

FCC Test Report

Report No.: AGC05877241202FR01

FCC ID	:	2APA9-CMSXJ111A
APPLICATION PURPOSE	:	Original Equipment
PRODUCT DESIGNATION	:	IMILAB C30 Dual
BRAND NAME	:	imilab, imilao
MODEL NAME	:	CMSXJ111A
APPLICANT	:	Shanghai Imilab Technology Co., Ltd.
DATE OF ISSUE	:	Feb. 12, 2025
STANDARD(S)	:	FCC Part 15 Subpart C §15.247
REPORT VERSION	:	V1.0







Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes	
V1.0	/	Feb. 12, 2025	Valid	Initial Release	



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1. General Information

Applicant	Shanghai Imilab Technology Co., Ltd.
Address	Room 001A, Floor 11, Block 1, No. 588 Zixing Road, Minhang District, Shanghai, China
Manufacturer	Shanghai Imilab Technology Co., Ltd.
Address	Room 001A, Floor 11, Block 1, No. 588 Zixing Road, Minhang District, Shanghai, China
Factory	N/A
Address	N/A
Product Designation	IMILAB C30 Dual
Brand Name	imilab, iMilao
Test Model	CMSXJ111A
Series Model	N/A
Declaration of Difference	N/A
Date of receipt of test item	Dec. 11, 2024
Date of Test	Dec. 11, 2024 ~ Feb. 12, 2025
Deviation from Standard	No any deviation from the test method
Condition of Test Sample	Normal
Test Result	Pass
Test Report Form No	AGCER-FCC-BLE-V1

Note: The test results of this report relate only to the tested sample identified in this report.

Jouk Gai Prepared By Jack Gui Feb. 12, 2025 (Project Engineer) Calvin Lin **Reviewed By** Calvin Liu Feb. 12, 2025 (Reviewer) Approved By Angela Li Feb. 12, 2025 (Authorized Officer)



2. Product Information

2.1 Product Technical Description

Frequency Band	2400MHz-2483.5MHz
Operation Frequency Range	2402MHz-2480MHz
Bluetooth Version	V5.3
Modulation Type	BLE GFSK 1Mbps GFSK 2Mbps
Number of channels	40
Carrier Frequency of Each Channel	40 Channels (37 Data channels + 3 advertising channels)
Channel Separation	2 MHz
Maximum Transmitter Power	Bluetooth LE (1Mbps): 7.382dBm Bluetooth LE (2Mbps): 7.206dBm
Hardware Version	LSAM124A1-1
Software Version	5.3.1_0545
Antenna Designation	PIFA Antenna
Antenna Gain	1.4dBi
Power Supply	DC 5V by adapter
Adapter Information	Model name: A319-050200U-US2 Manufacturer: JiangxiJian Aohai Technology Co., Ltd. Input:100-240V~ 50/60Hz, Output: 5V= 2000mA

2.2 Test Frequency List

Frequency Band	Channel Number	Test Frequency			
2400~2483.5MHz	0	2402 MHz			
	1	2404 MHz			
	:	:			
	19	2440MHz			
	:	:			
	38	2478 MHz			
	39	2480 MHz			
Note: $f = 2402 + 2^{k}$ MHz, $k = 0,, 39$ f is the operating frequency (MHz); k is the operating channel.					



2.3 Related Submittal(S) / Grant (S)

This submittal(s) (test report) is intended for FCC ID: **2APA9-CMSXJ111A**, filing to comply with Part 2, Part 15 of the Federal Communication Commission rules.

2.4 Test Methodology

The tests were performed according to following standards:

No.	Identity	Document Title
1	FCC 47 CFR Part 2	Frequency allocations and radio treaty matters; general rules and regulations
2	FCC 47 CFR Part 15	Radio Frequency Devices
3	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices
4	KDB 558074 D01 15.247 Meas Guidance v05r02	Guidance for compliance measurements on Digital Transmission Systems, Frequency Hopping Spread Spectrum system, and Hybrid system devices operating under Section 15.247 of the FCC rules

2.5 Special Accessories

Not available for this EUT intended for grant.

2.6 Equipment Modifications

Not available for this EUT intended for grant.

2.7 Antenna Requirement

Standard Requirement

15.203 requirement:

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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi

EUT Antenna:

The non-detachable antenna inside the device cannot be replaced by the user at will. The gain of the antenna is 1.4dBi.



3. Test Environment

3.1 Address of the Test Laboratory

Laboratory: Attestation of Global Compliance (Shenzhen) Co., Ltd.

Address: 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

3.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L5488

Attestation of Global Compliance (Shenzhen) Co., Ltd. has been assessed and proved to follow CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories).

A2LA-Lab Cert. No.: 5054.02

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to follow ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC-Registration No.: 975832

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files with Registration 975832.

IC-Registration No.: 24842 (CAB identifier: CN0063)

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the Certification and Engineering Bureau of Industry Canada. The acceptance letter from the IC is maintained in our files with Registration 24842.



3.3 Environmental Conditions

	Normal Conditions
Temperature range ($^\circ\!\mathbb{C}$)	15 - 35
Relative humidity range	20 % - 75 %
Pressure range (kPa)	86 - 106
Power supply	DC 5V

3.4 Measurement Uncertainty

The reported uncertainty of measurement y $\pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

Item	Measurement Uncertainty	
Uncertainty of Conducted Emission for AC Port	$U_c = \pm 2.9 \text{ dB}$	
Uncertainty of Radiated Emission below 1GHz	$U_c = \pm 3.9 \text{ dB}$	
Uncertainty of Radiated Emission above 1GHz	$U_c = \pm 4.9 \text{ dB}$	
Uncertainty of total RF Power, Conducted	$U_c = \pm 0.8 \text{ dB}$	
Uncertainty of RF Power Density, Conducted	$U_c = \pm 2.6 \text{ dB}$	
Uncertainty of Spurious Emissions, Conducted	$U_c = \pm 2 \%$	
Uncertainty of Occupied Channel Bandwidth	$U_c = \pm 2 \%$	
Uncertainty of Dwell Time	$U_c = \pm 2 \%$	



3.5 List of Equipment Use

• R	RF Conducted Test System							
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)	
\boxtimes	AGC-ER-E036	Spectrum Analyzer	Agilent	N9020A	MY49100060	2024-05-24	2025-05-23	
	AGC-ER-E062	Power Sensor	Agilent	U2021XA	MY54110007	2024-02-01	2025-01-31	
\boxtimes	AGC-ER-E062	Power Sensor	Agilent	U2021XA	MY54110007	2025-01-14	2026-01-13	
\boxtimes	AGC-ER-E063	Power Sensor	Agilent	U2021XA	MY54110009	2024-02-01	2025-01-31	
	AGC-ER-E063	Power Sensor	Agilent	U2021XA	MY54110009	2025-01-14	2026-01-13	
	AGC-ER-A001	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-09-21	2025-09-20	
\boxtimes	AGC-ER-E083	Signal Generator	Agilent	E4421B	US39340815	2024-05-24	2025-05-23	
\boxtimes	N/A	RF Connection Cable	N/A	1#	N/A	Each time	N/A	
\boxtimes	N/A	RF Connection Cable	N/A	2#	N/A	Each time	N/A	
● R	Radiated Spurious Emission							
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)	
	AGC-EM-E046	EMI Test Receiver	R&S	ESCI	10096	2024-02-01	2025-01-31	
\square	AGC-EM-E046	EMI Test Receiver	R&S	ESCI	10096	2025-01-14	2026-01-13	
\boxtimes	AGC-EM-E116	EMI Test Receiver	R&S	ESCI	100034	2024-05-24	2025-05-23	
	AGC-EM-E061	Spectrum Analyzer	Agilent	N9010A	MY53470504	2024-05-28	2025-05-27	
\boxtimes	AGC-EM-E086	Loop Antenna	ZHINAN	ZN30900C	18051	2024-03-05	2026-03-04	
	AGC-EM-E001	Wideband Antenna	SCHWARZBECK	VULB9168	D69250	2023-05-11	2025-05-10	
	AGC-EM-E029	Broadband Ridged Horn Antenna	ETS	3117	00034609	2024-03-31	2025-03-30	
\boxtimes	AGC-EM-E082	Horn Antenna	SCHWARZBECK	BBHA 9170	#768	2023-09-24	2025-09-23	
\boxtimes	AGC-EM-E146	Pre-amplifier	ETS	3117-PA	00246148	2024-07-24	2026-07-23	
	AGC-EM-A119	2.4G Filter	SongYi	N/A	N/A	2024-05-23	2025-05-22	
\boxtimes	AGC-EM-A138	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-06-09	2025-06-08	
	AGC-EM-A139	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-06-09	2025-06-08	

• A	AC Power Line Conducted Emission							
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)	
\boxtimes	AGC-EM-E045	EMI Test Receiver	R&S	ESPI	101206	2024-05-28	2025-05-27	
\boxtimes	AGC-EM-A130	6dB Attenuator	Eeatsheep	LM-XX-6-5W	DC-6GZ	2023-06-09	2025-06-08	
	AGC-EM-E023	AMN	R&S	100086	ESH2-Z5	2024-05-28	2025-05-27	



• Tes	Test Software						
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Version Information		
\boxtimes	AGC-EM-S001	CE Test System	R&S	ES-K1	V1.71		
\boxtimes	AGC-EM-S003	RE Test System	FARA	EZ-EMC	VRA-03A		
	AGC-EM-S004	RE Test System	Tonscend	TS ⁺ Ver2.1(JS32-RE)	4.0.0.0		
\square	AGC-ER-S012	BT/WIFI Test System	Tonscend	JS1120-2	2.6		
\boxtimes	AGC-EM-S011	RSE Test System	Tonscend	TS+-Ver2.1(JS36-RSE)	4.0.0.0		



4.System Test Configuration

4.1 EUT Configuration

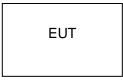
The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

4.2 EUT Exercise

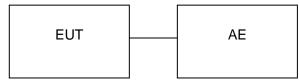
The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

4.3 Configuration of Tested System

Radiated Emission Configure:



Conducted Emission Configure:



4.4 Equipment Used In Tested System

The following peripheral devices and interface cables were connected during the measurement:

No.	Equipment	Manufacturer	Model No.	Specification Information	Cable			
1	Control Box		USB-TTL					
	Test Accessories	Come From The	Manufacturer					
No.	Equipment	Manufacturer	Model No.	Specification Information	Cable			
1	Adapter	JiangxiJian Aohai Technology Co., Ltd.	A319-050200U-U S2	Input:100-240V~ 50/60Hz, Output: 5V= 2000mA	2.0m Unshielded			

Test Accessories Come From The Laboratory



4.5 Summary of Test Results

Item	FCC Rules	Description of Test	Result
1	§15.203&15.247(b)(4)	Antenna Equipment	Pass
2	§15.247 (b)(3)	RF Output Power	Pass
3	§15.247 (a)(2)	6 dB Bandwidth	Pass
4	§15.247 (e)	Power Spectral Density	Pass
5	§15.247 (d)	Conducted Band Edge and Out-of-Band Emissions	Pass
6	§15.209	Radiated Emission& Band Edge	Pass
7	§15.207	AC Power Line Conducted Emission	Pass



5. Description of Test Modes

	Summary Table of Test Cases					
Test Item	Data Rate / Modulation					
lest tielli	Bluetooth–LE(1Mbps/2Mbps)/GFSK					
	Mode 1: Bluetooth Tx CH00_2402 MHz_1Mbps(AC/DC adapter)					
	Mode 2: Bluetooth Tx CH19_2440 MHz_1Mbps(AC/DC adapter)					
Radiated & Conducted	Mode 3: Bluetooth Tx CH39_2480 MHz_1Mbps(AC/DC adapter)					
Test Cases	Mode 4: Bluetooth Tx CH00_2402 MHz_2Mbps(AC/DC adapter)					
	Mode 5: Bluetooth Tx CH19_2440 MHz_2Mbps(AC/DC adapter)					
	Mode 6: Bluetooth Tx CH39_2480 MHz_2Mbps(AC/DC adapter)					
AC Conducted Emission	Mode 1: Bluetooth Link + USB Cable (Charging from AC Adapter)					
Note:						
1. Only the result of the	worst case was recorded in the report, if no other cases.					
	n, 3axis were chosen for testing for each applicable mode.					
3. For Conducted Test method, a temporary antenna connector is provided by the manufacture.						
Software Setting Diagram						
	10 Senar-Colivit - SecureCr()					

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2 🕰	🔀 💭 🖏 🖄 I ங 🛍 I 🔁 🎭 🔿 I 😤 🛠 🕴 I 💿 I 🜌
	rial-COM4
[:55: [MI]	13] start DMAO success. wRN] [5487]: MI AO device O is XRUN!
[:55:	13] start DMAO success.
# [M	I WRN] [5487]: MI AO device 0 is XRUN!
/mnt, 0100 4 EV 0400 /mnt, COMM, 016 EVEN 0400 # /m COMM, 013. EVEN 0440 # /m	13] start DMA0 success. /sdcard/bt_test -c 01 03 0c 00 AND(4): 3 0c 00 ENT(7): E 04 05 03 0C 00 /sdcard/bt_test -c 01 65 fc 02 5f 00 AND(6): 5 Fc 02 5F 00 T(7): E 04 05 65 FC 00 nt/sdcard/bt_test -c 01 34 20 04 00 FF 00 02 AND(8): 4 20 04 00 FF 00 02 T(7): E 04 05 34 20 00
Defa	wilt \neg \bigcirc 1 \bigcirc 2 \bigcirc 3 \bigcirc 4 \bigcirc 5 \bigcirc 6 \bigcirc 7 \bigcirc reset \bigcirc show \bigcirc reboot
I	
就绪	Serial: COM4, 115200 24, 3 24行, 80列 VT100 大写



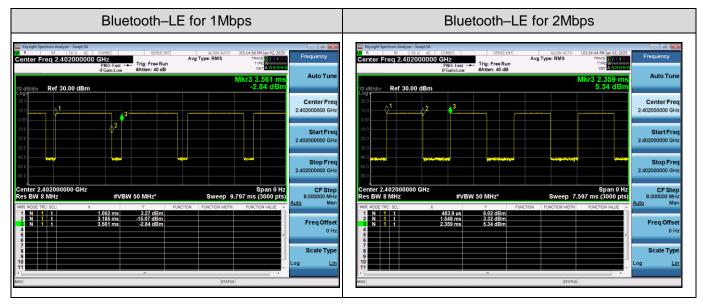
6. Duty Cycle Measurement

The maximum achievable duty cycles for all modes were determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz, and detector = Peak. The RBW and VBW were both greater than 50/T, where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

Operating mode	T(µs)	Duty Cycle (%)	Duty Cycle Factor (dB)	1/ T Minimum VBW (kHz)
BLE_1Mbps	2123	84.95	0.71	0.47
BLE_2Mbps	1064.1	56.75	2.46	0.94

Remark:

- 1. Duty Cycle factor = 10 * log (1/ Duty cycle)
- 2. The duty cycle of each frequency band mode reflects the determination requirements of the low channel measurement value
- The test plots as follows:





7. RF Output Power Measurement

7.1 Provisions Applicable

For DTSs employing digital modulation techniques operating in the bands 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W.

