

RADIO TEST REPORT

Product : Essential Solar Security Camera

Model Name : VMC3090

Series Model : VMC2090

FCC ID : 2APLE2A

Test Regulation : FCC 47 CFR Part 15 Subpart E (Section 15.407)

Received Date : 2026/3/31

Test Date : 2026/04/01 ~ 2026/05/18

Issued Date : 2026/7/27

Applicant : Arlo Technologies Inc
5770 Fleet St, Suite 200, Carlsbad, CA 92008 USA

Issued By : Underwriters Laboratories Taiwan Co., Ltd.
Building A, B and E, No. 372-7, Sec. 4, Zhongxing Rd.,
Zhudong Township, Hsinchu County, Taiwan

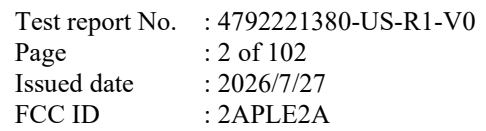


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Doc No: Form-ULID-004739 (DCS:17-EM-F0878) / 6.1



Original Test Report No.: 4792221380-US-R1-V0

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1. Attestation of Test Results

APPLICANT: Arlo Technologies Inc
5770 Fleet St, Suite 200, Carlsbad, CA 92008 USA

MANUFACTURER: Arlo Technologies Inc
5770 Fleet St, Suite 200, Carlsbad, CA 92008 USA

EUT DESCRIPTION: Essential Solar Security Camera

BRAND: Arlo

MODEL: VMC3090

SERIES MODEL: VMC2090

SAMPLE STAGE: Engineering Verification Test Sample

DATE of TESTED: 2026/04/01 ~ 2026/05/18

APPLICABLE STANDARDS	
STANDARD	Test Results
FCC 47 CFR PART 15 Subpart E (Section 15.407)	PASS

Underwriters Laboratories Taiwan Co., Ltd. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by Underwriters Laboratories Taiwan Co., Ltd. based on interpretations and/or observations of test results. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by Underwriters Laboratories Taiwan Co., Ltd. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Underwriters Laboratories Taiwan Co., Ltd. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Prepared By:



James Chan Date : 2026/7/27
Laboratory Test Engineer

Approved and Authorized By:



Eric Lee Date : 2026/7/27
Senior Laboratory Engineer

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2. Summary of Test Results

Summary of Test Results		
FCC Clause	Test Items	Result
15.407(e)	6dB Bandwidth	PASS
15.403(i)	26dB Bandwidth	PASS
2.1049	Occupied Bandwidth	See Note1
15.407(a)(1/2/3)	Conducted Output Power	PASS
15.407(a)(1/2/3)	Power Spectral Density	PASS
15.407(g)	Frequency Stability	PASS
15.407(b) (1/2/3/4/5/9)	Radiated Emissions and Band Edge Measurement	PASS
15.407(b)(9)	AC Power Conducted Emission	PASS
15.203	Antenna Requirement	PASS
15.407(h)	Dynamic Frequency Selection & Transmit power control	See Note2

Note:

1. The Occupied Bandwidth was reference only.
2. The “Dynamic Frequency Selection & Transmit power control measurement” was recorded in Report No.: 4792221380-US-R2-V0

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3. Test Methodology and Reference Procedures

The tests documented in this report were performed in accordance with 47 CFR FCC Part 2, KDB 789033 D02 General UNII Test Procedure New Rules v02r01, KDB414788 D01 Radiated Test Site v01r01, ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024.

4. Facilities and Accreditation

Test Location	Underwriters Laboratories Taiwan Co., Ltd.
Address	Building A, B and E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan
Accreditation Certificate	Underwriters Laboratories Taiwan Co., Ltd. is accredited by TAF, Laboratory Code 3398.

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5. Measurement Uncertainty

For statement of conformity, Simple acceptance (Section 3.1.4 of IEC Guide 115) was applied as decision rule for measurement in this test report.

The following uncertainties have been calculated to provide a confidence level of 95 % using a coverage factor $k=2$.

Determining compliance based on the results of the compliance measurement, not considering measurement instrumentation uncertainty.

Measurement	Frequency	Uncertainty
Conducted disturbance at mains terminals ports	150kHz ~ 30MHz	3.1 dB
RF Conducted	9 kHz - 40GHz	2.7 dB
Radiated disturbance below 30MHz	9 kHz - 30 MHz	1.9 dB
Radiated disturbance below 1 GHz	30MHz ~ 1GHz	5.8 dB
Radiated disturbance above 1 GHz	1GHz ~ 40GHz	4.9 dB

The EUT support table is constructed of high-density Expandable Polystyrene (EPS) with dimensions of 1 m × 1.5 m.

The Measurement Uncertainty (MU) report is prepared in accordance with CISPR 16-4-2:2011-06; the potential impact of the setup table material has been evaluated and included as a component of the overall uncertainty value.

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6. Equipment under Test

6.1. Description of EUT

Product	Essential Solar Security Camera
Brand Name	Arlo
Model Name	VMC3090
Series Model	VMC2090
Normal Voltage	5Vdc from Host 3.62Vdc from a battery

Operating Frequency	5180 ~ 5240MHz, 5260 ~ 5320MHz, 5500 ~ 5720MHz, 5745 ~ 5825MHz
Modulation	64QAM, 16QAM, QPSK, BPSK for OFDM
Transfer Rate	802.11a: up to 54 Mbps 802.11n: up to MCS7
Device Type	Client
Maximum Output Power	5180 ~ 5240 MHz: 21.82 dBm 5260 ~ 5320 MHz: 21.79 dBm 5500 ~ 5720 MHz: 21.76 dBm 5745 ~ 5825 MHz: 22.61 dBm
Sample ID	Conducted Test: 9586524 Radiated Test: 9586525

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Note:

1. The models difference table as below:

Model	Difference
VMC3090	2K 2560 x 1440 video resolution
VMC2090	FHD 1920 x 1080 video resolution

All models are electrically identical (Include: circuitry, components, layout, antenna type and gain).

* Based on the information regarding the differences among the models, and after evaluation, Model VMC3090 was selected as the representative model for all final testing.

2. EUT provides a complete 1Tx port and 1Rx port. Please refer to the following working transmission conditions:

Modulation Mode	Tx Function	Rx Function
802.11a	1Tx	1Rx
802.11n(HT20)	1Tx	1Rx

3. The EUT contains following accessory devices:

Product	Brand	Model	Description
USB Cable	Nienyi	310-50024-01	USB TYPE A-C, 1m
Wall Mount	Arlo	Arlo	SHORT MOUNT, 50x73mm

4. EUT is equipped with a built-in rechargeable battery with the following table:

Brand	Model	Description
Arlo	A-24	LI-ION, 3.62Vdc, 54.408Wh

5. The above EUT information is declared by manufacturer and for more detailed features description, please refer the manufacturer's or user's manual, the laboratory shall not be held responsible.

6.2. Channel List

FOR 5180 ~ 5240MHz

4 channels are provided for 5G WLAN 20MHz bandwidth system:

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

FOR 5260 ~ 5320MHz

4 channels are provided for 5G WLAN 20MHz bandwidth system:

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

FOR 5500 ~ 5720MHz

12 channels are provided for 5G WLAN 20MHz bandwidth system:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	132	5660
104	5520	136	5680
108	5540	140	5700
112	5560	144	5720
116	5580	-	-
120	5600	-	-
124	5620	-	-
128	5640	-	-

FOR 5745 ~ 5825MHz:

5 channels are provided for 5G WLAN 20MHz bandwidth system:

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

6.3. Test Condition

Test Item	Test Site No.	Environmental	Input Power	Test Date	Tested by
Antenna Port Conducted Measurement	SR4	22~26°C/ 60~66%RH	5Vdc	2026/04/21~ 2026/05/06	WaterNil Guan/ Jubo Shen
Radiated Spurious Emission	966-2	22~26°C/ 62~68%RH	5Vdc	2026/04/01~ 2026/05/06	WaterNil Guan/ Jubo Shen
AC power Line Conducted Emission	SR1	24°C/ 59%RH	120Vac/ 60Hz	2026/05/18	Jubo Shen

Sample Calculation:

Antenna Port Conducted Measurement:

- Where relevant, the follow sample calculation is provided:
Result Value (dBm) = Reading Value (dBm) + Attenuator Factor (dB) + Cable Loss (dB).
Example: Result Value (10dBm) = Reading Value (-2dBm) + Attenuator Factor (10dB) + Cable Loss(2dB).
*Test plot only shown the “Result Value”.

Radiated Spurious Emission:

- Where relevant, the follow sample calculation is provided:
Result Value (dBuV/m) = Reading Value (dBuV) + Correction Factor (dB/m).
Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) - Preamp Factor (dB).
Example: Result Value (34.5dBuV/m) = Reading Value (40.1dBuV) + Antenna Factor (18.7dB/m) + Cable Loss (4.2dB) - Preamp Factor (28.5dB).

AC power Line Conducted Emission:

- Where relevant, the follow sample calculation is provided:
Result Value (dBuV) = Reading Value (dBuV) + Correction Factor (dB).
Correction Factor (dB) = Insertion loss(dB) + Cable loss(dB).
Example: Result Value (53.7dBuV) = Reading Value (35.1dBuV) + Insertion loss(18.1dB) + Cable loss(0.5dB).

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6.4. Description of Available Antennas

Ant. No.	Transmitter Circuit	Frequency Range	Brand Name	Model Name	Maximum Gain (dBi)	Ant. Type	Connector Type
1	Chain0	2.4~2.4835GHz 5.15~5.85GHz	Arlo	2APLE2A	2.4GHz: 2.6 5GHz: 4.1	Dipole	i-pex(MHF)

Note: The above antenna information was provided from customer and for more detailed features description, please refer the manufacturer's specification or user's manual, the laboratory shall not be held responsible.

6.5. Test Mode Applicability and Tested Channel Detail

Test Item	Mode	Frequency Range(MHz)	Modulation Type	Available Channel	Test Channel	Data Rate
Radiated Bandedge	802.11a	5180-5240	OFDM	36 to 48	36, 44, 48	6 Mbps
	802.11n (HT20)		OFDM	36 to 48	36, 44, 48	MCS0
	802.11a	5260-5320	OFDM	52 to 64	52, 60, 64	6 Mbps
	802.11n (HT20)		OFDM	52 to 64	52, 60, 64	MCS0
	802.11a	5500-5720	OFDM	100 to 144	100, 116, 140, 144	6 Mbps
	802.11n (HT20)		OFDM	100 to 144	100, 116, 140, 144	MCS0
	802.11a	5745-5825	OFDM	149 to 165	149, 157, 165	6 Mbps
	802.11n (HT20)		OFDM	149 to 165	149, 157, 165	MCS0
Radiated Emissions (Above 1GHz)	802.11a	5180-5240	OFDM	36 to 48	36, 44, 48	6 Mbps
	802.11a	5260-5320	OFDM	52 to 64	52, 60, 64	6 Mbps
	802.11a	5500-5720	OFDM	100 to 144	100, 116, 140, 144	6 Mbps
	802.11a	5745-5825	OFDM	149 to 165	149, 157, 165	6 Mbps
Radiated Emissions (Below 1GHz)	802.11a	5745-5825	OFDM	149 to 165	149	6 Mbps
AC Power Line Conducted Emission	802.11a	5745-5825	OFDM	149 to 165	157	6 Mbps
Antenna Port Conducted Measurement	802.11a	5180-5240	OFDM	36 to 48	36, 44, 48	6 Mbps
	802.11n (HT20)		OFDM	36 to 48	36, 44, 48	MCS0
	802.11a	5260-5320	OFDM	52 to 64	52, 60, 64	6 Mbps
	802.11n (HT20)		OFDM	52 to 64	52, 60, 64	MCS0
	802.11a	5500-5720	OFDM	100 to 144	100, 116, 140, 144	6 Mbps
	802.11n (HT20)		OFDM	100 to 144	100, 116, 140, 144	MCS0
	802.11a	5745-5825	OFDM	149 to 165	149, 157, 165	6 Mbps
	802.11n (HT20)		OFDM	149 to 165	149, 157, 165	MCS0

- The EUT was examined in three orthogonal axes (X-Y, Y-Z, X-Z), and the X-Y plane was confirmed as the worst-case orientation. All final radiated emission tests were conducted with the EUT positioned accordingly.
- The EUT operates on a rechargeable battery. A pre-scan was conducted at 0%, 50%, and 100% battery capacity. The worst-case emissions occurred at 100% capacity, so only the corresponding test data is documented in this report

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- The EUT supports three power sources: 3.62 Vdc from a battery (Model: A-24), 5 Vdc from Laptop (Model: DELL/Latitude E5470) and 5 Vdc from a USB adapter (Model: HTC/TCP900-US). Pre-tests for radiated emissions and AC conduction were conducted for all configurations, and the worst-case condition was observed with the 5 Vdc from Laptop, only the test data for this configuration is included in the report.
- The radiated spurious emission test was performed in all test modes. The worst case was 802.11a, and therefore, only the worst case data is shown in this report to represent all test modes.
- In the transmit mode, 802.11a channel 157 has the highest RF output power. Therefore, the AC conduction were performed using this worst-case mode.
- In the transmit mode, 802.11a channel 149 has the worst case of Tx spurious emission (above 1GHz). Therefore, all final tests for the spurious emission (below 1GHz) were performed using this worst-case mode.
- For Antenna Port Conducted Measurement, this item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
- For below 30MHz testing, investigation was done on three antenna orientations (parallel, perpendicular, and ground-parallel), parallel and perpendicular are the worst orientations, therefore testing was performed on these two orientations only.
- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

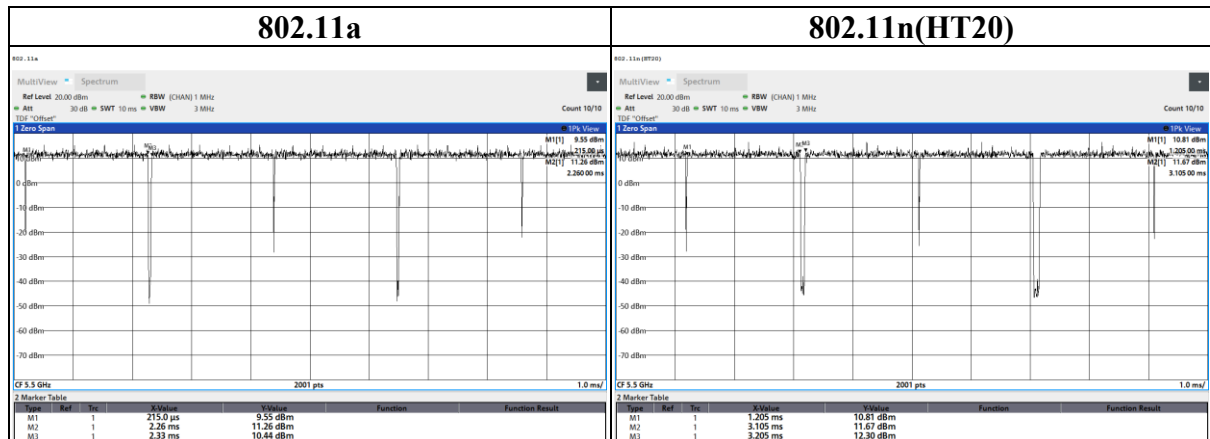
Simultaneously transmission condition:

Condition	Technology	
	BTLE	WLAN (5GHz)
1		

Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.

6.6. Duty cycle

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle	Duty Factor (dB)	VBW Set (above 1GHz)
802.11a	2.045	2.115	0.9669	0.15	510Hz
802.11n(HT20)	1.900	2.000	0.9500	0.22	1kHz



7. Test Equipment

Test Equipment List					
Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Expired date
Radiated Spurious Emission					
Spectrum Analyzer	Keysight	N9010A	MY56070818	2026/2/9	2027/2/8
EMI Test Receiver	Rohde & Schwarz	ESR7	101754	2025/12/9	2026/12/8
Loop Antenna	ETS lindgren	6502	00213440	2025/11/14	2026/11/13
Trilog-Broadband Antenna with 5dB Attenuator	Schwarzbeck & EMCI	VULB 9168 & N-6-05	774 & AT-N0538	2025/12/23	2026/12/22
Horn Antenna (1-18 GHz)	Schwarzbeck	BBHA 9120 D	01690	2025/11/18	2026/11/17
Horn Antenna (18-40 GHz)	Schwarzbeck	BBHA 9170	781	2025/12/2	2026/12/1
Preamplifier (30-1000 MHz)	EMCI	EMC330E	980405	2025/5/12 2026/4/28	2026/5/11 2027/4/27
Preamplifier (1-18 GHz)	EMCI	EMC051835BE	980406	2025/12/26	2026/12/25
Preamplifier (18-40GHz)	EMCI	EMC184040SEE	980426	2026/3/24	2027/3/23
Cables (9k-18 GHz)	Hanyitek	K1K50-UP0264-K1K50-2500	170214-4 & 170425-2	2025/11/21	2026/11/20
Cables (18-40GHz)	Hanyitek	K1K50-UP0264-K1K50-2500	170214-1 & 170214-2	2025/11/21	2026/11/20

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Test Equipment List					
Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Expired date
Antenna Port Conducted Measurement					
Signal Analyzer	Rohde & Schwarz	FSVA3044	101281	2026/2/2	2027/2/1
Signal Analyzer	Rohde & Schwarz	FSV40	101490	2025/6/17	2026/6/16
Attenuator	EMCI	EMC-40ATK2W10	17002	2025/10/28	2026/10/27
USB Power Sensor	Anritsu	MA24408A	12031	2025/6/24	2026/6/23
Temperature & Humidity Test Chamber	GIANT FORCE	GTH-150-40-CP-AR	MAA1701-010	2026/2/2	2027/2/1
AC power Line Conducted Emission					
EMI Test Receiver	Rohde & Schwarz	ESR7	101753	2025/9/18	2026/9/17
Two-Line V-Network	Rohde & Schwarz	ENV216	102136	2025/5/27	2026/5/26
Impuls-Begrenzer Pulse Limiter	Rohde & Schwarz	ESH3-Z2	102219-Qt	2025/8/27	2026/8/26
Cables	TITAN	CFD200	T0732ACFD 20020A300-2	2025/4/21	2026/4/20
				2026/4/15	2027/4/14

UL Software		
Description	Name	Version
Radiated measurement	e3	6.191211 (V6)
Conducted measurement	RF-Conducted-FCC 15407	ver 1.1
AC power Line Conducted Emission	EZ EMC	UL-3A1.2

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8. Description of Test Setup

Tx Mode

Support Equipment

ID	Equipment	Brand Name	Model Name	S/N	Remark
A	Laptop	DELL	Latitude E5470	5M2MWF2	Provided by Lab

I/O Cables

ID	Equipment	Brand Name	Model Name	Length (m)	Remark
1	USB Cable	Nienyi	310-50024-01	1	Supplied by Client

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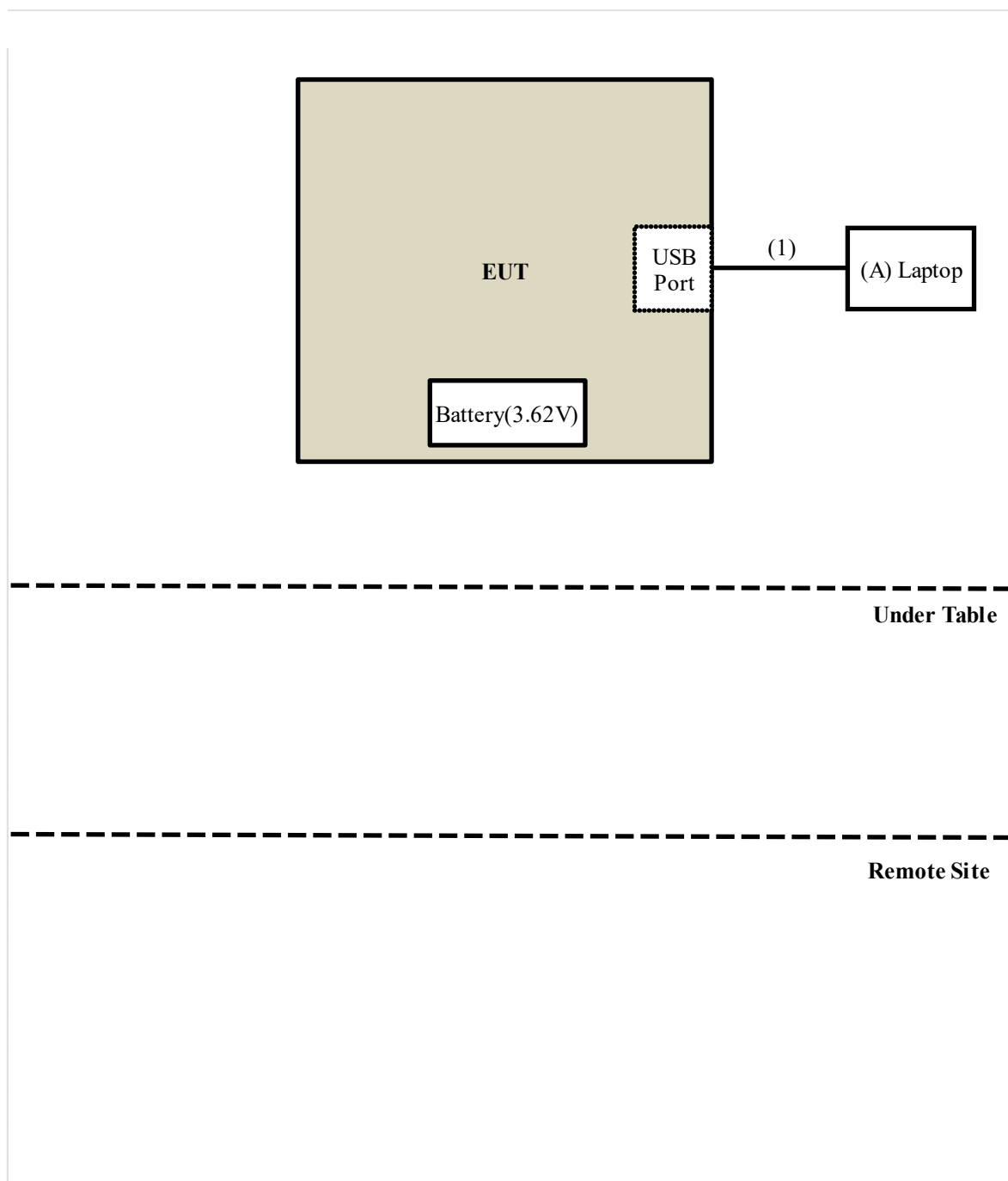
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Test Setup

Controlled using a bespoke application (Typing RF commands by terminal tool (TeraTerm version 4.94)) on a test Notebook. The application was used to enable a continuous transmission mode and to select the test channels, data rates, modulation schemes and power setting as required.

