



65 W PD 3.0 / PPS LD5763 & LD8526 & LD6612

By : Jess Lu

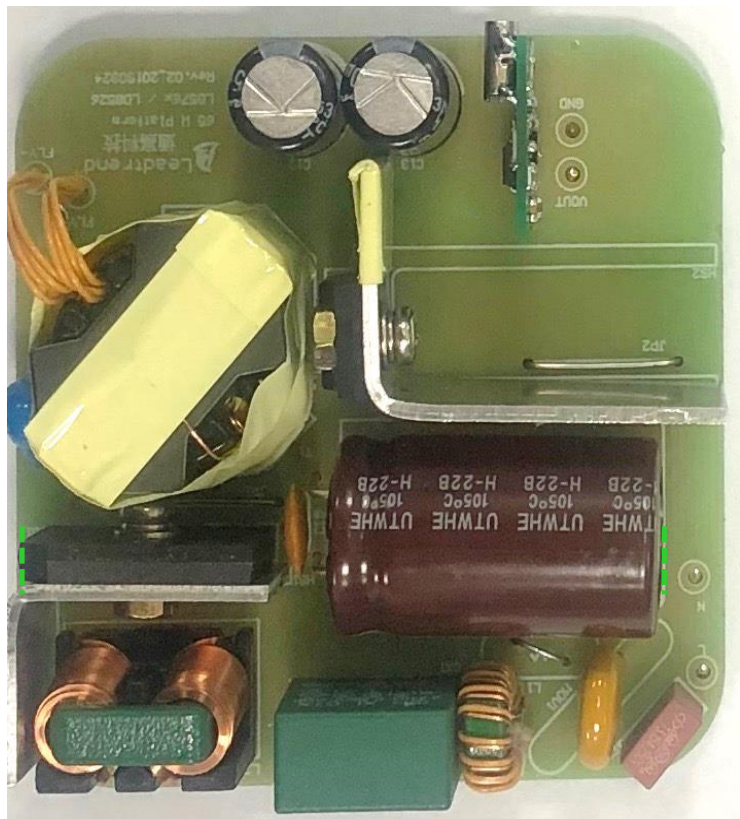
Date : 2019/10/14

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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	50	63	—
Output Voltage & Current (V / A)	PD 3.0 Mode	5 / 3	9 / 3	15 / 3	20 / 3.25	—
	PPS Mode	3.3 / 3	5 / 3	9 / 3	11 / 3	—
Efficiency		CoC Tier 2				Pass
Standby Power (mW)		< 75				Pass
Output Voltage Accuracy (%)		< ± 5 (for PD 3.0 Mode) (IC有線損補償所以5V full load板端超出規格)				Pass
Over Current Protection (%)		< 130				Pass
Over Voltage Protection (V)		< 4.95 (for 3.3 V) / < 7.5 (for 5V) / < 13.5 (for 9 V) / < 18.75 (for 15 V) / < 25 (for 20 V)				Pass
Ripple & Noise Voltage (mV)		< 300				Pass
Dynamic Load (%)		< ± 10 of V _{BUS,SET}				Pass
Turn-on Delay Time (S)		< 3				Pass
Rise Time (mS)		< 5				Pass
Overshoot (%)		< 10				Pass
EMI (Conduction)		EN55032 Class B				Pass