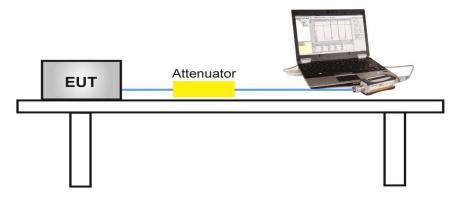
7.2 Measurement Procedure

For Peak Power, the testing follows ANSI C63.10 Section 11.9.1.1 Method Max peak power:

- 1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 2. Set the RBW≥DTS bandwidth
- 3. Set the VBW≥[3 × RBW].
- 4. Span≥[3 × RBW].
- 5. Sweep= auto couple.
- 6. Detector Function= Peak.
- 7. Trace mode= Max hold.
- 8. Allow trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. The indicated level is the peak output power, after any corrections for external attenuators and cables.
- For Average power, the testing follows ANSI C63.10 Section 11.9.2.3.2 Method AVGPM-G:
- 1. The RF output of EUT was connected to the power meter by RF cable and attenuator.
- 2. The path loss was compensated to the results for each measurement.
- 3. Set to the maximum power setting and enable the EUT transmit continuously.
- 4. Measure the conducted output power and record the results in the test report.

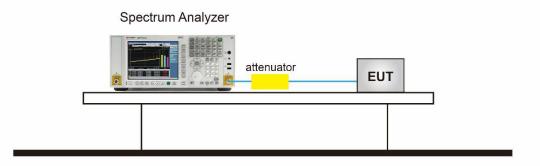
7.3 Measurement Setup (Block Diagram of Configuration)

For Average power test setup





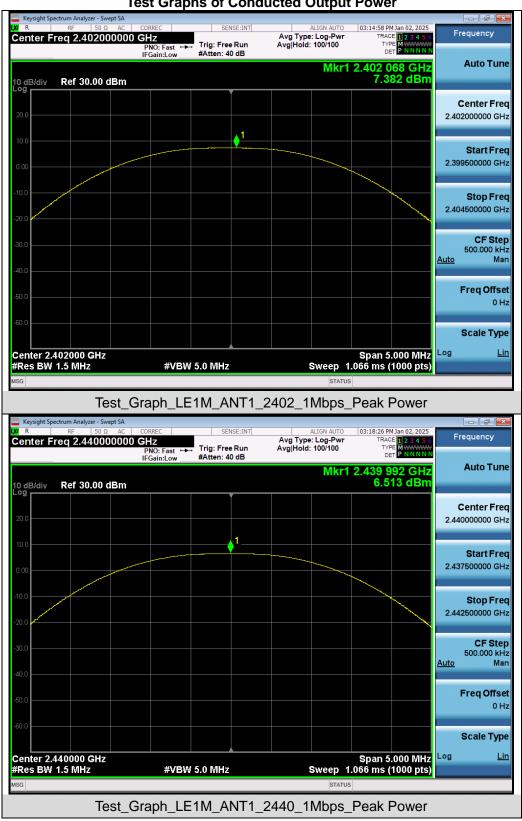
For peak power test setup



7.4 Measurement Result

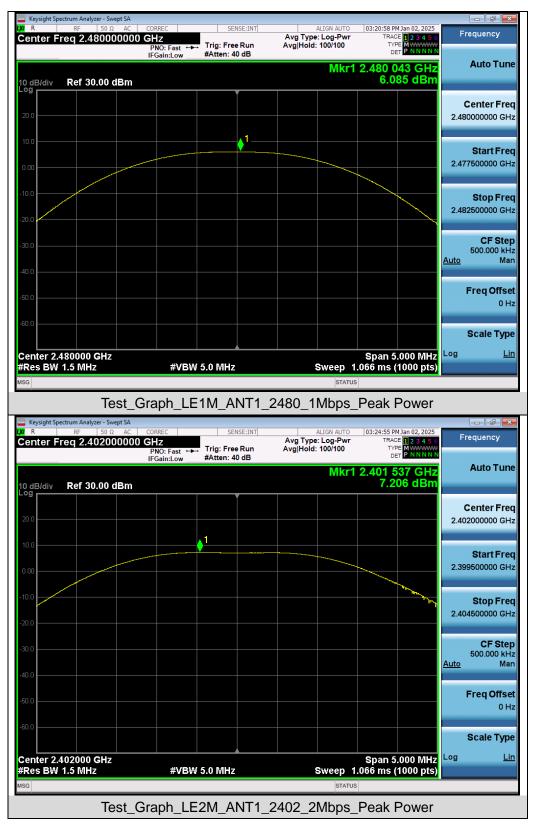
Test Data of Conducted Output Power						
Test Mode	Test Frequency (MHz)	Peak Power (dBm)	Limits (dBm)	Pass or Fail		
	2402	7.382	≪30	Pass		
GFSK_1Mbps	2440	6.513	≪30	Pass		
	2480	6.085	≪30	Pass		
	2402	7.206	≪30	Pass		
GFSK_2Mbps	2440	6.322	≪30	Pass		
	2480	5.937	≪30	Pass		



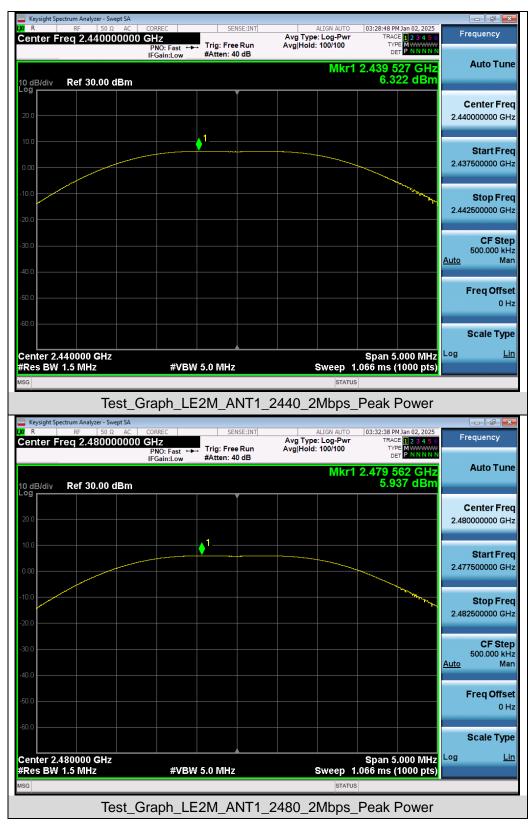


Test Graphs of Conducted Output Power











8. 6dB Bandwidth Measurement

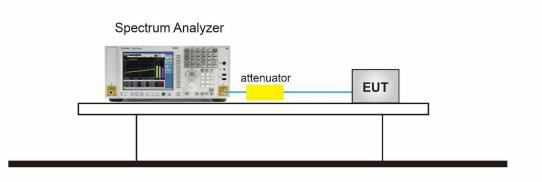
8.1 Provisions Applicable

The minimum 6dB bandwidth shall be 500 kHz.

8.2 Measurement Procedure

- The testing follows the ANSI C63.10 Section 6.9.3 (OBW) and 11.8.1 (6dB BW).
- 1. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
- 2. Set to the maximum power setting and enable the EUT transmit continuously.
- 3. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 kHz.
- For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the OBW and set the Video bandwidth (VBW) ≥ 3 * RBW.
- 5. Measure and record the results in the test report.

8.3 Measurement Setup (Block Diagram of Configuration)

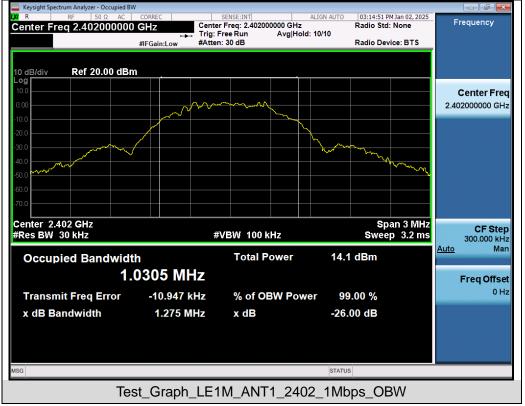




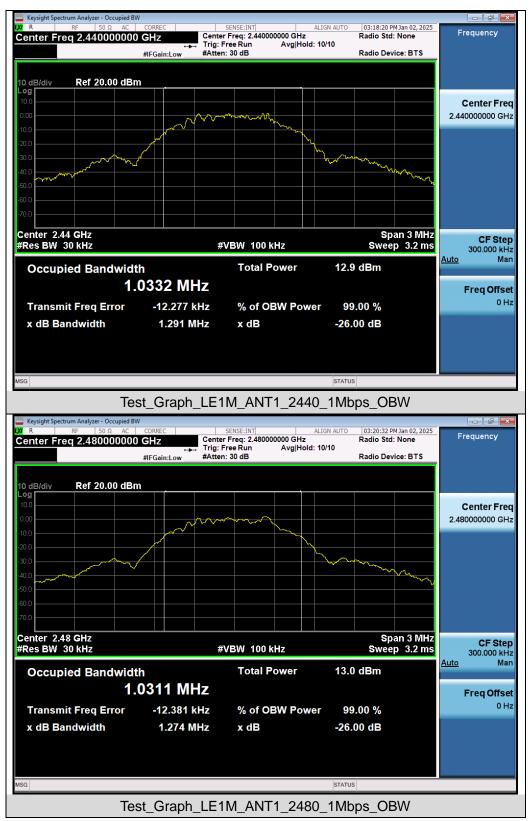
8.4 Measurement Results

Test Data of Occupied Bandwidth and DTS Bandwidth							
Test Mode	Test Frequency (MHz)	Occupied Bandwidth (MHz)	DTS BW (MHz)	DTS BW Limits	Pass or Fail		
	2402	1.030	0.679	≥0.5	Pass		
GFSK_1Mbps	2440	1.033	0.664	≥0.5	Pass		
	2480	1.031	0.673	≥0.5	Pass		
	2402	2.058	1.255	≥0.5	Pass		
GFSK_2Mbps	2440	2.066	1.211	≥0.5	Pass		
	2480	2.070	1.213	≥0.5	Pass		

