

FCC Test Report

Applicant : BROADCOM CORPORATION
Equipment : 802.11abgn WLAN + BLUETOOTH PCI-E MINICARD
Brand Name : Broadcom
Model No. : BCM943228HMB
FCC ID : QDS-BRCM1058
Standard : 47 CFR FCC Part 15.407
CLASSIFICATION : (UNII) Unlicensed National Information Infrastructure
Filling Type : Class II Permissive Change

The product sample received on Dec. 19, 2013 and completely tested on Jan. 24, 2014. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2009 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by:

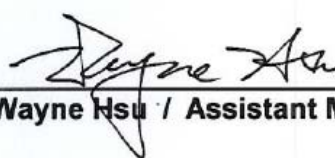

Wayne Hsu / Assistant Manager



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APPENDIX A. TEST PHOTOS

APPENDIX B. PHOTOGRAPHS OF EUT

Summary of Test Result

Conformance Test Specifications					
Report Clause	Ref. Std. Clause	Description	Measured	Limit	Result
1.1.3	15.203	Antenna Requirement	Antenna connector mechanism complied	FCC 15.203	Complied
3.1	15.407(a)	RF Output Power (Maximum Conducted Output Power)	Power [dBm] 5150-5250MHz:16.92 5250-5350MHz:22.03 5470-5725MHz:20.81	Power [dBm] 5150-5250MHz:17 5250-5350MHz:24 5470-5725MHz:24	Complied
3.2	15.407(b)	Transmitter Bandedge Emissions	Restricted Bands [dBuV/m at 1.0m]: 5469.80MHz 83.12 (Margin 0.42dB) - PK 62.56 (Margin 0.98dB) - AV	Non-Restricted Bands: ≤ -27 dBm (77.84dBuV/m@1m) Restricted Bands: FCC 15.209	Complied
3.3	15.407(b)	Transmitter Unwanted Emissions	Restricted Bands [dBuV/m at 1.0m]: 30.000MHz 33.60 (Margin 6.40dB) - PK	Non-Restricted Bands: ≤ -27 dBm (77.84dBuV/m@1m) Restricted Bands: FCC 15.209	Complied



SPORTON INTERNATIONAL INC.
TEL : 886-3-327-3456
FAX : 886-3-327-0973

1 General Description

1.1 Information

1.1.1 Feature of Equipment Under Test

Product Feature	
Equipment	802.11abgn WLAN + BLUETOOTH PCI-E MINICARD
Brand Name	Broadcom
Model Name.	BCM943228HMB
FCC ID	QDS-BRCM1058
Installed into host	Equipment: Tablet PC Brand Name: Lenovo Marketing name: Lenovo Miix 2 11
EUT supports Radios application	WLAN 11a/b/g/n HT20 HT40 Bluetooth v2.1 + EDR Bluetooth v4.0
EUT Stage	Production Unit

1.1.2 RF General Information

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	RF Output Power (dBm)
5150-5250	a	5180-5240	36-48 [4]	1	13.49
5250-5350		5260-5320	52-64 [4]	1	17.25
5470-5725		5500-5700	100-140 [8]	1	16.65
5150-5250	(HT20)	5180-5240	36-48 [3]	2	8.72
5250-5350		5260-5320	52-64 [4]	2	15.74
5470-5725		5500-5720	100-144 [4]	2	15.80
5150-5250	(HT40)	5190-5230	38-46 [2]	2	9.96
5250-5350		5270-5310	54-62 [2]	2	16.45
5470-5725		5510-5710	102-142 [4]	2	16.06

Note 1: RF output power specifies that Maximum Conducted Output Power.
Note 2: 802.11a/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.

1.1.3 Antenna Information

Antenna Category	
☒	Integral antenna (antenna permanently attached)
☒	Temporary RF connector provided
☐	No temporary RF connector provided Transmit chains bypass antenna and soldered temporary RF connector provided for connected measurement. In case of conducted measurements the transmitter shall be connected to the measuring equipment via a suitable attenuator and correct for all losses in the RF path.

Antenna Information			
Antenna 1	Manufacturer	WNC	
	P/N	Main:025.9000X.001	Aux: 025.9000Y.001
	Antenna Type	Main: PIFA Antenna	Aux: PIFA Antenna
	Peak gain	Main Antenna : WLAN(2.4G):1.87 dBi WLAN(5G):-0.16 dBi	Aux Antenna : Bluetooth:0.69 dBi WLAN(2.4G):0.69 dBi WLAN(5G):2.73 dBi
Antenna 2	Manufacturer	HT	
	P/N	Main:025.9000X.0011	Aux:025.9000Y.0011
	Antenna Type	Main:PIFA Antenna	Aux:PIFA Antenna
	Peak gain	Main Antenna : WLAN(2.4G):-1.63dBi WLAN(5G):1.84 dBi	Aux Antenna : Bluetooth:-0.35 dBi WLAN(2.4G):-0.35 dBi WLAN(5G):1.07dBi

Note: Performed the worst configuration for higher gain was test in final test report.

Directional Gain (DG) Result				
Modulation Mode	N _{TX}	N _{SS}	Array Gain (dB)	Power DG (dBi)
11a,6-54Mbps	1	1	0	-0.16
HT20,M0-15	2	1/2	0	1.52
HT40,M0-15	2	1/2	0	1.52
Note 2: For all transmitter outputs with unequal antenna gains, directional gain is to be computed as follows: Any transmit signals are correlated, Directional Gain = $10 \log[(10^{G_{1/20}} + \dots + 10^{G_{N/20}})^2 / N_{TX}]$ All transmit signals are completely uncorrelated, Directional Gain = $10 \log[(10^{G_{1/10}} + \dots + 10^{G_{N/10}}) / N_{TX}]$				

1.1.4 Test Signal Duty Cycle

Operated Mode for Worst Duty Cycle	
☐ Operated normally mode for worst duty cycle	
☒ Operated test mode for worst duty cycle	
Test Signal Duty Cycle (x)	Power Duty Factor [dB] – (10 log 1/x)
☒ 95.03% - IEEE 802.11a	0.22
☒ 95.02% - IEEE 802.11n (HT20)	0.22
☒ 90.17% - IEEE 802.11n (HT40)	0.45

1.1.5 EUT Operational Condition

Supply Voltage	☒ AC mains	☐ DC	☐ System
Type of DC Source	☐ Internal DC supply	☒ External DC adapter	☒ Battery

1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ◆ 47 CFR FCC Part 15
- ◆ ANSI C63.10-2009
- ◆ FCC KDB 789033
- ◆ FCC KDB 644545 D01
- ◆ FCC KDB 644545 D02
- ◆ FCC KDB 662911

1.3 Testing Location Information

Testing Location			
☒	HWA YA	ADD : No. 52, Hwa Ya 1 st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.	
		TEL : 886-3-327-3456	FAX : 886-3-327-0973
Test Condition	Test Site No.	Test Engineer	Test Environment
RF Conducted	TH02-HY	Alex	24~26°C / 45~49%
Radiated Emission	03CH03-HY	Leo	21.4°C / 35%

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

Measurement Uncertainty		
Test Item		Uncertainty
RF output power, conducted		±0.63 dB
Unwanted emissions, conducted	9 – 150 kHz	±0.38 dB
	0.15 – 30 MHz	±0.42 dB
	30 – 1000 MHz	±0.51 dB
	1 – 18 GHz	±0.67 dB
	18 – 40 GHz	±0.83 dB
	40 – 200 GHz	N/A
All emissions, radiated	9 – 150 kHz	±2.49 dB
	0.15 – 30 MHz	±2.28 dB
	30 – 1000 MHz	±2.56 dB
	1 – 18 GHz	±3.59 dB
	18 – 40 GHz	±3.82 dB
	40 – 200 GHz	N/A
Temperature		±0.8 °C
Humidity		±3 %
DC and low frequency voltages		±3 %
Time		±1.42 %
Duty Cycle		±1.42 %

2 Test Configuration of EUT

2.1 The Worst Case Modulation Configuration

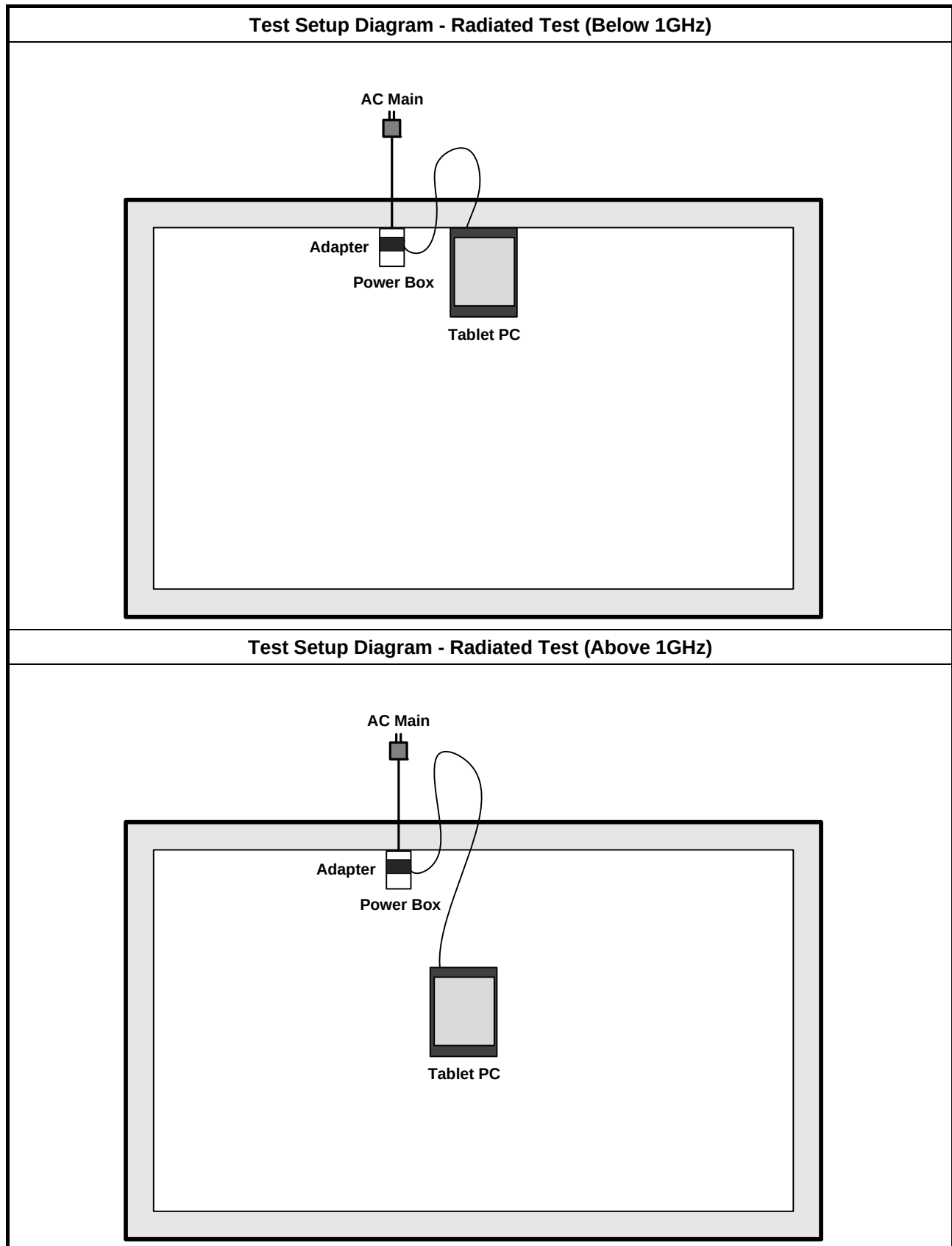
Worst Modulation Used for Conformance Testing			
Modulation Mode	Transmit Chains (N _{TX})	Data Rate / MCS	Worst Data Rate / MCS
11a,6-54Mbps	1	6-54Mbps	6 Mbps
HT20,M0-15	2	M0-15	MCS 0
HT40,M0-15	2	M0-15	MCS 0

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	RF Output Power
Test Condition	Conducted measurement at transmit chains
Modulation Mode	11a, HT20, HT40

The Worst Case Mode for Following Conformance Tests			
Tests Item	Transmitter Radiated Unwanted Emissions Transmitter Radiated Bandedge Emissions		
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.		
User Position	☐ EUT will be placed in fixed position. ☒ EUT will be placed in mobile position and operating multiple positions. EUT shall be performed two orthogonal planes. The worst planes is Z. ☐ EUT will be a hand-held or body-worn battery-powered devices and operating multiple positions. EUT shall be performed two or three orthogonal planes.		
Operating Mode	☒ 1. AC Power & Radio link (WLAN)		
Modulation Mode	11a, HT20, HT40		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			

2.3 Test Setup Diagram



3 Transmitter Test Result

3.1 RF Output Power

3.1.1 RF Output Power Limit

Maximum Conducted Output Power Limit	
UNII Devices	
☒	For the 5.15-5.25 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 50 mW or 4 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$.
☒	For the 5.25-5.35 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
☒	For the 5.47-5.725 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
☐	For the 5.725-5.825 GHz band:
☐	Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W or 17 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$.
☐	Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W or 17 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 23$ dBi, then $P_{Out} = 30 - (G_{TX} - 23)$.
LE-LAN Devices	
☒	For the 5.15-5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
☒	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
☒	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
☐	For the 5.725-5.825 GHz band, the maximum e.i.r.p. shall not exceed 4.0 W or 23 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
☐	Point-to-multipoint systems (P2M): the maximum e.i.r.p. shall not exceed 4.0 W or 23 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
☐	Point-to-point systems (P2P): the maximum e.i.r.p. shall not exceed 4.0 W or 23 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. If e.i.r.p. > 36 dBm, $G_{TX} \leq P_{Out}$
P_{Out} = maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

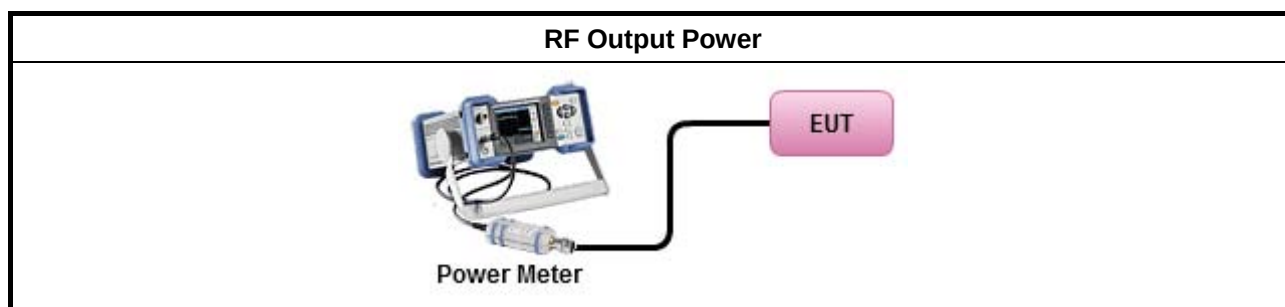
3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method	
☒	Maximum Conducted Output Power
	[duty cycle $\geq 98\%$ or external video / power trigger]
☐	Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).
☐	Refer as FCC KDB 789033, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)
	duty cycle $< 98\%$ and average over on/off periods with duty factor
☐	Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
☐	Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband RF power meter and average over on/off periods with duty factor
☒	Refer as FCC KDB 789033, clause E Method PM (using an RF average power meter).
☒	For conducted measurement.
☐	The EUT supports single transmit chain and measurements performed on this transmit chain.
☒	The EUT supports diversity transmitting and the results on transmit chain port 1 is the worst case.
☒	The EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
☒	If multiple transmit chains, EIRP calculation could be following as methods: $P_{\text{total}} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $\text{EIRP}_{\text{total}} = P_{\text{total}} + \text{DG}$

3.1.4 Test Setup



3.1.5 Test Result of Maximum Conducted (Average) Output Power

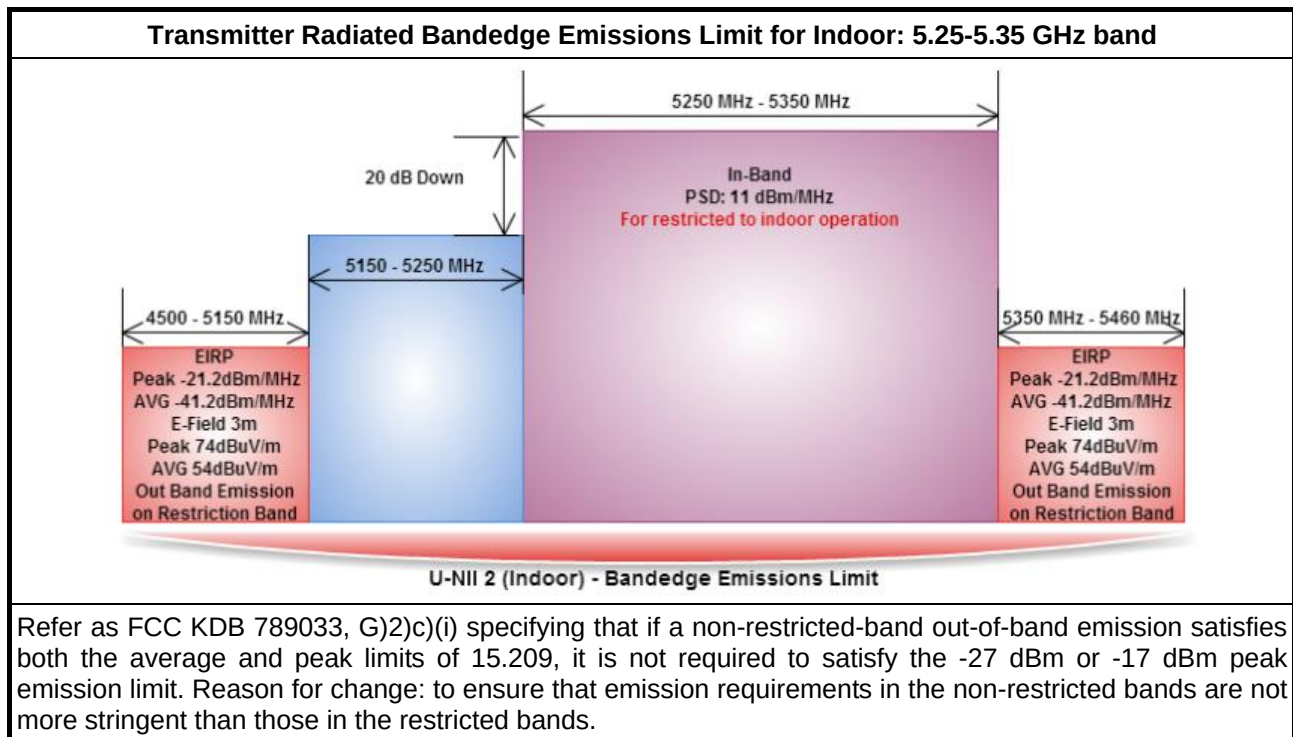
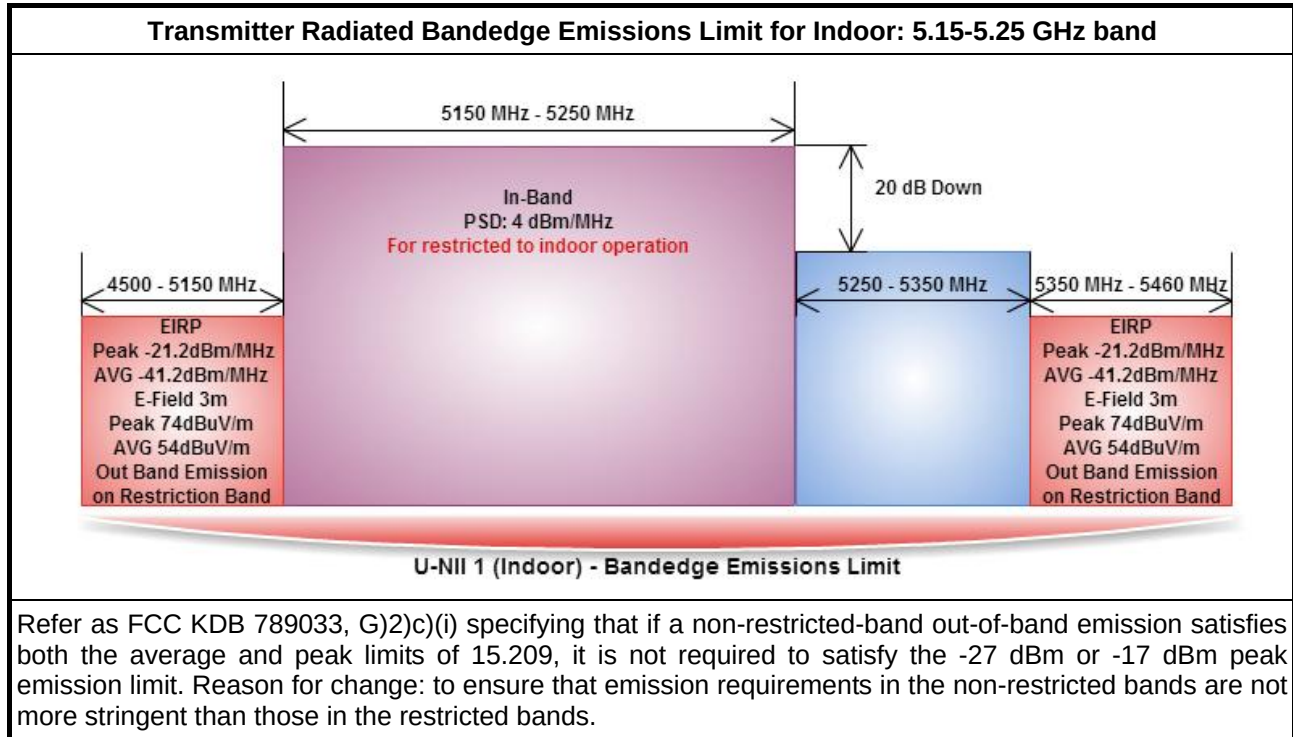
Maximum Conducted (Average) Output Power (5150-5250MHz band)									
Condition			RF Output Power (dBm)						
Modulation Mode	N _{TX}	Freq. (MHz)	Chain Port 1	Chain Port 2	Sum Chain	Power Limit	DG (dBi)	EIRP Power	EIRP Limit
11a	1	5180	12.76	-	12.76	17.00	-0.16	12.60	23.00
11a	1	5200	12.98	-	12.98	17.00	-0.16	12.82	23.00
11a	1	5240	13.49	-	13.49	17.00	-0.16	13.33	23.00
HT20	2	5180	6.38	4.55	8.57	17.00	1.52	10.09	23.00
HT20	2	5200	7.02	3.82	8.72	17.00	1.52	10.24	23.00
HT20	2	5240	6.08	4.32	8.30	17.00	1.52	9.82	23.00
HT40	2	5190	6.43	4.35	8.52	17.00	1.52	10.04	23.00
HT40	2	5230	8.30	4.98	9.96	17.00	1.52	11.48	23.00
Result			Complied						

Maximum Conducted (Average) Output Power (5250-5350MHz band)									
Condition			RF Output Power (dBm)						
Modulation Mode	N _{TX}	Freq. (MHz)	Chain Port 1	Chain Port 2	Sum Chain	Power Limit	DG (dBi)	EIRP Power	EIRP Limit
11a	1	5260	17.25	-	17.25	24.00	-0.16	17.09	27.00
11a	1	5300	15.46	-	15.46	24.00	-0.16	15.30	27.00
11a	1	5320	12.67	-	12.67	24.00	-0.16	12.51	27.00
HT20	2	5260	10.38	8.36	12.50	24.00	1.52	14.02	27.00
HT20	2	5300	13.43	11.88	15.74	24.00	1.52	17.26	27.00
HT20	2	5320	11.67	9.68	13.80	24.00	1.52	15.32	27.00
HT40	2	5270	14.28	12.41	16.45	24.00	1.52	17.98	27.00
HT40	2	5310	8.68	6.56	10.76	24.00	1.52	12.28	27.00
Result			Complied						

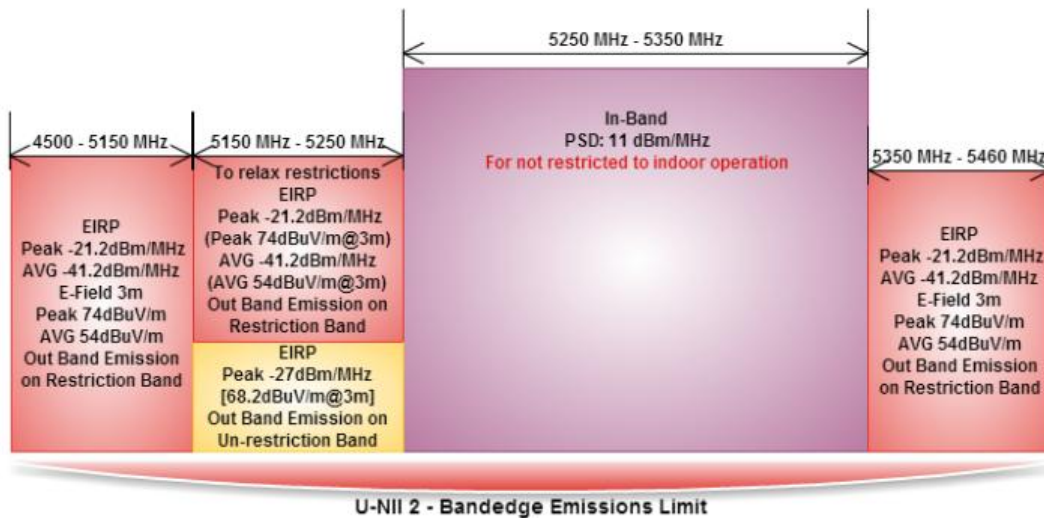
Maximum Conducted (Average) Output Power (Straddle 5725 MHz band)									
Condition			RF Output Power (dBm)						
Modulation Mode	N _{TX}	Freq. (MHz)	Chain Port 1	Chain Port 2	Sum Chain	Power Limit	DG (dBi)	EIRP Power	EIRP Limit
11a	1	5500	13.77	-	13.77	24.00	-0.16	13.61	27.00
11a	1	5580	16.65	-	16.65	24.00	-0.16	16.49	27.00
11a	1	5700	9.60	-	9.60	24.00	-0.16	9.44	27.00
HT20	2	5500	13.20	11.79	15.56	24.00	1.52	17.09	27.00
HT20	2	5580	13.29	12.21	15.80	24.00	1.52	17.32	27.00
HT20	2	5700	9.29	7.24	11.40	24.00	1.52	12.92	27.00
HT40	2	5510	10.22	8.42	12.42	24.00	1.52	13.94	27.00
HT40	2	5550	10.76	9.10	13.02	24.00	1.52	14.54	27.00
HT40	2	5670	13.53	12.52	16.06	24.00	1.52	17.59	27.00
Result			Complied						
* = Band-crossing channel. The conducted output power within each band of operation shall comply with the limits for that band.									

3.2 Transmitter Bandedge Emissions

3.2.1 Transmitter Radiated Bandedge Emissions Limit

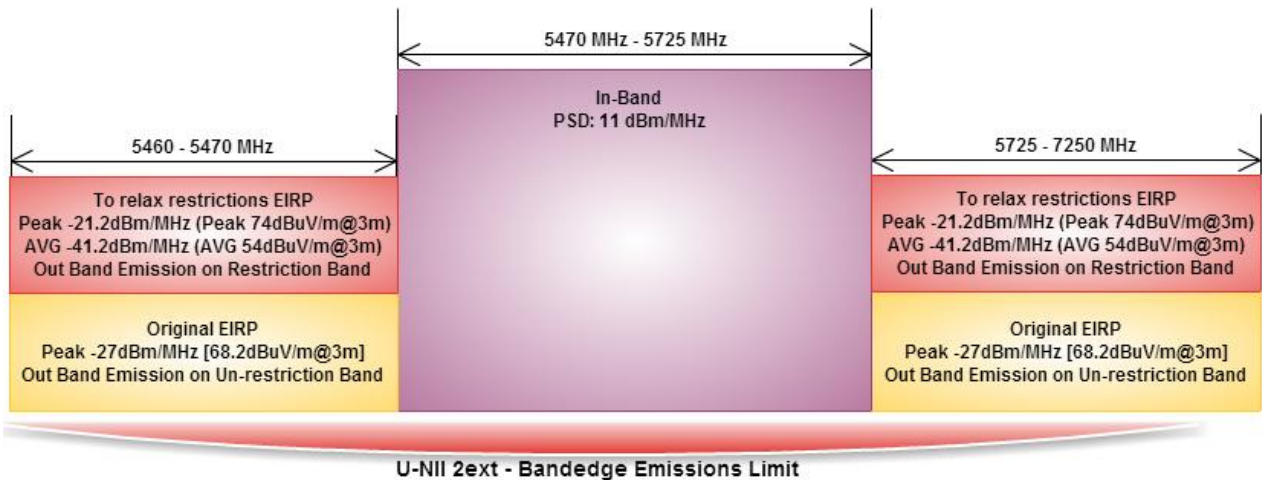


Transmitter Radiated Bandedge Emissions Limit for indoor/outdoor: 5.25-5.35 GHz band



Refer as FCC KDB 789033, G)2)c)(i) specifying that if a non-restricted-band out-of-band emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm or -17 dBm peak emission limit. Reason for change: to ensure that emission requirements in the non-restricted bands are not more stringent than those in the restricted bands.

Transmitter Radiated Bandedge Emissions Limit: 5.47-5.725 GHz band



Refer as FCC KDB 789033, G)2)c)(i) specifying that if a non-restricted-band out-of-band emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm or -17 dBm peak emission limit. Reason for change: to ensure that emission requirements in the non-restricted bands are not more stringent than those in the restricted bands.

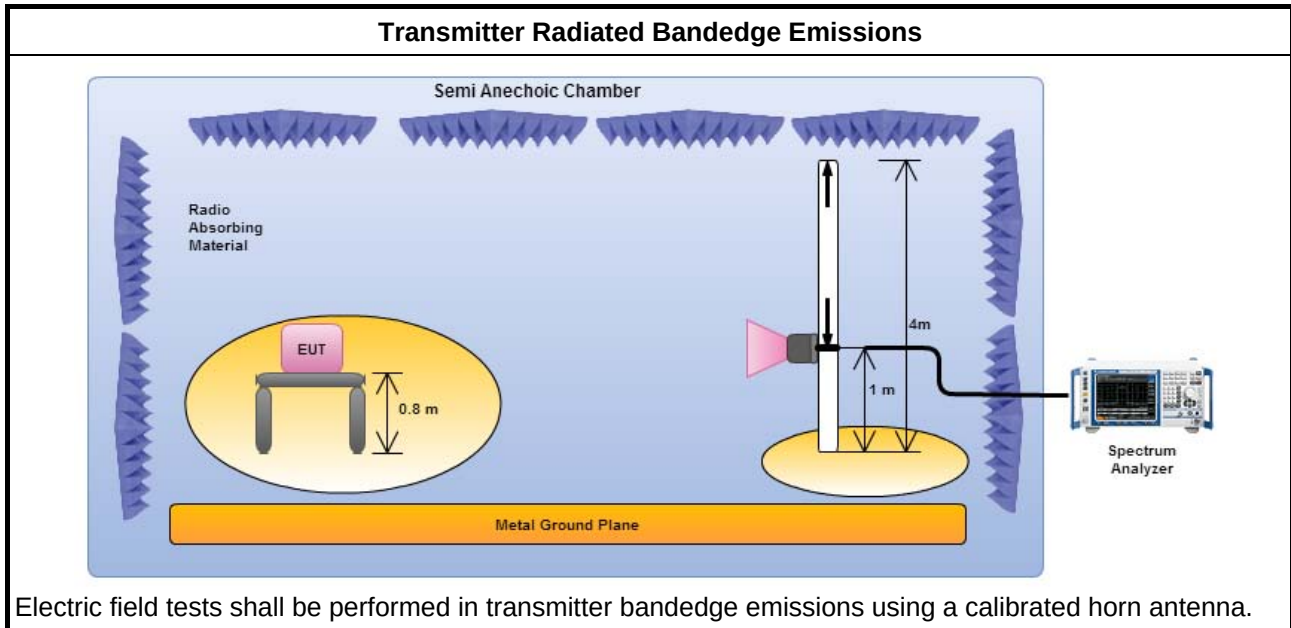
3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method	
☒	Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements). Measurements in the bandedge are typically made at a closer distance 1.5m, because the instrumentation noise floor is typically close to the radiated emission limit.
☒	The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].
☒	Refer as ANSI C63.10, clause 6.9.2.2 bandedge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.
☐	If EUT operate in adjacent contiguous bands, bandedge testing performed at the lowest frequency channel at lower-band and highest frequency channel at higher-band. Transmitter in-band emissions will consist of adjacent contiguous bands (e.g., IEEE 802.11ac VHT160 The lowest frequency channel at lower-band and highest frequency channel at higher-band in-band emissions will consist of two adjacent contiguous bands.)
☐	☐ Operating in 5.15-5.25 GHz band (lower-band) and 5.25-5.35 GHz band (higher-band). ☐ Operating in 5.47-5.725 GHz band (lower-band) and 5.725-5.825 GHz band (higher-band).
☐	If EUT operate in individual non-contiguous bands, bandedge testing performed at the lowest frequency channel and highest frequency channel within lower-band and higher-band. (e.g., (e.g., IEEE 802.11ac VHT160)
☐	☐ Operating in 5.25-5.35 GHz band (lower-band) and 5.47-5.725 GHz band (higher-band). ☐ Operating in 5.15-5.25 GHz band (lower-band) and 5.725-5.825 GHz band (higher-band).
☒	For the transmitter unwanted emissions shall be measured using following options below:
☒	Refer as FCC KDB 789033, clause H)2) for unwanted emissions into non-restricted bands.
☒	Refer as FCC KDB 789033, clause H)1) for unwanted emissions into restricted bands.
☐	☐ Refer as FCC KDB 789033, H)6) Method AD (Trace Averaging). ☐ Refer as FCC KDB 789033, H)6) Method VB (Reduced VBW). ☒ Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW $\geq$ 1/T, where T is pulse time. ☐ Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions. ☒ Refer as FCC KDB 789033, clause H)5) measurement procedure peak limit. ☐ Refer as ANSI C63.10, clause 4.2.3.2.2 measurement procedure peak limit.
☒	For the transmitter bandedge emissions shall be measured using following options below:
☐	Refer as FCC KDB 789033, clause H)3)d) for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).
☒	Refer as ANSI C63.10, clause 6.9.2 for band-edge testing.
☐	Refer as ANSI C63.10, clause 6.9.3 for marker-delta method for band-edge measurements.
☒	For radiated measurement, refer as ANSI C63.10, clause 6.5 for radiated emissions from above 1 GHz.

3.2.4 Test Setup



3.2.5 Transmitter Radiated Bandedge Emissions (with Antenna)

U-NII 5150-5250MHz Transmitter Radiated Bandedge (with Antenna)										
Modulation Mode	N _{TX}	Freq. (MHz)	Measure Distance (m)	Freq. (MHz) PK	Level (dBuV/m) PK	Limit (dBuV/m) PK	Freq. (MHz) AV	Level (dBuV/m) AV	Limit (dBuV/m) AV	Pol.
11a	1	5180	1	5148.70	80.08	83.54	5149.90	61.35	63.54	H
11a	1	5240	1	5393.70	73.17	83.54	5394.60	58.46	63.54	H
HT20	1	5180	1	5102.60	72.52	83.54	5149.40	58.46	63.54	H
HT20	1	5240	1	5370.60	72.12	83.54	5392.20	58.29	63.54	H
HT40	1	5190	1	5149.50	76.70	83.54	5149.61	59.75	63.54	H
HT40	1	5230	1	5376.90	72.32	83.54	5399.40	58.35	63.54	H

Note 1: Measurement worst emissions of receive antenna polarization.

U-NII 5250-5350MHz Transmitter Radiated Bandedge (with Antenna)										
Modulation Mode	N _{TX}	Freq. (MHz)	Measure Distance (m)	Freq. (MHz) PK	Level (dBuV/m) PK	Limit (dBuV/m) PK	Freq. (MHz) AV	Level (dBuV/m) AV	Limit (dBuV/m) AV	Pol.
11a	1	5260	1	5385.00	73.11	83.54	5397.30	58.57	63.54	H
11a	1	5320	1	5351.09	80.53	83.54	5350.11	61.34	63.54	H
HT20	1	5260	1	5391.00	72.19	83.54	5396.10	58.36	63.54	H
HT20	1	5320	1	5351.37	77.25	83.54	5350.11	60.63	63.54	H
HT40	1	5270	1	5371.80	74.35	83.54	5351.70	58.91	63.54	H
HT40	1	5310	1	5351.47	77.58	83.54	5350.39	59.76	63.54	H

U-NII 5470-5725MHz Transmitter Radiated Bandedge (with Antenna)										
Modulation Mode	N _{TX}	Freq. (MHz)	Measure Distance (m)	Freq. (MHz) PK	Level (dBuV/m) PK	Limit (dBuV/m) PK	Freq. (MHz) AV	Level (dBuV/m) AV	Limit (dBuV/m) AV	Pol.
11a	1	5500	1	5469.92	81.90	83.54	5470.00	61.17	63.54	H
11a	1	5700	1	5726.90	77.26	77.84	-	-	-	H
HT20	1	5500	1	5467.92	81.60	83.54	5470.00	61.53	63.54	H
HT20	1	5700	1	5726.90	76.55	77.84	-	-	-	H
HT40	1	5510	1	5469.90	83.12	83.54	5469.80	62.56	63.54	H
HT40	1	5670	1	5725.00	77.27	77.84	-	-	-	H

Note 1: Measurement worst emissions of receive antenna polarization.

3.3 Transmitter Unwanted Emissions

3.3.1 Transmitter Radiated Unwanted Emissions Limit

Unwanted emissions below 1 GHz and restricted band emissions above 1GHz limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.825 GHz	5.715 5.725 GHz: e.i.r.p. -17 dBm [78.2 dBuV/m@3m] 5.825 5.835 GHz: e.i.r.p. -17 dBm [78.2 dBuV/m@3m] Other un-restricted band: e.i.r.p. -27 dBm [68.2 dBuV/m@3m]

Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

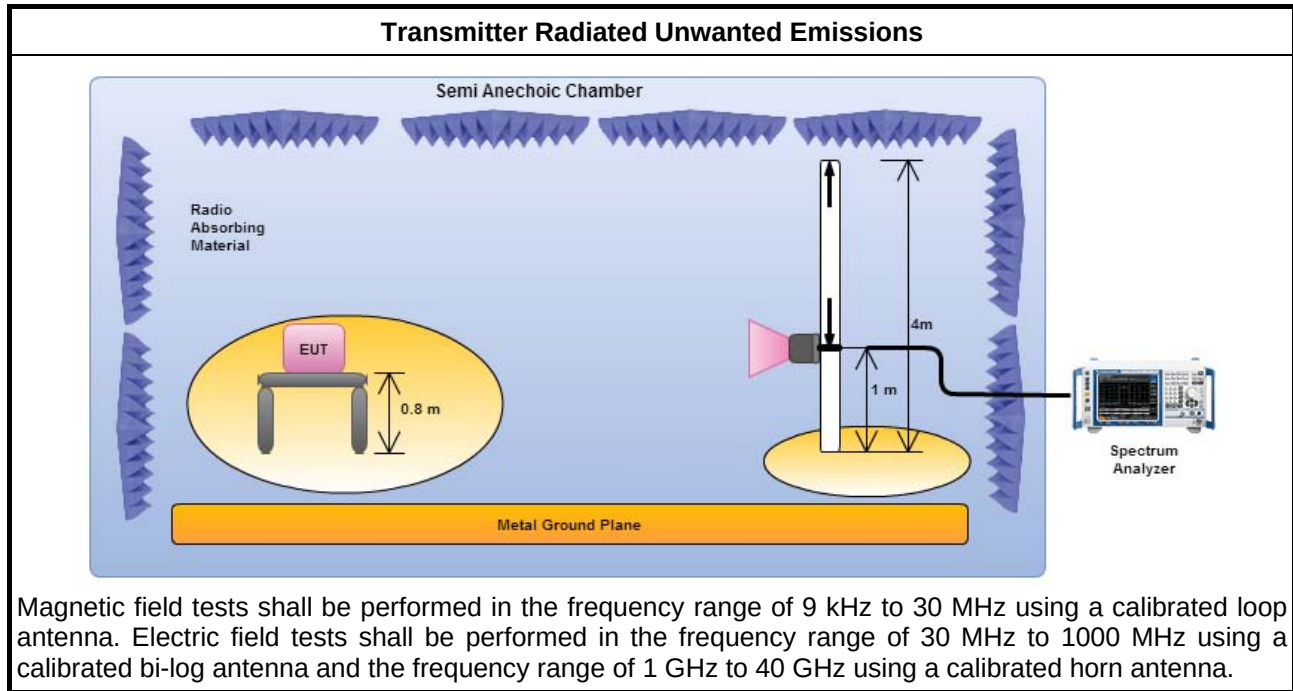
3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

Test Method	
☒	Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).
☒	Measurements in the frequency range 5 GHz - 10GHz are typically made at a closer distance 1.5m, because the instrumentation noise floor is typically close to the radiated emission limit.
☒	Measurements in the frequency range 10 GHz - 18GHz are typically made at a closer distance 1m, because the instrumentation noise floor is typically close to the radiated emission limit.
☒	Measurements in the frequency range above 18 GHz - 40GHz are typically made at a closer distance 0.5m, because the instrumentation noise floor is typically close to the radiated emission limit.
☒	The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].
☒	For the transmitter unwanted emissions shall be measured using following options below:
☒	Refer as FCC KDB 789033, clause H)2) for unwanted emissions into non-restricted bands.
☒	Refer as FCC KDB 789033, clause H)1) for unwanted emissions into restricted bands.
☐	Refer as FCC KDB 789033, H)6) Method AD (Trace Averaging).
☐	Refer as FCC KDB 789033, H)6) Method VB (Reduced VBW).
☒	Refer as ANSI C63.10, clause 4.2.3.2.3 (Reduced VBW). VBW $\geq$ 1/T, where T is pulse time.
☐	Refer as ANSI C63.10, clause 4.2.3.2.4 average value of pulsed emissions.
☒	Refer as FCC KDB 789033, clause H)5) measurement procedure peak limit.
☐	Refer as ANSI C63.10, clause 4.2.3.2.2 measurement procedure peak limit.
☒	For radiated measurement.
☒	Refer as ANSI C63.10, clause 6.4 for radiated emissions from below 30 MHz.
☒	Refer as ANSI C63.10, clause 6.5 for radiated emissions from 30 MHz to 1000 MHz.
☒	Refer as ANSI C63.10, clause 6.6 for radiated emissions from above 1 GHz.

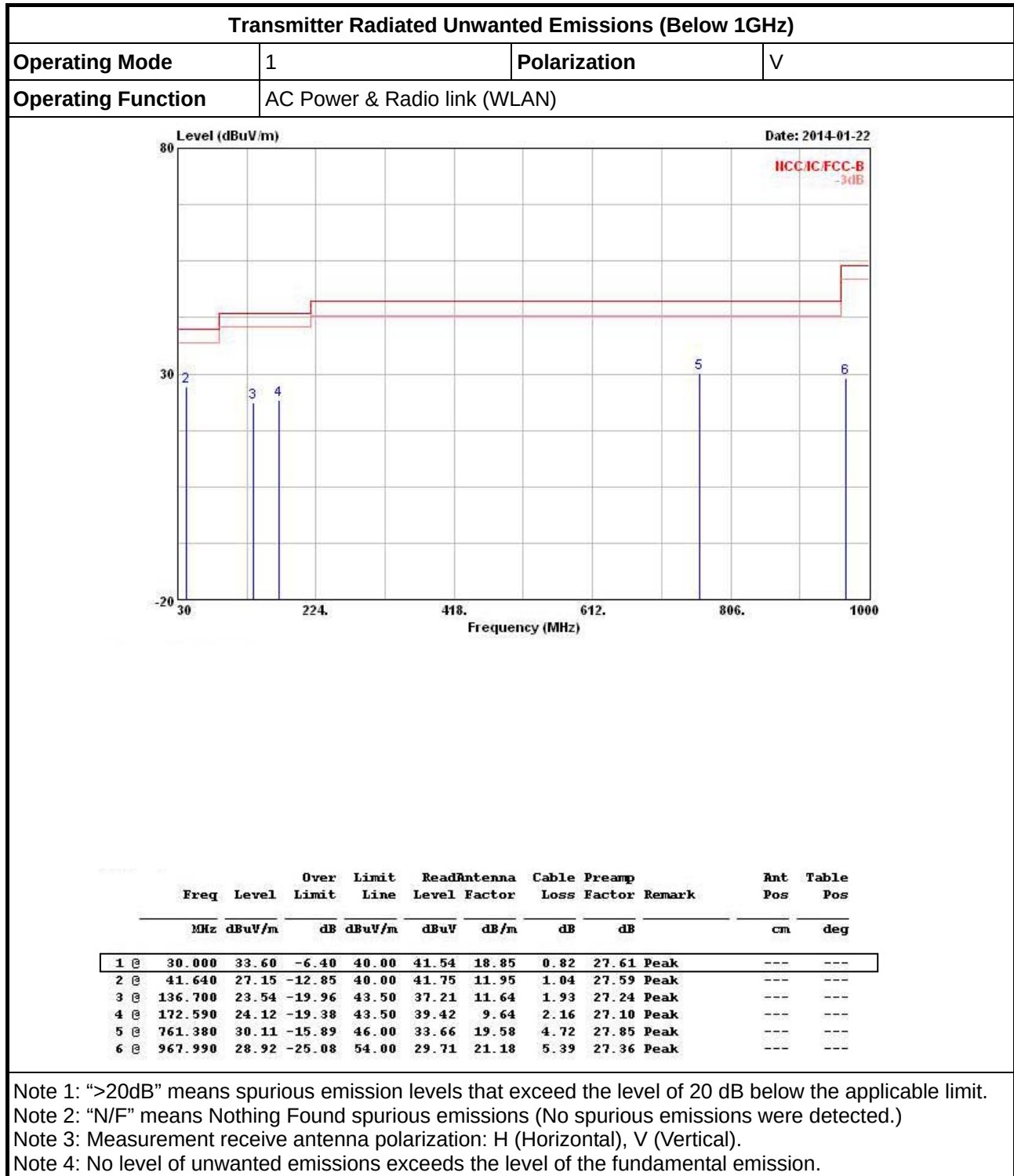
3.3.4 Test Setup



3.3.5 Transmitter Radiated Unwanted Emissions-with Antenna (Below 30MHz)

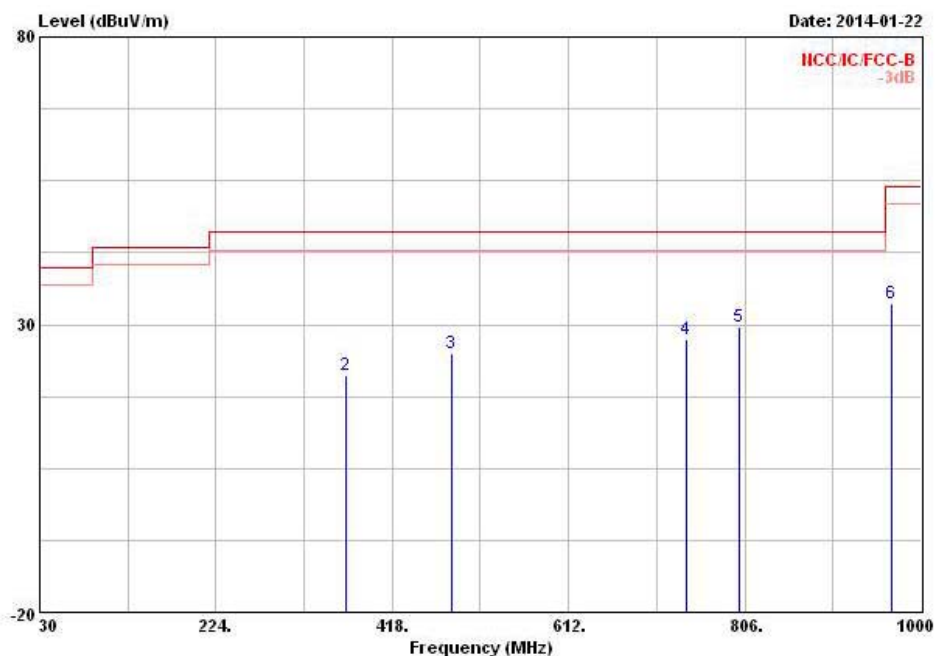
All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

3.3.6 Transmitter Radiated Unwanted Emissions (Below 1GHz)



Transmitter Radiated Unwanted Emissions (Below 1GHz)

Operating Mode	1	Polarization	H
Operating Function	AC Power & Radio link (WLAN)		



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1 @	30.000	18.81	-21.19	40.00	26.75	18.85	0.82	27.61	Peak	---
2 @	366.590	21.15	-24.85	46.00	30.35	14.72	3.19	27.11	Peak	---
3 @	482.990	24.94	-21.06	46.00	31.94	17.10	3.68	27.78	Peak	---
4 @	741.980	27.46	-18.54	46.00	31.14	19.56	4.64	27.88	Peak	---
5 @	800.180	29.57	-16.43	46.00	32.81	19.64	4.92	27.80	Peak	---
6 @	967.990	33.79	-20.21	54.00	34.58	21.18	5.39	27.36	Peak	---

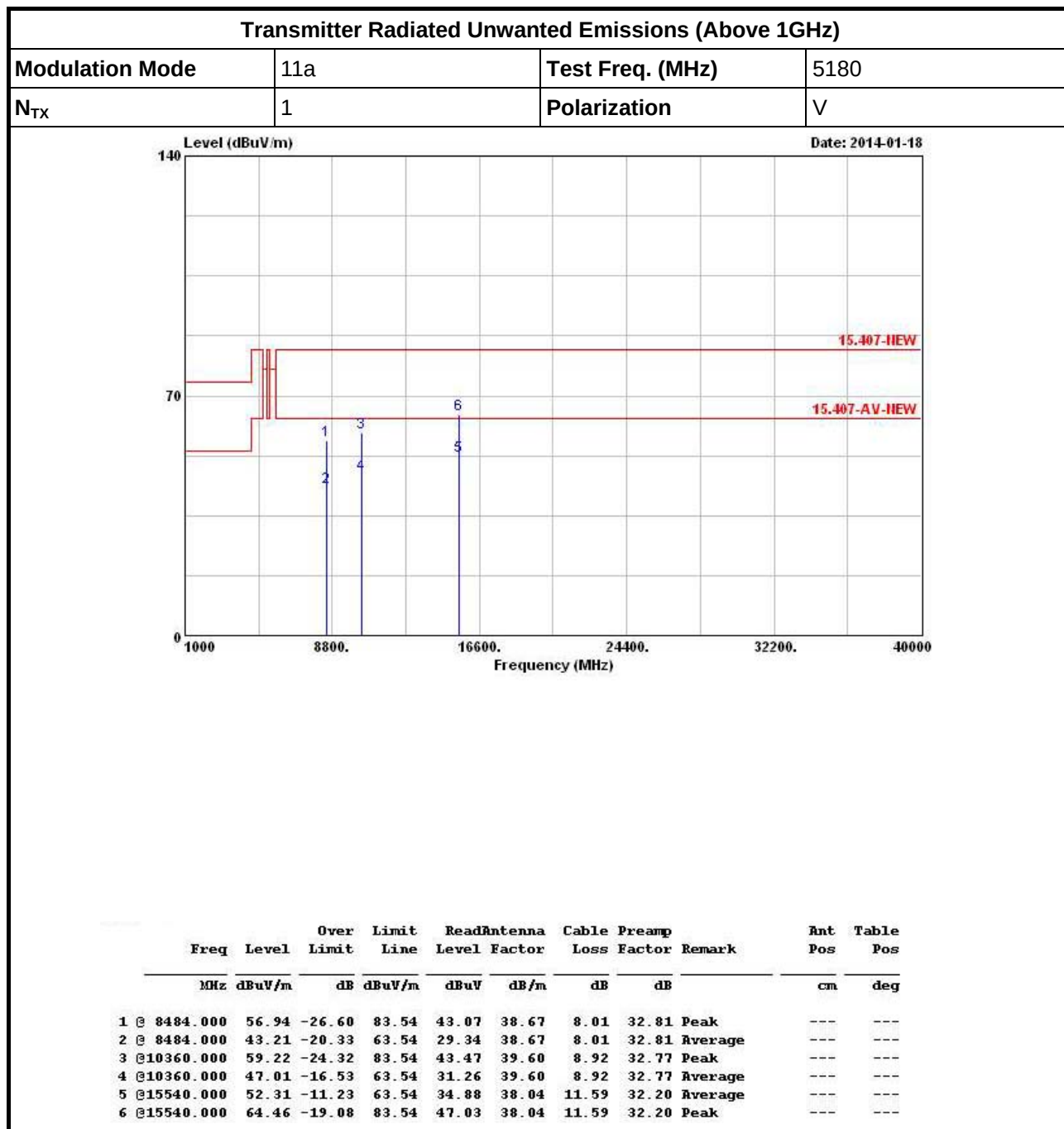
Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical).

Note 4: No level of unwanted emissions exceeds the level of the fundamental emission.

3.3.7 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 5150-5250MHz



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

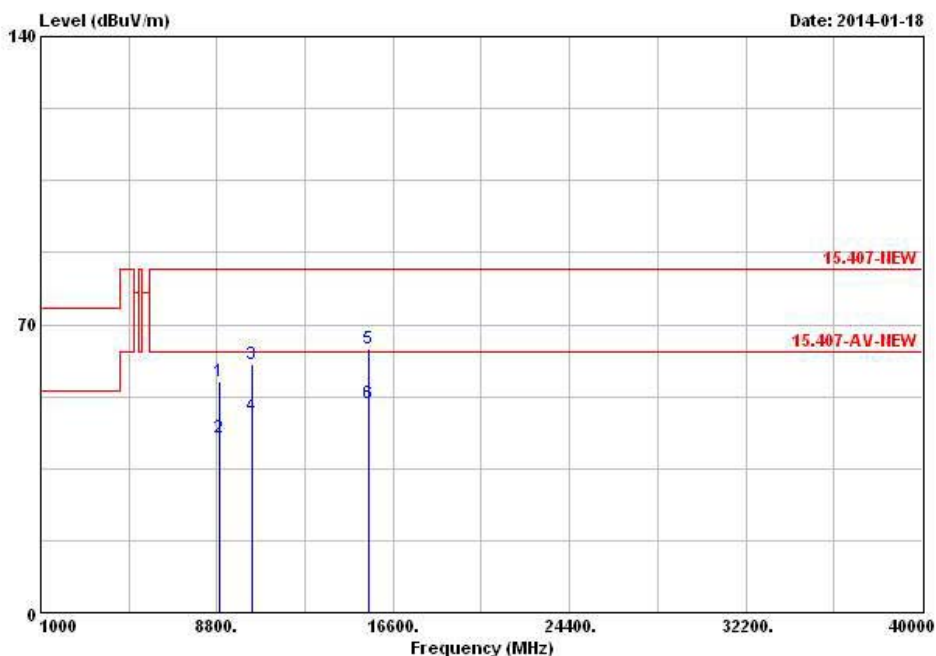
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5180
N_{TX}	1	Polarization	H



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 8916.000	56.29	-27.25	83.54	43.24	38.20	7.80	32.95	Peak	---
2	@ 8916.000	42.40	-21.14	63.54	29.35	38.20	7.80	32.95	Average	---
3	@ 10360.000	60.28	-23.26	83.54	44.53	39.60	8.92	32.77	Peak	---
4	@ 10360.000	47.91	-15.63	63.54	32.16	39.60	8.92	32.77	Average	---
5	@ 15540.000	64.02	-19.52	83.54	46.59	38.04	11.59	32.20	Peak	---
6	@ 15540.000	51.02	-12.52	63.54	33.59	38.04	11.59	32.20	Average	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

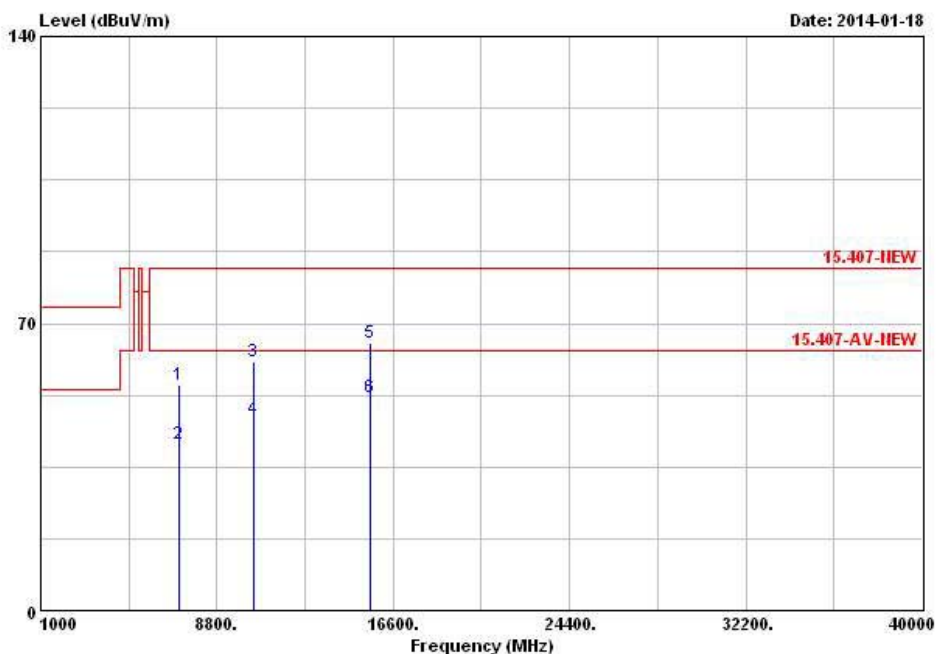
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5200
N_{TX}	1	Polarization	V



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Rnt	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 7128.000	55.08	-28.46	83.54	43.79	36.77	7.14	32.62	Peak	---
2	@ 7128.000	40.47	-23.07	63.54	29.18	36.77	7.14	32.62	Average	---
3	@ 10400.000	60.69	-22.85	83.54	44.88	39.60	8.94	32.73	Peak	---
4	@ 10400.000	46.71	-16.83	63.54	30.90	39.60	8.94	32.73	Average	---
5	@ 15600.000	65.15	-18.39	83.54	47.87	37.91	11.59	32.22	Peak	---
6	@ 15600.000	52.03	-11.51	63.54	34.75	37.91	11.59	32.22	Average	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

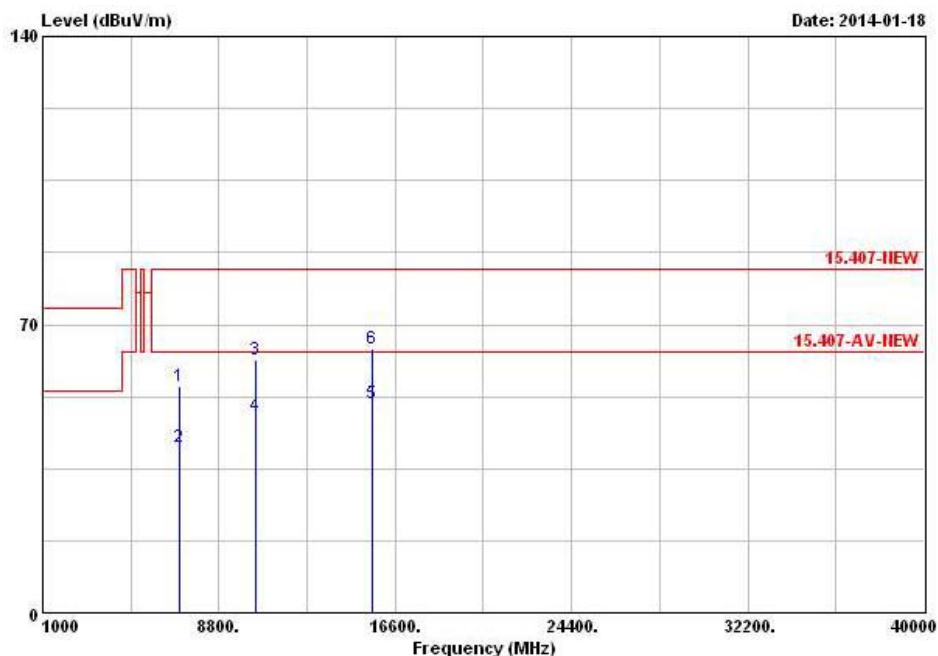
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5200
N_{TX}	1	Polarization	H



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	7038.000	55.09	-28.45	83.54	43.95	36.65	7.08	32.59	Peak	---
2	7038.000	40.10	-23.44	63.54	28.96	36.65	7.08	32.59	Average	---
3	10400.000	61.46	-22.08	83.54	45.65	39.60	8.94	32.73	Peak	---
4	10400.000	47.97	-15.57	63.54	32.16	39.60	8.94	32.73	Average	---
5	15600.000	50.97	-12.57	63.54	33.69	37.91	11.59	32.22	Average	---
6	15600.000	64.23	-19.31	83.54	46.95	37.91	11.59	32.22	Peak	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

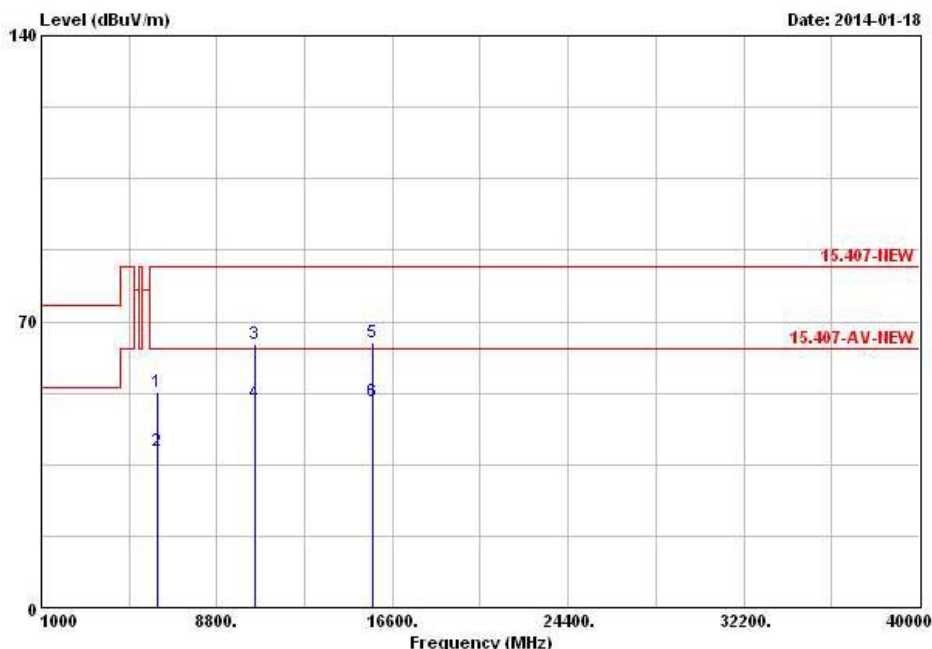
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5240
N_{TX}	1	Polarization	V



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 6156.000	52.84	-30.70	83.54	43.54	35.12	6.63	32.45	Peak	---
2	@ 6156.000	38.42	-25.12	63.54	29.12	35.12	6.63	32.45	Average	---
3	@ 10480.000	64.45	-19.09	83.54	48.53	39.60	8.99	32.67	Peak	---
4	@ 10480.000	50.24	-13.30	63.54	34.32	39.60	8.99	32.67	Average	---
5	@ 15720.000	64.80	-18.74	83.54	47.76	37.70	11.59	32.25	Peak	---
6	@ 15720.000	50.43	-13.11	63.54	33.39	37.70	11.59	32.25	Average	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

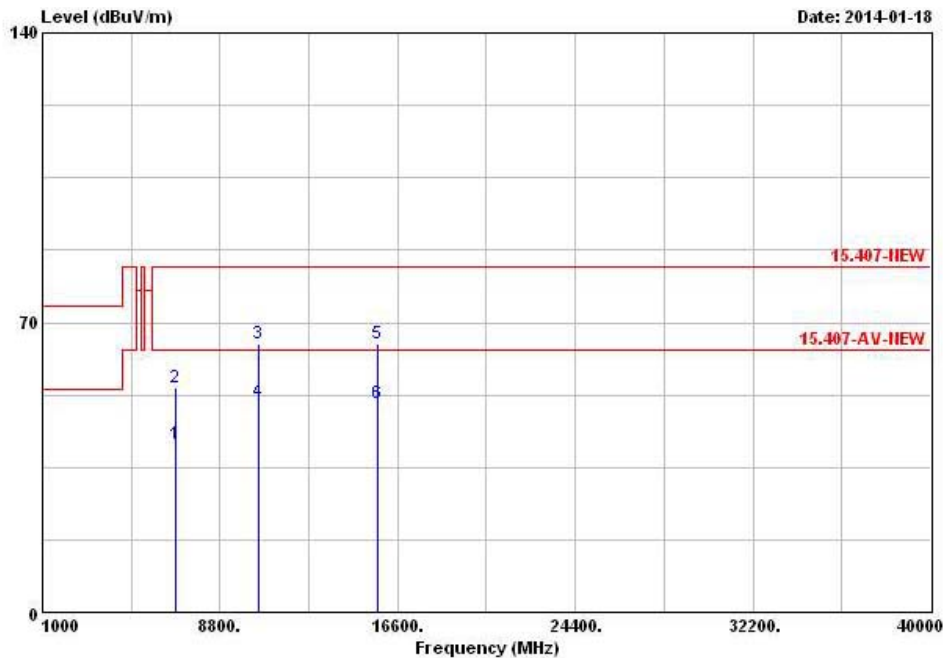
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5240
N_{TX}	1	Polarization	H



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	6822.000	40.62	-22.92	63.54	30.13	36.14	6.89	32.54	Average	---
2	6822.000	54.29	-29.25	83.54	43.80	36.14	6.89	32.54	Peak	---
3	10480.000	64.83	-18.71	83.54	48.91	39.60	8.99	32.67	Peak	---
4	10480.000	50.83	-12.71	63.54	34.91	39.60	8.99	32.67	Average	---
5	15720.000	64.71	-18.83	83.54	47.67	37.70	11.59	32.25	Peak	---
6	15720.000	50.34	-13.20	63.54	33.30	37.70	11.59	32.25	Average	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

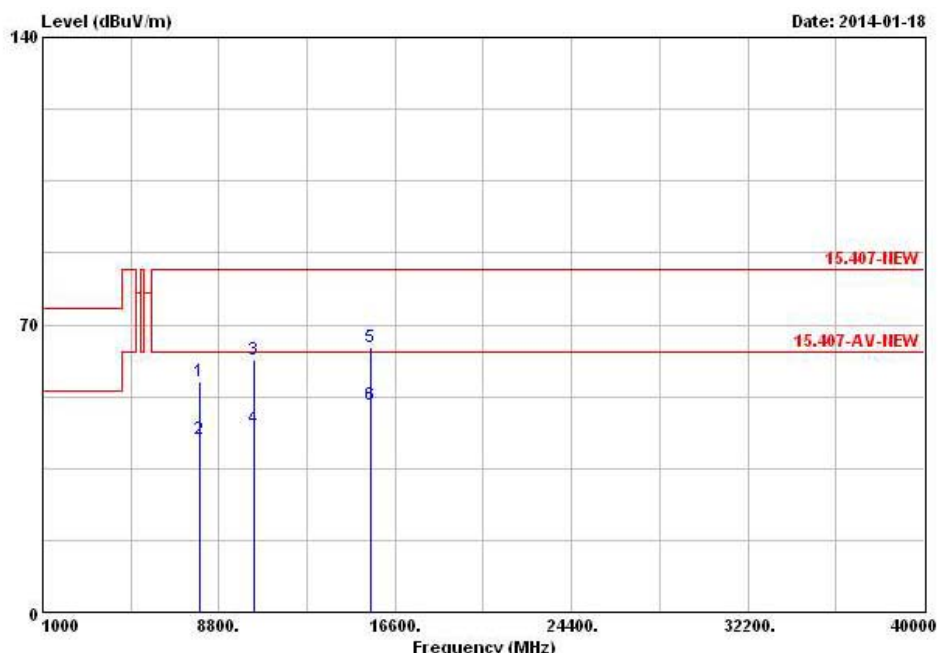
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5180
N_{TX}	2	Polarization	V



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Remark	Pos	Pos
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 7938.000	56.19	-27.35	83.54	43.04	37.73	8.21	32.79	Peak	---
2	@ 7938.000	42.14	-21.40	63.54	28.99	37.73	8.21	32.79	Average	---
3	@ 10360.000	61.48	-22.06	83.54	45.73	39.60	8.92	32.77	Peak	---
4	@ 10360.000	44.95	-18.59	63.54	29.20	39.60	8.92	32.77	Average	---
5	@ 15540.000	64.66	-18.88	83.54	47.23	38.04	11.59	32.20	Peak	---
6	@ 15540.000	50.50	-13.04	63.54	33.07	38.04	11.59	32.20	Average	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

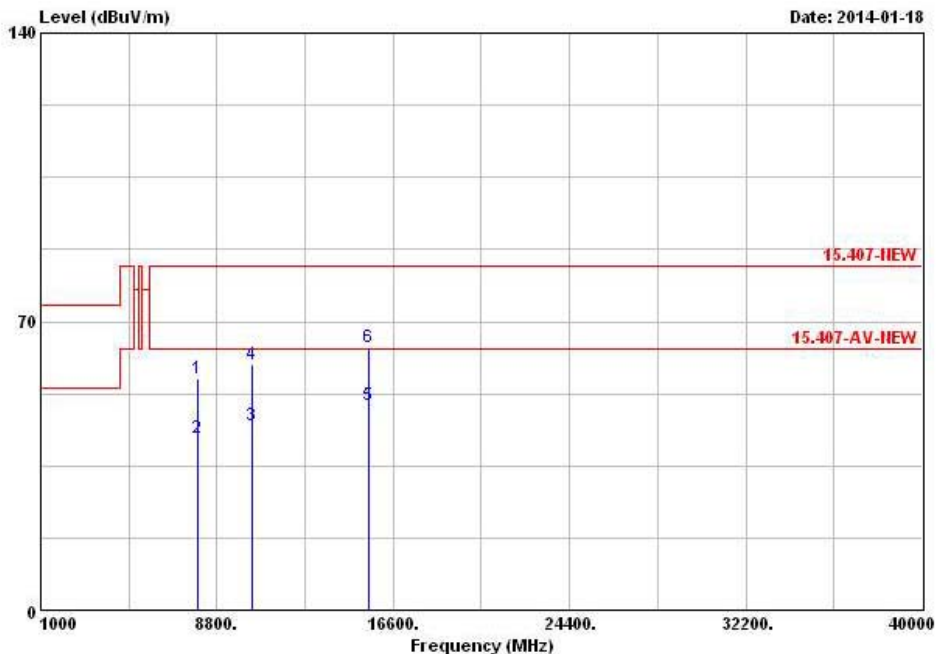
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5180
N_{TX}	2	Polarization	H



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	@ 7938.000	56.10	-27.44	83.54	42.95	37.73	8.21	32.79	Peak	---	---
2	@ 7938.000	41.71	-21.83	63.54	28.56	37.73	8.21	32.79	Average	---	---
3	@ 10360.000	44.96	-18.58	63.54	29.21	39.60	8.92	32.77	Average	---	---
4	@ 10360.000	59.61	-23.93	83.54	43.86	39.60	8.92	32.77	Peak	---	---
5	@ 15540.000	49.85	-13.69	63.54	32.42	38.04	11.59	32.20	Average	---	---
6	@ 15540.000	63.79	-19.75	83.54	46.36	38.04	11.59	32.20	Peak	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

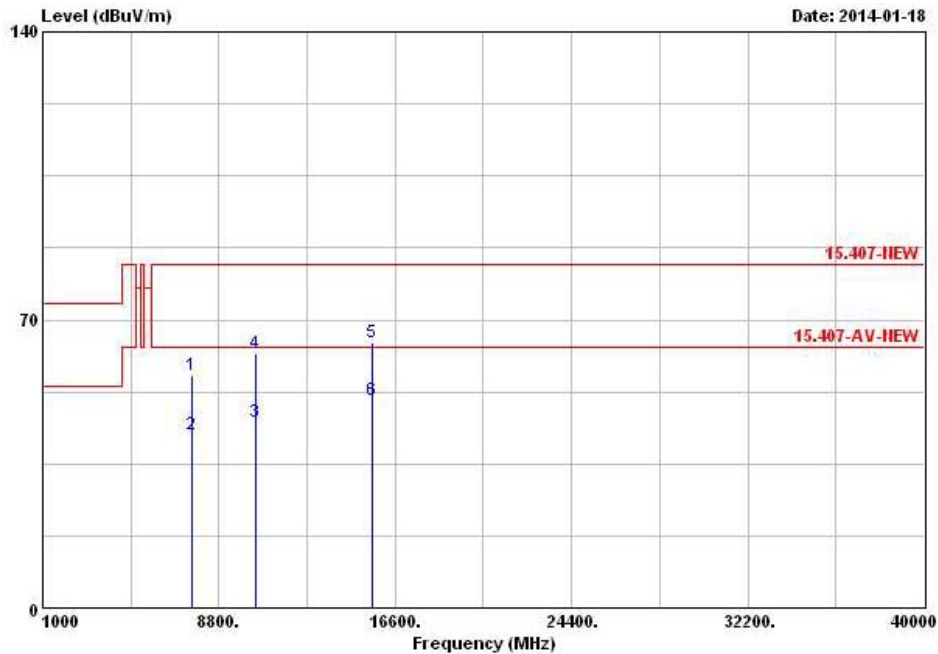
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5200
N_{TX}	2	Polarization	V



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Remark	Pos	Pos
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 7632.000	56.65	-26.89	83.54	44.32	37.43	7.64	32.74	Peak	---
2	@ 7632.000	42.00	-21.54	63.54	29.67	37.43	7.64	32.74	Average	---
3	@ 10400.000	45.12	-18.42	63.54	29.31	39.60	8.94	32.73	Average	---
4	@ 10400.000	61.69	-21.85	83.54	45.88	39.60	8.94	32.73	Peak	---
5	@ 15600.000	64.51	-19.03	83.54	47.23	37.91	11.59	32.22	Peak	---
6	@ 15600.000	50.41	-13.13	63.54	33.13	37.91	11.59	32.22	Average	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

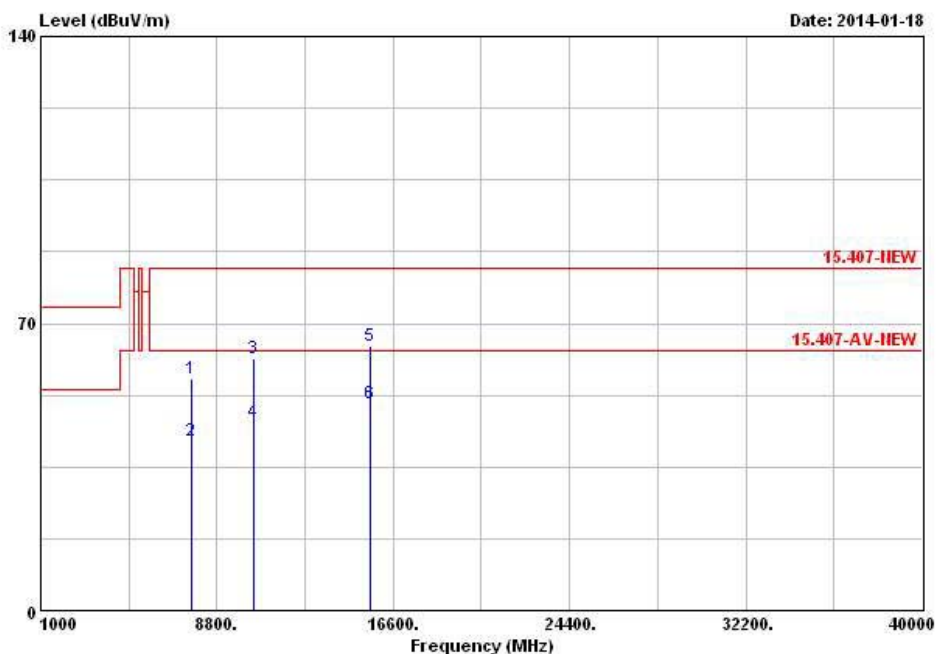
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5200
N_{TX}	2	Polarization	H



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Rnt	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		deg
1	@ 7674.000	56.55	-26.99	83.54	44.11	37.48	7.71	32.75	Peak	---
2	@ 7674.000	41.33	-22.21	63.54	28.89	37.48	7.71	32.75	Average	---
3	@10400.000	61.43	-22.11	83.54	45.62	39.60	8.94	32.73	Peak	---
4	@10400.000	45.76	-17.78	63.54	29.95	39.60	8.94	32.73	Average	---
5	@15600.000	64.63	-18.91	83.54	47.35	37.91	11.59	32.22	Peak	---
6	@15600.000	50.40	-13.14	63.54	33.12	37.91	11.59	32.22	Average	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

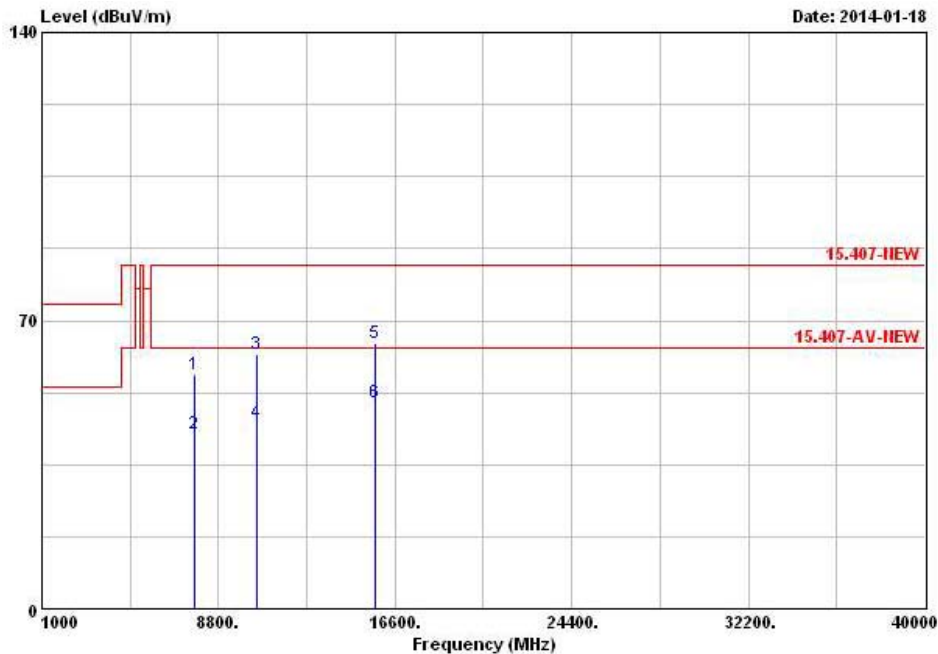
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5240
N_{TX}	2	Polarization	V



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7746.000	57.03	-26.51	83.54	44.38	37.55	7.86	32.76	Peak	---	---
2	7746.000	42.67	-20.87	63.54	30.02	37.55	7.86	32.76	Average	---	---
3	10480.000	61.78	-21.76	83.54	45.86	39.60	8.99	32.67	Peak	---	---
4	10480.000	45.15	-18.39	63.54	29.23	39.60	8.99	32.67	Average	---	---
5	15720.000	64.50	-19.04	83.54	47.46	37.70	11.59	32.25	Peak	---	---
6	15720.000	50.27	-13.27	63.54	33.23	37.70	11.59	32.25	Average	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

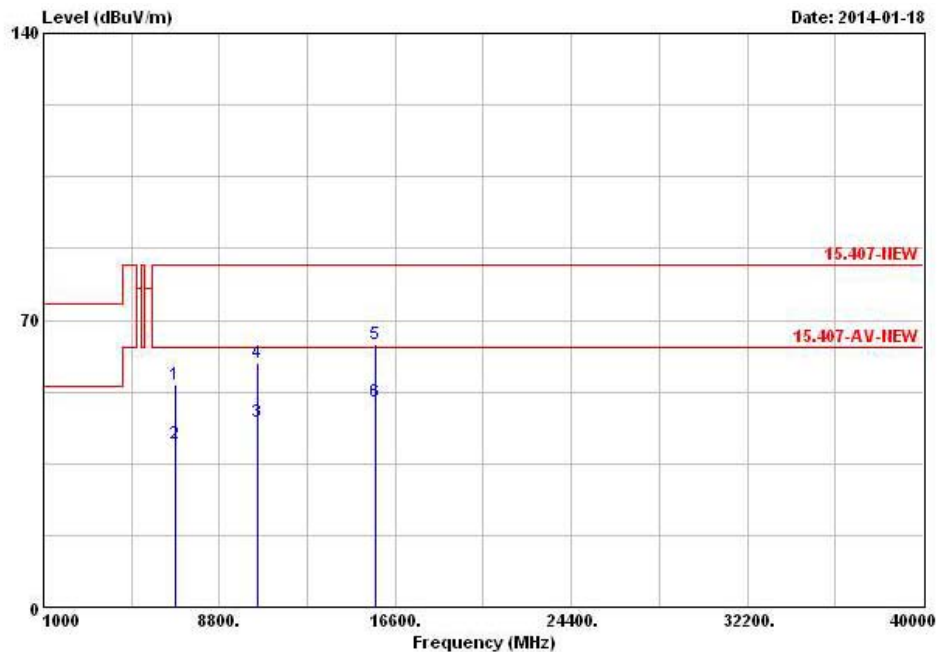
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5240
N_{TX}	2	Polarization	H



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 6852.000	54.28	-29.26	83.54	43.68	36.23	6.92	32.55	Peak	---
2	@ 6852.000	40.01	-23.53	63.54	29.41	36.23	6.92	32.55	Average	---
3	@ 10480.000	45.19	-18.35	63.54	29.27	39.60	8.99	32.67	Average	---
4	@ 10480.000	59.69	-23.85	83.54	43.77	39.60	8.99	32.67	Peak	---
5	@ 15720.000	64.25	-19.29	83.54	47.21	37.70	11.59	32.25	Peak	---
6	@ 15720.000	50.21	-13.33	63.54	33.17	37.70	11.59	32.25	Average	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

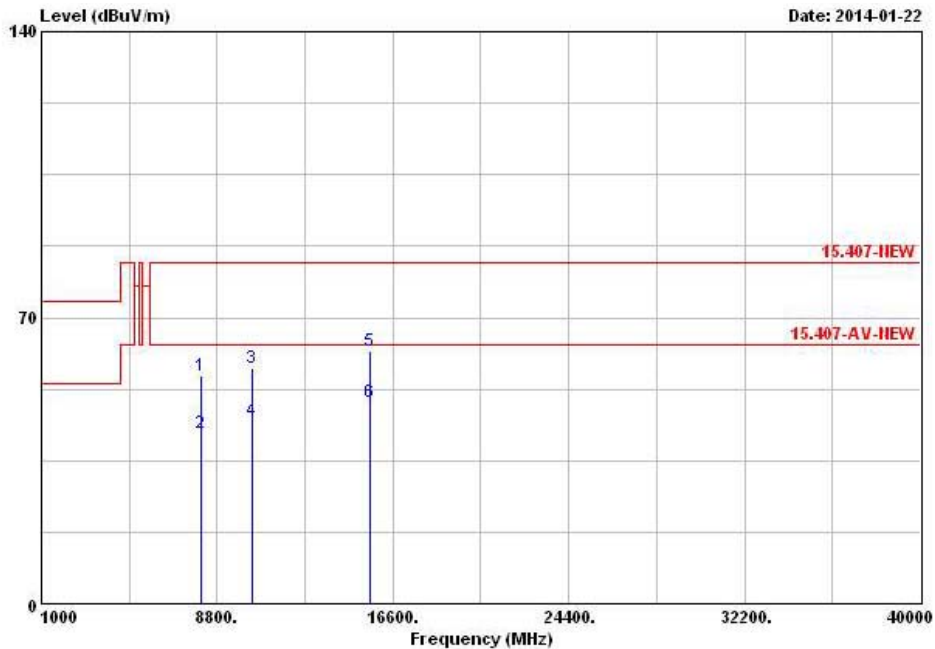
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5190
N_{TX}	2	Polarization	V



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB		cm	deg
1	@ 8052.000	55.83	-27.71	83.54	42.50	37.89	8.24	32.80 Peak	---	---
2	@ 8052.000	41.72	-21.82	63.54	28.39	37.89	8.24	32.80 Average	---	---
3	@ 10380.000	57.67	-25.87	83.54	41.88	39.60	8.94	32.75 Peak	---	---
4	@ 10380.000	44.58	-18.96	63.54	28.79	39.60	8.94	32.75 Average	---	---
5	@ 15570.000	61.88	-21.66	83.54	44.51	37.98	11.59	32.20 Peak	---	---
6	@ 15570.000	49.25	-14.29	63.54	31.88	37.98	11.59	32.20 Average	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

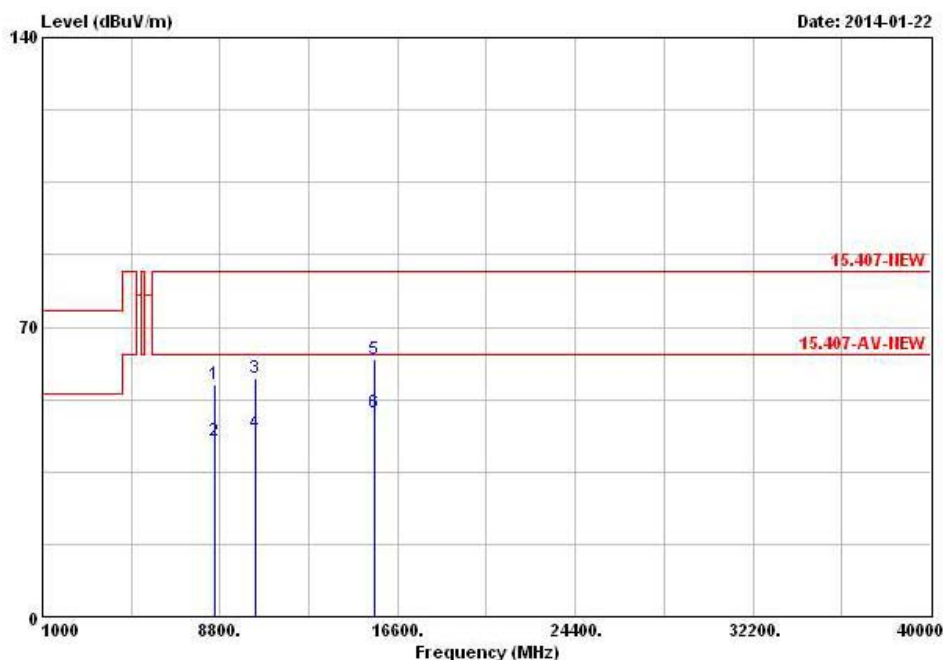
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5190
N_{TX}	2	Polarization	H



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8568.000	56.14	-27.40	83.54	42.39	38.62	7.97	32.84	Peak	---	---
2	8568.000	42.39	-21.15	63.54	28.64	38.62	7.97	32.84	Average	---	---
3	10380.000	57.75	-25.79	83.54	41.96	39.60	8.94	32.75	Peak	---	---
4	10380.000	44.47	-19.07	63.54	28.68	39.60	8.94	32.75	Average	---	---
5	15570.000	62.30	-21.24	83.54	44.93	37.98	11.59	32.20	Peak	---	---
6	15570.000	49.30	-14.24	63.54	31.93	37.98	11.59	32.20	Average	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

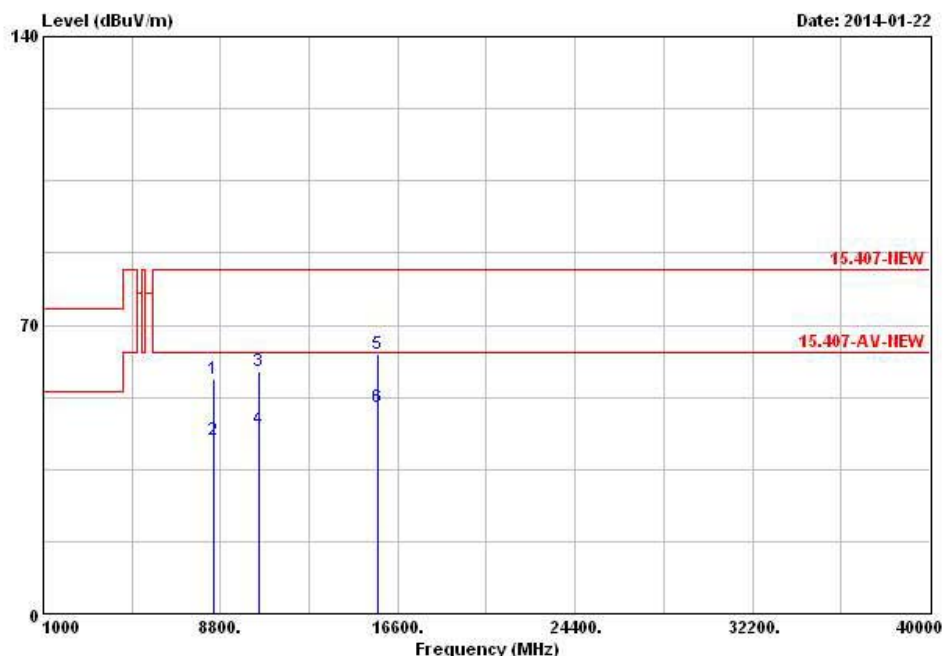
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5230
N_{TX}	2	Polarization	V



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8472.000	56.73	-26.81	83.54	42.86	38.67	8.01	32.81	Peak	---	---
2	8472.000	42.29	-21.25	63.54	28.42	38.67	8.01	32.81	Average	---	---
3	10460.000	58.62	-24.92	83.54	42.72	39.60	8.99	32.69	Peak	---	---
4	10460.000	44.87	-18.67	63.54	28.97	39.60	8.99	32.69	Average	---	---
5	15690.000	62.87	-20.67	83.54	45.76	37.76	11.59	32.24	Peak	---	---
6	15690.000	50.05	-13.49	63.54	32.94	37.76	11.59	32.24	Average	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

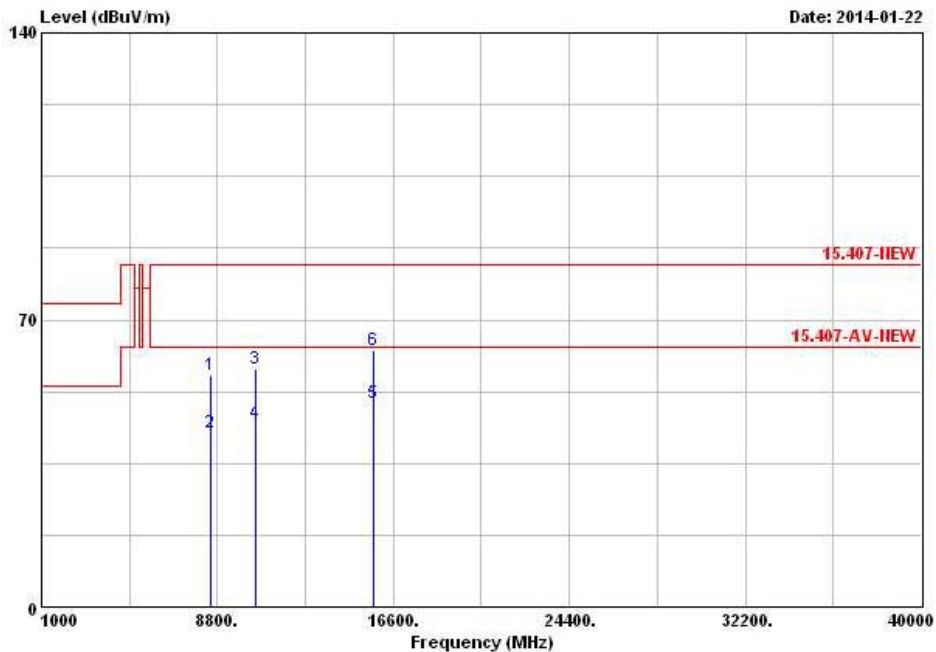
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5230
N_{TX}	2	Polarization	H



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 8484.000	56.65	-26.89	83.54	42.78	38.67	8.01	32.81	Peak	---
2	@ 8484.000	42.57	-20.97	63.54	28.70	38.67	8.01	32.81	Average	---
3	@ 10460.000	58.05	-25.49	83.54	42.15	39.60	8.99	32.69	Peak	---
4	@ 10460.000	44.87	-18.67	63.54	28.97	39.60	8.99	32.69	Average	---
5	@ 15690.000	49.56	-13.98	63.54	32.45	37.76	11.59	32.24	Average	---
6	@ 15690.000	62.51	-21.03	83.54	45.40	37.76	11.59	32.24	Peak	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

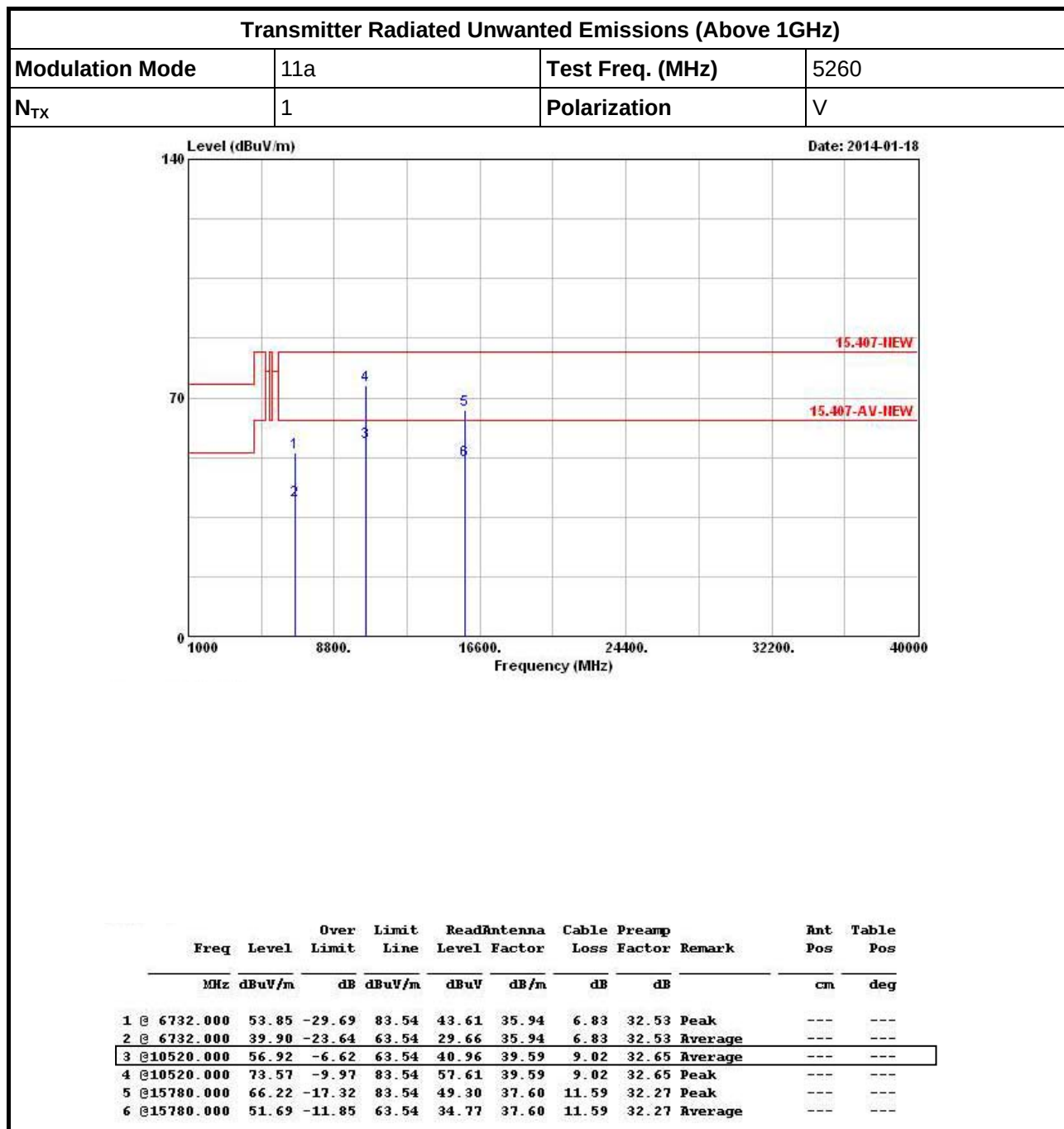
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

3.3.8 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 5250-5350MHz



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

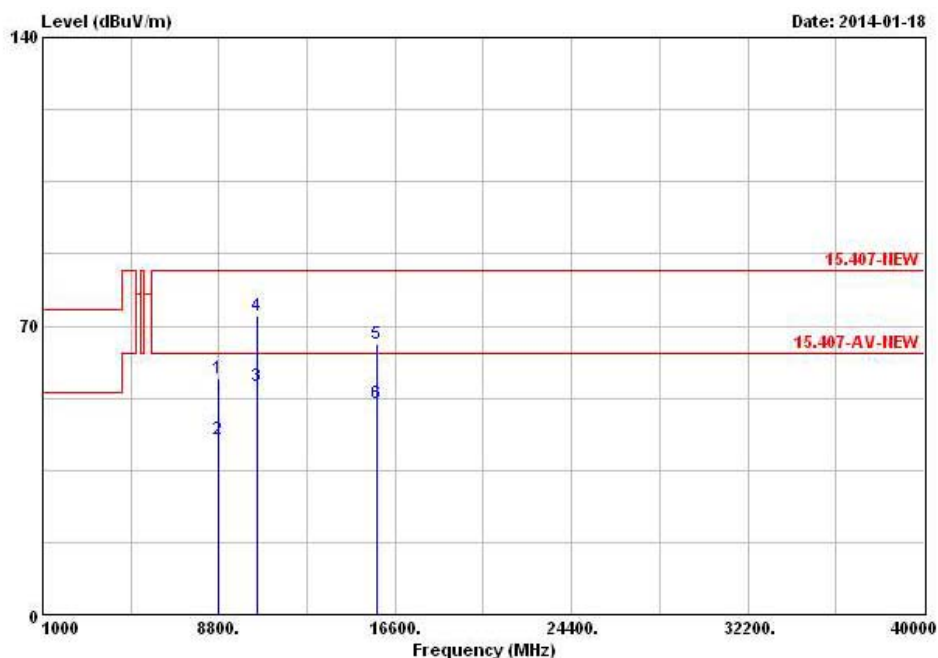
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5260
N_{TX}	1	Polarization	H



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	@ 8790.000	57.33	-26.21	83.54	44.01	38.36	7.86	32.90	Peak	---	---
2	@ 8790.000	42.33	-21.21	63.54	29.01	38.36	7.86	32.90	Average	---	---
3	@ 10520.000	55.33	-8.21	63.54	39.37	39.59	9.02	32.65	Average	---	---
4	@ 10520.000	72.48	-11.06	83.54	56.52	39.59	9.02	32.65	Peak	---	---
5	@ 15780.000	65.76	-17.78	83.54	48.84	37.60	11.59	32.27	Peak	---	---
6	@ 15780.000	51.39	-12.15	63.54	34.47	37.60	11.59	32.27	Average	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

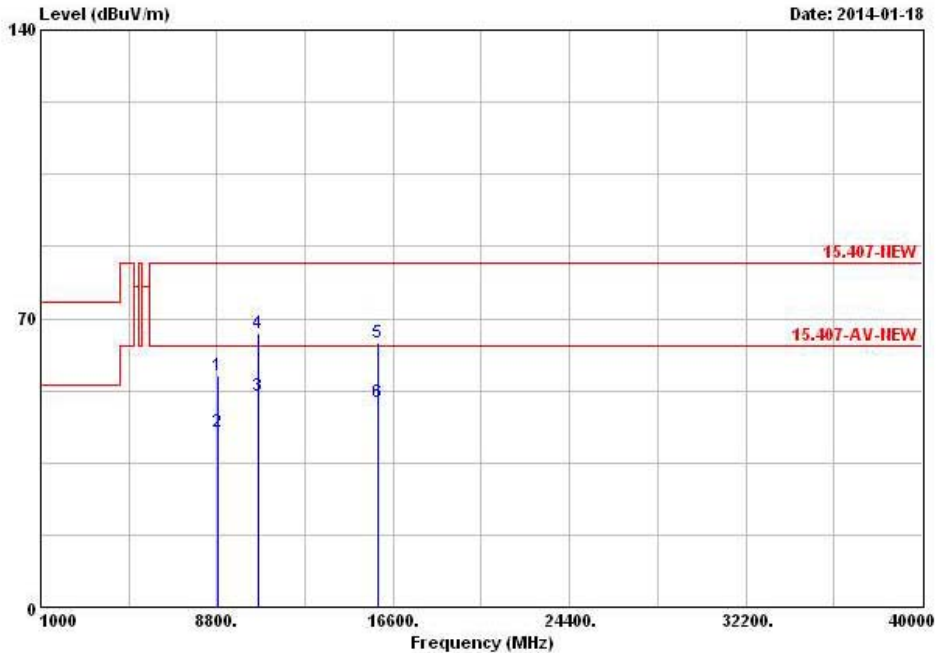
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5300
N_{TX}	1	Polarization	V



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	@ 8838.000	56.05	-27.49	83.54	42.83	38.30	7.84	32.92	Peak	---	---
2	@ 8838.000	42.31	-21.23	63.54	29.09	38.30	7.84	32.92	Average	---	---
3	@ 10600.000	51.40	-12.14	63.54	35.43	39.52	9.06	32.61	Average	---	---
4	@ 10600.000	66.47	-17.07	83.54	50.50	39.52	9.06	32.61	Peak	---	---
5	@ 15900.000	64.18	-19.36	83.54	47.50	37.39	11.59	32.30	Peak	---	---
6	@ 15900.000	49.53	-14.01	63.54	32.85	37.39	11.59	32.30	Average	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

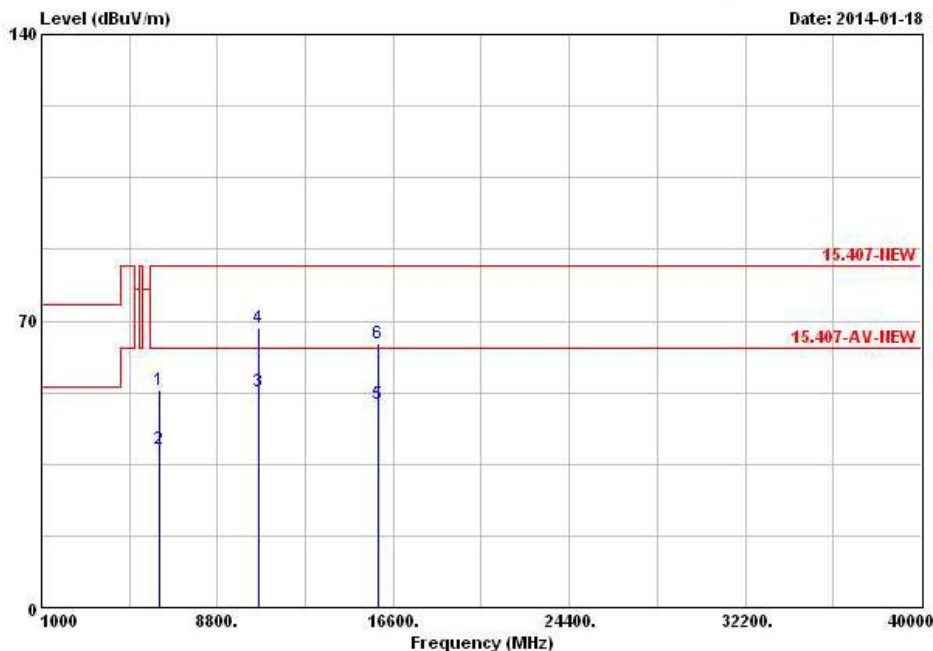
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5300
N_{TX}	1	Polarization	H



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Rnt	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		deg
1	@ 6198.000	53.29	-30.25	83.54	43.96	35.16	6.63	32.46	Peak	---
2	@ 6198.000	38.59	-24.95	63.54	29.26	35.16	6.63	32.46	Average	---
3	@ 10600.000	52.72	-10.82	63.54	36.75	39.52	9.06	32.61	Average	---
4	@ 10600.000	68.30	-15.24	83.54	52.33	39.52	9.06	32.61	Peak	---
5	@ 15900.000	49.70	-13.84	63.54	33.02	37.39	11.59	32.30	Average	---
6	@ 15900.000	64.67	-18.87	83.54	47.99	37.39	11.59	32.30	Peak	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

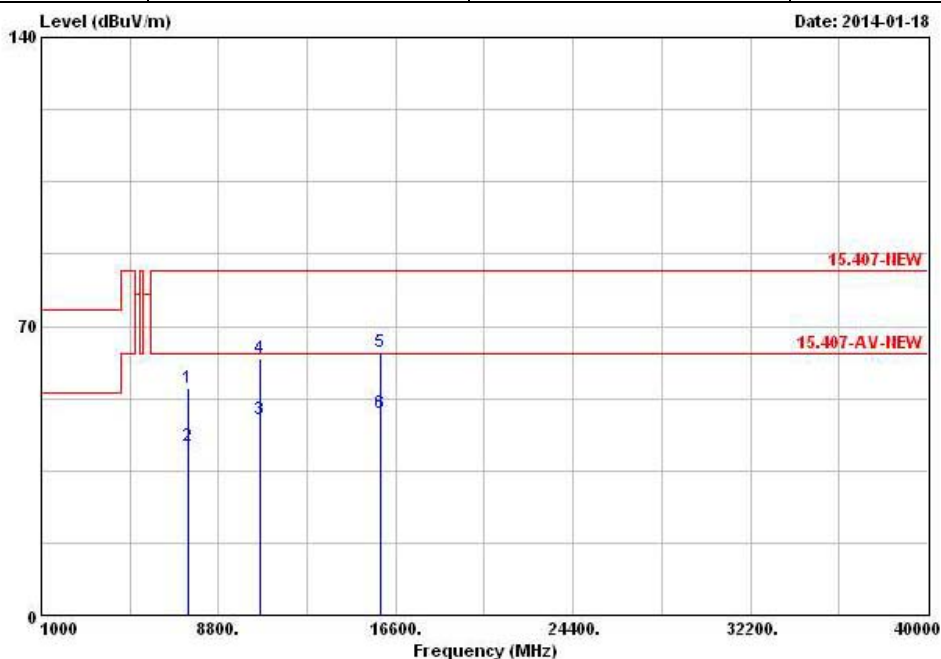
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5320
N_{TX}	1	Polarization	V



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	@ 7452.000	55.18	-28.36	83.54	43.27	37.25	7.37	32.71	Peak	---	---
2	@ 7452.000	40.90	-22.64	63.54	28.99	37.25	7.37	32.71	Average	---	---
3	@ 10640.000	47.57	-15.97	63.54	31.59	39.49	9.07	32.58	Average	---	---
4	@ 10640.000	62.36	-21.18	83.54	46.38	39.49	9.07	32.58	Peak	---	---
5	@ 15960.000	63.61	-19.93	83.54	47.08	37.26	11.59	32.32	Peak	---	---
6	@ 15960.000	48.82	-14.72	63.54	32.29	37.26	11.59	32.32	Average	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

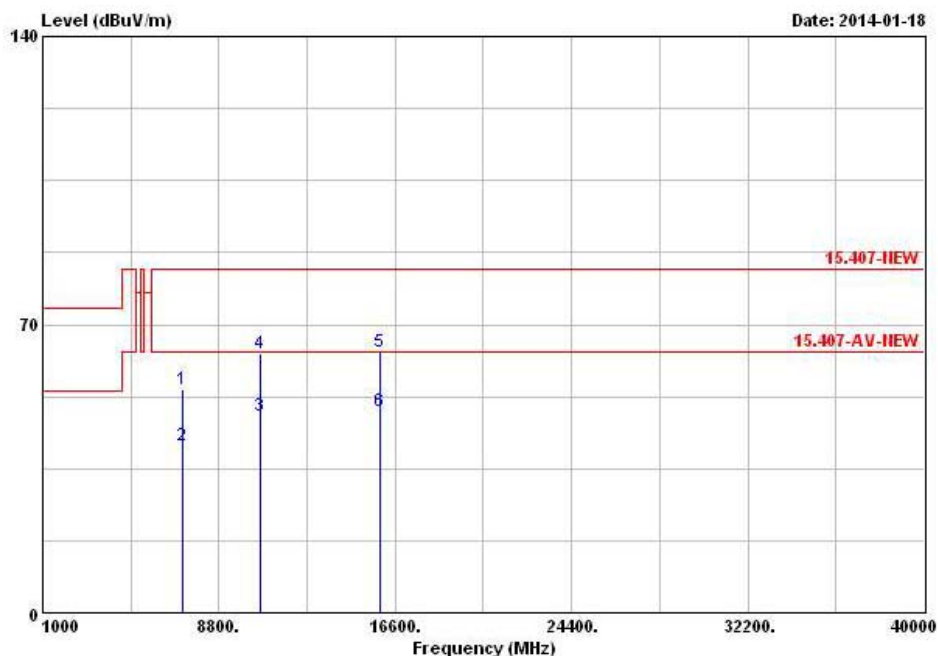
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5320
N_{TX}	1	Polarization	H



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 7164.000	54.36	-29.18	83.54	42.98	36.84	7.17	32.63	Peak	---
2	@ 7164.000	40.60	-22.94	63.54	29.22	36.84	7.17	32.63	Average	---
3	@ 10640.000	47.90	-15.64	63.54	31.92	39.49	9.07	32.58	Average	---
4	@ 10640.000	63.07	-20.47	83.54	47.09	39.49	9.07	32.58	Peak	---
5	@ 15960.000	63.24	-20.30	83.54	46.71	37.26	11.59	32.32	Peak	---
6	@ 15960.000	48.87	-14.67	63.54	32.34	37.26	11.59	32.32	Average	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

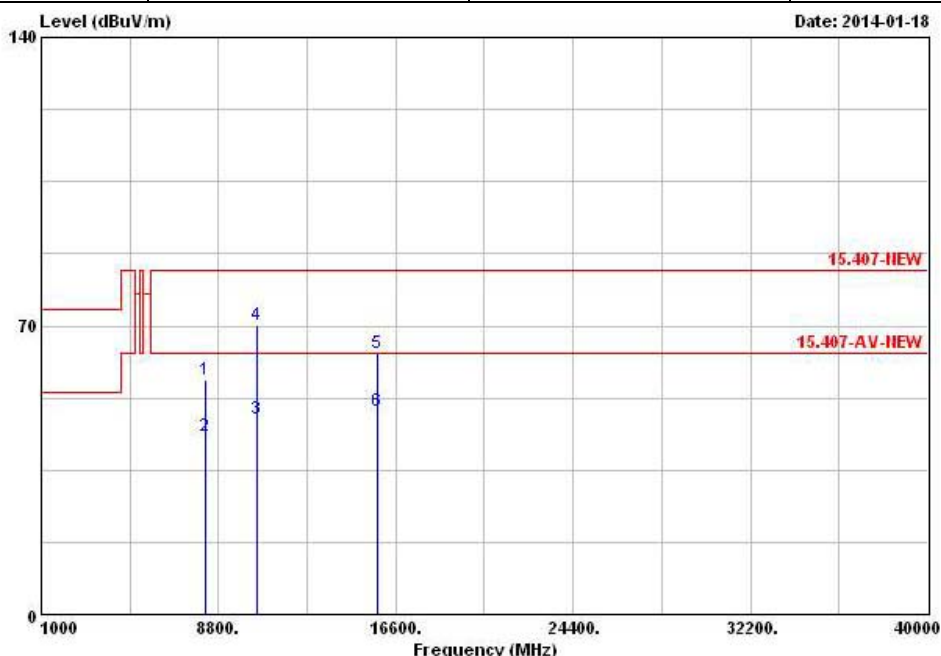
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5260
N _{TX}	2	Polarization	V



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 8230.000	56.73	-26.81	83.54	43.17	38.20	8.16	32.80	Peak	---
2	@ 8230.000	43.11	-20.43	63.54	29.55	38.20	8.16	32.80	Average	---
3	@ 10520.000	47.33	-16.21	63.54	31.37	39.59	9.02	32.65	Average	---
4	@ 10520.000	70.23	-13.31	83.54	54.27	39.59	9.02	32.65	Peak	---
5	@ 15780.000	63.46	-20.08	83.54	46.54	37.60	11.59	32.27	Peak	---
6	@ 15780.000	49.40	-14.14	63.54	32.48	37.60	11.59	32.27	Average	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

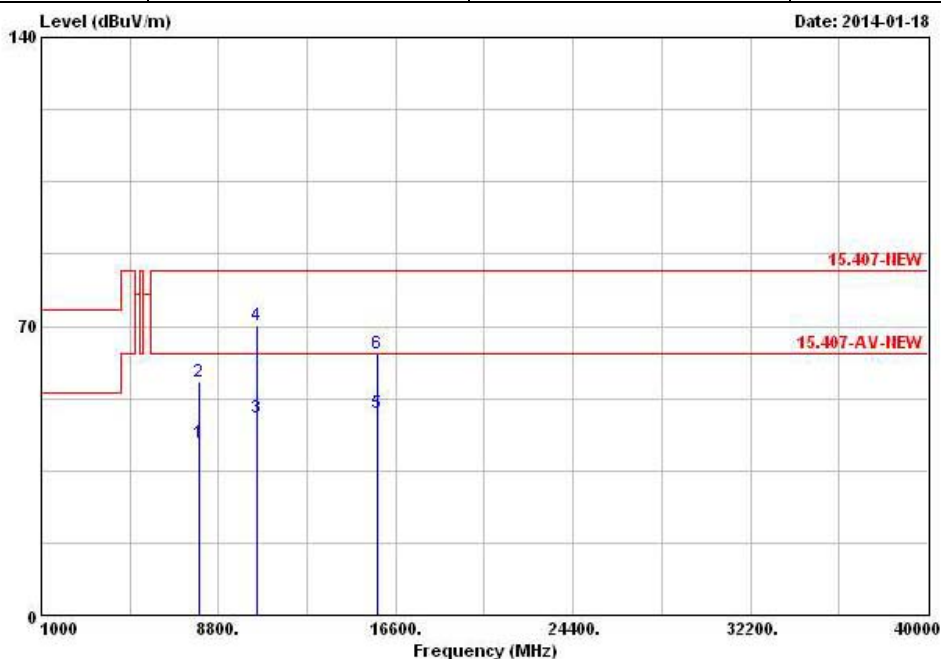
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5260
N_{TX}	2	Polarization	H



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	@ 7980.000	41.71	-21.83	63.54	28.45	37.78	8.28	32.80	Average	---	---
2	@ 7980.000	56.58	-26.96	83.54	43.32	37.78	8.28	32.80	Peak	---	---
3	@ 10510.000	47.89	-15.65	63.54	31.92	39.60	9.02	32.65	Average	---	---
4	@ 10510.000	70.34	-13.20	83.54	54.37	39.60	9.02	32.65	Peak	---	---
5	@ 15780.000	49.04	-14.50	63.54	32.12	37.60	11.59	32.27	Average	---	---
6	@ 15780.000	63.29	-20.25	83.54	46.37	37.60	11.59	32.27	Peak	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

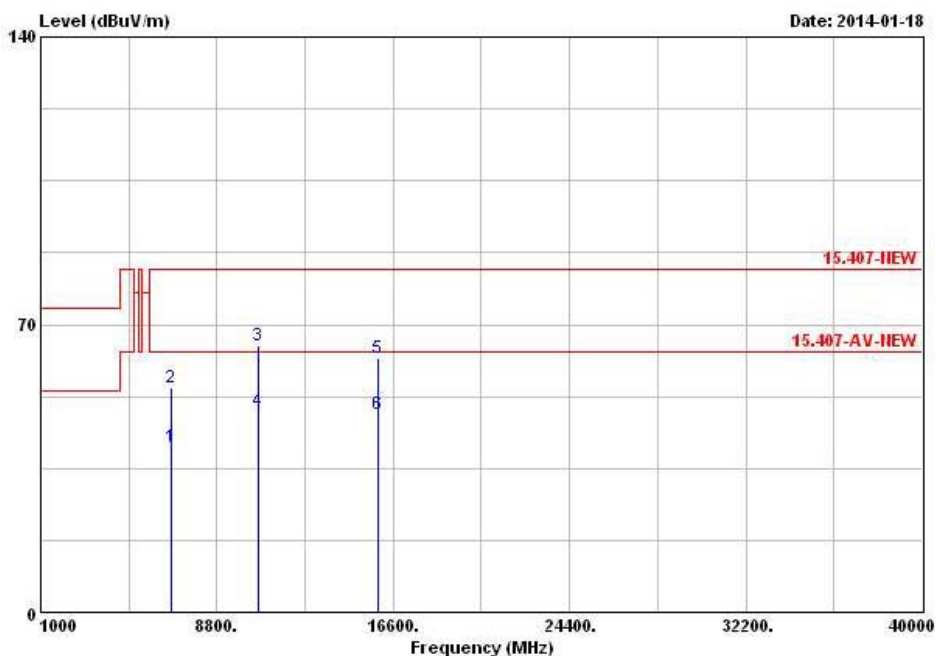
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5300
N_{TX}	2	Polarization	V



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 6744.000	40.37	-23.17	63.54	30.09	35.98	6.83	32.53	Average	---
2	@ 6744.000	54.79	-28.75	83.54	44.51	35.98	6.83	32.53	Peak	---
3	@10600.000	64.81	-18.73	83.54	48.84	39.52	9.06	32.61	Peak	---
4	@10600.000	49.01	-14.53	63.54	33.04	39.52	9.06	32.61	Average	---
5	@15900.000	61.75	-21.79	83.54	45.07	37.39	11.59	32.30	Peak	---
6	@15900.000	48.34	-15.20	63.54	31.66	37.39	11.59	32.30	Average	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

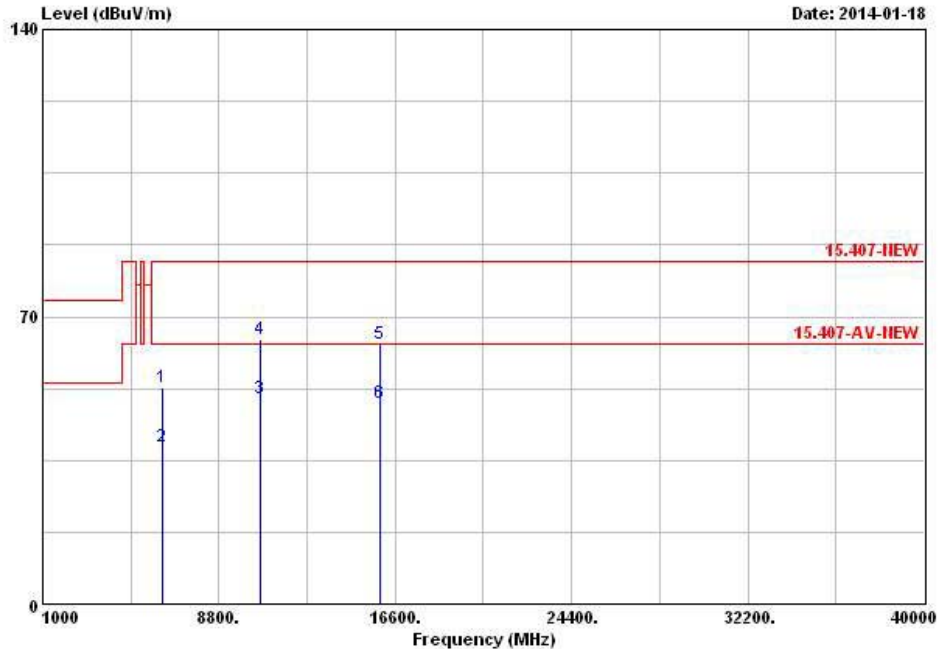
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5300
N_{TX}	2	Polarization	H



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 6276.000	52.56	-30.98	83.54	43.18	35.21	6.63	32.46	Peak	---
2	@ 6276.000	38.25	-25.29	63.54	28.87	35.21	6.63	32.46	Average	---
3	@ 10600.000	50.05	-13.49	63.54	34.08	39.52	9.06	32.61	Average	---
4	@ 10600.000	64.41	-19.13	83.54	48.44	39.52	9.06	32.61	Peak	---
5	@ 15900.000	63.40	-20.14	83.54	46.72	37.39	11.59	32.30	Peak	---
6	@ 15900.000	48.96	-14.58	63.54	32.28	37.39	11.59	32.30	Average	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

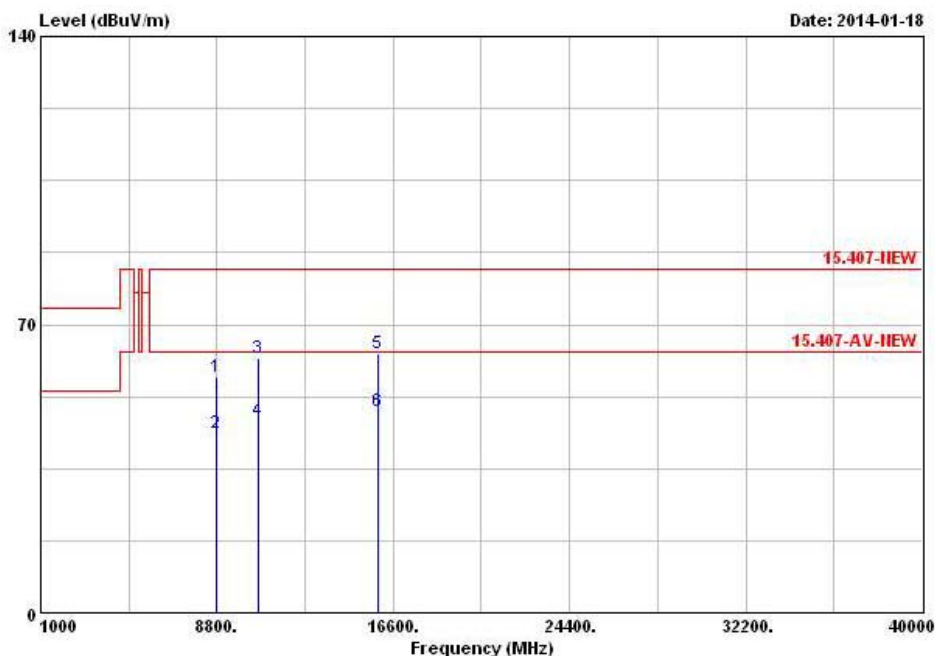
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5320
N_{TX}	2	Polarization	V



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Rnt	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Remark	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		deg
1	8778.000	57.42	-26.12	83.54	44.08	38.36	7.88	32.90	Peak	---
2	8778.000	43.55	-19.99	63.54	30.21	38.36	7.88	32.90	Average	---
3	10640.000	61.84	-21.70	83.54	45.86	39.49	9.07	32.58	Peak	---
4	10640.000	46.59	-16.95	63.54	30.61	39.49	9.07	32.58	Average	---
5	15960.000	62.89	-20.65	83.54	46.36	37.26	11.59	32.32	Peak	---
6	15960.000	48.80	-14.74	63.54	32.27	37.26	11.59	32.32	Average	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

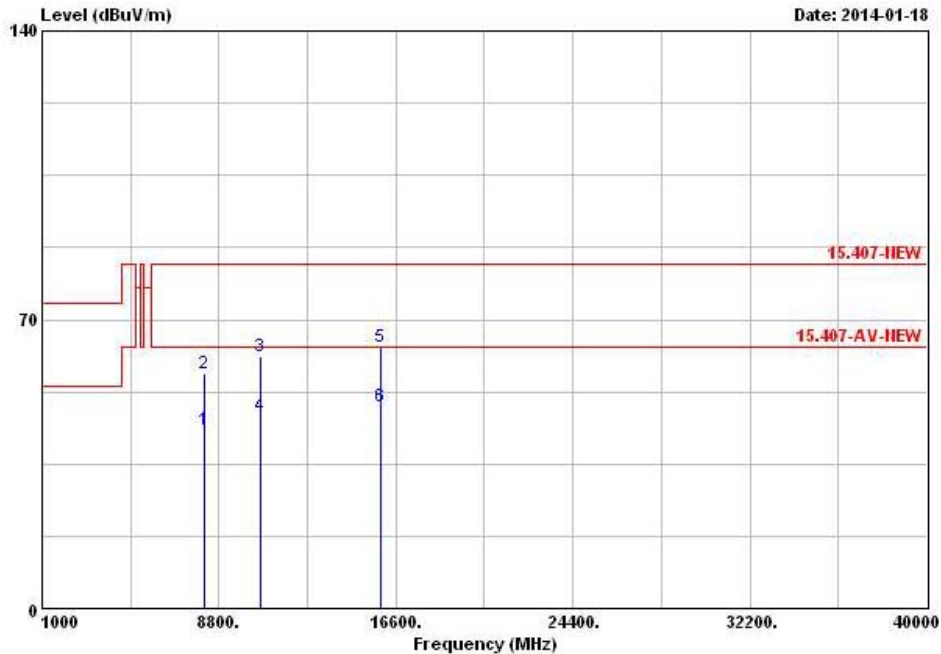
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5320
N_{TX}	2	Polarization	H



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 8166.000	43.36	-20.18	63.54	29.87	38.11	8.18	32.80	Average	---
2	@ 8166.000	56.74	-26.80	83.54	43.25	38.11	8.18	32.80	Peak	---
3	@ 10640.000	61.07	-22.47	83.54	45.09	39.49	9.07	32.58	Peak	---
4	@ 10640.000	46.81	-16.73	63.54	30.83	39.49	9.07	32.58	Average	---
5	@ 15960.000	63.51	-20.03	83.54	46.98	37.26	11.59	32.32	Peak	---
6	@ 15960.000	48.85	-14.69	63.54	32.32	37.26	11.59	32.32	Average	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

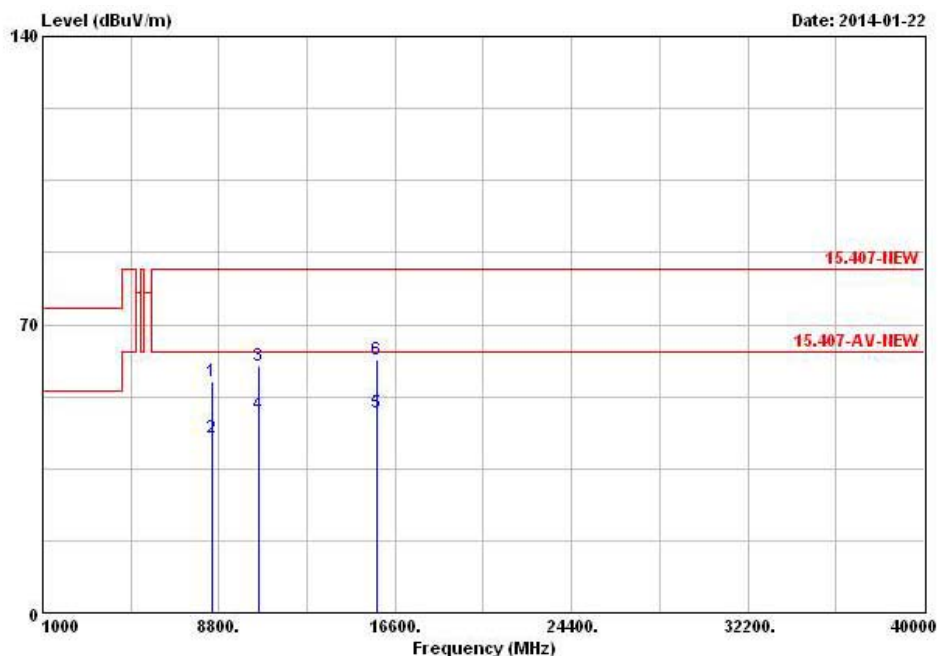
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5270
N_{TX}	2	Polarization	V



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Rnt	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	8484.000	56.07	-27.47	83.54	42.20	38.67	8.01	32.81	Peak	---
2	8484.000	42.34	-21.20	63.54	28.47	38.67	8.01	32.81	Average	---
3	10540.000	60.03	-23.51	83.54	44.06	39.57	9.04	32.64	Peak	---
4	@10540.000	48.07	-15.47	63.54	32.10	39.57	9.04	32.64	Average	---
5	@15810.000	48.70	-14.84	63.54	31.85	37.54	11.59	32.28	Average	---
6	15810.000	61.47	-22.07	83.54	44.62	37.54	11.59	32.28	Peak	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

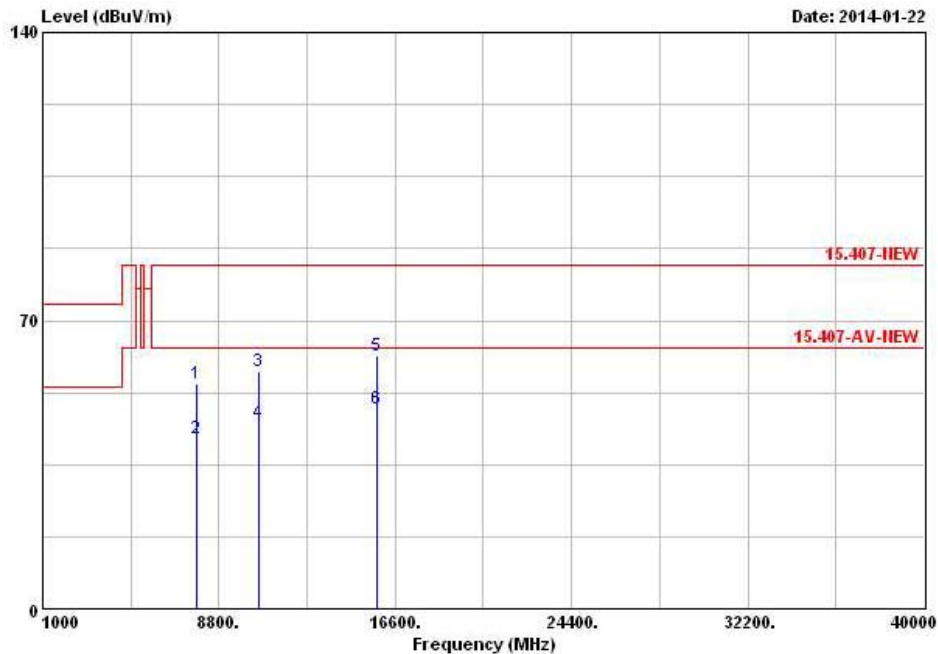
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5270
N_{TX}	2	Polarization	H



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Rnt	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	7800.000	54.77	-28.77	83.54	42.01	37.60	7.93	32.77	Peak	---
2	7800.000	41.18	-22.36	63.54	28.42	37.60	7.93	32.77	Average	---
3	10540.000	57.52	-26.02	83.54	41.55	39.57	9.04	32.64	Peak	---
4	10540.000	45.08	-18.46	63.54	29.11	39.57	9.04	32.64	Average	---
5	15810.000	61.56	-21.98	83.54	44.71	37.54	11.59	32.28	Peak	---
6	15810.000	48.67	-14.87	63.54	31.82	37.54	11.59	32.28	Average	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

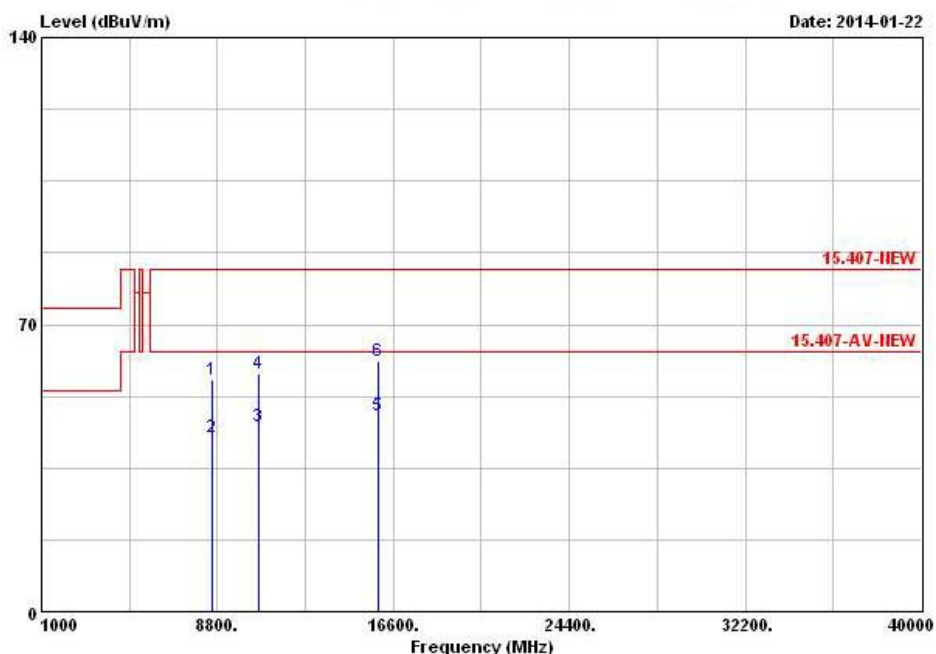
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5310
N_{TX}	2	Polarization	V



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	8568.000	56.57	-26.97	83.54	42.82	38.62	7.97	32.84	Peak	---	---
2	8568.000	42.38	-21.16	63.54	28.63	38.62	7.97	32.84	Average	---	---
3	10620.000	45.31	-18.23	63.54	29.33	39.50	9.07	32.59	Average	---	---
4	10620.000	58.10	-25.44	83.54	42.12	39.50	9.07	32.59	Peak	---	---
5	15930.000	47.83	-15.71	63.54	31.23	37.32	11.59	32.31	Average	---	---
6	15930.000	61.13	-22.41	83.54	44.53	37.32	11.59	32.31	Peak	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

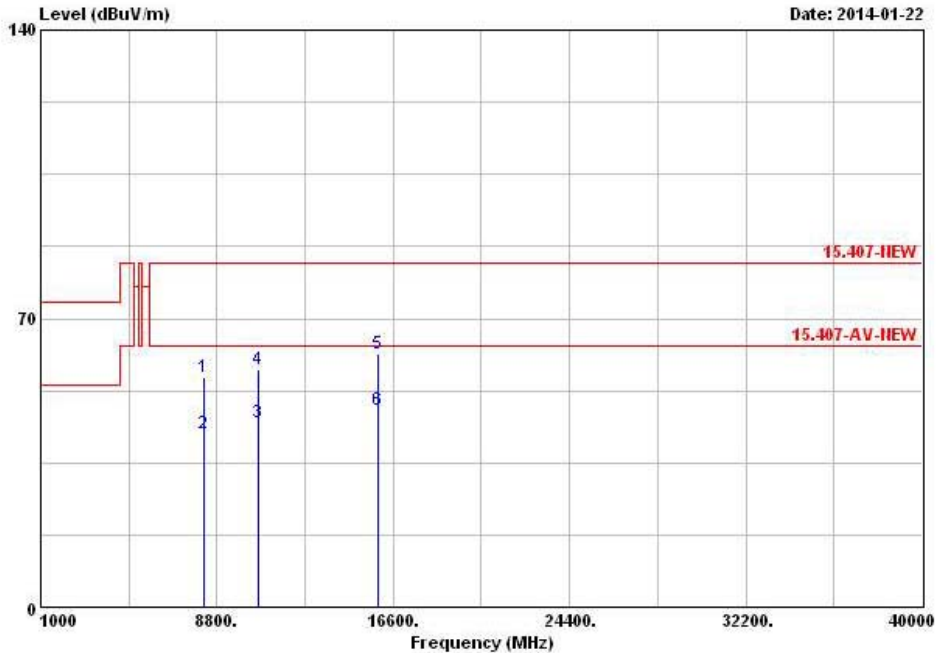
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5310
N_{TX}	2	Polarization	H



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	@ 8196.000	55.84	-27.70	83.54	42.34	38.14	8.16	32.80	Peak	---	---
2	@ 8196.000	42.14	-21.40	63.54	28.64	38.14	8.16	32.80	Average	---	---
3	@ 10620.000	44.81	-18.73	63.54	28.83	39.50	9.07	32.59	Average	---	---
4	@ 10620.000	57.85	-25.69	83.54	41.87	39.50	9.07	32.59	Peak	---	---
5	@ 15930.000	61.53	-22.01	83.54	44.93	37.32	11.59	32.31	Peak	---	---
6	@ 15930.000	47.87	-15.67	63.54	31.27	37.32	11.59	32.31	Average	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

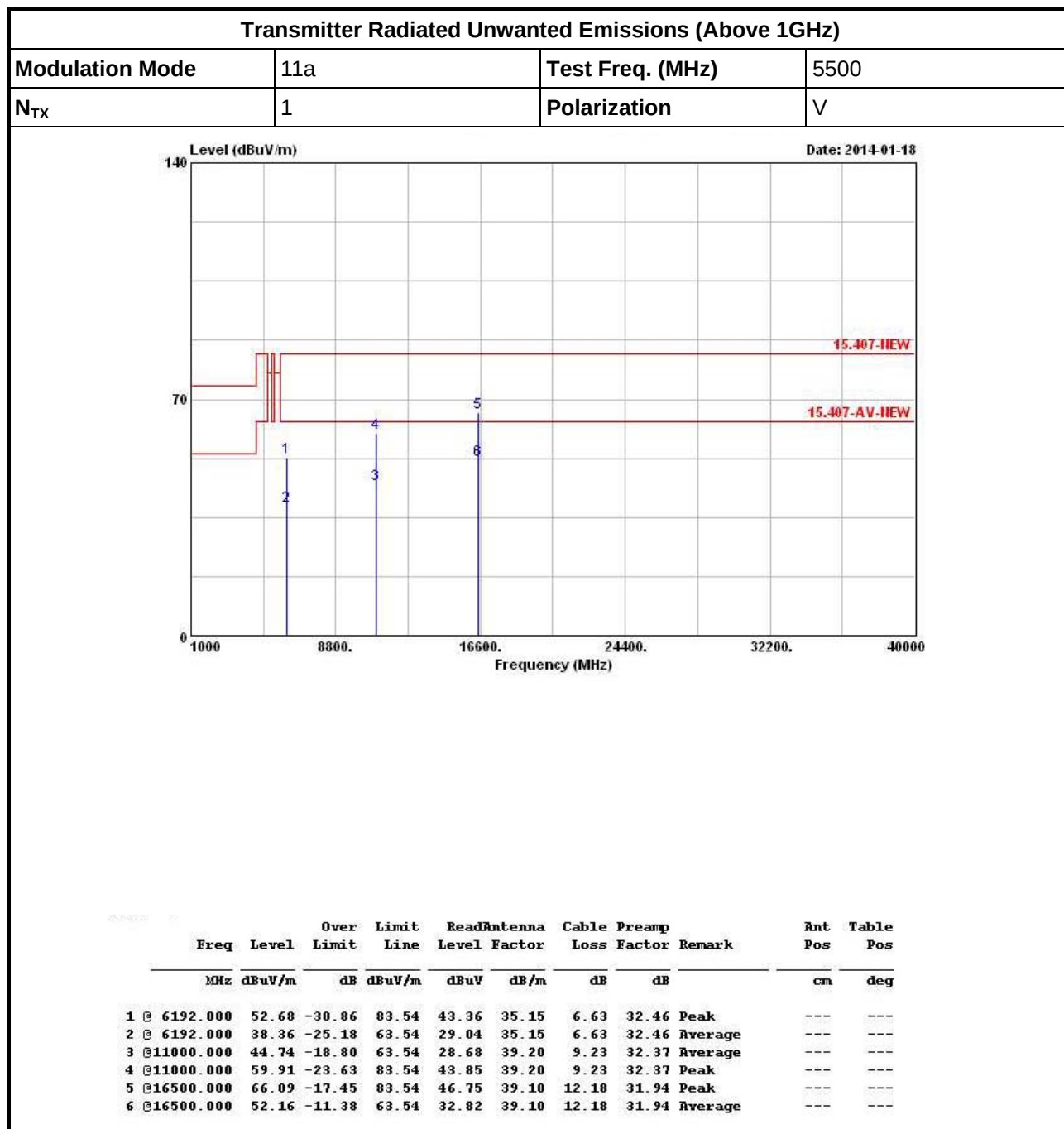
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

3.3.9 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 5470-5725MHz



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

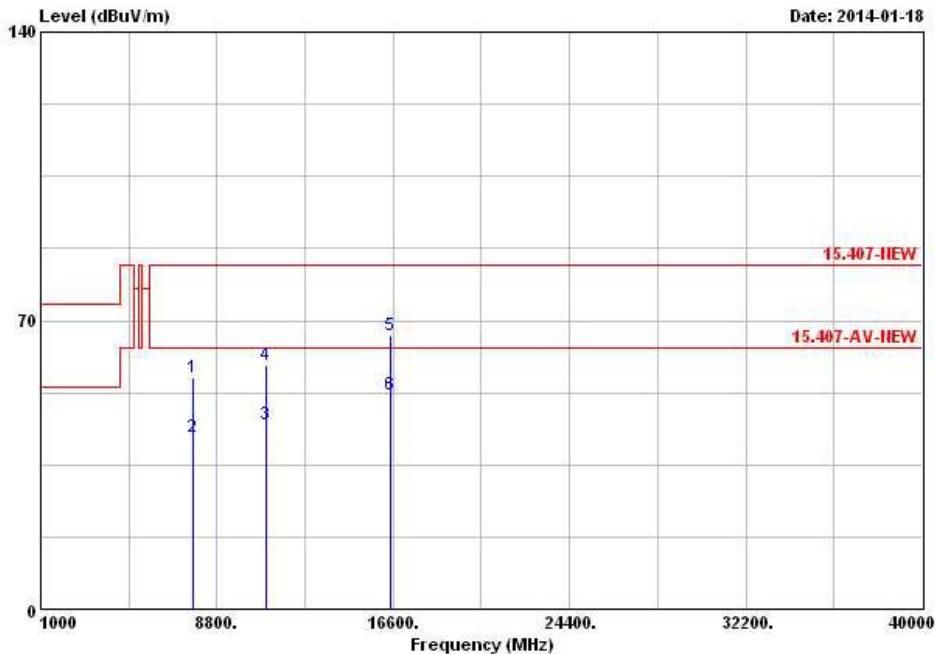
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5500
N_{TX}	1	Polarization	H



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 7752.000	56.09	-27.45	83.54	43.44	37.55	7.86	32.76	Peak	---
2	@ 7752.000	41.71	-21.83	63.54	29.06	37.55	7.86	32.76	Average	---
3	@ 11000.000	44.73	-18.81	63.54	28.67	39.20	9.23	32.37	Average	---
4	@ 11000.000	59.10	-24.44	83.54	43.04	39.20	9.23	32.37	Peak	---
5	@ 16500.000	66.42	-17.12	83.54	47.08	39.10	12.18	31.94	Peak	---
6	@ 16500.000	52.11	-11.43	63.54	32.77	39.10	12.18	31.94	Average	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

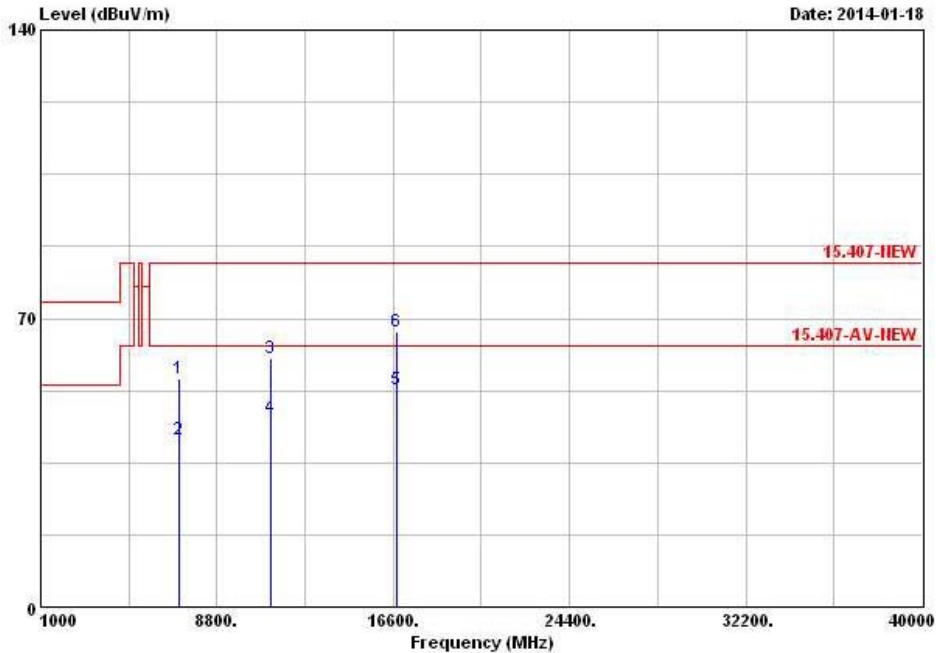
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5580
N_{TX}	1	Polarization	V



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	7152.000	55.31	-28.23	83.54	43.94	36.82	7.17	32.62	Peak	---	---
2	7152.000	40.50	-23.04	63.54	29.13	36.82	7.17	32.62	Average	---	---
3	11160.000	60.38	-23.16	83.54	43.70	39.50	9.54	32.36	Peak	---	---
4	11160.000	45.81	-17.73	63.54	29.13	39.50	9.54	32.36	Average	---	---
5	16740.000	52.90	-10.64	63.54	32.56	40.40	11.58	31.64	Average	---	---
6	16740.000	66.72	-16.82	83.54	46.38	40.40	11.58	31.64	Peak	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

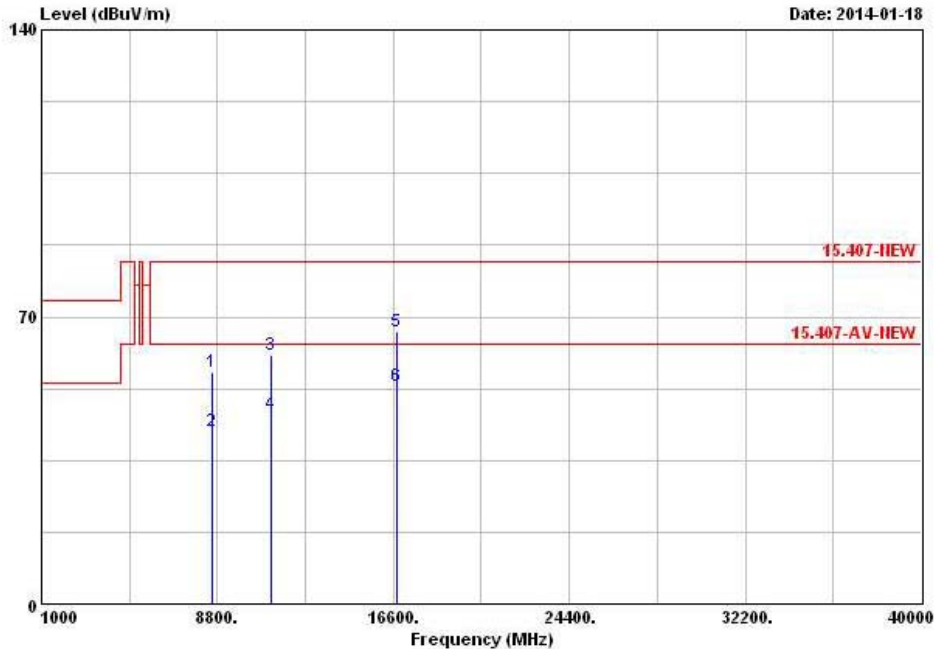
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5580
N_{TX}	1	Polarization	H



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Remark	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 8574.000	56.35	-27.19	83.54	42.62	38.60	7.97	32.84	Peak	---
2	@ 8574.000	42.30	-21.24	63.54	28.57	38.60	7.97	32.84	Average	---
3	@11160.000	60.67	-22.87	83.54	43.99	39.50	9.54	32.36	Peak	---
4	@11160.000	46.36	-17.18	63.54	29.68	39.50	9.54	32.36	Average	---
5	@16740.000	66.48	-17.06	83.54	46.14	40.40	11.58	31.64	Peak	---
6	@16740.000	53.15	-10.39	63.54	32.81	40.40	11.58	31.64	Average	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

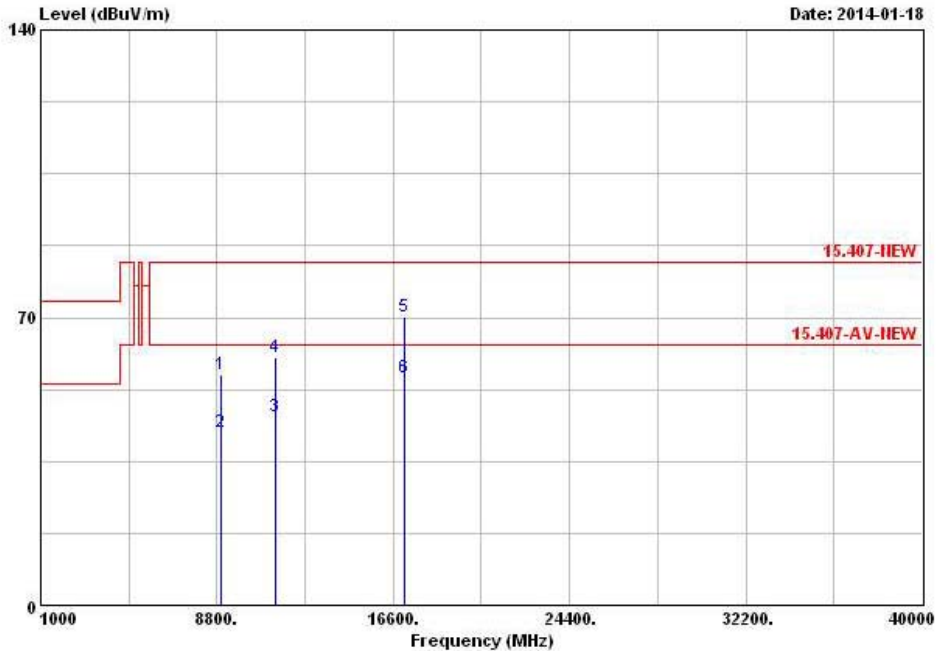
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5700
N_{TX}	1	Polarization	V



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Rnt	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 8970.000	56.19	-27.35	83.54	43.24	38.14	7.78	32.97	Peak	---
2	@ 8970.000	42.01	-21.53	63.54	29.06	38.14	7.78	32.97	Average	---
3	@ 11400.000	46.03	-17.51	63.54	28.54	39.92	9.92	32.35	Average	---
4	@ 11400.000	60.47	-23.07	83.54	42.98	39.92	9.92	32.35	Peak	---
5	@ 17100.000	70.20	-13.34	83.54	47.55	42.66	11.33	31.34	Peak	---
6	@ 17100.000	55.35	-8.19	63.54	32.70	42.66	11.33	31.34	Average	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

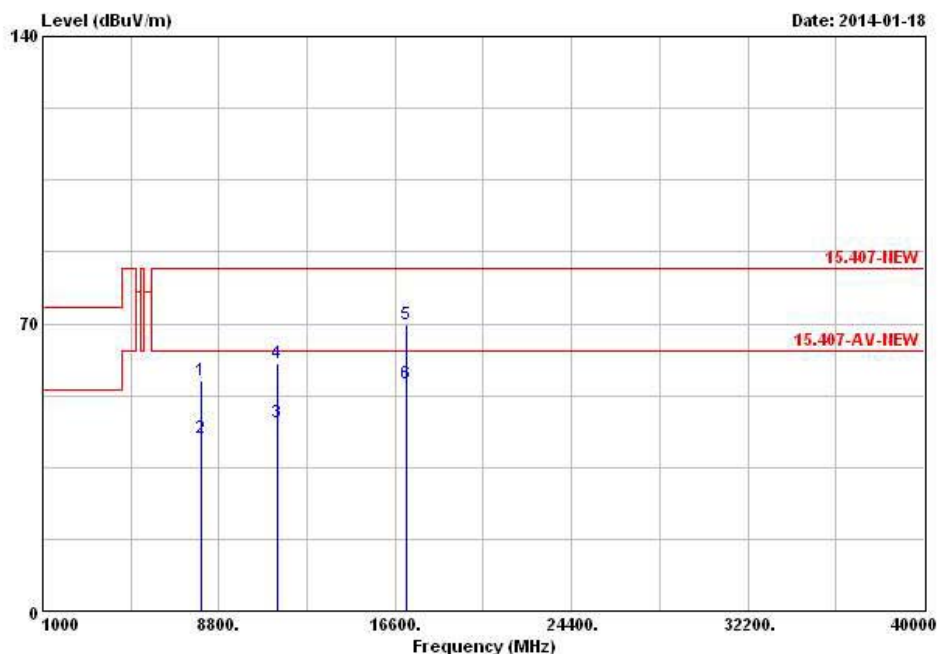
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	11a	Test Freq. (MHz)	5700
N_{TX}	1	Polarization	H



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 8010.000	56.33	-27.21	83.54	43.07	37.80	8.26	32.80	Peak	---
2	@ 8010.000	42.24	-21.30	63.54	28.98	37.80	8.26	32.80	Average	---
3	@ 11400.000	45.97	-17.57	63.54	28.48	39.92	9.92	32.35	Average	---
4	@ 11400.000	60.38	-23.16	83.54	42.89	39.92	9.92	32.35	Peak	---
5	@ 17100.000	69.68	-13.86	83.54	47.03	42.66	11.33	31.34	Peak	---
6	@ 17100.000	55.43	-8.11	63.54	32.78	42.66	11.33	31.34	Average	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

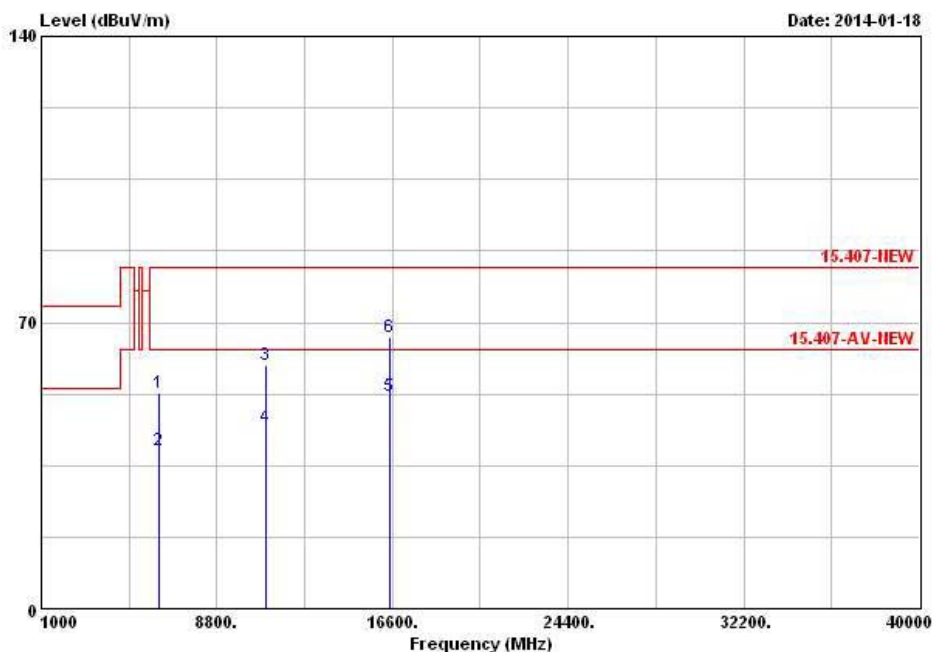
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5500
N_{TX}	2	Polarization	V



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 6198.000	52.87	-30.67	83.54	43.54	35.16	6.63	32.46	Peak	---
2	@ 6198.000	38.67	-24.87	63.54	29.34	35.16	6.63	32.46	Average	---
3	@ 11000.000	59.58	-23.96	83.54	43.52	39.20	9.23	32.37	Peak	---
4	@ 11000.000	44.55	-18.99	63.54	28.49	39.20	9.23	32.37	Average	---
5	@ 16500.000	52.12	-11.42	63.54	32.78	39.10	12.18	31.94	Average	---
6	@ 16500.000	66.22	-17.32	83.54	46.88	39.10	12.18	31.94	Peak	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

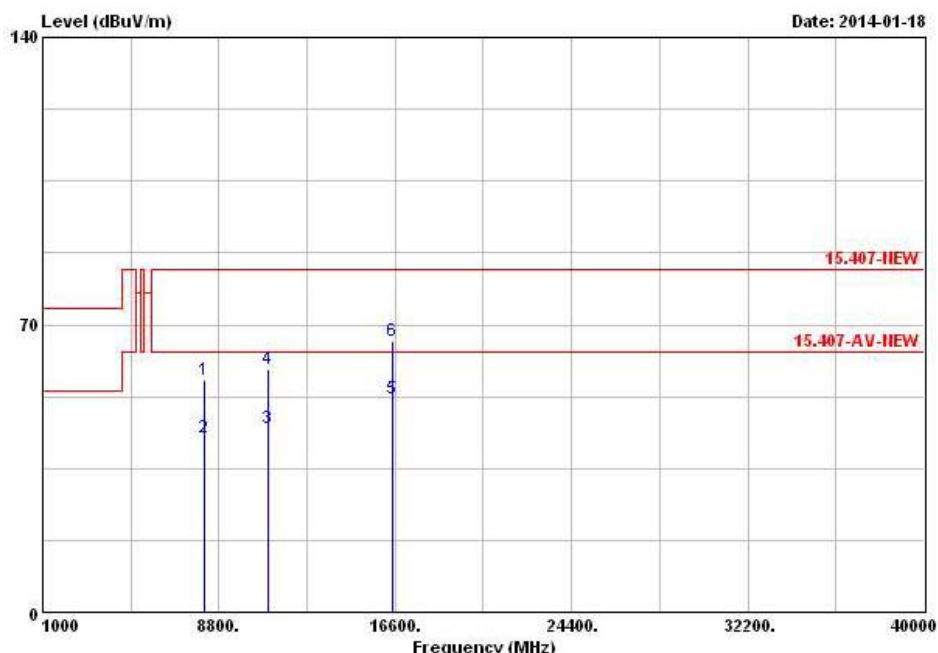
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5500
N_{TX}	2	Polarization	H



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 8166.000	56.68	-26.86	83.54	43.19	38.11	8.18	32.80	Peak	---
2	@ 8166.000	42.59	-20.95	63.54	29.10	38.11	8.18	32.80	Average	---
3	@ 11000.000	44.76	-18.78	63.54	28.70	39.20	9.23	32.37	Average	---
4	@ 11000.000	59.34	-24.20	83.54	43.28	39.20	9.23	32.37	Peak	---
5	@ 16500.000	52.06	-11.48	63.54	32.72	39.10	12.18	31.94	Average	---
6	@ 16500.000	65.99	-17.55	83.54	46.65	39.10	12.18	31.94	Peak	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

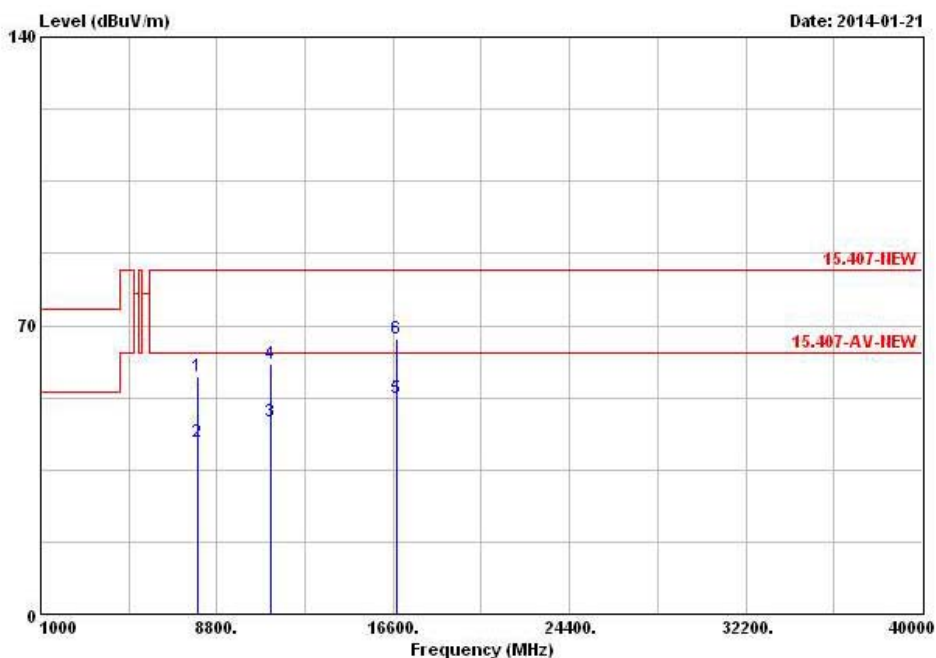
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5580
N_{TX}	2	Polarization	V



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	@ 7938.000	57.72	-25.82	83.54	44.57	37.73	8.21	32.79	Peak	---	---
2	@ 7938.000	41.79	-21.75	63.54	28.64	37.73	8.21	32.79	Average	---	---
3	@ 11160.000	46.54	-17.00	63.54	29.86	39.50	9.54	32.36	Average	---	---
4	@ 11160.000	60.54	-23.00	83.54	43.86	39.50	9.54	32.36	Peak	---	---
5	@ 16740.000	52.42	-11.12	63.54	32.08	40.40	11.58	31.64	Average	---	---
6	@ 16740.000	66.59	-16.95	83.54	46.25	40.40	11.58	31.64	Peak	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

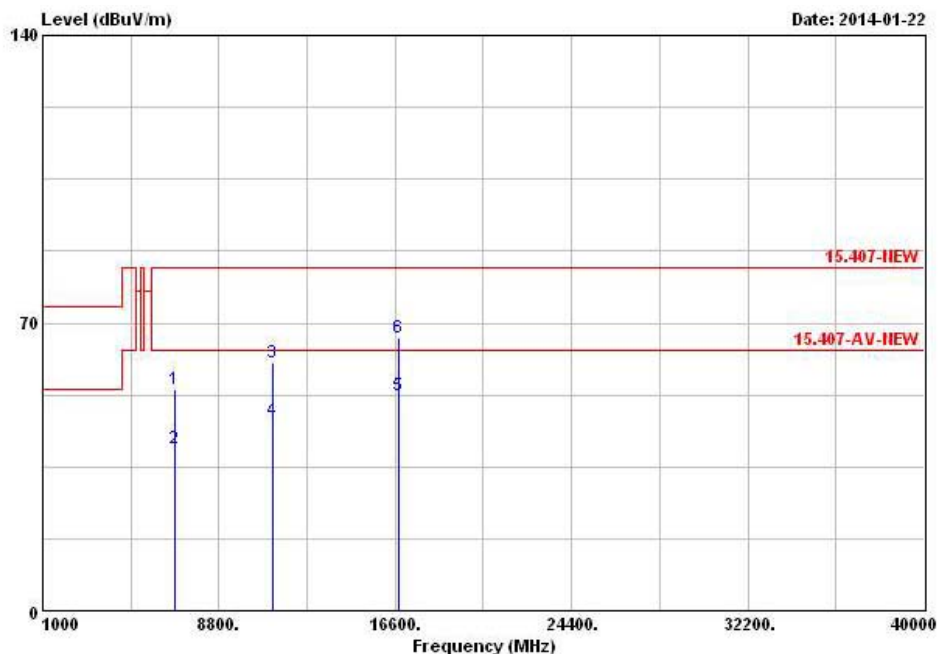
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5580
N_{TX}	2	Polarization	H



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 6822.000	53.71	-29.83	83.54	43.22	36.14	6.89	32.54	Peak	---
2	@ 6822.000	39.43	-24.11	63.54	28.94	36.14	6.89	32.54	Average	---
3	@ 11160.000	60.31	-23.23	83.54	43.63	39.50	9.54	32.36	Peak	---
4	@ 11160.000	46.14	-17.40	63.54	29.46	39.50	9.54	32.36	Average	---
5	@ 16740.000	52.32	-11.22	63.54	31.98	40.40	11.58	31.64	Average	---
6	@ 16740.000	66.33	-17.21	83.54	45.99	40.40	11.58	31.64	Peak	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

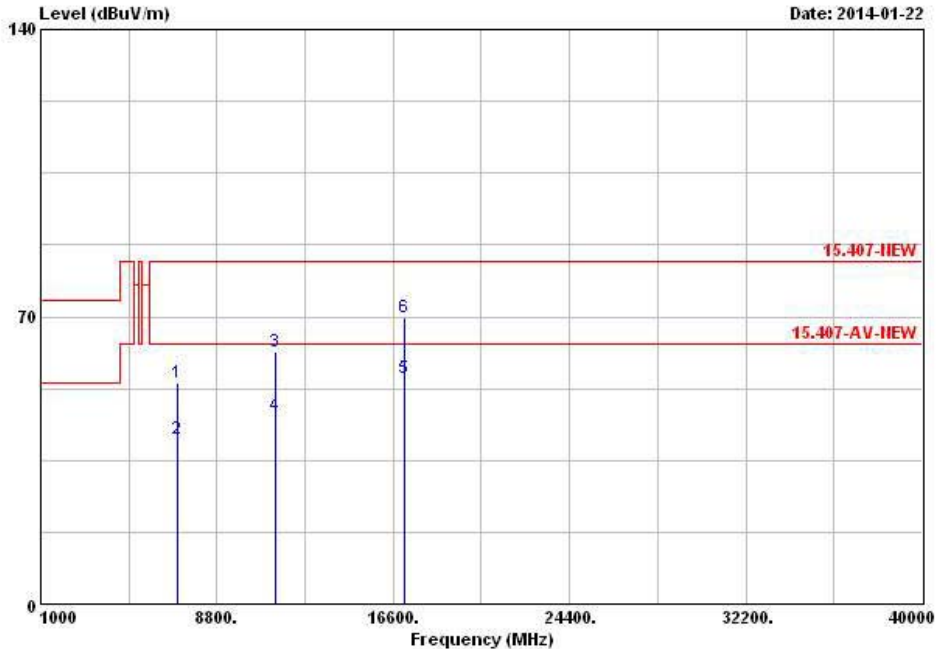
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5700
N_{TX}	2	Polarization	V



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 7086.000	53.93	-29.61	83.54	42.71	36.72	7.11	32.61	Peak	---
2	@ 7086.000	40.10	-23.44	63.54	28.88	36.72	7.11	32.61	Average	---
3	@ 11400.000	61.62	-21.92	83.54	44.13	39.92	9.92	32.35	Peak	---
4	@ 11400.000	45.76	-17.78	63.54	28.27	39.92	9.92	32.35	Average	---
5	@ 17100.000	55.16	-8.38	63.54	32.51	42.66	11.33	31.34	Average	---
6	@ 17100.000	69.88	-13.66	83.54	47.23	42.66	11.33	31.34	Peak	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

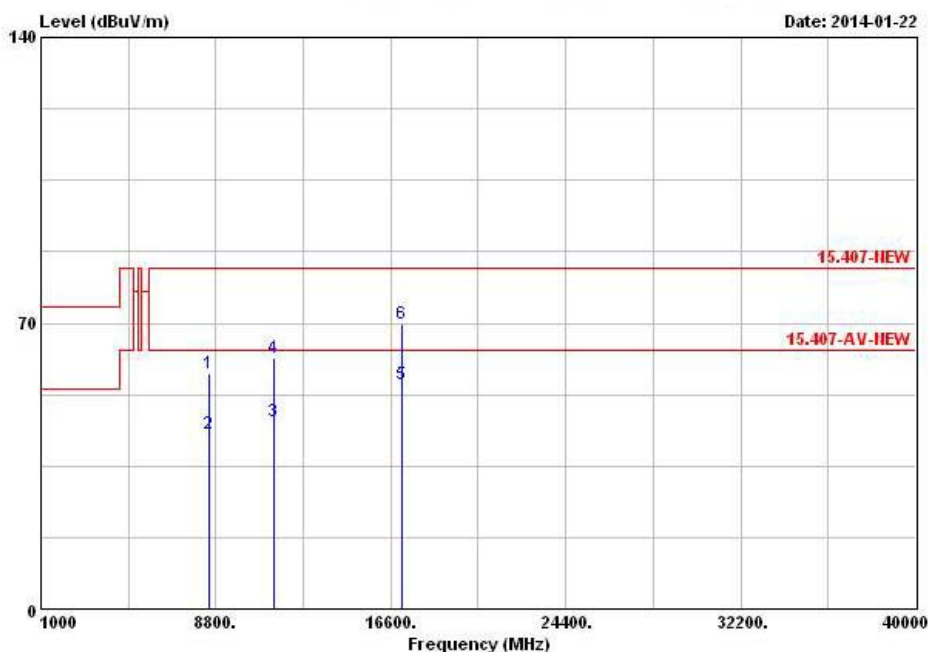
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT20	Test Freq. (MHz)	5700
N_{TX}	2	Polarization	H



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	8502.000	57.62	-25.92	83.54	43.72	38.70	8.01	32.81	Peak	---
2	8502.000	42.79	-20.75	63.54	28.89	38.70	8.01	32.81	Average	---
3	11400.000	45.93	-17.61	63.54	28.44	39.92	9.92	32.35	Average	---
4	11400.000	61.37	-22.17	83.54	43.88	39.92	9.92	32.35	Peak	---
5	17100.000	55.17	-8.37	63.54	32.52	42.66	11.33	31.34	Average	---
6	17100.000	69.67	-13.87	83.54	47.02	42.66	11.33	31.34	Peak	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

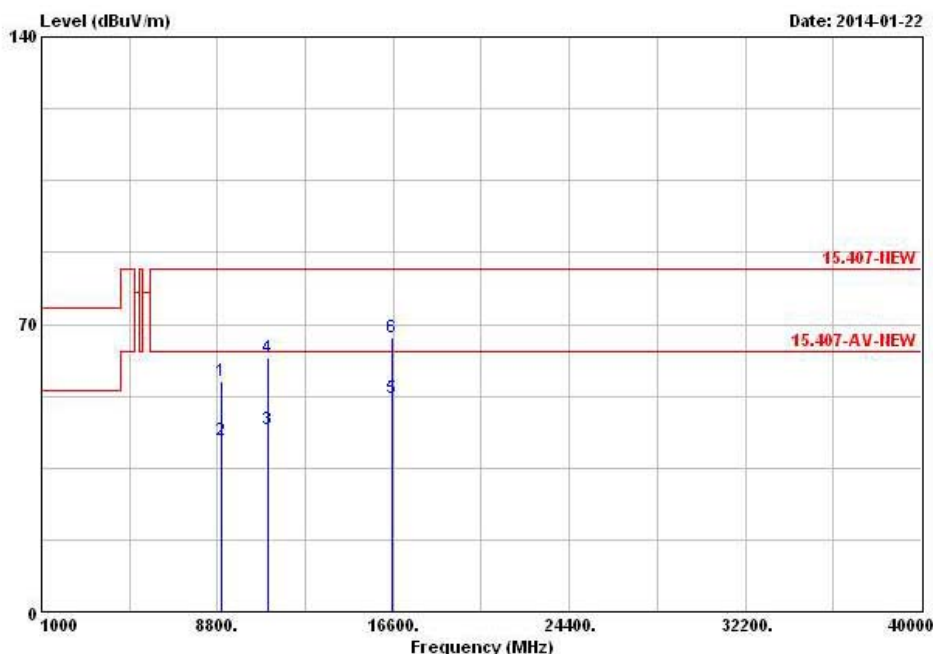
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5510
N _{TX}	2	Polarization	V



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	@ 8964.000	56.01	-27.53	83.54	43.03	38.16	7.78	32.96	Peak	---	---
2	@ 8964.000	41.68	-21.86	63.54	28.70	38.16	7.78	32.96	Average	---	---
3	@ 11020.000	44.46	-19.08	63.54	28.31	39.23	9.29	32.37	Average	---	---
4	@ 11020.000	61.69	-21.85	83.54	45.54	39.23	9.29	32.37	Peak	---	---
5	@ 16530.000	52.11	-11.43	63.54	32.64	39.29	12.09	31.91	Average	---	---
6	@ 16530.000	66.73	-16.81	83.54	47.26	39.29	12.09	31.91	Peak	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

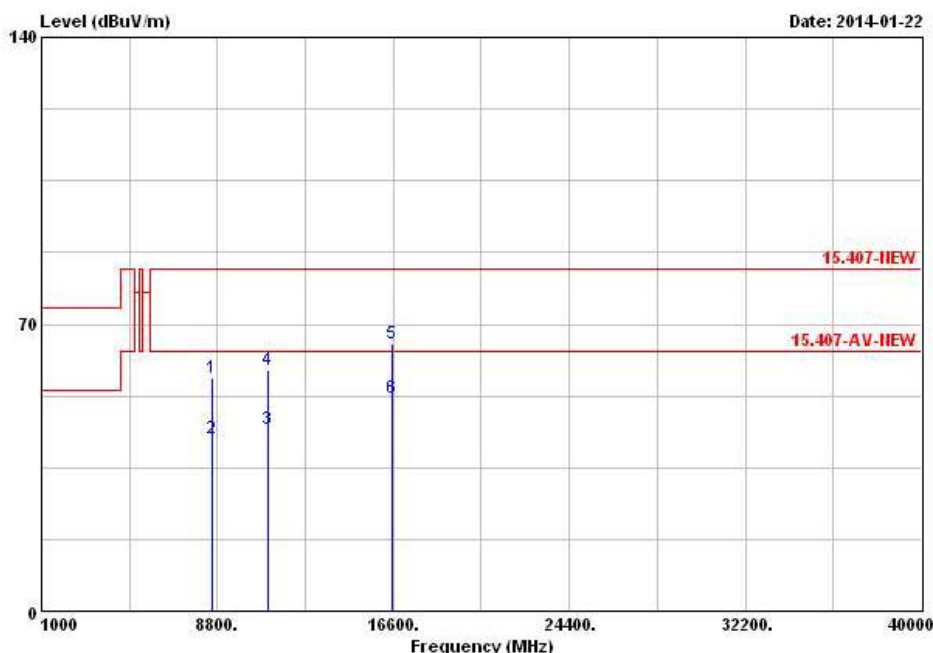
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5510
N_{TX}	2	Polarization	H



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	@ 8532.000	56.95	-26.59	83.54	43.12	38.66	7.99	32.82	Peak	---	---
2	@ 8532.000	42.26	-21.28	63.54	28.43	38.66	7.99	32.82	Average	---	---
3	@ 11020.000	44.45	-19.09	63.54	28.30	39.23	9.29	32.37	Average	---	---
4	@ 11020.000	58.97	-24.57	83.54	42.82	39.23	9.29	32.37	Peak	---	---
5	@ 16530.000	65.26	-18.28	83.54	45.79	39.29	12.09	31.91	Peak	---	---
6	@ 16530.000	51.94	-11.60	63.54	32.47	39.29	12.09	31.91	Average	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

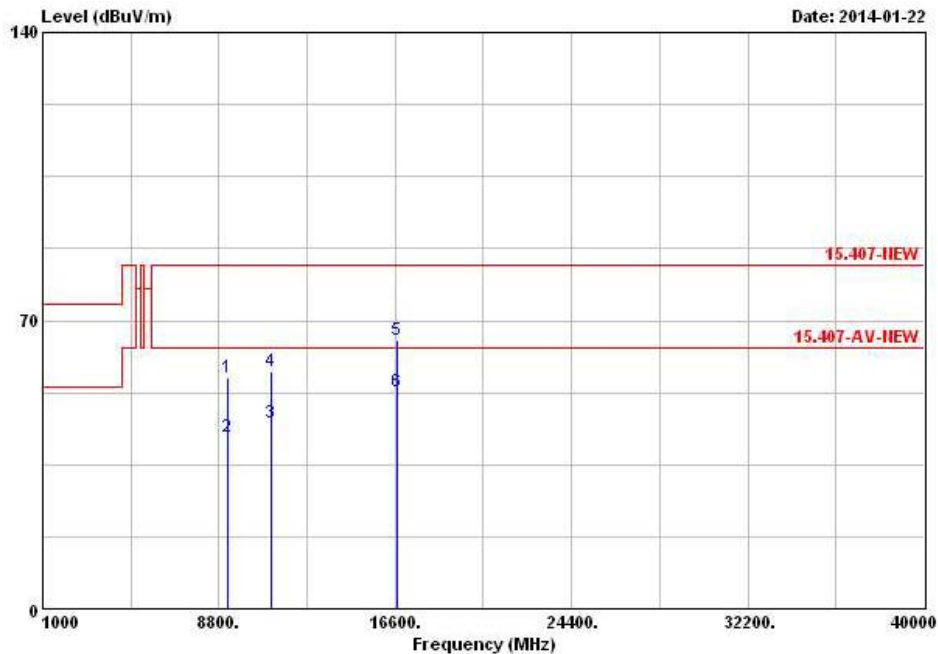
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5550
N_{TX}	2	Polarization	V



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	9156.000	56.08	-27.46	83.54	42.66	38.35	8.09	33.02	Peak	---	---
2	9156.000	41.81	-21.73	63.54	28.39	38.35	8.09	33.02	Average	---	---
3	11100.000	44.96	-18.58	63.54	28.52	39.38	9.42	32.36	Average	---	---
4	11100.000	57.70	-25.84	83.54	41.26	39.38	9.42	32.36	Peak	---	---
5	16650.000	65.19	-18.35	83.54	45.15	39.94	11.84	31.74	Peak	---	---
6	16650.000	52.85	-10.69	63.54	32.81	39.94	11.84	31.74	Average	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

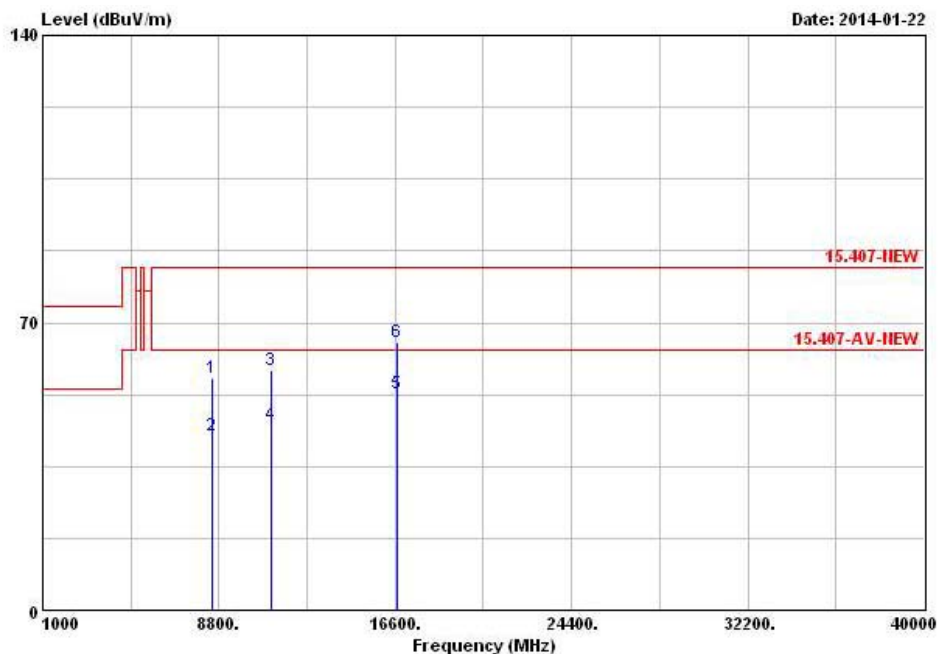
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5550
N_{TX}	2	Polarization	H



	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp		Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 8484.000	56.35	-27.19	83.54	42.48	38.67	8.01	32.81	Peak	---
2	@ 8484.000	42.41	-21.13	63.54	28.54	38.67	8.01	32.81	Average	---
3	@ 11100.000	58.35	-25.19	83.54	41.91	39.38	9.42	32.36	Peak	---
4	@ 11100.000	45.04	-18.50	63.54	28.60	39.38	9.42	32.36	Average	---
5	@ 16650.000	52.85	-10.69	63.54	32.81	39.94	11.84	31.74	Average	---
6	@ 16650.000	65.28	-18.26	83.54	45.24	39.94	11.84	31.74	Peak	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

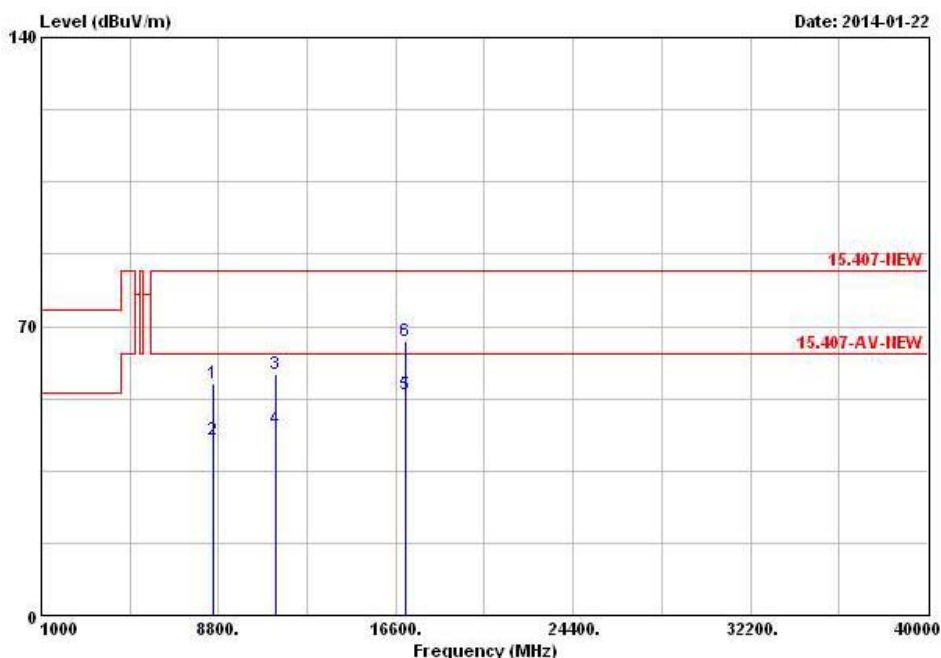
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5670
N_{TX}	2	Polarization	V



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	@ 8532.000	56.19	-27.35	83.54	42.36	38.66	7.99	32.82	Peak	---	---
2	@ 8532.000	42.38	-21.16	63.54	28.55	38.66	7.99	32.82	Average	---	---
3	@ 11340.000	58.32	-25.22	83.54	41.08	39.80	9.79	32.35	Peak	---	---
4	@ 11340.000	45.24	-18.30	63.54	28.00	39.80	9.79	32.35	Average	---	---
5	@ 17010.000	53.42	-10.12	63.54	31.64	41.94	11.16	31.32	Average	---	---
6	@ 17010.000	66.32	-17.22	83.54	44.54	41.94	11.16	31.32	Peak	---	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

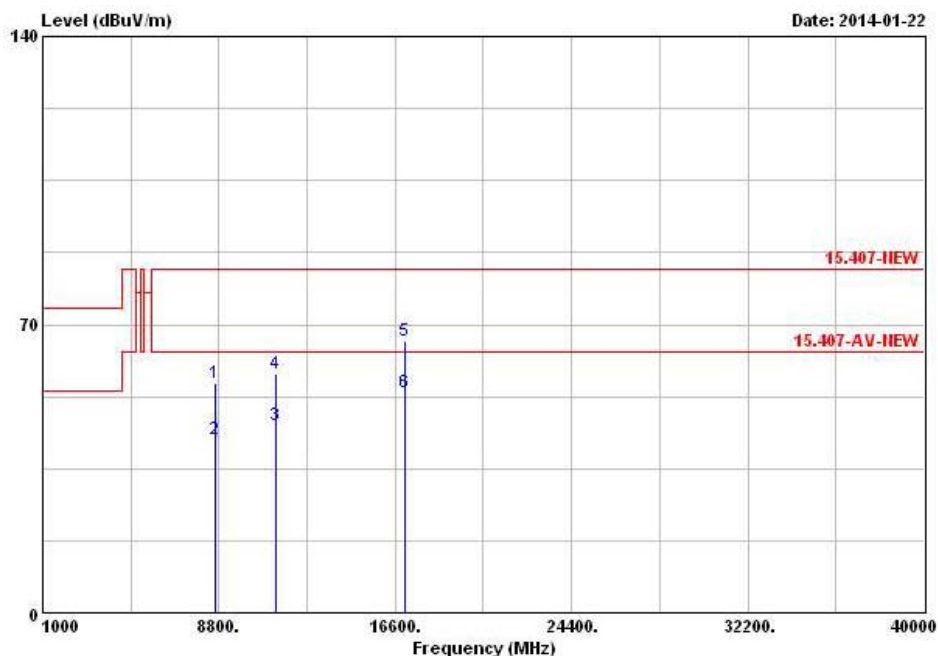
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

Transmitter Radiated Unwanted Emissions (Above 1GHz)

Modulation Mode	HT40	Test Freq. (MHz)	5670
N_{TX}	2	Polarization	H



	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	@ 8616.000	55.78	-27.76	83.54	42.12	38.56	7.95	32.85	Peak	---
2	@ 8616.000	42.30	-21.24	63.54	28.64	38.56	7.95	32.85	Average	---
3	@ 11340.000	45.64	-17.90	63.54	28.40	39.80	9.79	32.35	Average	---
4	@ 11340.000	58.17	-25.37	83.54	40.93	39.80	9.79	32.35	Peak	---
5	@ 17010.000	66.16	-17.38	83.54	44.38	41.94	11.16	31.32	Peak	---
6	@ 17010.000	53.38	-10.16	63.54	31.60	41.94	11.16	31.32	Average	---

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9KHz ~ 40GHz	Jun. 07, 2013	Conducted (TH02-HY)
Power Meter	Anritsu	ML2495A	1036004	300MHz ~ 40GHz	Aug. 17, 2013	Conducted (TH02-HY)
Power Sensor	Anritsu	MA2411B	1027253	300MHz ~ 40GHz	Aug. 17, 2013	Conducted (TH02-HY)

Note: Calibration Interval of instruments listed above is one year.

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz ~ 1GHz 3m	Nov. 30, 2013	Radiation (03CH03-HY)
Amplifier	HP	8447D	2944A08033	10kHz ~ 1.3GHz	May 03, 2013	Radiation (03CH03-HY)
Amplifier	Agilent	8449B	3008A02120	1GHz ~ 26.5GHz	Aug. 20, 2013	Radiation (03CH03-HY)
Spectrum	R&S	FSP40	100004	9kHz ~ 40GHz	Mar. 11, 2013	Radiation (03CH03-HY)
Bilog Antenna	SCHAFFNER	CBL 6112D	22237	30MHz ~ 1GHz	Sep. 21, 2013	Radiation (03CH03-HY)
Horn Antenna	EMCO	3115	6741	1GHz ~ 18GHz	May 31, 2013	Radiation (03CH03-HY)
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170154	15GHz ~ 40GHz	Jan. 10, 2014	Radiation (03CH03-HY)
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 1GHz	Nov. 16, 2013	Radiation (03CH03-HY)
RF Cable-high	SUHNER	SUCOFLEX 106	03CH03-HY	1GHz ~ 40GHz	Dec. 11, 2013	Radiation (03CH03-HY)
Turn Table	EM Electronics	EM Electronics	060615	0 ~ 360 degree	N/A	Radiation (03CH03-HY)
Antenna Mast	MF	MF-7802	MF780208179	1 ~ 4 m	N/A	Radiation (03CH03-HY)

Note: Calibration Interval of instruments listed above is one year.

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Amplifier	EM	EM18G40G	060604	18GHz ~ 40GHz	Oct. 17, 2013	Radiation (03CH03-HY)
Loop Antenna	TESEQ	HLA 6120	31244	9kHz ~ 30MHz	Dec. 02, 2012	Radiation (03CH03-HY)

Note: Calibration Interval of instruments listed above is two year.