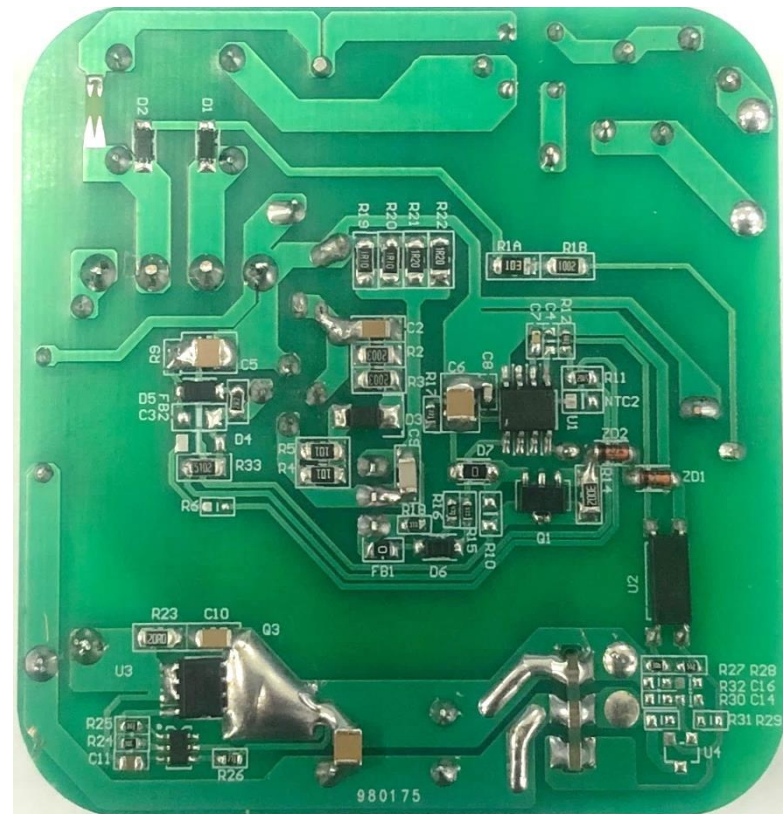
Top View



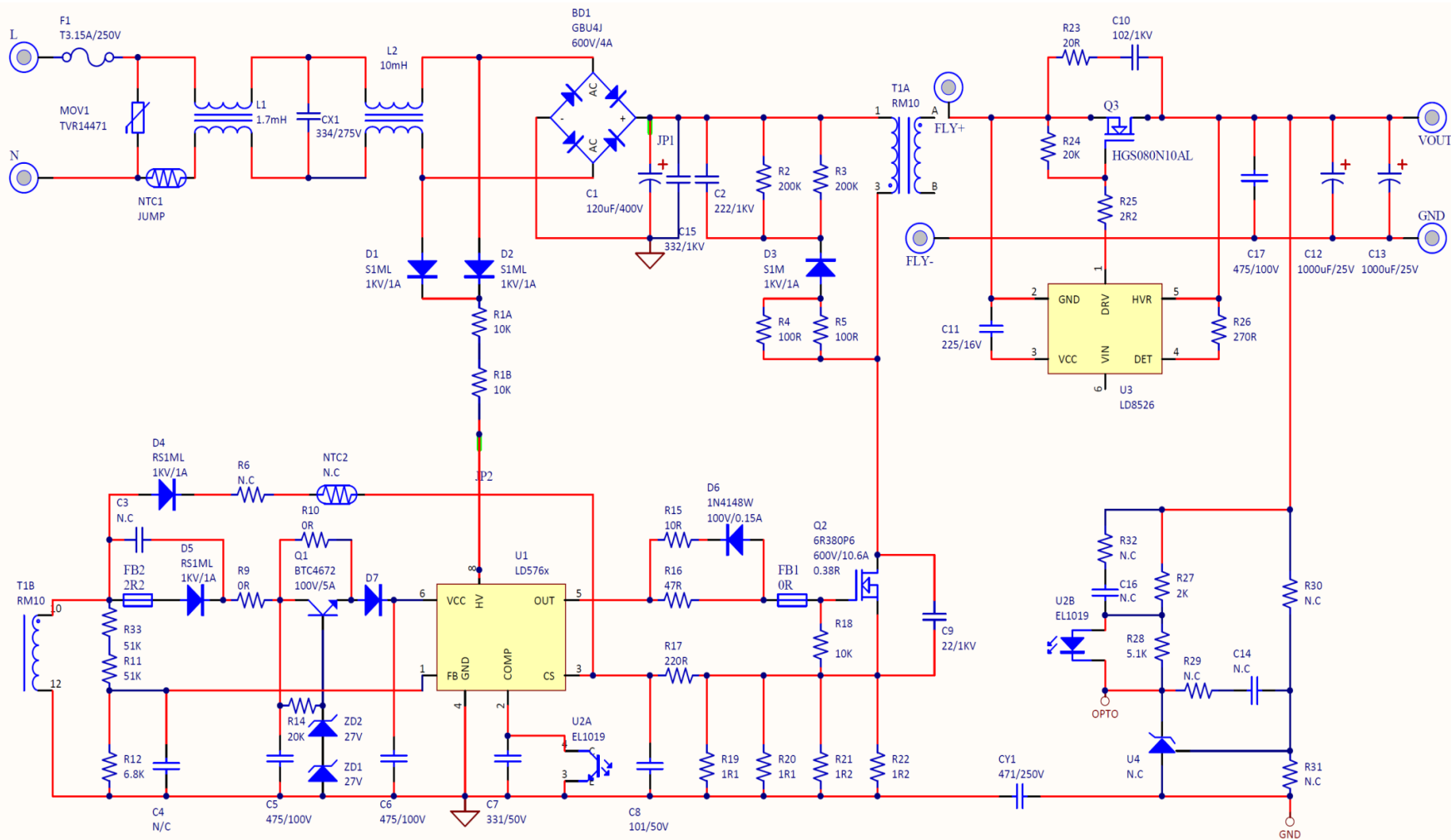
70 mm

70 mm

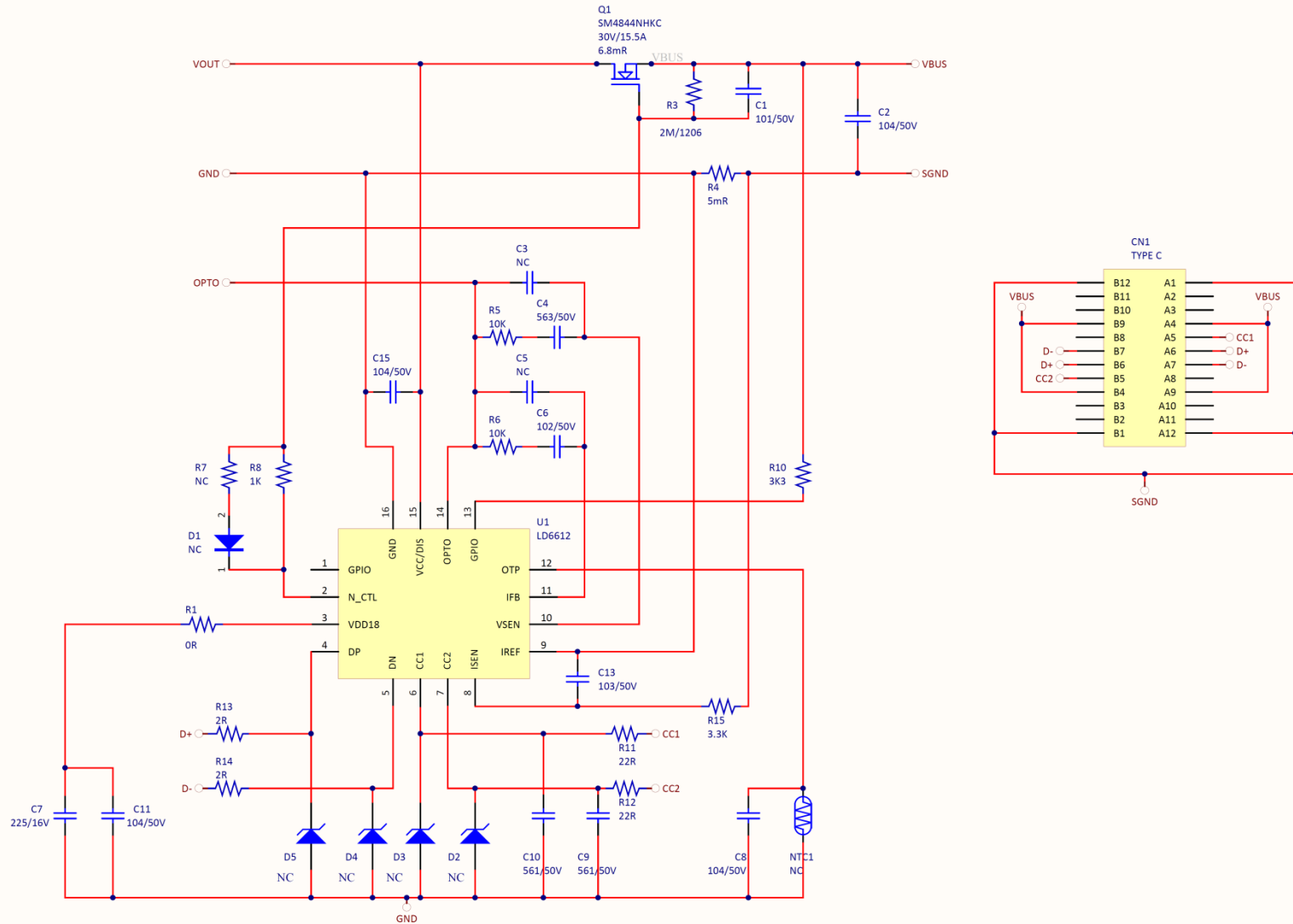
Bottom View



3. Schematic Mother board

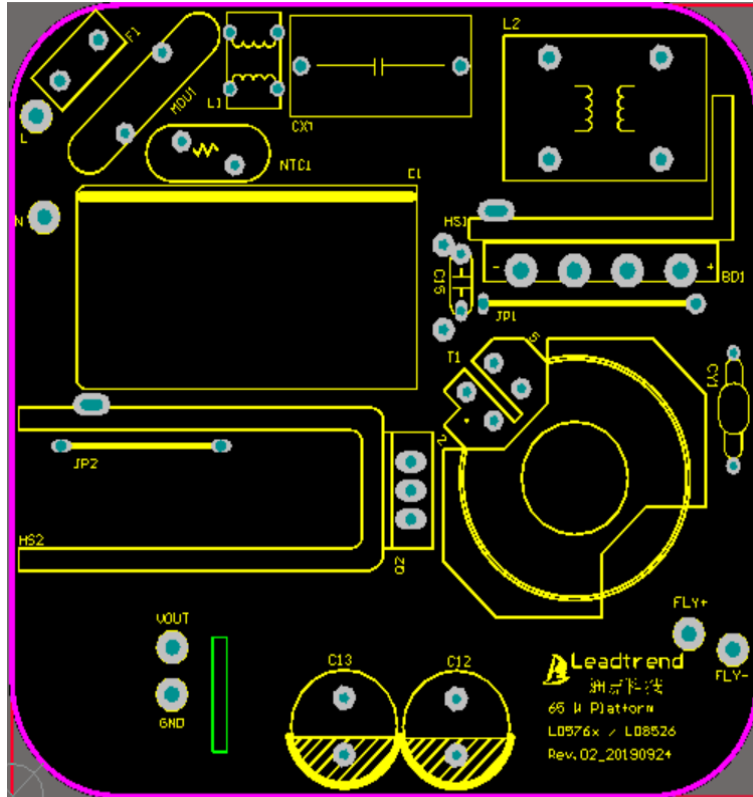


3. Schematic Daughter board

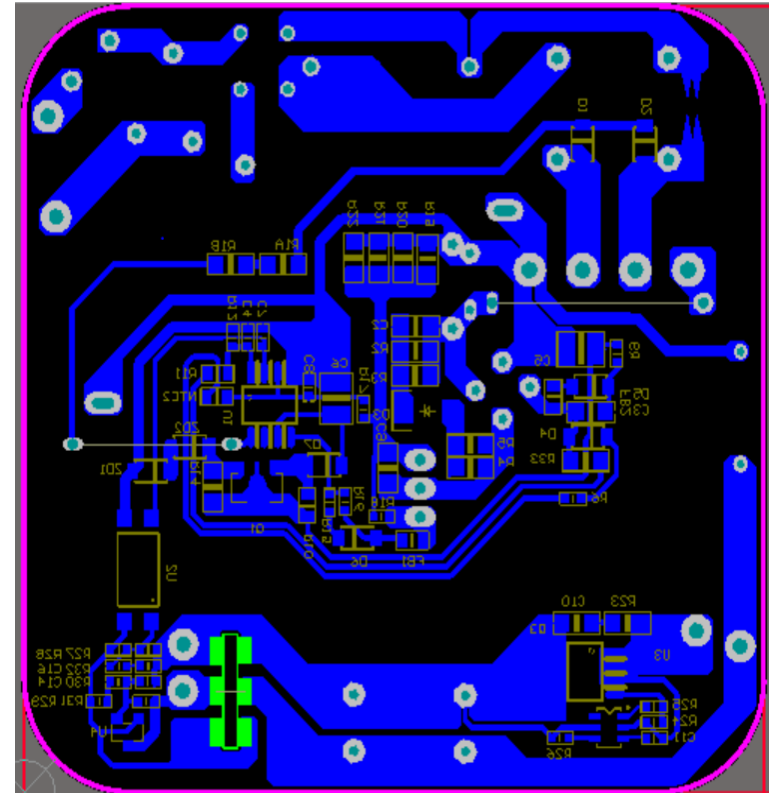


4. PCB Layout Mother board

Top Side

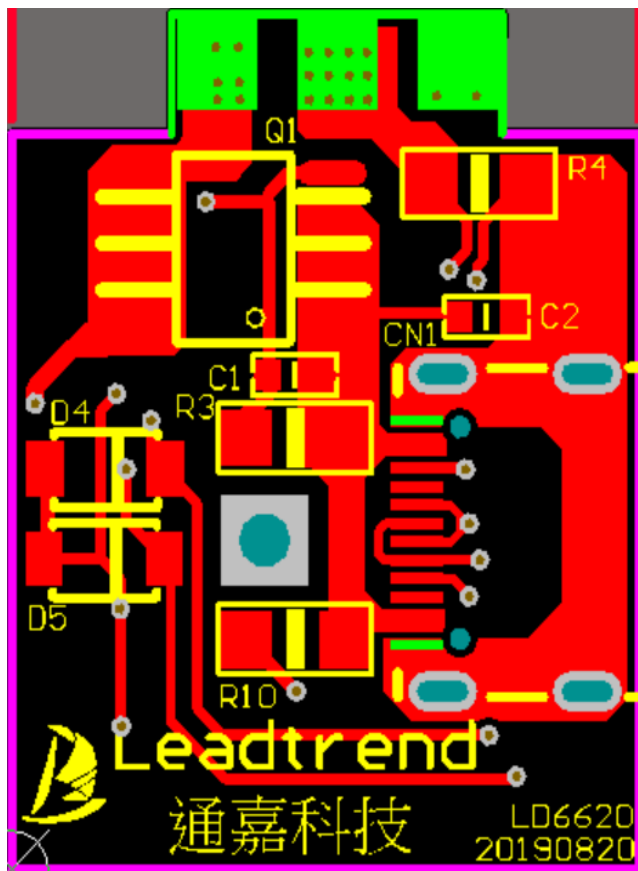


Bottom Side

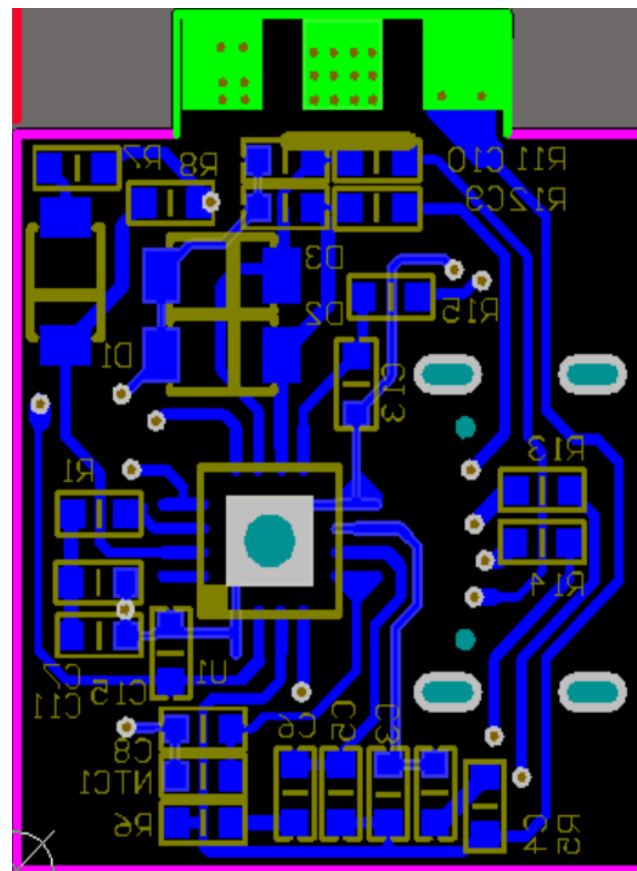


4. PCB Layout Daughter board

Top Side



Bottom Side

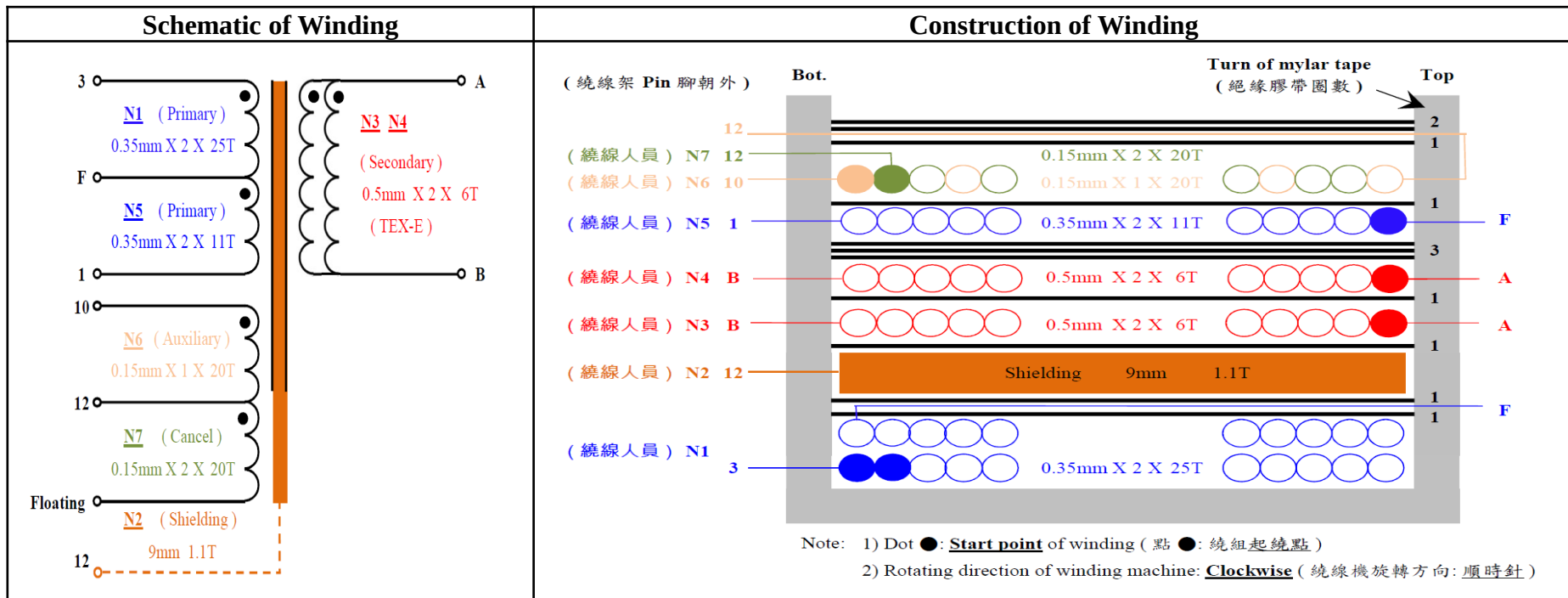


Location	Description	Q'ty
R1A,R1B	10 k Ω / J / 1206	2
R2,R3	200 k Ω / J / 1206	2
R4,R5	100 Ω / J / 1206	2
R9	0 Ω / J / 0603	1
R11	51 K Ω / F / 0805	1
R12	6.8 K Ω / F / 0603	1
R14	20 k Ω / J / 1206	1
R15	10 Ω / J / 0603	1
R16	47 Ω / J / 0603	1
R17	220 Ω / J / 0603	1
R18	10 K Ω / J / 0603	1
R19,R20	1.1 Ω / F / 1206	2
R21,R22	1.2 Ω / F / 1206	2
R23	20 Ω / J / 1206	1
R24	20 K Ω / J / 0603	1
R25	2.2 Ω / J / 0603	1
R26	270 Ω / J / 0603	1
R27	2 K Ω / J / 0603	1
R28	5.1 K Ω / J / 0603	1
R33	51 k Ω / F / 1206	1
FB1,FB2	0 Ω / J / 0805	2
C1	120 μ F / 400 V / UTWHE / 18 x 30 mm	1
C2	2200 pF (222) / 1 kV / X7R / 1206	1
C5,C6	4.7 μ F (475) / 100 V / X7R / 1210	2
C7	330 pF (331) / 50 V / X7R / 0603	1
C8	100 pF (101) / 50 V / X7R / 0603	1
C9	22 pF (220) / 1 kV / X7R / 1206	1
C10	1000 pF (102) / 1 kV / X7R / 1206	1
C11	2.2 μ F (225) / 16 V / X7R / 0805	1
C12,C13	1000 μ F / 25 V / ZLJ / 10 x 20 mm	1
C15	3300 pF (332) / 1 kV / X7R / Pitch 5	1
CX1	0.33 μ F (334) / 275V / HQX / X2	1

Location	Description	Q'ty
CY1	470 pF (471) / 250V / KX / Y1	1
D1,D2	S1ML / 1 kV / 1 A / SOD-123	2
D3	S1M / 1 kV / 1 A / SMA	1
D5	FF7 / 1 kV / 1 A / SOD-123	1
D6	1N4148 / 100 V / 150 mA / SOD-123	1
D7	0 Ω / J / 1206	1
ZD1,ZD2	BZT52B27 / 27 V / 0.41 W / SOD-123	2
BD1	GBU4J / 600 V / 4 A	1
Q1	BTC4672 / 100 V / 5 A / SOT-89	1
Q2	6R380P6 / 600 V / 10.6 A / 0.38 Ω / TO-220F	1
Q3	HGS080N10AL / 100 V / 14 A / 8 m Ω / SO-8	1
U1	LD5763C1 / SOP-8	1
U2	EL1019 / 200 ~ 400 % / SOP-4	1
U3	LD8526 / SOT-26	1
L1	T 10 x 4 x 6 / 1.7 mH / 0.4 mm x 14 T	1
L2	ESQ1515GRP2S-103E10 / 10 mH	1
T1	RM-10 / KP44A / 36 : 6 : 19 / 470 μ H	1
F1	3.15 A / 250V / T / 2010	1
MOV1	TVR14471	1
PCB (Mother)	70 x 70 mm / FR-4 / 2 oz	1
HS1		1
HS2		1
JP1	3.5mm x 20mm x 3.5mm	1
JP2	3.5mm x 20mm x 3.5mm	1

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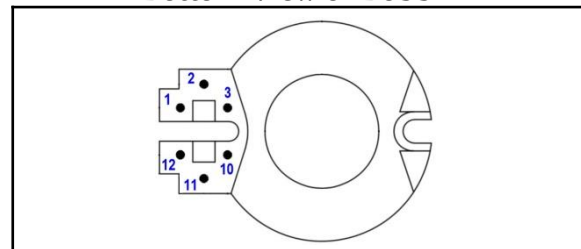
6. Transformer Design



Winding No.	Pin No.		Winding Types	Number of Turns		Remarks	
	Start	Finis h		Winding	Tape		
N1	1	F	0.35 mm X 2	25	1	N_{p1}	Pin 朝外順繞
N2	12	X	9 mm X 1mil	1.1	1	Shielding	Pin 朝外順繞
N3	A	B	0.5 mm X 2	6	1	N_{S1}	Pin 朝外順繞
N4	A	B	0.5 mm X 2	6	3	N_{S2}	Pin 朝外順繞
N5	F	1	0.35 mm X 2	11	1	N_{p2}	Pin 朝外順繞
N6	10	12	0.15 mm X 1	20	2	N_{aux}	Pin 朝外順繞
N7	12		0.15 mm X 2	20		N_{cancel}	
—	F		—	—	3	$N_{p1} + N_{p2}$	扭結線
Foil	12		5 mm X 10 mm X 1 mil	—	—	Core 底部貼銅下地 Pin 12	

Bobbin Shape	Core Material	A_e (mm ²)	L_p (μH)
RM-10	KP44A	98	470 ± 5 % @ 65 kHz / 1 V

Bottom View of Bobbin



7. Efficiency (Cont.)

Input Voltage	115 V _{AC} / 60 Hz	230 V _{AC} / 50 Hz
