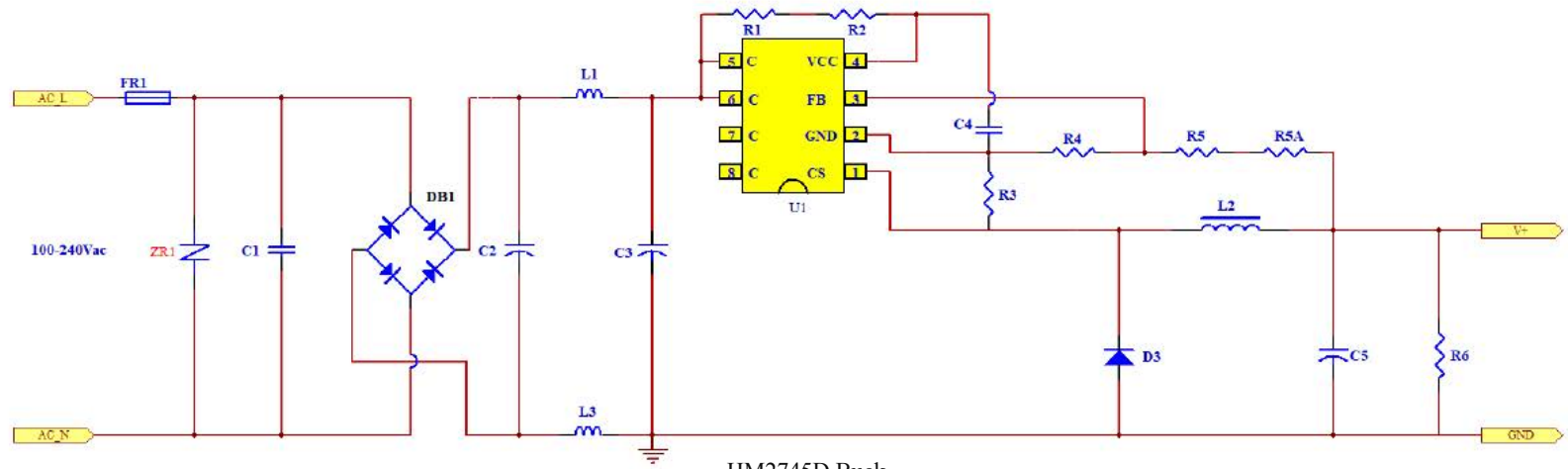
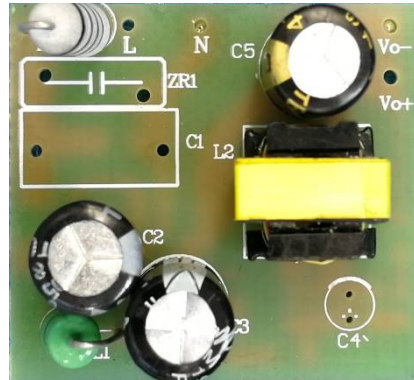


Description		Symbol	Min	Typ	Max	Units	Comment
Input							
Voltage		V_{IN}	90		265	V_{AC}	2 Wire
Frequency		f_{LINE}	47	50/60	63	Hz	
No-load Input Power (230V_{AC})					100	mW	
Output							
Const Voltage	Output Voltage	V_{OUT_CV}	4.6	5	5.4	V	Measured at the end of PCB
	Output Current	I_{OUT_CV}		300		mA	
Output Ripple Voltage		V_{RIPPLE}			150	mV_{P-P}	Measured at the End of PCB With Rated Load @T_A = 25 °C 20 MHz Bandwidth
Total Output Power							
Continuous Output Power		P_{OUT}		1.5		W	
Over Current Protection		I_{OUT_MAX}			500	mA	Auto-restart
Active Mode Efficiency		η	65			%	Measured at PCB terminal, V_{IN} = 115VAC (T_{AMB} = 25 °C).
Environmental							
Conducted EMI			Meets CISPR14/ EN55014B				
Safety			Meets IEC60335				
Ambient Temperature		T_{AMB}	0		40	° C	Free convection, sea level

	Item	Spec	Remark
1	Standby Power	<100mW	Pass
2	Efficiency	≥65%	Pass
3	Output Voltage	4.60-5.40V	Pass
4	Dynamic	4.00-6.00V	Pass
5	Over Current Protection & Recovery	≤500mA	Pass
6	Ripple & Noise	< 150mV	Pass
7	Surge Immunity	1.5KV	Pass
8	Electrical Fast Transient	4KV	Pass

