5.4.4.1.5. Spurious Radiated Emissions for 802.11n MCS7

Fundamental Frequency:	2412 MHz
Frequency Test Range:	30 MHz – 25 GHz
Power Setting:	19 (for fundamental) 30 (for spurious emissions)

Frequency (MHz)	RF Peak Level (dBµV/m)	RF Avg Level (dBµV/m)	Antenna Plane (H/V)	Limit 15.209 (dBµV/m)	Limit 15.247 (dBµV/m)	Margin (dB)	Pass/ Fail
2412	104.22	--	V	--	--	--	--
2412	105.58	--	H	--	--	--	--
4824	48.89	34.45	V	54.0	85.6	-19.6	Pass*
4824	49.77	35.69	H	54.0	85.6	-18.3	Pass*

*Field strength of emissions appearing within restricted frequency bands shall not exceed the limits in § 15.209.

Fundamental Frequency:	2437 MHz
Frequency Test Range:	30 MHz – 25 GHz
Power Setting:	30 (for fundamental) 30 (for spurious emissions)

Frequency (MHz)	RF Peak Level (dBµV/m)	RF Avg Level (dBµV/m)	Antenna Plane (H/V)	Limit 15.209 (dBµV/m)	Limit 15.247 (dBµV/m)	Margin (dB)	Pass/ Fail
2437	113.96	--	V	--	--	--	--
2437	113.47	--	H	--	--	--	--
4874	48.94	35.67	H	54.0	94.0	-18.3	Pass*

*Field strength of emissions appearing within restricted frequency bands shall not exceed the limits in § 15.209.

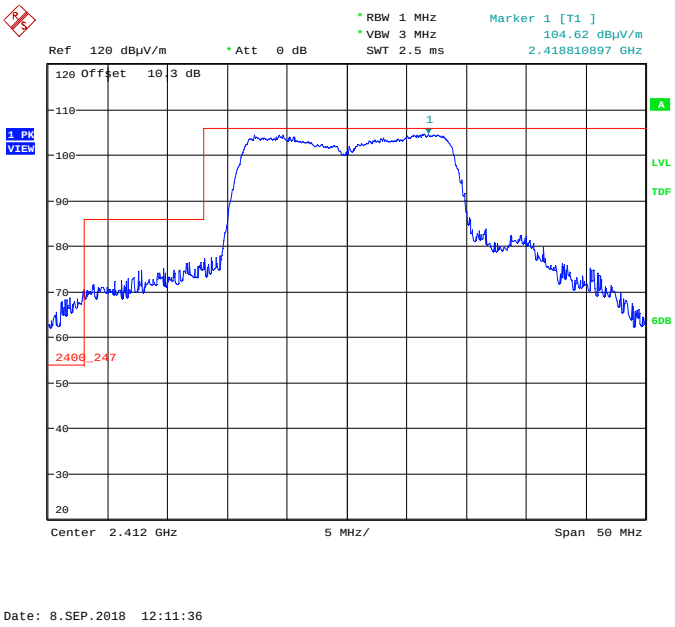
Fundamental Frequency:	2462 MHz
Frequency Test Range:	30 MHz – 25 GHz
Power Setting:	25 (for fundamental) 30 (for spurious emissions)

Frequency (MHz)	RF Peak Level (dBµV/m)	RF Avg Level (dBµV/m)	Antenna Plane (H/V)	Limit 15.209 (dBµV/m)	Limit 15.247 (dBµV/m)	Margin (dB)	Pass/ Fail
2462	105.22	--	V	--	--	--	--
2462	106.30	--	H	--	--	--	--
*	*	*	V/H	*	*	*	*

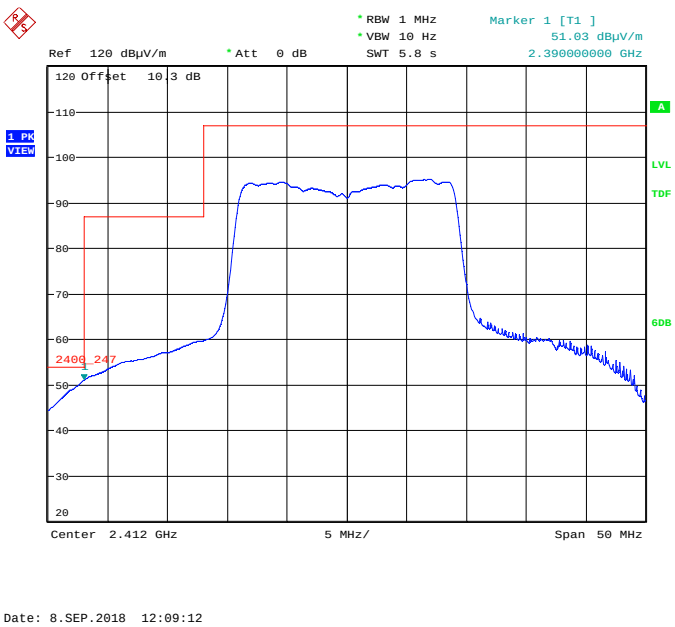
*Spurious emissions are more than 20 dB below the applicable limit

5.4.4.1.6. Band–Edge RF Radiated Emissions for 802.11n

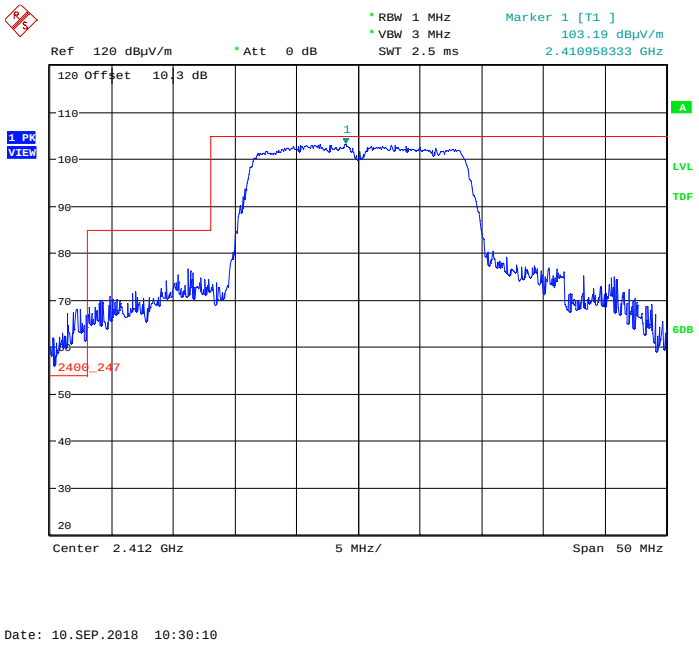
Plot 5.4.4.1.6.1. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS0, Power Setting 19, Channel 1, 2412 MHz



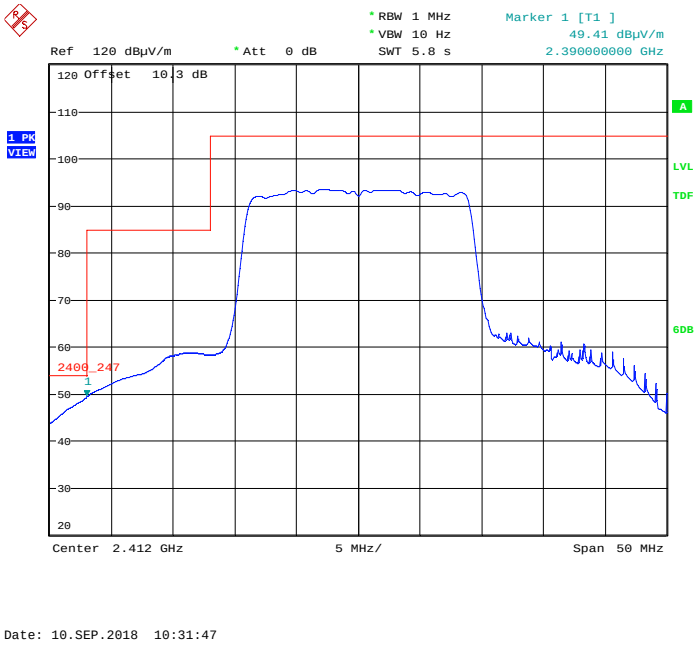
Plot 5.4.4.1.6.2. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS0, Power Setting 19, Channel 1, 2412 MHz



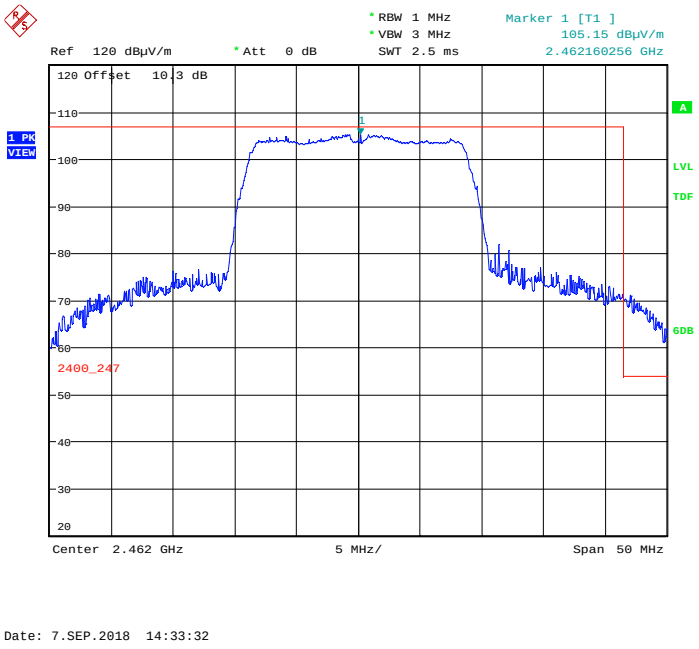
Plot 5.4.4.1.6.3. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS0, Power Setting 19, Channel 1, 2412 MHz



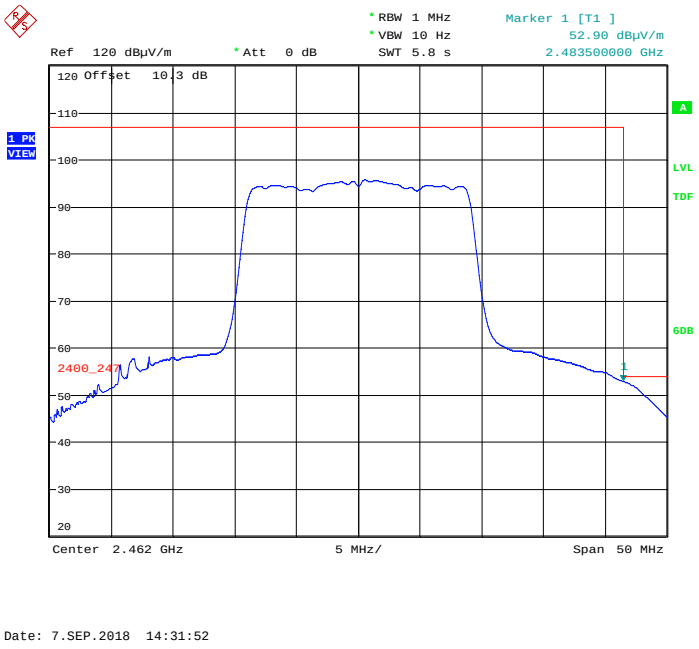
Plot 5.4.4.1.6.4. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS0, Power Setting 19, Channel 1, 2412 MHz



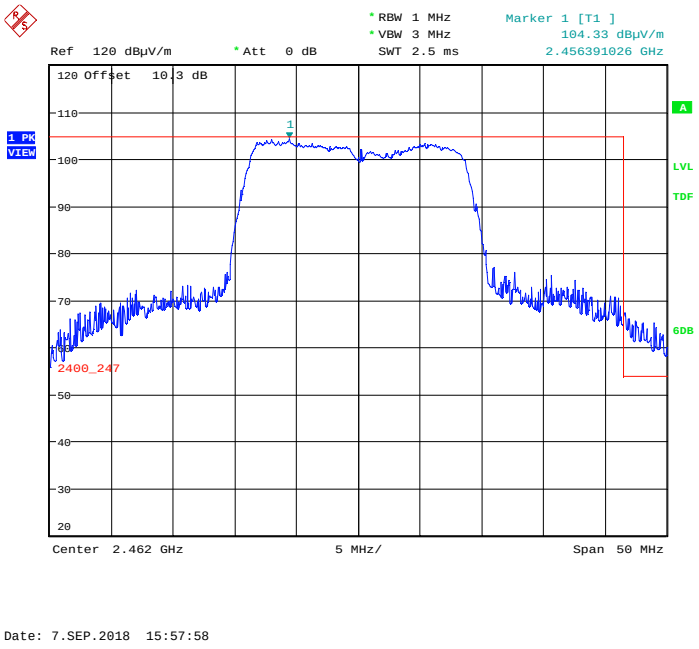
Plot 5.4.4.1.6.5. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS0, Power Setting 20, Channel 11, 2462 MHz



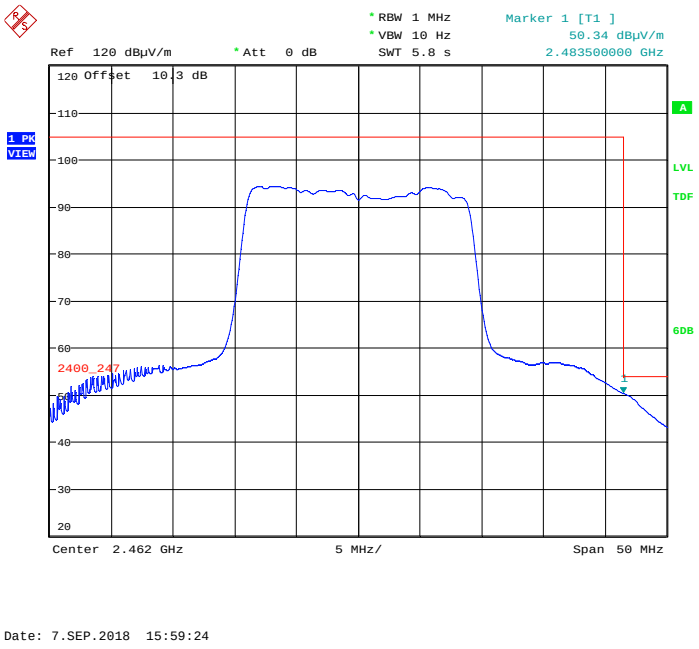
Plot 5.4.4.1.6.6. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS0, Power Setting 20, Channel 11, 2462 MHz



