EMC TEST REPORT	
TEST REPORT NUMBER	DBN 1613TEL660-E
TEST REPORT DATE	23-Jun-2016
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
ISSUED TO	Cambium Networks, 3800 Golf Road, Suite 360, Rolling Meadows, IL, USA 60008
ISSUED BY	**TARANG Lab** Wipro Technologies, SJP2, Survey#70,77,78/8A, Dodda Kanelli, Sarjapur road, Bangalore. Karnataka. India - 560 035 Tel: +91-80-30292929 Fax: +91-80-30298200 Email: tarang.planet@wipro.com Web: www.wipro.com

AMENDMENT HISTORY

Amendment Number	Amendment Date	Author of Amendment	Previous Report Version	Previous Report Date
Amendment Details				

TABLE OF CONTENTS

`

LIST OF FIGURES

LIST OF TABLES

1 TEST REPORT SUMMARY

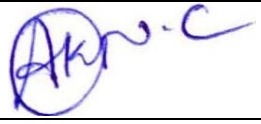
Applicant	Cambium Networks
Manufacturer	Cambium Networks
Product Name	ePMP2000
Product Model	C050900P031A
Product Serial Number	000456D1846A
Date of Test	02nd Apr 2016 to 12th May 2016
Venue of Test	Tarang Lab

Applicable Standard	Description	Performance Criteria/Class	Results
RSS GEN, Issue 4, Nov 2014, RSS 247 Issue 1 May 2015	RSS GEN 8.9 & 8.10 RSS 247 6.2.2 (2) - Transmitter Unwanted emission (Radiated)	Class 'B'	PASS
	RSS GEN 8.8 - Conducted emission	Class 'B'	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	Arun Kumar N C	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	11th Jul 2016 & 09th Mar 2017
EMI Test Receiver	R&S	ESIB40	100306	04th Jul 2016 & 21st Jan 2017
Active Loop Antenna	ETS-Lindgren	6507	00104711	05th Aug 2016
Hybrid Log periodic Antenna	TDK	HLP-3003C	130334	20th Jan 2017
Preamplifier	R&S	SCU-01	100626	30th Oct 2016
Double Ridge Horn Antenna	SME	BBHA 9120D	9120D-687	27th Jul 2016
Preamplifier	TDK	PA-02	100008	23rd Mar 2017
Broad Band Horn Antenna	Schwarz beck	BBHA9170	9170-337	29th Oct 2016
Broad Band Horn Antenna	Schwarz beck	BBHA9170	9170-344	29th Oct 2016
Pre-Amplifier	TDK	PA-02-3	2007332	28th Oct 2016
Pre-Amplifier	TDK	PA-02-2	2007331	28th Oct 2016

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	04th Jul 2016 & 21st Jan 2017
Pulse Limiter	R&S	ESH3-Z2	101260	03rd Mar 2017
LISN	Schwarzbeck	NSLK 8128	243	11th Sep 2016

Table 2: List of equipment used for conducted emissions test

4 RODUCT 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	**10 MHz channel for 17 dBi**
Low – 5280 MHz	Low – 5265 MHz
Mid - 5300 MHz	Mid – 5300 MHz
High - 5320 MHz	High – 5335 MHz

Product	ePMP2000
Model Number	C050900P031A
Serial Number	000456D1846A
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 5.2 GHz ePMP Integrated Radio was configured with test software and configured to have the following settings during the course of testing:

- 40 MHz 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 11 dBm Tx99 for 17 dBi antenna configuration-Mid channel
  - Tx Power is 11.5 dBm Tx99 for 17 dBi antenna configuration-High channel

- 10 MHz modulation bandwidth for low, mid & high channels
  - Rate – Legacy,
  - 54 Mbps OFDM, MCS15 / 130 Mbps
  - Tx Power is 9 dBm Tx99 for 17 dBi antenna configuration-Low channel
  - Tx Power is 10 dBm Tx99 for 17 dBi antenna configuration-Mid channel
  - Tx Power is 10 dBm Tx99 for 17 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

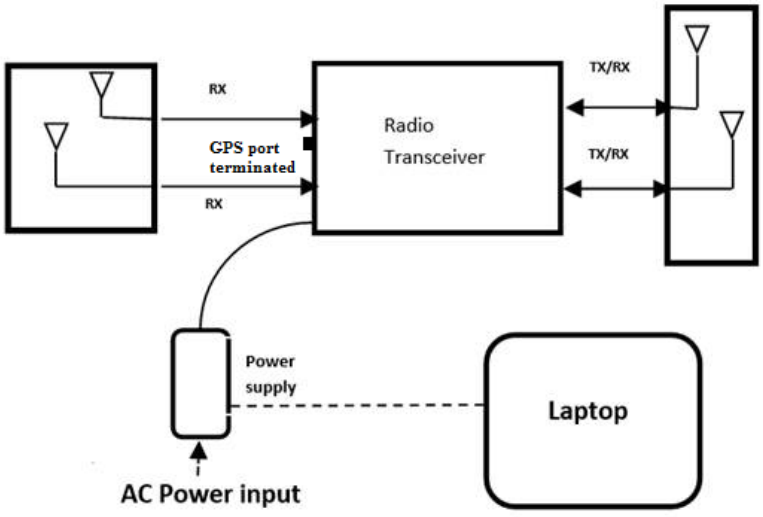


Figure 1: Block diagram of the EUT test setup

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
Switching Power Supply Gigabit Compatible	Cambium Networks	NET-P30-56	N000000L034A

5.2 APPLICABLE TEST

Applicable Standard	Description	Test level / Test Voltage	Applicability
RSS 247 Issue 1 May 2015, RSS Gen-Issue 4 Nov 2014	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	RSS GEN, Issue 4, Nov 2014			
Test Procedure	ANSI C63.10-2013			
Class	Class B			
Frequency Range	9kHz-150kHz	150kHz-30MHz	30MHz-1GHz	1GHz-40GHz
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 & Average			Average
Input Voltage	120 V AC			120 V AC
Input Frequency	60 Hz			60 Hz
Temperature	23.0 °C			23.0 °C
Humidity	54.0 %			55.0 %
Tested By	Suresh G.N.			Suresh G.N.
Test Date	2nd Apr 2016			11th May 2016

5.3.1.2 LIMITS

Standard	Reference section	Frequency range (MHz)	Limit (dBµV/m)
RSS-247 Issue 1 May 2015	6.2.2(2)	Outside 5250 – 5350	79.99

Table 5: Tx Unwanted emission Limit

Standard	Reference section	Frequency range	Limit (dBµV/m)
RSS GEN-Issue 4 Nov 2014	8.9 and 8.10	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 (dBµV/m)
RSS GEN- Issue 4 Nov 2014	8.9 and 8.10	30 MHz to 88 MHz 88 MHz to 216 MHz 216 MHz to 960 MHz 960 MHz to 40 GHz	40 43.52 46.02 53.98

Table 7: General field strength limit above 30MHz

5.3.1.3 TEST SETUP

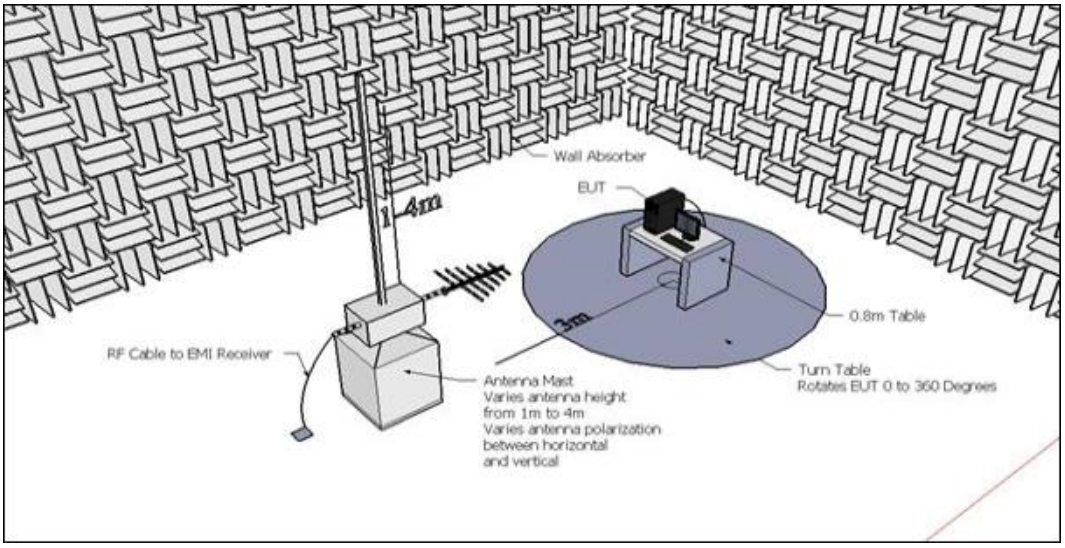


Figure 2: Sample radiated emission test setup

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 prescan 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

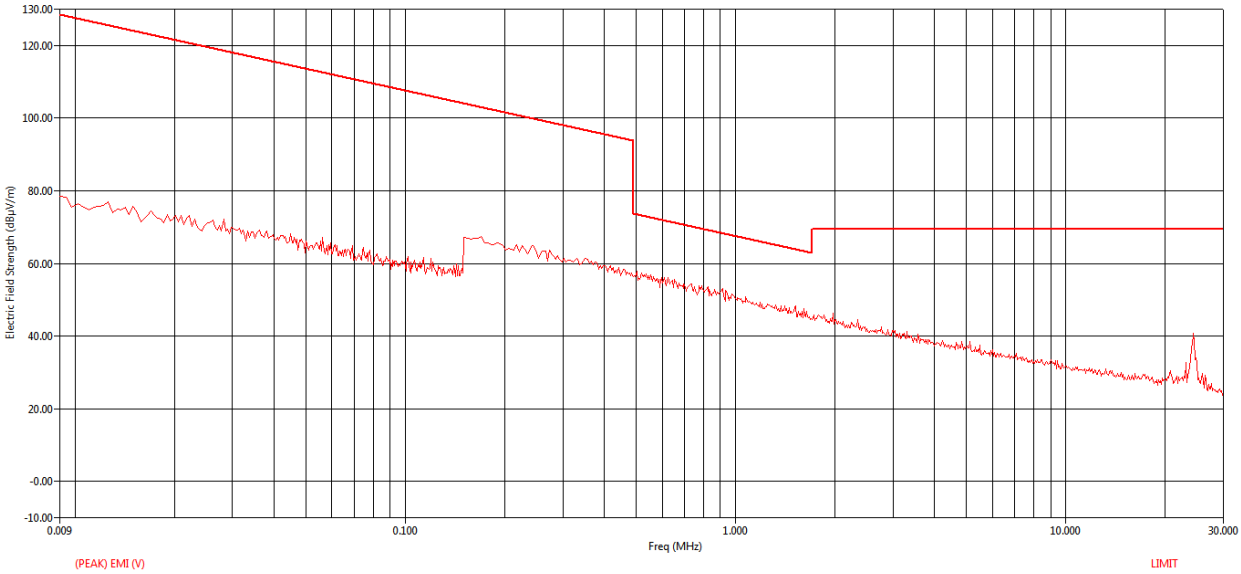


Figure 3: 40 MHz, 17 dBi, Low channel: Peak RE graph - 9 kHz to 30 MHz – Parallel

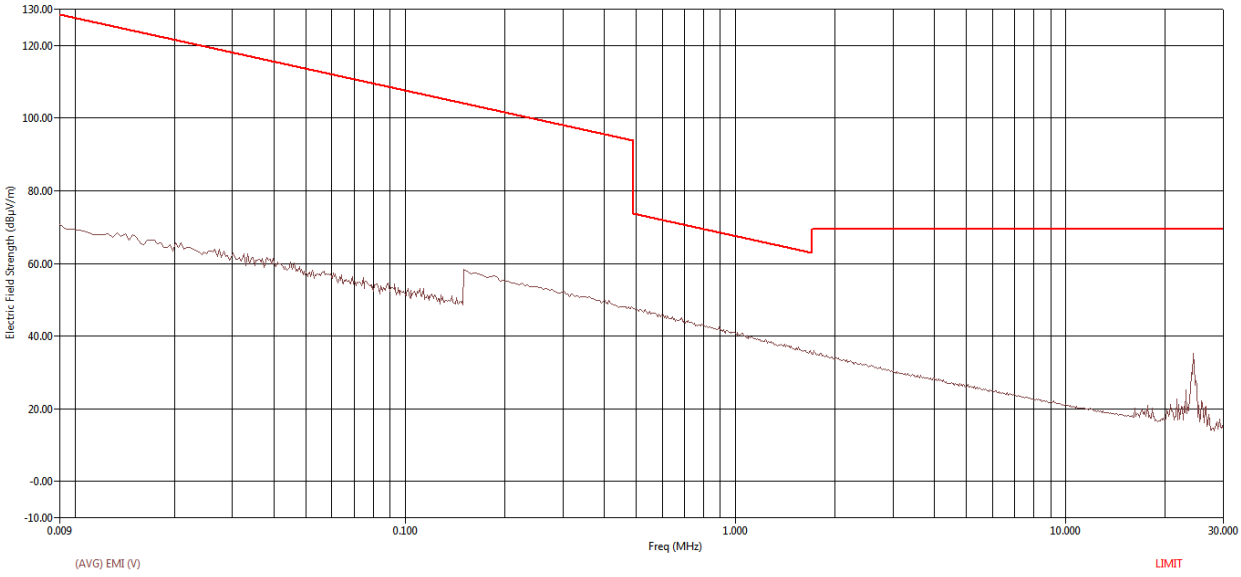


Figure 4: 40 MHz, 17 dBi, Low channel: Average RE graph - 9 kHz to 30 MHz – Parallel

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)
0.050	0.050	42.10	33.57	0.03	19.73	53.33	113.68	-60.35
0.170	0.164	65.60	44.45	0.04	18.28	62.77	103.30	-40.53
24.350	24.350	93.40	20.56	1.07	16.15	37.77	69.54	-31.77

Table 8: 40 MHz, 17 dBi, Low channel: Quasi peak table from 9 kHz to 30 MHz - Parallel

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbl Agl (deg)	(AVG) Trace (dBµV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBµV/m)	Limit (dBµV/m)	(AVG) Margin (dB)
0.050	0.050	42.10	37.70	0.03	19.73	57.46	113.68	-56.21
0.170	0.164	65.60	38.62	0.04	18.28	56.94	103.30	-46.36
24.350	24.350	93.40	17.23	1.07	16.15	34.45	69.54	-35.09

Table 9: 40 MHz, 17 dBi, Low channel: Average table from 9 kHz to 30 MHz - Parallel

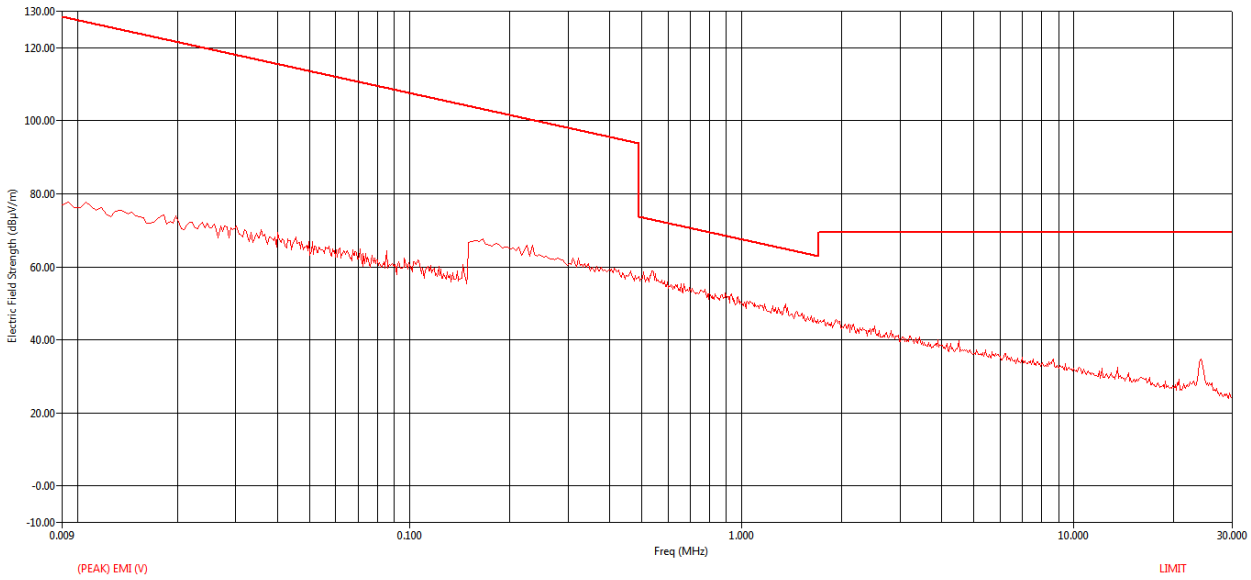


Figure 5: 40 MHz, 17 dBi, Low channel: Peak RE graph - 9 kHz to 30 MHz - Perpendicular

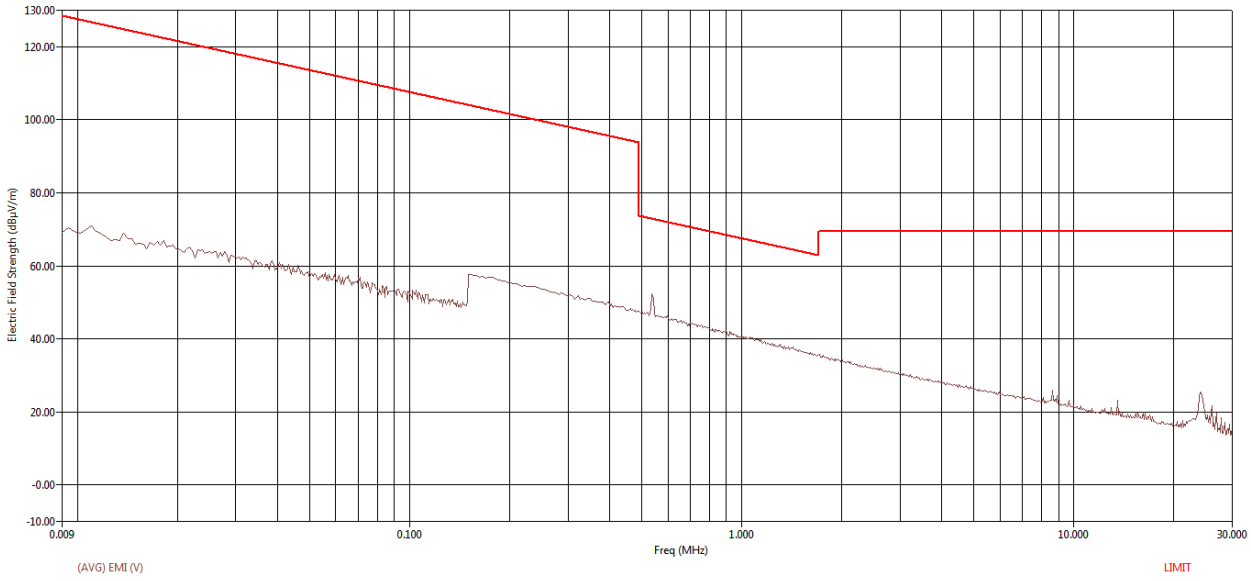


Figure 6: 40 MHz, 17 dBi, Low channel: Average RE graph - 9 kHz to 30 MHz - Perpendicular

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)
0.009	0.010	103.40	34.76	0.03	29.87	64.66	127.57	-62.92
0.166	0.160	114.30	44.65	0.04	18.29	62.97	103.50	-40.53
24.154	24.155	86.50	12.34	1.07	16.16	29.56	69.54	-39.98

Table 10: 40 MHz, 17 dBi, Low channel: Quasi peak table from 9 kHz to 30 MHz - Perpendicular

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbl Agl (deg)	(AVG) Trace (dBµV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBµV/m)	Limit (dBµV/m)	(AVG) Margin (dB)
0.009	0.010	103.40	38.97	0.03	29.87	68.87	127.57	-58.71
0.166	0.160	114.30	38.87	0.04	18.29	57.20	103.50	-46.30
24.154	24.155	86.50	6.83	1.07	16.16	24.06	69.54	-45.48

Table 11: 40 MHz, 17 dBi, Low channel: Average table from 9 kHz to 30 MHz - Perpendicular

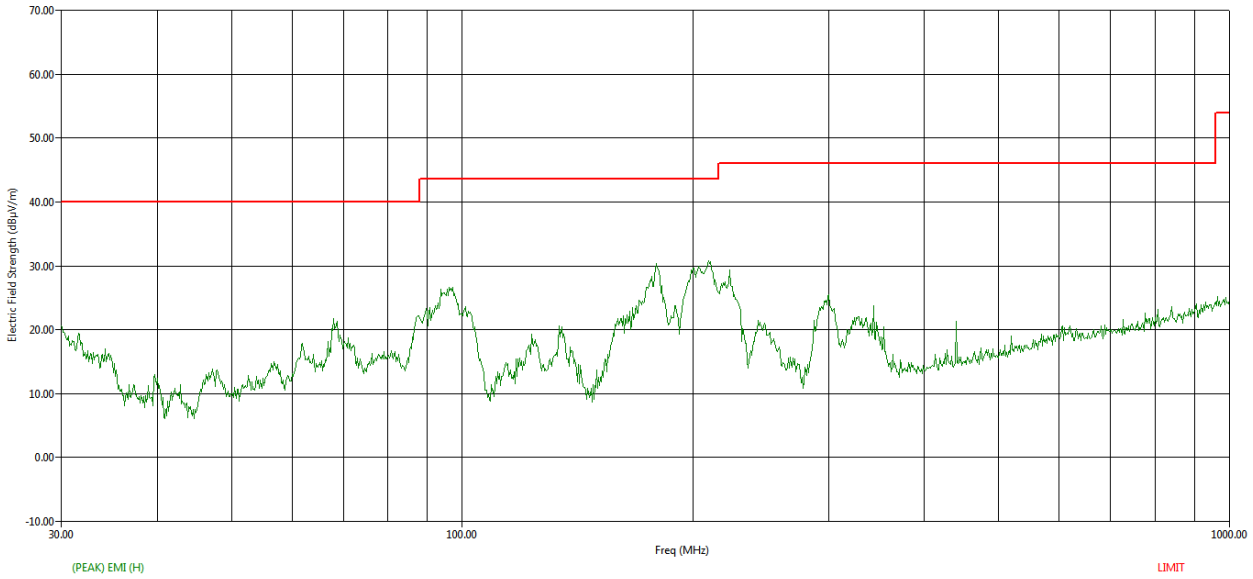


Figure 7: 40 MHz, 17 dBi, Low channel: Peak RE graph - 30 MHz to 1 GHz - Horizontal

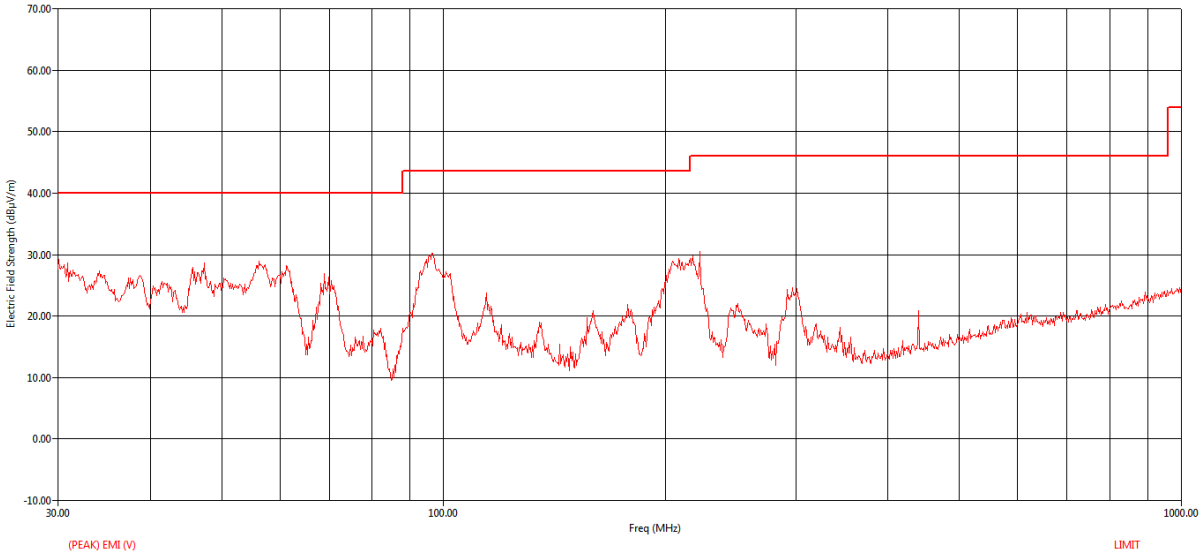


Figure 8: 40 MHz, 17 dBi, Low channel: Peak RE graph - 30 MHz to 1 GHz - Vertical

Freq (MHz)	Freq (Max) (MHz)	Pol	Twr Ht (cm)	EUT Ttbl Agl (deg)	(QP) Trace (dBµV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(QP) EMI (dBµV/m)	Limit (dBµV/m)	(QP) Margin (dB)
96.60	96.57	V	290.00	322.00	57.78	2.10	8.28	43.93	24.22	43.52	-19.30
178.84	178.94	H	177.00	189.90	53.55	2.84	13.77	43.95	26.20	43.52	-17.32
179.24	179.26	H	167.00	182.30	52.79	2.84	13.80	43.95	25.48	43.52	-18.04
208.56	208.59	V	191.00	349.90	47.14	3.07	13.08	43.94	19.35	43.52	-24.17
209.36	209.40	H	171.00	250.00	54.37	3.07	13.05	43.94	26.55	43.52	-16.97
210.60	210.53	H	203.00	247.90	54.03	3.08	13.01	43.94	26.18	43.52	-17.34
217.52	217.46	V	158.00	359.60	54.70	3.13	12.74	43.93	26.64	46.02	-19.38
222.52	222.49	V	185.00	16.90	59.19	3.16	12.55	43.93	30.98	46.02	-15.04

Table 12: 40 MHz, 17 dBi, Low channel: Quasi peak table from 30 MHz to 1 GHz

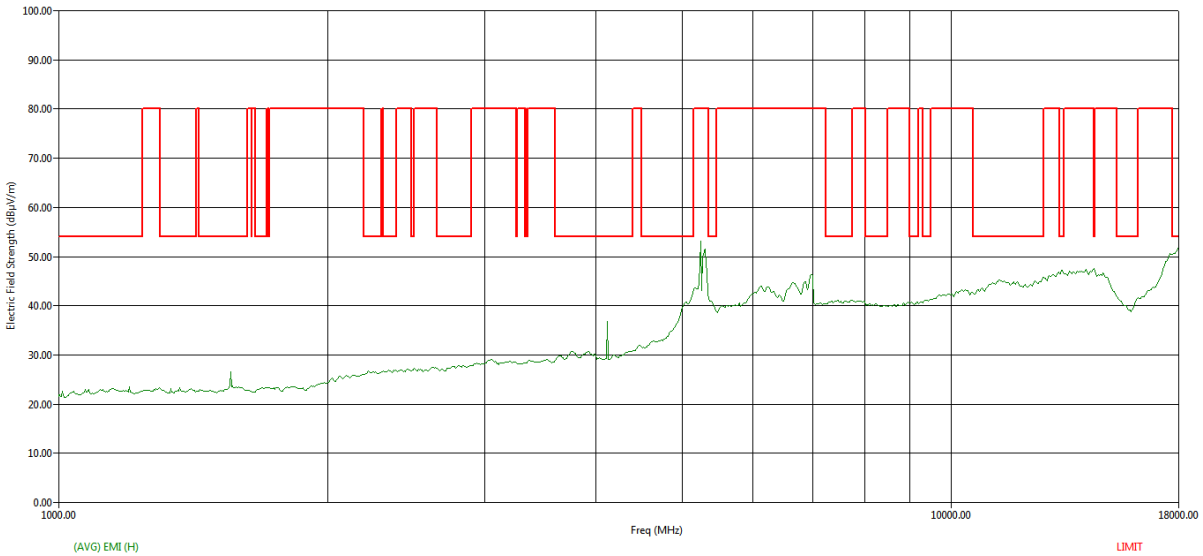


Figure 9: 40 MHz, 17 dBi, Low channel: Average RE graph - 1 GHz to 18 GHz - Horizontal

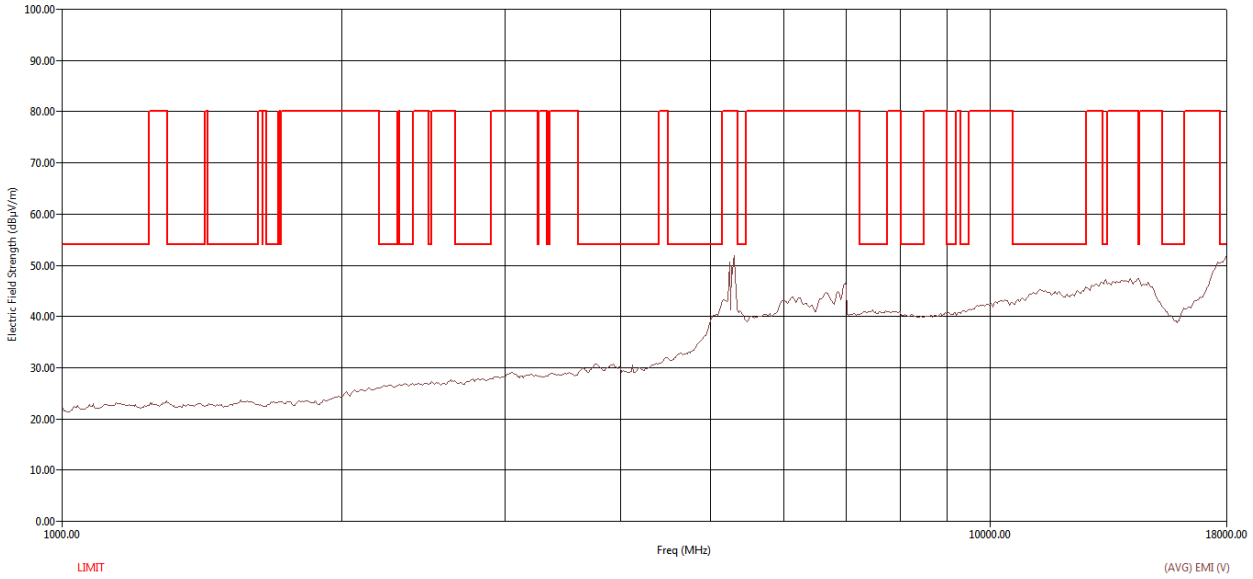


Figure 10: 40 MHz, 17 dBi, Low channel: Average RE graph - 1 GHz to 18 GHz - Vertical

Freq (MHz)	Freq (Max) (MHz)	Pol	Twr Ht (cm)	EUT Ttbl Agl (deg)	(AVG) Trace (dBµV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBµV/m)	Limit (dBµV/m)	(AVG) Margin (dB)
1557.60	1557.60	H	119.00	224.00	28.29	2.15	25.86	32.37	23.93	54.00	-30.07
4119.30	4119.30	H	149.00	179.90	27.11	3.36	30.37	30.04	30.81	54.00	-23.19
5148.40	5148.40	V	178.00	180.90	30.85	3.80	32.93	28.32	39.26	54.00	-14.74
6970.70	6970.70	V	133.00	49.10	34.50	4.20	35.84	28.30	46.24	80.00	-33.76

Table 13: 40 MHz, 17 dBi, Low channel: Average table from 1 GHz to 18 GHz

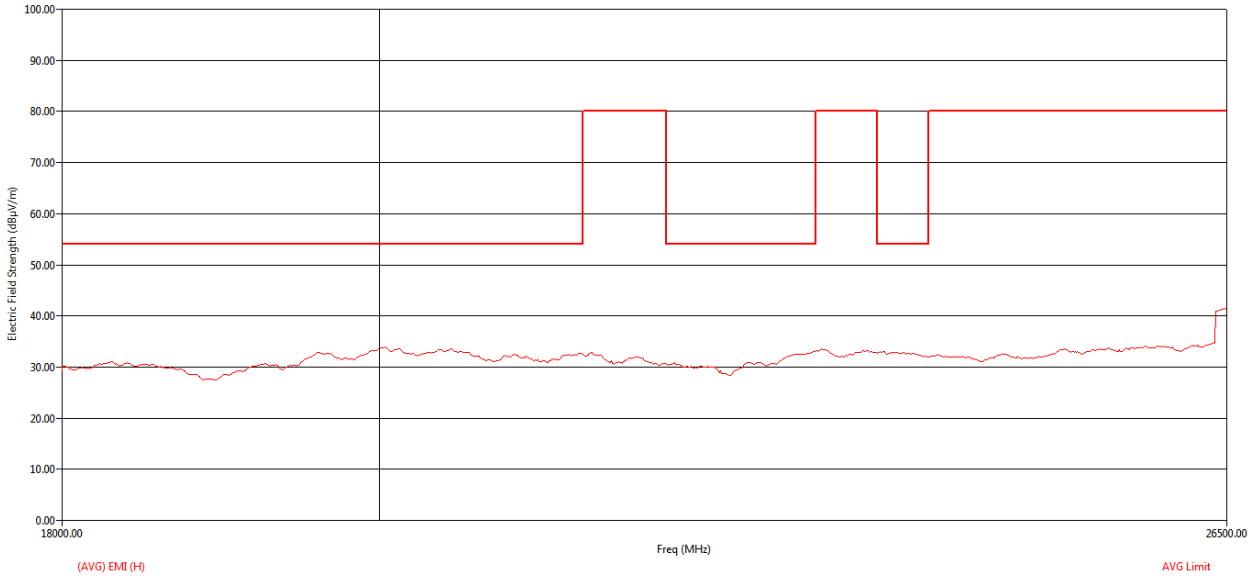


Figure 11: 40 MHz, 17 dBi, Low channel: Average RE graph - 18 GHz to 26.5 GHz - Horizontal

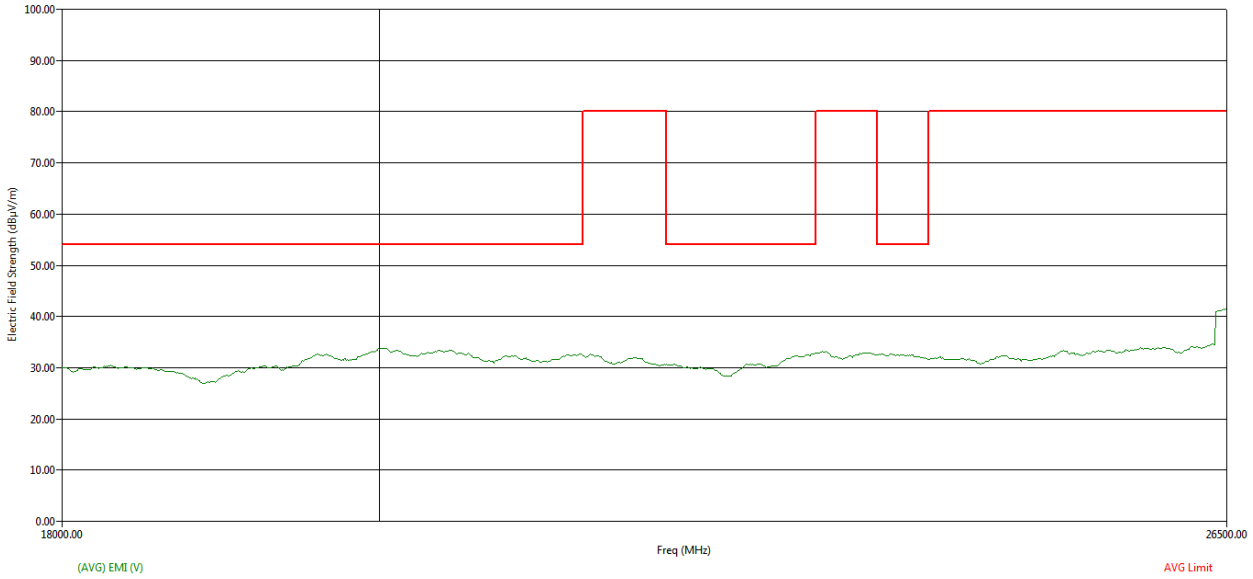


Figure 12: 40 MHz, 17 dBi, Low channel: Average RE graph - 18 GHz to 26.5 GHz - Vertical

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)
20024.60	19175.86	H	84.60	100.00	33.54	6.62	36.52	46.83	29.85	53.98	-24.13
23219.00	22890.96	H	285.70	100.00	33.70	7.80	37.40	47.05	31.85	80.00	-48.15

Table 14: 40 MHz, 17 dBi, Low channel: Average table from 18 GHz to 26.5 GHz

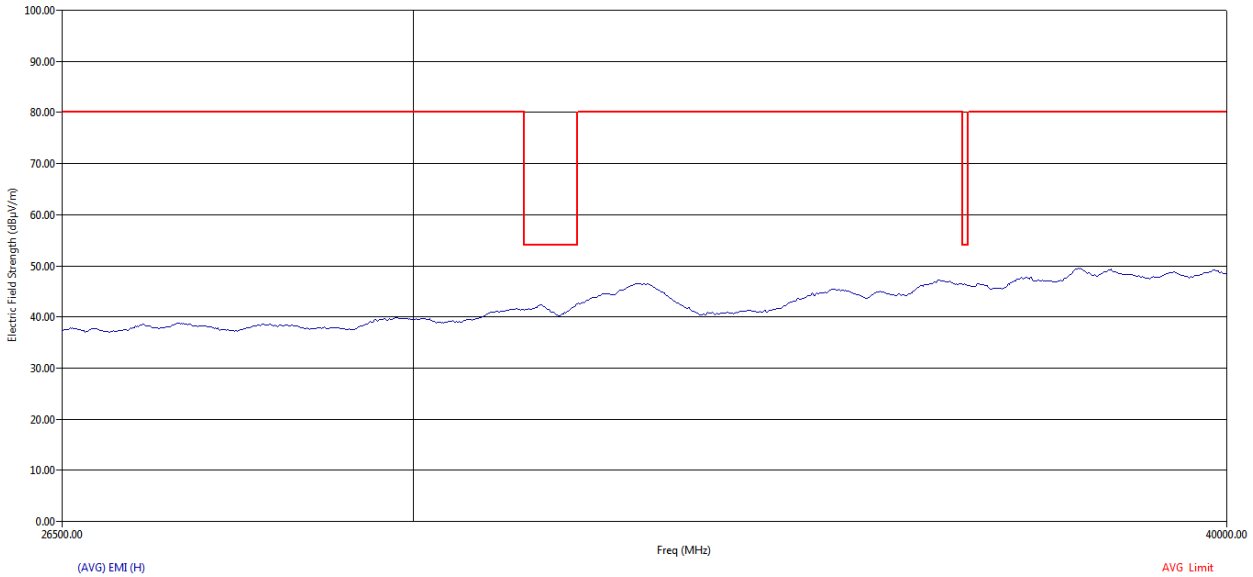


Figure 13: 40 MHz, 17 dBi, Low channel: Average RE graph - 26.5 GHz to 40 GHz - Horizontal

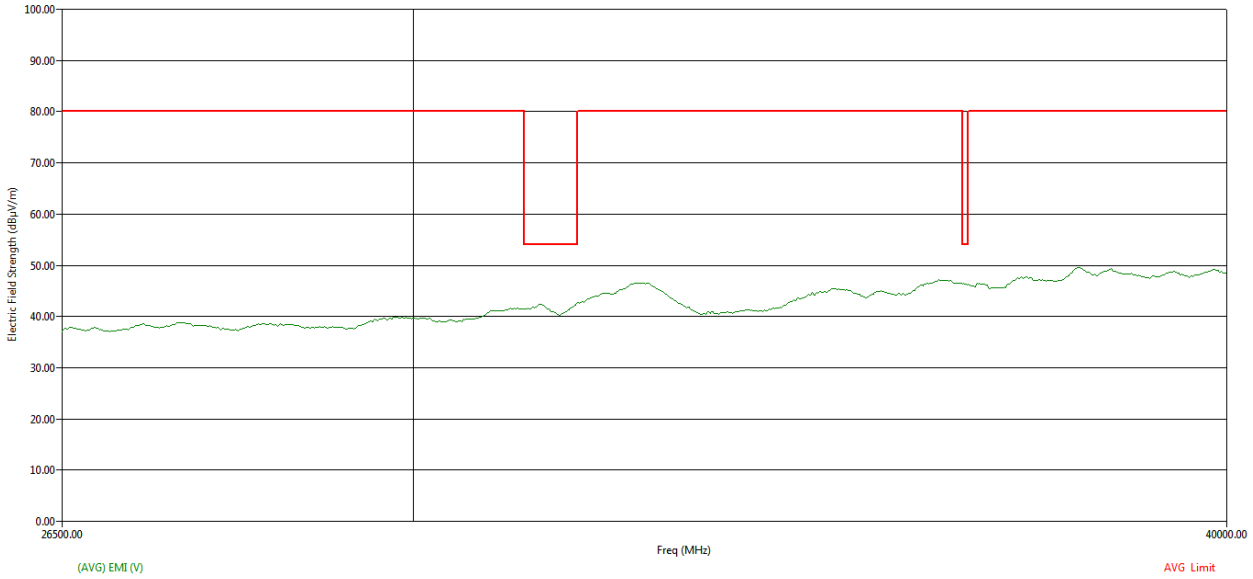


Figure 14: 40 MHz, 17 dBi, Low channel: Average RE graph - 26.5 GHz to 40 GHz - Vertical

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)
32610.20	33619.87	V	282.30	100.00	41.68	10.67	39.42	51.08	40.69	53.98	-13.29
37950.90	37909.07	H	179.90	100.00	42.65	12.32	40.68	46.54	49.11	53.98	-4.87

Table 15: 40 MHz, 17 dBi, Low channel: Average table from 26.5 GHz to 40 GHz

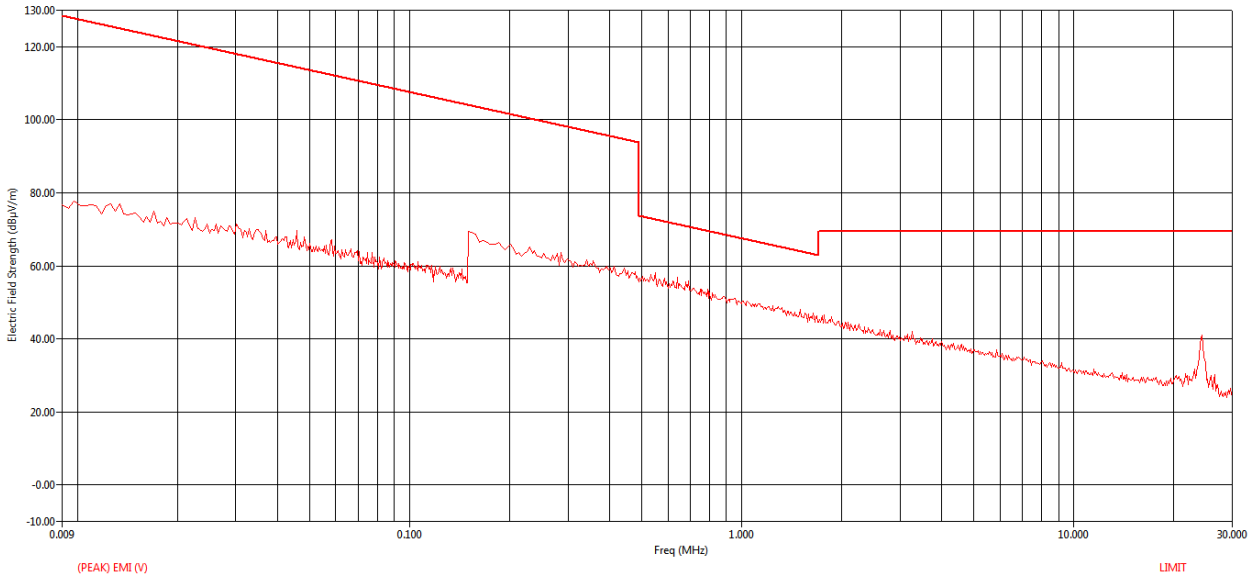


Figure 15: 40 MHz, 17 dBi, Mid channel: Peak RE graph - 9 kHz to 30 MHz - Parallel

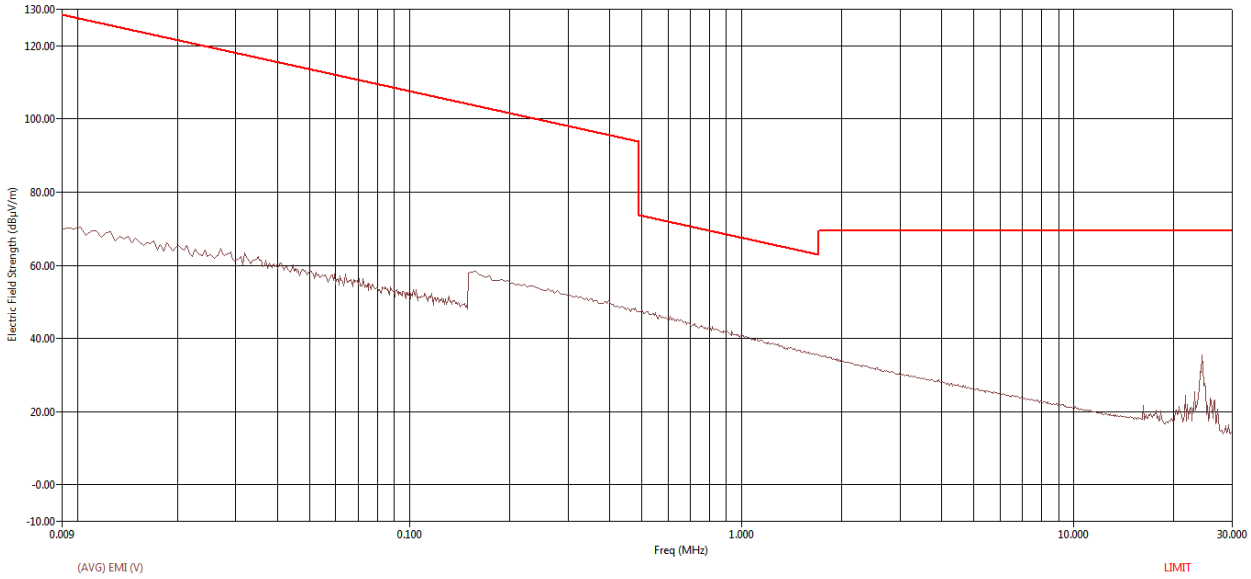


Figure 16: 40 MHz, 17 dBi, Mid channel: Average RE graph - 9 kHz to 30 MHz - Parallel

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)
0.050	0.050	15.60	33.22	0.03	19.71	52.97	113.65	-60.68
0.150	0.150	273.30	25.31	0.04	18.30	43.65	104.09	-60.44
0.150	0.152	292.30	45.02	0.04	18.30	63.35	103.94	-40.59
24.350	24.342	38.90	14.13	1.07	16.15	31.35	69.54	-38.19

Table 16: 40 MHz, 17 dBi, Mid channel: Quasi peak table from 9 kHz to 30 MHz – Parallel

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbl Agl (deg)	(AVG) Trace (dBµV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBµV/m)	Limit (dBµV/m)	(AVG) Margin (dB)
0.050	0.050	15.60	37.52	0.03	19.71	57.27	113.65	-56.38
0.150	0.150	273.30	29.78	0.04	18.30	48.11	104.09	-55.97
0.150	0.152	292.30	39.19	0.04	18.30	57.53	103.94	-46.41
24.350	24.342	38.90	8.67	1.07	16.15	25.89	69.54	-43.65

Table 17: 40 MHz, 17 dBi, Mid channel: Average table from 9 kHz to 30 MHz - Parallel

