



Test Report: CXLA150F-19

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

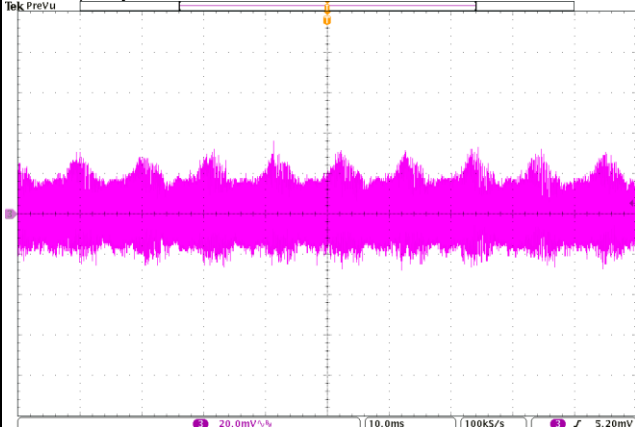
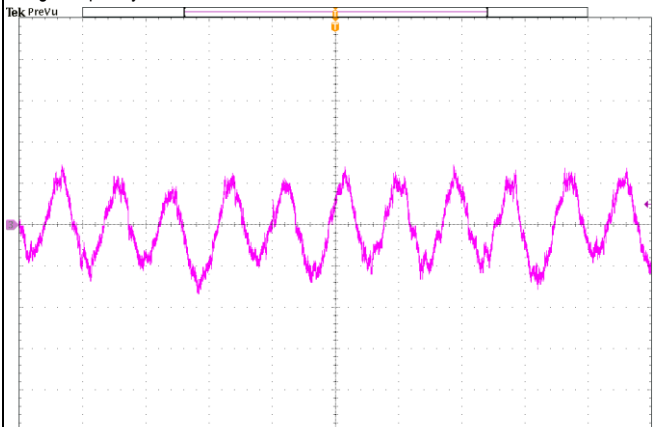
E.M.C. Test

