

| EMC TEST REPORT | |
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| TEST REPORT NUMBER | DBN 1604TEL544-B1 |
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| TEST REPORT VERSION | 1.0 |
| MANUFACTURER | Cambium Networks |
| PRODUCT NAME | ePMP2000 |
| PRODUCT MODEL | C050900P031A |
| CONDITION OF EUT WHEN RECEIVED | GOOD and in proper working condition |
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AMENDMENT HISTORY

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1 TEST REPORT SUMMARY

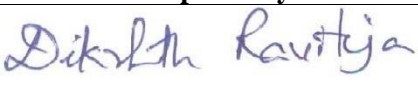

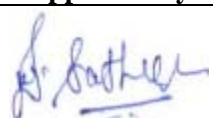
| | |
|------------------------------|--|
| Applicant | Cambium Networks |
| Manufacturer | Cambium Networks |
| Product Name | ePMP2000 |
| Product Model | C050900P031A |
| Product Serial Number | 000456D18469 |
| Date of Test | 22 nd Jan 2016 to 30 th Mar 2016 |
| Venue of Test | Tarang Lab |

| Applicable Standard | Description | Results |
|-------------------------|--|---------|
| 47 CFR Part 15 Feb 2016 | §15.407 b (1) | PASS |
| | §15.407 b (6) - Transmitter Unwanted emission (Radiated) | |
| | §15.407 b (6) - Conducted emission | PASS |

ePMP2000 was tested by Tarang Lab as per the standards that are listed in the table above. Based on the observations during the test and interpretations by Tarang lab, results have been indicated. The test results produced in this report shall apply only to the above sample that has been tested under the specific conditions and modes of testing as described in the report. Other similar equipment may not necessarily reproduce same result due to production tolerances and measurement uncertainties. Any measurement uncertainties listed in this report are for information purpose only.

The results shall stand invalid, in case there are any modifications / additions / removals to the hardware or software or end use atmosphere to the product tested. This report shall not be modified or in any way revised unless it is expressly permitted and endorsed by Tarang lab, through a duly authorized representative. Particulars on Manufacturer / Supplier / Product configuration / performance criteria, given in this report, are based on the information given by the customer, along with test request. Tarang does not assume any responsibility for the correctness of such information for the above mentioned equipment under test.

Customer acknowledges that this is a test report and not a certificate to gain market access for the product. To gain market access, Customer needs appropriate clearance from the Government or authorized agency for the target market. For markets that allow self-declaration, customer needs to follow the procedure defined by the target market.

| Prepared by | Reviewed by | Approved by |
|---|---|---|
|  |  |  |
| Dikshit Raviteja | Narendra M | Satheesh I |
| EMI/EMC Test Engineer | Lead EMI/EMC Test Engineer | Technical Manager |

2 GENERAL INFORMATION

2.1 ACCREDITATION DETAILS

Following are the accreditation and listing details for Tarang.

| Accreditation / Listing body | Registration / Company / Certificate Number |
|---|---|
| NABL, India | Certificate No: T-1533, T-1534 http://www.nabl-india.org/ |
| FCC (Federal Communications Commission) | Registration Number: 799247 http://www.fcc.gov/ |
| IC (Industry Canada) | Company Number: 9023A-1 http://www.ic.gc.ca |

2.2 MEASUREMENT UNCERTAINTY

The following measurement uncertainties are applicable to the relevant tests that are mentioned below:

| Name of the test | Measurement Uncertainty |
|--|-------------------------|
| Radiated Emission from 30 MHz to 1 GHz at 3 meter | ± 4.6687 dB |
| Radiated Emission from 1 GHz to 18 GHz at 3 meter | ± 3.2297 dB |
| Radiated Emission from 18 GHz to 26.5 GHz at 3 meter | ± 3.7832 dB |
| Radiated Emission from 26.5 GHz to 40 GHz at 3 meter | ± 3.7962 dB |
| Conducted Emission from 150 kHz to 30 MHz | ± 1.6160 dB |

3 INSTRUMENTATION AND CALIBRATION

3.1 TEST AND MEASURING EQUIPMENT

The list of following measuring equipment used for this testing conforms to the applicable standards. Performance of all test and measuring equipment including any accessories are checked periodically to ensure accuracy.

3.2 EQUIPMENTS USED

| Name of Equipment | Manufacturer | Model No | Serial No | Calibration Due |
|------------------------------------|-----------------------------|--------------------------------|-----------|---|
| EMI Test Receiver | R&S | ESU8 | 100324 | 11 th Jul 2016 & 09 th Mar 2017 |
| EMI Test Receiver | R&S | ESIB40 | 100306 | 04 th Jul 2016 & 21 st Jan 2017 |
| Active Loop Antenna | ETS-Lindgren | 6507 | 00104711 | 05 th Aug 2016 |
| Bi conical Antenna | SME | VHBB-9124 | 9124-374 | 06 th Apr 2016 |
| Log- periodic Antenna | SME | VUSLP-9111 | 9111-308 | 06 th Apr 2016 |
| Preamplifier | Rohde & Schwarz | SCU-01 | 100626 | 30 th Oct 2016 |
| Double Ridge Horn Antenna | SME | BBHA 9120D | 9120D-687 | 11 th Apr 2016 |
| Preamplifier | TDK | PA-02 | 100008 | 14 th Apr 2016 |
| Broad Band Horn Antenna | Schwarz beck | BBHA9170 | 9170-337 | 29 th Oct 2016 |
| Broad Band Horn Antenna | Schwarz beck | BBHA9170 | 9170-344 | 29 th Oct 2016 |
| Pre-Amplifier | TDK | PA-02-3 | 2007332 | 28 th Oct 2016 |
| Pre-Amplifier | TDK | PA-02-2 | 2007331 | 28 th Oct 2016 |
| Tunable Band reject / Notch filter | Wainwright Instruments GmbH | WTRCJV8-5150-5850-40-160-50SSK | 01 | NA |

Table 1: List of Equipment used for Radiated Emissions Test

| Name of Equipment | Manufacturer | Model No | Serial No | Calibration Due |
|-------------------|--------------|-----------|-----------|---|
| EMI Test Receiver | R&S | ESIB40 | 100306 | 04 th Jul 2016 & 21 st Jan 2017 |
| Pulse Limiter | R&S | ESH3-Z2 | 101260 | 03 rd Mar 2017 |
| LISN | Schwarzback | NSLK 8128 | 243 | 11 th Sep 2016 |

Table 2: List of Equipment used for Conducted Emissions Test

4 PRODUCT INFORMATION

4.1 DESCRIPTION OF THE PRODUCT

EUT is a point to point & point to multipoint fixed outdoor Transceiver with the following defined channels.

| 40 MHz channel for 17 dBi and 6 dBi antenna | 5 MHz channel for 17 dBi and 6 dBi antenna |
|---|--|
| Low – 5180 MHz | Low – 5155 MHz |
| Mid - 5200 MHz | Mid – 5200 MHz |
| High - 5220 MHz | High – 5245 MHz |

| | |
|---|---------------------|
| Product | ePMP2000 |
| Model Number | C050900P031A |
| Serial Number | 000456D18469 |
| Product Category / Type of Equipment | TELECOM |
| EUT Operating Voltage | 120 V AC / 230 V AC |
| EUT Operating frequency range | 60 Hz / 50 Hz |
| Max EUT Operating Current | < 1 A |

Table 3: EUT details

| Cable No. | Cable Name | Cable Length | Power / Interconnection cable | Shielded / Unshielded |
|-----------|----------------|--------------|-------------------------------|-----------------------|
| Cable - 1 | Power cable | 0.8 meter | Power | Unshielded |
| Cable - 2 | Ethernet Cable | 1.5 meter | Interconnection | Unshielded |
| Cable - 3 | Ethernet Cable | 3.05 meter | Interconnection | Unshielded |

Table 4: List of cables

4.2 SOFTWARE AND FIRMWARE DETAILS

Atheros Radio Test 2 (ART2-GUI) Version 2.3

5 TEST DETAILS

5.1 PRODUCT AND TEST SETUP

5.1.1 PRODUCT CONFIGURATION

The EUT was powered through AC power supply (120 V AC / 60 Hz). The EUT was connected to Ethernet switch by using RJ45 cable. Figure 1 shows the product configuration during the tests. POE module was used during the test to power ON the EUT.

The 5.8 GHz ePMP Integrated Radio was configured with test software and configured to have the following settings during the course of testing:

- 40MHz modulation bandwidth for low, mid & high channels
 - Rate - HT40,
 - 54 Mbps OFDM, MCS15 / 270 Mbps
 - Tx Power is 11 dBm Tx99 for 17 dBi antenna configuration-Low channel
 - Tx Power is 18 dBm Tx100 for 17 dBi antenna configuration-Mid channel
 - Tx Power is 11 dBm Tx99 for 17 dBi antenna configuration-High channel
 - Tx Power is 20 dBm Tx99 for 6 dBi antenna configuration-Low channel
 - Tx Power is 17.5 dBm Tx100 for 6 dBi antenna configuration-Mid channel
 - Tx Power is 22.5 dBm Tx100 for 6 dBi antenna configuration-High channel
- 5 MHz modulation bandwidth for low, mid & high channels
 - Rate – Legacy,
 - 54 Mbps OFDM, MCS15 / 130 Mbps
 - Tx Power is 12.5 dBm Tx99 for 17 dBi antenna configuration-Low channel
 - Tx Power is 14 dBm Tx99 for 17 dBi antenna configuration-Mid channel
 - Tx Power is 11.5 dBm Tx99 for 17 dBi antenna configuration-High channel
 - Tx Power is 22 dBm Tx99 for 6 dBi antenna configuration-Low channel
 - Tx Power is 24 dBm Tx99 for 6 dBi antenna configuration-Mid channel
 - Tx Power is 22 dBm Tx99 for 6 dBi antenna configuration-High channel

The unit was continuously monitored for transmission using an auxiliary antenna during the radiated tests.

5.1.2 TEST SETUP DETAILS

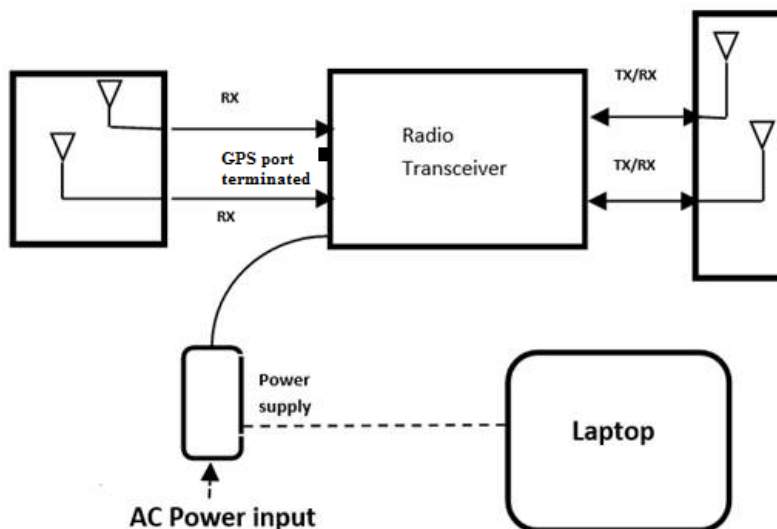


Figure 1: Block diagram of the EUT test setup

5.1.3 ACCESSORIES

| Name of the Equipment | Manufacturer | Model Number | Serial Number |
|---|------------------|--------------|---------------|
| 17dBi Antenna Beam steer- Rx | Cambium Networks | C050900D020A | NA |
| 17dBi Antenna sector- Tx | Cambium Networks | C050900D021A | NA |
| Power Supply | Cambium Networks | NET P30 56 | 031-326-6719 |
| 6dBI Antenna | Cambium Networks | C005095D360A | NA |
| Switching Power Supply Gigabit Compatible | Cambium Networks | NET-P30-56 | N000000L034A |

5.2 APPLICABLE TEST

| Applicable Standard | Description | Test level / Test Voltage | Applicability |
|--------------------------|--|---------------------------|---------------|
| 47 CFR Part 15, Feb 2016 | Transmitter unwanted emission (Radiated) | 9 kHz - 40 GHz | Enclosure |
| | Conducted Emission | 150 kHz - 30 MHz | Power Port |

5.3 TEST RESULT

5.3.1 TRANSMITTER UNWANTED EMISSION (RADIATED)

5.3.1.1 TEST SPECIFICATION

| | | | | |
|---------------------------|--|----------------------------|----------------|----------------|
| Test Standard | 47 CFR, Part 15 Feb 2016 | | | |
| Test Procedure | ANSI C63.10-2013 | | | |
| Class | Class B | | | |
| Frequency Range | 9 kHz - 150 kHz | 150 kHz - 30 MHz | 30 MHz - 1 GHz | 1 GHz - 40 GHz |
| Resolution Bandwidth | 200 Hz | 9 kHz | 120 kHz | 1 MHz |
| Video Bandwidth | 3 kHz | 30 kHz | 300 kHz | 3 MHz |
| Step size | 400 Hz | 4 kHz | 40 kHz | 400 kHz |
| Pre Scan Measurement Time | 50 ms | 50 ms | 20 ms | 5 ms |
| Final Measurement Time | 1 second | 1 second | 1 second | 1 second |
| Attenuation | 5 dB | 5 dB | 10 dB | 5 dB |
| Test Distance | 3 meter | 3 meter | 3 meter | 3 meter |
| Polarization | Parallel and Perpendicular | Parallel and Perpendicular | H & V | H & V |
| Detector | Quasi Peak, Peak & Average | | | |
| Input Voltage | 120 V AC | | | |
| Input Frequency | 60 Hz | | | |
| Temperature | 22.1 °C to 24.0 °C | | | |
| Humidity | 50.0 % to 58.2 % | | | |
| Tested By | Suresh G.N. / Nishanth / Raviteja | | | |
| Test Date | 22 nd Jan 2016 to 10 th Feb 2016 | | | |

5.3.1.2 LIMITS

| Standard | Reference section | Frequency range | Limit (dBμV/m) |
|--------------------------|--------------------------------|-----------------------|----------------|
| 47 CFR, Part 15 Feb 2016 | §15.407 b (1) §15.407 b (6) | Outside 5150-5250 MHz | 79.99 |

Table 5: Unwanted emission Limit

| Standard | Reference section | Frequency range | Limit (dBμV/m) |
|--------------------------|-------------------|---|--|
| 47 CFR, Part 15 Feb 2016 | §15.209 | 9 kHz to 490 kHz 490 kHz to 1.705 MHz 1.705 MHz to 30 MHz | 128.5194 to 93.8003* 73.8003 to 62.9697* 69.5429 |

Table 6: General Field strength limit below 30 MHz

*Note: * Decreases with the logarithm of the frequency*

| Standard | Reference section | Frequency range | Limit (dB μ V/m) |
|--------------------------|-------------------|--------------------|----------------------|
| 47 CFR, Part 15 Feb 2016 | §15.209 | 30 MHz to 88 MHz | 40 |
| | | 88 MHz to 216 MHz | 43.52 |
| | | 216 MHz to 960 MHz | 46.02 |
| | | 960 MHz to 40 GHz | 53.98 |

Table 7: General Field strength limit above 30MHz

5.3.1.3 TEST SETUP

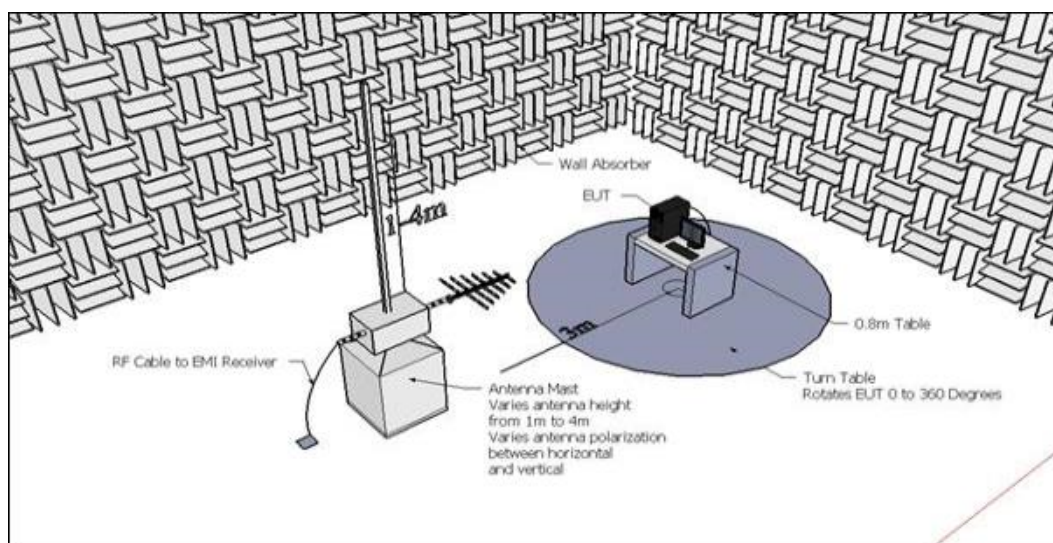


Figure 2: Sample Radiated Emission test setup

5.3.1.4 TEST PROCEDURE

The test procedure is in accordance with ANSI C63.10. The Radiated Emission test was performed inside a Shielded Semi-Anechoic chamber. The EUT was placed on 0.8 m height table for the measurements below 1 GHz and on 1.5 meter height table for the measurements above 1 GHz as per ANSI C63.10. The test setup was placed on a rotating turn table to enable 0 to 360 degree rotation.

The EUT was placed 3 meter away from the receiving antenna for the radiated emission measurement in the frequency range 30 MHz to 1 GHz. The receiving antenna was mounted on an antenna mast to enable height variation from 1meter to 4 meter above the ground plane.

The radiated emission measurement test system was configured through software as per standard. Pre-scan (Peak) was taken at different angles of EUT at 22.5 degree step, by rotating the turn table from 0 to 360 degree and by varying the antenna height from 1 to 4 meter in both vertical and horizontal polarization. The measurement was carried out in max hold mode and maximum amplitude of radiated emissions from the EUT was plotted in Graph. The predominant peaks at various frequencies, closer to limit line were identified using peak search option and listed. The Quasi-peak & Average measurement were carried out for the listed frequencies and compared with the limit specified in standard.

For Radiated Emission measurement from 1 GHz to 40 GHz the EUT was placed 3 meter away from the receiving antenna. The receiving antenna's height was fixed to 1 meter for the pre-scan measurement. Pre-scan (Peak) was taken at different angles of EUT at 22.5 degree step, by rotating the turn table from 0 to 360 degree in both vertical and horizontal polarization. The measurement was carried out in max hold mode and maximum amplitude of radiated emissions from the EUT was plotted in Graph. The predominant peaks at various frequencies, closer to limit line were identified using peak search option and listed. Average measurement were carried out for the listed frequencies and compared with the limit specified in standard.

5.3.1.5 MEASUREMENT GRAPHS / DATA

5.3.1.5.1 40 MHz MODULATION BANDWIDTH, 17 dBi ANTENNA, LOW CHANNEL - 5180 MHz

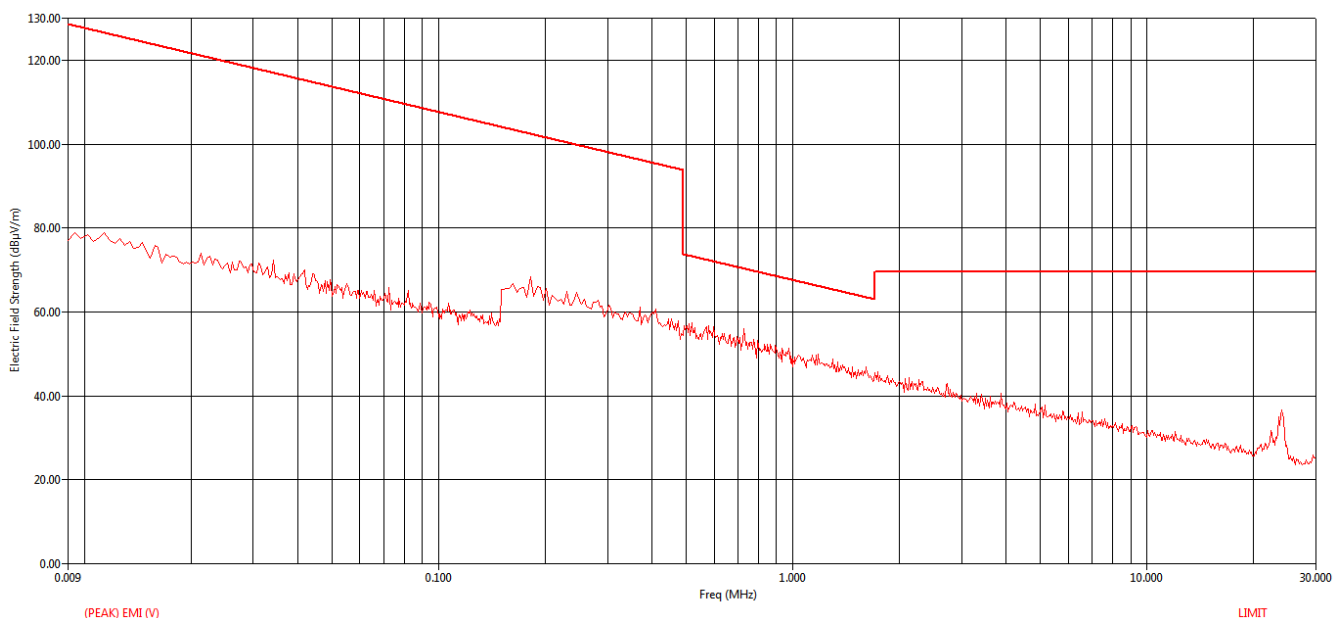


Figure 3: 40MHz, 17dBi, Low Channel: Peak RE Graph - 9kHz to 30MHz - Parallel

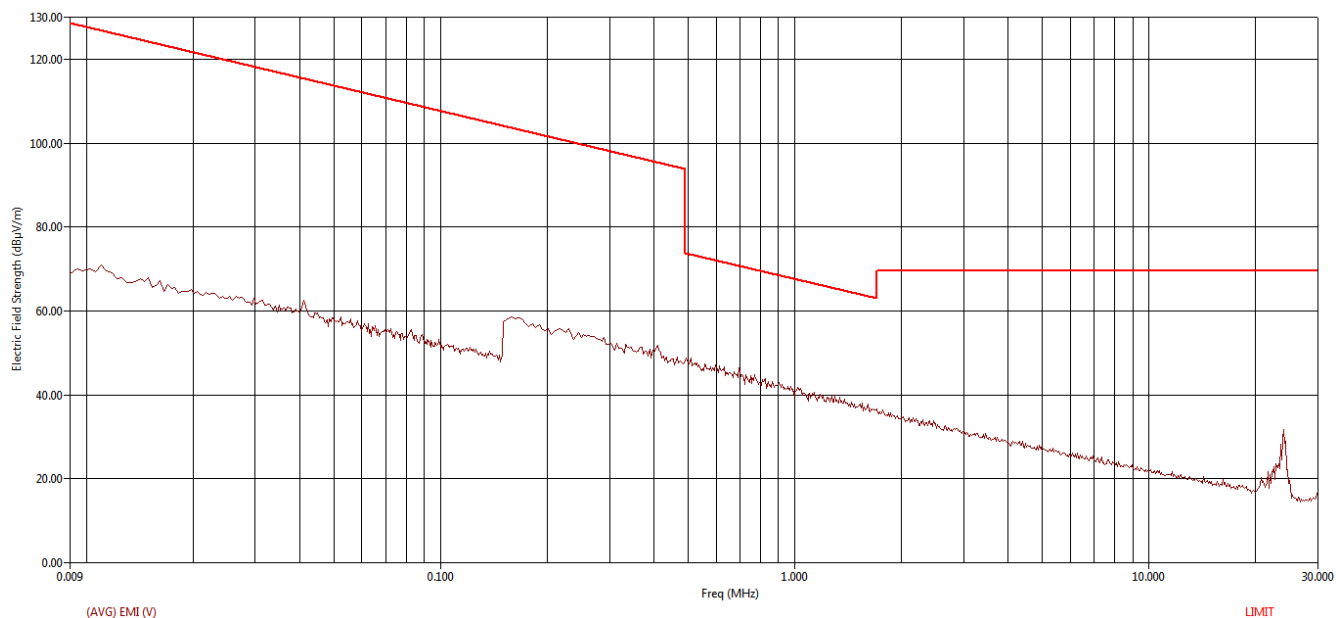


Figure 4: 40MHz, 17dBi, Low Channel: Average RE Graph - 9kHz to 30MHz - Parallel

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbt Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 24.09 | 24.09 | 191.00 | 16.95 | 1.06 | 16.17 | 34.18 | 69.54 | -35.36 |
| 24.35 | 24.35 | 179.90 | 15.37 | 1.07 | 16.15 | 32.58 | 69.54 | -36.96 |

Table 8: 40MHz, 17dBi, Low Channel: Quasipeak table from 9 kHz to 30 MHz

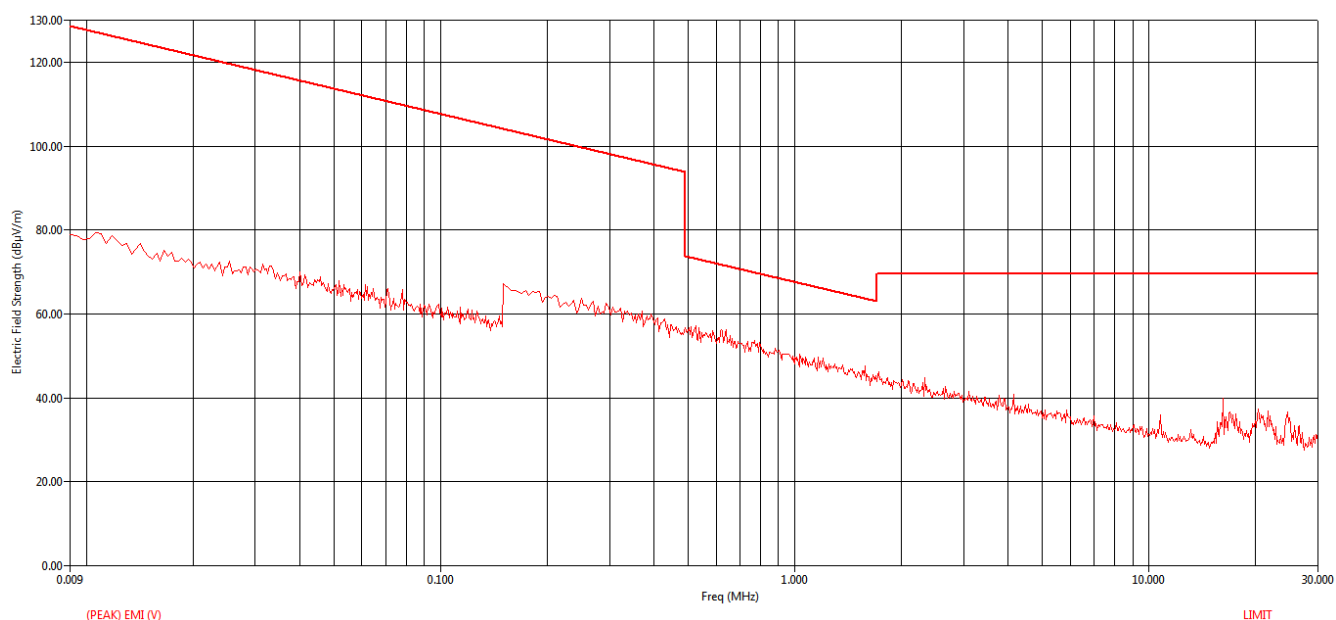


Figure 5: 40MHz, 17dBi, Low Channel: Peak RE Graph - 9kHz to 30MHz - Perpendicular

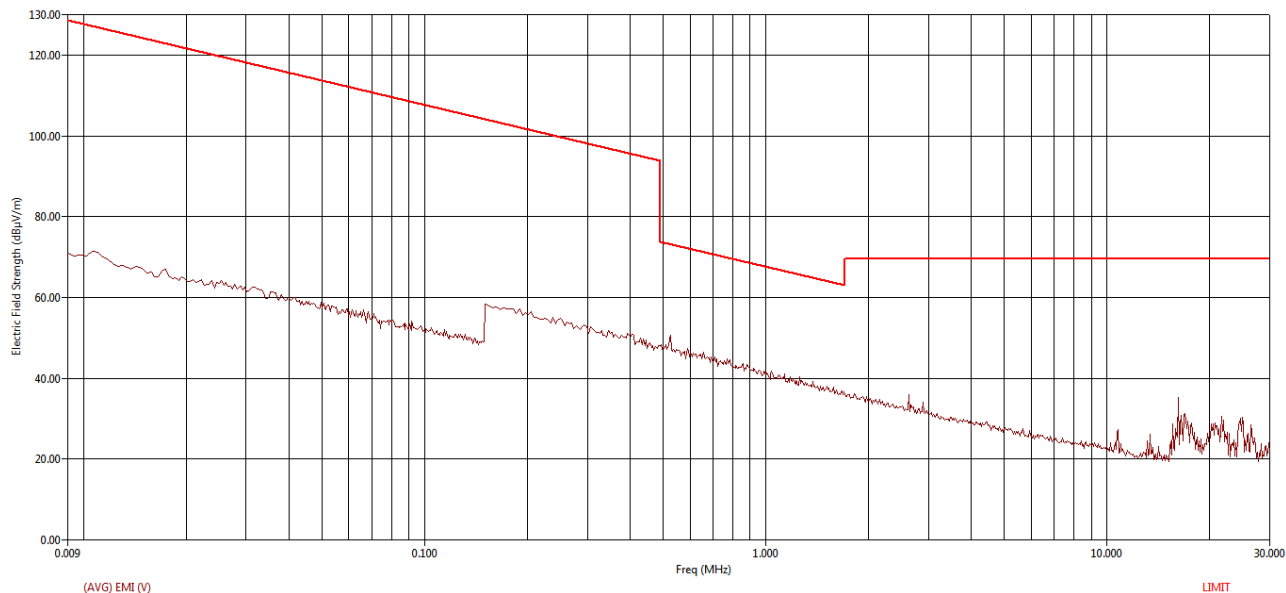


Figure 6: 40MHz, 17dBi, Low Channel: Average RE Graph - 9kHz to 30MHz - Perpendicular

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbl Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 10.78 | 10.79 | 296.60 | 14.85 | 0.72 | 17.22 | 32.80 | 69.54 | -36.74 |
| 16.21 | 16.23 | 233.80 | 22.36 | 0.87 | 16.79 | 40.02 | 69.54 | -29.52 |
| 16.94 | 16.93 | 247.90 | 10.17 | 0.89 | 16.73 | 27.80 | 69.54 | -41.74 |
| 20.33 | 20.32 | 238.00 | 15.23 | 0.98 | 16.47 | 32.68 | 69.54 | -36.86 |
| 24.69 | 24.70 | 180.20 | 14.17 | 1.08 | 16.12 | 31.37 | 69.54 | -38.17 |

Table 9: 40MHz, 17dBi, Low Channel: Quasipeak table from 9 kHz to 30 MHz

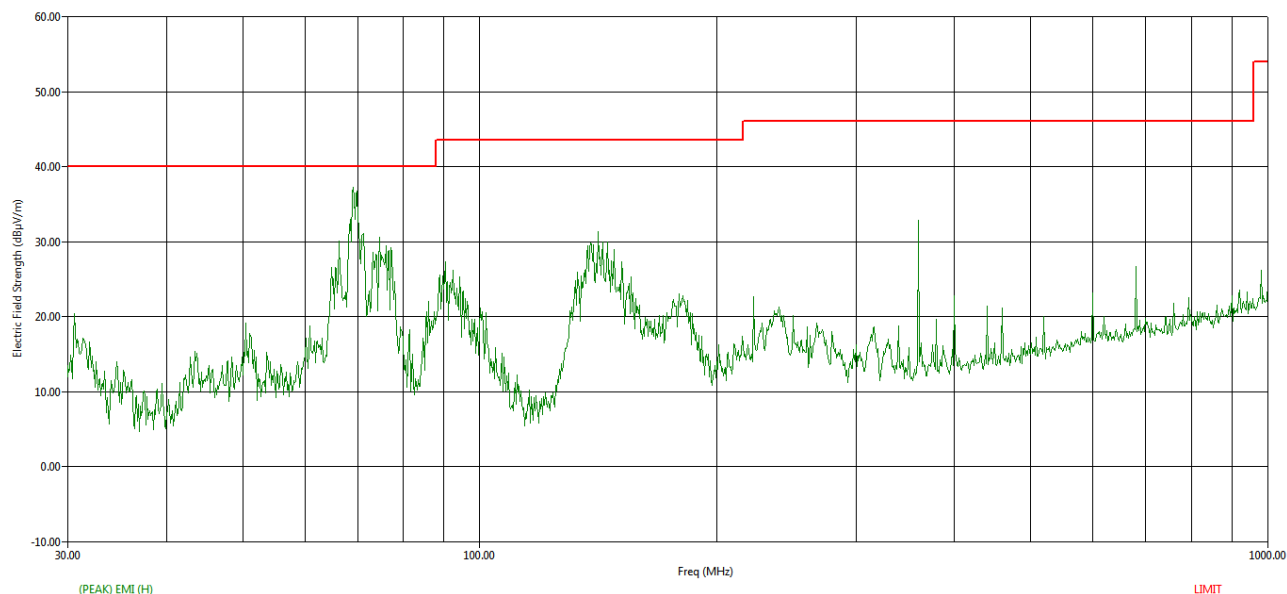


Figure 7: 40MHz, 17dBi, Low Channel: Peak RE Graph - 30MHz to 1GHz - Horizontal Polarization

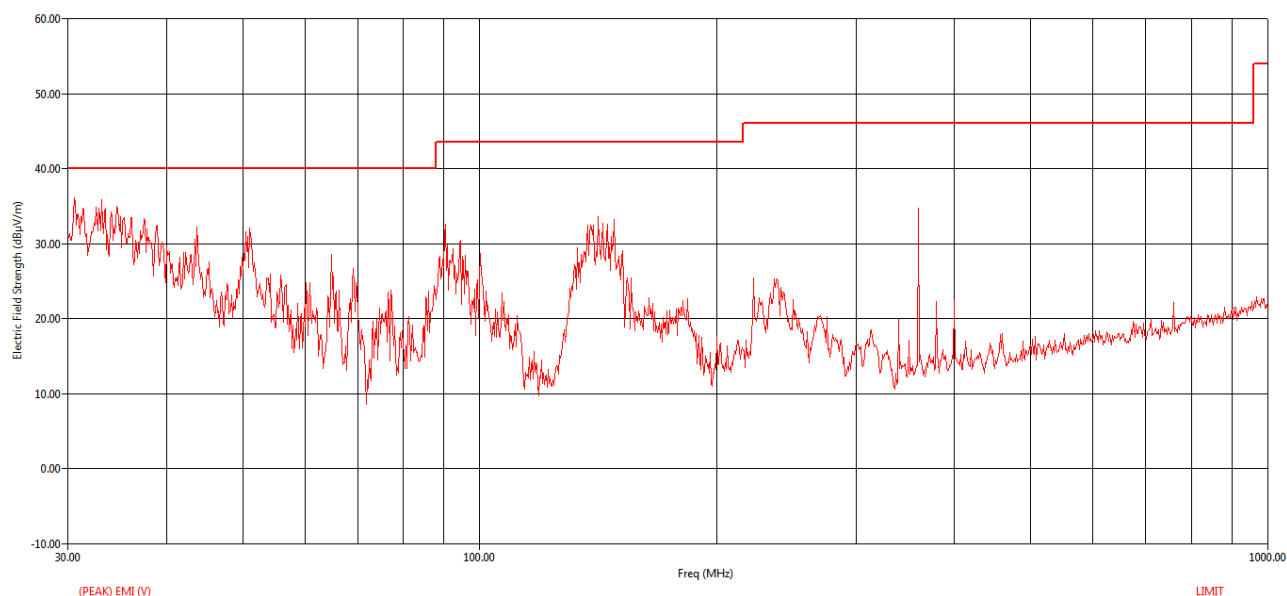


Figure 8: 40MHz, 17dBi, Low Channel: Peak RE Graph - 30MHz to 1GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|-------------------|------------|-----------------|-------------|-------------------|----------------|------------------|
| 30.60 | 30.62 | V | 123.40 | 104.00 | 65.67 | 1.18 | 9.66 | 43.80 | 32.72 | 40.00 | -7.28 |
| 69.00 | 68.98 | H | 359.10 | 227.00 | 67.58 | 1.78 | 9.78 | 43.88 | 35.26 | 40.00 | -4.74 |
| 69.76 | 69.72 | H | 358.80 | 204.00 | 68.56 | 1.79 | 9.84 | 43.88 | 36.31 | 40.00 | -3.69 |
| 141.20 | 141.21 | H | 147.90 | 221.00 | 53.11 | 2.51 | 11.21 | 43.94 | 22.89 | 43.52 | -20.63 |
| 141.20 | 141.18 | V | 359.00 | 100.00 | 62.32 | 2.51 | 11.21 | 43.94 | 32.09 | 43.52 | -11.43 |
| 148.12 | 148.11 | V | 359.10 | 103.00 | 60.60 | 2.57 | 11.43 | 43.95 | 30.66 | 43.52 | -12.86 |

Table 10: 40MHz, 17dBi, Low Channel: Quasipeak table from 30 MHz to 1 GHz

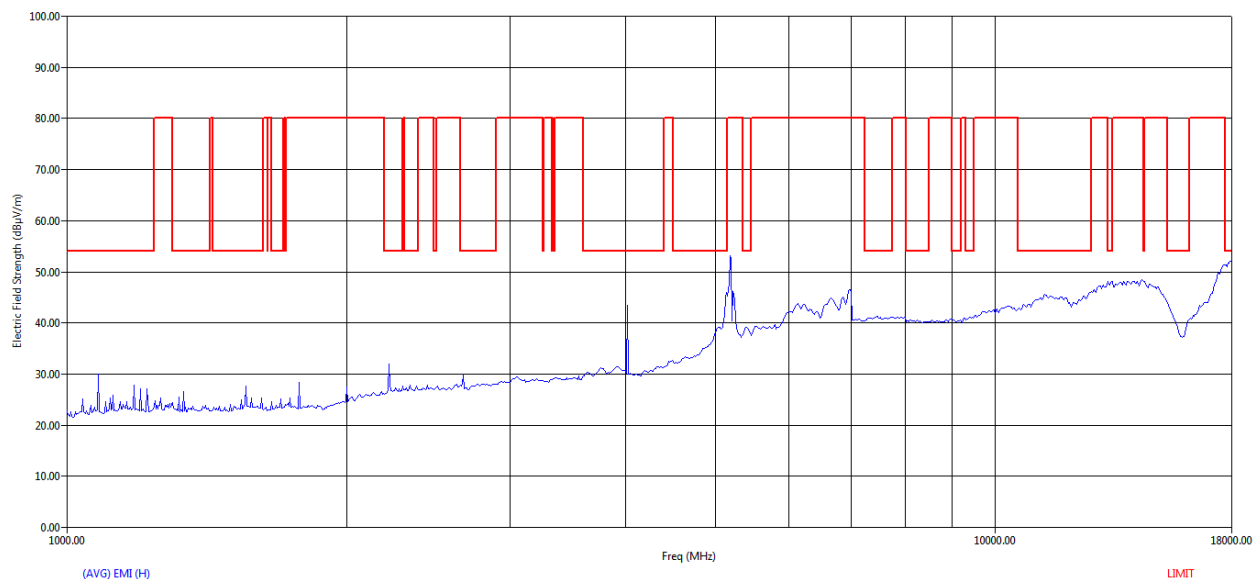


Figure 9: 40MHz, 17dBi, Low Channel: Average RE Graph - 1GHz to 18GHz - Horizontal Polarization

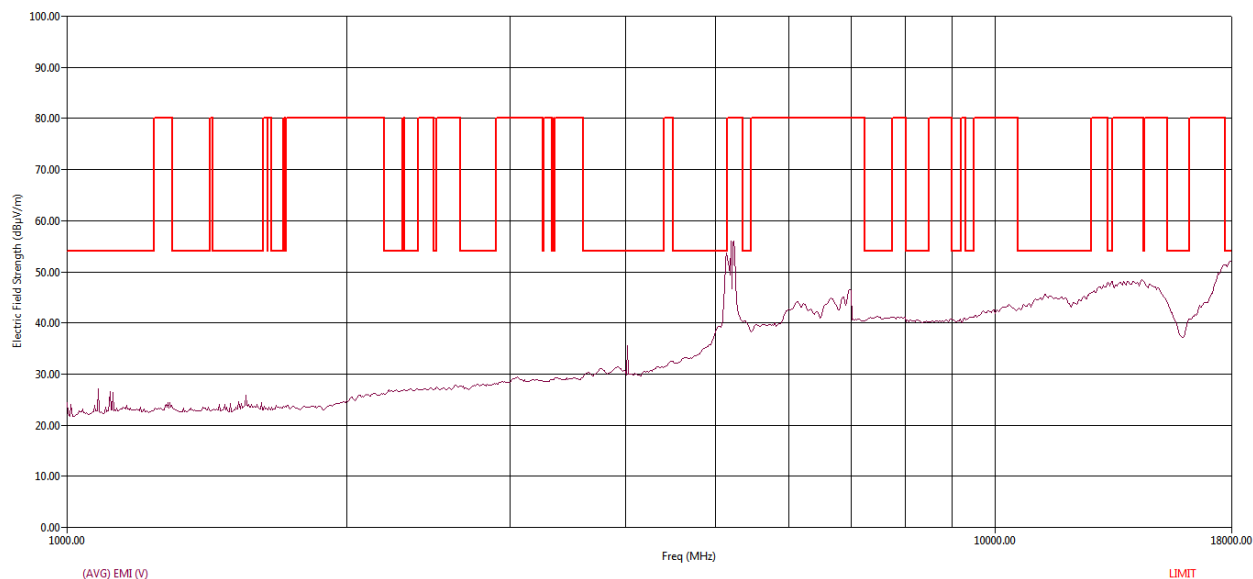


Figure 10: 40MHz, 17dBi, Low Channel: Average RE Graph - 1GHz to 18GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbi Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 1080.00 | 1080.00 | H | 346.60 | 120.00 | 37.27 | 1.86 | 25.10 | 32.48 | 31.74 | 53.98 | -22.24 |
| 2223.40 | 2223.40 | H | 104.60 | 104.00 | 28.96 | 2.50 | 27.04 | 31.80 | 26.71 | 53.98 | -27.27 |
| 4019.10 | 4019.10 | H | 180.00 | 118.00 | 29.06 | 3.33 | 30.23 | 30.26 | 32.36 | 53.98 | -21.62 |
| 5126.40 | 5126.40 | V | 180.10 | 200.00 | 30.25 | 3.79 | 32.93 | 28.31 | 38.66 | 53.98 | -15.32 |
| 5142.10 | 5142.10 | V | 180.10 | 130.00 | 30.86 | 3.80 | 32.93 | 28.32 | 39.27 | 53.98 | -14.71 |
| 5252.60 | 5252.60 | V | 180.10 | 199.00 | 29.43 | 3.82 | 32.90 | 28.33 | 37.83 | 80.00 | -42.17 |

Table 11: 40MHz, 17dBi, Low Channel: Average table from 1 GHz to 18 GHz

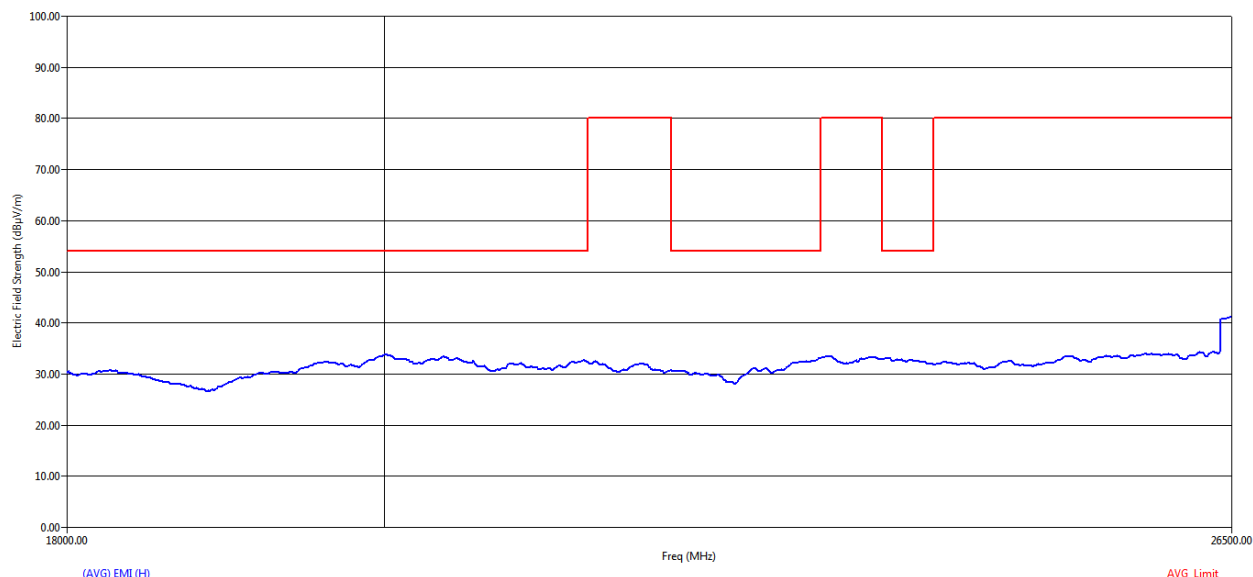


Figure 11: 40MHz, 17dBi, Low Channel: Average RE Graph - 18GHz to 26.5GHz - Horizontal Polarization

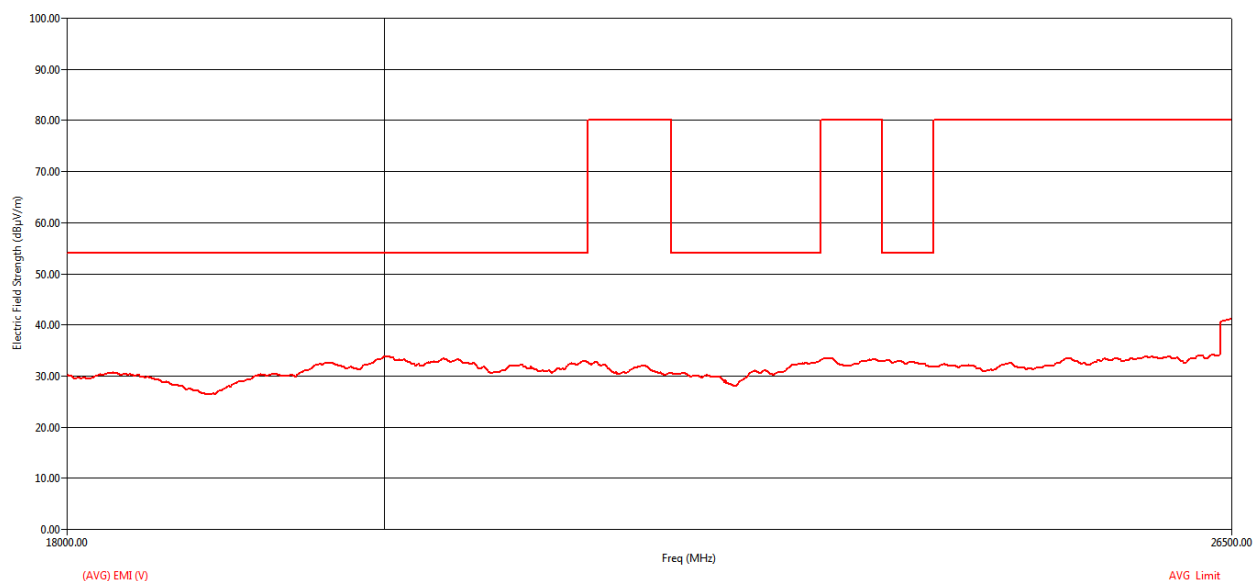


Figure 12: 40MHz, 17dBi, Low Channel: Average RE Graph - 18GHz to 26.5GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbi Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 19992.40 | 19661.86 | H | 76.80 | 100.00 | 32.85 | 6.91 | 36.54 | 44.27 | 32.04 | 53.98 | -21.94 |
| 20674.30 | 21289.56 | V | 266.80 | 102.00 | 32.63 | 7.67 | 37.51 | 45.40 | 32.42 | 53.98 | -21.56 |
| 21654.40 | 21756.38 | V | 42.80 | 102.00 | 32.61 | 7.38 | 37.38 | 46.04 | 31.33 | 80.00 | -48.67 |

Table 12: 40MHz, 17dBi, Low Channel: Average table from 18 GHz to 26.5 GHz

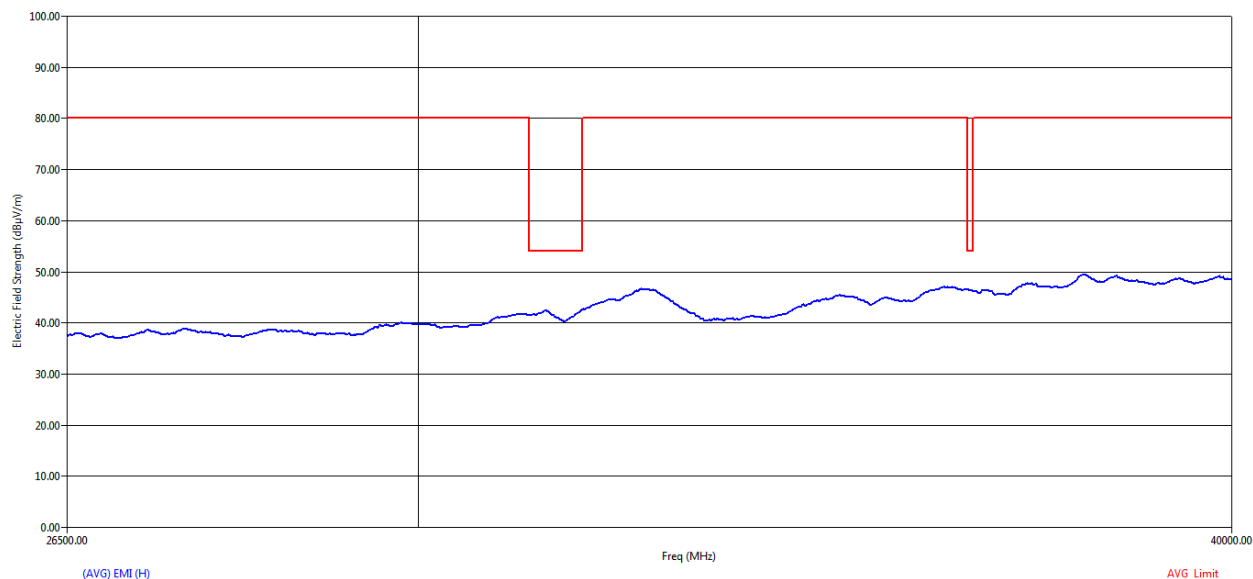


Figure 13: 40MHz, 17dBi, Low Channel: Average RE Graph - 26.5GHz to 40GHz - Horizontal Polarization

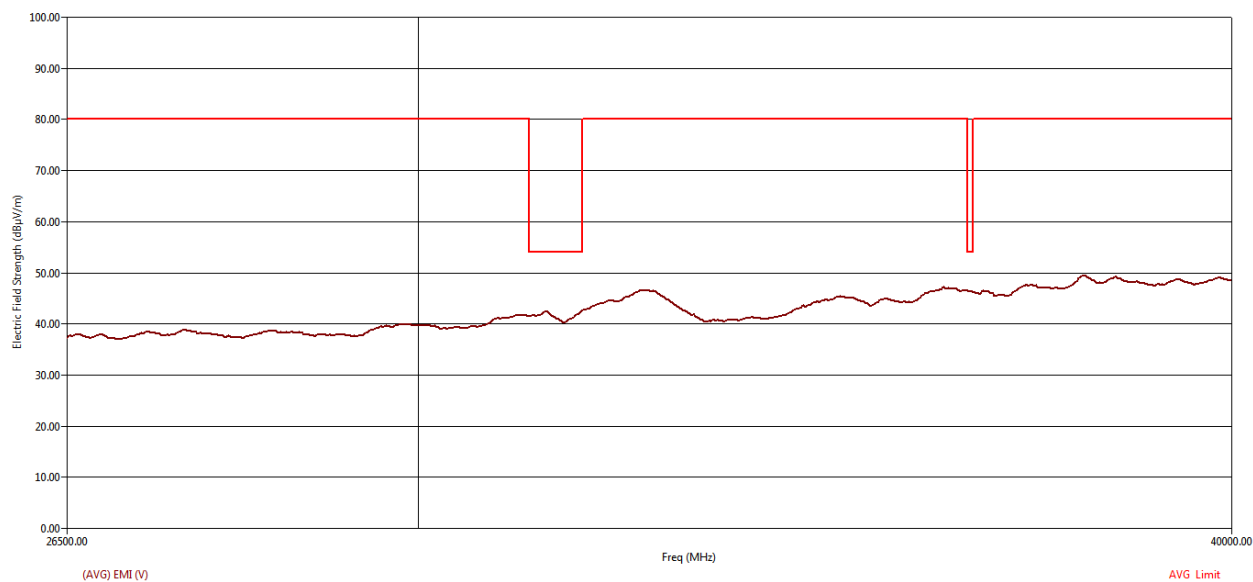


Figure 14: 40MHz, 17dBi, Low Channel: Average RE Graph - 26.5GHz to 40GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbl Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 32410.40 | 32410.40 | H | 180.10 | 200.00 | 41.37 | 10.62 | 38.90 | 44.76 | 46.13 | 80.00 | -33.87 |
| 38640.00 | 38640.00 | V | 78.10 | 199.00 | 41.29 | 12.25 | 41.59 | 47.06 | 48.07 | 80.00 | -31.93 |

Table 13: 40MHz, 17dBi, Low Channel: Average table from 26.5 GHz to 40 GHz

5.3.1.5.2 40 MHz MODULATION BANDWIDTH, 17 dBi ANTENNA, MID CHANNEL - 5200 MHz

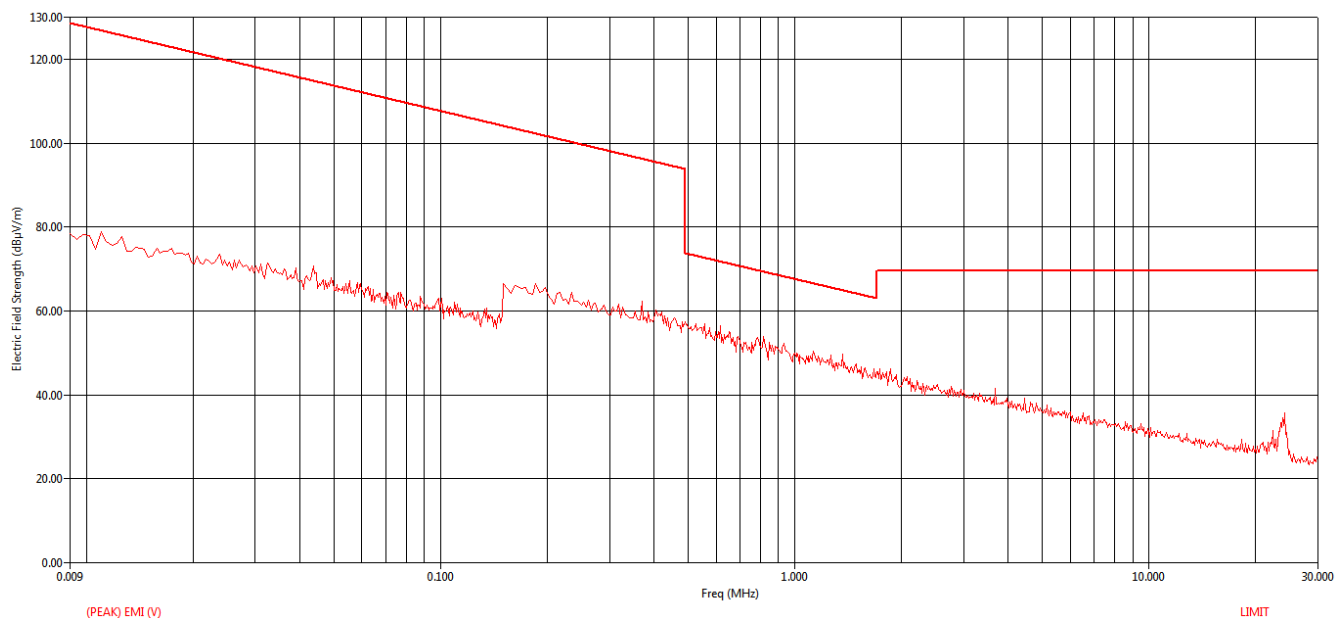


Figure 15: 40MHz, 17dBi, Mid Channel: Peak RE Graph - 9kHz to 30MHz - Parallel

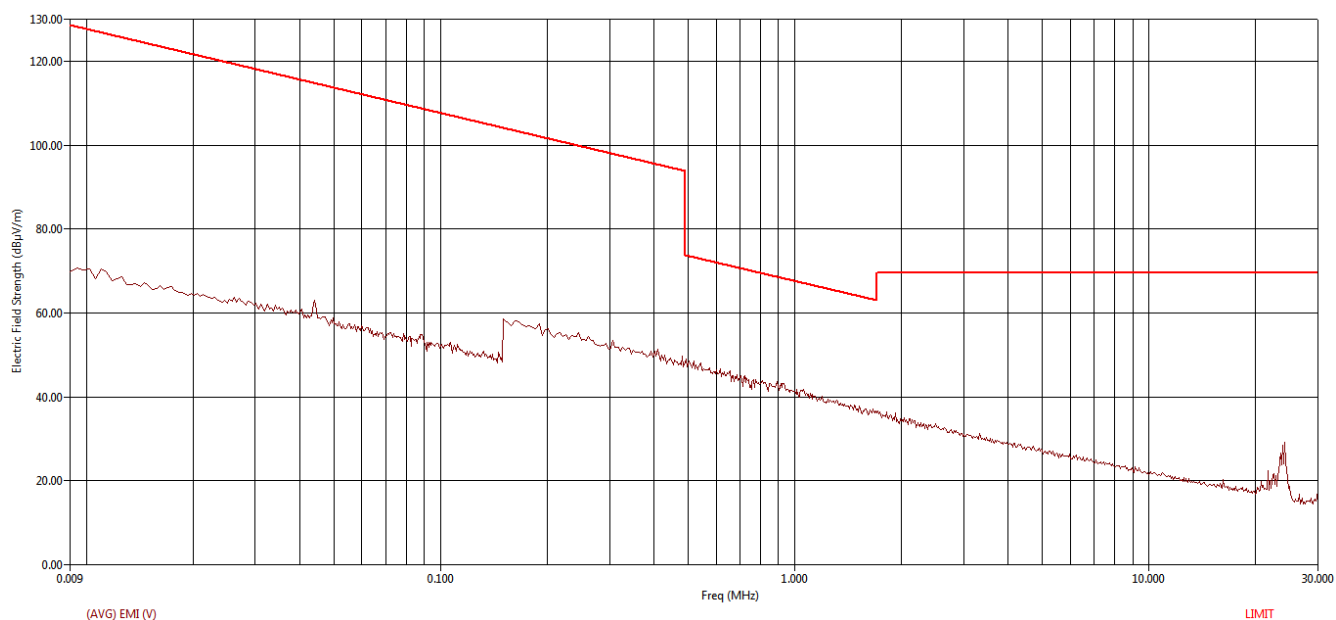


Figure 16: 40MHz, 17dBi, Mid Channel: Average RE Graph - 9kHz to 30MHz - Parallel

| Freq (MHz) | Freq (Max) (MHz) | EUT TtBl Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 23.87 | 23.86 | 181.20 | 15.65 | 1.06 | 16.18 | 32.89 | 69.54 | -36.65 |
| 24.13 | 24.11 | 179.90 | 13.50 | 1.06 | 16.16 | 30.73 | 69.54 | -38.81 |

Table 14: 40MHz, 17dBi, Mid Channel: Quasipeak table from 9 kHz to 30 MHz

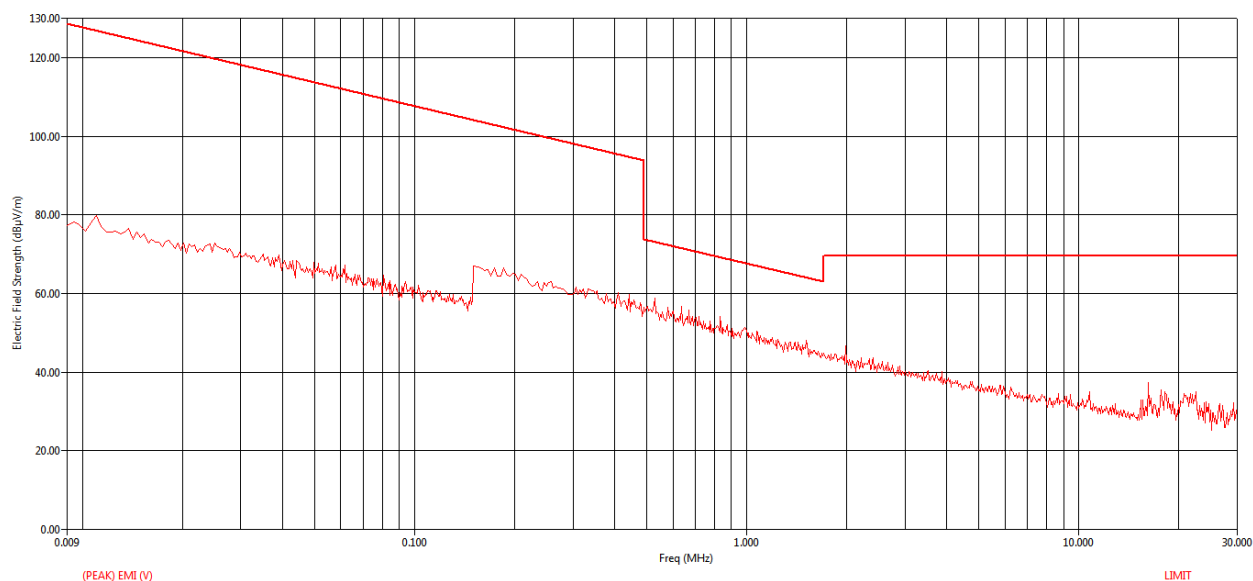


Figure 17: 40MHz, 17dBi, Mid Channel: Peak RE Graph - 9kHz to 30MHz - Perpendicular

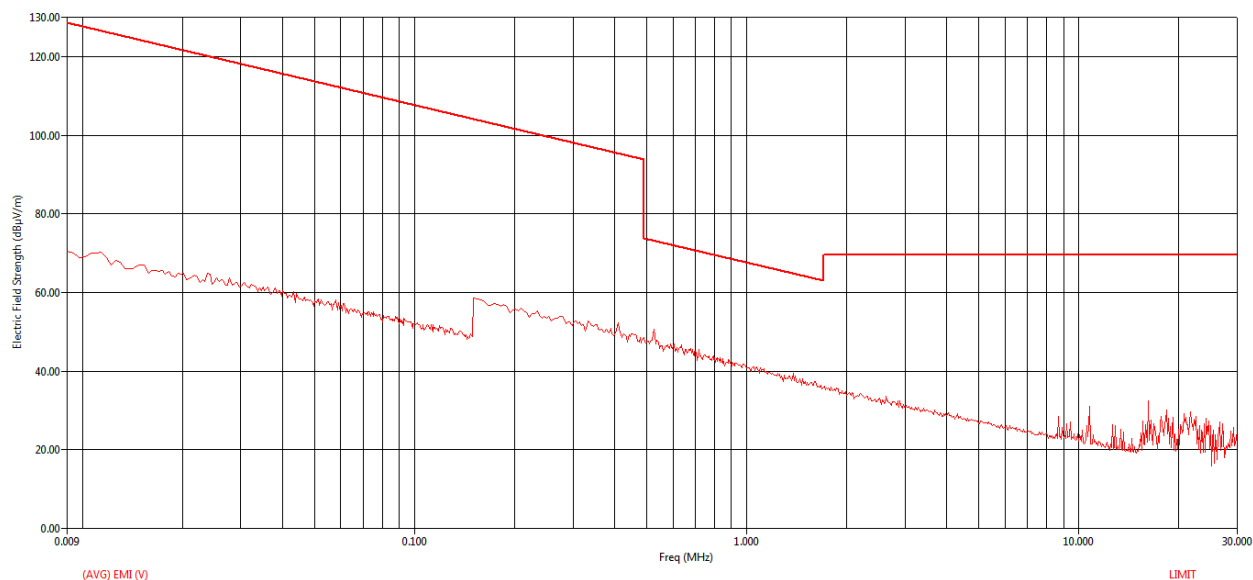


Figure 18: 40MHz, 17dBi, Mid Channel: Average RE Graph - 9kHz to 30MHz - Perpendicular

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbi Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 16.17 | 16.17 | 244.30 | 18.65 | 0.87 | 16.80 | 36.31 | 69.54 | -33.23 |
| 16.23 | 16.23 | 179.90 | 5.92 | 0.87 | 16.79 | 23.58 | 69.54 | -45.96 |
| 17.69 | 17.70 | 217.40 | 7.78 | 0.91 | 16.67 | 25.36 | 69.54 | -44.18 |
| 22.58 | 22.57 | 192.10 | 8.17 | 1.03 | 16.28 | 25.49 | 69.54 | -44.05 |
| 26.61 | 26.61 | 291.90 | 5.64 | 1.11 | 16.00 | 22.75 | 69.54 | -46.79 |

Table 15: 40MHz, 17dBi, Mid Channel: Quasipeak table from 9 kHz to 30 MHz

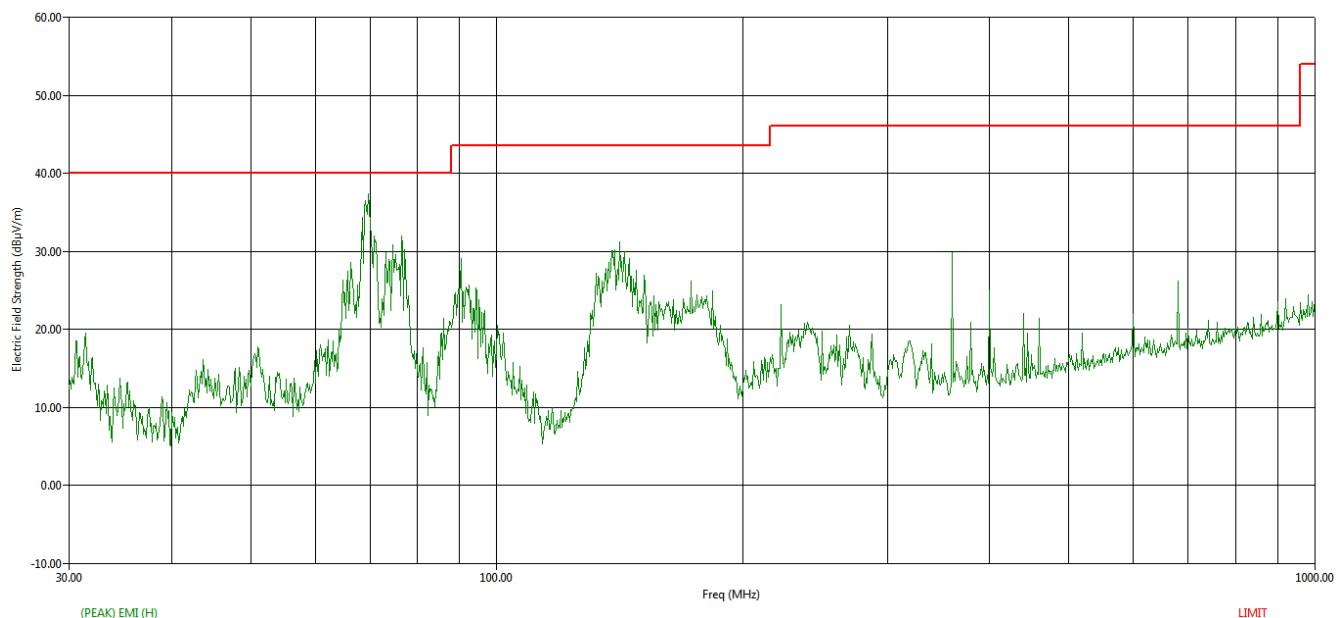


Figure 19: 40MHz, 17dBi, Mid Channel: Peak RE Graph - 30MHz to 1GHz - Horizontal Polarization

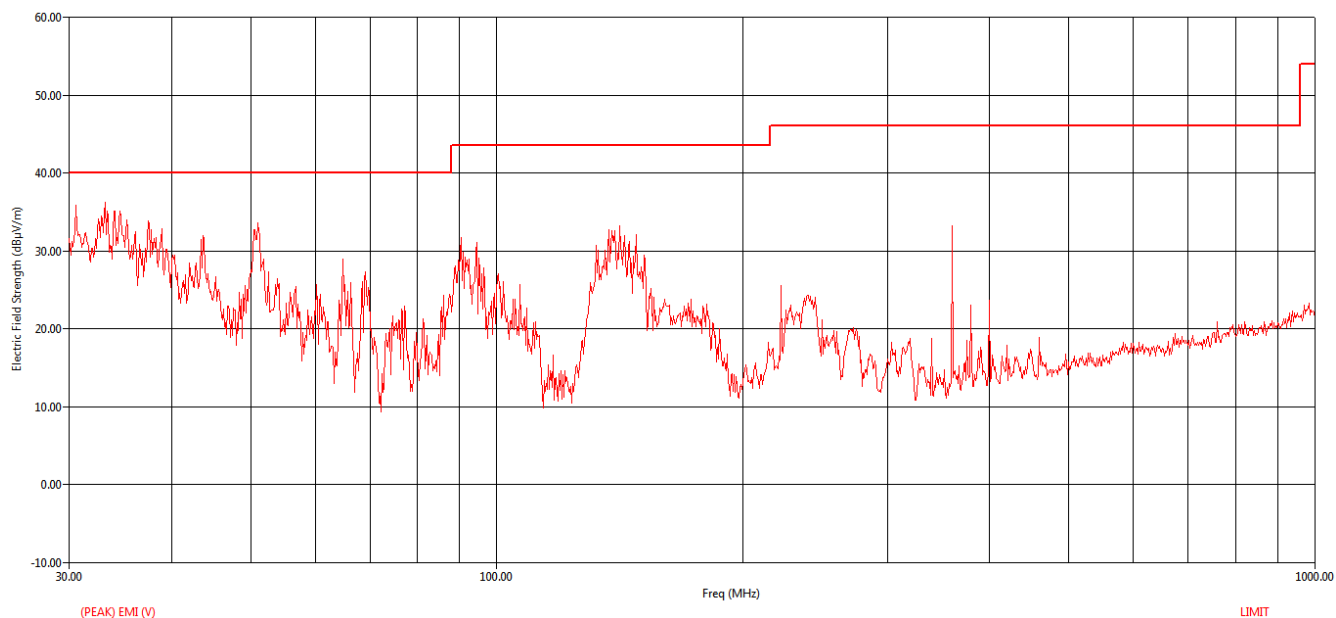


Figure 20: 40MHz, 17dBi, Mid Channel: Peak RE Graph - 30MHz to 1GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbi Agl (deg) | Twr Ht (cm) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|-------------------|------------|-----------------|-------------------|-------------------|----------------|------------------|
| 30.56 | 30.64 | V | 117.30 | 103.00 | 65.21 | 1.19 | 9.66 | 43.80 | 32.25 | 40.00 | -7.75 |
| 33.20 | 33.18 | V | 33.70 | 100.00 | 66.92 | 1.24 | 9.52 | 43.80 | 33.87 | 40.00 | -6.13 |
| 37.52 | 37.53 | V | 36.00 | 100.00 | 65.12 | 1.33 | 9.79 | 43.81 | 32.43 | 40.00 | -7.57 |
| 51.08 | 51.03 | V | 317.50 | 100.00 | 65.54 | 1.56 | 9.13 | 43.83 | 32.39 | 40.00 | -7.61 |
| 69.04 | 69.01 | H | 161.60 | 222.00 | 67.17 | 1.78 | 9.78 | 43.88 | 34.85 | 40.00 | -5.15 |
| 69.72 | 69.67 | H | 347.40 | 222.00 | 67.42 | 1.79 | 9.83 | 43.88 | 35.16 | 40.00 | -4.84 |

Table 16: 40MHz, 17dBi, Mid Channel: Quasipeak table from 30 MHz to 1 GHz

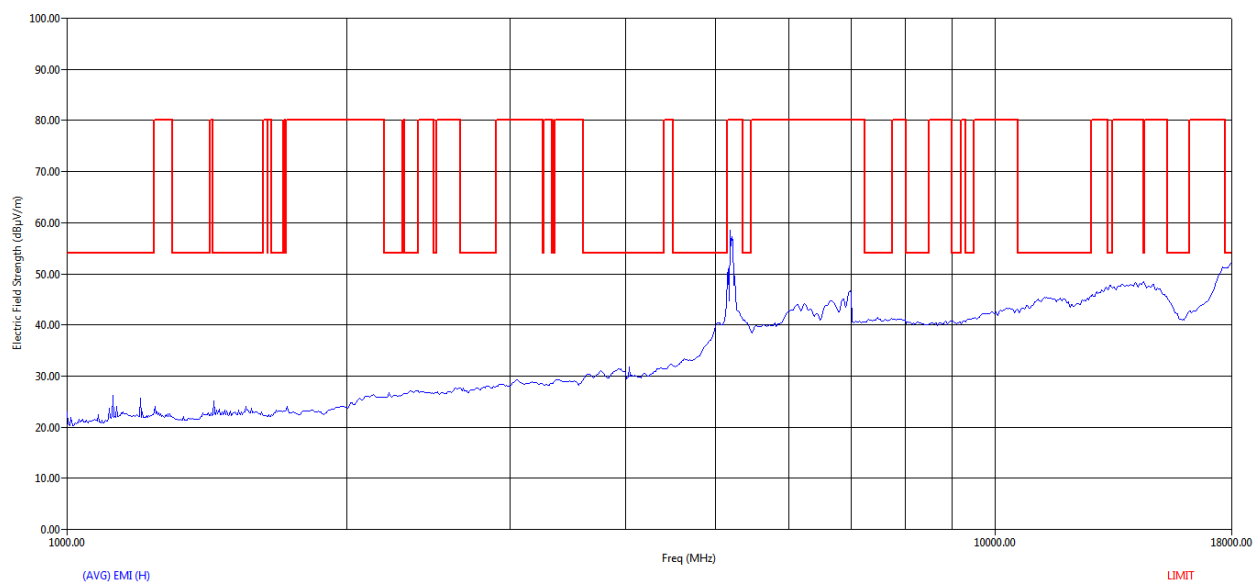


Figure 21: 40MHz, 17dBi, Mid Channel: Average RE Graph - 1GHz to 18GHz - Horizontal Polarization