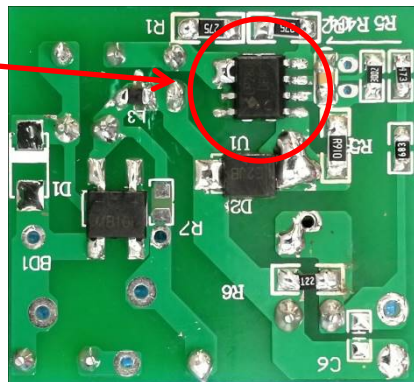


4. Circuit Board Photograph



Top side

< A &+ () 8



Bottom side

编号	材料名称	型号规格	单位	位置符号	用量
1	贴片电阻	2.7M/ 1206 5%	PCS	R1,R2	2
2		47K/ 0805 1%	PCS	R5	1
3		68K/ 0805 1%	PCS	R5A	1
4		30K/ 0805 1%	PCS	R4	1
5		0.91R/ 1206 1%	PCS	R3	1
6		1.2K/ 1206 5%	PCS	R6	1
7	贴片电容	1uF/16V/0805 X7R 10%	PCS	C4`	1
8	集成贴片IC	< A &+ () 8/SOP8		PCS	U1
9	贴片桥堆	MB10S	PCS	BD1	1
10	贴片二极管	ES2J(SF28) SOD-123	PCS	D2	1
11	保险丝电阻	线绕电阻 10R/1W	PCS	FR1	1
12	色环电感	1mH , 1W	PCS	L1	1
13	贴片电感	10uH/0805	PCS	L3	1
14	电感	300uH/EE10	PCS	L2	1
15	电解电容	4.7uF/400V ϕ 8*12mm	PCS	C2,C3	2
16		470uF/25V ϕ 8*12mm 高频低阻	PCS	C5	1
	总计				18
说明 :					
雷击1.5KV以上需增加压敏电阻ZR1 , 1.5KV雷击可不选用。					

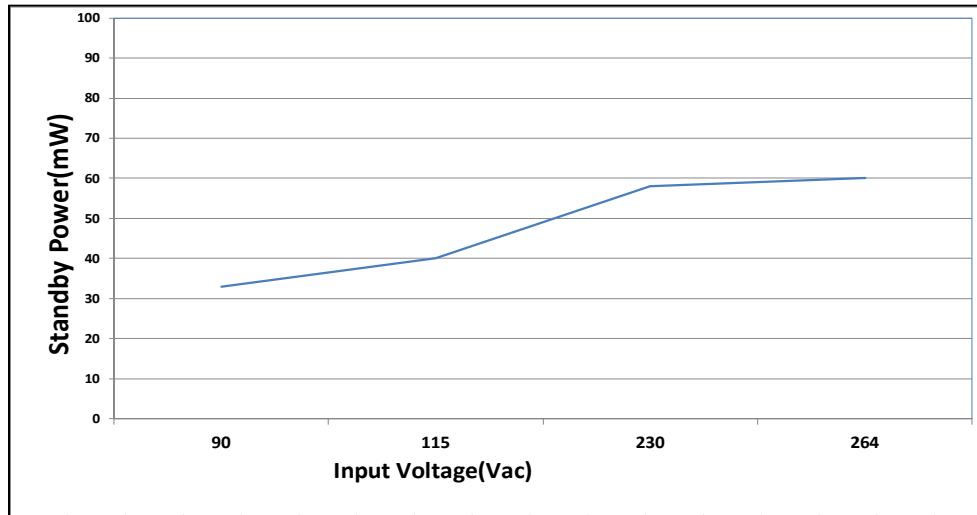
6. Ripple, Regulation and Efficiency

Item	Io(mA)	Vo(V)End of PCB	Pin(mW)	Eff(%)	Ripple(mV)	OCP(mA)
90V/60Hz	0	5.30	33		48.0	400
	30	5.22	240	65.25	55.0	
	100	5.16	732	70.49	54.0	
	200	5.10	1470	69.39	68.2	
	300	5.05	2180	69.50	82.0	
115V/60Hz	0	5.28	40		41.6	410
	30	5.24	243	64.69	53.6	
	100	5.19	736	70.52	46.4	
	200	5.12	1460	70.14	60.8	
	300	5.07	2160	70.42	72.0	
230V/50Hz	0	5.24	58		59.2	440
	30	5.18	266	58.42	71.2	
	100	5.15	775	66.45	60.0	
	200	5.07	1490	68.05	65.6	
	300	5.01	2190	68.63	74.4	
264V/50Hz	0	5.23	60		66.4	470
	30	5.17	270	57.44	80.0	
	100	5.15	785	65.61	66.4	
	200	5.08	1500	67.73	72.0	
	300	5.01	2210	68.01	73.6	