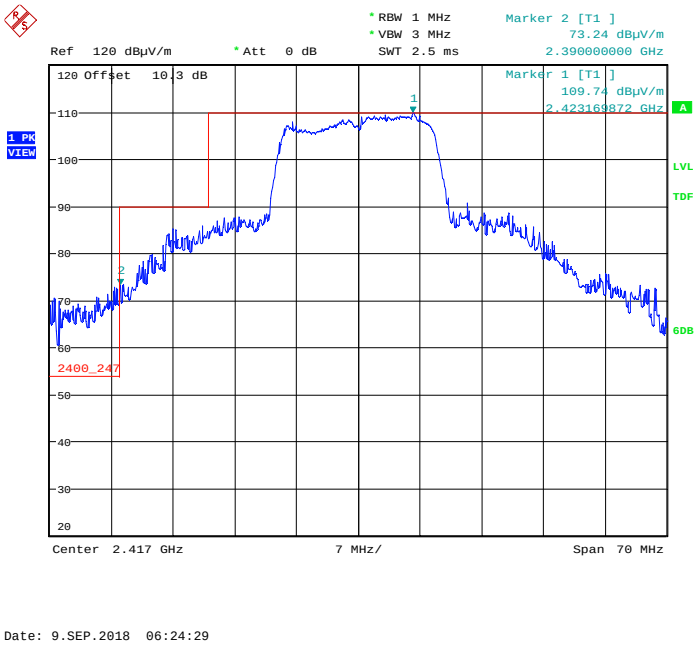
Plot 5.4.4.1.6.7. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS0, Power Setting 20, Channel 11, 2462 MHz



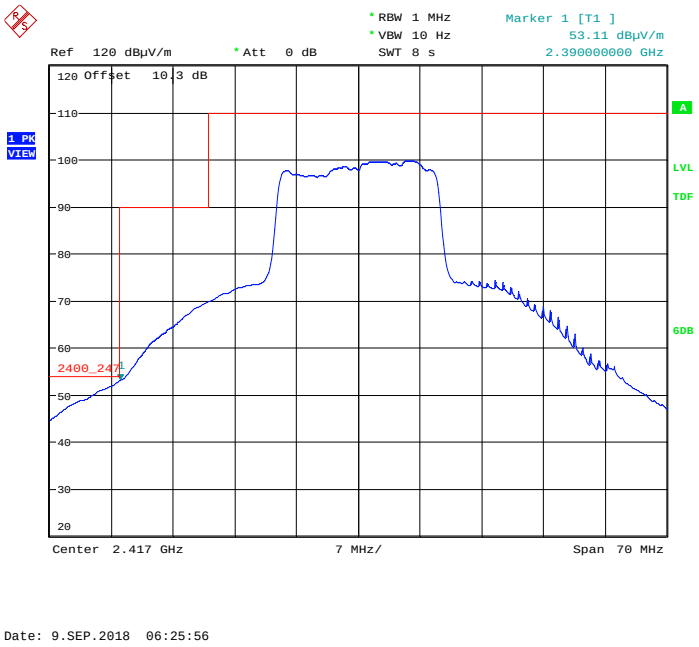
Plot 5.4.4.1.6.8. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS0, Power Setting 20, Channel 11, 2462 MHz



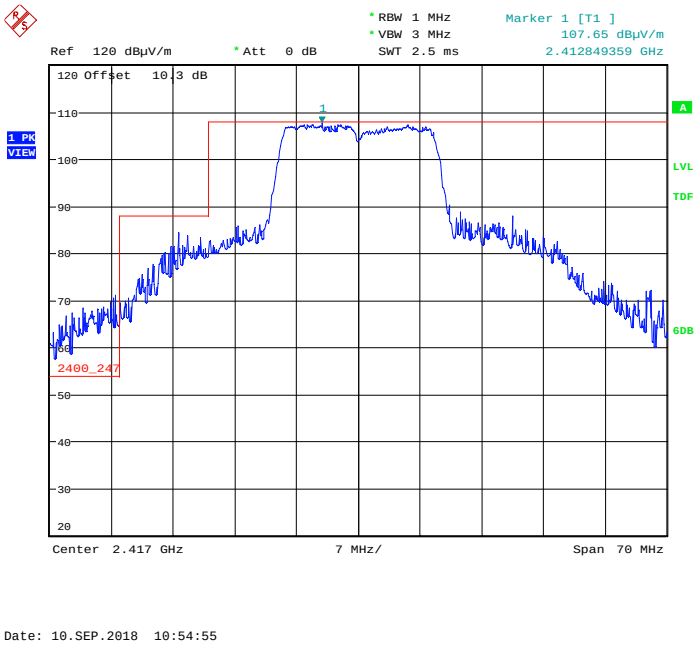
Plot 5.4.4.1.6.9. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS0, Power Setting 25, Channel 2, 2417 MHz



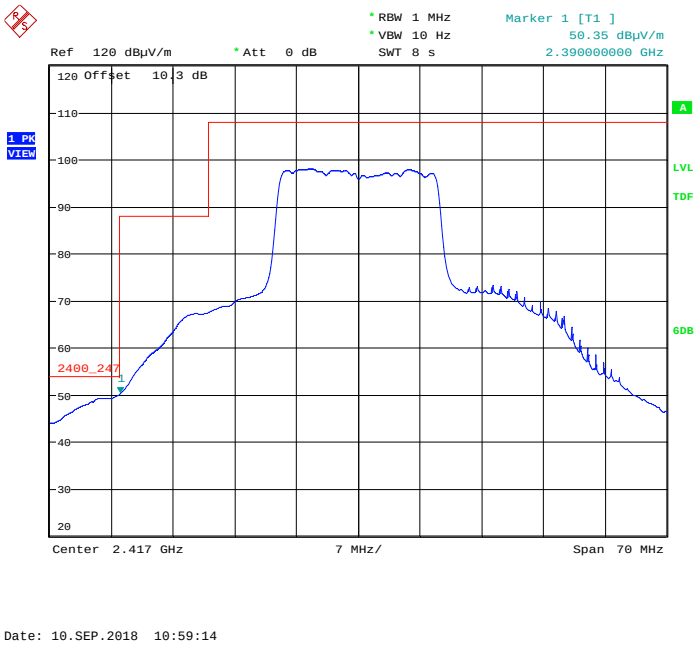
Plot 5.4.4.1.6.10. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS0, Power Setting 25, Channel 2, 2417 MHz



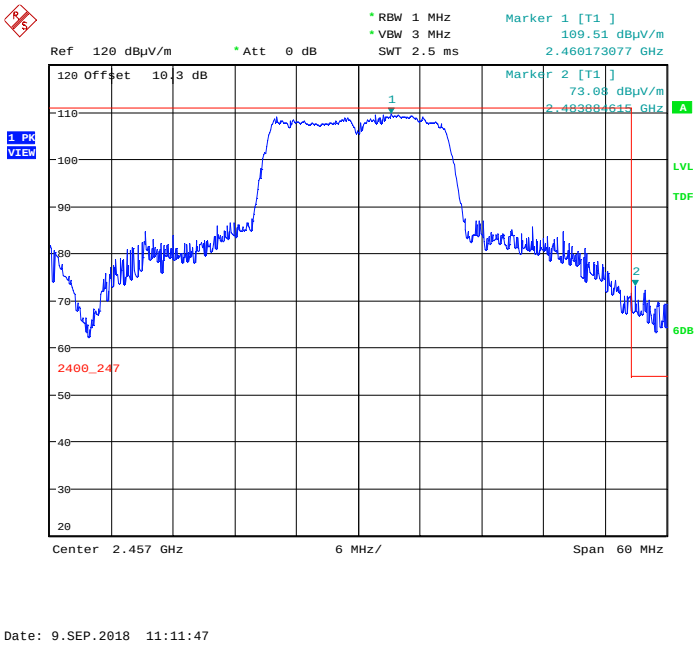
Plot 5.4.4.1.6.11. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS0, Power Setting 25, Channel 2, 2417 MHz



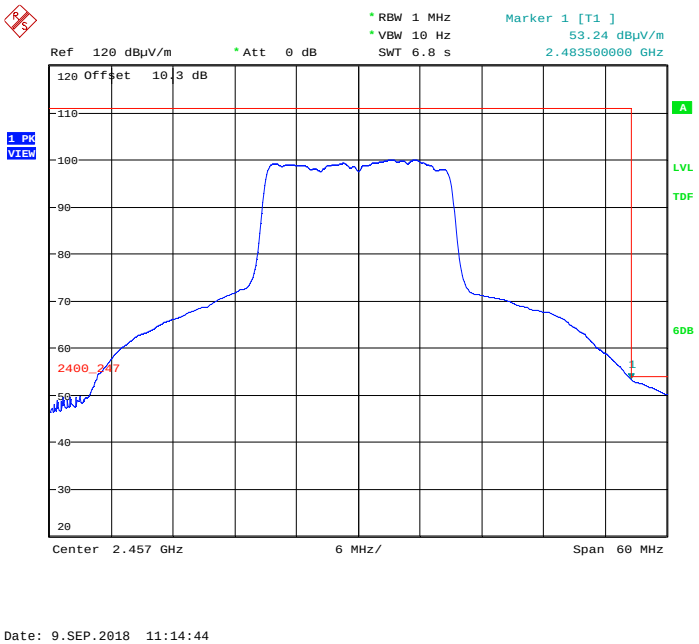
Plot 5.4.4.1.6.12. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS0, Power Setting 25, Channel 2, 2417 MHz



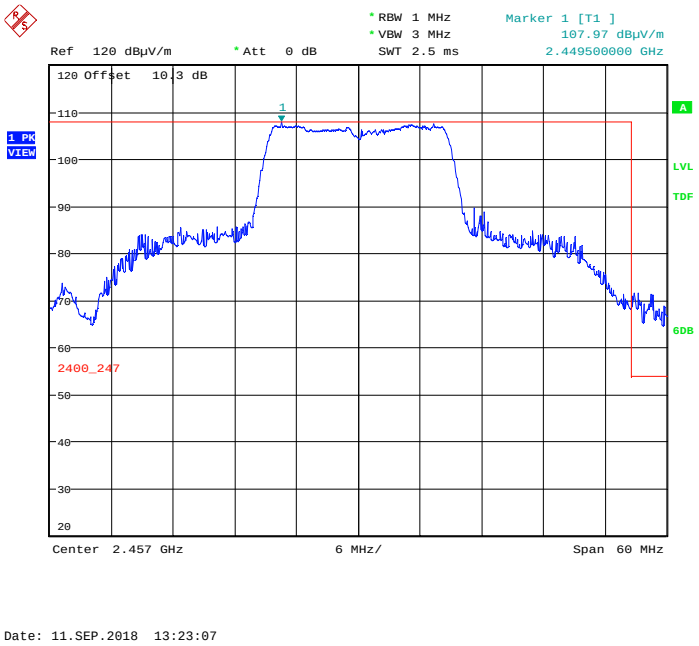
Plot 5.4.4.1.6.13. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS0, Power Setting 25, Channel 10, 2457 MHz



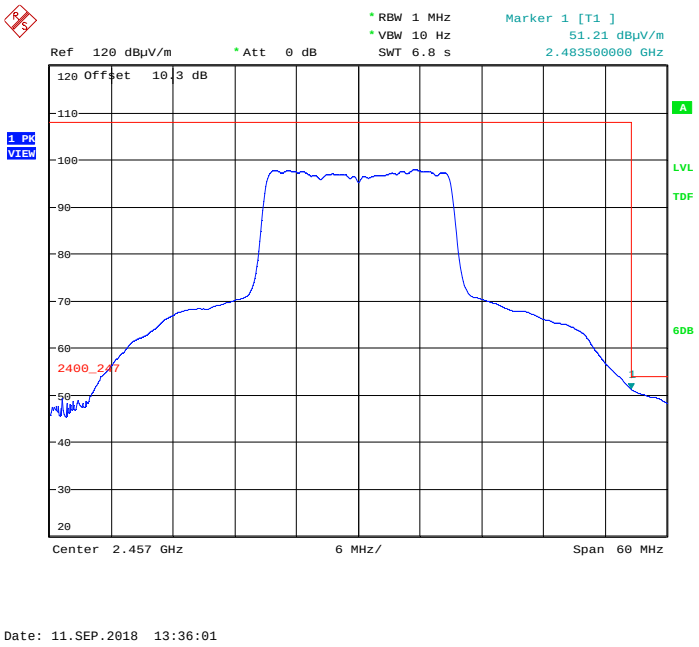
Plot 5.4.4.1.6.14. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS0, Power Setting 25, Channel 10, 2457 MHz



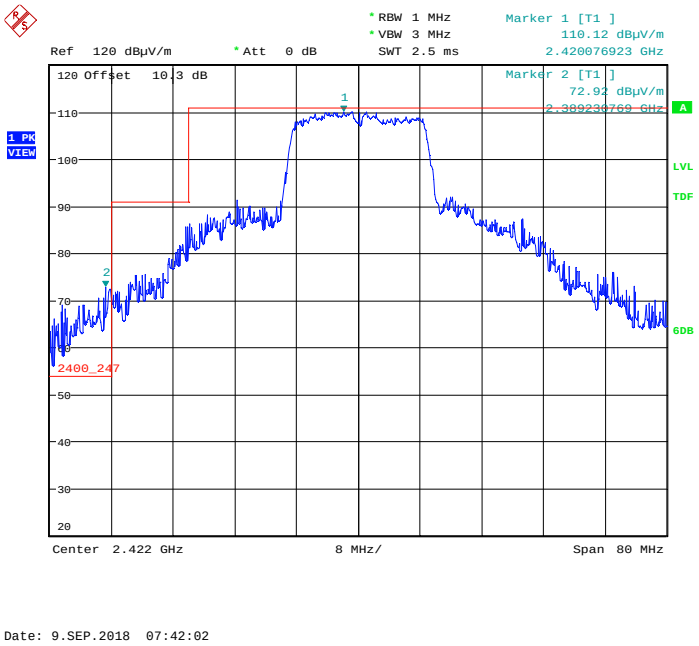
Plot 5.4.4.1.6.15. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS0, Power Setting 25, Channel 10, 2457 MHz



