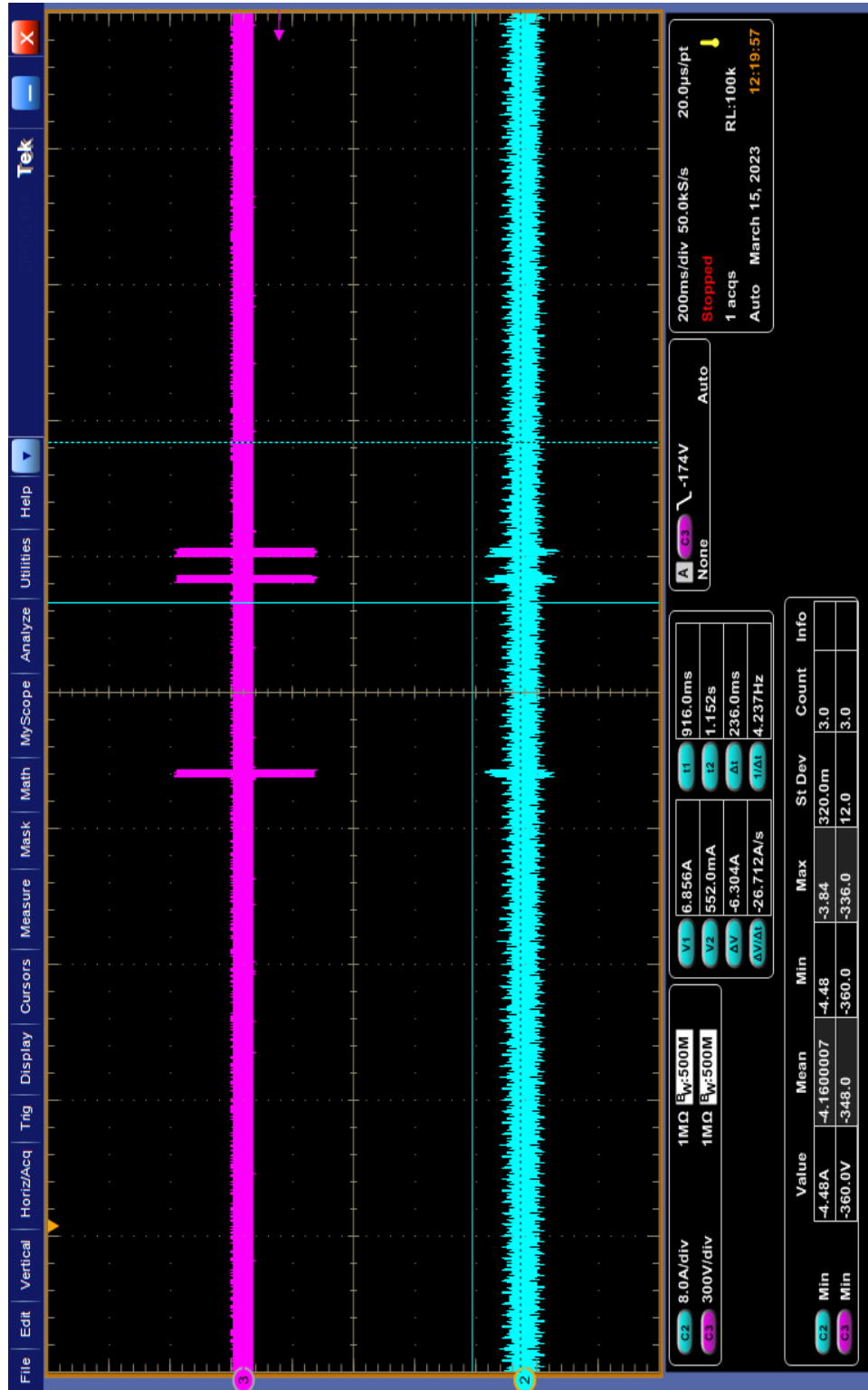
63-CS117 Active AC Bundle Multiburst WF3 1Mhz Positive



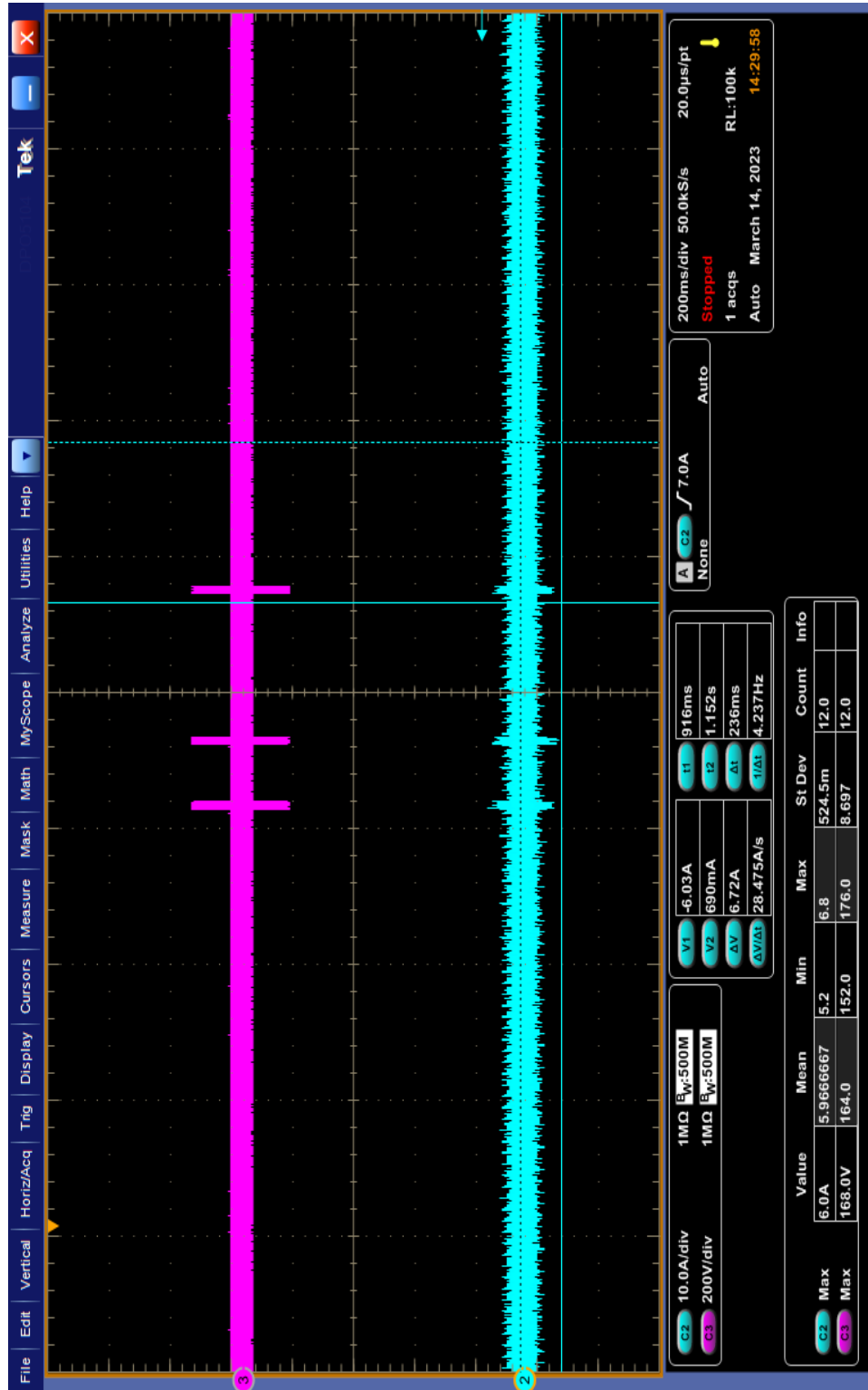
64-CS117 Active AC Bundle Multiburst WF3 1Mhz Negative



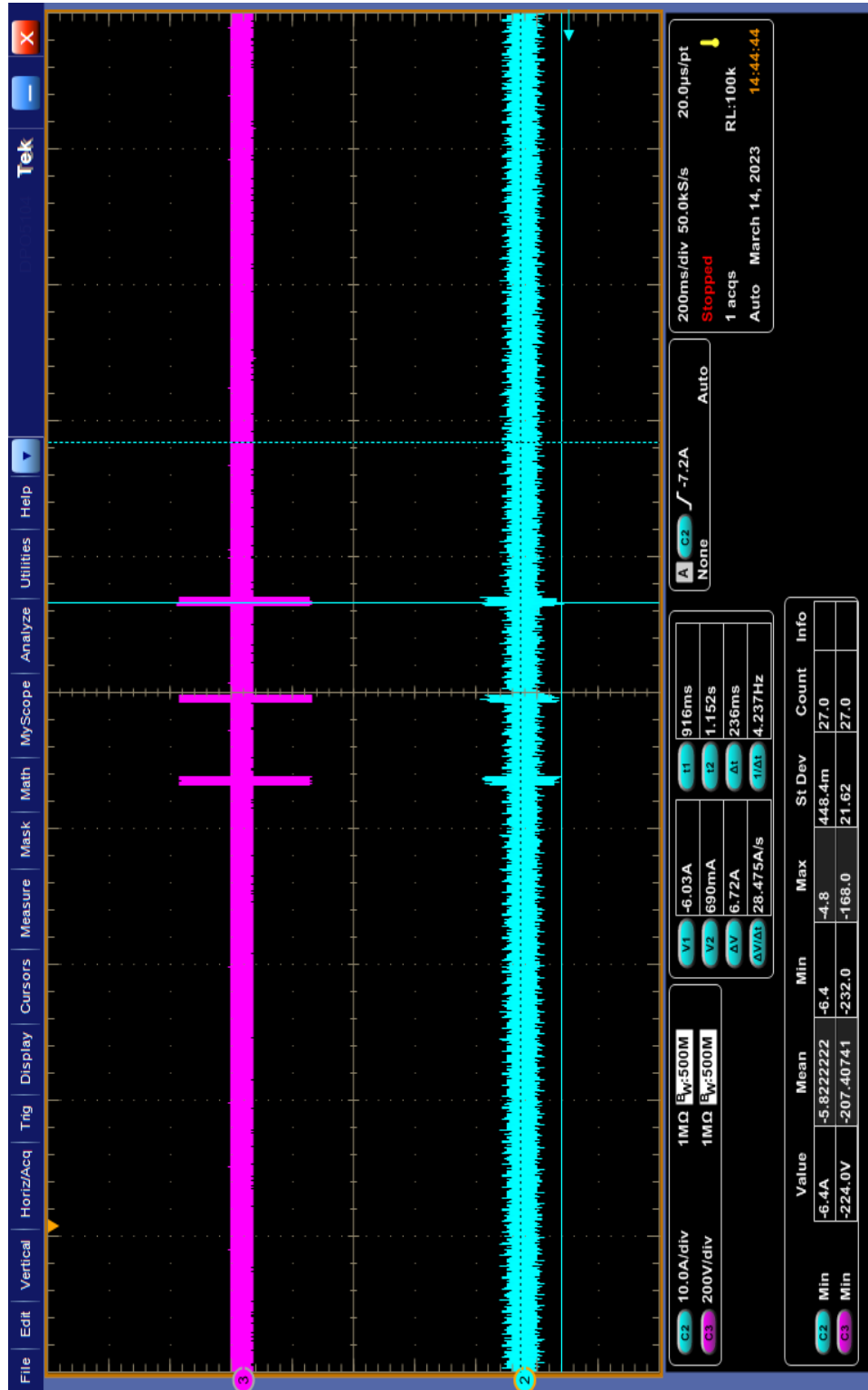
65-CS117 Active AC Bundle Multiburst WF3 10Mhz Positive



