

EMC TEST REPORT	
TEST REPORT NUMBER	DBN 1604TEL539-E
TEST REPORT DATE	11-Mar-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

1	TEST REPORT SUMMARY	11
2	GENERAL INFORMATION	12
2.1	ACCREDITATION DETAILS	12
2.2	MEASUREMENT UNCERTAINTY	12
3	INSTRUMENTATION AND CALIBRATION	13
3.1	TEST AND MEASURING EQUIPMENT	13
3.2	EQUIPMENTS USED	13
4	PRODUCT INFORMATION	14
4.1	DESCRIPTION OF THE PRODUCT	14
4.2	SOFTWARE AND FIRMWARE DETAILS	14
5	TEST DETAILS.....	15
5.1	PRODUCT AND TEST SETUP	15
5.1.1	PRODUCT CONFIGURATION	15
5.1.2	TEST SETUP DETAILS	16
5.1.3	ACCESSORIES	16
5.2	APPLICABLE TESTS	16
5.3	TEST RESULT	17
5.3.1	TRANSMITTER UNWANTED EMISSION (RADIATED)	17
5.3.2	CONDUCTED EMISSION TEST	102
	ANNEXURE I: EUT SOFTWARE SETTINGS	133
	ANNEXURE II: ACRONYMS	137

LIST OF FIGURES

Figure 1 Block diagram of the EUT test setup.....	16
Figure 2 Sample test setup for Radiated Emission test for Frequency Range 9 kHz to 40GHz.....	19
Figure 3 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel	20
Figure 4 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel.....	20
Figure 5 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular.....	21
Figure 6 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular.....	21
Figure 7 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal Polarization.....	22
Figure 8 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical Polarization.....	23
Figure 9 RE Graph from 1 GHz to 18 GHz using Average detector – Horizontal Polarization	23
Figure 10 RE Graph from 1 GHz to 18 GHz using Average detector – Vertical Polarization.....	24
Figure 11 RE Graph from 18 GHz to 26.5 GHz using Average detector – Horizontal Polarization	24
Figure 12 RE Graph from 18 GHz to 26.5 GHz using Average detector – Vertical Polarization.....	25
Figure 13 RE Graph from 26.5 GHz to 40 GHz using Average detector – Horizontal Polarization	25
Figure 14 RE Graph from 26.5 GHz to 40 GHz using Average detector – Vertical Polarization.....	26
Figure 15 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel.....	26
Figure 16 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel.....	27
Figure 17 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular.....	28
Figure 18 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular.....	28
Figure 19 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal Polarization.....	29
Figure 20 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical Polarization.....	29
Figure 21 RE Graph from 1 GHz to 18 GHz using Average detector – Horizontal Polarization	30
Figure 22 RE Graph from 1 GHz to 18 GHz using Average detector – Vertical Polarization.....	31
Figure 23 RE Graph from 18 GHz to 26.5 GHz using Average detector – Horizontal Polarization	31
Figure 24 RE Graph from 18 GHz to 26.5 GHz using Average detector – Vertical Polarization.....	32
Figure 25 RE Graph from 26.5 GHz to 40 GHz using Average detector – Horizontal Polarization	32
Figure 26 RE Graph from 26.5 GHz to 40 GHz using Average detector – Vertical Polarization.....	33
Figure 27 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel.....	34
Figure 28 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel.....	34
Figure 29 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular.....	35
Figure 30 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular.....	35
Figure 31 RE Graph from 30 MHz to 1 GHz using Peak detector – Horizontal Polarization	36
Figure 32 RE Graph from 30 MHz to 1 GHz using Peak detector – Vertical Polarization.....	37
Figure 33 RE Graph from 1 GHz to 18 GHz using Average detector – Horizontal Polarization	37
Figure 34 RE Graph from 1 GHz to 18 GHz using Average detector – Vertical Polarization.....	38
Figure 35 RE Graph from 18 GHz to 26.5 GHz using Average detector – Horizontal Polarization	38
Figure 36 RE Graph from 18 GHz to 26.5 GHz using Average detector – Vertical Polarization.....	39
Figure 37 RE Graph from 26.5 GHz to 40 GHz using Average detector – Horizontal Polarization	39
Figure 38 RE Graph from 26.5 GHz to 40 GHz using Average detector – Vertical Polarization.....	40
Figure 39 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel.....	40
Figure 40 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel.....	41
Figure 41 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular.....	42
Figure 42 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular.....	42
Figure 43 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal Polarization.....	43
Figure 44 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical Polarization.....	43
Figure 45 RE Graph from 1 GHz to 18 GHz using Average detector – Horizontal Polarization	44
Figure 46 RE Graph from 1 GHz to 18 GHz using Average detector – Vertical Polarization.....	44
Figure 47 RE Graph from 18 GHz to 26.5 GHz using Average detector – Horizontal Polarization	45
Figure 48 RE Graph from 18 GHz to 26.5 GHz using Average detector – Vertical Polarization.....	45
Figure 49 RE Graph from 26.5 GHz to 40 GHz using Average detector – Horizontal Polarization	46
Figure 50 RE Graph from 26.5 GHz to 40 GHz using Average detector – Vertical Polarization.....	46
Figure 51 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel.....	47
Figure 52 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel.....	47

Figure 53 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular.....	48
Figure 54 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular.....	49
Figure 55 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal polarization.....	50
Figure 56 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical polarization.....	50
Figure 57 RE Graph from 1 GHz to 18 GHz using Average detector – Horizontal Polarization.....	51
Figure 58 RE Graph from 1 GHz to 18 GHz using Average detector – Vertical Polarization.....	51
Figure 59 RE Graph from 18 GHz to 26.5 GHz using Average detector – Horizontal Polarization.....	52
Figure 60 RE Graph from 18 GHz to 26.5 GHz using Average detector – Vertical Polarization.....	52
Figure 61 RE Graph from 26.5 GHz to 40 GHz using Average detector – Horizontal Polarization.....	53
Figure 62 RE Graph from 26.5 GHz to 40 GHz using Average detector – Vertical Polarization.....	53
Figure 63 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel.....	54
Figure 64 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel.....	54
Figure 65 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular.....	55
Figure 66 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular.....	55
Figure 67 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal Polarization.....	56
Figure 68 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical Polarization.....	57
Figure 69 RE Graph from 1 GHz to 18 GHz using Average detector – Horizontal Polarization.....	58
Figure 70 RE Graph from 1 GHz to 18 GHz using Average detector – Vertical Polarization.....	58
Figure 71 RE Graph from 18 GHz to 26.5 GHz using Average detector – Horizontal Polarization.....	59
Figure 72 RE Graph from 18 GHz to 26.5 GHz using Average detector – Vertical Polarization.....	59
Figure 73 RE Graph from 26.5 GHz to 40 GHz using Average detector – Horizontal Polarization.....	60
Figure 74 RE Graph from 26.5 GHz to 40 GHz using Average detector – Vertical Polarization.....	60
Figure 75 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel.....	61
Figure 76 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel.....	61
Figure 77 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular.....	62
Figure 78 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular.....	62
Figure 79 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal Polarization.....	63
Figure 80 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical Polarization.....	64
Figure 81 RE Graph from 1 GHz to 18 GHz using Average Detector – Horizontal Polarization.....	64
Figure 82 RE Graph from 1 GHz to 18 GHz using Average Detector – Vertical Polarization.....	65
Figure 83 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Horizontal Polarization.....	65
Figure 84 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Vertical Polarization.....	66
Figure 85 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Horizontal Polarization.....	66
Figure 86 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Vertical Polarization.....	67
Figure 87 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel.....	67
Figure 88 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel.....	68
Figure 89 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular.....	69
Figure 90 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular.....	69
Figure 91 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal Polarization.....	70
Figure 92 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical Polarization.....	70
Figure 93 RE Graph from 1 GHz to 18 GHz using Average Detector – Horizontal Polarization.....	71
Figure 94 RE Graph from 1 GHz to 18 GHz using Average Detector – Vertical Polarization.....	71
Figure 95 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Horizontal Polarization.....	72
Figure 96 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Vertical Polarization.....	72
Figure 97 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Horizontal Polarization.....	73
Figure 98 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Vertical Polarization.....	73
Figure 99 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel.....	74
Figure 100 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel.....	74
Figure 101 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular.....	75
Figure 102 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular.....	76
Figure 103 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal Polarization.....	77
Figure 104 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical Polarization.....	77
Figure 105 RE Graph from 1 GHz to 18 GHz using Average Detector – Horizontal Polarization.....	78

Figure 106 RE Graph from 1 GHz to 18 GHz using Average Detector – Vertical Polarization.....	78
Figure 107 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Horizontal Polarization.....	79
Figure 108 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Vertical Polarization.....	79
Figure 109 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Horizontal Polarization.....	80
Figure 110 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Vertical Polarization.....	80
Figure 111 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel.....	81
Figure 112 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel.....	81
Figure 113 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular.....	82
Figure 114 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular.....	82
Figure 115 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal Polarization.....	83
Figure 116 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical Polarization.....	84
Figure 117 RE Graph from 1 GHz to 18 GHz using Average Detector – Horizontal Polarization.....	85
Figure 118 RE Graph from 1 GHz to 18 GHz using Average Detector – Vertical Polarization.....	85
Figure 119 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Horizontal Polarization.....	86
Figure 120 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Vertical Polarization.....	86
Figure 121 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Horizontal Polarization.....	87
Figure 122 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Vertical Polarization.....	87
Figure 123 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel.....	88
Figure 124 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel.....	88
Figure 125 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular.....	89
Figure 126 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular.....	89
Figure 127 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal Polarization.....	90
Figure 128 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical Polarization.....	91
Figure 129 RE Graph from 1 GHz to 18 GHz using Average Detector – Horizontal Polarization.....	91
Figure 130 RE Graph from 1 GHz to 18 GHz using Average Detector – Vertical Polarization.....	92
Figure 131 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Horizontal Polarization.....	92
Figure 132 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Vertical Polarization.....	93
Figure 133 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Horizontal Polarization.....	93
Figure 134 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Vertical Polarization.....	94
Figure 135 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel.....	94
Figure 136 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel.....	95
Figure 137 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular.....	96
Figure 138 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular.....	96
Figure 139 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal Polarization.....	97
Figure 140 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical Polarization.....	97
Figure 141 RE Graph from 1 GHz to 18 GHz using Average Detector – Horizontal Polarization.....	98
Figure 142 RE Graph from 1 GHz to 18 GHz using Average Detector – Vertical Polarization.....	99
Figure 143 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Horizontal Polarization.....	99
Figure 144 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Vertical Polarization.....	100
Figure 145 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Horizontal Polarization.....	100
Figure 146 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Vertical Polarization.....	101
Figure 147 Sample test setup for Conducted Emission test.....	103
Figure 148 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral.....	104
Figure 149 CE graph from 150 kHz to 30 MHz using Peak detector –Line.....	104
Figure 150 CE graph from 150 kHz to 30 MHz using Average detector – Neutral.....	105
Figure 151 CE graph from 150 kHz to 30 MHz using Average detector – Line.....	105
Figure 152 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral.....	106
Figure 153 CE graph from 150 kHz to 30 MHz using Peak detector –Line.....	107
Figure 154 CE graph from 150 kHz to 30 MHz using Average detector – Neutral.....	107
Figure 155 CE graph from 150 kHz to 30 MHz using Average detector - Line.....	108
Figure 156 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral.....	109
Figure 157 CE graph from 150 kHz to 30 MHz using Peak detector –Line.....	109
Figure 158 CE graph from 150 kHz to 30 MHz using Average detector – Neutral.....	110

Figure 159 CE graph from 150 kHz to 30 MHz using Average detector - Line	110
Figure 160 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral	111
Figure 161 CE graph from 150 kHz to 30 MHz using Peak detector –Line	112
Figure 162 CE graph from 150 kHz to 30 MHz using Average detector – Neutral	112
Figure 163 CE graph from 150 kHz to 30 MHz using Average detector – Line	113
Figure 164 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral	114
Figure 165 CE graph from 150 kHz to 30 MHz using Peak detector –Line	114
Figure 166 CE graph from 150 kHz to 30 MHz using Average detector – Neutral	115
Figure 167 CE graph from 150 kHz to 30 MHz using Average detector – Line	115
Figure 168 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral	116
Figure 169 CE graph from 150 kHz to 30 MHz using Peak detector –Line	117
Figure 170 CE graph from 150 kHz to 30 MHz using Average detector – Neutral	117
Figure 171 CE graph from 150 kHz to 30 MHz using Average detector – Line	118
Figure 172 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral	119
Figure 173 CE graph from 150 kHz to 30 MHz using Peak detector –Line	119
Figure 174 CE graph from 150 kHz to 30 MHz using Average detector – Neutral	120
Figure 175 CE graph from 150 kHz to 30 MHz using Average detector - Line	120
Figure 176 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral	121
Figure 177 CE graph from 150 kHz to 30 MHz using Peak detector –Line	121
Figure 178 CE graph from 150 kHz to 30 MHz using Average detector – Neutral	122
Figure 179 CE graph from 150 kHz to 30 MHz using Average detector - Line	122
Figure 180 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral	123
Figure 181 CE graph from 150 kHz to 30 MHz using Peak detector –Line	124
Figure 182 CE graph from 150 kHz to 30 MHz using Average detector – Neutral	124
Figure 183 CE graph from 150 kHz to 30 MHz using Average detector – Line	125
Figure 184 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral	126
Figure 185 CE graph from 150 kHz to 30 MHz using Peak detector –Line	126
Figure 186 CE graph from 150 kHz to 30 MHz using Average detector – Neutral	127
Figure 187 CE graph from 150 kHz to 30 MHz using Average detector – Line	127
Figure 188 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral	128
Figure 189 CE graph from 150 kHz to 30 MHz using Peak detector –Line	128
Figure 190 CE graph from 150 kHz to 30 MHz using Average detector – Neutral	129
Figure 191 CE graph from 150 kHz to 30 MHz using Average detector – Line	129
Figure 192 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral	130
Figure 193 CE graph from 150 kHz to 30 MHz using Peak detector –Line	131
Figure 194 CE graph from 150 kHz to 30 MHz using Average detector – Neutral	131
Figure 195 CE graph from 150 kHz to 30 MHz using Average detector – Line	132
Figure 196 tftpd32 application screenshot	133
Figure 197 tftpd32 application initialization root_ screenshot.....	133
Figure 198 Tera term application screenshot.....	134
Figure 199 Tera term application Login screenshot.....	134
Figure 200 Initializing EUT screenshot	135
Figure 201 Atheros Radio Test GUI screenshot-1	135
Figure 202 Atheros Radio Test GUI screenshot -2	136

LIST OF TABLES

Table 1 List of Equipment used for Radiated Emissions Test	13
Table 2 List of Equipment used for Conducted Emissions Test	13
Table 3 EUT details	14
Table 4: List of cables	14
Table 5 Unwanted emission Limit	17
Table 6 General Field strength limit below 30 MHz	17
Table 7 General Field strength limit above 30MHz	18
Table 8: Quasi peak Table from 9 kHz to 30 MHz	20
Table 9 Average Table from 9 kHz to 30 MHz	21
Table 10 Quasi peak Table from 9 kHz to 30 MHz	22
Table 11 Average Table from 9 kHz to 30 MHz	22
Table 12 QP table from 30 MHz to 1 GHz	23
Table 13 Average Table from 1 GHz to 18 GHz	24
Table 14 Average Table from 18 GHz to 26.5 GHz	25
Table 15 Average Table from 26.5 GHz to 40 GHz	26
Table 16 Quasi peak Table from 9 kHz to 30 MHz	27
Table 17 Average Table from 9 kHz to 30 MHz	27
Table 18 Quasi peak Table from 9 kHz to 30 MHz	28
Table 19 Average Table from 9 kHz to 30 MHz	29
Table 20 Quasipeak Table from 30 MHz to 1 GHz	30
Table 21 Average Table from 1 GHz to 18 GHz	31
Table 22 Average Table from 18 GHz to 26.5 GHz	32
Table 23 Average Table from 26.5 GHz to 40 GHz	33
Table 24 Quasi peak Table from 9 kHz to 30 MHz	34
Table 25 Average Table from 9 kHz to 30 MHz	35
Table 26 Quasi peak Table from 9 kHz to 30 MHz	36
Table 27 Average Table from 9 kHz to 30 MHz	36
Table 28 QP Table from 30 MHz to 1 GHz	37
Table 29 Average Table from 1 GHz to 18 GHz	38
Table 30 Average Table from 18 GHz to 26.5 GHz	39
Table 31 Average Table form 26.5 GHz to 40 GHz	40
Table 32 Quasi peak Table from 9 kHz to 30 MHz	41
Table 33 Average Table from 9 kHz to 30 MHz	41
Table 34 Quasi peak Table from 9 kHz to 30 MHz	42
Table 35 Average Table from 9 kHz to 30 MHz	43
Table 36 QP Table from 30 MHz to 1 GHz	44
Table 37 Average Table from 1 GHz to 18 GHz	45
Table 38 Average Table form 18 GHz to 26.5 GHz	46
Table 39 Average Table from 26.5 GHz to 40 GHz	47
Table 40 Quasi peak Table from 9 kHz to 30 MHz	48
Table 41 Average Table from 9 kHz to 30 MHz	48
Table 42 Quasi peak Table from 9 kHz to 30 MHz	49
Table 43 Average Table from 9 kHz to 30 MHz	49
Table 44 QP Table from 30 MHz to 1 GHz	50
Table 45 Average Table from 1 GHz to 18 GHz	51
Table 46 Average Table from 18 GHz to 26.5 GHz	52
Table 47 Average table from 26.5 GHz to 40 GHz	53
Table 48 Quasi peak Table from 9 kHz to 30 MHz	54
Table 49 Average Table from 9 kHz to 30 MHz	55
Table 50 Quasi peak Table from 9 kHz to 30 MHz	56
Table 51 Average Table from 9 kHz to 30 MHz	56
Table 52 Quasipeak Table from 30 MHz to 1 GHz	57

Table 53 Average Table from 1 GHz to 18 GHz	58
Table 54 Average Table from 18 GHz to 26.5 GHz	59
Table 55 Average Table from 26.5 GHz to 40 GHz	60
Table 56 Quasi peak Table from 9 kHz to 30 MHz	61
Table 57 Average Table from 9 kHz to 30 MHz	62
Table 58 Quasi peak Table from 9 kHz to 30 MHz	63
Table 59 Average Table from 9 kHz to 30 MHz	63
Table 60 QP Table from 30 MHz to 1 GHz.....	64
Table 61 Average Table from 1 GHz to 18 GHz	65
Table 62 Average Table from 18 GHz to 26.5 GHz	66
Table 63 Average Table from 26.5 GHz to 40 GHz	67
Table 64 Quasi peak Table from 9 kHz to 30 MHz	68
Table 65 Average Table from 9 kHz to 30 MHz	68
Table 66 Quasi peak Table from 9 kHz to 30 MHz	69
Table 67 Average Table from 9 kHz to 30 MHz	70
Table 68 QP Table from 30 MHz to 1 GHz.....	71
Table 69 Average Table from 1 GHz to 18 GHz	72
Table 70 Average Table from 18 GHz to 26.5 GHz	73
Table 71 Average Table from 26.5 GHz to 40 GHz	74
Table 72 Quasi peak Table from 9 kHz to 30 MHz	75
Table 73 Average Table from 9 kHz to 30 MHz	75
Table 74 Quasi peak Table from 9 kHz to 30 MHz	76
Table 75 Average Table from 9 kHz to 30 MHz	76
Table 76 QP Table from 30 MHz to 1 GHz.....	77
Table 77 Average Table from 1 GHz to 18 GHz	78
Table 78 Average Table from 18 GHz to 26.5 GHz	79
Table 79 Average Table form 26.5 GHz to 40 GHz	80
Table 80 Quasi peak Table from 9 kHz to 30 MHz	81
Table 81 Average Table from 9 kHz to 30 MHz	82
Table 82 Quasi peak Table from 9 kHz to 30 MHz	83
Table 83 Average Table from 9 kHz to 30 MHz	83
Table 84 QP Table from 30 MHz to 1 GHz.....	84
Table 85 Average table from 1 GHz to 18 GHz	85
Table 86 Average table from 18 GHz to 26.5 GHz	86
Table 87 Average Table from 26.5 GHz to 40 GHz	87
Table 88 Quasi peak Table from 9 kHz to 30 MHz	88
Table 89 Average Table from 9 kHz to 30 MHz	89
Table 90 Quasi peak Table from 9 kHz to 30 MHz	90
Table 91 Average Table from 9 kHz to 30 MHz	90
Table 92 QP Table from 30 MHz to 1 GHz.....	91
Table 93 Average table from 1 GHz to 18 GHz	92
Table 94 Average Table from 18 GHz to 26.5 GHz	93
Table 95 Average Table from 26.5 GHz to 40 GHz	94
Table 96 Quasi peak Table from 9 kHz to 30 MHz	95
Table 97 Average Table from 9 kHz to 30 MHz	95
Table 98 Quasi peak Table from 9 kHz to 30 MHz	96
Table 99 Average Table from 9 kHz to 30 MHz	97
Table 100 QP Table from 30 MHz to 1 GHz.....	98
Table 101 Average table from 1 GHz to 18 GHz	99
Table 102 Average Table form 18 GHz to 26.5 GHz	100
Table 103 Average Table from 26.5 GHz to 40 GHz	101
Table 104 Quasi peak table for CE from 150 kHz to 30 MHz.....	105
Table 105 Average table for CE from 150 kHz to 30 MHz.....	106

Table 106 Quasi peak table for CE from 150 kHz to 30 MHz.....	108
Table 107 Average table for CE from 150 kHz to 30 MHz.....	108
Table 108 Quasi peak table for CE from 150 kHz to 30 MHz.....	110
Table 109 Average table for CE from 150 kHz to 30 MHz.....	111
Table 110 Quasi peak table for CE from 150 kHz to 30 MHz.....	113
Table 111 Average table for CE from 150 kHz to 30 MHz.....	113
Table 112 Quasi peak table for CE from 150 kHz to 30 MHz.....	115
Table 113 Average table for CE from 150 kHz to 30 MHz.....	116
Table 114 Quasi peak table for CE from 150 kHz to 30 MHz.....	118
Table 115 Average table for CE from 150 kHz to 30 MHz.....	118
Table 116 Quasi peak table for CE from 150 kHz to 30 MHz.....	120
Table 117 Average table for CE from 150 kHz to 30 MHz.....	121
Table 118 Quasi peak table for CE from 150 kHz to 30 MHz.....	122
Table 119 Average table for CE from 150 kHz to 30 MHz.....	123
Table 120 Quasi peak table for CE from 150 kHz to 30 MHz.....	125
Table 121 Average table for CE from 150 kHz to 30 MHz.....	125
Table 122 Quasi peak table for CE from 150 kHz to 30 MHz.....	127
Table 123 Average table for CE from 150 kHz to 30 MHz.....	128
Table 124 Quasi peak table for CE from 150 kHz to 30 MHz.....	129
Table 125 Average table for CE from 150 kHz to 30 MHz.....	130
Table 126 Quasi peak table for CE from 150 kHz to 30 MHz.....	132
Table 127 Average table for CE from 150 kHz to 30 MHz.....	132

1 TEST REPORT SUMMARY

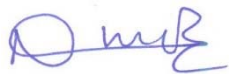

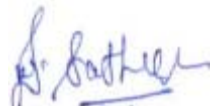
Applicant	Cambium Networks
Manufacturer	Cambium Networks
Product Name	ePMP2000
Product Model	C050900P031A
Product Serial Number	000456D18458
Date of Test	22 nd Jan 2016 to 15 th Feb 2016
Venue of Test	Tarang Lab

Applicable Standard	Description	Results
47 CFR Part 15 Feb 2016	§15.407 b (3)	PASS
	§15.407 b (6) - Transmission Unwanted emission (Radiated)	
	§15.407 b (6)- Conducted emission	PASS

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

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

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

Prepared by	Reviewed by	Approved by
		
Nishanth P C	Narendra Babu M	Satheesh I
EMI/EMC Test Engineer	Lead EMI/EMC Test Engineer	Technical Manager

2 GENERAL INFORMATION

2.1 ACCREDITATION DETAILS

Following are the accreditation and listing details for Tarang.

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

2.2 MEASUREMENT UNCERTAINTY

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

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

3 INSTRUMENTATION AND CALIBRATION

3.1 TEST AND MEASURING EQUIPMENT

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

3.2 EQUIPMENTS USED

Name of Equipment	Manufacturer	Model No	Serial No	Calibration Due
EMI Test Receiver	R&S	ESU8	100324	10 th Mar 2016
EMI Test Receiver	R&S	ESIB40	100306	21 st Jan 2017
Active Loop Antenna	ETS-Lindgren	6507	00104711	5 th Aug 2016
Bi conical Antenna	SME	VHBB-9124	9124-374	6 th Apr 2016
Log- periodic Antenna	SME	VUSLP-9111	9111-308	6 th Apr 2016
Preamplifier	Rohde & Schwarz	SCU-01	100626	30 th Oct 2016
Double Ridge Horn Antenna	SME	BBHA 9120D	9120D-687	11 th Apr 2016
Preamplifier	TDK	PA-02	100008	14 th Apr 2016
Broad Band Horn Antenna	Schwarz beck	BBHA9170	9170-337	29 th Oct 2016
Broad Band Horn Antenna	Schwarz beck	BBHA9170	9170-344	29 th Oct 2016
Pre-Amplifier	TDK	PA-02-3	2007332	28 th Oct 2016
Pre-Amplifier	TDK	PA-02-2	2007331	28 th Oct 2016
Tunable Band reject / Notch filter	Wainwright Instruments GmbH	WTRCJV8- 5150-5850-40- 160-50SSK	01	NA

Table 1 List of Equipment used for Radiated Emissions Test

Name of Equipment	Manufacturer	Model No	Serial No	Calibration Due
EMI Test Receiver	R&S	ESIB40	100306	21 st Jan 2017
Pulse Limiter	Impulse Bergrelzer	ESH3-Z2	101260	26 th Mar 2016
LISN	Schwarzback	NSLK 8128	243	11 th Sep 2016

Table 2 List of Equipment used for Conducted Emissions Test

4 PRODUCT INFORMATION

4.1 DESCRIPTION OF THE PRODUCT

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

40 MHz channel for 17 dBi and 6 dBi antenna	5 MHz channel for 17 dBi and 6 dBi antenna
Low – 5750 MHz	Low – 5735 MHz
Mid - 5775 MHz	Mid – 5775 MHz
High - 5825 MHz	High – 5840 MHz

Product	ePMP2000
Model Number	C050900P031A
Serial Number	000456D18458
Product Category / Type of Equipment	ITE
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 photos
Cable - 1	Power cable	0.8 meter	Power	Unshielded	Figure 9 of EMC Test Report_DBN 1604TEL539-C.pdf
Cable - 2	Ethernet Cable	1.5 meter	Interconnection	Unshielded	Figure 10 of EMC Test Report_DBN 1604TEL539-C.pdf
Cable - 3	Ethernet Cable	3.05 meter	Interconnection	Unshielded	Figure 11 of EMC Test Report_DBN 1604TEL539-C.pdf

Table 4: List of cables

4.2 SOFTWARE AND FIRMWARE DETAILS

Atheros Radio Test 2 (ART2-GUI) Version 2.3

5 TEST DETAILS

5.1 PRODUCT AND TEST SETUP

5.1.1 PRODUCT CONFIGURATION

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

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

- 40MHz modulation bandwidth for low, mid & high channels
 - Rate - HT40,
 - 54 Mbps OFDM, MCS15 / 270 Mbps
 - Tx Power is 17.5 dBm for 17 dBi antenna configuration-Low channel
 - Tx Power is 18 dBm for 17 dBi antenna configuration-Mid channel
 - Tx Power is 18 dBm for 17 dBi antenna configuration-High channel
 - Tx Power is 24 dBm for 6 dBi antenna configuration-Low channel
 - Tx Power is 29 dBm for 6 dBi antenna configuration-Mid channel
 - Tx Power is 27 dBm for 6 dBi antenna configuration-High channel
- 5 MHz modulation bandwidth for low, mid & high channels
 - Rate – Legacy,
 - 54 Mbps OFDM, MCS15 / 130 Mbps
 - Tx Power is 18 dBm for 17 dBi antenna configuration-Low channel
 - Tx Power is 18 dBm for 17 dBi antenna configuration-Mid channel
 - Tx Power is 17 dBm for 17 dBi antenna configuration-High channel
 - Tx Power is 28 dBm for 6 dBi antenna configuration-Low channel
 - Tx Power is 29 dBm for 6 dBi antenna configuration-Mid channel
 - Tx Power is 28 dBm for 6 dBi antenna configuration-High channel

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

5.1.2 TEST SETUP DETAILS

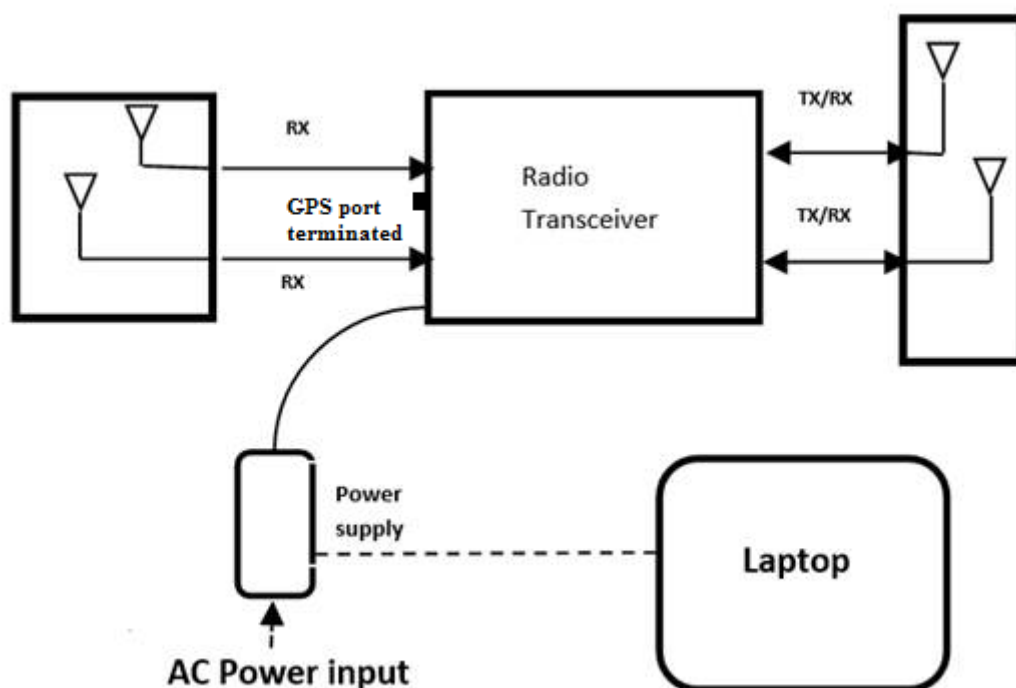


Figure 1 Block diagram of the EUT test setup

5.1.3 ACCESSORIES

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

5.2 APPLICABLE TESTS

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

5.3 TEST RESULT

5.3.1 TRANSMITTER UNWANTED EMISSION (RADIATED)

5.3.1.1 TEST SPECIFICATION

Test Standard	47 CFR, Part 15 Feb 2016			
Test Procedure	ANSI C63.10-2013			
Class	Class B			
Frequency Range	9 kHz - 150 kHz	150 kHz - 30 MHz	30 MHz - 1 GHz	1 GHz - 40 GHz
Resolution Bandwidth	200 Hz	9 kHz	120 kHz	1 MHz
Video Bandwidth	3 kHz	30 kHz	300 kHz	3 MHz
Step size	400 Hz	4 kHz	40 kHz	400 kHz
Pre Scan Measurement Time	50 ms	50 ms	20 ms	5 ms
Final Measurement Time	1 second	1 second	1 second	1 second
Attenuation	5 dB	5 dB	10 dB	5 dB
Test Distance	3 meter	3 meter	3 meter	3 meter
Polarization	Parallel and Perpendicular	Parallel and Perpendicular	H & V	H & V
Detector	Quasi Peak, Peak & Average			
Input Voltage	120 V AC			
Input Frequency	60 Hz			
Temperature	22.1°C to 24°C			
Humidity	50 % to 58.2 %			
Tested By	Suresh G.N / Nishanth / Raviteja			
Test Date	22 nd Jan 2016 to 10 th Feb 2016			

5.3.1.2 LIMITS

Standard	Reference section	Frequency range	Limit (dB μ V/m)
47 CFR, Part 15 Feb 2016	§15.407 b (3)	Within 5715-5725 MHz & 5850-5860 MHz	89.99
	§15.407 b (6)	Outside 5715-5860 MHz	79.99

Table 5 Unwanted emission Limit

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

Table 6 General Field strength limit below 30 MHz

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

Standard	Reference section	Frequency range	Limit (dB μ V/m)
47 CFR, Part 15 Feb 2016	§15.209	30 MHz to 88 MHz	39.54
		88 MHz to 216 MHz	43.52
		216 MHz to 960 MHz	46.02
		960 MHz to 40 GHz	53.98

Table 7 General Field strength limit above 30MHz

Note: Above table specifies limit with Average detector above 1GHz. 73.98dB μ V/m is considered as the limit when Peak detector is employed for the measurements above 1GHz.

5.3.1.3 TEST SETUP

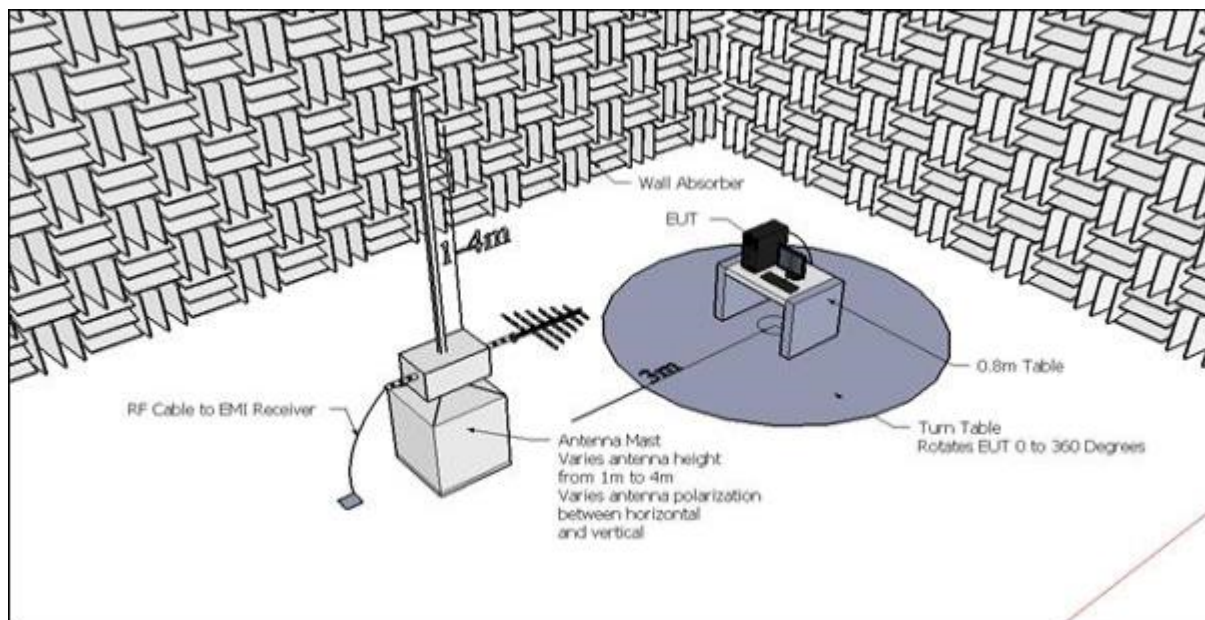


Figure 2 Sample test setup for Radiated Emission test for Frequency Range 9 kHz to 40GHz

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.

For Radiated Emission measurement from 1 GHz to 40 GHz the EUT was placed 3meter away from the receiving antenna. The receiving antenna's height was fixed to 1 meter to 2 meter for this measurement. The EUT was powered by 120 V AC / 60 Hz supply and configured for worst case operation.

The radiated emission measurement test system was configured through software as per standard. The EUT was powered by 120 VAC / 60 Hz supply and made operational. 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, Peak, Average measurement were carried out for the listed frequencies and compared with the limit specified in standard.

5.3.1.5 MEASUREMENT GRAPHS / DATA

5.3.1.5.1 40 MHz MODULATION BANDWIDTH FOR 17 dBi POWER SETTINGS

LOW CHANNEL_5750 MHz

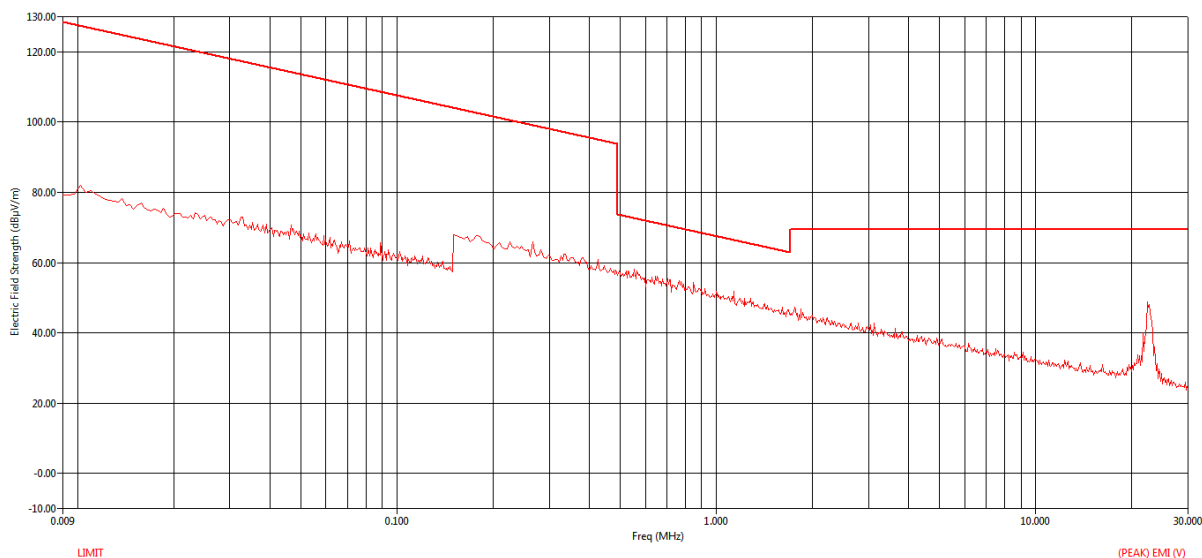


Figure 3 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel

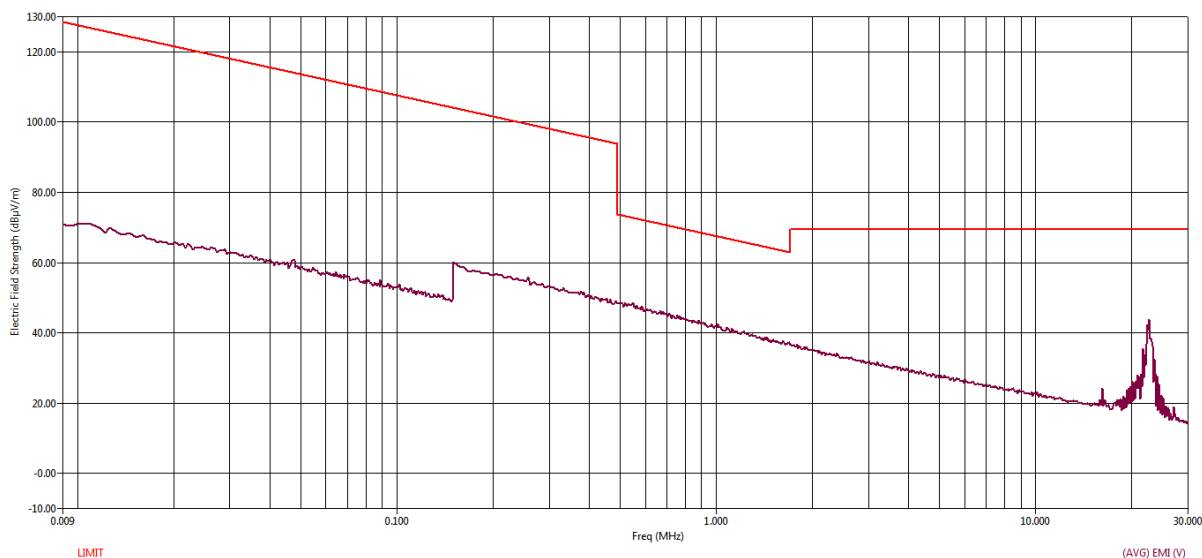


Figure 4 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbi Agl (deg)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
21.66	21.66	49.00	20.01	1.01	16.36	37.37	69.54	-32.17
22.46	22.46	82.20	24.73	1.03	16.29	42.05	69.54	-27.49

Table 8: Quasi peak Table from 9 kHz to 30 MHz

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)
21.66	21.66	49.00	17.35	1.01	16.36	34.71	69.54	-34.83
22.46	22.46	82.20	21.10	1.03	16.29	38.42	69.54	-31.12

Table 9 Average Table from 9 kHz to 30 MHz

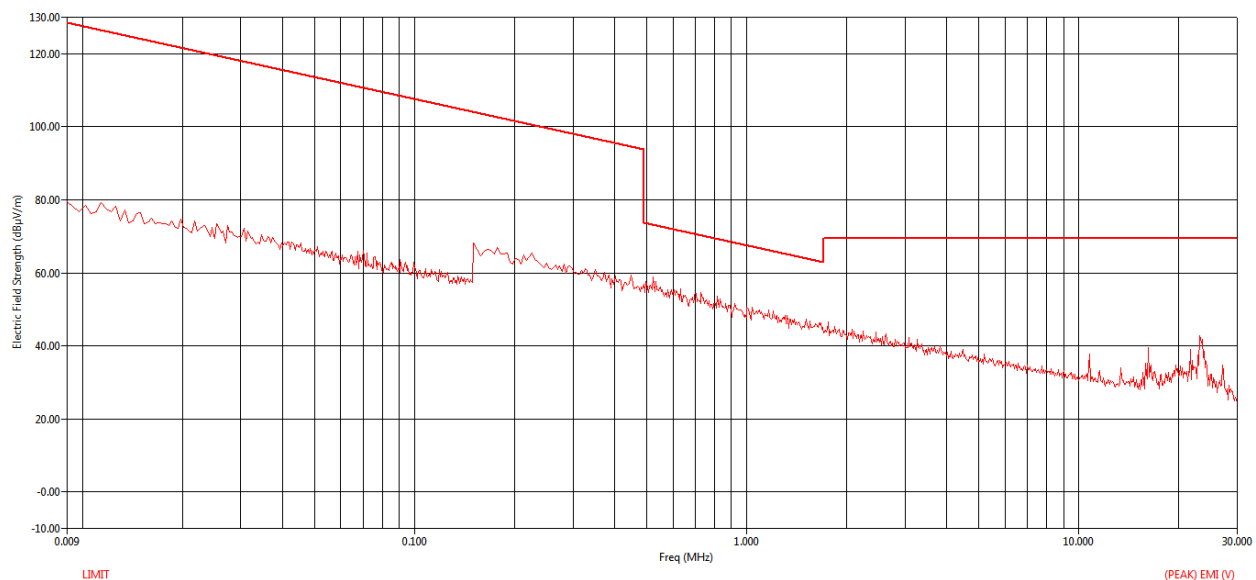


Figure 5 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular

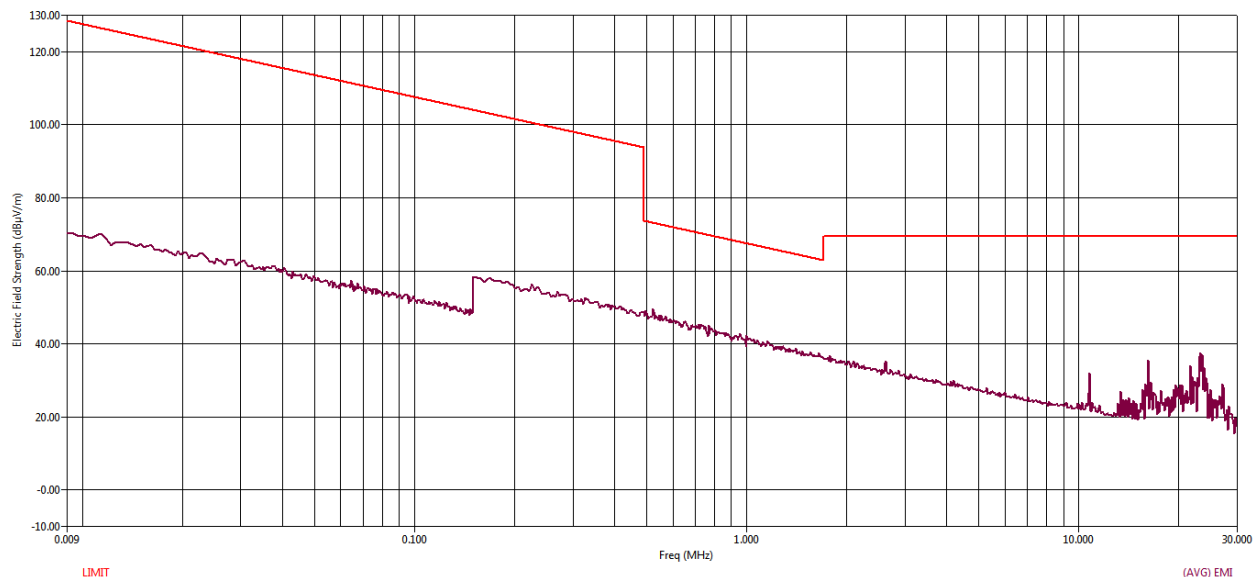


Figure 6 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular

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)
23.13	23.13	223.70	23.18	1.04	16.24	40.47	69.54	-29.07
23.83	23.82	36.60	14.61	1.06	16.19	31.86	69.54	-37.68

Table 10 Quasi peak Table from 9 kHz to 30 MHz

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)
23.13	23.13	223.70	19.09	1.04	16.24	36.38	69.54	-33.16
23.83	23.82	36.60	11.23	1.06	16.19	28.48	69.54	-41.06

Table 11 Average Table from 9 kHz to 30 MHz

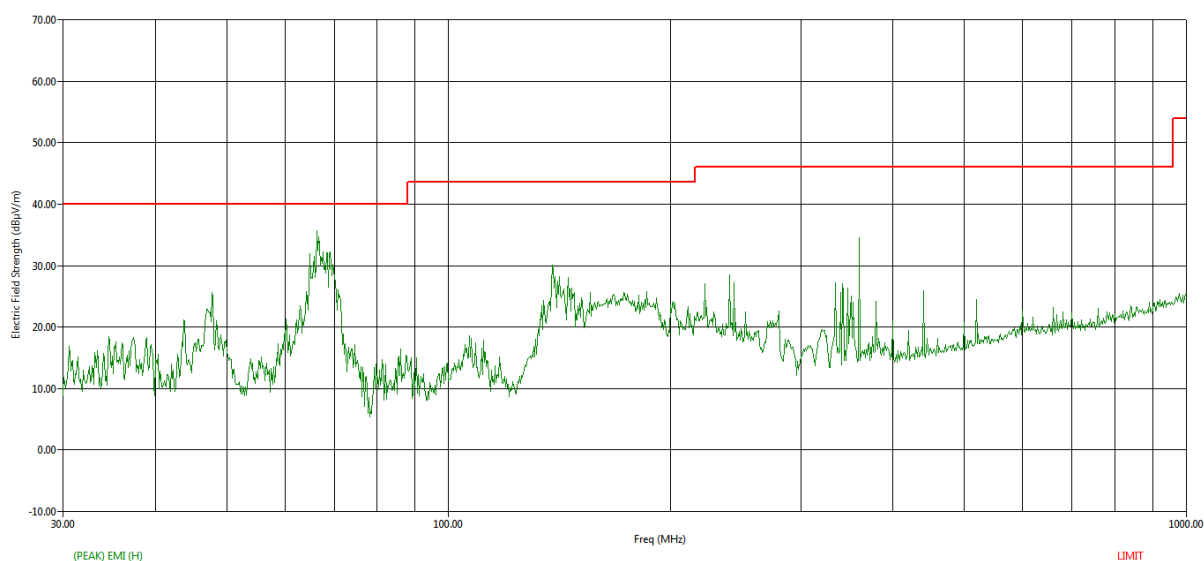


Figure 7 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal Polarization

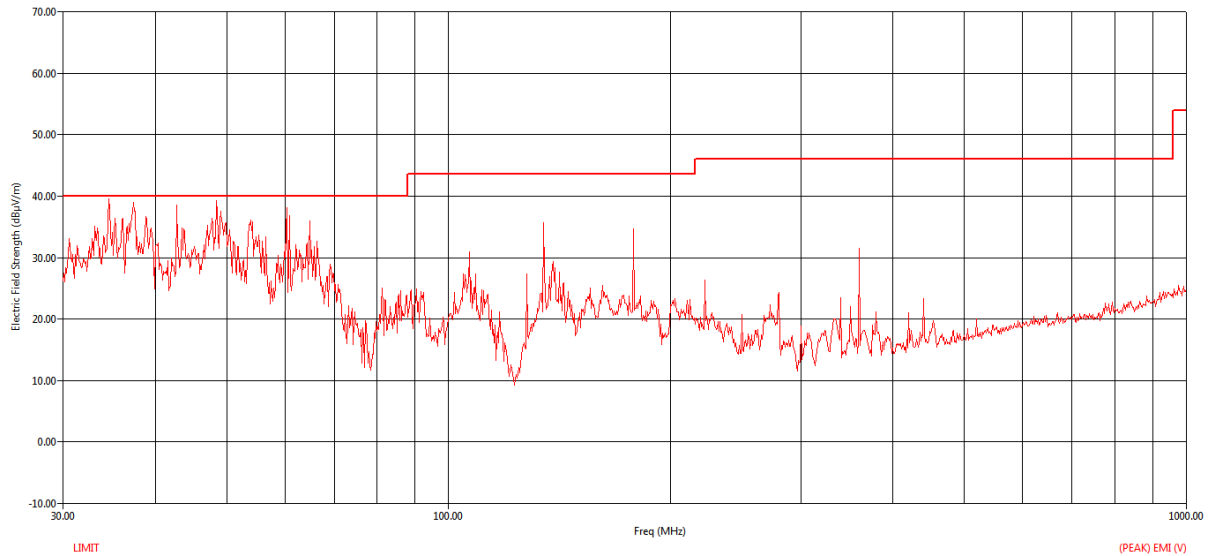


Figure 8 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
34.64	34.63	V	281.10	100.00	64.67	1.28	12.70	43.81	34.84	40.00	-5.16
37.40	37.36	V	37.30	100.00	66.57	1.33	12.45	43.81	36.54	40.00	-3.46
42.84	42.95	V	334.00	125.00	60.74	1.44	11.08	43.82	29.44	40.00	-10.56
48.44	48.43	V	304.30	100.00	65.59	1.53	10.16	43.83	33.45	40.00	-6.55
60.32	60.23	V	66.80	100.00	68.16	1.69	9.63	43.86	35.62	40.00	-4.38
64.80	64.79	V	63.00	125.00	67.60	1.74	9.51	43.87	34.98	40.00	-5.02
66.36	66.28	H	19.70	186.00	64.38	1.76	9.47	43.87	31.73	40.00	-8.27
134.64	134.68	V	313.50	106.00	49.66	2.46	11.86	43.94	20.03	43.52	-23.49
178.04	178.00	V	39.80	117.00	49.89	2.83	12.73	43.95	21.51	43.52	-22.01
360.00	360.00	H	311.10	126.00	58.65	4.02	15.58	43.71	34.54	46.02	-11.48

Table 12 QP table from 30 MHz to 1 GHz

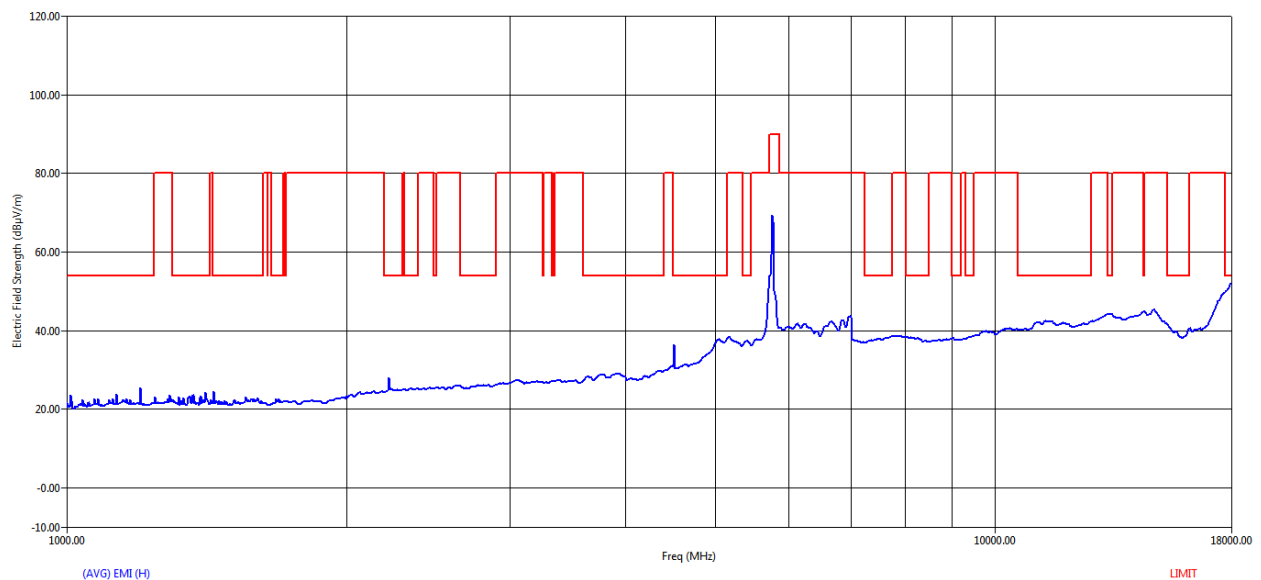


Figure 9 RE Graph from 1 GHz to 18 GHz using Average detector – Horizontal Polarization

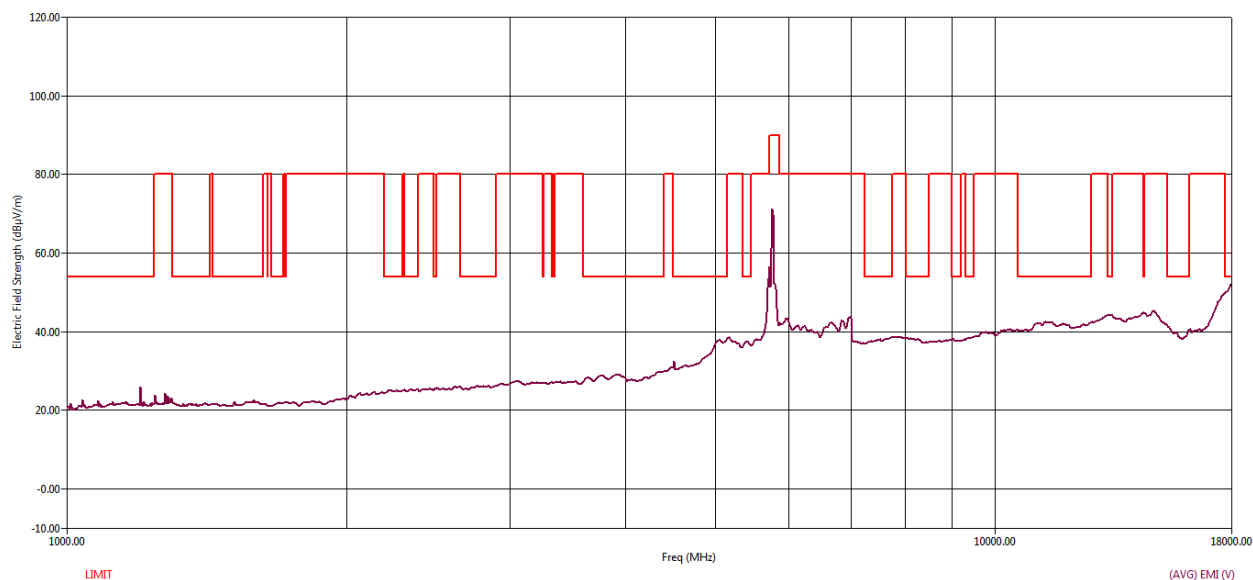


Figure 10 RE Graph from 1 GHz to 18 GHz using Average detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
2222.90	2222.90	V	268.40	100.00	28.45	1.21	27.04	31.80	24.90	54.00	-29.10
4511.50	4511.50	V	243.90	200.00	26.31	2.23	30.95	29.22	30.27	54.00	-23.73
5152.50	5152.50	H	131.40	176.00	30.71	1.92	32.93	28.32	37.24	80.00	-42.76
5670.00	5670.00	V	5.00	100.00	34.21	1.95	33.46	28.37	41.25	80.00	-38.75
6968.00	6968.00	V	170.90	100.00	34.14	1.82	35.83	28.30	43.49	80.00	-36.51

Table 13 Average Table from 1 GHz to 18 GHz

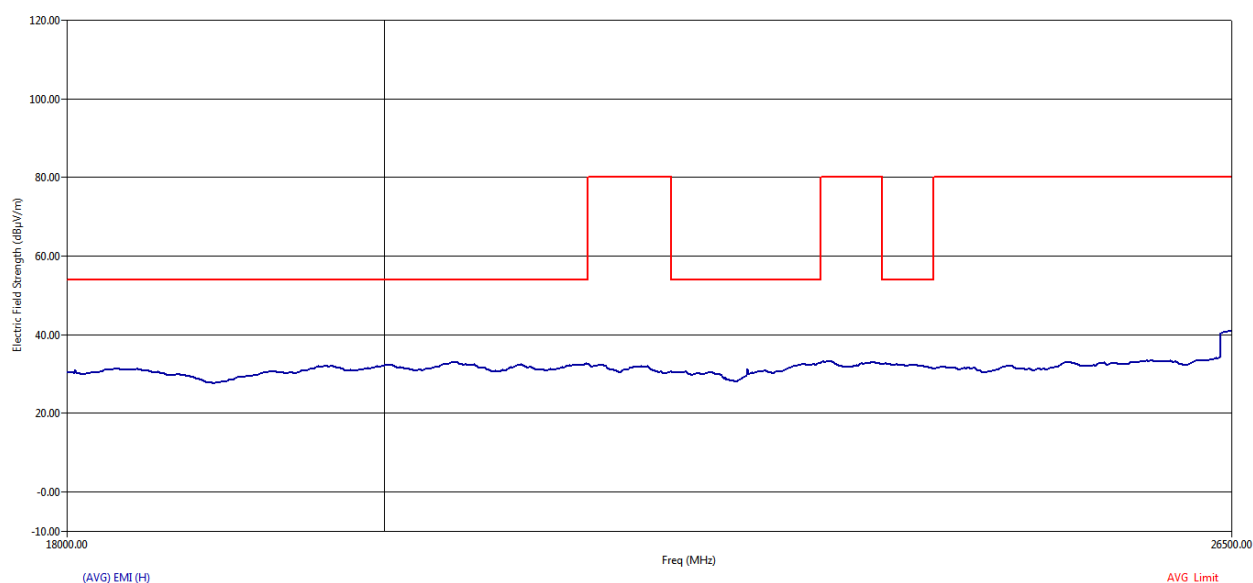


Figure 11 RE Graph from 18 GHz to 26.5 GHz using Average detector – Horizontal Polarization

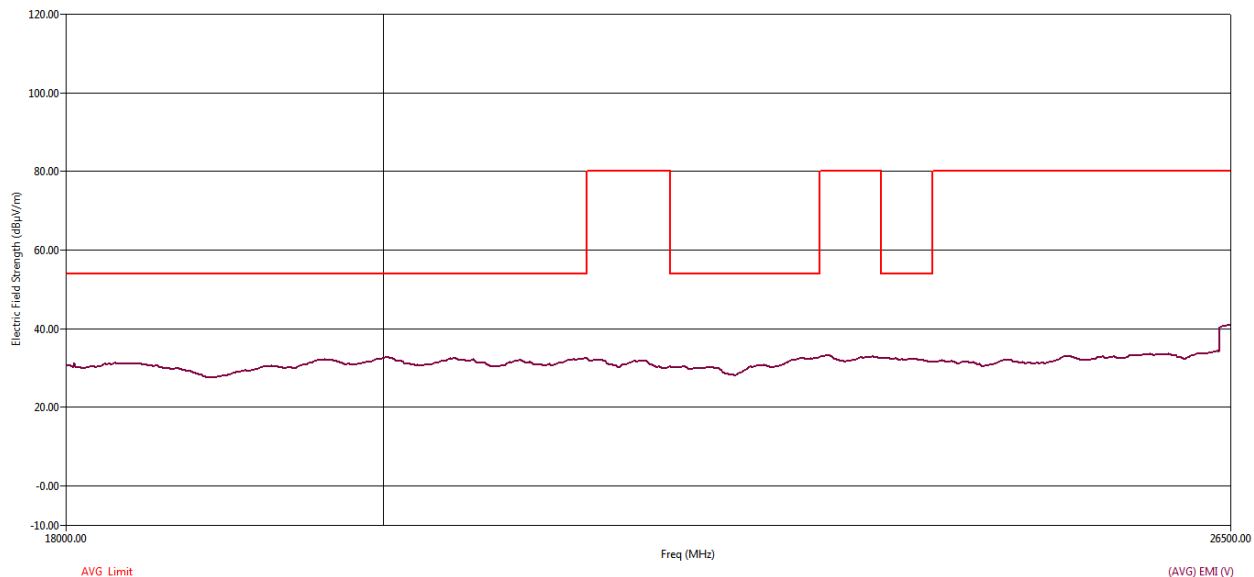


Figure 12 RE Graph from 18 GHz to 26.5 GHz using Average detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
20464.80	21217.36	V	315.80	100.00	31.50	7.56	37.46	45.59	30.93	54.00	-23.07
22564.90	21802.94	V	238.50	150.00	33.17	7.26	37.32	46.02	31.73	54.00	-22.27
26420.50	25969.54	V	75.60	150.00	31.70	9.16	37.69	45.33	33.22	80.00	-46.78

Table 14 Average Table from 18 GHz to 26.5 GHz

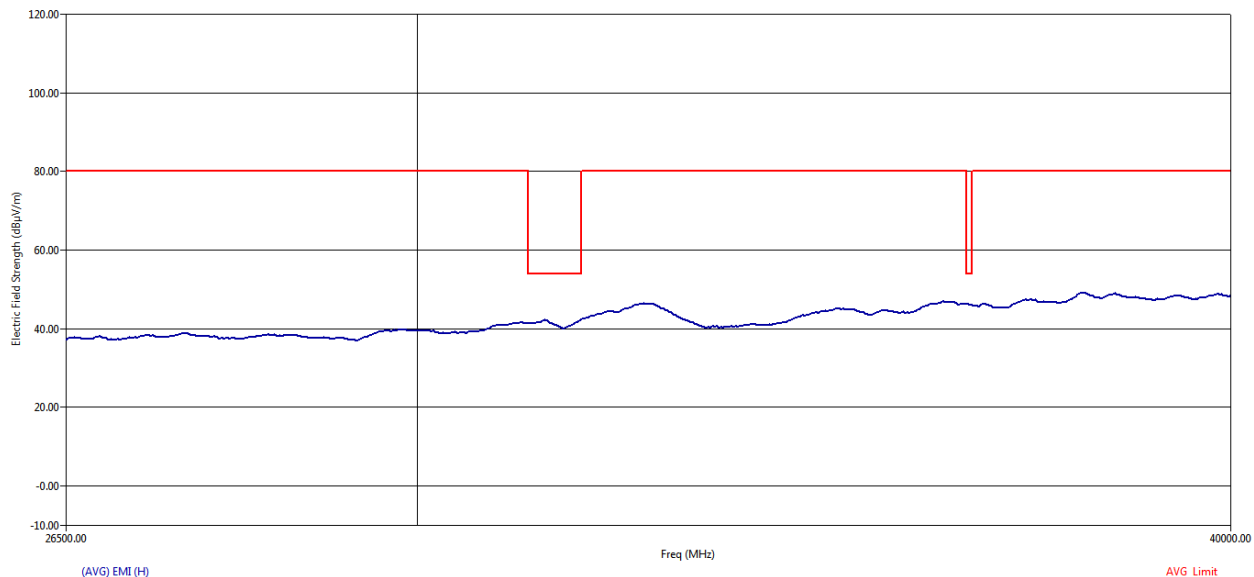


Figure 13 RE Graph from 26.5 GHz to 40 GHz using Average detector – Horizontal Polarization

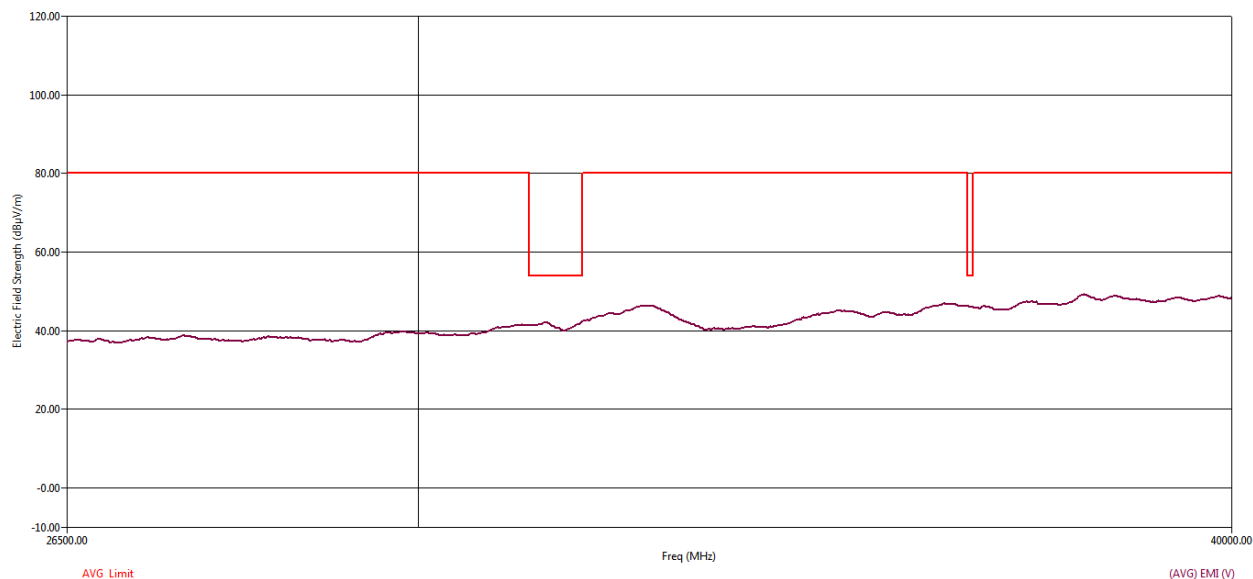


Figure 14 RE Graph from 26.5 GHz to 40 GHz using Average detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
32499.10	33479.28	V	221.30	200.00	41.61	10.69	39.39	51.26	40.42	80.00	-39.58
37975.00	37910.31	H	22.10	134.00	42.26	12.32	40.68	46.54	48.72	80.00	-31.28

Table 15 Average Table from 26.5 GHz to 40 GHz

MID CHANNEL – 5775 MHz

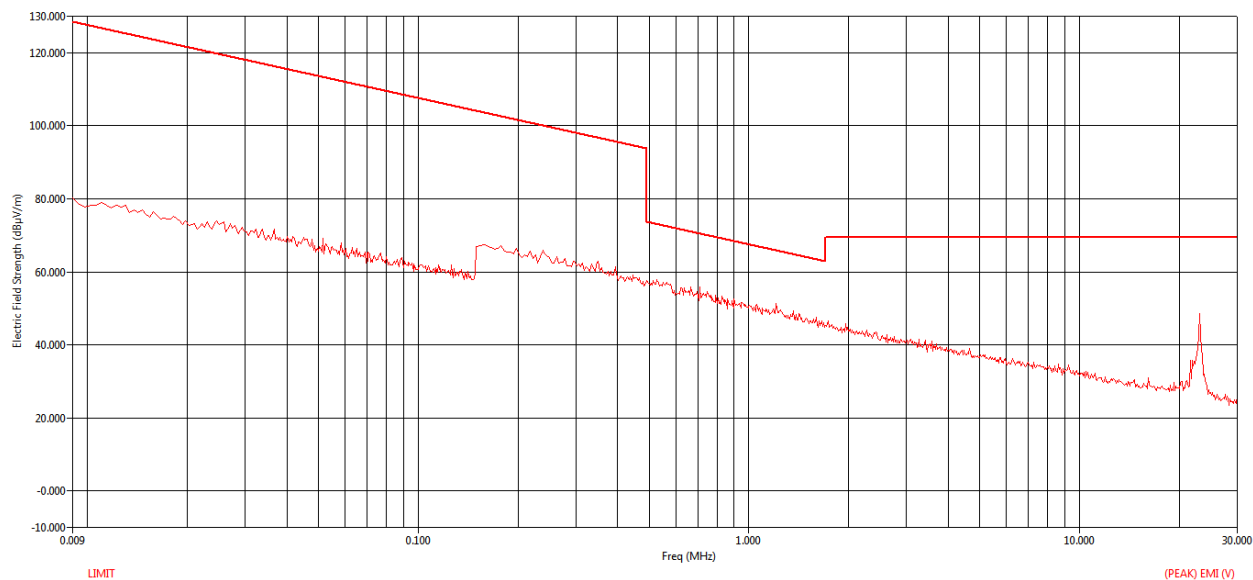


Figure 15 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel

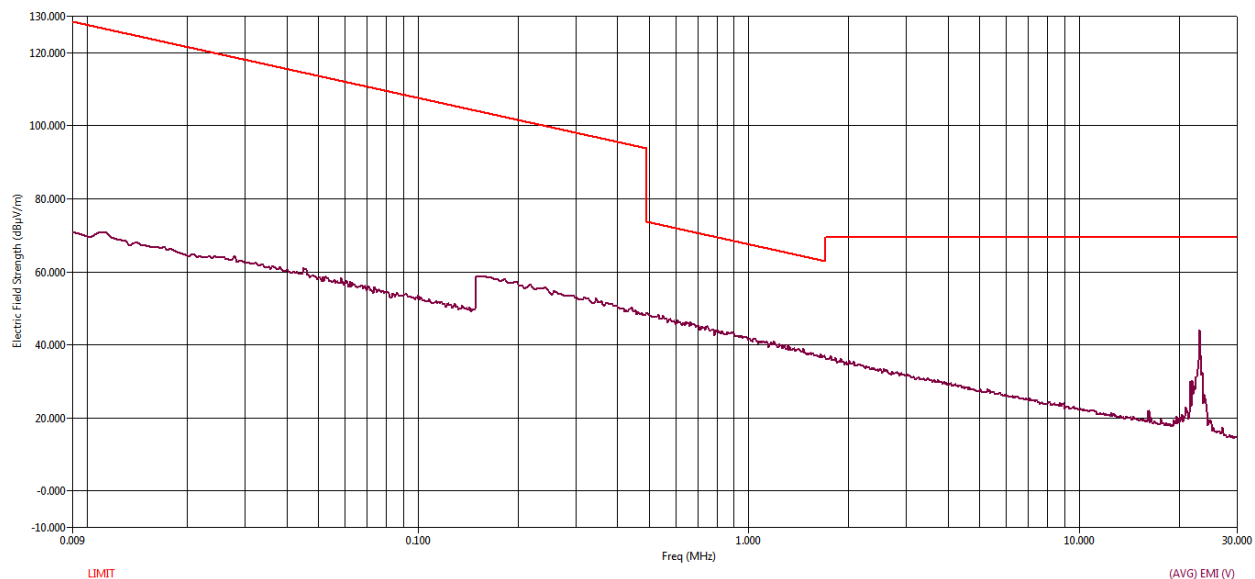


Figure 16 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbl Agl (deg)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
23.07	23.07	244.10	25.28	1.04	16.24	42.57	69.54	-26.97
23.13	23.13	191.00	29.76	1.04	16.24	47.04	69.54	-22.50