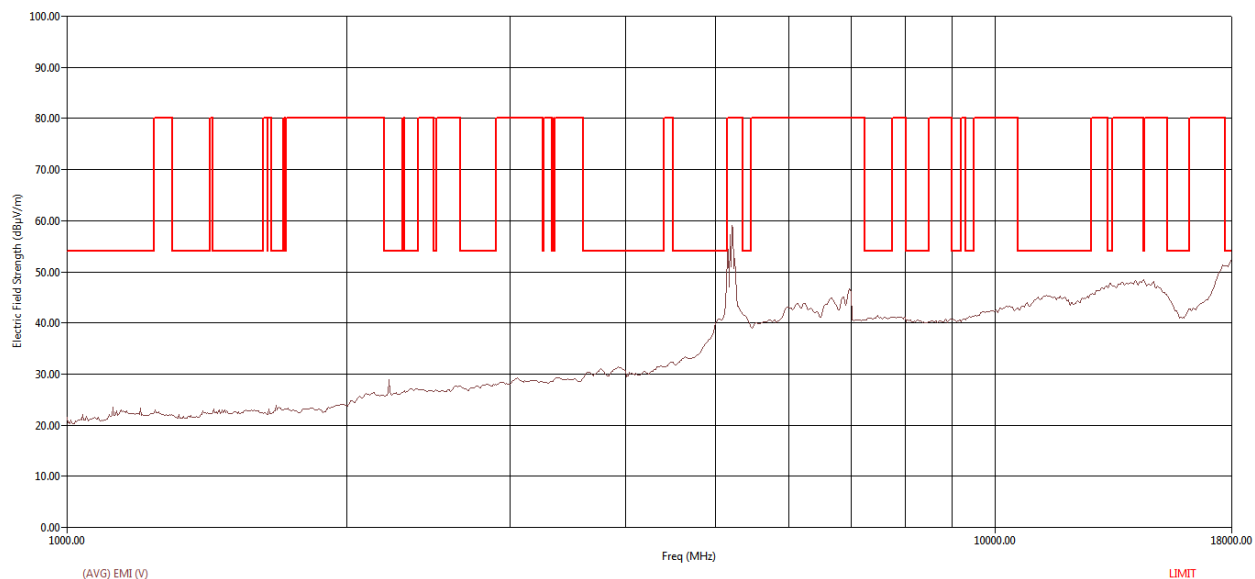


Figure 22: 40MHz, 17dBi, Mid Channel: Average RE Graph - 1GHz to 18GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preampl (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|--------------|--------------------|----------------|-------------------|
| 5135.10 | 5135.10 | V | 351.80 | 133.00 | 39.73 | 3.80 | 32.93 | 28.31 | 48.14 | 53.98 | -5.84 |
| 5139.30 | 5139.30 | V | 351.60 | 133.00 | 41.15 | 3.80 | 32.93 | 28.32 | 49.56 | 53.98 | -4.42 |
| 5146.60 | 5146.60 | H | 13.70 | 133.00 | 42.18 | 3.80 | 32.93 | 28.32 | 50.59 | 53.98 | -3.39 |
| 5258.10 | 5258.10 | H | 22.20 | 131.00 | 37.52 | 3.82 | 32.90 | 28.33 | 45.92 | 80.00 | -34.08 |

Table 17: 40MHz, 17dBi, Mid Channel: Average table from 1 GHz to 18 GHz

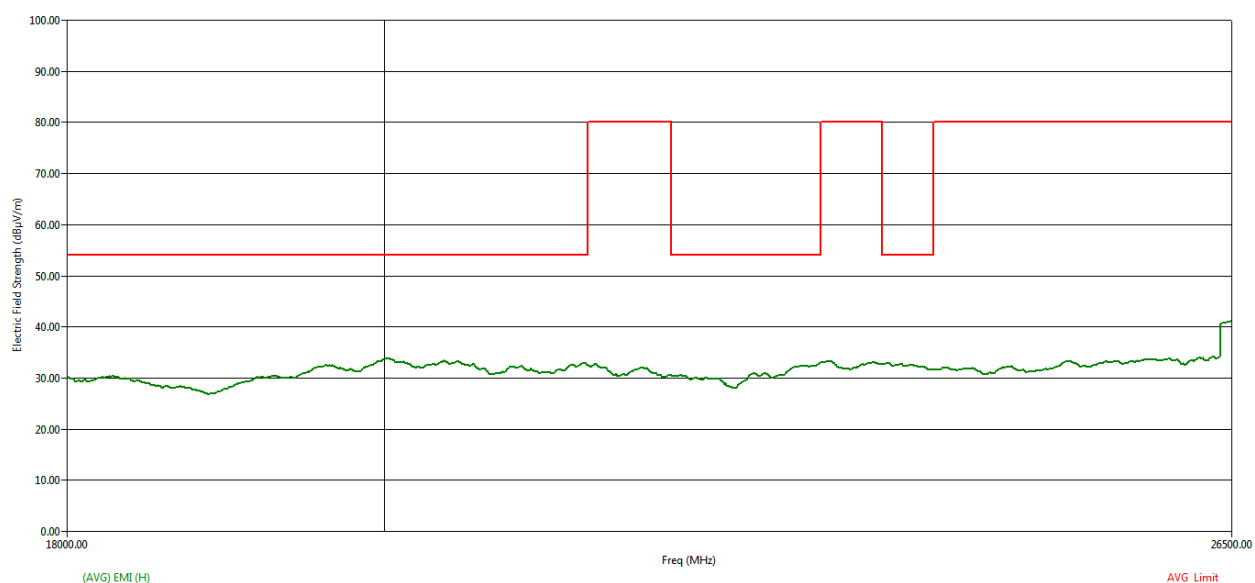


Figure 23: 40MHz, 17dBi, Mid Channel: Average RE Graph - 18GHz to 26.5GHz - Horizontal Polarization

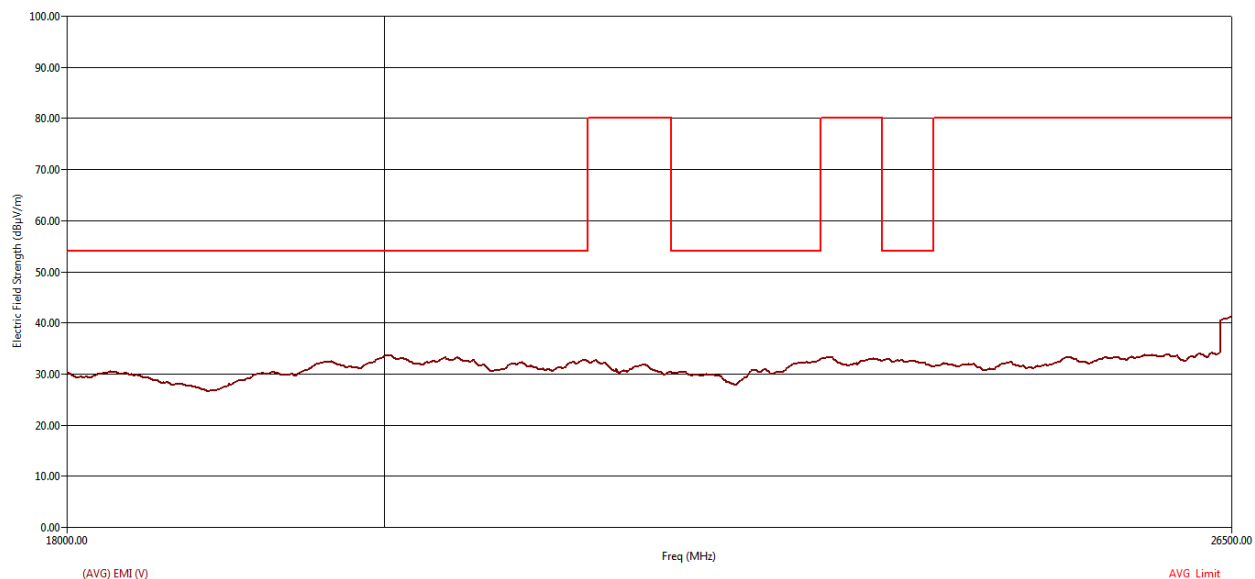


Figure 24: 40MHz, 17dBi, Mid Channel: Average RE Graph - 18GHz to 26.5GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 19537.60 | 19537.60 | H | 180.90 | 188.00 | 32.80 | 6.79 | 36.58 | 44.55 | 31.62 | 53.98 | -22.36 |
| 23145.90 | 23145.90 | V | 287.60 | 108.00 | 33.94 | 8.25 | 37.79 | 46.82 | 33.16 | 80.00 | -46.84 |
| 26348.30 | 26348.30 | V | 103.60 | 100.00 | 31.60 | 9.27 | 37.79 | 44.61 | 34.05 | 80.00 | -45.95 |

Table 18: 40MHz, 17dBi, Mid Channel: Average table from 18 GHz to 26.5 GHz

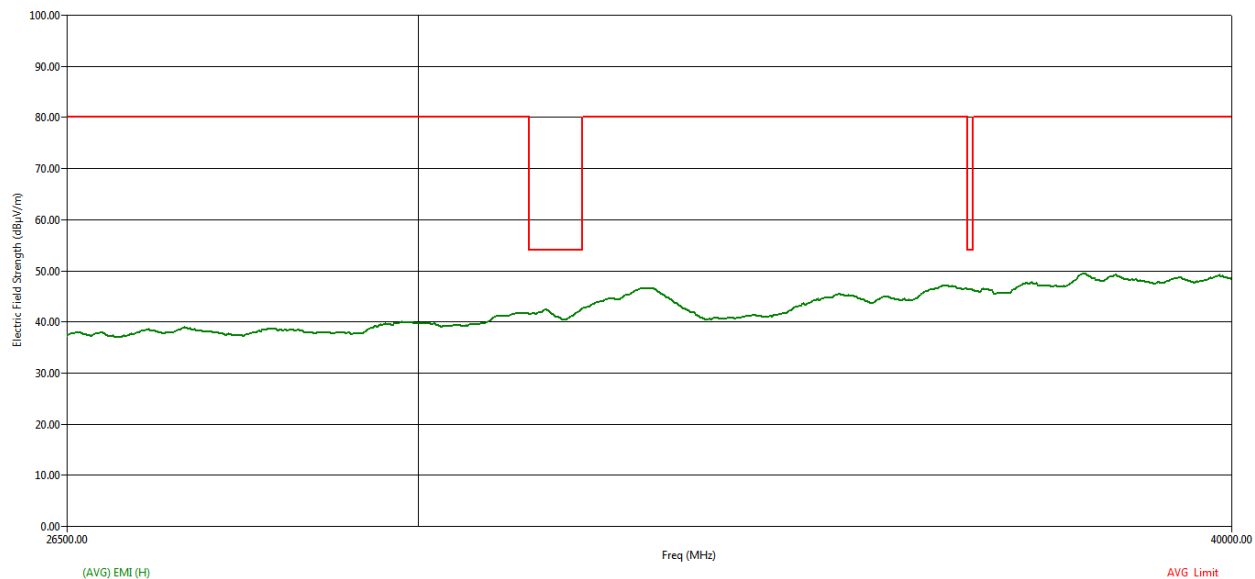


Figure 25: 40MHz, 17dBi, Mid Channel: Average RE Graph - 26.5GHz to 40GHz - Horizontal Polarization

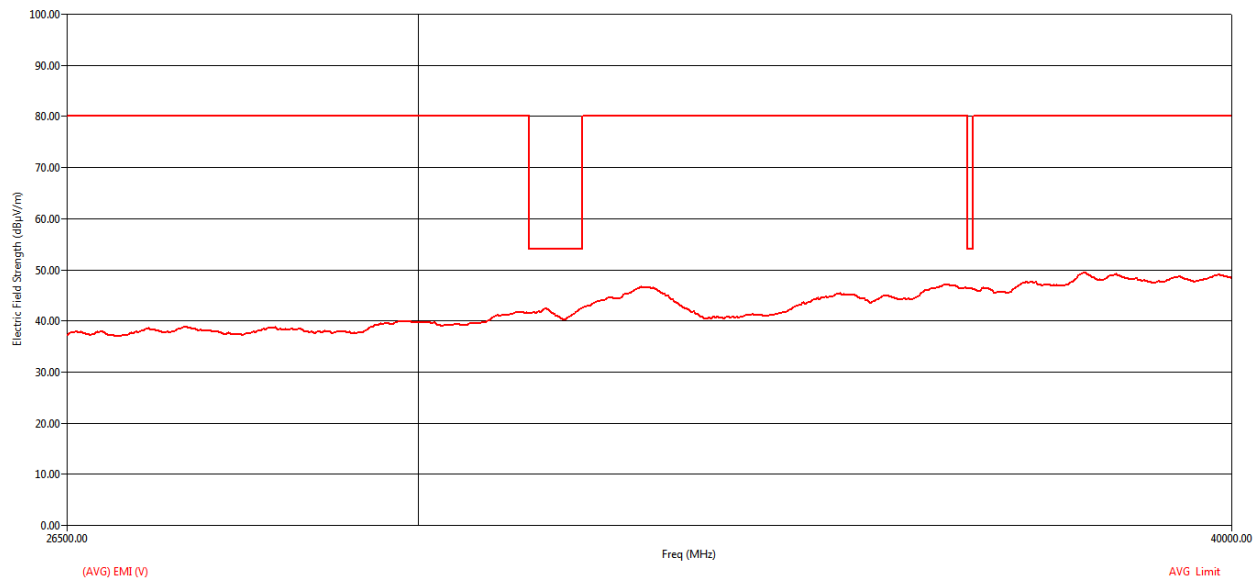


Figure 26: 40MHz, 17dBi, Mid Channel: Average RE Graph - 26.5GHz to 40GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbi Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 31585.10 | 31585.10 | V | 104.00 | 200.00 | 39.39 | 10.07 | 38.92 | 48.31 | 40.06 | 53.98 | -13.92 |
| 36466.60 | 36466.60 | H | 277.00 | 146.00 | 39.18 | 12.33 | 39.76 | 45.07 | 46.21 | 53.98 | -7.77 |

Table 19: 40MHz, 17dBi, Mid Channel: Average table from 26.5 GHz to 40 GHz

5.3.1.5.3 40 MHz MODULATION BANDWIDTH, 17 dBi ANTENNA, HIGH CHANNEL - 5220 MHz

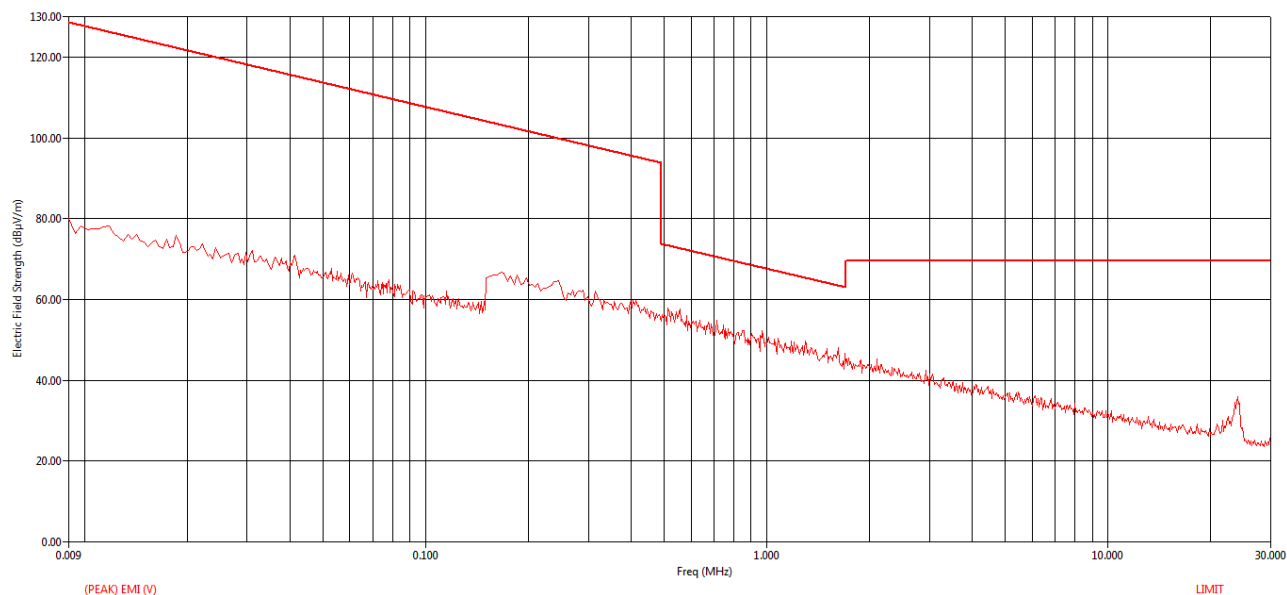


Figure 27: 40MHz, 17dBi, High Channel: Peak RE Graph - 9kHz to 30MHz - Parallel

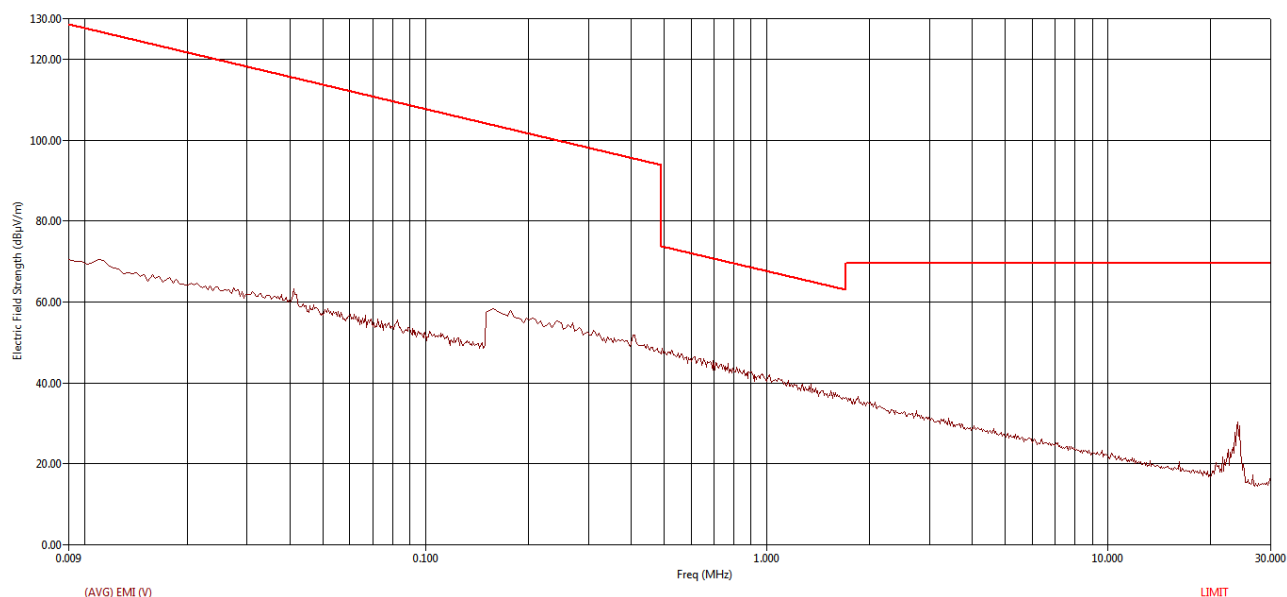


Figure 28: 40MHz, 17dBi, High Channel: Average RE Graph - 9kHz to 30MHz - Parallel

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbl Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 24.09 | 24.08 | 184.10 | 18.81 | 1.06 | 16.17 | 36.04 | 69.54 | -33.50 |
| 24.35 | 24.35 | 222.40 | 14.41 | 1.07 | 16.15 | 31.63 | 69.54 | -37.91 |

Table 20: 40MHz, 17dBi, High Channel: Quasipeak table from 9 kHz to 30 MHz

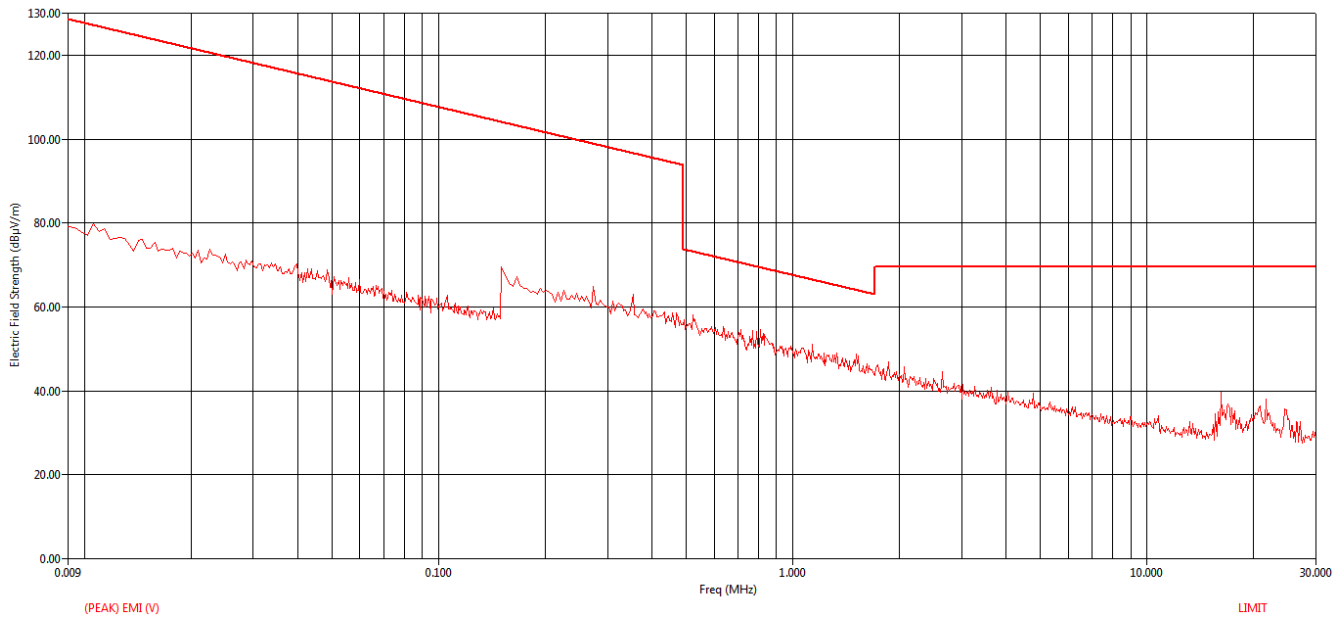


Figure 29: 40MHz, 17dBi, High Channel: Peak RE Graph - 9kHz to 30MHz - Perpendicular

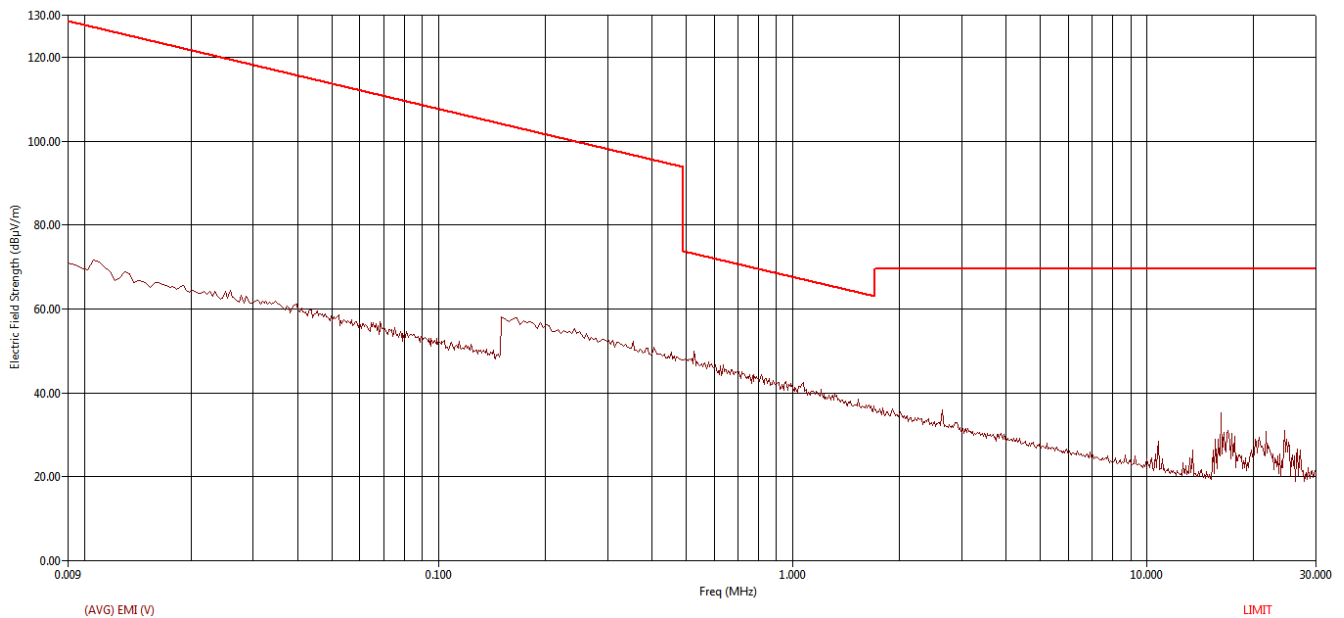


Figure 30: 40MHz, 17dBi, High Channel: Average RE Graph - 9kHz to 30MHz - Perpendicular

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbl Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 16.21 | 16.22 | 0.10 | 16.84 | 0.87 | 16.79 | 34.50 | 69.54 | -35.04 |
| 16.94 | 16.93 | 0.10 | 9.68 | 0.89 | 16.73 | 27.31 | 69.54 | -42.23 |
| 20.84 | 20.84 | 192.20 | 12.69 | 0.99 | 16.43 | 30.10 | 69.54 | -39.44 |
| 21.64 | 21.63 | 182.90 | 11.24 | 1.01 | 16.36 | 28.60 | 69.54 | -40.94 |

Table 21: 40MHz, 17dBi, High Channel: Quasipeak table from 9 kHz to 30 MHz

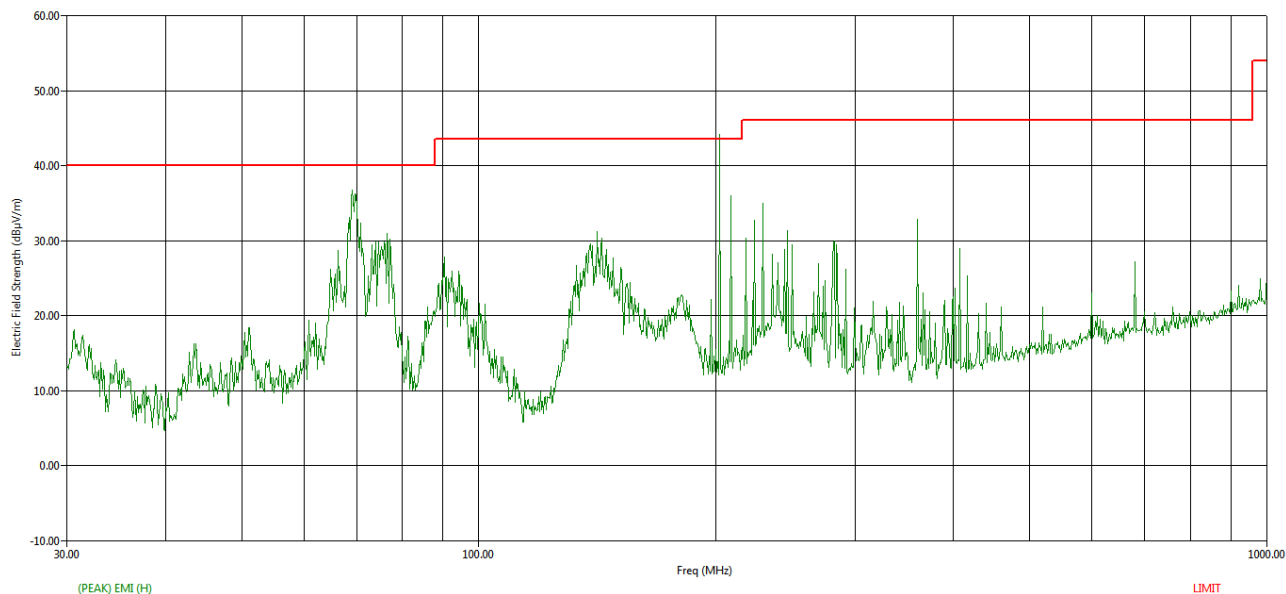


Figure 31: 40MHz, 17dBi, High Channel: Peak RE Graph - 30MHz to 1GHz - Horizontal Polarization

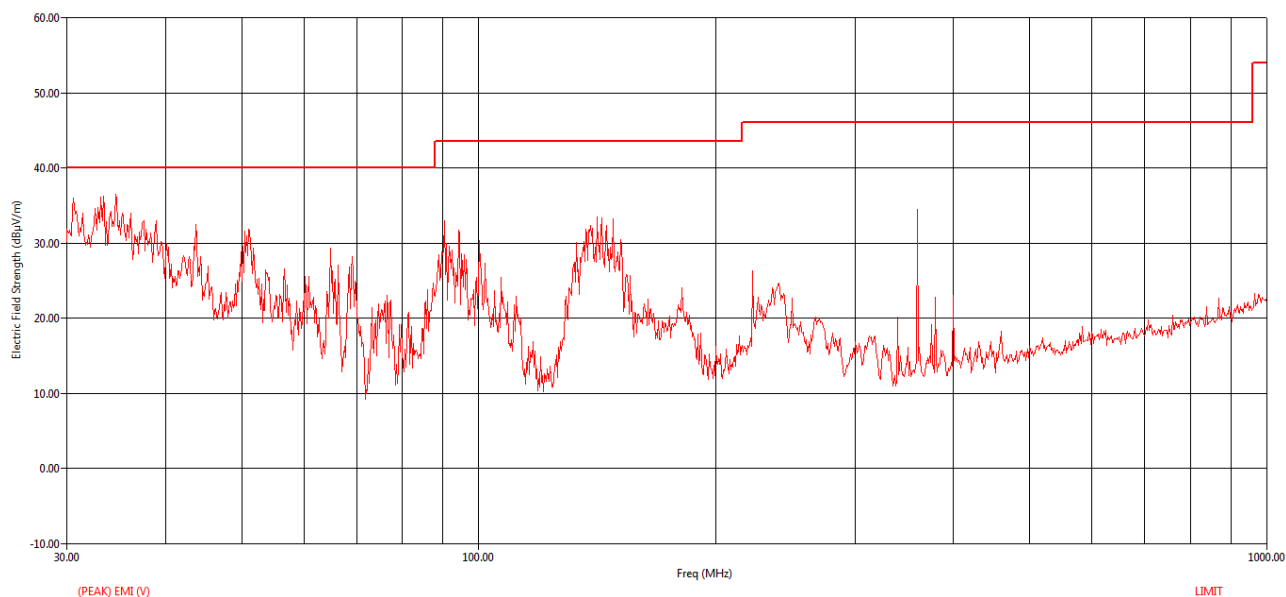


Figure 32: 40MHz, 17dBi, High Channel: Peak RE Graph - 30MHz to 1GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbl Agl (deg) | Twr Ht (cm) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|-------------------|------------|-----------------|-------------|-------------------|----------------|------------------|
| 34.64 | 34.63 | V | 63.60 | 103.00 | 66.99 | 1.28 | 9.44 | 43.81 | 33.89 | 40.00 | -6.11 |
| 69.16 | 69.13 | H | 355.60 | 240.00 | 65.96 | 1.79 | 9.79 | 43.88 | 33.65 | 40.00 | -6.35 |
| 69.72 | 69.70 | H | 348.20 | 230.00 | 68.69 | 1.79 | 9.84 | 43.88 | 36.44 | 40.00 | -3.56 |
| 141.20 | 141.20 | V | 354.20 | 103.00 | 62.02 | 2.51 | 11.21 | 43.94 | 31.80 | 43.52 | -11.72 |
| 143.32 | 143.28 | V | 4.90 | 100.00 | 61.33 | 2.53 | 11.28 | 43.95 | 31.20 | 43.52 | -12.32 |
| 148.16 | 148.10 | V | 358.10 | 100.00 | 60.75 | 2.57 | 11.43 | 43.95 | 30.81 | 43.52 | -12.71 |

Table 22: 40MHz, 17dBi, High Channel: Quasipeak table from 30 MHz to 1 GHz

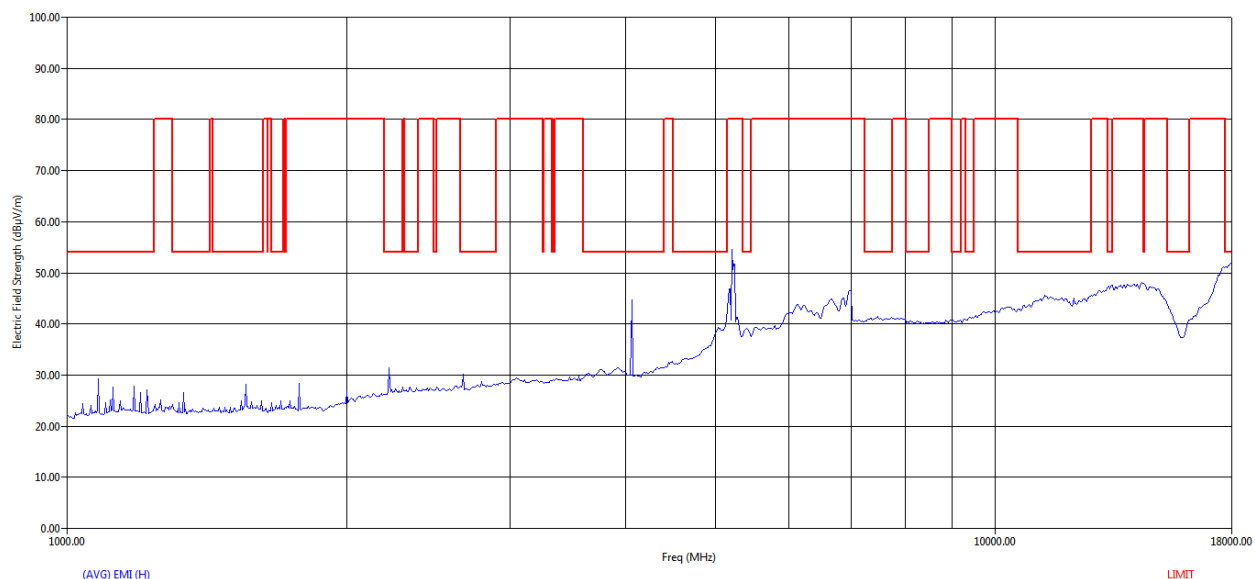


Figure 33: 40MHz, 17dBi, High Channel: Average RE Graph - 1GHz to 18GHz - Horizontal Polarization

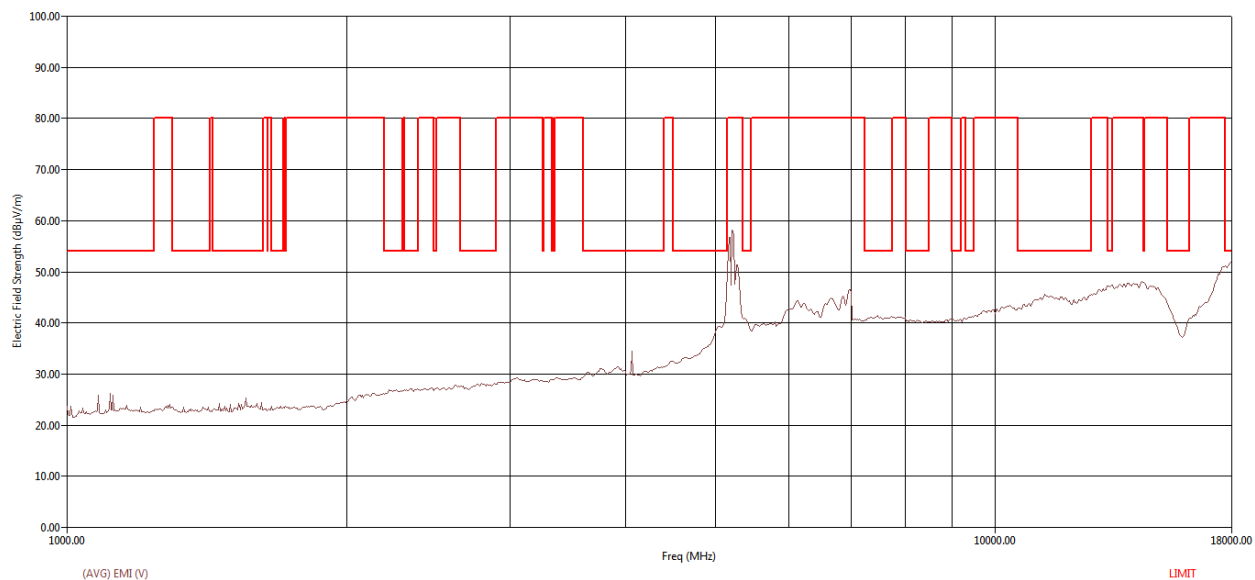


Figure 34: 40MHz, 17dBi, High Channel: Average RE Graph - 1GHz to 18GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 1080.00 | 1080.00 | H | 353.70 | 130.00 | 36.00 | 1.86 | 25.10 | 32.48 | 30.48 | 53.98 | -23.50 |
| 1781.70 | 1781.70 | H | 180.00 | 147.00 | 26.76 | 2.27 | 26.07 | 32.33 | 22.76 | 80.00 | -57.24 |
| 4062.50 | 4062.50 | H | 301.40 | 103.00 | 26.30 | 3.34 | 30.29 | 30.16 | 29.77 | 53.98 | -24.21 |
| 5145.90 | 5145.90 | V | 72.20 | 101.00 | 40.45 | 3.80 | 32.93 | 28.32 | 48.86 | 53.98 | -5.12 |
| 5292.50 | 5292.50 | V | 76.70 | 104.00 | 39.87 | 3.82 | 32.89 | 28.33 | 48.26 | 80.00 | -31.74 |

Table 23: 40MHz, 17dBi, High Channel: Average table from 1 GHz to 18 GHz

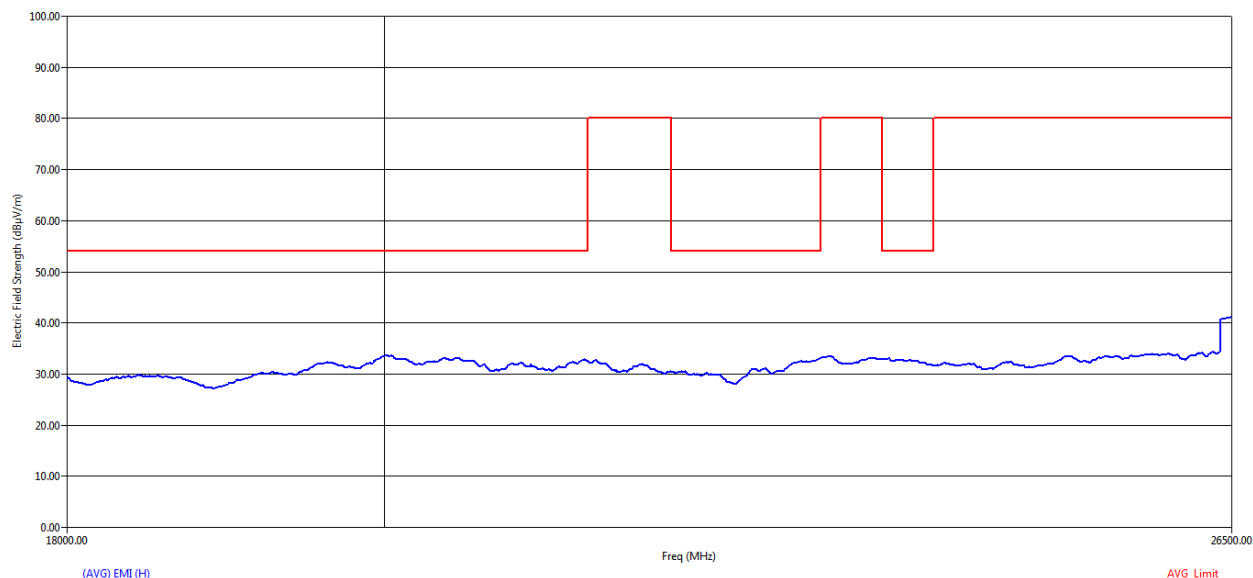


Figure 35: 40MHz, 17dBi, High Channel: Average RE Graph - 18GHz to 26.5GHz - Horizontal Polarization

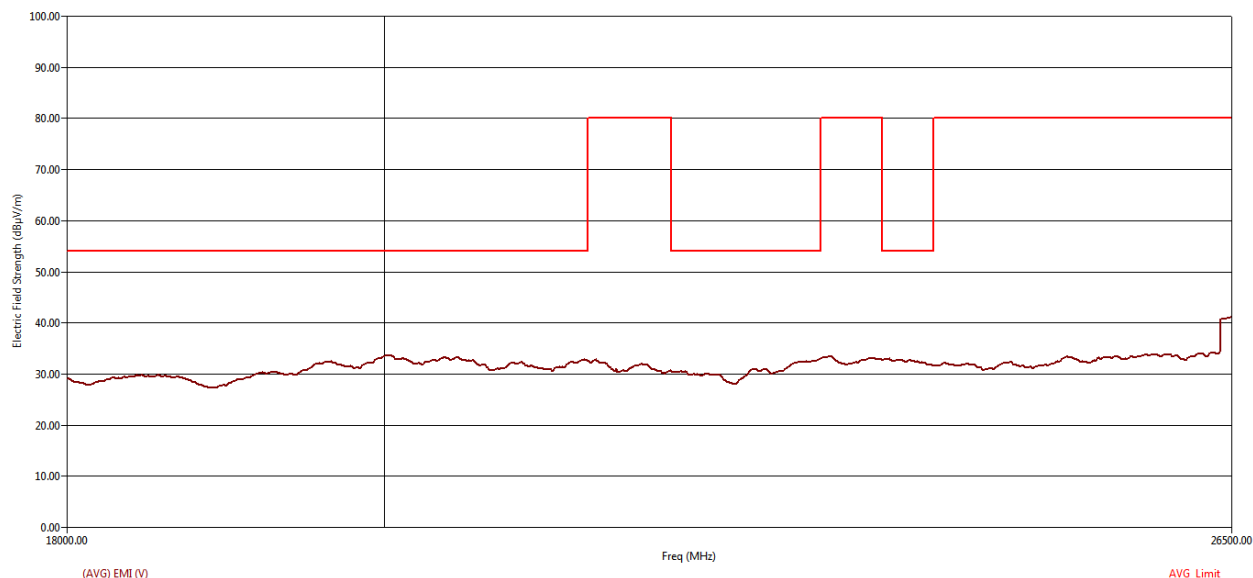


Figure 36: 40MHz, 17dBi, High Channel: Average RE Graph - 18GHz to 26.5GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 19984.00 | 19984.00 | H | 173.40 | 185.00 | 32.46 | 7.22 | 36.45 | 43.04 | 33.11 | 53.98 | -20.87 |
| 20460.80 | 20460.80 | H | 57.30 | 100.00 | 32.12 | 7.62 | 36.78 | 43.65 | 32.87 | 53.98 | -21.11 |
| 20947.20 | 20947.20 | V | 204.10 | 199.00 | 32.21 | 7.26 | 37.24 | 44.87 | 31.84 | 53.98 | -22.14 |

Table 24: 40MHz, 17dBi, High Channel: Average table from 18 GHz to 26.5 GHz

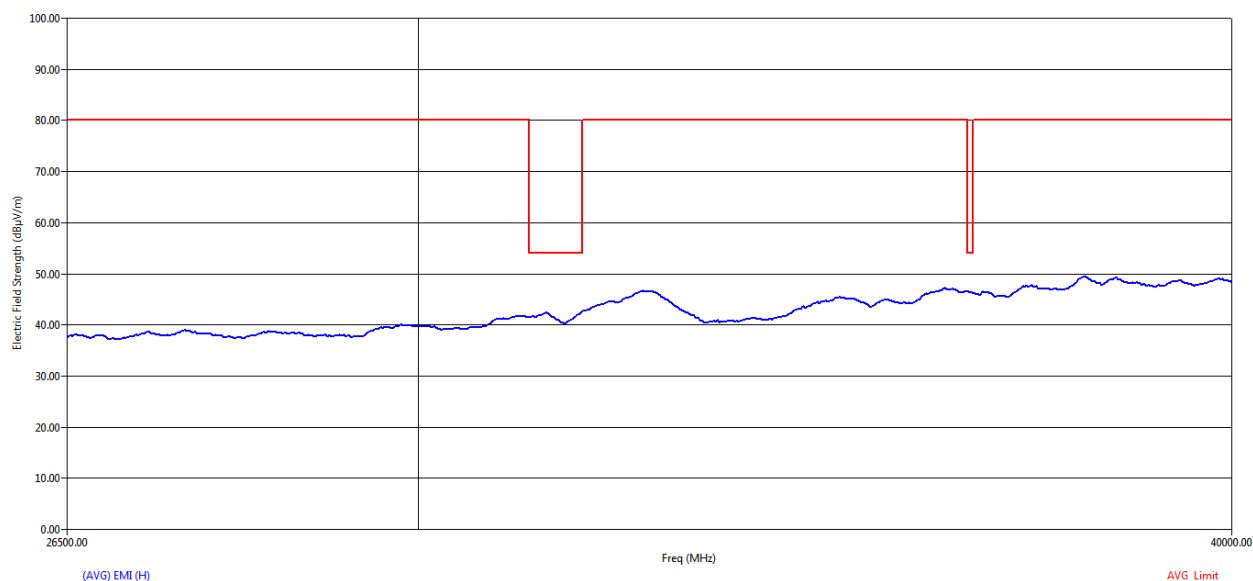


Figure 37: 40MHz, 17dBi, High Channel: Average RE Graph - 26.5GHz to 40GHz - Horizontal Polarization

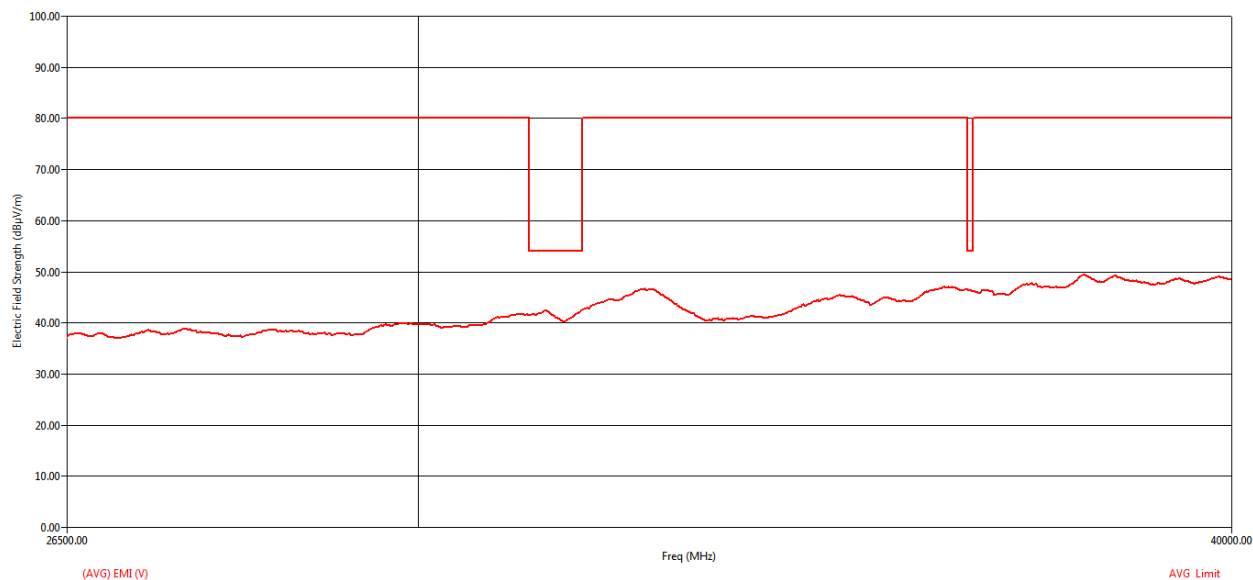


Figure 38: 40MHz, 17dBi, High Channel: Average RE Graph - 26.5GHz to 40GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 31317.60 | 31317.60 | V | 343.50 | 146.00 | 39.51 | 10.08 | 38.82 | 46.70 | 41.71 | 53.98 | -12.27 |
| 36467.20 | 36467.20 | H | 3.70 | 200.00 | 39.19 | 12.33 | 39.76 | 45.07 | 46.21 | 53.98 | -7.77 |

Table 25: 40MHz, 17dBi, High Channel: Average table form 26.5 GHz to 40 GHz

5.3.1.5.4 5 MHz MODULATION BANDWIDTH, 17 dBi ANTENNA, LOW CHANNEL - 5155 MHz

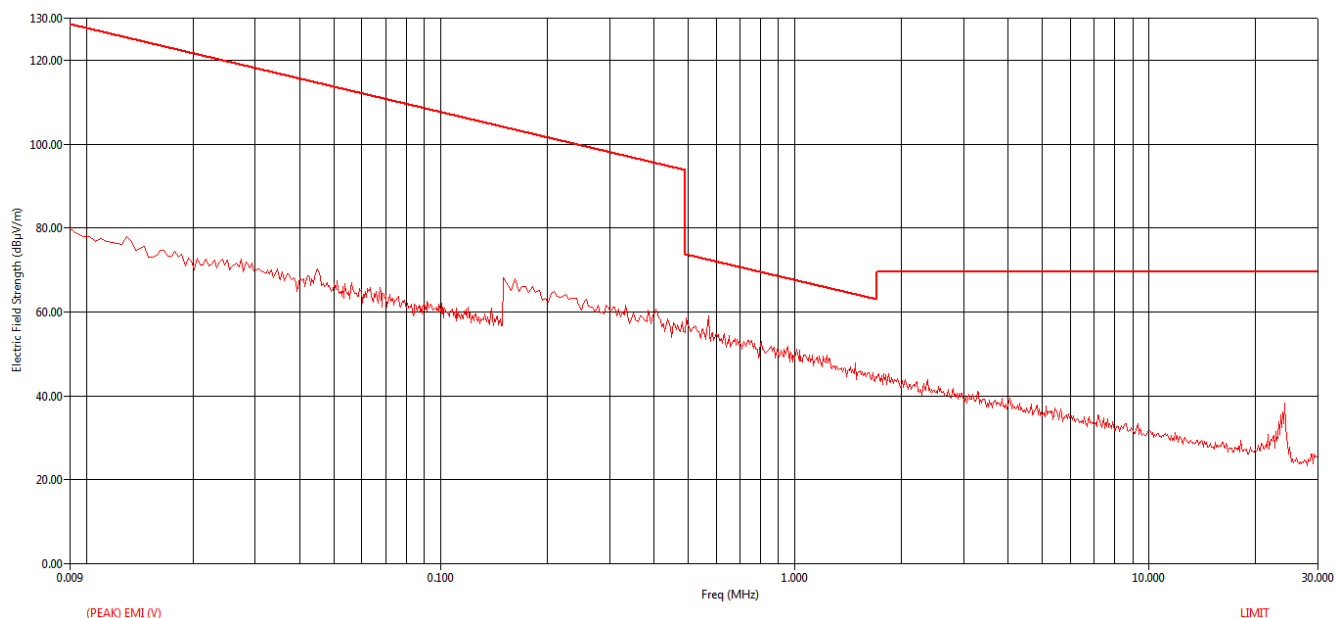


Figure 39: 5MHz, 17dBi, Low Channel: Peak RE Graph - 9kHz to 30MHz - Parallel

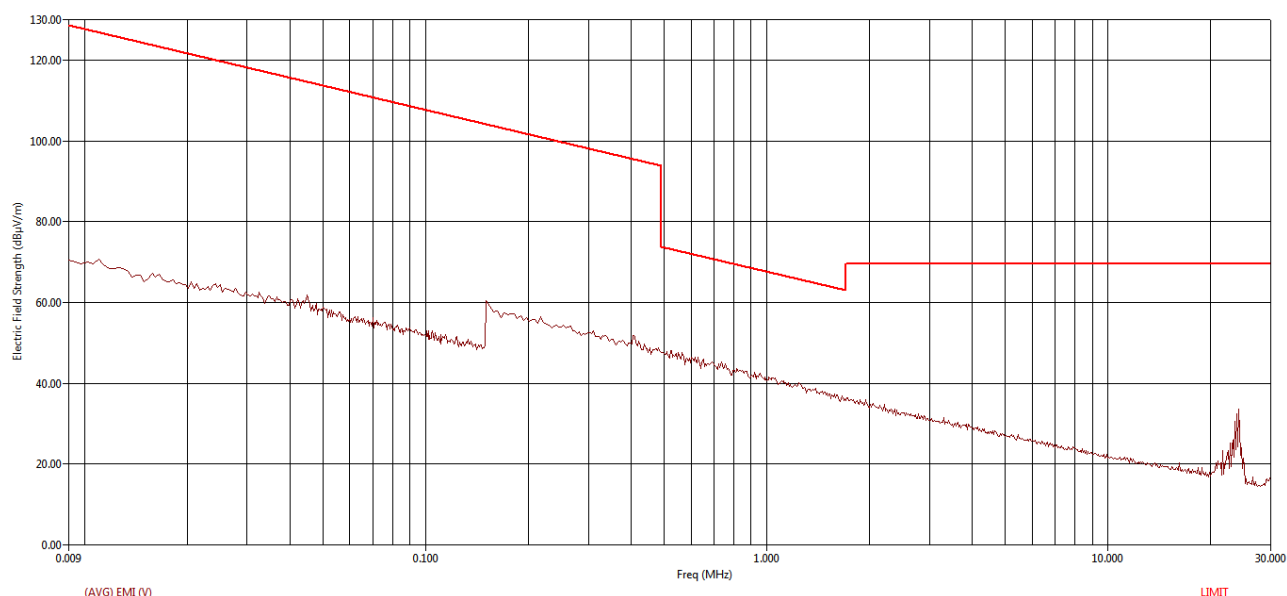


Figure 40: 5MHz, 17dBi, Low Channel: Average RE Graph - 9kHz to 30MHz - Parallel

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbl Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 23.58 | 23.58 | 179.90 | 13.81 | 1.05 | 16.20 | 31.07 | 69.54 | -38.47 |
| 23.85 | 23.83 | 180.10 | 17.11 | 1.06 | 16.19 | 34.36 | 69.54 | -35.18 |
| 24.11 | 24.09 | 179.90 | 15.70 | 1.06 | 16.17 | 32.93 | 69.54 | -36.61 |

Table 26: 5MHz, 17dBi, Low Channel: Quasipeak table from 9 kHz to 30 MHz

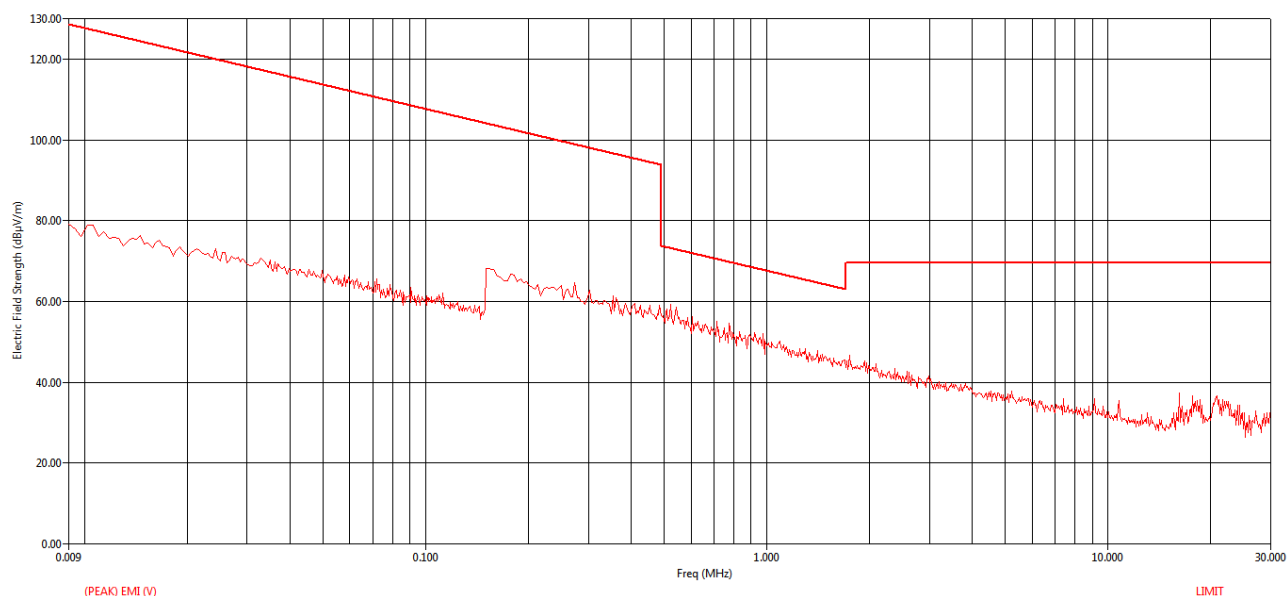


Figure 41: 5MHz, 17dBi, Low Channel: Peak RE Graph - 9kHz to 30MHz - Perpendicular

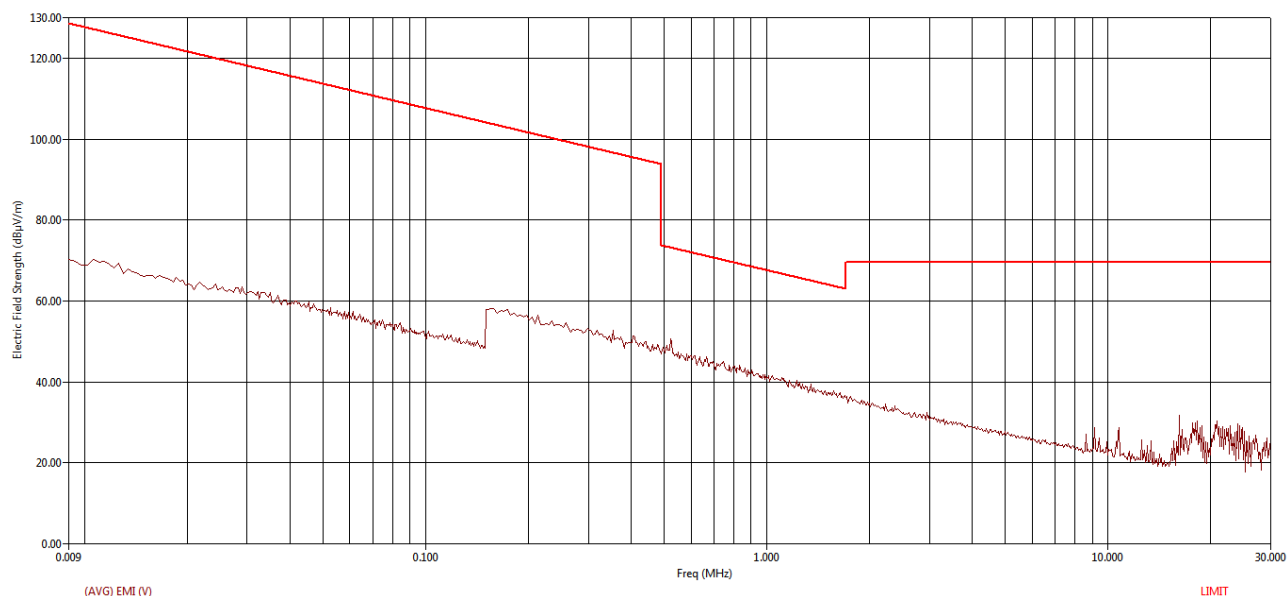


Figure 42: 5MHz, 17dBi, Low Channel: Average RE Graph - 9kHz to 30MHz - Perpendicular

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbl Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 16.24 | 16.23 | 215.00 | 17.73 | 0.87 | 16.79 | 35.39 | 69.54 | -34.15 |
| 21.00 | 20.99 | 179.90 | 15.34 | 0.99 | 16.41 | 32.75 | 69.54 | -36.79 |

Table 27: 5MHz, 17dBi, Low Channel: Quasipeak table from 9 kHz to 30 MHz

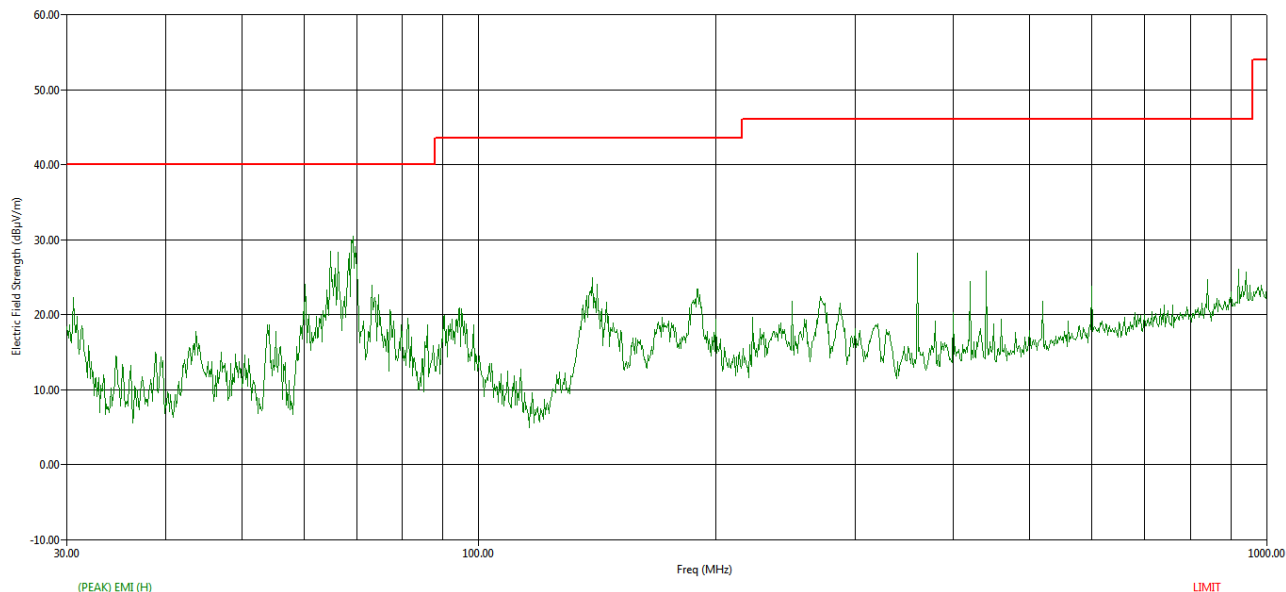


Figure 43: 5MHz, 17dBi, Low Channel: Peak RE Graph - 30MHz to 1GHz - Horizontal Polarization

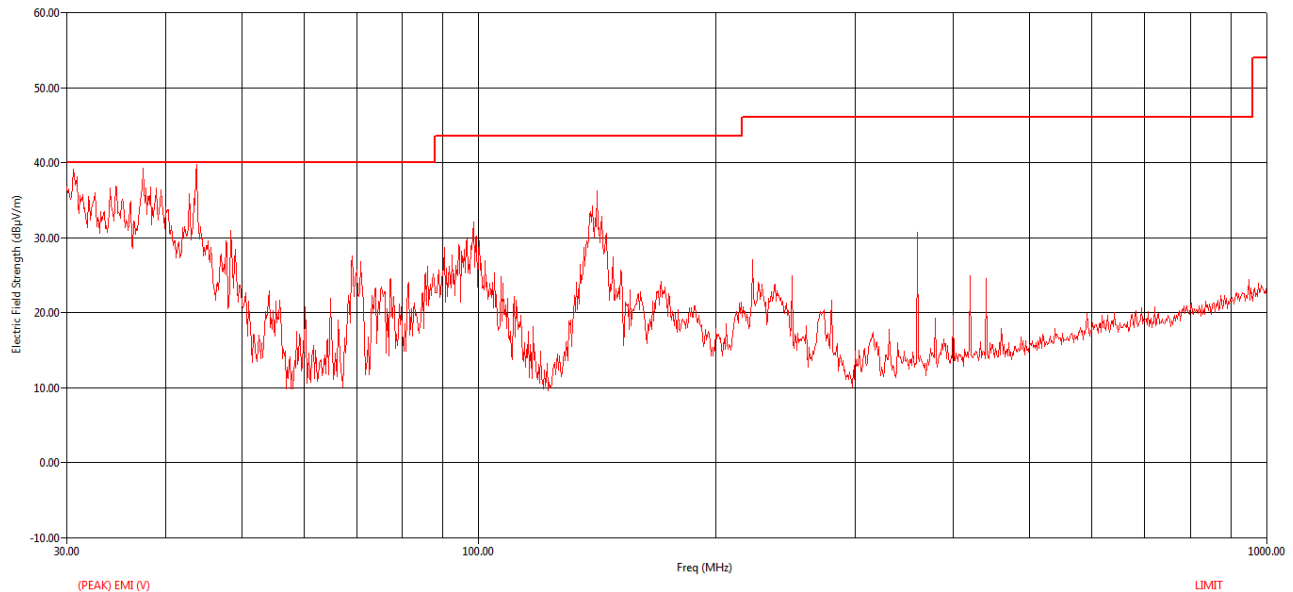


Figure 44: 5MHz, 17dBi, Low Channel: Peak RE Graph - 30MHz to 1GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbi Agl (deg) | Twr Ht (cm) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preampl (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|-------------------|------------|-----------------|--------------|-------------------|----------------|------------------|
| 30.60 | 30.62 | V | 74.50 | 100.00 | 63.48 | 1.18 | 13.19 | 43.80 | 34.05 | 40.00 | -5.95 |
| 37.52 | 37.52 | V | 81.70 | 104.00 | 65.76 | 1.33 | 12.43 | 43.81 | 35.71 | 40.00 | -4.29 |
| 43.84 | 43.80 | V | 83.90 | 127.00 | 66.56 | 1.45 | 10.77 | 43.82 | 34.96 | 40.00 | -5.04 |
| 139.20 | 139.19 | V | 213.50 | 100.00 | 62.09 | 2.50 | 12.22 | 43.94 | 32.86 | 43.52 | -10.66 |
| 141.20 | 141.19 | V | 272.10 | 100.00 | 62.88 | 2.51 | 12.25 | 43.94 | 33.69 | 43.52 | -9.83 |

Table 28: 5MHz, 17dBi, Low Channel: Quasipeak table from 30 MHz to 1 GHz

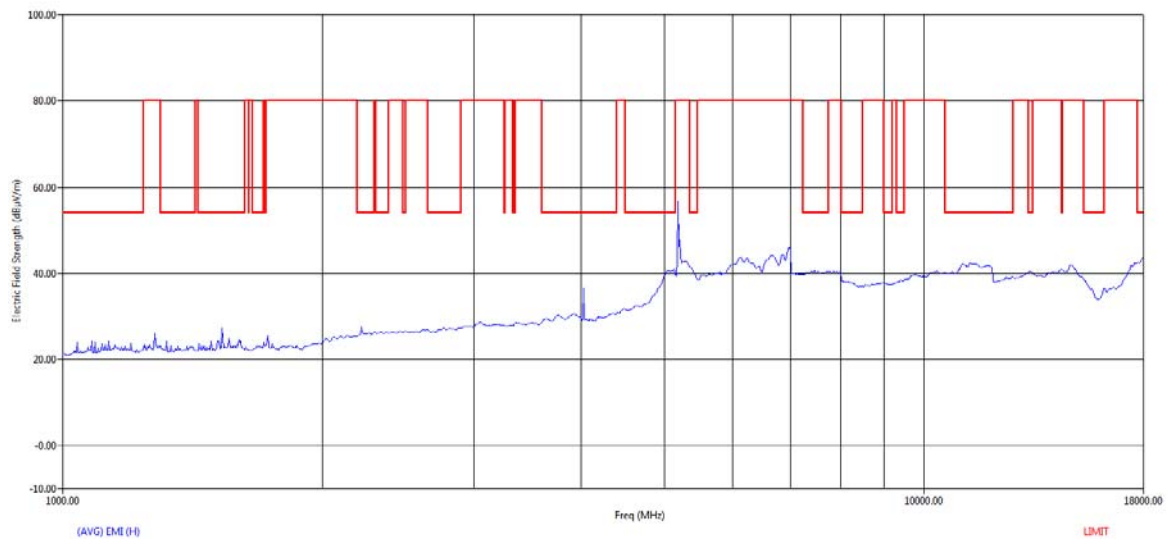


Figure 45: 5MHz, 17dBi, Low Channel: Average RE Graph - 1GHz to 18GHz - Horizontal Polarization

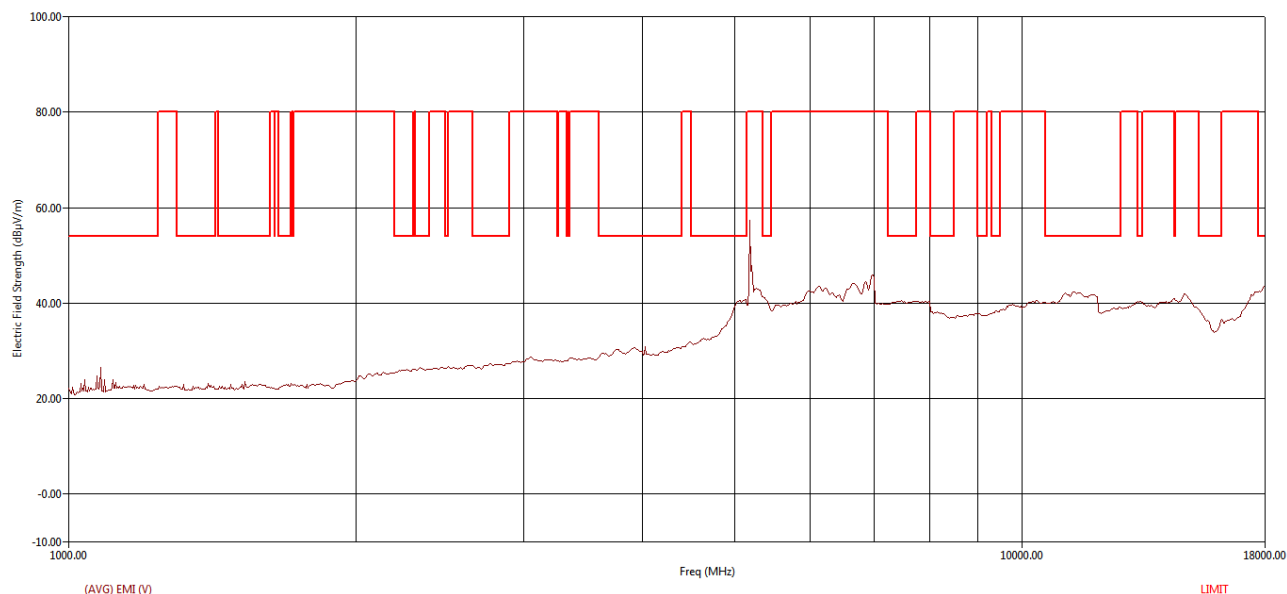


Figure 46: 5MHz, 17dBi, Low Channel: Average RE Graph - 1GHz to 18GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 4023.90 | 4023.90 | H | 166.40 | 108.00 | 43.14 | 3.33 | 30.24 | 30.25 | 46.46 | 53.98 | -7.52 |
| 5127.20 | 5127.20 | H | 352.50 | 199.00 | 29.76 | 3.79 | 32.93 | 28.31 | 38.17 | 53.98 | -15.81 |
| 5264.40 | 5264.40 | V | 9.80 | 100.00 | 32.05 | 3.82 | 32.90 | 28.33 | 40.44 | 80.00 | -39.56 |

Table 29: 5MHz, 17dBi, Low Channel: Average table from 1 GHz to 18 GHz

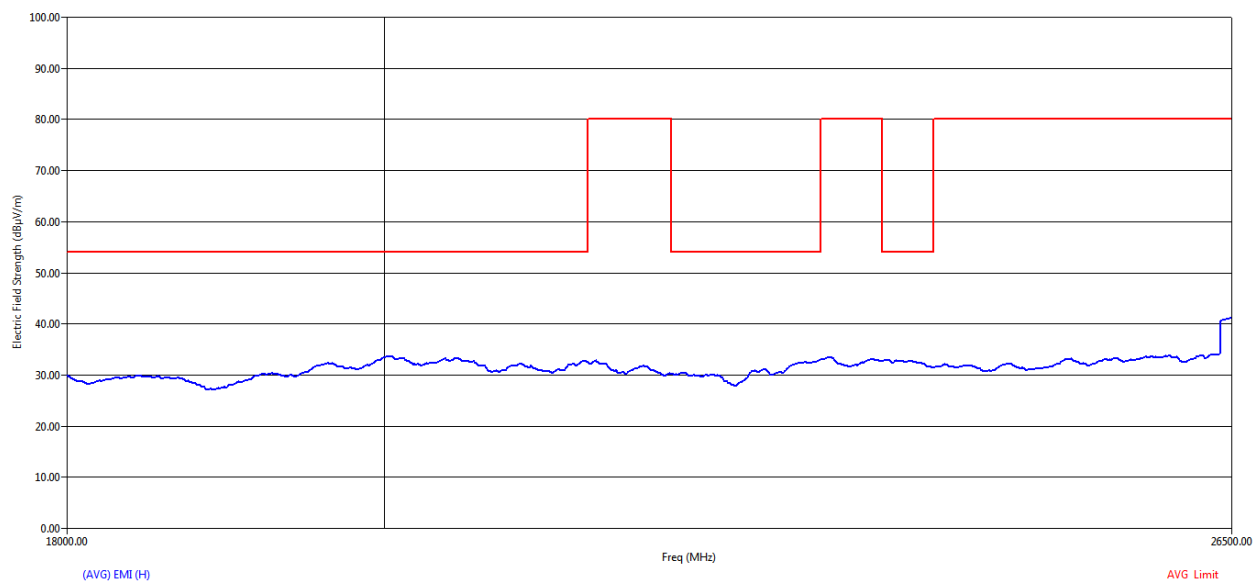


Figure 47: 5MHz, 17dBi, Low Channel: Average RE Graph - 18GHz to 26.5GHz - Horizontal Polarization

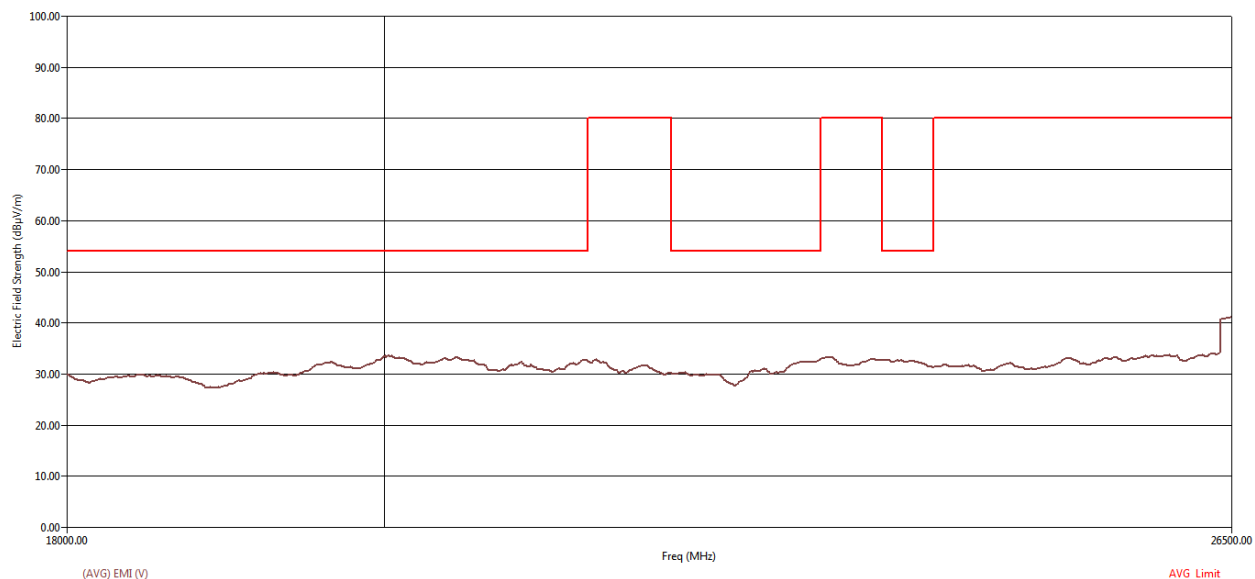


Figure 48: 5MHz, 17dBi, Low Channel: Average RE Graph - 18GHz to 26.5GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preampl (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|--------------|--------------------|----------------|-------------------|
| 20049.60 | 19219.89 | V | 351.70 | 111.00 | 33.45 | 6.64 | 36.53 | 46.61 | 30.00 | 53.98 | -23.98 |
| 21357.90 | 21818.02 | H | 280.20 | 142.00 | 33.26 | 7.23 | 37.31 | 46.01 | 31.78 | 53.98 | -22.20 |
| 26024.30 | 25082.74 | V | 280.90 | 133.00 | 32.97 | 8.80 | 37.95 | 46.68 | 33.04 | 80.00 | -46.96 |