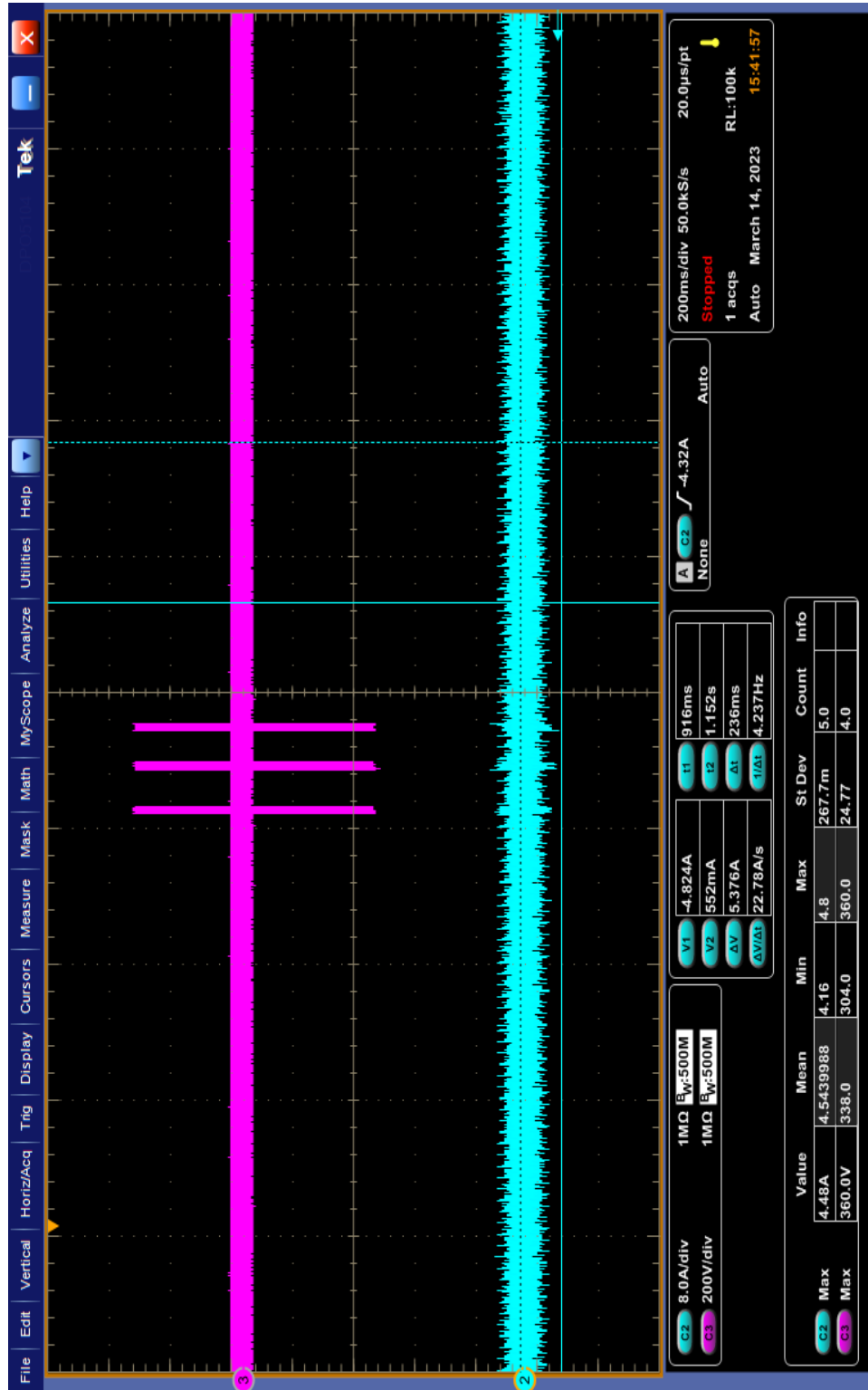
66-CS117 Active AC Bundle Multiburst WF3 10Mhz Negative



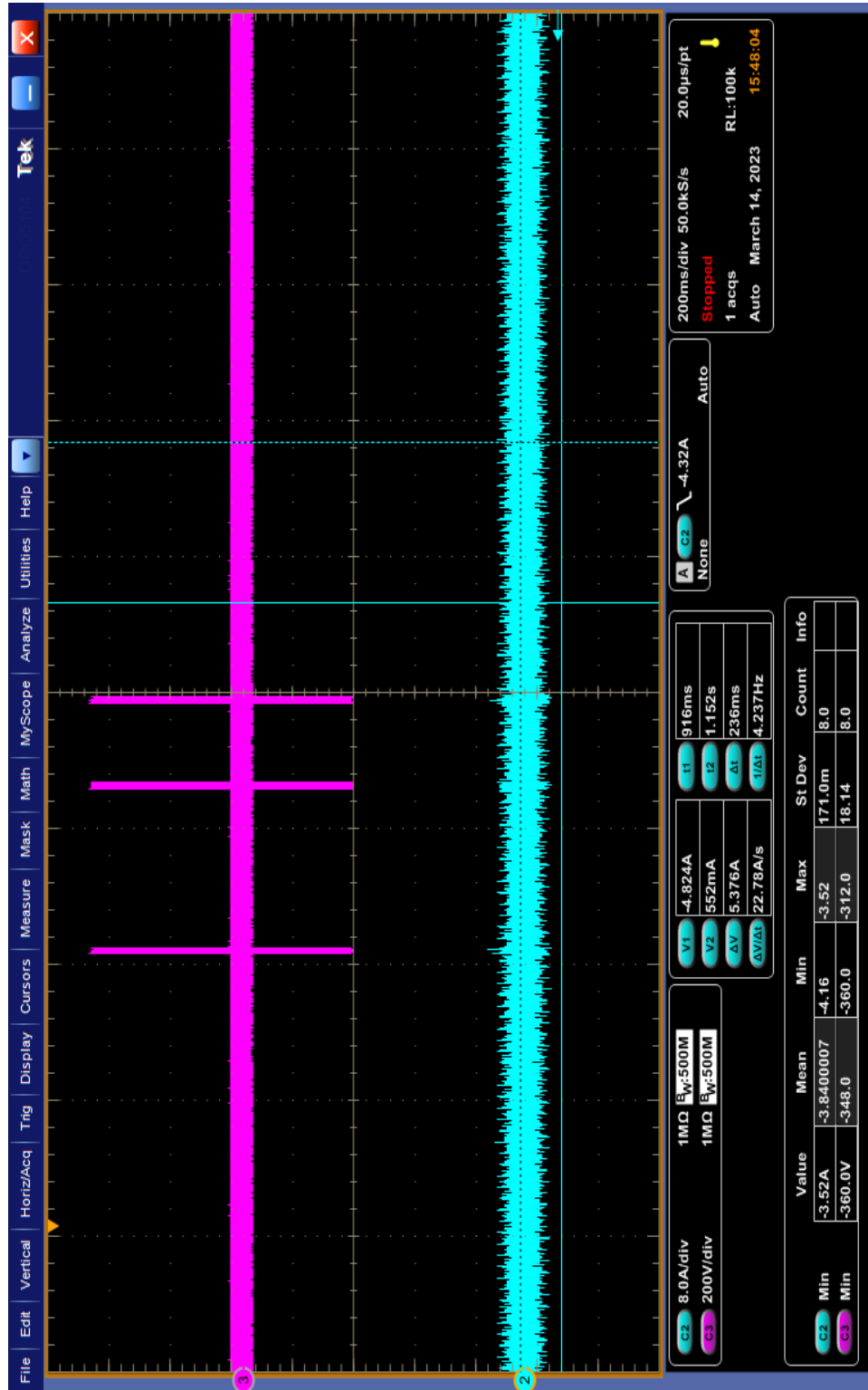
67-CS117 Active AC L1 & L2 Multiburst WF3 1Mhz Positive



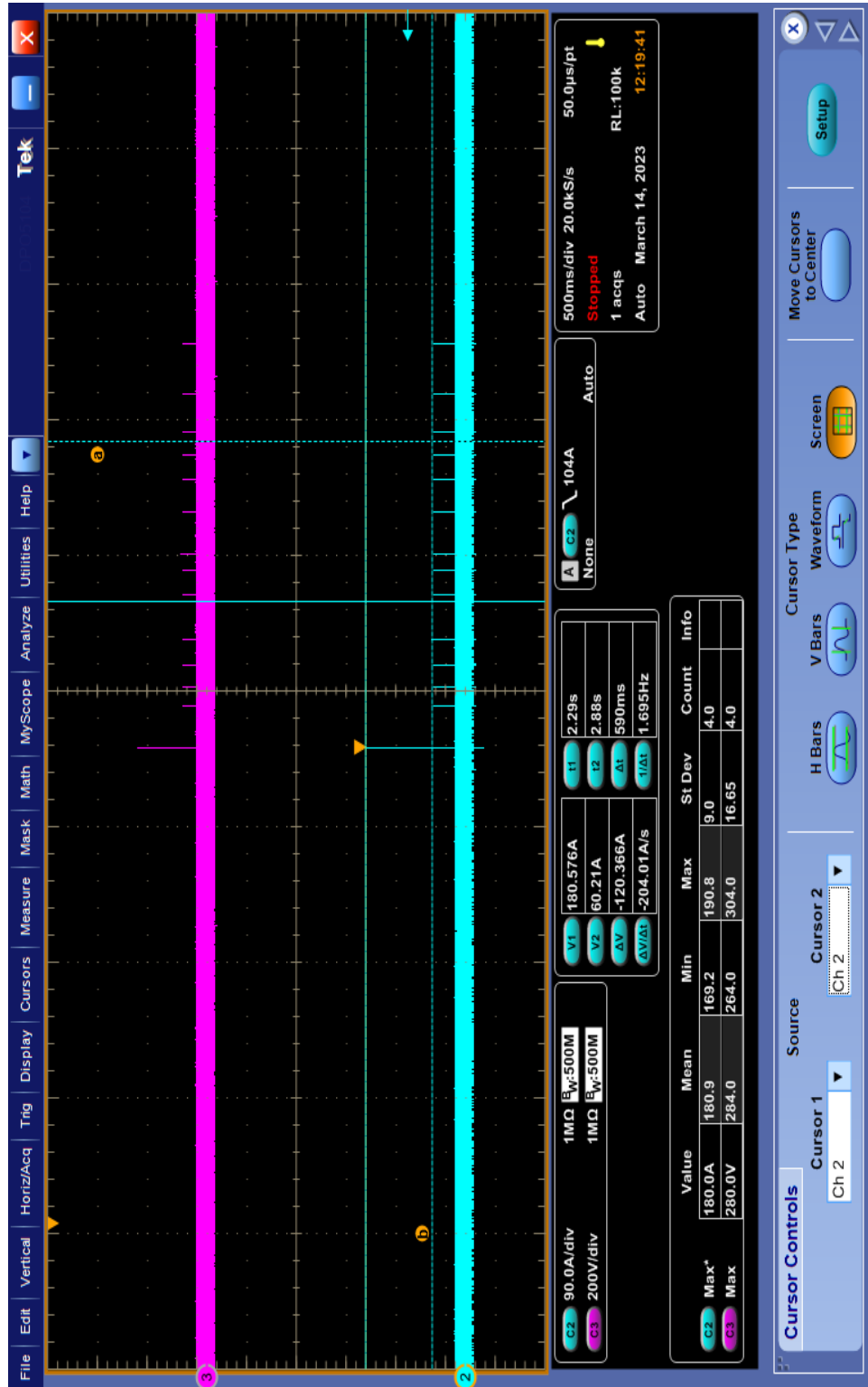
68-CS117 Active AC L1 & L2 Multiburst WF3 1Mhz Negative



