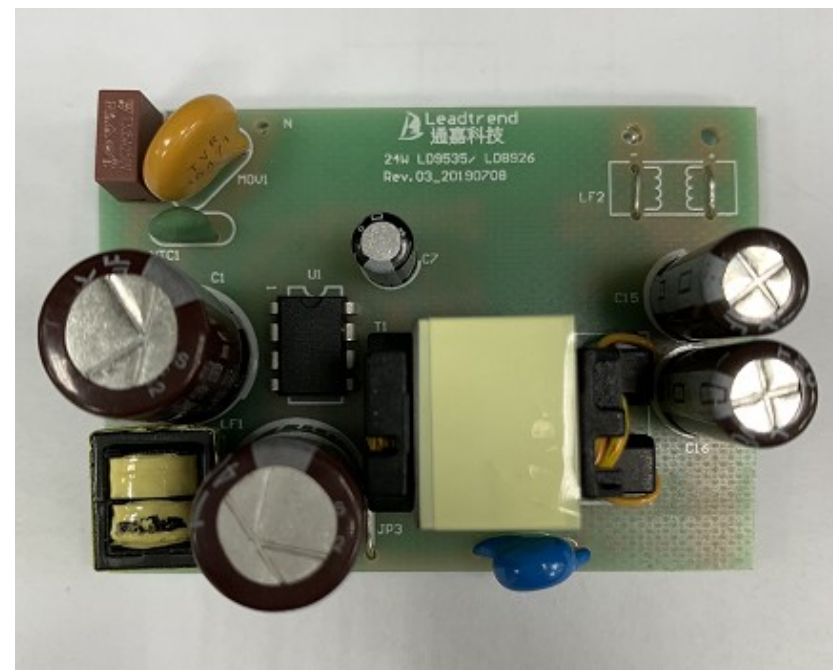




24 W (SSR)
NWK
LD9535GN+LD8926A81



2019/8/7

Revision: 02

Jason Liao / Field Application Engineering

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1. Specification

Item	Min.	Typ.		Max.	Test Result
Input Voltage (V _{AC})	90	115	230	264	—
Input Frequency (Hz)	47 / 60	60	50	63 / 50	—
Output Voltage (V)	12				—
Output Current (A)	2				—
Efficiency	CoC Tier 2				Pass
Standby Power (mW)	< 75				Pass
Output Voltage Accuracy (%)	< ± 5 (11.4 ~ 12.6 V)				Pass
Over Current Protection (%)	< 130				Pass
Ripple & Noise Voltage (mV)	< 120				Pass
Dynamic Load (%)	< ± 5 % of V _{OUT} (20 ↔ 80 % Load)		< ± 10 % of V _{OUT} (10 ↔ 90 % Load)		Pass
Turn-on Delay Time (S)	< 3				Pass
Hold-up Time (mS)	> 10 @ Typical AC Input				Pass
Rise Time (mS)	< 40				Pass
Overshoot (%)	< 10				Pass
AC Brown-in (V _{AC})	< 85				Pass
AC Brown-out (V _{AC})	< 85				Pass
EMI	EN55032 Class B				Pass

2. Outline

Top View



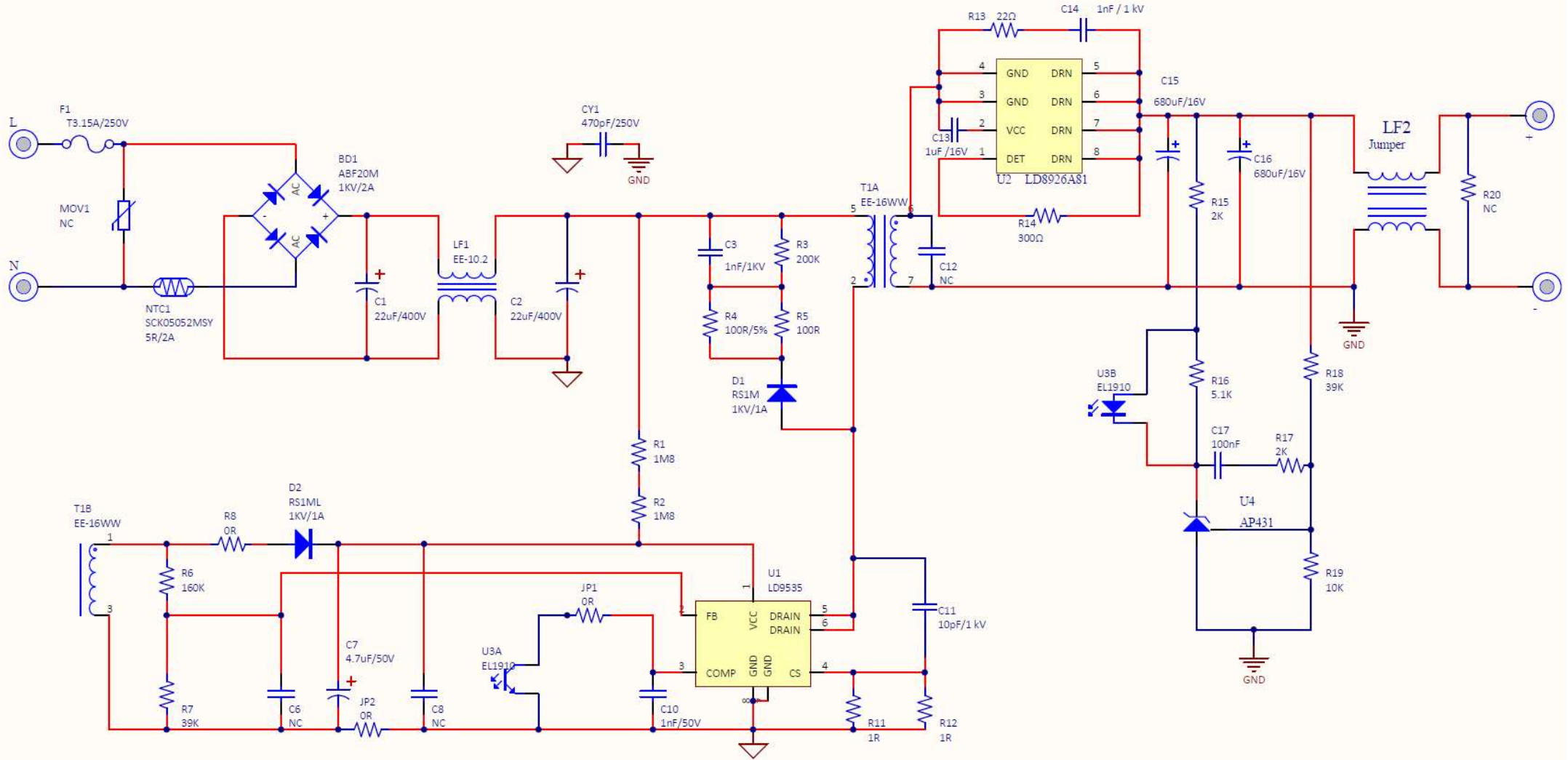
63 mm

Bottom View



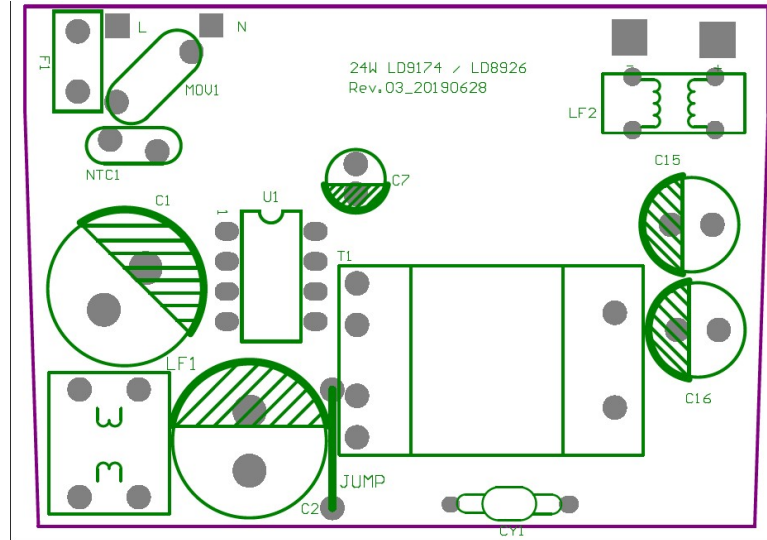
43 mm

3. Schematic

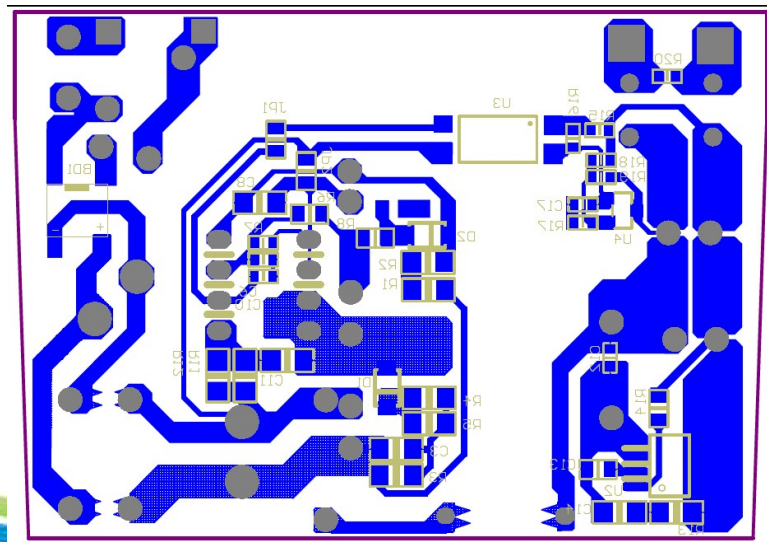


4. PCB Layout

Top Side



Bottom Side



5. Bill of Materials

Designator	Footprint	Quantity	Value
BD1	ASB210	1	2A/1000V
C1,C2	E-CAP	2	22u/400V , 12.5*25mm
C7	E-CAP	1	4.7uF/50V
C3,C14	C1206	2	102/1KV
C13	C0805	1	1uF/50V
C11	C1206	1	10pF/1KV
C17	C0603	1	0.1uF/50V
C10	C0603	1	1nF
NTC1	SCR052	1	2A/5R
MOV1	TVR10471	1	470V
C15,C16	E-CAP	2	680uF/16V
LF1	EE10.2	1	20mH
CY1	CY7.5	1	470pF
D1,D2	SOD-123	2	FR107
線材	線材	1	22AWG , 1500mm

5. Bill of Materials

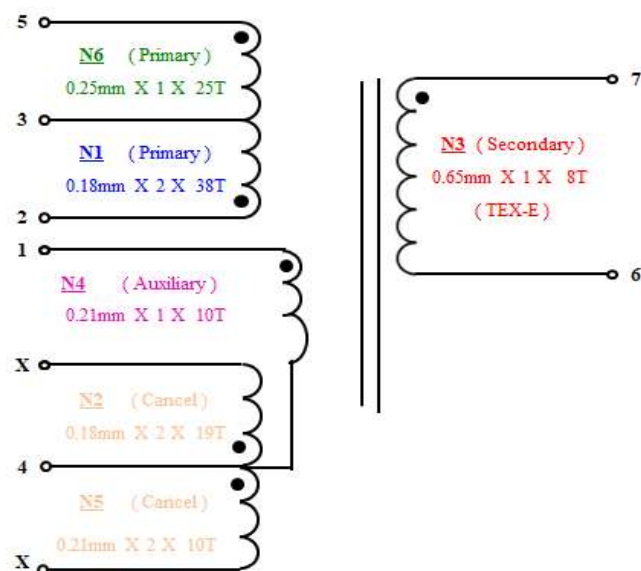
Designator	Footprint	Quantity	Value
F1	FUSF	1	3.15A/250V
R1, R2	R1206	2	180K
R4,R5	R1206	2	100R
R3	R1206	1	200K
R11, R12	R1206	2	1R0
R15	R0805	1	220R
R16	R0603	1	5.1K
JP1	R0805	1	0R
JP2,R8	R0805	1	0R
R6	R0805	1	160K
R7	R0805	1	39K
R18	R0603	1	39K
R19	R0603	1	10K
R17	R0603	1	2K
R14	R0805	1	300R
R13	R1206	1	22R