Output Current	100 %, 75 %, 50 %, 25 %, 10 % of Full Load	
Measured Point of Output Voltage	End of PCB	
Duration of Burn-in	30 Minutes	
Requirement	CoC Tier 2	

7. Efficiency (Cont.)

$V_{IN,AC}$ (V / Hz)	Mode	$V_{BUS,SET}$ (V)	$V_{BUS,PCB}$ (V)	I_{OUT} (A)	$P_{BUS,PCB}$ (W)	P_{IN} (W)	η (%)	$\eta_{AV,4-Points}$ (%)	Requirement (%)
115 / 60	PD 3.0	5	5.299	2.999	15.892	17.780	89.380	89.480	> 81.84
			5.231	2.249	11.765	12.970	90.706		
			5.101	1.501	7.657	8.530	89.761		
			5.001	0.749	3.746	4.253	88.073		
			4.984	0.299	1.490	1.784	83.532	—	> 72.48
		9	9.271	2.999	27.804	30.800	90.272	90.521	> 87.30
			9.172	2.249	20.628	22.640	91.112		
			9.076	1.501	13.623	14.980	90.942		
			8.976	0.749	6.723	7.490	89.760		
			8.959	0.299	2.679	3.131	85.555	—	> 77.30
		15	15.317	2.999	45.936	50.740	90.531	90.880	> 88.85
			15.214	2.249	34.216	37.510	91.219		
			15.112	1.501	22.683	24.860	91.243		
			15.011	0.749	11.243	12.420	90.525		
			14.994	0.299	4.483	5.185	86.465	—	> 78.85
		20	20.324	3.25	66.053	73.430	89.954	90.502	> 89
			20.212	2.436	49.236	54.200	90.842		
			20.089	1.625	32.645	35.920	90.881		
			19.991	0.812	16.233	17.970	90.332		
			19.965	0.325	6.489	7.488	86.654	—	> 79
	PPS	3.3	3.271	2.943	9.627	10.970	87.753	87.165	> 78.93
			3.288	2.249	7.395	8.394	88.095		
			3.294	1.492	4.915	5.607	87.652		
			3.301	0.744	2.456	2.884	85.158		
			3.305	0.304	1.005	1.205	83.379	—	> 69.66
		11	11.046	2.956	32.652	36.410	89.679	90.095	> 87.30
			11.089	2.25	24.950	27.520	90.662		
			11.095	1.496	16.598	18.370	90.354		
			11.099	0.745	8.269	9.220	89.683		
			11.101	0.294	3.264	3.833	85.147	—	> 77.30

7. Efficiency (Cont.)

V _{IN,AC} (V / Hz)	Mode	V _{BUS,SET} (V)	V _{BUS,PCB} (V)	I _{OUT} (A)	P _{BUS,PCB} (W)	P _{IN} (W)	η (%)	η _{AV,4-Points} (%)	Requirement (%)
230 /50	PD 3.0	5	5.299	2.999	15.892	18.060	87.994	85.750	> 81.84
			5.231	2.249	11.765	13.430	87.599		
			5.101	1.501	7.657	8.900	86.029		
			5.001	0.749	3.746	4.603	81.376		
			4.984	0.299	1.490	1.954	76.265	—	> 72.48
		9	9.271	2.999	27.804	30.990	89.718	88.446	> 87.30
			9.172	2.249	20.628	23.130	89.182		
			9.076	1.501	13.623	15.360	88.692		
			8.976	0.749	6.723	7.800	86.193		
			8.959	0.299	2.679	3.389	79.042	—	> 77.30
		15	15.317	2.999	45.936	50.380	91.178	90.004	> 88.85
			15.214	2.249	34.216	37.750	90.639		
			15.112	1.501	22.683	25.180	90.084		
			15.011	0.749	11.243	12.760	88.113		
			14.994	0.299	4.483	5.525	81.144	—	> 78.85
		20	20.316	3.25	66.027	72.180	91.475	90.577	> 89
			20.203	2.436	49.215	54.110	90.953		
			20.102	1.625	32.666	36.000	90.738		
			19.991	0.812	16.233	18.210	89.142		
			19.965	0.325	6.489	7.790	83.294	—	> 79
	PPS	3.3	3.270	2.943	9.624	11.390	84.492	81.909	> 78.93
			3.288	2.251	7.401	8.900	83.161		
			3.294	1.492	4.915	6.000	81.911		
			3.301	0.745	2.459	3.150	78.071		
			3.305	0.303	1.001	1.424	70.324	—	> 69.66
		11	11.027	2.952	32.552	36.190	89.947	88.896	> 87.30
			11.085	2.252	24.963	27.920	89.411		
			11.091	1.501	16.648	18.680	89.120		
			11.096	0.745	8.267	9.490	87.108		
			11.101	0.294	3.264	4.149	78.662	—	> 77.30