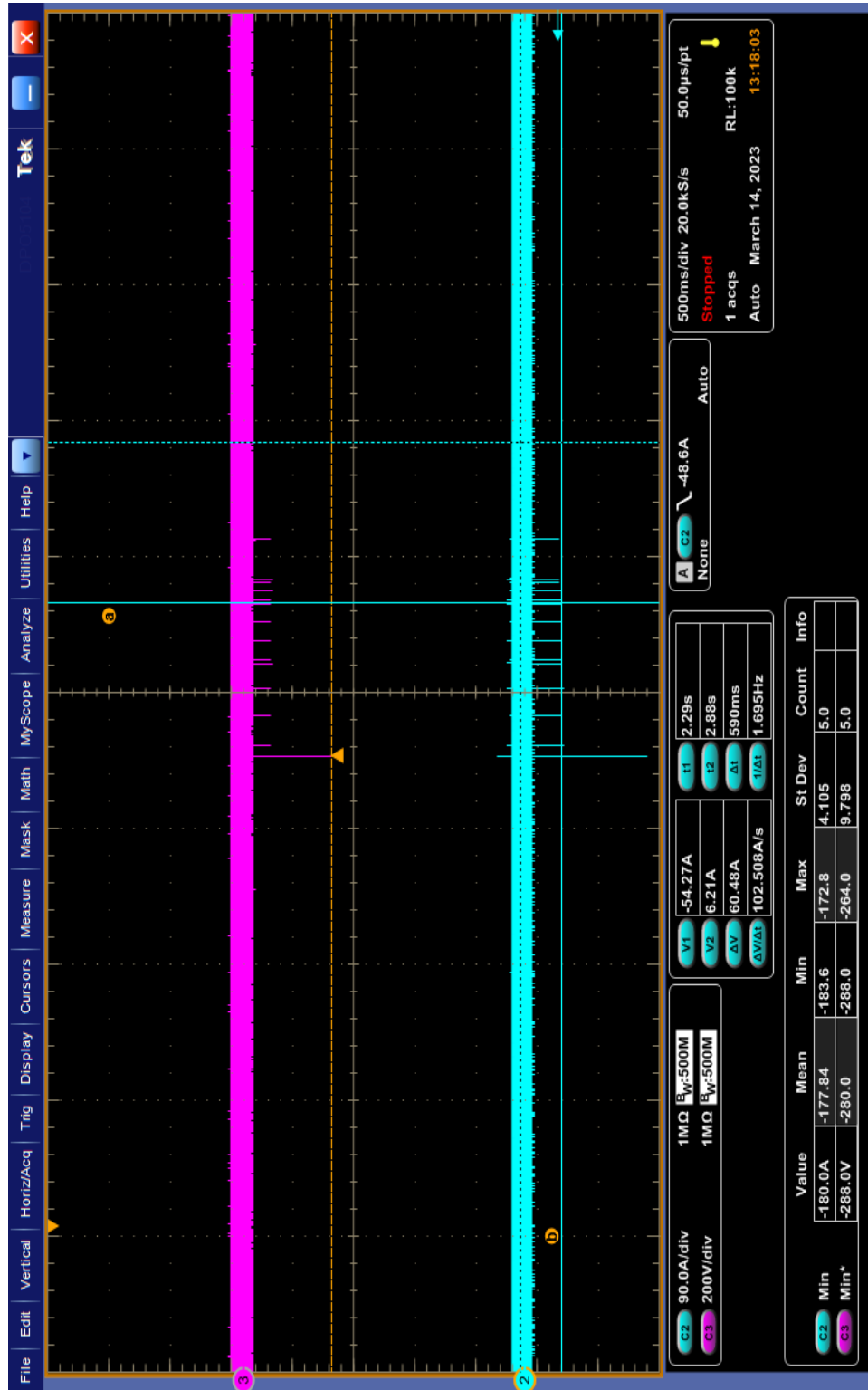
69-CS117 Active AC L1 & L2 Multiburst WF3 10Mhz Positive



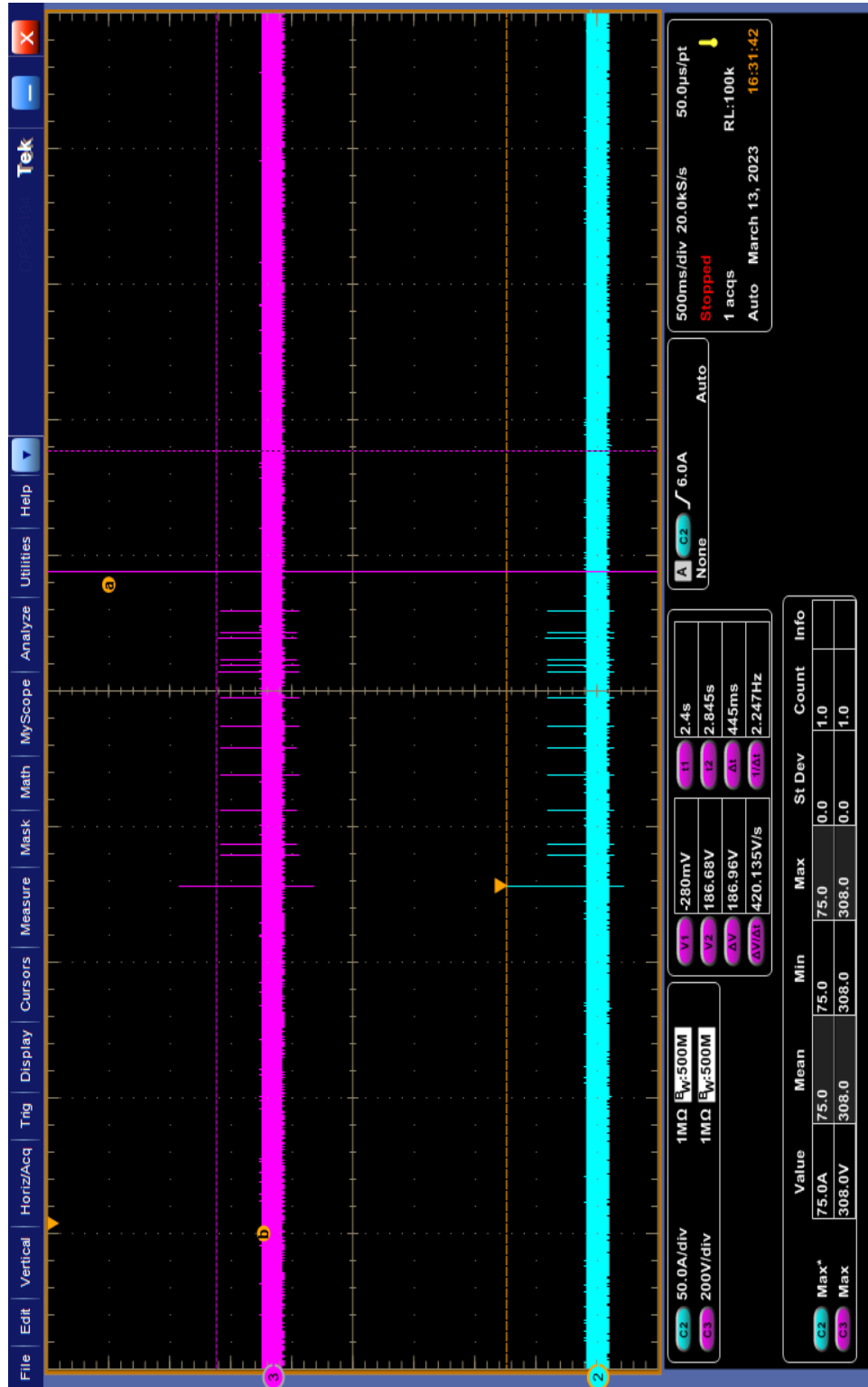
70-CS117 Active AC L1 & L2 Multiburst WF3 10Mhz Negative



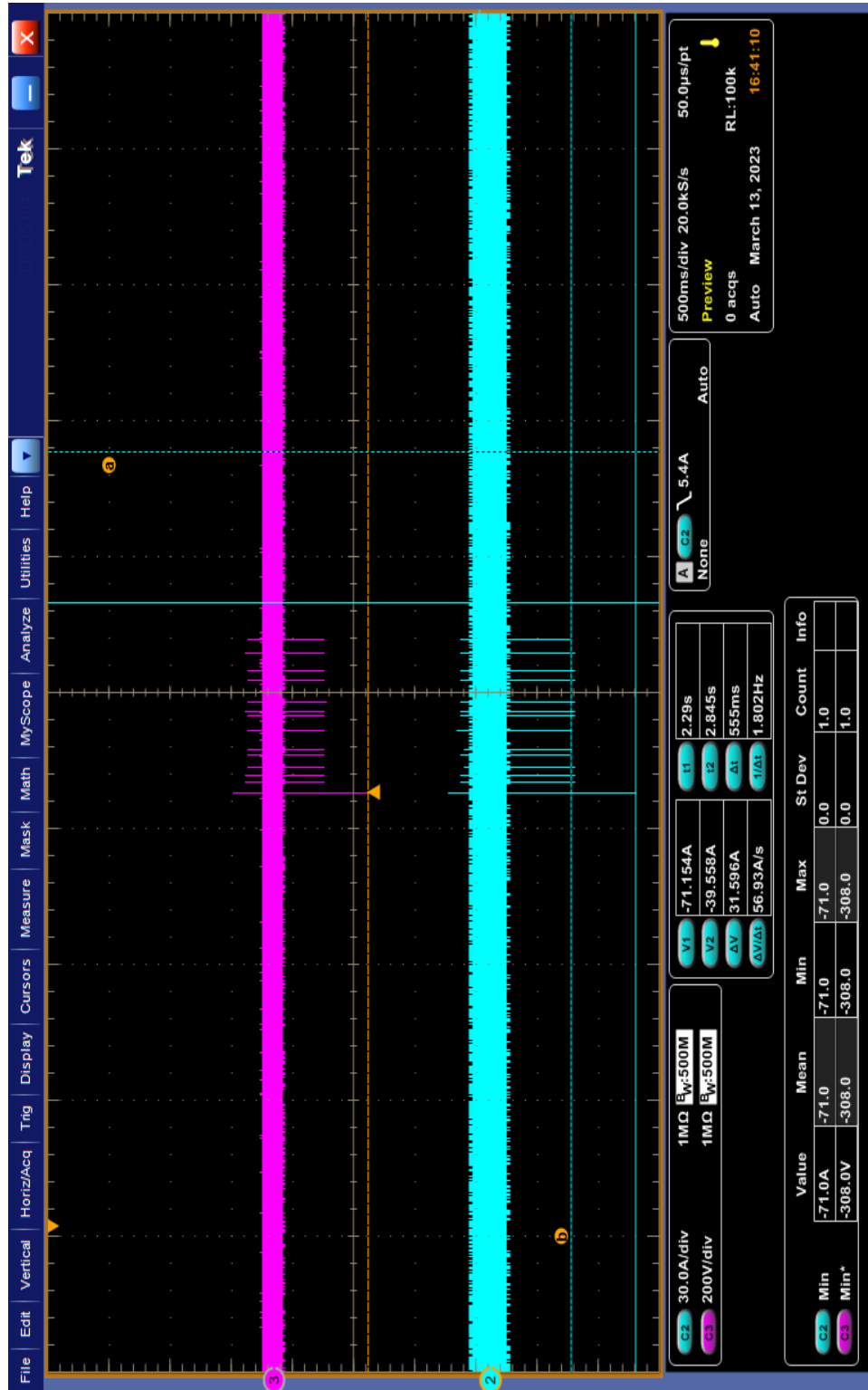
71-CS117 Active AC Bundle Multistroke WF1 Positive