Table 16 Quasi peak Table from 9 kHz to 30 MHz

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbl Agl (deg)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
23.07	23.07	244.10	25.28	1.04	16.24	36.92	69.54	-32.62
23.13	23.13	191.00	29.76	1.04	16.24	44.31	69.54	-25.23

Table 17 Average Table from 9 kHz to 30 MHz

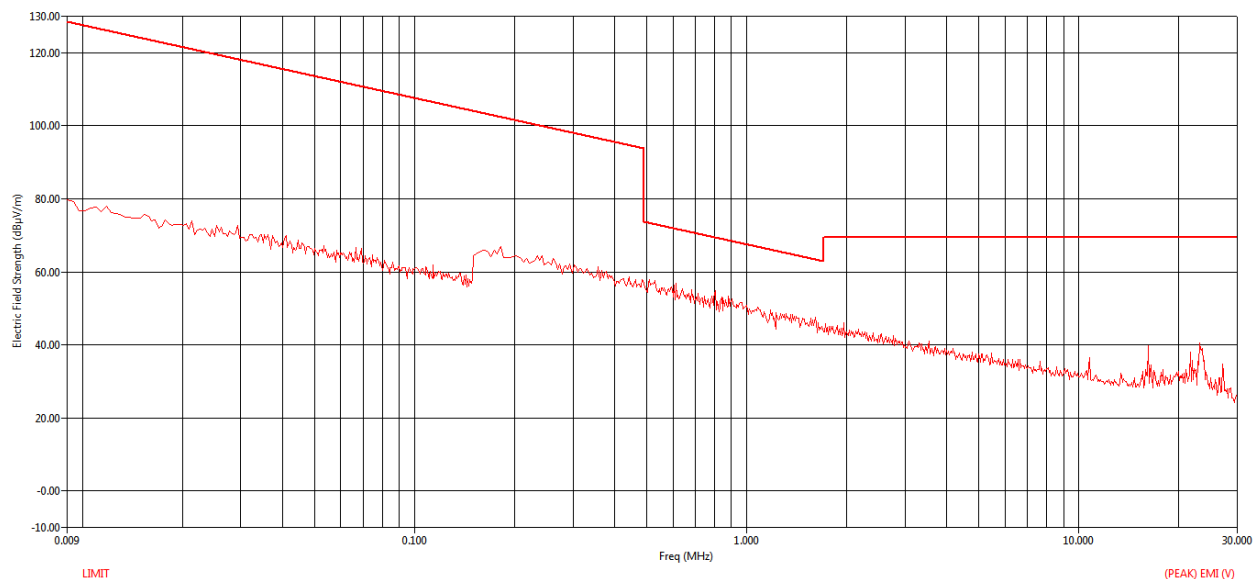


Figure 17 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular

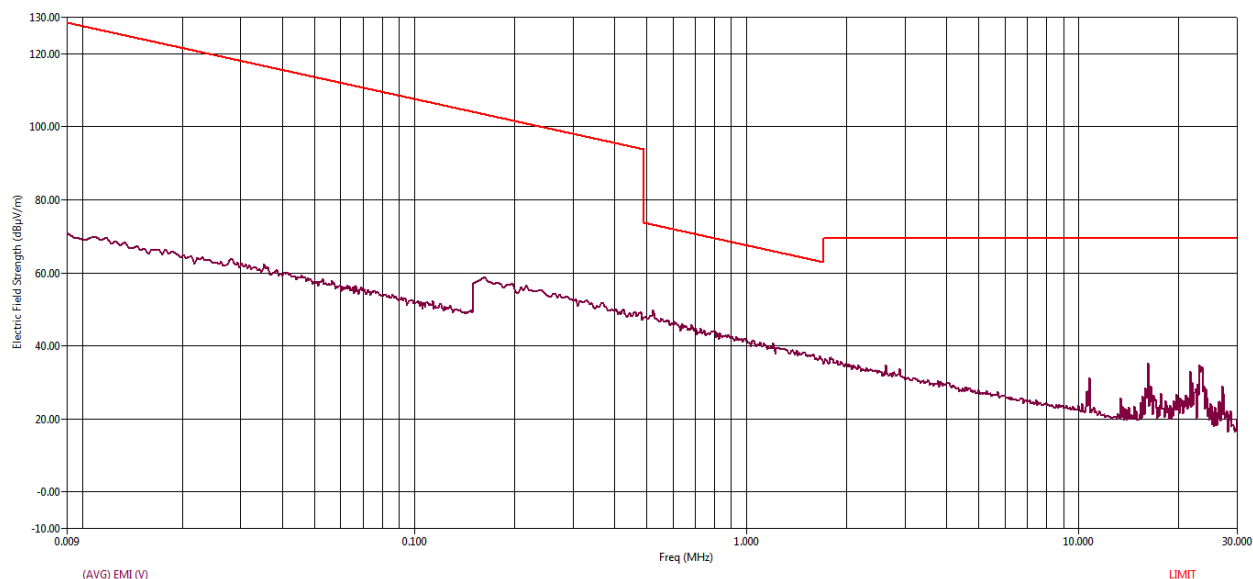


Figure 18 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbt Agl (deg)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
16.23	16.23	323.30	20.18	0.87	16.79	37.84	69.54	-31.70
23.13	23.13	179.90	21.78	1.04	16.24	39.06	69.54	-30.48

Table 18 Quasi peak Table from 9 kHz to 30 MHz

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)
16.23	16.23	323.30	17.41	0.87	16.79	35.08	69.54	-34.46
23.13	23.13	179.90	18.41	1.04	16.24	35.70	69.54	-33.84

Table 19 Average Table from 9 kHz to 30 MHz

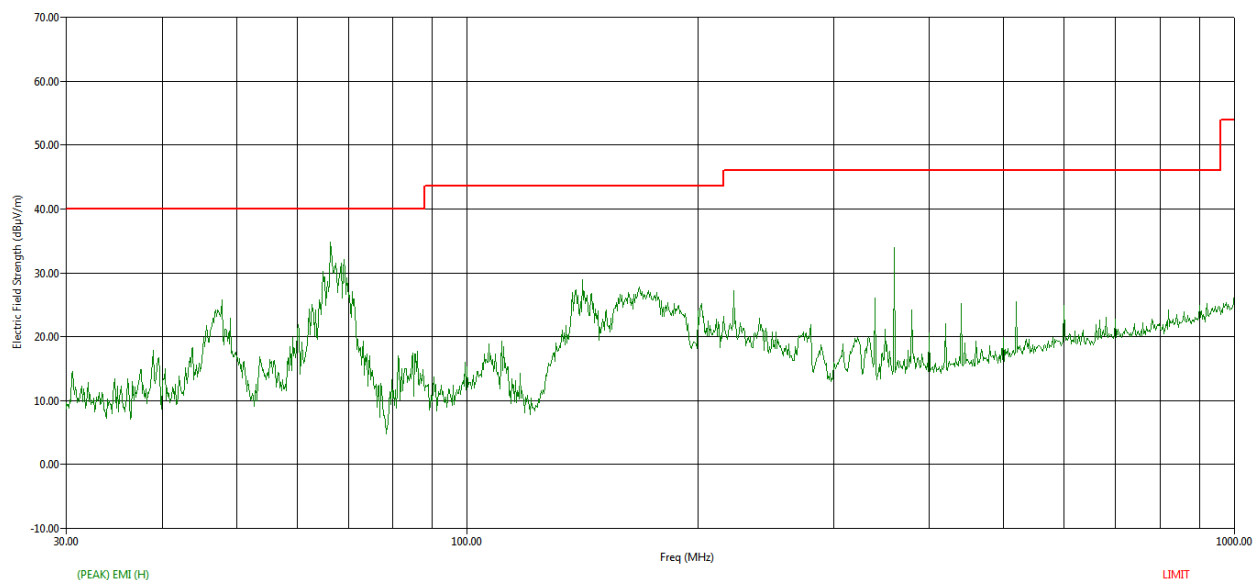


Figure 19 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal Polarization

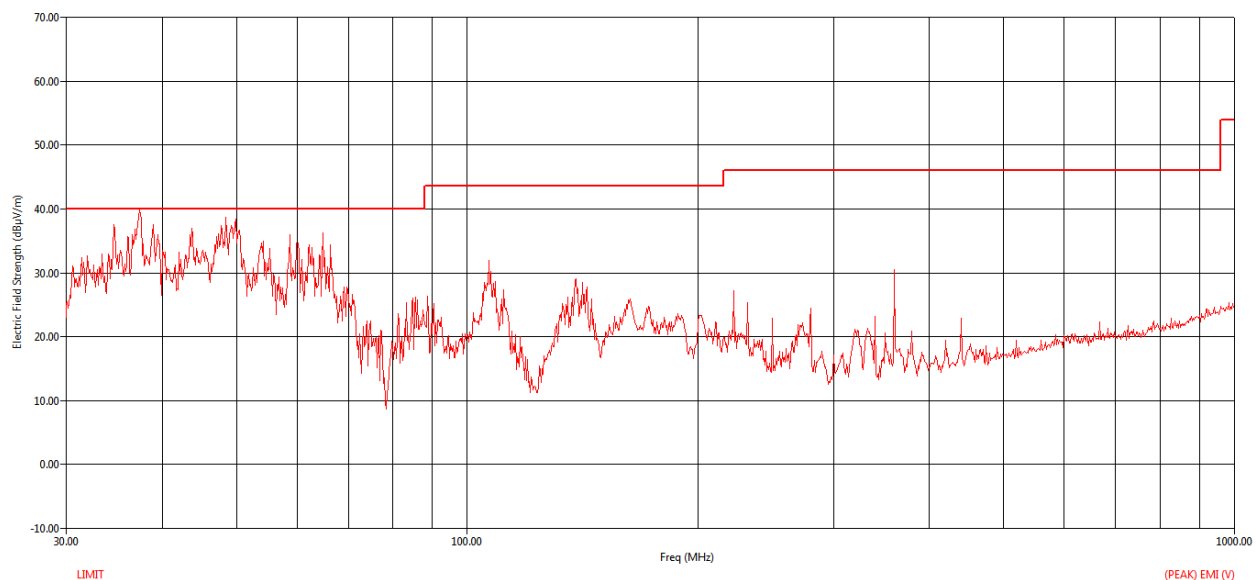


Figure 20 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
34.60	34.63	V	261.30	100.00	63.41	1.28	12.70	43.81	33.58	40.00	-6.42
37.40	37.38	V	36.50	100.00	65.08	1.33	12.44	43.81	35.05	40.00	-4.95
43.80	43.81	V	126.70	100.00	64.99	1.45	10.77	43.82	33.39	40.00	-6.61
48.44	48.45	V	322.60	100.00	66.40	1.53	10.16	43.83	34.26	40.00	-5.74
49.88	49.85	V	344.10	103.00	64.91	1.55	10.09	43.83	32.71	40.00	-7.29
64.80	64.78	V	14.50	117.00	65.46	1.74	9.51	43.87	32.84	40.00	-7.16
66.32	66.29	H	22.90	143.00	62.03	1.76	9.47	43.87	29.38	40.00	-10.62
160.00	159.94	V	353.60	178.00	51.12	2.69	11.73	43.95	21.59	43.52	-21.93
360.00	360.00	H	315.60	134.00	58.47	4.02	15.58	43.71	34.36	46.02	-11.66
360.00	360.00	V	246.20	179.00	50.93	4.02	15.58	43.71	26.81	46.02	-19.21

Table 20 Quasipeak Table from 30 MHz to 1 GHz

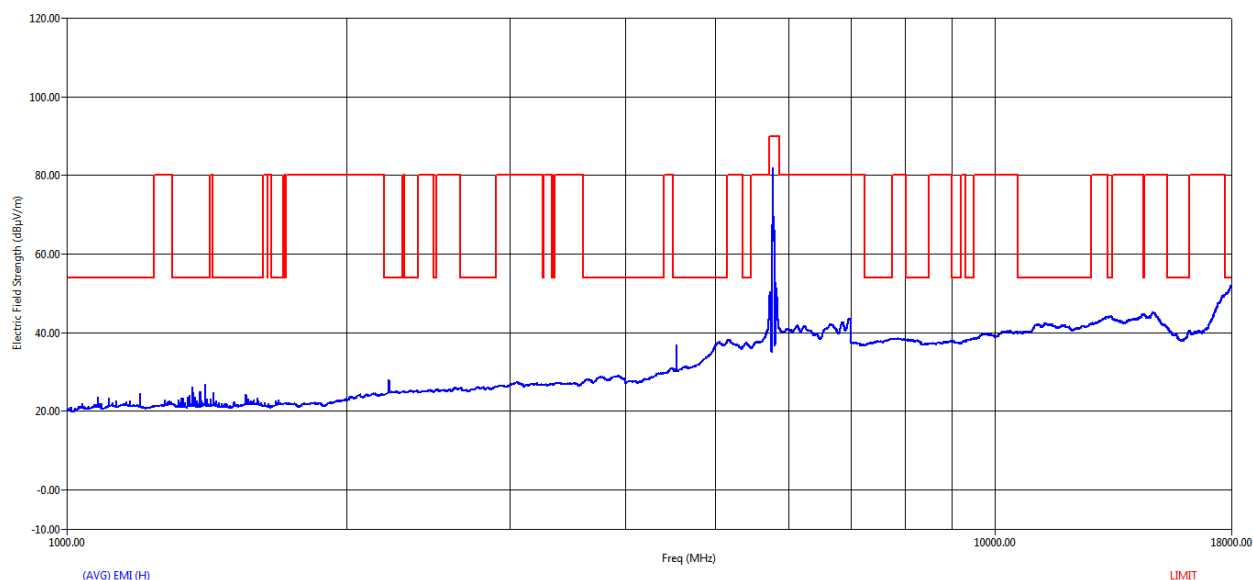


Figure 21 RE Graph from 1 GHz to 18 GHz using Average detector – Horizontal Polarization

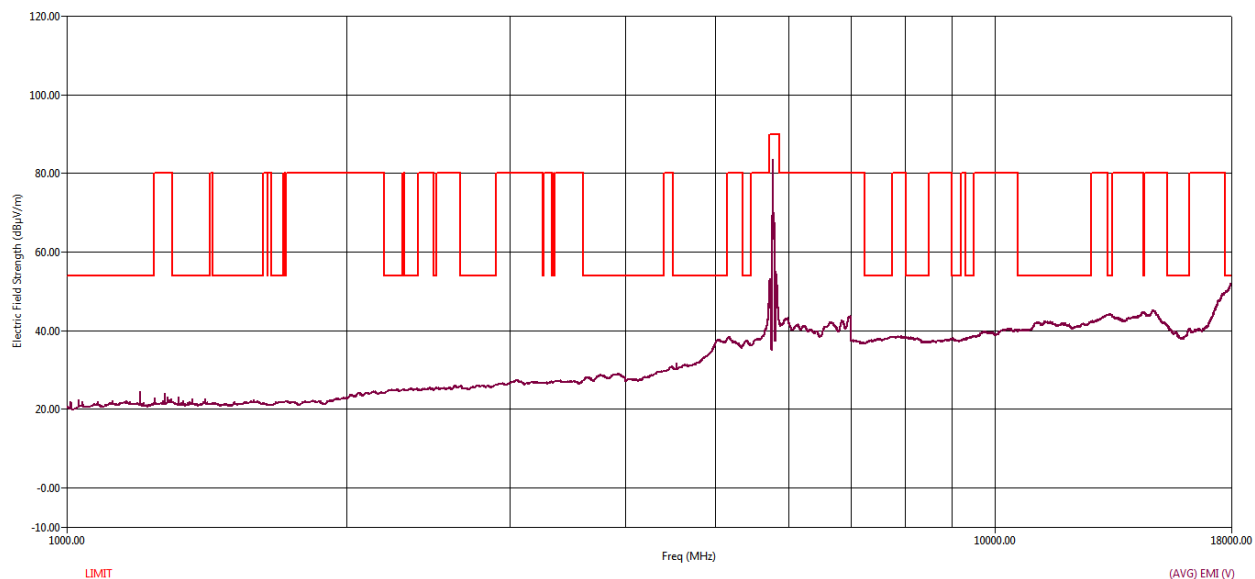


Figure 22 RE Graph from 1 GHz to 18 GHz using Average detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
2225.80	2225.80	H	301.00	100.00	28.90	1.21	27.05	31.80	25.36	54.00	-28.64
4537.80	4537.80	H	118.90	186.00	39.49	2.21	31.06	29.17	43.59	54.00	-10.41
5168.30	5168.30	H	185.40	114.00	30.99	1.90	32.92	28.32	37.50	80.00	-42.50
5168.30	5168.30	V	180.00	133.00	31.00	1.90	32.92	28.32	37.51	80.00	-42.49

Table 21 Average Table from 1 GHz to 18 GHz

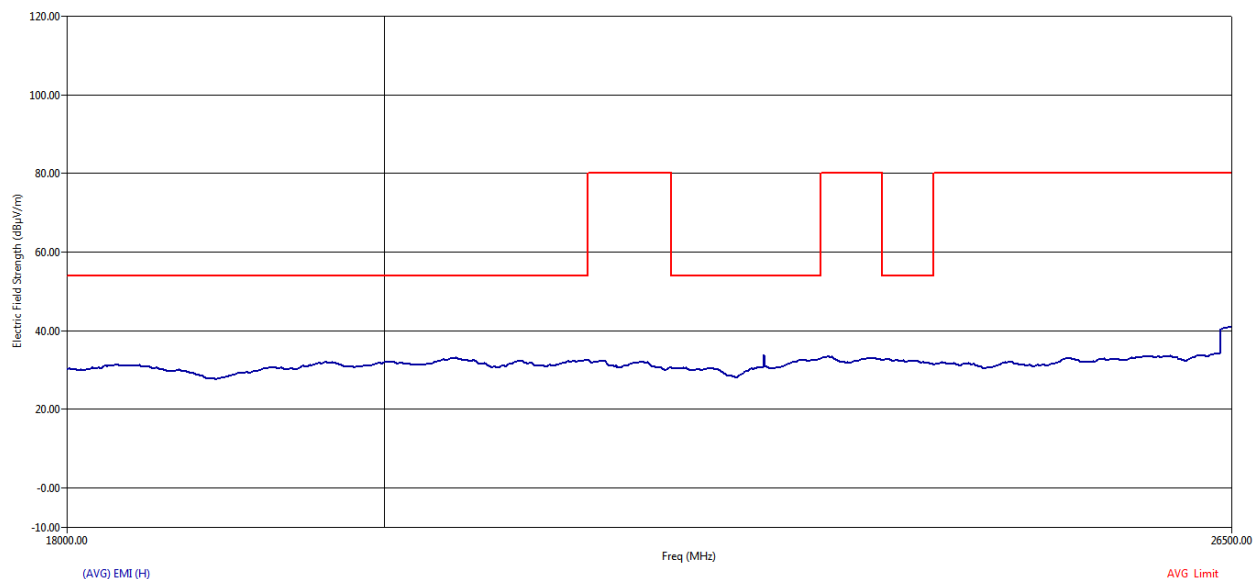


Figure 23 RE Graph from 18 GHz to 26.5 GHz using Average detector – Horizontal Polarization

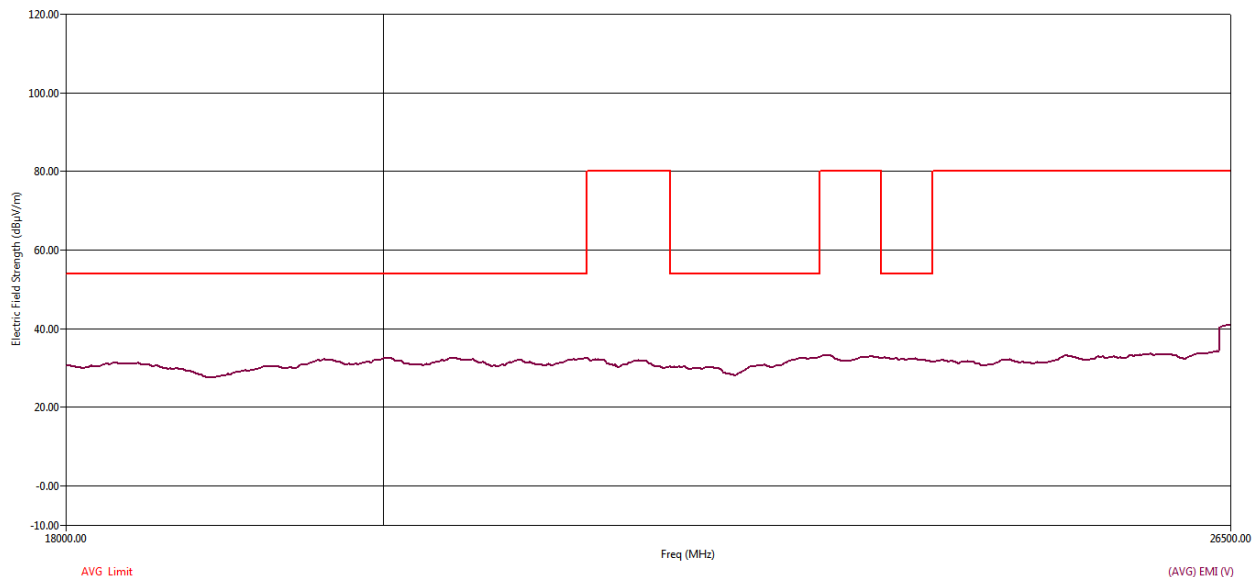


Figure 24 RE Graph from 18 GHz to 26.5 GHz using Average detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
19602.20	18739.94	V	344.70	150.00	34.08	6.85	36.39	48.23	29.10	54.00	-24.90
22687.70	23426.53	V	171.00	100.00	33.32	8.47	38.03	47.32	32.50	54.00	-21.50
26403.30	25971.87	V	234.70	100.00	31.78	9.16	37.69	45.33	33.30	80.00	-46.70

Table 22 Average Table from 18 GHz to 26.5 GHz

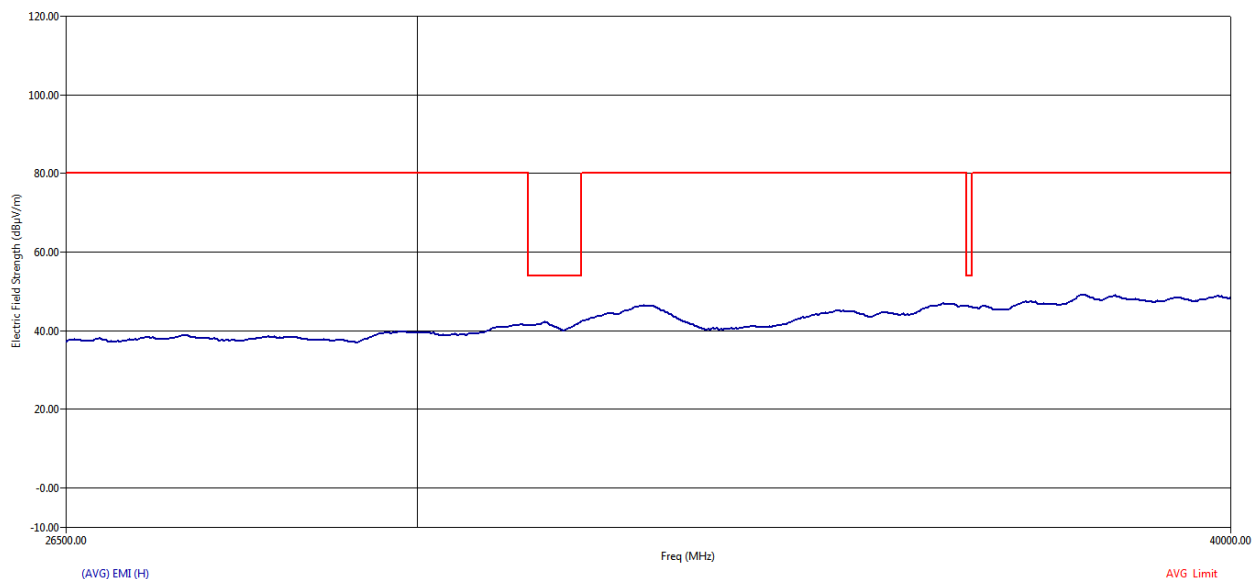


Figure 25 RE Graph from 26.5 GHz to 40 GHz using Average detector – Horizontal Polarization

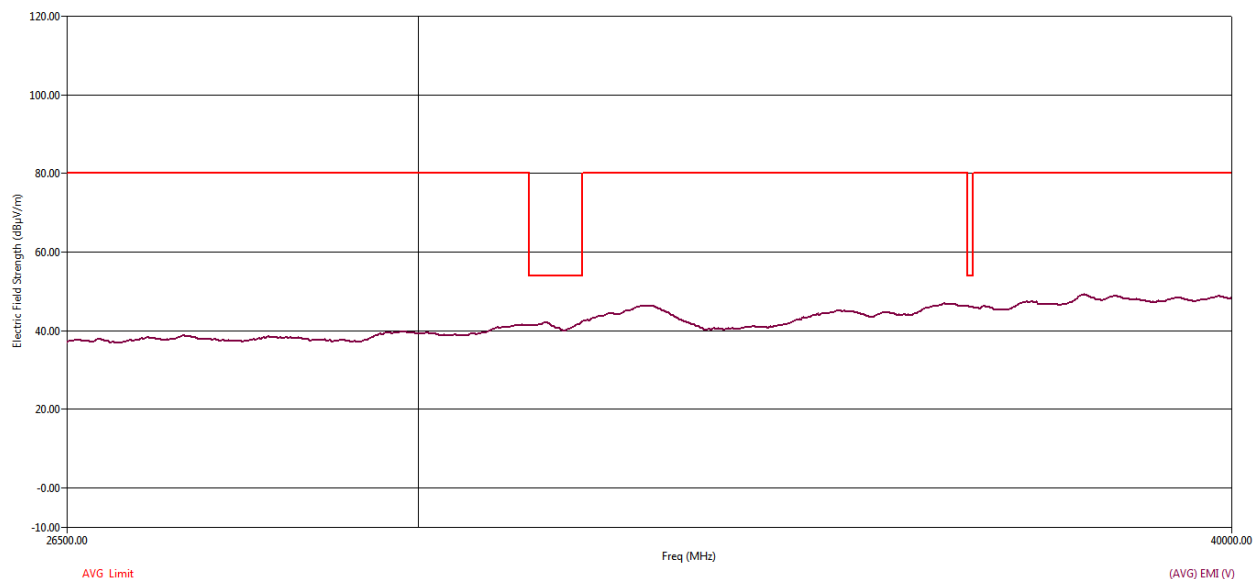


Figure 26 RE Graph from 26.5 GHz to 40 GHz using Average detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
32505.10	33290.04	V	345.10	124.00	41.15	10.46	39.27	50.60	40.29	80.00	-39.71
37975.00	39744.38	H	160.50	100.00	41.55	12.46	41.62	47.29	48.34	80.00	-31.66

Table 23 Average Table from 26.5 GHz to 40 GHz

HIGH CHANNEL – 5825 MHz

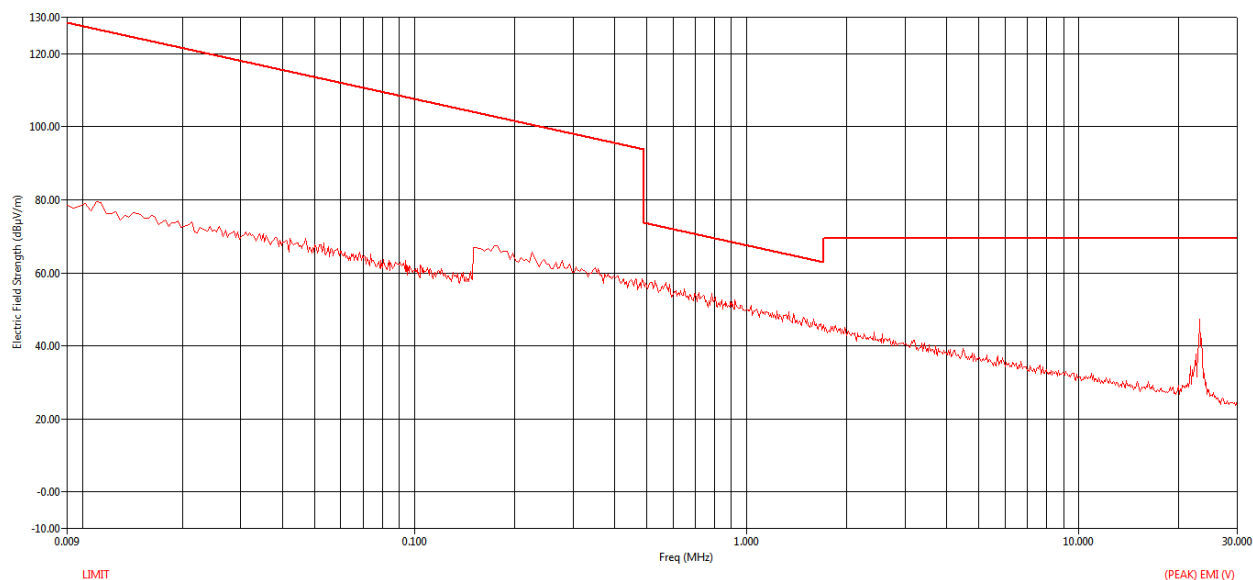


Figure 27 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel

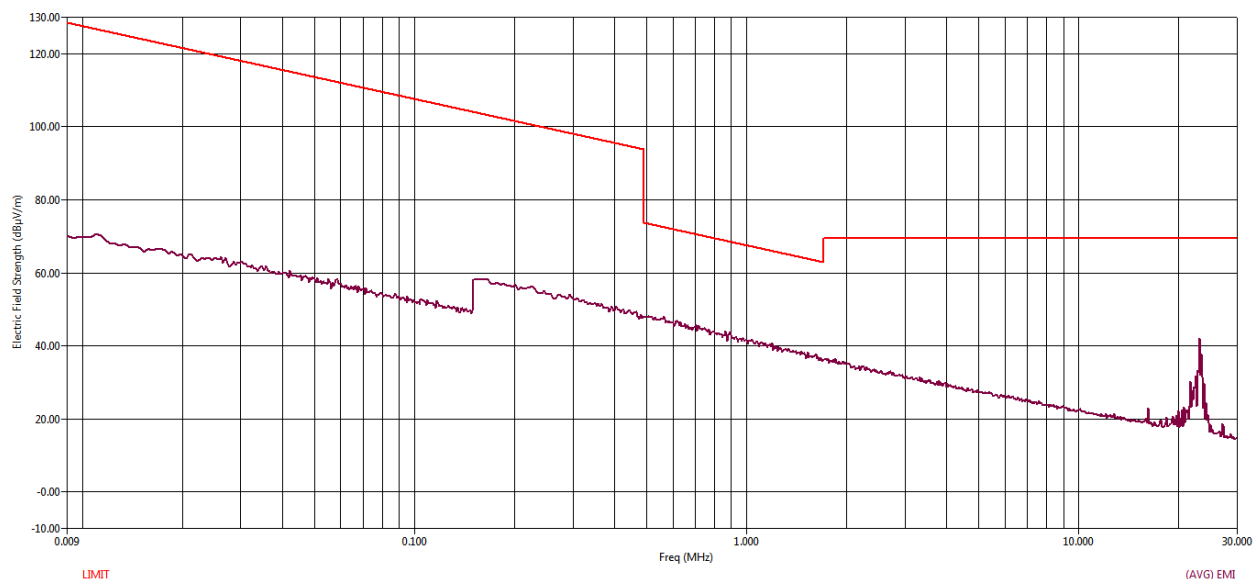


Figure 28 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbl Agl (deg)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
23.07	23.07	83.20	23.97	1.04	16.24	41.26	69.54	-28.28
23.13	23.13	84.00	24.25	1.04	16.24	41.54	69.54	-28.00

Table 24 Quasi peak Table from 9 kHz to 30 MHz

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbi Agl (deg)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
23.07	23.07	83.20	18.02	1.04	16.24	35.31	69.54	-34.23
23.13	23.13	84.00	19.92	1.04	16.24	37.20	69.54	-32.34

Table 25 Average Table from 9 kHz to 30 MHz

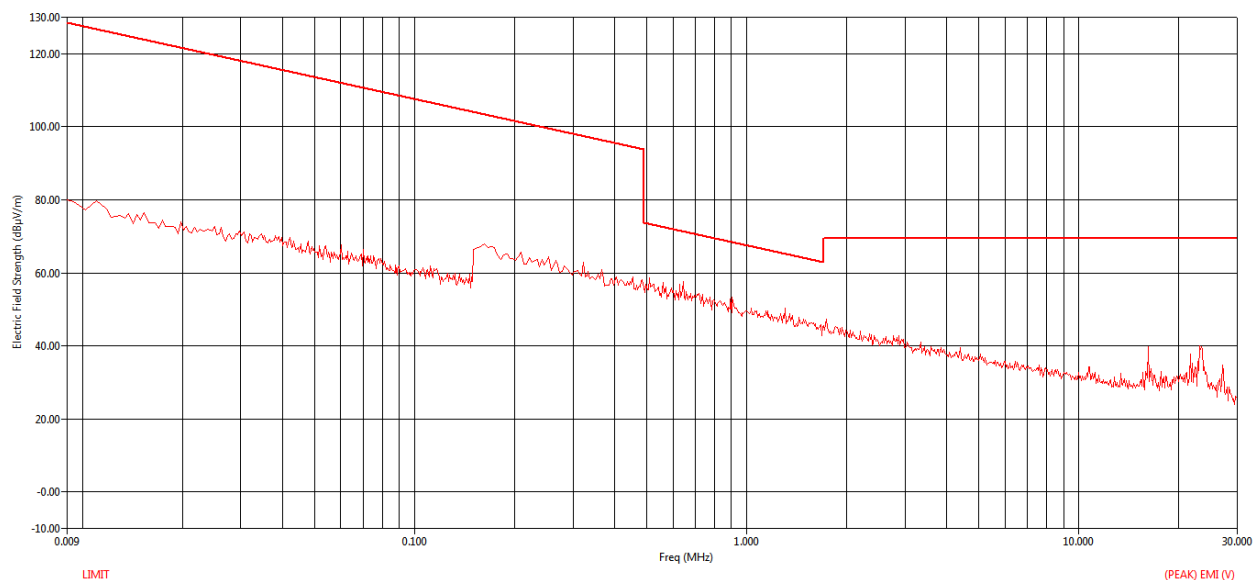


Figure 29 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular

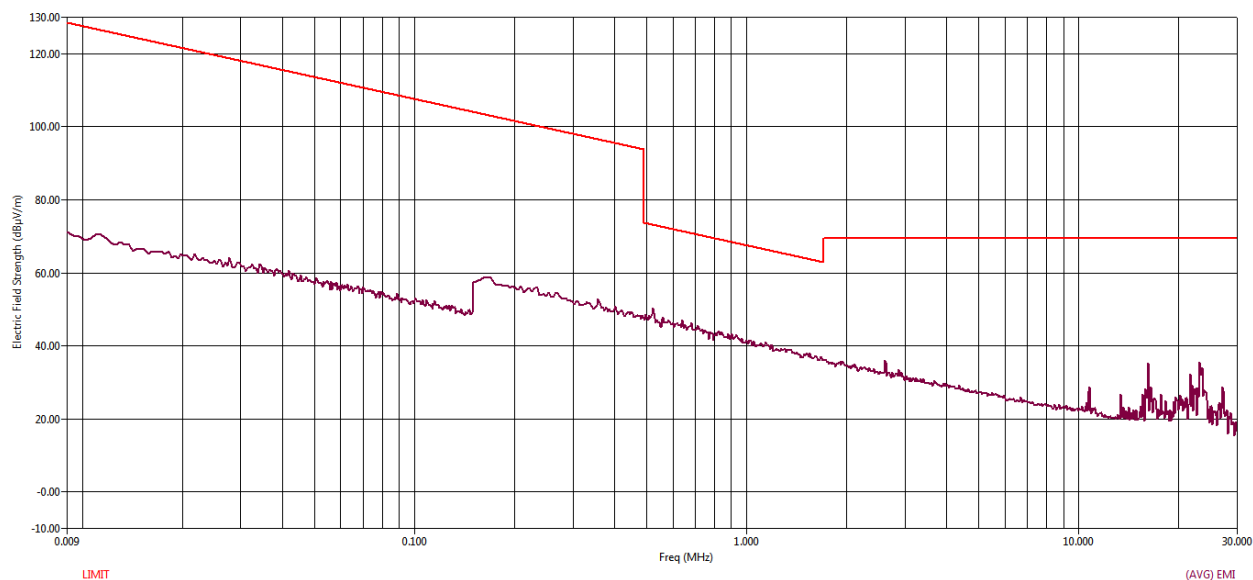


Figure 30 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbt Agl (deg)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
16.23	16.23	42.40	21.08	0.87	16.79	38.74	69.54	-30.80
23.13	23.13	129.90	20.63	1.04	16.24	37.91	69.54	-31.63

Table 26 Quasi peak Table from 9 kHz to 30 MHz

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbt Agl (deg)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
16.23	16.23	42.40	17.75	0.87	16.79	35.41	69.54	-34.13
23.13	23.13	129.90	16.72	1.04	16.24	34.00	69.54	-35.54

Table 27 Average Table from 9 kHz to 30 MHz

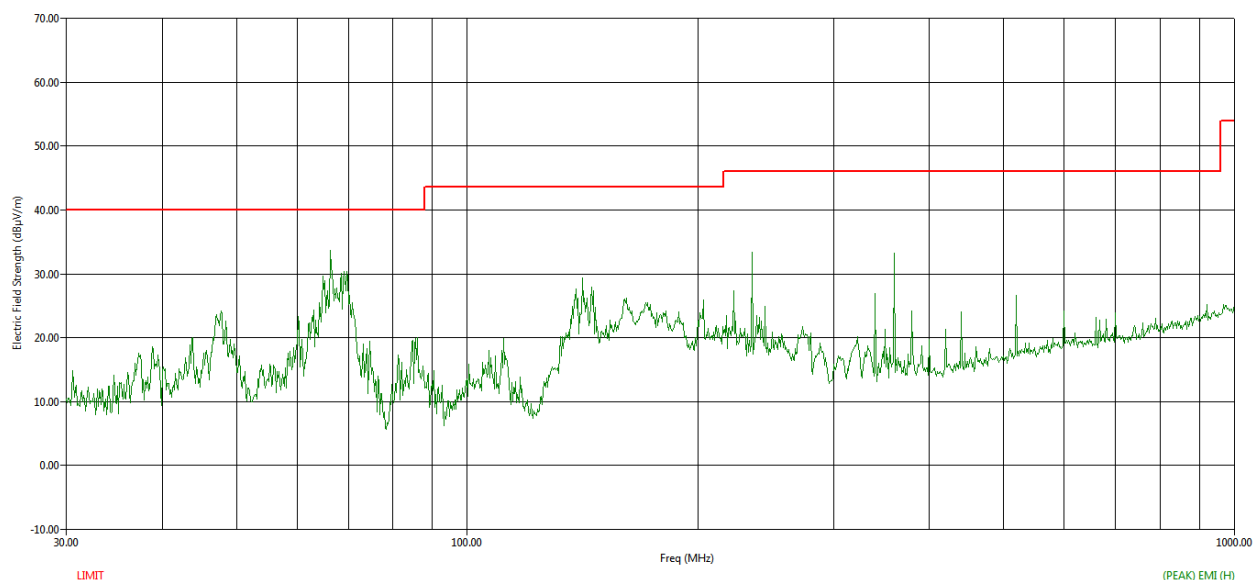


Figure 31 RE Graph from 30 MHz to 1 GHz using Peak detector – Horizontal Polarization

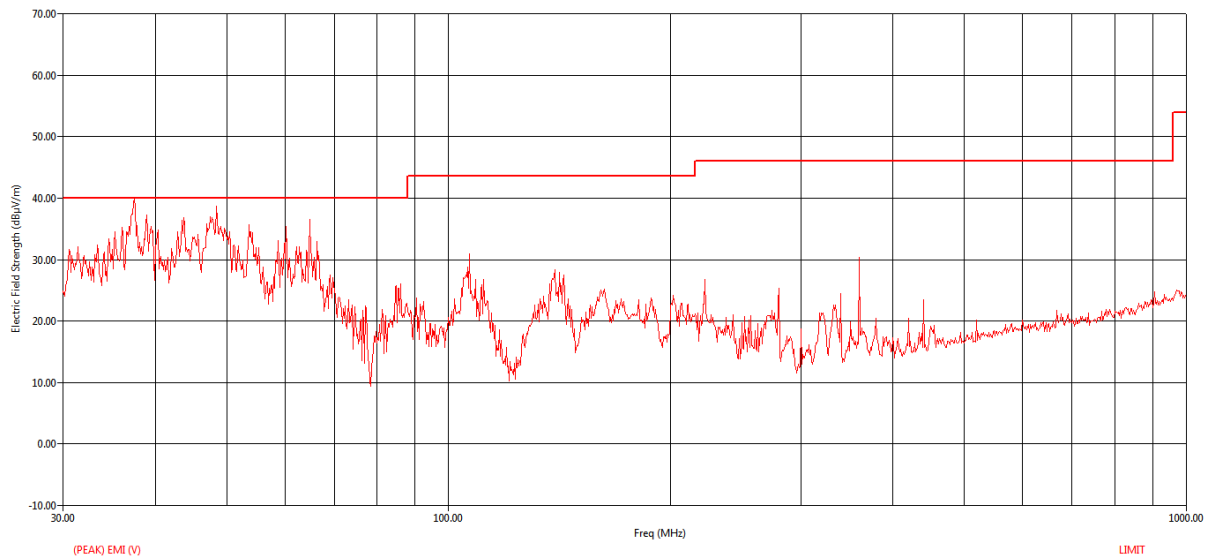


Figure 32 RE Graph from 30 MHz to 1 GHz using Peak detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
36.12	36.14	V	290.00	110.00	61.93	1.31	12.55	43.81	31.98	40.00	-8.02
37.52	37.53	V	57.10	100.00	63.65	1.34	12.43	43.81	33.61	40.00	-6.39
48.44	48.44	V	322.50	100.00	66.75	1.53	10.16	43.83	34.61	40.00	-5.39
53.60	53.56	V	336.10	103.00	66.40	1.60	9.91	43.84	34.07	40.00	-5.93
64.84	64.78	V	6.20	170.00	66.75	1.74	9.51	43.87	34.13	40.00	-5.87
106.69	106.69	V	2.50	101.00	61.31	2.20	9.93	43.94	29.50	43.52	-14.02
235.20	235.22	H	52.50	395.00	37.52	3.25	15.88	43.91	12.75	46.02	-33.27
360.00	359.99	H	311.00	118.00	58.12	4.02	15.57	43.71	34.01	46.02	-12.01

Table 28 QP Table from 30 MHz to 1 GHz

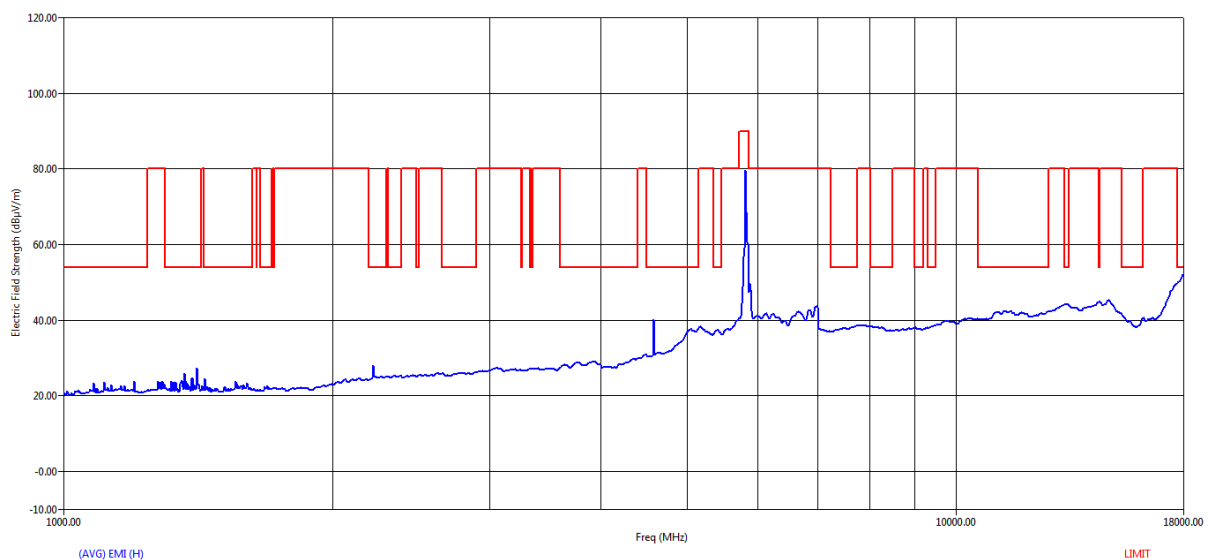


Figure 33 RE Graph from 1 GHz to 18 GHz using Average detector – Horizontal Polarization

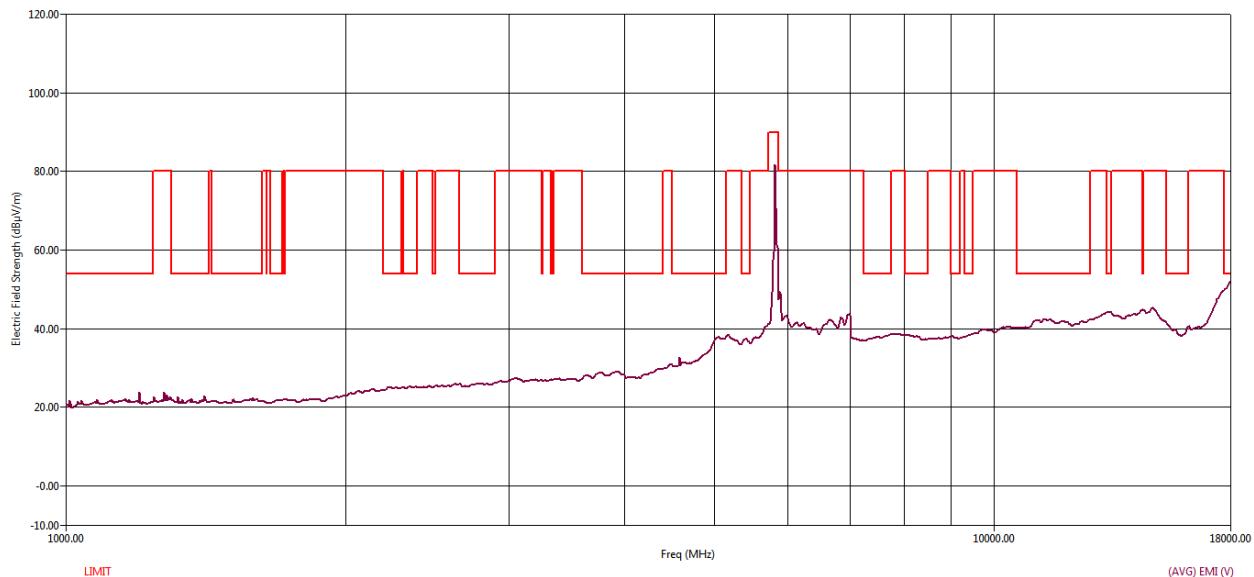


Figure 34 RE Graph from 1 GHz to 18 GHz using Average detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
2222.90	2222.90	V	121.40	200.00	28.29	1.21	27.04	31.80	24.74	54.00	-29.26
4583.90	4583.90	V	240.20	200.00	26.15	2.17	31.26	29.08	30.51	54.00	-23.49
5877.60	5877.60	V	180.00	200.00	30.35	2.02	34.19	28.39	38.17	80.00	-41.83
5877.60	5877.60	H	179.90	200.00	30.41	2.02	34.19	28.39	38.23	80.00	-41.77

Table 29 Average Table from 1 GHz to 18 GHz

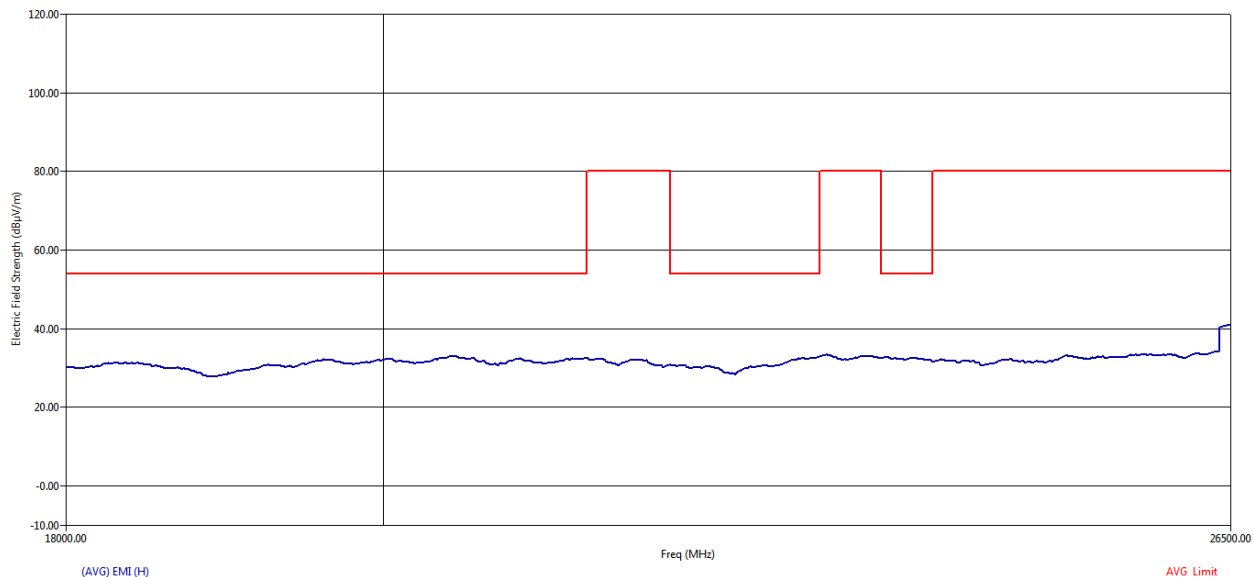


Figure 35 RE Graph from 18 GHz to 26.5 GHz using Average detector – Horizontal Polarization

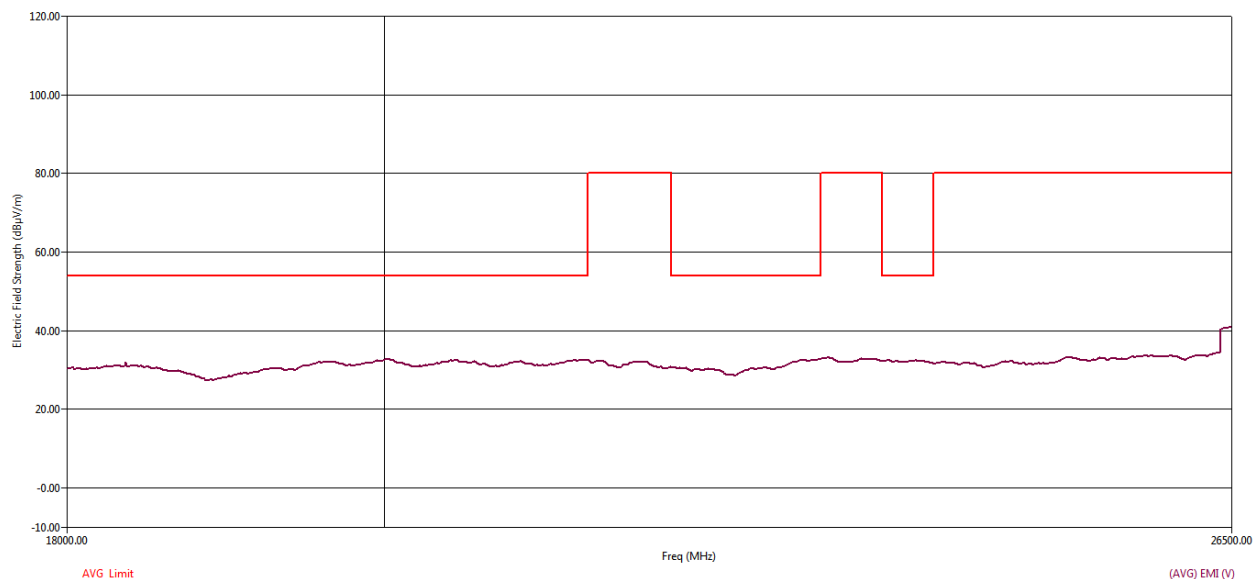


Figure 36 RE Graph from 18 GHz to 26.5 GHz using Average detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
19957.60	19207.69	V	191.80	199.00	33.46	6.63	36.53	46.70	29.92	54.00	-24.08
23169.50	22939.66	V	82.00	111.00	33.90	7.95	37.52	46.99	32.38	80.00	-47.62
26398.80	25147.21	V	12.90	100.00	32.37	8.81	38.00	46.47	32.72	80.00	-47.28

Table 30 Average Table from 18 GHz to 26.5 GHz

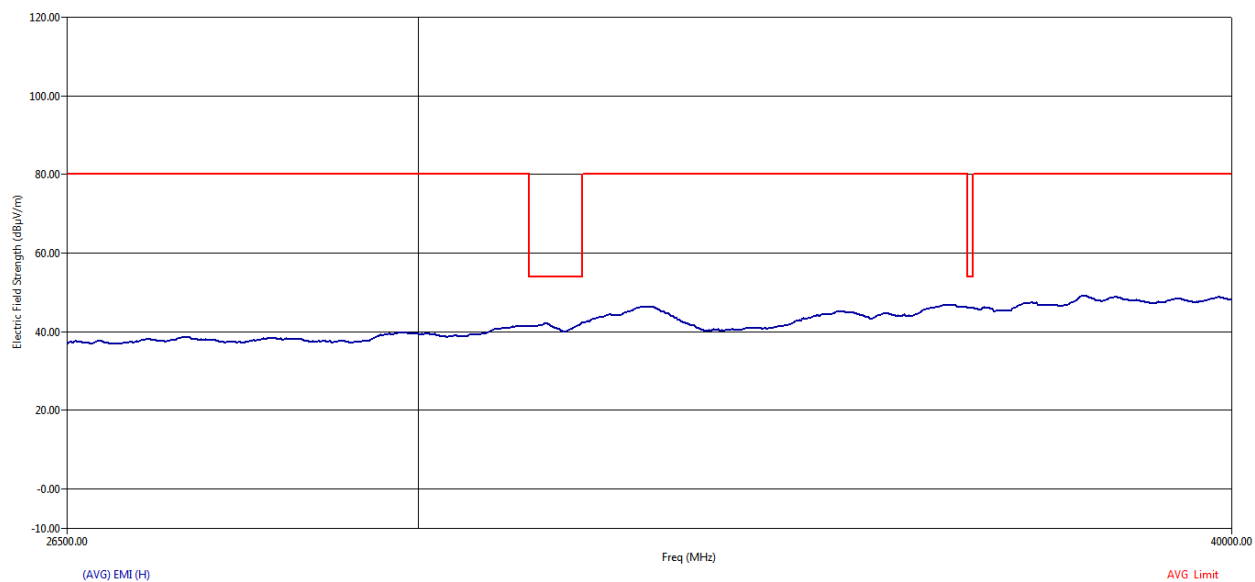


Figure 37 RE Graph from 26.5 GHz to 40 GHz using Average detector – Horizontal Polarization

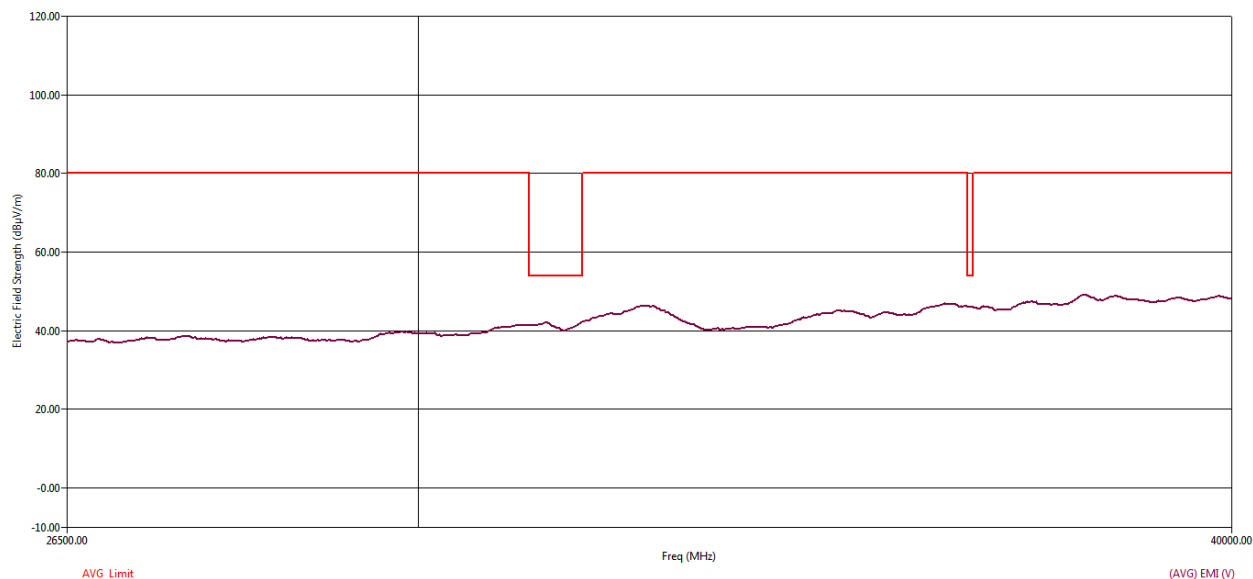


Figure 38 RE Graph from 26.5 GHz to 40 GHz using Average detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
32505.10	33485.46	V	135.80	154.00	41.56	10.69	39.39	51.25	40.39	80.00	-39.61
37975.00	38374.54	H	180.10	100.00	42.54	12.16	41.12	47.05	48.77	80.00	-31.23

Table 31 Average Table form 26.5 GHz to 40 GHz

5.3.1.5.2 5 MHz MODULATION BANDWIDTH FOR 17 dBi ANTENNA CONDITION LOW CHANNEL – 5735 MHz

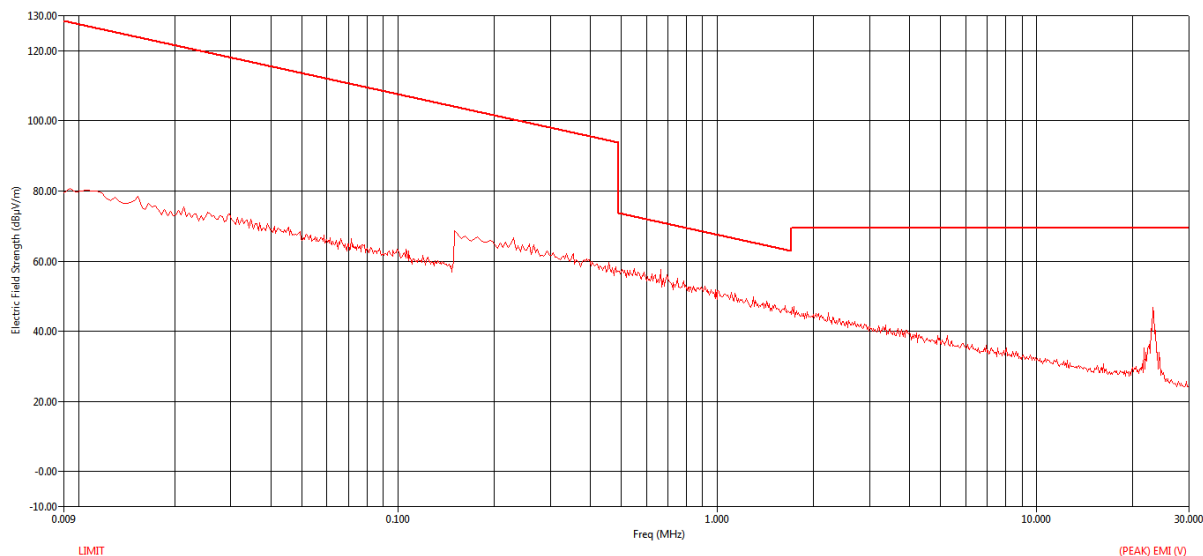


Figure 39 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel

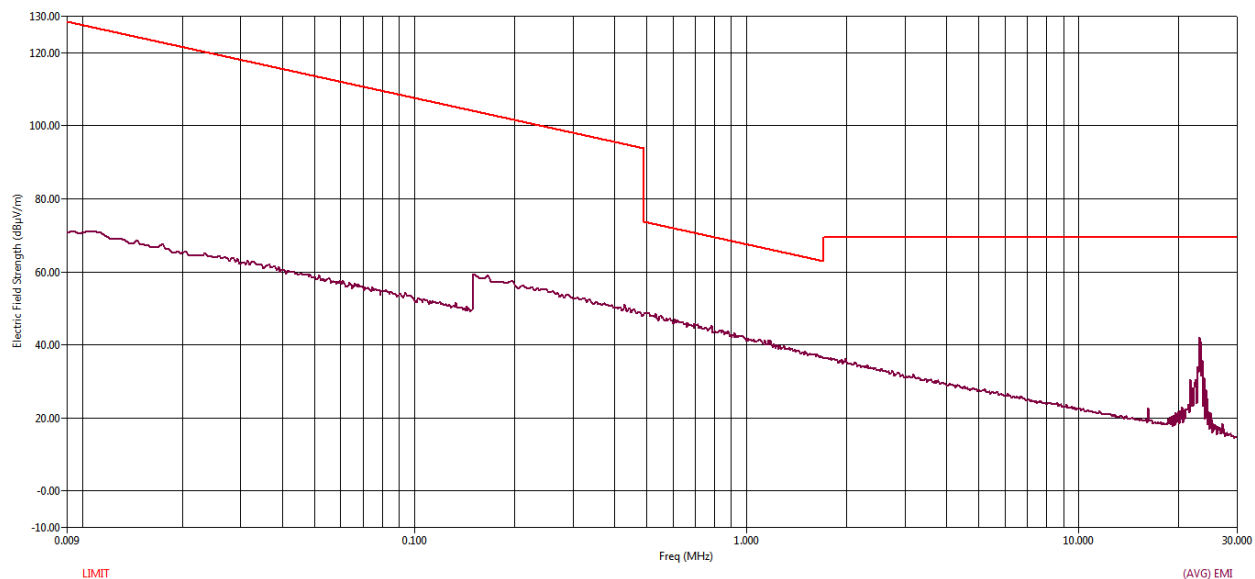


Figure 40 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbl Agl (deg)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
23.13	23.13	84.90	25.52	1.04	16.24	42.81	69.54	-26.73
23.31	23.31	75.10	25.13	1.05	16.23	42.40	69.54	-27.14

Table 32 Quasi peak Table from 9 kHz to 30 MHz

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)
23.13	23.13	84.90	20.91	1.04	16.24	38.19	69.54	-31.35
23.31	23.31	75.10	21.54	1.05	16.23	38.81	69.54	-30.73

Table 33 Average Table from 9 kHz to 30 MHz

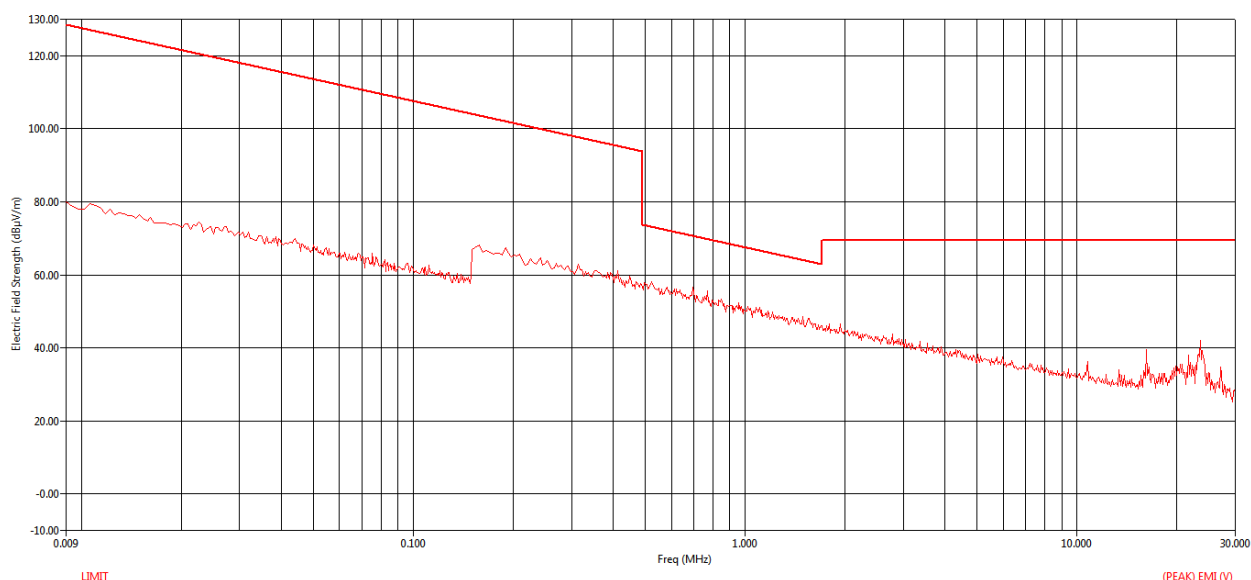


Figure 41 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular

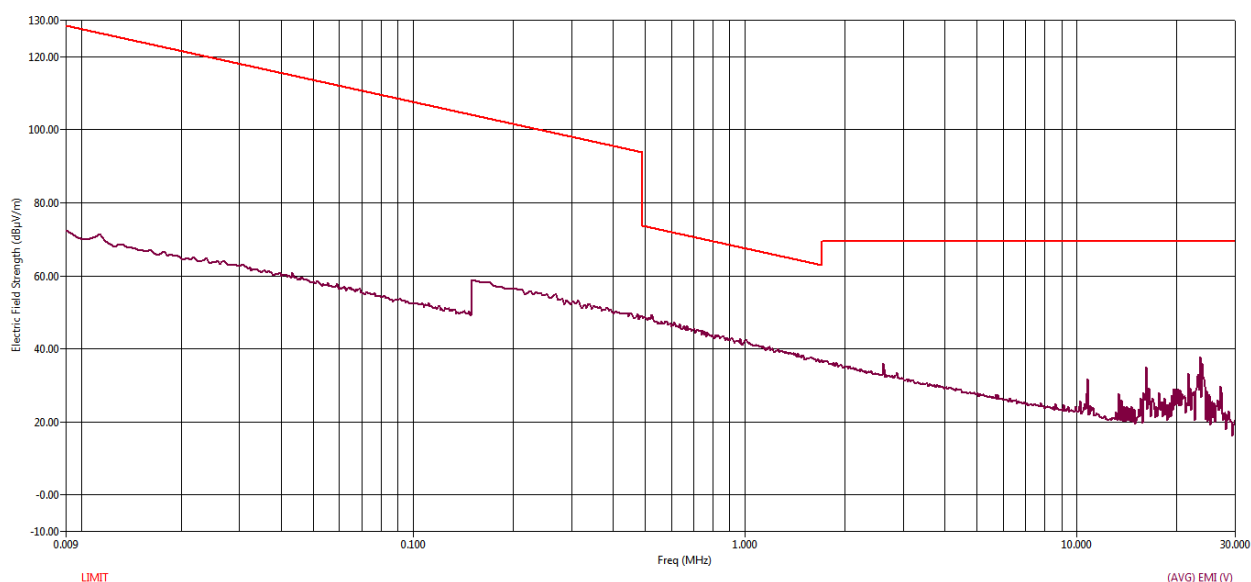


Figure 42 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular

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)
21.66	21.66	334.70	19.03	1.01	16.36	36.39	69.54	-33.15
23.57	23.56	59.60	22.25	1.05	16.21	39.51	69.54	-30.03
27.16	27.16	280.60	14.97	1.12	15.96	32.06	69.54	-37.48

Table 34 Quasi peak Table from 9 kHz to 30 MHz

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbi Agl (deg)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
21.66	21.66	334.70	14.66	1.01	16.36	32.03	69.54	-37.51
23.57	23.56	59.60	19.33	1.05	16.21	36.59	69.54	-32.95
27.16	27.16	280.60	10.97	1.12	15.96	28.06	69.54	-41.48