Table 30: 5MHz, 17dBi, Low Channel: Average table form 18 GHz to 26.5 GHz

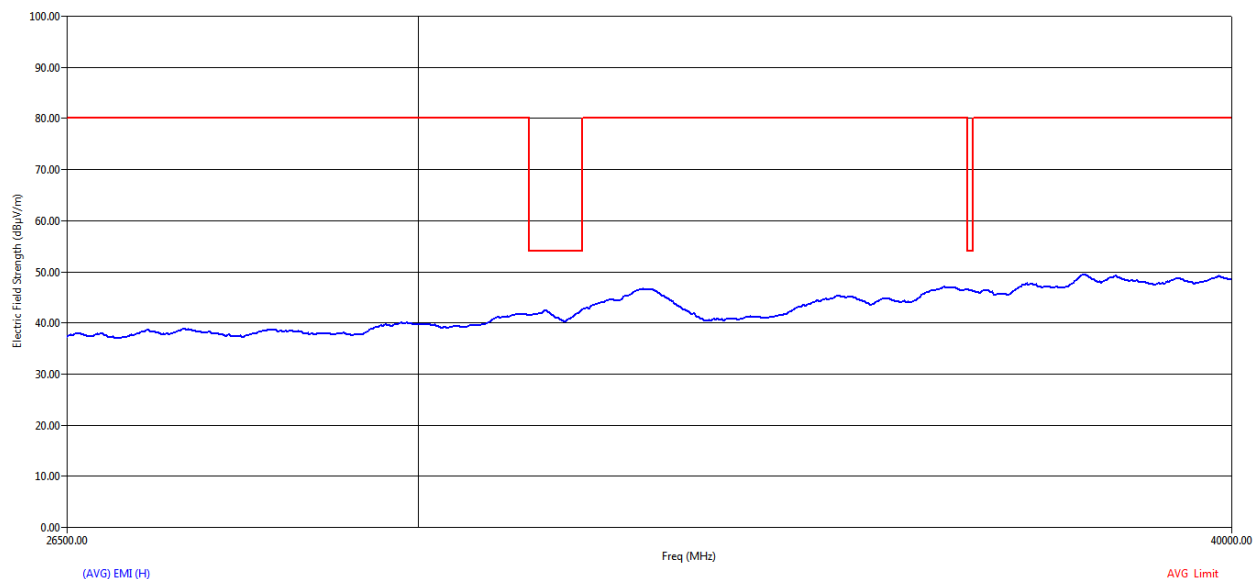


Figure 49: 5MHz, 17dBi, Low Channel: Average RE Graph - 26.5GHz to 40GHz - Horizontal Polarization

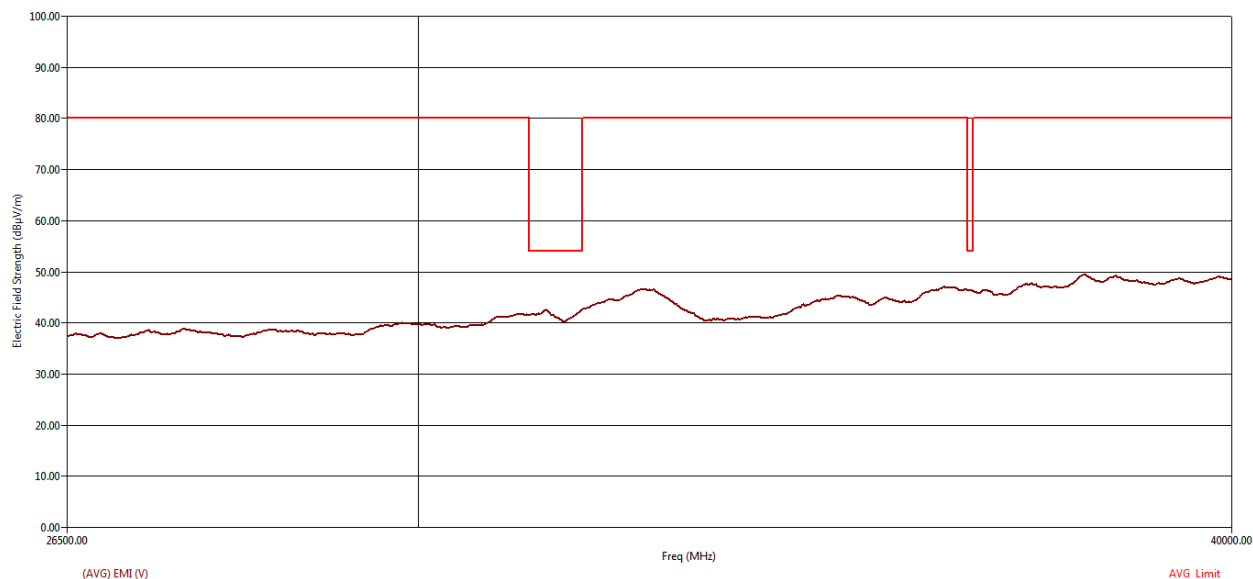


Figure 50: 5MHz, 17dBi, Low Channel: Average RE Graph - 26.5GHz to 40GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbi Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 32470.80 | 32470.80 | V | 98.10 | 107.00 | 41.49 | 10.73 | 38.91 | 44.65 | 46.47 | 80.00 | -33.53 |
| 39223.90 | 39223.90 | H | 195.30 | 172.00 | 41.13 | 12.81 | 42.06 | 47.54 | 48.46 | 80.00 | -31.54 |

Table 31: 5MHz, 17dBi, Low Channel: Average table from 26.5 GHz to 40 GHz

5.3.1.5.5 5 MHz MODULATION BANDWIDTH, 17 dBi ANTENNA, MID CHANNEL - 5200 MHz

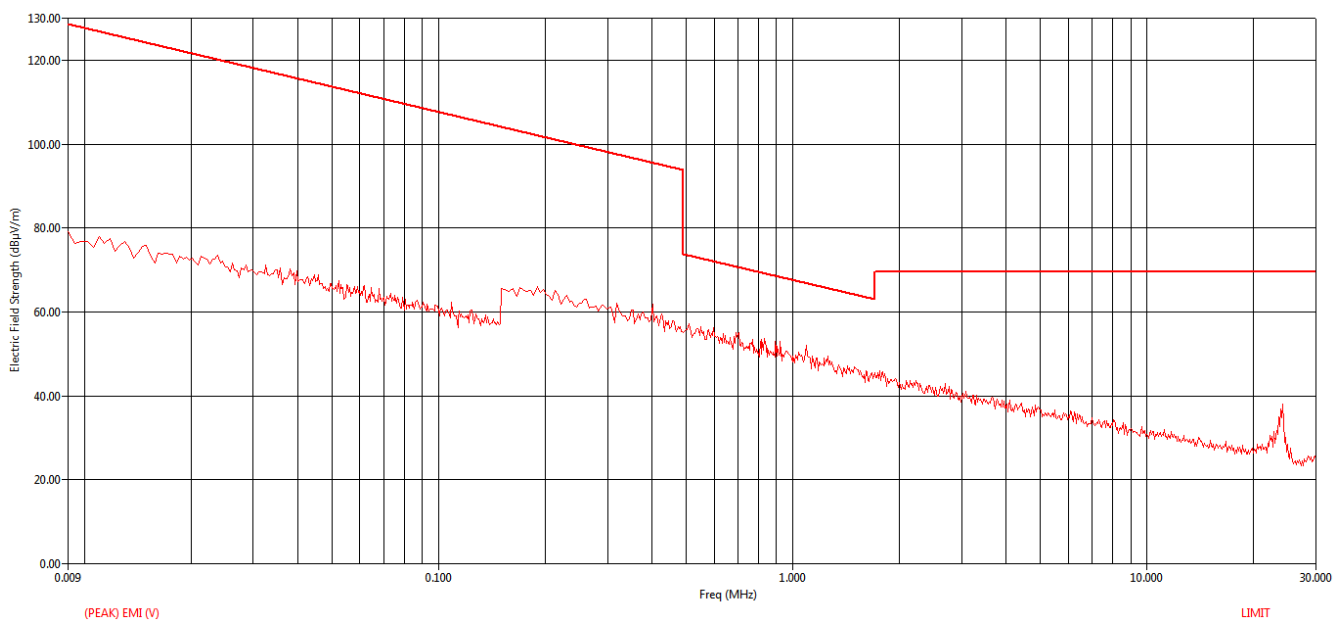


Figure 51: 5MHz, 17dBi, Mid Channel: Peak RE Graph - 9kHz to 30MHz - Parallel

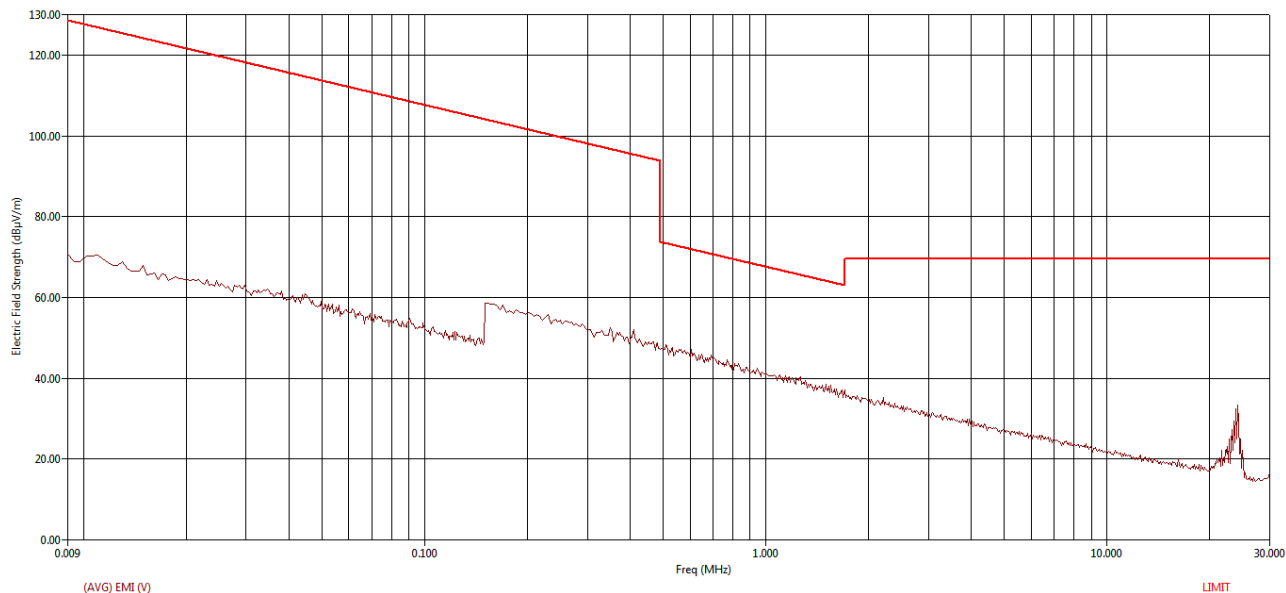


Figure 52: 5MHz, 17dBi, Mid Channel: Average RE Graph - 9kHz to 30MHz - Parallel

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbl Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 23.84 | 23.83 | 180.00 | 17.79 | 1.06 | 16.19 | 35.04 | 69.54 | -34.50 |
| 24.10 | 24.09 | 180.00 | 17.50 | 1.06 | 16.17 | 34.73 | 69.54 | -34.81 |
| 24.36 | 24.35 | 185.60 | 14.96 | 1.07 | 16.15 | 32.18 | 69.54 | -37.36 |

Table 32: 5MHz, 17dBi, Mid Channel: Quasipeak table from 9 kHz to 30 MHz

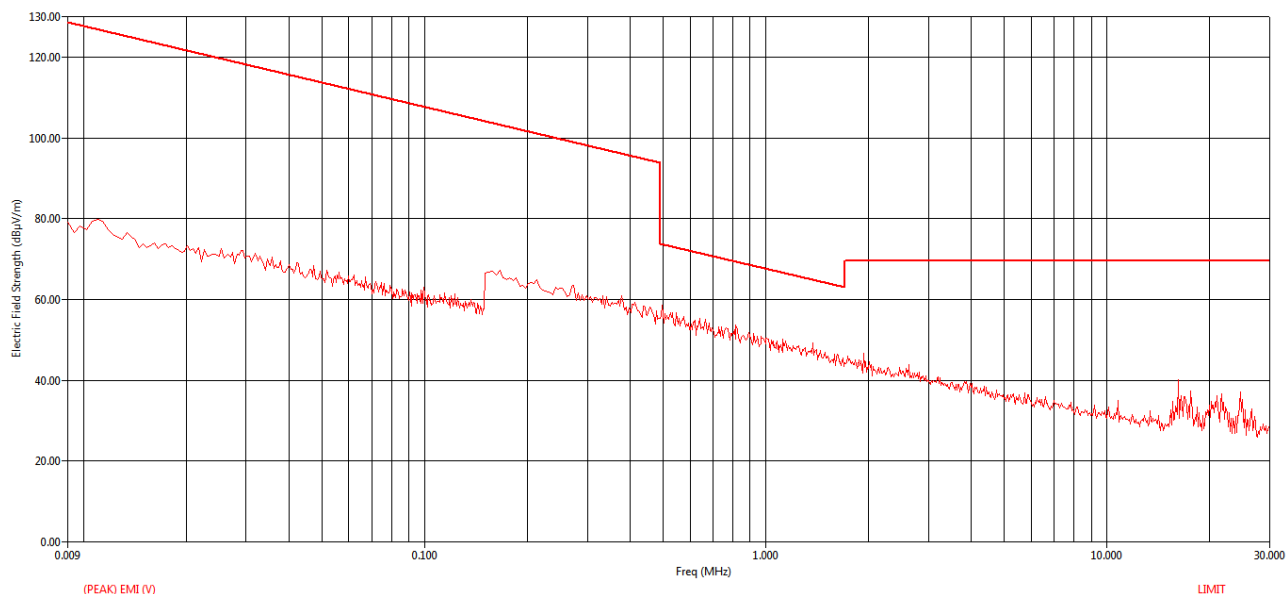


Figure 53: 5MHz, 17dBi, Mid Channel: Peak RE Graph - 9kHz to 30MHz - Perpendicular

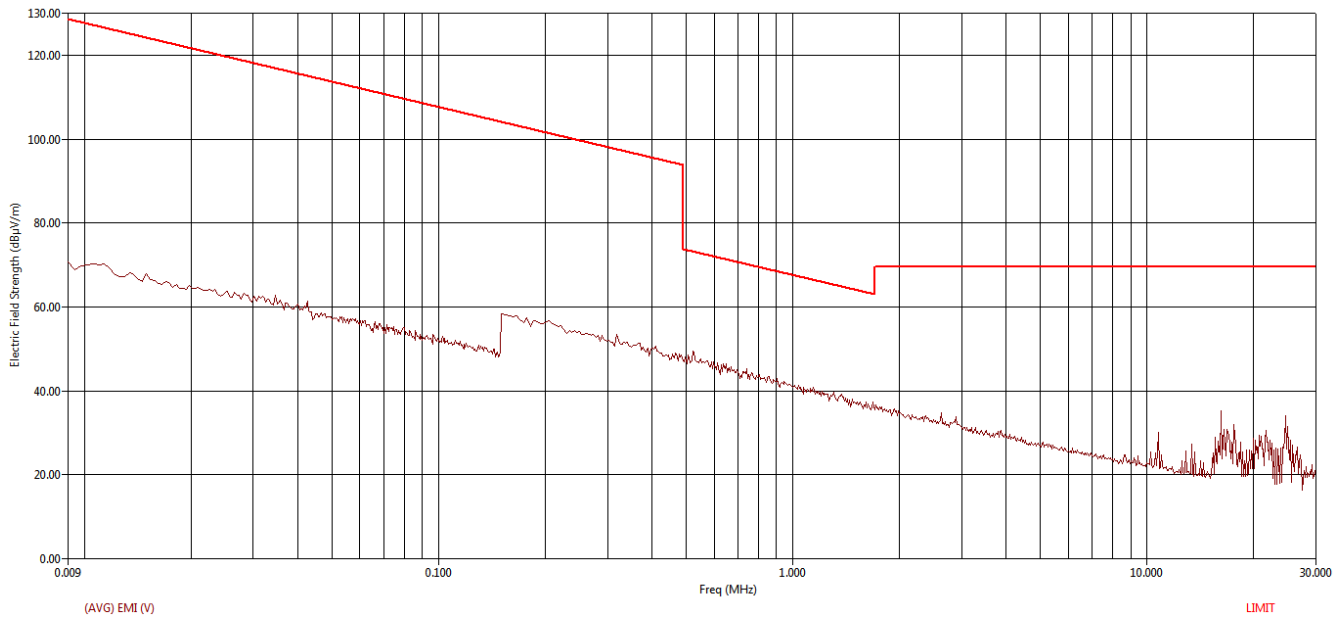


Figure 54: 5MHz, 17dBi, Mid Channel: Average RE Graph - 9kHz to 30MHz - Perpendicular

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbi Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 16.21 | 16.23 | 312.10 | 22.28 | 0.87 | 16.79 | 39.94 | 69.54 | -29.60 |
| 17.59 | 17.60 | 324.60 | 7.68 | 0.91 | 16.68 | 25.27 | 69.54 | -44.27 |
| 21.00 | 20.99 | 267.30 | 13.15 | 0.99 | 16.41 | 30.56 | 69.54 | -38.98 |
| 24.69 | 24.69 | 179.90 | 11.34 | 1.08 | 16.12 | 28.54 | 69.54 | -41.00 |

Table 33: 5MHz, 17dBi, Mid Channel: Quasipeak table from 9 kHz to 30 MHz

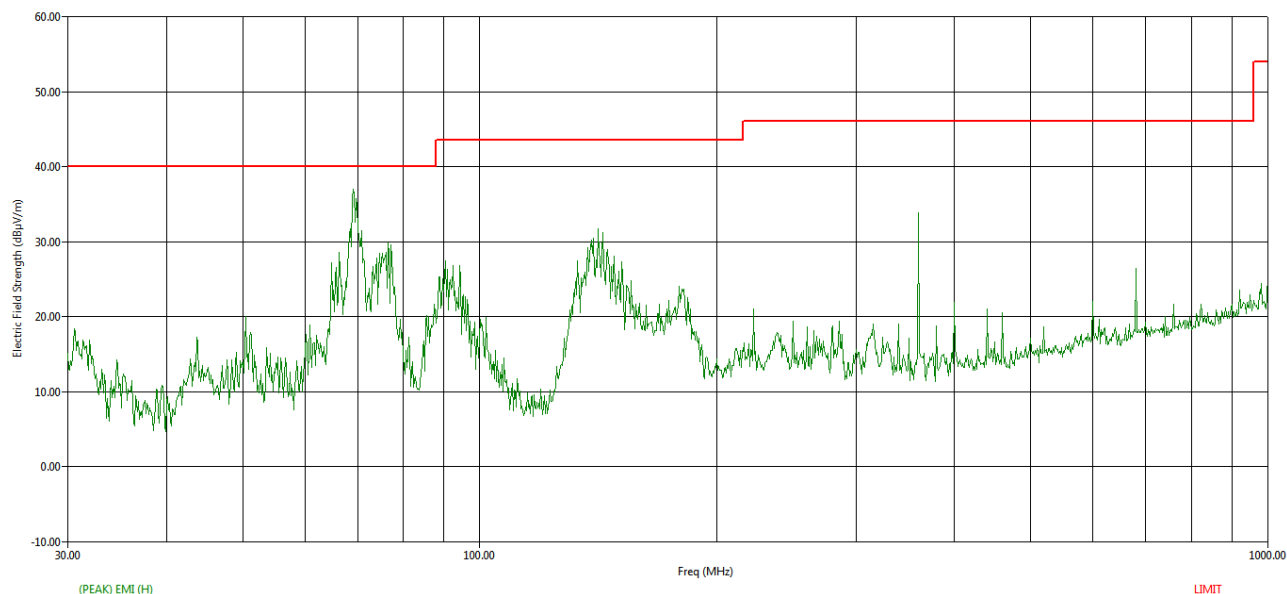


Figure 55: 5MHz, 17dBi, Mid Channel: Peak RE Graph - 30MHz to 1GHz - Horizontal Polarization

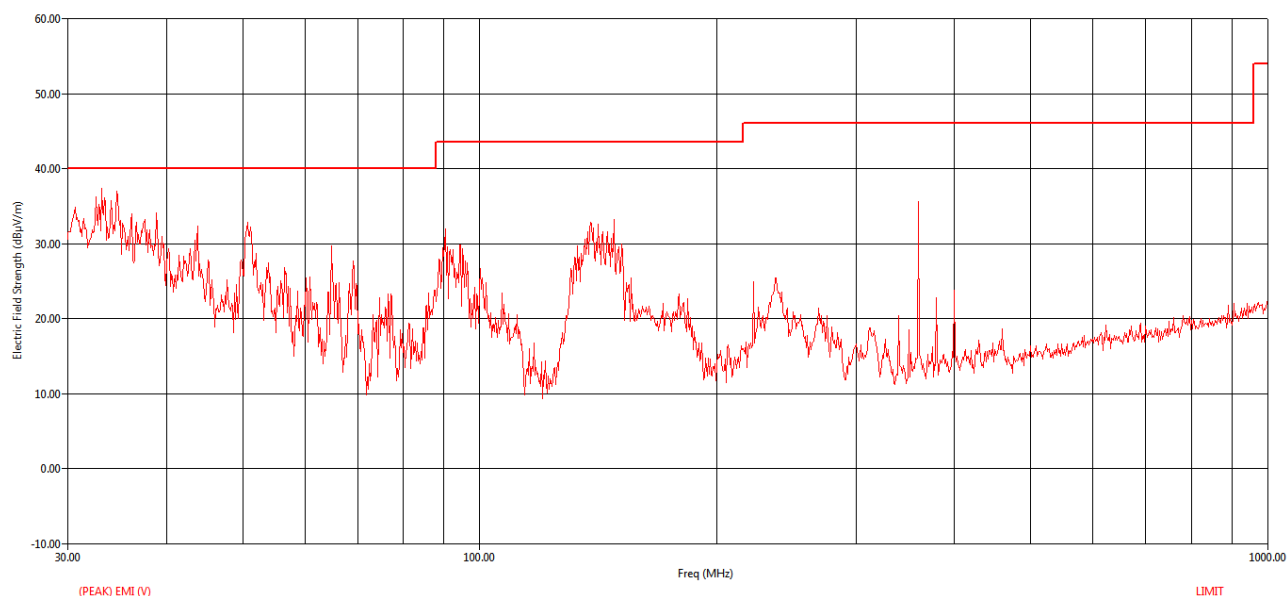


Figure 56: 5MHz, 17dBi, Mid Channel: Peak RE Graph - 30MHz to 1GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbi Agl (deg) | Twr Ht (cm) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|-------------------|------------|-----------------|-------------------|-------------------|----------------|------------------|
| 33.16 | 33.18 | V | 44.50 | 109.00 | 66.92 | 1.24 | 9.52 | 43.80 | 33.88 | 40.00 | -6.12 |
| 50.72 | 50.64 | V | 311.10 | 100.00 | 66.23 | 1.56 | 9.13 | 43.83 | 33.08 | 40.00 | -6.92 |
| 69.16 | 69.15 | H | 156.20 | 193.00 | 65.30 | 1.79 | 9.79 | 43.88 | 33.00 | 40.00 | -7.00 |
| 69.72 | 69.68 | H | 358.90 | 220.00 | 67.84 | 1.79 | 9.84 | 43.88 | 35.59 | 40.00 | -4.41 |
| 138.40 | 138.40 | V | 356.80 | 100.00 | 61.69 | 2.49 | 11.07 | 43.94 | 31.31 | 43.52 | -12.21 |
| 148.16 | 148.11 | V | 354.00 | 100.00 | 61.63 | 2.57 | 11.43 | 43.95 | 31.69 | 43.52 | -11.83 |

Table 34: 5MHz, 17dBi, Mid Channel: Quasipeak table from 30 MHz to 1 GHz

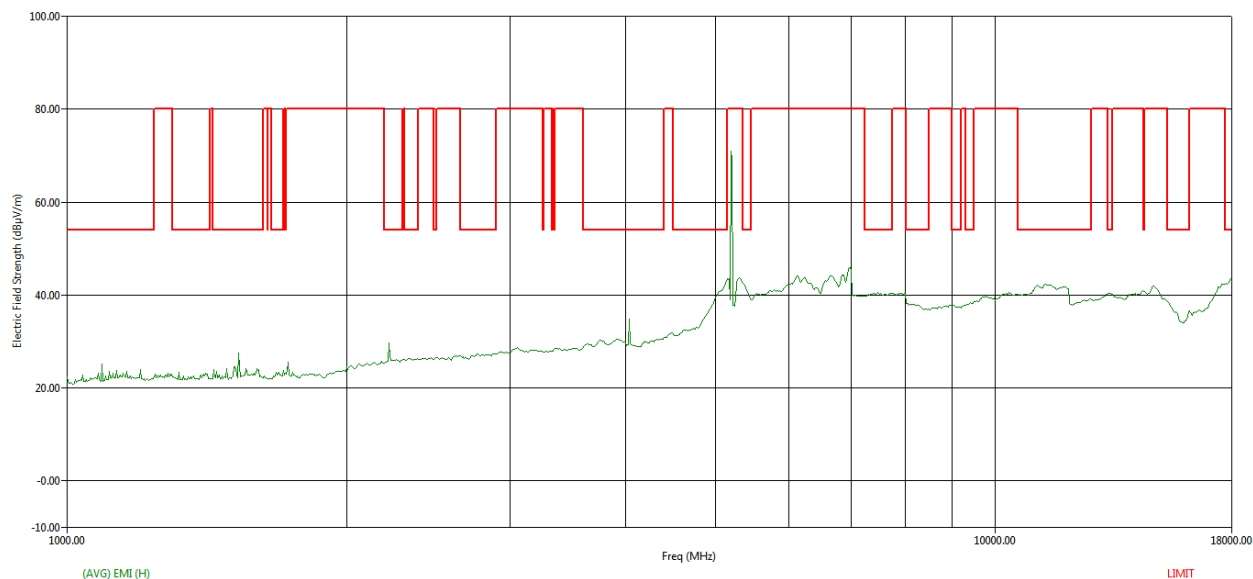


Figure 57: 5MHz, 17dBi, Mid Channel: Average RE Graph - 1GHz to 18GHz - Horizontal Polarization

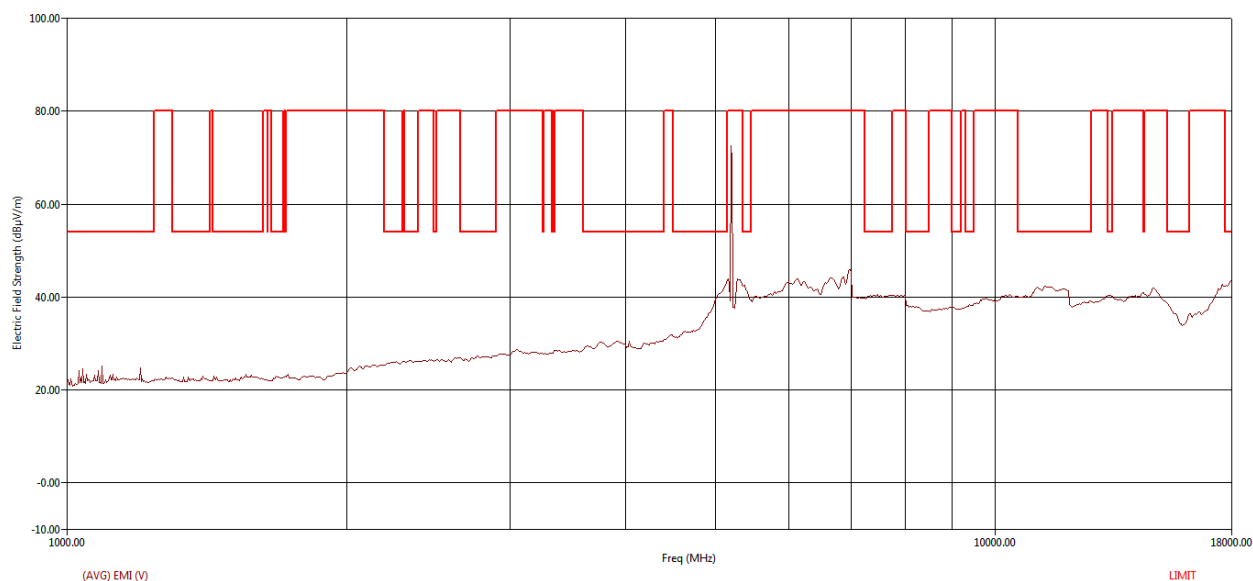


Figure 58: 5MHz, 17dBi, Mid Channel: Average RE Graph - 1GHz to 18GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbi Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 4039.00 | 4039.00 | H | 180.10 | 100.00 | 37.73 | 3.33 | 30.26 | 30.21 | 41.11 | 53.98 | -12.87 |
| 5148.80 | 5148.80 | V | 2.50 | 100.00 | 34.75 | 3.80 | 32.93 | 28.32 | 43.16 | 53.98 | -10.82 |
| 5280.80 | 5280.80 | V | 359.10 | 100.00 | 35.22 | 3.82 | 32.90 | 28.33 | 43.61 | 80.00 | -36.39 |

Table 35: 5MHz, 17dBi, Mid Channel: Average table from 1 GHz to 18 GHz

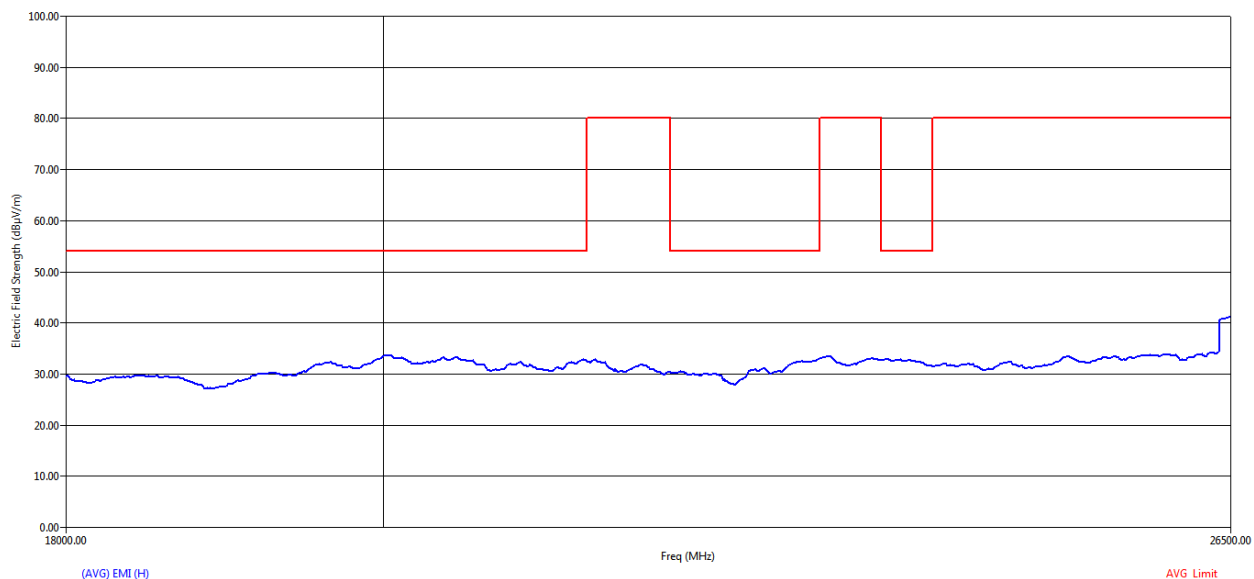


Figure 59: 5MHz, 17dBi, Mid Channel: Average RE Graph - 18GHz to 26.5GHz - Horizontal Polarization

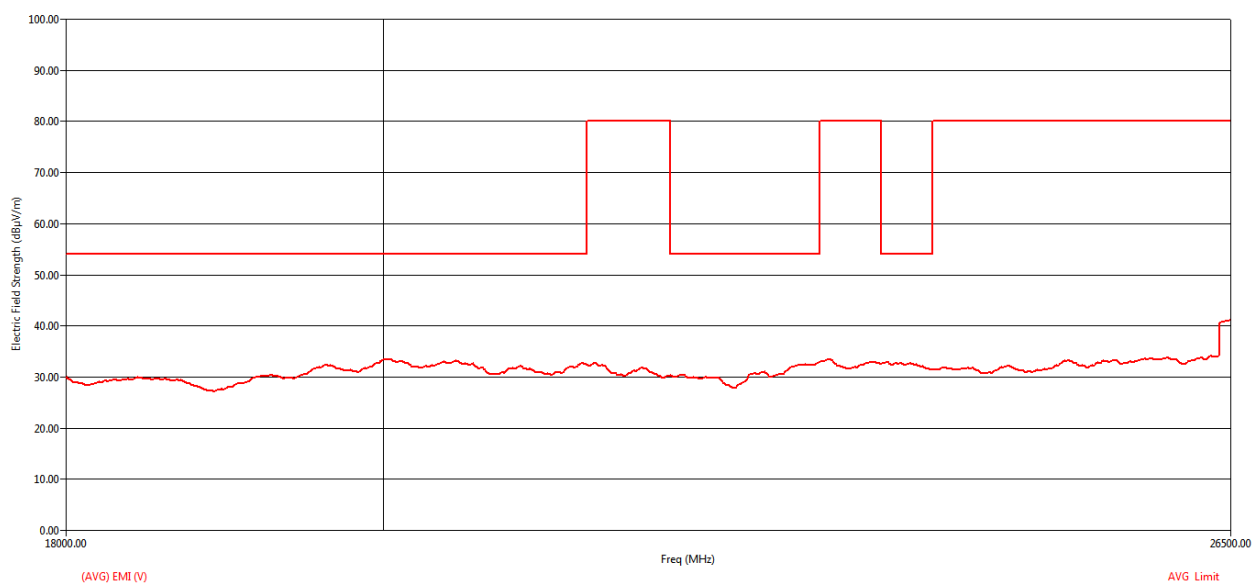


Figure 60: 5MHz, 17dBi, Mid Channel: Average RE Graph - 18GHz to 26.5GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 20038.40 | 20038.40 | V | 165.60 | 177.00 | 32.78 | 7.27 | 36.48 | 42.94 | 33.59 | 53.98 | -20.39 |
| 20922.80 | 20922.80 | V | 79.60 | 200.00 | 32.55 | 7.29 | 37.22 | 44.81 | 32.24 | 53.98 | -21.74 |
| 23650.30 | 23650.30 | H | 288.20 | 173.00 | 33.21 | 8.38 | 38.02 | 47.06 | 32.56 | 53.98 | -21.42 |

Table 36: 5MHz, 17dBi, Mid Channel: Average table from 18 GHz to 26.5 GHz

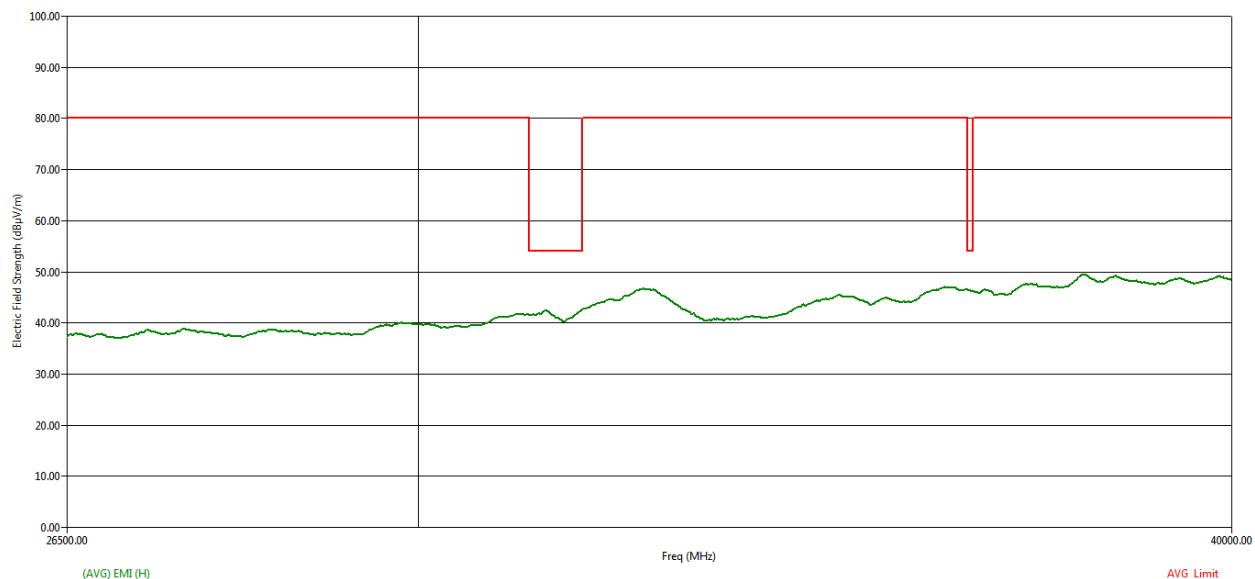


Figure 61: 5MHz, 17dBi, Mid Channel: Average RE Graph - 26.5GHz to 40GHz - Horizontal Polarization

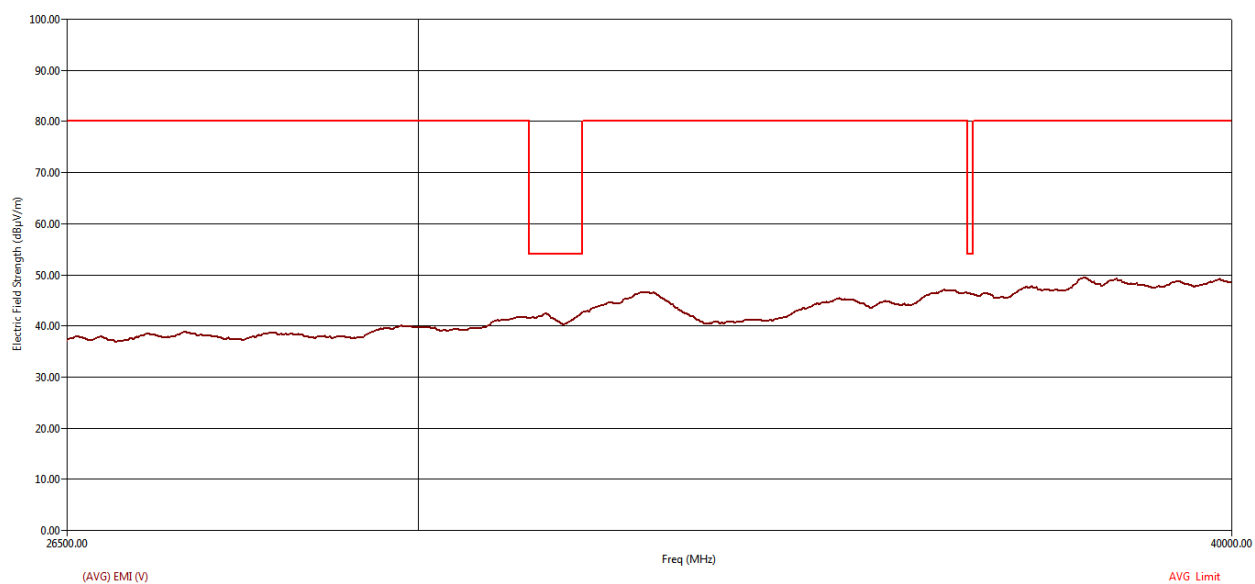


Figure 62: 5MHz, 17dBi, Mid Channel: Average RE Graph - 26.5GHz to 40GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 29751.60 | 29751.60 | V | 180.00 | 102.00 | 38.03 | 9.98 | 38.94 | 47.37 | 39.58 | 80.00 | -40.42 |
| 34822.00 | 34822.00 | H | 212.10 | 130.00 | 41.21 | 11.31 | 39.86 | 47.10 | 45.27 | 80.00 | -34.73 |

Table 37: 5MHz, 17dBi, Mid Channel: Average table from 26.5 GHz to 40 GHz

5.3.1.5.6 5 MHz MODULATION BANDWIDTH, 17 dBi ANTENNA, HIGH CHANNEL - 5245 MHz

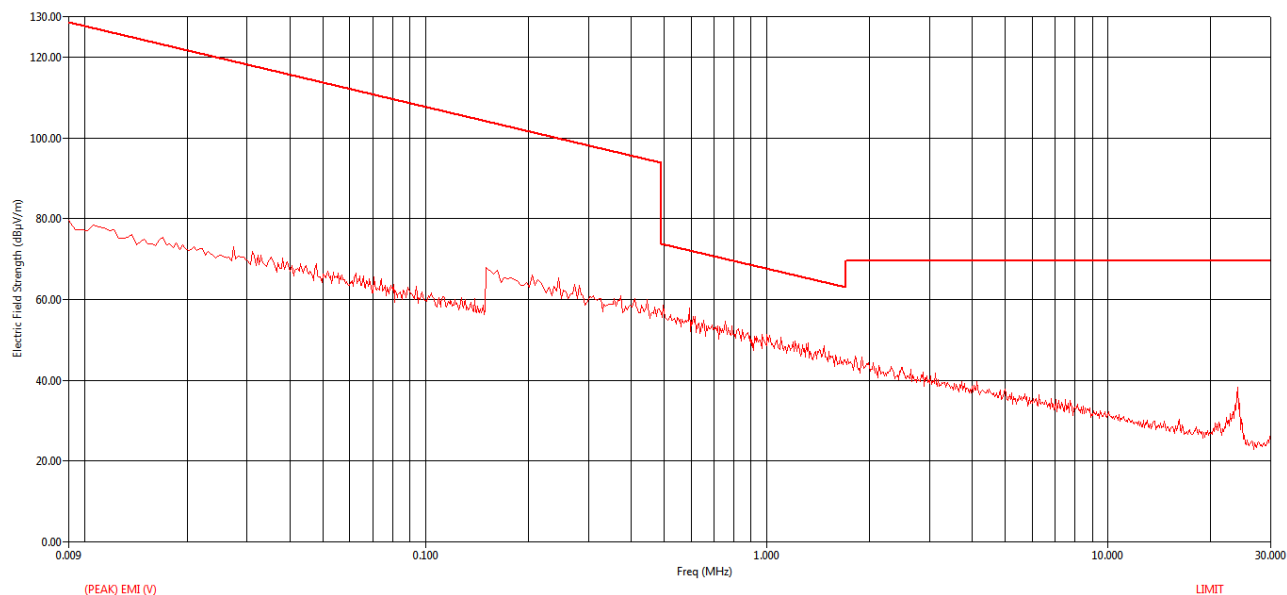


Figure 63: 5MHz, 17dBi, High Channel: Peak RE Graph - 9kHz to 30MHz - Parallel

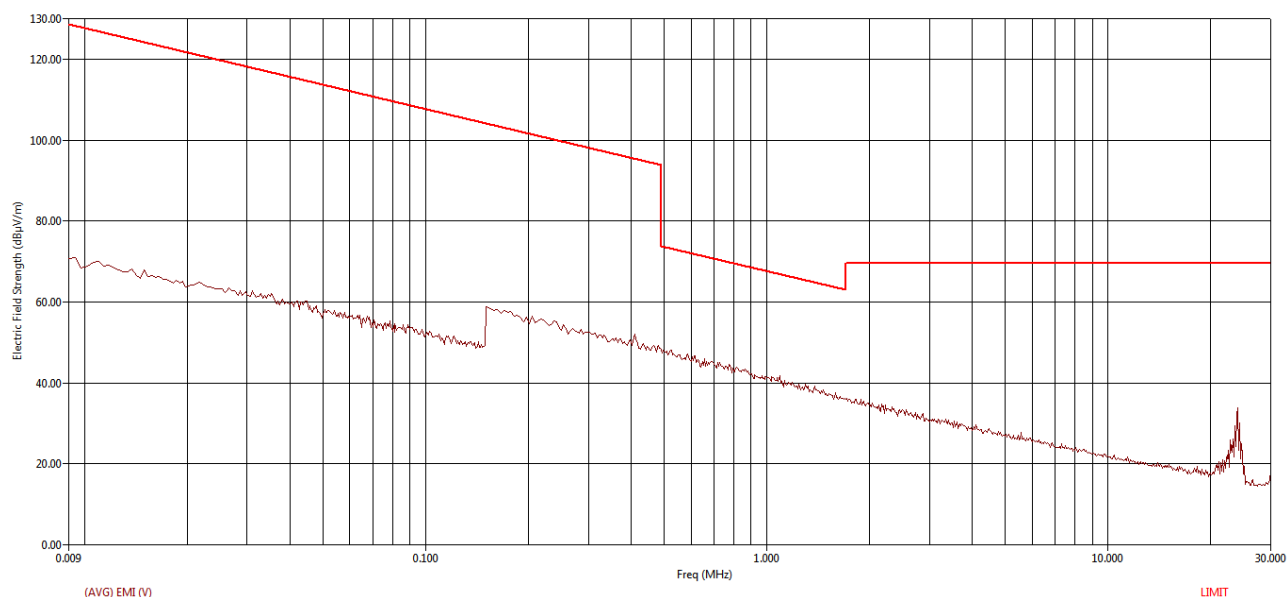


Figure 64: 5MHz, 17dBi, High Channel: Average RE Graph - 9kHz to 30MHz - Parallel

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbl Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 23.80 | 23.81 | 188.90 | 18.65 | 1.06 | 16.19 | 35.89 | 69.54 | -33.65 |
| 24.07 | 24.07 | 180.20 | 19.56 | 1.06 | 16.17 | 36.79 | 69.54 | -32.75 |

Table 38: 5MHz, 17dBi, High Channel: Quasipeak table from 9 kHz to 30 MHz

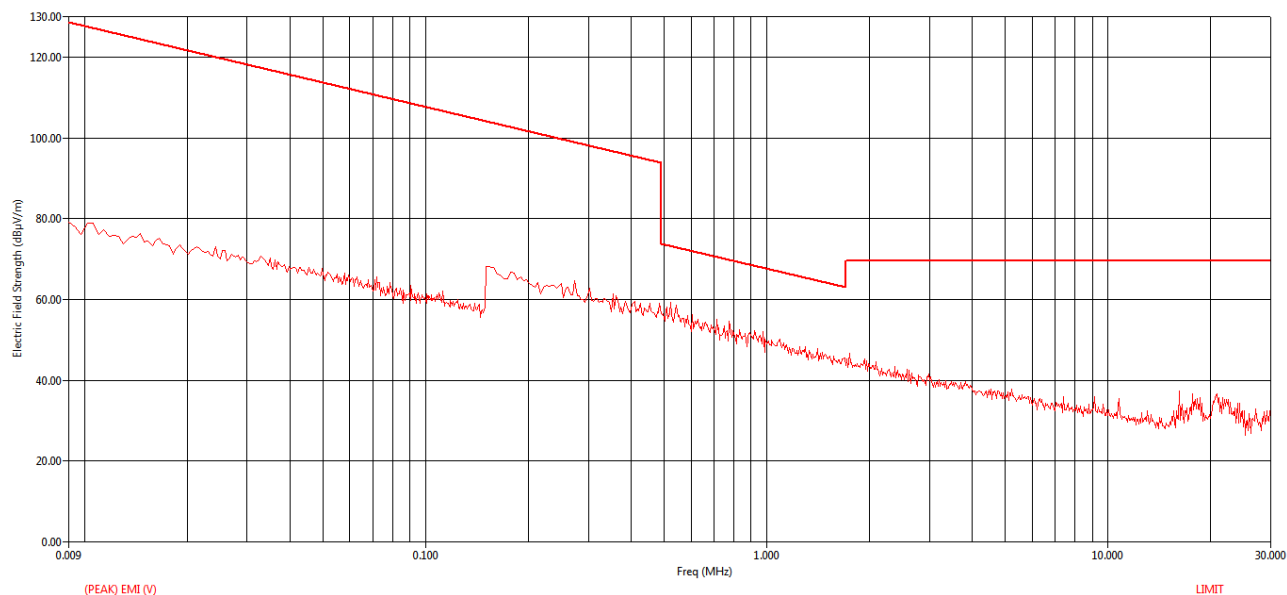


Figure 65: 5MHz, 17dBi, High Channel: Peak RE Graph - 9kHz to 30MHz - Perpendicular

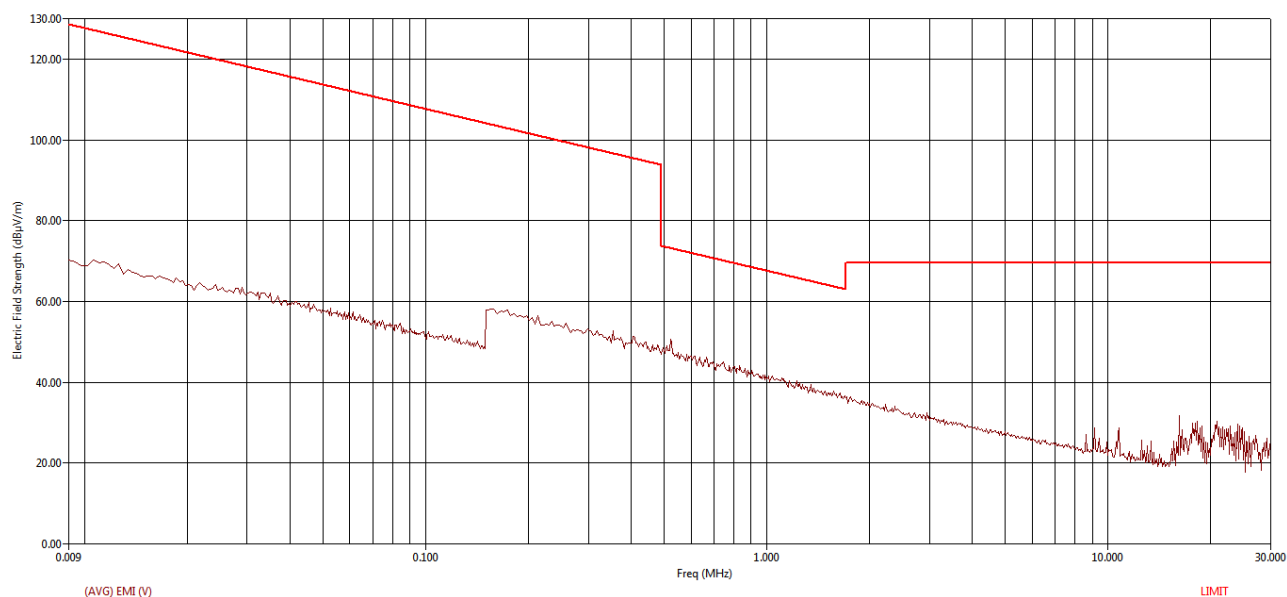


Figure 66: 5MHz, 17dBi, High Channel: Average RE Graph - 9kHz to 30MHz - Perpendicular

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbt Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 16.24 | 16.23 | 183.00 | 18.67 | 0.87 | 16.79 | 36.33 | 69.54 | -33.21 |
| 21.00 | 20.99 | 242.80 | 15.44 | 0.99 | 16.41 | 32.84 | 69.54 | -36.70 |

Table 39: 5MHz, 17dBi, High Channel: Quasipeak table from 9 kHz to 30 MHz

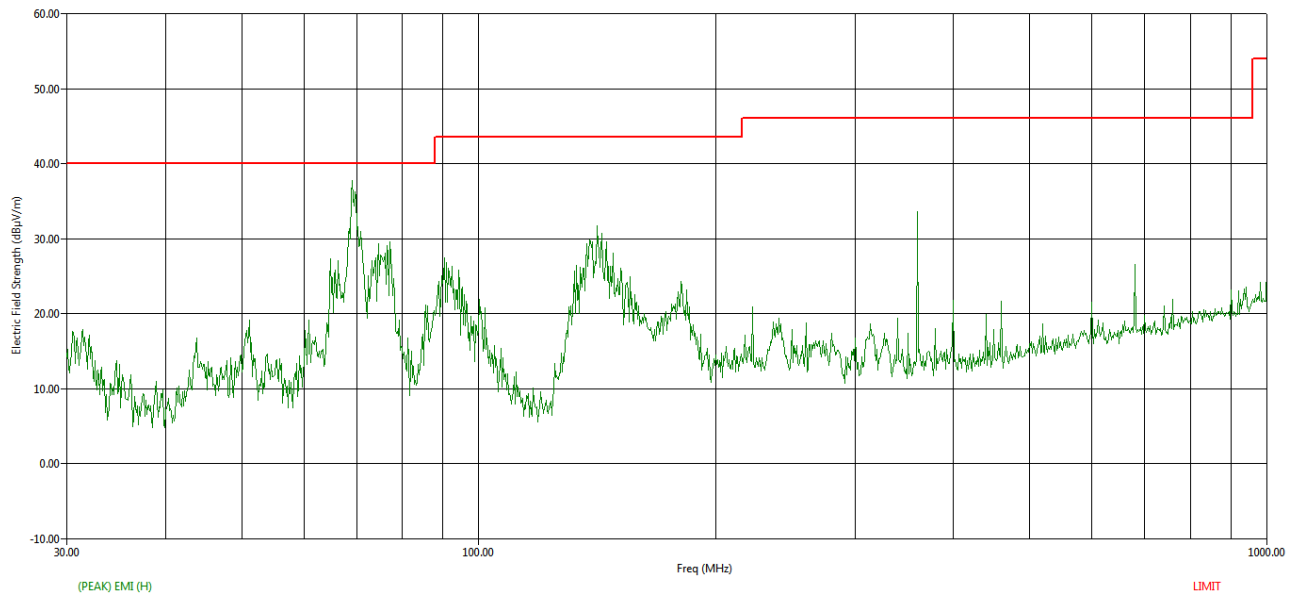


Figure 67: 5MHz, 17dBi, High Channel: Peak RE Graph - 30MHz to 1GHz - Horizontal Polarization

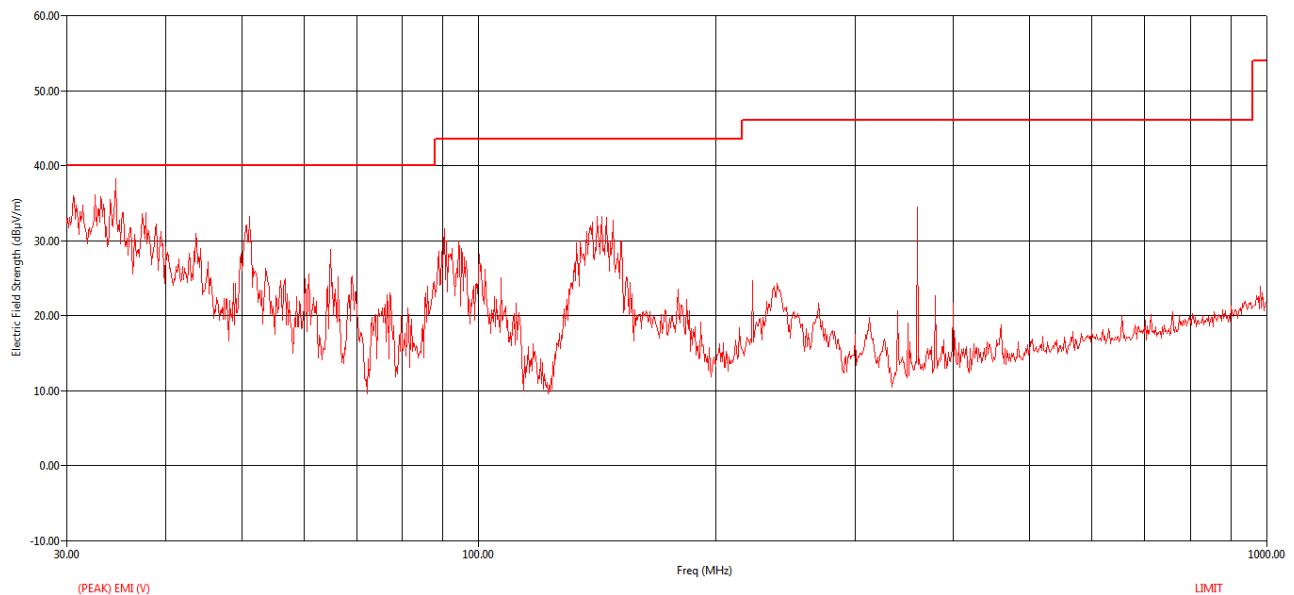


Figure 68: 5MHz, 17dBi, High Channel: Peak RE Graph - 30MHz to 1GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbl Agl (deg) | Twr Ht (cm) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|-------------------|------------|-----------------|-------------|-------------------|----------------|------------------|
| 32.60 | 32.61 | V | 51.40 | 103.00 | 66.20 | 1.23 | 9.55 | 43.80 | 33.18 | 40.00 | -6.82 |
| 34.64 | 34.60 | V | 3.80 | 110.00 | 66.92 | 1.27 | 9.44 | 43.81 | 33.83 | 40.00 | -6.17 |
| 37.80 | 37.80 | V | 52.60 | 100.00 | 65.22 | 1.34 | 9.83 | 43.81 | 32.58 | 40.00 | -7.42 |
| 51.20 | 51.18 | V | 306.40 | 108.00 | 65.69 | 1.56 | 9.12 | 43.83 | 32.54 | 40.00 | -7.46 |
| 69.12 | 69.00 | H | 353.40 | 182.00 | 67.51 | 1.78 | 9.78 | 43.88 | 35.19 | 40.00 | -4.81 |
| 69.72 | 69.71 | H | 347.20 | 227.00 | 68.83 | 1.79 | 9.84 | 43.88 | 36.58 | 40.00 | -3.42 |
| 141.20 | 141.20 | H | 354.10 | 329.00 | 60.78 | 2.51 | 11.21 | 43.94 | 30.56 | 43.52 | -12.96 |
| 143.32 | 143.29 | H | 347.20 | 337.00 | 59.69 | 2.53 | 11.28 | 43.95 | 29.55 | 43.52 | -13.97 |

Table 40: 5MHz, 17dBi, High Channel: Quasipeak table from 30 MHz to 1 GHz

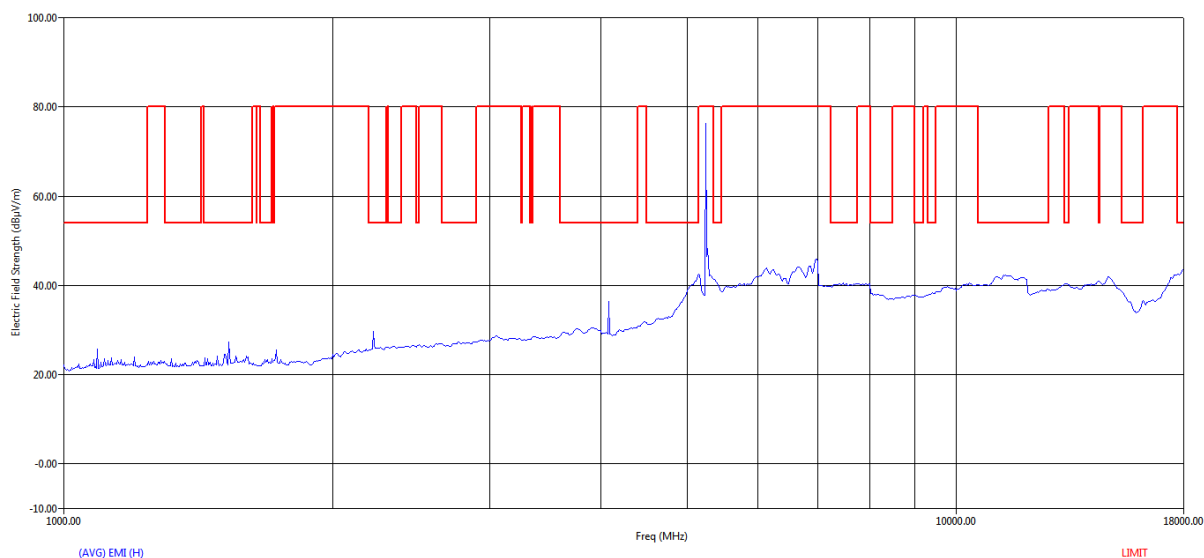


Figure 69: 5MHz, 17dBi, High Channel: Average RE Graph - 1GHz to 18GHz - Horizontal Polarization

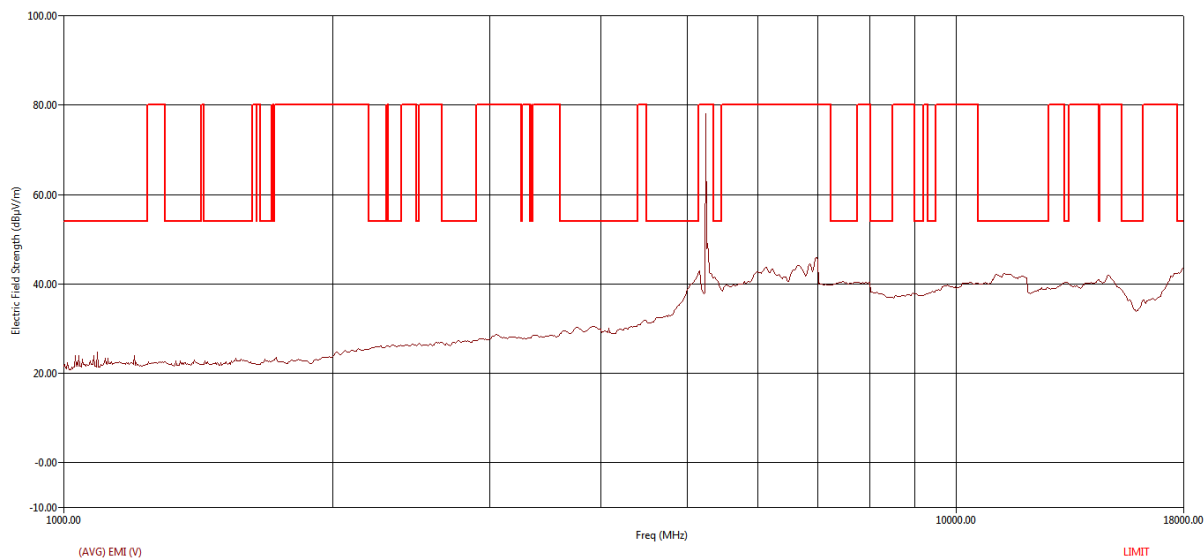


Figure 70: 5MHz, 17dBi, High Channel: Average RE Graph - 1GHz to 18GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbl Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 4084.00 | 4084.00 | H | 180.10 | 110.00 | 38.41 | 3.35 | 30.32 | 30.11 | 41.97 | 53.98 | -12.01 |
| 5266.80 | 5266.80 | V | 354.40 | 100.00 | 40.59 | 3.82 | 32.90 | 28.33 | 48.98 | 80.00 | -31.02 |
| 5268.40 | 5268.40 | H | 18.70 | 100.00 | 39.31 | 3.82 | 32.90 | 28.33 | 47.70 | 80.00 | -32.30 |

Table 41: 5MHz, 17dBi, High Channel: Average table from 1 GHz to 18 GHz

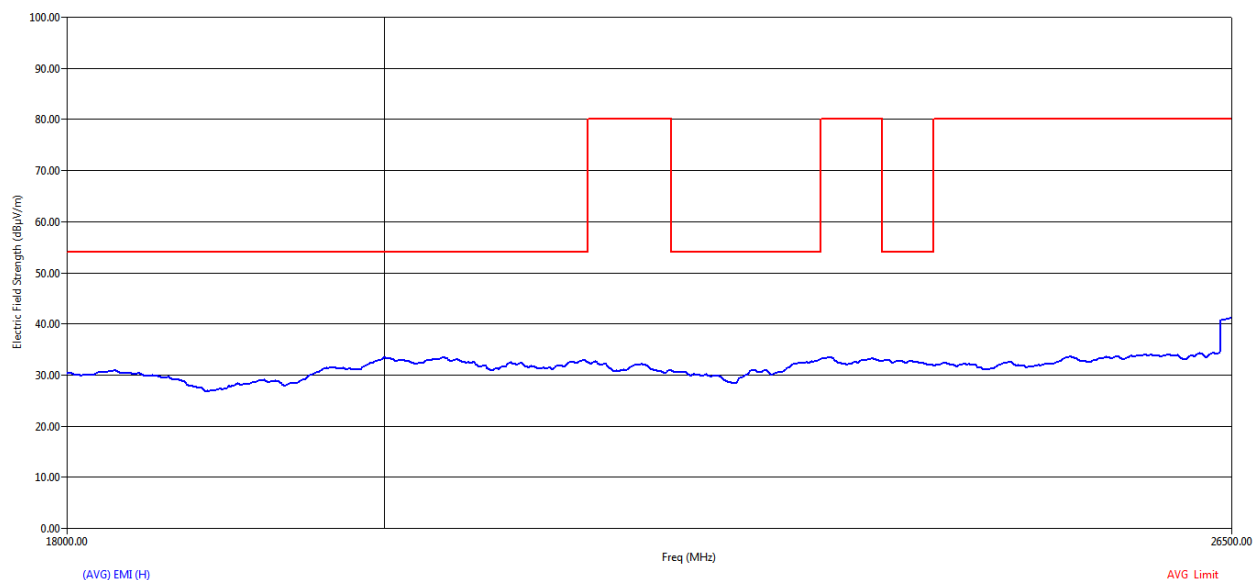


Figure 71: 5MHz, 17dBi, High Channel: Average RE Graph - 18GHz to 26.5GHz - Horizontal Polarization

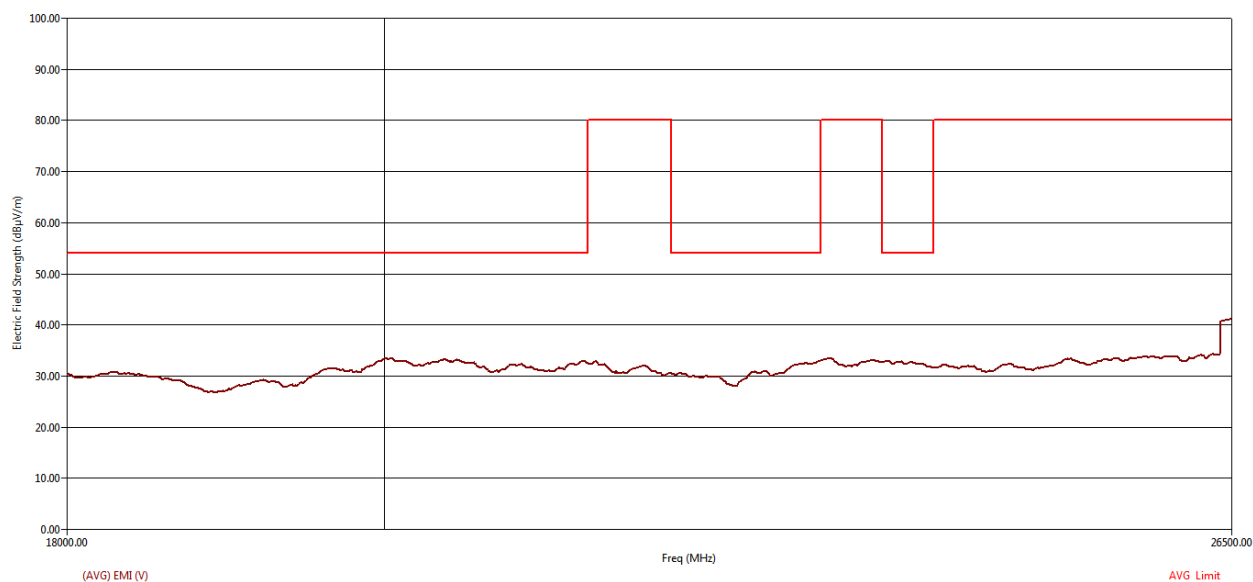


Figure 72: 5MHz, 17dBi, High Channel: Average RE Graph - 18GHz to 26.5GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 18956.00 | 18956.00 | H | 131.50 | 103.00 | 31.94 | 6.60 | 36.47 | 47.73 | 27.28 | 53.98 | -26.70 |
| 20479.60 | 20479.60 | H | 75.40 | 194.00 | 32.29 | 7.63 | 36.80 | 43.73 | 32.98 | 53.98 | -21.00 |
| 23058.40 | 23058.40 | H | 259.80 | 132.00 | 33.29 | 8.18 | 37.72 | 46.87 | 32.31 | 53.98 | -21.67 |

Table 42: 5MHz, 17dBi, High Channel: Average table from 18 GHz to 26.5 GHz

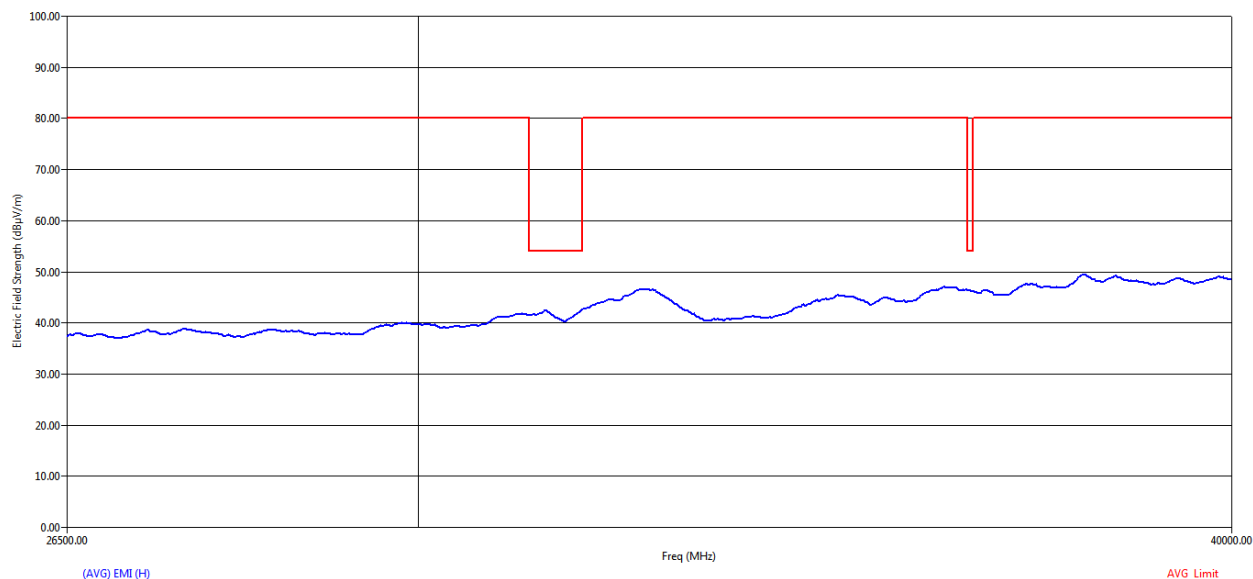


Figure 73: 5MHz, 17dBi, High Channel: Average RE Graph - 26.5GHz to 40GHz - Horizontal Polarization

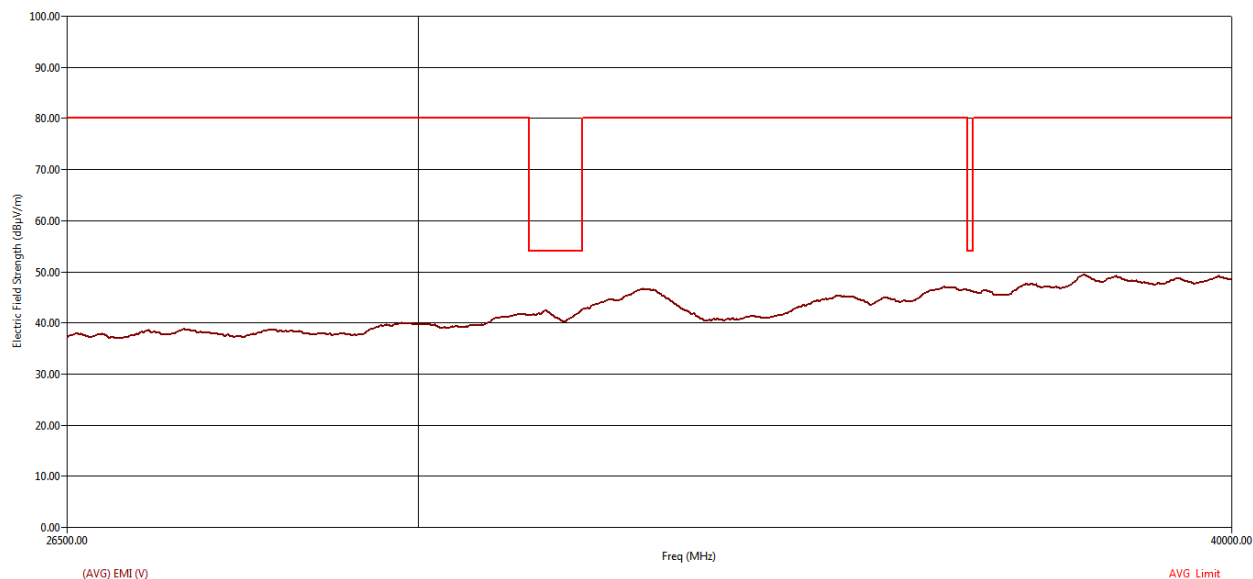


Figure 74: 5MHz, 17dBi, High Channel: Average RE Graph - 26.5GHz to 40GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 32514.00 | 32514.00 | H | 309.40 | 184.00 | 41.33 | 10.76 | 38.92 | 44.57 | 46.43 | 80.00 | -33.57 |
| 37497.60 | 37497.60 | V | 223.20 | 101.00 | 41.18 | 12.34 | 40.08 | 46.65 | 46.94 | 80.00 | -33.06 |