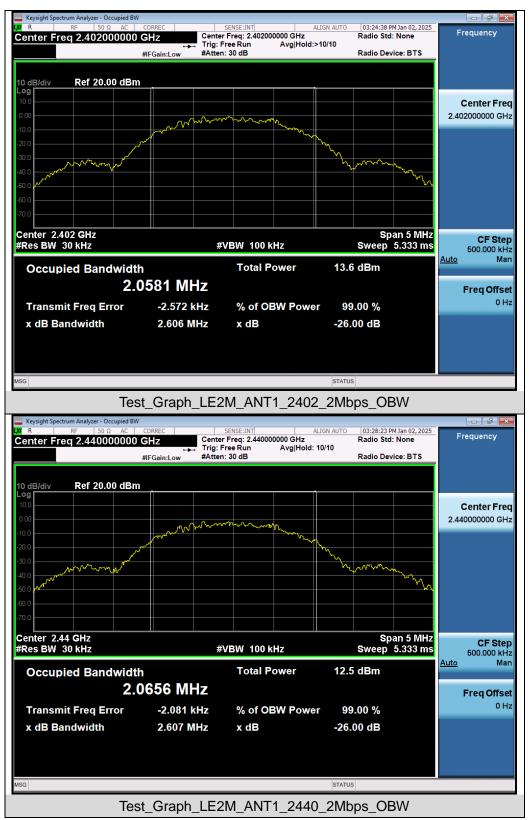
Test Graphs of Occupied Bandwidth













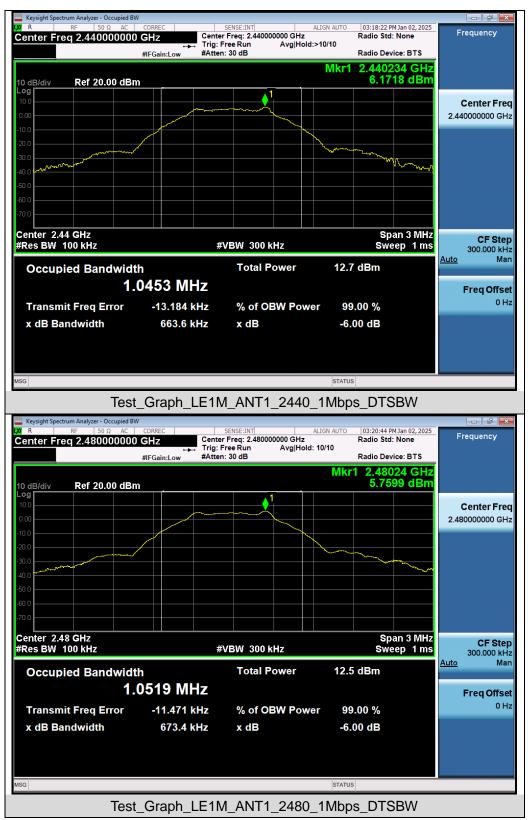


Test_Graph_LE2M_ANT1_2480_2Mbps_OBW

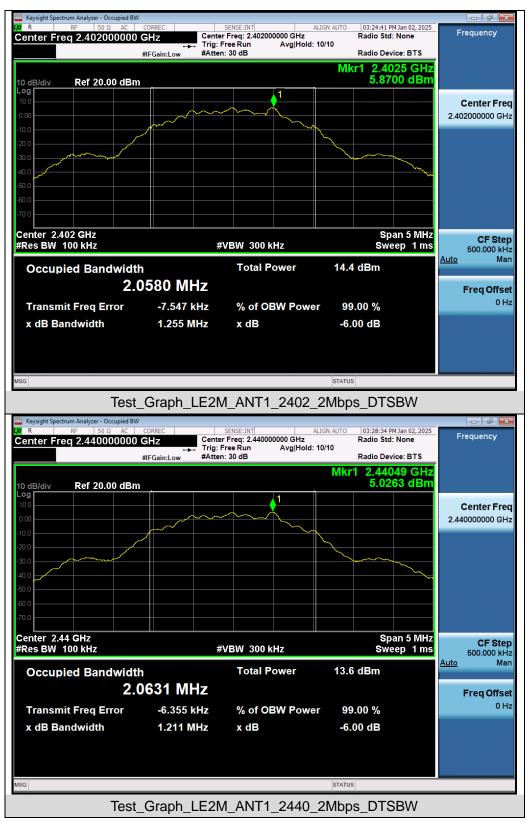
Test Graphs of DTS Bandwidth













Keysight Spectrum Analyzer - Occupied BW							- F	×
IM RF 50 Ω AC C Center Freg 2.480000000 G		SENSE:INT Center Freq: 2.48000	00000 GHz		03:32:24 P	M Jan 02, 2025 None	Frequency	
#1		Trig: Free Run #Atten: 30 dB	Avg Hold: 1		Radio Dev	ice: BTS		
				Mkr1	2.480	49 GHz		
10 dB/div Ref 20.00 dBm					4.69	88 dBm		
Log 10.0			1				Center F	rea
0.00		~~~~~					2.480000000	
-10.0								
-20.0				~				
-30.0					~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
-40.0						Jundon		
-50.0								
-60.0								
-70.0								
Center 2.48 GHz						an 5 MHz	CF S	tep
#Res BW 100 kHz		#VBW 300 k	(Hz		Swe	ep 1 ms	500.000	kHz
Occupied Bandwidth		Total P	ower	13.2	dBm		Auto	Man
2.0	655 MHz	7					Freq Off	Foot
					00.0/			0 Hz
Transmit Freq Error	-5.744 kH		BW Power		00 %			
x dB Bandwidth	1.213 MH	z xdB		-6.0	0 dB			
MSG				STATUS				
	<u> </u>		0.400		DTO			_
lest_0	sraph_Lt	E2M_ANT1	_2480_2	2Mbps	<u>_DIS</u>	BN		



9. Power Spectral Density Measurement

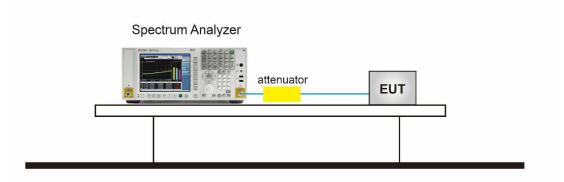
9.1 Provisions Applicable

The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

9.2 Measurement Procedure

- The testing follows the ANSI C63.10 Section 11.10.2 Method PKPSD.
- 1. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
- 2. Set to the maximum power setting and enable the EUT transmit continuously.
- Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth VBW = 10 kHz in order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW)
- 4. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
- 5. Measure and record the results in the test report.
- The Measured power density (dBm)/ 100kHz is a reference level and used as 20dBc down limit line for Conducted Band Edges and Conducted Spurious Emission.

9.3 Measurement Setup (Block Diagram of Configuration)





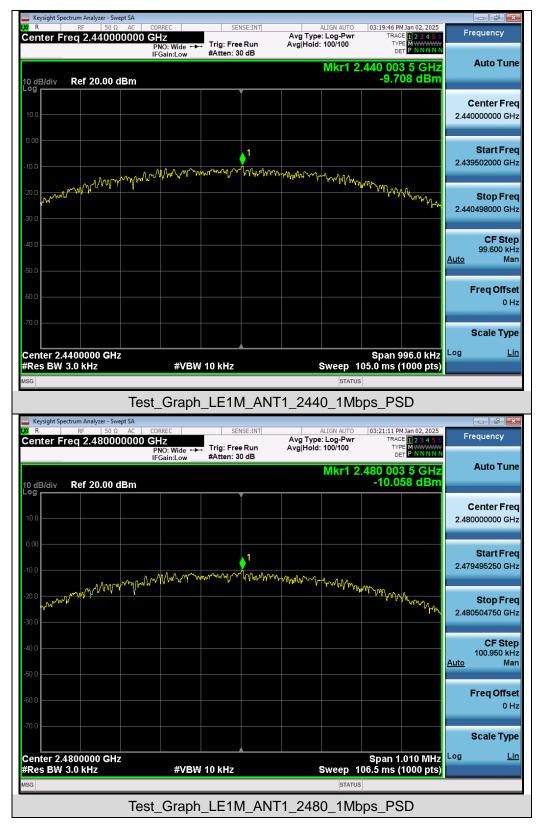
9.4 Measurement Results

	Test Data of Conducted Output Power Spectral Density					
Test Mode	Test Frequency (MHz)	Power density (dBm/3kHz)	Limit (dBm/3kHz)	Pass or Fail		
	2402	-8.664	≪8	Pass		
GFSK_1Mbps	2440	-9.708	≪8	Pass		
	2480	-10.058	≪8	Pass		
	2402	-12.059	≪8	Pass		
GFSK_2Mbps	2440	-13.011	≪8	Pass		
	2480	-13.449	≪8	Pass		

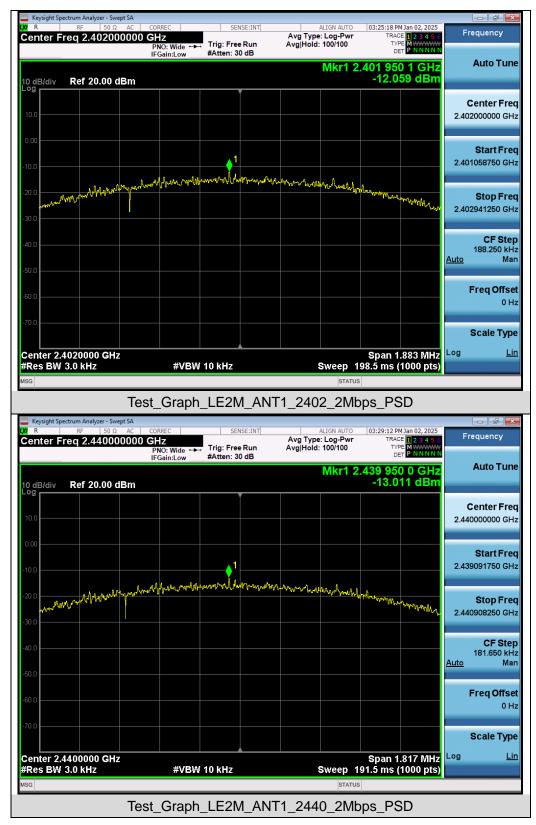
Test Graphs of Conducted Output Power Spectral Density













Keysight Spectrum Analyzer - Swept SA	000050				- # *
R RF 50 Ω AC Center Freq 2.480000000		SENSE:INT	ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 100/100	03:33:03 PM Jan 02, 2025 TRACE 1 2 3 4 5 6 TYPE MWWWW	Frequency
10 dB/div Ref 20.00 dBm	PNO: Wide IFGain:Low	Trig: Free Run #Atten: 30 dB		2.479 949 9 GHz -13.449 dBm	Auto Tun
10.0					Center Fre 2.480000000 G⊦
-10.0		1			Start Fre 2.479090250 GF
-20.0 -20.0 -20.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	ույսի այ ծլիստել իստնիսը, իմ	and a second and a s	walannon wanna ha	Stop Fre 2.480909750 G⊦
-40.0					CF Ste 181.950 kH <u>Auto</u> Ma
60.0					Freq Offs 0 F
					Scale Typ
Center 2.4800000 GHz #Res BW 3.0 kHz	#VBW ′		Sweep	191.9 ms (1000 pts)	Log <u>L</u>
Te	st_Graph_	LE2M_AN	Г1_2480_2M	ops_PSD	



10. Conducted Band Edge and Out-of-Band Emissions

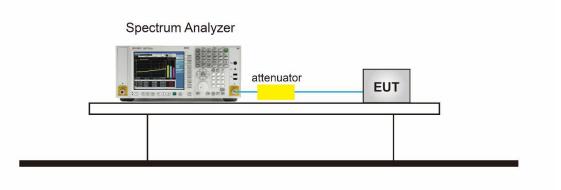
10.1 Provisions Applicable

The limit for out-of-band spurious emissions at the band edge is 20dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100kHz bandwidth per the PSD procedure.

10.2 Measurement Procedure

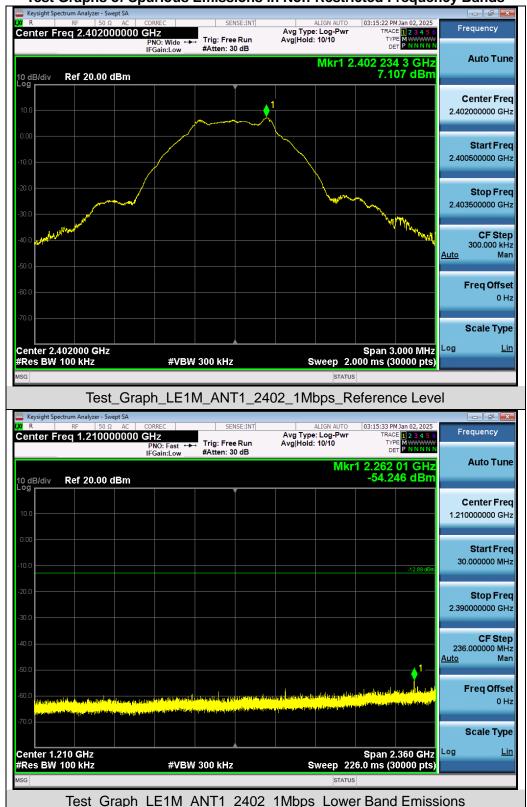
- Reference level measurement
- 1. Set instrument center frequency to DTS channel center frequency
- 2. Set the span to \geq 1.5 times the DTS bandwidth
- 3. Set the RBW = 100 kHz
- 4. Set the VBW \ge 3 x RBW
- 5. Detector = peak
- 6. Sweep time = auto couple
- 7. Trace mode = max hold
- 8. Allow trace to fully stabilize
- Emission level measurement
- 1. Set the center frequency and span to encompass frequency range to be measured
- 2. RBW = 100kHz
- 3. VBW = 300kHz
- 4. Detector = Peak
- 5. Trace mode = max hold
- 6. Sweep time = auto couple
- 7. The trace was allowed to stabilize