Table 35 Average Table from 9 kHz to 30 MHz

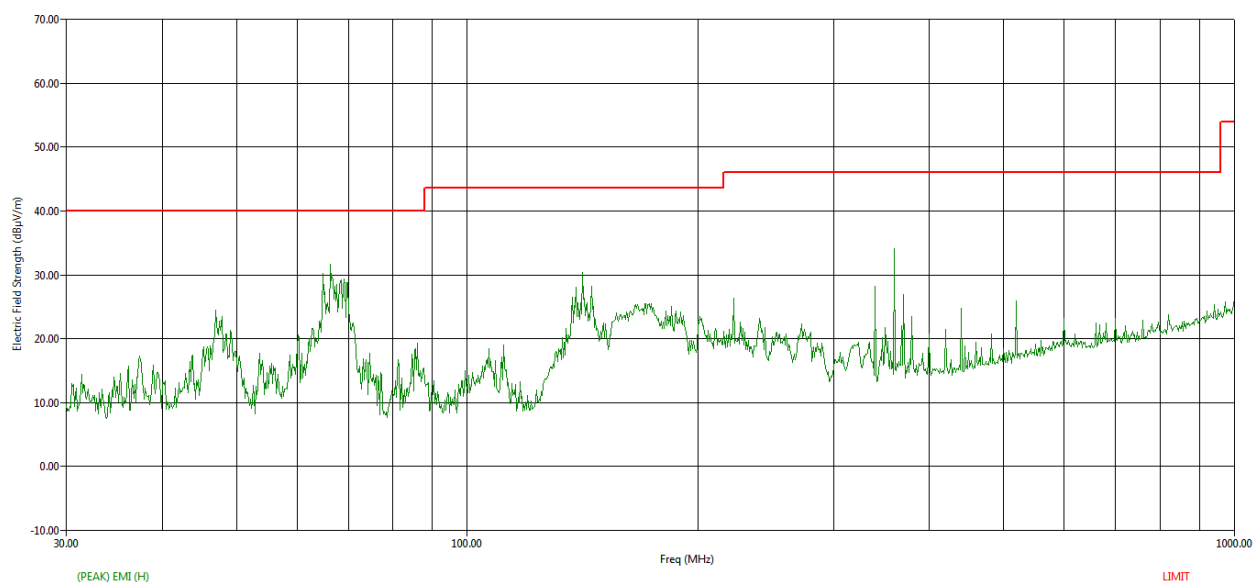


Figure 43 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal Polarization

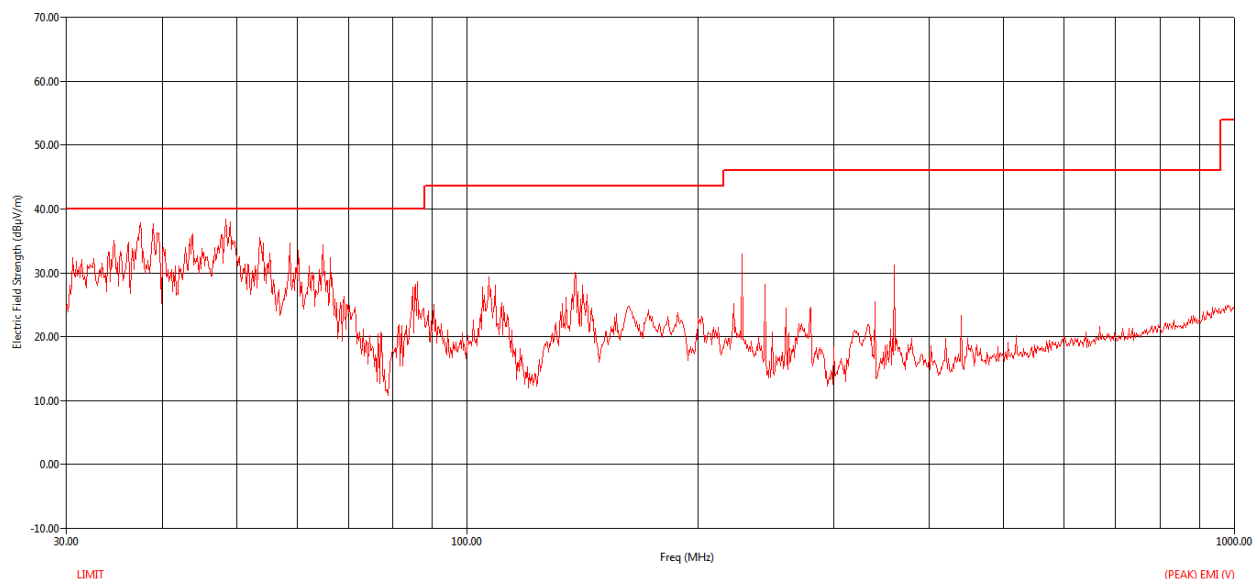


Figure 44 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
37.48	37.38	V	205.90	100.00	67.32	1.33	12.44	43.81	37.29	40.00	-2.71
43.84	43.78	V	103.60	100.00	64.68	1.45	10.78	43.82	33.09	40.00	-6.91
48.48	48.45	V	322.50	100.00	66.85	1.53	10.16	43.83	34.71	40.00	-5.29
53.60	53.57	V	323.70	110.00	66.54	1.60	9.91	43.84	34.21	40.00	-5.79
58.72	58.71	V	16.00	100.00	65.31	1.67	9.69	43.86	32.82	40.00	-7.18
64.80	64.78	V	304.50	100.00	58.21	1.74	9.51	43.87	25.59	40.00	-14.41
141.20	141.21	H	179.90	293.00	56.67	2.52	12.24	43.94	27.49	43.52	-16.03
228.00	228.05	V	301.00	399.00	34.66	3.20	16.13	43.92	10.07	46.02	-35.95
360.00	360.00	H	315.60	151.00	58.57	4.02	15.57	43.71	34.46	46.02	-11.56

Table 36 QP Table from 30 MHz to 1 GHz

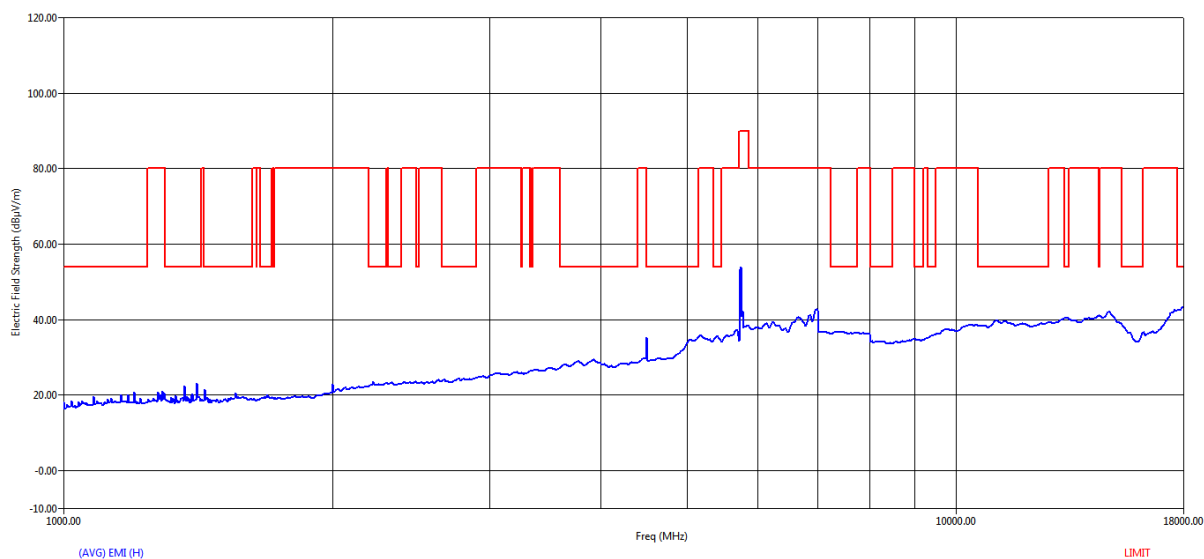


Figure 45 RE Graph from 1 GHz to 18 GHz using Average detector – Horizontal Polarization

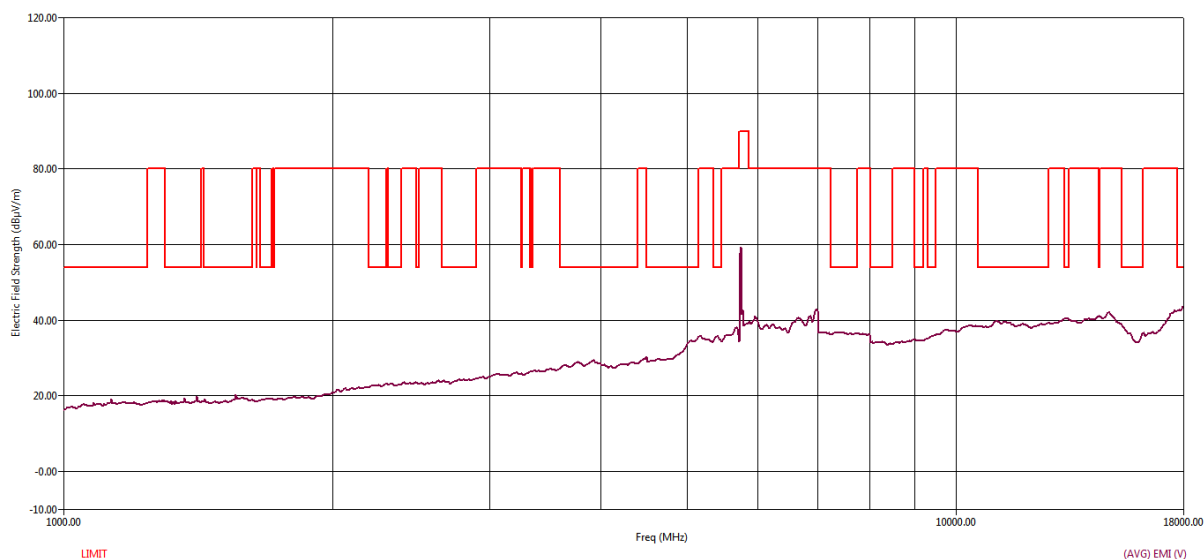


Figure 46 RE Graph from 1 GHz to 18 GHz using Average detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
4503.20	4503.20	H	180.10	169.00	36.67	3.48	30.91	29.24	41.83	54.00	-12.17
5764.00	5764.00	V	30.90	100.00	35.19	3.92	33.79	28.38	44.52	90.00	-45.48
5764.40	5764.40	H	16.40	100.00	36.63	3.92	33.79	28.38	45.96	90.00	-44.04
14859.20	14859.20	H	239.80	128.00	27.36	3.49	39.15	28.20	41.79	80.00	-38.21
14859.20	14859.20	V	105.10	121.00	27.37	3.49	39.15	28.20	41.80	80.00	-38.20

Table 37 Average Table from 1 GHz to 18 GHz

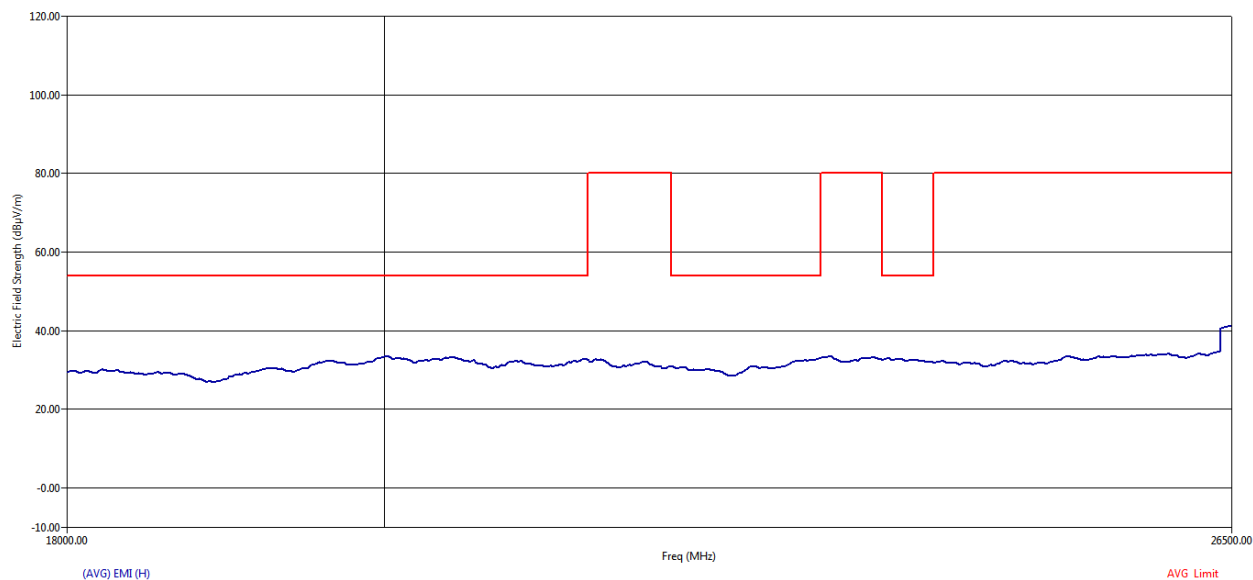


Figure 47 RE Graph from 18 GHz to 26.5 GHz using Average detector – Horizontal Polarization

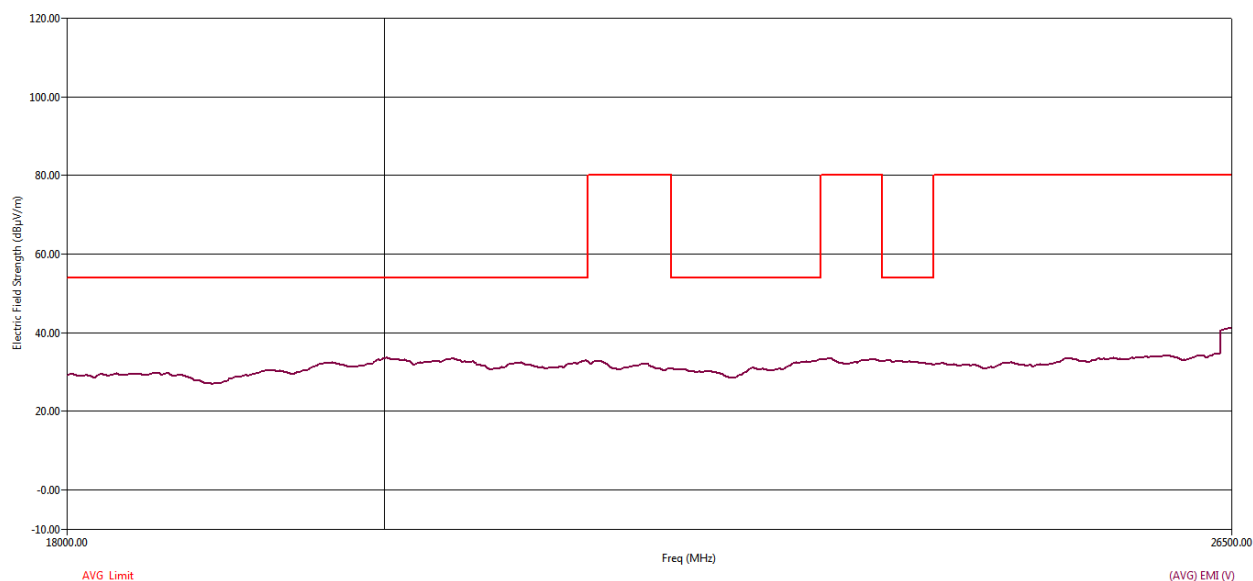


Figure 48 RE Graph from 18 GHz to 26.5 GHz using Average detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
18624.80	18624.80	V	255.80	200.00	32.68	6.98	36.35	47.03	28.99	54.00	-25.01
21384.80	21384.80	H	350.70	100.00	32.44	7.82	37.58	45.14	32.70	54.00	-21.30
26489.60	26489.60	V	159.30	161.00	31.65	9.31	37.85	44.06	34.74	80.00	-45.26

Table 38 Average Table form 18 GHz to 26.5 GHz

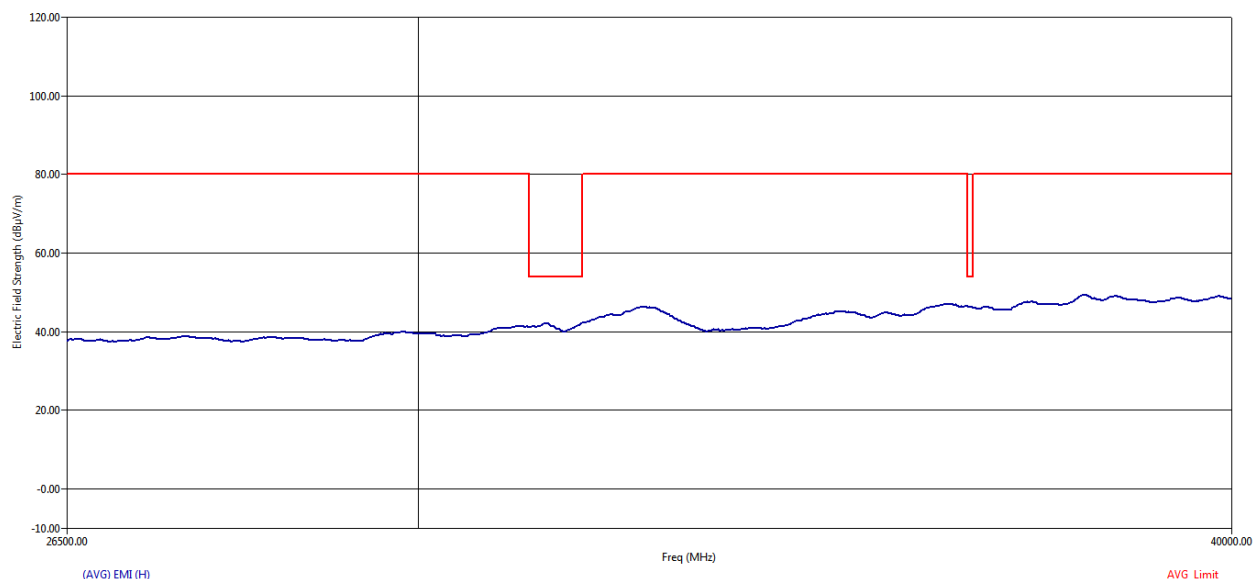


Figure 49 RE Graph from 26.5 GHz to 40 GHz using Average detector – Horizontal Polarization

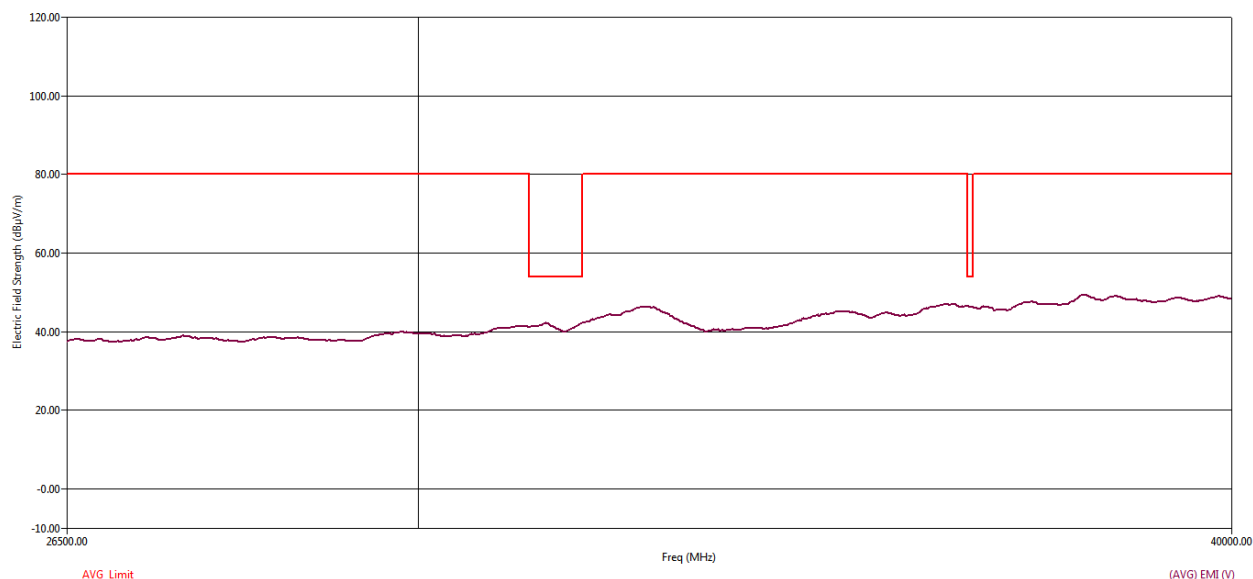


Figure 50 RE Graph from 26.5 GHz to 40 GHz using Average detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
27260.00	27260.00	H	179.90	167.00	38.57	9.46	38.52	48.20	38.35	80.00	-41.65
32456.80	32456.80	V	279.80	153.00	41.28	10.70	38.90	44.68	46.21	80.00	-33.79

Table 39 Average Table from 26.5 GHz to 40 GHz

MID CHANNEL – 5775 MHz

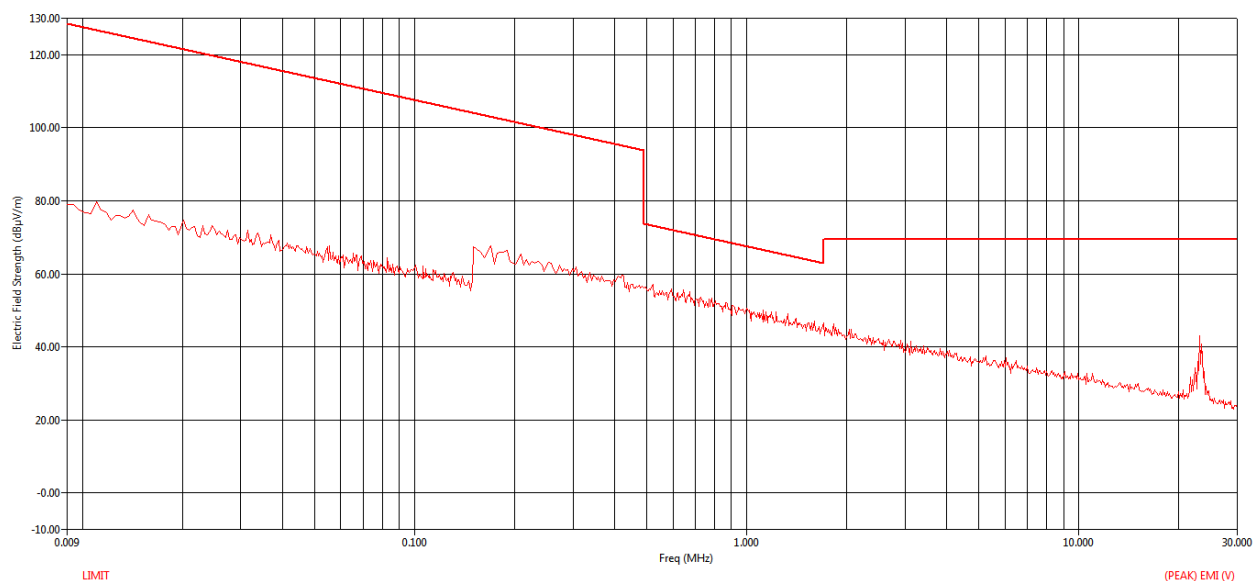


Figure 51 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel

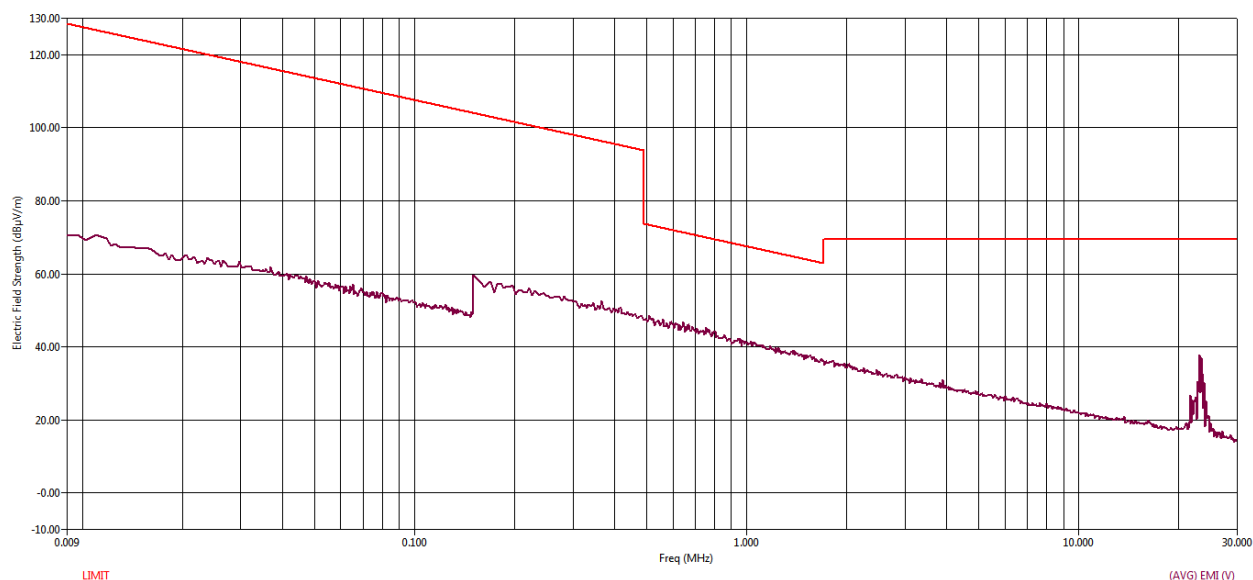


Figure 52 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbi Agl (deg)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
23.13	23.13	290.60	23.47	1.04	16.24	40.75	69.54	-28.79
23.31	23.30	359.90	13.44	1.05	16.23	30.72	69.54	-38.82

Table 40 Quasi peak Table from 9 kHz to 30 MHz

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbi Agl (deg)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
23.13	23.13	290.60	21.61	1.04	16.24	38.89	69.54	-30.65
23.31	23.30	359.90	8.69	1.05	16.23	25.96	69.54	-43.58

Table 41 Average Table from 9 kHz to 30 MHz

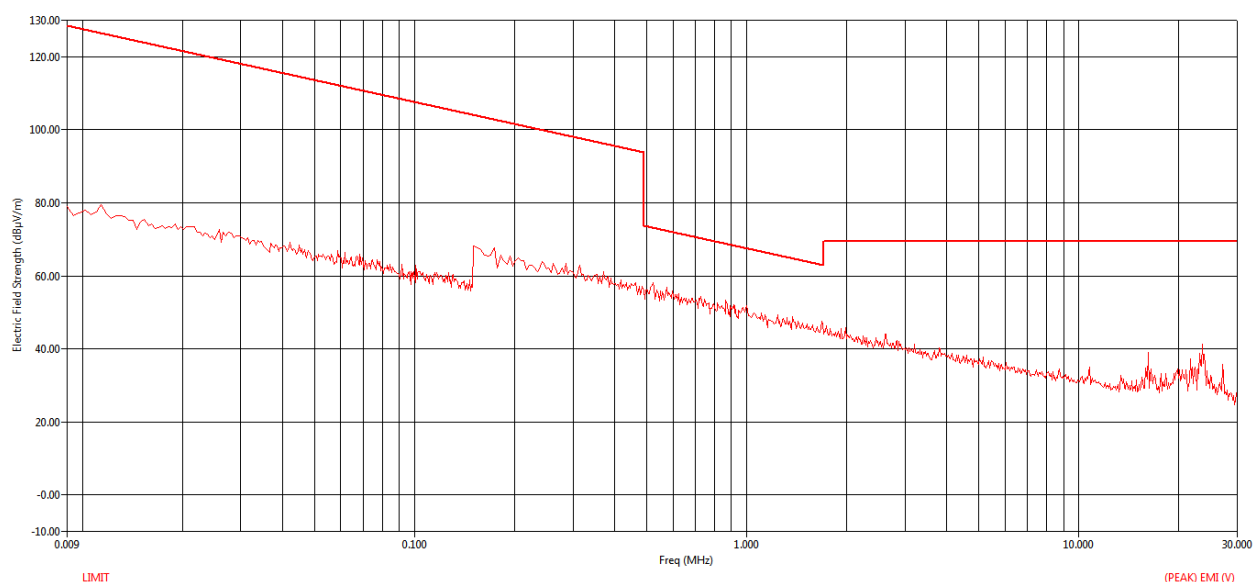


Figure 53 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular

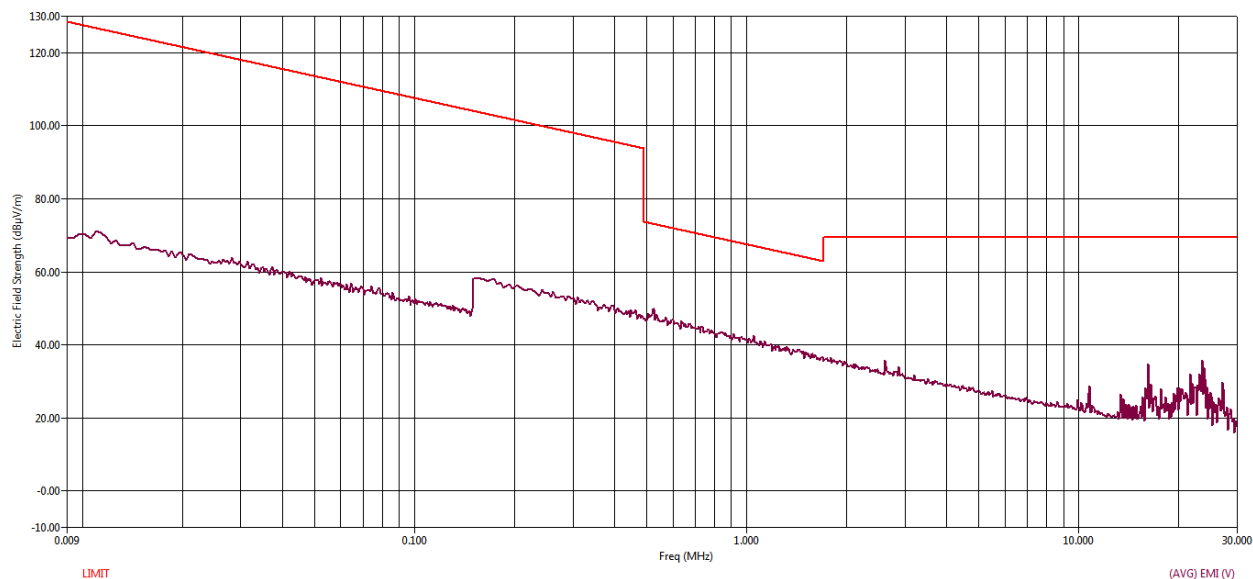


Figure 54 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbt Agl (deg)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
16.23	16.23	332.20	21.40	0.87	16.79	39.06	69.54	-30.48
23.13	23.13	294.60	19.37	1.04	16.24	36.65	69.54	-32.89
23.56	23.56	102.20	22.72	1.05	16.21	39.98	69.54	-29.56

Table 42 Quasi peak Table from 9 kHz to 30 MHz

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbt Agl (deg)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
16.23	16.23	332.20	17.66	0.87	16.79	35.33	69.54	-34.21
23.13	23.13	294.60	15.58	1.04	16.24	32.87	69.54	-36.67
23.56	23.56	102.20	20.66	1.05	16.21	37.92	69.54	-31.62

Table 43 Average Table from 9 kHz to 30 MHz

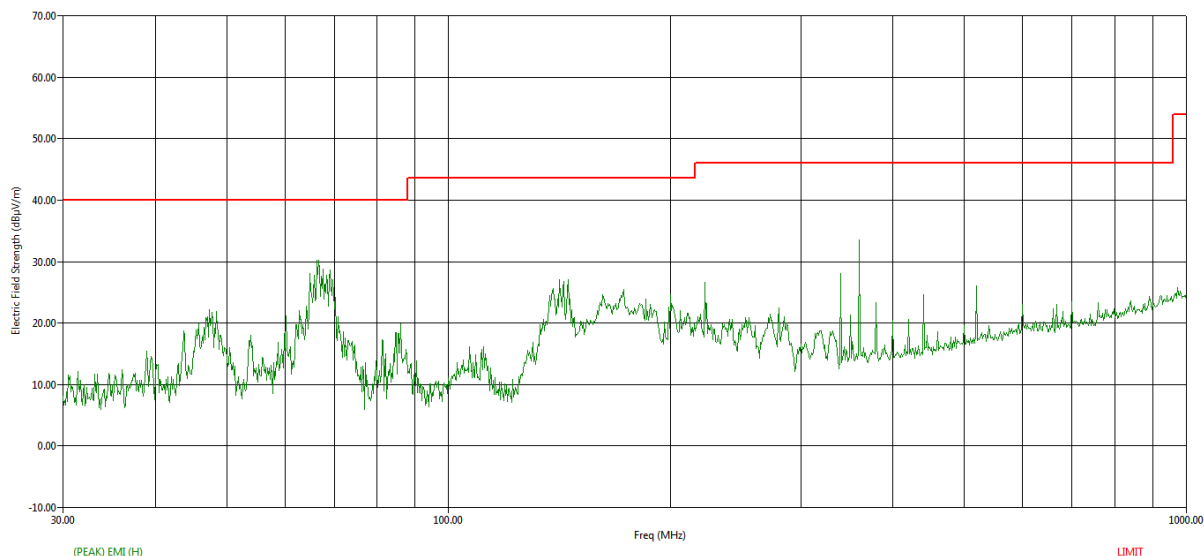


Figure 55 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal polarization

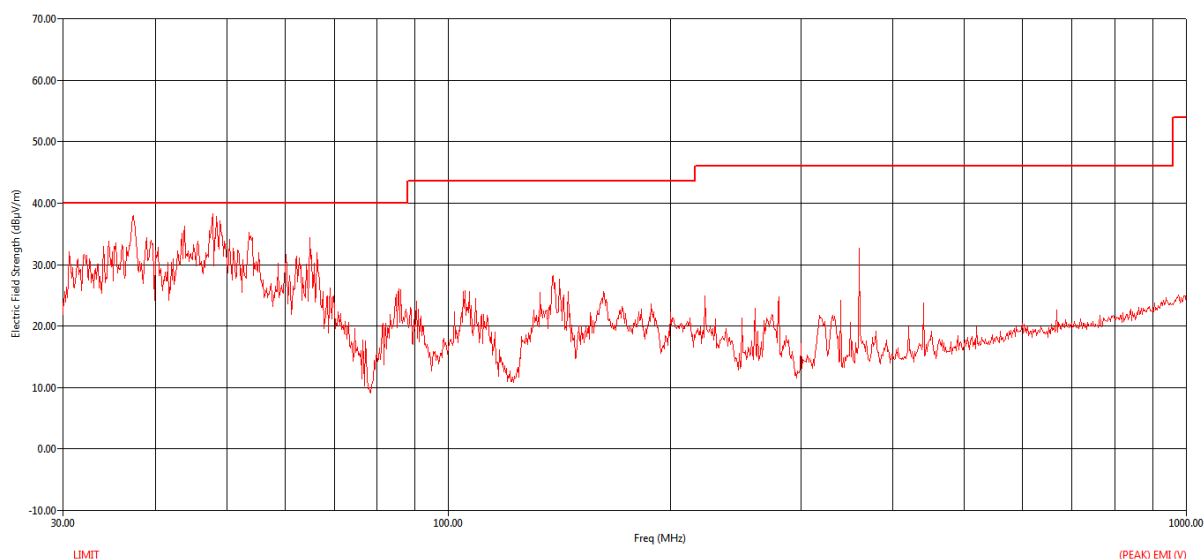


Figure 56 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
37.36	37.37	V	206.10	100.00	67.59	1.33	12.44	43.81	37.56	40.00	-2.44
43.84	43.80	V	79.00	100.00	64.33	1.45	10.77	43.82	32.73	40.00	-7.27
47.84	47.79	V	284.20	103.00	67.70	1.52	10.19	43.83	35.58	40.00	-4.42
53.56	53.56	V	319.70	100.00	62.13	1.60	9.91	43.84	29.80	40.00	-10.20
66.64	66.60	H	172.70	202.00	62.43	1.76	9.46	43.88	29.78	40.00	-10.22
69.16	69.14	H	8.20	236.00	55.82	1.79	9.39	43.88	23.12	40.00	-16.88
141.20	141.21	H	181.40	354.00	56.91	2.52	12.24	43.94	27.73	43.52	-15.79
360.00	360.00	H	311.40	134.00	59.89	4.02	15.58	43.71	35.78	46.02	-10.24
360.00	360.00	V	172.60	100.00	48.43	4.02	15.58	43.71	24.31	46.02	-21.71

Table 44 QP Table from 30 MHz to 1 GHz

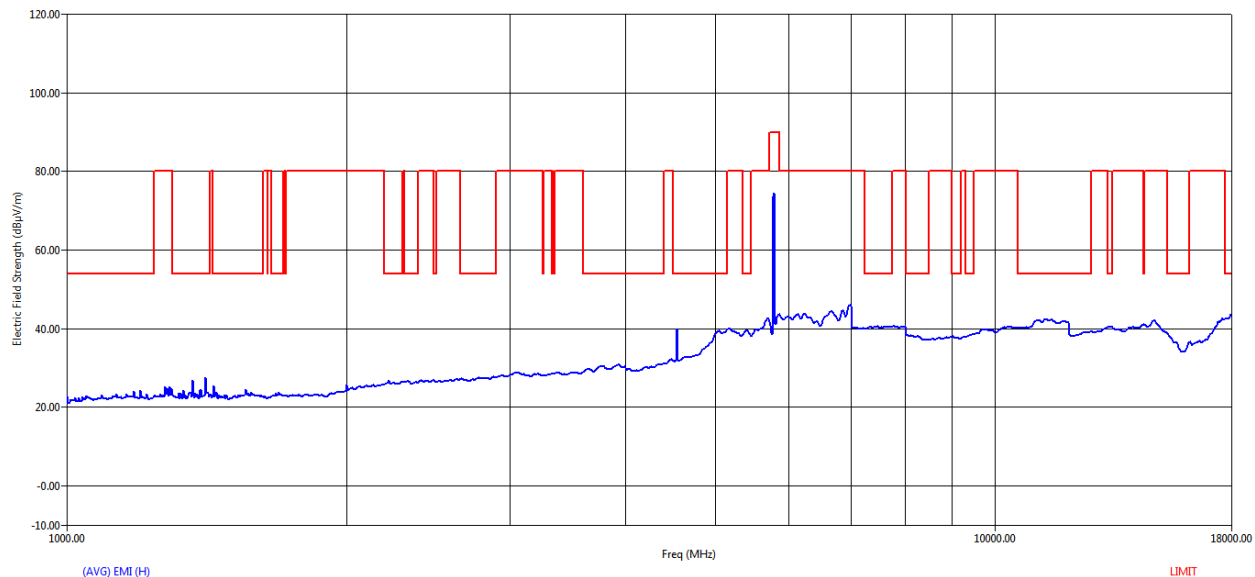


Figure 57 RE Graph from 1 GHz to 18 GHz using Average detector – Horizontal Polarization

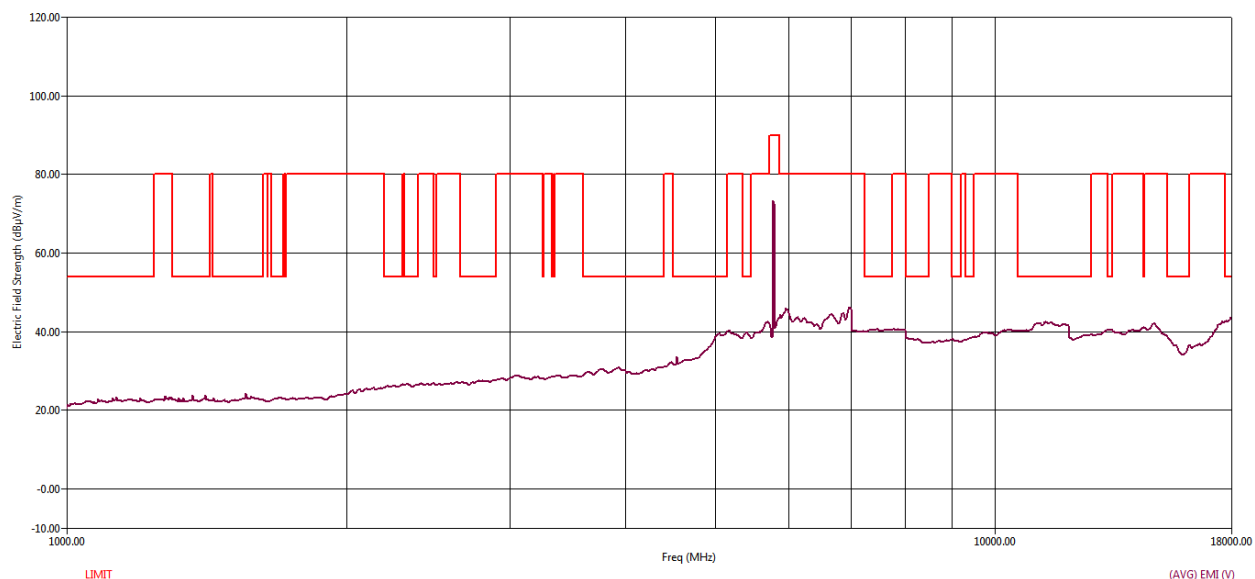


Figure 58 RE Graph from 1 GHz to 18 GHz using Average detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
4537.90	4537.90	V	180.00	200.00	26.29	3.50	31.06	29.17	31.68	54.00	-22.32
5683.60	5683.60	H	30.10	100.00	31.77	3.90	33.51	28.37	40.81	80.00	-39.19
5796.20	5796.20	H	341.50	189.00	29.44	3.93	33.90	28.38	38.89	90.00	-51.11

Table 45 Average Table from 1 GHz to 18 GHz

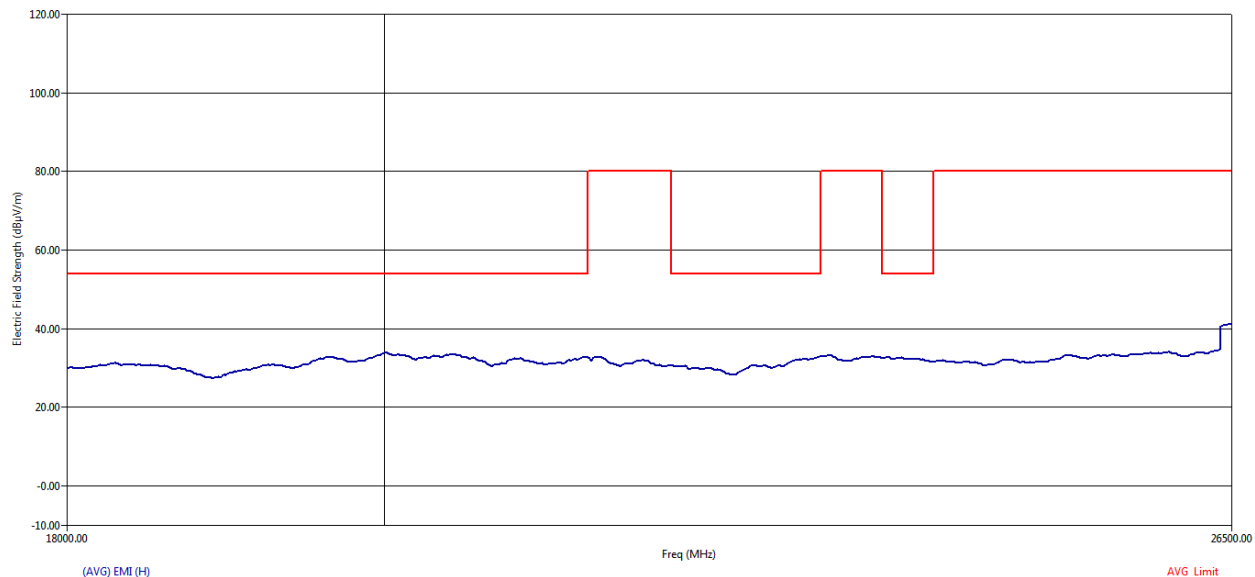


Figure 59 RE Graph from 18 GHz to 26.5 GHz using Average detector – Horizontal Polarization

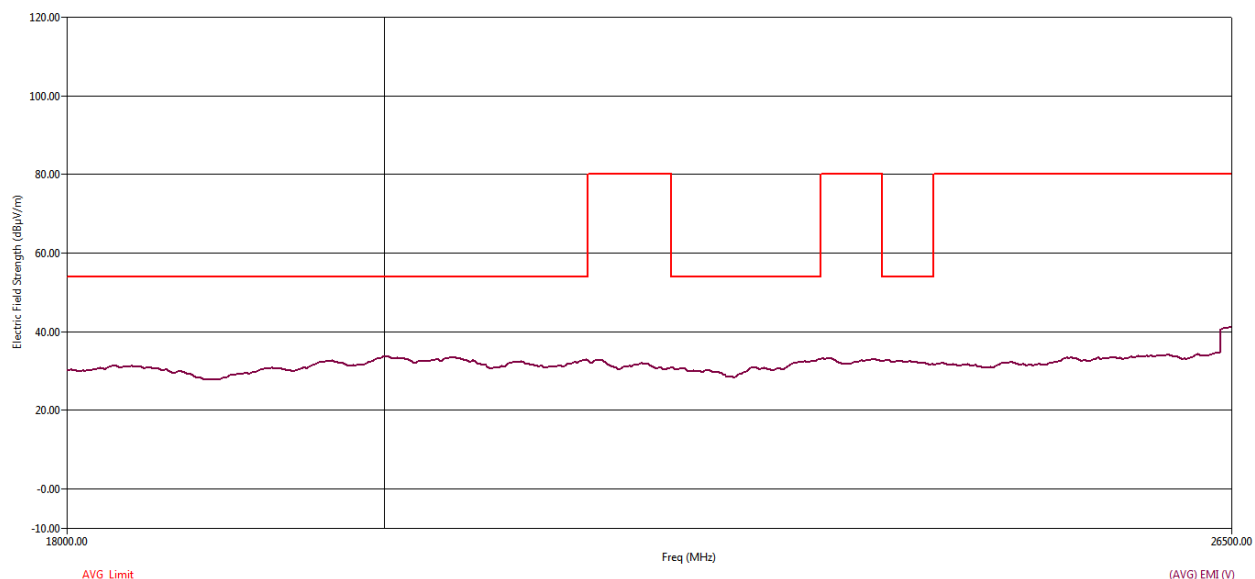


Figure 60 RE Graph from 18 GHz to 26.5 GHz using Average detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
20027.60	20027.60	H	151.40	100.00	32.72	7.26	36.47	42.93	33.52	54.00	-20.48
25355.60	25355.60	H	161.30	199.00	32.41	8.85	38.18	46.39	33.06	80.00	-46.94
26443.20	26443.20	V	188.30	100.00	31.76	9.30	37.83	44.28	34.60	80.00	-45.40

Table 46 Average Table from 18 GHz to 26.5 GHz

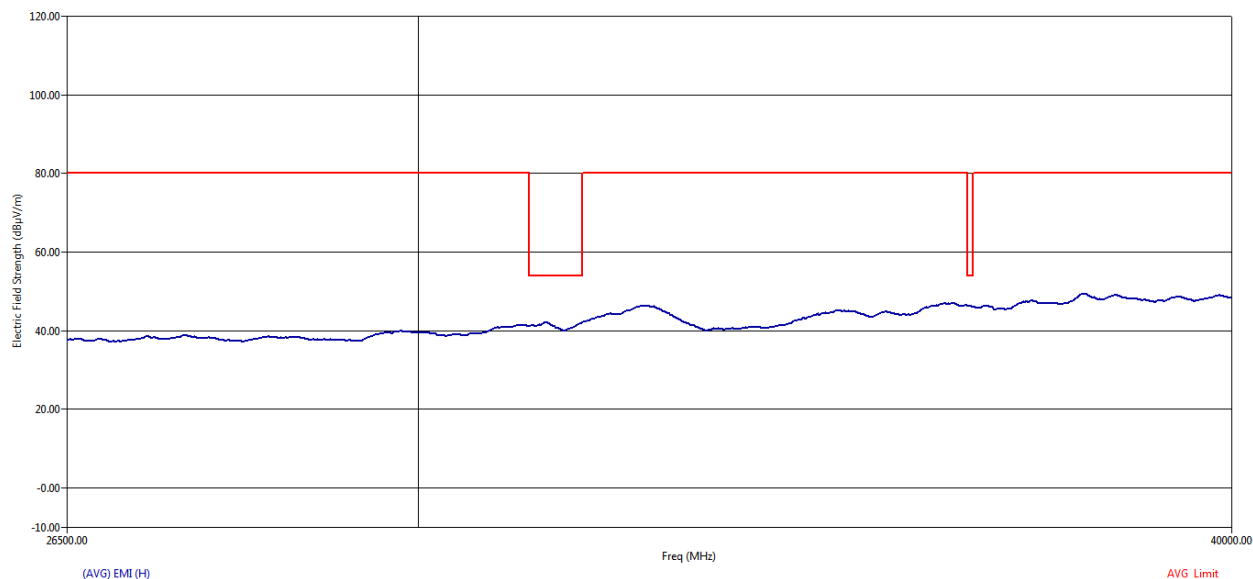


Figure 61 RE Graph from 26.5 GHz to 40 GHz using Average detector – Horizontal Polarization

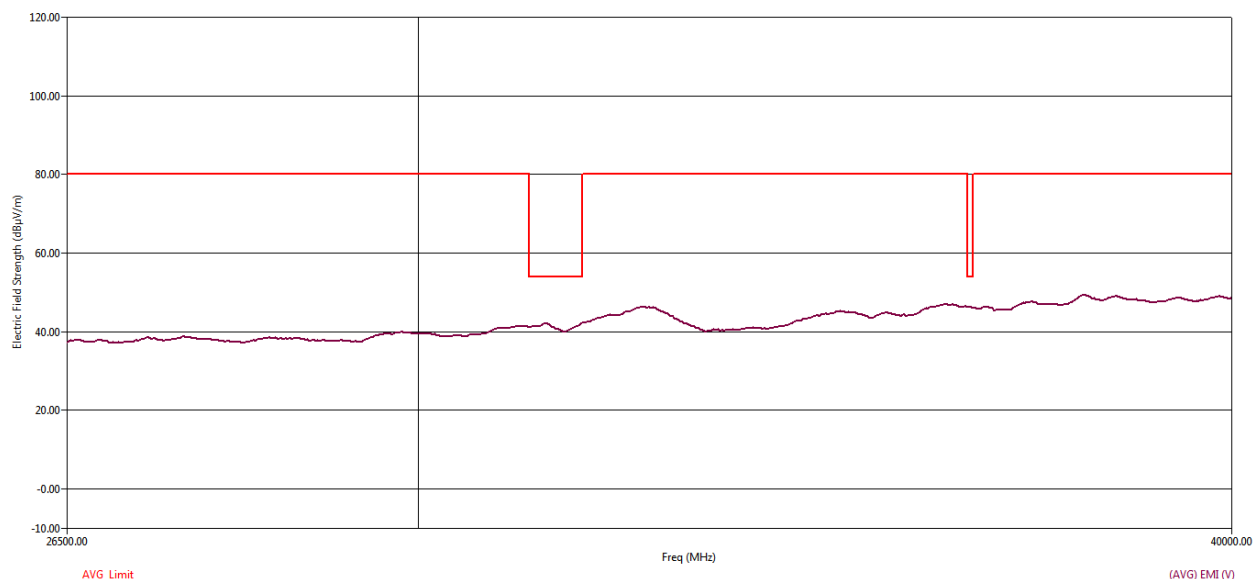


Figure 62 RE Graph from 26.5 GHz to 40 GHz using Average detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
27254.00	27254.00	H	180.10	101.00	38.58	9.45	38.51	48.19	38.35	80.00	-41.65
37529.20	37529.20	H	40.90	102.00	40.91	12.34	40.12	46.66	46.71	80.00	-33.29

Table 47 Average table from 26.5 GHz to 40 GHz

HIGH CHANNEL – 5840 MHz

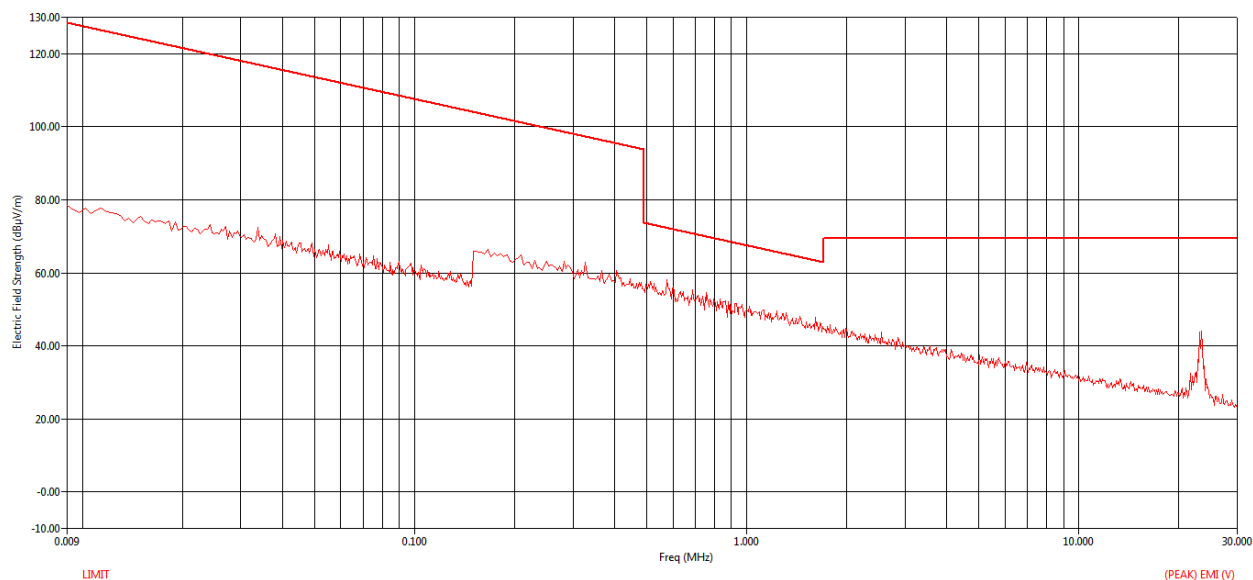


Figure 63 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel

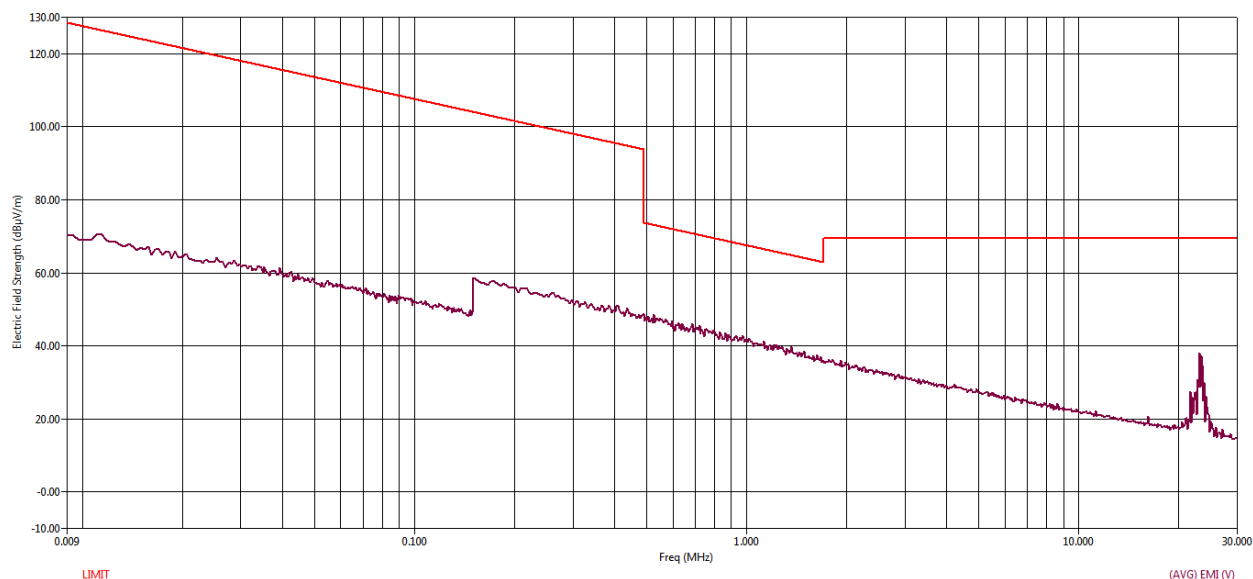


Figure 64 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbl Agl (deg)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
23.13	23.13	180.00	24.09	1.04	16.24	41.38	69.54	-28.16
23.35	23.36	359.00	16.26	1.05	16.22	33.53	69.54	-36.01

Table 48 Quasi peak Table from 9 kHz to 30 MHz

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)
23.13	23.13	180.00	20.22	1.04	16.24	37.51	69.54	-32.03
23.35	23.36	359.00	10.76	1.05	16.22	28.04	69.54	-41.50

Table 49 Average Table from 9 kHz to 30 MHz

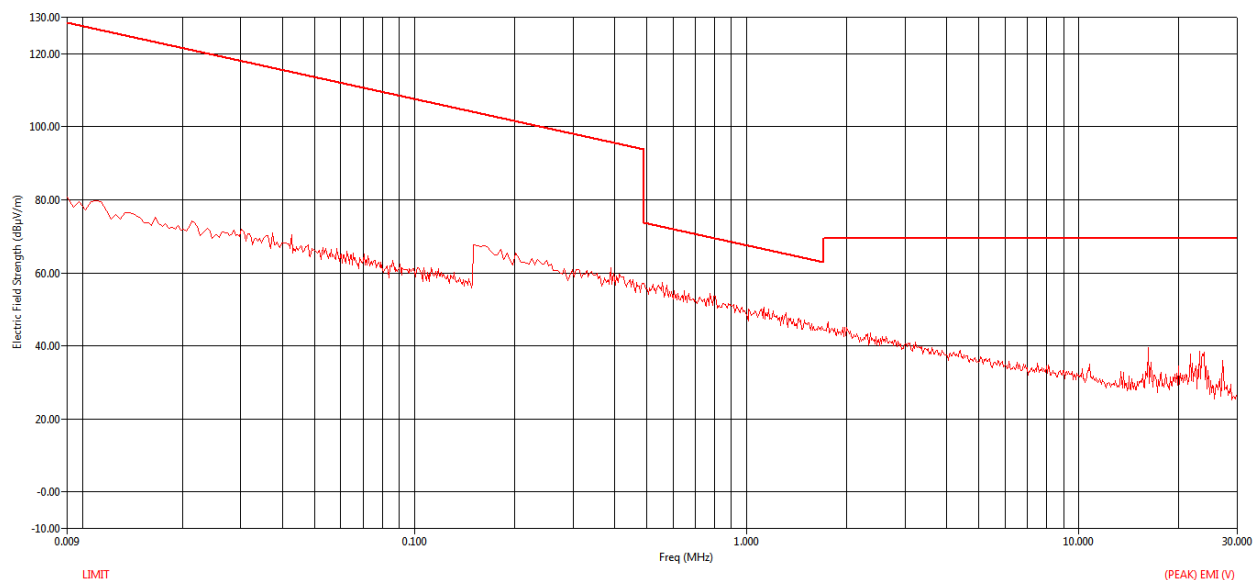


Figure 65 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular

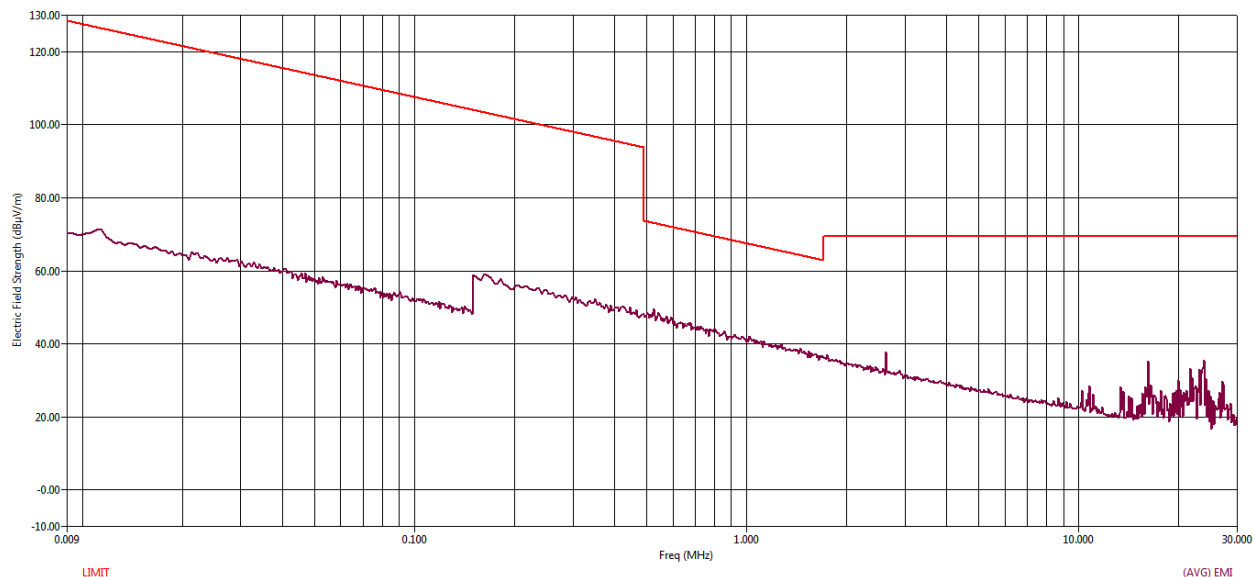


Figure 66 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbi Agl (deg)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
16.23	16.23	332.20	21.40	0.87	16.79	39.06	69.54	-30.48
23.13	23.13	294.60	19.37	1.04	16.24	36.65	69.54	-32.89
23.56	23.56	102.20	22.72	1.05	16.21	39.98	69.54	-29.56

Table 50 Quasi peak Table from 9 kHz to 30 MHz

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbi Agl (deg)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
16.23	16.23	332.20	17.66	0.87	16.79	35.33	69.54	-34.21
23.13	23.13	294.60	15.58	1.04	16.24	32.87	69.54	-36.67
23.56	23.56	102.20	20.66	1.05	16.21	37.92	69.54	-31.62

Table 51 Average Table from 9 kHz to 30 MHz

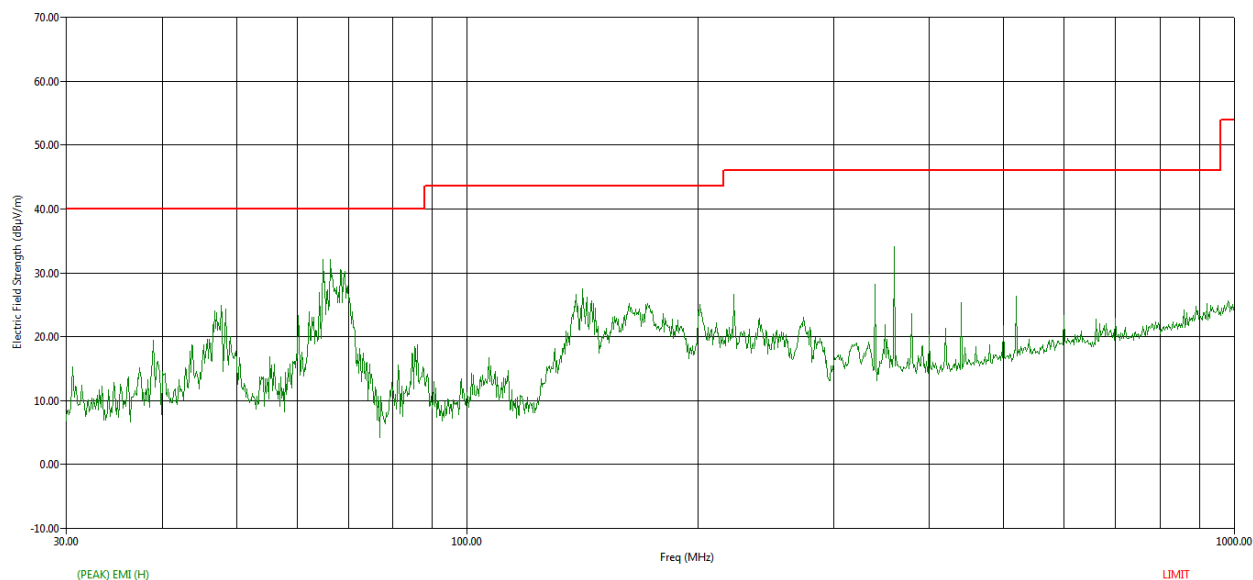


Figure 67 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal Polarization

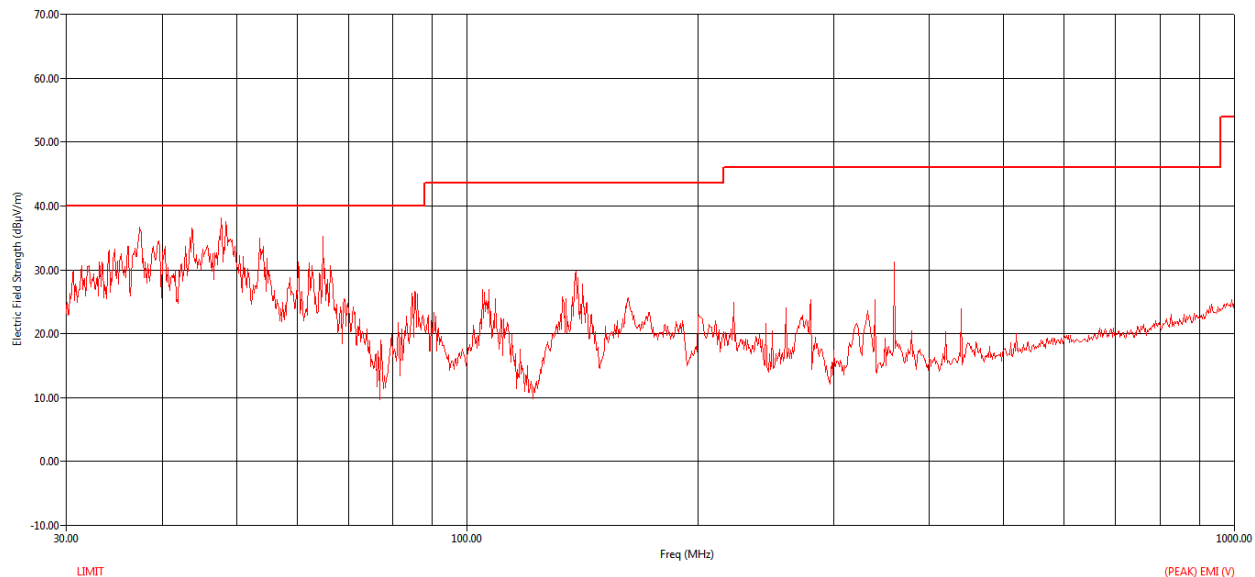


Figure 68 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
36.16	36.15	V	121.90	100.00	61.40	1.31	12.55	43.81	31.45	40.00	-8.55
37.36	37.36	V	180.00	100.00	67.87	1.33	12.44	43.81	37.84	40.00	-2.16
39.56	39.50	V	338.90	100.00	62.88	1.37	12.26	43.82	32.70	40.00	-7.30
43.80	43.80	V	103.60	100.00	64.64	1.45	10.77	43.82	33.04	40.00	-6.96
47.80	47.79	V	276.00	104.00	66.83	1.52	10.19	43.83	34.71	40.00	-5.29
64.80	64.78	V	358.20	152.00	66.73	1.74	9.51	43.87	34.11	40.00	-5.89
66.28	66.31	H	1.40	230.00	62.47	1.76	9.46	43.87	29.82	40.00	-10.18
138.48	138.43	V	310.30	100.00	55.20	2.49	12.16	43.94	25.91	43.52	-17.61
340.00	339.99	H	299.20	377.00	43.06	3.91	15.06	43.76	18.27	46.02	-27.75
360.00	360.00	H	315.60	117.00	58.35	4.02	15.58	43.71	34.24	46.02	-11.78

Table 52 Quasipeak Table from 30 MHz to 1 GHz

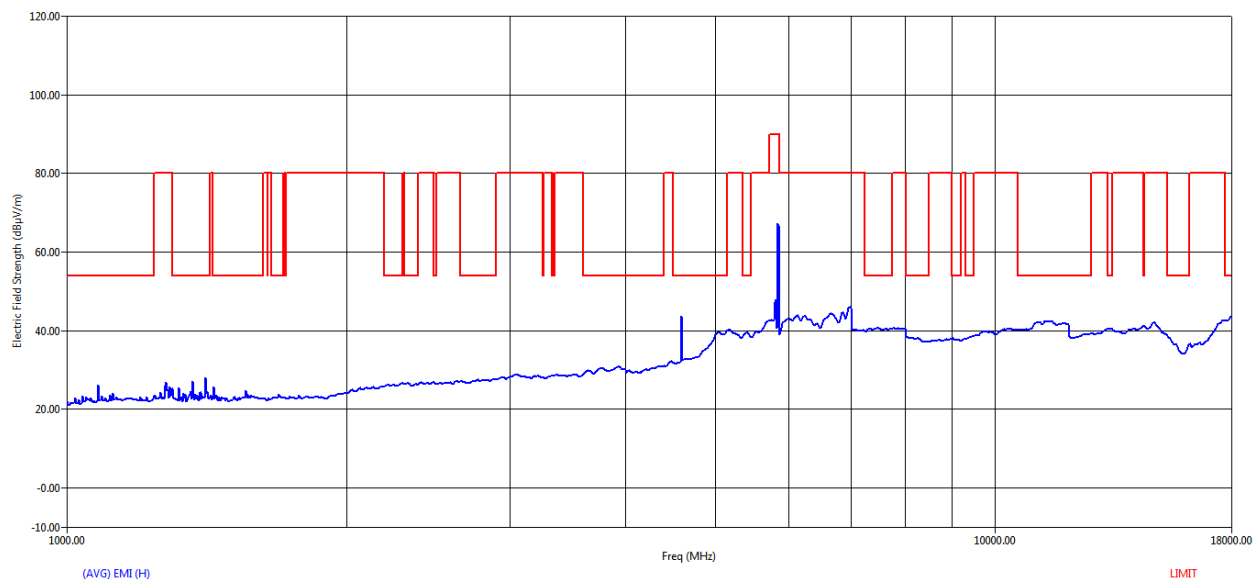


Figure 69 RE Graph from 1 GHz to 18 GHz using Average detector – Horizontal Polarization

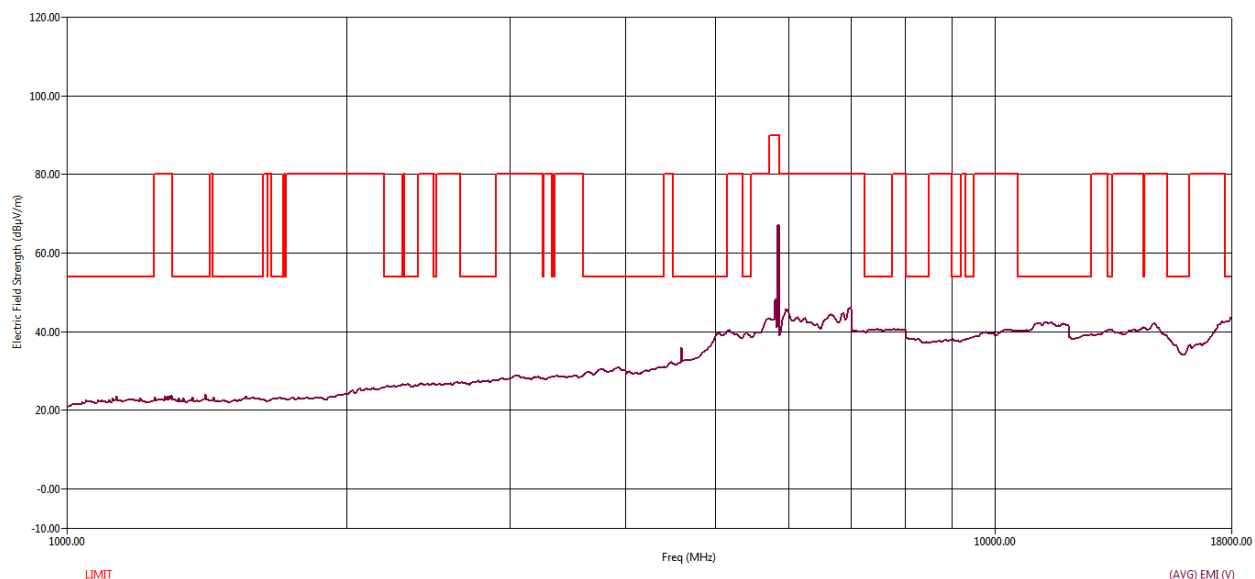


Figure 70 RE Graph from 1 GHz to 18 GHz using Average detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
4598.00	4598.00	H	180.00	161.00	41.47	3.54	31.32	29.05	47.28	54.00	-6.72
5804.40	5804.40	V	25.10	100.00	37.02	3.93	33.93	28.38	46.50	90.00	-43.50
5804.80	5804.80	H	23.90	100.00	37.31	3.93	33.93	28.38	46.79	90.00	-43.21
5960.00	5960.00	V	25.50	198.00	31.18	3.96	34.47	28.40	41.21	80.00	-38.79

