



FCC RADIO TEST REPORT

Applicant : ELO TOUCH SOLUTIONS, INC.

Address : 670 N. McCarthy Blvd., Suite 100 Milpitas, CA
95035 USA

Equipment : Touch All-in-One Computer

Model No. : ESY10I1E, ESY15I1E, ESY22I1E

Trade Name : Elo or **elo**

FCC ID : RBWESYQC5

I HEREBY CERTIFY THAT :

The sample was received on Mar. 07, 2025 and the testing was completed on May. 28, 2025 at Cerpass Technology Corp. The test result refers exclusively to the test presented test model / sample. Without written approval of Cerpass Technology Corp., the test report shall not be reproduced except in full.

Approved by:

Mark Liao / Supervisor

Laboratory Accreditation:

Cerpass Technology Corporation Test Laboratory





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**History of this test report**

Report No.	Issued Date	Description
24070407-TRFCC04	Nov. 18, 2024	Original
24110305-TRFCC04	Jan. 17, 2025	Add Base (Brand: ELO, Model: KIT, Z20-POS-STAND).
25030004-TRFCC04	May. 29, 2025	1.Add 10" / 15" / 22" iron shell available. 2.15" inch added 2 panel reports (for this iron shell version configuration, it must include the original plastic panel, a total of four models). -Brand: BOE, Model: PV156FHM-N30 -Brand: AUO,Model: A156HAN01.1 3.The original design was external PoE, but this time the application was changed to built-in PoE or without PoE (for this iron shell version configuration). 4.The antenna gain value becomes smaller and the antenna position moves (for this iron shell version configuration). 5.The iron shell version does not come with a base, so there is no adapter(Billion/BS180-240625MBX(150W)&DELTA/ADP-150EH B (150W)) that comes with the base. 6.This application does not come with an SD Card slot (for this iron shell version configuration).



1. Summary of Test Procedure and Test Results

1.1. Applicable Standards

ANSI C63.10:2013

FCC Rules and Regulations Part 15 Subpart E §15.407

KDB 789033

FCC Rule	Description of Test	Result
15.203	Antenna Requirement	PASS
15.207(a)	AC Power Line Conducted Emission	PASS
15.407(b) 15.209	Radiated Spurious Emission	PASS
15.407 (a) & (a)(3)	Average Power	PASS
2.1091	Radio Frequency Exposure	PASS

*The lab has reduced the uncertainty risk factor from test equipment, environment and staff technicians which according to the standard on contract. Therefore, the test result will only be determined by standard requirement, measurement uncertainty evaluation is not considered.

*This EUT has been also tested and compiled with the requirement of FCC Part 15, Subpart B, recorded in a separate test report(25030004-TEFV01).

*The difference is list below:

1.Add 10" / 15" / 22" iron shell available.

2.15" inch added 2 panel reports (for this iron shell version configuration, it must include the original plastic panel, a total of four models).

-Brand: BOE, Model: PV156FHM-N30

-Brand: AUO,Model: A156HAN01.1

3.The original design was external PoE, but this time the application was changed to built-in PoE or without PoE (for this iron shell version configuration).

4.The antenna gain value becomes smaller and the antenna position moves (for this iron shell version configuration).

5.The iron shell version does not come with a base, so there is no adapter(Billion/BS180-240625MBX(150W)&DELTA/ADP-150EH B (150W)) that comes with the base.

6.This application does not come with an SD Card slot (for this iron shell version configuration).

After engineering evaluation, the following item need to retest:

1.AC Power Line Conducted Emission

2.Radiated Spurious Emission

Refer to original report for other test categories. Test report number: 24070407-TRFCC04& 24110305-TRFCC04



2. Test Configuration of Equipment under Test

2.1. Feature of Equipment under Test

Operation Frequency Range	BT / BLE: 2400-2483.5MHz WLAN:802.11b/g/n/ax: 2400-2483.5MHz 5GHz:802.11a/n/ac/ax:5150-5250MHz, 5250-5350MHz, 5470-5725MHz, 5725-5875MHz 6GHz: 802.11a/ax: 5925MHz~6425MHz, 6425MHz~6525MHz 6525MHz~6875MHz, 6875MHz~7125MHz
Center Frequency Range	BT / BLE: 2402MHz-2480MHz WLAN:802.11b/g/n/ax: 2412MHz-2462MHz 5GHz:802.11a/n/ac/ax:5180-5240MHz, 5260-5320MHz, 5500-5720MHz, 5745-5825MHz 6GHz: 802.11a/ax: 5955MHz~6415MHz, 6435MHz~6515MHz 6535MHz~6855MHz, 6875MHz~7115MHz
Modulation Type	BT: GFSK, $\pi/4$ -DQPSK, 8DPSK BLE: GFSK WLAN: 2.4GHz: 802.11b: CCK, DQPSK, DBPSK 802.11g/n: BPSK, QPSK, 16QAM, 64QAM 802.11ax: BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM 5GHz: 802.11a/n: BPSK, QPSK, 16QAM, 64QAM 802.11ac: BPSK, QPSK, 16QAM, 64QAM, 256QAM 802.11ax: BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM 6GHz 802.11a: BPSK, QPSK, 16QAM, 64QAM 802.11ax: BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM
Modulation Technology	DSSS, OFDM, FHSS, DTS, OFDMA
Data Rate	BT: GFSK: 1Mbps, $\pi/4$ -DQPSK: 2Mbps, 8DPSK: 3Mbps BLE: GFSK: 1Mbps, 2Mbps WLAN: 2.4GHz: 802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: MCS0 – MCS15, HT20/40 802.11ax: MCS0 – MCS11, HE20/40 5GHz: 802.11a: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: MCS0 – MCS15, HT20/40 802.11ac: MCS0 – MCS9, VHT20/40/80/160 802.11ax: MCS0 – MCS11, HE20/40/80/160 6GHz 802.11a: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11ax: MCS0 – MCS11, HE20/40/80/160
Antenna Type	PIFA Antenna



For 24110305

Antenna Gain (ESY10I1E)	For BT / BLE: 2400-2500MHz: ANT A: 2.01dBi For WLAN: 2400-2500MHz: ANT A: 2.01dBi, ANT B: 2.91dBi 5150-5250MHz: ANT A: 2.46dBi, ANT B: 2.22dBi 5250-5350MHz: ANT A: 2.19dBi, ANT B: 2.44dBi 5470-5725MHz: ANT A: 2.70dBi, ANT B: 2.38dBi 5725-5850MHz: ANT A: 2.70dBi, ANT B: 2.56dBi 5925-6425MHz:ANT A: 2.86dBi, ANT B: 2.54dBi 6425-6525MHz:ANT A: 2.72dBi, ANT B: 2.84dBi 6525-6875MHz:ANT A: 2.72dBi, ANT B: 2.84dBi 6875-7125MHz:ANT A: 2.46dBi, ANT B: 2.28dBi
Antenna Gain (ESY15I1E)	For BT / BLE: 2400-2500MHz: ANT A: 2.72dBi For WLAN: 2400-2500MHz: ANT A: 2.72dBi, ANT B: 2.42dBi 5150-5250MHz: ANT A: 2.44dBi, ANT B: 2.65dBi 5250-5350MHz: ANT A: 1.86dBi, ANT B: 2.69dBi 5470-5725MHz: ANT A: 2.83dBi, ANT B: 2.79dBi 5725-5850MHz: ANT A: 2.63dBi, ANT B: 2.79dBi 5925-6425MHz:ANT A: 2.53dBi, ANT B: 2.48dBi 6425-6525MHz:ANT A: 2.42dBi, ANT B: 2.44dBi 6525-6875MHz:ANT A: 2.42dBi, ANT B: 2.44dBi 6875-7125MHz:ANT A: 2.59dBi, ANT B: 2.44dBi
Antenna Gain (ESY22I1E)	For BT / BLE: 2400-2500MHz: ANT A: 2.32dBi For WLAN: 2400-2500MHz: ANT A: 2.32dBi, ANT B: 2.25dBi 5150-5250MHz: ANT A: 1.75dBi, ANT B: 2.17dBi 5250-5350MHz: ANT A: 2.34dBi, ANT B: 2.17dBi 5470-5725MHz: ANT A: 2.25dBi, ANT B: 2.35dBi 5725-5850MHz: ANT A: 2.65dBi, ANT B: 2.42dBi 5925-6425MHz:ANT A: 2.36dBi, ANT B: 2.58dBi 6425-6525MHz:ANT A: 2.38dBi, ANT B: 2.05dBi 6525-6875MHz:ANT A: 2.38dBi, ANT B: 2.47dBi 6875-7125MHz:ANT A: 2.28dBi, ANT B: 2.25dBi