■ RELIABILITY TEST

Environment Test

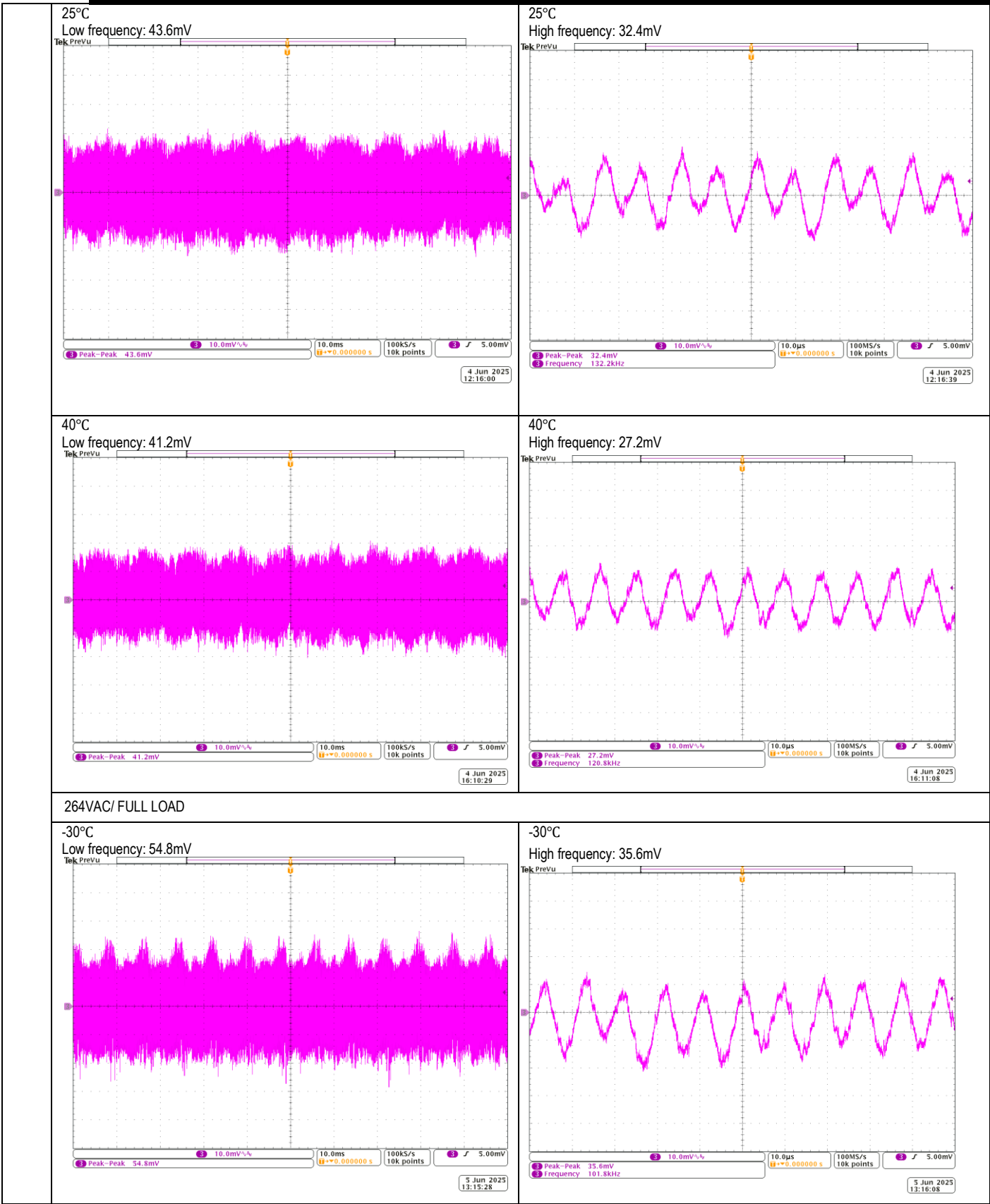
DESIGN VERIFY TEST

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	18.84 ~ 19.37 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	0.005 %	
				240 to 264VAC	0.005 %	
3	LOAD REGULATION	-5%~+5%	I/P: 90VAC ~ 264VAC O/P: NO ~ FULL LOAD Ta: -30°C, 25°C, 40°C	-30°C	2.6%	
				25°C	2.8%	
				40°C	2.9%	
	RIPPLE & NOISE	190mVp-p	I/P: 90VAC I/P: 264VAC O/P: FULL LOAD Ta: -30°C, 25°C, 40°C		90VAC	264VAC
				-30°C	64.0mVp-p	54.8mVp-p
				25°C	43.6mVp-p	41.2mVp-p
				40°C	41.2mVp-p	42.4mVp-p
90VAC/ FULL LOAD						
4	-30°C					
	Low frequency: 64.0mV					
						
Peak-Peak: 64.0mV				Peak-Peak: 31.2mV		
Frequency: 107.2kHz						
5 Jun 2025 13:15:09						
5 Jun 2025 13:15:48						

