



Test Report: CXLA150F-24

150W AC-DC Adapter

■ DESIGN VERIFY TEST

Output Function Test

Input Function Test

Protection Function Test

Component Stress Test

■ SAFETY & E.M.C. TEST

Safety Test

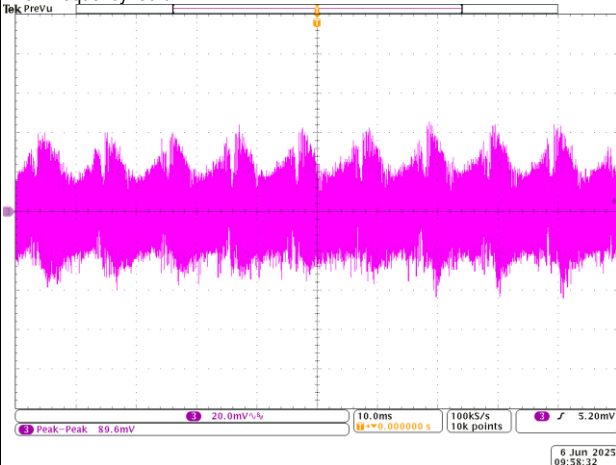
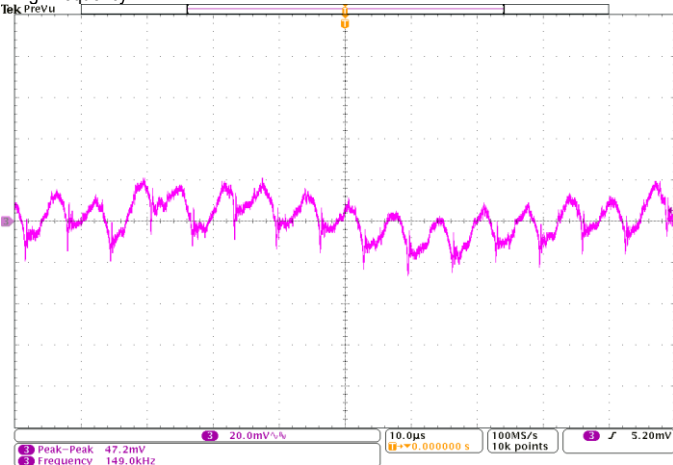
E.M.C. Test