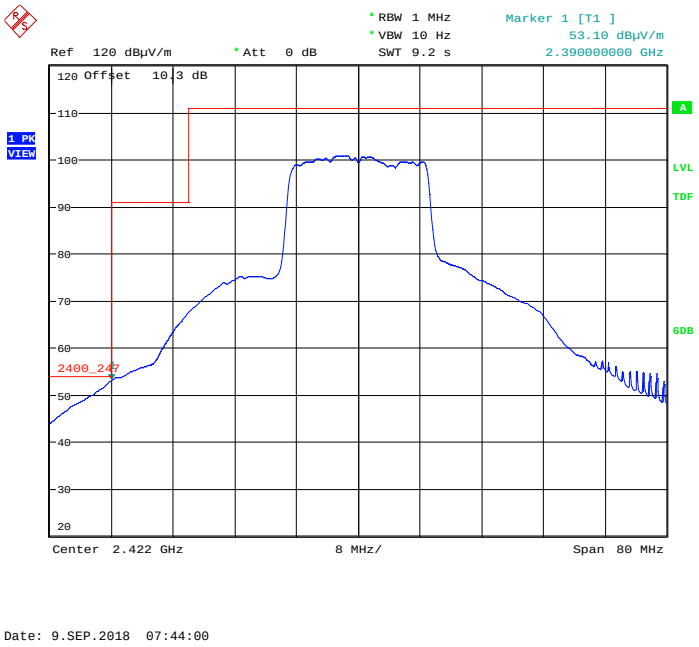
Plot 5.4.4.1.6.16. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS0, Power Setting 25, Channel 10, 2457 MHz



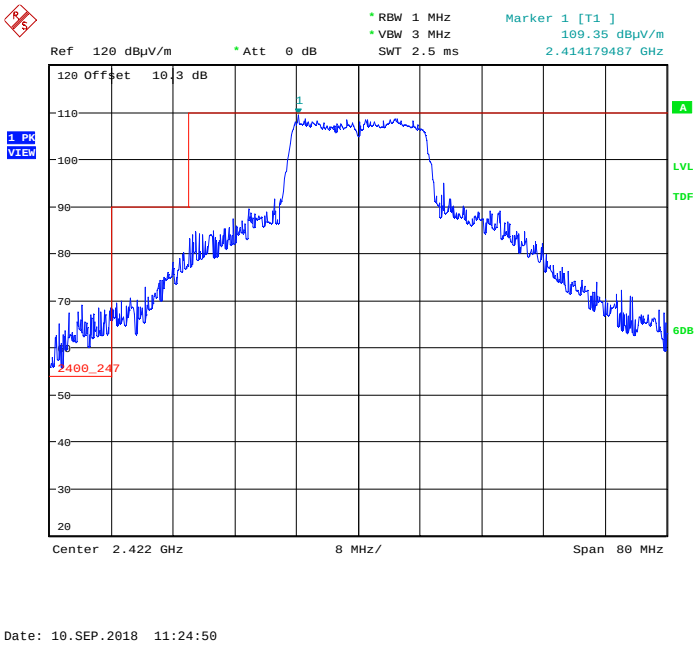
Plot 5.4.4.1.6.17. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS0, Power Setting 27, Channel 3, 2422 MHz



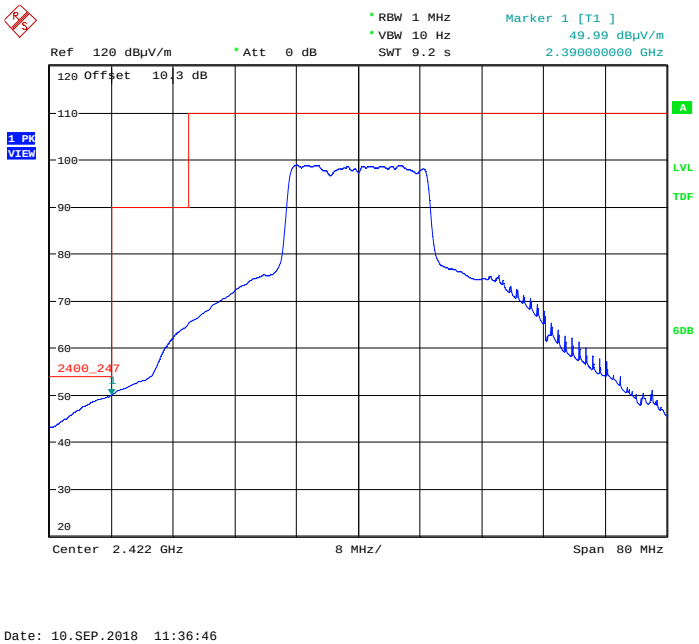
Plot 5.4.4.1.6.18. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS0, Power Setting 27, Channel 3, 2422 MHz



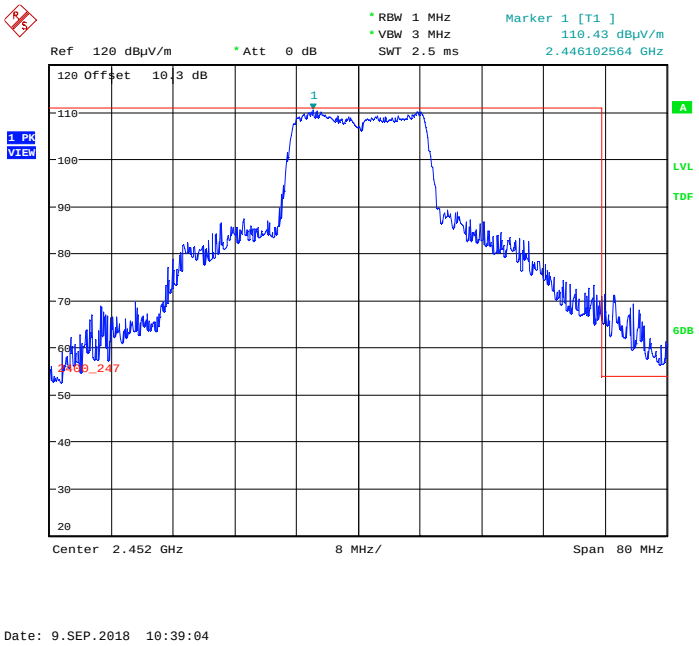
Plot 5.4.4.1.6.19. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS0, Power Setting 27, Channel 3, 2422 MHz



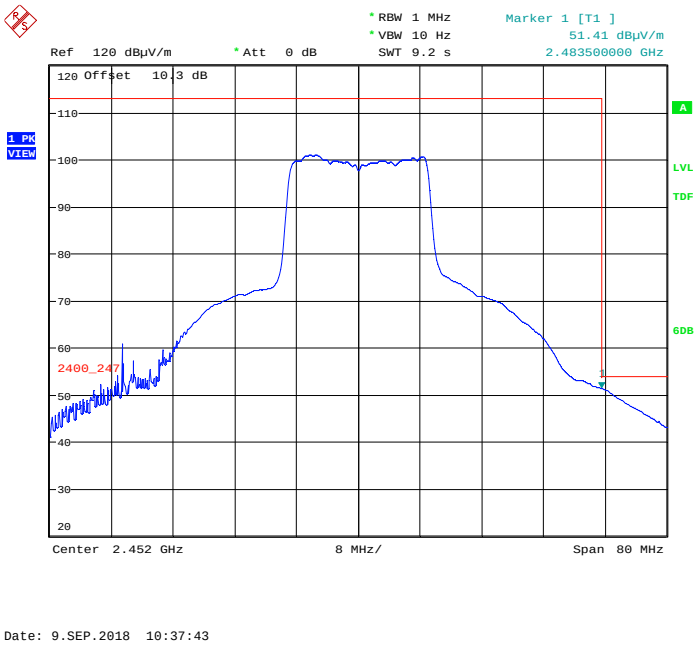
Plot 5.4.4.1.6.20. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS0, Power Setting 27, Channel 3, 2422 MHz



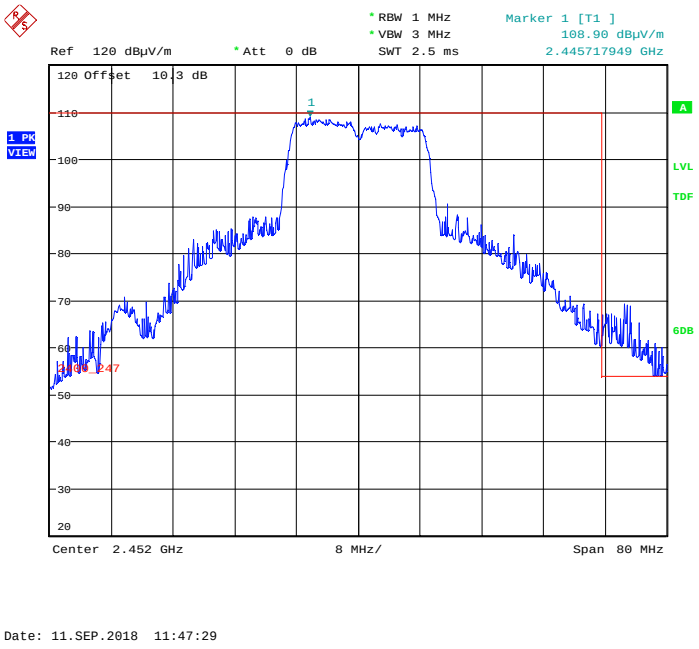
Plot 5.4.4.1.6.21. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS0, Power Setting 26, Channel 9, 2452 MHz



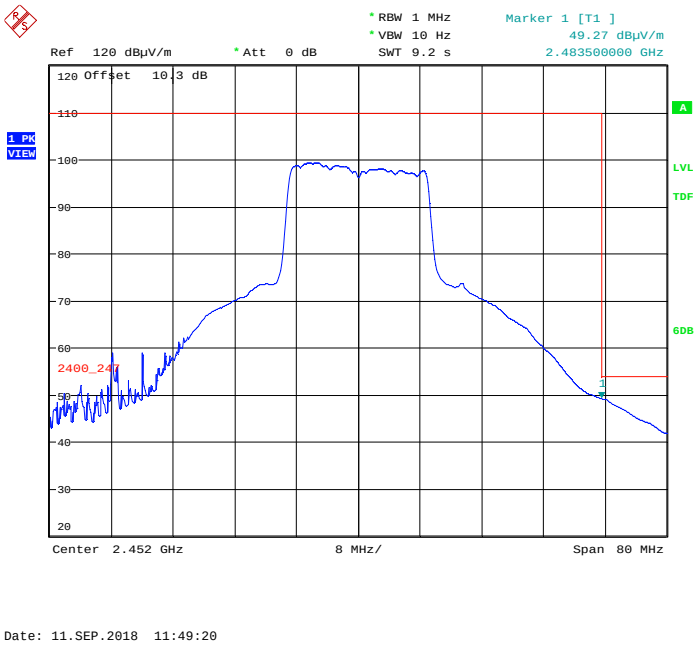
Plot 5.4.4.1.6.22. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS0, Power Setting 26, Channel 9, 2452 MHz



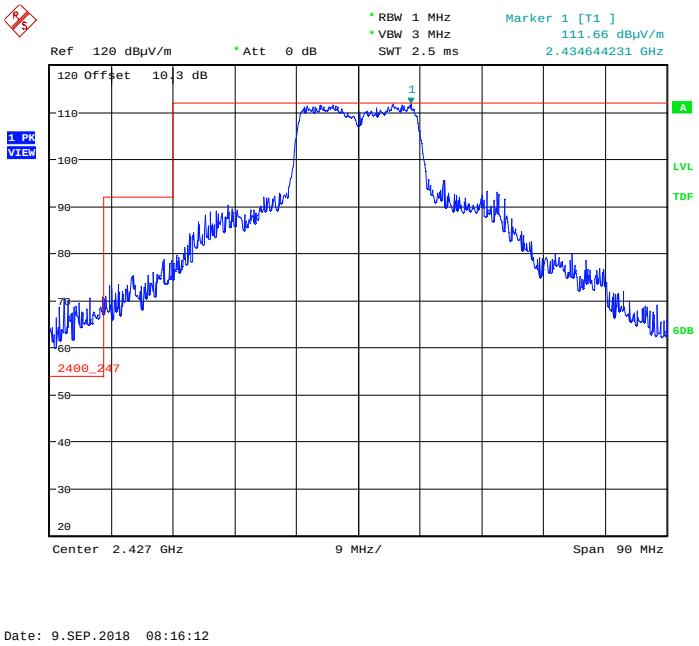
Plot 5.4.4.1.6.23. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS0, Power Setting 26, Channel 9, 2452 MHz



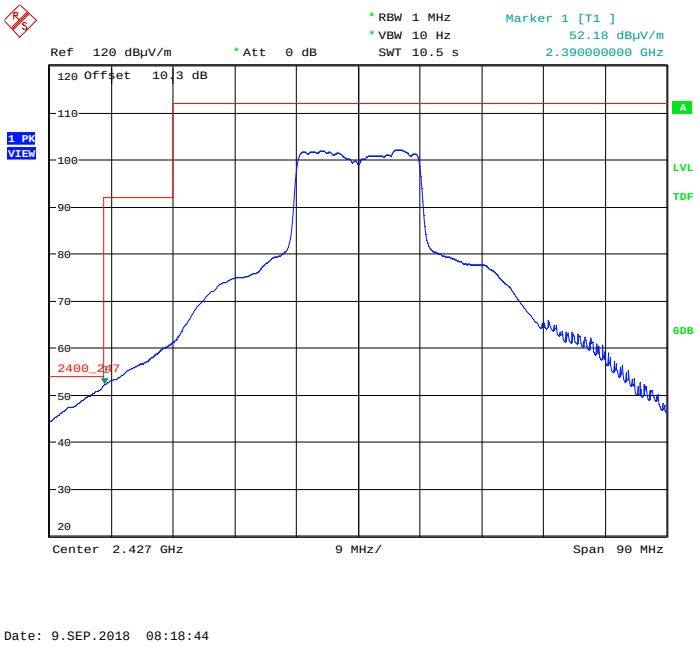
Plot 5.4.4.1.6.24. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS0, Power Setting 26, Channel 9, 2452 MHz