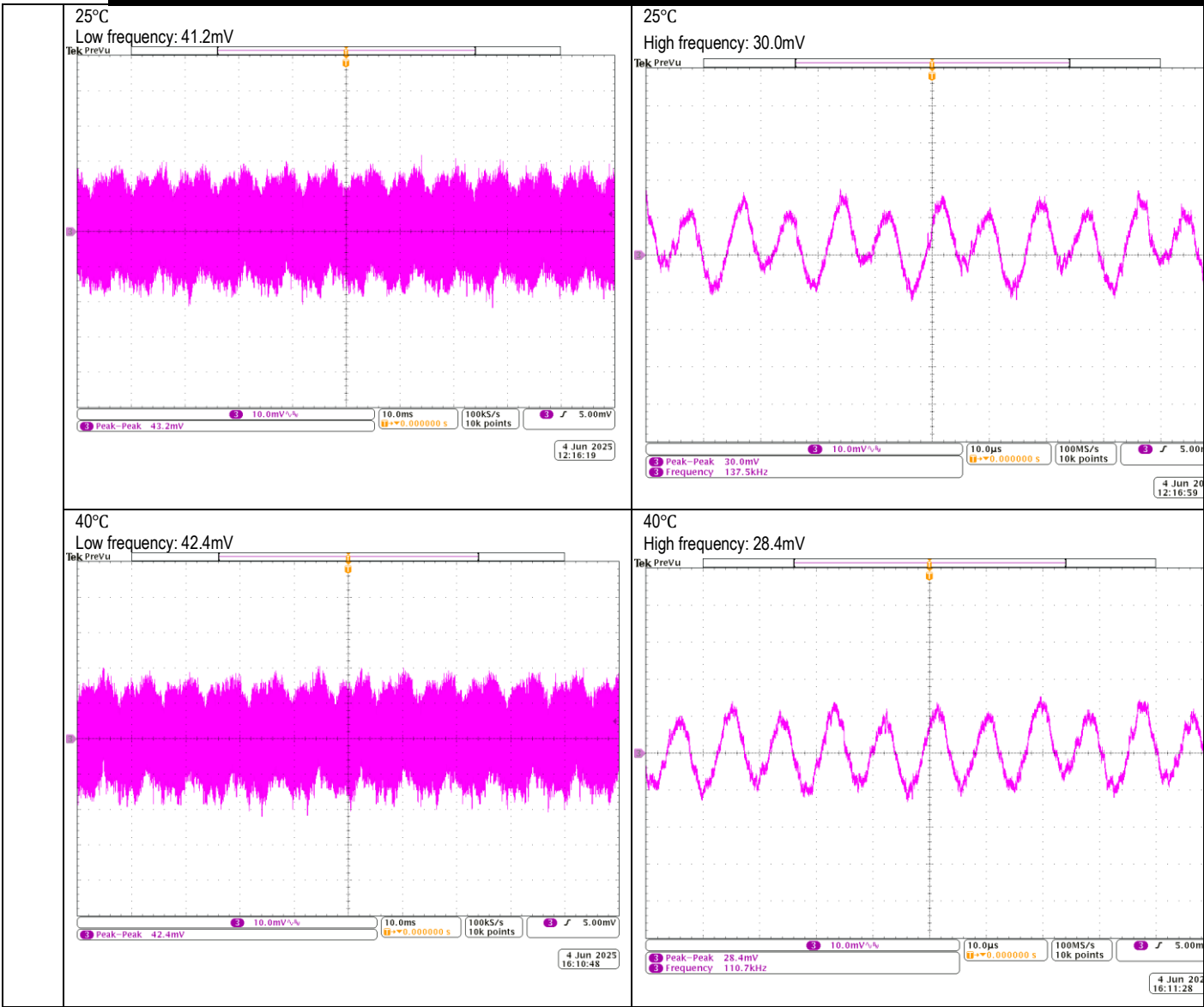
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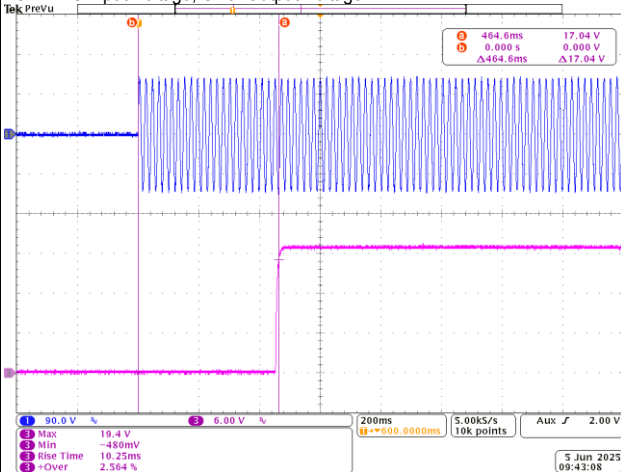
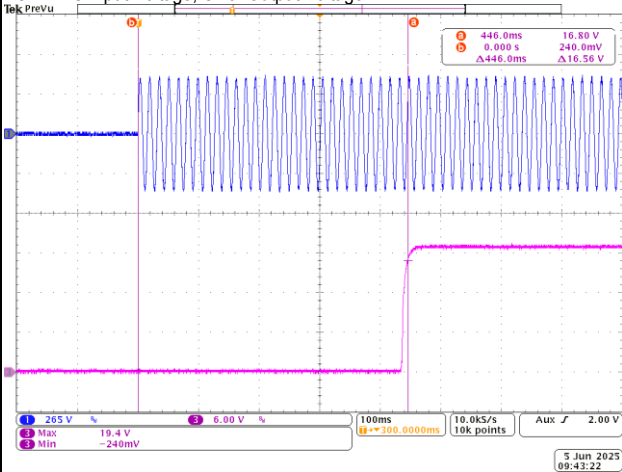
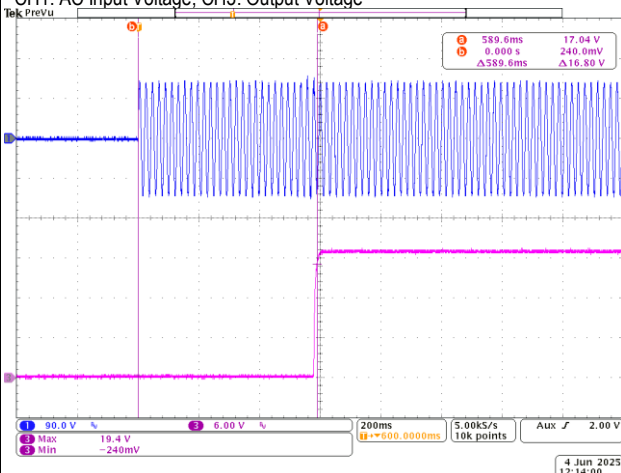
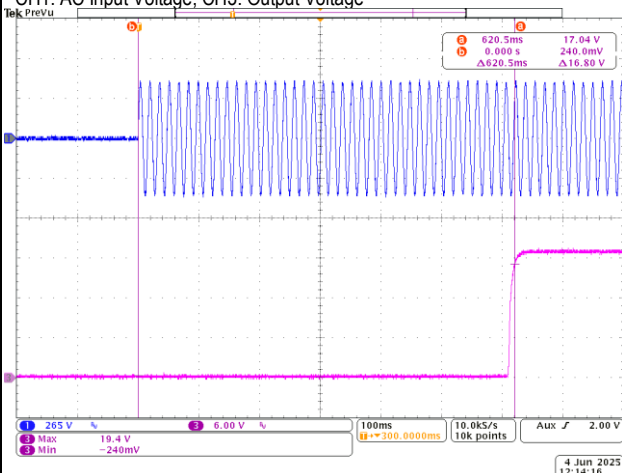
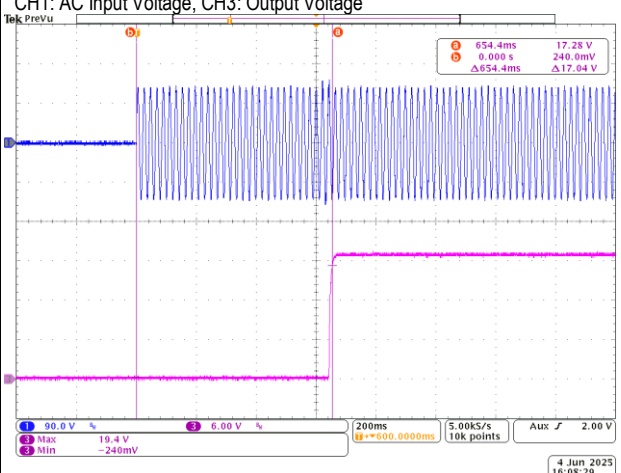
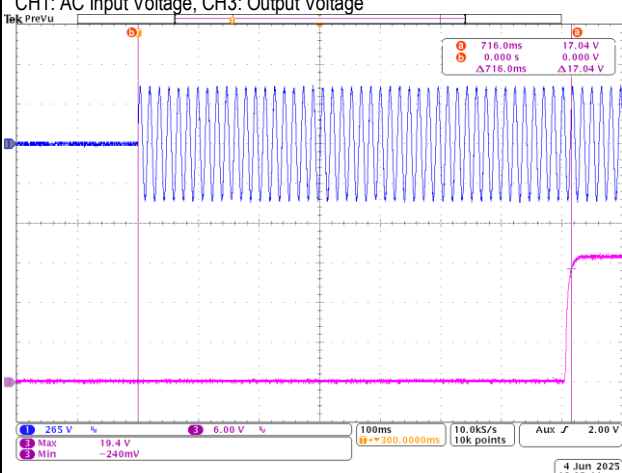