5. Bill of Materials

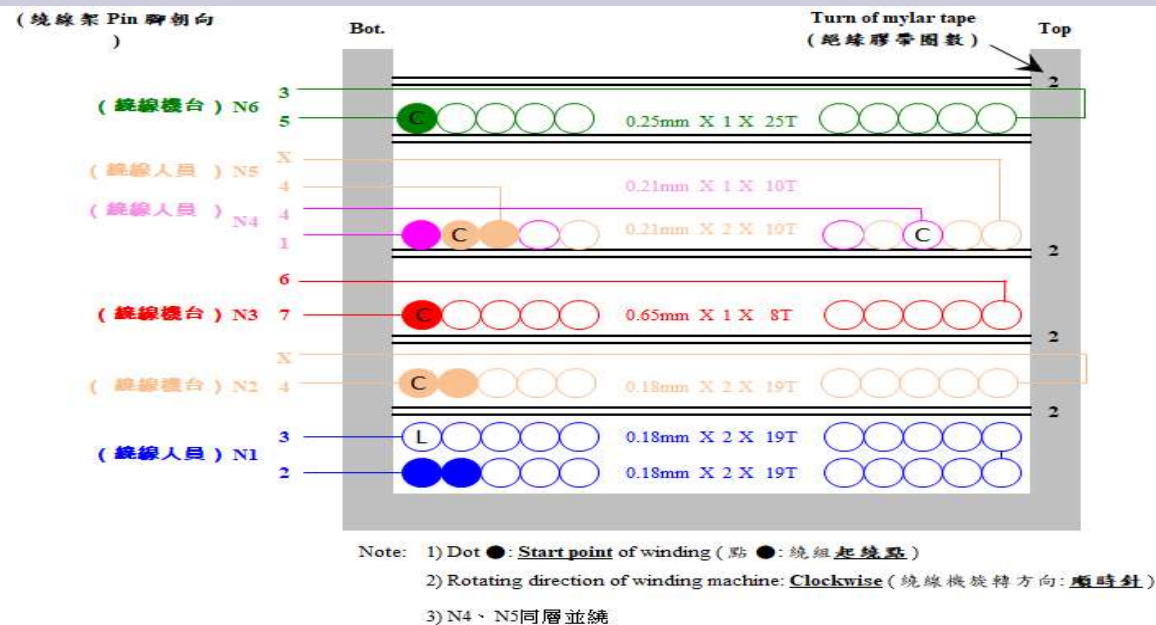
Designator	Footprint	Quantity	Value
T1	EE16-WW	1	63:8:10 , L=900uH
U3	SMD-4	1	EL1019
U1	DIP-8	1	LD9535GN
U2	SOP8	1	LD8926A81
U4	L-QSOT-23	1	TL431

6. Transformer Design

Schematic of Winding



Construction of Winding



Winding No.	Pin No.		Winding Types	Number of Turns		Remarks	
	Start	Finish		Winding	Tape		
N1	2	3	0.18 mm X 2	38	2	N _A	Pin 朝人員順繞
N2	4	x	0.18 mm X 2	19	2	Cancel	Pin 朝繞線機
N3	7	6	0.65 mm X 1	8	2	N _S	Pin 朝繞線機
N4	1	4	0.18 mm X 1	10	2	Aux	Pin 朝人員順繞 三線並繞
N5	4	x	0.18 mm X 2			Cancel	
N6	5	3	0.25 mm X 1	25	2	N _A	Pin 朝人員順繞

Bobbin Shape	Core Material	A _e (mm ²)	L _p (μH)
EE16 WW	KP44A	50	900±5 % @ 75 kHz / 1 V

Bottom View of Bobbin



7. Efficiency

Input Voltage	115 V _{AC} / 60 Hz	230 V _{AC} / 50 Hz
Output Current	100 %, 75 %, 50 %, 25 % of Full Load	
Measured Point of Output Voltage	End of Cable (22AWG / 1.5 M)	
Duration of Burn-in	30 Minutes	
Requirement	CoC Tier 2	

V _{IN,AC} (V / Hz)	V _{OUT} (V)	I _{OUT} (A)	P _{OUT} (W)	P _{IN} (W)	η (%)	η _{AV,4-Points} (%)	Requirement (%)
115 / 60	12.07	0.51	6.85	6.11	89.16	88.62	> 86.8
	11.98	1.00	13.40	11.98	89.40		
	11.88	1.50	20.00	17.77	88.86		
	11.78	2.00	27.12	23.61	87.05		
230 / 50	12.08	0.51	6.92	6.11	88.33	88.74	> 86.8
	11.98	1.00	13.44	11.98	89.14		
	11.88	1.50	20.00	17.77	88.86		
	11.78	2.00	26.63	23.61	88.65		

8. No Load Power Consumption

Input Voltage	115 V _{AC} / 60 Hz	230 V _{AC} / 50 Hz
Output Current	0 A	
Requirement	< 75 mW (CoC Tier 2)	

V _{IN,AC} (V / Hz)	P _{IN} (mW)	Requirement (mW)
115 / 60	40	< 75
230 / 50	65	

9. Line / Load Regulation

Input Voltage	90 V _{AC} / 47 Hz	115 V _{AC} / 60 Hz	230 V _{AC} / 50 Hz	264 V _{AC} / 63 Hz
Output Current	No Load & Full Load			
Measured Point of Output Voltage	End of Cable 1.5M 22awg			
Requirement	< ± 5 %			

V _{IN,AC} (V / Hz)	V _{OUT} (V)		Requirement (V)
	0 A	2 A	
90 / 47	12.17	11.78	11.4 ~ 12.6
115 / 60	12.17	11.78	
230 / 50	12.17	11.78	
264 / 63	12.17	11.78	

10. Over Current Protection

Input Voltage		90 V _{AC} / 47 Hz	115 V _{AC} / 60 Hz	230 V _{AC} / 50 Hz	264 V _{AC} / 63 Hz
Requirement	Protection Mode	Auto Recovery			
	OCP Trigger Point	< 130 % of Full Load			

V _{IN,AC} (V / Hz)	I _{OUT,OCP} (A)	Protection Mode	Requirement
			OCP Trigger Point (A)
90 / 47	2.22	Auto Recovery	< 2.6A
115 / 60	2.31	Auto Recovery	
230 / 50	2.31	Auto Recovery	
264 / 63	2.33	Auto Recovery	

11. Ripple & Noise Voltage

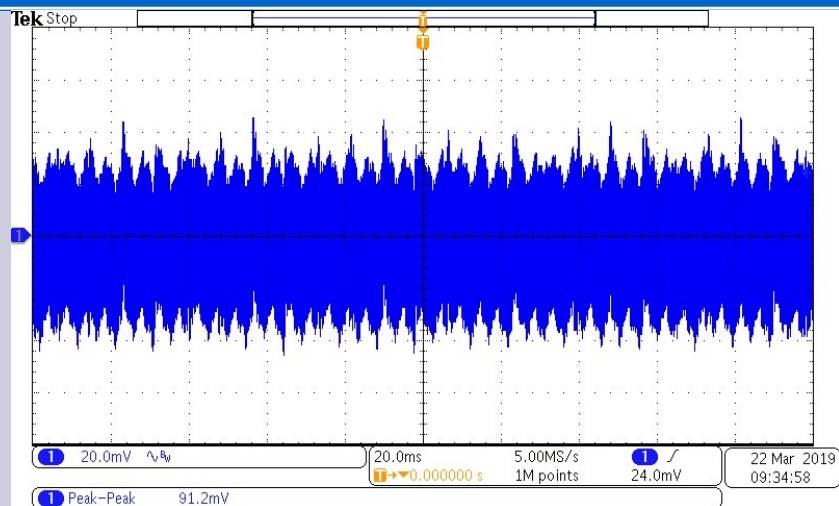
Input Voltage	90 V _{AC} / 60 Hz	115 V _{AC} / 60 Hz	230 V _{AC} / 50 Hz	264 V _{AC} / 50 Hz
Output Current	Full Load			
Measured Point of Output Voltage	End of Cable			
Bandwidth	20 MHz (with 10 μ F E-cap & 0.1 μ F MLCC)			
Requirement	< 120 mV			

V _{IN,AC} (V / Hz)	V _{OUT,PK-PK} (mV)	Requirement (mV)
	2 A	
90 / 60	91.2	< 120
115 / 60	79.2	
230 / 50	93.6	
264 / 50	102	

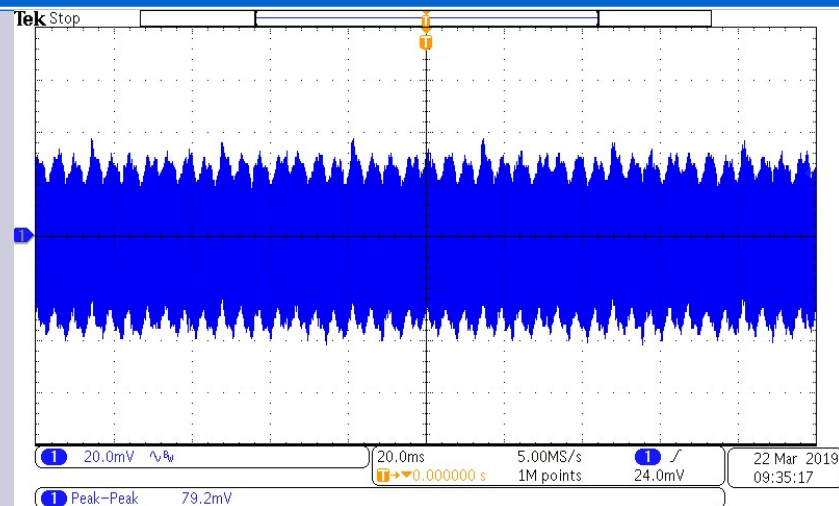
11. Ripple & Noise Voltage (Cont.)

