



Certificate No. : 4271.01

**Prüfbericht – Produkte**
Test Report - Products

Prüfbericht-Nr.: <i>Test report no.:</i>	IN22T1OT 001 ULR-TC568822300000100F	Auftrags-Nr.: <i>Order no.:</i>	146701433 010	Seite 1 von 197 Page 1 of 197
Kunden-Referenz-Nr.: <i>Client reference no.:</i>	2141358	Auftragsdatum: <i>Order date:</i>	2022-07-20	
Auftraggeber: <i>Client:</i>	GE Vingmed Ultrasound AS Strandpromenaden 45, N-3183, Horten, Norway			
Prüfgegenstand: <i>Test item:</i>	Vscan Air SL	Serien-Nr.: Serial No.:	VA020000065 VA020000068	
Bezeichnung.: <i>Identification.:</i>	Vscan Air SL			
Auftrags-Inhalt: <i>Order content:</i>	Testing and issue of Test report with Grant Certificate			
Prüfgrundlage: <i>Test specification:</i>	FCC Part 15 Subpart C 15.247,15.205, 15.207 & 15.209 RSS 247 Issue 2,RSS Gen Issue 5			
Wareneingangsdatum: <i>Date of sample receipt:</i>	2022-07-26			
Prüfmuster-Nr <i>Test sample no</i>	A003307764-003 A003307764-004			
Prüfzeitraum: <i>Testing period:</i>	2022-08-09 - 2022-09-20			
Ort der Prüfung: <i>Place of testing:</i>	Wireless laboratory, Bangalore			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (India) Pvt.Ltd., 27/B, 2nd Cross, Electronic City Phase1 Bangalore -560 100, India FCC Test site registration number: 496599 ISED Test site registration number: 3466E-1			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von: <i>tested by:</i>	genehmigt von: <i>authorized by:</i>			
Datum: <i>Date:</i> 2022-09-29			Ausstellatum: <i>Issue date:</i> 2023-04-11	
Stellung / Position:	Yogesh V Engineer	Stellung / Position:	Madhu K N Senior Engineer	
Sonstiges / Other:	FCC ID: YOM-VSCANAIRSL IC: 9136A-VSCANAIRSL			
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>		Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>		
* Legende:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	4 = ausreichend N/A = nicht anwendbar
* Legend:	1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	3 = satisfactory F(ail) = failed a.m. test specification(s)	4 = sufficient N/A = not applicable
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4	Die Entscheidungsregel für Konformitätserklärungen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. <i>The decision rule for statements of conformity in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report.</i>		

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TEST SUMMARY

Test Item	Applicable Standard		Result
	FCC	ISED	
Maximum conducted output power	FCC 15.247 (b)(3)	RSS 247 Issue 2, Section 5.4 (d)	Pass
Maximum Power Spectral Density	FCC 15.247(e)	RSS 247 Issue 2, Section 5.2 (b)	Pass
DTS Bandwidth	FCC 15.247(a)(2)	RSS 247 Issue 2, Section 5.2 (a)	Pass
Emissions in non-restricted frequency bands	FCC 15.247(d)	RSS 247 Issue 2, Section 5.5	Pass
Spurious Radiated Emissions and Restricted Bands of Operation	FCC 15.209 / FCC 15.205	RSS-Gen Issue 5, Section 8.9 /8.10	Pass
Conducted Spurious Emission on AC Power lines	FCC 15.207	RSS-Gen Issue 5,Section 8.8	Pass

Product Category: Electronics Testing
Test Discipline: EMC Test Facility

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REVISION HISTORY OF THIS REPORT

Report Number	Version	Description	Issue date
IN22T1OT 001 ULR-TC568822300000100F	01	Initial issue of report	2023-03-29
IN22T1OT 001 ULR-TC568822300000100F	02	Reviewer comments updated	2023-04-11

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1 GENERAL REMARKS

1.1 Attachments

All attachments are part of this test report and are issued in separate document

1. TEST SETUP PHOTOS
- 2: EUT EXTERNAL PHOTOS
- 3: EUT INTERNAL PHOTOS
- 4: FCC LABEL AND LABEL LOCATION
- 5: BLOCK DIAGRAM
- 6: SPECIFICATION OF EUT
- 7: SCHEMATIC DIAGRAM
- 8: BILL OF MATERIAL
- 9: USER MANUAL
- 10: MAXIMUM PERMISSIBLE EXPOSURE INFORMATION

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2 TEST SITES

2.1 Testing Facilities

1. TÜV Rheinland (India) Pvt.Ltd.,
27/B, 2nd Cross,
ElectronicCityPhase1
Bangalore – 560 100,
India

2. TUV Rheinland (India) Pvt.Ltd.,
108 , Beside ISBR Business School,
Electronic city Phase I
Bangalore - 560 100.
India

Radiated Measurement site type :
Fully anechoic chamber (used for above 1 GHz
measurements)

Radiated Measurement site type :
Semi anechoic chamber (used for below 1 GHz
measurements)

2.2 List of Test and Measurement Instruments

Table 1: List of test and measurement instruments

Equipment	Manufacturer	Model Name	Serial Number	Firmware Versions	Calibration Due Date	Periodicity	Test Facility
EMI Receiver	Rohde & Schwarz	ESW 44	101732	4.73 SP5	04.08.2023	Yearly	Radiated Spurious Emission
EMI Receiver	Rohde & Schwarz	ESW 44	101733	1.72SP1	12.02.2023	Yearly	
Active loop antenna	Frankonia	LAX-10	LAX-10-800	-	31.01.2023	Yearly	
Balloon and Biconical Antenna	Schwarzbeck	VHBB-9124 / BBA-9106	1028	-	03.02.2023	Yearly	
Log - Periodical Antenna	Schwarzbeck	VUSLP-9111B	9111B-111	-	04.02.2023	Yearly	
Horn Antenna	Frankonia	HAX-18	HAX18-802	-	20.05.2023	Yearly	
Horn Antenna	ETS	3117	00133355	-	06.02.2023	Yearly	
Semi Anechoic Chamber	Frankonia	-	-	-	-	-	
Fully Anechoic Chamber	Albatross	-	-	-	-	-	
Spectrum Analyser	Agilent Technologies	E4407B	US41192772	A.14.06	15.12.2022	Yearly	Antenna-Port Conducted test
EMI Receiver	Rohde & Schwarz	ESR7	101133	3.48 SP3	22.07.2023	Yearly	Conducted AC Power line Test
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100811	-	12.07.2023	Yearly	
LISN	Rohde & Schwarz	ENV216	100022	-	07.10.2022	Yearly	

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Table 2: Instrument application Software versions

SL. No.	Test Type	Application software	Version
1	Radiated spurious emission measurement in 10mtr-SAC	BAT EMC	3.20.0.17
2	Radiated spurious emission measurement in 3mtr-FAC	EMC 32	10.60.20

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3 GENERAL PRODUCT INFORMATION

3.1 Product Function and Intended Use

Vscan Air SL consists of a dual headed probe which integrates both, Sector and linear array transducers, and an app which can be installed on Android or iOS mobile devices.

Vscan Air SL is a battery-operated software-based general-purpose ultrasound imaging system for use by qualified and trained healthcare professionals or practitioners that are legally authorized or licensed by law in the country, state or other local municipality in which he or she practices. The users may or may not be working under supervision or authority of a physician. Users may also include Medical Students working under the supervision or authority of a physician during their education / training. The device is enabling visualization and measurement of anatomical structures and fluid including blood flow.

3.2 Ratings and System Details of Equipment under Test

Table 3: Ratings and System Details as declared by Client*

Radio Protocol		Wi-Fi	BLE
Operating Frequency Range		2412MHz to 2462MHz	2402MHz to 2480MHz
No. of Channels		11 (Refer Table 5)	40 (Refer Table 6)
Channel Spacing		5MHz	2MHz
Maximum measured power (e.i.r.p)		17.08dBm at 802.11g 6Mbps	8.16dBm at 1Mbps
Modulation		802.11b: DSSS (1Mbps,11Mbps) 802.11g: OFDM (6Mbps, 54Mbps) 802.11n: OFDM (20MHz: MCS0, MCS7,40MHz: MCS0, MCS7)	GFSK
Number of antennas		1	
Antenna Gain		2.53dBi	
Antenna Type		PCB Antenna	
Supply Voltage to Product		3.6V DC Li-Ion battery	
Environmental conditions	Storage	-20degC to +70degC Relative Humidity <95%	
	Operating	0 degC to +35degC Relative Humidity <95%	
EUT Dimension		141 x 67 x 33 mm	

***Disclaimer:** The information/data is supplied by the client and the same is considered to arrive at the final value. Any changes made apart from the specified specification, can directly impact on the tests results. Refer the products user manual for more details.

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Note: Product **Vscan Air SL** has multiple protocols. All the supported wireless protocols and their respective test results are issued in separate test reports, refer clause 4.7 Report references

3.3 Measurement Uncertainty:

Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$

Table 4: Measurement Uncertainty

Parameter	Uncertainty
Occupied Channel Bandwidth	$\pm 5 \%$
RF output power, conducted	$\pm 1.5 \text{ dB}$
Power Spectral Density, conducted	$\pm 3 \text{ dB}$
Unwanted Emissions, conducted	$\pm 3 \text{ dB}$
All emissions, radiated	$\pm 6 \text{ dB}$
Temperature	$\pm 3 \text{ }^{\circ}\text{C}$
Supply Voltages	$\pm 3 \%$
Time	$\pm 5 \%$

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4 TEST SET-UP AND OPERATION MODE

4.1 Principle of Configuration Selection

Transmission was enabled with highest possible duty cycle on low, mid and high channels

This product operates in 2 mode (Linear and Sector) as described in operational description under clause 5 of this test report, these mode of operations are related to analog circuitry and do not affect the RF characteristics.

4.1.1 EUT Mode of operation Mode	Description
Sector	Deep scanning uses Sector transducer, with Wi-Fi in Tx and Rx mode and BLE is used for initial paring
Linear	Shallow scanning uses Linear transducer with Wi-Fi in Tx and Rx mode and BLE is used for initial paring
Charging mode	Scanning is paused and probe stays connected to display device via Wi-Fi.

4.1.2 Following configurations are used for testing

Test cases	Mode of operation
All conducted RF test cases	Special configuration tool is used to enable the Wi-Fi and BLE continuous transmission as needed
All radiated test cases < 1 GHz	Linear mode, Sector mode and charging mode as defined in 4.1.1
All radiated test cases > 1 GHz	Special configuration tool is used to enable the Wi-Fi and BLE continuous transmission as needed

4.2 Operation and Software of the EUT

Hardware Version of Vscan Air SL: GP000170 Rev01

Hardware Version of Digital board: GP200400 Rev15

Hardware Version of HV board: GP200401 Rev11

Hardware Version of Analog board: GP200402 Rev10

Probe FW Version :1.1.23.355

Vscan Air Application software:

☐ Vscan Air R2 for iOS

☐ Vscan Air R2 for Android

Note: Both Probe FW and App SW version has R2 features included.

APP Software Version: 1.1.26.18955

EUT can be configured for different test conditions using calibrator tool commands

Calibrator tool version = 0.80

Medical Device name of the probe: Vscan Air SL

Medical Device name of the application SW (app): Vscan Air

GlobTek Power adapter - GTM46101-1005-USB

Vscan Air Charger - GP200304

XP Power - VEU10US050

Anker wireless charger - A2503

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4.3 Special Accessories and Auxiliary Equipment

- None

4.4 Simultaneous Transmission

This product doesn't supports Simultaneous operation

4.5 Countermeasures to achieve EMC Compliance

- None

4.6 List of frequencies

Frequency Band (MHz)	Channel No.	Channel Frequency (MHz)
2412 – 2462	1	2412
	2	2417
	3	2422
	4	2427
	5	2432
	6	2437
	7	2442
	8	2447
	9	2452
	10	2457
	11	2462

Table 5: List of Wi-Fi center Frequencies

Channel used for Wi-Fi 2.4GHz testing

Protocol: WLAN 802.11b

Channel Low : 2412 MHz
Channel Mid : 2437 MHz
Channel High : 2462 MHz

Protocol: WLAN 802.11g

Channel Low : 2412 MHz
Channel Mid : 2437 MHz
Channel High : 2462 MHz

Protocol: WLAN 802.11n HT20

Channel Low : 2412 MHz
Channel Mid : 2437 MHz
Channel High : 2462 MHz

Protocol: WLAN 802.11n HT40

Channel Low : 2422 MHz
Channel High : 2452 MHz

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Frequency Band (GHz)	Channel No.	Frequency (MHz)
BLE (2.4-2.4835)	0	2402
	1	2404
	2	2406
	3	2408
	:	:
	:	:
	18	2438
	19	2440
	20	2442
	:	:
	:	:
	36	2474
	37	2476
	38	2478
	39	2480

Table 6: List of BLE Center frequencies

Channel used for BLE testing

Channel low : 2402MHz

Channel mid : 2440MHz

Channel High : 2480MHz

Note:

TUV Sample Identification number : A003307764 - 003 – Conducted test Sample
A003307764 - 004 – Radiated test Sample

4.7 Report references

Note: Product **VscanAir SL** has multiple protocols. All the supported wireless protocols and their respective test results are issued in separate test reports, following table lists the report numbers.

Radio Protocol	Report Number
RF test report for Wi-Fi (2.4GHz) and BLE – (This report)	ULR-TC568822300000100F
RF test report for Wi-Fi (5GHz UNII-1 & UNII-3)	ULR-TC568822300000101F
SAR test report for Wi-Fi (2.4GHz and 5GHz)	ULR-TC568822300000105F

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5 OPERATIONAL DESCRIPTION

Vscan Air SL is a handheld, pocket sized, battery powered general purpose diagnostic ultrasound system. The system consists of a probe with two heads. One for deep scanning (Sector) and another one for shallow scanning (Linear). The probe can be paired with a mobile device through WiFi, to see the ultrasound image. Mobile device needs an app (available in iOS & android) to enable pairing and ultrasound imaging. The internal battery operation is designed for providing approximately one hour of active scanning capacity with a fully charged battery. The probe supports Qi wireless charging to charge the battery. Probe will automatically turn off during charging.

Mode	Description
Sector / Curved	Deep scanning uses Sector transducer, with Wi-Fi in Tx and Rx mode and BLE is used for initial paring
Linear	Shallow scanning uses Linear transducer with Wi-Fi in Tx and Rx mode and BLE is used for initial paring
Charging mode	Probe will automatically turn off during charging, i.e. Wi-Fi and BLE are turned off

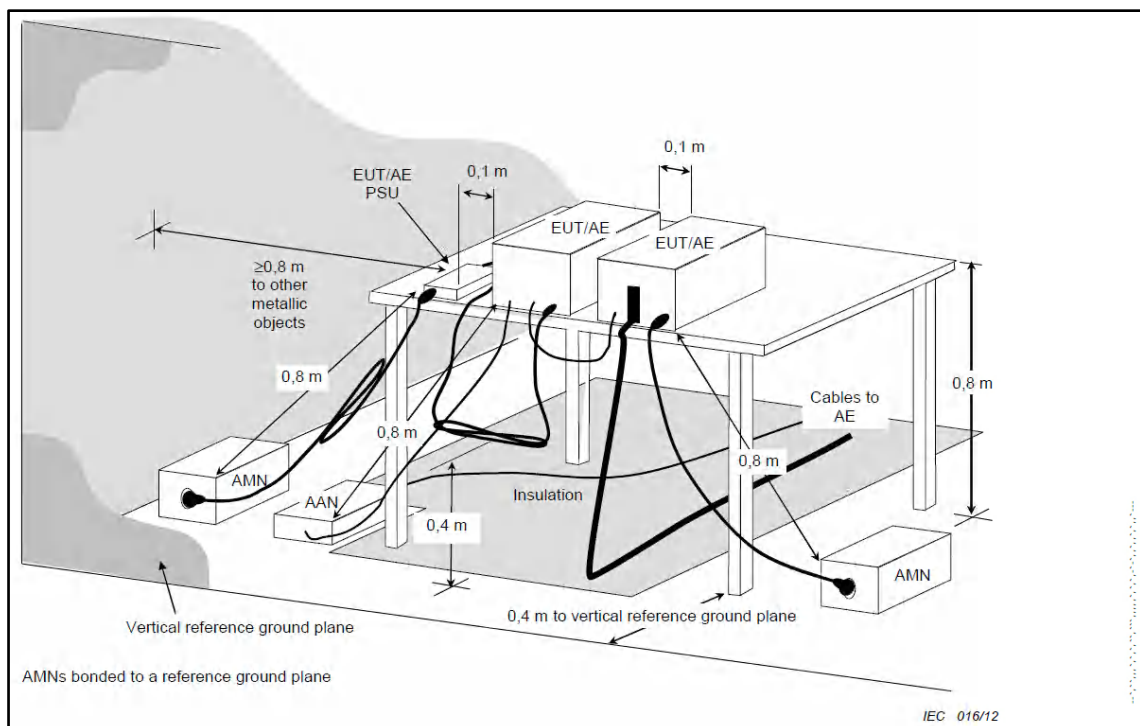
6 TEST METHODOLOGY

6.1 Conducted Spurious Emission Test on AC Power Line

Measured levels of ac power-line conducted emission across the 50Ω LISN port (to which the EUT is connected). All emission voltage and current measurements shall be made on each current-carrying conductor at the plug end of the EUT power cord by the use of mating plugs and receptacles on the LISN, if used. Equipment shall be tested with power cords that are normally supplied or recommended by the manufacturer and that have electrical and shielding characteristics that are the same as those cords normally supplied or recommended by the manufacturer.

The device is placed on the test table, raised 80cm above the reference ground plane. The vertical conducting plane is located 40cm to the rear of the device. AC Conducted emission measurement is made over frequency range from 150kHz to 30MHz, this measurement was performed with EUT powered by 2 methods and both method are tested individually, one with an AC adaptor with 110V AC 60Hz supply and second with Wireless charger with supply 110V AC 60Hz.

6.1.1 Test Setup Configuration



6.2 Radiated Emission Test

The radiated emission measurement was performed according to the procedures in ANSI C63.10-2013. The equipment under test (EUT) was placed at the middle of the 80 cm high turntable for below 1 GHz & 1.5 m height for above 1 GHz measurement, and the EUT is 3 meters far from the measuring antenna. The turntable was rotated 360° for obtaining the maximum emission. The height of the measuring antennas was scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations. Repeat the measurement steps until the maximum emissions were obtained. The measurement above 1000 MHz was performed by horn antenna, The measurement below 30 MHz was performed by loop antenna, Measurement from 30 MHz to 200 MHz was performed by Baloon and Biconical Antenna, and measurement from 200 MHz to 1 GHz was performed by Log-Periodic Antenna.

The EUT was rotated around the X-, Y-, and Z-Axis and the results from worst case axis are recorded

6.2.1 Test Setup Configuration

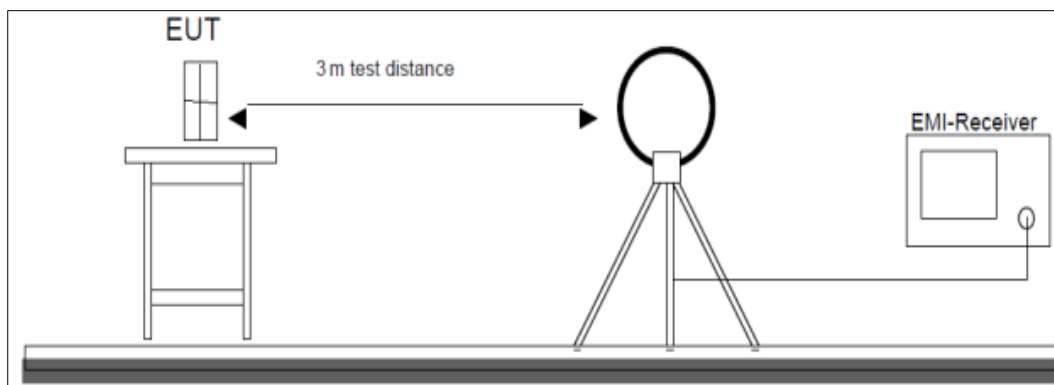


Figure 1: Frequency Range 9 kHz- 30 MHz

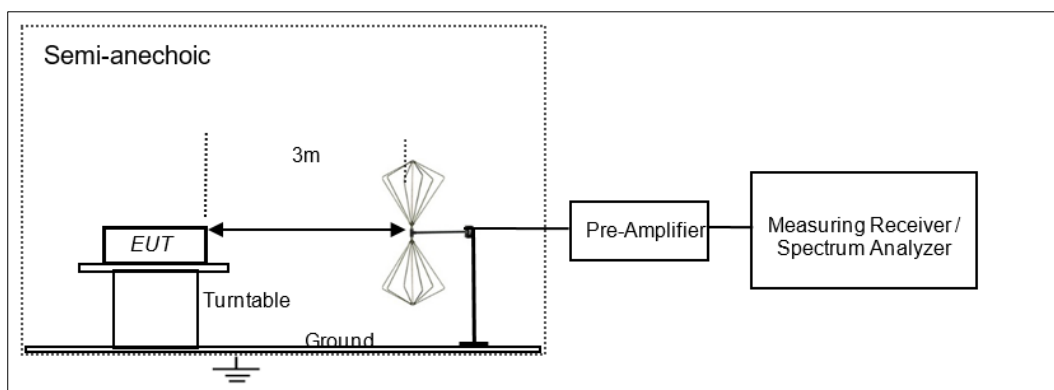


Figure 2: Frequency Range 30 MHz – 200 MHz

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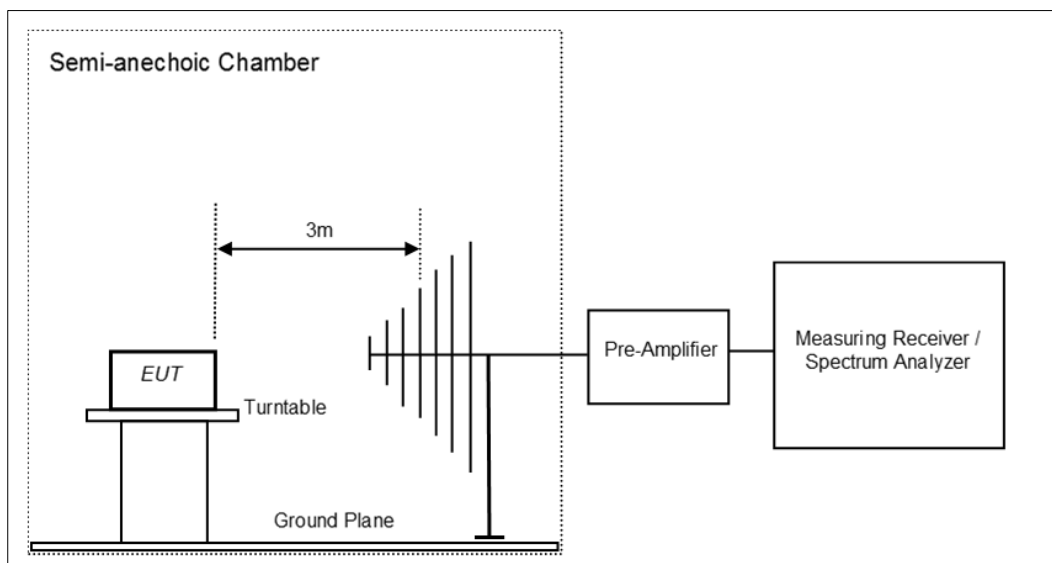


Figure 3: Frequency Range 200 MHz - 1GHz

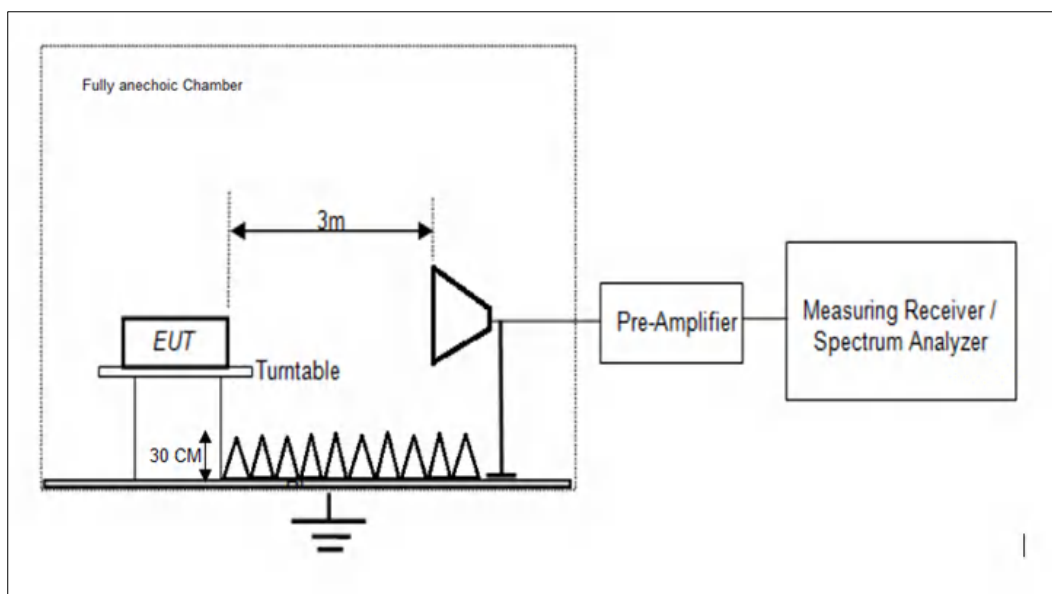


Figure 4: Frequency Range above 1 GHz

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7 TEST RESULTS FOR Wi-Fi

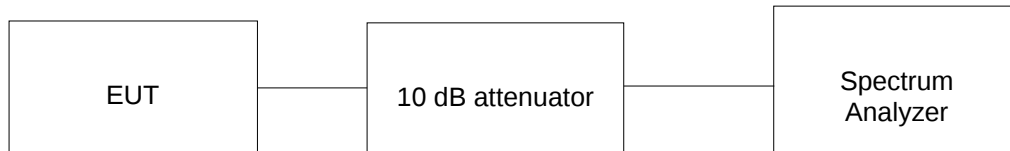
7.1 Maximum Average Conducted Output Power

Result

Pass

Test Specification	FCC part 15 Subpart C 15.247 (b)(3) / RSS 247 Issue 2, Section 5.4 (d)
Test Method	Subclause 11.9.2.2.6 of ANSI C63.10
Measurement Bandwidth	300kHz
Detector	Average sample detector mode
Port of testing	Antenna port
Requirement	Power ≤ 1 W (30 dBm) & e.i.r.p ≤ 4 W (36 dBm)

Test Method



Test Condition

Normal Test Condition:

Temperature (Norm) = + 22.3 °C

Voltage = 3.6V Li-Ion battery

Relative humidity: 62%

KDB Guidelines applied:

Measurements were made as per section 8.3.2.2 in KDB 558074 D01 15.247 Measurement Guidance v05r02.

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Test results:

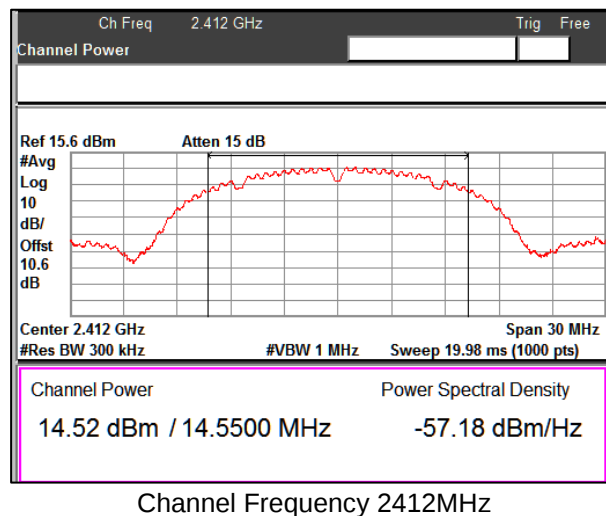
Note:

1. All the losses are included during measurement and final values are mentioned in the test report.
2. Total Average Output power (dBm) = Measured Average power (dBm) + Attenuator factor (10dB) + Cable loss (0.6dB)
3. This product do not support additional beamforming gain / directional gain, it uses signal antenna and hence directional gain of the single antenna is 2.53 dBi

Modulation: 802.11b

Data rate	Channel Frequency (MHz)	Measured Average Power (dBm)	Final Average power (e.i.r.p) (dBm)	Power Limit (dBm)	e.i.r.p Limit (dBm)
1Mbps	2412	14.52	17.05	30.00	36.00
	2437	14.18	16.71	30.00	36.00
	2462	13.95	16.48	30.00	36.00
11Mbps	2412	14.20	16.73	30.00	36.00
	2437	14.20	16.73	30.00	36.00
	2462	13.77	16.30	30.00	36.00

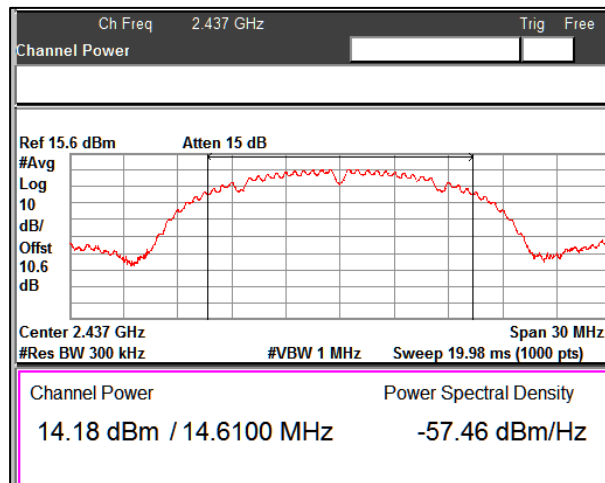
Data Rate: 1Mbps



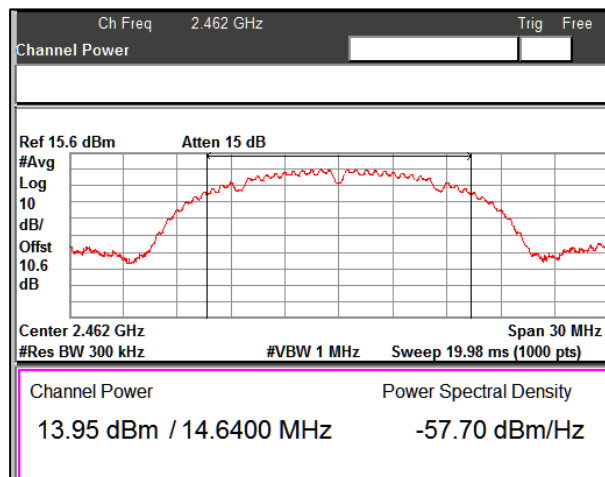
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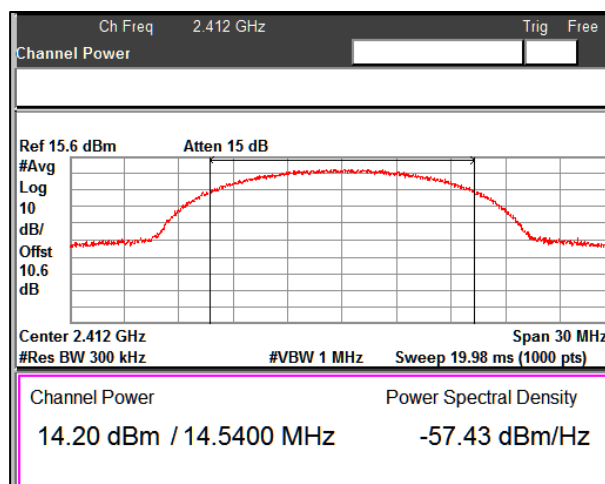


Channel Frequency 2437MHz



Channel Frequency 2462MHz

Data Rate: 11Mbps

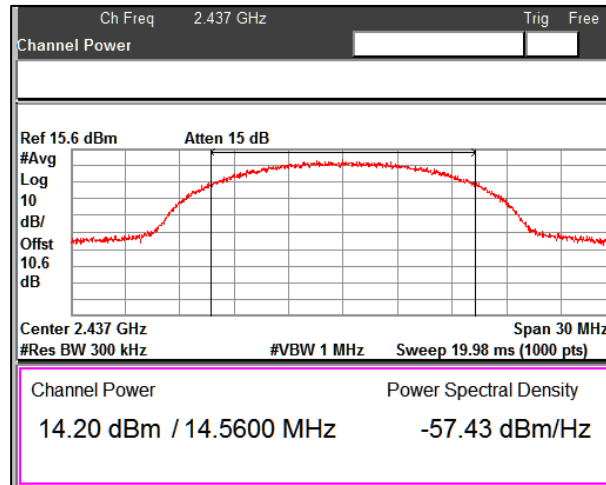


Channel Frequency 2412MHz

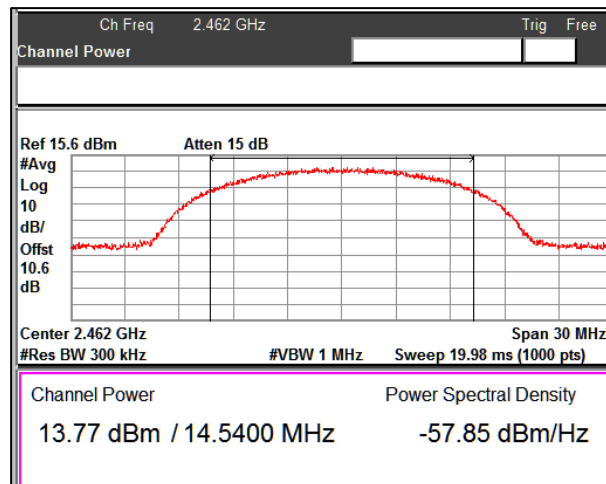
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Channel Frequency 2437MHz



Channel Frequency 2462MHz

Modulation: 802.11g

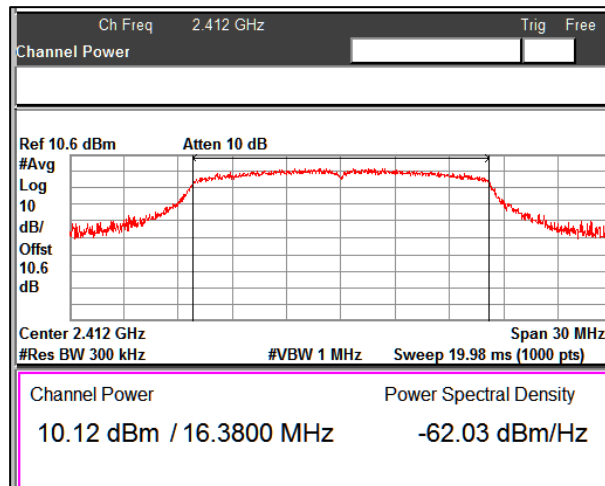
Data rate	Channel Frequency (MHz)	Measured Average Power (dBm)	Final Average power (e.i.r.p) (dBm)	Power Limit (dBm)	e.i.r.p Limit (dBm)
6Mbps	2412	10.12	12.65	30.00	36.00
	2437	14.55	17.08	30.00	36.00
	2462	9.52	12.05	30.00	36.00
24Mbps	2412	9.42	11.95	30.00	36.00
	2437	12.95	15.48	30.00	36.00
	2462	8.55	11.08	30.00	36.00
54Mbps	2412	8.62	11.15	30.00	36.00
	2437	10.17	12.70	30.00	36.00
	2462	8.40	10.93	30.00	36.00

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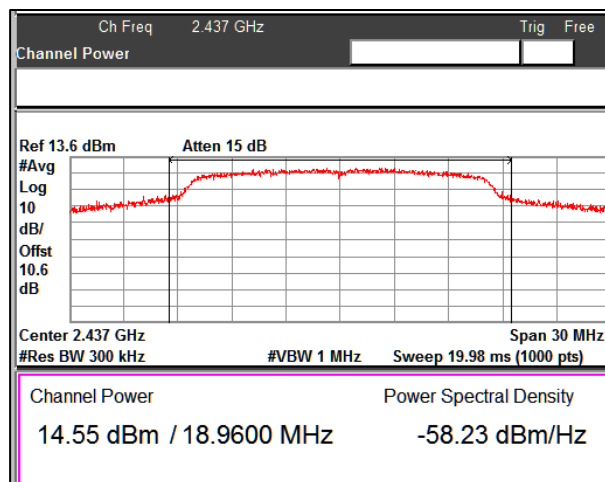
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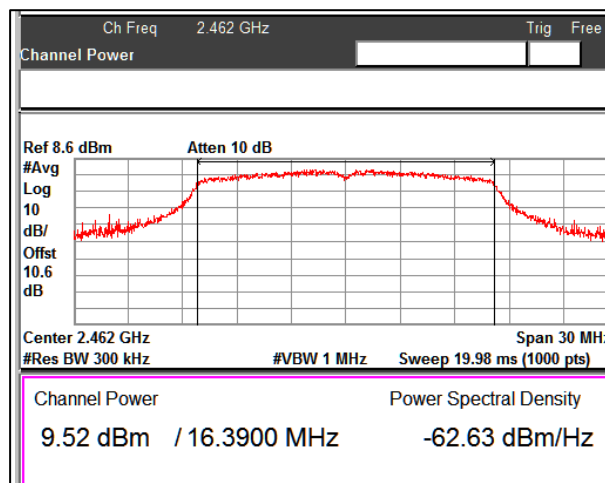
Data rate: 6Mbps



Channel Frequency: 2412MHz



Channel Frequency: 2437MHz



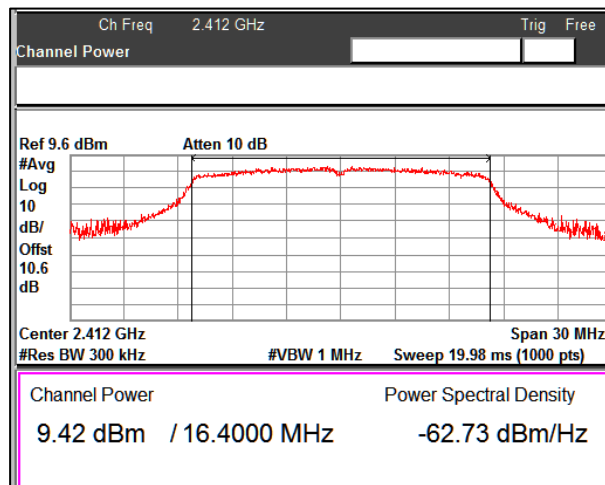
Channel Frequency: 2462MHz

Prüfbericht - Nr.:
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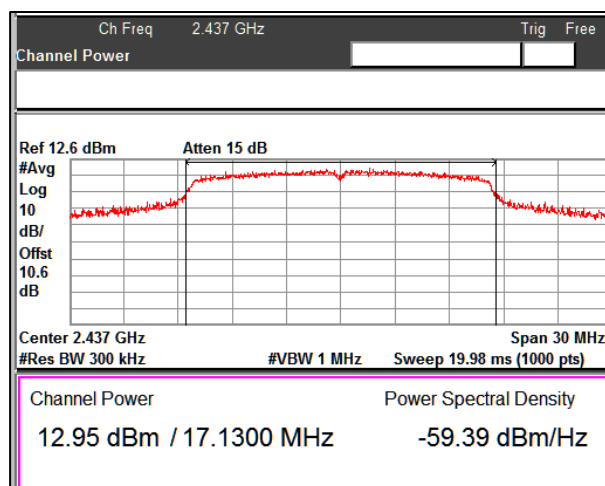
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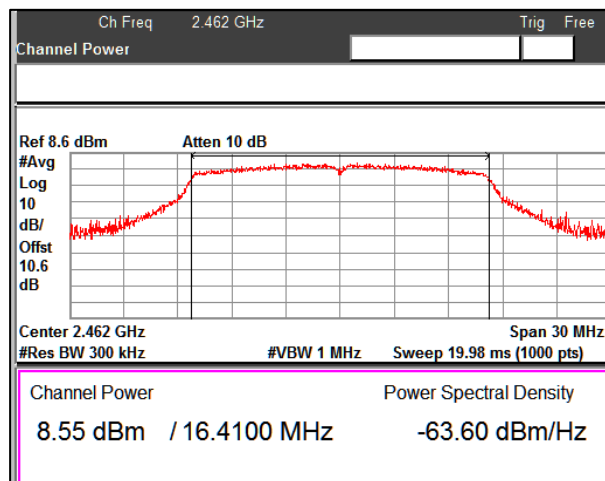
Data rate: 24Mbps



Channel Frequency: 2412MHz



Channel Frequency: 2437MHz



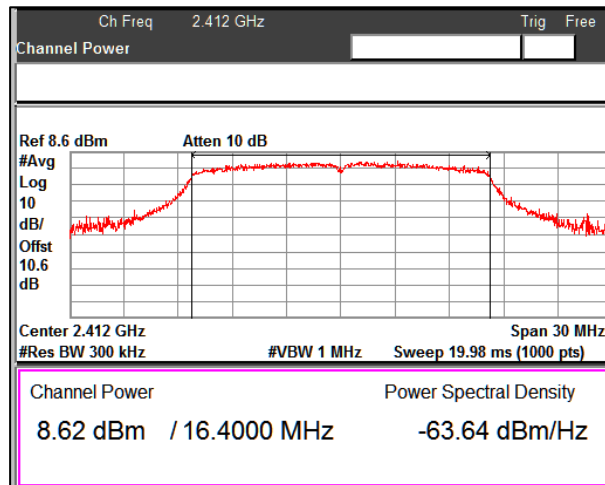
Channel Frequency: 2462MHz

Prüfbericht - Nr.:
Test Report No.:

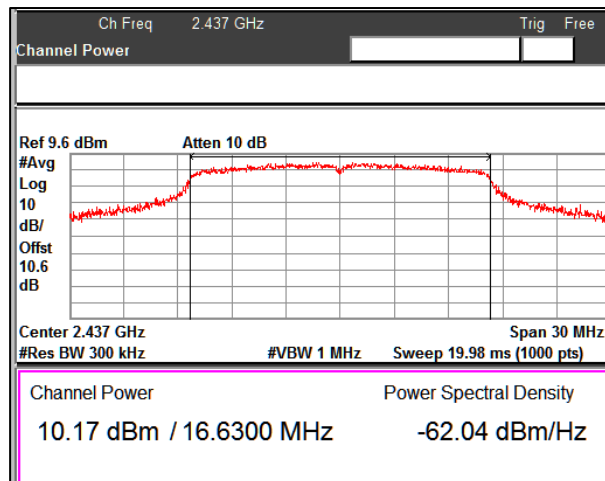
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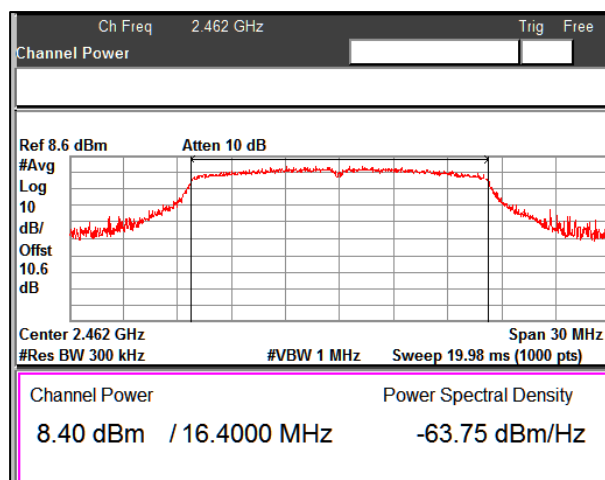
Data rate: 54Mbps



Channel Frequency: 2412MHz



Channel Frequency: 2437MHz



Channel Frequency: 2462MHz

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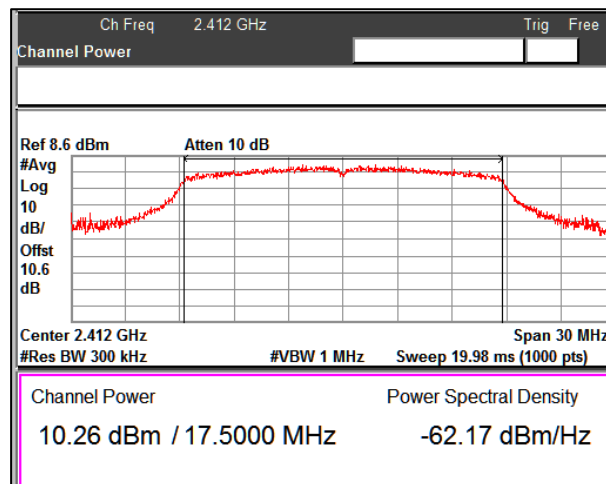
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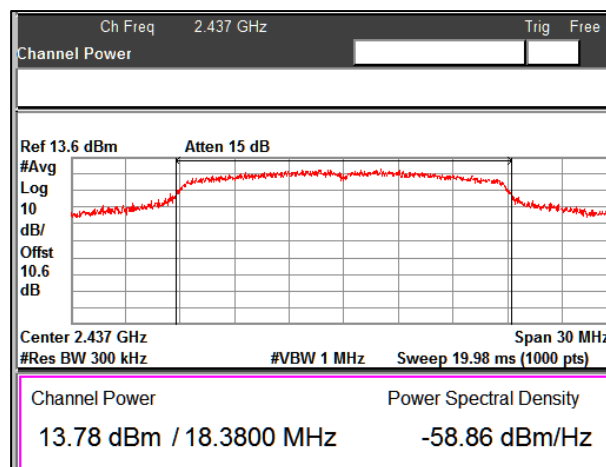
Modulation: 802.11n HT20

Data rate	Channel Frequency (MHz)	Measured Average Power (dBm)	Final Average power (e.i.r.p) (dBm)	Power Limit (dBm)	e.i.r.p Limit (dBm)
MCS0	2412	10.26	12.79	30.00	36.00
	2437	13.78	16.31	30.00	36.00
	2462	9.56	12.09	30.00	36.00
MCS4	2412	9.54	12.07	30.00	36.00
	2437	11.97	14.50	30.00	36.00
	2462	8.87	11.40	30.00	36.00
MCS7	2412	8.54	11.07	30.00	36.00
	2437	9.16	11.69	30.00	36.00
	2462	8.03	10.56	30.00	36.00

Data rate: MCS0



Channel Frequency: 2412MHz

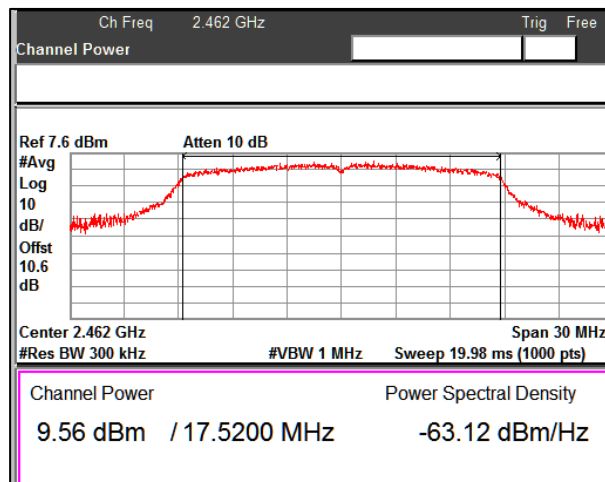


Channel Frequency: 2437MHz

Prüfbericht - Nr.:
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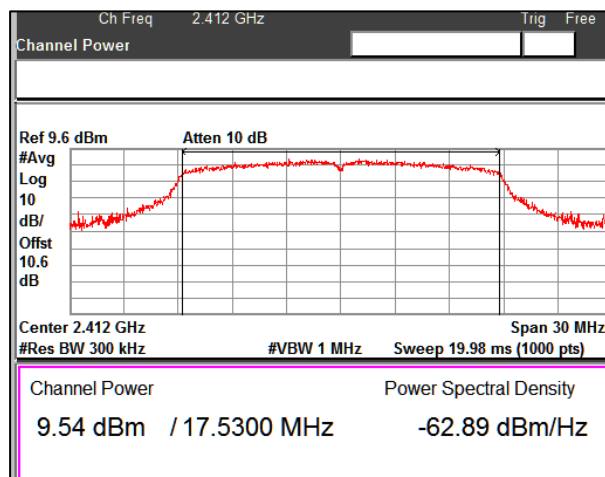
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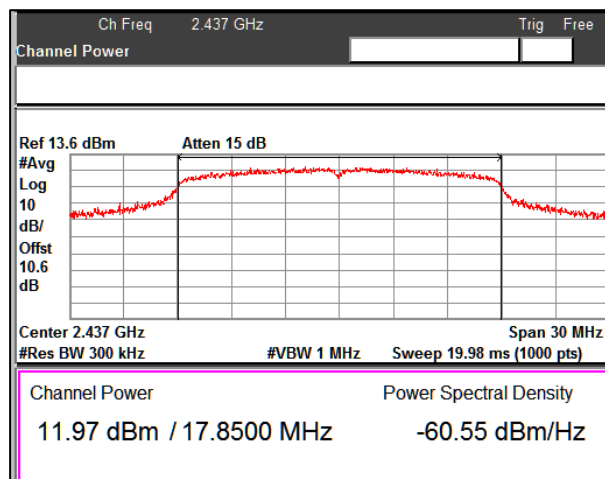


Channel Frequency: 2462MHz

Data rate: MCS4



Channel Frequency: 2412MHz

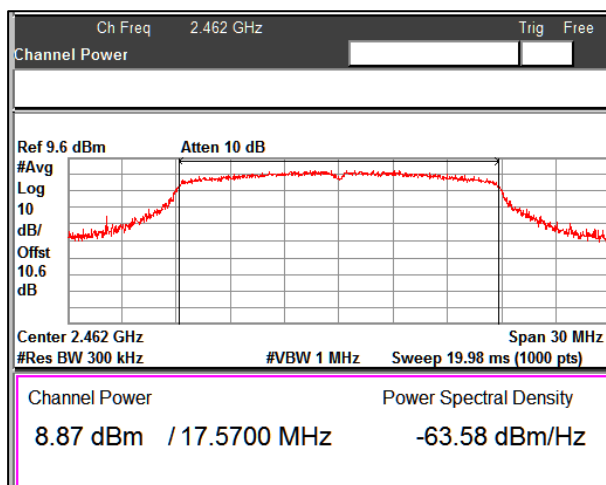


Channel Frequency: 2437MHz

Prüfbericht - Nr.:
Test Report No.:

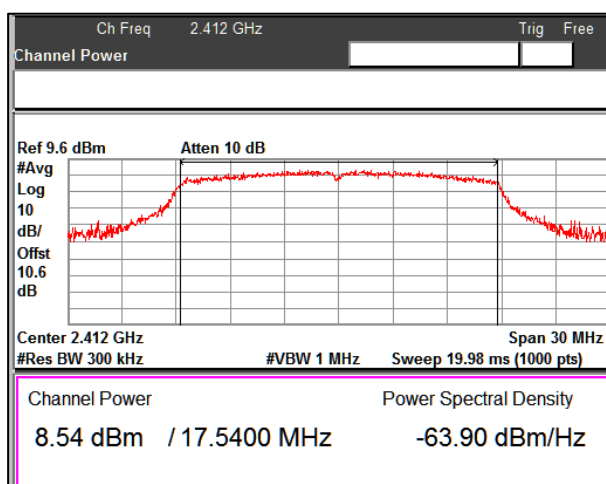
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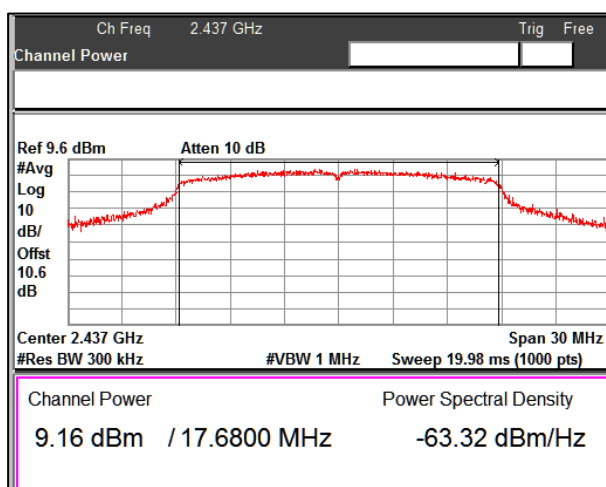


Channel Frequency: 2462MHz

Data rate: MCS7



Channel Frequency: 2412MHz

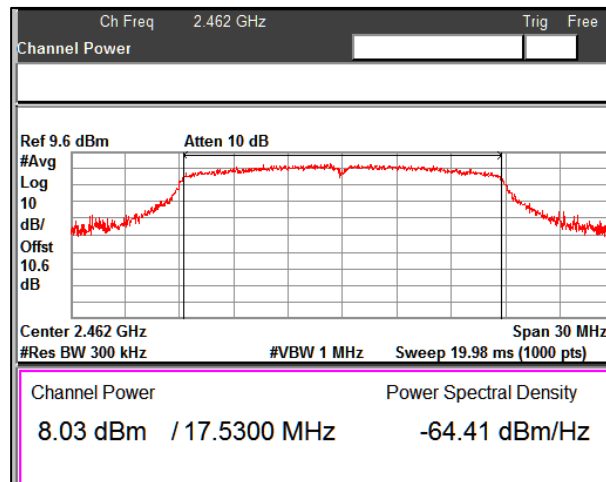


Channel Frequency: 2437MHz

Prüfbericht - Nr.:
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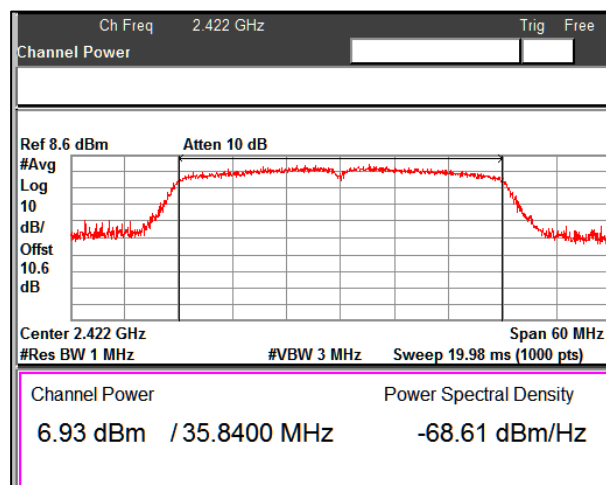


Channel Frequency: 2462MHz

Modulation: 802.11n HT40

Data rate	Channel Frequency (MHz)	Measured Average Power (dBm)	Final Average power (e.i.r.p) (dBm)	Power Limit (dBm)	e.i.r.p Limit (dBm)
MCS0	2422	6.93	9.46	30.00	36.00
	2452	6.68	9.21	30.00	36.00
MCS4	2422	5.74	8.27	30.00	36.00
	2452	5.35	7.88	30.00	36.00
MCS7	2422	4.74	7.27	30.00	36.00
	2452	4.42	6.95	30.00	36.00

Data rate: MCS0

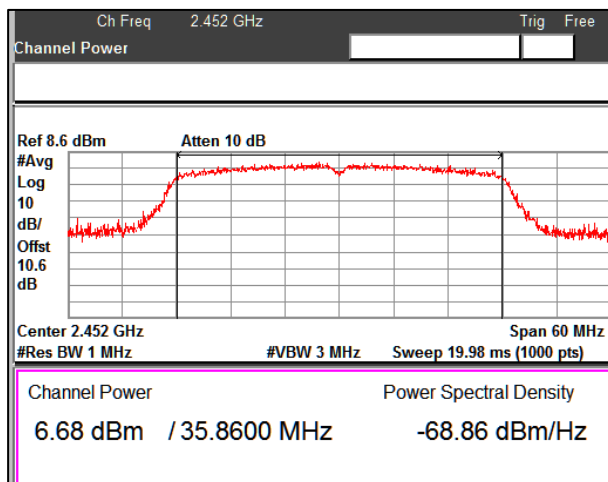


Channel Frequency: 2422MHz

Prüfbericht - Nr.:
Test Report No.:

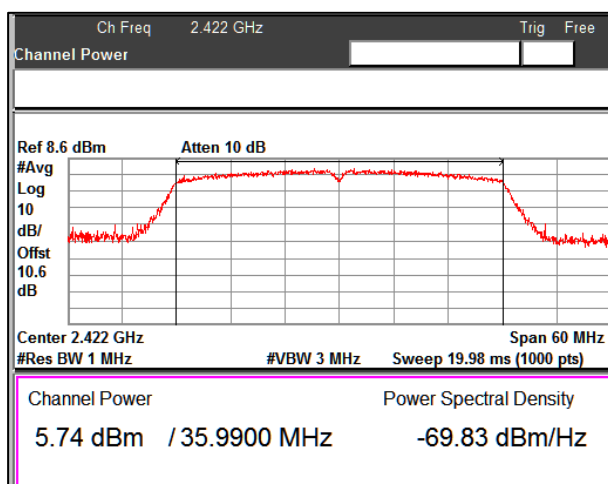
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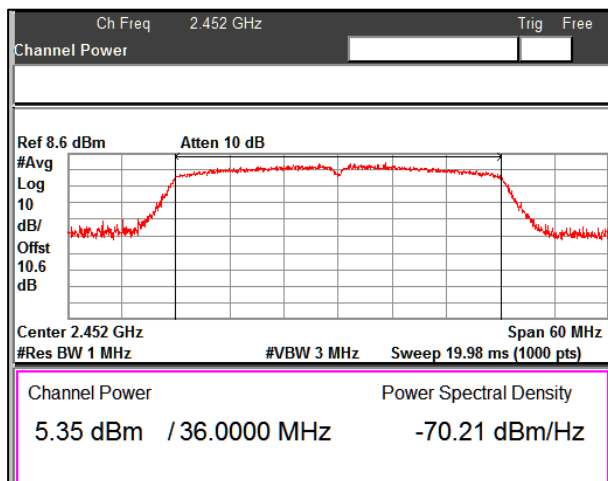


Channel Frequency: 2452MHz

Data rate: MCS4



Channel Frequency: 2422MHz



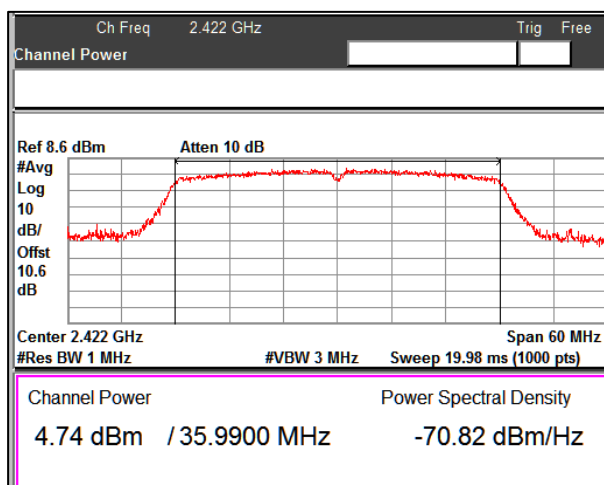
Channel Frequency: 2452MHz

Prüfbericht - Nr.:
Test Report No.:

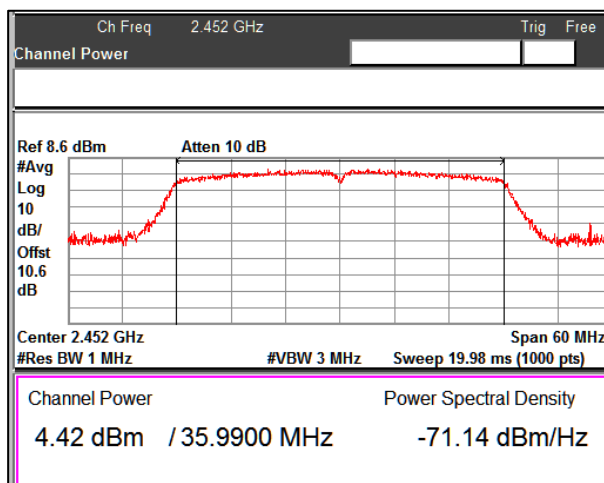
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Data rate: MCS7



Channel Frequency: 2422MHz



Channel Frequency: 2452MHz

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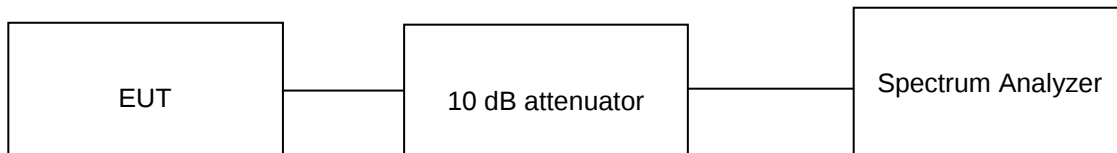
7.2 Maximum Power Spectral Density

Result

Pass

Test Specification	FCC part 15 Subpart C 15.247 (e) / RSS 247 Issue 2, Section 5.2 (b)
Test Method	Subclause 11.10.7 of ANSI C63.10
Measurement Bandwidth	100 kHz
Detector	Average sample detector mode
Port of testing	Antenna port
Requirement	For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm

Test Method:



Test Condition

Normal Test Condition:

Temperature (Norm) = + 25°C Voltage = 3.6V Li-Ion battery Relative humidity: 62 %

KDB Guidelines applied:

Measurements were made as per section 8.4 in KDB 558074 D01 15.247 Measurement Guidance v05r02.

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Test results:

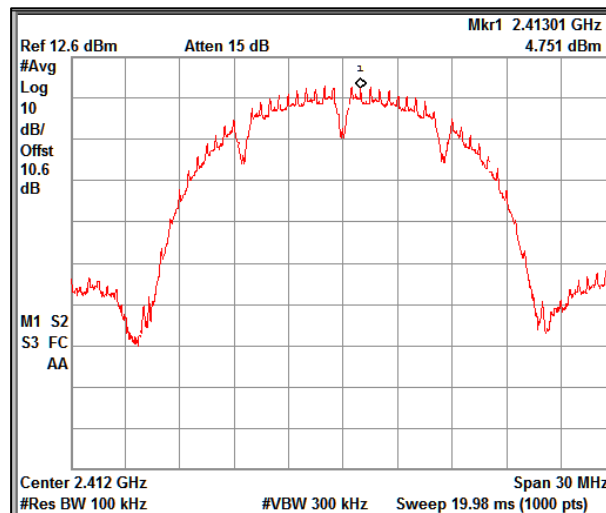
Note:

1. All the losses are included during measurement and final values are mentioned in the test report.
2. Total Average PSD (dBm) = Measured Average PSD (dBm) + Attenuator factor (10dB) + Cable loss (0.6dB)
3. This product do not support additional beamforming gain / directional gain, it uses signal antenna and hence directional gain of the single antenna is 2.53 dBi

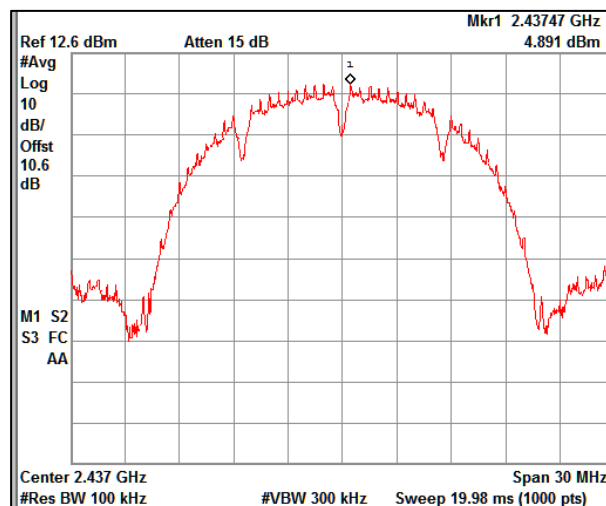
Modulation: 802.11b

Data rate	Channel Frequency (MHz)	Measured average PSD (dBm/100kHz)	PSD Limit (dBm/100kHz)
1Mbps	2412	4.75	8.00
	2437	4.89	8.00
	2462	4.79	8.00
11Mbps	2412	5.47	8.00
	2437	6.61	8.00
	2462	4.59	8.00

Data rate:1Mbps



Channel Frequency: 2412MHz

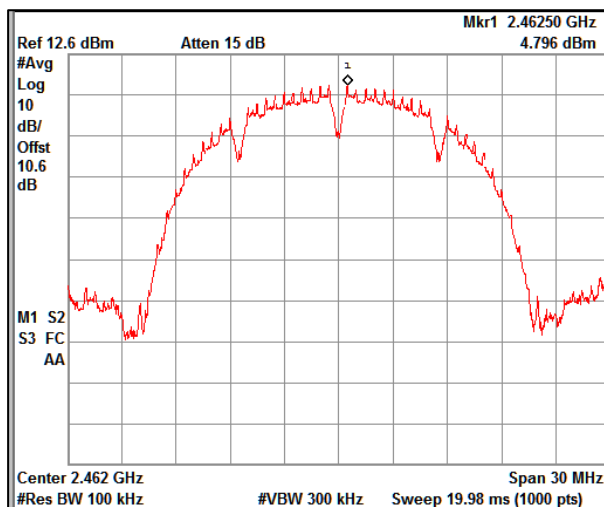


Channel Frequency: 2437MHz

Prüfbericht - Nr.:
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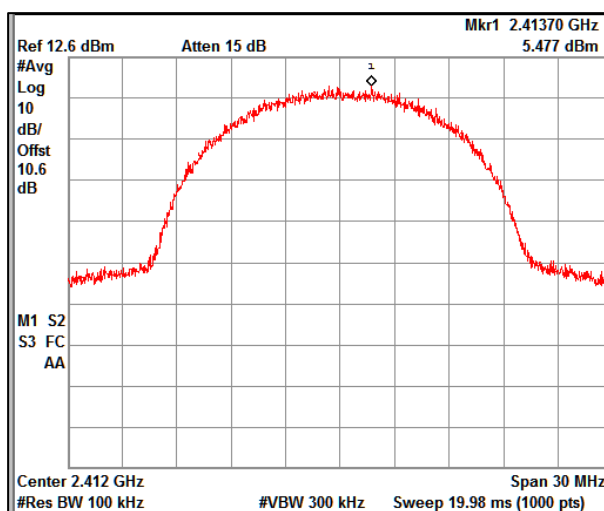
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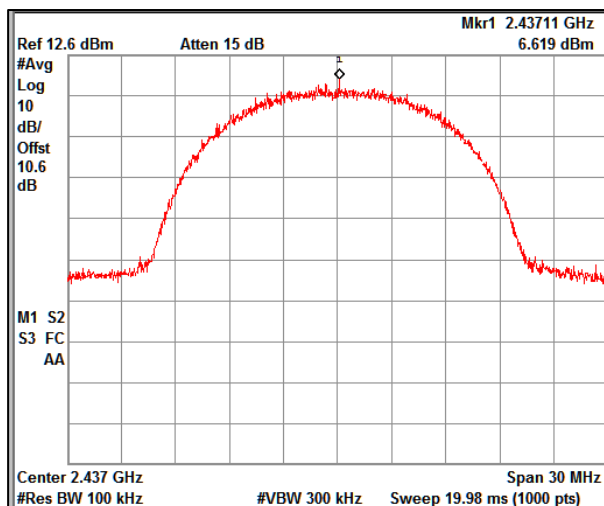


Channel Frequency: 2462MHz

Data rate: 11Mbps



Channel Frequency: 2412MHz

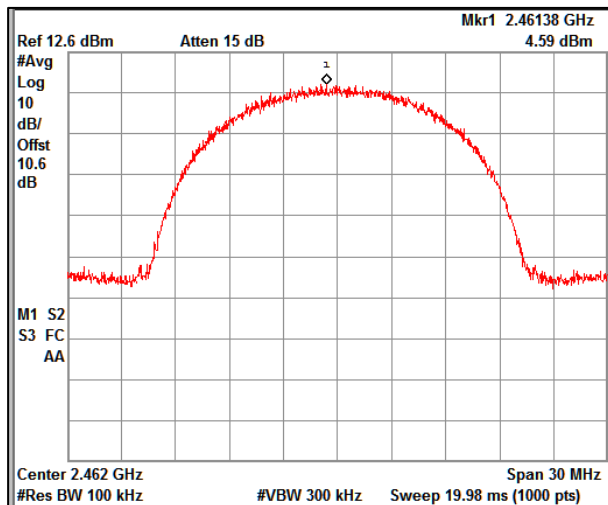


Channel Frequency: 2437MHz

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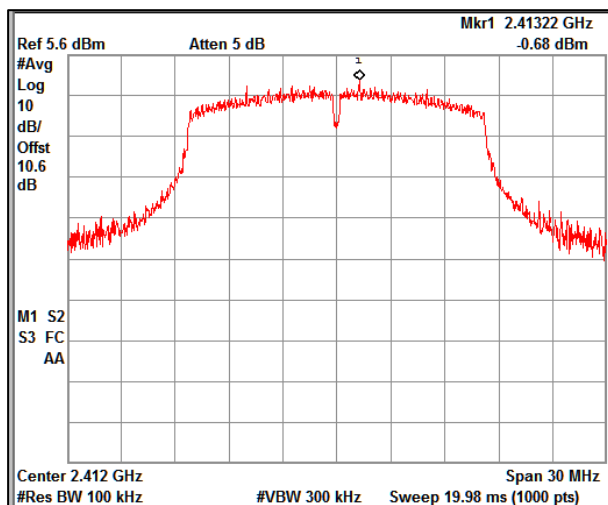


Channel Frequency: 2462MHz

Modulation: 802.11g

Data rate	Channel Frequency (MHz)	Measured average PSD (dBm/100kHz)	PSD Limit (dBm/100kHz)
6Mbps	2412	-0.68	8.00
	2437	4.54	8.00
	2462	-0.82	8.00
24Mbps	2412	-0.16	8.00
	2437	3.44	8.00
	2462	-1.52	8.00
54Mbps	2412	-0.26	8.00
	2437	1.34	8.00
	2462	-0.94	8.00

Data rate: 6Mbps

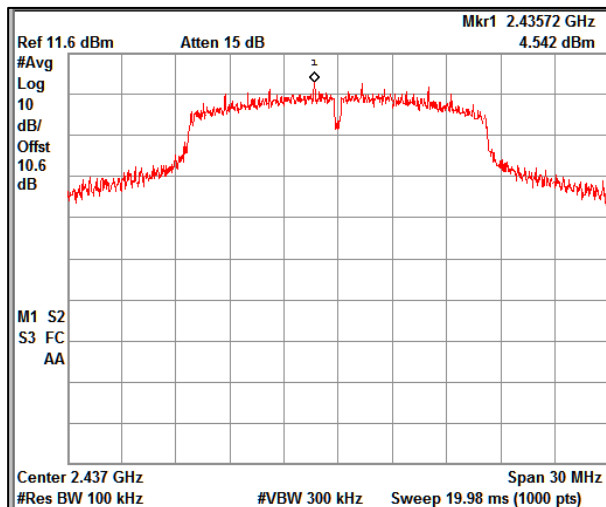


Channel Frequency: 2412MHz

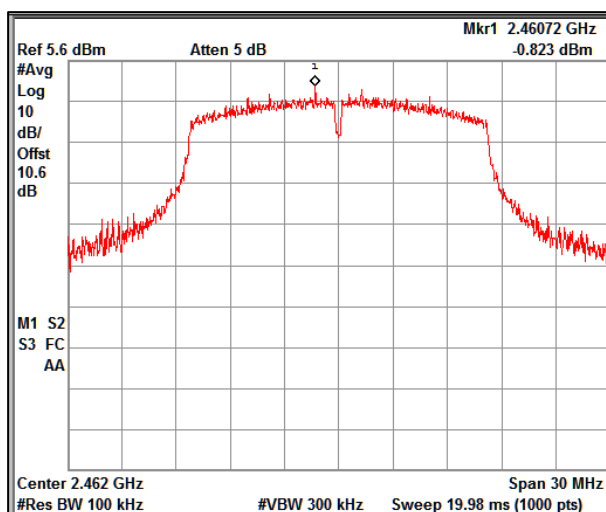
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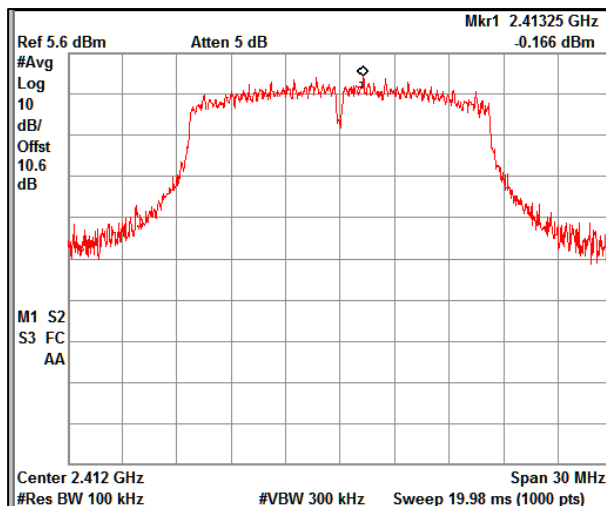


Channel Frequency: 2437MHz



Channel Frequency: 2462MHz

Data rate: 24Mbps

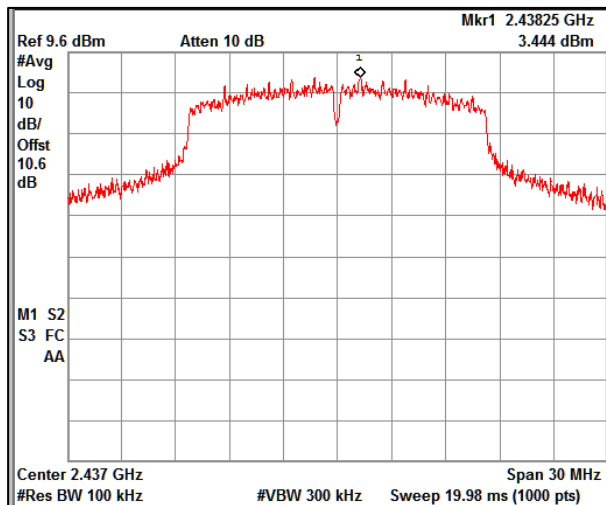


Channel Frequency: 2412MHz

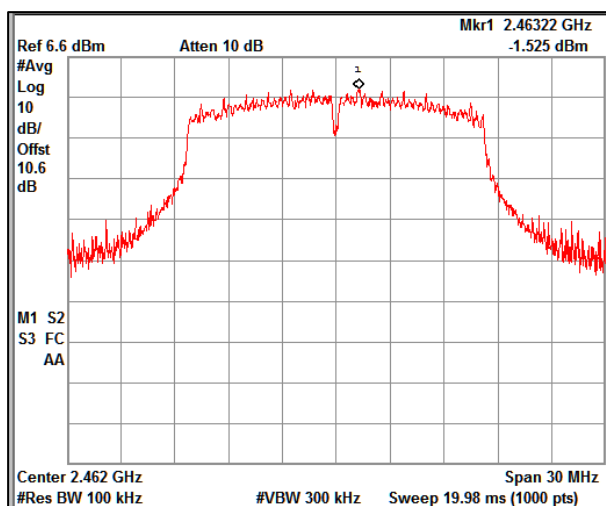
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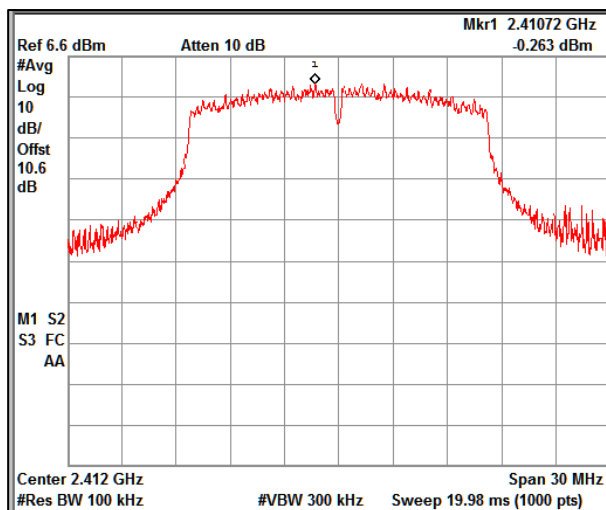


Channel Frequency: 2437MHz



Channel Frequency: 2462MHz

Data rate: 54Mbps

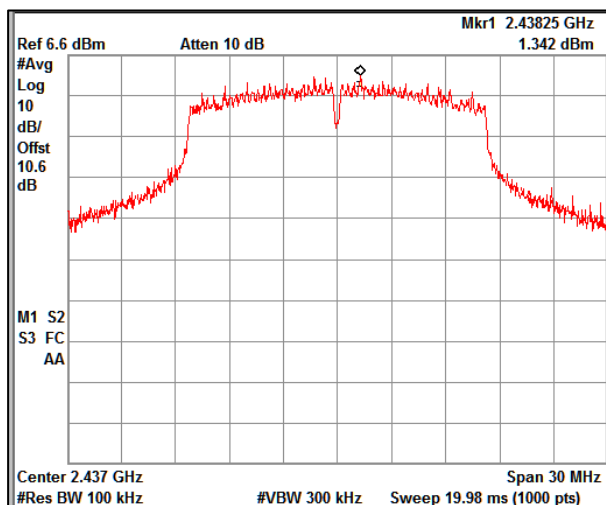


Channel Frequency: 2412MHz

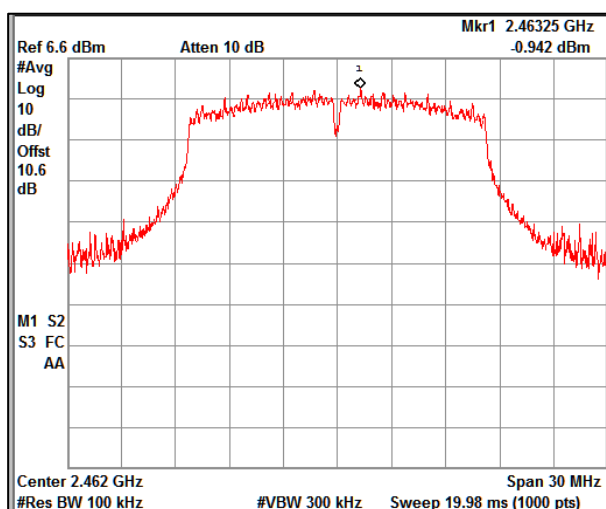
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Channel Frequency: 2437MHz



Channel Frequency: 2462MHz

Modulation: 802.11n HT20

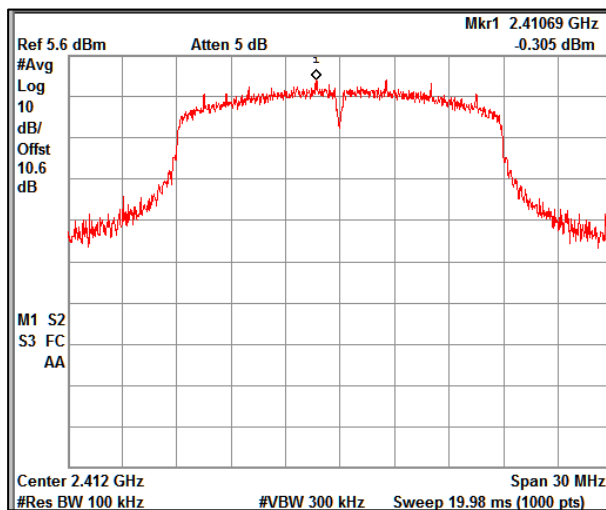
Data rate	Channel Frequency (MHz)	Measured average PSD (dBm/100kHz)	PSD Limit (dBm/100kHz)
MCS0	2412	-0.30	8.00
	2437	3.77	8.00
	2462	-1.39	8.00
MCS4	2412	0.20	8.00
	2437	3.06	8.00
	2462	-0.91	8.00
MCS7	2412	0.15	8.00
	2437	0.59	8.00
	2462	-0.47	8.00

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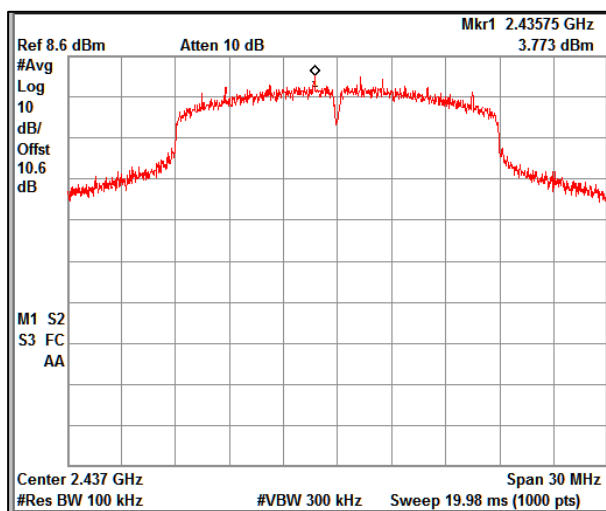
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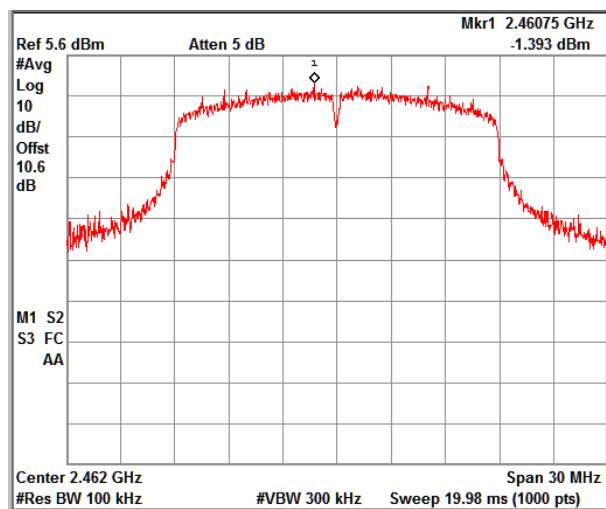
Data rate: MCS0



Channel Frequency: 2412MHz



Channel Frequency: 2437MHz



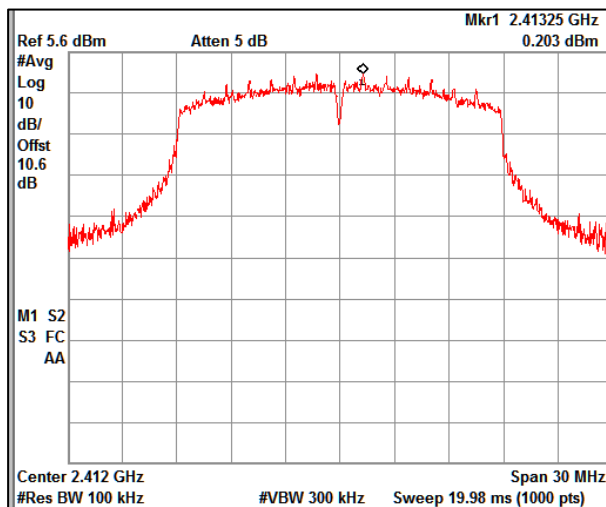
Channel Frequency: 2462MHz

Prüfbericht - Nr.:
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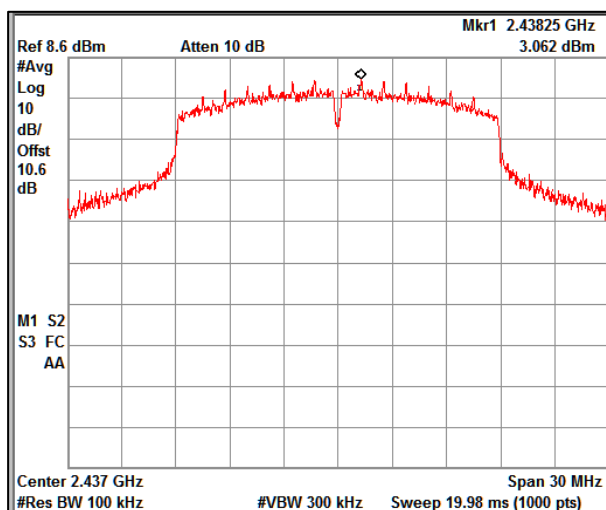
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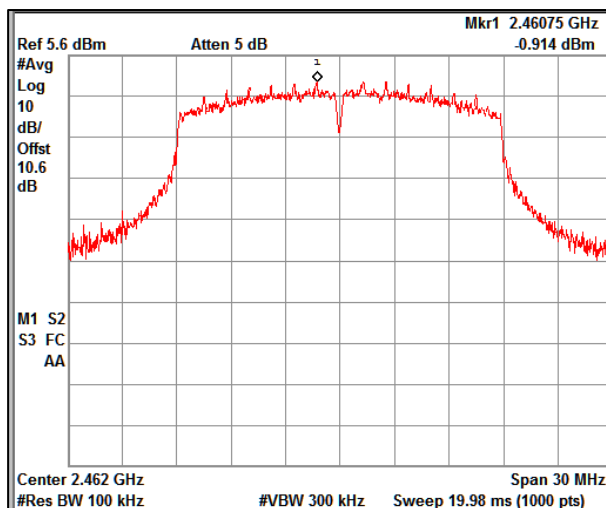
Data rate: MCS4



Channel Frequency: 2412MHz



Channel Frequency: 2437MHz



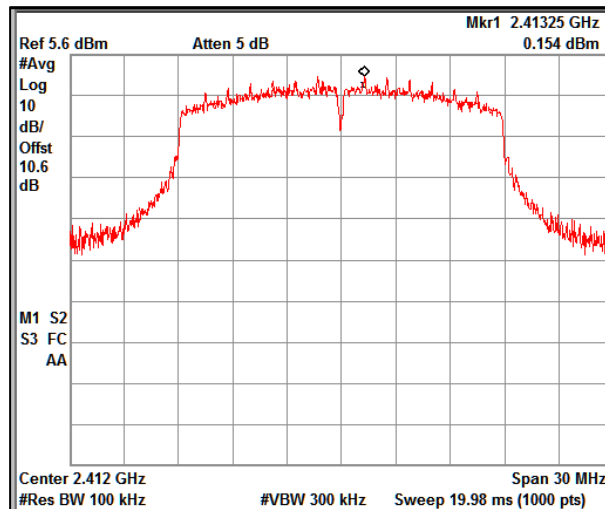
Channel Frequency: 2462MHz

Prüfbericht - Nr.:
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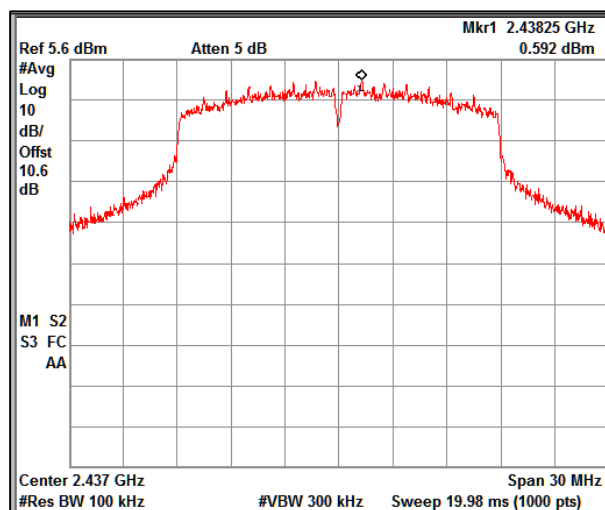
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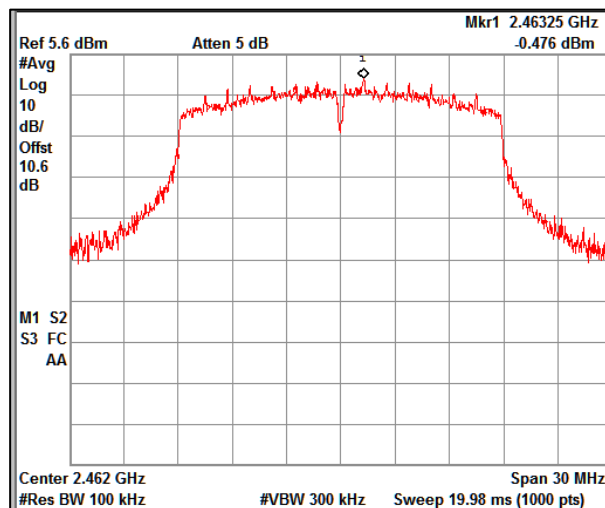
Data rate: MCS7



Channel Frequency: 2412MHz



Channel Frequency: 2437MHz



Channel Frequency: 2462MHz

Prüfbericht - Nr.:
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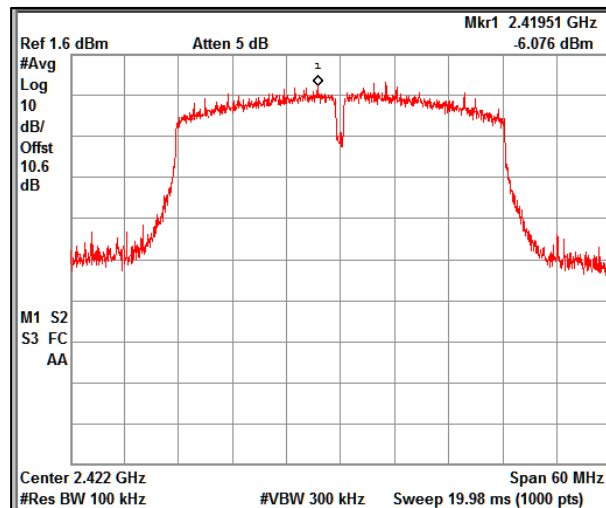
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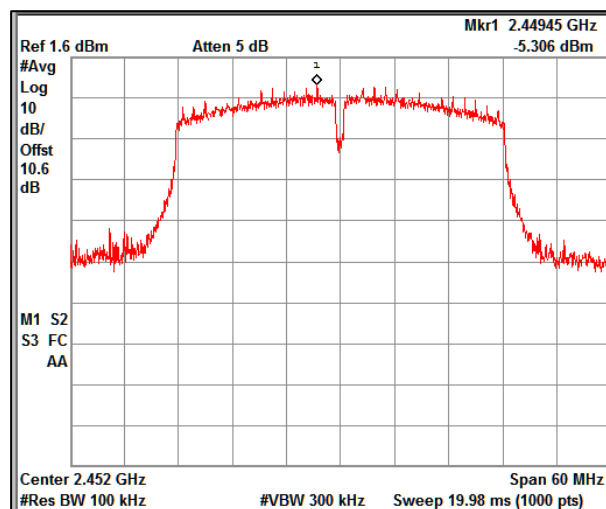
Modulation: 802.11n HT40

Data rate	Channel Frequency (MHz)	Measured average PSD (dBm/100kHz)	PSD Limit (dBm/100kHz)
MCS0	2422	-6.07	8.00
	2452	-5.30	8.00
MCS4	2422	-4.59	8.00
	2452	-5.34	8.00
MCS7	2422	-4.96	8.00
	2452	-5.02	8.00

Data rate: MCS0



Channel Frequency: 2422MHz



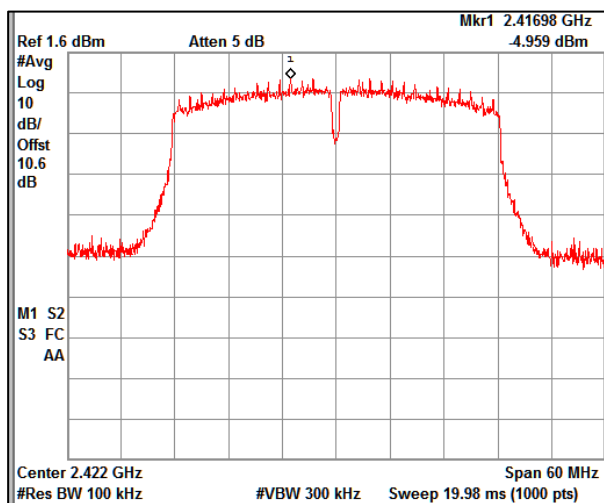
Channel Frequency: 2452MHz

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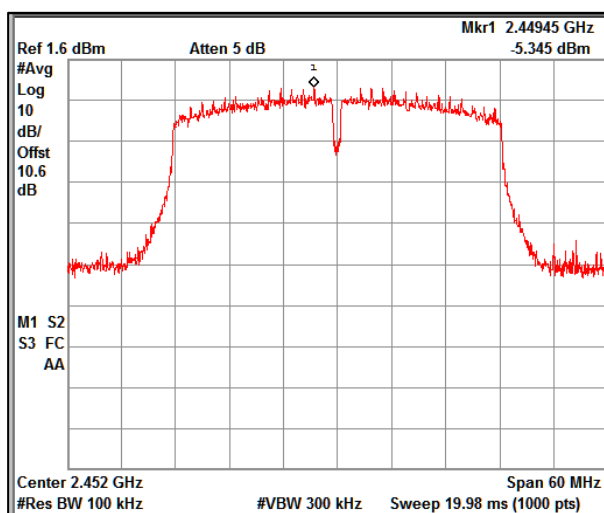
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Data rate: MCS4

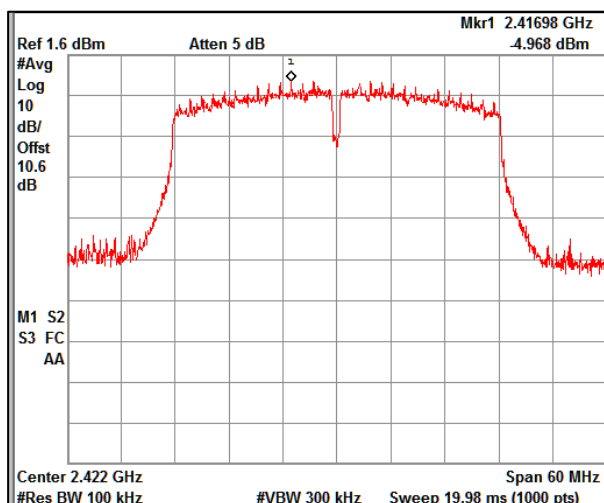


Channel Frequency: 2422MHz



Channel Frequency: 2452MHz

Data rate: MCS7

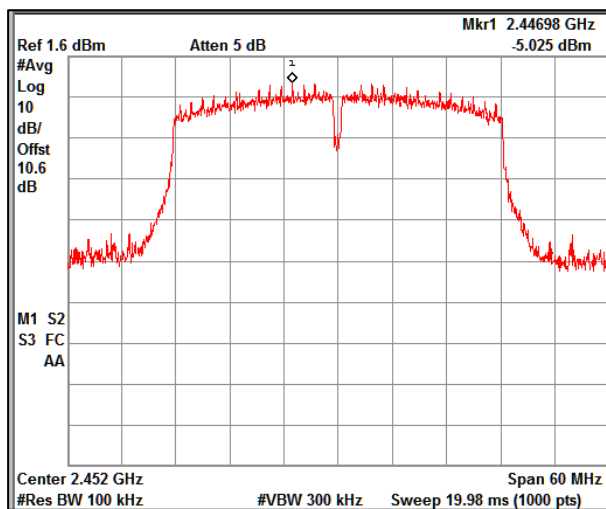


Channel Frequency: 2422MHz

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Channel Frequency: 2452MHz

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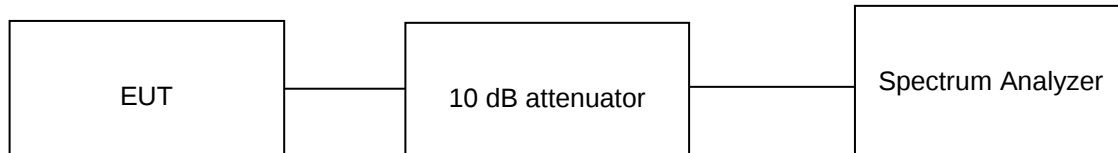
7.3 DTS Bandwidth & 99% Bandwidth

Result

Pass

Test Specification	FCC part 15 Subpart C 15.247 (a) (2) / RSS 247 Issue 2, Section 5.2 (a)
Test Method	Subclause 11.8.1 of ANSI C63.10
Measurement Bandwidth	100 kHz for x dB bandwidth 1 to 5% of OCB for 99% bandwidth
Detector	Peak
Port of testing	Antenna port
Requirement	The minimum 6 dB bandwidth shall be at least 500 kHz

Test Method:



Test Condition

Normal Test Condition:

Temperature (Norm) = + 25 °C

Voltage= 3.6V Li-Ion battery

Relative humidity: 62 %

KDB Guidelines applied:

Measurements were made as per section 8.2 in KDB 558074 D01 15.247 Measurement Guidance v05r02.

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Test results:

Note:

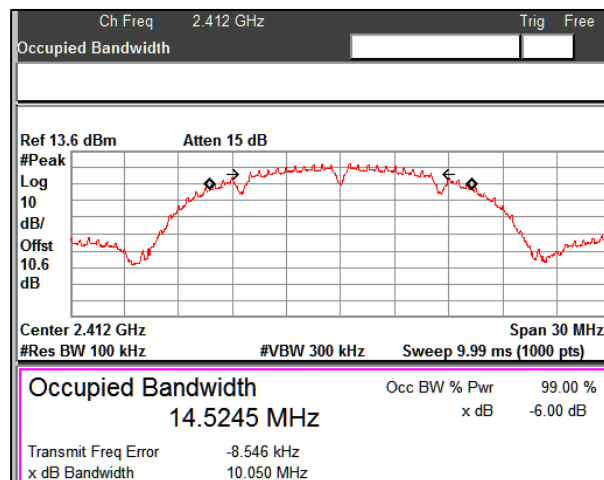
1. All the losses are included during measurement and final values are mentioned in the test report.
2. For 6 dB Bandwidth Measurements were made as per section 8.2 in KDB 558074 D01 15.247 Measurement Guidance v05r02.
3. For OCW 99 % Bandwidth measurements were made as per section 6.9.3 ANSI C63.10-2013 & 6.7 RSS GEN issue 5

Modulation: 802.11b

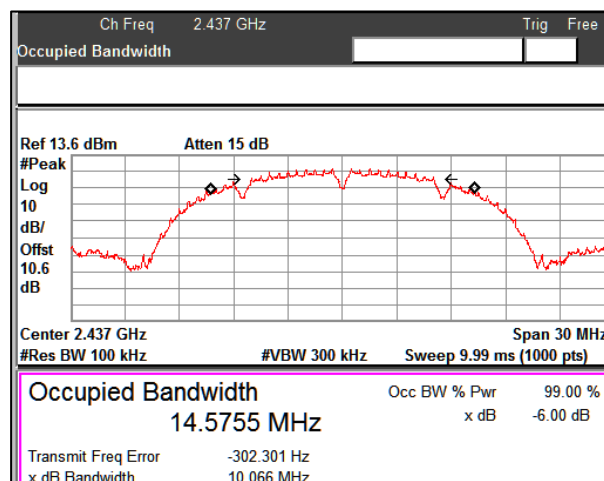
Data rate	Channel Frequency (MHz)	6 dB Bandwidth (MHz)	99% OBW (MHz)	Minimum Limit (MHz)
1Mbps	2412	14.52	14.55	0.5
	2437	14.57	14.61	0.5
	2462	14.56	14.64	0.5
11Mbps	2412	14.51	14.54	0.5
	2442	14.48	14.56	0.5
	2462	14.49	14.54	0.5

Graphs for 6 dB bandwidth measurement

Data rate: 1Mbps



Channel Frequency: 2412MHz

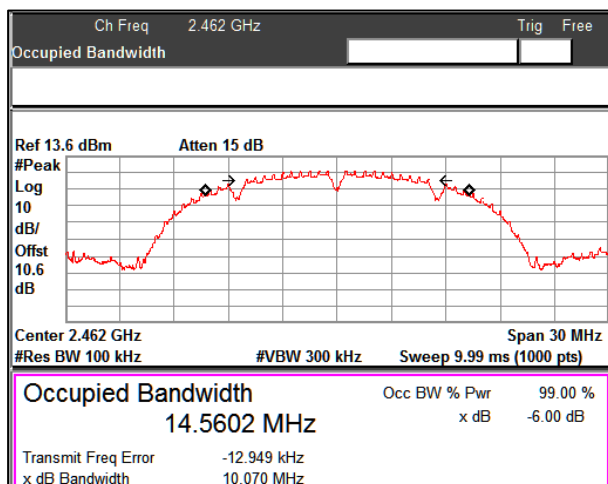


Channel Frequency: 2437MHz

Prüfbericht - Nr.:
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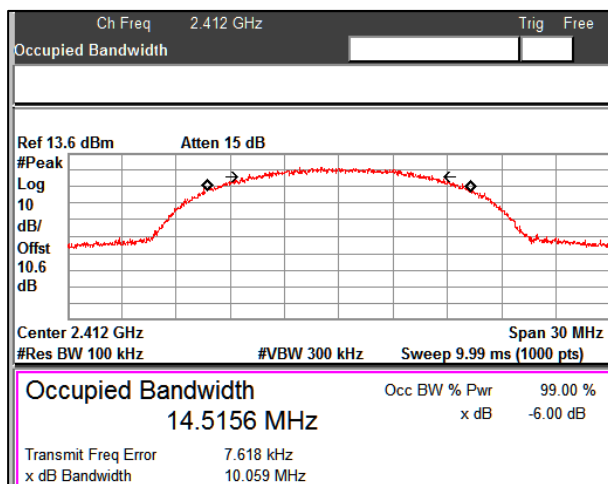
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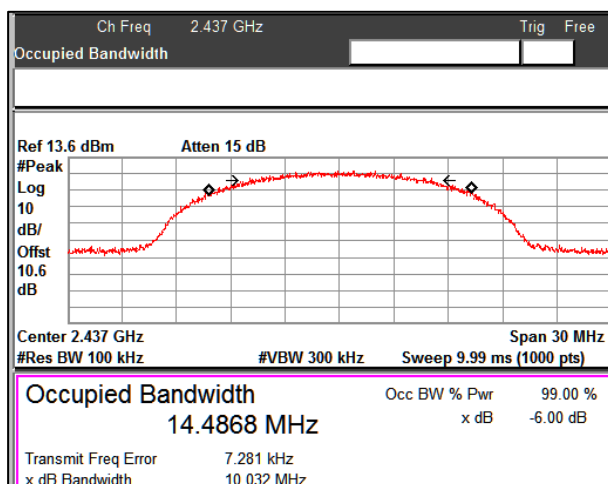


Channel Frequency: 2462MHz

Data rate: 11Mbps



Channel Frequency: 2412MHz

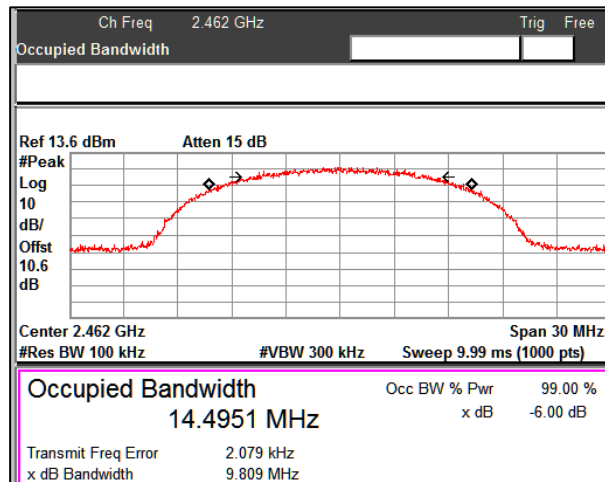


Channel Frequency: 2437MHz

Prüfbericht - Nr.:
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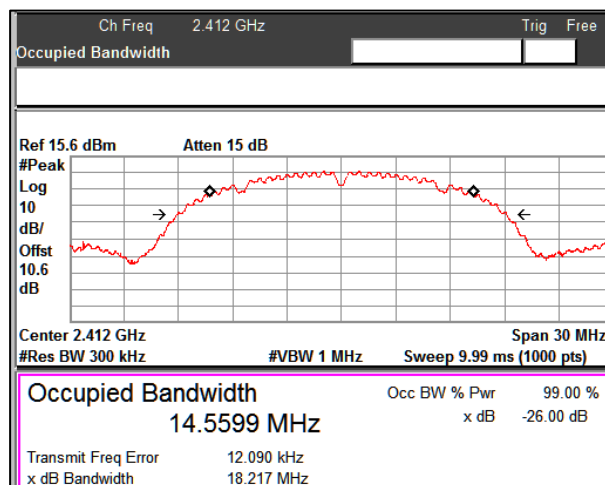
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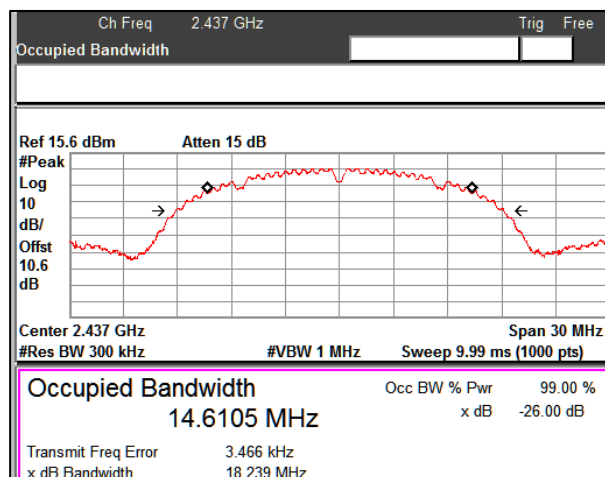
Channel Frequency: 2462MHz

Graphs for OCW 99 % bandwidth measurement

Data rate: 1Mbps



Channel Frequency: 2412MHz

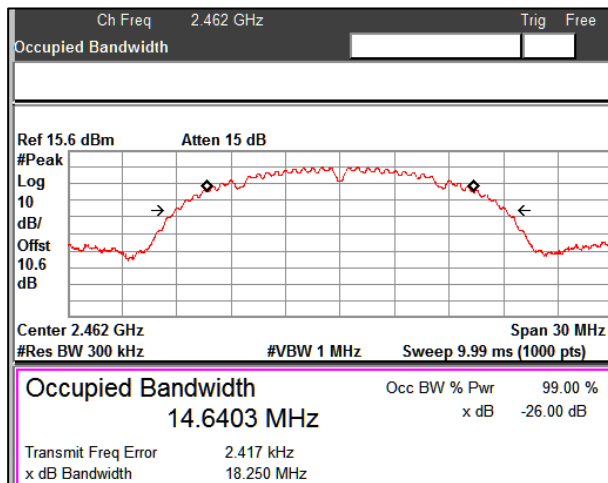


Channel Frequency: 2437MHz

Prüfbericht - Nr.:
Test Report No.:

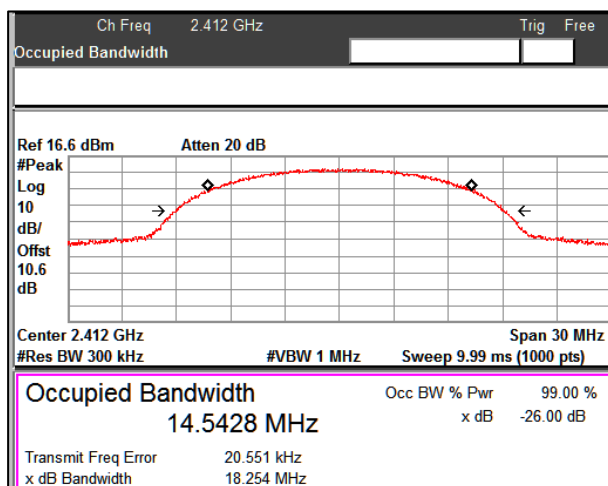
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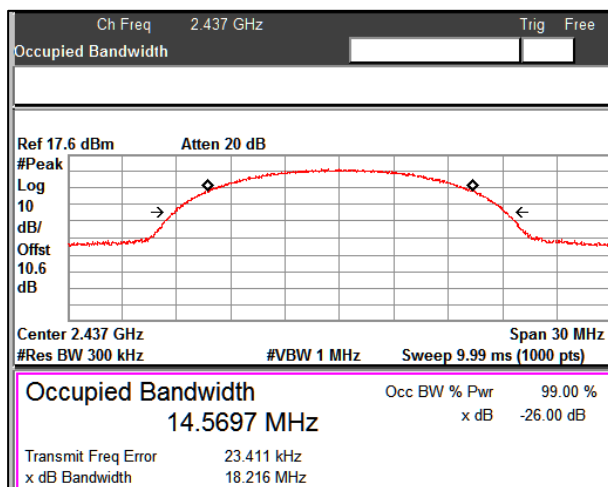


Channel Frequency: 2462MHz

Data rate: 11Mbps



Channel Frequency: 2412MHz

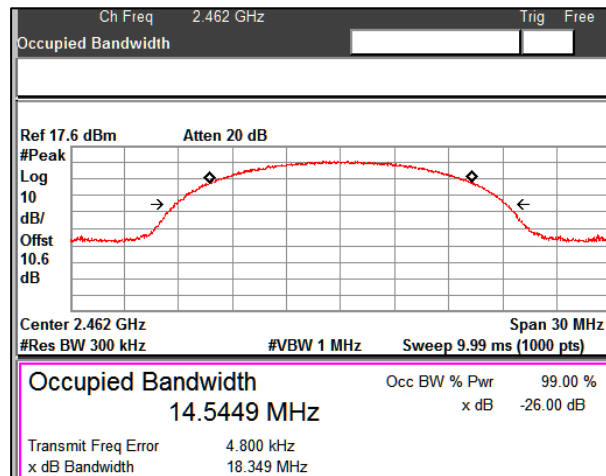


Channel Frequency: 2437MHz

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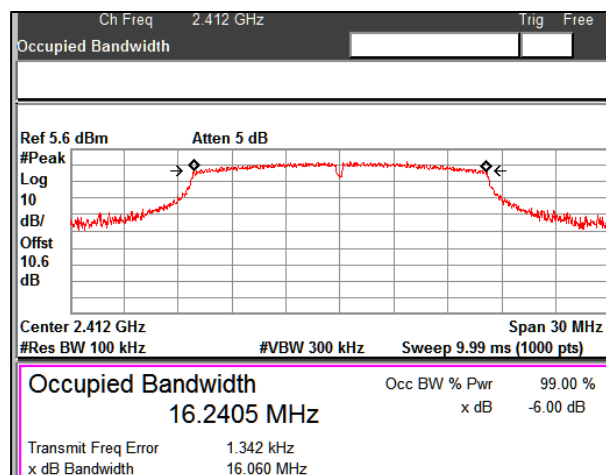
Channel Frequency: 2462MHz

Modulation: 802.11g

Data rate	Channel Frequency (MHz)	6 dB Bandwidth (MHz)	99% OBW (MHz)	Minimum Limit (MHz)
6Mbps	2412	16.24	16.38	0.5
	2437	17.84	18.96	0.5
	2462	16.23	16.39	0.5
24Mbps	2412	16.26	16.40	0.5
	2437	16.43	17.13	0.5
	2462	16.26	16.41	0.5
54Mbps	2412	16.23	16.40	0.5
	2437	16.32	16.63	0.5
	2462	16.24	16.40	0.5

Graphs for 6 dB bandwidth measurement

Data Rate: 6Mbps

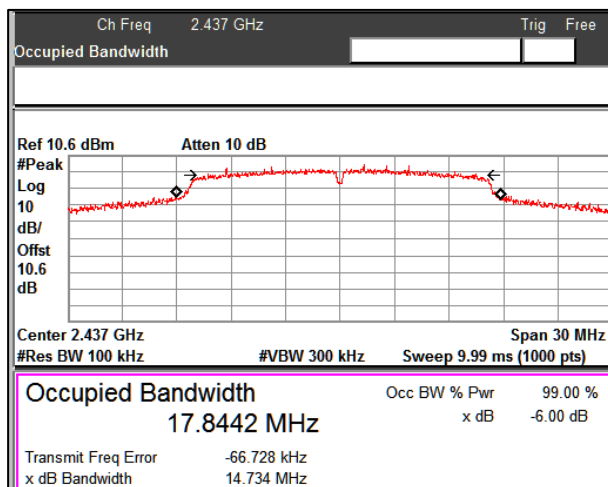


Channel Frequency: 2412MHz

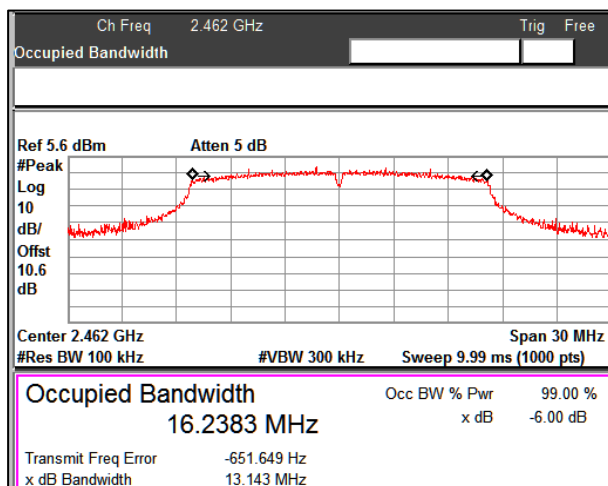
Prüfbericht - Nr.:
Test Report No.:

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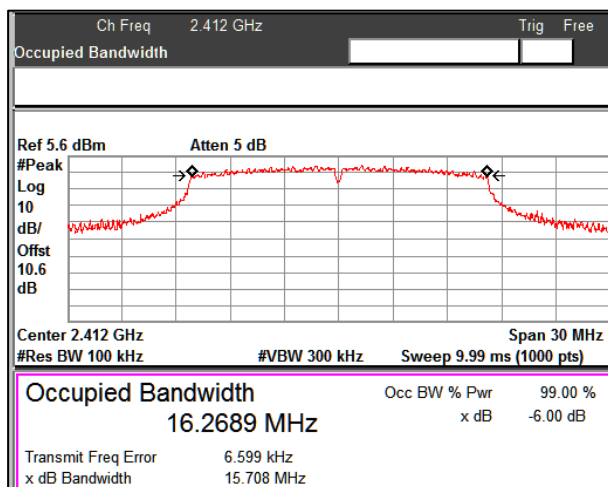


Channel Frequency: 2437MHz

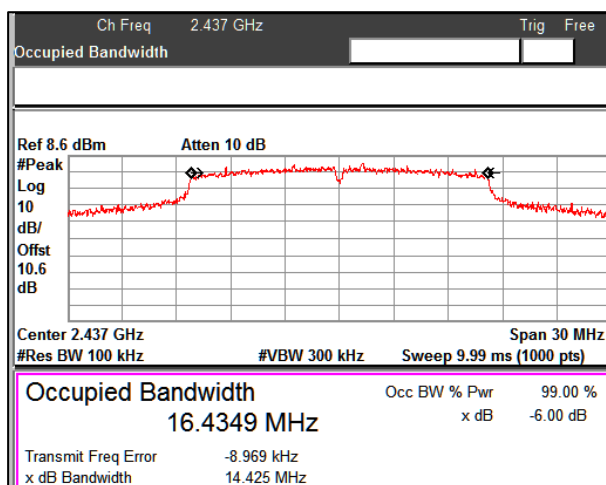


Channel Frequency: 2462MHz

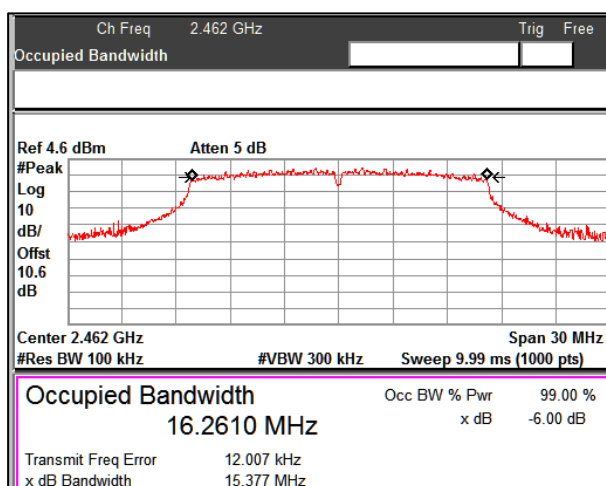
Data Rate: 24Mbps



Channel Frequency: 2412MHz

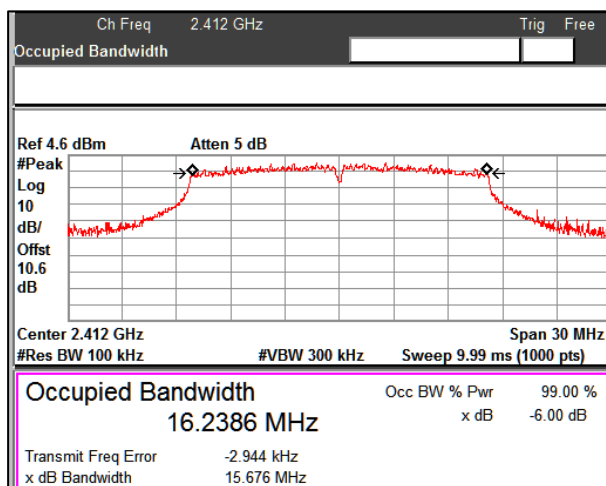


Channel Frequency: 2437MHz



Channel Frequency: 2462MHz

Data Rate: 54Mbps

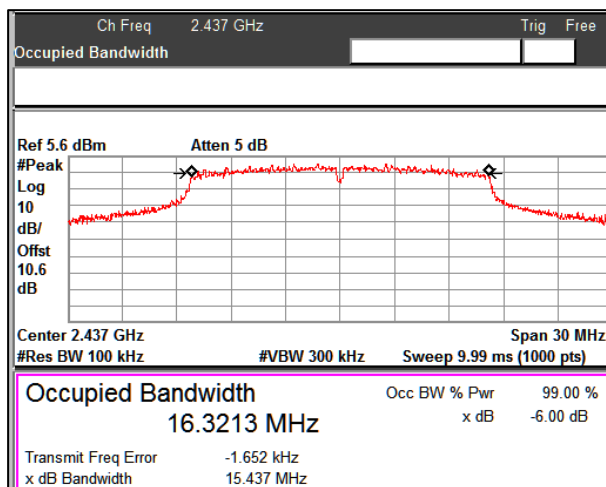


Channel Frequency: 2412MHz

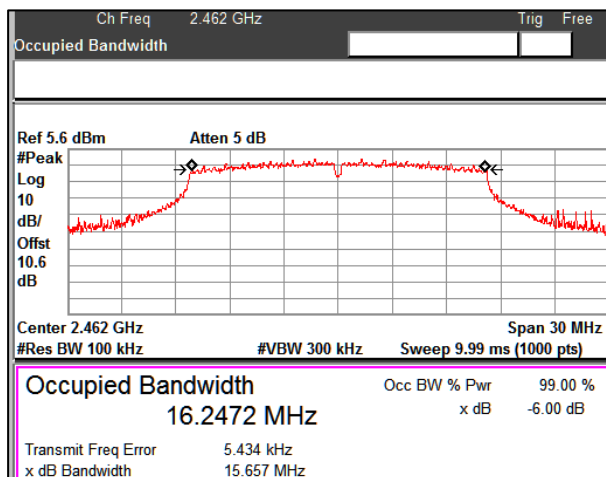
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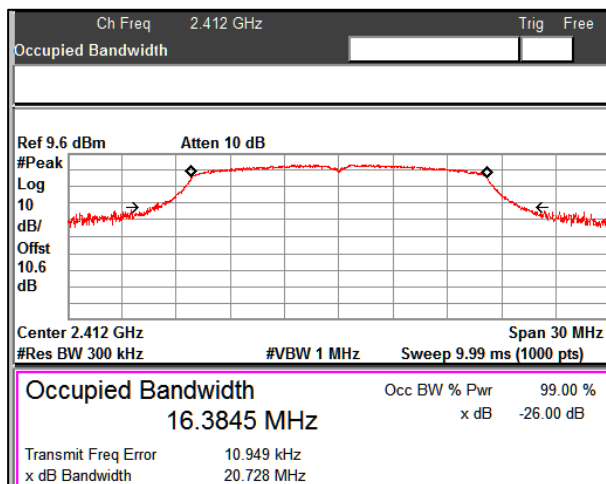
Channel Frequency: 2437MHz



Channel Frequency: 2462MHz

Graphs for OCW 99 % bandwidth measurement

Data Rate: 6Mbps

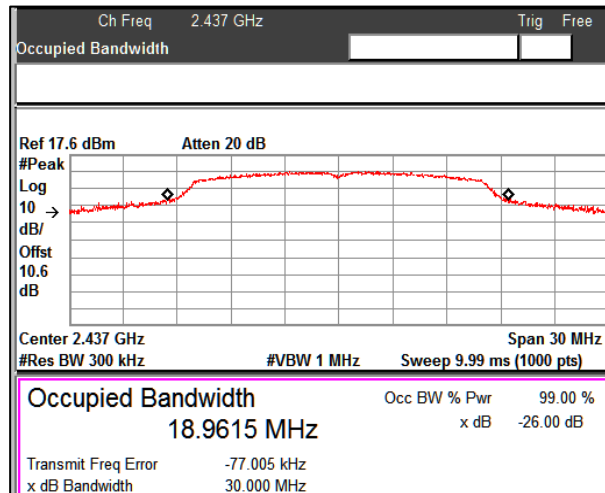


Channel Frequency: 2412MHz

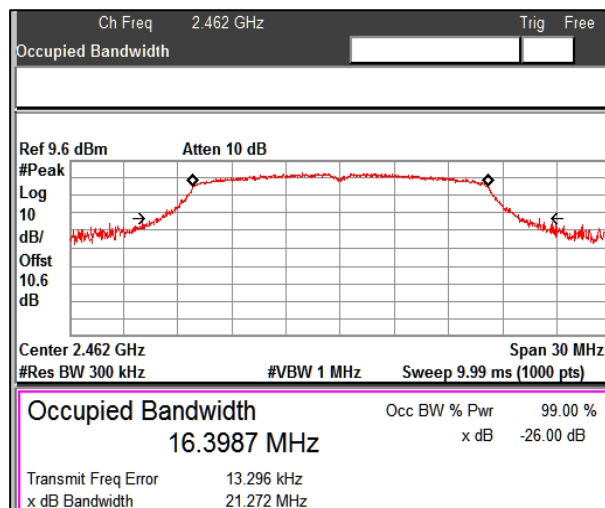
Prüfbericht - Nr.:
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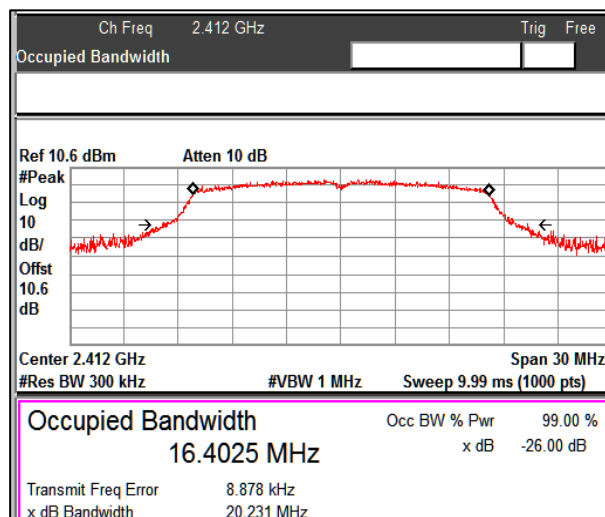


Channel Frequency: 2437MHz



Channel Frequency: 2462MHz

Data Rate: 24Mbps

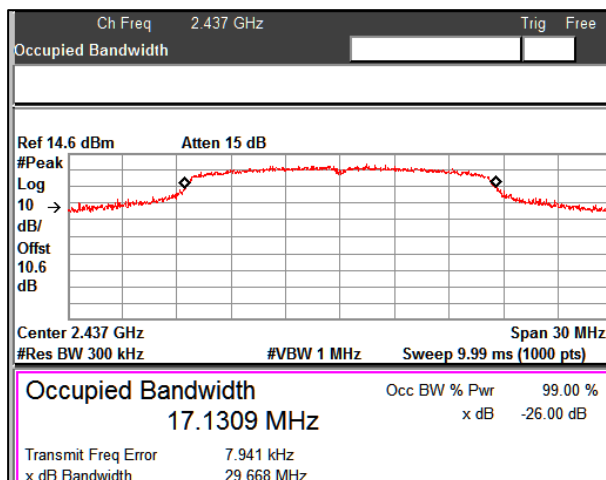


Channel Frequency: 2412MHz

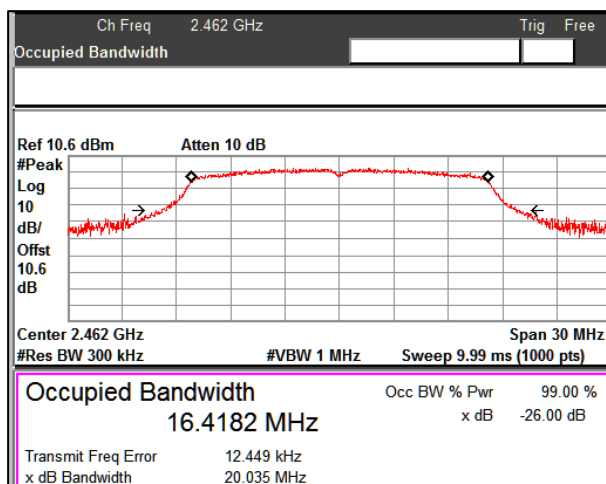
Prüfbericht - Nr.:
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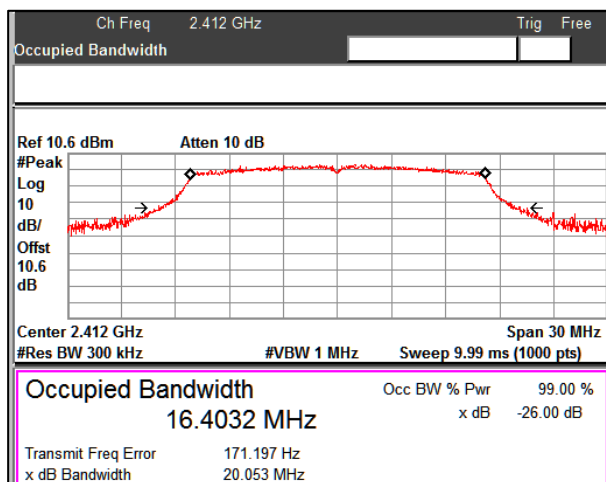


Channel Frequency: 2437MHz



Channel Frequency: 2462MHz

Data Rate: 54Mbps

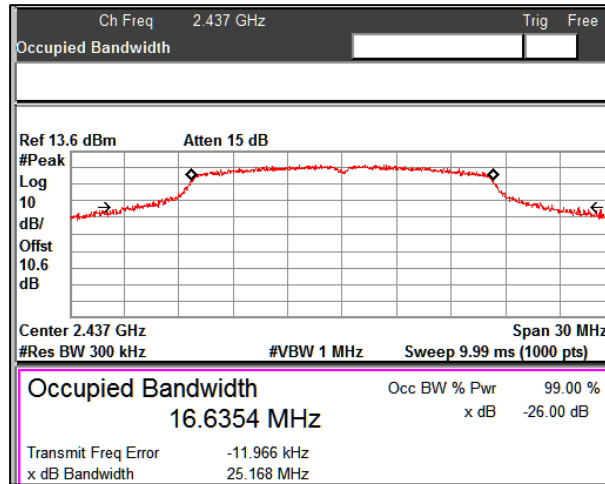


Channel Frequency: 2412MHz

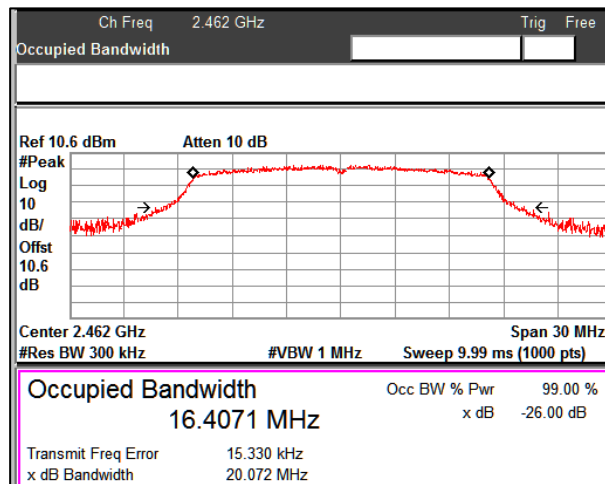
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Channel Frequency: 2437MHz



Channel Frequency: 2462MHz

Modulation: 802.11n HT20

Data rate	Channel Frequency (MHz)	6 dB Bandwidth (MHz)	99% OBW (MHz)	Minimum Limit (MHz)
MCS0	2412	17.38	17.50	0.5
	2437	17.74	18.38	0.5
	2462	17.39	17.52	0.5
MCS4	2412	17.41	17.53	0.5
	2437	17.56	17.85	0.5
	2462	17.39	17.57	0.5
MCS7	2412	17.42	17.54	0.5
	2437	17.46	17.68	0.5
	2462	17.39	17.53	0.5

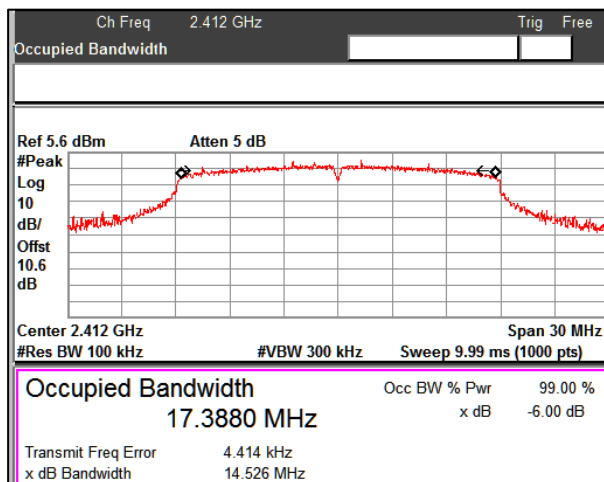
Prüfbericht - Nr.:
Test Report No.:

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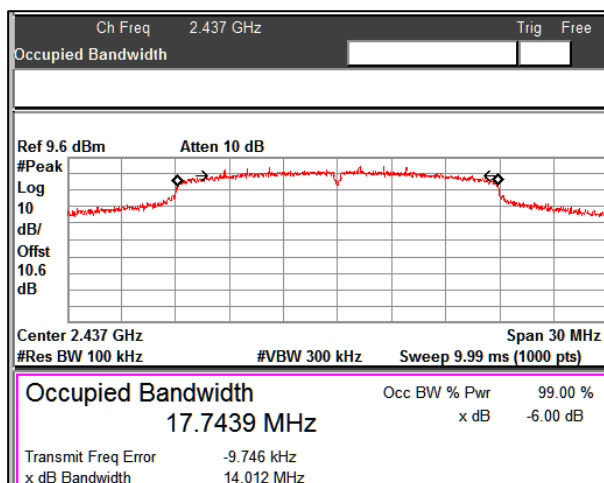
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Graphs for 6 dB bandwidth measurement

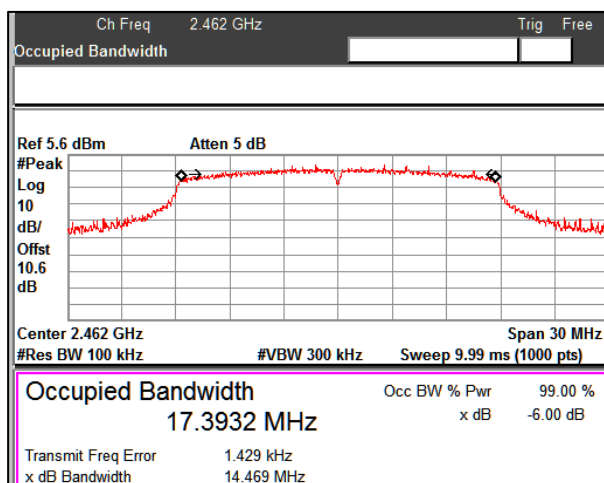
Data Rate: MCS0



Channel Frequency: 2412MHz



Channel Frequency: 2437MHz



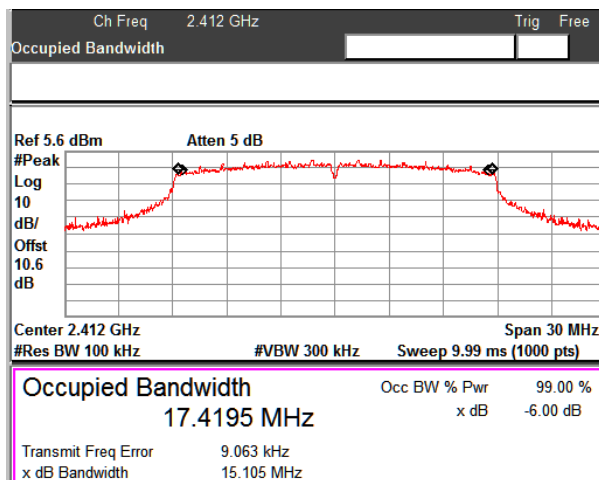
Channel Frequency: 2462MHz

Prüfbericht - Nr.:
Test Report No.:

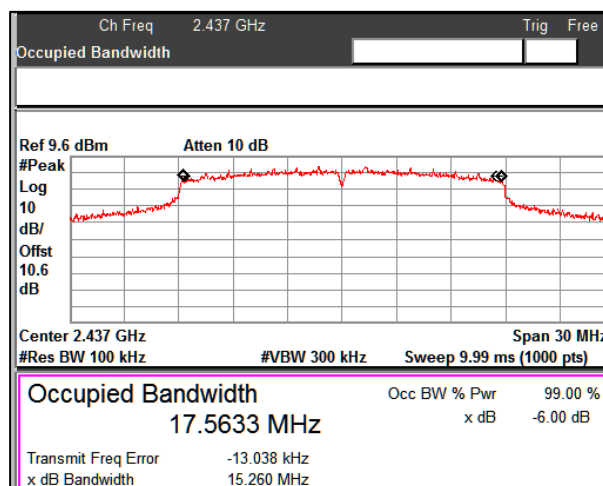
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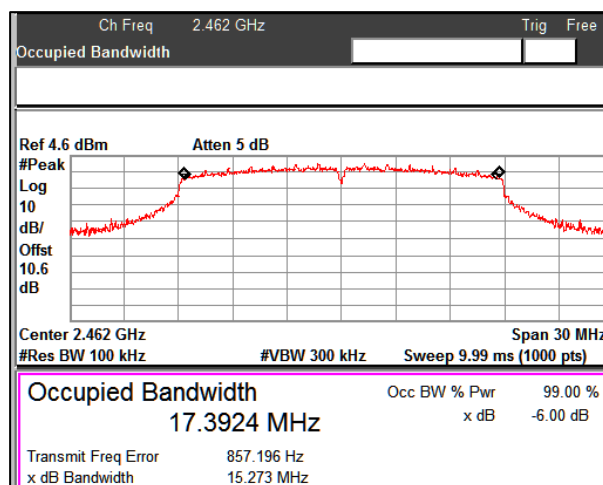
Data Rate: MCS4



Channel Frequency: 2412MHz



Channel Frequency: 2437MHz



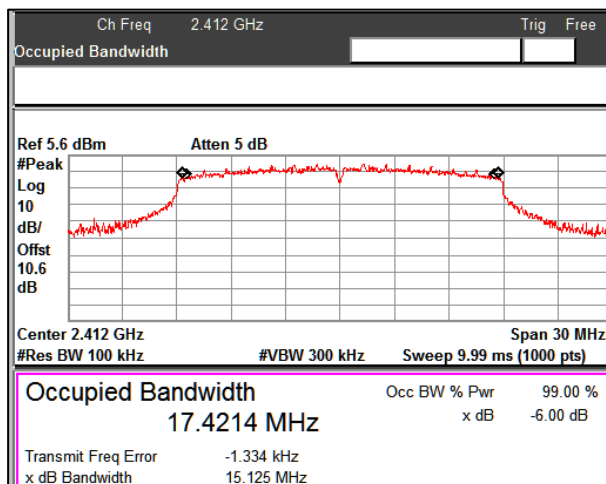
Channel Frequency: 2462MHz

Prüfbericht - Nr.:
Test Report No.:

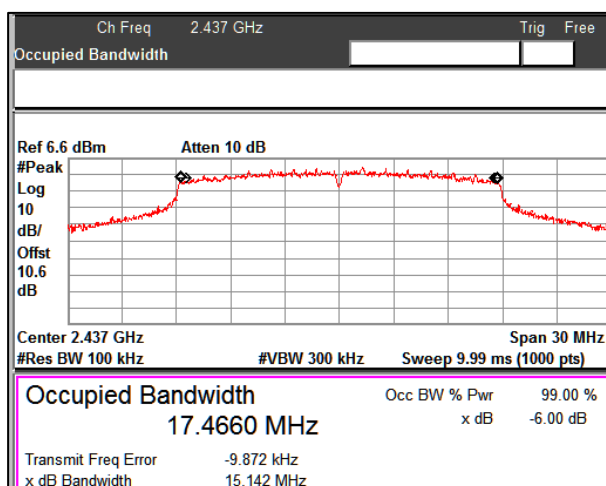
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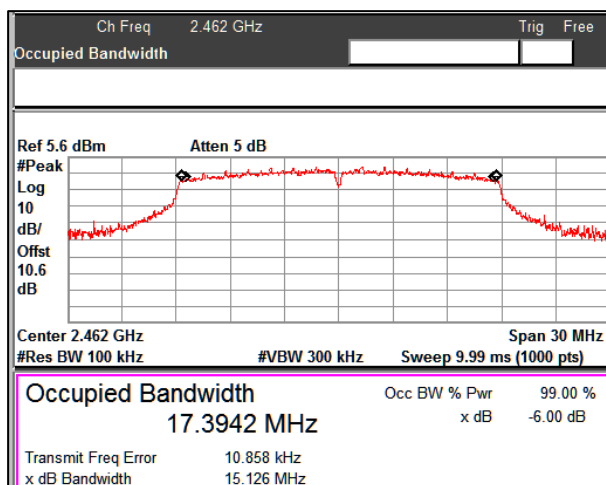
Data Rate: MCS7



Channel Frequency: 2412MHz



Channel Frequency: 2437MHz



Channel Frequency: 2462MHz

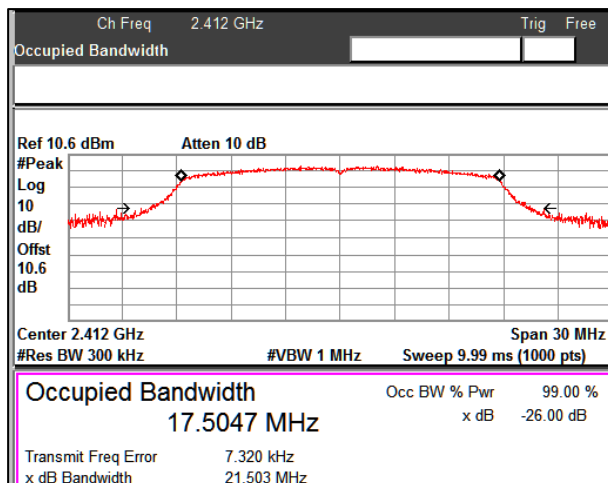
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Test Report No.:

IN22T1OT 001
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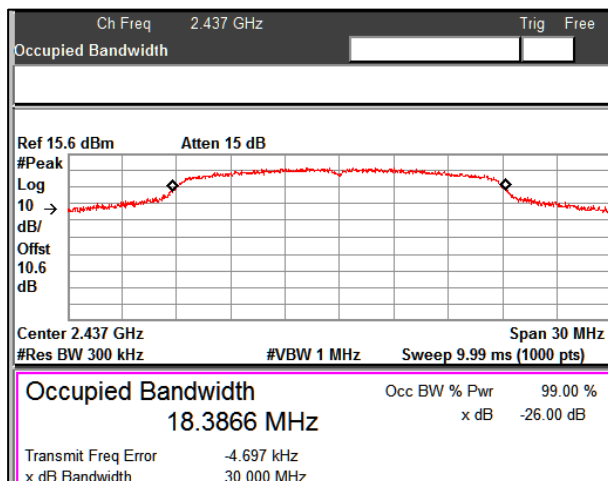
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Graphs for OCW 99 % bandwidth measurement

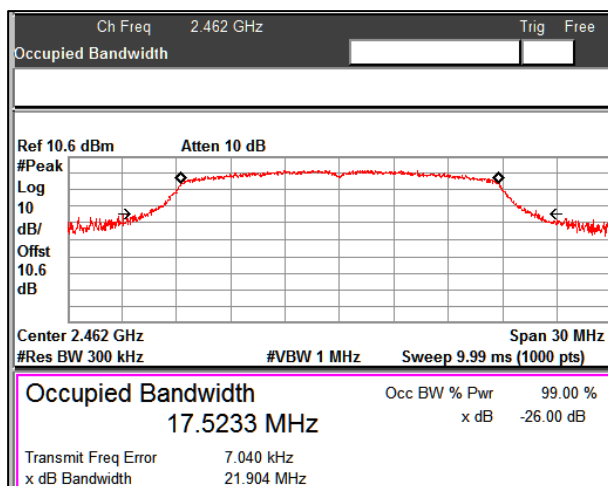
Data Rate: MCS0



Channel Frequency: 2412MHz



Channel Frequency: 2437MHz



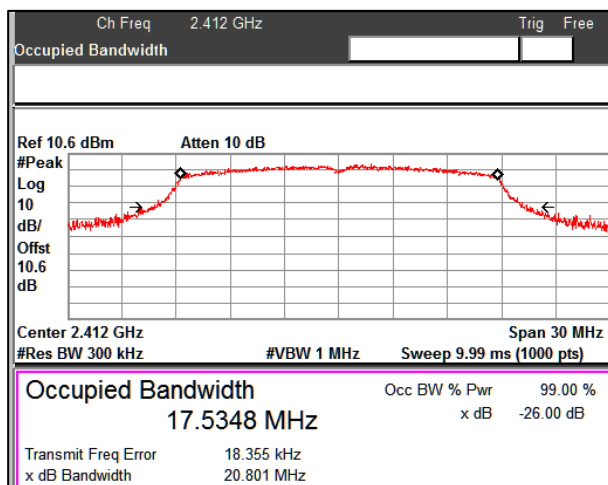
Channel Frequency: 2462MHz

Prüfbericht - Nr.:
Test Report No.:

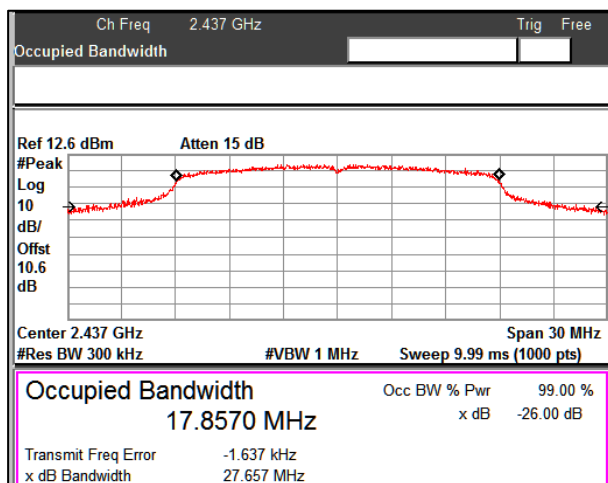
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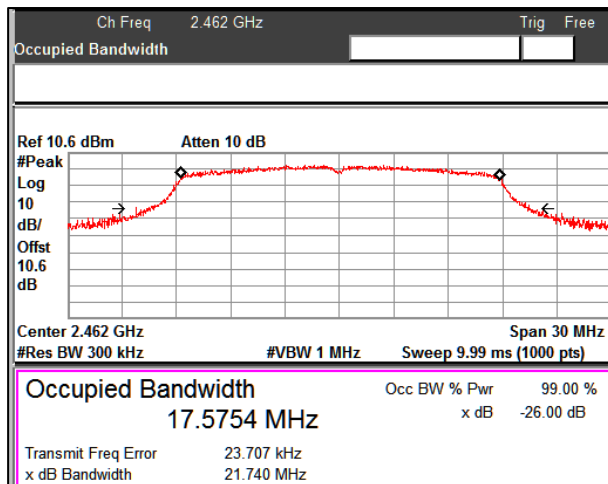
Data Rate: MCS4



Channel Frequency: 2412MHz



Channel Frequency: 2437MHz



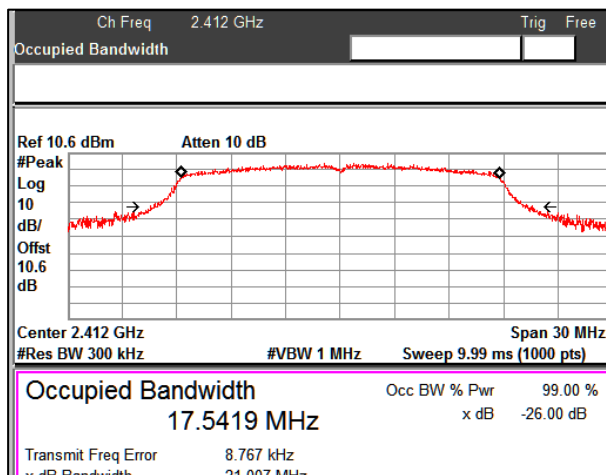
Channel Frequency: 2462MHz

Prüfbericht - Nr.:
Test Report No.:

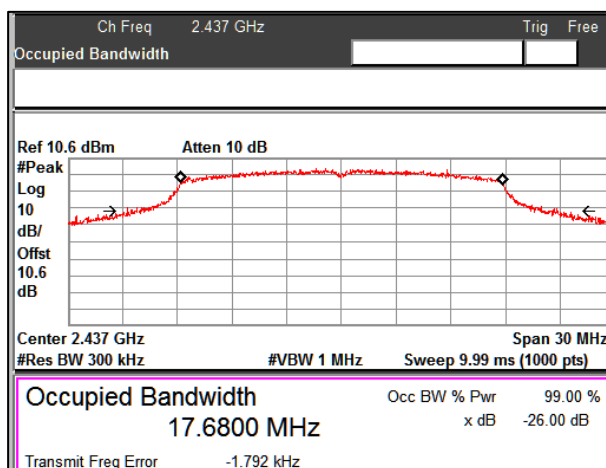
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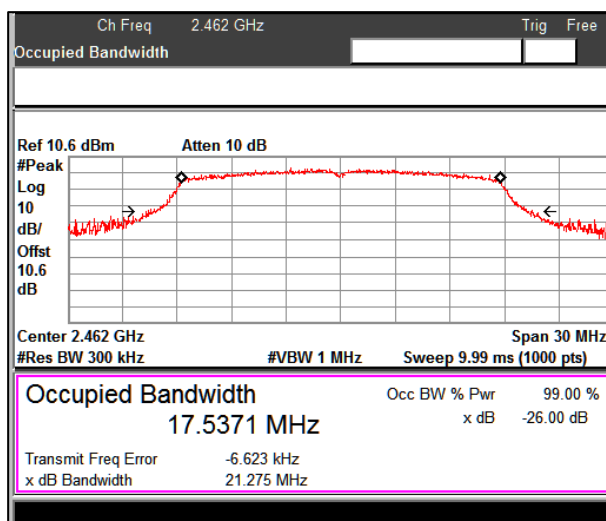
Data Rate: MCS7



Channel Frequency: 2412MHz



Channel Frequency: 2437MHz



Channel Frequency: 2462MHz

Prüfbericht - Nr.:
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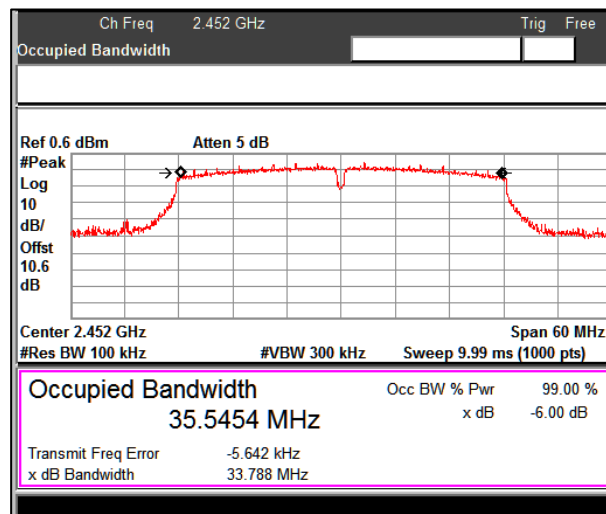
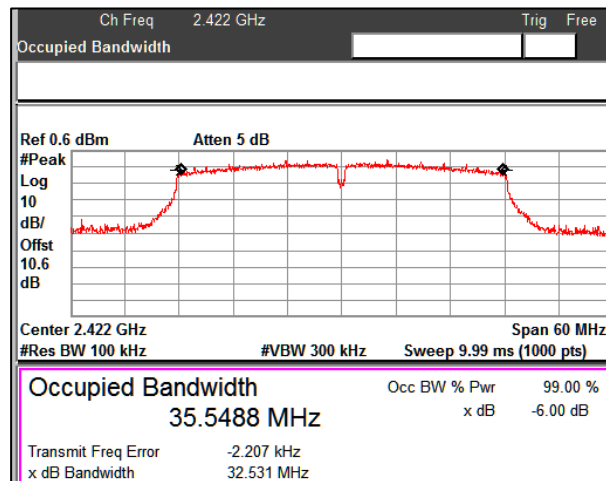
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Modulation: 802.11n HT40

Data rate	Channel Frequency (MHz)	6 dB Bandwidth (MHz)	99% OBW (MHz)	Minimum Limit (MHz)
MCS0	2422	35.54	35.84	0.5
	2452	35.54	35.84	0.5
MCS4	2422	35.61	35.99	0.5
	2452	35.64	36.00	0.5
MCS7	2422	35.59	35.99	0.5
	2452	35.60	35.99	0.5

Graphs for 6 dB bandwidth measurement

Data Rate: MCS0

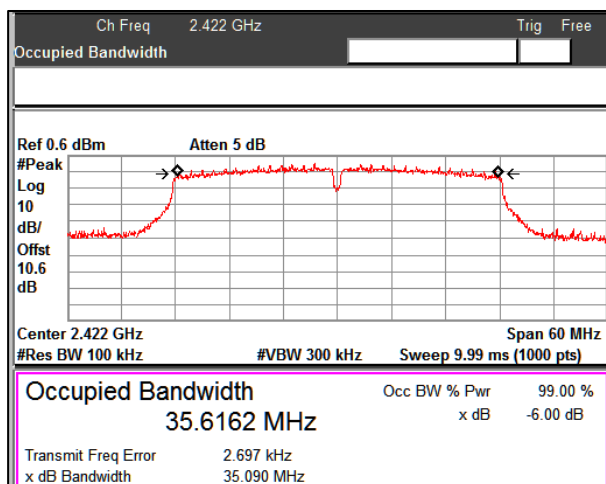


Prüfbericht - Nr.:
Test Report No.:

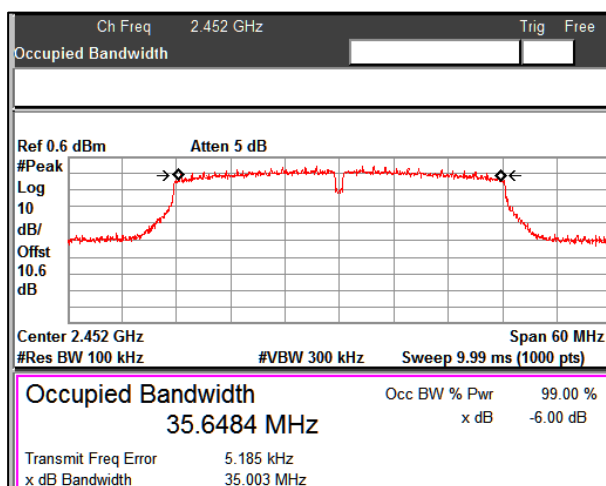
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Data Rate: MCS4

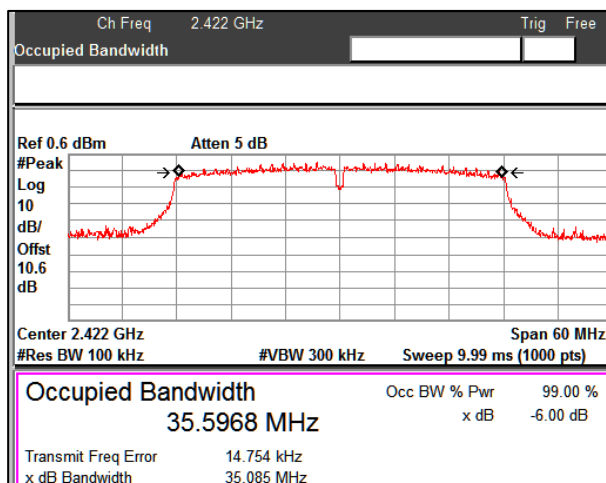


Channel Frequency 2422MHz



Channel Frequency 2452MHz

Data Rate: MCS7

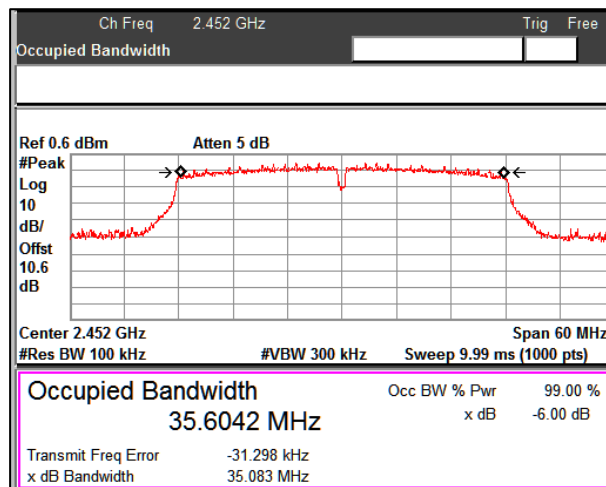


Channel Frequency 2422MHz

Prüfbericht - Nr.:
Test Report No.:

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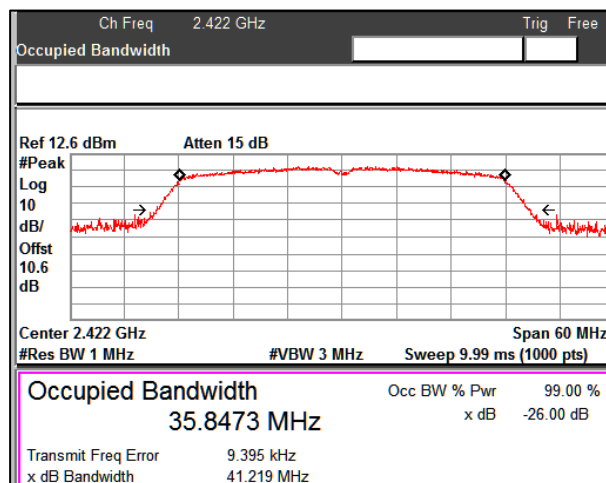
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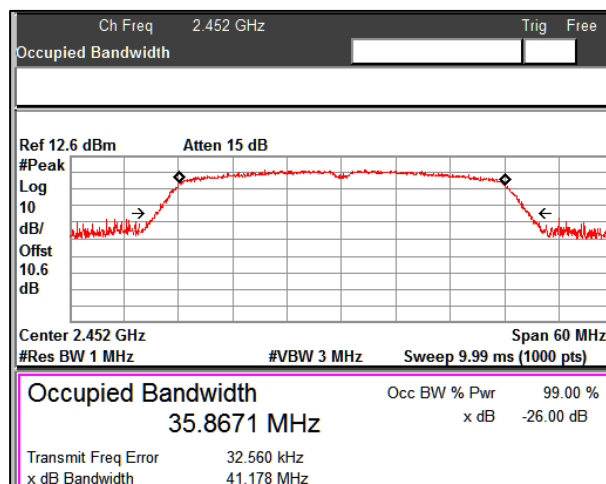
Channel Frequency 2452MHz

Graphs for OCW 99 % bandwidth measurement

Data Rate: MCS0



Channel Frequency 2422MHz



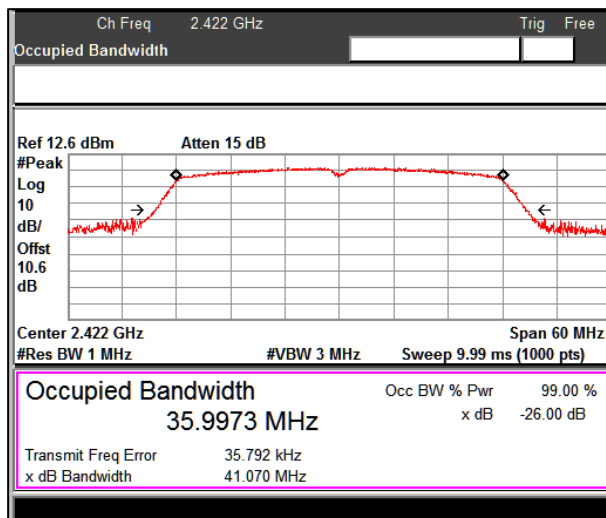
Channel Frequency 2452MHz

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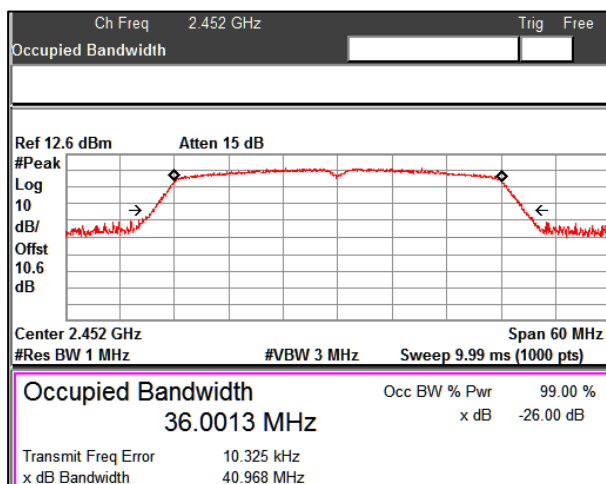
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Data Rate: MCS4

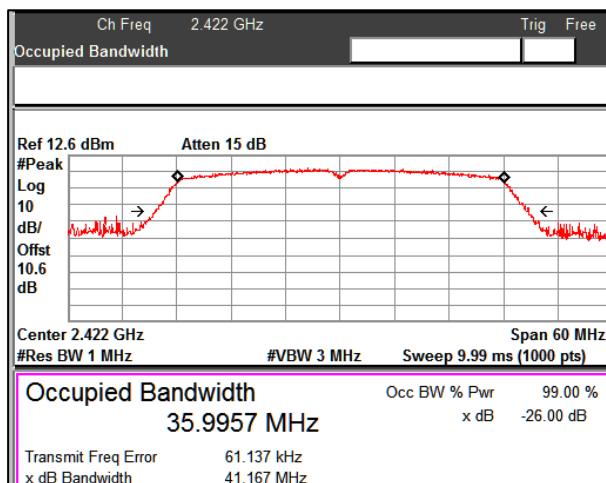


Channel Frequency 2422MHz



Channel Frequency 2452MHz

Data Rate: MCS7

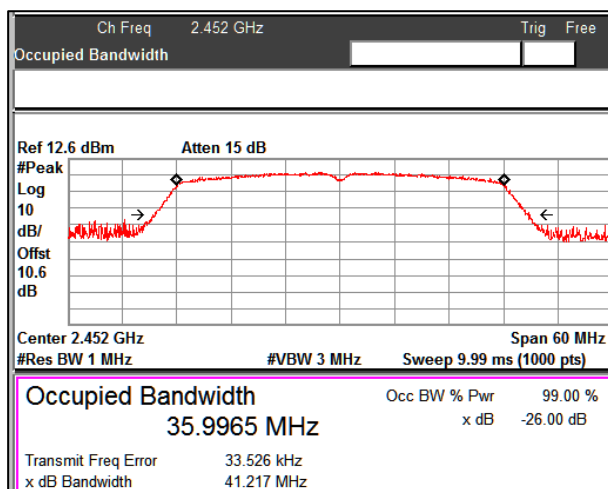


Channel Frequency 2422MHz

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Channel Frequency 2452MHz

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7.4 Emissions in non-restricted frequency bands and Conducted Spurious Emission

Result

Pass

Test Specification FCC part 15 Subpart C 15.247 (d) / RSS 247 Issue 2, Section 5.5

Test Method Subclause 11.11 of ANSI C63.10

Measurement Bandwidth 100 kHz

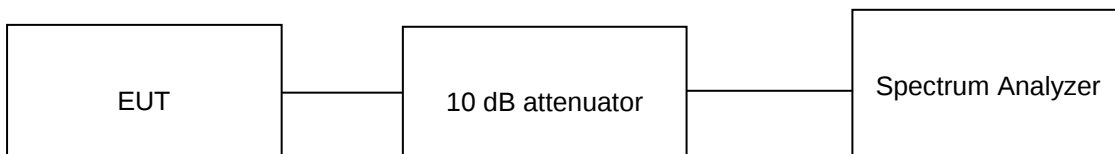
Detector Peak

Port of testing Antenna port

Requirement In any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits

If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB

Test Method:



Test Condition

Normal Test Condition:

Temperature (Norm) = +25 °C

Voltage = 3.6V Li-Ion battery

Relative humidity: 62 %

KDB Guidelines applied:

Measurements were made as per section 8.5 in KDB 558074 D01 15.247 Measurement Guidance v05r02.

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Test results:

Note:

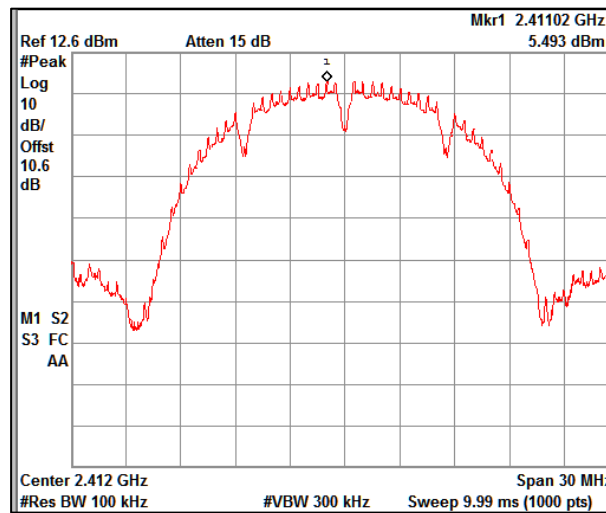
1. All the losses are included during measurement and final values are mentioned in the test report.
2. Final Value (dBm) = Measured Value (dBm) + Attenuator factor (10dB) + Cable loss (0.6dB)
3. This product do not support additional beamforming gain / directional gain, it uses signal antenna and hence directional gain of the single antenna is 2.53 dBi

7.4.1 Band edge and reference plots

Modulation: 802.11b

Data Rate	Channel Frequency (MHz)	Reference Value (B) (dBm)	Band edge Frequency (MHz)	Value at Band edge (A) (dBm)	A-B (dBc)	Minimum Limit (dBc)
1Mbps	2412	2396.4	-38.21	5.49	-43.7	-30
	2462	2483.5	-49.99	5.07	-55.06	-30
11Mbps	2412	2400	-36.83	6.66	-43.49	-30
	2462	2483.5	-51.78	6.00	-57.78	-30

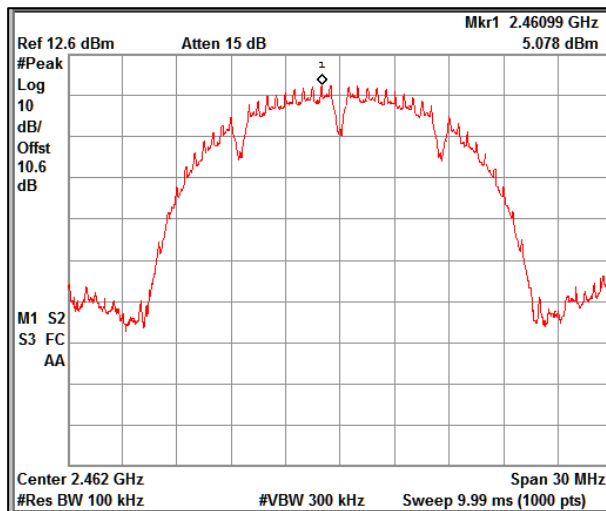
Data rate: 1Mbps



Prüfbericht - Nr.:
Test Report No.:

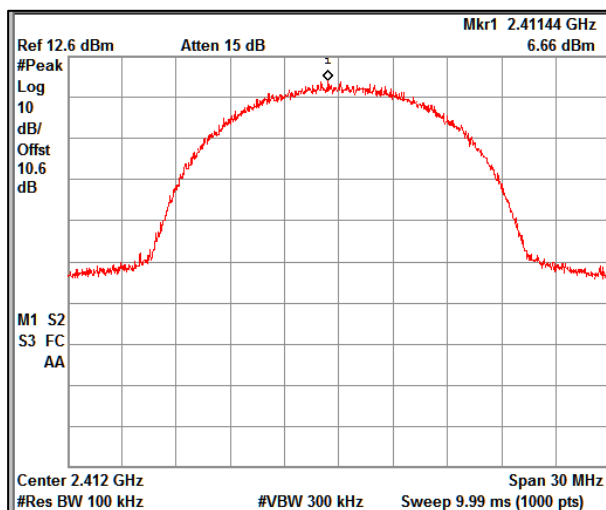
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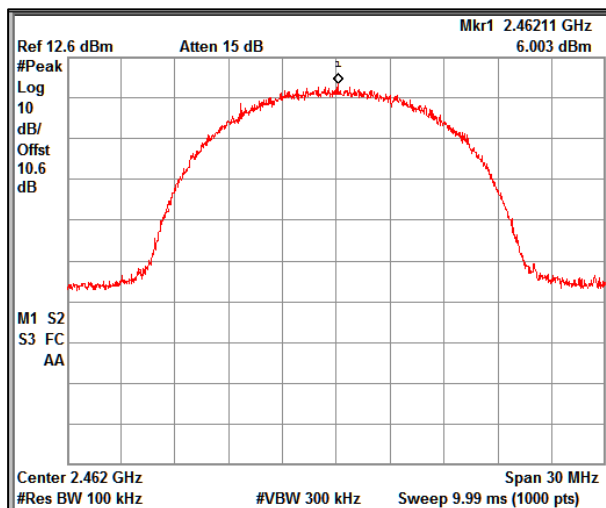


Reference plot for 2462MHz

Data rate: 11Mbps



Reference plot for 2412MHz



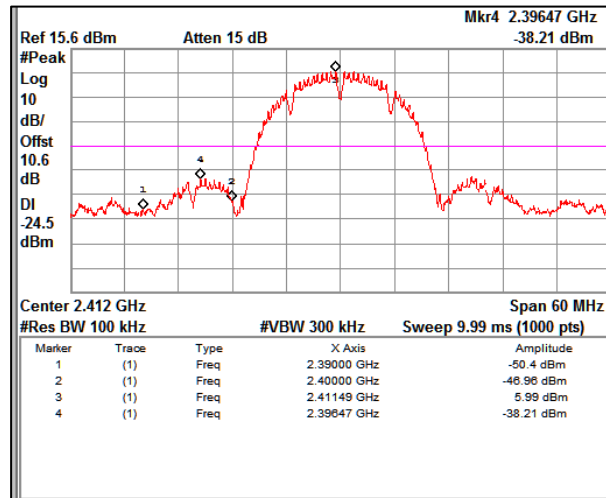
Reference plot for 2462MHz

Prüfbericht - Nr.:
Test Report No.:

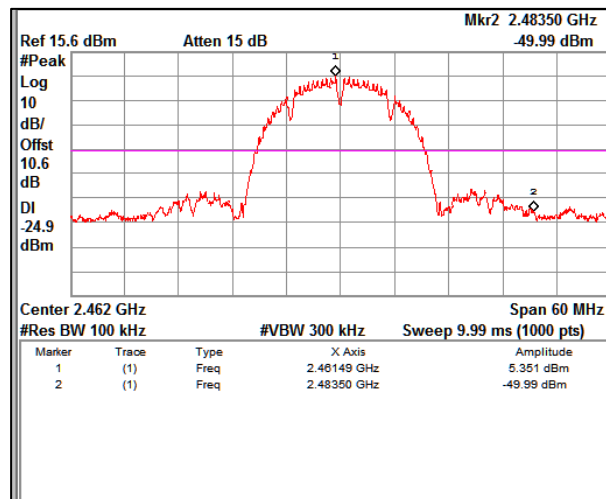
IN22T1OT 001
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Data rate: 1Mbps

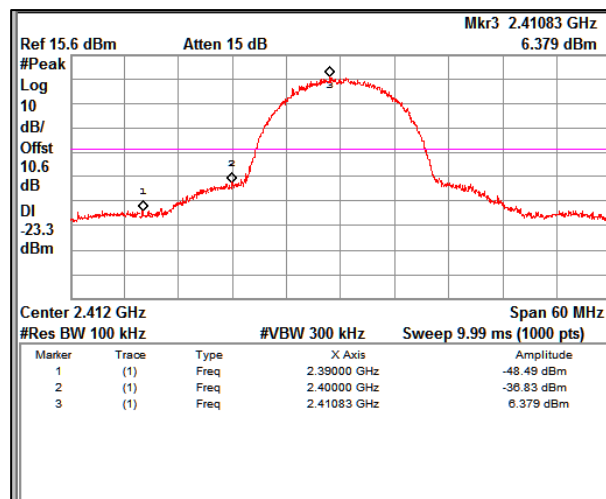


Band edge Channel Frequency 2412MHz



Band edge Channel Frequency 2462MHz

Data rate: 11Mbps

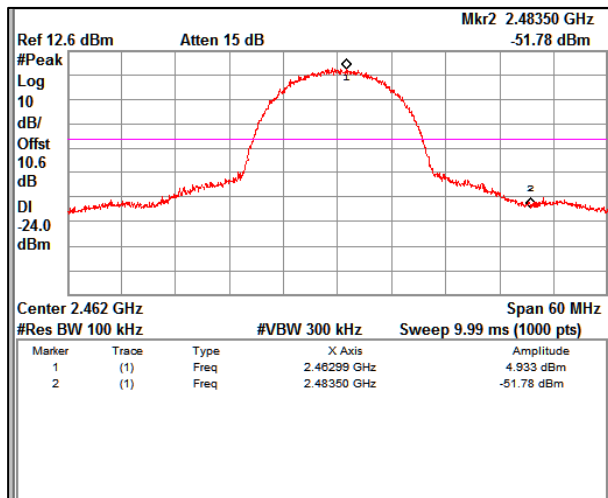


Band edge Channel Frequency 2412MHz

Prüfbericht - Nr.:
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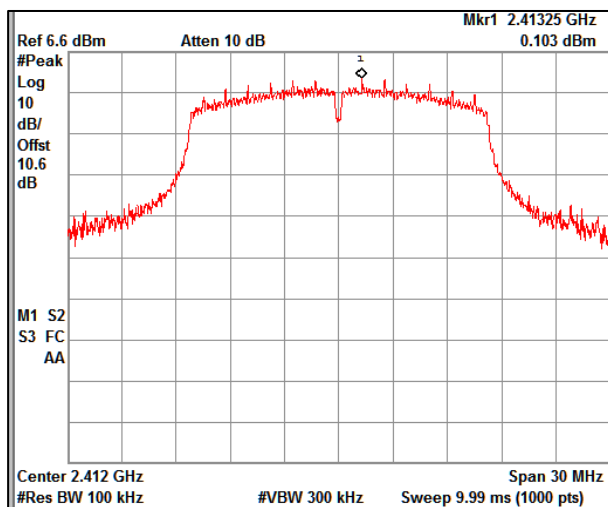


Band edge Channel Frequency 2462MHz

Modulation: 802.11b

Data Rate	Channel Frequency (MHz)	Reference Value (B) (dBm)	Band edge Frequency (MHz)	Value at Band edge (A) (dBm)	A-B (dBc)	Minimum Limit (dBc)
6Mbps	2412	2398.2	-32.21	1.10	-33.31	-30
	2462	2483.5	-49.44	-0.60	-48.84	-30
24Mbps	2412	2398.2	-33.43	-0.33	-33.10	-30
	2462	2483.5	-47.32	-0.84	-46.48	-30
54Mbps	2412	2400	-35.15	-0.03	-35.12	-30
	2462	2483.5	-47.22	-0.69	-46.53	-30

Data rate: 6Mbps

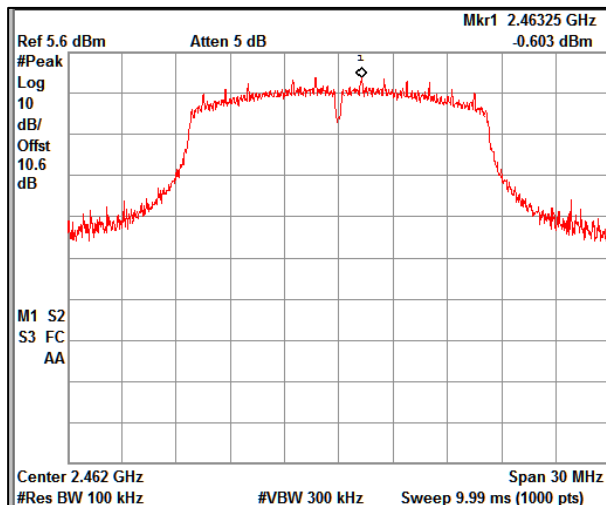


Reference plot for 2412MHz

Prüfbericht - Nr.:
Test Report No.:

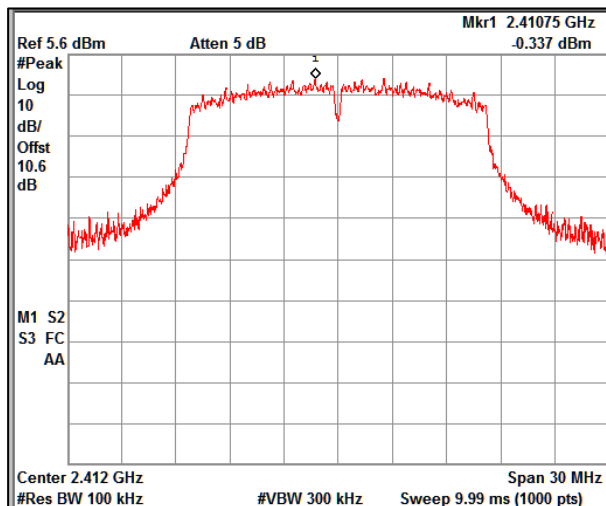
IN22T1OT 001
ULR-TC568822300000100F

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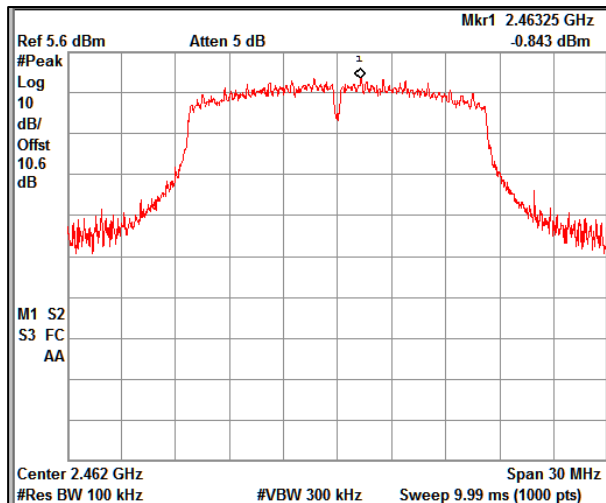


Reference plot for 2462MHz

Data rate: 24Mbps



Reference plot for 2412MHz



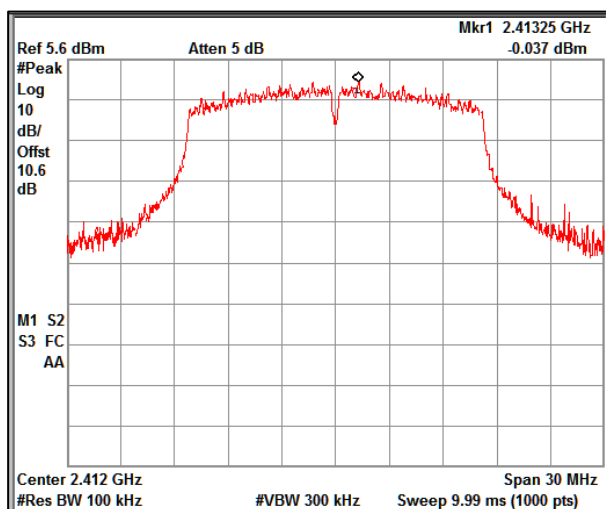
Reference plot for 2462MHz

Prüfbericht - Nr.:
Test Report No.:

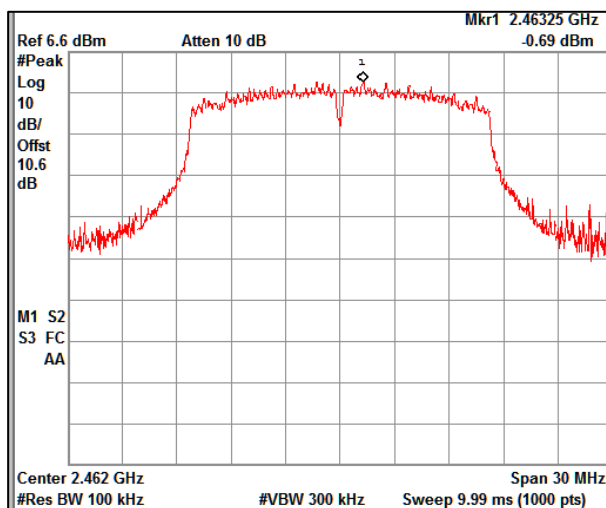
IN22T1OT 001
ULR-TC568822300000100F

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Data rate: 54Mbps

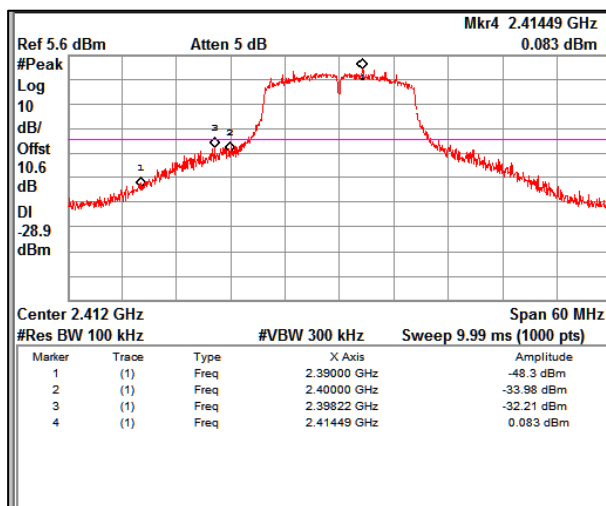


Reference plot for 2412MHz



Reference plot for 2462MHz

Data rate: 6Mbps

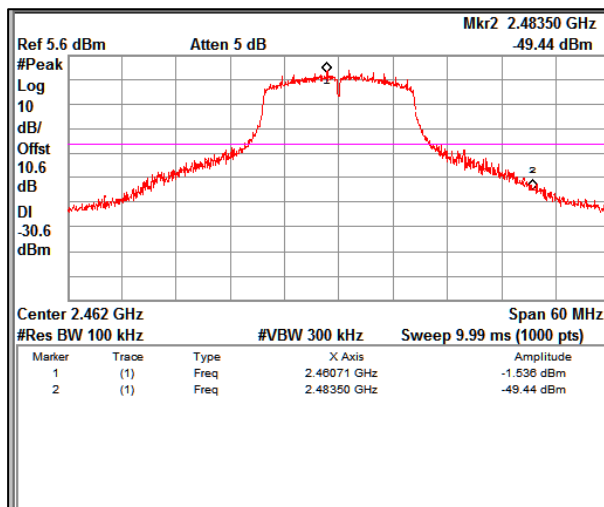


Band edge Channel Frequency 2412MHz

Prüfbericht - Nr.:
Test Report No.:

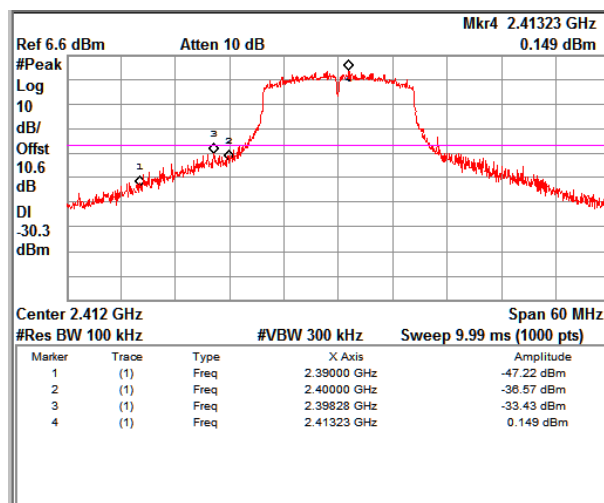
IN22T1OT 001
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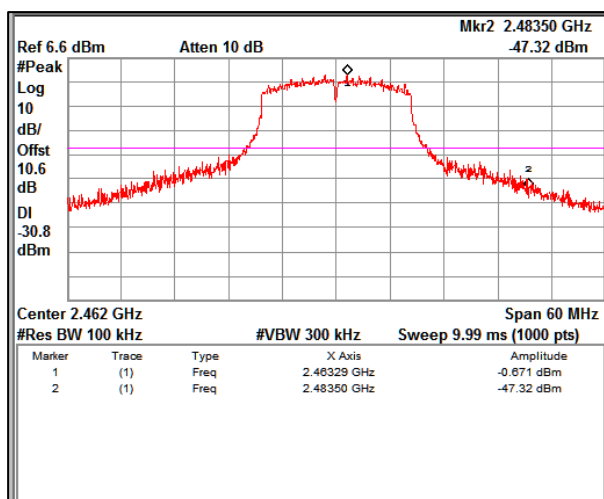


Band edge Channel Frequency 2462MHz

Data rate: 24Mbps



Band edge Channel Frequency 2412MHz



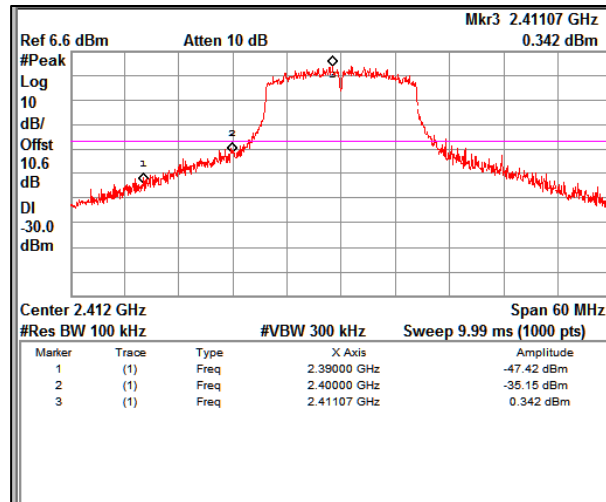
Band edge Channel Frequency 2462MHz

Prüfbericht - Nr.:
Test Report No.:

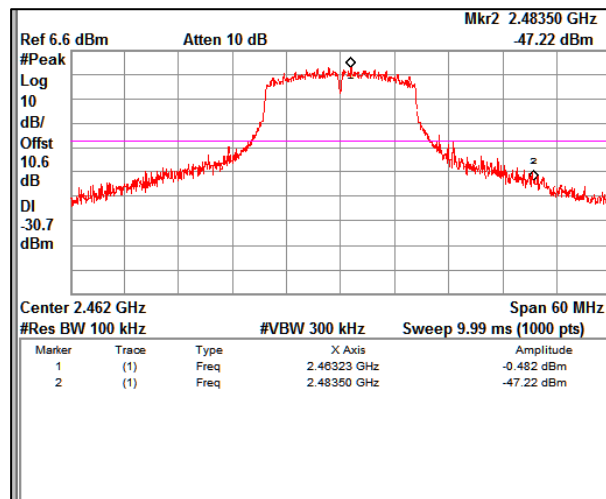
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Data rate: 54Mbps



Band edge Channel Frequency 2412MHz



Band edge Channel Frequency 2462MHz

Prüfbericht - Nr.:
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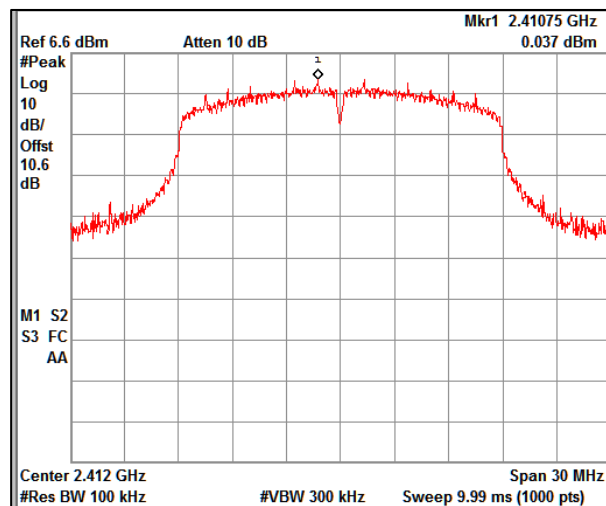
IN22T1OT 001
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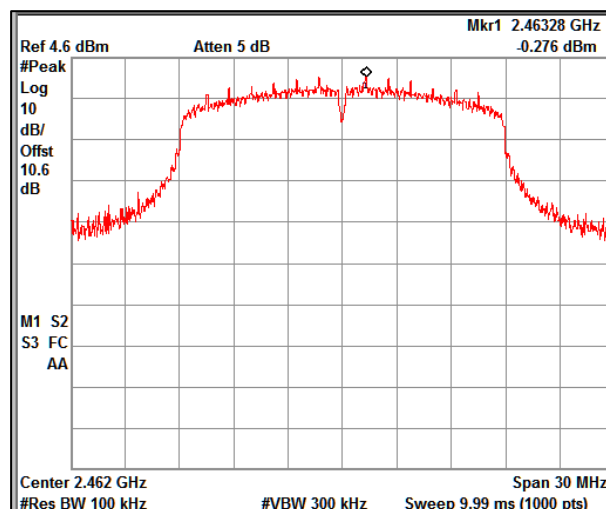
Modulation: 802.11n HT20

Data Rate	Channel Frequency (MHz)	Reference Value (B) (dBm)	Band edge Frequency (MHz)	Value at Band edge (A) (dBm)	A-B (dBc)	Minimum Limit (dBc)
MCS0	2412	2400	-34.00	0.03	-34.03	-30
	2462	2483.5	-47.05	-0.27	-46.78	-30
MCS4	2412	2400	-35.78	0.51	-36.29	-30
	2462	2483.5	-50.50	-0.25	-50.25	-30
MCS7	2412	2400	-33.96	0.46	-34.42	-30
	2462	2483.5	-46.09	-0.20	-45.89	-30

Data rate: MCS0



Reference plot for 2412MHz



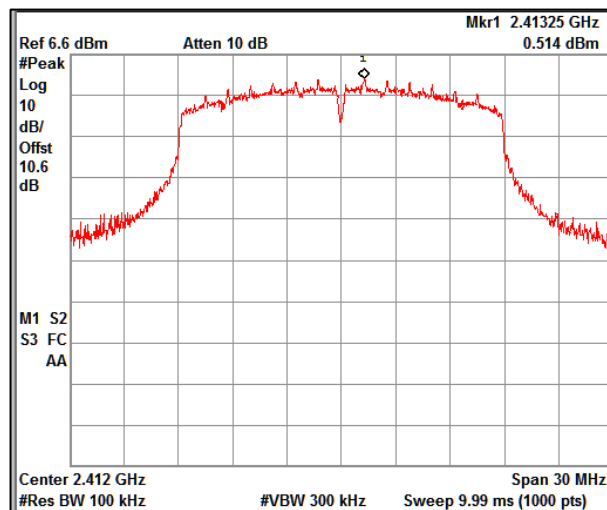
Reference plot for 2462MHz

Prüfbericht - Nr.:
Test Report No.:

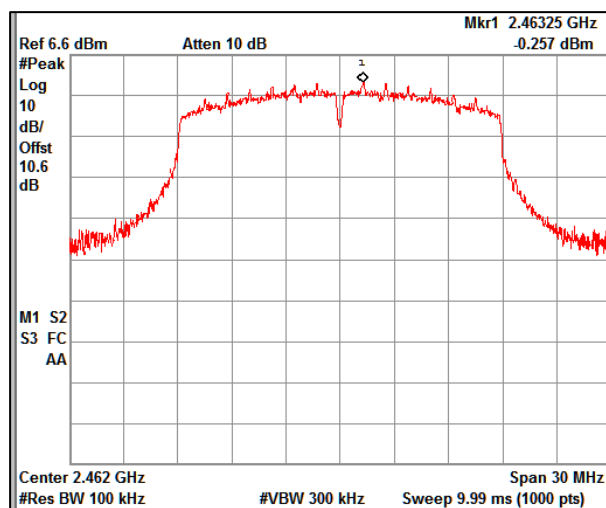
IN22T1OT 001
ULR-TC568822300000100F

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Data rate: MCS4

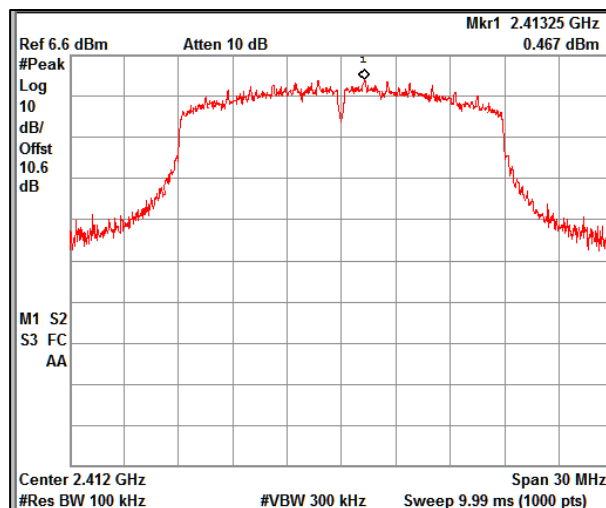


Reference plot for 2412MHz



Reference plot for 2462MHz

Data rate: MCS7

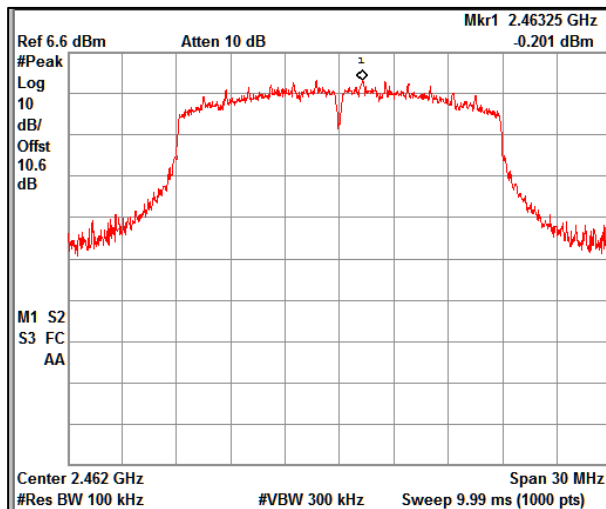


Reference plot for 2412MHz

Prüfbericht - Nr.:
Test Report No.:

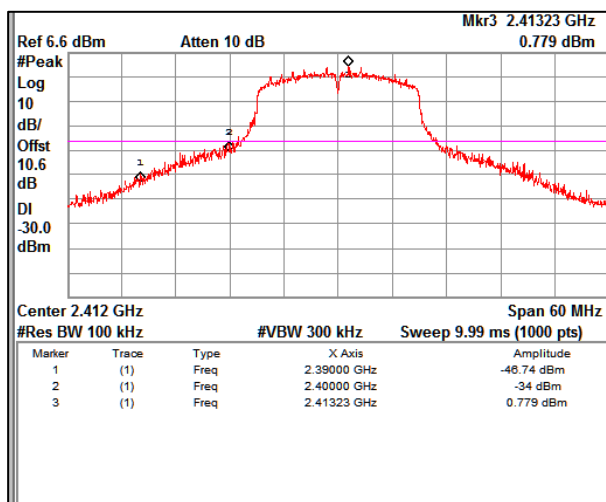
IN22T1OT 001
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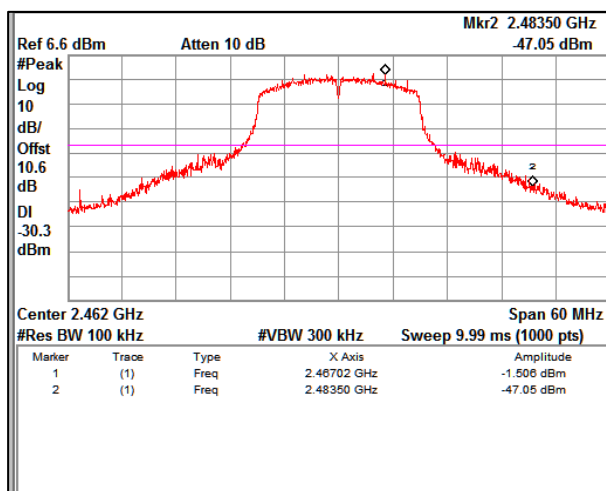


Reference plot for 2462MHz

Data rate: MCS0



Band edge Channel Frequency 2412MHz



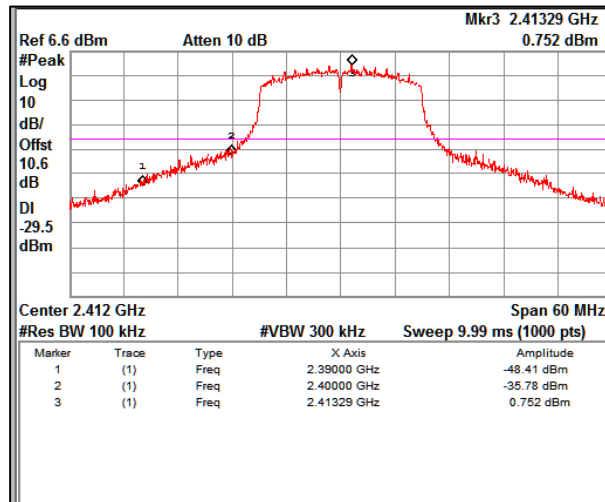
Band edge Channel Frequency 2462MHz

Prüfbericht - Nr.:
Test Report No.:

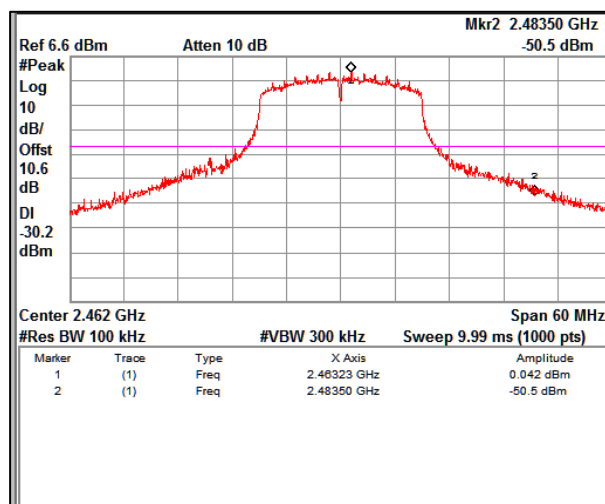
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Data rate: MCS4

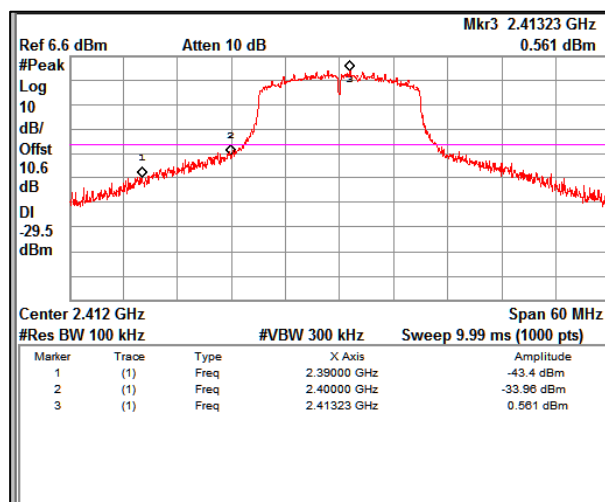


Band edge Channel Frequency 2412MHz



Band edge Channel Frequency 2462MHz

Data rate: MCS7

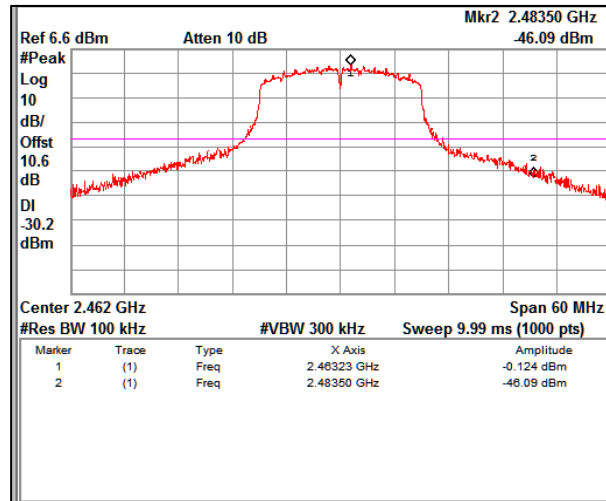


Band edge Channel Frequency 2412MHz

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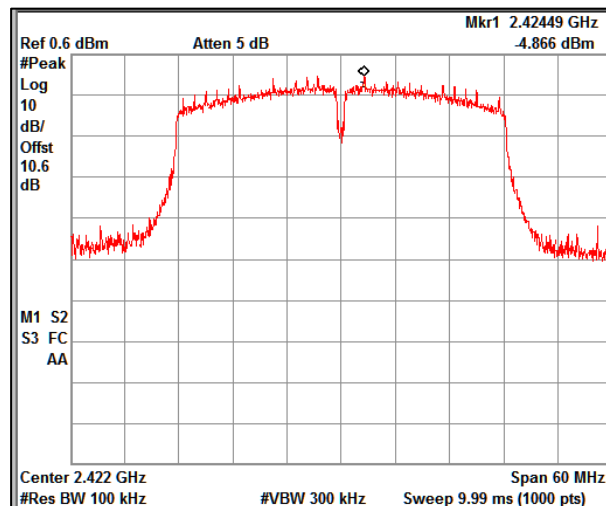


Band edge Channel Frequency 2462MHz

Modulation: 802.11n HT40

Data Rate	Channel Frequency (MHz)	Reference Value (B) (dBm)	Band edge Frequency (MHz)	Value at Band edge (A) (dBm)	A-B (dBc)	Minimum Limit (dBc)
MCS0	2422	2395.8	-39.75	-4.86	-34.89	-30
	2452	2483.5	-47.03	-4.88	-42.15	-30
MCS4	2422	2400	-43.13	-4.40	-38.73	-30
	2452	2483.5	-49.77	-4.82	-44.95	-30
MCS7	2422	2396.2	-41.16	-4.54	-36.62	-30
	2452	2483.5	-47.90	-4.84	-43.06	-30

Data rate: MCS0

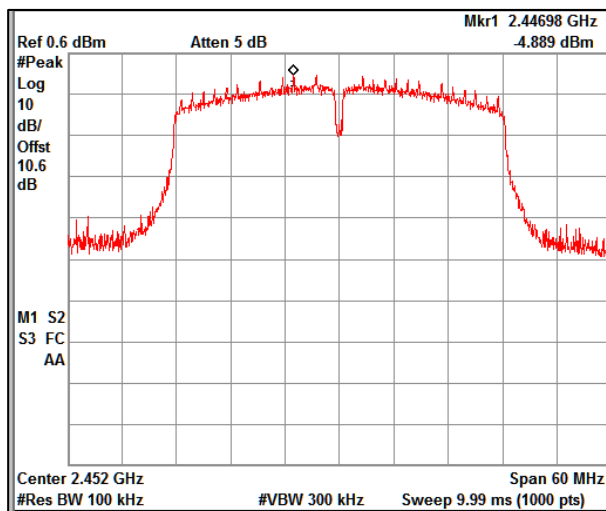


Reference plot for 2422MHz

Prüfbericht - Nr.:
Test Report No.:

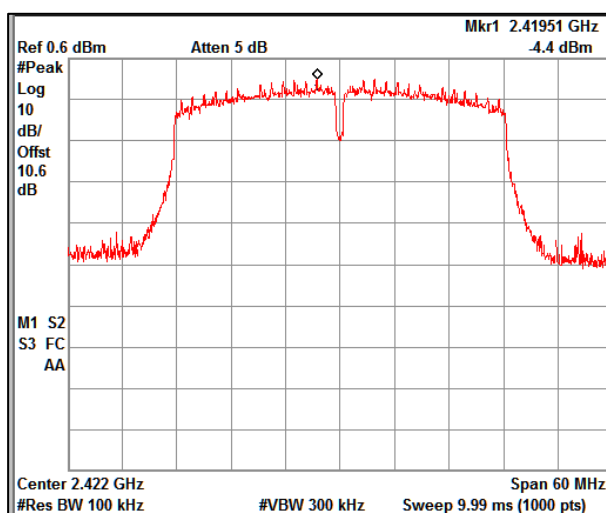
IN22T1OT 001
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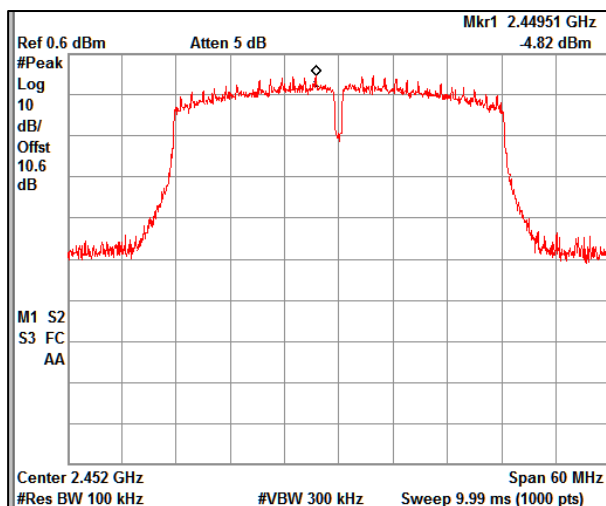


Reference plot for 2452MHz

Data rate: MCS4



Reference plot for 2422MHz



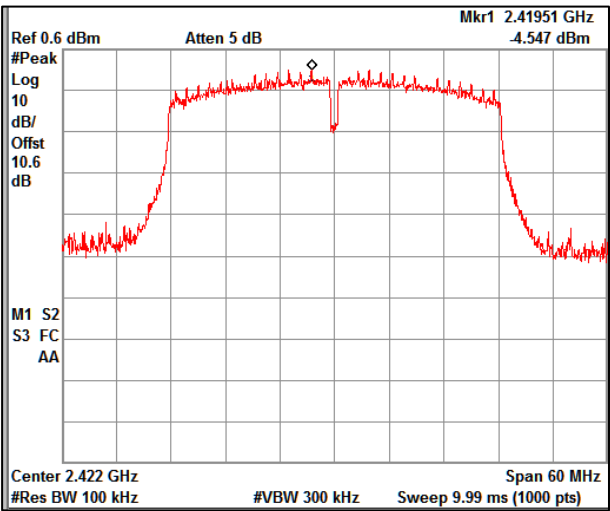
Reference plot for 2452MHz

Prüfbericht - Nr.:
Test Report No.:

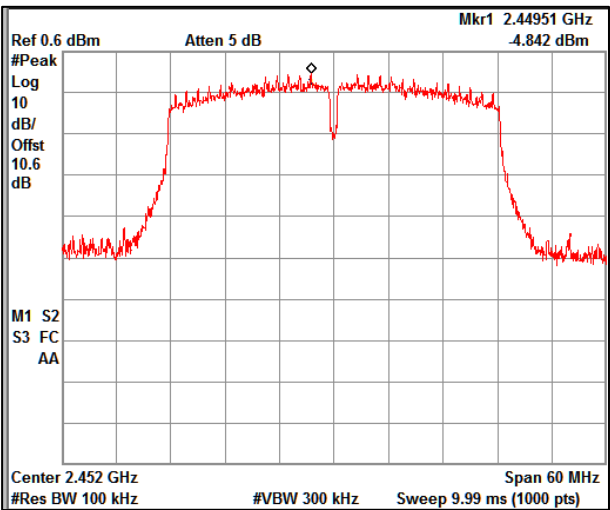
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Data rate: MCS7

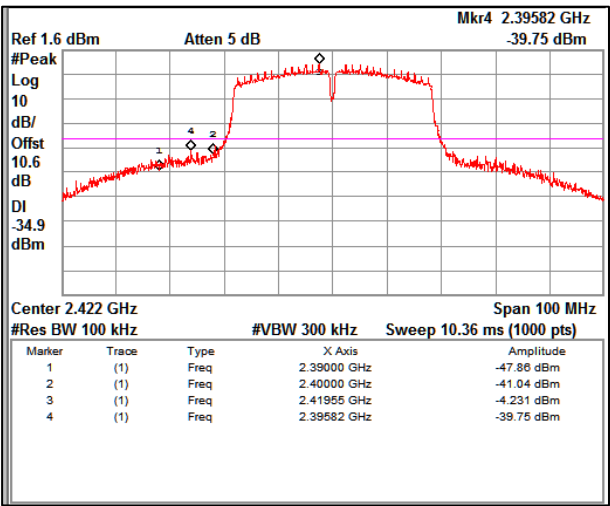


Reference plot for 2422MHz



Reference plot for 2452MHz

Data rate: MCS0

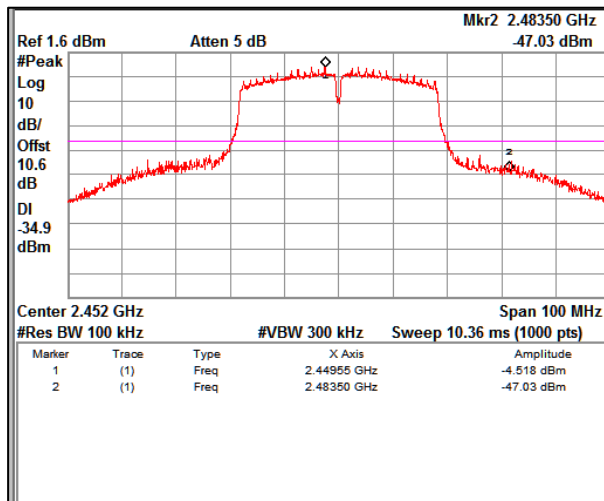


Band edge Channel Frequency 2422MHz

Prüfbericht - Nr.:
Test Report No.:

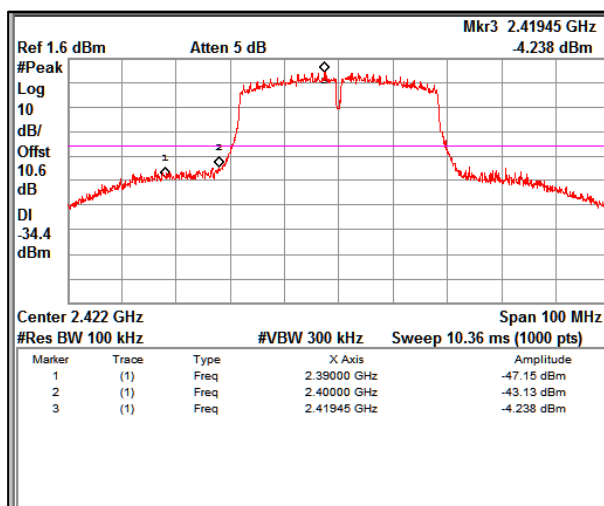
IN22T1OT 001
ULR-TC568822300000100F

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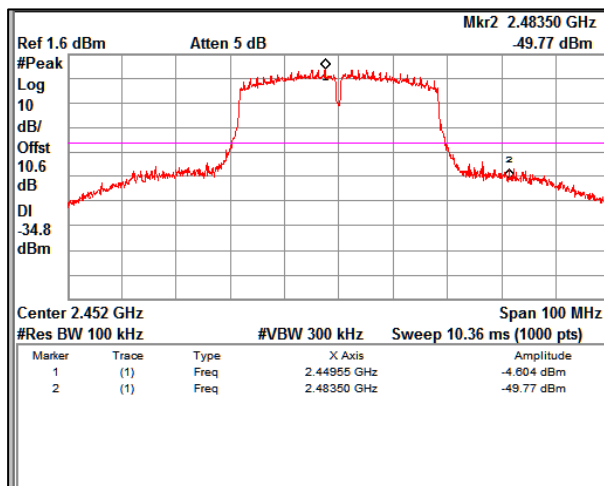


Band edge Channel Frequency 2452MHz

Data rate: MCS4



Band edge Channel Frequency 2422MHz



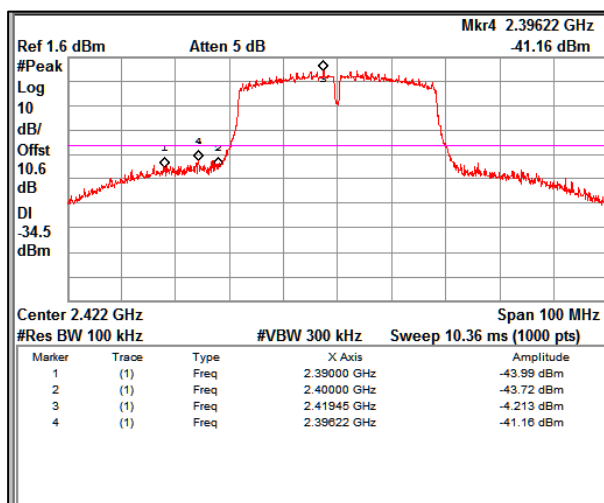
Band edge Channel Frequency 2452MHz

Prüfbericht - Nr.:
Test Report No.:

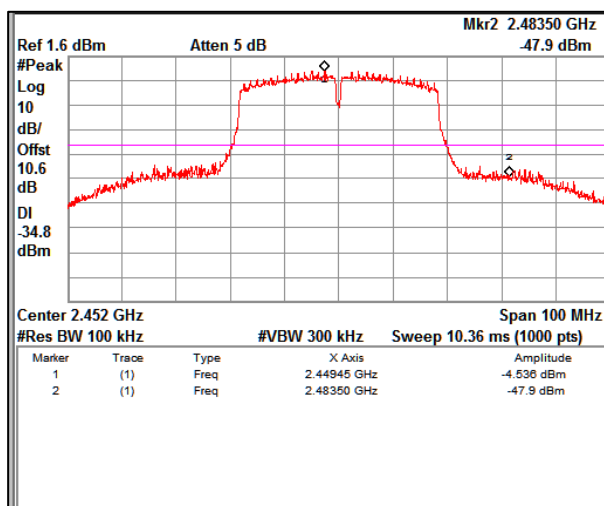
IN22T1OT 001
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Data rate: MCS7



Band edge Channel Frequency 2422MHz



Band edge Channel Frequency 2452MHz

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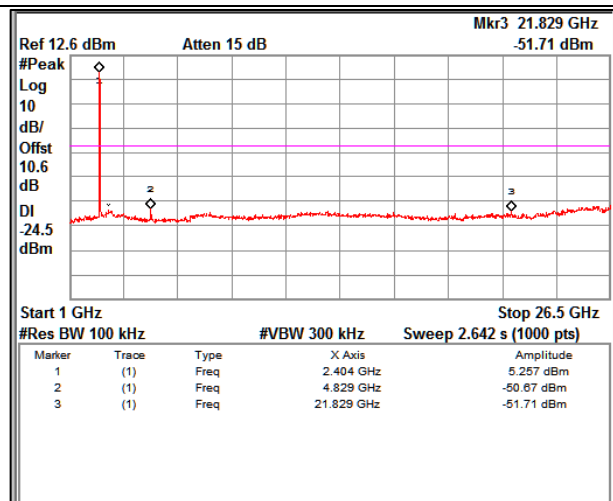
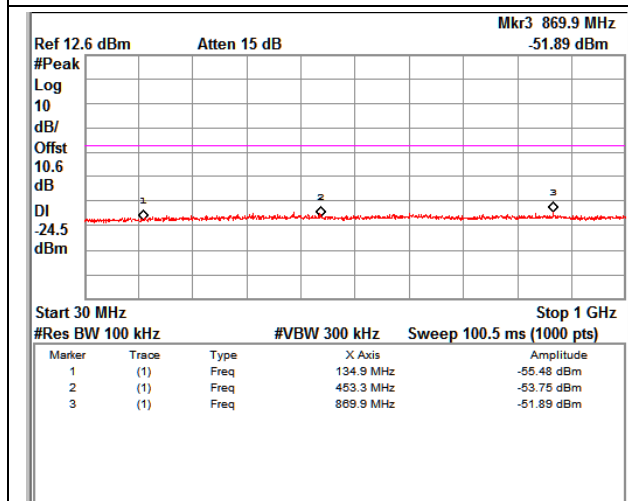
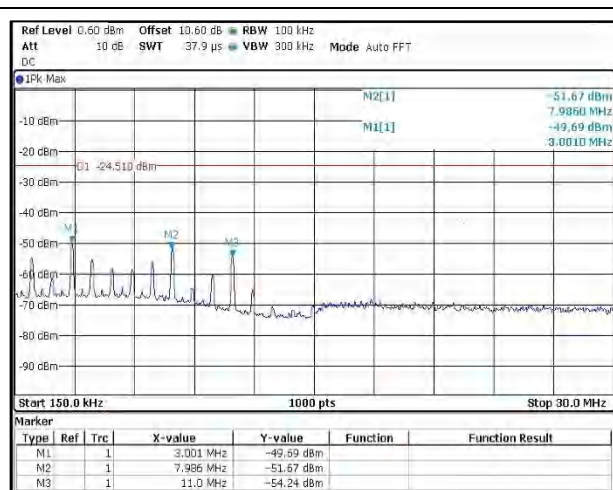
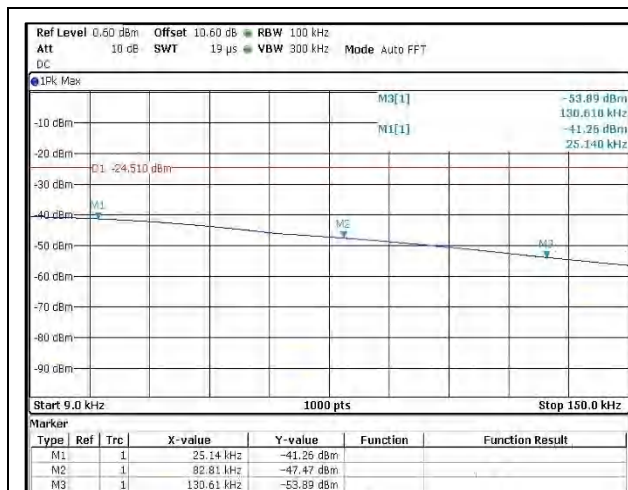
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7.4.2 Out-Of-Band Emissions

Modulation: 802.11b

Data rate 1Mbps

Channel Frequency 2412MHz

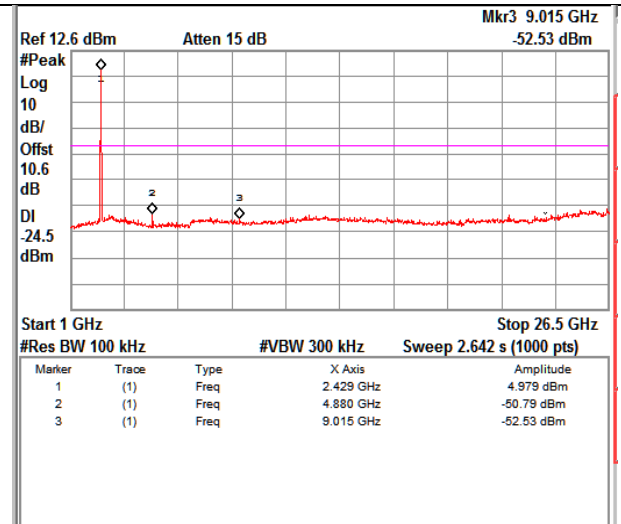
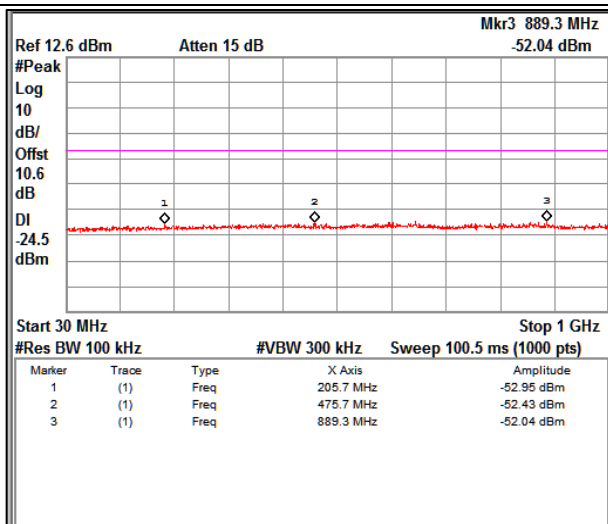
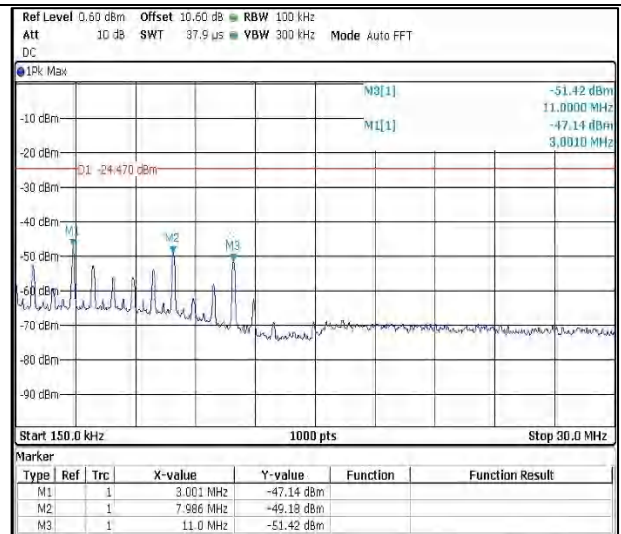
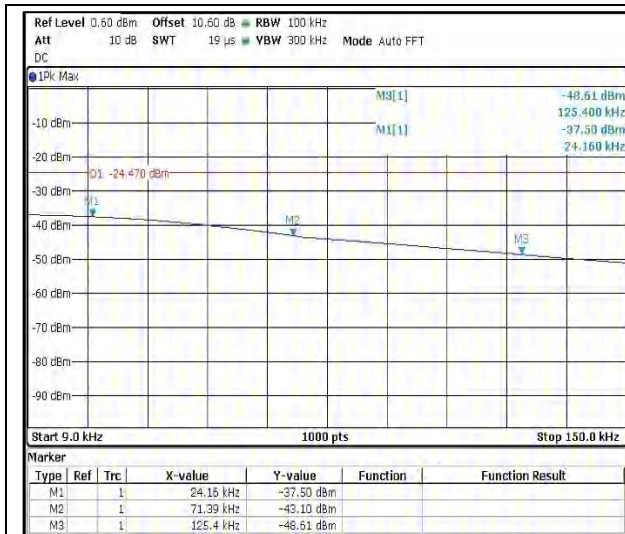


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Channel Frequency 2437MHz



Prüfbericht - Nr.:

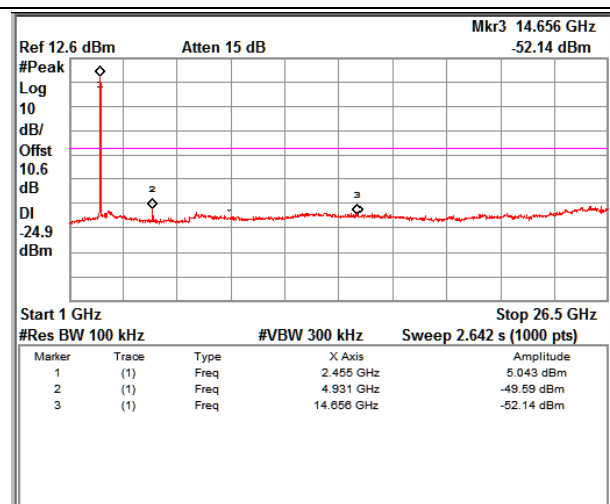
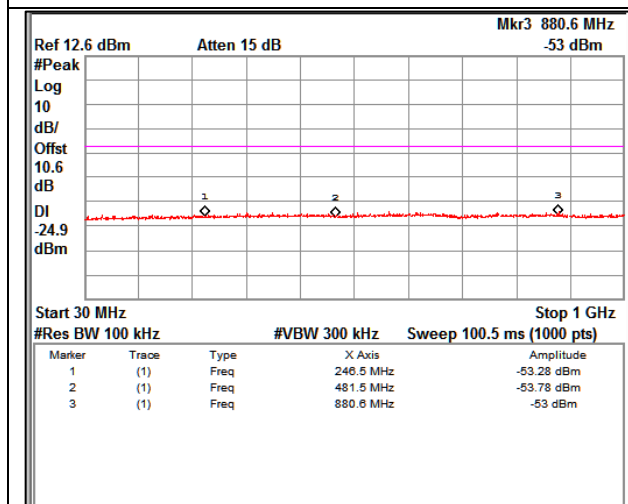
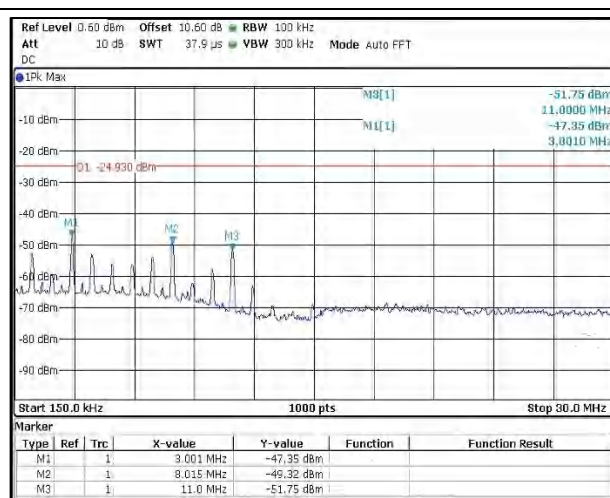
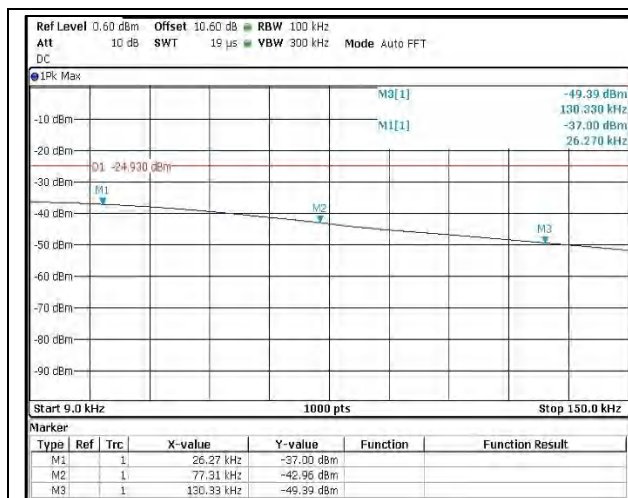
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Channel Frequency 2462MHz



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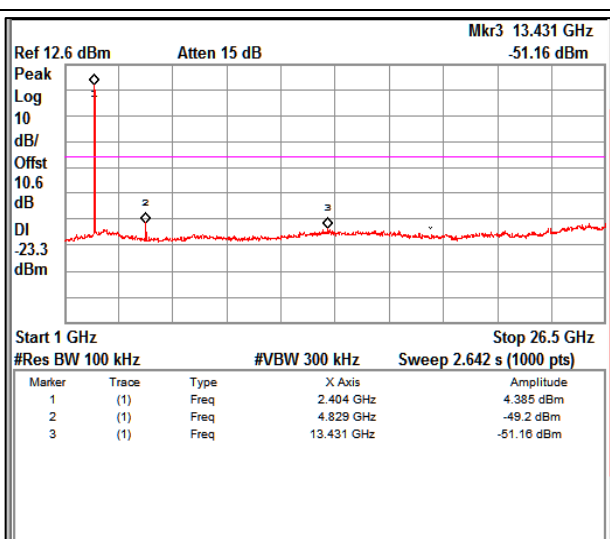
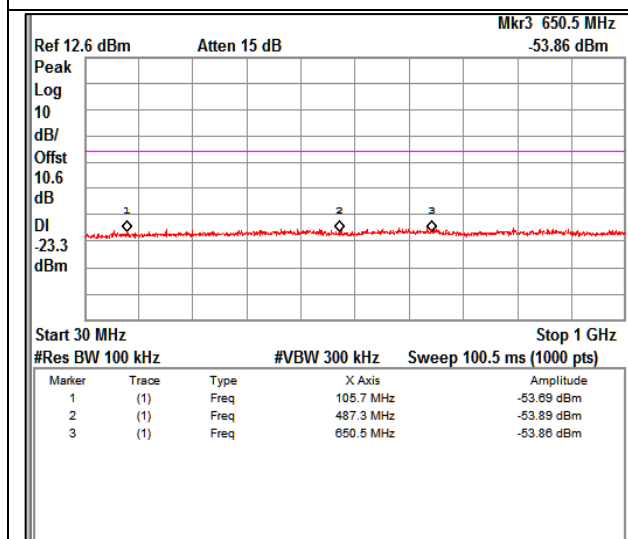
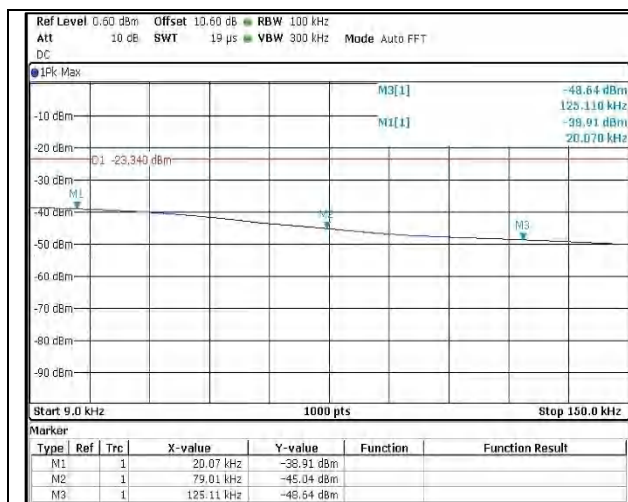
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Modulation: 802.11b

Data rate 11Mbps

Channel Frequency 2412MHz

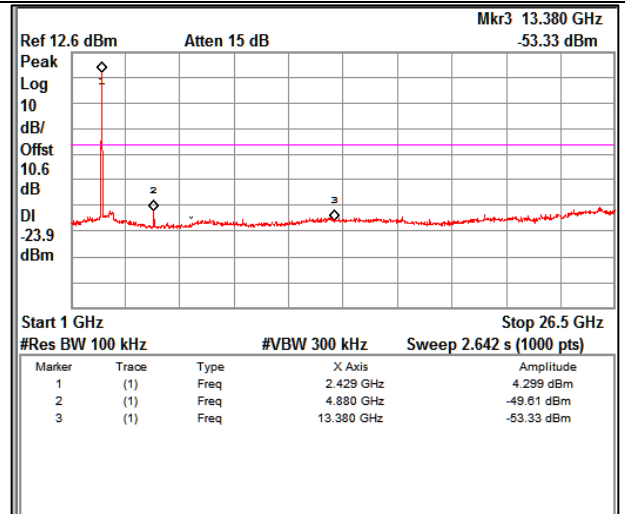
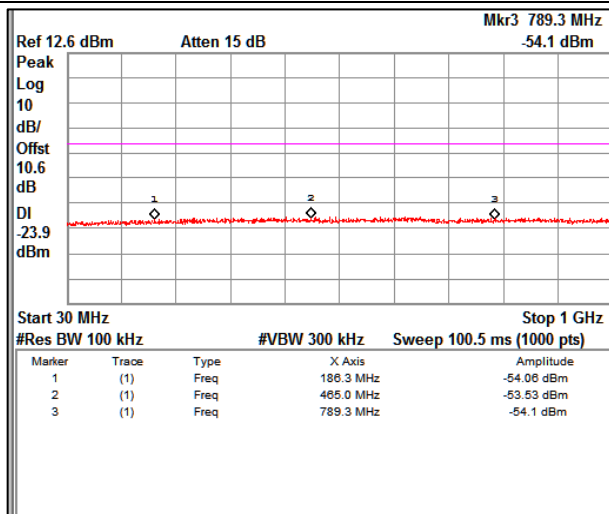
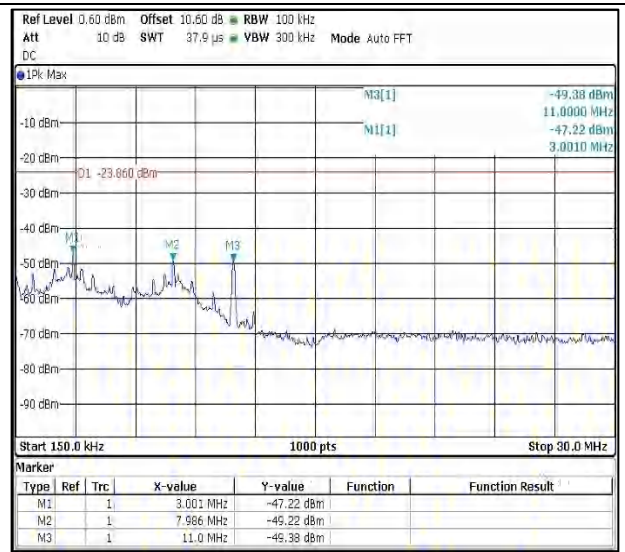
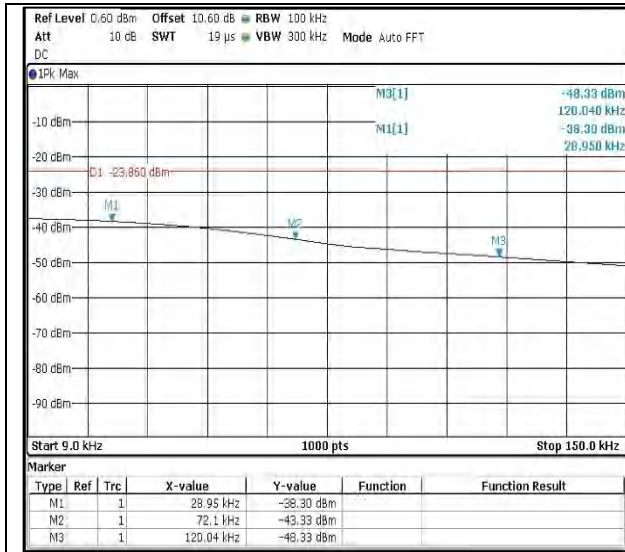


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Channel Frequency 2437MHz

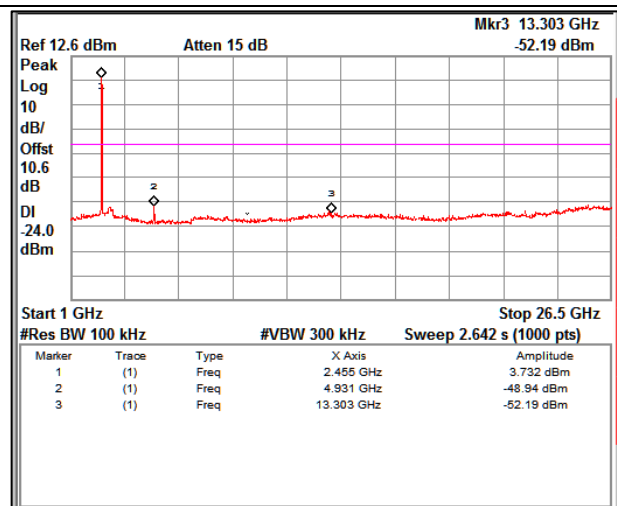
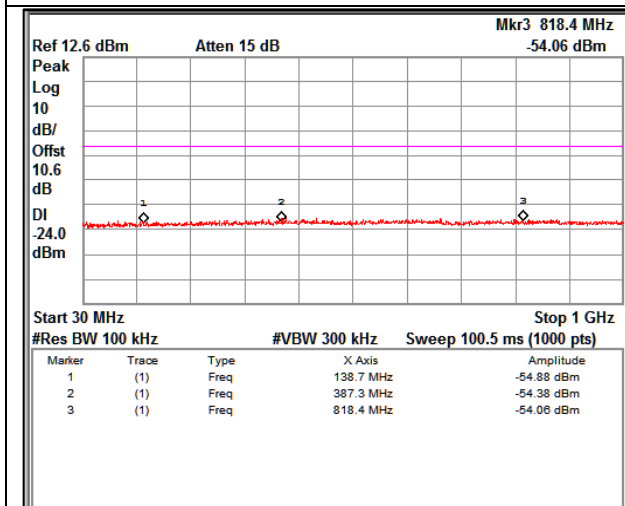
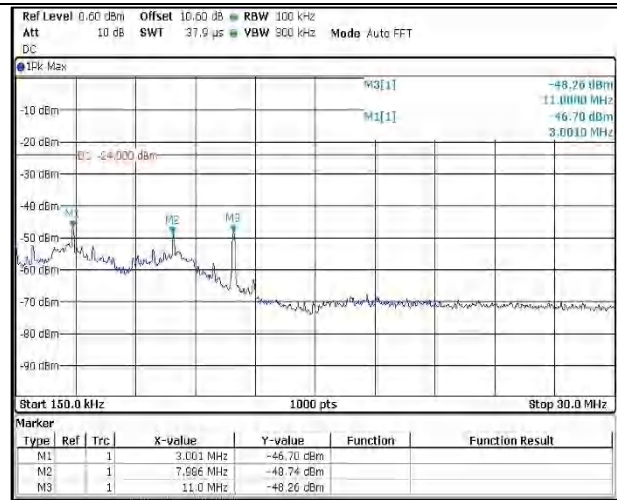
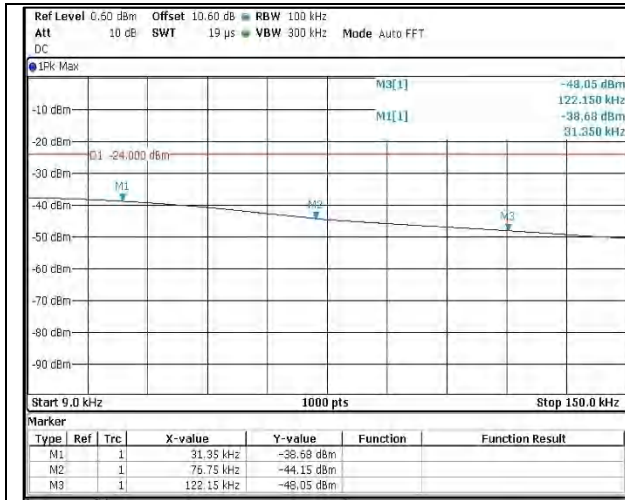


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Channel Frequency 2462MHz



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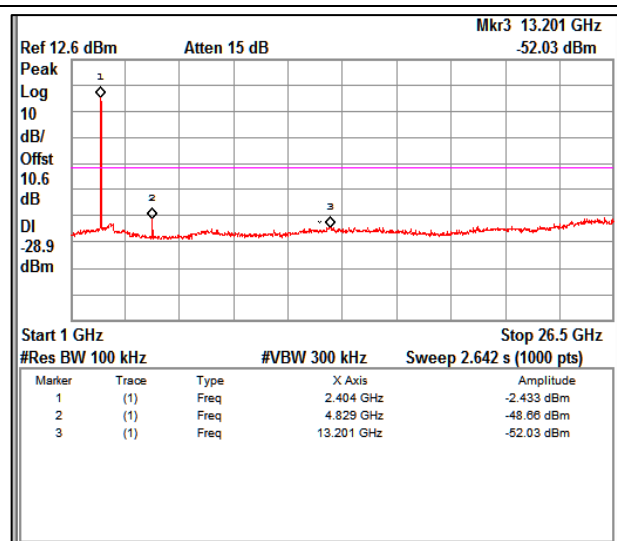
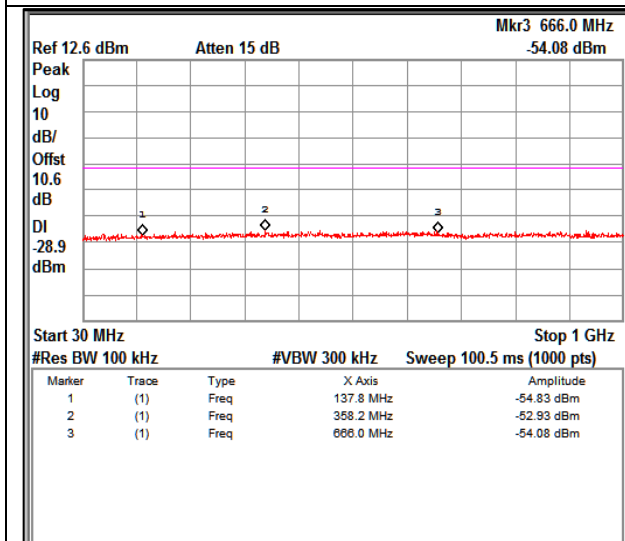
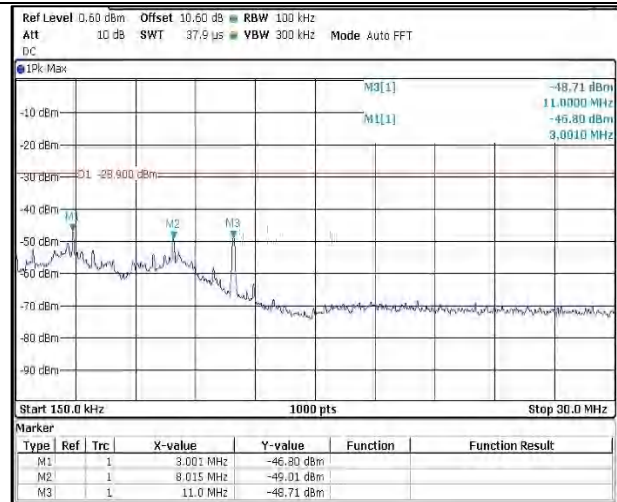
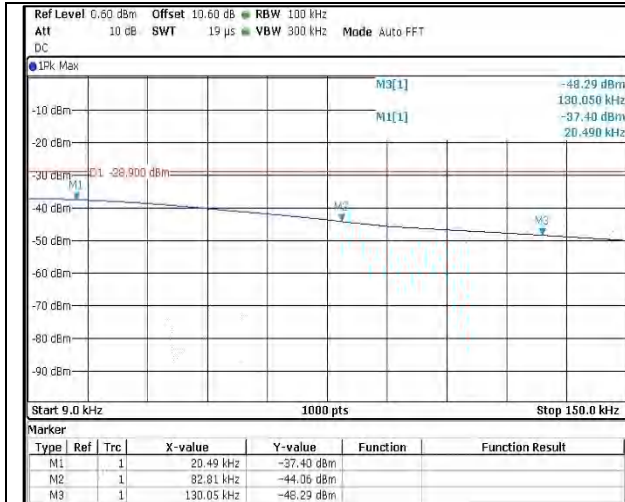
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Modulation: 802.11g

Data rate 6Mbps

Channel Frequency 2412MHz

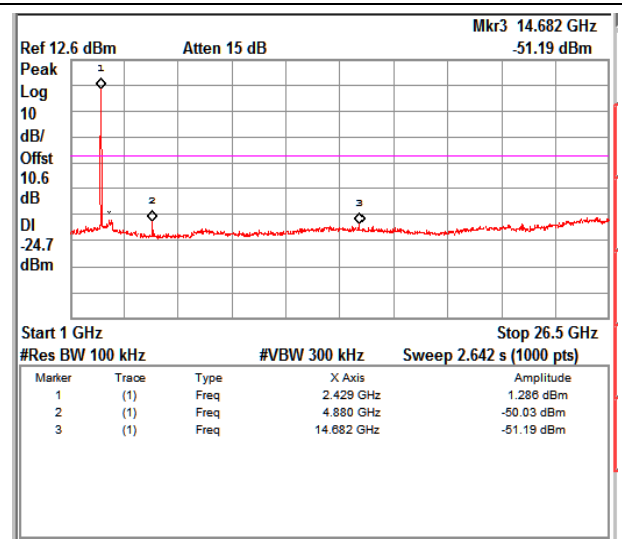
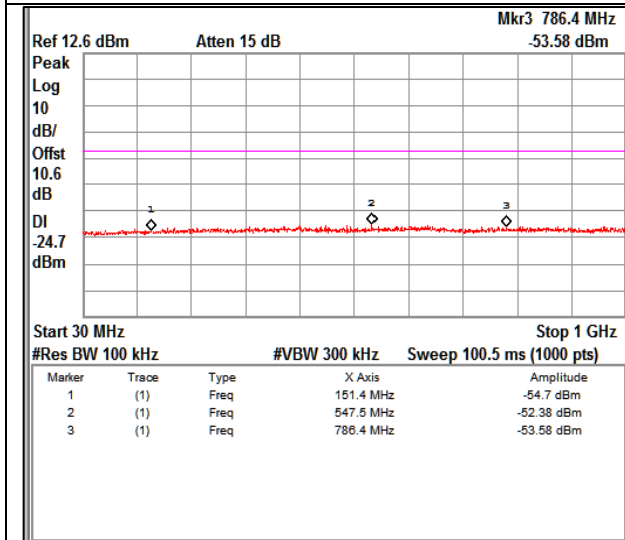
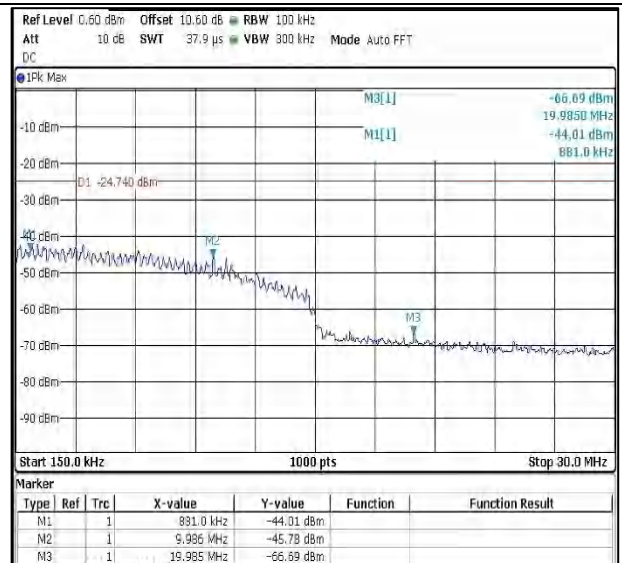
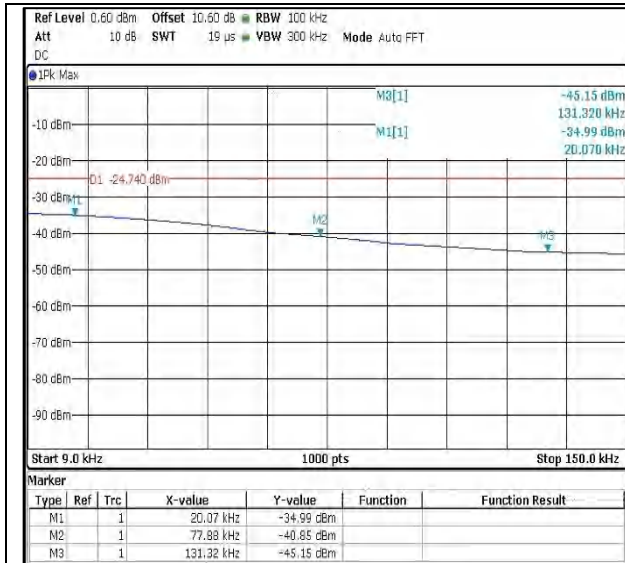


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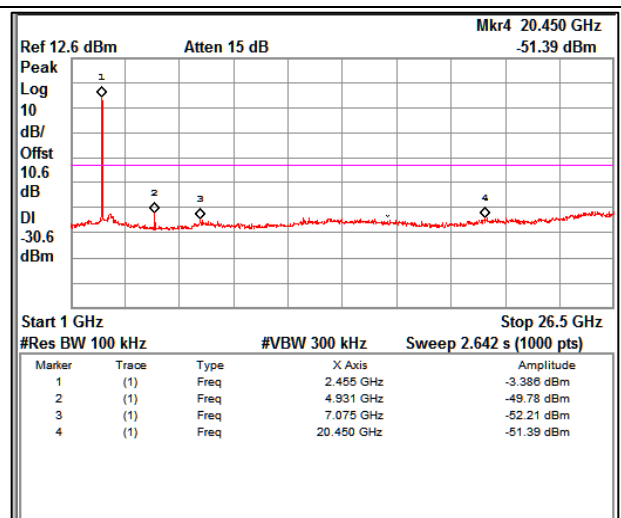
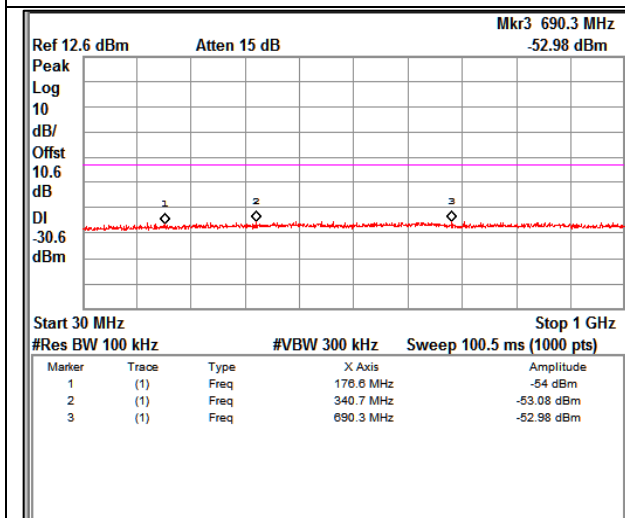
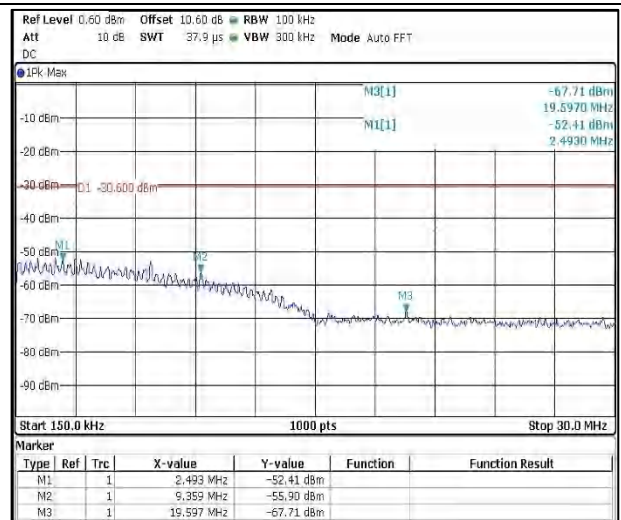
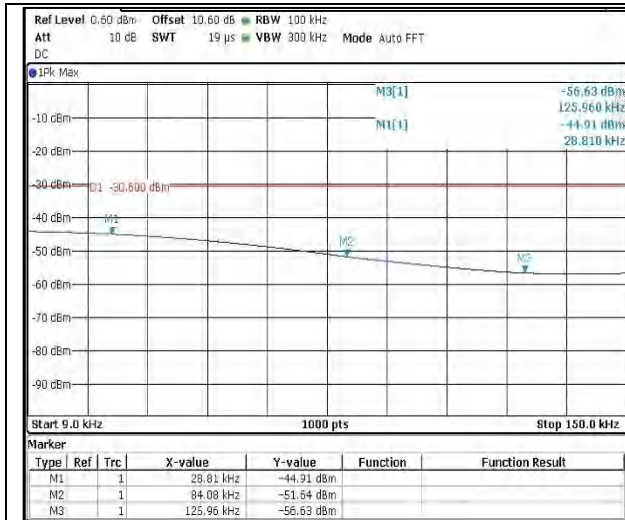


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Channel Frequency 2462MHz



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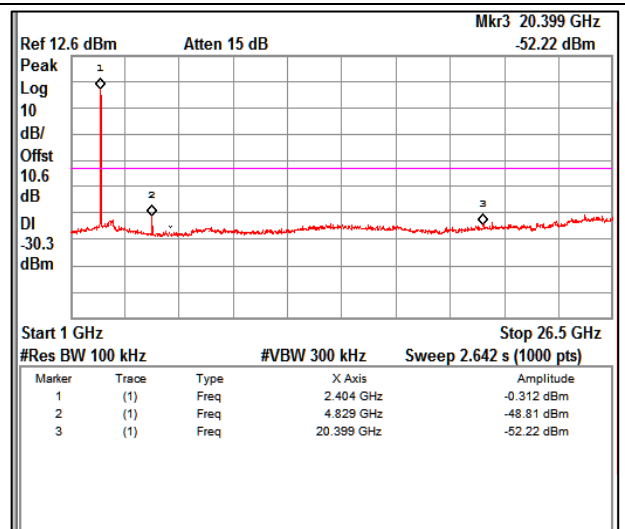
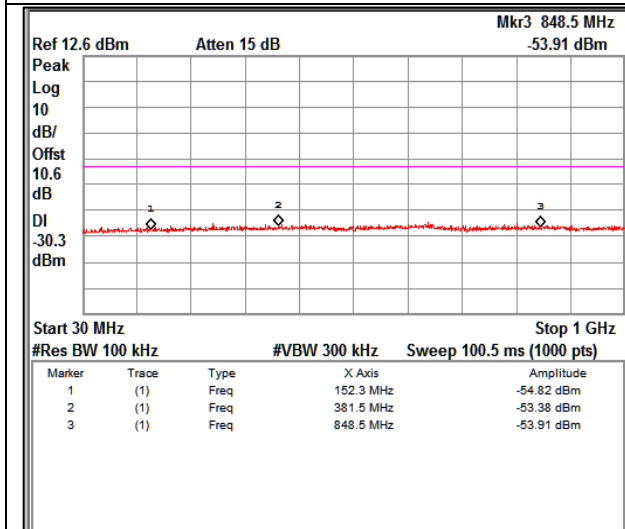
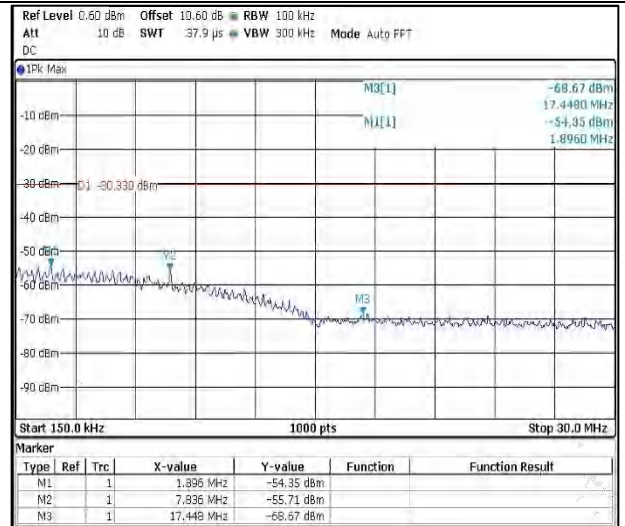
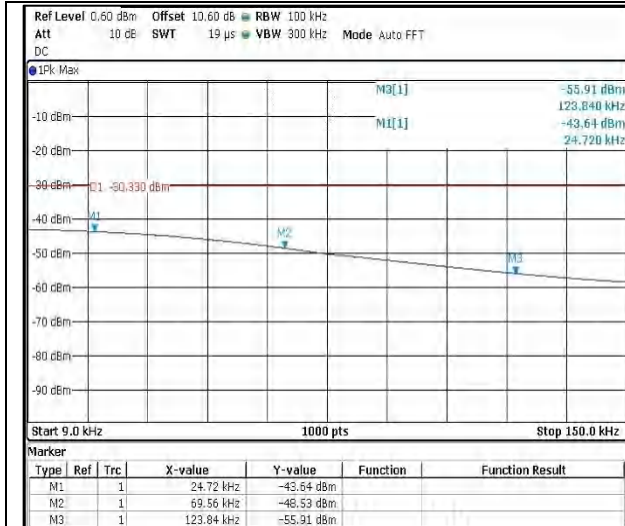
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Modulation: 802.11g

Data rate 24Mbps

Channel Frequency 2412MHz

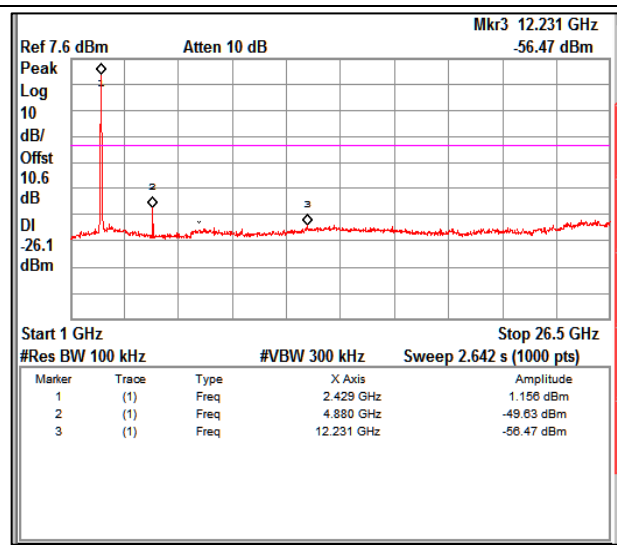
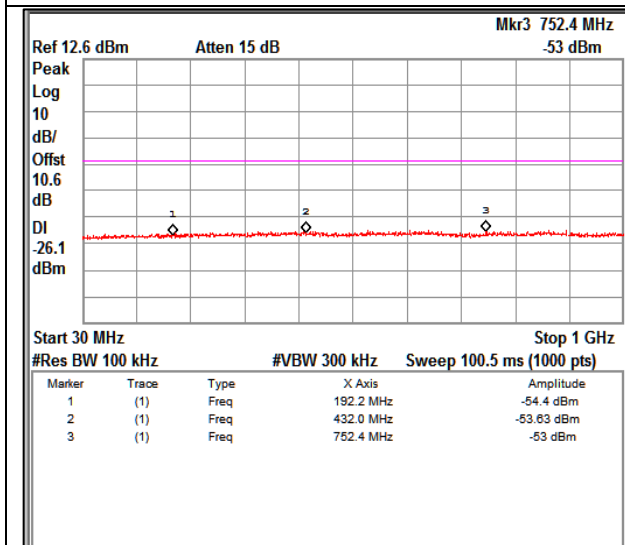
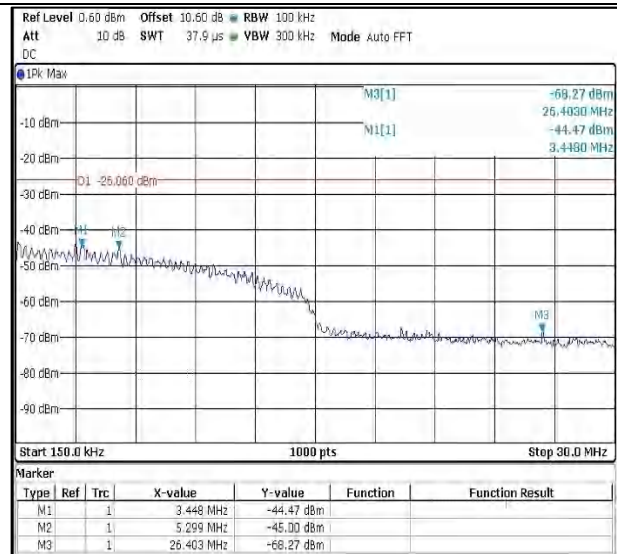
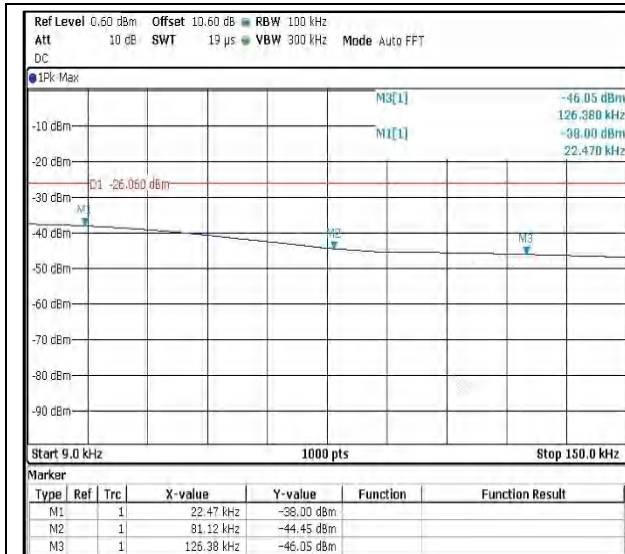


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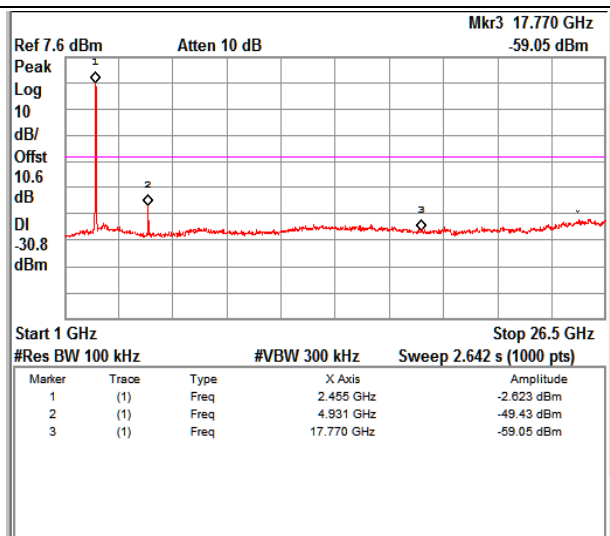
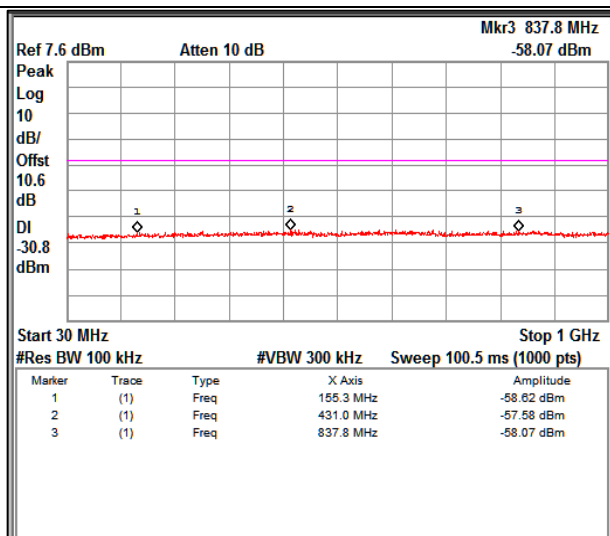
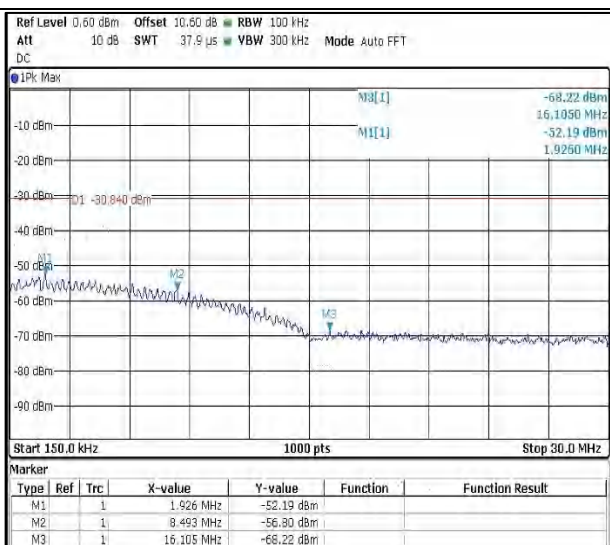
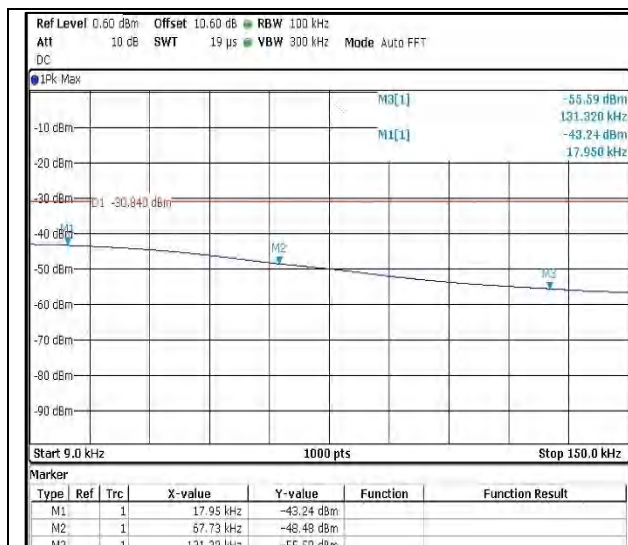


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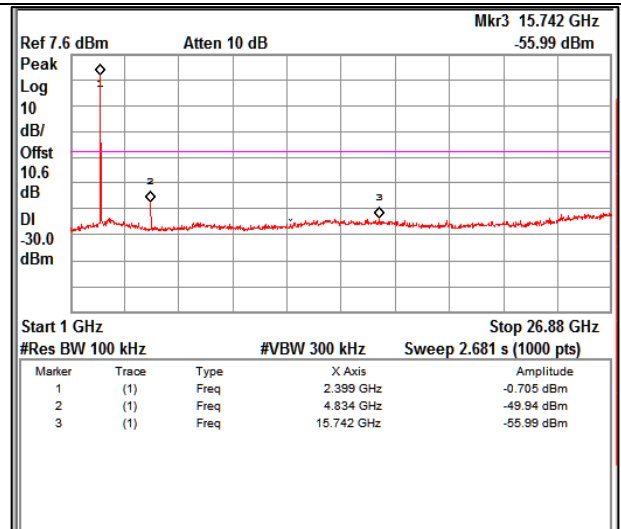
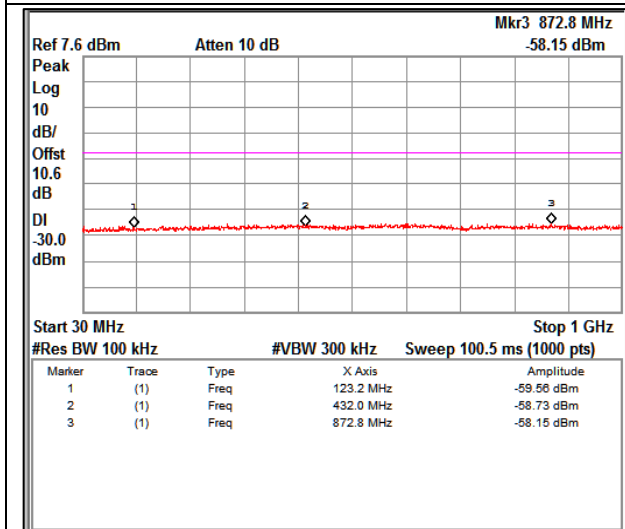
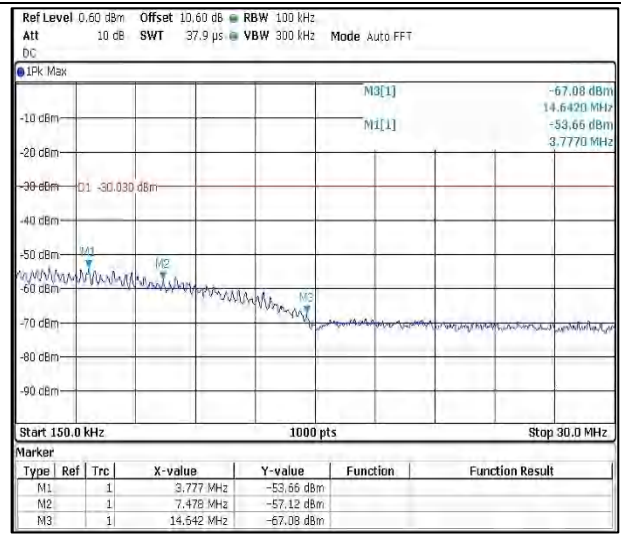
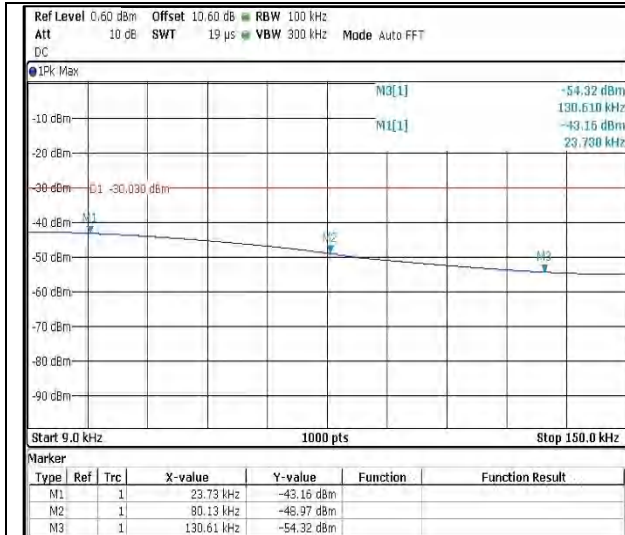
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Modulation: 802.11g

Data rate 54Mbps

Channel Frequency 2412MHz



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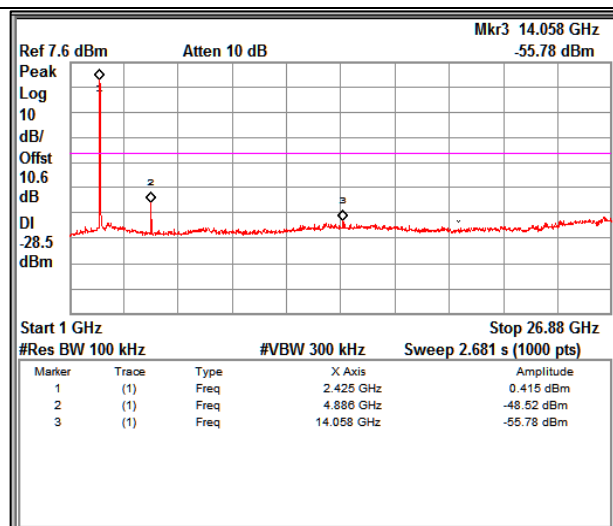
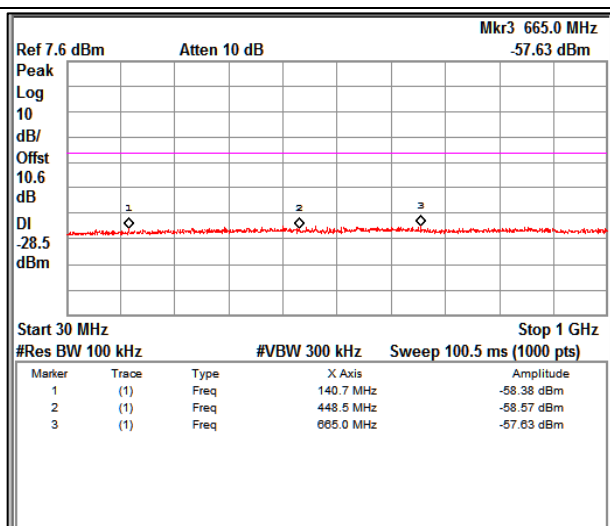
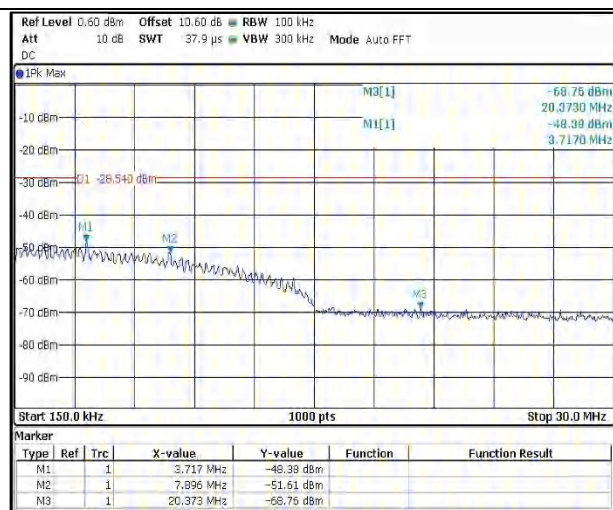
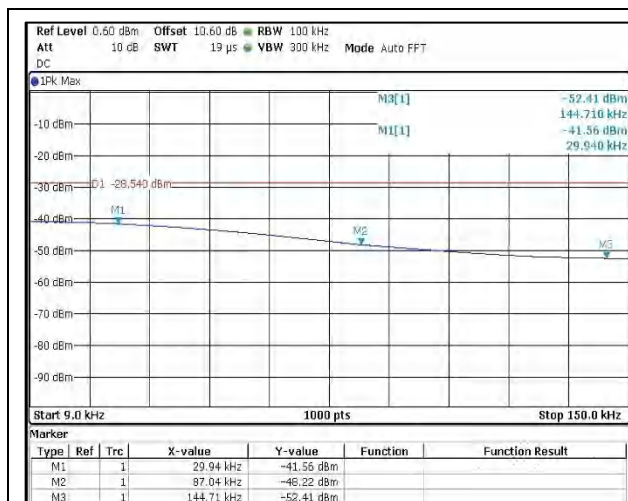
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Channel Frequency 2437MHz

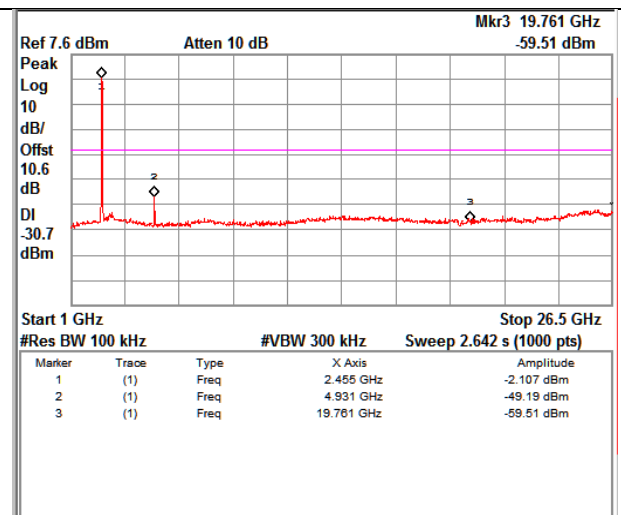
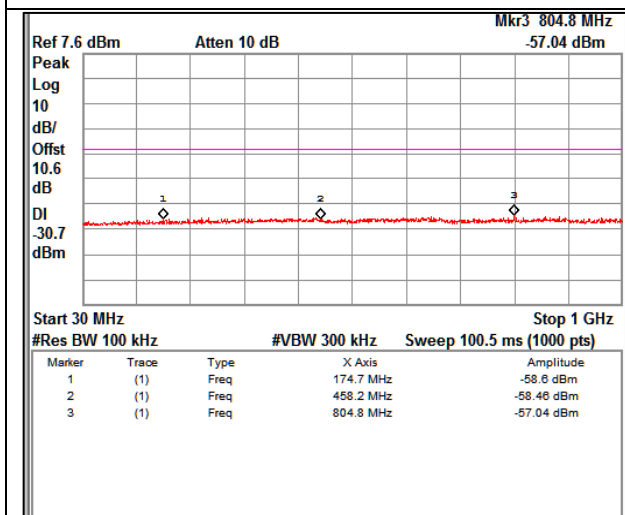
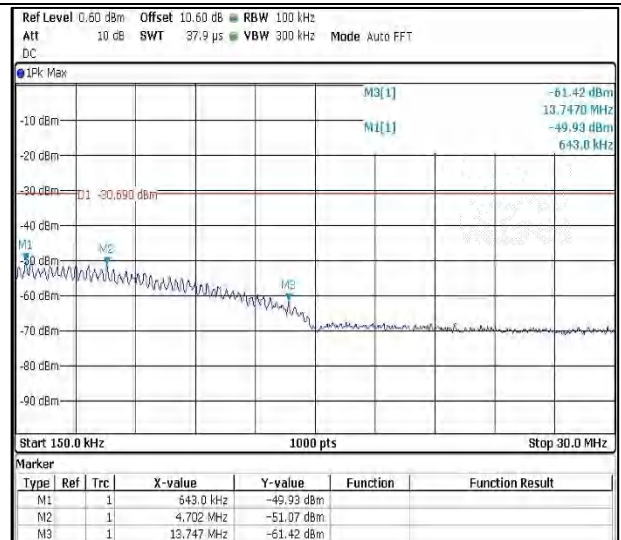
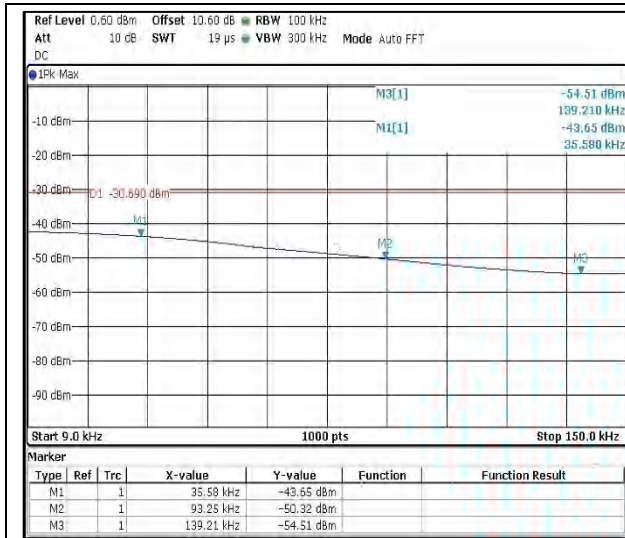


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Channel Frequency 2462MHz



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Modulation: 802.11n HT20

Data rate MCS0

Channel Frequency 2412MHz