Setup Diagram for Test

Tx Mode



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9. Test Results

9.1. 6dB Bandwidth

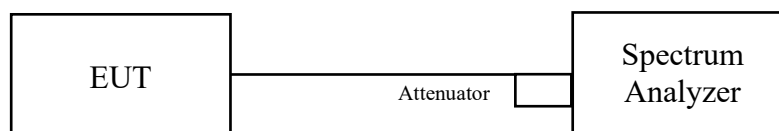
Requirements

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

Test procedure

- Set resolution bandwidth (RBW) = 1 Range of 1% to 5% of the OBW but not less than 100 kHz.
* Since using 100kHz yields the smallest bandwidth, 100kHz was selected for this evaluation.
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW, Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.
- The plot of the test result only shows the worst case of channels as a representative.

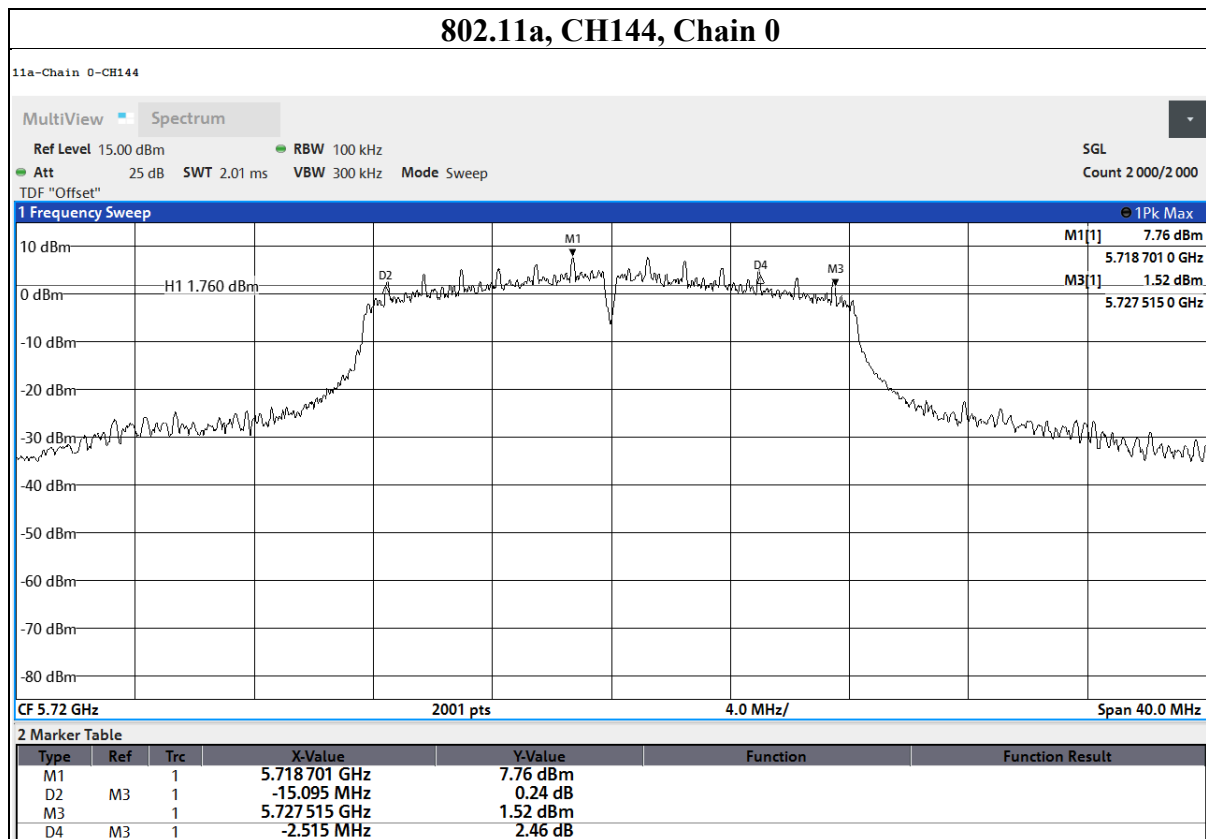
Test Setup



The loss between RF output port of the EUT and the input port of the Spectrum Analyzer has been taken into consideration.

Test Data

Mode	CH	Freq (MHz)	6dB BW (MHz)	Limit (MHz)	Result
			Chain 0		
802.11a	144 (U-NII-2C)	5720	12.58	0.5	PASS
	144 (U-NII-2C+U-NII-3)	5720	15.095	0.5	PASS
	144 (U-NII-3)	5720	2.515	0.5	PASS
	149	5745	15.081	0.5	PASS
	157	5785	15.099	0.5	PASS
	165	5825	15.103	0.5	PASS



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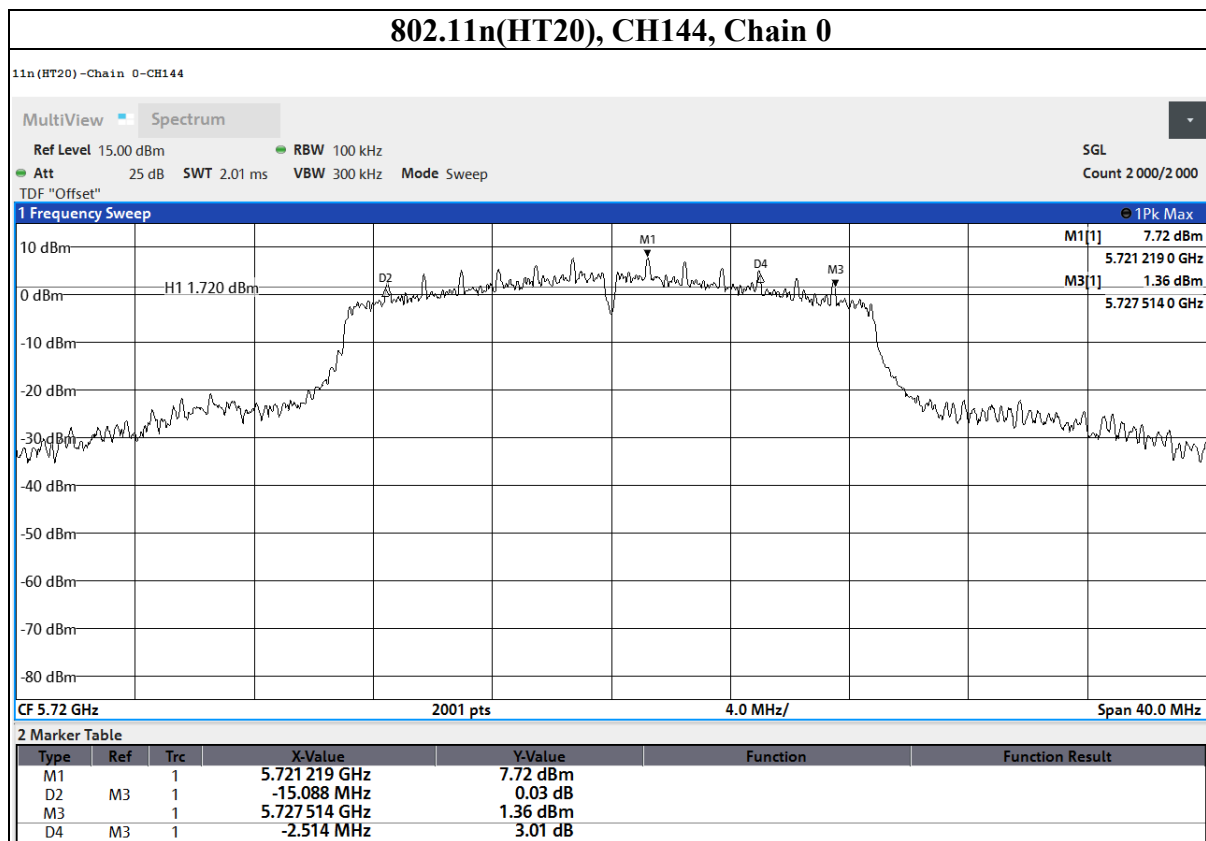
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Mode	CH	Freq (MHz)	6dB BW (MHz)	Limit (MHz)	Result
			Chain 0		
802.11n(HT20)	144 (U-NII-2C)	5720	12.574	0.5	PASS
	144 (U-NII-2C+U-NII-3)	5720	15.088	0.5	PASS
	144 (U-NII-3)	5720	2.514	0.5	PASS
	149	5745	15.095	0.5	PASS
	157	5785	15.088	0.5	PASS
	165	5825	15.095	0.5	PASS

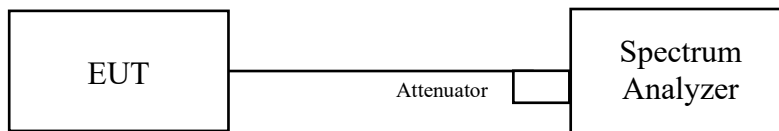


9.2. 26dB Bandwidth

Test procedure

- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
- The plot of the test result only shows the worst case of channels as a representative.

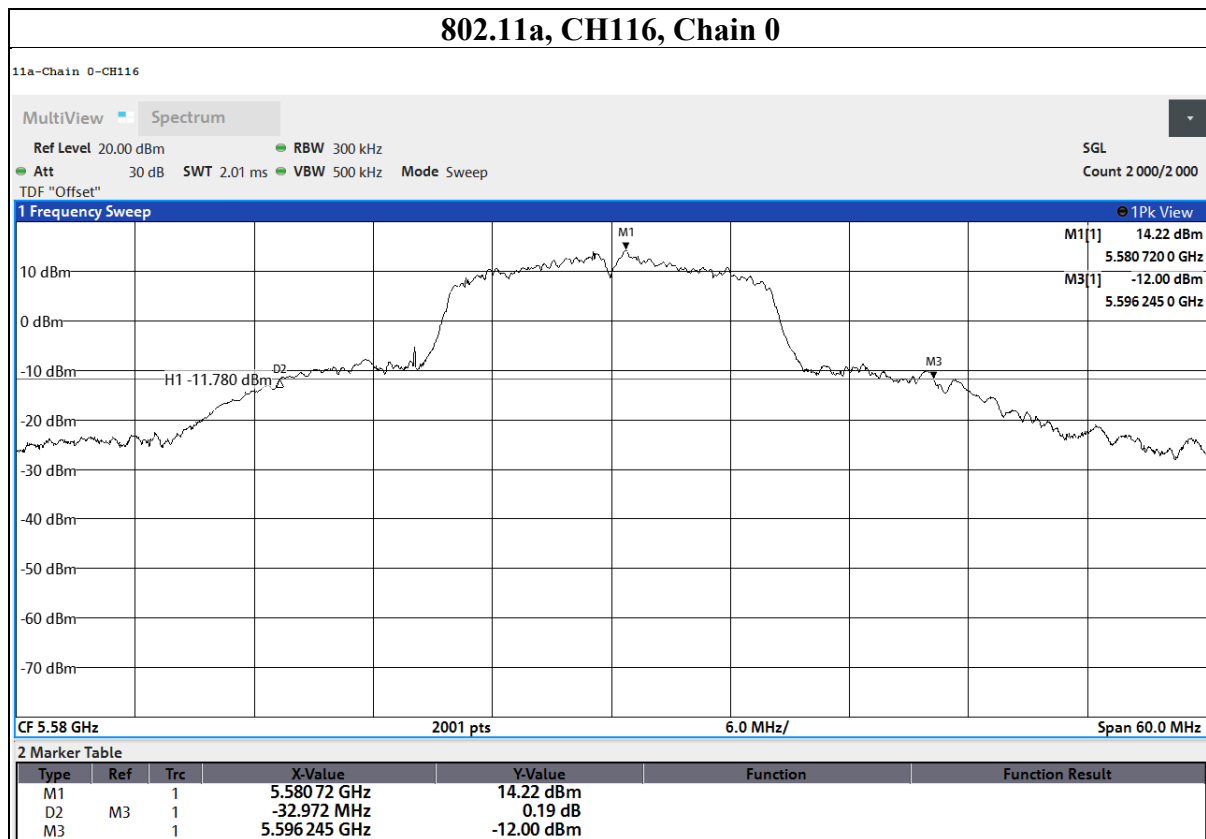
Test Setup



The loss between RF output port of the EUT and the input port of the Spectrum Analyzer has been taken into consideration.

Test Data

Mode	CH	Freq (MHz)	26dB BW (MHz)	Limit (MHz)	Result
			Chain 0		
802.11a	36	5180	19.476	N/A	PASS
	44	5220	22.21	N/A	PASS
	48	5240	29.033	N/A	PASS
	52	5260	29.424	N/A	PASS
	60	5300	32.6	N/A	PASS
	64	5320	19.338	N/A	PASS
	100	5500	19.558	N/A	PASS
	116	5580	32.972	N/A	PASS
	140	5700	19.379	N/A	PASS
	144 (U-NII-2C)	5720	14.652	N/A	PASS
	144 (U-NII-2C+U-NII-3)	5720	19.369	N/A	PASS
	144 (U-NII-3)	5720	4.717	N/A	PASS



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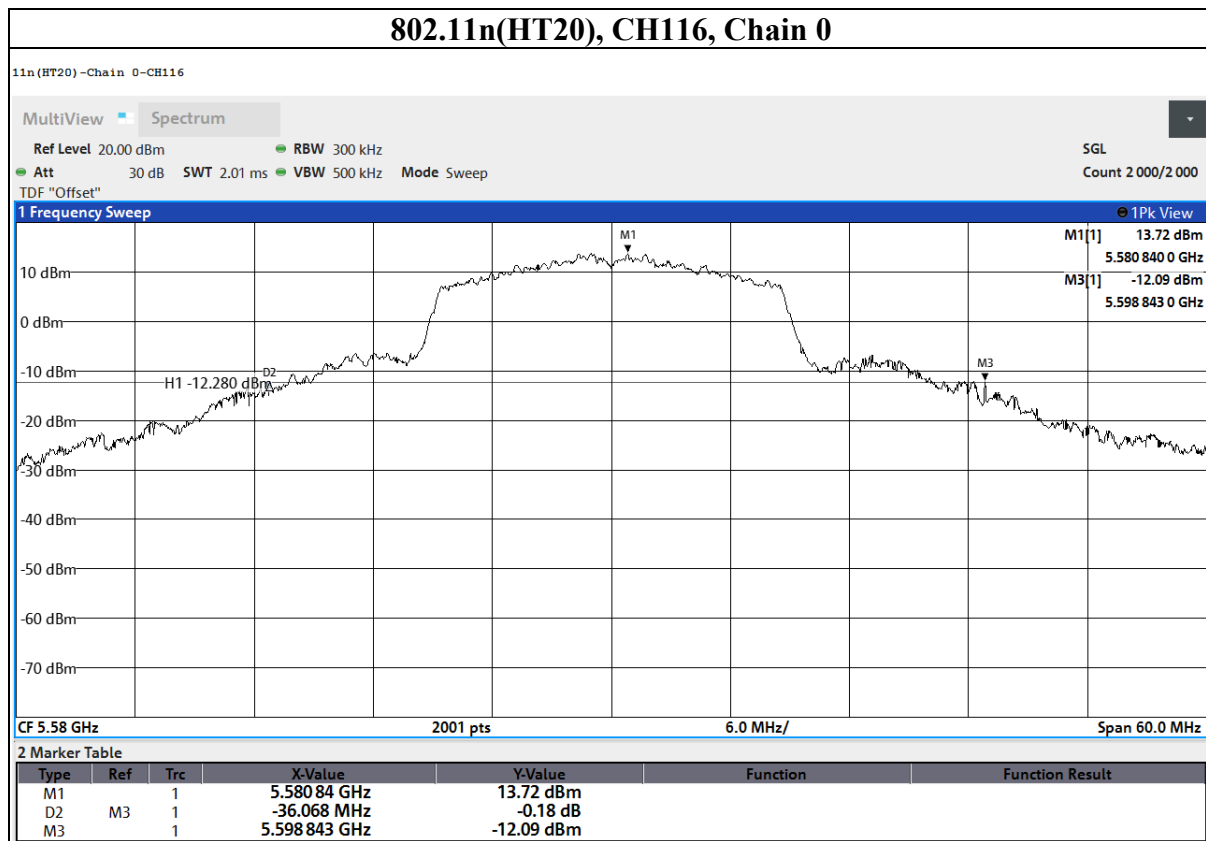
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Mode	CH	Freq (MHz)	26dB BW (MHz)	Limit (MHz)	Result
			Chain 0		
802.11n(HT20)	36	5180	29.367	N/A	PASS
	44	5220	31.096	N/A	PASS
	48	5240	29.817	N/A	PASS
	52	5260	30.873	N/A	PASS
	60	5300	30.915	N/A	PASS
	64	5320	29.399	N/A	PASS
	100	5500	24.131	N/A	PASS
	116	5580	36.068	N/A	PASS
	140	5700	23.517	N/A	PASS
	144 (U-NII-2C)	5720	18.351	N/A	PASS
	144 (U-NII-2C+U-NII-3)	5720	23.446	N/A	PASS
	144 (U-NII-3)	5720	5.095	N/A	PASS

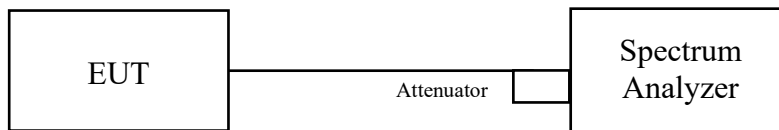


9.3. Occupied Bandwidth

Test procedure

- Set center frequency to the nominal EUT channel center frequency.
- Set span = 1.5 times to 5.0 times the OBW.
- Set RBW = 1% to 5% of the OBW
- Set VBW $\geq 3 \times$ RBW
- Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- Use the 99% power bandwidth function of the instrument (if available).
- If the instrument does not have a 99% power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.
- The plot of the test result only shows the worst case of channels as a representative.

Test Setup



The loss between RF output port of the EUT and the input port of the Spectrum Analyzer has been taken into consideration.