12 V / 2 A

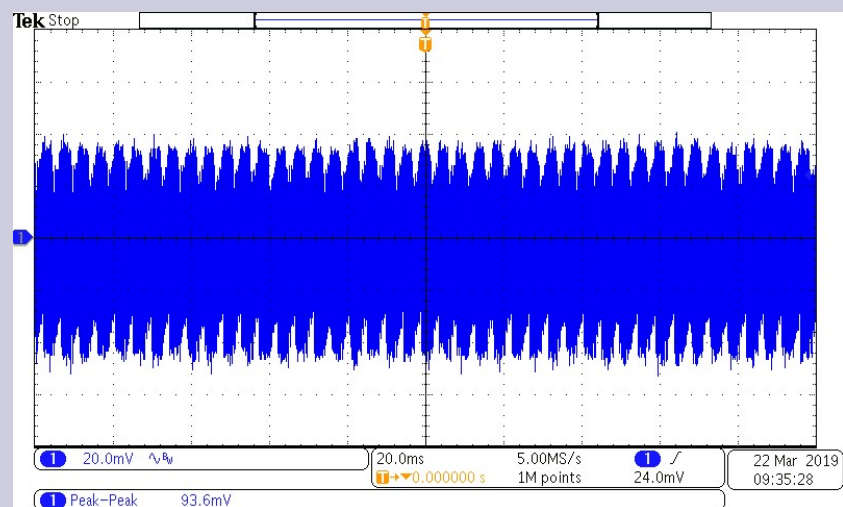
90 V_{AC} / 60 Hz



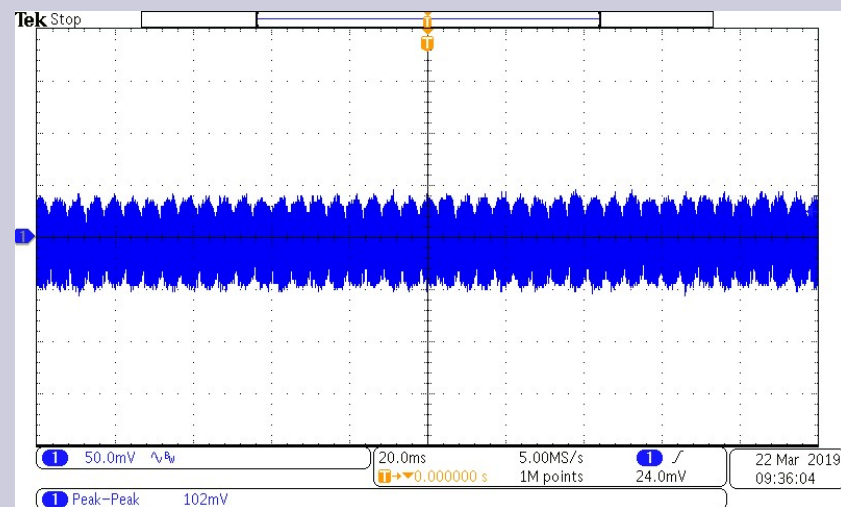
115 V_{AC} / 60 Hz



230 V_{AC} / 50 Hz



264 V_{AC} / 50 Hz



12. Dynamic Load

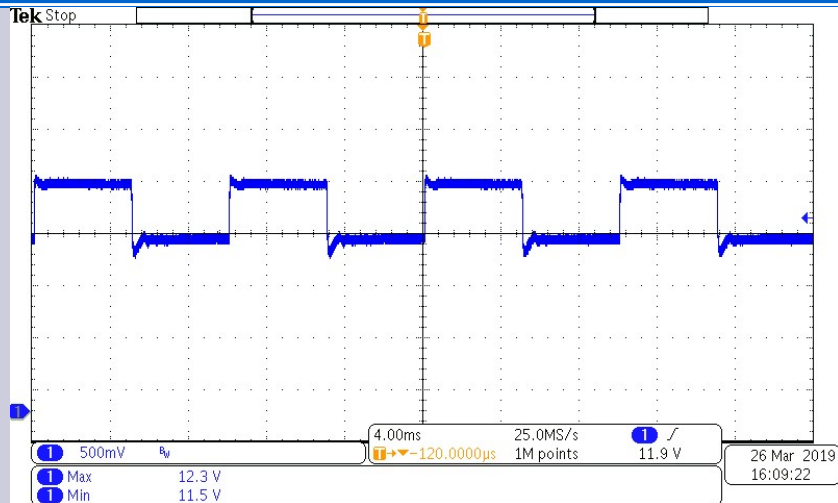
Input Voltage	90 V _{AC} / 47 Hz	115 V _{AC} / 60 Hz	230 V _{AC} / 50 Hz	264 V _{AC} / 63 Hz
Output Current	20 ↔ 80 % of Full Load (0.4 ↔ 2.6 A)			
	10 ↔ 90 % of Full Load (0.2 ↔ 1.8 A)			
Frequency of Load	100 Hz (5 mS High / 5 mS Low)			
Slew Rate of Load	2.5 A / μ S			
Measured Point of Output Voltage	End of Cable			
Requirement	< ± 5 % of V _{OUT} (20 ↔ 80 % Load)		< ± 10 % of V _{OUT} (10 ↔ 90 % Load)	

Load (%)	V _{IN,AC} (V / Hz)	V _{OUT} (V)		Requirement (V)
		Min.	Max.	
20 ↔ 80	90 / 47	11.8	12.4	11.4 ~ 12.6
	115 / 60	11.8	12.3	
	230 / 50	11.8	12.3	
	264 / 63	11.7	12.3	
10 ↔ 90	90 / 47	11.7	12.4	11.4 ~ 12.6
	115 / 60	11.7	12.4	
	230 / 50	11.5	12.4	
	264 / 63	11.5	12.4	

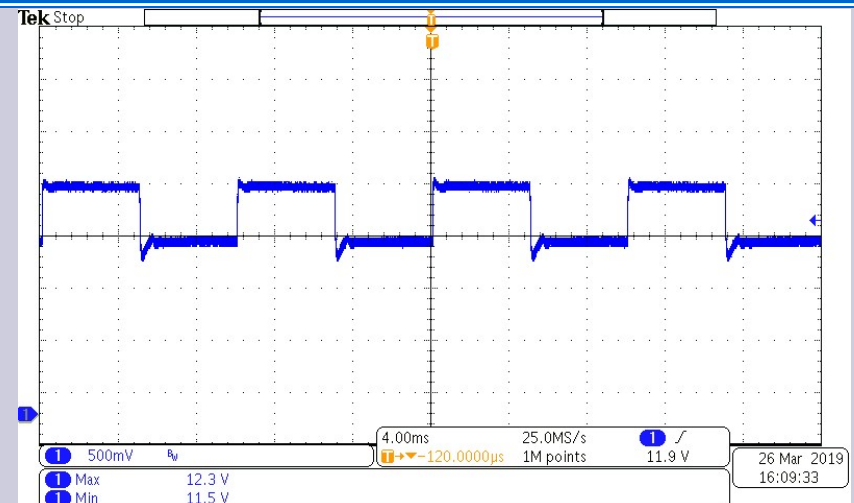
12. Dynamic Load (Cont.)

Load: 20 $\leftrightarrow$ 80 %

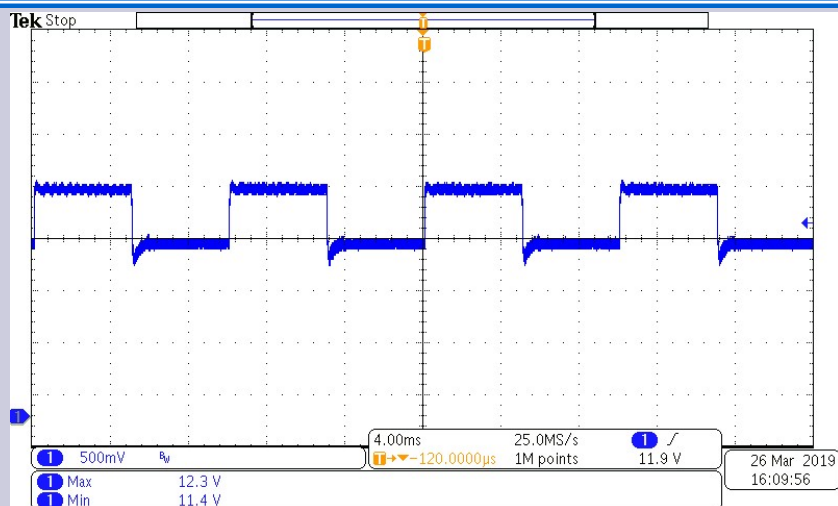
90 V_{AC} / 47 Hz



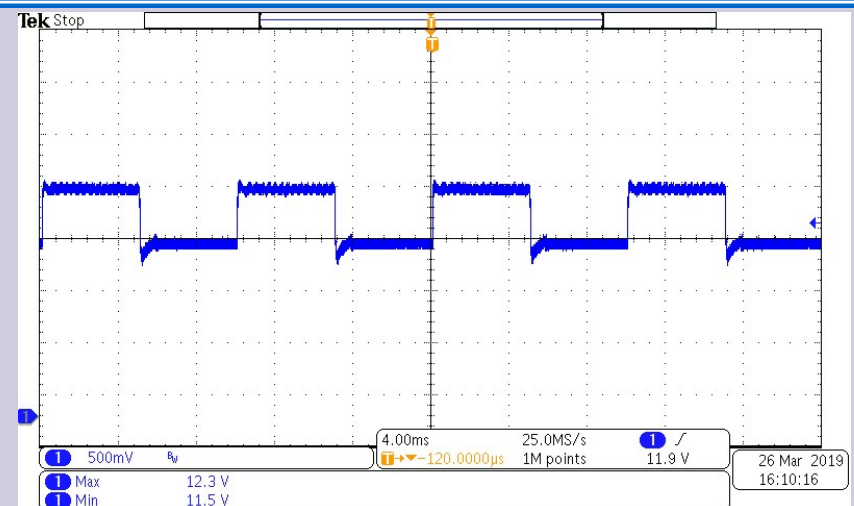
115 V_{AC} / 60 Hz



230 V_{AC} / 50 Hz



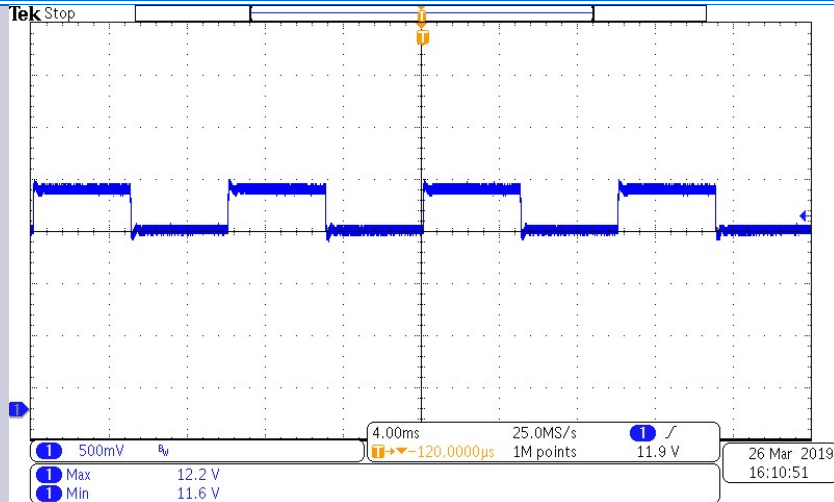
264 V_{AC} / 63 Hz



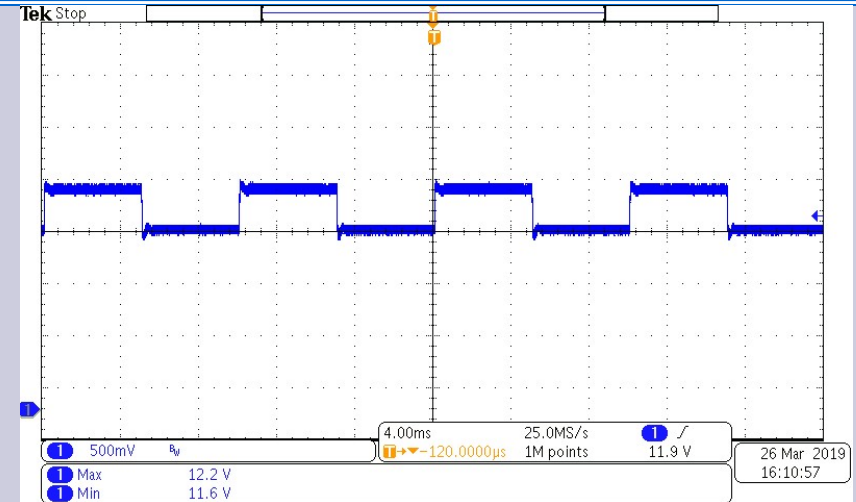
12. Dynamic Load (Cont.)

Load: 10 $\leftrightarrow$ 90 %

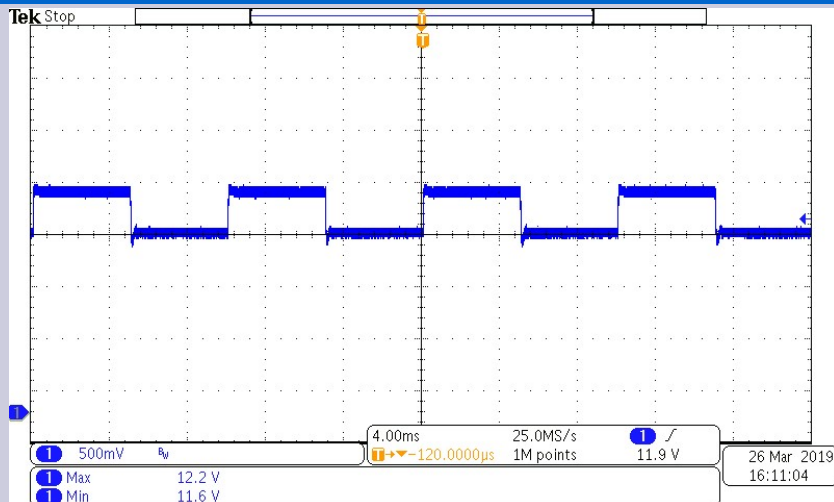
90 V_{AC} / 47 Hz



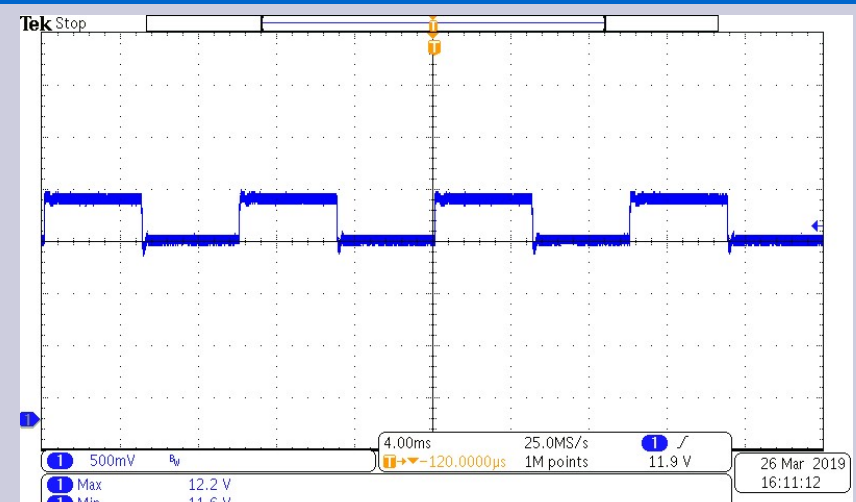
115 V_{AC} / 60 Hz



230 V_{AC} / 50 Hz



264 V_{AC} / 63 Hz



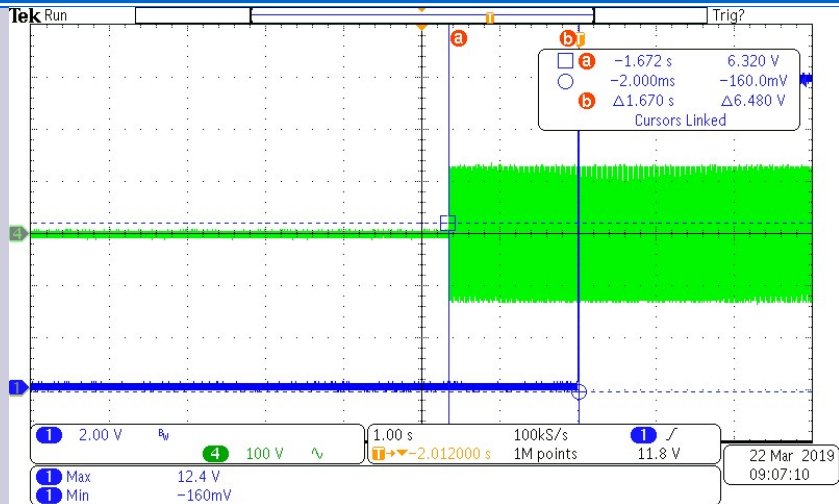
13. Turn-on Delay Time

Input Voltage	90 V _{AC} / 47 Hz	115 V _{AC} / 60 Hz	230 V _{AC} / 50 Hz	264 V _{AC} / 63 Hz
Output Current	Full Load			
Measured Point of Output Voltage	End of Cable			
Requirement	< 3 S			