For 25030004(New addition)

Antenna Gain (ESY10I1E)	For BT / BLE: 2400-2500MHz: ANT A: 0.79dBi For WLAN: 2400-2500MHz: ANT A: 0.79dBi, ANT B: 0.41dBi 5150-5250MHz: ANT A: 0.87dBi, ANT B: 0.92dBi 5250-5350MHz: ANT A: 0.74dBi, ANT B: 1.01dBi 5470-5725MHz: ANT A: 1.16dBi, ANT B: 1.18dBi 5725-5850MHz: ANT A: 1.09dBi, ANT B: 1.30dBi 5925-6425MHz: ANT A: 1.54dBi, ANT B: 1.49dBi 6425-6525MHz: ANT A: 1.53dBi, ANT B: 1.49dBi, 6525-6875MHz: ANT A: 1.43dBi, ANT B: 1.35dBi, 6875-7125MHz: ANT A: 1.44dBi, ANT B: 1.57dBi,
Antenna Gain (ESY15I1E)	For BT / BLE: 2400-2500MHz: ANT A: 1.45dBi For WLAN: 2400-2500MHz: ANT A: 1.45dBi, ANT B: 1.37dBi 5150-5250MHz: ANT A: 1.65dBi, ANT B: 2.03dBi 5250-5350MHz: ANT A: 1.17dBi, ANT B: 2.20dBi 5470-5725MHz: ANT A: 2.08dBi, ANT B: 2.05dBi 5725-5850MHz: ANT A: 2.01dBi, ANT B: 2.07dBi 5925-6425MHz: ANT A: 1.69dBi, ANT B: 2.52dBi, 6425-6525MHz: ANT A: 1.48dBi, ANT B: 2.04dBi, 6525-6875MHz: ANT A: 1.54dBi, ANT B: 2.04dBi, 6875-7125MHz: ANT A: 1.45dBi, ANT B: 1.88dBi,
Antenna Gain (ESY22I1E)	For BT / BLE: 2400-2500MHz: ANT A: 0.75dBi For WLAN: 2400-2500MHz: ANT A: 0.75dBi, ANT B: 0.97dBi 5150-5250MHz: ANT A: 1.49dBi, ANT B: 1.12dBi 5250-5350MHz: ANT A: 1.18dBi, ANT B: 1.12dBi 5470-5725MHz: ANT A: 1.02dBi, ANT B: 1.08dBi 5725-5850MHz: ANT A: 1.24dBi, ANT B: 1.66dBi 5925-6425MHz: ANT A: 1.25dBi, ANT B: 1.39dBi, 6425-6525MHz: ANT A: 1.41dBi, ANT B: 0.97dBi, 6525-6875MHz: ANT A: 1.41dBi, ANT B: 1.29dBi, 6875-7125MHz: ANT A: 1.75dBi, ANT B: 1.77dBi,

EUT powered by

Adapter	ESY10I1E	ESY15I1E	ESY22I1E
Brand: Billion Model: BA090-190474MBX	☒	☒	☒
Brand: Billion Model: BA070-190342MBX	☒	☒	☒
Brand: Delta Model: ADP-65JH HB	☒	☒	☒



For (E554932 KIT, Z20-POS-STAND-GEN2-10 & E767356 KIT, Z20-POS-STAND-GEN2-15):
Flip Stand Without Panel powered by

Adapter	ESY10I1E	ESY15I1E	ESY22I1E
Brand: Billion Model: BS180-240625MBX	☒	☒	☐
Brand: Delta Model: ADP-150EH B	☒	☒	☐
Brand: Billion Model: BA090-240375MBX	☒	☐	☐

For (KIT, Z20-POS-STAND):
Flip Stand Without Panel powered by

Adapter	ESY10I1E	ESY15I1E
Brand: Delta Model: ADP-150EH B	☒	☒
Brand: Billion Model: BS180-240625MBX	☒	☒

For 24110305

Power Cable(EU)*2	Brand: I-SHENG Model: CAB-PWR-EU-3 LOBE-1.8M-BLK-R
Power Cable(US)*2	Brand: I-SHENG Model: CAB-PWR-US-3 LOBE-1.8M-BLK-R
Flip Stand Without Panel (For ESY10I1E)	Brand: ELO Model: E554932 KIT, Z20-POS-STAND-GEN2-10
	Brand: ELO Model: KIT, Z20-POS-STAND
Flip Stand Without Panel (For ESY15I1E)	Brand: ELO Model: E767356 KIT, Z20-POS-STAND-GEN2-15
	Brand: ELO Model: KIT, Z20-POS-STAND
Type-C Cable	Brand: Hotron Model: E113033 CAB, USB-C TO USB-C, Z20 Gen2 15,330mm,HT
Poe Module	Brand: ELO Model: E669163, ELO-KIT-POE-ADAPTER-5.0
Panel (ESY10I1E)	Brand: BOE Model: TV101WUM-NH3 Brand: AUO Model: G101UAN4.0
Panel (ESY15I1E)	Brand: BOE Model: BOE PV156FHM-N20 Brand: LG Model: LP156WFC-SPDZ
Panel (ESY22I1E)	Brand: LG Model: M215WF3-SLS2 Brand: AUO Model: M215HAN01.2



For 25030004(New addition)

Power Cable(EU)*2	Brand: I-SHENG Model: CAB-PWR-EU-3 LOBE-1.8M-BLK-R
Power Cable(US)*2	Brand: I-SHENG Model: CAB-PWR-US-3 LOBE-1.8M-BLK-R
Type-C Cable	Brand: Hotron Model: E113033 CAB, USB-C TO USB-C, Z20 Gen2 15,330mm,HT
Panel (ESY1011E)	Brand: BOE Model: TV101WUM-NH3 Brand: AUO Model: G101UAN4.0
Panel (ESY1511E)	Brand: BOE Model: BOE PV156FHM-N20 Brand: LG Model: LP156WFC-SPDZ Brand: BOE Model: PV156FHM-N30(New addition) Brand: AUO Model: A156HAN01.1(New addition)
Panel (ESY2211E)	Brand: LG Model: M215WF3-SLS2 Brand: AUO Model: M215HAN01.2

Note:

1. EUT support TPC Function.
2. EUT supports DFS Client Mode, without radar detection.
3. WLAN and BT can simultaneously transmission.
4. The device not support Channel Puncturing or Bandwidth Reduction mechanisms supported
5. 802.11ax EUT Only Support Full RU
6. EUT Operating mode : Indoor Client.
7. For more details, please refer to the User's manual of the EUT.

Difference description:

For 24110305

Model No.	Remark
ESY1011E	Only different sizes, other circuits, layout, product specifications are all the same.
ESY1511E	
ESY2211E	

For 25030004(New addition)

Model No.	Remark
ESY1011E	Only different sizes, other circuits, layout, product specifications are all the same. For details, please see chapter 1.1.
ESY1511E	
ESY2211E	

Note: ESY2211E(built-in PoE) was the worst case, so it was used for the test result.



