

SPURIOUS RADIATED EMISSIONS

TEST DESCRIPTION

The highest gain antenna of each type to be used with the EUT was tested. The EUT was configured for the required transmit frequencies and the modes as showed in the data sheets.

For each configuration, the spectrum was scanned throughout the specified range as part of the exploratory investigation of the emissions. A reference preview scan (pre-scan) is included in the report. Final measurements on individual emissions were then made and included in this test report.

The individual emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and EUT antenna in three orthogonal axis if required, and adjusting the measurement antenna height and polarization (per ANSI C63.10). A preamp and high pass filter (and notch filter) were used for this test in order to provide sufficient measurement sensitivity.

Measurements were made with the required detectors and annotated on the data for each individual point using the following annotation:

QP = Quasi-Peak Detector
PK = Peak Detector
AV = RMS Detector

Measurements were made to satisfy the specific requirements of the test specification for out of band emissions as well as the restricted band requirements.

If there are no detectable emissions above the noise floor, the data included may show noise floor measurements for reference only.

Measurements within 2 MHz of the allowable band may have been taken using the integration method from ANSI C63.10 clause 11.13.3. This procedure uses the channel power feature of the spectrum analyzer to integrate the power of the emission within a 1 MHz bandwidth.

Where the radio test software does not provide for a duty cycle at continuous transmit conditions (> 98%) and the RMS (power average) measurements were made across the on and off times of the EUT transmissions, a duty cycle correction is added to the measurements using the formula of $10 \cdot \log(1/dc)$.

SPURIOUS RADIATED EMISSIONS

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Antenna - Double Ridge	ETS Lindgren	3115	AIR	2024-07-23	2026-07-23
Cable	Northwest EMC	1-8GHz RE Cables	OCJ	2025-04-30	2026-04-30
Amplifier - Pre-Amplifier	Cernex	CBL01084020-xx	PAX	2025-04-30	2026-04-30
Attenuator	Fairview Microwave	SA18H-20	TKQ	2025-05-01	2026-05-01
Filter - High Pass	Micro-Tronics	HPM50111	HHX	2025-04-30	2026-04-30
Antenna - Standard Gain	ETS Lindgren	3160-07	AHR	2024-12-03	2025-12-03
Cable	Northwest EMC	8-18GHz RE Cables	OCO	2025-03-18	2026-03-18
Amplifier - Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AOE	2025-03-18	2026-03-18
Antenna - Standard Gain	ETS Lindgren	3160-08	AHT	2024-12-03	2025-12-03
Amplifier - Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AOF	2025-03-18	2026-03-18
Antenna - Standard Gain	ETS Lindgren	3160-09	AHN	2024-12-03	2025-12-03
Cable	Northwest EMC	18-26GHz RE Cables	OCH	2024-12-10	2025-12-10
Amplifier - Pre-Amplifier	Miteq	AMF-6F-18002650-25-10P	AOI	2024-12-10	2025-12-10
Antenna - Biconilog	Teseq	CBL 6141A	AYE	2023-08-08	2025-08-08
Cable	Northwest EMC	10kHz-1GHz RE Cables	OCH	2025-05-01	2026-05-01
Amplifier - Pre-Amplifier	Miteq	AM-1402	AOZ	2025-05-01	2026-05-01
Filter - Low Pass	Micro-Tronics	LPM50004	LFT	2024-12-17	2025-12-17
Antenna - Loop	EMCO	6502	AZB	2023-09-06	2025-09-06
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFJ	2025-03-03	2026-03-03

FREQUENCY RANGE INVESTIGATED

9 kHz TO 26.5 GHz

POWER INVESTIGATED

230VAC/50Hz

CONFIGURATIONS INVESTIGATED

MDTR1166-15

MODES INVESTIGATED

Transmitting 2.4GHz WiFi

SPURIOUS RADIATED EMISSIONS

EUT:	MyCareLink Home Communicator Model 26950	Work Order:	MDTR1166
Serial Number:	ABB210014i	Date:	2025-08-04
Customer:	Medtronic, Inc.	Temperature:	23.5°C
Attendees:	Jed Meyer	Relative Humidity:	50.2%
Customer Project:	None	Bar. Pressure (PMSL):	1014 mb
Tested By:	Matthew Ng	Job Site:	OC10
Power:	110VAC/60Hz	Configuration:	MDTR1166-15

TEST PARAMETERS

Run #:	12	Test Distance (m):	3	Ant. Height(s) (m):	1 to 4(m)
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COMMENTS

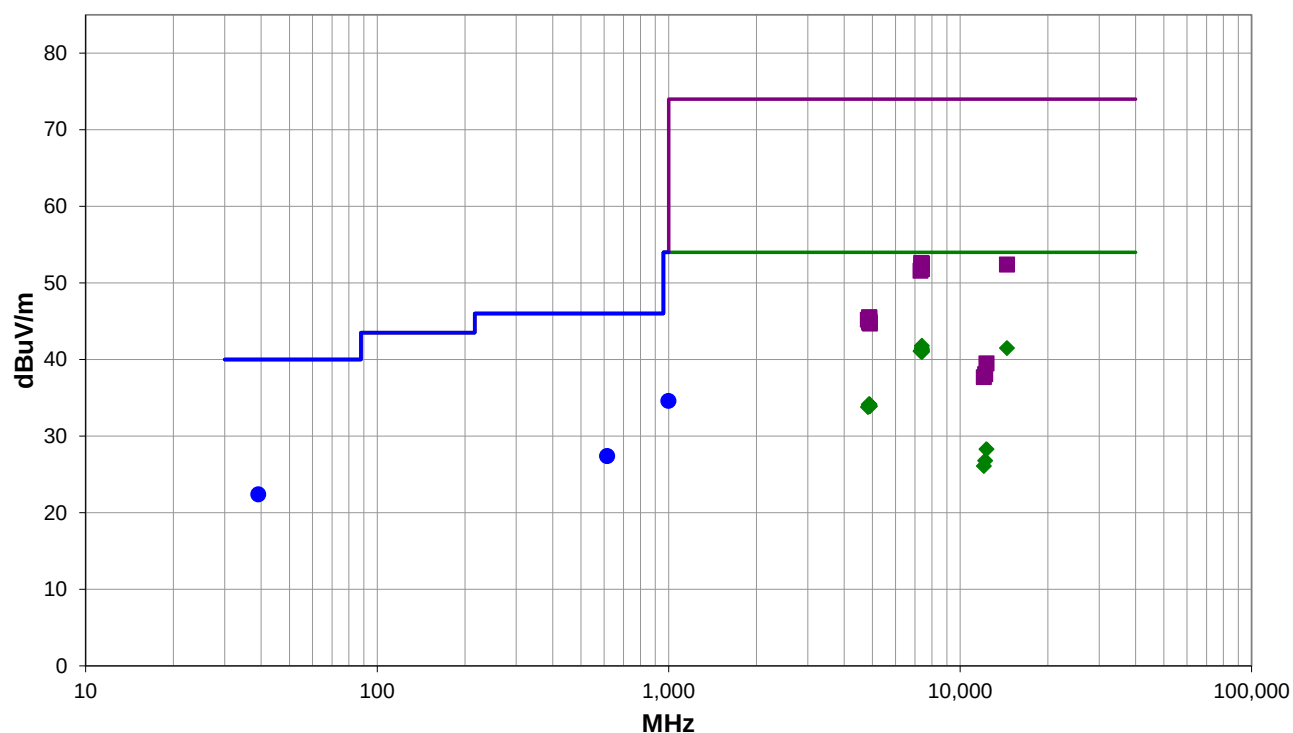
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EUT OPERATING MODES