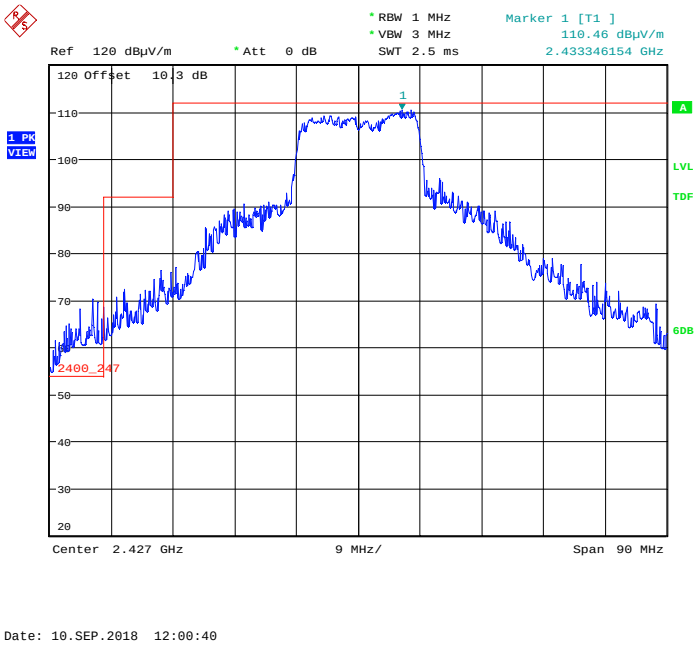
Plot 5.4.4.1.6.25. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS0, Power Setting 29, Channel 4, 2427 MHz



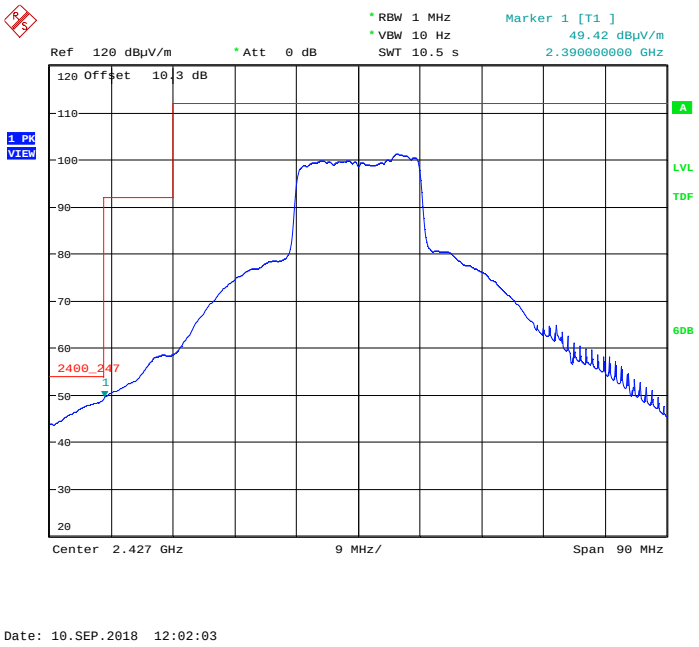
Plot 5.4.4.1.6.26. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS0, Power Setting 29, Channel 4, 2427 MHz



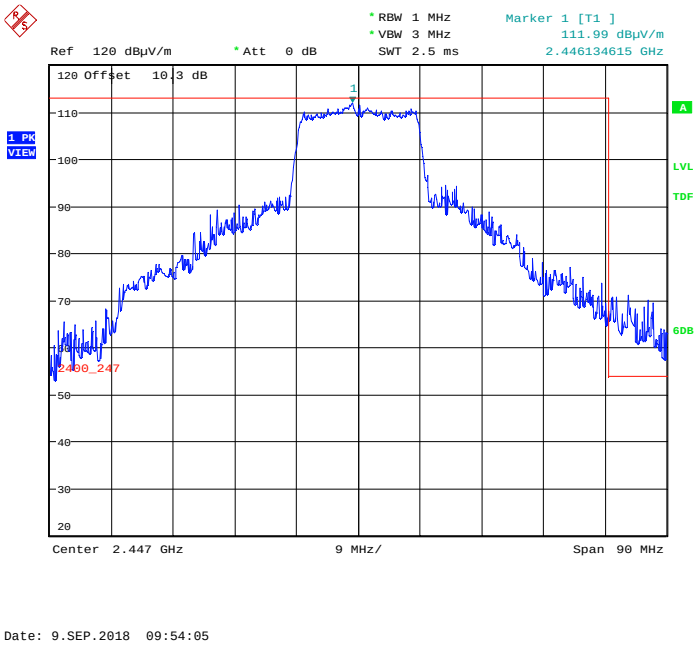
Plot 5.4.4.1.6.27. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS0, Power Setting 29, Channel 4, 2427 MHz



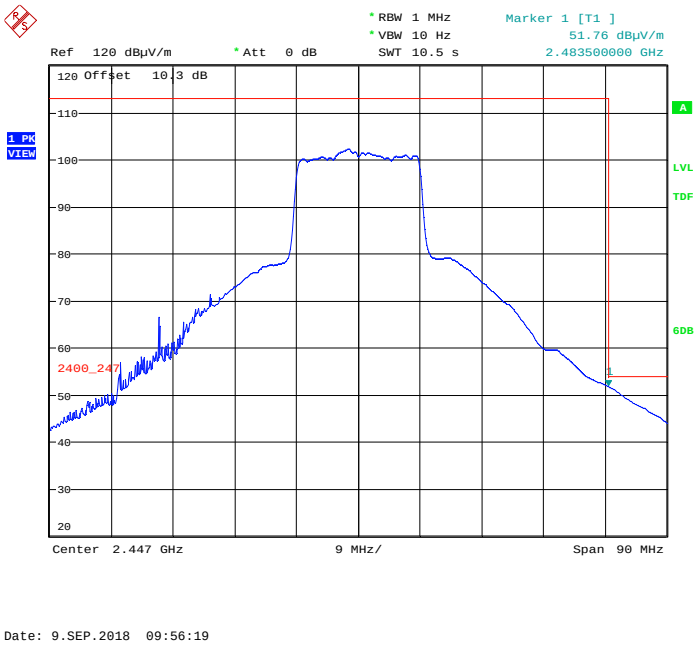
Plot 5.4.4.1.6.28. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS0, Power Setting 29, Channel 4, 2427 MHz



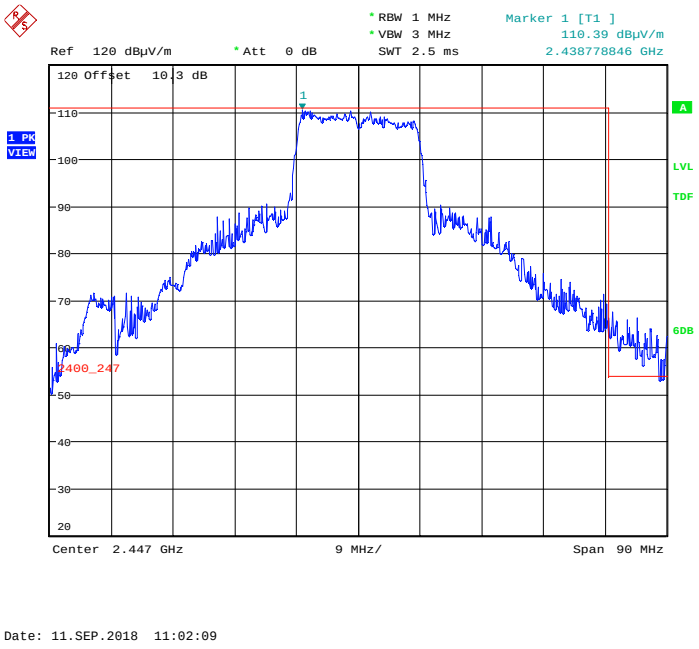
Plot 5.4.4.1.6.29. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS0, Power Setting 28, Channel 8, 2447 MHz



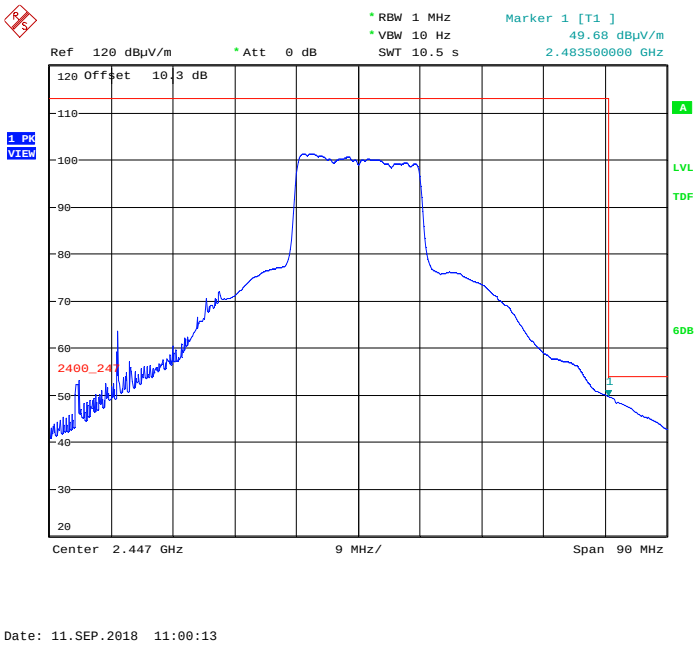
Plot 5.4.4.1.6.30. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS0, Power Setting 28, Channel 8, 2447 MHz



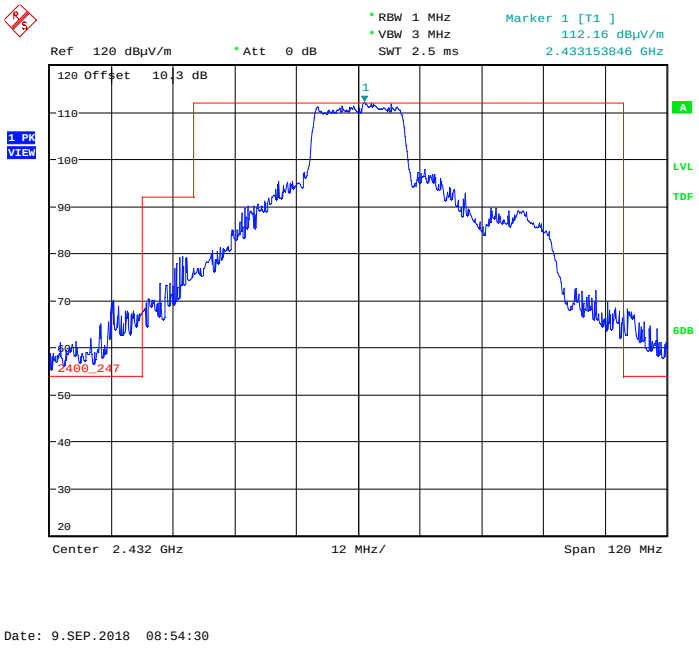
Plot 5.4.4.1.6.31. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS0, Power Setting 28, Channel 8, 2447 MHz



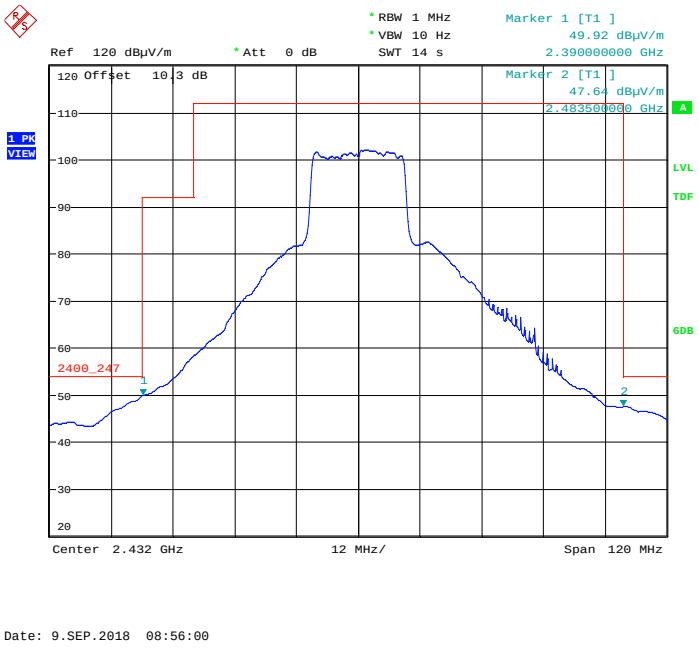
Plot 5.4.4.1.6.32. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS0, Power Setting 28, Channel 8, 2447 MHz



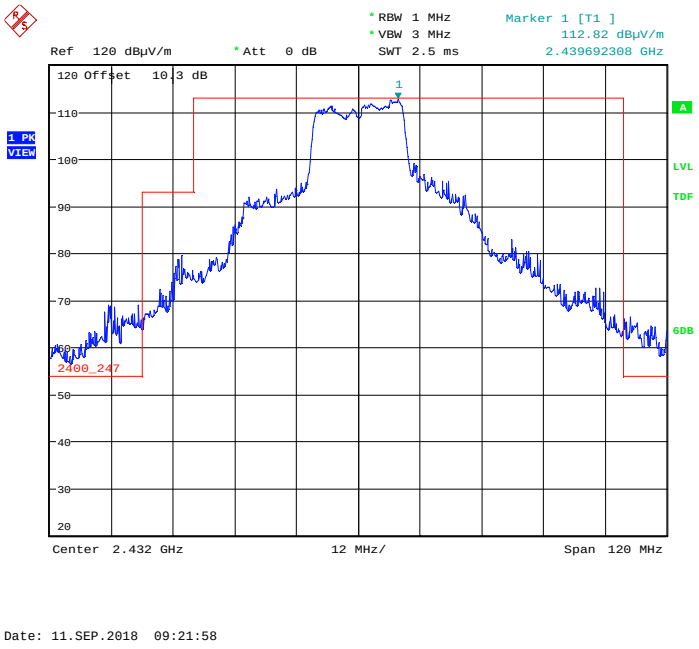
Plot 5.4.4.1.6.33. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS0, Power Setting 30, Channel 5, 2432 MHz