Table 43: 5MHz, 17dBi, High Channel: Average table from 26.5 GHz to 40 GHz

5.3.1.5.7 40 MHz MODULATION BANDWIDTH, 6 dBi ANTENNA, LOW CHANNEL - 5180 MHz

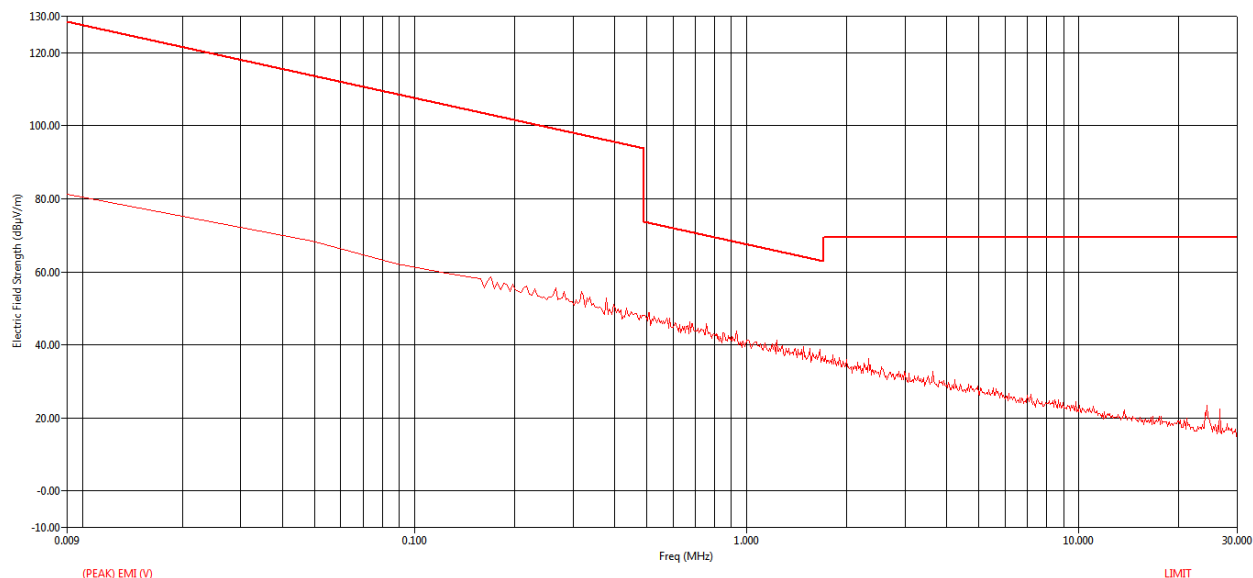


Figure 75: 40MHz, 6dBi, Low Channel: Peak RE Graph - 9kHz to 30MHz - Parallel

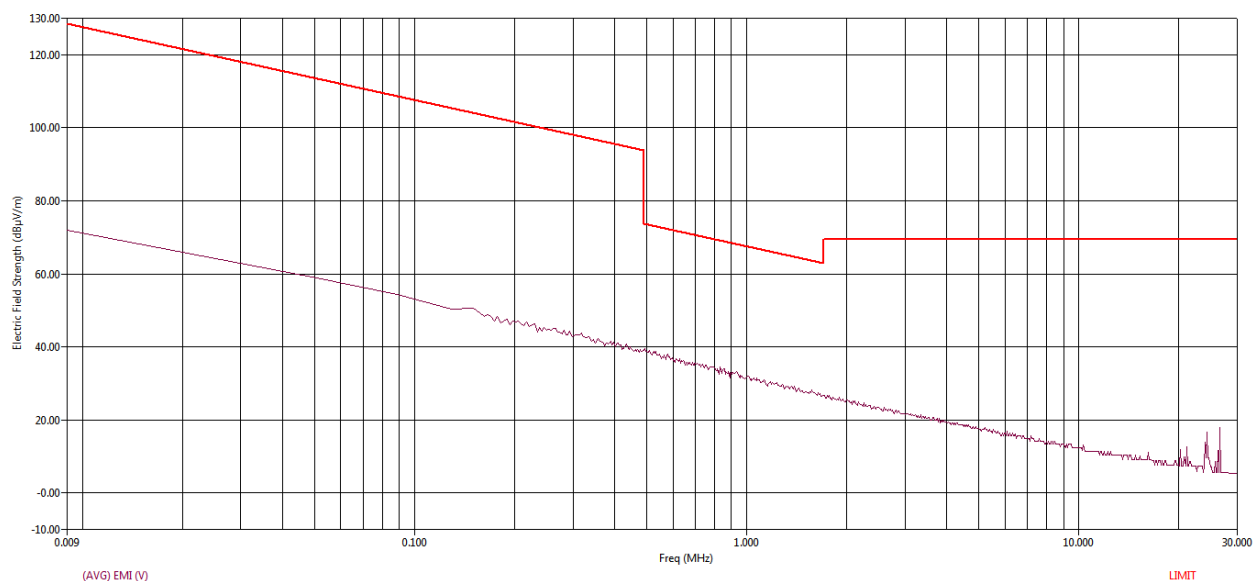


Figure 76: 40MHz, 6dBi, Low Channel: Average RE Graph - 9kHz to 30MHz - Parallel

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbl Agl (deg) | (QP) Trace (dB μ V) | Cable (dB) | Transducer (dB) | (QP) EMI (dB μ V/m) | Limit (dB μ V/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------------------|------------|-----------------|-------------------------|----------------------|------------------|
| 24.39 | 24.38 | V | 104.30 | 10.38 | 1.07 | 16.14 | 27.59 | 69.54 | -41.95 |
| 26.57 | 26.57 | V | 347.50 | 4.88 | 1.11 | 16.00 | 21.99 | 69.54 | -47.55 |

Table 44: 40MHz, 6dBi, Low Channel: Quasipeak table from 9 kHz to 30 MHz

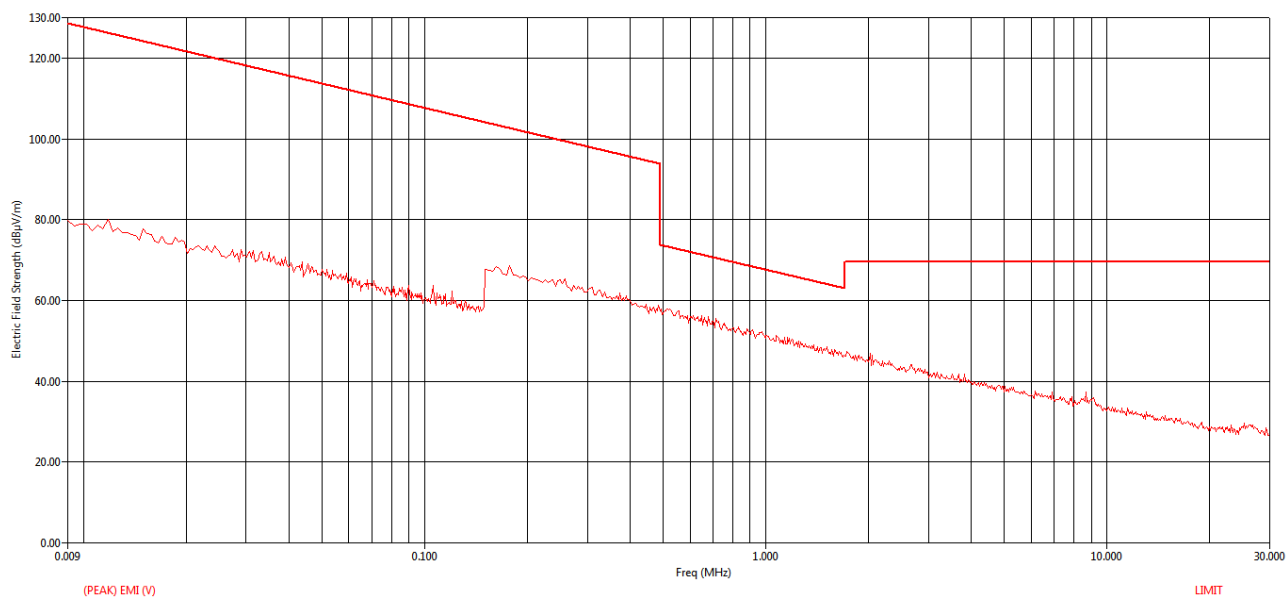


Figure 77: 40MHz, 6dBi, Low Channel: Peak RE Graph - 9kHz to 30MHz - Perpendicular

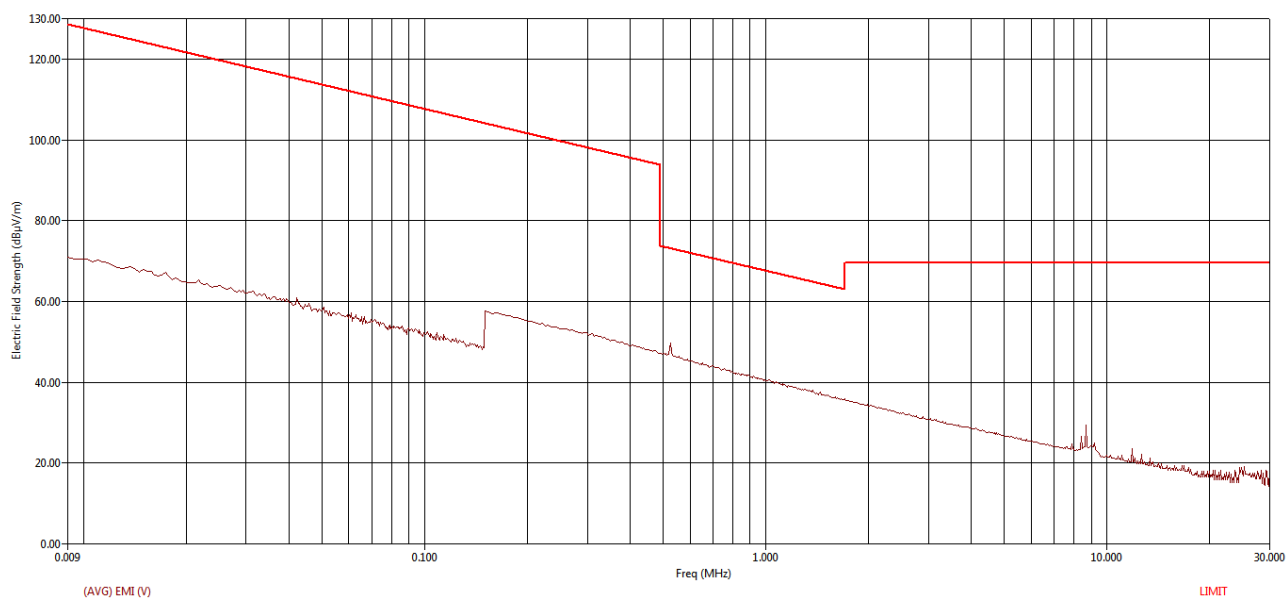


Figure 78: 40MHz, 6dBi, Low Channel: Average RE Graph - 9kHz to 30MHz - Perpendicular

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbi Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 8.65 | 8.66 | V | 336.40 | 11.05 | 0.65 | 17.45 | 29.14 | 69.54 | -40.40 |
| 25.32 | 25.31 | V | 292.90 | 4.91 | 1.09 | 16.08 | 22.08 | 69.54 | -47.46 |

Table 45: 40MHz, 6dBi, Low Channel: Quasipeak table from 9 kHz to 30 MHz

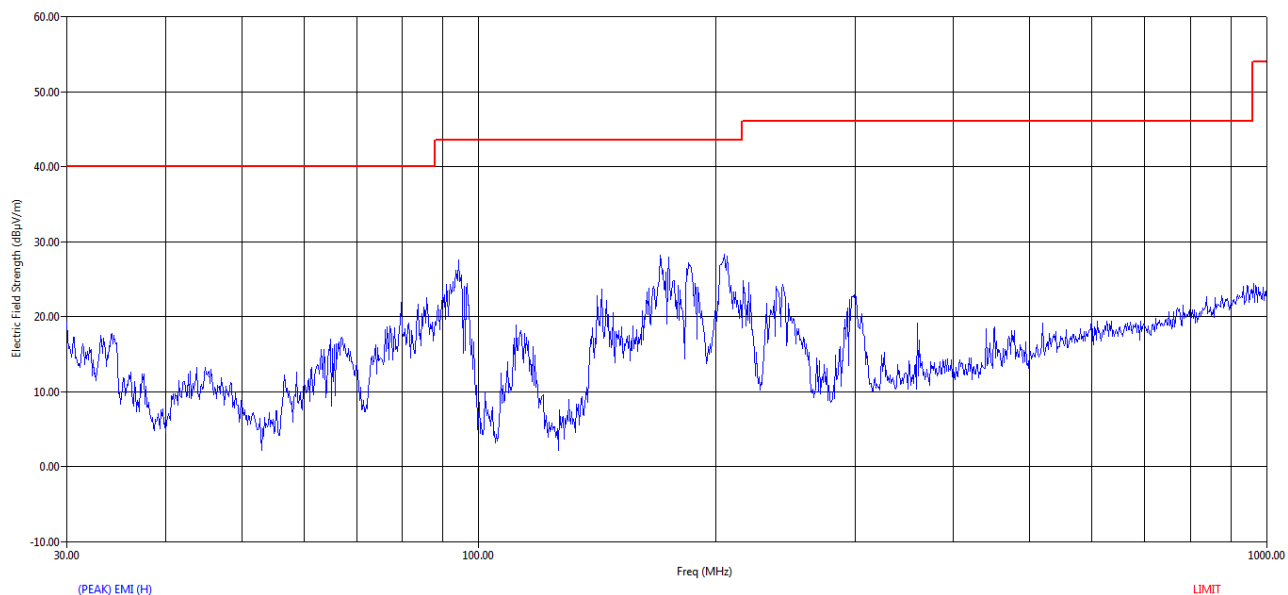


Figure 79: 40MHz, 6dBi, Low Channel: Peak RE Graph - 30MHz to 1GHz - Horizontal Polarization

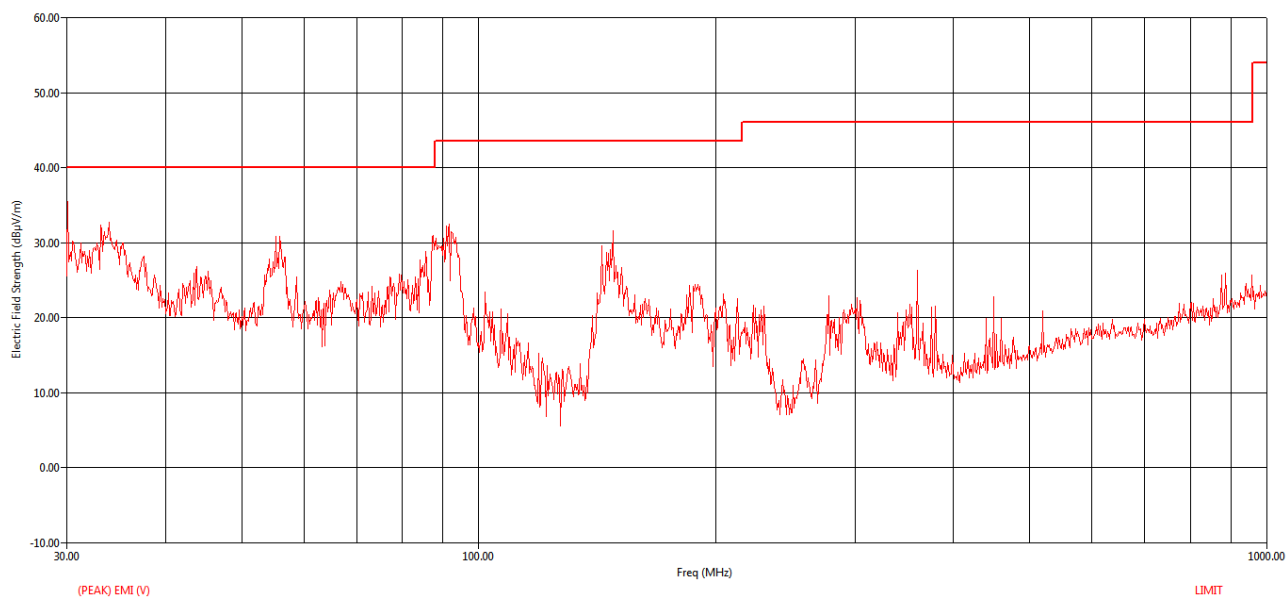


Figure 80: 40MHz, 6dBi, Low Channel: Peak RE Graph - 30MHz to 1GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|-------------------|------------|-----------------|-------------------|-------------------|----------------|------------------|
| 30.08 | 30.00 | V | 172.80 | 322.00 | 53.19 | 1.17 | 11.50 | 43.80 | 22.06 | 40.00 | -17.94 |
| 33.96 | 33.96 | V | 170.70 | 100.00 | 64.92 | 1.26 | 10.84 | 43.81 | 33.21 | 40.00 | -6.79 |
| 91.08 | 90.99 | V | 355.20 | 143.00 | 59.54 | 2.04 | 8.74 | 43.93 | 26.39 | 43.52 | -17.13 |
| 91.64 | 91.63 | V | 162.10 | 129.00 | 57.02 | 2.04 | 8.68 | 43.93 | 23.82 | 43.52 | -19.70 |
| 170.08 | 169.98 | H | 115.20 | 109.00 | 53.36 | 2.77 | 12.99 | 43.95 | 25.17 | 43.52 | -18.35 |

Table 46: 40MHz, 6dBi, Low Channel: Quasipeak table from 30 MHz to 1 GHz

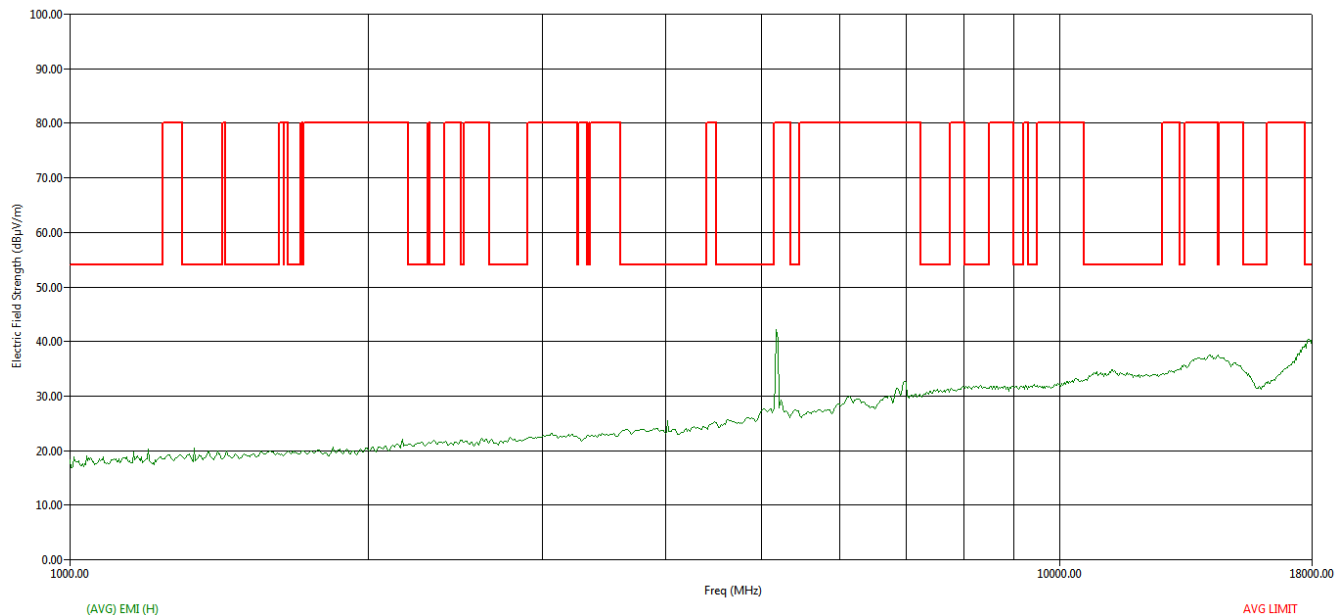


Figure 81: 40MHz, 6dBi, Low Channel: Average RE Graph - 1GHz to 18GHz - Horizontal Polarization

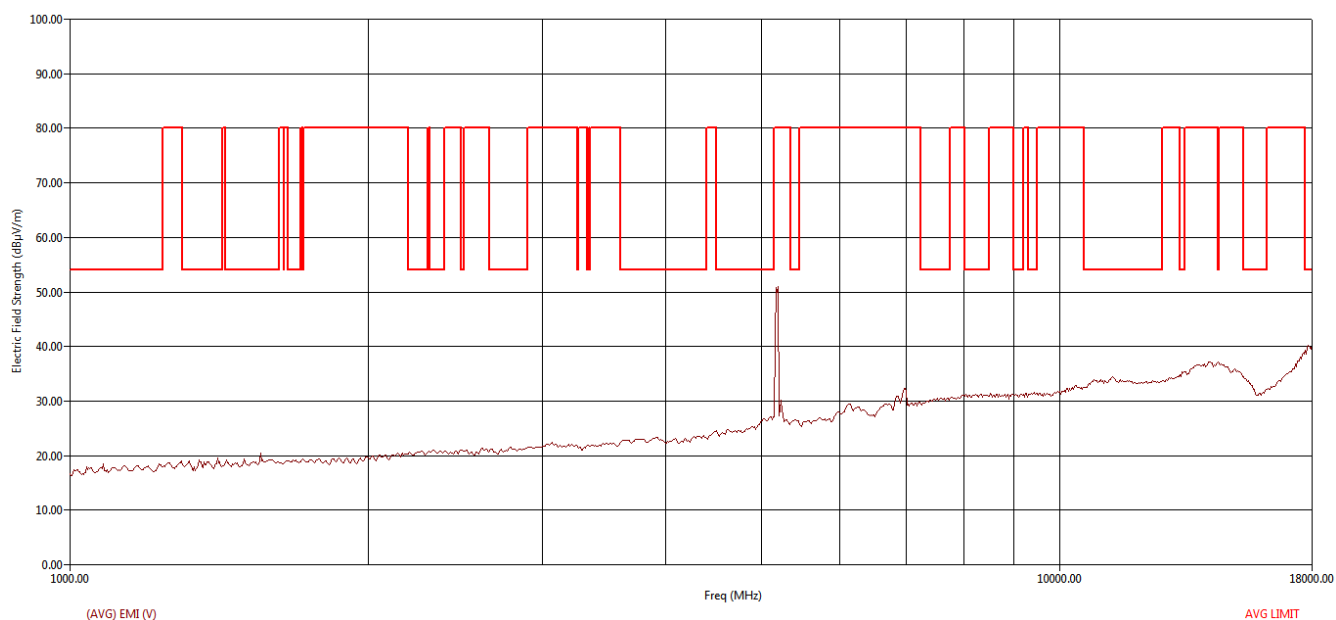


Figure 82: 40MHz, 6dBi, Low Channel: Average RE Graph - 1GHz to 18GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbl Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 1335.40 | 1335.40 | H | 323.20 | 100.00 | 38.45 | 1.72 | 24.94 | 45.58 | 19.52 | 53.98 | -34.46 |
| 4019.10 | 4019.10 | H | 102.60 | 100.00 | 51.89 | 2.49 | 29.60 | 45.02 | 38.95 | 53.98 | -15.03 |
| 5231.30 | 5231.30 | V | 210.80 | 100.00 | 36.33 | 2.79 | 32.13 | 44.76 | 26.48 | 80.00 | -53.52 |
| 6976.20 | 6976.20 | V | 176.40 | 100.00 | 38.76 | 3.20 | 35.22 | 44.83 | 32.35 | 80.00 | -47.65 |

Table 47: 40MHz, 6dBi, Low Channel: Average table from 1 GHz to 18 GHz

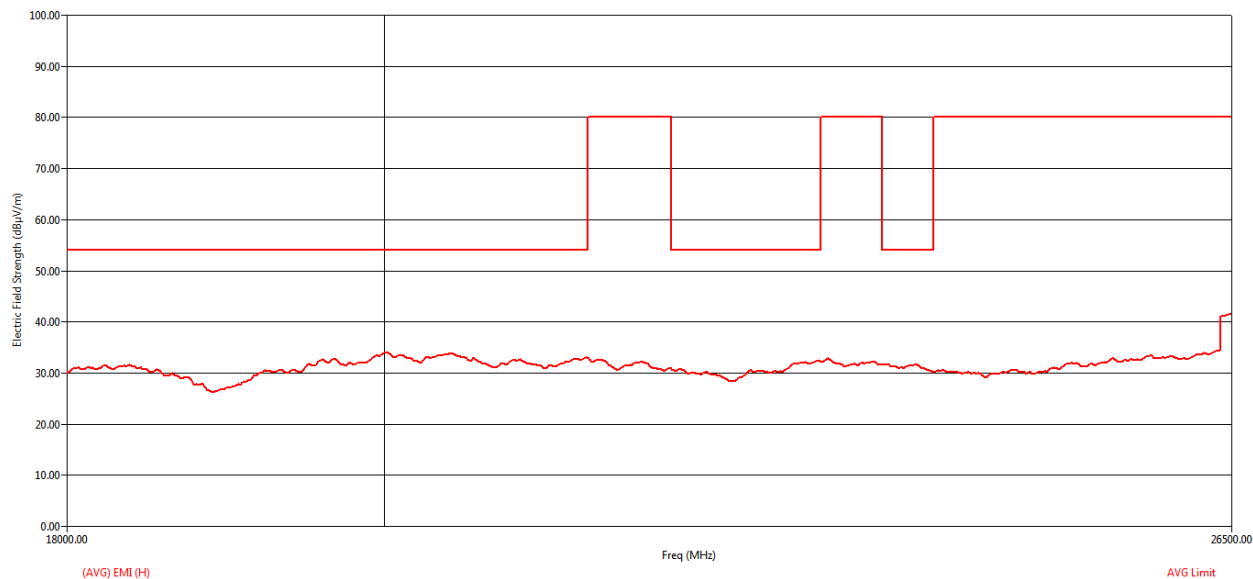


Figure 83: 40MHz, 6dBi, Low Channel: Average RE Graph - 18GHz to 26.5GHz - Horizontal Polarization

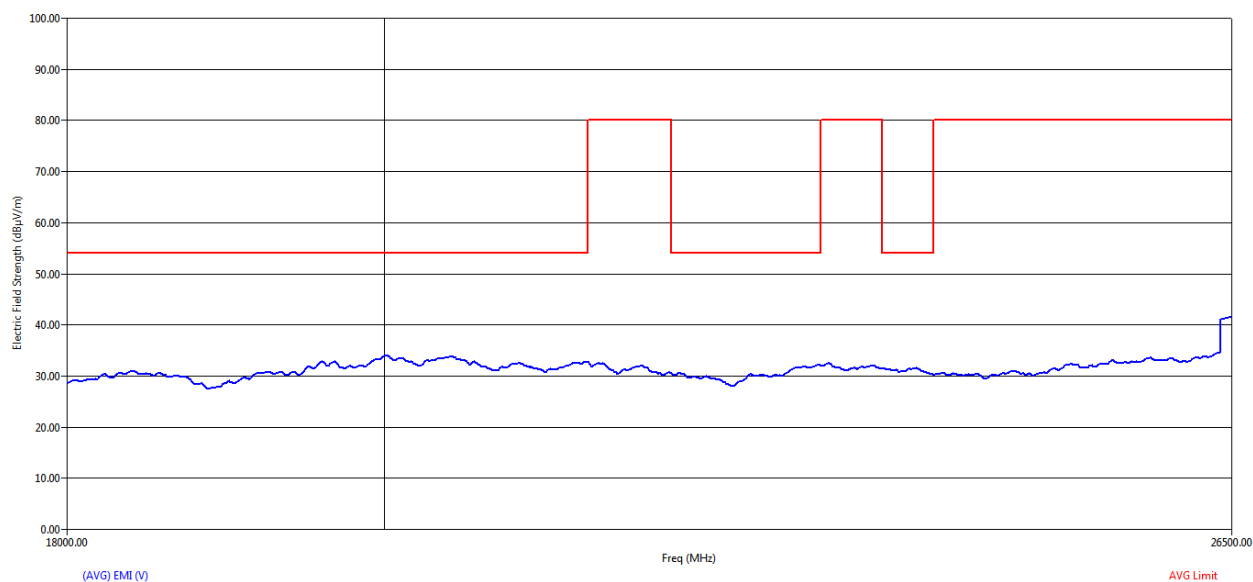


Figure 84: 40MHz, 6dBi, Low Channel: Average RE Graph - 18GHz to 26.5GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbl Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 18428.80 | 18428.80 | H | 180.00 | 150.00 | 33.91 | 7.09 | 36.43 | 46.74 | 30.69 | 53.98 | -23.29 |
| 21404.80 | 21404.80 | V | 179.90 | 150.00 | 31.70 | 7.85 | 37.60 | 45.12 | 32.03 | 80.00 | -47.97 |

Table 48: 40MHz, 6dBi, Low Channel: Average table from 18 GHz to 26.5 GHz

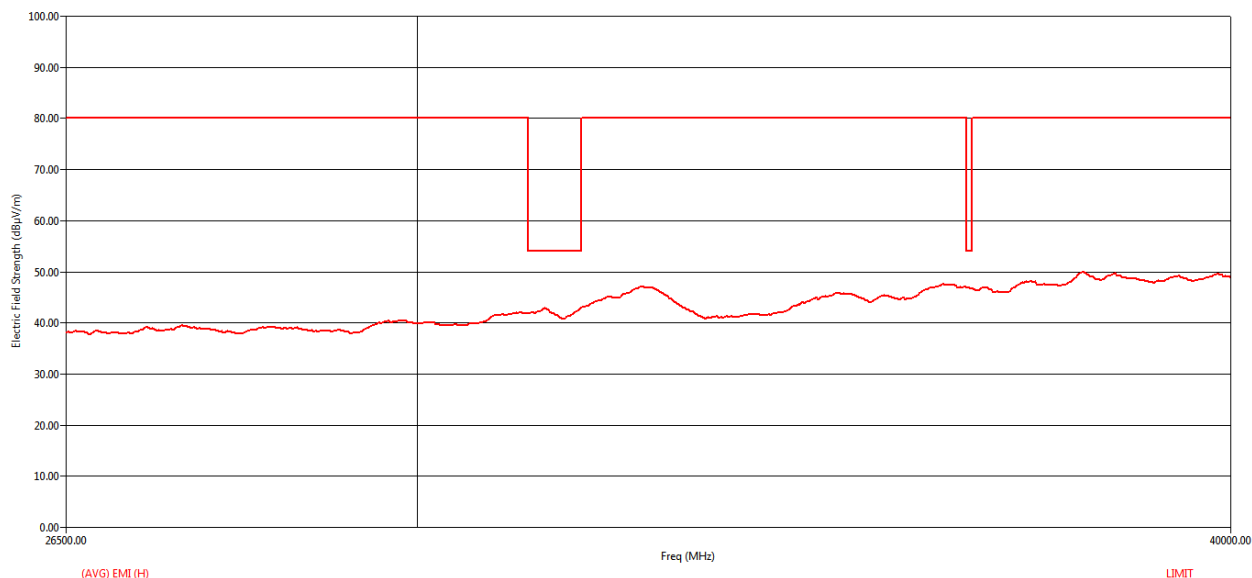


Figure 85: 40MHz, 6dBi, Low Channel: Average RE Graph - 26.5GHz to 40GHz - Horizontal Polarization

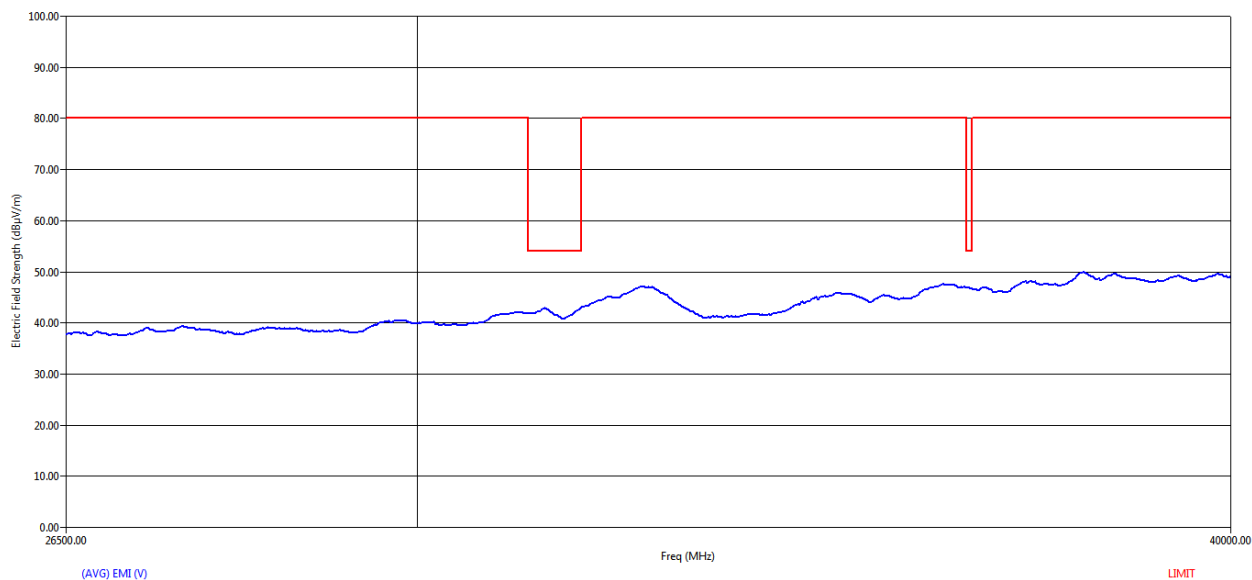


Figure 86: 40MHz, 6dBi, Low Channel: Average RE Graph - 26.5GHz to 40GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 27260.00 | 27260.00 | H | 179.90 | 150.00 | 38.99 | 9.46 | 38.52 | 48.20 | 38.77 | 80.00 | -41.23 |
| 32536.80 | 32536.80 | V | 288.20 | 150.00 | 41.67 | 10.73 | 38.92 | 44.53 | 46.79 | 80.00 | -33.21 |

Table 49: 40MHz, 6dBi, Low Channel: Average table from 26.5 GHz to 40 GHz

5.3.1.5.8 40 MHz MODULATION BANDWIDTH, 6 dBi ANTENNA, MID CHANNEL - 5200 MHz

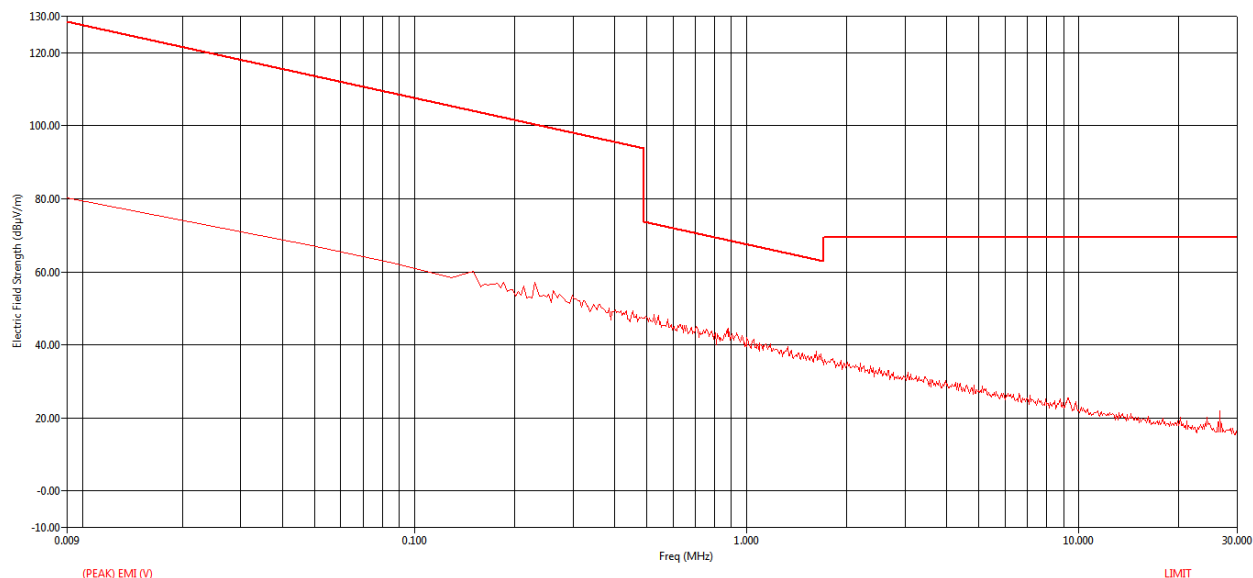


Figure 87: 40MHz, 6dBi, Mid Channel: Peak RE Graph - 9kHz to 30MHz - Parallel

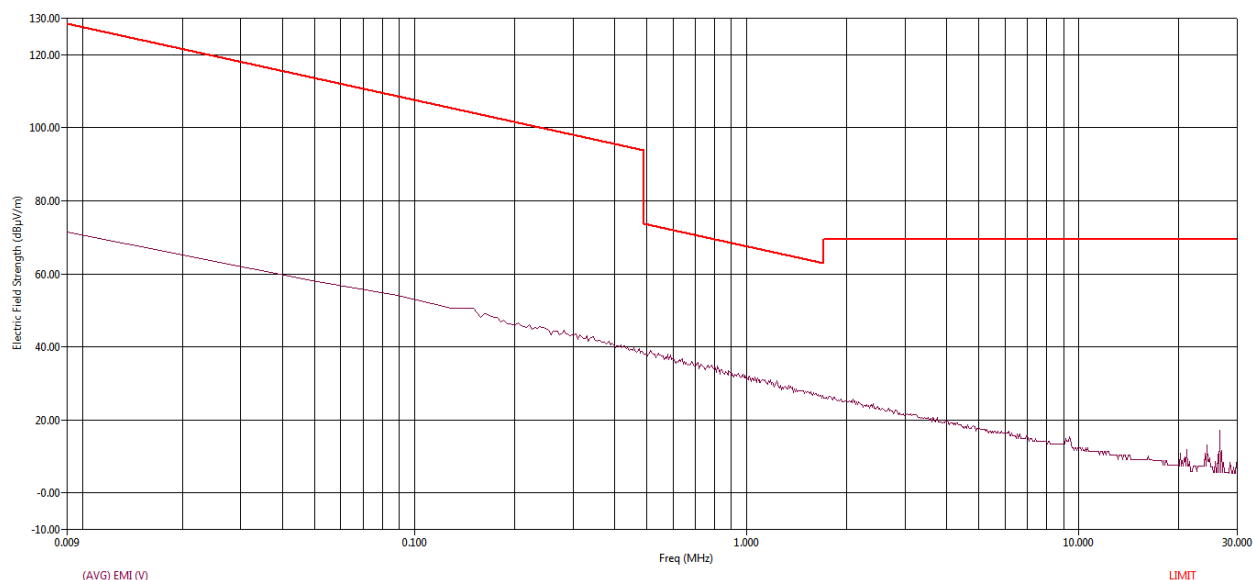


Figure 88: 40MHz, 6dBi, Mid Channel: Average RE Graph - 9kHz to 30MHz - Parallel

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbi Agl (deg) | (QP) Trace (dB μ V) | Cable (dB) | Transducer (dB) | (QP) EMI (dB μ V/m) | Limit (dB μ V/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------------------|------------|-----------------|-------------------------|----------------------|------------------|
| 24.34 | 24.35 | V | 125.20 | 10.80 | 1.07 | 16.15 | 28.02 | 69.54 | -41.52 |
| 26.61 | 26.61 | V | 352.60 | 8.87 | 1.11 | 16.00 | 25.98 | 69.54 | -43.56 |

Table 50: 40MHz, 6dBi, Mid Channel: Quasipeak table from 9 kHz to 30 MHz

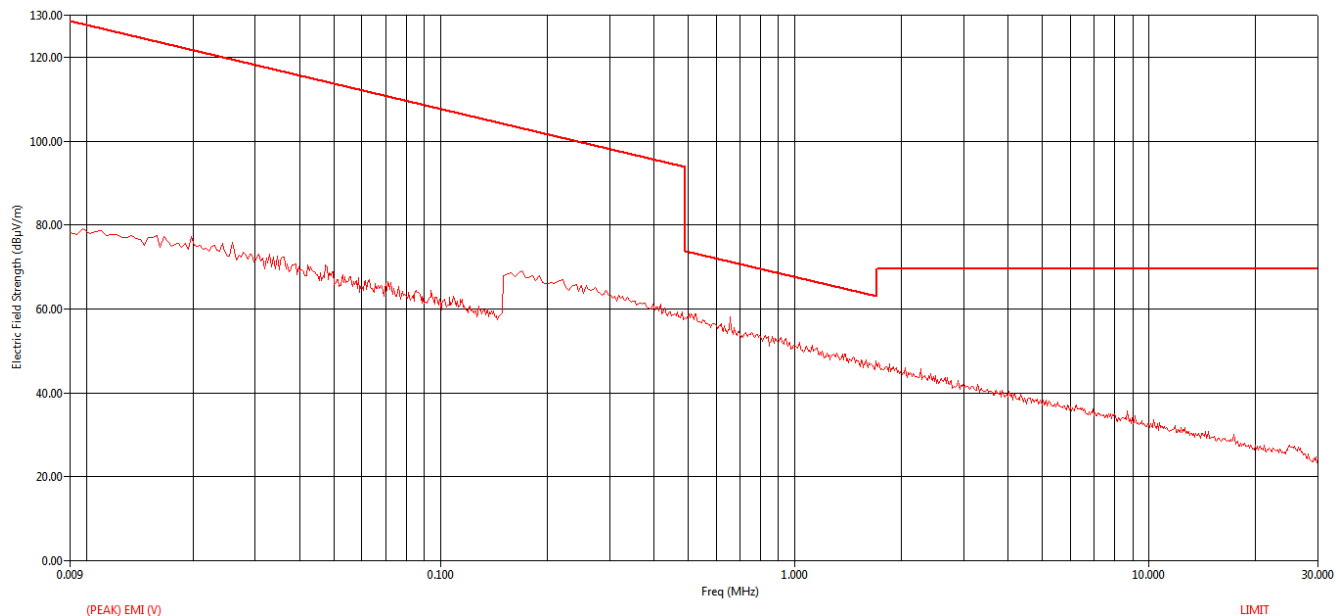


Figure 89: 40MHz, 6dBi, Mid Channel: Peak RE Graph - 9kHz to 30MHz - Perpendicular

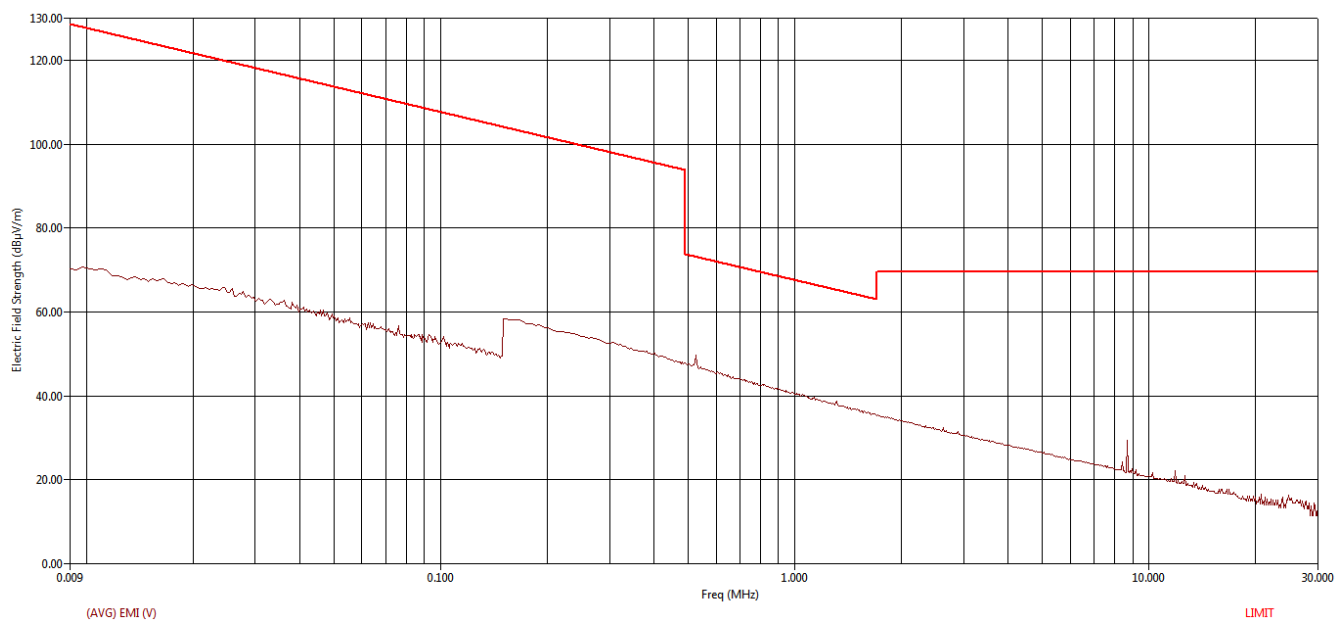


Figure 90: 40MHz, 6dBi, Mid Channel: Average RE Graph - 9kHz to 30MHz - Perpendicular

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbl Agl (deg) | (QP) Trace (dB μ V) | Cable (dB) | Transducer (dB) | (QP) EMI (dB μ V/m) | Limit (dB μ V/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------------------|------------|-----------------|-------------------------|----------------------|------------------|
| 8.65 | 8.64 | V | 180.10 | 9.73 | 0.65 | 17.45 | 27.83 | 69.54 | -41.71 |
| 17.37 | 17.38 | V | 134.90 | 2.25 | 0.90 | 16.70 | 19.85 | 69.54 | -49.69 |

Table 51: 40MHz, 6dBi, Mid Channel: Quasipeak table from 9 kHz to 30 MHz

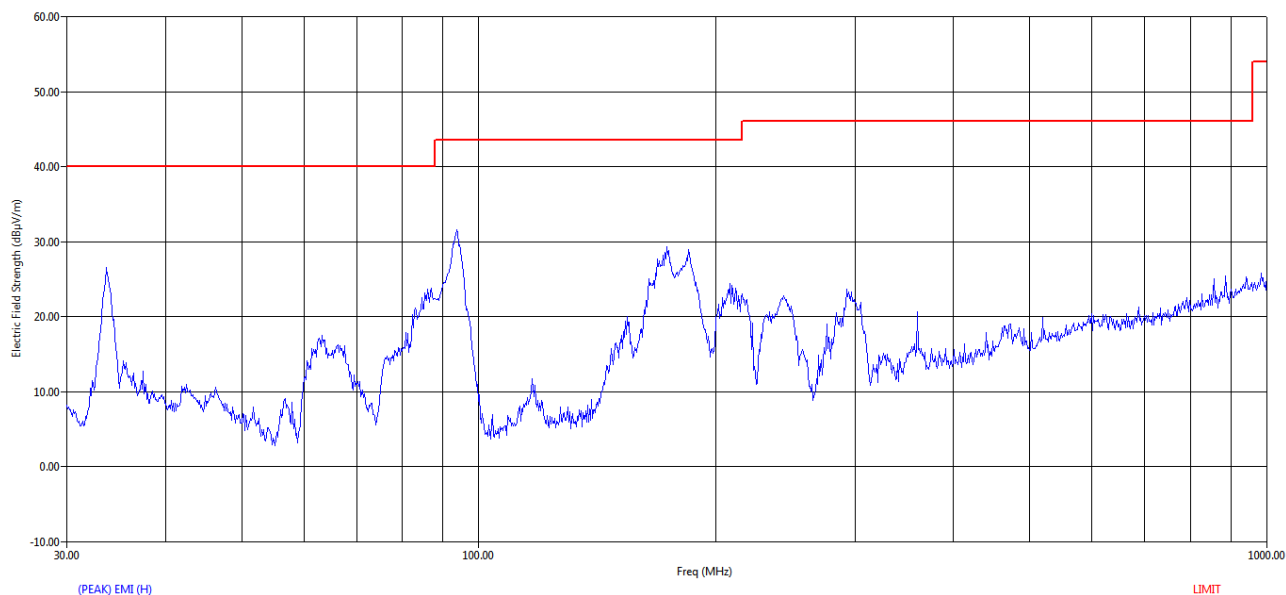


Figure 91: 40MHz, 6dBi, Mid Channel: Peak RE Graph - 30MHz to 1GHz - Horizontal Polarization

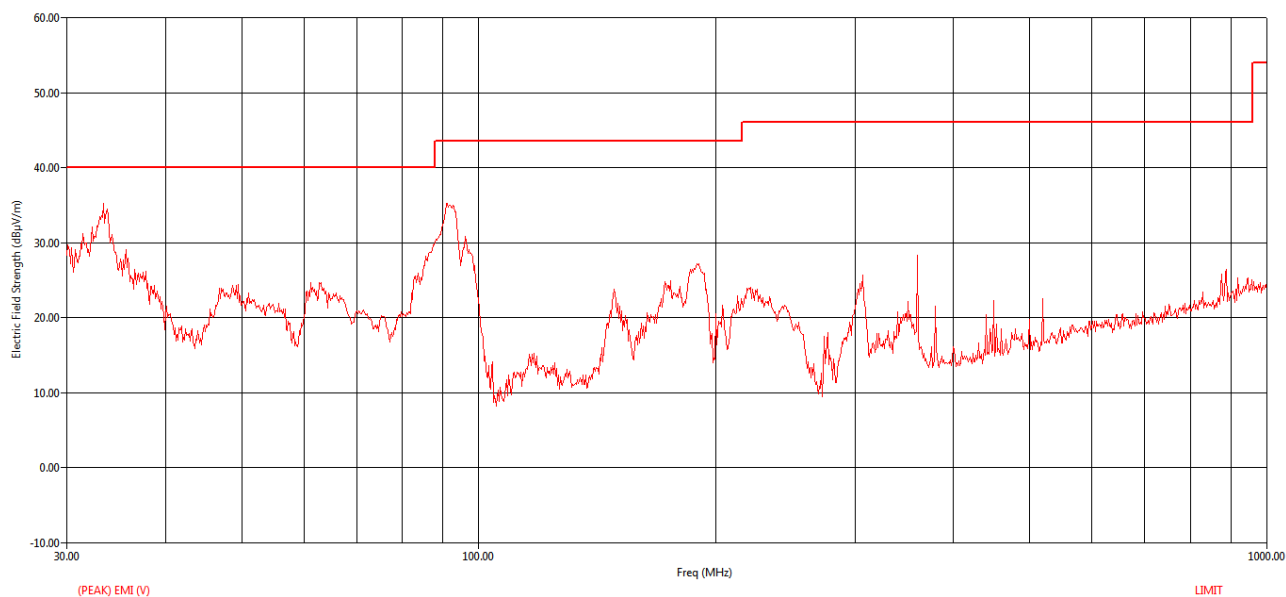


Figure 92: 40MHz, 6dBi, Mid Channel: Peak RE Graph - 30MHz to 1GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|-------------------|------------|-----------------|-------------------|-------------------|----------------|------------------|
| 33.40 | 33.34 | V | 292.30 | 107.00 | 59.56 | 1.25 | 10.94 | 43.80 | 27.94 | 40.00 | -12.06 |
| 91.28 | 91.27 | V | 1.80 | 157.00 | 61.63 | 2.04 | 8.71 | 43.93 | 28.46 | 43.52 | -15.06 |
| 93.48 | 93.52 | V | 162.10 | 157.00 | 55.06 | 2.06 | 8.53 | 43.93 | 21.72 | 43.52 | -21.80 |
| 93.68 | 93.76 | H | 244.40 | 193.00 | 71.67 | 2.07 | 8.51 | 43.93 | 38.32 | 43.52 | -5.20 |
| 173.44 | 173.41 | H | 303.80 | 144.00 | 52.41 | 2.79 | 13.29 | 43.95 | 24.55 | 43.52 | -18.97 |
| 184.32 | 184.34 | H | 161.90 | 169.00 | 47.17 | 2.88 | 13.76 | 43.95 | 19.86 | 43.52 | -23.66 |

Table 52: 40MHz, 6dBi, Mid Channel: Quasipeak table from 30 MHz to 1 GHz

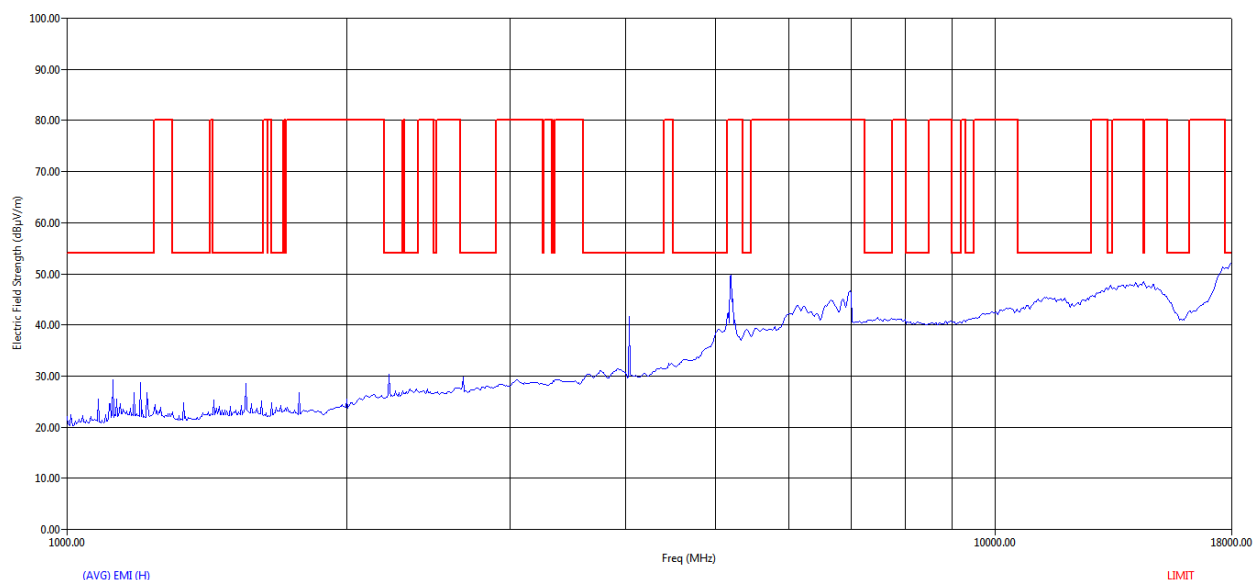


Figure 93: 40MHz, 6dBi, Mid Channel: Average RE Graph - 1GHz to 18GHz - Horizontal Polarization

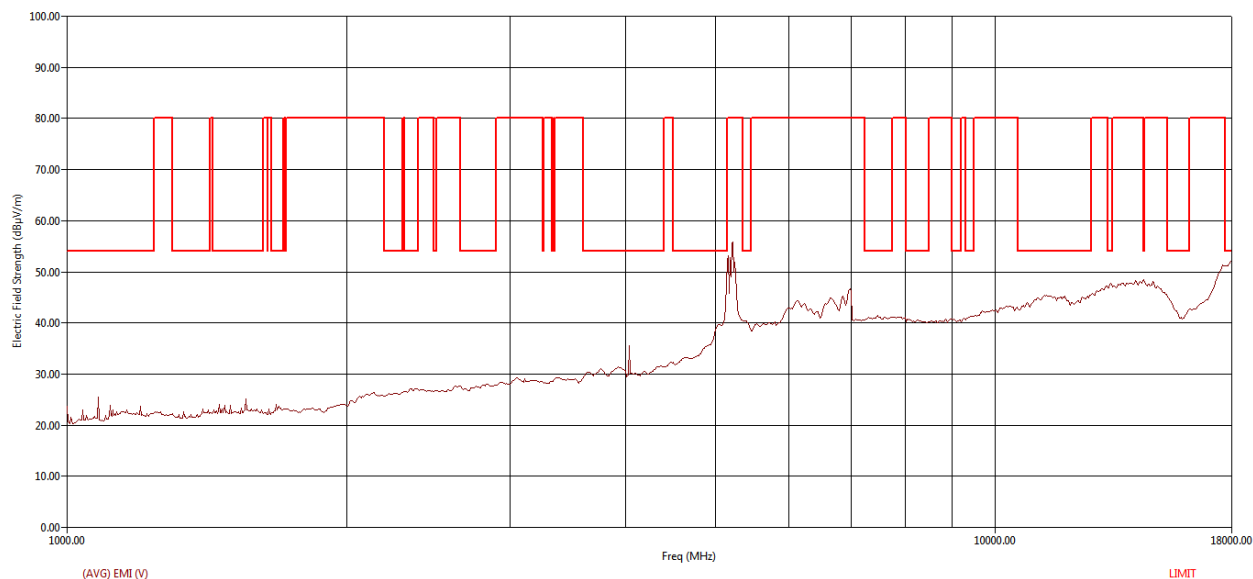


Figure 94: 40MHz, 6dBi, Mid Channel: Average RE Graph - 1GHz to 18GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 1119.90 | 1119.90 | H | 180.00 | 130.00 | 34.42 | 1.89 | 25.17 | 32.47 | 29.02 | 53.98 | -24.96 |
| 5135.10 | 5135.10 | V | 98.80 | 101.00 | 35.11 | 3.80 | 32.93 | 28.31 | 43.52 | 53.98 | -10.46 |
| 5139.30 | 5139.30 | V | 80.50 | 114.00 | 37.18 | 3.80 | 32.93 | 28.32 | 45.59 | 53.98 | -8.39 |
| 5146.60 | 5146.60 | H | 90.20 | 200.00 | 31.32 | 3.80 | 32.93 | 28.32 | 39.73 | 53.98 | -14.25 |
| 5258.10 | 5258.10 | H | 86.10 | 200.00 | 29.60 | 3.82 | 32.90 | 28.33 | 37.99 | 80.00 | -42.01 |

Table 53: 40MHz, 6dBi, Mid Channel: Average table from 1 GHz to 18 GHz

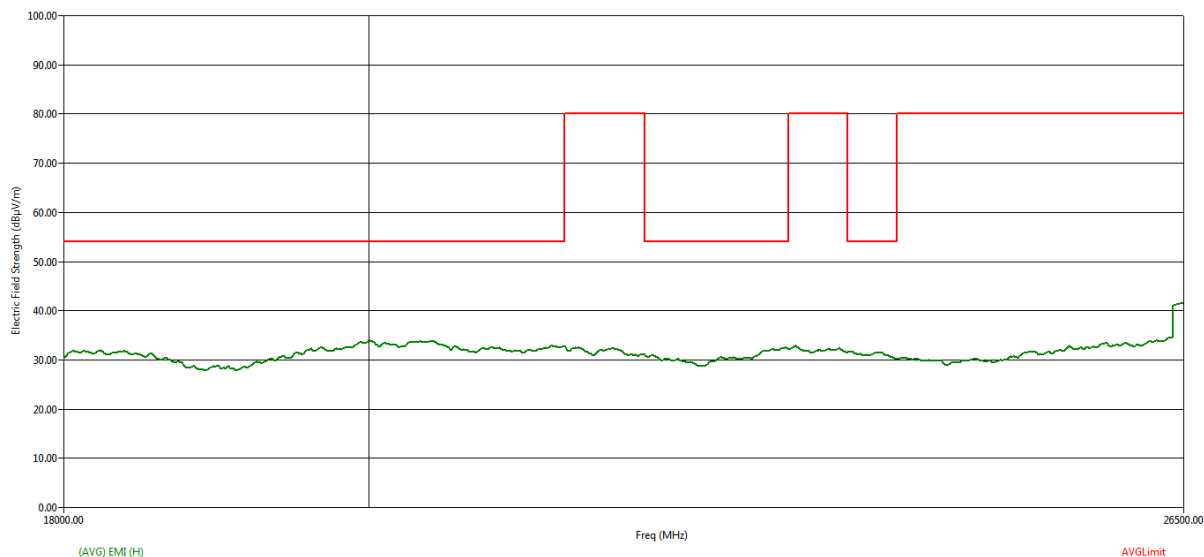


Figure 95: 40MHz, 6dBi, Mid Channel: Average RE Graph - 18GHz to 26.5GHz - Horizontal Polarization

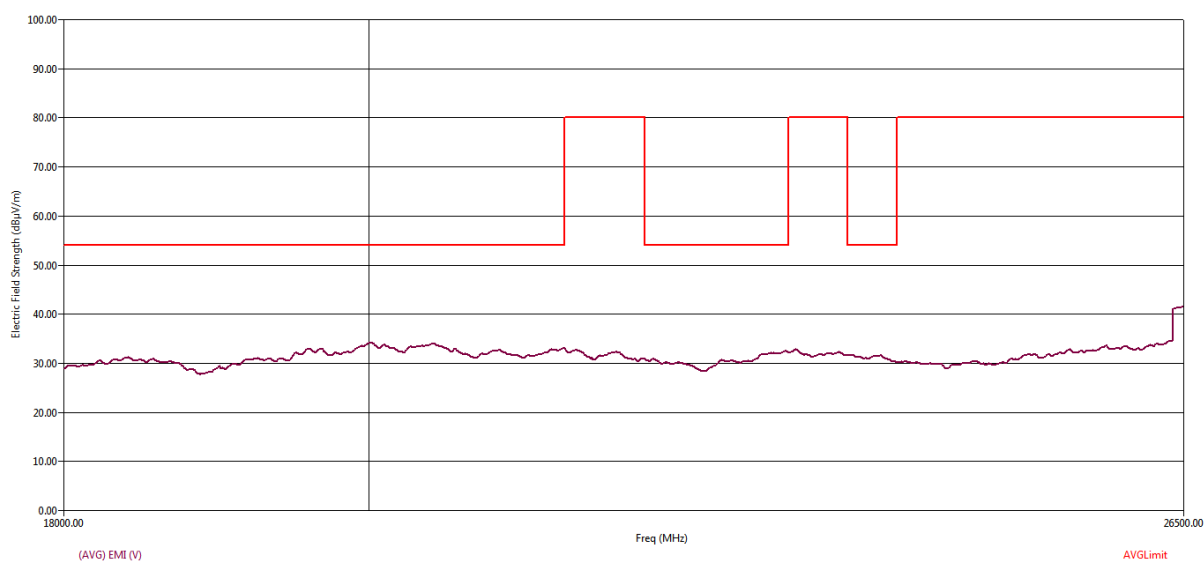


Figure 96: 40MHz, 6dBi, Mid Channel: Average RE Graph - 18GHz to 26.5GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbl Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 19988.50 | 19988.50 | H | 15.10 | 150.00 | 32.66 | 7.23 | 36.45 | 43.00 | 33.34 | 53.98 | -20.64 |
| 23188.00 | 23188.00 | V | 14.90 | 150.00 | 32.52 | 8.28 | 37.83 | 46.80 | 31.83 | 80.00 | -48.17 |

Table 54: 40MHz, 6dBi, Mid Channel: Average table from 18 GHz to 26.5 GHz

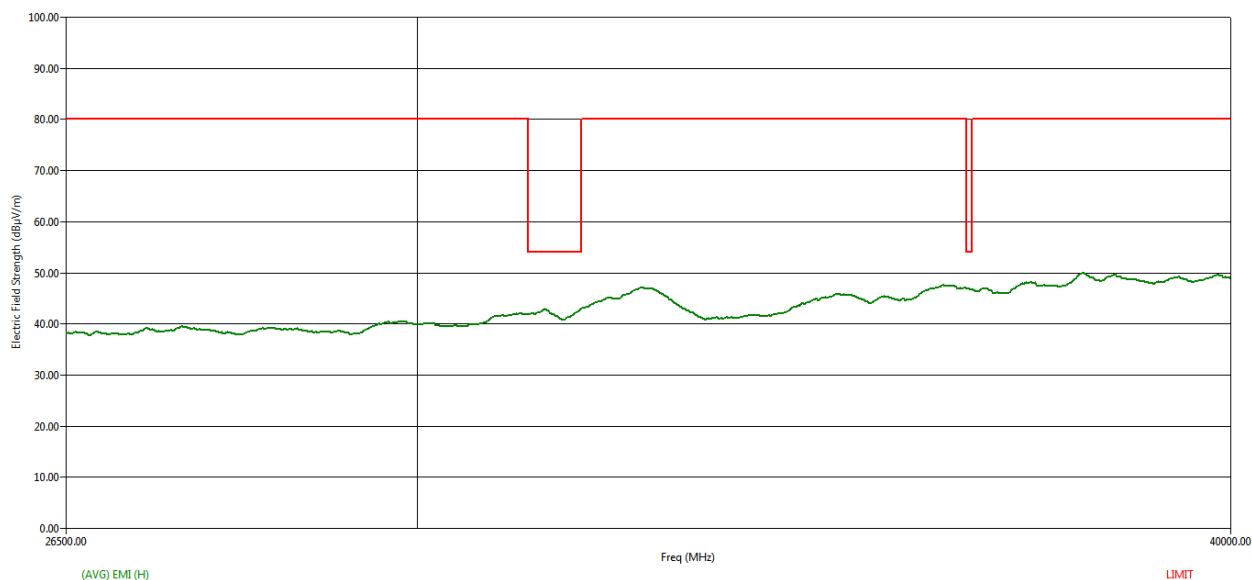


Figure 97: 40MHz, 6dBi, Mid Channel: Average RE Graph - 26.5GHz to 40GHz - Horizontal Polarization

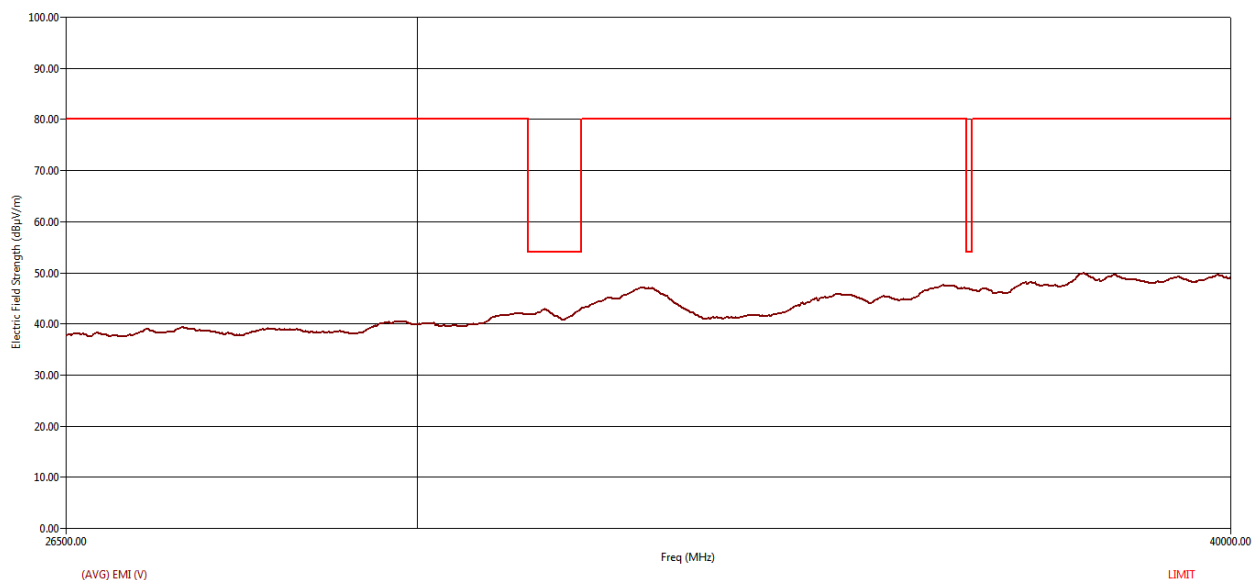


Figure 98: 40MHz, 6dBi, Mid Channel: Average RE Graph - 26.5GHz to 40GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbl Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 32557.60 | 32557.60 | H | 180.00 | 150.00 | 41.62 | 10.70 | 38.93 | 44.50 | 46.76 | 80.00 | -33.24 |
| 37984.10 | 37984.10 | V | 180.00 | 150.00 | 43.06 | 12.32 | 40.79 | 46.48 | 49.68 | 80.00 | -30.32 |

Table 55: 40MHz, 6dBi, Mid Channel: Average table from 26.5 GHz to 40 GHz

5.3.1.5.9 40 MHz MODULATION BANDWIDTH, 6 dBi ANTENNA, HIGH CHANNEL - 5220 MHz

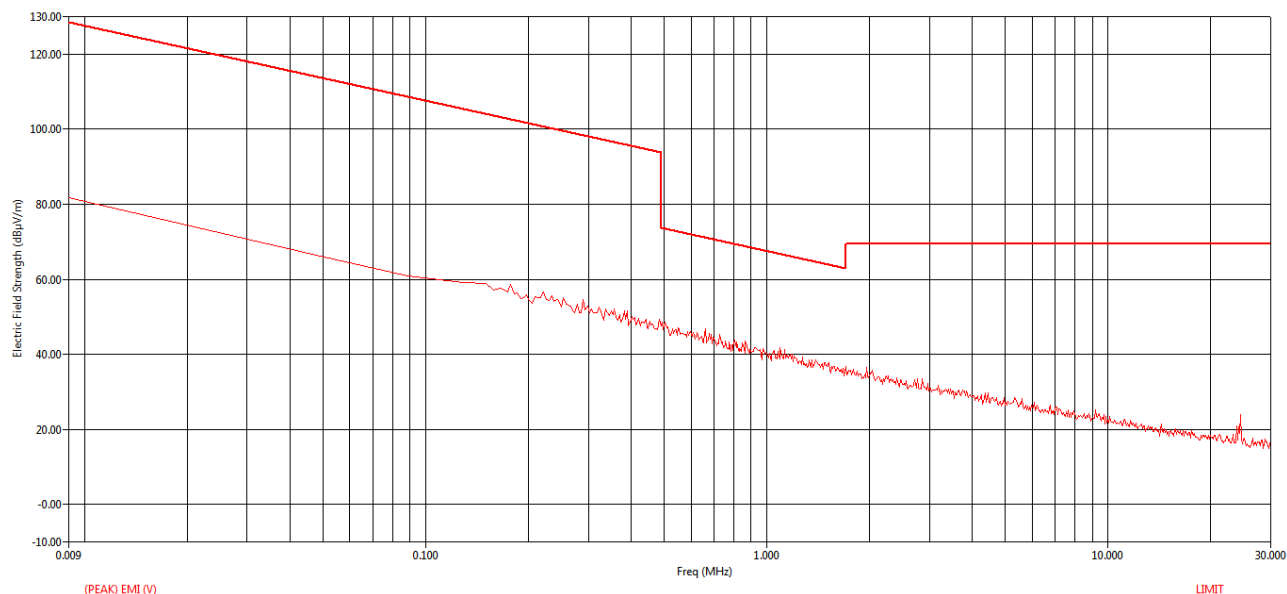


Figure 99: 40MHz, 6dBi, High Channel: Peak RE Graph - 9kHz to 30MHz - Parallel

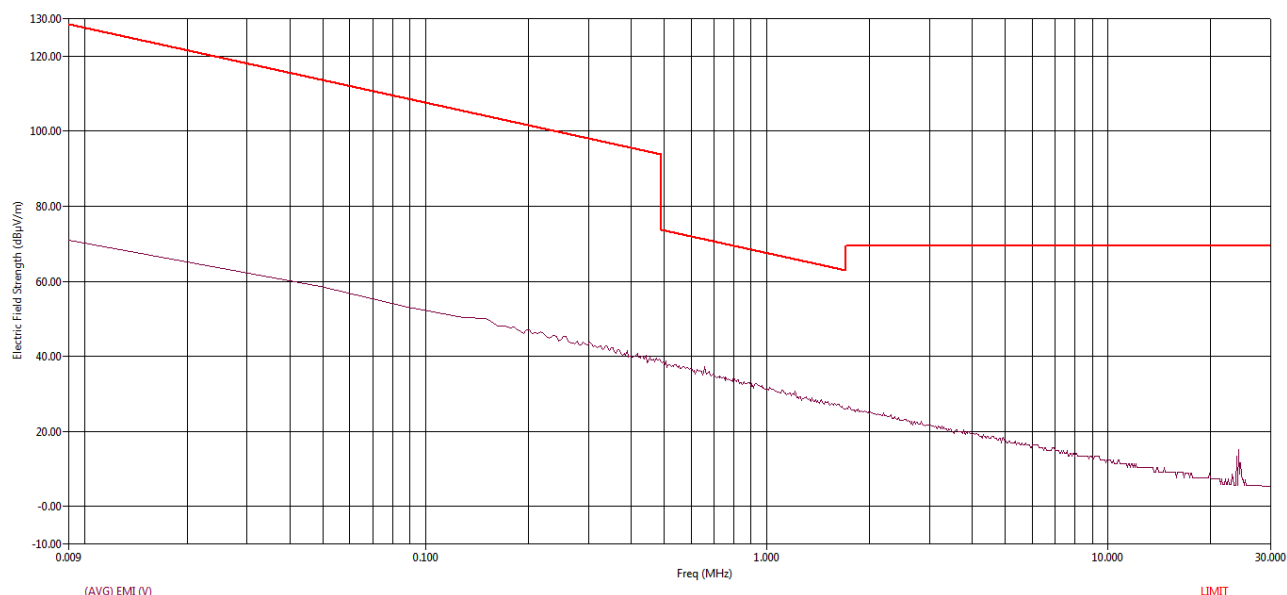


Figure 100: 40MHz, 6dBi, High Channel: Average RE Graph - 9kHz to 30MHz - Parallel

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbl Agl (deg) | (QP) Trace (dB μ V) | Cable (dB) | Transducer (dB) | (QP) EMI (dB μ V/m) | Limit (dB μ V/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------------------|------------|-----------------|-------------------------|----------------------|------------------|
| 24.34 | 24.35 | V | 125.20 | 10.80 | 1.07 | 16.15 | 28.02 | 69.54 | -41.52 |
| 26.61 | 26.61 | V | 352.60 | 8.87 | 1.11 | 16.00 | 25.98 | 69.54 | -43.56 |

Table 56: 40MHz, 6dBi, High Channel: Quasipeak table from 9 kHz to 30 MHz

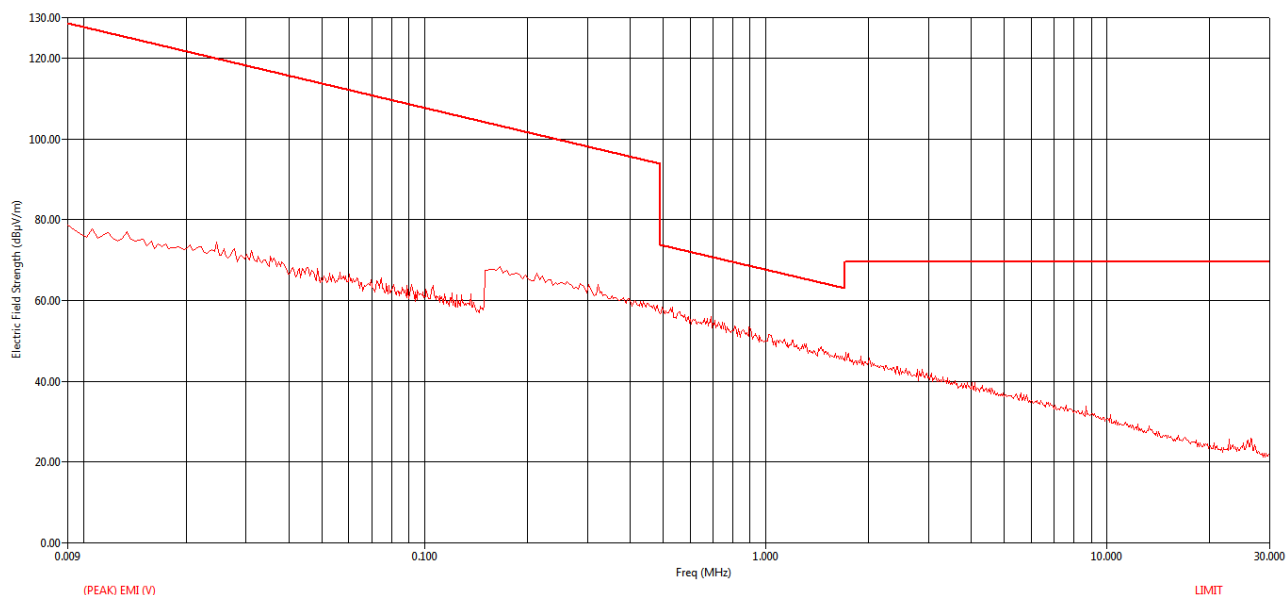


Figure 101: 40MHz, 6dBi, High Channel: Peak RE Graph - 9kHz to 30MHz - Perpendicular

