



Products

Prüfbericht - Nr.:	19660240 001			Seite 1 von 87
Test Report No.:				Page 1 of 87
Auftraggeber:	HANDHELD GROUP	AB		
Client:	Kinnegatan 17 A			
	531 33 Lidköping			
	Sweden			
	Tel: +46 (0) 510-54 71	70		
Gegenstand der Prüfung: Test item:	Rugged 7" Tablet			
Bezeichnung: Identification:	118207	Serien - Serial N		Engineering Sample
Wareneingangs-Nr.: Receipt No.:	1803156247		gsdatum: receipt:	20.07.2016
Prüfort: Testing location:	Refer Page 4 of 87 fo	r test facilities		
Prüfgrundlage:	FCC Part 15: Subpar	t C & RSS 247 lss	sue 1	
Test specification:	ANSI C63.10-2009, RSS Gen Issue 4			
Prüfergebnis:	Dor Priifgogonotond	ontonviolit alsos		
Test Result:	Der Prüfgegenstand The test items passed	the test specificat	jenannter P tion(s)	rufgrundlage(n).
	82			
Prüflaboratorium:	TÜV Rheinland (India	•		,
Testing Laboratory:	82/A, 3rd Main, West Wing, Hosur Road, Bangalore – 5	Electronic City Phase 30 100. India	1	
	FCC Registration No.	.: 176555 & IC OA	ATS Reg. No	ımber.: 3466E
geprüft / tested by:		kontrolliert / revie	ewed by:	
27.09.2016 Girish Kumar G Engineer	Già		paba Siddapu stant Manager	Taibaba
Datum Name/Stellung Date Name/Position	Unterschrift Signature	Datum Nam	ne/Stellung	Unterschrift
Sonstiges /Other Aspects:	FCC ID: YY3-11820		ne/Position	Signature
	richt Prüfgrundlage	Abbreviations:	P(ass) =	passed
F(ail) = entsp	richt nicht Prüfgrundlage anwendbar		F(ail) =	failed
	getestet		N/A = N/T =	not applicable not tested

auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfstelle nicht

This test report relates to the a.m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.

TÜV Rheinland India Pvt. Ltd. 82/A, 3rd Main, West Wing Electronic City Phase 1, Hosur Road, Bangalore-560100, India Tel.: +9180 6723 3500 · Fax: +9180 6723 3542 · Web: www.tuv.com



Test Result Summary

Test Item	CI	ause	Result
rest item	FCC	IC	Result
Maximum Peak Conducted Output Power	FCC 15.247(b) (3)	RSS 247 Issue 1, Section 5.4 (4)	Pass
DTS Bandwidth	FCC 15.247(a) (2)	RSS 247 Issue 1, Section 5.2 (1)	Pass
Maximum Power Spectral Density	FCC 15.247(e)	RSS 247 Issue 1, Section 5.2 (2)	Pass
Emissions in non-restricted frequency bands	FCC 15.247(d)	RSS 247 Issue 1, Section 5.5	Pass
Spurious Radiated Emissions and Restricted Bands of Operation	FCC 15.209 / FCC 15.205	RSS-Gen Issue 4,Section 8.9/8.10	Pass
Conducted Emissions on A.C Power Lines	FCC Part 15.207	RSS-Gen Issue 4 section 8.8	Pass

Note: Conducted measurements are done according to the procedure given in KDB No. **558074 D01 DTS Meas Guidance v03r05**

Test Report No.: 19660240 001 Date: 27.09.2016 Page 2 of 87



Content

List of Test and Measurement Instruments	4
General Product Information	5
Product Function and Intended Use	
Ratings and System Details	5
Test Set-up and Operation Mode	6
Principle of Configuration Selection	6
Test Operation and Test Software	
Test Modes – Data Rates and Modulations	
Test Methodology	
. ,	
Radiated Emission Test	
Conducted Emission Test on A.C. mains line	
Maximum Average Conducted Output Power	10
Maximum Power Spectral Density	Section 15.247(e)24
Maximum Power Spectral Density 6 dB Bandwidth	
Emissions in non-restricted frequency bands	52
Radiated Spurious Emissions and Restricted Bands of Operation	75
Conducted Emission Test on A.C. Power Line	85

Appendix 1: Test Setup Photo

Appendix 2: EUT External Photo

Appendix 3: EUT Internal Photo

Appendix 4: FCC Label and Label Location

Appendix 5: Block Diagram

Appendix 6: Specification of EUT

Appendix 7: Schematic Diagrams

Appendix 8: Bill of Material

Appendix 9: User Manual

Appendix 10: SAR Report

Test Report No.: 19660240 001 Date: 27.09.2016 Page 3 of 87



List of Test and Measurement Instruments

.

Equipment	Manufacturer	Model Name	Serial Number	Calibration Due Date	Periodicity	Used for Test Items
EMI Test Receiver	Rohde & Schwarz	ESU 40	100288	23.11.2016	Yearly	
Broadband Antenna	Frankonia	ALX-4000	ALX-4000- 806	20.01.2017	Yearly	
Active Loop Antenna	Frankonia	LAX-10	LAX-10-800	22.12.2016	Yearly	Spurious
Broadband Horn Antenna	Frankonia	HAX-18	HAX18-802	14.03.2017	Yearly	Radiated Emissions
Double-Ridged Waveguide Horn Antenna	ETS Lindgren	116706	00107323	02.11.2016	Yearly	
Anechoic Chamber	Frankonia	-	-		-	
Spectrum Analyser	Agilent Technologies	E4407B	US41192772	23.04.2017	Yearly	Antenna - Port
Signal Analyzer	Rohde & Schwarz	FSV7	101644	07.12.2016	Yearly	Conducted Tests
LISN	Rohde & Schwarz	ENV4200	100163	03.02.2017	Yearly	Conducted Emission
EMI Receiver	Rohde & Schwarz	ESR7	101133	19.11.2016	Yearly	test on AC power lines

Testing Facilities

TUV Rheinland (India) Private Limited 108, Beside ISBR Business School, Electronic city Phase I Bangalore - 560 100

Test Report No.: 19660240 001 Date: 27.09.2016 Page 4 of 87



General Product Information

Product Function and Intended Use

The Algiz RT7 is a rugged tablet, designed for use by field personnel in demanding conditions. It integrates best-in-class connectivity with efficient computing and multimedia features. The tablet runs Android Lollipop (5.1.1) operating system, and comes pre-installed with many Google applications, including Google Play.

Ratings and System Details

Operating Frequency Range	2400MHz – 2483.50MHz				
No. of channel	11				
Channel Spacing	5MHz				
	802.11b	13.48 dBm / 22.284mW			
Transmitted Power	802.11g	09.05 dBm / 8.035mW			
	802.11n 09.09 dBm / 8.1096mW				
Data Rate	802.11b: 1, 2, 5.5, 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: 6.5, 13, 19.5, 26, 39, 52, 58.5, 65 Mbps				
Number of antenna	One				
Antenna Gain	0dBi				
Antenna Type	Isotropic Antenr	na (Integrated)			
Supply Voltage to Product	Internal Battery Pack -> 3.7- 4.2 VDC & Adaptor 5VDC to EUT				
Environmental	Storage Temperature -> -40°C to +70 °C Operating Temperature-> -20°C to 50°C in a humidity up to 95% noncondensing				

Test Conditions:

Supply Voltage: 3.7- 4.2 VDC & Adaptor 5VDC to EUT

Environmental conditions:

Temperature: +24.2 ° C RH: 54%

Test Report No.: 19660240 001 Date: 27.09.2016 Page 5 of 87



Test Set-up and Operation Mode

Principle of Configuration Selection

Transmission was enabled with duty cycle more than 98% on low, mid and high channel & also enabled hopping mode during measurements.

Test Operation and Test Software

QRCT test software (from QUALCOMM) was used to enable continuous transmission with duty cycle more than 98%, changing channels (low/mid/high), & hopping mode and select data rates on the EUT for the tests in this report.

Special Accessories and Auxiliary Equipment

None

Countermeasures to achieve EMC Compliance

-Testing was conducted with the Power adaptor (Adaptor image attached in external photos) cable connected to the AC mains & a ferrite bead was used on the USB cable which is connected to the adaptor (accessory). The ferrite was strapped closer to the DUT during testig. Refer appendix 1 for test setup photos. Ferrite no. 742 711 12 & 742 717 33 (make: Wurth Electronics).

Test Modes - Data Rates and Modulations

For Radiated spurious emissions, the tests were performed for all data rates and only worst case results are reported in this report.

Note: Power Setting & Mode used during testing

802.11b mode tested with SCPC mode with 16.5dB setting 802.11gn mode tested with SCPC mode with 10.5dB setting

List of Centre Frequencies

Frequency Band	Channel No.	Channel Frequency
(MHz)	Channel No.	(MHz)
	1	2412
	2	2417
	3	2422
	4	2427
	5	2432
2400 – 2483.5	6	2437
	7	2437
	8	2447
	9	2452
	10	2457
	11	2462

Test Report No.: 19660240 001 Date: 27.09.2016 Page 6 of 87



Operational description

Whether you're collecting data, crunching numbers or viewing graphics, the Algiz RT7's powerful Qualcomm quad-core processor provides reliable, uninterrupted work performance.

And the Algiz RT7 doesn't just run Android flawlessly — its capacitive touchscreen also enhances the Android experience with five-point multi-touch capability, 600-nit high-brightness sunlight readability and chemically strengthened glass.

Yet the Algiz RT7 also meets stringent MIL-STD-810G military standards for withstanding extreme temperatures, drops and vibrations, and its IP65 rating means it's waterproof and fully protected against sand and dust.

Note: Product Rugged 7" Tablet has multiple protocols. All the supported wireless protocols and their respective test report numbers are mentioned in the below table.

Radio Protocol	Report Number
NFC	19660243 001
Bluetooth	19660241 001
BLE	19660242 001
GSM	19660244 001
W-CDMA	19660245 001
LTE	19660246 001

Test Report No.: 19660240 001 Date: 27.09.2016 Page 7 of 87



Test Methodology

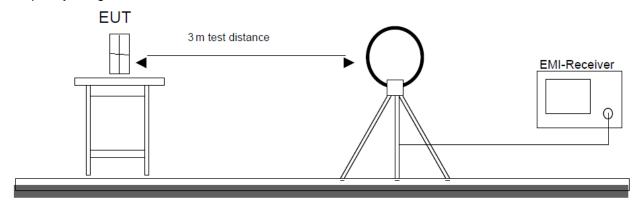
Radiated Emission Test

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 1GHz & 1.5m height for above 1GHz 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 1m and 4m, 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 1000MHz was performed by horn antenna. The measurement below 30MHz was performed by loop antenna.

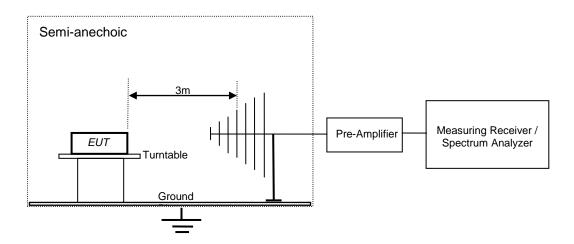
The EUT was rotated around the X-, Y-, and Z-Axis and the results from worst case axis are recorded.

Test Setup Configuration

Frequency Range 9 kHz -30 MHz



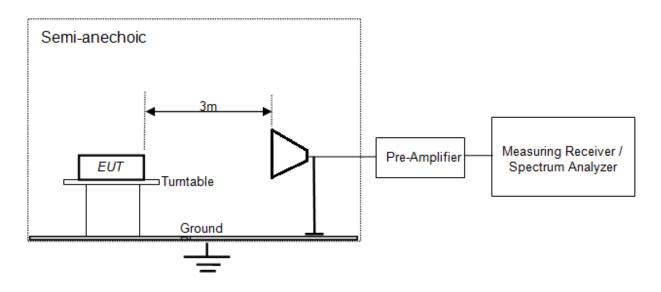
Frequency Range 30MHz -1GHz



Test Report No.: 19660240 001 Date: 27.09.2016 Page 8 of 87

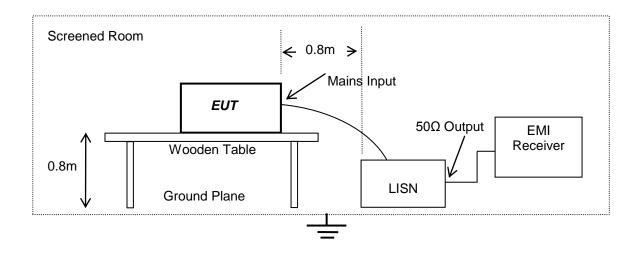


Frequency above 1GHz



Conducted Emission Test on A.C. mains line

The equipment under test (EUT) was placed on a wooden table 80cm above the ground plane, the LISN was place 80cm away from the EUT. The test was performed in accordance with ANSI C63.10 - 2013, with the following: an initial measurement was performed in peak and average detection mode on the live and neutral lines. The pre-scan was performed by peak detection on both live and neutral conductors. Any emissions recorded within 20dB of the relevant limit line were re-measured using quasi-peak and average detections, the 6 worst cases was recorded in the table of results.



Test Report No.: 19660240 001 Date: 27.09.2016 Page 9 of 87



Test Results

Maximum Average Conducted Output Power Result

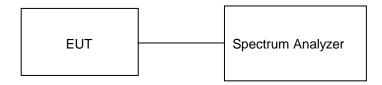
Pass

Test Specification FCC Part 15.247(b) (3) & RSS 247 Issue 1, Section 5.4 (4)

Measurement Bandwidth (RBW) 1MHz

Requirement ≤1 watt (30dBm).

Test Method:



Note: For measurement of Maximum Average conducted output power method AVGSA-1 was used

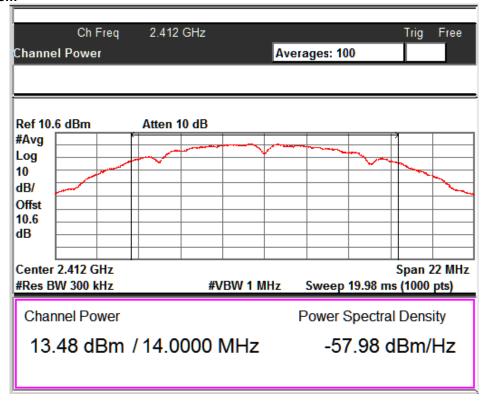
Cable Loss (0.6dB) & Attenuator (10dB) considered in the test results

Test Result:

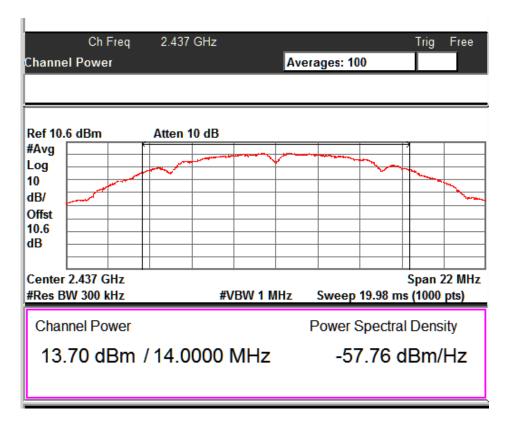
802.11 Protocol	Data Rate (Mbps)	Channel Frequency (MHz)	Power (dBm)	Limit (dBm)	Margin (dB)
		2412.00	13.48	30	-16.52
	1	2437.00	13.70	30	-16.3
h		2462.00	12.90	30	-17.1
11	2412.00	13.15	30	-16.85	
	11	11 2437.00	13.23	30	-16.77
		2462.00	12.39	30	-17.61

Test Report No.: 19660240 001 Date: 27.09.2016 Page 10 of 87





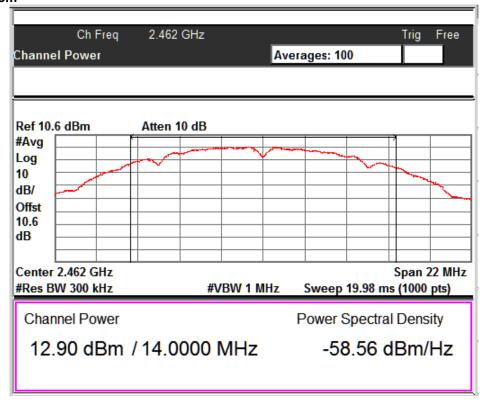
Data rate: 1 Mbps Channel Frequency: 2412 MHz



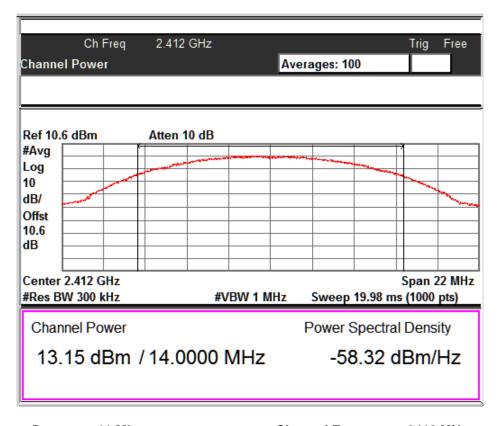
Data rate: 1 Mbps Channel Frequency: 2437 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 11 of 87





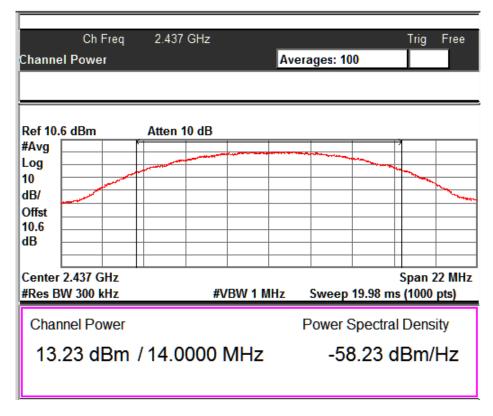
Data rate: 1 Mbps Channel Frequency: 2462 MHz



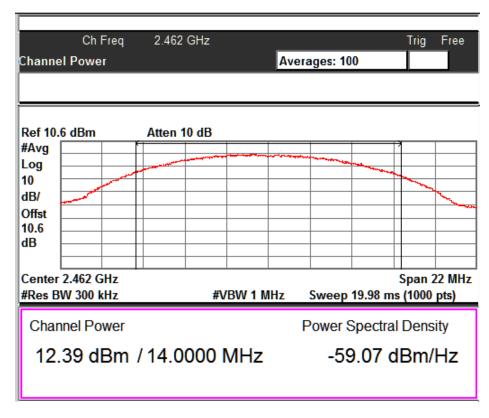
Data rate: 11 Mbps Channel Frequency: 2412 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 12 of 87





Data rate: 11 Mbps Channel Frequency: 2437 MHz

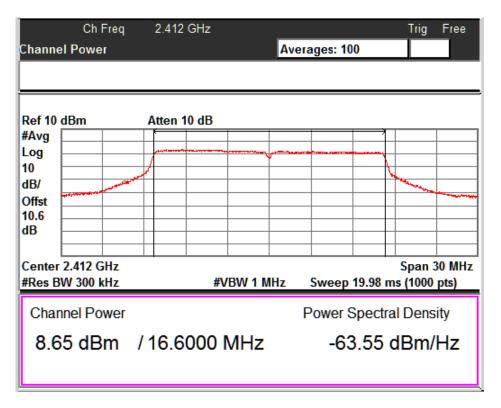


Data rate: 11 Mbps Channel Frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 13 of 87



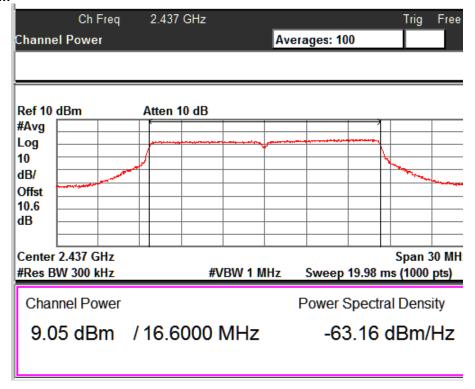
802.11 Protocol	Data Rate (Mbps)	Channel Frequency (MHz)	Power (dBm)	Limit (dBm)	Margin (dB)
		2412.00	8.65	30	-21.35
	6	2437.00	9.05	30	-20.95
		2462.00	8.01	30	-21.99
		2412.00	7.49	30	-22.51
g	24	2442.00	7.82	30	-22.18
		2462.00	7.19	30	-22.81
54		2412.00	6.17	30	-23.83
	54	2437.00	6.54	30	-23.46
		2462.00	5.60	30	-24.4



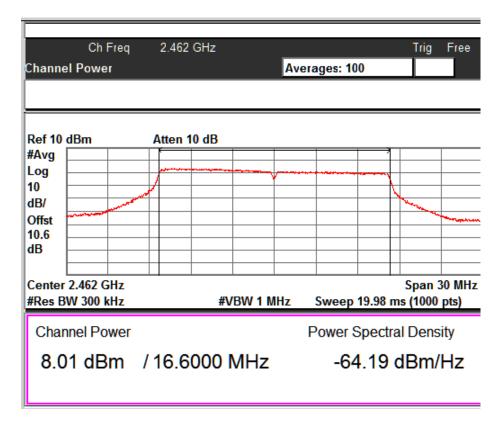
Data rate: 6 Mbps Channel Frequency: 2412 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 14 of 87





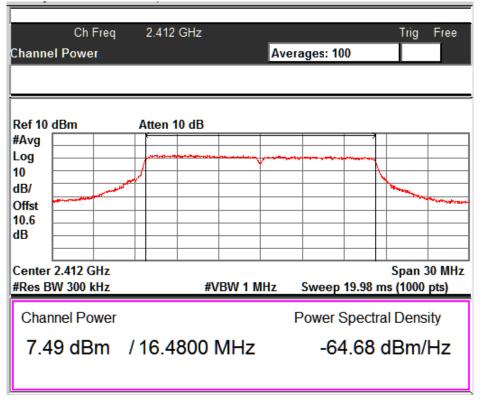
Data rate: 6 Mbps Channel Frequency: 2437 MHz



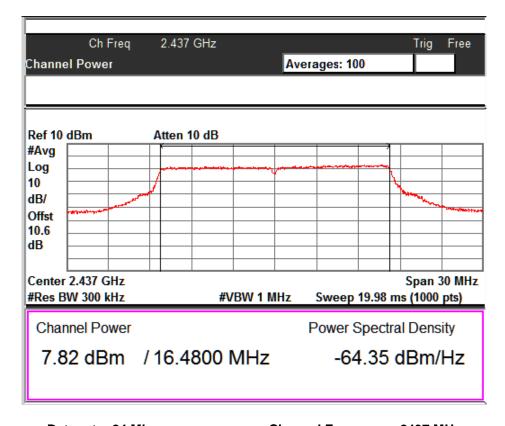
Data rate: 6 Mbps Channel Frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 15 of 87





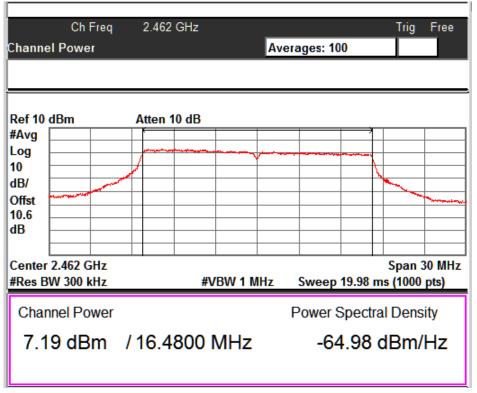
Data rate: 24 Mbps Channel Frequency: 2412 MHz



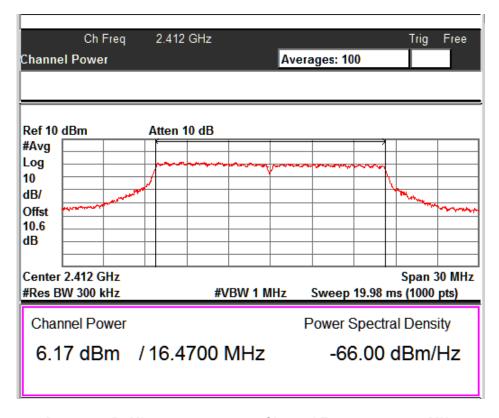
Data rate: 24 Mbps Channel Frequency: 2437 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 16 of 87





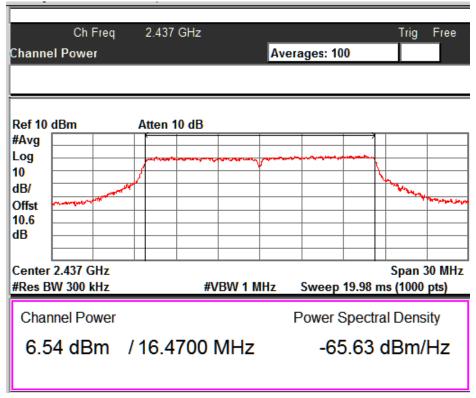
Data rate: 24 Mbps Channel Frequency: 2462 MHz



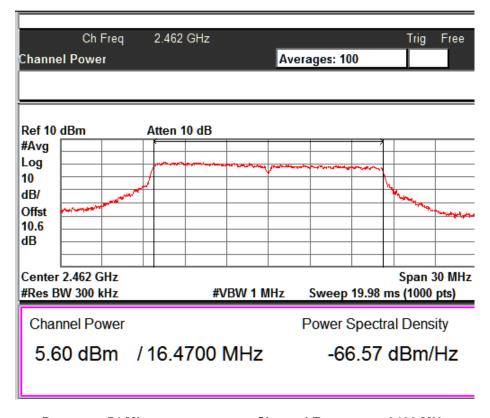
Data rate: 54 Mbps Channel Frequency: 2412 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 17 of 87





Data rate: 54 Mbps Channel Frequency: 2437 MHz

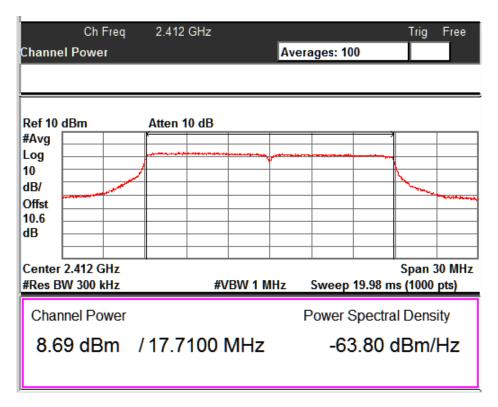


Data rate: 54 Mbps Channel Frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 18 of 87



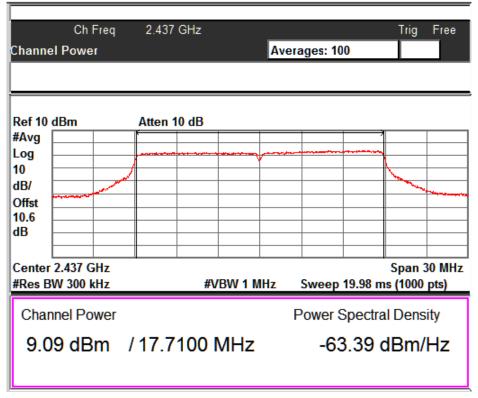
802.11 Protocol	Data Rate (Mbps)	Channel Frequency (MHz)	Power (dBm)	Limit (dBm)	Margin (dB)
		2412.00	8.69	30	-21.31
	MCS0	2437.00	9.09	30	-20.91
		2462.00	8.09	30	-21.91
		2412.00	6.92	30	-23.08
n	n MCS4	2437.00	7.32	30	-22.68
		2462.00	6.37	30	-23.63
		2412.00	6.16	30	-23.84
	MCS7	2437.00	6.55	30	-23.45
		2462.00	5.49	30	-24.51



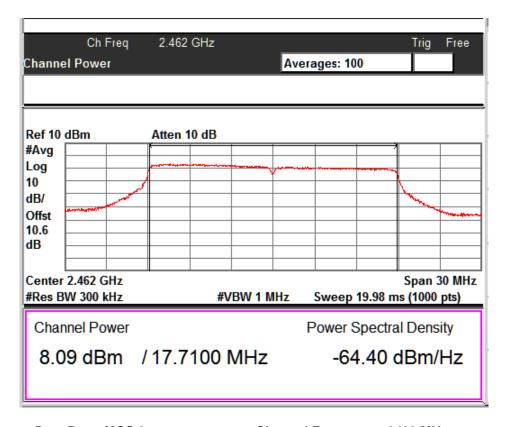
Data Rate: MCS 0 Channel Frequency: 2412 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 19 of 87





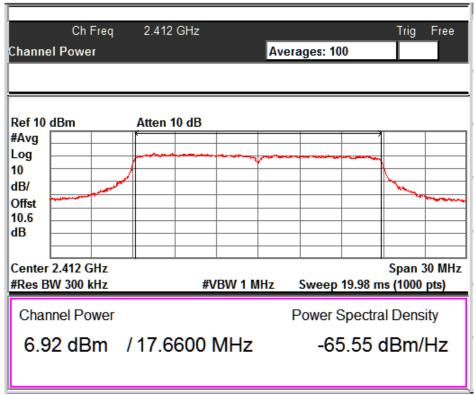
Data Rate: MCS 0 Channel Frequency: 2437 MHz



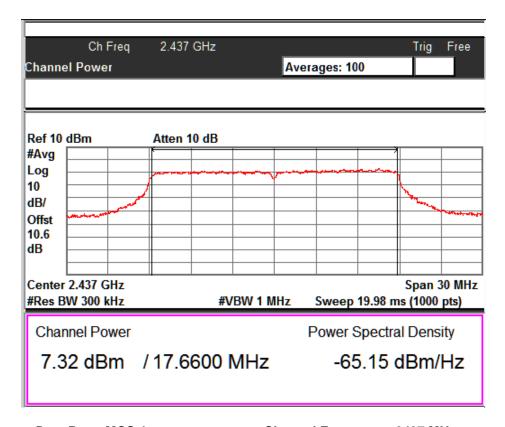
Data Rate: MCS 0 Channel Frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 20 of 87





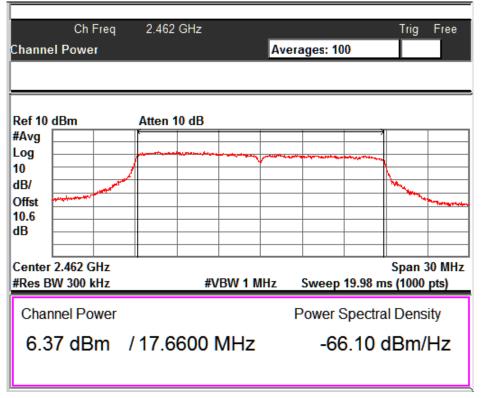
Data Rate: MCS 4 Channel Frequency: 2412 MHz



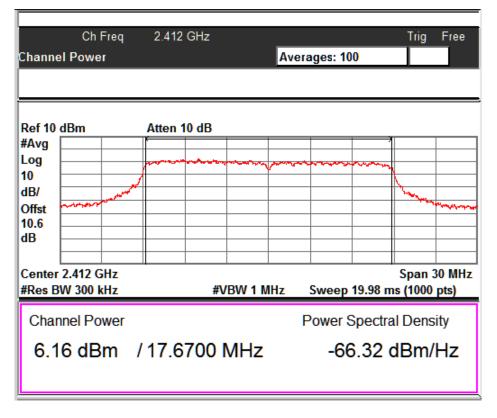
Data Rate: MCS 4 Channel Frequency: 2437 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 21 of 87





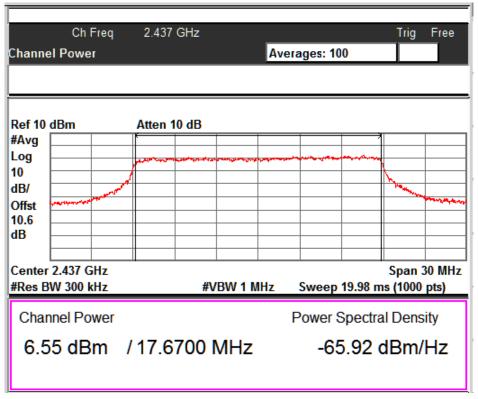
Data Rate: MCS 4 Channel Frequency: 2462 MHz



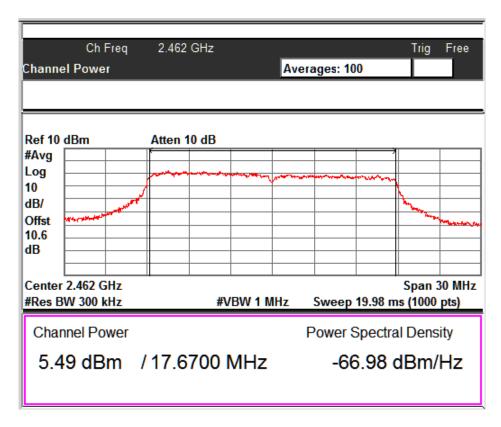
Data Rate: MCS 7 Channel Frequency: 2412 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 22 of 87





Data Rate: MCS 7 Channel Frequency: 2437 MHz



Data Rate: MCS 7 Channel Frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 23 of 87



Maximum Power Spectral Density Result

Section 15.247(e) **Pass**

Test Specification FCC Part 15.247 (e) & RSS 247 Issue 1, Section 5.2 (2)

Detector Function Peak

For digitally modulated systems, the power spectral density conducted from the intentional Requirement

radiator to the antenna shall not be greater than 8 dBm.

Note: For measurement of Maximum power spectral density option AVGPSD-1 was used

Cable Loss (0.6dB) & Attenuator (10dB) considered in the test results

Test Method:



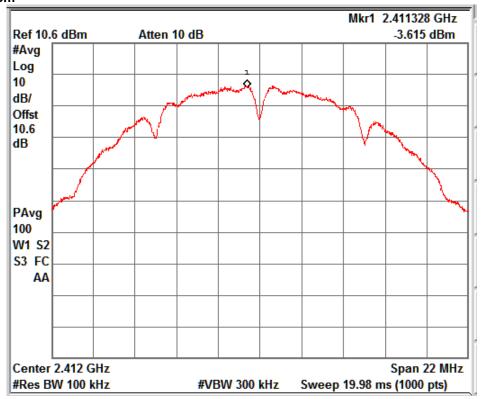
Cable Loss considered in the test results

Test Result:

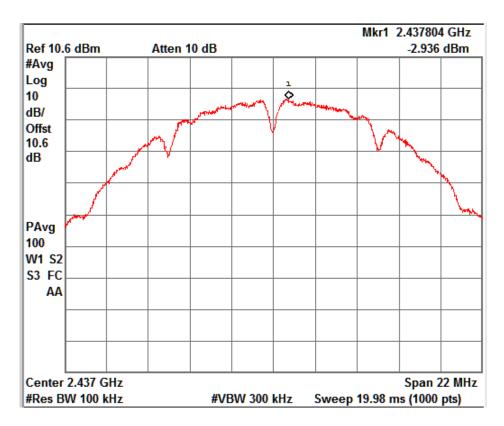
802.11 Protocol	Data Rate (Mbps)	Channel Frequency (MHz)	PSD (dBm)	Limit (dBm)	Margin (dB)
		2412.00	-3.615	8	-11.615
b 1	2437.00	-2.936	8	-10.936	
		2462.00	-4.227	8	-12.227
		2412.00	-5.005	8	-13.005
	11	2437.00	-4.184	8	-12.184
		2462.00	-4.267	8	-12.267

Test Report No.: 19660240 001 Date: 27.09.2016 Page 24 of 87





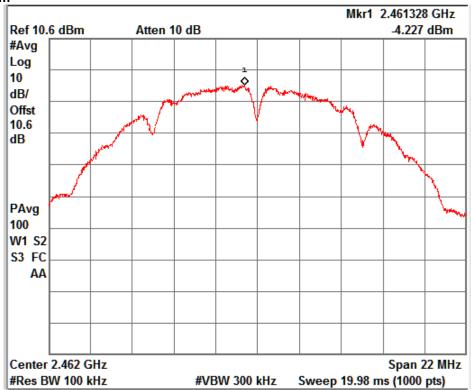
Data rate: 1 Mbps Channel Frequency: 2412 MHz



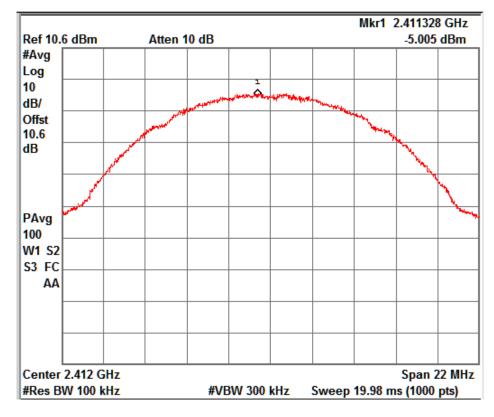
Data rate: 1 Mbps Channel Frequency: 2437 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 25 of 87





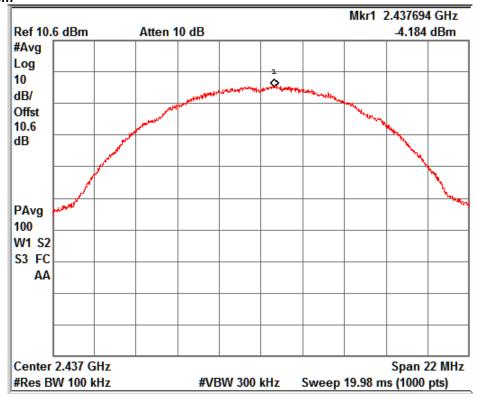
Data rate: 1 Mbps Channel Frequency: 2462 MHz



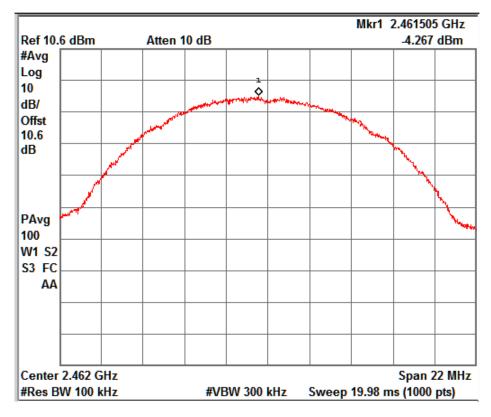
Data rate: 11 Mbps Channel Frequency: 2412 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 26 of 87





Data rate: 11 Mbps Channel Frequency: 2437 MHz

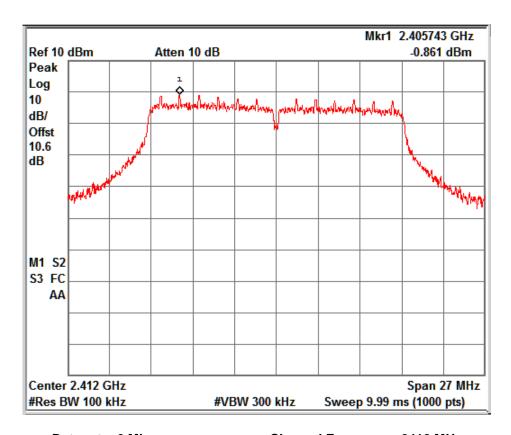


Data rate: 11 Mbps Channel Frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 27 of 87



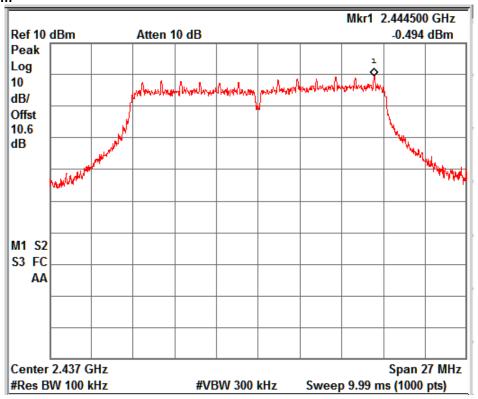
802.11 Protocol	Data Rate (Mbps)	Channel Frequency (MHz)	PSD (dBm)	Limit (dBm)	Margin (dB)
		2412.00	-0.861	8	-8.861
	6	2437.00	-0.494	8	-8.494
		2462.00	-0.93	8	-8.93
		2412.00	-0.738	8	-8.738
g	24	2437.00	-0.392	8	-8.392
		2462.00	-0.775	8	-8.775
54		2412.00	-0.645	8	-8.645
	54	2437.00	-0.296	8	-8.296
		2462.00	-0.611	8	-8.611



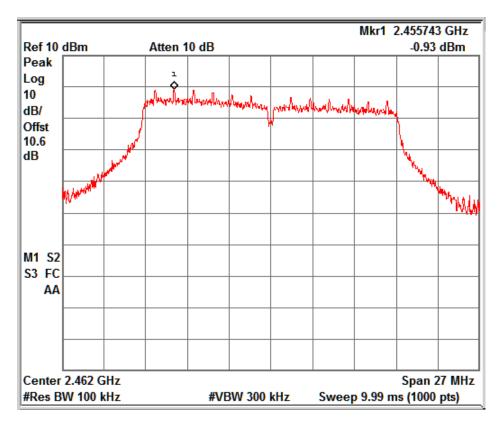
Data rate: 6 Mbps Channel Frequency: 2412 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 28 of 87





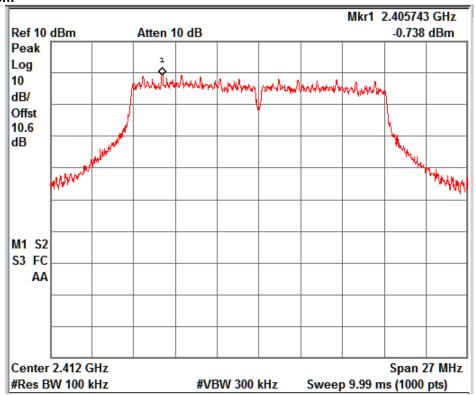
Data rate: 6 Mbps Channel Frequency: 2437 MHz



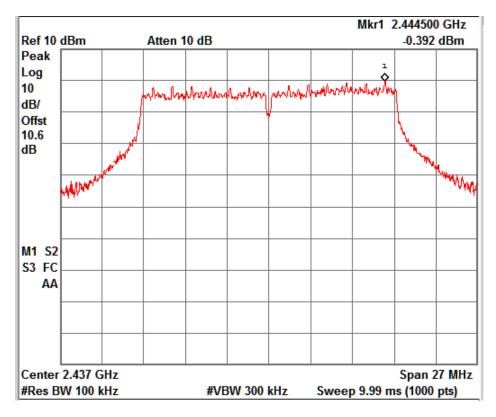
Data rate: 6 Mbps Channel Frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 29 of 87





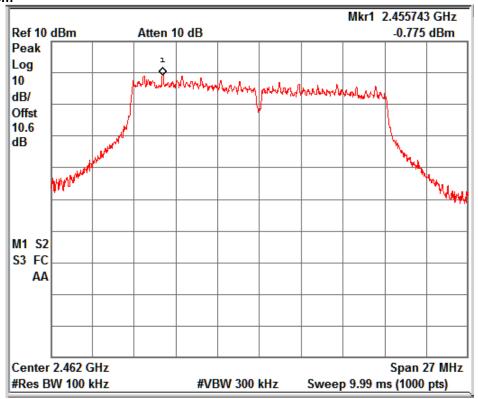
Data rate: 24 Mbps Channel Frequency: 2412 MHz



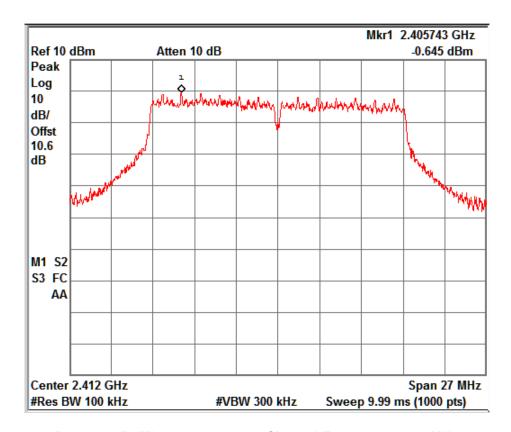
Data rate: 24 Mbps Channel Frequency: 2437 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 30 of 87





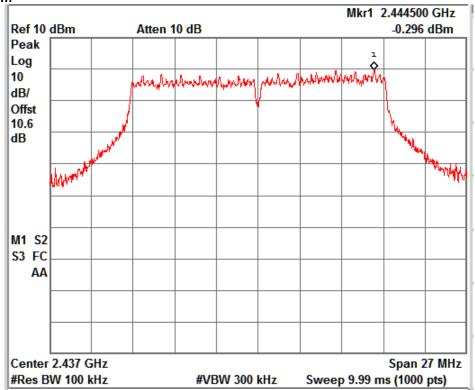
Data rate: 24 Mbps Channel Frequency: 2462 MHz



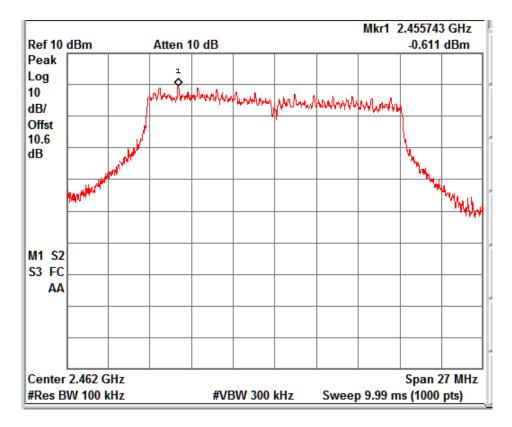
Data rate: 54 Mbps Channel Frequency: 2412 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 31 of 87





Data rate: 54 Mbps Channel Frequency: 2437 MHz

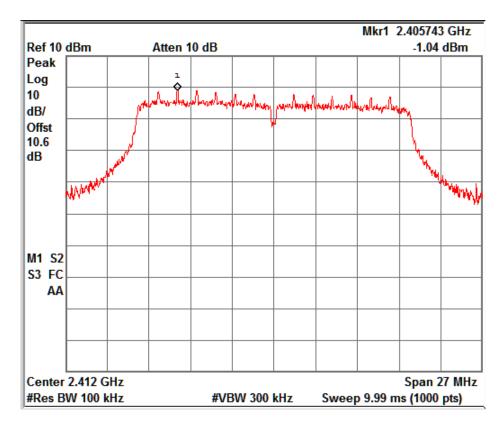


Data rate: 54 Mbps Channel Frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 32 of 87



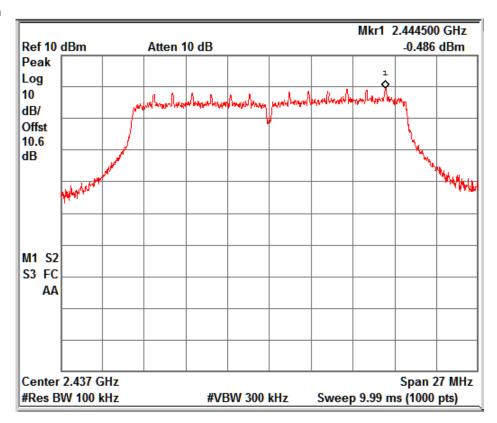
802.11 Protocol	Data Rate (Mbps)	Channel Frequency (MHz)	Total PSD (dBm)	Limit (dBm)	Margin (dB)
n	MCS0	2412.00	-1.04	8	-9.04
		2437.00	-0.486	8	-8.486
		2462.00	-0.921	8	-8.921
	MCS4	2412.00	-0.881	8	-8.881
		2437.00	-0.578	8	-8.578
		2462.00	-0.974	8	-8.974
	MCS7	2412.00	-0.865	8	-8.865
		2437.00	-0.597	8	-8.597
		2462.00	-0.873	8	-8.873



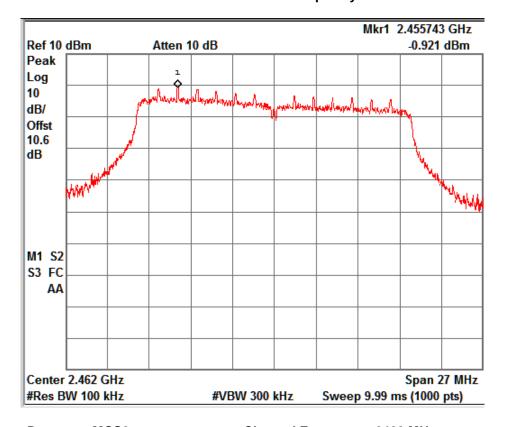
Data rate: MCS0 Channel Frequency: 2412 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 33 of 87





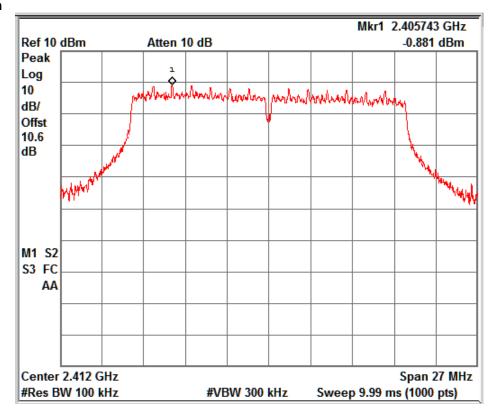
Data rate: MC Channel Frequency: 2437 MHz



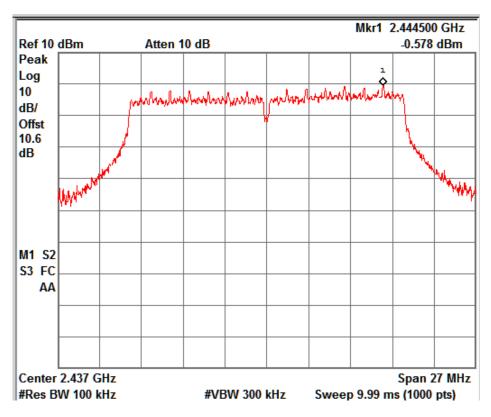
Data rate: MCS0 Channel Frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 34 of 87





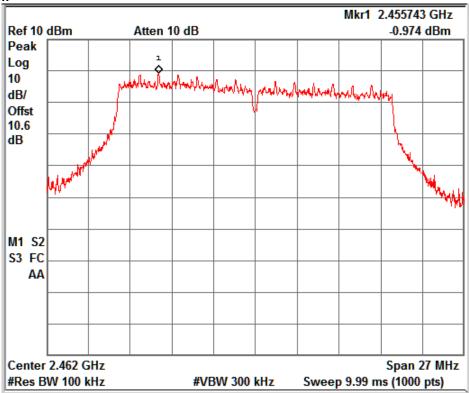
Data rate: MCS4 Channel Frequency: 2412 MHz



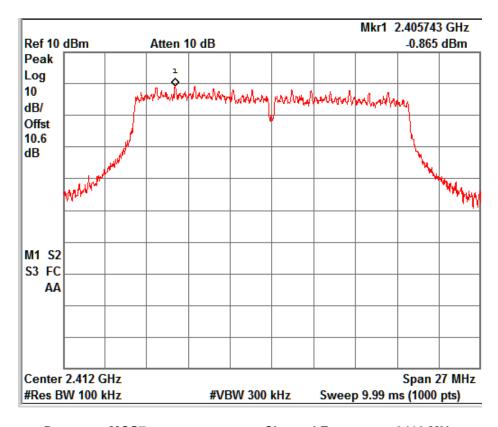
Data rate: MCS4 Channel Frequency: 2437 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 35 of 87





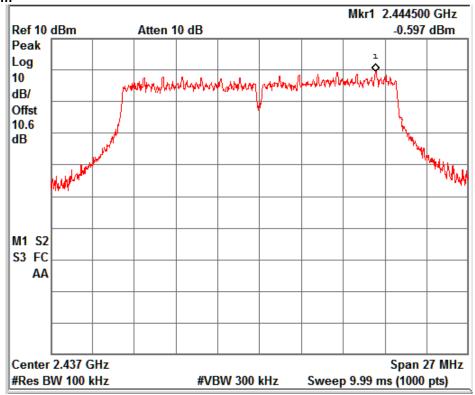
Data rate: MCS4 Channel Frequency: 2462 MHz



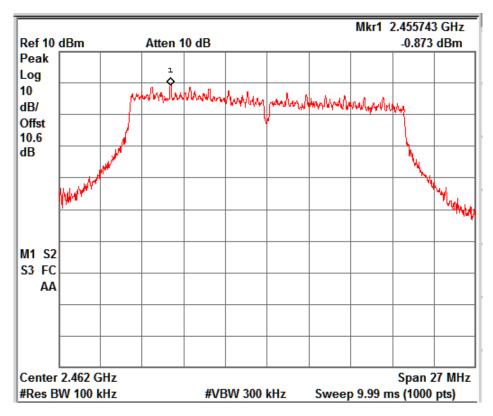
Data rate: MCS7 Channel Frequency: 2412 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 36 of 87





Data rate: MCS7 Channel Frequency: 2437 MHz



Data rate: MCS7 Channel Frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 37 of 87



6 dB Bandwidth Result

Pass

Test Specification Requirement FCC Part 15.247 (a) (2) & RSS 247 Issue 1, Section 5.2 (1) The minimum 6 dB bandwidth shall be at least 500 kHz.

Test Method:



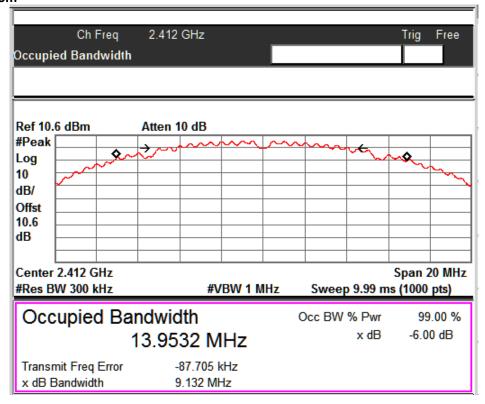
Cable Loss (0.6dB) & Attenuator (10dB) considered in the test results

Test Result:

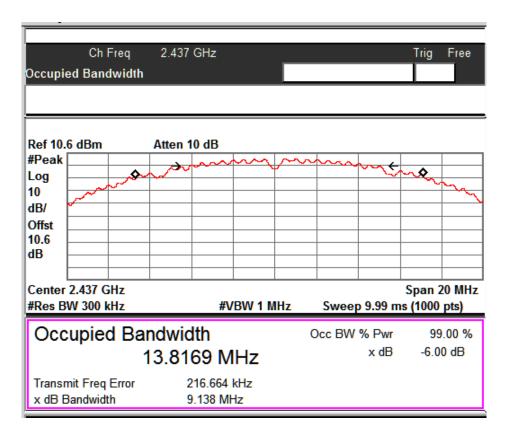
802.11 Protocol	Data Rate (Mbps)	Channel Frequency (MHz)	6 dB Bandwidth (MHz)	99% OBW (MHz)	
b	2412.00		9.13	13.95	
	1	1 2442.00		13.81	
		2462.00	9.12	13.66	
		2412.00	8.20	13.34	
		11 2442.00		9.18	13.36
		2462.00	9.16	13.28	

Test Report No.: 19660240 001 Date: 27.09.2016 Page 38 of 87





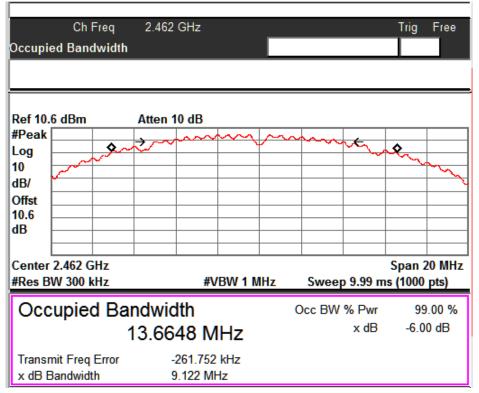
Data Rate: 1 Mbps Channel frequency: 2412 MHz



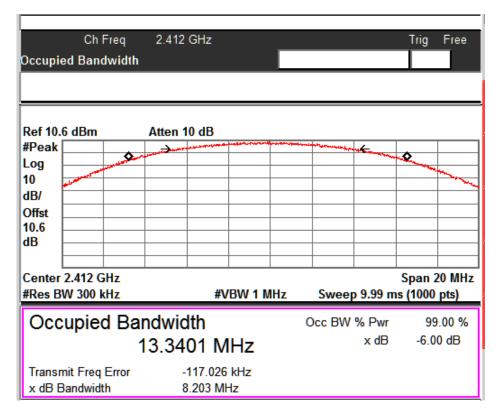
Data Rate: 1 Mbps Channel frequency: 2437 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 39 of 87





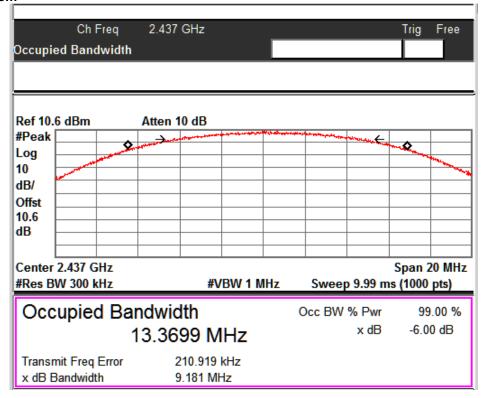
Data Rate: 1 Mbps Channel frequency: 2462 MHz



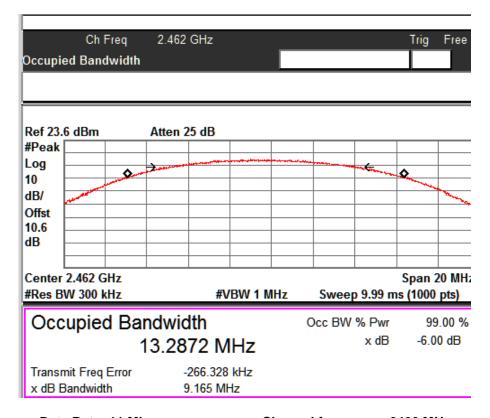
Data Rate: 11 Mbps Channel frequencies: 2412 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 40 of 87





Data Rate: 11 Mbps Channel frequency: 2437 MHz

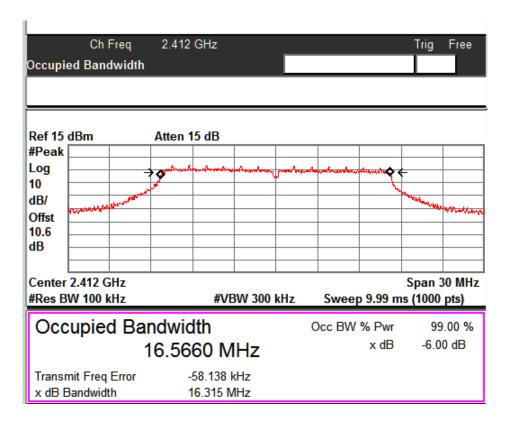


Data Rate: 11 Mbps Channel frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 41 of 87



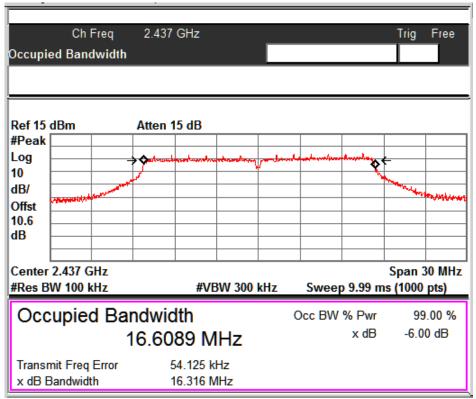
802.11 Protocol	Data Rate (Mbps)	Channel Frequency (MHz)	6 dB Bandwidth (MHz)	99% OBW (MHz)	
		2412.00	16.31	16.56	
	6	2437.00	16.31	16.60	
g		2462.00	15.73	16.56	
	24	2412.00	16.42	16.44	
		2437.00	16.41	16.47	
		2462.00	16.09	16.48	
		2412.00	16.43	16.47	
	54	2437.00	16.42	16.47	
		2462.00	15.81	16.47	



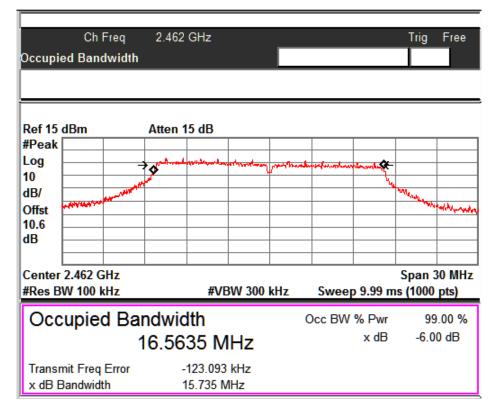
Data Rate: 6 Mbps Channel frequencies: 2412 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 42 of 87





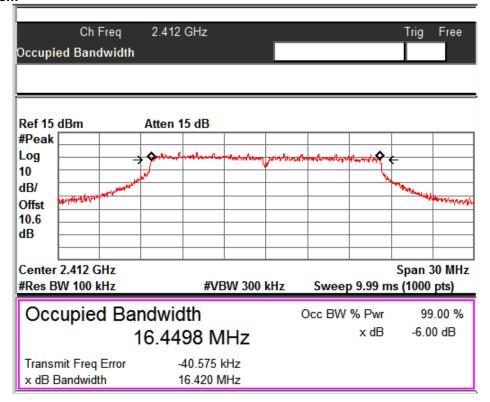
Data Rate: 6 Mbps Channel frequencies: 2437 MHz



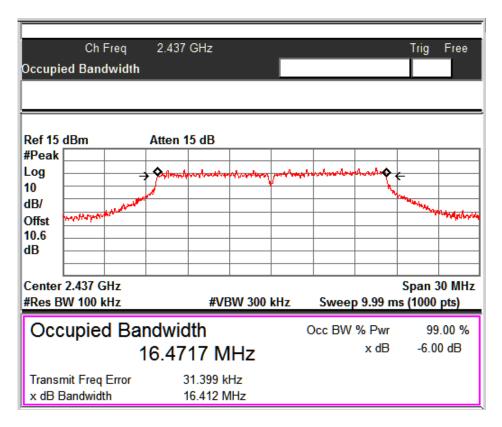
Data Rate: 6 Mbps Channel frequencies: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 43 of 87





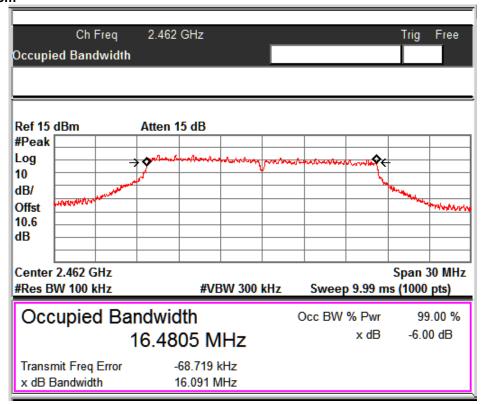
Data Rate: 24 Mbps Channel frequencies: 2412 MHz



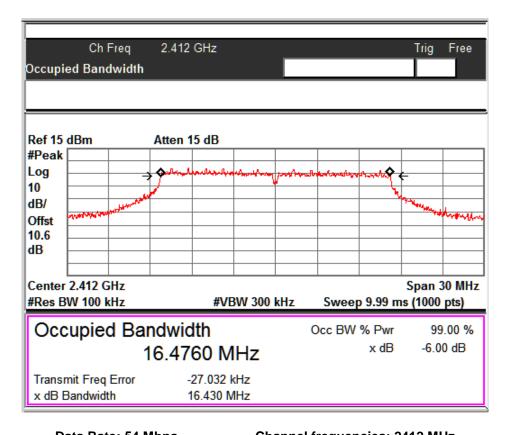
Data Rate: 24 Mbps Channel frequencies: 2437 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 44 of 87





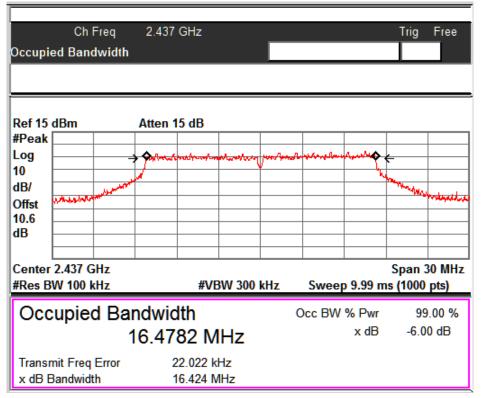
Data Rate: 24 Mbps Channel frequencies: 2462 MHz



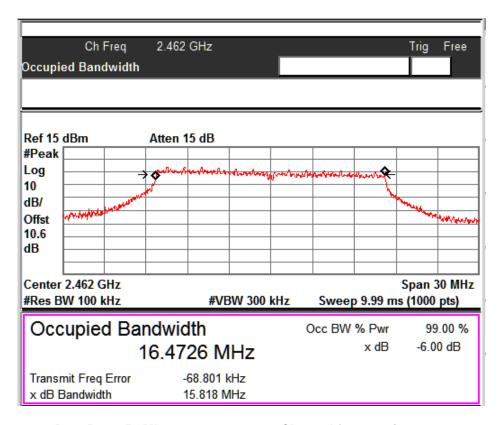
Data Rate: 54 Mbps Channel frequencies: 2412 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 45 of 87





Data Rate: 54 Mbps Channel frequencies: 2437MHz

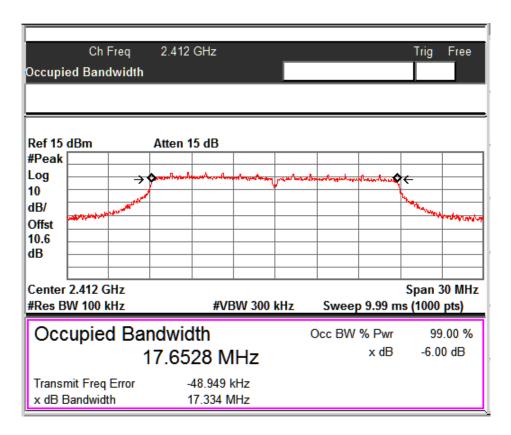


Data Rate: 54 Mbps Channel frequencies: 2462

Test Report No.: 19660240 001 Date: 27.09.2016 Page 46 of 87



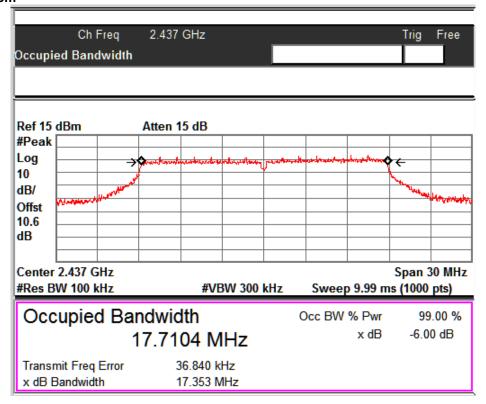
802.11 Protocol	Data Rate (Mbps)	Channel Frequency (MHz)	6 dB Bandwidth (MHz)	99% OBW (MHz)
		2412.00	17.33	17.65
	MCS 0	2437.00	17.35	17.71
n		2462.00	16.37	17.65
	MCS 4	2412.00	17.64	17.63
		2437.00	17.55	17.66
		2462.00	17.22	17.63
		2412.00	17.41	17.63
	MCS 7	2437.00	17.68	17.67
		2462.00	17.33	17.63



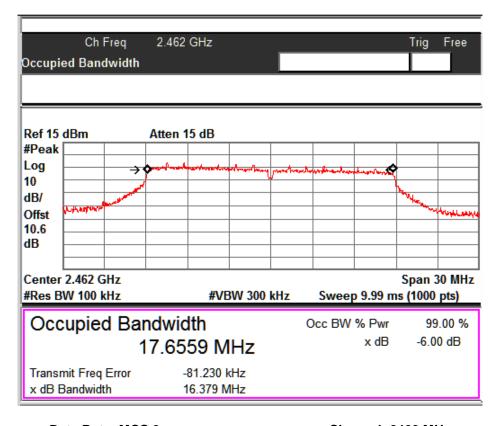
Data Rate: MCS 0 Channel: 2412 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 47 of 87





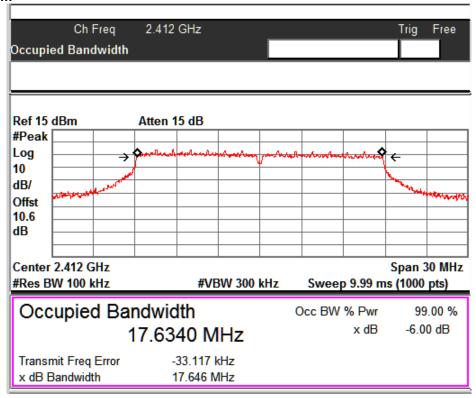
Data Rate: MCS 0 Channel: 2437 MHz



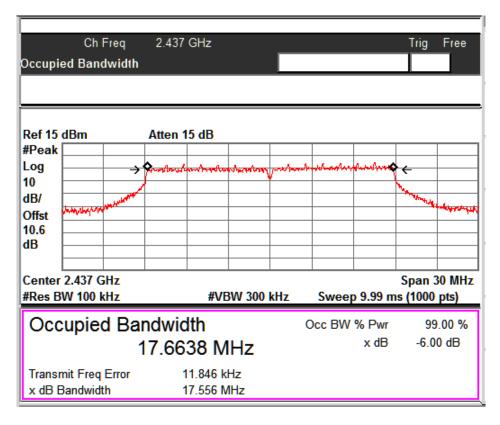
Data Rate: MCS 0 Channel: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 48 of 87





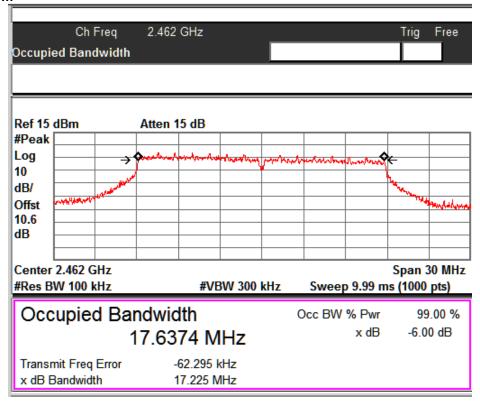
Data Rate: MCS 4 Channel: 2412 MHz



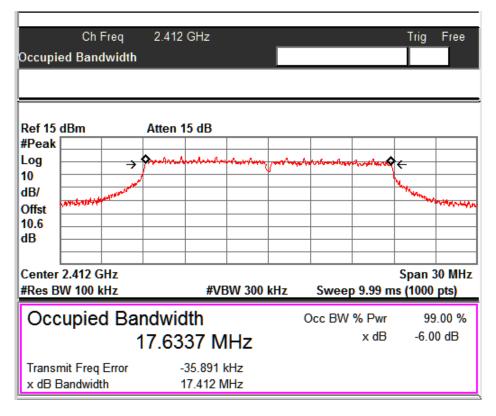
Data Rate: MCS 4 Channel: 2437 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 49 of 87





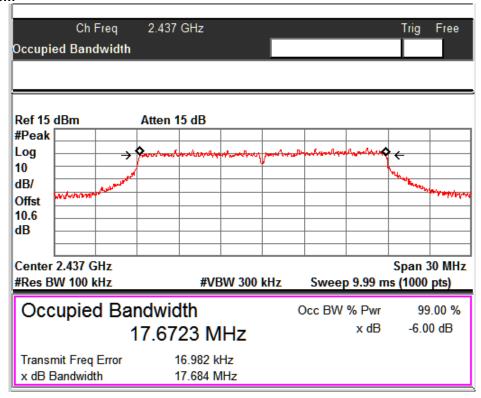
Data Rate: MCS 4 Channel: 2462 MHz



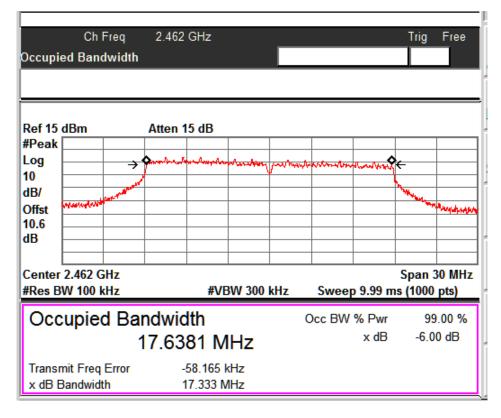
Data Rate: MCS 7 Channel: 2412 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 50 of 87





Data Rate: MCS 7 Channel: 2437MHz



Data Rate: MCS 7 Channel: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 51 of 87



Emissions in non-restricted frequency bands Result

Pass

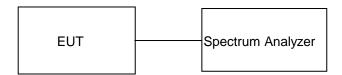
Test Specification FCC Part 15.247(d) & RSS 247 Issue 1, Section 5.5

Detector Function Peak

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 20dB 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.

Test Method:



Cable Loss (0.6dB) & Attenuator (10dB) considered in the test results

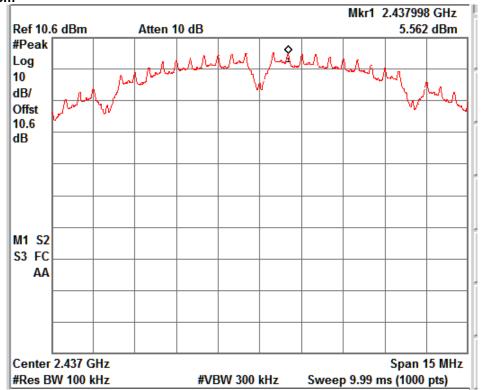
Test Result:

802.11 Protocol	Data Rate (Mbps)	Channel Frequency (MHz)	Value at Band Edge		Reference	Band Edge Value A-B	Limit (dBc)
			Frequency (MHz)	Value A (dBm)	Value B (dBm)	(dBc)	(ubc)
	1	2412	2400	-39.98	5.56	45.54	30.00
b -	1	2462	2483.5	-51.11	5.56	56.67	30.00
	11	2412	2400	-31.59	5.84	37.43	30.00
		2462	2483.5	-52.3	5.84	58.14	30.00

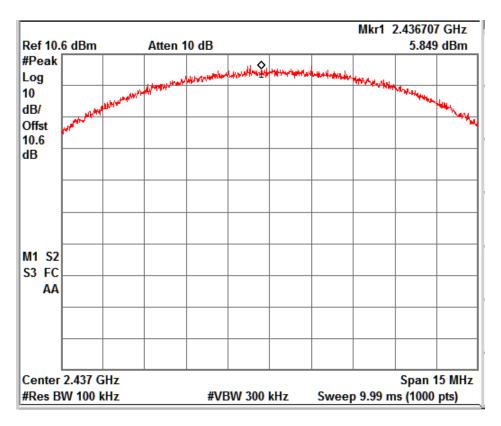
Note: The channel no. 1 (2412 MHz) found to contain the maximum PSD level and is used to establish the reference level.

Test Report No.: 19660240 001 Date: 27.09.2016 Page 52 of 87





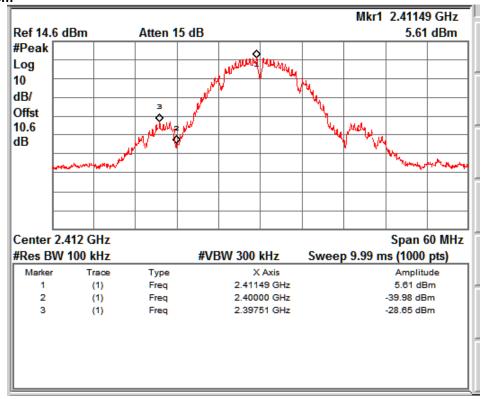
Reference Level Plot: 1Mbps



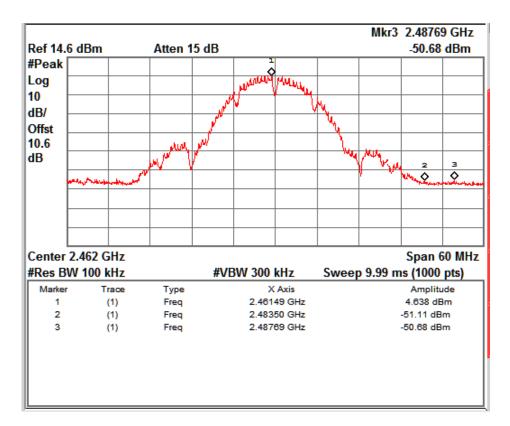
Reference Level Plot: 11Mbps

Test Report No.: 19660240 001 Date: 27.09.2016 Page 53 of 87





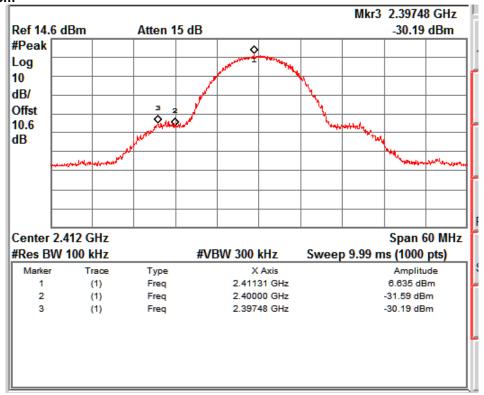
Data Rate: 1 Mbps Channel frequency: 2412 MHz



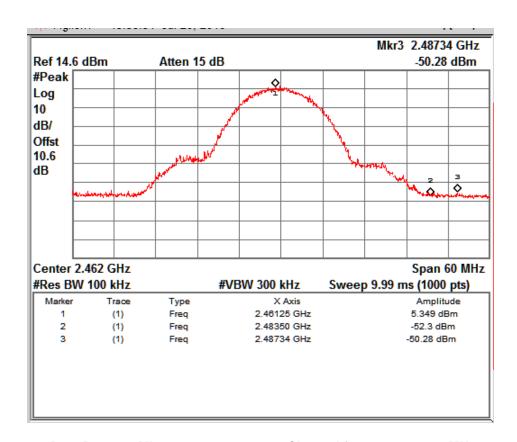
Data Rate: 1 Mbps Channel frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 54 of 87





Data Rate: 11 Mbps Channel frequency: 2412 MHz



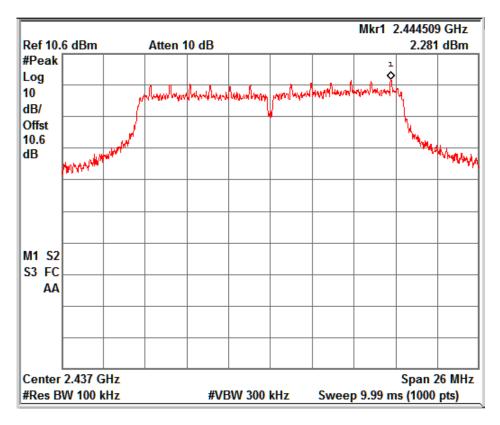
Data Rate: 11 Mbps Channel frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 55 of 87



802.11 Protocol	Data Rate (Mbps)	Channel Frequenc y (MHz)	Value at Band Edge		Reference	Band Edge	Limit
			Frequency (MHz)	Value A (dBm)	Value B (dBm)	Value A-B (dBc)	(dBc)
g	6	2412	2400	-32.72	2.28	35.00	30.00
		2462	2483.5	-49.99	2.28	52.27	30.00
	24	2412	2400	-34.94	2.34	37.28	30.00
		2462	2483.5	-49.36	2.34	51.7	30.00
	54	2412	2400	-32.72	2.47	35.19	30.00
		2462	2483.5	-50.17	2.47	52.64	30.00

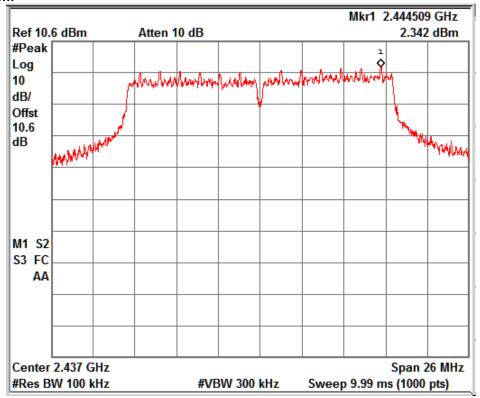
Note: The channel no. 1 (2412 MHz) found to contain the maximum PSD level and is used to establish the reference level.



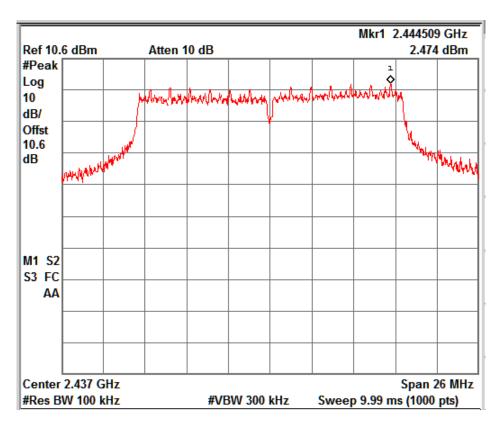
Reference Level Plot: 6 Mbps

Test Report No.: 19660240 001 Date: 27.09.2016 Page 56 of 87





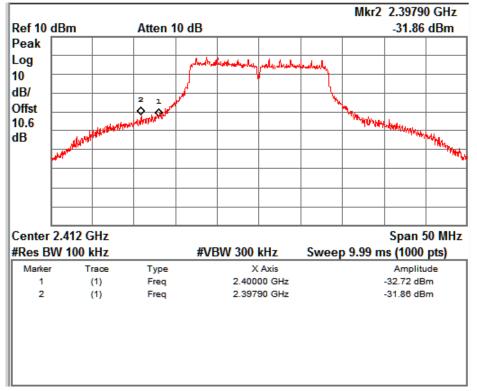
Reference Level Plot: 24 Mbps



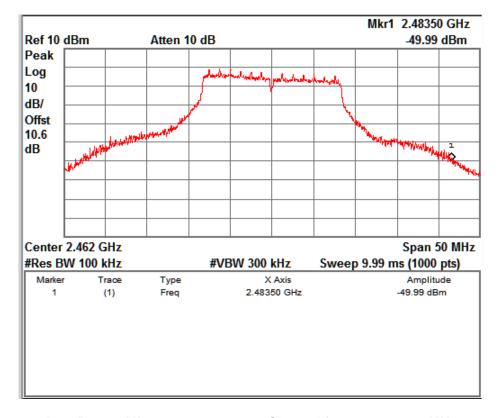
Reference Level Plot: 54 Mbps

Test Report No.: 19660240 001 Date: 27.09.2016 Page 57 of 87





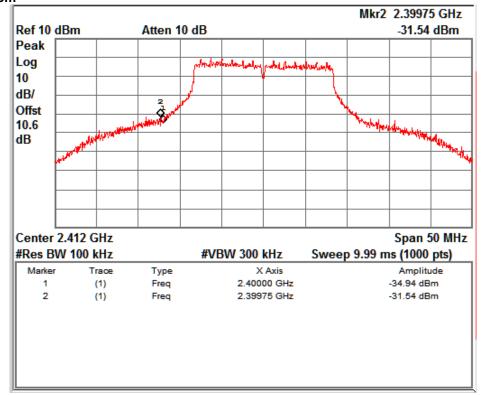
Data Rate: 6 Mbps Channel frequency: 2412 MHz



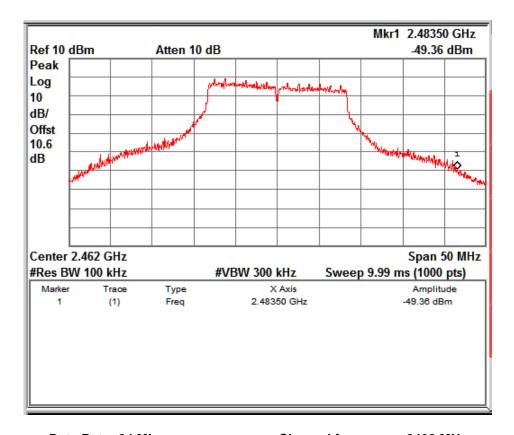
Data Rate: 6 Mbps Channel frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 58 of 87





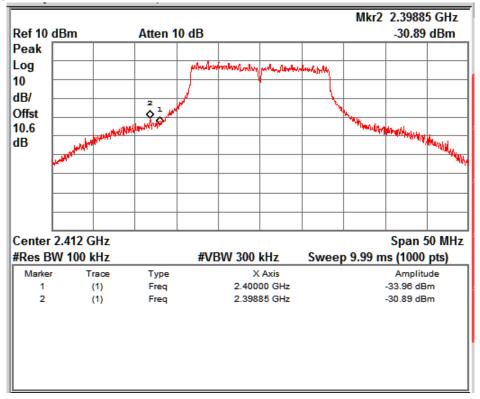
Data Rate: 24 Mbps Channel frequency: 2412 MHz



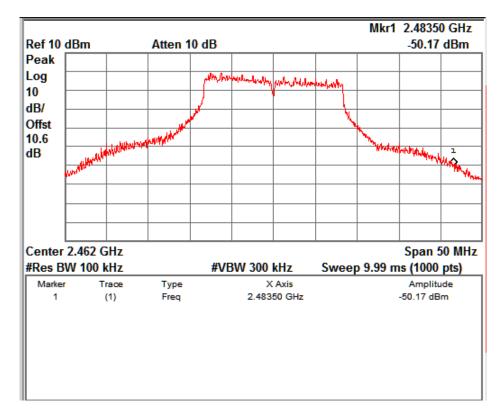
Data Rate: 24 Mbps Channel frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 59 of 87





Data Rate: 54 Mbps Channel frequency: 2412 MHz



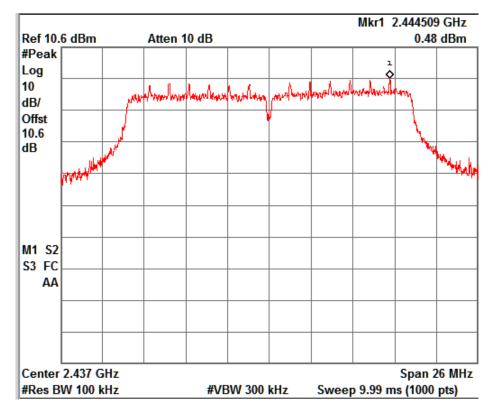
Data Rate: 54 Mbps Channel frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 60 of 87



802.11 Protocol	Data Rate (Mbps)	Channel Frequency (MHz)	Value at Band Edge		Reference	Band Edge	Limit
			Frequency (MHz)	Value A (dBm)	Value B (dBm)	Value A-B (dBc)	(dBc)
	MCS0	2412	2400	-32.51	0.48	32.99	30.00
n	IVICSU	2462	2483.5	-46.49	0.48	46.97	30.00
	MCS4	2412	2400	-33.8	0.62	34.42	30.00
	IVIC34	2462	2483.5	-47.58	0.62	48.2	30.00
	MCS7	2412	2400	-33.02	0.69	33.71	30.00
		2462	2483.5	-48.4	0.69	49.09	30.00

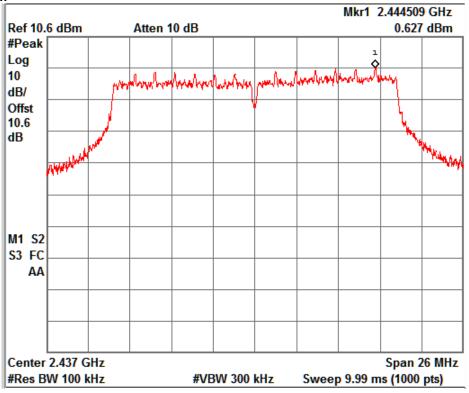
Note: The channel no. 1 (2412 MHz) found to contain the maximum PSD level and is used to establish the reference level.



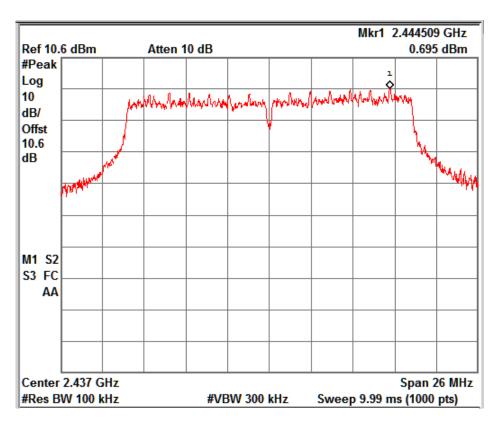
Reference Level Plot: MCS 0

Test Report No.: 19660240 001 Date: 27.09.2016 Page 61 of 87





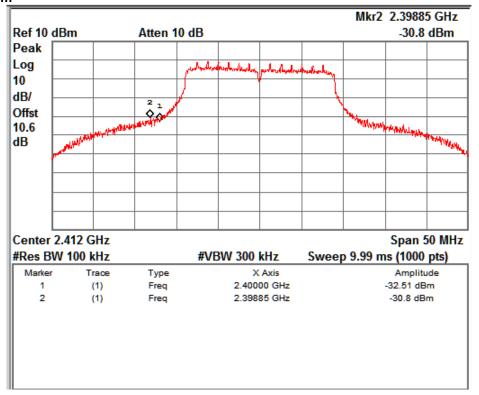
Reference Level Plot: MCS 4



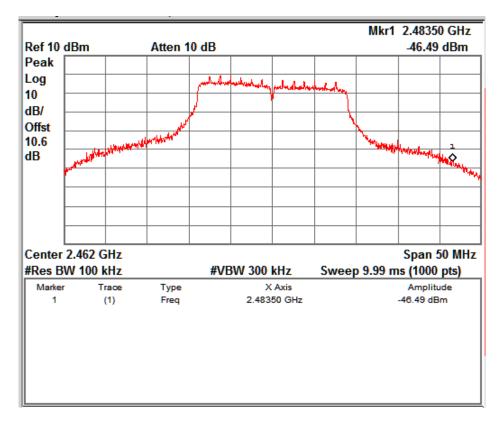
Reference Level Plot: MCS 7

Test Report No.: 19660240 001 Date: 27.09.2016 Page 62 of 87





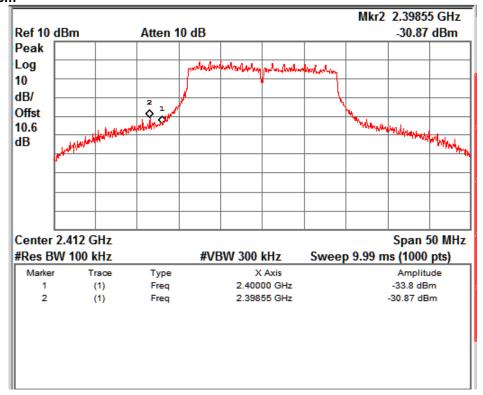
Data Rate: MCS 0 Channel frequency: 2412 MHz



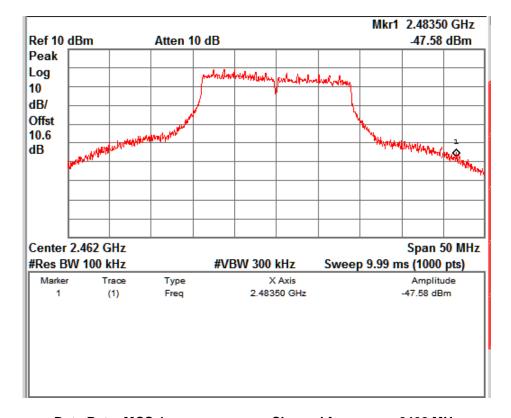
Data Rate: MCS 0 Channel frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 63 of 87





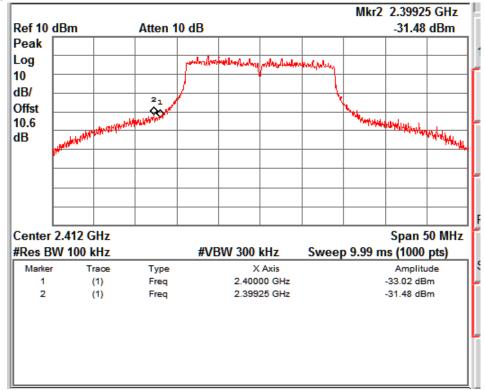
Data Rate: MCS 4 Channel frequency: 2412 MHz



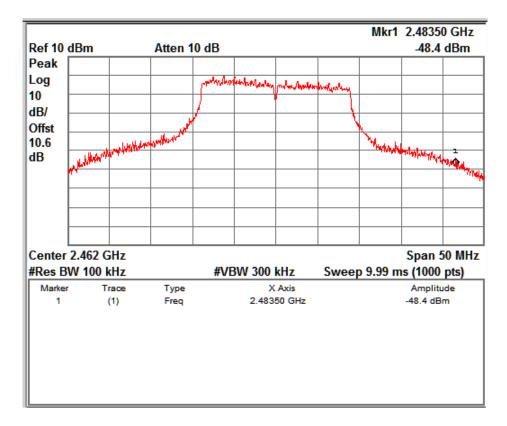
Data Rate: MCS 4 Channel frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 64 of 87





Data Rate: MCS 7 Channel frequency: 2412 MHz



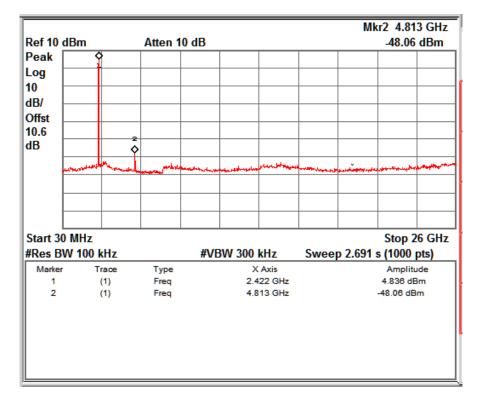
Data Rate: MCS7 Channel frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 65 of 87

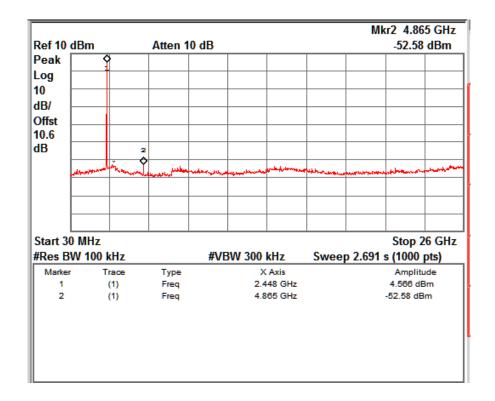


www.tuv.com Conducted Spurious Emission

Cable Loss (0.6dB) & Attenuator (10dB) considered in the test results



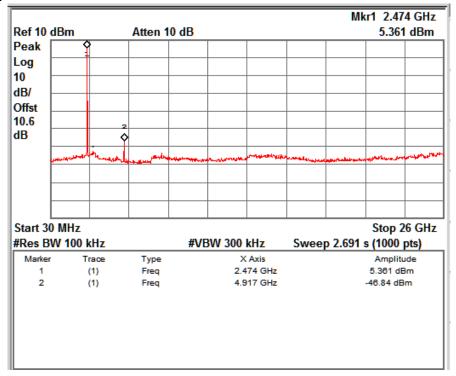
Data Rate: 1Mbps Channel frequency: 2412 MHz



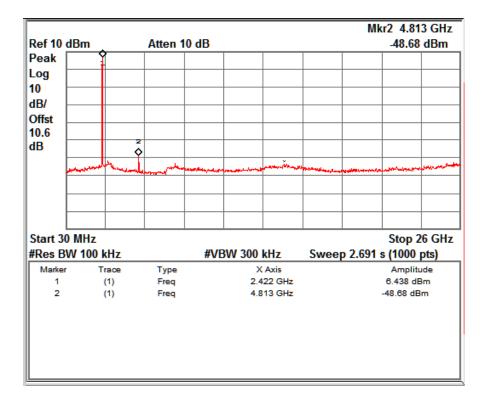
Data Rate: 1Mbps Channel frequency: 2437 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 66 of 87





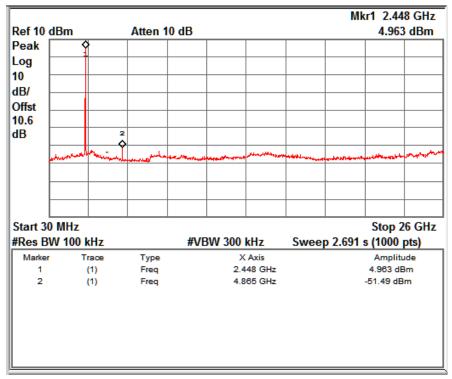
Data Rate: 1Mbps Channel frequency: 2462 MHz



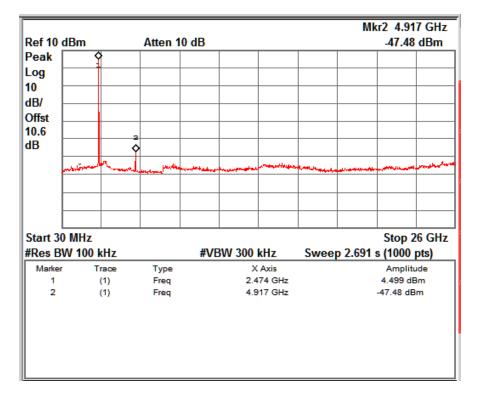
Data Rate: 11Mbps Channel frequency: 2412 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 67 of 87





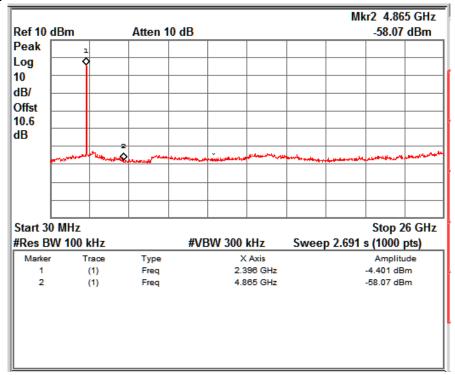
Data Rate: 11Mbps Channel frequency: 2437 MHz



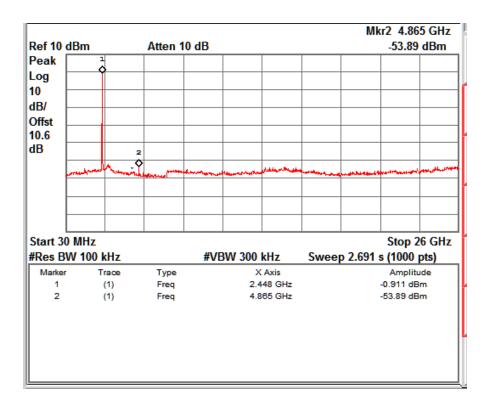
Data Rate: 11Mbps Channel frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 68 of 87





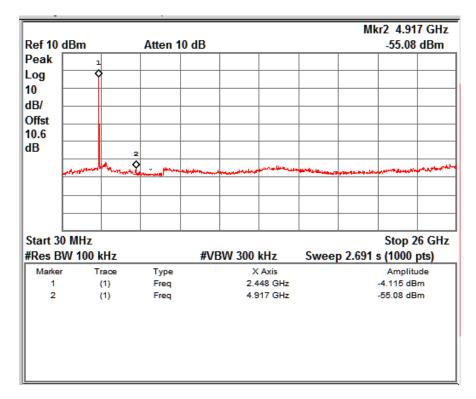
Data Rate: 6Mbps Channel frequency: 2412 MHz



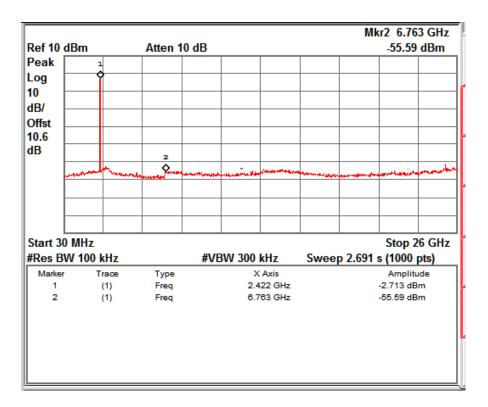
Data Rate: 6Mbps Channel frequency: 2437 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 69 of 87





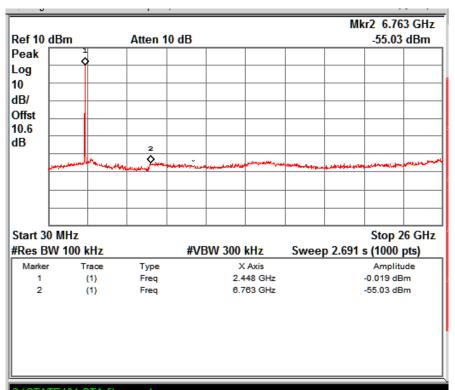
Data Rate: 6Mbps Channel frequency: 2462 MHz



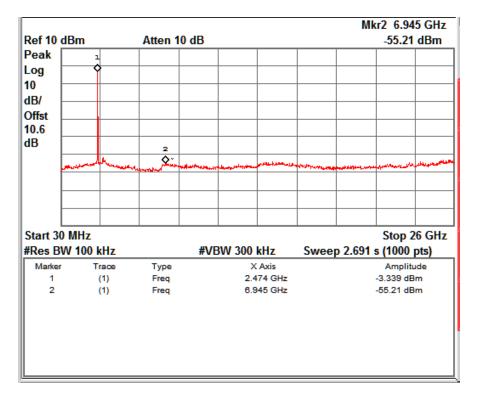
Data Rate: 54Mbps Channel frequency: 2412 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 70 of 87





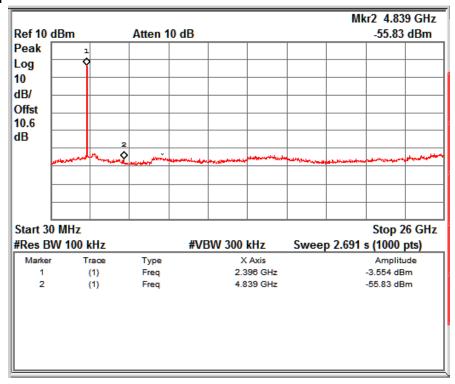
Data Rate: 54Mbps Channel frequency: 2437 MHz



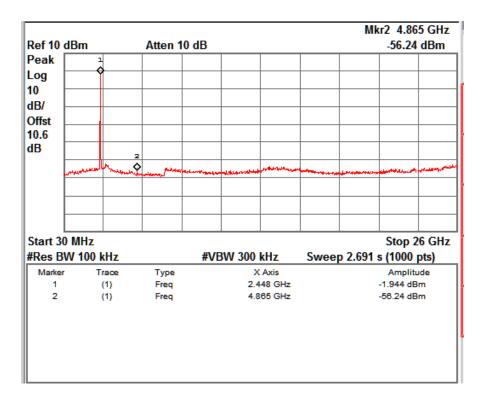
Data Rate: 54Mbps Channel frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 71 of 87





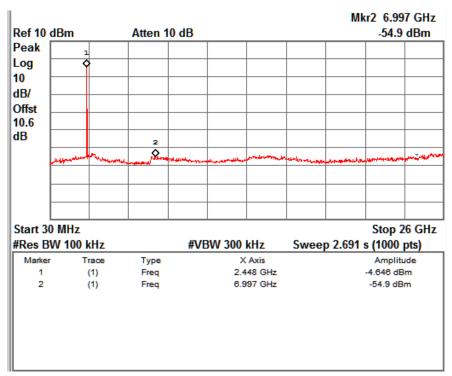
Data Rate: MCS 0 Channel frequency: 2412 MHz



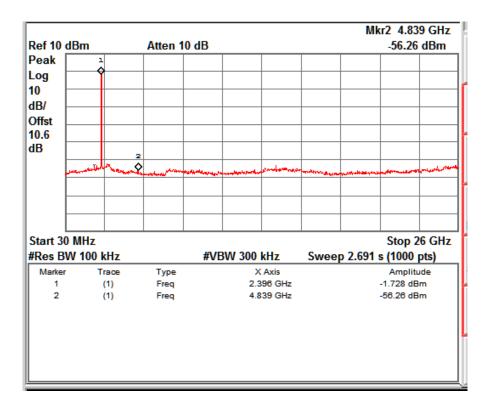
Data Rate: MCS 0 Channel frequency: 2437 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 72 of 87





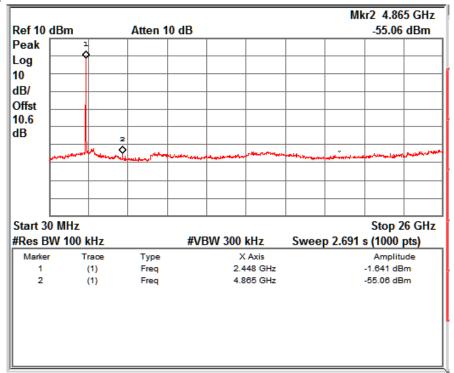
Data Rate: MCS 0 Channel frequency: 2462 MHz



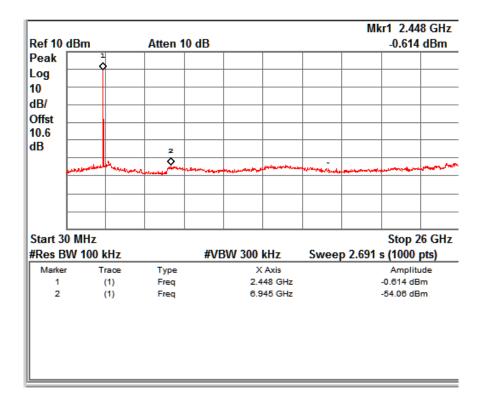
Data Rate: MCS 7 Channel frequency: 2412 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 73 of 87





Data Rate: MCS 7 Channel frequency: 2437 MHz



Data Rate: MCS 7 Channel frequency: 2462 MHz

Test Report No.: 19660240 001 Date: 27.09.2016 Page 74 of 87



Radiated Spurious Emissions and Restricted Bands of Operation Result

Pass

Test Specification FCC Part 15.209 &15.205 & RSS-Gen Issue 4,Section 8.9/8.10

Test Method ANSI C63.10-2013

Measurement Location Semi Anechoic Chamber

Measuring Distance 3m

Detection QP for frequency below 1GHz, Average for frequency above 1GHz

Requirement As per the limits mentioned in the bellow table

Radiated Spurious Emission Limits:

Frequency (MHz)	Field strength (μV/m)	Field strength (dBμV/m)	Distance of Measurement (m)
0.009 - 0.490	2400/F(kHz)	48.50 – 13.80	300*
0.490 – 1.705	24000/F(kHz)	33.80 – 23.00	30*
1.705 -30	30	29.54	30*
30-88	100	40.0	3
88-216	150	43.5	3
216-960	200	46.0	3
Above 960	500	54.0	3

Remark: * The limit shows in the table above of frequency range 0.009 – 0.490, 0.490 – 1.705 MHz and 1.705-30MHz is at 300 meter, 30 meter and 30 meter range respectively, which corresponds to $88.50-53.80,\,53.80-43.00$ and $49.5\text{dB}\mu\text{V/m}$ at 3m range by extrapolation calculation and the measurement of loop antenna.

The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz Radiated emission limits in these three bands are based on measurements employing an average detector.

Test Report No.: 19660240 001 Date: 27.09.2016 Page 75 of 87



Test results:

For Frequency Range 9kHz - 30MHz

No emissions found in this frequency range.

For Frequency Range 30MHz - 1GHz

Test Performed on both Battery Mode & Power Adaptor Mode, only worst case test results are reported for the 1GB RAM Variant

Polarization	Frequency (MHz)	Emission (dBm)	Limit (dBµV/m)	Margin (dB)
Vertical	31.87	25.39	40.00	-14.61
verticai	211.30	30.53	43.50	-12.97
	32.66	22.06	40.00	-17.94
Horizontal	211.06	39.85	43.50	-03.65
	217.35	38.62	46.00	-07.38

Test Performed on both Battery Mode & Power Adaptor Mode, only worst case test results are reported for the 2GB RAM Variant

Polarization	Frequency (MHz)	Emission (dBm)	Limit (dBµV/m)	Margin (dB)
Vertical	30.64	26.89	40.0	-13.11
vertical	209.73	32.19	43.5	-11.31
	35.62	25.81	40.0	-14.19
Horizontal	210.82	40.67	43.5	-02.83
	216.01	39.27	46.0	-06.73

Test Report No.: 19660240 001 Date: 27.09.2016 Page 76 of 87



For Frequency above 1GHz

Test results for worst case data rate are listed below.

		B Mode: 1	Mbps		
Channel	Polarization	Frequency (MHz)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		2390 (Pk)	45.49	74	-28.51
		2390 (Av)	35.24	54	-18.76
	Vartical	2412 (Pk)	100.16	-	*
	Vertical	2412 (Av)	97.24	-	*
		4824 (Pk)	50.54	74	-23.46
Lave		4824 (Av)	39.5	54	-14.5
Low		2390 (Pk)	44.24	74	-29.76
		2390 (Av)	34.5	54	-19.5
	l la vi=a a tal	2412 (Pk)	98.34	-	*
	Horizontal	2412 (Av)	95.15	-	*
		4824 (Pk)	50.21	74	-23.79
		4824 (Av)	39.7	54	-14.3
	Vartical	4874 (Pk)	50.43	74	-23.57
Mid	Vertical	4874 (Av)	40.49	54	-13.51
Mid	ы	4874 (Pk)	51.1	74	-22.9
	Н	4874 (Av)	40.74	54	-13.26
		2462 (Pk)	96.57	-	*
		2462 (Av)	93.89	-	*
	Vertical	2483.5 (Pk)	41.67	74	-32.33
	vertical	2483.5 (Av)	29.44	54	-24.56
		4924 (Pk)	50.95	74	-23.05
Lliada		4924 (Av)	37.89	54	-16.11
High		2462 (Pk)	94.72	-	*
		2462 (Av)	92.04	-	*
	LI	2483.5 (Pk)	40.64	74	-33.36
	Н	2483.5 (Av)	29.92	54	-24.08
		4924 (Pk)	51.92	74	-22.08
		4924 (Av)	37.89	54	-16.11

Test Report No.: 19660240 001 Date: 27.09.2016 Page 77 of 87



		B Mode: 11	LMbps		
Channel	Polarization	Frequency (MHz)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		2390 (Pk)	41.59	74	-32.41
		2390 (Av)	31.02	54	-22.98
	Vertical	2412 (Pk)	101.42	-	*
	verticai	2412 (Av)	92.72	-	*
		4824 (Pk)	50.63	74	-23.37
Low		4824 (Av)	37.58	54	-16.42
LOW		2390 (Pk)	42.06	74	-31.94
		2390 (Av)	30.5	54	-23.5
	Н	2412 (Pk)	99.42	-	*
	П	2412 (Av)	90.85	-	*
		4824 (Pk)	50.03	74	-23.97
		4824 (Av)	37.46	54	-16.54
	Vertical	4874 (Pk)	50.27	74	-23.73
Mid	vertical	4874 (Av)	38.39	54	-15.61
iviid	Н	4874 (Pk)	49.97	74	-24.03
	П	4874 (Av)	38.44	54	-15.56
		2462 (Pk)	100.98	1	*
		2462 (Av)	92.38	-	*
	Vertical	2483.5 (Pk)	41.26	74	-32.74
	vertical	2483.5 (Av)	30.23	54	-23.77
		4924 (Pk)	50.3	74	-23.7
∐iah		4924 (Av)	37.84	54	-16.16
High		2462 (Pk)	98.92	-	*
		2462 (Av)	90.98	1	*
	Н	2483.5 (Pk)	40.24	74	-33.76
	17	2483.5 (Av)	29.35	54	-24.65
		4924 (Pk)	51.25	74	-22.75
		4924 (Av)	37.89	54	-16.11

Test Report No.: 19660240 001 Date: 27.09.2016 Page 78 of 87



		G Mode: 6N	1bps		
Channel	Polarization	Frequency (MHz)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		2390 (Pk)	66.89	74	-7.11
		2390 (Av)	45.02	54	-8.98
	Madaal	2412 (Pk)	100.31	-	*
	Vertical	2412 (Av)	90.3	-	*
		4824 (Pk)	50.45	74	-23.55
Low		4824 (Av)	37.56	54	-16.44
LOW		2390 (Pk)	64.37	74	-9.63
		2390 (Av)	44.78	54	-9.22
	Harizantal	2412 (Pk)	98.65	-	*
	Horizontal	2412 (Av)	89.26	-	*
		4824 (Pk)	51	74	-23
		4824 (Av)	37.46	54	-16.54
	Vertical	4874 (Pk)	51.48	74	-22.52
Mid	vertical	4874 (Av)	37.72	54	-16.28
IVIIU	Horizontal	4874 (Pk)	51.15	74	-22.85
		4874 (Av)	37.69	54	-16.31
		2462 (Pk)	99.76	-	*
		2462 (Av)	89.35	-	*
	Vertical	2483.5 (Pk)	63.97	74	-10.03
	vertical	2483.5 (Av)	45.3	54	-8.7
		4924 (Pk)	49.78	74	-24.22
High		4924 (Av)	37.83	54	-16.17
riigii		2462 (Pk)	97.16	-	*
		2462 (Av)	88.32	_	*
	Horizontol	2483.5 (Pk)	65.39	74	-8.61
	Horizontal	2483.5 (Av)	43.35	54	-10.65
		4924 (Pk)	50.49	74	-23.51
		4924 (Av)	37.86	54	-16.14

Test Report No.: 19660240 001 Date: 27.09.2016 Page 79 of 87



		G Mode: 24	Vibps		
Channel	Polarization	Frequency (MHz)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		2390 (Pk)	66.37	74	-7.63
		2390 (Av)	42.61	54	-11.39
	Vertical	2412 (Pk)	100.59	-	*
ļ	Vertical	2412 (Av)	86.92	-	*
		4824 (Pk)	49.98	74	-24.02
Law		4824 (Av)	37.41	54	-16.59
Low		2390 (Pk)	63.8	74	-10.2
		2390 (Av)	40.48	54	-13.52
ļ	l la vi-a utal	2412 (Pk)	98.88	-	*
	Horizontal	2412 (Av)	85.88	-	*
ļ		4824 (Pk)	50.62	74	-23.38
ļ		4824 (Av)	37.44	54	-16.56
		4874 (Pk)	49.79	74	-24.21
M: al	Vertical	4874 (Av)	37.72	54	-16.28
Mid	Horizontal	4874 (Pk)	50.12	74	-23.88
		4874 (Av)	37.74	54	-16.26
		2462 (Pk)	100.53	-	*
		2462 (Av)	87.08	-	*
	Mantiaal	2483.5 (Pk)	61.94	74	-12.06
	Vertical	2483.5 (Av)	41.5	54	-12.5
		4924 (Pk)	49.99	74	-24.01
I II ada		4924 (Av)	37.82	54	-16.18
High		2462 (Pk)	97.63	-	*
		2462 (Av)	84.91	-	*
		2483.5 (Pk)	60.7	74	-13.3
	Horizontal	2483.5 (Av)	39.44	54	-14.56
		4924 (Pk)	50.07	74	-23.93
		4924 (Av)	37.79	54	-16.21

Test Report No.: 19660240 001 Date: 27.09.2016 Page 80 of 87



		G Mode: 54	Mbps		
Channel	Polarization	Frequency (MHz)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		2390 (Pk)	65.05	74	-8.95
		2390 (Av)	42.98	54	-11.02
	Vertical	2412 (Pk)	100.48	-	*
	vertical	2412 (Av)	84.96	-	*
		4824 (Pk)	49.69	74	-24.31
Low		4824 (Av)	37.4	54	-16.6
LOW		2390 (Pk)	63.1	74	-10.9
		2390 (Av)	41.35	54	-12.65
	Horizontol	2412 (Pk)	100.58	-	*
	Horizontal	2412 (Av)	84.52	-	*
		4824 (Pk)	48.97	74	-25.03
		4824 (Av)	37.44	54	-16.56
	Vertical	4874 (Pk)	49.82	74	-24.18
Mid	vertical	4874 (Av)	37.65	54	-16.35
iviid	Horizontal	4874 (Pk)	50.09	74	-23.91
	Horizoniai	4874 (Av)	37.69	54	-16.31
		2462 (Pk)	100.71	-	*
		2462 (Av)	84.95	-	*
	Vertical	2483.5 (Pk)	67.1	74	-6.9
	vertical	2483.5 (Av)	39.72	54	-14.28
		4924 (Pk)	50.07	74	-23.93
∐i∼h		4924 (Av)	37.83	54	-16.17
High		2462 (Pk)	98.6	-	*
		2462 (Av)	83.4	-	*
	Horizontol	2483.5 (Pk)	63.13	74	-10.87
	Horizontal	2483.5 (Av)	39.45	54	-14.55
		4924 (Pk)	50.01	74	-23.99
		4924 (Av)	37.78	54	-16.22

Test Report No.: 19660240 001 Date: 27.09.2016 Page 81 of 87



		N Mode	: MCS 0		
Channel	Polarization	Frequency (MHz)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		2390 (Pk)	68.11	74	-5.89
		2390 (Av)	46.86	54	-7.14
	\	2412 (Pk)	98.55	-	*
	Vertical	2412 (Av)	88.69	-	*
		4824 (Pk)	51.35	74	-22.65
Law		4824 (Av)	37.45	54	-16.55
Low		2390 (Pk)	64.03	74	-9.97
		2390 (Av)	44.6	54	-9.4
	l la vima ustal	2412 (Pk)	98.43	-	*
	Horizontal	2412 (Av)	87.64	-	*
		4824 (Pk)	50.24	74	-23.76
		4824 (Av)	37.14	54	-16.86
	Martinal	4874 (Pk)	51.66	74	-22.34
N 4: -1	Vertical	4874 (Av)	37.83	54	-16.17
Mid	l la vima ustal	4874 (Pk)	51.06	74	-22.94
	Horizontal	4874 (Av)	37.67	54	-16.33
		2462 (Pk)	98.15	-	*
		2462 (Av)	88.8	-	*
	\/a=tiaal	2483.5 (Pk)	61.2	74	-12.8
	Vertical	2483.5 (Av)	42.02	54	-11.98
		4924 (Pk)	50.57	74	-23.43
Lliah		4924 (Av)	37.98	54	-16.02
High		2462 (Pk)	97.27	-	*
		2462 (Av)	87.22	-	*
	Horizontal	2483.5 (Pk)	63.45	74	-10.55
	nonzontai	2483.5 (Av)	40.71	54	-13.29
		4924 (Pk)	50.41	74	-23.59
		4924 (Av)	37.85	54	-16.15

Test Report No.: 19660240 001 Date: 27.09.2016 Page 82 of 87



	N Mode: MCS 4					
Channel	Polarization	Frequency (MHz)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	
		2390 (Pk)	64.12	74	-9.88	
		2390 (Av)	41.77	54	-12.23	
	Vertical	2412 (Pk)	99.28	-	*	
	vertical	2412 (Av)	84.68	-	*	
		4824 (Pk)	51.09	74	-22.91	
Low		4824 (Av)	37.14	54	-16.86	
Low		2390 (Pk)	65.1	74	-8.9	
		2390 (Av)	41.64	54	-12.36	
	Horizontal	2412 (Pk)	98.86	-	*	
	Horizontai	2412 (Av)	84.57	-	*	
		4824 (Pk)	49.63	74	-24.37	
		4824 (Av)	37.25	54	-16.75	
	Vertical	4874 (Pk)	50.54	74	-23.46	
Mid	Vertical	4874 (Av)	37.67	54	-16.33	
IVIIU	Harizantal	4874 (Pk)	52.25	74	-21.75	
	Horizontal	4874 (Av)	37.69	54	-16.31	
		2462 (Pk)	99.24	-	*	
		2462 (Av)	84.76	-	*	
	Vertical	2483.5 (Pk)	60.84	74	-13.16	
	vertical	2483.5 (Av)	39.33	54	-14.67	
		4924 (Pk)	51.59	74	-22.41	
Lliab		4924 (Av)	37.85	54	-16.15	
High		2462 (Pk)	96.24	-	*	
		2462 (Av)	82.65	-	*	
	Horizontal	2483.5 (Pk)	58.18	74	-15.82	
	HUHZUHIAI	2483.5 (Av)	36.5	54	-17.5	
		4924 (Pk)	50.47	74	-23.53	
		4924 (Av)	37.82	54	-16.18	

Test Report No.: 19660240 001 Date: 27.09.2016 Page 83 of 87



	N Mode: MCS 7					
Channel	Polarization	Frequency (MHz)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	
		2390 (Pk)	62.11	74	-11.89	
		2390 (Av)	38.88	54	-15.12	
	Vortical	2412 (Pk)	98.66	-	*	
	Vertical	2412 (Av)	82.5	-	*	
		4824 (Pk)	49.69	74	-24.31	
Laur		4824 (Av)	37.19	54	-16.81	
Low		2390 (Pk)	62.98	74	-11.02	
		2390 (Av)	38.15	54	-15.85	
	11.2	2412 (Pk)	97.81	-	*	
	Horizontal	2412 (Av)	81.91	-	*	
		4824 (Pk)	49.74	74	-24.26	
		4824 (Av)	37.12	54	-16.88	
	Madiaal	4874 (Pk)	49.9	74	-24.1	
	Vertical	4874 (Av)	37.63	54	-16.37	
Mid	l lawina atal	4874 (Pk)	50.14	74	-23.86	
	Horizontal	4874 (Av)	37.7	54	-16.3	
		2462 (Pk)	99.1	-	*	
		2462 (Av)	82.4	-	*	
	\	2483.5 (Pk)	57.79	74	-16.21	
	Vertical	2483.5 (Av)	35.07	54	-18.93	
		4924 (Pk)	50.98	74	-23.02	
l li ada		4924 (Av)	37.77	54	-16.23	
High		2462 (Pk)	97.81	-	*	
		2462 (Av)	80.76	-	*	
	Llori-ontol	2483.5 (Pk)	58.6	74	-15.4	
	Horizontal	2483.5 (Av)	34.05	54	-19.95	
		4924 (Pk)	51.1	74	-22.9	
		4924 (Av)	37.81	54	-16.19	

Test Report No.: 19660240 001 Date: 27.09.2016 Page 84 of 87



Conducted Emission Test on A.C. Power Line Result

Pass

Test Specification : FCC Part 15.207 & RSS-Gen Issue 4 section 8.8

Test Method : ANSI C63.10-2013
Testing Location : Screened room

Measurement Bandwidth: 9kHz

Frequency Range : 150kHz – 30MHz Supply Voltage : 120VAC,60Hz

Conducted Emission Limits:

Frequency of Emission (MHz)	QP Limit (dBμV)	AV Limit (dBμV/m)
0.15 – 0.5	66 – 56*	56 – 46*
0.5 – 5	56	46
5 – 30	60	50

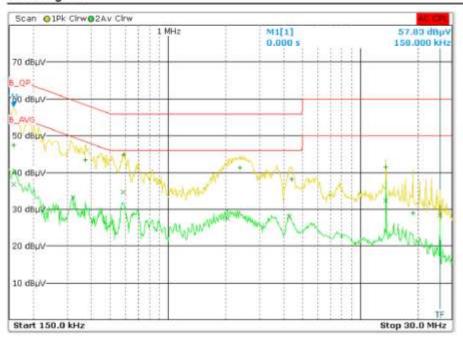
^{*} Decreases with the logarithm of the frequency

Test Report No.: 19660240 001 Date: 27.09.2016 Page 85 of 87



Test Results:

Scan Diagram



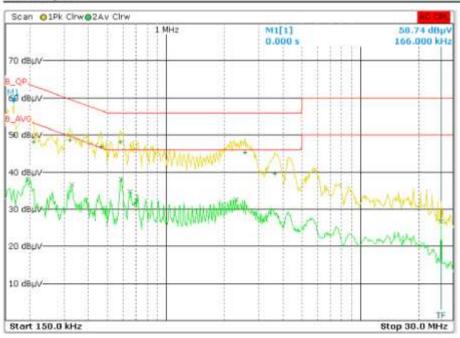
Final Results								
Meas Tim Margin Peaks	е		1.0 s 6.0 dB 25					
Trace	Frequency		Level (dBµV)	Phase	Detector	Delta Limit/dB		
1	586,000000000	kHz	44.72		Quasi Peak	-11.28		
2	582.000000000	kHz	34.60		Average	-11.40		
1	2.370000000	MHz	41.32		Quasi Peak	-14.68		
1	374.0000000000	kHz	43.36		Quasi Peak	-15.05		
2	322,000000000	kHz	33.19		Average	-16.47		
2	13.558000000	MHz	32.44		Average	-17.56		
1	4.406000000	MHz	38.24		Quasi Peak	-17.76		
2	4.270000000	MHz	28.08		Average	-17.92		
1	158.000000000	kHz	47.36		Quasi Peak	-18.21		
2	2.038000000	MHz	27.56		Average	-18,44		
1	13.558000000	MHz	41.48		Quasi Peak	-18.52		
2	158.000000000	kHz	36.74		Average	-18.83		
2	26.002000000	MHz	28.45		Average	-21.55		
1	18.762000000	MHz	28.95		Quasi Peak	-31.05		

Mode: Line

Test Report No.: 19660240 001 Date: 27.09.2016 Page 86 of 87



Scan Diagram



Final Results								
Meas Tim Margin Peaks	ne	1.0 s 6.0 dB 25						
Trace	Frequency		Level (dBµV)	Phase	Detector	Delta Limit/dB		
1	582.000000000	kHz	48.09		Quasi Peak	-7.91		
2	586,000000000	kHz	37.92		Average	-8.08		
1	466.000000000	kHz	46.93		Quasi Peak	-9.65		
1	2.542000000	MHz	45.38		Quasi Peak	-10,62		
1	322.000000000	kHz	48.55		Quasi Peak	-11.11		
2	654.0000000000	kHz	34.62		Average	-11.38		
2	330.000000000	kHz	36.59		Average	-12,86		
2	2.282000000	MHz	32.58		Average	-13.42		
2	706.000000000	kHz	32.20		Average	-13.80		
1	210,000000000	kHz	48.12		Quasi Peak	-15.09		
1	166.000000000	kHz	49.96		Quasi Peak	-15.20		
2	194.000000000	kHz	38.08		Average	-15.78		
1	3.630000000	MHz	39.48		Quasi Peak	-16.52		
2	26.002000000	MHz	26.62		Average	-23.38		

Mode: Neutral

*** END OF TEST REPORT***

Test Report No.: 19660240 001 Date: 27.09.2016 Page 87 of 87