Transmitting 2.4GHz Wi-Fi

DEVIATIONS FROM TEST STANDARD

None



Run #: 12

■ PK ◆ AV ● QP

SPURIOUS RADIATED EMISSIONS

RESULTS - Run #12

Freq (MHz)	Amplitude (dBuV)	Factor (dB/m)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
7387.383	35.2	6.6	1.5	8.0	3.0	0.0	Horz	AV	0.0	41.8	54.0	-12.2	Tx 2462MHz, 1Mbps, EUT Horz
14470.550	27.1	14.4	1.5	0.0	3.0	0.0	Horz	AV	0.0	41.5	54.0	-12.5	Tx 2412MHz, 1Mbps, EUT Horz
7384.600	34.9	6.6	1.5	331.0	3.0	0.0	Horz	AV	0.0	41.5	54.0	-12.5	Tx 2462MHz, 11Mbps, EUT Horz
7388.058	34.7	6.6	1.5	15.0	3.0	0.0	Horz	AV	0.0	41.3	54.0	-12.7	Tx 2462MHz, 6Mbps, EUT Horz
7383.642	34.6	6.6	4.0	292.0	3.0	0.0	Horz	AV	0.0	41.2	54.0	-12.8	Tx 2462MHz, 36Mbps, EUT Horz
7312.458	34.7	6.4	2.6	122.0	3.0	0.0	Horz	AV	0.0	41.1	54.0	-12.9	Tx 2437MHz, 1Mbps, EUT Horz
7383.508	34.5	6.6	3.3	206.0	3.0	0.0	Horz	AV	0.0	41.1	54.0	-12.9	Tx 2462MHz, MCS0, EUT Horz
7384.300	34.4	6.6	1.5	75.0	3.0	0.0	Horz	AV	0.0	41.0	54.0	-13.0	Tx 2462MHz, 54Mbps, EUT Horz
7384.225	34.4	6.6	2.1	217.0	3.0	0.0	Horz	AV	0.0	41.0	54.0	-13.0	Tx 2462MHz, MCS7, EUT Horz
39.064	13.9	8.5	1.0	33.0	3.0	0.0	Horz	QP	0.0	22.4	40.0	-17.6	Tx 2437MHz, 1Mbps, EUT Horz
614.489	15.1	12.3	1.3	40.0	3.0	0.0	Horz	QP	0.0	27.4	46.0	-18.6	Tx 2437MHz, 1Mbps, EUT Horz
997.492	14.5	20.1	2.0	190.0	3.0	0.0	Vert	QP	0.0	34.6	54.0	-19.4	Tx 2437MHz, 1Mbps, EUT Horz
4876.217	38.0	-3.8	1.5	35.0	3.0	0.0	Horz	AV	0.0	34.2	54.0	-19.8	Tx 2437MHz, 1Mbps, EUT Horz
4876.183	37.9	-3.8	1.5	148.0	3.0	0.0	Vert	AV	0.0	34.1	54.0	-19.9	Tx 2437MHz, 1Mbps, EUT Horz
4876.442	37.9	-3.8	1.5	154.0	3.0	0.0	Vert	AV	0.0	34.1	54.0	-19.9	Tx 2437MHz, 1Mbps, EUT Vert
4874.050	38.0	-3.9	4.0	82.0	3.0	0.0	Horz	AV	0.0	34.1	54.0	-19.9	Tx 2437MHz, 1Mbps, EUT on Side
4876.383	37.8	-3.8	1.4	54.0	3.0	0.0	Horz	AV	0.0	34.0	54.0	-20.0	Tx 2437MHz, 1Mbps, EUT Vert
4876.483	37.7	-3.8	1.5	180.0	3.0	0.0	Vert	AV	0.0	33.9	54.0	-20.1	Tx 2437MHz, 1Mbps, EUT on Side
4901.742	37.6	-3.7	3.3	220.0	3.0	0.0	Horz	AV	0.0	33.9	54.0	-20.1	Tx 2462MHz, 1Mbps, EUT Horz
4826.008	37.9	-4.1	1.5	294.0	3.0	0.0	Horz	AV	0.0	33.8	54.0	-20.2	Tx 2412MHz, 1Mbps, EUT Horz
7387.058	45.9	6.6	1.5	8.0	3.0	0.0	Horz	PK	0.0	52.5	74.0	-21.5	Tx 2462MHz, 1Mbps, EUT Horz
7387.458	45.9	6.6	2.1	217.0	3.0	0.0	Horz	PK	0.0	52.5	74.0	-21.5	Tx 2462MHz, MCS7, EUT Horz
14473.940	38.0	14.4	1.5	0.0	3.0	0.0	Horz	PK	0.0	52.4	74.0	-21.6	Tx 2412MHz, 1Mbps, EUT Horz
7387.083	45.8	6.6	1.5	331.0	3.0	0.0	Horz	PK	0.0	52.4	74.0	-21.6	Tx 2462MHz, 11Mbps, EUT Horz
7385.650	45.8	6.6	4.0	292.0	3.0	0.0	Horz	PK	0.0	52.4	74.0	-21.6	Tx 2462MHz, 36Mbps, EUT Horz
7386.100	45.7	6.6	3.3	206.0	3.0	0.0	Horz	PK	0.0	52.3	74.0	-21.7	Tx 2462MHz, MCS0, EUT Horz
7385.442	45.6	6.6	1.5	75.0	3.0	0.0	Horz	PK	0.0	52.2	74.0	-21.8	Tx 2462MHz, 54Mbps, EUT Horz
7386.917	45.2	6.6	1.5	15.0	3.0	0.0	Horz	PK	0.0	51.8	74.0	-22.2	Tx 2462MHz, 6Mbps, EUT Horz
7309.125	45.3	6.3	2.6	122.0	3.0	0.0	Horz	PK	0.0	51.6	74.0	-22.4	Tx 2437MHz, 1Mbps, EUT Horz
12309.360	30.3	-2.0	2.6	277.0	3.0	0.0	Horz	AV	0.0	28.3	54.0	-25.7	Tx 2462MHz, 1Mbps, EUT Horz
12182.990	30.4	-3.6	1.5	279.0	3.0	0.0	Horz	AV	0.0	26.8	54.0	-27.2	Tx 2437MHz, 1Mbps, EUT Horz
12057.630	30.8	-4.7	1.5	184.0	3.0	0.0	Horz	AV	0.0	26.1	54.0	-27.9	Tx 2412MHz, 1Mbps, EUT Horz
4874.700	49.3	-3.8	1.5	35.0	3.0	0.0	Horz	PK	0.0	45.5	74.0	-28.5	Tx 2437MHz, 1Mbps, EUT Horz
4876.475	49.3	-3.8	4.0	82.0	3.0	0.0	Horz	PK	0.0	45.5	74.0	-28.5	Tx 2437MHz, 1Mbps, EUT on Side
4826.150	49.3	-4.1	1.5	294.0	3.0	0.0	Horz	PK	0.0	45.2	74.0	-28.8	Tx 2412MHz, 1Mbps, EUT Horz
4876.242	48.9	-3.8	1.5	154.0	3.0	0.0	Vert	PK	0.0	45.1	74.0	-28.9	Tx 2437MHz, 1Mbps, EUT Vert
4872.300	48.9	-3.9	1.5	180.0	3.0	0.0	Vert	PK	0.0	45.0	74.0	-29.0	Tx 2437MHz, 1Mbps, EUT on Side
4876.183	48.7	-3.8	1.4	54.0	3.0	0.0	Horz	PK	0.0	44.9	74.0	-29.1	Tx 2437MHz, 1Mbps, EUT Vert
4876.183	48.6	-3.8	1.5	148.0	3.0	0.0	Vert	PK	0.0	44.8	74.0	-29.2	Tx 2437MHz, 1Mbps, EUT Horz
4903.117	48.4	-3.7	3.3	220.0	3.0	0.0	Horz	PK	0.0	44.7	74.0	-29.3	Tx 2462MHz, 1Mbps, EUT Horz