Test Data

Mode	CH	Freq (MHz)	OBW (MHz)	Limit (MHz)	Result
			Chain 0		
802.11a	36	5180	17.497	N/A	PASS
	44	5220	17.547	N/A	PASS
	48	5240	17.975	N/A	PASS
	52	5260	18.256	N/A	PASS
	60	5300	18.414	N/A	PASS
	64	5320	17.228	N/A	PASS
	100	5500	17.358	N/A	PASS
	116	5580	20.85	N/A	PASS
	140	5700	17.077	N/A	PASS
	144 (U-NII-2C)	5720	13.502	N/A	PASS
	144 (U-NII-2C+U-NII-3)	5720	17.076	N/A	PASS
	144 (U-NII-3)	5720	3.574	N/A	PASS
	149	5745	20.95	N/A	PASS
	157	5785	22.698	N/A	PASS
	165	5825	22.488	N/A	PASS

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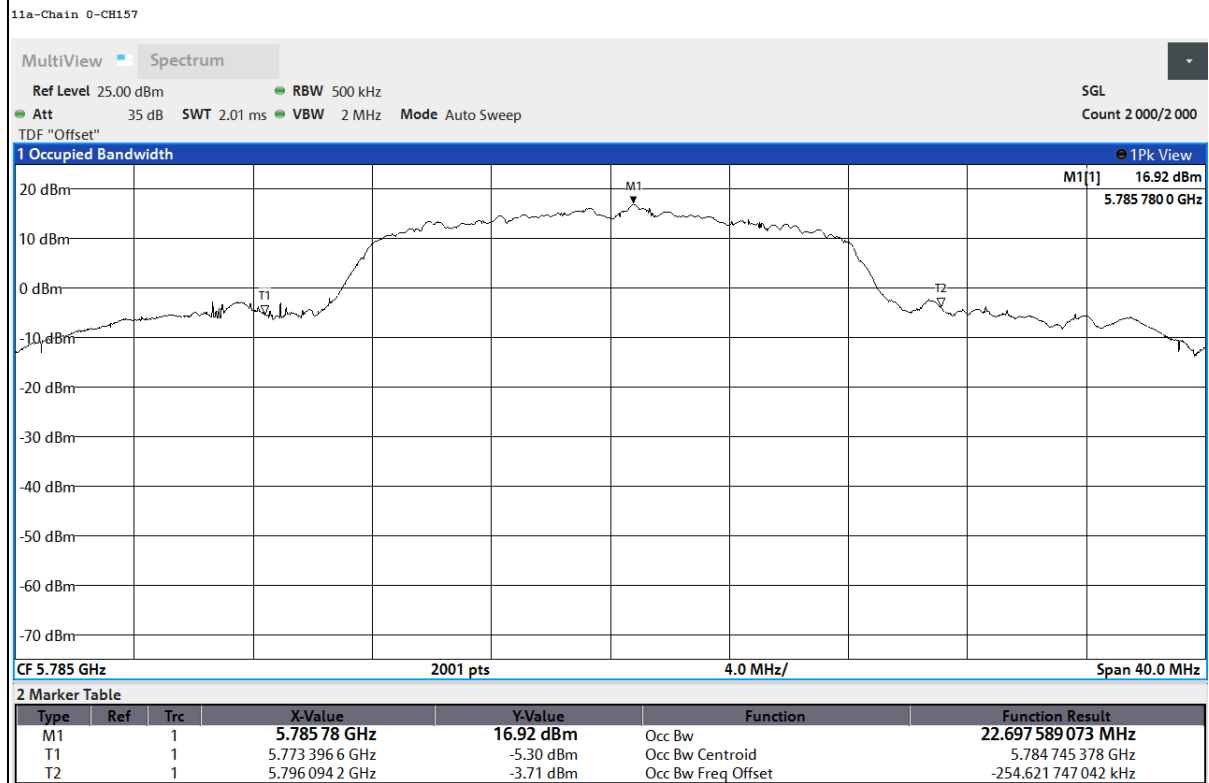
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802.11a, CH157, Chain 0



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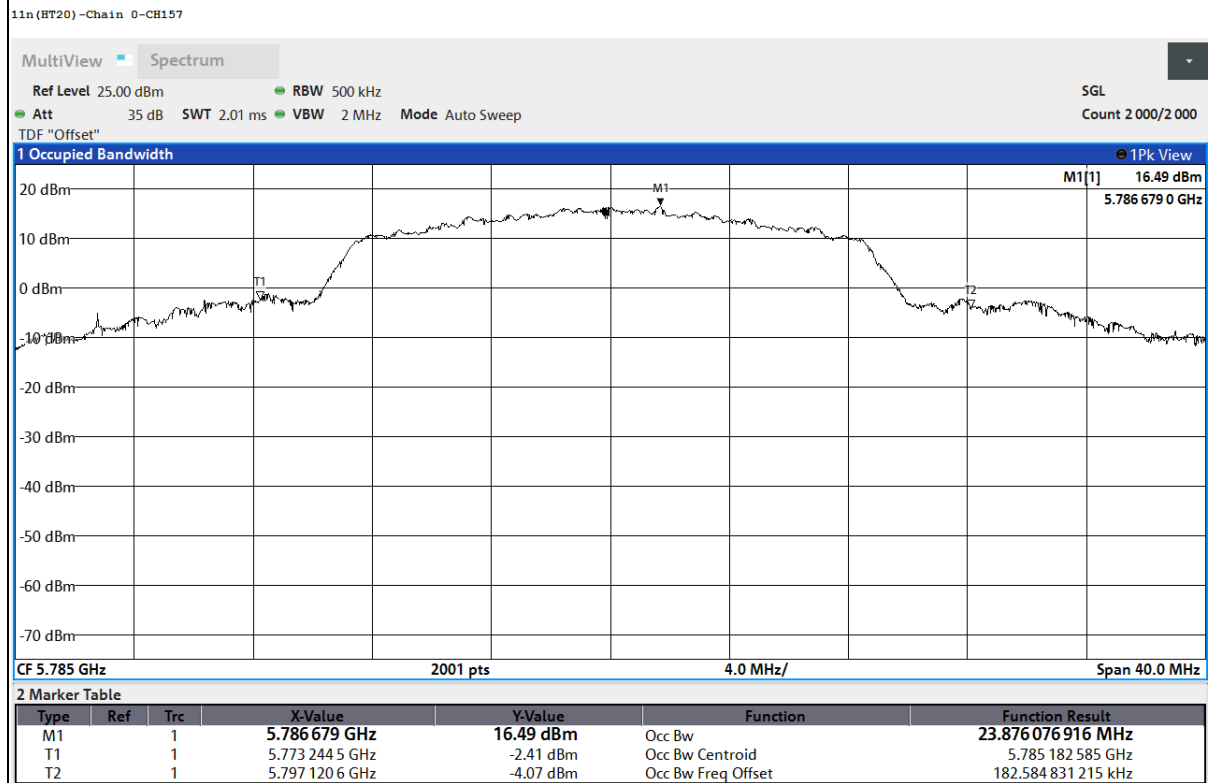
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Mode	CH	Freq (MHz)	OBW (MHz)	Limit (MHz)	Result
			Chain 0		
802.11n(HT20)	36	5180	18.591	N/A	PASS
	44	5220	20.024	N/A	PASS
	48	5240	19.068	N/A	PASS
	52	5260	19.712	N/A	PASS
	60	5300	19.914	N/A	PASS
	64	5320	18.754	N/A	PASS
	100	5500	18.472	N/A	PASS
	116	5580	22.203	N/A	PASS
	140	5700	18.348	N/A	PASS
	144 (U-NII-2C)	5720	14.211	N/A	PASS
	144 (U-NII-2C+U- NII-3)	5720	18.293	N/A	PASS
	144 (U-NII-3)	5720	4.082	N/A	PASS
	149	5745	23.611	N/A	PASS
	157	5785	23.876	N/A	PASS
	165	5825	23.371	N/A	PASS

802.11n(HT20), CH157, Chain 0



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9.4. Conducted output power

Requirements

Operation Band	EUT Category		Limit
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) Max. e.i.r.p $\leq$ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$
		Fixed point-to-point Access Point	1 Watt (30 dBm) If $G_{TX} > 23$ dBi, then $P_{Out} = 30 - (G_{TX} - 23)$
		Indoor Access Point	1 Watt (30 dBm) If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$
	√	Client device	250mW (24 dBm) If $G_{TX} > 6$ dBi, then $P_{Out} = 23.98 - (G_{TX} - 6)$
U-NII-2A	√		250mW (24 dBm) or 11 dBm+10 log B* If $G_{TX} > 6$ dBi, then $P_{Out} = 23.98 - (G_{TX} - 6)$
U-NII-2C	√		250mW (24 dBm) or 11 dBm+10 log B* If $G_{TX} > 6$ dBi, then $P_{Out} = 23.98 - (G_{TX} - 6)$
U-NII-3	√		For Point-to-multipoint systems (P2M): 1 Watt (30 dBm). If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ For Point-to-point systems (P2P): 1 Watt (30 dBm)

Note:

1. P_{Out} = maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi, B is the 26 dB emission bandwidth in megahertz
2. If EUT with Multiple Transmitter Output:
 - a. Directional Gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{Gn/20})^2 / N_{\text{ant}}]$ dBi.
Nant: Number of Transmit Antennas
G1, G2,..., Gn: Gain of Individual Antennas
Example: two antenna and gain 5 dBi / 3dBi, so if it was used for TxBF power measurement
Directional Gain = $10 \log[(105/20 + 103/20)^2 / 2]$ dBi = 7.07 dBi
 - b. Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices, CDD
Array Gain = 0 dB (i.e., no array gain) for $N_{\text{ANT}} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;
Array Gain = $5 \log(N_{\text{ANT}}/N_{\text{SS}})$ dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{\text{ANT}} \geq 5$.
Example: Maximum antenna gain = 5 dBi and $N_{\text{ANT}} \leq 4$, so if it was used for CDD power measurement
Directional Gain = 5 dBi + Array Gain = 5 dBi + 0 dB = 5 dBi
 - c. For power measurement of KDB 662911 is used with multiple transmitter output. Total conducted power is the sum of the conducted power levels measured at the various output ports.
3. Straddle Channel Power in each band = Straddle Channel Total Power * (Each band EBW / Straddle Channel Total EBW).
Example: if CH144 EBW (Total) = 20MHz, within UNII-2C Band is 15MHz, within UNII-3 Band is 5MHz,
Total Power = 20dBm.
Calculation for UNII-2C Band Power = $20\text{dBm} * (5/20) = 13.97 \text{ dBm}$
Calculation for UNII-3 Band Power = $20\text{dBm} * (15/20) = 18.75 \text{ dBm}$.

Test Procedure

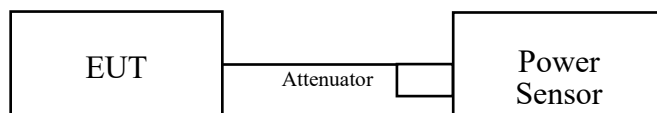
For Average Power Measurement

Test method PM

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst and set the detector to AVERAGE. Duty factor is not added to measured value.

Test Setup

For Average Power Measurement



The loss between RF output port of the EUT and the input port of the Power Meter has been taken into consideration.

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Test Data

Mode	CH	Freq. (MHz)	AVG Power (dBm) Chain0	Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)	Result
802.11a	36	5180	20.65	116.145	20.65	23.98	24.75	30	Pass
	44	5220	21.82	152.055	21.82	23.98	25.92	30	Pass
	48	5240	21.82	152.055	21.82	23.98	25.92	30	Pass
	52	5260	21.51	141.579	21.51	23.9	25.61	30	Pass
	60	5300	21.56	143.219	21.56	23.9	25.66	30	Pass
	64	5320	20.7	117.49	20.7	23.9	24.80	30	Pass
	100	5500	19.59	90.991	19.59	23.9	23.69	30	Pass
	116	5580	21.76	149.968	21.76	23.9	25.86	30	Pass
	140	5700	18.08	64.269	18.08	23.9	22.18	30	Pass
	144	5720	18.27	67.143	18.27	23.9	22.37	30	Pass
	2c-144	5720	17.06	50.816	17.06	22.65	21.16	30	Pass
	3-144	5720	12.14	16.368	12.14	30	16.24	36.02	Pass
	149	5745	22.61	182.39	22.61	30	26.71	36.02	Pass
	157	5785	22.6	181.97	22.6	30	26.70	36.02	Pass
	165	5825	22.01	158.855	22.01	30	26.11	36.02	Pass
802.11n(HT20)	36	5180	20.02	100.462	20.02	23.98	24.12	30	Pass
	44	5220	21.58	143.88	21.58	23.98	25.68	30	Pass
	48	5240	21.51	141.579	21.51	23.98	25.61	30	Pass
	52	5260	21.79	151.008	21.79	23.9	25.89	30	Pass
	60	5300	21.76	149.968	21.76	23.9	25.86	30	Pass
	64	5320	20.18	104.232	20.18	23.9	24.28	30	Pass
	100	5500	19.28	84.723	19.28	23.9	23.38	30	Pass
	116	5580	21.5	141.254	21.5	23.9	25.60	30	Pass
	140	5700	18.01	63.241	18.01	23.9	22.11	30	Pass
	144	5720	18.09	64.417	18.09	23.9	22.19	30	Pass
	2c-144	5720	17.03	50.466	17.03	23.63	21.13	30	Pass
	3-144	5720	11.46	13.996	11.46	30	15.56	36.02	Pass
	149	5745	22.46	176.198	22.46	30	26.56	36.02	Pass
	157	5785	22.45	175.792	22.45	30	26.55	36.02	Pass
	165	5825	22.03	159.588	22.03	30	26.13	36.02	Pass

Note: Record the total power of the CH144* value for reference purposes.

9.5. Power Spectral Density

Requirements

Operation Band	EUT Category		Limit
U-NII-1		Outdoor Access Point	17dBm/ MHz If $G_{TX} > 6$ dBi, then $PSD = 17 - (G_{TX} - 6)$
		Fixed point-to-point Access Point	17dBm/ MHz If $G_{TX} > 23$ dBi, then $PSD = 17 - (G_{TX} - 23)$
		Indoor Access Point	17dBm/ MHz If $G_{TX} > 6$ dBi, then $PSD = 17 - (G_{TX} - 6)$
	√	Client device	11dBm/ MHz If $G_{TX} > 6$ dBi, then $PSD = 11 - (G_{TX} - 6)$
U-NII-2A	√		11dBm/ MHz If $G_{TX} > 6$ dBi, then $PSD = 11 - (G_{TX} - 6)$
U-NII-2C	√		11dBm/ MHz If $G_{TX} > 6$ dBi, then $PSD = 11 - (G_{TX} - 6)$
U-NII-3	√		For Point-to-multipoint systems (P2M): 30dBm/ 500kHz. If $G_{TX} > 6$ dBi, then $PSD = 30 - (G_{TX} - 6)$ For Point-to-point systems (P2P): 30dBm/ 500kHz

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Note:

1. PSD = power spectral density that the same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz
2. G_{TX} = the maximum transmitting antenna directional gain in dBi.
3. If EUT with Multiple Transmitter Output:
 - a. Directional Gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{Gn/20})^2 / Nant]$ dBi.
Nant: Number of Transmit Antennas
G1, G2,..., Gn: Gain of Individual Antennas
Example: two antenna and gain 5 dBi / 3dBi, so if it was used for power density measurement
Directional Gain = $10 \log[(10^{5/20} + 10^{3/20})^2 / 2]$ dBi = 7.07 dBi
 - b. "PSD per chain" of the report shown is maximum value for each chain, at the "Total PSD" is summing entire spectra across corresponding frequency bins on the various outputs by computer, refer KDB 662911 Method a) for calculating total power density.
 - c. Method a) of power density measurement of KDB 662911 is used for calculating total power density with multiple transmitter output. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
4. Refer to section 6.6 for duty cycle spectrum plot. (If duty cycle<98%)

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Test procedure

For U-NII-1, U-NII-2A, U-NII-2C band:

Using method as below:

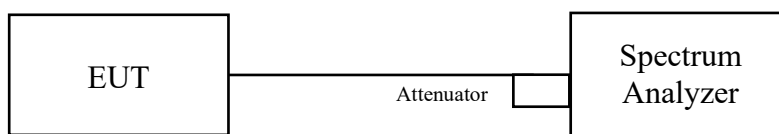
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz, Set VBW $\geq$ 3 RBW, Detector = RMS
- Sweep time = auto, trigger set to “free run”.
- Trace average at least 100 traces in power averaging mode.
- Record the max value. (if Duty cycle <98 %, add 10 log (1/duty cycle))
- The plot of the test result only shows the worst case of channels as a representative.

For U-NII-3 band:

Using method as below:

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 300 kHz, Set VBW $\geq$ 1 MHz, Detector = RMS
- Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
- Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10 log (500 kHz/300kHz)
- Sweep time = auto, trigger set to “free run”.
- Trace average at least 100 traces in power averaging mode.
- Record the max value. (if Duty cycle <98 %, add 10 log (1/duty cycle))
- The plot of the test result only shows the worst case of channels as a representative.

Test Setup



The loss between RF output port of the EUT and the input port of the Spectrum Analyzer has been taken into consideration.

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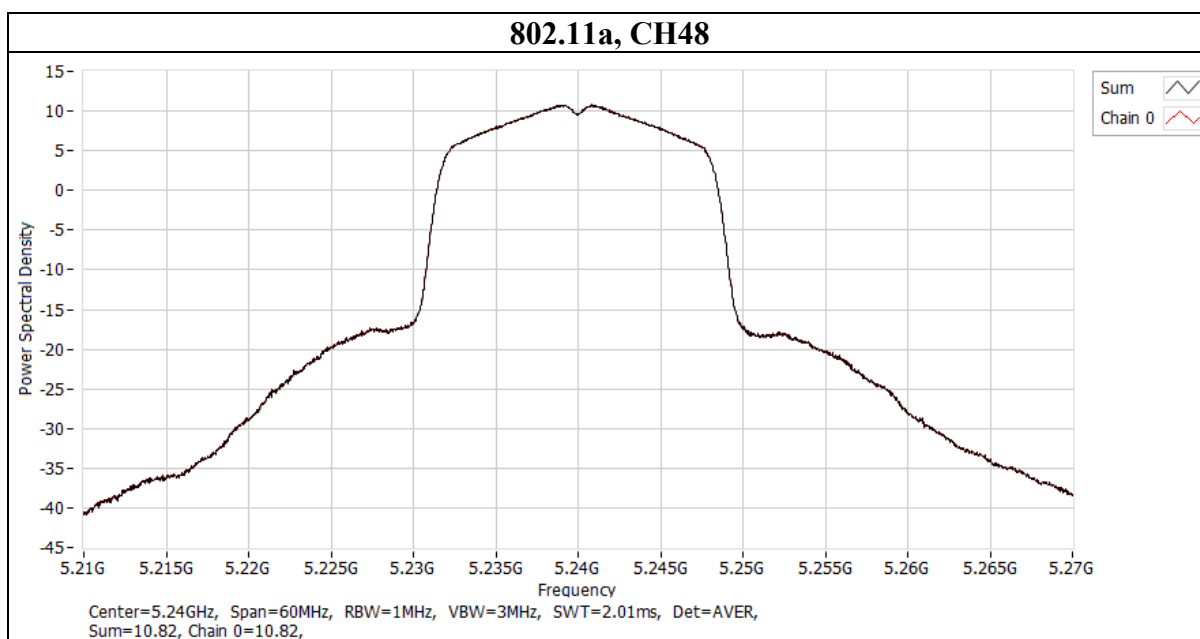
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Test Data

Mode (U-NII-1)	CH	Freq (MHz)	Directional Gain (dBi)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11a	36	5180	4.1	10.16	11	PASS
	44	5220	4.1	10.73	11	PASS
	48	5240	4.1	10.82	11	PASS

Mode (U-NII-1)	CH	Freq (MHz)	PSD per Chain (dBm/MHz)
			Chain 0
802.11a	36	5180	10.16
	44	5220	10.73
	48	5240	10.82



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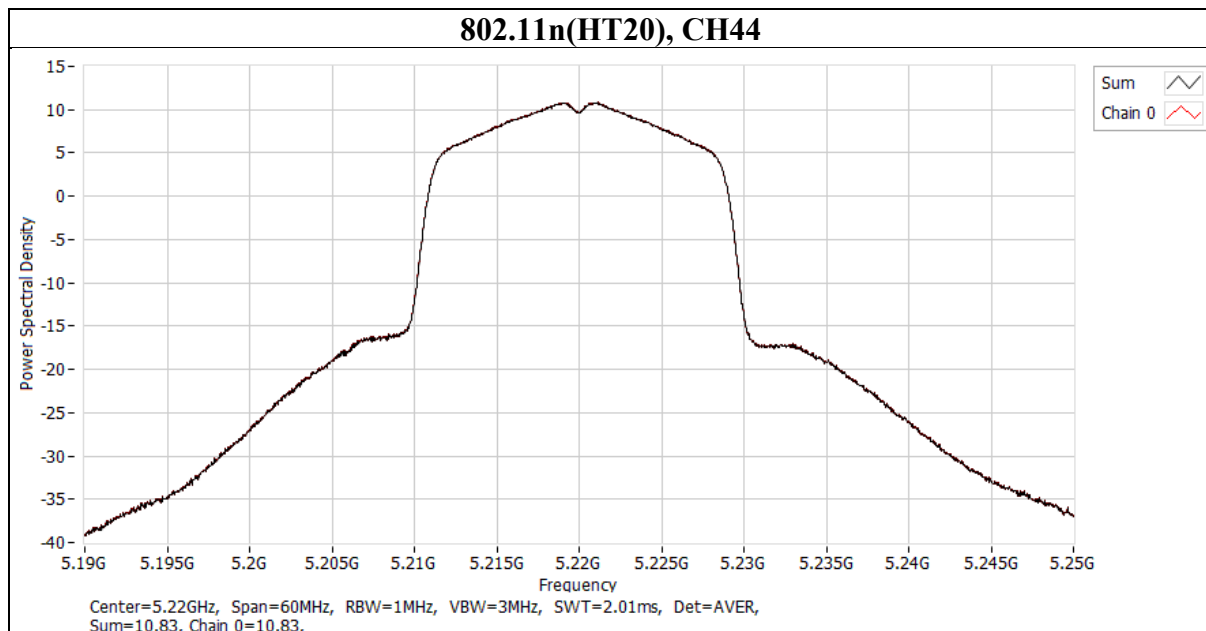
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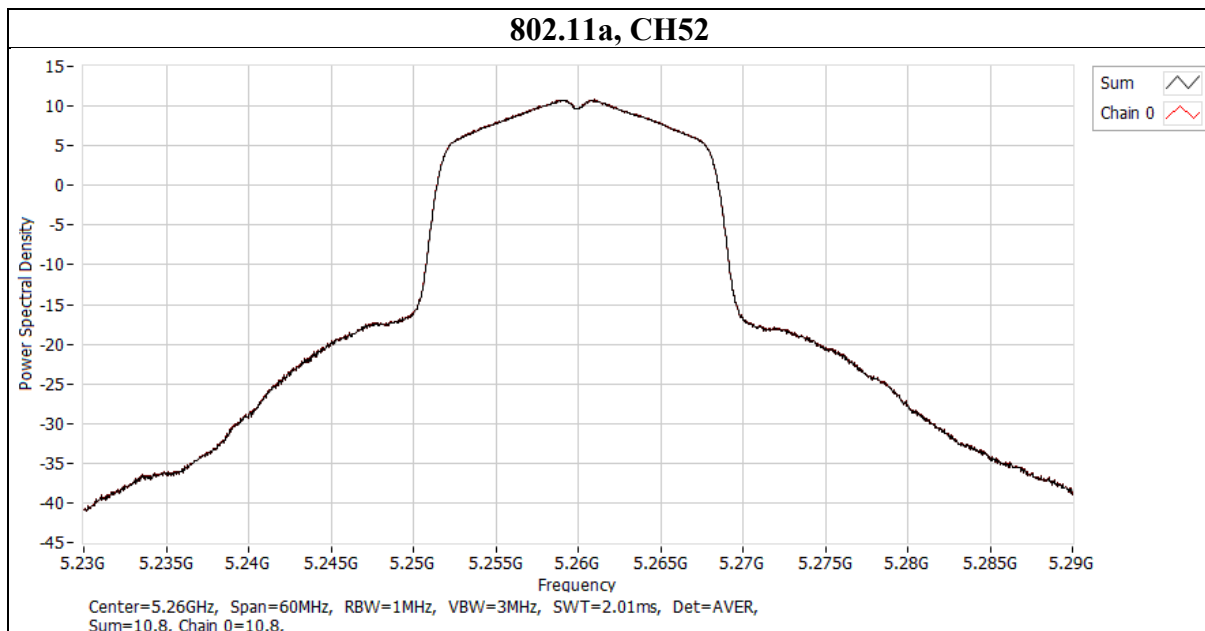
Mode (U-NII-1)	CH	Freq (MHz)	Directional Gain (dBi)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11n(HT20)	36	5180	4.1	9.76	11	PASS
	44	5220	4.1	10.83	11	PASS
	48	5240	4.1	10.83	11	PASS