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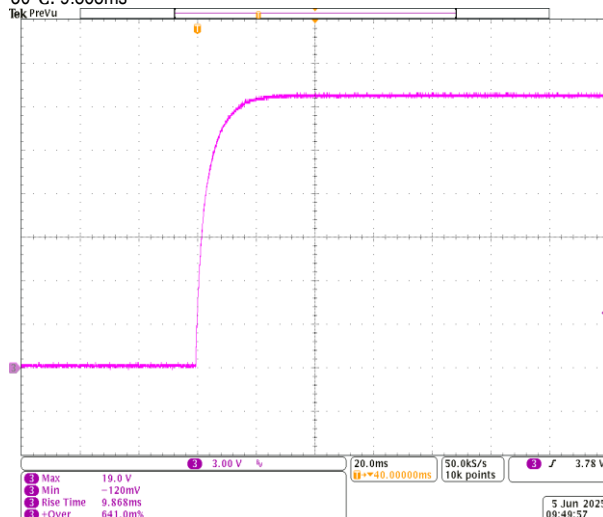
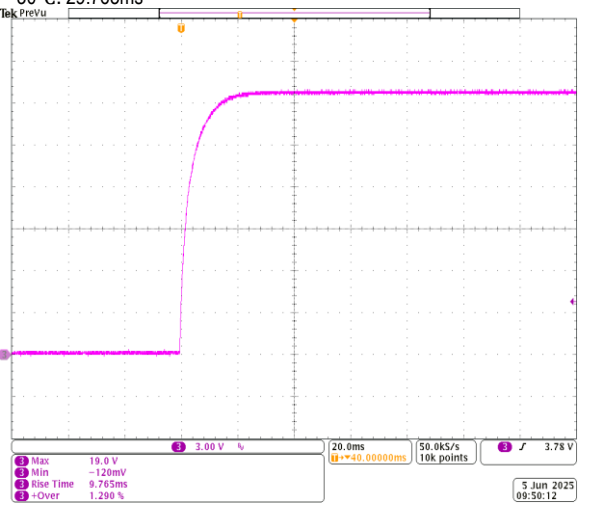
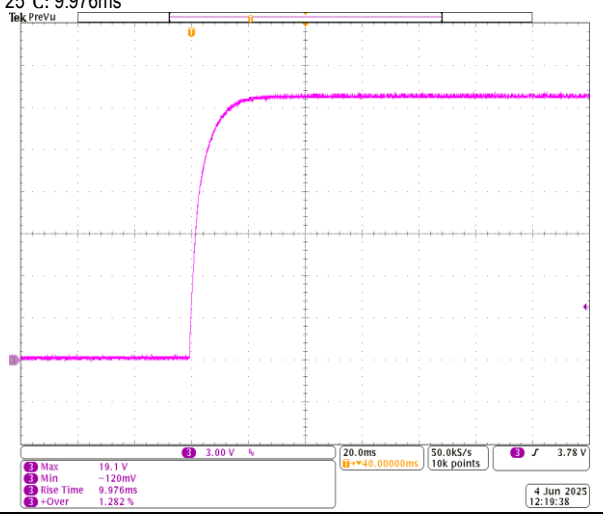
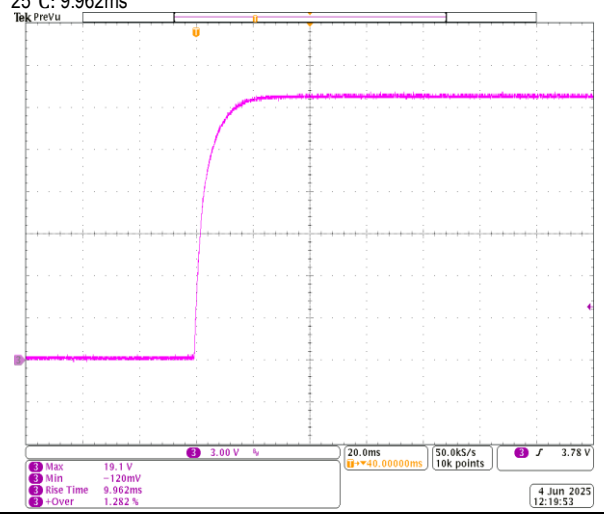
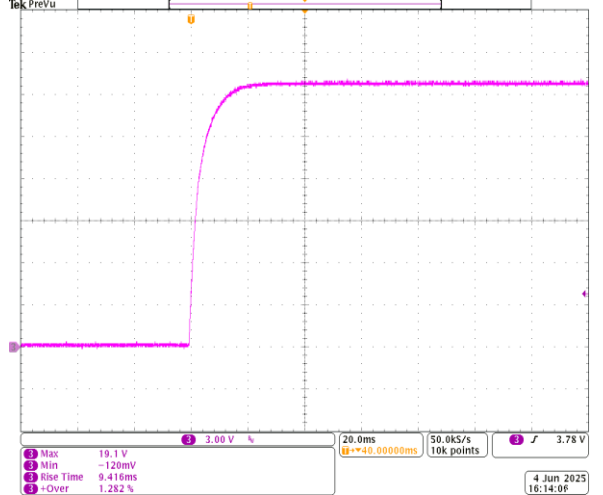
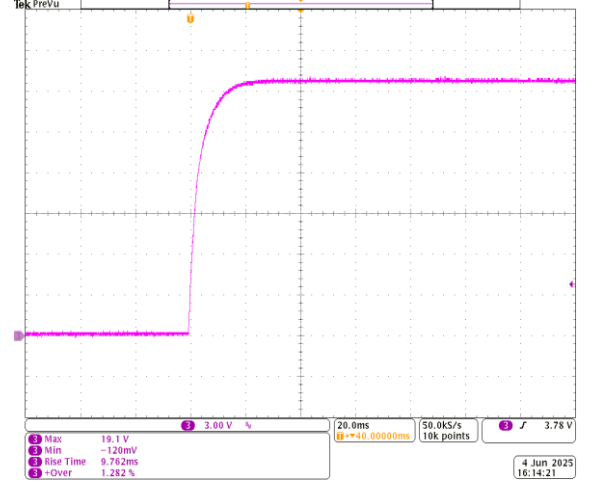
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5	START UP TIME		3000ms	I/P: 90VAC I/P: 264VAC O/P: FULL LOAD Ta: -30°C, 25°C, 40°C	90VAC 654.4ms	264VAC 716.6ms
	INPUT=90VAC/47HZ @ FULL LOAD			INPUT=264VAC/63HZ @ FULL LOAD		
	-30°C: 464.6ms CH1: AC Input Voltage, CH3: Output Voltage			-30°C: 446.0ms CH1: AC Input Voltage, CH3: Output Voltage		
						