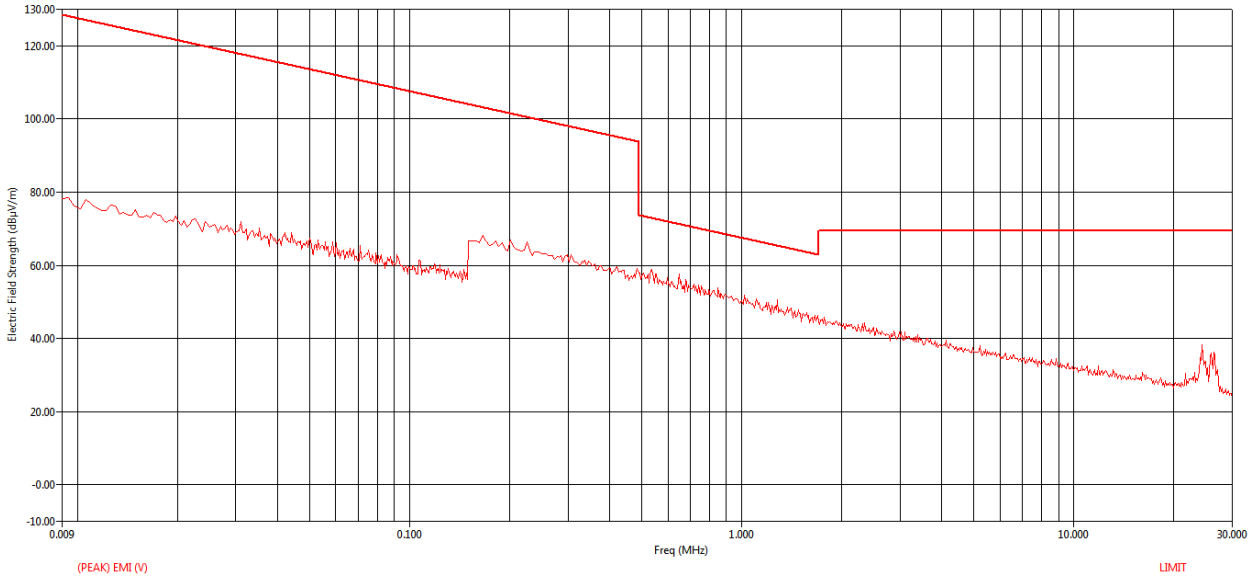


Figure 17: 40 MHz, 17 dBi, Mid channel: Peak RE graph - 9 kHz to 30 MHz – Perpendicular

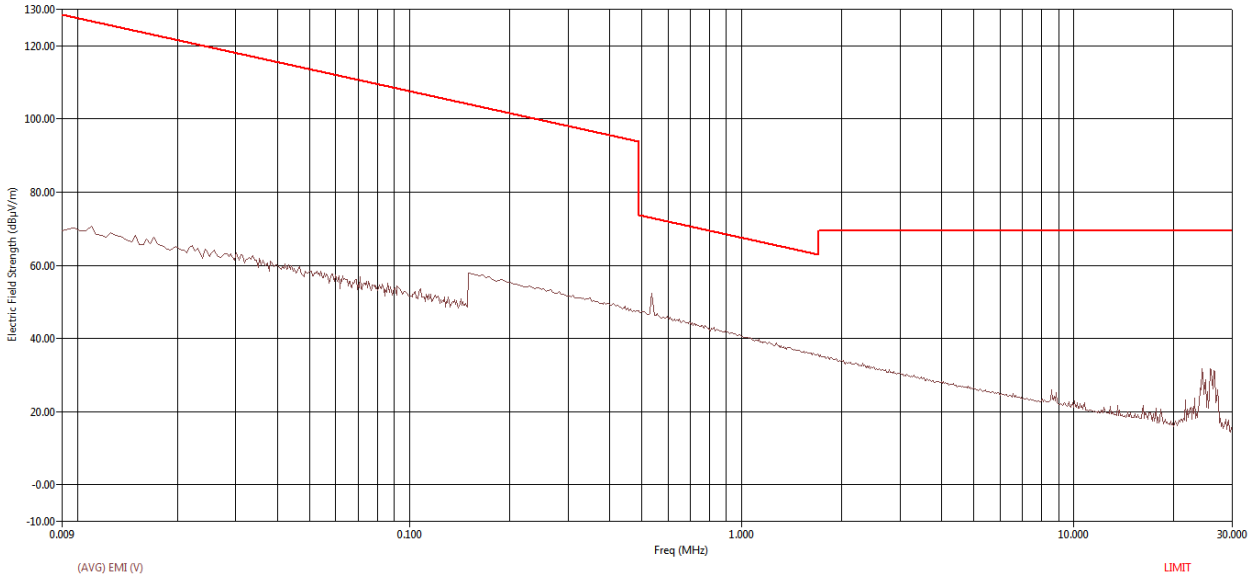


Figure 18: 40 MHz, 17 dBi, Mid channel: Average RE graph - 9 kHz to 30 MHz - Perpendicular

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)
0.166	0.169	279.20	44.14	0.04	18.28	62.45	103.07	-40.61
24.350	24.351	36.50	11.02	1.07	16.15	28.24	69.54	-41.30
26.490	26.487	98.20	4.86	1.11	16.00	21.98	69.54	-47.56

Table 18: 40 MHz, 17 dBi, Mid channel: Quasi peak table from 9 kHz to 30 MHz - Perpendicular

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbl Agl (deg)	(AVG) Trace (dBµV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBµV/m)	Limit (dBµV/m)	(AVG) Margin (dB)
0.166	0.169	279.20	38.31	0.04	18.28	56.63	103.07	-46.44
24.350	24.351	36.50	5.57	1.07	16.15	22.79	69.54	-46.75
26.490	26.487	98.20	-0.77	1.11	16.00	16.34	69.54	-53.20

Table 19: 40 MHz, 17 dBi, Mid channel: Average table from 9 kHz to 30 MHz - Perpendicular

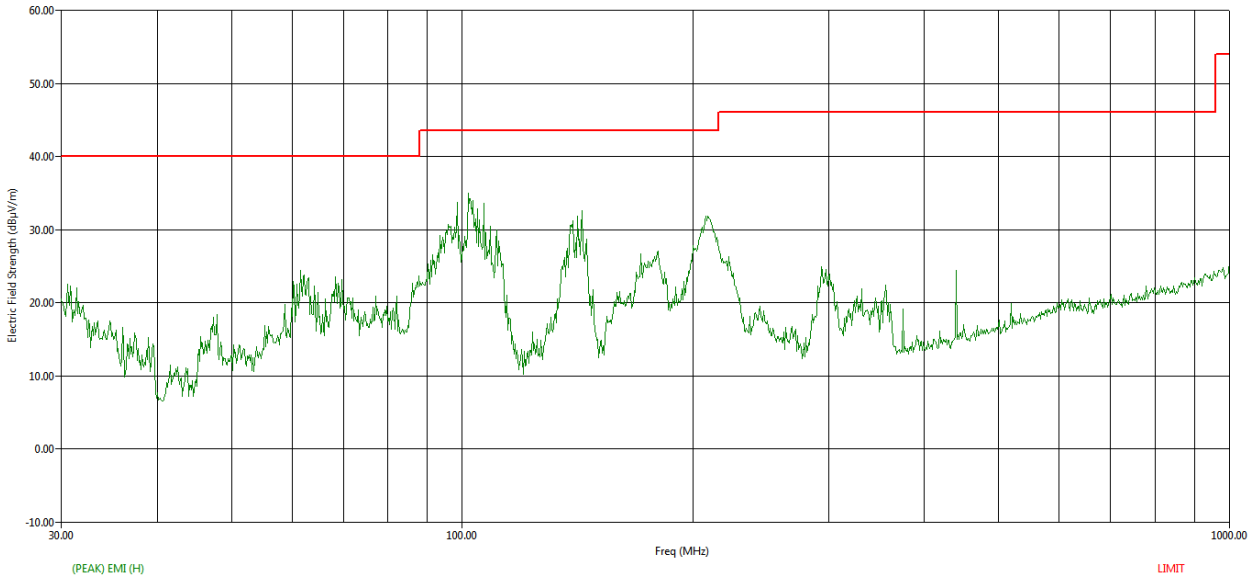


Figure 19: 40 MHz, 17 dBi, Mid channel: Peak RE graph - 30 MHz to 1 GHz - Horizontal

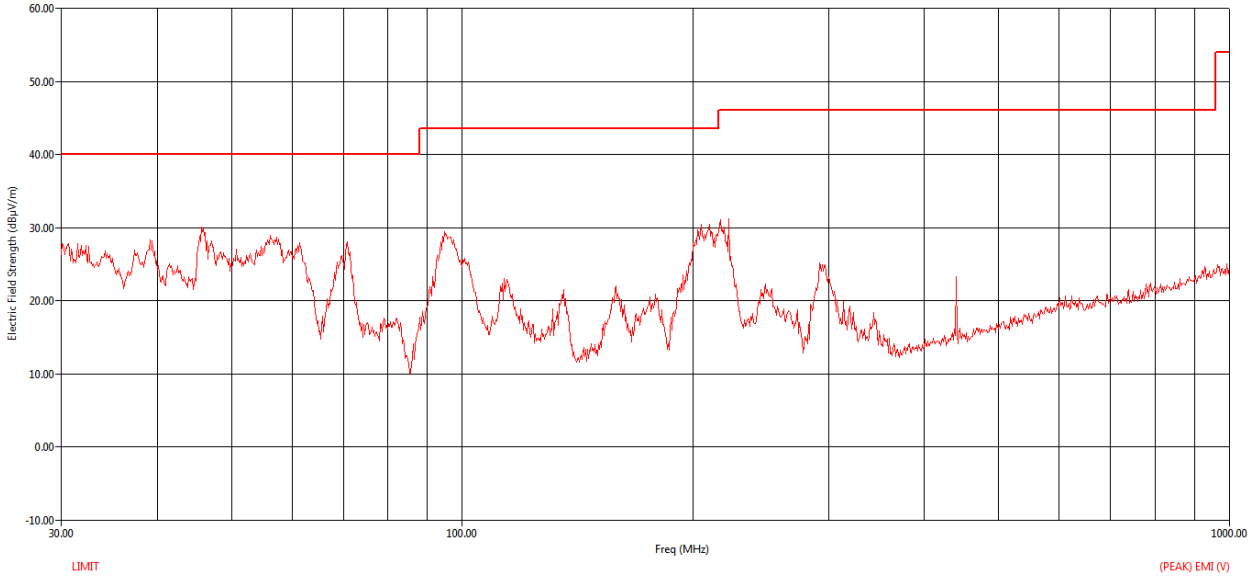


Figure 20: 40 MHz, 17 dBi, Mid channel: Peak RE graph - 30 MHz to 1 GHz - Vertical

Freq (MHz)	Freq (Max) (MHz)	Pol	Twr Ht (cm)	EUT Ttbl Agl (deg)	(QP) Trace (dBµV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(QP) EMI (dBµV/m)	Limit (dBµV/m)	(QP) Margin (dB)
45.72	45.79	V	160.00	251.80	53.77	1.48	10.31	43.82	21.74	40.00	-18.26
101.88	101.87	H	384.00	84.80	42.81	2.15	8.35	43.94	9.38	43.52	-34.14
106.68	106.62	H	396.00	21.40	35.75	2.20	9.18	43.94	3.19	43.52	-40.33
143.34	143.30	H	367.00	161.80	36.49	2.54	10.49	43.95	5.58	43.52	-37.94
210.00	209.97	H	183.00	236.80	55.46	3.08	13.03	43.94	27.63	43.52	-15.89
222.56	222.48	V	166.00	16.20	58.52	3.16	12.55	43.93	30.31	46.02	-15.71

Table 20: 40 MHz, 17 dBi, Mid channel: Quasi peak table from 30 MHz to 1 GHz

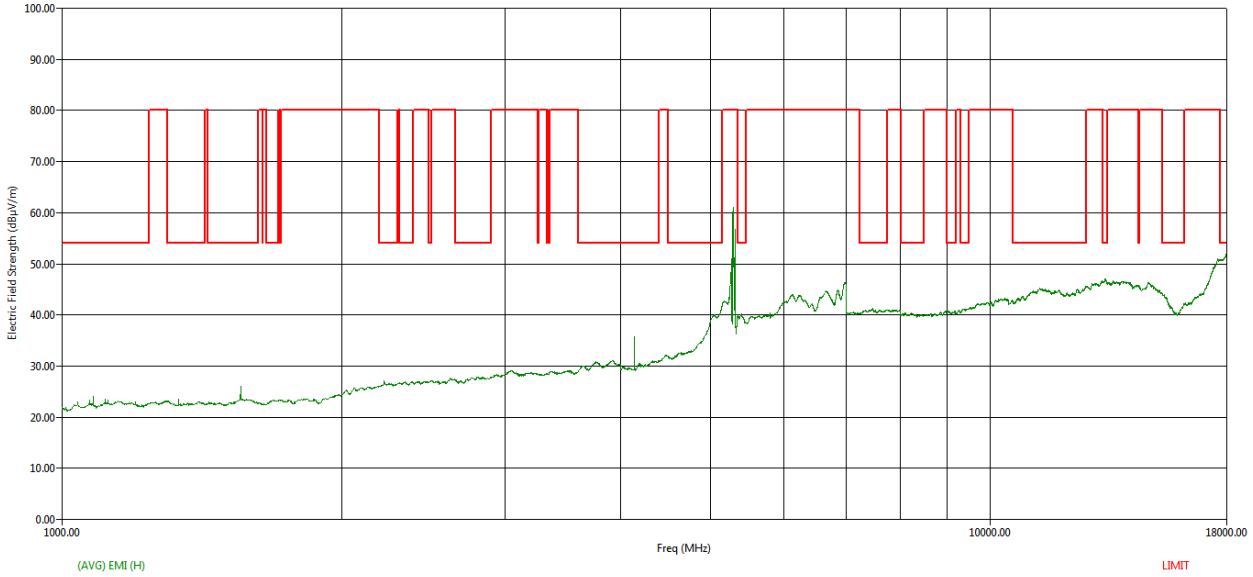


Figure 21: 40 MHz, 17 dBi, Mid channel: Peak RE graph - 1 GHz to 18 GHz – Horizontal

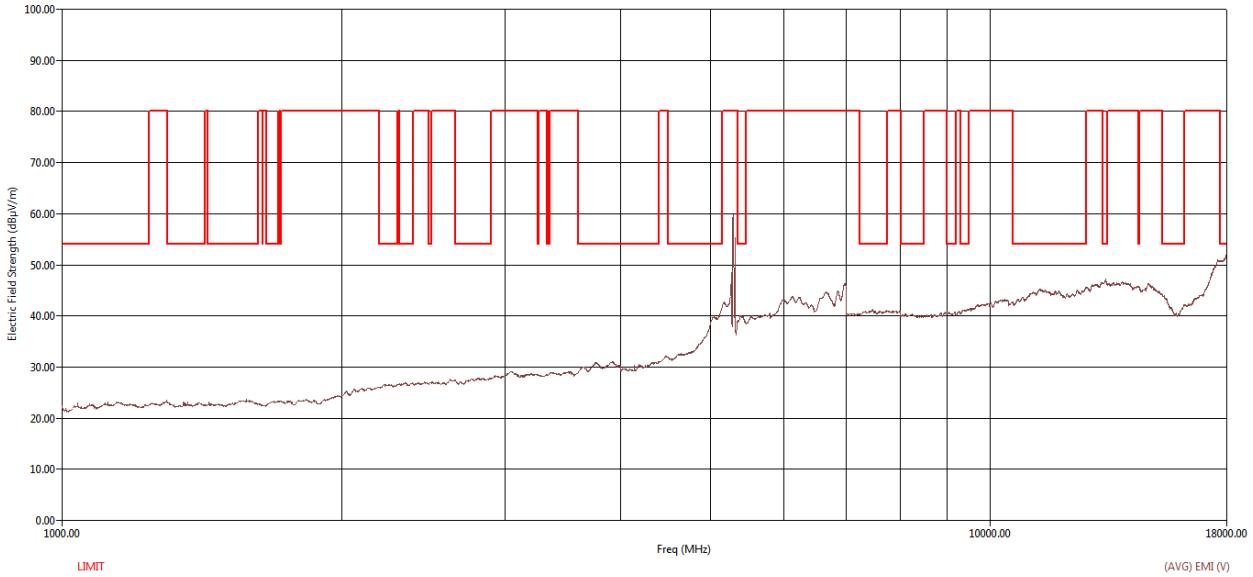


Figure 22: 40 MHz, 17 dBi, Mid channel: Peak RE graph - 1 GHz to 18 GHz - Vertical

Freq (MHz)	Freq (Max) (MHz)	Pol	Twr Ht (cm)	EUT Ttbl Agl (deg)	(AVG) Trace (dBµV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBµV/m)	Limit (dBµV/m)	(AVG) Margin (dB)
1557.60	1557.60	H	100.00	228.70	30.90	2.15	25.86	32.37	26.54	54.00	-27.46
4139.10	4139.10	H	199.00	179.90	29.32	3.37	30.40	29.99	33.09	54.00	-20.91
5168.50	5168.50	V	110.00	179.90	31.11	3.80	32.92	28.32	39.51	80.00	-40.49
6639.20	6639.20	V	115.00	180.00	33.17	4.15	35.33	28.33	44.32	80.00	-35.68

Table 21: 40 MHz, 17 dBi, Mid channel: Average table from 1 GHz to 18 GHz

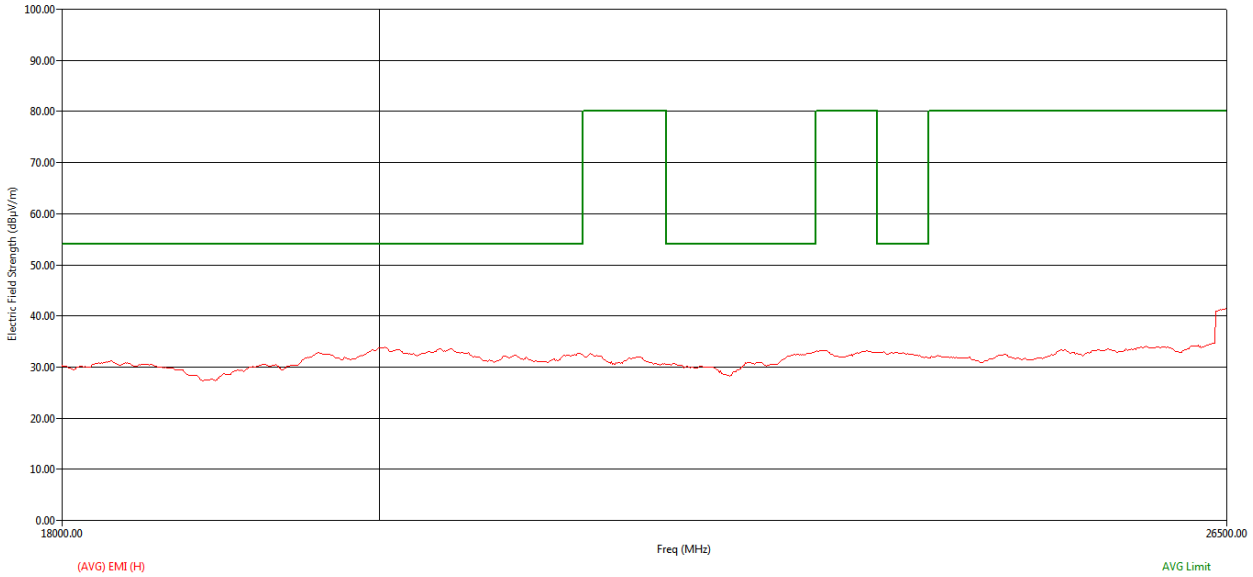


Figure 23: 40 MHz, 17 dBi, Mid channel: Average RE graph - 18 GHz to 26.5 GHz - Horizontal

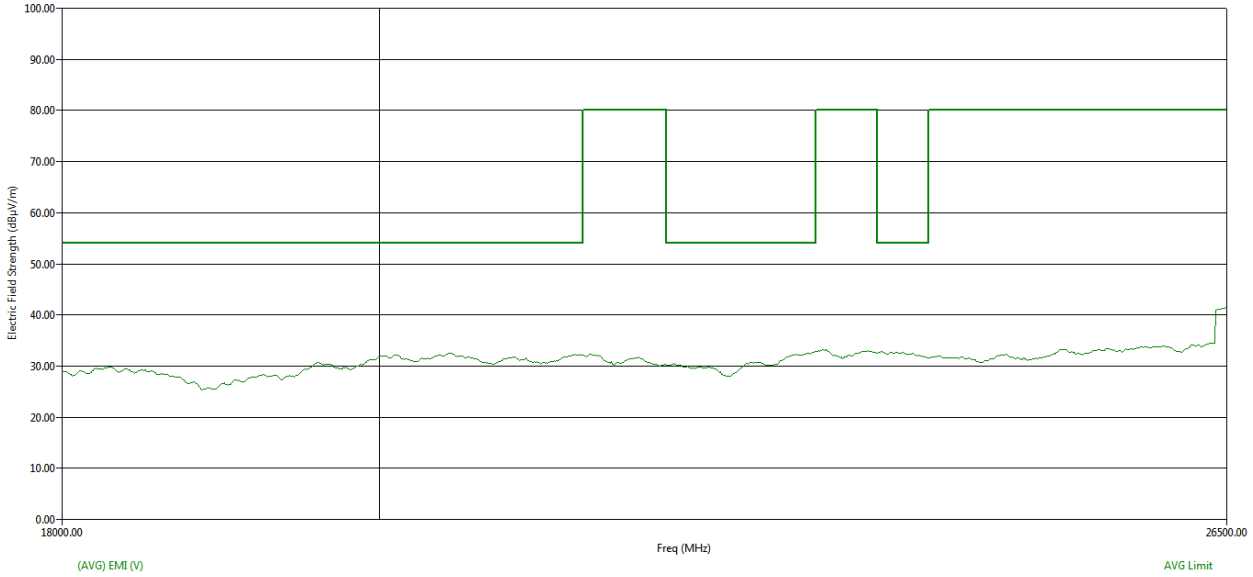


Figure 24: 40 MHz, 17 dBi, Mid channel: Average RE graph - 18 GHz to 26.5 GHz - Vertical

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)
20067.30	19212.73	H	80.20	100.00	33.60	6.64	36.53	46.66	30.10	53.98	-23.88
23197.80	22219.22	V	4.60	100.00	32.74	6.70	36.79	46.51	29.72	53.98	-24.26

Table 22: 40 MHz, 17 dBi, Mid channel: Average table from 18 GHz to 26.5 GHz

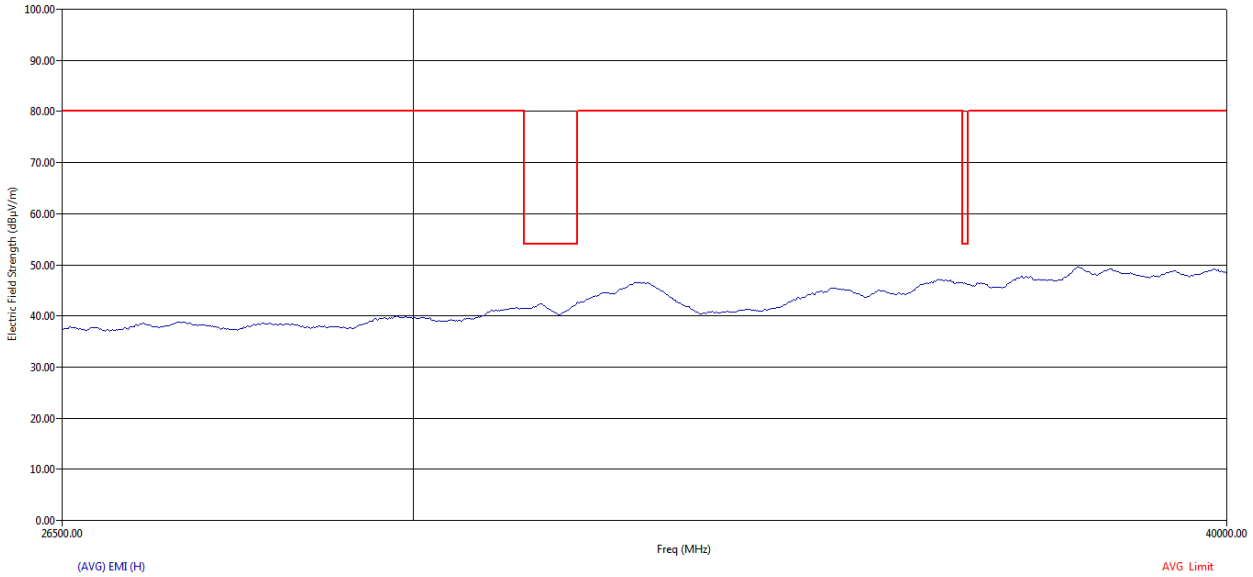


Figure 25: 40 MHz, 17 dBi, Mid channel: Average RE graph - 26.5 GHz to 40 GHz - Horizontal

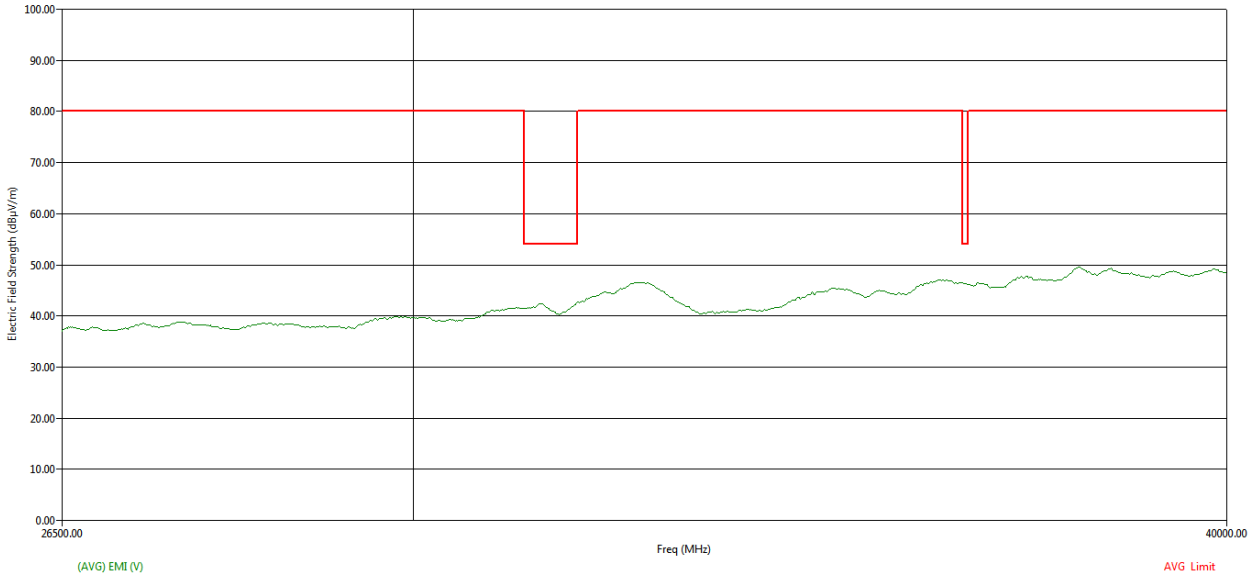


Figure 26: 40 MHz, 17 dBi, Mid channel: Average RE graph - 26.5 GHz to 40 GHz - Vertical

Freq (MHz)	Freq (Max) (MHz)	Pol	Twr Ht (cm)	EUT Ttbl Agl (deg)	(AVG) Trace (dBµV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBµV/m)	Limit (dBµV/m)	(AVG) Margin (dB)
32505.10	33674.37	V	100.00	137.10	41.71	10.65	39.43	50.81	40.98	53.98	-13.00
38393.90	37958.01	H	100.00	311.20	42.80	12.32	40.75	46.50	49.37	53.98	-4.61

Table 23: 40 MHz, 17 dBi, Mid channel: Average table from 26.5 GHz to 40 GHz

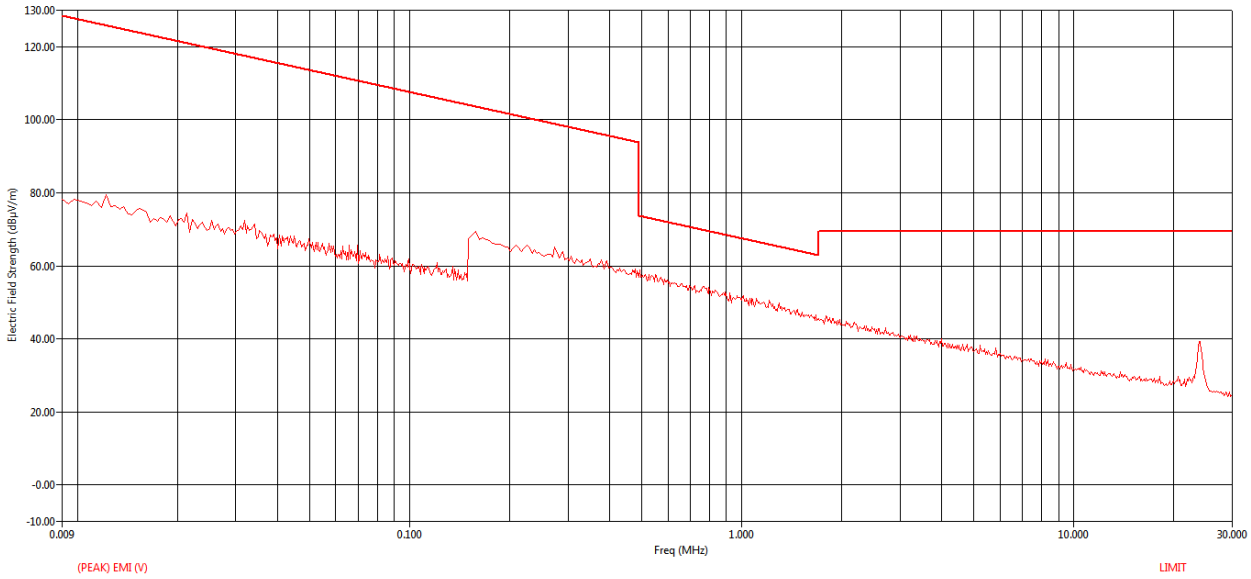


Figure 27: 40 MHz, 17 dBi, High channel: Peak RE graph - 9 kHz to 30 MHz - Parallel

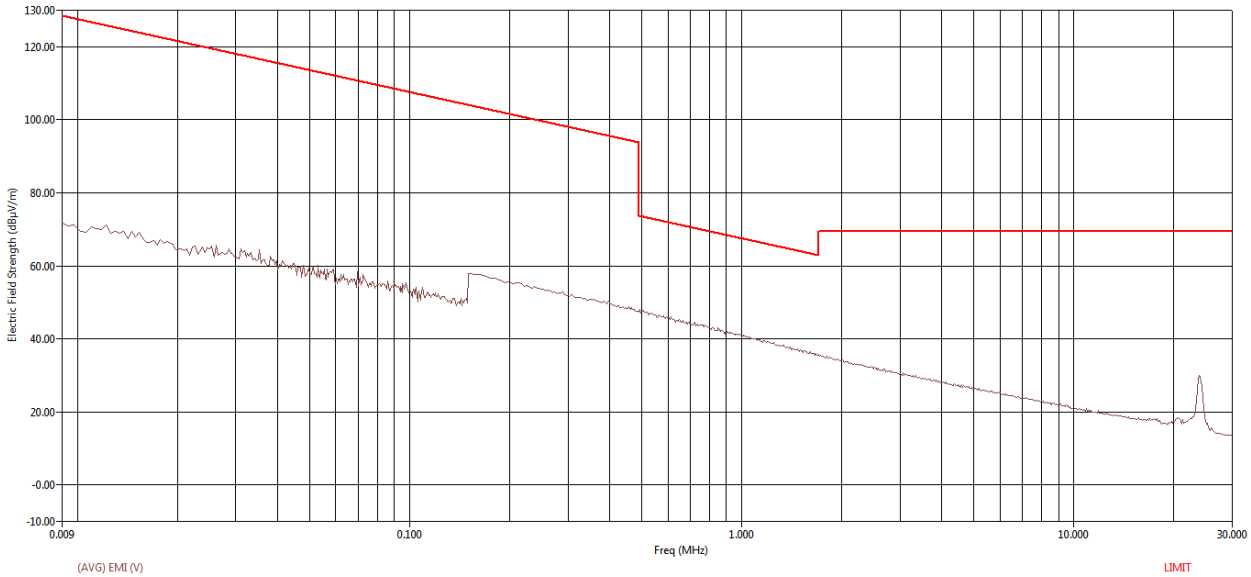


Figure 28: 40 MHz, 17 dBi, High channel: Average RE graph - 9 kHz to 30 MHz - Parallel

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)
0.013	0.013	207.60	35.03	0.03	27.75	62.81	125.25	-62.45
0.154	0.153	323.90	45.06	0.04	18.30	63.40	103.90	-40.51
25.998	26.003	91.20	5.94	1.10	16.04	23.08	69.54	-46.46
26.490	26.494	104.20	4.96	1.11	16.00	22.08	69.54	-47.46

Table 24: 40 MHz, 17 dBi, High channel: Quasi peak table from 9 kHz to 30 MHz - Parallel

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbl Agl (deg)	(AVG) Trace (dBµV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBµV/m)	Limit (dBµV/m)	(AVG) Margin (dB)
0.013	0.013	207.60	39.47	0.03	27.75	67.25	125.25	-58.01
0.154	0.153	323.90	39.30	0.04	18.30	57.63	103.90	-46.27
25.998	26.003	91.20	0.40	1.10	16.04	17.54	69.54	-52.00
26.490	26.494	104.20	-0.90	1.11	16.00	16.22	69.54	-53.32

Table 25: 40 MHz, 17 dBi, High channel: Average table from 9 kHz to 30 MHz - Parallel

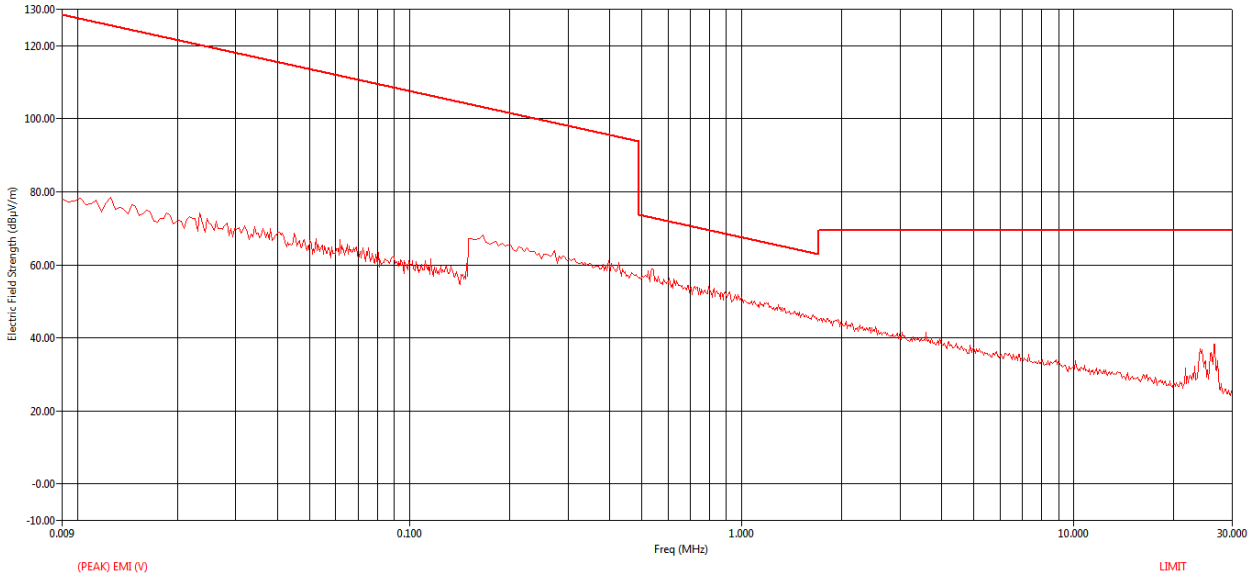


Figure 29: 40 MHz, 17 dBi, High channel: Peak RE graph - 9 kHz to 30 MHz - Perpendicular

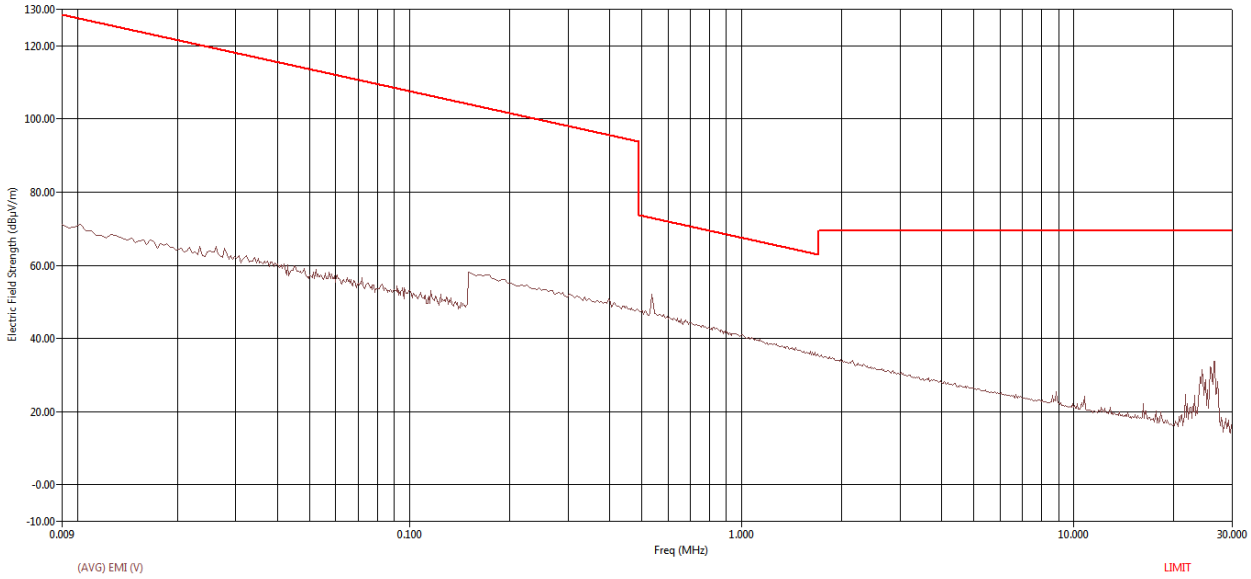


Figure 30: 40 MHz, 17 dBi, High channel: Average RE graph - 9 kHz to 30 MHz - Perpendicular

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)
0.013	0.013	207.60	35.03	0.03	27.75	62.81	125.25	-62.45
0.154	0.153	323.90	45.06	0.04	18.30	63.40	103.90	-40.51
25.998	26.003	91.20	5.94	1.10	16.04	23.08	69.54	-46.46
26.490	26.494	104.20	4.96	1.11	16.00	22.08	69.54	-47.46

Table 26: 40 MHz, 17 dBi, High channel: Quasi peak table from 9 kHz to 30 MHz – Perpendicular

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbl Agl (deg)	(AVG) Trace (dBµV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBµV/m)	Limit (dBµV/m)	(AVG) Margin (dB)
0.013	0.013	207.60	39.47	0.03	27.75	67.25	125.25	-58.01
0.154	0.153	323.90	39.30	0.04	18.30	57.63	103.90	-46.27
25.998	26.003	91.20	0.40	1.10	16.04	17.54	69.54	-52.00
26.490	26.494	104.20	-0.90	1.11	16.00	16.22	69.54	-53.32

Table 27: 40 MHz, 17 dBi, High channel: Average table from 9 kHz to 30 MHz - Perpendicular

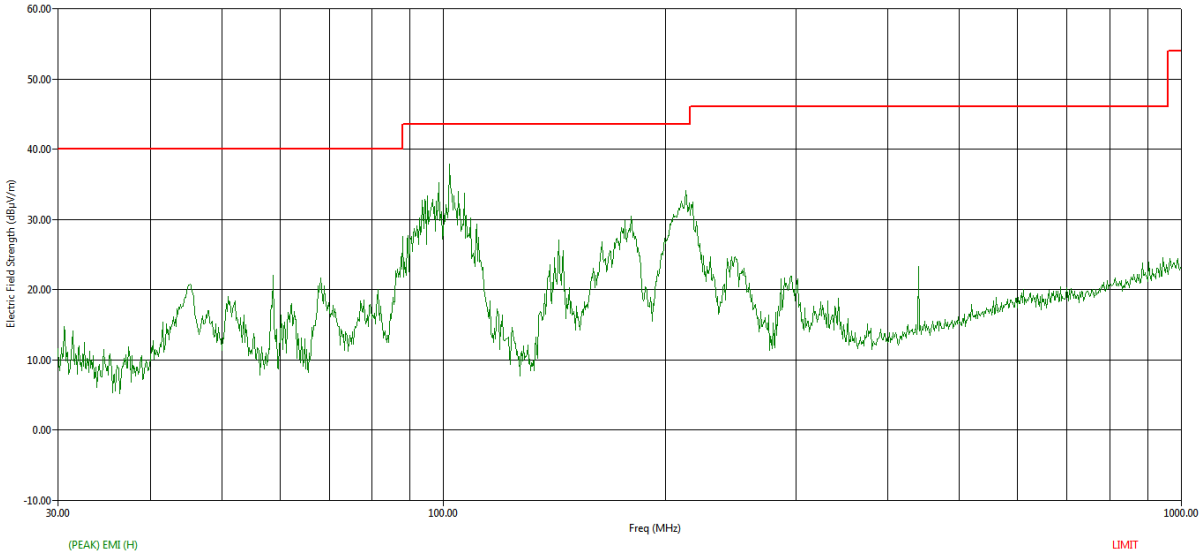


Figure 31: 40 MHz, 17 dBi, High channel: Peak RE graph - 30 MHz to 1 GHz - Horizontal

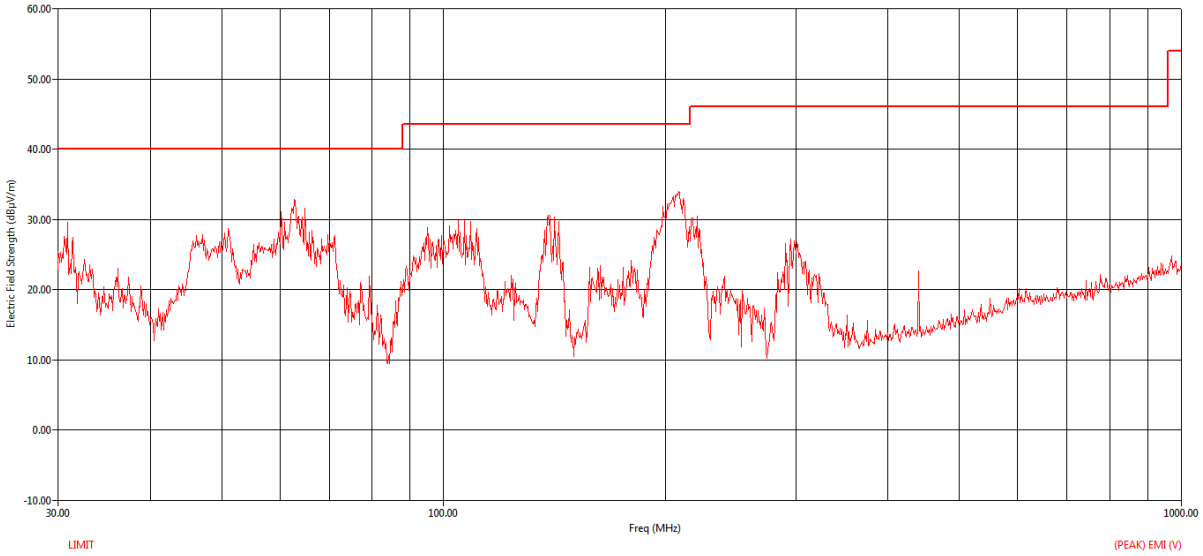


Figure 32: 40 MHz, 17 dBi, High channel: Peak RE graph - 30 MHz to 1 GHz – Vertical

Freq (MHz)	Freq (Max) (MHz)	Pol	Twr Ht (cm)	EUT Ttbl Agl (deg)	(QP) Trace (dBµV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(QP) EMI (dBµV/m)	Limit (dBµV/m)	(QP) Margin (dB)
62.77	62.78	H	376.00	153.80	56.04	1.72	9.24	43.87	23.14	40.00	-16.86
98.44	98.45	H	174.00	111.30	64.85	2.12	8.13	43.94	31.16	43.52	-12.36
101.88	101.89	H	175.00	274.30	67.30	2.15	8.35	43.94	33.87	43.52	-9.65
102.52	102.49	H	399.00	258.30	58.20	2.16	8.46	43.94	24.88	43.52	-18.64
206.96	207.07	V	132.00	339.40	55.21	3.06	13.14	43.94	27.47	43.52	-16.05
208.12	208.20	V	100.00	340.00	56.40	3.06	13.10	43.94	28.62	43.52	-14.90
212.64	212.59	H	145.00	87.30	53.21	3.10	12.93	43.94	25.30	43.52	-18.22

Table 28: 40 MHz, 17 dBi, High channel: Quasi peak table from 30 MHz to 1 GHz

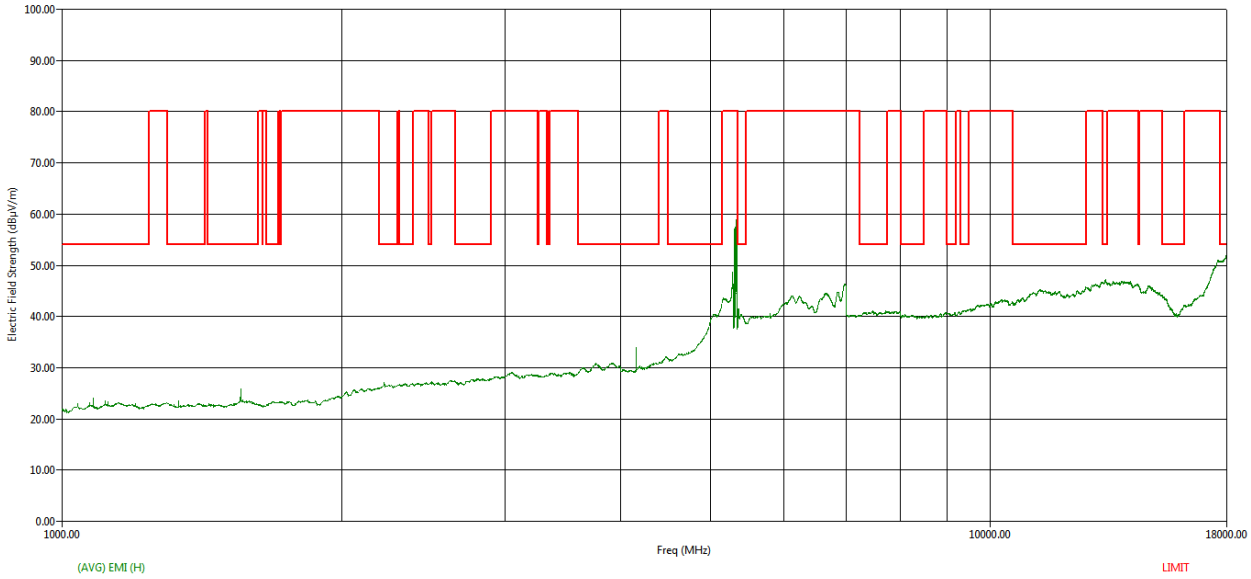


Figure 33: 40 MHz, 17 dBi, High channel: Average RE graph - 1 GHz to 18 GHz - Horizontal

