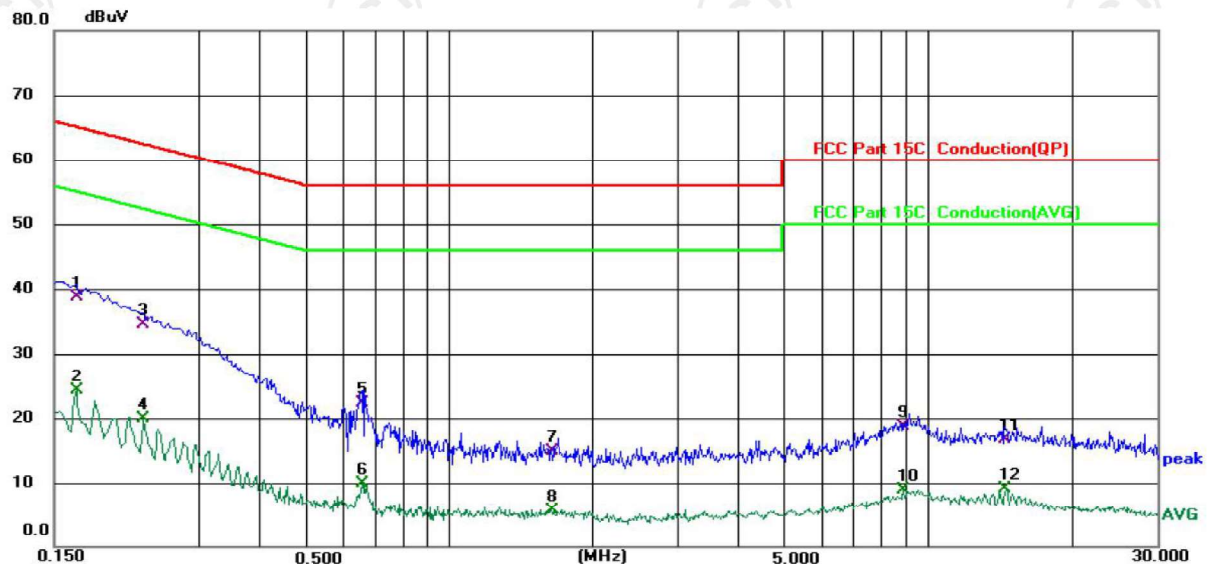


6.2.3. Test data

Please refer to following diagram for individual

Conducted Emission on Line Terminal of the power line (150 kHz to 30MHz)



Site: 844 Shielding Room

Phase: L1

Temperature: 25.1 (°C)

Humidity: 55 %

Limit: FCC Part 15C Conduction(QP)

Power: DC 5 V(Adapter Input AC 120 V/60 Hz)

Note:

No.	Mk.	Freq. MHz	Reading Level dBμV	Correct Factor dB	Measure- ment dBμV	Limit dBμV	Over dB	Detector	Comment
1	*	0.1660	29.08	9.59	38.67	65.16	-26.49	QP	
2		0.1660	14.62	9.59	24.21	55.16	-30.95	AVG	
3		0.2300	25.05	9.36	34.41	62.45	-28.04	QP	
4		0.2300	10.51	9.36	19.87	52.45	-32.58	AVG	
5		0.6580	13.22	9.18	22.40	56.00	-33.60	QP	
6		0.6580	0.64	9.18	9.82	46.00	-36.18	AVG	
7		1.6339	5.42	9.40	14.82	56.00	-41.18	QP	
8		1.6339	-3.68	9.40	5.72	46.00	-40.28	AVG	
9		8.8700	9.07	9.59	18.66	60.00	-41.34	QP	
10		8.8700	-0.75	9.59	8.84	50.00	-41.16	AVG	
11		14.5020	7.00	9.65	16.65	60.00	-43.35	QP	
12		14.5020	-0.52	9.65	9.13	50.00	-40.87	AVG	

Note:

Freq. = Emission frequency in MHz

Reading level (dBμV) = Receiver reading

Corr. Factor (dB) = LISN factor + Cable loss

Measurement (dBμV) = Reading level (dBμV) + Corr. Factor (dB)