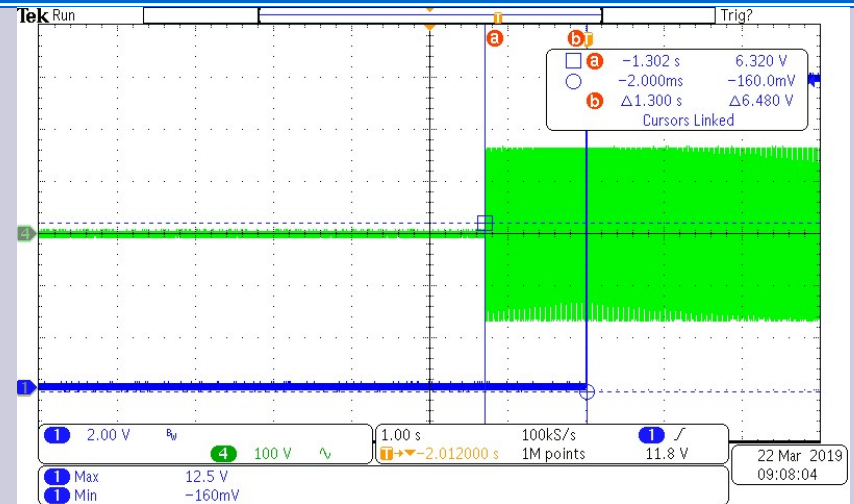
V _{IN,AC} (V / Hz)	T _{ON} (S)	Requirement (S)
90 / 47	1.67	< 3
115 / 60	1.30	
230 / 50	0.80	
264 / 63	0.41	

13. Turn-on Delay Time (Cont.)

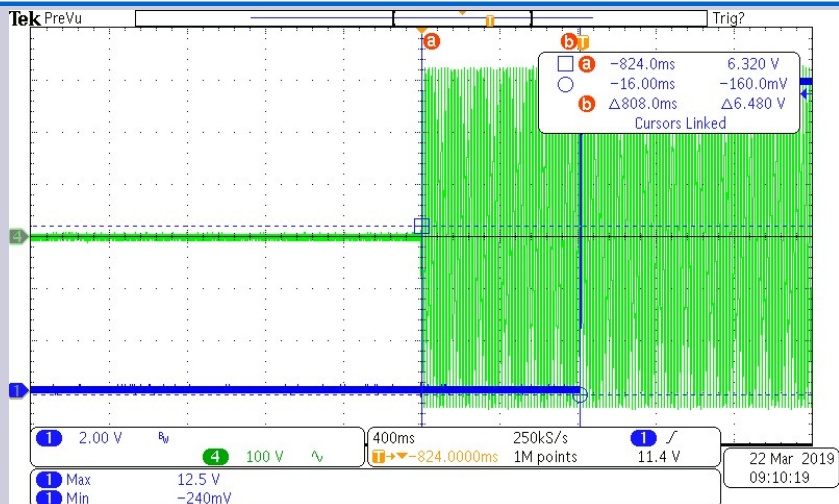
90 V_{AC} / 47 Hz



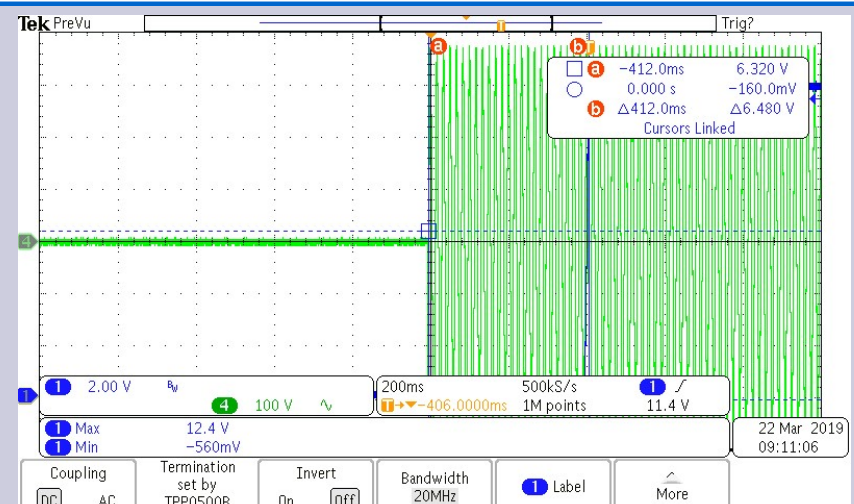
115 V_{AC} / 60 Hz



230 V_{AC} / 50 Hz



264 V_{AC} / 63 Hz



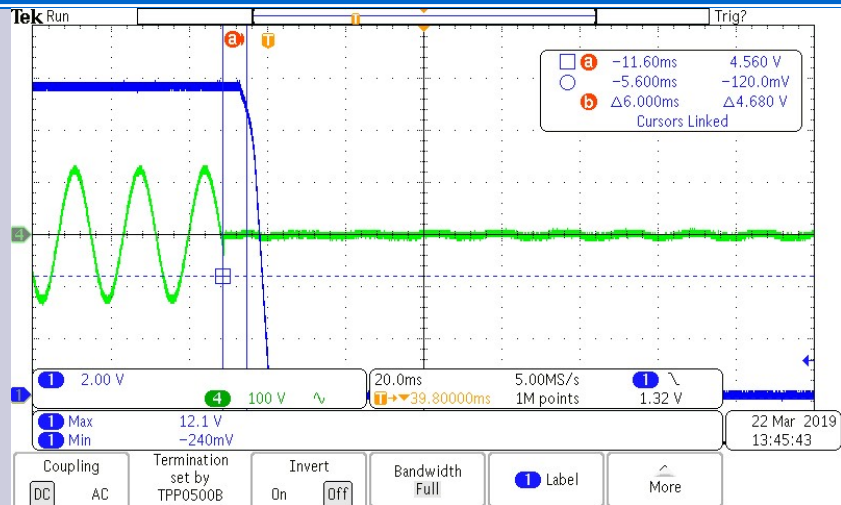
14. Hold-up Time

Input Voltage	90 V _{AC} / 47 Hz	115 V _{AC} / 60 Hz	230 V _{AC} / 50 Hz	264 V _{AC} / 63 Hz
Output Current	Full Load			
Measured Point of Output Voltage	End of Cable			
Angle of AC Off	0 °			
Requirement	> 10 mS @ Typical AC Input			

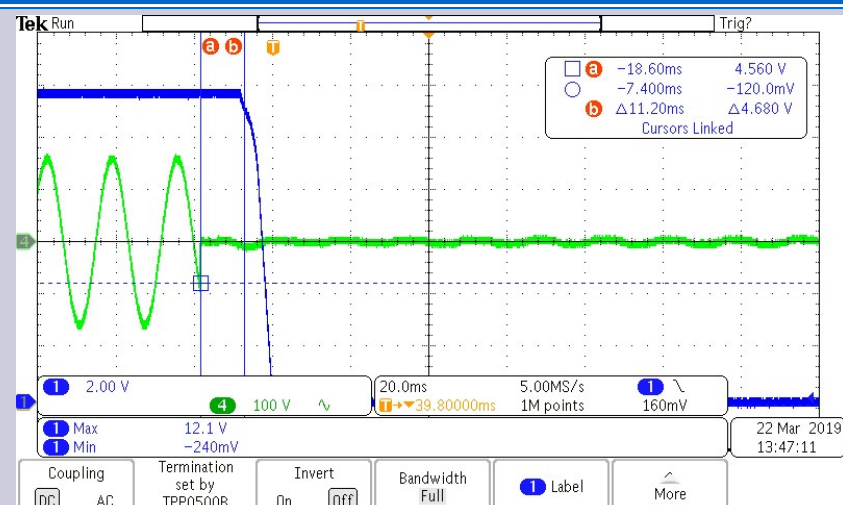
V _{IN,AC} (V / Hz)	T _{HOLD-UP} (mS)	Requirement (mS)
90 / 47	6.0	> 10
115 / 60	11.2	> 10
230 / 50	73.6	> 10
264 / 63	102	> 10

14. Hold-up Time (Cont.)

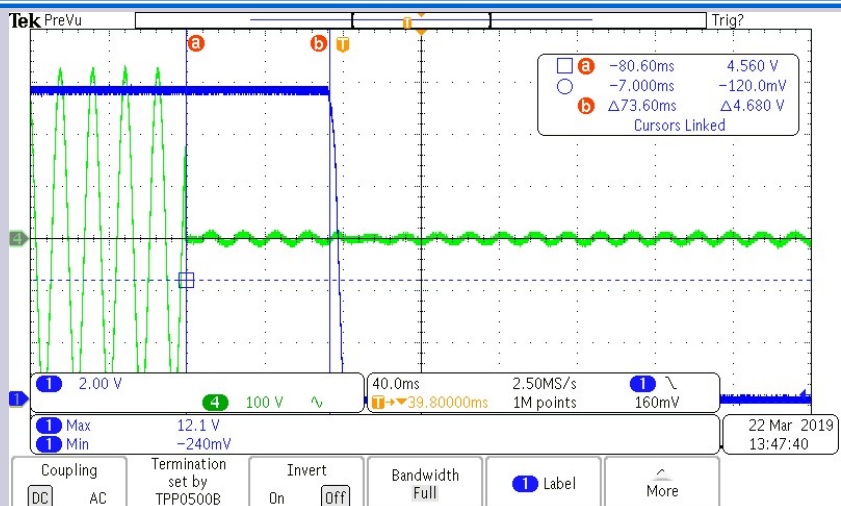
90 V_{AC} / 47 Hz



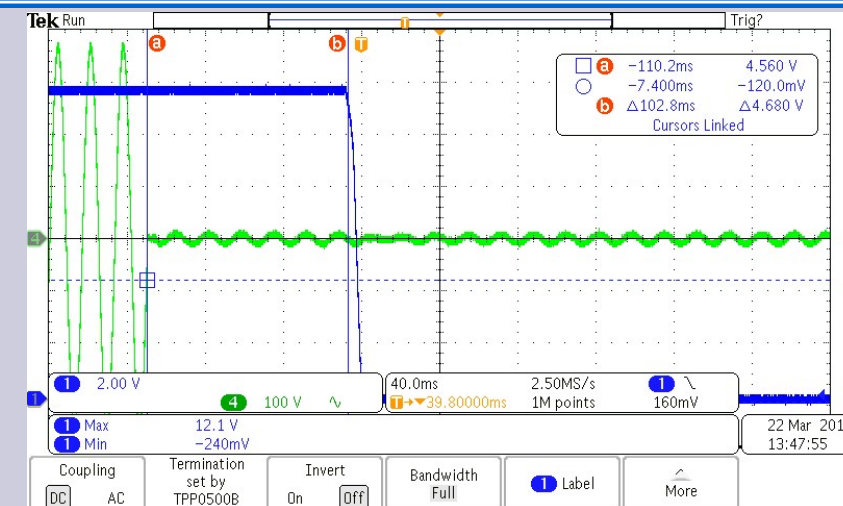
115 V_{AC} / 60 Hz



230 V_{AC} / 50 Hz



264 V_{AC} / 63 Hz



15. Rise Time & Overshoot

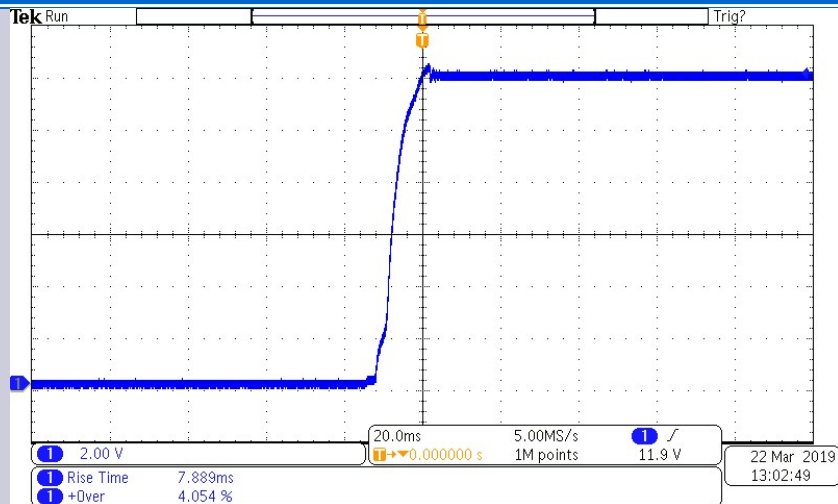
Input Voltage		90 V _{AC} / 47 Hz	115 V _{AC} / 60 Hz	230 V _{AC} / 50 Hz	264 V _{AC} / 63 Hz
Output Current		Full Load			
Measured Point of Output Voltage		End of Cable			
Requirement	Rise Time	< 40 mS			
	Overshoot	< 10 %			