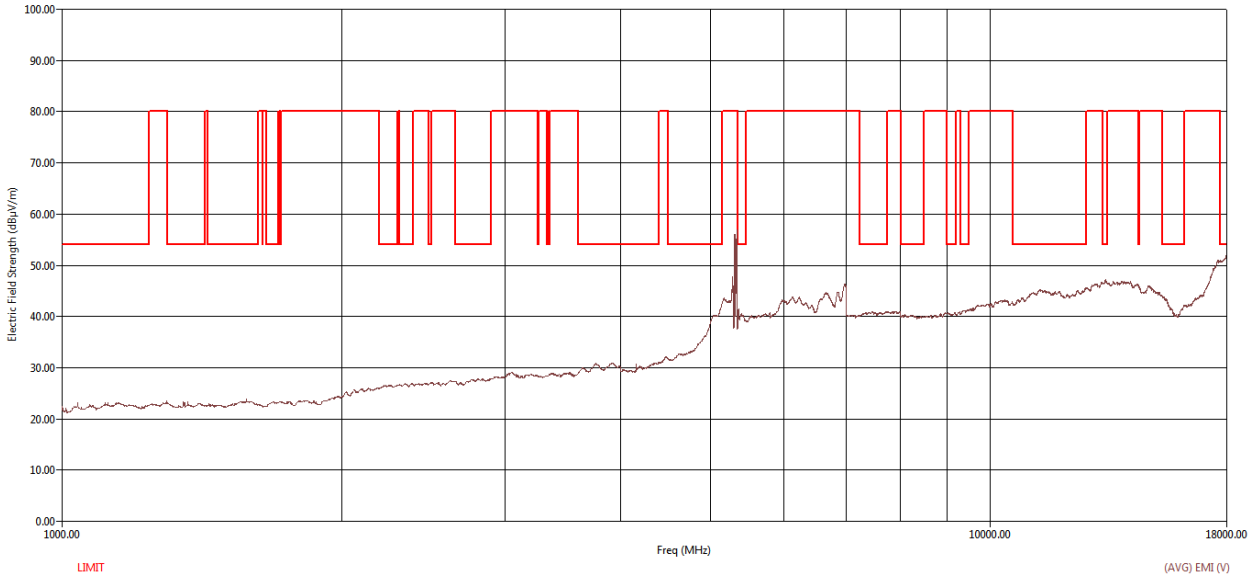


Figure 34: 40 MHz, 17 dBi, High channel: Average RE graph - 1 GHz to 18 GHz – Vertical

Freq (MHz)	Freq (Max) (MHz)	Pol	Twr Ht (cm)	EUT Ttbl Agl (deg)	(AVG) Trace (dBµV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBµV/m)	Limit (dBµV/m)	(AVG) Margin (dB)
1557.60	1557.60	H	100.00	341.10	28.31	2.15	25.86	32.37	23.95	54.00	-30.05
4159.20	4159.20	H	200.00	180.00	29.61	3.37	30.43	29.95	33.47	54.00	-20.53
5174.80	5174.80	V	119.00	162.70	31.18	3.80	32.92	28.32	39.58	80.00	-40.42
6984.40	6984.40	V	155.00	164.00	34.46	4.21	35.86	28.30	46.22	80.00	-33.78

Table 29: 40 MHz, 17 dBi, High channel: Average table from 1 GHz to 18 GHz

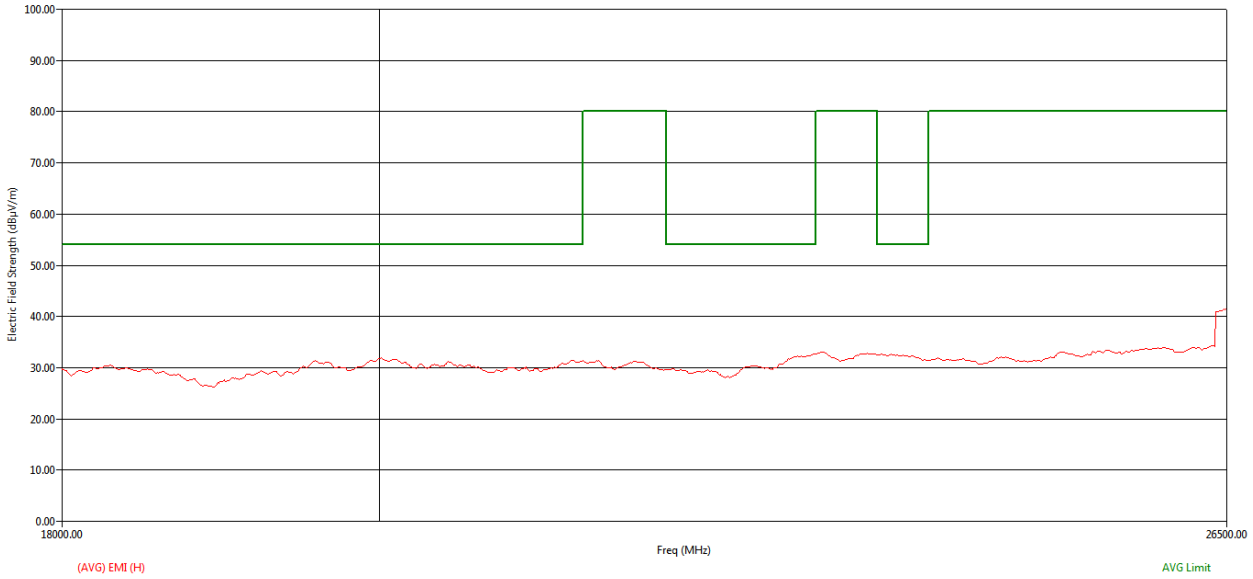


Figure 35: 40 MHz, 17 dBi, High channel: Average RE graph - 18 GHz to 26.5 GHz - Horizontal

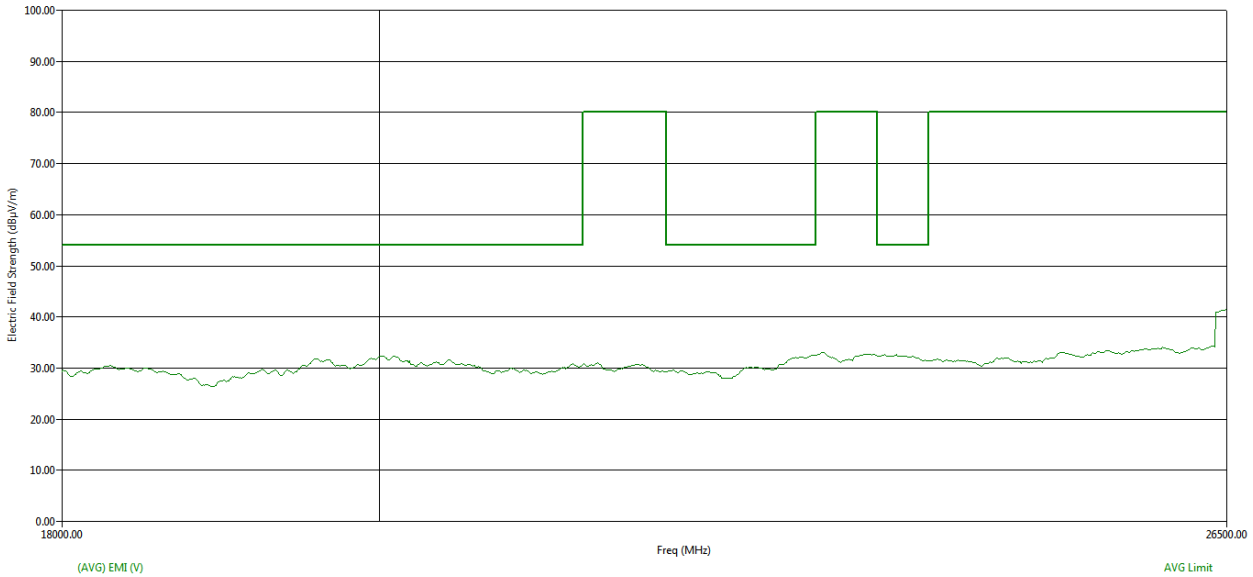


Figure 36: 40 MHz, 17 dBi, High channel: Average RE graph - 18 GHz to 26.5 GHz - Vertical

Freq (MHz)	Freq (Max) (MHz)	Pol	Twr Ht (cm)	EUT Ttbl Agl (deg)	(AVG) Trace (dBµV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBµV/m)	Limit (dBµV/m)	(AVG) Margin (dB)
19566.40	19325.25	H	100.00	353.90	32.22	6.68	36.55	45.89	29.56	53.98	-24.42
23197.80	22986.28	V	100.00	359.10	33.24	8.09	37.64	46.93	32.04	53.98	-21.94

Table 30: 40 MHz, 17 dBi, High channel: Average table from 18 GHz to 26.5 GHz

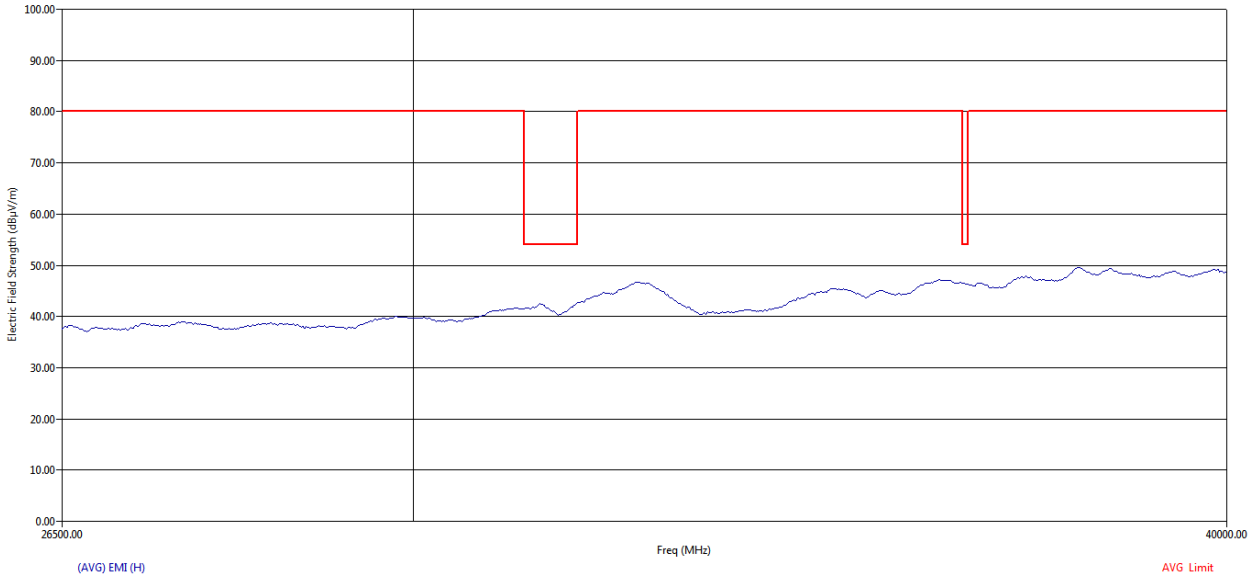


Figure 37: 40 MHz, 17 dBi, High channel: Average RE graph - 26.5 GHz to 40 GHz - Horizontal

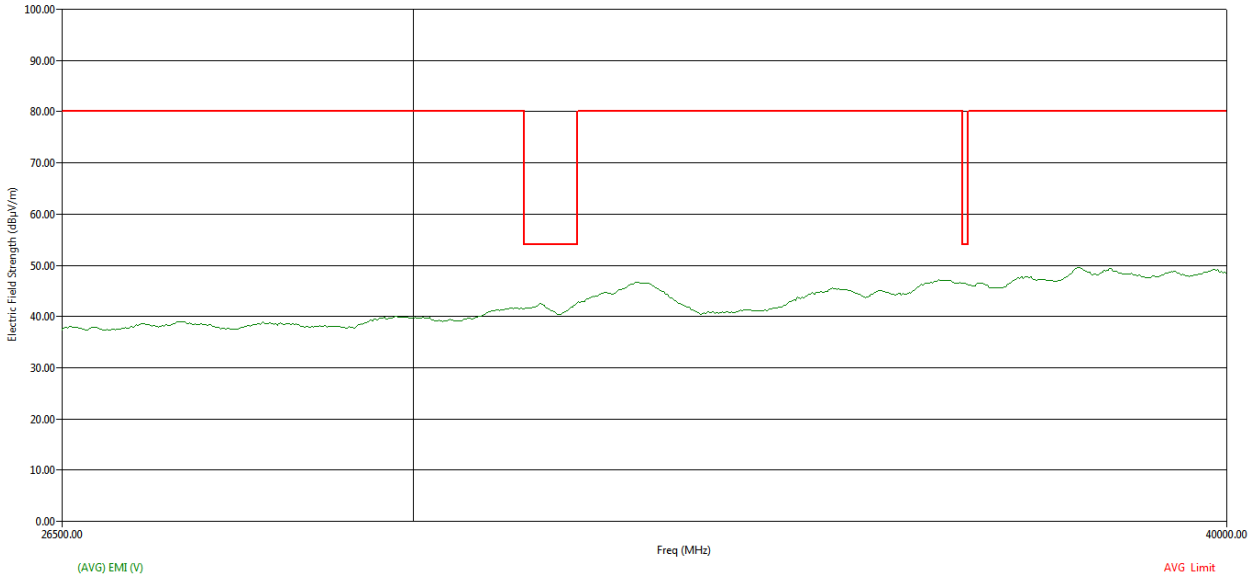


Figure 38: 40 MHz, 17 dBi, High channel: Average RE graph –26.5 GHz to 40 GHz - Horizontal

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)
32515.60	32297.31	V	306.50	100.00	41.28	10.42	38.89	45.42	45.16	53.98	-8.82
37962.70	37951.29	H	180.00	100.00	42.84	12.32	40.74	46.51	49.39	53.98	-4.59

Table 31: 40 MHz, 17 dBi, High channel: Average table from 26.5 GHz to 40 GHz

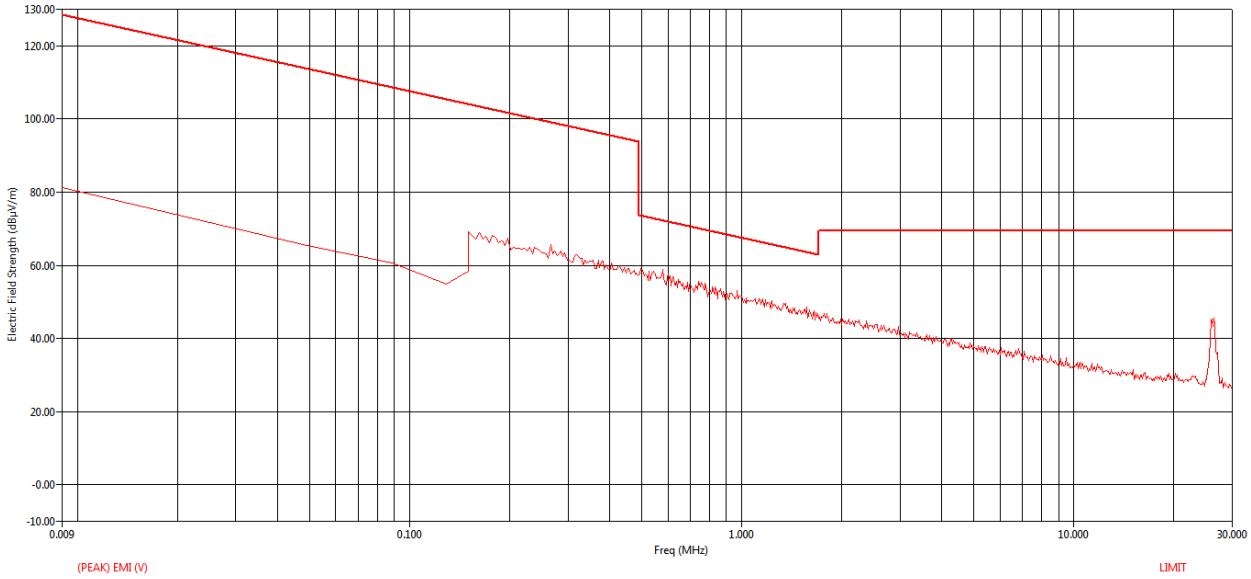


Figure 39: 10 MHz, 17 dBi, Low channel: Peak RE graph - 9 kHz to 30 MHz - Parallel

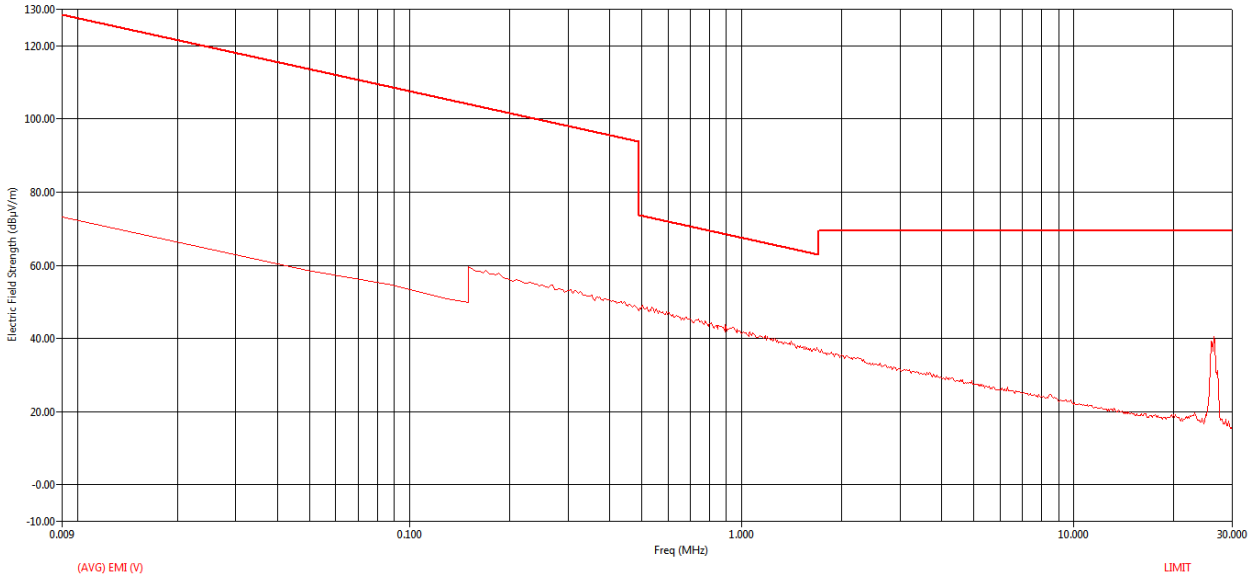


Figure 40: 10 MHz, 17 dBi, Low channel: Average RE graph - 9 kHz to 30 MHz - Parallel

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)
0.166	0.161	302.30	44.60	0.04	18.29	62.92	103.46	-40.54
0.500	0.505	43.30	34.48	0.13	18.10	52.71	73.54	-20.83
24.534	24.535	85.20	22.48	1.07	16.13	39.69	69.54	-29.85

Table 32: 10 MHz, 17 dBi, Low channel: Quasi peak table from 9 kHz to 30 MHz - Parallel

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbl Agl (deg)	(AVG) Trace (dBµV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBµV/m)	Limit (dBµV/m)	(AVG) Margin (dB)
0.166	0.161	302.30	38.83	0.04	18.29	57.16	103.46	-46.31
0.500	0.505	43.30	28.78	0.13	18.10	47.01	73.54	-26.53
24.534	24.535	85.20	18.79	1.07	16.13	35.99	69.54	-33.55

Table 33: 10 MHz, 17 dBi, Low channel: Average table from 9 kHz to 30 MHz - Parallel

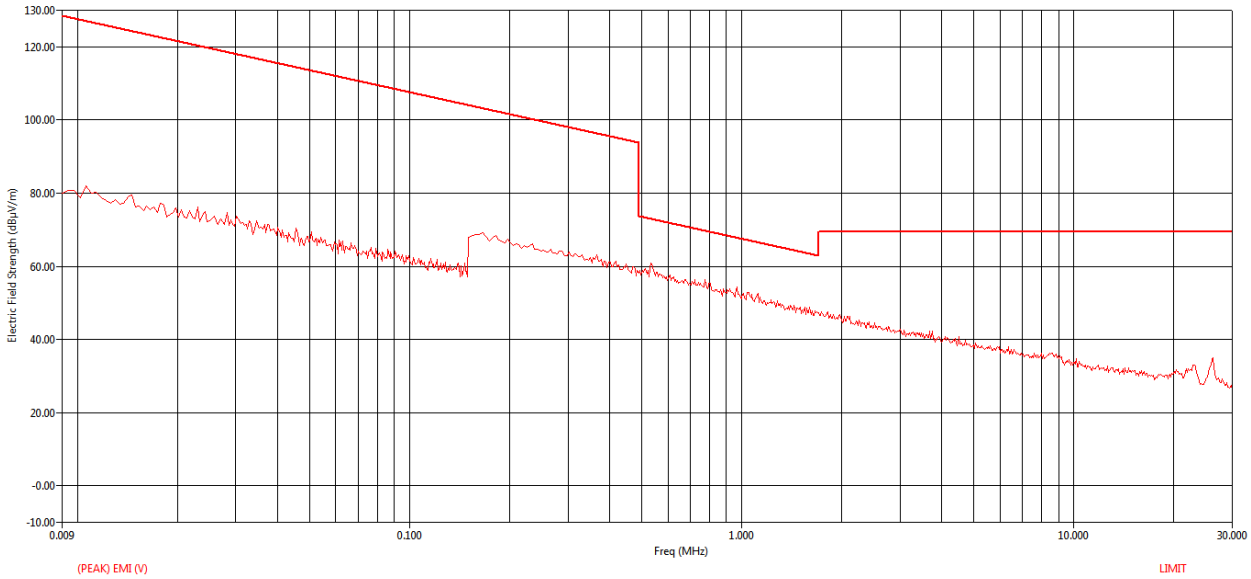


Figure 41: 10 MHz, 17 dBi, Low channel: Peak RE graph - 9 kHz to 30 MHz - Perpendicular

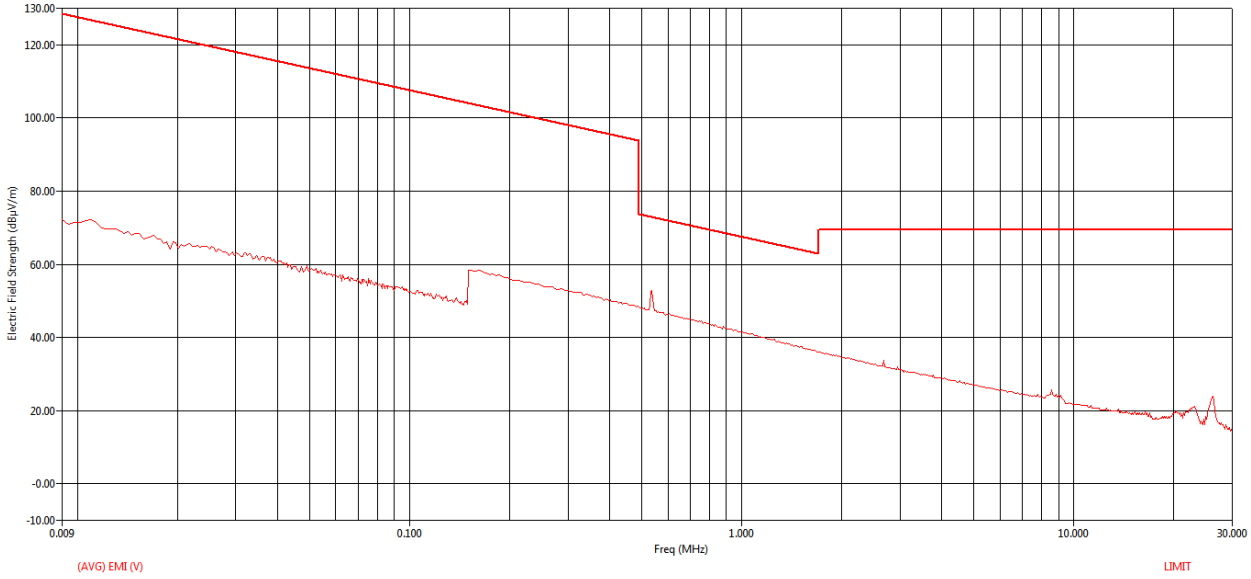


Figure 42: 10 MHz, 17 dBi, Low channel: Average RE graph - 9 kHz to 30 MHz - Perpendicular

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	(QP) Trace (dBµV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBµV/m)	Limit (dBµV/m)	(QP) Margin (dB)
0.54	0.54	V	214.40	40.23	0.13	18.10	58.46	73.00	-14.54
26.29	26.28	V	115.90	13.64	1.11	16.02	30.77	69.54	-38.77

Table 34: 10 MHz, 17 dBi, Low channel: Quasi peak table from 9 kHz to 30 MHz - Perpendicular

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	(AVG) Trace (dBµV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBµV/m)	Limit (dBµV/m)	(AVG) Margin (dB)
0.54	0.54	V	214.40	36.48	0.13	18.10	54.71	73.00	-18.29
26.29	26.28	V	115.90	8.38	1.11	16.02	25.50	69.54	-44.04

Table 35: 10 MHz, 17 dBi, Low channel: Average table from 9 kHz to 30 MHz - Perpendicular

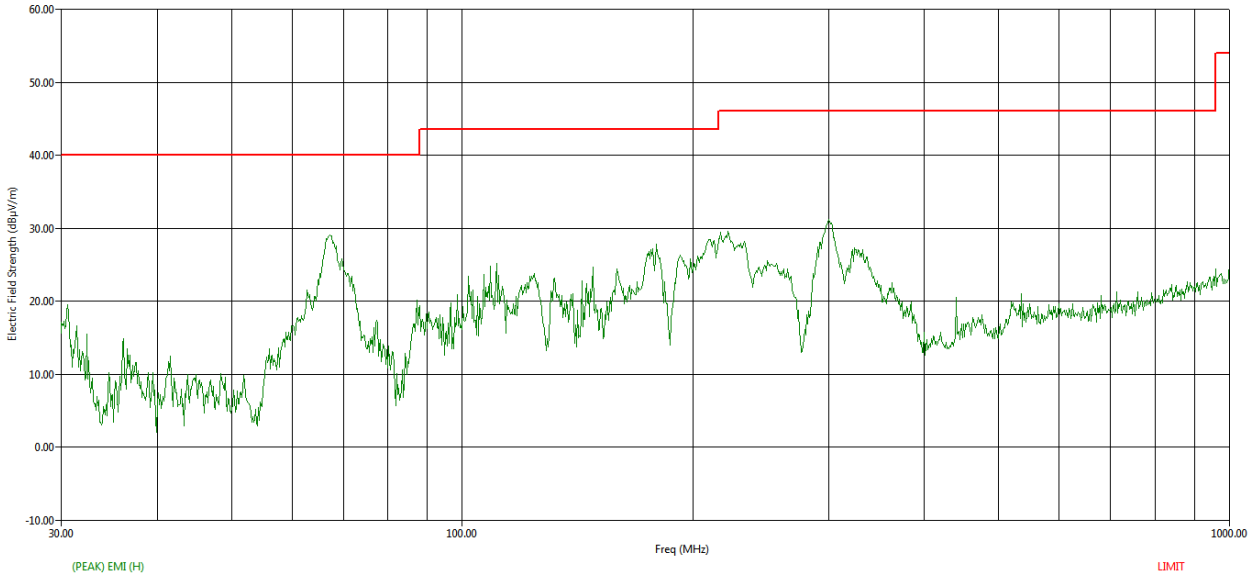


Figure 43: 10 MHz, 17 dBi, Low channel: Peak RE graph - 30 MHz to 1 GHz - Horizontal

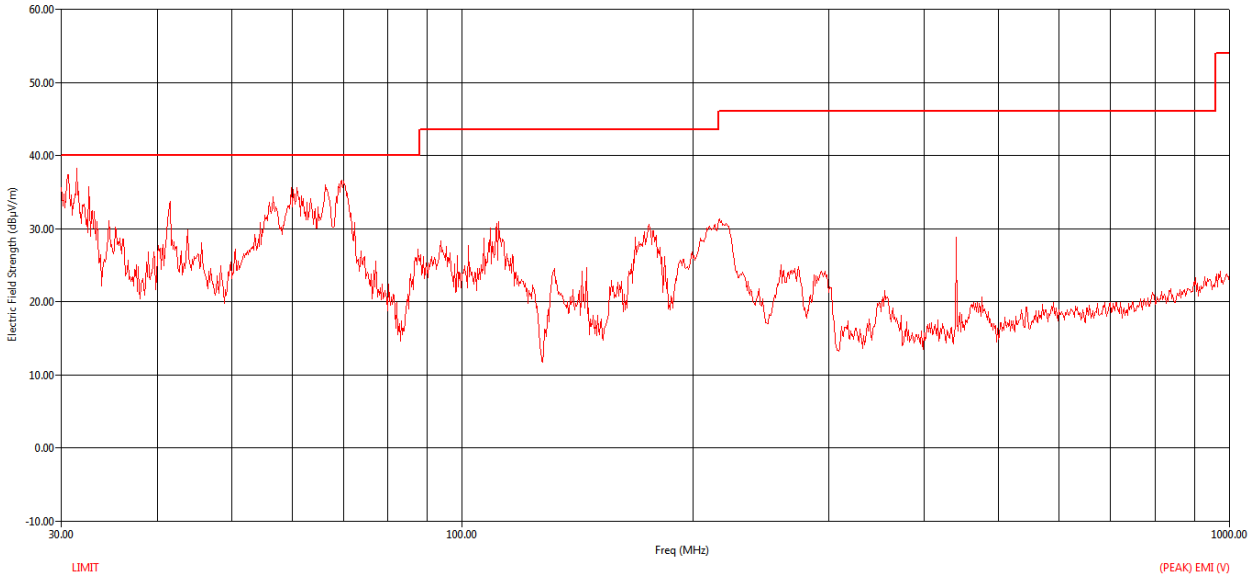


Figure 44: 10 MHz, 17 dBi, Low channel: Peak RE graph - 30 MHz to 1 GHz - Vertical

Freq (MHz)	Freq (Max) (MHz)	Pol	Twr Ht (cm)	EUT Ttbl Agl (deg)	(QP) Trace (dBµV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(QP) EMI (dBµV/m)	Limit (dBµV/m)	(QP) Margin (dB)
31.40	31.42	V	103.00	178.20	64.83	1.20	11.25	43.80	33.49	40.00	-6.51
59.88	59.77	V	101.00	328.50	60.46	1.68	9.53	43.86	27.81	40.00	-12.19
66.36	66.45	V	101.00	261.60	59.51	1.76	8.89	43.88	26.29	40.00	-13.71
69.68	69.70	V	101.00	274.70	57.58	1.80	8.61	43.88	24.11	40.00	-15.89
300.36	300.40	H	114.00	9.50	44.61	3.67	13.21	43.86	17.63	46.02	-28.39

Table 36: 10 MHz, 17 dBi, and Low channel: Quasi peak table from 30 MHz to 1 GHz

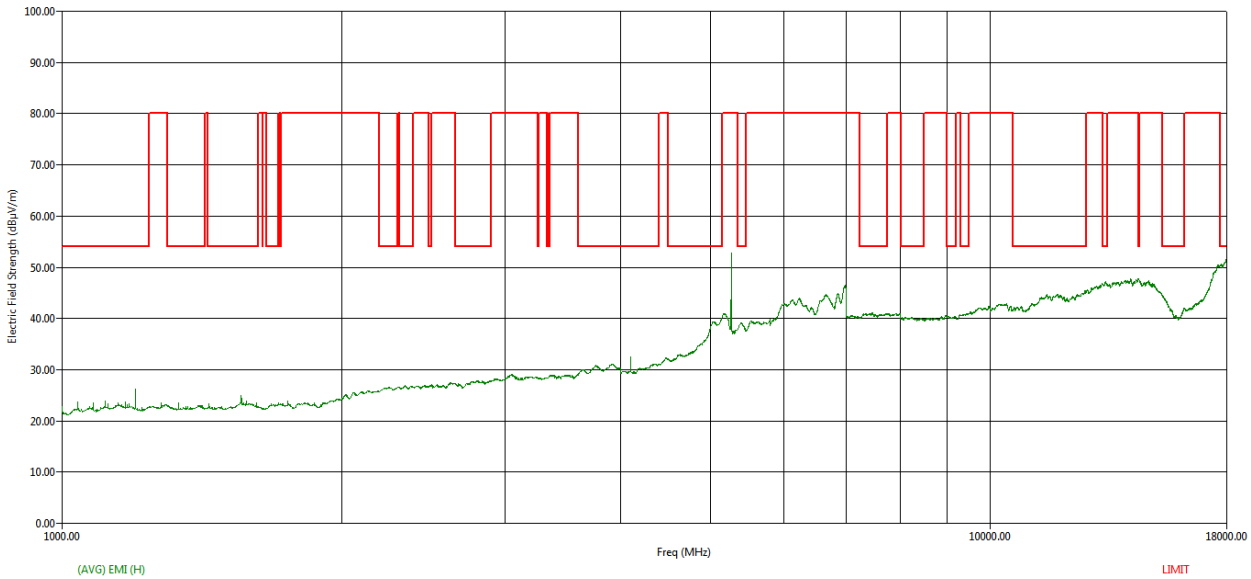


Figure 45: 10 MHz, 17 dBi, Low channel: Average RE graph - 1 GHz to 18 GHz - Horizontal

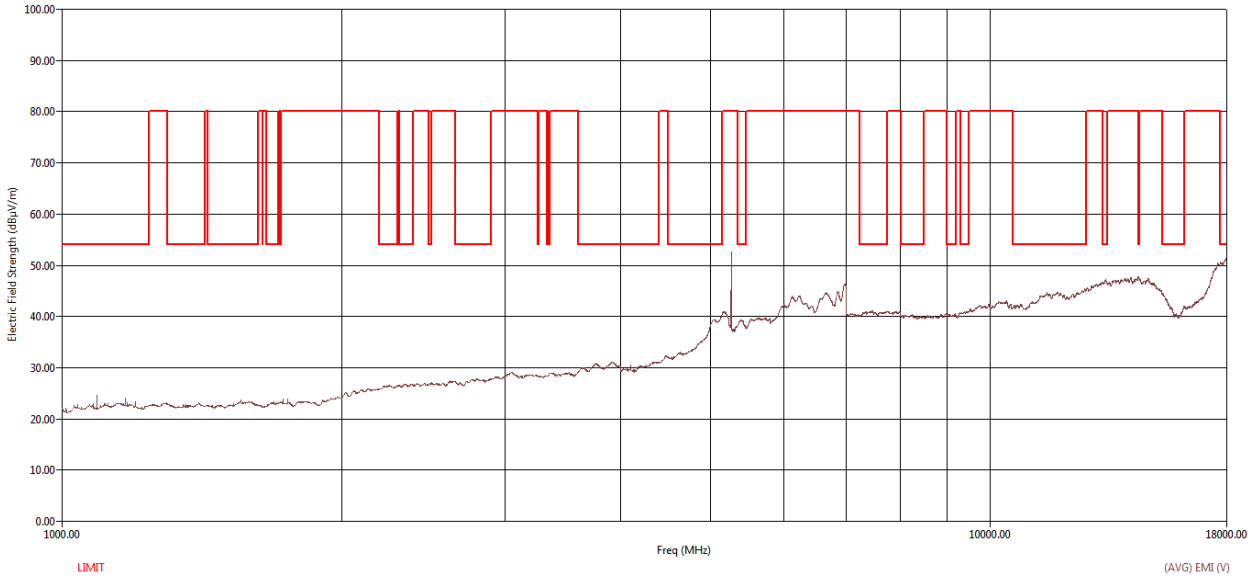


Figure 46: 10 MHz, 17 dBi, Low channel: Average RE graph - 1 GHz to 18 GHz - Vertical

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)
1200.00	1200.00	H	58.30	186.00	31.96	1.94	24.53	32.45	25.99	54.00	-28.01
4104.00	4104.00	H	180.00	138.00	31.80	3.35	29.81	30.07	34.89	54.00	-19.11
5162.40	5162.40	V	180.00	199.00	31.18	3.80	32.03	28.32	38.69	80.00	-41.31
6658.00	6658.00	V	180.00	199.00	33.32	4.15	34.59	28.33	43.73	80.00	-36.27

Table 37: 10 MHz, 17 dBi, Low channel: Average table from 1 GHz to 18 GHz

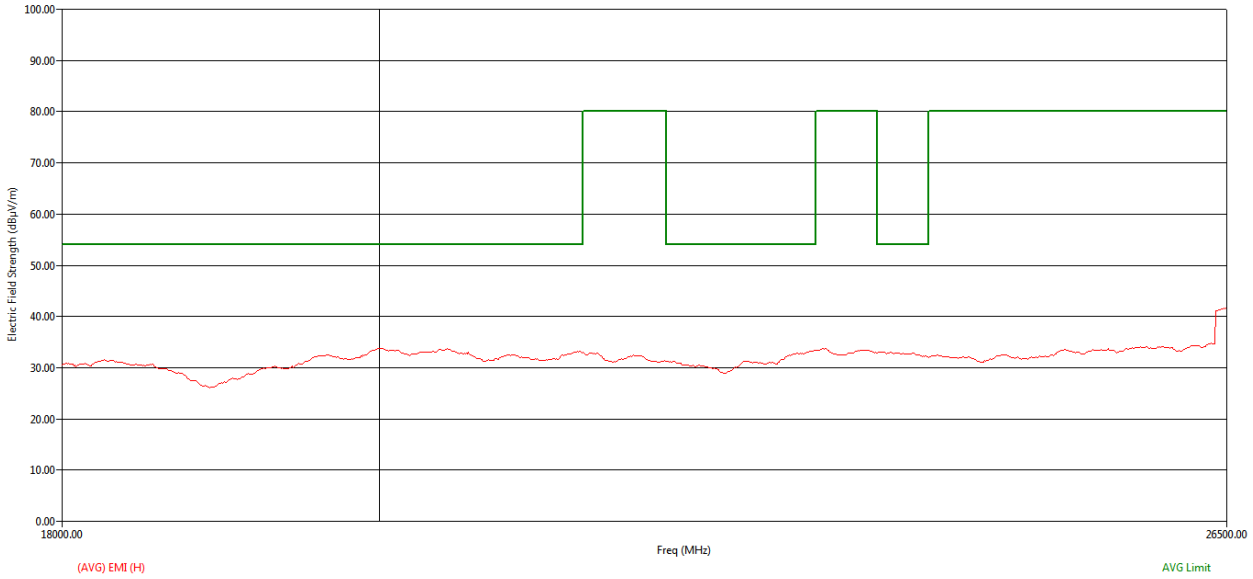


Figure 47: 10 MHz, 17 dBi, Low channel: Average RE graph - 18 GHz to 26.5 GHz - Horizontal

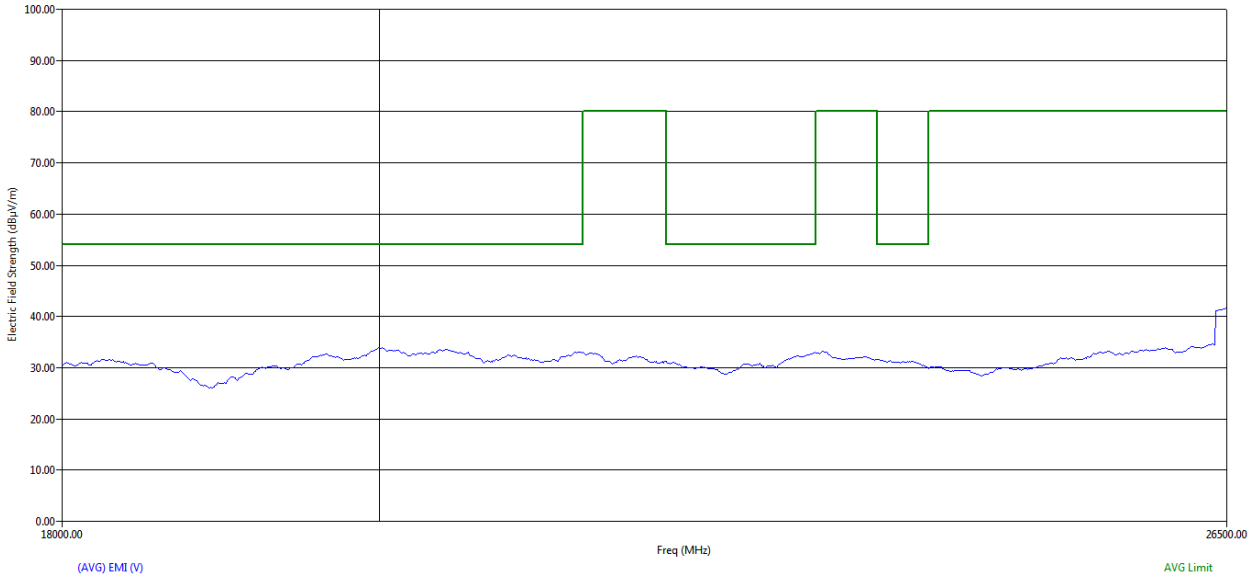


Figure 48: 10 MHz, 17 dBi, Low channel: Average RE graph - 18 GHz to 26.5 GHz - Vertical

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)
18567.30	18806.28	H	328.80	100.00	34.03	6.77	36.41	48.80	28.42	53.98	-25.56
21341.80	21741.69	H	216.90	100.00	33.25	7.41	37.39	46.04	32.02	53.98	-21.96

Table 38: 10 MHz, 17 dBi, Low channel: Average table from 18 GHz to 26.5 GHz

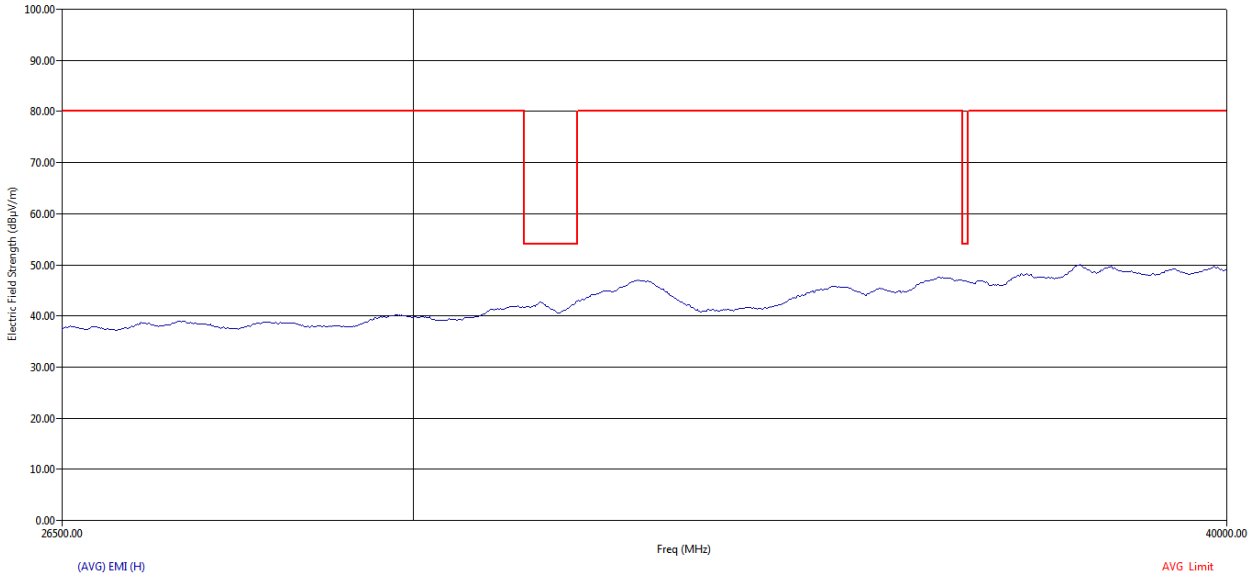


Figure 49: 10 MHz, 17 dBi, Low channel: Average RE graph - 26.5 GHz to 40 GHz - Horizontal

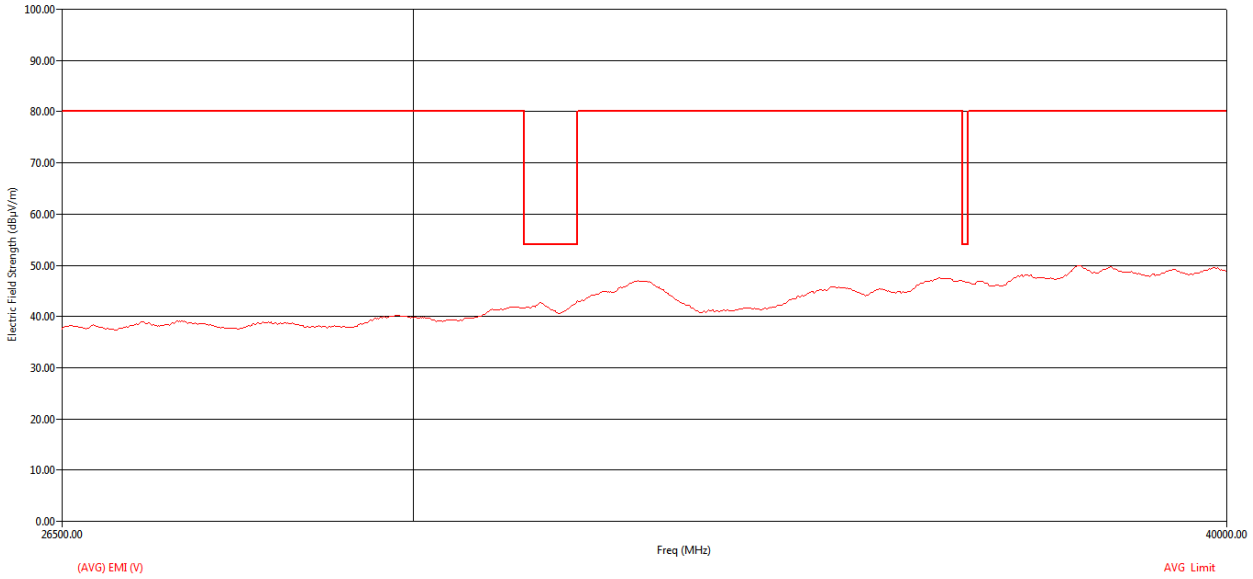


Figure 50: 10 MHz, 17 dBi, Low channel: Average RE graph - 26.5 GHz to 40 GHz - Vertical

Freq (MHz)	Freq (Max) (MHz)	Pol	Twr Ht (cm)	EUT Ttbl Agl (deg)	(AVG) Trace (dBµV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBµV/m)	Limit (dBµV/m)	(AVG) Margin (dB)
32536.60	33667.88	V	100.00	8.80	41.74	10.65	39.43	50.84	40.98	53.98	-13.00
37962.70	37974.11	H	100.00	215.10	42.83	12.32	40.77	46.49	49.43	53.98	-4.55