■ RELIABILITY TEST

Environment Test

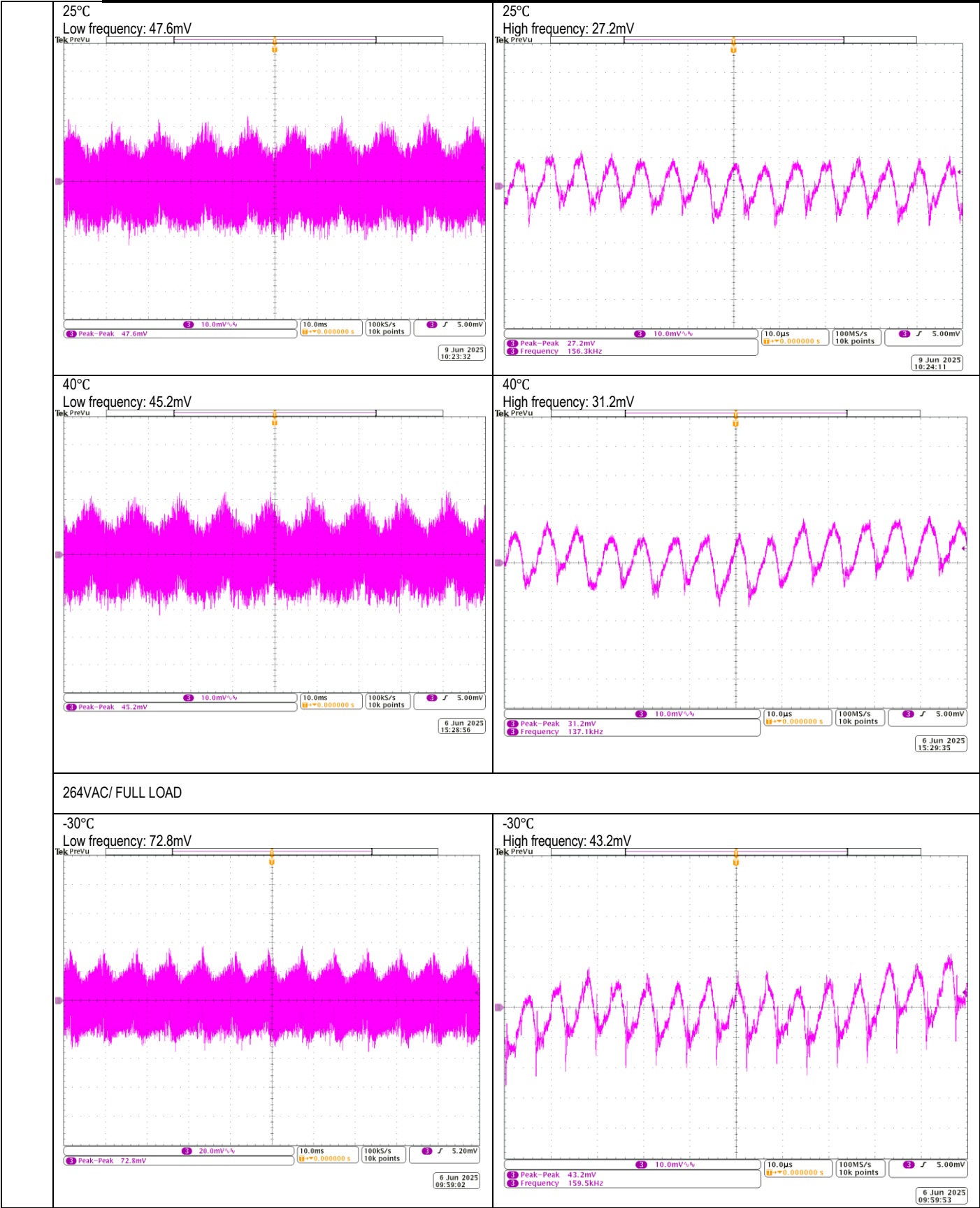
DESIGN VERIFY TEST

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT		
1	OUTPUT VOLTAGE TOLERANCE.	No specification	I/P: 90VAC ~ 264VAC O/P: NO ~ FULL LOAD Ta: -30°C, 25°C, 40°C	23.44 ~ 23.99 V		
2	LINE REGULATION	-1%~+1%	I/P: 90VAC ~ 264VAC O/P: NO ~ FULL LOAD Ta: -30°C, 25°C, 40°C	90 to 100VAC	0.021%	
				240 to 264VAC	0.017%	
3	LOAD REGULATION	-5%~+5%	I/P: 90VAC ~ 264VAC O/P: NO ~ FULL LOAD Ta: -30°C, 25°C, 40°C	-30°C	2.3%	
				25°C	2.4%	
				-40°C	2.3%	
4	RIPPLE & NOISE	240mVp-p	I/P: 90VAC I/P: 264VAC O/P: FULL LOAD Ta: -30°C, 25°C, 40°C		90VAC	264VAC
				-30°C	89.6mVp-p	72.8mVp-p
				25°C	47.6mVp-p	47.2 mVp-p
				-40°C	45.2mVp-p	48.0mVp-p
				90VAC/ FULL LOAD		
-30°C Low frequency: 89.6mV  Peak-Peak: 89.6mV 20.0mV/V 10.0ms 100Ks/s 10k points 5.20mV 6 Jun 2025 09:58:32 -30°C High frequency: 47.2mV  Peak-Peak: 47.2mV Frequency: 149.0kHz 20.0mV/V 10.0µs 100MS/s 10k points 5.20mV 6 Jun 2025 09:59:33						