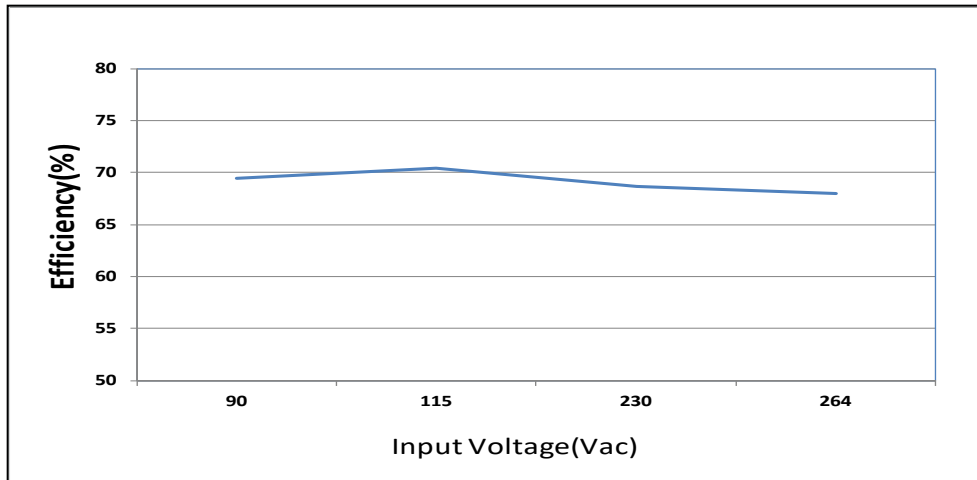
*** Note: Vout is measured at end of PCB.**