Table 53 Average Table from 1 GHz to 18 GHz

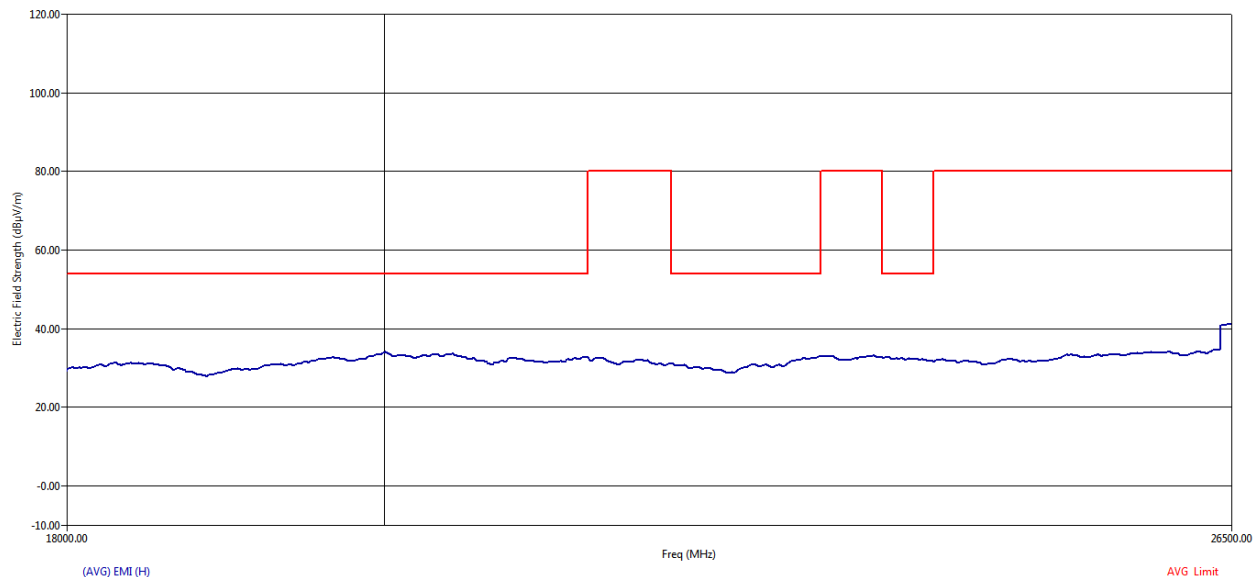


Figure 71 RE Graph from 18 GHz to 26.5 GHz using Average detector – Horizontal Polarization

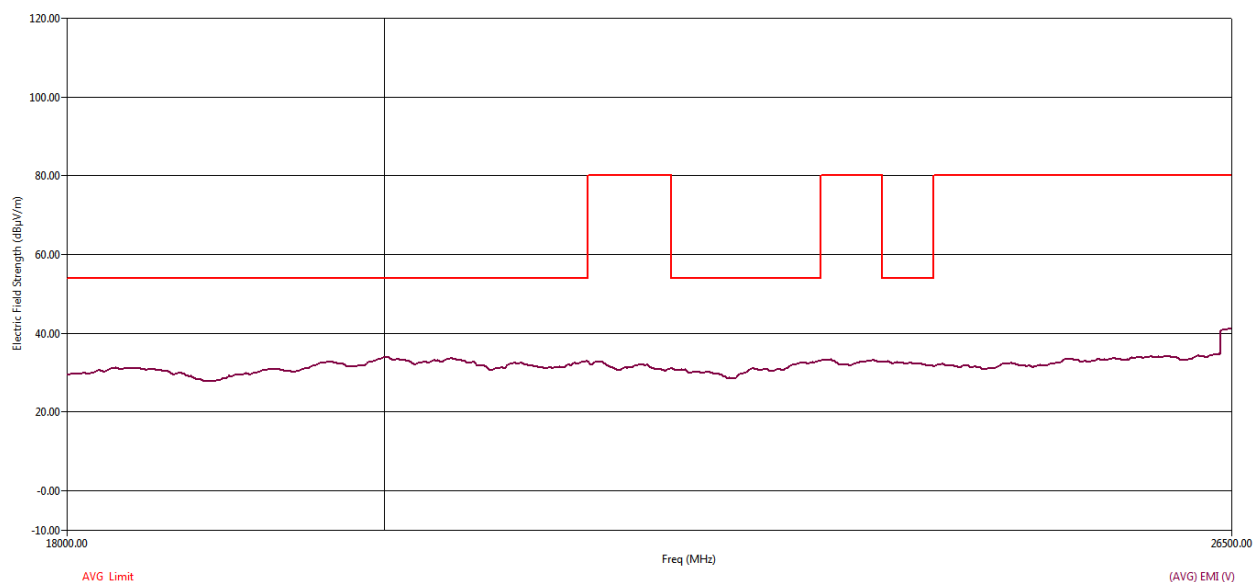


Figure 72 RE Graph from 18 GHz to 26.5 GHz using Average detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
20434.80	20434.80	V	220.20	123.00	32.42	7.60	36.76	43.53	33.25	54.00	-20.75
23158.00	23158.00	V	217.50	188.00	33.72	8.26	37.80	46.82	32.97	80.00	-47.03
26449.50	26449.50	V	141.30	138.00	31.71	9.30	37.83	44.25	34.58	80.00	-45.42

Table 54 Average Table from 18 GHz to 26.5 GHz

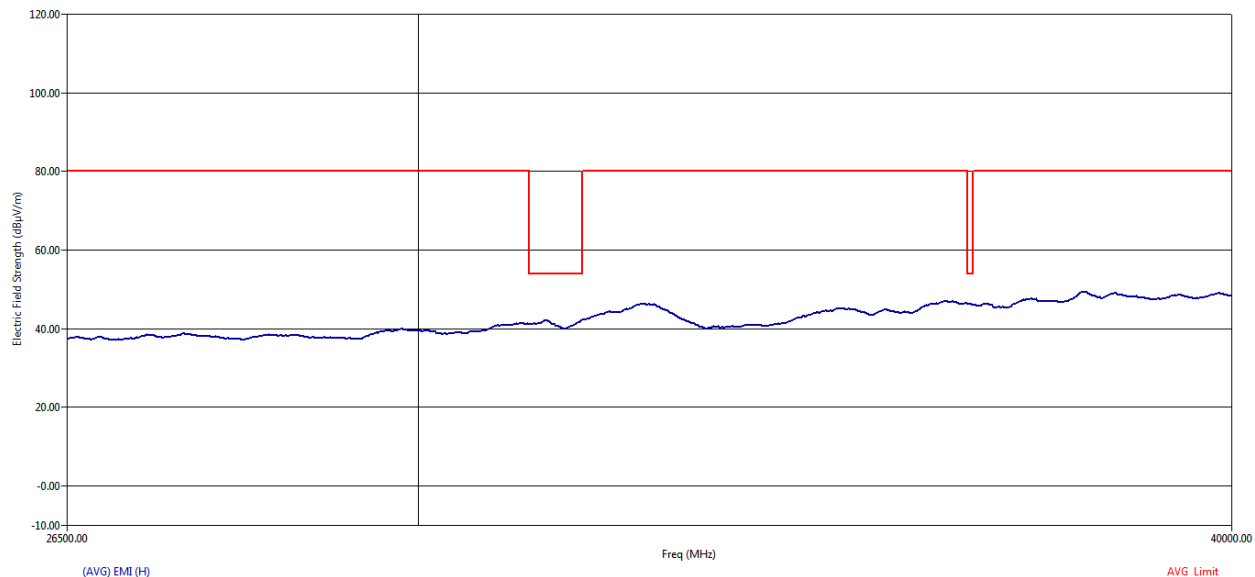


Figure 73 RE Graph from 26.5 GHz to 40 GHz using Average detector – Horizontal Polarization

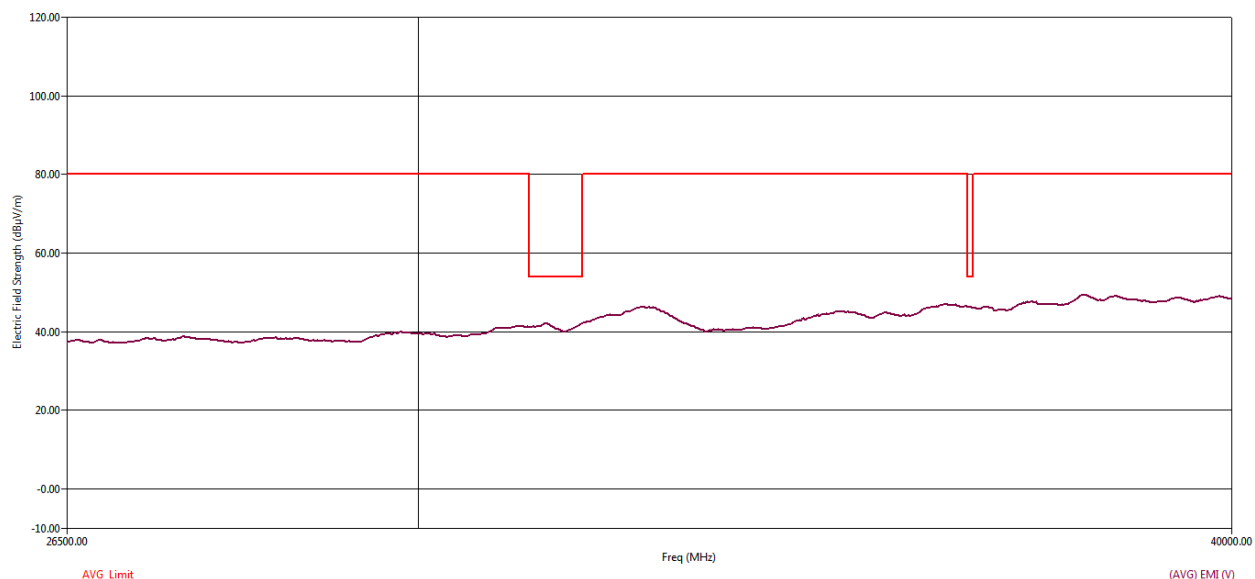


Figure 74 RE Graph from 26.5 GHz to 40 GHz using Average detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
32579.00	32579.00	H	271.40	102.00	40.83	10.68	38.94	44.46	45.99	80.00	-34.01
37959.20	37959.20	H	152.80	102.00	42.65	12.32	40.75	46.50	49.22	80.00	-30.78

Table 55 Average Table from 26.5 GHz to 40 GHz

5.3.1.5.3 40 MHz MODULATION BANDWIDTH FOR 6 dBi ANTENNA CONDITION LOW CHANNEL – 5750 MHz

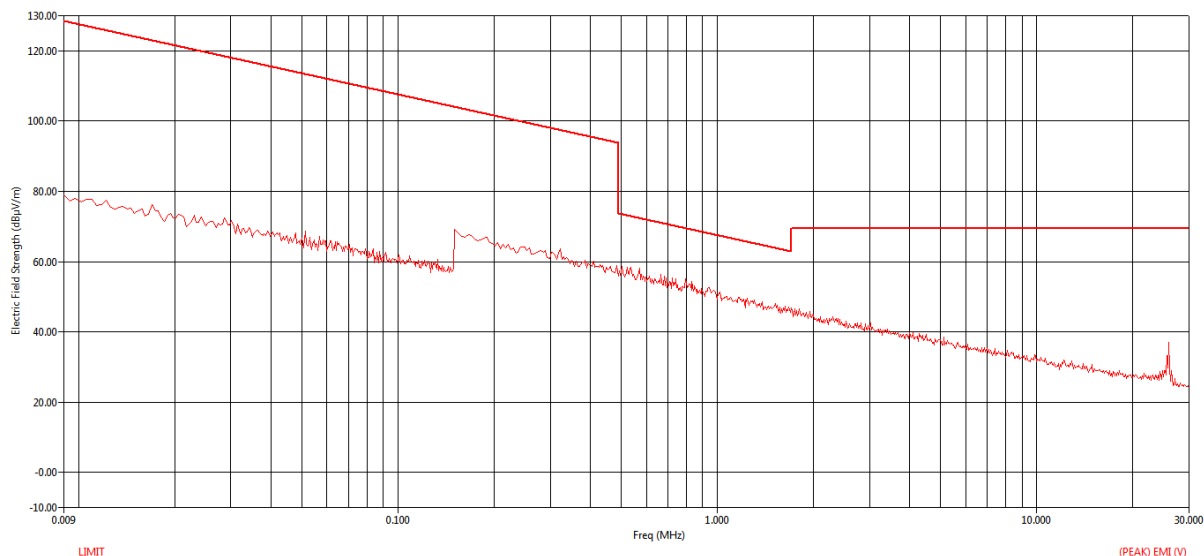


Figure 75 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel

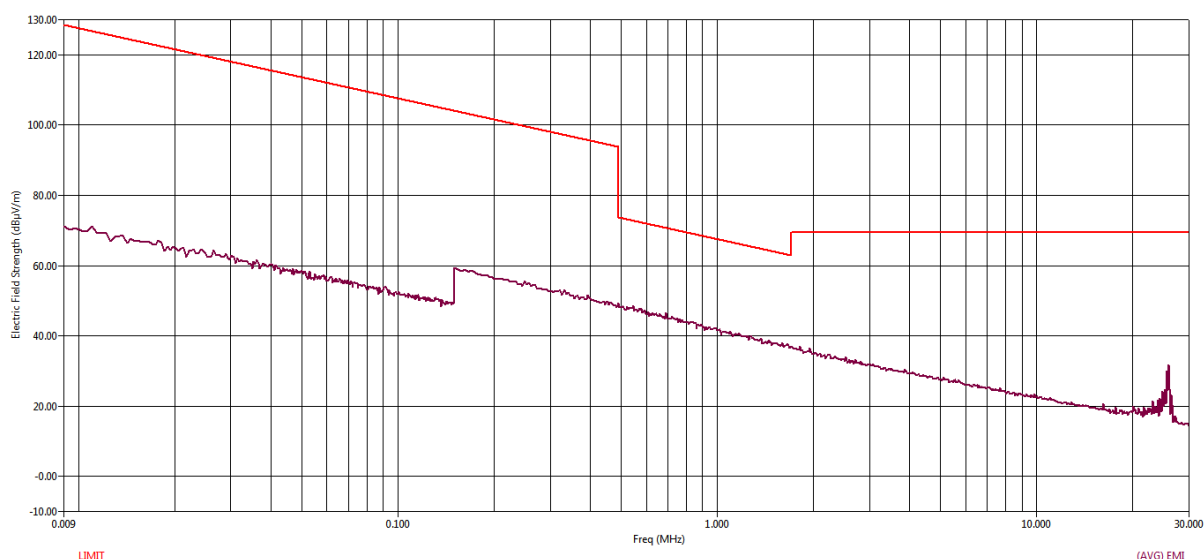


Figure 76 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbt Agl (deg)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
0.15	0.15	152.50	26.07	0.04	18.30	44.41	104.10	-59.69
0.15	0.15	11.90	45.25	0.04	18.29	63.58	103.81	-40.23
25.61	25.61	18.20	14.17	1.09	16.06	31.32	69.54	-38.22
25.87	25.87	226.00	17.57	1.10	16.04	34.71	69.54	-34.83

Table 56 Quasi peak Table from 9 kHz to 30 MHz

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)
0.15	0.15	152.50	30.39	0.04	18.30	48.73	104.10	-55.37
0.15	0.15	11.90	39.97	0.04	18.29	58.30	103.81	-45.51
25.61	25.61	18.20	12.84	1.09	16.06	30.00	69.54	-39.54
25.87	25.87	226.00	14.16	1.10	16.04	31.30	69.54	-38.24

Table 57 Average Table from 9 kHz to 30 MHz

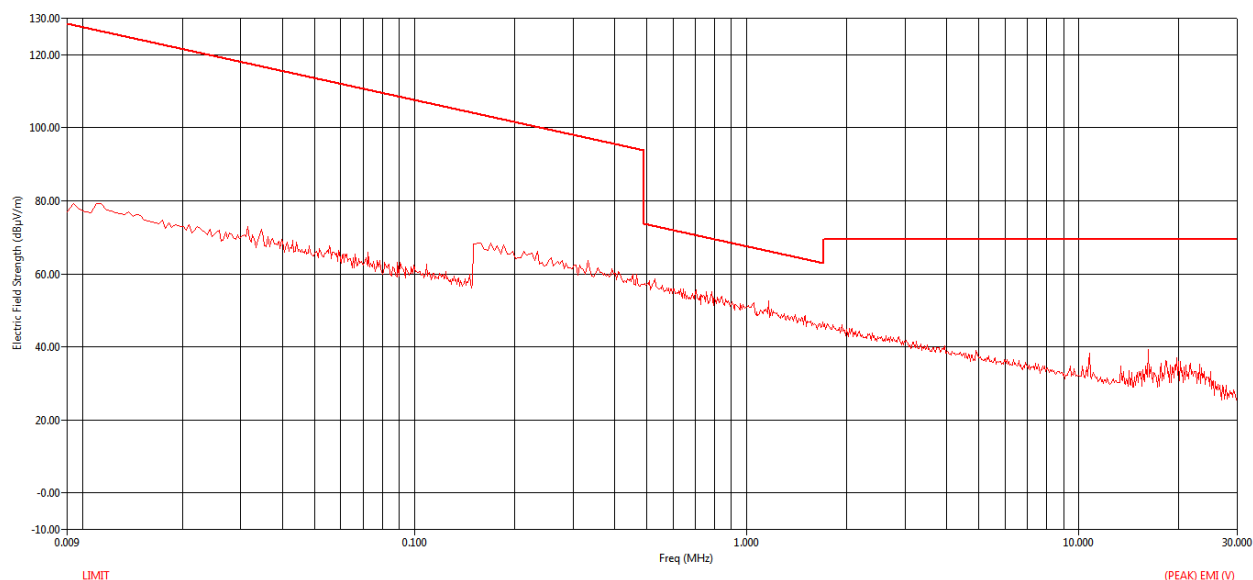


Figure 77 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular

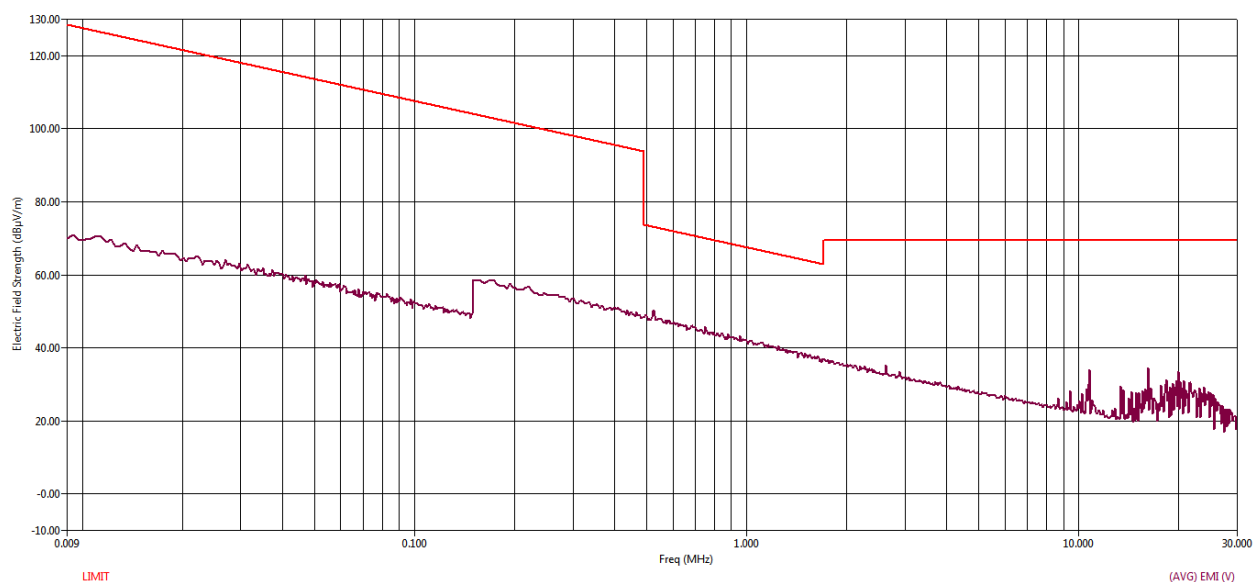


Figure 78 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular

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)
0.16	0.15	281.70	45.29	0.04	18.30	63.62	104.02	-40.40
16.17	16.17	54.60	19.47	0.87	16.80	37.14	69.54	-32.40
16.23	16.23	186.50	20.73	0.87	16.79	38.40	69.54	-31.14
19.71	19.71	179.90	15.98	0.96	16.52	33.46	69.54	-36.08

Table 58 Quasi peak Table from 9 kHz to 30 MHz

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)
0.16	0.15	281.70	40.01	0.04	18.30	58.35	104.02	-45.68
16.17	16.17	54.60	16.39	0.87	16.80	34.06	69.54	-35.48
16.23	16.23	186.50	17.51	0.87	16.79	35.17	69.54	-34.37
19.71	19.71	179.90	11.80	0.96	16.52	29.28	69.54	-40.26

Table 59 Average Table from 9 kHz to 30 MHz

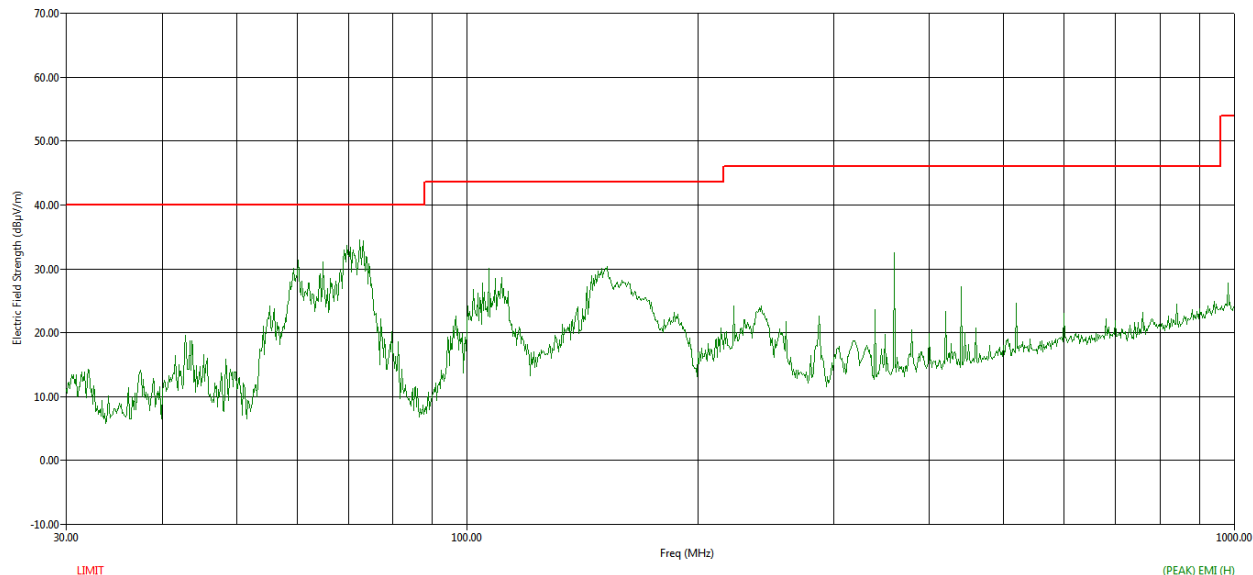


Figure 79 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal Polarization

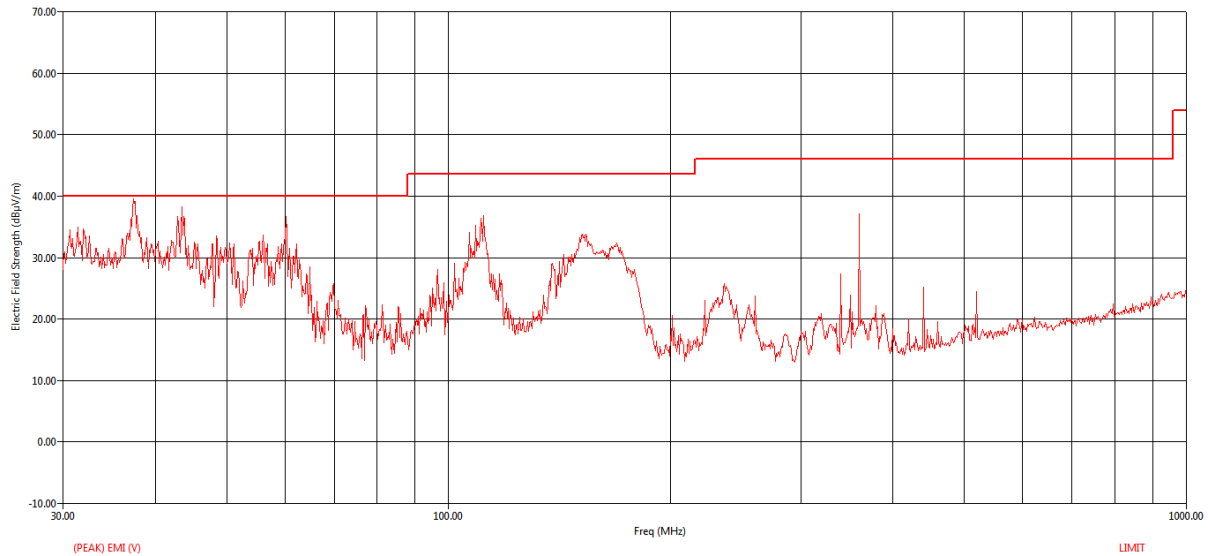


Figure 80 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
31.48	31.42	V	54.00	116.00	53.05	1.20	13.09	43.80	23.54	40.00	-16.46
37.36	37.36	V	204.90	103.00	68.26	1.33	12.45	43.81	38.23	40.00	-1.77
43.52	43.50	V	179.90	100.00	67.71	1.45	10.88	43.82	36.22	40.00	-3.78
60.24	60.21	V	107.80	100.00	68.38	1.69	9.63	43.86	35.85	40.00	-4.15
72.44	72.40	H	180.10	235.00	63.30	1.83	9.35	43.89	30.59	40.00	-9.41
110.84	110.79	H	189.80	126.00	57.20	2.24	10.15	43.94	25.65	43.52	-17.87
111.64	111.58	V	258.40	100.00	63.20	2.25	10.19	43.94	31.69	43.52	-11.83
360.00	360.01	H	254.30	126.00	56.93	4.02	15.58	43.71	32.82	46.02	-13.20
360.00	360.00	V	12.80	110.00	63.02	4.02	15.57	43.71	38.90	46.02	-7.12

Table 60 QP Table from 30 MHz to 1 GHz

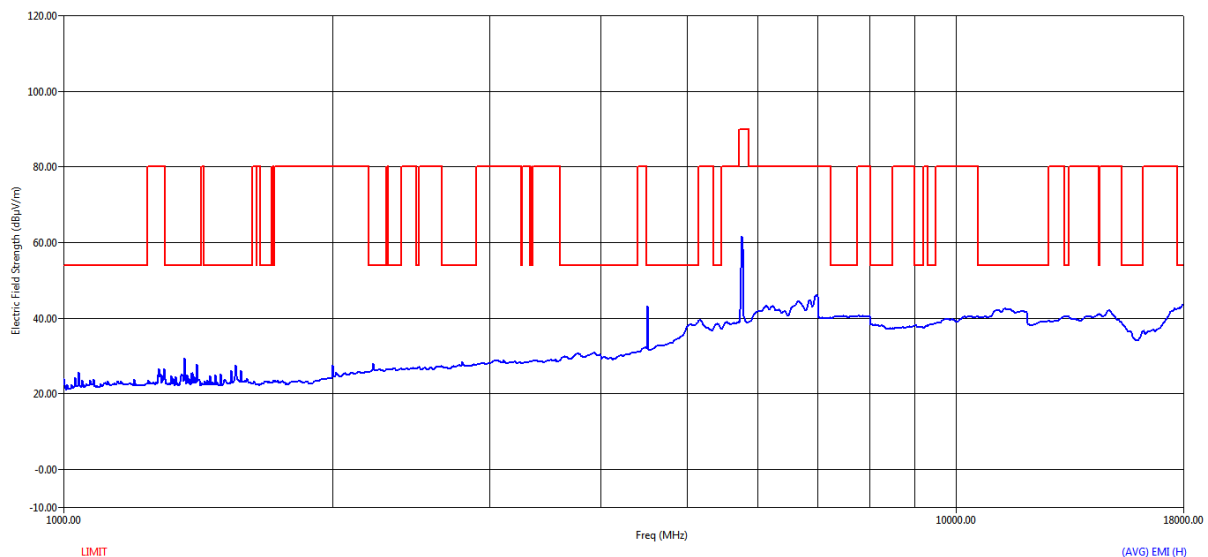


Figure 81 RE Graph from 1 GHz to 18 GHz using Average Detector – Horizontal Polarization

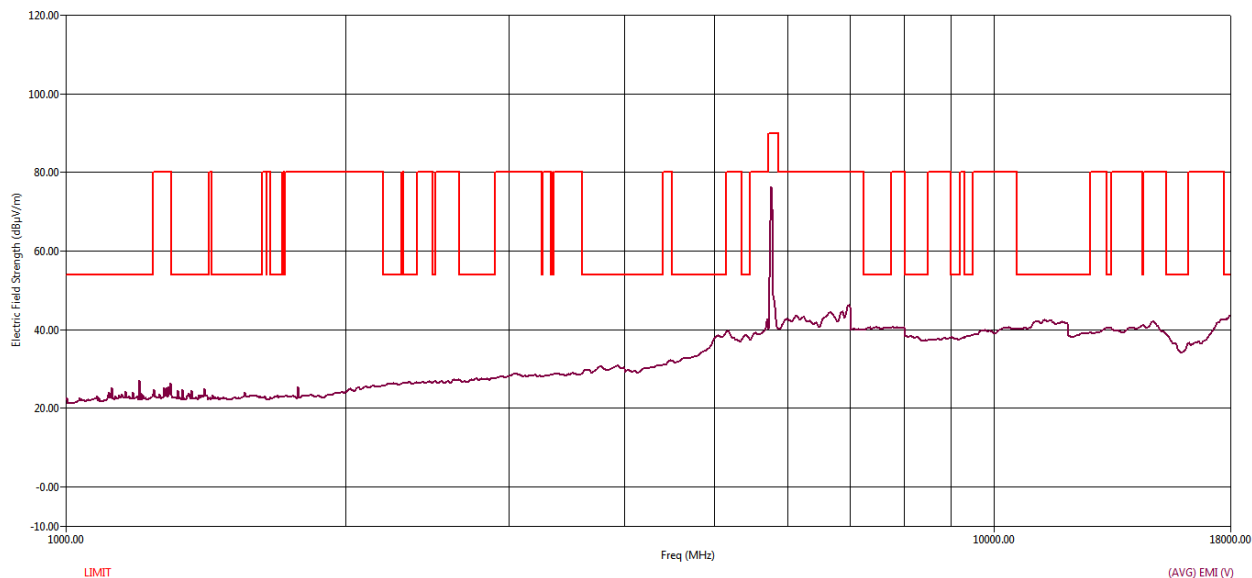


Figure 82 RE Graph from 1 GHz to 18 GHz using Average Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
4513.00	4513.00	H	180.00	114.00	27.28	3.49	30.96	29.22	32.50	54.00	-21.50
5701.98	5701.98	V	15.00	100.00	34.56	3.91	33.58	28.37	43.67	80.00	-36.33
5792.38	5792.38	V	357.50	100.00	40.02	3.93	33.89	28.38	49.45	90.00	-40.55
6970.26	6970.26	V	175.80	124.00	34.26	4.20	35.84	28.30	46.00	80.00	-34.00

Table 61 Average Table from 1 GHz to 18 GHz

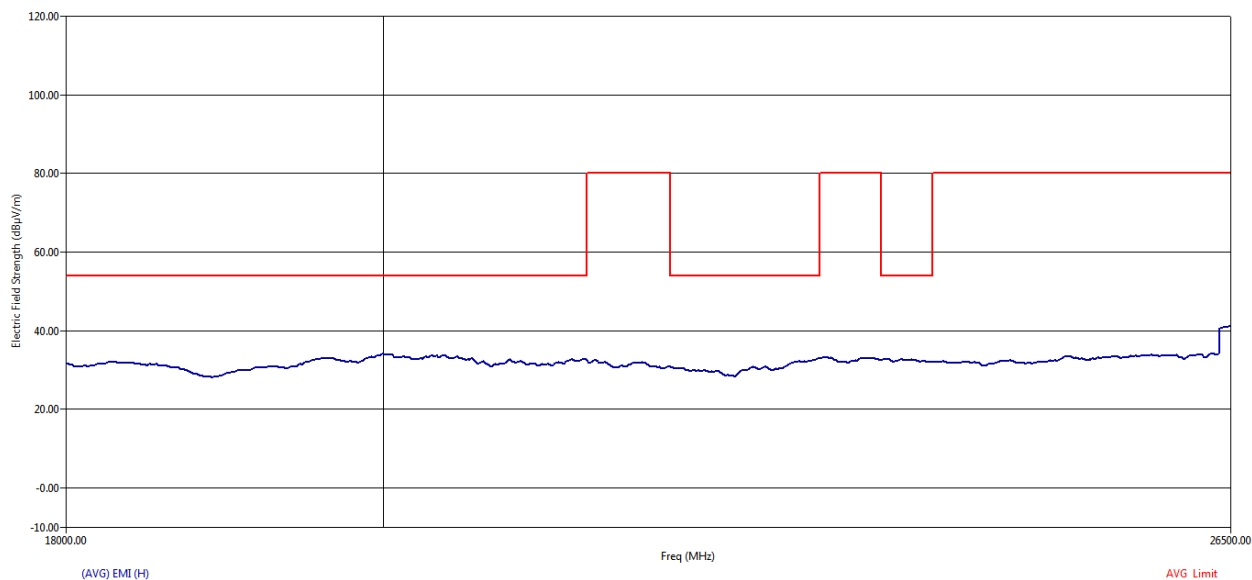


Figure 83 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Horizontal Polarization

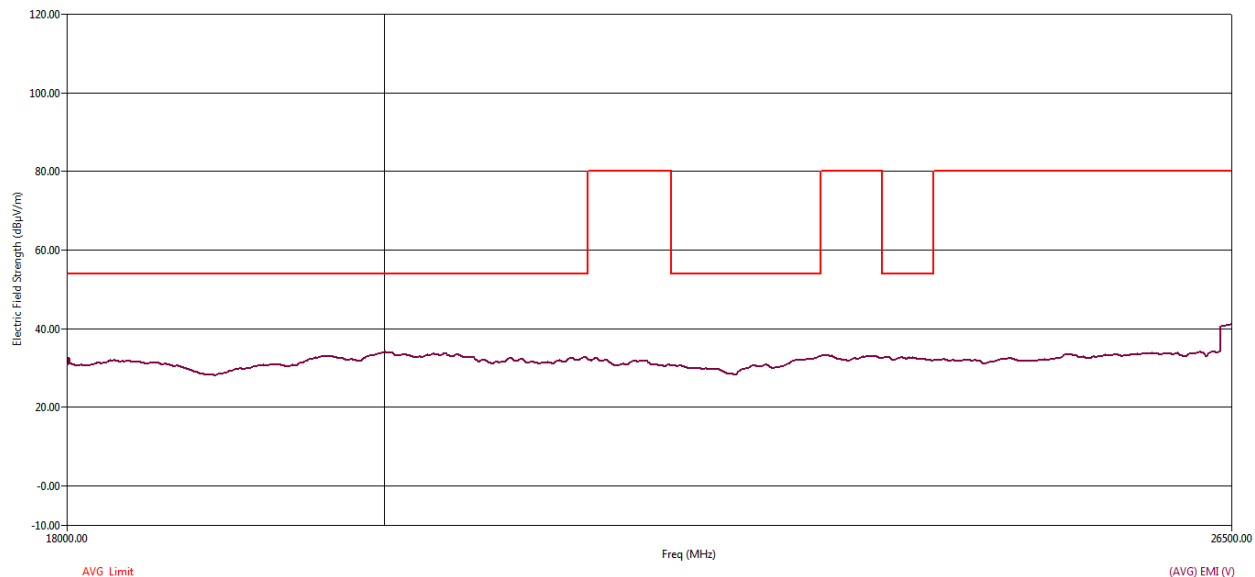


Figure 84 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
20056.40	19166.12	H	7.90	149.00	33.90	6.62	36.69	46.86	30.35	54.00	-23.65
23177.20	23193.46	V	133.90	100.00	33.54	8.29	38.04	46.79	33.07	80.00	-46.93
26463.20	25167.29	V	180.00	110.00	32.37	8.81	38.17	46.41	32.94	80.00	-47.06

Table 62 Average Table from 18 GHz to 26.5 GHz

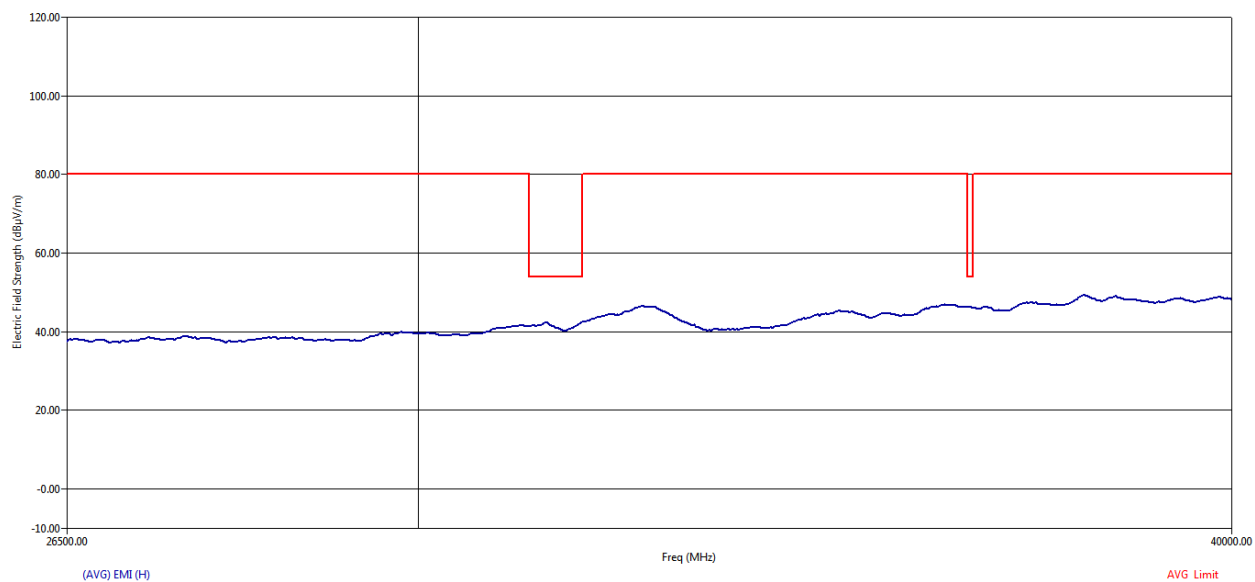


Figure 85 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Horizontal Polarization

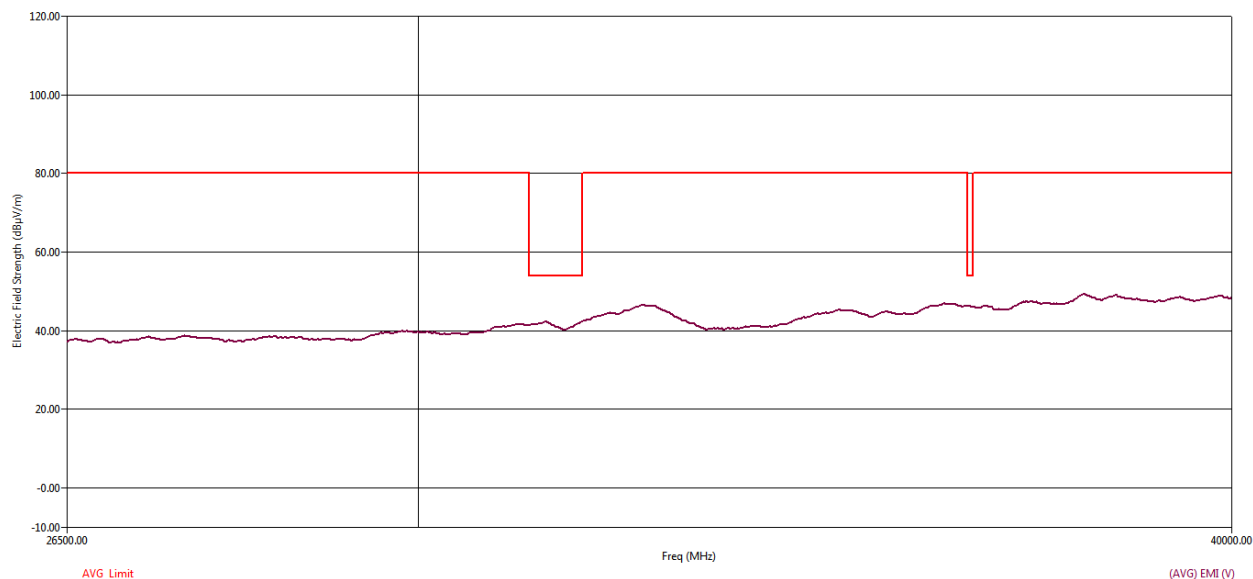


Figure 86 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
37963.00	37829.86	V	110.40	199.00	41.39	12.33	40.56	46.61	47.68	80.00	-32.32
38403.60	38400.27	H	182.40	162.00	42.70	12.15	41.14	47.07	48.92	80.00	-31.08

Table 63 Average Table from 26.5 GHz to 40 GHz

MID CHANNEL – 5775 MHz

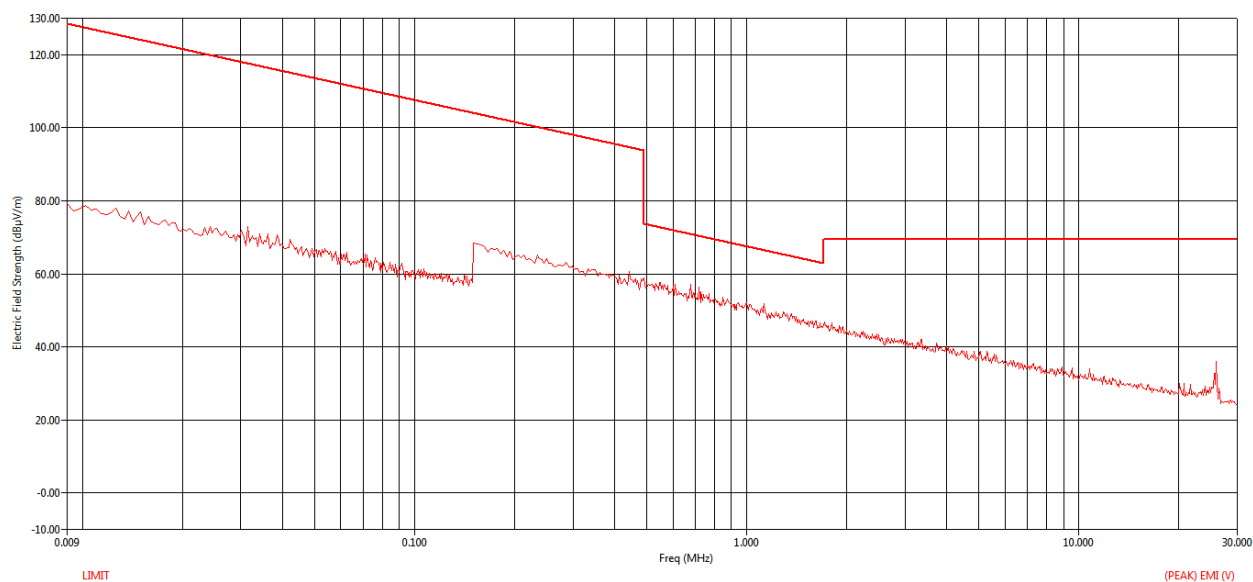


Figure 87 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel

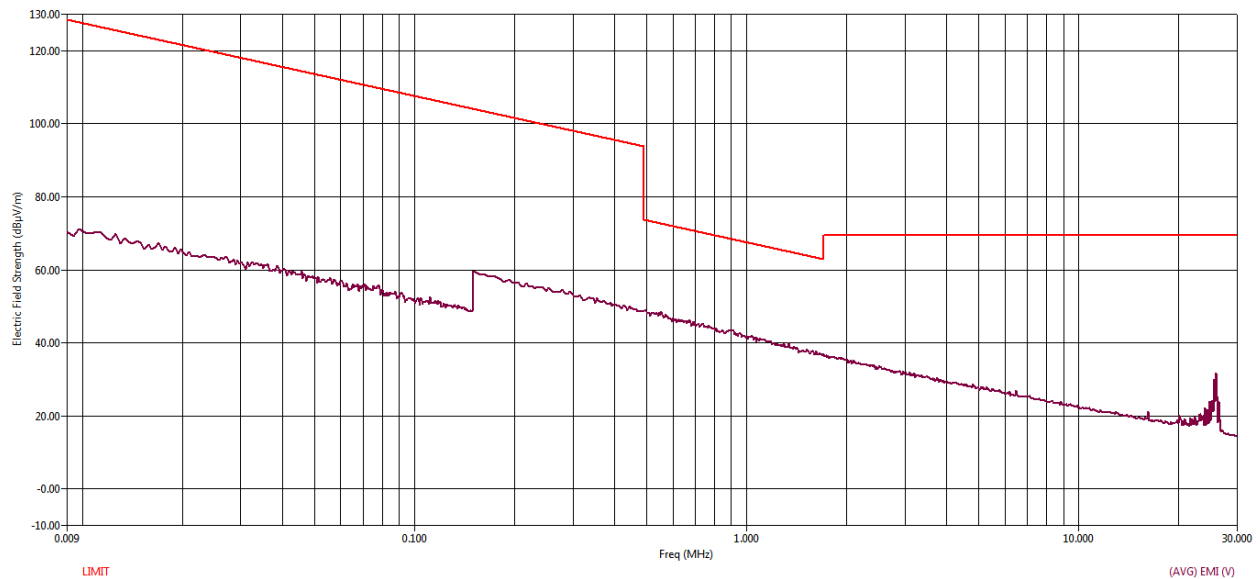


Figure 88 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbt Agl (deg)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
0.15	0.15	227.60	26.59	0.04	18.30	44.93	104.10	-59.17
0.15	0.15	270.60	45.25	0.04	18.30	63.58	103.96	-40.38
25.61	25.61	209.30	14.22	1.09	16.06	31.37	69.54	-38.17
25.87	25.88	234.70	16.40	1.10	16.04	33.54	69.54	-36.00

Table 64 Quasi peak Table from 9 kHz to 30 MHz

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbt Agl (deg)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
0.15	0.15	227.60	30.29	0.04	18.30	48.63	104.10	-55.47
0.15	0.15	270.60	40.01	0.04	18.30	58.34	103.96	-45.62
25.61	25.61	209.30	12.79	1.09	16.06	29.94	69.54	-39.60
25.87	25.88	234.70	12.84	1.10	16.04	29.98	69.54	-39.56

Table 65 Average Table from 9 kHz to 30 MHz

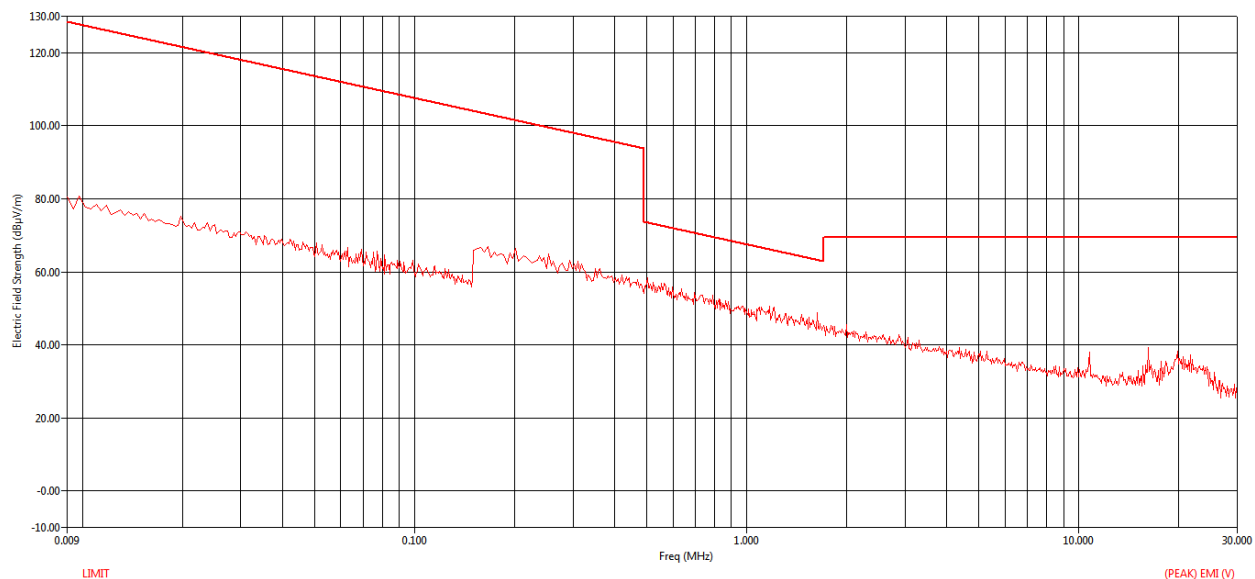


Figure 89 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular

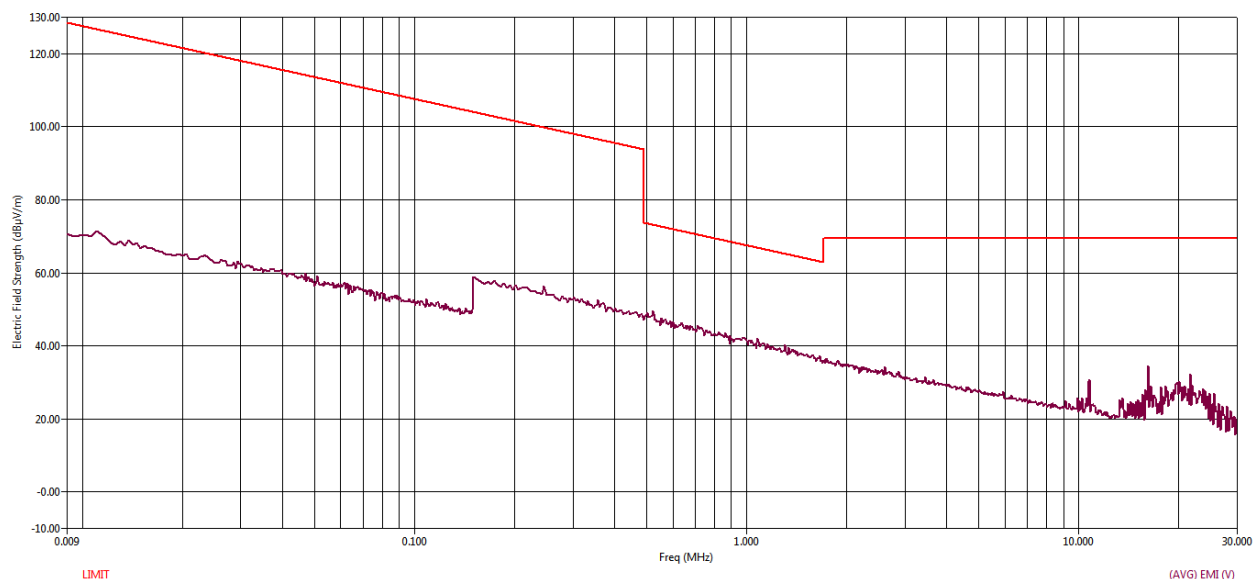


Figure 90 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbl Agl (deg)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
10.79	10.79	284.20	18.00	0.72	17.22	35.95	69.54	-33.59
16.23	16.23	11.20	20.92	0.87	16.79	38.59	69.54	-30.95
19.82	19.82	184.70	14.20	0.96	16.51	31.68	69.54	-37.86

Table 66 Quasi peak Table from 9 kHz to 30 MHz

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbi Agl (deg)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
10.79	10.79	284.20	14.01	0.72	17.22	31.96	69.54	-37.58
16.23	16.23	11.20	17.74	0.87	16.79	35.41	69.54	-34.13
19.82	19.82	184.70	9.34	0.96	16.51	26.82	69.54	-42.72

Table 67 Average Table from 9 kHz to 30 MHz

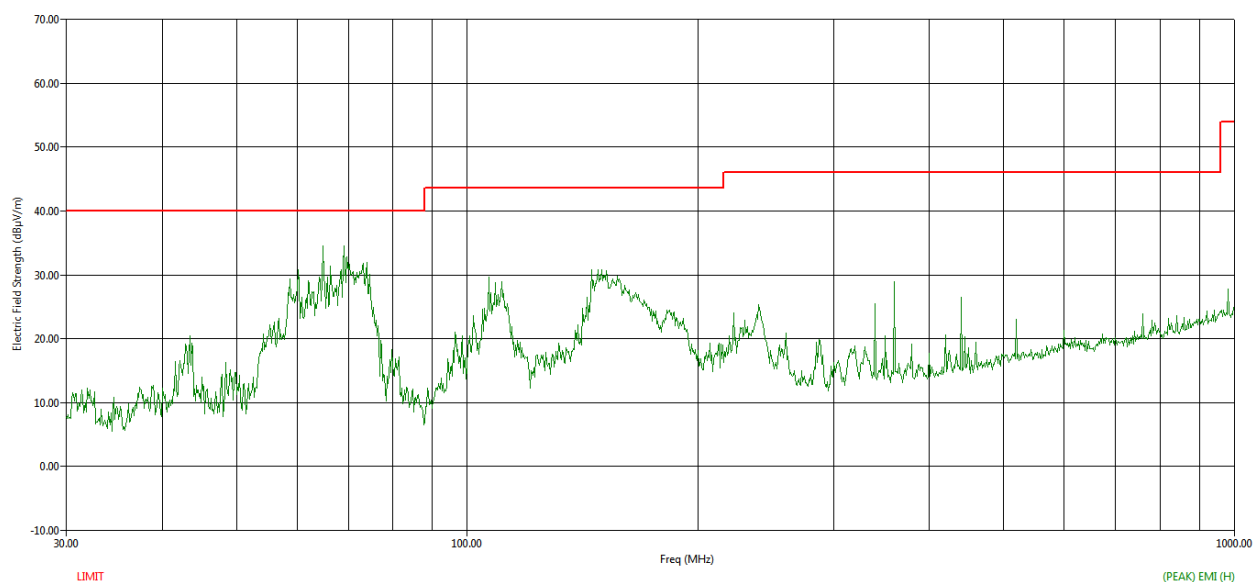


Figure 91 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal Polarization

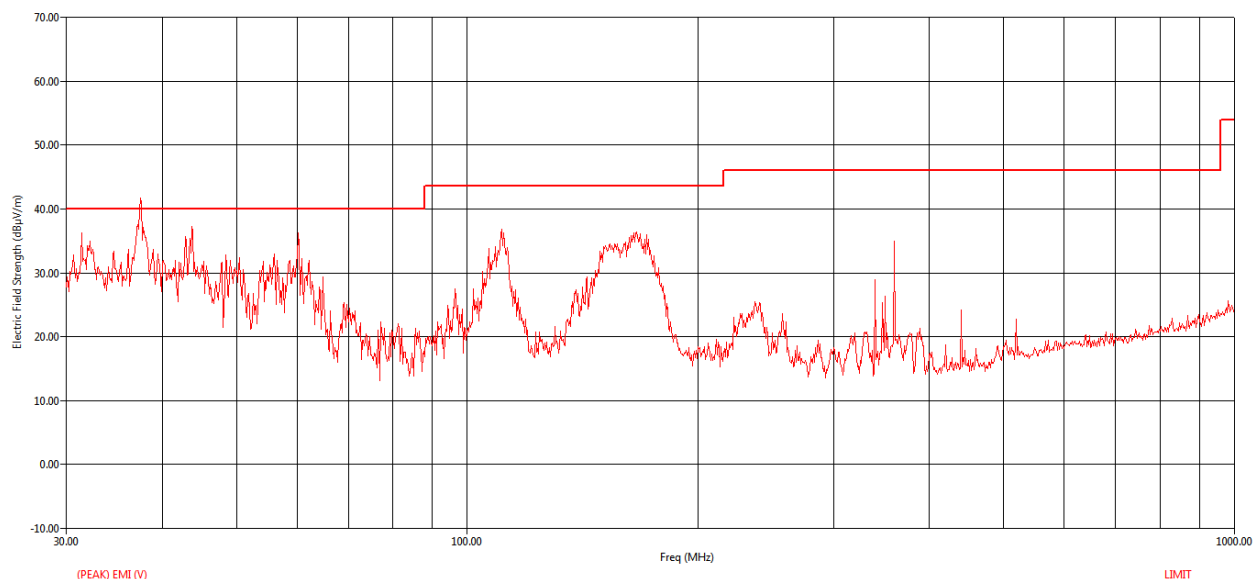


Figure 92 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT TtBl Agl (deg)	Twr Ht (cm)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
31.48	31.41	V	307.90	102.00	59.77	1.20	13.09	43.80	30.26	40.00	-9.74
37.36	37.38	V	179.90	105.00	68.38	1.33	12.44	43.81	38.35	40.00	-1.65
43.52	43.51	V	42.10	108.00	66.95	1.45	10.88	43.82	35.45	40.00	-4.55
60.24	60.22	V	63.10	100.00	69.30	1.69	9.63	43.86	36.76	40.00	-3.24
72.44	72.40	H	185.80	252.00	63.08	1.83	9.35	43.89	30.37	40.00	-9.63
110.84	110.77	H	189.70	127.00	57.20	2.24	10.15	43.94	25.65	43.52	-17.87
111.64	111.56	V	246.90	103.00	63.61	2.25	10.19	43.94	32.11	43.52	-11.41

Table 68 QP Table from 30 MHz to 1 GHz

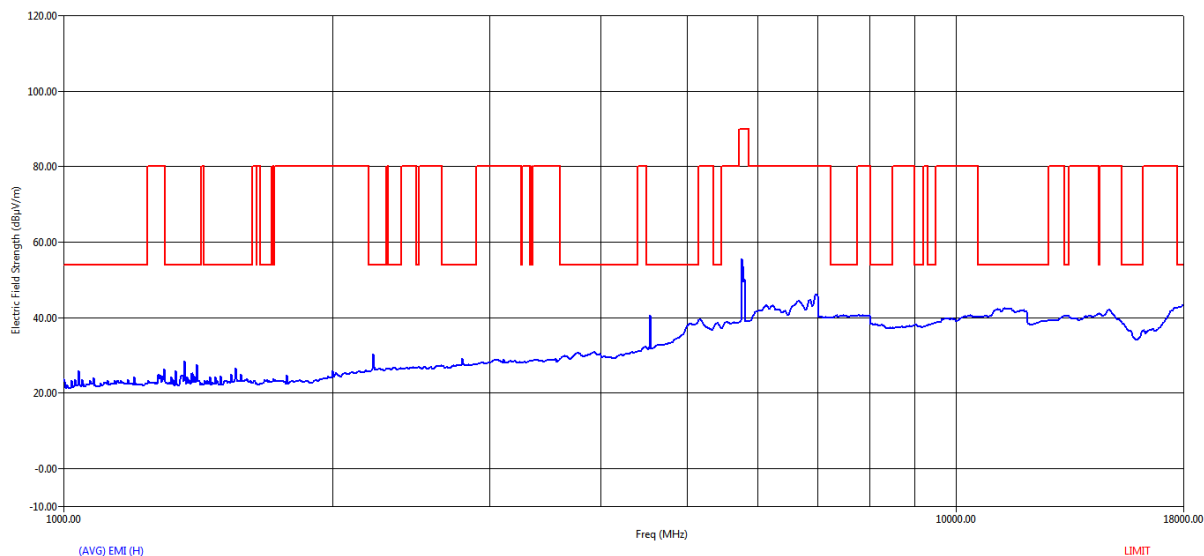


Figure 93 RE Graph from 1 GHz to 18 GHz using Average Detector – Horizontal Polarization

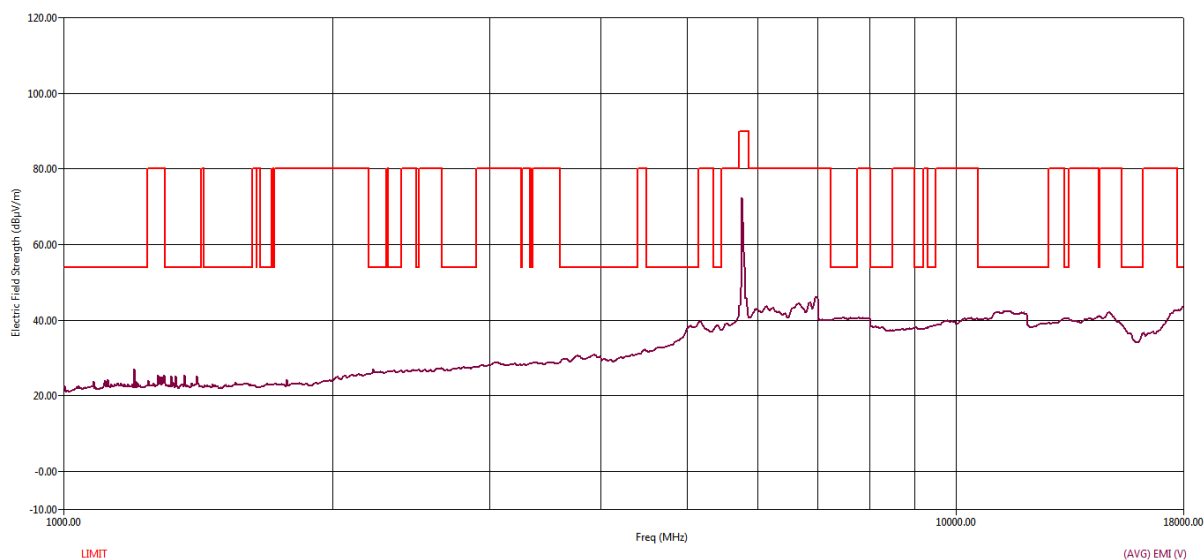


Figure 94 RE Graph from 1 GHz to 18 GHz using Average Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
4538.00	4538.00	H	180.00	122.00	26.55	3.50	31.06	29.17	31.95	54.00	-22.05
5724.20	5724.20	H	312.90	100.00	29.77	3.91	33.65	28.37	38.96	90.00	-51.04

Table 69 Average Table from 1 GHz to 18 GHz

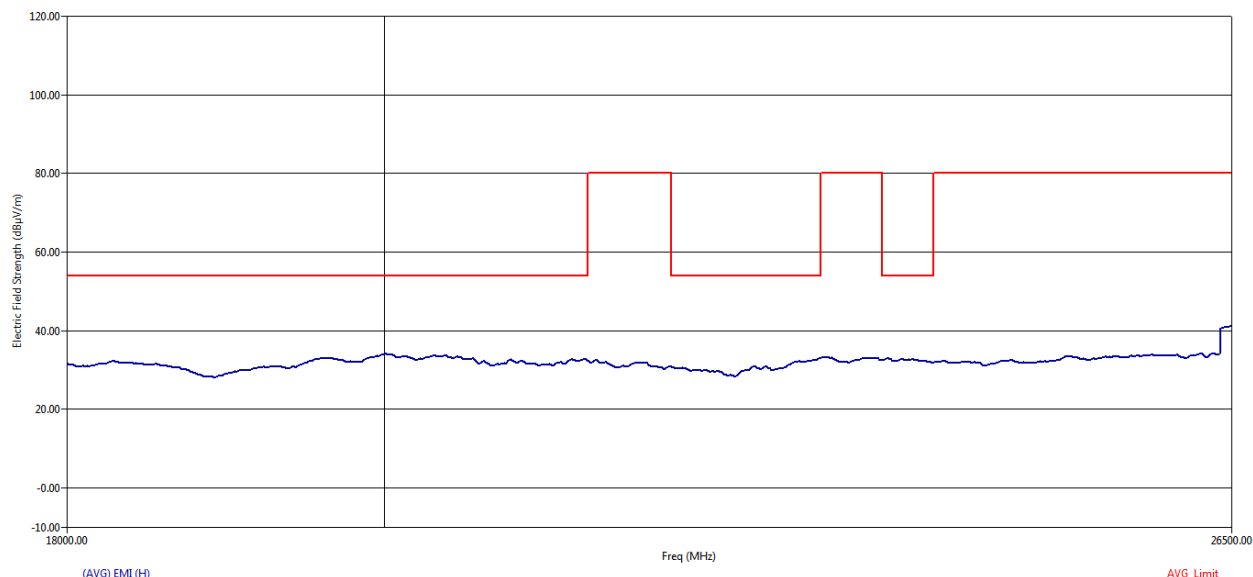


Figure 95 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Horizontal Polarization

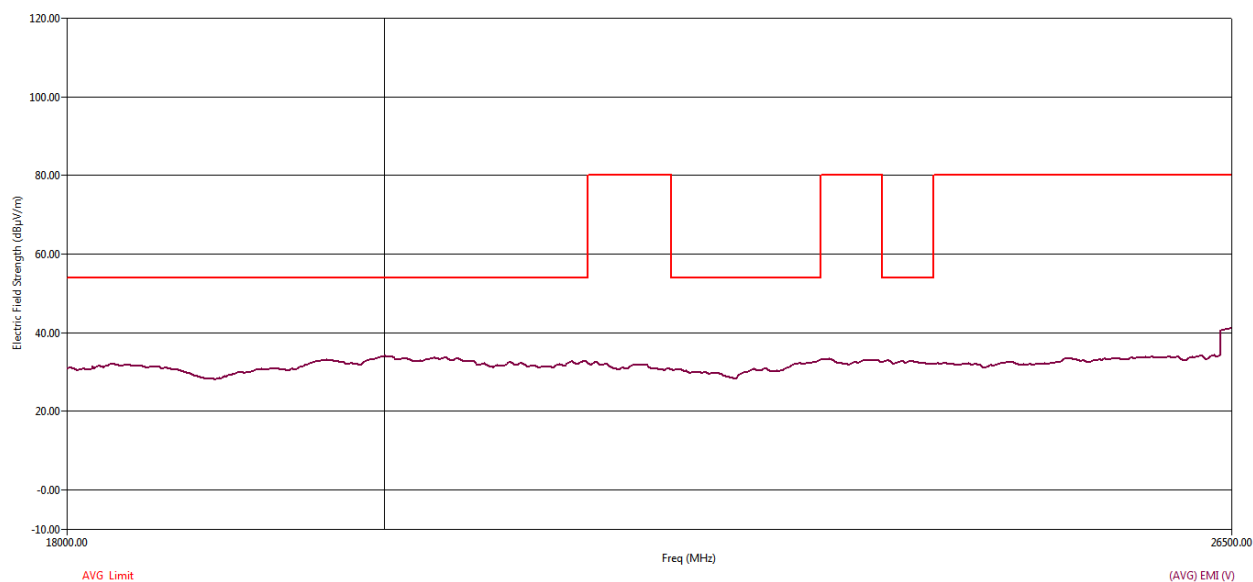


Figure 96 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
20010.30	19166.18	H	355.20	148.00	33.95	6.62	36.69	46.86	30.39	54.00	-23.61
25947.90	24835.83	V	351.30	132.00	32.17	8.59	38.07	47.17	31.66	80.00	-48.34
26431.50	25658.71	V	335.10	187.00	32.24	8.98	38.24	46.12	33.33	80.00	-46.67

Table 70 Average Table from 18 GHz to 26.5 GHz

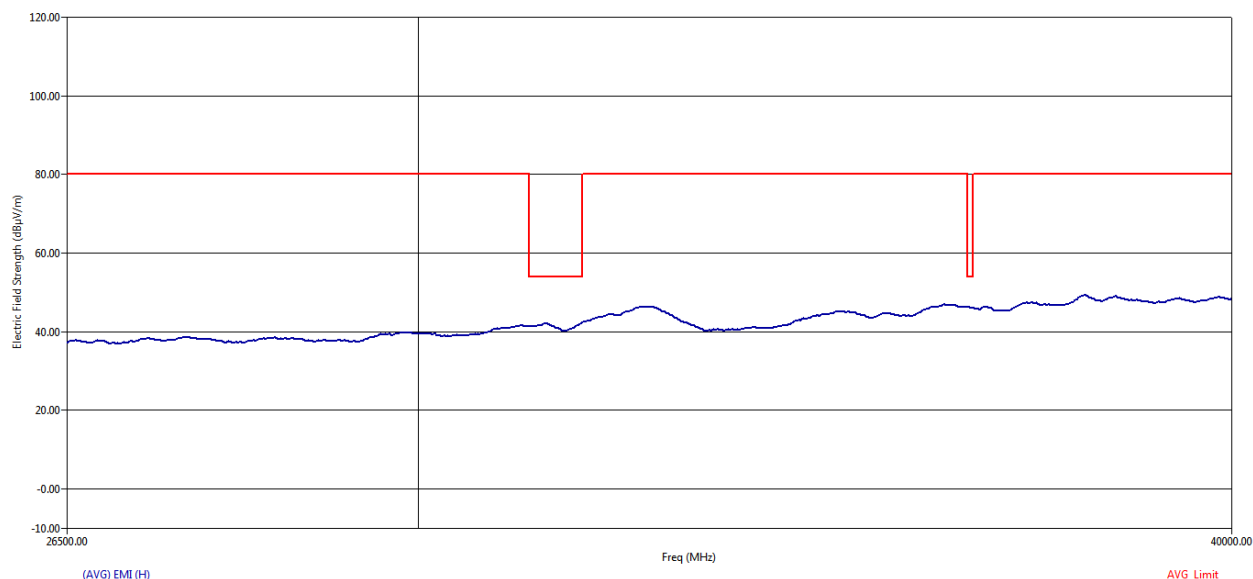


Figure 97 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Horizontal Polarization

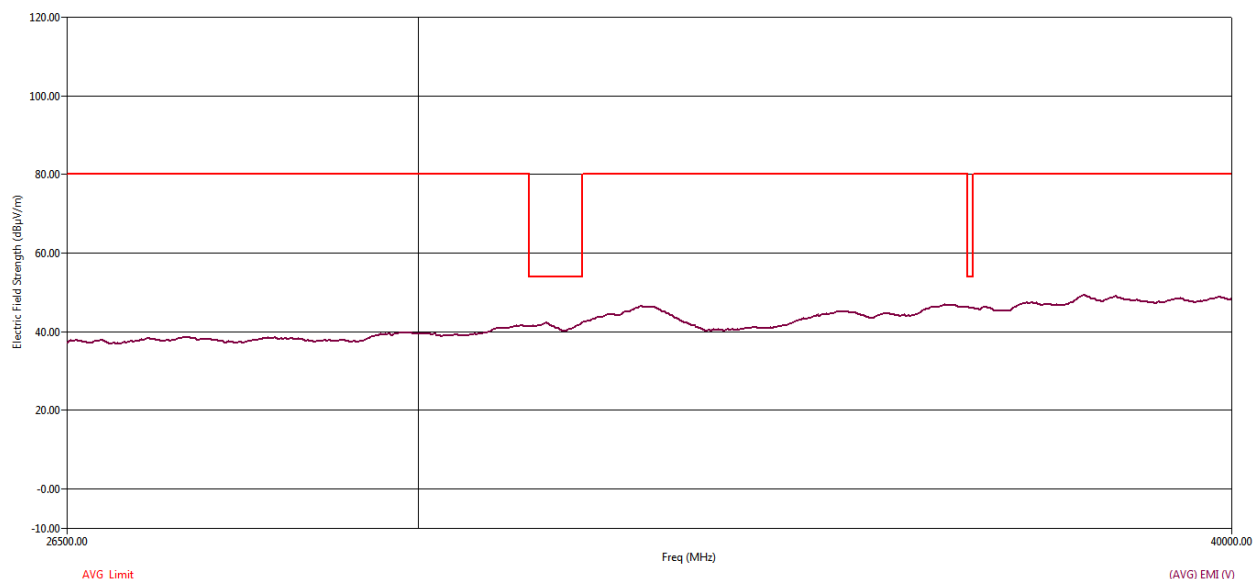


Figure 98 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
32499.80	33408.36	H	143.60	143.00	41.65	10.60	39.35	51.30	40.29	80.00	-39.71
37953.20	37888.55	V	180.10	143.00	41.98	12.32	40.65	46.56	48.39	80.00	-31.61