V _{IN,AC} (V / Hz)	T _{RISE} (mS)	Requirement (mS)
90 / 47	7.889	< 40
115 / 60	7.461	
230 / 50	7.552	
264 / 63	8.064	

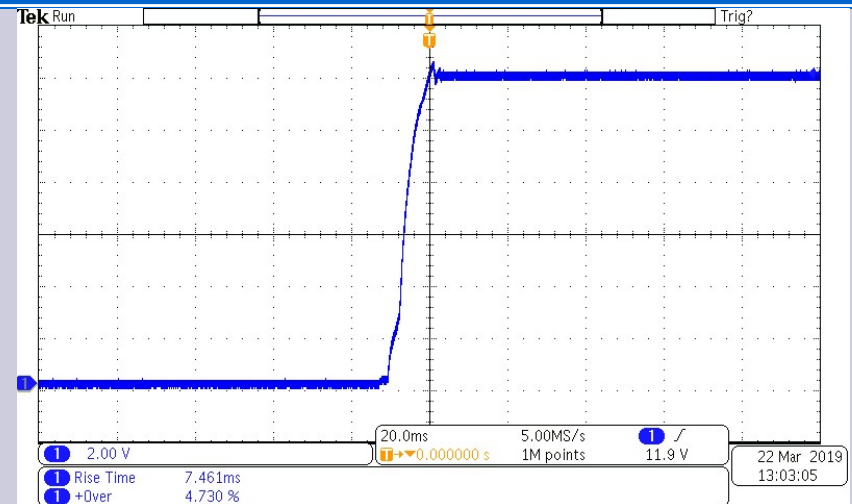
V _{IN,AC} (V / Hz)	Overshoot (%)	Requirement (%)
90 / 47	4.054	< 10
115 / 60	4.730	
230 / 50	5.405	
264 / 63	5.405	

15. Rise Time & Overshoot (Cont.)

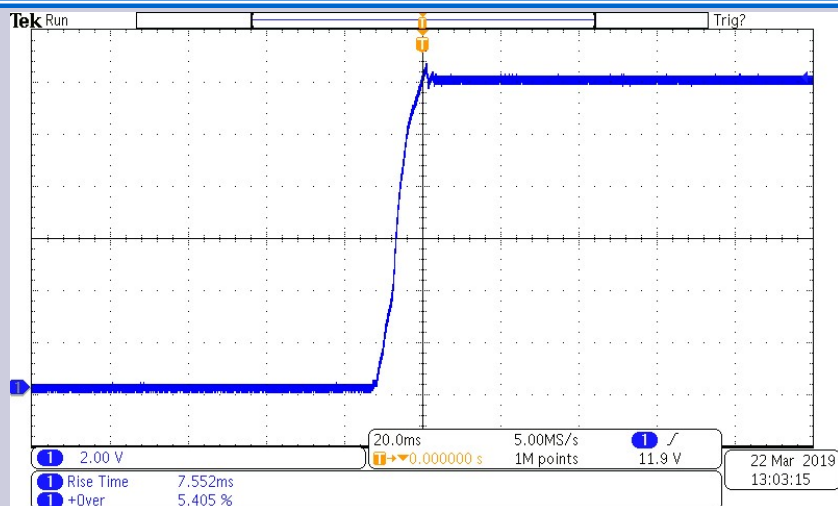
90 V_{AC} / 47 Hz



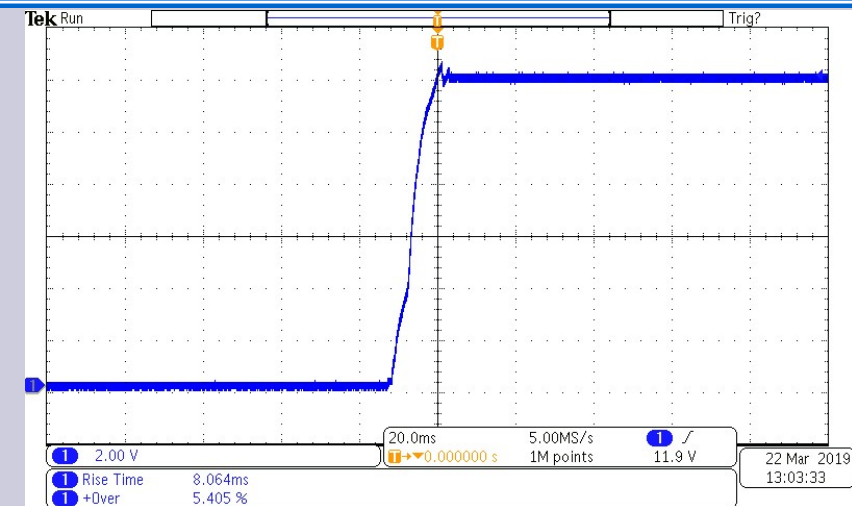
115 V_{AC} / 60 Hz



230 V_{AC} / 50 Hz



264 V_{AC} / 63 Hz



16. AC Brown-in

Output Current	No Load & Full Load
Measured Point of Output Voltage	End of Cable
Requirement	< 85 V _{AC}

V _{BROWN-IN} (V)		Requirement (V _{AC})
0 A	2 A	
82	82	< 85

V _{BROWN-OUT} (V)		Requirement (V _{AC})
0 A	2 A	
75	75	< 85

18. Supply Voltage of IC

Input Voltage	90 V _{AC} / 47 Hz	115 V _{AC} / 60 Hz	230 V _{AC} / 50 Hz	264 V _{AC} / 63 Hz
Output Current	No Load & Full Load			
Requirement	> V _{CC_OFF}			

V _{IN,AC} (V / Hz)	V _{CC,U1} (V)					Requirement (V)
	0 A		2 A		2A Turn-on Drop	
	Min.	Max.	Min.	Max.	Min.	
90 / 47	9.6	12.4	11.0	13.8	11.3	7.5 ~ 26.5
115 / 60	9.6	12.4	11.0	13.6	11.7	
230 / 50	10.2	12.2	11.1	12.8	11.7	
264 / 63	10.3	12.2	11.0	12.6	11.7	

19. Stress on Switching Parts

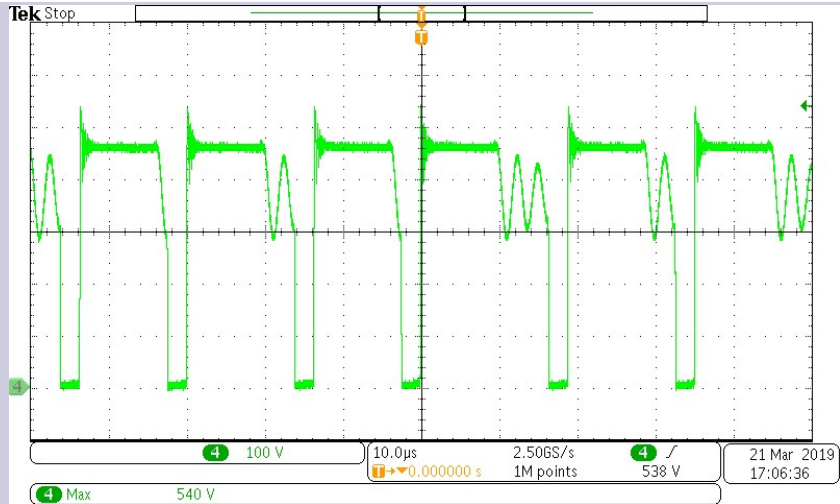
Input Voltage	264 V _{AC} / 63 Hz
Output Current	Full Load
Requirement	< 90 % De-rating

Location	Part No.	Condition	V _{DS} (V)	Requirement (V)
U1	SVF10N65CF	Normal	540	< 585 (650 * 0.9)
		Turn-on	540	
		Short Circuit	466	

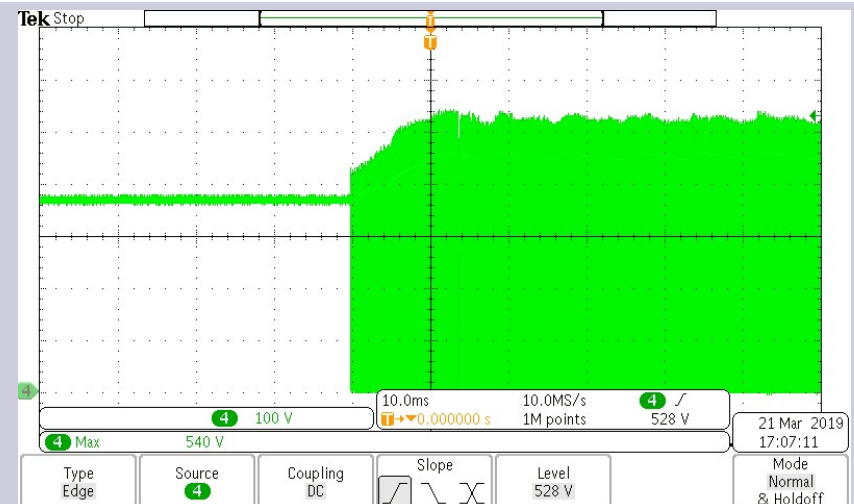
Location	Part No.	Condition	V _{RRM} (V)	Requirement (V)
U2	LD8926A81	Normal	68	< 72 (80 * 0.9)
		Turn-on	68	
		Short Circuit	64.8	