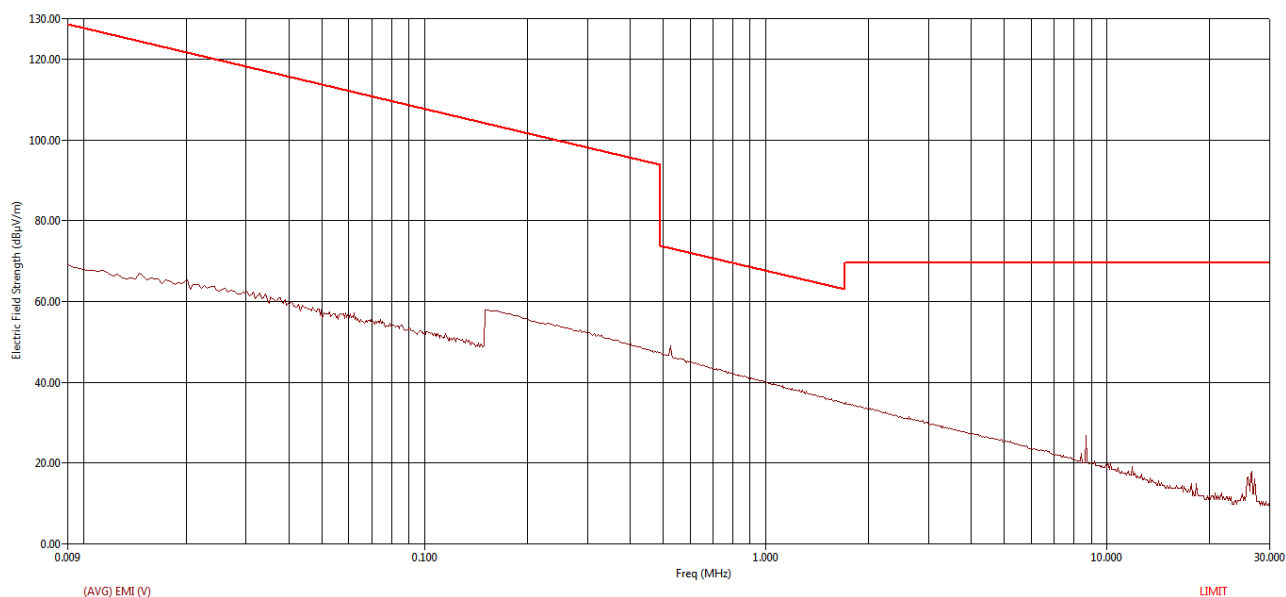


Figure 102: 40MHz, 6dBi, High Channel: Average RE Graph - 9kHz to 30MHz - Perpendicular

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbi Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 8.65 | 8.65 | V | 208.40 | 4.78 | 0.65 | 17.45 | 22.87 | 69.54 | -46.67 |
| 22.89 | 22.88 | V | 208.60 | -7.84 | 1.04 | 16.26 | 9.46 | 69.54 | -60.08 |
| 26.61 | 26.62 | V | 184.00 | -7.95 | 1.11 | 16.00 | 9.16 | 69.54 | -60.38 |

Table 57: 40MHz, 6dBi, High Channel: Quasipeak table from 9 kHz to 30 MHz

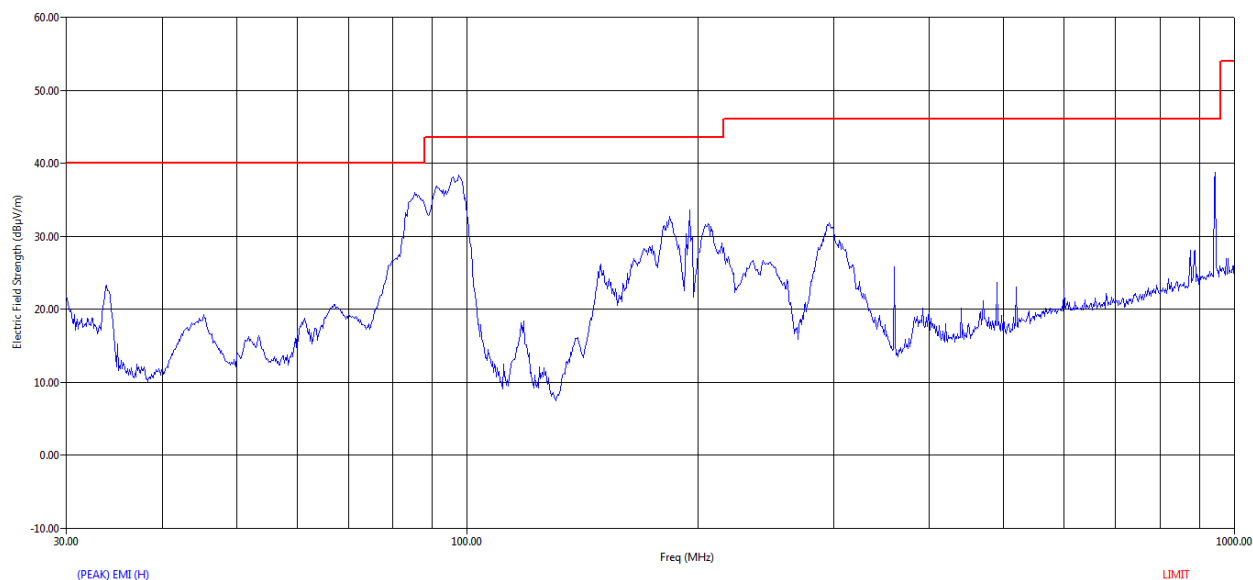


Figure 103: 40MHz, 6dBi, High Channel: Peak RE Graph - 30MHz to 1GHz - Horizontal Polarization

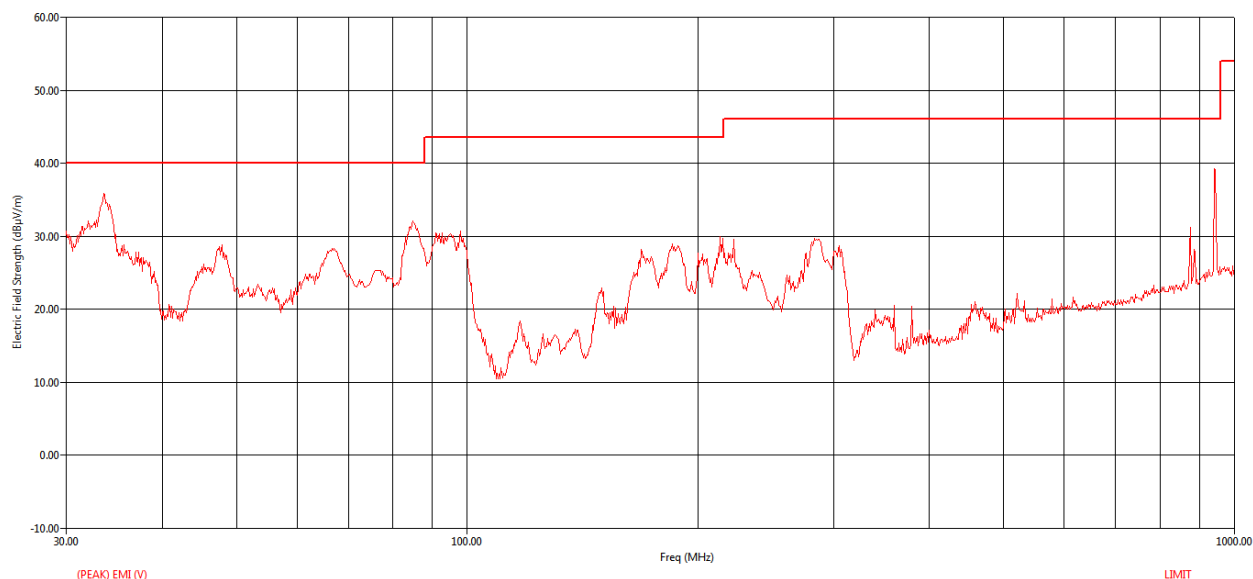


Figure 104: 40MHz, 6dBi, High Channel: Peak RE Graph - 30MHz to 1GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|-------------------|------------|-----------------|-------------|-------------------|----------------|------------------|
| 33.50 | 33.51 | V | 18.70 | 306.00 | 55.15 | 1.25 | 10.91 | 43.81 | 23.50 | 40.00 | -16.50 |
| 97.52 | 97.63 | H | 72.40 | 192.00 | 66.53 | 2.11 | 8.19 | 43.94 | 32.90 | 43.52 | -10.62 |
| 941.48 | 941.41 | H | 194.80 | 370.00 | 32.87 | 6.61 | 23.15 | 42.61 | 20.02 | 46.02 | -26.00 |
| 941.68 | 941.78 | V | 182.10 | 351.00 | 36.34 | 6.61 | 23.16 | 42.61 | 23.50 | 46.02 | -22.52 |
| 943.04 | 943.05 | V | 237.50 | 400.00 | 33.13 | 6.62 | 23.16 | 42.60 | 20.31 | 46.02 | -25.71 |
| 944.80 | 944.87 | H | 347.00 | 390.00 | 32.90 | 6.63 | 23.17 | 42.59 | 20.11 | 46.02 | -25.91 |

Table 58: 40MHz, 6dBi, High Channel: Quasipeak table from 30 MHz to 1 GHz

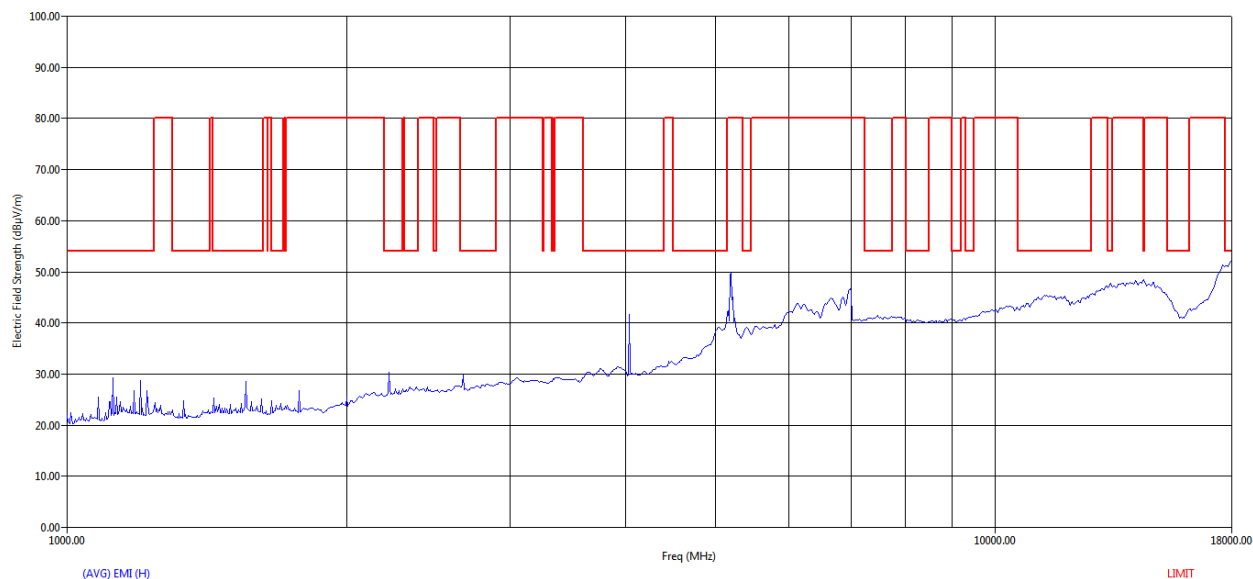


Figure 105: 40MHz, 6dBi, High Channel: Average RE Graph - 1GHz to 18GHz - Horizontal Polarization

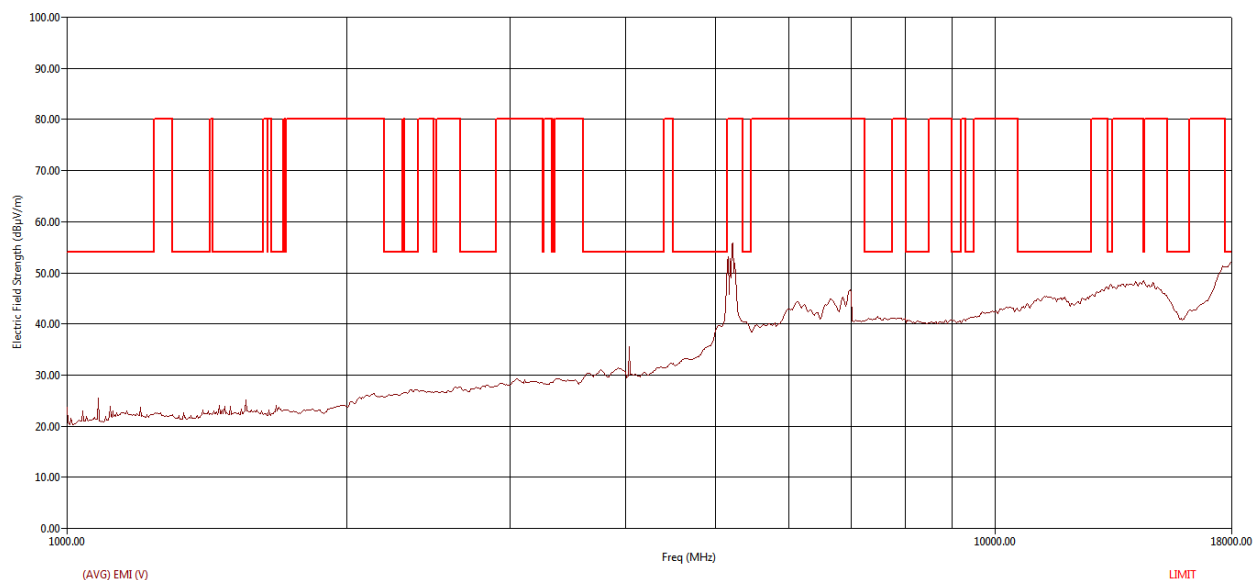


Figure 106: 40MHz, 6dBi, High Channel: Average RE Graph - 1GHz to 18GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT TtBl Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 1119.90 | 1119.90 | H | 180.00 | 130.00 | 34.42 | 1.89 | 25.17 | 32.47 | 29.02 | 53.98 | -24.96 |
| 5135.10 | 5135.10 | V | 98.80 | 101.00 | 35.11 | 3.80 | 32.93 | 28.31 | 43.52 | 53.98 | -10.46 |
| 5139.30 | 5139.30 | V | 80.50 | 114.00 | 37.18 | 3.80 | 32.93 | 28.32 | 45.59 | 53.98 | -8.39 |
| 5146.60 | 5146.60 | H | 90.20 | 200.00 | 31.32 | 3.80 | 32.93 | 28.32 | 39.73 | 53.98 | -14.25 |
| 5258.10 | 5258.10 | H | 86.10 | 200.00 | 29.60 | 3.82 | 32.90 | 28.33 | 37.99 | 80.00 | -42.01 |

Table 59: 40MHz, 6dBi, High Channel: Average table from 1 GHz to 18 GHz

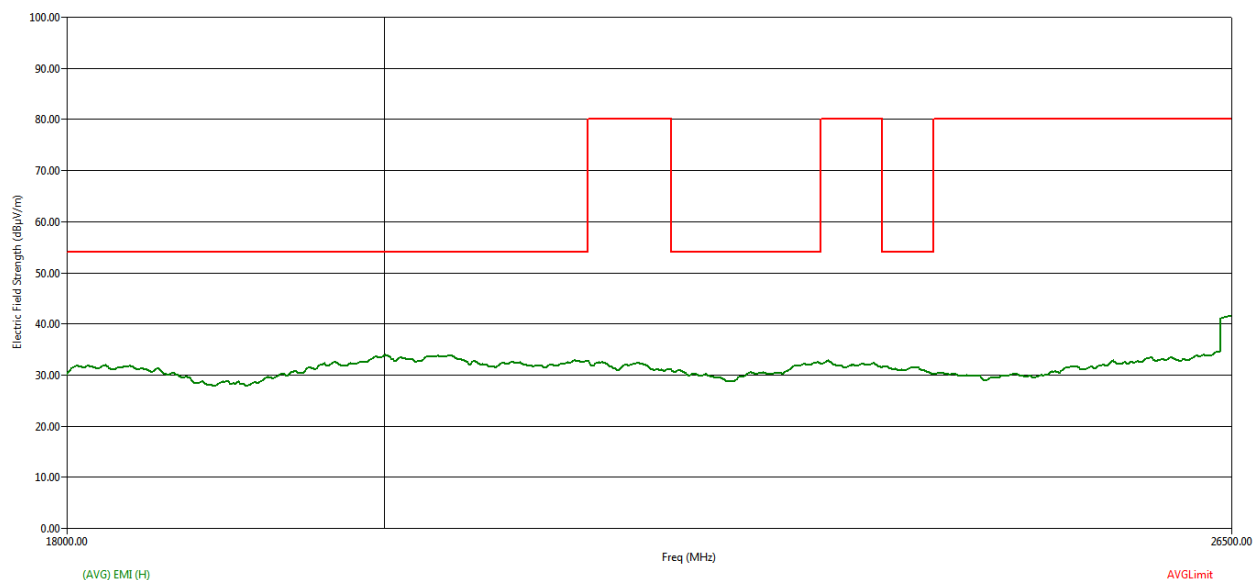


Figure 107: 40MHz, 6dBi, High Channel: Average RE Graph - 18GHz to 26.5GHz - Horizontal Polarization

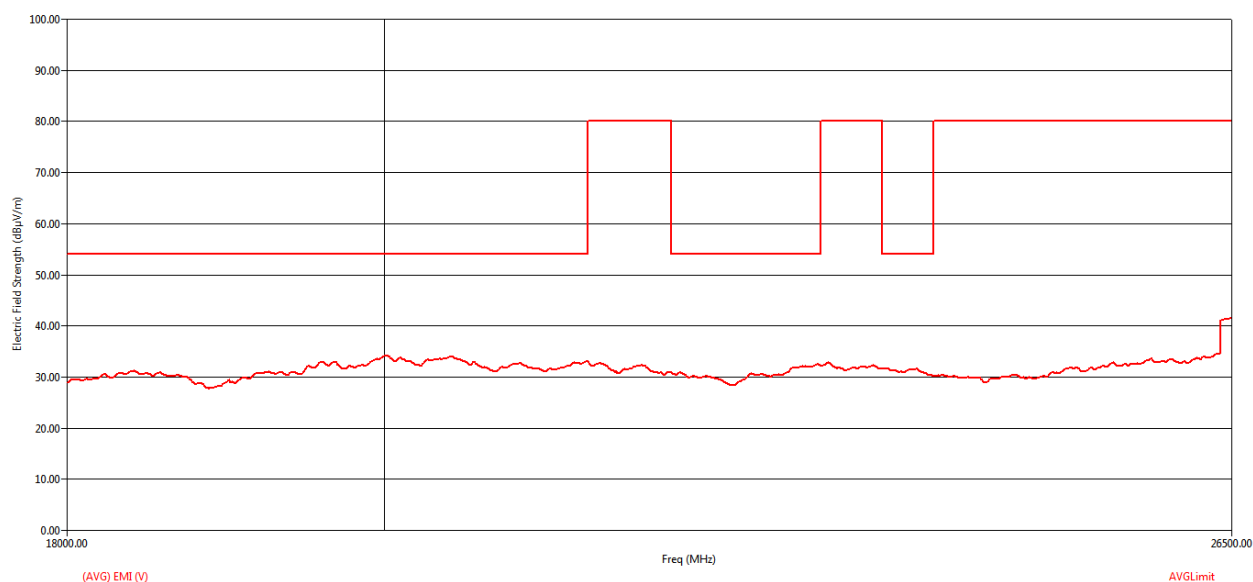


Figure 108: 40MHz, 6dBi, High Channel: Average RE Graph - 18GHz to 26.5GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT TtBl Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preampl (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|--------------|--------------------|----------------|-------------------|
| 18400.50 | 18400.50 | H | 89.40 | 150.00 | 33.95 | 7.08 | 36.48 | 46.74 | 30.77 | 53.98 | -23.21 |
| 20188.00 | 20188.00 | V | 127.00 | 150.00 | 31.40 | 7.40 | 36.59 | 43.06 | 32.32 | 53.98 | -21.66 |
| 24457.00 | 24457.00 | V | 99.60 | 150.00 | 31.53 | 8.19 | 37.76 | 47.19 | 30.28 | 80.00 | -49.72 |

Table 60: 40MHz, 6dBi, High Channel: Average table from 18 GHz to 26.5 GHz

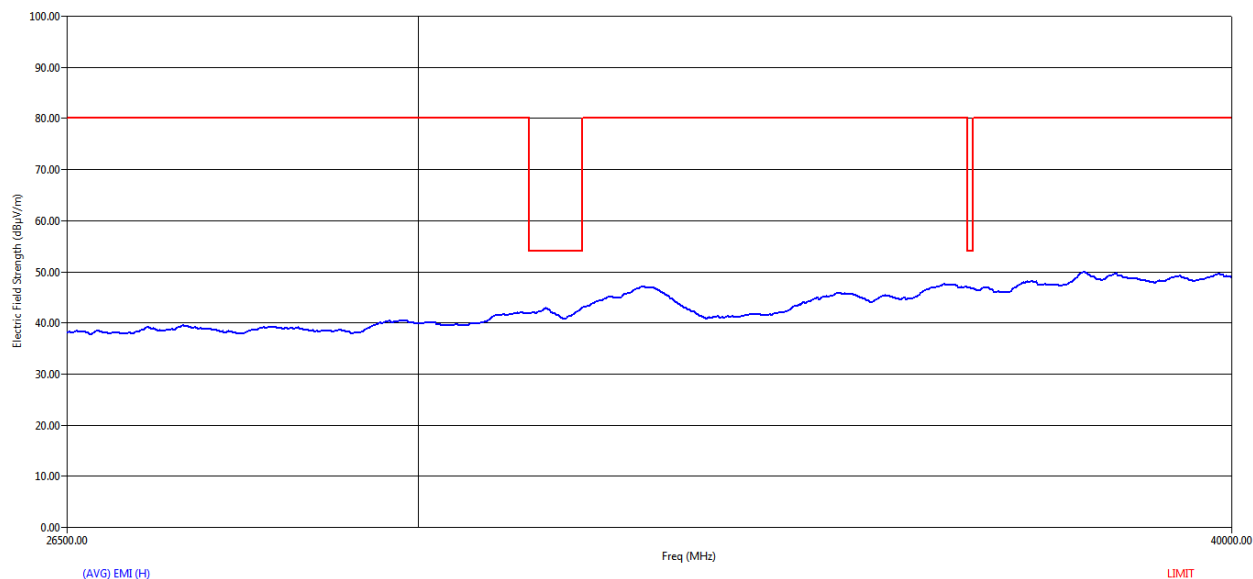


Figure 109: 40MHz, 6dBi, High Channel: Average RE Graph - 26.5GHz to 40GHz - Horizontal Polarization

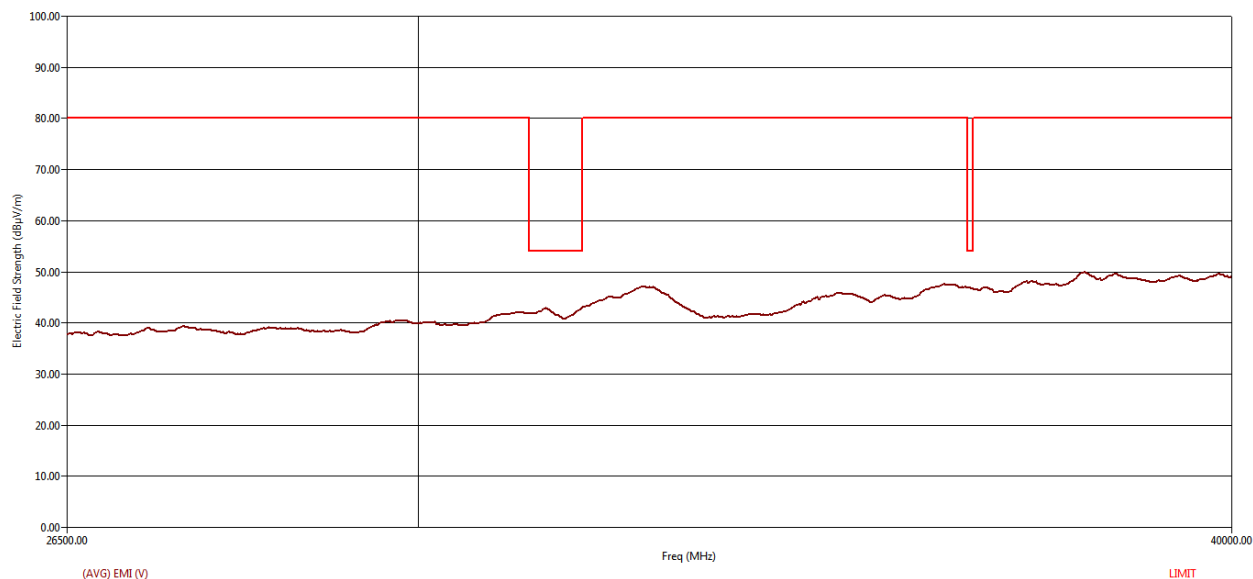


Figure 110: 40MHz, 6dBi, High Channel: Average RE Graph - 26.5GHz to 40GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 27260.50 | 27260.50 | H | 90.10 | 150.00 | 39.09 | 9.46 | 38.52 | 48.20 | 38.86 | 80.00 | -41.14 |
| 32451.90 | 32451.90 | H | 90.10 | 150.00 | 41.92 | 10.69 | 38.90 | 44.69 | 46.83 | 80.00 | -33.17 |

Table 61: 40MHz, 6dBi, High Channel: Average table form 26.5 GHz to 40 GHz

5.3.1.5.10 5 MHz MODULATION BANDWIDTH, 6 dBi ANTENNA, LOW CHANNEL - 5155 MHz

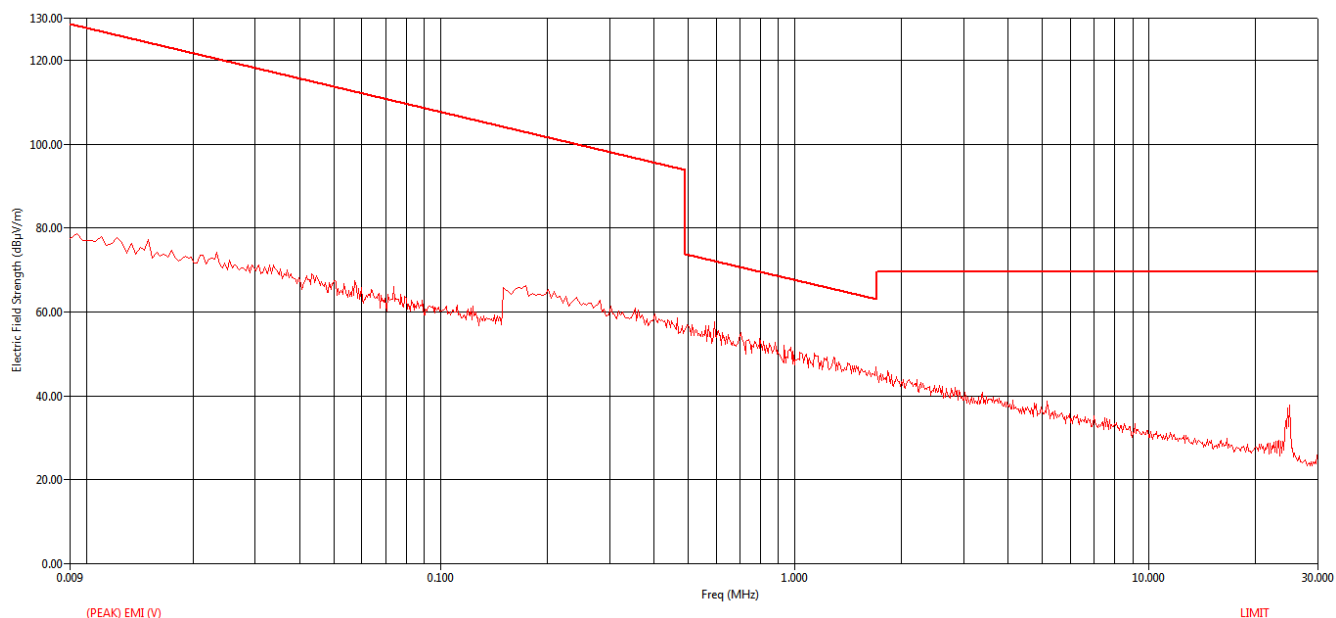


Figure 111: 5MHz, 6dBi, Low Channel: Peak RE Graph - 9kHz to 30MHz - Parallel

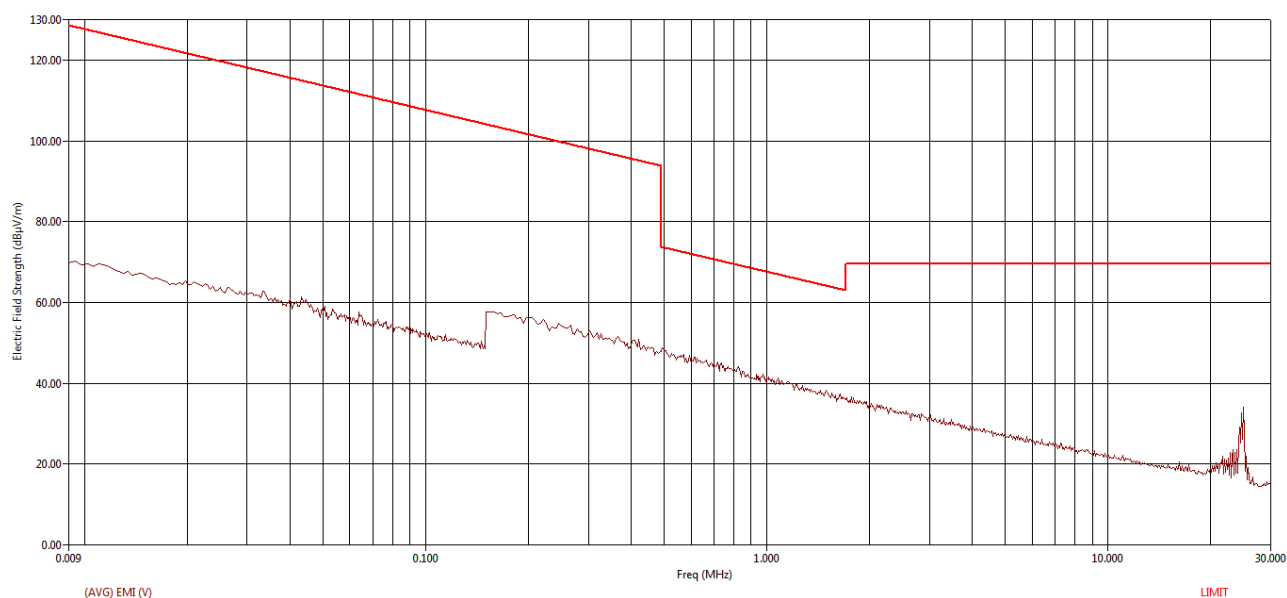


Figure 112: 5MHz, 6dBi, Low Channel: Average RE Graph - 9kHz to 30MHz - Parallel

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbl Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 24.37 | 24.37 | 184.80 | 9.35 | 1.07 | 16.15 | 26.56 | 69.54 | -42.98 |
| 24.63 | 24.62 | 180.00 | 14.97 | 1.08 | 16.13 | 32.17 | 69.54 | -37.37 |
| 24.89 | 24.88 | 180.00 | 12.60 | 1.08 | 16.11 | 29.79 | 69.54 | -39.75 |

Table 62: 5MHz, 6dBi, Low Channel: Quasipeak table from 9 kHz to 30 MHz

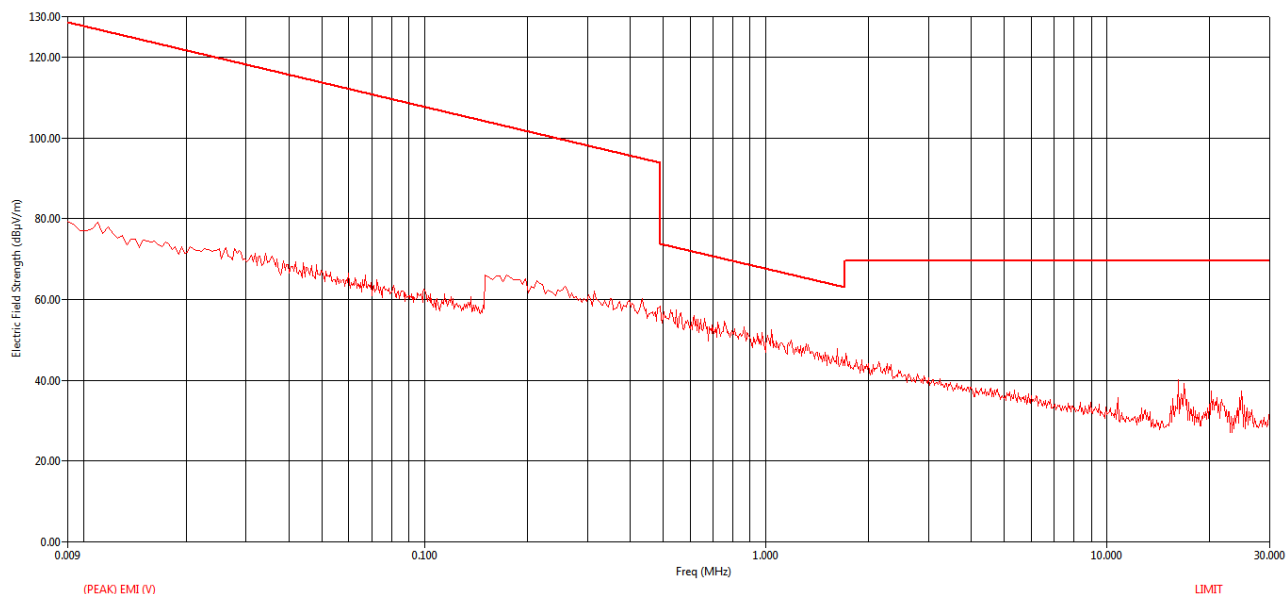


Figure 113: 5MHz, 6dBi, Low Channel: Peak RE Graph - 9kHz to 30MHz - Perpendicular

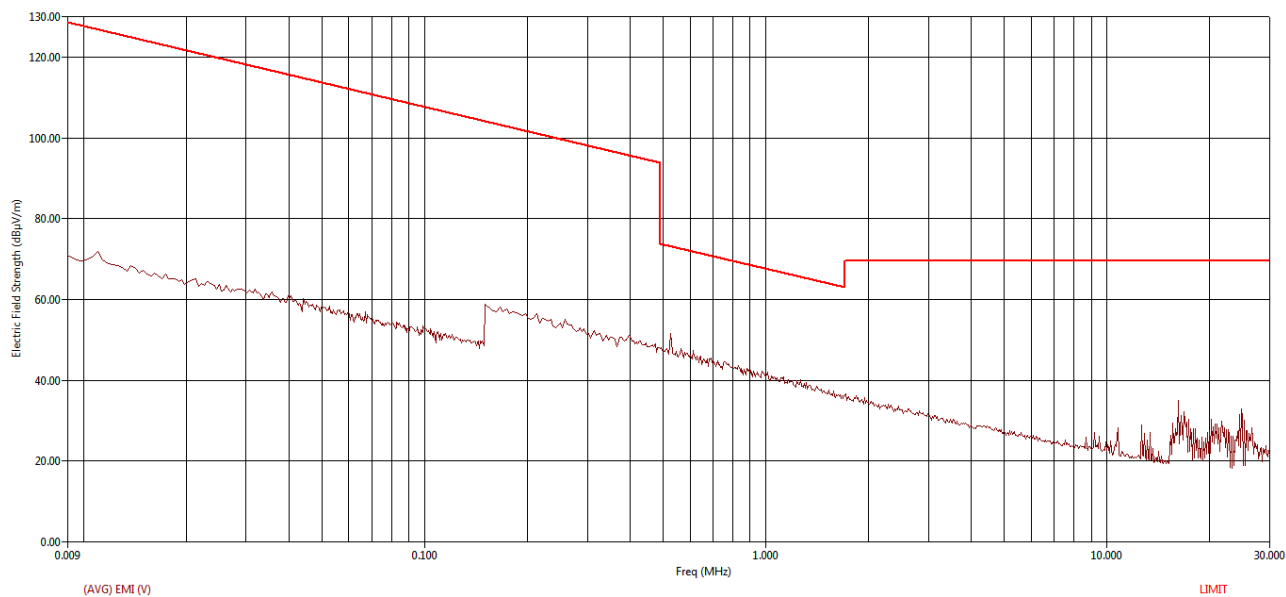


Figure 114: 5MHz, 6dBi, Low Channel: Average RE Graph - 9kHz to 30MHz - Perpendicular

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbi Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 10.78 | 10.79 | 328.50 | 12.59 | 0.72 | 17.22 | 30.53 | 69.54 | -39.01 |
| 16.21 | 16.23 | 258.40 | 22.66 | 0.87 | 16.79 | 40.32 | 69.54 | -29.22 |
| 20.33 | 20.32 | 273.20 | 12.14 | 0.98 | 16.47 | 29.59 | 69.54 | -39.95 |
| 24.69 | 24.68 | 195.50 | 11.66 | 1.08 | 16.12 | 28.86 | 69.54 | -40.68 |

Table 63: 5MHz, 6dBi, Low Channel: Quasipeak table from 9 kHz to 30 MHz

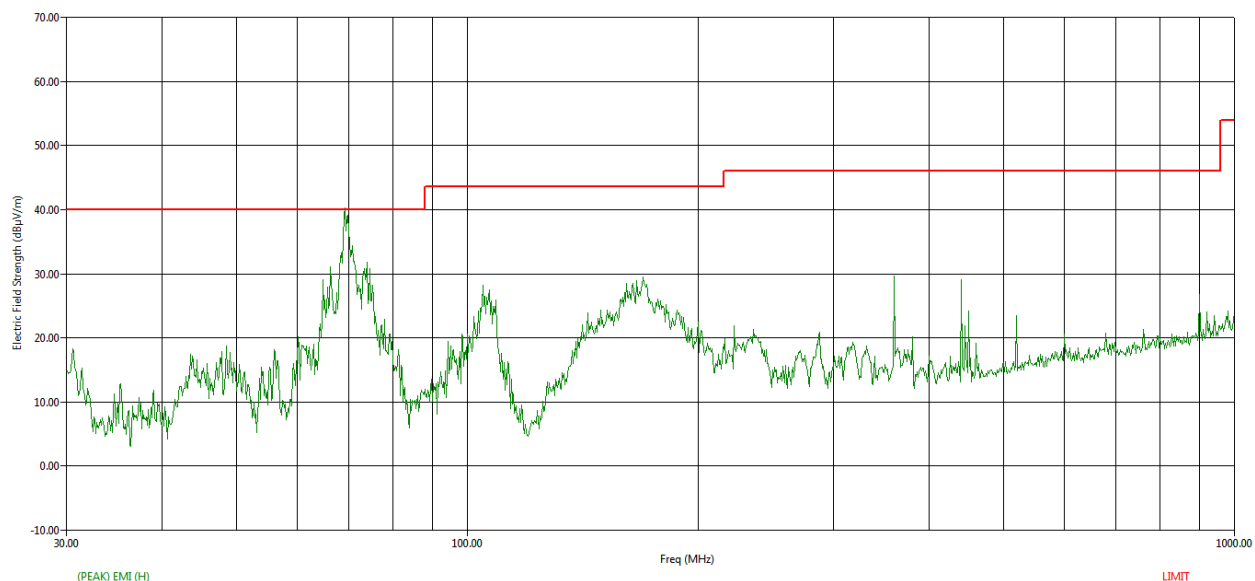


Figure 115: 5MHz, 6dBi, Low Channel: Peak RE Graph - 30MHz to 1GHz - Horizontal Polarization

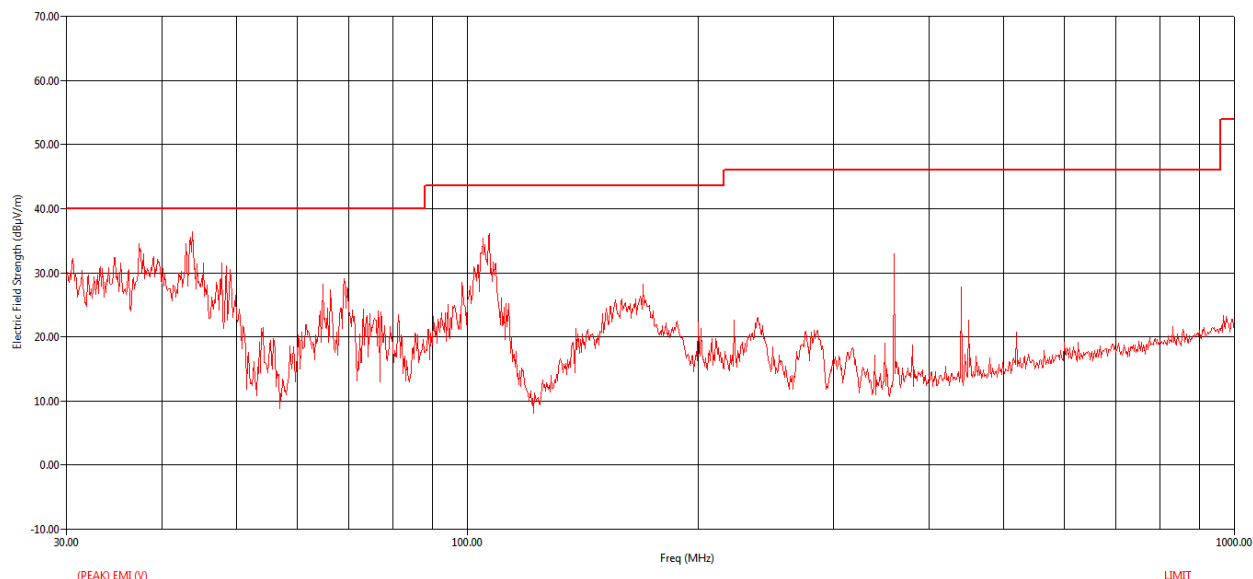


Figure 116: 5MHz, 6dBi, Low Channel: Peak RE Graph - 30MHz to 1GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|-------------------|------------|-----------------|-------------------|-------------------|----------------|------------------|
| 37.36 | 37.38 | V | 205.90 | 215.00 | 60.11 | 1.33 | 9.77 | 43.81 | 27.40 | 40.00 | -12.60 |
| 42.92 | 42.95 | V | 340.20 | 142.00 | 62.31 | 1.43 | 10.11 | 43.82 | 30.03 | 40.00 | -9.97 |
| 43.84 | 43.80 | V | 341.00 | 109.00 | 64.46 | 1.45 | 10.11 | 43.82 | 32.20 | 40.00 | -7.80 |
| 69.20 | 69.14 | H | 177.00 | 156.00 | 66.19 | 1.79 | 9.79 | 43.88 | 33.88 | 40.00 | -6.12 |
| 69.76 | 69.72 | H | 162.00 | 246.00 | 70.11 | 1.79 | 9.84 | 43.88 | 37.86 | 40.00 | -2.14 |
| 104.76 | 104.74 | V | 271.10 | 184.00 | 63.42 | 2.18 | 9.41 | 43.94 | 31.07 | 43.52 | -12.45 |
| 106.72 | 106.69 | V | 289.90 | 100.00 | 65.50 | 2.20 | 9.47 | 43.94 | 33.23 | 43.52 | -10.29 |

Table 64: 5MHz, 6dBi, Low Channel: Quasipeak table from 30 MHz to 1 GHz

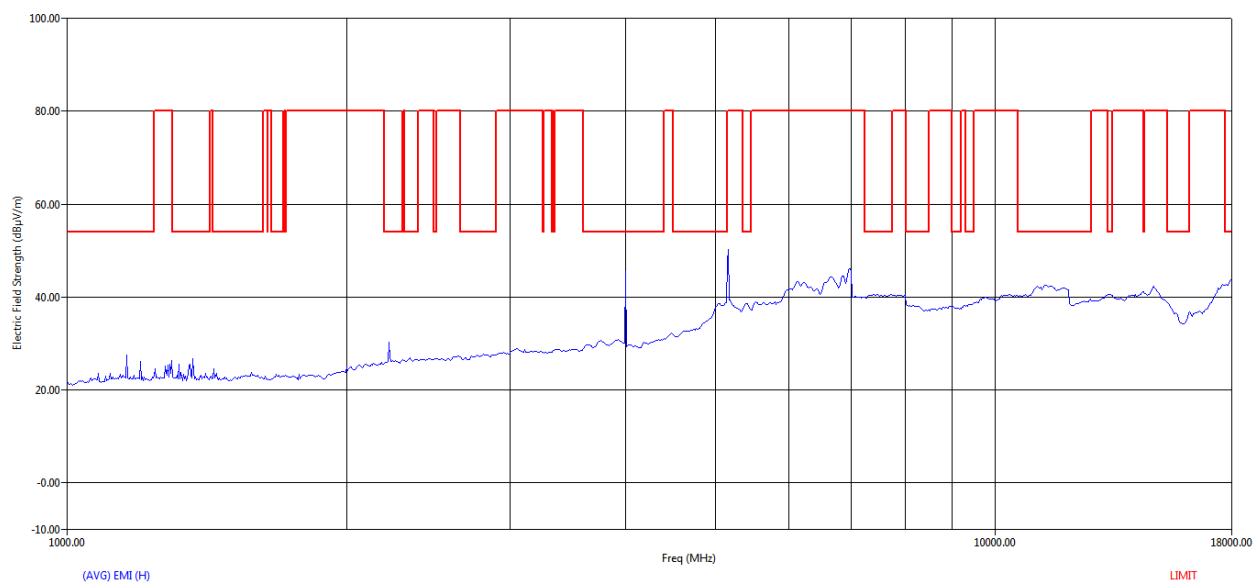


Figure 117: 5MHz, 6dBi, Low Channel: Average RE Graph - 1GHz to 18GHz - Horizontal Polarization

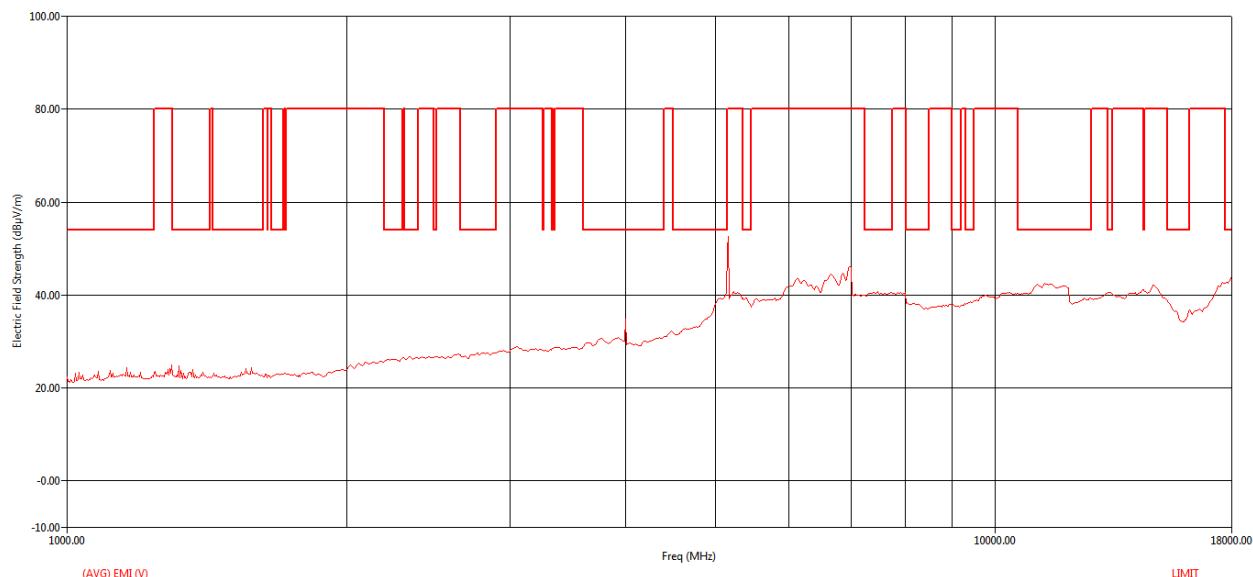


Figure 118: 5MHz, 6dBi, Low Channel: Average RE Graph - 1GHz to 18GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbl Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 3998.80 | 3998.80 | H | 179.90 | 102.00 | 40.93 | 3.32 | 30.20 | 30.30 | 44.14 | 53.98 | -9.84 |
| 6968.40 | 6968.40 | H | 179.90 | 126.00 | 34.10 | 4.20 | 35.83 | 28.30 | 45.84 | 80.00 | -34.16 |
| 6999.60 | 6999.60 | V | 168.10 | 112.00 | 33.68 | 4.21 | 35.88 | 28.30 | 45.47 | 80.00 | -34.53 |

Table 65: 5MHz, 6dBi, Low Channel: Average table from 1 GHz to 18 GHz

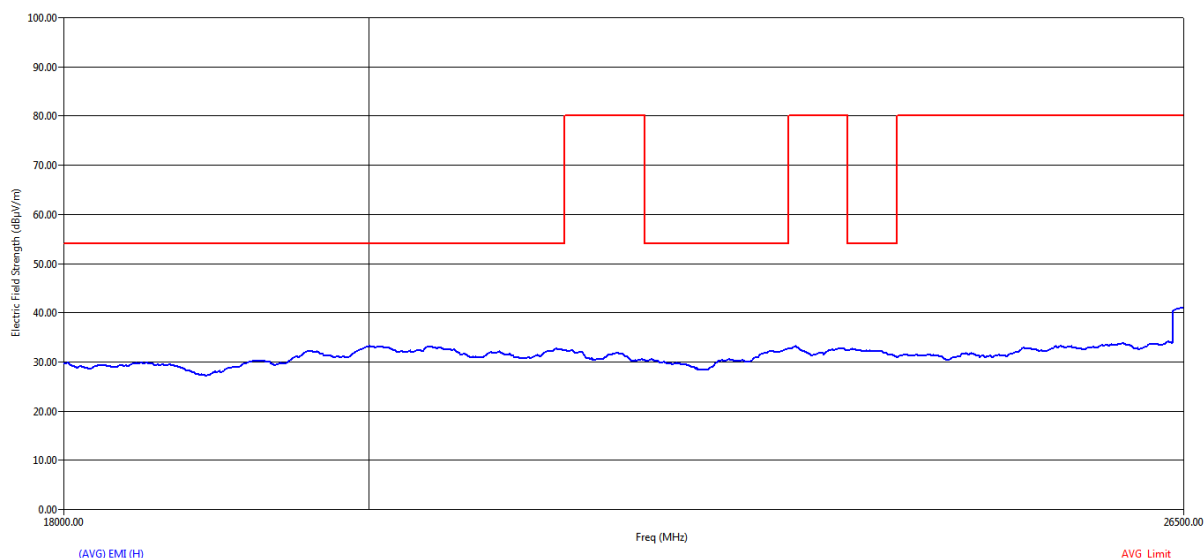


Figure 119: 5MHz, 6dBi, Low Channel: Average RE Graph - 18GHz to 26.5GHz - Horizontal Polarization

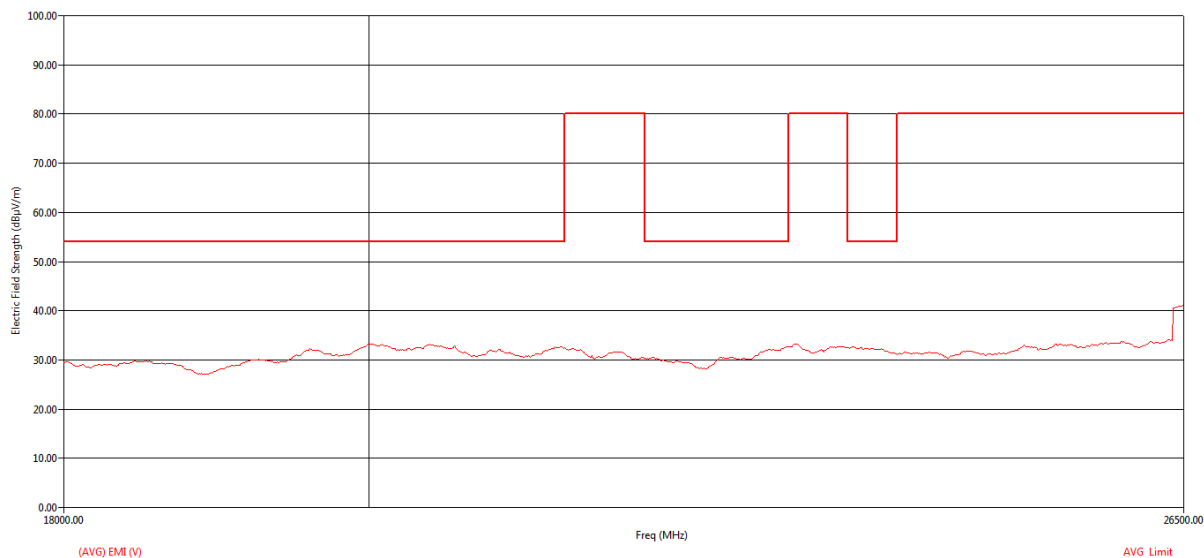


Figure 120: 5MHz, 6dBi, Low Channel: Average RE Graph - 18GHz to 26.5GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbi Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 18082.60 | 18703.96 | H | 149.40 | 150.00 | 33.73 | 6.89 | 36.38 | 47.85 | 29.15 | 53.98 | -24.83 |
| 20674.30 | 19653.01 | V | 327.10 | 116.00 | 32.71 | 6.90 | 36.55 | 44.26 | 31.90 | 53.98 | -22.08 |
| 21358.40 | 22199.47 | V | 328.10 | 149.00 | 32.30 | 6.71 | 36.82 | 46.49 | 29.34 | 53.98 | -24.64 |

Table 66: 5MHz, 6dBi, Low Channel: Average table from 18 GHz to 26.5 GHz

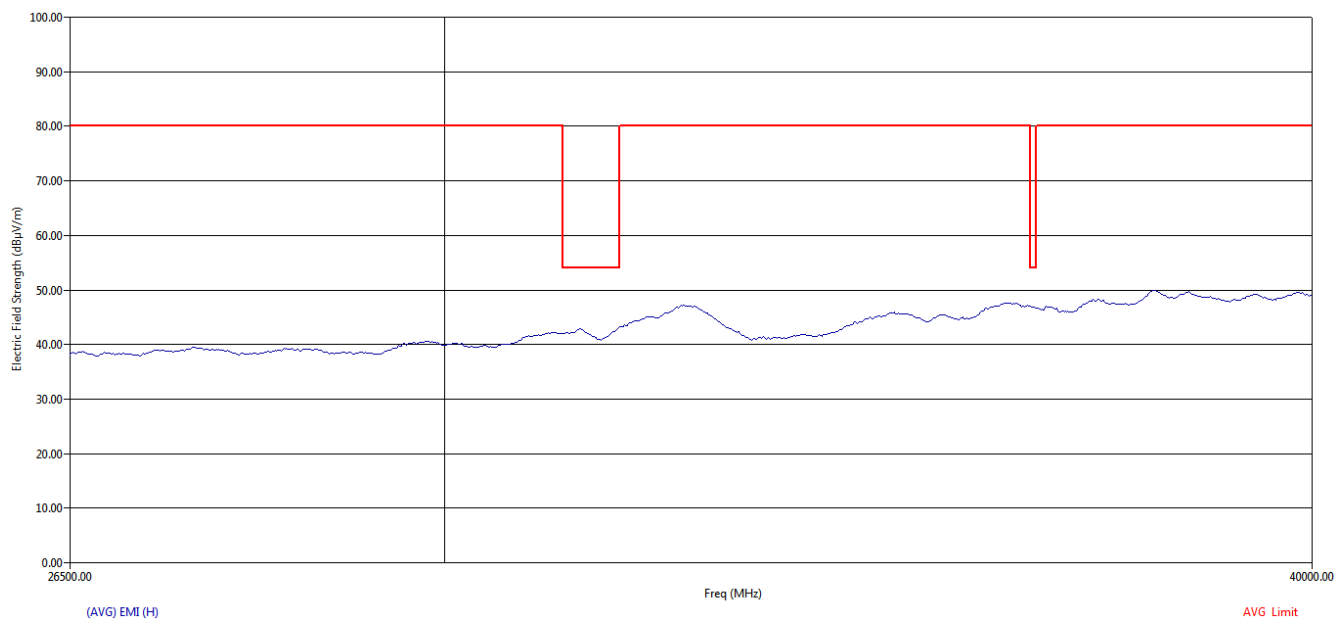


Figure 121: 5MHz, 6dBi, Low Channel: Average RE Graph - 26.5GHz to 40GHz - Horizontal Polarization

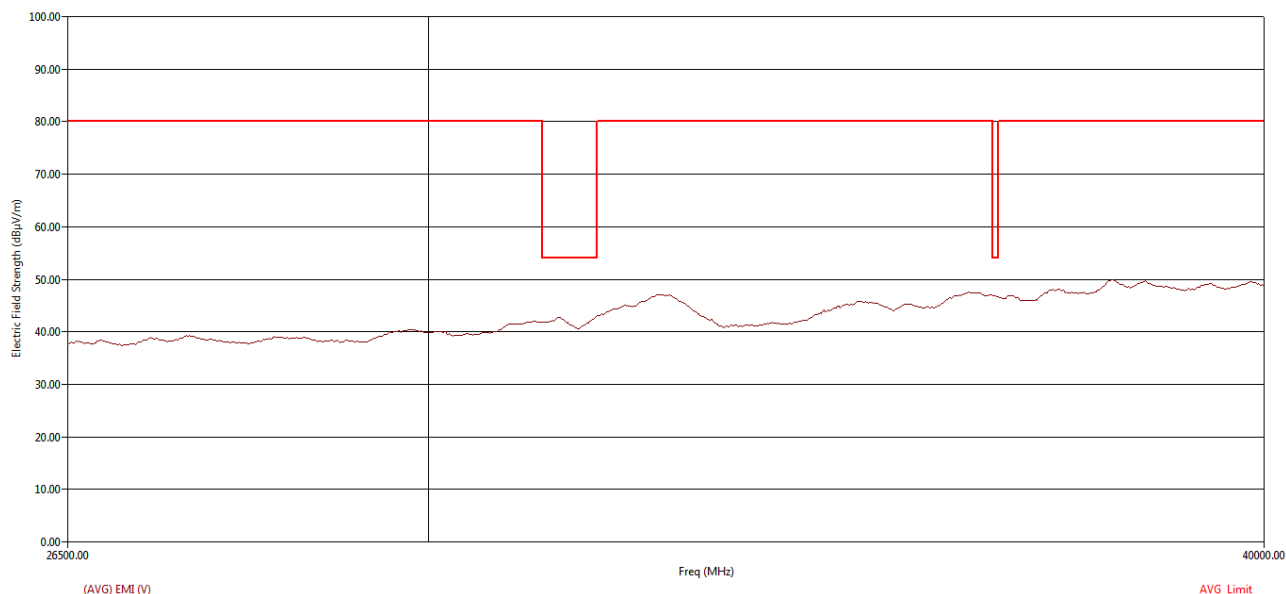


Figure 122: 5MHz, 6dBi, Low Channel: Average RE Graph - 26.5GHz to 40GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 32463.20 | 33455.31 | V | 261.10 | 100.00 | 42.14 | 10.66 | 39.37 | 51.27 | 40.90 | 80.00 | -39.10 |
| 37950.90 | 38068.78 | H | 179.90 | 100.00 | 42.29 | 12.29 | 40.87 | 46.61 | 48.83 | 80.00 | -31.17 |
| 38393.90 | 37958.01 | V | 215.20 | 100.00 | 43.11 | 12.32 | 40.75 | 46.50 | 49.67 | 80.00 | -30.33 |

Table 67: 5MHz, 6dBi, Low Channel: Average table from 26.5 GHz to 40 GHz

5.3.1.5.11 5 MHz MODULATION BANDWIDTH, 6 dBi ANTENNA, MID CHANNEL - 5200 MHz

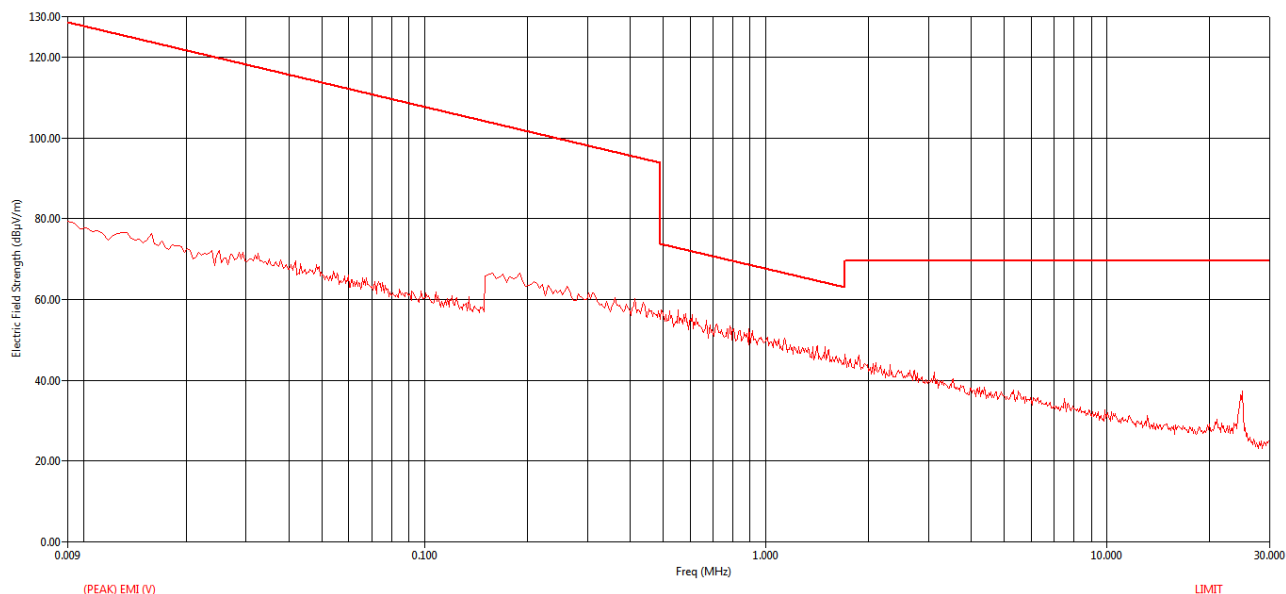


Figure 123: 5MHz, 6dBi, Mid Channel: Peak RE Graph - 9kHz to 30MHz - Parallel

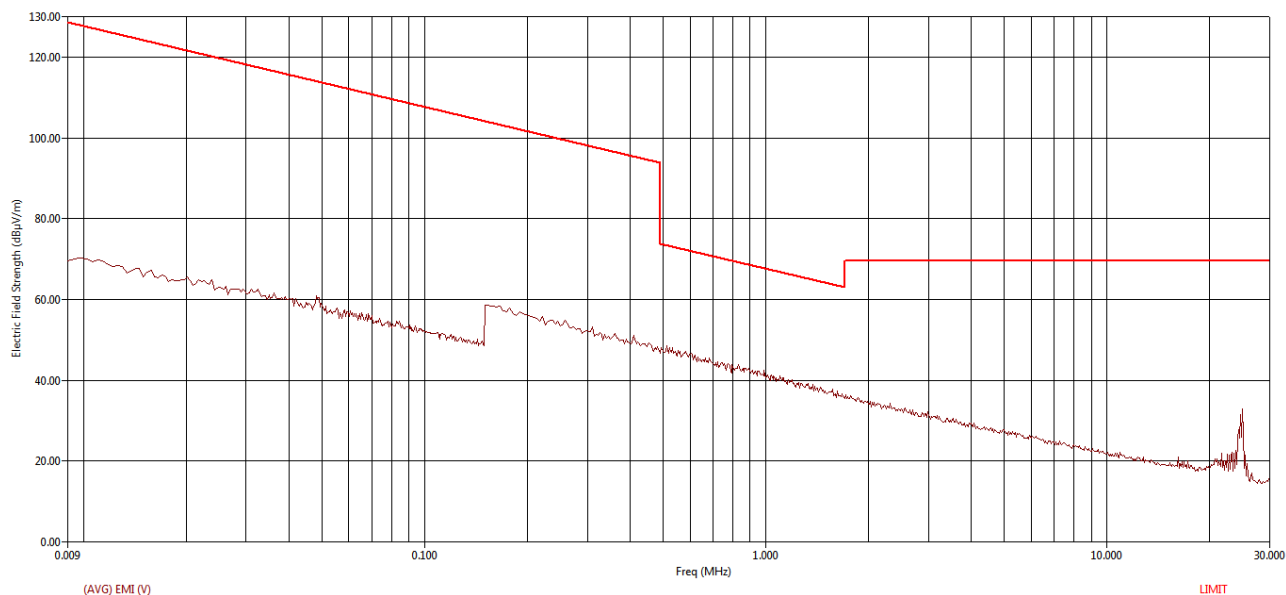


Figure 124: 5MHz, 6dBi, Mid Channel: Average RE Graph - 9kHz to 30MHz - Parallel

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbl Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 23.87 | 23.88 | 181.20 | 6.01 | 1.06 | 16.18 | 23.25 | 69.54 | -46.29 |
| 24.13 | 24.13 | 99.40 | 5.24 | 1.07 | 16.16 | 22.47 | 69.54 | -47.07 |

Table 68: 5MHz, 6dBi, Mid Channel: Quasipeak table from 9 kHz to 30 MHz

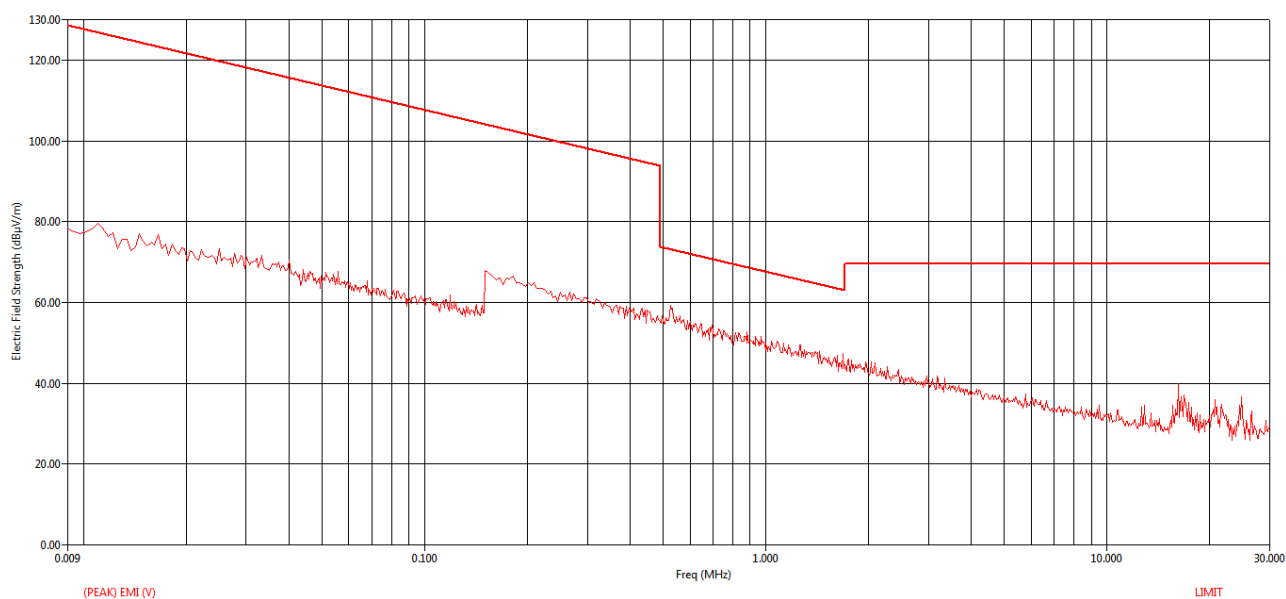


Figure 125: 5MHz, 6dBi, Mid Channel: Peak RE Graph - 9kHz to 30MHz - Perpendicular

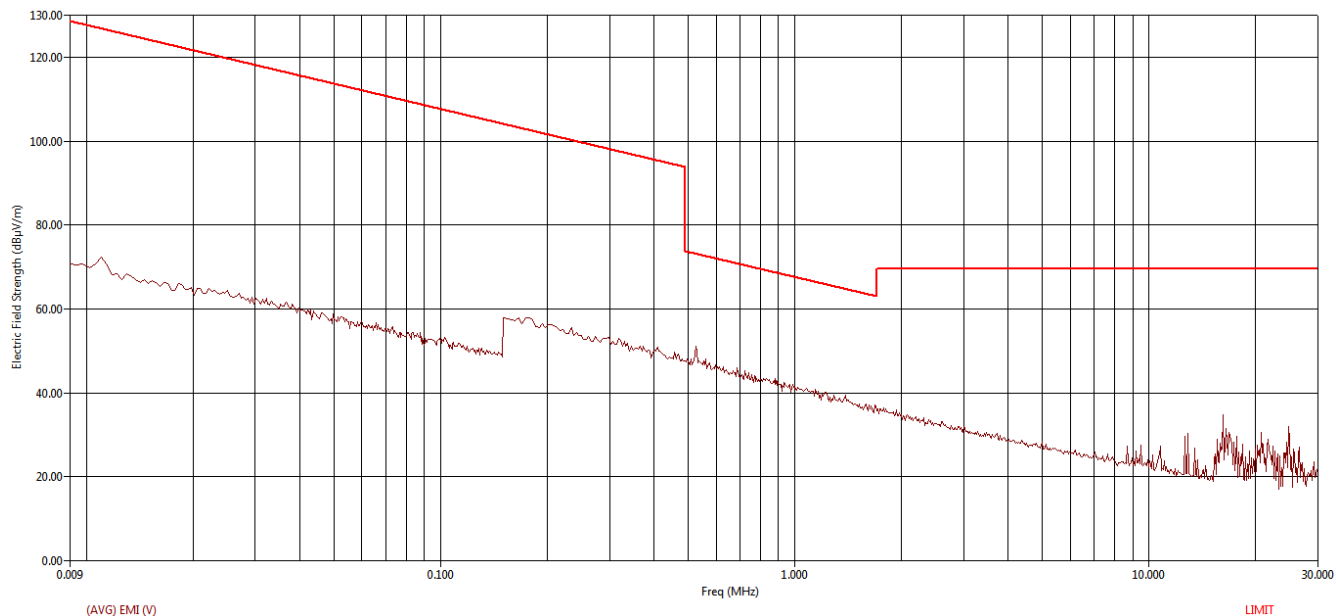


Figure 126: 5MHz, 6dBi, Mid Channel: Average RE Graph - 9kHz to 30MHz - Perpendicular

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbi Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 10.78 | 10.79 | 330.00 | 15.19 | 0.72 | 17.22 | 33.13 | 69.54 | -36.41 |
| 12.61 | 12.62 | 192.30 | 7.29 | 0.78 | 17.07 | 25.14 | 69.54 | -44.40 |
| 16.21 | 16.23 | 258.40 | 22.53 | 0.87 | 16.79 | 40.20 | 69.54 | -29.34 |
| 20.33 | 20.32 | 179.90 | 11.49 | 0.98 | 16.47 | 28.94 | 69.54 | -40.60 |
| 24.69 | 24.70 | 187.90 | 10.23 | 1.08 | 16.12 | 27.43 | 69.54 | -42.11 |

Table 69: 5MHz, 6dBi, Mid Channel: Quasipeak table from 9 kHz to 30 MHz

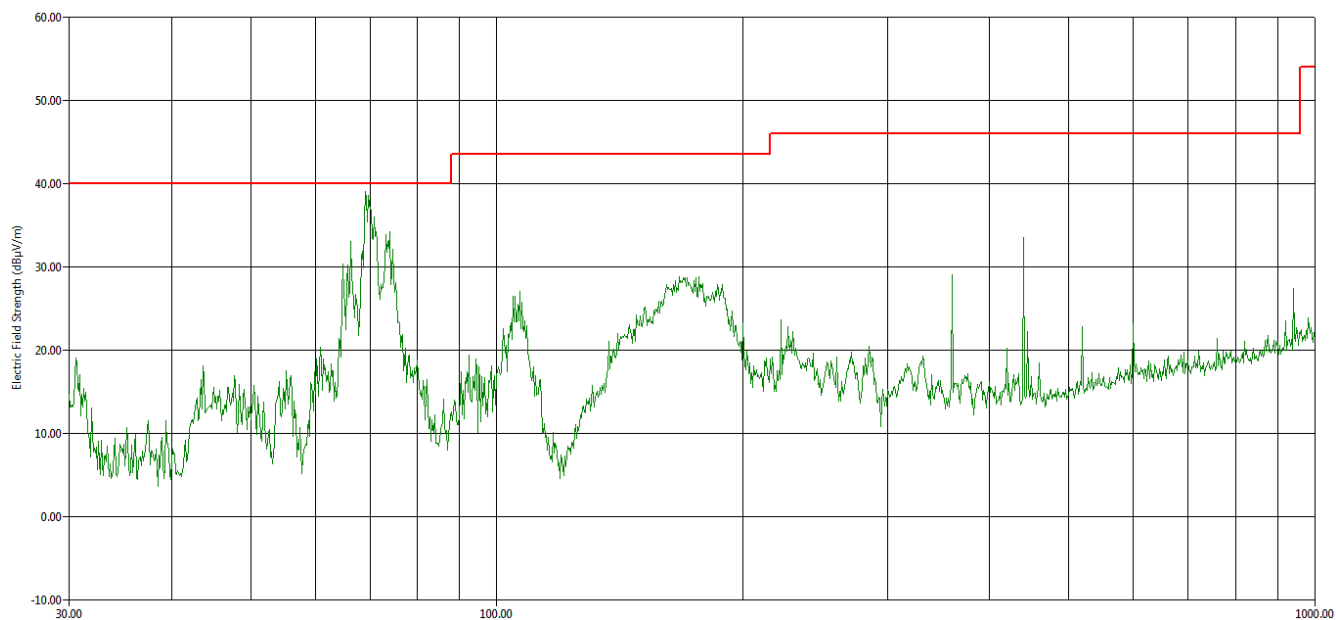


Figure 127: 5MHz, 6dBi, Mid Channel: Peak RE Graph - 30MHz to 1GHz - Horizontal Polarization