10.3 Measurement Setup (Block Diagram of Configuration)



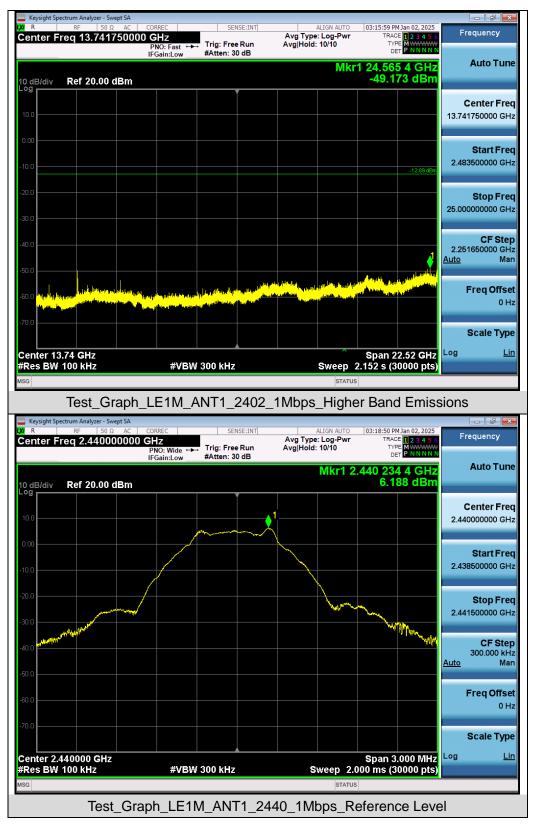


10.4 Measurement Results

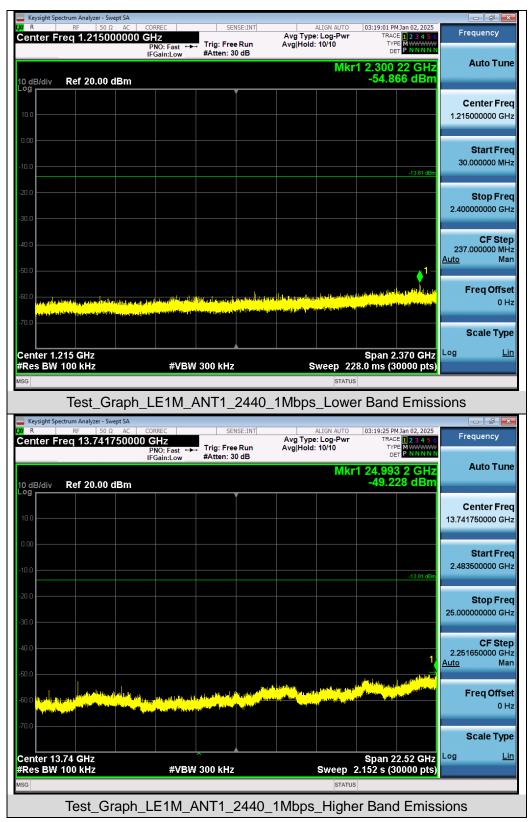


Test Graphs of Spurious Emissions in Non-Restricted Frequency Bands





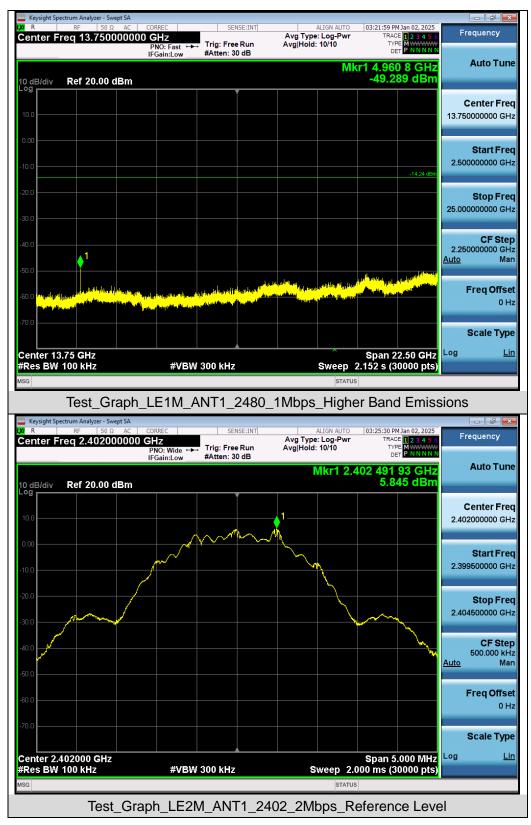




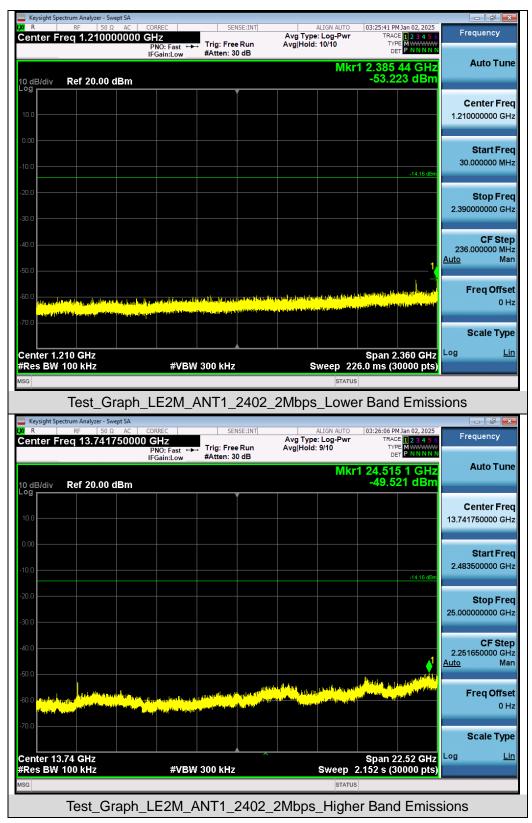








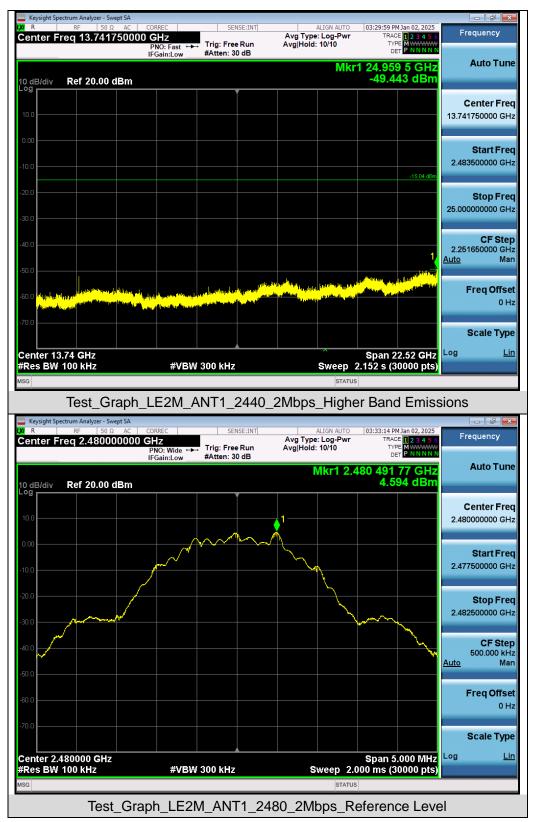




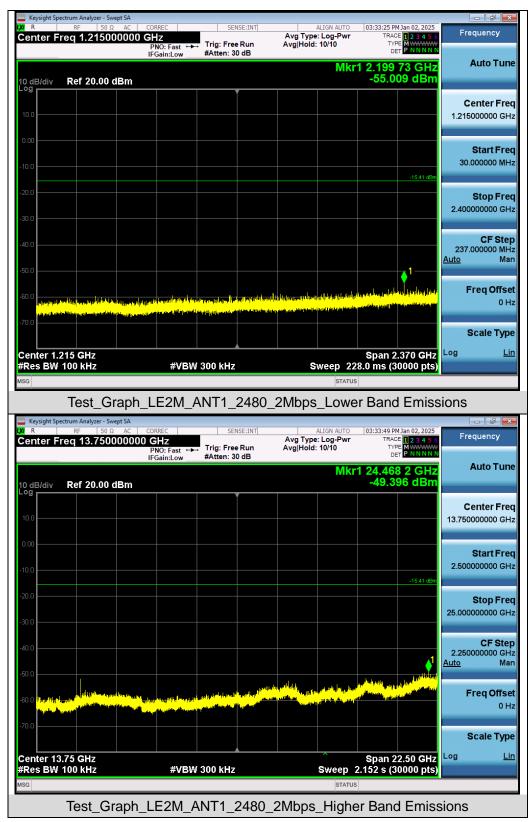


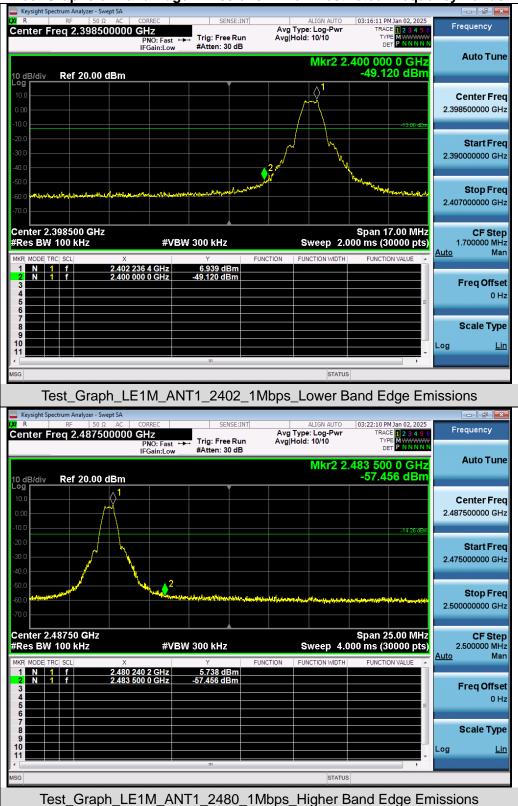






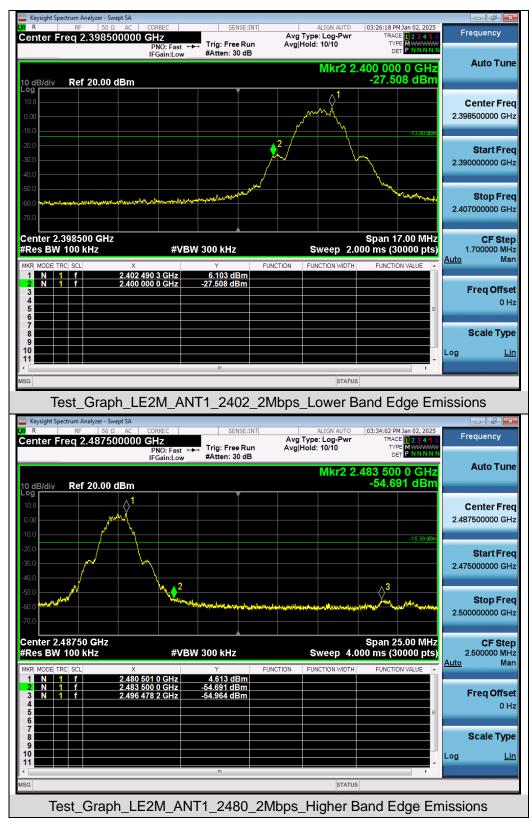






Test Graphs of Band Edge Emissions in Non-Restricted Frequency Bands







11. Radiated Spurious Emission

11.1 Measurement Limit

• FCC Part 15.209 Limit in the below table to be followed

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(kHz)	300
0.490~1.705	24000/F(kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Note: All modes were tested for restricted band radiated emission, the test records reported below are the worst result compared to other modes.

11.2 Measurement Procedure

- 1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
- 2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
- 3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
- 4. For each suspected emission, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
- 5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
- 6. For emissions above 1GHz, use 1MHz RBW and 3MHz VBW for peak reading. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
- 7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds.



- 8. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
- 9. If the emissions level of the EUT in peak mode was 3 dB lower than the average 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 for below 1GHz.
- 10. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions 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.
- 11. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High Low scan is not required in this case.

Spectrum ParameterSettingStart ~Stop Frequency9kHz~150kHz/RB 200Hz for QPStart ~Stop Frequency150kHz~30MHz/RB 9kHz for QPStart ~Stop Frequency30MHz~1000MHz/RB 120kHz for QPStart ~Stop Frequency1GHz~26.5GHzStart ~Stop Frequency1MHz/3MHz for Peak, 1MHz/3MHz for Average

The following table is the setting of spectrum analyzer and receiver.

Receiver Parameter	Setting
Start ~Stop Frequency	9kHz~150kHz/RB 200Hz for QP
Start ~Stop Frequency	150kHz~30MHz/RB 9kHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120kHz for QP



Quasi-Peak Measurements below 1GHz

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. Span was set greater than 1MHz
- 3. RBW = as shown in the table above
- 4. Detector = CISPR quasi-peak
- 5. Sweep time = auto couple
- 6. Trace was allowed to stabilize

• Peak Measurements above 1GHz

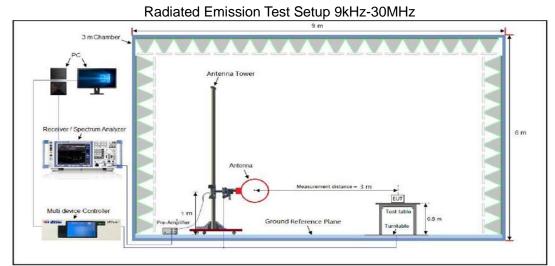
- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW = 3MHz
- 4. Detector = peak
- 5. Sweep time = auto couple
- 6. Trace mode = max hold
- 7. Trace was allowed to stabilize

• Average Measurements above 1GHz

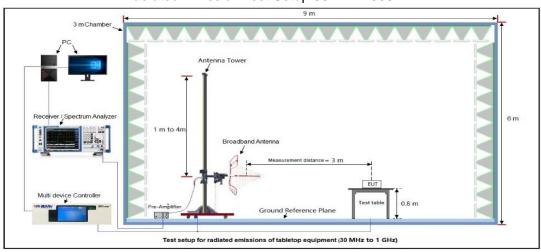
- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. $VBW \ge [3 \times RBW]$
- 4. Detector = Power averaging (rms)
- 5. Averaging type = power (i.e., rms)
- 6. Sweep time = auto
- 7. Perform a trace average of at least 100 traces.
- 8. The applicable correction factor is [10*log (1 / D)], where D is the duty cycle. The factor had been edited in the "Input Correction" of the Spectrum Analyzer.



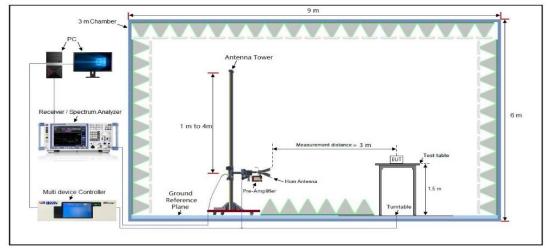
11.3 Measurement Setup (Block Diagram of Configuration)



Radiated Emission Test Setup 30MHz-1000MHz



Radiated Emission Test Setup Above 1000MHz





11.4 Measurement Result

Radiated Emission Below 30MHz

The amplitude of spurious emissions from 9kHz to 30MHz which are attenuated more than 20 dB below the permissible value need not be reported.

				Radia	ited Em	nissi	ion Test Res	sult	s at 30M	Hz-1	GHz				
EUT N	lame	IMI	IMILAB C30 Dual						Model N	Name)		CMS	SXJ11	1A
Tempe	erature	22.7	22.7℃						Relative Humidity 56.9			9%			
Press	ure	960	hPa						Test Vo	Itage	•		DC	5V by	adapter
Test N	lode	Мос	de 1						Antenna	a Po	larity		Hori	zonta	
	72.0	dBuV/n	n					•							
	32	16-444-1-1-5-4 ⁵⁴	······································			- Jacobara	mertine with hereby with the	2 X X	and a state of the	bundt dat	4 5×				
	-8	0	40 50	60 70	80		(MHz)		300	400	500	600	700	1000.0	99
Final I	Data List	. 0,	¥U 30	00 70	00		(MIL2)		300	400	000	600	700	1000.0	
NO.	Freq [MHz		Lev [dBµ\	-	Fact [dB		Limit [dBµV/m]		Margin [dB]		Heigh [cm]	t		ngle [°]	Polarity
1	115.32	05	22.′	19	16.3	5	43.50		21.31		100		1	20	Horizontal
2	216.02	40	23.2	29	14.4	2	46.00		22.71		100		1	60	Horizontal
3	301.42	24	24.4	45	16.5	60	46.00		21.55		100		ξ	30	Horizontal
4	449.55	58	31.5	50	24.7	7	46.00		14.5		100		2	10	Horizontal
5	545.18	26	32.8	31	23.9	8	46.00		13.19		100		1	30	Horizontal
6	925.75	63	35.7	78	29.0	0	46.00		10.22		100		1	20	Horizontal



			Radia	ted Emiss	ion Test Res	ults at 30MHz	z-1GHz			
EUT Na	me	IMI	AB C30 Dual			Model Na	me	CMSXJ11	1A	
Tempera	ature	22.7	7 ℃			Relative I	Relative Humidity		56.9%	
Pressur	re	960hPa Test Voltage						DC 5V by	adapter	
Test Mo	de	Mode 1 Antenna Polarity						Vertical		
	72.0	dBuV/n	1							
			-					Limit: <u>—</u> Margin: —		
								r		
	_					- _		ŝ		
	32		1			3	4 5 ***	manyonon the		
			M	Mahayan was haded	and the second with the second s	3	Hugher Manager T			
	A.	pantownal	purper stor hope which has	What we have the forther that the state of t	awahana sharara na	Mar V				
	-8	10	10 50 50 70	80		200	400 500 600	700 1000 0	20	
	30.00	JU 4	40 50 60 70	80	(MHz)	300	400 500 600	0 700 1000.00	JU	
Final Da	ata List									
NO.	Freq. [MHz		Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	
1	69.114	1	28.79	17.01	40.00	11.21	100	120	Vertical	
2	148.44	10	26.43	18.20	43.50	17.07	100	130	Vertical	
3	216.02	40	30.14	16.70	46.00	15.86	100	120	Vertical	
4	457.50	73	31.29	25.31	46.00	14.71	100	90	Vertical	
5	545.18	26	32.64	24.67	46.00	13.36	100	130	Vertical	
6	935.54	63	37.42	30.40	46.00	8.58	100	110	Vertical	
				l			1	1	1	

RESULT: Pass

Note: 1. Factor=Antenna Factor + Cable loss, Margin=Measurement-Limit.