7. Standby power and Efficiency

Standby power

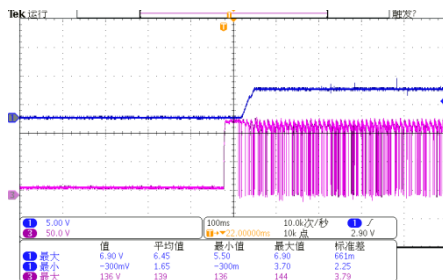


Efficiency



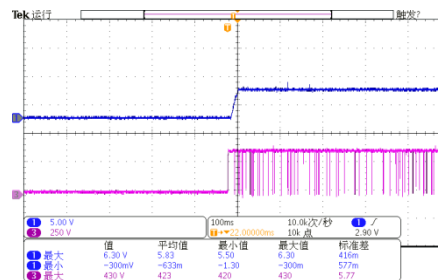
8. Vce Waveform

Vin=90Vac/50Hz, start up at full Load



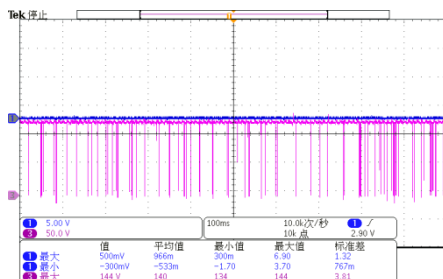
Vce Max=136V

Vin=264Vac/50Hz, start up at full Load



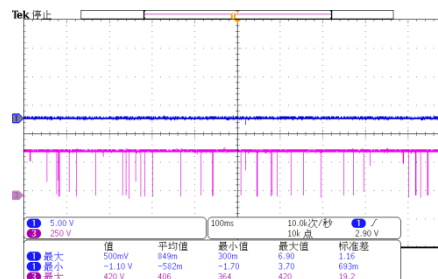
Vce Max=430V

Vin=90Vac/50Hz, output short



Vce Max=144V

Vin=264Vac/50Hz, output short

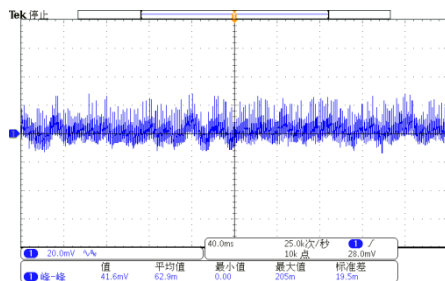


Vce Max=420V

*** Note: Vce < 800V**

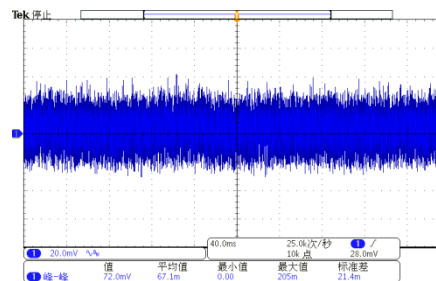
9. Ripple and Noise

Vin=115Vac/50Hz, No Load



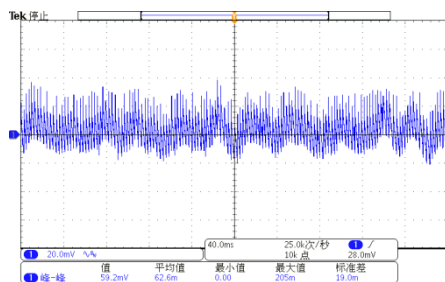
V_{ripple}=41.6mV

Vin=115Vac/50Hz, Full Load



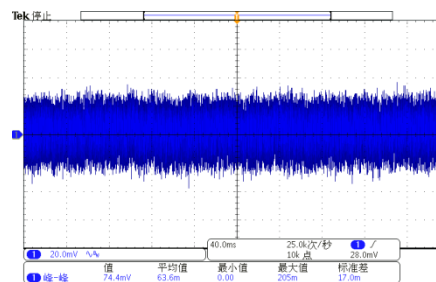
V_{ripple}=72mV

Vin=230Vac/50Hz, No load



V_{ripple}=59.2mV

Vin=230Vac/50Hz, Full load

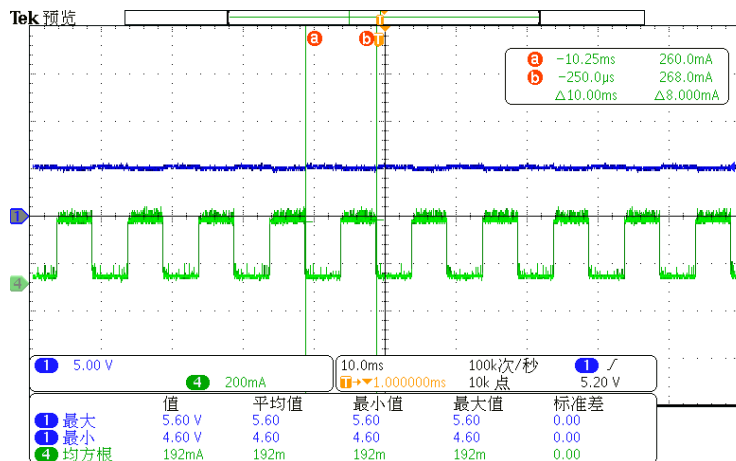


V_{ripple}=74.4mV

* **Note:** V_{ripple} < 150mV

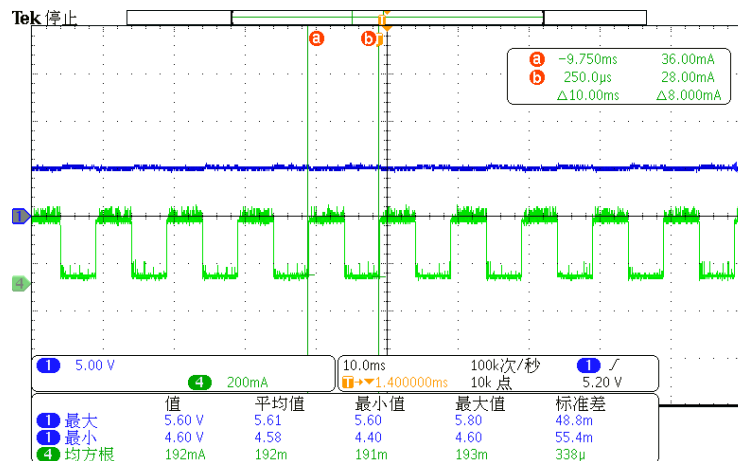
10. Dynamic Load

Vin=90Vac/60Hz, Io from 10% to 90%
Slew rate:255mA/uS, F=100Hz



Vout=4.60-5.60V

Vin=264Vac/50Hz, Io from 10% to 90%
Slew rate:255mA/uS, F=100Hz

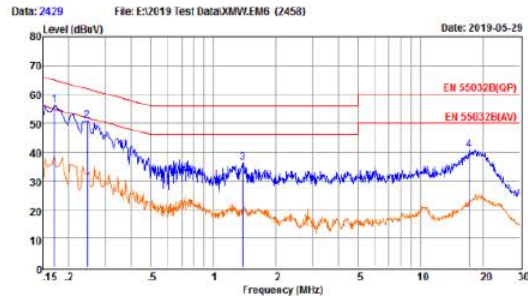


Vout=4.60-5.60V

• Note: 4.00V < Vout < 6.00V, Vout measured at end of PCB.

11.1 Conducted Emission