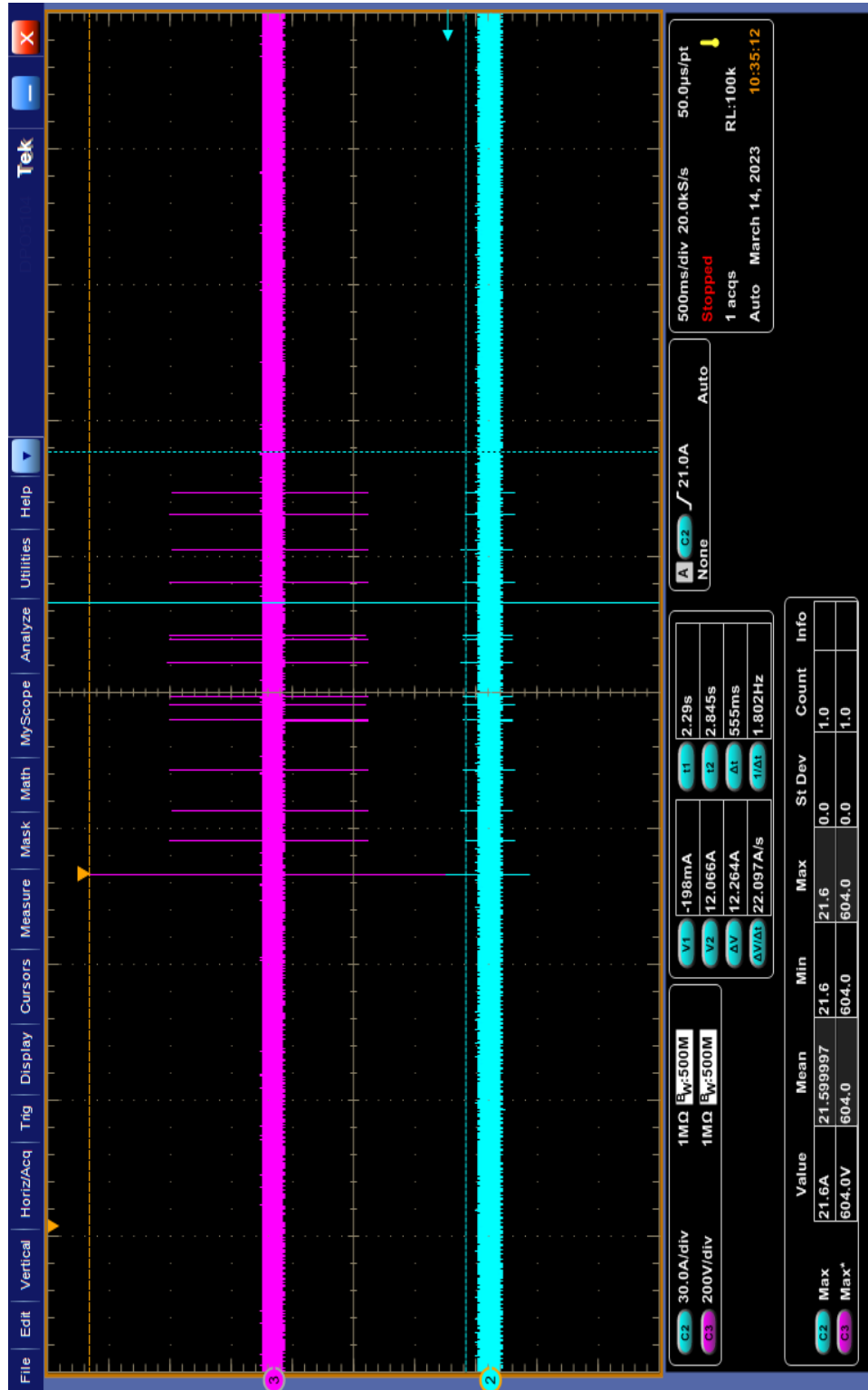
72-CS117 Active AC Bundle Multistroke WF1 Negative



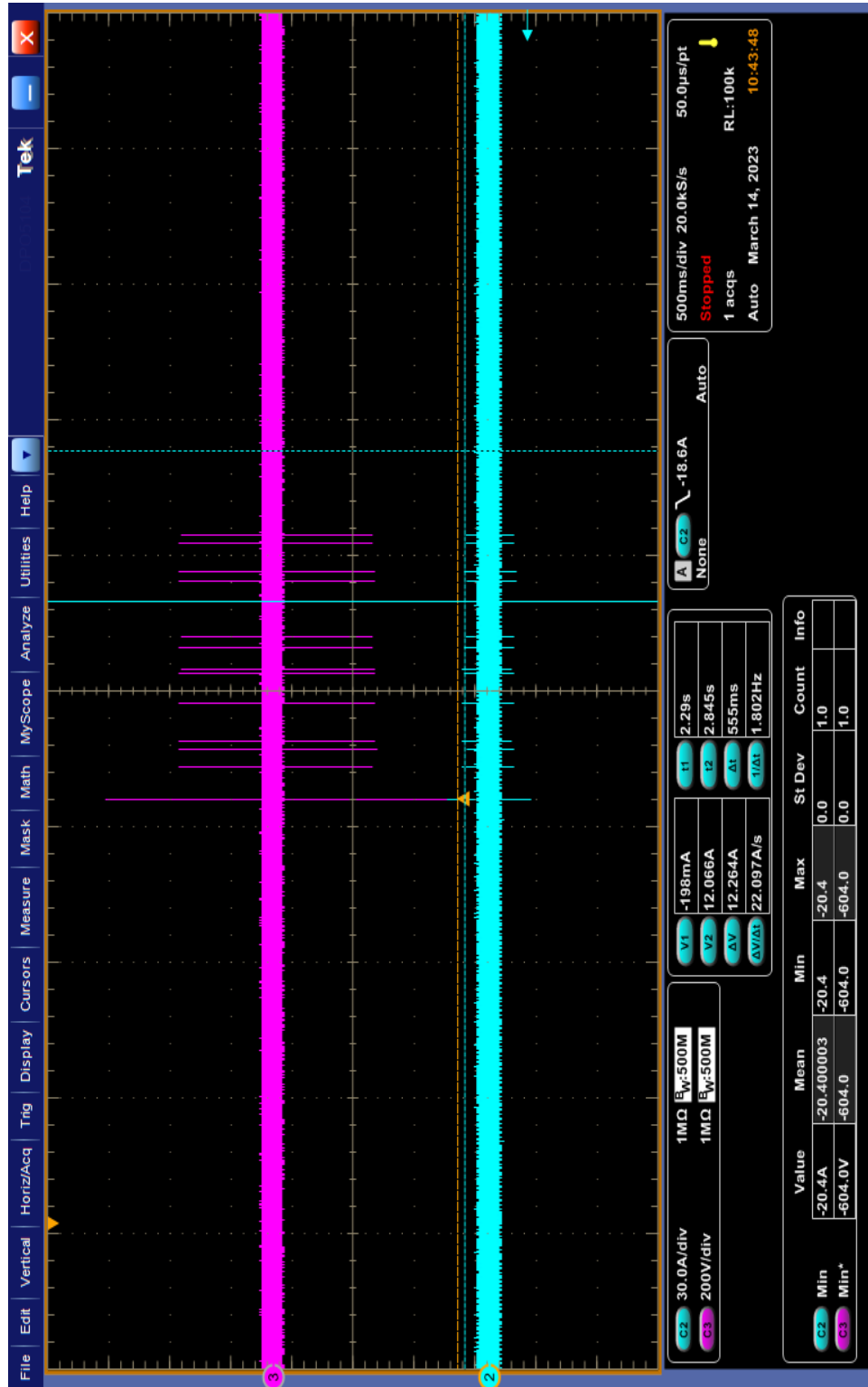
73-CS117 Active AC Bundle Multistroke WF2 Positive



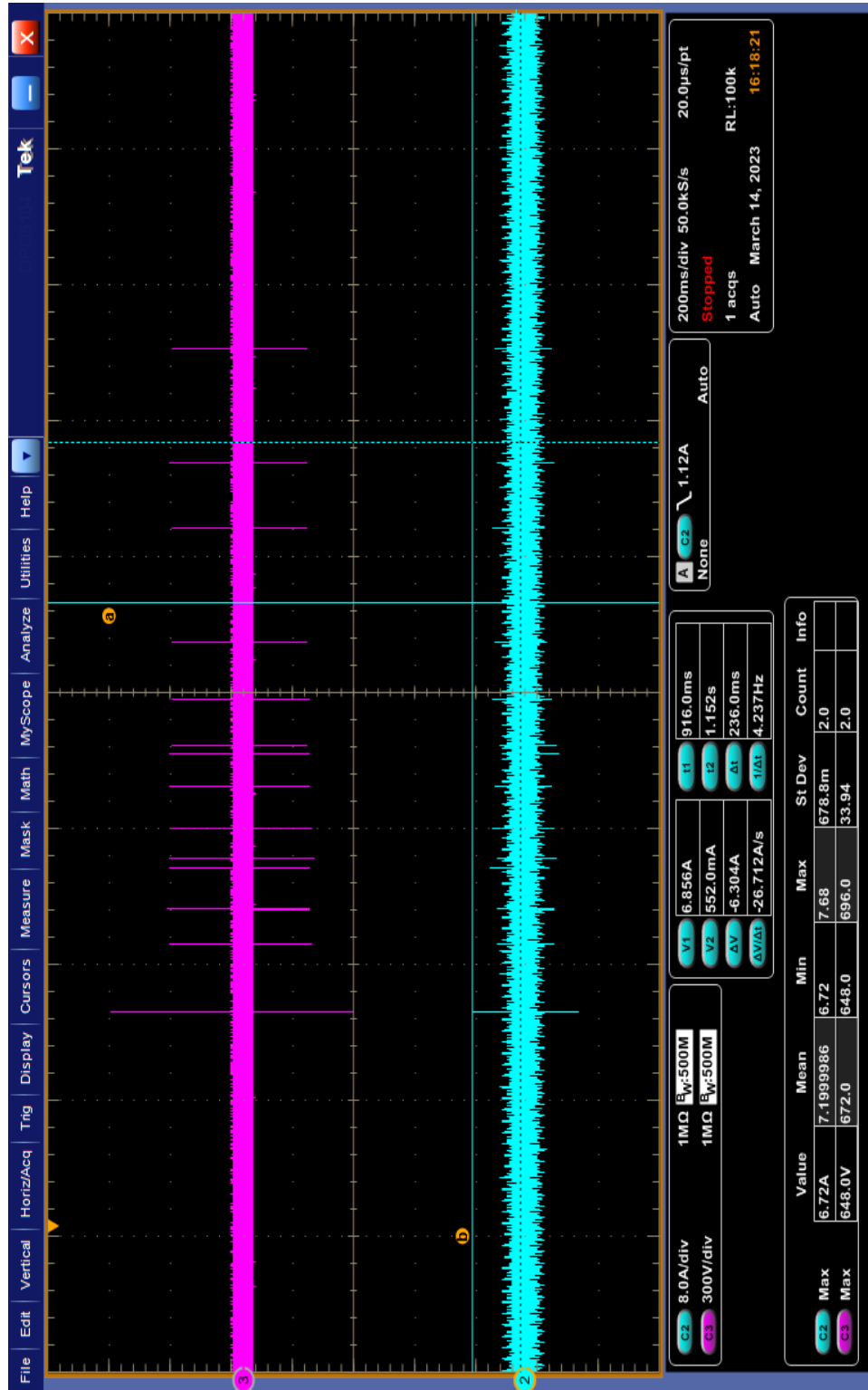
74-CS117 Active AC Bundle Multistroke WF2 Negative