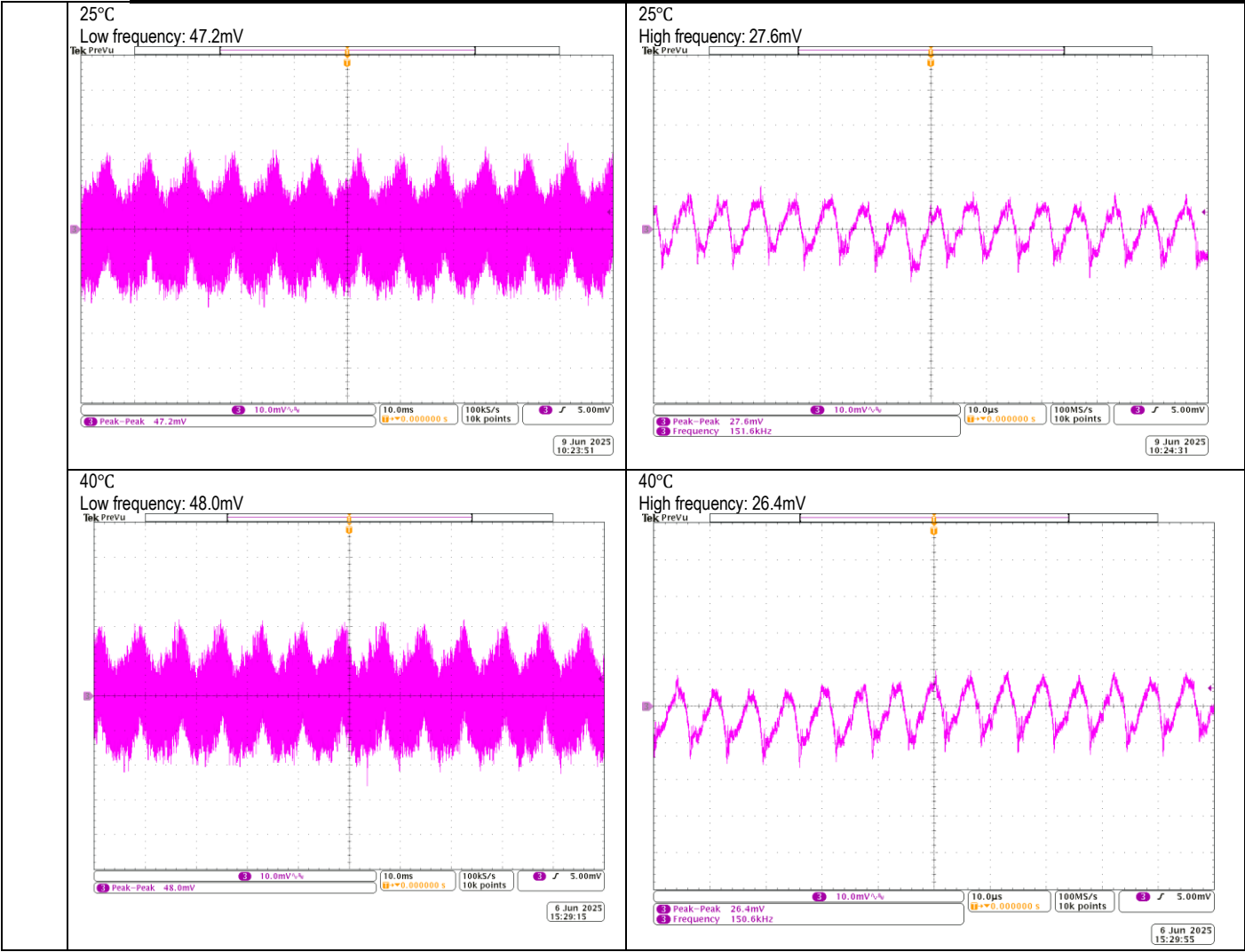
150W AC-DC Adapter

CXLA150F-24



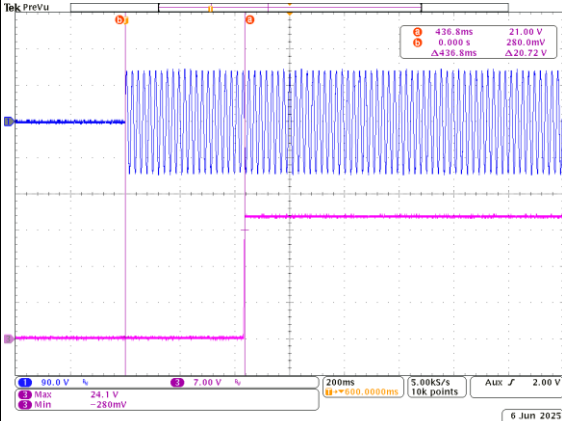
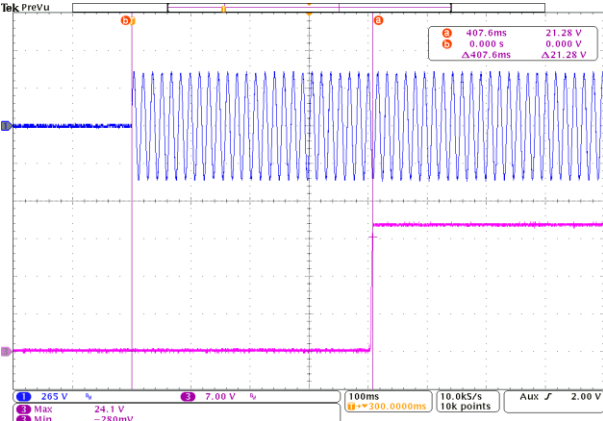
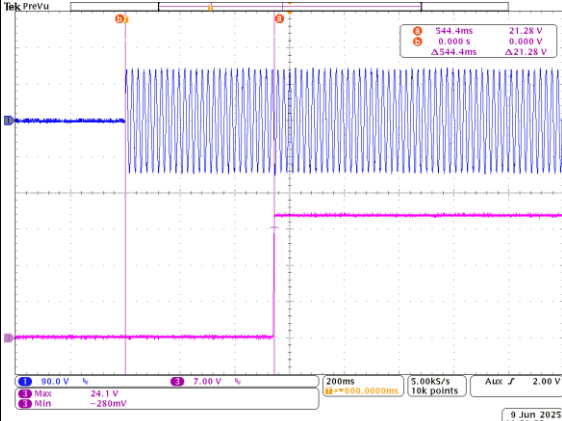
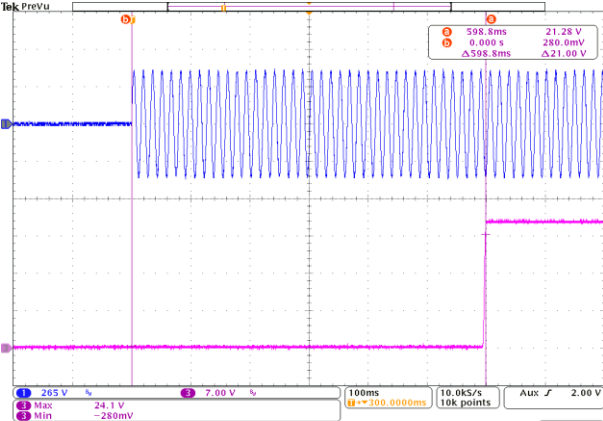
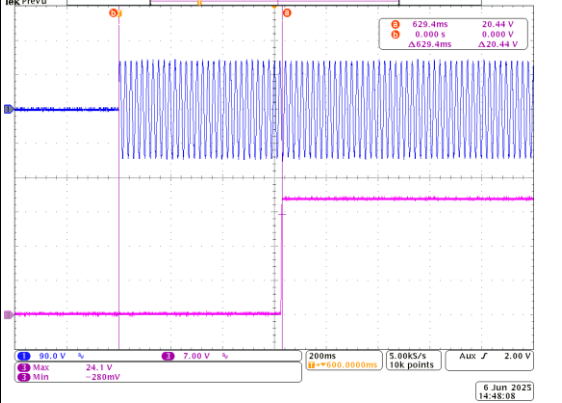
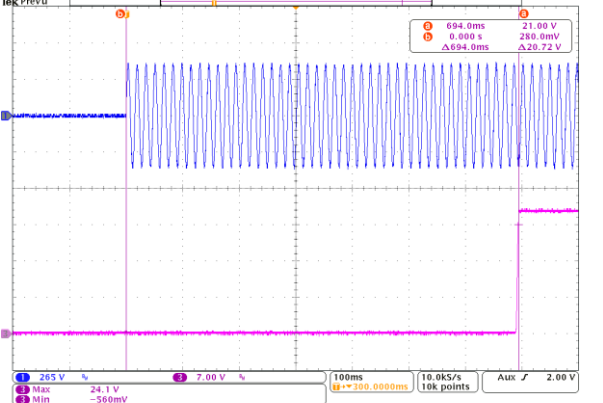
150W AC-DC Adapter

CXLA150F-24



150 W AC-DC Adapter

CXLA150F-24

START UP TIME	3000ms	I/P: 90VAC I/P: 264VAC O/P: FULL LOAD Ta: -30°C, 25°C, 40°C	90VAC	264VAC
			629.4ms	694.0ms
INPUT=90VAC/47HZ @ FULL LOAD		INPUT=264VAC/63HZ @ FULL LOAD		
-30°C: 436.8ms CH1: AC Input Voltage, CH3: Output Voltage 		-30°C: 407.6ms CH1: AC Input Voltage, CH3: Output Voltage 		
25°C: 544.4ms CH1: AC Input Voltage, CH3: Output Voltage 		25°C: 598.8ms CH1: AC Input Voltage, CH3: Output Voltage 		
40°C: 629.4ms CH1: AC Input Voltage, CH3: Output Voltage 		40°C: 694.0ms CH1: AC Input Voltage, CH3: Output Voltage 		



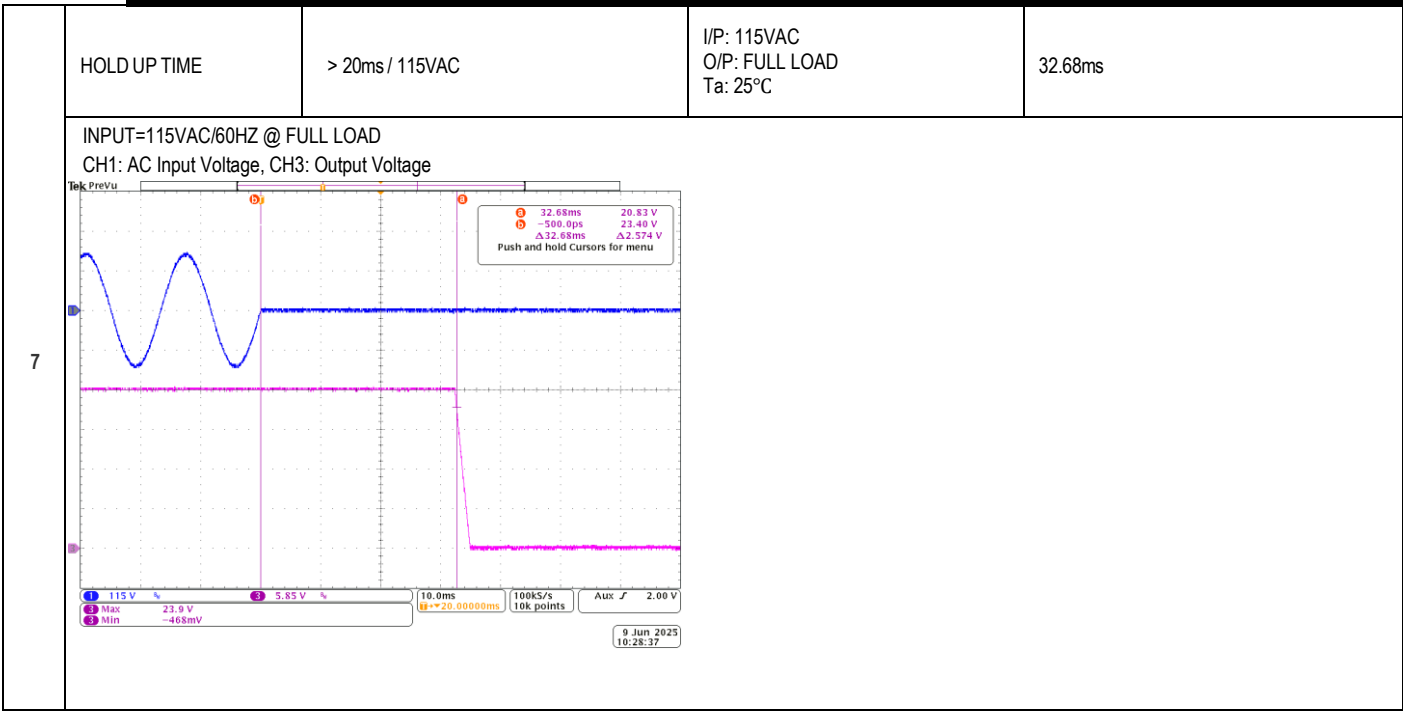
150W AC-DC Adapter

CXLA150F-24

RISE TIME	50ms	I/P: 90VAC I/P: 264VAC O/P: FULL LOAD Ta: -30°C, 25°C, 40°C	90VAC	264VAC
			4.825ms	4.875ms
INPUT=90VAC/47HZ @ FULL LOAD		INPUT=264V/63HZ @ FULL LOAD		
-30°C: 5.300ms 1 Max 23.7 V 2 Min -160mV 3 Rise Time 5.300ms 4 +Over 1.379 % 20.0ms 50.0kS/s 10k points 4.64 V 6 Jun 2025 10:02:31		-30°C: 4.907ms 1 Max 23.7 V 2 Min -160mV 3 Rise Time 4.907ms 4 +Over 1.379 % 20.0ms 50.0kS/s 10k points 4.64 V 6 Jun 2025 10:02:46		
25°C: 4.825ms 1 Max 23.8 V 2 Min -160mV 3 Rise Time 4.825ms 4 +Over 1.379 % 20.0ms 50.0kS/s 10k points 4.72 V 9 Jun 2025 10:27:10		25°C: 4.875ms 1 Max 23.8 V 2 Min -160mV 3 Rise Time 4.875ms 4 +Over 2.069 % 20.0ms 50.0kS/s 10k points 4.72 V 9 Jun 2025 10:02:24		
40°C: 4.800ms 1 Max 23.8 V 2 Min -160mV 3 Rise Time 4.800ms 4 +Over 2.069 % 20.0ms 50.0kS/s 10k points 4.72 V 6 Jun 2025 15:32:33		40°C: 4.840ms 1 Max 24.0 V 2 Min -160mV 3 Rise Time 4.840ms 4 +Over 2.759 % 20.0ms 50.0kS/s 10k points 4.72 V 6 Jun 2025 15:32:48		

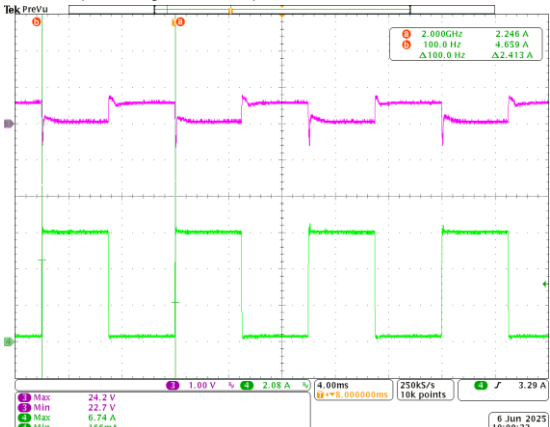
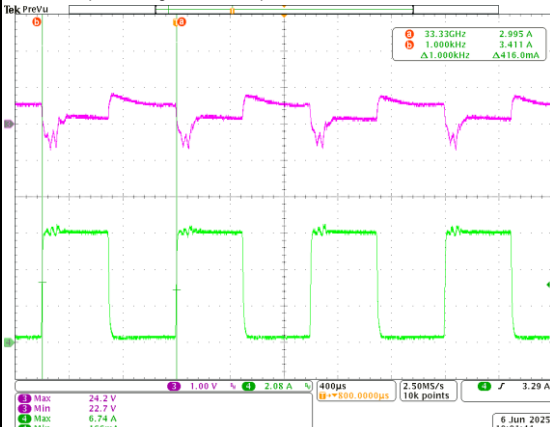
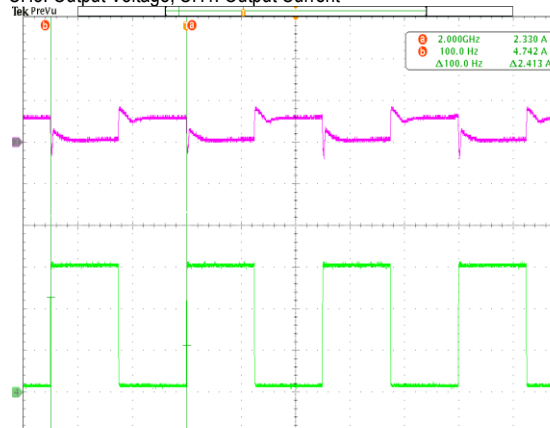
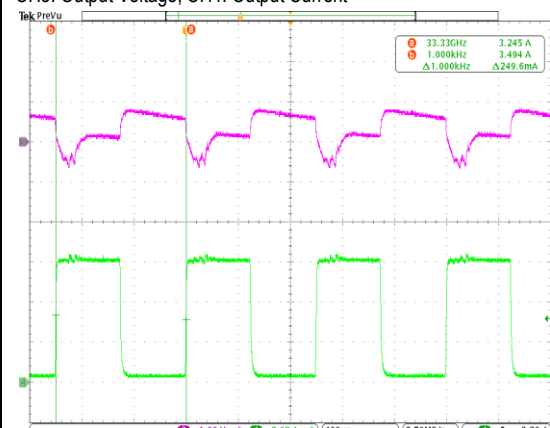
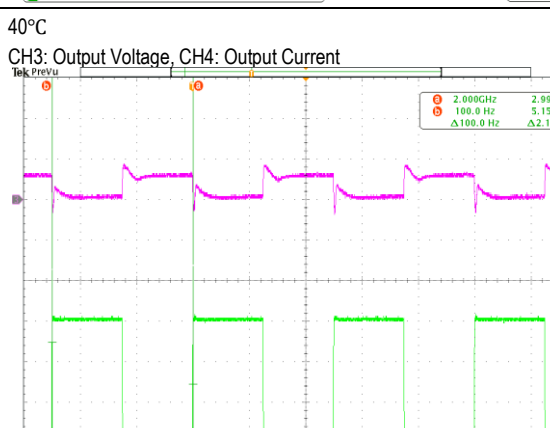
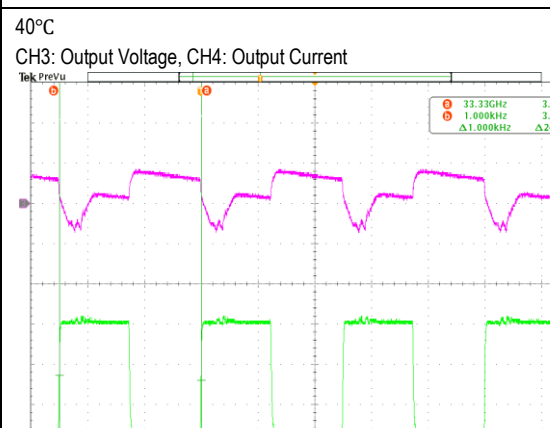
150 W AC-DC Adapter

CXLA150F-24

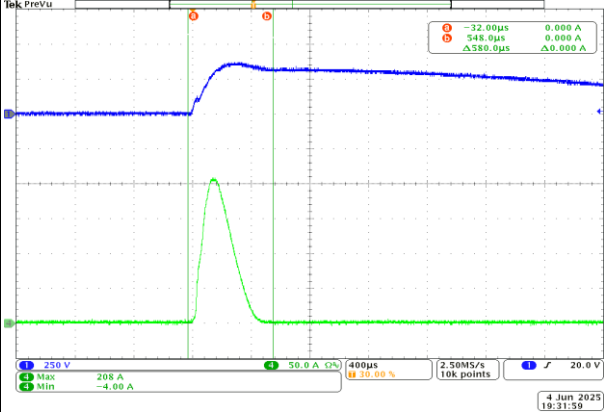


150W AC-DC Adapter

CXLA150F-24

DYNAMIC LOAD	No specification	I/P: 90VAC O/P : (1) FULL LOAD 50%DUTY / 100HZ (2) FULL LOAD 50%DUTY / 1KHZ Ta: -30°C, 25°C, 40°C	-
INPUT=90VAC/47HZ @ FULL LOAD 50%DUTY / 100HZ		INPUT=90VAC/47HZ @ FULL LOAD 50%DUTY / 1KHZ	
-30°C CH3: Output Voltage, CH4: Output Current 		-30°C CH3: Output Voltage, CH4: Output Current 	
25°C CH3: Output Voltage, CH4: Output Current 		25°C CH3: Output Voltage, CH4: Output Current 	
40°C CH3: Output Voltage, CH4: Output Current 		40°C CH3: Output Voltage, CH4: Output Current 	

INPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	INPUT CURRENT	<2A/100VAC <0.8A/240VAC	I/P: 100VAC I/P: 240VAC O/P: FULL LOAD Ta: 25°C	1.67A @100VAC 0.718A @240VAC
2	TOUCH CURRENT	< 0.1mA / 264VAC	I/P: 264VAC O/P: FULL LOAD Ta: 25°C	L-FG: 0.0747mA N-FG: 0.0799mA
3	LEAKAGE CURRENT	< 0.115mA / 264VAC	I/P: 264VAC O/P: FULL LOAD Ta: 25°C	L-FG: 0.0208mA N-FG: 0.0231mA
4	STANDBY POWER	≤ 0.15W	I/P: 115VAC I/P: 230VAC O/P: NO LOAD Ta: 25°C	115VAC/0.103W 230VAC/0.101W
5	INRUSH CURRENT	< Fuse/Bridge diode I2t	I/P: 230VAC O/P: FULL LOAD Ta: 25°C	208 A/ 8.364 I2 t
INPUT=230VAC/50HZ @ FULL LOAD CH1: AC Input Voltage, CH4: Input Current  Max 208 A Min -4.00 A 4 Jun 2025 19:31:59				
6	EFFICIENCY	Typ. 92.5% / FULL LOAD at 230VAC	I/P: 115VAC I/P: 230VAC O/P: FULL LOAD Ta: 25°C	115VAC/91.36% 230VAC/92.91%
7	POWER FACTOR	> 0.9	I/P: 115VAC I/P: 230VAC O/P: FULL LOAD Ta: 25°C	115VAC/0.986 230VAC/0.929

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	OVER CURRENT PROTECTION	105%~150% rated current 6.5625<OCP<9.375A	I/P: 90VAC I/P: 264VAC O/P: TESTING Ta : 25°C	90VAC/8.07A 264VAC/8.07A
2	OVER VOLTAGE PROTECTION	140% of Rated Voltage	I/P: 90VAC I/P: 264VAC O/P: NO LOAD Ta: 25°C	90VAC/29.4V 264VAC/29.6V
3	SHORT CIRCUIT PROTECTION	NO DAMAGE (LATCH MODE)	I/P: 90VAC ~ 264VAC O/P: NO LOAD, FULL LOAD Ta: 25°C	PASS
4	OVER TEMPERATURE PROTECTION	NO DAMAGE	I/P: 90VAC ~ 264VAC O/P: FULL LOAD Ta: 40°C	O.T.P. Active Shut down o/p voltage recovers automatically after temperature goes down

150W AC-DC Adapter

CXLA150F-24

COMPONENT STRESS TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	PWM Power Transistor	Q050 Rated 10A/600V	I/P: 264VAC O/P: (1) Start-up (2) Output Short (3) FULL LOAD continues Ta: 25°C	(1) 395V (2) 365V (3) 395V
2	PWM Power Transistor	Q051 Rated 10A/600V	I/P: 264VAC O/P: (1) Start-up (2) Output Short (3) FULL LOAD continues Ta: 25°C	(1) 382V (2) 382V (3) 391V
3	PFC Power Transistor	Q010 Rated 13.5A/600V	I/P: 264VAC O/P: (1) Start-up (2) Output Short (3) FULL LOAD continues Ta: 25°C	(1) 411V (2) 397V (3) 407V
4	PFC Power Transistor	Q010-1 Rated 13.5A/600V	I/P: 264VAC O/P: (1) Start-up (2) Output Short (3) FULL LOAD continues Ta: 25°C	(1) 407V (2) 380V (3) 407V
5	Input Capacitor	C051 Rated 150uF/ 450V	I/P: 264VAC O/P: (1) Start-up (2) Output Short (3) FULL LOAD continues Ta: 25°C	(1) 397.6V (2) 401.3V (3) 401.5V

SAFETY TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	WITHSTAND VOLTAGE	I/P-O/P: 4.0KVAC/min I/P-FG: 1.5KVAC/min O/P-FG: 1.5KVAC/min	I/P-O/P: 4.0KVAC/min I/P-FG: 1.5KVAC/min O/P-FG: 1.5KVAC/min Ta: 25°C	PASS
2	ISOLATION RESISTANCE	I/P-O/P: 500VDC: >100MΩ I/P-FG: 500VDC: >100MΩ O/P-FG: 500VDC: >100MΩ	I/P-O/P: 500VDC I/P-FG: 500VDC O/P-FG: 500VDC Ta: 25°C/70%RH	PASS

