

## ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT



**EUT Description** MM6108-MF16858  
**Applicant:** Morse Micro Pty Ltd  
Level 8, 10-14 Waterloo St, Surry Hills NSW 2010, Australia  
**Manufacturer:** Morse Micro Pty Ltd  
Level 8, 10-14 Waterloo St, Surry Hills NSW 2010, Australia  
**Brand Name:** Morse Micro  
**Model No.:** MM6108-MF16858  
**Report Number:** TERF2505001770ER  
**FCC ID** 2A74O-B075FC  
**Date of EUT Received:** May 19, 2025  
**Date of Test:** May 19, 2025~August 6, 2025  
**Issue Date:** August 13, 2025



**Approved By** Alex Hsieh

**We hereby certify that:**

The above equipment was tested by SGS Taiwan Ltd. Central RF Lab. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10:2013 and the energy emitted by the sample EUT comply with FCC rule part §15.247.

The results of this report relate only to the sample identified in this report.

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## Revision History

Report Number	Revision	Description	Issue Date	Revised By	Remark
TERF2505001770ER	00	Original	August 7, 2025	Yuri Tsai	
TERF2505001770ER	01	Update section 2.5 & 2.6	August 13, 2025	Yuri Tsai	*

**Note:**

- 1、The remark "\*" indicates modification of the report upon requests from certification body.

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## 1 GENERAL INFORMATION

### 1.1 Product Description

EUT Description	MM6108-MF16858
Brand Name:	Morse Micro
Model No.:	MM6108-MF16858
Hardware Version:	3.4B
Firmware Version:	1.15.3
EUT Series No.:	0-0152N6
Power Supply:	5 Vdc
Test Software (Name/Version)	RF_Tester_Burko_3.4B

### 1.2 RF Specification

Radio Technology:	802.11ah
Frequency Range:	902 – 928MHz
Channel number:	OFDM 1M: 26 channels OFDM 2M: 13 channels OFDM 4M: 6 channels OFDM 8M: 3 channels
Modulation type:	OFDM
Transmit Power:	OFDM 1M: 27.75 dBm (Avg.) OFDM 2M: 27.96 dBm (Avg.) OFDM 4M: 27.98 dBm (Avg.) OFDM 8M: 27.82 dBm (Avg.)

### 1.3 Antenna Designation

Antenna Type	Freq. (MHz)	Peak Antenna Gain (dBi)
Dipole	902~928	1

**Note:** The antenna information is provided by the applicant, and the laboratory shall not be held liable for the accuracy, completeness, or reliability of any applicant-supplied data.

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## 1.4 Test Methodology of Applied Standards

FCC Part 15, Subpart C §15.247

FCC KDB 558074 D01 15.247 Meas Guidance v05r02

## 1.5 Test Facility

Laboratory	Test Site Address	Test Site Name	FCC Designation number	IC CAB identifier
SGS Taiwan Ltd.	No.134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan.	SAC 1 SAC 2 SAC 3 Conduction 1 Conducted 1 Conducted 2 Conducted 3 Conducted 4 Conducted 5 Conducted 6	TW0027	
Central RF Lab. (TAF code 3702)	No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan 333	Conduction C SAC C SAC D SAC G Conducted A Conducted B Conducted C Conducted D Conducted E Conducted F Conducted G	TW3702	TW0028

**Note:** Test site name is remarked on the equipment list in each section of this report as an indication where measurements occurred in specific test site and address.

Temperature:	22-24	°C	Relative Humidity:	59-63	%
Test site	Conducted 2		Test Start:	06/04/2025	
Test Engineer:	Dannis Chen		Test Done:	07/04/2025	

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## 1.6 Special Accessories

There are no special accessories used while test was conducted.

## 1.7 Equipment Modifications

There was no modification incorporated into the EUT.

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## 2 SYSTEM TEST CONFIGURATION

### 2.1 EUT Configuration

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

### 2.2 EUT Exercise

An engineering test mode (software/firmware) that applicant provided was utilized to manipulate the EUT into transmit, selection of the test channel, and modulation scheme.

### 2.3 Test Procedure

#### 2.3.1 Conducted Emissions

The EUT is placed on a table which is 0.8 m above ground plane. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz. The CISPR Quasi-Peak and Average detector mode is employed. The two LISNs provide 50uH/50 ohm of coupling impedance for the measuring instrument. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

#### 2.3.2 Conducted Test (RF)

The active antenna port of the unlicensed wireless device is connected to the spectrum analyzer with attenuator to protect the instrumentation. If a second antenna port is available, it is tested at one operating frequency, with other port(s) appropriately terminated, to verify it has similar output characteristics as the fully tested port.

#### 2.3.3 Radiated Emissions

The EUT is placed on a turn table. For emissions testing at or below 1 GHz, the table height shall be 0.8 m above the reference ground plane. For emission measurements above 1 GHz, the table height shall be 1.5 m. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this transmitter (EUT) was rotated through three orthogonal axes and measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and

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elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the measurement antenna.

## 2.4 Measurement Results Explanation Example

### 2.4.1 Radiated Emission Test Sites For Measurements From 9 kHz To 30 MHz

Radiated emission below 30MHz is measured in a 9m\*6m\*6m semi-anechoic chamber, the measurements correspond to those obtained at an open-field test site.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

### 2.4.2 For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuation factor between EUT conducted port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly EUT RF output level.

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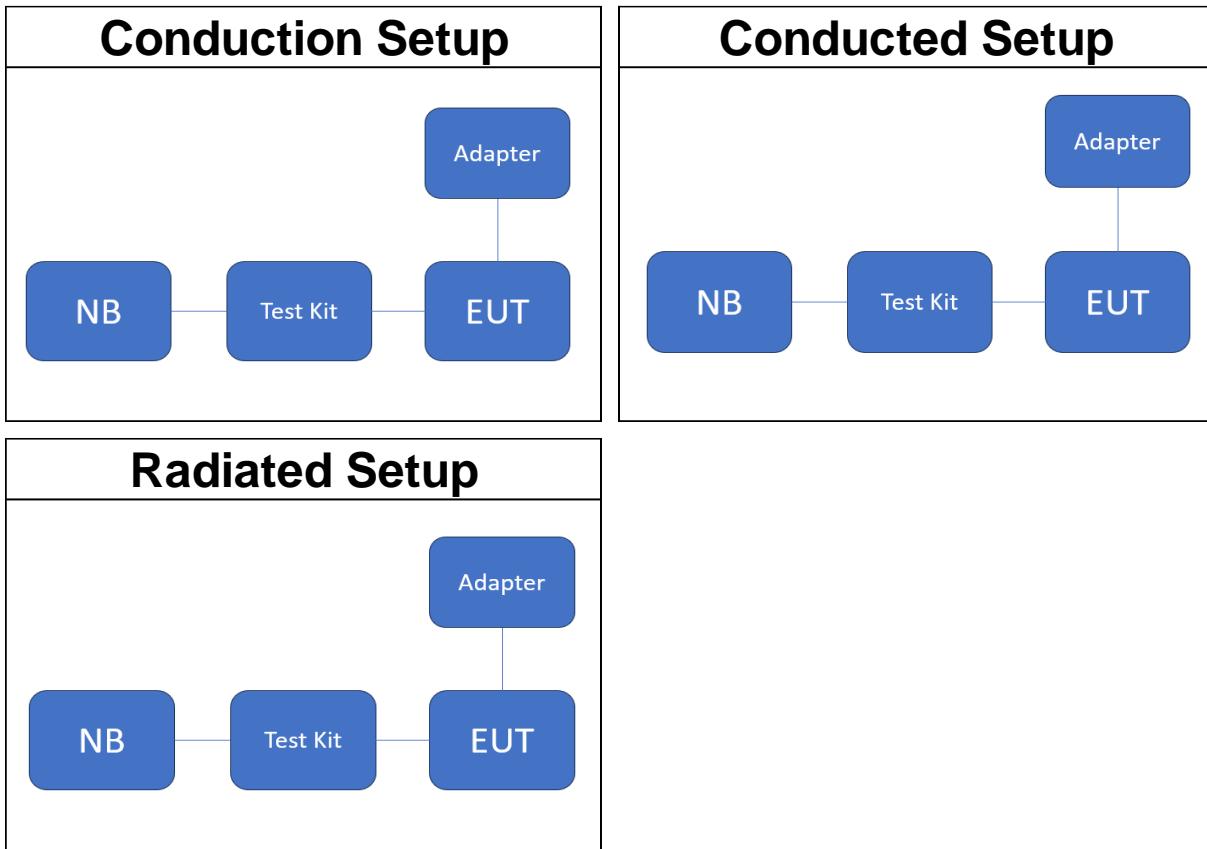
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## 2.5 Test Configuration