Table 71 Average Table from 26.5 GHz to 40 GHz

HIGH CHANNEL – 5825 MHz

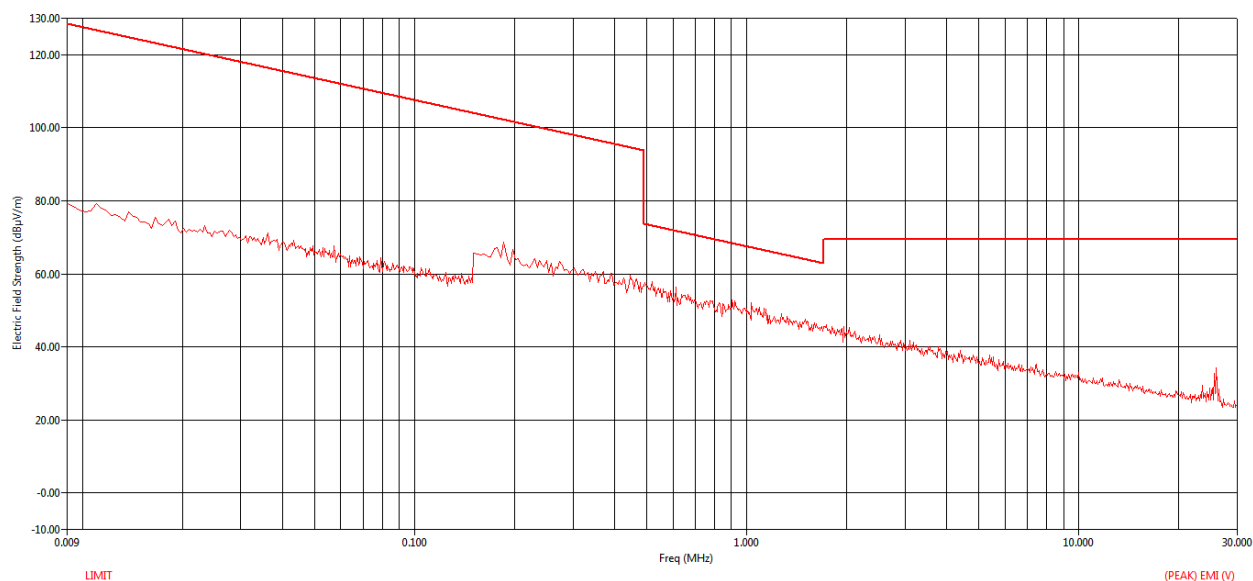


Figure 99 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel

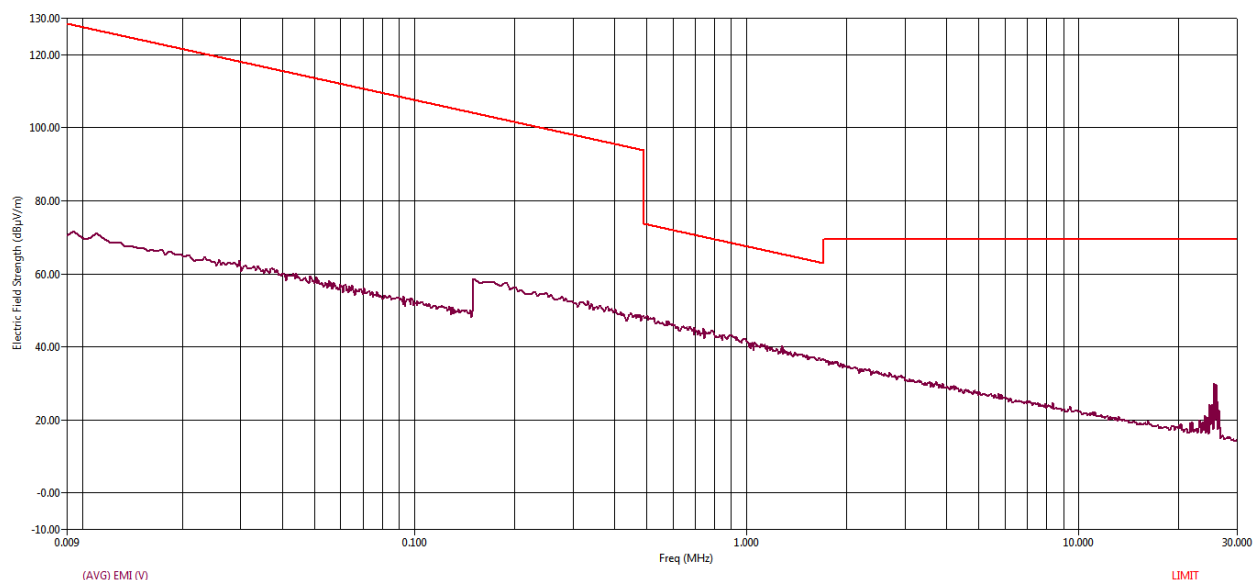


Figure 100 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbt Agl (deg)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
0.19	0.18	148.10	44.19	0.04	18.27	62.49	102.69	-40.19
25.61	25.60	182.80	13.23	1.09	16.06	30.38	69.54	-39.16
25.87	25.87	179.90	14.76	1.10	16.04	31.90	69.54	-37.64

Table 72 Quasi peak Table from 9 kHz to 30 MHz

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbt Agl (deg)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
0.19	0.18	148.10	38.79	0.04	18.27	57.09	102.69	-45.59
25.61	25.60	182.80	11.03	1.09	16.06	28.18	69.54	-41.36
25.87	25.87	179.90	11.84	1.10	16.04	28.98	69.54	-40.56

Table 73 Average Table from 9 kHz to 30 MHz

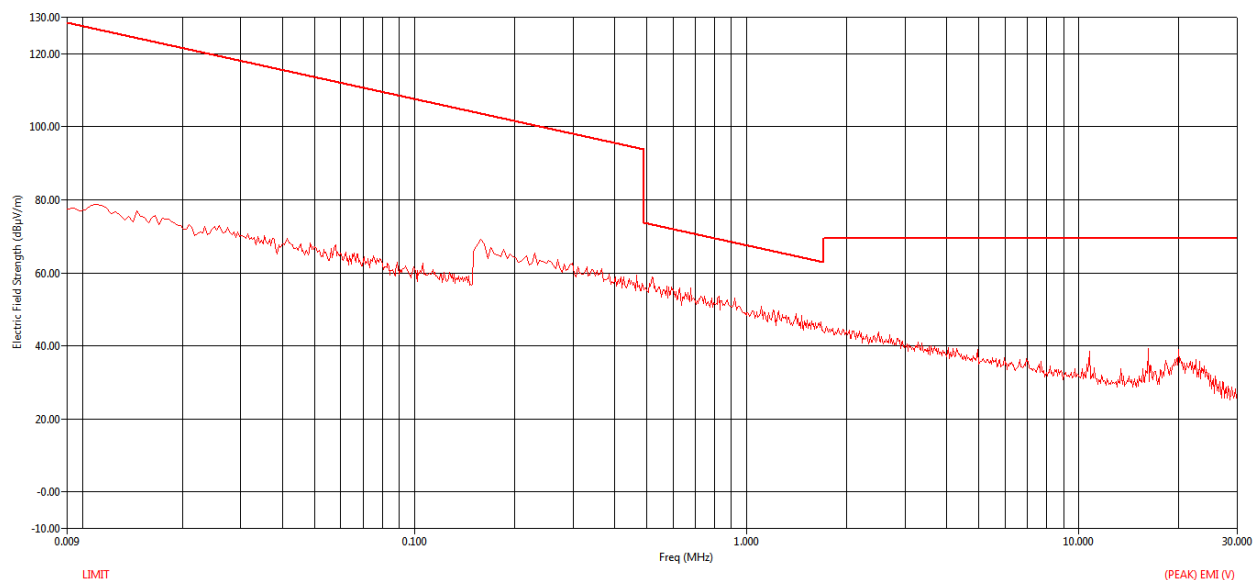


Figure 101 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular

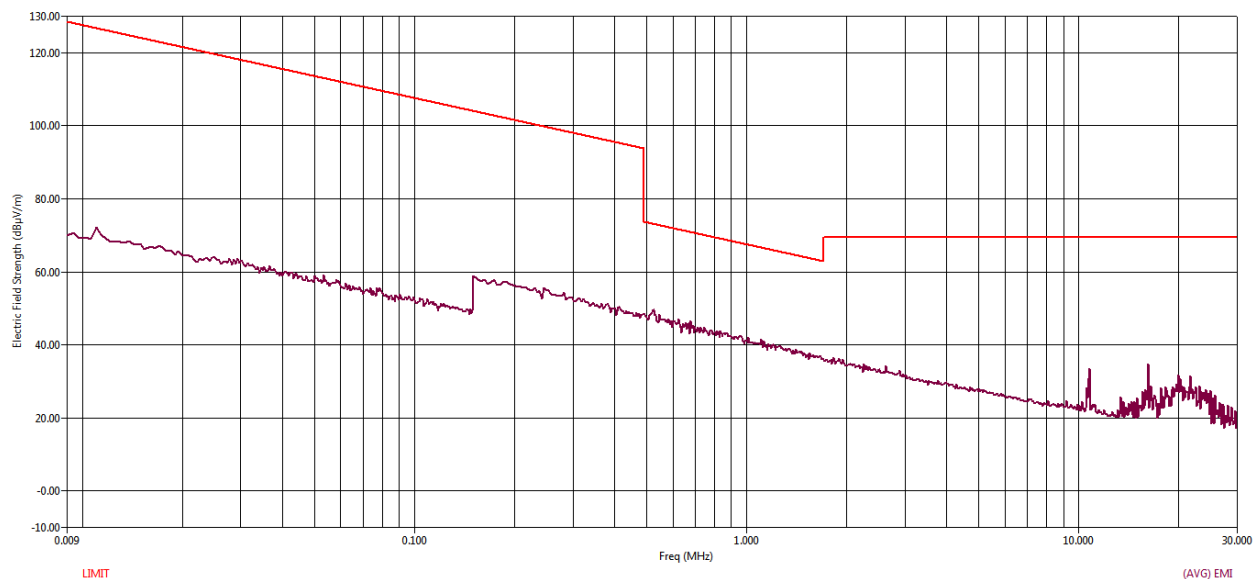


Figure 102 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbt Agl (deg)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
10.79	10.79	48.10	17.82	0.72	17.22	35.77	69.54	-33.77
16.23	16.23	194.70	19.97	0.87	16.79	37.64	69.54	-31.90
19.95	19.96	221.00	12.90	0.97	16.50	30.37	69.54	-39.17

Table 74 Quasi peak Table from 9 kHz to 30 MHz

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbt Agl (deg)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
10.79	10.79	48.10	11.73	0.72	17.22	29.67	69.54	-39.87
16.23	16.23	194.70	16.37	0.87	16.79	34.04	69.54	-35.50
19.95	19.96	221.00	7.66	0.97	16.50	25.13	69.54	-44.41

Table 75 Average Table from 9 kHz to 30 MHz

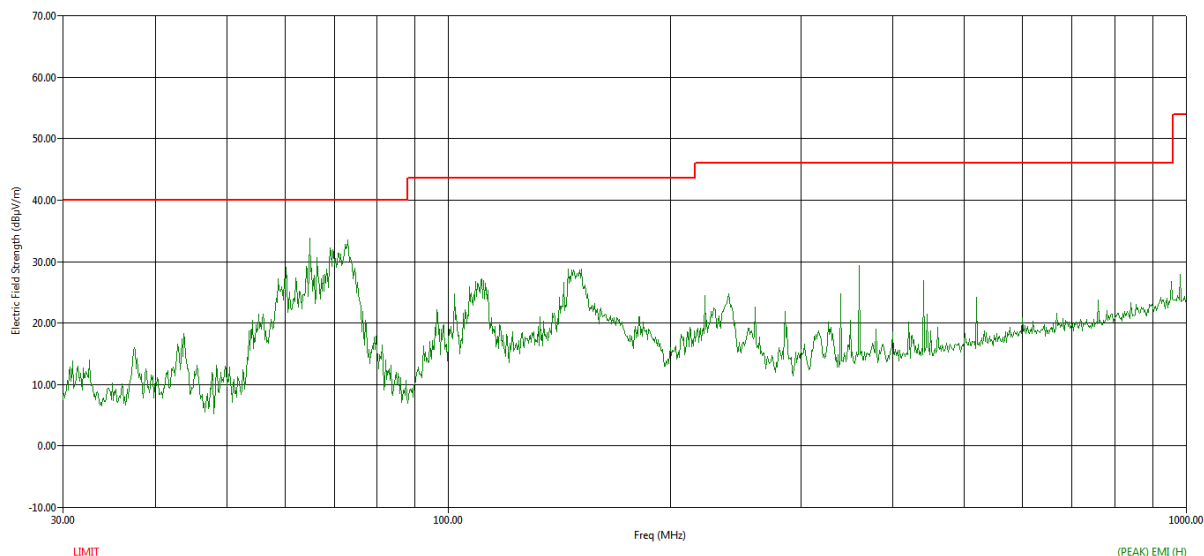


Figure 103 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal Polarization

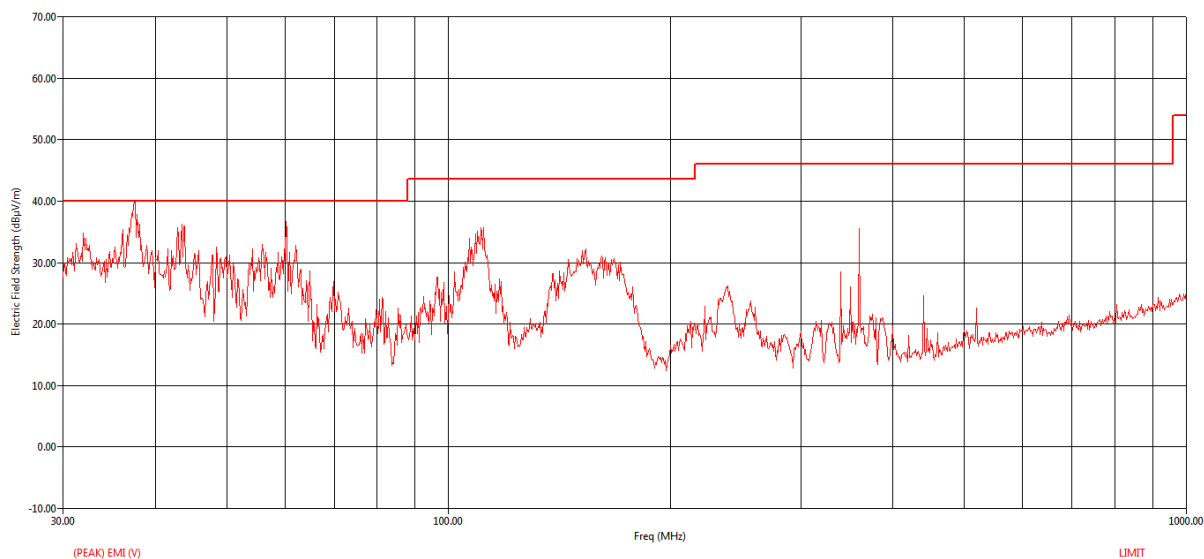


Figure 104 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
32.00	32.03	V	27.10	101.00	57.20	1.22	13.01	43.80	27.62	40.00	-12.38
36.16	36.18	V	4.30	101.00	59.77	1.31	12.55	43.81	29.82	40.00	-10.18
37.56	37.53	V	182.60	101.00	67.62	1.34	12.43	43.81	37.57	40.00	-2.43
42.96	42.94	V	358.10	104.00	66.73	1.44	11.09	43.82	35.44	40.00	-4.56
43.52	43.51	V	358.20	124.00	67.02	1.45	10.88	43.82	35.52	40.00	-4.48
55.88	55.86	V	89.70	103.00	61.05	1.63	9.81	43.85	28.64	40.00	-11.36
60.24	60.22	V	103.10	117.00	69.09	1.69	9.63	43.86	36.56	40.00	-3.44
62.04	62.03	V	30.40	133.00	61.29	1.71	9.58	43.86	28.72	40.00	-11.28
64.80	64.79	H	199.10	255.00	67.55	1.74	9.51	43.87	34.93	40.00	-5.07
73.08	73.16	H	180.20	221.00	62.49	1.84	9.35	43.89	29.78	40.00	-10.22
111.64	111.55	V	259.20	101.00	63.23	2.25	10.19	43.94	31.72	43.52	-11.80

Table 76 QP Table from 30 MHz to 1 GHz

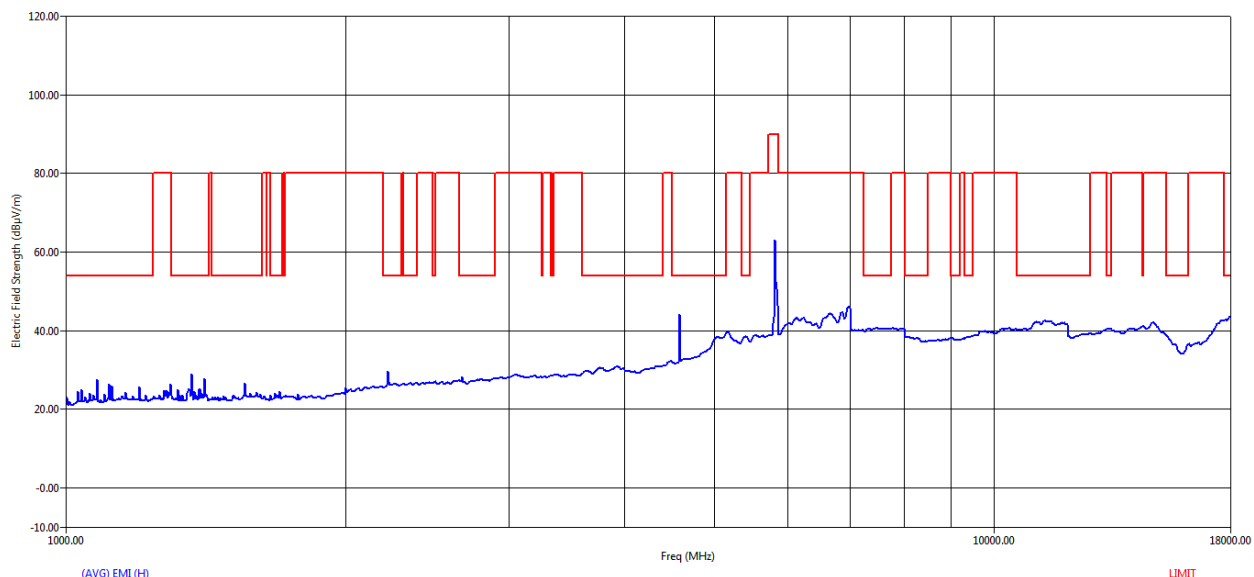


Figure 105 RE Graph from 1 GHz to 18 GHz using Average Detector – Horizontal Polarization

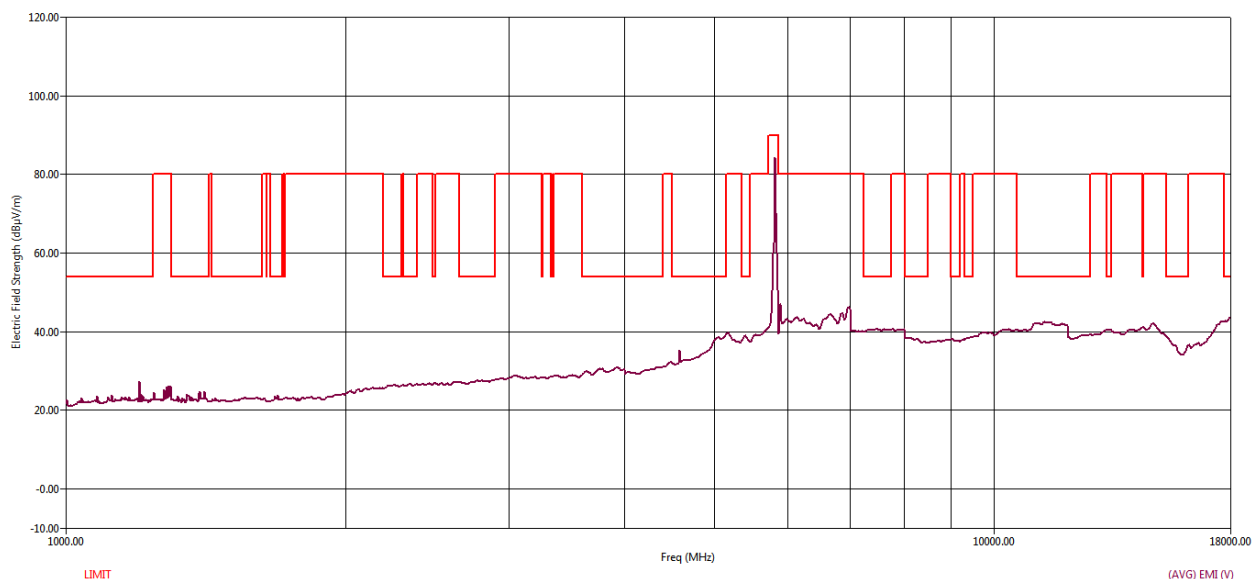


Figure 106 RE Graph from 1 GHz to 18 GHz using Average Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
4588.00	4588.00	H	179.90	137.00	26.89	3.53	31.28	29.07	32.63	54.00	-21.37
5703.30	5703.30	V	6.10	105.00	30.83	3.91	33.58	28.37	39.94	80.00	-40.06
5877.60	5877.60	V	17.20	100.00	36.14	3.94	34.19	28.39	45.88	80.00	-34.12

Table 77 Average Table from 1 GHz to 18 GHz

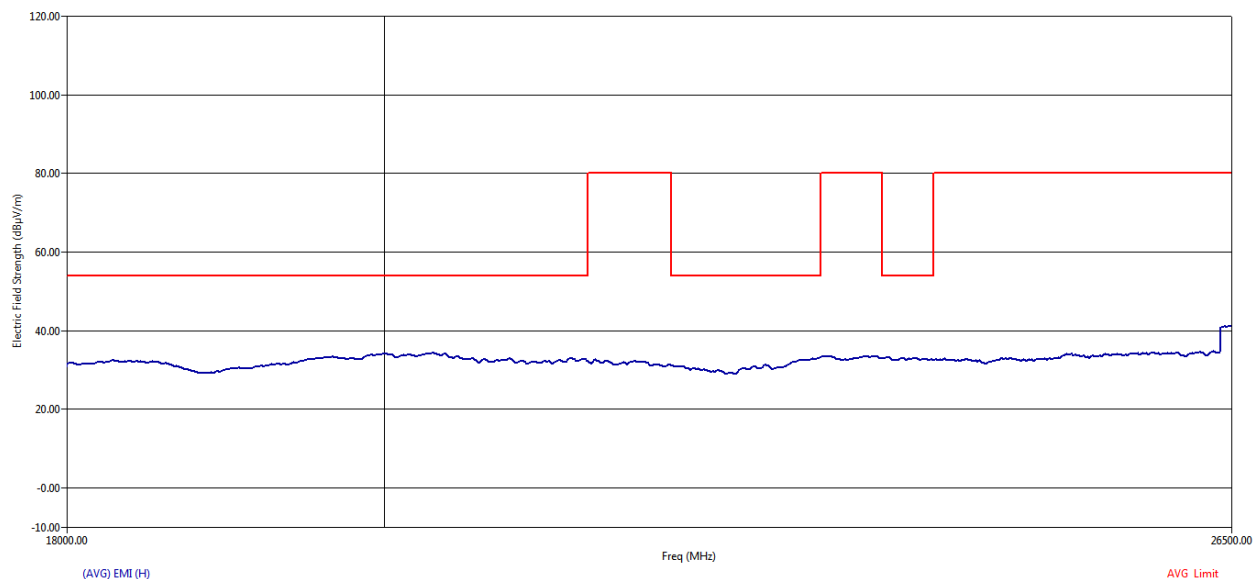


Figure 107 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Horizontal Polarization

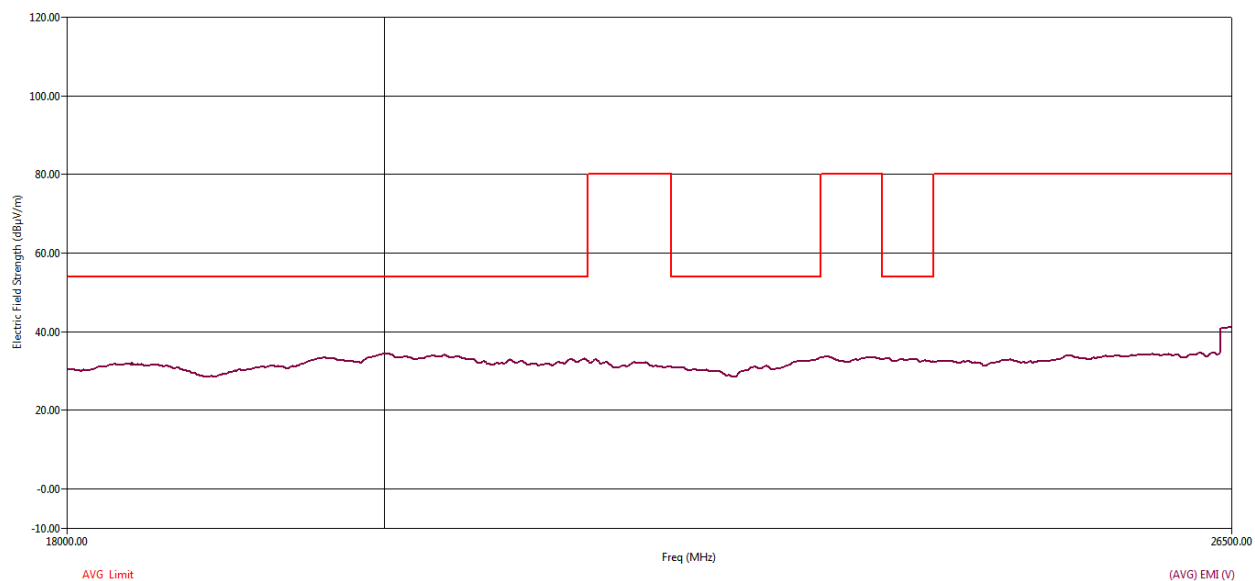


Figure 108 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
18499.90	18599.66	H	299.40	179.00	33.94	7.01	36.75	46.77	30.93	54.00	-23.07
23135.40	23105.26	V	115.60	136.00	33.49	8.21	37.96	46.85	32.83	80.00	-47.17
26491.10	25668.93	V	348.10	148.00	32.23	8.98	38.23	46.06	33.37	80.00	-46.63

Table 78 Average Table from 18 GHz to 26.5 GHz

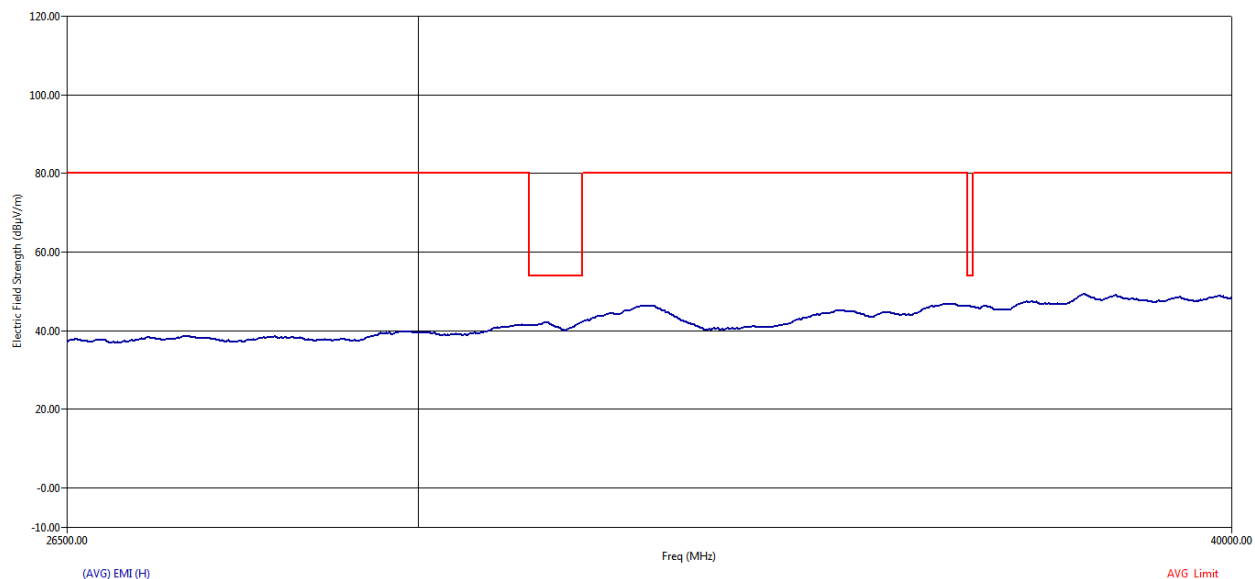


Figure 109 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Horizontal Polarization

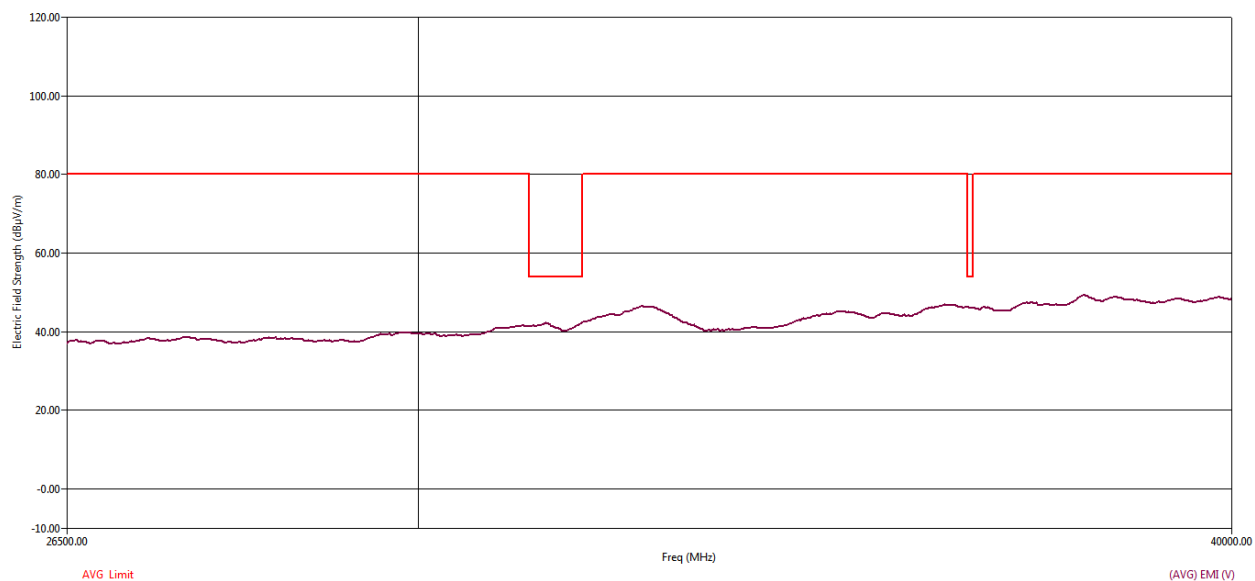


Figure 110 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
32499.80	33486.52	H	57.30	199.00	41.60	10.69	39.39	51.25	40.43	80.00	-39.57
37953.20	38360.11	V	201.80	200.00	42.45	12.17	41.11	47.03	48.69	80.00	-31.31

Table 79 Average Table form 26.5 GHz to 40 GHz

5.3.1.5.4 5 MHz MODULATION BANDWIDTH FOR 6 dBi ANTENNA CONDITION LOW CHANNEL – 5735 MHz

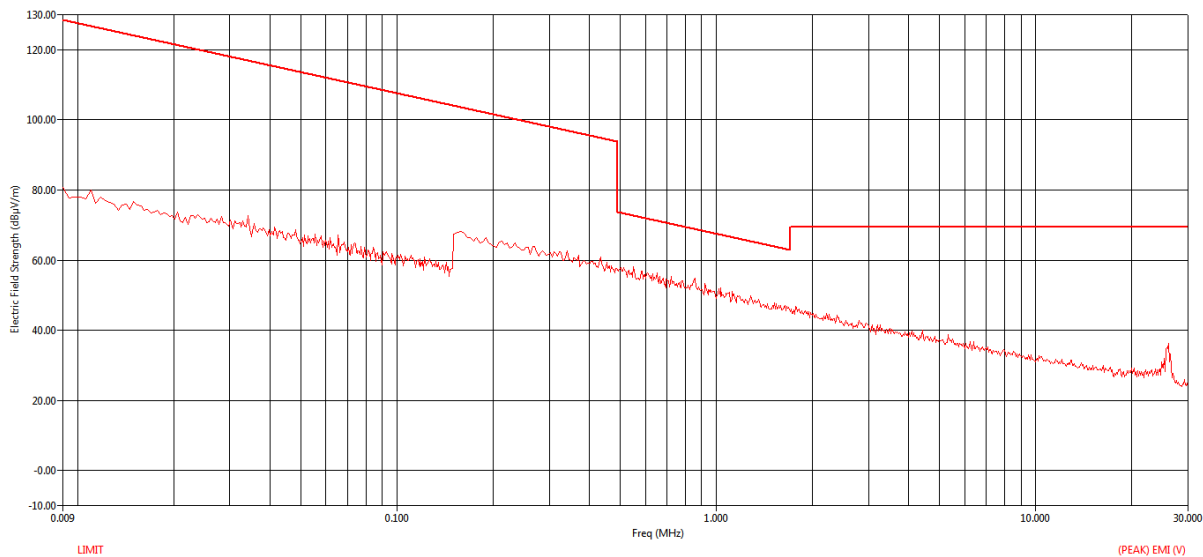


Figure 111 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel

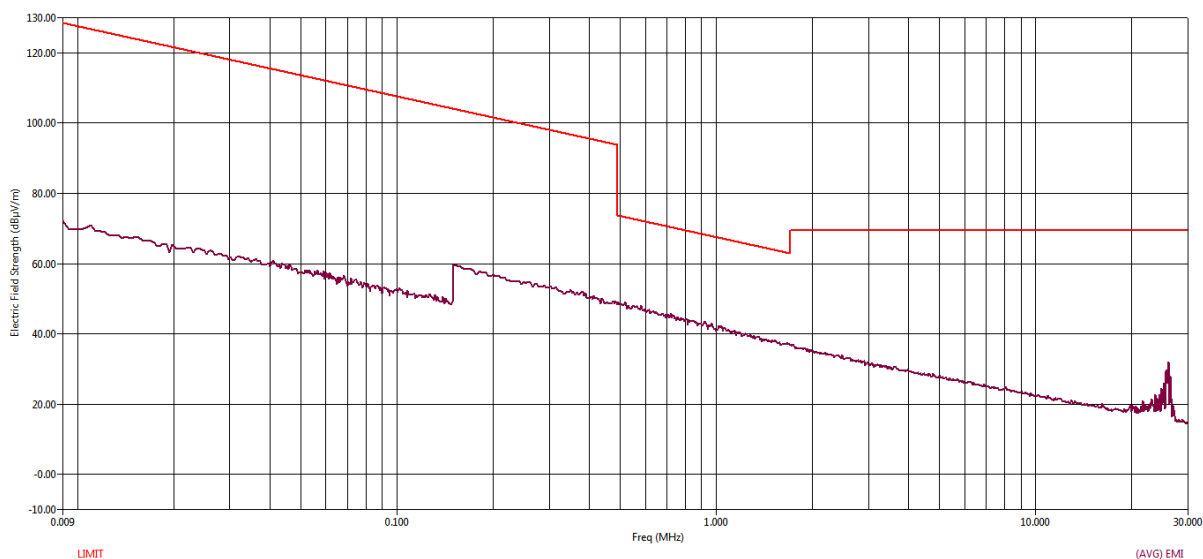


Figure 112 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbt Agl (deg)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
25.56	25.56	93.60	15.72	1.09	16.06	32.88	69.54	-36.66
26.08	26.08	192.80	17.71	1.10	16.03	34.84	69.54	-34.70

Table 80 Quasi peak Table from 9 kHz to 30 MHz

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbi Agl (deg)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
25.56	25.56	93.60	12.14	1.09	16.06	29.30	69.54	-40.24
26.08	26.08	192.80	14.56	1.10	16.03	31.70	69.54	-37.84

Table 81 Average Table from 9 kHz to 30 MHz

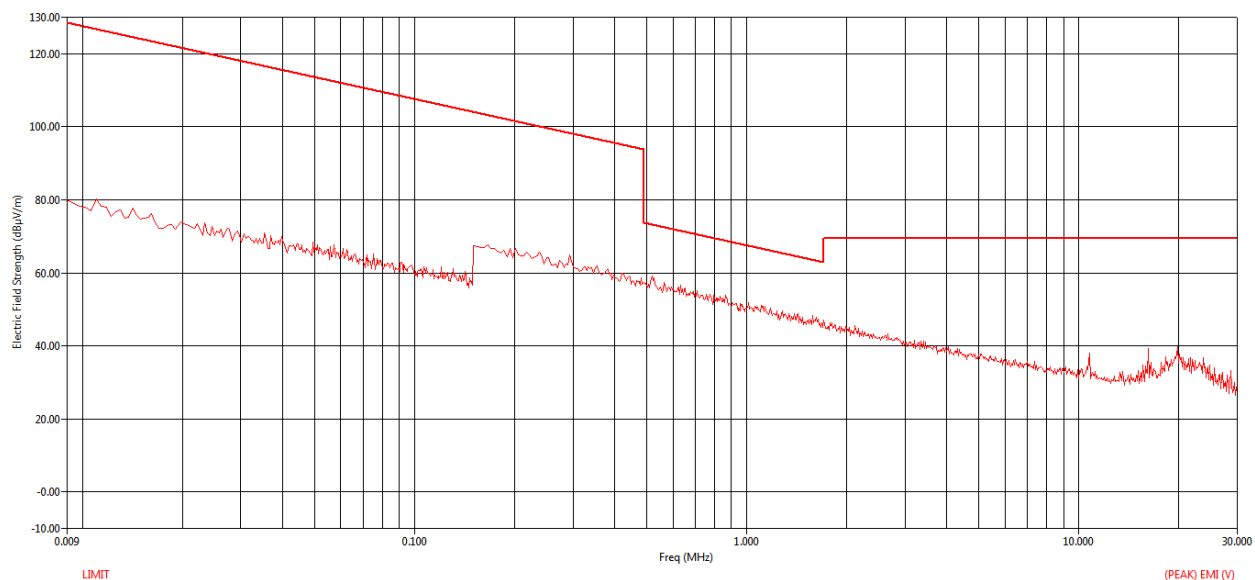


Figure 113 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular

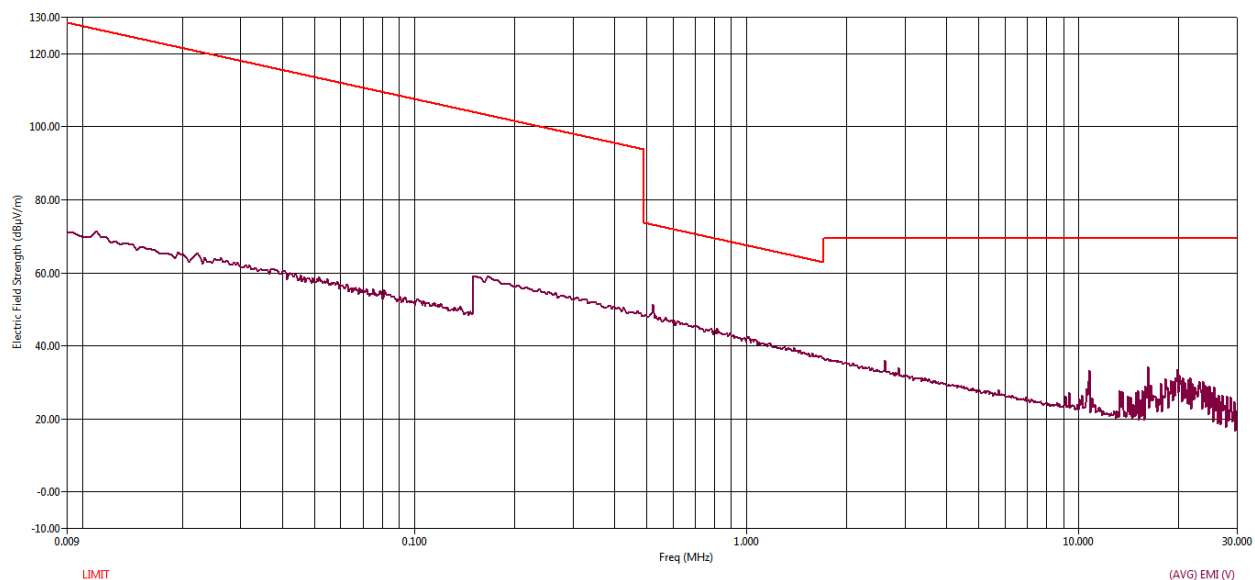


Figure 114 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbl Agl (deg)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
10.79	10.79	323.00	18.22	0.72	17.22	36.17	69.54	-33.37
16.17	16.17	124.20	19.78	0.87	16.80	37.45	69.54	-32.09
16.23	16.23	198.80	20.74	0.87	16.79	38.40	69.54	-31.14
19.82	19.82	179.90	18.86	0.96	16.51	36.33	69.54	-33.21

Table 82 Quasi peak Table from 9 kHz to 30 MHz

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)
10.79	10.79	323.00	14.19	0.72	17.22	32.14	69.54	-37.40
16.17	16.17	124.20	16.28	0.87	16.80	33.95	69.54	-35.59
16.23	16.23	198.80	17.41	0.87	16.79	35.07	69.54	-34.47
19.82	19.82	179.90	15.57	0.96	16.51	33.05	69.54	-36.49

Table 83 Average Table from 9 kHz to 30 MHz

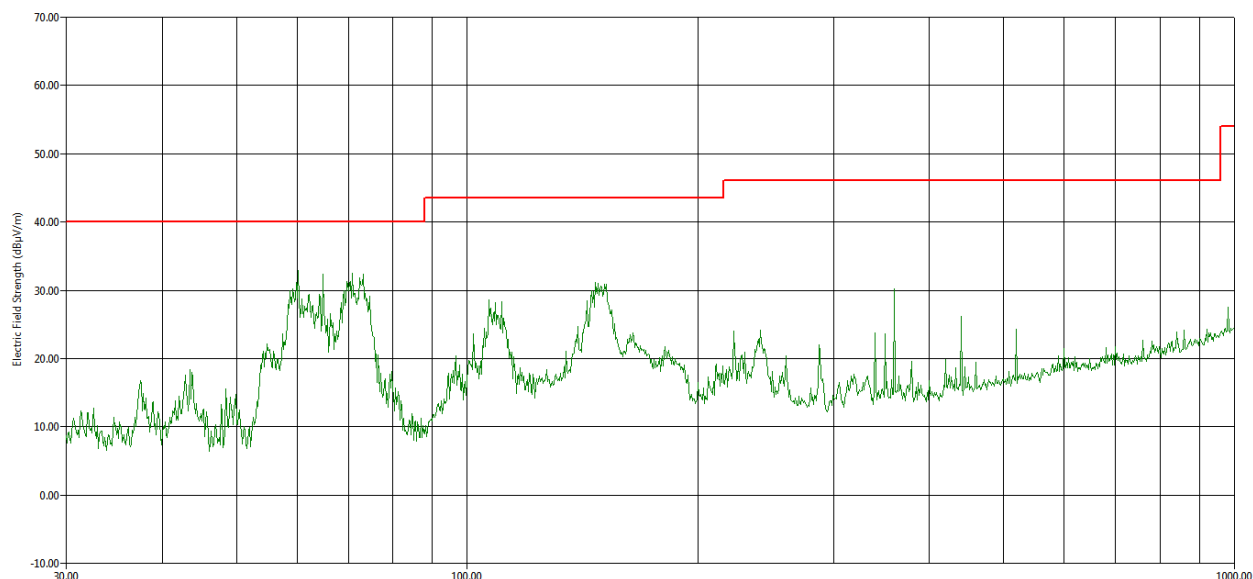


Figure 115 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal Polarization

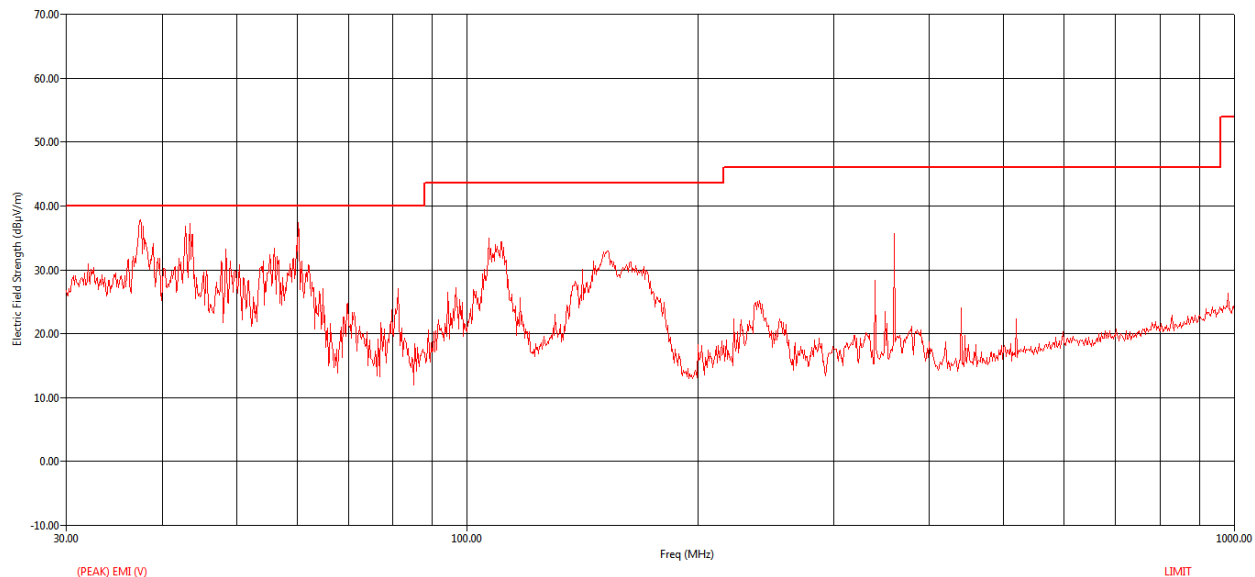


Figure 116 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
37.52	37.54	V	201.80	100.00	66.19	1.34	12.43	43.81	36.14	40.00	-3.86
42.96	42.96	V	358.70	100.00	66.79	1.44	11.08	43.82	35.48	40.00	-4.52
43.52	43.52	V	3.10	100.00	67.08	1.45	10.88	43.82	35.58	40.00	-4.42
48.44	48.44	V	326.60	100.00	63.41	1.53	10.16	43.83	31.26	40.00	-8.74
55.28	55.28	V	89.70	101.00	63.68	1.63	9.84	43.85	31.30	40.00	-8.70
56.00	56.02	V	180.00	144.00	64.64	1.64	9.81	43.85	32.23	40.00	-7.77
56.56	56.53	V	180.10	117.00	64.12	1.64	9.78	43.85	31.70	40.00	-8.30
60.24	60.22	V	69.80	167.00	69.20	1.69	9.63	43.86	36.66	40.00	-3.34
70.80	70.80	H	21.60	195.00	62.61	1.81	9.36	43.89	29.90	40.00	-10.10
106.68	106.72	V	302.90	103.00	62.35	2.20	9.93	43.94	30.55	43.52	-12.97
110.76	110.81	V	254.40	107.00	63.42	2.24	10.15	43.94	31.88	43.52	-11.64

Table 84 QP Table from 30 MHz to 1 GHz

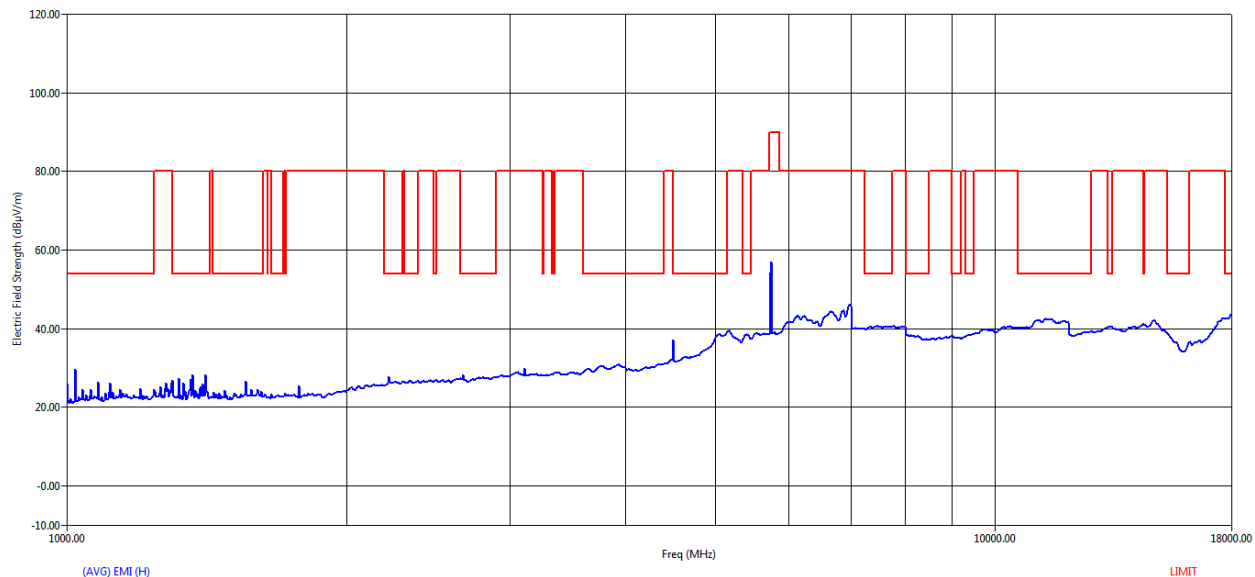


Figure 117 RE Graph from 1 GHz to 18 GHz using Average Detector – Horizontal Polarization

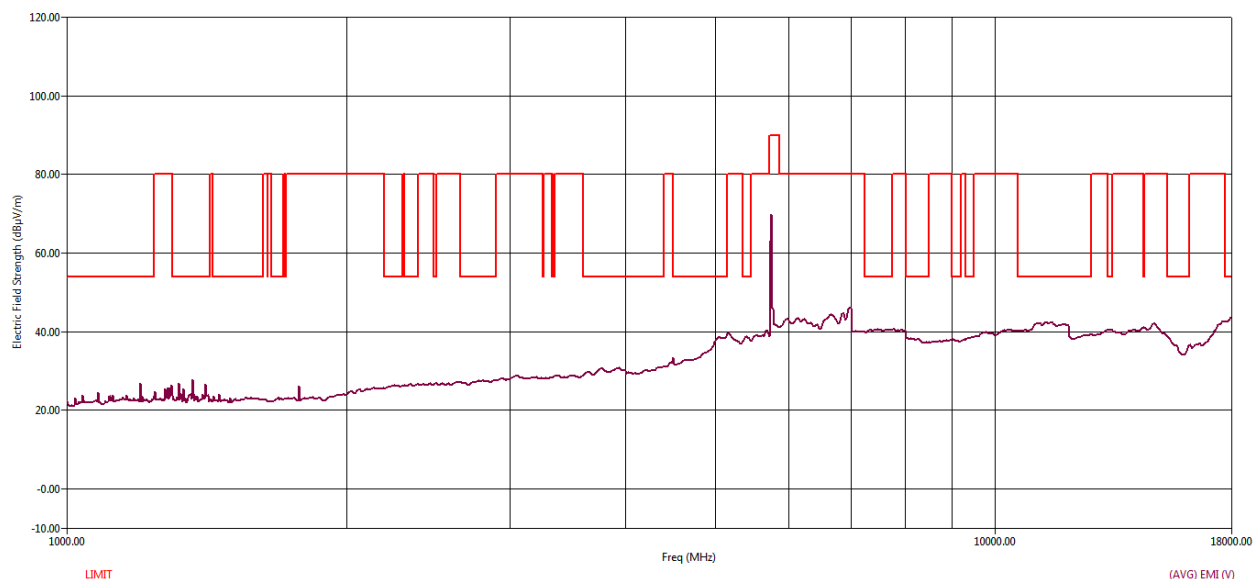


Figure 118 RE Graph from 1 GHz to 18 GHz using Average Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
4503.20	4503.20	H	179.90	172.00	28.26	3.48	30.91	29.24	33.42	54.00	-20.58
5676.70	5676.70	V	319.50	105.00	30.97	3.90	33.49	28.37	39.99	80.00	-40.01
5753.00	5753.00	V	318.10	104.00	33.84	3.92	33.75	28.38	43.13	90.00	-46.87
5969.50	5969.50	V	326.40	100.00	32.85	3.96	34.50	28.40	42.92	80.00	-37.08

Table 85 Average table from 1 GHz to 18 GHz

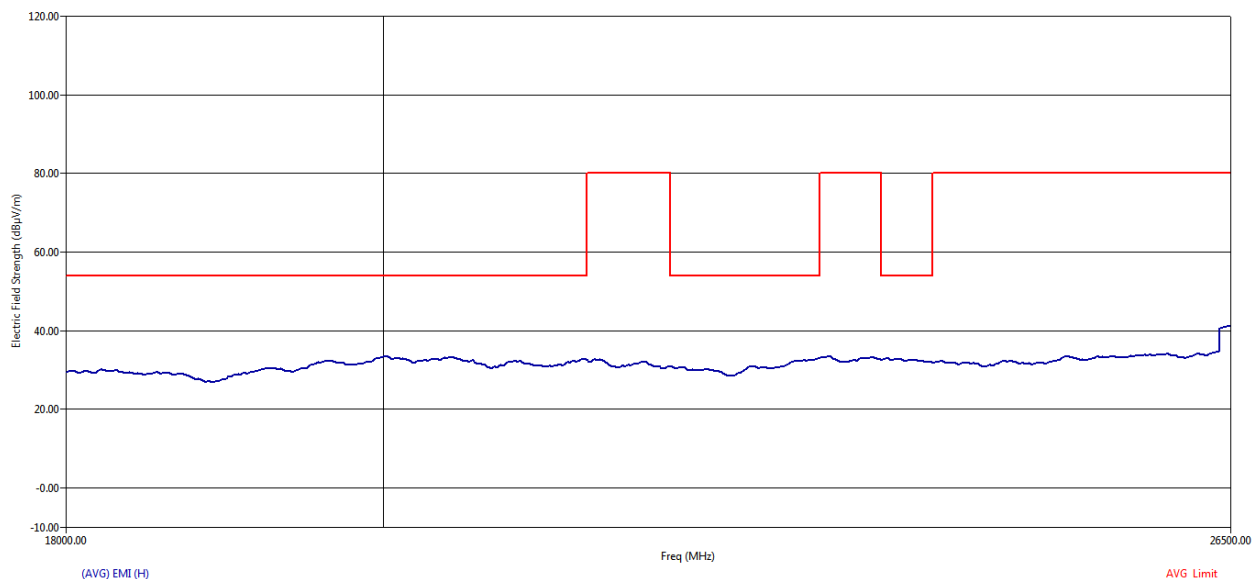


Figure 119 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Horizontal Polarization

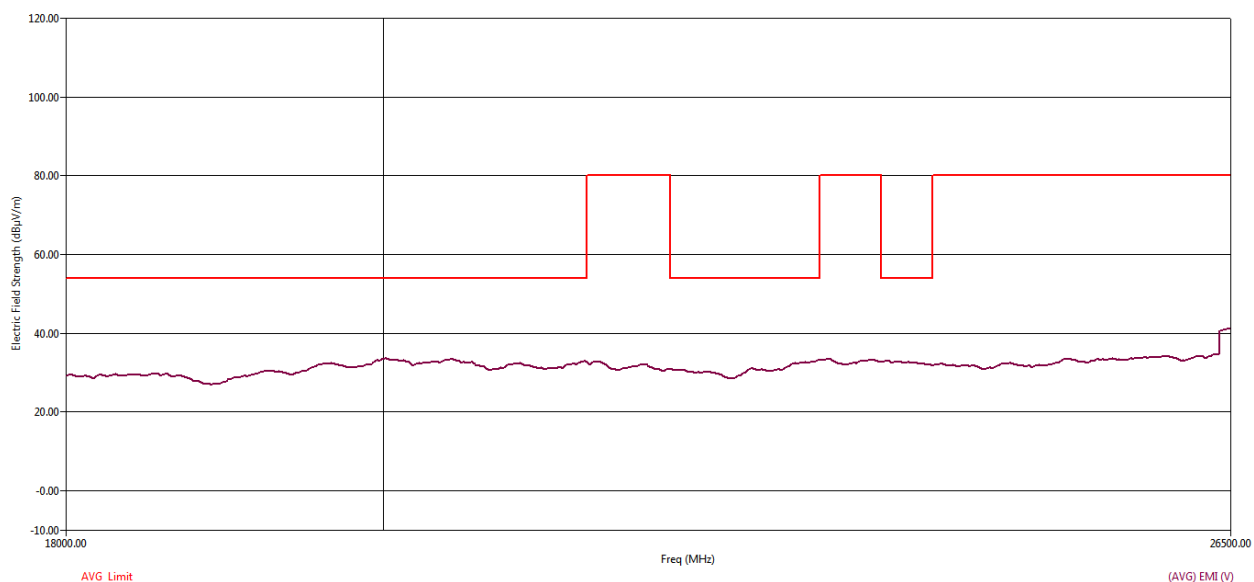


Figure 120 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
18624.80	18624.80	V	255.80	200.00	32.68	6.98	36.35	47.03	28.99	54.00	-25.01
21384.80	21384.80	H	350.70	100.00	32.44	7.82	37.58	45.14	32.70	54.00	-21.30
26489.60	26489.60	V	159.30	161.00	31.65	9.31	37.85	44.06	34.74	80.00	-45.26

Table 86 Average table from 18 GHz to 26.5 GHz

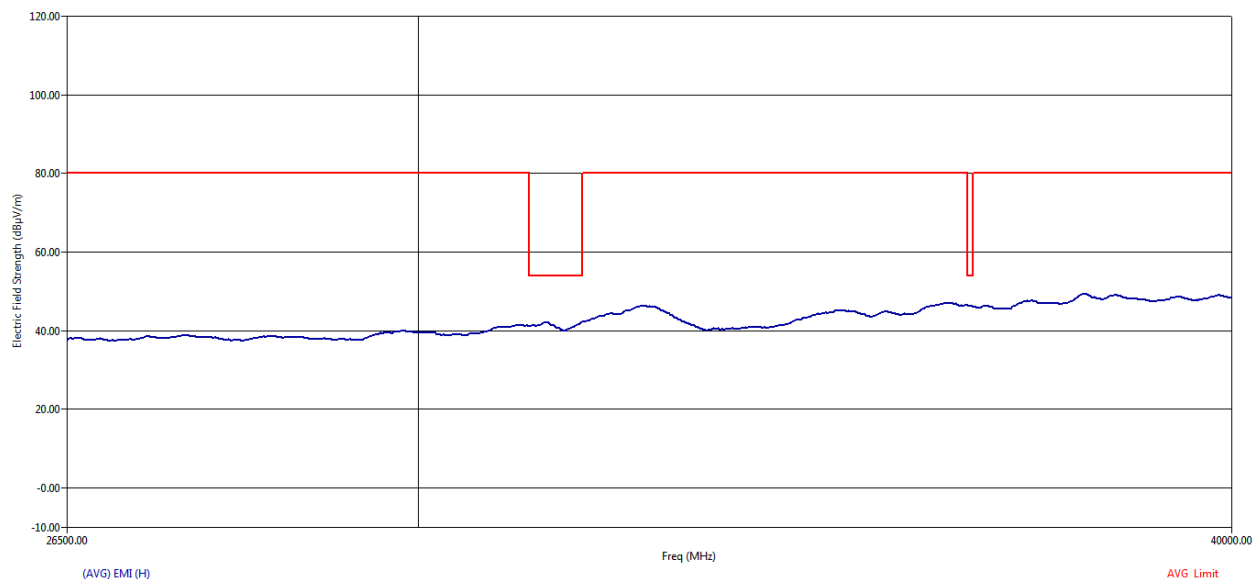


Figure 121 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Horizontal Polarization

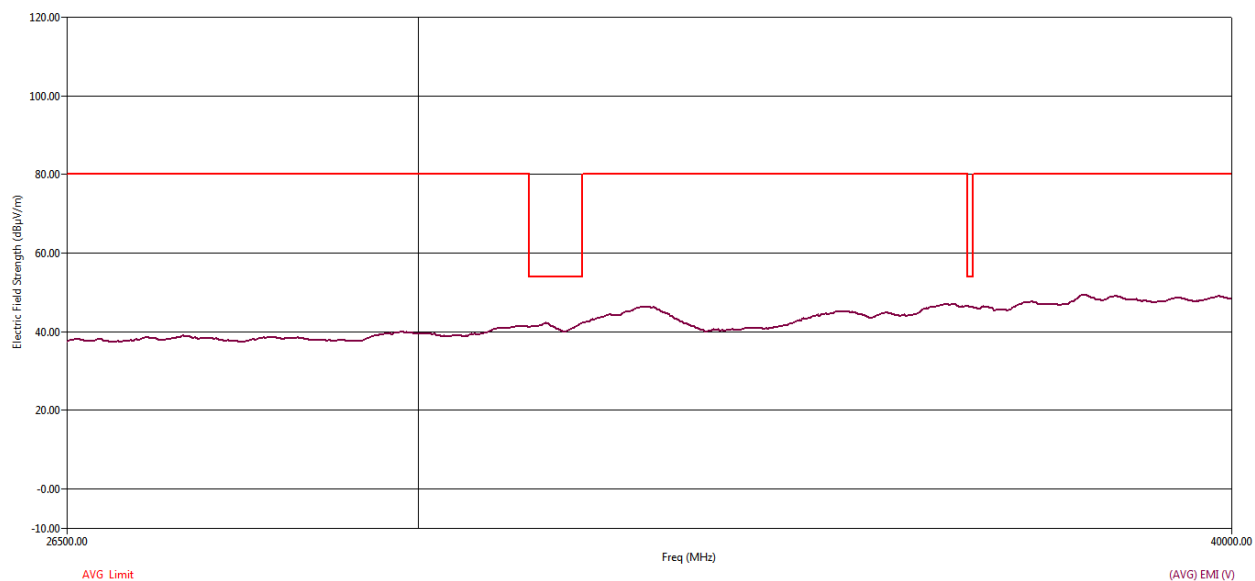


Figure 122 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
27260.00	27260.00	H	179.90	167.00	38.57	9.46	38.52	48.20	38.35	80.00	-41.65
32456.80	32456.80	V	279.80	153.00	41.28	10.70	38.90	44.68	46.21	80.00	-33.79

Table 87 Average Table from 26.5 GHz to 40 GHz

MID CHANNEL – 5775 MHz

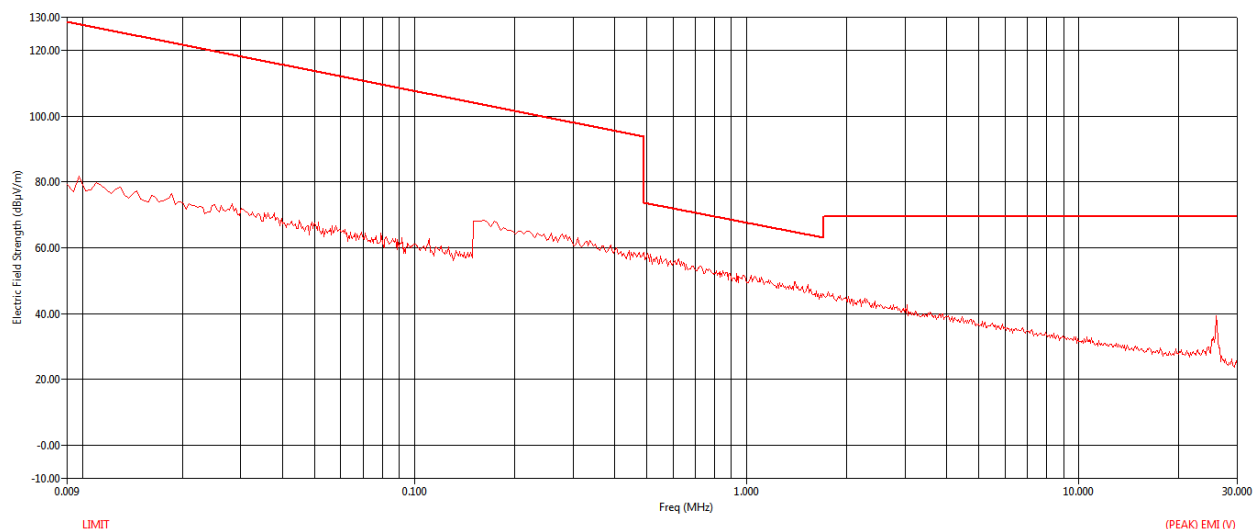


Figure 123 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel

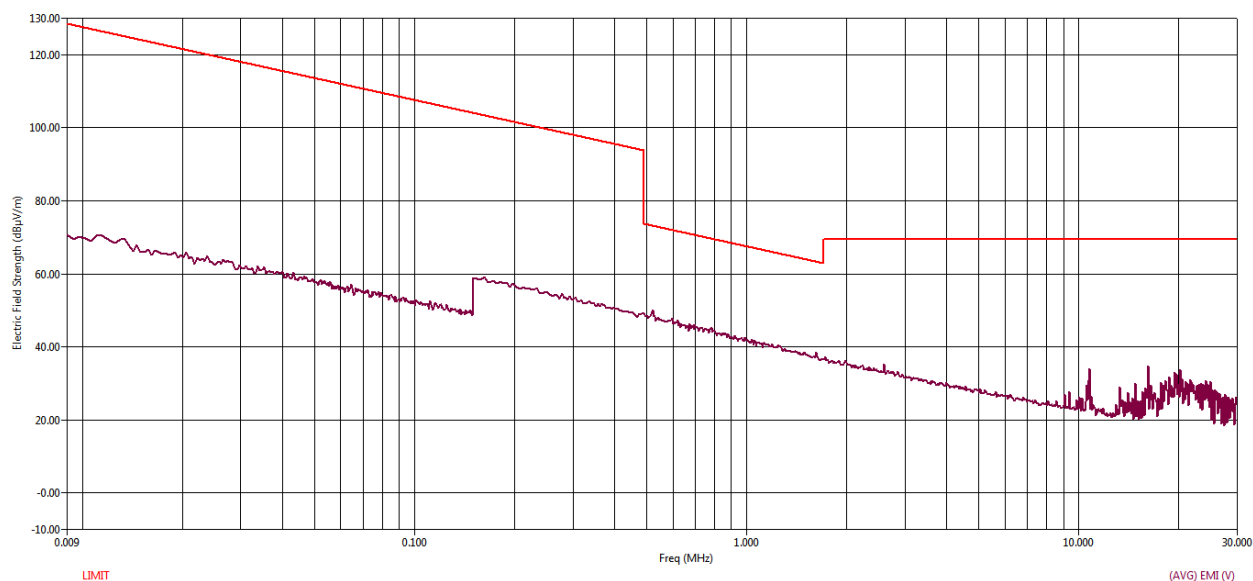


Figure 124 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbi Agl (deg)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
16.23	16.23	209.90	20.73	0.87	16.79	38.40	69.54	-31.14
20.28	20.28	185.10	19.54	0.97	16.47	36.99	69.54	-32.55
24.96	24.96	214.30	16.92	1.08	16.10	34.10	69.54	-35.44

Table 88 Quasi peak Table from 9 kHz to 30 MHz

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)
16.23	16.23	209.90	17.41	0.87	16.79	35.08	69.54	-34.46
20.28	20.28	185.10	15.56	0.97	16.47	33.01	69.54	-36.53
24.96	24.96	214.30	11.78	1.08	16.10	28.97	69.54	-40.57

Table 89 Average Table from 9 kHz to 30 MHz

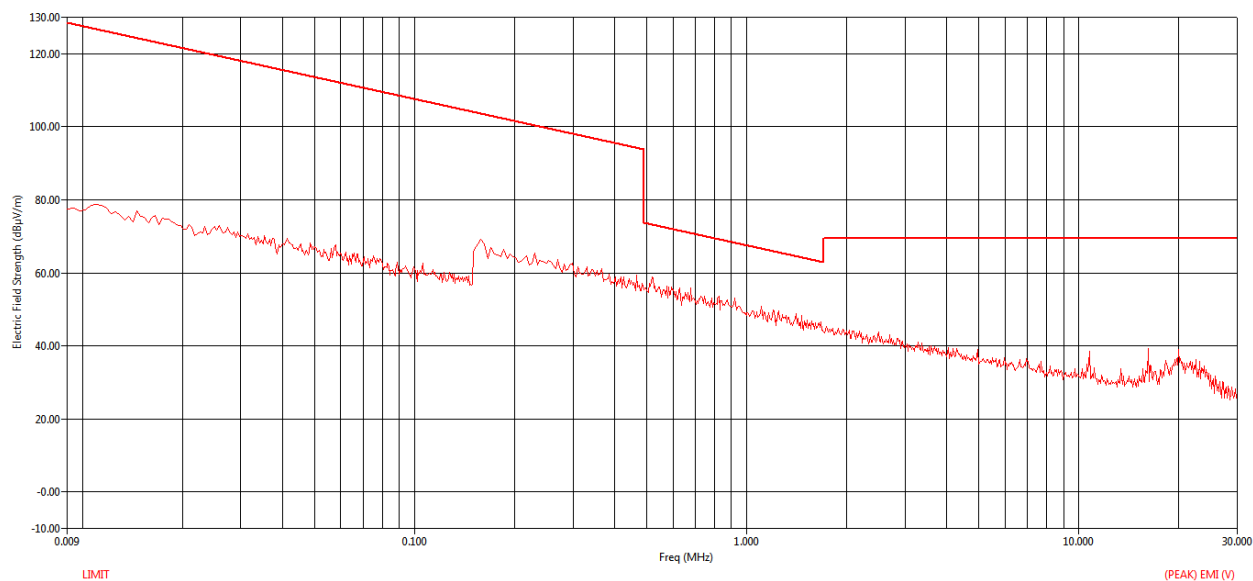


Figure 125 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular

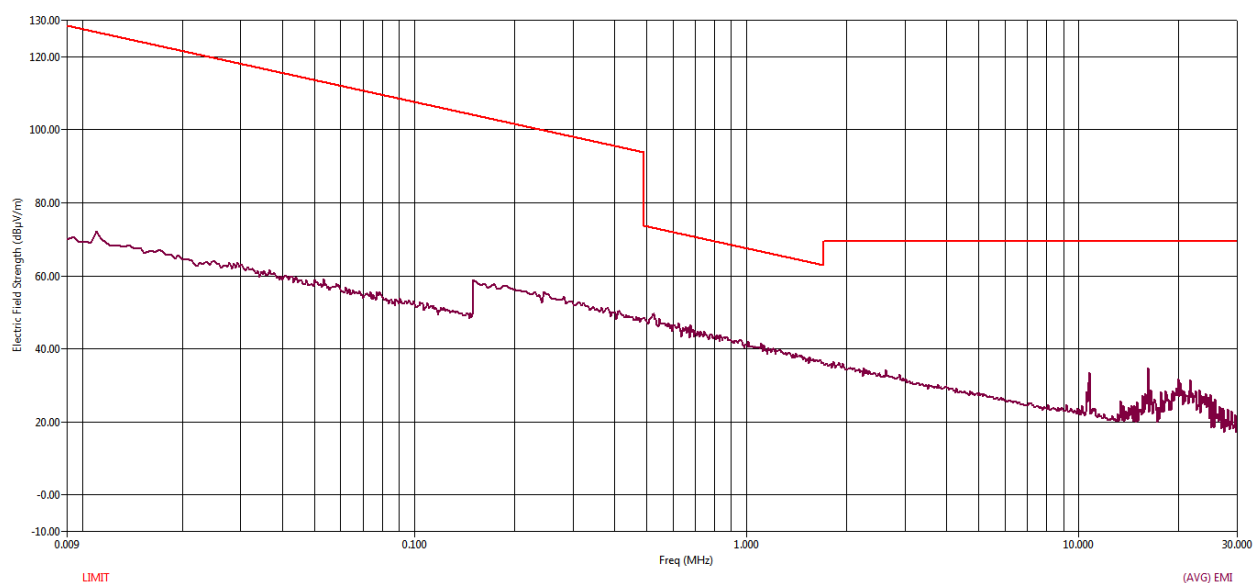


Figure 126 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbt Agl (deg)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
10.79	10.79	48.10	17.82	0.72	17.22	35.77	69.54	-33.77
16.23	16.23	194.70	19.97	0.87	16.79	37.64	69.54	-31.90
19.95	19.96	221.00	12.90	0.97	16.50	30.37	69.54	-39.17