SPURIOUS RADIATED EMISSIONS

Freq (MHz)	Amplitude (dBuV)	Factor (dB/m)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
12310.080	41.5	-2.0	2.6	277.0	3.0	0.0	Horz	PK	0.0	39.5	74.0	-34.5	Tx 2462MHz, 1Mbps, EUT Horz
12186.610	41.6	-3.5	1.5	279.0	3.0	0.0	Horz	PK	0.0	38.1	74.0	-35.9	Tx 2437MHz, 1Mbps, EUT Horz
12057.600	42.4	-4.7	1.5	184.0	3.0	0.0	Horz	PK	0.0	37.7	74.0	-36.3	Tx 2412MHz, 1Mbps, EUT Horz

CONCLUSION

Pass

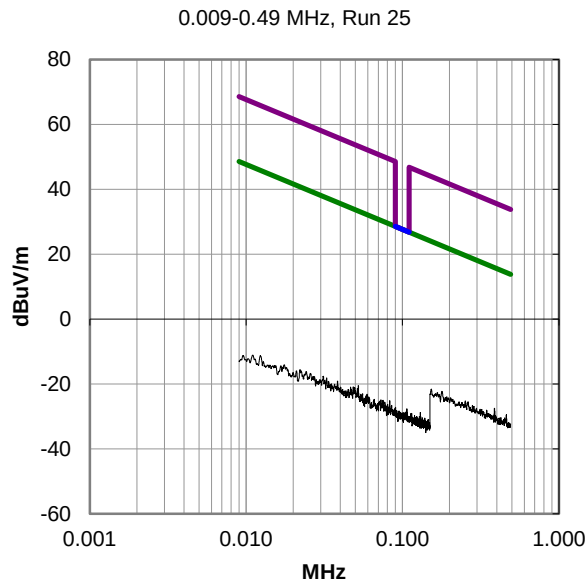
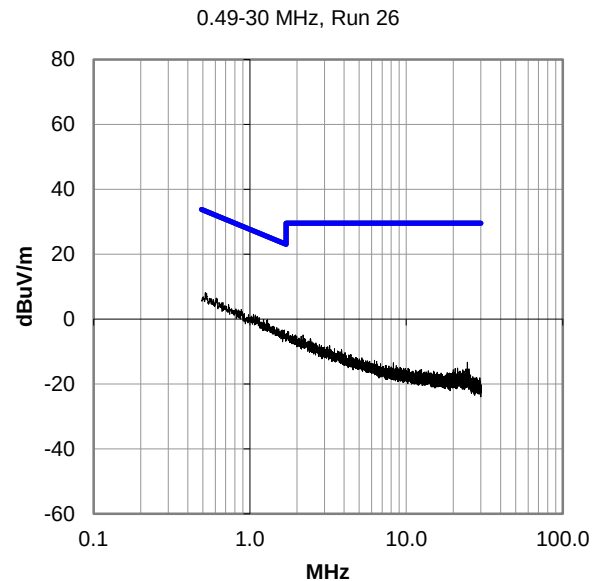
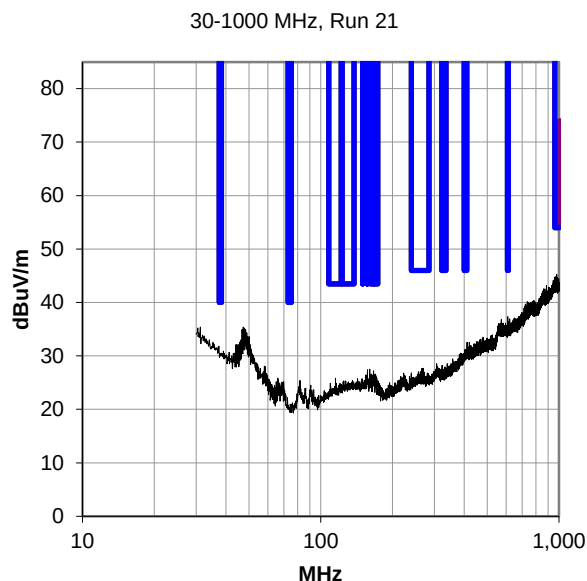
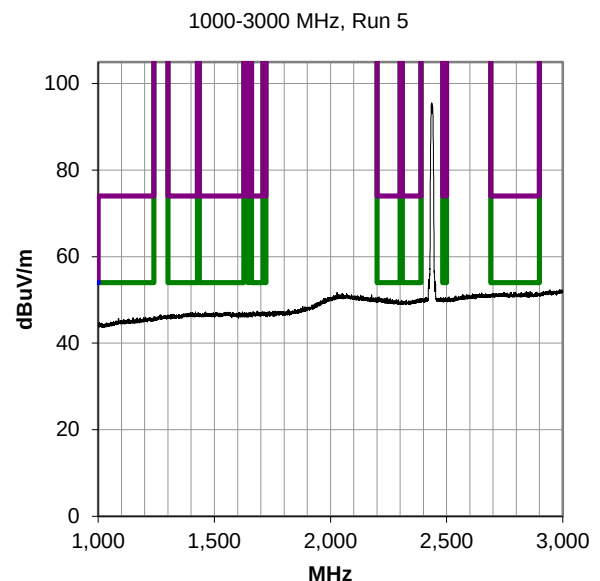