2. All test modes had been pre-tested. The mode 1 is the worst case and recorded in the report.



EUT Name	IMILAB C3	IMILAB C30 Dual			I Name	CMSXJ11	CMSXJ111A	
Femperature	22.7 ℃			Relative Humidity		56.9%	56.9%	
Pressure	960hPa			Test Voltage		DC 5V by	adapter	
Test Mode	t Mode 1			Anter	nna Polarity	Horizonta	1	
Frequency	Meter Reading	Factor	Emission	n Level	Limits	Margin	Value Type	
(MHz)	(dBµV)	(dB)	(dBµV/	/m)	(dBµV/m)	(dB)	value Type	
4804.000	46.07	0.08	46.1	5	74	-27.85	peak	
4804.000	37.56	0.08	37.6	4	54	-16.36	AVG	
7206.000	41.49	2.21	43.7	0	74	-30.30	peak	
7206.000	32.99	2.21	35.2	20	54	-18.80	AVG	
	ina Factor + Cab		amplifier.					
	INA Factor + Cab		amplifier.	Mode	I Name	CMSXJ11	1A	
Factor = Anter			amplifier.		I Name ive Humidity	CMSXJ11 56.9%	1A	
Factor = Anter	IMILAB C3		amplifier.	Relat				
Factor = Anter EUT Name Femperature	IMILAB C3 22.7℃		amplifier.	Relat	ive Humidity	56.9%		
Factor = Anter EUT Name Femperature Pressure Fest Mode	IMILAB C3 22.7℃ 960hPa Mode 1	30 Dual		Relati Test \ Anter	ive Humidity /oltage nna Polarity	56.9% DC 5V by Vertical	adapter	
Factor = Anter EUT Name Femperature Pressure Fest Mode	IMILAB C3 22.7°C 960hPa Mode 1 Meter Reading	30 Dual Factor	Emission	Relati Test \ Anter	ive Humidity /oltage nna Polarity	56.9% DC 5V by Vertical		
Factor = Anter EUT Name Femperature Pressure Fest Mode Frequency (MHz)	IMILAB C3 22.7°C 960hPa Mode 1 Meter Reading (dBµV)	30 Dual Factor (dB)	Emission (dBµV/	Relati Test \ Anter	ive Humidity /oltage nna Polarity Limits (dBµV/m)	56.9% DC 5V by Vertical Margin (dB)	adapter Value Type	
Factor = Anter EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4804.000	IMILAB C3 22.7 °C 960hPa Mode 1 Meter Reading (dBµV) 46.80	30 Dual Factor (dB) 0.08	Emission (dBµV/ 46.8	Relati Test V Anter	Limits (dBµV/m) 74	56.9% DC 5V by Vertical Margin (dB) -27.12	adapter	
Factor = Anter EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4804.000 4804.000	IMILAB C3 22.7℃ 960hPa Mode 1 Meter Reading (dBµV) 46.80 37.85	80 Dual Factor (dB) 0.08 0.08	Emission (dBµV/ 46.8 37.9	Relati Test V Anter D Level 7/m) 8 3	Limits (dBµV/m) 74 54	56.9% DC 5V by Vertical Margin (dB) -27.12 -16.07	adapter Value Type	
Factor = Anter EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4804.000	IMILAB C3 22.7 °C 960hPa Mode 1 Meter Reading (dBµV) 46.80	30 Dual Factor (dB) 0.08	Emission (dBµV/ 46.8	Relati Test M Anter Level //m) 8 3 5	Limits (dBµV/m) 74	56.9% DC 5V by Vertical Margin (dB) -27.12	Value Type Peak AVG	
Factor = Anter EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4804.000 4804.000 7206.000	IMILAB C3 22.7 °C 960hPa Mode 1 Meter Reading (dBµV) 46.80 37.85 41.84	80 Dual Factor (dB) 0.08 0.08 2.21	Emission (dBµV/ 46.8 37.9 44.0	Relati Test M Anter Level //m) 8 3 5	Limits (dBµV/m) 74 54 74	56.9% DC 5V by Vertical Margin (dB) -27.12 -16.07 -29.95	value Type Value Type Peak AVG peak	
Factor = Anter EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4804.000 4804.000 7206.000 7206.000	IMILAB C3 22.7 °C 960hPa Mode 1 Meter Reading (dBµV) 46.80 37.85 41.84	80 Dual Factor (dB) 0.08 0.08 2.21	Emission (dBµV/ 46.8 37.9 44.0	Relati Test M Anter Level //m) 8 3 5	Limits (dBµV/m) 74 54 74	56.9% DC 5V by Vertical Margin (dB) -27.12 -16.07 -29.95	value Type Value Type Peak AVG peak	
Factor = Anter	IMILAB C3 22.7 °C 960hPa Mode 1 Meter Reading (dBµV) 46.80 37.85 41.84	Factor (dB) 0.08 2.21 2.21	Emission (dBµV/ 46.8 37.9 44.0 34.3	Relati Test M Anter Level //m) 8 3 5	Limits (dBµV/m) 74 54 74	56.9% DC 5V by Vertical Margin (dB) -27.12 -16.07 -29.95	value Type Value Type Peak AVG peak	

RESULT: Pass



EUT Name	IMILAB	C30 Dual	Mode	I Name	CMSXJ111	CMSXJ111A	
Temperature	22.7 ℃		Relat	ive Humidity	56.9%		
Pressure	960hPa		Test	/oltage	DC 5V by adapter		
Test Mode	st Mode 2			nna Polarity	Horizontal		
			·		·		
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type	
4880.000	46.39	0.08	46.47	74	-27.53	peak	
4880.000	37.05	0.08	37.13	54	-16.87	AVG	
7320.000	41.95	2.21	44.16	74	-29.84	peak	
7320.000	32.68	2.21	34.89	54	-19.11	AVG	
Remark: Factor = Anter	na Factor + C	able Loss – Pre-	amplifier.				
			- I				
		C30 Dual		I Name	CMSXJ111	IA	
EUT Name			Mode	I Name ive Humidity	CMSXJ111 56.9%	IA	
EUT Name Temperature Pressure	IMILAB		Mode Relat				
EUT Name Temperature	IMILAB 22.7℃		Mode Relat Test	ive Humidity	56.9%		
EUT Name Femperature Pressure	IMILAB 22.7℃ 960hPa	C30 Dual	Mode Relat Test	ive Humidity /oltage	56.9% DC 5V by	adapter	
EUT Name Femperature Pressure Fest Mode	IMILAB 22.7℃ 960hPa Mode 2	C30 Dual	Mode Relat Test Anter	ive Humidity /oltage nna Polarity	56.9% DC 5V by a Vertical	adapter	
EUT Name Femperature Pressure Fest Mode	IMILAB 22.7°C 960hPa Mode 2 Meter Reading	C30 Dual	Mode Relat Test Anter Emission Level	ive Humidity /oltage nna Polarity Limits	56.9% DC 5V by a Vertical Margin	adapter	
EUT Name Femperature Pressure Fest Mode Frequency (MHz)	IMILAB 22.7°C 960hPa Mode 2 Meter Reading (dBµV)	C30 Dual	Mode Relat Test Anter Emission Level (dBµV/m)	ive Humidity /oltage nna Polarity Limits (dBµV/m)	56.9% DC 5V by a Vertical Margin (dB)	adapter Value Type	
EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4880.000	IMILAB 22.7℃ 960hPa Mode 2 Meter Reading (dBµV) 46.22	C30 Dual Factor (dB) 0.08	Mode Relat Test V Anter Emission Level (dBµV/m) 46.30	ive Humidity /oltage nna Polarity Limits (dBµV/m) 74	56.9% DC 5V by a Vertical Margin (dB) -27.70	adapter Value Type peak	
EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4880.000 4880.000	IMILAB 22.7℃ 960hPa Mode 2 Meter Reading (dBµV) 46.22 37.64	C30 Dual Factor (dB) 0.08 0.08	Mode Relat Test V Anter Emission Level (dBµV/m) 46.30 37.72	ive Humidity /oltage na Polarity Limits (dBµV/m) 74 54	56.9% DC 5V by a Vertical Margin (dB) -27.70 -16.28	adapter Value Type peak AVG	

RESULT: Pass



EUT Name		IMILAB C30	0 Dual		Model I	Name	CMSXJ111A	
Temperature		22.7 ℃			Relative	e Humidity	56.9%	
Pressure		960hPa			Test Vo	Test VoltageDC 5V by adapter		
Test Mode	And Mode 3				Antenn	a Polarity	Horizontal	
Frequency	Me	ter Reading	Factor	Emissi	ion Level	Limits	Margin	
(MHz)		(dBµV)	(dB)	(dB	µV/m)	(dBµV/m)	(dB)	Value Type
4960.000		46.04	0.08	46	6.12	74	-27.88	peak
4960.000		37.91	0.08	37	7.99	54	-16.01	AVG
7440.000		41.92	2.21	44	4.13	74	-29.87	peak
7440.000		32.81	2.21	35	5.02	54	-18.98	AVG
							•	
Remark: Factor = Anter	nna Fa	actor + Cabl	e Loss – Pre-	amplifier.				
	nna Fa	actor + Cabl	e Loss – Pre-	amplifier.				
	nna Fa	actor + Cabl		amplifier.	Model I	Name	CMSXJ111A	Δ
Factor = Anter	nna Fa	1		amplifier.	Model I	Name e Humidity	CMSXJ111A 56.9%	<u>.</u>
Factor = Anter EUT Name	nna Fa	IMILAB C3		amplifier.	Model I	e Humidity		
Factor = Anter EUT Name Temperature	nna Fa	IMILAB C30 22.7°C		amplifier.	Model N Relative Test Vo	e Humidity	56.9%	
Factor = Anter EUT Name Temperature Pressure Test Mode		IMILAB C30 22.7°C 960hPa Mode 3	0 Dual		Model N Relative Test Vo Antenn	e Humidity Itage a Polarity	56.9% DC 5V by ac Vertical	lapter
Factor = Anter EUT Name Femperature Pressure Frequency		IMILAB C30 22.7°C 960hPa Mode 3 ter Reading	0 Dual Factor	Emissi	Model N Relative Test Vo Antenn	e Humidity Itage a Polarity Limits	56.9% DC 5V by ac Vertical Margin	
Factor = Anter EUT Name Femperature Pressure Fest Mode Frequency (MHz)		IMILAB C30 22.7 °C 960hPa Mode 3 ter Reading (dBµV)	0 Dual Factor (dB)	Emissi (dB	Model I Relative Test Vo Antenn ion Level	e Humidity Itage a Polarity Limits (dBµV/m)	56.9% DC 5V by ac Vertical Margin (dB)	dapter Value Type
Factor = Anter EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4960.000		IMILAB C30 22.7℃ 960hPa Mode 3 ter Reading (dBµV) 46.43	0 Dual Factor (dB) 0.08	Emissi (dB)	Model N Relative Test Vo Antenn ion Level µV/m) 5.51	e Humidity Itage a Polarity Limits (dBµV/m) 74	56.9% DC 5V by ac Vertical Margin (dB) -27.49	dapter Value Type peak
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4960.000 4960.000		IMILAB C30 22.7°C 960hPa Mode 3 ter Reading (dBµV) 46.43 37.98	0 Dual Factor (dB) 0.08 0.08	Emissi (dB 46	Model N Relative Test Vo Antenn ion Level µV/m) 5.51 3.06	e Humidity Itage a Polarity Limits (dBµV/m) 74 54	56.9% DC 5V by ac Vertical Margin (dB) -27.49 -15.94	lapter Value Type peak AVG
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4960.000		IMILAB C30 22.7℃ 960hPa Mode 3 ter Reading (dBµV) 46.43	0 Dual Factor (dB) 0.08	Emissi (dB) 46 38	Model N Relative Test Vo Antenn ion Level µV/m) 5.51	e Humidity Itage a Polarity Limits (dBµV/m) 74	56.9% DC 5V by ac Vertical Margin (dB) -27.49	dapter Value Type peak
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4960.000 4960.000 7440.000		IMILAB C30 22.7 ℃ 960hPa Mode 3 ter Reading (dBµV) 46.43 37.98 41.07	0 Dual Factor (dB) 0.08 0.08 2.21	Emissi (dB) 46 38	Model N Relative Test Vo Antenn ion Level µV/m) 5.51 3.06 3.28	e Humidity Itage a Polarity Limits (dBµV/m) 74 54 74	56.9% DC 5V by ac Vertical Margin (dB) -27.49 -15.94 -30.72	Japter Value Type peak AVG peak
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4960.000 4960.000 7440.000		IMILAB C30 22.7 ℃ 960hPa Mode 3 ter Reading (dBµV) 46.43 37.98 41.07	0 Dual Factor (dB) 0.08 0.08 2.21	Emissi (dB) 46 38	Model N Relative Test Vo Antenn ion Level µV/m) 5.51 3.06 3.28	e Humidity Itage a Polarity Limits (dBµV/m) 74 54 74	56.9% DC 5V by ac Vertical Margin (dB) -27.49 -15.94 -30.72	Japter Value Type peak AVG peak