8. No Load Power Consumption

Input Voltage	115 V _{AC} / 60 Hz	230 V _{AC} / 50 Hz
Output Current	5V / 0 A	
Requirement	CoC Tier 2	

V_{IN,AC} (V / Hz)	P_{IN} (mW)	Requirement (mW)
115 / 60	30	< 75
230 / 50	50	

9. Line / Load / Cross Regulation

Input Voltage		90 V _{AC} / 47 Hz		264 V _{AC} / 63 Hz	
Output Current		5V:0A/3A ， 9V: 0A/3A ， 15V: 0A/3A ， 20V: 0A/3.25A			
Measured Point of Output Voltage		End of PCB			
Requirement		< ± 5 % of V _{BUS,SET} (IC有線損補償所以5V full load超出規格)			
			V _{BUS,PCB} (V)		
Mode	V _{BUS,SET} (V)	V _{IN,AC} (V / Hz)			Requirement (V)
			0 A	3 A / 3.25A only 20V	
PD 3.0	5	90 / 47	4.98	5.29	4.75 ~ 5.25
		264 / 63	4.98	5.29	
	9	90 / 47	8.96	9.27	8.55 ~ 9.45
		264 / 63	8.96	9.27	
	15	90 / 47	14.99	15.30	14.25~15.75
		264 / 63	14.99	15.30	
	20	90 / 47	19.96	20.28	19~21
		264 / 63	19.96	20.28	

9. Line / Load / Cross Regulation

Input Voltage		90 V _{AC} / 47 Hz		264 V _{AC} / 63 Hz	
Output Current		5V:0A/3A ， 9V: 0A/3A ， 15V: 0A/3A ， 20V: 0A/3.25A			
Measured Point of Output Voltage		End of 1.2m 18AWG Type Cable			
Requirement		< ± 5 % of V _{BUS,SET}			
Mode	V _{BUS,SET} (V)	V _{IN,AC} (V / Hz)	V _{BUS,PCB} (V)		Requirement (V)
			0 A	3 A / 3.25A only 20V	
PD 3.0	5	90 / 47	4.98	5.01	4.75 ~ 5.25
		264 / 63	4.98	5.29	
	9	90 / 47	8.96	8.99	8.55 ~ 9.45
		264 / 63	8.96	8.99	
	15	90 / 47	14.99	15.02	14.25~15.75
		264 / 63	14.99	15.03	
	20	90 / 47	19.96	19.99	19~21
		264 / 63	19.96	19.99	

10. Over Current Protection

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

Mode	V _{BUS,SET} (V)	V _{IN,AC} (V / Hz)	I _{OUT,OCP} (A)	Requirement	
				Protection Mode	OCP Trigger Point (A)
PD 3.0	5	90 / 47	3.46	Auto Recovery	< 3.9
		264 / 63	3.45	Auto Recovery	
	9	90 / 47	3.46	Auto Recovery	
		264 / 63	3.45	Auto Recovery	
	15	90 / 47	3.45	Auto Recovery	
		264 / 63	3.45	Auto Recovery	
	20	90 / 47	3.69	Auto Recovery	< 4.225
		264 / 63	3.72	Auto Recovery	

11. Over Voltage Protection

Input Voltage	90 V _{AC} / 47 Hz	264 V _{AC} / 63 Hz
Output Current	3.3V:0A/2.94A , 5V:0A/3A , 9V: 0A/3A , 15V: 0A/3A , 20V: 0A/3.25A	
Measured Point of Output Voltage	End of PCB	
Requirement	Defined by Different Output Voltage	

Mode	V _{BUS,SET} (V)	V _{IN,AC} (V / Hz)	V _{BUS,OVP} (V)		Requirement (V)
			No Load	Full Load	
PPS	3.3	90 / 47	4.56	4.72	< 4.95
		264 / 63	4.36	4.44	
PD 3.0	5	90 / 47	6.62	6.32	< 7.5
		264 / 63	6.66	6.36	
	9	90 / 47	11.1	10.8	< 11.25
		264 / 63	11.2	10.8	
	15	90 / 47	18.1	17.6	<18.75
		264 / 63	18.1	17.7	
	20	90 / 47	22.3	21.5	< 25.0
		264 / 63	21.9	21.5	

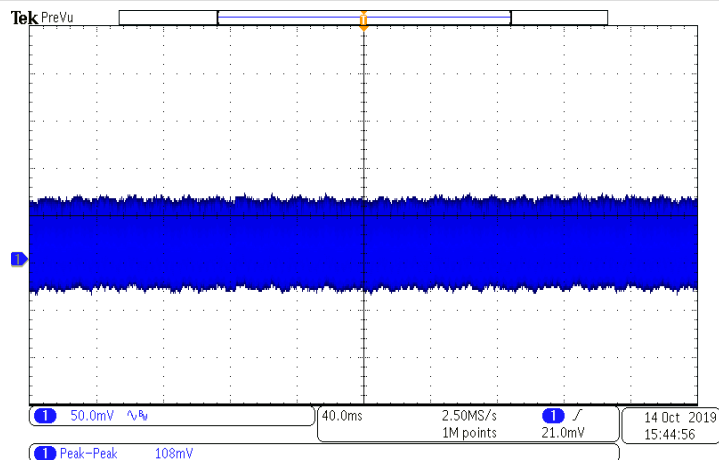
12. Ripple & Noise Voltage

Input Voltage	90 V _{AC} / 47 Hz	264 V _{AC} / 63 Hz
Output Current	5V:0A/3A , 9V: 0A/3A , 15V: 0A/3A , 20V: 0A/3.25A	
Measured Point of Output Voltage	End of PCB	
Bandwidth	20 MHz (with 10 μ F E-cap & 0.1 μ F MLCC)	
Requirement	5V , 9V < 200 m V / 15V , 20V < 300 m V	

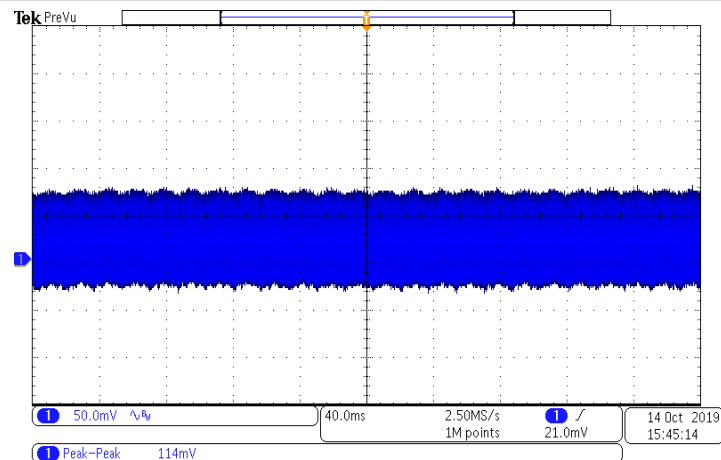
Mode	V _{BUS,SET} (V)	V _{IN,AC} (V / Hz)	V _{BUS,PK-PK} (mV)		Requirement (mV)
			0 A	3 A / 3.25A only 20V	
PD 3.0	5	90 / 47	64	108	< 200
		264 / 63	78	114	
	9	90 / 47	60	134	
		264 / 63	78	134	
	15	90 / 47	64	190	< 300
		264 / 63	80	158	
	20	90 / 47	62	248	
		264 / 63	78	194	

PD 3.0 Mode:

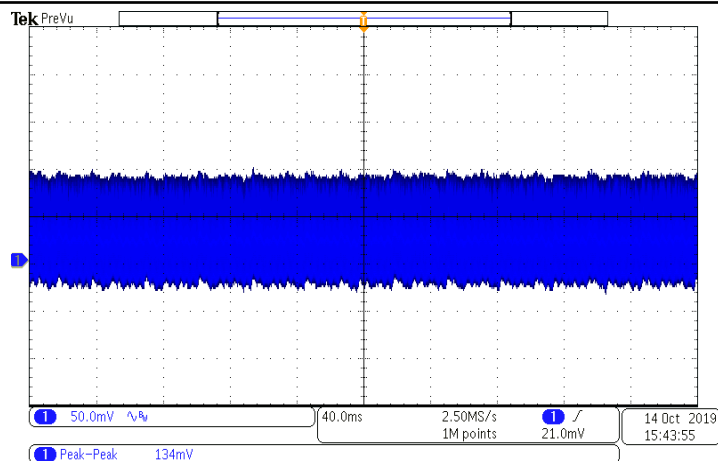
90 V_{AC} / 47 Hz / 5V / 3A



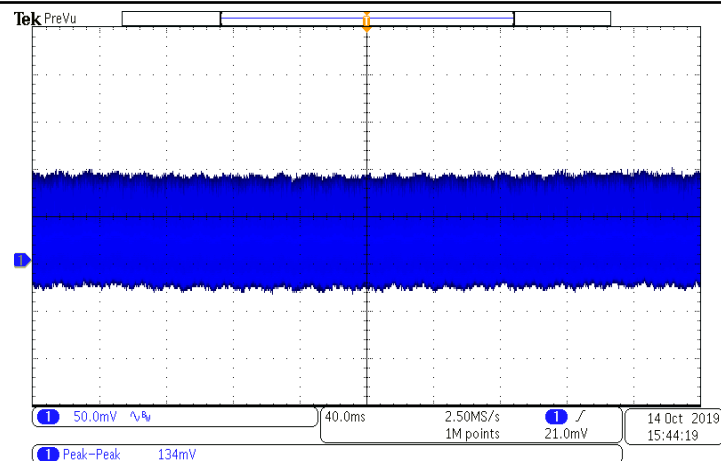
264 V_{AC} / 63 Hz / 5V / 3A



90 V_{AC} / 47 Hz / 9V / 3A

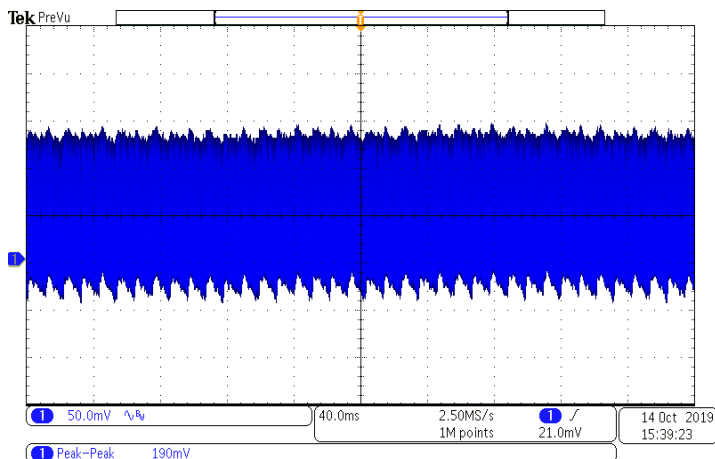


264 V_{AC} / 63 Hz / 9V / 3A

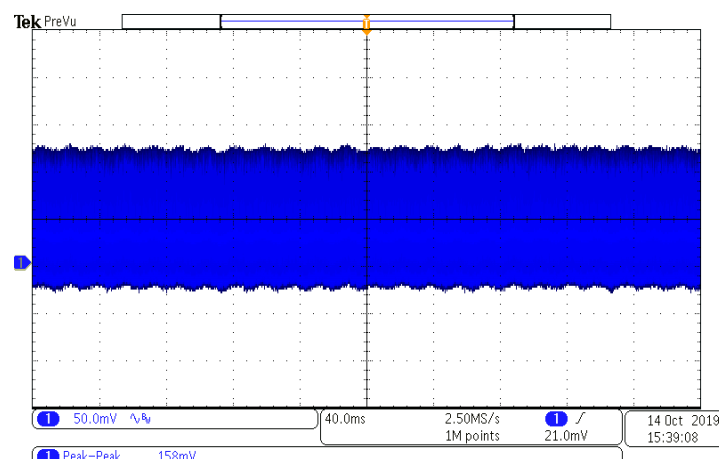


PD 3.0 Mode:

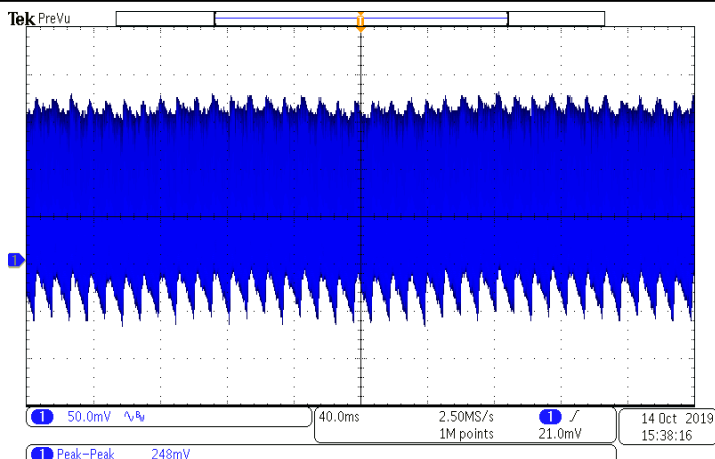
90 V_{AC} / 47 Hz / 15V / 3A



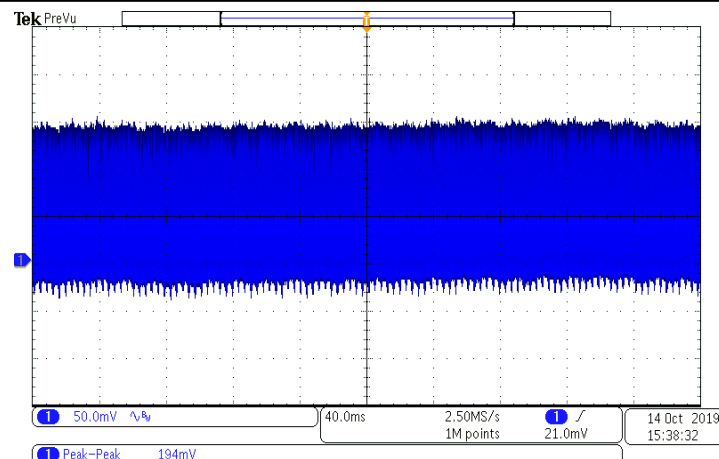
264 V_{AC} / 63 Hz / 15V / 3A



90 V_{AC} / 47 Hz / 20V / 3.25A



264 V_{AC} / 63 Hz / 20V / 3.25A



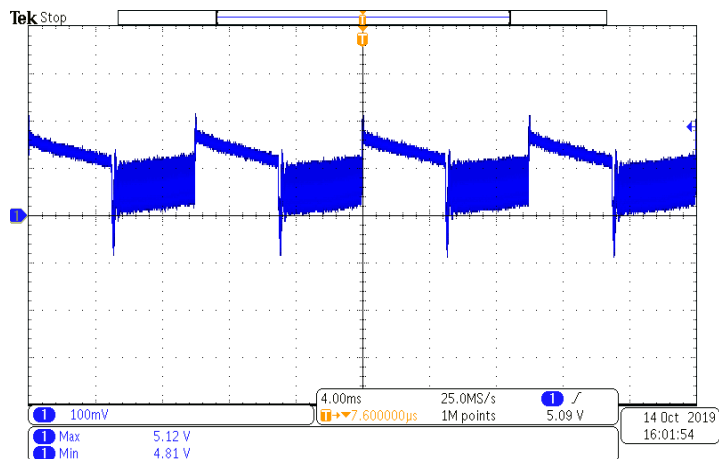
13. Dynamic Load

Input Voltage	90 V _{AC} / 47 Hz	264 V _{AC} / 63 Hz
Output Current	5V:0A/3A , 9V: 0A/3A , 15V: 0A/3A , 20V: 0A/3.25A	
Frequency of Load	100 Hz (5 mS High / 5 mS Low)	
Slew Rate of Load	0.1 A / μ S	
Measured Point of Output Voltage	End of PCB	
Requirement	< $\pm 10\%$ of V _{BUS,SET}	

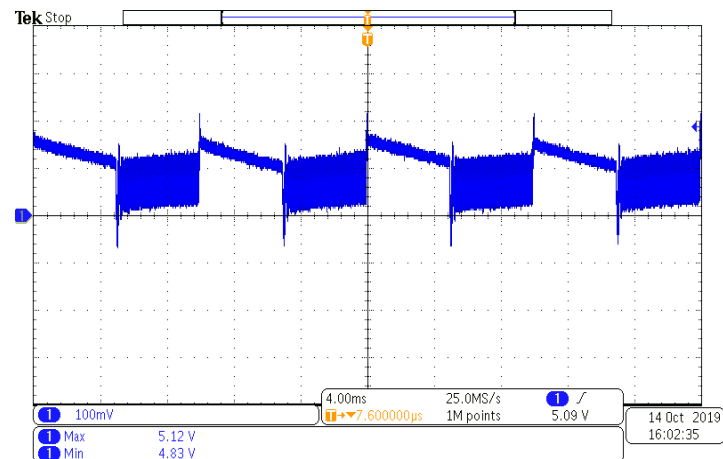
Mode	V _{BUS,SET} (V)	V _{IN,AC} (V / Hz)	V _{BUS,PCB} (V)		Requirement (V)
			Min.	Max.	
PD 3.0	5	90 / 47	4.81	5.12	4.5 ~ 5.5
		264 / 63	4.81	5.12	
	9	90 / 47	8.79	9.15	8.1 ~9.9
		264 / 63	8.83	9.14	
	15	90 / 47	14.8	15.3	14.5~16.5
		264 / 63	14.8	15.3	
	20	90 / 47	19.7	20.4	18~22
		264 / 63	19.8	20.3	