Limit (dBμV) = Limit stated in standard

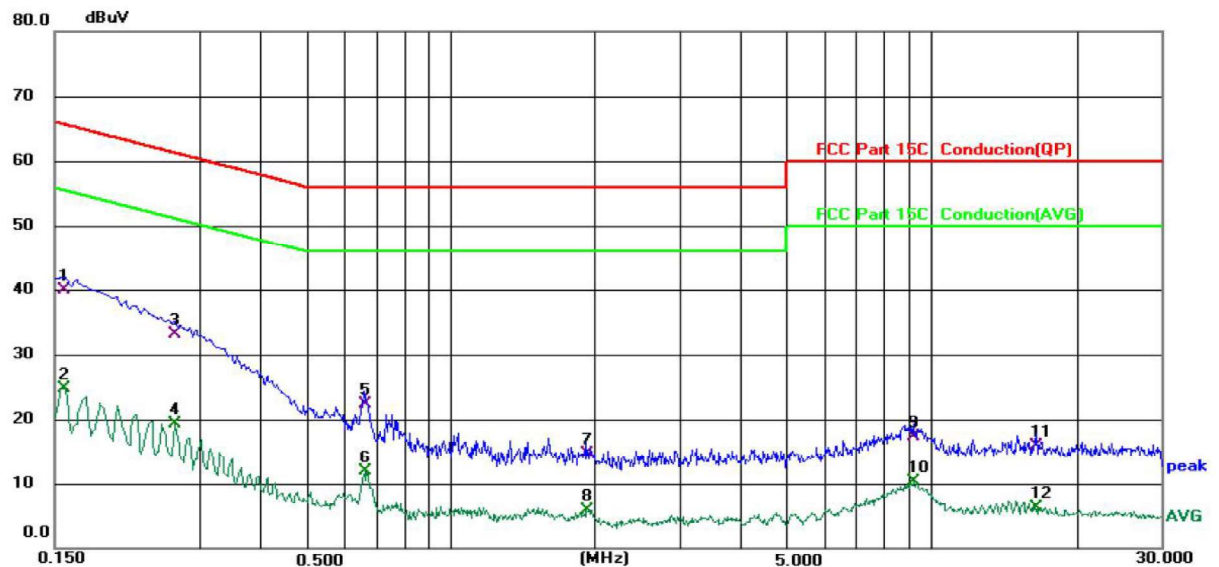
Margin (dB) = Measurement (dBμV) - Limits (dBμV)

Q.P. =Quasi-Peak

AVG =average

* is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz

Conducted Emission on Neutral Terminal of the power line (150 kHz to 30MHz)



Site 844 Shielding Room

Phase: N

Temperature: 25.1 (°C)

Humidity: 55 %

Limit: FCC Part 15C Conduction(QP)

Power: DC 5 V(Adapter Input AC 120 V/60 Hz)

Note:

No.	Mk.	Freq. MHz	Reading Level dBμV	Correct Factor dB	Measure- ment dBμV	Limit dBμV	Over dB	Detector	Comment
1	*	0.1570	30.30	9.60	39.90	65.62	-25.72	QP	
2		0.1570	15.16	9.60	24.76	55.62	-30.86	AVG	
3		0.2660	23.83	9.34	33.17	61.24	-28.07	QP	
4		0.2660	9.88	9.34	19.22	51.24	-32.02	AVG	
5		0.6650	13.02	9.21	22.23	56.00	-33.77	QP	
6		0.6650	2.65	9.21	11.86	46.00	-34.14	AVG	
7		1.9220	5.27	9.38	14.65	56.00	-41.35	QP	
8		1.9220	-3.39	9.38	5.99	46.00	-40.01	AVG	
9		9.1860	7.71	9.60	17.31	60.00	-42.69	QP	
10		9.1860	0.76	9.60	10.36	50.00	-39.64	AVG	
11		16.5620	6.15	9.70	15.85	60.00	-44.15	QP	
12		16.5620	-3.43	9.70	6.27	50.00	-43.73	AVG	

Note1:

Freq. = Emission frequency in MHz

Reading level (dBμV) = Receiver reading

Corr. Factor (dB) = LISN factor + Cable loss

Measurement (dBμV) = Reading level (dBμV) + Corr. Factor (dB)

Limit (dBμV) = Limit stated in standard

Margin (dB) = Measurement (dBμV) – Limits (dBμV)

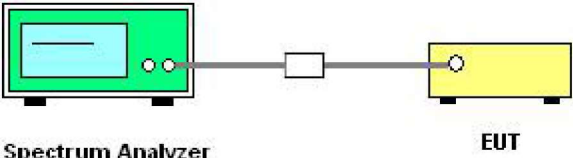
Q.P. =Quasi-Peak

AVG =average

* is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz.