Table 90 Quasi peak Table from 9 kHz to 30 MHz

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbt Agl (deg)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
10.79	10.79	48.10	11.73	0.72	17.22	29.67	69.54	-39.87
16.23	16.23	194.70	16.37	0.87	16.79	34.04	69.54	-35.50
19.95	19.96	221.00	7.66	0.97	16.50	25.13	69.54	-44.41

Table 91 Average Table from 9 kHz to 30 MHz

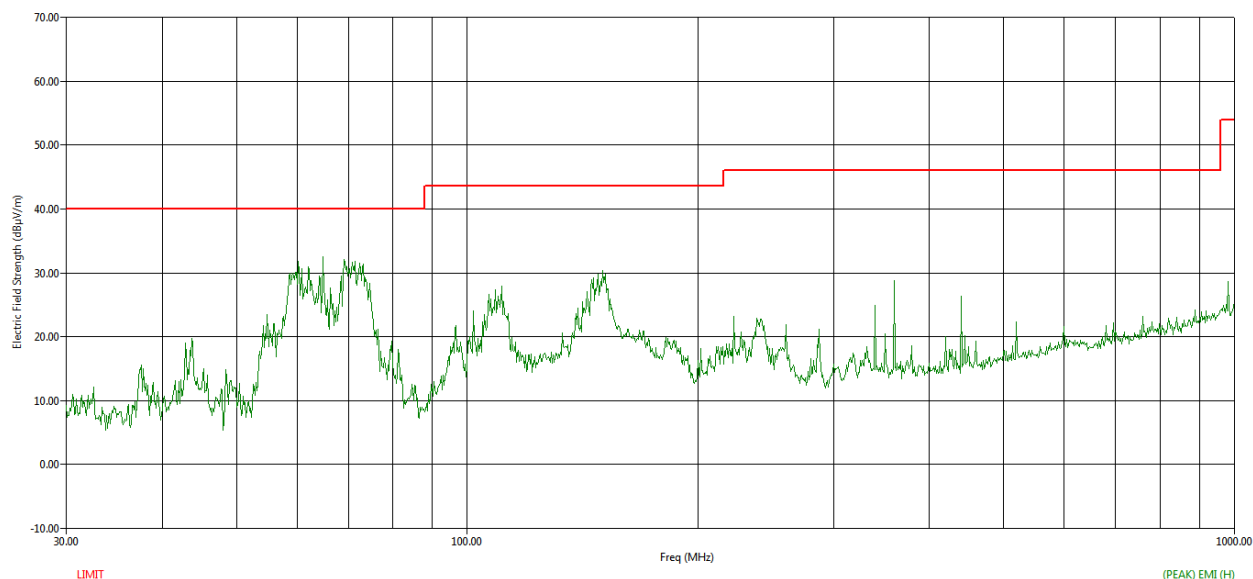


Figure 127 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal Polarization

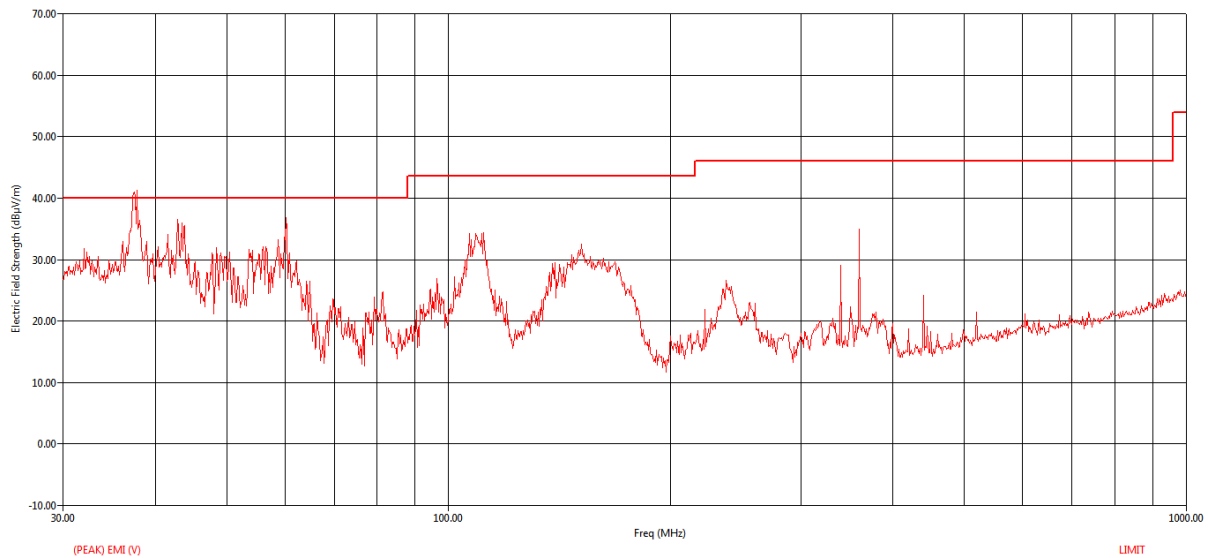


Figure 128 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
37.48	37.38	V	205.90	100.00	67.32	1.33	12.44	43.81	37.29	40.00	-2.71
43.84	43.78	V	103.60	100.00	64.68	1.45	10.78	43.82	33.09	40.00	-6.91
48.48	48.45	V	322.50	100.00	66.85	1.53	10.16	43.83	34.71	40.00	-5.29
53.60	53.57	V	323.70	110.00	66.54	1.60	9.91	43.84	34.21	40.00	-5.79
58.72	58.71	V	16.00	100.00	65.31	1.67	9.69	43.86	32.82	40.00	-7.18
64.80	64.78	V	304.50	100.00	58.21	1.74	9.51	43.87	25.59	40.00	-14.41
141.20	141.21	H	179.90	293.00	56.67	2.52	12.24	43.94	27.49	43.52	-16.03
228.00	228.05	V	301.00	399.00	34.66	3.20	16.13	43.92	10.07	46.02	-35.95
360.00	360.00	H	315.60	151.00	58.57	4.02	15.57	43.71	34.46	46.02	-11.56

Table 92 QP Table from 30 MHz to 1 GHz

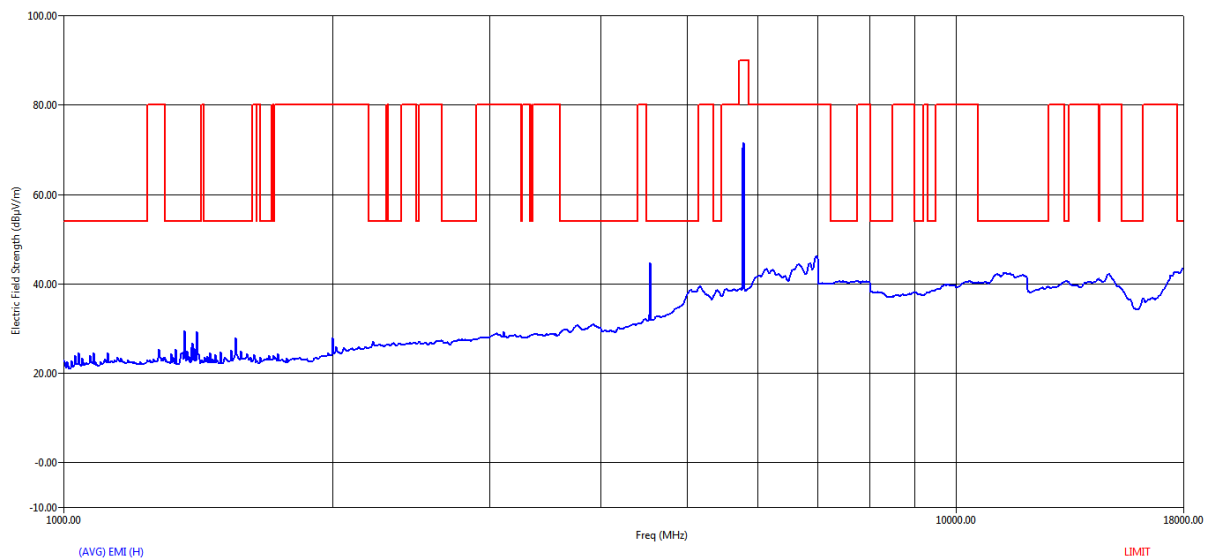


Figure 129 RE Graph from 1 GHz to 18 GHz using Average Detector – Horizontal Polarization

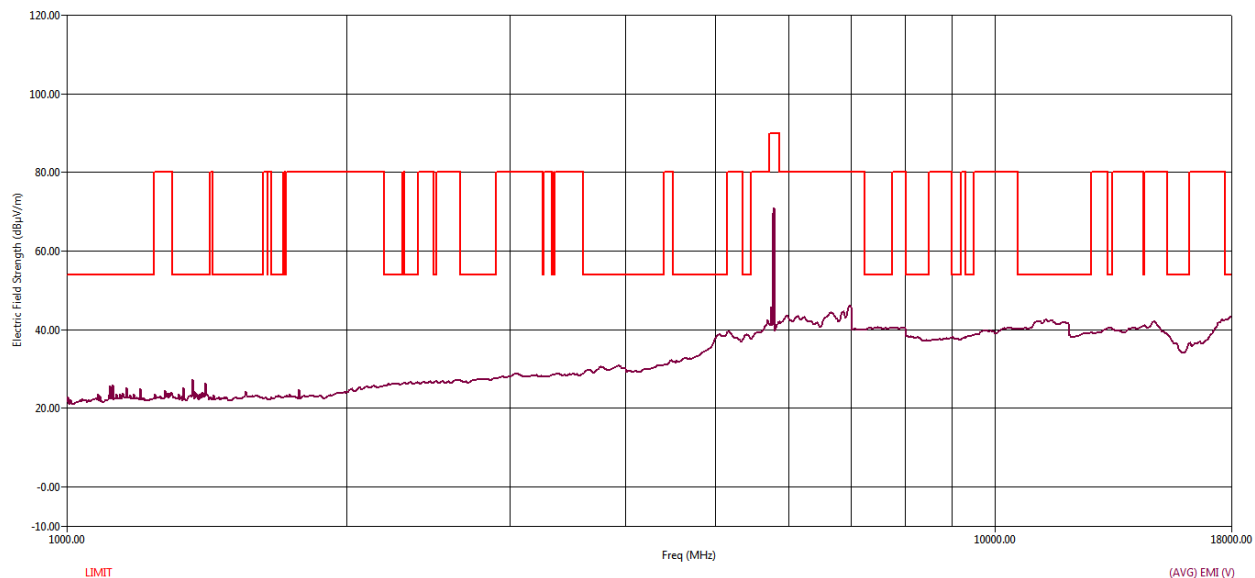


Figure 130 RE Graph from 1 GHz to 18 GHz using Average Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
4537.90	4537.90	H	180.00	186.00	27.30	3.50	31.06	29.17	32.70	54.00	-21.30
5695.59	5695.59	V	241.20	151.00	30.56	3.90	33.55	28.37	39.64	80.00	-40.36
5743.20	5743.20	H	234.10	132.00	29.34	3.91	33.72	28.38	38.59	90.00	-51.41

Table 93 Average table from 1 GHz to 18 GHz

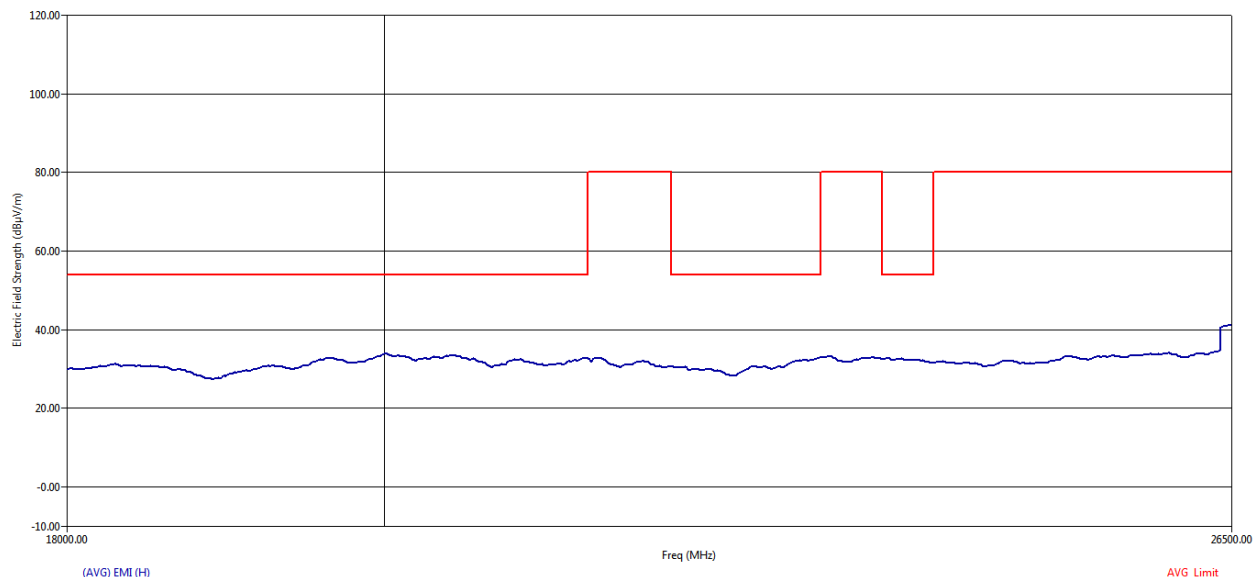


Figure 131 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Horizontal Polarization

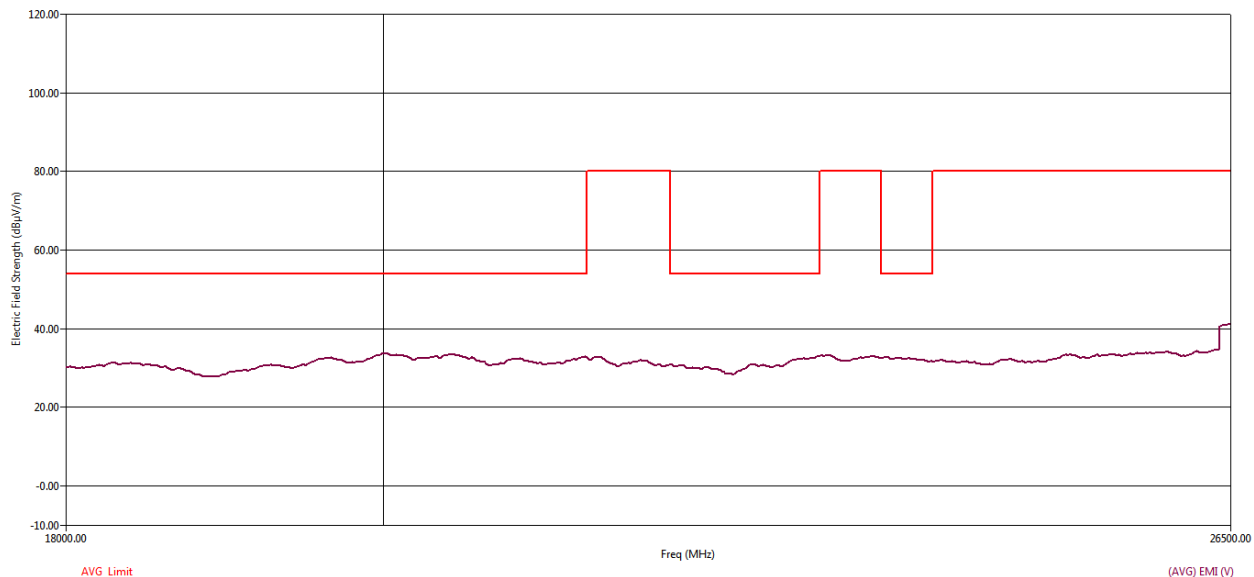


Figure 132 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
20027.60	20027.60	H	151.40	100.00	32.72	7.26	36.47	42.93	33.52	54.00	-20.48
25355.60	25355.60	H	161.30	199.00	32.41	8.85	38.18	46.39	33.06	80.00	-46.94
26443.20	26443.20	V	188.30	100.00	31.76	9.30	37.83	44.28	34.60	80.00	-45.40

Table 94 Average Table from 18 GHz to 26.5 GHz

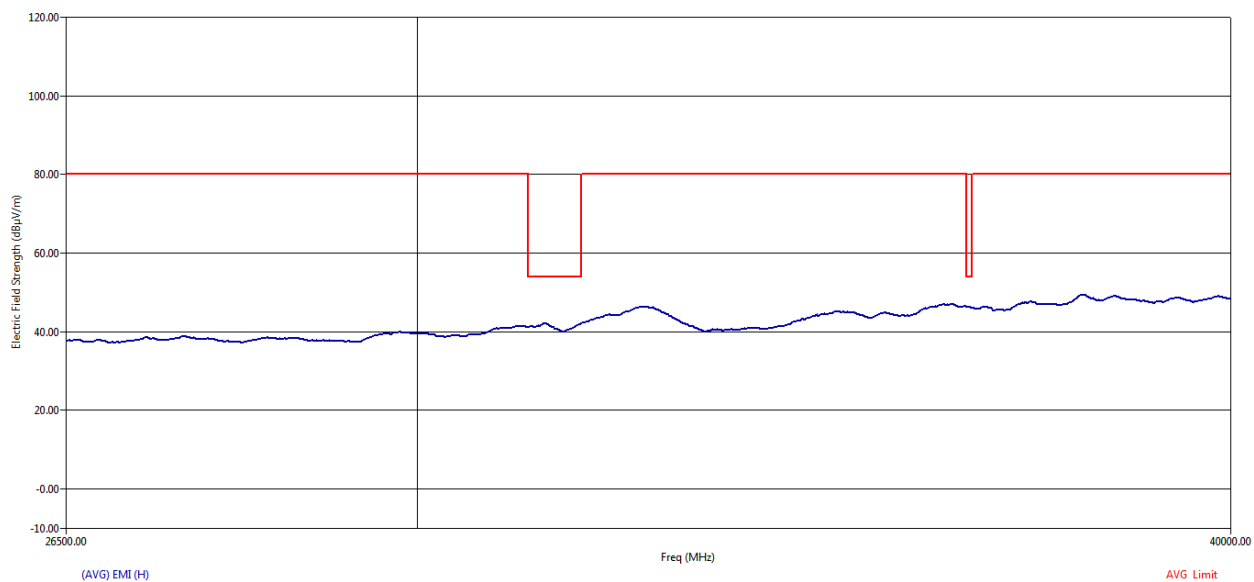


Figure 133 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Horizontal Polarization

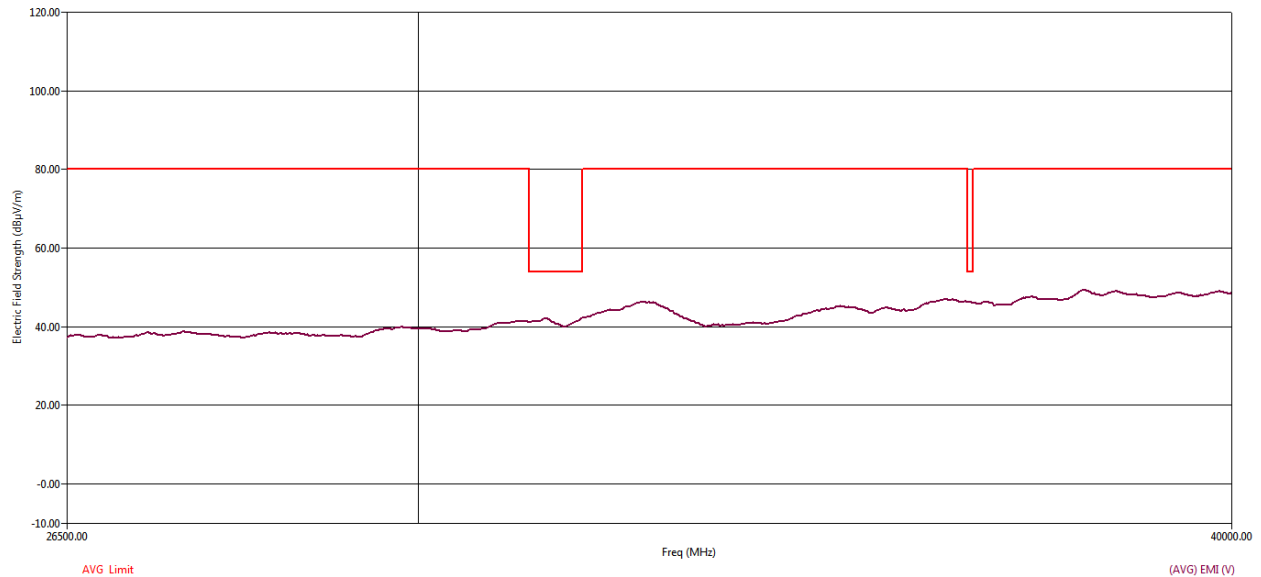


Figure 134 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
27254.00	27254.00	H	180.10	101.00	38.58	9.45	38.51	48.19	38.35	80.00	-41.65
37529.20	37529.20	H	40.90	102.00	40.91	12.34	40.12	46.66	46.71	80.00	-33.29

Table 95 Average Table from 26.5 GHz to 40 GHz

HIGH CHANNEL – 5840 MHz

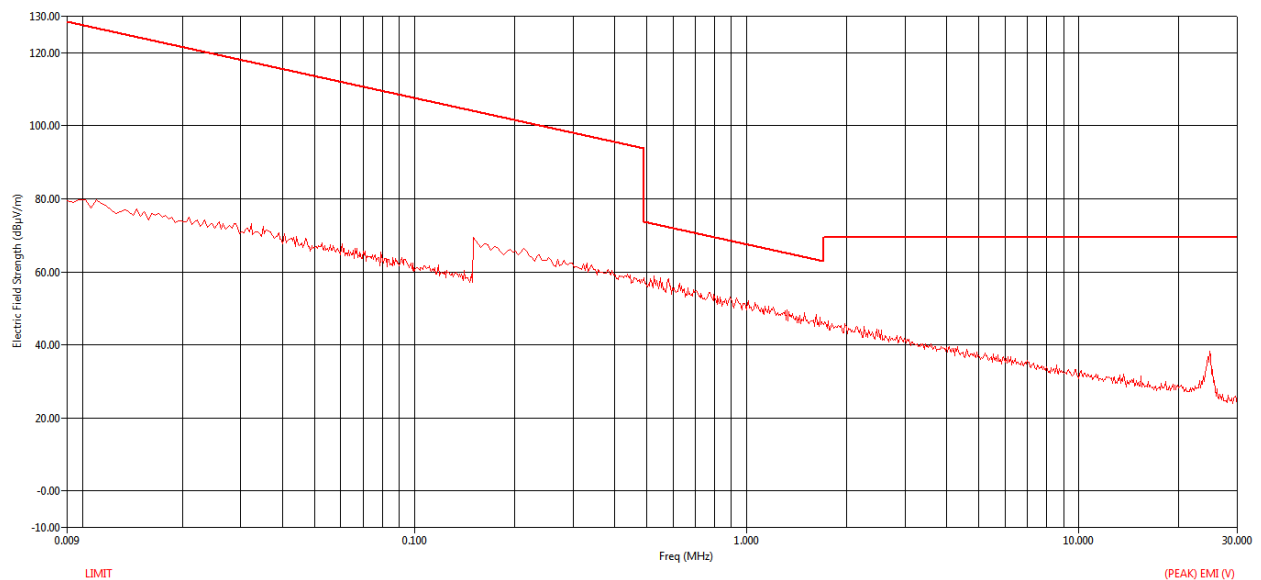


Figure 135 RE Graph from 9 kHz to 30 MHz using Peak Detector – Parallel

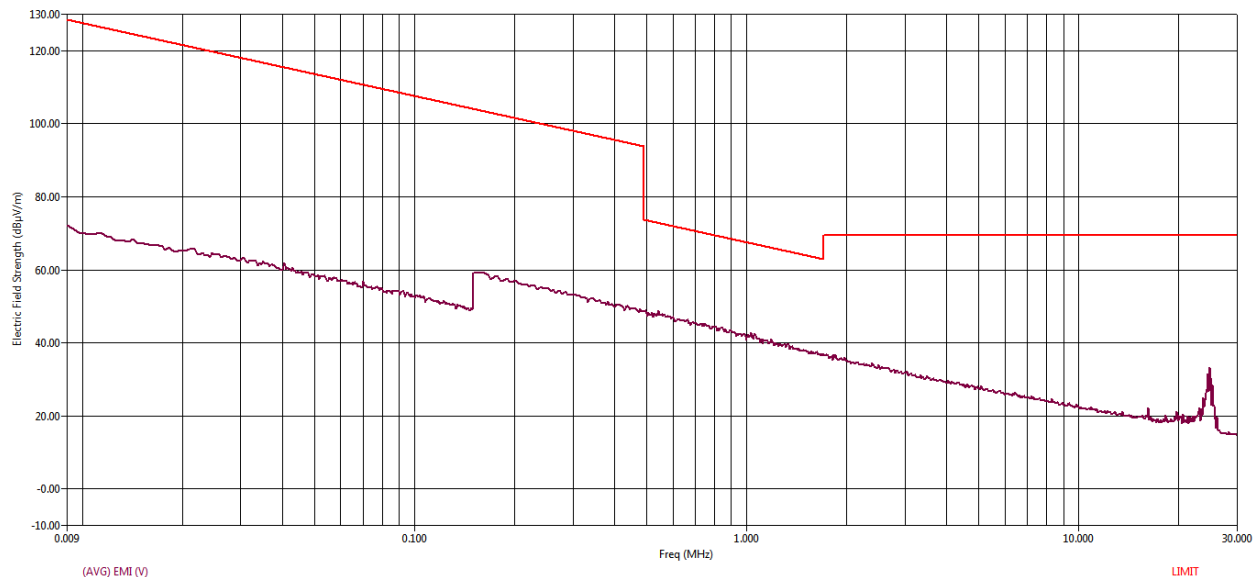


Figure 136 RE Graph from 9 kHz to 30 MHz using Average Detector – Parallel

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)
0.01	0.01	292.80	35.77	0.03	29.39	65.19	127.05	-61.86
0.15	0.15	290.30	26.42	0.04	18.30	44.76	104.12	-59.36
0.15	0.15	203.70	45.35	0.04	18.29	63.69	103.81	-40.13
24.73	24.72	258.40	14.95	1.08	16.12	32.14	69.54	-37.40

Table 96 Quasi peak Table from 9 kHz to 30 MHz

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)
0.01	0.01	292.80	40.30	0.03	29.39	69.72	127.05	-57.33
0.15	0.15	290.30	30.33	0.04	18.30	48.67	104.12	-55.45
0.15	0.15	203.70	40.01	0.04	18.29	58.34	103.81	-45.48
24.73	24.72	258.40	10.22	1.08	16.12	27.42	69.54	-42.12

Table 97 Average Table from 9 kHz to 30 MHz

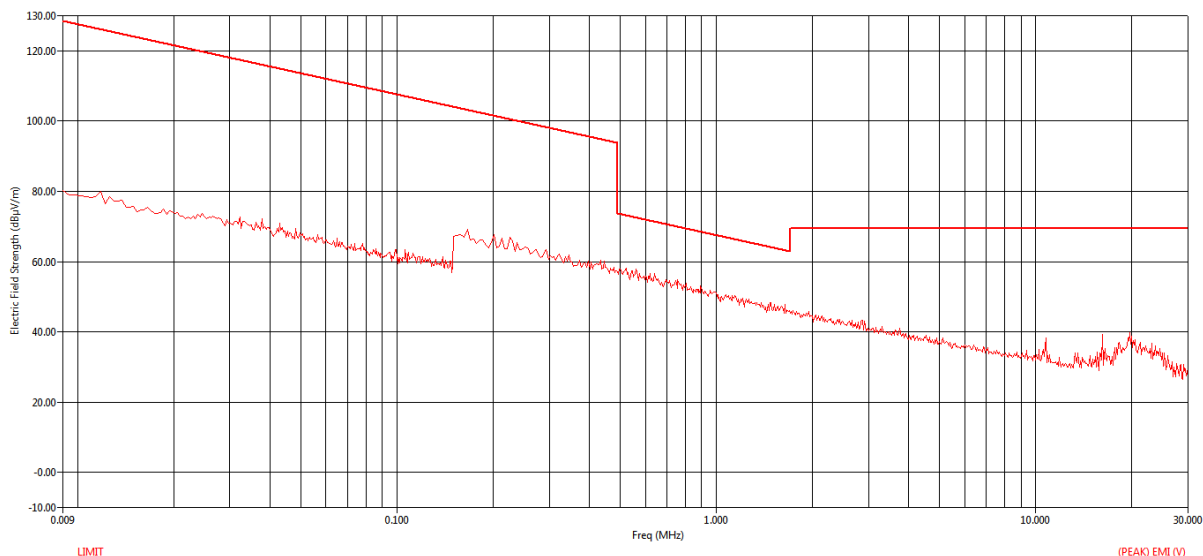


Figure 137 RE Graph from 9 kHz to 30 MHz using Peak Detector – Perpendicular

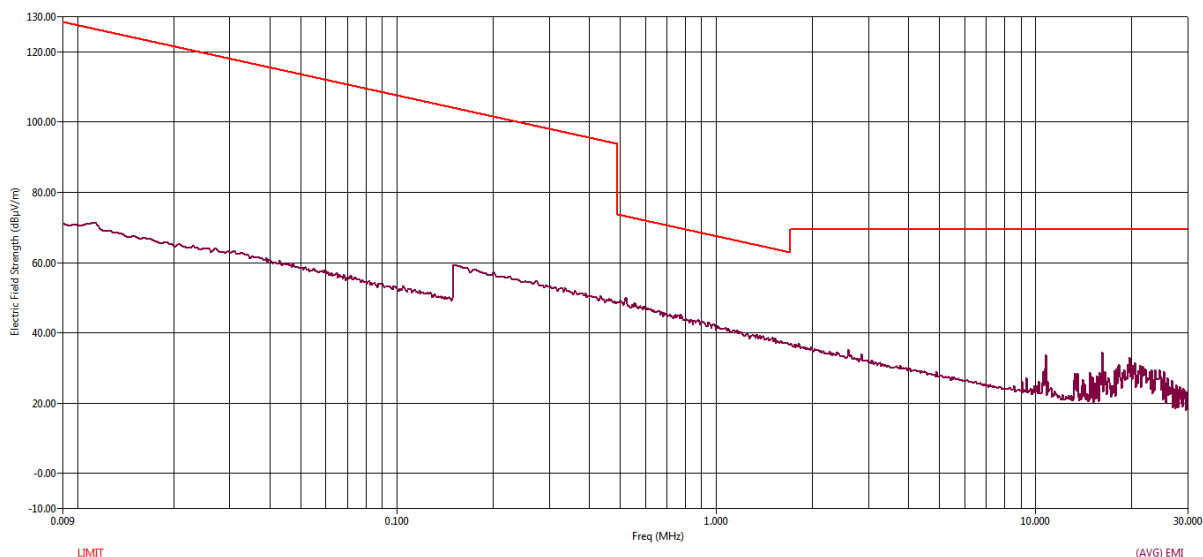


Figure 138 RE Graph from 9 kHz to 30 MHz using Average Detector – Perpendicular

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)
0.17	0.16	341.90	44.64	0.04	18.29	62.97	103.53	-40.56
16.17	16.16	185.30	18.18	0.87	16.80	35.84	69.54	-33.70
19.71	19.71	202.20	16.99	0.96	16.52	34.47	69.54	-35.07

Table 98 Quasi peak Table from 9 kHz to 30 MHz

Freq (MHz)	Freq (Max) (MHz)	EUT Ttbi Agl (deg)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
0.17	0.16	341.90	37.72	0.04	18.29	56.05	103.53	-47.48
16.17	16.16	185.30	15.52	0.87	16.80	33.19	69.54	-36.35
19.71	19.71	202.20	13.43	0.96	16.52	30.91	69.54	-38.63

Table 99 Average Table from 9 kHz to 30 MHz

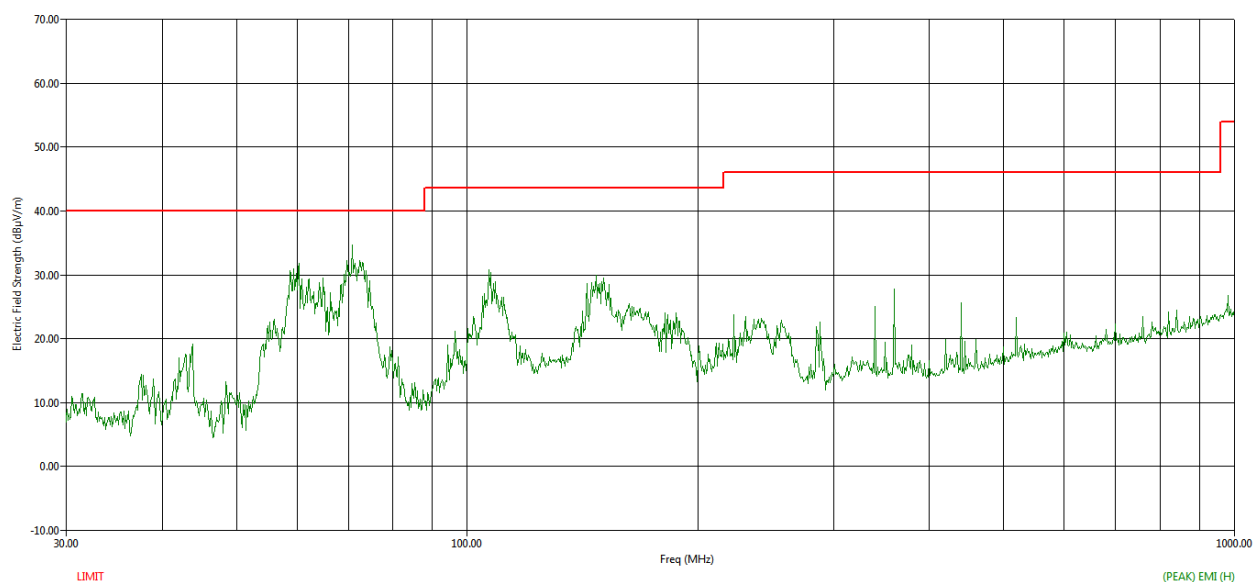


Figure 139 RE Graph from 30 MHz to 1 GHz using Peak Detector – Horizontal Polarization

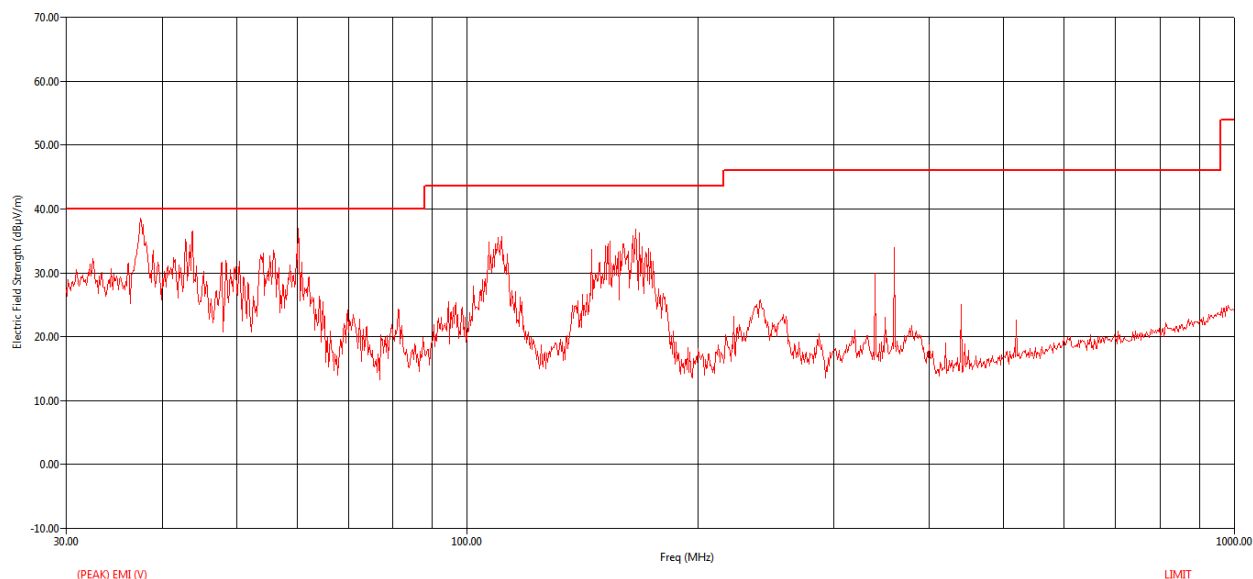


Figure 140 RE Graph from 30 MHz to 1 GHz using Peak Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(QP) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(QP) EMI (dBμV/m)	Limit (dBμV/m)	(QP) Margin (dB)
37.52	37.50	V	179.90	100.00	66.35	1.34	12.43	43.81	36.30	40.00	-3.70
42.96	42.93	V	353.80	167.00	65.49	1.44	11.09	43.82	34.19	40.00	-5.81
43.84	43.80	V	358.20	100.00	64.74	1.45	10.77	43.82	33.14	40.00	-6.86
60.24	60.23	V	86.40	117.00	69.04	1.69	9.63	43.86	36.50	40.00	-3.50
70.84	70.82	H	162.10	203.00	61.51	1.81	9.36	43.89	28.80	40.00	-11.20
106.68	106.71	V	302.90	102.00	61.69	2.20	9.93	43.94	29.89	43.52	-13.63
110.80	110.80	V	265.80	110.00	63.53	2.24	10.15	43.94	31.98	43.52	-11.54
153.64	153.66	V	189.80	119.00	61.50	2.63	11.90	43.95	32.08	43.52	-11.44
159.60	159.66	V	180.10	136.00	61.01	2.68	11.74	43.95	31.48	43.52	-12.04
164.52	164.60	V	17.10	100.00	62.54	2.72	12.00	43.95	33.31	43.52	-10.21
165.88	165.88	V	20.00	100.00	61.99	2.73	12.07	43.95	32.85	43.52	-10.67
167.44	167.42	V	36.10	100.00	60.49	2.75	12.16	43.95	31.44	43.52	-12.08

Table 100 QP Table from 30 MHz to 1 GHz

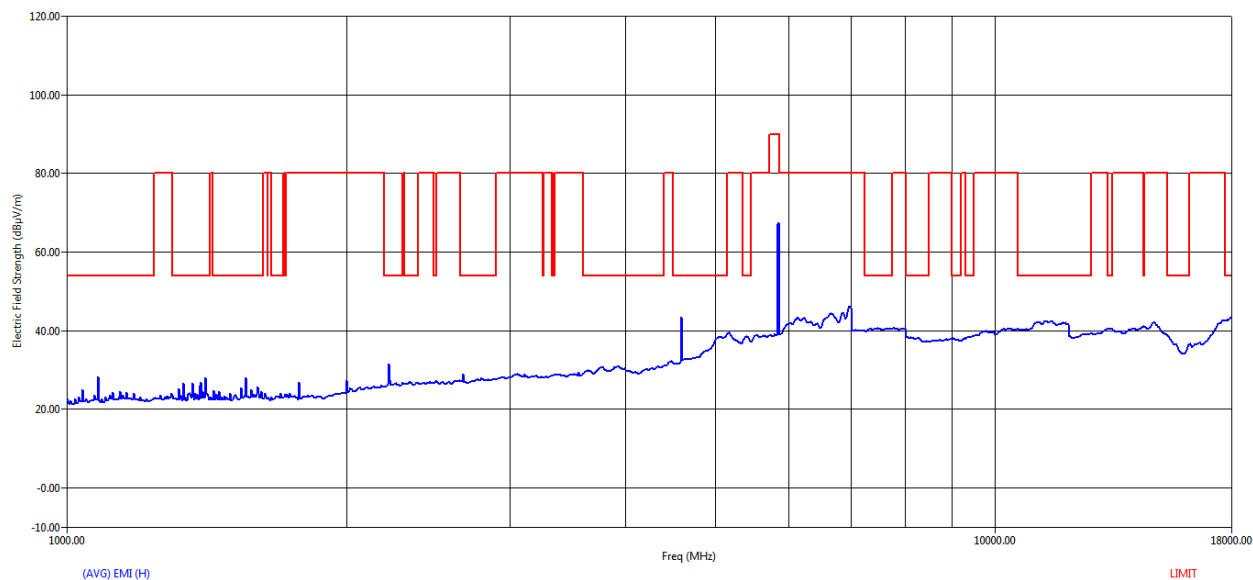


Figure 141 RE Graph from 1 GHz to 18 GHz using Average Detector – Horizontal Polarization

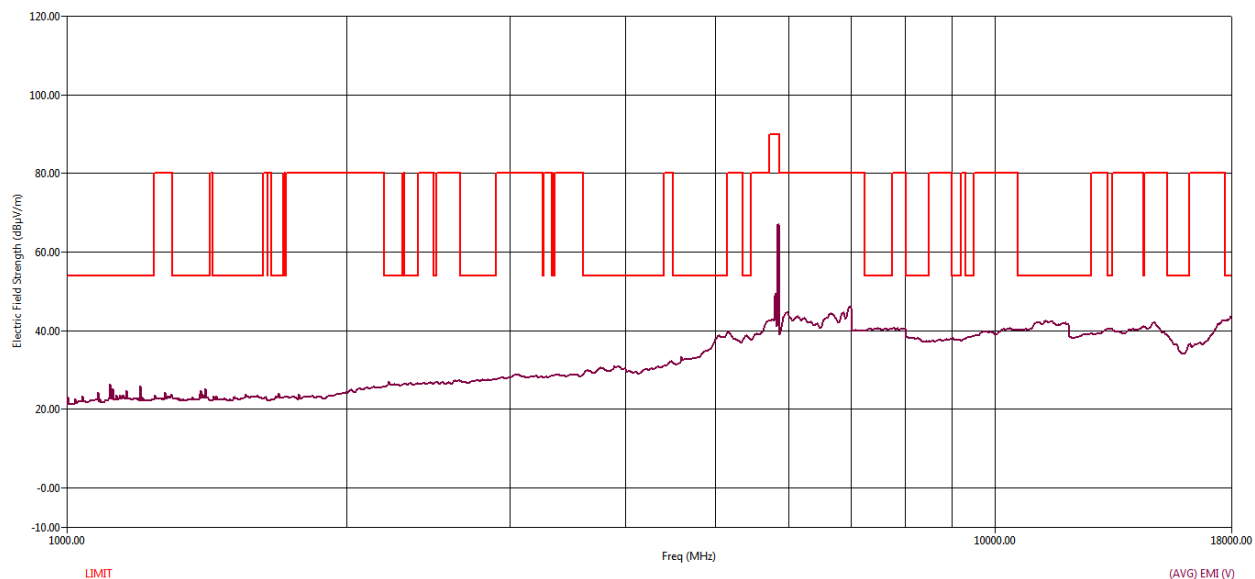


Figure 142 RE Graph from 1 GHz to 18 GHz using Average Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
4598.00	4598.00	H	311.20	114.00	38.32	3.54	31.32	29.05	44.13	54.00	-9.87
5702.30	5702.30	V	179.90	101.00	29.44	3.91	33.58	28.37	38.55	80.00	-41.45
5805.40	5805.40	V	308.90	101.00	37.97	3.93	33.94	28.38	47.46	90.00	-42.54
5975.90	5975.90	V	301.60	101.00	33.47	3.96	34.52	28.40	43.56	80.00	-36.44

Table 101 Average table from 1 GHz to 18 GHz

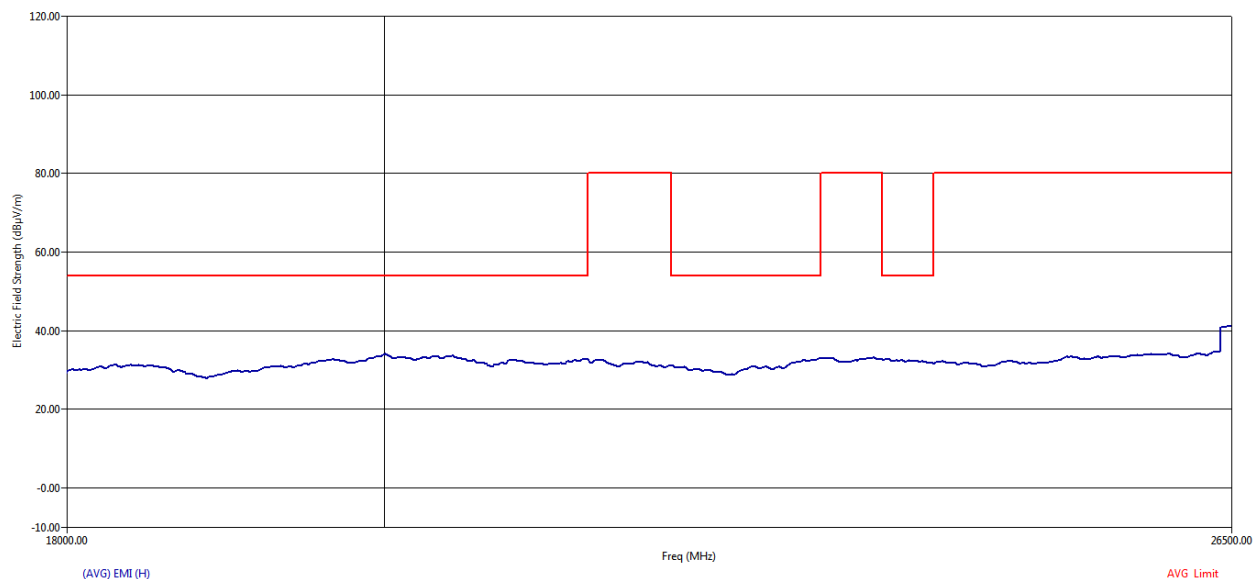


Figure 143 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Horizontal Polarization

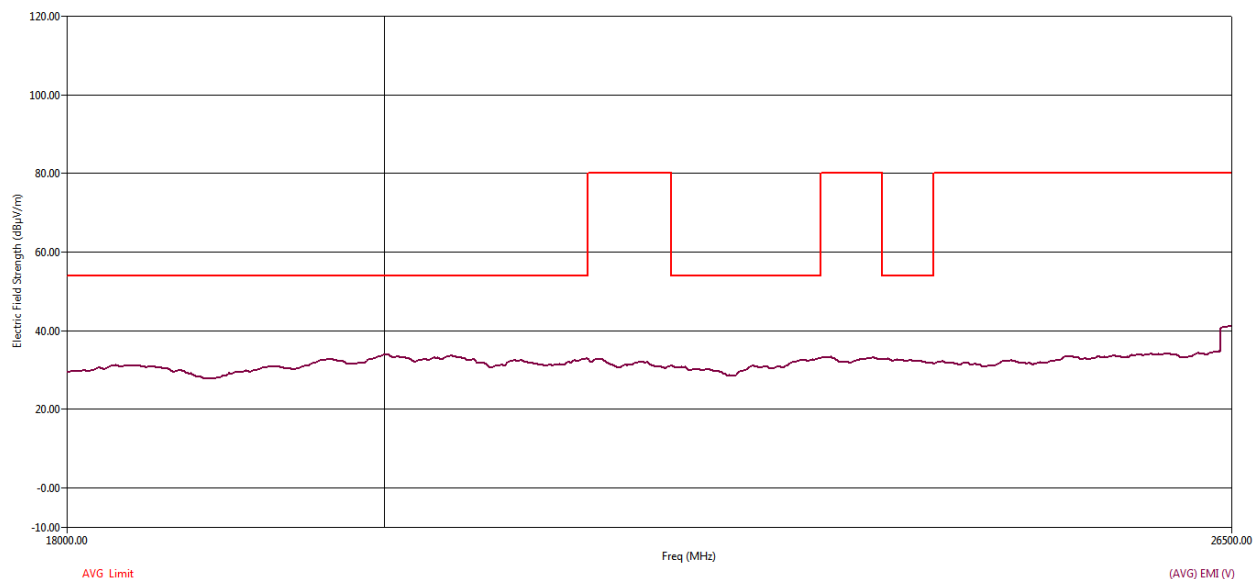


Figure 144 RE Graph from 18 GHz to 26.5 GHz using Average Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
20434.80	20434.80	V	220.20	123.00	32.42	7.60	36.76	43.53	33.25	54.00	-20.75
23158.00	23158.00	V	217.50	188.00	33.72	8.26	37.80	46.82	32.97	80.00	-47.03
26449.50	26449.50	V	141.30	138.00	31.71	9.30	37.83	44.25	34.58	80.00	-45.42

Table 102 Average Table form 18 GHz to 26.5 GHz

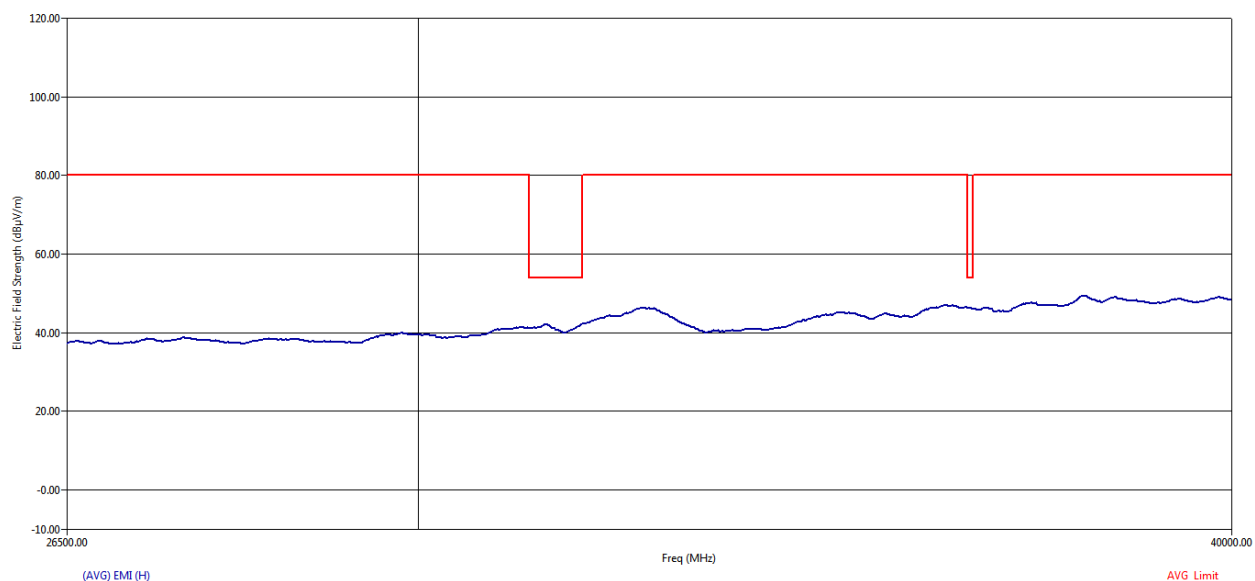


Figure 145 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Horizontal Polarization

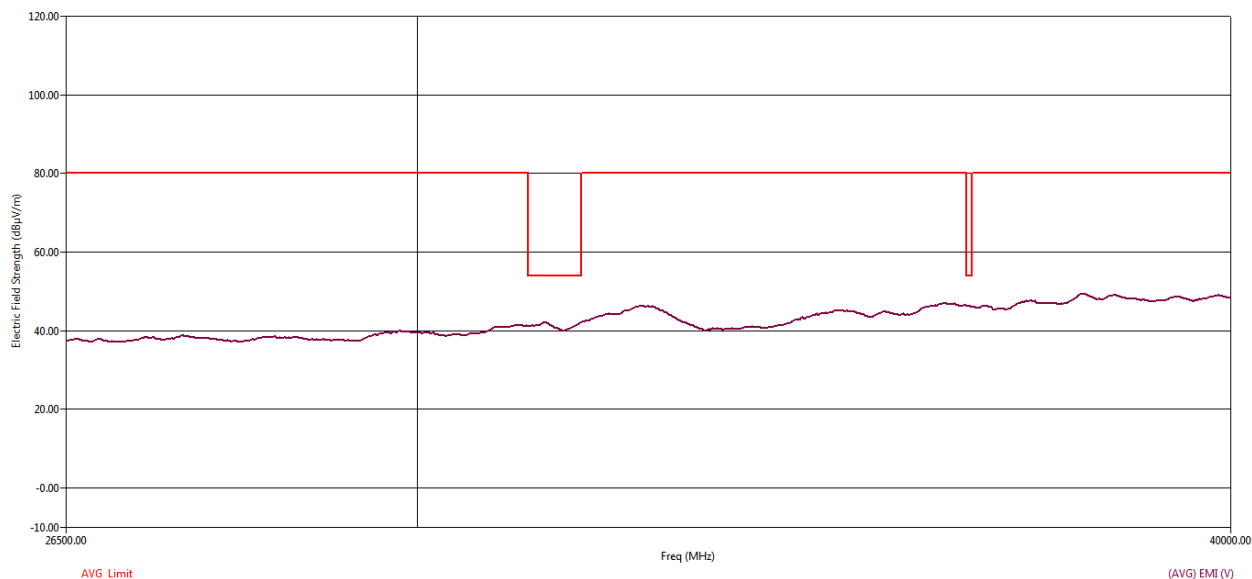


Figure 146 RE Graph from 26.5 GHz to 40 GHz using Average Detector – Vertical Polarization

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbt Agl (deg)	Twr Ht (cm)	(AVG) Trace (dBμV)	Cable (dB)	Transducer (dB)	Preamplifier (dB)	(AVG) EMI (dBμV/m)	Limit (dBμV/m)	(AVG) Margin (dB)
32579.00	32579.00	H	271.40	102.00	40.83	10.68	38.94	44.46	45.99	80.00	-34.01
37959.20	37959.20	H	152.80	102.00	42.65	12.32	40.75	46.50	49.22	80.00	-30.78

Table 103 Average Table from 26.5 GHz to 40 GHz

5.3.1.6 RESULT

Radiated emissions from the EUT are within the specified limits

5.3.2 CONDUCTED EMISSION TEST

5.3.2.1 TEST SPECIFICATION

Test Standard	47 CFR, Part 15 Feb 2016	
Test Procedure	ANSI C63.4-2014	
Class / Group	Class 'B'	
Type of Cable (Shielded/Unshielded)	Unshielded Cable	
Frequency Range	150 kHz - 30 MHz	
Resolution Bandwidth	9 kHz	
Video Bandwidth	30 kHz	
Step size	4 kHz	
Pre Scan Measurement Time	20 ms	
Final Measurement Time	1second	
Attenuation	10 dB	
Detector	Peak, Quasi Peak and Average	
Input Voltage	120 V AC	230 V AC
Input Frequency	60 Hz	50 Hz
Temperature	24.0 °C	
Humidity	51.0 %	
Tested By	Suresh GN/Raviteja	
Test Date	12 th Feb 2016	

5.3.2.2 LIMITS

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

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

5.3.2.3 TEST SETUP

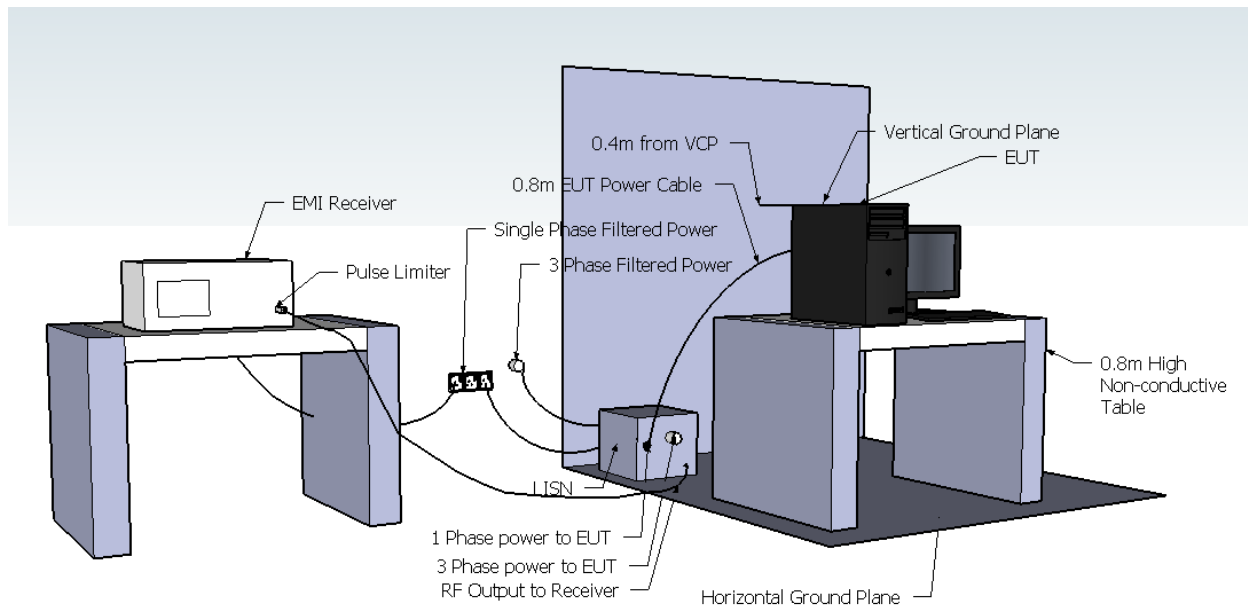


Figure 147 Sample test setup for Conducted Emission test

5.3.2.4 TEST PROCEDURE

The test procedure is in accordance with ANSI C63.4

The Conducted Emission test was performed in the test site with a horizontal ground reference plane and a vertical ground reference plane bonded together. The EUT was placed on 0.8 meter insulated table on GRP. The Power supply to the EUT was feed through a LISN ($50 \Omega / 50 \mu\text{H}$). The conducted emission measurement test system was configured through software as per standard. The EUT was powered by AC supply and made operational.

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

5.3.2.5 MEASUREMENT DATA

5.3.2.5.1 POWER LINE -230 V 50 Hz - 40 MHz CHANNEL BANDWIDTH

LOW CHANNEL

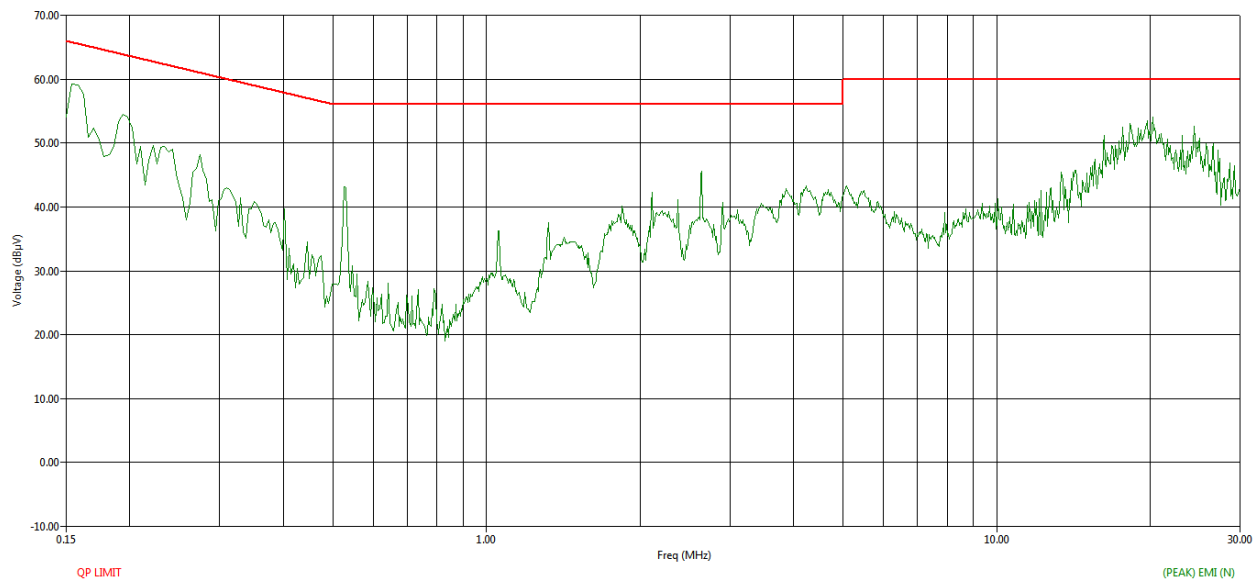


Figure 148 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral

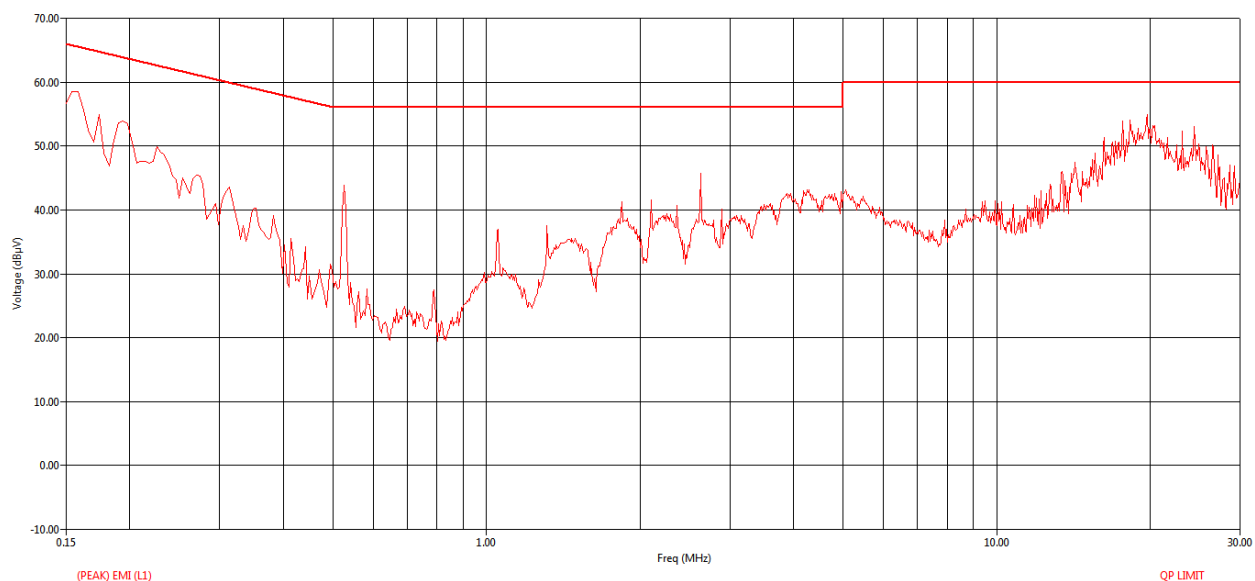


Figure 149 CE graph from 150 kHz to 30 MHz using Peak detector -Line

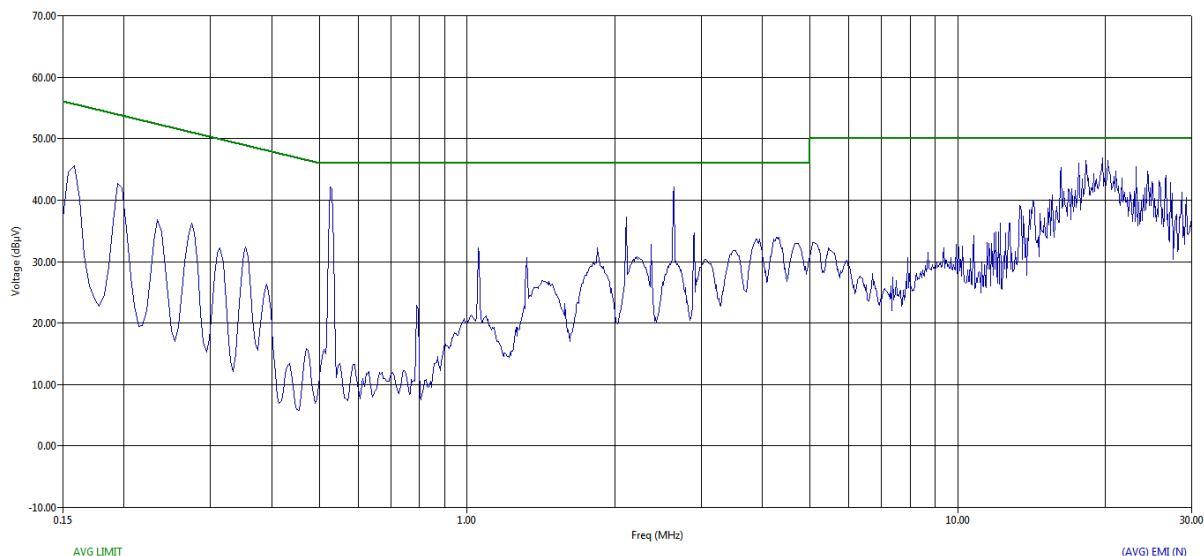


Figure 150 CE graph from 150 kHz to 30 MHz using Average detector – Neutral

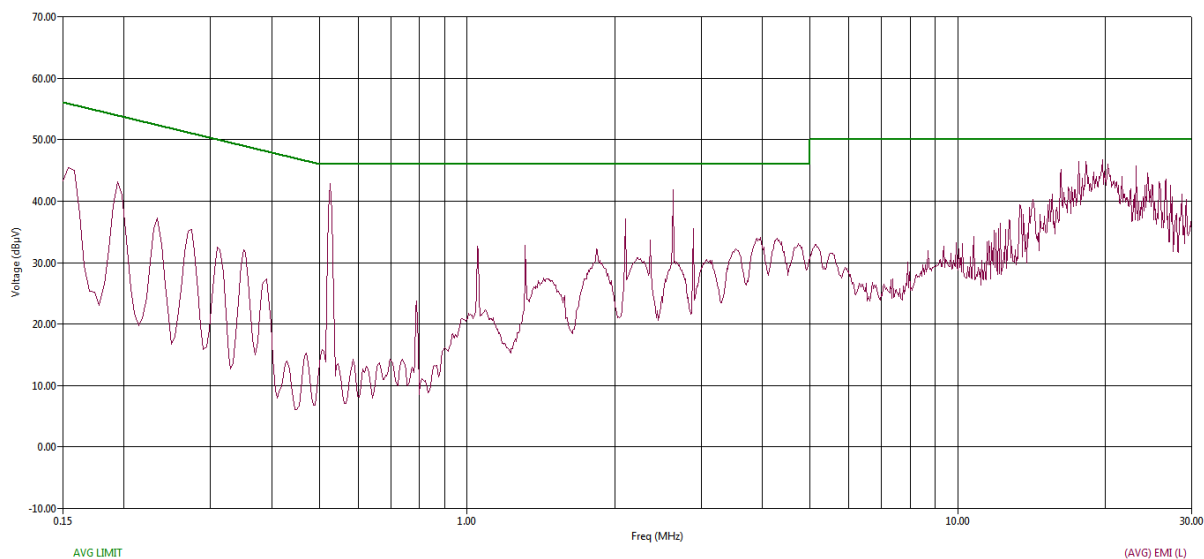


Figure 151 CE graph from 150 kHz to 30 MHz using Average detector – Line

Freq (MHz)	Freq (Max) (MHz)	Line	(QP) Trace (dBμV)	Cable + Pluselimiter (dB)	Transducer N (dB)	Transducer L (dB)	(QP) EMI (dBμV)	(QP) Limit (dBμV)	(QP) Margin QPL (dB)
0.15	0.16	N	40.52	10.11	2.08	0.00	52.71	65.45	-12.75
0.16	0.16	L1	44.01	10.11	0.00	2.14	56.26	65.67	-9.41
0.27	0.27	N	31.77	10.10	1.31	0.00	43.18	61.07	-17.89
0.35	0.35	N	25.92	10.10	0.95	0.00	36.97	59.02	-22.05
0.53	0.52	L1	32.61	10.10	0.00	0.42	43.13	56.00	-12.87
0.53	0.52	N	32.48	10.10	0.41	0.00	42.99	56.00	-13.01
2.62	2.62	L1	34.20	10.11	0.00	0.33	44.64	56.00	-11.36
16.23	16.23	N	38.44	10.36	0.69	0.00	49.48	60.00	-10.52
16.23	16.23	L1	38.76	10.36	0.00	0.69	49.81	60.00	-10.19
19.71	19.71	L1	40.71	10.40	0.00	0.43	51.53	60.00	-8.47
20.26	20.26	N	39.75	10.41	0.56	0.00	50.71	60.00	-9.29
23.13	23.13	L1	38.75	10.48	0.00	0.45	49.68	60.00	-10.32

Table 104 Quasi peak table for CE from 150 kHz to 30 MHz

Freq (MHz)	Freq (Max) (MHz)	Line	(AVG) Trace (dBμV)	Cable + Pluselimiter (dB)	Transducer N (dB)	Transducer L (dB)	(AVG) EMI (dBμV)	(AVG) Limit (dBμV)	(AVG) Margin AVL (dB)
0.15	0.16	N	28.15	10.11	2.08	0.00	40.34	55.45	-15.12
0.16	0.16	L1	33.40	10.11	0.00	2.14	45.65	55.67	-10.01
0.27	0.27	N	24.82	10.10	1.31	0.00	36.24	51.07	-14.83
0.35	0.35	N	20.29	10.10	0.95	0.00	31.34	49.02	-17.68
0.53	0.52	L1	32.09	10.10	0.00	0.42	42.61	46.00	-3.39
0.53	0.52	N	32.03	10.10	0.41	0.00	42.55	46.00	-3.45
2.62	2.62	L1	32.44	10.11	0.00	0.33	42.89	46.00	-3.11
16.23	16.23	N	34.42	10.36	0.69	0.00	45.46	50.00	-4.54
16.23	16.23	L1	34.58	10.36	0.00	0.69	45.62	50.00	-4.38
19.71	19.71	L1	35.57	10.40	0.00	0.43	46.40	50.00	-3.60
20.26	20.26	N	34.79	10.41	0.56	0.00	45.75	50.00	-4.25
23.13	23.13	L1	34.81	10.48	0.00	0.45	45.74	50.00	-4.26

Table 105 Average table for CE from 150 kHz to 30 MHz

MID CHANNEL

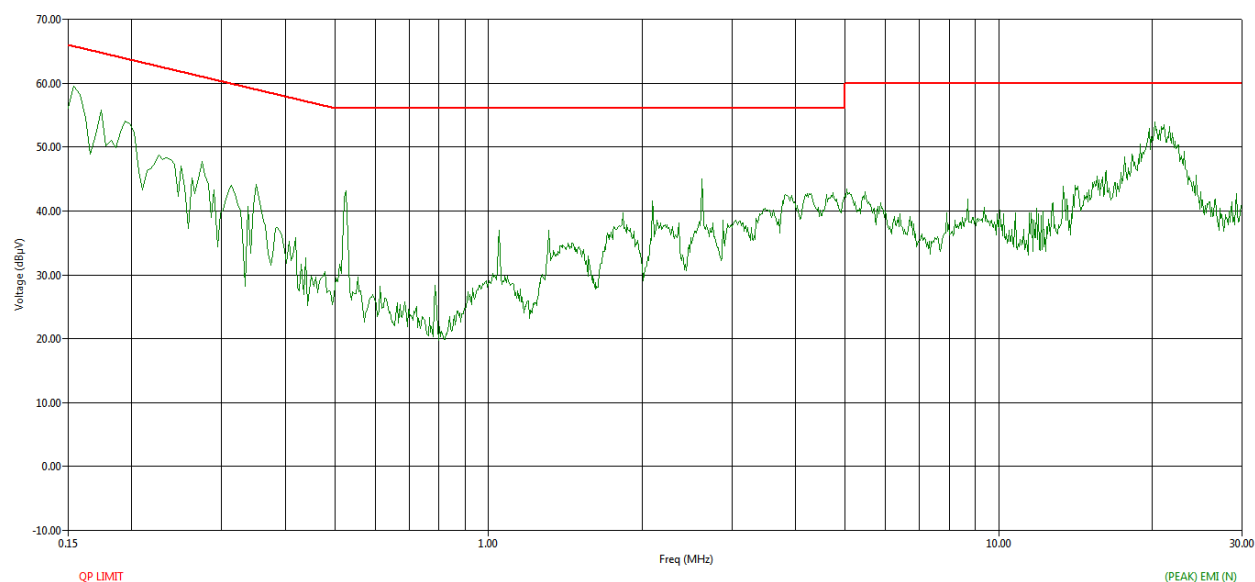


Figure 152 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral

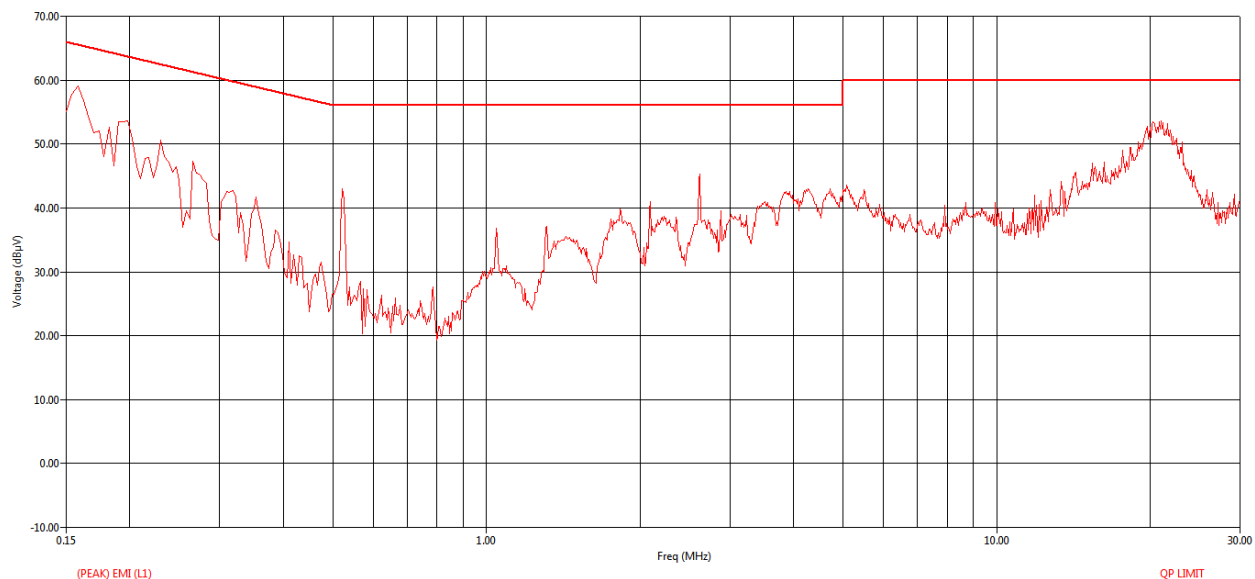


Figure 153 CE graph from 150 kHz to 30 MHz using Peak detector –Line

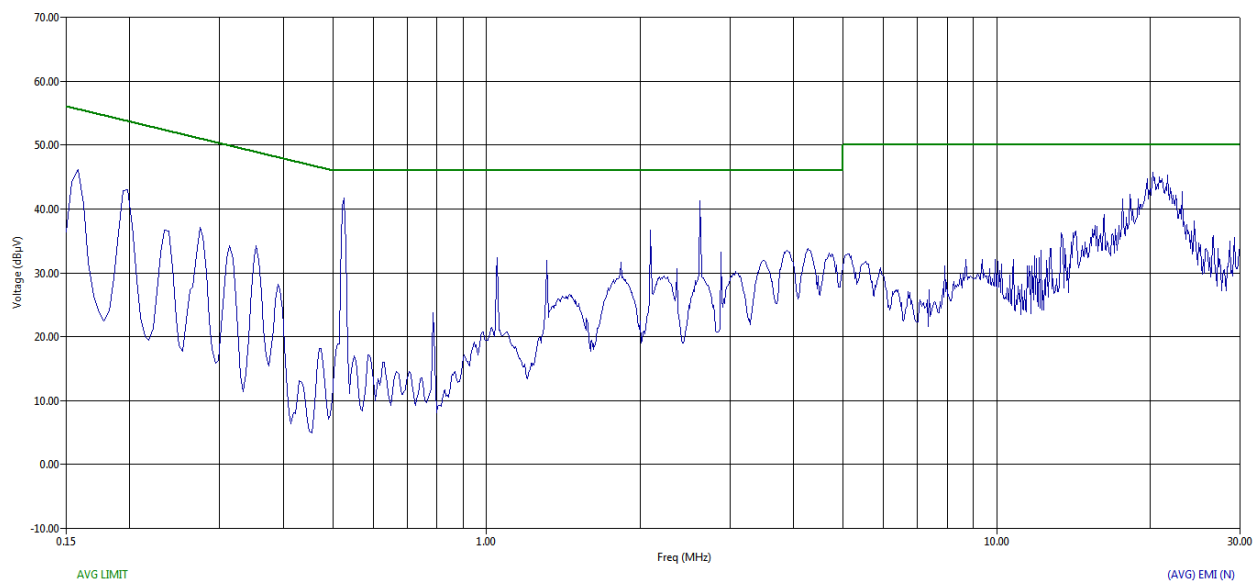


Figure 154 CE graph from 150 kHz to 30 MHz using Average detector – Neutral

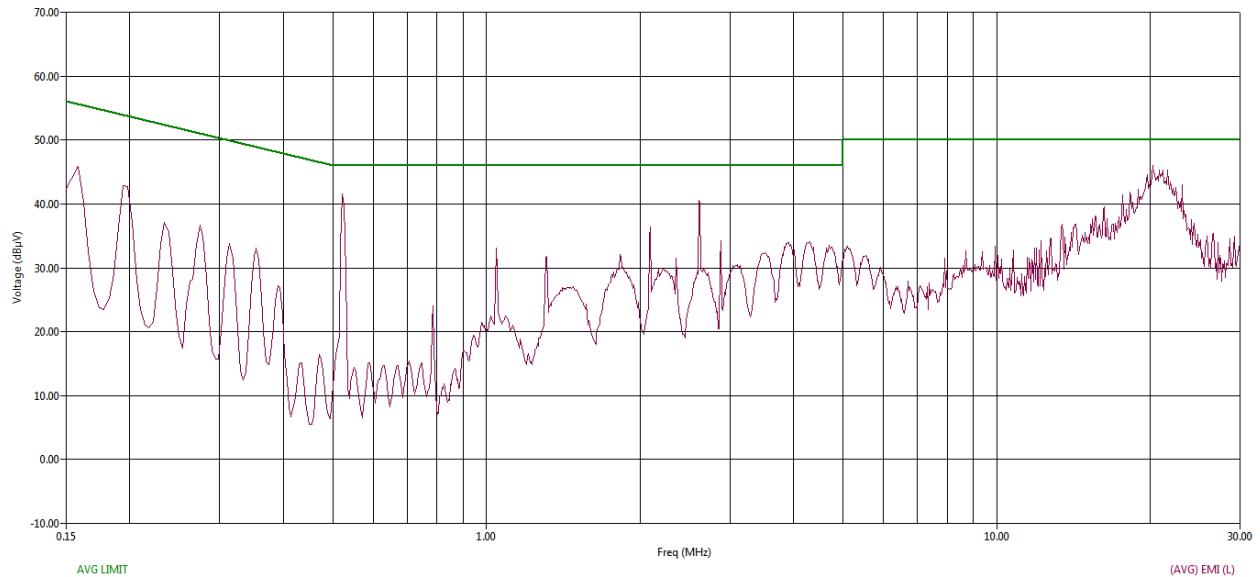


Figure 155 CE graph from 150 kHz to 30 MHz using Average detector - Line

Freq (MHz)	Freq (Max) (MHz)	Line	(QP) Trace (dBμV)	Cable + Pluselimiter (dB)	Transducer N (dB)	Transducer L (dB)	(QP) EMI (dBμV)	(QP) Limit (dBμV)	(QP) Margin QPL (dB)
0.15	0.15	N	39.95	10.11	2.16	0.00	52.22	65.78	-13.56
0.16	0.16	L1	43.27	10.11	0.00	2.12	55.49	65.57	-10.07
0.27	0.27	L1	31.39	10.10	0.00	1.32	42.81	61.24	-18.43
0.27	0.27	N	31.59	10.10	1.31	0.00	43.00	61.00	-17.99
0.35	0.35	N	26.01	10.10	0.95	0.00	37.06	58.96	-21.90
0.52	0.52	L1	32.27	10.10	0.00	0.42	42.80	56.00	-13.20
0.53	0.52	N	32.23	10.10	0.41	0.00	42.75	56.00	-13.25
2.62	2.61	L1	32.85	10.11	0.00	0.33	43.29	56.00	-12.71
2.62	2.61	N	32.27	10.11	0.30	0.00	42.69	56.00	-13.31
13.36	13.36	L1	29.57	10.29	0.00	0.68	40.55	60.00	-19.45
20.26	20.26	N	40.11	10.41	0.56	0.00	51.07	60.00	-8.93
21.05	21.05	L1	39.01	10.43	0.00	0.42	49.86	60.00	-10.14

Table 106 Quasi peak table for CE from 150 kHz to 30 MHz

Freq (MHz)	Freq (Max) (MHz)	Line	(AVG) Trace (dBμV)	Cable + Pluselimiter (dB)	Transducer N (dB)	Transducer L (dB)	(AVG) EMI (dBμV)	(AVG) Limit (dBμV)	(AVG) Margin AVL (dB)
0.15	0.16	N	33.77	10.11	2.08	0.00	45.96	55.78	-9.82
0.16	0.16	L1	33.37	10.11	0.00	2.12	45.60	55.57	-9.97
0.19	0.20	L1	31.15	10.11	0.00	1.78	43.04	53.86	-10.83
0.24	0.23	L1	16.08	10.10	0.00	1.56	27.75	52.17	-24.42
0.26	0.26	L1	14.12	10.10	0.00	1.40	25.63	51.37	-25.74
0.31	0.31	N	11.42	10.10	1.12	0.00	22.64	50.08	-27.44
0.36	0.36	N	24.57	10.10	0.90	0.00	35.57	48.77	-13.20
0.52	0.52	L1	31.51	10.10	0.00	0.42	42.04	46.00	-3.96
0.52	0.52	N	31.59	10.10	0.41	0.00	42.10	46.00	-3.90
2.61	2.61	N	30.44	10.11	0.30	0.00	40.86	46.00	-5.14
20.26	20.26	L1	34.20	10.41	0.00	0.41	45.02	50.00	-4.98
21.66	21.66	N	34.84	10.44	0.61	0.00	45.90	50.00	-4.10

Table 107 Average table for CE from 150 kHz to 30 MHz

HIGH CHANNEL

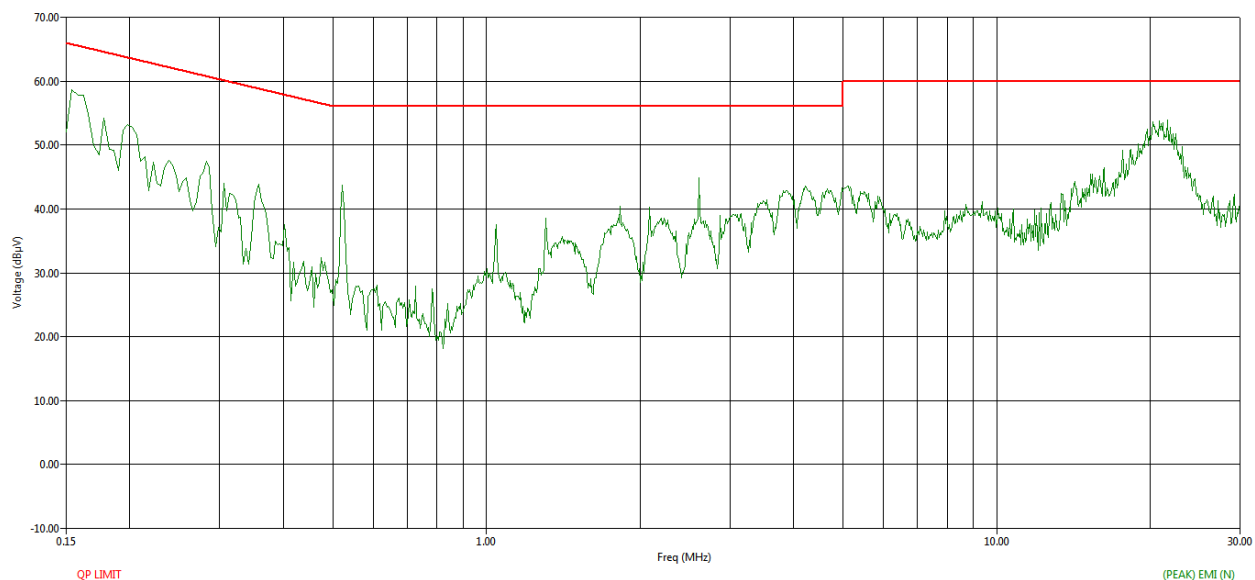


Figure 156 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral

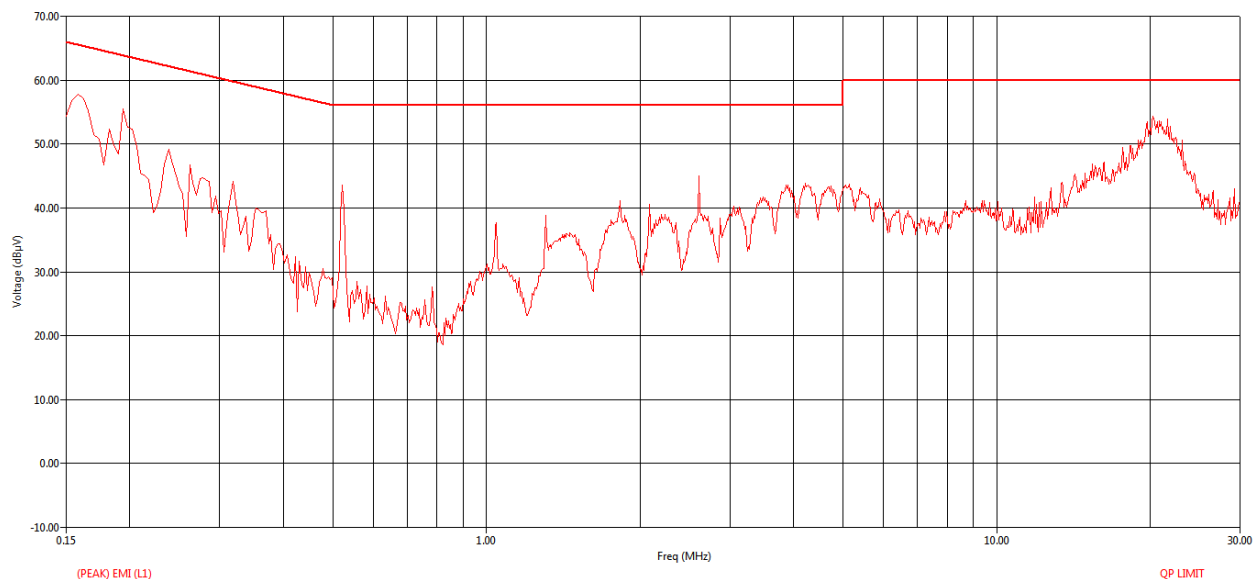


Figure 157 CE graph from 150 kHz to 30 MHz using Peak detector -Line

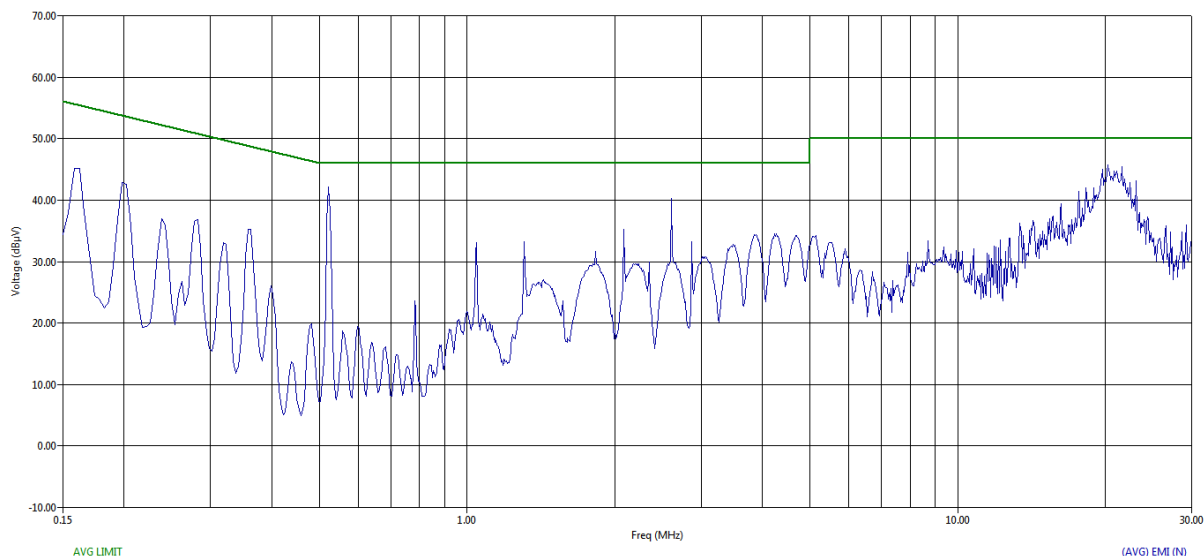


Figure 158 CE graph from 150 kHz to 30 MHz using Average detector – Neutral

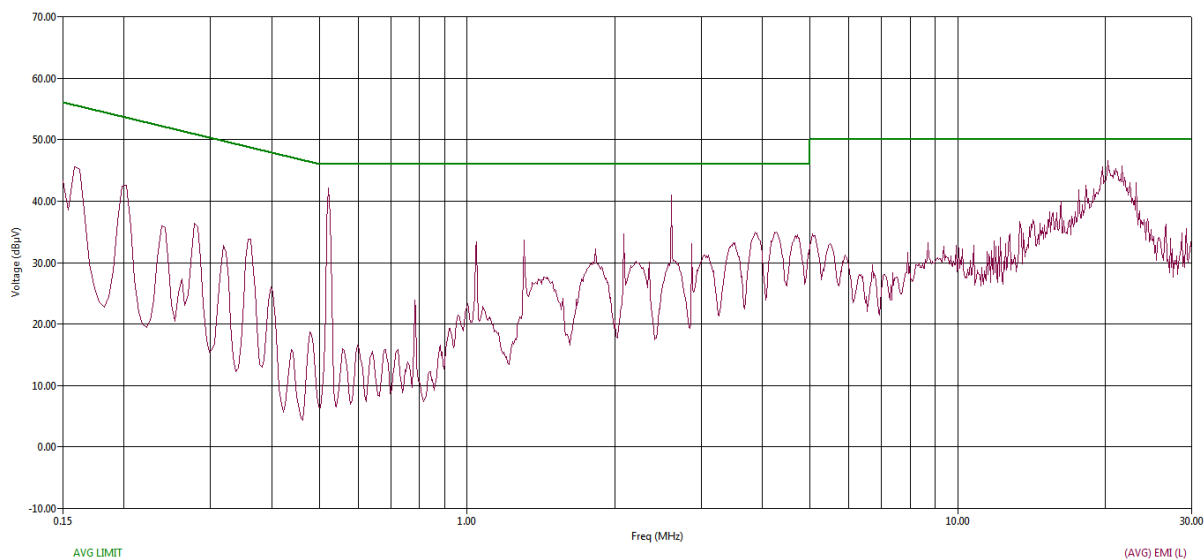


Figure 159 CE graph from 150 kHz to 30 MHz using Average detector - Line

Freq (MHz)	Freq (Max) (MHz)	Line	(QP) Trace (dBμV)	Cable + Pluselimiter (dB)	Transducer N (dB)	Transducer L (dB)	(QP) EMI (dBμV)	(QP) Limit (dBμV)	(QP) Margin QPL (dB)
0.15	0.16	N	43.79	10.11	2.08	0.00	55.98	65.78	-9.81
0.16	0.16	L1	43.35	10.11	0.00	2.12	55.57	65.57	-9.99
0.19	0.20	L1	38.99	10.11	0.00	1.78	50.88	63.86	-12.99
0.24	0.23	L1	27.37	10.10	0.00	1.56	39.04	62.17	-23.13
0.26	0.26	L1	20.53	10.10	0.00	1.40	32.03	61.37	-29.33
0.31	0.31	N	22.12	10.10	1.12	0.00	33.34	60.08	-26.74
0.36	0.36	N	27.86	10.10	0.90	0.00	38.86	58.77	-19.91
0.52	0.52	L1	32.42	10.10	0.00	0.42	42.95	56.00	-13.05
0.52	0.52	N	32.45	10.10	0.41	0.00	42.96	56.00	-13.04
2.61	2.61	N	32.83	10.11	0.30	0.00	43.24	56.00	-12.76
20.26	20.26	L1	39.45	10.41	0.00	0.41	50.27	60.00	-9.73
21.66	21.66	N	40.44	10.44	0.61	0.00	51.49	60.00	-8.51

Table 108 Quasi peak table for CE from 150 kHz to 30 MHz

Freq (MHz)	Freq (Max) (MHz)	Line	(AVG) Trace (dBμV)	Cable + Pluselimiter (dB)	Transducer N (dB)	Transducer L (dB)	(AVG) EMI (dBμV)	(AVG) Limit (dBμV)	(AVG) Margin AVL (dB)
0.15	0.16	N	33.77	10.11	2.08	0.00	45.96	55.78	-9.82
0.16	0.16	L1	33.37	10.11	0.00	2.12	45.60	55.57	-9.97
0.19	0.20	L1	31.15	10.11	0.00	1.78	43.04	53.86	-10.83
0.24	0.23	L1	16.08	10.10	0.00	1.56	27.75	52.17	-24.42
0.26	0.26	L1	14.12	10.10	0.00	1.40	25.63	51.37	-25.74
0.31	0.31	N	11.42	10.10	1.12	0.00	22.64	50.08	-27.44
0.36	0.36	N	24.57	10.10	0.90	0.00	35.57	48.77	-13.20
0.52	0.52	L1	31.51	10.10	0.00	0.42	42.04	46.00	-3.96
0.52	0.52	N	31.59	10.10	0.41	0.00	42.10	46.00	-3.90
2.61	2.61	N	30.44	10.11	0.30	0.00	40.86	46.00	-5.14
20.26	20.26	L1	34.20	10.41	0.00	0.41	45.02	50.00	-4.98
21.66	21.66	N	34.84	10.44	0.61	0.00	45.90	50.00	-4.10

Table 109 Average table for CE from 150 kHz to 30 MHz

5.3.2.5.2 POWER LINE 120 V 60 HZ - 40 CHANNEL BANDWIDTH

LOW CHANNEL

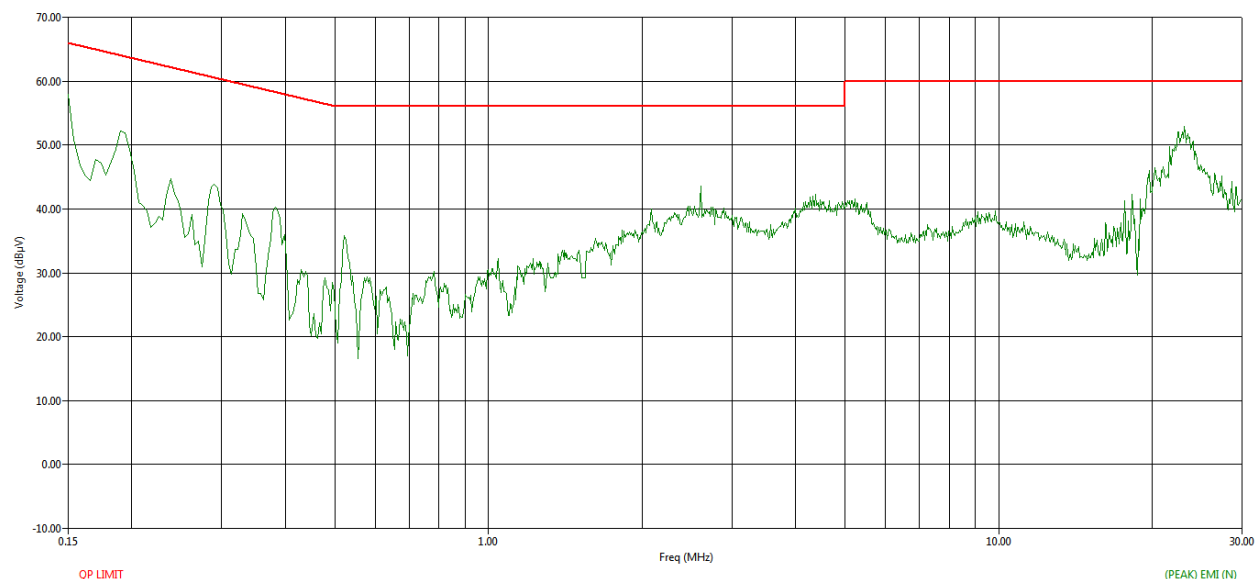


Figure 160 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral

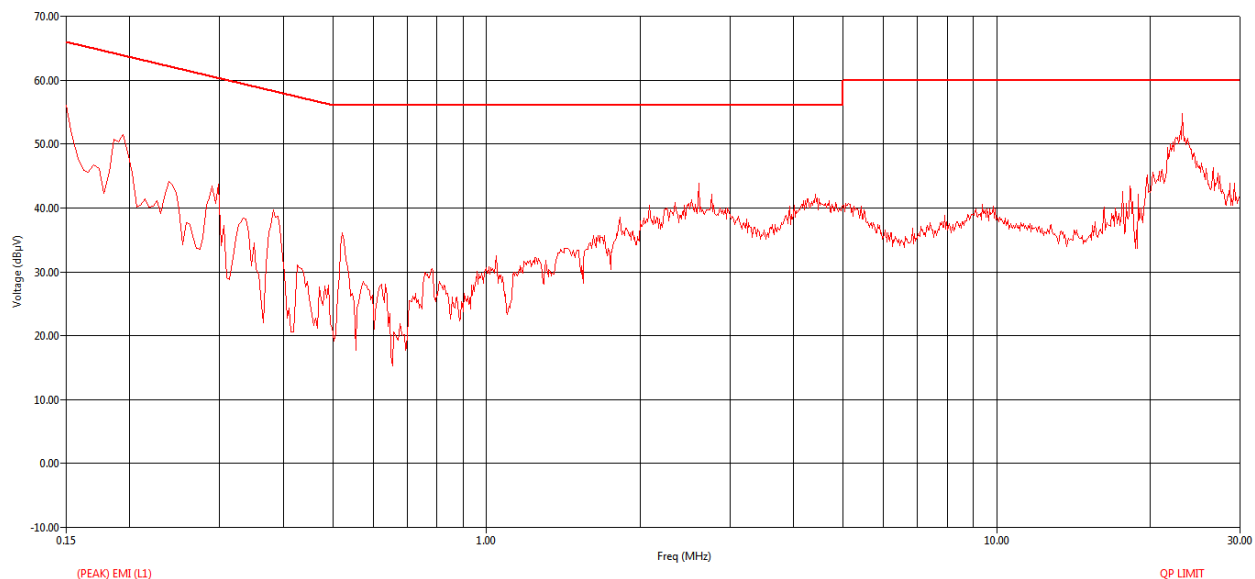


Figure 161 CE graph from 150 kHz to 30 MHz using Peak detector –Line

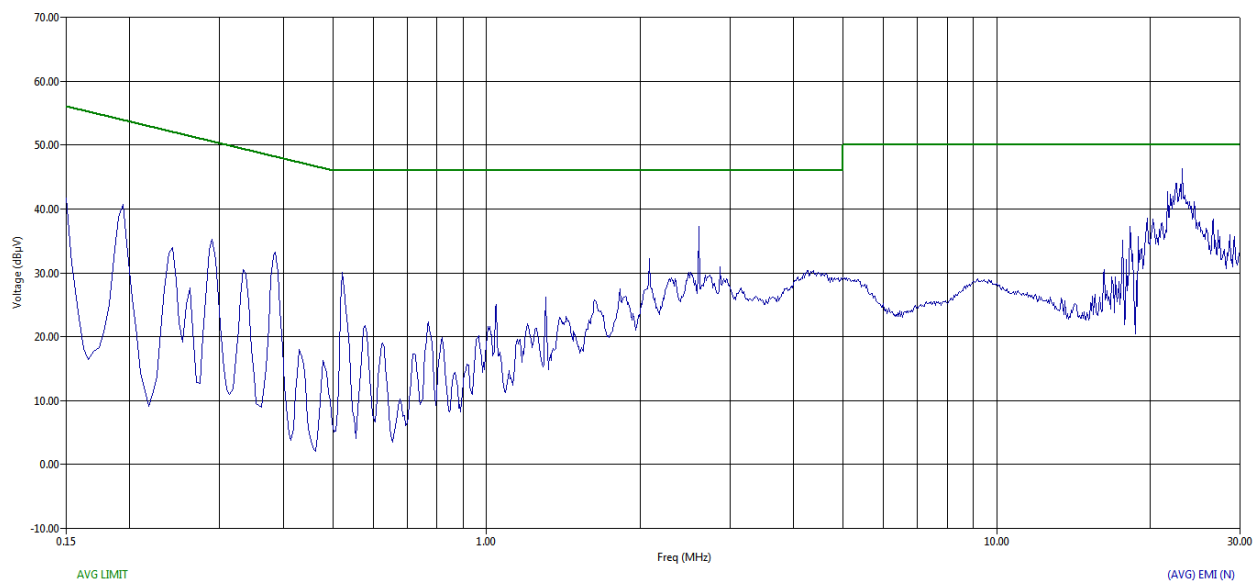


Figure 162 CE graph from 150 kHz to 30 MHz using Average detector – Neutral

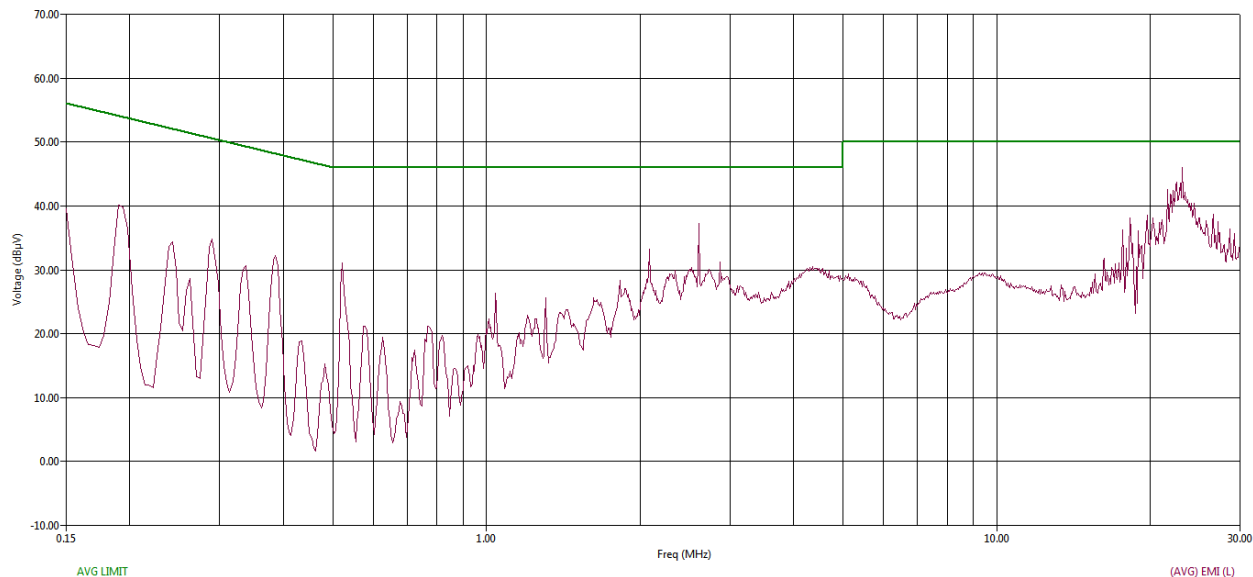


Figure 163 CE graph from 150 kHz to 30 MHz using Average detector – Line

Freq (MHz)	Freq (Max) (MHz)	Line	(QP) Trace (dBμV)	Cable+Pulse Limiter (dB)	Transducer N (dB)	Transducer L (dB)	(QP) EMI (dBμV)	(QP) Limit (dBμV)	(QP) Margin QPL (dB)
0.15	0.15	N	41.20	10.11	2.18	0.00	53.48	65.99	-12.51
0.15	0.15	L1	40.43	10.11	0.00	2.20	52.74	65.97	-13.23
0.19	0.19	N	38.39	10.11	1.83	0.00	50.33	64.01	-13.68
0.19	0.19	L1	38.03	10.11	0.00	1.85	49.99	64.03	-14.04
0.29	0.29	N	29.97	10.10	1.21	0.00	41.28	60.47	-19.19
0.30	0.30	L1	27.84	10.10	0.00	1.21	39.15	60.38	-21.23
2.61	2.61	N	30.80	10.11	0.30	0.00	41.22	56.00	-14.78
2.61	2.60	L1	29.93	10.11	0.00	0.33	40.38	56.00	-15.62
18.24	18.24	N	30.76	10.38	0.61	0.00	41.76	60.00	-18.24
18.24	18.24	L1	31.68	10.38	0.00	0.53	42.59	60.00	-17.41
18.91	18.92	N	29.08	10.39	0.59	0.00	40.06	60.00	-19.94
18.91	18.91	L1	29.94	10.39	0.00	0.48	40.81	60.00	-19.19
23.13	23.13	N	40.70	10.48	0.66	0.00	51.83	60.00	-8.17
23.13	23.13	L1	40.89	10.48	0.00	0.45	51.82	60.00	-8.18

Table 110 Quasi peak table for CE from 150 kHz to 30 MHz

Freq (MHz)	Freq (Max) (MHz)	Line	(AVG) Trace (dBμV)	Cable + Pluselimiter (dB)	Transducer N (dB)	Transducer L (dB)	(AVG) EMI (dBμV)	(AVG) Limit (dBμV)	(AVG) Margin AVL (dB)
0.15	0.16	N	33.77	10.11	2.08	0.00	45.96	55.78	-9.82
0.16	0.16	L1	33.37	10.11	0.00	2.12	45.60	55.57	-9.97
0.19	0.20	L1	31.15	10.11	0.00	1.78	43.04	53.86	-10.83
0.24	0.23	L1	16.08	10.10	0.00	1.56	27.75	52.17	-24.42
0.26	0.26	L1	14.12	10.10	0.00	1.40	25.63	51.37	-25.74
0.31	0.31	N	11.42	10.10	1.12	0.00	22.64	50.08	-27.44
0.36	0.36	N	24.57	10.10	0.90	0.00	35.57	48.77	-13.20
0.52	0.52	L1	31.51	10.10	0.00	0.42	42.04	46.00	-3.96
0.52	0.52	N	31.59	10.10	0.41	0.00	42.10	46.00	-3.90
2.61	2.61	N	30.44	10.11	0.30	0.00	40.86	46.00	-5.14
20.26	20.26	L1	34.20	10.41	0.00	0.41	45.02	50.00	-4.98
21.66	21.66	N	34.84	10.44	0.61	0.00	45.90	50.00	-4.10

Table 111 Average table for CE from 150 kHz to 30 MHz

MID CHANNEL

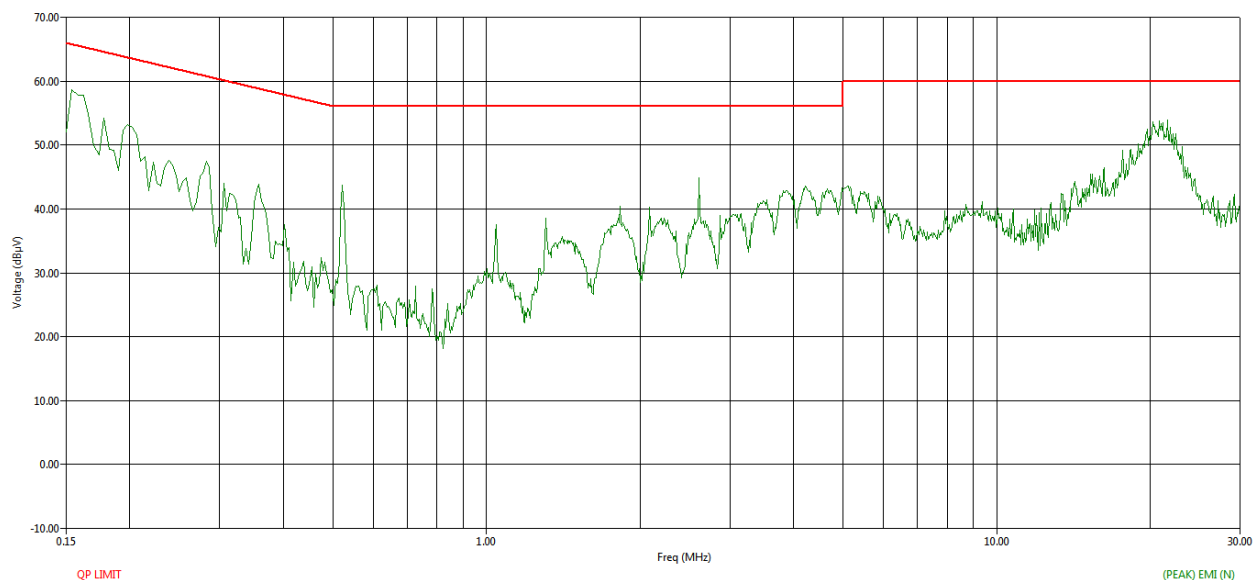


Figure 164 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral

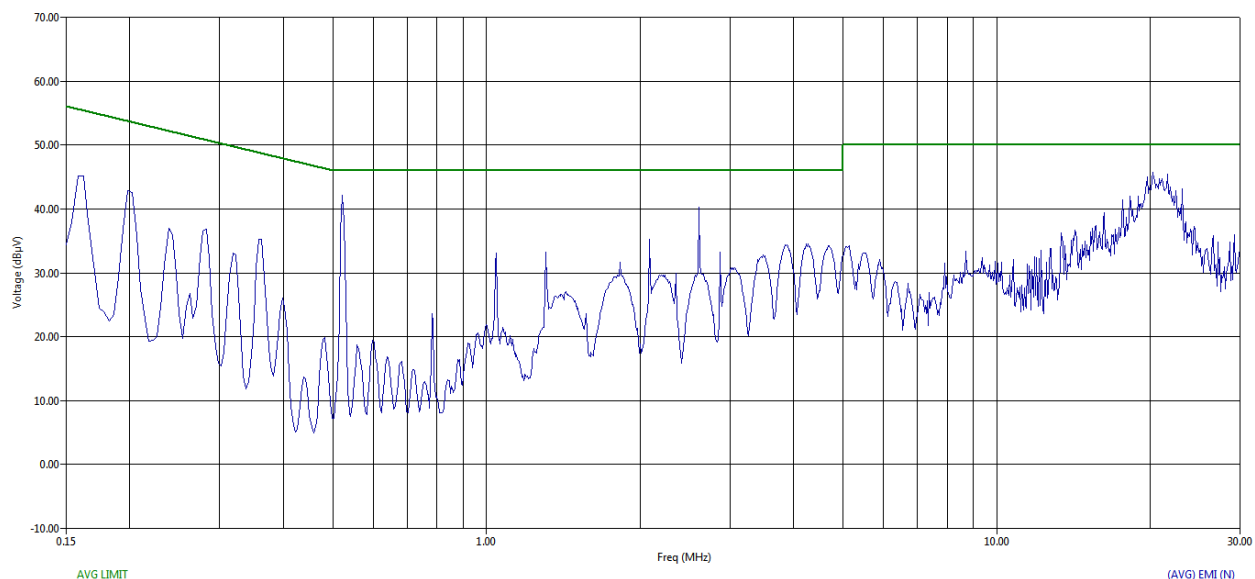


Figure 165 CE graph from 150 kHz to 30 MHz using Peak detector -Line

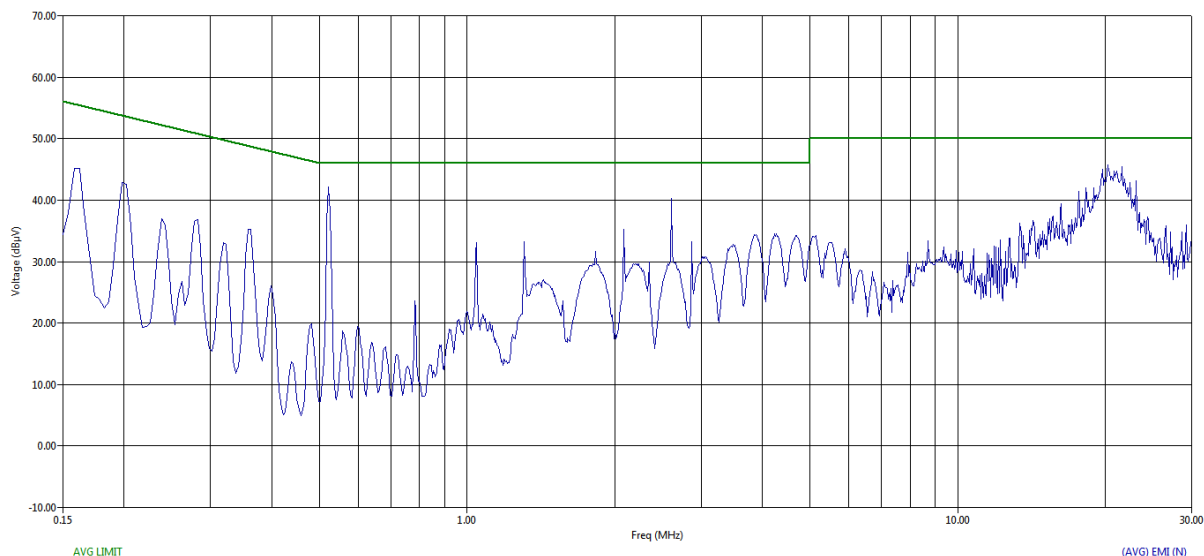


Figure 166 CE graph from 150 kHz to 30 MHz using Average detector – Neutral

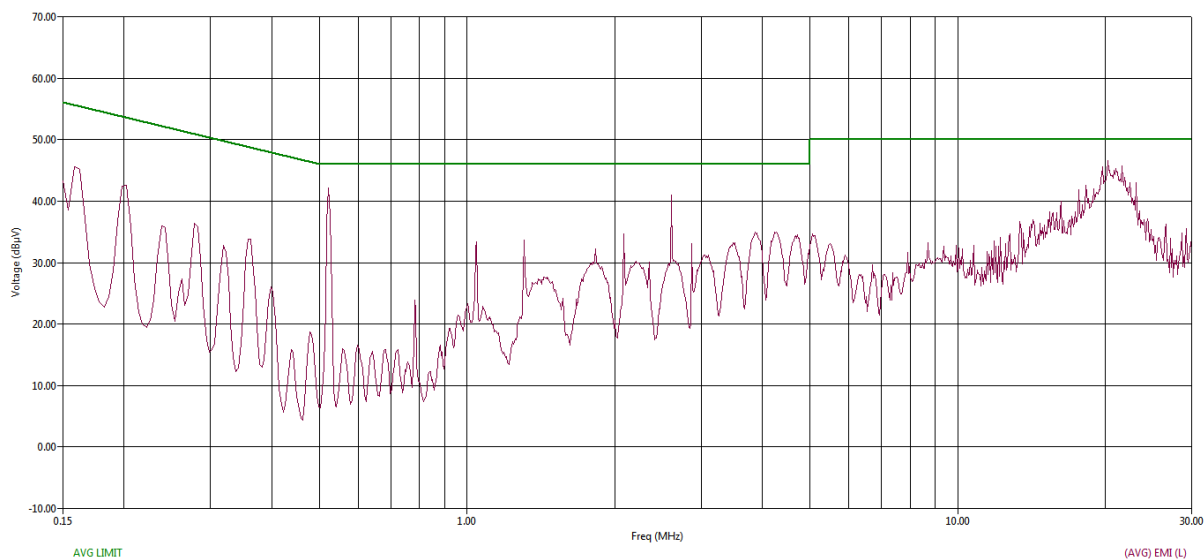


Figure 167 CE graph from 150 kHz to 30 MHz using Average detector – Line

Freq (MHz)	Freq (Max) (MHz)	Line	(QP) Trace (dBμV)	Cable + Pluselimiter (dB)	Transducer N (dB)	Transducer L (dB)	(QP) EMI (dBμV)	(QP) Limit (dBμV)	(QP) Margin QPL (dB)
0.15	0.16	N	43.79	10.11	2.08	0.00	55.98	65.78	-9.81
0.16	0.16	L1	43.35	10.11	0.00	2.12	55.57	65.57	-9.99
0.19	0.20	L1	38.99	10.11	0.00	1.78	50.88	63.86	-12.99
0.24	0.23	L1	27.37	10.10	0.00	1.56	39.04	62.17	-23.13
0.26	0.26	L1	20.53	10.10	0.00	1.40	32.03	61.37	-29.33
0.31	0.31	N	22.12	10.10	1.12	0.00	33.34	60.08	-26.74
0.36	0.36	N	27.86	10.10	0.90	0.00	38.86	58.77	-19.91
0.52	0.52	L1	32.42	10.10	0.00	0.42	42.95	56.00	-13.05
0.52	0.52	N	32.45	10.10	0.41	0.00	42.96	56.00	-13.04
2.61	2.61	N	32.83	10.11	0.30	0.00	43.24	56.00	-12.76
20.26	20.26	L1	39.45	10.41	0.00	0.41	50.27	60.00	-9.73
21.66	21.66	N	40.44	10.44	0.61	0.00	51.49	60.00	-8.51

Table 112 Quasi peak table for CE from 150 kHz to 30 MHz

Freq (MHz)	Freq (Max) (MHz)	Line	(AVG) Trace (dBμV)	Cable + Pluselimiter (dB)	Transducer N (dB)	Transducer L (dB)	(AVG) EMI (dBμV)	(AVG) Limit (dBμV)	(AVG) Margin AVL (dB)
0.15	0.16	N	33.77	10.11	2.08	0.00	45.96	55.78	-9.82
0.16	0.16	L1	33.37	10.11	0.00	2.12	45.60	55.57	-9.97
0.19	0.20	L1	31.15	10.11	0.00	1.78	43.04	53.86	-10.83
0.24	0.23	L1	16.08	10.10	0.00	1.56	27.75	52.17	-24.42
0.26	0.26	L1	14.12	10.10	0.00	1.40	25.63	51.37	-25.74
0.31	0.31	N	11.42	10.10	1.12	0.00	22.64	50.08	-27.44
0.36	0.36	N	24.57	10.10	0.90	0.00	35.57	48.77	-13.20
0.52	0.52	L1	31.51	10.10	0.00	0.42	42.04	46.00	-3.96
0.52	0.52	N	31.59	10.10	0.41	0.00	42.10	46.00	-3.90
2.61	2.61	N	30.44	10.11	0.30	0.00	40.86	46.00	-5.14
20.26	20.26	L1	34.20	10.41	0.00	0.41	45.02	50.00	-4.98
21.66	21.66	N	34.84	10.44	0.61	0.00	45.90	50.00	-4.10

Table 113 Average table for CE from 150 kHz to 30 MHz

HIGH CHANNEL

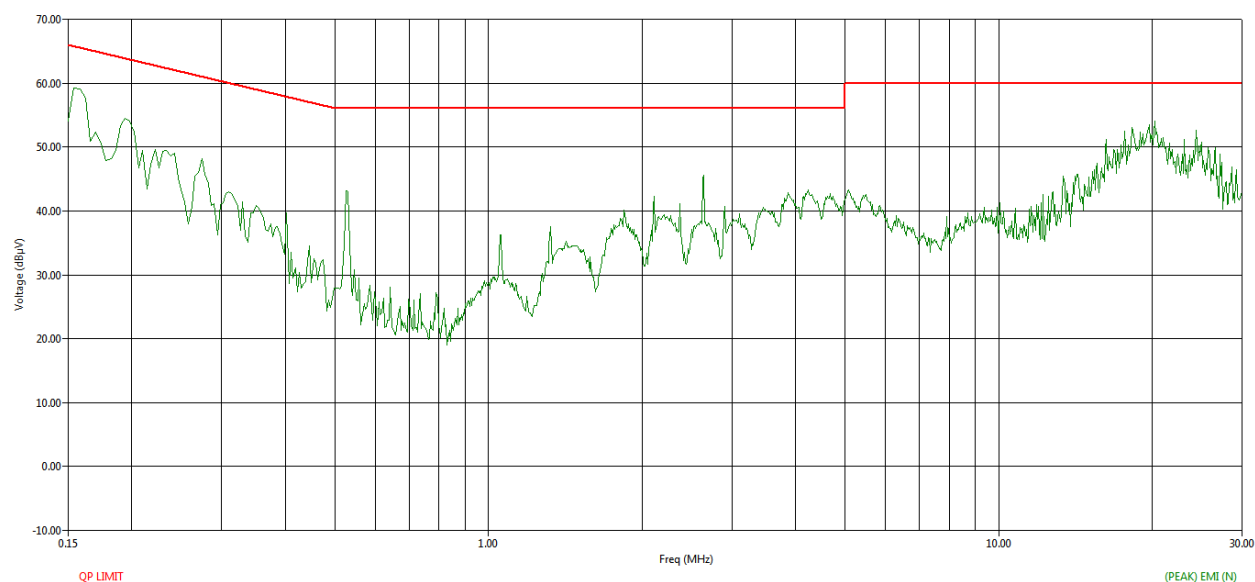


Figure 168 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral

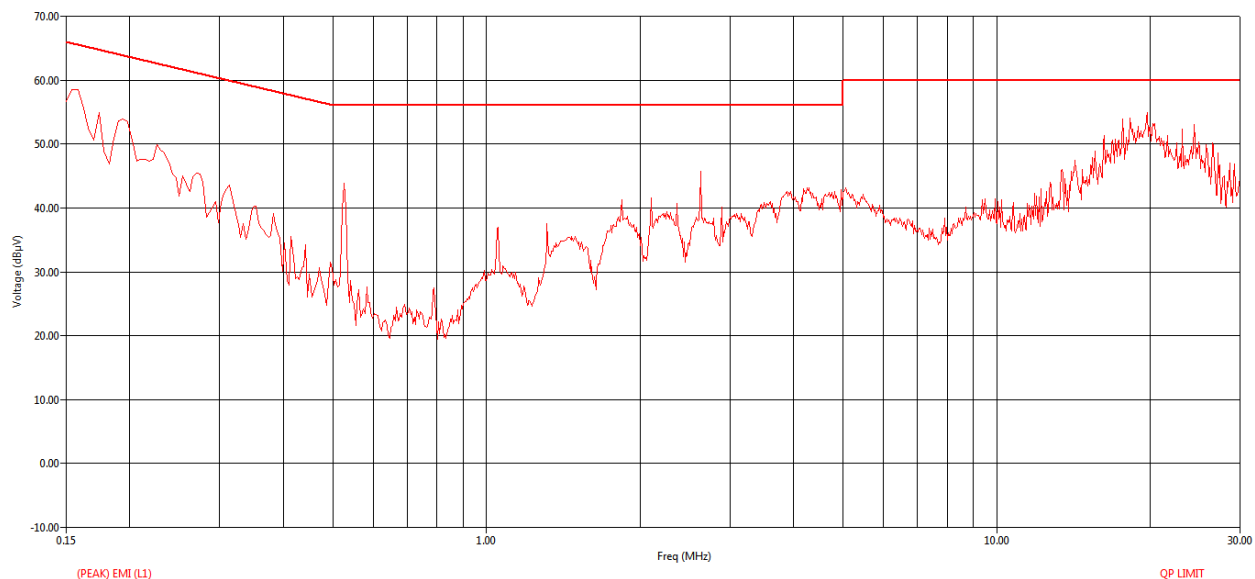


Figure 169 CE graph from 150 kHz to 30 MHz using Peak detector –Line

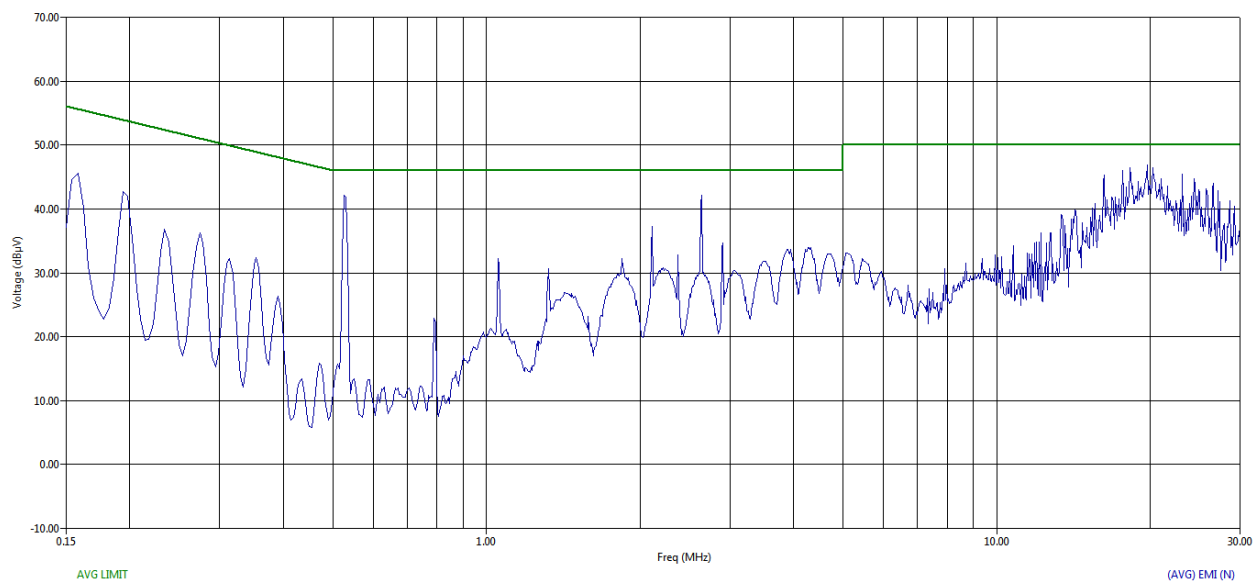


Figure 170 CE graph from 150 kHz to 30 MHz using Average detector – Neutral

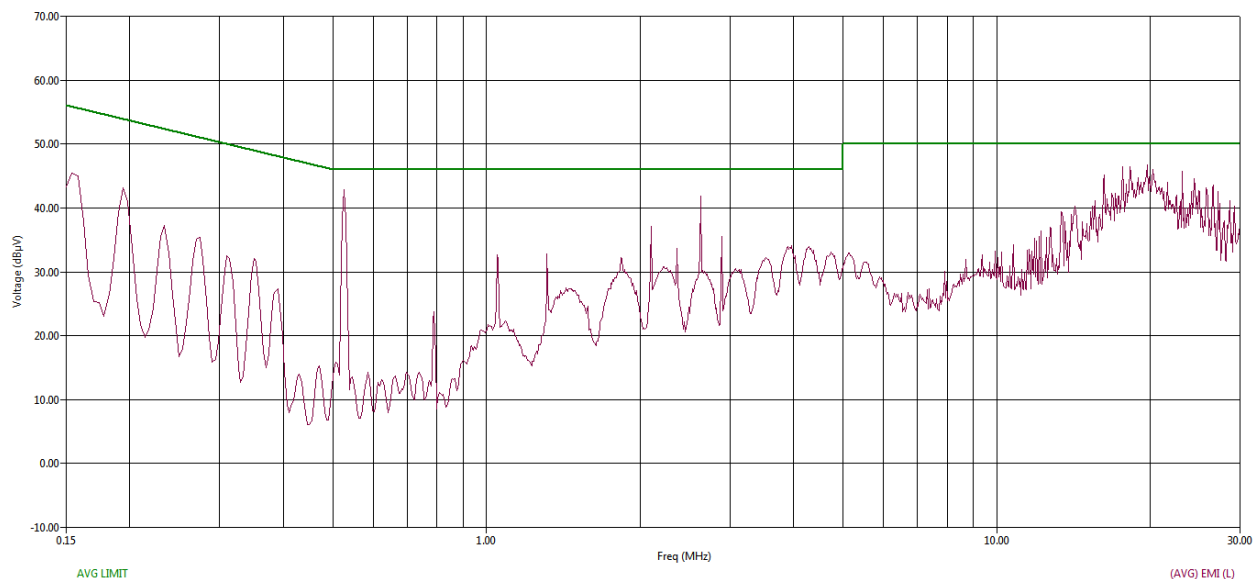


Figure 171 CE graph from 150 kHz to 30 MHz using Average detector – Line

Freq (MHz)	Freq (Max) (MHz)	Line	(QP) Trace (dBμV)	Cable + Pluselimiter (dB)	Transducer N (dB)	Transducer L (dB)	(QP) EMI (dBμV)	(QP) Limit (dBμV)	(QP) Margin QPL (dB)
0.15	0.16	N	40.52	10.11	2.08	0.00	52.71	65.45	-12.75
0.16	0.16	L1	44.01	10.11	0.00	2.14	56.26	65.67	-9.41
0.27	0.27	N	31.77	10.10	1.31	0.00	43.18	61.07	-17.89
0.35	0.35	N	25.92	10.10	0.95	0.00	36.97	59.02	-22.05
0.53	0.52	L1	32.61	10.10	0.00	0.42	43.13	56.00	-12.87
0.53	0.52	N	32.48	10.10	0.41	0.00	42.99	56.00	-13.01
2.62	2.62	L1	34.20	10.11	0.00	0.33	44.64	56.00	-11.36
16.23	16.23	N	38.44	10.36	0.69	0.00	49.48	60.00	-10.52
16.23	16.23	L1	38.76	10.36	0.00	0.69	49.81	60.00	-10.19
19.71	19.71	L1	40.71	10.40	0.00	0.43	51.53	60.00	-8.47
20.26	20.26	N	39.75	10.41	0.56	0.00	50.71	60.00	-9.29
23.13	23.13	L1	38.75	10.48	0.00	0.45	49.68	60.00	-10.32

Table 114 Quasi peak table for CE from 150 kHz to 30 MHz

Freq (MHz)	Freq (Max) (MHz)	Line	(AVG) Trace (dBμV)	Cable + Pluselimiter (dB)	Transducer N (dB)	Transducer L (dB)	(AVG) EMI (dBμV)	(AVG) Limit (dBμV)	(AVG) Margin AVL (dB)
0.15	0.16	N	28.15	10.11	2.08	0.00	40.34	55.45	-15.12
0.16	0.16	L1	33.40	10.11	0.00	2.14	45.65	55.67	-10.01
0.27	0.27	N	24.82	10.10	1.31	0.00	36.24	51.07	-14.83
0.35	0.35	N	20.29	10.10	0.95	0.00	31.34	49.02	-17.68
0.53	0.52	L1	32.09	10.10	0.00	0.42	42.61	46.00	-3.39
0.53	0.52	N	32.03	10.10	0.41	0.00	42.55	46.00	-3.45
2.62	2.62	L1	32.44	10.11	0.00	0.33	42.89	46.00	-3.11
16.23	16.23	N	34.42	10.36	0.69	0.00	45.46	50.00	-4.54
16.23	16.23	L1	34.58	10.36	0.00	0.69	45.62	50.00	-4.38
19.71	19.71	L1	35.57	10.40	0.00	0.43	46.40	50.00	-3.60
20.26	20.26	N	34.79	10.41	0.56	0.00	45.75	50.00	-4.25
23.13	23.13	L1	34.81	10.48	0.00	0.45	45.74	50.00	-4.26

Table 115 Average table for CE from 150 kHz to 30 MHz

5.3.2.5.3 POWER LINE 230 V 50 Hz - 5 MHz CHANNEL BANDWIDTH

LOW CHANNEL

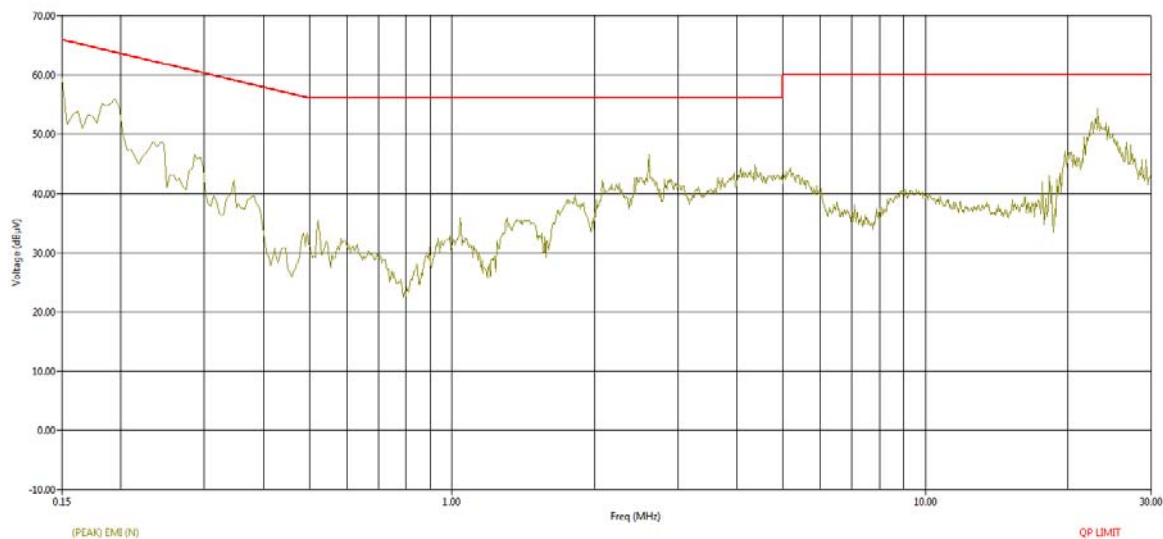


Figure 172 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral

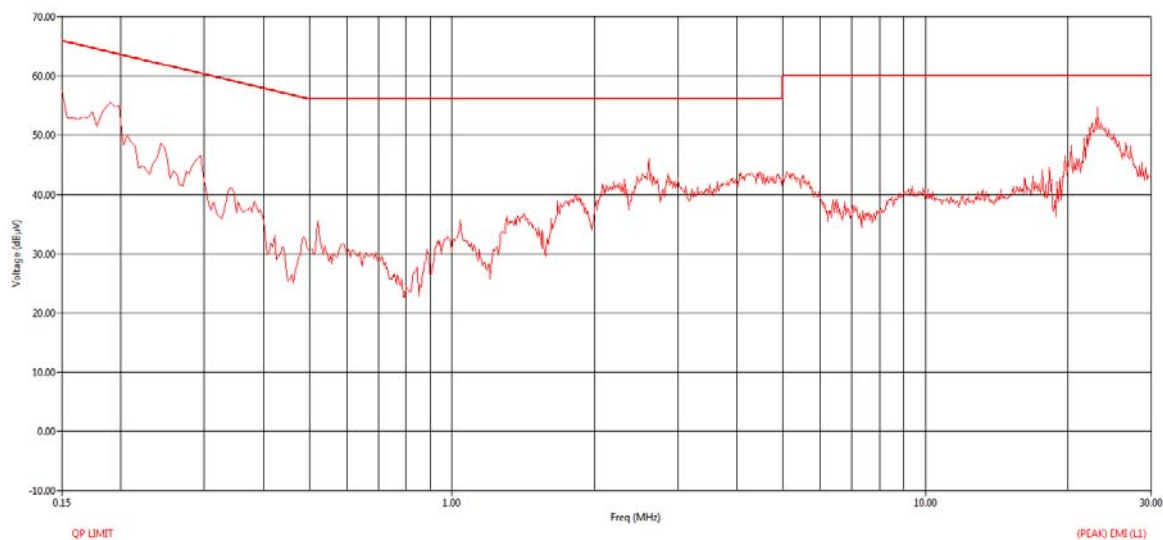


Figure 173 CE graph from 150 kHz to 30 MHz using Peak detector -Line

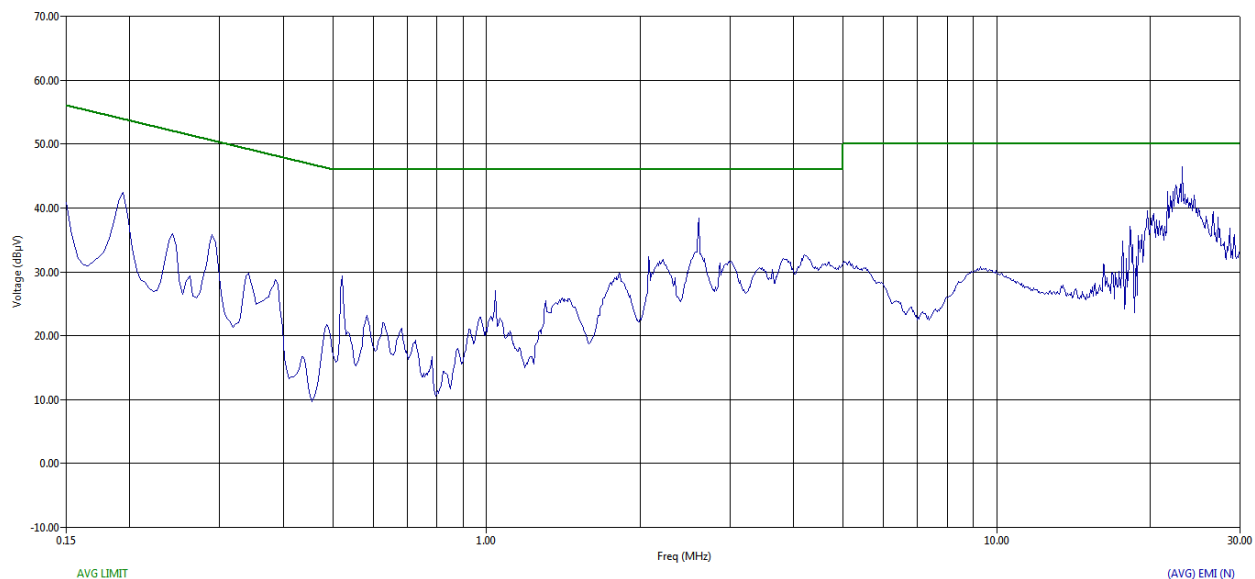


Figure 174 CE graph from 150 kHz to 30 MHz using Average detector – Neutral

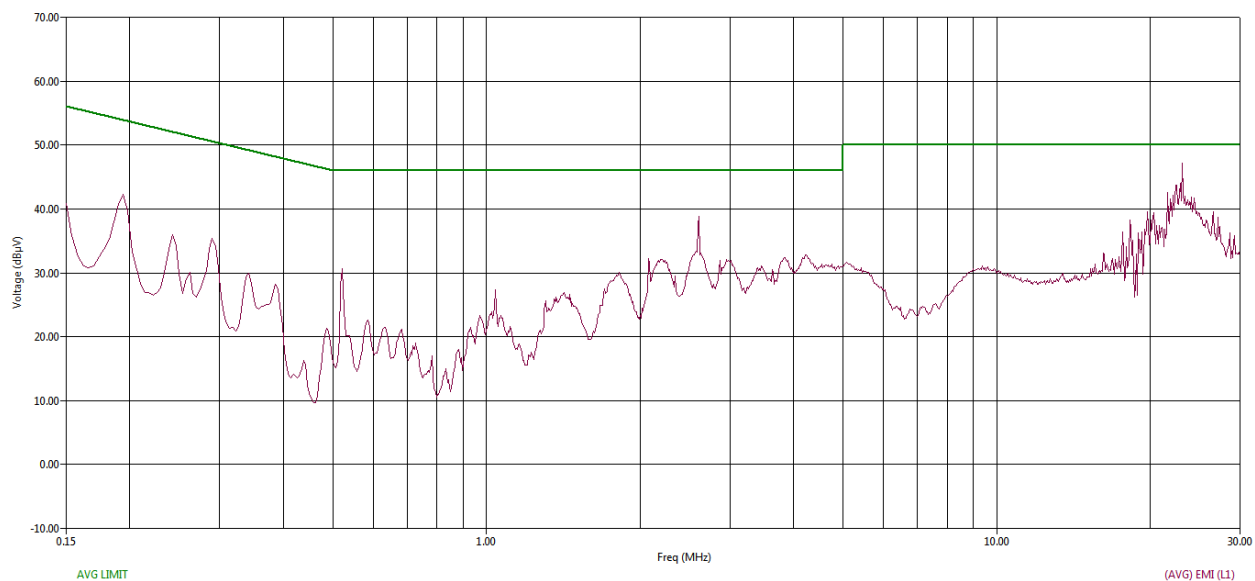


Figure 175 CE graph from 150 kHz to 30 MHz using Average detector - Line

Freq (MHz)	Freq (Max) (MHz)	Line	(QP) Trace (dBμV)	Cable+Pulse Limiter (dB)	Transducer N (dB)	Transducer L (dB)	(QP) EMI (dBμV)	(QP) Limit (dBμV)	(QP) Margin QPL (dB)
0.150	0.150	N	41.572	10.107	2.178	0.000	53.857	65.998	-12.141
0.150	0.151	L1	40.871	10.107	0.000	2.197	53.175	65.967	-12.792
2.606	2.605	N	32.977	10.114	0.303	0.000	43.394	56.000	-12.606
2.606	2.605	L1	33.307	10.114	0.000	0.329	43.749	56.000	-12.251
4.354	4.345	N	27.214	10.111	0.308	0.000	37.634	56.000	-18.366
18.242	18.242	N	30.564	10.381	0.611	0.000	41.555	60.000	-18.445
18.242	18.243	L1	32.103	10.381	0.000	0.531	43.016	60.000	-16.984
19.710	19.708	L1	33.328	10.397	0.000	0.429	44.155	60.000	-15.845
23.126	23.128	N	40.360	10.478	0.661	0.000	51.500	60.000	-8.500
23.130	23.127	L1	40.509	10.478	0.000	0.449	51.437	60.000	-8.563

Table 116 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 AVL (dB)
0.150	0.150	N	28.512	10.107	2.178	0.000	40.797	55.998	-15.201
0.150	0.151	L1	27.906	10.107	0.000	2.197	40.211	55.967	-15.756
2.606	2.605	N	28.151	10.114	0.303	0.000	38.568	46.000	-7.432
2.606	2.605	L1	28.522	10.114	0.000	0.329	38.965	46.000	-7.035
4.354	4.345	N	20.117	10.111	0.308	0.000	30.536	46.000	-15.464
18.242	18.242	N	26.461	10.381	0.611	0.000	37.453	50.000	-12.547
18.242	18.243	L1	27.590	10.381	0.000	0.531	38.502	50.000	-11.498
19.710	19.708	L1	28.563	10.397	0.000	0.429	39.390	50.000	-10.610
23.126	23.128	N	35.095	10.478	0.661	0.000	46.234	50.000	-3.766
23.130	23.127	L1	35.296	10.478	0.000	0.449	46.223	50.000	-3.777