## 2.6 Control Unit(s)

AC Power-Line Conducted Emission Test Site: Conduction 1					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL. (mm/dd/yyyy)	CAL DUE. (mm/dd/yyyy)
Adapter	TT Electronics IoT Solutions Ltd	RPI-18PFCA-05	N/A	N/A	N/A
Test Kit	Morse Micro	MM_DEBUG v4	0-01LNGY	N/A	N/A
Notebook	HP	HSN-Q35C-4	5CD238GDV7	N/A	N/A

Conducted Emission Test Site: Conducted 2					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL. (mm/dd/yyyy)	CAL DUE. (mm/dd/yyyy)
Adapter	TT Electronics IoT Solutions Ltd	RPI-18PFCA-05	N/A	N/A	N/A
Test Kit	Morse Micro	MM_DEBUG v4	0-01LNGY	N/A	N/A
Notebook	Lenovo	L480	PF-1S9NT5 19/07	N/A	N/A

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Radiated Emission Test Site: SAC 1					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL. (mm/dd/yyyy)	CAL DUE. (mm/dd/yyyy)
Adapter	TT Electronics IoT Solutions Ltd	RPI-18PFCA-05	N/A	N/A	N/A
Test Kit	Morse Micro	MM_DEBUG v4	0-01LNGY	N/A	N/A
Notebook	HP	HSN-Q35C-4	5CD238GDV7	N/A	N/A

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### 3 SUMMARY OF TEST RESULTS

FCC Rules	Description Of Test	Result
§15.207(a)	AC Power Line Conducted Emission	Compliant
§15.247(b) (3)	Peak Output Power	Compliant
§15.247(a)(2)	Emission Bandwidth	Compliant
§15.205 §15.209 §15.247(d)	Conducted Band Edge and Spurious Emission	Compliant
§15.205 §15.209 §15.247(d)	Radiated Spurious Emission	Compliant
§15.205	Restricted Bands	Compliant
§15.247(e)	Peak Power Density	Compliant
§15.203	Antenna Requirement	Compliant

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## 4 DESCRIPTION OF TEST MODES

### 4.1 Operating Frequencies

Channel List	OFDM 1M		OFDM 2M		OFDM 4M		OFDM 8M	
	CH	Freq.(MHz)	CH	Freq.(MHz)	CH	Freq.(MHz)	CH	Freq.(MHz)
1	902.5	2	903	8	906	12	908	
3	903.5	6	905	16	910	28	916	
5	904.5	10	907	24	914	44	924	
7	905.5	14	909	32	918			
9	906.5	18	911	40	922			
11	907.5	22	913	48	926			
13	908.5	26	915					
15	909.5	30	917					
17	910.5	34	919					
19	911.5	38	921					
21	912.5	42	923					
23	913.5	46	925					
25	914.5	50	927					
27	915.5							
29	916.5							
31	917.5							
33	918.5							
35	919.5							
37	920.5							
39	921.5							
41	922.5							
43	923.5							
45	924.5							
47	925.5							
49	926.5							
51	927.5							

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#### 4.2 The Worst Test Modes and Channel Details

1. The EUT has been tested under operating condition.
2. Test program used to control the EUT for staying in continuous transmitting and receiving mode is programmed.
3. Investigation has been done on all the possible configurations for searching the worst case.

The given UE is pre-scanned among below modes.

CONDUCTED TEST				
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
802.11ah 1M	1 to 51	1,3,25,49,51	OFDM	MCS0
802.11ah 2M	2 to 50	2,6,26,46,50	OFDM	MCS0
802.11ah 4M	8 to 48	8,16,24,40,48	OFDM	MCS0
802.11ah 8M	12 to 44	12,28,44	OFDM	MCS0

TRANSMIT RADIATED EMISSION TEST (BELOW 1 GHz)				
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
802.11ah 1M	1 to 51	1,25,51	OFDM	MCS0
802.11ah 2M	2 to 50	2,26,50	OFDM	MCS0
802.11ah 4M	8 to 48	8,24,48	OFDM	MCS0
802.11ah 8M	12 to 44	12,28,44	OFDM	MCS0

TRANSMIT RADIATED EMISSION TEST (ABOVE 1 GHz)				
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
802.11ah 1M	1 to 51	1,25,51	OFDM	MCS0
802.11ah 2M	2 to 50	2,26,50	OFDM	MCS0
802.11ah 4M	8 to 48	8,24,48	OFDM	MCS0
802.11ah 8M	12 to 44	12,28,44	OFDM	MCS0

**Note:**

The field strength of radiated emission was measured as the EUT positioned in different orthogonal planes (E1/E2/H) based on actual usage of the EUT to pre-scan the emissions for determining the worst case scenario.

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## 5 MEASUREMENT UNCERTAINTY

Test Items	Uncertainty		
AC Power Line Conducted Emission	+/-	1.54	dB
Output Power measurement	+/-	0.97	dB
Emission Bandwidth	+/-	1.38	Hz
Conducted emission measurement	+/-	0.77	dB
Peak Power Density	+/-	0.61	dB
Temperature	+/-	0.6	°C
Humidity	+/-	3	%
DC / AC Power Source	+/-	1	%

Radiated Spurious Emission Measurement Uncertainty			
Polarization: Vertical	+/-	1.89	dB
	+/-	4.1	dB
	+/-	3.37	dB
	+/-	3.83	dB
Polarization: Horizontal	+/-	1.89	dB
	+/-	4.1	dB
	+/-	3.37	dB
	+/-	3.83	dB
Radiated Spurious Emission	+/-	2	dB
	+/-	1.59	dB
	+/-	1.71	dB
	+/-	1.64	dB
	+/-	3.84	dB
			33GHz-50GHz
			50GHz-60GHz
			60GHz-90GHz
			90GHz-140GHz
			140GHz-220GHz

**Note:**

1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
2. The conformity assessment statement in this report is based solely on the test results, measurement uncertainty is excluded.