6.3. Conducted Output Power

6.3.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (b)(3)
Test Method:	KDB 558074 D01 v05r02
Limit:	30dBm
Test Setup:	 Spectrum Analyzer EUT
Test Mode:	Refer to item 4.1
Test Procedure:	Set spectrum analyzer as following: a) Set the RBW $\geq$ DTS bandwidth. b) Set VBW $\geq 3 \times$ RBW. c) Set span $\geq 3 \times$ RBW d) Sweep time = auto couple. e) Detector = peak. f) Trace mode = max hold. g) Allow trace to fully stabilize. h) Use peak marker function to determine the peak amplitude level.
Test Result:	PASS

6.3.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	R&S	FSU	200054	Sep. 11, 2021
RF cable (9kHz-26.5GHz)	TCT	RE-06	N/A	Sep. 11, 2021
Antenna Connector	TCT	RFC-01	N/A	Sep. 11, 2021

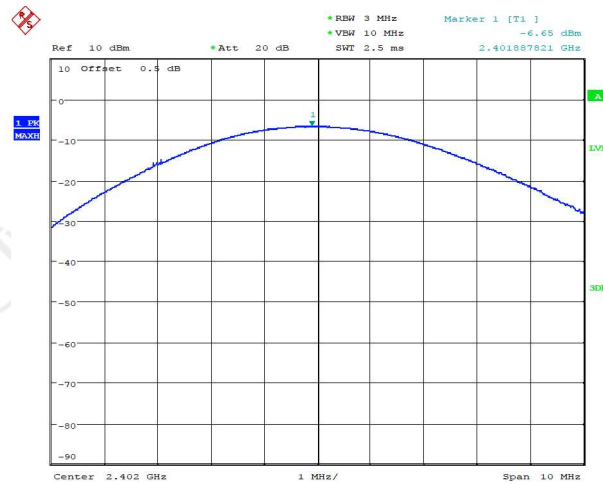
6.3.3. Test Data

BT LE mode			
Test channel	Maximum Conducted Output Power (dBm)	Limit (dBm)	Result
Lowest	-6.65	30.00	PASS
Middle	-5.74	30.00	PASS
Highest	-4.55	30.00	PASS

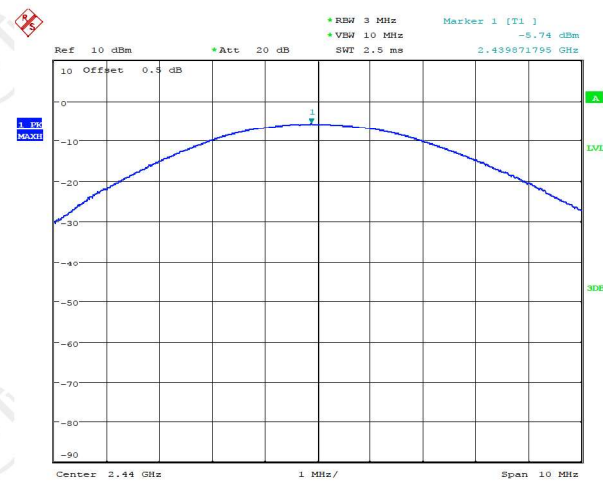
Test plots as follows:

BT LE mode

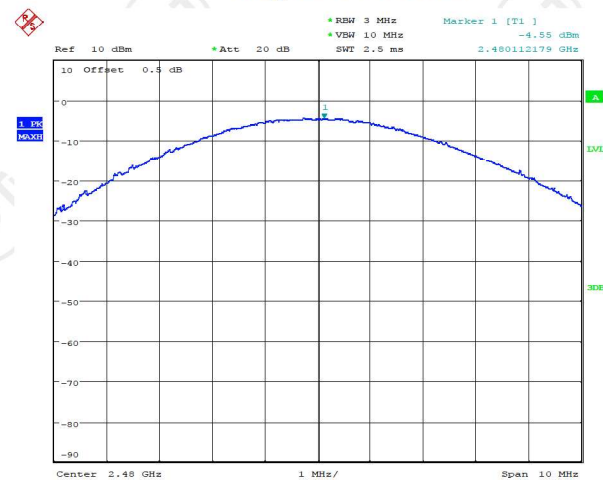
Lowest channel



Middle channel



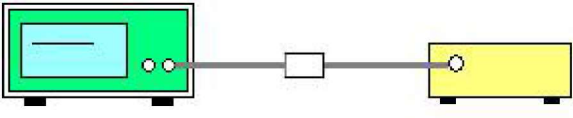
Highest channel



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6.4. Emission Bandwidth

6.4.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (a)(2)
Test Method:	KDB 558074 D01 v05r02
Limit:	>500kHz
Test Setup:	 Spectrum Analyzer EUT
Test Mode:	Refer to item 4.1
Test Procedure:	1. Set to the maximum power setting and enable the EUT transmit continuously. 2. 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 6dB bandwidth must be greater than 500 kHz. 3. Measure and record the results in the test report.
Test Result:	PASS