Tested By

SPURIOUS RADIATED EMISSIONS

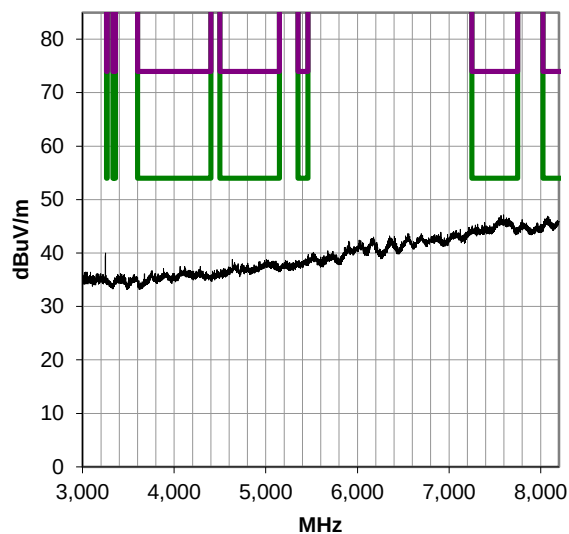
PRESCAN DATA

Radiated spurious emissions from the EUT are initially reviewed with Pre-scans (Preview scans). Pre-scans are performed, with the EUT transmitting on the lowest applicable data rate, for both vertical and horizontal polarizations. The Pre-scan plots below are shown with a peak detector and RBW for the following frequency ranges: 9 kHz RBW (< 30 MHz); 120 kHz RBW (30 - 1000 MHz); 1 MHz RBW (> 1 GHz). In the case where unintentional emissions are observed, an ambient or idle pre-scan with the radio off, will be shown for comparison.

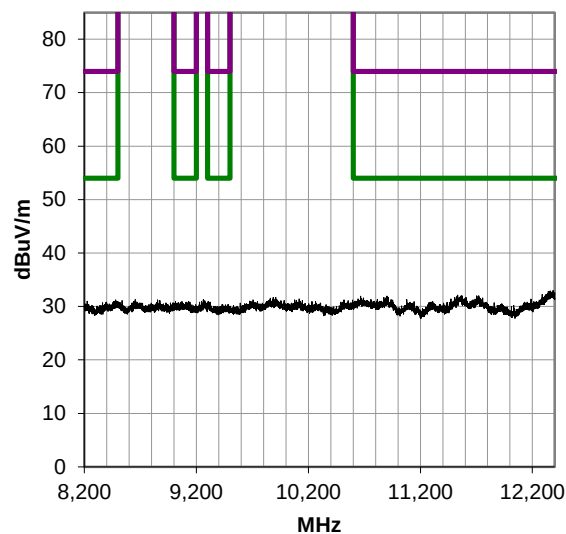


SPURIOUS RADIATED EMISSIONS

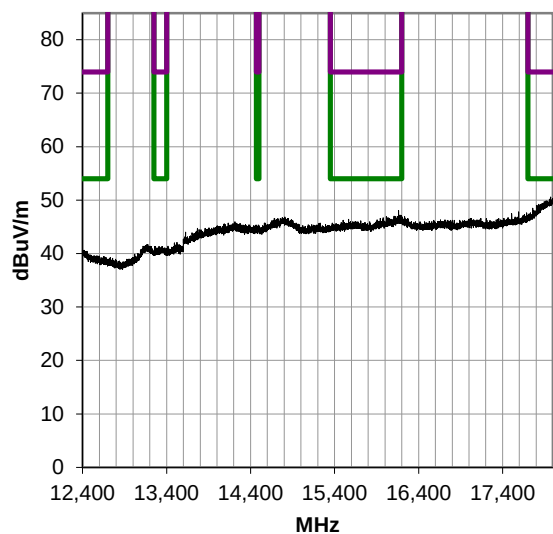
3000-8200 MHz, Run 6



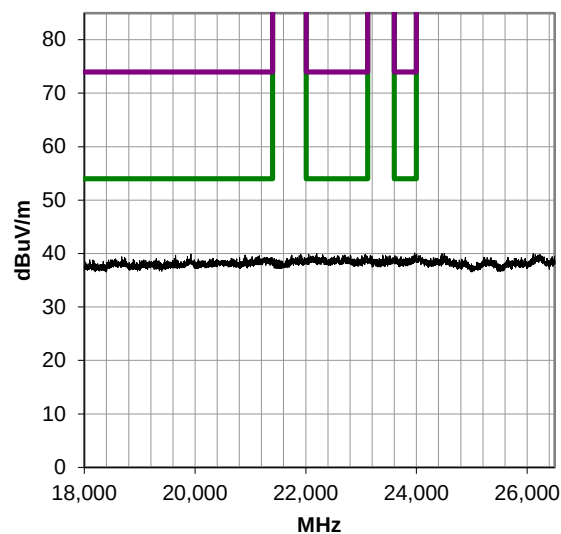
8200-12400 MHz, Run 7



12400-18000 MHz, Run 8



18000-26500 MHz, Run 18



RADIATED SPURIOUS EMISSIONS RESTRICTED BAND EDGE



TEST DESCRIPTION

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

The measurement was made in a radiated configuration of the fundamental with the carrier fully maximized for its highest radiated power.

The highest gain antenna of each type to be used with the EUT was tested. The EUT was configured for the required transmit frequencies and the modes as showed in the data sheets.

The emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and EUT antenna in three orthogonal axis if required, and adjusting the measurement antenna height and polarization (per ANSI C63.10). A preamp and attenuation were used (if needed) for this test in order to provide sufficient measurement sensitivity.

Measurements were made with the required detectors and annotated on the data for each individual point using the following annotation:

PK = Peak Detector
AV = RMS Detector

Measurements within 2 MHz of the allowable band may have been taken using the integration method from ANSI C63.10 clause 11.13.3. This procedure uses the channel power feature of the spectrum analyzer to integrate the power of the emission within a 1 MHz bandwidth.

Where the radio test software does not provide for a duty cycle at continuous transmit conditions (> 98%) and the RMS (power average) measurements were made across the on and off times of the EUT transmissions, a duty cycle correction is added to the measurements using the formula of $10 \cdot \log(1/dc)$.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFI	2025-09-29	2026-09-29
Amplifier - Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	AVX	2025-02-01	2026-02-01
Attenuator	Coaxicom	3910-20	AXY	2025-09-11	2026-09-11
Cable	Element	Double Ridge Guide Horn Cables	MNV	2025-09-11	2026-09-11
Antenna - Double Ridge	ETS Lindgren	3115	AJQ	2025-02-05	2027-02-05

RADIATED SPURIOUS EMISSIONS RESTRICTED BAND EDGE



EUT:	MyCareLink Home Communicator Model 26950	Work Order:	MDTR1166
Serial Number:	ABB110159i	Date:	2025-11-13
Customer:	Medtronic, Inc.	Temperature:	24.1°C
Attendees:	None	Relative Humidity:	26.1%
Customer Project:	None	Bar. Pressure (PMSL):	1017 mbar
Tested By:	Christopher Heintzelman	Job Site:	MN09
Power:	110VAC/60Hz	Configuration:	MDTR1166-24

COMMENTS

Test mode is 100% duty cycle.

DEVIATIONS FROM TEST STANDARD

None

CONCLUSION

Pass

Tested By

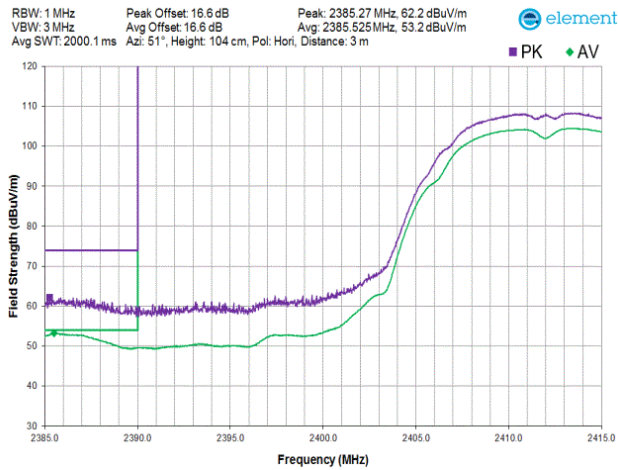
TEST RESULTS

	Frequency (MHz)	PK (dBuV/m) AV (dBuV/m)	PK Lim (dBuV/m) AV Lim (dBuV/m)	Worst Margin (dB)	Pol. (H/V)	EUT Orientation	Results
20 MHz BW							
802.11(b) 1 Mbps							
Low Channel 1, 2412 MHz	2385.270	62.2	74.0	-0.8	H	Vertical	Pass
	2385.525	53.2	54.0				
High Channel 11, 2462 MHz	2488.012	61.9	74.0	-2.1	H	Vertical	Pass
	2487.932	51.9	54.0				
802.11(b) 11 Mbps							
Low Channel 1, 2412 MHz	2385.705	62.8	74.0	-2.4	H	Vertical	Pass
	2385.750	51.6	54.0				
High Channel 11, 2462 MHz	2484.851	62.1	74.0	-2.6	H	Vertical	Pass
	2487.652	51.4	54.0				
802.11(g) 6 Mbps							
Low Channel 1, 2412 MHz	2389.907	67.0	74.0	-1.9	H	Vertical	Pass
	2389.907	52.1	54.0				
High Channel 11, 2462 MHz	2484.170	62.9	74.0	-3.3	V	Horizontal	Pass
	2483.590	50.7	54.0				
	2496.897	59.9	74.0	-5.1	H	Horizontal	Pass
	2483.510	48.9	54.0				
	2484.410	66.0	74.0	-2.1	H	Vertical	Pass
	2483.630	51.9	54.0				
	2497.357	60.9	74.0	-4.9	V	Vertical	Pass
	2483.570	49.1	54.0				
	2487.192	64.7	74.0	-3.1	V	on Side	Pass
	2483.550	50.9	54.0				
	2484.190	65.1	74.0	-3.0	H	on Side	Pass
	2483.510	51.0	54.0				
802.11(g) 36 Mbps							
Low Channel 1, 2412 MHz	2388.962	64.0	74.0	-2.6	H	Vertical	Pass
	2389.997	51.4	54.0				
High Channel 11, 2462 MHz	2484.851	63.8	74.0	-3.2	H	Vertical	Pass
	2483.530	50.8	54.0				
802.11(g) 54 Mbps							

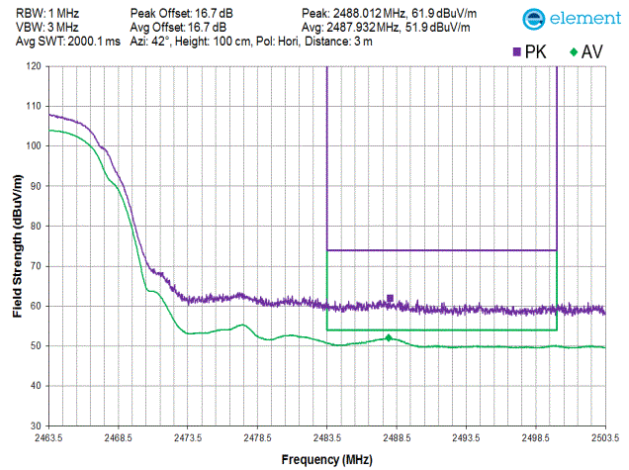
RADIATED SPURIOUS EMISSIONS RESTRICTED BAND EDGE

