

FCC ID : H38UT801

Measurement Result:

(Test Frequency: 794.900MHz , Horizontal , 30 MHz ~ 1 GHz)

Test Conditions:

Testing room : Temperature : 26 °C Humidity : 73 % RH
 Testing site : Temperature : 31 °C Humidity : 75 % RH

<i>Frequency</i>	<i>Reading Amplitude</i>	<i>Ant. Height</i>	<i>Table</i>	<i>Correction Factors</i>	<i>Corrected Power</i>	<i>Attenuated below the mean power</i>	<i>minimum Attenuation limit</i>
MHz	dBμV	m	degree	dB/m	dBm	dB	dB

198.727	25.49	2.45	40	-13.32	-58.57	53.94	13.31
397.454	25.83	1.00	65	-19.59	-51.96	47.33	13.31
596.180	24.26	1.00	28	-23.26	-49.86	45.23	13.31
745.221	18.81	1.00	34	-26.42	-52.15	47.52	13.31

Note:

- Margin = Amplitude - limit, *if margin is minus means under limit.*
- Corrected Amplitude = Reading Amplitude – Correction Factors
- Correction factor = Antenna factor + (Cable Loss – Amplitude Gain)
 (For example :794.900MHz correction Amplitude=72.01–(-26.25)=8.26dBμV/m)
- $FI(\text{Volt}) = 10^{FI(\text{dB}\mu\text{V}/\text{m}) / 20} \times 10^{-6}$
 $FI(\text{ Volt }) = 10^{98.26/20} \times 10^{-6} = 0.08185 \text{ V}$
- $P(\text{ watt }) = FI^2(\text{ Volt }) \times d^2(\text{ meter }) / 49.2$
 $FI(\text{ mW }) = (0.08185 \times 3)^2 / 49.2 = 1.225399 \text{ mW}$
 $FI(\text{ dBm }) = 10 \log 1.225399(\text{ mW}) / 1(\text{mW}) = 0.8828(\text{ dBm})$
- Mean Power = $10 \log (p)(\text{ dB}) = 10 \log (0.34411) = -4.633$
 Attenuated below the mean power = P – Corrected Power
 (For example : $-4.633 - (-58.57) = 53.94(\text{ dB})$)
- Attenuation required = $43 + 10 \log (1.07468 \text{ mW}) = 13.31$

Measurement Result:

(Test Frequency: 794.900MHz , Horizontal , 1GHz ~ 18GHz)

<i>Radiated Emission</i>				<i>Correction Factors</i>	<i>Corrected Amplitude</i> dBm	<i>Attenuated below the mean power</i> (dB)	<i>minimum Attenuation Limit</i> (dB)
<i>Frequency</i> (GHz)	<i>Amplitude</i> (dBμV/m)	<i>Ant. H.</i> (cm)	<i>Table</i> (°)	(dB)			

2.175	64.14	1.00	323	-8.67	-41.91	37.28	13.31
2.988	63.81	1.00	208	-6.84	-40.41	35.78	13.31

Radiated Emission Test Result:

(Test Frequency: 794.900MHz , Vertical , 30MHz ~ 1GHz)

<i>Frequency</i>	<i>Reading Amplitude</i>	<i>Ant. Height</i>	<i>Table</i>	<i>Correction Factors</i>	<i>Corrected Power</i>	<i>Attenuated below the mean power</i>	<i>minimum Attenuation limit</i>
MHz	dBμV	m	degree	dB/m	dBm	dB	dB

198.728	21.62	1.00	15	-13.54	-62.22	57.59	13.31
397.454	24.74	1.00	152	-19.14	-53.50	48.87	13.31
596.180	22.44	1.00	32	-23.53	-51.41	46.78	13.31
993.633	18.66	1.00	128	-30.34	-48.38	43.75	13.31

Radiated Emission Test Result:

(Test Frequency: 794.900MHz , Vertical , 1GHz ~ 18GHz)

<i>Radiated Emission</i>				<i>Correction Factors</i>	<i>Corrected Amplitude</i> dBm	<i>Attenuated below the mean power</i> (dB)	<i>minimum Attenuation Limit</i> (dB)
<i>Frequency</i> (GHz)	<i>Amplitude</i> (dB μ V/m)	<i>Ant. H.</i> (cm)	<i>Table</i> (°)	(dB)			