	25°C: 589.6ms CH1: AC Input Voltage, CH3: Output Voltage			25°C: 620.5ms CH1: AC Input Voltage, CH3: Output Voltage		
						
40°C: 654.4ms CH1: AC Input Voltage, CH3: Output Voltage			40°C: 716.6ms CH1: AC Input Voltage, CH3: Output Voltage			
						



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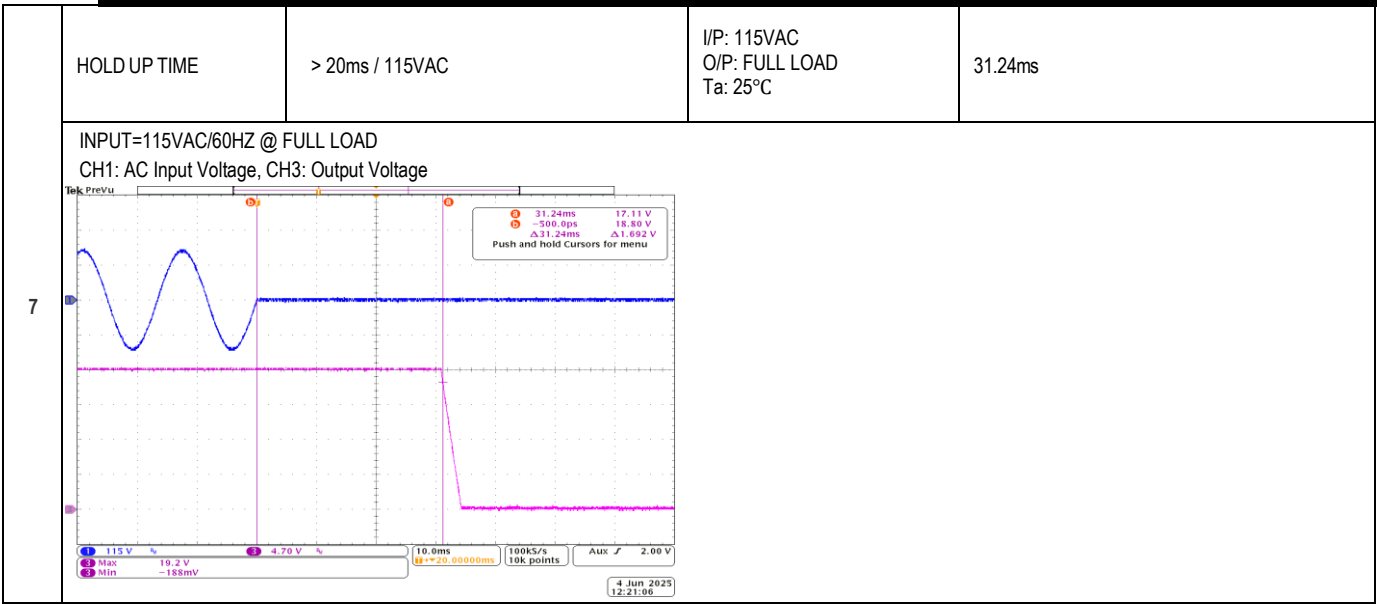
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RISE TIME	50ms	I/P: 90VAC	90VAC	264VAC
		I/P: 264VAC		
		O/P: FULL LOAD		
		Ta: -30°C, 25°C, 40°C	9.976ms	9.962ms
INPUT=90VAC/47HZ @ FULL LOAD		INPUT=264V/63HZ @ FULL LOAD		
-30°C: 9.868ms 		-30°C: 29.765ms 		
25°C: 9.976ms 		25°C: 9.962ms 		
40°C: 9.416ms 		40°C: 9.762ms 		