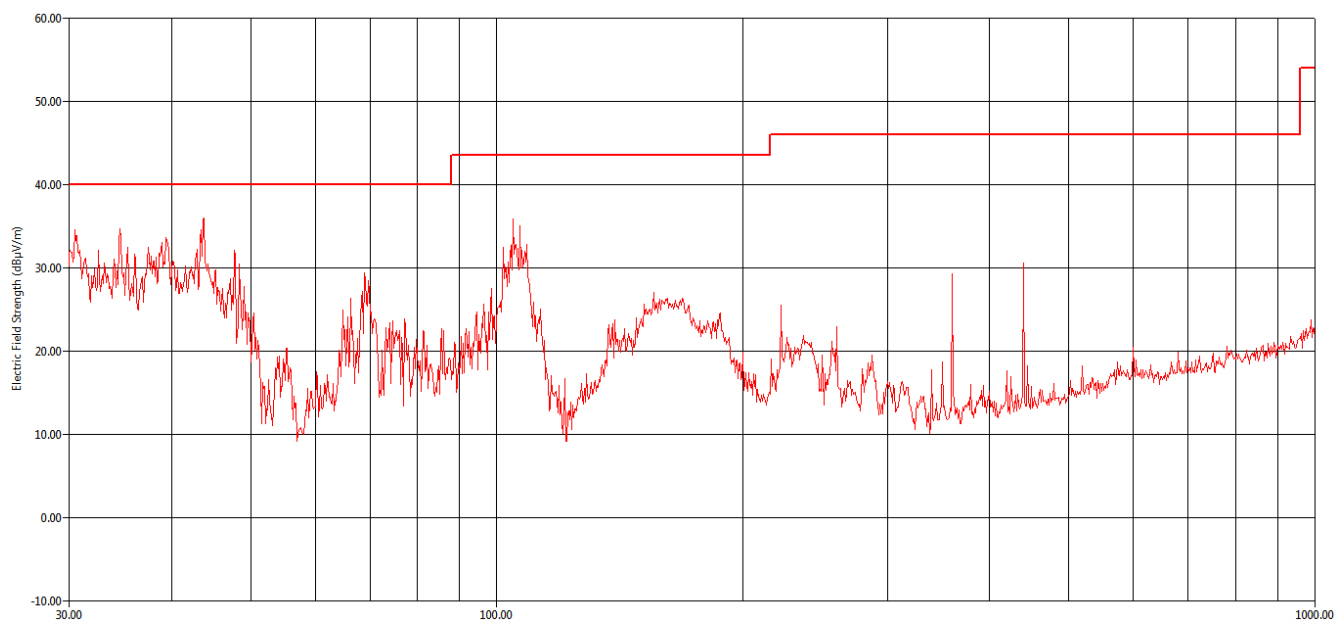


Figure 128: 5MHz, 6dBi, Mid Channel: Peak RE Graph - 30MHz to 1GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|-------------------|------------|-----------------|-------------|-------------------|----------------|------------------|
| 30.52 | 30.60 | V | 161.90 | 104.00 | 65.92 | 1.18 | 13.19 | 43.80 | 36.50 | 40.00 | -3.50 |
| 34.64 | 34.60 | V | 97.40 | 113.00 | 63.82 | 1.27 | 12.71 | 43.81 | 33.99 | 40.00 | -6.01 |
| 43.84 | 43.80 | V | 191.20 | 185.00 | 57.90 | 1.45 | 10.77 | 43.82 | 26.30 | 40.00 | -13.70 |
| 69.12 | 69.14 | H | 162.00 | 235.00 | 66.91 | 1.79 | 9.39 | 43.88 | 34.21 | 40.00 | -5.79 |
| 69.68 | 69.72 | H | 162.00 | 245.00 | 69.84 | 1.79 | 9.38 | 43.88 | 37.12 | 40.00 | -2.88 |
| 70.20 | 70.20 | H | 319.20 | 227.00 | 65.72 | 1.80 | 9.37 | 43.88 | 33.00 | 40.00 | -7.00 |
| 104.76 | 104.76 | V | 271.10 | 100.00 | 66.39 | 2.18 | 9.83 | 43.94 | 34.46 | 43.52 | -9.06 |

Table 70: 5MHz, 6dBi, Mid Channel: Quasipeak table from 30 MHz to 1 GHz

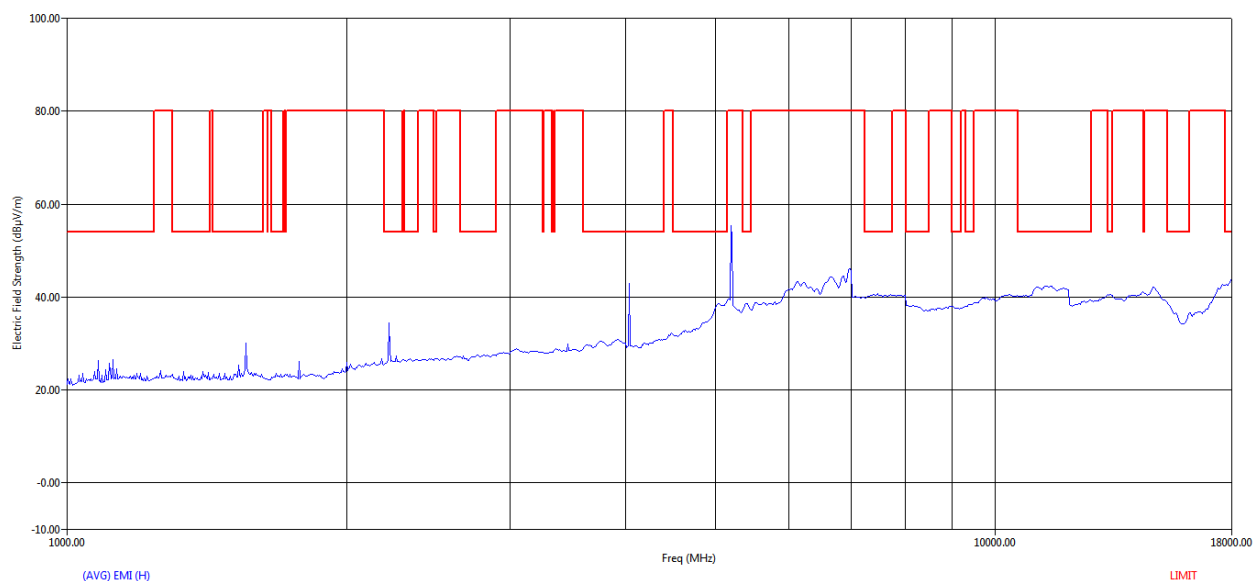


Figure 129: 5MHz, 6dBi, Mid Channel: Average RE Graph - 1GHz to 18GHz - Horizontal Polarization

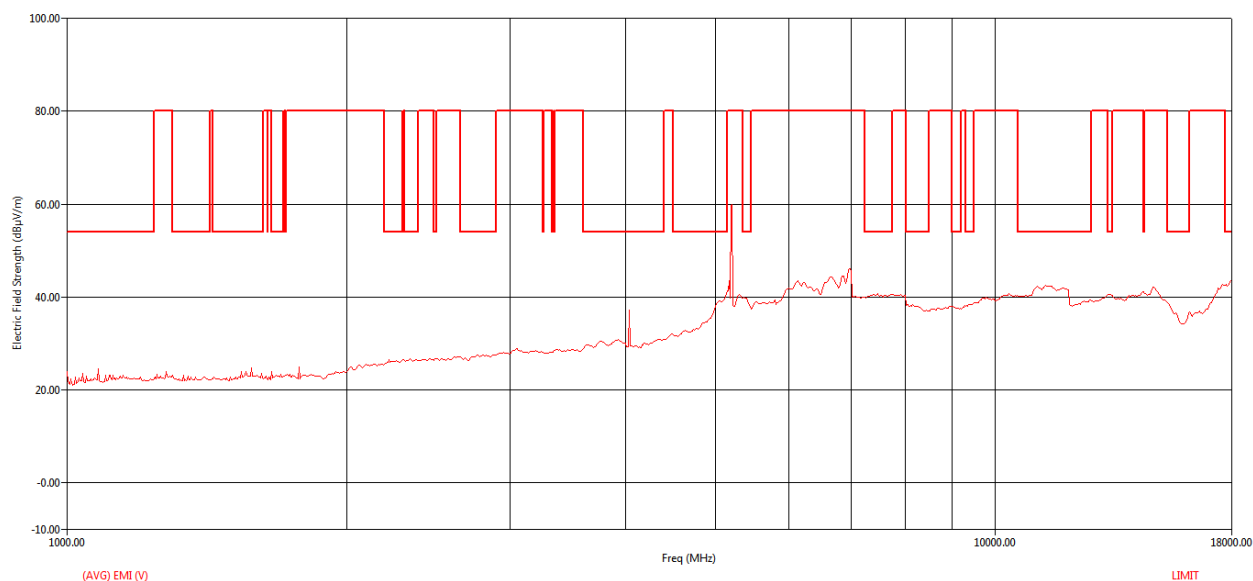


Figure 130: 5MHz, 6dBi, Mid Channel: Average RE Graph - 1GHz to 18GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 4539.20 | 4539.20 | H | 180.10 | 185.00 | 26.03 | 3.50 | 31.07 | 29.17 | 31.44 | 53.98 | -22.54 |
| 5171.50 | 5171.50 | V | 291.60 | 100.00 | 34.23 | 3.80 | 32.92 | 28.32 | 42.64 | 80.00 | -37.36 |
| 5360.60 | 5360.60 | V | 294.50 | 100.00 | 30.52 | 3.84 | 32.88 | 28.34 | 38.89 | 53.98 | -15.09 |

Table 71: 5MHz, 6dBi, Mid Channel: Average table from 1 GHz to 18 GHz

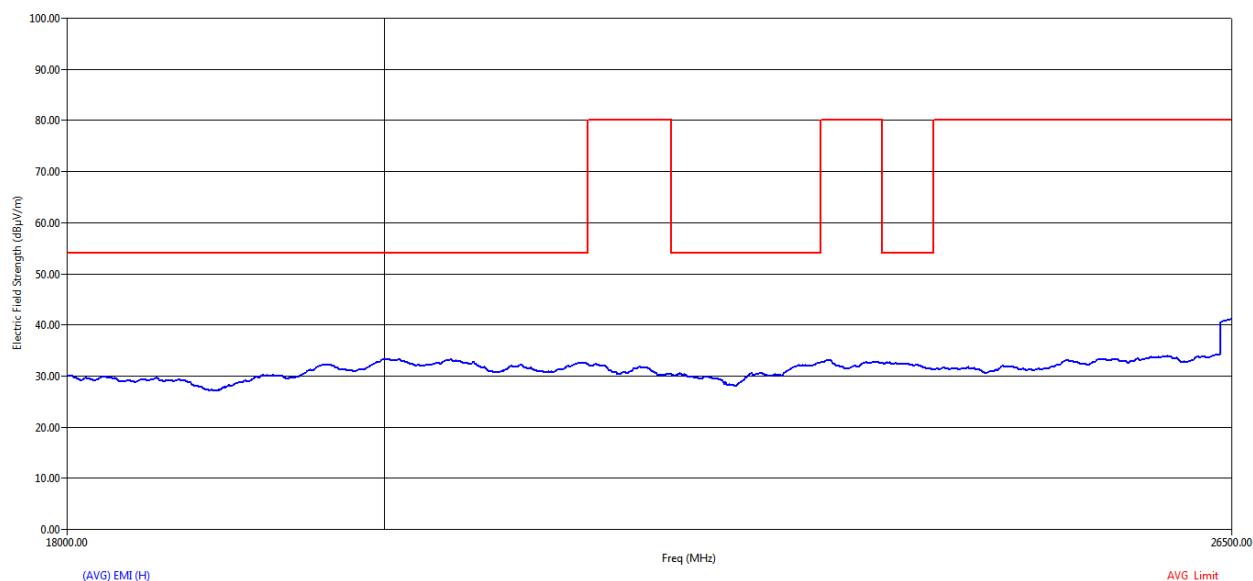


Figure 131: 5MHz, 6dBi, Mid Channel: Average RE Graph - 18GHz to 26.5GHz - Horizontal Polarization

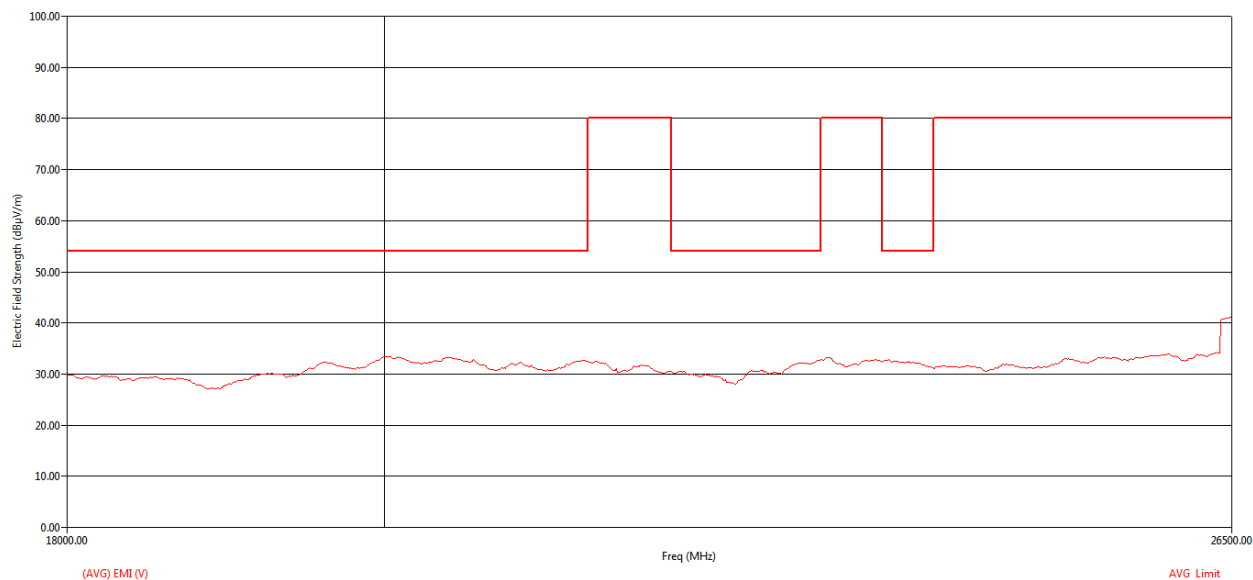


Figure 132: 5MHz, 6dBi, Mid Channel: Average RE Graph - 18GHz to 26.5GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 18027.50 | 18619.87 | H | 234.10 | 143.00 | 33.00 | 6.99 | 36.35 | 46.98 | 29.36 | 53.98 | -24.62 |
| 20019.10 | 19656.03 | V | 234.90 | 150.00 | 32.79 | 6.90 | 36.55 | 44.26 | 31.97 | 53.98 | -22.01 |
| 23124.40 | 23094.28 | V | 234.90 | 100.00 | 33.32 | 8.21 | 37.75 | 46.85 | 32.42 | 80.00 | -47.58 |

Table 72: 5MHz, 6dBi, Mid Channel: Average table from 18 GHz to 26.5 GHz

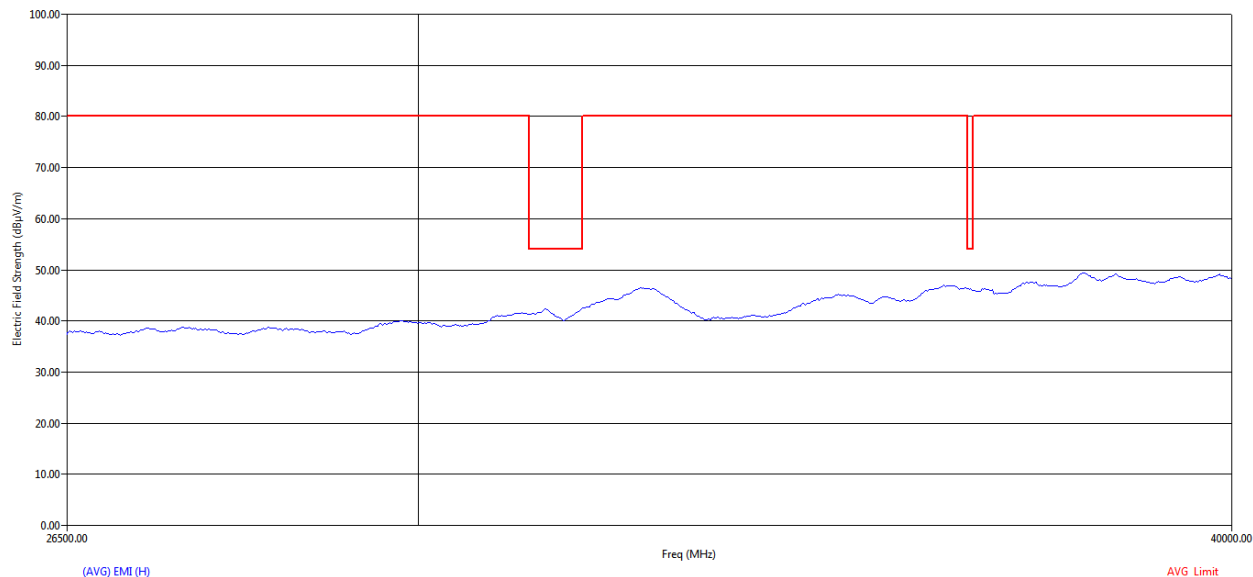


Figure 133: 5MHz, 6dBi, Mid Channel: Average RE Graph - 26.5GHz to 40GHz - Horizontal Polarization

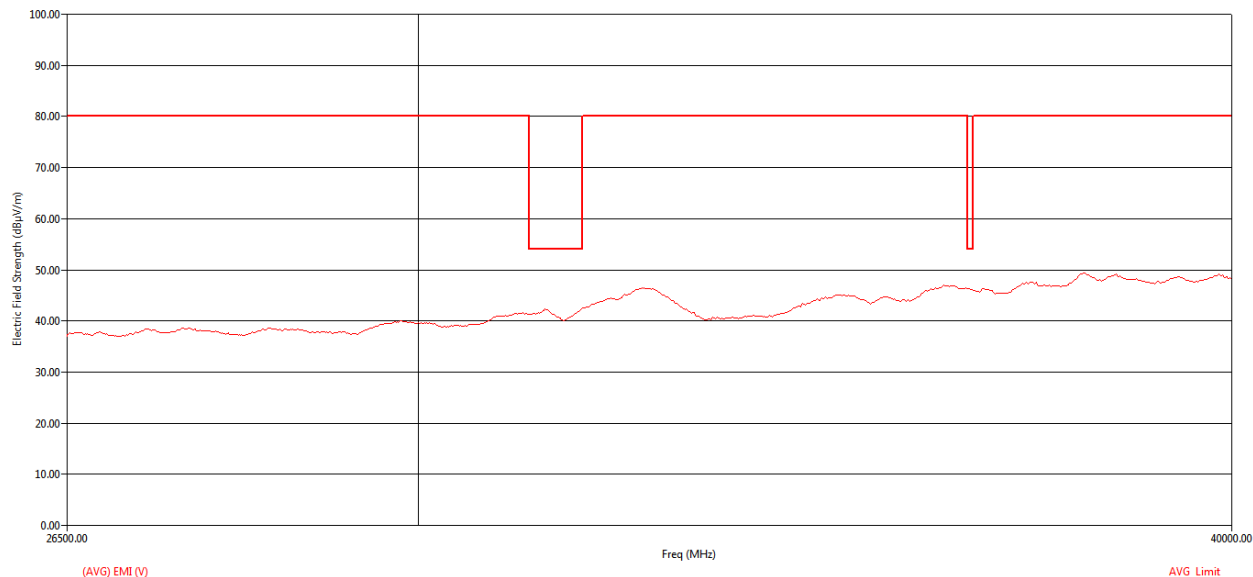


Figure 134: 5MHz, 6dBi, Mid Channel: Average RE Graph - 26.5GHz to 40GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 32536.40 | 32536.40 | H | 33.30 | 106.00 | 41.06 | 10.73 | 38.92 | 44.53 | 46.18 | 80.00 | -33.82 |
| 39393.00 | 39393.00 | V | 180.00 | 171.00 | 40.23 | 12.96 | 41.71 | 47.12 | 47.79 | 80.00 | -32.21 |

Table 73: 5MHz, 6dBi, Mid Channel: Average table from 26.5 GHz to 40 GHz

5.3.1.5.12 5 MHz MODULATION BANDWIDTH, 6 dBi ANTENNA, HIGH CHANNEL - 5245 MHz

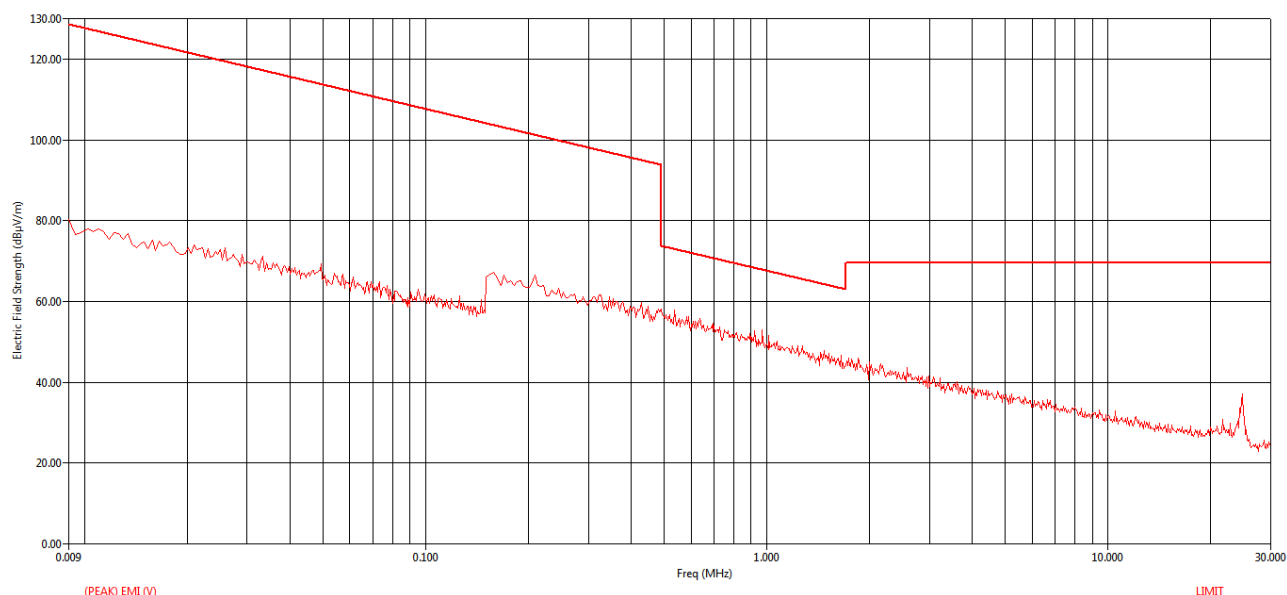


Figure 135: 5MHz, 6dBi, High Channel: Peak RE Graph - 9kHz to 30MHz - Parallel

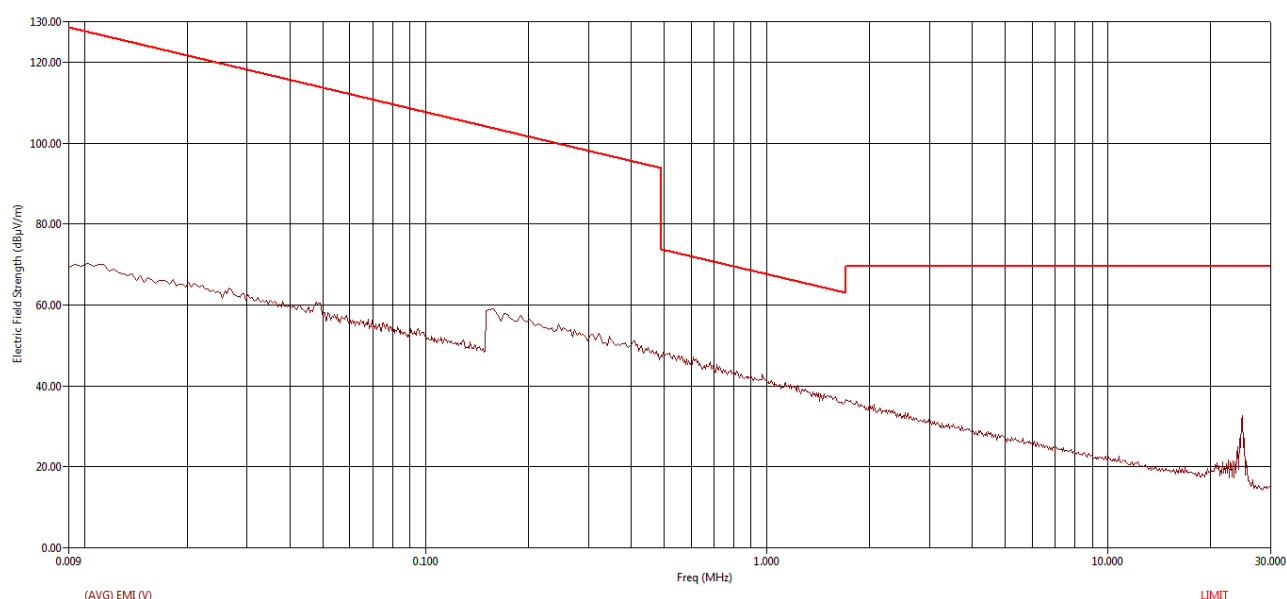


Figure 136: 5MHz, 6dBi, High Channel: Average RE Graph - 9kHz to 30MHz - Parallel

| Freq (MHz) | Freq (Max) (MHz) | EUT TtBl Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 24.60 | 24.59 | 202.10 | 13.62 | 1.07 | 16.13 | 30.82 | 69.54 | -38.72 |
| 24.72 | 24.72 | 189.90 | 17.73 | 1.08 | 16.12 | 34.93 | 69.54 | -34.61 |
| 24.86 | 24.84 | 185.00 | 17.44 | 1.08 | 16.11 | 34.63 | 69.54 | -34.91 |

Table 74: 5MHz, 6dBi, High Channel: Quasipeak table from 9 kHz to 30 MHz

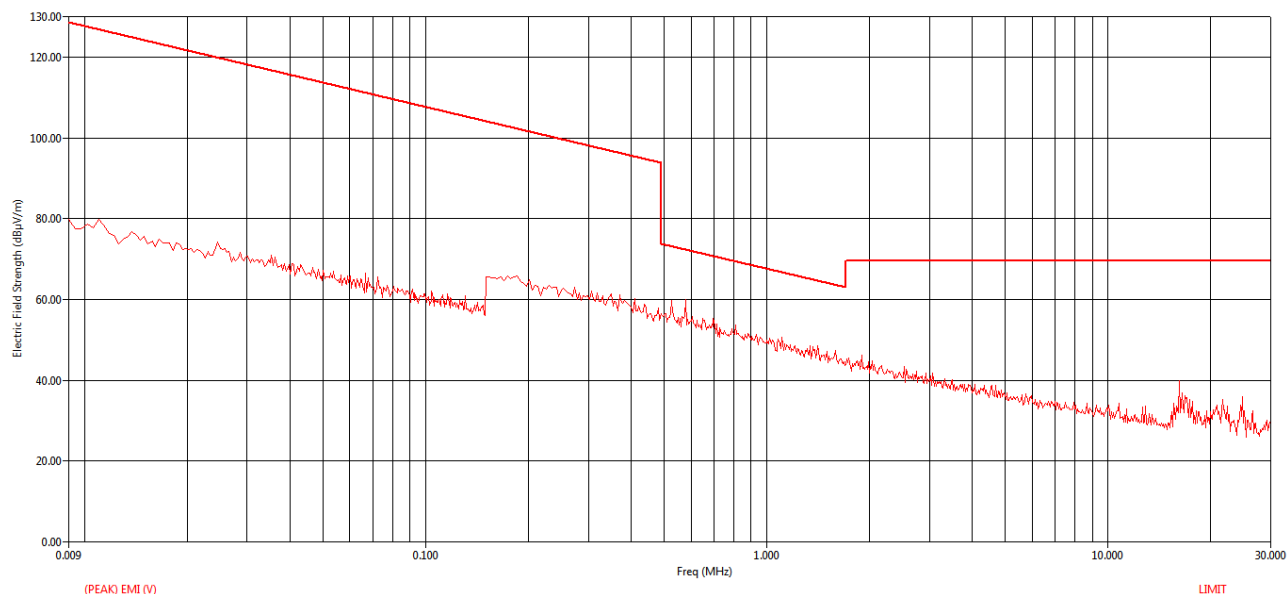


Figure 137: 5MHz, 6dBi, High Channel: Peak RE Graph - 9kHz to 30MHz - Perpendicular

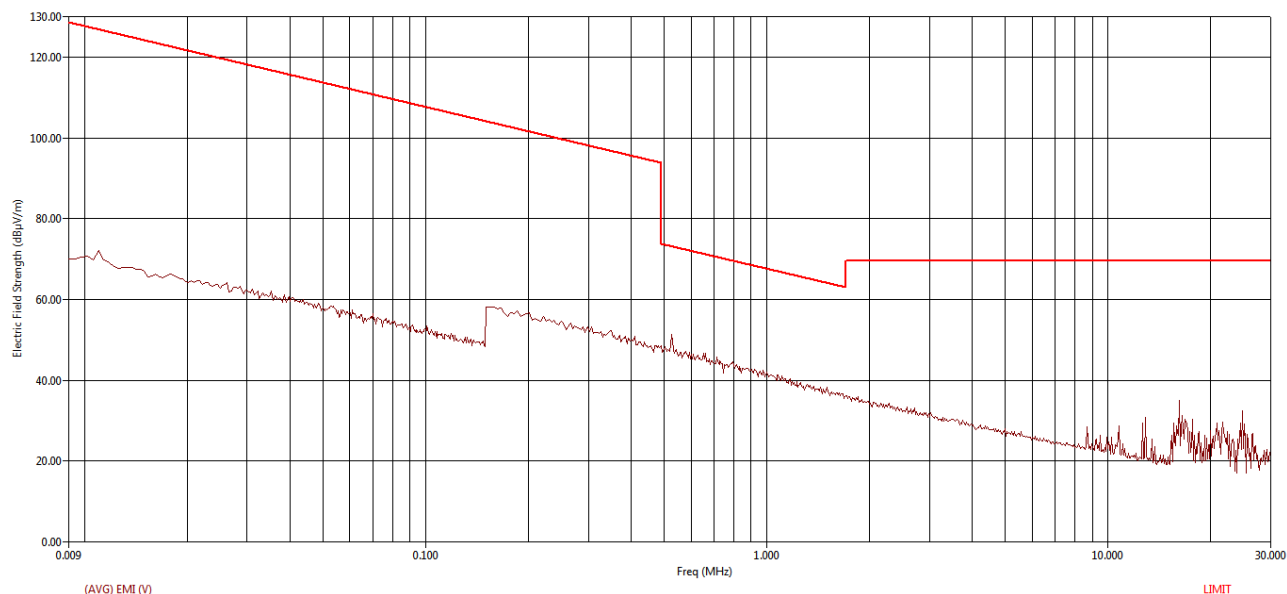


Figure 138: 5MHz, 6dBi, High Channel: Average RE Graph - 9kHz to 30MHz - Perpendicular

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbi Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 16.21 | 16.23 | 248.10 | 22.39 | 0.87 | 16.79 | 40.05 | 69.54 | -29.49 |
| 20.33 | 20.32 | 322.10 | 11.41 | 0.98 | 16.47 | 28.86 | 69.54 | -40.68 |
| 24.69 | 24.69 | 184.30 | 10.20 | 1.08 | 16.12 | 27.40 | 69.54 | -42.14 |

Table 75: 5MHz, 6dBi, High Channel: Quasipeak table from 9 kHz to 30 MHz

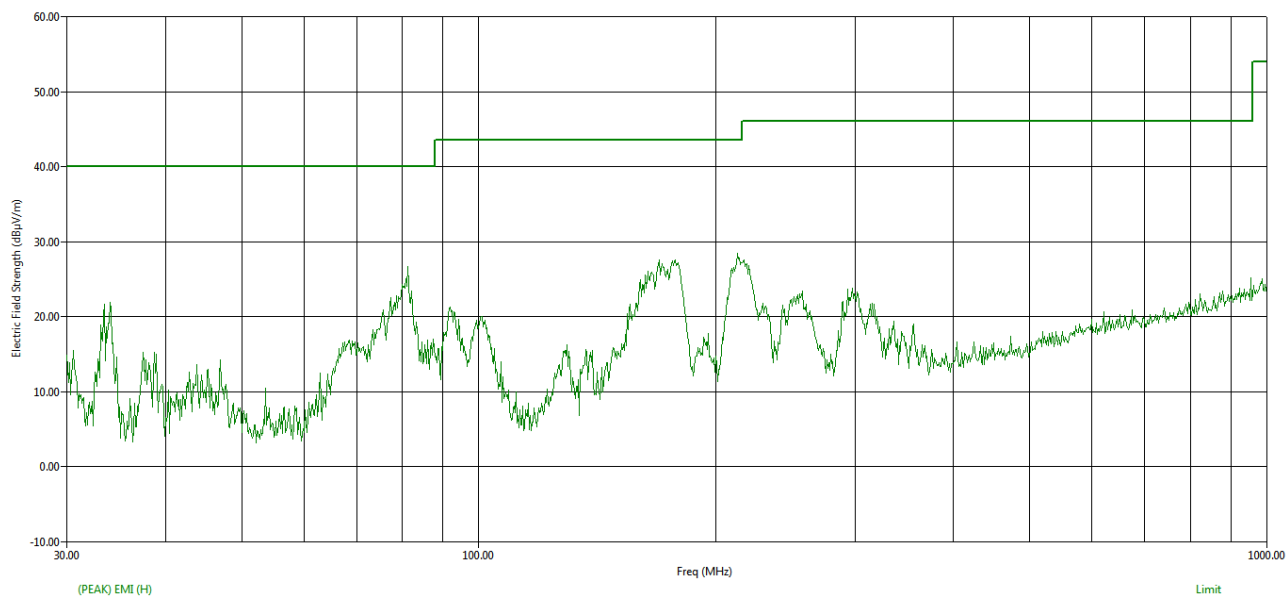


Figure 139: 5MHz, 6dBi, High Channel: Peak RE Graph - 30MHz to 1GHz - Horizontal Polarization

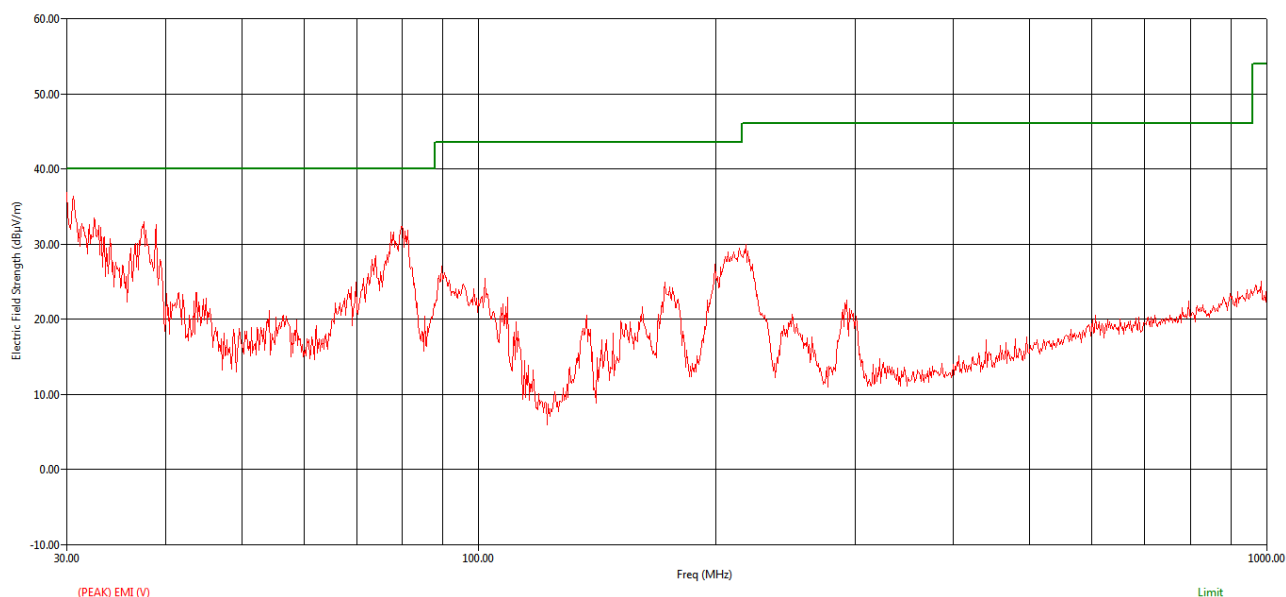


Figure 140: 5MHz, 6dBi, High Channel: Peak RE Graph - 30MHz to 1GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|-------------------|------------|-----------------|-------------|-------------------|----------------|------------------|
| 30.00 | 30.01 | V | 133.60 | 100.00 | 64.46 | 1.17 | 11.50 | 43.80 | 33.33 | 40.00 | -6.67 |
| 37.56 | 37.67 | V | 123.70 | 264.00 | 44.25 | 1.34 | 9.96 | 43.81 | 11.73 | 40.00 | -28.27 |
| 38.92 | 39.04 | V | 162.00 | 137.00 | 54.71 | 1.36 | 9.61 | 43.81 | 21.86 | 40.00 | -18.14 |
| 212.72 | 212.80 | H | 190.60 | 134.00 | 52.05 | 3.07 | 12.92 | 43.94 | 24.10 | 43.52 | -19.42 |
| 214.04 | 214.00 | H | 245.30 | 184.00 | 57.78 | 3.08 | 12.87 | 43.93 | 29.80 | 43.52 | -13.72 |
| 217.00 | 216.89 | H | 239.60 | 192.00 | 55.59 | 3.10 | 12.76 | 43.93 | 27.51 | 46.02 | -18.51 |

Table 76: 5MHz, 6dBi, High Channel: Quasipeak table from 30 MHz to 1 GHz

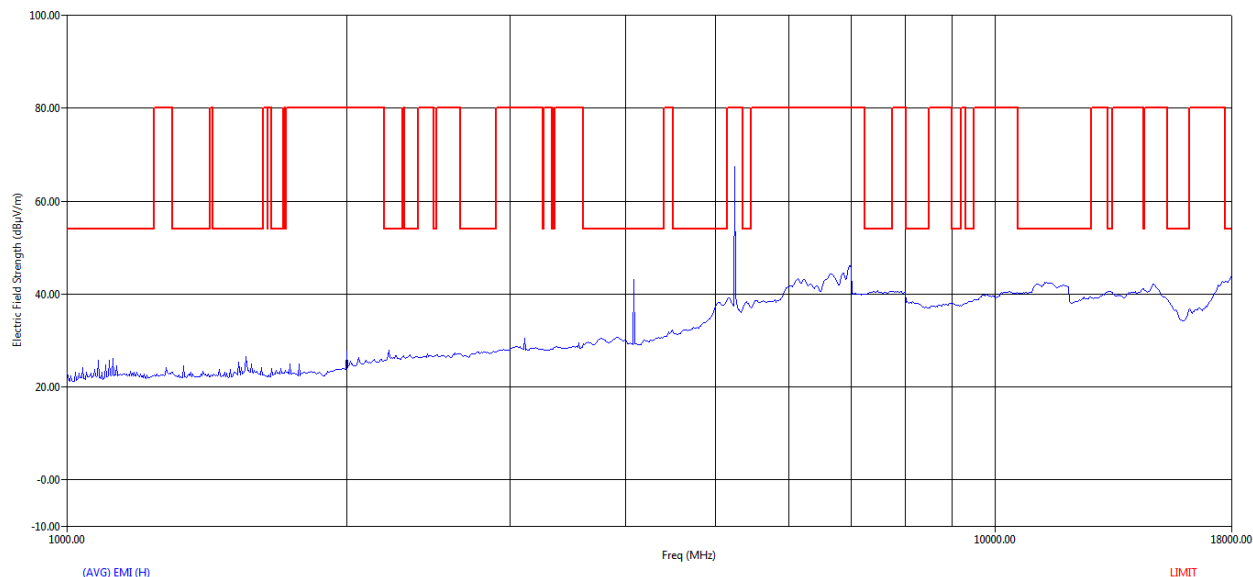


Figure 141: 5MHz, 6dBi, High Channel: Average RE Graph - 1GHz to 18GHz - Horizontal Polarization

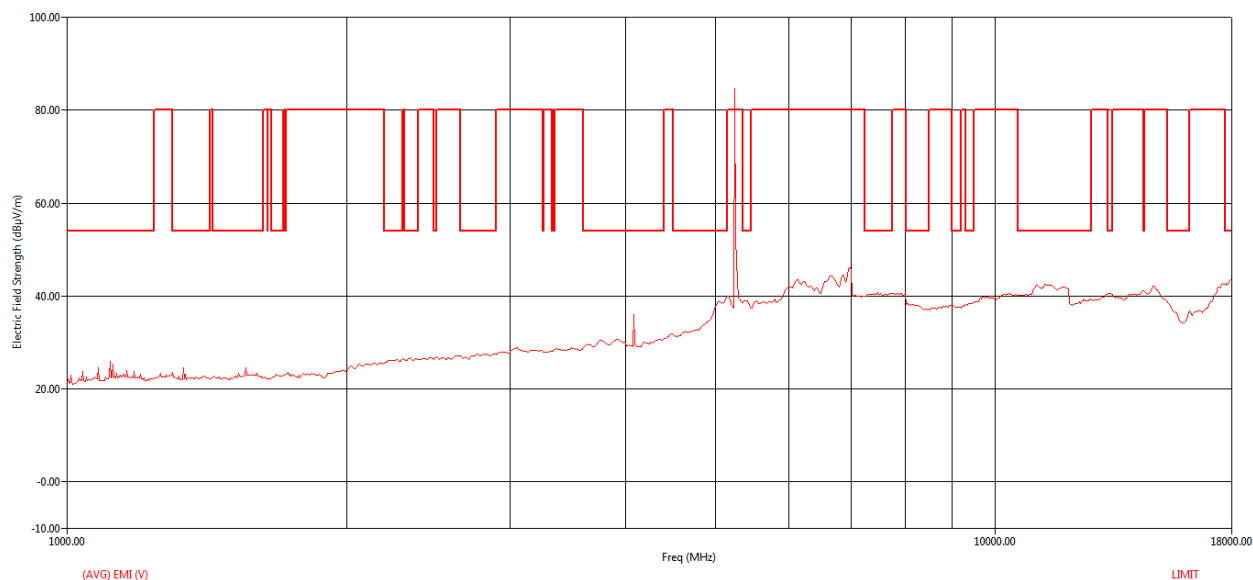


Figure 142: 5MHz, 6dBi, High Channel: Average RE Graph - 1GHz to 18GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbi Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 4084.01 | 4084.01 | H | 180.10 | 103.00 | 35.67 | 3.35 | 30.32 | 30.11 | 39.23 | 53.98 | -14.75 |
| 5127.67 | 5127.67 | V | 314.60 | 100.00 | 30.93 | 3.79 | 32.93 | 28.31 | 39.34 | 53.98 | -14.64 |
| 5266.79 | 5266.79 | V | 79.10 | 100.00 | 41.49 | 3.82 | 32.90 | 28.33 | 49.88 | 80.00 | -30.12 |

Table 77: 5MHz, 6dBi, High Channel: Average table from 1 GHz to 18 GHz

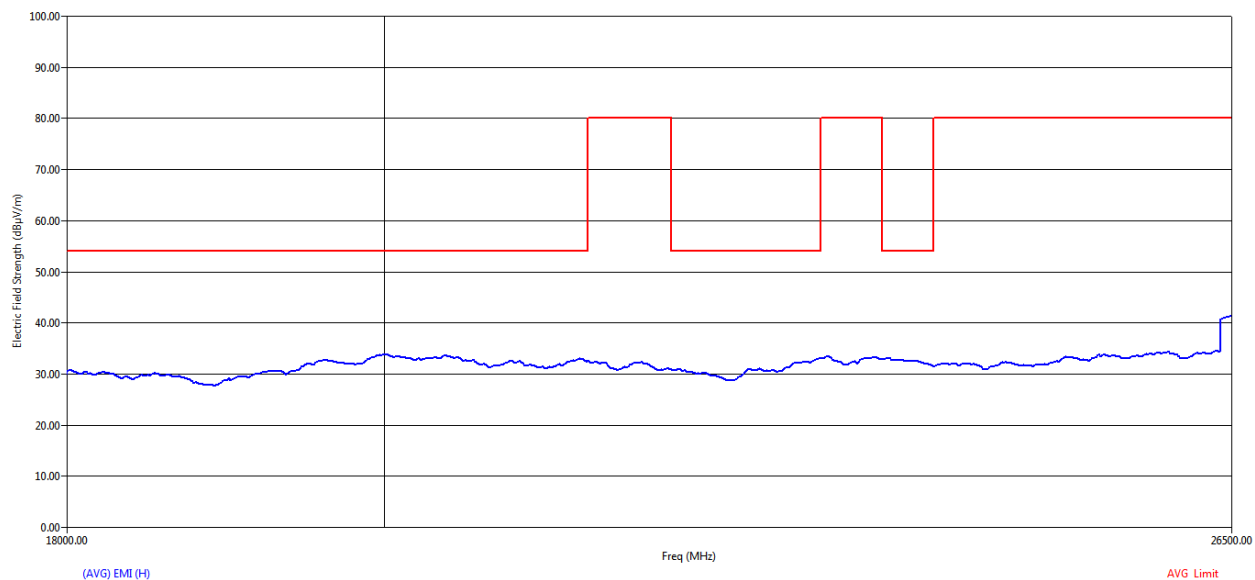


Figure 143: 5MHz, 6dBi, High Channel: Average RE Graph - 18GHz to 26.5GHz - Horizontal Polarization

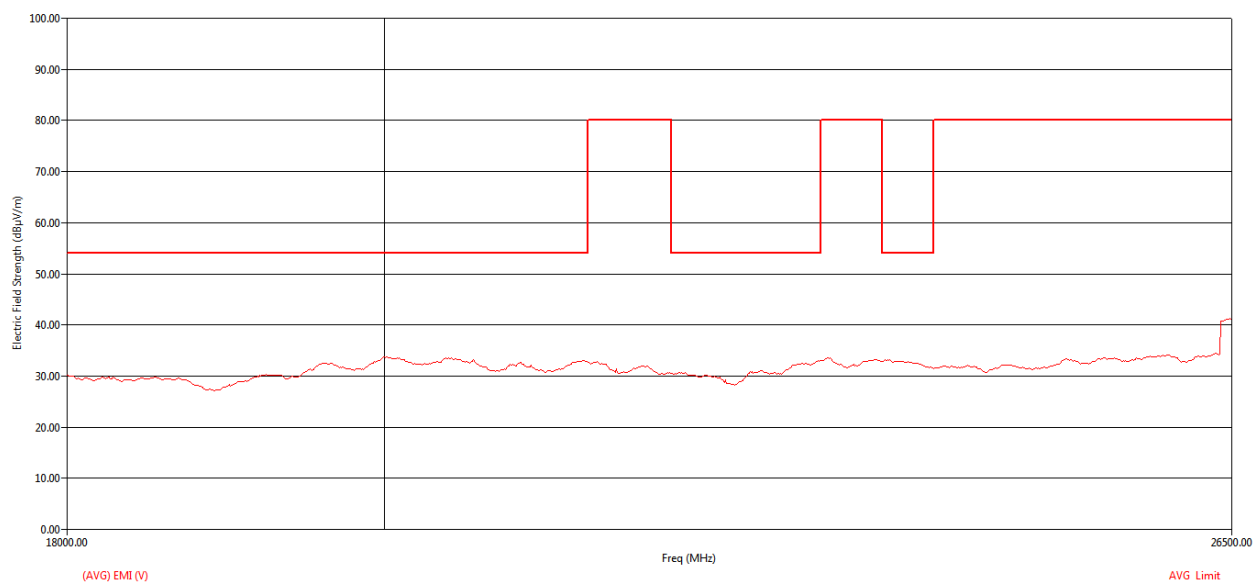


Figure 144: 5MHz, 6dBi, High Channel: Average RE Graph - 18GHz to 26.5GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agt (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preampl (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|--------------|--------------------|----------------|-------------------|
| 18082.60 | 18013.84 | H | 280.60 | 120.00 | 33.45 | 6.89 | 37.14 | 48.09 | 29.39 | 53.98 | -24.59 |
| 20674.30 | 21376.56 | V | 345.60 | 134.00 | 32.38 | 7.81 | 37.58 | 45.16 | 32.60 | 53.98 | -21.38 |
| 21358.40 | 21249.25 | V | 9.30 | 125.00 | 31.98 | 7.61 | 37.48 | 45.51 | 31.57 | 53.98 | -22.41 |

Table 78: 5MHz, 6dBi, High Channel: Average table form 18 GHz to 26.5 GHz

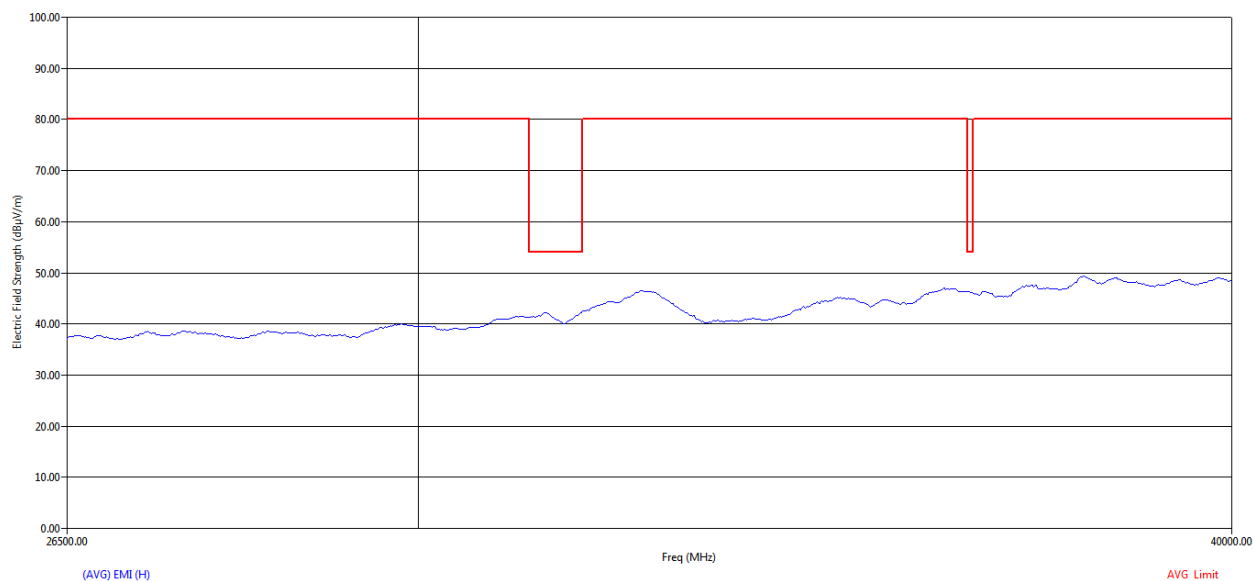


Figure 145: 5MHz, 6dBi, High Channel: Average RE Graph - 26.5GHz to 40GHz - Horizontal Polarization

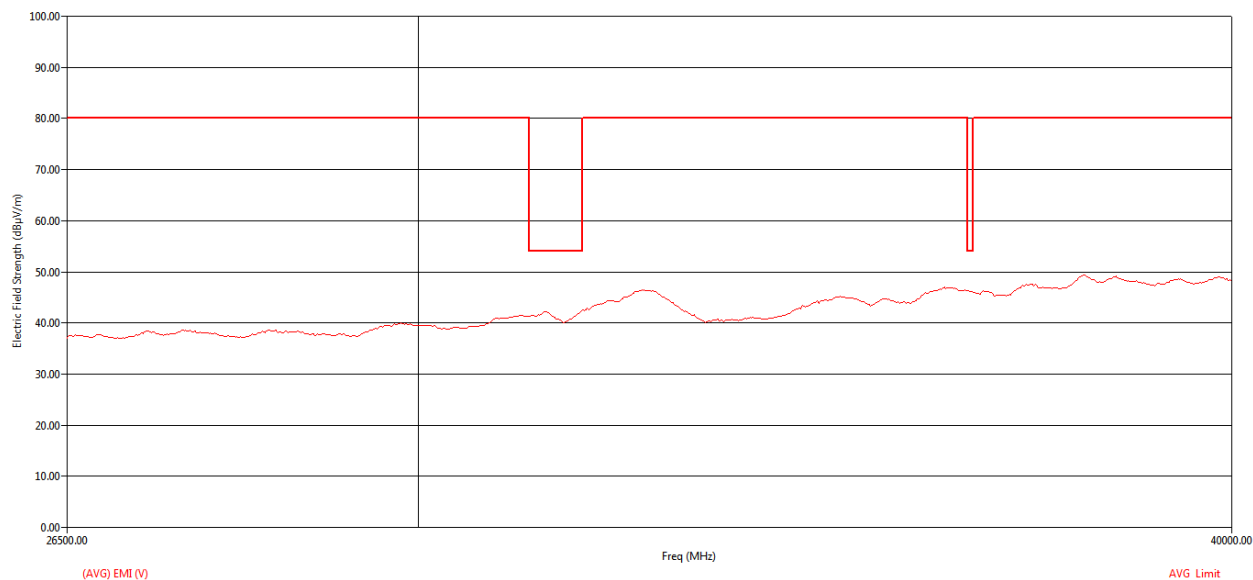


Figure 146: 5MHz, 6dBi, High Channel: Average RE Graph - 26.5GHz to 40GHz - Vertical Polarization

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 32393.00 | 32393.00 | V | 216.60 | 126.00 | 41.16 | 10.59 | 38.90 | 44.82 | 45.82 | 80.00 | -34.18 |
| 32609.00 | 32609.00 | H | 173.80 | 165.00 | 40.98 | 10.64 | 38.95 | 44.49 | 46.08 | 80.00 | -33.92 |

Table 79: 5MHz, 6dBi, High Channel: Average table from 26.5 GHz to 40 GHz

5.3.1.6 RESULT

Radiated emissions from the EUT are within the specified limits

5.3.2 CONDUCTED EMISSION TEST

5.3.2.1 TEST SPECIFICATION

| | | |
|-------------------------------------|---------------------------|----------|
| Test Standard | 47 CFR, Part 15 Feb 2016 | |
| Test Procedure | ANSI C63.4-2014 | |
| Class / Group | Class 'B' | |
| Type of Cable (Shielded/Unshielded) | Unshielded Cable | |
| Frequency Range | 150 kHz - 30 MHz | |
| Resolution Bandwidth | 9 kHz | |
| Video Bandwidth | 30 kHz | |
| Step size | 4 kHz | |
| Pre Scan Measurement Time | 20 ms | |
| Final Measurement Time | 1 second | |
| Attenuation | 10 dB | |
| Detector | Quasi Peak and Average | |
| Input Voltage | 120 V AC | 230 V AC |
| Input Frequency | 60 Hz | 50 Hz |
| Temperature | 22.0 °C | |
| Humidity | 53.0 % | |
| Tested By | Nishanth | |
| Test Date | 29 th Mar 2016 | |

5.3.2.2 LIMITS

Maximum permissible voltage levels of Conducted Emission as per 47 CFR, Part 15 Feb 2016 Class 'B' on Power lines are as shown below:

| Frequency (MHz) | Voltage limits Class 'A' (dBμV) | |
|-----------------|---------------------------------|----------|
| | Quasi-peak | Average |
| 0.15 to 0.50 | 66 to 56 | 56 to 46 |
| 0.5 to 5 | 56 | 46 |
| 5 to 30 | 60 | 50 |

5.3.2.3 TEST SETUP

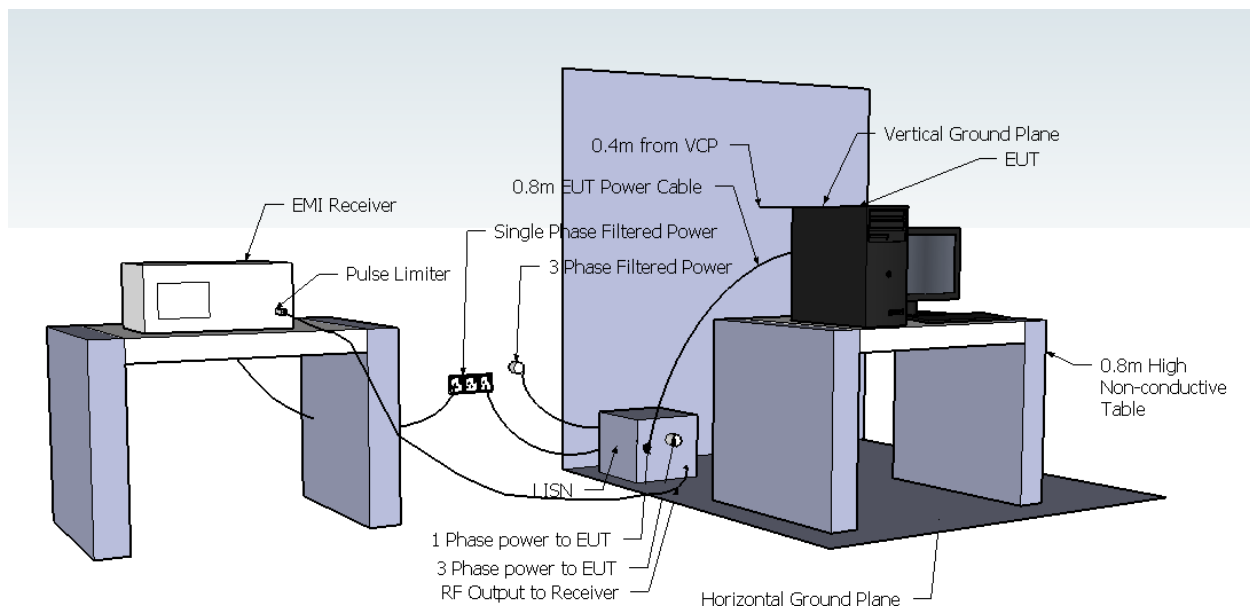


Figure 147 Sample Conducted Emission test setup

5.3.2.4 TEST PROCEDURE

The test procedure is in accordance with ANSI C63.4-2014

The EUT was tested at the conducted emission test site with a horizontal ground reference plane and a vertical ground reference plane bonded together. The EUT was placed on non-conductive table of 0.8 m height as per standard. The power supply to the EUT and auxiliary equipment was feed through LISN.

LISN (Voltage Method):

The conducted emission (disturbance) was measured through the 50 Ω RF port of the LISN using an EMI receiver. Pre-scan (Peak and Average) was carried out in max hold mode and conducted emission from the EUT coupled through the Power (mains) port was plotted in the graph. The dominant peaks at various frequencies, closer to and above the limit line were identified using peak search option and listed. Quasipeak and Average measurement was carried out for the listed frequencies and compared with the limit specified in the standard.

Note: During this test the EUT was configured with the maximum power (i.e., 6dBi antenna configuration), terminating the antenna port. .

5.3.2.5 MEASUREMENT DATA

5.3.2.5.1 POWER LINE – 230 V 50 Hz – 40 MHz BANDWIDTH – Low CHANNEL

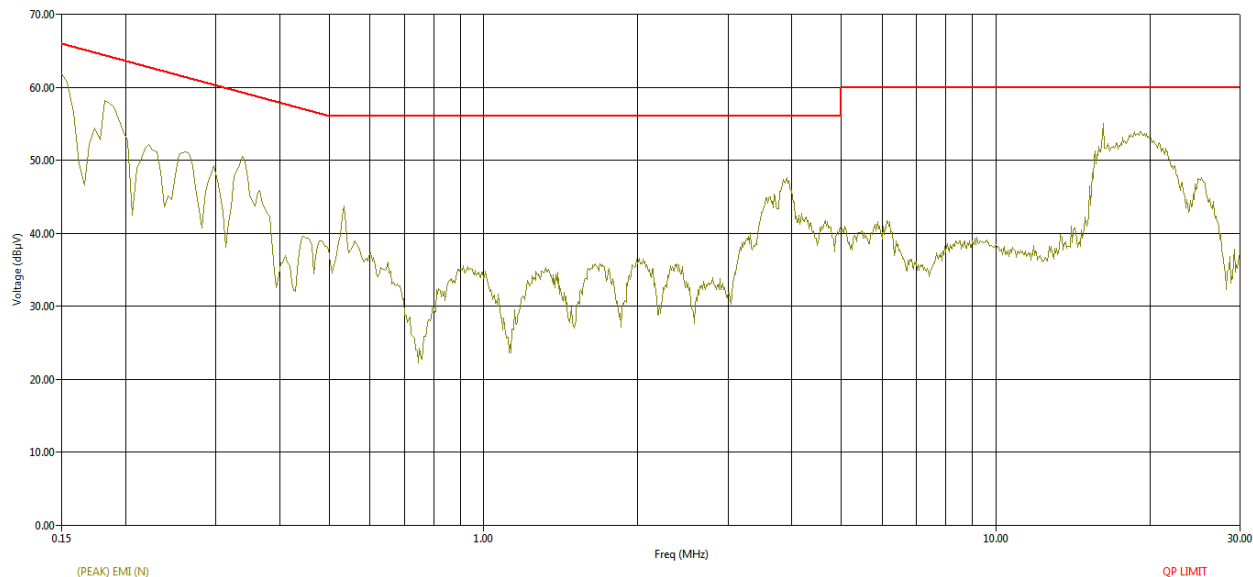


Figure 148: 40MHz, 230V/50Hz, Low channel: Peak CE Graph - 150kHz to 30MHz - Neutral

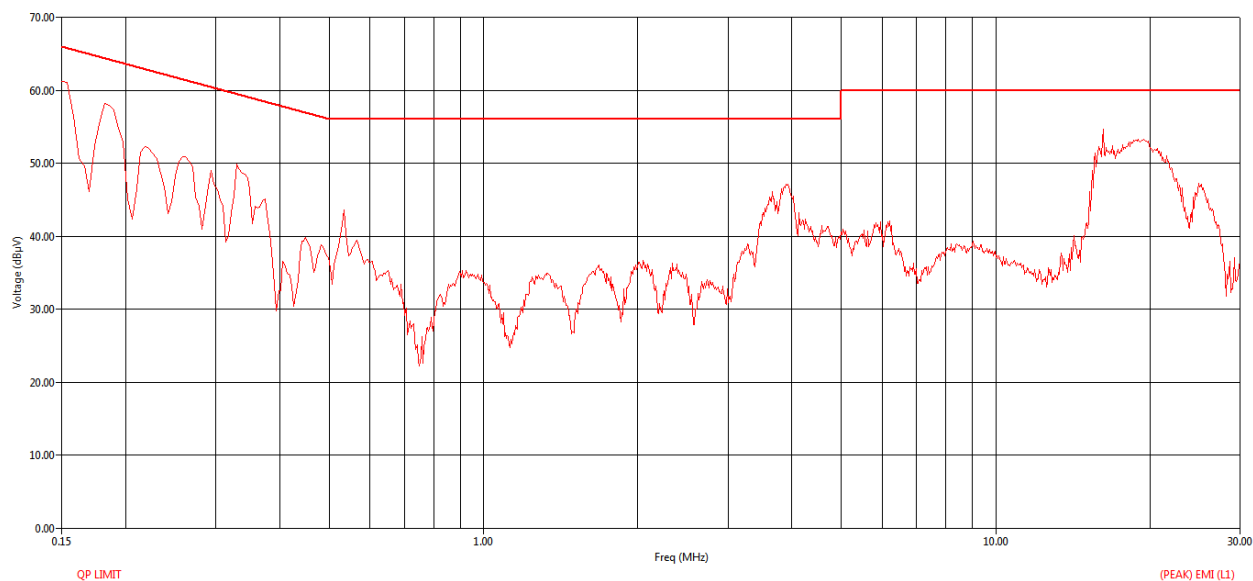


Figure 149: 40MHz, 230V/50Hz, Low channel: Peak CE Graph - 150kHz to 30MHz - Line

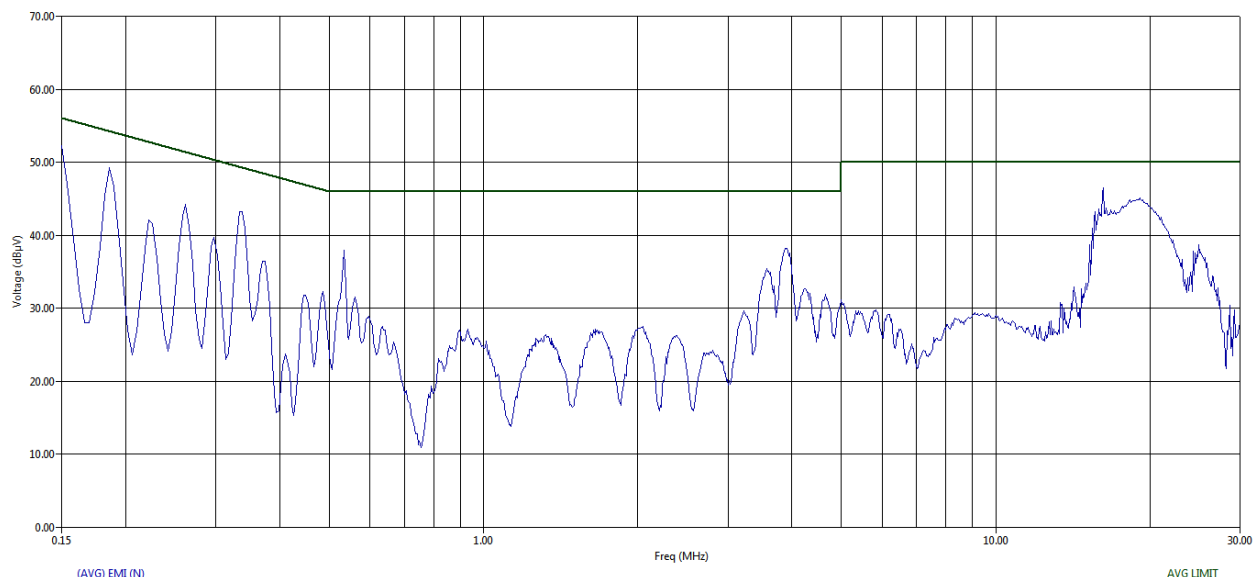


Figure 150: 40MHz, 230V/50Hz, Low channel: Average CE Graph - 150kHz to 30MHz - Neutral

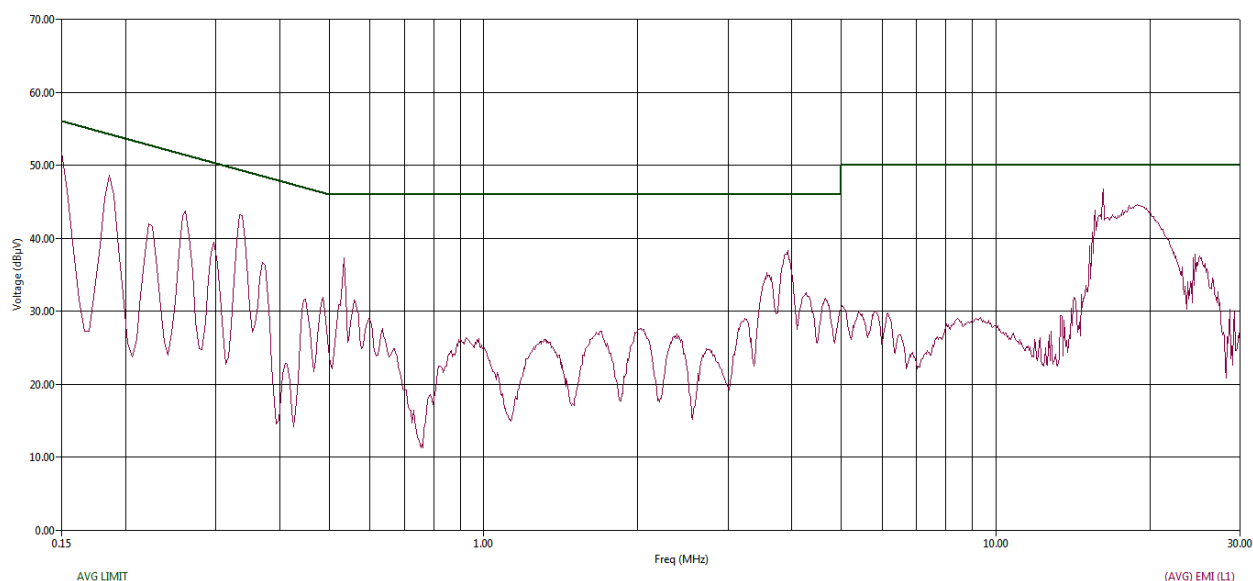


Figure 151: 40MHz, 230V/50Hz, Low channel: Average CE Graph - 150kHz to 30MHz - Line

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBμV) | (QP) Limit (dBμV) | (QP) Margin QPL (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|----------------------|
| 0.150 | 0.159 | N | 41.933 | 10.107 | 2.097 | 0.000 | 54.137 | 65.539 | -11.402 |
| 0.150 | 0.155 | L1 | 41.116 | 10.107 | 0.000 | 2.155 | 53.378 | 65.730 | -12.352 |
| 0.182 | 0.183 | N | 39.464 | 10.106 | 1.886 | 0.000 | 51.456 | 64.337 | -12.881 |
| 0.182 | 0.184 | L1 | 38.854 | 10.106 | 0.000 | 1.906 | 50.866 | 64.324 | -13.459 |
| 0.218 | 0.201 | L1 | 36.626 | 10.106 | 0.000 | 1.774 | 48.506 | 63.581 | -15.075 |
| 0.222 | 0.229 | N | 32.630 | 10.105 | 1.560 | 0.000 | 44.295 | 62.484 | -18.189 |
| 0.330 | 0.338 | L1 | 33.746 | 10.102 | 0.000 | 1.005 | 44.853 | 59.241 | -14.388 |
| 0.338 | 0.340 | N | 34.316 | 10.102 | 0.983 | 0.000 | 45.402 | 59.205 | -13.803 |
| 16.230 | 16.231 | N | 39.749 | 10.356 | 0.688 | 0.000 | 50.794 | 60.000 | -9.206 |
| 16.230 | 16.231 | L1 | 39.694 | 10.356 | 0.000 | 0.686 | 50.736 | 60.000 | -9.264 |

Table 80: 40MHz, 230V/50Hz, Low channel: Quasipeak table for CE from 150 kHz to 30 MHz

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBμV) | (AVG) Limit (dBμV) | (AVG) Margin AVL (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-----------------------|
| 0.150 | 0.159 | N | 34.048 | 10.107 | 2.097 | 0.000 | 46.252 | 55.539 | -9.287 |
| 0.150 | 0.155 | L1 | 32.157 | 10.107 | 0.000 | 2.155 | 44.419 | 55.730 | -11.311 |
| 0.182 | 0.183 | N | 31.274 | 10.106 | 1.886 | 0.000 | 43.266 | 54.337 | -11.071 |
| 0.182 | 0.184 | L1 | 30.227 | 10.106 | 0.000 | 1.906 | 42.239 | 54.324 | -12.085 |
| 0.218 | 0.201 | L1 | 28.275 | 10.106 | 0.000 | 1.774 | 40.155 | 53.581 | -13.426 |
| 0.222 | 0.229 | N | 23.563 | 10.105 | 1.560 | 0.000 | 35.228 | 52.484 | -17.256 |
| 0.330 | 0.338 | L1 | 28.302 | 10.102 | 0.000 | 1.005 | 39.409 | 49.241 | -9.832 |
| 0.338 | 0.340 | N | 29.114 | 10.102 | 0.983 | 0.000 | 40.200 | 49.205 | -9.005 |
| 16.230 | 16.231 | N | 34.315 | 10.356 | 0.688 | 0.000 | 45.360 | 50.000 | -4.640 |
| 16.230 | 16.231 | L1 | 34.376 | 10.356 | 0.000 | 0.686 | 45.418 | 50.000 | -4.582 |

Table 81: 40MHz, 230V/50Hz, Low channel: Average table for CE from 150 kHz to 30 MHz

5.3.2.5.2 POWER LINE – 230 V 50 Hz – 40 MHz BANDWIDTH – MID CHANNEL

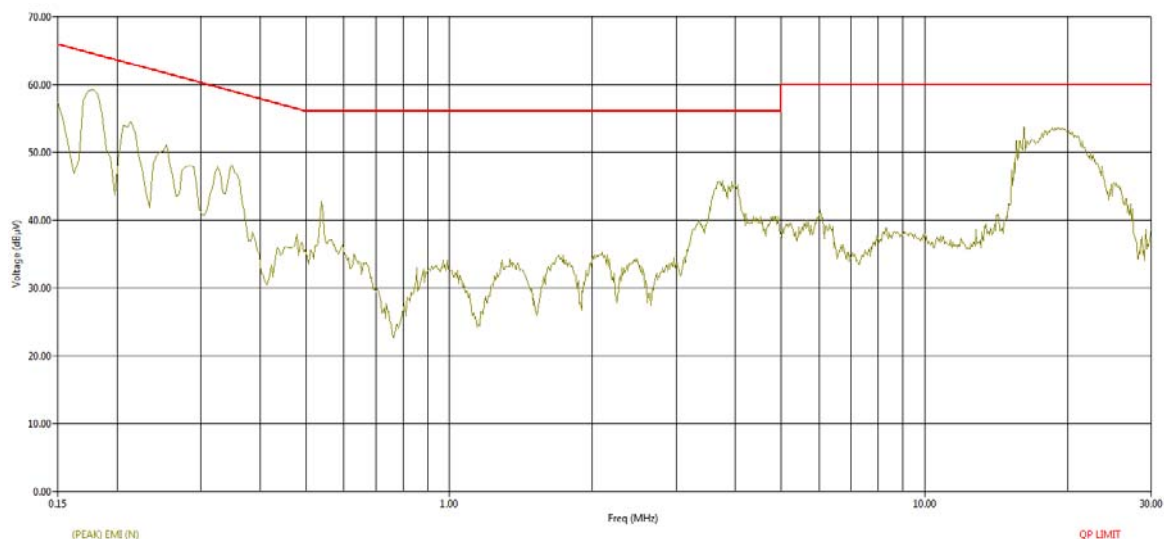


Figure 152: 40MHz, 230V/50Hz, Mid channel: Peak CE Graph - 150kHz to 30MHz - Neutral

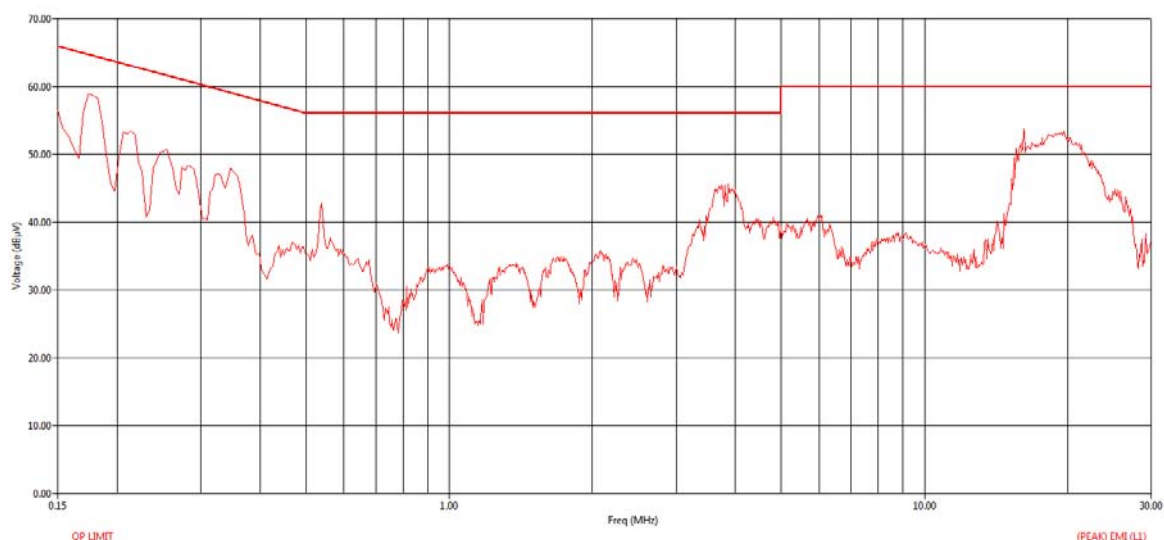


Figure 153: 40MHz, 230V/50Hz, Mid channel: Peak CE Graph - 150kHz to 30MHz - Line