Mode (U-NII-1)	CH	Freq (MHz)	PSD per Chain (dBm/MHz)
			Chain 0
802.11n(HT20)	36	5180	9.76
	44	5220	10.83
	48	5240	10.83



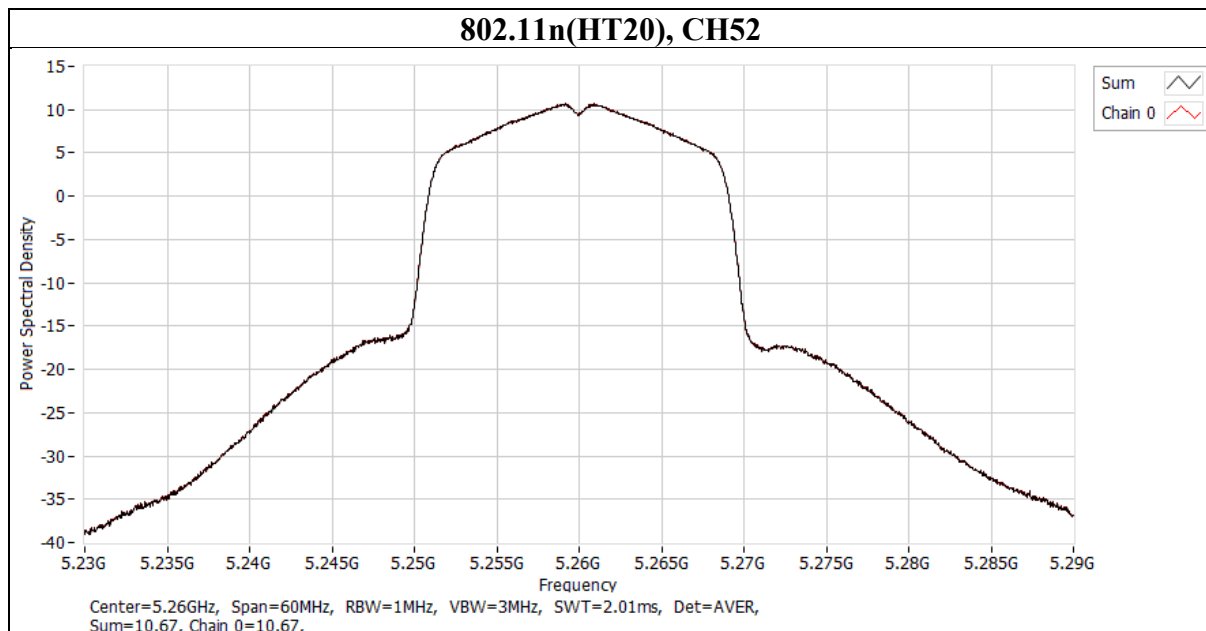
Mode (U-NII-2A)	CH	Freq (MHz)	Directional Gain (dBi)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11a	52	5260	4.1	10.8	11	PASS
	60	5300	4.1	10.8	11	PASS
	64	5320	4.1	9.66	11	PASS

Mode (U-NII-2A)	CH	Freq (MHz)	PSD per Chain (dBm/MHz)
			Chain 0
802.11a	52	5260	10.8
	60	5300	10.8
	64	5320	9.66



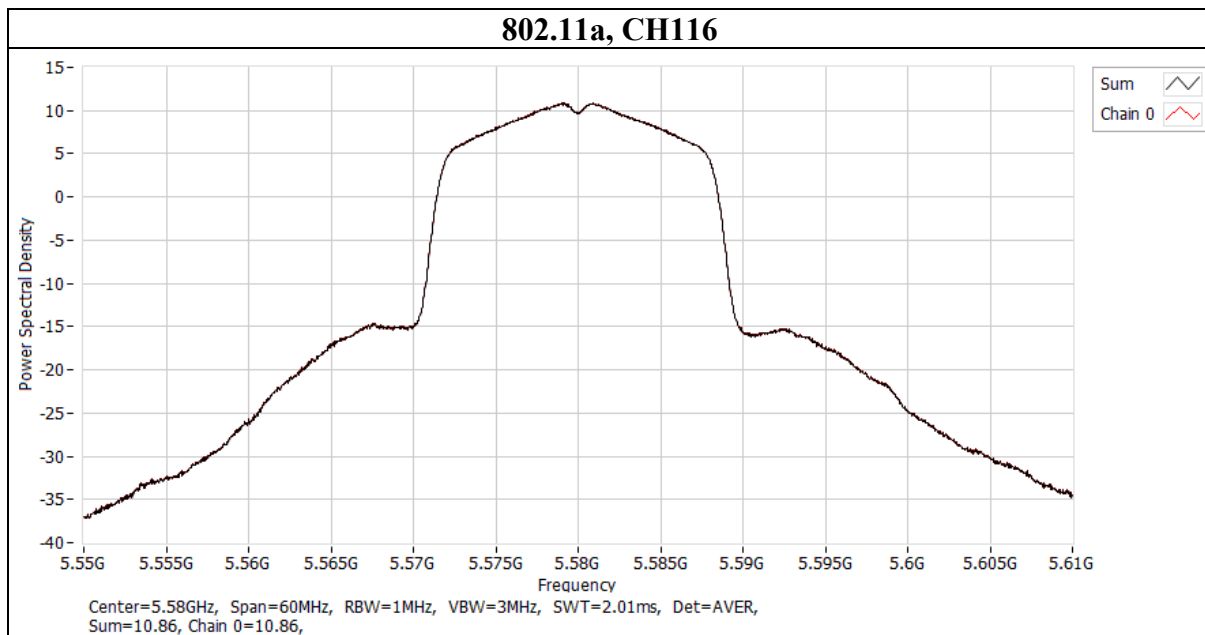
Mode (U-NII-2A)	CH	Freq (MHz)	Directional Gain (dBi)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11n(HT20)	52	5260	4.1	10.67	11	PASS
	60	5300	4.1	10.65	11	PASS
	64	5320	4.1	9.21	11	PASS

Mode (U-NII-2A)	CH	Freq (MHz)	PSD per Chain (dBm/MHz)
			Chain 0
802.11n(HT20)	52	5260	10.67
	60	5300	10.65
	64	5320	9.21



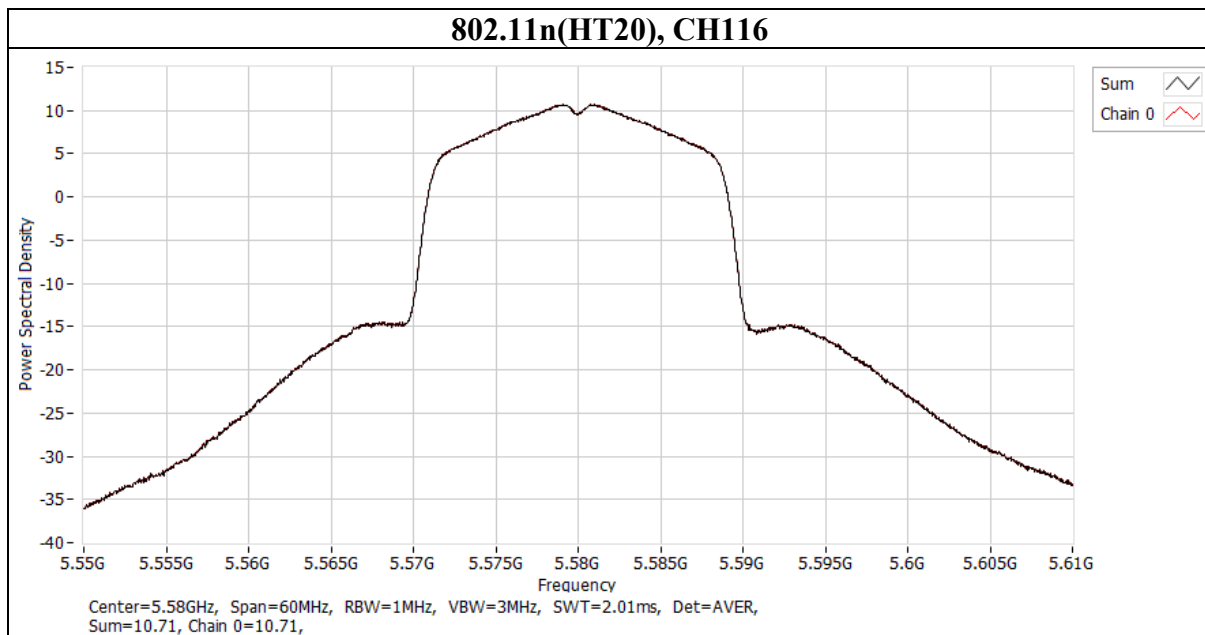
Mode (U-NII-2C)	CH	Freq (MHz)	Directional Gain (dBi)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11a	100	5500	4.1	9	11	PASS
	116	5580	4.1	10.86	11	PASS
	140	5700	4.1	7.6	11	PASS
	144	5720	4.1	7.55	11	PASS

Mode (U-NII-2C)	CH	Freq (MHz)	PSD per Chain (dBm/MHz)
			Chain 0
802.11a	100	5500	9
	116	5580	10.86
	140	5700	7.6
	144	5720	7.55



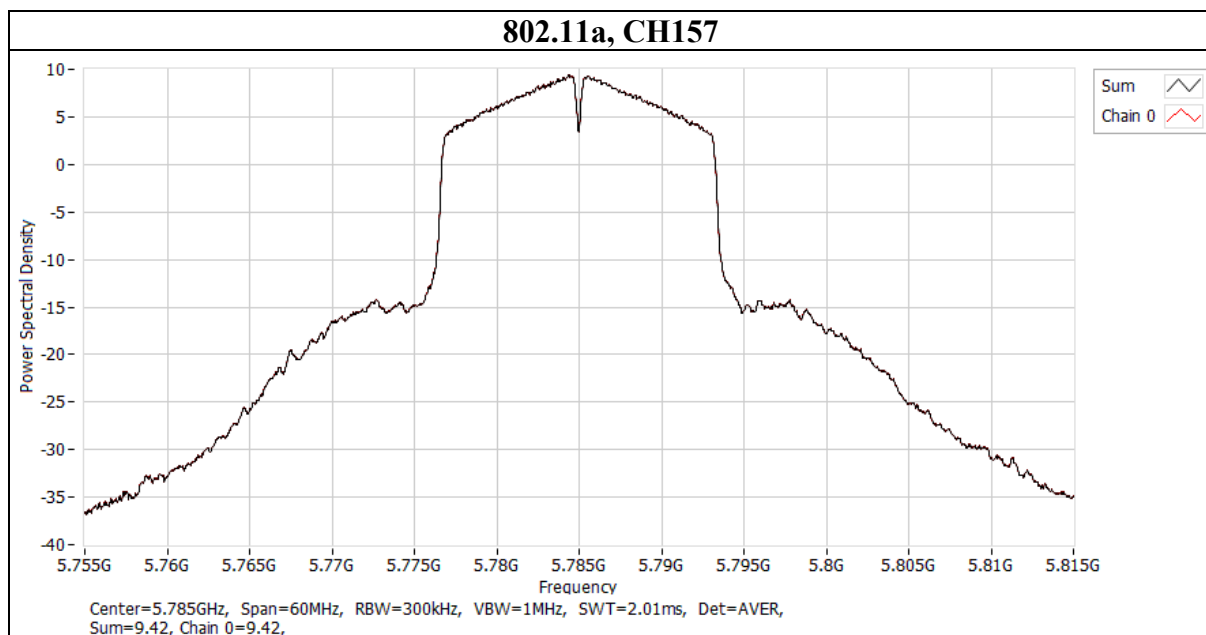
Mode (U-NII-2C)	CH	Freq (MHz)	Directional Gain (dBi)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
802.11n(HT20)	100	5500	4.1	8.36	11	PASS
	116	5580	4.1	10.71	11	PASS
	140	5700	4.1	7.33	11	PASS
	144	5720	4.1	7.26	11	PASS

Mode (U-NII-2C)	CH	Freq (MHz)	PSD per Chain (dBm/MHz)
			Chain 0
802.11n(HT20)	100	5500	8.36
	116	5580	10.71
	140	5700	7.33
	144	5720	7.26



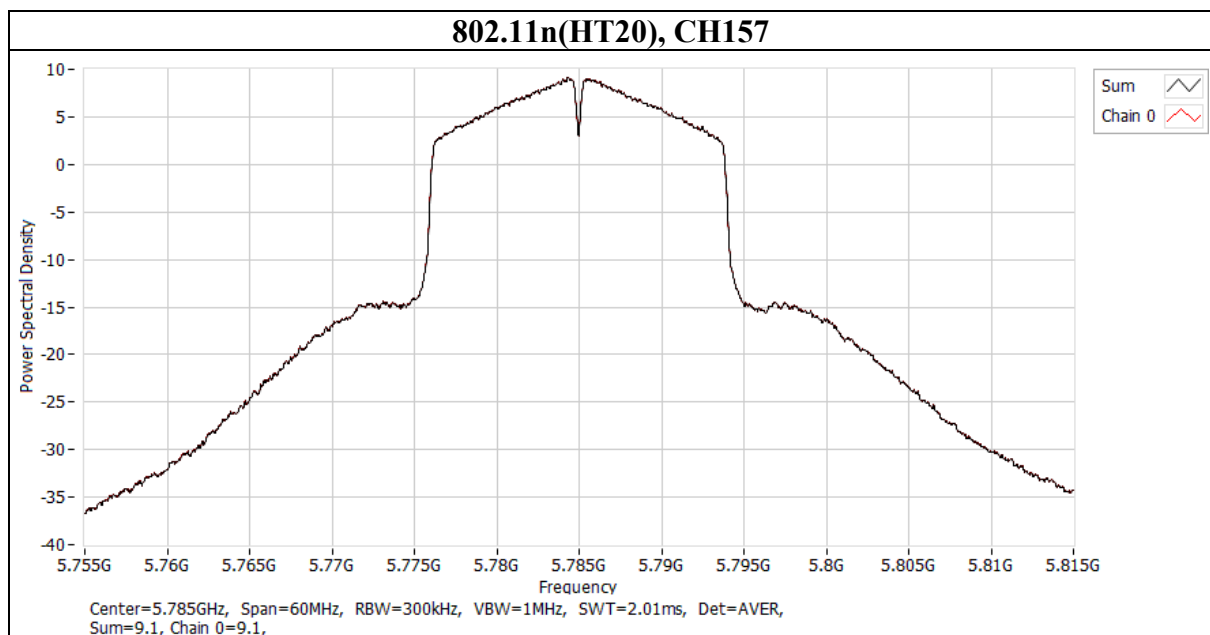
Mode (U-NII-3)	CH	Freq (MHz)	BWCF	Directional Gain (dBi)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Result
802.11a	144	5720	2.22	4.1	7.61	30	PASS
	149	5745	2.22	4.1	11.43	30	PASS
	157	5785	2.22	4.1	11.64	30	PASS
	165	5825	2.22	4.1	11.39	30	PASS

Mode (U-NII-3)	CH	Freq (MHz)	PSD per Chain (dBm/500kHz)
			Chain 0
802.11a	144	5720	5.39
	149	5745	9.21
	157	5785	9.42
	165	5825	9.17



Mode (U-NII-3)	CH	Freq (MHz)	BWCF	Directional Gain (dBi)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Result
802.11n(HT20)	144	5720	2.22	4.1	7.38	30	PASS
	149	5745	2.22	4.1	11.21	30	PASS
	157	5785	2.22	4.1	11.32	30	PASS
	165	5825	2.22	4.1	10.7	30	PASS

Mode (U-NII-3)	CH	Freq (MHz)	PSD per Chain (dBm/500kHz)
			Chain 0
802.11n(HT20)	144	5720	5.16
	149	5745	8.99
	157	5785	9.1
	165	5825	8.48



9.6. Frequency Stability

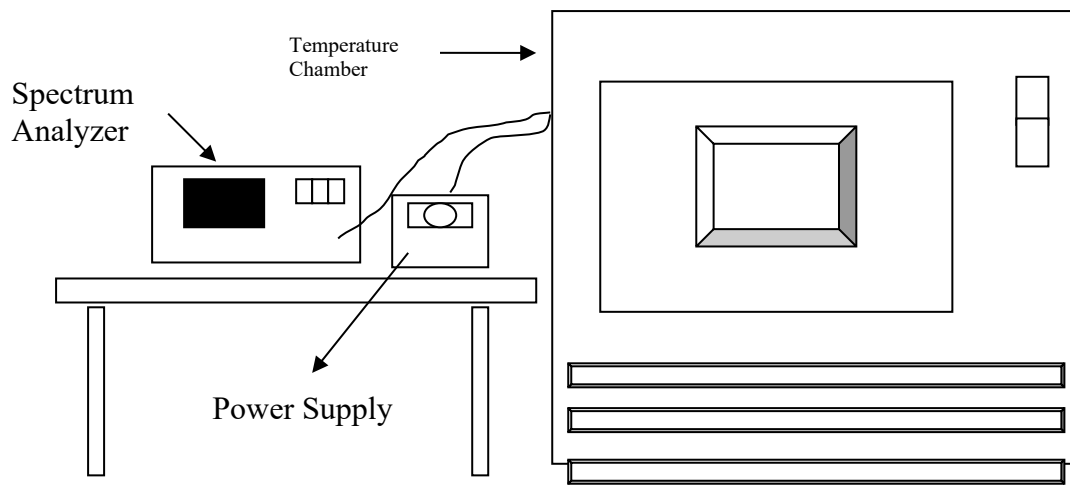
Requirements

The frequency of the carrier signal shall be maintained within band of operation.

Test procedure

- The EUT was placed inside the environmental test chamber and powered by nominal voltage.
- Turn the EUT on and couple its output to a spectrum analyzer.
- Turn the EUT off and set the chamber to the highest temperature specified.
- Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 Minutes.
- Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
- The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 Minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

Test Setup



Test Data

Frequency Stability Versus Temp.									
Operating Frequency: 5745 MHz									
TEMP. (°C)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)
50	3.62	5745.0169	2.94	5745.0213	3.71	5745.0176	3.06	5745.0172	2.99
40	3.62	5745.0092	1.60	5745.0094	1.64	5745.0076	1.32	5745.0062	1.08
30	3.62	5745.0127	2.21	5745.0157	2.73	5745.0138	2.40	5745.0127	2.21
20	3.62	5745.0251	4.37	5745.0279	4.86	5745.0263	4.58	5745.0258	4.49
10	3.62	5744.9847	-2.66	5744.9822	-3.10	5744.9844	-2.72	5744.9813	-3.26
0	3.62	5745.0298	5.19	5745.0272	4.73	5745.0293	5.10	5745.0296	5.15
-10	3.62	5745.0081	1.41	5745.0088	1.53	5745.0092	1.60	5745.0087	1.51
-20	3.62	5744.9785	-3.74	5744.9767	-4.06	5744.9791	-3.64	5744.979	-3.66
-30	3.62	5745.0251	4.37	5745.0248	4.32	5745.0259	4.51	5745.0273	4.75

TEMP. (°C)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)	Measured Frequency (MHz)	Freq. Drift (ppm)
20	5.75	5745.024	4.18	5745.0287	5.00	5745.0261	4.54	5745.0249	4.33
20	5	5745.0251	4.37	5745.0279	4.86	5745.0263	4.58	5745.0258	4.49
20	4.25	5745.0259	4.51	5745.0276	4.80	5745.0255	4.44	5745.0255	4.44

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9.7. Radiated Spurious Emission

Requirements

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

Frequency(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:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

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Limits of unwanted emission out of the restricted bands

Applicable To		Limit	
789033 D02 General UNII Test Procedure New Rules v02r01		Field Strength at 3m	
		PK:74 (dBμV/m)	AV:54 (dBμV/m)
Frequency Band	Applicable To	EIRP Limit	Equivalent Field Strength at 3m
5150~5250 MHz	15.407(b)(1)	PK:-27 (dBm/MHz)	PK:68.2(dBμV/m)
5250~5350 MHz	15.407(b)(2)		
5470~5725 MHz	15.407(b)(3)		
5725~5850 MHz	15.407(b)(4)(i)	PK:-27 (dBm/MHz) ^{*1} PK:10 (dBm/MHz) ^{*2} PK:15.6 (dBm/MHz) ^{*3} PK:27 (dBm/MHz) ^{*4}	PK: 68.2(dBμV/m) ^{*1} PK:105.2 (dBμV/m) ^{*2} PK: 110.8(dBμV/m) ^{*3} PK:122.2 (dBμV/m) ^{*4}
	^{*1} beyond 75 MHz or more above of the band edge. ^{*2} below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above. ^{*3} below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above. ^{*4} from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.		
5850~5895 MHz	RSS-247 clause 6.2.5.3	5725 MHz and below: PK:27 (dBm/MHz) ^{*1} PK:15.6 (dBm/MHz) ^{*2} PK:10 (dBm/MHz) ^{*3} PK:-27 (dBm/MHz) ^{*4} 5895 MHz and above: AV:-27 (dBm/MHz) ^{*a} AV:15&-7 (dBm/MHz) ^{*b} AV:-5&-27 (dBm/MHz) ^{*c}	5725 MHz and below: PK:122.2 (dBμV/m) ^{*1} PK:110.8 (dBμV/m) ^{*2} PK:105.2 (dBμV/m) ^{*3} PK:68.2 (dBμV/m) ^{*4} 5895 MHz and above: AV: 68.2 (dBμV/m) ^{*a} AV:110.2&88.2 (dBμV/m) ^{*b} AV:90.2&68.2 (dBμV/m) ^{*c}
	^{*1} 5 MHz below the 5725 MHz band edge. ^{*2} 5 MHz below the 5725 MHz band edge decreasing linearly to 10 dBm/MHz at 25 MHz below ^{*3} 25 MHz below the 5725 MHz band edge decreasing linearly to -27 dBm/MHz at 75 MHz below ^{*4} More than 75 MHz below the 5725 MHz band edge. ^{*a} Fixed outdoor access points and fixed outdoor client devices shall not exceed -27 dBm/MHz e.i.r.p. spectral density at or above the 5895 MHz band edge. ^{*b} Indoor access points or indoor subordinate devices shall not exceed 15 dBm/MHz e.i.r.p. spectral density at the 5895 MHz band edge and shall decrease linearly to not exceed -7 dBm/MHz e.i.r.p. spectral density at or above 5925 MHz. ^{*c} Client devices shall not exceed -5 dBm/MHz e.i.r.p. spectral density at the 5895 MHz band edge and shall decrease linearly to not exceed -27 dBm/MHz e.i.r.p. spectral density at or above 5925 MHz.		

Note:

The following formula is used to convert the effective isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3} \mu\text{V/m, where P is the eirp (Watts).}$$

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Test Procedures

[For 9 kHz ~ 30 MHz]

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. For measurement below 30MHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

[For above 30 MHz]

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
- f. The test-receiver system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

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Note:

- a. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
- b. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
- c. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle < 98%) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.

Peak

Frequency	RBW	VBW
9 kHz~150 kHz	200 Hz	600 Hz
150 kHz~30 MHz	10 kHz	30 kHz
30 MHz~1 GHz	120 kHz	360 kHz
Above 1GHz	1 MHz	3 MHz

Average for above 1GHz

RBW	VBW
1MHz	Refer to section 6.6 for duty cycle.

- d. All modes of operation were investigated (includes all external accessories) and the worst-case emissions are reported, the other emission levels were low against the limit.
- e. Test data of Result value (dBuV/m) = Reading value (dBuV) + Correction Factor (dB/m).
- f. Test data of Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
- g. Test data of Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
- h. Test data of Notation "@" = Fundamental Frequency
- i. Test data of Notation "*" = Only required peak limit or the peak result under 20 dB above and complies with AVG limit, AVG result is deemed to comply with AVG limit.

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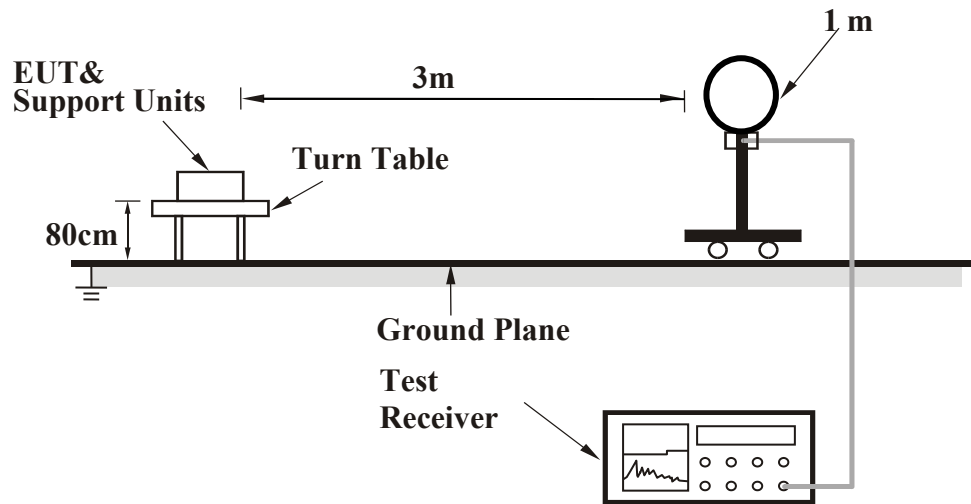
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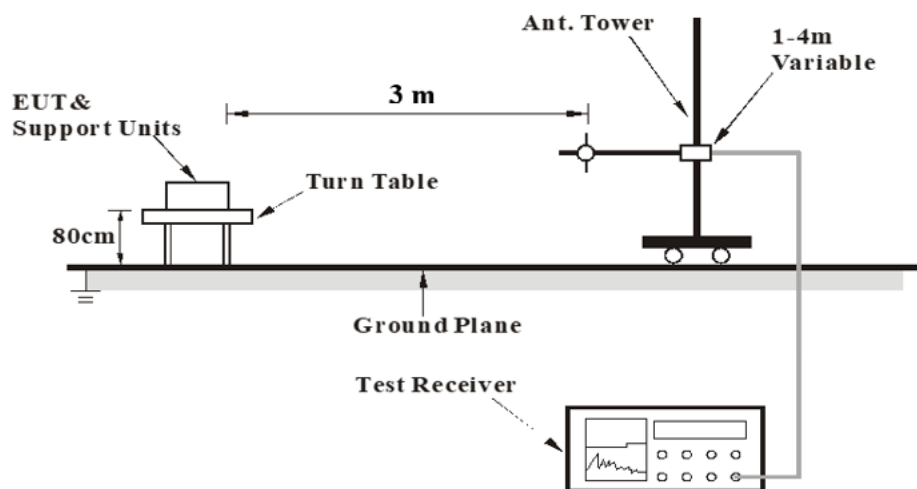
Doc No: Form-ULID-004739 (DCS:17-EM-F0878) / 6.1

Test Setup

<Frequency Range 9 kHz ~ 30 MHz>



<Frequency Range 30 MHz ~ 1 GHz>



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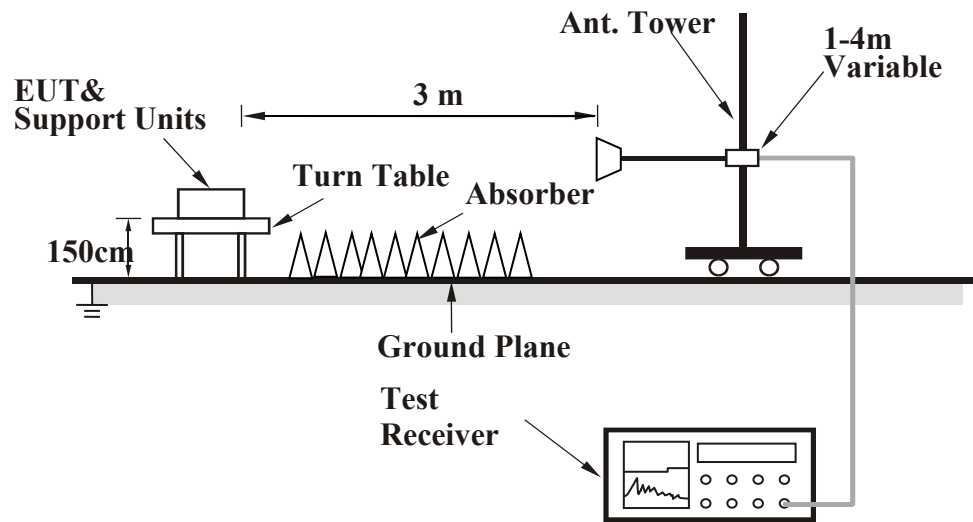
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<Frequency Range above 1 GHz>



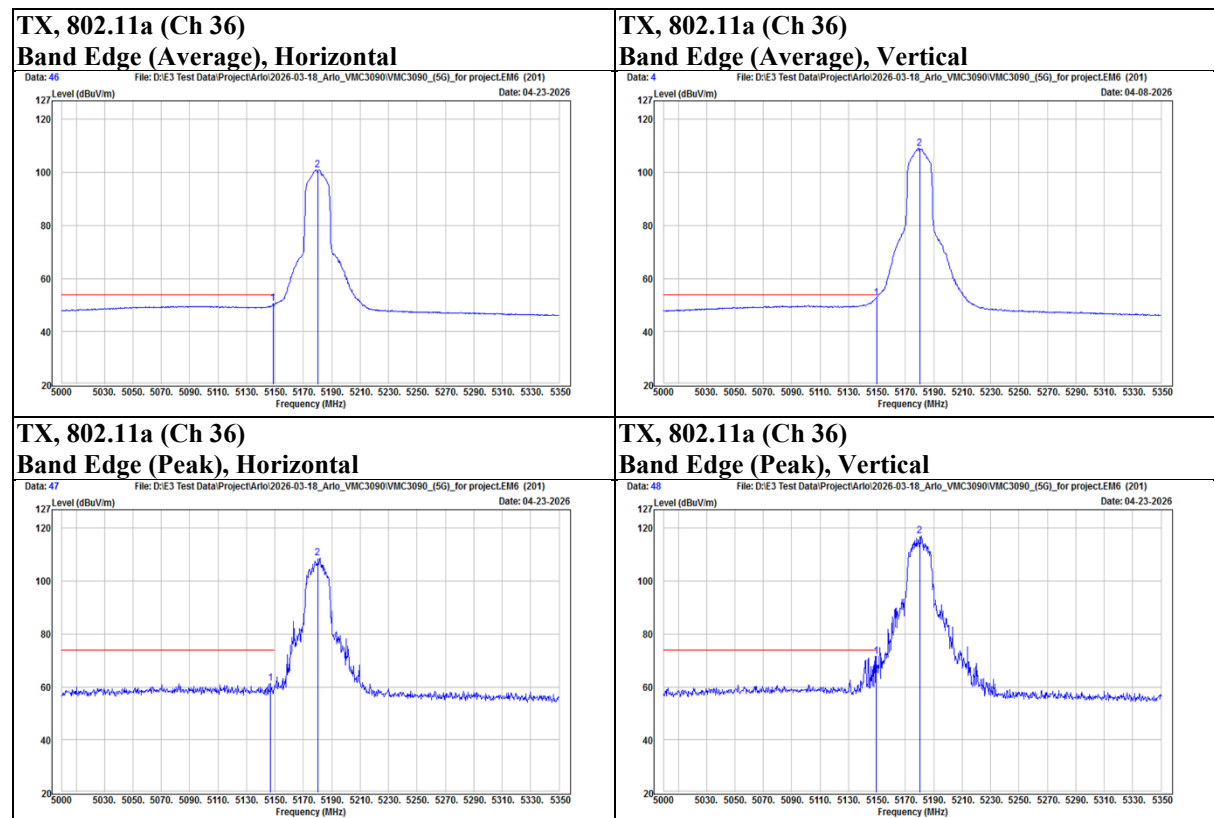
For the actual test configuration, please refer to the Setup Configurations.

Test Data

Above 1 GHz

Mode	802.11a	Channel	36
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5147	42.73	18.53	61.26	74	-12.74	PK
		5148.75	31.94	18.52	50.46	54	-3.54	AVG
	@	5180	90.41	18.31	108.72	N/A	N/A	PK
	@	5180	82.73	18.31	101.04	N/A	N/A	AVG
Vertical		5149.45	53.08	18.52	71.6	74	-2.4	PK
		5149.8	34.19	18.52	52.71	54	-1.29	AVG
	@	5180	98.67	18.31	116.98	N/A	N/A	PK
	@	5180	90.69	18.31	109	N/A	N/A	AVG



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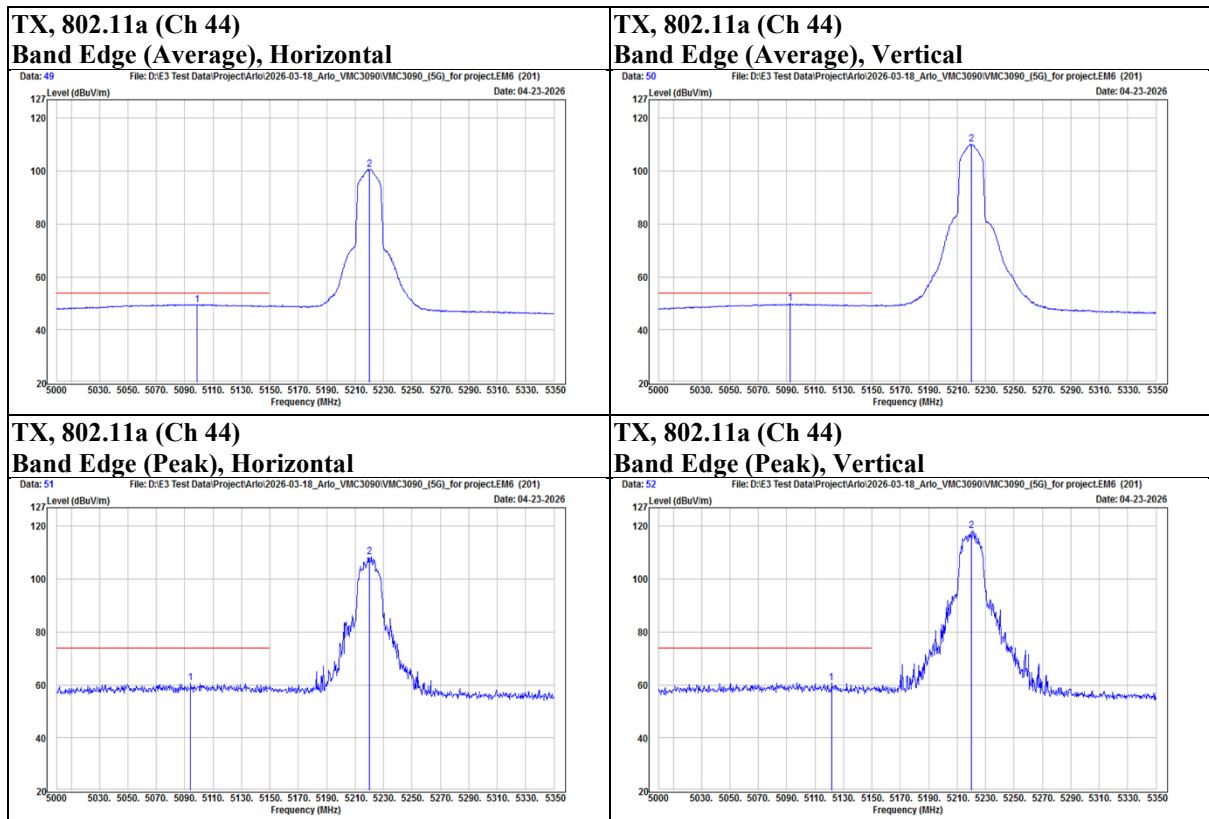
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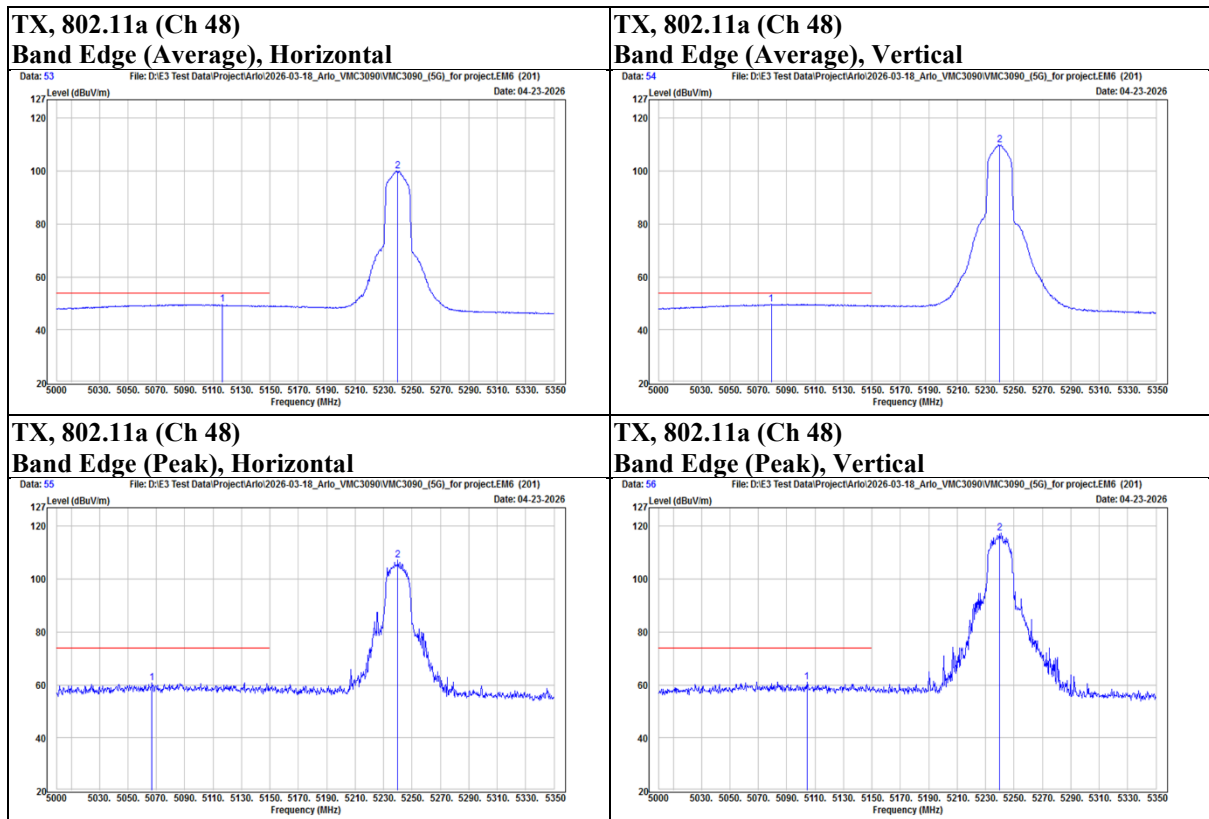
Mode	802.11a	Channel	44
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5094.15	42.05	18.61	60.66	74	-13.34	PK
		5098.7	30.87	18.65	49.52	54	-4.48	AVG
	@	5220	90.14	18.15	108.29	N/A	N/A	PK
	@	5220	82.5	18.15	100.65	N/A	N/A	AVG
Vertical		5092.4	31.25	18.6	49.85	54	-4.15	AVG
		5121.45	42.19	18.6	60.79	74	-13.21	PK
	@	5220	100.08	18.15	118.23	N/A	N/A	PK
	@	5220	91.95	18.15	110.1	N/A	N/A	AVG



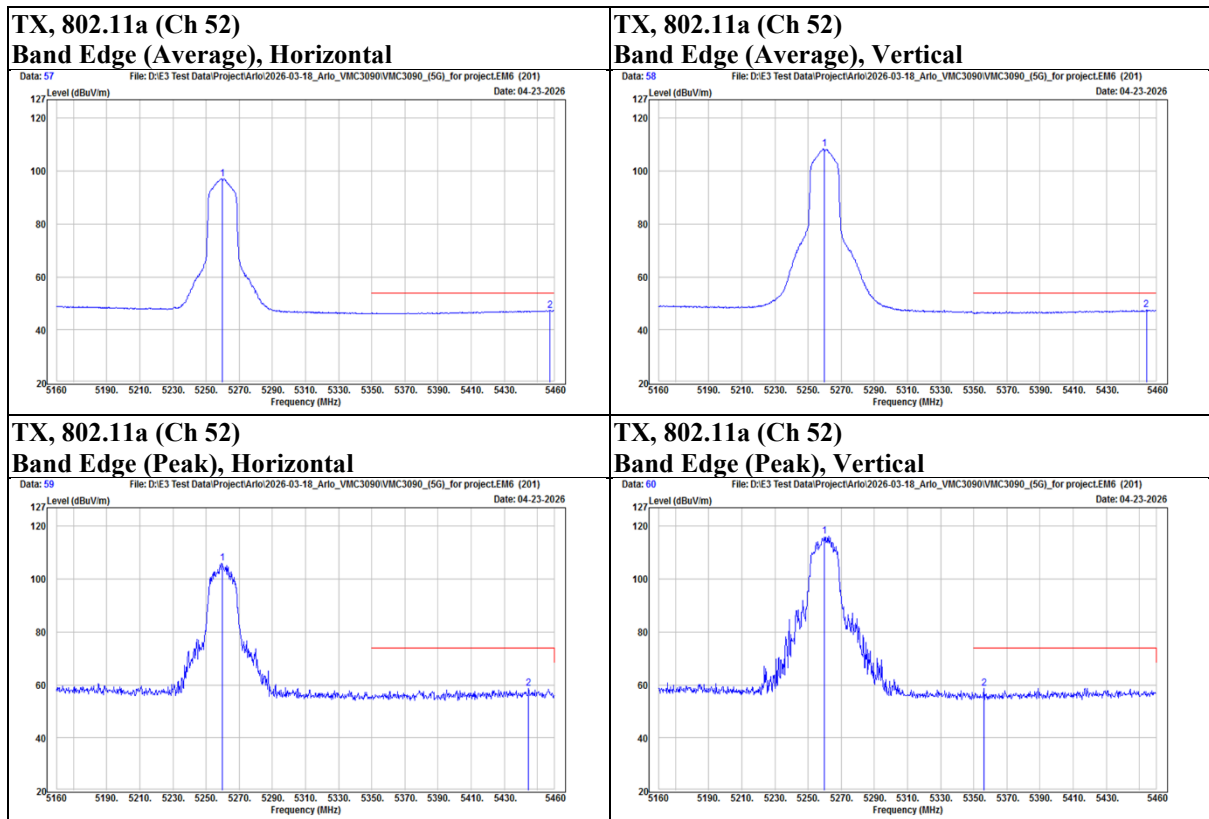
Mode	802.11a	Channel	48
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5066.85	42.41	18.36	60.77	74	-13.23	PK
		5116.55	31.11	18.61	49.72	54	-4.28	AVG
	@	5240	89	18.13	107.13	N/A	N/A	PK
	@	5240	81.92	18.13	100.05	N/A	N/A	AVG
Vertical		5079.1	31.21	18.47	49.68	54	-4.32	AVG
		5104.3	42.56	18.64	61.2	74	-12.8	PK
	@	5240	99.39	18.13	117.52	N/A	N/A	PK
	@	5240	91.77	18.13	109.9	N/A	N/A	AVG