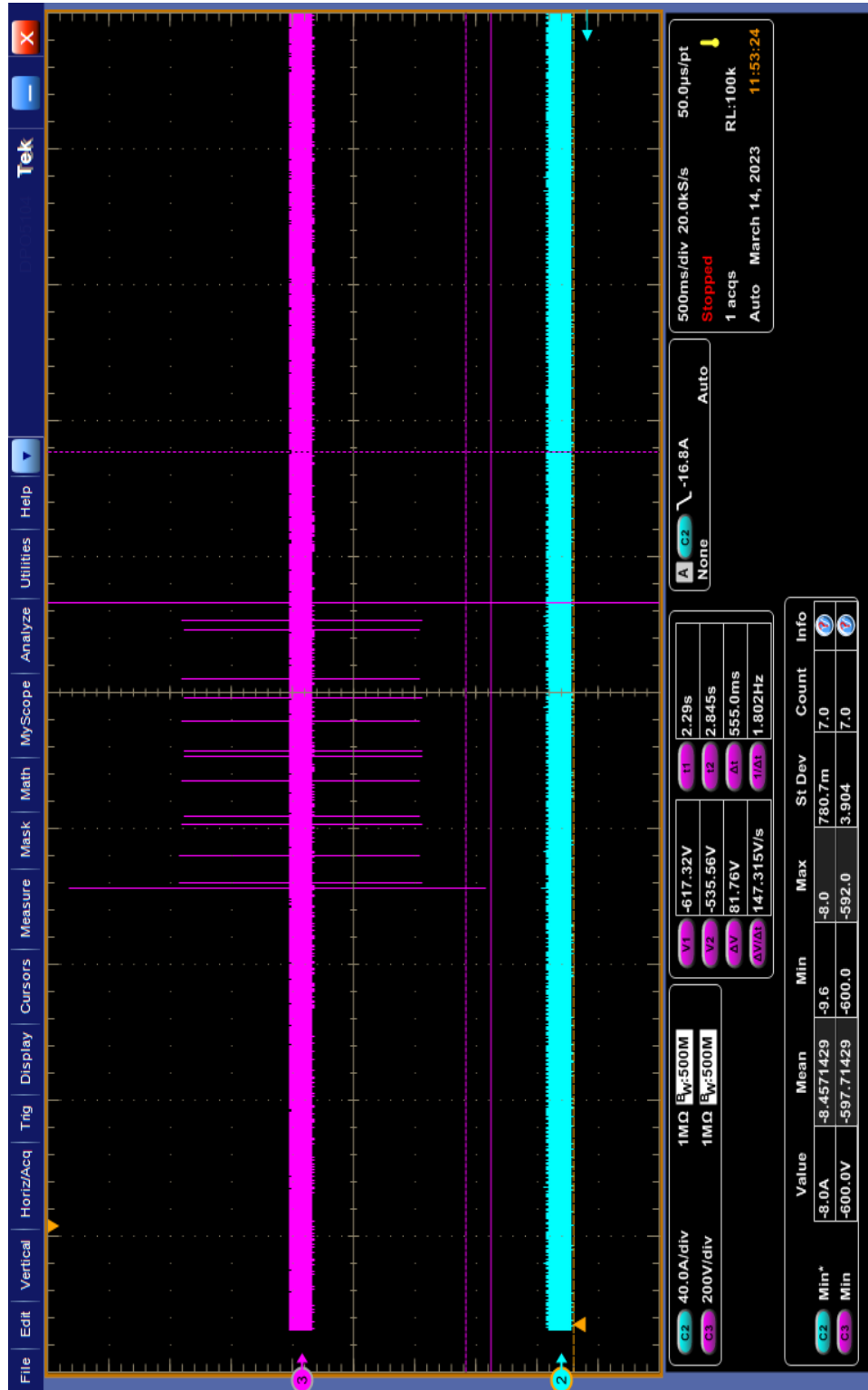
75-CS117 Active AC Bundle Multistroke WF3 1Mhz Positive



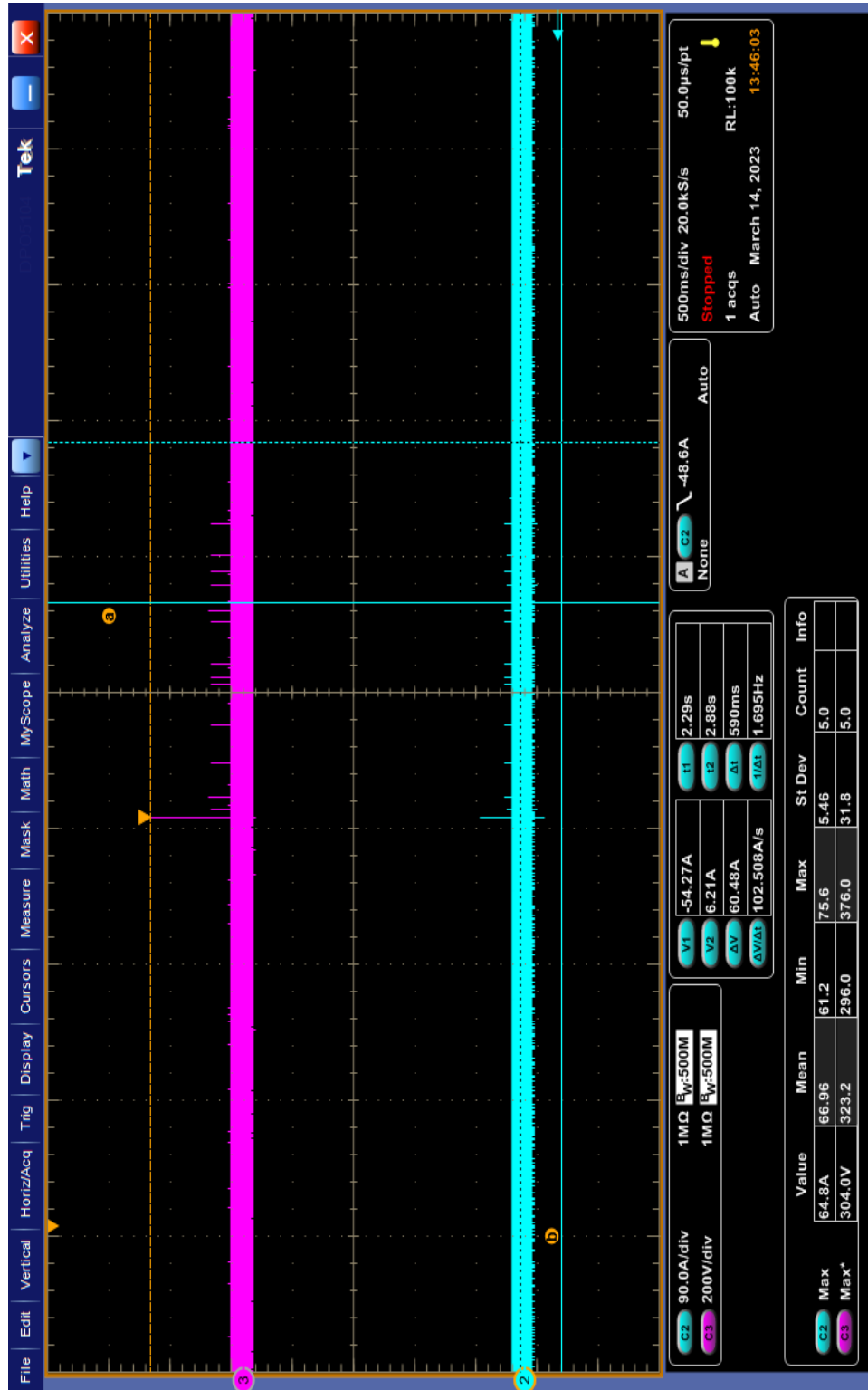
76-CS117 Active AC Bundle Multistroke WF3 1Mhz Negative



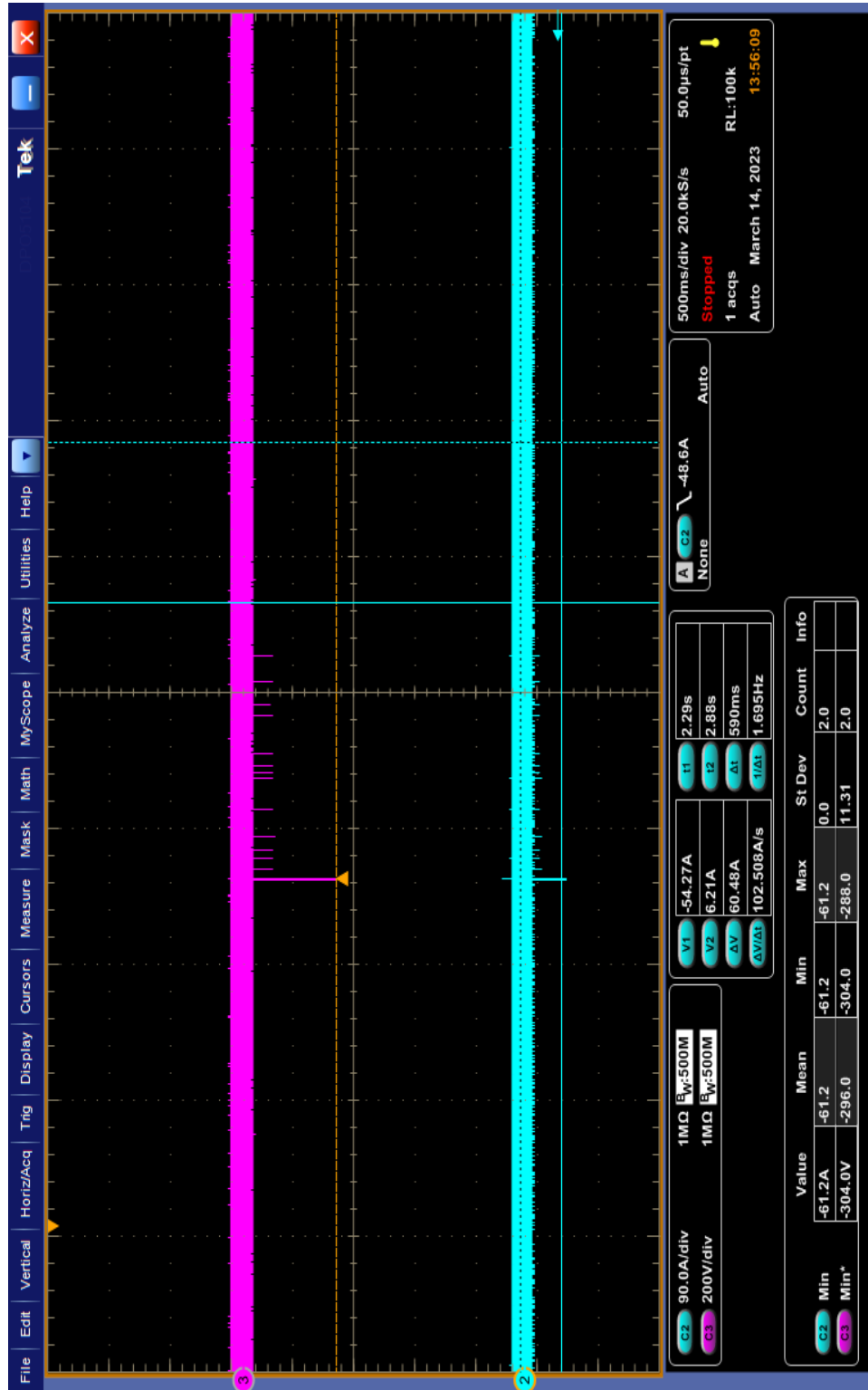
77-CS117 Active AC Bundle WF3 Multistroke 10Mhz Positive