6.4.2. Test Instruments

RF Test Room				
Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	R&S	FSU	200054	Sep. 11, 2021
RF cable (9kHz-26.5GHz)	TCT	RE-06	N/A	Sep. 11, 2021
Antenna Connector	TCT	RFC-01	N/A	Sep. 11, 2021

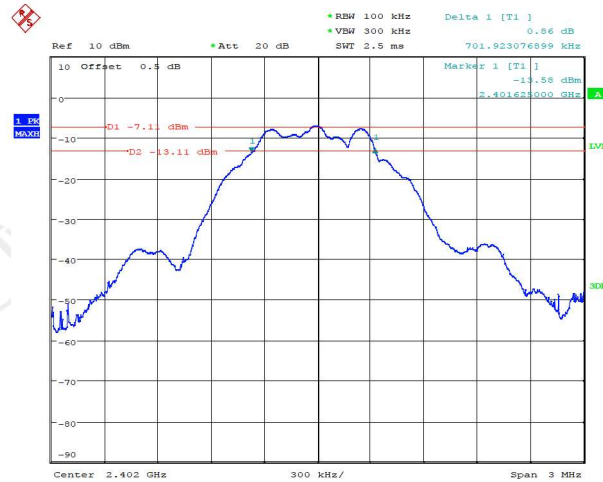
6.4.3. Test data

Test channel	6dB Emission Bandwidth (kHz)		
	BT LE mode	Limit	Result
Lowest	701.92	>500k	PASS
Middle	692.31	>500k	
Highest	697.12	>500k	

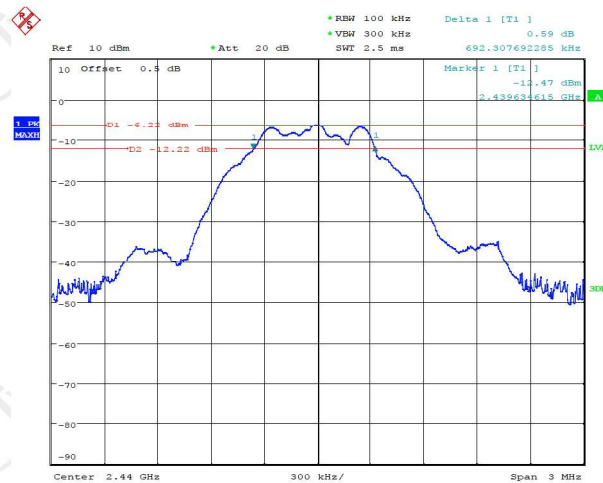
Test plots as follows:

BT LE mode

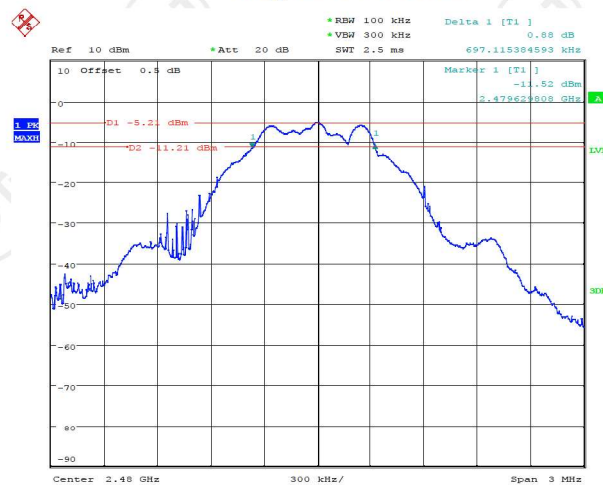
Lowest channel



Middle channel

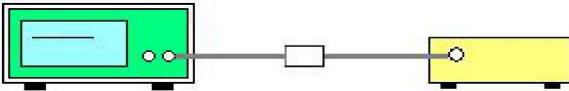


Highest channel



6.5. Power Spectral Density

6.6. Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (e)
Test Method:	KDB 558074 D01 v05r02
Limit:	The peak power spectral density shall not be greater than 8dBm in any 3kHz band at any time interval of continuous transmission.
Test Setup:	 Spectrum Analyzer EUT
Test Mode:	Refer to item 4.1
Test Procedure:	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): $3\text{ kHz} \leq \text{RBW} \leq 100\text{ kHz}$. Video bandwidth VBW $\geq 3 \times \text{RBW}$. 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.
Test Result:	PASS