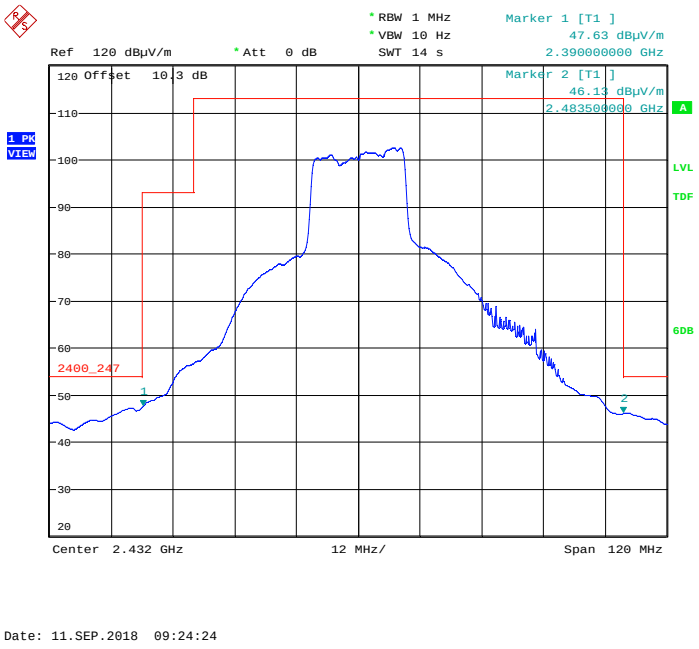
Plot 5.4.4.1.6.34. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS0, Power Setting 30, Channel 5, 2432 MHz



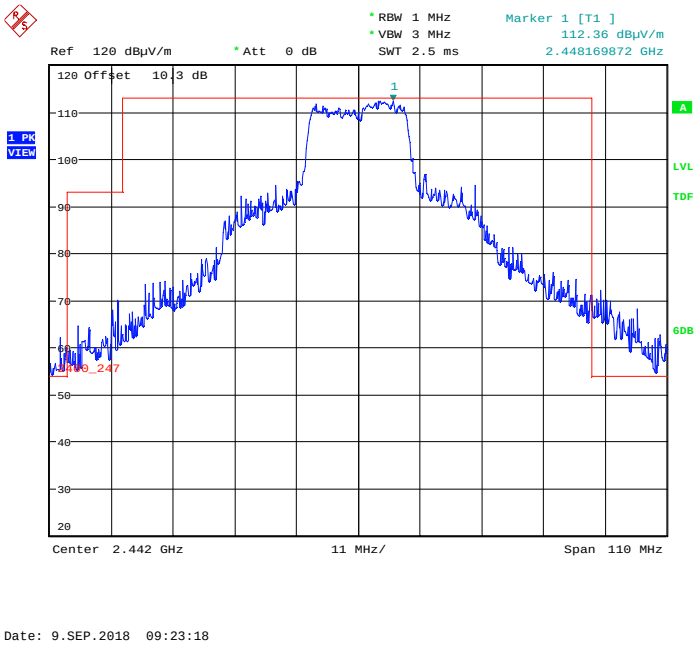
Plot 5.4.4.1.6.35. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS0, Power Setting 30, Channel 5, 2432 MHz



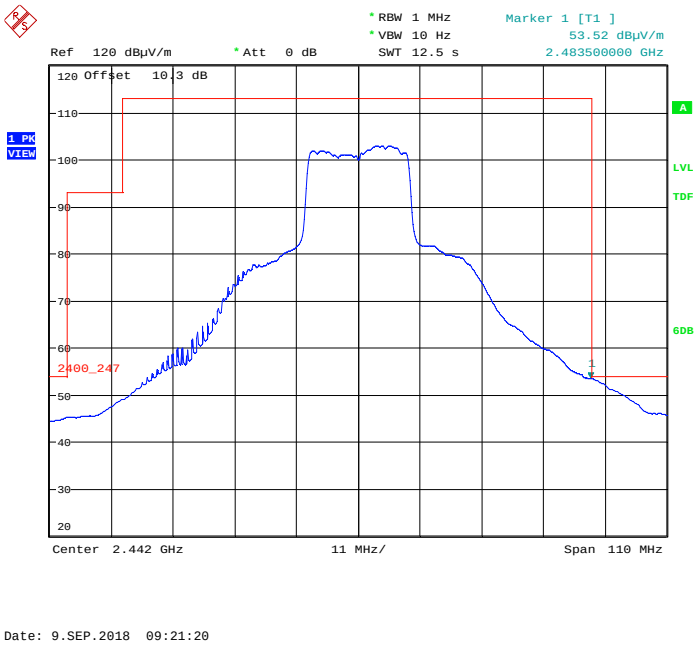
Plot 5.4.4.1.6.36. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS0, Power Setting 30, Channel 5, 2432 MHz



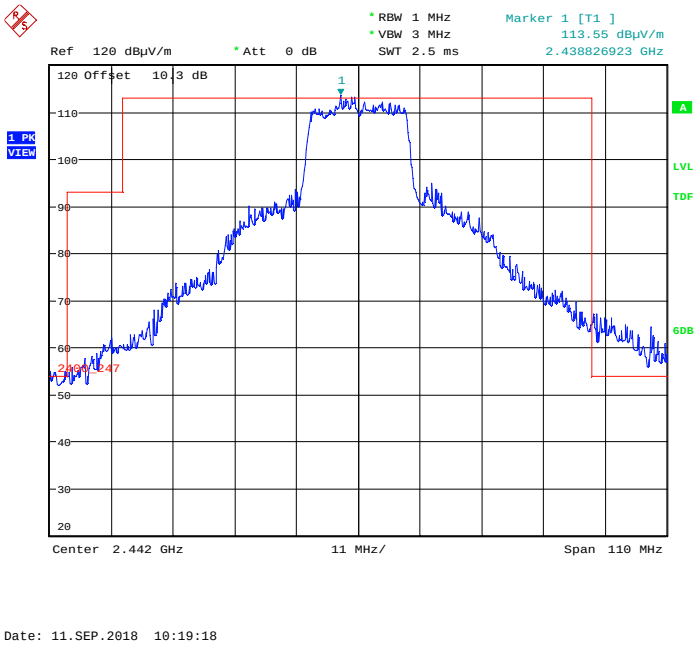
Plot 5.4.4.1.6.37. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS0, Power Setting 30, Channel 7, 2442 MHz



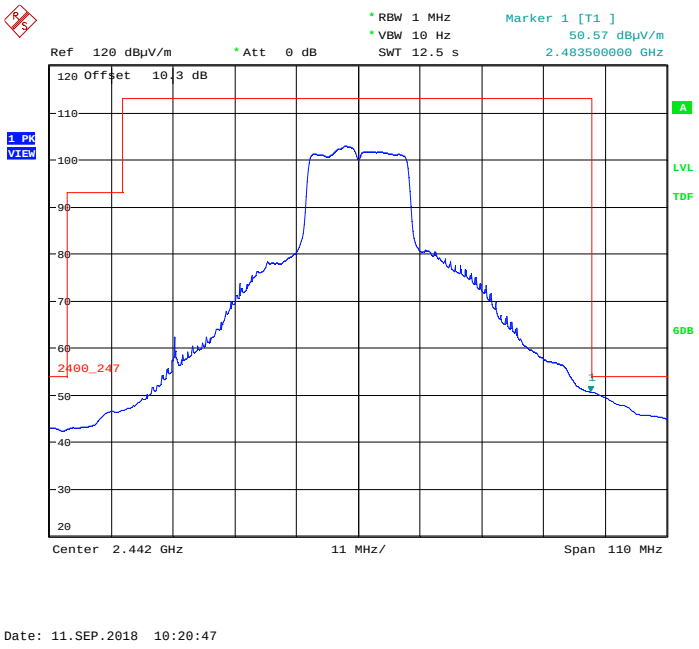
Plot 5.4.4.1.6.38. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS0, Power Setting 30, Channel 7, 2442 MHz



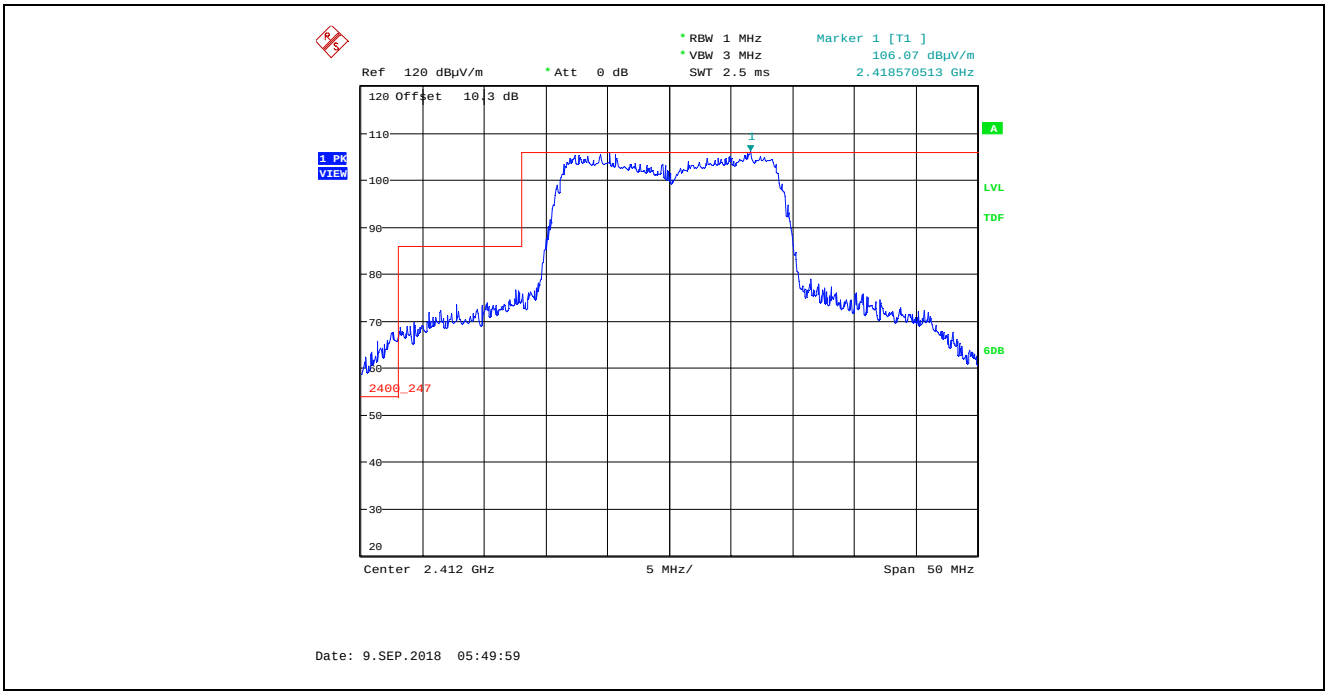
Plot 5.4.4.1.6.39. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS0, Power Setting 30, Channel 7, 2442 MHz



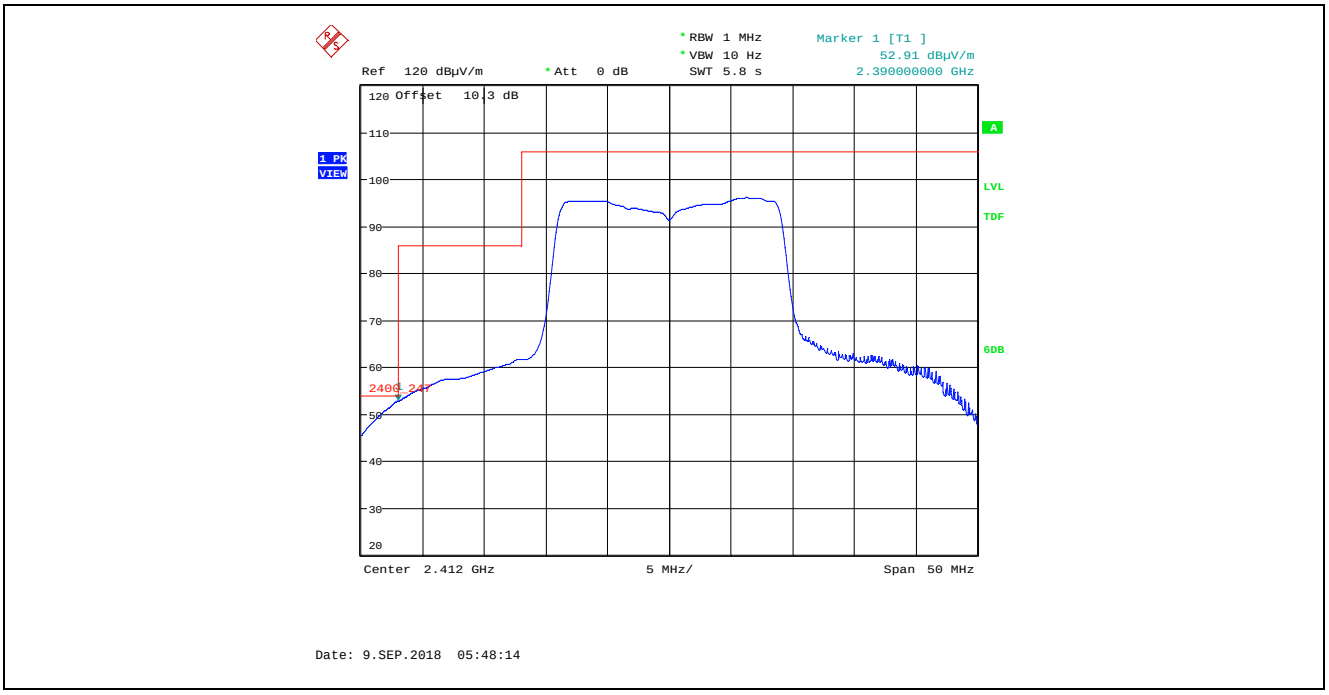
Plot 5.4.4.1.6.40. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS0, Power Setting 30, Channel 7, 2442 MHz



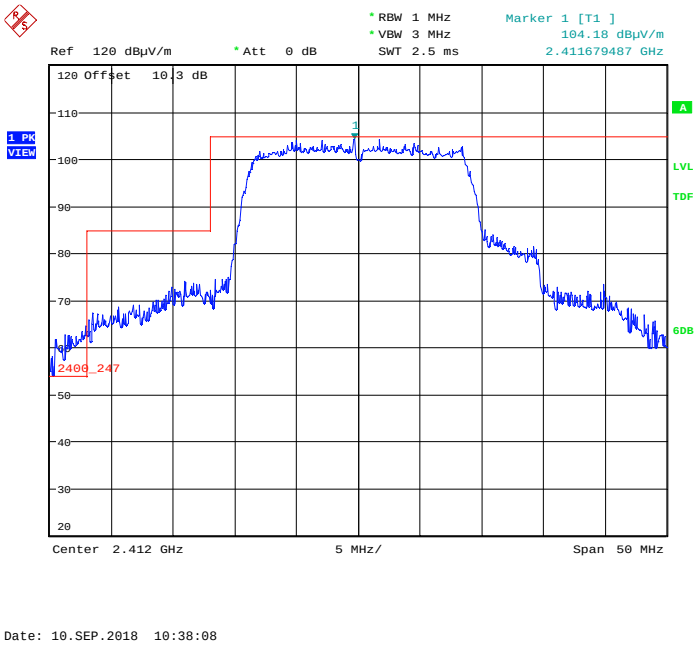
Plot 5.4.4.1.6.41. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS2, Power Setting 19, Channel 1, 2412 MHz