RESULT: Pass



Temperature 22.7 ℃ Relative Humidity 56.9% Pressure 960hPa Test Voltage DC 5V by adapter Test Mode Mode 4 Antenna Polarity Horizontal Frequency Meter Reading Factor Emission Level Limits Margin Value Type (M+12) (dBµV) (dB) (dBµVm) (dB) Value Type 4804.000 46.25 0.08 46.33 74 -27.67 peak 7206.000 41.69 2.21 43.90 74 -30.10 peak 7206.000 32.58 2.21 34.79 54 -19.21 AVG Remark: Factor + Cable Loss – Pre-amplifier. - - - - Remark: - - - - - - - Pressure 960hPa Test Voltage DC 5V by adapter - - Test Mode Mode 4 Antenna Polarity Vertical - - Mode 4 Ante	EUT Name	IMILAB C	30 Dual		Model	Name	CMSXJ11	1A
Test Mode Mode 4 Antenna Polarity Horizontal Frequency Meter Reading Factor Emission Level Limits Margin Value Typ. 4804.000 46.25 0.08 46.33 74 -27.67 peak 4804.000 37.27 0.08 37.35 54 -16.65 AVG 7206.000 31.69 2.21 34.79 54 -19.21 AVG Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. - - - - - EUT Name IMILAB C30 Dual Model Name CMSXJ111A - <th>Temperature</th> <th>22.7℃</th> <th></th> <th></th> <th>Relativ</th> <th>ve Humidity</th> <th>56.9%</th> <th></th>	Temperature	22.7 ℃			Relativ	ve Humidity	56.9%	
Frequency Meter Reading Factor Emission Level Limits Margin Value Type 4804.000 46.25 0.08 46.33 74 -27.67 peak 4804.000 37.27 0.08 37.35 54 -16.65 AVG 7206.000 41.69 2.21 43.90 74 -30.10 peak 7206.000 32.58 2.21 34.79 54 -19.21 AVG Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Image: CMSXJ111A Image: CMSXJ111A Temperature 22.7°C Relative Humidity 56.9% Pressure 960hPa Test Voltage DC 5V by adapter Test Mode Mode 4 Antenna Polarity Vertical Frequency Meter Reading Factor Emission Level Limits Margin Value Type (MHz) (dBµV/m) (dB) 0.08 0.08 74 -73.92 peak 4804.000 0.08 0.08 74 -73.92 p	Pressure	960hPa			Test Voltage		DC 5V by adapter	
(MHz) (dBµV) (dB) (dBµV/m) (dBµV/m) (dB) Value Typ 4804.000 46.25 0.08 46.33 74 -27.67 peak 4804.000 37.27 0.08 37.35 54 -16.65 AVG 7206.000 41.69 2.21 43.90 74 -30.10 peak 7206.000 32.58 2.21 34.79 54 -19.21 AVG Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Factor = Antenna Factor + Cable Loss – Pre-amplifier. Factor = Antenna Factor + Cable Loss – Pre-amplifier. Feagure 960hPa Test Voltage DC 5V by adapter Test Mode Mode 4 Antenna Polarity Vertical Frequency Meter Reading Factor Emission Level Limits Margin Value Typ (MHz) (dBµV) (dB) <	Test Mode	Mode 4	Mode 4		Anten	na Polarity	Horizontal	
(MHz) (dBµV) (dB) (dBµV/m) (dBµV/m) (dB) Value Typ 4804.000 46.25 0.08 46.33 74 -27.67 peak 4804.000 37.27 0.08 37.35 54 -16.65 AVG 7206.000 41.69 2.21 43.90 74 -30.10 peak 7206.000 32.58 2.21 34.79 54 -19.21 AVG Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Image: CMSXJ111A Image: CMSXJ111A Temperature 22.7°C Relative Humidity 56.9% Pressure 960hPa Test Voltage DC 5V by adapter Test Mode Mode 4 Antenna Polarity Vertical Frequency Meter Reading Factor Emission Level Limits Margin Value Typ (MHz) (dBµV) (dB) (dBµV/m) (dBµV/m) Vertical Frequency Meter Reading Factor Emission Level Limits Margin Value Ty				L				
(MHz) (dB)/V) (dB) (dB)/V/m) (dB)/V/m (dB)/V/m/m (dB)/V/m/m (dB)/V/m/m (dB)/V/m/m (dB)/V/m/m (dB)/V/m/m/m (dB)/V/m/m/m/m (dB)/V/m/m/m (d	Frequency	Meter Reading	Factor	Emissio	n Level	Limits	Margin	
4804.000 37.27 0.08 37.35 54 -16.65 AVG 7206.000 41.69 2.21 43.90 74 -30.10 peak 7206.000 32.58 2.21 34.79 54 -19.21 AVG 7206.000 32.58 2.21 34.79 54 -19.21 AVG Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. IMILAB C30 Dual Model Name CMSXJ111A Temperature 22.7°C Relative Humidity 56.9% Pressure 960hPa Test Voltage DC 5V by adapter Test Mode Mode 4 Antenna Polarity Vertical Frequency Meter Reading Factor Emission Level Limits Margin Value Type (MH2) (dBµV) (dB) (dBµV/m) (dB) Value Type 4804.000 37.42 0.08 37.5 54 -16.5 AVG 7206.000 32.48 2.21 43.69 54 -19.31 AVG	(MHz)	(dBµV)	(dB)	(dBµ∖	//m)	(dBµV/m)	(dB)	value Type
T206.000 41.69 2.21 43.90 74 -30.10 peak T206.000 32.58 2.21 34.79 54 -19.21 AVG Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Model Name CMSXJ111A Temperature 22.7°C Relative Humidity 56.9% Pressure 960hPa Test Voltage DC 5V by adapter Test Mode Mode 4 Antenna Polarity Vertical Frequency Meter Reading Factor Emission Level Limits Margin Value Type (MHz) (dBµV) (dB) (dBµV/m) (dBµV/m) (dB AVG 4804.000 37.42 0.08 37.5 54 -16.5 AVG 7206.000 41.35 2.21 43.56 74 -30.44 peak 7206.000 32.48 2.21 34.69 54 -19.31 AVG Remark: Image:	4804.000	46.25	0.08	46.3	33	74	-27.67	peak
T206.000 32.58 2.21 34.79 54 -19.21 AVG Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Image: CMSXJ111A Image: CMSXJ111A EUT Name IMILAB C30 Dual Model Name CMSXJ111A Temperature 22.7 °C Relative Humidity 56.9% Pressure 960hPa Test Voltage DC 5V by adapter Frequency Meter Reading Factor Emission Level Limits Margin Value Type (MHz) (dBµV) (dB) (dBµV/m) (dB) Value Type 4804.000 37.42 0.08 37.5 54 -16.5 AVG 7206.000 41.35 2.21 34.69 54 -19.31 AVG Remark: Image: I	4804.000	37.27	0.08	37.3	35	54	-16.65	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. EUT Name IMILAB C30 Dual Model Name CMSXJ111A Temperature 22.7°C Relative Humidity 56.9% Pressure 960hPa Test Voltage DC 5V by adapter Test Mode Mode 4 Antenna Polarity Vertical Frequency Meter Reading Factor Emission Level Limits Margin Value Type (MHz) (dBµV) (dB) (dBµV/m) (dBµV/m) (dB) Value Type 4804.000 37.42 0.08 37.5 54 -16.5 AVG 7206.000 41.35 2.21 43.56 74 -30.44 peak 7206.000 32.48 2.21 34.69 54 -19.31 AVG Remark:	7206.000	41.69	2.21	43.9	90	74	-30.10	peak
Factor = Antenna Factor + Cable Loss – Pre-amplifier. EUT Name IMILAB C30 Dual Model Name CMSXJ111A Temperature 22.7°C Relative Humidity 56.9% Pressure 960hPa Test Voltage DC 5V by adapter Test Mode Mode 4 Antenna Polarity Vertical Frequency Meter Reading Factor Emission Level Limits Margin Value Type (MHz) (dBµV) (dB) (dBµV/m) (dB) Value Type 4804.000 0.08 0.08 74 -73.92 peak 4804.000 37.42 0.08 37.5 54 -16.5 AVG 7206.000 41.35 2.21 43.56 74 -30.44 peak 7206.000 32.48 2.21 34.69 54 -19.31 AVG Remark:	7206.000	32.58	2.21	34.7	79	54	-19.21	AVG
Factor = Antenna Factor + Cable Loss – Pre-amplifier. EUT Name IMILAB C30 Dual Model Name CMSXJ111A Temperature 22.7 °C Relative Humidity 56.9% Pressure 960hPa Test Voltage DC 5V by adapter Test Mode Mode 4 Antenna Polarity Vertical Frequency Meter Reading Factor Emission Level Limits Margin Value Type (MH2) (dBµV) (dB) (dBµV/m) (dB) Value Type 4804.000 37.42 0.08 37.5 54 -16.5 AVG 7206.000 41.35 2.21 43.56 74 -30.44 peak Remark:								
EUT Name IMILAB C30 Dual Model Name CMSXJ111A Temperature 22.7 °C Relative Humidity 56.9% Pressure 960hPa Test Voltage DC 5V by adapter Test Mode Mode 4 Antenna Polarity Vertical Frequency Meter Reading Factor Emission Level Limits Margin Value Type (MHz) (dBµV) (dB) (dBµV/m) (dB) Value Type 4804.000 37.42 0.08 37.5 54 -16.5 AVG 7206.000 41.35 2.21 43.56 74 -30.44 peak Remark: Image: Comparison of the second	Remark:							
Temperature 22.7 °C Relative Humidity 56.9% Pressure 960hPa Test Voltage DC 5V by adapter Test Mode Mode 4 Antenna Polarity Vertical Frequency Meter Reading Factor Emission Level Limits Margin Value Type (MHz) (dBµV) (dB) (dBµV/m) (dBµV/m) (dB) Value Type 4804.000 0.08 0.08 74 -73.92 peak 4804.000 37.42 0.08 37.5 54 -16.5 AVG 7206.000 41.35 2.21 43.56 74 -30.44 peak 7206.000 32.48 2.21 34.69 54 -19.31 AVG Limits Image Image Image Image Image Image Remark: Image Image Image Image Image Image Image	Factor = Anter	na Factor + Cal	ole Loss – Pre-	amplifier.				
Pressure 960hPa Test Voltage DC 5V by adapter Test Mode Mode 4 Antenna Polarity Vertical Frequency Meter Reading Factor Emission Level Limits Margin Value Type (MHz) (dBµV) (dB) (dBµV/m) (dB) Value Type 4804.000 0.08 0.08 74 -73.92 peak 4804.000 37.42 0.08 37.5 54 -16.5 AVG 7206.000 41.35 2.21 43.56 74 -30.44 peak 7206.000 32.48 2.21 34.69 54 -19.31 AVG Remark:	EUT Name	IMILAB C	30 Dual		Model	Name	CMSXJ11 ²	1A
Test Mode Mode 4 Antenna Polarity Vertical Frequency Meter Reading Factor Emission Level Limits Margin Value Type (MHz) (dBµV) (dB) (dBµV/m) (dBµV/m) (dB) Value Type 4804.000 0.08 0.08 74 -73.92 peak 4804.000 37.42 0.08 37.5 54 -16.5 AVG 7206.000 41.35 2.21 43.56 74 -30.44 peak 7206.000 32.48 2.21 34.69 54 -19.31 AVG Remark:	Temperature	22.7 ℃			Relative Humidity		56.9%	
Frequency Meter Reading Factor Emission Level Limits Margin Value Type (MHz) (dBμV) (dB) (dBμV/m) (dBμV/m) (dB) Value Type 4804.000 0.08 0.08 74 -73.92 peak 4804.000 37.42 0.08 37.5 54 -16.5 AVG 7206.000 41.35 2.21 43.56 74 -30.44 peak 7206.000 32.48 2.21 34.69 54 -19.31 AVG Remark:	Pressure	960hPa			Test V	oltage	DC 5V by	adapter
(MHz) (dBµV) (dB) (dBµV/m) (dBµV/m) (dB) value Type 4804.000 0.08 0.08 74 -73.92 peak 4804.000 37.42 0.08 37.5 54 -16.5 AVG 7206.000 41.35 2.21 43.56 74 -30.44 peak 7206.000 32.48 2.21 34.69 54 -19.31 AVG Remark:	Test Mode	Mode 4			Anten	na Polarity	Vertical	
(MHz) (dBµV) (dB) (dBµV/m) (dBµV/m) (dB) value Type 4804.000 0.08 0.08 74 -73.92 peak 4804.000 37.42 0.08 37.5 54 -16.5 AVG 7206.000 41.35 2.21 43.56 74 -30.44 peak 7206.000 32.48 2.21 34.69 54 -19.31 AVG Remark:	Frequency	Motor Dooding	Fastar	Emissio		Limita	Morgin	-
4804.000 0.08 0.08 74 -73.92 peak 4804.000 37.42 0.08 37.5 54 -16.5 AVG 7206.000 41.35 2.21 43.56 74 -30.44 peak 7206.000 32.48 2.21 34.69 54 -19.31 AVG Remark:								Value Type
4804.000 37.42 0.08 37.5 54 -16.5 AVG 7206.000 41.35 2.21 43.56 74 -30.44 peak 7206.000 32.48 2.21 34.69 54 -19.31 AVG Image: Second	, ,	(ασμν)	· · · /				()	neek
7206.000 41.35 2.21 43.56 74 -30.44 peak 7206.000 32.48 2.21 34.69 54 -19.31 AVG Image: Second S		07.15						-
7206.000 32.48 2.21 34.69 54 -19.31 AVG Remark:					-	-		
Remark:								-
	7206.000	32.48	2.21	34.6	69	54	-19.31	AVG
i actor - Antenna Factor + Cable 2055 - Fre-antphiller.	Remark [.]							
		no Footor I Col		omplifier				