6.6.1. Test Instruments

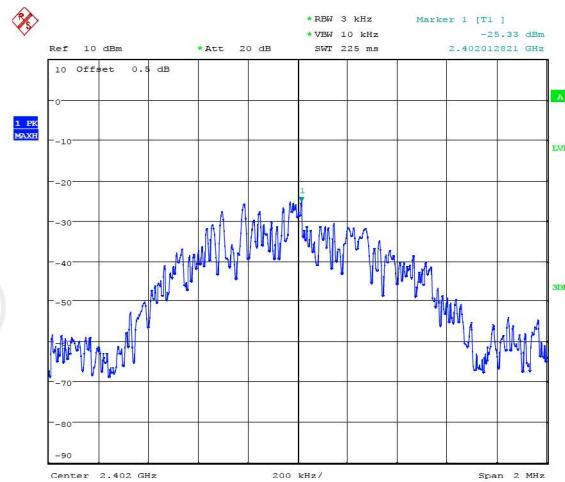
RF Test Room				
Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	R&S	FSU	200054	Sep. 11, 2021
RF cable (9kHz-26.5GHz)	TCT	RE-06	N/A	Sep. 11, 2021
Antenna Connector	TCT	RFC-01	N/A	Sep. 11, 2021

6.6.2. Test data

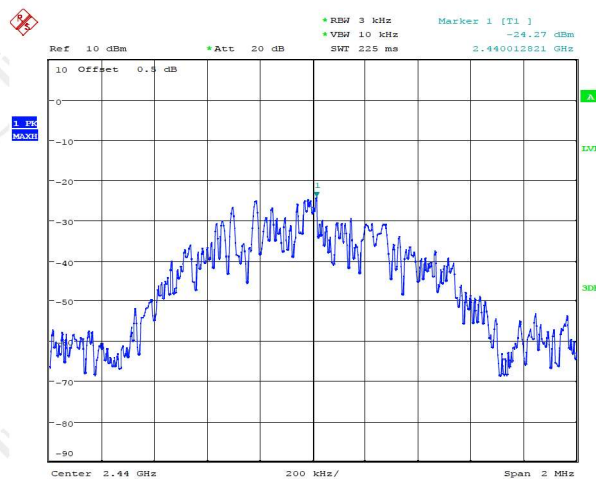
Test channel	Power Spectral Density (dBm/3kHz)		
	BT LE mode	Limit	Result
Lowest	-25.33	8 dBm/3kHz	PASS
Middle	-24.27	8 dBm/3kHz	
Highest	-22.94	8 dBm/3kHz	

Test plots as follows:

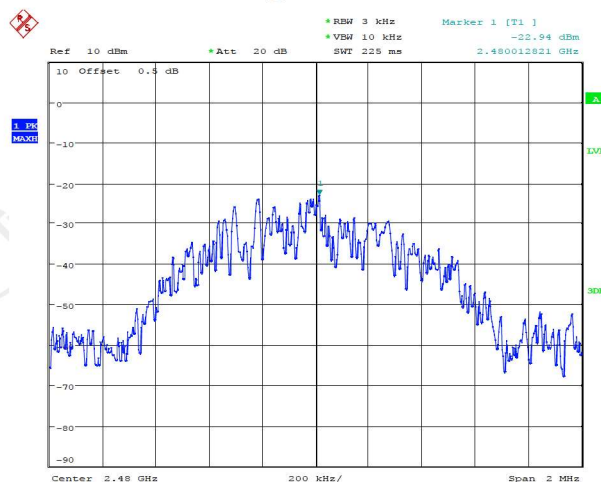
Lowest channel



Middle channel

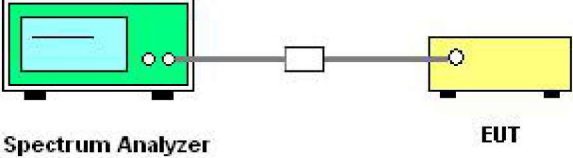


Highest channel



6.7. Conducted Band Edge and Spurious Emission Measurement

6.7.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	KDB 558074 D01 v05r02
Limit:	In any 100 kHz bandwidth outside of the authorized frequency band, the emissions which fall in the non-restricted bands shall be attenuated at least 20 dB / 30dB relative to the maximum PSD level in 100 kHz by RF conducted measurement and radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).
Test Setup:	 The diagram illustrates the test setup. On the left is a green box representing the 'Spectrum Analyzer'. A cable connects it to a small white box representing an 'attenuator'. Another cable connects the attenuator to a yellow box representing the 'EUT' (Equipment Under Test).
Test Mode:	Refer to item 4.1
Test Procedure:	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. Set RBW = 100 kHz, VBW=300 kHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB per 15.247(d). 4. Measure and record the results in the test report. 5. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
Test Result:	PASS