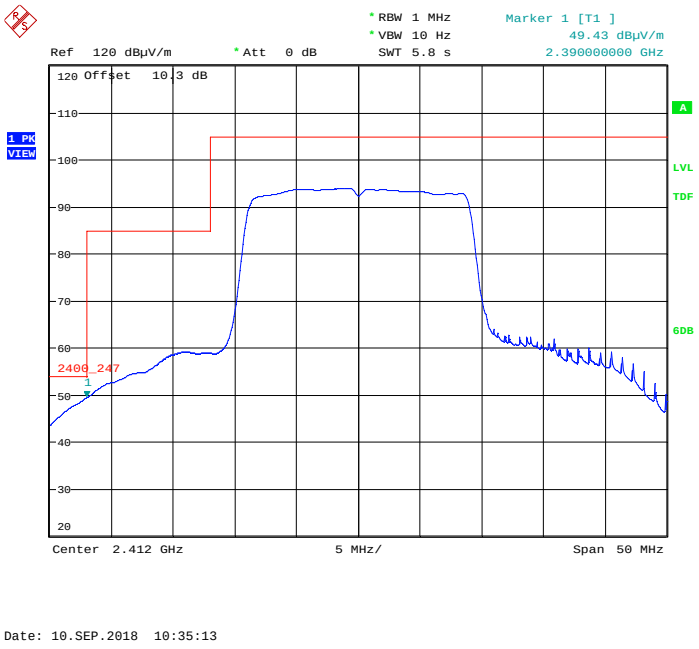
Plot 5.4.4.1.6.42. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS2, Power Setting 19, Channel 1, 2412 MHz



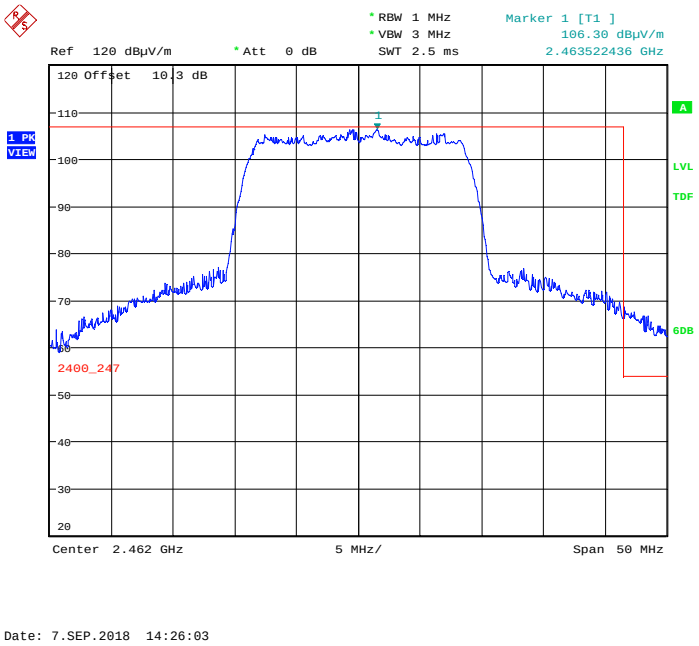
Plot 5.4.4.1.6.43. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS2, Power Setting 19, Channel 1, 2412 MHz



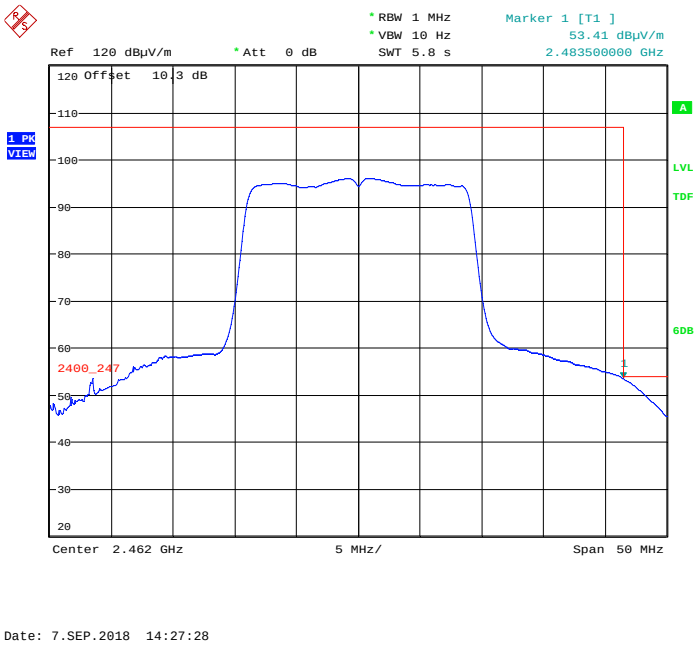
Plot 5.4.4.1.6.44. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS2, Power Setting 19, Channel 1, 2412 MHz



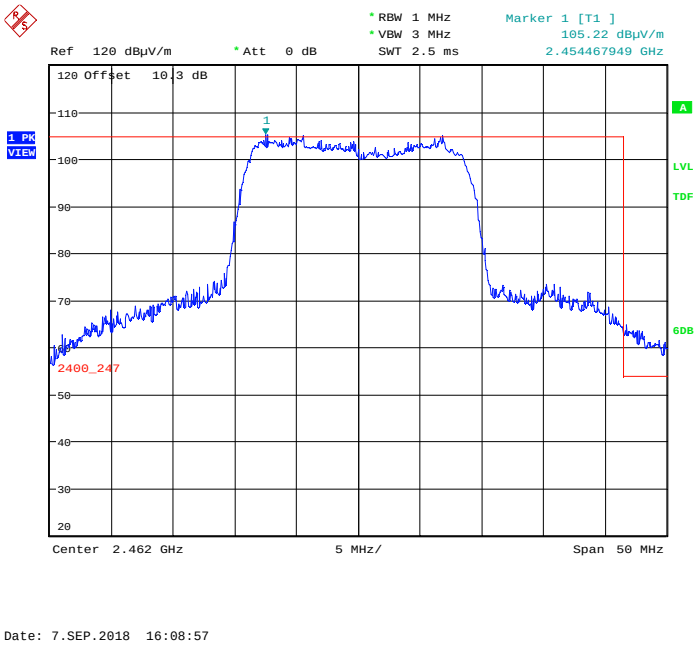
Plot 5.4.4.1.6.45. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS2, Power Setting 20, Channel 11, 2462 MHz



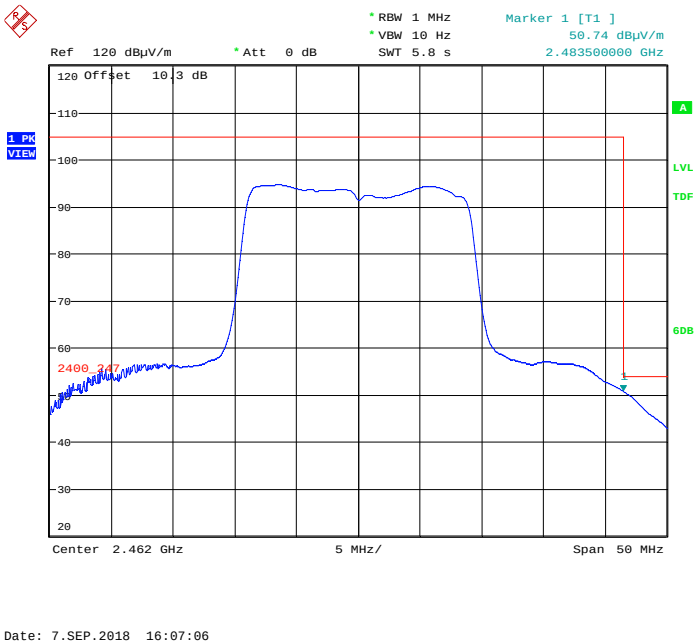
Plot 5.4.4.1.6.46. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS2, Power Setting 20, Channel 11, 2462 MHz



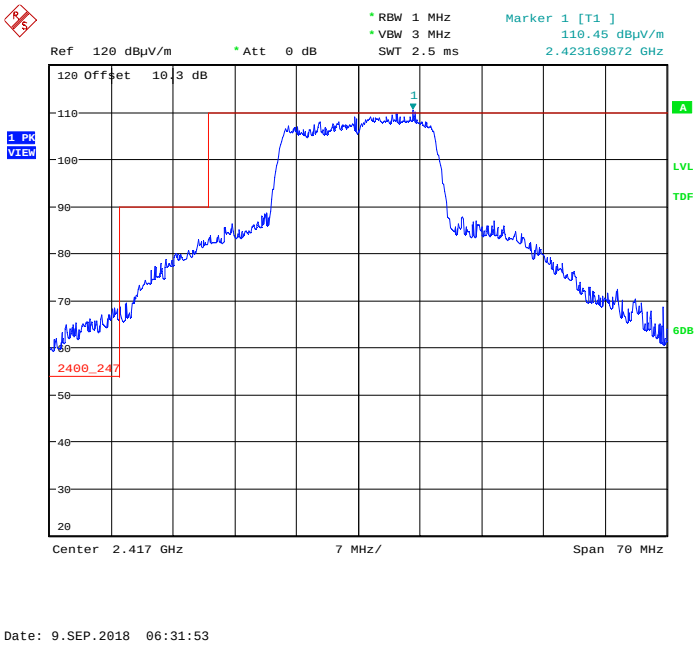
Plot 5.4.4.1.6.47. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS2, Power Setting 20, Channel 11, 2462 MHz



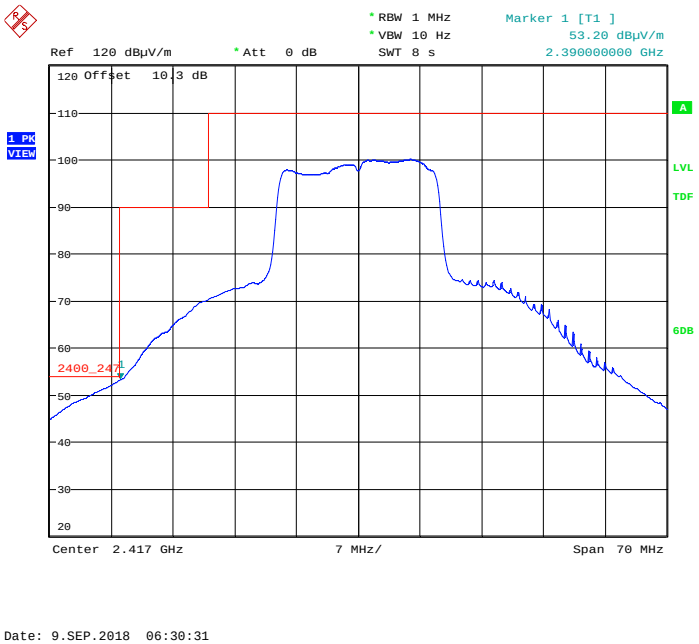
Plot 5.4.4.1.6.48. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS2, Power Setting 20, Channel 11, 2462 MHz



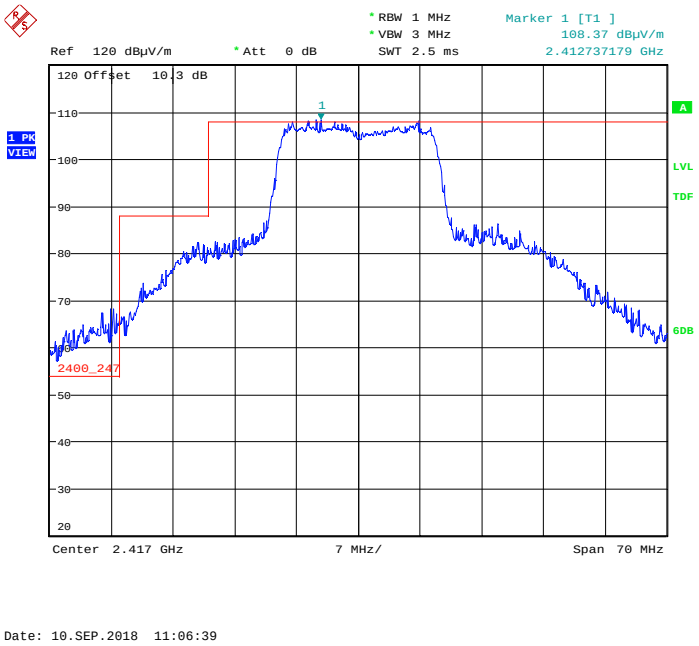
Plot 5.4.4.1.6.49. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS2, Power Setting 25, Channel 2, 2417 MHz



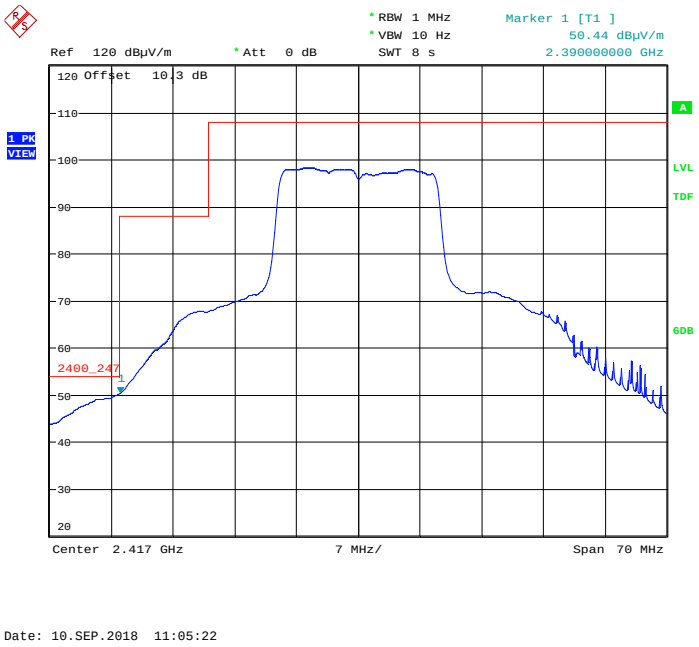
Plot 5.4.4.1.6.50. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS2, Power Setting 25, Channel 2, 2417 MHz