Vin=120Vac/60Hz, L Channel

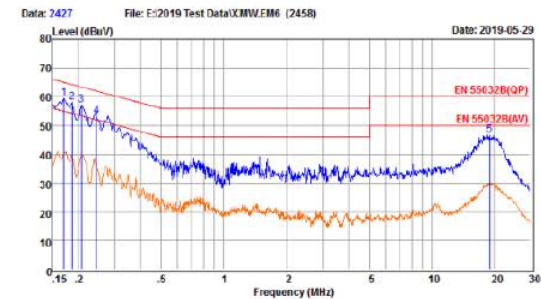


Env. Ins: 24/566
EUT: 192801D
M/N: 12V 0.3A
Power Rating: AC 120V/60Hz
Test Mode: FULL LOAD
Operator: JAY LI
Memo:
Pol: LINE

Freq	Reading	LianFac	CabLos	Measured	Limit	Over	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.17	36.48	9.60	0.02	56.10	64.94	-8.64 Peak
2	0.25	31.11	9.63	0.03	50.77	61.91	-11.14 Peak
3	1.35	16.45	9.63	0.03	36.33	56.00	-19.67 Peak
4	17.11	20.94	9.75	0.11	40.78	66.00	-19.22 Peak

Remarks: 1. Measured = Reading + Lian Factor + Cable Loss.
2. The emission levels that are 20dB below the official limit are not reported.

Vin=120Vac/60Hz, N Channel



Env. Ins: 24/566
EUT: 192801D
M/N: 12V 0.3A
Power Rating: AC 120V/60Hz
Test Mode: FULL LOAD
Operator: JAY LI
Memo:
Pol: NEUTRAL

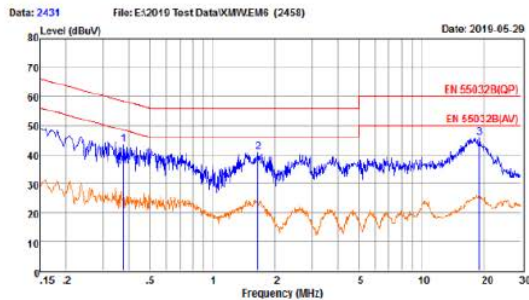
Freq	Reading	LianFac	CabLos	Measured	Limit	Over	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.17	35.82	9.65	0.02	55.49	64.94	-5.45 Peak
2	0.19	38.43	9.62	0.02	58.07	64.20	-6.13 Peak
3	0.21	37.50	9.59	0.03	57.12	63.36	-6.24 Peak
4	0.24	33.62	9.40	0.03	53.28	61.95	-8.70 Peak
5	19.02	24.72	9.65	0.12	44.69	60.00	-15.31 Peak

Remarks: 1. Measured = Reading + Lian Factor + Cable Loss.
2. The emission levels that are 20dB below the official limit are not reported.