19. Stress on Switching Parts (Cont.)

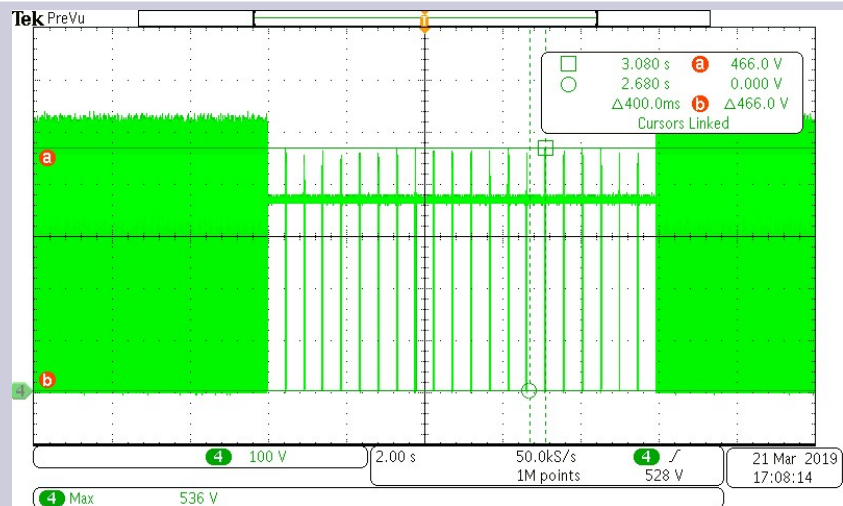
U1_Normal



U1_Turn-on

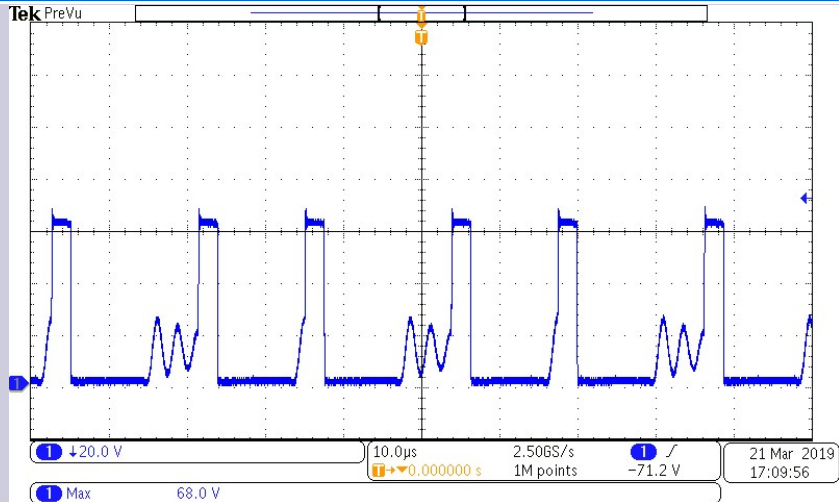


U1_Short

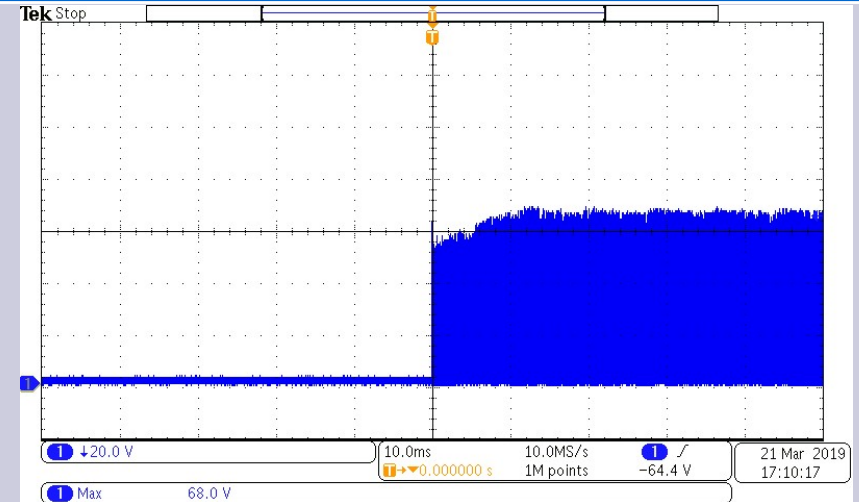


19. Stress on Switching Parts (Cont.)

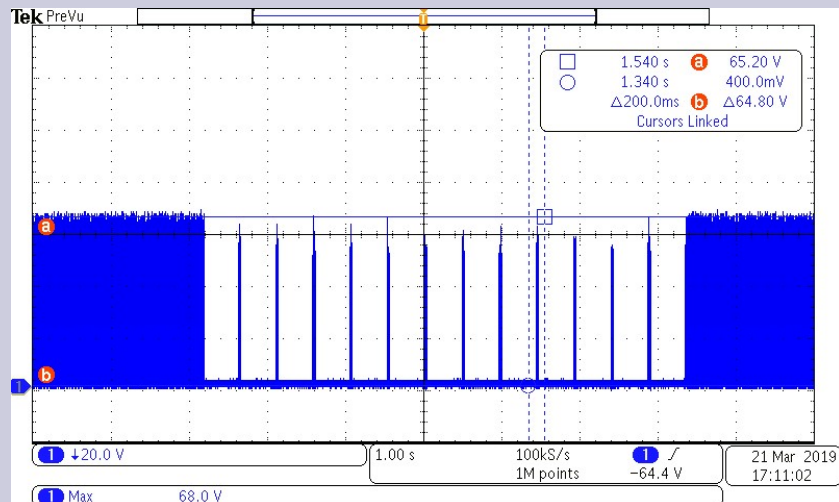
U2_Normal



U2_Turn-on



U2_Short Circuit



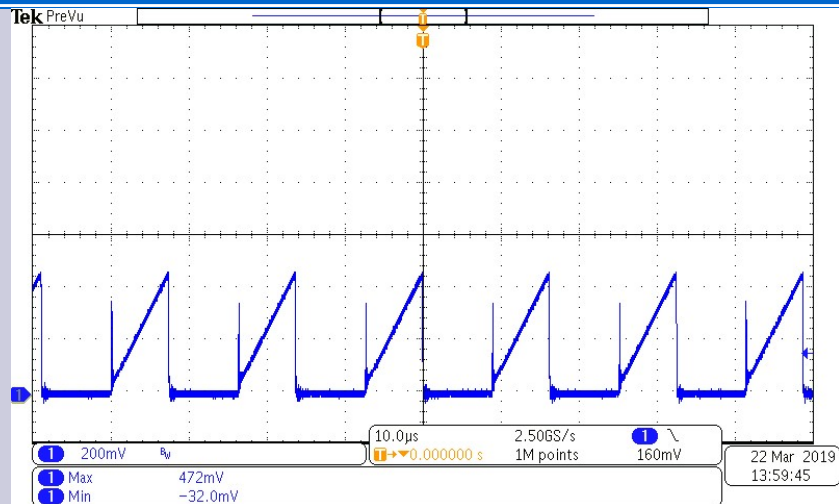
20. Flux Density of Transformer

Input Voltage	90 V _{AC} / 60 Hz	264 V _{AC} / 50 Hz
Output Current	Full Load & Maximum Power & Turn-on & Short Circuit	
Requirement	< 4,200	

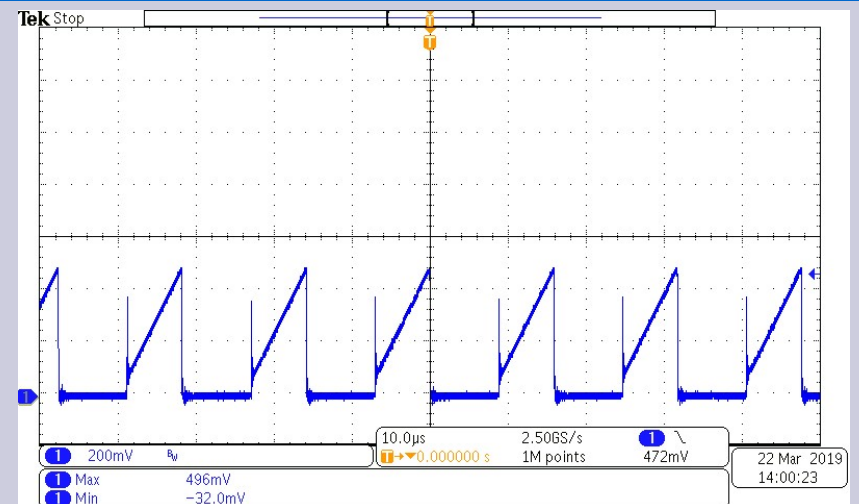
V _{IN,AC} (V / Hz)	I _{OUT} (A)	V _{CS,MAX} (V)	I _{PRI,MAX} (A)	B _{MAX} (G)	Requirement (G)
90 / 60	2	0.472	0.944	2989	< 4,200
	2.22	0.496	0.992	3141	
	2 A Turn-on	0.496	0.992	3141	
	Short Circuit	0.544	1.088	3400	
264 / 50	2	0.464	0.928	2938	
	2.32	0.496	0.922	2916	
	2 A Turn-on	0.296	0.592	1874	
	Short Circuit	0.476	0.952	3014	