Table 39: 10 MHz, 17 dBi, Low channel: Average table from 26.5 GHz to 40 GHz

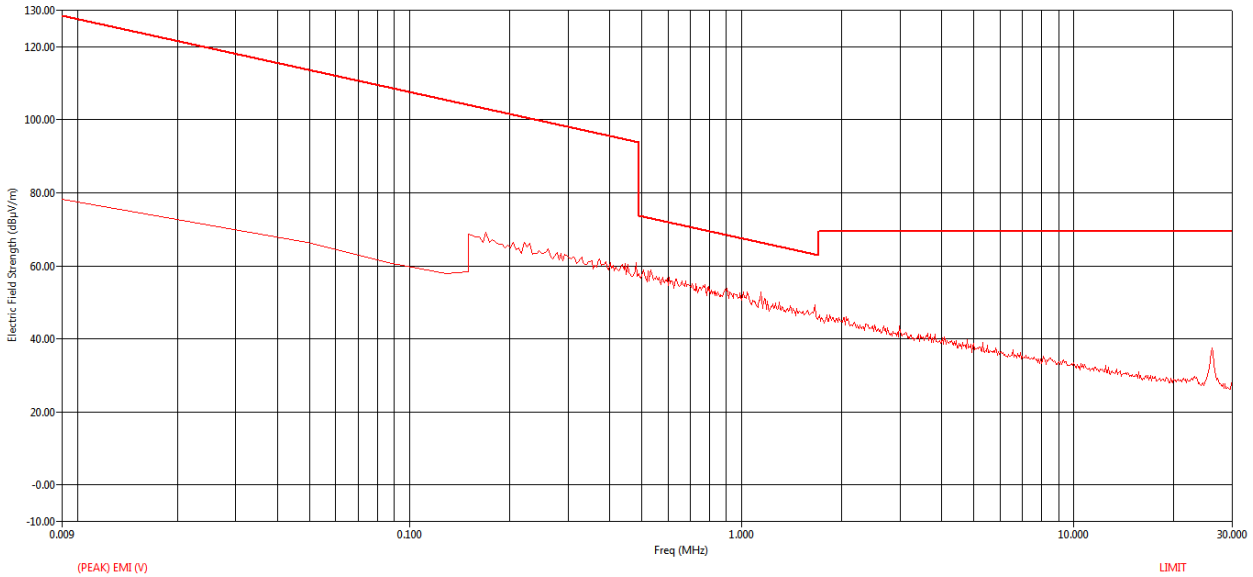


Figure 51: 10 MHz, 17 dBi, Mid channel: Peak RE graph - 9 kHz to 30 MHz - Parallel

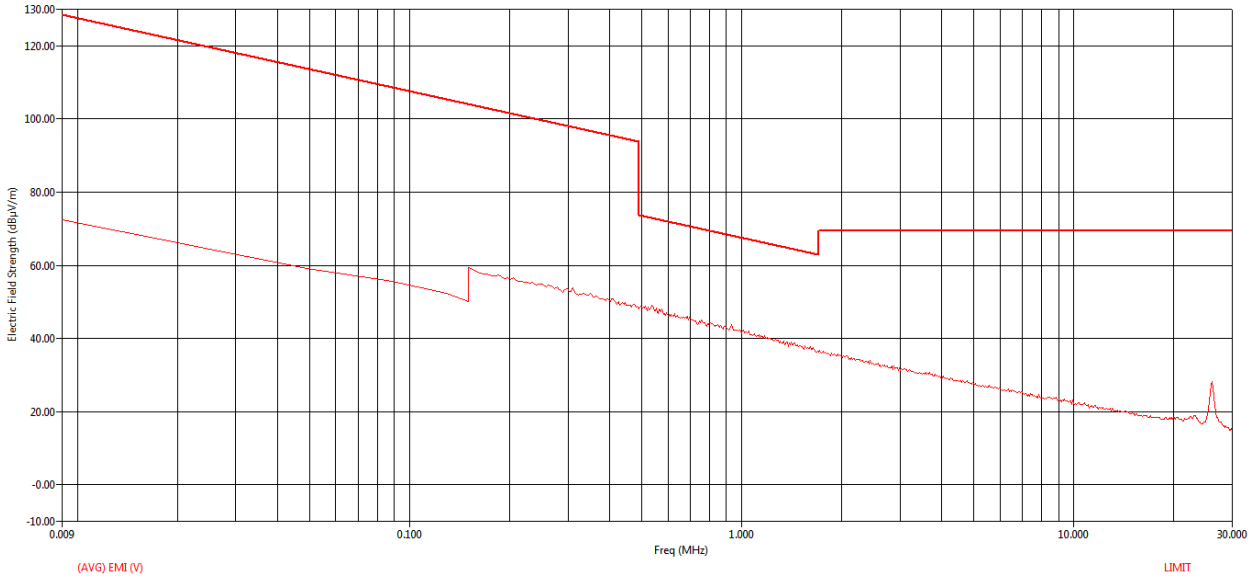


Figure 52: 10 MHz, 17 dBi, Mid channel: Average RE graph - 9 kHz to 30 MHz - Parallel

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)
0.050	0.050	42.10	33.57	0.03	19.73	53.33	113.68	-60.35
0.170	0.164	65.60	44.45	0.04	18.28	62.77	103.30	-40.53
24.350	24.350	93.40	20.56	1.07	16.15	37.77	69.54	-31.77

Table 40: 10 MHz, 17 dBi, Mid channel: Quasi peak table from 9 kHz to 30 MHz - Parallel

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbl Agl (deg)	(AVG) Trace (dBµV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBµV/m)	Limit (dBµV/m)	(AVG) Margin (dB)
0.050	0.050	42.10	37.70	0.03	19.73	57.46	113.68	-56.21
0.170	0.164	65.60	38.62	0.04	18.28	56.94	103.30	-46.36
24.350	24.350	93.40	17.23	1.07	16.15	34.45	69.54	-35.09

Table 41: 10 MHz, 17 dBi, Mid channel: Average table from 9 kHz to 30 MHz - Parallel

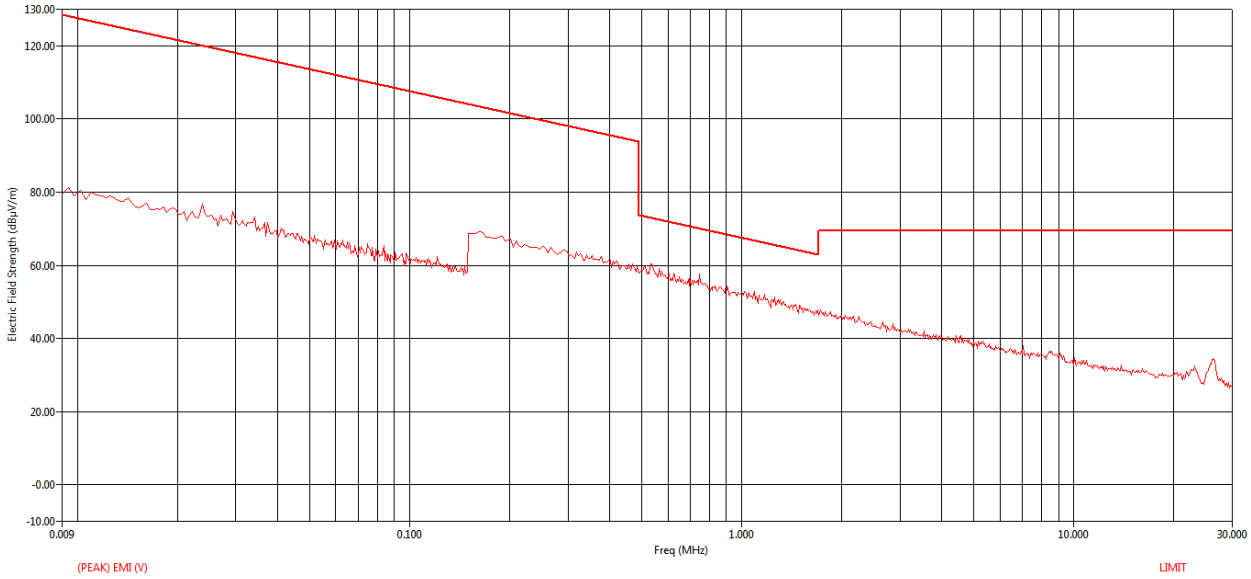


Figure 53: 10 MHz, 17 dBi, Mid channel: Peak RE graph - 9 kHz to 30 MHz - Perpendicular

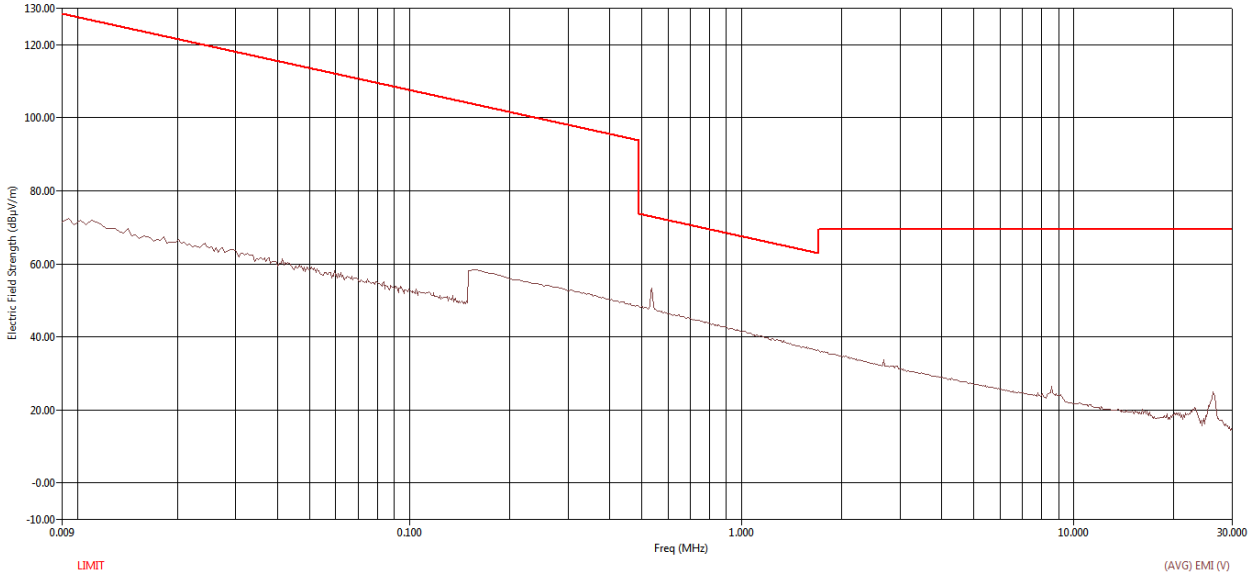


Figure 54: 10 MHz, 17 dBi, Mid channel: Average RE graph - 9 kHz to 30 MHz - Perpendicular

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	(QP) Trace (dBµV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBµV/m)	Limit (dBµV/m)	(QP) Margin (dB)
0.16	0.16	V	98.00	47.49	0.04	18.29	65.81	103.47	-37.66
26.22	26.22	V	169.70	14.13	1.11	16.02	31.25	69.54	-38.29

Table 42: 10 MHz, 17 dBi, Mid channel: Quasi peak table from 9 kHz to 30 MHz - Perpendicular

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	(AVG) Trace (dBµV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBµV/m)	Limit (dBµV/m)	(AVG) Margin (dB)
0.16	0.16	V	98.00	40.12	0.04	18.29	58.44	103.47	-45.03
26.22	26.22	V	169.70	7.37	1.11	16.02	24.50	69.54	-45.04

Table 43: 10 MHz, 17 dBi, Mid channel: Average table from 9 kHz to 30 MHz - Perpendicular

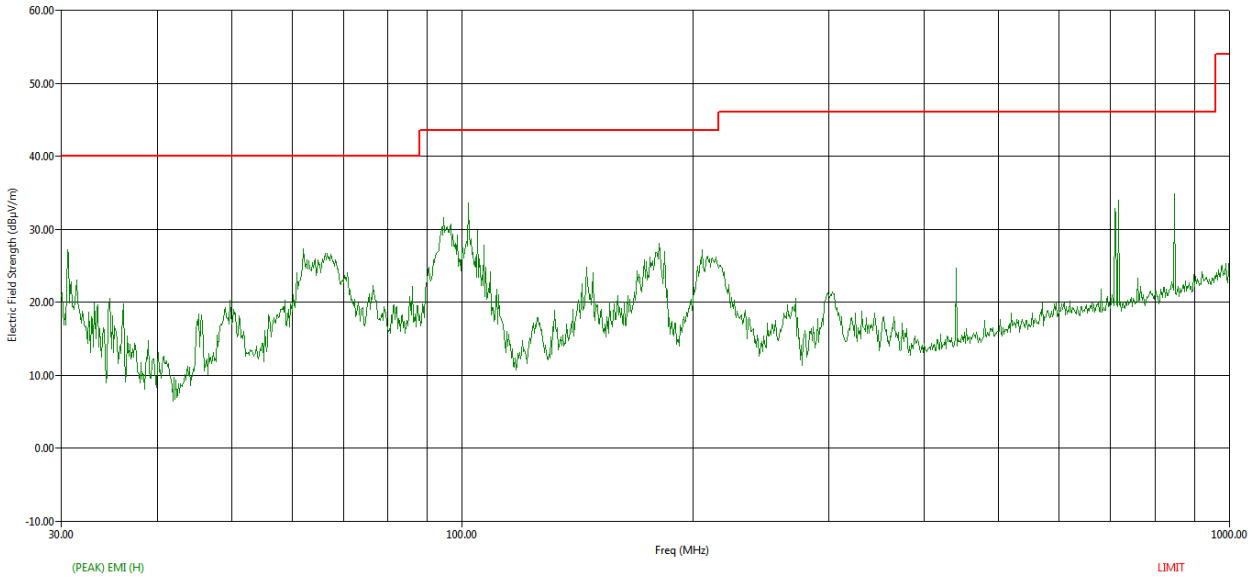


Figure 55: 10 MHz, 17 dBi, Mid channel: Peak RE graph - 30 MHz to 1 GHz - Horizontal

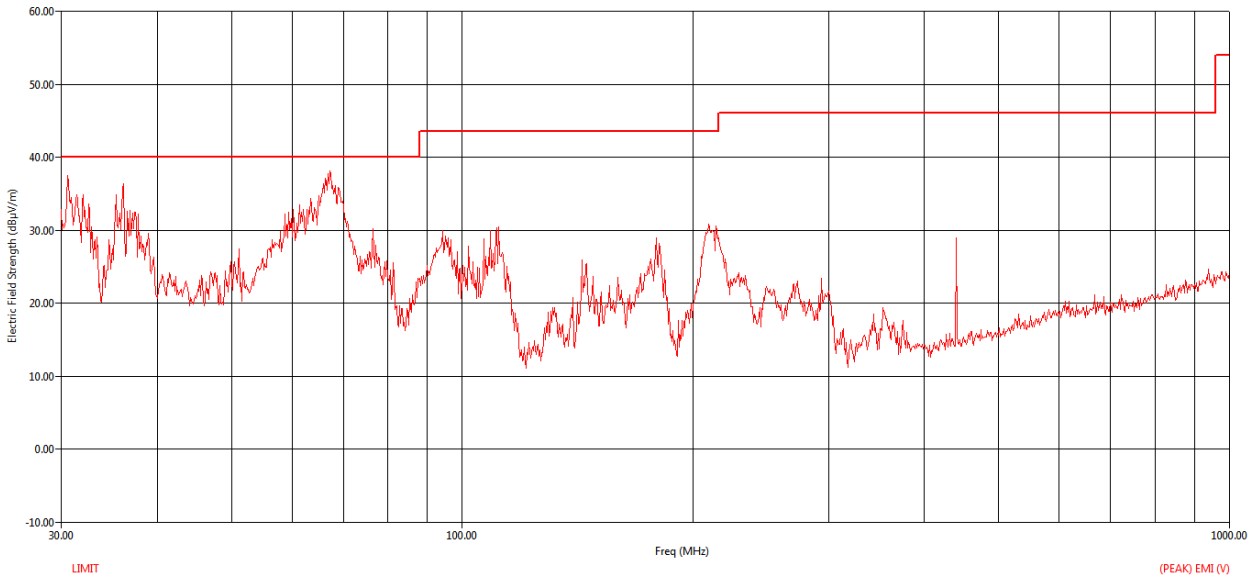


Figure 56: 10 MHz, 17 dBi, Mid channel: Peak RE graph - 30 MHz to 1 GHz - Vertical

Freq (MHz)	Freq (Max) (MHz)	Pol	Twr Ht (cm)	EUT Ttbl Agl (deg)	(QP) Trace (dBµV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(QP) EMI (dBµV/m)	Limit (dBµV/m)	(QP) Margin (dB)
30.60	30.70	V	141.00	218.70	57.67	1.19	11.38	43.80	26.43	40.00	-13.57
36.16	36.11	V	118.00	193.90	52.01	1.31	10.37	43.81	19.88	40.00	-20.12
60.24	60.26	V	139.00	182.30	52.73	1.69	9.48	43.86	20.05	40.00	-19.95
67.16	67.27	V	141.00	304.50	59.00	1.77	8.82	43.88	25.71	40.00	-14.29
101.88	101.98	H	385.00	199.70	44.63	2.15	8.37	43.94	11.22	43.52	-32.30

Table 44: 10 MHz, 17 dBi, Mid channel: Quasi peak table from 30 MHz to 1 GHz

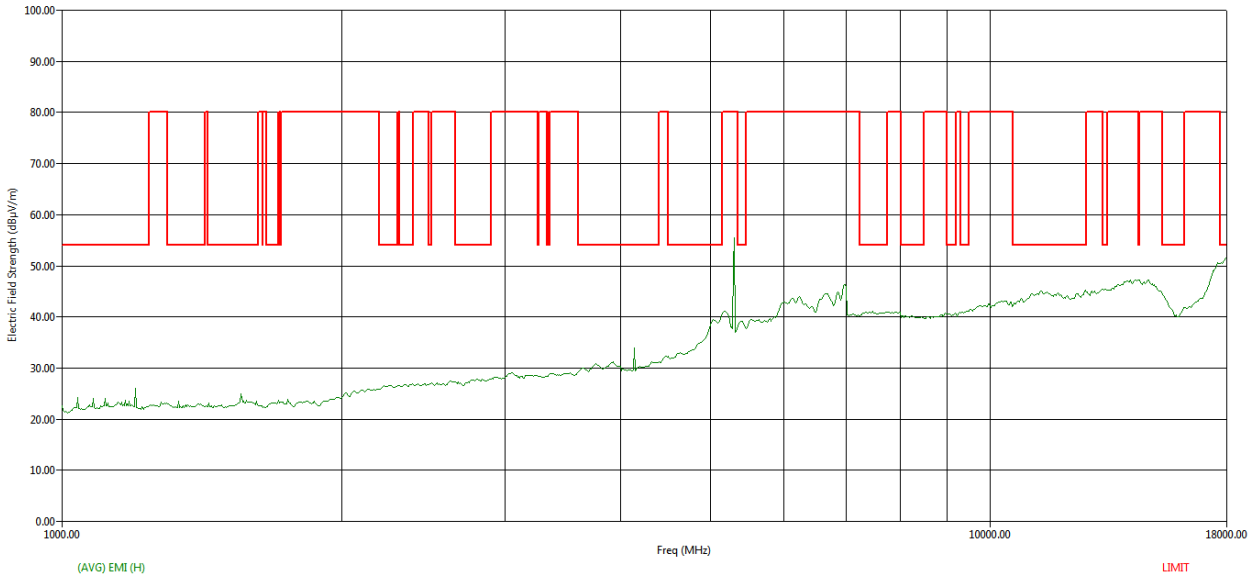


Figure 57: 10 MHz, 17 dBi, Mid channel: Average RE graph - 1 GHz to 18 GHz - Horizontal

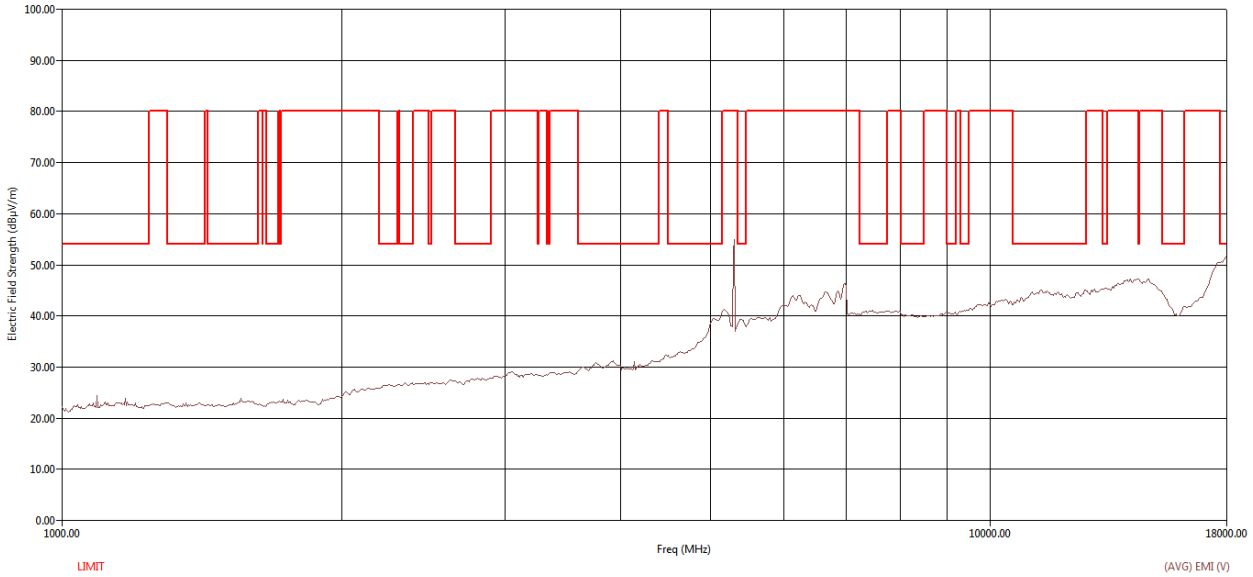


Figure 58: 10 MHz, 17 dBi, Mid channel: Average RE graph - 1 GHz to 18 GHz - Vertical

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)
1199.90	1199.90	H	54.30	100.00	29.05	1.94	24.53	32.45	23.08	54.00	-30.92
4139.10	4139.10	H	180.10	177.00	32.63	3.37	29.89	29.99	35.90	54.00	-18.10
5188.80	5188.80	V	180.10	103.00	30.73	3.80	32.06	28.32	38.28	80.00	-41.72
6970.70	6970.70	V	95.10	200.00	34.47	4.20	35.21	28.30	45.58	80.00	-34.42

Table 45: 10 MHz, 17 dBi, Mid channel: Average table from 1 GHz to 18 GHz

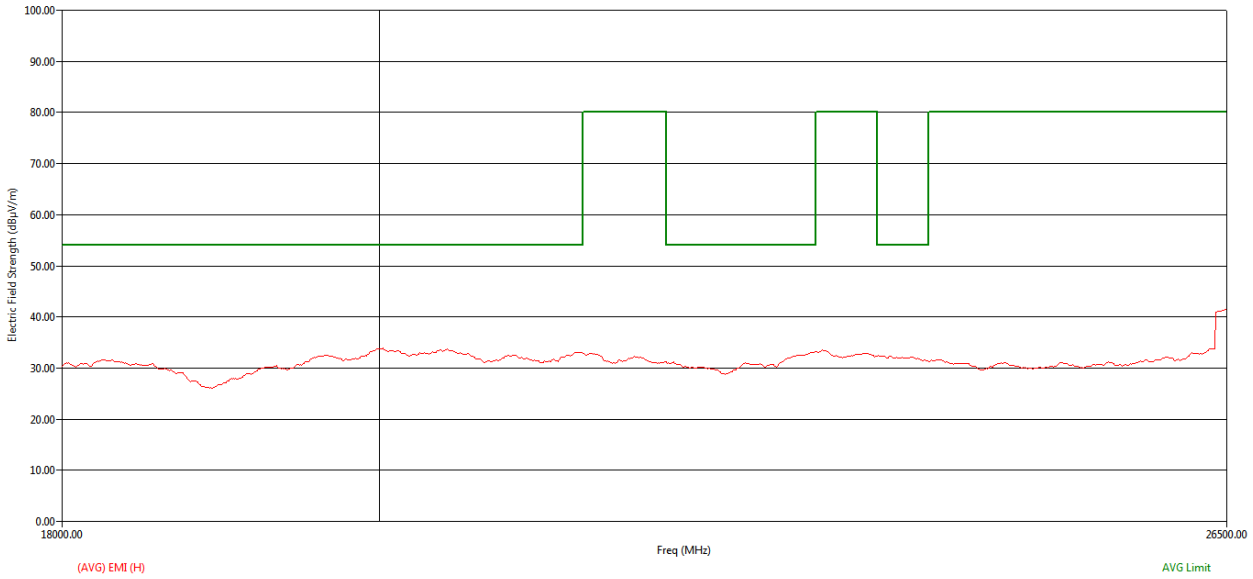


Figure 59: 10 MHz, 17 dBi, Mid channel: Average RE graph - 18 GHz to 26.5 GHz - Horizontal

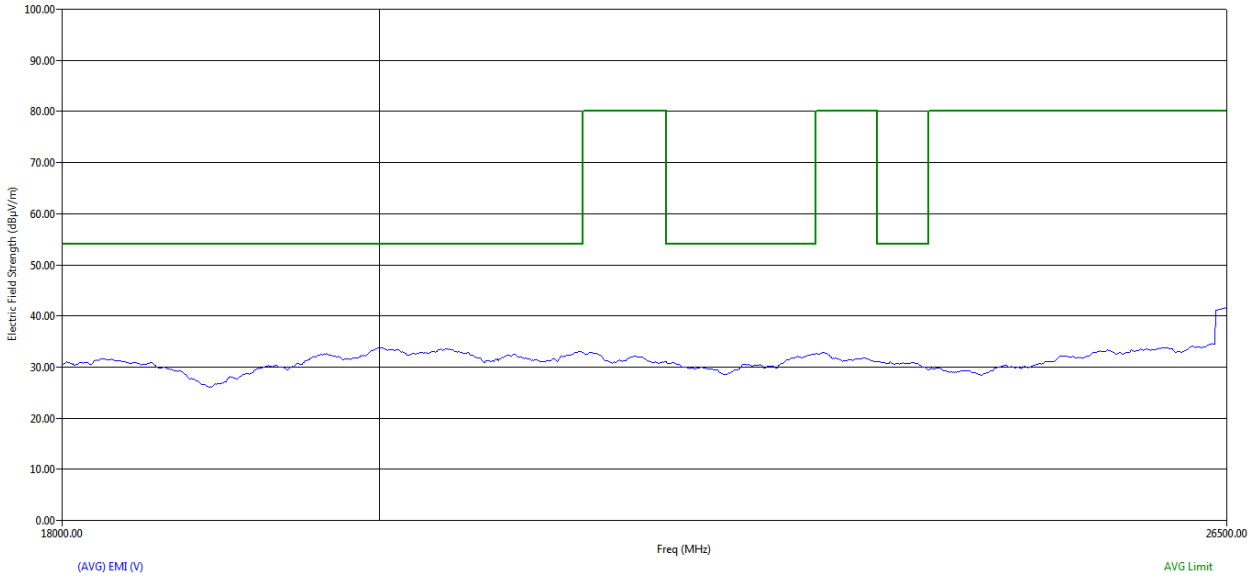


Figure 60: 10 MHz, 17 dBi, Mid channel: Average RE graph - 18 GHz to 26.5 GHz - Vertical

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)
20067.30	19212.73	H	80.20	100.00	33.60	6.64	36.53	46.66	30.10	53.98	-23.88
23197.80	22219.22	V	4.60	100.00	32.74	6.70	36.79	46.51	29.72	80.00	-50.28

Table 46: 10 MHz, 17 dBi, Mid channel: Average table from 18 GHz to 26.5 GHz

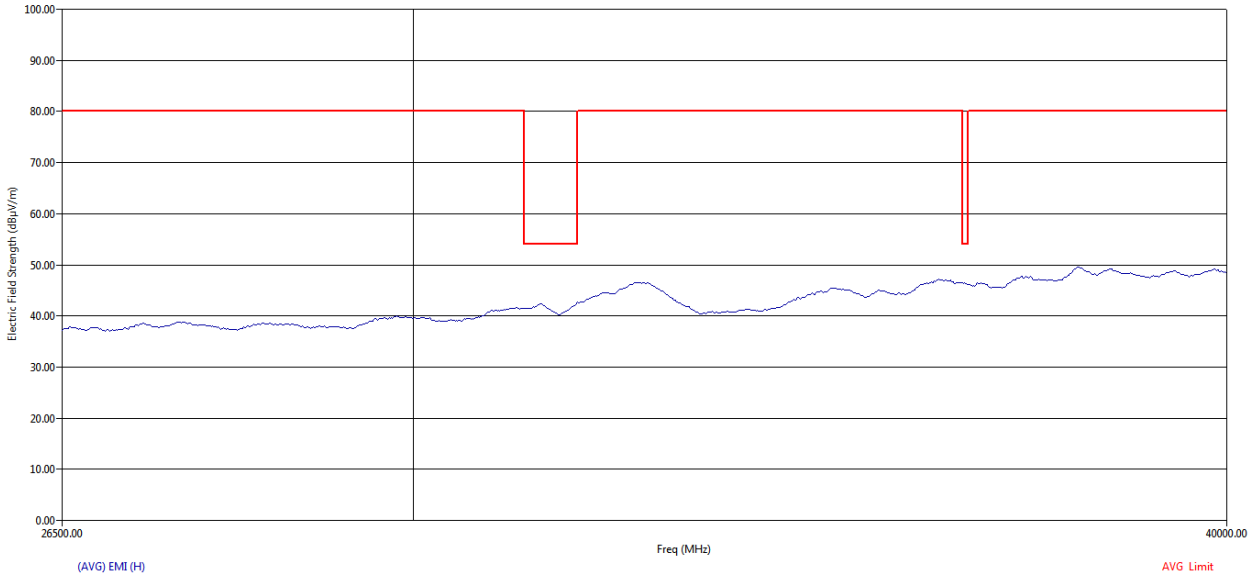


Figure 61: 10 MHz, 17 dBi, Mid channel: Average RE graph - 26.5 GHz to 40 GHz - Horizontal

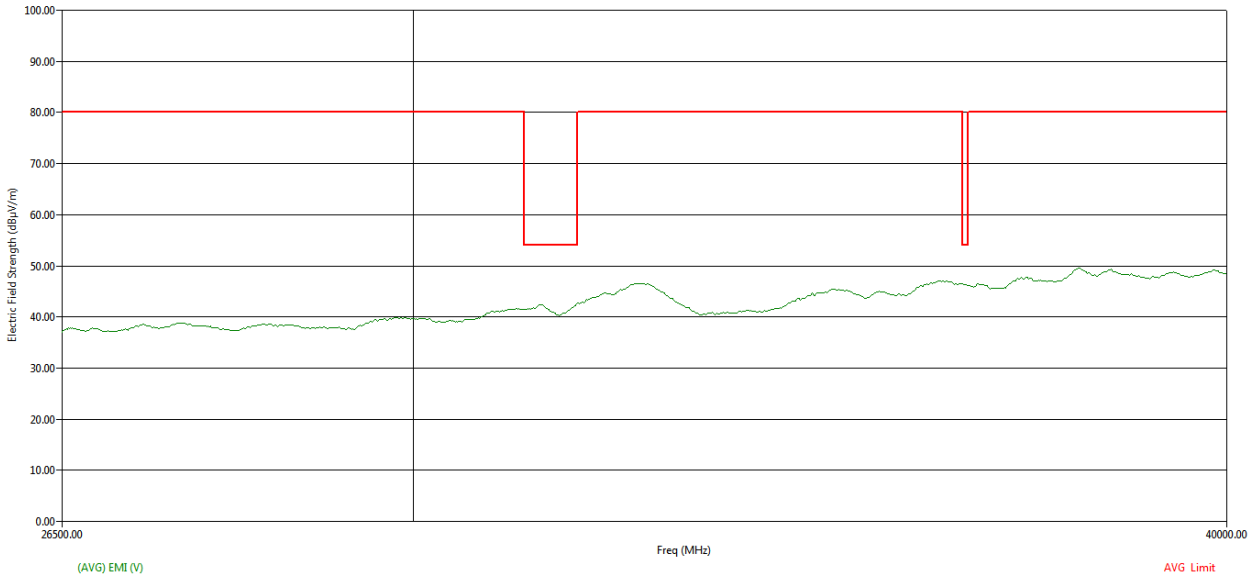


Figure 62: 10 MHz, 17 dBi, Mid channel: Average RE graph - 26.5 GHz to 40 GHz - Vertical

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)
32473.70	33732.95	V	180.30	100.00	41.61	10.63	39.44	50.51	41.17	53.98	-12.81
37950.50	39794.79	H	159.50	100.00	42.27	12.34	41.64	47.23	49.02	53.98	-4.96

Table 47: 10 MHz, 17 dBi, Mid channel: Average table from 26.5 GHz to 40 GHz

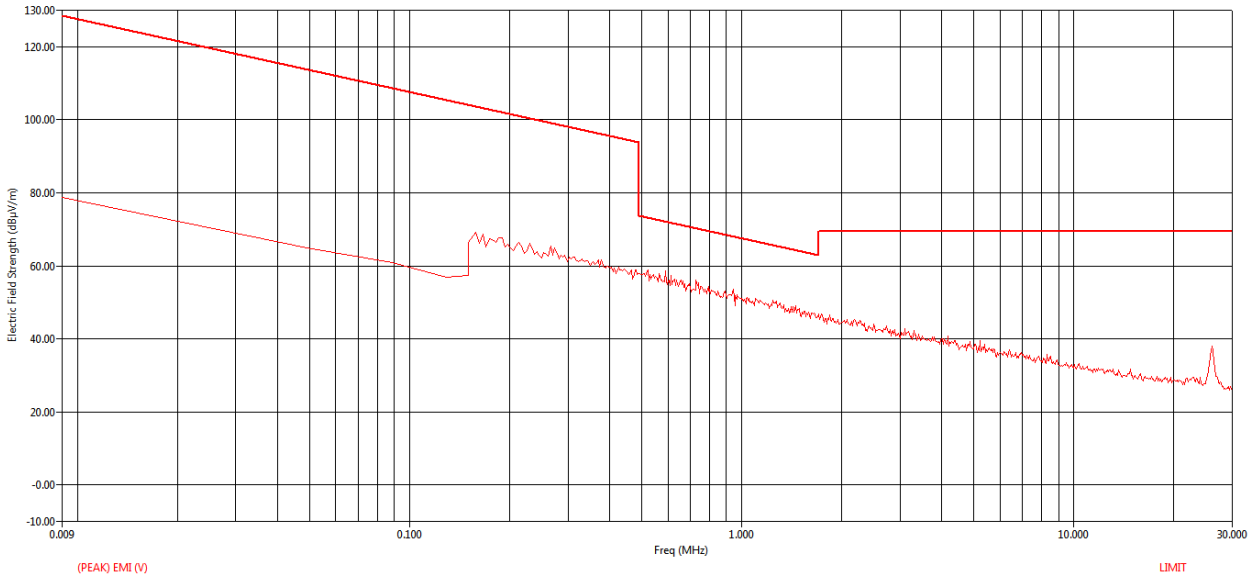


Figure 63: 10 MHz, 17 dBi, High channel: Peak RE graph - 9 kHz to 30 MHz - Parallel

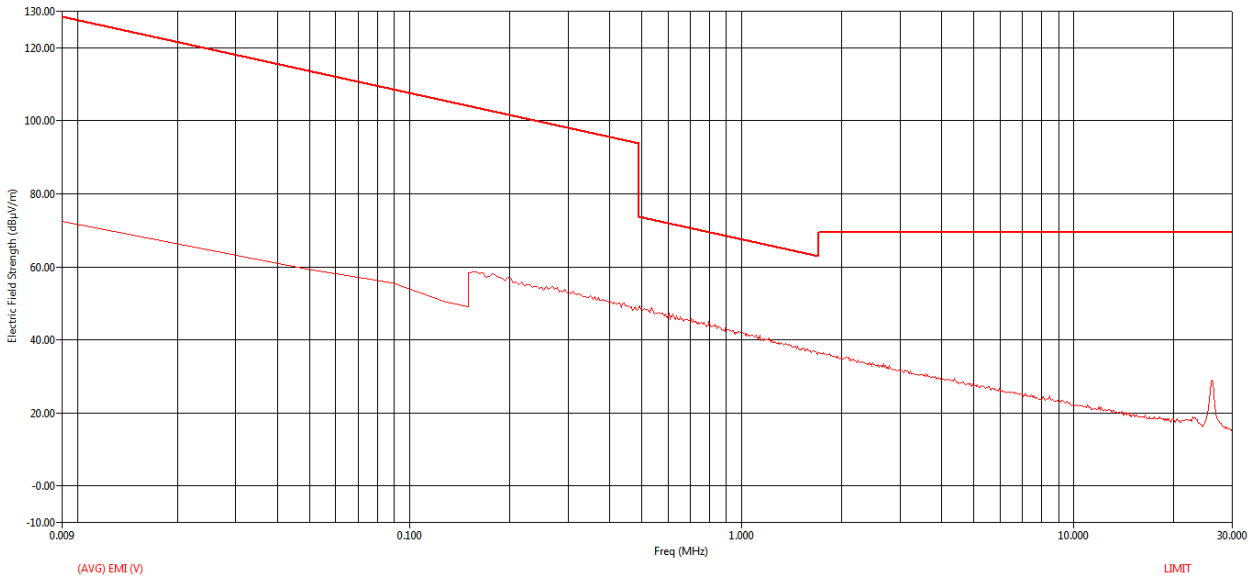


Figure 64: 10 MHz, 17 dBi, High channel: Average RE graph - 9 kHz to 30 MHz - Parallel

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)
0.166	0.161	302.30	44.60	0.04	18.29	62.92	103.46	-40.54
0.500	0.505	43.30	34.48	0.13	18.10	52.71	73.54	-20.83
24.534	24.535	85.20	22.48	1.07	16.13	39.69	69.54	-29.85

Table 48: 10 MHz, 17 dBi, High channel: Quasi peak table from 9 kHz to 30 MHz - Parallel

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbl Agl (deg)	(AVG) Trace (dBµV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBµV/m)	Limit (dBµV/m)	(AVG) Margin (dB)
0.166	0.161	302.30	38.83	0.04	18.29	57.16	103.46	-46.31
0.500	0.505	43.30	28.78	0.13	18.10	47.01	73.54	-26.53
24.534	24.535	85.20	18.79	1.07	16.13	35.99	69.54	-33.55

Table 49: 10 MHz, 17 dBi, High channel: Average table from 9 kHz to 30 MHz - Parallel

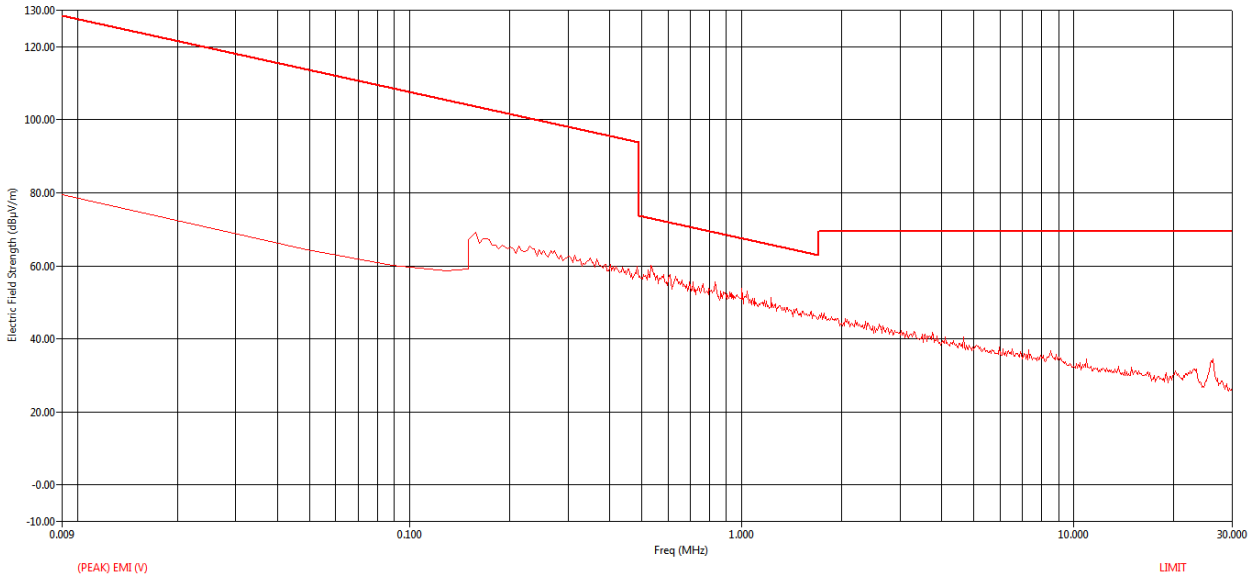


Figure 65: 10 MHz, 17 dBi, High channel: Peak RE graph - 9 kHz to 30 MHz - Perpendicular

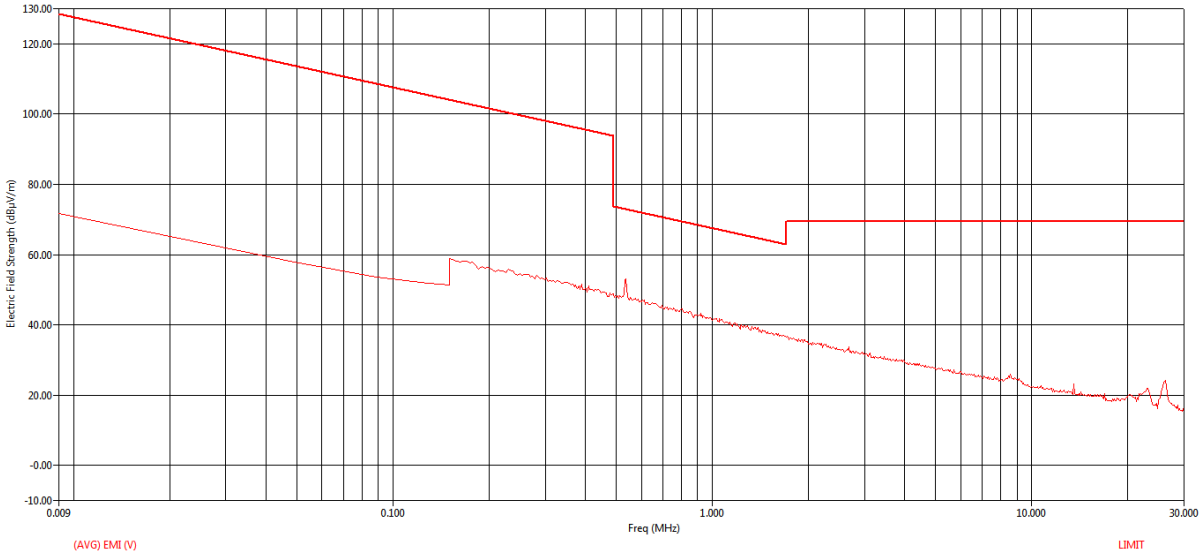


Figure 66: 10 MHz, 17 dBi, High channel: Average RE graph - 9 kHz to 30 MHz - Perpendicular

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	(QP) Trace (dBµV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBµV/m)	Limit (dBµV/m)	(QP) Margin (dB)
0.16	0.16	V	44.10	47.51	0.04	18.29	65.84	103.62	-37.78
26.22	26.21	V	139.40	15.55	1.11	16.02	32.68	69.54	-36.86

Table 50: 10 MHz, 17 dBi, High channel: Quasi peak table from 9 kHz to 30 MHz – Perpendicular

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	(AVG) Trace (dBµV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBµV/m)	Limit (dBµV/m)	(AVG) Margin (dB)
0.16	0.16	V	44.10	40.05	0.04	18.29	58.38	103.62	-45.24
26.22	26.21	V	139.40	8.87	1.11	16.02	25.99	69.54	-43.55

Table 51: 10 MHz, 17 dBi, High channel: Average table from 9 kHz to 30 MHz - Perpendicular

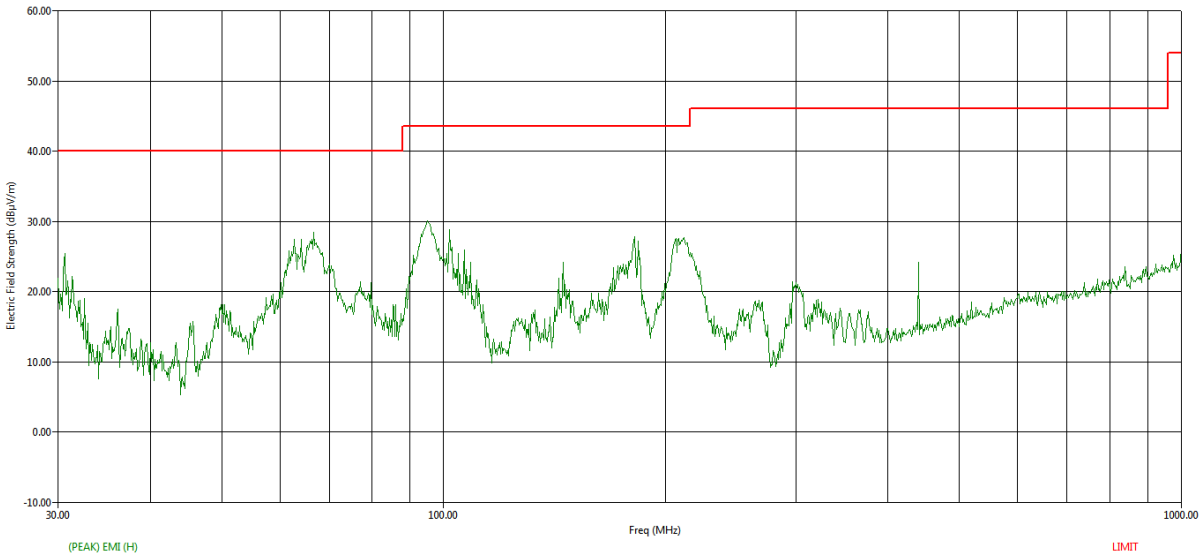


Figure 67: 10 MHz, 17 dBi, High channel: Peak RE graph - 30 MHz to 1 GHz – Horizontal

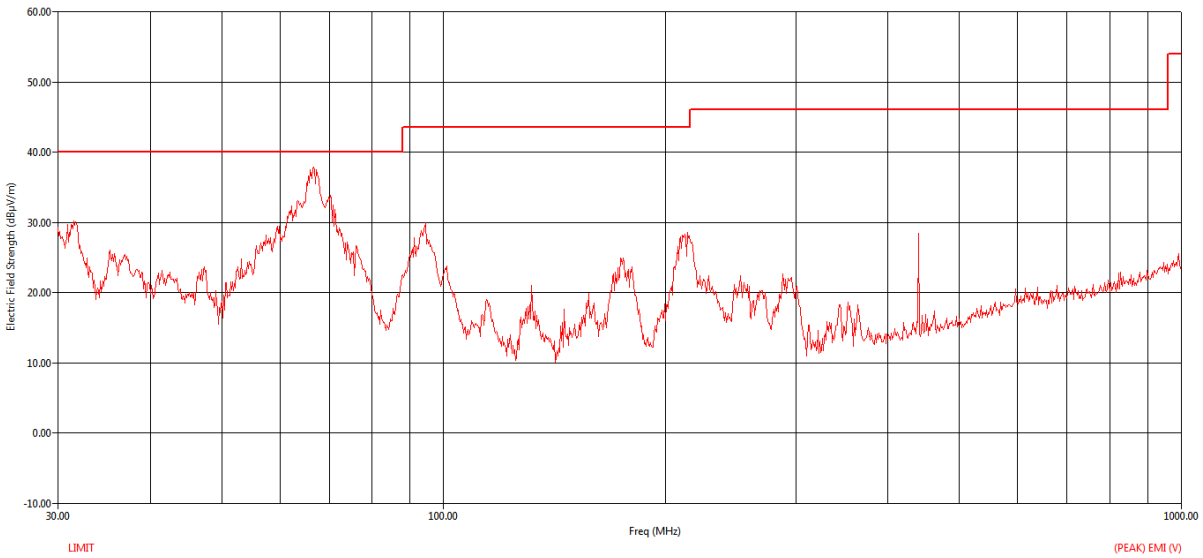


Figure 68: 10 MHz, 17 dBi, High channel: Peak RE graph - 30 MHz to 1 GHz - Vertical

Freq (MHz)	Freq (Max) (MHz)	Pol	Twr Ht (cm)	EUT Ttbl Agl (deg)	(QP) Trace (dBµV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(QP) EMI (dBµV/m)	Limit (dBµV/m)	(QP) Margin (dB)
31.56	31.54	V	395.00	189.10	55.83	1.21	11.23	43.80	24.47	40.00	-15.53
65.64	65.75	V	100.00	355.80	61.36	1.76	8.96	43.87	28.20	40.00	-11.80
66.64	66.71	H	261.00	3.20	55.18	1.77	8.87	43.88	21.94	40.00	-18.06
66.72	66.65	V	102.00	21.90	60.00	1.77	8.88	43.88	26.76	40.00	-13.24
94.44	94.36	V	162.00	270.00	56.96	2.07	8.46	43.93	23.56	43.52	-19.96
94.96	95.02	H	262.00	290.30	57.04	2.08	8.40	43.93	23.60	43.52	-19.92
101.88	101.80	H	280.00	281.90	49.74	2.15	8.34	43.94	16.29	43.52	-27.23
181.56	181.56	H	217.00	334.50	45.55	2.86	13.82	43.95	18.28	43.52	-25.24

Table 52: 10 MHz, 17 dBi, High channel: Quasi peak table from 30 MHz to 1 GHz

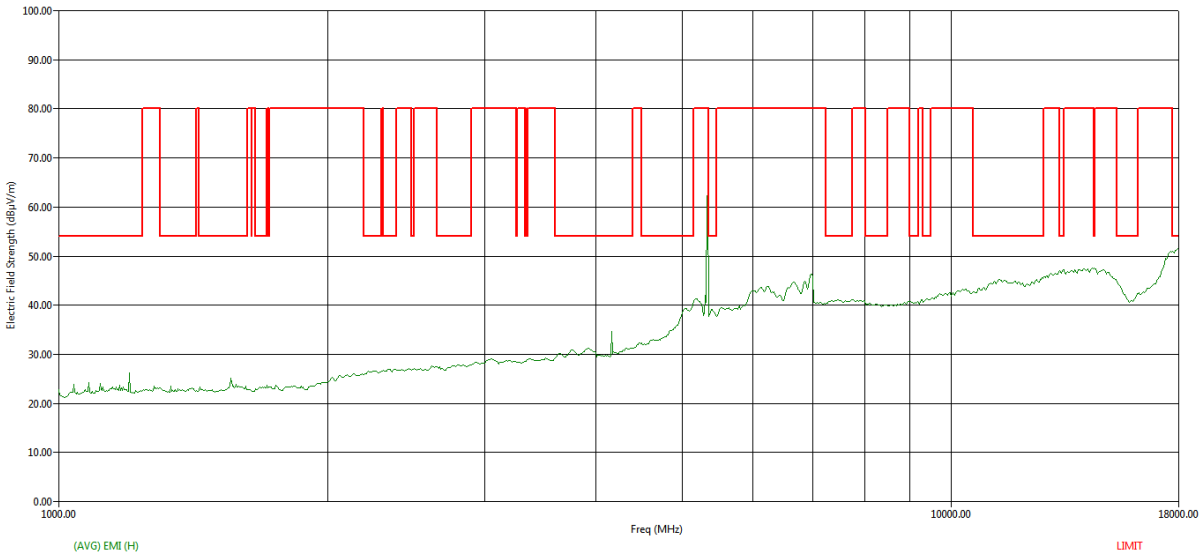


Figure 69: 10 MHz, 17 dBi, High channel: Average RE graph - 1 GHz to 18 GHz – Horizontal

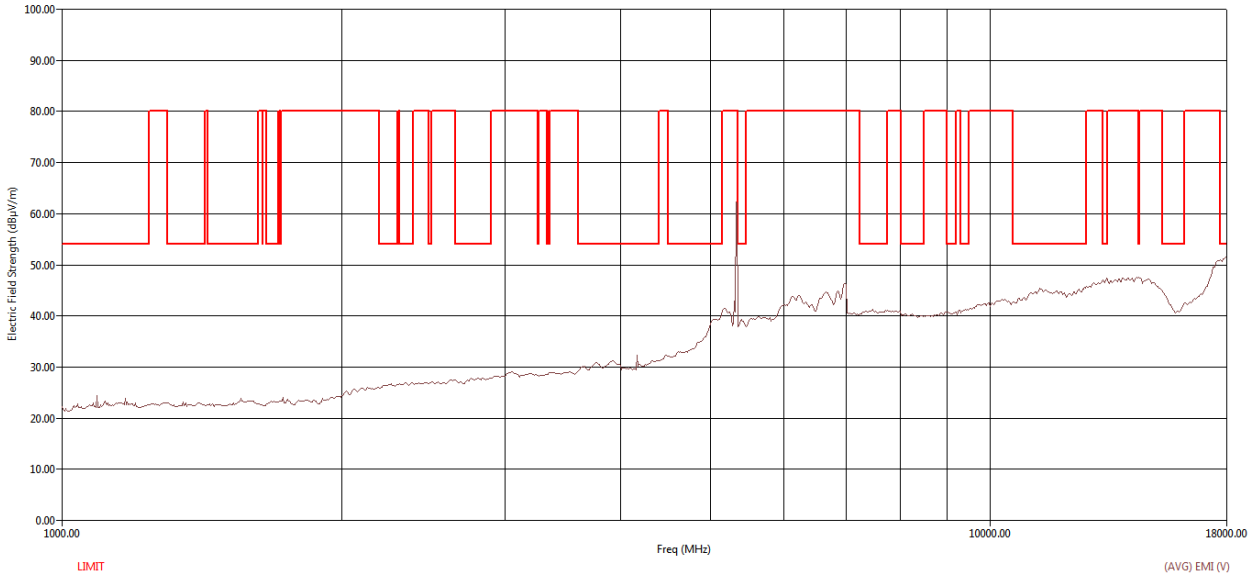


Figure 70: 10 MHz, 17 dBi, High channel: Average RE graph - 1 GHz to 18 GHz - Vertical

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)
1200.05	1200.05	H	54.90	100.00	29.11	1.94	24.53	32.45	23.14	54.00	-30.86
4168.95	4168.95	H	180.10	169.00	32.99	3.38	29.96	29.93	36.40	54.00	-17.60
5175.31	5175.31	V	180.10	121.00	31.24	3.80	32.04	28.32	38.76	80.00	-41.24
6977.42	6977.42	V	307.10	199.00	34.46	4.21	35.23	28.30	45.59	80.00	-34.41

Table 53: 10 MHz, 17 dBi, High channel: Average table from 1 GHz to 18 GHz

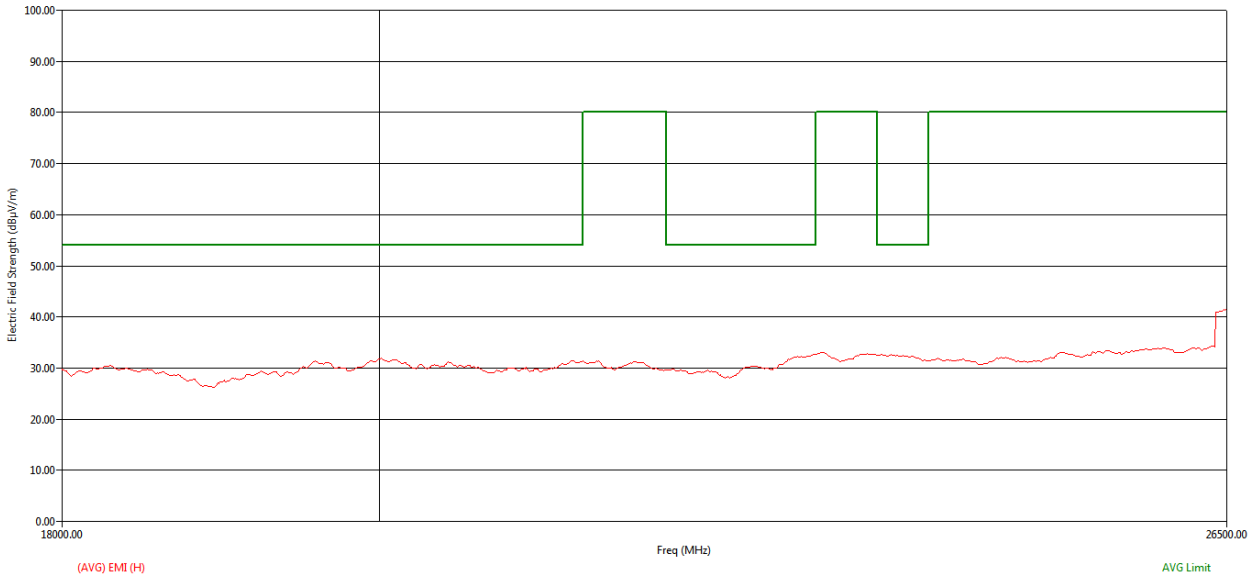


Figure 71: 10 MHz, 17 dBi, High channel: Average RE graph - 18 GHz to 26.5 GHz – Horizontal

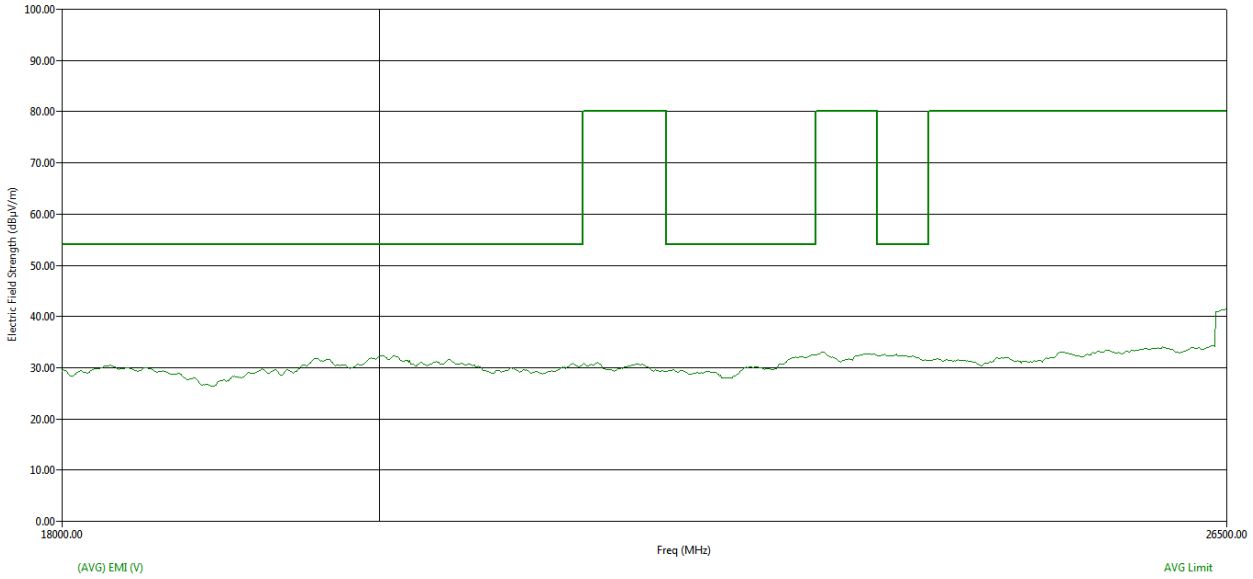


Figure 72: 10 MHz, 17 dBi, High channel: Average RE graph - 18 GHz to 26.5 GHz - Vertical

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)
19566.40	19325.25	H	353.90	100.00	32.22	6.68	36.55	45.89	29.56	53.98	-24.42
23197.80	22986.28	V	359.10	100.00	33.24	8.09	37.64	46.93	32.04	80.00	-47.96

Table 54: 10 MHz, 17 dBi, High channel: Average table from 18 GHz to 26.5 GHz

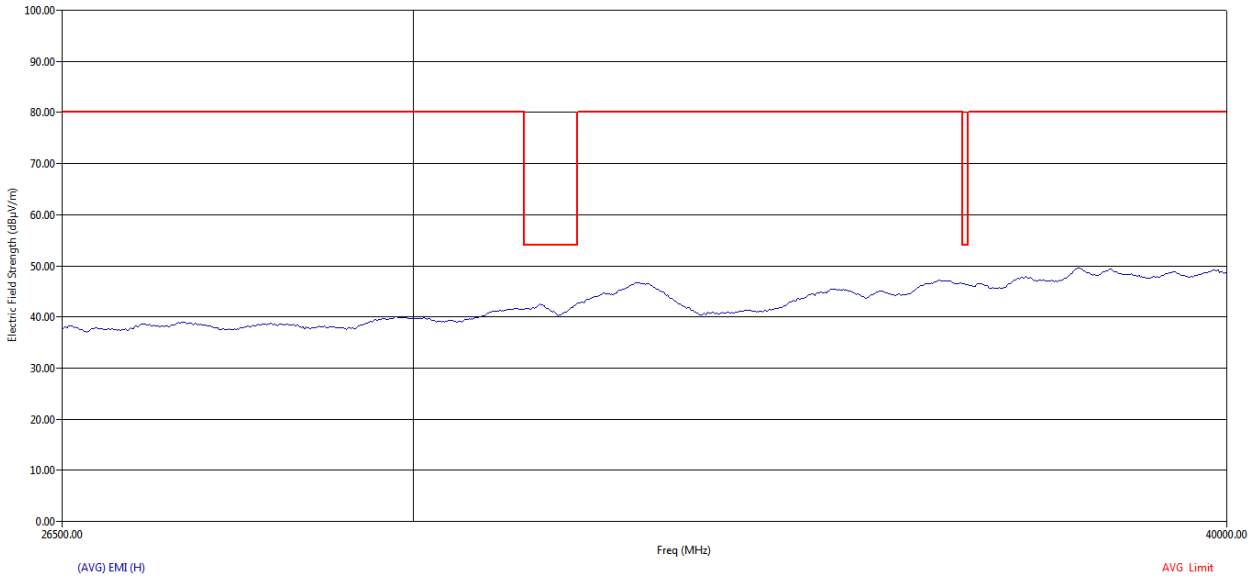


Figure 73: 10 MHz, 17 dBi, High channel: Average RE graph - 26.5 GHz to 40 GHz - Horizontal

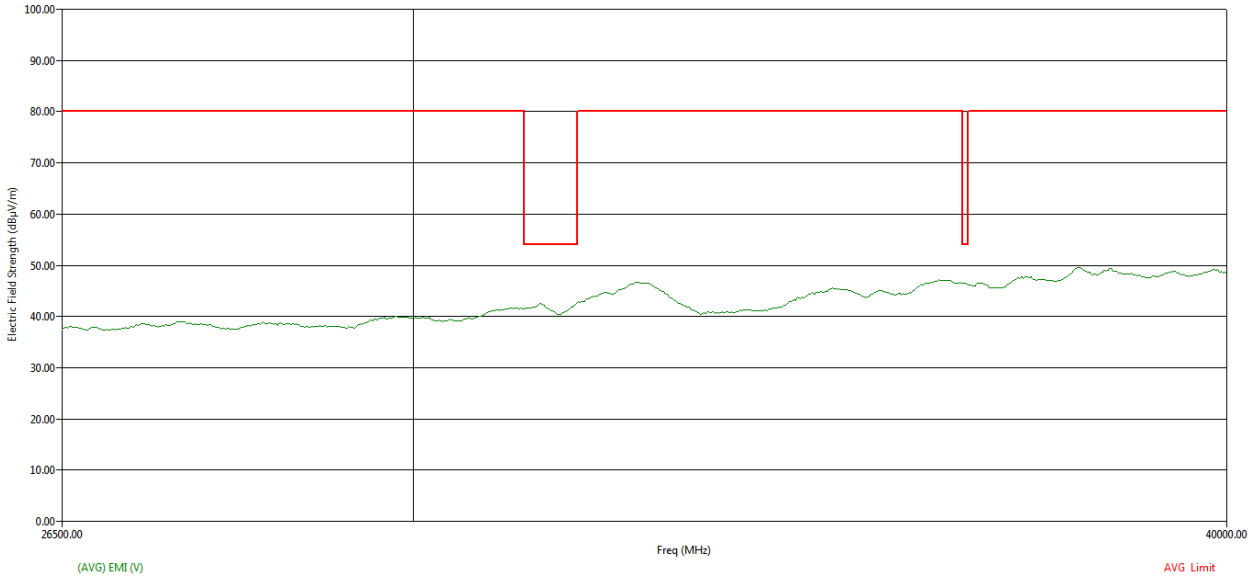


Figure 74: 10 MHz, 17 dBi, High channel: Average RE graph - 26.5 GHz to 40 GHz - Vertical

Freq (MHz)	Freq (Max) (MHz)	Pol	Twr Ht (cm)	EUT Ttbl Agl (deg)	(AVG) Trace (dBµV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBµV/m)	Limit (dBµV/m)	(AVG) Margin (dB)
32536.60	33667.88	V	100.00	8.80	41.74	10.65	39.43	50.84	40.98	53.98	-13.00
37962.70	37974.11	H	100.00	215.10	42.83	12.32	40.77	46.49	49.43	53.98	-4.55

Table 55: 10 MHz, 17 dBi, 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	RSS – GEN, ISSUE 4-NOV 2014	
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	Dikshit Raviteja	
Test Date	12th May 2016	

5.3.2.2 LIMITS

Maximum permissible voltage levels of Conducted Emission as per RSS-Gen issue 4 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

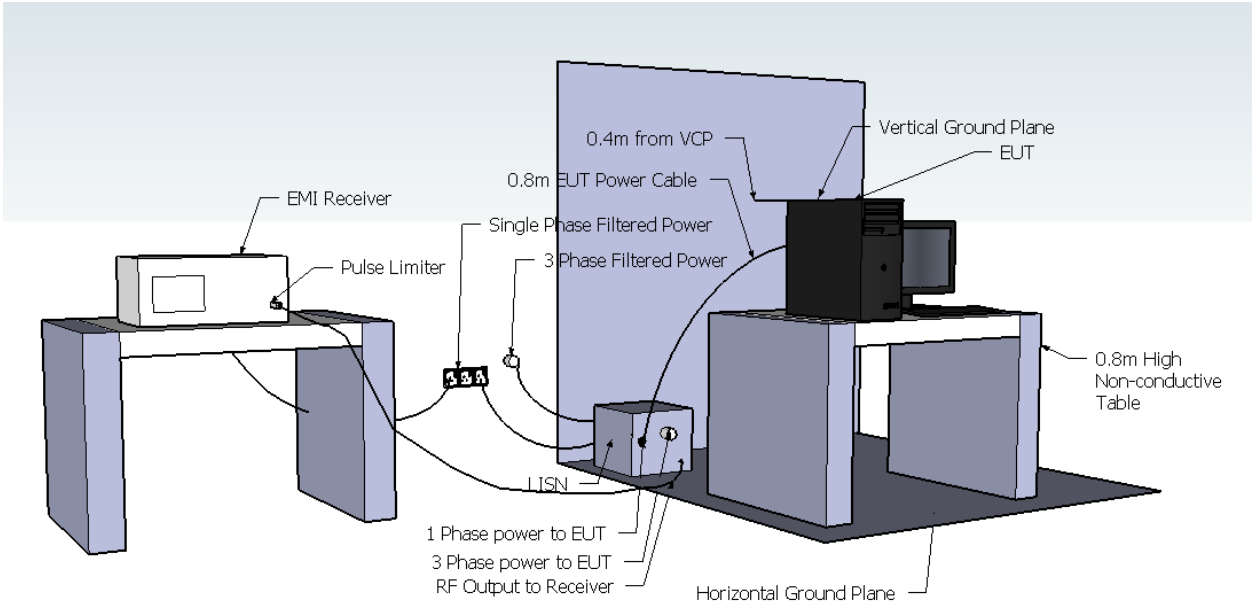


Figure 75: Sample conducted emission test setup

5.3.2.4 TEST PROCEDURE

The test procedure is in accordance with ANSI C63.10.

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. Quasi peak and Average measurement was carried out for the listed frequencies and compared with the limit specified in the standard.

5.3.2.5 MEASUREMENT DATA

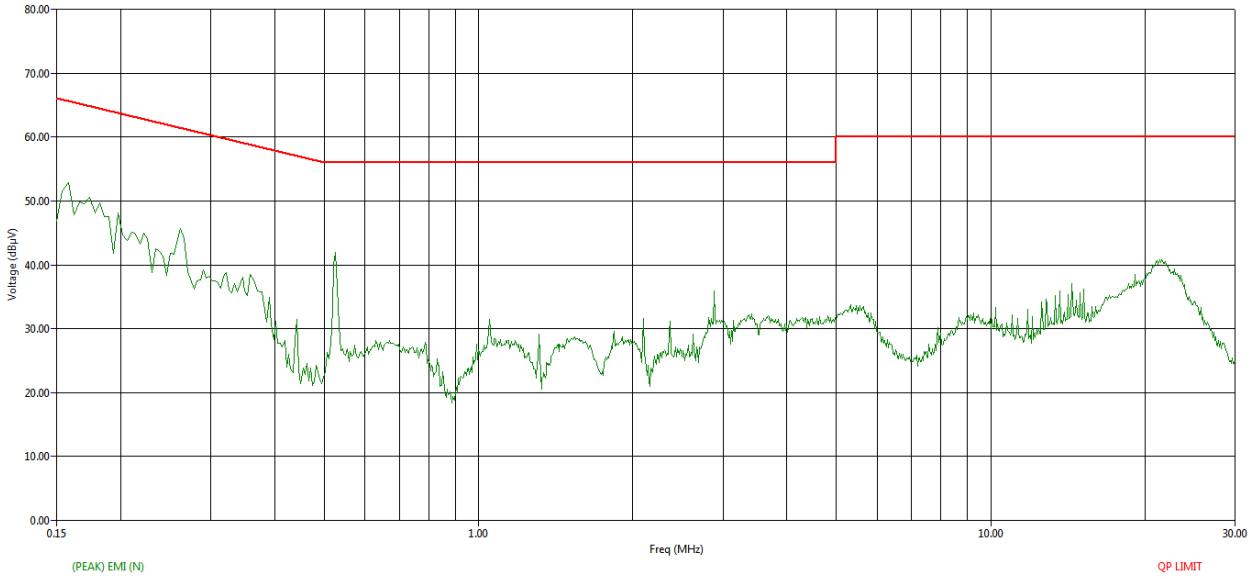


Figure 76: 40 MHz, 230 V AC / 50 Hz, Low channel: Peak CE graph - 150 kHz to 30 MHz - Neutral

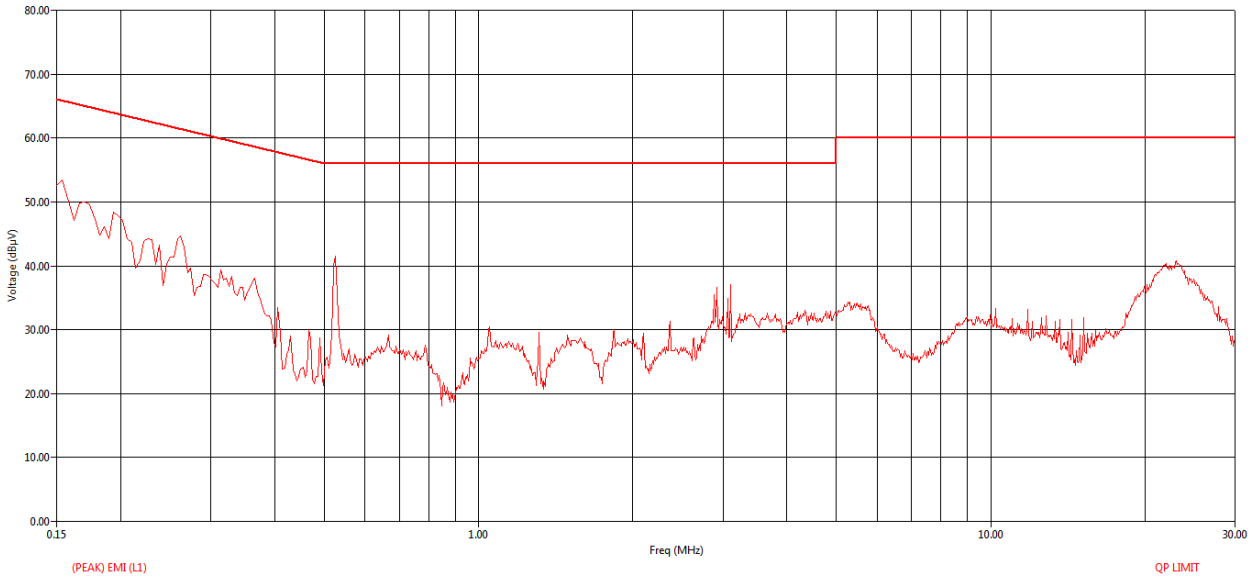


Figure 77: 40 MHz, 230 V AC / 50 Hz, Low channel: Peak CE graph - 150 kHz to 30 MHz - Line

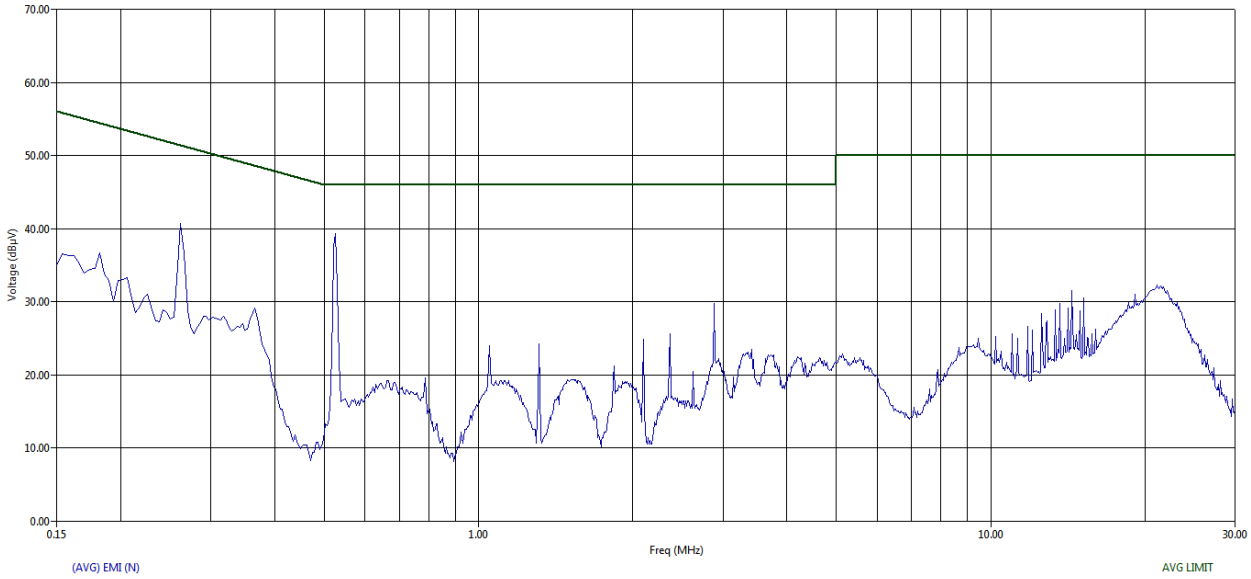


Figure 78: 40 MHz, 230 V AC / 50 Hz, Low channel: Average CE graph - 150 kHz to 30 MHz - Neutral

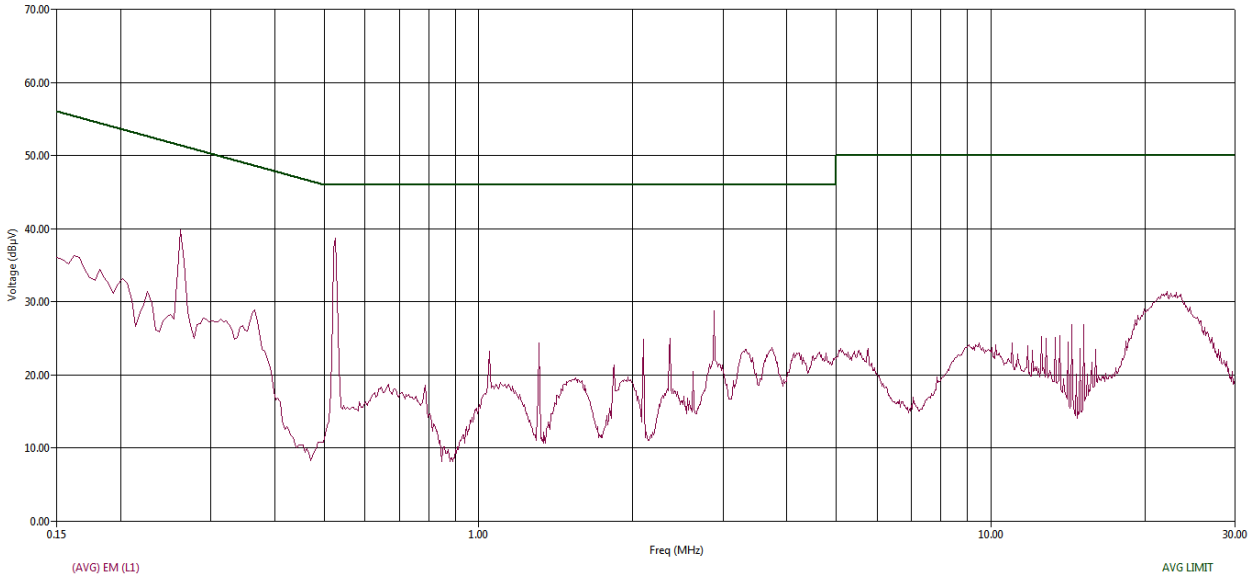


Figure 79: 40 MHz, 230 V AC / 50 Hz, Low channel: Average CE graph - 150 kHz to 30 MHz - Line

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 (dB)
0.154	0.156	L1	36.314	9.824	0.000	2.149	48.287	65.696	-17.409
0.158	0.160	N	36.271	9.828	2.081	0.000	48.180	65.447	-17.268
0.442	0.438	N	9.034	9.869	0.614	0.000	19.517	57.103	-37.586
0.466	0.456	L1	8.362	9.869	0.000	0.564	18.795	56.757	-37.962
0.526	0.524	N	31.418	9.869	0.414	0.000	41.701	56.000	-14.299
0.526	0.525	L1	30.554	9.869	0.000	0.423	40.847	56.000	-15.153
1.050	1.048	N	19.717	9.858	0.328	0.000	29.903	56.000	-26.097
1.050	1.050	L1	18.779	9.858	0.000	0.329	28.966	56.000	-27.034
2.098	2.098	N	18.863	9.834	0.301	0.000	28.998	56.000	-27.002
2.362	2.361	N	19.603	9.844	0.302	0.000	29.749	56.000	-26.251
2.886	2.892	N	18.117	9.862	0.304	0.000	28.283	56.000	-27.717
2.918	2.922	L1	17.156	9.863	0.000	0.332	27.352	56.000	-28.648
3.102	3.105	L1	14.179	9.868	0.000	0.334	24.382	56.000	-31.618
5.306	5.307	L1	18.208	9.914	0.000	0.356	28.478	60.000	-31.522
10.230	10.228	L1	18.920	9.962	0.000	0.441	29.323	60.000	-30.677
14.426	14.425	L1	18.753	9.964	0.000	0.754	29.471	60.000	-30.529
21.566	21.568	N	26.508	9.863	0.608	0.000	36.979	60.000	-23.021
23.082	23.081	L1	26.519	9.857	0.000	0.449	36.825	60.000	-23.175

Table 56: 40 MHz, 230 V AC / 50 Hz, Low channel: Quasi peak 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 (dB)
0.154	0.156	L1	23.091	9.824	0.000	2.149	35.064	55.696	-20.632
0.158	0.160	N	24.465	9.828	2.081	0.000	36.374	55.447	-19.074
0.442	0.438	N	-1.379	9.869	0.614	0.000	9.104	47.103	-37.999
0.466	0.456	L1	-2.500	9.869	0.000	0.564	7.933	46.757	-38.824
0.526	0.524	N	29.817	9.869	0.414	0.000	40.100	46.000	-5.900
0.526	0.525	L1	28.915	9.869	0.000	0.423	39.208	46.000	-6.792
1.050	1.048	N	13.858	9.858	0.328	0.000	24.043	46.000	-21.957
1.050	1.050	L1	12.762	9.858	0.000	0.329	22.949	46.000	-23.051
2.098	2.098	N	15.051	9.834	0.301	0.000	25.186	46.000	-20.814
2.362	2.361	N	15.192	9.844	0.302	0.000	25.338	46.000	-20.662
2.886	2.892	N	12.068	9.862	0.304	0.000	22.235	46.000	-23.765
2.918	2.922	L1	10.673	9.863	0.000	0.332	20.869	46.000	-25.131
3.102	3.105	L1	5.437	9.868	0.000	0.334	15.639	46.000	-30.361
5.306	5.307	L1	11.225	9.914	0.000	0.356	21.495	50.000	-28.505
10.230	10.228	L1	13.126	9.962	0.000	0.441	23.529	50.000	-26.471
14.426	14.425	L1	16.183	9.964	0.000	0.754	26.900	50.000	-23.100
21.566	21.568	N	20.496	9.863	0.608	0.000	30.967	50.000	-19.033
23.082	23.081	L1	19.639	9.857	0.000	0.449	29.945	50.000	-20.055

Table 57: 40 MHz, 230 V AC / 50 Hz, Low channel: Average table for CE from 150 kHz to 30 MHz

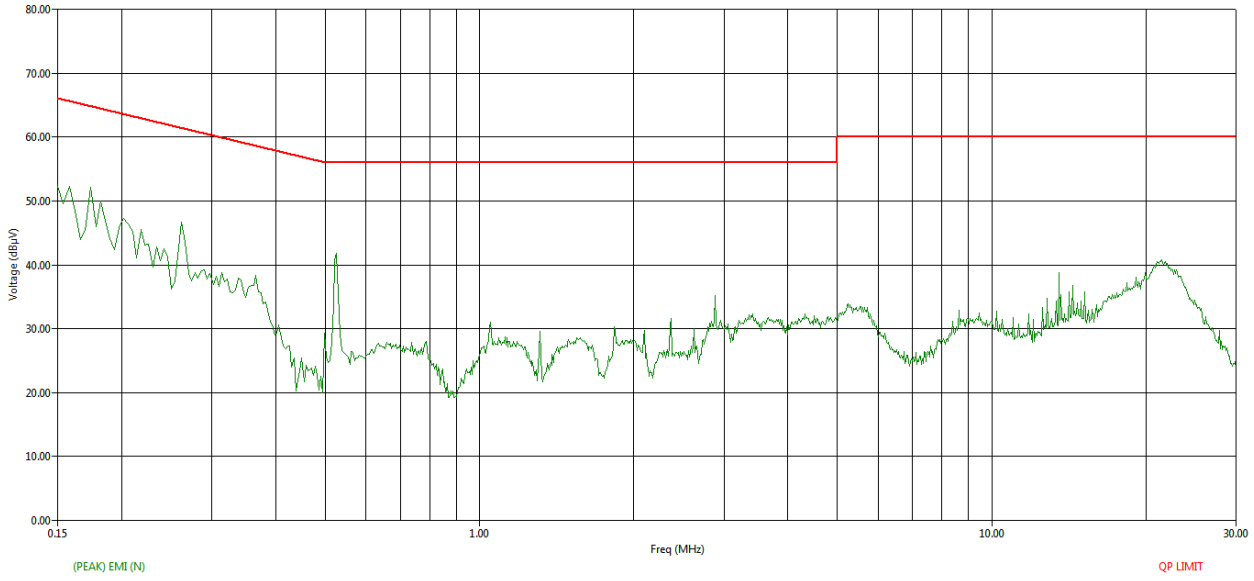


Figure 80: 40 MHz, 230 V AC / 50 Hz, Mid channel: Peak CE graph - 150 kHz to 30 MHz - Neutral

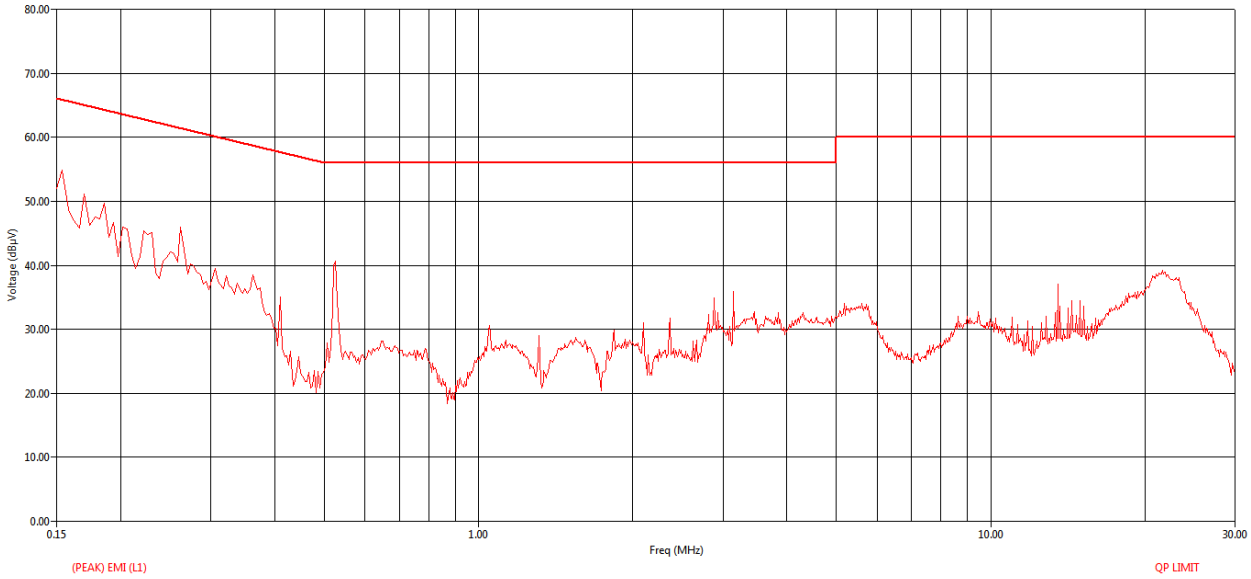


Figure 81: 40 MHz, 230 V AC / 50 Hz, Mid channel: Peak CE graph - 150 kHz to 30 MHz - Line

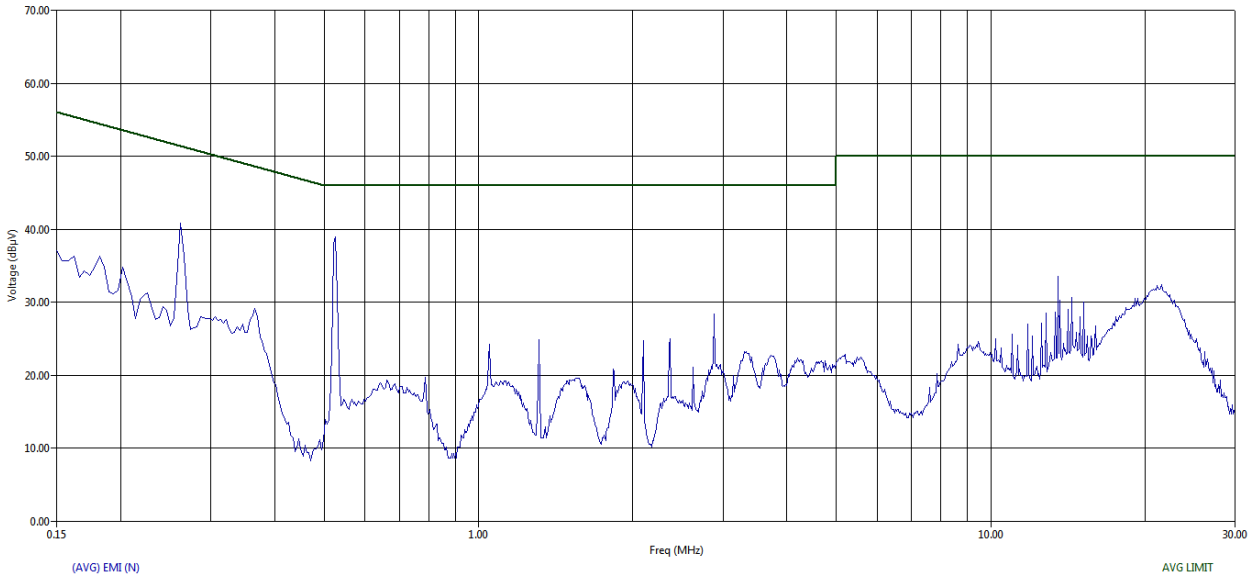


Figure 82: 40 MHz, 230 V AC / 50 Hz, Mid channel: Average CE graph - 150 kHz to 30 MHz - Neutral

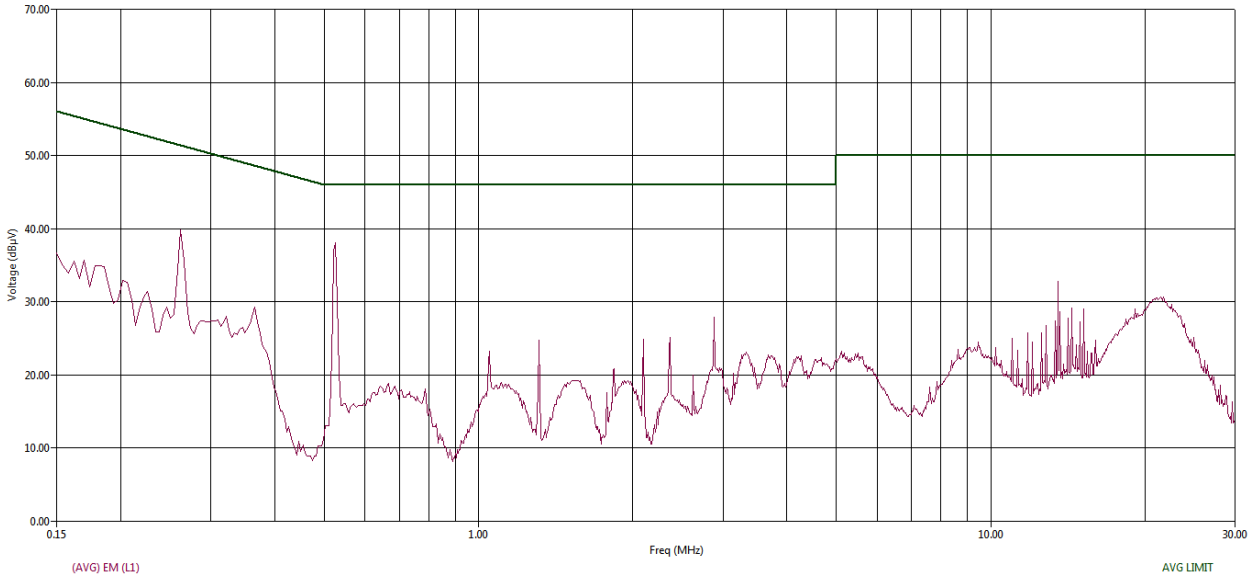


Figure 83: 40 MHz, 230 V AC / 50 Hz, Mid channel: Average CE graph - 150 kHz to 30 MHz - Line

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 (dB)
0.150	0.152	N	37.046	9.821	2.157	0.000	49.024	65.878	-16.854
0.154	0.157	L1	35.877	9.825	0.000	2.135	47.838	65.619	-17.781
0.174	0.171	N	34.863	9.838	1.983	0.000	46.684	64.893	-18.209
0.262	0.258	N	29.436	9.863	1.384	0.000	40.682	61.483	-20.801
0.262	0.265	L1	30.298	9.863	0.000	1.366	41.527	61.281	-19.754
0.526	0.524	N	31.296	9.869	0.414	0.000	41.579	56.000	-14.421
0.526	0.525	L1	30.479	9.869	0.000	0.423	40.772	56.000	-15.228
1.050	1.049	N	19.650	9.858	0.328	0.000	29.836	56.000	-26.164
2.098	2.099	L1	18.419	9.834	0.000	0.322	28.575	56.000	-27.425
2.362	2.360	N	19.736	9.844	0.302	0.000	29.882	56.000	-26.118
2.362	2.361	L1	19.555	9.844	0.000	0.325	29.724	56.000	-26.276
2.886	2.885	N	22.939	9.862	0.304	0.000	33.105	56.000	-22.895
2.886	2.884	L1	22.480	9.862	0.000	0.332	32.674	56.000	-23.326
3.146	3.147	L1	17.067	9.870	0.000	0.335	27.271	56.000	-28.729
5.234	5.229	N	18.430	9.913	0.313	0.000	28.656	60.000	-31.344
9.442	9.435	L1	17.644	9.956	0.000	0.414	28.014	60.000	-31.986
13.558	13.561	N	23.075	9.969	0.645	0.000	33.689	60.000	-26.311
13.562	13.560	L1	23.148	9.969	0.000	0.698	33.815	60.000	-26.185
21.494	21.485	N	26.567	9.864	0.605	0.000	37.035	60.000	-22.965
21.674	21.681	L1	25.761	9.863	0.000	0.432	36.056	60.000	-23.944

Table 58: 40 MHz, 230 V AC / 50 Hz, Mid channel: Quasi peak 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 (dB)
0.150	0.152	N	23.686	9.821	2.157	0.000	35.663	55.878	-20.215
0.154	0.157	L1	23.274	9.825	0.000	2.135	35.234	55.619	-20.385
0.174	0.171	N	22.228	9.838	1.983	0.000	34.049	54.893	-20.844
0.262	0.258	N	25.186	9.863	1.384	0.000	36.433	51.483	-15.051
0.262	0.265	L1	26.347	9.863	0.000	1.366	37.577	51.281	-13.704
0.526	0.524	N	29.700	9.869	0.414	0.000	39.983	46.000	-6.017
0.526	0.525	L1	28.868	9.869	0.000	0.423	39.161	46.000	-6.839
1.050	1.049	N	13.793	9.858	0.328	0.000	23.979	46.000	-22.021
2.098	2.099	L1	14.390	9.834	0.000	0.322	24.546	46.000	-21.454
2.362	2.360	N	15.495	9.844	0.302	0.000	25.641	46.000	-20.359
2.362	2.361	L1	15.086	9.844	0.000	0.325	25.256	46.000	-20.744
2.886	2.885	N	18.601	9.862	0.304	0.000	28.767	46.000	-17.233
2.886	2.884	L1	18.043	9.862	0.000	0.332	28.237	46.000	-17.763
3.146	3.147	L1	9.363	9.870	0.000	0.335	19.567	46.000	-26.433
5.234	5.229	N	11.643	9.913	0.313	0.000	21.869	50.000	-28.131
9.442	9.435	L1	12.905	9.956	0.000	0.414	23.275	50.000	-26.725
13.558	13.561	N	13.925	9.969	0.645	0.000	24.540	50.000	-25.460
13.562	13.560	L1	13.469	9.969	0.000	0.698	24.136	50.000	-25.864
21.494	21.485	N	20.378	9.864	0.605	0.000	30.847	50.000	-19.153
21.674	21.681	L1	19.848	9.863	0.000	0.432	30.142	50.000	-19.858

Table 59: 40 MHz, 230 V AC / 50 Hz, Mid channel: Average table for CE from 150 kHz to 30 MHz

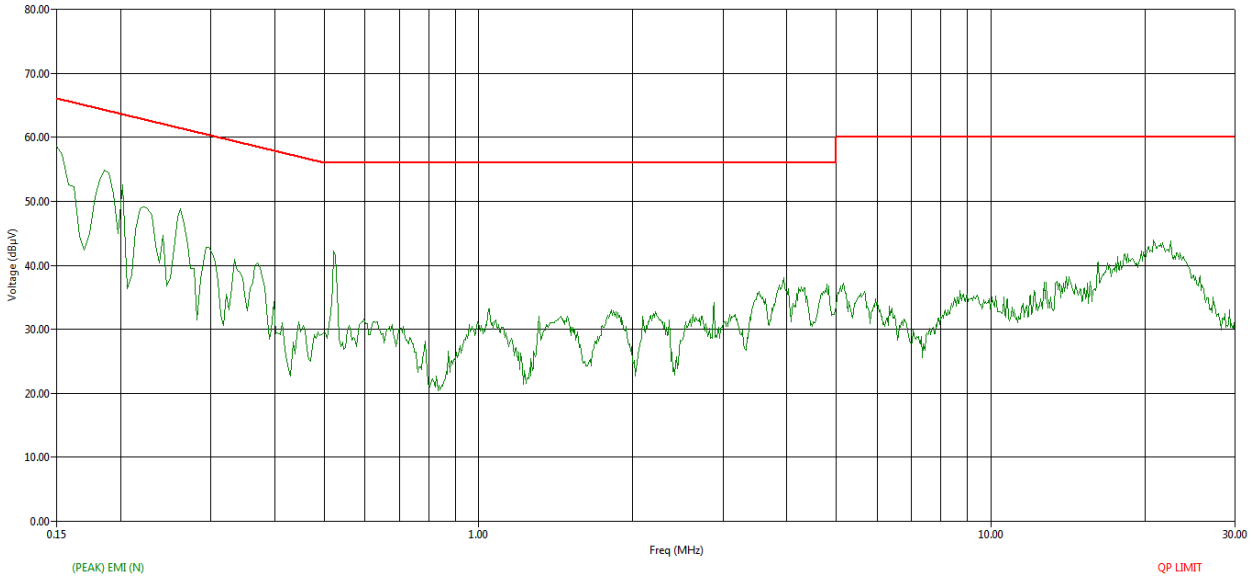


Figure 84: 40 MHz, 230 V AC / 50 Hz, High channel: Peak CE graph - 150 kHz to 30 MHz - Neutral

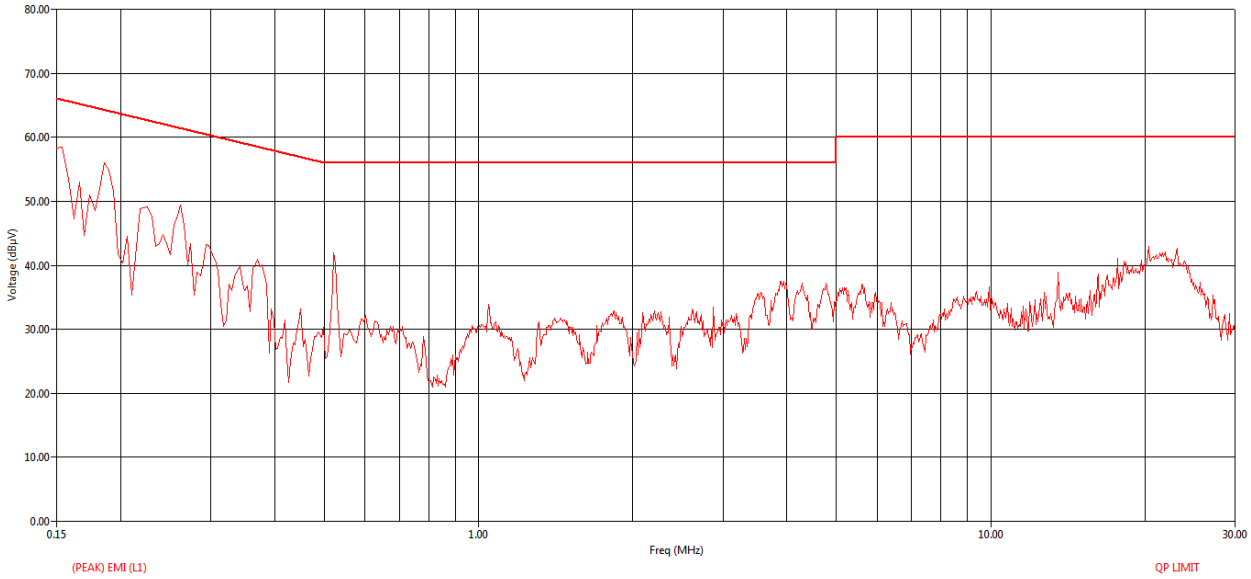


Figure 85: 40 MHz, 230 V AC / 50 Hz, High channel: Peak CE graph - 150 kHz to 30 MHz - Line

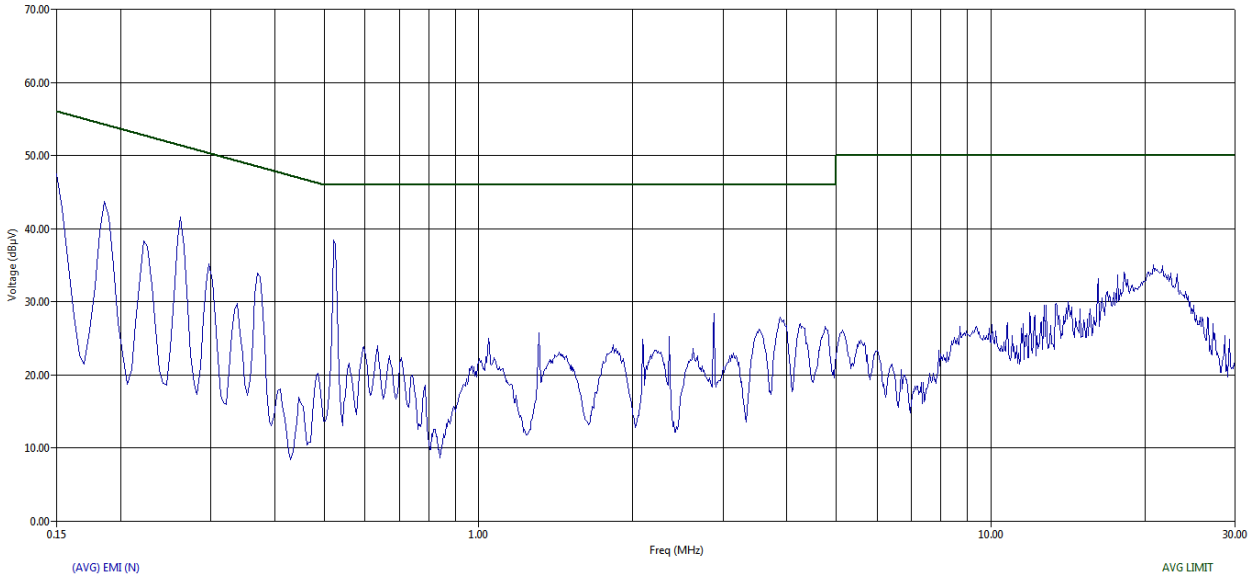


Figure 86: 40 MHz, 230 V AC / 50 Hz, High channel: Average CE graph - 150 kHz to 30 MHz - Neutral

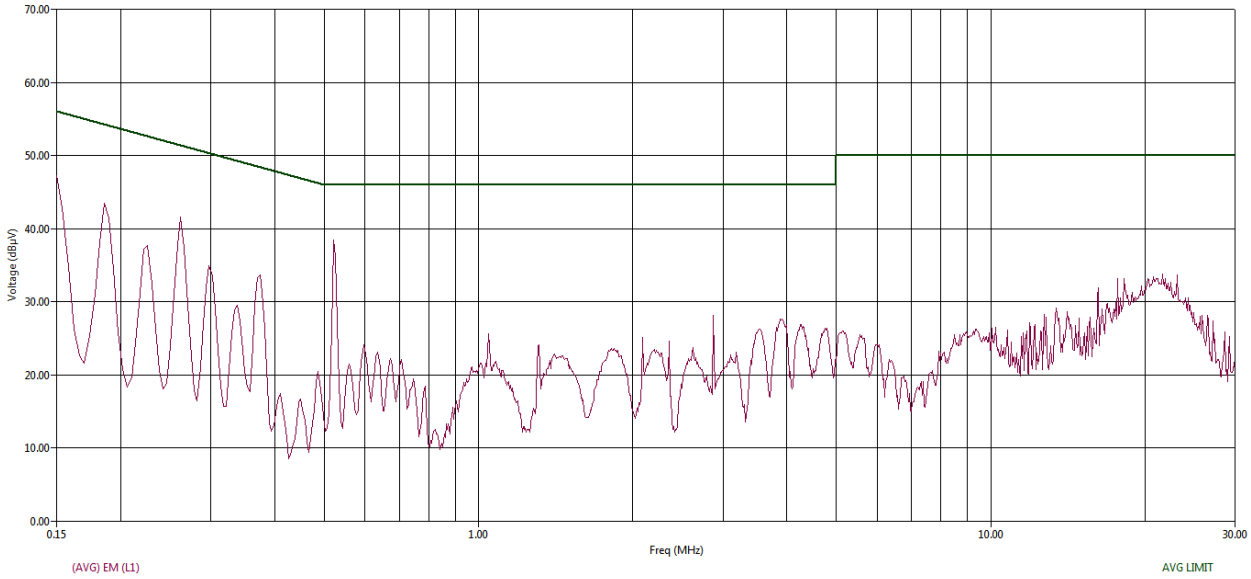


Figure 87: 40 MHz, 230 V AC / 50 Hz, High channel: Average CE graph - 150 kHz to 30 MHz - Line

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 (dB)
0.150	0.151	N	44.040	9.819	2.169	0.000	56.028	65.950	-9.922
0.154	0.150	L1	44.441	9.819	0.000	2.203	56.462	65.999	-9.536
0.186	0.186	N	41.073	9.849	1.865	0.000	52.788	64.221	-11.433
0.186	0.185	L1	40.816	9.849	0.000	1.896	52.561	64.267	-11.706
0.222	0.219	N	33.510	9.861	1.623	0.000	44.994	62.844	-17.850
0.262	0.263	N	35.195	9.863	1.357	0.000	46.415	61.332	-14.916
0.262	0.262	L1	35.701	9.863	0.000	1.382	46.946	61.372	-14.426
0.294	0.300	N	29.775	9.864	1.164	0.000	40.803	60.230	-19.427
0.334	0.337	N	25.669	9.866	0.995	0.000	36.529	59.271	-22.742
0.370	0.370	L1	28.020	9.867	0.000	0.872	38.759	58.495	-19.736
0.522	0.522	N	31.589	9.869	0.414	0.000	41.872	56.000	-14.128
0.522	0.521	L1	30.860	9.869	0.000	0.424	41.153	56.000	-14.847
3.946	3.954	L1	23.406	9.890	0.000	0.342	33.638	56.000	-22.362
3.950	3.958	N	23.427	9.890	0.307	0.000	33.624	56.000	-22.376
4.282	4.285	L1	22.781	9.897	0.000	0.345	33.022	56.000	-22.978
4.770	4.770	L1	22.840	9.906	0.000	0.348	33.095	56.000	-22.905
5.162	5.163	N	22.229	9.912	0.312	0.000	32.453	60.000	-27.547
13.562	13.561	L1	25.069	9.969	0.000	0.698	35.736	60.000	-24.264
20.382	20.381	L1	29.528	9.868	0.000	0.415	39.811	60.000	-20.189
20.810	20.810	N	30.405	9.866	0.580	0.000	40.852	60.000	-19.148

Table 60: 40 MHz, 230 V AC / 50 Hz, High channel: Quasi peak 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 (dB)
0.150	0.151	N	34.860	9.819	2.169	0.000	46.848	55.950	-9.102
0.154	0.150	L1	34.884	9.819	0.000	2.203	46.905	55.999	-9.093
0.186	0.186	N	32.390	9.849	1.865	0.000	44.105	54.221	-10.116
0.186	0.185	L1	31.259	9.849	0.000	1.896	43.003	54.267	-11.263
0.222	0.219	N	23.724	9.861	1.623	0.000	35.208	52.844	-17.635
0.262	0.263	N	29.611	9.863	1.357	0.000	40.831	51.332	-10.500
0.262	0.262	L1	29.924	9.863	0.000	1.382	41.169	51.372	-10.203
0.294	0.300	N	24.142	9.864	1.164	0.000	35.170	50.230	-15.060
0.334	0.337	N	19.687	9.866	0.995	0.000	30.548	49.271	-18.723
0.370	0.370	L1	23.255	9.867	0.000	0.872	33.994	48.495	-14.501
0.522	0.522	N	29.403	9.869	0.414	0.000	39.687	46.000	-6.313
0.522	0.521	L1	28.573	9.869	0.000	0.424	38.866	46.000	-7.134
3.946	3.954	L1	16.942	9.890	0.000	0.342	27.174	46.000	-18.826
3.950	3.958	N	17.013	9.890	0.307	0.000	27.210	46.000	-18.790
4.282	4.285	L1	16.491	9.897	0.000	0.345	26.732	46.000	-19.268
4.770	4.770	L1	16.517	9.906	0.000	0.348	26.772	46.000	-19.228
5.162	5.163	N	15.357	9.912	0.312	0.000	25.582	50.000	-24.418
13.562	13.561	L1	15.959	9.969	0.000	0.698	26.626	50.000	-23.374
20.382	20.381	L1	23.926	9.868	0.000	0.415	34.209	50.000	-15.791
20.810	20.810	N	24.663	9.866	0.580	0.000	35.110	50.000	-14.890

Table 61: 40 MHz, 230 V AC / 50 Hz, High channel: Average table for CE from 150 kHz to 30 MHz

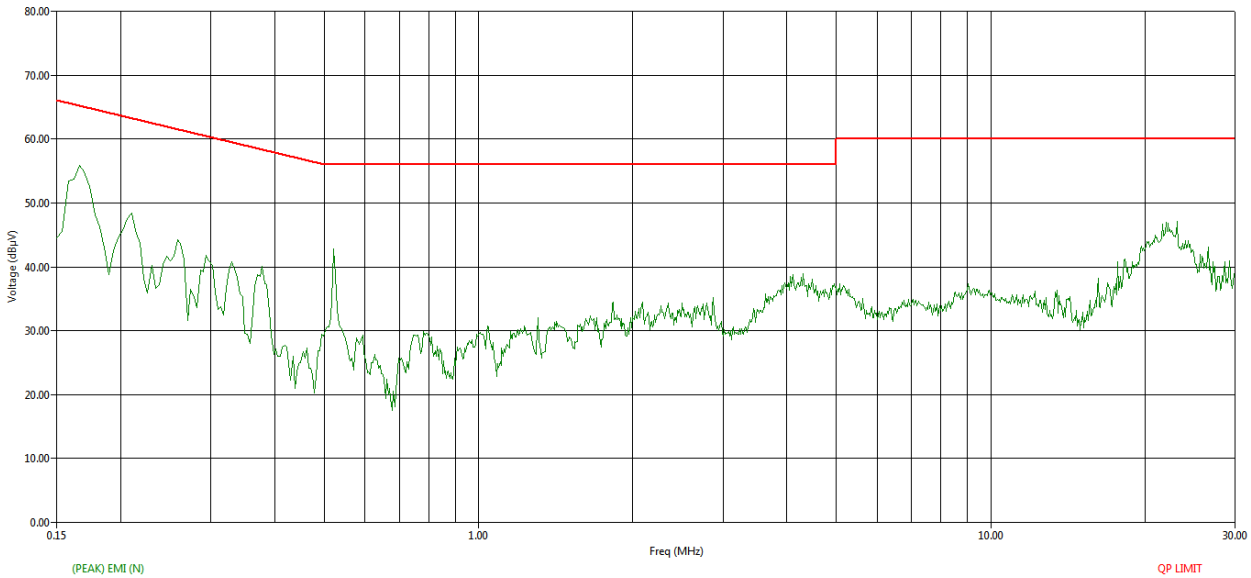


Figure 88: 40 MHz, 120 V AC / 60 Hz, Low channel: Peak CE graph - 150 kHz to 30 MHz - Neutral

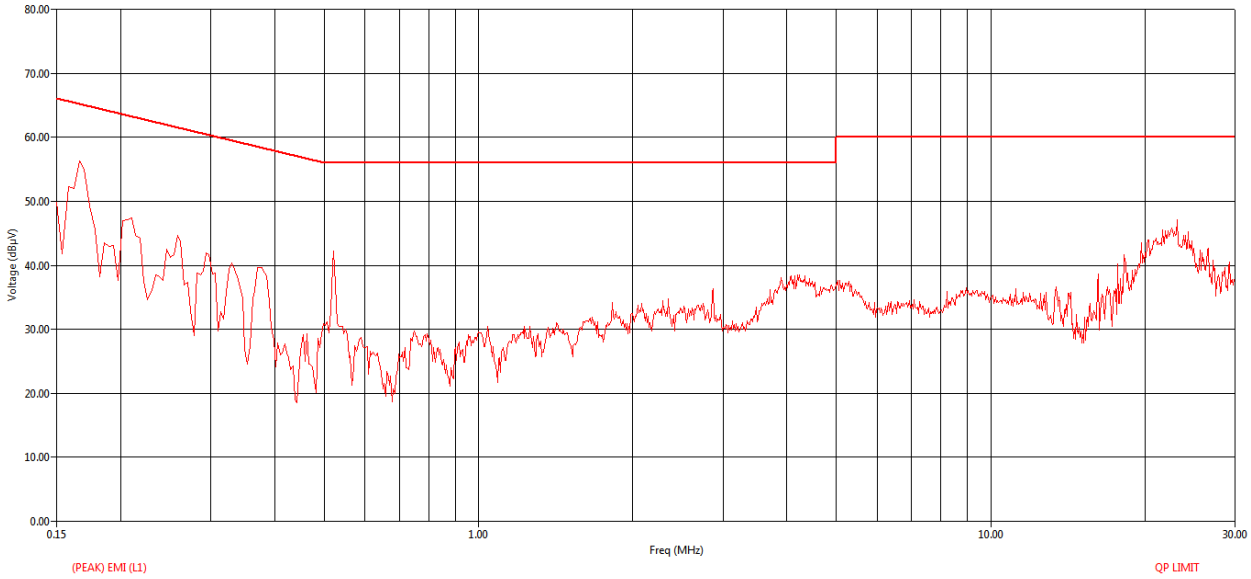


Figure 89: 40 MHz, 120 V AC / 60 Hz, Low channel: Peak CE graph - 150 kHz to 30 MHz - Line

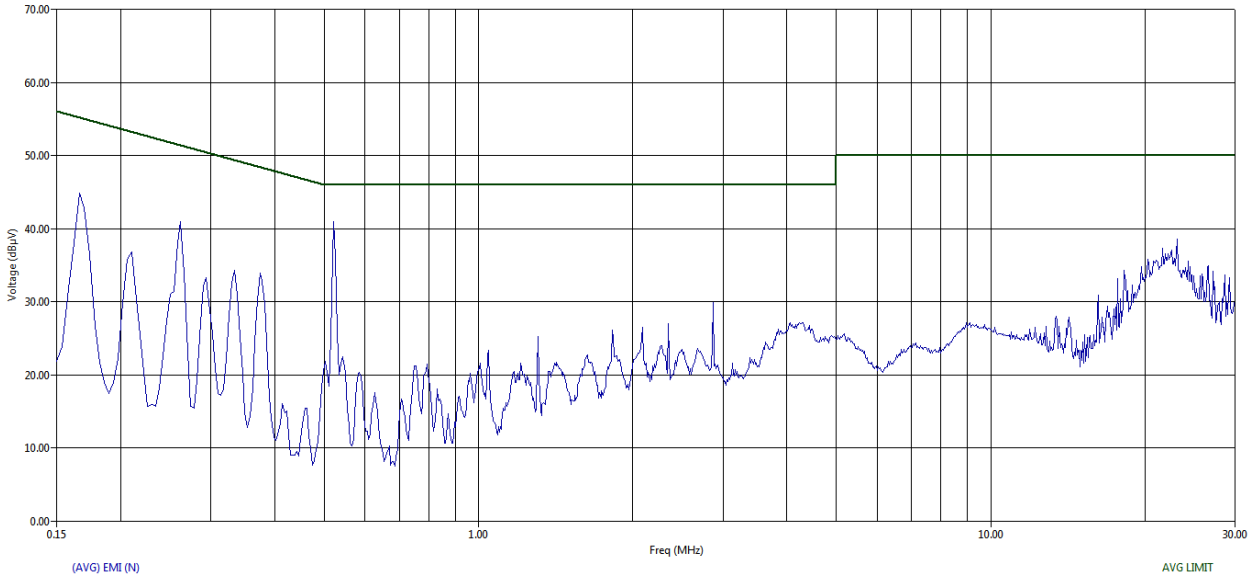


Figure 90: 40 MHz, 120 V AC / 60 Hz, Low channel: Average CE graph - 150 kHz to 30 MHz - Neutral

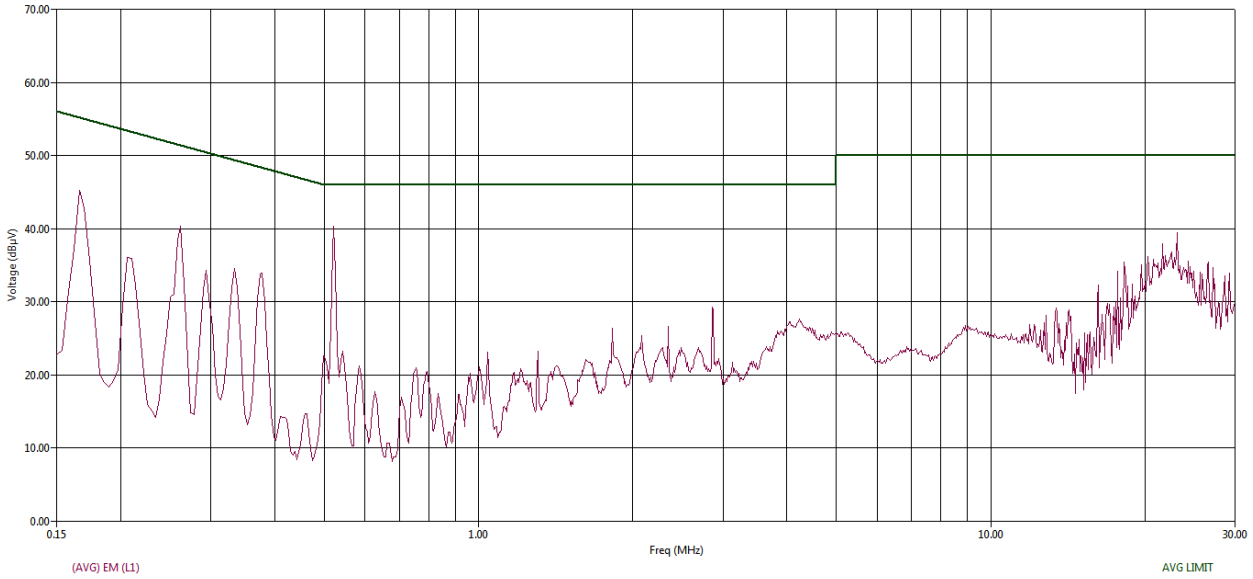


Figure 91: 40 MHz, 120 V AC / 60 Hz, Low channel: Average CE graph - 150 kHz to 30 MHz - Line

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 (dB)
0.166	0.166	N	42.076	9.833	2.031	0.000	53.941	65.166	-11.225
0.166	0.166	L1	42.101	9.833	0.000	2.050	53.984	65.137	-11.153
0.210	0.209	N	34.151	9.860	1.697	0.000	45.709	63.263	-17.555
0.210	0.206	L1	33.171	9.860	0.000	1.739	44.770	63.382	-18.612
0.258	0.260	N	31.507	9.863	1.374	0.000	42.744	61.424	-18.681
0.258	0.260	L1	31.023	9.863	0.000	1.392	42.278	61.426	-19.147
0.294	0.297	N	27.958	9.864	1.180	0.000	39.002	60.326	-21.324
0.294	0.299	L1	27.132	9.864	0.000	1.189	38.186	60.282	-22.096
0.522	0.521	N	31.558	9.869	0.415	0.000	41.843	56.000	-14.157
0.522	0.521	L1	30.969	9.869	0.000	0.424	41.263	56.000	-14.737
23.130	23.130	L1	33.691	9.857	0.000	0.449	43.997	60.000	-16.003
23.134	23.132	N	32.785	9.857	0.661	0.000	43.303	60.000	-16.697

Table 62: 40 MHz, 120 V AC / 60 Hz, Low channel: Quasi peak 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 (dB)
0.166	0.166	N	32.528	9.833	2.031	0.000	44.392	55.166	-10.774
0.166	0.166	L1	32.391	9.833	0.000	2.050	44.275	55.137	-10.863
0.210	0.209	N	25.382	9.860	1.697	0.000	36.939	53.263	-16.324
0.210	0.206	L1	22.674	9.860	0.000	1.739	34.273	53.382	-19.109
0.258	0.260	N	30.224	9.863	1.374	0.000	41.460	51.424	-9.964
0.258	0.260	L1	29.617	9.863	0.000	1.392	40.871	51.426	-10.554
0.294	0.297	N	20.652	9.864	1.180	0.000	31.697	50.326	-18.629
0.294	0.299	L1	18.974	9.864	0.000	1.189	30.028	50.282	-20.254
0.522	0.521	N	30.610	9.869	0.415	0.000	40.895	46.000	-5.105
0.522	0.521	L1	30.001	9.869	0.000	0.424	40.294	46.000	-5.706
23.130	23.130	L1	28.632	9.857	0.000	0.449	38.939	50.000	-11.061
23.134	23.132	N	27.733	9.857	0.661	0.000	38.251	50.000	-11.749

Table 63: 40 MHz, 120 V AC / 60 Hz, Low channel: Average table for CE from 150 kHz to 30 MHz

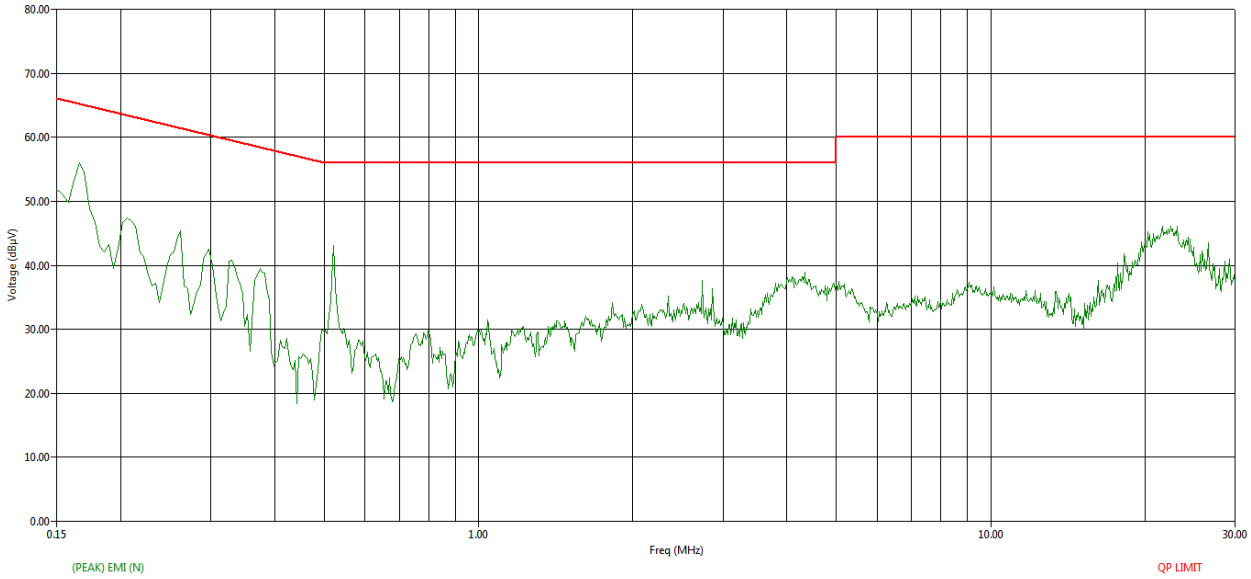


Figure 92: 40 MHz, 120 V AC / 60 Hz, Mid channel: Peak CE graph - 150 kHz to 30 MHz - Neutral

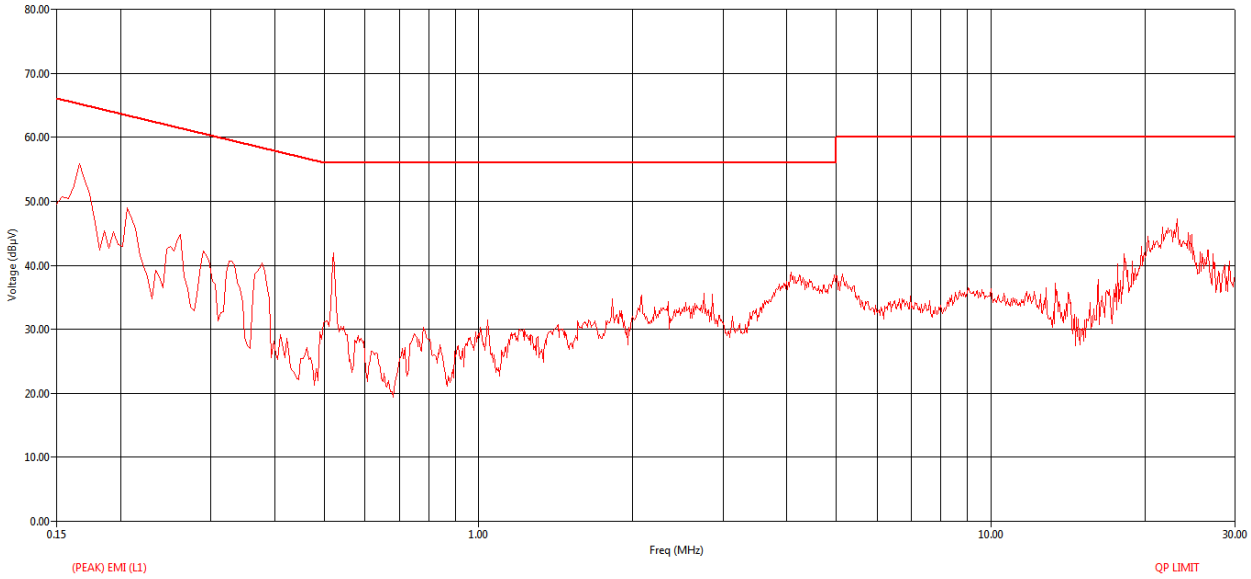


Figure 93: 40 MHz, 120 V AC / 60 Hz, Mid channel: Peak CE graph - 150 kHz to 30 MHz - Line

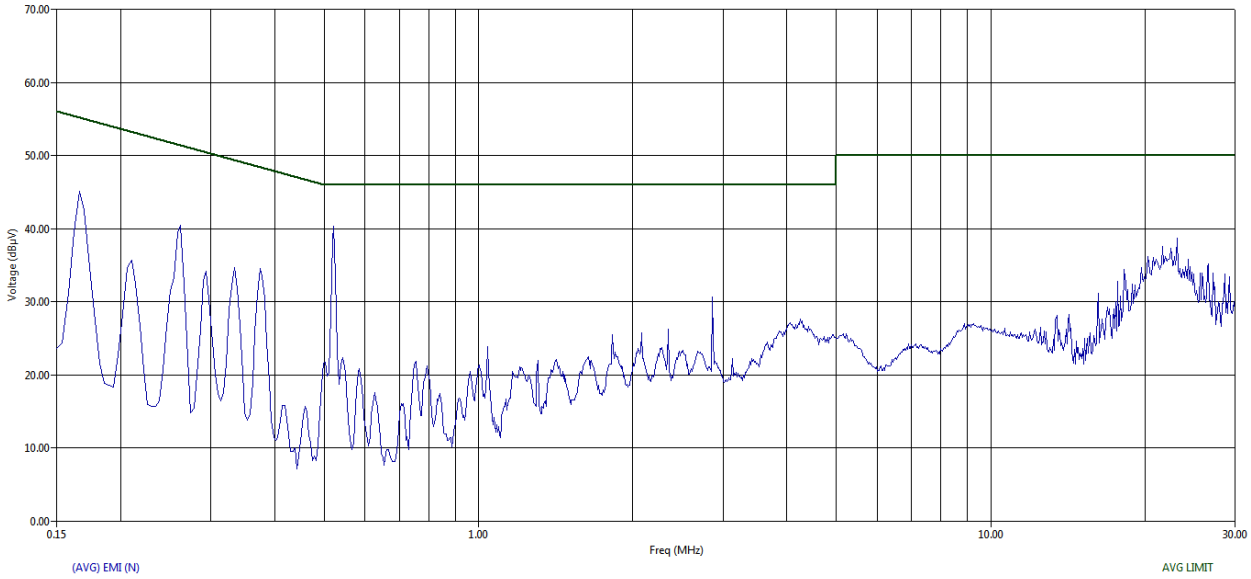


Figure 94: 40 MHz, 120 V AC / 60 Hz, Mid channel: Average CE graph - 150 kHz to 30 MHz - Neutral

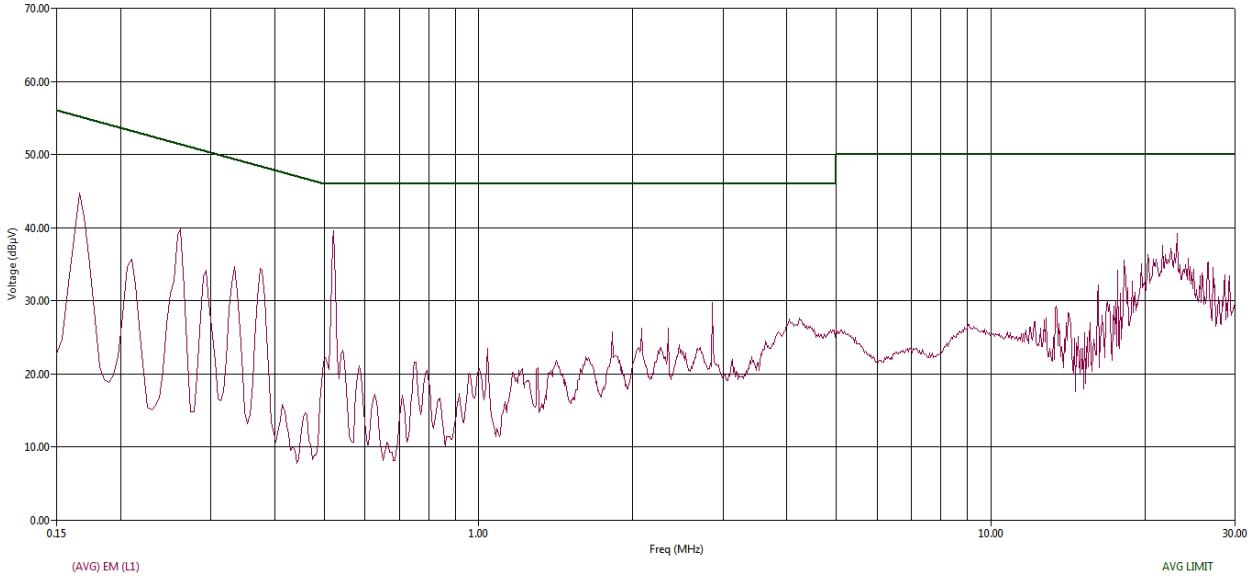


Figure 95: 40 MHz, 120 V AC / 60 Hz, Mid channel: Average CE graph - 150 kHz to 30 MHz - Line

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 (dB)
0.166	0.166	N	42.099	9.833	2.030	0.000	53.962	65.155	-11.193
0.166	0.164	L1	40.891	9.831	0.000	2.073	52.795	65.270	-12.475
0.262	0.260	N	31.418	9.863	1.377	0.000	42.658	61.446	-18.788
0.262	0.259	L1	30.595	9.863	0.000	1.400	41.858	61.472	-19.614
0.290	0.295	L1	28.521	9.864	0.000	1.208	39.594	60.390	-20.796
0.298	0.297	N	27.190	9.864	1.179	0.000	38.233	60.315	-22.082
0.522	0.519	N	31.287	9.869	0.415	0.000	41.571	56.000	-14.429
0.522	0.521	L1	30.954	9.869	0.000	0.424	41.247	56.000	-14.753
23.130	23.131	N	32.959	9.857	0.661	0.000	43.478	60.000	-16.522
23.130	23.131	L1	33.644	9.857	0.000	0.449	43.950	60.000	-16.050

Table 64: 40 MHz, 120 V AC / 60 Hz, Mid channel: Quasi peak 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 (dB)
0.166	0.166	N	32.667	9.833	2.030	0.000	44.530	55.155	-10.626
0.166	0.164	L1	30.381	9.831	0.000	2.073	42.286	55.270	-12.984
0.262	0.260	N	30.140	9.863	1.377	0.000	41.380	51.446	-10.066
0.262	0.259	L1	28.990	9.863	0.000	1.400	40.253	51.472	-11.219
0.290	0.295	L1	22.257	9.864	0.000	1.208	33.330	50.390	-17.060
0.298	0.297	N	19.537	9.864	1.179	0.000	30.580	50.315	-19.735
0.522	0.519	N	30.351	9.869	0.415	0.000	40.636	46.000	-5.364
0.522	0.521	L1	30.004	9.869	0.000	0.424	40.297	46.000	-5.703
23.130	23.131	N	27.894	9.857	0.661	0.000	38.413	50.000	-11.587
23.130	23.131	L1	28.746	9.857	0.000	0.449	39.052	50.000	-10.948

Table 65: 40 MHz, 120 V AC / 60 Hz, Mid channel: Average table for CE from 150 kHz to 30 MHz

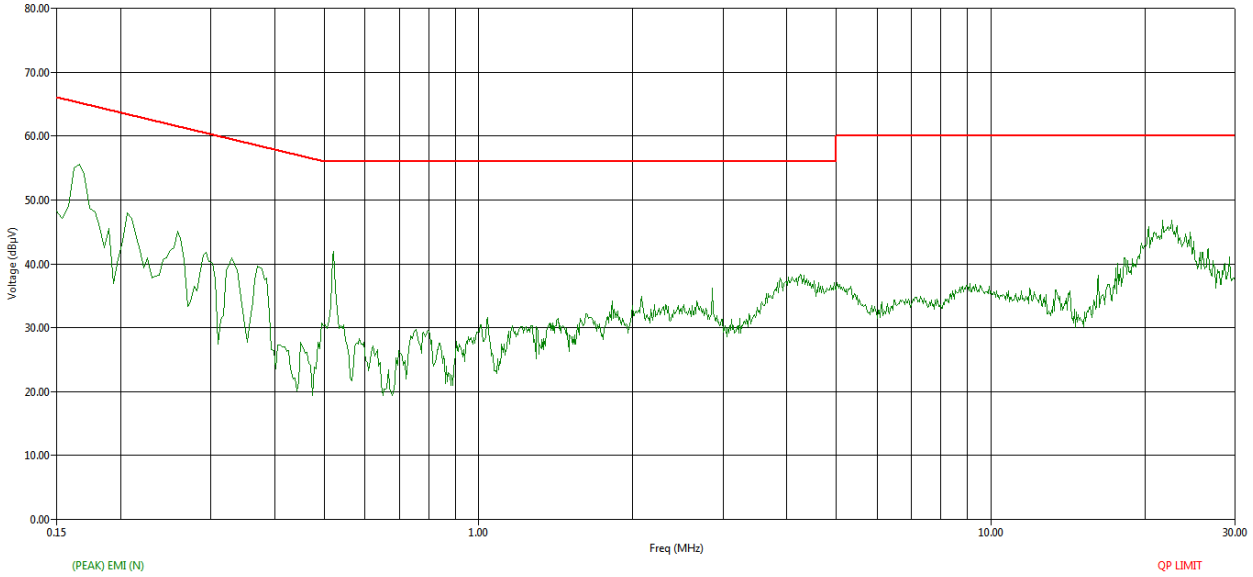


Figure 96: 40 MHz, 120 V AC / 60 Hz, High channel: Peak CE graph - 150 kHz to 30 MHz - Neutral

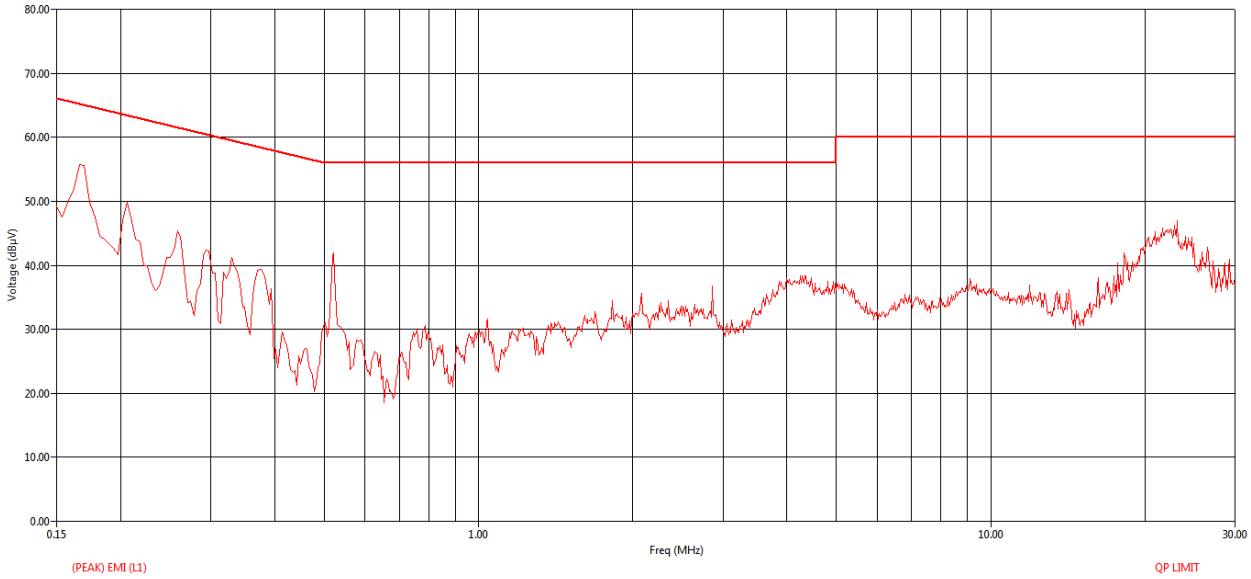


Figure 97: 40 MHz, 120 V AC / 60 Hz, High channel: Peak CE graph - 150 kHz to 30 MHz - Line

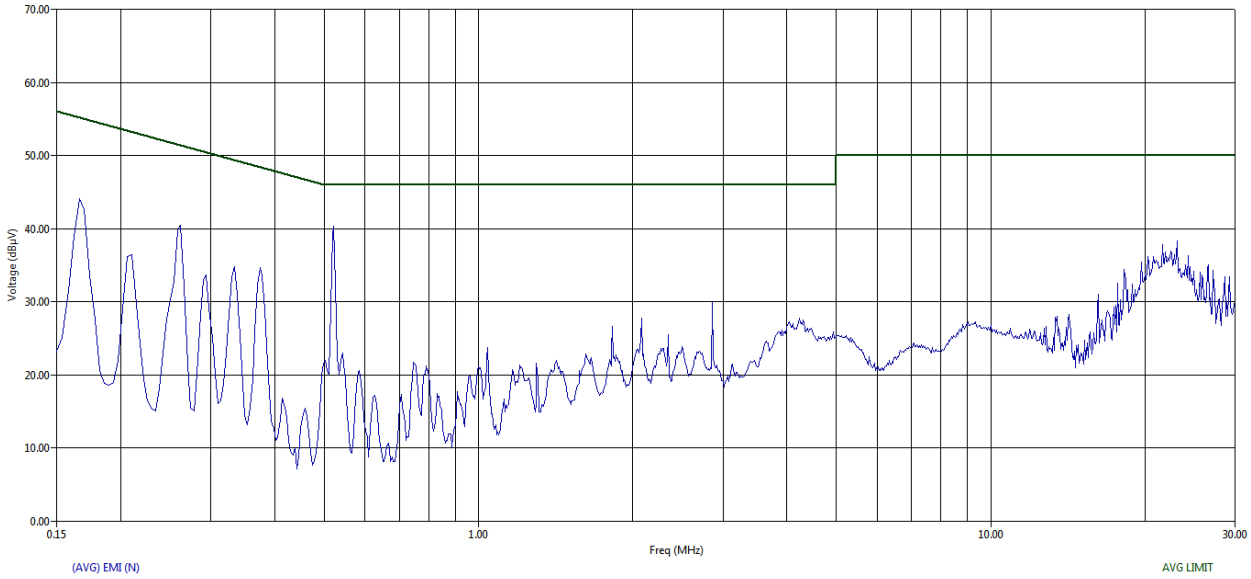


Figure 98: 40 MHz, 120 V AC / 60 Hz, High channel: Average CE graph - 150 kHz to 30 MHz - Neutral

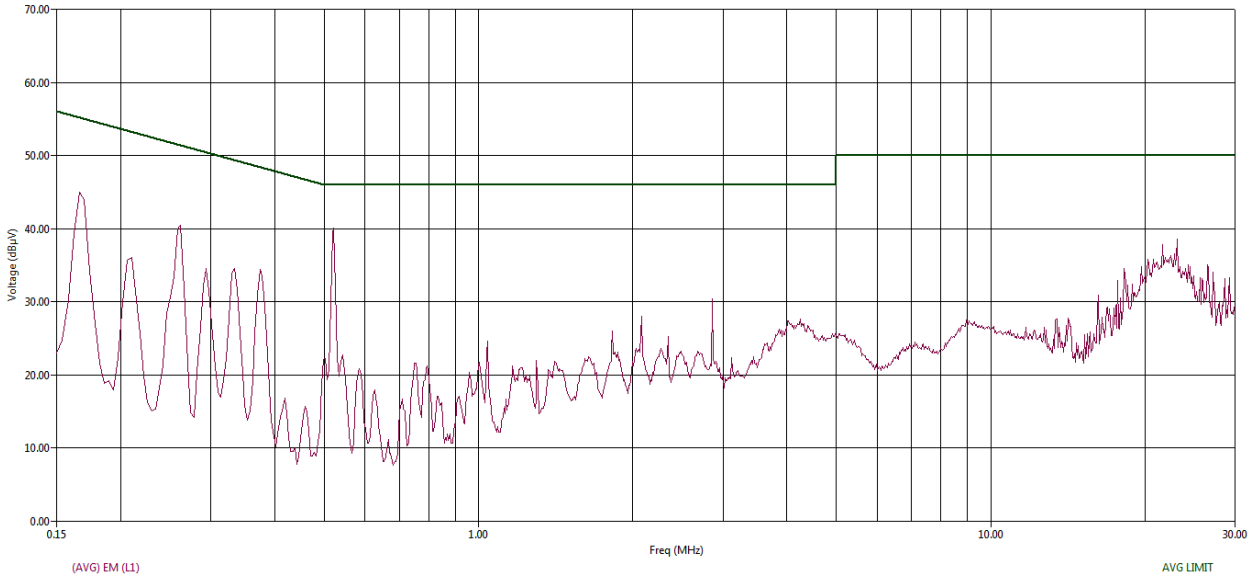


Figure 99: 40 MHz, 120 V AC / 60 Hz, High channel: Average CE graph - 150 kHz to 30 MHz - Line

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 (dB)
0.166	0.164	N	41.449	9.832	2.044	0.000	53.325	65.237	-11.912
0.166	0.167	L1	42.038	9.834	0.000	2.047	53.918	65.119	-11.201
0.206	0.208	N	34.150	9.860	1.703	0.000	45.714	63.301	-17.586
0.206	0.209	L1	34.068	9.860	0.000	1.717	45.646	63.260	-17.614
0.258	0.259	L1	30.861	9.863	0.000	1.398	42.122	61.459	-19.337
0.294	0.299	N	26.415	9.864	1.171	0.000	37.451	60.275	-22.824
0.294	0.298	L1	26.970	9.864	0.000	1.192	38.027	60.301	-22.274
0.522	0.520	N	31.425	9.869	0.415	0.000	41.710	56.000	-14.290
21.666	21.664	N	32.490	9.863	0.611	0.000	42.964	60.000	-17.036
23.130	23.131	L1	33.734	9.857	0.000	0.449	44.040	60.000	-15.960

Table 66: 40 MHz, 120 V AC / 60 Hz, High channel: Quasi peak 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 (dB)
0.166	0.164	N	31.126	9.832	2.044	0.000	43.001	55.237	-12.236
0.166	0.167	L1	32.478	9.834	0.000	2.047	44.358	55.119	-10.761
0.206	0.208	N	25.184	9.860	1.703	0.000	36.748	53.301	-16.553
0.206	0.209	L1	24.934	9.860	0.000	1.717	36.511	53.260	-16.749
0.258	0.259	L1	29.448	9.863	0.000	1.398	40.708	51.459	-10.751
0.294	0.299	N	17.666	9.864	1.171	0.000	28.702	50.275	-21.573
0.294	0.298	L1	19.104	9.864	0.000	1.192	30.161	50.301	-20.140
0.522	0.520	N	30.502	9.869	0.415	0.000	40.787	46.000	-5.213
21.666	21.664	N	26.804	9.863	0.611	0.000	37.277	50.000	-12.723
23.130	23.131	L1	28.708	9.857	0.000	0.449	39.014	50.000	-10.986

Table 67: 40 MHz, 120 V AC / 60 Hz, High channel: Average table for CE from 150 kHz to 30 MHz

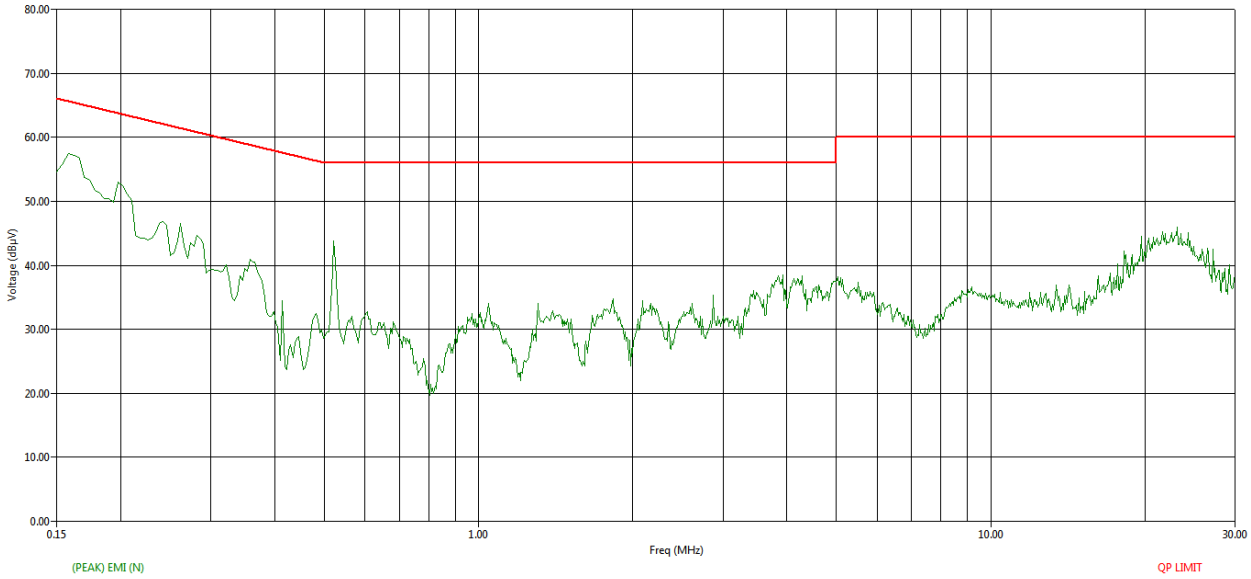


Figure 100: 10 MHz, 230 V AC / 50 Hz, Low channel: Peak CE graph - 150 kHz to 30 MHz - Neutral

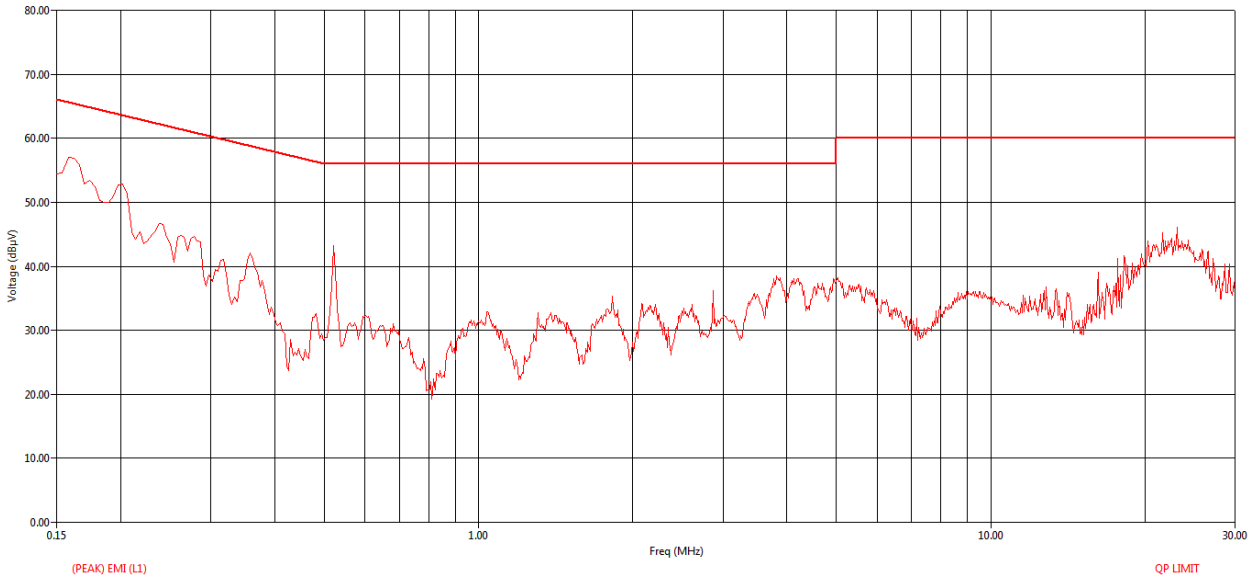


Figure 101: 10 MHz, 230 V AC / 50 Hz, Low channel: Peak CE graph - 150 kHz to 30 MHz - Line

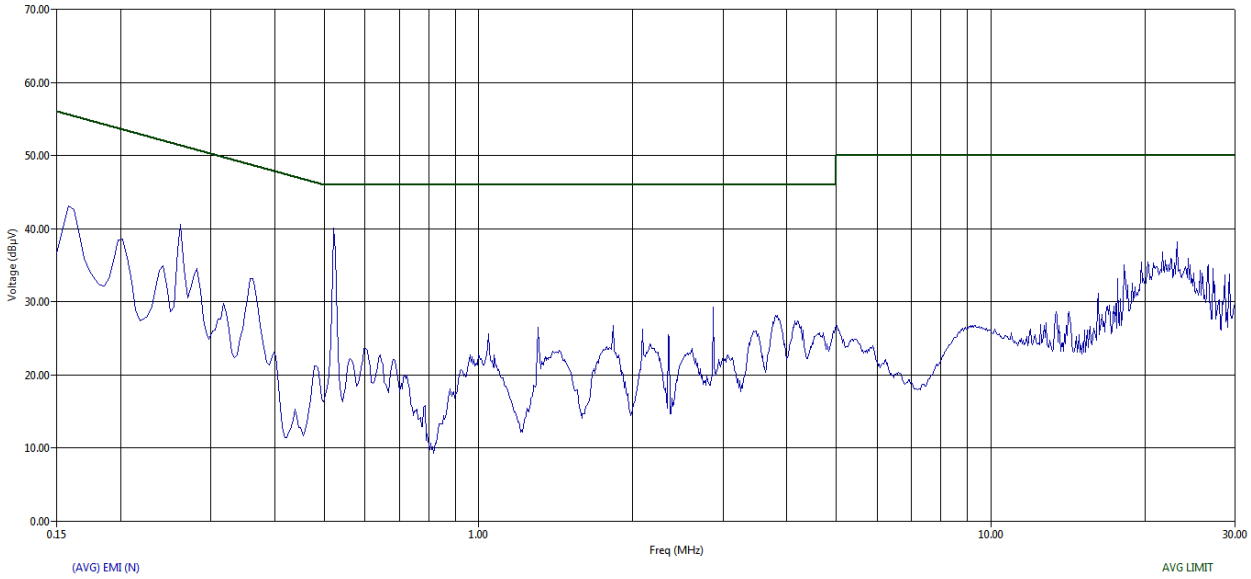


Figure 102: 10 MHz, 230 V AC / 50 Hz, Low channel: Average CE graph - 150 kHz to 30 MHz - Neutral

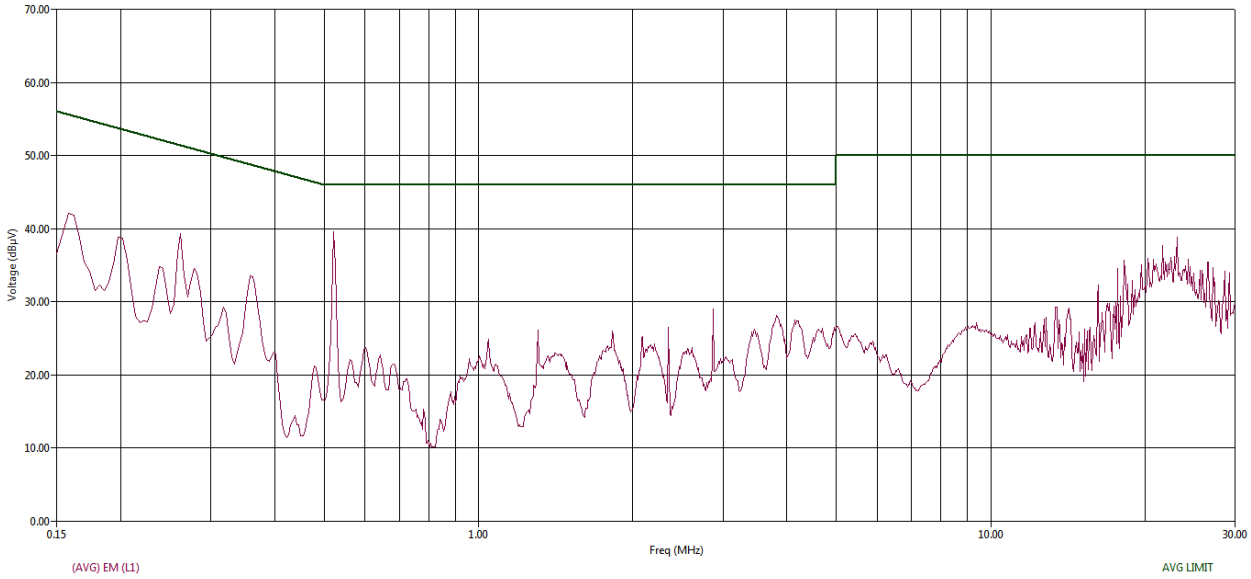


Figure 103: 10 MHz, 230 V AC / 50 Hz, Low channel: Average CE graph - 150 kHz to 30 MHz - Line

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 (dB)
0.158	0.160	N	43.836	9.828	2.080	0.000	55.745	65.444	-9.699
0.158	0.163	L1	41.193	9.831	0.000	2.080	53.103	65.305	-12.202
0.522	0.522	N	32.107	9.869	0.415	0.000	42.391	56.000	-13.609
0.522	0.521	L1	31.402	9.869	0.000	0.424	41.696	56.000	-14.304
1.830	1.826	N	22.246	9.834	0.304	0.000	32.384	56.000	-23.616
2.874	2.866	N	22.211	9.861	0.304	0.000	32.376	56.000	-23.624
3.818	3.823	L1	23.610	9.887	0.000	0.341	33.838	56.000	-22.162
3.922	3.921	N	22.140	9.889	0.307	0.000	32.336	56.000	-23.664
14.214	14.214	N	23.224	9.965	0.690	0.000	33.879	60.000	-26.121
16.230	16.229	L1	26.506	9.930	0.000	0.686	37.122	60.000	-22.878
17.694	17.695	L1	28.848	9.897	0.000	0.572	39.316	60.000	-20.684
18.246	18.246	L1	29.448	9.887	0.000	0.531	39.867	60.000	-20.133
18.306	18.304	L1	27.583	9.887	0.000	0.527	37.997	60.000	-22.003
23.130	23.131	N	32.781	9.857	0.661	0.000	43.299	60.000	-16.701
23.130	23.130	L1	33.283	9.857	0.000	0.449	43.589	60.000	-16.411
27.158	27.161	N	27.840	9.841	0.784	0.000	38.464	60.000	-21.536
28.686	28.686	L1	26.400	9.835	0.000	0.508	36.742	60.000	-23.258
28.690	28.687	N	26.285	9.835	0.826	0.000	36.946	60.000	-23.054
29.238	29.238	N	26.193	9.833	0.840	0.000	36.867	60.000	-23.133
29.238	29.238	L1	26.511	9.833	0.000	0.513	36.856	60.000	-23.144

Table 68: 10 MHz, 230 V AC / 50 Hz, Low channel: Quasi peak 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 (dB)
0.158	0.160	N	31.679	9.828	2.080	0.000	43.588	55.444	-11.856
0.158	0.163	L1	29.654	9.831	0.000	2.080	41.564	55.305	-13.741
0.522	0.522	N	29.874	9.869	0.415	0.000	40.158	46.000	-5.842
0.522	0.521	L1	29.089	9.869	0.000	0.424	39.382	46.000	-6.618
1.830	1.826	N	16.244	9.834	0.304	0.000	26.382	46.000	-19.618
2.874	2.866	N	18.245	9.861	0.304	0.000	28.411	46.000	-17.589
3.818	3.823	L1	17.213	9.887	0.000	0.341	27.441	46.000	-18.559
3.922	3.921	N	15.014	9.889	0.307	0.000	25.210	46.000	-20.790
14.214	14.214	N	17.402	9.965	0.690	0.000	28.056	50.000	-21.944
16.230	16.229	L1	21.393	9.930	0.000	0.686	32.009	50.000	-17.991
17.694	17.695	L1	23.839	9.897	0.000	0.572	34.307	50.000	-15.693
18.246	18.246	L1	24.885	9.887	0.000	0.531	35.303	50.000	-14.697
18.306	18.304	L1	22.614	9.887	0.000	0.527	33.028	50.000	-16.972
23.130	23.131	N	27.790	9.857	0.661	0.000	38.308	50.000	-11.692
23.130	23.130	L1	28.509	9.857	0.000	0.449	38.816	50.000	-11.184
27.158	27.161	N	23.478	9.841	0.784	0.000	34.103	50.000	-15.897
28.686	28.686	L1	23.039	9.835	0.000	0.508	33.381	50.000	-16.619
28.690	28.687	N	22.517	9.835	0.826	0.000	33.178	50.000	-16.822
29.238	29.238	N	22.433	9.833	0.840	0.000	33.106	50.000	-16.894
29.238	29.238	L1	23.099	9.833	0.000	0.513	33.445	50.000	-16.555

Table 69: 10 MHz, 230 V AC / 50 Hz, Low channel: Average table for CE from 150 kHz to 30 MHz

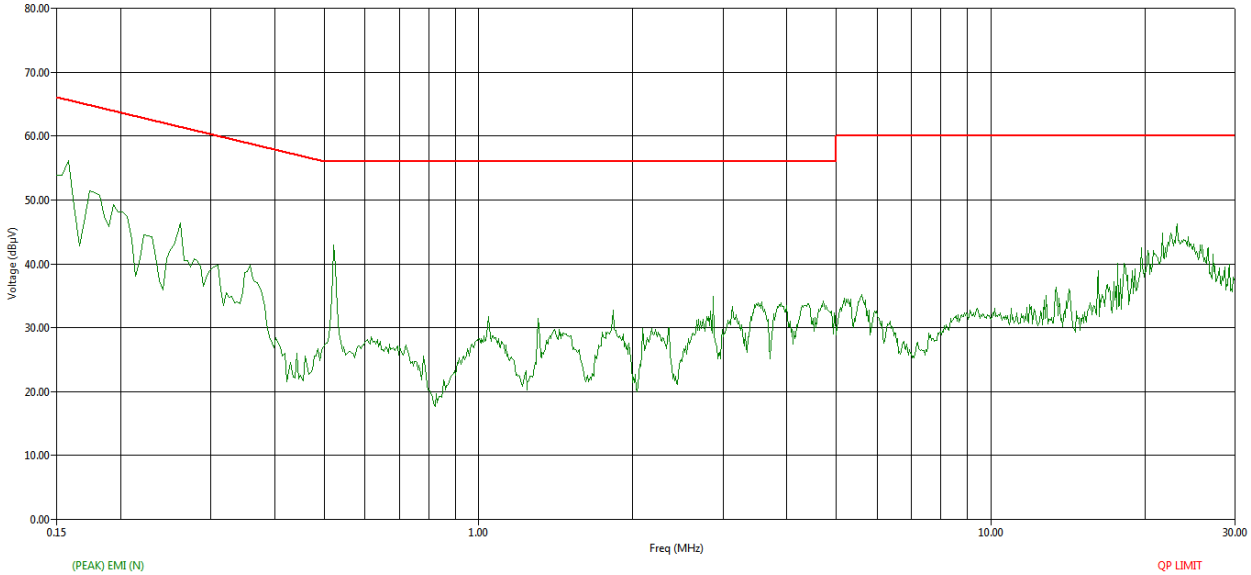


Figure 104: 10 MHz, 230 V AC / 50 Hz, Mid channel: Peak CE graph - 150 kHz to 30 MHz - Neutral

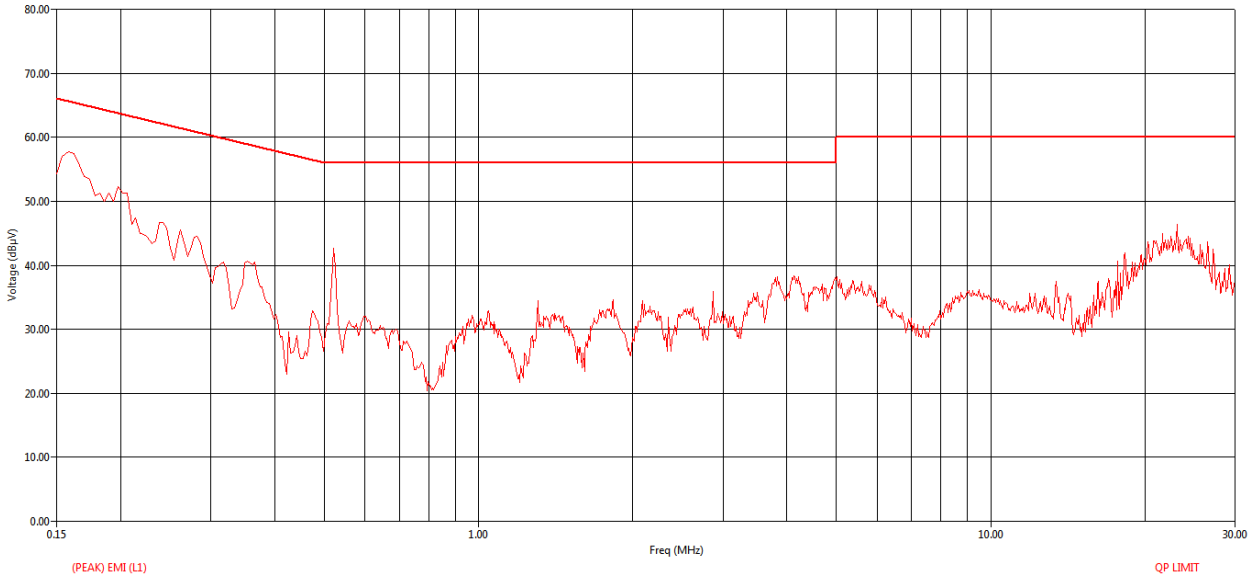


Figure 105: 10 MHz, 230 V AC / 50 Hz, Mid channel: Peak CE graph - 150 kHz to 30 MHz - Line

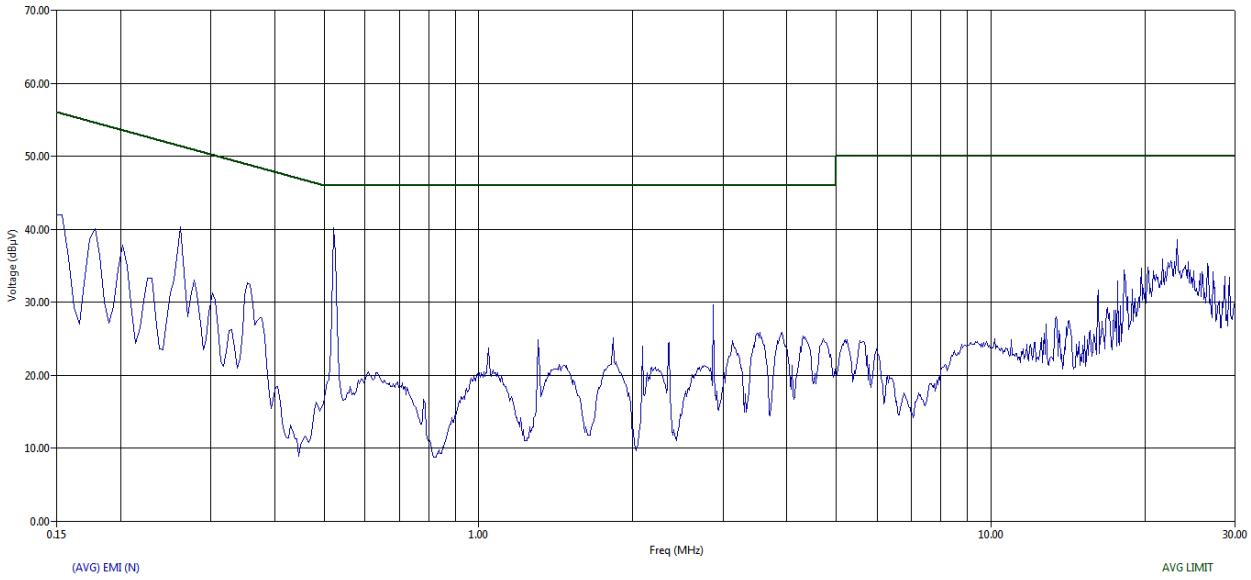


Figure 106: 10 MHz, 230 V AC / 50 Hz, Mid channel: Average CE graph - 150 kHz to 30 MHz - Neutral

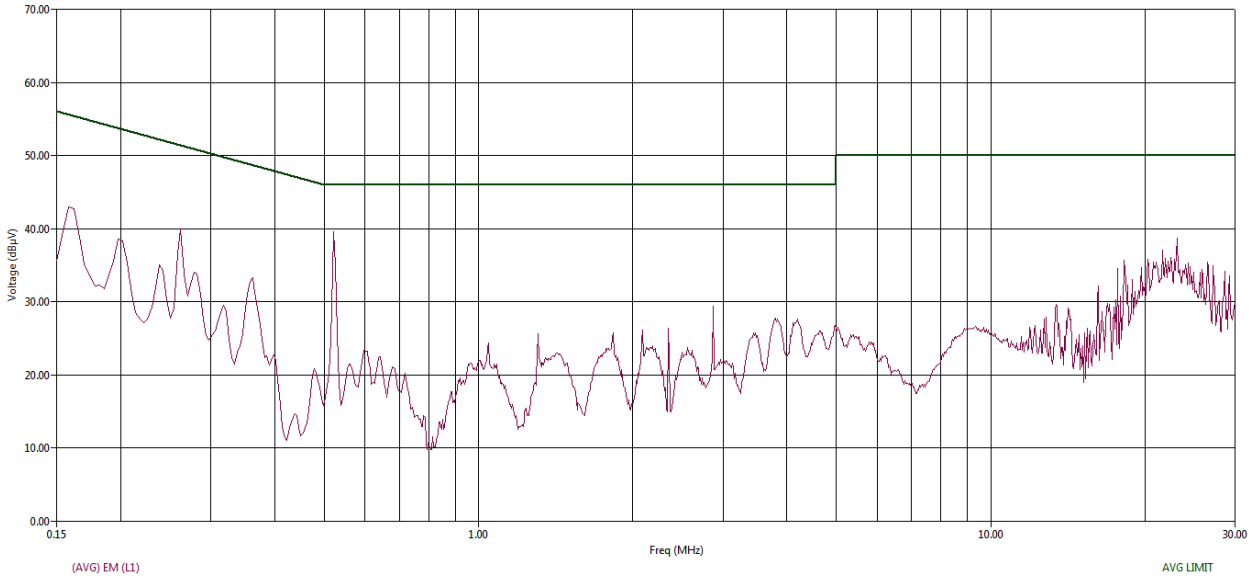


Figure 107: 10 MHz, 230 V AC / 50 Hz, Mid channel: Average CE graph - 150 kHz to 30 MHz - Line

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 (dB)
0.158	0.156	N	42.849	9.825	2.117	0.000	54.790	65.653	-10.863
0.158	0.162	L1	43.174	9.829	0.000	2.091	55.094	65.368	-10.274
0.174	0.160	N	43.824	9.828	2.080	0.000	55.733	65.445	-9.712
0.262	0.259	N	31.769	9.863	1.380	0.000	43.011	61.460	-18.449
0.522	0.522	N	32.007	9.869	0.415	0.000	42.291	56.000	-13.709
0.522	0.522	L1	31.348	9.869	0.000	0.424	41.641	56.000	-14.359
16.230	16.229	N	25.630	9.930	0.688	0.000	36.248	60.000	-23.752
17.694	17.695	N	28.149	9.897	0.631	0.000	38.677	60.000	-21.323
17.694	17.696	L1	28.433	9.897	0.000	0.572	38.901	60.000	-21.099
18.246	18.246	N	29.087	9.887	0.611	0.000	39.585	60.000	-20.415
18.246	18.244	L1	29.654	9.887	0.000	0.531	40.073	60.000	-19.927
18.306	18.306	N	28.304	9.887	0.608	0.000	38.799	60.000	-21.201
18.306	18.305	L1	28.651	9.887	0.000	0.527	39.064	60.000	-20.936
23.130	23.131	N	32.683	9.857	0.661	0.000	43.202	60.000	-16.798
23.130	23.132	L1	32.960	9.857	0.000	0.449	43.267	60.000	-16.733
27.162	27.160	L1	27.937	9.841	0.000	0.493	38.271	60.000	-21.729
28.690	28.688	L1	26.756	9.835	0.000	0.508	37.099	60.000	-22.901
29.114	29.115	L1	24.597	9.833	0.000	0.512	34.942	60.000	-25.058
29.238	29.238	N	26.133	9.833	0.840	0.000	36.806	60.000	-23.194
29.238	29.238	L1	26.526	9.833	0.000	0.513	36.871	60.000	-23.129

Table 70: 10 MHz, 230 V AC / 50 Hz, Mid channel: Quasi peak 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 (dB)
0.158	0.156	N	30.209	9.825	2.117	0.000	42.151	55.653	-13.502
0.158	0.162	L1	30.135	9.829	0.000	2.091	42.055	55.368	-13.313
0.174	0.160	N	31.601	9.828	2.080	0.000	43.509	55.445	-11.936
0.262	0.259	N	28.691	9.863	1.380	0.000	39.934	51.460	-11.526
0.522	0.522	N	29.834	9.869	0.415	0.000	40.118	46.000	-5.882
0.522	0.522	L1	29.047	9.869	0.000	0.424	39.340	46.000	-6.660
16.230	16.229	N	19.942	9.930	0.688	0.000	30.560	50.000	-19.440
17.694	17.695	N	22.811	9.897	0.631	0.000	33.338	50.000	-16.662
17.694	17.696	L1	23.757	9.897	0.000	0.572	34.225	50.000	-15.775
18.246	18.246	N	23.993	9.887	0.611	0.000	34.491	50.000	-15.509
18.246	18.244	L1	24.651	9.887	0.000	0.531	35.070	50.000	-14.930
18.306	18.306	N	22.767	9.887	0.608	0.000	33.263	50.000	-16.737
18.306	18.305	L1	23.500	9.887	0.000	0.527	33.914	50.000	-16.086
23.130	23.131	N	27.752	9.857	0.661	0.000	38.270	50.000	-11.730
23.130	23.132	L1	28.469	9.857	0.000	0.449	38.776	50.000	-11.224
27.162	27.160	L1	23.837	9.841	0.000	0.493	34.171	50.000	-15.829
28.690	28.688	L1	23.214	9.835	0.000	0.508	33.556	50.000	-16.444
29.114	29.115	L1	20.675	9.833	0.000	0.512	31.021	50.000	-18.979
29.238	29.238	N	22.590	9.833	0.840	0.000	33.263	50.000	-16.737
29.238	29.238	L1	23.092	9.833	0.000	0.513	33.437	50.000	-16.563

Table 71: 10 MHz, 230 V AC / 50 Hz, Mid channel: Average table for CE from 150 kHz to 30 MHz

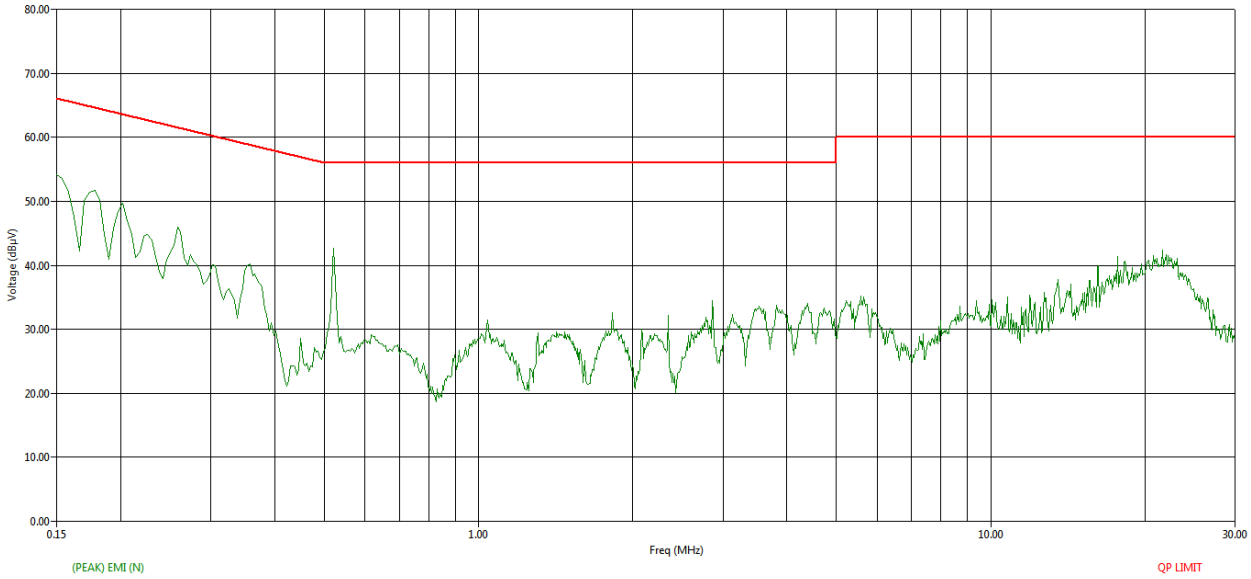


Figure 108: 10 MHz, 230 V AC / 50 Hz, High channel: Peak CE graph - 150 kHz to 30 MHz - Neutral

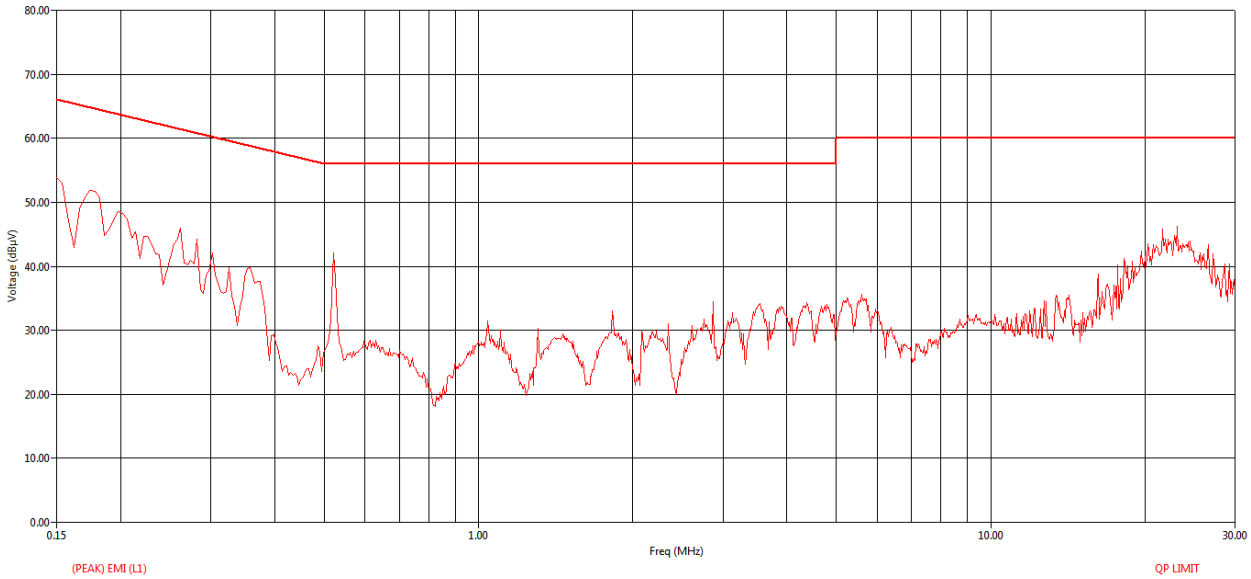


Figure 109: 10 MHz, 230 V AC / 50 Hz, High channel: Peak CE graph - 150 kHz to 30 MHz - Line

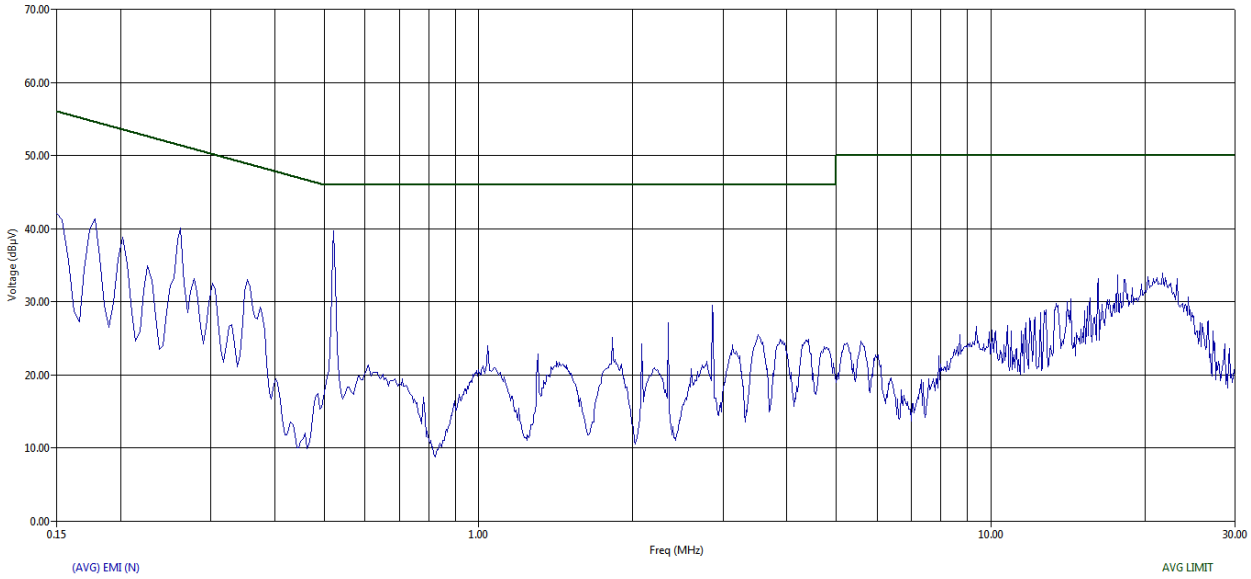


Figure 110: 10 MHz, 230 V AC / 50 Hz, High channel: Average CE graph - 150 kHz to 30 MHz - Neutral

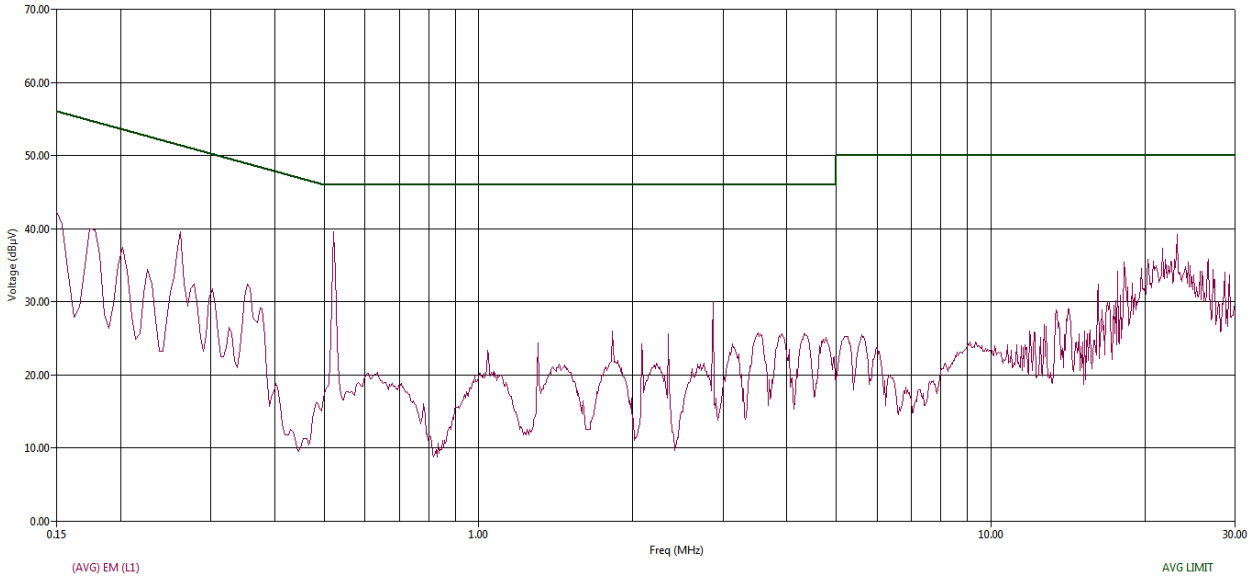


Figure 111: 10 MHz, 230 V AC / 50 Hz, High channel: Average CE graph - 150 kHz to 30 MHz - Line

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 (dB)
0.150	0.154	N	39.467	9.822	2.143	0.000	51.432	65.800	-14.368
0.150	0.154	L1	39.233	9.822	0.000	2.168	51.223	65.806	-14.583
0.174	0.171	L1	37.080	9.838	0.000	2.006	48.924	64.890	-15.966
0.178	0.164	N	41.382	9.831	2.051	0.000	53.264	65.277	-12.013
0.202	0.198	N	38.785	9.858	1.774	0.000	50.417	63.700	-13.282
0.258	0.258	N	31.014	9.863	1.386	0.000	42.263	61.495	-19.232
0.262	0.259	L1	31.677	9.863	0.000	1.396	42.936	61.450	-18.514
0.522	0.521	N	32.084	9.869	0.415	0.000	42.368	56.000	-13.632
0.522	0.521	L1	31.387	9.869	0.000	0.424	41.681	56.000	-14.319
23.130	23.129	L1	33.112	9.857	0.000	0.449	43.419	60.000	-16.581

Table 72: 10 MHz, 230 V AC / 50 Hz, High channel: Quasi peak 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 (dB)
0.150	0.154	N	27.760	9.822	2.143	0.000	39.725	55.800	-16.075
0.150	0.154	L1	26.985	9.822	0.000	2.168	38.976	55.806	-16.830
0.174	0.171	L1	22.535	9.838	0.000	2.006	34.379	54.890	-20.510
0.178	0.164	N	29.211	9.831	2.051	0.000	41.093	55.277	-14.184
0.202	0.198	N	27.900	9.858	1.774	0.000	39.532	53.700	-14.167
0.258	0.258	N	27.723	9.863	1.386	0.000	38.972	51.495	-12.523
0.262	0.259	L1	28.518	9.863	0.000	1.396	39.777	51.450	-11.673
0.522	0.521	N	29.862	9.869	0.415	0.000	40.146	46.000	-5.854
0.522	0.521	L1	29.086	9.869	0.000	0.424	39.379	46.000	-6.621
23.130	23.129	L1	28.343	9.857	0.000	0.449	38.650	50.000	-11.350

Table 73: 10 MHz, 230 V AC / 50 Hz, High channel: Average table for CE from 150 kHz to 30 MHz

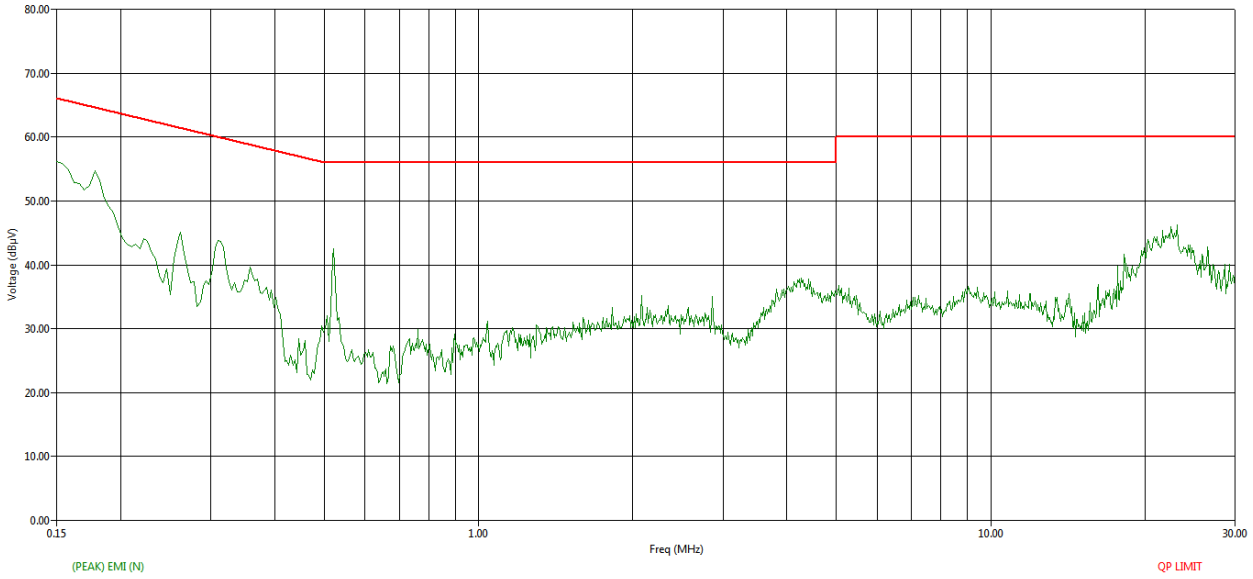


Figure 112: 10 MHz, 120 V AC / 60 Hz, Low channel: Peak CE graph - 150 kHz to 30 MHz - Neutral

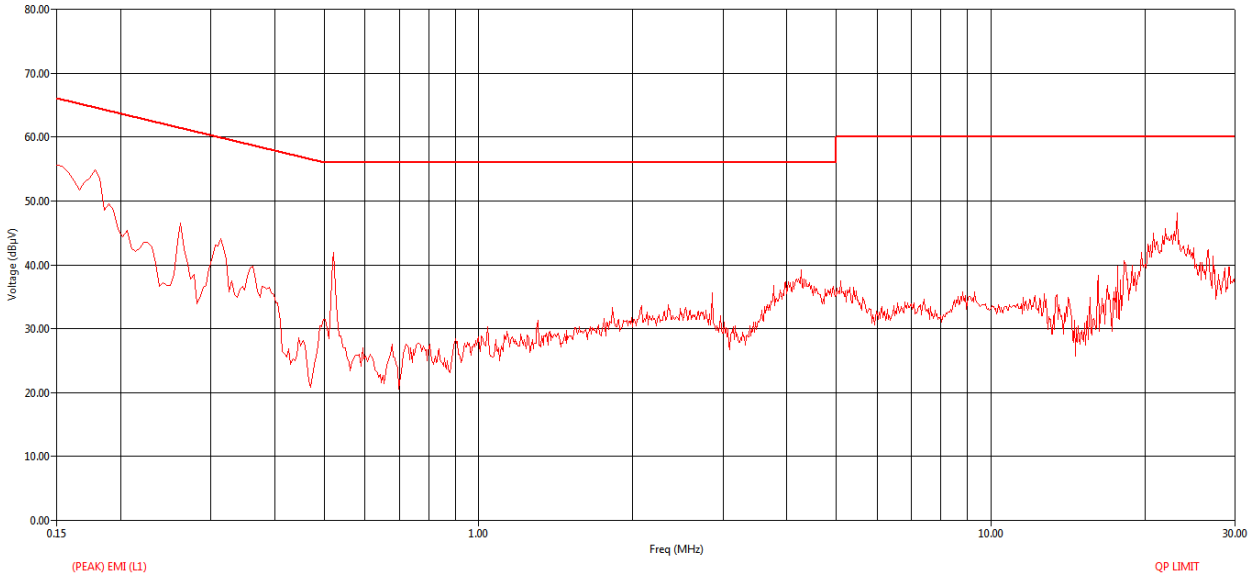


Figure 113: 10 MHz, 120 V AC / 60 Hz, Low channel: Peak CE graph - 150 kHz to 30 MHz - Line

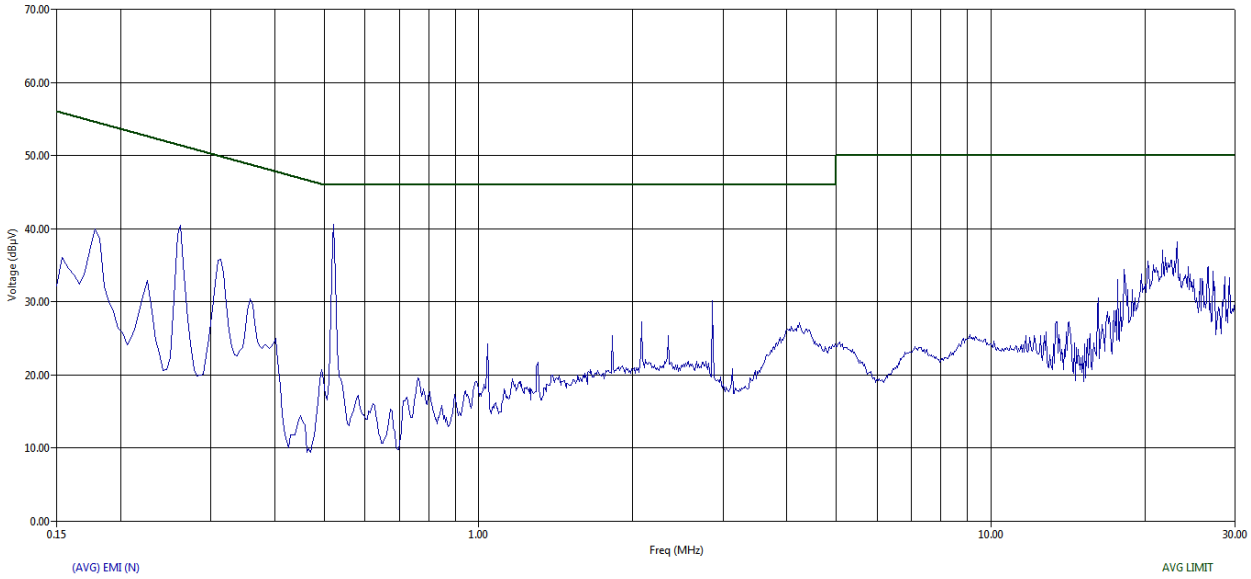


Figure 114: 10 MHz, 120 V AC / 60 Hz, Low channel: Average CE graph - 150 kHz to 30 MHz - Neutral

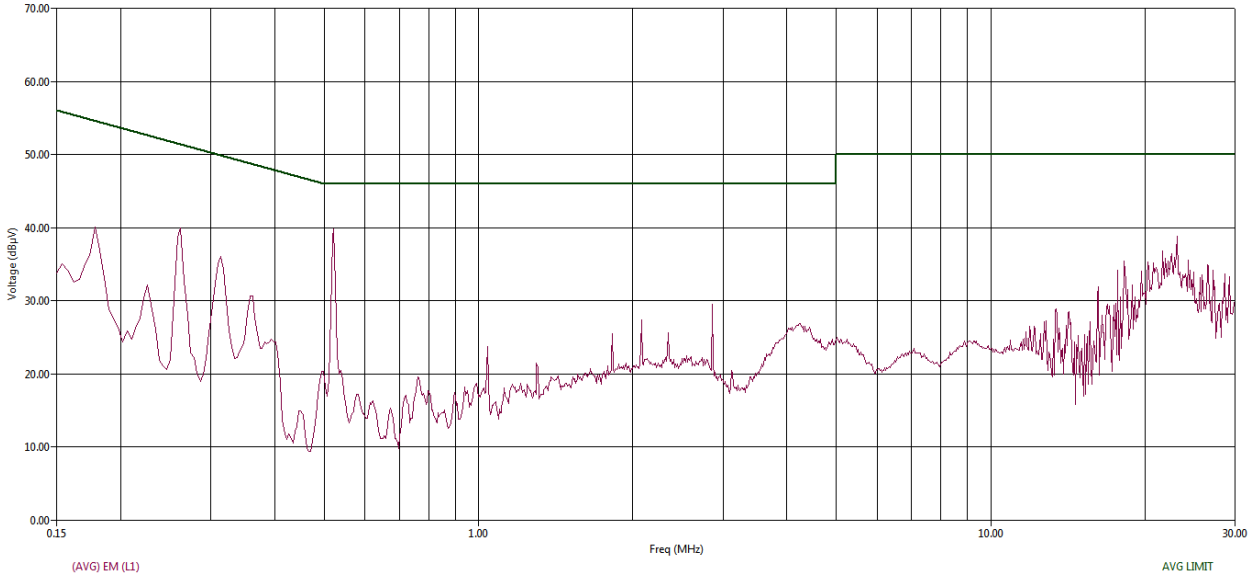


Figure 115: 10 MHz, 120 V AC / 60 Hz, Low channel: Average CE graph - 150 kHz to 30 MHz - Line

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 (dB)
0.150	0.151	N	38.885	9.819	2.168	0.000	50.873	65.943	-15.070
0.150	0.152	L1	39.625	9.821	0.000	2.180	51.626	65.873	-14.247
0.262	0.259	N	31.792	9.863	1.379	0.000	43.034	61.456	-18.422
0.262	0.261	L1	31.262	9.863	0.000	1.385	42.510	61.389	-18.879
0.310	0.309	N	29.942	9.865	1.124	0.000	40.931	60.004	-19.073
0.314	0.313	L1	31.054	9.865	0.000	1.121	42.040	59.895	-17.855
23.130	23.133	N	32.123	9.857	0.661	0.000	42.641	60.000	-17.359
23.130	23.133	L1	32.787	9.857	0.000	0.449	43.093	60.000	-16.907

Table 74: 10 MHz, 120 V AC / 60 Hz, Low channel: Quasi peak 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 (dB)
0.150	0.151	N	21.591	9.819	2.168	0.000	33.579	55.943	-22.365
0.150	0.152	L1	22.050	9.821	0.000	2.180	34.051	55.873	-21.822
0.262	0.259	N	30.033	9.863	1.379	0.000	41.275	51.456	-10.180
0.262	0.261	L1	29.184	9.863	0.000	1.385	40.432	51.389	-10.956
0.310	0.309	N	23.585	9.865	1.124	0.000	34.574	50.004	-15.430
0.314	0.313	L1	25.142	9.865	0.000	1.121	36.127	49.895	-13.768
23.130	23.133	N	27.328	9.857	0.661	0.000	37.847	50.000	-12.153
23.130	23.133	L1	28.151	9.857	0.000	0.449	38.458	50.000	-11.542

Table 75: 10 MHz, 120 V AC / 60 Hz, Low channel: Average table for CE from 150 kHz to 30 MHz

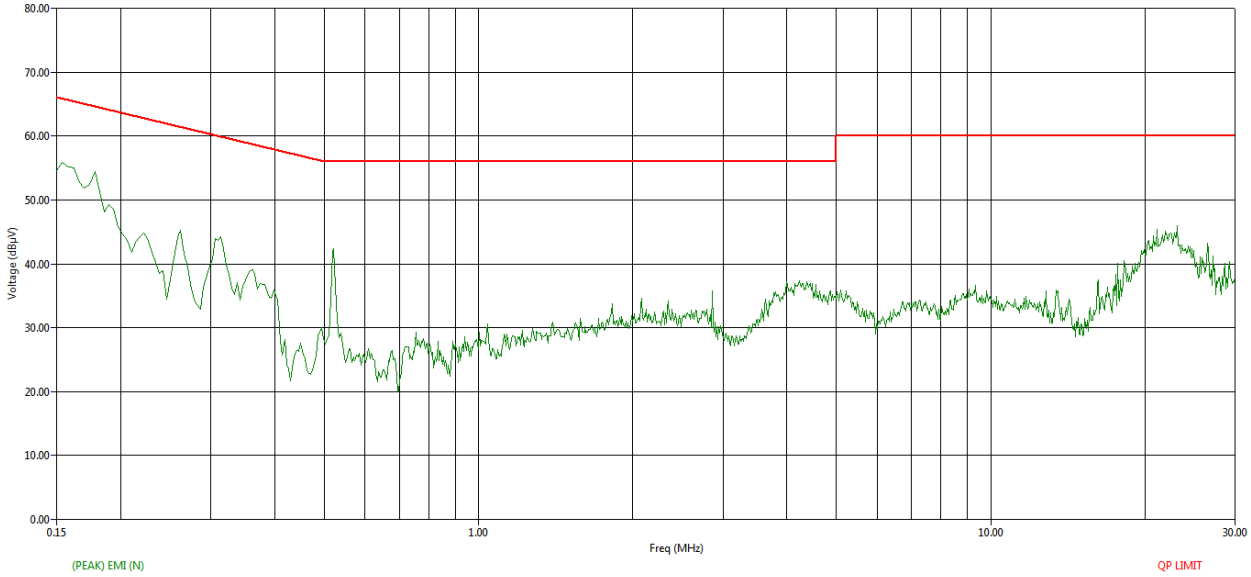


Figure 116: 10 MHz, 120 V AC / 60 Hz, Mid channel: Peak CE graph - 150 kHz to 30 MHz - Neutral

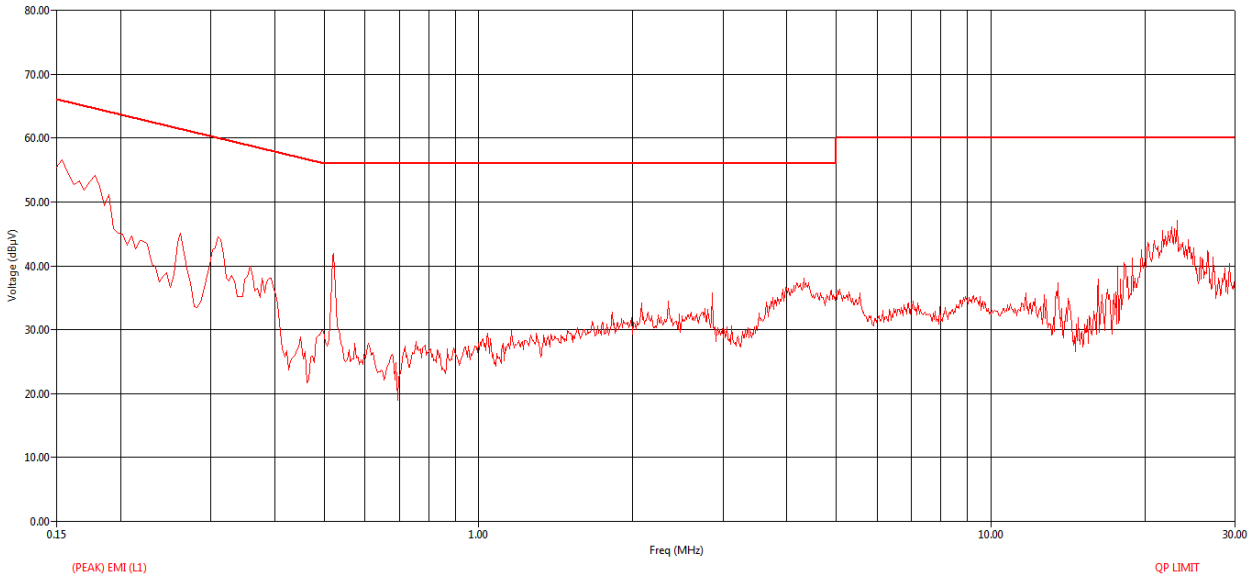


Figure 117: 10 MHz, 120 V AC / 60 Hz, Mid channel: Peak CE graph - 150 kHz to 30 MHz - Line

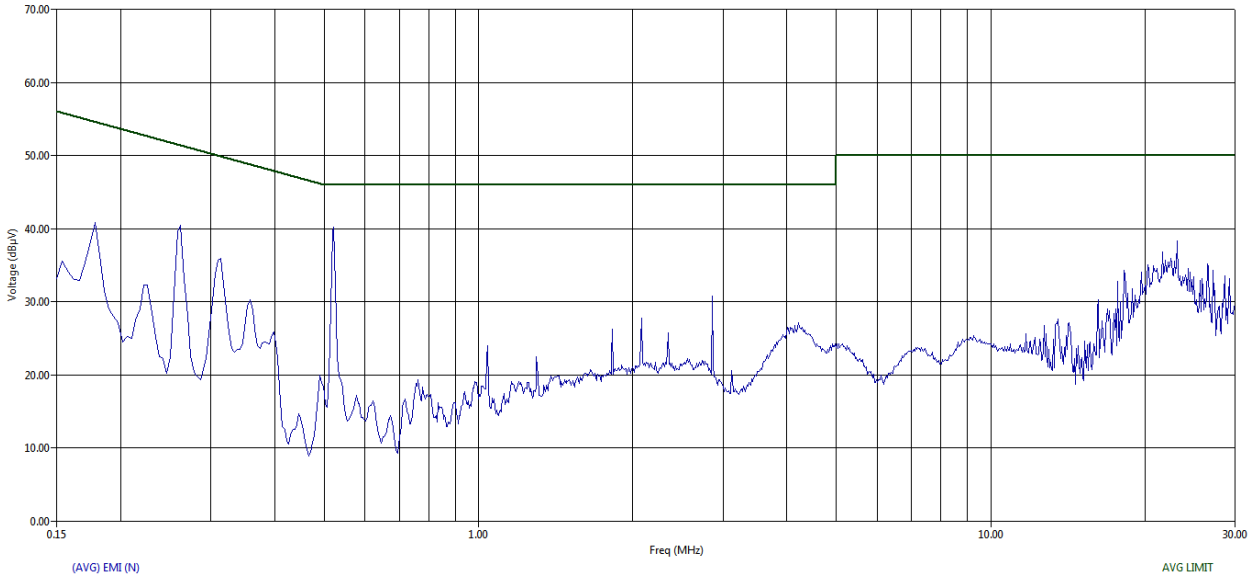


Figure 118: 10 MHz, 120 V AC / 60 Hz, Mid channel: Average CE graph - 150 kHz to 30 MHz - Neutral

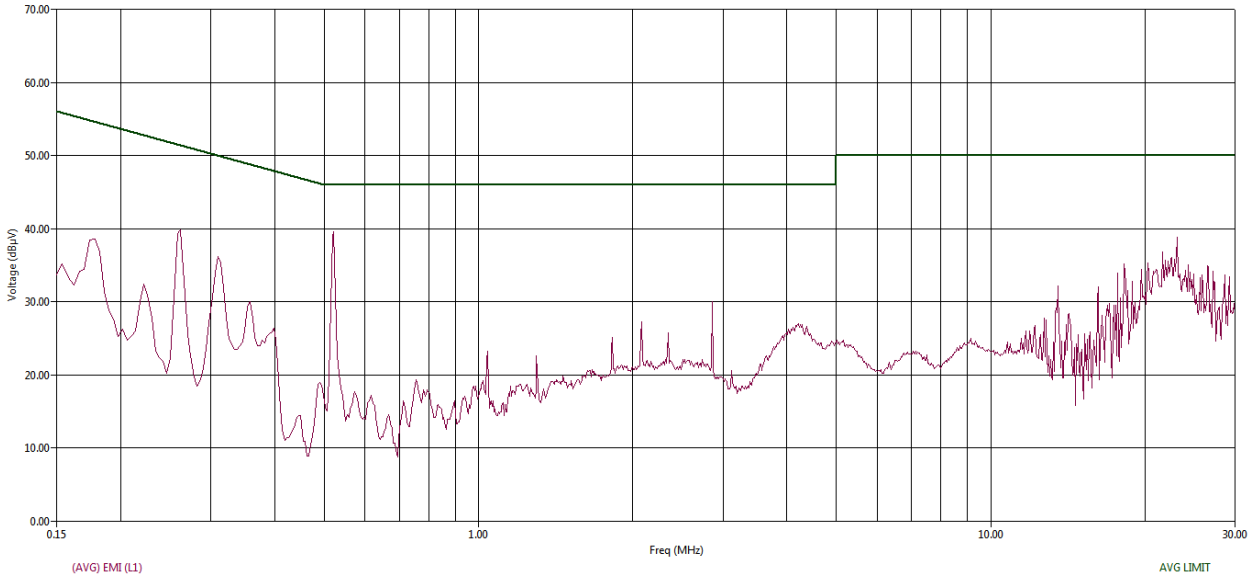


Figure 119: 10 MHz, 120 V AC / 60 Hz, Mid channel: Average CE graph - 150 kHz to 30 MHz - Line

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 (dB)
0.154	0.151	N	39.676	9.820	2.165	0.000	51.660	65.924	-14.263
0.154	0.153	L1	40.063	9.821	0.000	2.178	52.061	65.857	-13.796
0.262	0.260	N	32.384	9.863	1.375	0.000	43.622	61.435	-17.813
0.262	0.261	L1	31.953	9.863	0.000	1.390	43.206	61.413	-18.207
0.310	0.312	L1	30.951	9.865	0.000	1.124	41.940	59.916	-17.976
0.314	0.310	N	30.885	9.865	1.120	0.000	41.869	59.983	-18.113
0.522	0.520	N	31.796	9.869	0.415	0.000	42.080	56.000	-13.920
0.522	0.520	L1	31.254	9.869	0.000	0.424	41.548	56.000	-14.452
4.226	4.220	N	22.400	9.895	0.308	0.000	32.604	56.000	-23.396
9.338	9.334	N	20.014	9.955	0.355	0.000	30.324	60.000	-29.676
16.230	16.229	N	24.616	9.930	0.688	0.000	35.234	60.000	-24.766
17.694	17.696	N	27.410	9.897	0.631	0.000	37.937	60.000	-22.063
18.246	18.245	L1	29.377	9.887	0.000	0.531	39.795	60.000	-20.205
18.306	18.307	L1	27.882	9.887	0.000	0.527	38.296	60.000	-21.704
18.918	18.917	L1	26.577	9.881	0.000	0.484	36.941	60.000	-23.059
23.130	23.129	N	32.375	9.857	0.661	0.000	42.893	60.000	-17.107
23.130	23.131	L1	33.231	9.857	0.000	0.449	43.537	60.000	-16.463
27.162	27.163	L1	27.333	9.841	0.000	0.493	37.667	60.000	-22.333
28.690	28.687	N	26.175	9.835	0.826	0.000	36.836	60.000	-23.164
29.238	29.238	L1	26.629	9.833	0.000	0.513	36.975	60.000	-23.025

Table 76: 10 MHz, 120 V AC / 60 Hz, Mid channel: Quasi peak 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 (dB)
0.154	0.151	N	22.372	9.820	2.165	0.000	34.356	55.924	-21.568
0.154	0.153	L1	22.603	9.821	0.000	2.178	34.601	55.857	-21.256
0.262	0.260	N	30.333	9.863	1.375	0.000	41.572	51.435	-9.863
0.262	0.261	L1	29.637	9.863	0.000	1.390	40.890	51.413	-10.523
0.310	0.312	L1	24.883	9.865	0.000	1.124	35.872	49.916	-14.044
0.314	0.310	N	24.850	9.865	1.120	0.000	35.835	49.983	-14.147
0.522	0.520	N	30.624	9.869	0.415	0.000	40.909	46.000	-5.091
0.522	0.520	L1	30.005	9.869	0.000	0.424	40.299	46.000	-5.701
4.226	4.220	N	15.667	9.895	0.308	0.000	25.870	46.000	-20.130
9.338	9.334	N	13.870	9.955	0.355	0.000	24.181	50.000	-25.819
16.230	16.229	N	19.228	9.930	0.688	0.000	29.845	50.000	-20.155
17.694	17.696	N	22.397	9.897	0.631	0.000	32.925	50.000	-17.075
18.246	18.245	L1	24.756	9.887	0.000	0.531	35.175	50.000	-14.825
18.306	18.307	L1	23.278	9.887	0.000	0.527	33.692	50.000	-16.308
18.918	18.917	L1	21.612	9.881	0.000	0.484	31.976	50.000	-18.024
23.130	23.129	N	27.312	9.857	0.661	0.000	37.830	50.000	-12.170
23.130	23.131	L1	28.494	9.857	0.000	0.449	38.800	50.000	-11.200
27.162	27.163	L1	23.692	9.841	0.000	0.493	34.026	50.000	-15.974
28.690	28.687	N	22.225	9.835	0.826	0.000	32.885	50.000	-17.115
29.238	29.238	L1	22.849	9.833	0.000	0.513	33.195	50.000	-16.805

Table 77: 10 MHz, 120 V AC / 60 Hz, Mid channel: Average table for CE from 150 kHz to 30 MHz

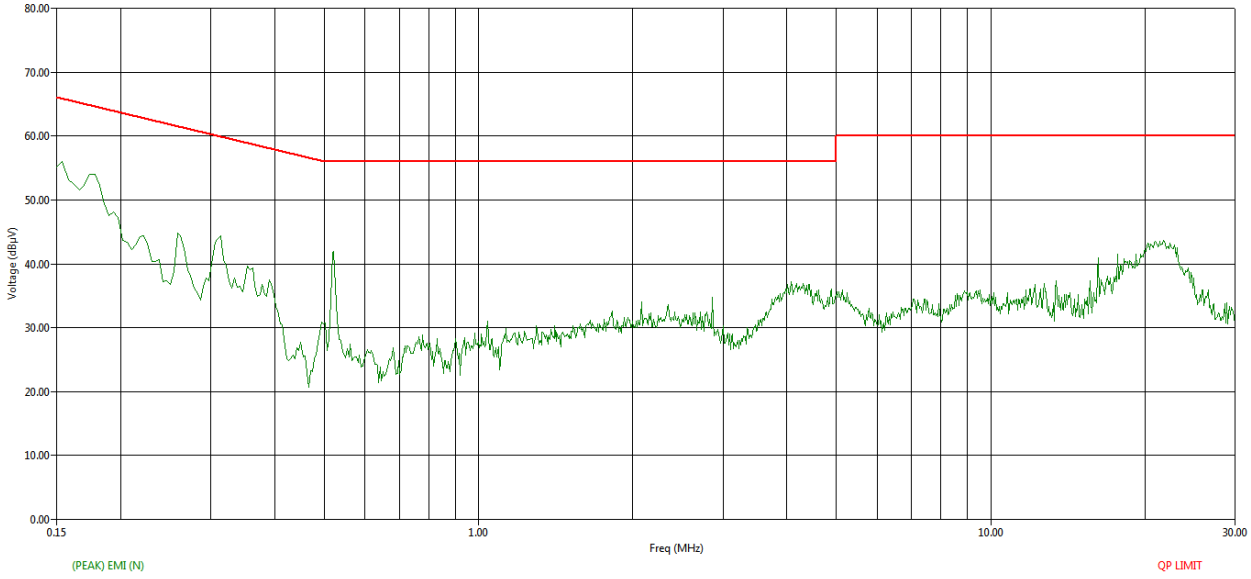


Figure 120: 10 MHz, 120 V AC / 60 Hz, High channel: Peak CE graph - 150 kHz to 30 MHz - Neutral

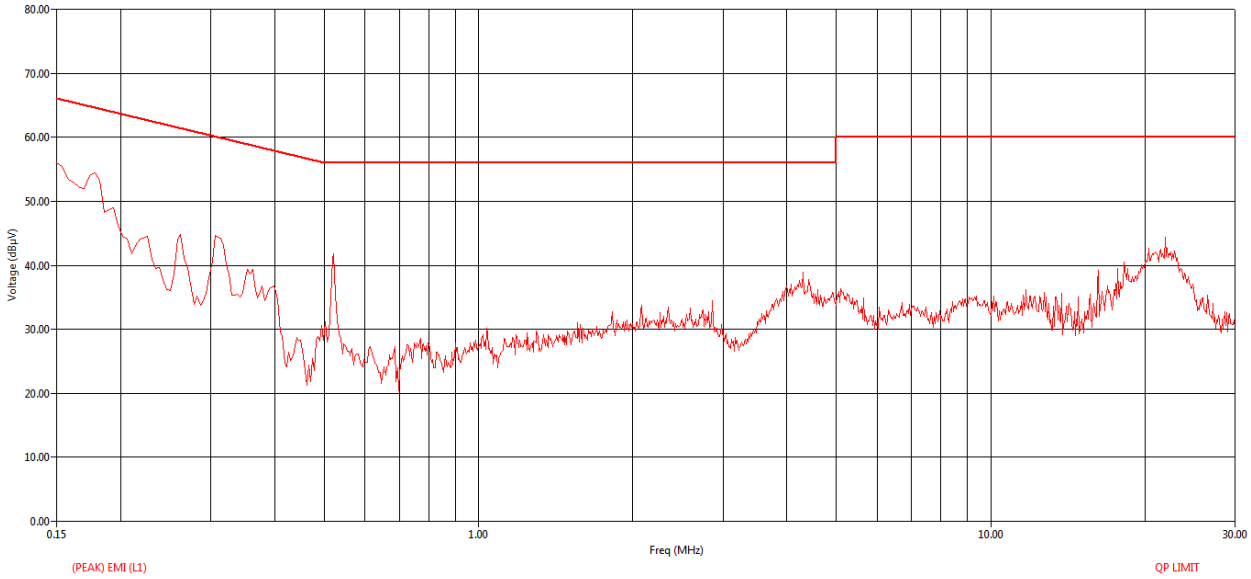


Figure 121: 10 MHz, 120 V AC / 60 Hz, High channel: Peak CE graph - 150 kHz to 30 MHz - Line

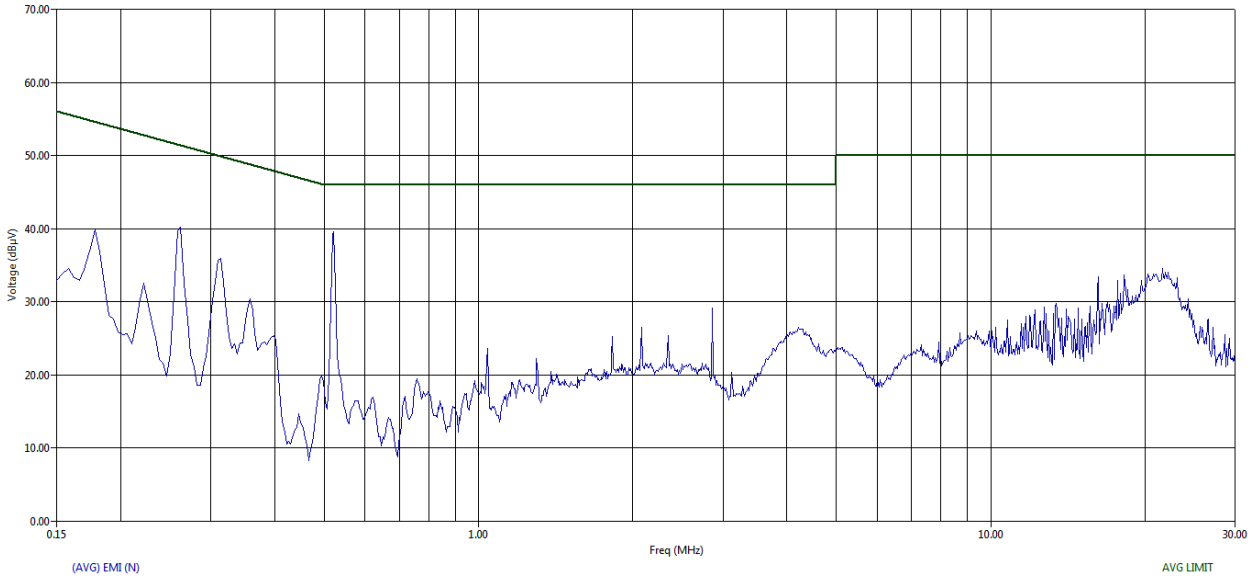


Figure 122: 10 MHz, 120 V AC / 60 Hz, High channel: Average CE graph - 150 kHz to 30 MHz - Neutral

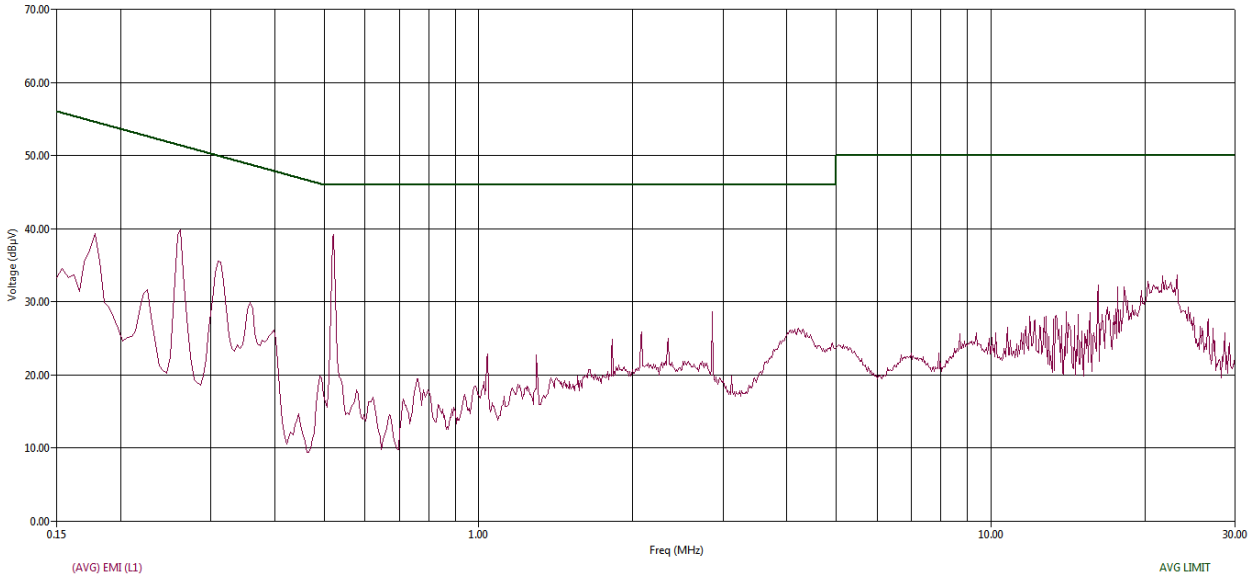


Figure 123: 10 MHz, 120 V AC / 60 Hz, High channel: Average CE graph - 150 kHz to 30 MHz - Line

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 (dB)
0.150	0.153	L1	40.122	9.821	0.000	2.173	52.117	65.833	-13.716
0.154	0.151	N	39.358	9.820	2.167	0.000	51.344	65.935	-14.591
0.258	0.259	N	31.728	9.863	1.381	0.000	42.973	61.468	-18.496
0.262	0.260	L1	31.759	9.863	0.000	1.391	43.013	61.420	-18.407
0.306	0.311	L1	30.998	9.865	0.000	1.131	41.993	59.954	-17.961
0.314	0.310	N	30.882	9.865	1.117	0.000	41.864	59.966	-18.102
0.522	0.521	N	31.810	9.869	0.415	0.000	42.094	56.000	-13.906
0.522	0.521	L1	31.262	9.869	0.000	0.424	41.555	56.000	-14.445
2.862	2.863	N	21.699	9.861	0.304	0.000	31.865	56.000	-24.135
2.862	2.861	L1	22.456	9.861	0.000	0.332	32.649	56.000	-23.351
4.074	4.066	N	21.878	9.892	0.308	0.000	32.078	56.000	-23.922
4.298	4.297	L1	22.053	9.897	0.000	0.345	32.295	56.000	-23.705
12.750	12.747	N	20.640	9.975	0.587	0.000	31.202	60.000	-28.798
13.422	13.420	N	22.494	9.970	0.636	0.000	33.099	60.000	-26.901
13.786	13.786	L1	19.750	9.968	0.000	0.713	30.430	60.000	-29.570
15.618	15.620	L1	20.037	9.944	0.000	0.737	30.718	60.000	-29.282
16.230	16.228	N	24.379	9.930	0.688	0.000	34.997	60.000	-25.003
16.230	16.230	L1	26.049	9.930	0.000	0.686	36.664	60.000	-23.336
21.718	21.712	N	27.847	9.863	0.613	0.000	38.322	60.000	-21.678
21.910	21.908	L1	30.669	9.862	0.000	0.435	40.965	60.000	-19.035

Table 78: 10 MHz, 120 V AC / 60 Hz, High channel: Quasi peak 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 (dB)
0.150	0.153	L1	22.321	9.821	0.000	2.173	34.316	55.833	-21.517
0.154	0.151	N	21.878	9.820	2.167	0.000	33.865	55.935	-22.071
0.258	0.259	N	29.890	9.863	1.381	0.000	41.134	51.468	-10.334
0.262	0.260	L1	29.637	9.863	0.000	1.391	40.891	51.420	-10.529
0.306	0.311	L1	24.873	9.865	0.000	1.131	35.869	49.954	-14.085
0.314	0.310	N	24.862	9.865	1.117	0.000	35.844	49.966	-14.123
0.522	0.521	N	30.665	9.869	0.415	0.000	40.949	46.000	-5.051
0.522	0.521	L1	30.048	9.869	0.000	0.424	40.342	46.000	-5.658
2.862	2.863	N	18.093	9.861	0.304	0.000	28.258	46.000	-17.742
2.862	2.861	L1	18.978	9.861	0.000	0.332	29.171	46.000	-16.829
4.074	4.066	N	15.380	9.892	0.308	0.000	25.580	46.000	-20.420
4.298	4.297	L1	15.466	9.897	0.000	0.345	25.708	46.000	-20.292
12.750	12.747	N	14.707	9.975	0.587	0.000	25.269	50.000	-24.731
13.422	13.420	N	16.607	9.970	0.636	0.000	27.213	50.000	-22.787
13.786	13.786	L1	13.954	9.968	0.000	0.713	24.634	50.000	-25.366
15.618	15.620	L1	15.690	9.944	0.000	0.737	26.371	50.000	-23.629
16.230	16.228	N	18.983	9.930	0.688	0.000	29.600	50.000	-20.400
16.230	16.230	L1	21.320	9.930	0.000	0.686	31.935	50.000	-18.065
21.718	21.712	N	21.739	9.863	0.613	0.000	32.215	50.000	-17.785
21.910	21.908	L1	24.881	9.862	0.000	0.435	35.177	50.000	-14.823

Table 79: 10 MHz, 120 V AC / 60 Hz, High channel: Average table for CE from 150 kHz to 30 MHz

Note:
(QP) EMI (dBµV) = (QP) Trace (dBµV) + Transducer (dB) + {Cable + Pulse limiter} (dB)
QP Margin QPL (dB) = (QP) EMI (dBµV) – (QP) Limit (dBµV)
(AVG) EMI (dBµV) = (AVG) Trace (dBµV) + Transducer (dB) + {Cable + Pulse limiter} (dB)
AVG Margin AVL (dB) = (AVG) EMI (dBµV) – (AVG) Limit (dBµV)

5.3.2.6 RESULT

Conducted Emission from the EUT was within the specified limits.

ANNEXURE I: EUT SOFTWARE SETTINGS

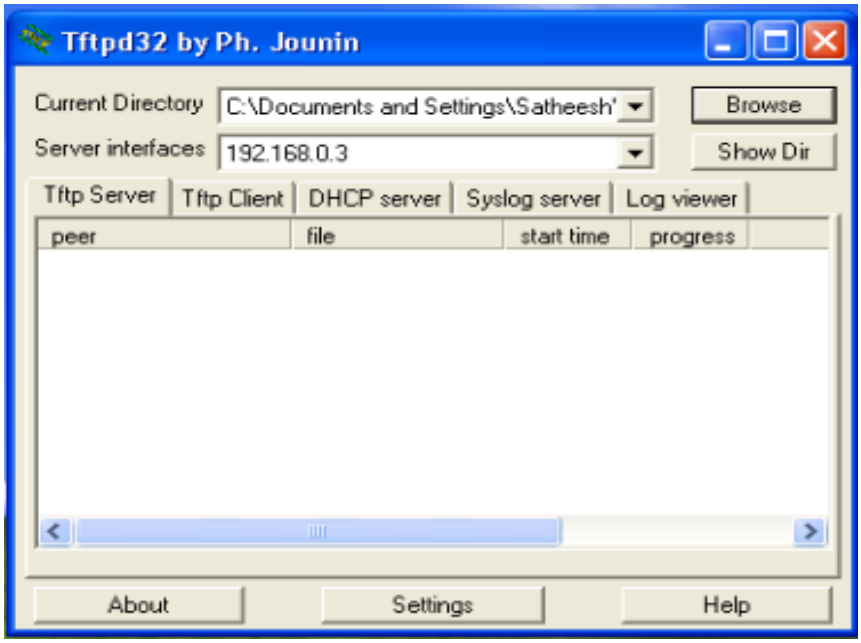


Figure 124: tftpd32 application screenshot

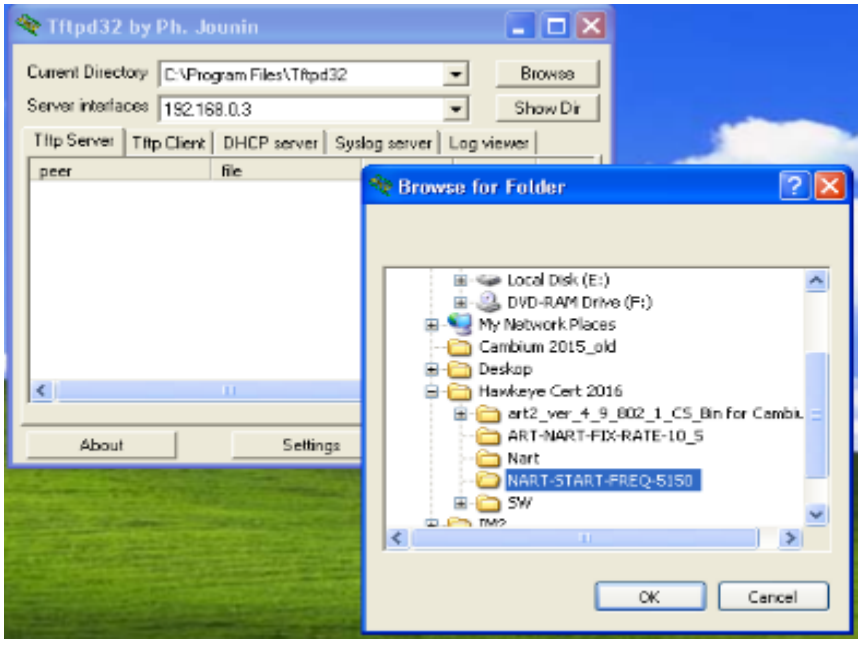


Figure 125: tftpd32 application initialization root_ screenshot

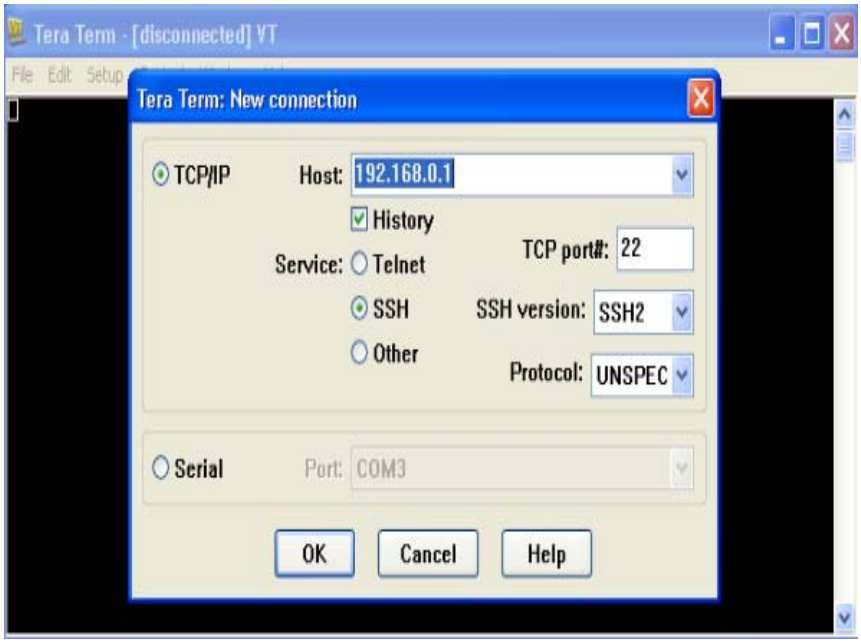


Figure 126: Tera term application screenshot

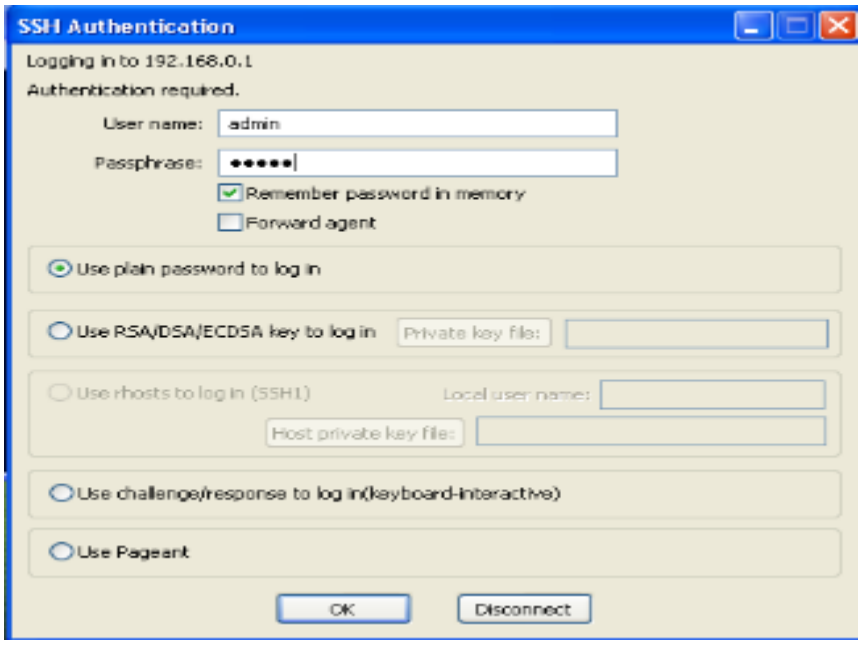


Figure 127: Tera term application Login screenshot

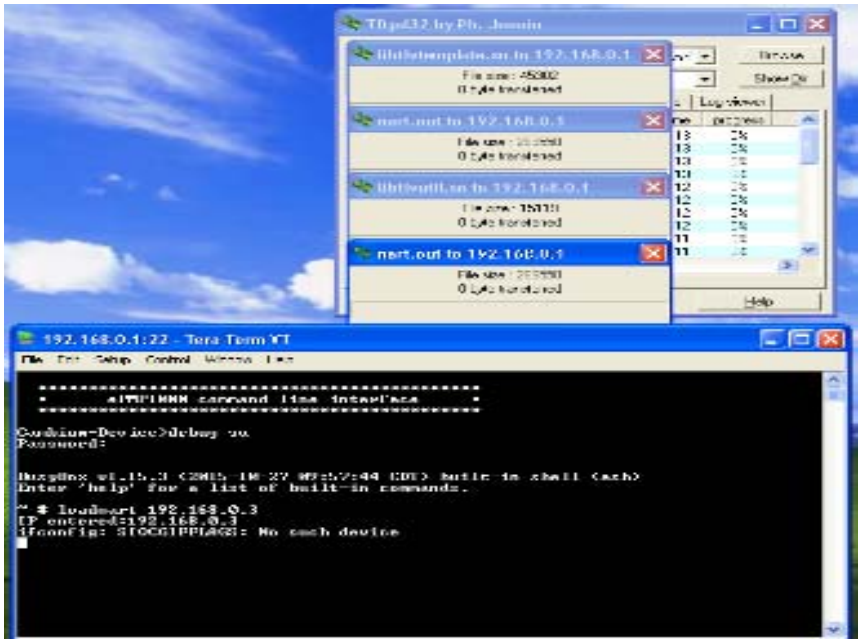


Figure 128: Initializing EUT screenshot

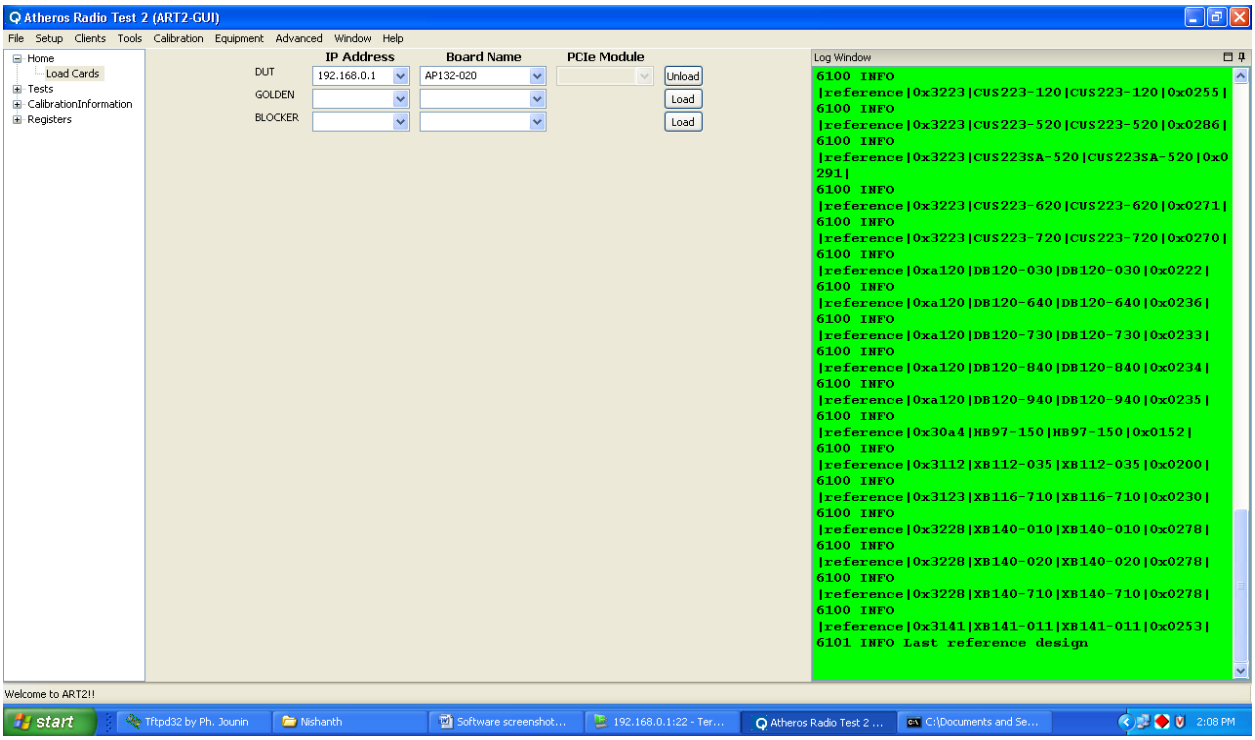


Figure 129: Atheros Radio Test GUI screenshot-1

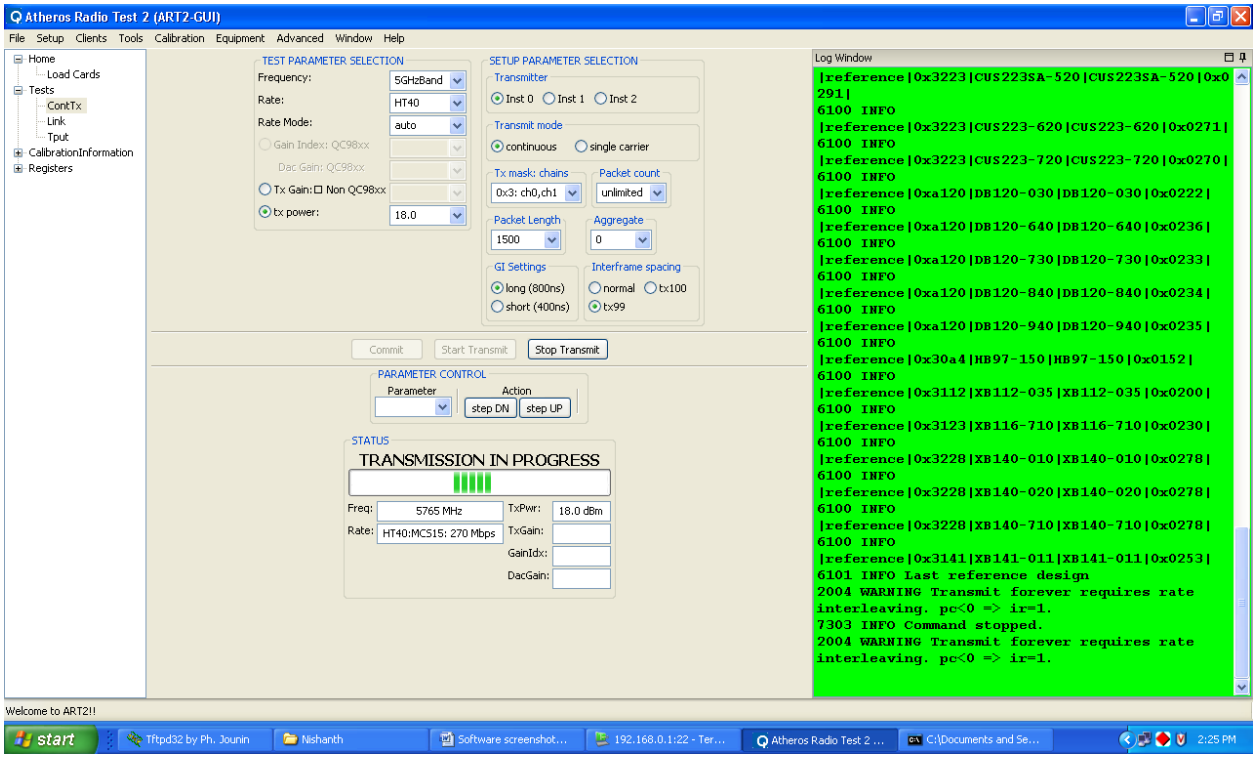


Figure 130: Atheros Radio Test GUI screenshot -2

ANNEXURE II: ACRONYMS

dBµV	Decibel in micro Volt
dBm	Decibel in milli Watt
EUT	Equipment Under Test
GHz	Giga Hertz
IC	Industry Canada
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