2.175	66.47	1.00	106	-8.67	-39.58	34.95	13.31
2.988	65.97	1.00	118	-6.84	-38.25	33.62	13.31

Measurement Result:

(Test Frequency: 800.200MHz , Horizontal , 30MHz ~ 1GHz)

<i>Frequency</i>	<i>Reading Amplitude</i>	<i>Ant. Height</i>	<i>Table</i>	<i>Correction Factors</i>	<i>Corrected Power</i>	<i>Attenuated below the mean power</i>	<i>minimum Attenuation limit</i>
MHz	dBμV	m	degree	dB/m	dBm	dB	dB

200.053	24.48	1.00	44	-13.40	-59.50	56.33	13.88
400.100	28.15	1.00	55	-19.71	-49.52	46.35	13.88
600.151	25.44	1.00	43	-23.25	-48.69	45.52	13.88
816.877	23.48	1.00	27	-26.09	-47.81	44.64	13.88

Note:

1. Margin = Amplitude - limit, *if margin is minus means under limit.*
2. Corrected Amplitude = Reading Amplitude – Correction Factors
3. Correction factor = Antenna factor + (Cable Loss – Amplitude Gain)
 (For example :800.200MHz correction Amplitude=72.01 – (-26.25)= 98.26dBμV/m)
4. $FI(\text{Volt}) = 10^{FI(\text{dB}\mu\text{V}/\text{m}) / 20} \times 10^{-6}$
 $FI(\text{ Volt }) = 10^{99.11/20} \times 10^{-6} = 0.09026 \text{ V}$
5. $P(\text{watt}) = FI^2(\text{ Volt }) \times d^2(\text{meter}) / 49.2$
 $FI(\text{ mW }) = (0.09026 \times 3)^2 / 49.2 = 1.490313 \text{ mW}$
 $FI(\text{ dBm }) = 10 \log 1.490313(\text{ mW}) / 1(\text{mW}) = 1.7328(\text{ dBm})$
6. Mean Power = $10 \log(p)(\text{dB}) = 10 \log(0.48184) = -3.171$
 Attenuated below the mean power = P – Corrected Power
 (For example : -3.171 – (- 59.50)) = 53.94 (dB)
7. Attenuation required = $43 + 10 \log(1.2254 \text{ mW}) = 13.88$

Measurement Result:

(Test Frequency: 800.200MHz , Horizontal , 1GHz ~ 18GHz)

<i>Radiated Emission</i>				<i>Correction Factors</i>	<i>Corrected Amplitude</i> dBm	<i>Attenuated below the mean power</i> (dB)	<i>minimum Attenuation Limit</i> (dB)
<i>Frequency</i> (GHz)	<i>Amplitude</i> (dBμV/m)	<i>Ant. H.</i> (cm)	<i>Table</i> (°)	(dB)			

2.188	63.47	1.00	107	-8.67	-42.58	39.41	13.88
2.788	65.47	1.00	20	-6.84	-38.75	35.58	13.88

Radiated Emission Test Result:

(Test Frequency: 800.200MHz , Vertical , 30MHz ~ 1GHz)

<i>Frequency</i>	<i>Reading Amplitude</i>	<i>Ant. Height</i>	<i>Table</i>	<i>Correction Factors</i>	<i>Corrected Power</i>	<i>Attenuated below the mean power</i>	<i>minimum Attenuation limit</i>
MHz	dBμV	m	degree	dB/m	dBm	dB	dB

200.053	20.06	1.00	74	-13.64	-63.68	60.51	13.88
400.100	20.86	1.00	95	-19.24	-57.28	54.11	13.88
600.151	25.88	1.00	51	-23.56	-47.94	44.77	13.88
816.877	18.32	1.00	0	-26.67	-52.39	49.22	13.88

Radiated Emission Test Result:

(Test Frequency: 800.200MHz , Vertical , 1GHz ~ 18GHz)

<i>Radiated Emission</i>				<i>Correction Factors</i>	<i>Corrected Amplitude</i> dBm	<i>Attenuated below the mean power</i> (dB)	<i>minimum Attenuation Limit</i> (dB)
<i>Frequency</i> (GHz)	<i>Amplitude</i> (dB μ V/m)	<i>Ant. H.</i> (cm)	<i>Table</i> (°)	(dB)			