13. Dynamic Load (Cont.)

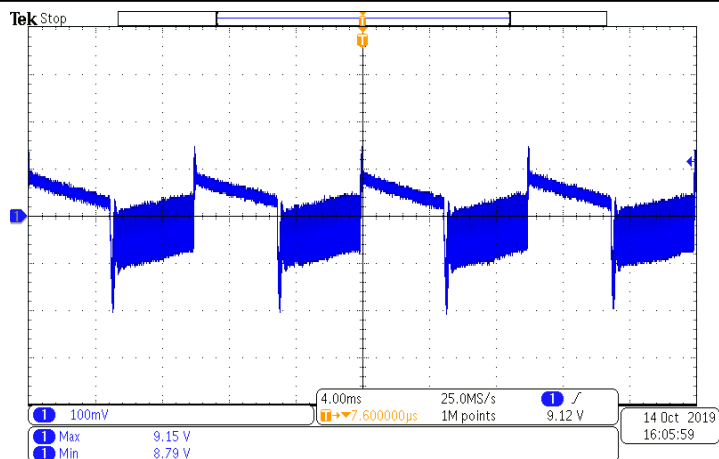
90 V_{AC} / 47 Hz / 5V



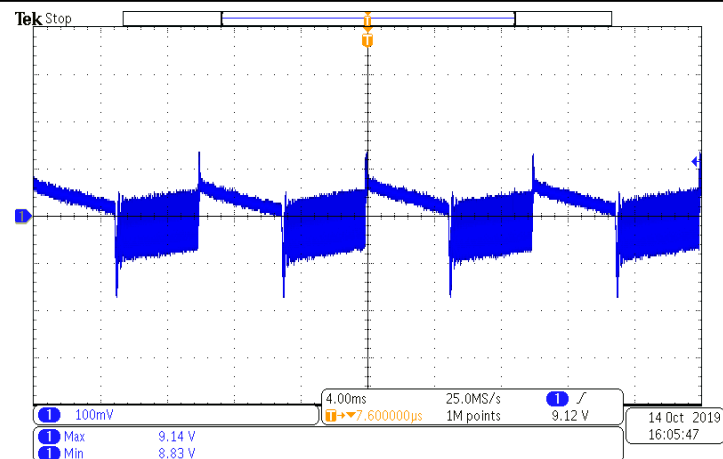
264 V_{AC} / 63 Hz / 5V



90 V_{AC} / 47 Hz / 9V

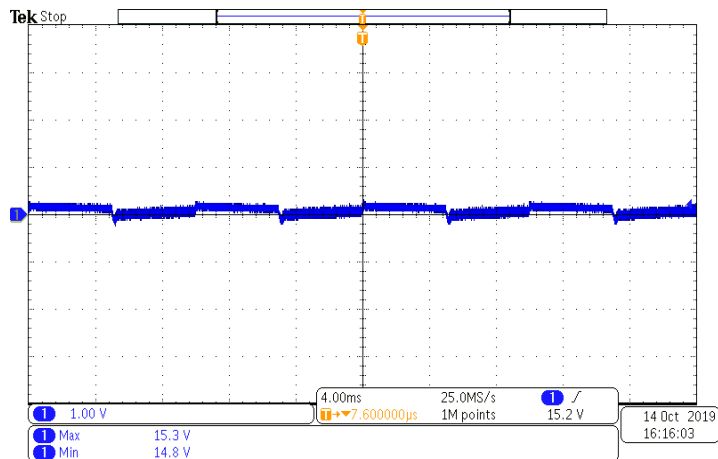


264 V_{AC} / 63 Hz / 9V

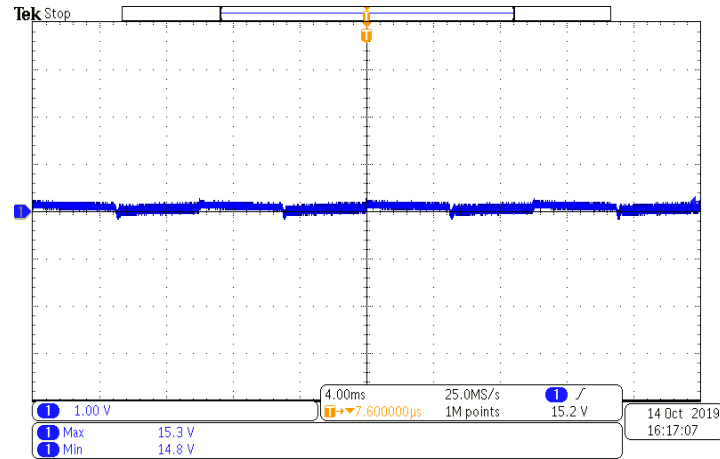


13. Dynamic Load (Cont.)

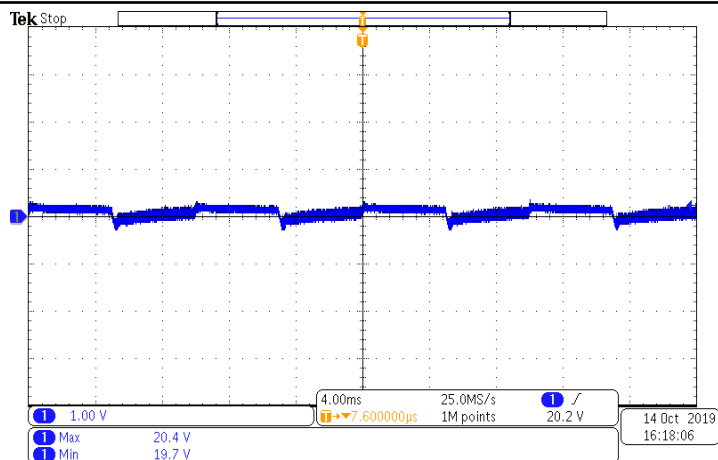
90 V_{AC} / 47 Hz / 15V



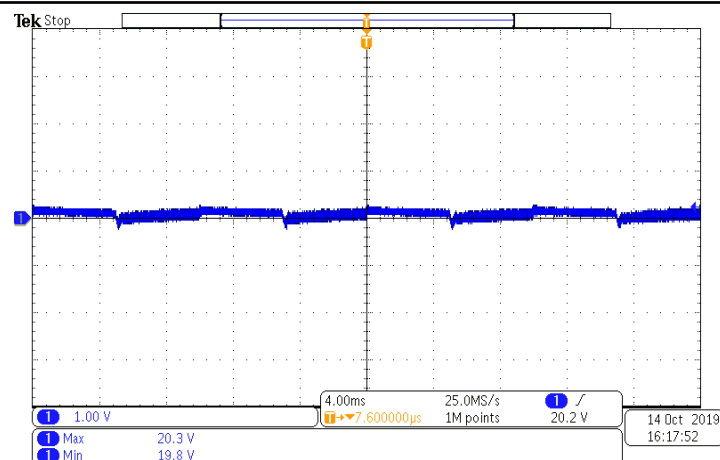
264 V_{AC} / 63 Hz / 15V



90 V_{AC} / 47 Hz / 20V



264 V_{AC} / 63 Hz / 20V



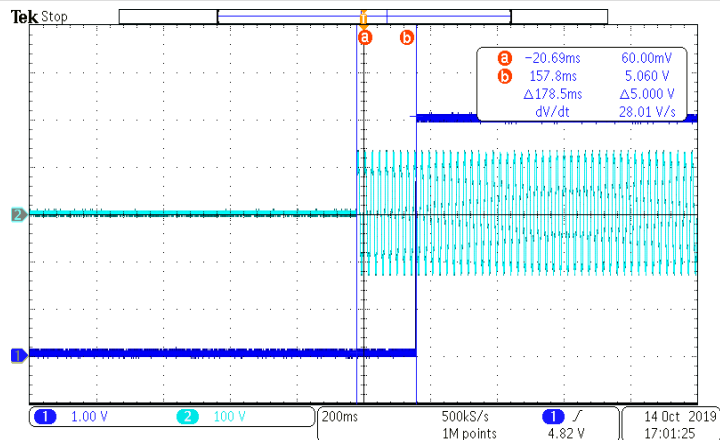
14. Turn-on Delay Time

Input Voltage	90 V _{AC} / 47 Hz
Output Current	5V : 0 A / 3A
Measured Point of Output Voltage	End of PCB
Requirement	< 3 S

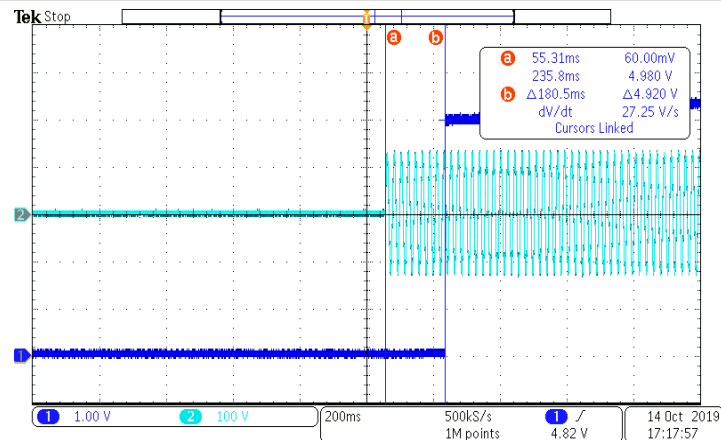
Mode	V_{BUS,SET} (V)	V_{IN,AC} (V / Hz)	T_{ON} (S)		Requirement (S)
			0 A	3 A	
PD 3.0	5	90 / 47	0.1785	0.1805	< 3

14. Turn-on Delay Time (Cont.)

90 V_{AC} / 47 Hz / 0A



90 V_{AC} / 47 Hz / 3A



15. Rise Time & Overshoot

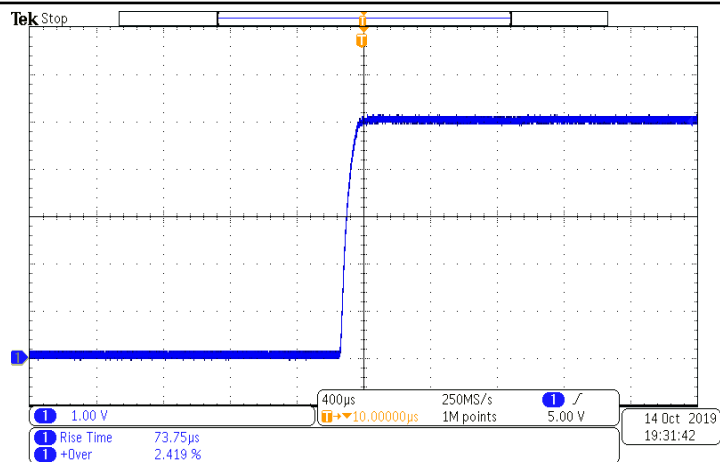
Input Voltage		90 V _{AC} / 47 Hz	264 V _{AC} / 63 Hz
Output Current		5V : 0 A	
Measured Point of Output Voltage		End of PCB	
Requirement	Rise Time	< 5 mS	
	Overshoot	< 10 %	

Mode	V _{BUS,SET} (V)	V _{IN,AC} (V / Hz)	T _{RISE} (mS)	Requirement (mS)
PD 3.0	5	90 / 47	0.07375	< 5
		264 / 63	0.07355	

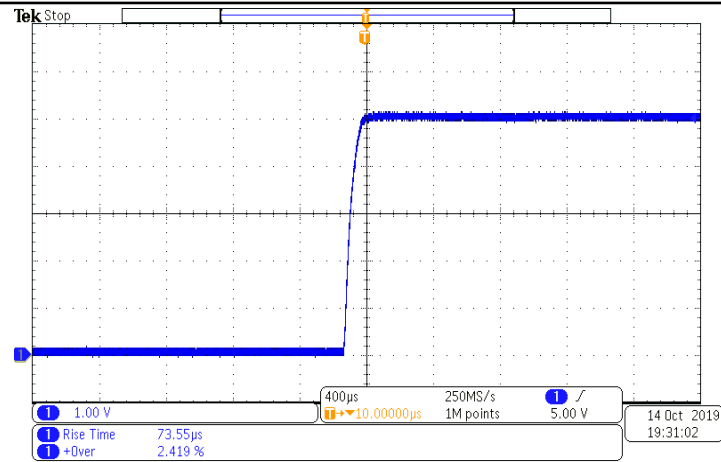
Mode	V _{BUS,SET} (V)	V _{IN,AC} (V / Hz)	Overshoot (%)	Requirement (%)
PD 3.0	5	90 / 47	2.419	< 10
		264 / 63	2.419	

15. Rise Time & Overshoot (Cont.)

90 V_{AC} / 47 Hz / 0 A



264 V_{AC} / 47 Hz / 0 A



16. Supply Voltage of IC

Input Voltage	90 V _{AC} / 47 Hz	264 V _{AC} / 63 Hz
Output Current	5V:0A/3A , 9V: 0A/3A , 15V: 0A/3A , 20V: 0A/2.25A	
Requirement	$> V_{CC_OFF} \ \& \ < V_{CC_OVP}$	

Mode	V _{BUS,SET} (V)	V _{IN,AC} (V / Hz)	V _{CC,U1} (V)				Requirement (V)
			No Load		Full Load		
			Min.	Max.	Min.	Max.	
PPS	3.3	90 / 47	9.72	11.9	14.9	16.1	> 9.7
		264 / 63	9.72	11.9	15.9	17.5	
PD	5	90 / 47	14.1	15.1	16.7	17.9	
		264 / 63	14.1	15.1	17.5	18.7	
	9	90 / 47	26	30.8	38.8	42.8	
		264 / 63	26	30.8	41.2	46	
	15	90 / 47	46	51.6	47.6	51.6	
		264 / 63	46.8	51.6	46.8	51.6	
	20	90 / 47	46.8	51.6	46.8	51.6	< 68
		264 / 63	47.6	52.4	47.6	51.6	