E.M.C TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	HARMONIC	EN61000-3-2 CLASS A	I/P: 100VAC I/P: 230VAC O/P: FULL LOAD Ta: 25°C	PASS
2	RADIATION	EN55032 CLASS B	I/P: 100VAC I/P: 230VAC O/P: FULL LOAD Ta: 25°C	PASS
3	CONDUCTION	EN55032 CLASS B	I/P: 100VAC I/P: 230VAC O/P: FULL LOAD Ta: 25°C	PASS
4	E.S.D	EN61000-4-2 CRITERIA A AIR: ±15KV Contact: ±8KV	I/P: 230VAC O/P: FULL LOAD Ta: 25°C	PASS
5	E.F.T	EN61000-4-4 CRITERIA A INPUT: ±2KV	I/P: 220VAC O/P: FULL LOAD Ta: 25°C	PASS
6	SURGE	EN61000-4-5 CRITERIA A L-N: ±2KV L, N-PE: ±4KV	I/P: 230VAC O/P: FULL LOAD Ta: 25°C	PASS
7	VOLTAGE DIPS	IEC61000-4-11 (1) CRITERIA A 100% dip; 0.5 cycle(10ms) 0,45,90,135,180,225,270,115,360 degrees. (2) CRITERIA A 100% dip; 1 cycle(20ms) 0 degree. (3) CRITERIA A 30% dip; 25 cycles(500ms) 0 degree. (4) CRITERIA B 100% dip; 250 cycles(5000ms) 0 degree.	I/P: 100VAC I/P: 240VAC O/P: FULL LOAD Ta: 25°C	PASS



150 W AC-DC Adapter

CXLA150F-24

8	Conducted Immunity	IEC61000-4-6 CRITERIA A 10Vrms	I/P: 120VAC I/P: 230VAC O/P: FULL LOAD Ta: 25°C	PASS
9	Radiated Immunity	IEC61000-4-3 CRITERIA A 10V/m	I/P: 230VAC O/P: FULL LOAD Ta: 25°C	PASS
10	Power Frequency Magnetic Field	IEC61000-4-8 CRITERIA A 30A/m	I/P: 120VAC I/P: 230VAC O/P: FULL LOAD Ta: 25°C	PASS

■ RELIABILITY TEST

ENVIRONMENT TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	TEMPERATURE	No components damaged	I/P: 90VAC @ 47Hz O/P: FULL LOAD Ta: 40°C	PASS *Table 1
2	CAPACITOR LIFE CYCL	The electrolytical capacitor life is greater than 26280 hours	I/P: 100VAC/ 60Hz I/P: 240VAC/50Hz O/P: FULL LOAD Ta: 40°C	(1)I/P: 100VAC O/P: FULLLOAD Ta= 40C LIFETIME=73,026 hours (2)I/P: 240VAC O/P: FULLLOAD Ta= 40C LIFETIME=100,826 hours
3	MTBF	The power supply reliability, when calculated by SR332 exceed 240,000 hours with all output at 100% of maximum load and at ambient temperature of 25°C		6,312,979 hours @ 90VAC 4,929,793 hours @ 264VAC
4	HUMIDITY	Storage: 25°C / 5 ~ 95% RH / Dwell: 4 hours Working: 25°C/ 10 ~ 95% RH / Dwell: 4 hours I/P: 100~240VAC (Working) O/P: 100% load (Working)		PASS
5	VIBRATION TEST	Ware form: Random Acceleration: 2Grms Axis/Time: X, Y, Z / 10min per axis Frequency: 10~500Hz No functional, mechanical and safety fail.		PASS
6	ALTITUDE	Operational and Non-operational Altitude: 5000 meters Temperature: -5°C Dwell time: 24Hrs I/P: 100~240VAC (Operational) O/P: 100% load (Operational)		PASS
7	OVERLOAD BURN-IN TEST	I/P: 90VAC/ 60Hz O/P: Just before OCP kicks in Ta: 25°C Duration: 1hours		PASS

*1 All component temperature should not exceed maximum operation temperature.

150W AC-DC Adapter

CXLA150F-24

Table 1. Components temperature @ 70°C 50% Load. (Unit °C)

No.	Location	90V	Result
1	C206	67.245	Pass
2	C204	69.034	Pass
3	C054	68.482	Pass
4	C051	68.577	Pass
5	T050-core	71.648	Pass
6	T050-coil	79.256	Pass
7	IC200	77.593	Pass
8	Q200	79.706	Pass
9	Q200-1	68.598	Pass
10	PC300	75.678	Pass
11	IC100	73.375	Pass
12	Q051	72.258	Pass
13	D004	74.912	Pass
14	Q050	86.584	Pass
15	D003	79.263	Pass
16	Q010	83.689	Pass
17	L002	79.836	Pass
18	D050	79.051	Pass
19	RT101	66.428	Pass
20	L010	79.699	Pass
21	Case Up	58.106	Pass
22	Case Down	62.65	Pass
23	Case Input	49.516	Pass
24	Case Output	47.976	Pass
25	Case Back	58.223	Pass
26	Case Forth	53.62	Pass
27	AMB1	40.831	

TEST RESULT	TESTER	REVIEW	APPROVAL
PASS	Gen Chen	Luke Zhou	Ke Cao