RESULT: Pass



EUT Name	IMILAB C	30 Dual	Mode	Iname	CMSXJ111A		
Temperature	22.7 ℃		Relati	ve Humidity	56.9%		
Pressure	960hPa		Test \	oltage	DC 5V by adapter		
Test Mode	Mode 5		Anter	na Polarity	Horizontal		
					•		
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type	
4880.000	46.58	0.08	46.66	74	-27.34	peak	
4880.000	37.10	0.08	37.18	54	-16.82	AVG	
7320.000	41.99	2.21	44.20	74	-29.80	peak	
7320.000	32.22	2.21	34.43	54	-19.57	AVG	
Domork							
	nna Factor + Ca	ole Loss – Pre-	amplifier.				
	nna Factor + Ca	ole Loss – Pre-	amplifier.				
Factor = Anter	nna Factor + Ca IMILAB C			Name	CMSXJ111	IA	
Factor = Anter EUT Name			Mode	Name	CMSXJ111 56.9%	IA	
Remark: Factor = Anter EUT Name Temperature Pressure	IMILAB C		Mode Relati				
Factor = Anter EUT Name Temperature Pressure	IMILAB C 22.7℃		Mode Relati Test V	ve Humidity	56.9%		
Factor = Anter EUT Name Temperature Pressure Test Mode	IMILAB C 22.7℃ 960hPa Mode 5		Mode Relati Test V	ve Humidity Voltage	56.9% DC 5V by a Vertical	adapter	
Factor = Anter EUT Name Temperature Pressure	IMILAB C 22.7℃ 960hPa Mode 5 Meter Reading	30 Dual	Mode Relati Test V Anter	ve Humidity /oltage na Polarity	56.9% DC 5V by		
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz)	IMILAB C 22.7℃ 960hPa Mode 5	30 Dual	Mode Relati Test V Anter Emission Level	ve Humidity /oltage na Polarity Limits	56.9% DC 5V by a Vertical	adapter	
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4880.000	IMILAB C 22.7℃ 960hPa Mode 5 Meter Reading (dBµV)	30 Dual Factor (dB)	Mode Relati Test V Anter Emission Level (dBµV/m)	ve Humidity foltage na Polarity Limits (dBµV/m)	56.9% DC 5V by a Vertical Margin (dB)	adapter Value Type	
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4880.000 4880.000	IMILAB C 22.7℃ 960hPa Mode 5 Meter Reading (dBµV) 46.83 37.55	30 Dual Factor (dB) 0.08 0.08	Mode Relati Test V Anter Emission Level (dBµV/m) 46.91 37.63	ve Humidity Voltage na Polarity Limits (dBµV/m) 74	56.9% DC 5V by a Vertical Margin (dB) -27.09 -16.37	adapter Value Type peak AVG	
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4880.000	IMILAB C 22.7℃ 960hPa Mode 5 Meter Reading (dBµV) 46.83	30 Dual Factor (dB) 0.08	Mode Relati Test V Anter Emission Level (dBµV/m) 46.91	ve Humidity foltage na Polarity Limits (dBµV/m) 74 54	56.9% DC 5V by a Vertical Margin (dB) -27.09	adapter Value Type peak	
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4880.000 4880.000 7320.000	IMILAB C 22.7 °C 960hPa Mode 5 Meter Reading (dBµV) 46.83 37.55 41.97	30 Dual Factor (dB) 0.08 0.08 2.21	Mode Relati Test \ Anter Emission Level (dBµV/m) 46.91 37.63 44.18	ve Humidity foltage na Polarity Limits (dBµV/m) 74 54 74	56.9% DC 5V by a Vertical Margin (dB) -27.09 -16.37 -29.82	adapter Value Type peak AVG peak	
Factor = Anter	IMILAB C 22.7 °C 960hPa Mode 5 Meter Reading (dBµV) 46.83 37.55 41.97	30 Dual Factor (dB) 0.08 0.08 2.21	Mode Relati Test \ Anter Emission Level (dBµV/m) 46.91 37.63 44.18	ve Humidity foltage na Polarity Limits (dBµV/m) 74 54 74	56.9% DC 5V by a Vertical Margin (dB) -27.09 -16.37 -29.82	Adapter Value Type peak AVG peak	

RESULT: Pass



EUT Name		IMILAB C3	0 Dual		Model I	Name	CMSXJ111A		
Femperature		22.7 ℃			Relative	e Humidity	56.9%		
Pressure		960hPa	ıPa			ltage	DC 5V by adapter		
Fest Mode	t Mode Mode 6				Antenn	a Polarity	Horizontal		
Frequency	Me	ter Reading	Factor	Emissi	ion Level	Limits	Margin		
(MHz)		(dBµV)	(dB)	(dB	µV/m)	(dBµV/m)	(dB)	Value Type	
4960.000		46.62	0.08	46	6.70	74	-27.30	peak	
4960.000		37.95	0.08	38	3.03	54	-15.97	AVG	
7440.000		41.57	2.21	43	3.78	74	-30.22	peak	
7440.000		32.08	2.21	34	1.29	54	-19.71	AVG	
Deve									
Remark:	no E	actor L Cabl	alaaa Dra	omplifior					
Remark: Factor = Anter	nna Fa	actor + Cabl	e Loss – Pre-	amplifier.					
	nna Fa	actor + Cabl	e Loss – Pre-	amplifier.	,				
	nna Fa	actor + Cabl		amplifier.	Model I	Name	CMSXJ111A		
Factor = Anter	na Fa	[amplifier.	Model I	Name e Humidity	CMSXJ111A 56.9%	Δ	
Factor = Anter EUT Name	nna Fa	IMILAB C3		amplifier.	Model I	e Humidity			
Factor = Anter EUT Name Femperature	nna Fa	IMILAB C3 22.7°C		amplifier.	Model I Relative Test Vo	e Humidity	56.9%		
Factor = Anter EUT Name Femperature Pressure Fest Mode		IMILAB C3 22.7℃ 960hPa Mode 6	0 Dual		Model N Relative Test Vo Antenn	e Humidity Itage a Polarity	56.9% DC 5V by ac Vertical		
Factor = Anter EUT Name Femperature Pressure Fest Mode		IMILAB C3 22.7°C 960hPa Mode 6 ter Reading	0 Dual Factor	Emissi	Model N Relative Test Vo Antenn	e Humidity Itage a Polarity Limits	56.9% DC 5V by ac Vertical Margin	dapter	
Factor = Anter EUT Name Femperature Pressure Fest Mode Frequency (MHz)		IMILAB C3 22.7 °C 960hPa Mode 6 ter Reading (dBµV)	0 Dual Factor (dB)	Emissi (dB	Model N Relative Test Vo Antenn ion Level	e Humidity Itage a Polarity Limits (dBµV/m)	56.9% DC 5V by ad Vertical Margin (dB)	dapter Value Type	
Factor = Anter EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4960.000		IMILAB C3 22.7 ℃ 960hPa Mode 6 ter Reading (dBµV) 46.92	0 Dual Factor (dB) 0.08	Emissi (dB	Model N Relative Test Vo Antenn ion Level µV/m) 7.00	e Humidity Itage a Polarity Limits (dBµV/m) 74	56.9% DC 5V by ac Vertical Margin (dB) -27.00	dapter Value Type peak	
Factor = Anter EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4960.000 4960.000		IMILAB C3 22.7°C 960hPa Mode 6 ter Reading (dBµV) 46.92 37.41	0 Dual Factor (dB) 0.08 0.08	Emissi (dB 47 37	Model N Relative Test Vo Antenn ion Level µV/m) 7.00 7.49	e Humidity Itage a Polarity Limits (dBµV/m) 74 54	56.9% DC 5V by ad Vertical Margin (dB) -27.00 -16.51	dapter Value Type peak AVG	
Factor = Anter EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4960.000 4960.000 7440.000		IMILAB C3 22.7 ℃ 960hPa Mode 6 ter Reading (dBµV) 46.92 37.41 41.96	0 Dual Factor (dB) 0.08 0.08 2.21	Emissi (dB) 47 37 44	Model N Relative Test Vo Antenn ion Level µV/m) 7.00 7.49 4.17	e Humidity Itage a Polarity Limits (dBµV/m) 74 54 74	56.9% DC 5V by ac Vertical Margin (dB) -27.00 -16.51 -29.83	dapter Value Type peak AVG peak	
Factor = Anter EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4960.000 4960.000		IMILAB C3 22.7°C 960hPa Mode 6 ter Reading (dBµV) 46.92 37.41	0 Dual Factor (dB) 0.08 0.08	Emissi (dB) 47 37 44	Model N Relative Test Vo Antenn ion Level µV/m) 7.00 7.49	e Humidity Itage a Polarity Limits (dBµV/m) 74 54	56.9% DC 5V by ad Vertical Margin (dB) -27.00 -16.51	dapter Value Type peak AVG	
Factor = Anter EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4960.000 4960.000 7440.000		IMILAB C3 22.7 ℃ 960hPa Mode 6 ter Reading (dBµV) 46.92 37.41 41.96	0 Dual Factor (dB) 0.08 0.08 2.21	Emissi (dB) 47 37 44	Model N Relative Test Vo Antenn ion Level µV/m) 7.00 7.49 4.17	e Humidity Itage a Polarity Limits (dBµV/m) 74 54 74	56.9% DC 5V by ac Vertical Margin (dB) -27.00 -16.51 -29.83	dapter Value Type peak AVG peak	
Factor = Anter EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4960.000 4960.000 7440.000 7440.000		IMILAB C3 22.7 ℃ 960hPa Mode 6 ter Reading (dBµV) 46.92 37.41 41.96	0 Dual Factor (dB) 0.08 0.08 2.21	Emissi (dB) 47 37 44	Model N Relative Test Vo Antenn ion Level µV/m) 7.00 7.49 4.17	e Humidity Itage a Polarity Limits (dBµV/m) 74 54 74	56.9% DC 5V by ac Vertical Margin (dB) -27.00 -16.51 -29.83	dapter Value Type peak AVG peak	
Factor = Anter EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4960.000 4960.000 7440.000	Met	IMILAB C3 22.7 ℃ 960hPa Mode 6 ter Reading (dBµV) 46.92 37.41 41.96 32.32	0 Dual Factor (dB) 0.08 0.08 2.21 2.21	Emissi (dB) 47 37 44 34	Model N Relative Test Vo Antenn ion Level µV/m) 7.00 7.49 4.17 4.53	e Humidity Itage a Polarity Limits (dBµV/m) 74 54 74	56.9% DC 5V by ac Vertical Margin (dB) -27.00 -16.51 -29.83	dapter Value Type peak AVG peak	

RESULT: Pass

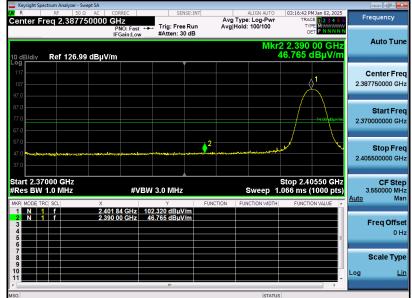
Note:

- 1. The amplitude of other spurious emissions from 1G to 25 GHz which are attenuated more than 20 dB below the permissible value need not be reported.
- 2. Factor = Antenna Factor + Cable loss Pre-amplifier gain, Margin = Emission Level-Limit.
- 3. The "Factor" value can be calculated automatically by software of measurement system.

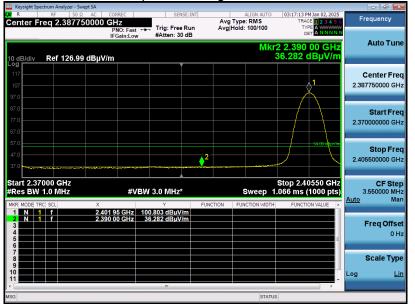


EUT Name	IMILAB C30 Dual	Model Name	CMSXJ111A
Temperature	21.3 ℃	Relative Humidity	48%
Pressure	960hPa	Test Voltage	DC 5V by adapter
Test Mode	Mode 1	Antenna Polarity	Horizontal

Test Graph for Peak Measurement



Test Graph for Average Measurement



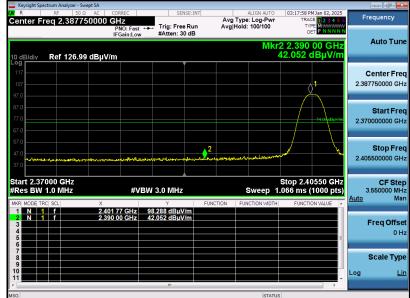
RESULT: Pass



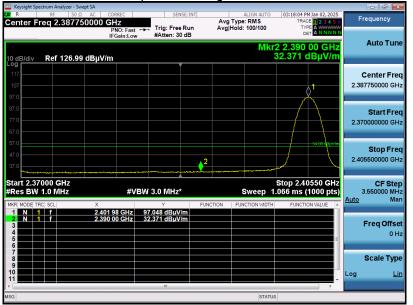
Band Edge Emission Test Results for Restricted Bands

EUT Name	IMILAB C30 Dual	Model Name	CMSXJ111A
Temperature	21.3 ℃	Relative Humidity	48%
Pressure	960hPa	Test Voltage	DC 5V by adapter
Test Mode	Mode 1	Antenna Polarity	Vertical

Test Graph for Peak Measurement



Test Graph for Average Measurement



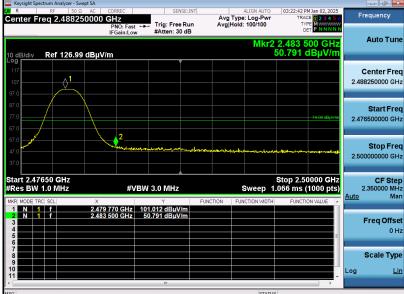
RESULT: Pass



Band Edge Emission Test Results for Restricted Bands

EUT Name	IMILAB C30 Dual	Model Name	CMSXJ111A
Temperature	21.3 ℃	Relative Humidity	48%
Pressure	960hPa	Test Voltage	DC 5V by adapter
Test Mode	Mode 3	Antenna Polarity	Horizontal