2.2. Carrier Frequency of Channels

Band: 5150MHz-5250MHz

802.11a, 802.11n HT20, 802.11ac VHT20, 802.11ax HE20

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*36	5180	44	5220
*40	5200	*48	5240

802.11n HT40, 802.11ac VHT40, 802.11ax HE40

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*38	5190	*46	5230

802.11ac VHT80, 802.11ax HE80

Channel	Frequency(MHz)
*42	5210

802.11ac VHT160, 802.11ax HE160

Channel	Frequency(MHz)
*50	5250

Band: 5250MHz-5350MHz

802.11a, 802.11n HT20, 802.11ac VHT20, 802.11ax HE20

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*52	5260	*60	5300
56	5280	*64	5320

802.11n HT40, 802.11ac VHT40, 802.11ax HE40

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*54	5270	*62	5310

802.11ac VHT80, 802.11ax HE80

Channel	Frequency(MHz)
*58	5290

Band: 5470MHz-5725MHz

802.11a, 802.11n HT20, 802.11ac VHT20, 802.11ax HE20

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*100	5500	124	5620
104	5520	128	5640
108	5540	132	5660
112	5560	136	5680
116	5580	*140	5700
*120	5600		

802.11n HT40, 802.11ac VHT40, 802.11ax HE40

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*102	5510	126	5630
110	5550	*134	5670
*118	5590		

802.11ac VHT80, 802.11ax HE80

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*106	5530	*122	5610

802.11ac VHT160, 802.11ax HE160

Channel	Frequency(MHz)
*114	5570



Band 3: Straddle Channel

802.11a, 802.11n HT 20, 802.11ac VHT20, 802.11ax HE20

Channel	Frequency(MHz)
*144	5720

802.11n HT40, 802.11ac VHT40, 802.11ax HE40

Channel	Frequency(MHz)
*142	5710

802.11ac VHT80, 802.11ax HE80

Channel	Frequency(MHz)
*138	5690

Band: 5725MHz-5850MHz

802.11a, 802.11n HT20, 802.11ac VHT20, 802.11ax HE20

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*149	5745	161	5805
153	5765	*165	5825
*157	5785		

802.11n HT40, 802.11ac VHT40, 802.11ax HE40

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*151	5755	*159	5795

802.11ac VHT80, 802.11ax HE80

Channel	Frequency(MHz)
*155	5775

Note: Channels remarked * are selected to perform test.



2.3. Test Mode and Test Software

- During testing, the interface cables and equipment positions were varied according to ANSI C63.10.
- The complete test system included remote workstation and EUT for RF test. The remote workstation included Notebook.
- An executive program, " QRCT V4.0-00189" under Windows OS system was executed to transmit and receive data via WLAN.
- The following test modes were performed for the test:

Conducted Emissions from the AC mains power ports	
Test Mode	Operating Description
1	802.11a (6Mbps)
2	802.11ax HE20 (7.3Mbps)
3	802.11ax HE40 (14.6Mbps)
4	802.11ax HE80 (30.6Mbps)
5	802.11ax HE160 (30.6Mbps)
caused "Test Mode 2" generated the worst case, it was reported as the final data.	
Radiation Emissions (9KHz ~30MHz & 30MHz ~ 1GHz)	
Test Mode	Operating Description
1	802.11a (6Mbps)
2	802.11ax HE20 (7.3Mbps)
3	802.11ax HE40 (14.6Mbps)
4	802.11ax HE80 (30.6Mbps)
5	802.11ax HE160 (30.6Mbps)
caused "Test Mode 2" generated the worst case, it was reported as the final data.	
Radiation Emissions (1GHz ~ 40GHz)	
Test Mode	Operating Description
1	802.11a (6Mbps)
2	802.11ax HE20 (7.3Mbps)
3	802.11ax HE40 (14.6Mbps)
4	802.11ax HE80 (30.6Mbps)
5	802.11ax HE160 (30.6Mbps)
caused "Test Mode 1~4" generated the worst case, they were reported as the final data.	

Note: There are two kinds of test voltage: AC 120V / 60Hz and AC 240V / 60Hz.

For AC Power Line Conducted Emission, AC 240V / 60Hz is worst case.

For Radiated Spurious Emission, AC 240V / 60Hz is worst case.

There are three types of Adapters+one PoE power supply mode.

After engineering evaluation:

For AC Power Line Conducted Emission, JS-100GT is worst case.

For Radiated Spurious Emission, ADP-65JH HB worst case.

Adapter	Brand: Delta Model: ADP-65JH HB
Adapter	Brand: Billion Model: BA090-190474MBX
Adapter	Brand: Billion Model: BA070-190342MBX
PoE	Brand: Bluewave Model: JS-100GT



There are two types of Panels: AUO&LG. After engineering evaluation, AUO is worst case, hence, is used at test report.

Panel	Brand: LG Model: M215WF3-SLS2 Brand: AUO Model: M215HAN01.2
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The EUT incorporates a MIMO function

Modulation Type	TX CONFIGURATION
802.11a	1TX(Diversity)
802.11n HT20	2TX
802.11n HT40	2TX
802.11ac VHT20	2TX
802.11ac VHT40	2TX
802.11ac VHT80	2TX
802.11ac VHT160	2TX
802.11ax HE20	2TX
802.11ax HE40	2TX
802.11ax HE80	2TX
802.11ax HE160	2TX

**2.4. Description of Test System**

RF Conducted				
Equipment	Brand	Model	Length/Type	Power cord/Length/Type
Notebook	Lenovo	L440	N/A	Adapter / 1.8m / NS
USB Cable (A to A)	BENEVO	E210567AWM	1m / NS	N/A
POE	Bluewave	JS-100GT	N/A	N/A
Radiated Emissions				
Equipment	Brand	Model	Length/Type	Power cord/Length/Type
Notebook	DELL	P73G	N/A	Adapter / 1.8m / NS
USB Cable (A to A)	BENEVO	E210567AWM	1m / NS	N/A
POE	Bluewave	GP-V480-032G	N/A	N/A
RJ45 Cable	N/A	N/A	1.2m / NS	N/A
AC Power Line Conducted Emission				
Equipment	Brand	Model	Length/Type	Power cord/Length/Type
Notebook	AUAS	P2430U	N/A	Adapter / 1.8m / NS
USB Cable (A to A)	BENEVO	E210567AWM	1m / NS	N/A
POE	Bluewave	JS-100GT	N/A	N/A
RJ45 Cable	N/A	N/A	1.2m / NS	N/A



2.5. General Information of Test

Organization	Cerpass Technology Corp.		
☒ Test Site	Cerpass Technology Corporation Test Laboratory Address: No.10, Ln. 2, Lianfu St., Luzhu Dist., Taoyuan City 33848, Taiwan (R.O.C.) Tel: +886-3-3226-888 Fax: +886-3-3226-881		
	FCC	TW1439, TW1079	
	IC	4934E-1, 4934E-2	
Frequency Range Investigated	Conducted: from 150kHz to 30 MHz Radiation: from 30 MHz to 40,000MHz		
Test Distance	The test distance of radiated emission from antenna to EUT is 3 M.		

Test Item	Test Site	Test period	Environmental Conditions	Tested By
RF Conducted	RFCON01-NK	2025/05/08	25.8°C / 47%	Leon Huang
RF Conducted	RFCON01-NK	2025/05/28	24.6°C / 49%	Leon Huang
Radiated Emissions	3M02-NK	2025/04/23	21.3°C / 52%	Park Chen
Radiated Emissions	3M02-NK	2025/04/24	21.1°C / 50%	Park Chen
Radiated Emissions	3M02-NK	2025/04/25	19.1°C / 61%	Leon Huang
AC Power Line Conducted Emission	CON02-NK	2025/04/26	22.3°C / 59%	Leon Huang



2.6. Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

Measurement Item	Uncertainty
AC Power Line Conduction(150K~30MHz)	±3.2dB
Radiated Spurious Emission(9KHz~30MHz)	±3.5dB
Radiated Spurious Emission(30MHz~1GHz)	±5.1dB
Radiated Spurious Emission(1GHz~40GHz)	±5.2dB
6dB Bandwidth	±5.4%
26dB Bandwidth	±4.4%
Occupied Bandwidth	±4.5%
Peak Output Power(Conducted Power Meter)	±1.1dB
Power Spectral Density	±2.0dB
Duty Cycle	±3.5%
Frequency Stability	±0.23KHz