20. Flux Density of Transformer (Cont.)

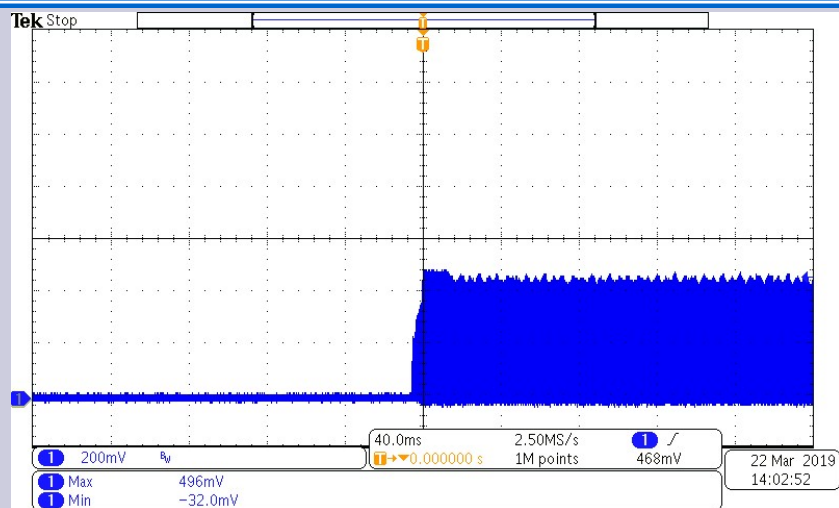
90 V_{AC} / 60 Hz_2 A



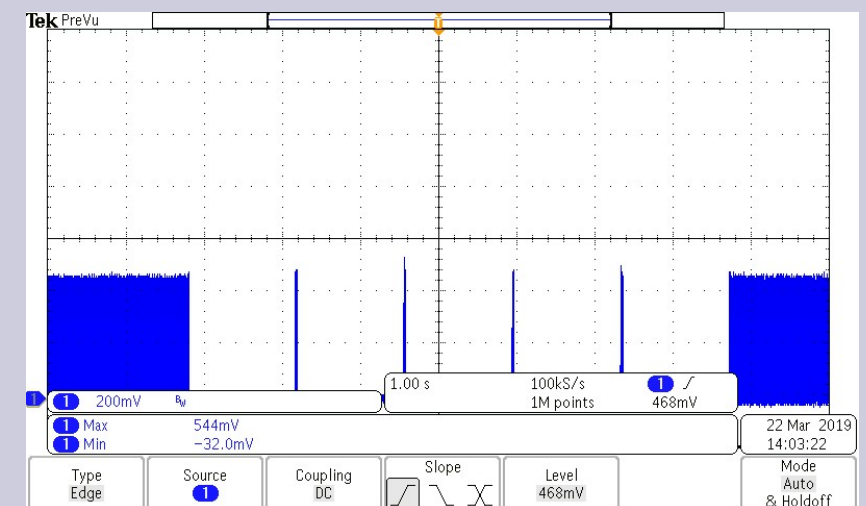
90 V_{AC} / 60 Hz_2.22 A



90 V_{AC} / 60 Hz_2A Turn-on

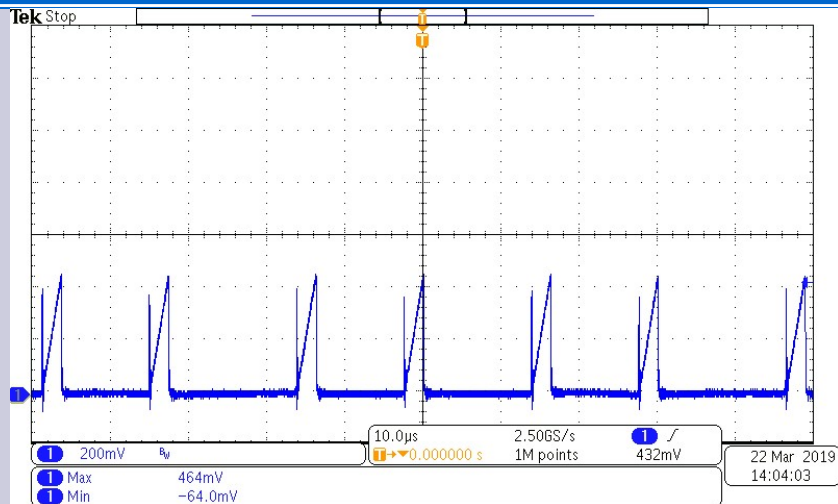


90 V_{AC} / 60 Hz_Short Circuit

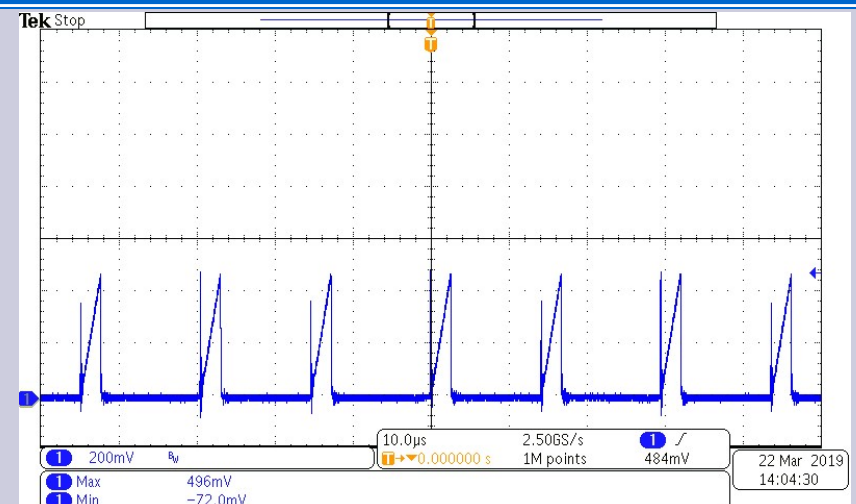


20. Flux Density of Transformer (Cont.)

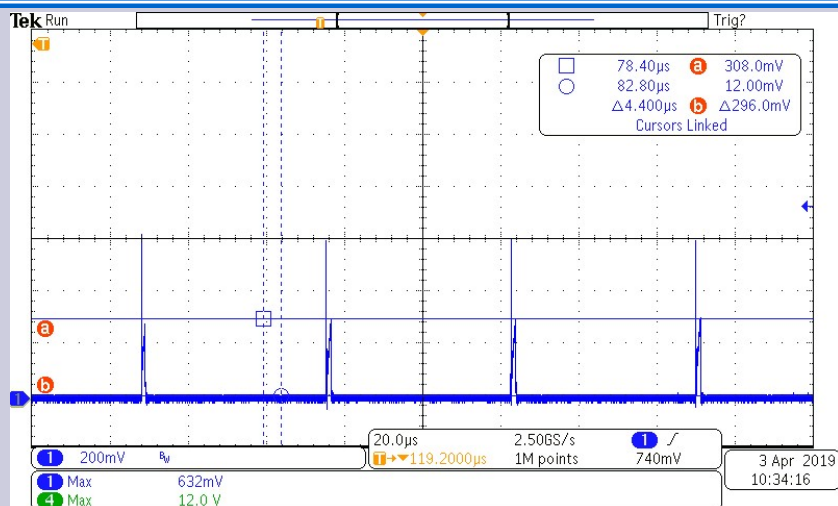
264 V_{AC} / 50 Hz_2 A



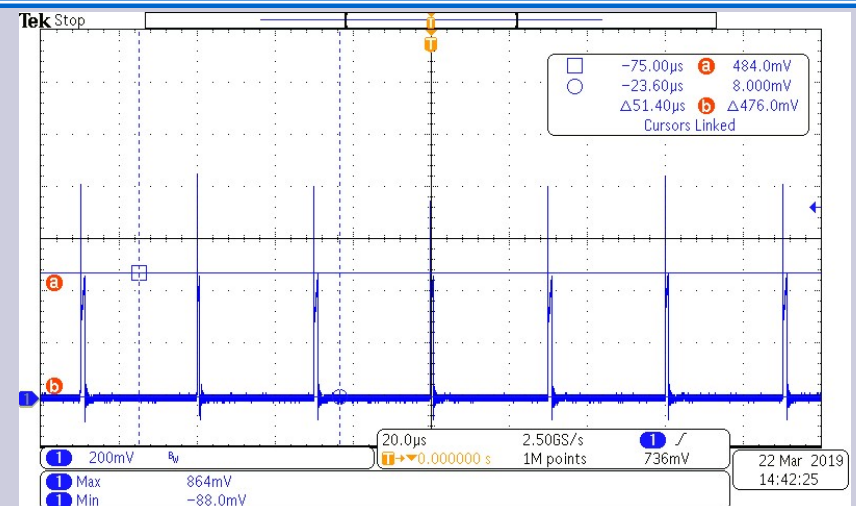
264 V_{AC} / 50 Hz_2.32 A



264 V_{AC} / 50 Hz_2 A Turn-on



264 V_{AC} / 50 Hz_Short Circuit



21. Thermal Test (with case in 40°C ambient)

Component	AC 90V/47Hz(°C)	AC 264V/63Hz(°C)
IC1	106.4	96.3
T1 CORE	94.3	93.3
T1 LINE	94.1	92.1
LF1	88.2	66.1
C1	81.0	65.1
C2	80.0	73.4
C16	73.4	75.8
C15	67.5	69.5
U2	79.1	84.7
D1	94.1	90.2
BD1	98.2	68.2
Ambient	40.0	41.1

22. EMI

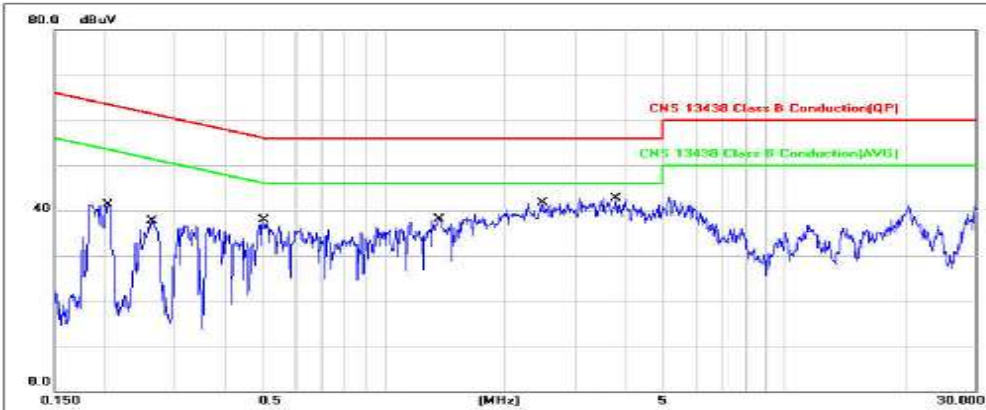
Conduction:

110 V_{AC} / 60 Hz / Line



SGS Taiwan Ltd.-Electronics & Communication Laboratory
Address: No. 2, Keji 1st Rd., Guishan District, Taoyuan City, 33303,
Tel:+886 2 2299 3279

Site: : Conduction Room A Date: 2019/7/24 Time: 下午 02:59:33
Limit: CNS 13438 Class B Conduction(QP) Probe: L1 Temperature: 20°C
EUT: Adapter Power: AC 110V/60Hz Humidity: 64%RH
M/N: 12V/2A LD9535 Air Pressure: 1003
Mode:
Note: 12V/2A LD9535



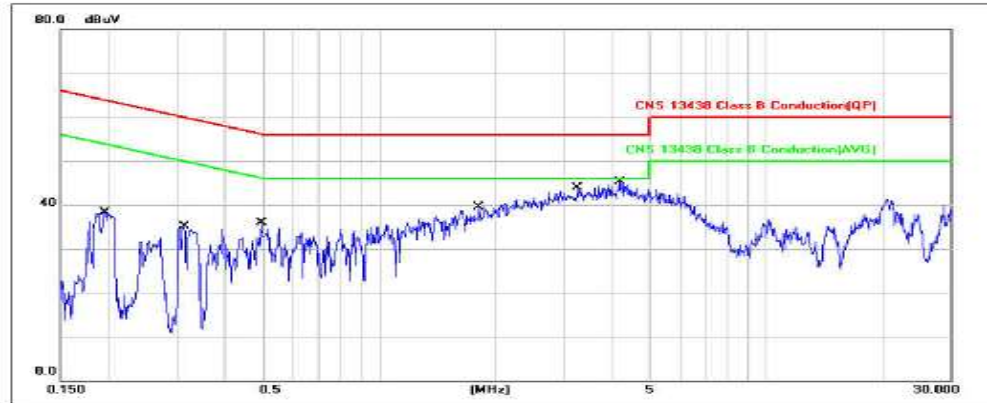
No.	Mk.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Measurement (dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1		0.2040	37.77	0.03	37.80	63.45	-25.65	QP	
2		0.2040	23.87	0.03	23.90	53.45	-29.55	AVG	
3		0.2630	33.19	0.05	33.24	61.34	-28.10	QP	
4		0.2630	19.45	0.05	19.50	51.34	-31.84	AVG	
5		0.4994	31.09	0.13	31.22	56.01	-24.79	QP	
6		0.4994	16.64	0.13	16.77	46.01	-29.24	AVG	
7		1.3738	33.25	0.25	33.50	56.00	-22.50	QP	
8		1.3738	15.35	0.25	15.60	46.00	-30.40	AVG	
9	*	2.4868	35.53	0.27	35.80	56.00	-20.20	QP	
10		2.4868	20.03	0.27	20.30	46.00	-25.70	AVG	
11		3.7994	35.09	0.30	35.39	56.00	-20.61	QP	

110 V_{AC} / 60 Hz / Neutral



SGS Taiwan Ltd.-Electronics & Communication Laboratory
Address: No. 2, Keji 1st Rd., Guishan District, Taoyuan City, 33303,
Tel:+886 2 2299 3279

Site: : Conduction Room A Date: 2019/7/24 Time: 下午 02:54:27
Limit: CNS 13438 Class B Conduction(QP) Probe: N Temperature: 20°C
EUT: Adapter Power: AC 110V/60Hz Humidity: 64%RH
M/N: 12V/2A LD9535 Air Pressure: 1003
Mode:
Note: 12V/2A LD9535



No.	Mk.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Measurement (dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1		0.1955	34.40	0.00	34.40	63.80	-29.40	QP	
2		0.1955	19.38	0.00	19.38	53.80	-34.42	AVG	
3		0.3133	30.27	0.04	30.31	59.88	-29.57	QP	
4		0.3133	12.36	0.04	12.40	49.88	-37.48	AVG	
5		0.4967	31.80	0.10	31.90	56.06	-24.16	QP	
6		0.4967	19.50	0.10	19.60	46.06	-26.46	AVG	
7		1.8096	33.98	0.20	34.18	56.00	-21.82	QP	
8		1.8096	16.95	0.20	17.15	46.00	-28.85	AVG	
9		3.2583	37.22	0.20	37.42	56.00	-18.58	QP	
10		3.2583	23.44	0.20	23.64	46.00	-22.36	AVG	
11	+	4.1796	37.90	0.20	38.10	56.00	-17.90	QP	

22. EMI (Cont.)

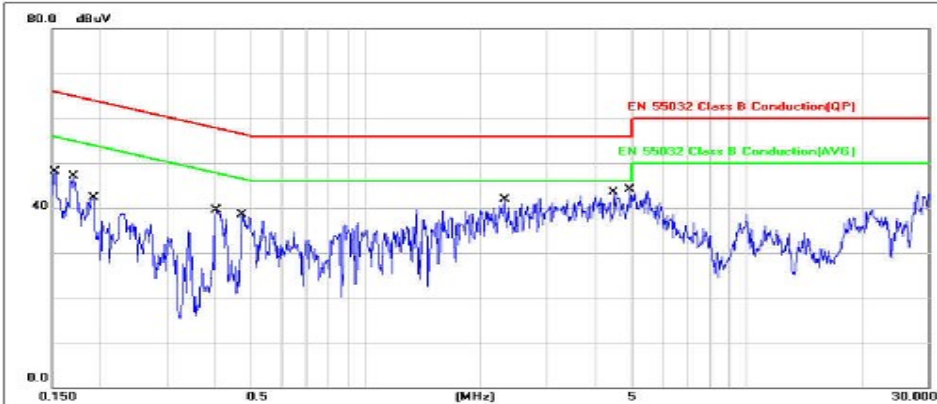
Conduction:

230 V_{AC} / 50 Hz / Line



SGS Taiwan Ltd.-Electronics & Communication Laboratory
Address: No. 2, Keji 1st Rd., Guishan District, Taoyuan City, 33383,
Tel:+886 2 2299 3279

Site: : Conduction Room A Date: 2019/7/24 Time: 下午 02:46:47
Limit: EN 55032 Class B Conduction(QP) Probe:L1 Temperature: 20℃
EUT: Adapter Power:AC 230V/50Hz Humidity:64%RH
M/N: 12V:2A LD9535 Air Pressure:1003
Mode:
Note: 12V:2A LD9535