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## 6 MEASUREMENT EQUIPMENT USED

### 6.1 Emission from AC power line

AC Power-Line Conducted Emission Test Site: Conduction 1					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL. (mm/dd/yyyy)	CAL DUE. (mm/dd/yyyy)
EMI Test Receiver	R&S	ESCI 7	100759	08/28/2024	08/27/2025
Coaxial Cables	EMC InstrumentsCorp.	EMCCFD300-BM-BM-3000	161207	06/22/2025	06/21/2026
Pulse Limiter	SCHWARZBECK	VTSD 9561F-N	793	06/22/2025	06/21/2026
LISN	SCHWARZBECK	NSLK 8127	1040	09/07/2024	09/06/2025
Test Software	Audix	e3	Ver. 9.210616	N.C.R	N.C.R

### 6.2 Conducted Measurement

Conducted Emission Test Site: Conducted 2					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL. (mm/dd/yyyy)	CAL DUE. (mm/dd/yyyy)
Attenuator	Mini-Circuits	BW-S20W5	3	12/11/2024	12/10/2025
DC Block	Mini-Circuits	BLK-18-S+	31129	12/11/2024	12/10/2025
EXA Spectrum Analyzer	KEYSIGHT	N9010B	MY59071541	07/08/2024	07/07/2025
Power Meter	Anritsu	ML2496A	2138003	10/09/2024	10/08/2025
Power Sensor	Anritsu	MA2411B	1911393	10/09/2024	10/08/2025
Power Sensor	Anritsu	MA2411B	1911394	10/09/2024	10/08/2025

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## 6.3 Radiated Measurement

Radiated Emission Test Site: SAC 1					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL. (mm/dd/yyyy)	CAL DUE. (mm/dd/yyyy)
1.3G High Pass Filter	Woken	WHKX10-1066	19	12/11/2024	12/10/2025
Band Reject Filter 902-928	Titan	T04N90292850S02	24090402-1	10/15/2024	10/14/2025
Bi-log Antenna	TESEO	CBL 6112D	35242 & AT-N0555	12/09/2024	12/08/2025
Coaxial Cable	EMCI	EMC104-SM-SM-8000+EMC106-SM-SM-7600	RX Cable 9K-18G(160125+150817)	08/30/2024	08/29/2025
Coaxial Cable	EMCI	EMC104-SM-SM-8000+EMC106-SM-SM-7600	RX Cable 9K-18G(160125+150817)	07/14/2025	07/13/2026
EMI Test Receiver	R&S	ESCI 7	100759	08/28/2024	08/27/2025
EXA Spectrum Analyzer	KEYSIGHT	N9010B	MY60242392	12/24/2024	12/23/2025
EXA Spectrum Analyzer	KEYSIGHT	N9010B	MY60242081	10/23/2024	10/22/2025
Horn Antenna	SCHWARZBECK	BBHA9120D	D803	01/09/2025	01/08/2026
Loop Antenna	COM-POWER	AL-130R	10160104	12/19/2024	12/18/2025
Pre-Amplifier	EMCI	EMC118A45SEE	980933	08/30/2024	08/29/2025
Pre-Amplifier	EMCI	EMC118A45SEE	980933	07/14/2025	07/13/2026
Pre-Amplifier	HP	8447D	2944A09469	08/30/2024	08/29/2025
Pre-Amplifier	HP	8447D	2944A09469	07/14/2025	07/13/2026
Site Cal	SGS	SAC 1	N/A	08/30/2024	08/29/2025
Site Cal	SGS	SAC 1	N/A	07/14/2025	07/13/2026
Test Software	Audix	e3	Ver. 9.210616	N.C.R	N.C.R

**NOTE: N.C.R refers to Not Calibrated Required.**

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## 7 CONDUCTED EMISSION TEST

### 7.1 Standard Applicable:

Frequency range within 150kHz to 30MHz shall not exceed the Limit table as below.

Frequency range MHz	Limits (dB $\mu$ V)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50

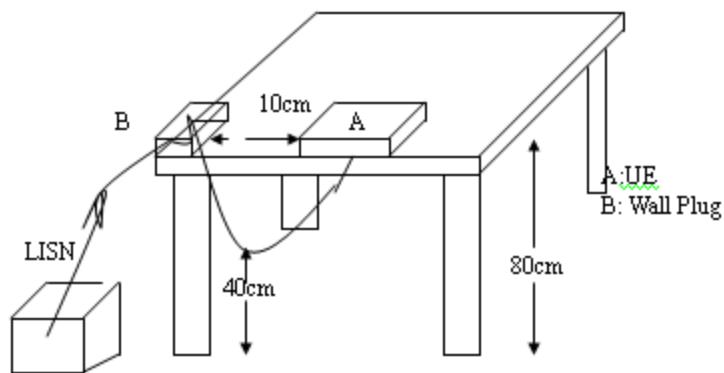
#### Note

1. The lower limit shall apply at the transition frequencies
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

### 7.2 EUT Setup:

1. The conducted emission tests were performed in the test site, using the setup in accordance with the ANSI C63.10:2013.
2. The AC/DC Power adaptor of EUT was plug-in LISN. The EUT was placed flushed with the rear of the table.
3. The LISN was connected with 120Vac/60Hz power source.

### 7.3 Test Setup



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#### 7.4 Measurement Procedure:

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all phases of power being supplied by given UE are completed

#### 7.5 Measurement Result:

Level = Read Level + Factor

Factor = (LISN, ISN, or current probe)Factor + Cable Loss +Attenuator

Note: Refer to next page for measurement data and plots.

Note2: The \* reveals the worst-case results that closest to the limit.

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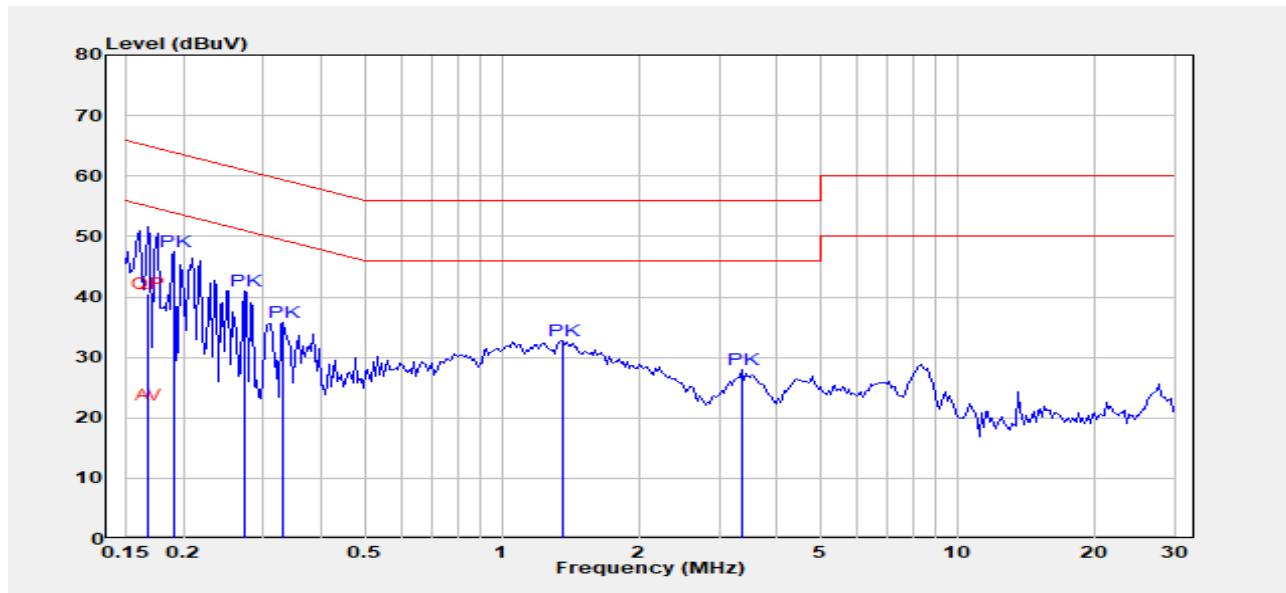
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**AC POWER LINE CONDUCTED EMISSION TEST DATA**

Report Number :TERF2505001770ER  
Operation Mode :SYSTEM  
Power :120V/60Hz  
Probe :L  
Note: :

Test Site :Conduction 1  
Test Date :2025-06-27  
Temp./Humi. :22.9°C/62%  
Engineer :WJ Lin



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dB $\mu$ V	Factor dB	Actual FS dB $\mu$ V	Limit dB $\mu$ V	Margin dB
0.167	Average	12.05	10.13	22.18	55.12	-32.94
0.167	QP	30.51	10.13	40.64	65.12	-24.48
0.191	Peak	37.42	10.13	47.55	63.98	-16.42
0.272	Peak	30.90	10.14	41.04	61.07	-20.03
0.332	Peak	25.69	10.14	35.83	59.40	-23.57
1.359	Peak	22.63	10.20	32.82	56.00	-23.18
3.381	Peak	17.60	10.27	27.87	56.00	-28.13

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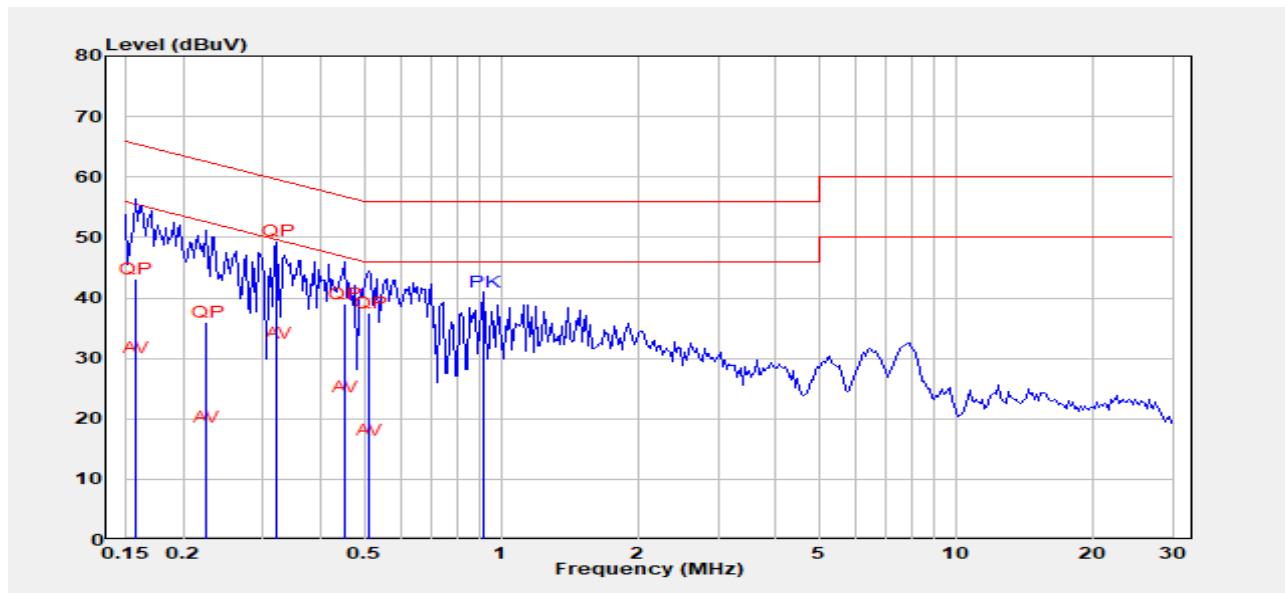
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Report Number :TERF2505001770ER  
Operation Mode :SYSTEM  
Power :120V/60Hz  
Probe :N  
Note: :

Test Site :Conduction 1  
Test Date :2025-06-27  
Temp./Humi. :22.9°C/62%  
Engineer :WJ Lin



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dB $\mu$ V	Factor dB	Actual FS dB $\mu$ V	Limit dB $\mu$ V	Margin dB
0.156	Average	20.06	10.12	30.18	55.65	-25.47
0.156	QP	33.13	10.12	43.25	65.65	-22.40
0.224	Average	8.62	10.13	18.75	52.66	-33.91
0.224	QP	25.87	10.13	36.00	62.66	-26.66
0.322	Average	22.34	10.14	32.48	49.66	-17.18
0.322	QP	39.33	10.14	49.47	59.66	-10.19
0.452	Average	13.54	10.16	23.70	46.85	-23.15
0.452	QP	28.87	10.16	39.03	56.85	-17.82
0.513	Average	6.25	10.16	16.41	46.00	-29.59
0.513	QP	27.35	10.16	37.51	56.00	-18.49
0.918	Peak	30.87	10.19	41.05	56.00	-14.95

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## 8 PEAK OUTPUT POWER MEASUREMENT

### 8.1 Standard Applicable:

#### 8.1.1 FCC

For systems using digital modulation in the 902-928 MHz bands, the limit for peak output power is 1Watt.

If the transmitting antenna of directional gain greater than 6dBi are used the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the Antenna exceeds 6dBi. (FCC only)

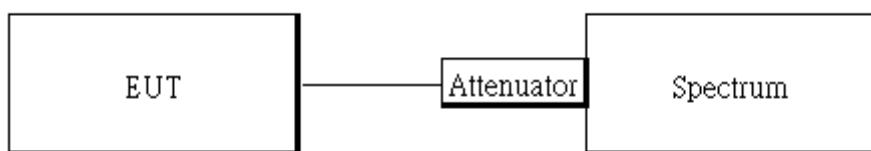
In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of Antenna exceeds 6dBi.

#### Note:

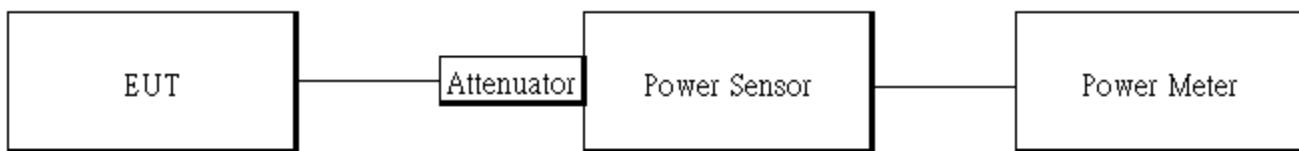
When the antenna gain is greater than 6 dBi, the power limit attenuated accordingly.

### 8.2 Test Setup

#### 8.2.1 Duty Cycle



#### 8.2.2 Output Power



### 8.3 Measurement Procedure:

#### 8.3.1 Duty Cycle

1. Place the EUT on the table and set it in transmitting mode.
2. Set span = Zero
3. RBW = 8MHz, VBW = 8MHz,

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#### 4. Detector = Peak

### 8.4 Output Power

1. Place the EUT on the table and set it in transmitting mode.
2. The testing follows the Measurement Procedure of FCC KDB 558074 D01 DTS Meas. Guidance.
3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the power meter.
4. Record the max. Reading as observed from Power Meter.
5. Repeat above procedures until all test default channel measured was complete.

### 8.5 Duty Factor:

	Duty Cycle (%) = Ton / (Ton+Toff)	Duty Factor (dB) =10*log ( 1/Duty Cycle )	1/T (kHz)	VBW setting (kHz)
OFDM_1M	98.52	0.06	0.13	0.01
OFDM_2M	98.88	0.05	0.13	0.01
OFDM_4M	99.07	0.04	0.13	0.01
OFDM_8M	98.02	0.09	0.25	0.01

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## 8.6 Output Power:

### 8.6.1 Avg

#### OFDM 1M mode

CH	Frequency (MHz)	Power Setting	Avg. Output Power (dBm)	Required Limit (dBm)
1	902.5	-13	12.34	30
3	903.5	4	27.43	30
25	914.5	3	27.75	30
49	926.5	3	27.65	30
51	927.5	-15	11.05	30

\*Note:

1. Measured by power meter, cable loss 20.29 dB + Duty cycle factor has been offset to the power meter for Avg. power and cable loss has been offset for Peak power measurement.

#### OFDM 2M mode

CH	Frequency (MHz)	Power Setting	Avg. Output Power (dBm)	Required Limit (dBm)
2	903	-12	13.10	30
6	905	4.5	27.78	30
26	915	3	27.79	30
46	925	4	27.96	30
50	927	-13	12.81	30

\*Note:

1. Measured by power meter, cable loss 20.29 dB + Duty cycle factor has been offset to the power meter for Avg. power and cable loss has been offset for Peak power measurement.

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OFDM 4M mode

CH	Frequency (MHz)	Power Setting	Avg. Output Power (dBm)	Required Limit (dBm)
8	906	2.5	26.33	30
16	910	3.5	27.82	30
24	914	3.5	27.98	30
40	922	4.5	27.95	30
48	926	-8.5	16.89	30

\*Note:

1. **Measured by power meter, cable loss 20.29 dB + Duty cycle factor has been offset to the power meter for Avg. power and cable loss has been offset for Peak power measurement.**

OFDM 8M mode

CH	Frequency (MHz)	Power Setting	Avg. Output Power (dBm)	Required Limit (dBm)
12	908	0.5	25.08	30
28	916	3.5	27.82	30
44	924	-8	16.93	30

\*Note:

1. **Measured by power meter, cable loss 20.29 dB + Duty cycle factor has been offset to the power meter for Avg. power and cable loss has been offset for Peak power measurement.**

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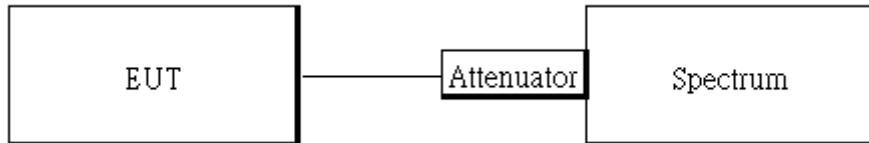
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## 9 EMISSION BANDWIDTH MEASUREMENT

### 9.1 Standard Applicable

The minimum 6 dB bandwidth shall be at least 500 kHz .

### 9.2 Test Setup



### 9.3 Measurement Procedure:

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.

#### 9.3.1 6dB BW measurements

1. The testing follows the Measurement Procedure of the KDB 558074 D01.
2. Set the spectrum analyzer as  
RBW= 100 kHz ,  
VBW = 3 X RBW,  
Span= 2 to 5 times of the OBW,  
Sweep=auto, Detector = Peak, and Max hold.
3. Mark the upper and lower frequencies of -6dB.
4. Repeat above procedures until all test default channel is completed.

#### 9.3.2 99% BW measurements

1. The testing follows the Measurement Procedure of the RSS-Gen section 6.7.
2. Set the spectrum analyzer as  
RBW= 1 % to 5% of 99%,  
VBW  $\geq$  3 X RBW,  
Span= large enough to capture all products of the modulation process  
Sweep=auto, Detector = Peak, and Max hold.
3. Mark the upper and lower frequencies of 99%.
4. Repeat above procedures until all test default channel is completed.

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## 9.4 Measurement Result:

### 9.4.1 6dB BW measurements

#### OFDM 1M mode

Frequency (MHz)	6dB BW (MHz)	Required BW (MHz)	Result
902.5	0.8261	$\geq 0.5$	PASS
903.5	0.8016	$\geq 0.5$	PASS
914.5	0.8027	$\geq 0.5$	PASS
926.5	0.8146	$\geq 0.5$	PASS
927.5	0.8575	$\geq 0.5$	PASS

#### OFDM 2M mode

Frequency (MHz)	6dB BW (MHz)	Required BW (MHz)	Result
903	1.716	$\geq 0.5$	PASS
905	1.687	$\geq 0.5$	PASS
915	1.703	$\geq 0.5$	PASS
925	1.691	$\geq 0.5$	PASS
927	1.719	$\geq 0.5$	PASS

#### OFDM 4M mode

Frequency (MHz)	6dB BW (MHz)	Required BW (MHz)	Result
906	3.631	$\geq 0.5$	PASS
914	3.517	$\geq 0.5$	PASS
926	3.595	$\geq 0.5$	PASS

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### OFDM 8M mode

Frequency (MHz)	6dB BW (MHz)	Required BW (MHz)	Result
908	7.400	$\geq 0.5$	PASS
916	7.416	$\geq 0.5$	PASS
924	7.575	$\geq 0.5$	PASS

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## 9.4.2 99% Bandwidth

### OFDM 1M mode

Frequency (MHz)	99%Bandwidth (MHz)
902.5	0.84438
903.5	0.87949
914.5	0.87408
926.5	0.87426
927.5	0.84709

### OFDM 2M mode

Frequency (MHz)	99%Bandwidth (MHz)
903	1.7858
905	1.8536
915	1.8326
925	1.8451
927	1.7843

### OFDM 4M mode

Frequency (MHz)	99%Bandwidth (MHz)
906	3.6585
914	3.6722
926	3.6268

### OFDM 8M mode

Frequency (MHz)	99%Bandwidth (MHz)
908	7.5104
916	7.5389
924	7.517

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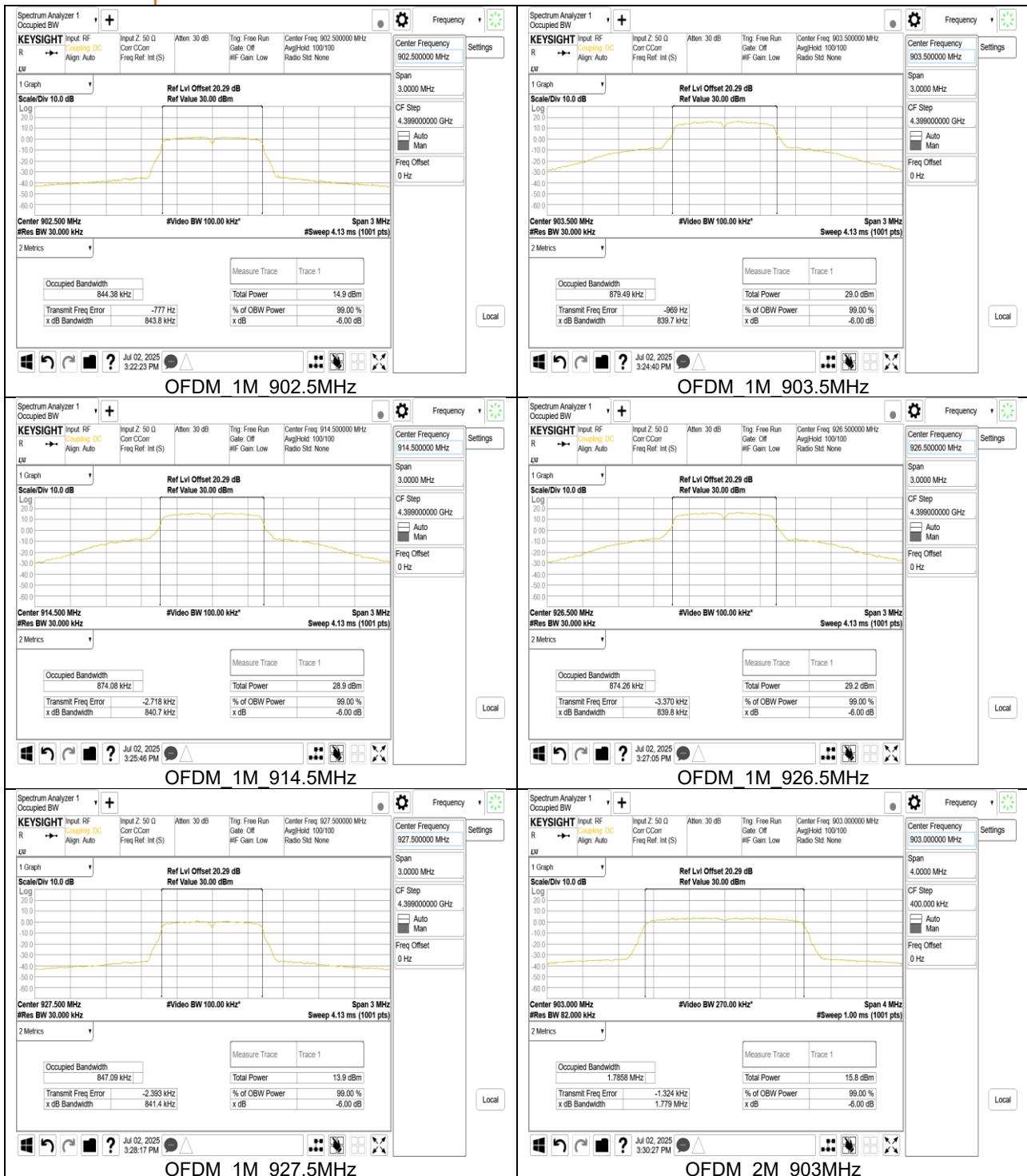
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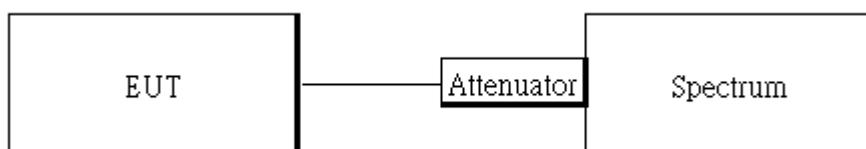
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## 10 CONDUCTED BAND EDGES AND SPURIOUS EMISSION MEASUREMENT

### 10.1 Standard Applicable

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

### 10.2 Test Setup



### 10.3 Measurement Procedure

#### 10.3.1 Reference Level of Emission Limit:

1. Set analyzer center frequency to DTS channel center frequency.
2. The testing follows the Measurement Procedure of FCC KDB 558074 D01 DTS Meas. Guidance.
3. Set the span to 1.5 times the DTS channel bandwidth.
4. Set the RBW = 100kHz & VBW = 300 kHz.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.

#### 10.3.2 Conducted Band Edge:

1. To connect Antenna Port of EUT to Spectrum.
2. The testing follows the Measurement Procedure of FCC KDB 558074 D01 DTS Meas. Guidance.

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3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
4. Set start to edge frequency, and stop frequency of spectrum analyzer so as to encompass the spectrum to be examined.
5. Set the spectrum analyzer as RBW=100 kHz, VBW=300 kHz, Detector = Peak, Sweep = auto
6. Set DL as the limit = reading on marker of reference level measurement –30dBm
7. Mark the highest readings of the emissions outside of 902-928 MHz.
8. Repeat above procedures until all default test channel (low, middle, and high) was complete.

#### 10.3.3 Conducted Spurious Emission:

1. To connect Antenna Port of EUT to Spectrum.
2. The testing follows the Measurement Procedure of FCC KDB 558074 D01 DTS Meas. Guidance.
3. Set RBW = 100 kHz & VBW=300 kHz, Detector =Peak, Sweep = Auto
4. Allow trace to fully stabilize.
5. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.
6. Repeat above procedures until all default test channel measured were complete.

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## 10.4 Measurement Result

### OFDM 1M mode\_Reference Level of Limit

Frequency (MHz)	RF Power Density (dBm)	Reference Level of Limit = PSD - 30dB (dBm)
914.5	28.91	-1.09

\*Note:

- 1.cable loss as 20.29dB that offsets in the spectrum
- 2.Refer to next page for plots.

### OFDM 2M mode\_Reference Level of Limit

Frequency (MHz)	RF Power Density (dBm)	Reference Level of Limit = PSD - 30dB (dBm)
915	25.55	-4.45

\*Note:

- 1.cable loss as 20.29dB that offsets in the spectrum
- 2.Refer to next page for plots.

### OFDM 4M mode\_Reference Level of Limit

Frequency (MHz)	RF Power Density (dBm)	Reference Level of Limit = PSD - 30dB (dBm)
914	23.37	-6.63

\*Note:

- 1.cable loss as 20.29dB that offsets in the spectrum
- 2.Refer to next page for plots.

### OFDM 8M mode\_Reference Level of Limit

Frequency (MHz)	RF Power Density (dBm)	Reference Level of Limit = PSD - 30dB (dBm)
916	20.35	-9.65

\*Note:

- 1.cable loss as 20.29dB that offsets in the spectrum
- 2.Refer to next page for plots.

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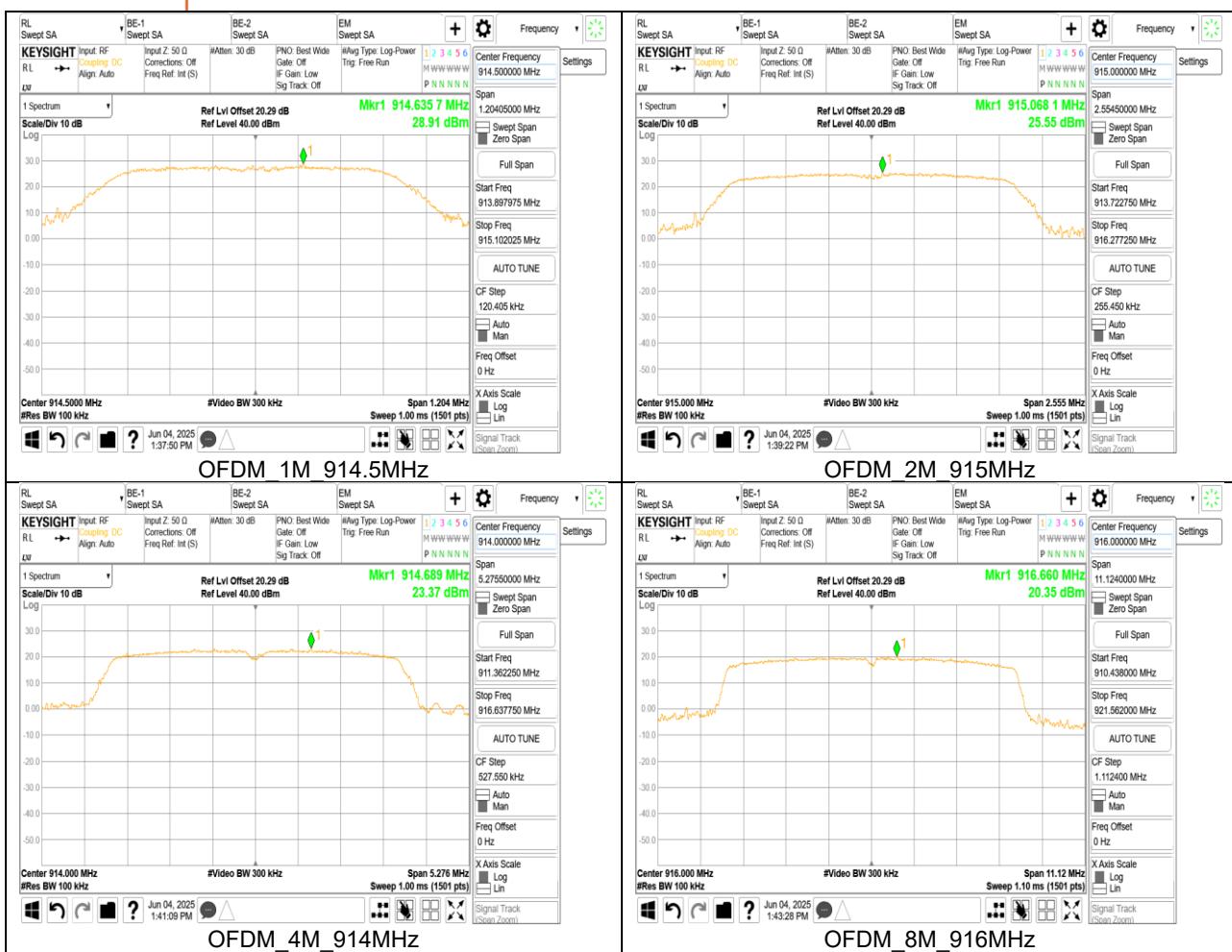
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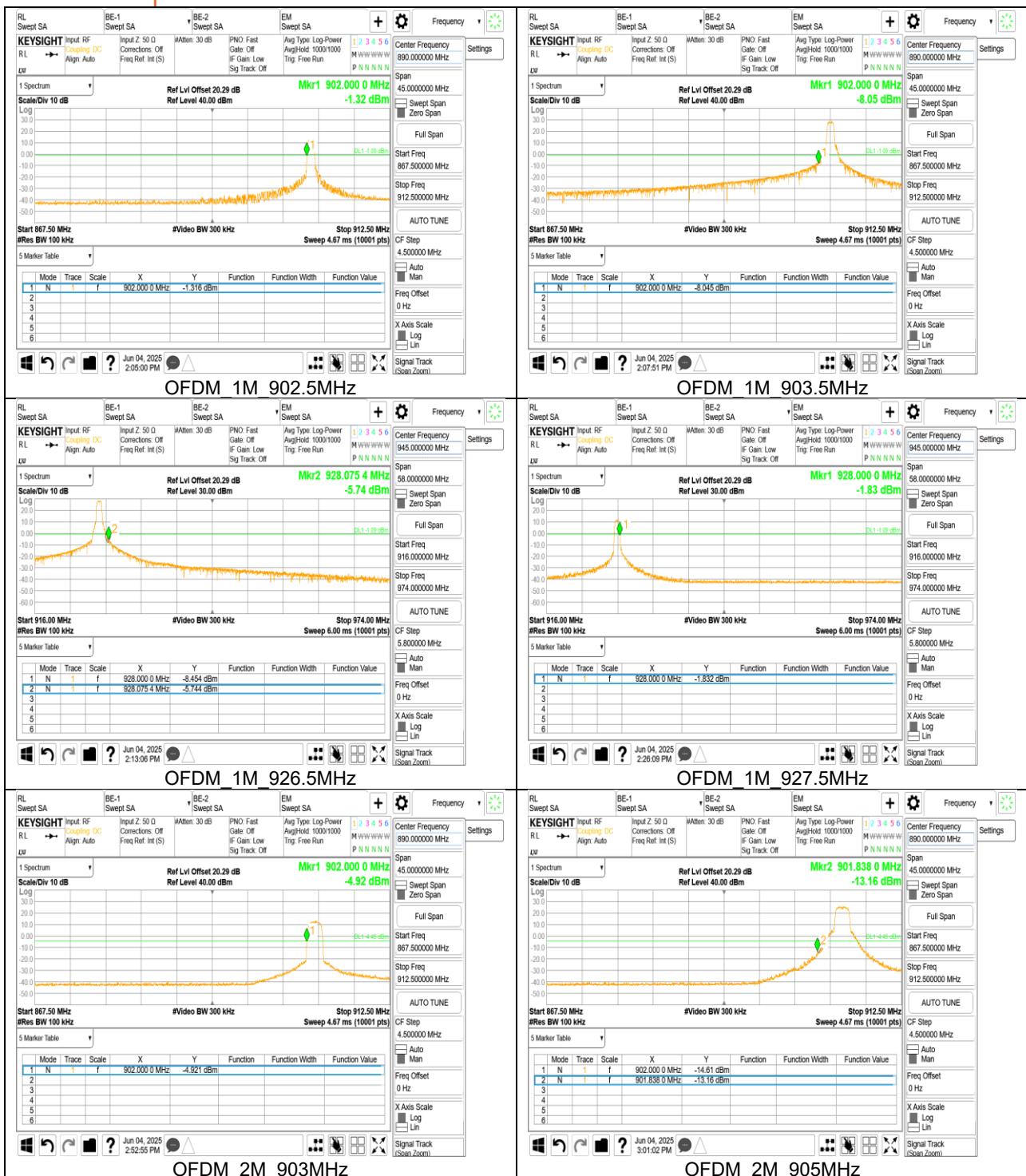
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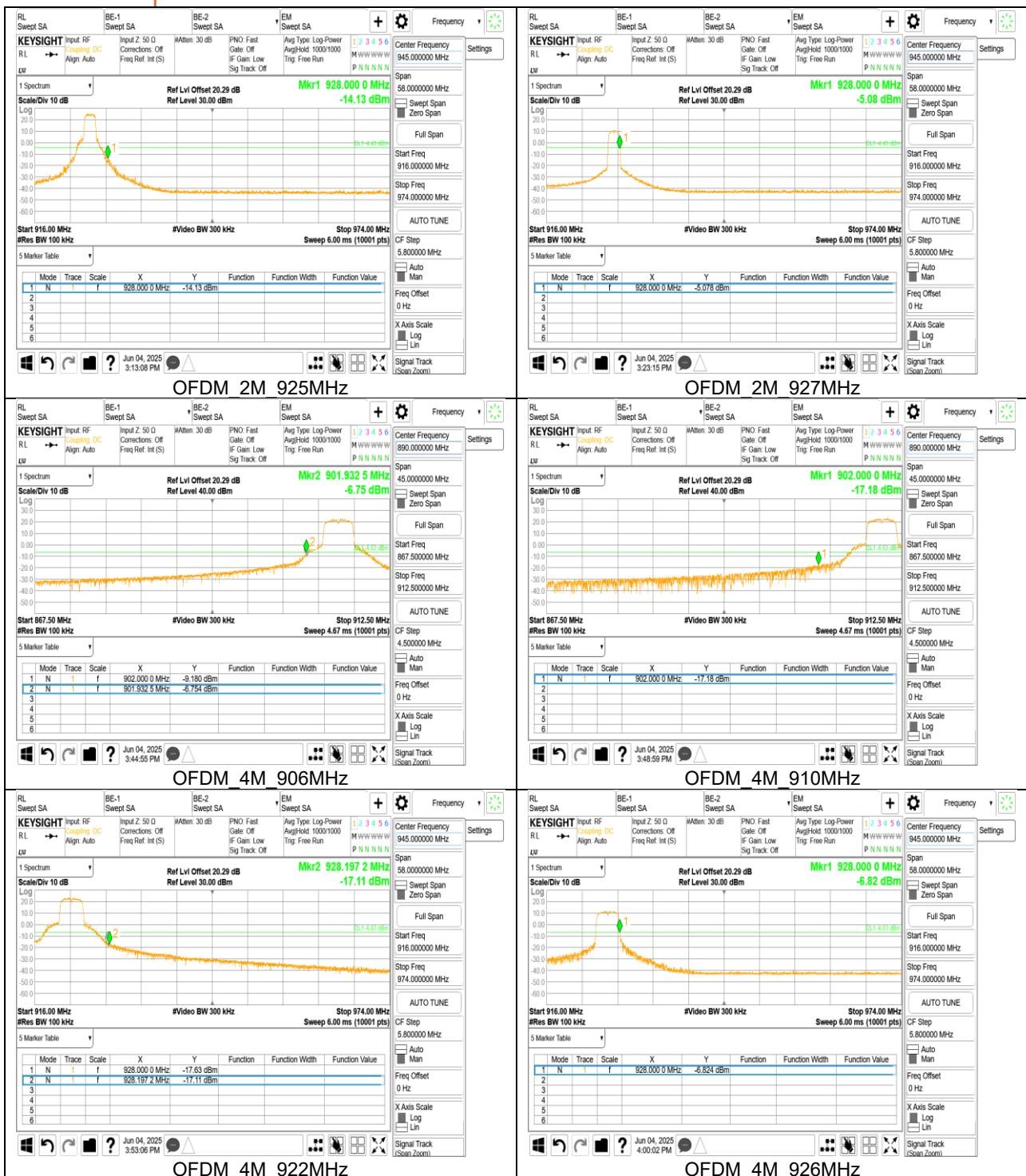