3. Test Equipment and Ancillaries Used for Tests

Test Item	Radiated Emissions				
Test Site	Semi Anechoic Room(3M02-NK)				
Instrument	Manufacturer	Model No	Serial No	Calibration Date	Valid Date
Bilog Antenna	Sunol	JB1	A020514-1	2024/05/17	2025/05/16
Active Loop Antenna	EMCO	6507	00040855	2024/05/02	2025/05/01
Horn Antenna	EMCO	3116	31974	2025/02/20	2026/02/19
Horn Antenna	EMCO	3115	31589	2024/06/27	2025/06/26
Spectrum Analyzer	ROHDE & SCHWARZ	FSV 40-N	102151	2024/08/22	2025/08/21
EMI Receiver	ROHDE & SCHWARZ	ESR 7	101906	2024/05/13	2025/05/12
Preamplifier	EMC INSTRUMENTS	EMC118A45V1SEE	980993	2024/10/24	2025/10/23
Preamplifier	EMC INSTRUMENTS	EMC184045	980065	2024/10/15	2025/10/14
Preamplifier	EM Electronics corp.	EM330	60820	2024/06/14	2025/06/13
Cable-4m(9k-3G)	EMEC	RG-223	18274M	2024/08/08	2025/08/07
Cable-3in1(30M-1G)	HARBOUR INDUSTRIES	LL142	CCE1315	2025/02/21	2026/02/20
Cable-0.5m(1G-40G)	HUBER SUHNER	SUCOFLEX 104	805443/4	2025/02/26	2026/02/25
Cable-3m(1G-40G)	HUBER SUHNER	SUCOFLEX 104	805796/4	2025/02/26	2026/02/25
Cable-8m(1G-26.5G)	WOKEN	WCBA-WCA203SM	CCE1374	2025/02/26	2026/02/25
Cable-3m(10M-40G)	HUBER SUHNER	SF102	804619/2	2024/10/14	2025/10/13
Cable-1m(10M-40G)	HUBER SUHNER	SF102	804398/2	2024/10/14	2025/10/13
Highpass Filter	Warison	WFIL-H7500-18000F	WRQ4BFWC2 J1	2025/02/21	2026/02/20
Notch Filter	Warison	WFIL-N5925-7125F-04	WRQ4BFWC4 M1	2025/02/11	2026/02/10
Highpass Filter	WOKEN	WFIL-H3000-18000F-03	WR377WC2B1	2024/10/15	2025/10/14
E3	AUDIX	v8.2014-8-6	RK-000529	NA	NA
E3	AUDIX	v8.2014-8-6	RK-000529	NA	NA
Highpass Filter	WOKEN	WFIL-H3000-18000F-03	WR377WC2B1	2024/10/15	2025/10/14

Test Item	RF Conducted				
Test Site	RFCON01-NK				
Instrument	Manufacturer	Model No	Serial No	Calibration Date	Valid Date
Spectrum Analyzer	ROHDE & SCHWARZ	FSP 40	100047	2025/03/03	2026/03/02
Attenuator	KEYSIGHT	8491B	MY39250703	2025/02/12	2026/02/11
Cable-0.5m(1G-26.5G)	HUBER SUHNER	SUCOFLEX 102	28422/2	2024/05/13	2025/05/12
Power Meter	Anritsu	ML2495A	1224005	2025/02/12	2026/02/11
Power Sensor	Anritsu	MA2411B	1207295	2025/02/12	2026/02/11
Switch Box	Theda	1-4	TW5451159	NA	NA



Test Item	AC Power Line Conducted Emission				
Test Site	CON02-NK				
Instrument	Manufacturer	Model No	Serial No	Calibration Date	Valid Date
EMI Receiver	ROHDE & SCHWARZ	ESR 7	101906	2024/05/13	2025/05/12
Cable-4m(9k-3G)	EMEC	RG-223	18274M	2024/08/08	2025/08/07
Line Impedance Stabilization Network	Schwarzbeck	NSLK 8127	8127740	2024/08/27	2025/08/26
Two-Line V-Network	ROHDE & SCHWARZ	ENV216	102185	2024/08/27	2025/08/26
E3	AUDIX	v8.2014-8-6	RK-000531	NA	NA



4. Antenna Requirements

4.1. Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.407 (a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.



4.2. Antenna Construction and Directional Gain

Antenna Type	PIFA Antenna
Antenna Gain (ESY10I1E)	5150-5250MHz: ANT A: 0.87dBi, ANT B: 0.92dBi 5250-5350MHz: ANT A: 0.74dBi, ANT B: 1.01dBi 5470-5725MHz: ANT A: 1.16dBi, ANT B: 1.18dBi 5725-5850MHz: ANT A: 1.09dBi, ANT B: 1.30dBi
Antenna Gain (ESY15I1E)	5150-5250MHz: ANT A: 1.65dBi, ANT B: 2.03dBi 5250-5350MHz: ANT A: 1.17dBi, ANT B: 2.20dBi 5470-5725MHz: ANT A: 2.08dBi, ANT B: 2.05dBi 5725-5850MHz: ANT A: 2.01dBi, ANT B: 2.07dBi
Antenna Gain (ESY22I1E)	5150-5250MHz: ANT A: 1.49dBi, ANT B: 1.12dBi 5250-5350MHz: ANT A: 1.18dBi, ANT B: 1.12dBi 5470-5725MHz: ANT A: 1.02dBi, ANT B: 1.08dBi 5725-5850MHz: ANT A: 1.24dBi, ANT B: 1.66dBi



SISO-ANT A (ESY10I1E)

5150-5250MHz
For Power directional gain= $G_{ant}= 0.87(\text{dBi})$ For PSD directional gain = $G_{ant}=0.87(\text{dBi})$
5250-5350MHz
For Power directional gain= $G_{ant}= 0.74(\text{dBi})$ For PSD directional gain = $G_{ant}=0.74(\text{dBi})$
5470-5725MHz
For Power directional gain= $G_{ant}= 1.16(\text{dBi})$ For PSD directional gain = $G_{ant}=1.16(\text{dBi})$
5725-5850MHz
For Power directional gain= $G_{ant}= 1.09(\text{dBi})$ For PSD directional gain = $G_{ant}=1.09(\text{dBi})$

SISO-ANT B(ESY10I1E)

5150-5250MHz
For Power directional gain= $G_{ant}= 0.92(\text{dBi})$ For PSD directional gain = $G_{ant}=0.92(\text{dBi})$
5250-5350MHz
For Power directional gain= $G_{ant}= 1.01(\text{dBi})$ For PSD directional gain = $G_{ant}=1.01(\text{dBi})$
5470-5725MHz
For Power directional gain= $G_{ant}= 1.18(\text{dBi})$ For PSD directional gain = $G_{ant}=1.18(\text{dBi})$
5725-5850MHz
For Power directional gain= $G_{ant}= 1.3(\text{dBi})$ For PSD directional gain = $G_{ant}=1.3(\text{dBi})$

MIMO (ESY10I1E)

5150-5250MHz
For Power directional gain= $G_{ant}= 0.92(\text{dBi})$ For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 3.91(\text{dBi})$
5250-5350MHz
For Power directional gain= $G_{ant}= 1.01(\text{dBi})$ For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 3.89(\text{dBi})$
5470-5725MHz
For Power directional gain= $G_{ant}= 1.18(\text{dBi})$ For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 4.18(\text{dBi})$
5725-5850MHz
For Power directional gain= $G_{ant}= 1.30(\text{dBi})$ For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 4.21(\text{dBi})$

*MIMO type: Cyclic Delay Diversity (CDD) mode.