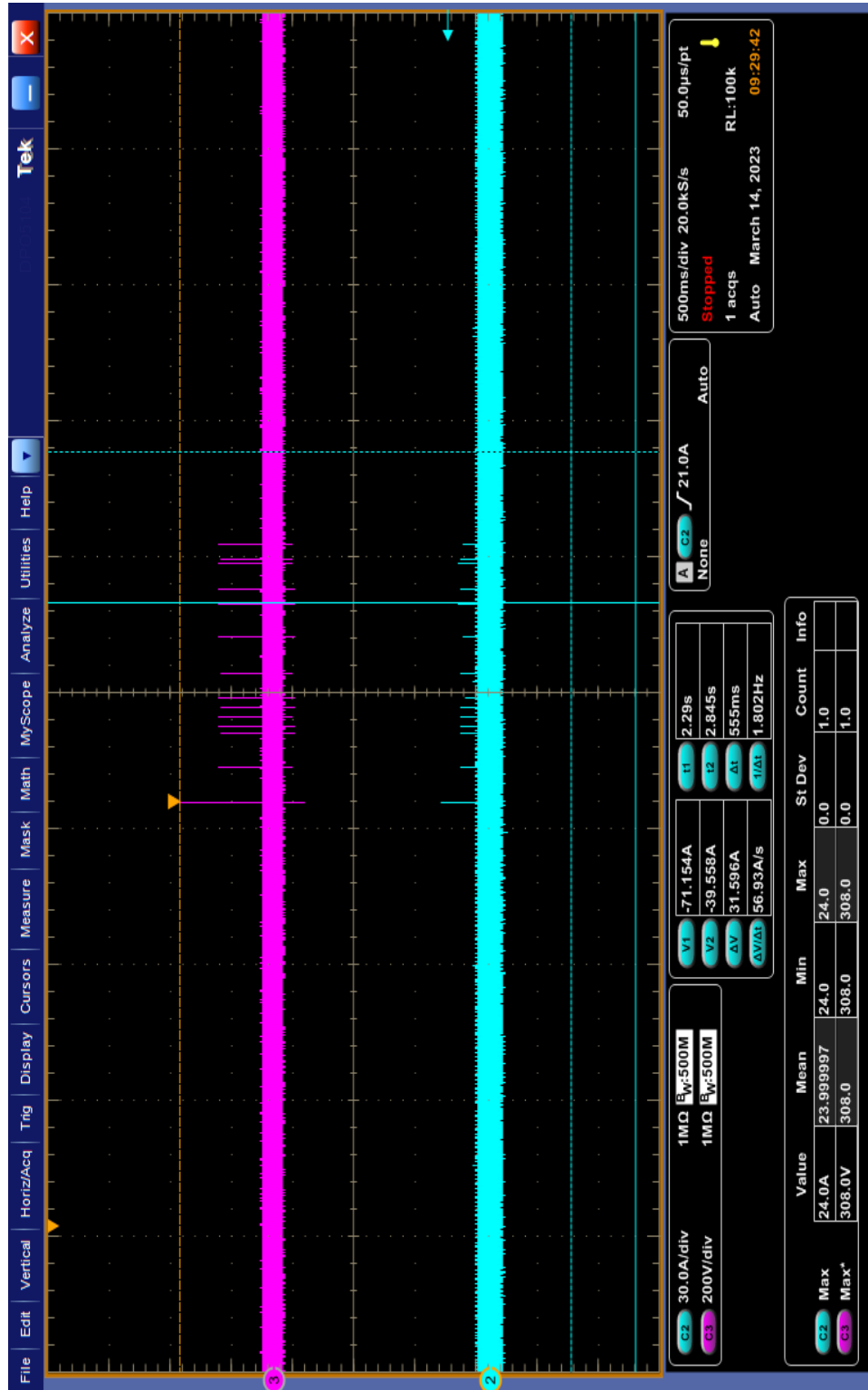
78-CS117 Active AC Bundle Multistroke WF3 10Mhz Negative



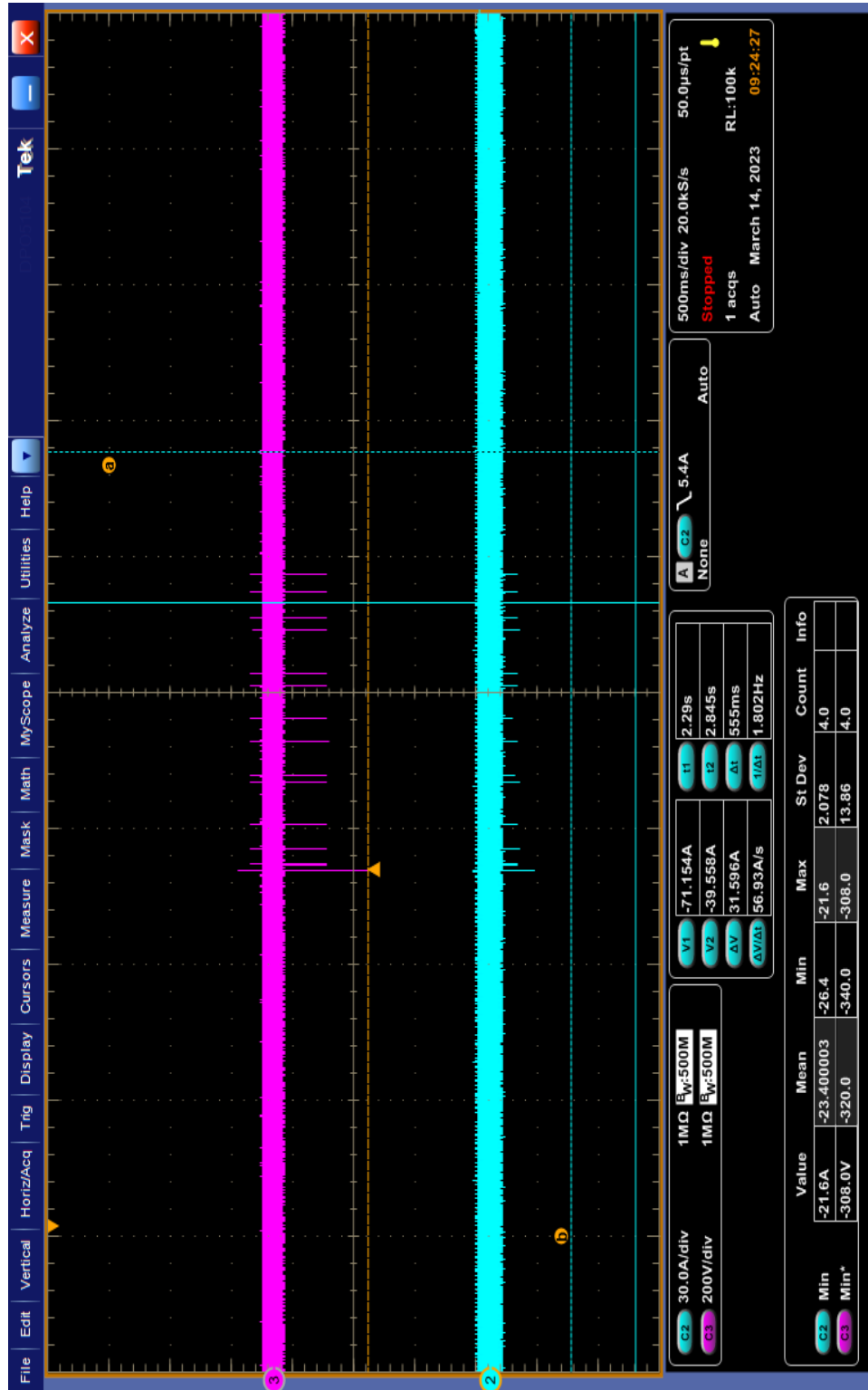
79-CS117 Active AC L1 & L2 Multistroke WF1 Positive



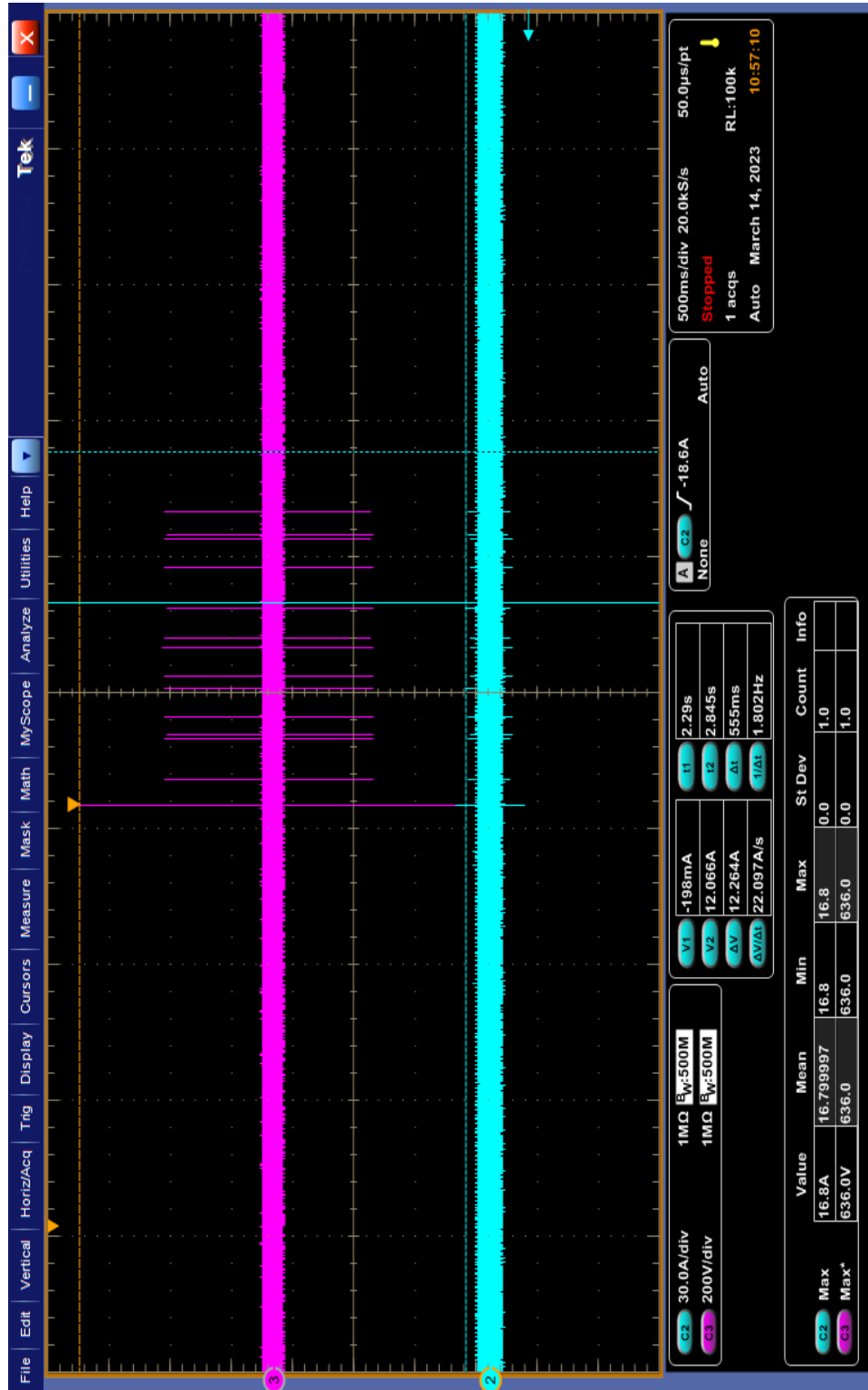
80-CS117 Active AC L1 & L2 WF1 Multistroke Negative