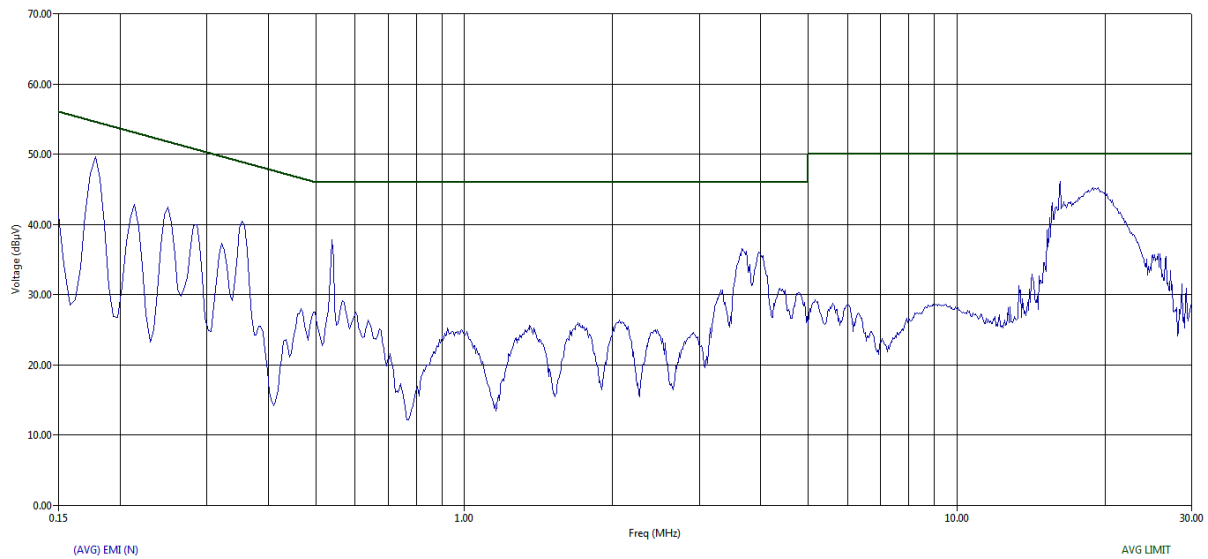


Figure 154: 40MHz, 230V/50Hz, Mid channel: Average CE Graph - 150kHz to 30MHz - Neutral

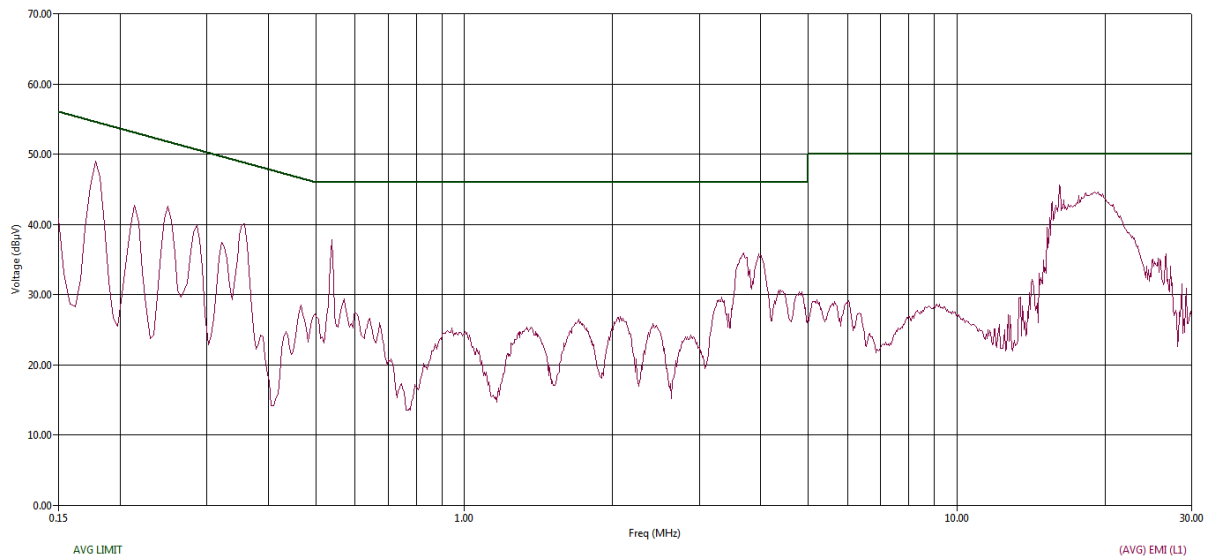


Figure 155: 40MHz, 230V/50Hz, Mid channel: Average CE Graph - 150kHz to 30MHz - Line

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBμV) | (QP) Limit (dBμV) | (QP) Margin QPL (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|----------------------|
| 0.150 | 0.151 | N | 38.404 | 10.107 | 2.173 | 0.000 | 50.685 | 65.970 | -15.285 |
| 0.174 | 0.179 | L1 | 44.242 | 10.106 | 0.000 | 1.943 | 56.291 | 64.534 | -8.243 |
| 0.178 | 0.173 | N | 43.289 | 10.107 | 1.968 | 0.000 | 55.364 | 64.805 | -9.441 |
| 0.214 | 0.207 | N | 36.918 | 10.105 | 1.708 | 0.000 | 48.731 | 63.328 | -14.597 |
| 0.214 | 0.217 | L1 | 37.112 | 10.105 | 0.000 | 1.656 | 48.873 | 62.917 | -14.044 |
| 0.254 | 0.248 | N | 36.680 | 10.104 | 1.442 | 0.000 | 48.227 | 61.814 | -13.588 |
| 0.254 | 0.247 | L1 | 36.108 | 10.104 | 0.000 | 1.470 | 47.683 | 61.865 | -14.183 |
| 0.540 | 0.536 | L1 | 30.487 | 10.102 | 0.000 | 0.420 | 41.009 | 56.000 | -14.991 |
| 0.540 | 0.536 | N | 30.902 | 10.102 | 0.411 | 0.000 | 41.415 | 56.000 | -14.585 |
| 3.870 | 3.868 | L1 | 28.117 | 10.112 | 0.000 | 0.342 | 38.570 | 56.000 | -17.430 |
| 16.170 | 16.169 | L1 | 39.535 | 10.356 | 0.000 | 0.691 | 50.581 | 60.000 | -9.419 |
| 16.230 | 16.230 | N | 40.140 | 10.356 | 0.688 | 0.000 | 51.184 | 60.000 | -8.816 |

Table 82: 40MHz, 230V/50Hz, Mid channel: Quasipeak table for CE from 150 kHz to 30 MHz

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBμV) | (AVG) Limit (dBμV) | (AVG) Margin AVL (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-----------------------|
| 0.150 | 0.151 | N | 26.850 | 10.107 | 2.173 | 0.000 | 39.130 | 55.970 | -16.840 |
| 0.174 | 0.179 | L1 | 36.602 | 10.106 | 0.000 | 1.943 | 48.652 | 54.534 | -5.882 |
| 0.178 | 0.173 | N | 34.485 | 10.107 | 1.968 | 0.000 | 46.559 | 54.805 | -8.245 |
| 0.214 | 0.207 | N | 26.325 | 10.105 | 1.708 | 0.000 | 38.139 | 53.328 | -15.190 |
| 0.214 | 0.217 | L1 | 27.627 | 10.105 | 0.000 | 1.656 | 39.389 | 52.917 | -13.528 |
| 0.254 | 0.248 | N | 31.230 | 10.104 | 1.442 | 0.000 | 42.776 | 51.814 | -9.038 |
| 0.254 | 0.247 | L1 | 30.461 | 10.104 | 0.000 | 1.470 | 42.035 | 51.865 | -9.830 |
| 0.540 | 0.536 | L1 | 26.917 | 10.102 | 0.000 | 0.420 | 37.439 | 46.000 | -8.561 |
| 0.540 | 0.536 | N | 27.412 | 10.102 | 0.411 | 0.000 | 37.925 | 46.000 | -8.075 |
| 3.870 | 3.868 | L1 | 19.408 | 10.112 | 0.000 | 0.342 | 29.861 | 46.000 | -16.139 |
| 16.170 | 16.169 | L1 | 33.759 | 10.356 | 0.000 | 0.691 | 44.805 | 50.000 | -5.195 |
| 16.230 | 16.230 | N | 34.382 | 10.356 | 0.688 | 0.000 | 45.427 | 50.000 | -4.573 |

Table 83: 40MHz, 230V/50Hz, Mid channel: Average table for CE from 150 kHz to 30 MHz

5.3.2.5.3 POWER LINE – 230 V 50 Hz – 40 MHz BANDWIDTH – HIGH CHANNEL

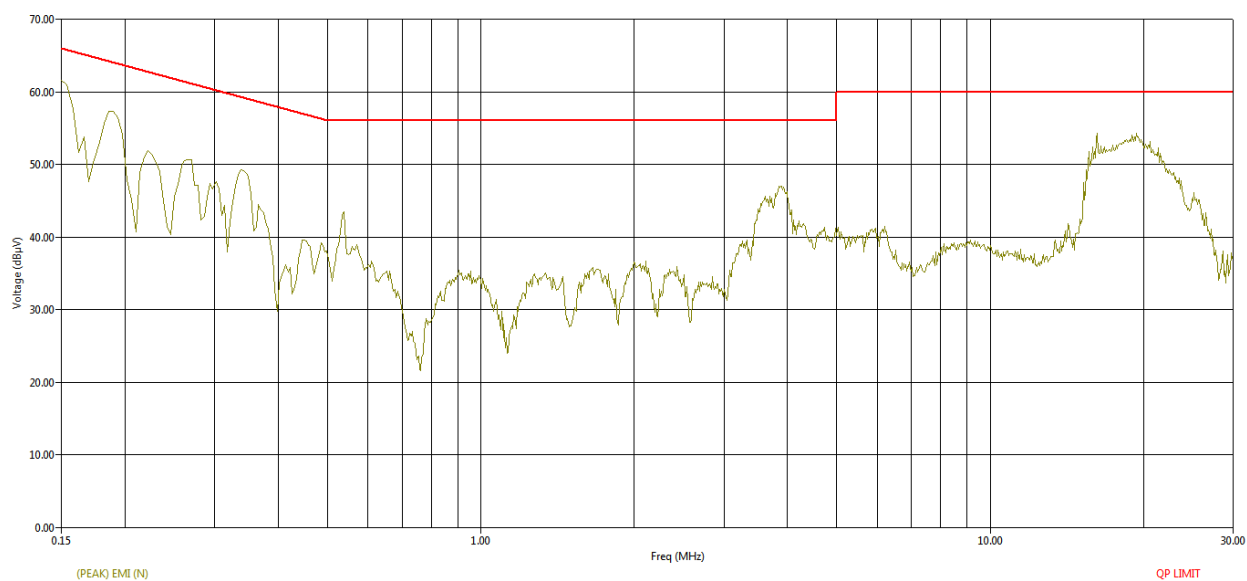


Figure 156: 40MHz, 230V/50Hz, High channel: Peak CE Graph - 150kHz to 30MHz - Neutral

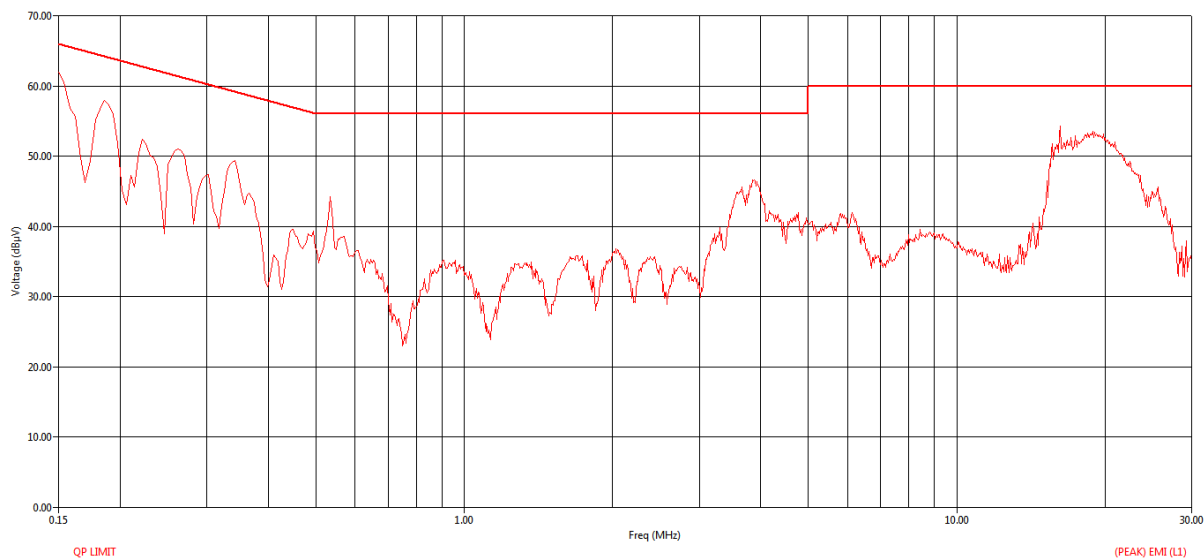


Figure 157: 40MHz, 230V/50Hz, High channel: Peak CE Graph - 150kHz to 30MHz - Line

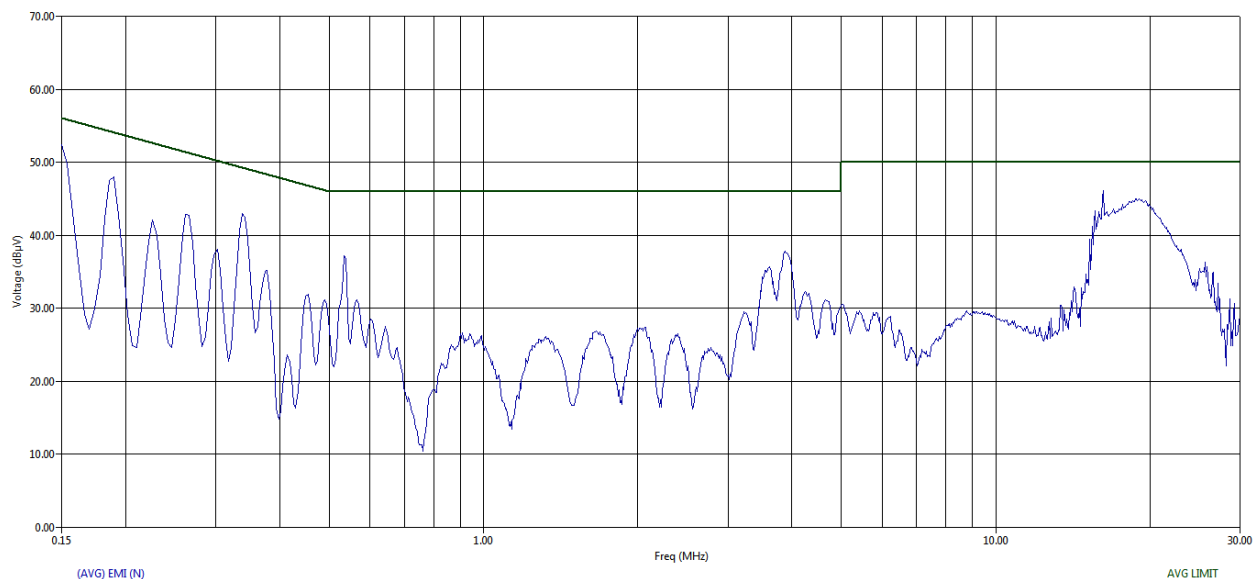


Figure 158: 40MHz, 230V/50Hz, High channel: Average CE Graph - 150kHz to 30MHz - Neutral

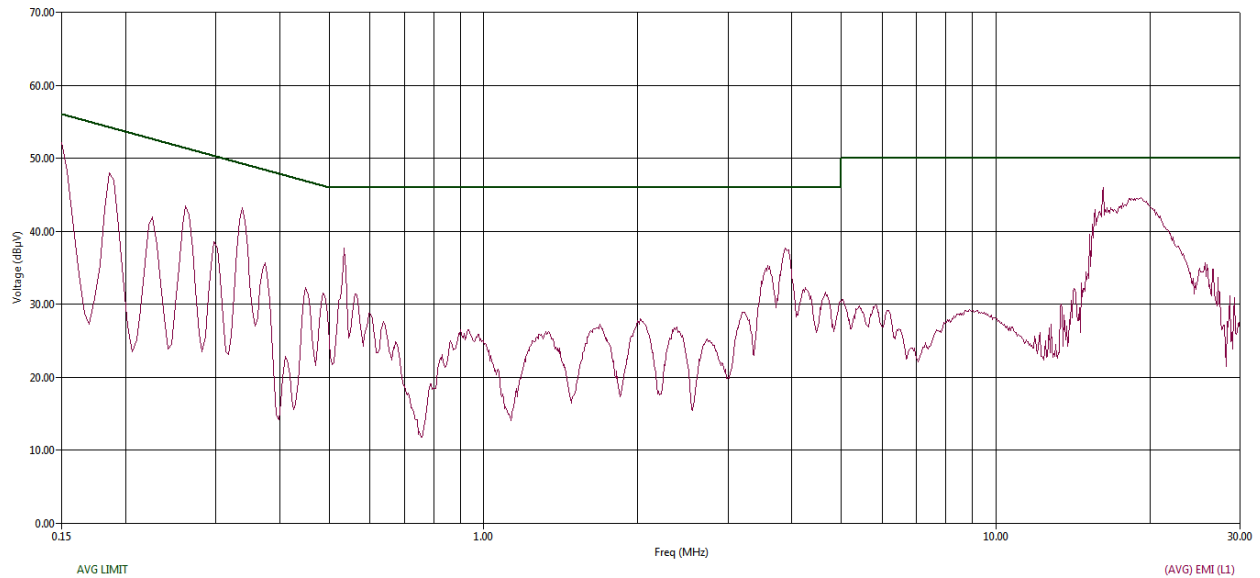


Figure 159: 40MHz, 230V/50Hz, High channel: Average CE Graph - 150kHz to 30MHz - Line

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBuV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBuV) | (QP) Limit (dBuV) | (QP) Margin QPL (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|----------------------|
| 0.150 | 0.150 | N | 47.406 | 10.107 | 2.178 | 0.000 | 59.691 | 65.998 | -6.307 |
| 0.150 | 0.151 | L1 | 47.009 | 10.107 | 0.000 | 2.194 | 59.311 | 65.952 | -6.642 |
| 0.186 | 0.188 | N | 43.780 | 10.106 | 1.847 | 0.000 | 55.733 | 64.116 | -8.384 |
| 0.186 | 0.183 | L1 | 42.542 | 10.106 | 0.000 | 1.913 | 54.562 | 64.367 | -9.805 |
| 0.222 | 0.226 | N | 37.714 | 10.105 | 1.580 | 0.000 | 49.399 | 62.600 | -13.201 |
| 0.222 | 0.227 | L1 | 36.887 | 10.105 | 0.000 | 1.591 | 48.583 | 62.548 | -13.966 |
| 0.262 | 0.262 | L1 | 37.533 | 10.104 | 0.000 | 1.380 | 49.018 | 61.359 | -12.341 |
| 0.270 | 0.265 | N | 37.380 | 10.104 | 1.350 | 0.000 | 48.834 | 61.288 | -12.454 |
| 0.540 | 0.533 | L1 | 30.631 | 10.102 | 0.000 | 0.421 | 41.154 | 56.000 | -14.846 |
| 0.540 | 0.534 | N | 31.098 | 10.102 | 0.411 | 0.000 | 41.611 | 56.000 | -14.389 |
| 16.230 | 16.229 | L1 | 40.350 | 10.356 | 0.000 | 0.686 | 51.392 | 60.000 | -8.608 |
| 19.370 | 19.371 | N | 38.358 | 10.393 | 0.571 | 0.000 | 49.322 | 60.000 | -10.678 |

Table 84: 40MHz, 230V/50Hz, High channel: Quasipeak table for CE from 150 kHz to 30 MHz

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBuV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBuV) | (AVG) Limit (dBuV) | (AVG) Margin AVL (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-----------------------|
| 0.150 | 0.150 | N | 39.899 | 10.107 | 2.178 | 0.000 | 52.184 | 55.998 | -3.814 |
| 0.150 | 0.151 | L1 | 39.079 | 10.107 | 0.000 | 2.194 | 51.380 | 55.952 | -4.572 |
| 0.186 | 0.188 | N | 36.763 | 10.106 | 1.847 | 0.000 | 48.716 | 54.116 | -5.401 |
| 0.186 | 0.183 | L1 | 33.298 | 10.106 | 0.000 | 1.913 | 45.317 | 54.367 | -9.049 |
| 0.222 | 0.226 | N | 30.279 | 10.105 | 1.580 | 0.000 | 41.965 | 52.600 | -10.635 |
| 0.222 | 0.227 | L1 | 28.980 | 10.105 | 0.000 | 1.591 | 40.675 | 52.548 | -11.873 |
| 0.262 | 0.262 | L1 | 32.155 | 10.104 | 0.000 | 1.380 | 43.639 | 51.359 | -7.720 |
| 0.270 | 0.265 | N | 31.395 | 10.104 | 1.350 | 0.000 | 42.848 | 51.288 | -8.440 |
| 0.540 | 0.533 | L1 | 26.798 | 10.102 | 0.000 | 0.421 | 37.321 | 46.000 | -8.679 |
| 0.540 | 0.534 | N | 27.466 | 10.102 | 0.411 | 0.000 | 37.980 | 46.000 | -8.020 |
| 16.230 | 16.229 | L1 | 34.512 | 10.356 | 0.000 | 0.686 | 45.554 | 50.000 | -4.446 |
| 19.370 | 19.371 | N | 32.825 | 10.393 | 0.571 | 0.000 | 43.790 | 50.000 | -6.210 |

Table 85: 40MHz, 230V/50Hz, High channel: Average table for CE from 150 kHz to 30 MHz

5.3.2.5.4 POWER LINE – 120 V 60 Hz – 40 MHz BANDWIDTH – Low CHANNEL

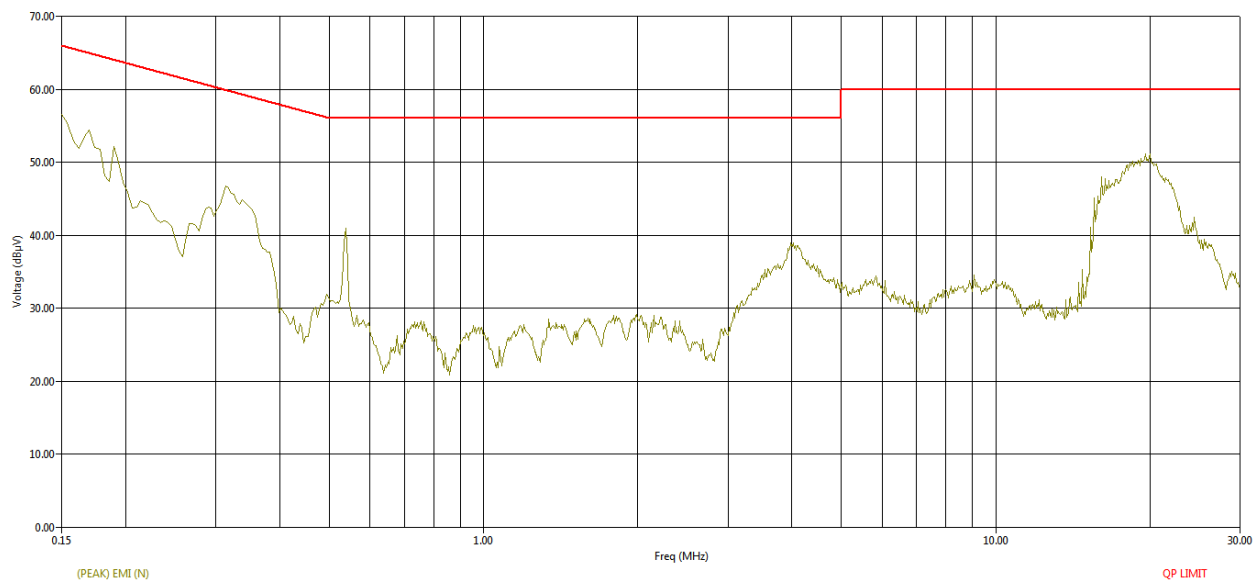


Figure 160: 40MHz, 120V/60Hz, Low channel: Peak CE Graph - 150kHz to 30MHz - Neutral

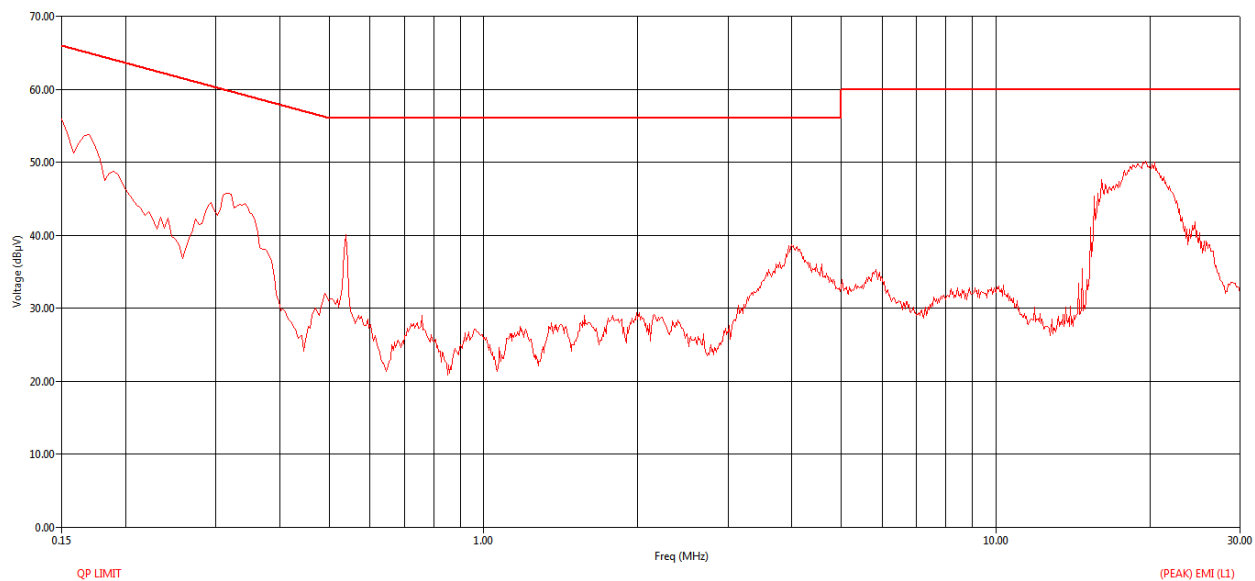


Figure 161: 40MHz, 120V/60Hz, Low channel: Peak CE Graph - 150kHz to 30MHz - Line

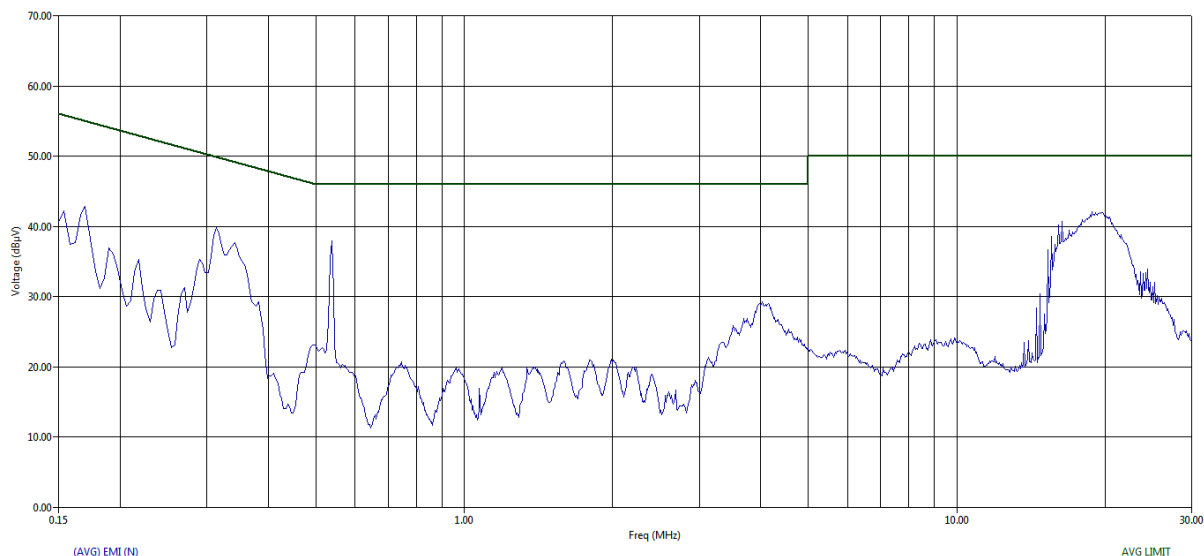


Figure 162: 40MHz, 120V/60Hz, Low channel: Average CE Graph - 150kHz to 30MHz - Neutral

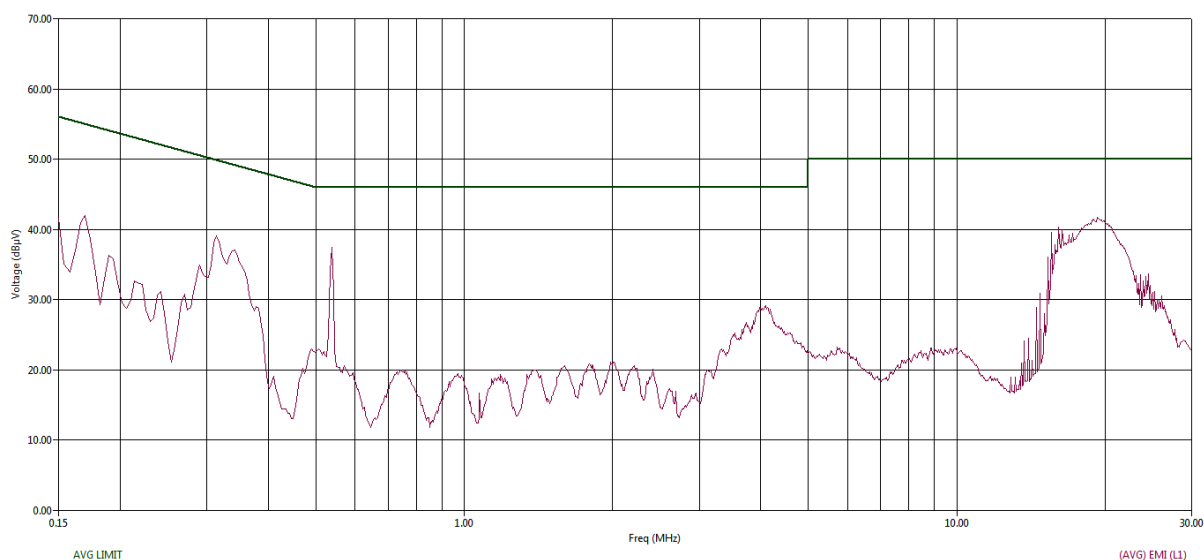


Figure 163: 40MHz, 120V/60Hz, Low channel: Average CE Graph - 150kHz to 30MHz - Line

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBμV) | (QP) Limit (dBμV) | (QP) Margin QPL (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|----------------------|
| 0.150 | 0.151 | N | 39.545 | 10.107 | 2.173 | 0.000 | 51.826 | 65.970 | -14.145 |
| 0.154 | 0.150 | L1 | 39.965 | 10.107 | 0.000 | 2.202 | 52.275 | 65.994 | -13.720 |
| 0.322 | 0.319 | N | 32.810 | 10.103 | 1.078 | 0.000 | 43.990 | 59.742 | -15.751 |
| 0.330 | 0.322 | L1 | 31.395 | 10.103 | 0.000 | 1.078 | 42.576 | 59.657 | -17.081 |
| 0.538 | 0.538 | N | 29.089 | 10.102 | 0.410 | 0.000 | 39.602 | 56.000 | -16.398 |
| 0.538 | 0.538 | L1 | 28.372 | 10.102 | 0.000 | 0.419 | 38.894 | 56.000 | -17.106 |
| 3.774 | 3.767 | N | 22.222 | 10.112 | 0.307 | 0.000 | 32.640 | 56.000 | -23.360 |
| 3.774 | 3.769 | L1 | 21.759 | 10.112 | 0.000 | 0.341 | 32.212 | 56.000 | -23.788 |
| 19.134 | 19.141 | L1 | 34.804 | 10.391 | 0.000 | 0.468 | 45.663 | 60.000 | -14.337 |
| 19.362 | 19.369 | N | 35.218 | 10.393 | 0.571 | 0.000 | 46.183 | 60.000 | -13.817 |

Table 86: 40MHz, 120V/60Hz, Low channel: Quasipeak table for CE from 150 kHz to 30 MHz

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBμV) | (AVG) Limit (dBμV) | (AVG) Margin AVL (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-----------------------|
| 0.150 | 0.151 | N | 27.689 | 10.107 | 2.173 | 0.000 | 39.969 | 55.970 | -16.001 |
| 0.154 | 0.150 | L1 | 27.904 | 10.107 | 0.000 | 2.202 | 40.213 | 55.994 | -15.781 |
| 0.322 | 0.319 | N | 27.186 | 10.103 | 1.078 | 0.000 | 38.367 | 49.742 | -11.375 |
| 0.330 | 0.322 | L1 | 25.288 | 10.103 | 0.000 | 1.078 | 36.469 | 49.657 | -13.188 |
| 0.538 | 0.538 | N | 27.418 | 10.102 | 0.410 | 0.000 | 37.931 | 46.000 | -8.069 |
| 0.538 | 0.538 | L1 | 26.667 | 10.102 | 0.000 | 0.419 | 37.189 | 46.000 | -8.811 |
| 3.774 | 3.767 | N | 15.725 | 10.112 | 0.307 | 0.000 | 26.144 | 46.000 | -19.856 |
| 3.774 | 3.769 | L1 | 15.197 | 10.112 | 0.000 | 0.341 | 25.650 | 46.000 | -20.350 |
| 19.134 | 19.141 | L1 | 29.511 | 10.391 | 0.000 | 0.468 | 40.370 | 50.000 | -9.630 |
| 19.362 | 19.369 | N | 29.973 | 10.393 | 0.571 | 0.000 | 40.937 | 50.000 | -9.063 |

Table 87: 40MHz, 120V/60Hz, Low channel: Average table for CE from 150 kHz to 30 MHz

5.3.2.5.5 POWER LINE – 120 V 60 Hz – 40 MHz BANDWIDTH – MID CHANNEL

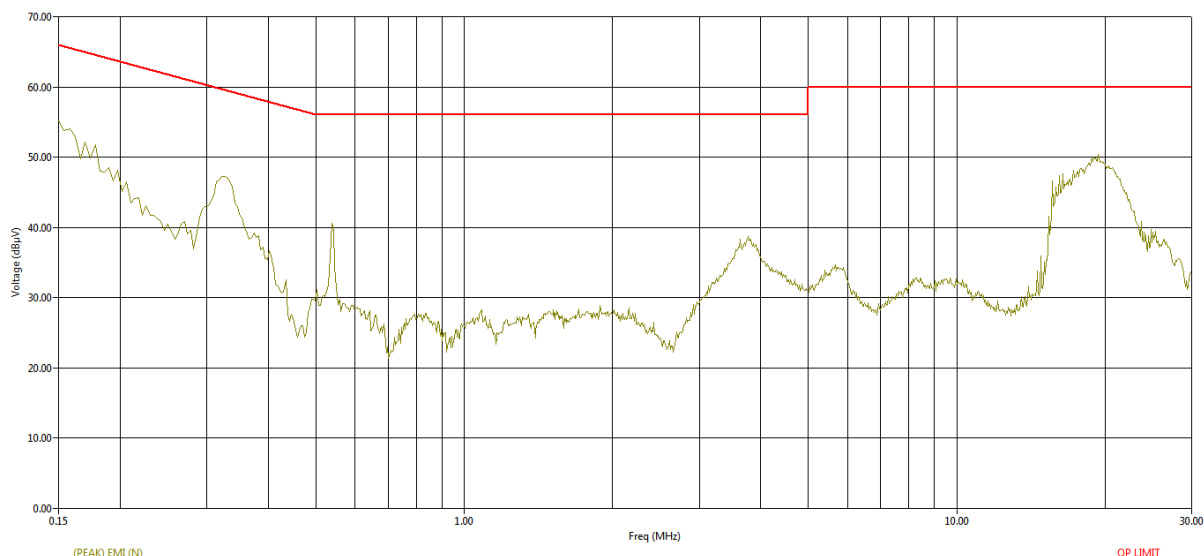


Figure 164: 40MHz, 120V/60Hz, Mid channel: Peak CE Graph - 150kHz to 30MHz - Neutral

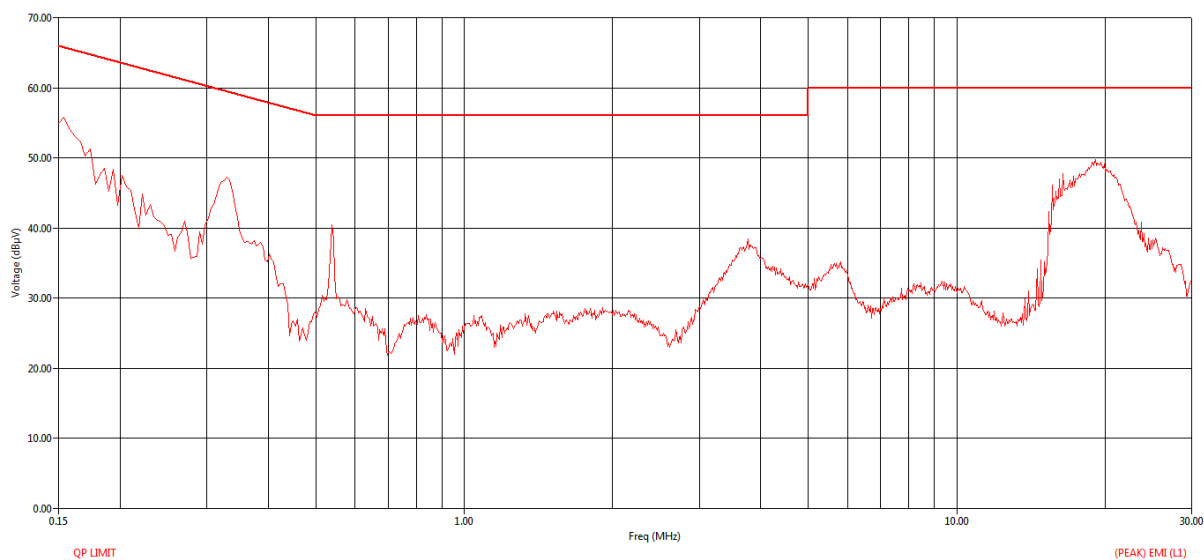


Figure 165: 40MHz, 120V/60Hz, Mid channel: Peak CE Graph - 150kHz to 30MHz - Line

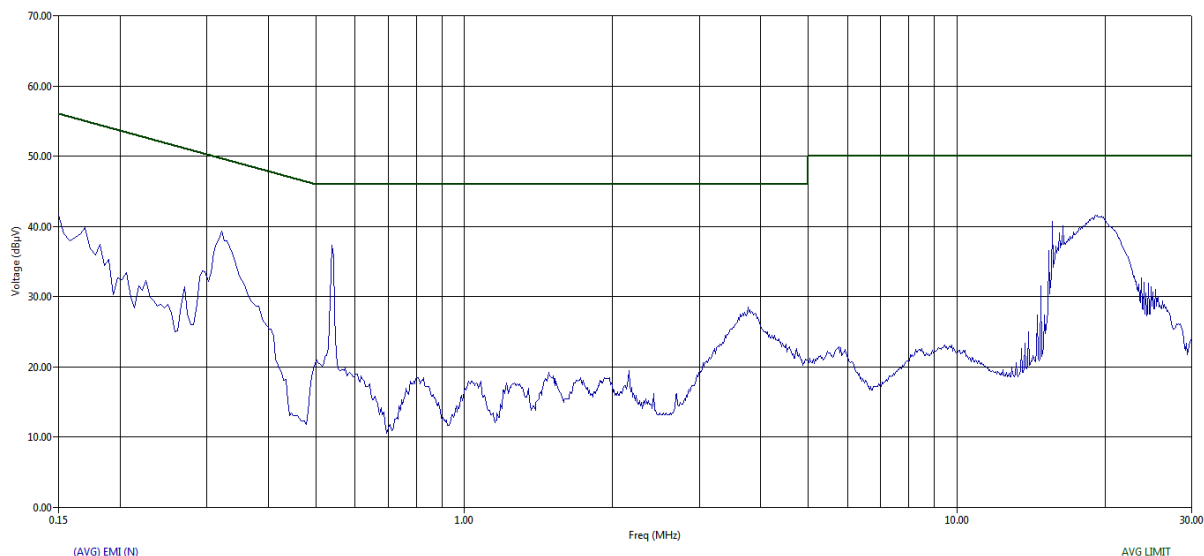


Figure 166: 40MHz, 120V/60Hz, Mid channel: Average CE Graph - 150kHz to 30MHz - Neutral

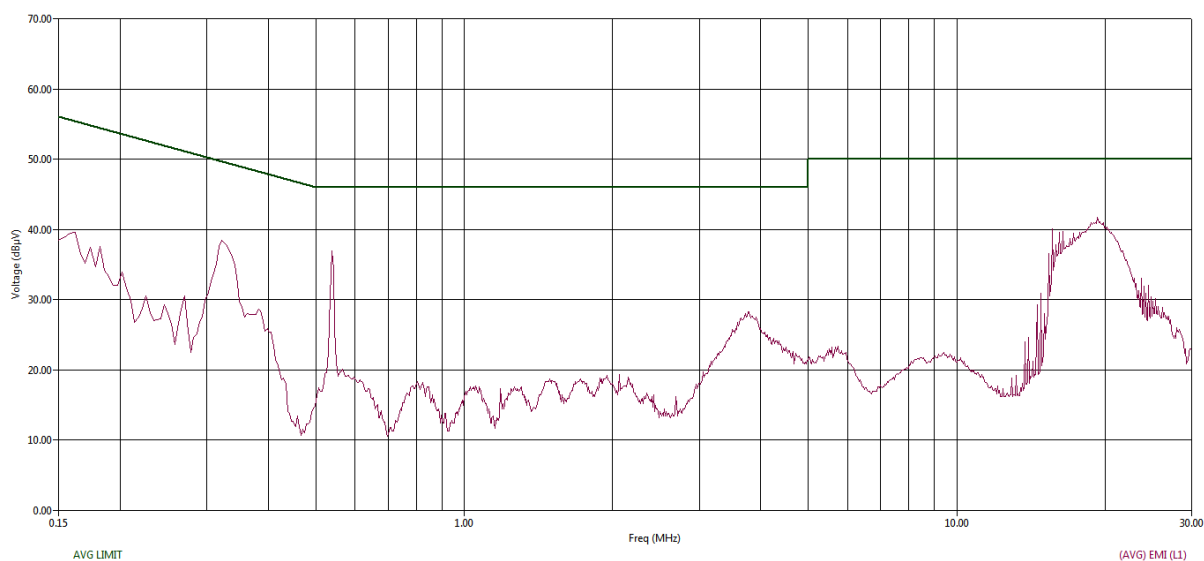


Figure 167: 40MHz, 120V/60Hz, Mid channel: Average CE Graph - 150kHz to 30MHz - Line

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBμV) | (QP) Limit (dBμV) | (QP) Margin QPL (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|----------------------|
| 0.150 | 0.150 | N | 39.911 | 10.107 | 2.177 | 0.000 | 52.195 | 65.994 | -13.799 |
| 0.154 | 0.150 | L1 | 39.487 | 10.107 | 0.000 | 2.199 | 51.794 | 65.978 | -14.184 |
| 0.322 | 0.319 | N | 32.842 | 10.103 | 1.078 | 0.000 | 44.023 | 59.741 | -15.718 |
| 0.330 | 0.323 | L1 | 31.031 | 10.103 | 0.000 | 1.075 | 42.209 | 59.641 | -17.432 |
| 0.538 | 0.538 | N | 29.045 | 10.102 | 0.411 | 0.000 | 39.558 | 56.000 | -16.442 |
| 0.538 | 0.538 | L1 | 28.404 | 10.102 | 0.000 | 0.419 | 38.925 | 56.000 | -17.075 |
| 3.774 | 3.767 | N | 22.299 | 10.112 | 0.307 | 0.000 | 32.718 | 56.000 | -23.282 |
| 3.774 | 3.766 | L1 | 21.778 | 10.112 | 0.000 | 0.341 | 32.231 | 56.000 | -23.769 |
| 19.134 | 19.138 | L1 | 34.741 | 10.391 | 0.000 | 0.468 | 45.600 | 60.000 | -14.400 |
| 19.362 | 19.370 | N | 35.239 | 10.393 | 0.571 | 0.000 | 46.203 | 60.000 | -13.797 |

Table 88: 40MHz, 120V/60Hz, Mid channel: Quasipeak table for CE from 150 kHz to 30 MHz

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBμV) | (AVG) Limit (dBμV) | (AVG) Margin AVL (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-----------------------|
| 0.150 | 0.150 | N | 28.054 | 10.107 | 2.177 | 0.000 | 40.338 | 55.994 | -15.656 |
| 0.154 | 0.150 | L1 | 27.336 | 10.107 | 0.000 | 2.199 | 39.643 | 55.978 | -16.336 |
| 0.322 | 0.319 | N | 27.175 | 10.103 | 1.078 | 0.000 | 38.356 | 49.741 | -11.385 |
| 0.330 | 0.323 | L1 | 24.937 | 10.103 | 0.000 | 1.075 | 36.115 | 49.641 | -13.526 |
| 0.538 | 0.538 | N | 27.422 | 10.102 | 0.411 | 0.000 | 37.934 | 46.000 | -8.066 |
| 0.538 | 0.538 | L1 | 26.687 | 10.102 | 0.000 | 0.419 | 37.208 | 46.000 | -8.792 |
| 3.774 | 3.767 | N | 15.831 | 10.112 | 0.307 | 0.000 | 26.250 | 46.000 | -19.750 |
| 3.774 | 3.766 | L1 | 15.201 | 10.112 | 0.000 | 0.341 | 25.654 | 46.000 | -20.346 |
| 19.134 | 19.138 | L1 | 29.466 | 10.391 | 0.000 | 0.468 | 40.325 | 50.000 | -9.675 |
| 19.362 | 19.370 | N | 29.983 | 10.393 | 0.571 | 0.000 | 40.947 | 50.000 | -9.053 |

Table 89: 40MHz, 120V/60Hz, Mid channel: Average table for CE from 150 kHz to 30 MHz

5.3.2.5.6 POWER LINE – 120 V 60 Hz – 40 MHz BANDWIDTH – HIGH CHANNEL

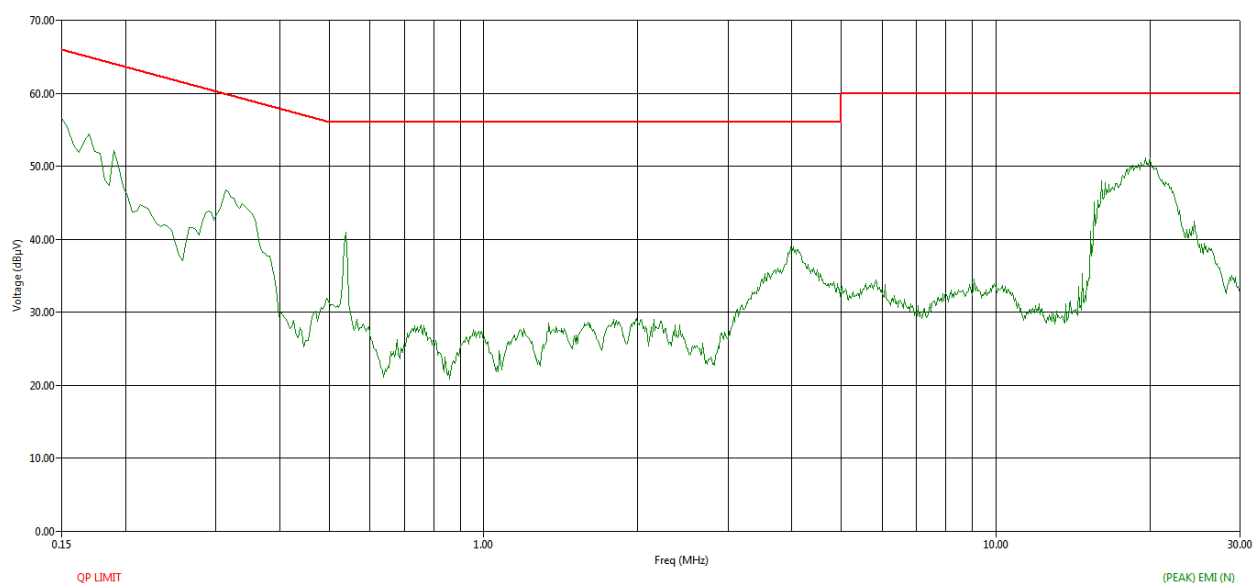


Figure 168: 40MHz, 120V/60Hz, High channel: Peak CE Graph - 150kHz to 30MHz - Neutral

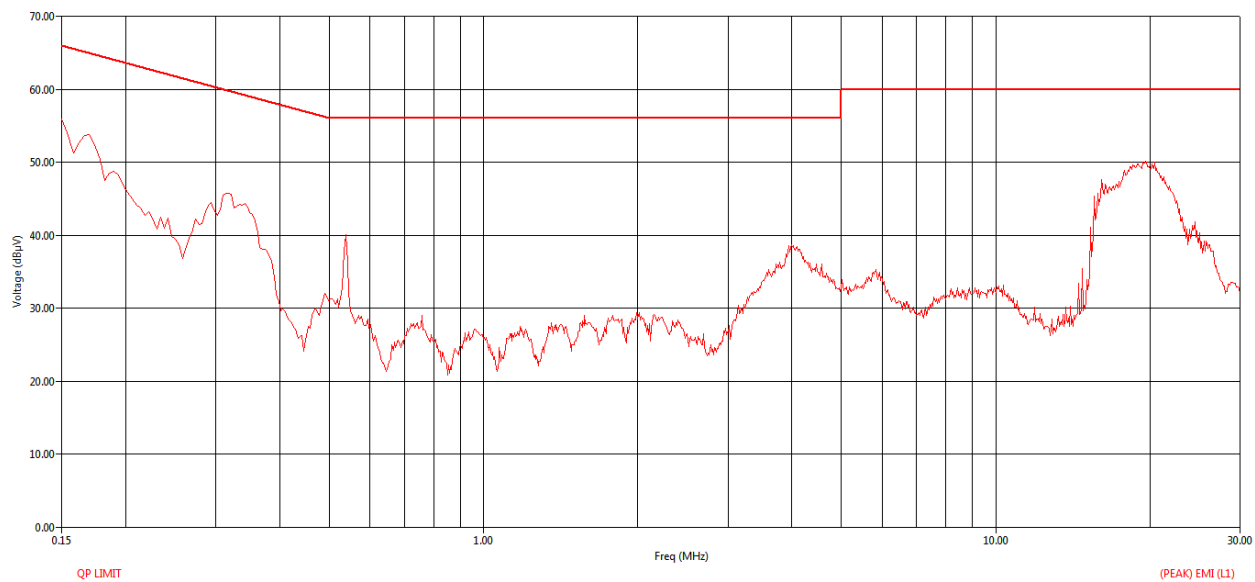


Figure 169: 40MHz, 120V/60Hz, High channel: Peak CE Graph - 150kHz to 30MHz - Line

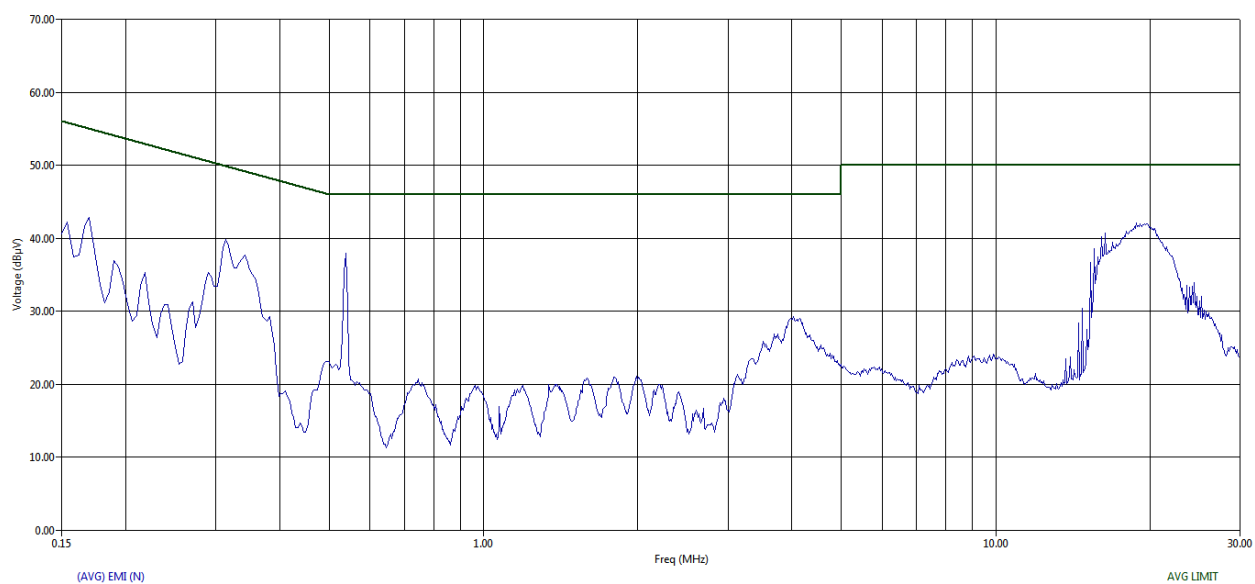


Figure 170: 40MHz, 120V/60Hz, High channel: Average CE Graph - 150kHz to 30MHz - Neutral

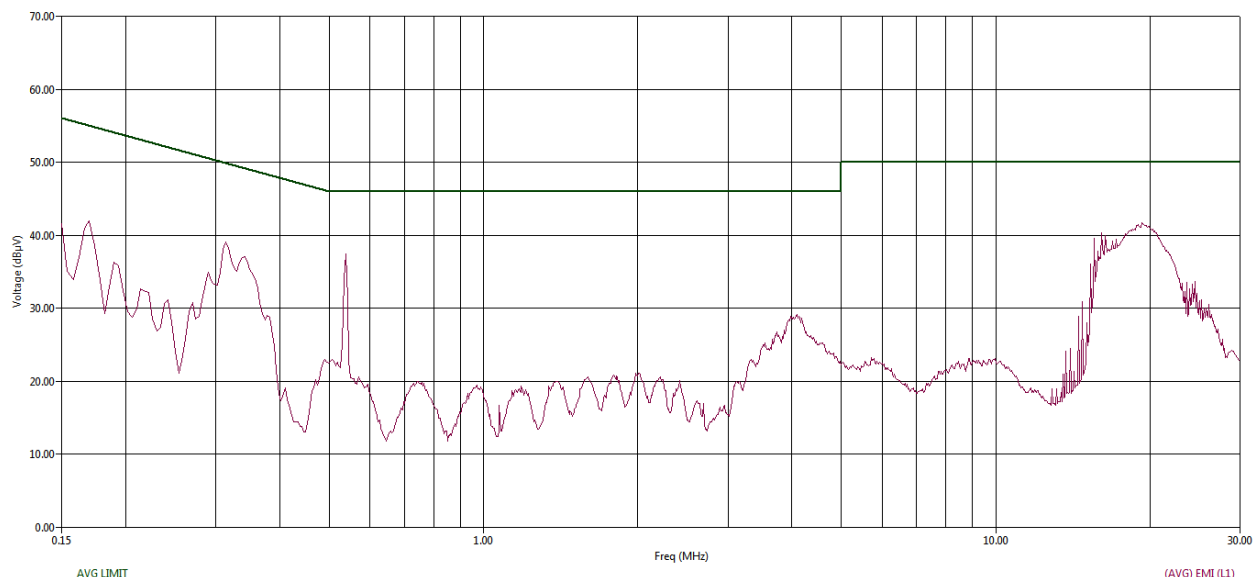


Figure 171: 40MHz, 120V/60Hz, High channel: Average CE Graph - 150kHz to 30MHz - Line

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBuV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBuV) | (QP) Limit (dBuV) | (QP) Margin QPL (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|----------------------|
| 0.150 | 0.151 | N | 38.478 | 10.107 | 2.164 | 0.000 | 50.749 | 65.921 | -15.172 |
| 0.154 | 0.150 | L1 | 39.498 | 10.107 | 0.000 | 2.199 | 51.805 | 65.978 | -14.174 |
| 0.322 | 0.315 | N | 33.269 | 10.103 | 1.095 | 0.000 | 44.466 | 59.838 | -15.372 |
| 0.330 | 0.321 | L1 | 31.568 | 10.103 | 0.000 | 1.083 | 42.753 | 59.681 | -16.928 |
| 0.538 | 0.538 | N | 29.087 | 10.102 | 0.410 | 0.000 | 39.600 | 56.000 | -16.400 |
| 0.538 | 0.538 | L1 | 28.449 | 10.102 | 0.000 | 0.419 | 38.970 | 56.000 | -17.030 |
| 3.774 | 3.769 | N | 22.232 | 10.112 | 0.307 | 0.000 | 32.651 | 56.000 | -23.349 |
| 3.774 | 3.778 | L1 | 21.307 | 10.112 | 0.000 | 0.341 | 31.759 | 56.000 | -24.241 |
| 19.134 | 19.128 | L1 | 34.674 | 10.391 | 0.000 | 0.469 | 45.533 | 60.000 | -14.467 |
| 19.362 | 19.368 | N | 35.264 | 10.393 | 0.571 | 0.000 | 46.229 | 60.000 | -13.771 |

Table 90: 40MHz, 120V/60Hz, High channel: Quasipeak table for CE from 150 kHz to 30 MHz

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBuV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBuV) | (AVG) Limit (dBuV) | (AVG) Margin AVL (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-----------------------|
| 0.150 | 0.151 | N | 26.302 | 10.107 | 2.164 | 0.000 | 38.573 | 55.921 | -17.348 |
| 0.154 | 0.150 | L1 | 27.357 | 10.107 | 0.000 | 2.199 | 39.664 | 55.978 | -16.315 |
| 0.322 | 0.315 | N | 27.841 | 10.103 | 1.095 | 0.000 | 39.039 | 49.838 | -10.799 |
| 0.330 | 0.321 | L1 | 25.642 | 10.103 | 0.000 | 1.083 | 36.828 | 49.681 | -12.853 |
| 0.538 | 0.538 | N | 27.423 | 10.102 | 0.410 | 0.000 | 37.936 | 46.000 | -8.064 |
| 0.538 | 0.538 | L1 | 26.701 | 10.102 | 0.000 | 0.419 | 37.222 | 46.000 | -8.778 |
| 3.774 | 3.769 | N | 15.779 | 10.112 | 0.307 | 0.000 | 26.197 | 46.000 | -19.803 |
| 3.774 | 3.778 | L1 | 14.761 | 10.112 | 0.000 | 0.341 | 25.213 | 46.000 | -20.787 |
| 19.134 | 19.128 | L1 | 29.456 | 10.391 | 0.000 | 0.469 | 40.316 | 50.000 | -9.684 |
| 19.362 | 19.368 | N | 29.898 | 10.393 | 0.571 | 0.000 | 40.862 | 50.000 | -9.138 |

Table 91: 40MHz, 120V/60Hz, High channel: Average table for CE from 150 kHz to 30 MHz

5.3.2.5.7 POWER LINE – 230 V 50 Hz – 5 MHz BANDWIDTH – LOW CHANNEL

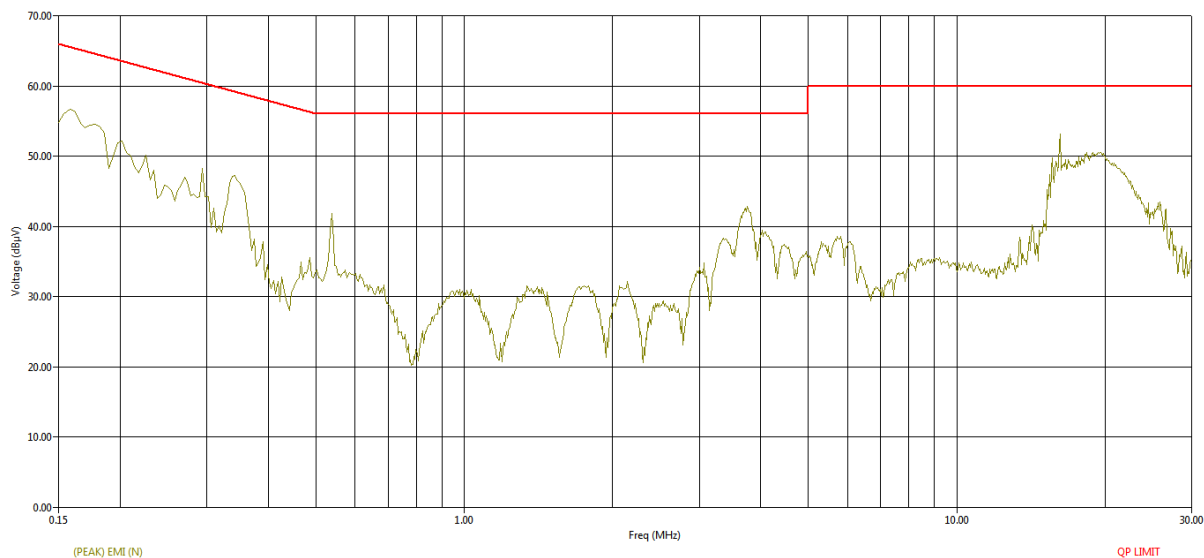


Figure 172: 5MHz, 230V/50Hz, Low channel: Peak CE Graph - 150kHz to 30MHz - Neutral

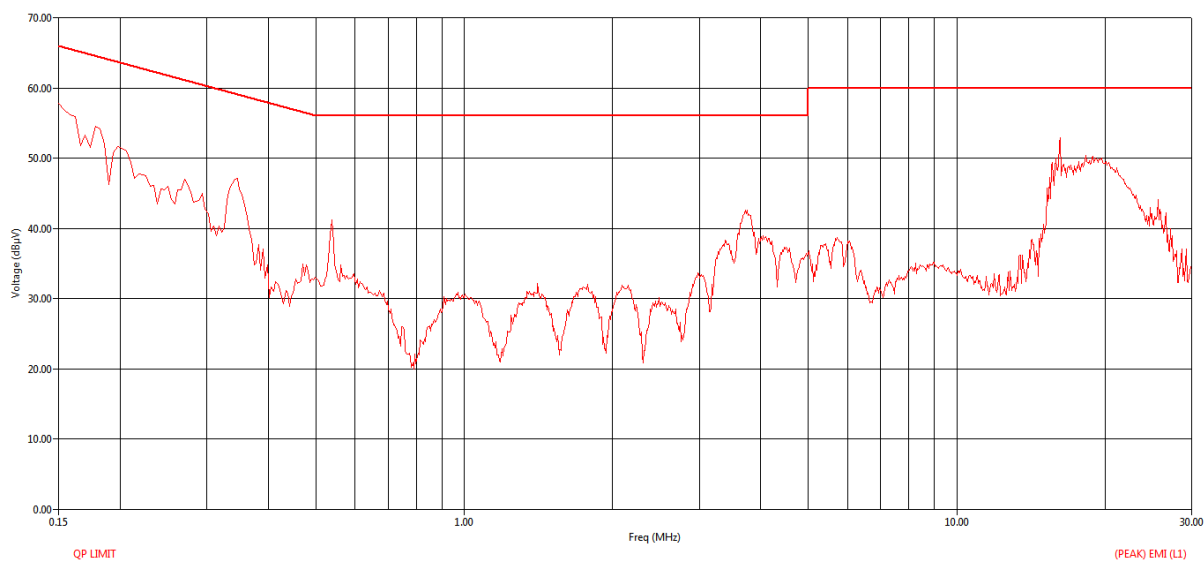


Figure 173: 5MHz, 230V/50Hz, Low channel: Peak CE Graph - 150kHz to 30MHz - Line

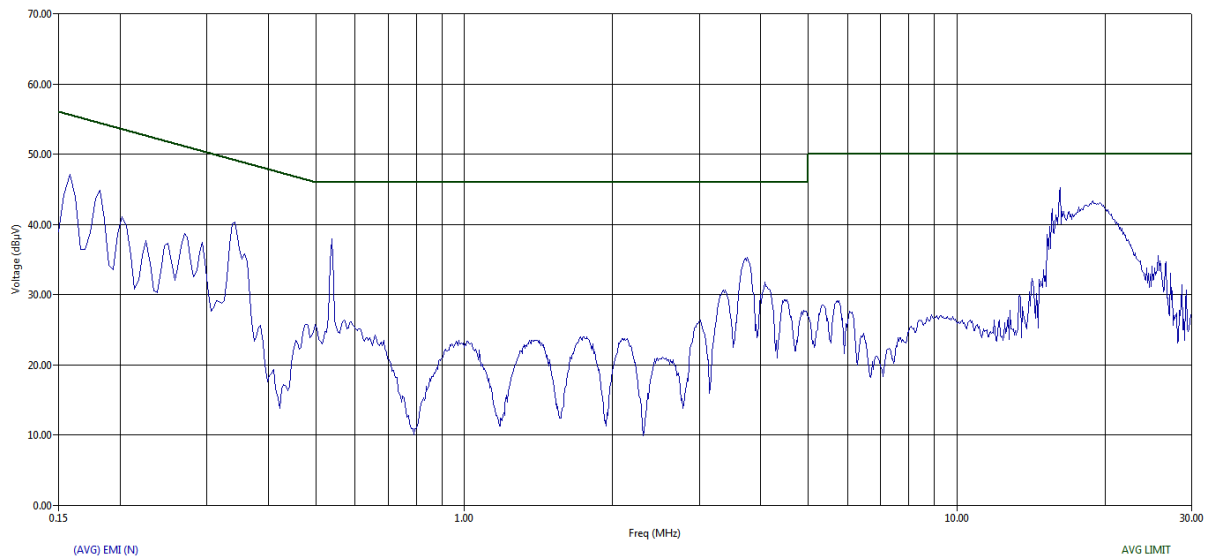


Figure 174: 5MHz, 230V/50Hz, Low channel: Average CE Graph - 150kHz to 30MHz - Neutral

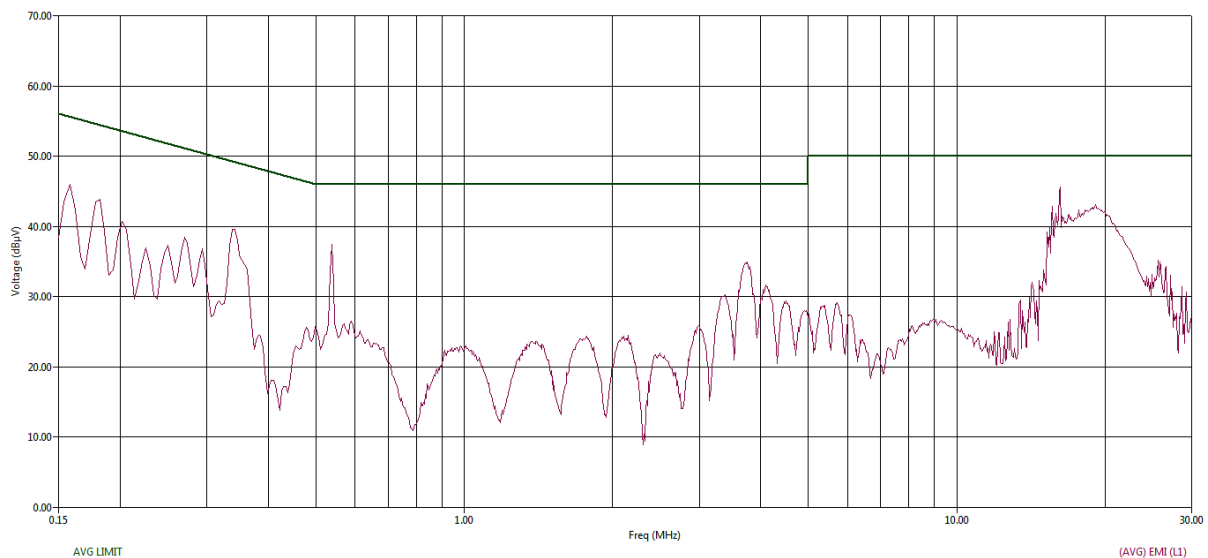


Figure 175: 5MHz, 230V/50Hz, Low channel: Average CE Graph - 150kHz to 30MHz - Line

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBμV) | (QP) Limit (dBμV) | (QP) Margin QPL (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|----------------------|
| 0.150 | 0.155 | N | 41.667 | 10.107 | 2.133 | 0.000 | 53.907 | 65.744 | -11.837 |
| 0.150 | 0.154 | L1 | 41.477 | 10.107 | 0.000 | 2.160 | 53.744 | 65.758 | -12.013 |
| 0.182 | 0.182 | N | 38.135 | 10.106 | 1.896 | 0.000 | 50.138 | 64.398 | -14.260 |
| 0.182 | 0.172 | L1 | 39.211 | 10.107 | 0.000 | 2.002 | 51.319 | 64.865 | -13.546 |
| 0.218 | 0.217 | L1 | 33.351 | 10.105 | 0.000 | 1.659 | 45.115 | 62.934 | -17.819 |
| 0.222 | 0.218 | N | 33.816 | 10.105 | 1.632 | 0.000 | 45.553 | 62.894 | -17.342 |
| 0.330 | 0.338 | L1 | 33.248 | 10.102 | 0.000 | 1.009 | 44.359 | 59.263 | -14.904 |
| 0.338 | 0.340 | N | 34.221 | 10.102 | 0.984 | 0.000 | 45.308 | 59.209 | -13.902 |
| 16.230 | 16.229 | N | 40.053 | 10.356 | 0.688 | 0.000 | 51.098 | 60.000 | -8.902 |
| 16.230 | 16.228 | L1 | 39.834 | 10.356 | 0.000 | 0.686 | 50.876 | 60.000 | -9.124 |

Table 92: 5MHz, 230V/50Hz, Low channel: Quasipeak table for CE from 150 kHz to 30 MHz

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBμV) | (AVG) Limit (dBμV) | (AVG) Margin AVL (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-----------------------|
| 0.150 | 0.155 | N | 33.179 | 10.107 | 2.133 | 0.000 | 45.420 | 55.744 | -10.325 |
| 0.150 | 0.154 | L1 | 32.513 | 10.107 | 0.000 | 2.160 | 44.780 | 55.758 | -10.978 |
| 0.182 | 0.182 | N | 28.000 | 10.106 | 1.896 | 0.000 | 40.003 | 54.398 | -14.395 |
| 0.182 | 0.172 | L1 | 29.430 | 10.107 | 0.000 | 2.002 | 41.539 | 54.865 | -13.326 |
| 0.218 | 0.217 | L1 | 23.573 | 10.105 | 0.000 | 1.659 | 35.337 | 52.934 | -17.597 |
| 0.222 | 0.218 | N | 24.441 | 10.105 | 1.632 | 0.000 | 36.178 | 52.894 | -16.716 |
| 0.330 | 0.338 | L1 | 25.063 | 10.102 | 0.000 | 1.009 | 36.174 | 49.263 | -13.089 |
| 0.338 | 0.340 | N | 28.947 | 10.102 | 0.984 | 0.000 | 40.033 | 49.209 | -9.176 |
| 16.230 | 16.229 | N | 34.383 | 10.356 | 0.688 | 0.000 | 45.428 | 50.000 | -4.572 |
| 16.230 | 16.228 | L1 | 34.013 | 10.356 | 0.000 | 0.686 | 45.056 | 50.000 | -4.944 |

Table 93: 5MHz, 230V/50Hz, Low channel: Average table for CE from 150 kHz to 30 MHz

5.3.2.5.8 POWER LINE – 230 V 50 Hz – 5 MHz BANDWIDTH – MID CHANNEL

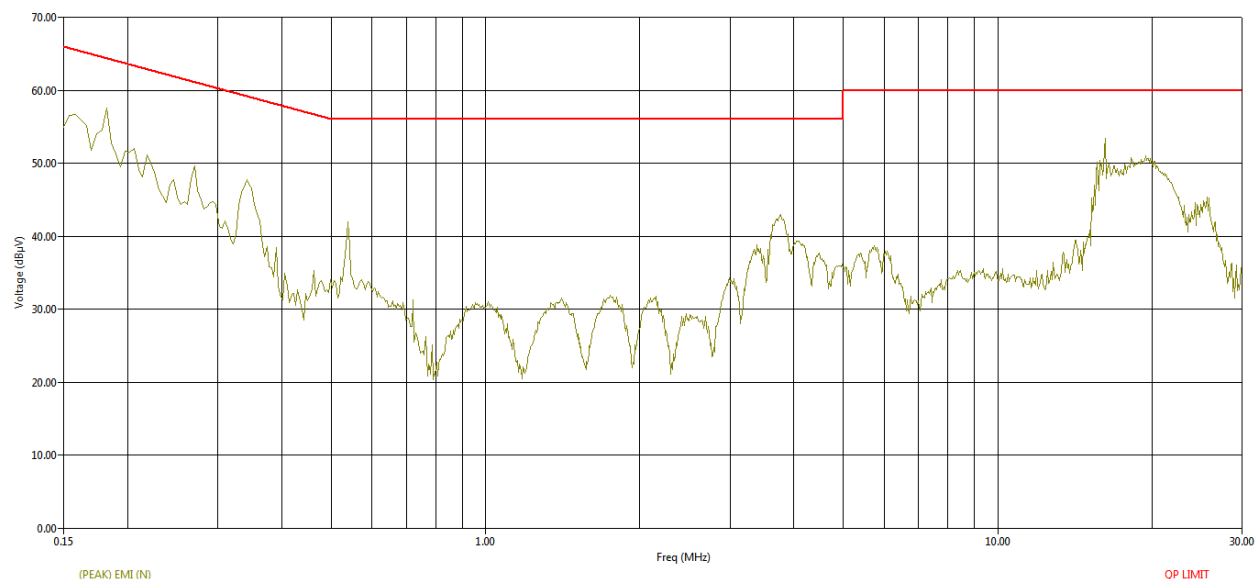


Figure 176: 5MHz, 230V/50Hz, Mid channel: Peak CE Graph - 150kHz to 30MHz - Neutral