SISO-ANT A (ESY15I1E)

5150-5250MHz
For Power directional gain= $G_{ant}= 1.65(\text{dBi})$ For PSD directional gain = $G_{ant}=1.65(\text{dBi})$
5250-5350MHz
For Power directional gain= $G_{ant}= 1.17(\text{dBi})$ For PSD directional gain = $G_{ant}=1.17(\text{dBi})$
5470-5725MHz
For Power directional gain= $G_{ant}= 2.08(\text{dBi})$ For PSD directional gain = $G_{ant}=2.08(\text{dBi})$
5725-5850MHz
For Power directional gain= $G_{ant}= 2.01(\text{dBi})$ For PSD directional gain = $G_{ant}=2.01(\text{dBi})$

SISO-ANT B(ESY15I1E)

5150-5250MHz
For Power directional gain= $G_{ant}= 2.03(\text{dBi})$ For PSD directional gain = $G_{ant}=2.03(\text{dBi})$
5250-5350MHz
For Power directional gain= $G_{ant}= 2.2(\text{dBi})$ For PSD directional gain = $G_{ant}=2.2(\text{dBi})$
5470-5725MHz
For Power directional gain= $G_{ant}= 2.05(\text{dBi})$ For PSD directional gain = $G_{ant}=2.05(\text{dBi})$
5725-5850MHz
For Power directional gain= $G_{ant}= 2.07(\text{dBi})$ For PSD directional gain = $G_{ant}=2.07(\text{dBi})$

MIMO (ESY15I1E)

5150-5250MHz
For Power directional gain= $G_{ant}= 2.03 (\text{dBi})$ For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 4.85(\text{dBi})$
5250-5350MHz
For Power directional gain= $G_{ant}= 2.20(\text{dBi})$ For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 4.71(\text{dBi})$
5470-5725MHz
For Power directional gain= $G_{ant}= 2.08(\text{dBi})$ For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 5.08(\text{dBi})$
5725-5850MHz
For Power directional gain= $G_{ant}= 2.07(\text{dBi})$ For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 5.05(\text{dBi})$

*MIMO type: Cyclic Delay Diversity (CDD) mode.



SISO-ANT A (ESY22I1E)

5150-5250MHz
For Power directional gain= $G_{ant}= 1.49(\text{dBi})$ For PSD directional gain = $G_{ant}=1.49(\text{dBi})$
5250-5350MHz
For Power directional gain= $G_{ant}= 1.18(\text{dBi})$ For PSD directional gain = $G_{ant}=1.18(\text{dBi})$
5470-5725MHz
For Power directional gain= $G_{ant}= 1.02(\text{dBi})$ For PSD directional gain = $G_{ant}=1.02(\text{dBi})$
5725-5850MHz
For Power directional gain= $G_{ant}= 1.24(\text{dBi})$ For PSD directional gain = $G_{ant}=1.24(\text{dBi})$

SISO-ANT B(ESY22I1E)

5150-5250MHz
For Power directional gain= $G_{ant}= 1.12(\text{dBi})$ For PSD directional gain = $G_{ant}=1.12(\text{dBi})$
5250-5350MHz
For Power directional gain= $G_{ant}=1.12(\text{dBi})$ For PSD directional gain = $G_{ant}=1.12(\text{dBi})$
5470-5725MHz
For Power directional gain= $G_{ant}= 1.08(\text{dBi})$ For PSD directional gain = $G_{ant}=1.08(\text{dBi})$
5725-5850MHz
For Power directional gain= $G_{ant}= 1.66(\text{dBi})$ For PSD directional gain = $G_{ant}=1.66(\text{dBi})$

MIMO (ESY22I1E)

5150-5250MHz
For Power directional gain= $G_{ant}= 1.49 (\text{dBi})$ For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 4.32(\text{dBi})$
5250-5350MHz
For Power directional gain= $G_{ant}= 1.18(\text{dBi})$ For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 4.16(\text{dBi})$
5470-5725MHz
For Power directional gain= $G_{ant}= 1.08(\text{dBi})$ For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 4.06(\text{dBi})$
5725-5850MHz
For Power directional gain= $G_{ant}= 1.66(\text{dBi})$ For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 4.46(\text{dBi})$

*MIMO type: Cyclic Delay Diversity (CDD) mode.



5. Test of AC Power Line Conducted Emission

5.1. Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz, according to the methods defined in ANSI C63.10-2013. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

Frequency (MHz)	Quasi Peak (dB μ V)	Average (dB μ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

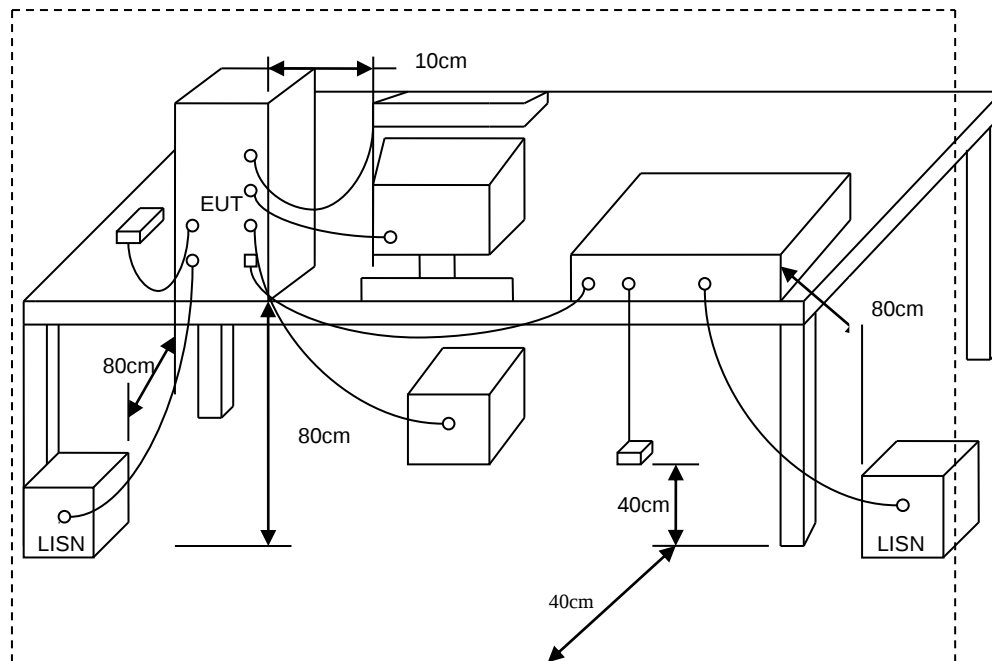
*Decreases with the logarithm of the frequency.

5.2. Test Procedures

- The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- Connect EUT to the power mains through a line impedance stabilization network (LISN).
- All the support units are connecting to the other LISN.
- The LISN provides 50 ohm coupling impedance for the measuring instrument.
- The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
- Both sides of AC line were checked for maximum conducted interference.
- The frequency range from 150 kHz to 30 MHz was searched.
- Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.



5.3. Typical Test Setup

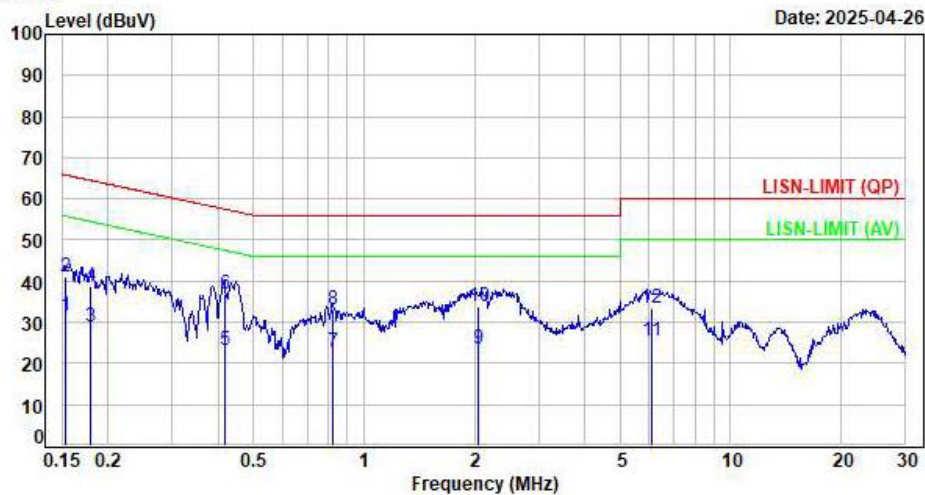




5.4. Test Result and Data

Test Mode : 2TX 11ax20 CH52 NSS1 MCS0
Voltage : From POE(AC 240V/60Hz)
Phase : Line