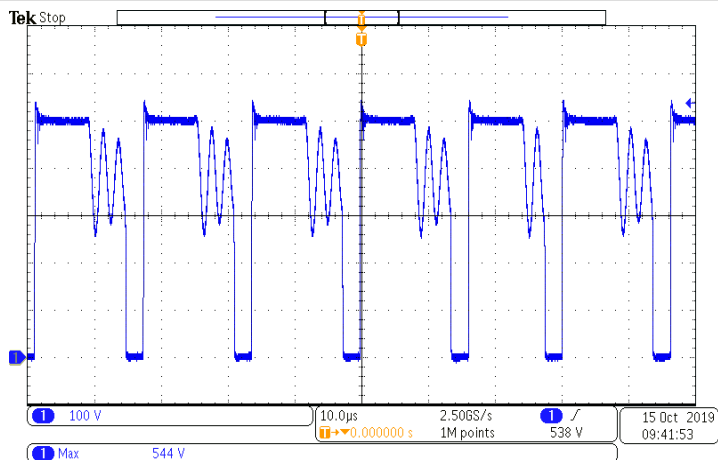
17. Stress on Switching Parts

Input Voltage	264 V _{AC} / 63 Hz
Output Current	No Load & Full Load (5 V: 3.0 A / 20 V: 3.25 A)
Requirement	Defined by Different Parts

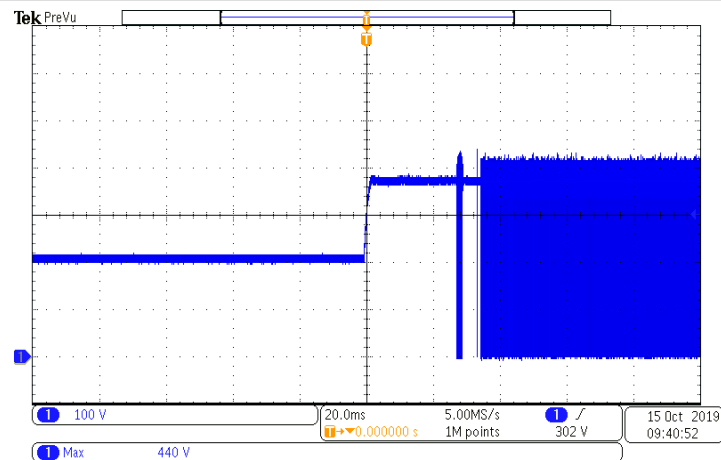
Location	Part No.	Mode	Condition	V _{BUS,SET} (V)	I _{OUT} (A)	V _{DS} (V)	Requirement (V)
Q1	SMK1065F		Normal	20	3.25	544	< 570 (600 * 0.95)
			Turn-on	5	3.0	440	
Q2	AP9474GM-HF		Normal	20	3.25	91.2	< 95 (100 * 0.95)
			Turn-on	5	3.0	72	

17. Stress on Switching Parts (Cont.)

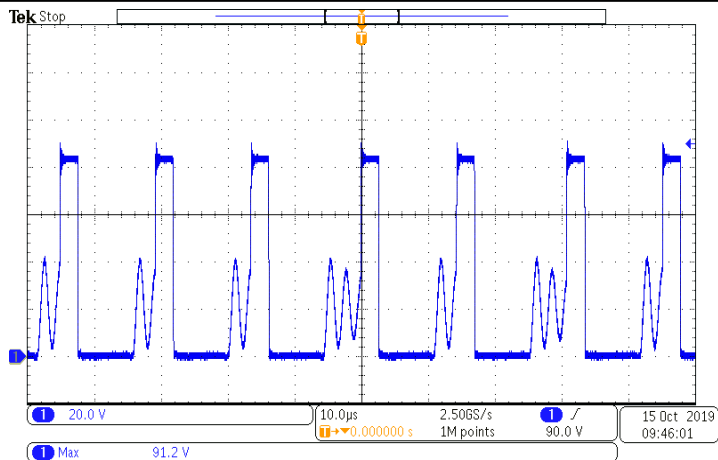
Q1_20 V / 3.25 A_Normal



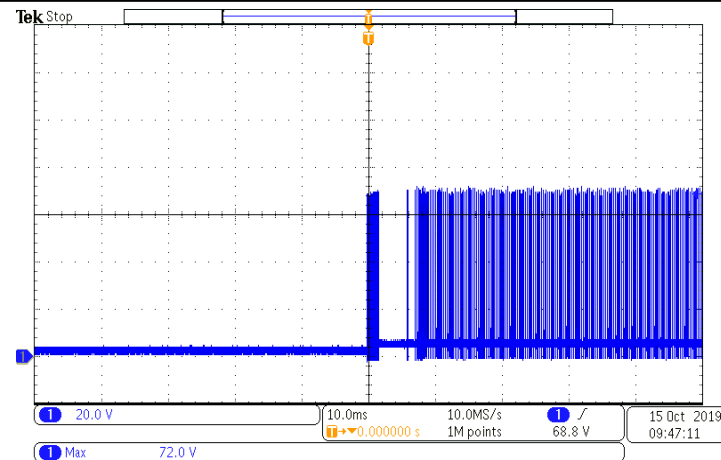
Q1_5V / 3A_Turn-on



Q2_20 V / 3.25 A_Normal



Q2_5V / 3A_Turn-on



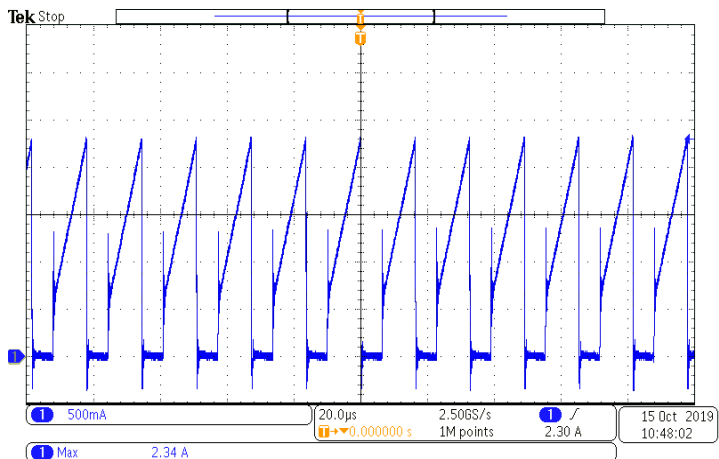
18. Flux Density of Transformer

Input Voltage	90 V _{AC} / 47 Hz	264 V _{AC} / 63 Hz
Output Current	Full Load & Maximum Power	
Requirement	90 % of Rating	

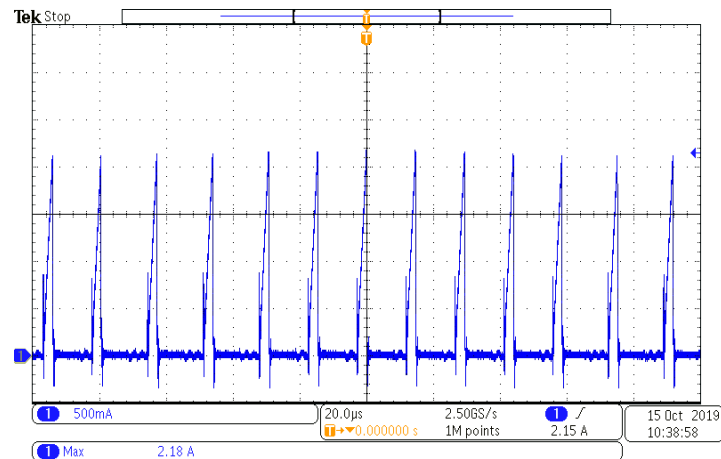
Mode	V_{BUS,SET} (V)	I_{OUT} (A)	V_{IN,AC} (V / Hz)	I_{PRI,MAX} (A)	B_{MAX} (G)	Requirement (G)
PD 3.0	20	3.25	90 / 47	2.34	3117	< 3,780 (4,200 * 0.90)
		3.25	264 / 63	2.18	2904	
		3.72	90 / 47	2.68	3,570	
		3.69	264 / 63	2.28	3037	

18. Flux Density of Transformer (Cont.)

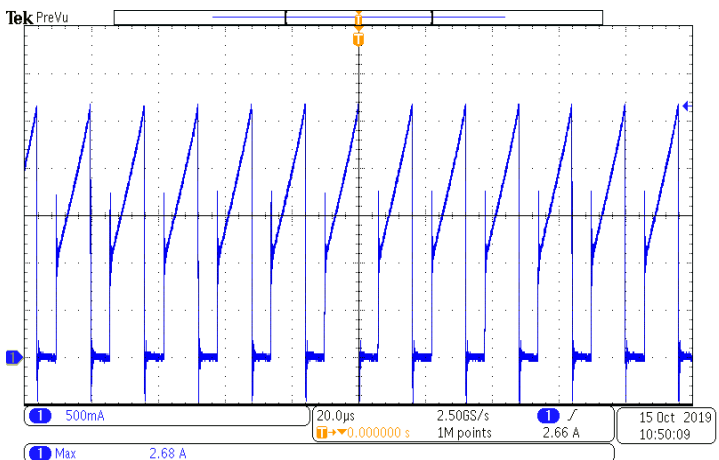
20 V / 3.25 A_90 V_{AC} / 47 Hz



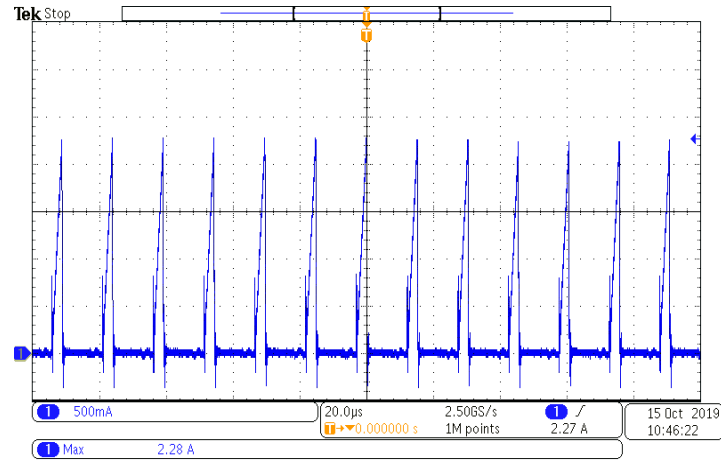
20 V / 3.25 A_264 V_{AC} / 63 Hz



20 V / 3.72 A_90 V_{AC} / 47 Hz



20 V / 3.69 A_264 V_{AC} / 63 Hz



PD 3.0 Mode: 5 V / 3 A

110 V_{AC} / 60 Hz / Line

110 V_{AC} / 60 Hz / Neutral

Customer Name: Leadtrend
Model Name: PD 65W
Test Mode: 110V L

Project No.: 5V / 3A
Engineer Name: john

Customer Name: Leadtrend
Model Name: PD 65W
Test Mode: 110V N

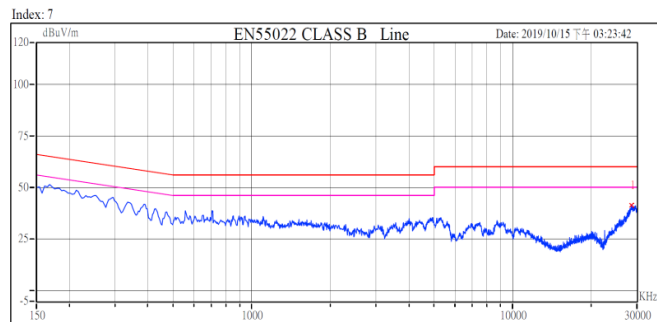
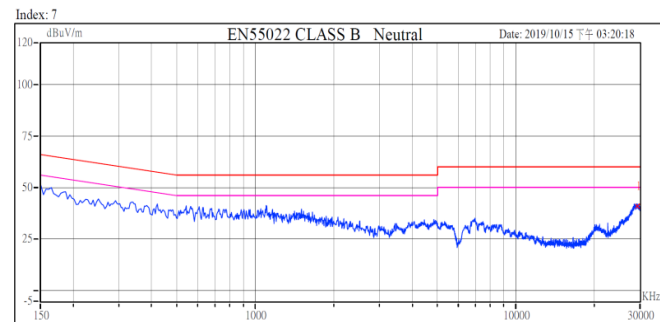
Project No.: 5V / 3A
Engineer Name: john

Conduction:

PD 3.0 Mode: 5 V / 3 A

220 V_{AC} / 50 Hz / Line

220 V_{AC} / 50 Hz / Neutral

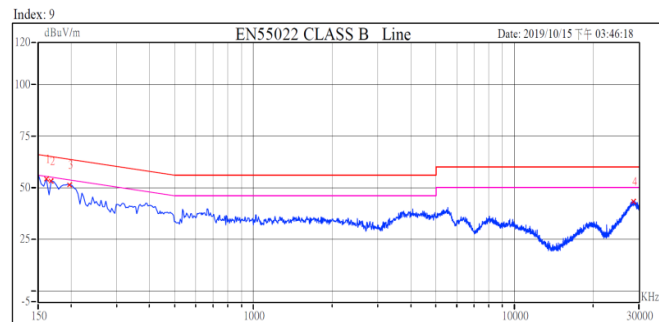
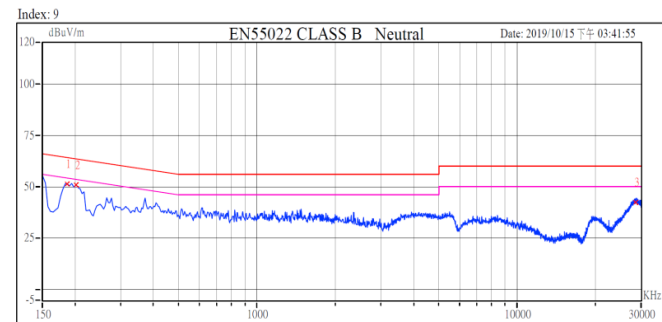
[illegible][illegible]

Conduction:

PD 3.0 Mode: 9 V / 3 A

110 V_{AC} / 60 Hz / Line

110 V_{AC} / 60 Hz / Neutral

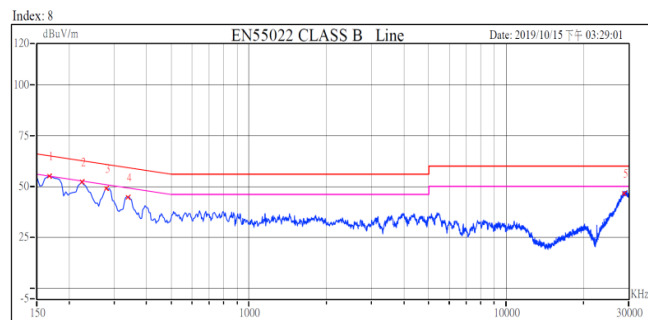
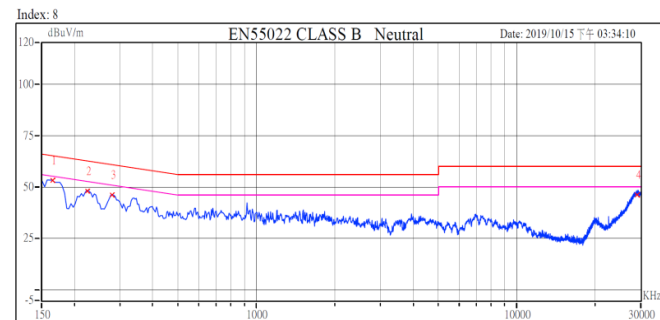
[illegible][illegible]

Conduction:

PD 3.0 Mode: 9 V / 3 A

220 V_{AC} / 50 Hz / Line

220 V_{AC} / 50 Hz / Neutral

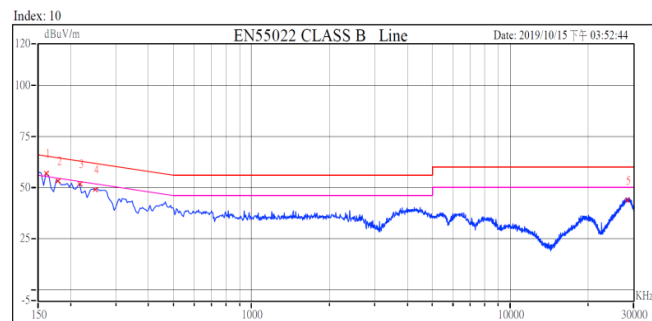
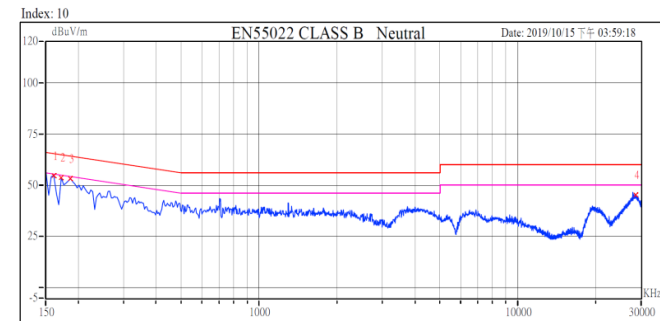
[illegible][illegible]

Conduction:

PD 3.0 Mode: 15 V / 3 A

110 V_{AC} / 60 Hz / Line

110 V_{AC} / 60 Hz / Neutral

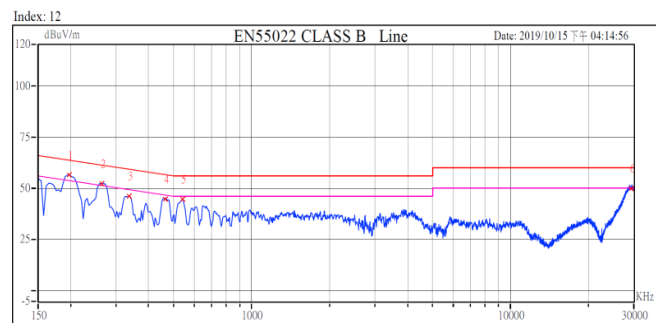
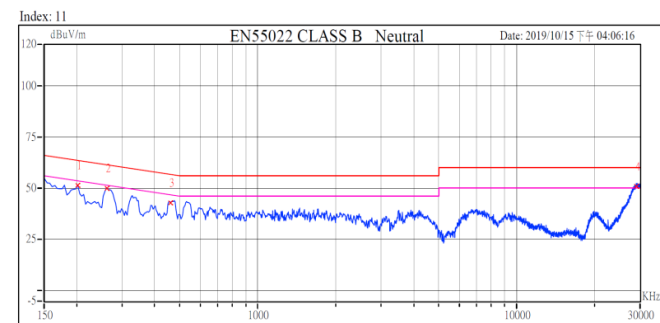
[illegible][illegible]

Conduction:

PD 3.0 Mode: 15 V / 3 A

220 V_{AC} / 50 Hz / Line

220 V_{AC} / 50 Hz / Neutral

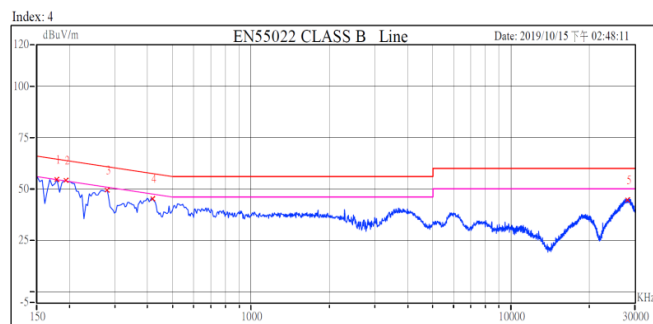
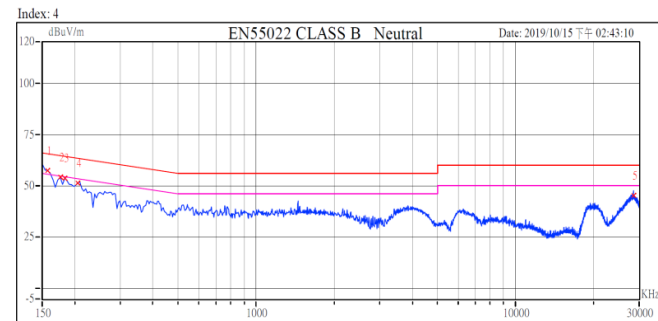
[illegible][illegible]

Conduction:

PD 3.0 Mode: 20 V / 3.25 A

110 V_{AC} / 60 Hz / Line

110 V_{AC} / 60 Hz / Neutral

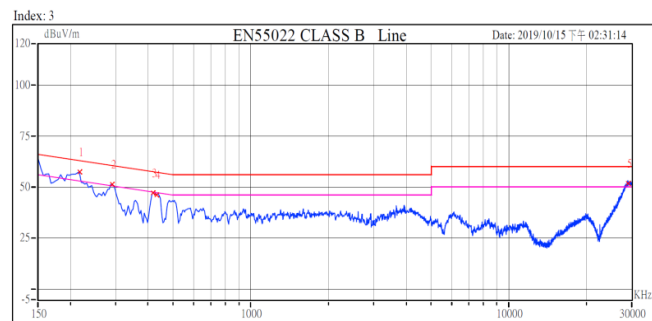
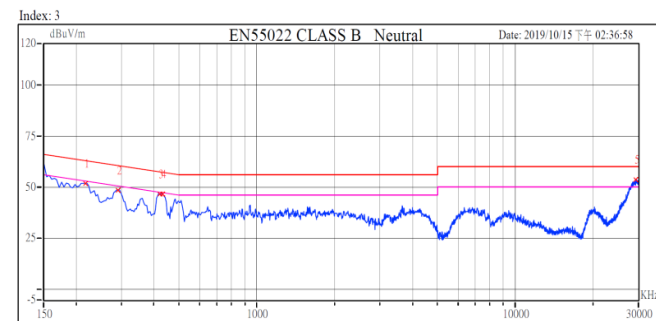
[illegible][illegible]

Conduction:

PD 3.0 Mode: 20 V / 3.25 A

220 V_{AC} / 50 Hz / Line

220 V_{AC} / 50 Hz / Neutral

[illegible][illegible]

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THANK YOU