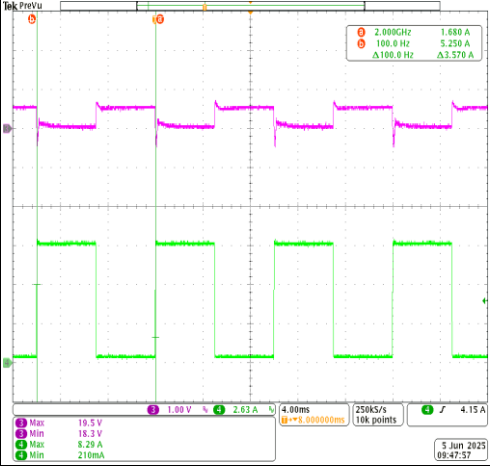
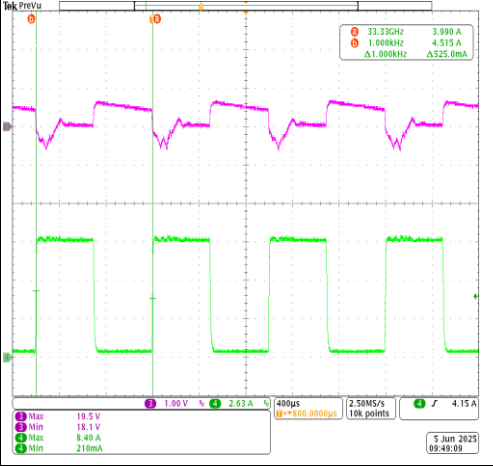
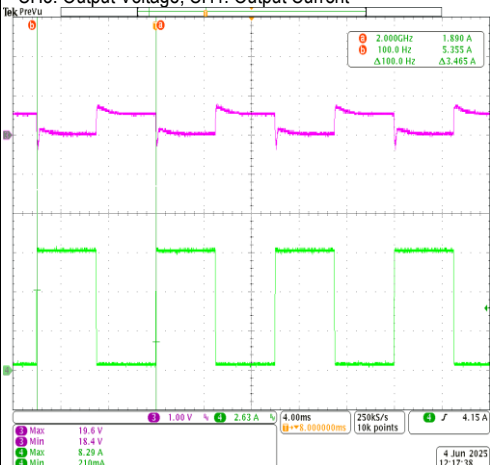
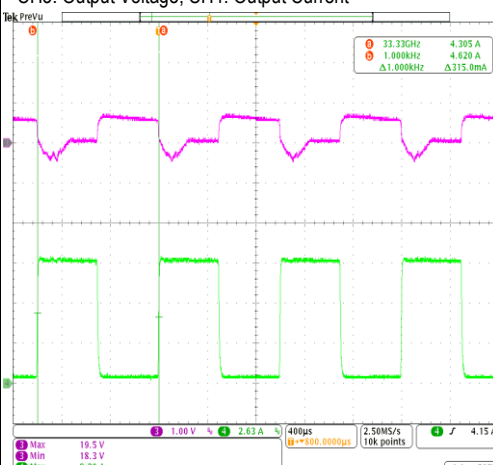
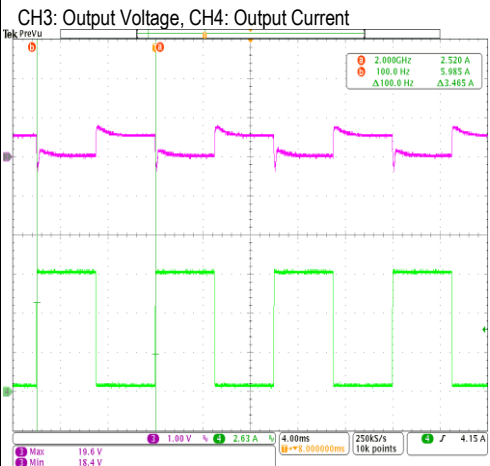
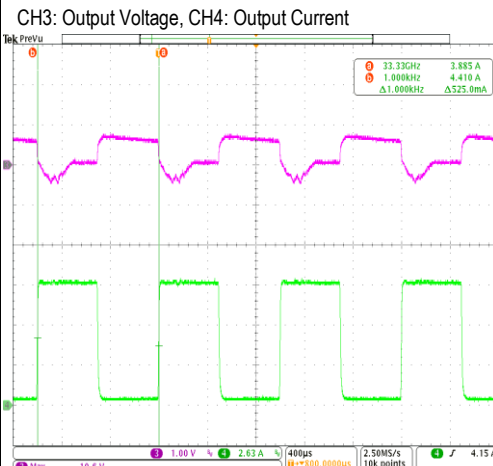
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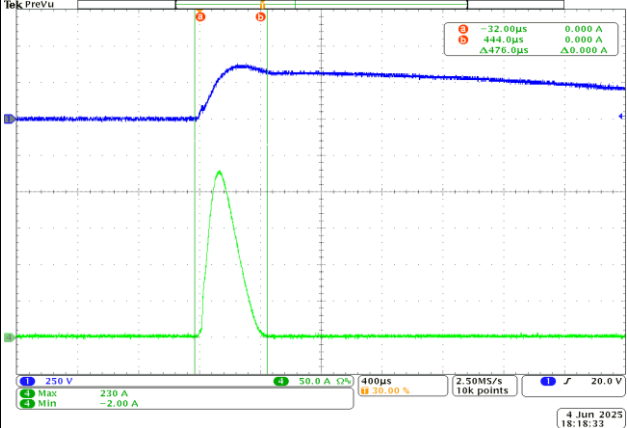