Data: 3



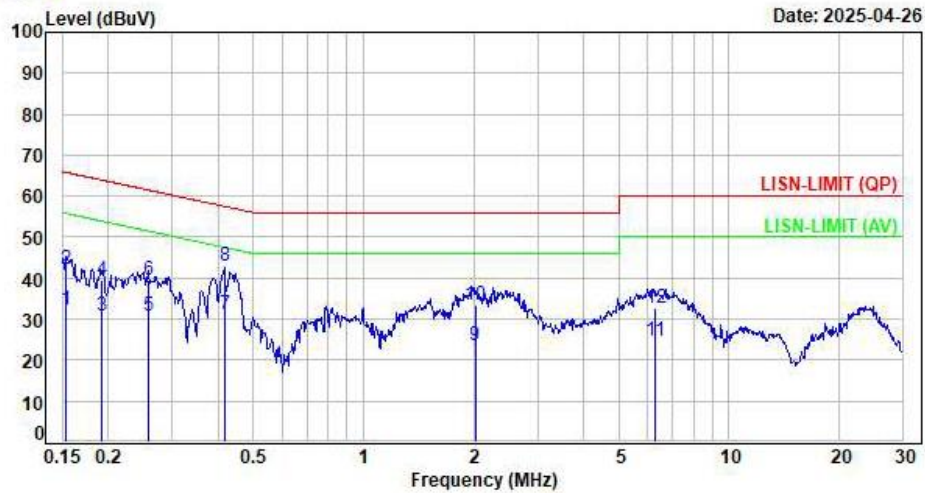
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1540	9.63	21.79	31.42	55.78	-24.36	Average	P
2	0.1540	9.63	31.27	40.90	65.78	-24.88	QP	P
3	0.1802	9.63	19.21	28.84	54.48	-25.64	Average	P
4	0.1802	9.63	29.13	38.76	64.48	-25.72	QP	P
5	0.4186	9.65	13.63	23.28	47.48	-24.20	Average	P
6	0.4186	9.65	27.39	37.04	57.48	-20.44	QP	P
7	0.8247	9.65	13.29	22.94	46.00	-23.06	Average	P
8	0.8247	9.65	23.36	33.01	56.00	-22.99	QP	P
9	2.0415	9.69	13.97	23.66	46.00	-22.34	Average	P
10	2.0415	9.69	24.20	33.89	56.00	-22.11	QP	P
11	6.0687	9.77	15.83	25.60	50.00	-24.40	Average	P
12	6.0687	9.77	23.81	33.58	60.00	-26.42	QP	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=(LISN or ISN or Current Probe)Factor + Cable Loss



Test Mode : 2TX 11ax20 CH52 NSS1 MCS0
Voltage : From POE(AC 240V/60Hz)
Phase : Neutral

Data: 4



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1534	9.61	22.77	32.38	55.81	-23.43	Average	P
2	0.1534	9.61	32.41	42.02	65.81	-23.79	QP	P
3	0.1926	9.61	21.18	30.79	53.92	-23.13	Average	P
4	0.1926	9.61	29.81	39.42	63.92	-24.50	QP	P
5	0.2570	9.61	21.31	30.92	51.53	-20.61	Average	P
6	0.2570	9.61	29.78	39.39	61.53	-22.14	QP	P
7	0.4165	9.62	21.71	31.33	47.52	-16.19	Average	P
8	0.4165	9.62	33.54	43.16	57.52	-14.36	QP	P
9	2.0199	9.68	13.83	23.51	46.00	-22.49	Average	P
10	2.0199	9.68	23.71	33.39	56.00	-22.61	QP	P
11	6.2856	9.77	14.94	24.71	50.00	-25.29	Average	P
12	6.2856	9.77	22.95	32.72	60.00	-27.28	QP	P

Note: Level=Reading+Factor

Margin=Level-Limit

Factor=(LISN or ISN or Current Probe)Factor + Cable Loss



6. Test of Spurious Emission (Radiated)

6.1. Test Limit

Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band:
All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27dBm/MHz at the band edge.
- (5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
- (6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.
- (7) The provisions of §15.205 apply to intentional radiators operating under this section.
- (8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.



6.2. Test Procedures

- a. The EUT was placed on a rotatable table top 0.8 meter above ground.
- b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
- e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
- f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.
- h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- i. "Cone of radiation" has been considered to be 3dB bandwidth of the measurement antenna.

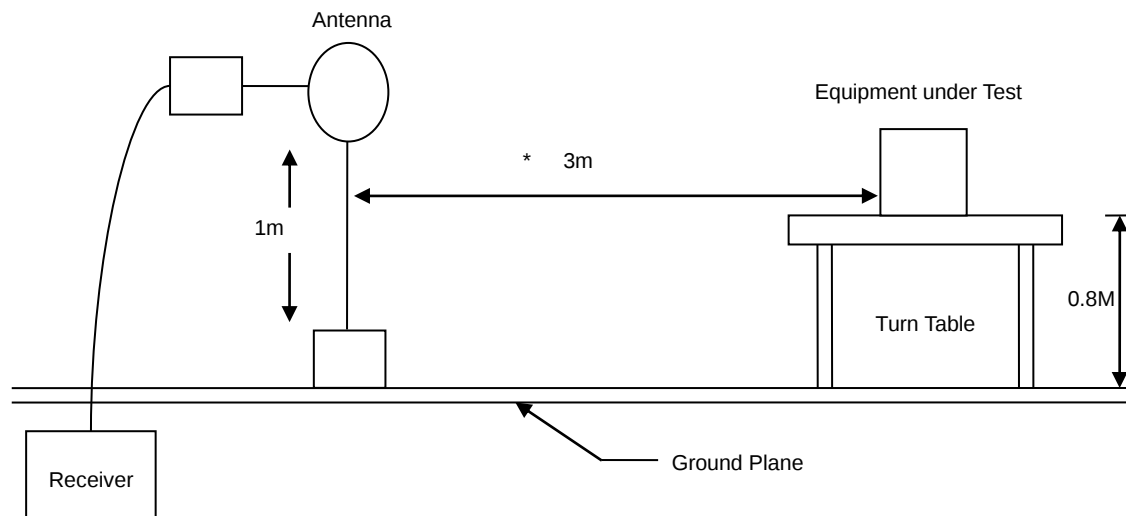
Note:

- 1.The supporting fixture shall permit orientation of the EUT in each of three orthogonal axis positions such that emissions from the EUT are maximized.
(Y-AXIS is the worst.)
- 2.Due to the test software function limit the operation band setting(200dBuV/m). There's no corresponding limitation in the actual test item.