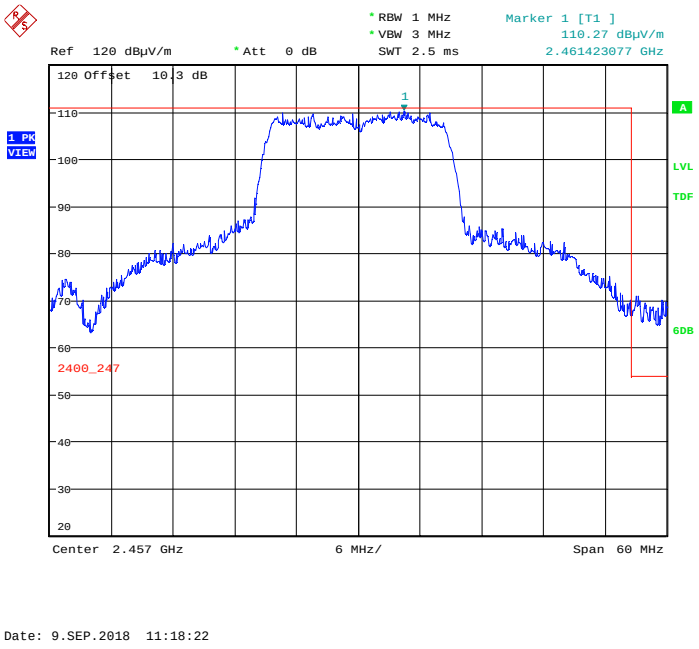
Plot 5.4.4.1.6.51. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS2, Power Setting 25, Channel 2, 2417 MHz



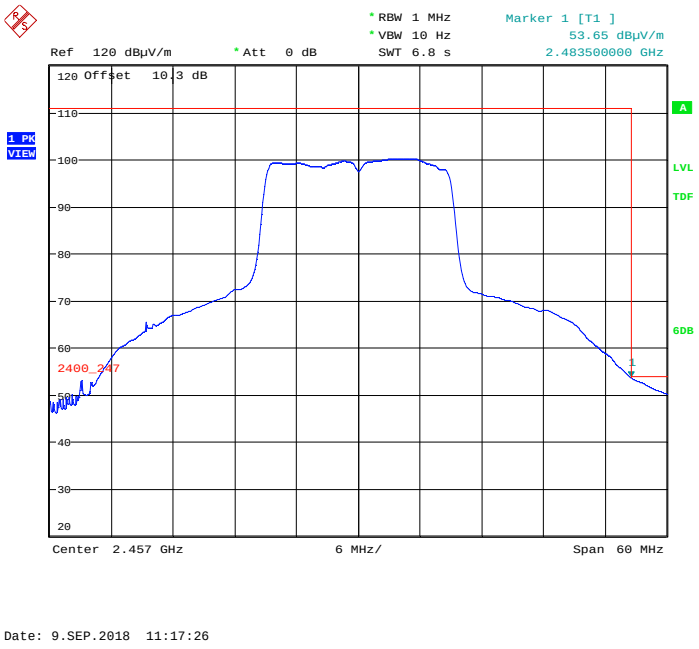
Plot 5.4.4.1.6.52. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS2, Power Setting 25, Channel 2, 2417 MHz



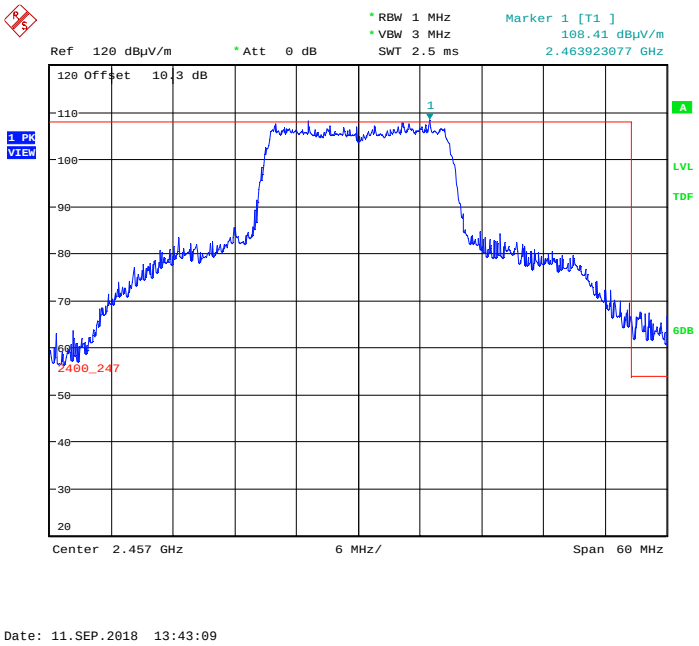
Plot 5.4.4.1.6.53. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS2, Power Setting 25, Channel 10, 2457 MHz



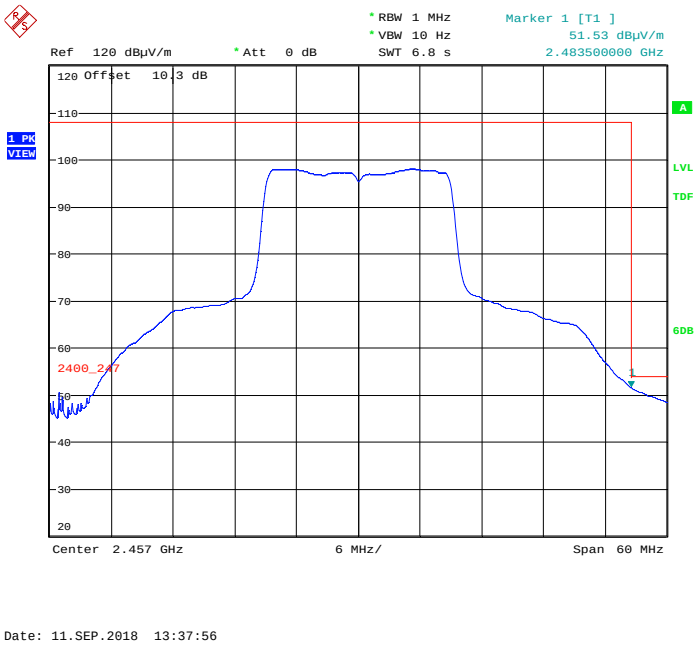
Plot 5.4.4.1.6.54. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS2, Power Setting 25, Channel 10, 2457 MHz



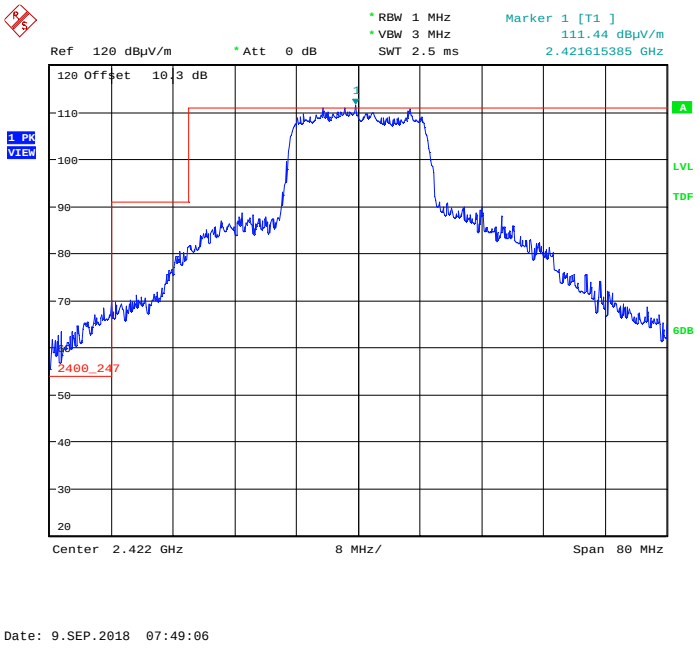
Plot 5.4.4.1.6.55. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS2, Power Setting 25, Channel 10, 2457 MHz



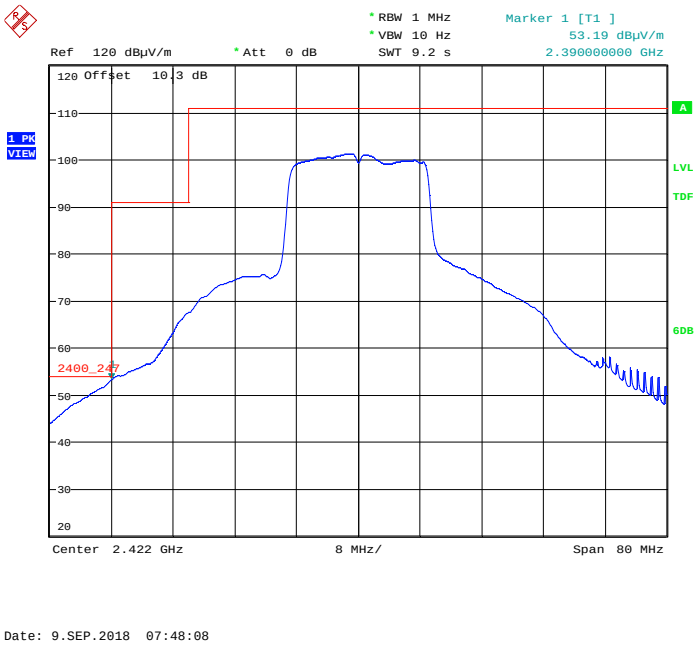
Plot 5.4.4.1.6.56. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS2, Power Setting 25, Channel 10, 2457 MHz



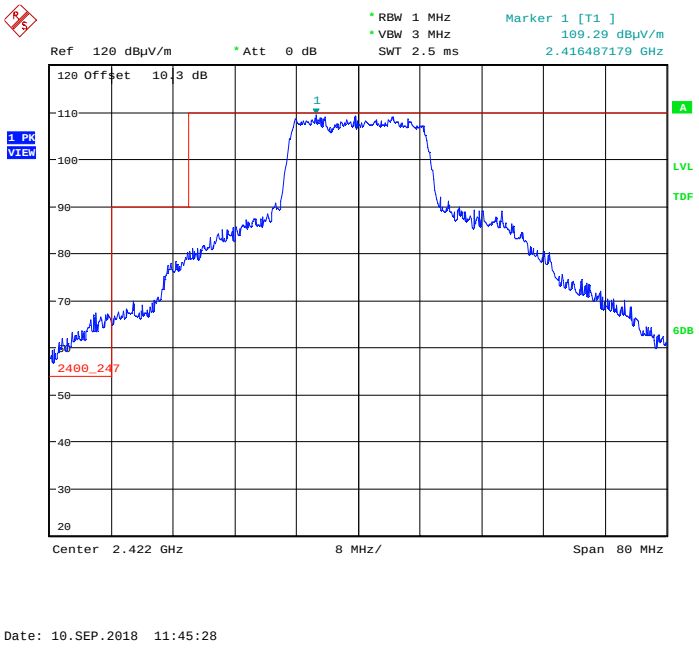
Plot 5.4.4.1.6.57. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS2, Power Setting 27, Channel 3, 2422 MHz



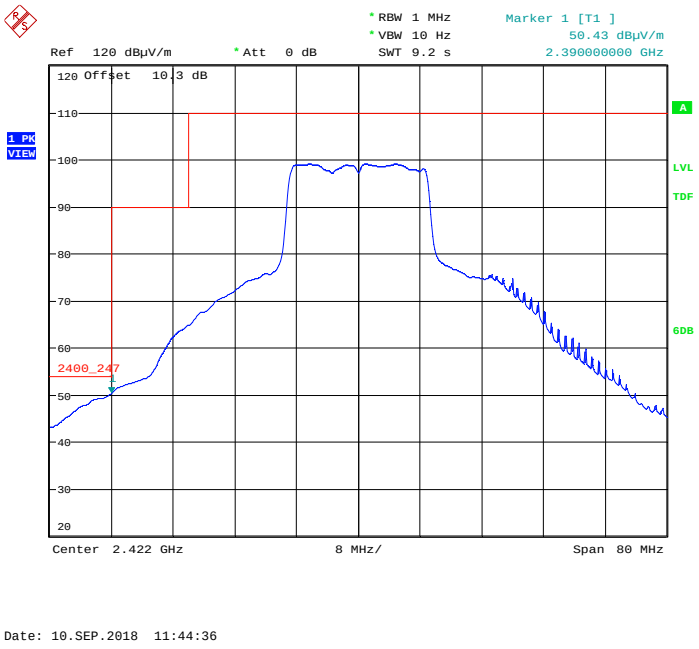
Plot 5.4.4.1.6.58. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS2, Power Setting 27, Channel 3, 2422 MHz



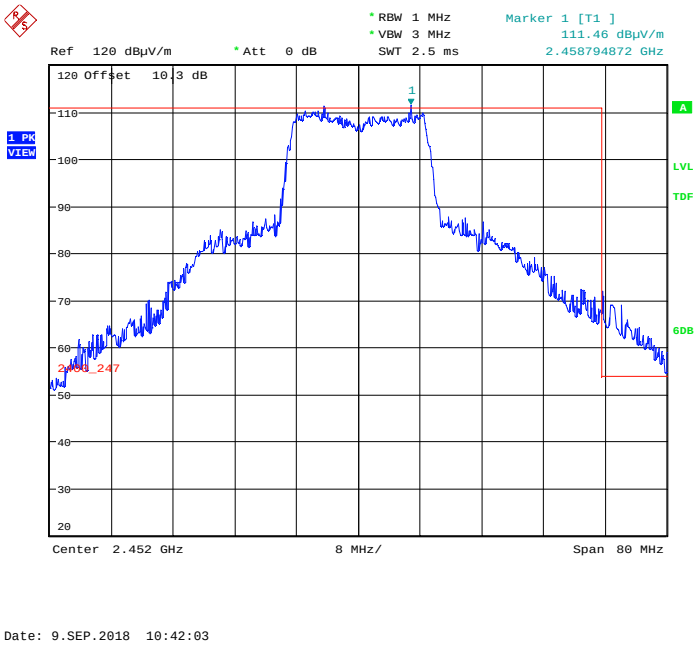
Plot 5.4.4.1.6.59. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS2, Power Setting 27, Channel 3, 2422 MHz