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DYNAMIC LOAD		No Specification	I/P: 90VAC O/P : (1) FULL LOAD 50%DUTY / 100HZ (2) FULL LOAD 50%DUTY / 1KHZ Ta: -30°C, 25°C, 40°C	-
INPUT=90VAC/47HZ @ FULL LOAD 50%DUTY / 100HZ			INPUT=90VAC/47HZ @ FULL LOAD 50%DUTY / 1KHZ	
8	-30°C CH3: Output Voltage, 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	1.68A @100VAC 0.722A @240VAC
2	TOUCH CURRENT	< 0.1mA / 264VAC	I/P: 264VAC O/P: FULL LOAD Ta: 25°C	L-FG: 0.0723mA N-FG: 0.0808mA
3	LEAKAGE CURRENT	< 0.115mA / 264VAC	I/P: 264VAC O/P: FULL LOAD Ta: 25°C	L-FG: 0.0236mA N-FG: 0.0253mA
4	STANDBY POWER	≤ 0.15W	I/P: 115VAC I/P: 230VAC O/P: NO LOAD Ta: 25°C	115VAC/0.092W 230VAC/0.099W
5	INRUSH CURRENT	< Fuse/Bridge diode I2t	I/P: 230VAC O/P: FULL LOAD Ta: 25°C	230 A/ 8.393 I2 *t
INPUT=230VAC/50HZ @ FULL LOAD CH1: AC Input Voltage, CH4: Input Current 				
6	EFFICIENCY	Typ. 91.5% / FULL LOAD at 230VAC	I/P: 115VAC I/P: 230VAC O/P: FULL LOAD Ta: 25°C	115VAC/91.07% 230VAC/92.48%
7	POWER FACTOR	> 0.9	I/P: 115VAC I/P: 230VAC O/P: FULL LOAD Ta: 25°C	115VAC/0.981 230VAC/0.925

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT
1	OVER CURRENT PROTECTION	105%~150% rated current 8.28<OCP<11.83A	I/P: 90VAC I/P: 264VAC O/P: TESTING Ta : 25°C	90VAC/10.5A 264VAC/10.5A
2	OVER VOLTAGE PROTECTION	140% of Rated Voltage	I/P: 90VAC I/P: 264VAC O/P: NO LOAD Ta: 25°C	90VAC/23.3V 264VAC/23.3V
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

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) 403V (2) 395V (3) 399V
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) 399V (2) 397V (3) 397V
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) 421V (2) 413V (3) 421V
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) 421V (2) 415V (3) 421V
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) 398.5V (2) 398V (3) 395.7V

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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

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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=53,837 hours (2)I/P: 240VAC O/P: FULLLOAD Ta= 40C LIFETIME=75,292 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		3,748,027 hours @ 90VAC 5,647,445 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 temperatures should not exceed maximum operation temperature.

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

No.	Location	90V	Result
1	C206	65.462	Pass
2	C204	68.777	Pass
3	C054	68.144	Pass
4	C051	68.244	Pass
5	T050-core	76.554	Pass
6	T050-coil	71.42	Pass
7	IC200	75.827	Pass
8	Q200	74.504	Pass
9	Q200-1	76.724	Pass
10	PC300	68.054	Pass
11	IC100	72.887	Pass
12	Q051	72.472	Pass
13	D004	72.16	Pass
14	Q050	75.445	Pass
15	D003	81.607	Pass
16	Q010	78.112	Pass
17	L002	78.506	Pass
18	D050	80.935	Pass
19	RT101	68.802	Pass
20	L010	82.294	Pass
21	Case Up	61.36	Pass
22	Case Down	65.223	Pass
23	Case Input	48.028	Pass
24	Case Output	45.073	Pass
25	Case Back	57.767	Pass
26	Case Forth	57.207	Pass
27	AMB1	40.466	

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