	Frequency (MHz)	PK (dBuV/m) AV (dBuV/m)	PK Lim (dBuV/m) AV Lim (dBuV/m)	Worst Margin (dB)	Pol. (H/V)	EUT Orientation	Results
Low Channel 1, 2412 MHz	2386.756	62.6	74.0	-2.9	H	Vertical	Pass
	2389.967	51.1	54.0				
High Channel 11, 2462 MHz	2483.970	68.0	74.0	-0.9	H	Vertical	Pass
	2483.510	53.1	54.0				
802.11(n) MCS0							
Low Channel 1, 2412 MHz	2389.142	63.8	74.0	-2.0	H	Vertical	Pass
	2389.742	52.0	54.0				
High Channel 11, 2462 MHz	2485.091	69.6	74.0	-0.5	H	Vertical	Pass
	2483.510	53.5	54.0				
802.11(n) MCS7							
Low Channel 1, 2412 MHz	2387.371	63.0	74.0	-3.4	H	Vertical	Pass
	2389.787	50.6	54.0				
High Channel 11, 2462 MHz	2483.850	68.0	74.0	-0.1	H	Vertical	Pass
	2483.690	53.9	54.0				

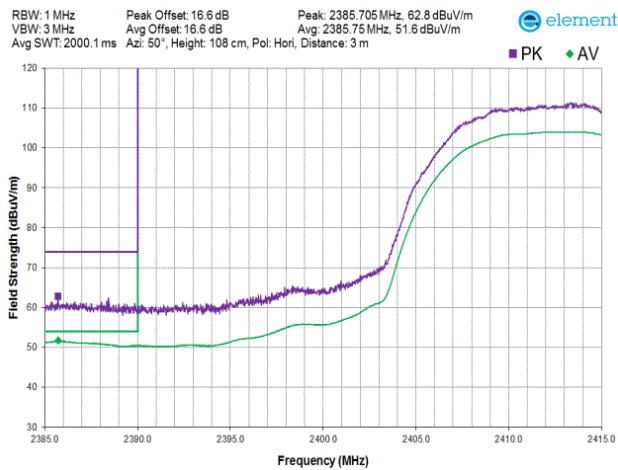
RADIATED SPURIOUS EMISSIONS RESTRICTED BAND EDGE



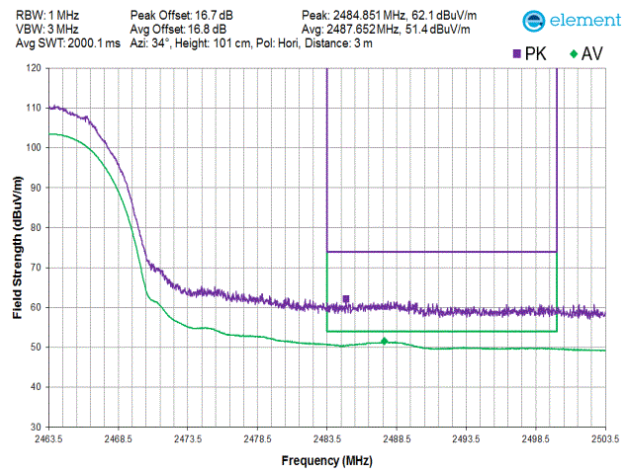
20 MHz BW
802.11(b) 1 Mbps
Low Channel 1, 2412 MHz



20 MHz BW
802.11(b) 1 Mbps
High Channel 11, 2462 MHz

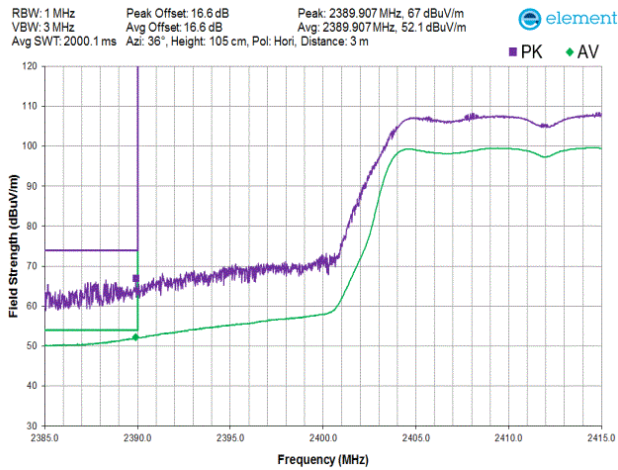


20 MHz BW
802.11(b) 11 Mbps
Low Channel 1, 2412 MHz

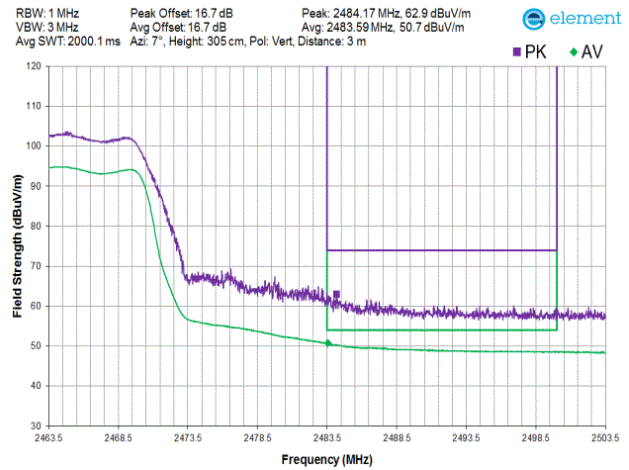


20 MHz BW
802.11(b) 11 Mbps
High Channel 11, 2462 MHz

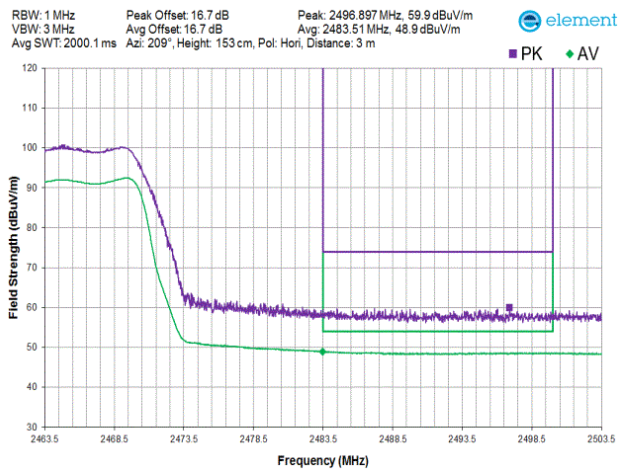
RADIATED SPURIOUS EMISSIONS RESTRICTED BAND EDGE