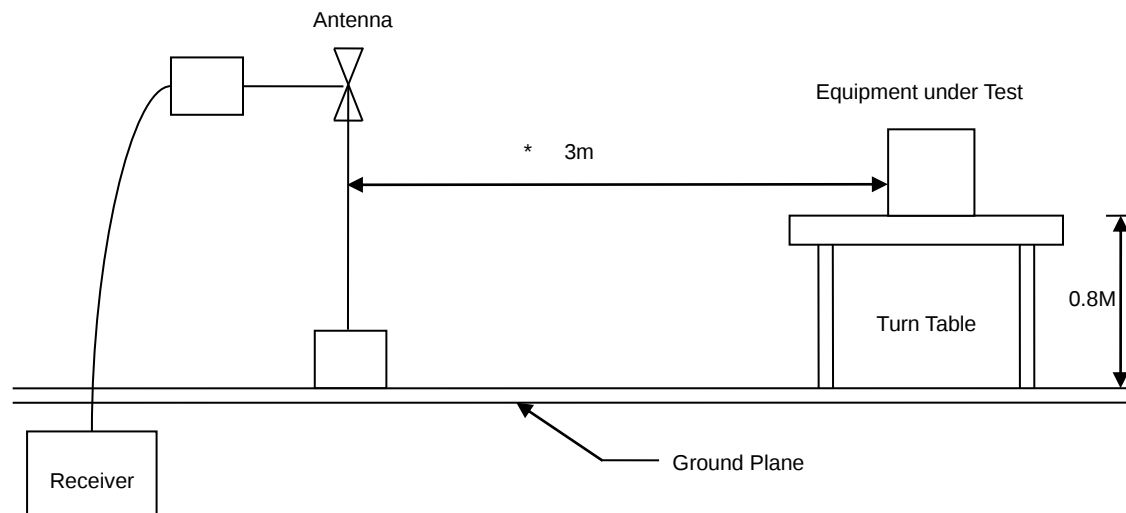


6.3. Typical Test Setup

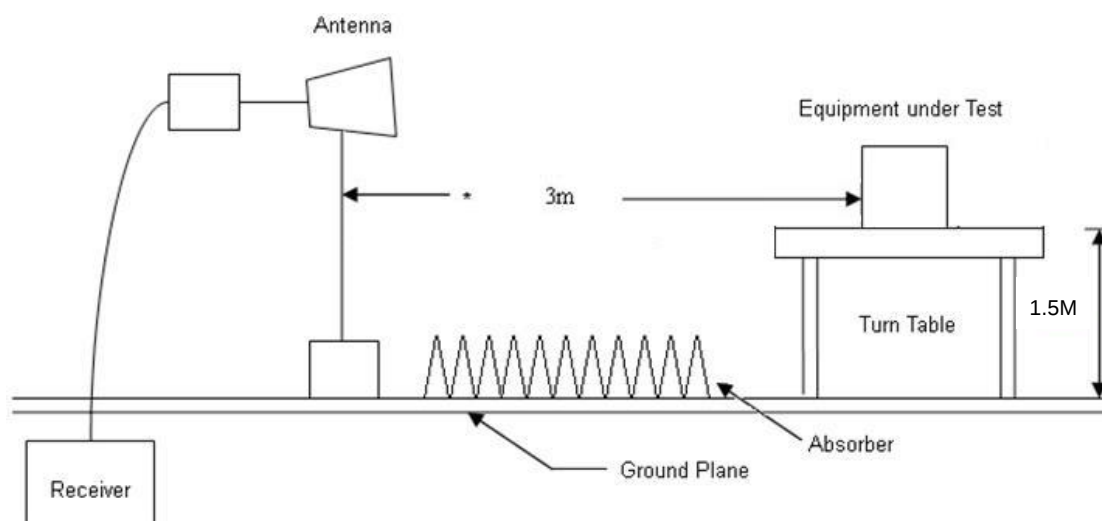
Below 30MHz test setup



30MHz- 1GHz Test Setup



Above 1GHz Test Setup



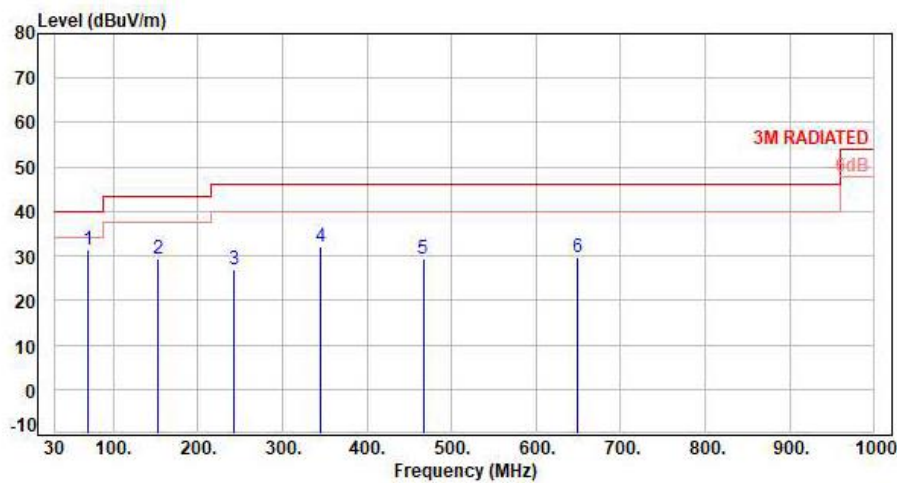


6.4. Test Result and Data (9kHz ~ 30MHz)

The 9kHz - 30MHz spurious emission is under limit 20dB more.

6.5. Test Result and Data (30MHz ~ 1GHz)

Test Mode : 2TX 11ax20 CH52 NSS1 MCS0
Voltage : From Adapter(AC240V/60Hz)
Pol : Vertical



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	70.74	-12.26	43.51	31.25	40.00	-8.75	Peak	400	360	P
2	152.22	-9.76	39.06	29.30	43.50	-14.20	Peak	400	360	P
3	243.40	-10.71	37.69	26.98	46.00	-19.02	Peak	400	360	P
4	344.28	-6.57	38.79	32.22	46.00	-13.78	Peak	400	360	P
5	466.50	-3.59	32.86	29.27	46.00	-16.73	Peak	400	360	P
6	648.86	0.13	29.52	29.65	46.00	-16.35	Peak	400	360	P

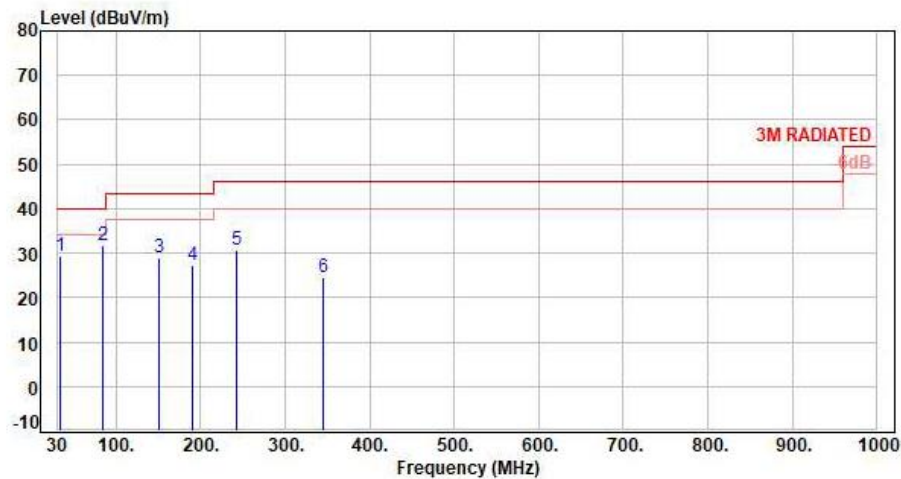
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Test Mode : 2TX 11ax20 CH52 NSS1 MCS0
Voltage : From Adapter(AC240V/60Hz)
Pol : Horizontal



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	34.85	-10.17	39.35	29.18	40.00	-10.82	Peak	400	0	P
2	84.32	-15.37	47.03	31.66	40.00	-8.34	Peak	400	0	P
3	150.28	-9.75	38.85	29.10	43.50	-14.40	Peak	400	0	P
4	191.02	-11.69	39.10	27.41	43.50	-16.09	Peak	400	0	P
5	243.40	-10.71	41.48	30.77	46.00	-15.23	Peak	400	0	P
6	344.28	-6.57	31.03	24.46	46.00	-21.54	Peak	400	0	P

Note: Level=Reading+Factor

Margin=Level-Limit

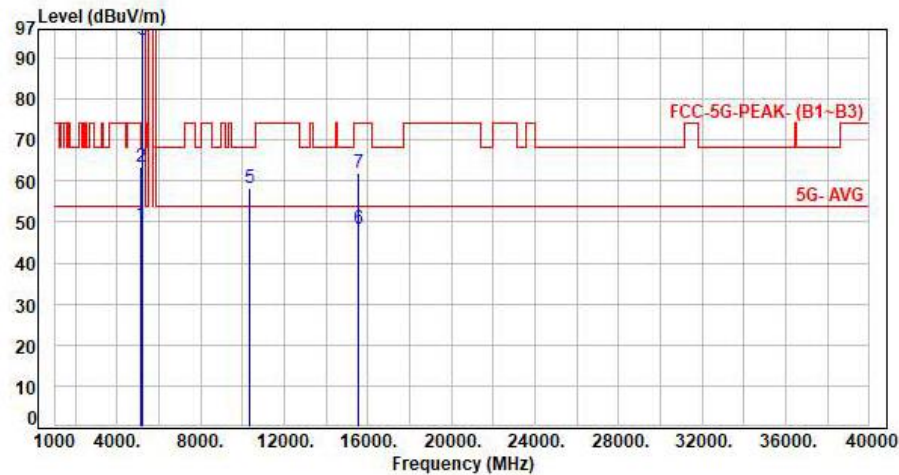
Factor=Antenna Factor + cable loss - Amplifier Factor