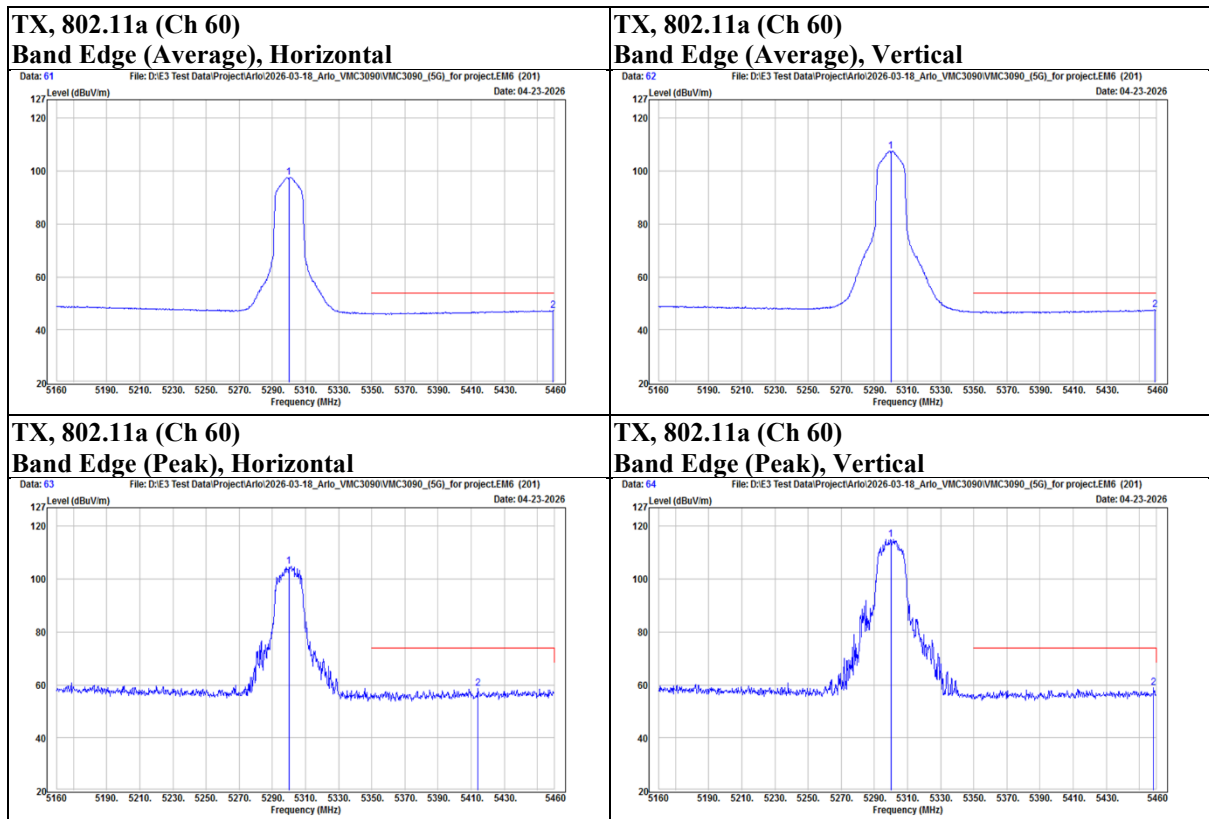
Mode	802.11a	Channel	52
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	5260	87.86	18.1	105.96	N/A	N/A	PK
	@	5260	79.05	18.1	97.15	N/A	N/A	AVG
		5444.7	40.22	18.58	58.8	74	-15.2	PK
		5457.6	28.52	18.69	47.21	54	-6.79	AVG
Vertical	@	5260	98.05	18.1	116.15	N/A	N/A	PK
	@	5260	90.23	18.1	108.33	N/A	N/A	AVG
		5356.2	40.79	17.87	58.66	74	-15.34	PK
		5454.3	28.77	18.67	47.44	54	-6.56	AVG



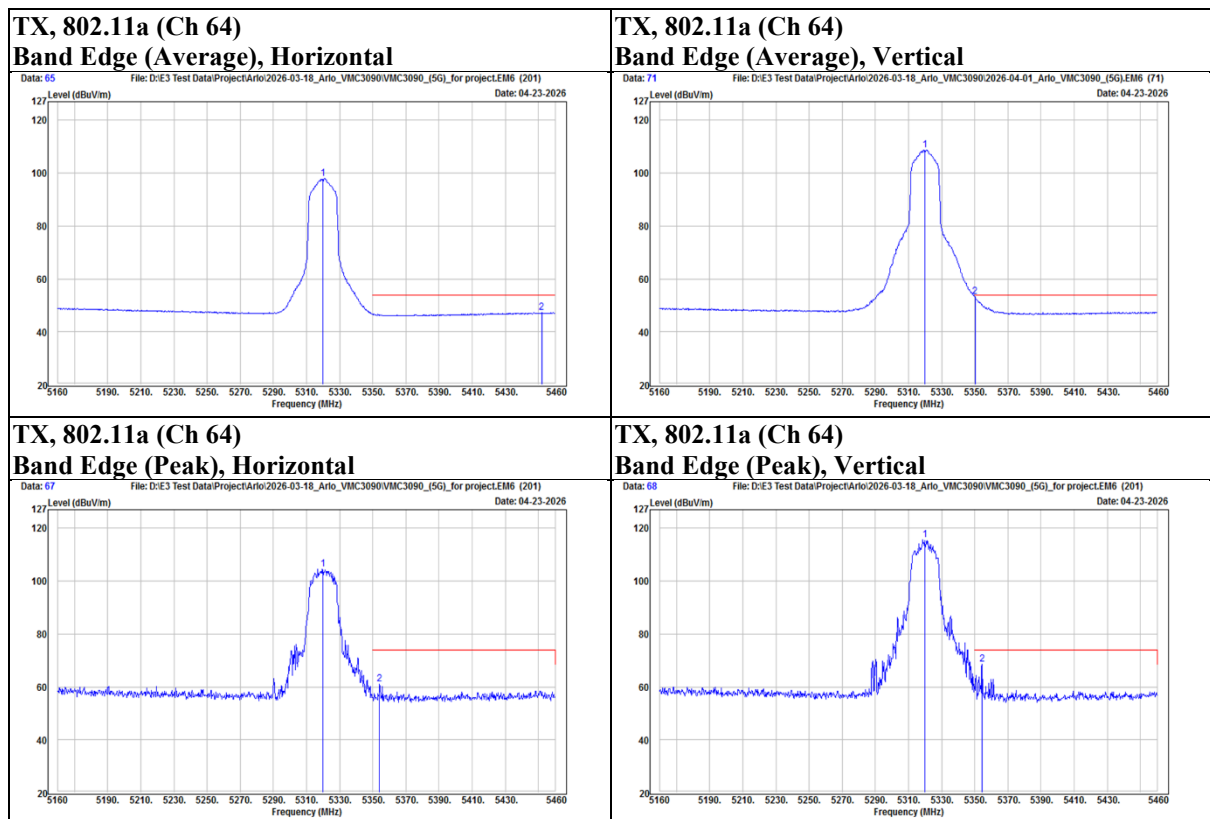
Mode	802.11a	Channel	60
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	5300	86.95	17.97	104.92	N/A	N/A	PK
	@	5300	79.77	17.97	97.74	N/A	N/A	AVG
		5414.1	40.24	18.3	58.54	74	-15.46	PK
		5459.4	28.51	18.69	47.2	54	-6.8	AVG
Vertical	@	5300	97.08	17.97	115.05	N/A	N/A	PK
	@	5300	89.67	17.97	107.64	N/A	N/A	AVG
		5458.5	40.24	18.68	58.92	74	-15.08	PK
		5459.4	28.85	18.69	47.54	54	-6.46	AVG



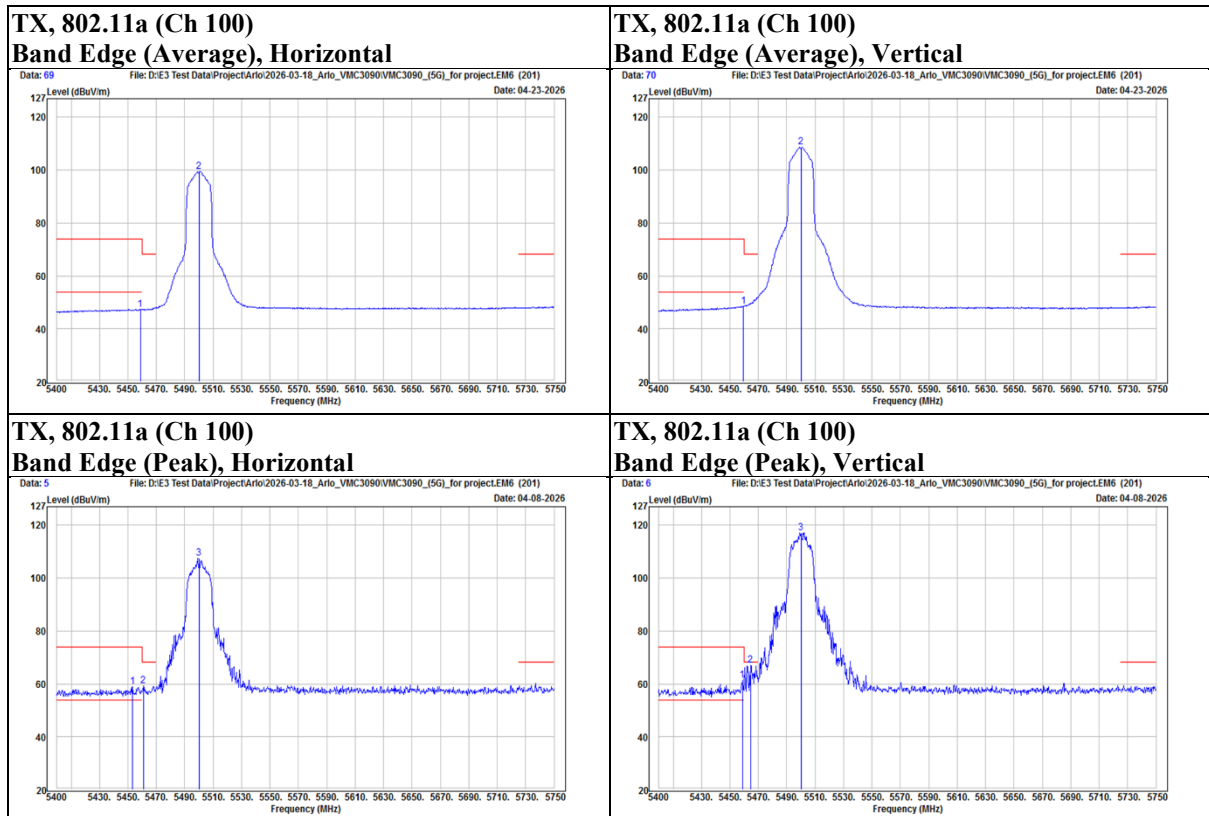
Mode	802.11a	Channel	64
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	5320	86.6	17.91	104.51	N/A	N/A	PK
	@	5320	79.98	17.91	97.89	N/A	N/A	AVG
		5354.1	43.29	17.85	61.14	74	-12.86	PK
		5451.9	28.54	18.64	47.18	54	-6.82	AVG
Vertical	@	5320	97.61	17.91	115.52	N/A	N/A	PK
	@	5320	90.84	17.91	108.75	N/A	N/A	AVG
		5350.2	35.4	17.82	53.22	54	-0.78	AVG
		5354.4	50.57	17.86	68.43	74	-5.57	PK



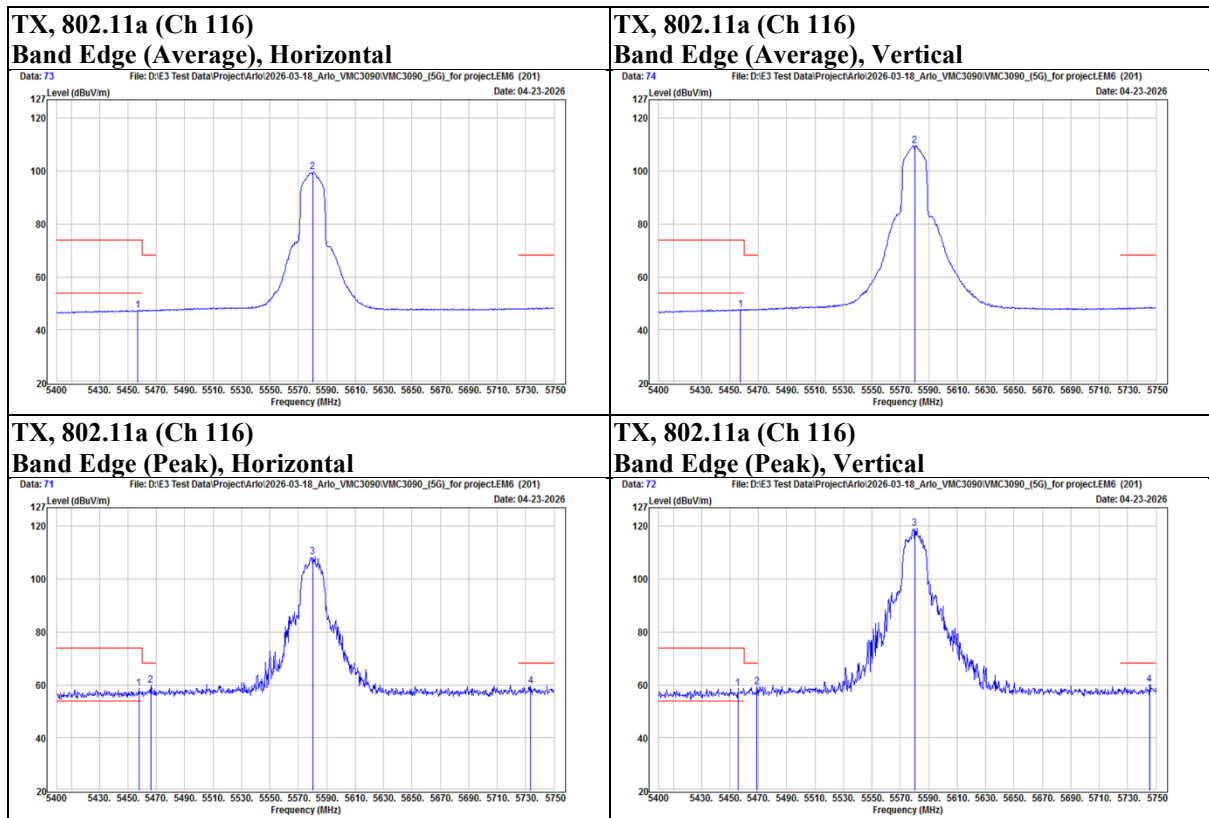
Mode	802.11a	Channel	100
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5453.2	40.19	18.66	58.85	74	-15.15	PK
		5458.8	28.65	18.68	47.33	54	-6.67	AVG
		5460.9	40.57	18.71	59.28	68.2	-8.92	PK
	@	5500	88.52	18.98	107.5	N/A	N/A	PK
	@	5500	80.49	18.98	99.47	N/A	N/A	AVG
Vertical		5458.8	42.81	18.68	61.49	74	-12.51	PK
		5459.5	29.9	18.69	48.59	54	-5.41	AVG
		5464.4	48.36	18.73	67.09	68.2	-1.11	PK
	@	5500	98.11	18.98	117.09	N/A	N/A	PK
	@	5500	89.7	18.98	108.68	N/A	N/A	AVG



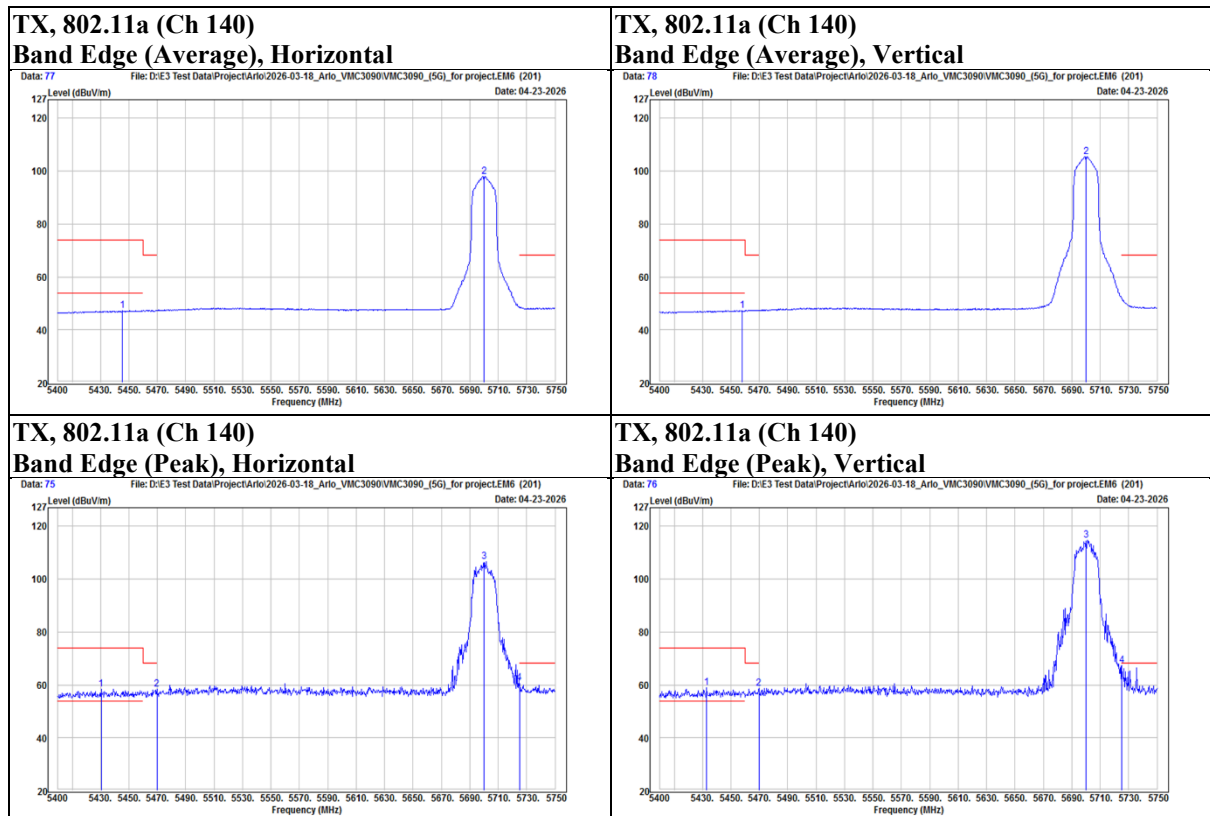
Mode	802.11a	Channel	116
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5457.05	28.63	18.68	47.31	54	-6.69	AVG
		5457.75	39.84	18.69	58.53	74	-15.47	PK
		5466.15	41.21	18.74	59.95	68.2	-8.25	PK
	@	5580	89.81	18.74	108.55	N/A	N/A	PK
	@	5580	80.87	18.74	99.61	N/A	N/A	AVG
		5733.55	40.53	18.9	59.43	68.2	-8.77	PK
Vertical		5455.65	40.08	18.67	58.75	74	-15.25	PK
		5457.4	28.97	18.68	47.65	54	-6.35	AVG
		5468.95	40.63	18.76	59.39	68.2	-8.81	PK
	@	5580	100.59	18.74	119.33	N/A	N/A	PK
	@	5580	90.82	18.74	109.56	N/A	N/A	AVG
		5745.45	41.26	18.99	60.25	68.2	-7.95	PK



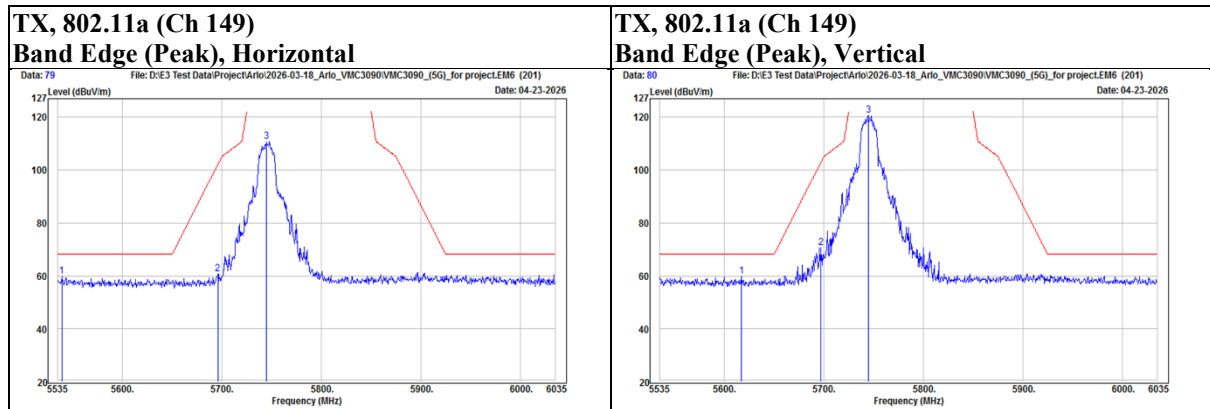
Mode	802.11a	Channel	140
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5430.45	39.79	18.46	58.25	74	-15.75	PK
		5445.5	28.61	18.59	47.2	54	-6.8	AVG
		5469.65	39.69	18.77	58.46	68.2	-9.74	PK
	@	5700	88	18.67	106.67	N/A	N/A	PK
	@	5700	79.21	18.67	97.88	N/A	N/A	AVG
		5725	41.77	18.85	60.62	68.2	-7.58	PK
Vertical		5432.9	40.35	18.47	58.82	74	-15.18	PK
		5458.1	28.63	18.69	47.32	54	-6.68	AVG
		5469.65	39.87	18.77	58.64	68.2	-9.56	PK
	@	5700	96.01	18.67	114.68	N/A	N/A	PK
	@	5700	86.79	18.67	105.46	N/A	N/A	AVG
		5725.15	48.53	18.85	67.38	68.2	-0.82	PK



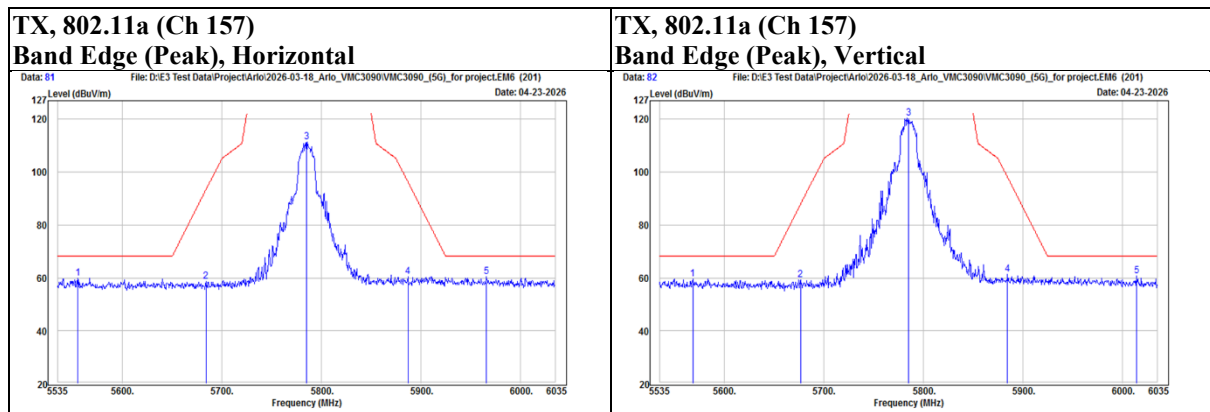
Mode	802.11a	Channel	149
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal		5539	40.85	18.86	59.71	68.2	-8.49	PK
		5696	42.19	18.67	60.86	102.25	-41.39	PK
	@	5745	91.82	18.99	110.81	N/A	N/A	PK
Vertical		5617	41.08	18.66	59.74	68.2	-8.46	PK
		5697	51.87	18.67	70.54	102.99	-32.45	PK
	@	5745	101.68	18.99	120.67	N/A	N/A	PK



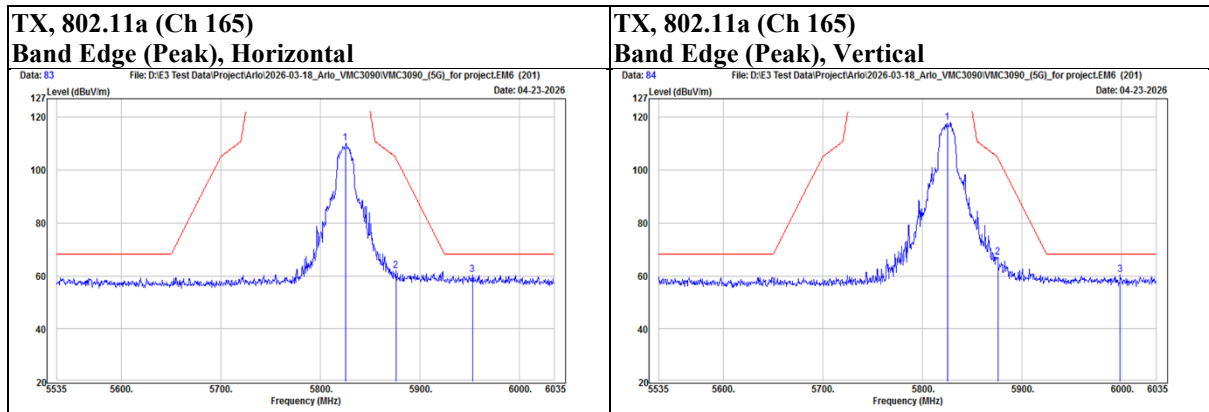
Mode	802.11a	Channel	157
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	5555	40.98	18.82	59.8	68.2	-8.4	PK
		5684	40.05	18.66	58.71	93.4	-34.69	PK
		5785	92.24	19.19	111.43	N/A	N/A	PK
		5887	40.75	19.8	60.55	96.29	-35.74	PK
		5966	40.81	19.75	60.56	68.2	-7.64	PK
Vertical	@	5568	40.83	18.77	59.6	68.2	-8.6	PK
		5676.5	40.61	18.65	59.26	87.85	-28.59	PK
		5785	101.14	19.19	120.33	N/A	N/A	PK
		5884.5	41.43	19.79	61.22	98.15	-36.93	PK
		6014.5	40.76	19.87	60.63	68.2	-7.57	PK



Mode	802.11a	Channel	165
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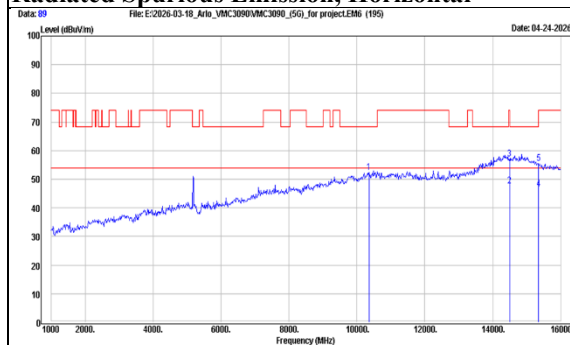
Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	@	5825	90.72	19.44	110.16	N/A	N/A	PK
		5876	42.2	19.74	61.94	104.46	-42.52	PK
		5953	40.6	19.72	60.32	68.2	-7.88	PK
Vertical	@	5825	98.72	19.44	118.16	N/A	N/A	PK
		5876	47.41	19.74	67.15	104.46	-37.31	PK
		5999	40.55	19.85	60.4	68.2	-7.8	PK



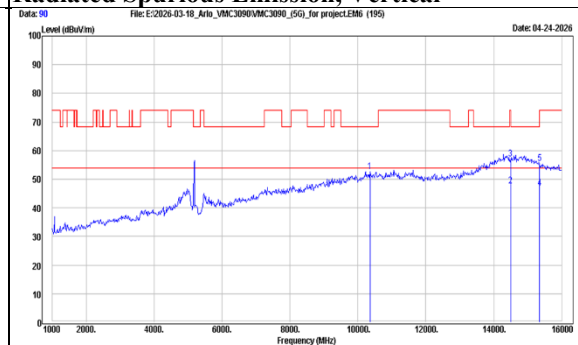
Mode	802.11a - Emission	Channel	36
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	*	10360	32.44	19.97	52.41	68.2	-15.79	PK
		14500	29.09	28	57.09	68.2	-11.11	PK
		14500	19.61	28	47.61	54	-6.39	AVG
		15350.1	29.13	26.39	55.52	74	-18.48	PK
		15350.1	20.3	26.39	46.69	54	-7.31	AVG
	*	20720	35.18	4.84	40.02	74	-33.98	PK
	*	25900	34.25	10.37	44.62	68.2	-23.58	PK
	*	31080	32.68	13	45.68	68.2	-22.52	PK
	*	36260	36.92	13.01	49.93	68.2	-18.27	PK
		39712	38.61	17.3	55.91	74	-18.09	PK
		39712	28.77	17.3	46.07	54	-7.93	AVG
Vertical	*	10360	32.6	19.97	52.57	68.2	-15.63	PK
		14500	29.13	28	57.13	68.2	-11.07	PK
		14500	19.65	28	47.65	54	-6.35	AVG
		15350.1	29.23	26.39	55.62	74	-18.38	PK
		15350.1	20.4	26.39	46.79	54	-7.21	AVG
	*	20720	33.8	4.84	38.64	74	-35.36	PK
	*	25900	34.11	10.37	44.48	68.2	-23.72	PK
	*	31080	34.36	13	47.36	68.2	-20.84	PK
	*	36260	37.47	13.01	50.48	68.2	-17.72	PK
		39904	37.8	17.63	55.43	74	-18.57	PK
		39904	27.96	17.63	45.59	54	-8.41	AVG

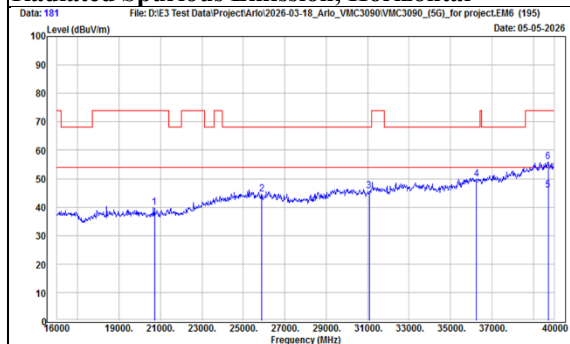
TX, 802.11a - Emission (Ch 36)
Radiated Spurious Emission, Horizontal



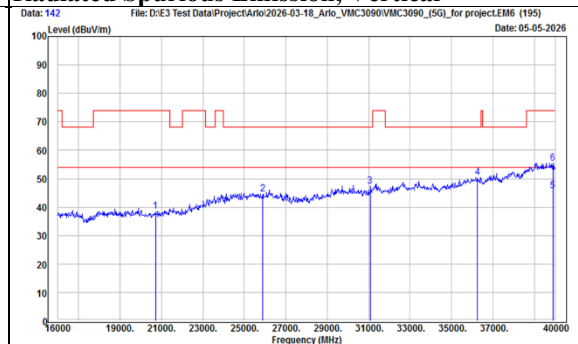
TX, 802.11a - Emission (Ch 36)
Radiated Spurious Emission, Vertical



TX, 802.11a - Emission (Ch 36)
Radiated Spurious Emission, Horizontal



TX, 802.11a - Emission (Ch 36)
Radiated Spurious Emission, Vertical



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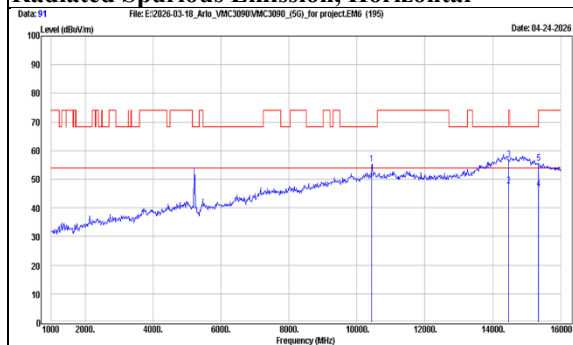
Facsimile (FAX) : +886-3-583-7948

Doc No: Form-ULID-004739 (DCS:17-EM-F0878) / 6.1

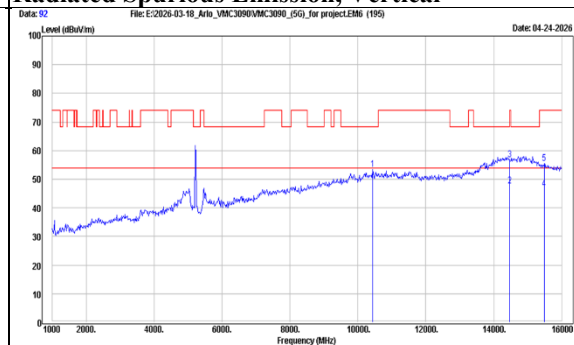
Mode	802.11a - Emission	Channel	44
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	*	10440	35.07	20.28	55.35	68.2	-12.85	PK
		14470	28.74	27.97	56.71	68.2	-11.49	PK
		14470	19.72	27.97	47.69	54	-6.31	AVG
		15350.1	29	26.39	55.39	74	-18.61	PK
		15350.1	20.17	26.39	46.56	54	-7.44	AVG
	*	20880	33.13	5.02	38.15	74	-35.85	PK
	*	26100	35.77	10.34	46.11	68.2	-22.09	PK
	*	31320	34.2	14.01	48.21	74	-25.79	PK
	*	36540	37.58	12.23	49.81	68.2	-18.39	PK
		39256	38.01	17.05	55.06	74	-18.94	PK
		39256	28.17	17.05	45.22	54	-8.78	AVG
Vertical	*	10440	33.09	20.28	53.37	68.2	-14.83	PK
		14470	28.75	27.97	56.72	68.2	-11.48	PK
		14470	19.73	27.97	47.7	54	-6.3	AVG
		15490	29.52	25.95	55.47	74	-18.53	PK
		15490	20.69	25.95	46.64	54	-7.36	AVG
	*	20880	34.01	5.02	39.03	74	-34.97	PK
	*	26100	34.38	10.34	44.72	68.2	-23.48	PK
	*	31320	33.66	14.01	47.67	74	-26.33	PK
	*	36540	37	12.23	49.23	68.2	-18.97	PK
		39904	37.5	17.63	55.13	74	-18.87	PK
		39904	27.66	17.63	45.29	54	-8.71	AVG

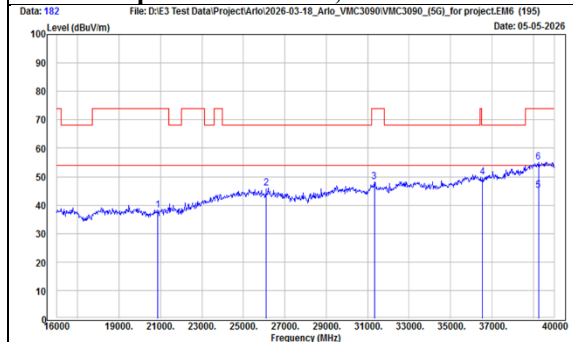
TX, 802.11a - Emission (Ch 44)
Radiated Spurious Emission, Horizontal



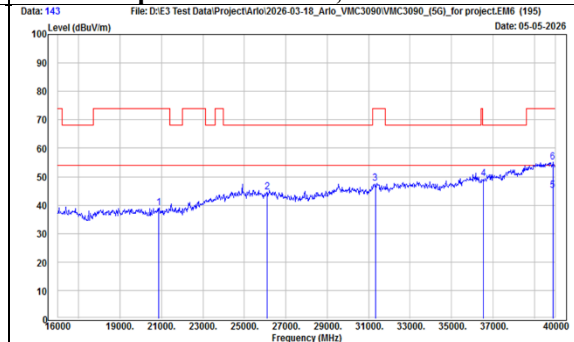
TX, 802.11a - Emission (Ch 44)
Radiated Spurious Emission, Vertical



TX, 802.11a - Emission (Ch 44)
Radiated Spurious Emission, Horizontal



TX, 802.11a - Emission (Ch 44)
Radiated Spurious Emission, Vertical



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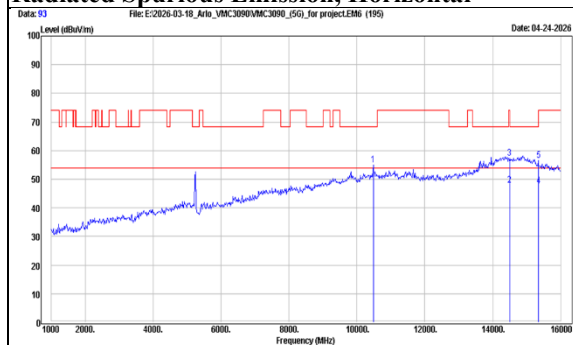
Doc No: Form-ULID-004739 (DCS:17-EM-F0878) / 6.1

Mode	802.11a - Emission	Channel	48
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	*	10480	34.55	20.38	54.93	68.2	-13.27	PK
		14500	29.33	28	57.33	68.2	-10.87	PK
		14500	19.85	28	47.85	54	-6.15	AVG
		15350.1	30.05	26.39	56.44	74	-17.56	PK
		15350.1	21.22	26.39	47.61	54	-6.39	AVG
	*	20960	33.44	5.11	38.55	74	-35.45	PK
	*	26200	34.73	10.44	45.17	68.2	-23.03	PK
	*	31440	34.73	13.46	48.19	74	-25.81	PK
	*	36680	37.76	12.59	50.35	68.2	-17.85	PK
		39904	37.77	17.63	55.4	74	-18.6	PK
		39904	27.93	17.63	45.56	54	-8.44	AVG
Vertical	*	10480	32.3	20.38	52.68	68.2	-15.52	PK
		14470	30.12	27.97	58.09	68.2	-10.11	PK
		14470	19.69	27.97	47.66	54	-6.34	AVG
		15445	29.79	26.05	55.84	74	-18.16	PK
		15445	20.96	26.05	47.01	54	-6.99	AVG
	*	20960	33.37	5.11	38.48	74	-35.52	PK
	*	26200	35.11	10.44	45.55	68.2	-22.65	PK
	*	31440	33.89	13.46	47.35	74	-26.65	PK
	*	36680	37.29	12.59	49.88	68.2	-18.32	PK
		39640	37.55	17.22	54.77	74	-19.23	PK
		39640	27.71	17.22	44.93	54	-9.07	AVG

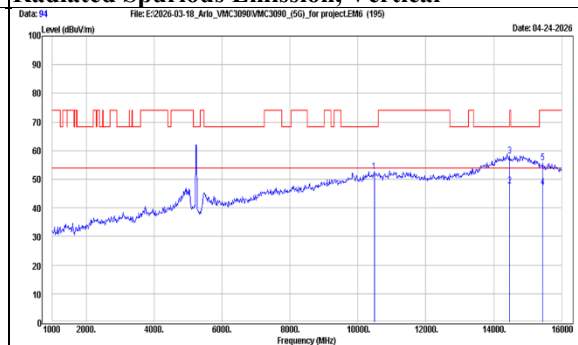
TX, 802.11a - Emission (Ch 48)

Radiated Spurious Emission, Horizontal



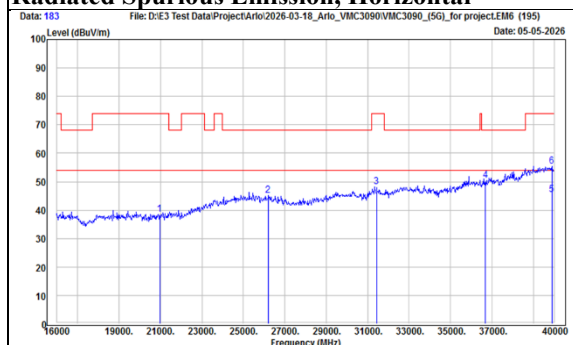
TX, 802.11a - Emission (Ch 48)

Radiated Spurious Emission, Vertical



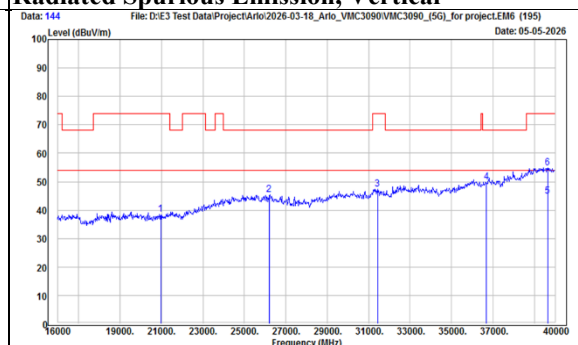
TX, 802.11a - Emission (Ch 48)

Radiated Spurious Emission, Horizontal



TX, 802.11a - Emission (Ch 48)

Radiated Spurious Emission, Vertical



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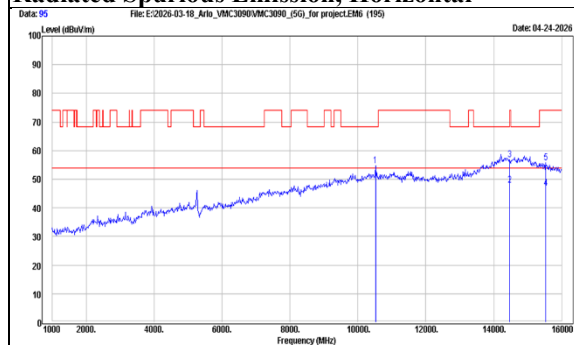
Facsimile (FAX) : +886-3-583-7948

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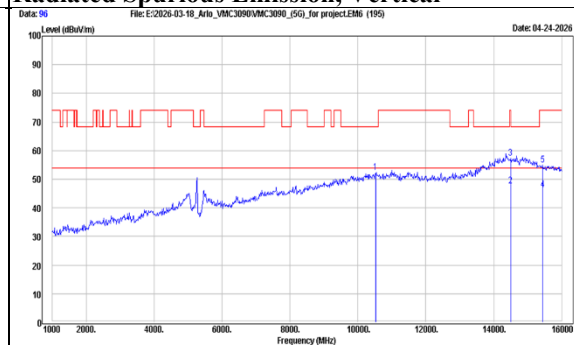
Mode	802.11a - Emission	Channel	52
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	*	10520	34.22	20.42	54.64	68.2	-13.56	PK
		14470	28.86	27.97	56.83	68.2	-11.37	PK
		14470	19.84	27.97	47.81	54	-6.19	AVG
		15535	29.95	25.76	55.71	74	-18.29	PK
		15535	21.12	25.76	46.88	54	-7.12	AVG
	*	21040	33.62	5.24	38.86	74	-35.14	PK
	*	26300	34.44	10.6	45.04	68.2	-23.16	PK
	*	31560	33.44	13.08	46.52	74	-27.48	PK
	*	36820	38.95	13.01	51.96	68.2	-16.24	PK
		39448	38.43	17.02	55.45	74	-18.55	PK
		39448	28.59	17.02	45.61	54	-8.39	AVG
Vertical	*	10520	32.04	20.42	52.46	68.2	-15.74	PK
		14500	29.23	28	57.23	68.2	-10.97	PK
		14500	19.75	28	47.75	54	-6.25	AVG
		15445	28.98	26.05	55.03	74	-18.97	PK
		15445	20.15	26.05	46.2	54	-7.8	AVG
	*	21040	33.43	5.24	38.67	74	-35.33	PK
	*	26300	33.87	10.6	44.47	68.2	-23.73	PK
	*	31560	34.35	13.08	47.43	74	-26.57	PK
	*	36820	37.16	13.01	50.17	68.2	-18.03	PK
		39400	38.25	17.03	55.28	74	-18.72	PK
		39400	28.41	17.03	45.44	54	-8.56	AVG