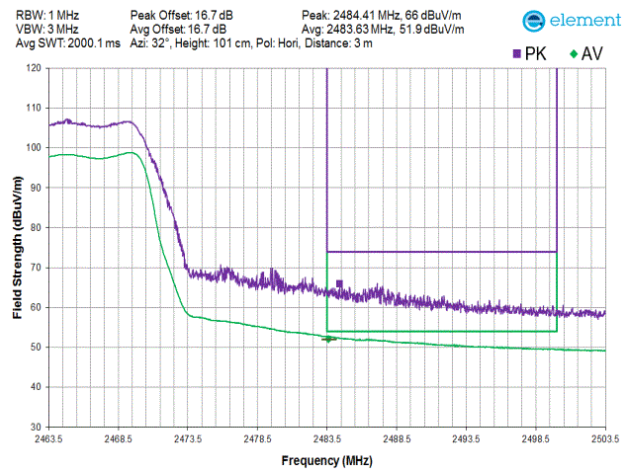
20 MHz BW
802.11(g) 6 Mbps
Low Channel 1, 2412 MHz



20 MHz BW
802.11(g) 6 Mbps
High Channel 11, 2462 MHz

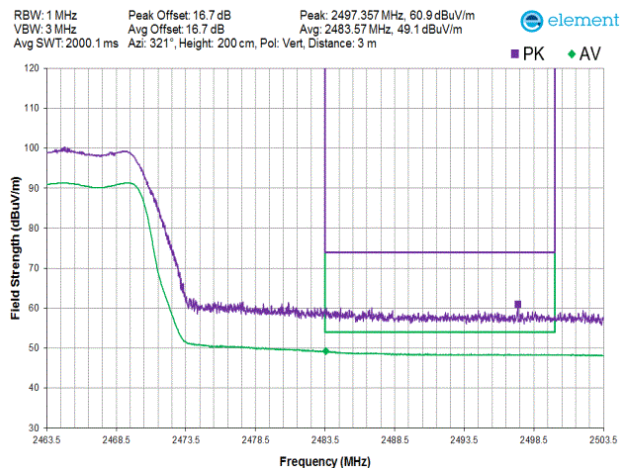


20 MHz BW
802.11(g) 6 Mbps
High Channel 11, 2462 MHz



20 MHz BW
802.11(g) 6 Mbps
High Channel 11, 2462 MHz

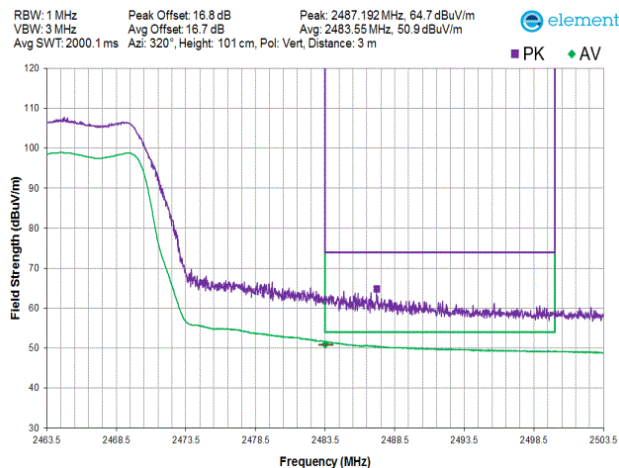
RADIATED SPURIOUS EMISSIONS RESTRICTED BAND EDGE