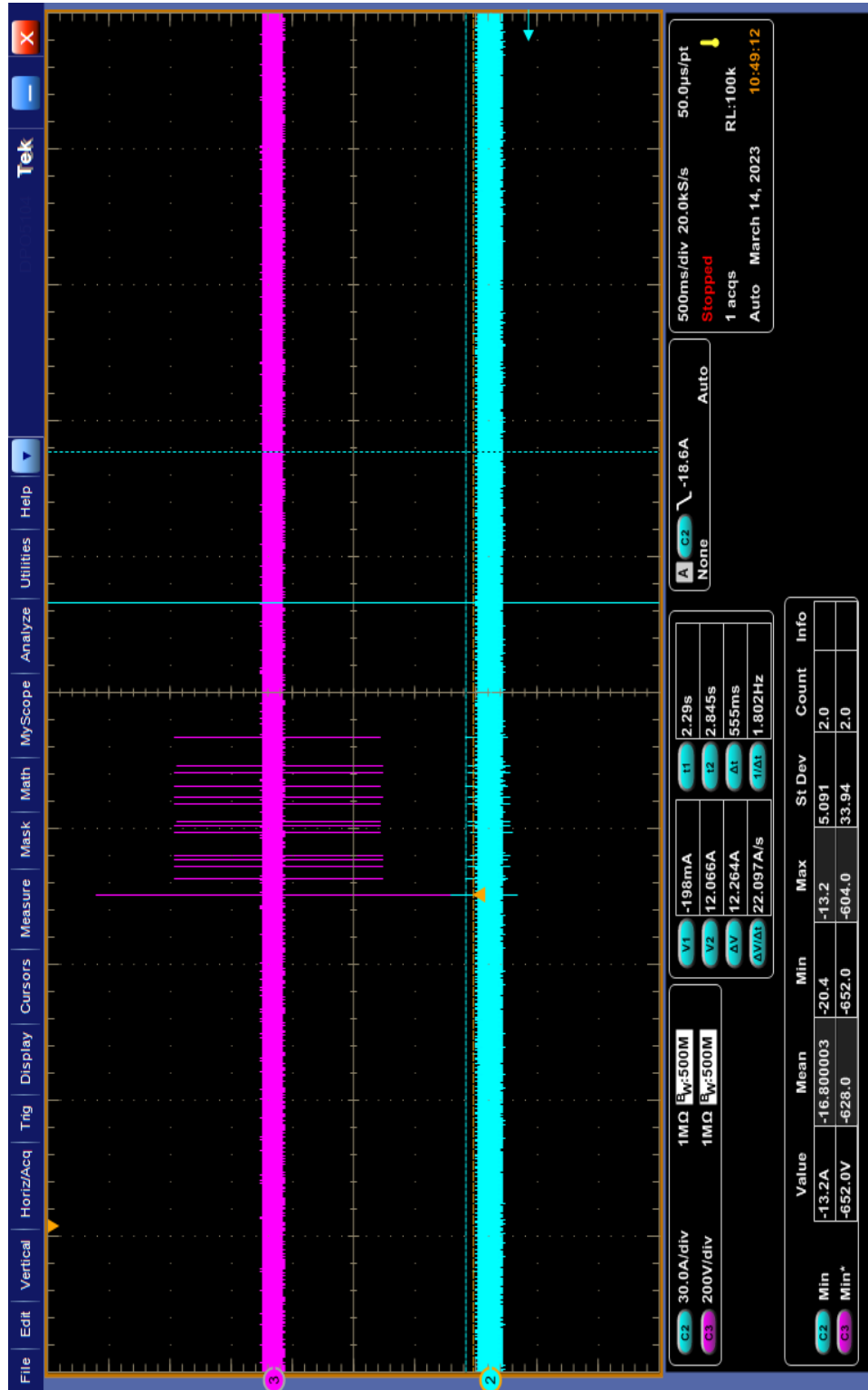
81-CS117 Active AC L1 & L2 Multistroke WF2 Positive



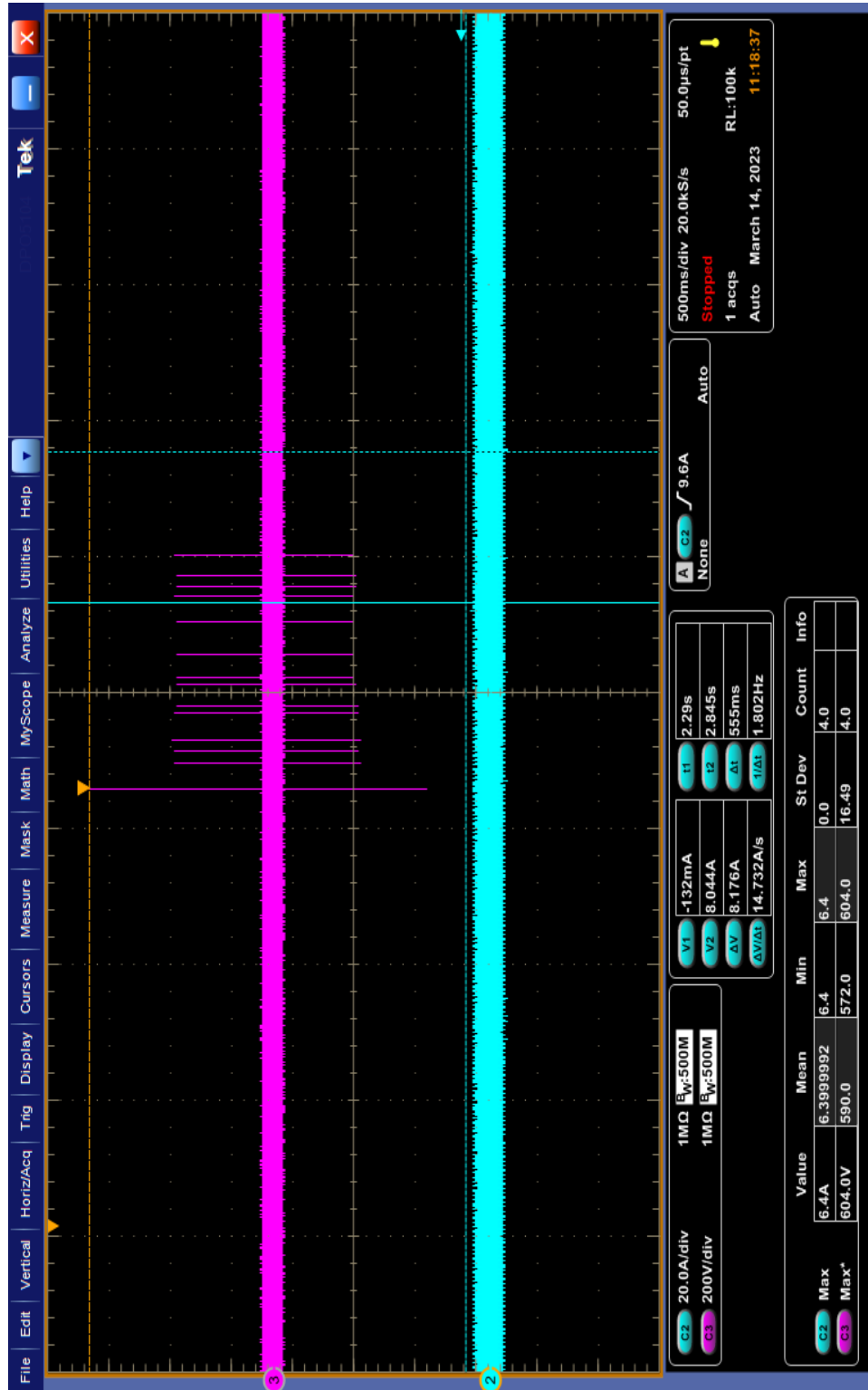
82-CS117 Active AC L1 & L2 WF2 Multistroke Negative



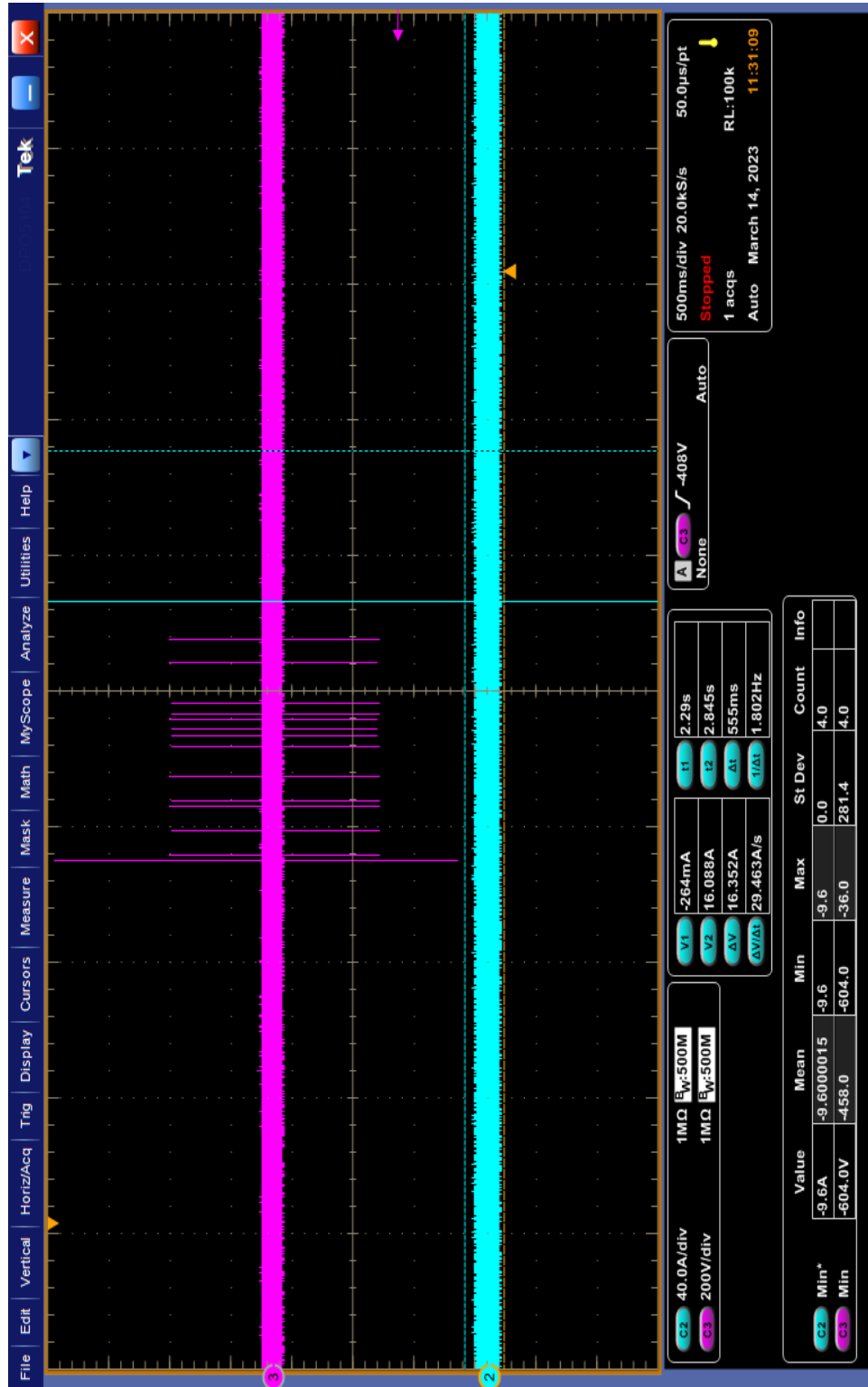
83-CS117 Active AC L1 & L2 WF3 Multistroke 1Mhz Positive