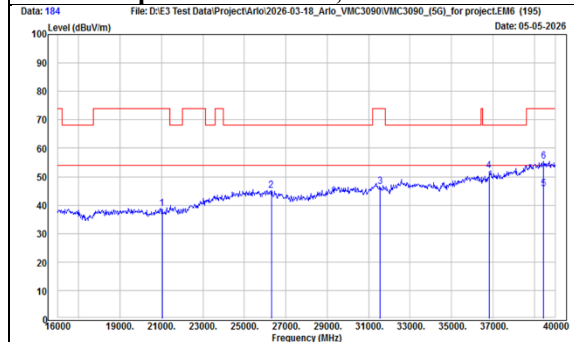
TX, 802.11a - Emission (Ch 52)
Radiated Spurious Emission, Horizontal



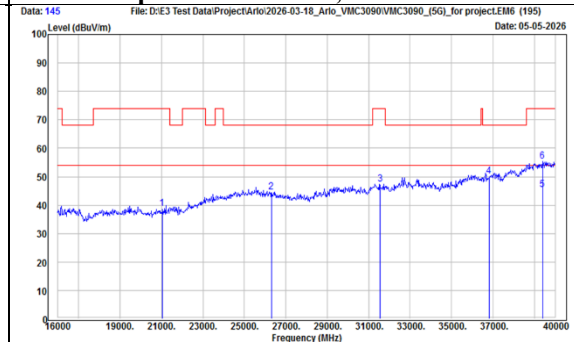
TX, 802.11a - Emission (Ch 52)
Radiated Spurious Emission, Vertical



TX, 802.11a - Emission (Ch 52)
Radiated Spurious Emission, Horizontal



TX, 802.11a - Emission (Ch 52)
Radiated Spurious Emission, Vertical



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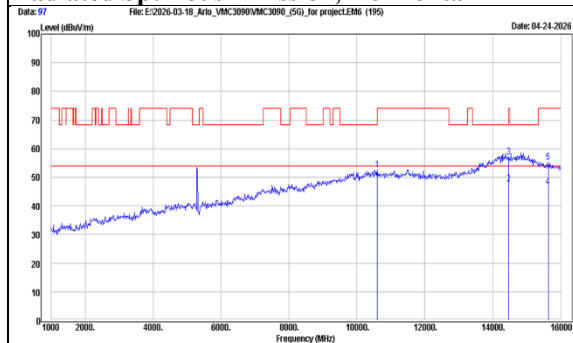
Facsimile (FAX) : +886-3-583-7948

Doc No: Form-ULID-004739 (DCS:17-EM-F0878) / 6.1

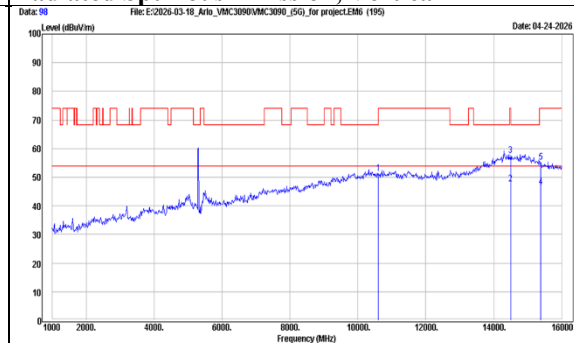
Mode	802.11a - Emission	Channel	60
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	*	10600	32.34	20.32	52.66	74	-21.34	PK
		14470	29.22	27.97	57.19	68.2	-11.01	PK
		14470	19.74	27.97	47.71	54	-6.29	AVG
		15640	29.87	25.45	55.32	74	-18.68	PK
		15640	21.04	25.45	46.49	54	-7.51	AVG
	*	21200	32.59	5.52	38.11	74	-35.89	PK
	*	26500	33.63	10.96	44.59	68.2	-23.61	PK
	*	31800	34.13	12.69	46.82	68.2	-21.38	PK
	*	37100	37.77	13.6	51.37	68.2	-16.83	PK
		39999	37.77	17.81	55.58	74	-18.42	PK
Vertical		39999	27.93	17.81	45.74	54	-8.26	AVG
	*	10600	31.11	20.32	51.43	74	-22.57	PK
		14500	29.58	28	57.58	68.2	-10.62	PK
		14500	19.63	28	47.63	54	-6.37	AVG
		15385	29.15	26.22	55.37	74	-18.63	PK
		15385	20.32	26.22	46.54	54	-7.46	AVG
	*	21200	32.84	5.52	38.36	74	-35.64	PK
	*	26500	34.62	10.96	45.58	68.2	-22.62	PK
	*	31800	34.72	12.69	47.41	68.2	-20.79	PK
	*	37100	37.22	13.6	50.82	68.2	-17.38	PK
		39688	38	17.27	55.27	74	-18.73	PK
		39688	28.16	17.27	45.43	54	-8.57	AVG

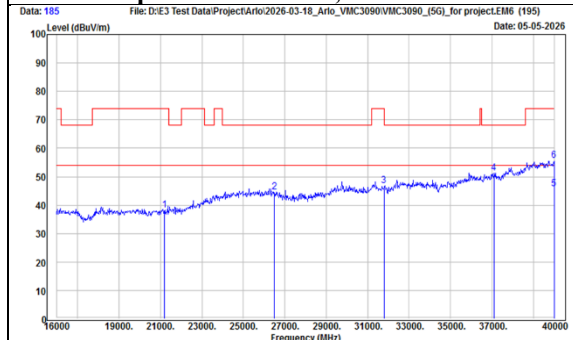
TX, 802.11a - Emission (Ch 60)
Radiated Spurious Emission, Horizontal



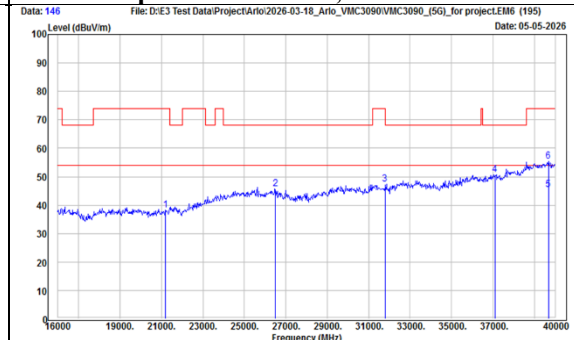
TX, 802.11a - Emission (Ch 60)
Radiated Spurious Emission, Vertical



TX, 802.11a - Emission (Ch 60)
Radiated Spurious Emission, Horizontal



TX, 802.11a - Emission (Ch 60)
Radiated Spurious Emission, Vertical



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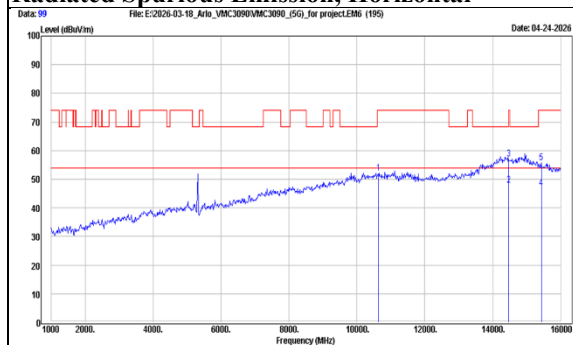
Facsimile (FAX) : +886-3-583-7948

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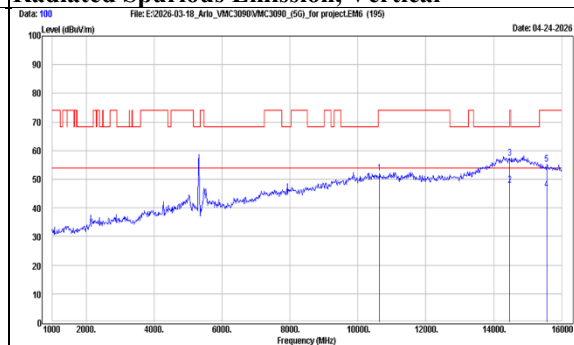
Mode	802.11a - Emission	Channel	64
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	*	10640	31.78	20.24	52.02	74	-21.98	PK
		14470	28.99	27.97	56.96	68.2	-11.24	PK
		14470	19.97	27.97	47.94	54	-6.06	AVG
		15430	29.63	26.08	55.71	74	-18.29	PK
		15430	20.8	26.08	46.88	54	-7.12	AVG
	*	21280	32.93	5.66	38.59	74	-35.41	PK
	*	26600	33.1	10.96	44.06	68.2	-24.14	PK
	*	31920	35.04	12.45	47.49	68.2	-20.71	PK
	*	37240	37.59	13.59	51.18	68.2	-17.02	PK
		39784	38.3	17.42	55.72	74	-18.28	PK
		39784	28.46	17.42	45.88	54	-8.12	AVG
Vertical	*	10640	31.89	20.24	52.13	74	-21.87	PK
		14470	29.42	27.97	57.39	68.2	-10.81	PK
		14470	19.94	27.97	47.91	54	-6.09	AVG
		15565	29.61	25.63	55.24	74	-18.76	PK
		15565	20.78	25.63	46.41	54	-7.59	AVG
	*	21280	32.47	5.66	38.13	74	-35.87	PK
	*	26600	33.33	10.96	44.29	68.2	-23.91	PK
	*	31920	35.62	12.45	48.07	68.2	-20.13	PK
	*	37240	37.54	13.59	51.13	68.2	-17.07	PK
		39640	38.6	17.22	55.82	74	-18.18	PK
		39640	28.76	17.22	45.98	54	-8.02	AVG

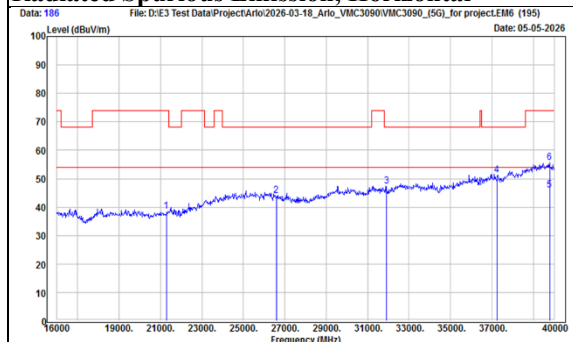
TX, 802.11a - Emission (Ch 64)
Radiated Spurious Emission, Horizontal



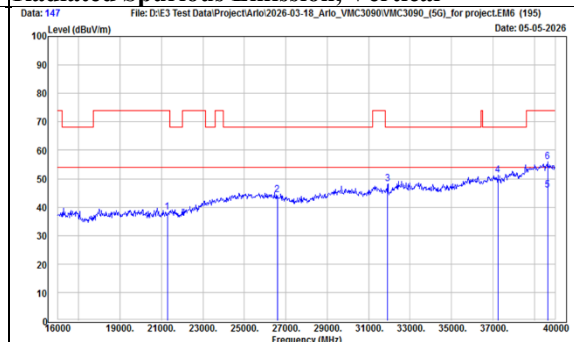
TX, 802.11a - Emission (Ch 64)
Radiated Spurious Emission, Vertical



TX, 802.11a - Emission (Ch 64)
Radiated Spurious Emission, Horizontal



TX, 802.11a - Emission (Ch 64)
Radiated Spurious Emission, Vertical



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Mode	802.11a - Emission	Channel	100
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	*	11000	31.43	20.45	51.88	74	-22.12	PK
		14485	29.72	27.98	57.7	74	-16.3	PK
		14485	19.77	27.98	47.75	54	-6.25	AVG
		15370	29.54	26.29	55.83	74	-18.17	PK
		15370	20.71	26.29	47	54	-7	AVG
	*	16500	33.35	5.22	38.57	68.2	-29.63	PK
	*	22000	33.73	6.09	39.82	68.2	-28.38	PK
	*	27500	33.56	10.39	43.95	68.2	-24.25	PK
	*	33000	35.07	12.51	47.58	68.2	-20.62	PK
	*	38500	39.91	15.12	55.03	68.2	-13.17	PK
		39424	38.23	17.03	55.26	74	-18.74	PK
		39424	28.39	17.03	45.42	54	-8.58	AVG
Vertical	*	11000	31.68	20.45	52.13	74	-21.87	PK
		14470	28.59	27.97	56.56	68.2	-11.64	PK
		14470	20.02	27.97	47.99	54	-6.01	AVG
		15370	29.6	26.29	55.89	74	-18.11	PK
		15370	20.77	26.29	47.06	54	-6.94	AVG
	*	16500	36.23	5.22	41.45	68.2	-26.75	PK
	*	22000	32.37	6.09	38.46	68.2	-29.74	PK
	*	27500	32.23	10.39	42.62	68.2	-25.58	PK
	*	33000	34.13	12.51	46.64	68.2	-21.56	PK
	*	38500	38.33	15.12	53.45	68.2	-14.75	PK
		39688	37.75	17.27	55.02	74	-18.98	PK
		39688	27.91	17.27	45.18	54	-8.82	AVG

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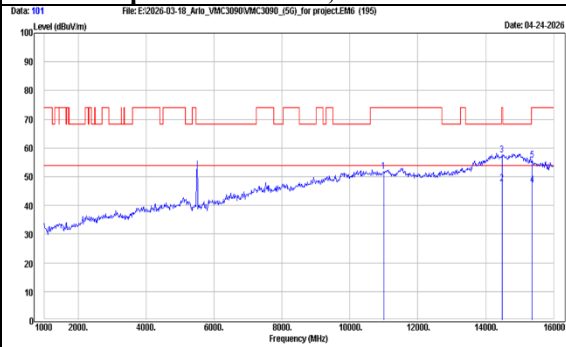
Building A, B and E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

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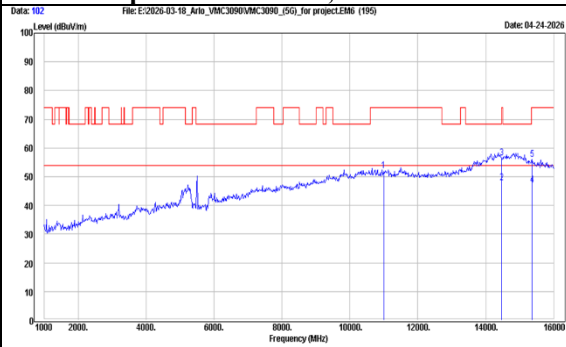
Facsimile (FAX) : +886-3-583-7948

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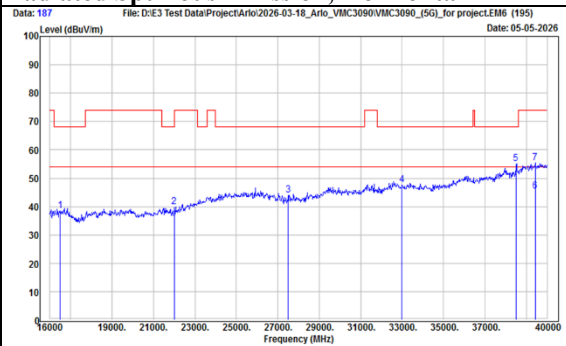
TX, 802.11a - Emission (Ch 100)
Radiated Spurious Emission, Horizontal



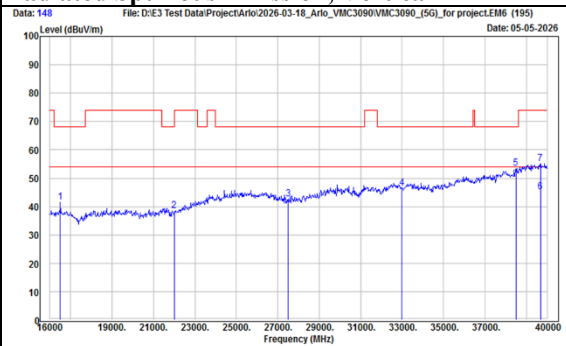
TX, 802.11a - Emission (Ch 100)
Radiated Spurious Emission, Vertical



TX, 802.11a - Emission (Ch 100)
Radiated Spurious Emission, Horizontal



TX, 802.11a - Emission (Ch 100)
Radiated Spurious Emission, Vertical



Mode	802.11a - Emission	Channel	116
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	*	11160	32.21	20.54	52.75	74	-21.25	PK
		14485	28.88	27.98	56.86	74	-17.14	PK
		14485	19.86	27.98	47.84	54	-6.16	AVG
		15415	29.64	26.1	55.74	74	-18.26	PK
		15415	20.81	26.1	46.91	54	-7.09	AVG
	*	16740	33.3	5.17	38.47	68.2	-29.73	PK
	*	22320	33.55	6.78	40.33	74	-33.67	PK
	*	27900	32.65	10.58	43.23	68.2	-24.97	PK
	*	33480	35.82	12.33	48.15	68.2	-20.05	PK
		39328	38.09	17.03	55.12	74	-18.88	PK
		39328	28.25	17.03	45.28	54	-8.72	AVG
Vertical	*	11160	32.03	20.54	52.57	74	-21.43	PK
		14470	28.68	27.97	56.65	68.2	-11.55	PK
		14470	19.66	27.97	47.63	54	-6.37	AVG
		15595	30.13	25.5	55.63	74	-18.37	PK
		15595	21.3	25.5	46.8	54	-7.2	AVG
	*	16740	41.1	5.17	46.27	68.2	-21.93	PK
	*	22320	33.05	6.78	39.83	74	-34.17	PK
	*	27900	33.33	10.58	43.91	68.2	-24.29	PK
	*	33480	36.22	12.33	48.55	68.2	-19.65	PK
		39664	38.34	17.25	55.59	74	-18.41	PK
		39664	28.5	17.25	45.75	54	-8.25	AVG

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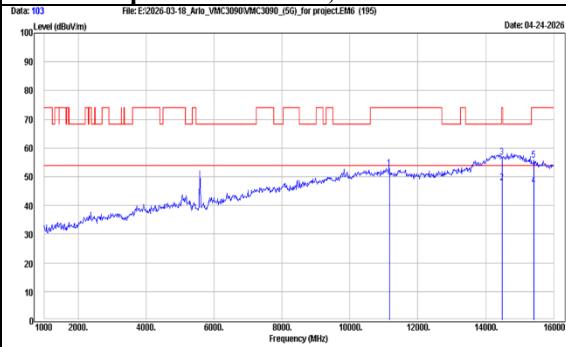
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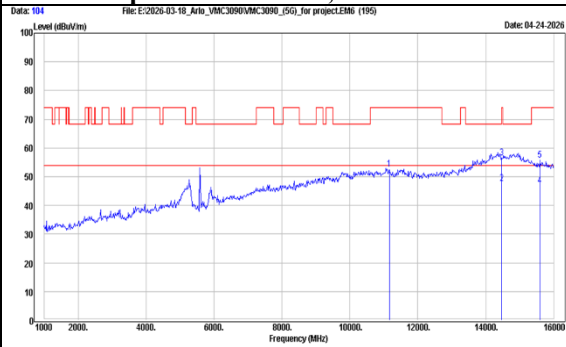
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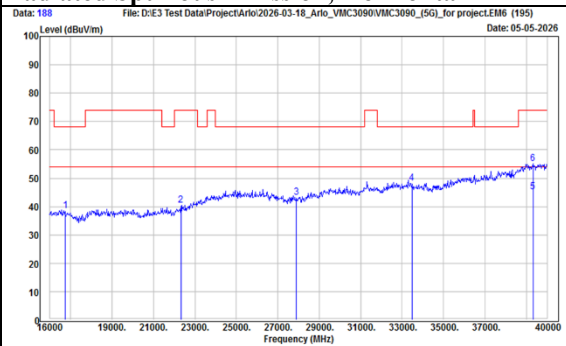
TX, 802.11a - Emission (Ch 116)
Radiated Spurious Emission, Horizontal



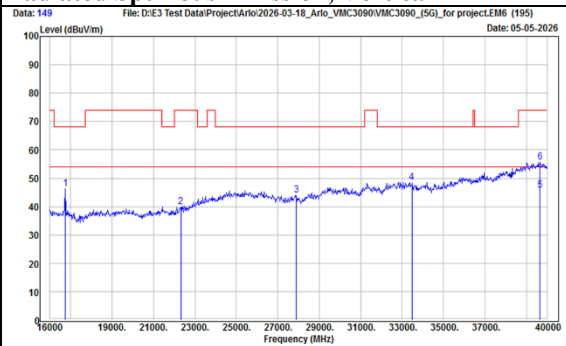
TX, 802.11a - Emission (Ch 116)
Radiated Spurious Emission, Vertical



TX, 802.11a - Emission (Ch 116)
Radiated Spurious Emission, Horizontal



TX, 802.11a - Emission (Ch 116)
Radiated Spurious Emission, Vertical



Mode	802.11a - Emission	Channel	140
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Polarization	Notation	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
Horizontal	*	11400	31.88	20.96	52.84	74	-21.16	PK
		14485	29.85	27.98	57.83	74	-16.17	PK
		14485	19.9	27.98	47.88	54	-6.12	AVG
		15460	29.51	26.02	55.53	74	-18.47	PK
		15460	20.68	26.02	46.7	54	-7.3	AVG
	*	17100	32.21	5.35	37.56	68.2	-30.64	PK
	*	22800	33.34	7.84	41.18	74	-32.82	PK
	*	28500	32.96	11.1	44.06	68.2	-24.14	PK
	*	34200	35.25	12.18	47.43	68.2	-20.77	PK
		39568	38.75	17.11	55.86	74	-18.14	PK
		39568	28.91	17.11	46.02	54	-7.98	AVG
Vertical	*	11400	30.41	20.96	51.37	74	-22.63	PK
		14470	29.49	27.97	57.46	68.2	-10.74	PK
		14470	20.01	27.97	47.98	54	-6.02	AVG
		15655	29.96	25.44	55.4	74	-18.6	PK
		15655	21.13	25.44	46.57	54	-7.43	AVG
	*	17100	32.95	5.35	38.3	68.2	-29.9	PK
	*	22800	32.56	7.84	40.4	74	-33.6	PK
	*	28500	33.4	11.1	44.5	68.2	-23.7	PK
	*	34200	35.85	12.18	48.03	68.2	-20.17	PK
		39640	38.13	17.22	55.35	74	-18.65	PK
		39640	28.29	17.22	45.51	54	-8.49	AVG

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