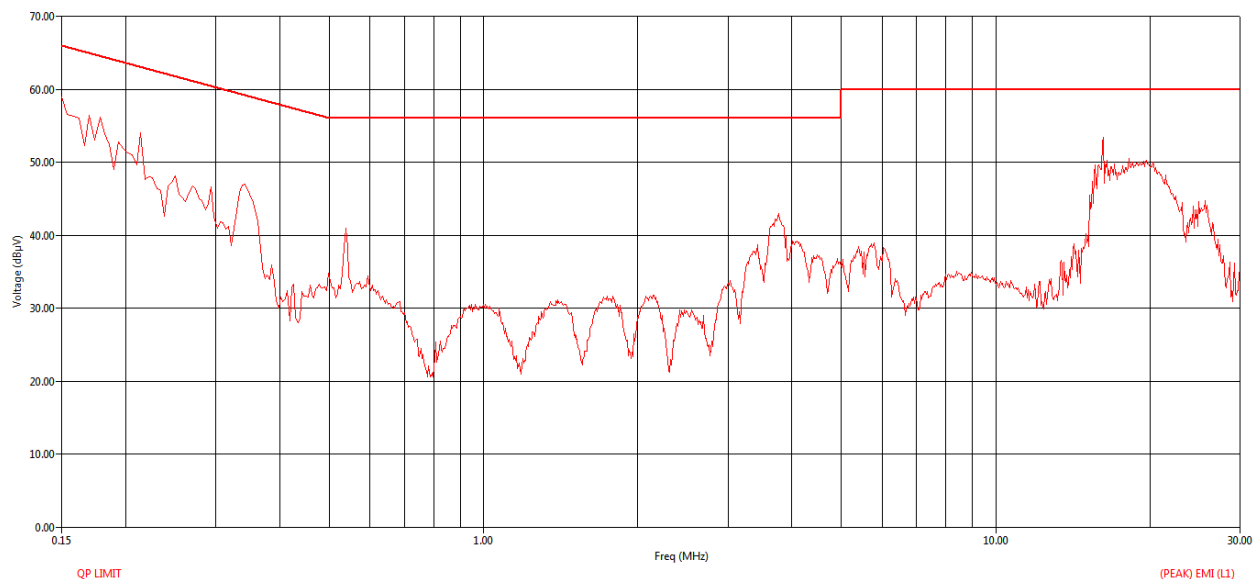


Figure 177: 5MHz, 230V/50Hz, Mid channel: Peak CE Graph - 150kHz to 30MHz - Line

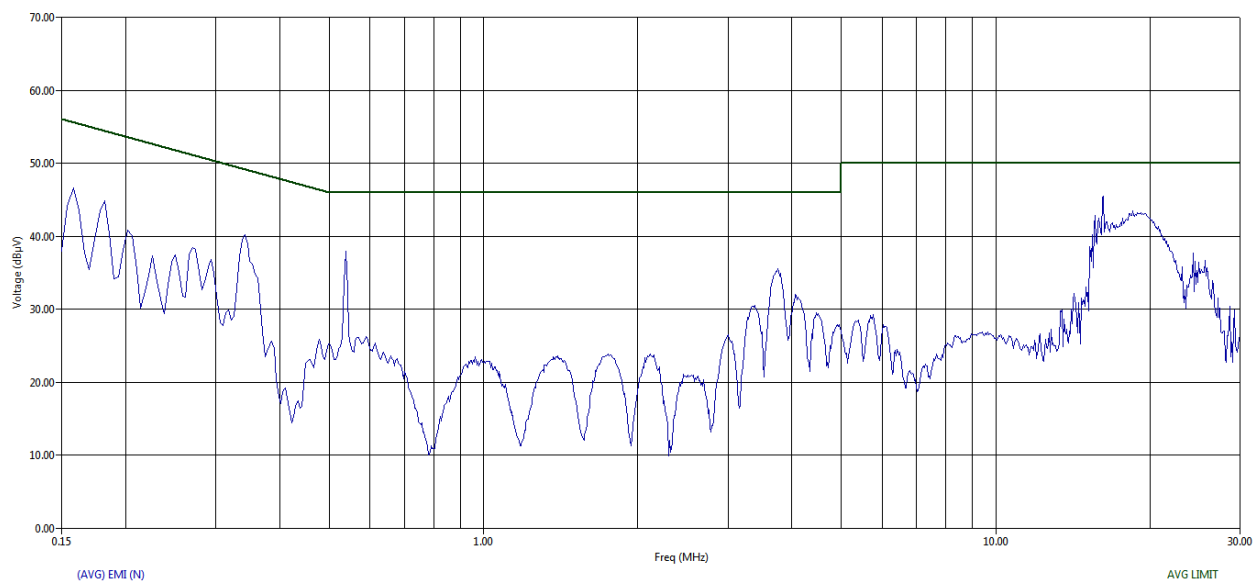


Figure 178: 5MHz, 230V/50Hz, Mid channel: Average CE Graph - 150kHz to 30MHz - Neutral

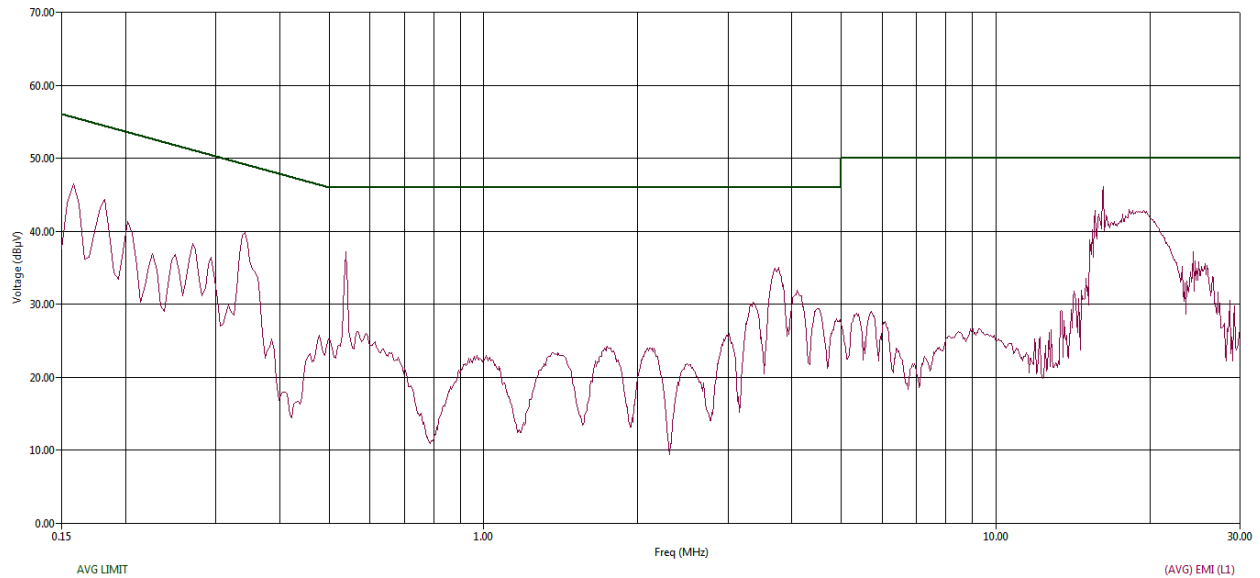


Figure 179: 5MHz, 230V/50Hz, Mid channel: Average CE Graph - 150kHz to 30MHz - Line

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBuV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBuV) | (QP) Limit (dBuV) | (QP) Margin QPL (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|----------------------|
| 0.150 | 0.159 | N | 41.899 | 10.107 | 2.091 | 0.000 | 54.097 | 65.505 | -11.408 |
| 0.150 | 0.152 | L1 | 38.882 | 10.107 | 0.000 | 2.183 | 51.172 | 65.887 | -14.714 |
| 0.182 | 0.175 | N | 38.028 | 10.107 | 1.953 | 0.000 | 50.088 | 64.722 | -14.634 |
| 0.182 | 0.173 | L1 | 37.701 | 10.107 | 0.000 | 1.991 | 49.799 | 64.806 | -15.008 |
| 0.218 | 0.222 | L1 | 33.228 | 10.105 | 0.000 | 1.628 | 44.961 | 62.756 | -17.795 |
| 0.222 | 0.224 | N | 32.588 | 10.105 | 1.592 | 0.000 | 44.285 | 62.667 | -18.381 |
| 0.330 | 0.334 | L1 | 31.501 | 10.102 | 0.000 | 1.022 | 42.626 | 59.339 | -16.713 |
| 0.338 | 0.346 | N | 34.185 | 10.102 | 0.959 | 0.000 | 45.247 | 59.067 | -13.820 |
| 16.230 | 16.222 | N | 33.516 | 10.356 | 0.688 | 0.000 | 44.560 | 60.000 | -15.440 |
| 16.230 | 16.225 | L1 | 33.235 | 10.356 | 0.000 | 0.686 | 44.278 | 60.000 | -15.722 |

Table 94: 5MHz, 230V/50Hz, Mid channel: Quasipeak table for CE from 150 kHz to 30 MHz

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBuV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBuV) | (AVG) Limit (dBuV) | (AVG) Margin AVL (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-----------------------|
| 0.150 | 0.159 | N | 33.735 | 10.107 | 2.091 | 0.000 | 45.933 | 55.505 | -9.572 |
| 0.150 | 0.152 | L1 | 28.028 | 10.107 | 0.000 | 2.183 | 40.318 | 55.887 | -15.568 |
| 0.182 | 0.175 | N | 28.243 | 10.107 | 1.953 | 0.000 | 40.303 | 54.722 | -14.419 |
| 0.182 | 0.173 | L1 | 27.798 | 10.107 | 0.000 | 1.991 | 39.896 | 54.806 | -14.911 |
| 0.218 | 0.222 | L1 | 23.943 | 10.105 | 0.000 | 1.628 | 35.675 | 52.756 | -17.081 |
| 0.222 | 0.224 | N | 22.881 | 10.105 | 1.592 | 0.000 | 34.578 | 52.667 | -18.088 |
| 0.330 | 0.334 | L1 | 24.060 | 10.102 | 0.000 | 1.022 | 35.185 | 49.339 | -14.154 |
| 0.338 | 0.346 | N | 27.134 | 10.102 | 0.959 | 0.000 | 38.196 | 49.067 | -10.871 |
| 16.230 | 16.222 | N | 28.453 | 10.356 | 0.688 | 0.000 | 39.498 | 50.000 | -10.502 |
| 16.230 | 16.225 | L1 | 28.255 | 10.356 | 0.000 | 0.686 | 39.298 | 50.000 | -10.702 |

Table 95: 5MHz, 230V/50Hz, Mid channel: Average table for CE from 150 kHz to 30 MHz

5.3.2.5.9 POWER LINE – 230 V 50 Hz – 5 MHz BANDWIDTH – HIGH CHANNEL

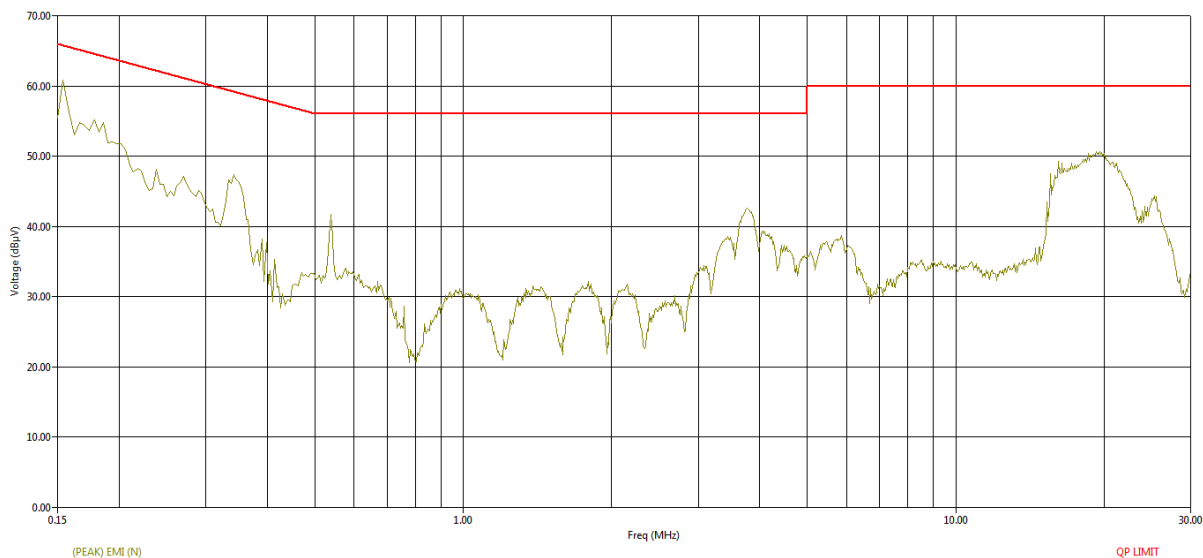


Figure 180: 5MHz, 230V/50Hz, High channel: Peak CE Graph - 150kHz to 30MHz - Neutral

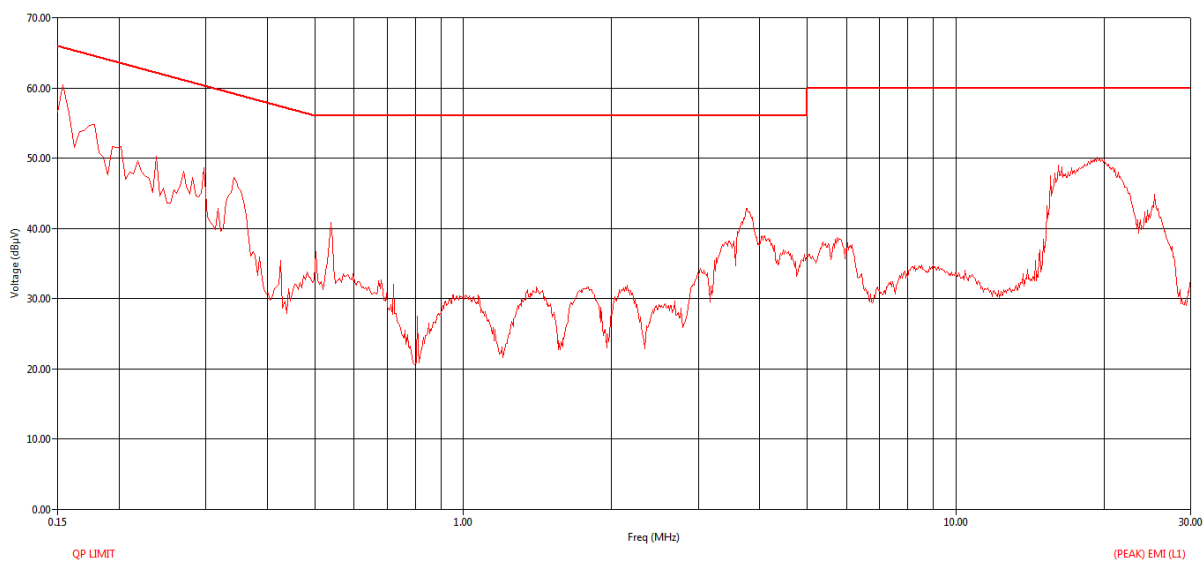


Figure 181: 5MHz, 230V/50Hz, High channel: Peak CE Graph - 150kHz to 30MHz - Line

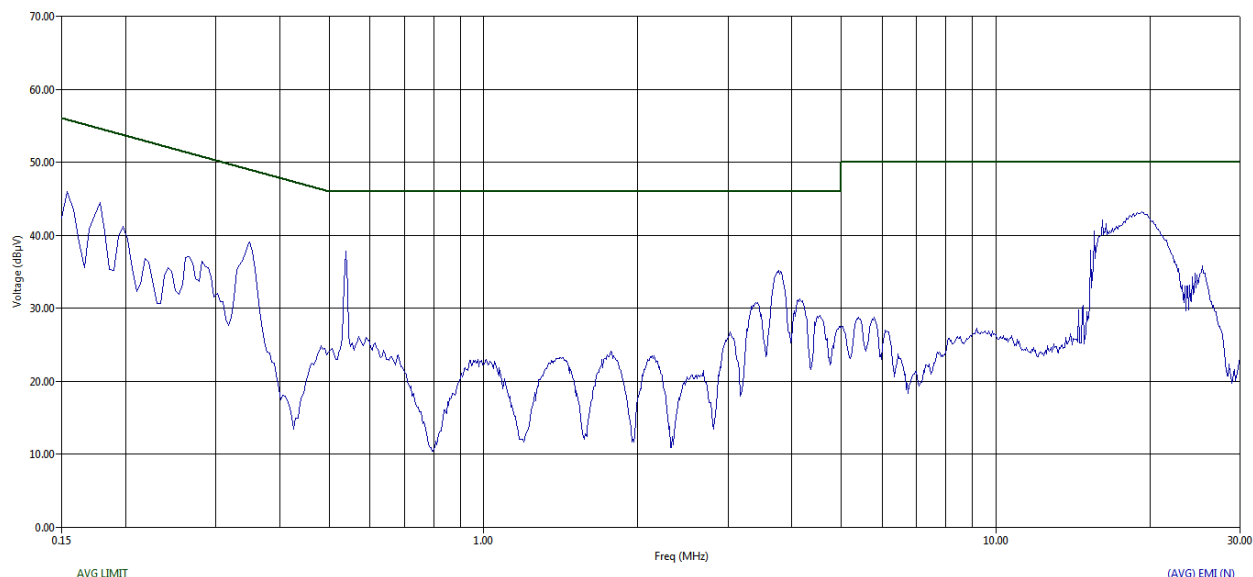


Figure 182: 5MHz, 230V/50Hz, High channel: Average CE Graph - 150kHz to 30MHz - Neutral

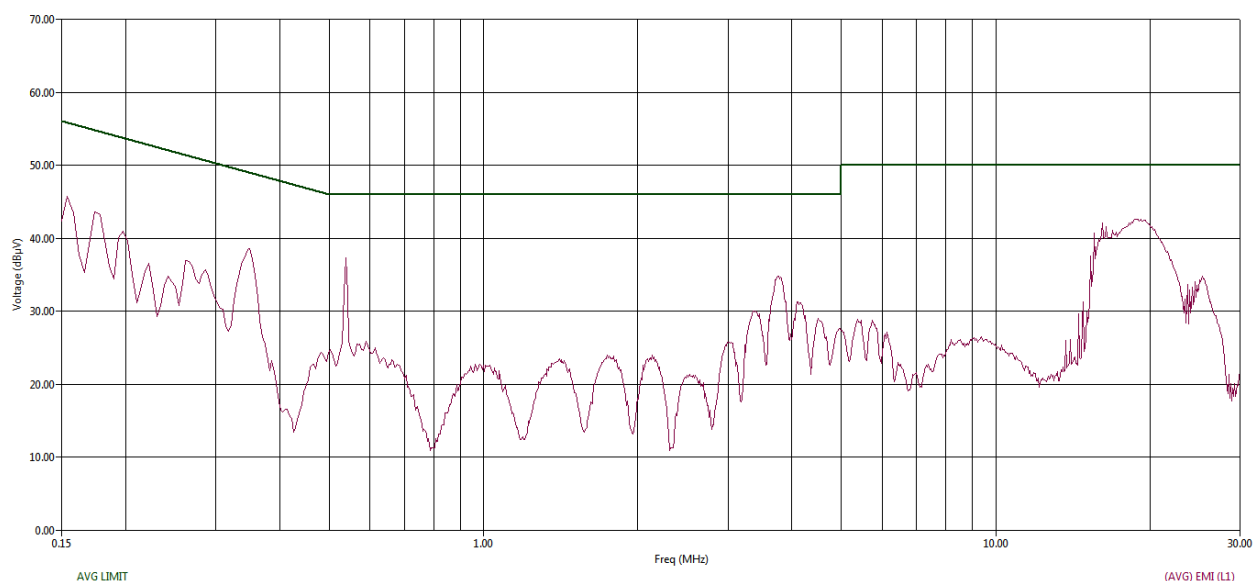


Figure 183: 5MHz, 230V/50Hz, High channel: Average CE Graph - 150kHz to 30MHz - Line

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBμV) | (QP) Limit (dBμV) | (QP) Margin QPL (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|----------------------|
| 0.150 | 0.154 | N | 41.901 | 10.107 | 2.139 | 0.000 | 54.148 | 65.780 | -11.633 |
| 0.150 | 0.152 | L1 | 41.280 | 10.107 | 0.000 | 2.183 | 53.570 | 65.885 | -12.315 |
| 0.182 | 0.174 | N | 40.068 | 10.107 | 1.957 | 0.000 | 52.131 | 64.744 | -12.612 |
| 0.182 | 0.175 | L1 | 39.516 | 10.107 | 0.000 | 1.977 | 51.600 | 64.726 | -13.126 |
| 0.218 | 0.203 | L1 | 35.515 | 10.106 | 0.000 | 1.760 | 47.380 | 63.502 | -16.122 |
| 0.222 | 0.221 | N | 33.775 | 10.105 | 1.613 | 0.000 | 45.493 | 62.785 | -17.292 |
| 0.330 | 0.337 | L1 | 32.198 | 10.102 | 0.000 | 1.012 | 43.312 | 59.280 | -15.968 |
| 0.338 | 0.345 | N | 34.057 | 10.102 | 0.960 | 0.000 | 45.120 | 59.073 | -13.953 |
| 16.230 | 16.225 | N | 33.415 | 10.356 | 0.688 | 0.000 | 44.459 | 60.000 | -15.541 |
| 16.230 | 16.235 | L1 | 33.222 | 10.356 | 0.000 | 0.686 | 44.264 | 60.000 | -15.736 |

Table 96: 5MHz, 230V/50Hz, High channel: Quasipeak table for CE from 150 kHz to 30 MHz

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBuV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBuV) | (AVG) Limit (dBuV) | (AVG) Margin AVL (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-----------------------|
| 0.150 | 0.154 | N | 33.310 | 10.107 | 2.139 | 0.000 | 45.557 | 55.780 | -10.223 |
| 0.150 | 0.152 | L1 | 31.875 | 10.107 | 0.000 | 2.183 | 44.165 | 55.885 | -11.720 |
| 0.182 | 0.174 | N | 31.857 | 10.107 | 1.957 | 0.000 | 43.921 | 54.744 | -10.823 |
| 0.182 | 0.175 | L1 | 31.382 | 10.107 | 0.000 | 1.977 | 43.466 | 54.726 | -11.261 |
| 0.218 | 0.203 | L1 | 26.405 | 10.106 | 0.000 | 1.760 | 38.271 | 53.502 | -15.231 |
| 0.222 | 0.221 | N | 24.717 | 10.105 | 1.613 | 0.000 | 36.435 | 52.785 | -16.350 |
| 0.330 | 0.337 | L1 | 24.693 | 10.102 | 0.000 | 1.012 | 35.807 | 49.280 | -13.473 |
| 0.338 | 0.345 | N | 26.640 | 10.102 | 0.960 | 0.000 | 37.703 | 49.073 | -11.370 |
| 16.230 | 16.225 | N | 28.414 | 10.356 | 0.688 | 0.000 | 39.459 | 50.000 | -10.541 |
| 16.230 | 16.235 | L1 | 28.253 | 10.356 | 0.000 | 0.686 | 39.295 | 50.000 | -10.705 |

Table 97: 5MHz, 230V/50Hz, High channel: Average table for CE from 150 kHz to 30 MHz

5.3.2.5.10 POWER LINE – 120 V 60 Hz – 5 MHz BANDWIDTH – LOW CHANNEL

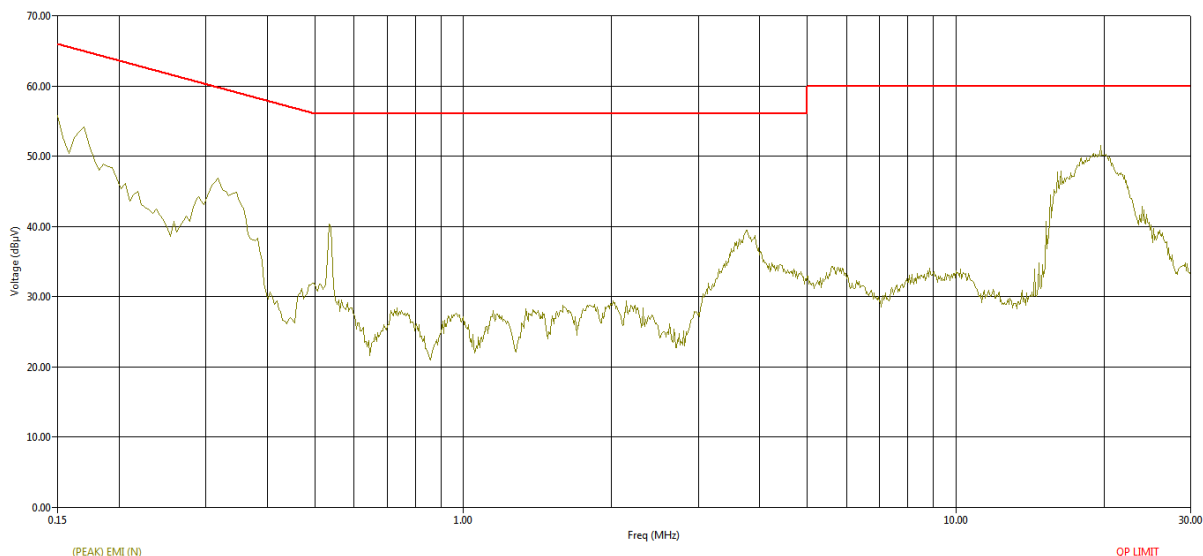


Figure 184: 5MHz, 120V/60Hz, Low channel: Peak CE Graph - 150kHz to 30MHz - Neutral

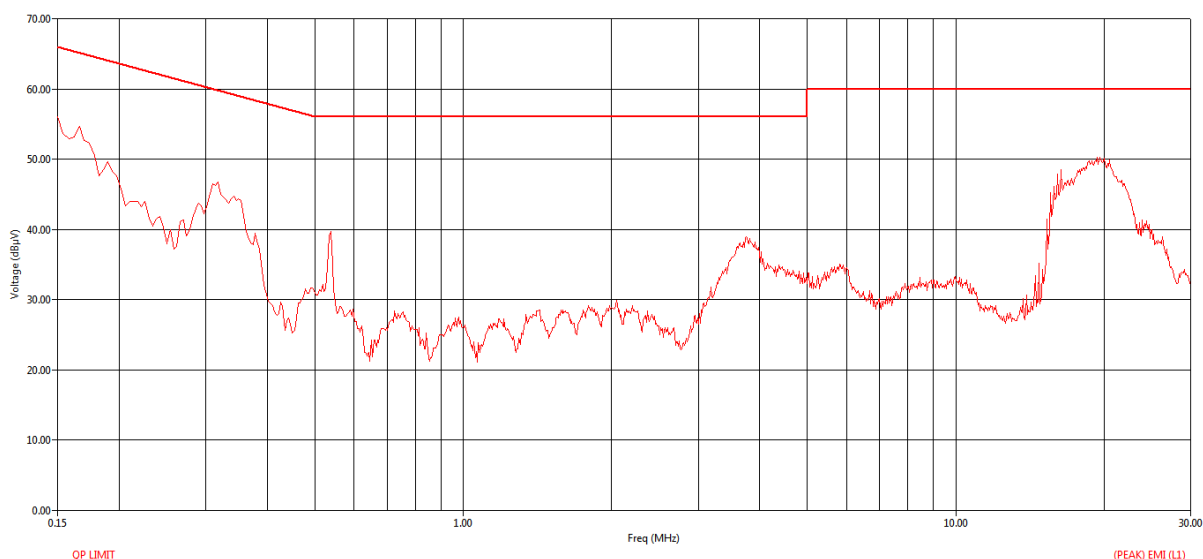


Figure 185: 5MHz, 120V/60Hz, Low channel: Peak CE Graph - 150kHz to 30MHz - Line

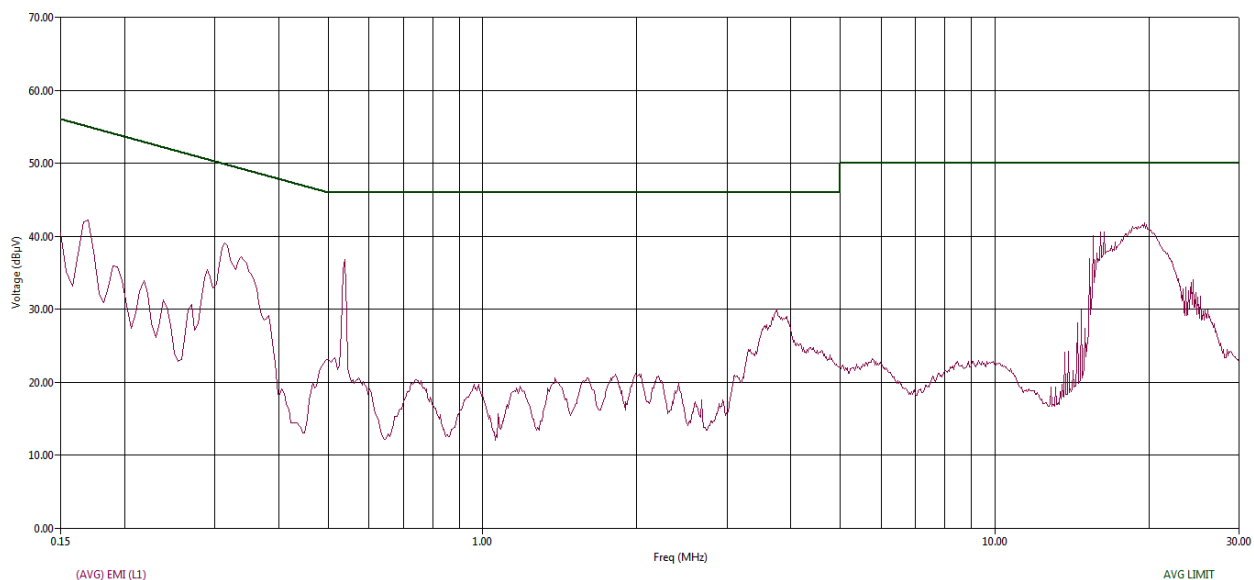


Figure 186: 5MHz, 120V/60Hz, Low channel: Average CE Graph - 150kHz to 30MHz - Neutral

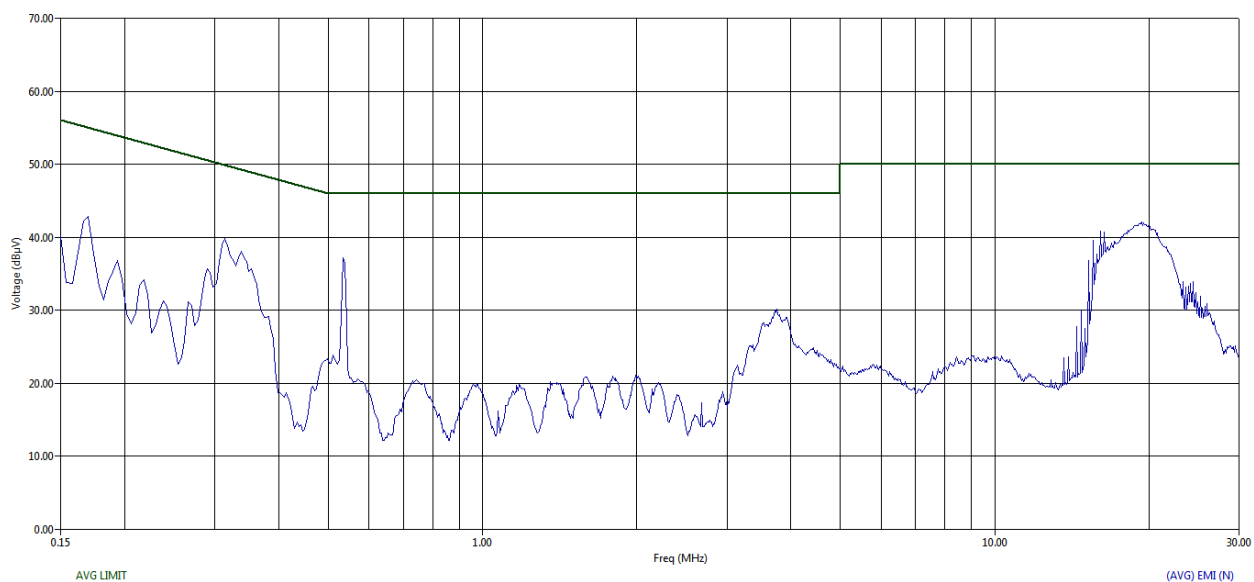


Figure 187: 5MHz, 120V/60Hz, Low channel: Average CE Graph - 150kHz to 30MHz - Line

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBμV) | (QP) Limit (dBμV) | (QP) Margin QPL (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|----------------------|
| 0.150 | 0.154 | N | 33.734 | 10.107 | 2.137 | 0.000 | 45.979 | 65.769 | -19.790 |
| 0.154 | 0.151 | L1 | 37.700 | 10.107 | 0.000 | 2.194 | 50.001 | 65.950 | -15.949 |
| 0.322 | 0.317 | N | 33.832 | 10.103 | 1.088 | 0.000 | 45.023 | 59.797 | -14.775 |
| 0.330 | 0.322 | L1 | 31.934 | 10.103 | 0.000 | 1.079 | 43.116 | 59.663 | -16.547 |
| 0.538 | 0.536 | N | 29.063 | 10.102 | 0.411 | 0.000 | 39.576 | 56.000 | -16.424 |
| 0.538 | 0.535 | L1 | 28.640 | 10.102 | 0.000 | 0.420 | 39.163 | 56.000 | -16.837 |
| 3.774 | 3.779 | N | 24.813 | 10.112 | 0.307 | 0.000 | 35.232 | 56.000 | -20.768 |
| 3.774 | 3.778 | L1 | 24.549 | 10.112 | 0.000 | 0.341 | 35.001 | 56.000 | -20.999 |
| 19.134 | 19.129 | L1 | 34.627 | 10.391 | 0.000 | 0.469 | 45.487 | 60.000 | -14.513 |
| 19.362 | 19.361 | N | 35.146 | 10.393 | 0.571 | 0.000 | 46.110 | 60.000 | -13.890 |

Table 98: 5MHz, 120V/60Hz, Low channel: Quasipeak table for CE from 150 kHz to 30 MHz

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBμV) | (AVG) Limit (dBμV) | (AVG) Margin AVL (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-----------------------|
| 0.150 | 0.154 | N | 21.836 | 10.107 | 2.137 | 0.000 | 34.080 | 55.769 | -21.688 |
| 0.154 | 0.151 | L1 | 26.010 | 10.107 | 0.000 | 2.194 | 38.311 | 55.950 | -17.638 |
| 0.322 | 0.317 | N | 28.370 | 10.103 | 1.088 | 0.000 | 39.560 | 49.797 | -10.237 |
| 0.330 | 0.322 | L1 | 25.743 | 10.103 | 0.000 | 1.079 | 36.925 | 49.663 | -12.738 |
| 0.538 | 0.536 | N | 27.018 | 10.102 | 0.411 | 0.000 | 37.531 | 46.000 | -8.469 |
| 0.538 | 0.535 | L1 | 26.787 | 10.102 | 0.000 | 0.420 | 37.309 | 46.000 | -8.691 |
| 3.774 | 3.779 | N | 18.483 | 10.112 | 0.307 | 0.000 | 28.902 | 46.000 | -17.098 |
| 3.774 | 3.778 | L1 | 18.155 | 10.112 | 0.000 | 0.341 | 28.608 | 46.000 | -17.392 |
| 19.134 | 19.129 | L1 | 29.393 | 10.391 | 0.000 | 0.469 | 40.253 | 50.000 | -9.747 |
| 19.362 | 19.361 | N | 29.952 | 10.393 | 0.571 | 0.000 | 40.917 | 50.000 | -9.083 |

Table 99: 5MHz, 120V/60Hz, Low channel: Average table for CE from 150 kHz to 30 MHz

5.3.2.5.11 POWER LINE – 120 V 60 Hz – 5 MHz BANDWIDTH – MID CHANNEL

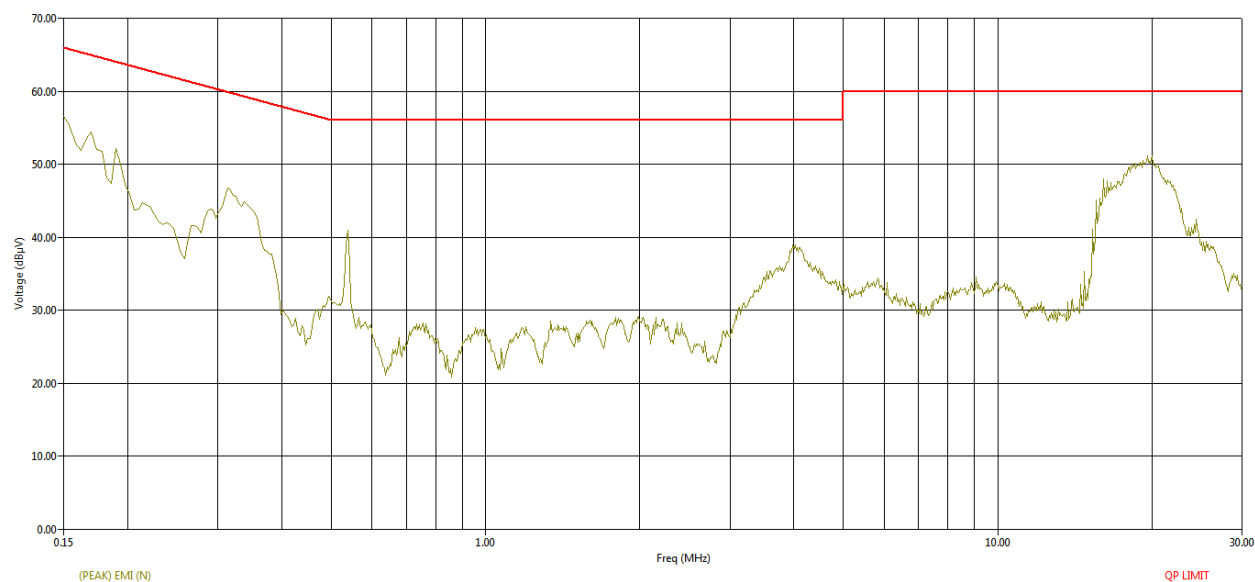


Figure 188: 5MHz, 120V/60Hz, Mid channel: Peak CE Graph - 150kHz to 30MHz - Neutral

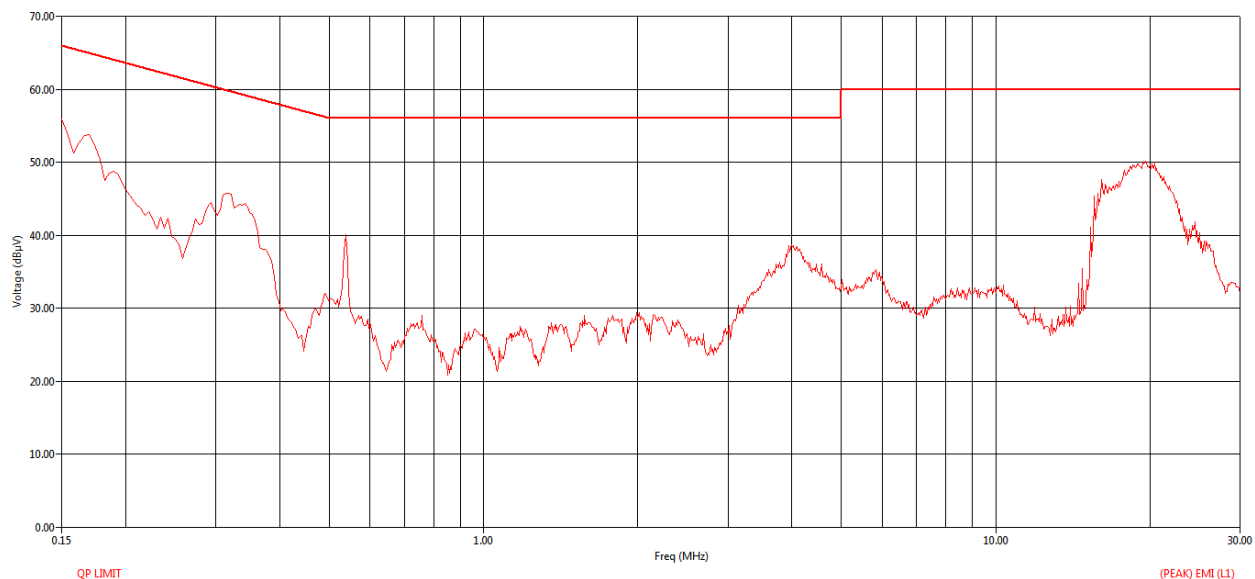


Figure 189: 5MHz, 120V/60Hz, Mid channel: Peak CE Graph - 150kHz to 30MHz - Line

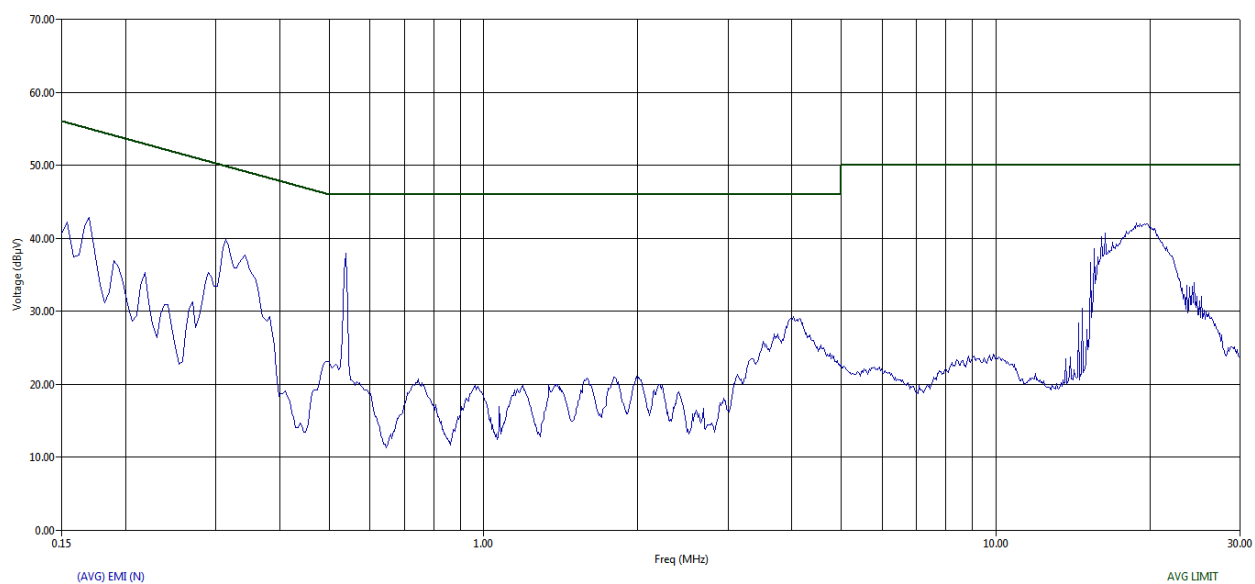


Figure 190: 5MHz, 120V/60Hz, Mid channel: Average CE Graph - 150kHz to 30MHz - Neutral

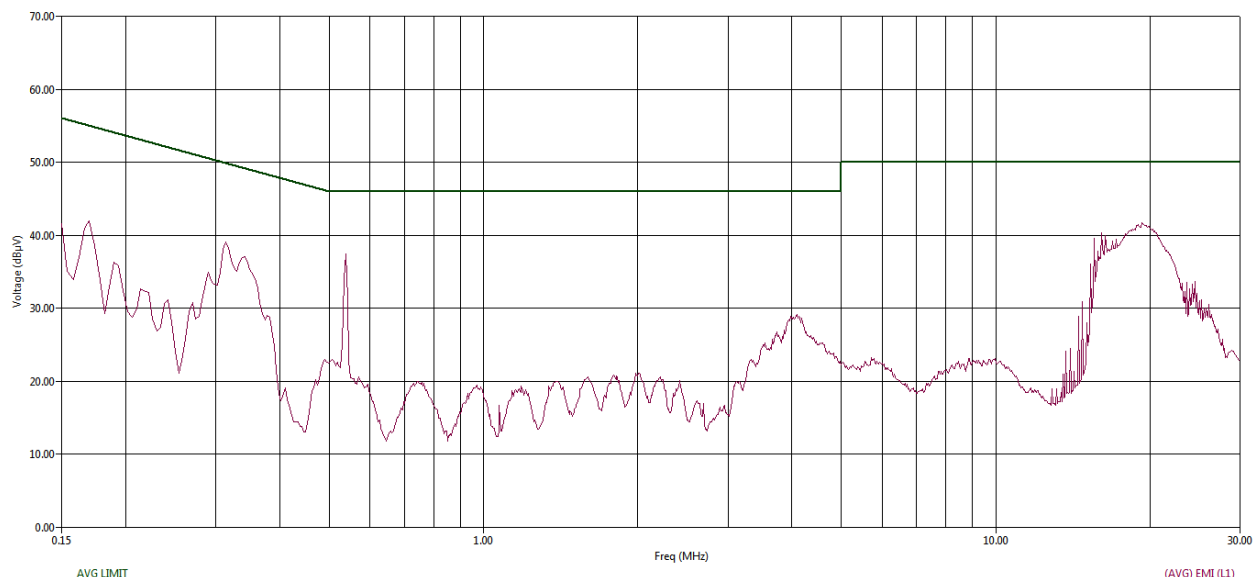


Figure 191: 5MHz, 120V/60Hz, Mid channel: Average CE Graph - 150kHz to 30MHz - Line

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBuV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBuV) | (QP) Limit (dBuV) | (QP) Margin QPL (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|----------------------|
| 0.150 | 0.154 | N | 35.782 | 10.107 | 2.143 | 0.000 | 48.033 | 65.803 | -17.770 |
| 0.154 | 0.150 | L1 | 39.709 | 10.107 | 0.000 | 2.202 | 52.019 | 65.994 | -13.975 |
| 0.322 | 0.316 | N | 33.169 | 10.103 | 1.091 | 0.000 | 44.363 | 59.819 | -15.456 |
| 0.330 | 0.323 | L1 | 30.911 | 10.103 | 0.000 | 1.073 | 42.087 | 59.629 | -17.542 |
| 0.538 | 0.537 | N | 29.011 | 10.102 | 0.411 | 0.000 | 39.524 | 56.000 | -16.476 |
| 0.538 | 0.538 | L1 | 28.405 | 10.102 | 0.000 | 0.419 | 38.927 | 56.000 | -17.073 |
| 3.774 | 3.766 | N | 22.222 | 10.112 | 0.307 | 0.000 | 32.640 | 56.000 | -23.360 |
| 3.774 | 3.765 | L1 | 21.774 | 10.112 | 0.000 | 0.341 | 32.227 | 56.000 | -23.773 |
| 19.134 | 19.133 | L1 | 34.758 | 10.391 | 0.000 | 0.469 | 45.617 | 60.000 | -14.383 |
| 19.362 | 19.361 | N | 35.453 | 10.393 | 0.571 | 0.000 | 46.418 | 60.000 | -13.582 |

Table 100: 5MHz, 120V/60Hz, Mid channel: Quasipeak table for CE from 150 kHz to 30 MHz

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBuV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBuV) | (AVG) Limit (dBuV) | (AVG) Margin AVL (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-----------------------|
| 0.150 | 0.154 | N | 23.255 | 10.107 | 2.143 | 0.000 | 35.506 | 55.803 | -20.297 |
| 0.154 | 0.150 | L1 | 27.688 | 10.107 | 0.000 | 2.202 | 39.997 | 55.994 | -15.997 |
| 0.322 | 0.316 | N | 27.812 | 10.103 | 1.091 | 0.000 | 39.006 | 49.819 | -10.813 |
| 0.330 | 0.323 | L1 | 24.820 | 10.103 | 0.000 | 1.073 | 35.996 | 49.629 | -13.633 |
| 0.538 | 0.537 | N | 27.344 | 10.102 | 0.411 | 0.000 | 37.856 | 46.000 | -8.144 |
| 0.538 | 0.538 | L1 | 26.613 | 10.102 | 0.000 | 0.419 | 37.135 | 46.000 | -8.865 |
| 3.774 | 3.766 | N | 15.768 | 10.112 | 0.307 | 0.000 | 26.186 | 46.000 | -19.814 |
| 3.774 | 3.765 | L1 | 15.233 | 10.112 | 0.000 | 0.341 | 25.685 | 46.000 | -20.315 |
| 19.134 | 19.133 | L1 | 29.468 | 10.391 | 0.000 | 0.469 | 40.328 | 50.000 | -9.672 |
| 19.362 | 19.361 | N | 30.144 | 10.393 | 0.571 | 0.000 | 41.108 | 50.000 | -8.892 |

Table 101: 5MHz, 120V/60Hz, Mid channel: Average table for CE from 150 kHz to 30 MHz

5.3.2.5.12 POWER LINE – 120 V 60 Hz – 5 MHz BANDWIDTH – HIGH CHANNEL

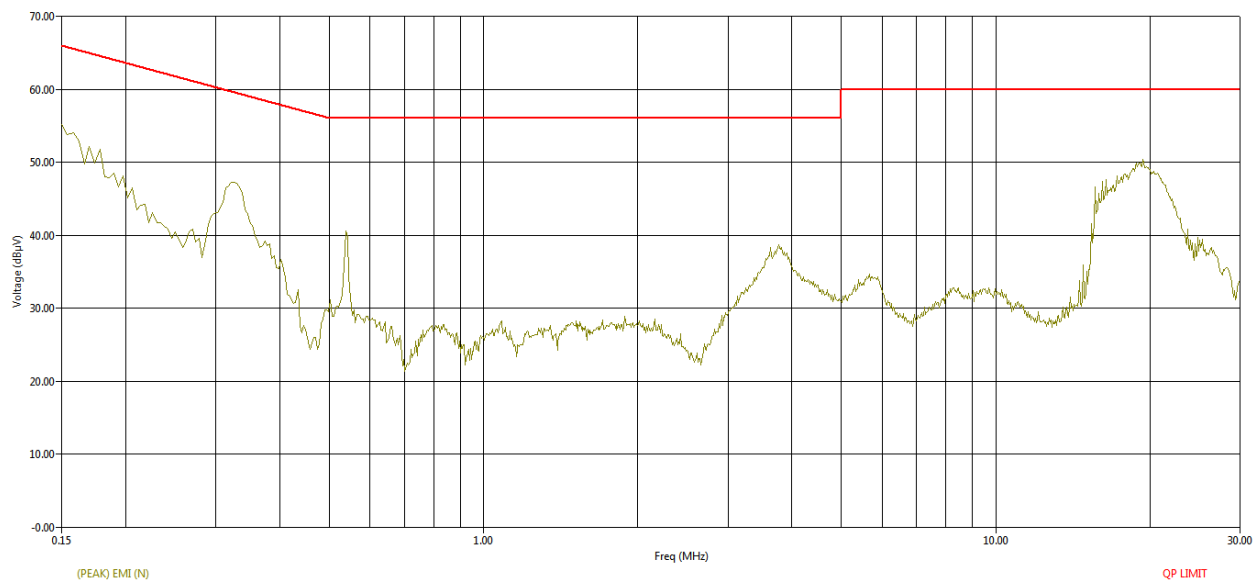


Figure 192: 5MHz, 120V/60Hz, High channel: Peak CE Graph - 150kHz to 30MHz - Neutral

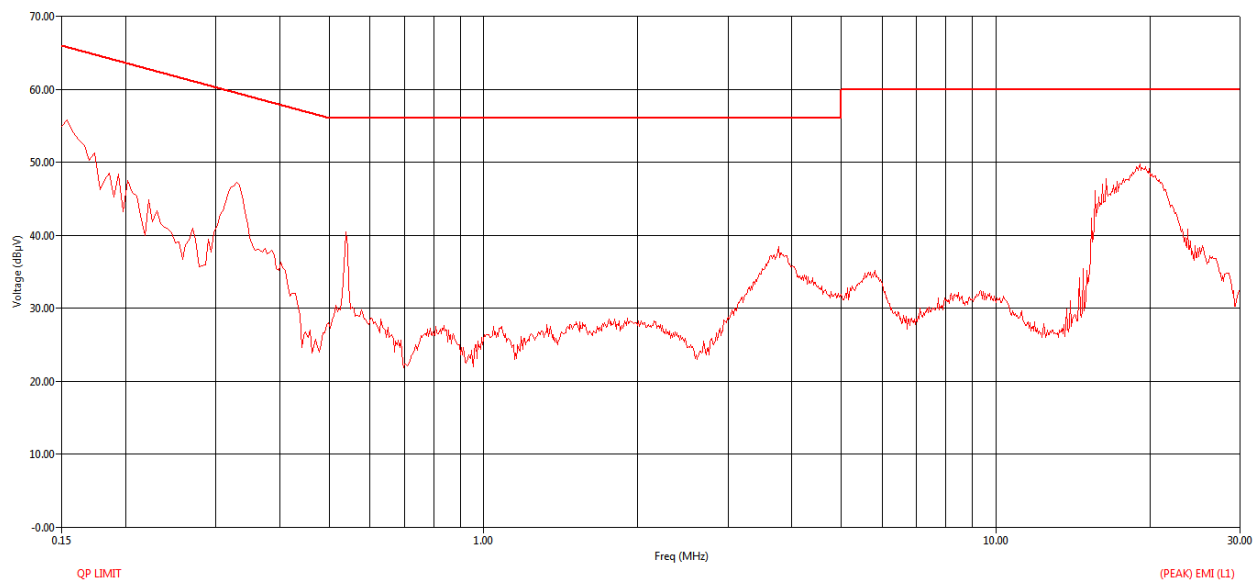


Figure 193: 5MHz, 120V/60Hz, High channel: Peak CE Graph - 150kHz to 30MHz - Line

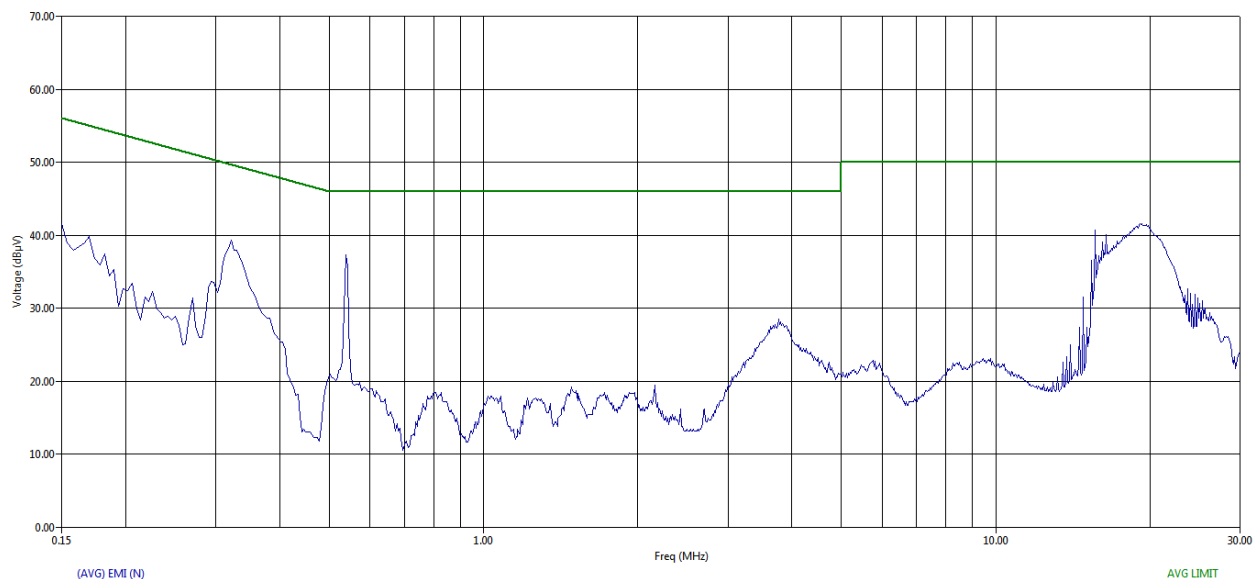


Figure 194: 5MHz, 120V/60Hz, High channel: Average CE Graph - 150kHz to 30MHz - Neutral

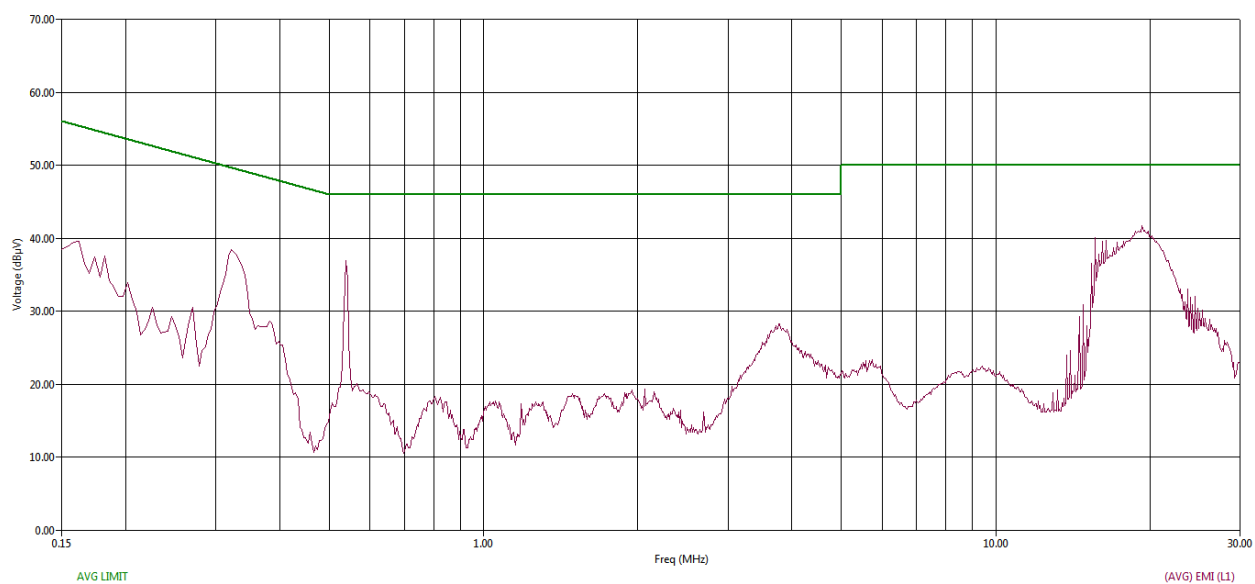


Figure 195: 5MHz, 120V/60Hz, High channel: Average CE Graph - 150kHz to 30MHz - Line

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBμV) | (QP) Limit (dBμV) | (QP) Margin QPL (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|----------------------|
| 0.150 | 0.152 | N | 45.519 | 10.107 | 2.159 | 0.000 | 57.785 | 65.890 | -8.105 |
| 0.154 | 0.151 | L1 | 46.480 | 10.107 | 0.000 | 2.197 | 58.785 | 65.968 | -7.183 |
| 0.322 | 0.328 | N | 28.351 | 10.103 | 1.034 | 0.000 | 39.488 | 59.492 | -20.005 |
| 0.330 | 0.335 | L1 | 29.242 | 10.102 | 0.000 | 1.018 | 40.363 | 59.317 | -18.955 |
| 0.538 | 0.538 | N | 28.632 | 10.102 | 0.411 | 0.000 | 39.145 | 56.000 | -16.855 |
| 0.538 | 0.537 | L1 | 28.344 | 10.102 | 0.000 | 0.420 | 38.866 | 56.000 | -17.134 |
| 3.774 | 3.770 | N | 26.709 | 10.112 | 0.307 | 0.000 | 37.128 | 56.000 | -18.872 |
| 3.774 | 3.767 | L1 | 26.489 | 10.112 | 0.000 | 0.341 | 36.941 | 56.000 | -19.059 |
| 19.134 | 19.139 | L1 | 38.335 | 10.391 | 0.000 | 0.468 | 49.194 | 60.000 | -10.806 |
| 19.362 | 19.362 | N | 38.920 | 10.393 | 0.571 | 0.000 | 49.885 | 60.000 | -10.115 |

Table 102: 5MHz, 120V/60Hz, High channel: Quasipeak table for CE from 150 kHz to 30 MHz

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBμV) | (AVG) Limit (dBμV) | (AVG) Margin AVL (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-----------------------|
| 0.150 | 0.152 | N | 32.341 | 10.107 | 2.159 | 0.000 | 44.607 | 55.890 | -11.283 |
| 0.154 | 0.151 | L1 | 33.962 | 10.107 | 0.000 | 2.197 | 46.267 | 55.968 | -9.701 |
| 0.322 | 0.328 | N | 20.682 | 10.103 | 1.034 | 0.000 | 31.819 | 49.492 | -17.674 |
| 0.330 | 0.335 | L1 | 23.309 | 10.102 | 0.000 | 1.018 | 34.429 | 49.317 | -14.888 |
| 0.538 | 0.538 | N | 27.025 | 10.102 | 0.411 | 0.000 | 37.537 | 46.000 | -8.463 |
| 0.538 | 0.537 | L1 | 26.622 | 10.102 | 0.000 | 0.420 | 37.144 | 46.000 | -8.856 |
| 3.774 | 3.770 | N | 20.248 | 10.112 | 0.307 | 0.000 | 30.667 | 46.000 | -15.333 |
| 3.774 | 3.767 | L1 | 20.111 | 10.112 | 0.000 | 0.341 | 30.564 | 46.000 | -15.436 |
| 19.134 | 19.139 | L1 | 32.487 | 10.391 | 0.000 | 0.468 | 43.346 | 50.000 | -6.654 |
| 19.362 | 19.362 | N | 32.980 | 10.393 | 0.571 | 0.000 | 43.945 | 50.000 | -6.055 |

Table 103: 5MHz, 120V/60Hz, High channel: Average table for CE from 150 kHz to 30 MHz

Note:

$(QP) EMI (dB\mu V) = (QP) Trace (dB\mu V) + Transducer (dB) + \{Cable + Pulse limiter\} (dB)$

$QP Margin QPL (dB) = (QP) EMI (dB\mu V) - (QP) Limit (dB\mu V)$

$(AVG) EMI (dB\mu V) = (AVG) Trace (dB\mu V) + Transducer (dB) + \{Cable + Pulse limiter\} (dB)$

$AVG Margin AVL (dB) = (AVG) EMI (dB\mu V) - (AVG) Limit (dB\mu V)$

5.3.2.6 RESULT

Conducted Emission from the EUT was within the specified limits.

ANNEXURE I: EUT SOFTWARE SETTINGS

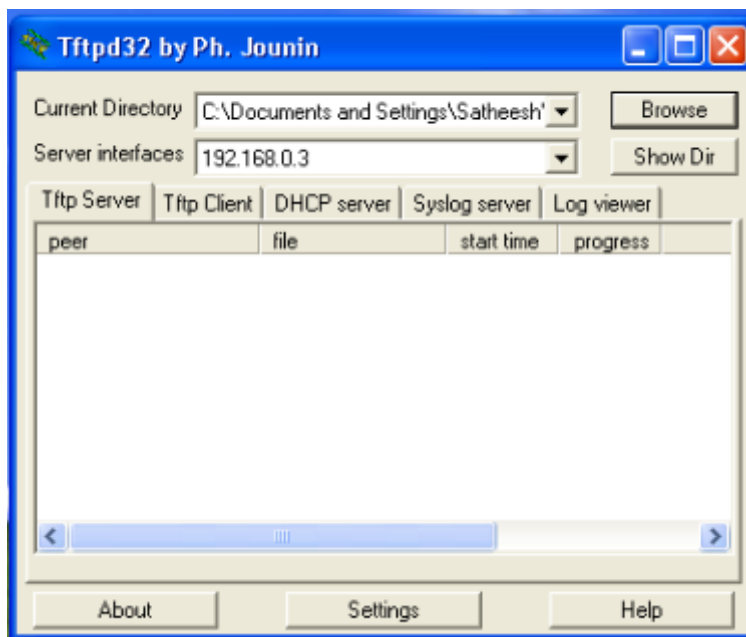


Figure 196 tftpd32 application screenshot

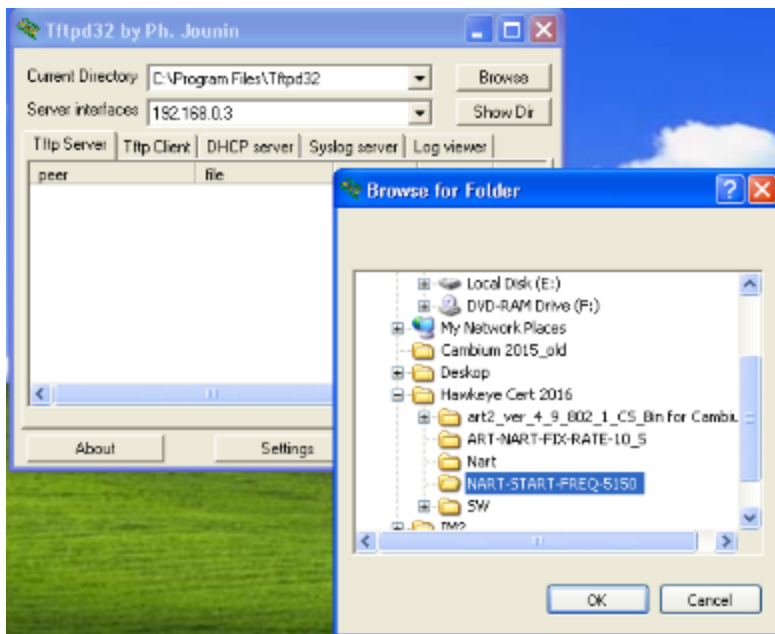


Figure 197 tftpd32 application initialization root_ screenshot



Figure 198 Tera term application screenshot

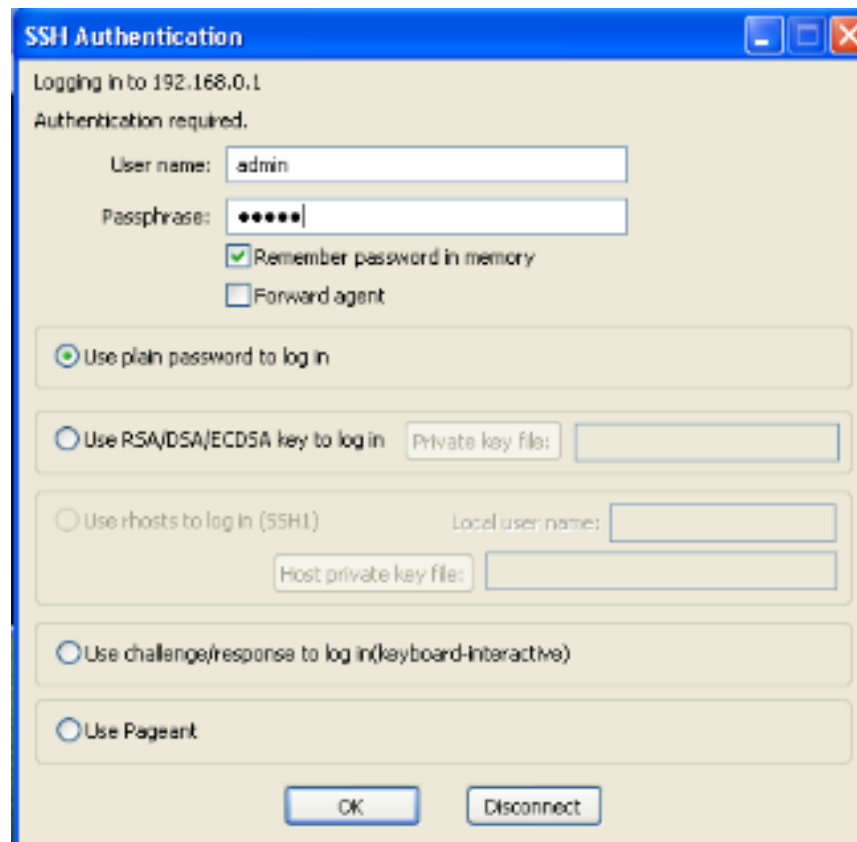


Figure 199 Tera term application Login screenshot

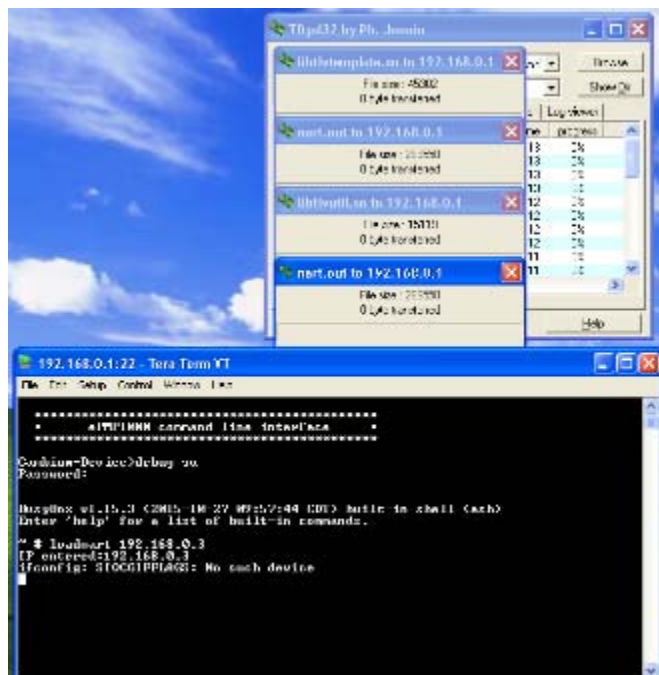


Figure 200 Initializing EUT screenshot

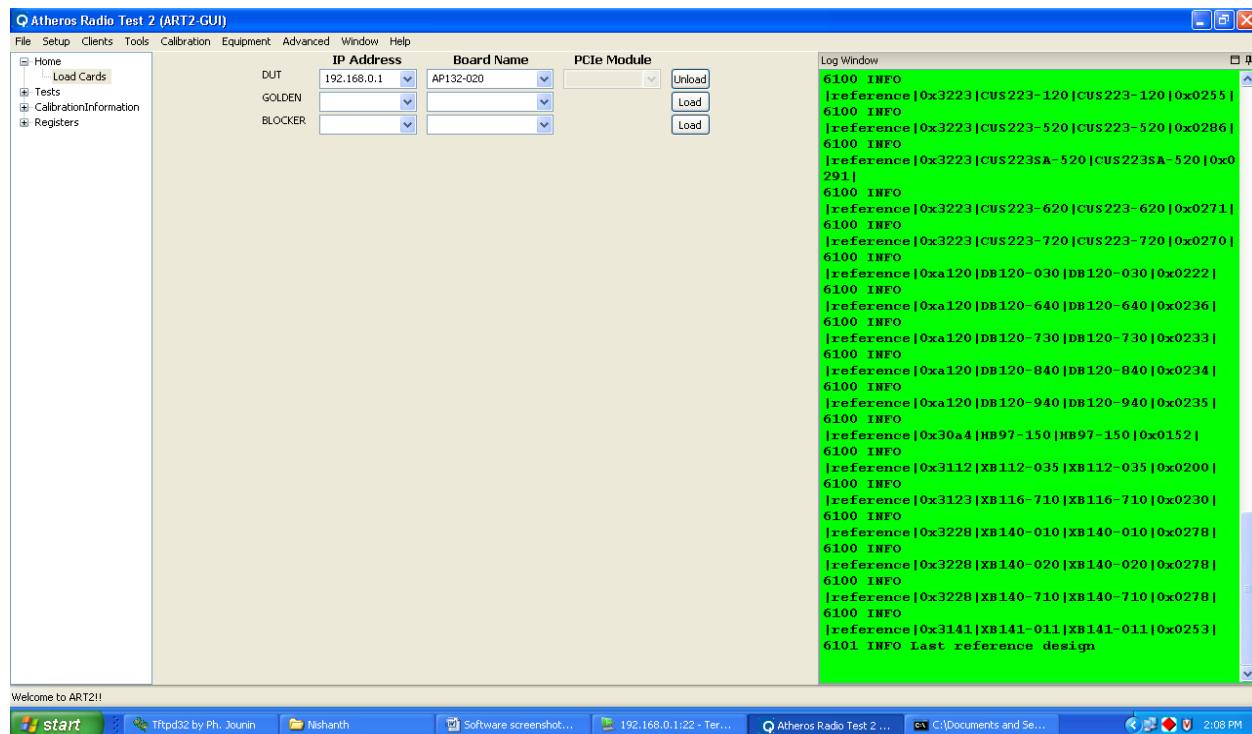


Figure 201 Atheros Radio Test GUI screenshot-1

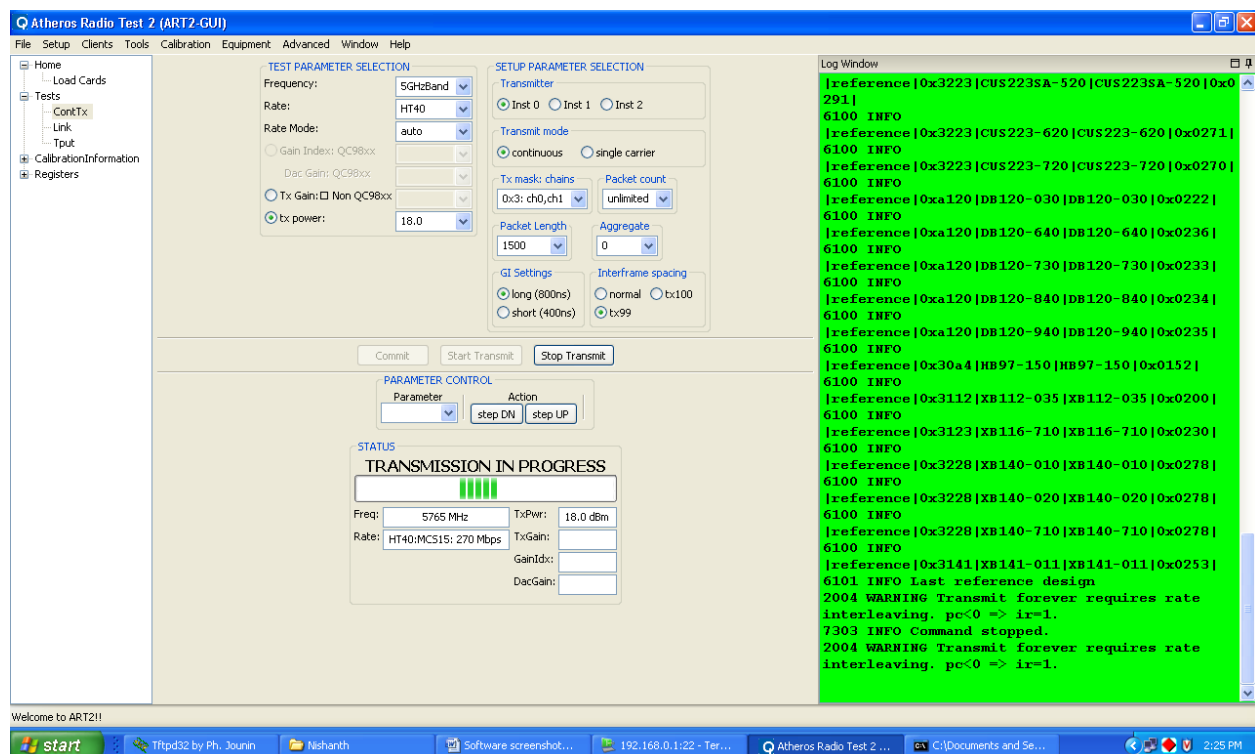


Figure 202 Atheros Radio Test GUI screenshot -2

ANNEXURE II: ACRONYMS

| | |
|------------|--------------------------------------|
| dB μ V | Decibel in micro Volt |
| dBm | Decibel in milli Watt |
| EUT | Equipment Under Test |
| FCC | Federal Communications Commission |
| GHz | Giga Hertz |
| kHz | Kilo Hertz |
| LISN | Line Impedance Stabilization Network |
| MHz | Mega Hertz |
| POE | Power over Ethernet |
| PSD | Power Spectral density |
| QP | Quasi Peak |
| RF | Radio Frequency |

END OF REPORT