84-CS117 Active AC L1 & L2 Multistroke WF3 1Mhz Negative



85-CS117 Active AC L1 & L2 Multistroke WF3 10Mhz Positive



CS117 Active AC L1 & L2 Multistroke WF3 10Mhz Negative



5.3.6 Test Equipment List

Table 5.3-1: CS117 Test Equipment List

Asset Number	Asset Type	Manufacturer	Model	Calibrated	Due
WC042230	Meter (Hygrometer)	Extech Instruments	445702	12/02/2022	12/02/2023
WC042494	Chamber (EMI, Semi-Anechoic)	ETS-Lindgren	CH 1 (S201 8X8)	NCR	NCR
WC042549	Oscilloscope (Digital)	Tektronix	DPO5104	03/23/2022	03/23/2023
WC043253	Measurement Tools (Tape Measure)	Keson	PGT18M25V	02/23/2023	02/23/2025
WC048190	Attenuator (Coaxial)	Bird Electronic	50-A-MFN-30	04/08/2022	04/08/2024
WC049564	Stopwatch (Digital)	Sper Scientific	SP810022	08/15/2022	08/15/2023
WC049968	Network (LISN)	Fischer Custom Communications	FCC-LISN-50-15-1-01-MS462E	08/16/2022	08/16/2023
WC049971	Network (LISN)	Fischer Custom Communications	FCC-LISN-50-15-1-01-MS462E	08/16/2022	08/16/2023
WC049996	Network (LISN)	Fischer Custom Communications	FCC-LISN-50-15-1-01-MS462E	01/27/2023	01/27/2024
WC059964	Probe (Current)	Pearson Electronics	8590C	08/24/2021	08/24/2023
WC073878	Generator (Lightning)	EMC-Partner	AVI3000	02/26/2020	02/26/2025
WC073880	Shunt (Current)	EMC-Partner	103575	NCR	NCR
WC073881	Probe (Injection)	EMC-Partner	CN-BT7	NCR	NCR

Calibration Abbreviations

CAL: Calibration

NCR: No Calibration Required



End of Test Report



CERTIFICATE OF COMPLIANCE

Certificate Number: SGSNA/22/GZ/00049

Contract Number: 800341

Certificate Project Number: GZ-CERT220300637

Certified Product: Hybrid Inverter

Trademarks: Sol-Ark

Model(s): Limitless 8K-LV, Limitless 9K-LV, Limitless 10K-LV, Limitless 12K-LV, Limitless 15K-LV

Technical Data: See page 2

Certificate Holder: Portable Solar LLC (dba Sol-Ark)
1100 Professional Dr, Plano, Texas 75074, United States of America

This certificate supercedes previous certificates issued with the same certificate number. Certification is valid when products are indicated on the SGS directory of certified products at www.sgs.com or using the QR code below. The product is certified according to ISO/IEC Guide 17067, Conformity assessment - Fundamentals of product certification, System 3, and in accordance with:

UL 1741, Third Edition, Dated September 28, 2021 (including UL 1741 Supplement SB)

CSA C22.2 NO. 107.1-16

Compliance with IEEE Std 1547:2018 (Revision of IEEE Std 1547:2003), approved 15 February 2018; IEEE Std 1547a™-2020 Approved 9 March 2020. (Refer to IEEE Std 1547.1:2020, approved 5 March 2020, using IEEE 2030.5 protocol)

Hawaiian Electric Companies, IEEE 1547.1-2020 Source Requirements Document Version 2.0 ("SRD V2.0"), effective on July 1st, 2020

Photovoltaic (PV) DC Arc-Fault Circuit Protection-UL 1699B: First Edition, Dated August 22, 2018

UL 1741 (April 20, 2010 Ed.2) CRD, Subject: Power Control Systems (PCS)

Authorized by:

Effective date: 26 May 2023



Jason Wei
Certifier



Certification Body

Connectivity & Products, a division of SGS North America Inc.
620 Old Peachtree Road, Ste. 100, Suwanee, GA 30024, USA
t +1 770 570 1800 f +1 770 277 1240 www.sgs.com



CERTIFICATE OF COMPLIANCE

Certificate Number: SGSNA/22/GZ/00049

Contract Number: 800341

Certificate Project Number: GZ-CERT220300637

Technical Data:

Limitless 8K-LV

PV side: 175-425V(500Vmax), 26+26A, 44+44A;

Batteries side: 43-63V, 180Amax

AC grid side: 208Vac/240Vac(120Vac), Split phase, 60Hz, 8KW, 33.3A, -0.9~+0.9

Limitless 9K-LV

PV side: 175-425V(500Vmax), 26+26A, 44+44A;

Batteries side: 43-63V, 180Amax

AC grid side: 208Vac/240Vac(120Vac), Split phase, 60Hz, 9KW, 37.5A, -0.9~+0.9

Limitless 10K-LV

PV side: 175-425V(500Vmax), 26+26, 44+44;

Batteries side: 43-63V, 275Amax

AC grid side: 208Vac/240Vac(120Vac), Split phase, 60Hz, 10KW, 41.7A, -0.9~+0.9

Limitless 12K-LV

PV side: 175-425V(500Vmax), 26+26A, 44+44A;

Batteries side: 43-63V, 275Amax

AC grid side: 208Vac/240Vac(120Vac), Split phase, 60Hz, 12KW, 50A, -0.9~+0.9

Limitless 15K-LV

PV side: 175-425V(500Vmax), 26+26+26A, 44+44+44A;

Batteries side: 43-63V, 275Amax

AC grid side: 208Vac/240Vac(120Vac), Split phase, 60Hz, 15KW, 62.5A, -0.9~+0.9

Certification Body

Connectivity & Products, a division of SGS North America Inc.
620 Old Peachtree Road, Ste. 100, Suwanee, GA 30024, USA
t +1 770 570 1800 f +1 770 277 1240 www.sgs.com



Manufacturer Certification Statement

Effective Date: August 26, 2024

This Manufacturer Certification Statement is provided to the taxpayer by Sol-Ark, LLC in connection with the qualification of Sol-Ark residential solar electric property equipment under Section 25D of the Internal Revenue Code of 1986, as amended. No other use of this Certification Statement is permitted or intended.

Based on information available to Sol-Ark as of the date of this Certification Statement, including published Treasury Department regulations and IRS Notices, Sol-Ark certifies that the following Sol-Ark manufactured products should qualify as solar electrical property expenditures that use solar energy to generate electricity for use in a dwelling unit that is used as a residence by the taxpayer under Section 25D of the Internal Revenue Code, assuming that the taxpayer otherwise complies with all other requirements under Section 25D and other applicable laws and regulations:

- Sol-Ark 8k-2P-N; 8K; 8K-2p; SA-8K-2P; SA-8K-2P; 8K OD; 8K Outdoor; 8K-2P-W/Kit
- Sol-Ark 12k-2P-N; 12K-2P; SA-12K-2P; 12K OD; 12K Outdoor; 12K-2P-W/Kit
- Sol-Ark 15k-2P-N; 15K; 15K-2P; SA-15K-2P; 15K OD; 15K Outdoor; 15K-2P-W/Kit
- Sol-Ark 30k-3P-208V; 30k-3P-208V; 30k-3P-208V W/Kit; 30K-3P; SA-30K; Sol-Ark 30K
- Sol-Ark 60k-3P-480V; 60k-3P-480V; 60k-3P-208V W/Kit; 60K; 60K-3P; SA-60K; Sol-Ark 60K
- Sol-Ark L3 HV; L3-HV-40KWH; L3-HV-40KWH W/Kit; HV-40; Indoor 8-stack batteries; IP20 Indoor batteries
- Sol-Ark L3 HV; L3-HV-60KWH; L3-HV-60KWH W/Kit; HV-60; Indoor 12-stack batteries
- Sol-Ark L3 HVR; L3-HVR-60KWH; L3-HVR-60KWH W/Kit WO Transformer; HVR-60Outdoor 12-stack batteries; IP55 Outdoor batteries
- 8K EMP; Sol-Ark 8K-2P EMP; SA-8K-2P Emp, 8K EMP OD; 8K EMP Outdoor
- 8K-2P-L; 8K-2P Indoor; 8K; 8K Indoor; Sol-Ark 8K Indoor
- 12K EMP; Sol-Ark 12K-2P EMP; SA-12K-2P Emp, 12K EMP OD; 12K EMP Outdoor
- 15K EMP; Sol-Ark 15K-2P EMP; SA-15K-2P Emp, 15K EMP OD; 15K EMP Outdoor
- 12K-2P Indoor Green; 12K-2P Indoor Blue; 12K-2P Indoor Blue 63V; 12K-3P-L
- 5K-1P, 5K-1P W/Kit; 5K; 5K-2P; 5K-2P W/Kit; 5K; Sol-Ark 5K-2P; 5K OD; 5K Outdoor; SA-5K-2P
- 9K-2P; 9K-2P W/Kit; 9K; 9K-2P; SA-9K; Sol-Ark 9K

After-market equipment changes, other unauthorized modifications to Sol-Ark equipment, or taxpayer non-compliance with applicable laws and regulations, may affect the qualification of Sol-Ark manufactured products under Section 25D, and Sol-Ark makes no representation regarding the effects that any such changes, modifications, or non-compliance may have on the availability or use of tax credits.

This Certification Statement is intended solely to permit the taxpayer to seek potential tax credits under Section 25D and is not intended for any other purpose. The ability of any taxpayer to obtain or make use of tax credits may depend on a taxpayer's individual circumstances, compliance with applicable laws and regulations, changing tax laws, rules and regulations and other factors, and there is no assurance that tax credits may be available to the individual taxpayer. Sol-Ark does not offer or provide tax advice, and the taxpayer should not rely on Sol-Ark, or any Sol-Ark employee or representative, for tax planning advice. Taxpayers are urged to consult with their own tax professionals and advisors for tax planning matters and for further information on the use and applicability of any tax credits that may be available for solar equipment, including Sol-Ark manufactured products. Sol-Ark assumes no obligation to update or revise this Certification Statement, or to inform any taxpayers of changes in applicable laws or regulations, at any time on or after the Effective Date.

Under penalties of perjury, I declare that I have examined this certification statement, and to the best of my knowledge and belief, the facts presented are true, correct, and complete.

SOL-ARK, LLC

805 Central Expressway South, Allen, Texas 75013

AUTHORIZED SIGNATORY:

By: John Martinson

Name: John Martinson

Title: COO