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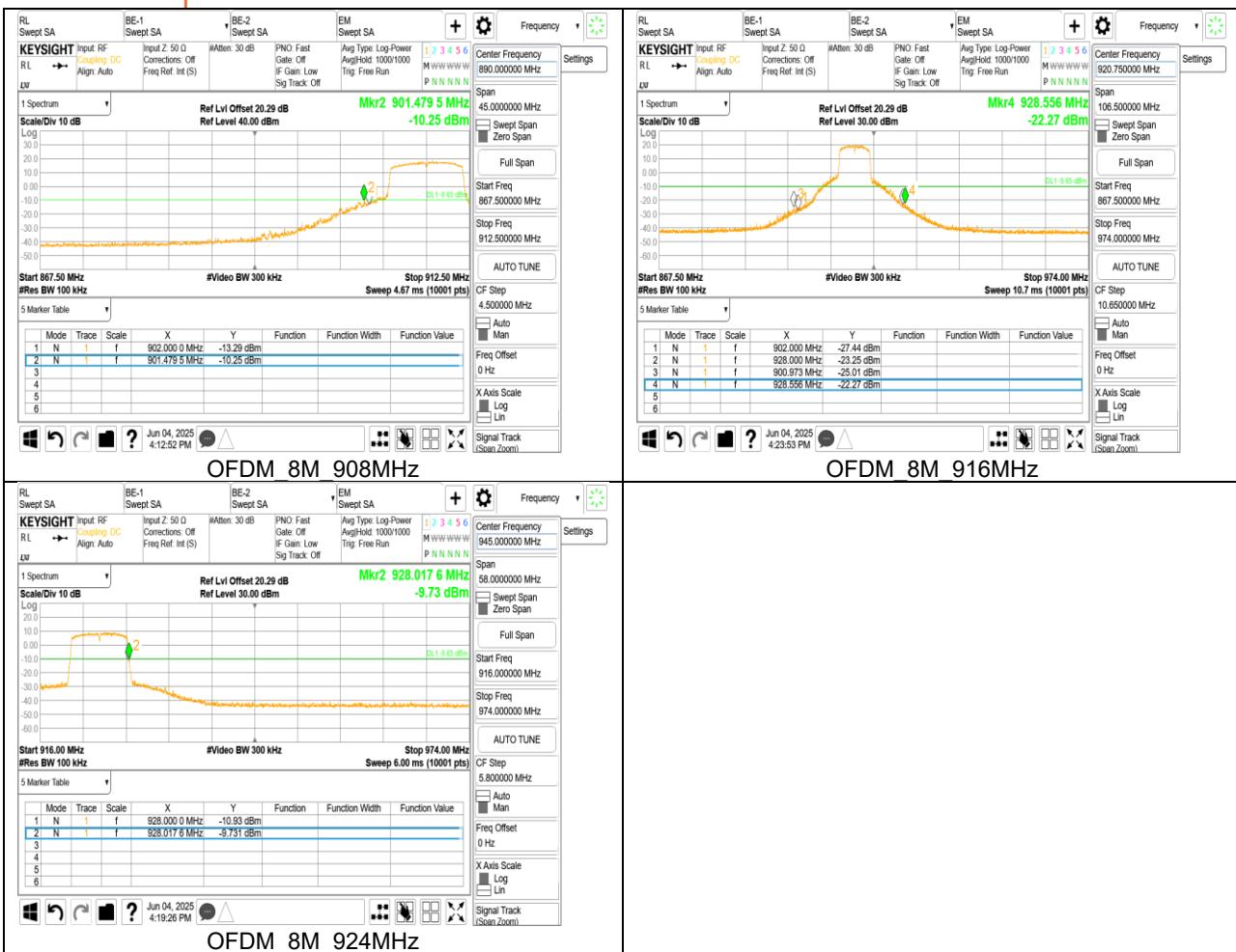
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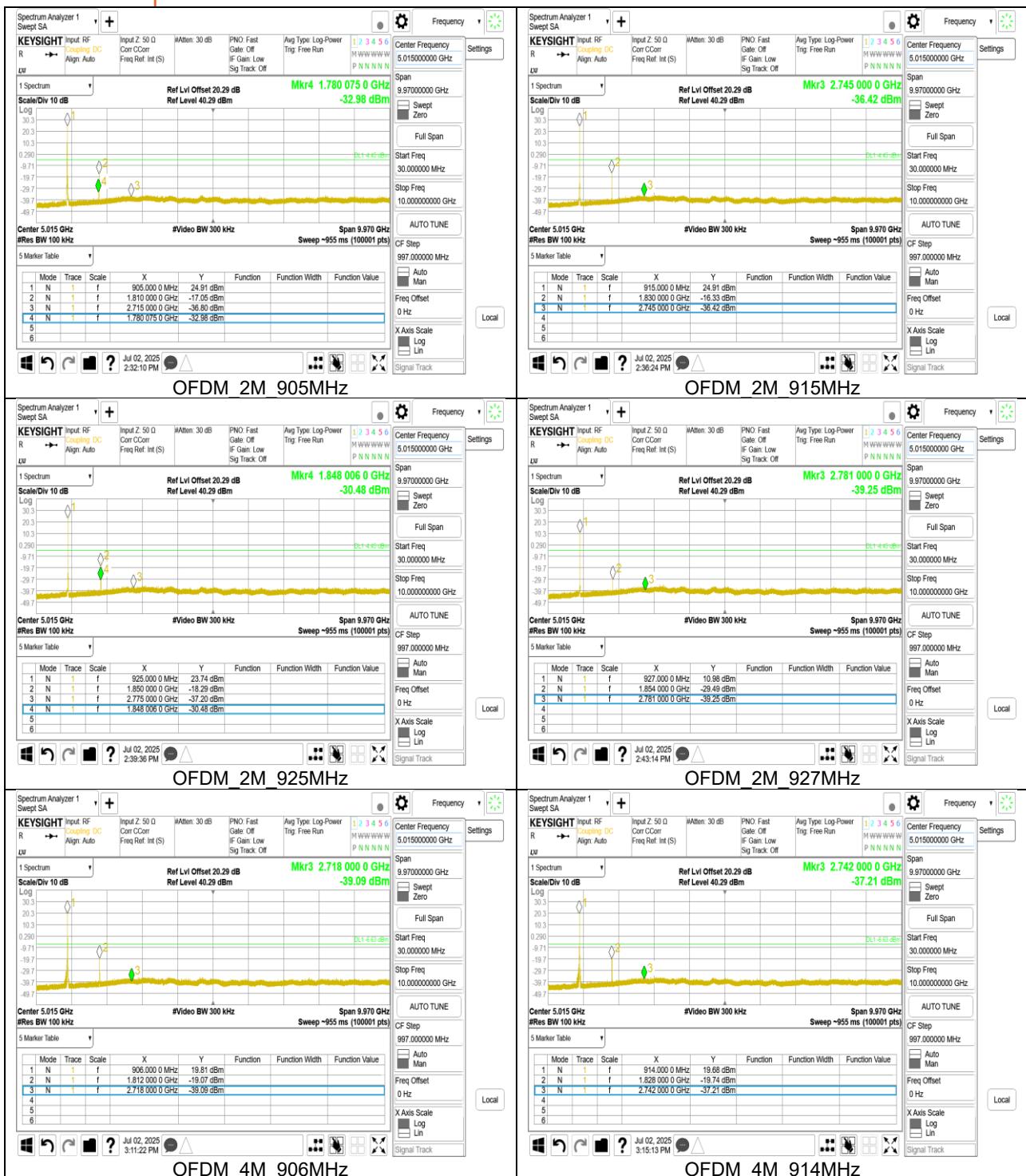
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