*** Note: Full Resistive Load , Vout(-) is floating.**

11.2 Conducted Emission

Vin=230Vac/50Hz, L Channel

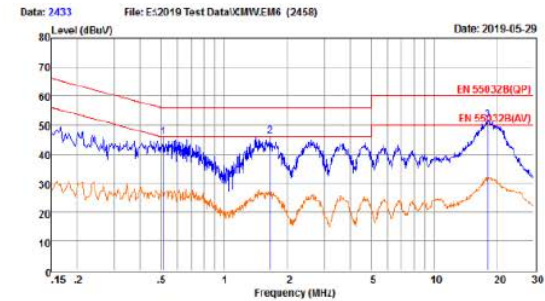


Env. Ins: 24*/568
EUT: LP2801D
M/N: 12V 0.3A
Power Rating: AC 230V/50Hz
Test Mode: FULL LOAD
Operator: JAY LI
Memo:
Poli: LINE

Freq	Reading	LiaFac	CableLoss	Measured	Limit	Over	Remark
MHz	dBpW	dB	dB	dBpW	dBpW	dB	
1	0.17	23.91	9.62	0.04	43.57	58.43	-14.86 Peak
2	1.45	21.03	9.64	0.05	40.72	56.00	-15.25 Peak
3	18.92	25.89	9.75	0.11	45.75	60.00	-14.25 Peak

Remarks: 1. Measured = Reading + Lia Factor + Cable Loss.
2. The emission levels that are 20dB below the official limit are not reported.

Vin=230Vac/50Hz, N Channel

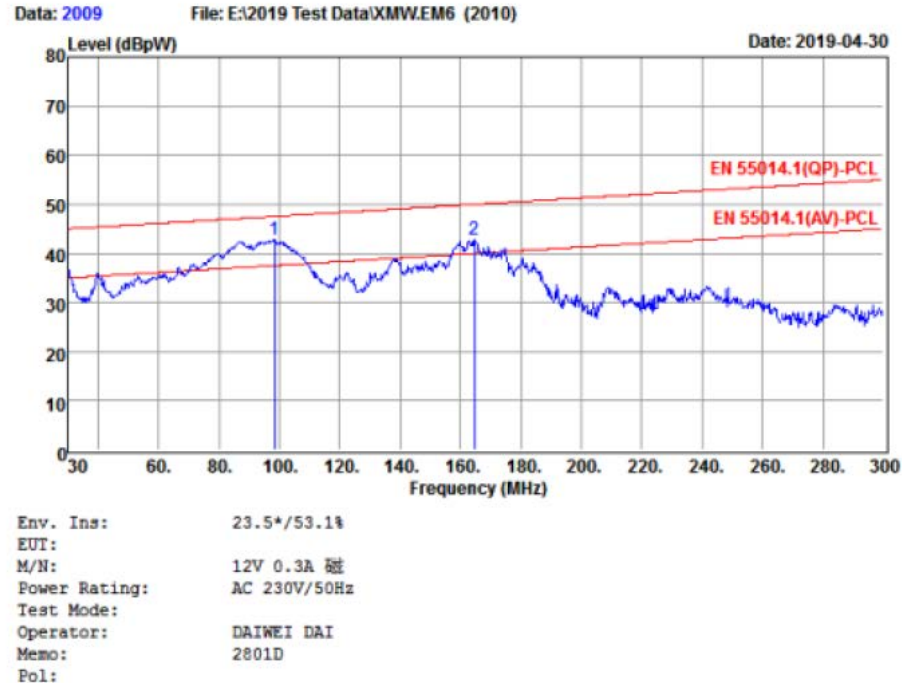


Env. Ins: 24*/568
EUT: LP2801D
M/N: 12V 0.3A
Power Rating: AC 230V/50Hz
Test Mode: FULL LOAD
Operator: JAY LI
Memo:
Poli: NEUTRAL

Freq	Reading	LiaFac	CableLoss	Measured	Limit	Over	Remark
MHz	dBpW	dB	dB	dBpW	dBpW	dB	
1	0.51	26.10	9.62	0.04	45.76	56.00	-10.24 Peak
2	1.44	24.38	9.63	0.05	46.06	56.00	-9.94 Peak
3	18.14	31.89	9.81	0.11	51.81	60.00	-8.19 Peak

Remarks: 1. Measured = Reading + Lia Factor + Cable Loss.
2. The emission levels that are 20dB below the official limit are not reported.

*** Note: Full Resistive Load , Vout(-) is floating.**



	Freq	Reading	LISNFac	CabLos	Aux2Fac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1	98.58	17.34	1.04	24.52	10.00	42.90	47.55	-4.65	Peak
2	164.73	14.90	2.84	25.00	10.00	42.74	50.00	-7.26	Peak

Remarks: 1. Measured = Reading + LISNFac + Cable Loss + Aux2 Fac.
2. The emission levels that are 20dB below the official limit are not reported.

*** Test Conditions: Vin=230Vac/Full Resistive Load , Vout(-) is floating.**