Table 117 Average table for CE from 150 kHz to 30 MHz

MID CHANNEL

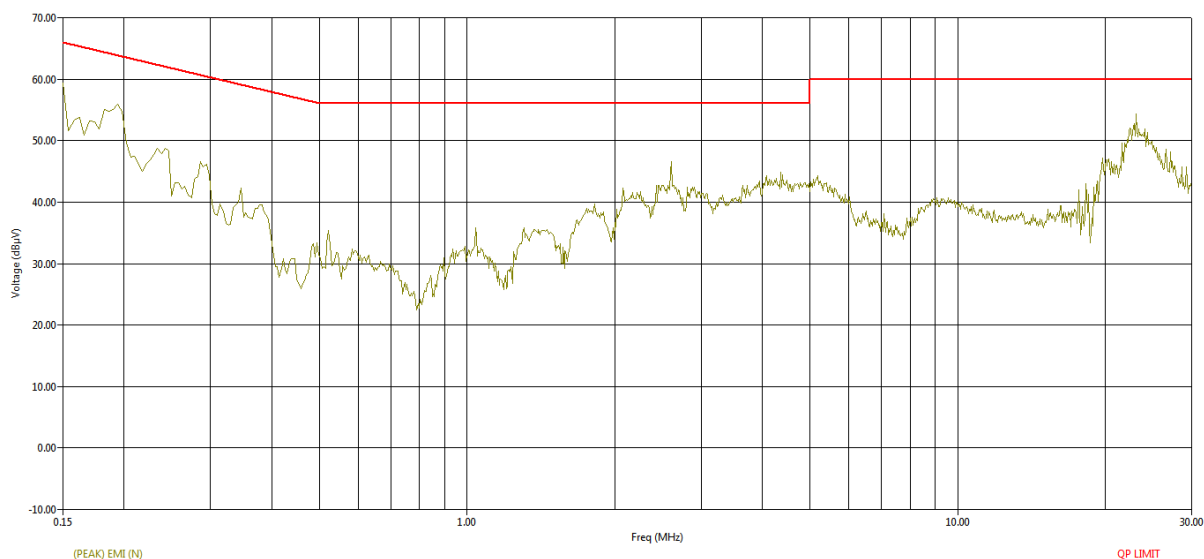


Figure 176 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral

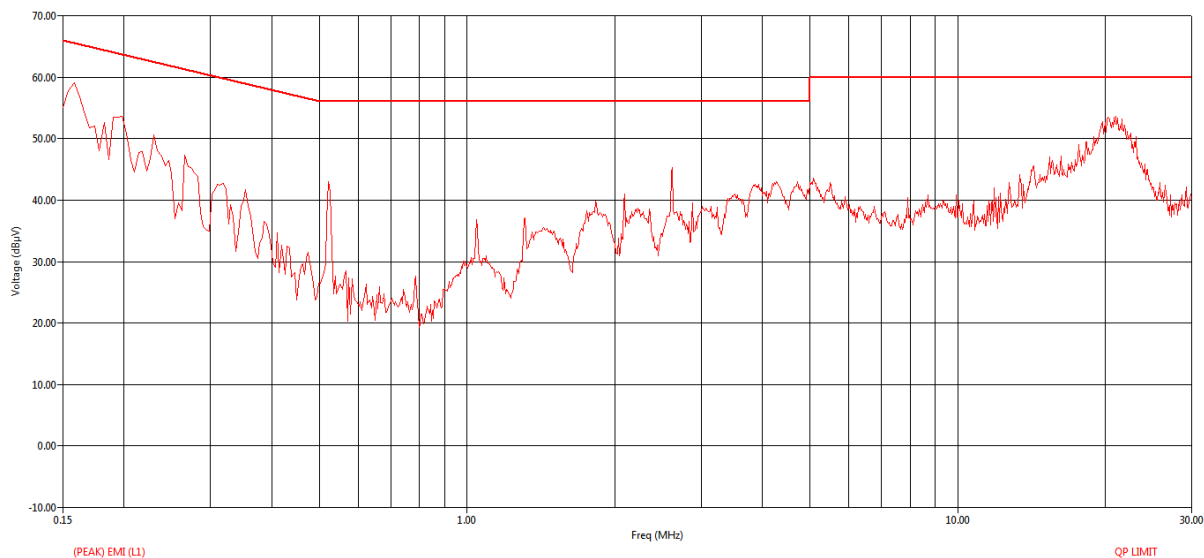


Figure 177 CE graph from 150 kHz to 30 MHz using Peak detector -Line

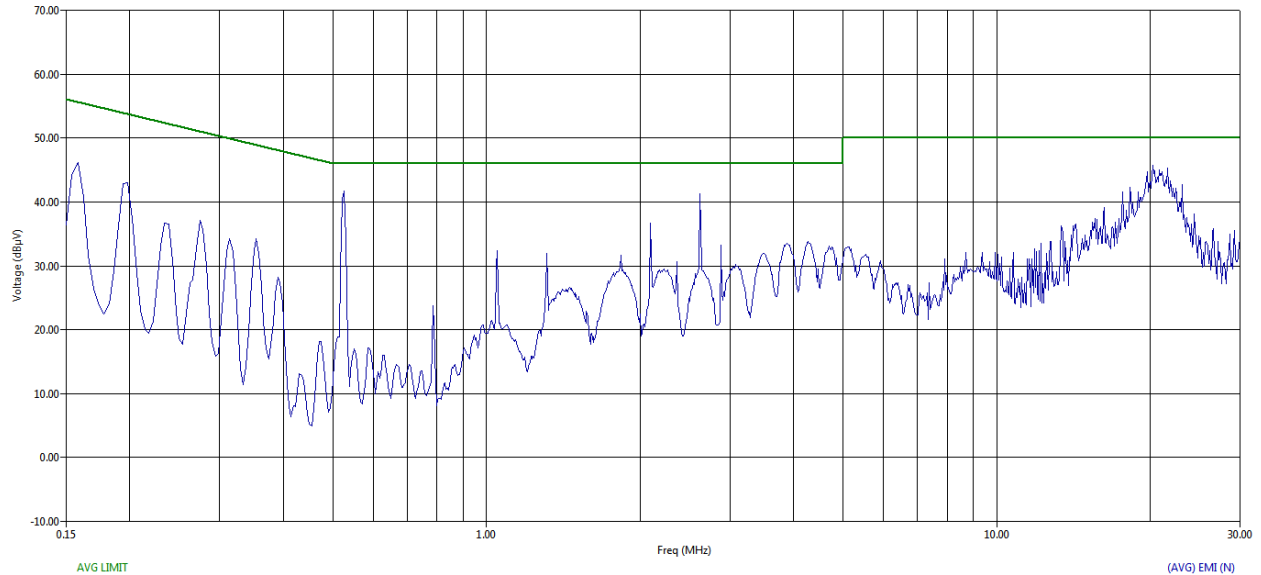


Figure 178 CE graph from 150 kHz to 30 MHz using Average detector – Neutral

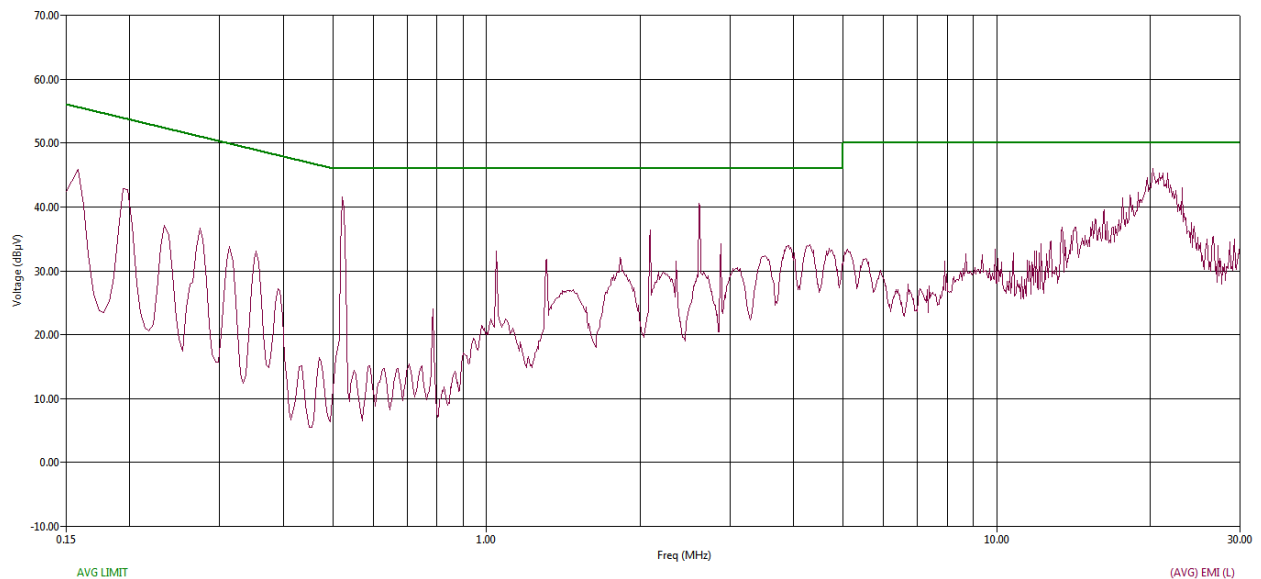


Figure 179 CE graph from 150 kHz to 30 MHz using Average detector - Line

Freq (MHz)	Freq (Max) (MHz)	Line	(QP) Trace (dBμV)	Cable+Pulse Limiter (dB)	Transducer N (dB)	Transducer L (dB)	(QP) EMI (dBμV)	(QP) Limit (dBμV)	(QP) Margin QPL (dB)
0.150	0.150	N	40.739	10.107	2.177	0.000	53.024	65.993	-12.969
0.150	0.150	L1	41.026	10.107	0.000	2.200	53.333	65.983	-12.650
2.606	2.606	N	32.593	10.114	0.303	0.000	43.009	56.000	-12.991
2.606	2.606	L1	33.119	10.114	0.000	0.329	43.561	56.000	-12.439
4.354	4.360	N	27.166	10.111	0.309	0.000	37.586	56.000	-18.414
18.242	18.243	N	30.631	10.381	0.611	0.000	41.623	60.000	-18.377
18.242	18.243	L1	31.977	10.381	0.000	0.531	42.890	60.000	-17.110
19.710	19.710	L1	32.880	10.397	0.000	0.429	43.706	60.000	-16.294
23.126	23.128	N	40.350	10.478	0.661	0.000	51.489	60.000	-8.511
23.130	23.129	L1	40.788	10.478	0.000	0.449	51.715	60.000	-8.285

Table 118 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 AVL (dB)
0.150	0.150	N	28.004	10.107	2.177	0.000	40.288	55.993	-15.705
0.150	0.150	L1	28.066	10.107	0.000	2.200	40.374	55.983	-15.609
2.606	2.606	N	27.695	10.114	0.303	0.000	38.112	46.000	-7.888
2.606	2.606	L1	28.343	10.114	0.000	0.329	38.786	46.000	-7.214
4.354	4.360	N	20.141	10.111	0.309	0.000	30.561	46.000	-15.439
18.242	18.243	N	26.551	10.381	0.611	0.000	37.542	50.000	-12.458
18.242	18.243	L1	27.550	10.381	0.000	0.531	38.462	50.000	-11.538
19.710	19.710	L1	28.115	10.397	0.000	0.429	38.941	50.000	-11.059
23.126	23.128	N	35.088	10.478	0.661	0.000	46.227	50.000	-3.773
23.130	23.129	L1	35.640	10.478	0.000	0.449	46.568	50.000	-3.432

Table 119 Average table for CE from 150 kHz to 30 MHz

HIGH CHANNEL

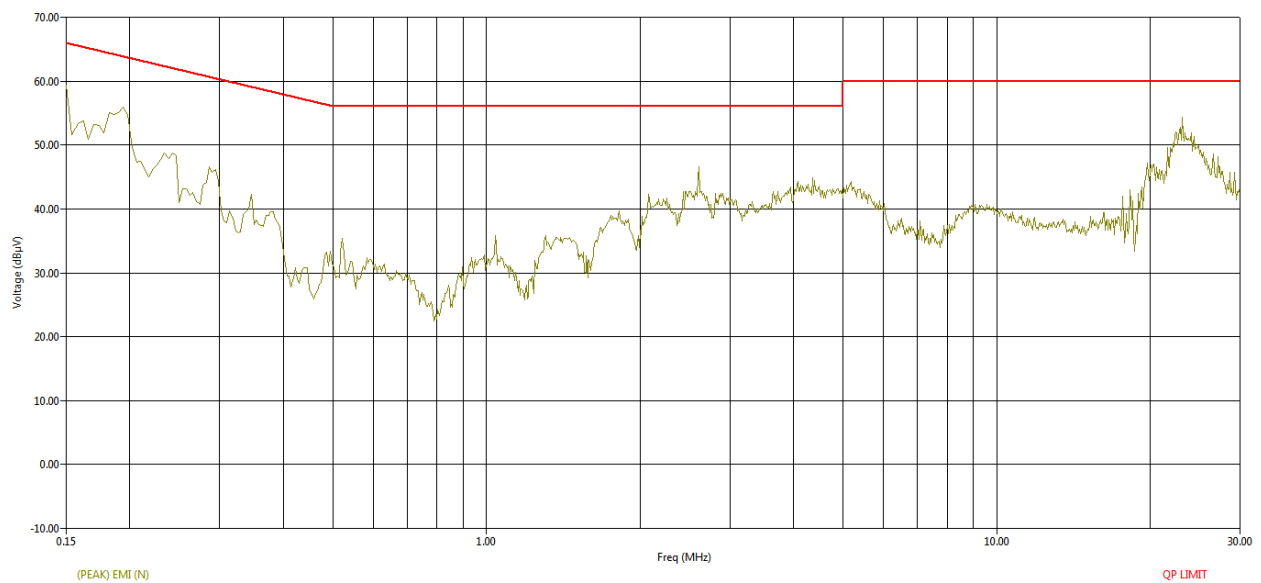


Figure 180 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral

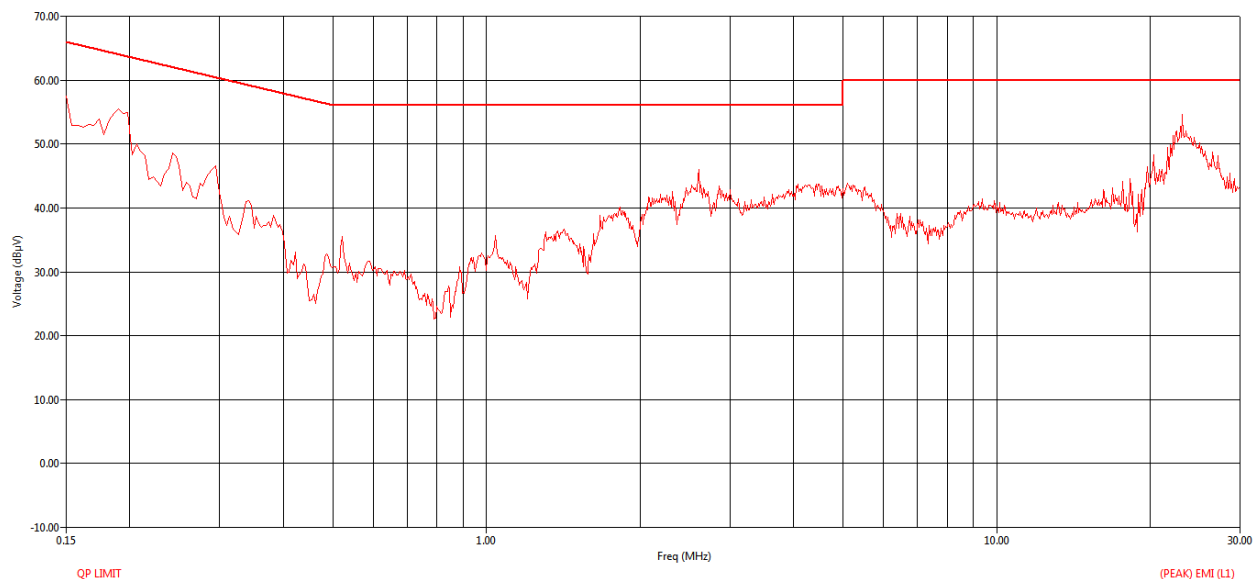


Figure 181 CE graph from 150 kHz to 30 MHz using Peak detector –Line

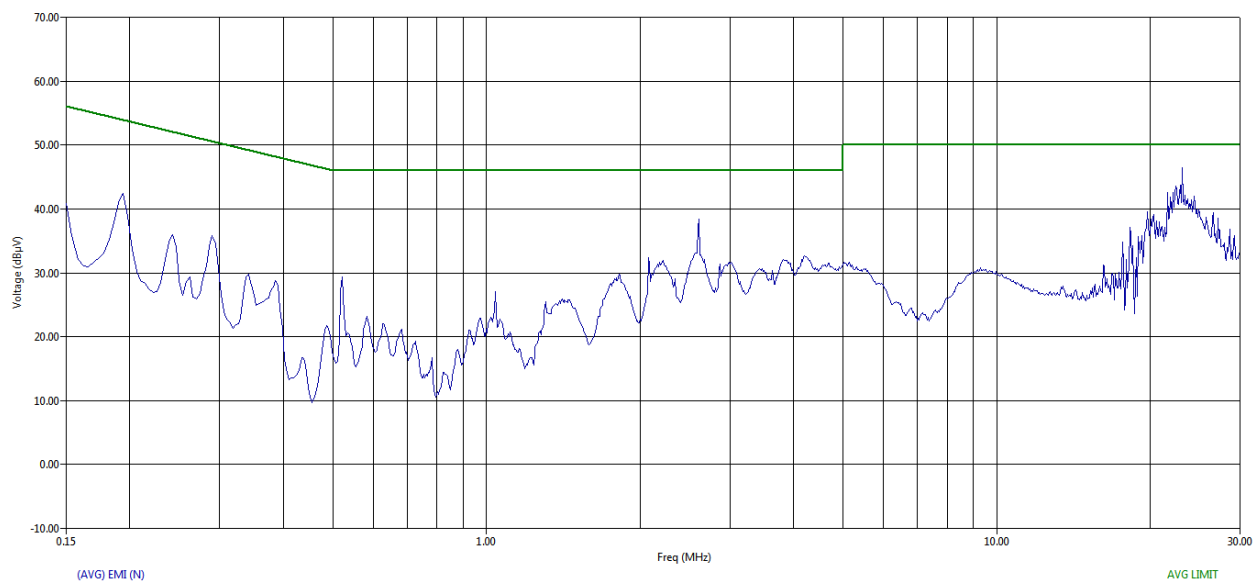


Figure 182 CE graph from 150 kHz to 30 MHz using Average detector – Neutral

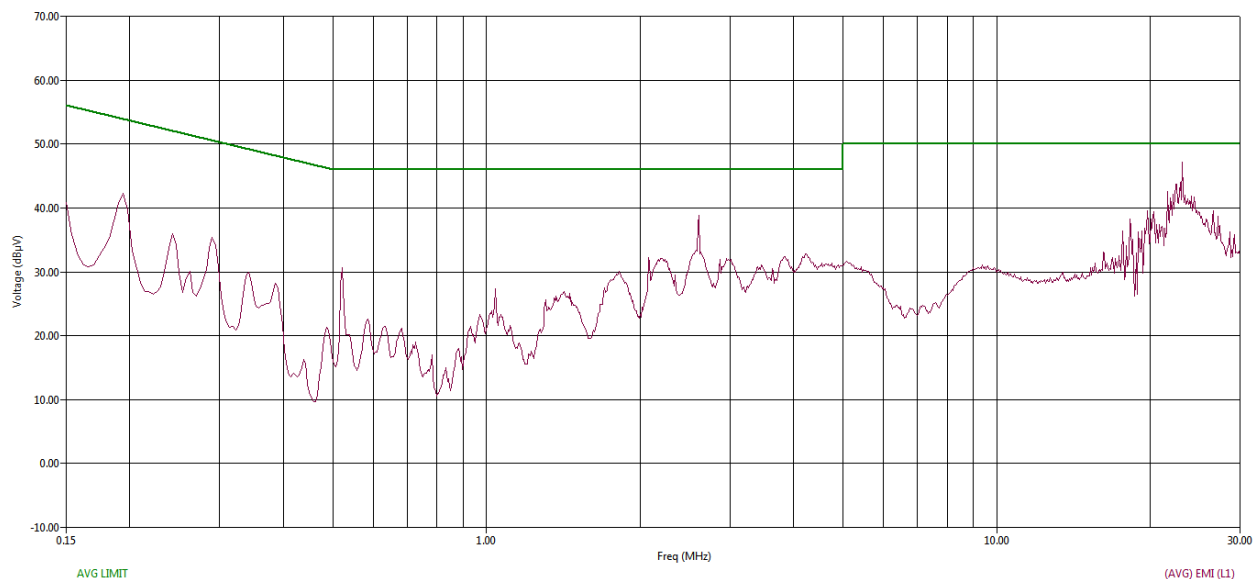


Figure 183 CE graph from 150 kHz to 30 MHz using Average detector – Line

Freq (MHz)	Freq (Max) (MHz)	Line	(QP) Trace (dBμV)	Cable+Pulse Limiter (dB)	Transducer N (dB)	Transducer L (dB)	(QP) EMI (dBμV)	(QP) Limit (dBμV)	(QP) Margin QPL (dB)
0.150	0.150	N	41.182	10.107	2.174	0.000	53.464	65.979	-12.515
0.150	0.151	L1	41.123	10.107	0.000	2.195	53.425	65.956	-12.531
2.606	2.605	N	32.857	10.114	0.303	0.000	43.274	56.000	-12.726
2.606	2.607	L1	32.430	10.114	0.000	0.329	42.873	56.000	-13.127
4.354	4.354	N	27.182	10.111	0.308	0.000	37.602	56.000	-18.398
18.242	18.243	N	30.752	10.381	0.611	0.000	41.743	60.000	-18.257
18.242	18.241	L1	30.874	10.381	0.000	0.532	41.786	60.000	-18.214
19.710	19.707	L1	32.774	10.397	0.000	0.429	43.601	60.000	-16.399
23.126	23.128	N	40.854	10.478	0.661	0.000	51.993	60.000	-8.007
23.130	23.128	L1	41.286	10.478	0.000	0.449	52.213	60.000	-7.787

Table 120 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 AVL (dB)
0.150	0.150	N	28.154	10.107	2.174	0.000	40.435	55.979	-15.544
0.150	0.151	L1	27.733	10.107	0.000	2.195	40.035	55.956	-15.921
2.606	2.605	N	28.121	10.114	0.303	0.000	38.538	46.000	-7.462
2.606	2.607	L1	27.413	10.114	0.000	0.329	37.856	46.000	-8.144
4.354	4.354	N	20.042	10.111	0.308	0.000	30.461	46.000	-15.539
18.242	18.243	N	26.653	10.381	0.611	0.000	37.645	50.000	-12.355
18.242	18.241	L1	26.323	10.381	0.000	0.532	37.236	50.000	-12.764
19.710	19.707	L1	27.950	10.397	0.000	0.429	38.776	50.000	-11.224
23.126	23.128	N	35.707	10.478	0.661	0.000	46.846	50.000	-3.154
23.130	23.128	L1	36.122	10.478	0.000	0.449	47.049	50.000	-2.951

Table 121 Average table for CE from 150 kHz to 30 MHz

5.3.2.5.4 POWER LINE 120 V 60 HZ - 5 MHz CHANNEL BANDWIDTH

LOW CHANNEL

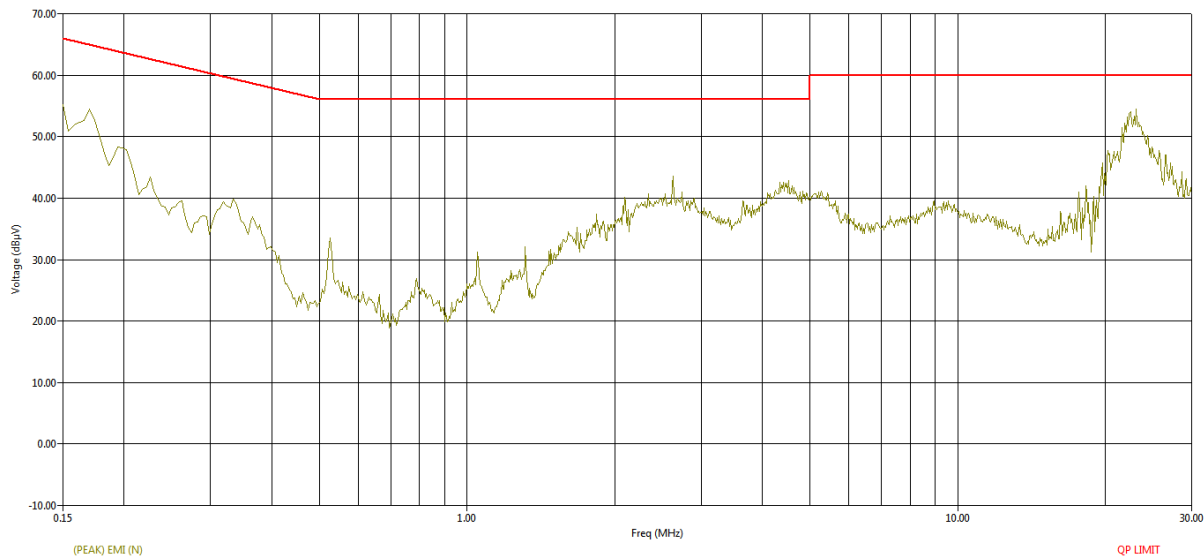


Figure 184 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral

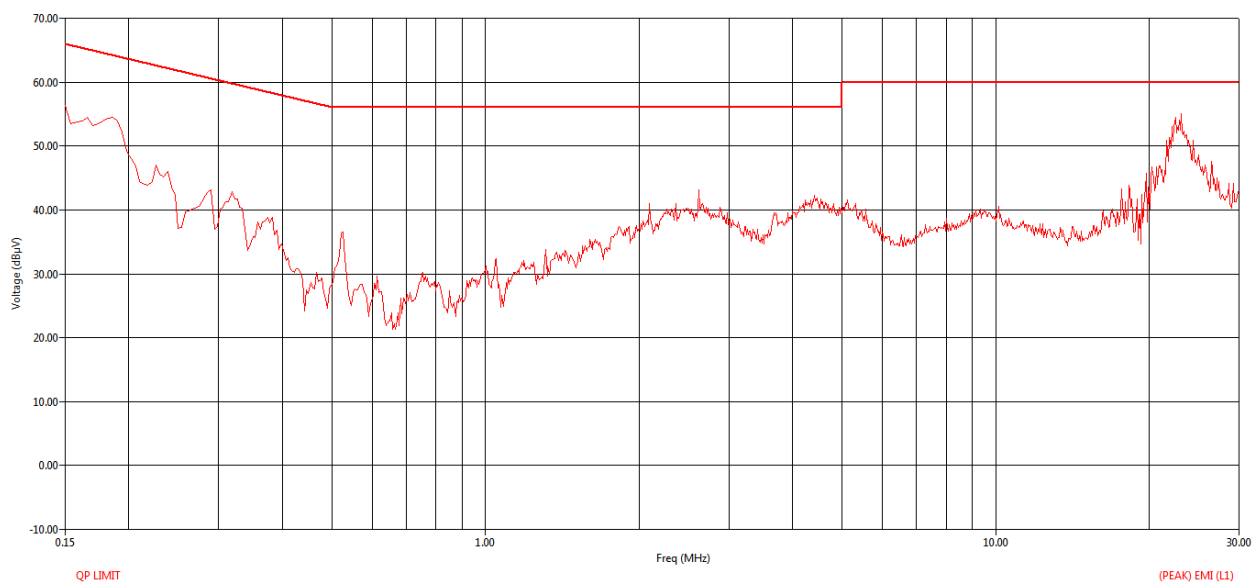


Figure 185 CE graph from 150 kHz to 30 MHz using Peak detector -Line

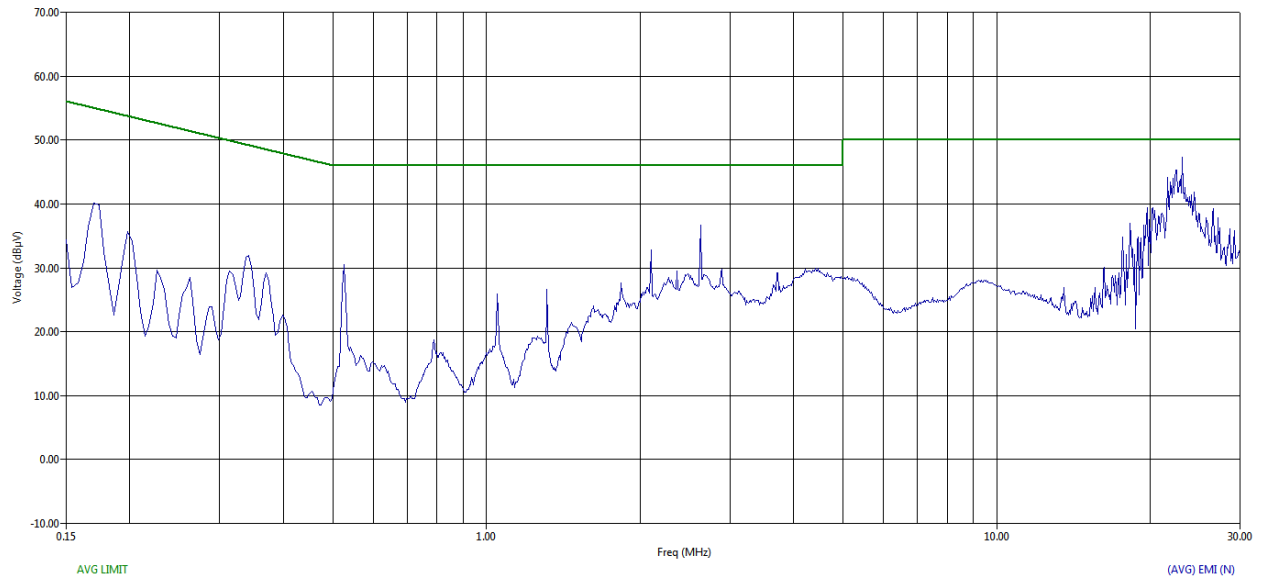


Figure 186 CE graph from 150 kHz to 30 MHz using Average detector – Neutral

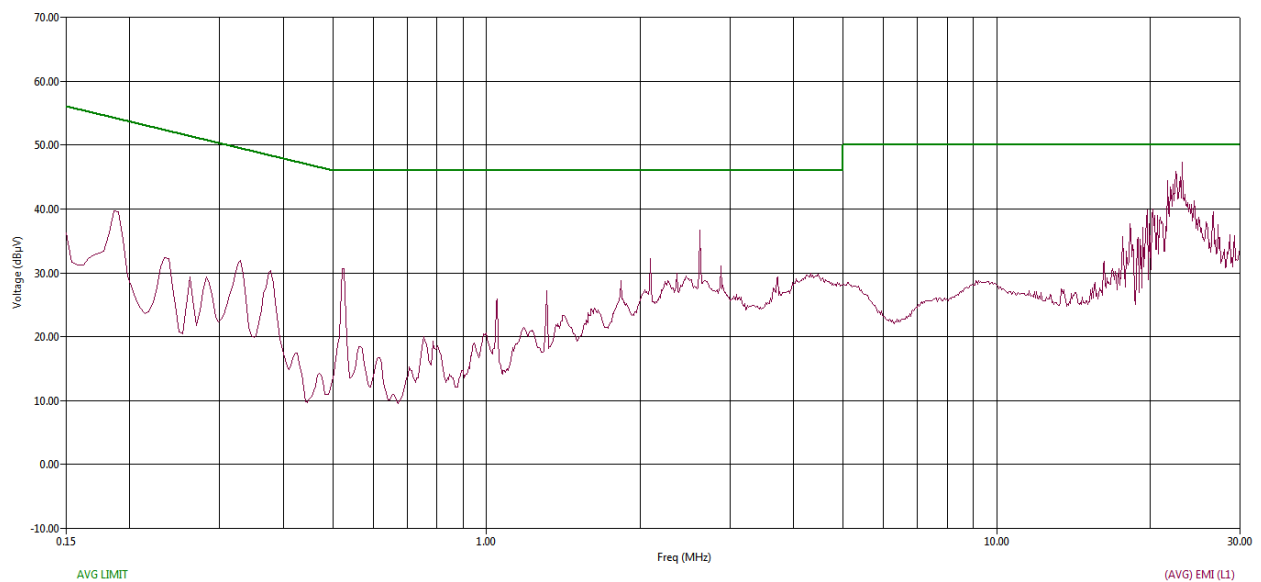


Figure 187 CE graph from 150 kHz to 30 MHz using Average detector – Line

Freq (MHz)	Freq (Max) (MHz)	Line	(QP) Trace (dBμV)	Cable+Pulse Limiter (dB)	Transducer N (dB)	Transducer L (dB)	(QP) EMI (dBμV)	(QP) Limit (dBμV)	(QP) Margin QPL (dB)
0.150	0.159	N	38.623	10.107	2.095	0.000	50.825	65.525	-14.700
0.150	0.152	L1	38.069	10.107	0.000	2.179	50.356	65.866	-15.510
2.626	2.621	N	25.105	10.114	0.303	0.000	35.522	56.000	-20.478
4.526	4.533	N	26.180	10.111	0.309	0.000	36.599	56.000	-19.401
17.694	17.693	L1	29.316	10.374	0.000	0.572	40.262	60.000	-19.738
18.242	18.242	L1	30.926	10.381	0.000	0.532	41.839	60.000	-18.161
19.710	19.710	N	32.752	10.397	0.560	0.000	43.709	60.000	-16.291
19.710	19.709	L1	32.981	10.397	0.000	0.429	43.807	60.000	-16.193
23.130	23.129	N	41.115	10.478	0.661	0.000	52.255	60.000	-7.745
23.130	23.128	L1	41.561	10.478	0.000	0.449	52.488	60.000	-7.512

Table 122 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 AVL (dB)
0.150	0.159	N	21.741	10.107	2.095	0.000	33.943	55.525	-21.583
0.150	0.152	L1	20.311	10.107	0.000	2.179	32.598	55.866	-23.268
2.626	2.621	N	17.724	10.114	0.303	0.000	28.141	46.000	-17.859
4.526	4.533	N	18.865	10.111	0.309	0.000	29.285	46.000	-16.715
17.694	17.693	L1	24.510	10.374	0.000	0.572	35.457	50.000	-14.543
18.242	18.242	L1	26.509	10.381	0.000	0.532	37.422	50.000	-12.578
19.710	19.710	N	28.358	10.397	0.560	0.000	39.315	50.000	-10.685
19.710	19.709	L1	28.934	10.397	0.000	0.429	39.760	50.000	-10.240
23.130	23.129	N	36.031	10.478	0.661	0.000	47.171	50.000	-2.829
23.130	23.128	L1	36.518	10.478	0.000	0.449	47.445	50.000	-2.555

Table 123 Average table for CE from 150 kHz to 30 MHz

MID CHANNEL

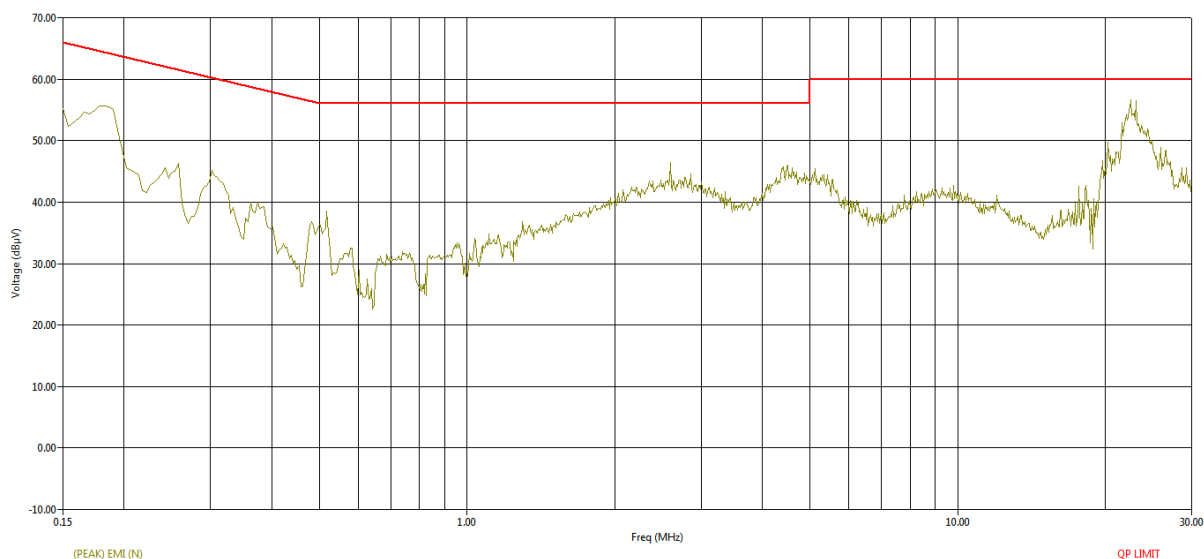


Figure 188 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral

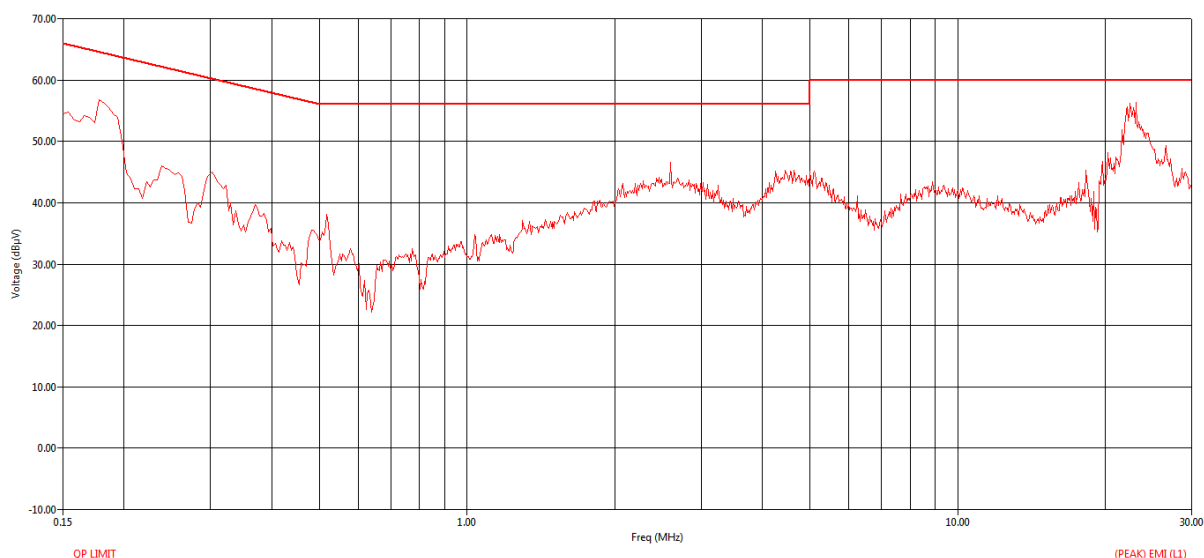


Figure 189 CE graph from 150 kHz to 30 MHz using Peak detector -Line

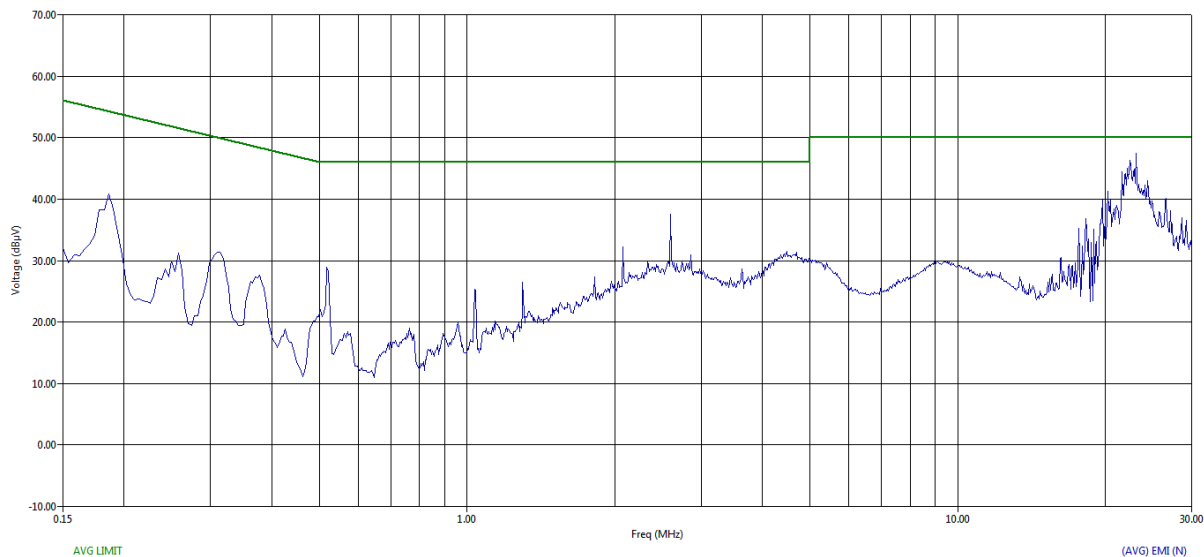


Figure 190 CE graph from 150 kHz to 30 MHz using Average detector – Neutral

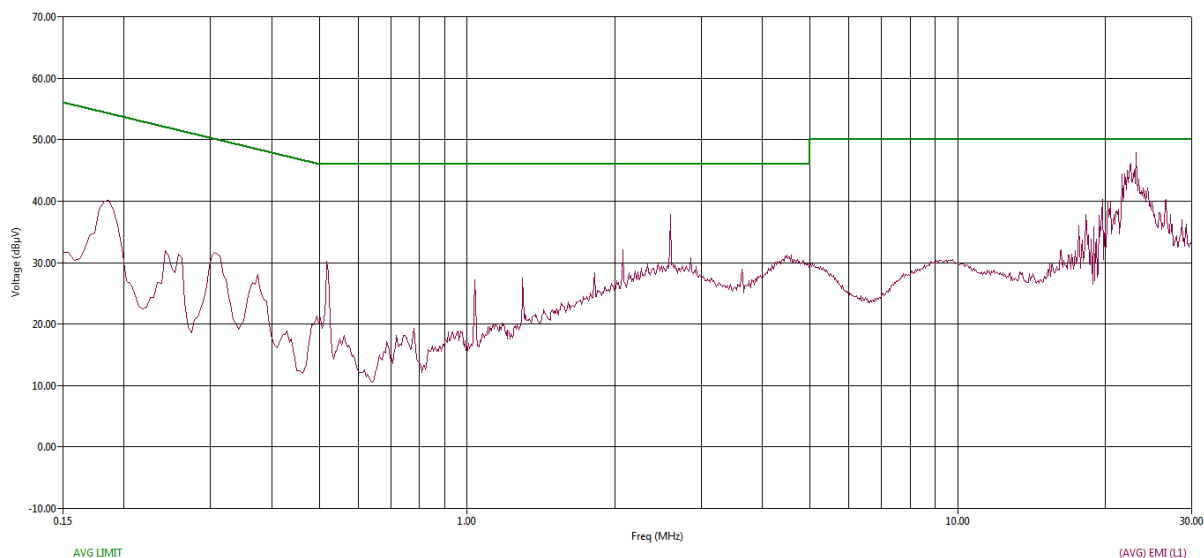


Figure 191 CE graph from 150 kHz to 30 MHz using Average detector – Line

Freq (MHz)	Freq (Max) (MHz)	Line	(QP) Trace (dBμV)	Cable+Transducer (dB)	Transducer N (dB)	Transducer L (dB)	(QP) EMI (dBμV)	(QP) Limit (dBμV)	(QP) Margin QPL (dB)
0.178	0.178	L1	40.286	10.106	0.000	1.949	52.341	64.566	-12.224
0.182	0.178	N	40.025	10.106	1.930	0.000	52.061	64.588	-12.527
0.302	0.297	N	30.833	10.103	1.182	0.000	42.118	60.332	-18.214
2.594	2.593	L1	32.673	10.114	0.000	0.329	43.115	56.000	-12.885
2.602	2.593	N	32.324	10.114	0.303	0.000	42.741	56.000	-13.259
4.514	4.520	N	28.876	10.111	0.309	0.000	39.295	56.000	-16.705
18.242	18.242	L1	31.532	10.381	0.000	0.532	42.444	60.000	-17.556
19.710	19.705	L1	30.505	10.397	0.000	0.430	41.332	60.000	-18.668
22.578	22.572	N	37.786	10.465	0.642	0.000	48.894	60.000	-11.106
23.130	23.130	L1	41.403	10.478	0.000	0.449	52.331	60.000	-7.669

Table 124 Quasi peak table for CE from 150 kHz to 30 MHz

Freq (MHz)	Freq (Max) (MHz)	Line	(AVG) Trace (dBμV)	Cable+Transducer (dB)	Transducer N (dB)	Transducer L (dB)	(AVG) EMI (dBμV)	(AVG) Limit (dBμV)	(AVG) Margin AVL (dB)
0.178	0.178	L1	25.415	10.106	0.000	1.949	37.470	54.566	-17.096
0.182	0.178	N	24.938	10.106	1.930	0.000	36.975	54.588	-17.613
0.302	0.297	N	17.228	10.103	1.182	0.000	28.513	50.332	-21.819
2.594	2.593	L1	28.480	10.114	0.000	0.329	38.922	46.000	-7.078
2.602	2.593	N	28.024	10.114	0.303	0.000	38.441	46.000	-7.559
4.514	4.520	N	20.024	10.111	0.309	0.000	30.443	46.000	-15.557
18.242	18.242	L1	26.878	10.381	0.000	0.532	37.791	50.000	-12.209
19.710	19.705	L1	26.948	10.397	0.000	0.430	37.775	50.000	-12.225
22.578	22.572	N	31.637	10.465	0.642	0.000	42.744	50.000	-7.256
23.130	23.130	L1	36.035	10.478	0.000	0.449	46.962	50.000	-3.038

Table 125 Average table for CE from 150 kHz to 30 MHz

HIGH CHANNEL

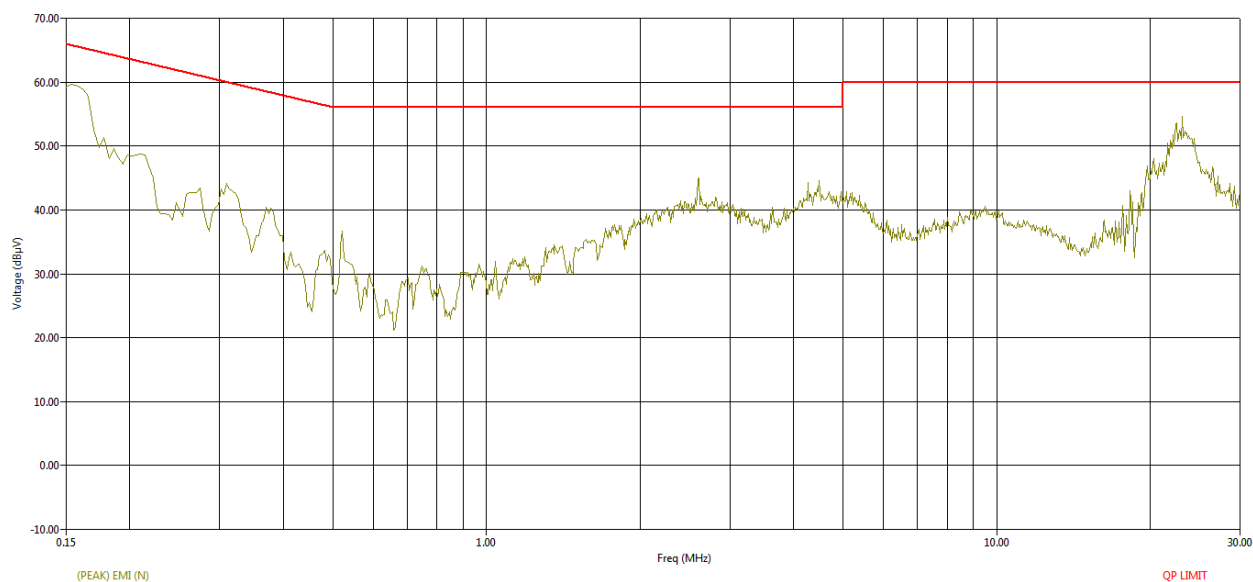


Figure 192 CE graph from 150 kHz to 30 MHz using Peak detector-Neutral

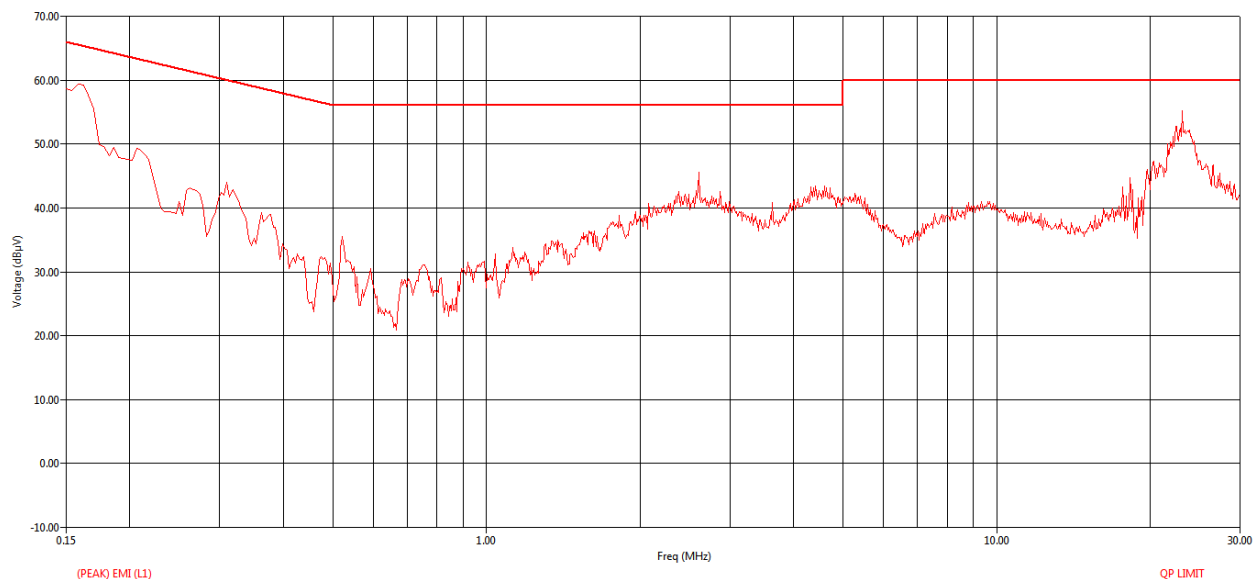


Figure 193 CE graph from 150 kHz to 30 MHz using Peak detector –Line

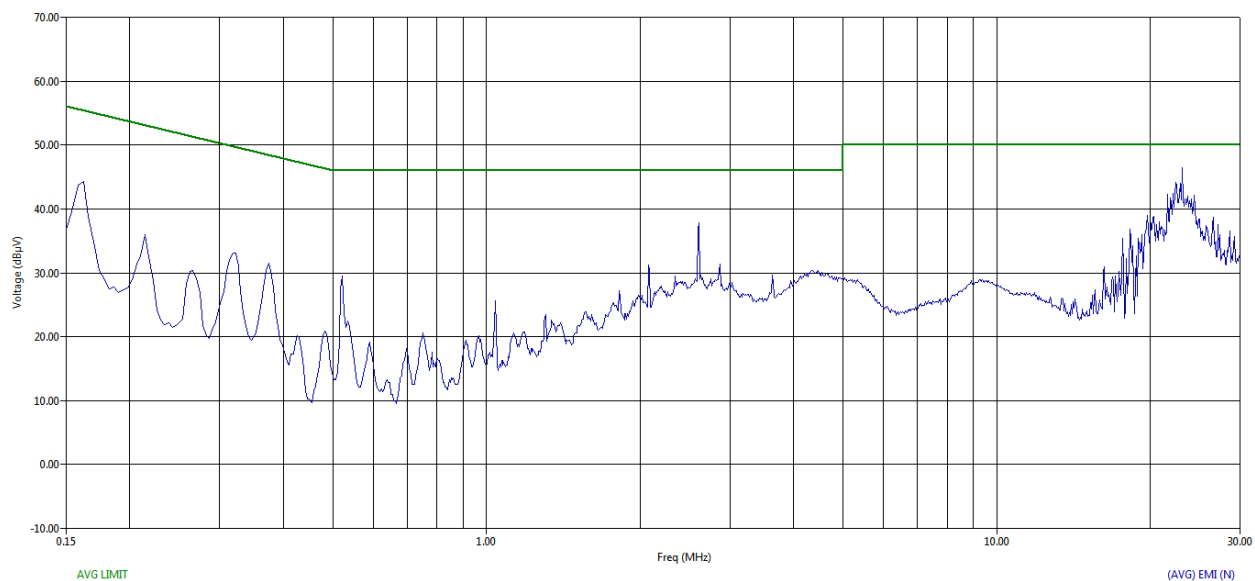


Figure 194 CE graph from 150 kHz to 30 MHz using Average detector – Neutral

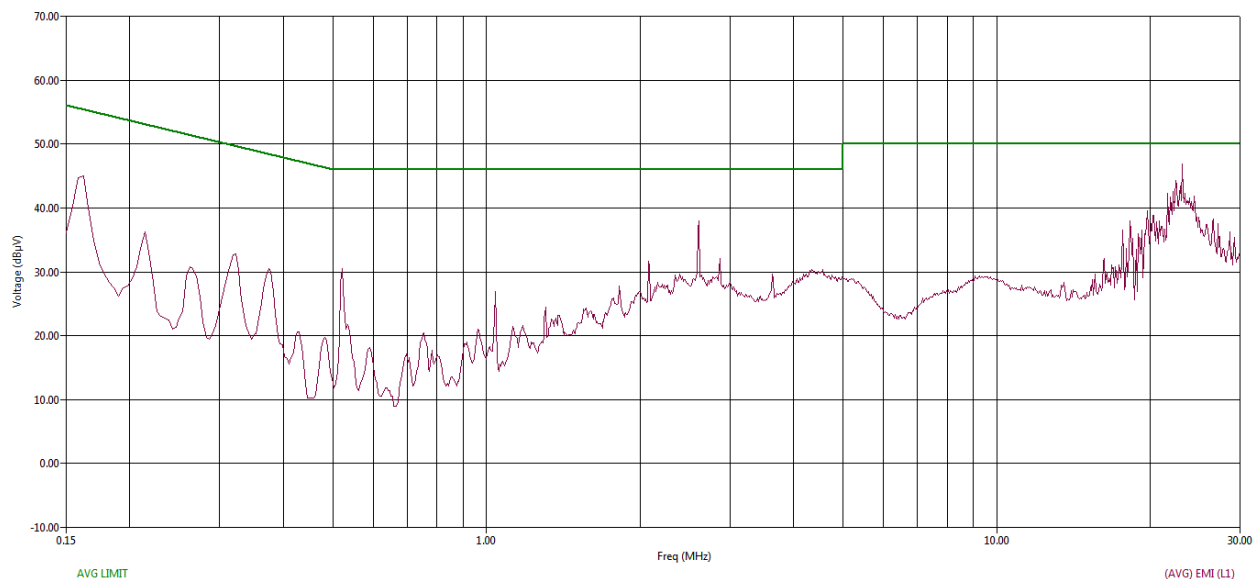


Figure 195 CE graph from 150 kHz to 30 MHz using Average detector – Line

Freq (MHz)	Freq (Max) (MHz)	Line	(QP) Trace (dBμV)	Cable+Pulse limiter (dB)	Transducer N (dB)	Transducer L (dB)	(QP) EMI (dBμV)	(QP) Limit (dBμV)	(QP) Margin QPL (dB)
0.154	0.160	N	44.635	10.107	2.084	0.000	56.826	65.465	-8.639
0.158	0.160	L1	44.556	10.107	0.000	2.111	56.773	65.479	-8.706
2.606	2.605	N	31.709	10.114	0.303	0.000	42.126	56.000	-13.874
2.606	2.605	L1	32.270	10.114	0.000	0.329	42.713	56.000	-13.287
4.486	4.487	N	26.912	10.111	0.309	0.000	37.332	56.000	-18.668
18.242	18.244	N	30.427	10.381	0.611	0.000	41.419	60.000	-18.581
18.242	18.243	L1	31.852	10.381	0.000	0.531	42.764	60.000	-17.236
19.710	19.708	L1	33.075	10.397	0.000	0.429	43.901	60.000	-16.099
23.130	23.128	N	40.787	10.478	0.661	0.000	51.926	60.000	-8.074
23.130	23.130	L1	40.670	10.478	0.000	0.449	51.597	60.000	-8.403

Table 126 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 AVL (dB)
0.154	0.160	N	31.843	10.107	2.084	0.000	44.034	55.465	-11.431
0.158	0.160	L1	32.009	10.107	0.000	2.111	44.227	55.479	-11.252
2.606	2.605	N	27.893	10.114	0.303	0.000	38.310	46.000	-7.690
2.606	2.605	L1	28.366	10.114	0.000	0.329	38.809	46.000	-7.191
4.486	4.487	N	19.008	10.111	0.309	0.000	29.427	46.000	-16.573
18.242	18.244	N	26.489	10.381	0.611	0.000	37.481	50.000	-12.519
18.242	18.243	L1	27.511	10.381	0.000	0.531	38.423	50.000	-11.577
19.710	19.708	L1	28.480	10.397	0.000	0.429	39.306	50.000	-10.694
23.130	23.128	N	35.577	10.478	0.661	0.000	46.717	50.000	-3.283
23.130	23.130	L1	35.469	10.478	0.000	0.449	46.397	50.000	-3.603

Table 127 Average table for CE from 150 kHz to 30 MHz

Note:

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

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

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

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

5.3.2.6 RESULT

Conducted Emission from the EUT was within the specified limits.

ANNEXURE I: EUT SOFTWARE SETTINGS

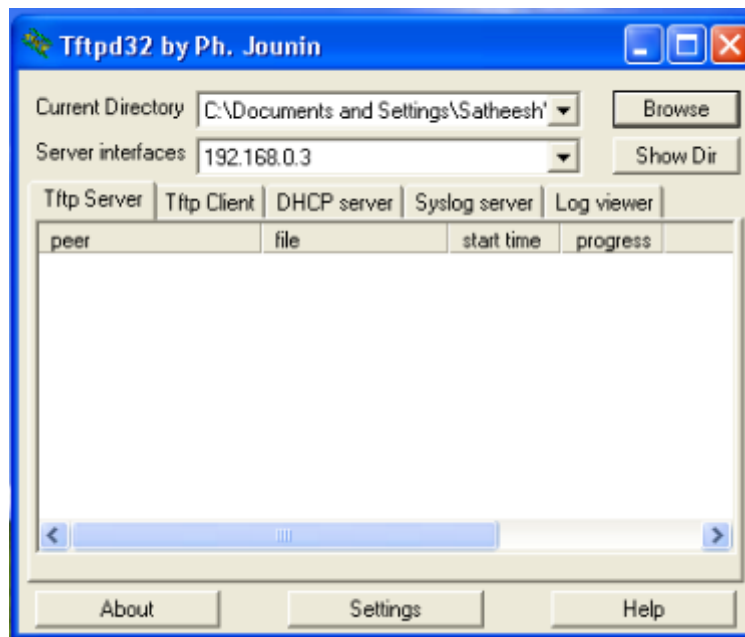


Figure 196 tftpd32 application screenshot

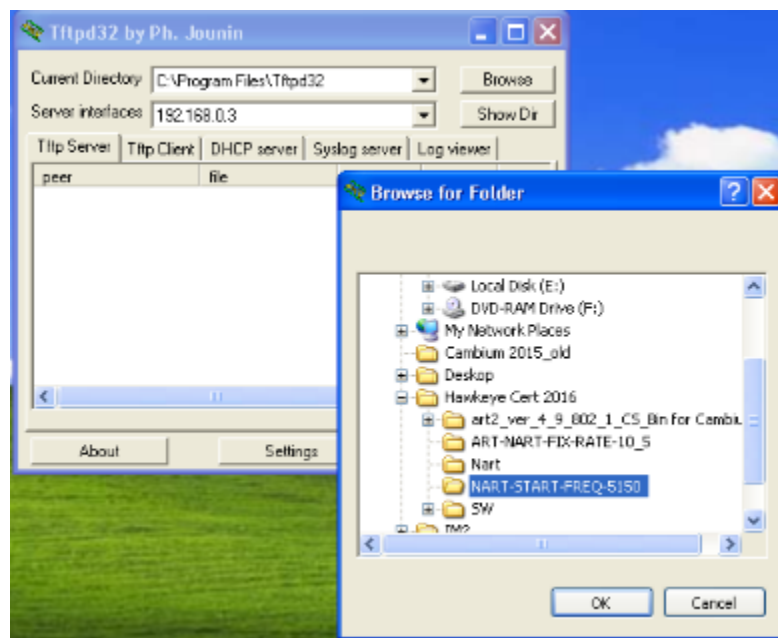


Figure 197 tftpd32 application initialization root_ screenshot



Figure 198 Tera term application screenshot

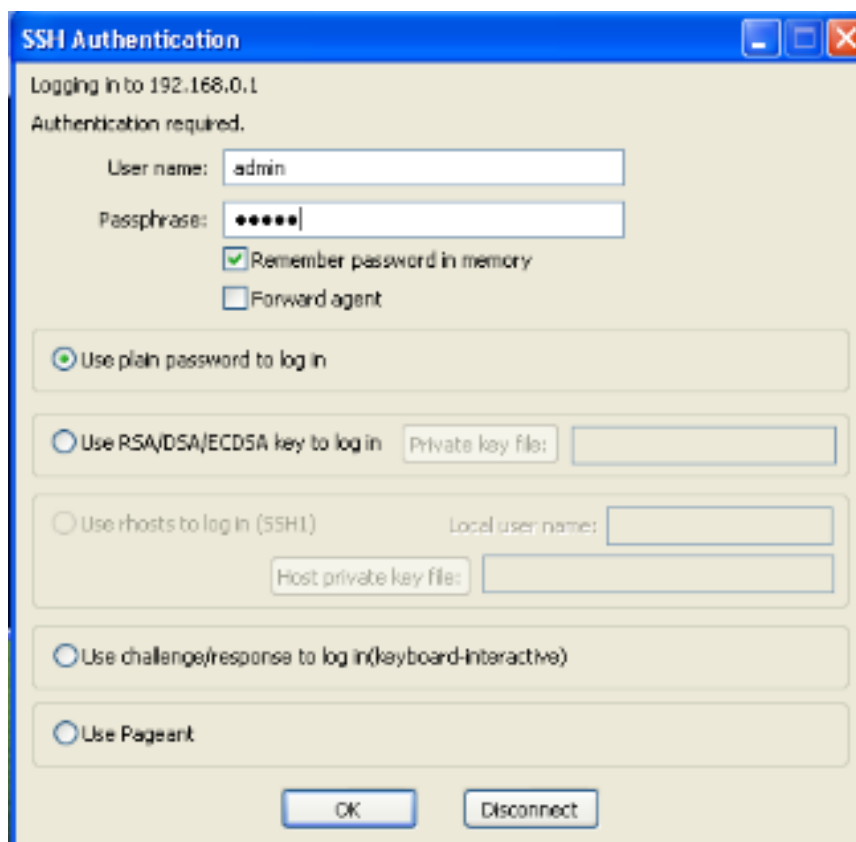


Figure 199 Tera term application Login screenshot

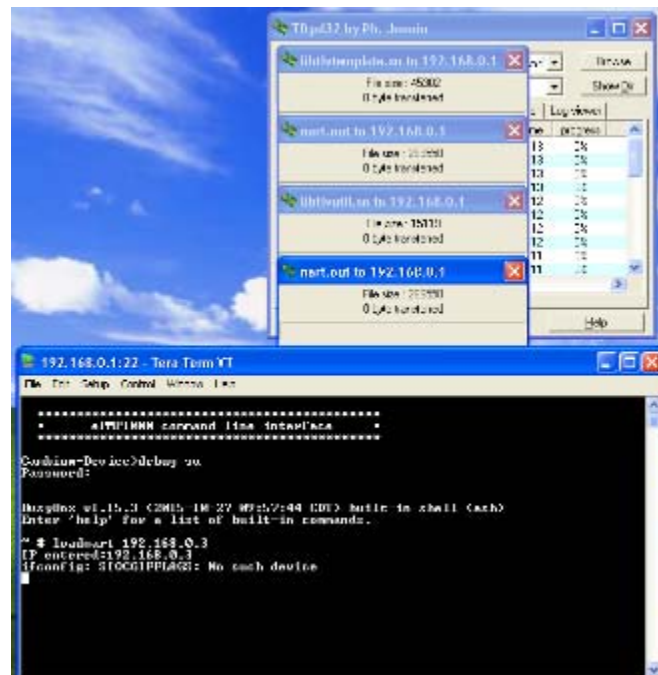


Figure 200 Initializing EUT screenshot

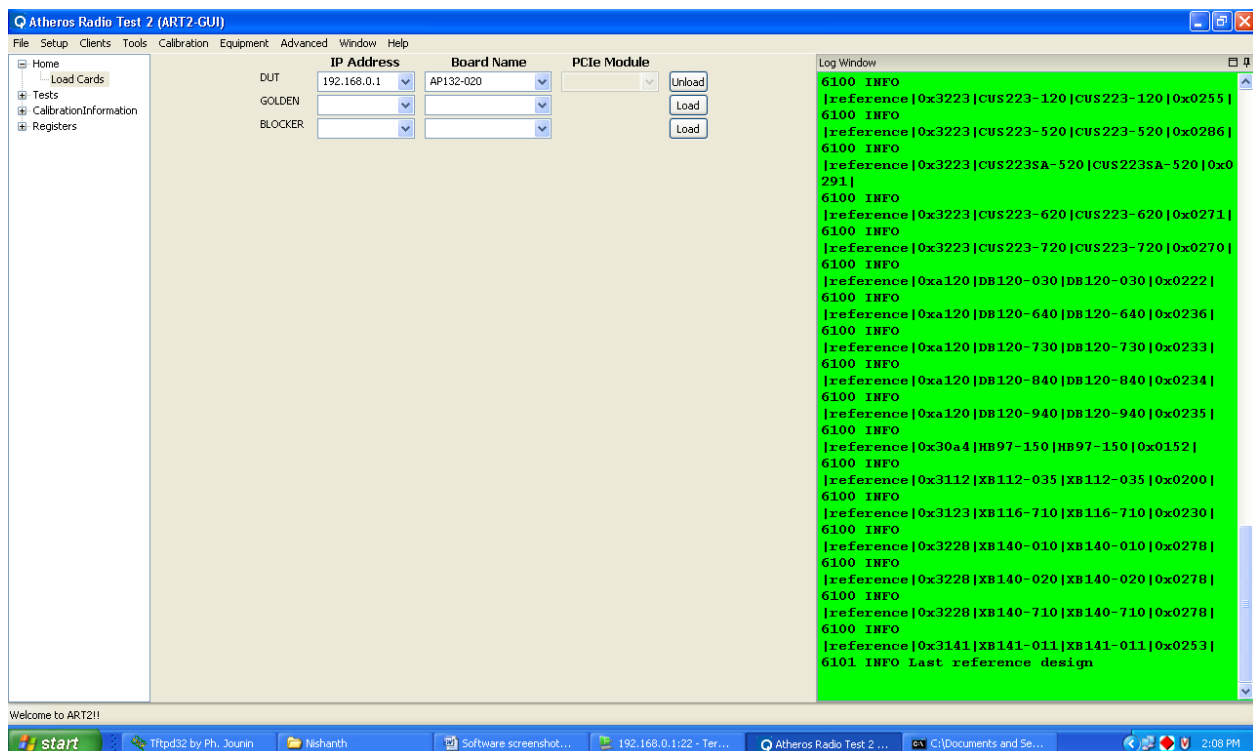


Figure 201 Atheros Radio Test GUI screenshot-1

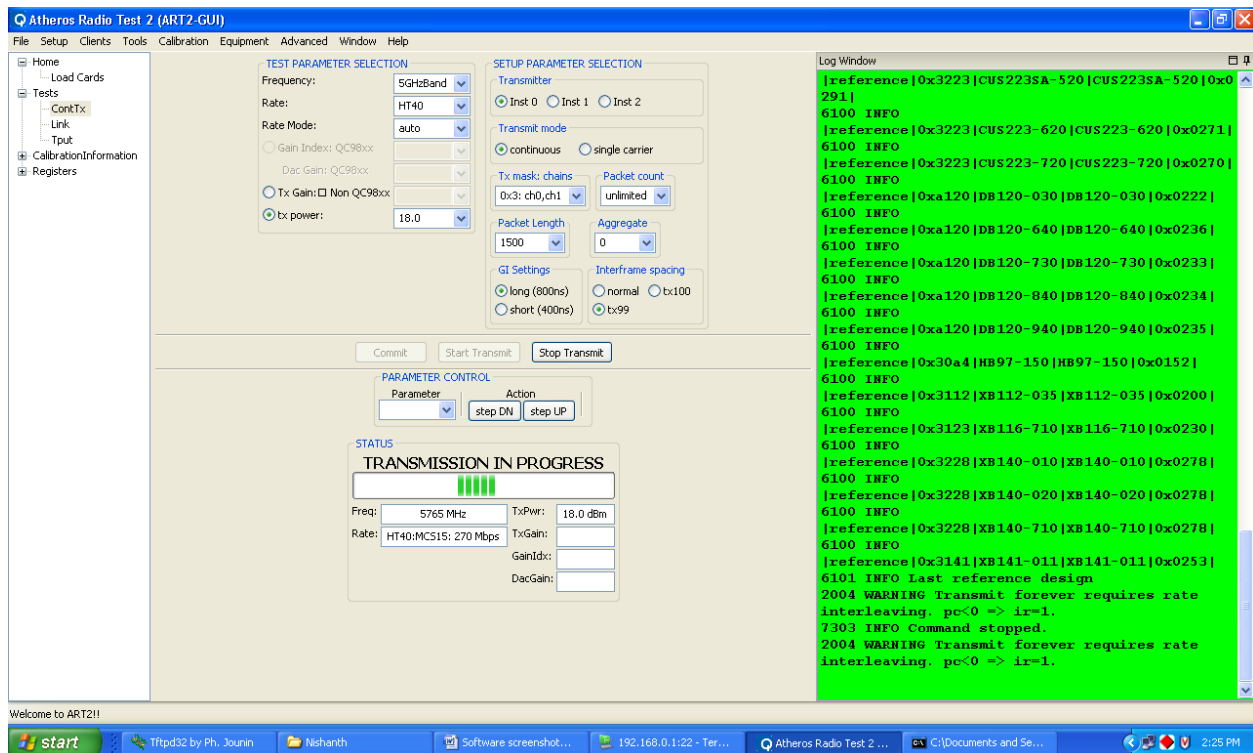


Figure 202 Atheros Radio Test GUI screenshot -2

ANNEXURE II: ACRONYMS

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

END OF REPORT