20 MHz BW

802.11(g) 6 Mbps

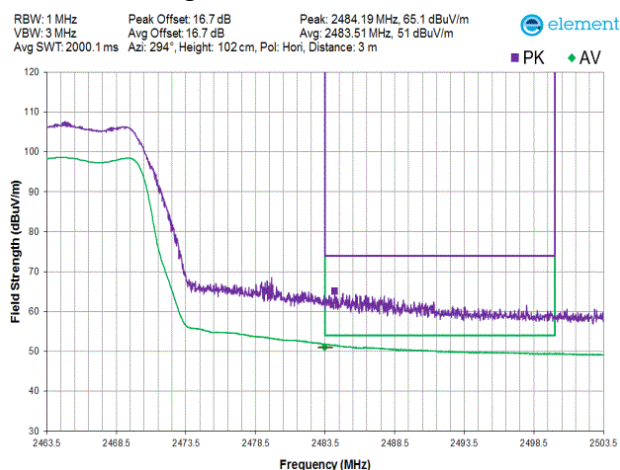
High Channel 11, 2462 MHz



20 MHz BW

802.11(g) 6 Mbps

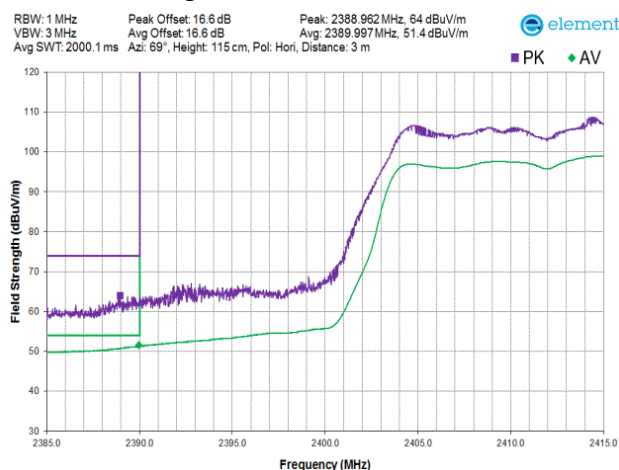
High Channel 11, 2462 MHz



20 MHz BW

802.11(g) 6 Mbps

High Channel 11, 2462 MHz

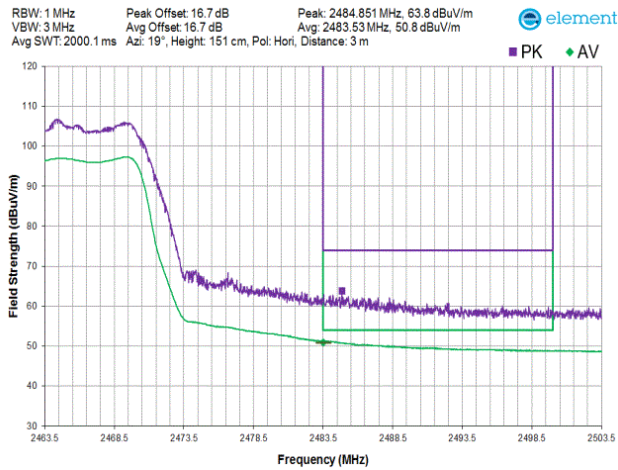


20 MHz BW

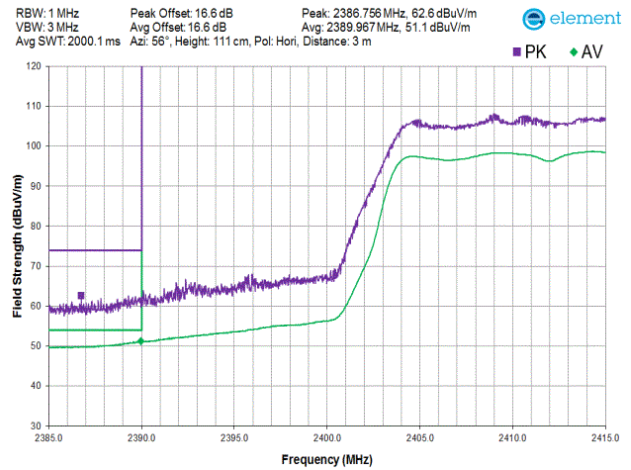
802.11(g) 36 Mbps

Low Channel 1, 2412 MHz

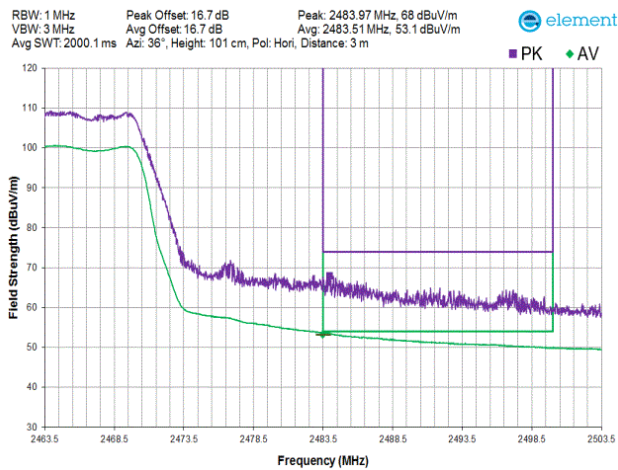
RADIATED SPURIOUS EMISSIONS RESTRICTED BAND EDGE



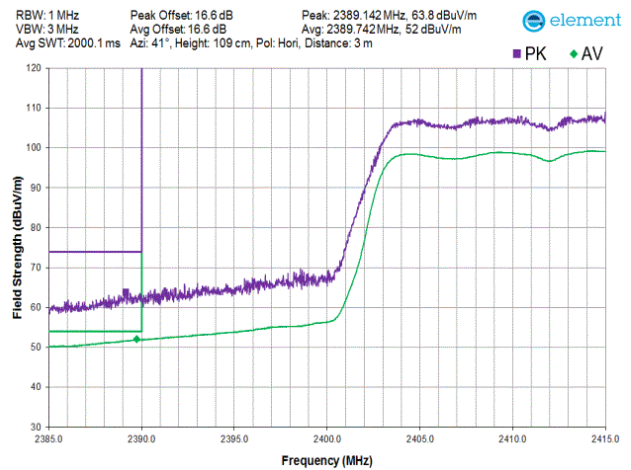
20 MHz BW
802.11(g) 36 Mbps
High Channel 11, 2462 MHz



20 MHz BW
802.11(g) 54 Mbps
Low Channel 1, 2412 MHz

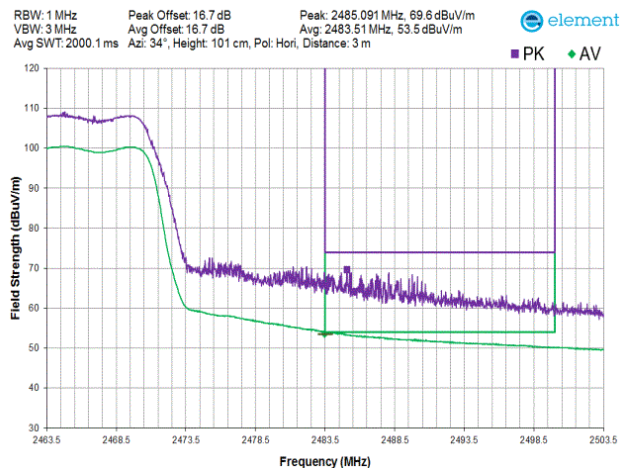


20 MHz BW
802.11(g) 54 Mbps
High Channel 11, 2462 MHz

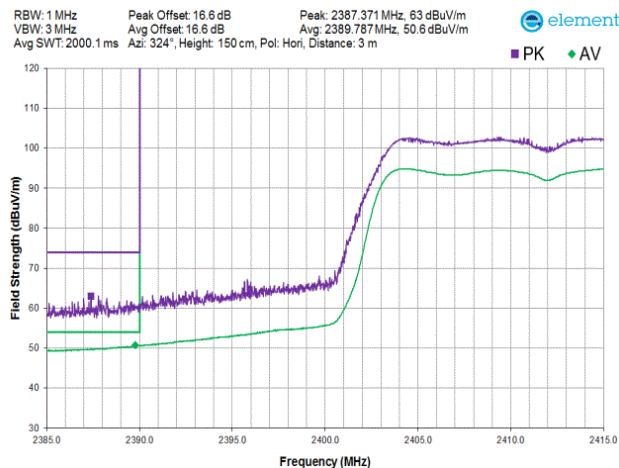


20 MHz BW
802.11(n) MCS0
Low Channel 1, 2412 MHz

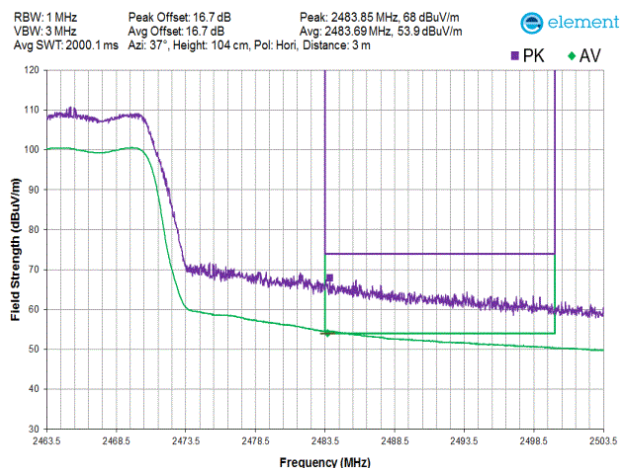
RADIATED SPURIOUS EMISSIONS RESTRICTED BAND EDGE



20 MHz BW
802.11(n) MCS0
High Channel 11, 2462 MHz



20 MHz BW
802.11(n) MCS7
Low Channel 1, 2412 MHz



20 MHz BW
802.11(n) MCS7
High Channel 11, 2462 MHz

End of Test Report