6.6. Test Result and Data (1GHz ~ 40GHz)

SISO ANT A / B1

Test Mode : 1TX 11a CH36 6Mbps
Voltage : From Adapter(AC120V/60Hz)
Pol : Vertical



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	7.18	42.21	49.39	54.00	-4.61	Average	102	212	P
2	5150.00	7.18	56.20	63.38	74.00	-10.62	Peak	102	212	P
3	5180.00	7.25	87.15	94.40	200.00	-105.60	Average	102	212	P
4	5180.00	7.25	98.43	105.68	200.00	-94.32	Peak	102	212	P
5	10360.00	15.21	43.10	58.31	68.20	-9.89	Peak	100	182	P
6	15540.00	19.80	28.60	48.40	54.00	-5.60	Average	100	305	P
7	15540.00	19.80	42.17	61.97	74.00	-12.03	Peak	100	305	P

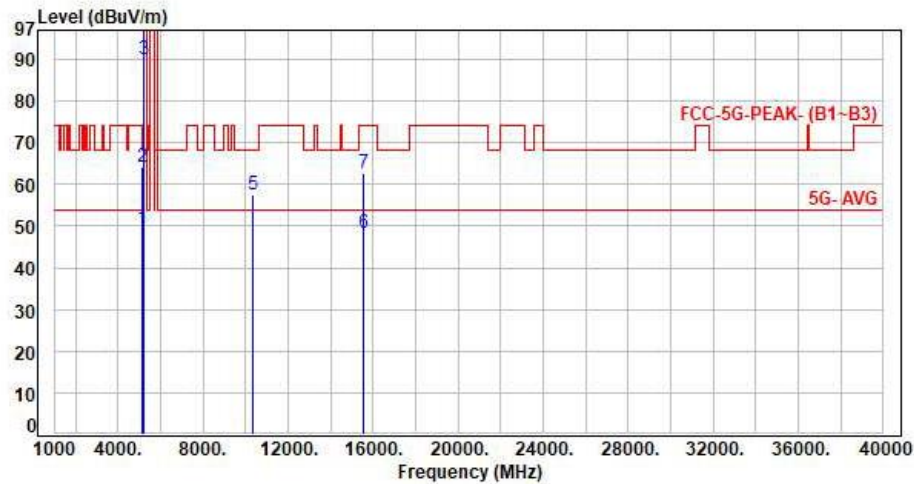
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Test Mode : 1TX 11a CH36 6Mbps
Voltage : From Adapter(AC120V/60Hz)
Pol : Horizontal



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	7.18	42.23	49.41	54.00	-4.59	Average	209	132	P
2	5150.00	7.18	57.05	64.23	74.00	-9.77	Peak	209	132	P
3	5180.00	7.25	82.84	90.09	200.00	-109.91	Average	209	132	P
4	5180.00	7.25	93.93	101.18	200.00	-98.82	Peak	209	132	P
5	10360.00	15.21	42.35	57.56	68.20	-10.64	Peak	100	11	P
6	15540.00	19.80	28.43	48.23	54.00	-5.77	Average	100	74	P
7	15540.00	19.80	42.77	62.57	74.00	-11.43	Peak	100	74	P

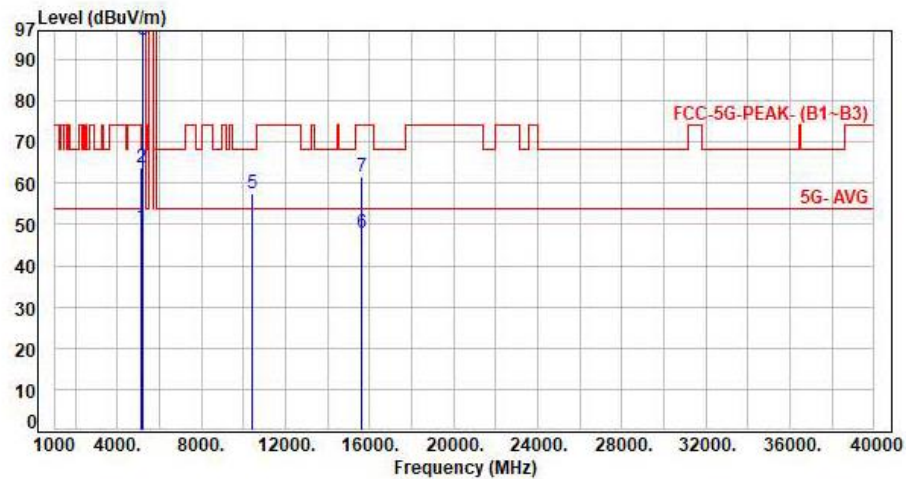
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Test Mode : 1TX 11a CH40 6Mbps
Voltage : From Adapter(AC120V/60Hz)
Pol : Vertical



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	7.18	42.19	49.37	54.00	-4.63	Average	179	212	P
2	5150.00	7.18	56.55	63.73	74.00	-10.27	Peak	179	212	P
3	5200.00	7.30	87.44	94.74	200.00	-105.26	Average	179	212	P
4	5200.00	7.30	98.26	105.56	200.00	-94.44	Peak	179	212	P
5	10400.00	15.16	42.54	57.70	68.20	-10.50	Peak	100	184	P
6	15600.00	19.45	28.44	47.89	54.00	-6.11	Average	100	302	P
7	15600.00	19.45	42.18	61.63	74.00	-12.37	Peak	100	302	P

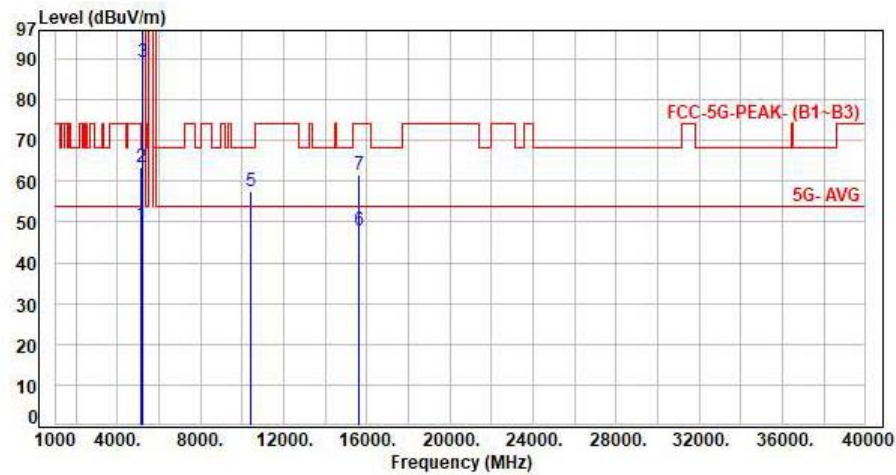
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Test Mode : 1TX 11a CH40 6Mbps
Voltage : From Adapter(AC120V/60Hz)
Pol : Horizontal



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5150.00	7.18	42.25	49.43	54.00	-4.57	Average	278	131	P
2	5150.00	7.18	56.14	63.32	74.00	-10.68	Peak	278	131	P
3	5200.00	7.30	82.05	89.35	200.00	-110.65	Average	278	131	P
4	5200.00	7.30	93.14	100.44	200.00	-99.56	Peak	278	131	P
5	10400.00	15.16	42.37	57.53	68.20	-10.67	Peak	100	12	P
6	15600.00	19.45	28.54	47.99	54.00	-6.01	Average	100	74	P
7	15600.00	19.45	42.19	61.64	74.00	-12.36	Peak	100	74	P

Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor