



TEST REPORT

Test Report No. : UL-RPT-RP10655468JD03C

Manufacturer : Cambium Networks Ltd
Model No. : PMP 450i / PTP 450i
FCC ID : QWP-50450I
Test Standard(s) : FCC Parts 15.207, 15.209(a), 15.403(i), 15.407(a)(1) & 15.407(b)(1)

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2. The results in this report apply only to the sample(s) tested.
3. The sample tested is in compliance with the above standard(s).
4. The test results in this report are traceable to the national or international standards.
5. Version 1.0.

Date of Issue: 31 July 2015

Checked by:

Sarah Williams
Engineer, Radio Laboratory

Issued by :

pp

John Newell
Quality Manager,
UL VS LTD



This laboratory is accredited by UKAS.
The tests reported herein have been
performed in accordance with its terms
of accreditation.

UL VS LTD

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Table of Contents

| | |
|--|------------|
| 1. Customer Information..... | 4 |
| 2. Summary of Testing..... | 5 |
| 2.1. General Information | 5 |
| 2.2. Summary of Test Results | 5 |
| 2.3. Methods and Procedures | 6 |
| 2.4. Deviations from the Test Specification | 6 |
| 3. Equipment Under Test (EUT) | 7 |
| 3.1. Identification of Equipment Under Test (EUT) | 7 |
| 3.2. Description of EUT | 7 |
| 3.3. Modifications Incorporated in the EUT | 7 |
| 3.4. Additional Information Related to Testing | 8 |
| 3.5. Support Equipment | 8 |
| 3.6. Antenna | 9 |
| 4. Operation and Monitoring of the EUT during Testing | 10 |
| 4.1. Operating Modes | 10 |
| 4.2. Configuration and Peripherals | 10 |
| 5. Measurements, Examinations and Derived Results..... | 12 |
| 5.1. General Comments | 12 |
| 5.2. Test Results | 13 |
| 5.2.1. Transmitter AC Conducted Spurious Emissions | 13 |
| 5.2.2. Transmitter 26 dB Emission Bandwidth | 21 |
| 5.2.3. Transmitter Maximum Conducted Output Power (5.15-5.25 GHz Band) | 28 |
| 5.2.4. Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) | 35 |
| 5.2.5. Transmitter Out of Band Radiated Emissions | 85 |
| 5.2.6. Transmitter Band Edge Radiated Emissions | 107 |
| 6. Measurement Uncertainty | 125 |
| 7. Report Revision History | 126 |
| Appendix 1. Conducted Test Setup Photograph | 127 |

1. Customer Information









| | |
|----------------------|--|
| Company Name: | Cambium Networks Ltd |
| Address: | Unit B2/3, Linhay Business Park Eastern Road Ashburton Devon TQ13 7UP United Kingdom |

2. Summary of Testing

2.1. General Information

| | |
|---------------------------------|---|
| Specification Reference: | 47CFR15.403 and 47CFR15.407 |
| Specification Title: | Code of Federal Regulations Volume 47 (Telecommunications): Part 15 Subpart E (Unlicensed National Information Infrastructure Devices) – Sections 15.403 and 15.407 |
| Specification Reference: | 47CFR15.207 and 47CFR15.209 |
| Specification Title: | Code of Federal Regulations Volume 47 (Telecommunications): Part 15 Subpart C (Intentional Radiators) - Sections 15.207 and 15.209 |
| Site Registration: | FCC: 209735 |
| Location of Testing: | UL VS LTD, Unit 3 Horizon, Wade Road, Kingsland Business Park, Basingstoke, Hampshire, RG24 8AH, United Kingdom |
| Test Dates: | 24 June 2015 to 08 July 2015 |

2.2. Summary of Test Results

| FCC Reference (47CFR) | Measurement | Result |
|---|--|---|
| Part 15.207 | Transmitter AC Conducted Emissions |  |
| Part 15.403(i) | Transmitter 26 dB Emission Bandwidth |  |
| Part 15.407(a)(1) | Transmitter Maximum Conducted Output Power |  |
| Part 15.407(a)(1) | Transmitter Peak Power Spectral Density |  |
| Part 15.407(b)(1)/ 15.209(a) | Transmitter Out of Band Radiated Emissions |  |
| Part 15.407(b)(1)/ 15.209(a) | Transmitter Band Edge Radiated Emissions |  |
| Part 15.407(g) | Transmitter Frequency Stability (Temperature & Voltage Variation) | Note 1 |
| Key to Results | | |
|  = Complied  = Did not comply | | |

Note(s):

1. Frequency stability is better than 10 ppm, which ensures that the signal remains in the allocated bands under all operational conditions stated in the user manual.

2.3. Methods and Procedures

| | |
|-------------------|---|
| Reference: | ANSI C63.4-2009 |
| Title: | American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz |
| Reference: | ANSI C63.10-2009 |
| Title: | American National Standard for Testing Unlicensed Wireless Devices |
| Reference: | FCC KDB 789033 D02 v01 June 6, 2014 |
| Title: | Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E |
| Reference: | FCC KDB 662911 D01 Multiple Transmitter Output v02r01 October 31, 2013 |
| Title: | Emissions Testing of Transmitters with Multiple Outputs in the Same Band |
| Reference: | FCC KDB 662911 D02 v01, October 25 2011 |
| Title: | MIMO with Cross-Polarized Antennas |
| Reference: | FCC KDB 174176 D01 Line Conducted FAQ v01, 03/06/2015 |
| Title: | AC power line conducted emissions, frequently asked questions |

2.4. Deviations from the Test Specification

For the measurements contained within this test report, there were no deviations from, additions to, or exclusions from the test specifications identified above.

3. Equipment Under Test (EUT)

3.1. Identification of Equipment Under Test (EUT)

| | |
|------------------------------|----------------------|
| Brand Name: | Cambium Networks Ltd |
| Model Name or Number: | PMP 450i / PTP 450i |
| Hardware Version: | P3 |
| Software Version: | B176-PXP455-PRODTEST |
| Serial Number: | F50980BB0152 |
| FCC ID: | QWP-50450I |

| | |
|------------------------------|----------------------|
| Brand Name: | Cambium Networks Ltd |
| Model Name or Number: | PMP450i |
| Hardware Version: | P3 |
| Software Version: | B176-PXP455-PRODTEST |
| Serial Number: | F50980BB016F |
| FCC ID: | QWP-50450I |

| | |
|------------------------------|---|
| Description: | PoE Power supply |
| Brand Name: | LEADER ELECTRONICS INC. |
| Model Name or Number: | NU60-R550111-I3 (Cambium Part No. N000065L001B) |
| Serial Number: | 13000019581409000667 |

| | |
|------------------------------|------------------|
| Description: | PoE Power supply |
| Brand Name: | Cambium Networks |
| Model Name or Number: | E100109B G |
| Part Number: | C000065L002B |
| Serial Number: | 1421005533 |

3.2. Description of EUT

The Equipment Under Test was a fixed radio transceiver operating in the 5150-5250 MHz frequency band. The EUT is available in two configurations:

1. Connectorised with two external antenna ports.
2. Integrated with directional and sectorised flat plate antenna options.

Power is provided by a PoE supply.

3.3. Modifications Incorporated in the EUT

No modifications were applied to the EUT during testing.

3.4. Additional Information Related to Testing

| | | | | | | |
|--|--------------------------------|--|---------------------------------------|---|--|------------------------------------|
| Technology Tested: | | Unlicensed National Information Infrastructure (U-NII-1) | | | | |
| Type of Unit: | | Microwave fixed radio link transceiver | | | | |
| Modes/Modulation: | | QPSK, 16QAM, 64QAM, 256QAM | | | | |
| Data rates: | | 32.4, 64.6, 97.1 & 129.5 Mbit/s | | | | |
| Power Supply Requirement(s): | | Nominal | | PoE supply input 120 VAC 60 Hz. PoE output 48 VDC. | | |
| Maximum Conducted Output Power: | | 22.2 dBm | | | | |
| Frequency Range: | | 5150 MHz to 5250 MHz | | | | |
| Channels Tested: | Channel Bandwidth (MHz) | Bottom Channel Frequency (MHz) | Lowest Full Pwr. Channel (MHz) | Middle Channel Frequency (MHz) | Highest Full Pwr. Channel (MHz) | Top Channel Frequency (MHz) |
| | 5 | 5155.75 | 5159 | 5200 | 5247.5 | 5247.5 |
| | 10 | 5159.5 | 5165 | 5200 | 5245 | 5245 |
| | 20 | 5169 | 5176 | 5200 | 5240 | 5240 |
| | 40 | 5186.5 | 5205 | 5205 | 5230 | 5230 |

Note(s):

The EUT is unable to operate at full power and remain compliant on some lower channels. Power has been reduced on some lower channels. 'Lowest Full Pwr. Channel' and 'Highest Full Pwr. Channel' in the table above show the lowest and highest channel frequencies that the EUT can operate at full power and remain compliant. All channel frequencies between the 'Lowest Full Pwr. Channel' and 'Highest Full Pwr. Channel' can operate at full power. Power settings used for testing are shown in Section 4.2 of this test report.

3.5. Support Equipment

The following support equipment was used to exercise the EUT during testing:

| | |
|------------------------------|-----------------|
| Description: | Laptop PC |
| Brand Name: | Lenovo |
| Model Name or Number: | L440 |
| Serial Number: | R9-019EA1 14/04 |

| | |
|------------------------------|---------------|
| Description: | Ethernet Hub |
| Brand Name: | Netgear |
| Model Name or Number: | GS605 |
| Serial Number: | 2N21223M02078 |

3.6. Antenna

The table below lists the antennas that the manufacturer intends to use with this product when operating in the 5150-5250 MHz band:

| Type | Stated Gain (dBi) | Manufacturer | Antenna Name | Used for Testing | Note |
|-----------------------------------|-------------------|--------------|------------------|------------------|------|
| Dual polarised plate (Integrated) | 23.0 | MARS | MA-WA56-DP23SCM | - | 1 |
| Dual polarised plate (Integrated) | 17.0 | Cambium | 5093HH | - | 1, 3 |
| Dual polarised plate (External) | 28.5 | MARS | MA-WA56-DP28N | X | 2 |
| 4 ft Parabolic Dual Polarised | 34.5 | Andrews | PX4F-52-N7A/A | X | 2 |
| 2 ft Parabolic Dual Polarised | 28.5 | MTI | MT-486013-NVH | - | 1 |
| 90° Sectorised (External) | 17.0 | Laird | ANT, AP Sector | X | 2 |
| 90° Sectorised (External) | 17.0 | Proprietary | Part No. A005189 | - | 1 |
| 90° Sectorised (Integrated) | 16.0 | MARS | MA-WD56-DP16PCMW | - | 1, 3 |
| Omnidirectional | 13.0 | KP | KPPA-5.7-DPOMA | X | 2,3 |
| Omnidirectional | 10.0 | MARS | MA-WO56-DP10 | - | 1,3 |

X = This antenna was used for testing purposes

Note(s):

1. This antenna has the same gain or less gain and is of the same type as the antenna that was tested. Therefore it was not tested.
2. Used in conjunction with two, 0.5 metre length RF cables (Radiall R284C0351033 N type male – N type male) having an individual insertion loss of 0.9 dB across the EUT operating band.
3. Integral antenna. No external RF cables.

4. Operation and Monitoring of the EUT during Testing

4.1. Operating Modes

The EUT was tested in the following operating mode(s):

- The unit operates in transceiver mode only as a TDD device in its normal mode of operation. There is no dedicated receive only mode.
- For test purposes only, the EUT was continuously transmitting at maximum power with 100% duty cycle in test mode on the required channels using the supported modulation types.

4.2. Configuration and Peripherals

The EUT was tested in the following configuration(s):

- A laptop PC with Cambium Networks test application 'Regulatory RF Control V2.3' was used to configure the EUT via the PoE power supply and Ethernet cables.
- The EUT was powered throughout testing via the PoE power supply.
- The EUT was operating at maximum allowable output power for the configuration being tested unless otherwise stated.
- The EUT with serial number F50980BB0152 was used for AC conducted and band edge emissions tests.
- The EUT with serial number F50980BB016F was used for all other tests.
- No receiver or idle mode tests were performed as the EUT constantly transmits and receives. It does not have a dedicated receive or idle mode.

Power settings used during testing

'LCF' in the tables below indicates the power setting on the lower channels. 'HCF' indicates the power setting on the higher channels. Where the tables are marked as 'Mid Ch' the maximum power setting was used for all channels from the Lowest Full Power Channel to the Highest Full Power Channel including the centre channel. Where LCF, Mid Ch and HCF have the same values, then maximum power was used across the band from the bottom channel to the top channel. Corresponding channel frequencies are shown in Section 3.4 of this report.

The table below show the EUT power settings that were used during testing for each channel bandwidth and modulation type when the EUT was tested with the parabolic antenna.

Power Settings Used For Testing / 4' Parabolic Antenna / 5150-5250 MHz Band

| Ch. BW | QPSK | | | 16QAM | | | 64QAM | | | 256QAM | | |
|--------|------|--------|------|-------|--------|------|-------|--------|------|--------|--------|------|
| | LCF | Mid Ch | HCF | LCF | Mid Ch | HCF | LCF | Mid Ch | HCF | LCF | Mid Ch | HCF |
| 5 | -2.5 | 6.25 | 6.25 | -2.5 | 6.25 | 6.25 | -2.5 | 6.25 | 6.25 | -2.5 | 6.25 | 6.25 |
| 10 | 0.75 | 9 | 9 | 0.75 | 9 | 9 | 0.75 | 9 | 9 | 0.75 | 9 | 9 |
| 20 | 3.25 | 9.5 | 9.5 | 3.25 | 9.5 | 9.5 | 3.25 | 9.5 | 9.5 | 3.25 | 9.5 | 9.5 |
| 40 | 2.75 | 11 | 11 | 2.75 | 11 | 11 | 2.75 | 11 | 11 | 2.75 | 11 | 11 |

The table below show the EUT power settings that were used during testing for each channel bandwidth and modulation type when the EUT was tested with the plate antenna.

Power Settings Used For Testing / Plate Antenna / 5150-5250 MHz Band

| Ch. BW | QPSK | | | 16QAM | | | 64QAM | | | 256QAM | | |
|--------|-------|--------|-------|-------|--------|-------|-------|--------|-------|--------|--------|-------|
| | LCF | Mid Ch | HCF | LCF | Mid Ch | HCF | LCF | Mid Ch | HCF | LCF | Mid Ch | HCF |
| 5 | -2.5 | -1.75 | -1.75 | -2.5 | -1.75 | -1.75 | -2.5 | -1.75 | -1.75 | -2.5 | -1.75 | -1.75 |
| 10 | 0.5 | 1.25 | 1.25 | 0.5 | 1.25 | 1.25 | 0.5 | 1.25 | 1.25 | 0.5 | 1.25 | 1.25 |
| 20 | -1.75 | 3 | 3 | -1.75 | 3 | 3 | -1.75 | 3 | 3 | -1.75 | 3 | 3 |
| 40 | -2 | 3 | 3 | -2 | 3 | 3 | -2 | 3 | 3 | -2 | 3 | 3 |

The table below show the EUT power settings that were used during testing for each channel bandwidth and modulation type when the EUT was tested with the sectorised antenna.

Power Settings Used For Testing / Sectorised Antenna / 5150-5250 MHz Band

| Ch. BW | QPSK | | | 16QAM | | | 64QAM | | | 256QAM | | |
|--------|------|--------|-------|-------|--------|-------|-------|--------|-------|--------|--------|-------|
| | LCF | Mid Ch | HCF | LCF | Mid Ch | HCF | LCF | Mid Ch | HCF | LCF | Mid Ch | HCF |
| 5 | 7.5 | 12.25 | 12.25 | 7.5 | 12.25 | 12.25 | 7.5 | 12.25 | 12.25 | 7.5 | 12.25 | 12.25 |
| 10 | 10 | 15.25 | 15.25 | 10 | 15.25 | 15.25 | 10 | 15.25 | 15.25 | 10 | 15.25 | 15.25 |
| 20 | 10 | 16 | 16 | 10 | 16 | 16 | 10 | 16 | 16 | 10 | 16 | 16 |
| 40 | 10 | 16 | 16 | 10 | 16 | 16 | 10 | 16 | 16 | 10 | 16 | 16 |

The table below show the EUT power settings that were used during testing for each channel bandwidth and modulation type when the EUT was tested with the omnidirectional antenna.

Power Settings Used For Testing / Omnidirectional Antenna / 5150-5250 MHz Band

| Ch. BW | QPSK | | | 16QAM | | | 64QAM | | | 256QAM | | |
|--------|-------|--------|-------|-------|--------|-------|-------|--------|-------|--------|--------|-------|
| | LCF | Mid Ch | HCF | LCF | Mid Ch | HCF | LCF | Mid Ch | HCF | LCF | Mid Ch | HCF |
| 5 | 16.25 | 16.25 | 16.25 | 16.25 | 16.25 | 16.25 | 16.25 | 16.25 | 16.25 | 16.25 | 16.25 | 16.25 |
| 10 | 17.25 | 19.25 | 19.25 | 17.25 | 19.25 | 19.25 | 17.25 | 19.25 | 19.25 | 17.25 | 19.25 | 19.25 |
| 20 | 17.5 | 22.25 | 22.25 | 17.5 | 22.25 | 22.25 | 17.5 | 22.25 | 22.25 | 17.5 | 22.25 | 22.25 |
| 40 | 17 | 23 | 23 | 17 | 23 | 23 | 17 | 23 | 23 | 17 | 23 | 23 |

5. Measurements, Examinations and Derived Results

5.1. General Comments

Measurement uncertainties are evaluated in accordance with current best practice. Our reported expanded uncertainties are based on standard uncertainties, which are multiplied by an appropriate coverage factor to provide a statistical confidence level of approximately 95%. Please refer to *Section 6 Measurement Uncertainty* for details.

In accordance with UKAS requirements all the measurement equipment is on a calibration schedule. All equipment was within the calibration period on the date of testing.

5.2. Test Results

5.2.1. Transmitter AC Conducted Spurious Emissions

Test Summary:

| | | | |
|-----------------------------------|-----------------|-------------------|--------------|
| Test Engineer: | Georgios Vrezas | Test Date: | 04 July 2015 |
| Test Sample Serial Number: | F50980BB0152 | | |

| | |
|--------------------------|--|
| FCC Reference: | Part 15.207 |
| Test Method Used: | ANSI C63.10 Section 6.2 referencing ANSI C63.4 |

Environmental Conditions:

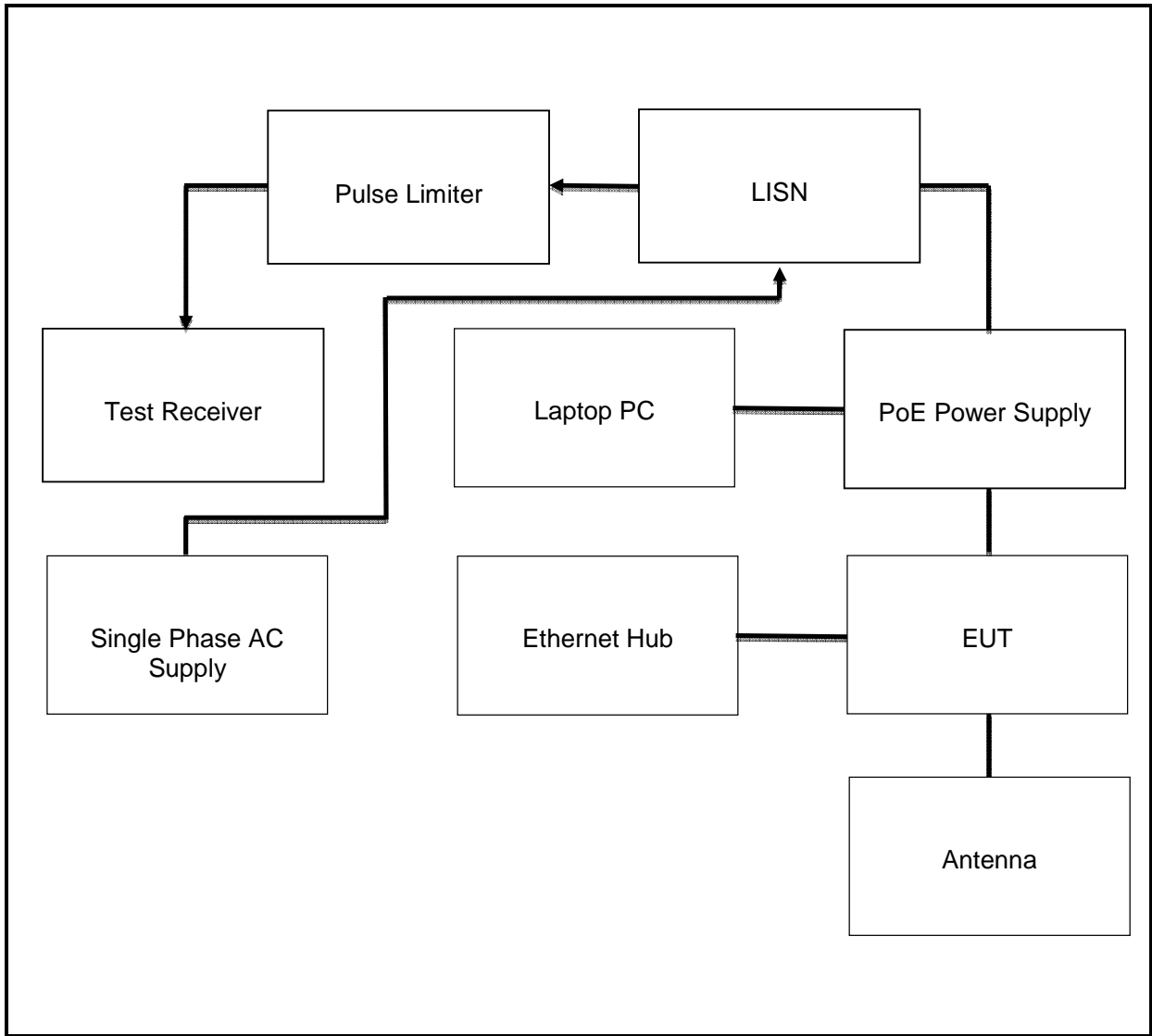
| | |
|-------------------------------|----|
| Temperature (°C): | 23 |
| Relative Humidity (%): | 44 |

Note(s):

1. The manufacturer stated that two different PoE power supplies can be used with this product. AC conducted spurious emissions tests were performed on each power supply.
2. The input to the PoE power supply was connected to a 120 VAC 60 Hz single phase supply via a LISN during the testing. The output of the PoE power supply was connected to the input of the EUT via an Ethernet cable.
3. The EUT was transmitting at maximum power during the test on the middle channel of the 5.15-5.25 GHz band. A laptop PC was connected to the EUT via Ethernet. The unused Ethernet port on the EUT was terminated into an Ethernet hub.
4. The earth bonding point on the EUT was connected to the metal structure of the test chamber during testing.
5. All emissions >20 dB below the applicable limits were not recorded.

Transmitter AC Conducted Spurious Emissions (continued)

Test setup for AC conducted spurious emissions measurements:



Transmitter AC Conducted Spurious Emissions (continued)**Results: Live / Quasi Peak / LEADER Power Supply**

| Frequency (MHz) | Line | Level (dB μ V) | Limit (dB μ V) | Margin (dB) | Result |
|-----------------|------|--------------------|--------------------|-------------|----------|
| 0.159 | Live | 51.8 | 65.5 | 13.7 | Complied |
| 0.290 | Live | 47.7 | 60.5 | 12.8 | Complied |
| 0.645 | Live | 37.6 | 56.0 | 18.4 | Complied |
| 1.667 | Live | 36.2 | 56.0 | 19.8 | Complied |

Results: Live / Average / LEADER Power Supply

| Frequency (MHz) | Line | Level (dB μ V) | Limit (dB μ V) | Margin (dB) | Result |
|-----------------|------|--------------------|--------------------|-------------|----------|
| 0.159 | Live | 41.1 | 55.5 | 14.4 | Complied |
| 0.290 | Live | 43.0 | 50.5 | 7.5 | Complied |
| 0.416 | Live | 36.0 | 47.5 | 11.5 | Complied |
| 0.906 | Live | 32.8 | 46.0 | 13.2 | Complied |
| 1.865 | Live | 30.6 | 46.0 | 15.4 | Complied |

Transmitter AC Conducted Spurious Emissions (continued)**Results: Neutral / Quasi Peak / LEADER Power Supply**

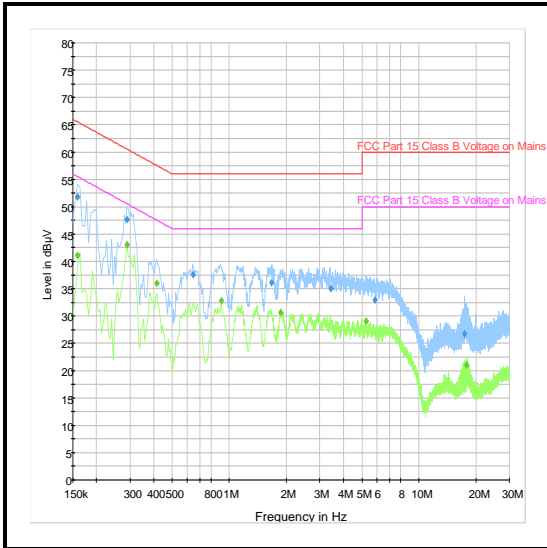
| Frequency (MHz) | Line | Level (dB μ V) | Limit (dB μ V) | Margin (dB) | Result |
|-----------------|---------|--------------------|--------------------|-------------|----------|
| 0.159 | Neutral | 51.4 | 65.5 | 14.1 | Complied |
| 0.294 | Neutral | 48.3 | 60.4 | 12.1 | Complied |
| 0.420 | Neutral | 39.4 | 57.4 | 18.0 | Complied |
| 0.843 | Neutral | 38.6 | 56.0 | 17.4 | Complied |
| 2.081 | Neutral | 36.4 | 56.0 | 19.6 | Complied |

Results: Neutral / Average / LEADER Power Supply

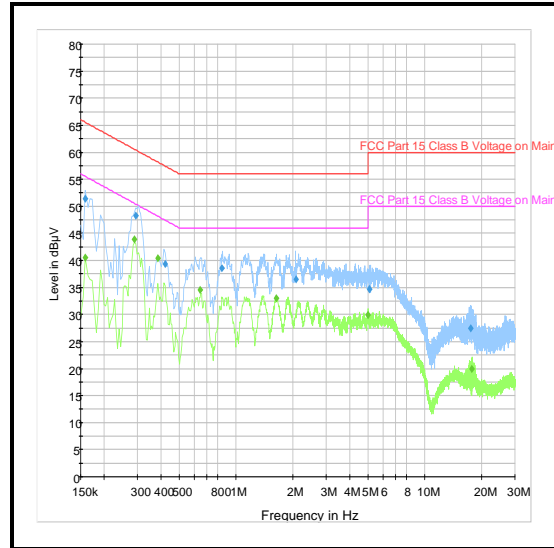
| Frequency (MHz) | Line | Level (dB μ V) | Limit (dB μ V) | Margin (dB) | Result |
|-----------------|---------|--------------------|--------------------|-------------|----------|
| 0.159 | Neutral | 40.5 | 55.5 | 15.0 | Complied |
| 0.290 | Neutral | 43.9 | 50.5 | 6.6 | Complied |
| 0.384 | Neutral | 40.4 | 48.2 | 7.8 | Complied |
| 0.645 | Neutral | 34.6 | 46.0 | 11.4 | Complied |
| 1.626 | Neutral | 33.0 | 46.0 | 13.0 | Complied |
| 4.992 | Neutral | 29.8 | 46.0 | 16.2 | Complied |

Transmitter AC Conducted Spurious Emissions (continued)

Results: LEADER Power Supply



Live



Neutral

Transmitter AC Conducted Spurious Emissions (continued)**Results: Live / Quasi Peak / Cambium Networks Power Supply**

| Frequency (MHz) | Line | Level (dB μ V) | Limit (dB μ V) | Margin (dB) | Result |
|-----------------|------|--------------------|--------------------|-------------|----------|
| 0.173 | Live | 45.4 | 64.8 | 19.4 | Complied |

Results: Live / Average / Cambium Networks Power Supply

| Frequency (MHz) | Line | Level (dB μ V) | Limit (dB μ V) | Margin (dB) | Result |
|-----------------|------|--------------------|--------------------|-------------|----------|
| 0.173 | Live | 37.4 | 54.8 | 17.4 | Complied |
| 0.258 | Live | 36.5 | 51.5 | 15.0 | Complied |
| 1.203 | Live | 32.8 | 46.0 | 13.2 | Complied |
| 2.148 | Live | 30.9 | 46.0 | 15.1 | Complied |
| 2.751 | Live | 30.4 | 46.0 | 15.6 | Complied |
| 14.573 | Live | 30.8 | 50.0 | 19.2 | Complied |

Transmitter AC Conducted Spurious Emissions (continued)**Results: Neutral / Quasi Peak / Cambium Networks Power Supply**

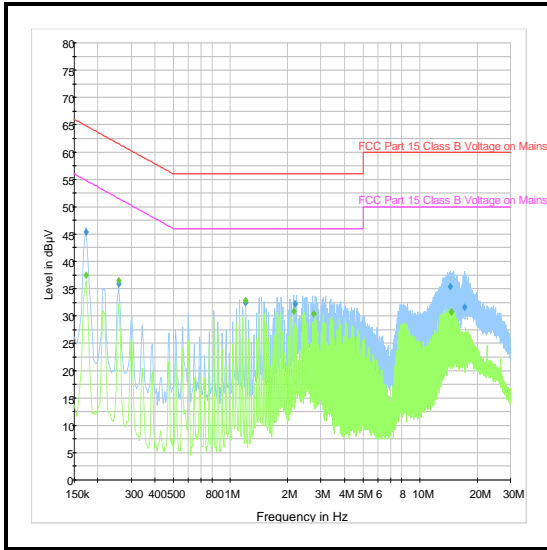
| Frequency (MHz) | Line | Level (dB μ V) | Limit (dB μ V) | Margin (dB) | Result |
|-----------------|---------|--------------------|--------------------|-------------|----------|
| 0.173 | Neutral | 46.1 | 64.8 | 18.7 | Complied |

Results: Neutral / Average / Cambium Networks Power Supply

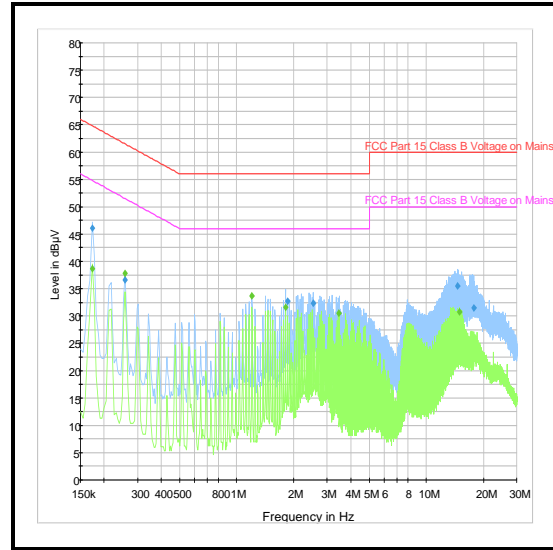
| Frequency (MHz) | Line | Level (dB μ V) | Limit (dB μ V) | Margin (dB) | Result |
|-----------------|---------|--------------------|--------------------|-------------|----------|
| 0.173 | Neutral | 38.7 | 54.8 | 16.1 | Complied |
| 0.258 | Neutral | 37.8 | 51.5 | 13.7 | Complied |
| 1.203 | Neutral | 33.7 | 46.0 | 12.3 | Complied |
| 1.806 | Neutral | 31.6 | 46.0 | 14.4 | Complied |
| 3.444 | Neutral | 30.5 | 46.0 | 15.5 | Complied |
| 14.978 | Neutral | 30.7 | 50.0 | 19.3 | Complied |

Transmitter AC Conducted Spurious Emissions (continued)

Results: Cambium Networks Power Supply



Live



Neutral

Test Equipment Used:

| Asset No. | Instrument | Manufacturer | Type No. | Serial No. | Date Calibration Due | Cal. Interval (Months) |
|-----------|------------------|-----------------|------------|------------|----------------------|------------------------|
| A004 | LISN | Rohde & Schwarz | ESH3-Z5 | 890604/027 | 27 Nov 2015 | 12 |
| A1830 | Pulse Limiter | Rohde & Schwarz | ESH3-Z2 | 100668 | 02 Mar 2016 | 12 |
| M1263 | Test Receiver | Rohde & Schwarz | ESIB7 | 100265 | 14 Oct 2015 | 12 |
| M1625 | Thermohygrometer | JM Handelspunkt | 30.5015.06 | N/A | 07 Jan 2016 | 12 |

5.2.2. Transmitter 26 dB Emission Bandwidth**Test Summary:**

| | | | |
|-----------------------------------|-----------------|--------------------|---------------------------------|
| Test Engineer: | Georgios Vrezas | Test Dates: | 07 July 2015 to 08 July 2015 |
| Test Sample Serial Number: | F50980BB016F | | |

| | |
|--------------------------|-----------------------------|
| FCC Reference: | Part 15.403(i) |
| Test Method Used: | FCC KDB 789033 Section II.C |

Environmental Conditions:

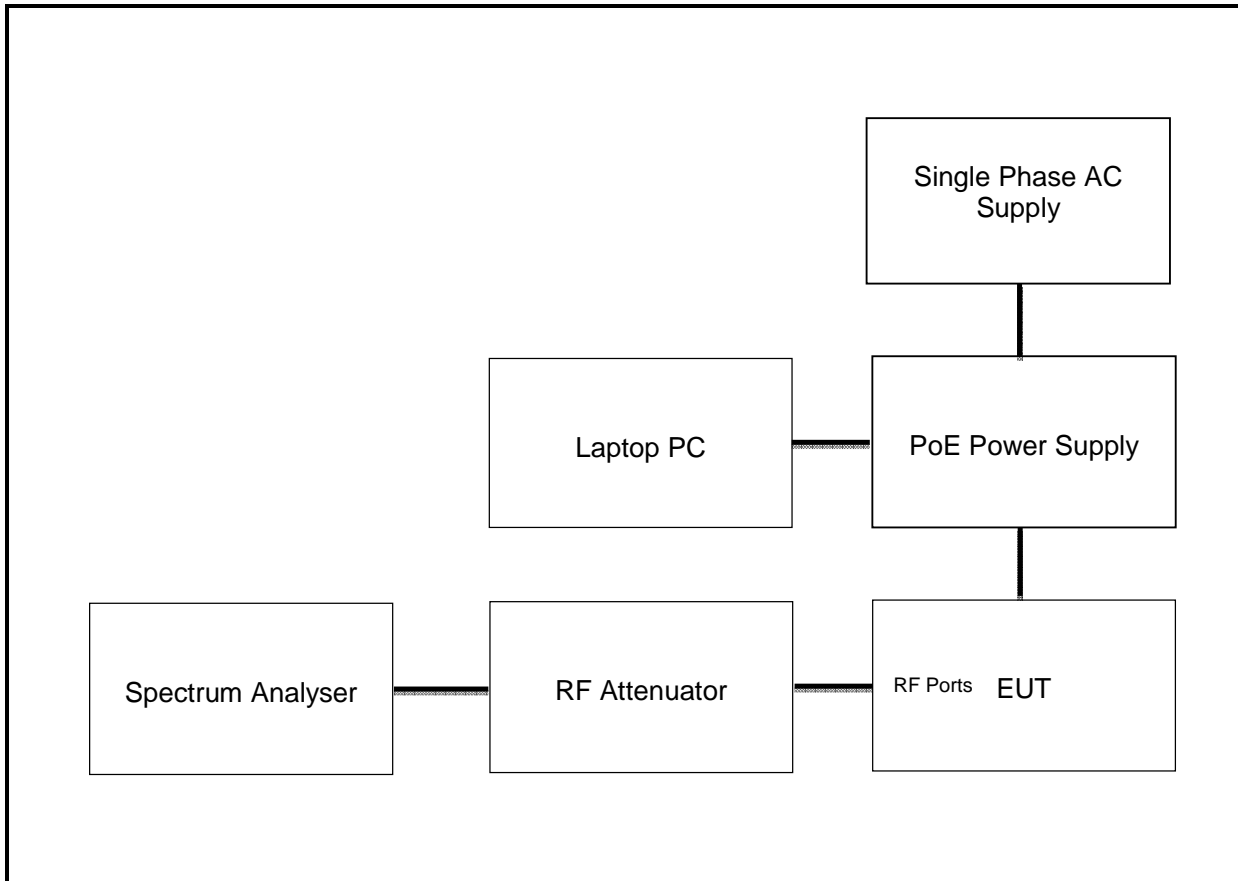
| | |
|-------------------------------|----------|
| Temperatures (°C): | 23 to 25 |
| Relative Humidity (%): | 42 to 47 |

Note(s):

1. All configurations supported by the EUT were investigated on one channel in accordance with KDB 789033 Section II.C emission bandwidth test procedure. Spot checks were performed with the EUT transmitting at maximum power using all channel bandwidths and modulation types. For each channel bandwidth, the measured occupied bandwidth was found to be identical in all modes. Final measurements were performed with the EUT transmitting QPSK modulation only.
2. Plots for all configurations are archived on the UL VS LTD IT server and available for inspection upon request.
3. The test receiver was connected to the RF port on the EUT using suitable attenuation and RF cable.
4. Final measurements were performed in each supported operating band using the above configurations on the bottom, middle and top channels. Both RF ports show identical characteristics. The spectrum analyser was connected to the A port for all final measurements.
5. An RF level offset of 21.1 dB was used on the spectrum analyser to compensate for the attenuator and cable loss. A spectrum analyser reference level of 30 dB was used.

Transmitter 26 dB Emission Bandwidth (continued)

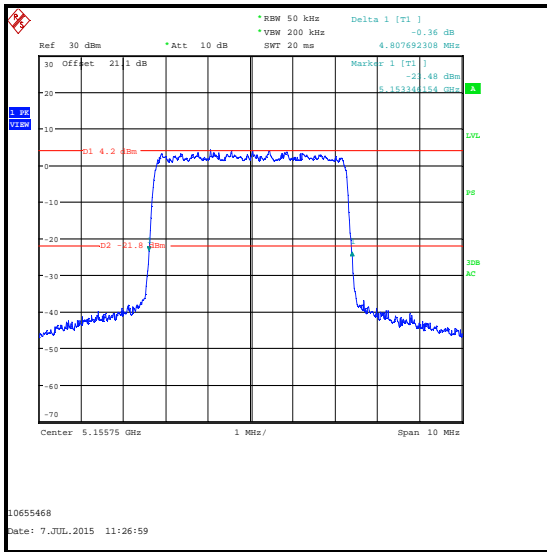
Test setup for bandwidth measurements:



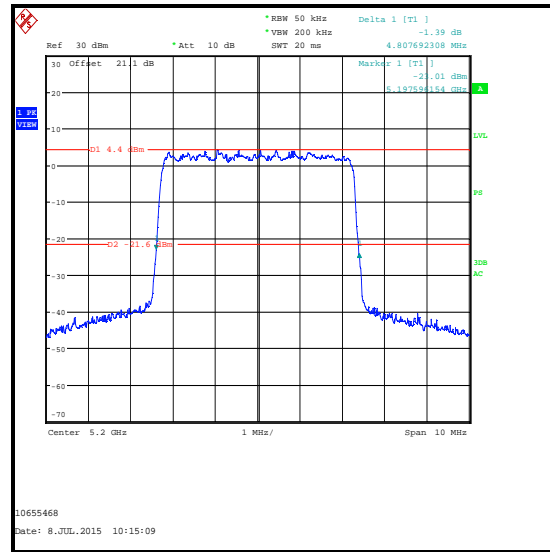
Transmitter 26 dB Emission Bandwidth (continued)

Results: 5.15-5.25 GHz Band / 5 MHz Channel / QPSK / A Port

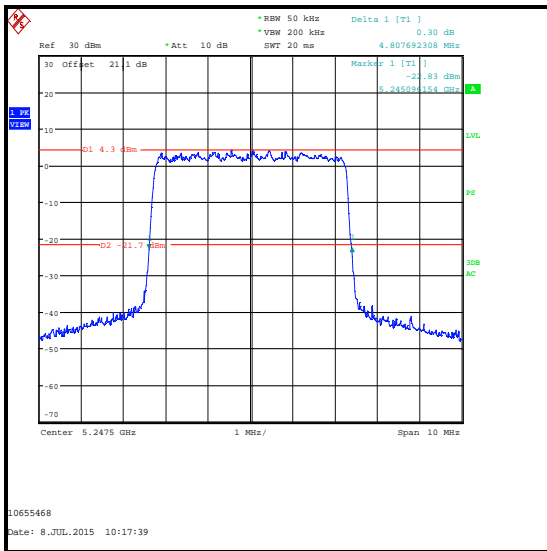
| Channel | Frequency | Modulation | Resolution Bandwidth (kHz) | Video Bandwidth (kHz) | 26 dB Bandwidth (MHz) |
|---------|-----------|------------|----------------------------|-----------------------|-----------------------|
| Bottom | 5155.75 | QPSK | 50 | 200 | 4.808 |
| Middle | 5200 | QPSK | 50 | 200 | 4.808 |
| Top | 5247.5 | QPSK | 50 | 200 | 4.808 |



Bottom Channel



Middle Channel

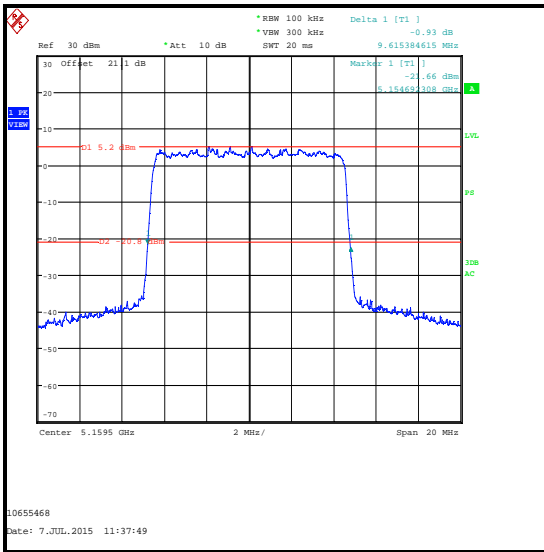


Top Channel

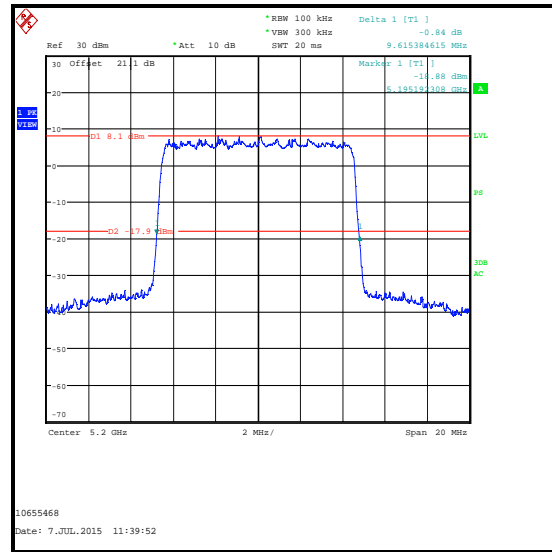
Transmitter 26 dB Emission Bandwidth (continued)

Results: 5.15-5.25 GHz Band / 10 MHz Channel / QPSK / A Port

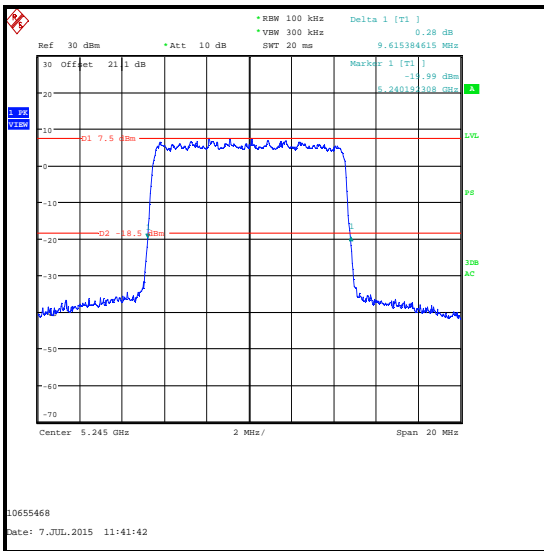
| Channel | Frequency | Modulation | Resolution Bandwidth (kHz) | Video Bandwidth (kHz) | 26 dB Bandwidth (MHz) |
|---------|-----------|------------|----------------------------|-----------------------|-----------------------|
| Bottom | 5159.5 | QPSK | 100 | 300 | 9.615 |
| Middle | 5200 | QPSK | 100 | 300 | 9.615 |
| Top | 5245 | QPSK | 100 | 300 | 9.615 |



Bottom Channel



Middle Channel



Top Channel

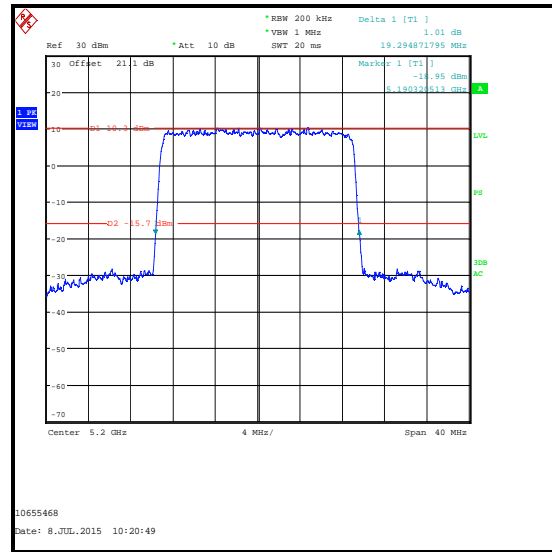
Transmitter 26 dB Emission Bandwidth (continued)

Results: 5.15-5.25 GHz Band / 20 MHz Channel / QPSK / A Port

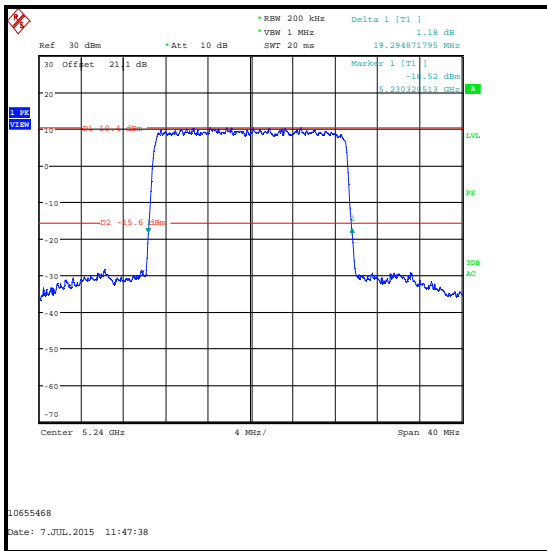
| Channel | Frequency | Modulation | Resolution Bandwidth (kHz) | Video Bandwidth (kHz) | 26 dB Bandwidth (MHz) |
|---------|-----------|------------|----------------------------|-----------------------|-----------------------|
| Bottom | 5169 | QPSK | 200 | 1000 | 19.295 |
| Middle | 5200 | QPSK | 200 | 1000 | 19.295 |
| Top | 5240 | QPSK | 200 | 1000 | 19.295 |



Bottom Channel



Middle Channel

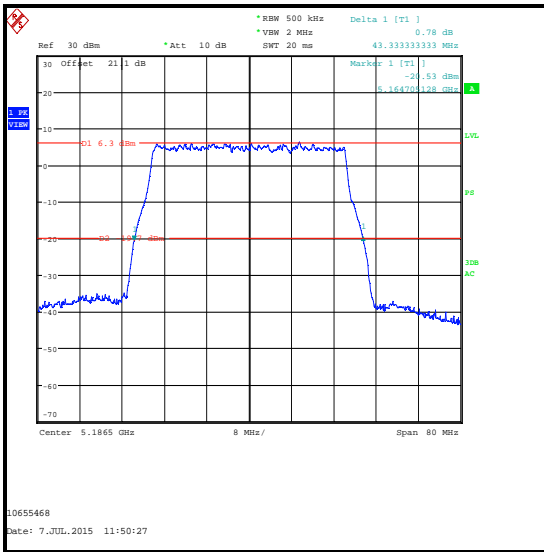


Top Channel

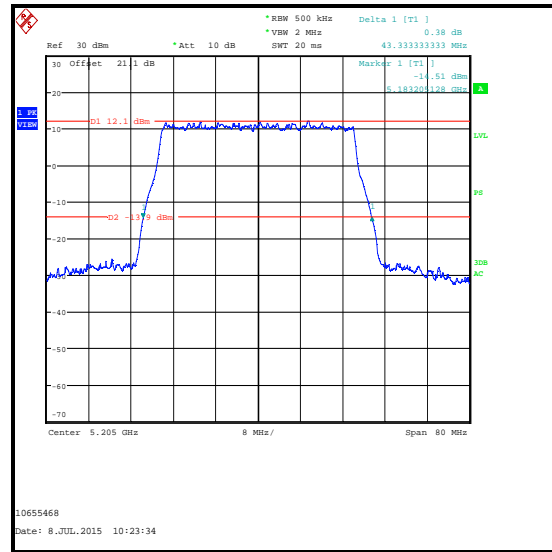
Transmitter 26 dB Emission Bandwidth (continued)

Results: 5.15-5.25 GHz Band / 40 MHz Channel / QPSK / A Port

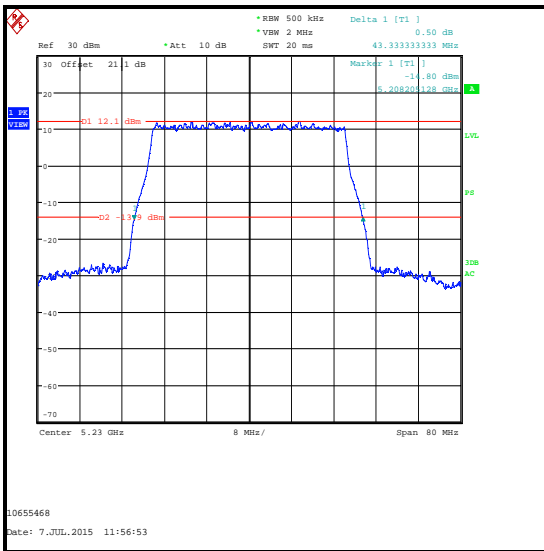
| Channel | Frequency | Modulation | Resolution Bandwidth (kHz) | Video Bandwidth (kHz) | 26 dB Bandwidth (MHz) |
|---------|-----------|------------|----------------------------|-----------------------|-----------------------|
| Bottom | 5186.5 | QPSK | 500 | 2000 | 43.333 |
| Middle | 5205 | QPSK | 500 | 2000 | 43.333 |
| Top | 5230 | QPSK | 500 | 2000 | 43.333 |



Bottom Channel



Middle Channel



Top Channel

Transmitter 26 dB Emission Bandwidth (continued)**Test Equipment Used:**

| Asset No. | Instrument | Manufacturer | Type No. | Serial No. | Date Calibration Due | Cal. Interval (Months) |
|-----------|------------------|-----------------|------------|-------------|-----------------------|------------------------|
| A1998 | Attenuator | Huber & Suhner | 6820.17.B | 07101 | Calibrated Before Use | N/A |
| M1630 | Test Receiver | Rohde & Schwarz | ESU40 | 100233 | 20 Feb 2016 | 12 |
| M1252 | Signal Generator | Hewlett Packard | 83640A | 3119A00489 | 24 Oct 2015 | 24 |
| M1785 | Thermohygrometer | JM Handelspunkt | 30.5015.13 | None stated | 23 Apr 2016 | 12 |

5.2.3. Transmitter Maximum Conducted Output Power (5.15-5.25 GHz Band)**Test Summary:**

| | | | |
|-----------------------------------|-----------------|-------------------|--------------|
| Test Engineer: | Georgios Vrezas | Test Date: | 03 July 2015 |
| Test Sample Serial Number: | F50980BB016F | | |

| | |
|--------------------------|--|
| FCC Reference: | Part 15.407(a)(1) |
| Test Method Used: | FCC KDB 789033 Section II.E.3.a) Method PM and Notes below |

Environmental Conditions:

| | |
|-------------------------------|----|
| Temperature (°C): | 24 |
| Relative Humidity (%): | 47 |

Note(s):

- Tests were performed with the EUT transmitting at its maximum power control level for the 4' parabolic antenna, the sectorised antenna and the omnidirectional antenna. The EUT was transmitting with >99% duty cycle. Various other antennas can be used and the manufacturer stated that they will reduce the maximum configurable output power by the amount in dB that the directional gain of the antenna exceeds 6 dBi for point-to-multipoint antennas and 23 dBi for point-to-point antennas. The three different types of antenna tested have different conducted output power limits.
- The maximum conducted output power limit for the parabolic antenna (point-to-point) was recalculated as:

$$34.5 \text{ dBi (antenna gain)} - 0.9 \text{ dB (cable loss)} = 33.6 \text{ dBi}$$

$$\text{Gain above 23 dBi} = 10.6 \text{ dB}$$

$$30 \text{ dBm (limit)} - 10.6 \text{ dB} = 19.4 \text{ dBm}$$
 The 30 dBm limit was reduced by 10.6 dB to 19.4 dBm
- The maximum conducted output power limit for the sectorised antenna (point-to-multipoint) was recalculated as:

$$17 \text{ dBi (antenna gain)} - 0.9 \text{ dB (cable loss)} = 16.1 \text{ dBi}$$

$$\text{Gain above 6 dBi} = 10.1 \text{ dB}$$

$$30 \text{ dBm (limit)} - 10.1 \text{ dB} = 19.9 \text{ dBm}$$
 The 30 dBm limit was reduced by 10.1 dB to 19.9 dBm
- The maximum conducted output power limit for the omnidirectional antenna (point-to-multipoint) was recalculated as:

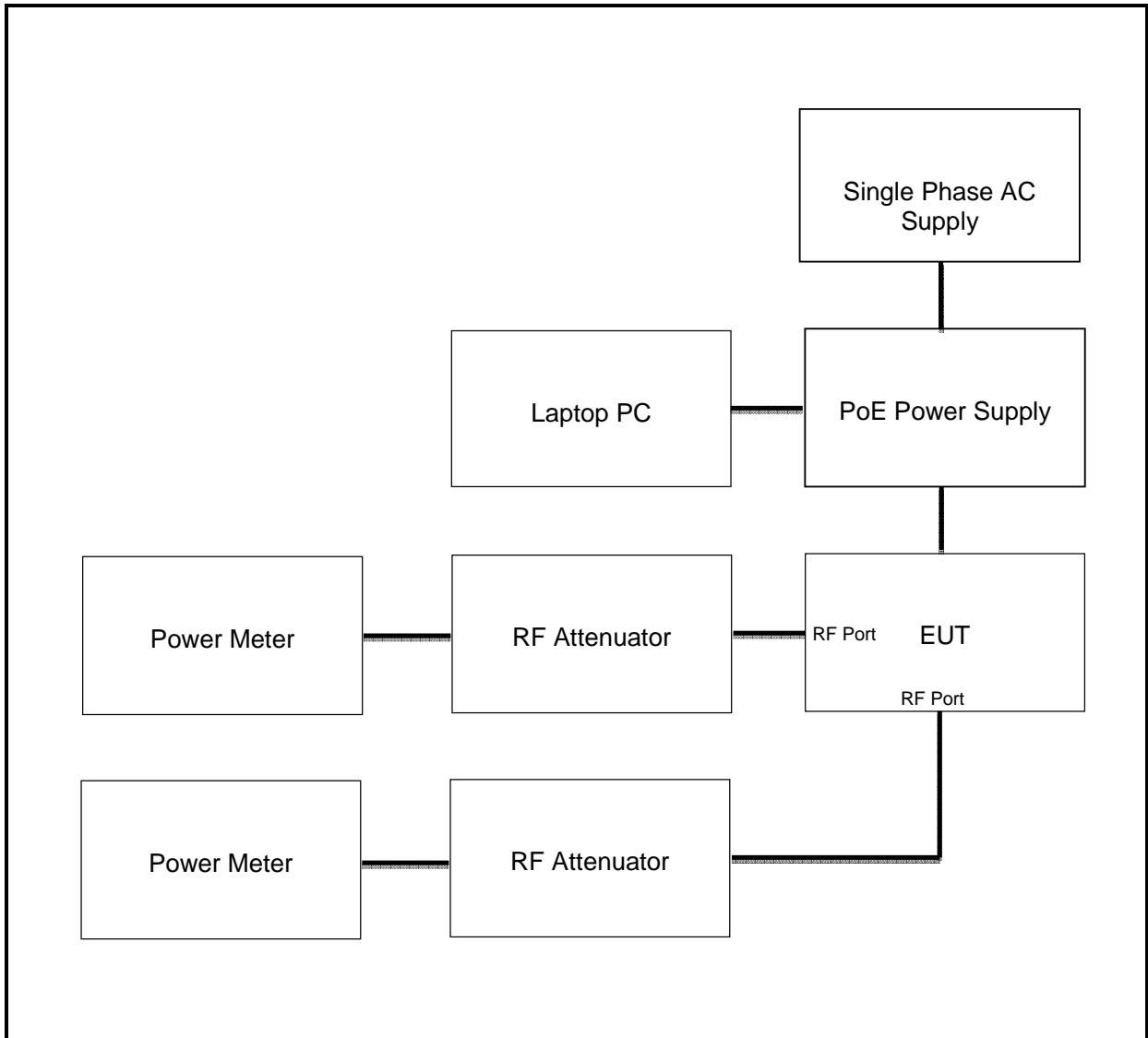
$$13 \text{ dBi (antenna gain)} - 0.9 \text{ dB (cable loss)} = 12.1 \text{ dBi}$$

$$\text{Gain above 6 dBi} = 6.1 \text{ dB}$$

$$30 \text{ dBm (limit)} - 6.1 \text{ dB} = 23.9 \text{ dBm}$$
 The 30 dBm limit was reduced by 6.1 dB to 23.9 dBm
- All supported modes and channel widths were initially investigated on one channel. The mode that produced the highest conducted power was QPSK. Final measurements were performed on the bottom, middle and top channels in all supported channel bandwidths.
- A power meter and associated power sensor were connected to each RF port on the EUT using suitable attenuation. The attenuators were calibrated before use and an RF level offset was entered on the power meters to compensate for the attenuation. The measurement results for both ports were linearly combined and compared to the applicable limit to obtain the margin

Transmitter Maximum Output Power (5.15-5.25 GHz Band) (continued)

Test setup for conducted power measurements:



Transmitter Maximum Output Power (5.15-5.25 GHz Band) (continued)**Results: 5 MHz Channel / QPSK / Parabolic Antenna**

| Channel | Conducted Power A Port (dBm) | Conducted Power B Port (dBm) | Combined Conducted Power (dBm) | Conducted Power Limit (dBm) | Margin (dB) | Result |
|---------|------------------------------|------------------------------|--------------------------------|-----------------------------|-------------|----------|
| Bottom | -5.0 | -5.3 | -2.1 | 19.4 | 21.5 | Complied |
| Middle | 2.2 | 3.4 | 5.9 | 19.4 | 13.5 | Complied |
| Top | 3.2 | 2.8 | 6.0 | 19.4 | 13.4 | Complied |

Results: 5 MHz Channel / QPSK / Sectorised Antenna

| Channel | Conducted Power A Port (dBm) | Conducted Power B Port (dBm) | Combined Conducted Power (dBm) | Conducted Power Limit (dBm) | Margin (dB) | Result |
|---------|------------------------------|------------------------------|--------------------------------|-----------------------------|-------------|----------|
| Bottom | 4.6 | 4.4 | 7.5 | 19.9 | 12.4 | Complied |
| Middle | 9.7 | 9.1 | 12.4 | 19.9 | 7.5 | Complied |
| Top | 9.1 | 8.9 | 12.0 | 19.9 | 7.9 | Complied |

Results: 5 MHz Channel / QPSK / Omnidirectional Antenna

| Channel | Conducted Power A Port (dBm) | Conducted Power B Port (dBm) | Combined Conducted Power (dBm) | Conducted Power Limit (dBm) | Margin (dB) | Result |
|---------|------------------------------|------------------------------|--------------------------------|-----------------------------|-------------|----------|
| Bottom | 13.0 | 12.8 | 15.9 | 23.9 | 8.0 | Complied |
| Middle | 13.7 | 12.7 | 16.2 | 23.9 | 7.7 | Complied |
| Top | 13.1 | 12.9 | 16.0 | 23.9 | 7.9 | Complied |

Transmitter Maximum Output Power (5.15-5.25 GHz Band) (continued)**Results: 10 MHz Channel / QPSK / Parabolic Antenna**

| Channel | Conducted Power A Port (dBm) | Conducted Power B Port (dBm) | Combined Conducted Power (dBm) | Conducted Power Limit (dBm) | Margin (dB) | Result |
|---------|------------------------------|------------------------------|--------------------------------|-----------------------------|-------------|----------|
| Bottom | -1.1 | -0.9 | 2.0 | 19.4 | 17.4 | Complied |
| Middle | 6.0 | 5.4 | 8.7 | 19.4 | 10.7 | Complied |
| Top | 5.7 | 5.5 | 8.6 | 19.4 | 10.8 | Complied |

Results: 10 MHz Channel / QPSK / Sectorised Antenna

| Channel | Conducted Power A Port (dBm) | Conducted Power B Port (dBm) | Combined Conducted Power (dBm) | Conducted Power Limit (dBm) | Margin (dB) | Result |
|---------|------------------------------|------------------------------|--------------------------------|-----------------------------|-------------|----------|
| Bottom | 4.6 | 4.4 | 7.5 | 19.9 | 12.4 | Complied |
| Middle | 9.7 | 9.1 | 12.4 | 19.9 | 7.5 | Complied |
| Top | 9.1 | 8.9 | 12.0 | 19.9 | 7.9 | Complied |

Results: 10 MHz Channel / QPSK / Omnidirectional Antenna

| Channel | Conducted Power A Port (dBm) | Conducted Power B Port (dBm) | Combined Conducted Power (dBm) | Conducted Power Limit (dBm) | Margin (dB) | Result |
|---------|------------------------------|------------------------------|--------------------------------|-----------------------------|-------------|----------|
| Bottom | 13.0 | 12.8 | 15.9 | 23.9 | 8.0 | Complied |
| Middle | 13.7 | 12.7 | 16.2 | 23.9 | 7.7 | Complied |
| Top | 13.1 | 12.9 | 16.0 | 23.9 | 7.9 | Complied |

Transmitter Maximum Output Power (5.15-5.25 GHz Band) (continued)**Results: 20 MHz Channel / QPSK / Parabolic Antenna**

| Channel | Conducted Power A Port (dBm) | Conducted Power B Port (dBm) | Combined Conducted Power (dBm) | Conducted Power Limit (dBm) | Margin (dB) | Result |
|---------|------------------------------|------------------------------|--------------------------------|-----------------------------|-------------|----------|
| Bottom | 0.4 | -1.0 | 2.8 | 19.4 | 16.6 | Complied |
| Middle | 6.5 | 5.7 | 9.1 | 19.4 | 10.3 | Complied |
| Top | 6.7 | 6.0 | 9.4 | 19.4 | 10.0 | Complied |

Results: 20 MHz Channel / QPSK / Sectorised Antenna

| Channel | Conducted Power A Port (dBm) | Conducted Power B Port (dBm) | Combined Conducted Power (dBm) | Conducted Power Limit (dBm) | Margin (dB) | Result |
|---------|------------------------------|------------------------------|--------------------------------|-----------------------------|-------------|----------|
| Bottom | 6.8 | 6.4 | 9.6 | 19.9 | 10.3 | Complied |
| Middle | 13.0 | 12.0 | 15.5 | 19.9 | 4.4 | Complied |
| Top | 12.5 | 12.0 | 15.3 | 19.9 | 4.6 | Complied |

Results: 20 MHz Channel / QPSK / Omnidirectional Antenna

| Channel | Conducted Power A Port (dBm) | Conducted Power B Port (dBm) | Combined Conducted Power (dBm) | Conducted Power Limit (dBm) | Margin (dB) | Result |
|---------|------------------------------|------------------------------|--------------------------------|-----------------------------|-------------|----------|
| Bottom | 14.5 | 13.9 | 17.2 | 23.9 | 6.7 | Complied |
| Middle | 19.4 | 18.4 | 21.9 | 23.9 | 2.0 | Complied |
| Top | 18.5 | 17.8 | 21.2 | 23.9 | 2.7 | Complied |

Transmitter Maximum Output Power (5.15-5.25 GHz Band) (continued)**Results: 40 MHz Channel / QPSK / Parabolic Antenna**

| Channel | Conducted Power A Port (dBm) | Conducted Power B Port (dBm) | Combined Conducted Power (dBm) | Conducted Power Limit (dBm) | Margin (dB) | Result |
|---------|------------------------------|------------------------------|--------------------------------|-----------------------------|-------------|----------|
| Bottom | 0.2 | -1.2 | 2.6 | 19.4 | 16.8 | Complied |
| Middle | 8.0 | 7.4 | 10.7 | 19.4 | 8.7 | Complied |
| Top | 8.0 | 7.3 | 10.7 | 19.4 | 8.7 | Complied |

Results: 40 MHz Channel / QPSK / Sectorised Antenna

| Channel | Conducted Power A Port (dBm) | Conducted Power B Port (dBm) | Combined Conducted Power (dBm) | Conducted Power Limit (dBm) | Margin (dB) | Result |
|---------|------------------------------|------------------------------|--------------------------------|-----------------------------|-------------|----------|
| Bottom | 7.0 | 6.2 | 9.6 | 19.9 | 10.3 | Complied |
| Middle | 12.8 | 12.0 | 15.4 | 19.9 | 4.5 | Complied |
| Top | 12.8 | 12.0 | 15.4 | 19.9 | 4.5 | Complied |

Results: 40 MHz Channel / QPSK / Omnidirectional Antenna

| Channel | Conducted Power A Port (dBm) | Conducted Power B Port (dBm) | Combined Conducted Power (dBm) | Conducted Power Limit (dBm) | Margin (dB) | Result |
|---------|------------------------------|------------------------------|--------------------------------|-----------------------------|-------------|----------|
| Bottom | 13.7 | 13.0 | 16.4 | 23.9 | 7.5 | Complied |
| Middle | 19.7 | 18.7 | 22.2 | 23.9 | 1.7 | Complied |
| Top | 19.4 | 18.7 | 22.1 | 23.9 | 1.8 | Complied |

Transmitter Maximum Output Power (5.15-5.25 GHz Band) (continued)**Test Equipment Used:**

| Asset No. | Instrument | Manufacturer | Type No. | Serial No. | Date Calibration Due | Cal. Interval (Months) |
|-----------|------------------|-----------------|------------|-------------|-----------------------|------------------------|
| M1630 | Test Receiver | Rohde & Schwarz | ESU40 | 100233 | 20 Feb 2016 | 12 |
| M1435 | Power Meter | Hewlett Packard | 437B | 3125U14631 | 24 Apr 2016 | 12 |
| M1009 | Power Meter | Hewlett Packard | 437B | 3125U13706 | 27 Jan 2016 | 12 |
| M1592 | Power Sensor | Hewlett Packard | 8487A | 3318A02094 | 17 Sep 2015 | 12 |
| M1175 | Power Sensor | Hewlett Packard | 8485A | 2942A10299 | 11 Feb 2016 | 12 |
| A2142 | Attenuator | AtlanTecRF | AN18-20 | 081120-23 | Calibrated Before Use | N/A |
| A2506 | Attenuator | AtlanTecRF | AN18-10 | 821846#1 | Calibrated Before Use | N/A |
| A2140 | Attenuator | AtlanTecRF | AN18-10 | 090918-14 | Calibrated Before Use | N/A |
| M1252 | Signal Generator | Hewlett Packard | 83640A | 3119A00489 | 24 Oct 2015 | 24 |
| M1785 | Thermohygrometer | JM Handelspunkt | 30.5015.13 | None stated | 23 Apr 2016 | 12 |

5.2.4. Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band)**Test Summary:**

| | | | |
|-----------------------------------|-----------------|--------------------|---------------------------------|
| Test Engineer: | Georgios Vrezas | Test Dates: | 02 July 2015 to 06 July 2015 |
| Test Sample Serial Number: | F50980BB016F | | |

| | |
|--------------------------|---|
| FCC Reference: | Part 15.407(a)(1) |
| Test Method Used: | FCC KDB 789033 II.F referencing KDB 789033 II.E.2.b Method SA-1 and Notes below |

Environmental Conditions:

| | |
|-------------------------------|----------|
| Temperature (°C): | 23 to 25 |
| Relative Humidity (%): | 47 to 50 |

Note(s):

- Tests were performed with the EUT transmitting at its maximum power control level for the 4' parabolic antenna, the sectorised antenna and the omnidirectional antenna. The EUT was transmitting with >99% duty cycle. Various other antennas can be used and the manufacturer will reduce the maximum configurable output power by the amount in dB that the directional gain of the antenna exceeds 6 dBi for point-to-multipoint antennas and 23 dBi for point-to-point antennas. The three different types of antenna tested have different PSD limits.

- The maximum power spectral density limit for the parabolic antenna (highest gain, point-to-point) was recalculated as:

$$34.5 \text{ dBi (antenna gain)} - 0.9 \text{ dB (cable loss)} = 33.6 \text{ dBi}$$

$$\text{Gain above 23 dBi} = 10.6 \text{ dB}$$

$$17 \text{ dBm/MHz (limit)} - 10.6 \text{ dB} = 6.4 \text{ dBm/MHz}$$

The 17 dBm/MHz PSD limit was reduced by 10.6 dB to 6.4 dBm/MHz

- The maximum power spectral density limit for the sectorised antenna (point-to-multipoint) was recalculated as:

$$17 \text{ dBi (antenna gain)} - 0.9 \text{ dB (cable loss)} = 16.1 \text{ dBi}$$

$$\text{Gain above 6 dBi} = 10.1 \text{ dB}$$

$$17 \text{ dBm/MHz (limit)} - 10.1 \text{ dB} = 6.9 \text{ dBm/MHz}$$

The 17 dBm/MHz PSD limit was reduced by 10.1 dB to 6.9 dBm/MHz

- The maximum power spectral density limit for the omnidirectional antenna (point-to-multipoint) was recalculated as:

$$13 \text{ dBi (antenna gain)} - 0.9 \text{ dB (cable loss)} = 12.1 \text{ dBi}$$

$$\text{Gain above 6 dBi} = 6.1 \text{ dB}$$

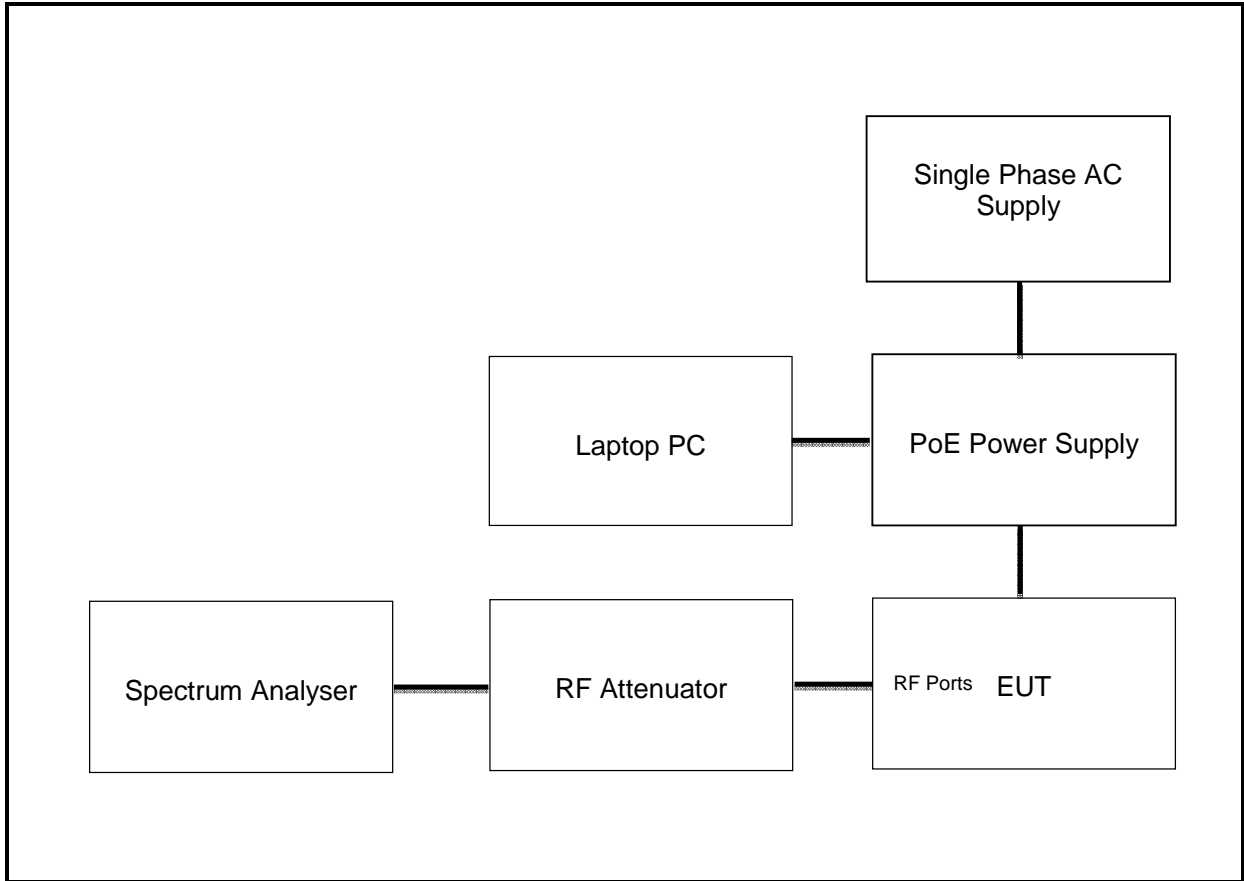
$$17 \text{ dBm/MHz (limit)} - 6.1 \text{ dB} = 10.9 \text{ dBm/MHz}$$

The 17 dBm/MHz PSD limit was reduced by 6.1 dB to 10.9 dBm/MHz

- All supported modes and channel widths were initially investigated on one channel. Final measurements were performed using the worst case modulation type for each modulation family on the bottom, middle and top channels in all supported channel bandwidths. Maximum power spectral density was measured on both RF ports. The results were linearly combined and compared to the limit to obtain the margin.
- The spectrum analyser was connected to each RF port on the EUT using suitable attenuation and RF cable. An RF level offset was entered on the spectrum analyser to compensate for the loss of the attenuator and RF cable.

Transmitter Maximum Power Spectral Density (continued)

Test setup for power spectral density measurements:

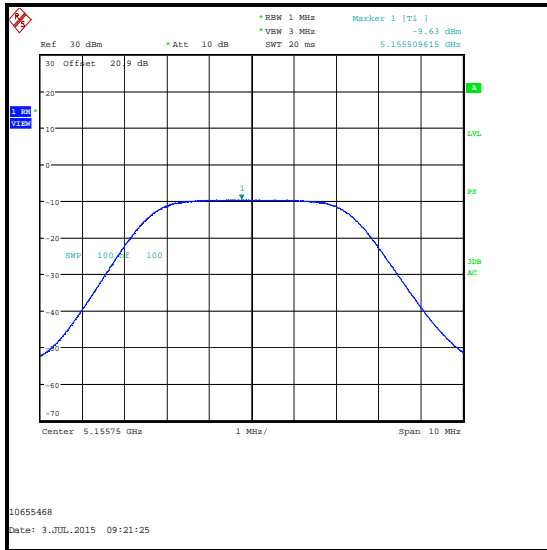


Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

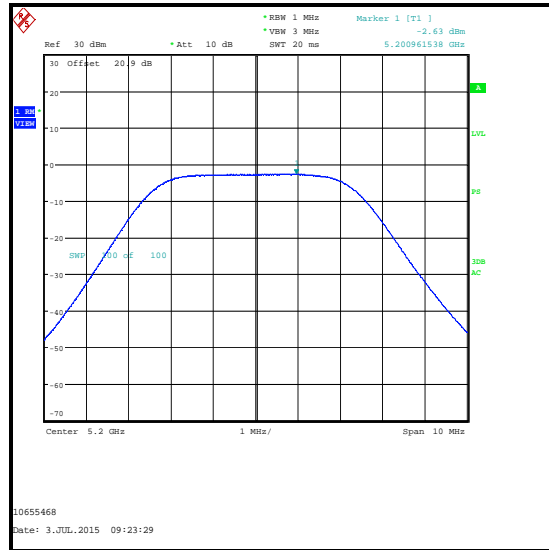
Results: Parabolic Antenna / 5 MHz Channel / QPSK

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | -9.6 | -9.0 | -6.3 | 6.4 | 12.7 | Complied |
| Middle | -2.6 | -3.0 | 0.2 | 6.4 | 6.2 | Complied |
| Top | -2.3 | -2.4 | 0.7 | 6.4 | 5.7 | Complied |

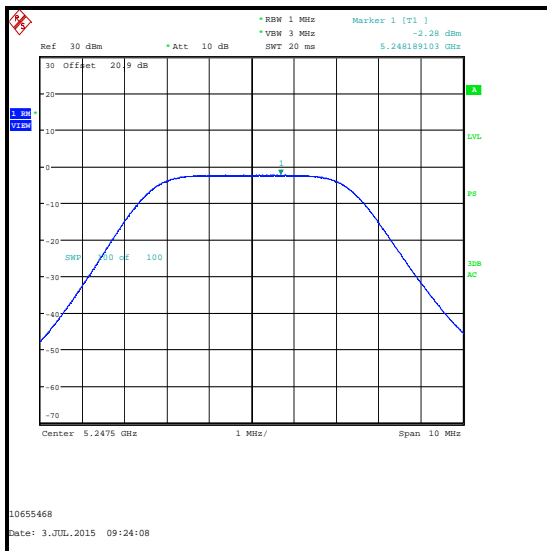
A Port



Bottom Channel



Middle Channel

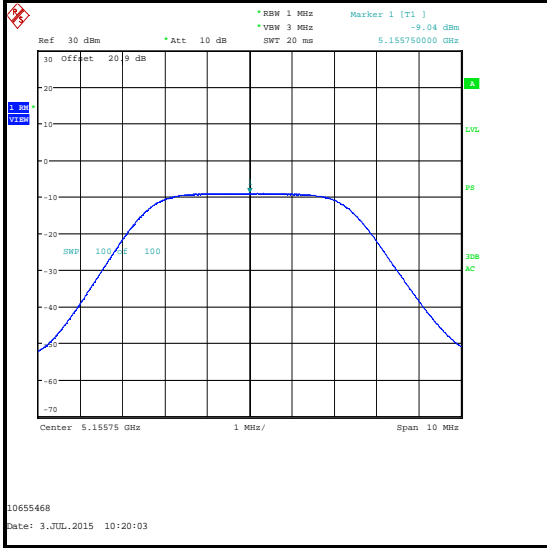


Top Channel

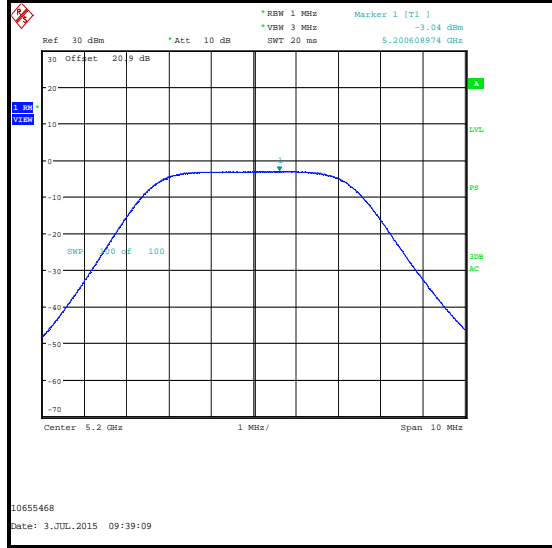
Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Parabolic Antenna / 5 MHz Channel / QPSK

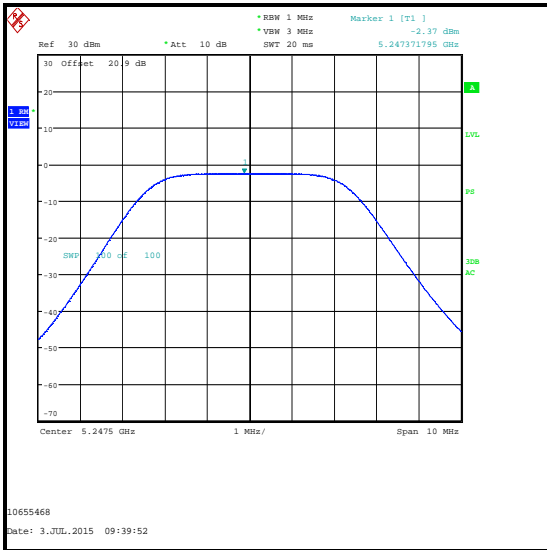
B Port



Bottom Channel



Middle Channel



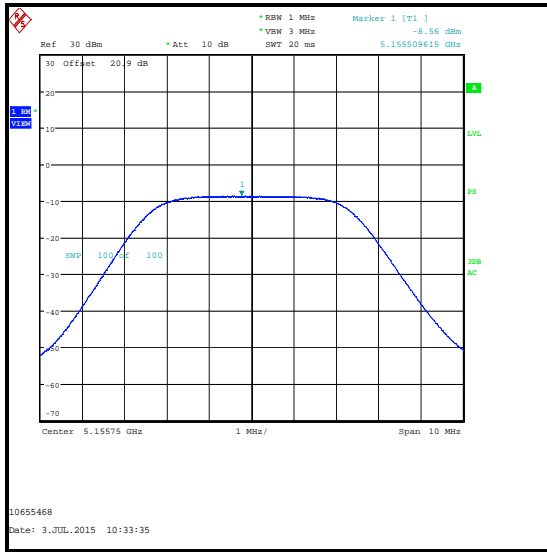
Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

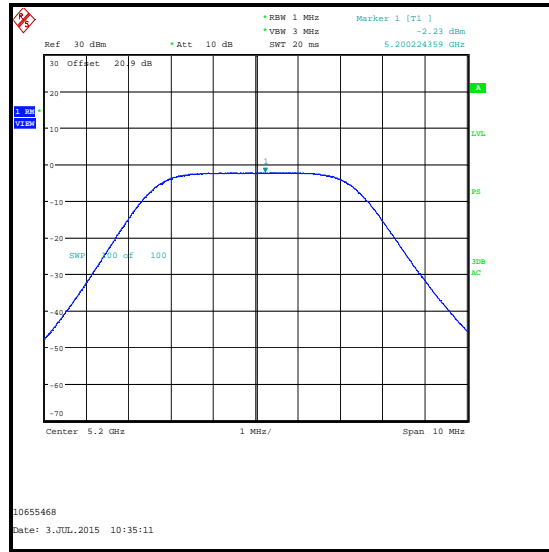
Results: Parabolic Antenna / 5 MHz Channel / 256QAM

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | -8.6 | -9.0 | -5.8 | 6.4 | 12.2 | Complied |
| Middle | -2.2 | -2.9 | 0.5 | 6.4 | 5.9 | Complied |
| Top | -2.1 | -2.0 | 1.0 | 6.4 | 5.4 | Complied |

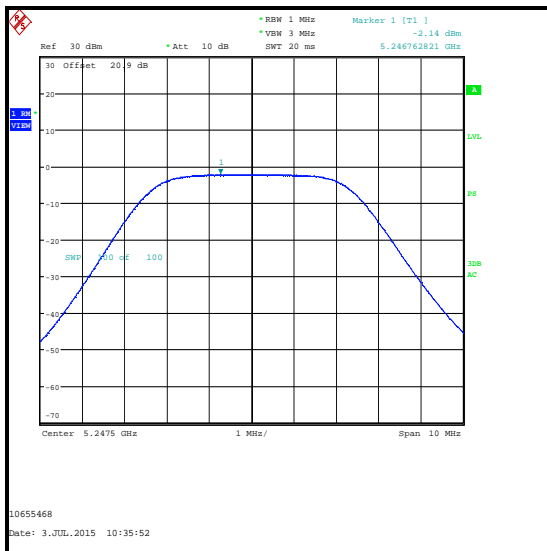
A Port



Bottom Channel



Middle Channel

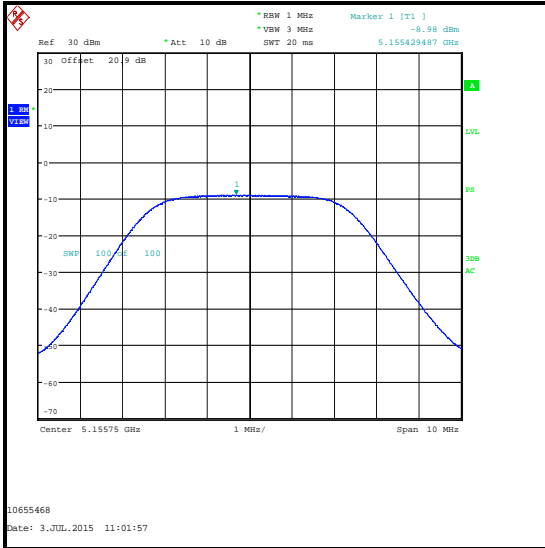


Top Channel

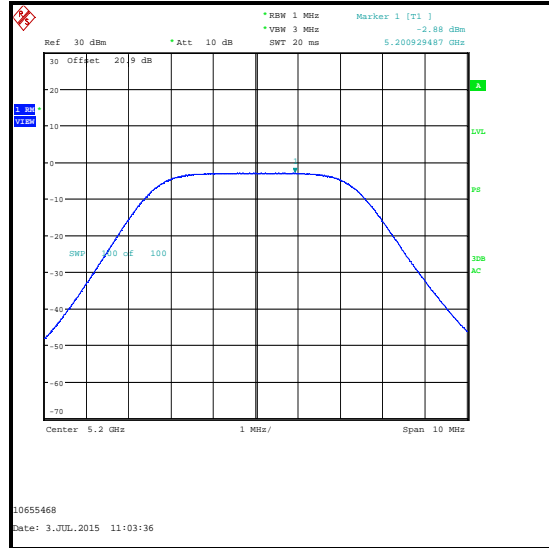
Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Parabolic Antenna / 5 MHz Channel / 256QAM

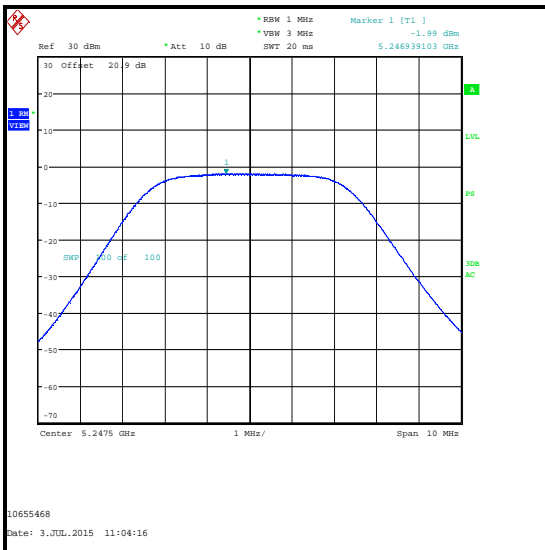
B Port



Bottom Channel



Middle Channel



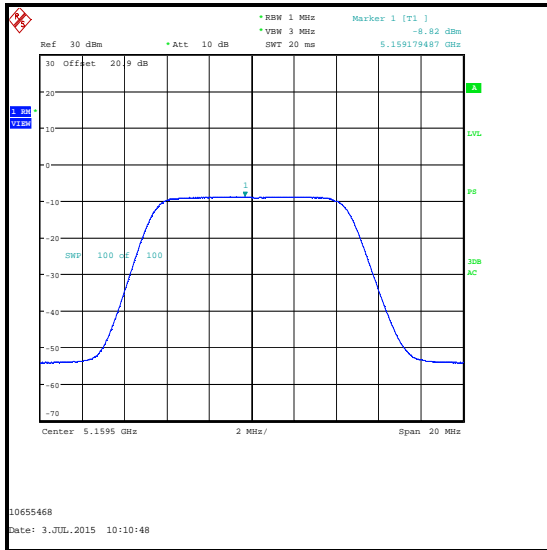
Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

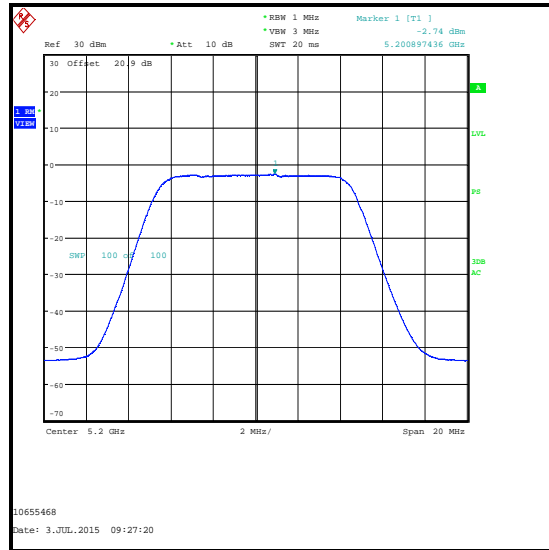
Results: Parabolic Antenna / 10 MHz Channel / QPSK

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | -8.8 | -9.3 | -6.0 | 6.4 | 12.4 | Complied |
| Middle | -2.7 | -3.0 | 0.2 | 6.4 | 6.2 | Complied |
| Top | -2.5 | -2.3 | 0.6 | 6.4 | 5.8 | Complied |

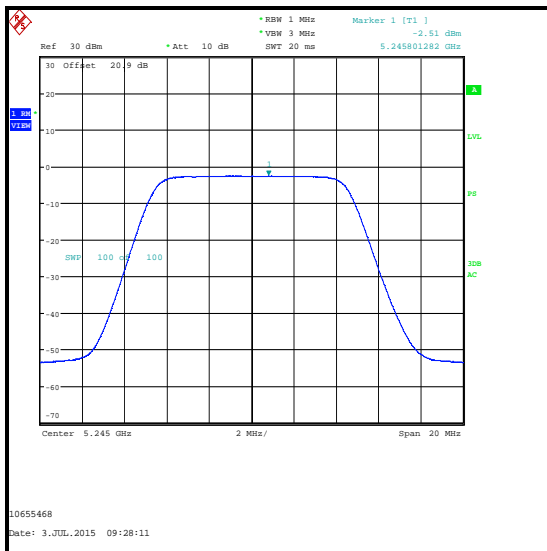
A Port



Bottom Channel



Middle Channel

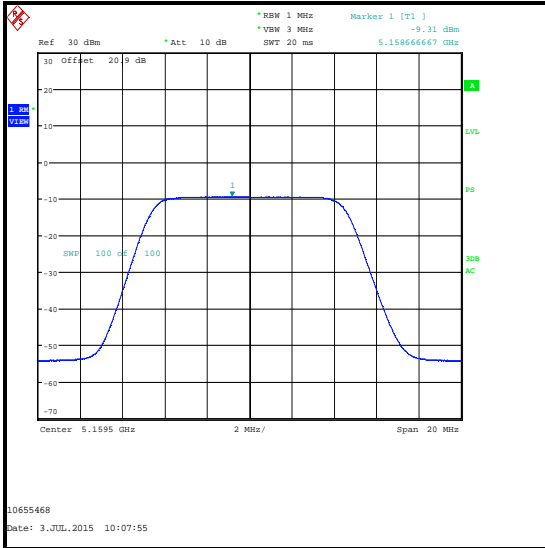


Top Channel

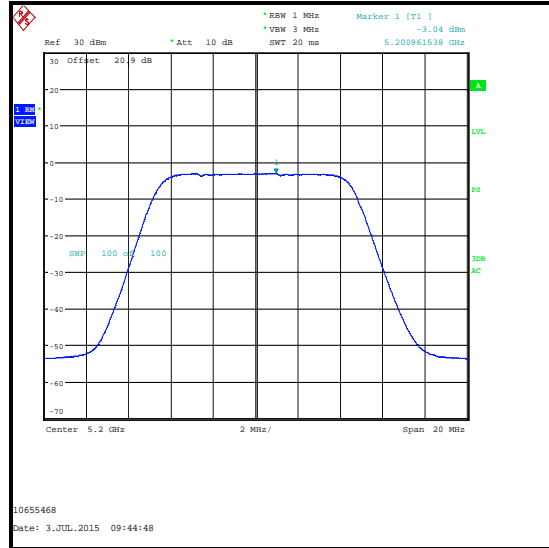
Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Parabolic Antenna / 10 MHz Channel / QPSK

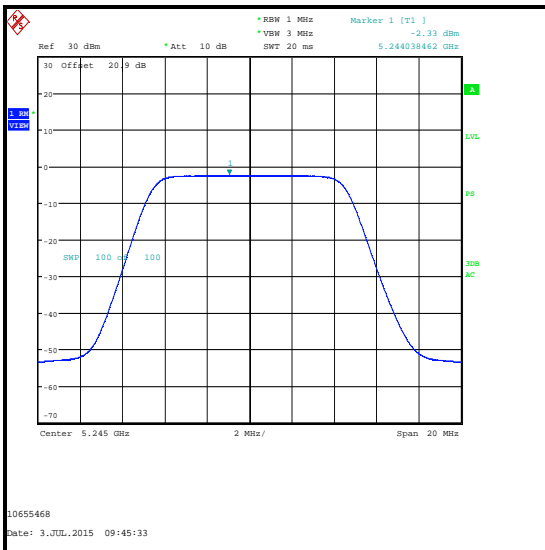
B Port



Bottom Channel



Middle Channel



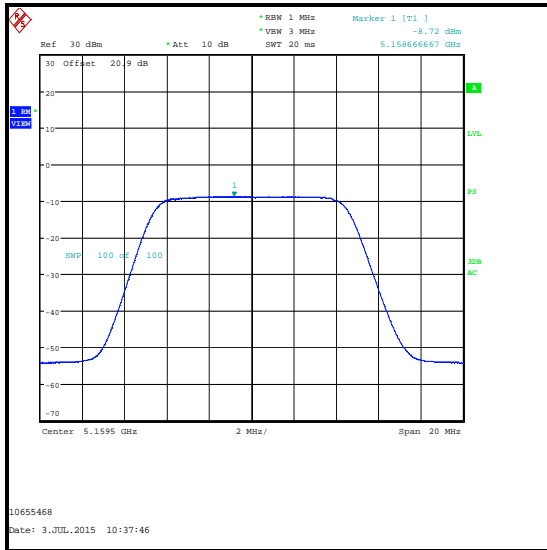
Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

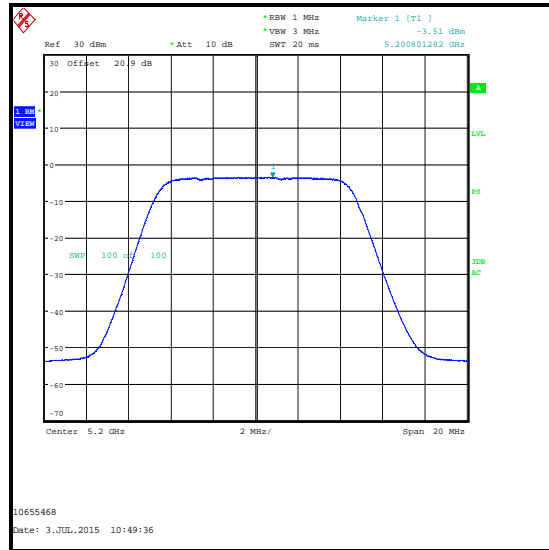
Results: Parabolic Antenna / 10 MHz Channel / 256QAM

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | -8.7 | -8.7 | -5.7 | 6.4 | 12.1 | Complied |
| Middle | -3.5 | -3.2 | -0.3 | 6.4 | 6.7 | Complied |
| Top | -2.4 | -2.8 | 0.4 | 6.4 | 6.0 | Complied |

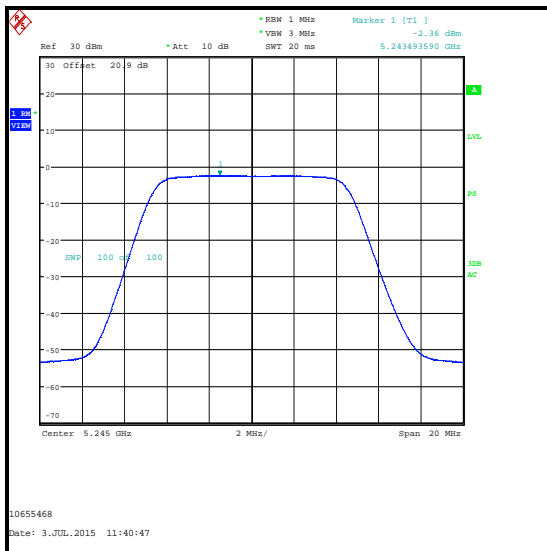
A Port



Bottom Channel



Middle Channel

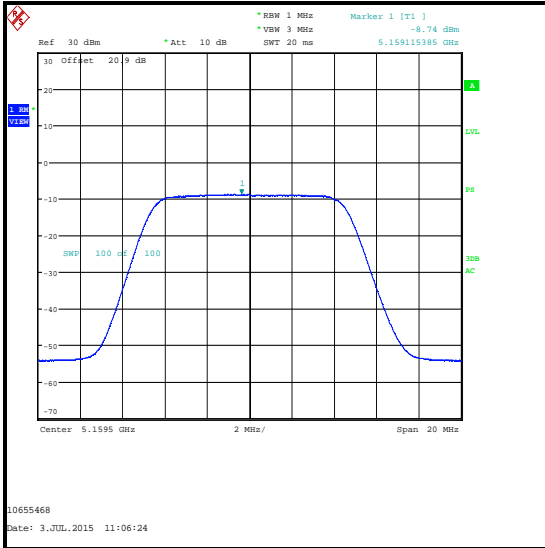


Top Channel

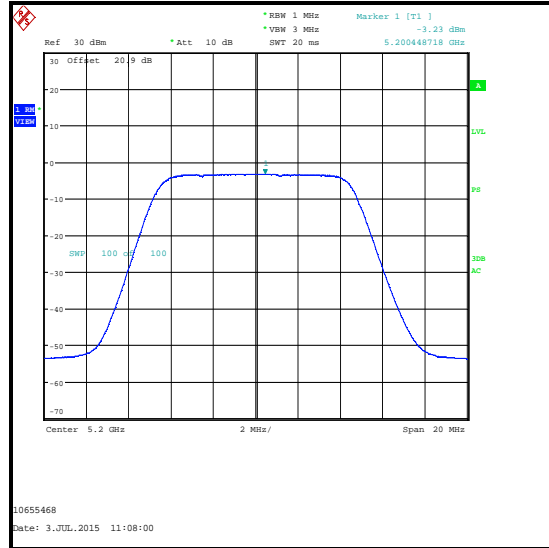
Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Parabolic Antenna / 10 MHz Channel / 256QAM

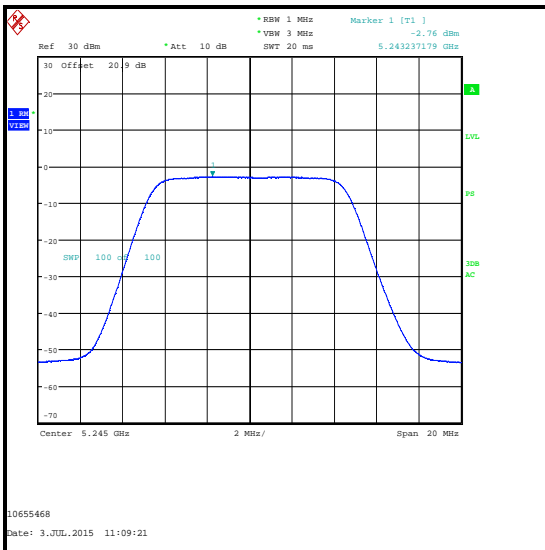
B Port



Bottom Channel



Middle Channel



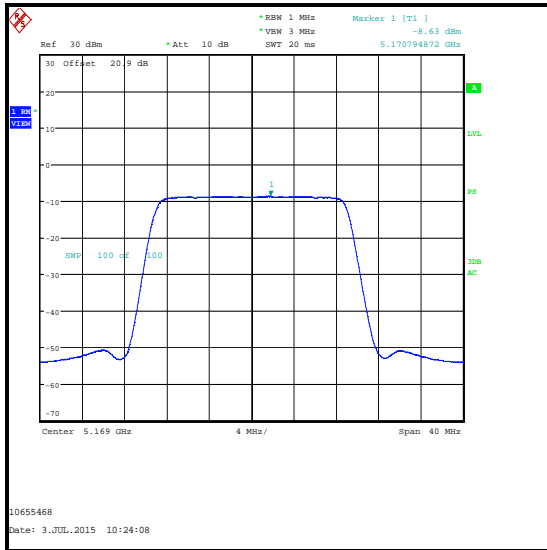
Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Parabolic Antenna / 20 MHz Channel / QPSK

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | -8.6 | -9.7 | -6.1 | 6.4 | 12.5 | Complied |
| Middle | -4.7 | -5.9 | -2.2 | 6.4 | 8.6 | Complied |
| Top | -5.1 | -5.3 | -2.2 | 6.4 | 8.6 | Complied |

A Port



Bottom Channel



Middle Channel



Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Parabolic Antenna / 20 MHz Channel / QPSK

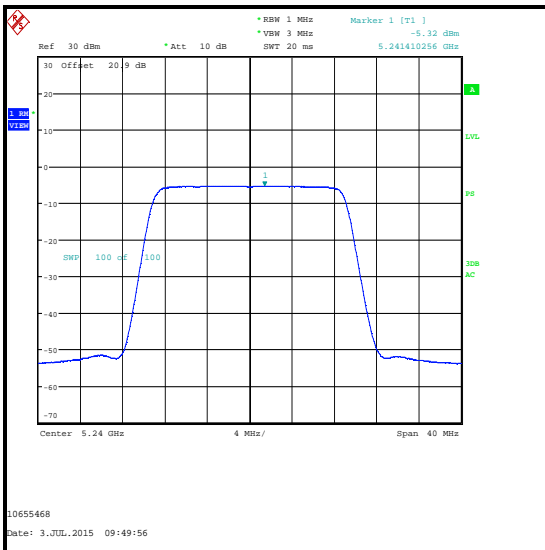
B Port



Bottom Channel



Middle Channel



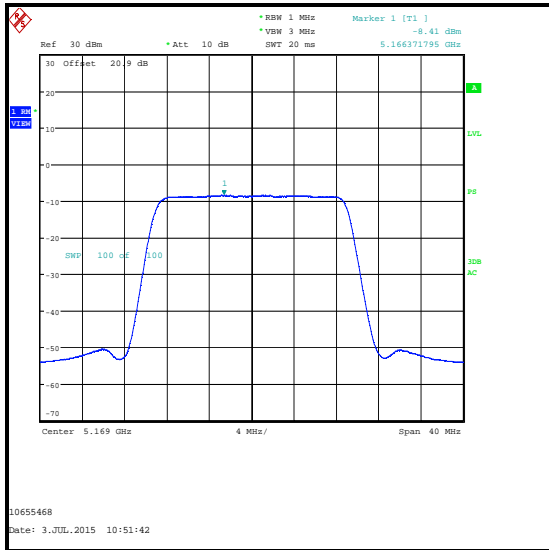
Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

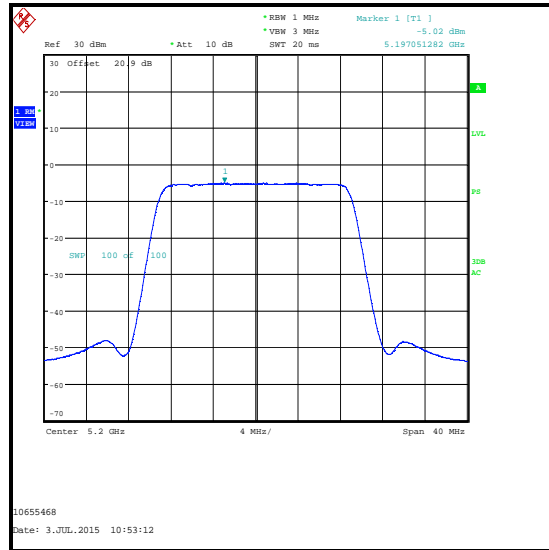
Results: Parabolic Antenna / 20 MHz Channel / 256QAM

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | -8.4 | -10.0 | -6.1 | 6.4 | 12.5 | Complied |
| Middle | -5.0 | -5.3 | -2.1 | 6.4 | 8.5 | Complied |
| Top | -4.9 | -4.8 | -1.8 | 6.4 | 8.2 | Complied |

A Port



Bottom Channel



Middle Channel

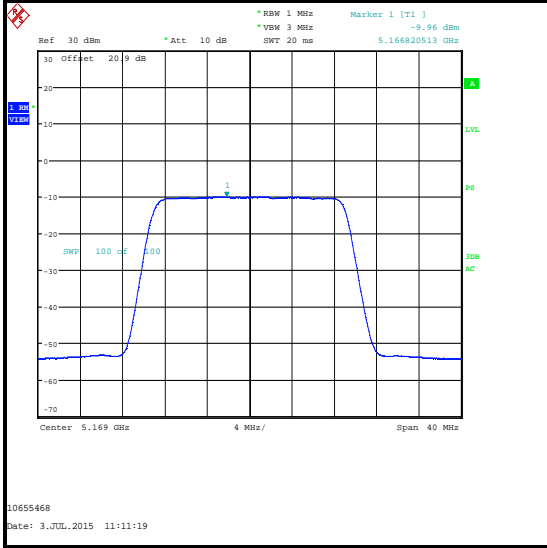


Top Channel

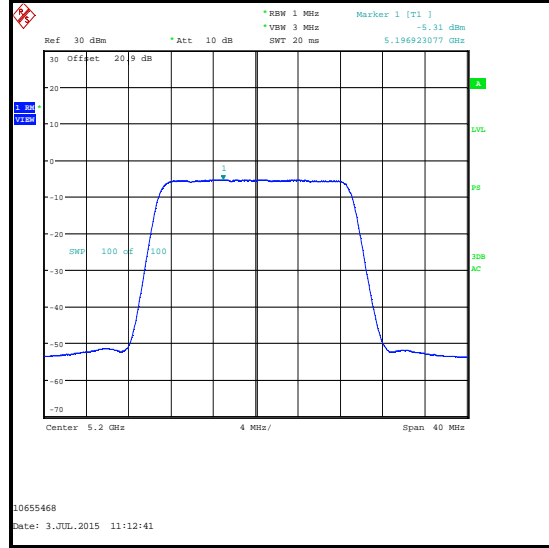
Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Parabolic Antenna / 20 MHz Channel / 256QAM

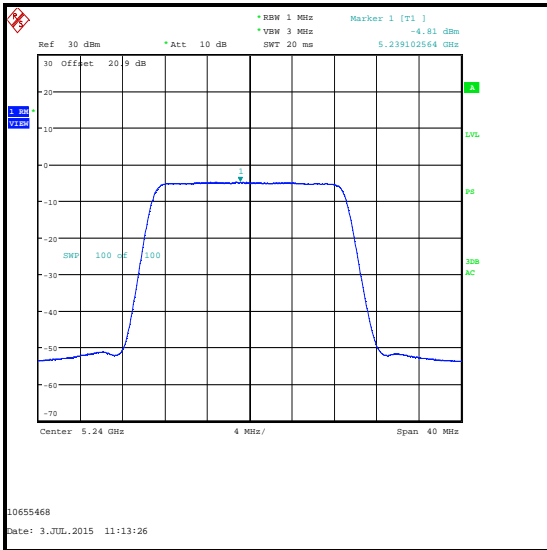
B Port



Bottom Channel



Middle Channel



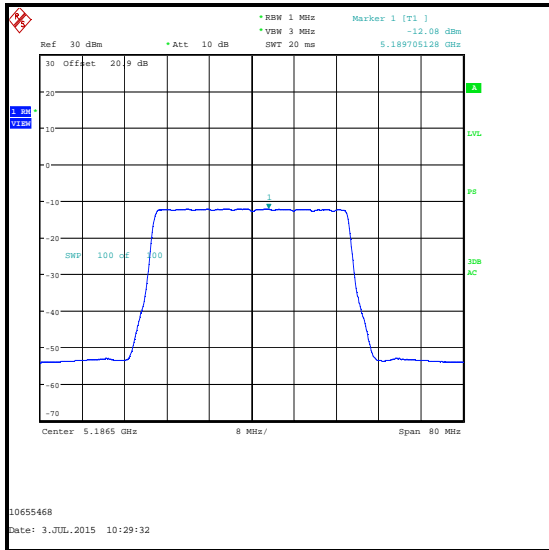
Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

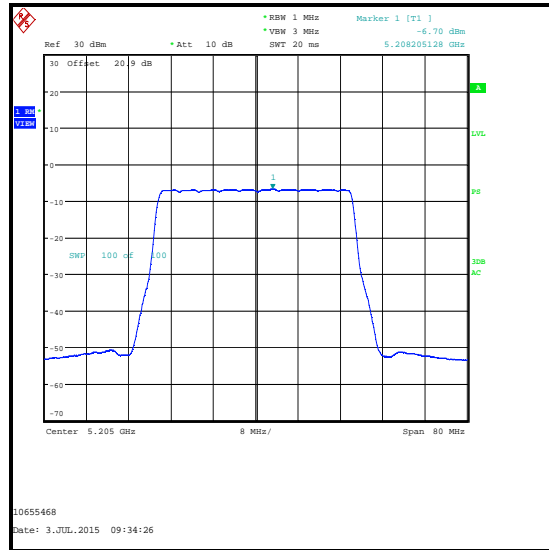
Results: Parabolic Antenna / 40 MHz Channel / QPSK

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | -12.1 | -13.0 | -9.5 | 6.4 | 15.9 | Complied |
| Middle | -6.7 | -7.3 | -4.0 | 6.4 | 10.4 | Complied |
| Top | -6.4 | -6.8 | -3.6 | 6.4 | 10.0 | Complied |

A Port



Bottom Channel



Middle Channel



Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Parabolic Antenna / 40 MHz Channel / QPSK

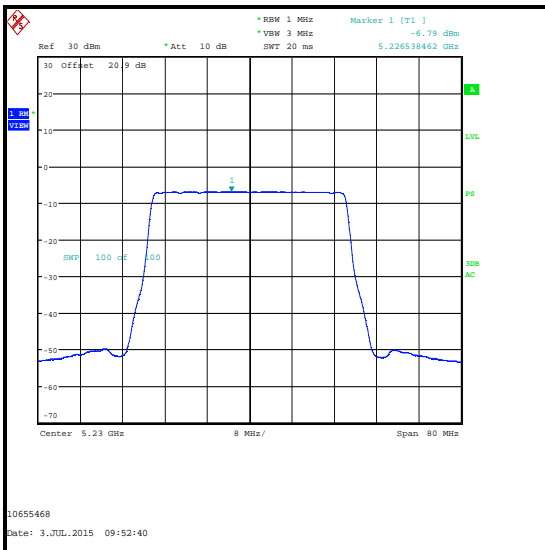
B Port



Bottom Channel



Middle Channel



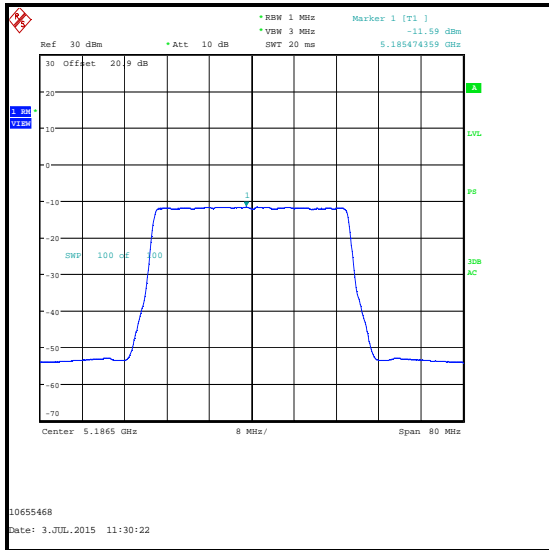
Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

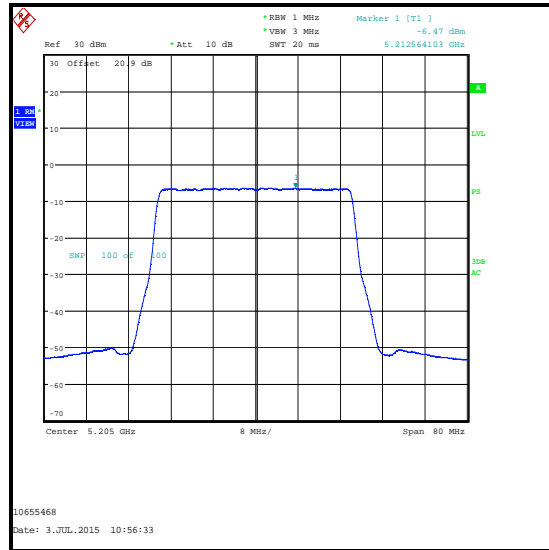
Results: Parabolic Antenna / 40 MHz Channel / 256QAM

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | -11.6 | -12.6 | -9.1 | 6.4 | 15.5 | Complied |
| Middle | -6.5 | -6.7 | -3.6 | 6.4 | 10.0 | Complied |
| Top | -6.5 | -6.9 | -3.7 | 6.4 | 10.1 | Complied |

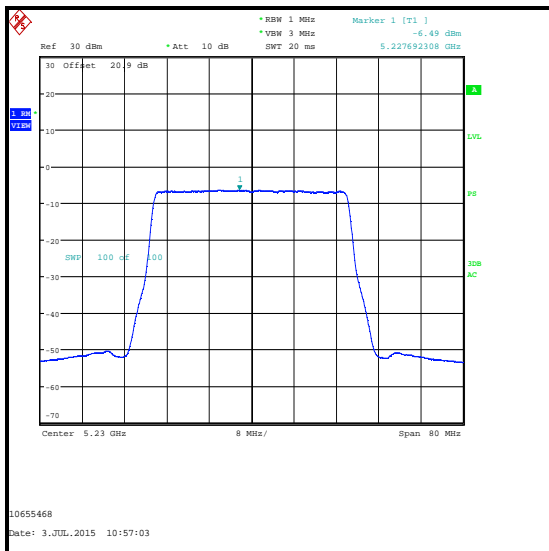
A Port



Bottom Channel



Middle Channel



Top Channel

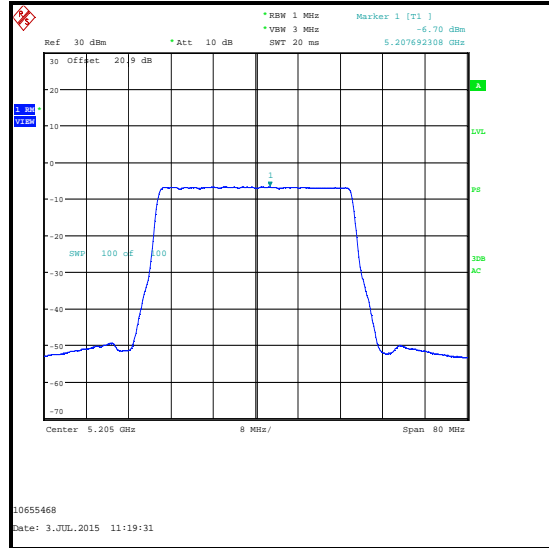
Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Parabolic Antenna / 40 MHz Channel / 256QAM

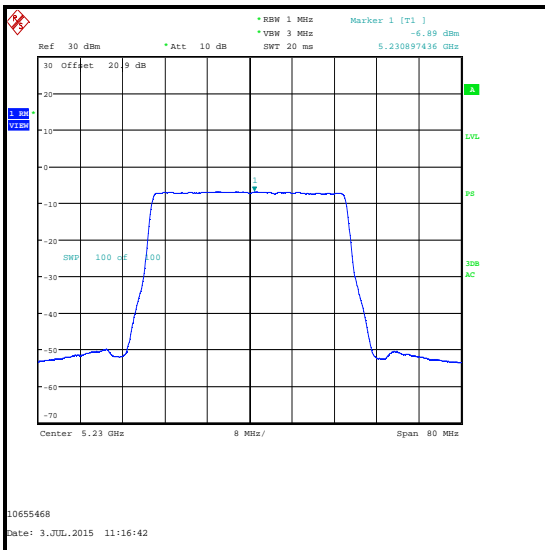
B Port



Bottom Channel



Middle Channel



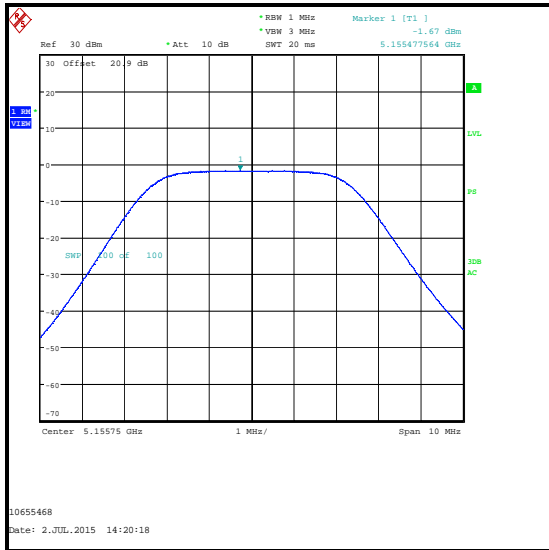
Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

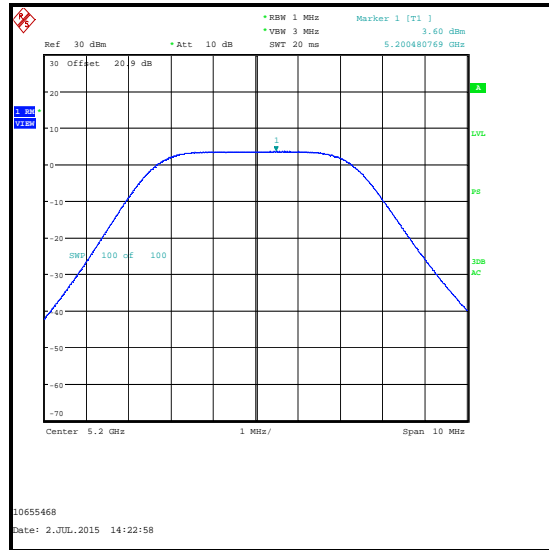
Results: Sectorised Antenna / 5 MHz Channel / QPSK

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | -1.7 | -1.6 | 1.4 | 6.9 | 5.5 | Complied |
| Middle | 3.6 | 3.0 | 6.3 | 6.9 | 0.6 | Complied |
| Top | 3.4 | 3.4 | 6.4 | 6.9 | 0.5 | Complied |

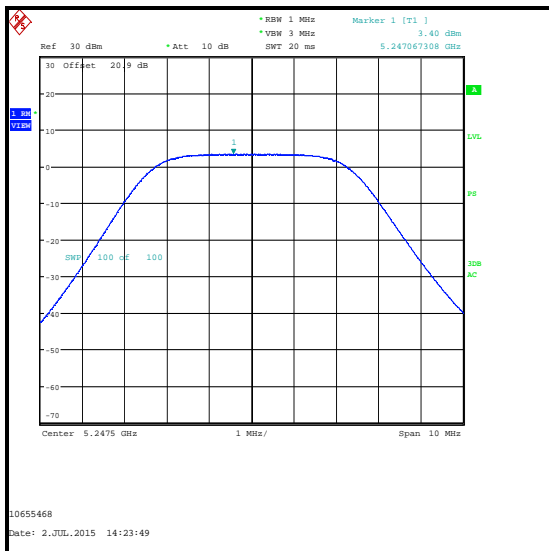
A Port



Bottom Channel



Middle Channel

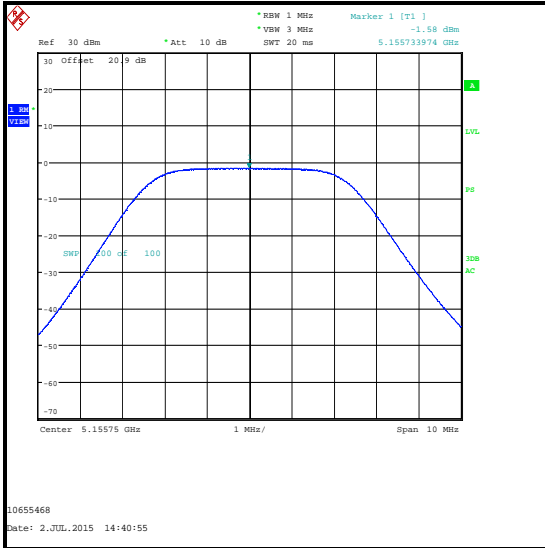


Top Channel

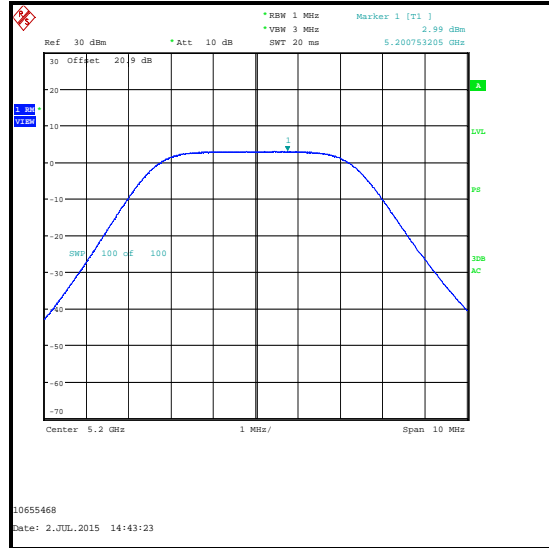
Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Sectorised Antenna / 5 MHz Channel / QPSK

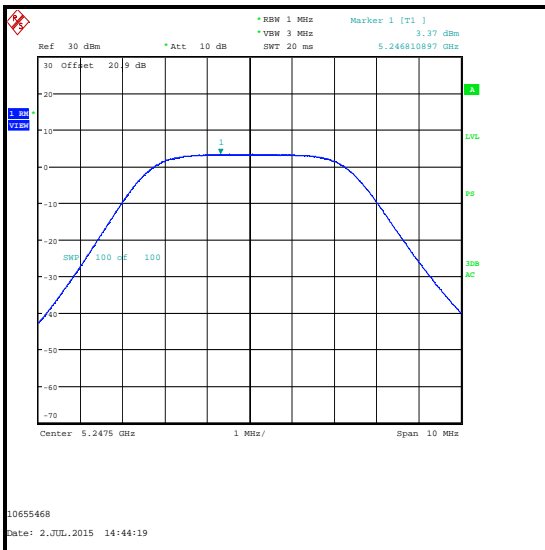
B Port



Bottom Channel



Middle Channel



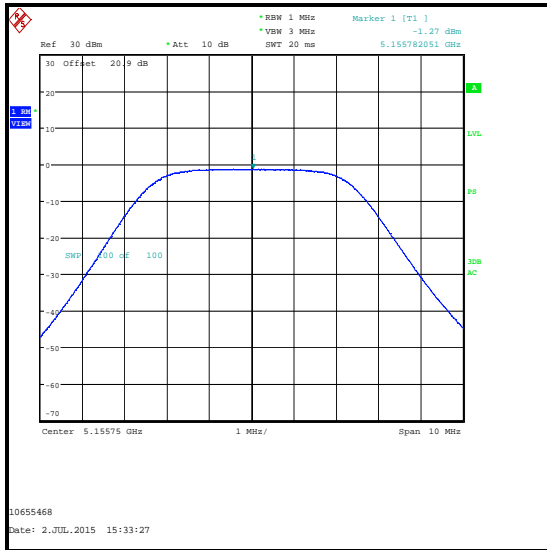
Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

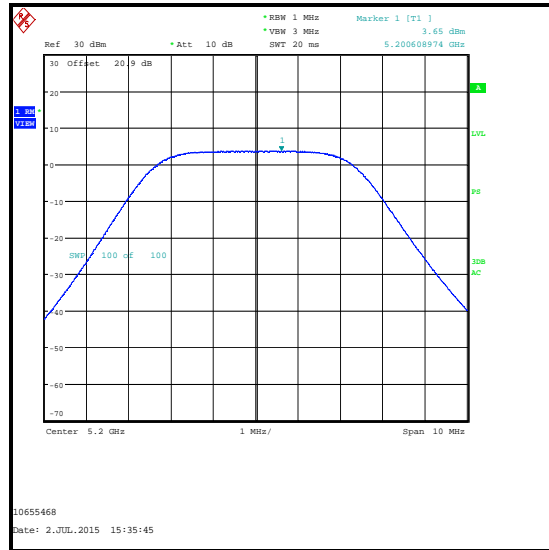
Results: Sectorised Antenna / 5 MHz Channel / 256QAM

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | -1.3 | -1.6 | 1.6 | 6.9 | 5.3 | Complied |
| Middle | 3.7 | 2.7 | 6.2 | 6.9 | 0.7 | Complied |
| Top | 3.7 | 3.3 | 6.5 | 6.9 | 0.4 | Complied |

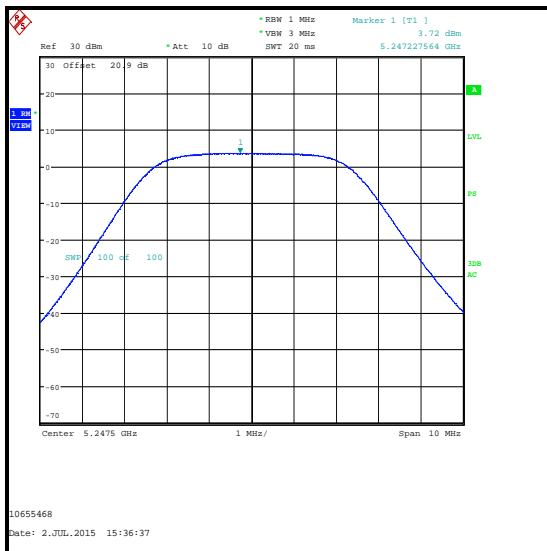
A Port



Bottom Channel



Middle Channel



Top Channel

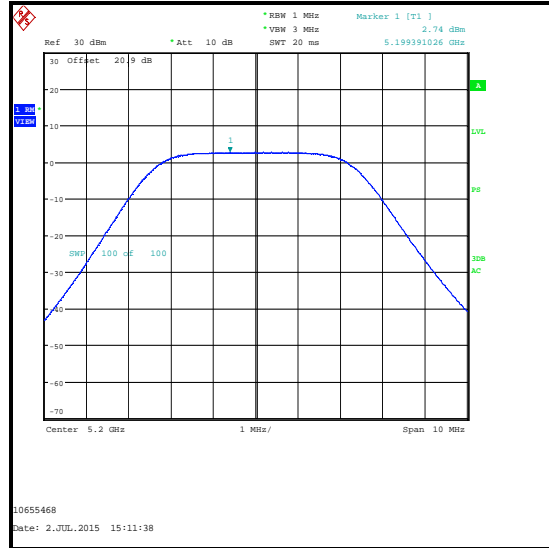
Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Sectorised Antenna / 5 MHz Channel / 256QAM

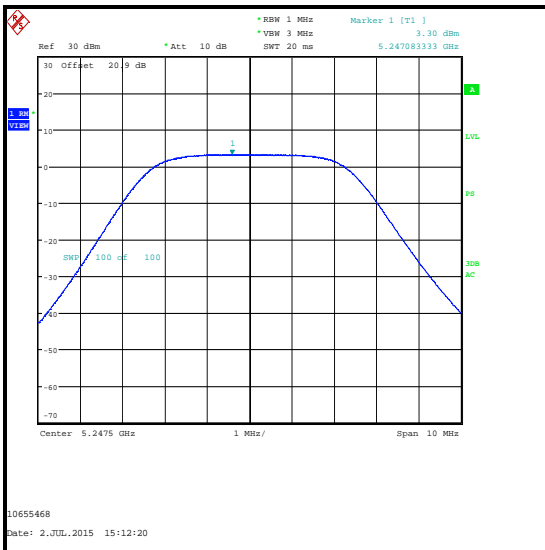
B Port



Bottom Channel



Middle Channel



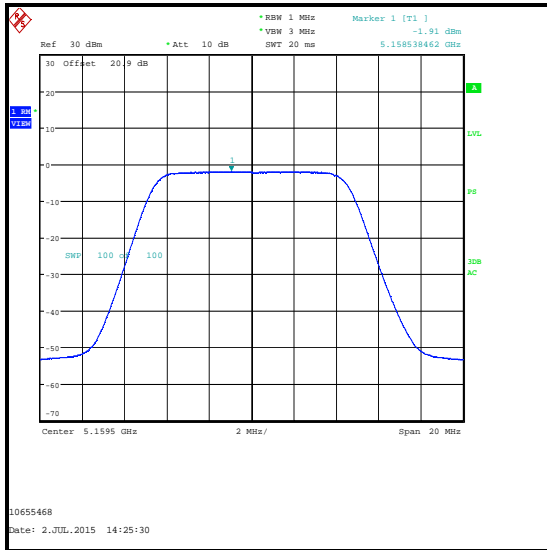
Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

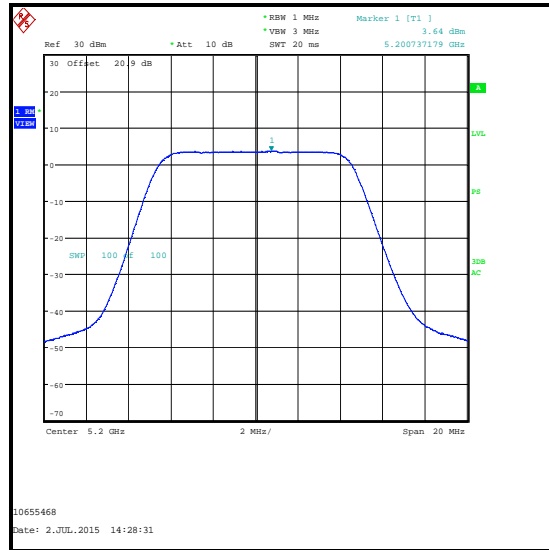
Results: Sectorised Antenna / 10 MHz Channel / QPSK

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | -1.9 | -2.1 | 1.0 | 6.9 | 5.9 | Complied |
| Middle | 3.6 | 2.8 | 6.2 | 6.9 | 0.7 | Complied |
| Top | 3.2 | 3.3 | 6.3 | 6.9 | 0.6 | Complied |

A Port



Bottom Channel



Middle Channel



Top Channel

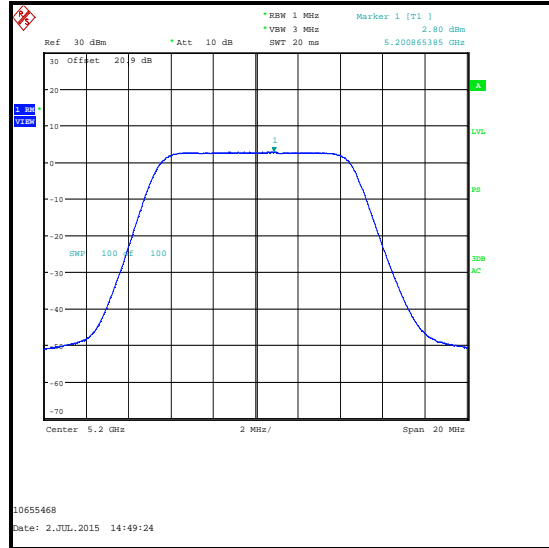
Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Sectorised Antenna / 10 MHz Channel / QPSK

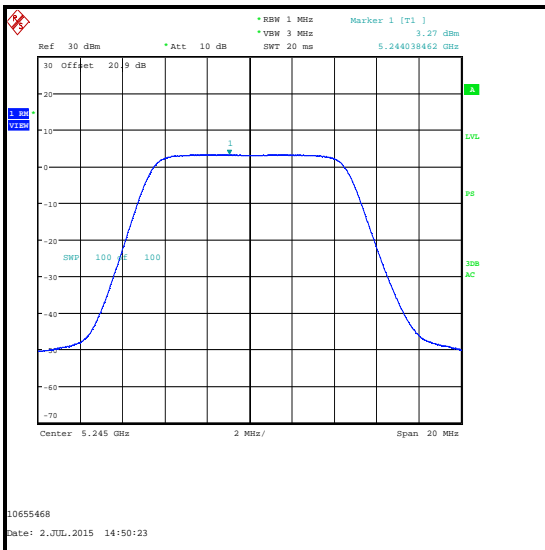
B Port



Bottom Channel



Middle Channel



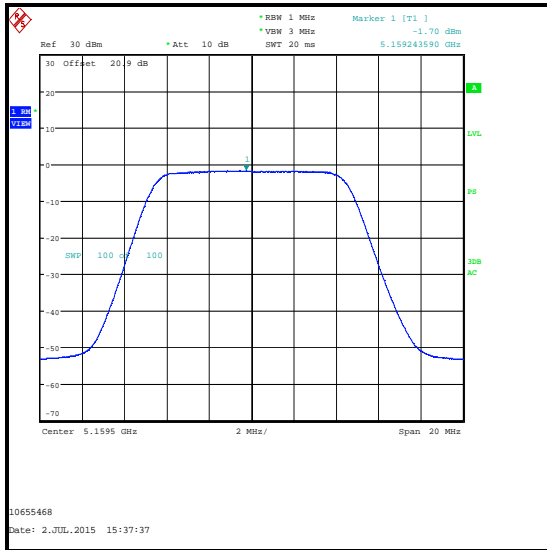
Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

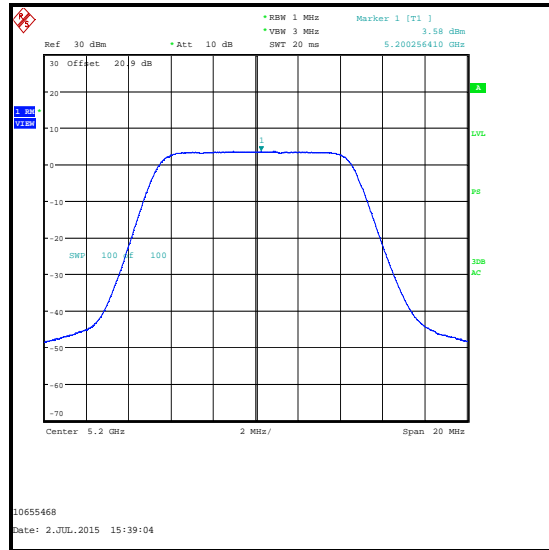
Results: Sectorised Antenna / 10 MHz Channel / 256QAM

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | -1.7 | -2.3 | 1.0 | 6.9 | 5.9 | Complied |
| Middle | 3.6 | 2.6 | 6.1 | 6.9 | 0.8 | Complied |
| Top | 3.7 | 3.3 | 6.5 | 6.9 | 0.4 | Complied |

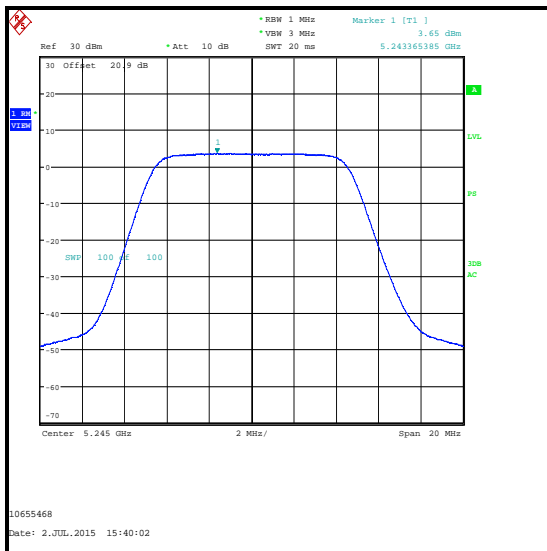
A Port



Bottom Channel



Middle Channel

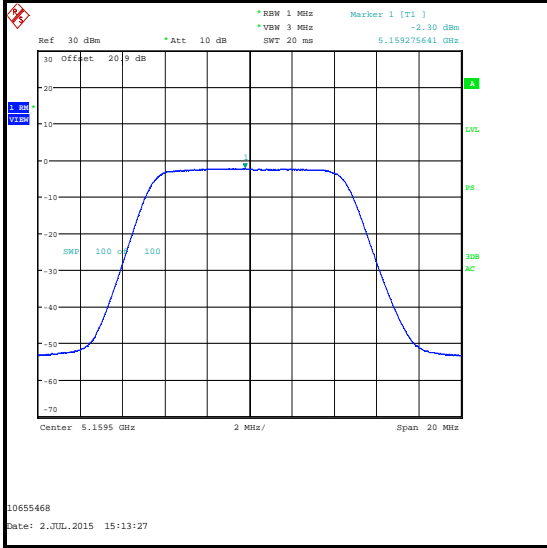


Top Channel

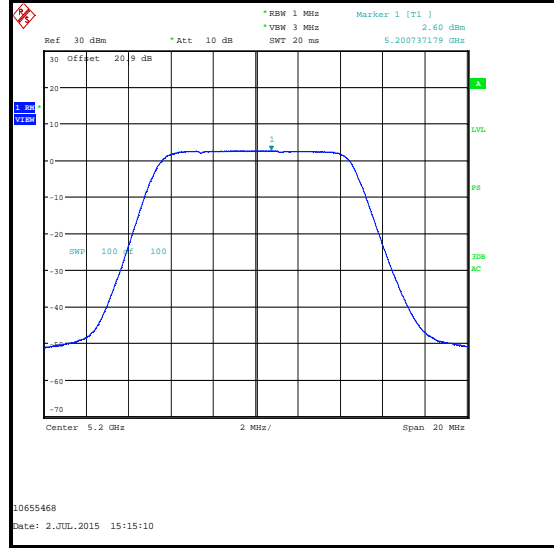
Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Sectorised Antenna / 10 MHz Channel / 256QAM

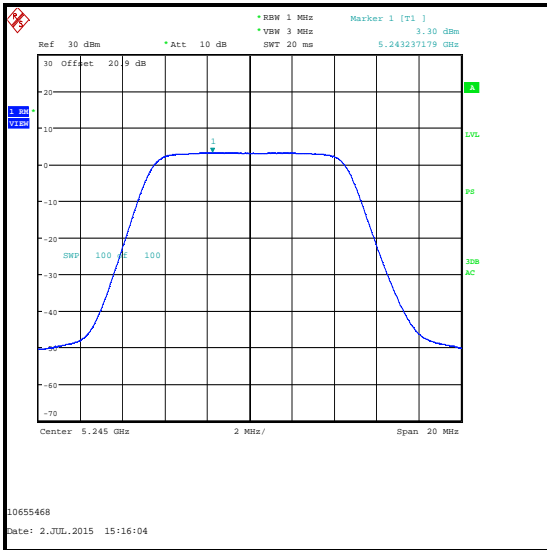
B Port



Bottom Channel



Middle Channel



Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

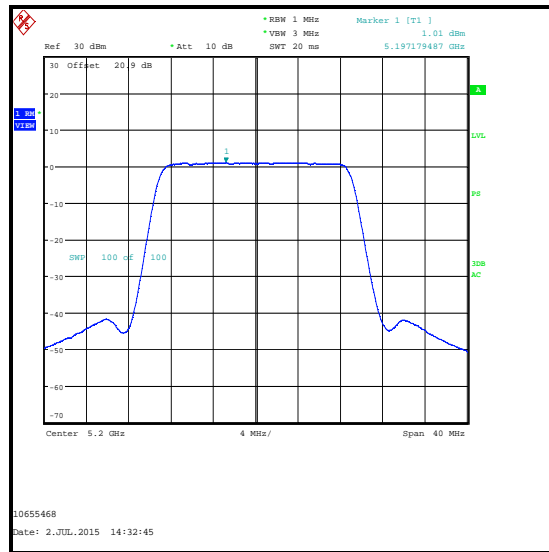
Results: Sectorised Antenna / 20 MHz Channel / QPSK

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | -5.0 | -5.3 | -2.1 | 6.9 | 9.0 | Complied |
| Middle | 1.0 | 0.6 | 3.8 | 6.9 | 3.1 | Complied |
| Top | 1.1 | 0.8 | 4.0 | 6.9 | 2.9 | Complied |

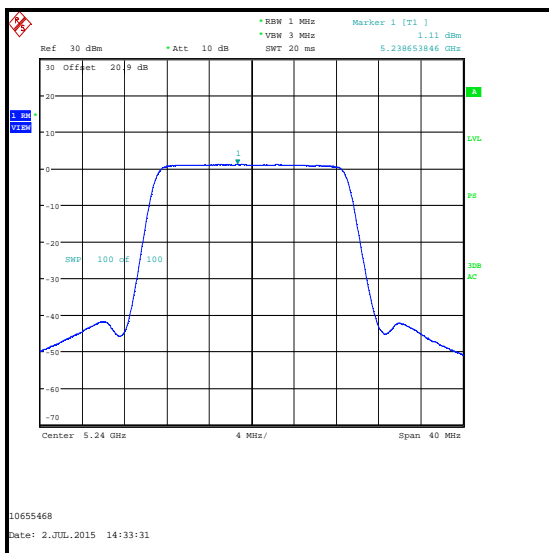
A Port



Bottom Channel



Middle Channel



Top Channel

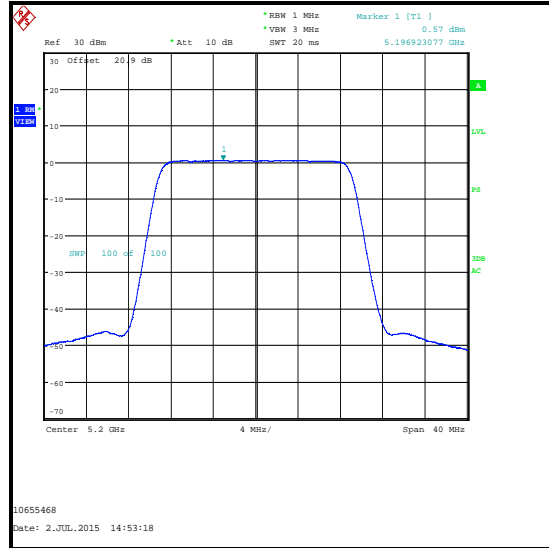
Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Sectorised Antenna / 20 MHz Channel / QPSK

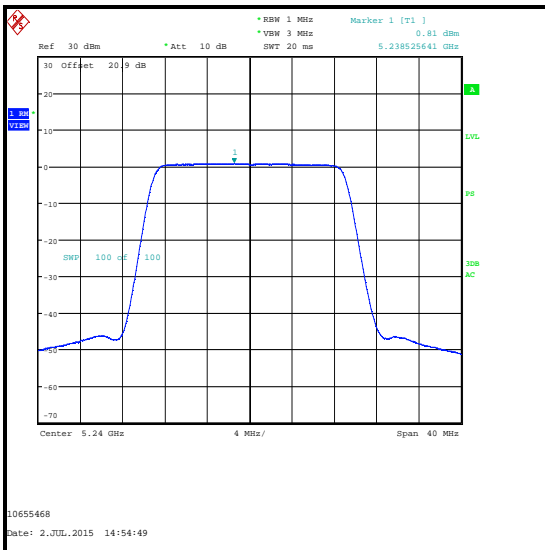
B Port



Bottom Channel



Middle Channel



Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

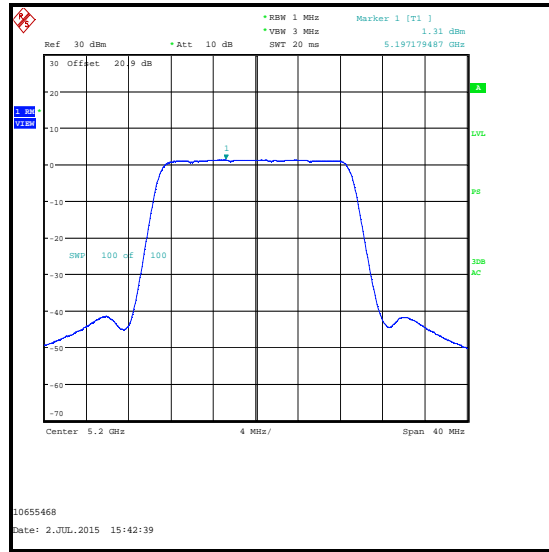
Results: Sectorised Antenna / 20 MHz Channel / 256QAM

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | -5.3 | -4.9 | -2.1 | 6.9 | 9.0 | Complied |
| Middle | 1.3 | 0.6 | 4.0 | 6.9 | 2.9 | Complied |
| Top | 1.4 | 0.8 | 4.1 | 6.9 | 2.8 | Complied |

A Port



Bottom Channel



Middle Channel



Top Channel

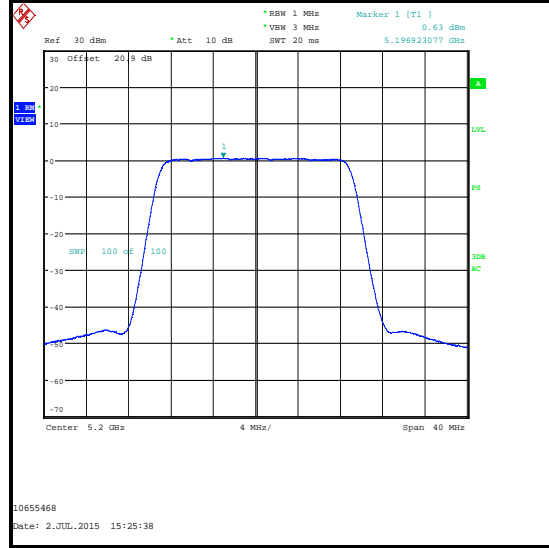
Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Sectorised Antenna / 20 MHz Channel / 256QAM

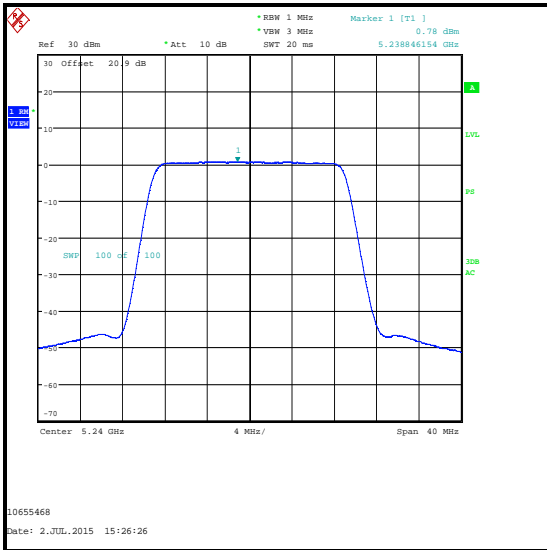
B Port



Bottom Channel



Middle Channel



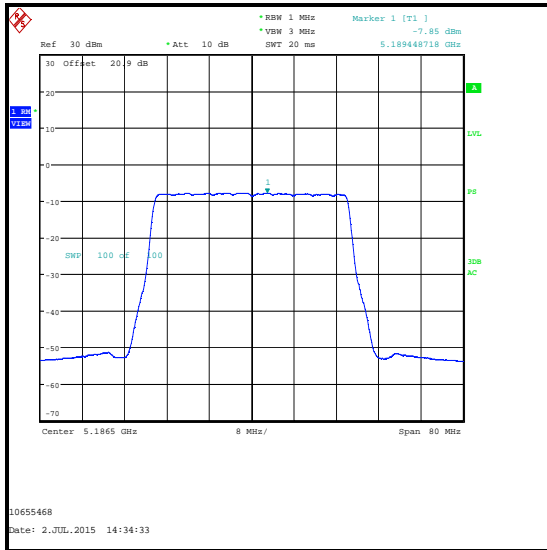
Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

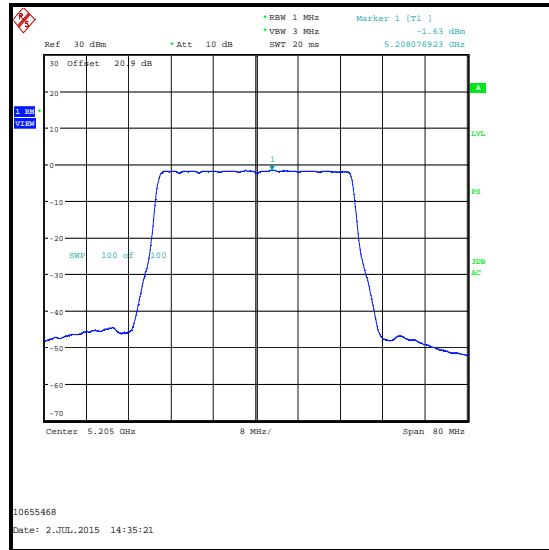
Results: Sectorised Antenna / 40 MHz Channel / QPSK

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | -7.8 | -8.3 | -5.0 | 6.9 | 11.9 | Complied |
| Middle | -1.6 | -2.6 | 0.9 | 6.9 | 6.0 | Complied |
| Top | -1.8 | -2.4 | 0.9 | 6.9 | 6.0 | Complied |

A Port



Bottom Channel



Middle Channel



Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Sectorised Antenna / 40 MHz Channel / QPSK

B Port



Bottom Channel



Middle Channel



Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

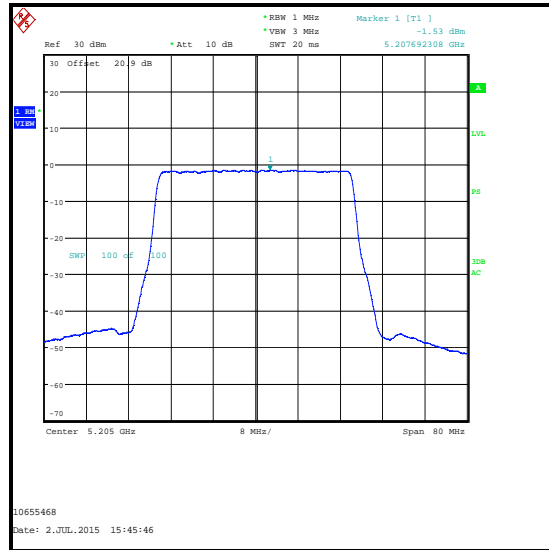
Results: Sectorised Antenna / 40 MHz Channel / 256QAM

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | -7.7 | -8.3 | -5.0 | 6.9 | 11.9 | Complied |
| Middle | -1.5 | -2.5 | 1.0 | 6.9 | 5.9 | Complied |
| Top | -1.4 | -2.0 | 1.3 | 6.9 | 5.6 | Complied |

A Port



Bottom Channel



Middle Channel

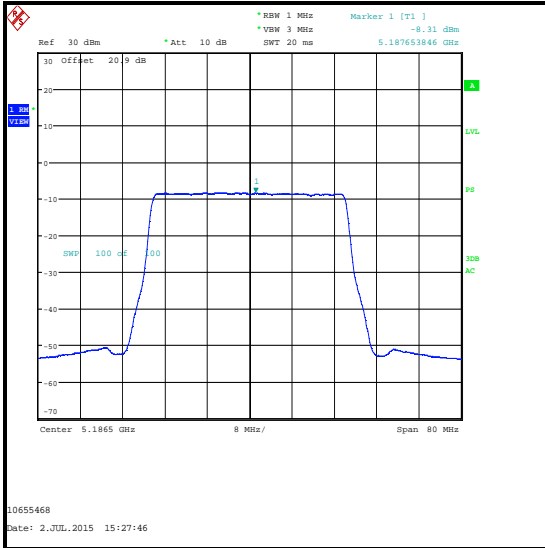


Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Sectorised Antenna / 40 MHz Channel / 256QAM

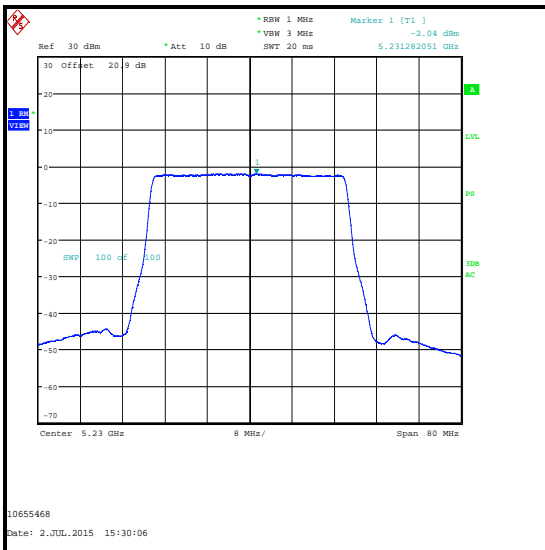
B Port



Bottom Channel



Middle Channel



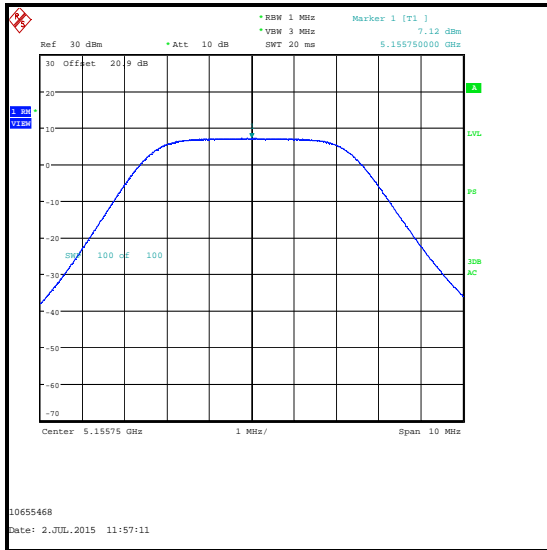
Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

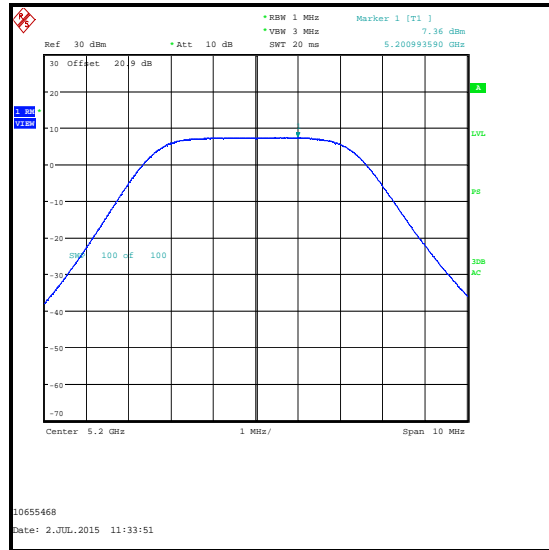
Results: Omnidirectional Antenna / 5 MHz Channel / QPSK

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | 7.1 | 7.1 | 10.1 | 10.9 | 0.8 | Complied |
| Middle | 7.4 | 6.9 | 10.2 | 10.9 | 0.7 | Complied |
| Top | 7.9 | 7.6 | 10.8 | 10.9 | 0.1 | Complied |

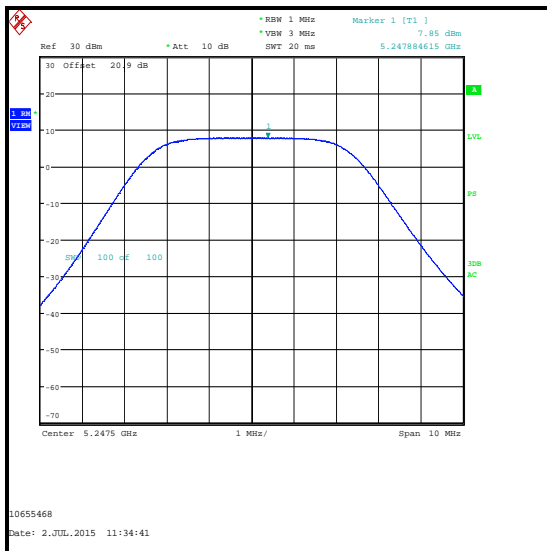
A Port



Bottom Channel



Middle Channel

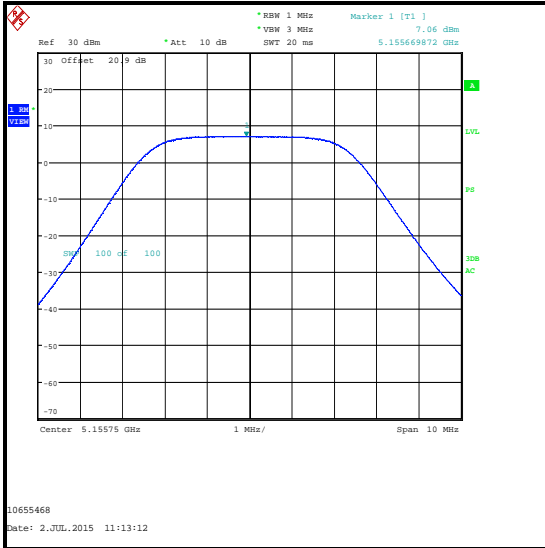


Top Channel

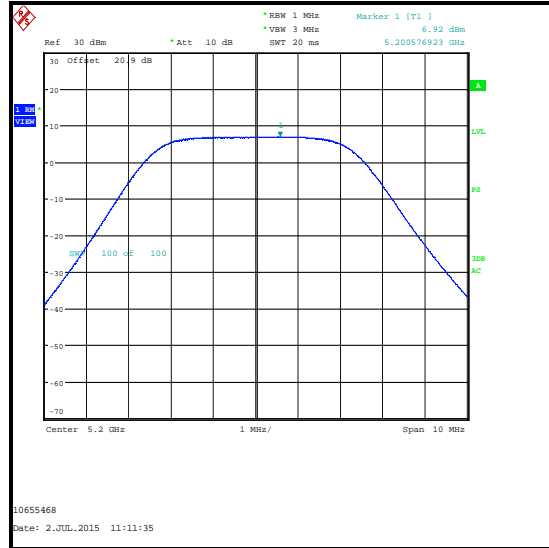
Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Omnidirectional Antenna / 5 MHz Channel / QPSK

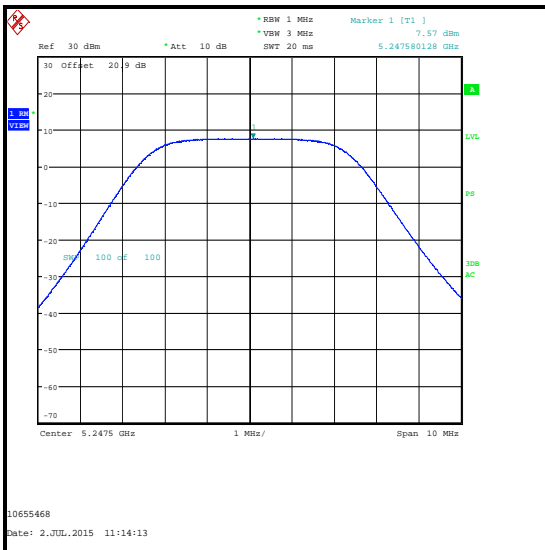
B Port



Bottom Channel



Middle Channel



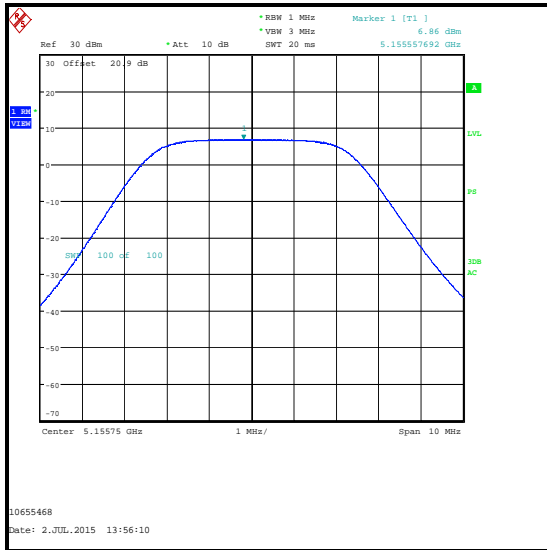
Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

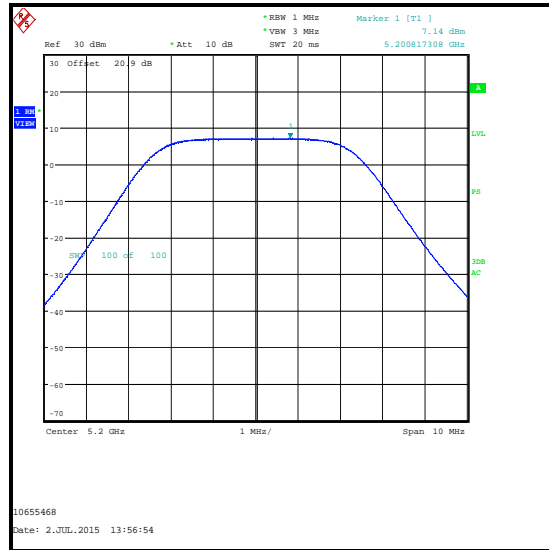
Results: Omnidirectional Antenna / 5 MHz Channel / 256QAM

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | 6.9 | 6.9 | 9.9 | 10.9 | 1.0 | Complied |
| Middle | 7.1 | 6.8 | 10.0 | 10.9 | 0.9 | Complied |
| Top | 7.7 | 7.4 | 10.6 | 10.9 | 0.3 | Complied |

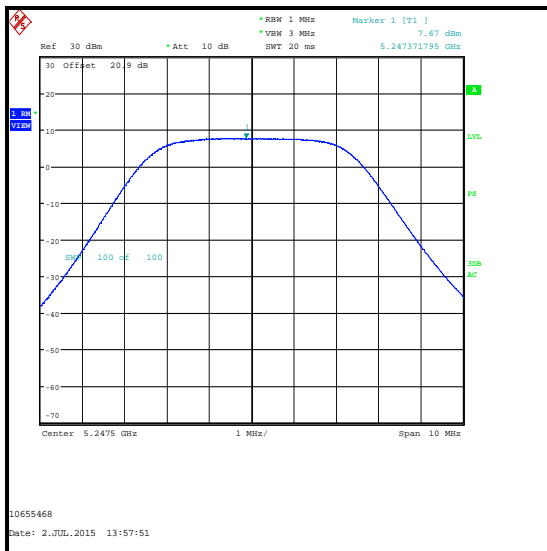
A Port



Bottom Channel



Middle Channel

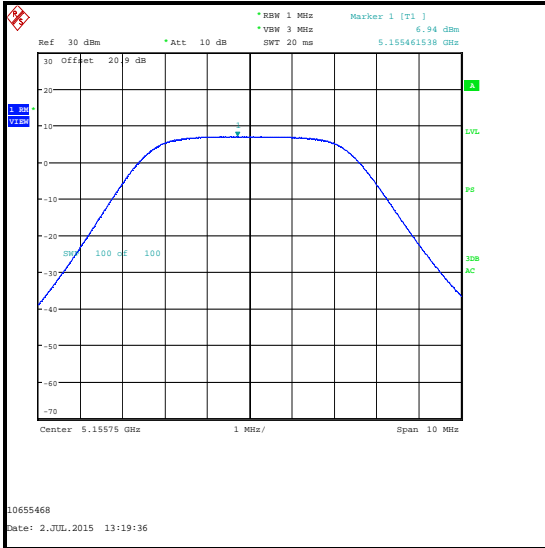


Top Channel

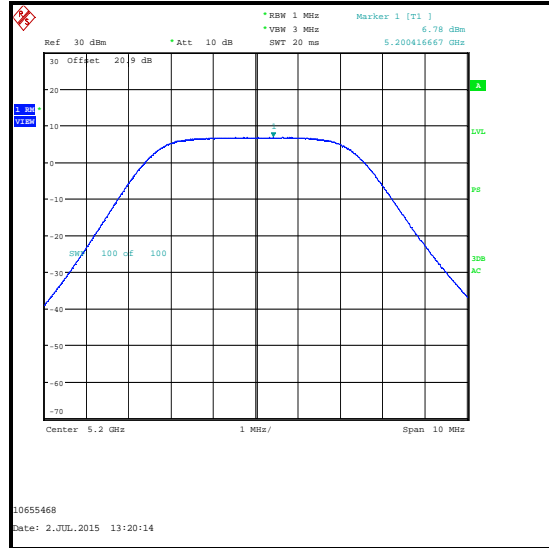
Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Omnidirectional Antenna / 5 MHz Channel / 256QAM

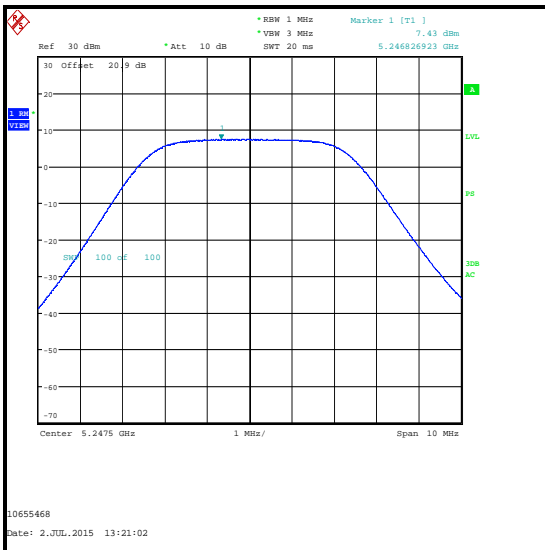
B Port



Bottom Channel



Middle Channel



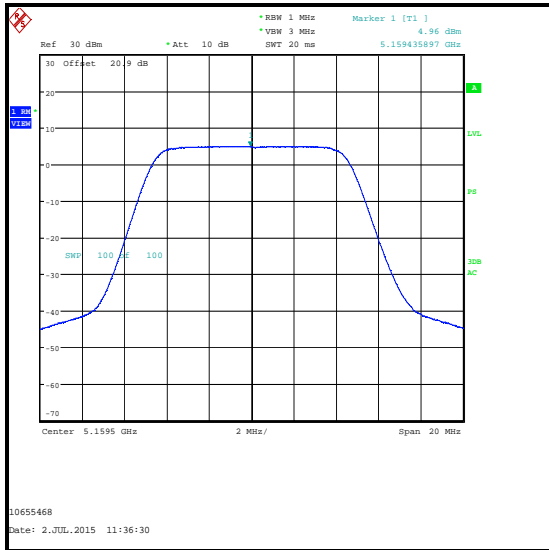
Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

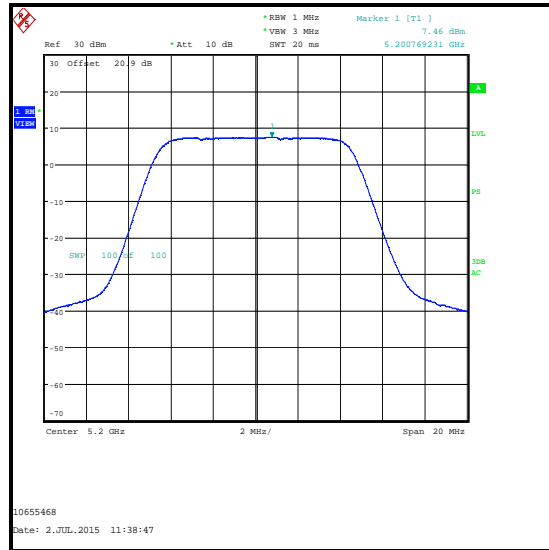
Results: Omnidirectional Antenna / 10 MHz Channel / QPSK

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | 5.0 | 4.9 | 8.0 | 10.9 | 2.9 | Complied |
| Middle | 7.5 | 6.7 | 10.1 | 10.9 | 0.8 | Complied |
| Top | 7.3 | 7.3 | 10.3 | 10.9 | 0.6 | Complied |

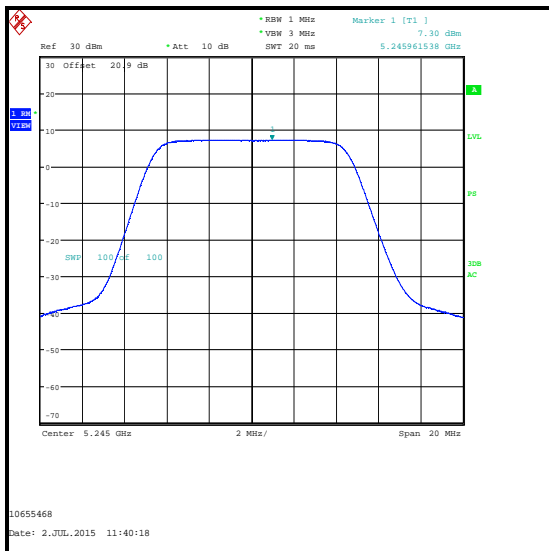
A Port



Bottom Channel



Middle Channel



Top Channel

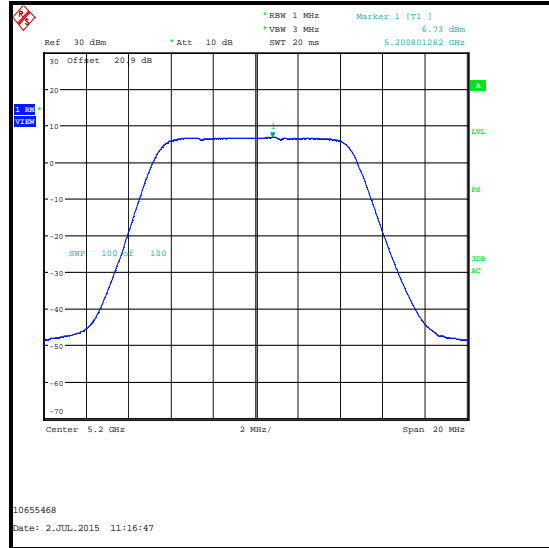
Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Omnidirectional Antenna / 10 MHz Channel / QPSK

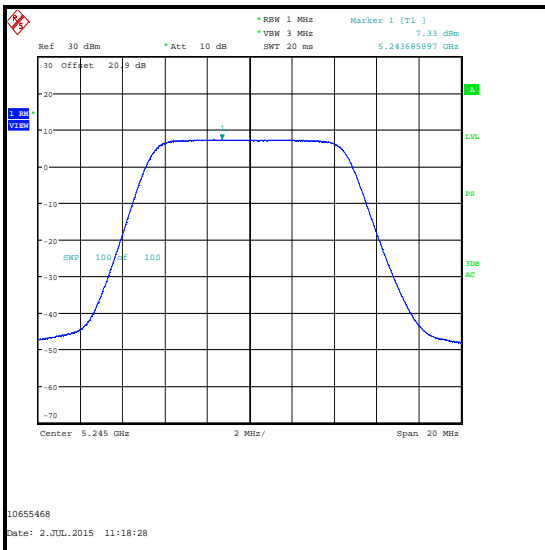
B Port



Bottom Channel



Middle Channel



Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

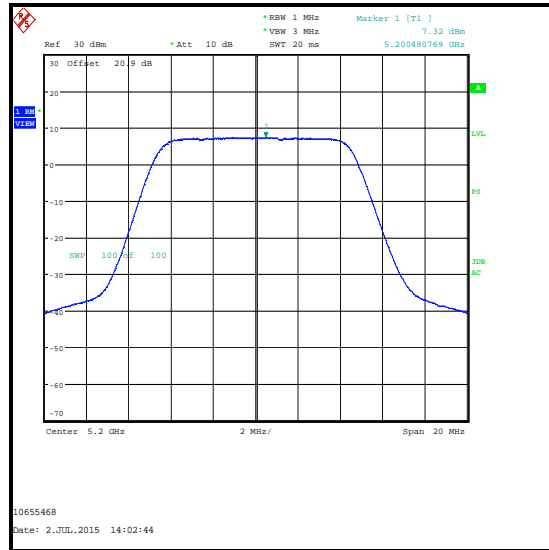
Results: Omnidirectional Antenna / 10 MHz Channel / 256QAM

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | 5.0 | 4.7 | 7.9 | 10.9 | 3.0 | Complied |
| Middle | 7.3 | 6.6 | 10.0 | 10.9 | 0.9 | Complied |
| Top | 7.6 | 7.5 | 10.6 | 10.9 | 0.3 | Complied |

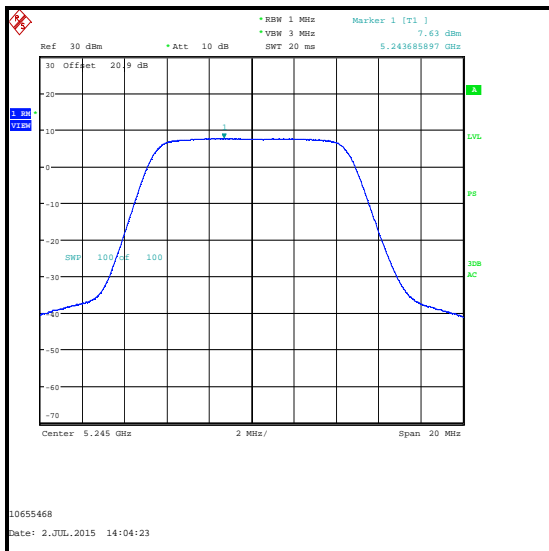
A Port



Bottom Channel



Middle Channel

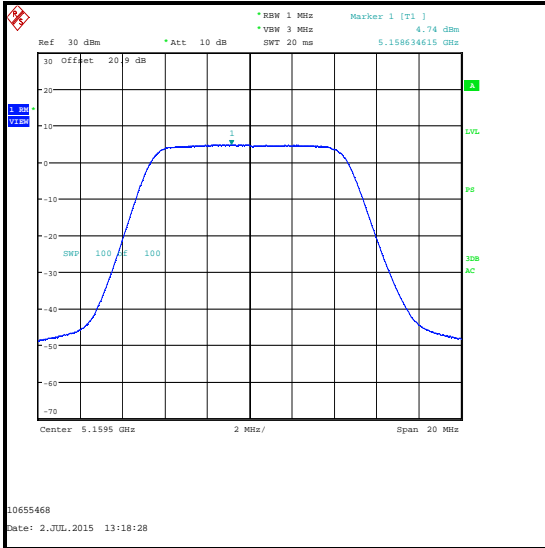


Top Channel

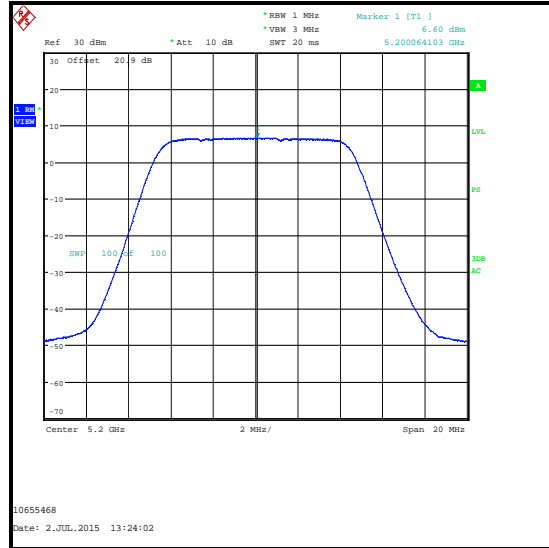
Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Omnidirectional Antenna / 10 MHz Channel / 256QAM

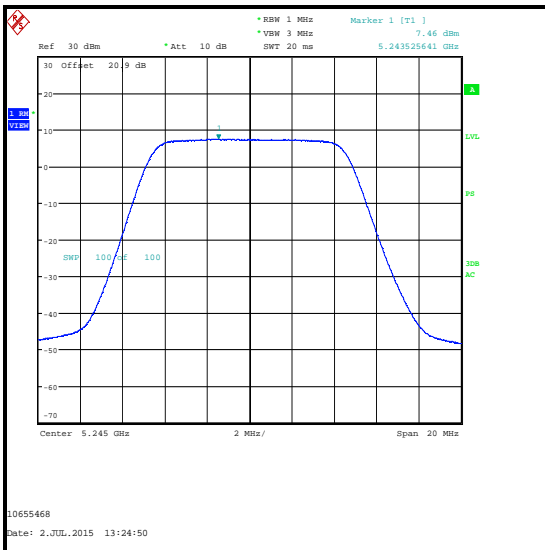
B Port



Bottom Channel



Middle Channel



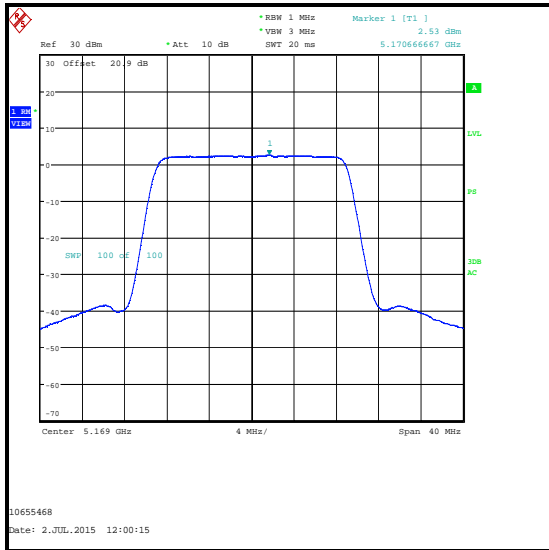
Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

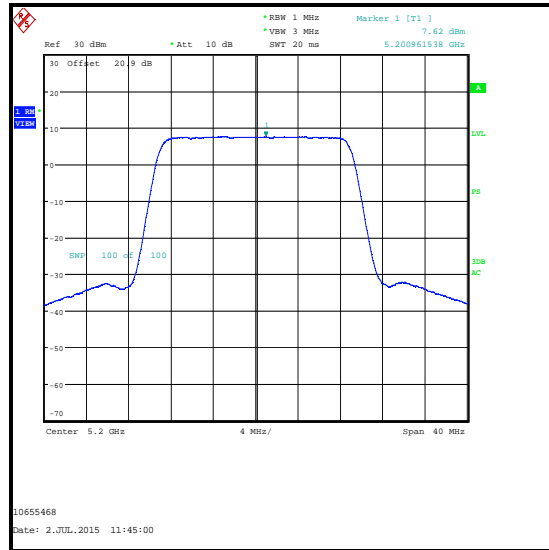
Results: Omnidirectional Antenna / 20 MHz Channel / QPSK

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | 2.5 | 2.1 | 5.3 | 10.9 | 5.6 | Complied |
| Middle | 7.6 | 6.6 | 10.1 | 10.9 | 0.8 | Complied |
| Top | 7.5 | 7.3 | 10.4 | 10.9 | 0.5 | Complied |

A Port



Bottom Channel



Middle Channel

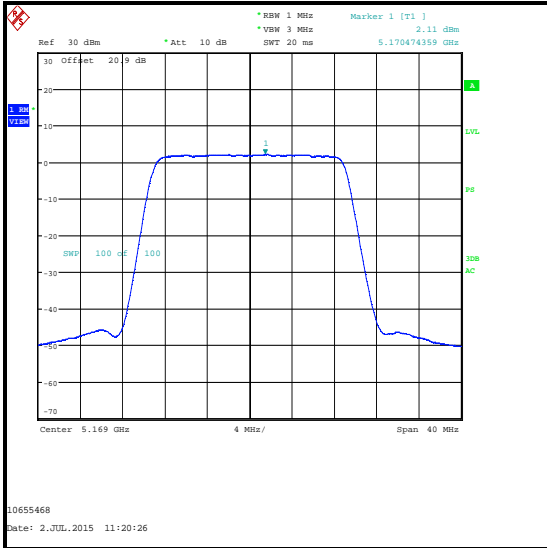


Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Omnidirectional Antenna / 20 MHz Channel / QPSK

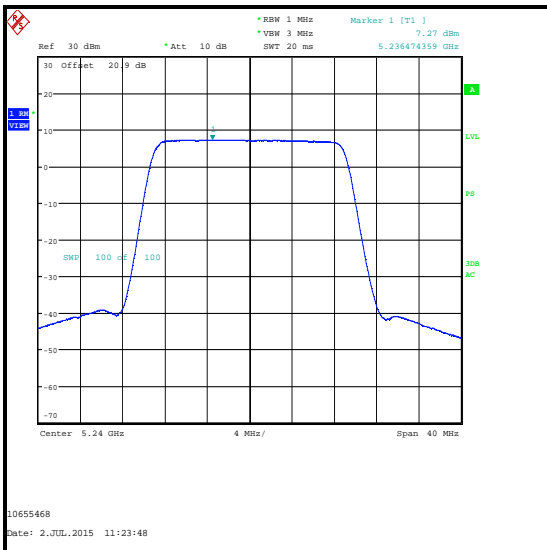
B Port



Bottom Channel



Middle Channel



Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

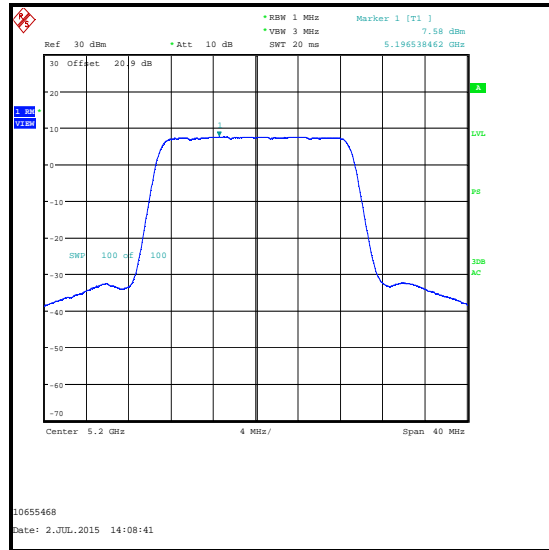
Results: Omnidirectional Antenna / 20 MHz Channel / 256QAM

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | 2.3 | 1.9 | 5.1 | 10.9 | 5.8 | Complied |
| Middle | 7.6 | 6.5 | 10.1 | 10.9 | 0.8 | Complied |
| Top | 7.5 | 7.2 | 10.4 | 10.9 | 0.5 | Complied |

A Port



Bottom Channel



Middle Channel



Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Omnidirectional Antenna / 20 MHz Channel / 256QAM

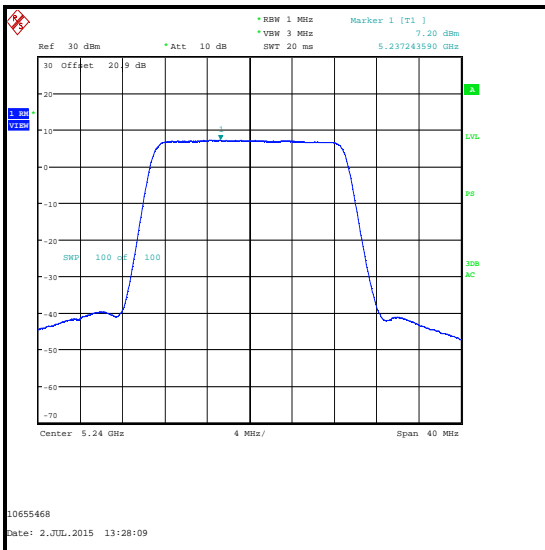
B Port



Bottom Channel



Middle Channel



Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

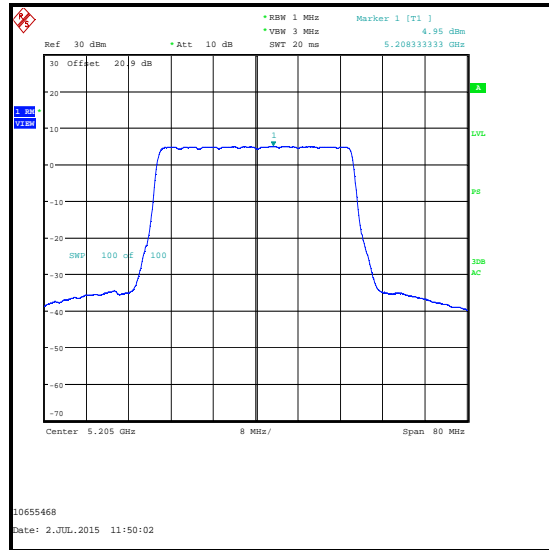
Results: Omnidirectional Antenna / 40 MHz Channel / QPSK

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | -1.3 | -1.5 | 1.6 | 10.9 | 9.3 | Complied |
| Middle | 5.0 | 4.2 | 7.6 | 10.9 | 3.3 | Complied |
| Top | 4.9 | 4.7 | 7.8 | 10.9 | 3.1 | Complied |

A Port



Bottom Channel



Middle Channel



Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Omnidirectional Antenna / 40 MHz Channel / QPSK

B Port



Bottom Channel



Middle Channel



Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Omnidirectional Antenna / 40 MHz Channel / 256QAM

| Channel | PSD A Port (dBm/MHz) | PSD B Port (dBm/MHz) | PSD Power (dBm/MHz) | PSD Power Limit (dBm/MHz) | Margin (dB) | Result |
|---------|----------------------|----------------------|---------------------|---------------------------|-------------|----------|
| Bottom | -1.1 | -1.5 | 1.7 | 10.9 | 9.2 | Complied |
| Middle | 4.7 | 4.2 | 7.5 | 10.9 | 3.4 | Complied |
| Top | 4.9 | 4.7 | 7.8 | 10.9 | 3.1 | Complied |

A Port



Bottom Channel



Middle Channel



Top Channel

Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)

Results: Omnidirectional Antenna / 40 MHz Channel / 256QAM

B Port



Bottom Channel



Middle Channel



Top Channel

Test Equipment Used:

| Asset No. | Instrument | Manufacturer | Type No. | Serial No. | Date Calibration Due | Cal. Interval (Months) |
|-----------|------------------|-----------------|------------|-------------|-----------------------|------------------------|
| A2142 | Attenuator | AtlanTecRF | AN18-20 | 081120-23 | Calibrated Before Use | N/A |
| M1630 | Test Receiver | Rohde & Schwarz | ESU40 | 100233 | 20 Feb 2016 | 12 |
| M1252 | Signal Generator | Hewlett Packard | 83640A | 3119A00489 | 24 Oct 2015 | 24 |
| M1785 | Thermohygrometer | JM Handelspunkt | 30.5015.13 | None stated | 23 Apr 2016 | 12 |

5.2.5. Transmitter Out of Band Radiated Emissions**Test Summary:**

| | | | |
|-----------------------------------|-----------------|--------------------|--------------------------------|
| Test Engineer: | Georgios Vrezas | Test Dates: | 04 July 2015 & 05 July 2015 |
| Test Sample Serial Number: | F50980BB016F | | |

| | |
|--------------------------|--|
| FCC Reference: | Parts 15.407(b)(1) & 15.209(a) |
| Test Method Used: | FCC KDB 789033 II.G.4 & ANSI C63.10 Sections 6.3 & 6.5 and Notes below |
| Frequency Range: | 30 MHz to 1000 MHz |

Environmental Conditions:

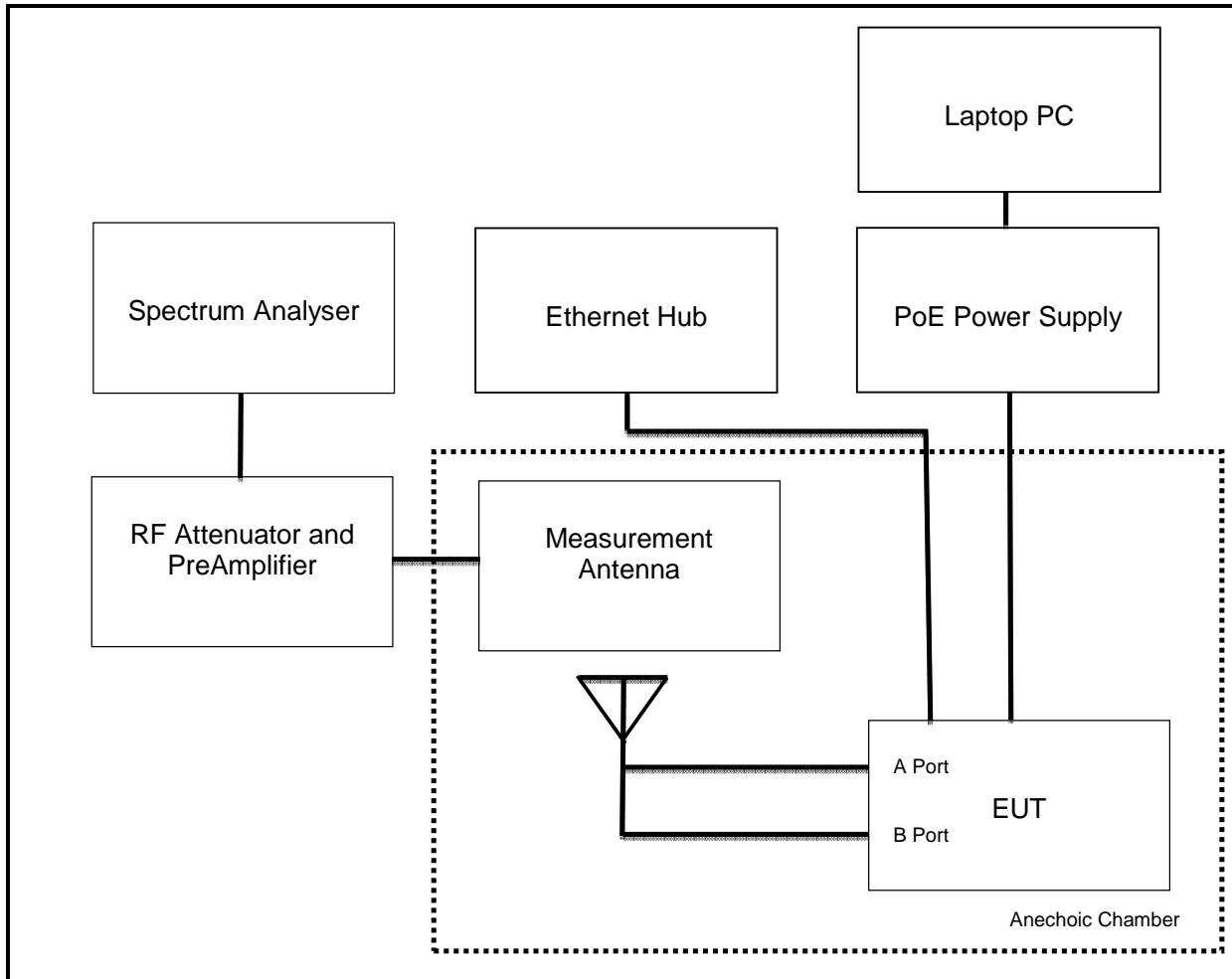
| | |
|-------------------------------|----------|
| Temperature (°C): | 23 to 26 |
| Relative Humidity (%): | 35 to 42 |

Note(s):

1. Radiated spurious emissions testing was performed with the EUT transmitting at maximum power on a 5 MHz channel with QPSK modulation. This configuration produced the highest emission levels and was therefore deemed to be worst case. The EUT was transmitting at >99% duty cycle. The highest gain antenna of each antenna type was tested using the appropriate maximum power setting.
2. Pre-scans with the EUT transmitting on the middle channel of the 5.15-5.25 GHz band were performed in accordance with FCC Part 15.407(b)(1) which states all emissions outside of the 5.15-5.35 GHz band shall not exceed -27 dBm/MHz e.i.r.p. Part 15.407(b)(6) states unwanted emissions below 1 GHz must comply with the general field strength limits set forth in 15.209. Part 15.407(b)(7) states the provisions of 15.205 apply, i.e. restricted bands of operation.
3. The final measured value, for the given emission in the field strength result tables, incorporates the calibrated antenna factor, preamplifier gain, attenuator loss and cable loss.
4. The preliminary scans showed similar emission levels below 1 GHz, for each channel of operation. Therefore final radiated emissions measurements were performed with the EUT set to the middle channel only.
5. Measurements below 1 GHz were performed in a semi-anechoic chamber (Asset Number K0001) at a distance of 3 metres. The EUT was placed in the centre of the chamber turntable. The EUT and antenna were mounted onto a pole in a typical end-user configuration and interconnected using the RF cables supplied by the manufacturer. Maximum emission levels were determined by height searching the measurement antenna over the range 1 metre to 4 metres.
6. **All emissions shown on the prescan plots were investigated. The highest emission level was compared to the applicable limit to obtain the margin. All other emissions were found to be >20 dB below the applicable limit or ambient and therefore not recorded.**

Transmitter Radiated Emissions (continued)

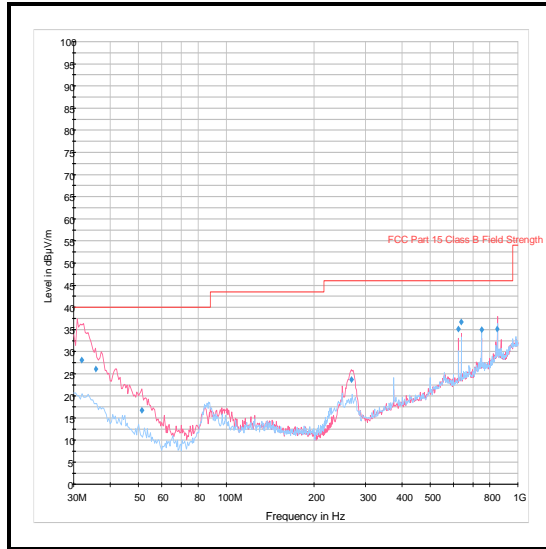
Test setup for radiated measurements:



Transmitter Radiated Emissions (continued)

Results: Middle Channel / QPSK / Parabolic Antenna

| Frequency (MHz) | Antenna Polarity | Quasi-Peak Level (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Result |
|-----------------|------------------|---------------------------------|----------------------|-------------|----------|
| 268.119 | Vertical | 23.7 | 46.0 | 22.3 | Complied |

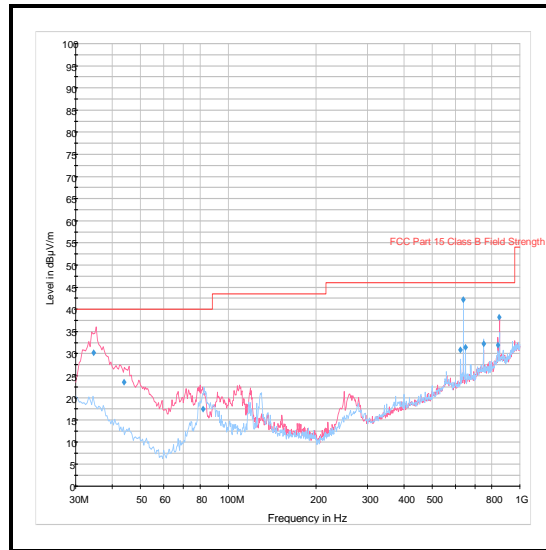


Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying table.

Transmitter Out of Band Radiated Emissions (continued)

Results: Middle Channel / QPSK / Plate Antenna

| Frequency (MHz) | Antenna Polarity | Quasi-Peak Level (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Result |
|-----------------|------------------|---------------------------------|----------------------|-------------|----------|
| 640.003 | Horizontal | 42.2 | 46.0 | 3.8 | Complied |

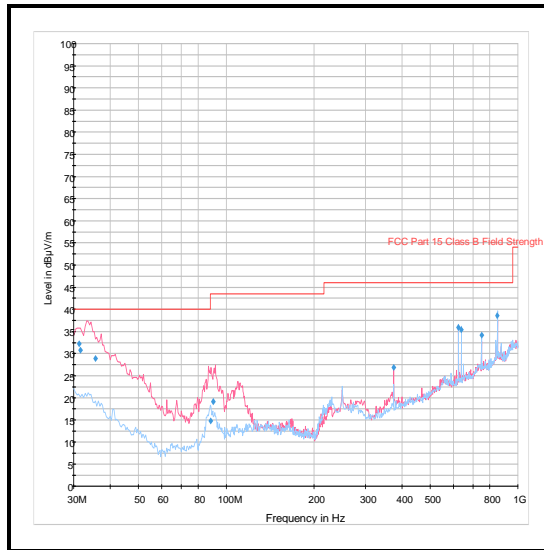


Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying table.

Transmitter Radiated Emissions (continued)

Results: Middle Channel / QPSK / Sectorised Antenna

| Frequency (MHz) | Antenna Polarity | Quasi-Peak Level (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Result |
|-----------------|------------------|---------------------------------|----------------------|-------------|----------|
| 849.992 | Horizontal | 38.6 | 46.0 | 7.4 | Complied |

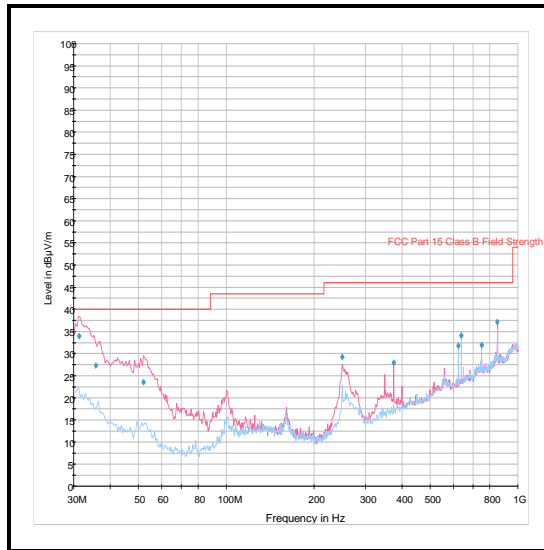


Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying table.

Transmitter Radiated Emissions (continued)

Results: Middle Channel / QPSK / Omnidirectional Antenna

| Frequency (MHz) | Antenna Polarity | Quasi-Peak Level (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Result |
|-----------------|------------------|---------------------------------|----------------------|-------------|----------|
| 249.992 | Vertical | 29.3 | 46.0 | 16.7 | Complied |



Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying table.

Transmitter Out of Band Radiated Emissions**Test Summary:**

| | | | |
|-----------------------------------|--------------------------------|--------------------|---------------------------------|
| Test Engineers: | Ian Watch & Georgios Vrezas | Test Dates: | 30 June 2015 to 03 July 2015 |
| Test Sample Serial Number: | F50980BB016F | | |

| | |
|--------------------------|--|
| FCC Reference: | Part 15.407(b)(1) & 15.209(a) |
| Test Method Used: | FCC KDB 789033 Section II.G & ANSI C63.10 Sections 6.3 and 6.6 |
| Frequency Range: | 1 GHz to 40 GHz |

Environmental Conditions:

| | |
|-------------------------------|----------|
| Temperature (°C): | 22 to 26 |
| Relative Humidity (%): | 38 to 52 |

Note(s):

1. Radiated spurious emissions testing was performed with the EUT transmitting at maximum power on a 5 MHz channel with QPSK modulation. This configuration produced the highest emission levels and was therefore deemed to be worst case. The EUT was transmitting at >99% duty cycle. The highest gain antenna of each antenna type was tested using the appropriate maximum power setting.
2. Pre-scans with the EUT transmitting on the middle channel were performed according to FCC Part 15.407(b)(3) which states all emissions outside of the band will not exceed -27 dBm/MHz. Part(b)(7) states the provisions of 15.205 apply, i.e. restricted bands of operation.
3. Appropriate RF filters and attenuators were used during pre-scans and final measurements. Insertion losses were entered on the spectrum analyser as RF levels offsets.
4. Tests were performed as a field strength measurements and any emissions in non-restricted bands converted to an E.I.R.P. value in dBm in accordance with FCC KDB 789033 Section II.G.2 using a conversion factor of 95.2. The measured values incorporate the calibrated antenna factor and cable loss.
5. The final measured value, for the given emission, incorporates the calibrated antenna factor, preamplifier gain, attenuator loss and cable loss.
6. Where the highest levels of emissions or noise floor occurred in a restricted band, the maximum field strength level was compared to peak (74 dB μ V/m) and average (54 dB μ V/m) limits. Where the highest levels of emission or noise floor occurred in a non-restricted band, the maximum field strength was converted to E.I.R.P. and compared to the -27 dBm/MHz E.I.R.P. limit. The -27 dBm/MHz E.I.R.P. limit converted to a field strength limit of 68.2 dB μ V/m at 3 metres.
7. In accordance with KDB 789033 Section II.G.1.c), if the peak measurement satisfies the average limit, an average measurement is not required.
8. All other emissions shown on the pre-scan plots were investigated and found to be below the measurement system noise floor or ambient.
9. A bug in the spectrum analyser software caused the sweep count to be shown as less than 100 on some result plots. All measurements were made over at least 100 sweeps.
10. Pre-scans above 1 GHz were performed in a fully anechoic chamber (UL Asset Number K0002) at a distance of 3 metres. The centre point of the EUT antenna was placed at a height of 1.5 metres above the test chamber floor in the centre of the chamber turntable. The EUT was placed as close to 1.5 metres as the antenna bracket and RF cables allowed. All measurement antennas were placed at a fixed height of 1.5 metres above the test chamber floor, in line with the EUT. Final measurements above 1 GHz were performed in a semi-anechoic chamber (UL Asset Number K0001) at a distance of 3 metres. Maximum emission levels were determined by height searching the measurement antenna over the range 1 metre to 4 metres.

Transmitter Out of Band Radiated Emissions 5.15-5.25 GHz Band (continued)**Results: Bottom Channel / QPSK / Parabolic Antenna**

| Frequency (MHz) | Antenna Polarity | Peak Level (dBm/MHz) | Peak Limit (dBm/MHz EIRP) | Margin (dB) | Result |
|-----------------|------------------|----------------------|---------------------------|-------------|----------|
| 5594.190 | Vertical | -36.0 | -27.0 | 9.0 | Complied |
| 6103.800 | Vertical | -37.0 | -27.0 | 10.0 | Complied |

Results: Middle Channel / QPSK / Parabolic Antenna

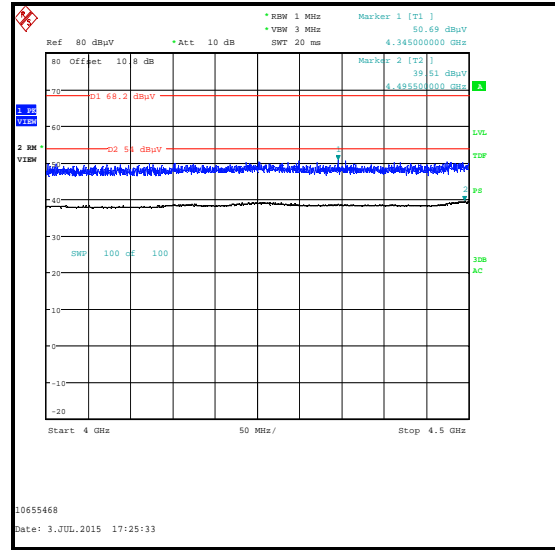
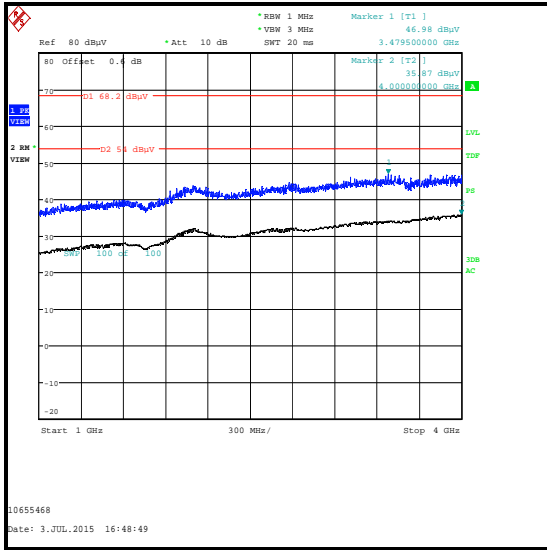
| Frequency (MHz) | Antenna Polarity | Peak Level (dBm/MHz) | Peak Limit (dBm/MHz EIRP) | Margin (dB) | Result |
|-----------------|------------------|----------------------|---------------------------|-------------|----------|
| 5749.980 | Vertical | -36.8 | -27.0 | 9.8 | Complied |
| 6102.600 | Vertical | -37.3 | -27.0 | 10.3 | Complied |

Results: Top Channel / QPSK / Parabolic Antenna

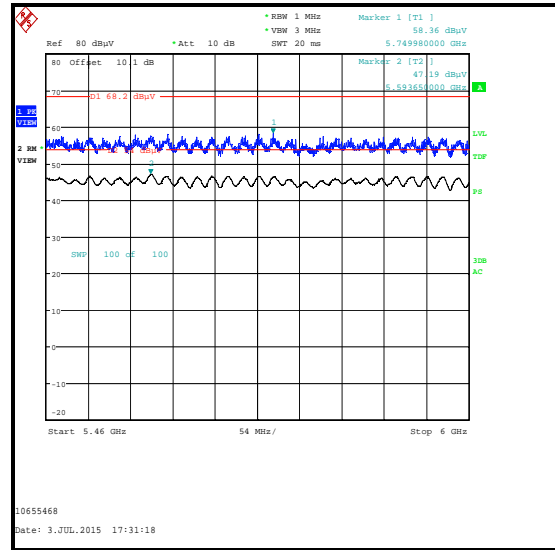
| Frequency (MHz) | Antenna Polarity | Peak Level (dBm/MHz) | Peak Limit (dBm/MHz EIRP) | Margin (dB) | Result |
|-----------------|------------------|----------------------|---------------------------|-------------|----------|
| 5597.430 | Vertical | -36.8 | -27.0 | 9.8 | Complied |
| 6045.200 | Vertical | -37.8 | -27.0 | 10.8 | Complied |

Transmitter Out of Band Radiated Emissions 5.15-5.25 GHz Band (continued)

Results: Middle Channel / QPSK / Parabolic Antenna

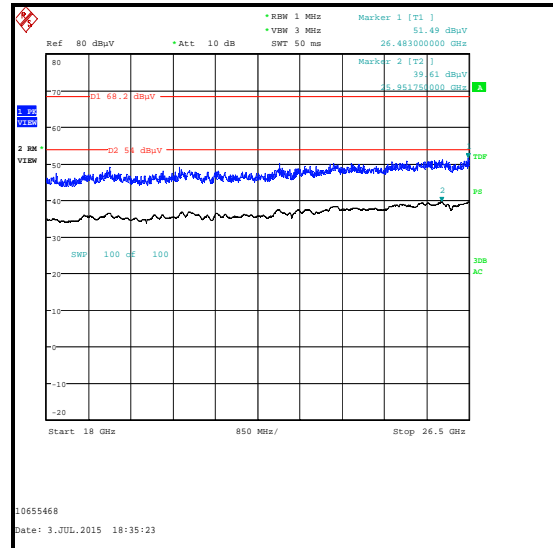
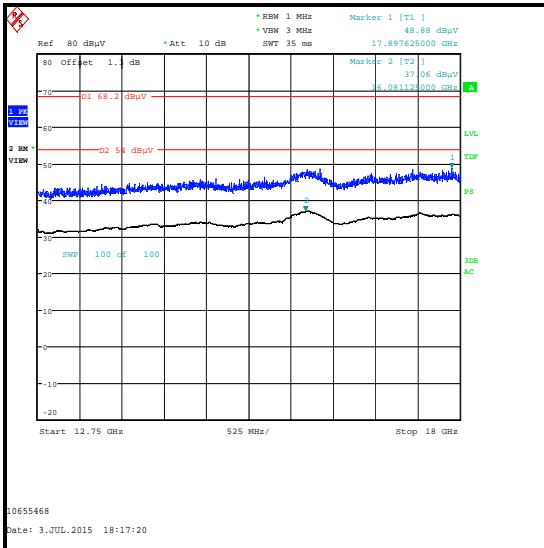
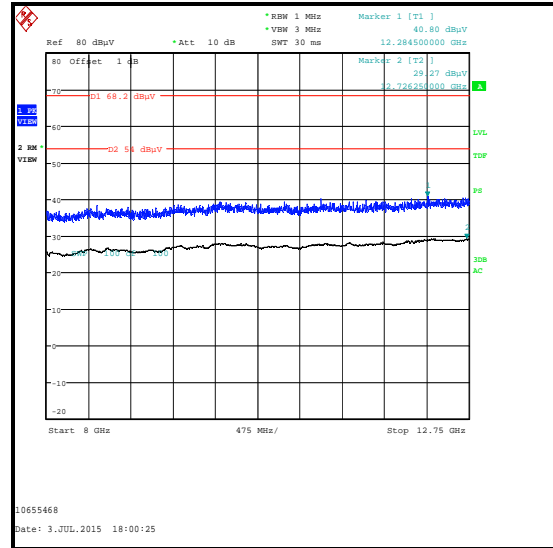
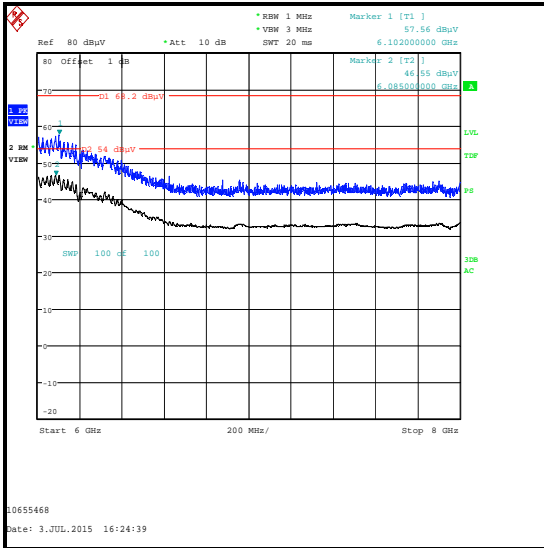


4.5 GHz to 5.46 GHz
Refer to Transmitter Band Edge Radiated Emissions
section of this test report



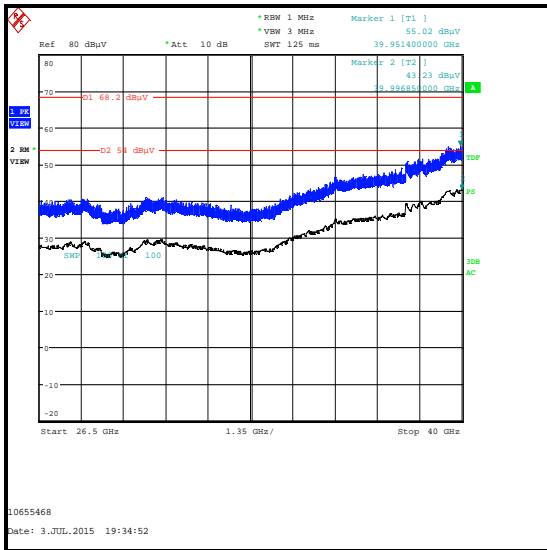
Transmitter Out of Band Radiated Emissions 5.15-5.25 GHz Band (continued)

Results: Middle Channel / QPSK / Parabolic Antenna



Transmitter Out of Band Radiated Emissions 5.15-5.25 GHz Band (continued)

Results: Middle Channel / QPSK / Parabolic Antenna



Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

Transmitter Out of Band Radiated Emissions 5.15-5.25 GHz Band (continued)**Results: Bottom Channel / QPSK / Plate Antenna**

| Frequency (MHz) | Antenna Polarity | Peak Level (dBm/MHz) | Peak Limit (dBm/MHz EIRP) | Margin (dB) | Result |
|-----------------|------------------|----------------------|---------------------------|-------------|----------|
| 6071.000 | Vertical | -38.2 | -27.0 | 11.2 | Complied |

Results: Middle Channel / QPSK / Plate Antenna

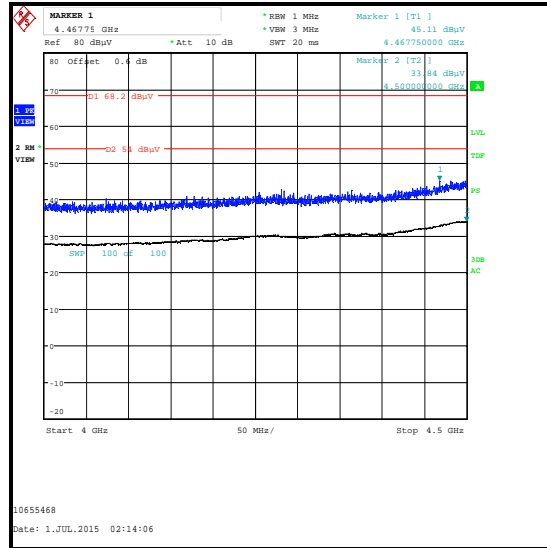
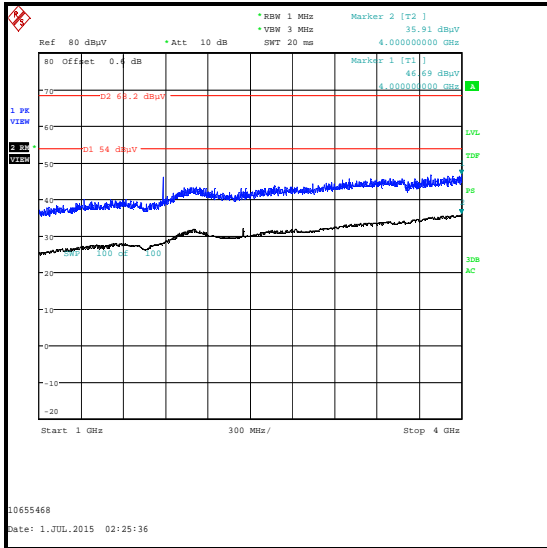
| Frequency (MHz) | Antenna Polarity | Peak Level (dBm/MHz) | Peak Limit (dBm/MHz EIRP) | Margin (dB) | Result |
|-----------------|------------------|----------------------|---------------------------|-------------|----------|
| 6072.400 | Vertical | -38.0 | -27.0 | 11.0 | Complied |

Results: Top Channel / QPSK / Plate Antenna

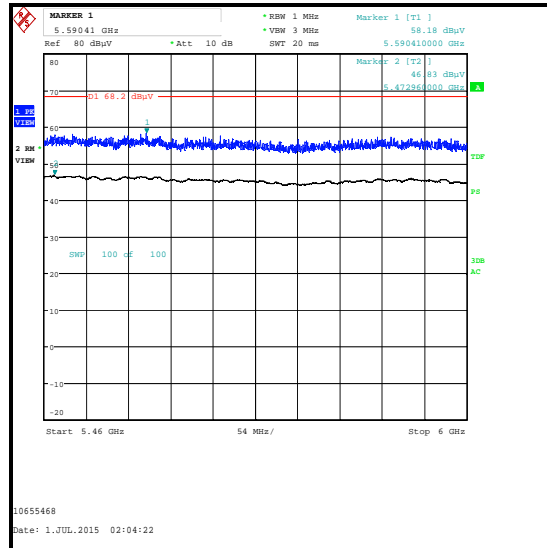
| Frequency (MHz) | Antenna Polarity | Peak Level (dBm/MHz) | Peak Limit (dBm/MHz EIRP) | Margin (dB) | Result |
|-----------------|------------------|----------------------|---------------------------|-------------|----------|
| 6007.200 | Vertical | -37.6 | -27.0 | 10.6 | Complied |

Transmitter Out of Band Radiated Emissions 5.15-5.25 GHz Band (continued)

Results: Middle Channel / QPSK / Plate Antenna

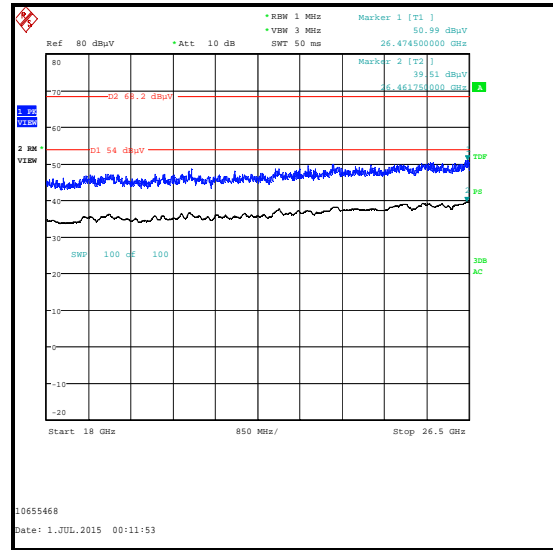
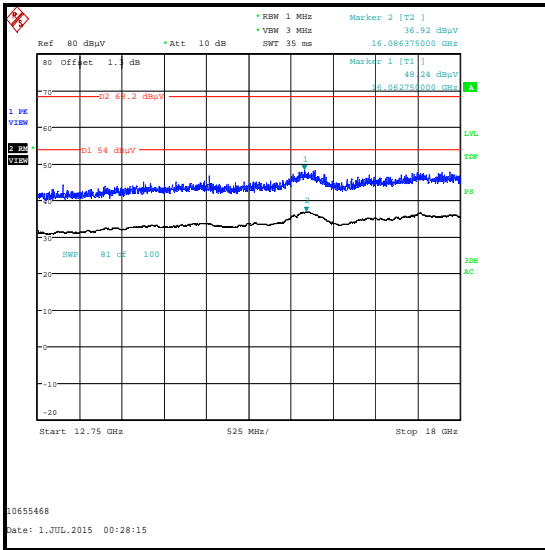
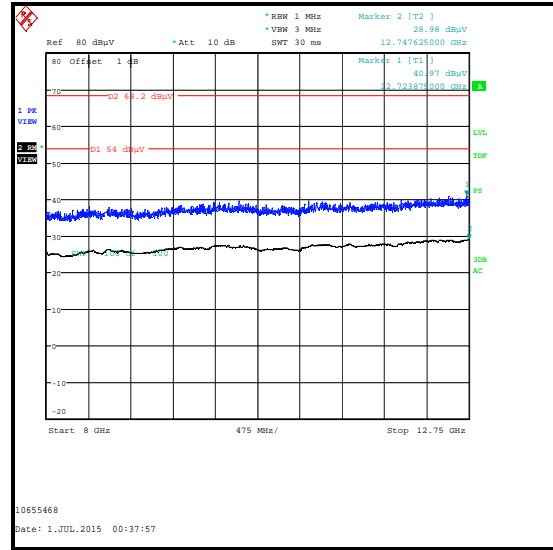
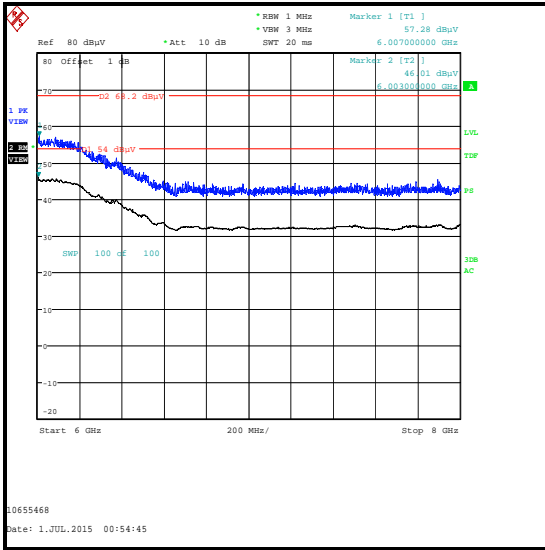


4.5 GHz to 5.46 GHz
Refer to Transmitter Band Edge Radiated Emissions
section of this report



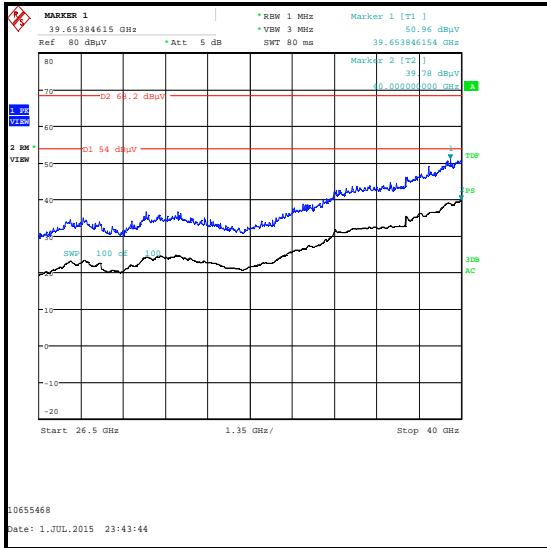
Transmitter Out of Band Radiated Emissions 5.15-5.25 GHz Band (continued)

Results: Middle Channel / QPSK / Plate Antenna



Transmitter Out of Band Radiated Emissions 5.15-5.25 GHz Band (continued)

Results: Middle Channel / QPSK / Plate Antenna

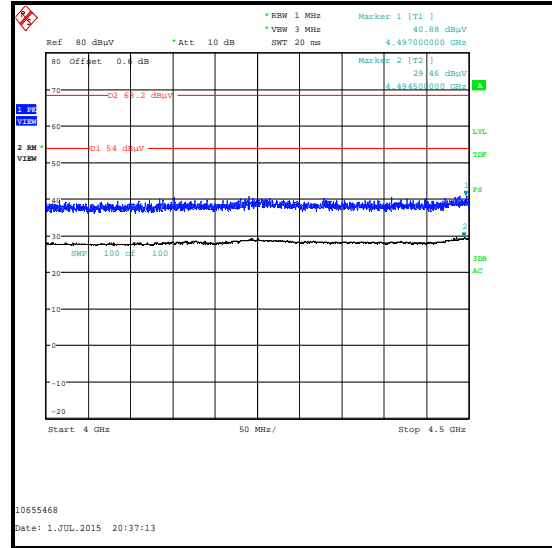
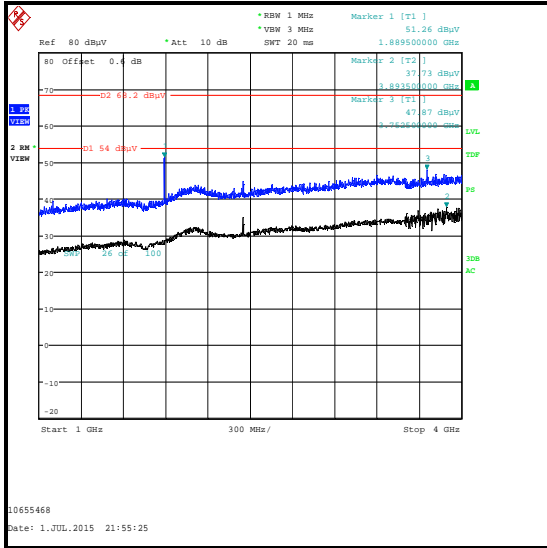


Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

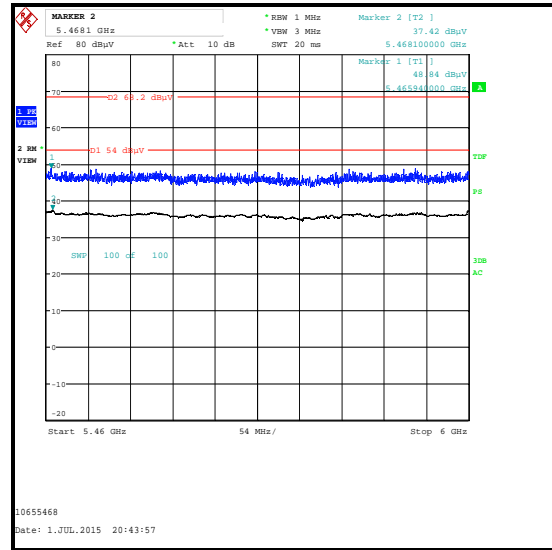
Transmitter Out of Band Radiated Emissions 5.15-5.25 GHz Band (continued)

Results: Middle Channel / QPSK / Sectorised Antenna

| Frequency (MHz) | Antenna Polarity | Peak Level (dBµV/m) | Average Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|------------------|---------------------|------------------------|-------------|----------|
| 40000.000 | Vertical | 51.4 | 54.0 | 2.6 | Complied |

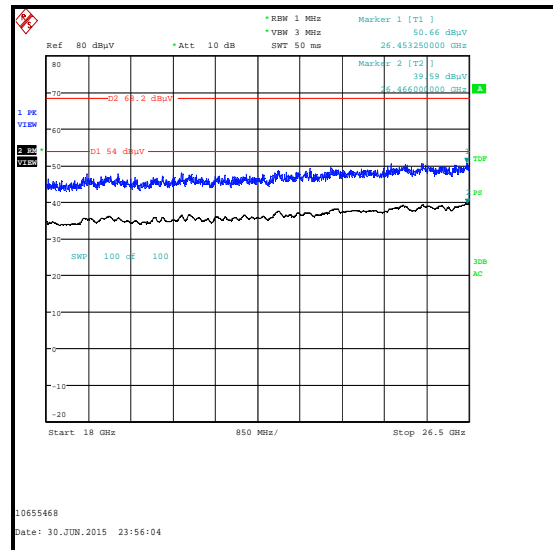
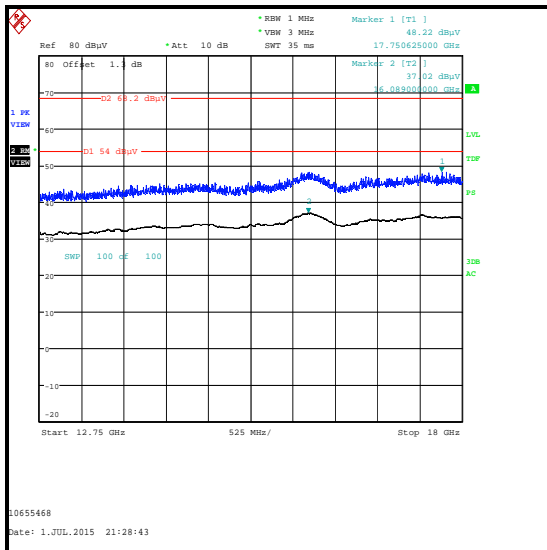
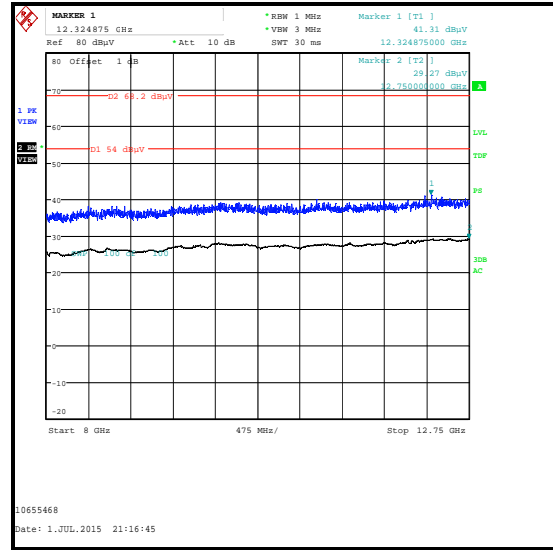
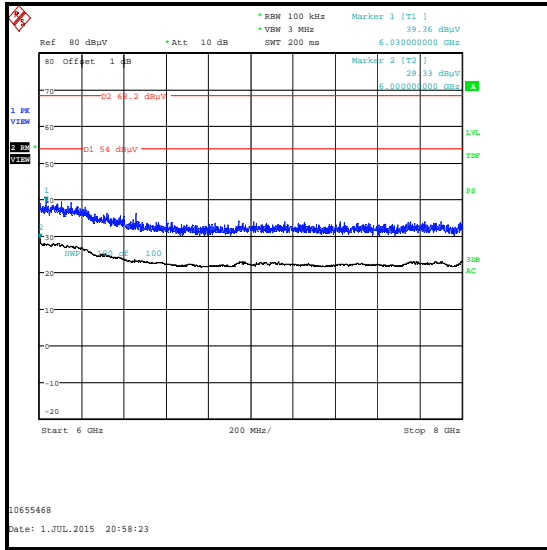


4.5 GHz to 5.46 GHz
Refer to Transmitter Band Edge Radiated Emissions section of this test report



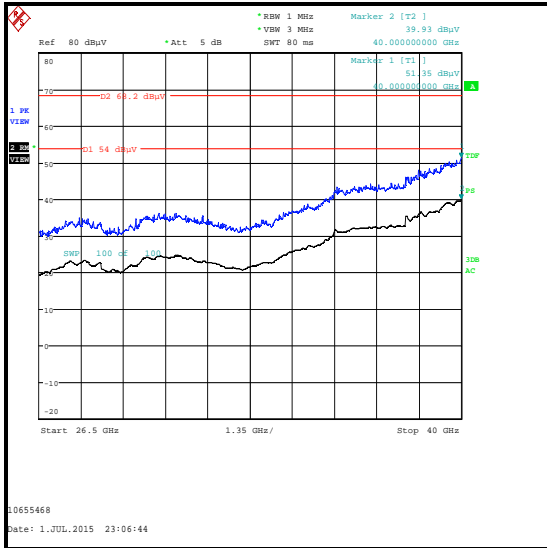
Transmitter Out of Band Radiated Emissions 5.15-5.25 GHz Band (continued)

Results: Middle Channel / QPSK / Sectorised Antenna



Transmitter Out of Band Radiated Emissions 5.15-5.25 GHz Band (continued)

Results: Middle Channel / QPSK / Sectorised Antenna

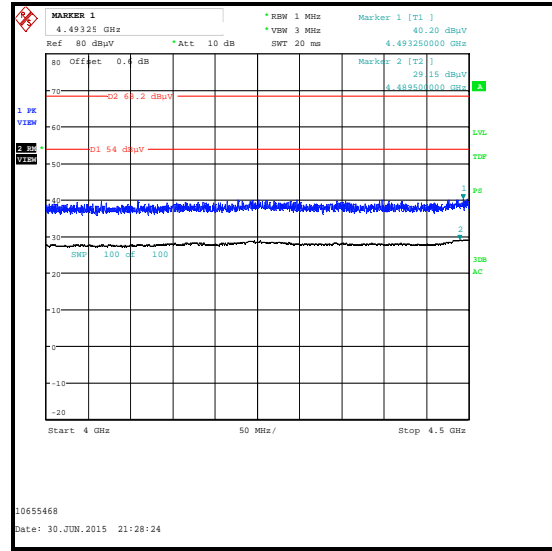
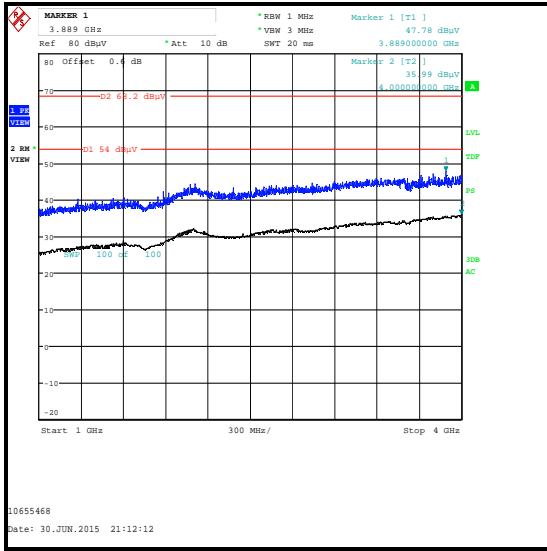


Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

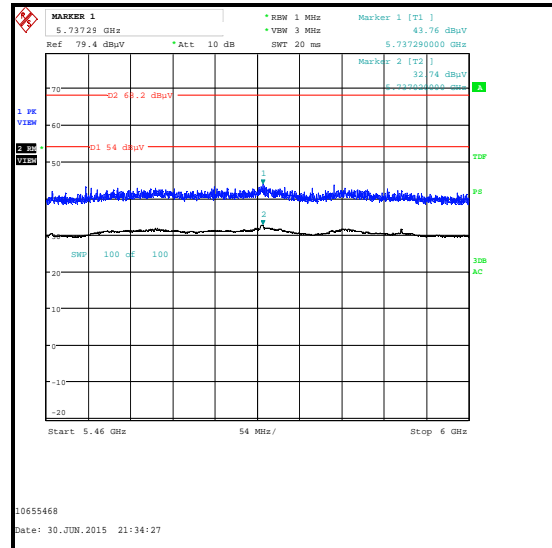
Transmitter Out of Band Radiated Emissions 5.15-5.25 GHz Band (continued)

Results: Middle Channel / QPSK / Omnidirectional Antenna

| Frequency (MHz) | Antenna Polarity | Peak Level (dBm/MHz EIRP) | Peak Limit (dBm/MHz EIRP) | Margin (dB) | Result |
|-----------------|------------------|---------------------------|---------------------------|-------------|----------|
| 25497.000 | Vertical | -43.9 | -27.0 | 16.9 | Complied |

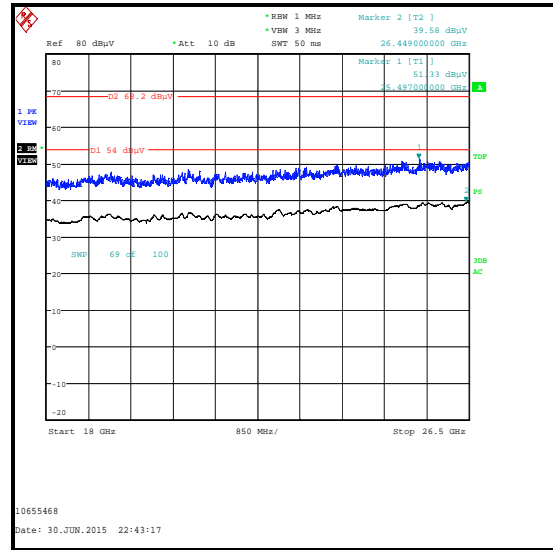
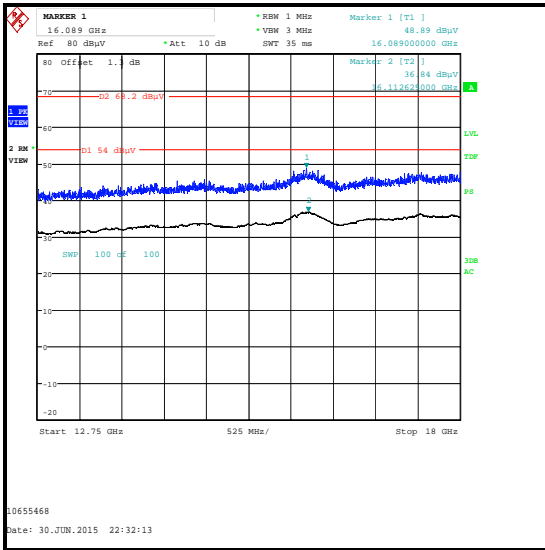
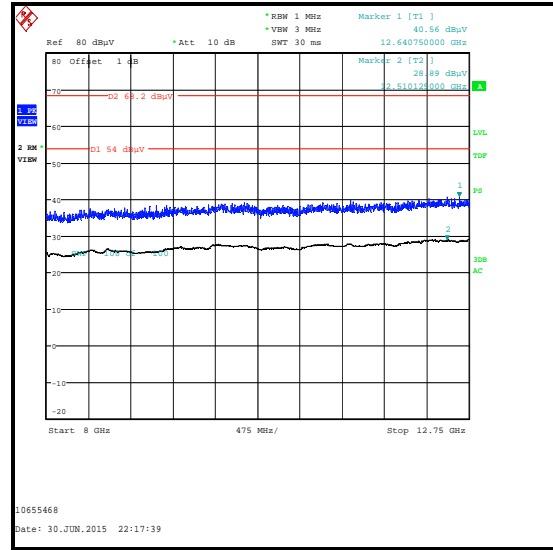
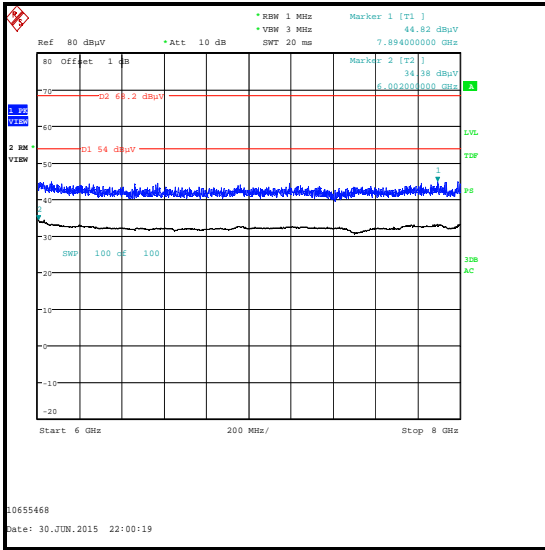


4.5 GHz to 5.46 GHz
Refer to Transmitter Band Edge Radiated Emissions
section of this test report



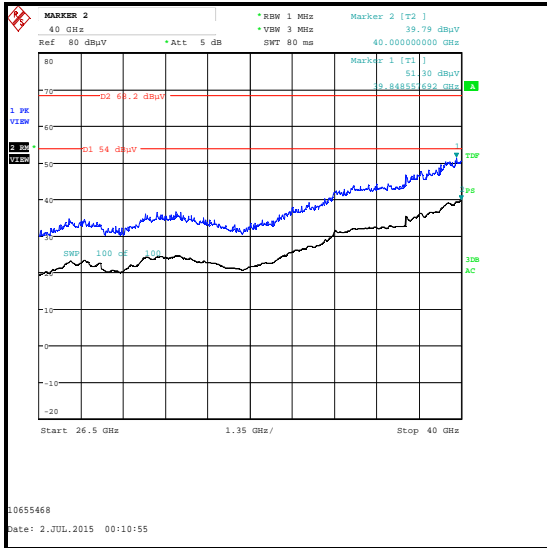
Transmitter Out of Band Radiated Emissions 5.15-5.25 GHz Band (continued)

Results: Middle Channel / QPSK / Omnidirectional Antenna



Transmitter Out of Band Radiated Emissions 5.15-5.25 GHz Band (continued)

Results: Middle Channel / QPSK / Omnidirectional Antenna



Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

Transmitter Out of Band Radiated Emissions (continued)**Test Equipment Used:**

| Asset No. | Instrument | Manufacturer | Type No. | Serial No. | Date Calibration Due | Cal. Interval (Months) |
|-----------|-----------------------------------|-------------------|-----------------|-------------|-----------------------|------------------------|
| K0001 | 5m RSE Chamber | Rainford EMC | N/A | N/A | 19 Mar 2016 | 12 |
| K0002 | 3m RSE Chamber | Rainford EMC | N/A | N/A | 01 May 2016 | 12 |
| M1379 | Test Receiver | Rohde & Schwarz | ESIB7 | 100330 | 08 Dec 2015 | 12 |
| G0543 | Pre Amplifier | Sonoma | 310N | 230801 | 05 Aug 2015 | 3 |
| A1534 | Pre Amplifier | Hewlett Packard | 8449B | 3008A00405 | 21 Dec 2015 | 12 |
| M1874 | Test Receiver | Rohde & Schwarz | ESU | 100553 | 12 Jun 2016 | 12 |
| A2134 | Low Pass Filter | AtlanTecRF | AFL-05000 | 300195 | 17 Apr 2016 | 12 |
| A1834 | RF Attenuator | Hewlett Packard | 8491B | 10444 | 05 Mar 2016 | 12 |
| A1980 | High Pass Filter | AtlanTecRF | AFH-06000 | 09110900393 | 17 Apr 2016 | 12 |
| A1818 | Antenna | EMCO | 3115 | 00075692 | 20 Dec 2015 | 12 |
| A2176 | High Pass Filter | AtlanTecRF | AFH-07000 | 800980 | 17 Apr 2016 | 12 |
| A1396 | RF Attenuator | Huber & Suhner | 6810.17.B | 757987 | 05 May 2016 | 12 |
| A288 | Antenna | Chase | CBL6111A | 1589 | 21 Aug 2015 | 12 |
| A253 | Antenna | Flann Microwave | 12240-20 | 128 | 20 Dec 2015 | 12 |
| A254 | Antenna | Flann Microwave | 14240-20 | 139 | 20 Dec 2015 | 12 |
| A255 | Antenna | Flann Microwave | 16240-20 | 519 | 20 Dec 2015 | 12 |
| A256 | Antenna | Flann Microwave | 18240-20 | 400 | 20 Dec 2015 | 12 |
| A436 | Antenna | Flann Microwave | 20249-20 | 330 | 20 Dec 2015 | 12 |
| A203 | WG 22 Microwave Horn | Flann Microwave | 22240-20 | 343 | 19 May 2016 | 36 |
| M1390 | 26.5 GHz to 40 GHz Harmonic Mixer | Farran Technology | WHMP 28 | FTL1677B | Calibrated before use | N/A |
| A1785 | 26.5 GHz to 40 GHz Pre-amplifier | Farran Technology | FLNA-28-30 | FTL 6483 | Calibrated before use | N/A |
| A1878 | WG22 Adaptor | Quasar | QRA22PQB 402BKF | N/A | Calibrated before use | N/A |
| M1630 | Spectrum Analyser | Rohde & Schwarz | ESU 40 | 100233 | 20 Feb 2016 | 12 |
| M1656 | Thermohyrometer | JM Handelpunkt | 30.5015.13 | Not stated | 23 Apr 2016 | 12 |

5.2.6. Transmitter Band Edge Radiated Emissions**Test Summary:**

| | | | |
|-----------------------------------|-----------------|--------------------|---------------------------------|
| Test Engineer: | Georgios Vrezas | Test Dates: | 24 June 2015 to 02 July 2015 |
| Test Sample Serial Number: | F50980BB0152 | | |

| | |
|--------------------------|--|
| FCC Reference: | Parts 15.407(b)(1) & 15.209(a) |
| Test Method Used: | ANSI C63.10 Section 6.10 & FCC KDB 789033 Section II.G |

Environmental Conditions:

| | |
|-------------------------------|----------|
| Temperature (°C): | 23 to 27 |
| Relative Humidity (%): | 36 to 49 |

Note(s):

1. All modulation types were initially tested and the results were found to be comparable. Final measurements were performed using QPSK modulation. The EUT was transmitting with >99% duty cycle and at maximum power for bottom or top channel according to the antenna being used (refer to Section 4.2). All antennas types were tested. The EUT was connected to each antenna using the supplied RF cables.
2. Lower band edge measurements were performed with the EUT transmitting on the bottom channel of the 5.15-5.25 GHz band. The lower band edge plots show a frequency line at 5.15 GHz. A restricted band of operation exists from 4.5 GHz to 5.15 GHz. A peak limit of 74 dB μ V/m and an average limit of 54 dB μ V/m applies in the restricted band. Tests were performed as field strength measurements at a measurement distance of 3 metres. Markers were placed on the peak and average traces at 5.15 GHz.
3. Upper band edge measurements were performed with the EUT transmitting on the top channel of the 5.15-5.25 GHz band. The upper band edge plots show an upper band edge frequency line at 5.35 GHz. A restricted band of operation exists from 5.35 GHz to 5.46 GHz. A peak limit of 74 dB μ V/m and an average limit of 54 dB μ V/m applies in the restricted band. Tests were performed as field strength measurements at a measurement distance of 3 metres. Markers were placed on the peak and average traces at the band edge frequency of 5.35 GHz.
4. The blue trace on the result plots shows the peak level and the black trace shows the average level.
5. Tests were also performed with the EUT transmitting on the lowest and highest full power channels. Tests were found to be compliant but are not included in this test report. Results are archived on the UL VS LTD IT server and are available for inspection if required.

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz Band operation) (continued)

Results: Parabolic Antenna / 5 MHz Channel / QPSK / Lower Band Edge / Peak

| Frequency (MHz) | Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 63.7 | 74.0 | 10.3 | Complied |

Results: Parabolic Antenna / 5 MHz Channel / QPSK / Lower Band Edge / Average

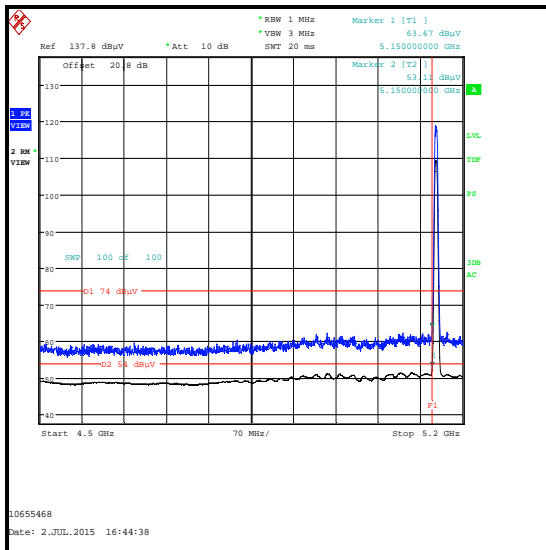
| Frequency (MHz) | Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 53.1 | 54.0 | 0.9 | Complied |

Results: Parabolic Antenna / 5 MHz Channel / QPSK / Upper Band Edge / Peak

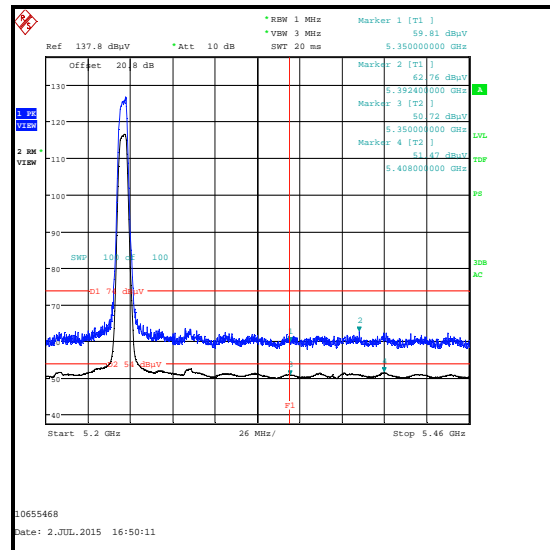
| Frequency (MHz) | Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 59.8 | 74.0 | 14.2 | Complied |
| 5392.400 | 62.8 | 74.0 | 11.2 | Complied |

Results: Parabolic Antenna / 5 MHz Channel / QPSK / Upper Band Edge / Average

| Frequency (MHz) | Level (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 50.7 | 54.0 | 3.3 | Complied |
| 5408 | 51.5 | 54.0 | 2.5 | Complied |



Lower Band Edge



Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz Band operation) (continued)

Results: Parabolic Antenna / 10 MHz Channel / QPSK / Lower Band Edge / Peak

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 65.0 | 74.0 | 9.0 | Complied |

Results: Parabolic Antenna / 10 MHz Channel / QPSK / Lower Band Edge / Average

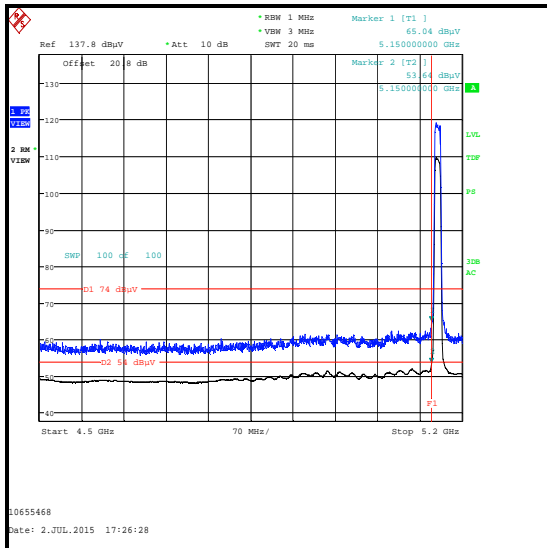
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 53.6 | 54.0 | 0.4 | Complied |

Results: Parabolic Antenna / 10 MHz Channel / QPSK / Upper Band Edge / Peak

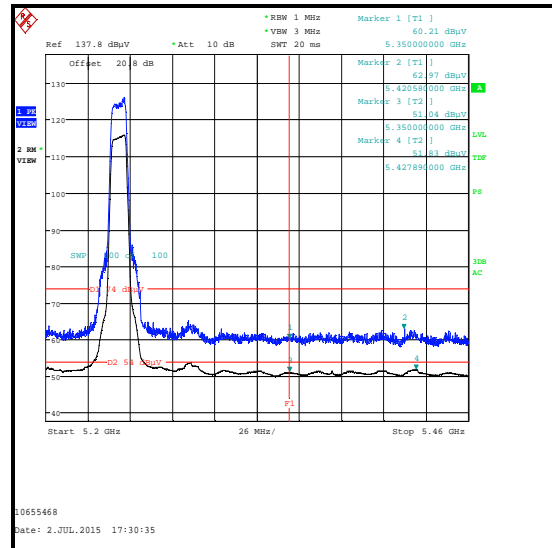
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 60.2 | 74.0 | 13.8 | Complied |
| 5420.580 | 63.0 | 74.0 | 11.0 | Complied |

Results: Parabolic Antenna / 10 MHz Channel / QPSK / Upper Band Edge / Average

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 51.0 | 54.0 | 3.0 | Complied |
| 5427.890 | 51.8 | 54.0 | 2.2 | Complied |



Lower Band Edge



Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz Band operation) (continued)

Results: Parabolic Antenna / 20 MHz Channel / QPSK / Lower Band Edge / Peak

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5143 | 62.8 | 74.0 | 11.2 | Complied |
| 5150 | 63.1 | 74.0 | 10.9 | Complied |

Results: Parabolic Antenna / 20 MHz Channel / QPSK / Lower Band Edge / Average

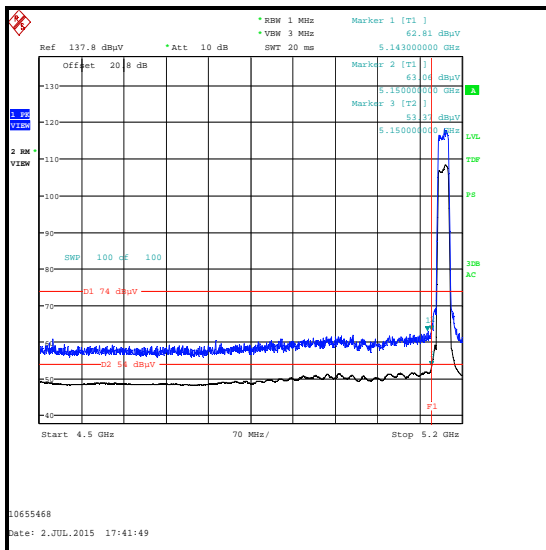
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 53.4 | 54.0 | 0.6 | Complied |

Results: Parabolic Antenna / 20 MHz Channel / QPSK / Upper Band Edge / Peak

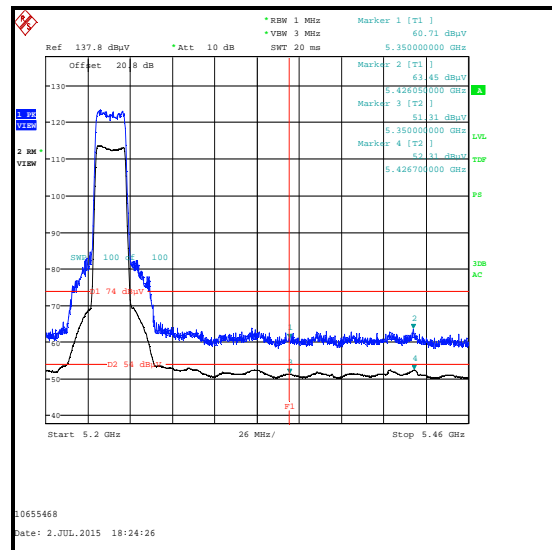
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 60.7 | 74.0 | 13.3 | Complied |
| 5426.050 | 63.5 | 74.0 | 10.5 | Complied |

Results: Parabolic Antenna / 20 MHz Channel / QPSK / Upper Band Edge / Average

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 51.3 | 54.0 | 2.7 | Complied |
| 5426.700 | 52.3 | 54.0 | 1.7 | Complied |



Lower Band Edge



Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz Band operation) (continued)

Results: Parabolic Antenna / 40 MHz Channel / QPSK / Lower Band Edge / Peak

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5148.950 | 63.2 | 74.0 | 10.8 | Complied |
| 5150 | 62.9 | 74.0 | 11.1 | Complied |

Results: Parabolic Antenna / 40 MHz Channel / QPSK / Lower Band Edge / Average

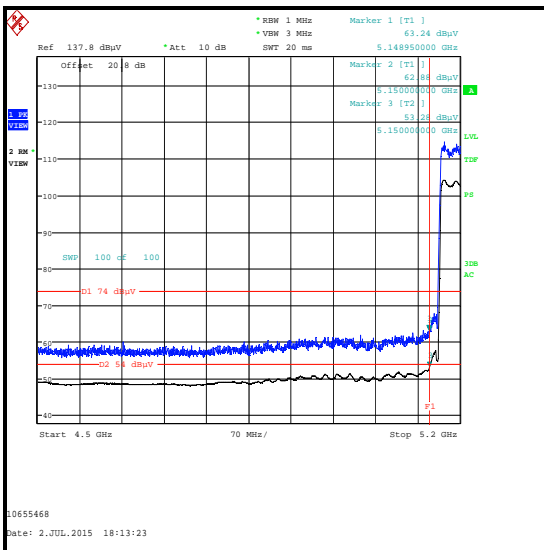
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 53.3 | 54.0 | 0.7 | Complied |

Results: Parabolic Antenna / 40 MHz Channel / QPSK / Upper Band Edge / Peak

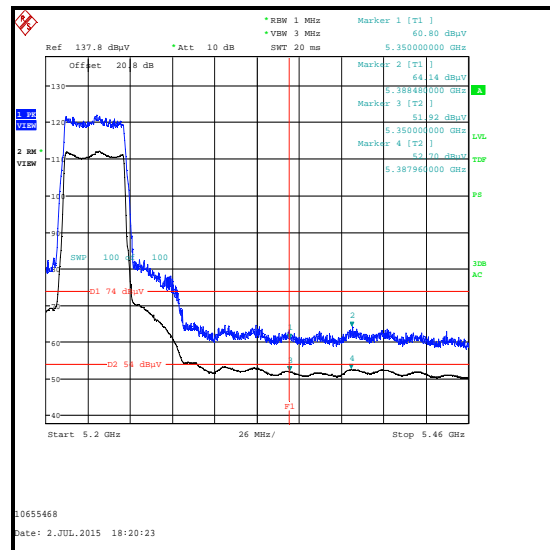
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 60.8 | 74.0 | 13.2 | Complied |
| 5388.480 | 64.1 | 74.0 | 9.9 | Complied |

Results: Parabolic Antenna / 40 MHz Channel / QPSK / Upper Band Edge / Average

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 51.9 | 54.0 | 2.1 | Complied |
| 5387.960 | 52.7 | 54.0 | 1.3 | Complied |



Lower Band Edge



Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz Band operation) (continued)

Results: Plate Antenna / 5 MHz Channel / QPSK / Lower Band Edge / Peak

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 63.6 | 74.0 | 10.4 | Complied |

Results: Plate Antenna / 5 MHz Channel / QPSK / Lower Band Edge / Average

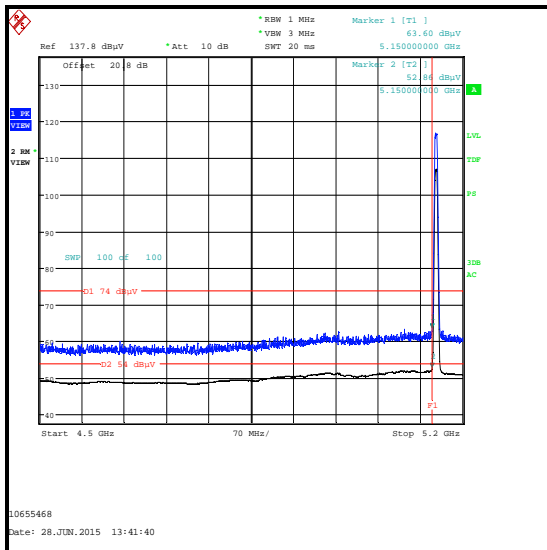
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 52.9 | 54.0 | 1.1 | Complied |

Results: Plate Antenna / 5 MHz Channel / QPSK / Upper Band Edge / Peak

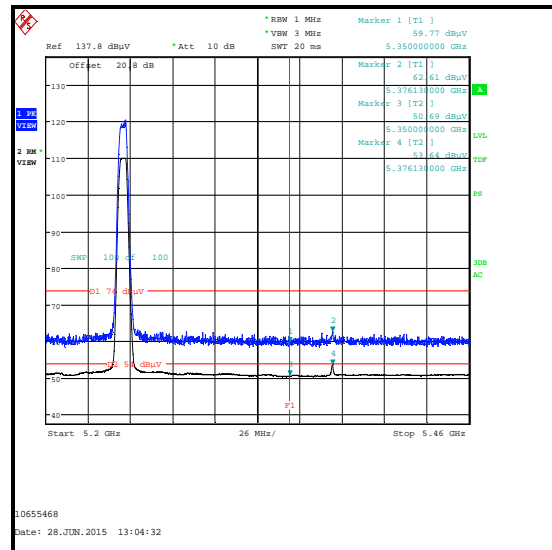
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 59.8 | 74.0 | 14.2 | Complied |
| 5376.130 | 62.6 | 74.0 | 11.4 | Complied |

Results: Plate Antenna / 5 MHz Channel / QPSK / Upper Band Edge / Average

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 50.7 | 54.0 | 3.3 | Complied |
| 5376.130 | 53.6 | 54.0 | 0.4 | Complied |



Lower Band Edge



Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz Band operation) (continued)

Results: Plate Antenna / 10 MHz Channel / QPSK / Lower Band Edge / Peak

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5149.650 | 63.8 | 74.0 | 10.2 | Complied |
| 5150 | 62.3 | 74.0 | 11.7 | Complied |

Results: Plate Antenna / 10 MHz Channel / QPSK / Lower Band Edge / Average

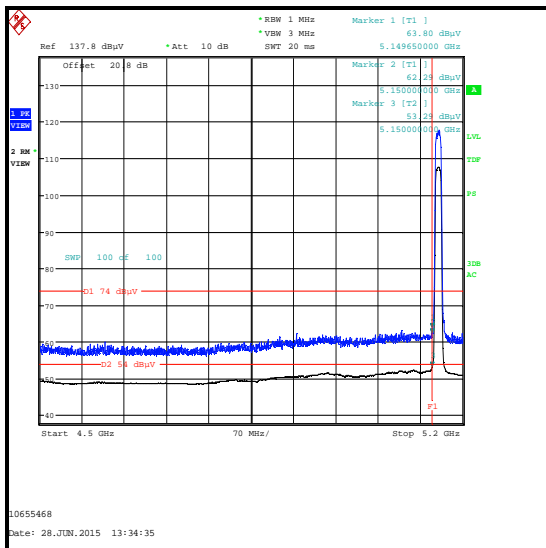
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 53.3 | 54.0 | 0.7 | Complied |

Results: Plate Antenna / 10 MHz Channel / QPSK / Upper Band Edge / Peak

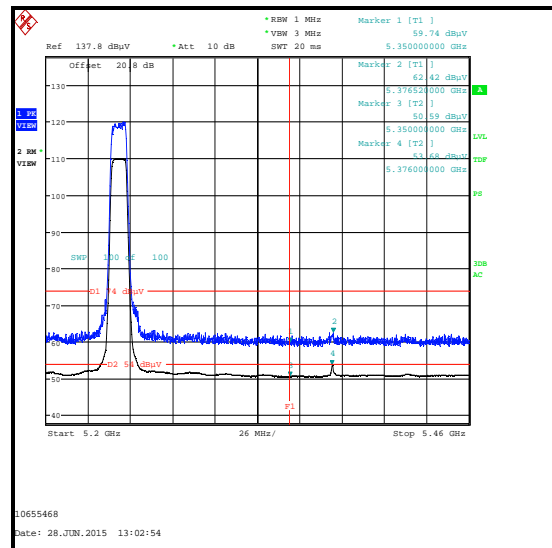
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 59.7 | 74.0 | 14.3 | Complied |
| 5376.520 | 62.4 | 74.0 | 11.6 | Complied |

Results: Plate Antenna / 10 MHz Channel / QPSK / Upper Band Edge / Average

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 50.6 | 54.0 | 3.4 | Complied |
| 5376.000 | 53.7 | 54.0 | 0.3 | Complied |



Lower Band Edge



Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz Band operation) (continued)

Results: Plate Antenna / 20 MHz Channel / QPSK / Lower Band Edge / Peak

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5149.650 | 63.3 | 74.0 | 10.7 | Complied |
| 5150 | 63.0 | 74.0 | 11.0 | Complied |

Results: Plate Antenna / 20 MHz Channel / QPSK / Lower Band Edge / Average

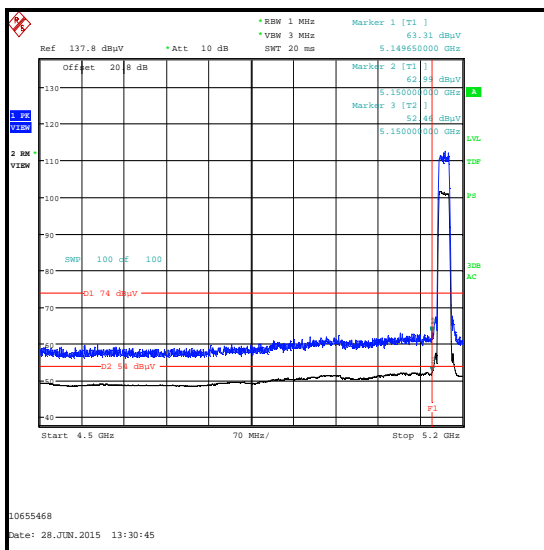
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 52.5 | 54.0 | 1.5 | Complied |

Results: Plate Antenna / 20 MHz Channel / QPSK / Upper Band Edge / Peak

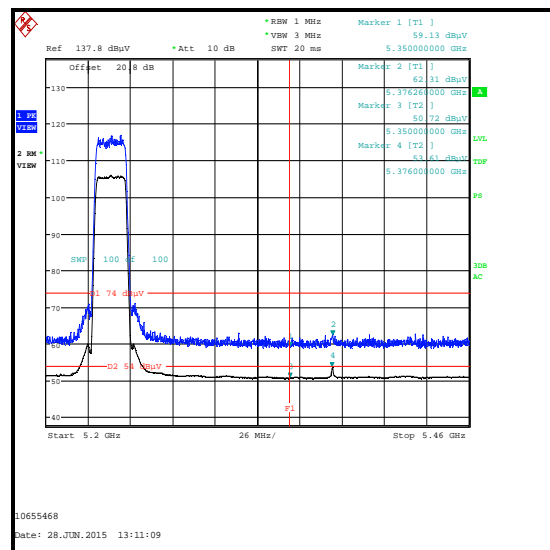
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 59.1 | 74.0 | 14.9 | Complied |
| 5376.260 | 62.3 | 74.0 | 11.7 | Complied |

Results: Plate Antenna / 20 MHz Channel / QPSK / Upper Band Edge / Average

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 50.7 | 54.0 | 3.3 | Complied |
| 5376.000 | 53.6 | 54.0 | 0.4 | Complied |



Lower Band Edge



Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz Band operation) (continued)

Results: Plate Antenna / 40 MHz Channel / QPSK / Lower Band Edge / Peak

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5144.050 | 64.4 | 74.0 | 9.6 | Complied |
| 5150 | 63.2 | 74.0 | 10.8 | Complied |

Results: Plate Antenna / 40 MHz Channel / QPSK / Lower Band Edge / Average

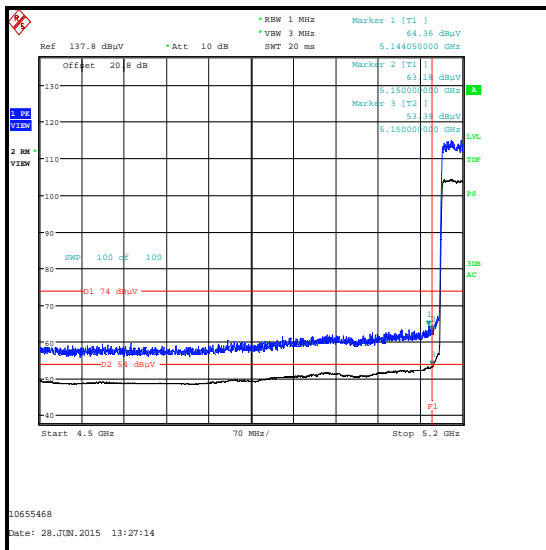
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 53.4 | 54.0 | 0.6 | Complied |

Results: Plate Antenna / 40 MHz Channel / QPSK / Upper Band Edge / Peak

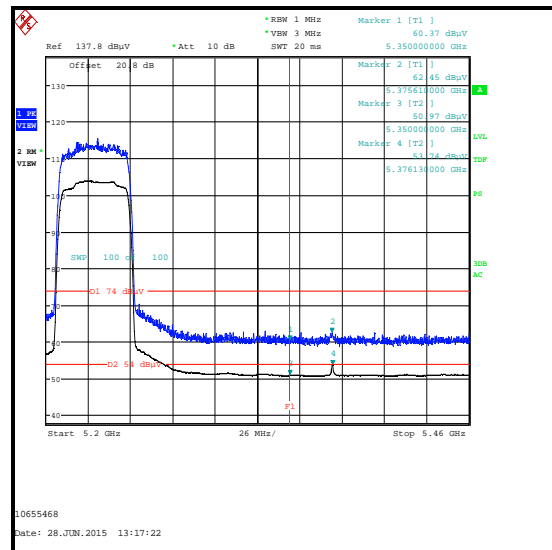
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 60.4 | 74.0 | 13.6 | Complied |
| 5375.610 | 62.5 | 74.0 | 11.5 | Complied |

Results: Plate Antenna / 40 MHz Channel / QPSK / Upper Band Edge / Average

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 51.0 | 54.0 | 3.0 | Complied |
| 5376.130 | 53.7 | 54.0 | 0.3 | Complied |



Lower Band Edge



Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz Band operation) (continued)

Results: Sectorised Antenna / 5 MHz Channel / QPSK / Lower Band Edge / Peak

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 63.3 | 74.0 | 10.7 | Complied |

Results: Sectorised Antenna / 5 MHz Channel / QPSK / Lower Band Edge / Average

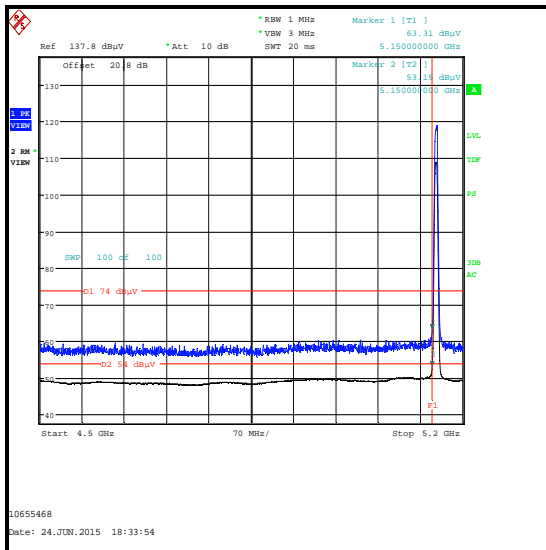
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 53.2 | 54.0 | 0.8 | Complied |

Results: Sectorised Antenna / 5 MHz Channel / QPSK / Upper Band Edge / Peak

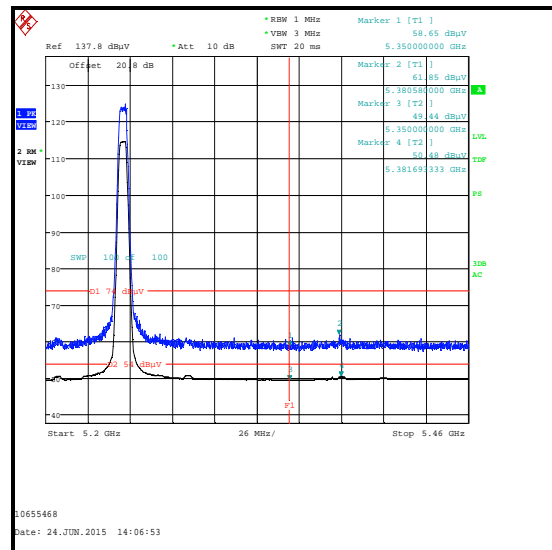
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 58.7 | 74.0 | 15.3 | Complied |
| 5380.580 | 61.9 | 74.0 | 12.1 | Complied |

Results: Sectorised Antenna / 5 MHz Channel / QPSK / Upper Band Edge / Average

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 49.4 | 54.0 | 4.6 | Complied |
| 5381.693 | 50.5 | 54.0 | 3.5 | Complied |



Lower Band Edge



Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz Band operation) (continued)

Results: Sectorised Antenna / 10 MHz Channel / QPSK / Lower Band Edge / Peak

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 63.4 | 74.0 | 10.6 | Complied |

Results: Sectorised Antenna / 10 MHz Channel / QPSK / Lower Band Edge / Average

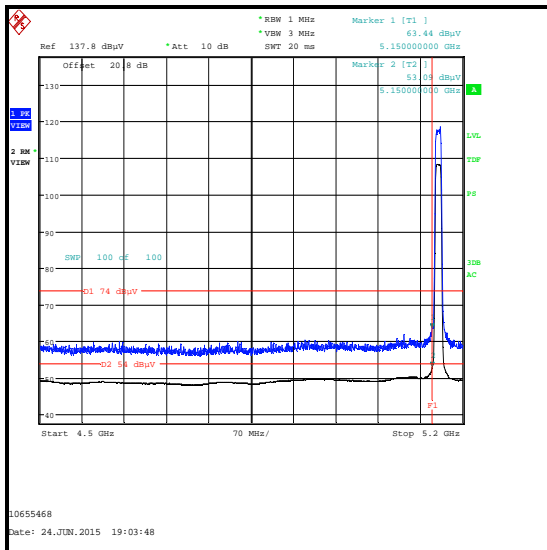
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 53.1 | 54.0 | 0.9 | Complied |

Results: Sectorised Antenna / 10 MHz Channel / QPSK / Upper Band Edge / Peak

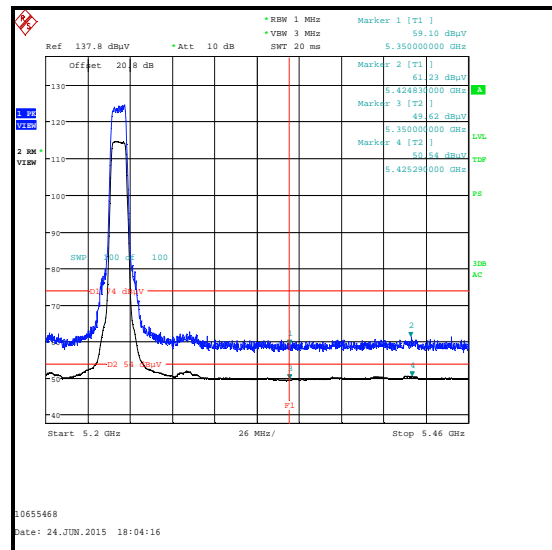
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 59.1 | 74.0 | 14.9 | Complied |
| 5424.830 | 61.2 | 74.0 | 12.8 | Complied |

Results: Sectorised Antenna / 10 MHz Channel / QPSK / Upper Band Edge / Average

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 49.6 | 54.0 | 4.4 | Complied |
| 5425.290 | 50.5 | 54.0 | 3.5 | Complied |



Lower Band Edge



Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz Band operation) (continued)

Results: Sectorised Antenna / 20 MHz Channel / QPSK / Lower Band Edge / Peak

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 65.6 | 74.0 | 8.4 | Complied |

Results: Sectorised Antenna / 20 MHz Channel / QPSK / Lower Band Edge / Average

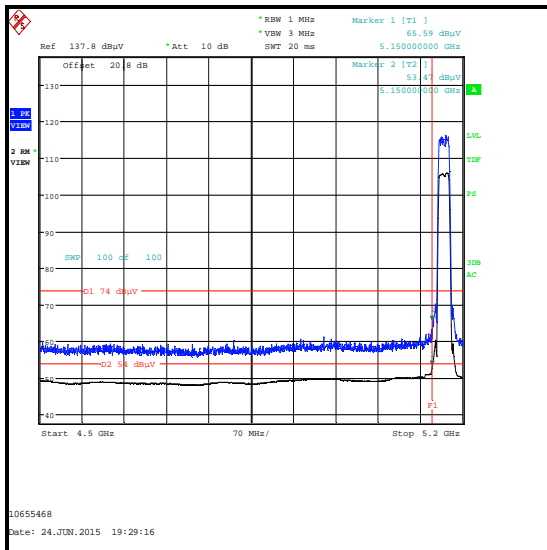
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 53.5 | 54.0 | 0.5 | Complied |

Results: Sectorised Antenna / 20 MHz Channel / QPSK / Upper Band Edge / Peak

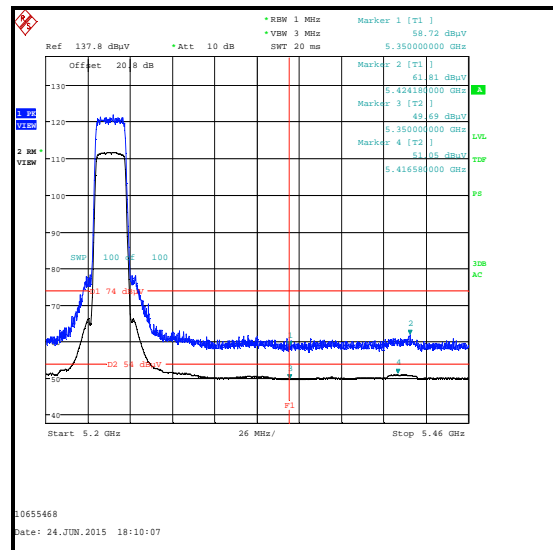
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 58.7 | 74.0 | 15.3 | Complied |
| 5424.180 | 61.8 | 74.0 | 12.2 | Complied |

Results: Sectorised Antenna / 20 MHz Channel / QPSK / Upper Band Edge / Average

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 49.7 | 54.0 | 4.3 | Complied |
| 5416.580 | 51.1 | 54.0 | 2.9 | Complied |



Lower Band Edge



Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz Band operation) (continued)

Results: Sectorised Antenna / 40 MHz Channel / QPSK / Lower Band Edge / Peak

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 63.6 | 74.0 | 10.4 | Complied |

Results: Sectorised Antenna / 40 MHz Channel / QPSK / Lower Band Edge / Average

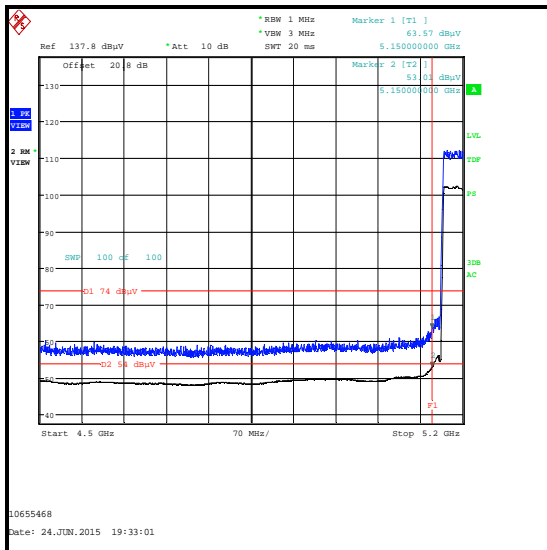
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 53.0 | 54.0 | 1.0 | Complied |

Results: Sectorised Antenna / 40 MHz Channel / QPSK / Upper Band Edge / Peak

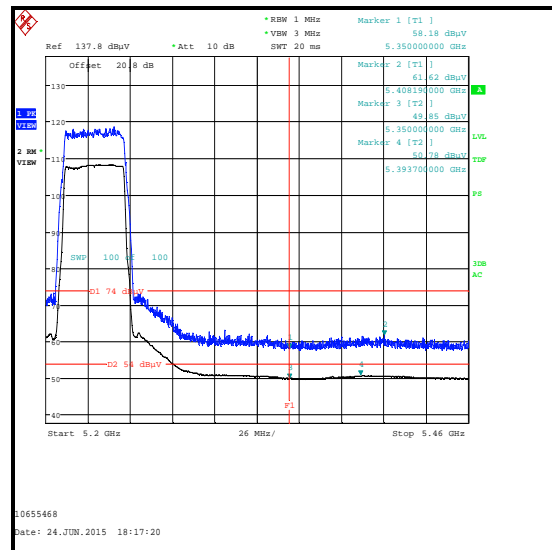
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 58.2 | 74.0 | 15.8 | Complied |
| 5408.190 | 61.6 | 74.0 | 12.4 | Complied |

Results: Sectorised Antenna / 40 MHz Channel / QPSK / Upper Band Edge / Average

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 49.9 | 54.0 | 4.1 | Complied |
| 5393.700 | 50.8 | 54.0 | 3.2 | Complied |



Lower Band Edge



Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz Band operation) (continued)

Results: Omnidirectional Antenna / 5 MHz Channel / QPSK / Lower Band Edge / Peak

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 64.8 | 74.0 | 9.2 | Complied |

Results: Omnidirectional Antenna / 5 MHz Channel / QPSK / Lower Band Edge / Average

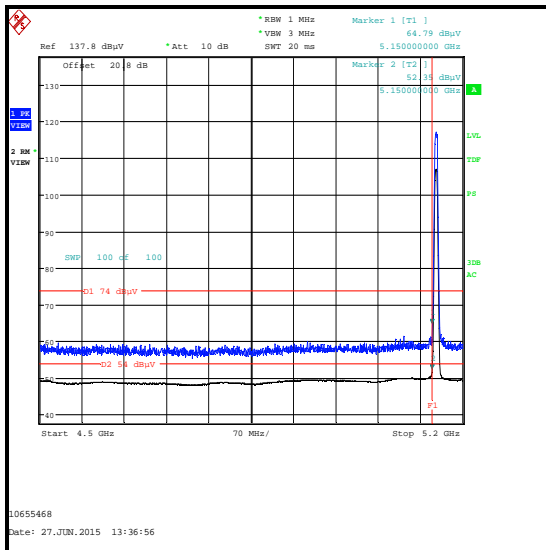
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 52.4 | 54.0 | 1.6 | Complied |

Results: Omnidirectional Antenna / 5 MHz Channel / QPSK / Upper Band Edge / Peak

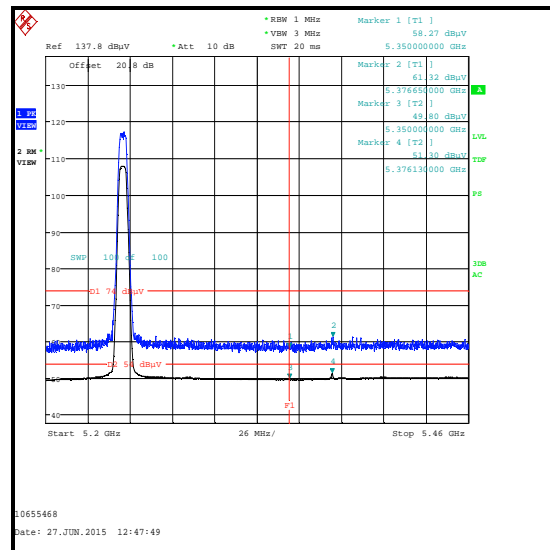
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 58.3 | 74.0 | 15.7 | Complied |
| 5376.650 | 61.3 | 74.0 | 12.7 | Complied |

Results: Omnidirectional Antenna / 5 MHz Channel / QPSK / Upper Band Edge / Average

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 49.8 | 54.0 | 4.2 | Complied |
| 5376.130 | 51.3 | 54.0 | 2.7 | Complied |



Lower Band Edge



Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz Band operation) (continued)

Results: Omnidirectional Antenna / 10 MHz Channel / QPSK / Lower Band Edge / Peak

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 64.2 | 74.0 | 9.8 | Complied |

Results: Omnidirectional Antenna / 10 MHz Channel / QPSK / Lower Band Edge / Average

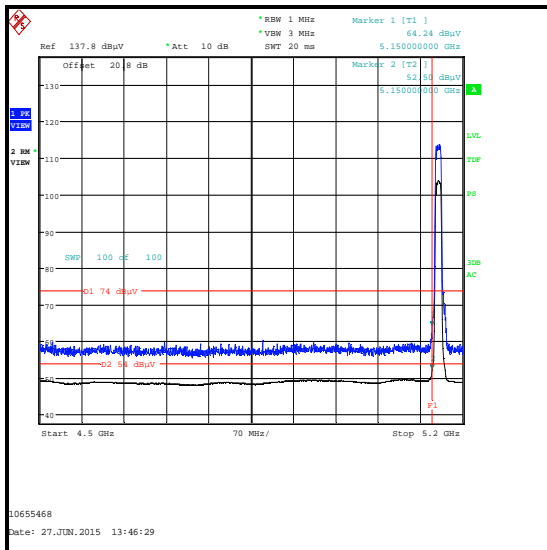
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 52.5 | 54.0 | 1.5 | Complied |

Results: Omnidirectional Antenna / 10 MHz Channel / QPSK / Upper Band Edge / Peak

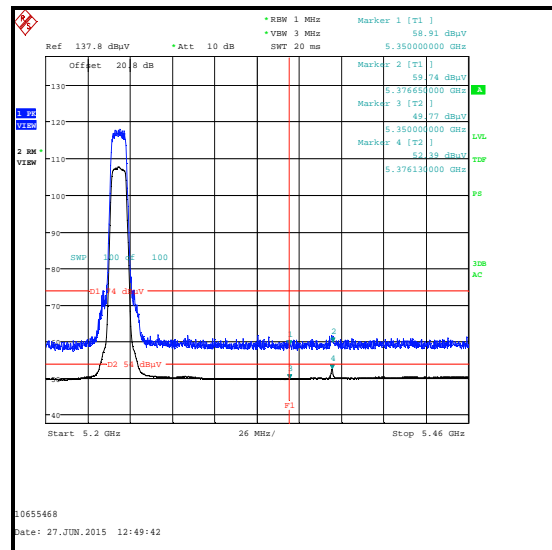
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 58.9 | 74.0 | 15.1 | Complied |
| 5376.650 | 59.7 | 74.0 | 14.3 | Complied |

Results: Omnidirectional Antenna / 10 MHz Channel / QPSK / Upper Band Edge / Average

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 49.8 | 54.0 | 4.2 | Complied |
| 5376.130 | 52.4 | 54.0 | 1.6 | Complied |



Lower Band Edge



Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz Band operation) (continued)

Results: Omnidirectional Antenna / 20 MHz Channel / QPSK / Lower Band Edge / Peak

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 64.7 | 74.0 | 9.3 | Complied |

Results: Omnidirectional Antenna / 20 MHz Channel / QPSK / Lower Band Edge / Average

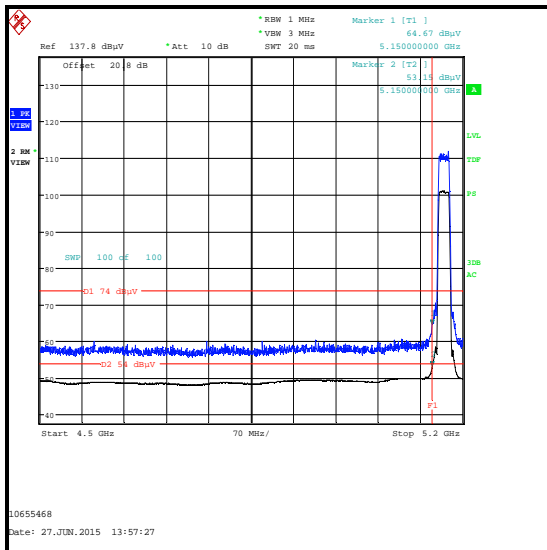
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 53.2 | 54.0 | 0.8 | Complied |

Results: Omnidirectional Antenna / 20 MHz Channel / QPSK / Upper Band Edge / Peak

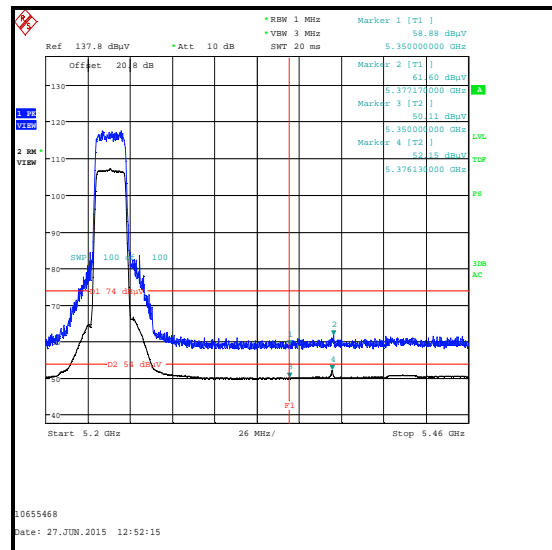
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 58.9 | 74.0 | 15.1 | Complied |
| 5377.170 | 61.6 | 74.0 | 12.4 | Complied |

Results: Omnidirectional Antenna / 20 MHz Channel / QPSK / Upper Band Edge / Average

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 50.1 | 54.0 | 3.9 | Complied |
| 5376.130 | 52.2 | 54.0 | 1.8 | Complied |



Lower Band Edge



Upper Band Edge

Transmitter Band Edge Radiated Emissions (5.15-5.25 GHz Band operation) (continued)

Results: Omnidirectional Antenna / 40 MHz Channel / QPSK / Lower Band Edge / Peak

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5143.350 | 65.1 | 74.0 | 8.9 | Complied |
| 5150 | 63.7 | 74.0 | 10.3 | Complied |

Results: Omnidirectional Antenna / 40 MHz Channel / QPSK / Lower Band Edge / Average

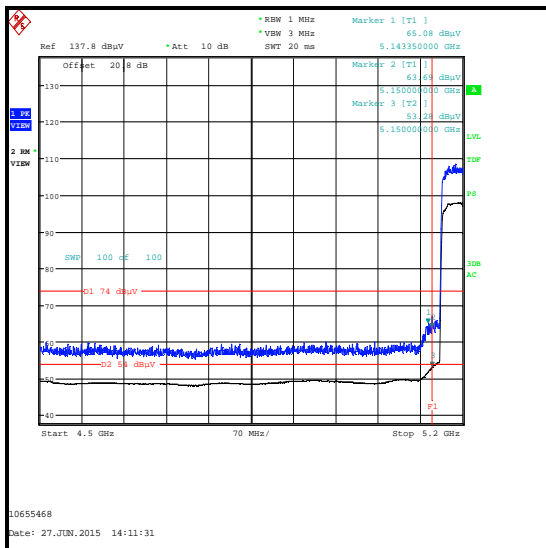
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5150 | 53.3 | 54.0 | 0.7 | Complied |

Results: Omnidirectional Antenna / 40 MHz Channel / QPSK / Upper Band Edge / Peak

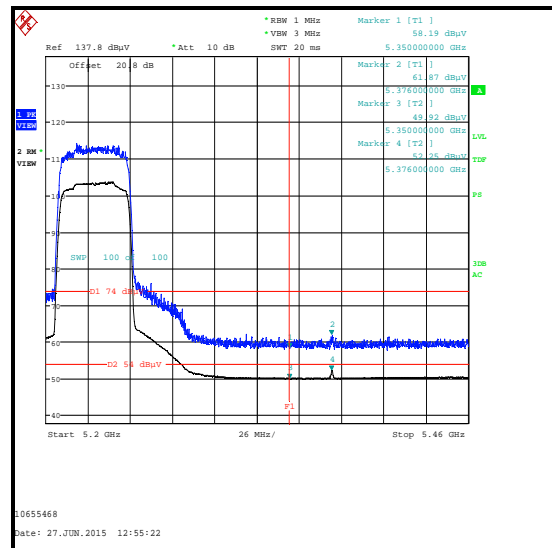
| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 58.2 | 74.0 | 15.8 | Complied |
| 5376.000 | 61.9 | 74.0 | 12.1 | Complied |

Results: Omnidirectional Antenna / 40 MHz Channel / QPSK / Upper Band Edge / Average

| Frequency (MHz) | Level (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Result |
|-----------------|----------------|----------------|-------------|----------|
| 5350 | 49.9 | 54.0 | 4.1 | Complied |
| 5376.000 | 52.3 | 54.0 | 1.7 | Complied |



Lower Band Edge



Upper Band Edge

Transmitter Band Edge Radiated Emissions (continued)**Test Equipment Used:**

| Asset No. | Instrument | Manufacturer | Type No. | Serial No. | Date Calibration Due | Cal. Interval (Months) |
|------------------|-------------------|---------------------|-----------------|-------------------|-----------------------------|-------------------------------|
| M1656 | Thermohygrometer | JM Handelspunkt | 30.5015.13 | None stated | 23 Apr 2016 | 12 |
| K0002 | 3m RSE Chamber | Rainford EMC | N/A | N/A | 01 May 2016 | 12 |
| M1874 | Test Receiver | Rohde & Schwarz | ESU26 | 100553 | 12 Jun 2016 | 12 |
| A1534 | Pre Amplifier | Hewlett Packard | 8449B | 3008A00405 | 21 Dec 2015 | 12 |
| A253 | Antenna | Flann | 12240-20 | 128 | 20 Dec 2015 | 12 |
| A1393 | Attenuator | Huber & Suhner | 6820.17.B | 757456 | 05 May 2016 | 12 |

6. Measurement Uncertainty

No measurement or test can ever be perfect and the imperfections give rise to error of measurement in the results. Consequently the result of a measurement is only an approximation to the value of the measurand (the specific quantity subject to measurement) and is only complete when accompanied by a statement of the uncertainty of the approximation.

The expression of uncertainty of a measurement result allows realistic comparison of results with reference values and limits given in specifications and standards.

The uncertainty of the result may need to be taken into account when interpreting the measurement results.

The reported expanded uncertainties below are based on a standard uncertainty multiplied by an appropriate coverage factor such that a confidence level of approximately 95% is maintained. For the purposes of this document "approximately" is interpreted as meaning "effectively" or "for most practical purposes".

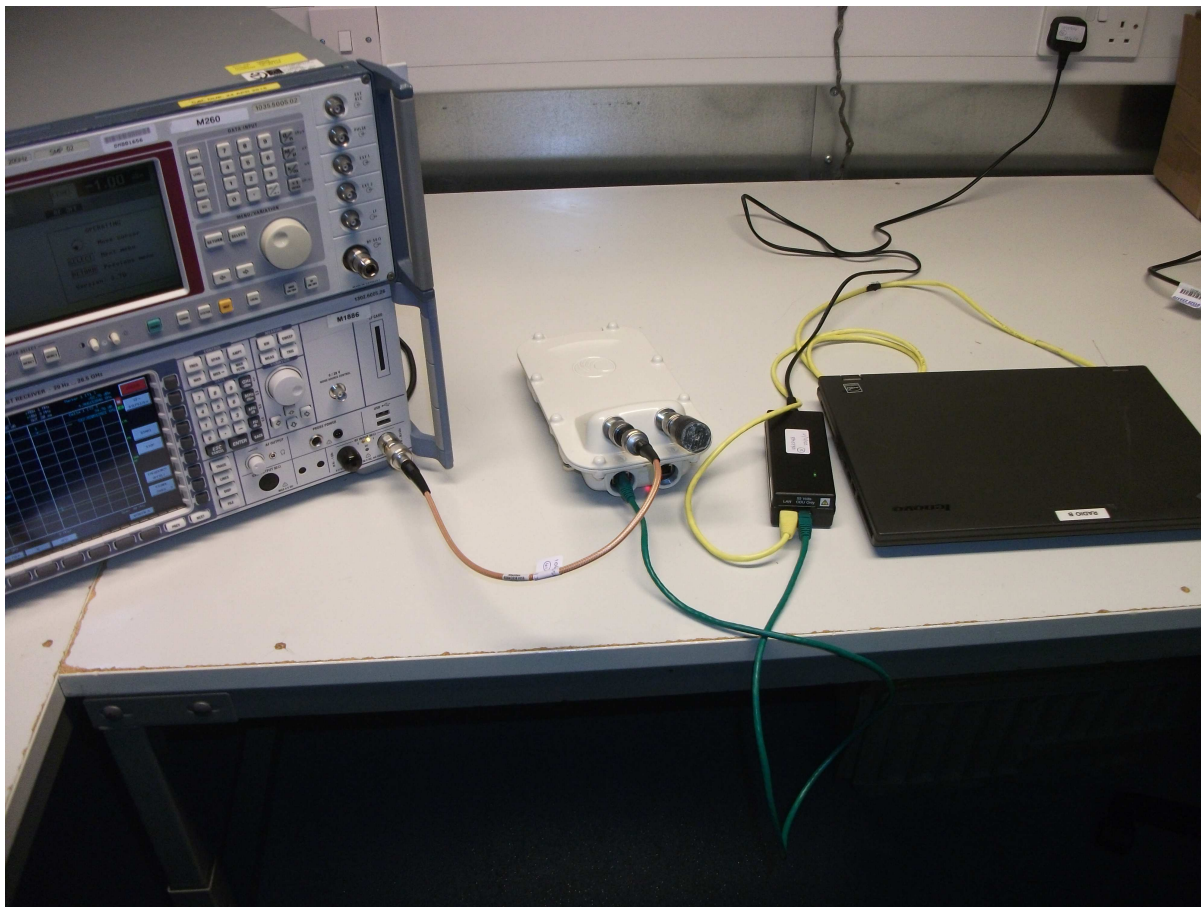
| Measurement Type | Range | Confidence Level (%) | Calculated Uncertainty |
|---------------------------------|----------------------|-----------------------------|-------------------------------|
| AC Conducted Spurious Emissions | 0.15 MHz to 30 MHz | 95% | ±4.69 dB |
| Conducted Output Power | 5.15 GHz to 5.25 GHz | 95% | ±0.76 dB |
| Power Spectral Density | 5.15 GHz to 5.25 GHz | 95% | ±1.13 dB |
| Occupied Bandwidth | 5.15 GHz to 5.25 GHz | 95% | ±3.92 % |
| Radiated Spurious Emissions | 30 MHz to 1 GHz | 95% | ±5.65 dB |
| Radiated Spurious Emissions | 1 GHz to 40 GHz | 95% | ±2.54 dB |

The methods used to calculate the above uncertainties are in line with those recommended within the various measurement specifications. Where measurement specifications do not include guidelines for the evaluation of measurement uncertainty the published guidance of the appropriate accreditation body is followed.

7. Report Revision History

| Version Number | Revision Details | | |
|----------------|------------------|--------|-----------------|
| | Page No(s) | Clause | Details |
| 1.0 | - | - | Initial Version |

Appendix 1. Conducted Test Setup Photograph



EUT configuration for conducted measurements

--- END OF REPORT ---