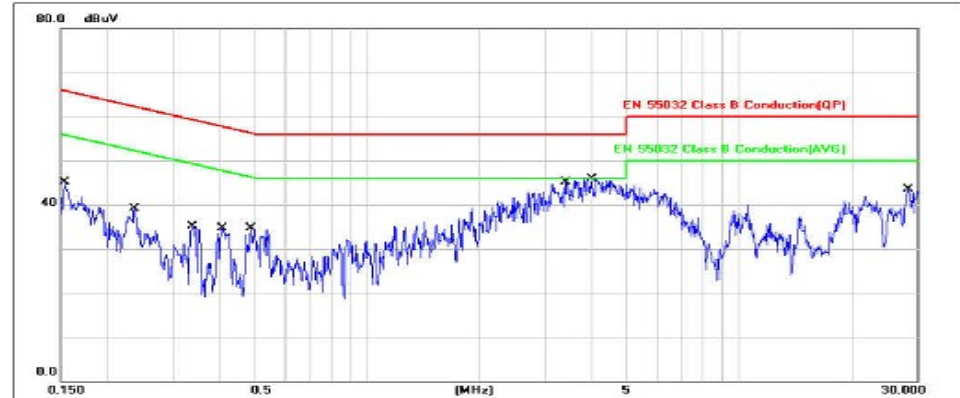
No.	Mk.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Measurement (dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1		0.1524	43.97	0.03	44.00	65.87	-21.87	QP	
2		0.1524	31.63	0.03	31.66	55.87	-24.21	AVG	
3		0.1703	43.67	0.03	43.70	64.95	-21.25	QP	
4		0.1703	30.20	0.03	30.23	54.95	-24.72	AVG	
5		0.1924	38.84	0.03	38.87	63.93	-25.06	QP	
6		0.1924	27.33	0.03	27.36	53.93	-26.57	AVG	
7		0.4040	34.80	0.10	34.90	57.77	-22.87	QP	
8		0.4040	23.62	0.10	23.72	47.77	-24.05	AVG	
9		0.4736	35.15	0.12	35.27	56.45	-21.18	QP	
10		0.4736	25.78	0.12	25.90	46.45	-20.55	AVG	
11	*	2.3090	37.05	0.27	37.32	56.00	-18.68	QP	

230 V_{AC} / 50 Hz / Neutral



SGS Taiwan Ltd.-Electronics & Communication Laboratory
Address: No. 2, Keji 1st Rd., Guishan District, Taoyuan City, 33383,
Tel:+886 2 2299 3279

Site: : Conduction Room A Date: 2019/7/24 Time: 下午 02:40:41
Limit: EN 55032 Class B Conduction(QP) Probe:N Temperature: 20℃
EUT: Adapter Power:AC 230V/50Hz Humidity:64%RH
M/N: 12V:2A LD9535 Air Pressure:1003
Mode:
Note: 12V:2A LD9535



No.	Mk.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Measurement (dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1		0.1540	42.62	0.03	42.65	65.78	-23.13	QP	
2		0.1540	26.16	0.03	26.19	55.78	-29.59	AVG	
3		0.2366	34.78	0.04	34.82	62.21	-27.39	QP	
4		0.2366	22.83	0.04	22.87	52.21	-29.34	AVG	
5		0.3392	30.92	0.08	31.00	59.22	-28.22	QP	
6		0.3392	14.32	0.08	14.40	49.22	-34.82	AVG	
7		0.4061	32.50	0.10	32.60	57.73	-25.13	QP	
8		0.4061	21.98	0.10	22.08	47.73	-25.65	AVG	
9		0.4863	28.47	0.13	28.60	56.23	-27.63	QP	
10		0.4863	20.47	0.13	20.60	46.23	-25.63	AVG	
11		3.4174	38.40	0.30	38.70	56.00	-17.30	QP	

22. EMI (Cont.)

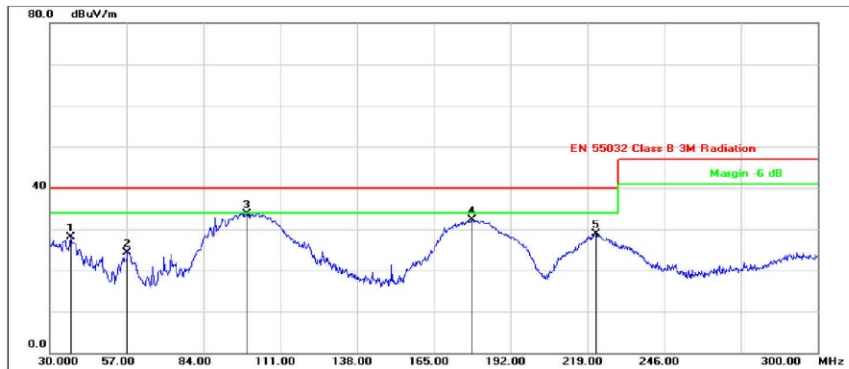
Radiation:

120 V_{AC} / 60 Hz / Vertical



SGS Taiwan Ltd.-Electronics & Communication Laboratory
Address: No.134, Wu Kung Road, New Taipei Industrial Park.
Tel:+886 2 2299 3279

Site:	SGS 966 Chamber B	Date:	2019/3/19	Time:	上午 11:51:13
Limit:	EN 55032 Class B 3M Radiation	Polarization:	Vertical	Temperature:	22°C
EUT:		Power:	AC 120V/60Hz	Humidity:	63% RH
M/N:	24W SSR	Distance:		Air Pressure:	997
Mode:					
Note:	C11:10p,CY 1:470p				



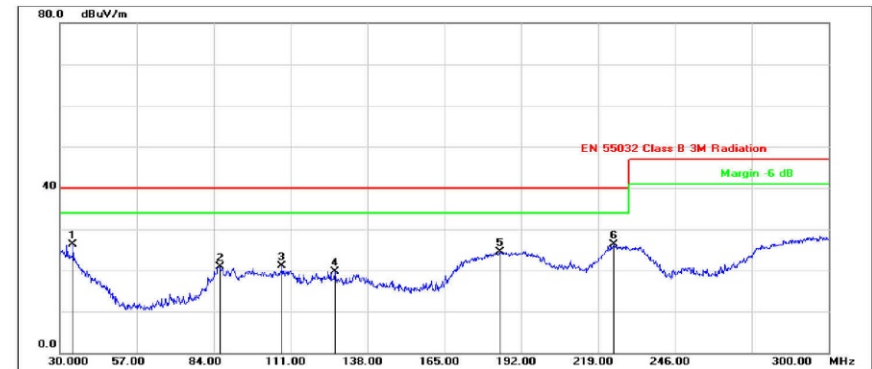
No.	Mk.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Measurement (dBuV/m)	Limit (dBuV/m)	Over (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		37.2900	36.94	-8.77	28.17	40.00	-11.83	peak			
2		57.2700	43.77	-19.40	24.37	40.00	-15.63	peak			
3	*	99.3900	48.38	-14.64	33.74	40.00	-6.26	peak			
4		178.5000	47.82	-15.54	32.28	40.00	-7.72	peak			
5		221.9700	43.11	-14.22	28.89	40.00	-11.11	peak			

120 V_{AC} / 60 Hz / Horizontal



SGS Taiwan Ltd.-Electronics & Communication Laboratory
Address: No.134, Wu Kung Road, New Taipei Industrial Park.
Tel:+886 2 2299 3279

Site:	SGS 966 Chamber B	Date:	2019/3/19	Time:	上午 11:49:44
Limit:	EN 55032 Class B 3M Radiation	Polarization:	Horizontal	Temperature:	22°C
EUT:		Power:	AC 120V/60Hz	Humidity:	63% RH
M/N:	24W SSR	Distance:		Air Pressure:	997
Mode:					
Note:	C11:10p,CY 1:470p				



No.	Mk.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Measurement (dBuV/m)	Limit (dBuV/m)	Over (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1	*	34.5900	33.41	-7.15	26.29	40.00	-13.71	peak			
2		86.1600	38.35	-17.42	20.93	40.00	-19.07	peak			
3		108.0300	34.54	-13.47	21.07	40.00	-18.93	peak			
4		126.6600	31.78	-12.07	19.71	40.00	-20.29	peak			
5		184.4400	40.21	-15.65	24.56	40.00	-15.44	peak			
6		224.6700	40.32	-14.11	26.21	40.00	-13.79	peak			

22. EMI (Cont.)

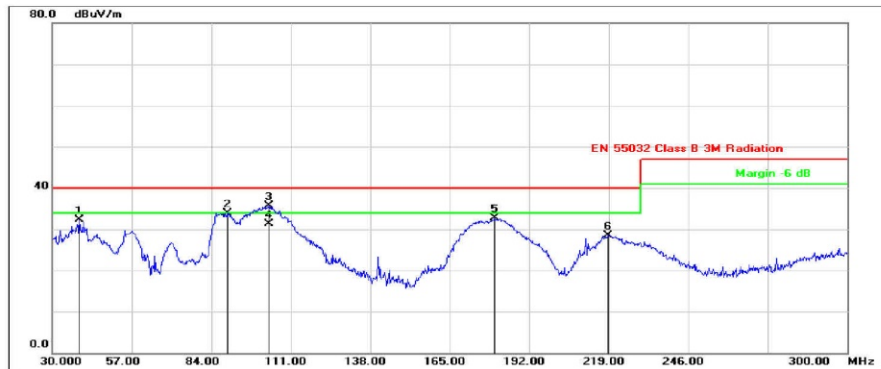
Radiation :

230 V_{AC} / 50 Hz / Line



SGS Taiwan Ltd.-Electronics & Communication Laboratory
Address: No.134, Wu Kung Road, New Taipei Industrial Park
Tel:+886 2 2299 3279

Site:	SGS 966 Chamber B	Date:	2019/3/19	Time:	上午 11:45:00
Limit:	EN 55032 Class B 3M Radiation	Polarization:	Vertical	Temperature:	22℃
EUT:		Power:	AC 230V/50Hz	Humidity:	63%RH
M/N:	24W SSR	Distance:		Air Pressure:	997
Mode:					
Note:	C11:10p,CY 1:470p				



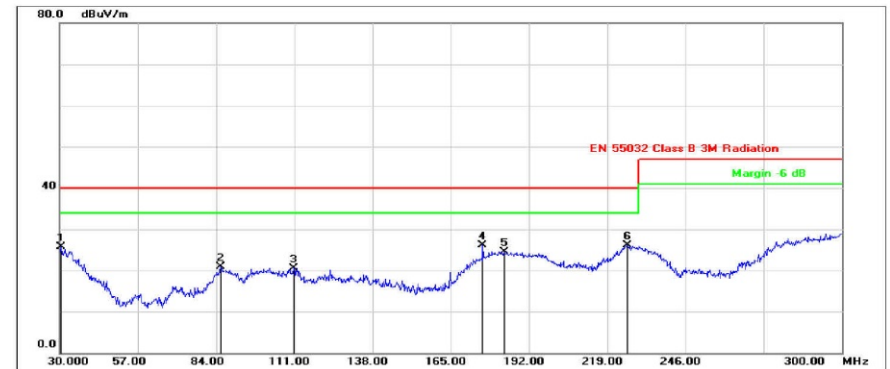
No.	Mk.	Freq. (MHz)	Reading dBuV	Factor (dB/m)	Measurement (dBuV/m)	Limit (dBuV/m)	Over (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		39.1800	42.26	-9.92	32.34	40.00	-7.66	peak			
2		89.6700	50.86	-16.97	33.89	40.00	-6.11	peak			
3	*	103.4400	49.56	-13.94	35.62	40.00	-4.38	peak			
4		103.4400	45.24	-13.94	31.30	40.00	-8.70	QP			
5		180.3900	48.16	-15.51	32.65	40.00	-7.35	peak			
6		218.7300	42.92	-14.37	28.55	40.00	-11.45	peak			

230 V_{AC} / 50 Hz / Horizontal



SGS Taiwan Ltd.-Electronics & Communication Laboratory
Address: No.134, Wu Kung Road, New Taipei Industrial Park
Tel:+886 2 2299 3279

Site:	SGS 966 Chamber B	Date:	2019/3/19	Time:	上午 11:47:56
Limit:	EN 55032 Class B 3M Radiation	Polarization:	Horizontal	Temperature:	22℃
EUT:		Power:	AC 230V/50Hz	Humidity:	63%RH
M/N:	24W SSR	Distance:		Air Pressure:	997
Mode:					
Note:	C11:10p,CY 1:470p				



No.	Mk.	Freq. (MHz)	Reading dBuV	Factor (dB/m)	Measurement (dBuV/m)	Limit (dBuV/m)	Over (dB)	Detector	Height (cm)	Degree (deg.)	Comment
1		30.5400	30.50	-4.81	25.69	40.00	-14.31	peak			
2		85.6200	38.48	-17.48	21.00	40.00	-19.00	peak			
3		110.7300	33.71	-13.11	20.60	40.00	-19.40	peak			
4	*	176.0700	41.66	-15.52	26.14	40.00	-13.86	peak			
5		183.3600	40.23	-15.64	24.59	40.00	-15.41	peak			
6		226.0200	40.20	-14.06	26.14	40.00	-13.86	peak			