2.188	66.54	1.00	309	-8.67	-39.51	36.34	13.88
2.788	71.64	1.00	45	-6.84	-32.58	29.41	13.88

Measurement Result:

(Test Frequency: 804.900MHz , Horizontal , 30MHz ~ 1GHz)

Frequency	Reading Amplitude	Ant. Height	Table	Correction Factors	Corrected Power	Attenuated below the mean power	minimum Attenuation limit
MHz	dBμV	m	degree	dB/m	dBm	dB	dB

201.226	27.61	2.45	29	-13.49	-56.28	51.93	12.71
402.448	37.38	1.00	42	-19.81	-40.19	35.84	12.71
821.663	24.23	1.00	60	-26.18	-46.97	42.62	12.71
855.199	18.65	1.00	55	-27.19	-51.54	47.19	12.71

Note:

1. Margin = Amplitude - limit, *if margin is minus means under limit.*
2. Corrected Amplitude = Reading Amplitude – Correction Factors
3. Correction factor = Antenna factor + (Cable Loss – Amplitude Gain)
(For example :804.900MHz correction Amplitude = 72.33 – (–26.17) = 98.50 dBμV/m)
4. $FI(\text{Volt}) = 10^{FI(\text{dB}\mu\text{V}/\text{m}) / 20} \times 10^{-6}$
 $FI(\text{ Volt }) = 10^{98.50/20} \times 10^{-6} = 0.08414 \text{ V}$
5. $P(\text{ watt }) = FI^2(\text{ Volt }) \times d^2(\text{ meter }) / 49.2$
 $FI(\text{ mW }) = (0.08414 \times 3)^2 / 49.2 = 1.295023 \text{ mW}$
 $FI(\text{ dBm }) = 10 \log 1.295023(\text{ mW}) / 1(\text{mW}) = 1.1228(\text{ dBm})$
6. Mean Power = $10 \log(p)(\text{ dB}) = 10 \log(0.36749) = -4.348$
Attenuated below the mean power = P – Corrected Power
(For example : -4.348 – (- 58.57)) = 53.94 (dB))
7. Attenuation required = $43 + 10 \log(0.93600 \text{ mW}) = 12.71$

Measurement Result:

(Test Frequency: 804.900MHz , Horizontal , 1GHz ~ 18GHz)

Radiated Emission				Correction Factors	Corrected Amplitude dBm	Attenuated below the mean power (dB)	minimum Attenuation Limit (dB)
Frequency (GHz)	Amplitude (dBμV/m)	Ant. H. (cm)	Table (°)	(dB)			

2.200	60.80	1.00	78	-8.67	52.13	-45.25	40.90
2.813	68.97	1.00	103	-8.67	60.30	-37.08	32.73

Radiated Emission Test Result:

(Test Frequency: 804.900MHz , Vertical , 30MHz ~ 1GHz)

<i>Frequency</i>	<i>Reading Amplitude</i>	<i>Ant. Height</i>	<i>Table</i>	<i>Correction Factors</i>	<i>Corrected Power</i>	<i>Attenuated below the mean power</i>	<i>minimum Attenuation limit</i>
MHz	dBμV	m	degree	dB/m	dBm	dB	dB

201.224	23.22	1.00	123	-13.72	-60.44	56.09	12.71
402.445	36.11	1.00	66	-19.36	-41.91	37.56	12.71
603.671	15.86	1.00	82	-23.57	-57.95	53.60	12.71
821.663	18.12	1.00	87	-26.76	-52.50	48.15	12.71
855.119	6.63	1.00	145	-27.54	-63.21	58.86	12.71

Radiated Emission Test Result:

(Test Frequency: 804.900MHz , Vertical , 1GHz ~ 18GHz)

Radiated Emission				Correction Factors	Corrected Amplitude dBm	Attenuated below the mean power (dB)	minimum Attenuation Limit (dB)
Frequency (GHz)	Amplitude (dB μ V/m)	Ant. H. (cm)	Table (°)	(dB)			

2.200	61.47	1.00	80	-8.67	-44.58	40.23	12.71
2.813	71.47	1.00	9	-6.84	-32.75	28.40	12.71