Test Graph for Peak Measurement



Test Graph for Average Measurement Frequency ALIGN AUT Avg Type: RMS Avg|Hold: 100/100 enter Freq 2.488250000 GHz PNO: Fast +++ Trig: Free Run IFGain:Low #Atten: 30 dB Auto Tune 431 dB Ref 126.99 dBµV/m Center Freq 2.488250000 GHz Start Freq 2.476500000 GH Stop Freq 2.50000000 GHz Start 2.47650 GHz #Res BW 1.0 MHz Stop 2.50000 GHz Sweep 1.066 ms (1000 pts) CF Step 2.350000 MHz #VBW 3.0 MHz* Auto Mar 2.480 005 GHz 99.764 dBµV 2.483 500 GHz 39.431 dBµV Freq Offset 0 Hz Scale Type .og Lin

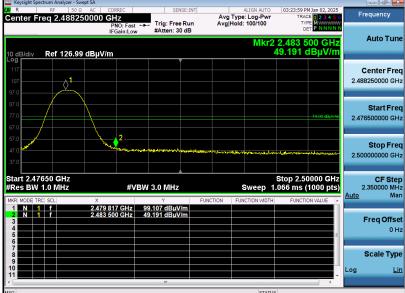
RESULT: Pass



Band Edge Emission	Test Results for Restricted Bands
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EUT Name	IMILAB C30 Dual	Model Name	CMSXJ111A
Temperature	21.3℃	Relative Humidity	48%
Pressure	960hPa	Test Voltage	DC 5V by adapter
Test Mode	Mode 3	Antenna Polarity	Vertical

Test Graph for Peak Measurement



Test Graph for Average Measurement Frequency ALIGN AUT Avg Type: RMS Avg|Hold: 100/100 Center Freq 2.488250000 GHz PNO: Fast +++ Trig: Free Run IFGain:Low #Atten: 30 dB Auto Tune dB Ref 126.99 dBµV/m Center Freq 2.488250000 GHz Start Freq 2.476500000 GH Stop Freq 2.50000000 GHz Start 2.47650 GHz #Res BW 1.0 MHz Stop 2.50000 GHz Sweep 1.066 ms (1000 pts) CF Step 2.350000 MHz #VBW 3.0 MHz* Auto Mar 2.480 005 GHz 97.782 dBµV 2.483 500 GHz 36.957 dBµV Freq Offset 0 Hz Scale Type .og Lin

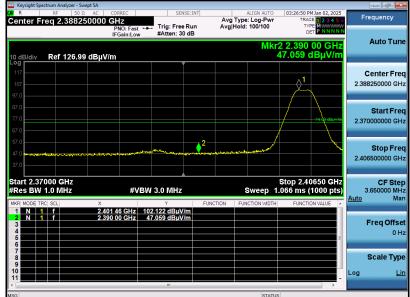
RESULT: Pass



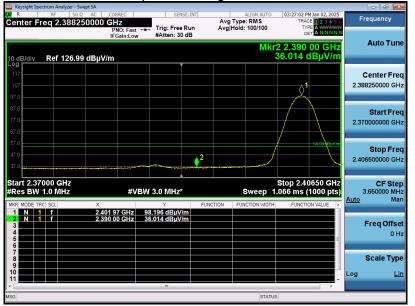
Band Edge Emission Test Results for Restricte	d Bands
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EUT Name	IMILAB C30 Dual	Model Name	CMSXJ111A
Temperature	21.3℃	Relative Humidity	48%
Pressure	960hPa	Test Voltage	DC 5V by adapter
Test Mode	Mode 4	Antenna Polarity	Horizontal

Test Graph for Peak Measurement



Test Graph for Average Measurement



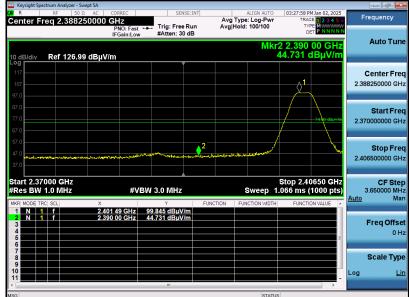
RESULT: Pass



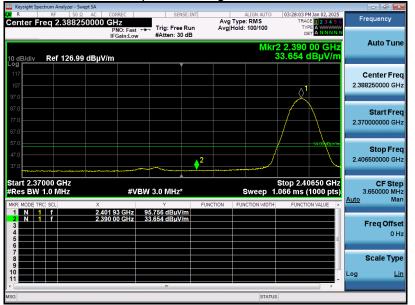
Band Edge Emission Test Results for Restricted Bands

EUT Name	IMILAB C30 Dual	Model Name	CMSXJ111A
Temperature	21.3 ℃	Relative Humidity	48%
Pressure	960hPa	Test Voltage	DC 5V by adapter
Test Mode	Mode 4	Antenna Polarity	Vertical

Test Graph for Peak Measurement



Test Graph for Average Measurement



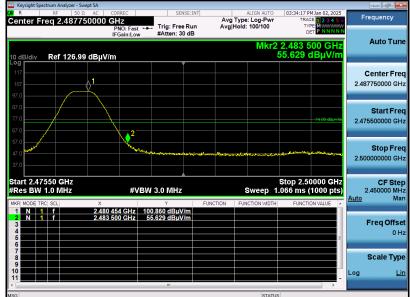
RESULT: Pass



Band Edge Emission Test Results for Restricted Bands

EUT Name	IMILAB C30 Dual	Model Name	CMSXJ111A
Temperature	21.3 ℃	Relative Humidity	48%
Pressure	960hPa	Test Voltage	DC 5V by adapter
Test Mode	Mode 6	Antenna Polarity	Horizontal

Test Graph for Peak Measurement



Test Graph for Average Measurement Frequency ALIGN AUT Avg Type: RMS Avg|Hold: 100/100 enter Freq 2.487750000 GHz PNO: Fast +++ Trig: Free Run IFGain:Low #Atten: 30 dB Auto Tune 43 162 dB Ref 126.99 dBµV/m Center Freq 2.487750000 GHz Start Freq 2.475500000 GH <mark>^</mark>2 Stop Freq 2.50000000 GHz Start 2.47550 GHz #Res BW 1.0 MHz Stop 2.50000 GHz Sweep 1.066 ms (1000 pts) CF Step 2.450000 MHz #VBW 3.0 MHz* Auto Mar 2.479 988 GHz 2.483 500 GHz 96.609 dBµV 43.162 dBµV Freq Offset 0 Hz Scale Type .og Lin

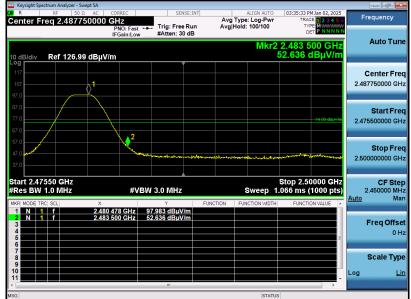
RESULT: Pass



Band Edge Emission	Test Results for Restricted Bands
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EUT Name	IMILAB C30 Dual	Model Name	CMSXJ111A
Temperature	21.3 ℃	Relative Humidity	48%
Pressure	960hPa	Test Voltage	DC 5V by adapter
Test Mode	Mode 6	Antenna Polarity	Vertical

Test Graph for Peak Measurement



Test Graph for Average Measurement Frequency ALIGN AUTO Avg Type: RMS Avg|Hold:>100/100 enter Freq 2.487750000 GHz PNO: Fast IFGain I Trig: Free Run #Atten: 30 dB Auto Tune Ref 126.99 dBµV/m Center Freq 2.487750000 GH Start Freq 2.475500000 GH Stop Freq 2 2 50000000 GH; Start 2.47550 GHz #Res BW 1.0 MHz Stop 2.50000 GHz Sweep 1.066 ms (1000 pts) CF Step 2.450000 MHz #VBW 3.0 MHz* ۹uto Mar 2.479 914 GHz 2.483 500 GHz 93.985 dBµV Freq Offse 0 Hz Scale Type oa Lin

RESULT: Pass

Note: The factor had been edited in the "Input Correction" of the Spectrum Analyzer.



12. AC Power Line Conducted Emission Test

12.1 Measurement Limit

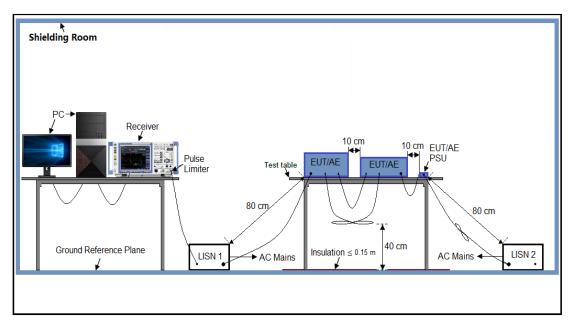
F	Maximum RF Line Voltage		
Frequency	Q.P. (dBµV)	Average (dBµV)	
150kHz~500kHz	66-56	56-46	
500kHz~5MHz	56	46	
5MHz~30MHz	60	50	

Note:

1. The lower limit shall apply at the transition frequency.

2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz

12.2 Measurement Setup (Block Diagram of Configuration)





12.3 Preliminary Procedure of Line Conducted Emission Test

- The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
- 2. Support equipment, if needed, was placed as per ANSI C63.10.
- 3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
- 4. All support equipment received AC120V/60Hz power from a LISN, if any.
- 5. The EUT received DC 5V power from adapter which received AC120V/60Hz power from a LISN.
- 6. The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7. Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
- 8. During the above scans, the emissions were maximized by cable manipulation.
- 9. The test mode(s) were scanned during the preliminary test.

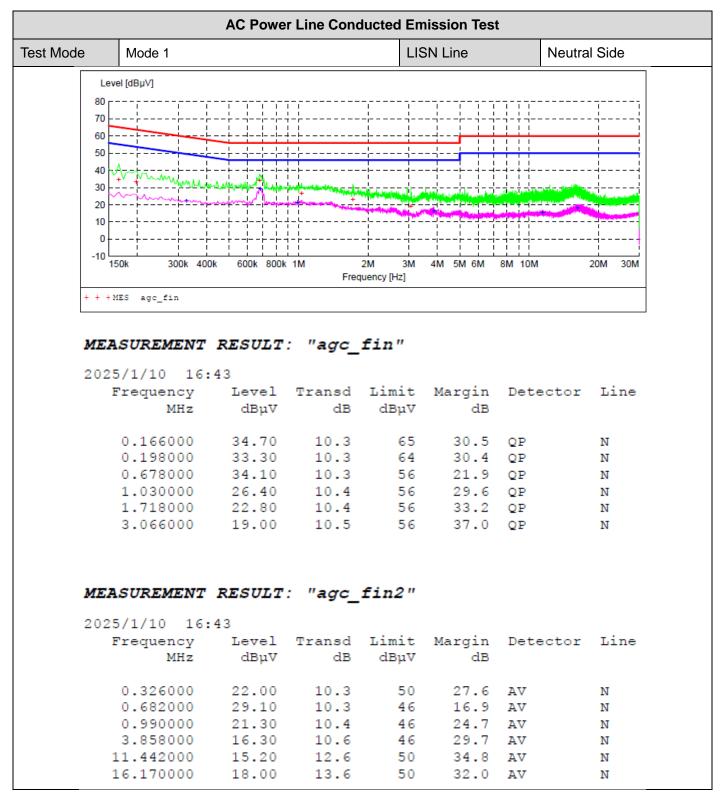
Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

12.4 Final Procedure of Line Conducted Emission Test

- 1. EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
- A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less – 2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
- 3. The test data of the worst case condition(s) was reported on the Summary Data page.



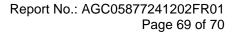
12.5 Measurement Results



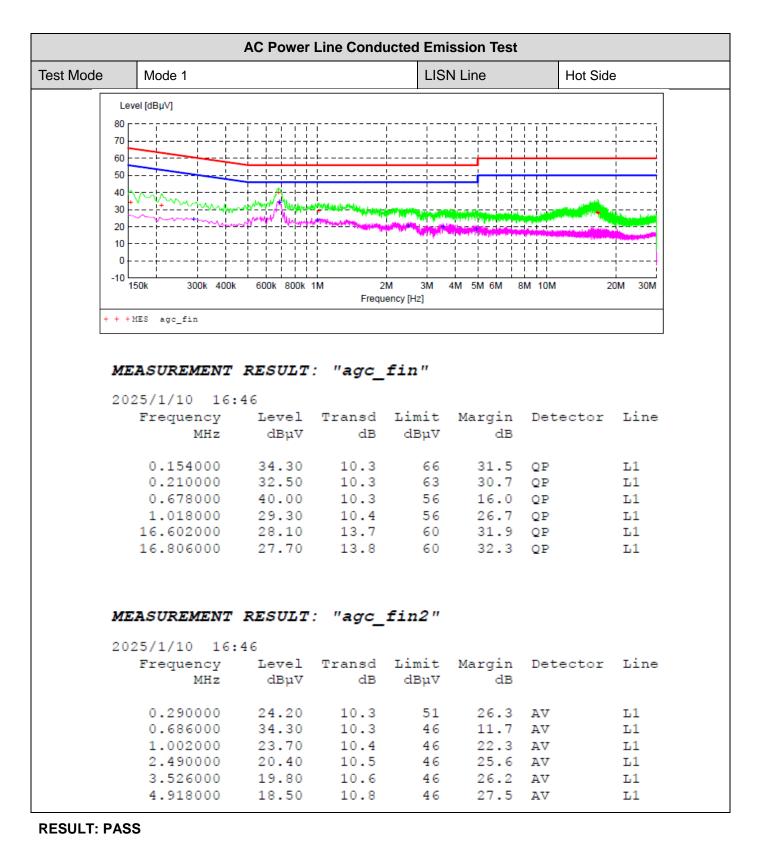
RESULT: Pass

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Appendix I: Photographs of Test Setup

Refer to the Report No.: AGC05877241202AP02

Appendix II: Photographs of Test EUT

Refer to the Report No.: AGC05877241202AP03

-----End of Report-----

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3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.

4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.

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