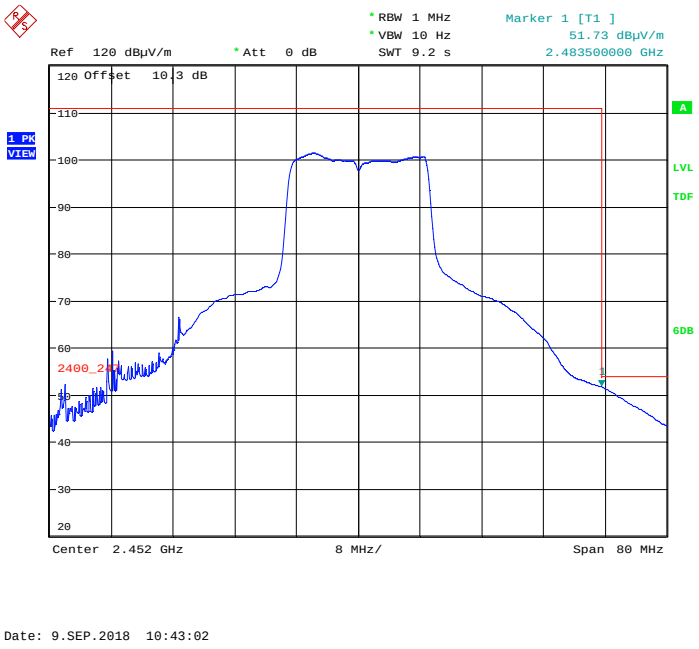
Plot 5.4.4.1.6.60. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS2, Power Setting 27, Channel 3, 2422 MHz



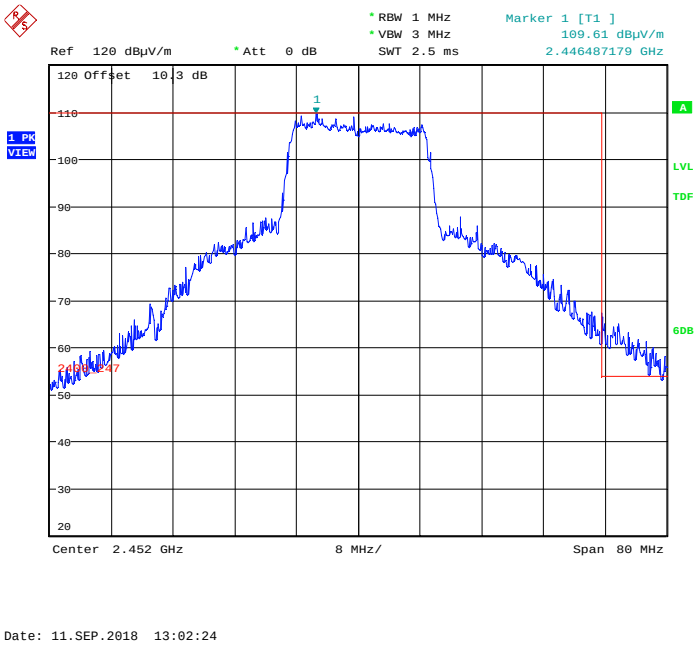
Plot 5.4.4.1.6.61. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS2, Power Setting 26, Channel 9, 2452 MHz



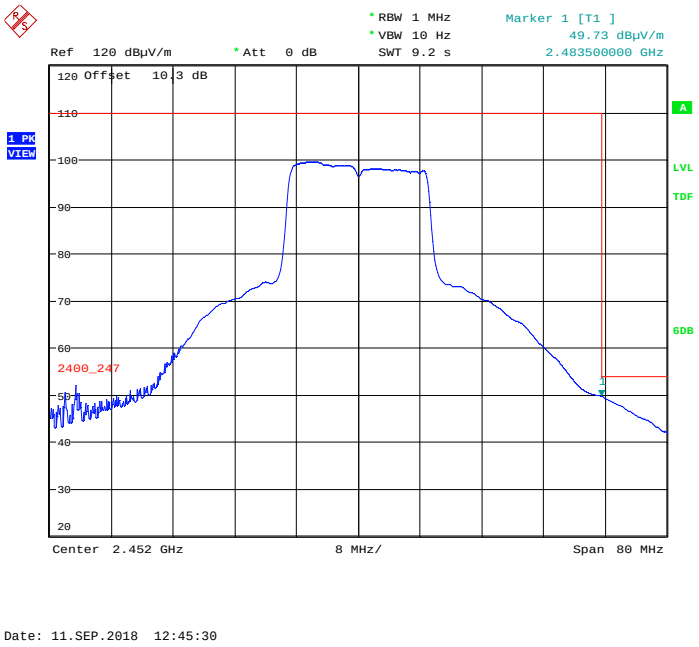
Plot 5.4.4.1.6.62. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS2, Power Setting 26, Channel 9, 2452 MHz



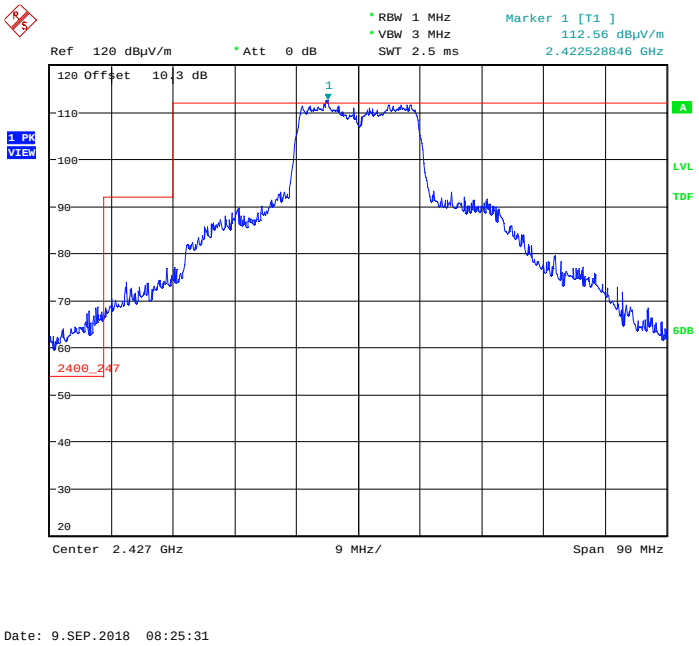
Plot 5.4.4.1.6.63. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS2, Power Setting 26, Channel 9, 2452 MHz



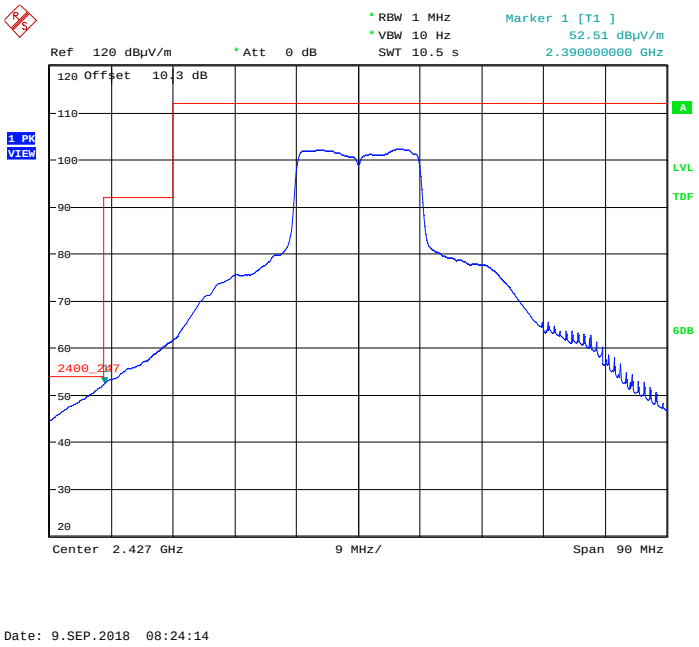
Plot 5.4.4.1.6.64. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS2, Power Setting 26, Channel 9, 2452 MHz



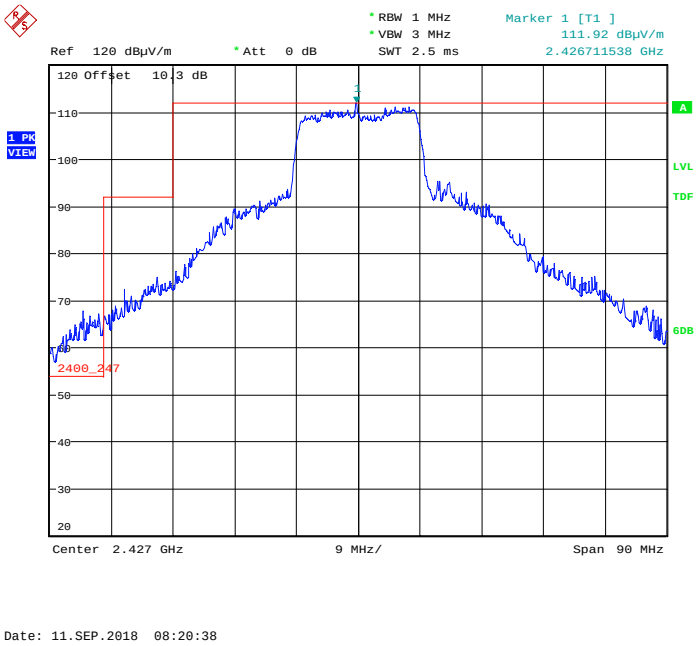
Plot 5.4.4.1.6.65. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS2, Power Setting 29, Channel 4, 2427 MHz



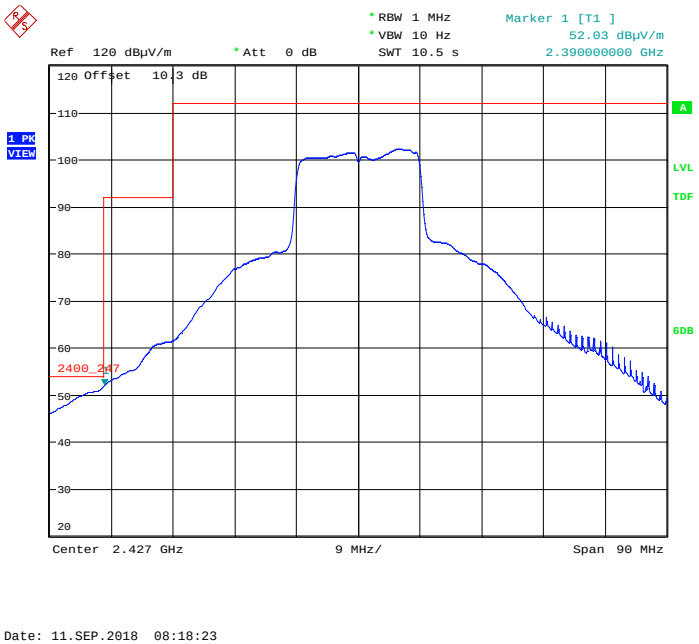
Plot 5.4.4.1.6.66. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS2, Power Setting 29, Channel 4, 2427 MHz



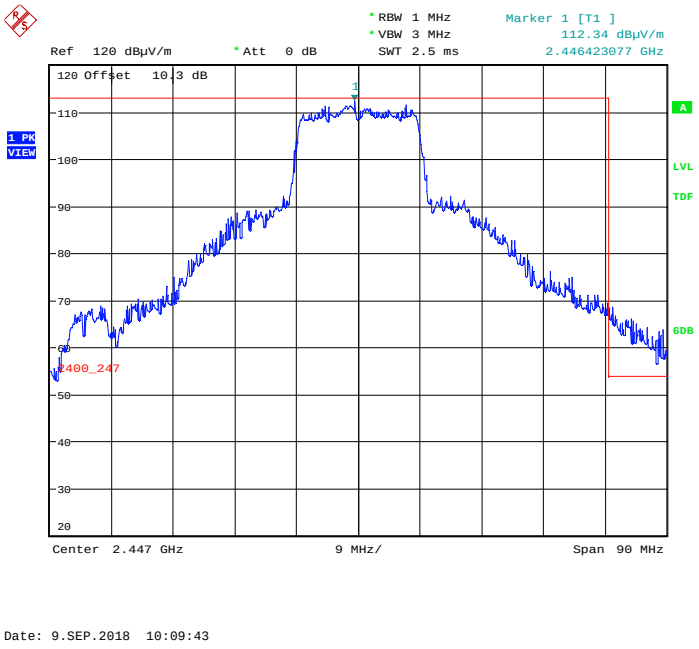
Plot 5.4.4.1.6.67. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS2, Power Setting 29, Channel 4, 2427 MHz



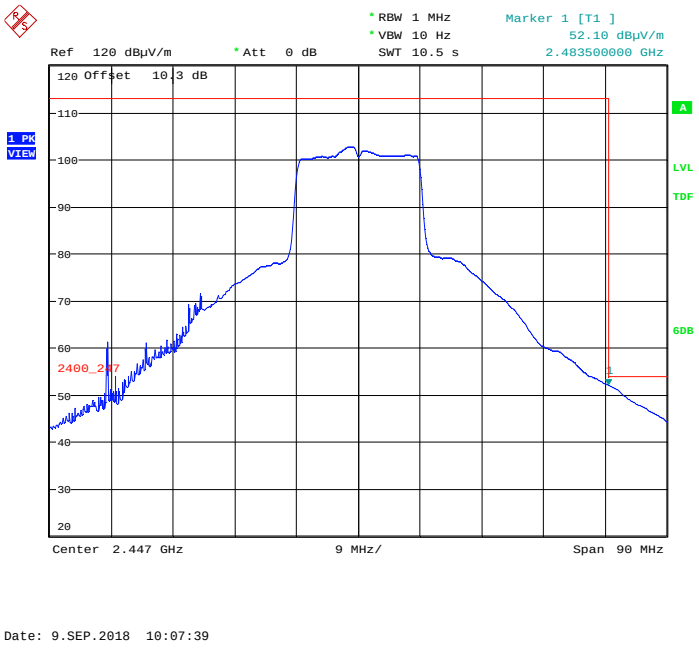
Plot 5.4.4.1.6.68. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS2, Power Setting 29, Channel 4, 2427 MHz



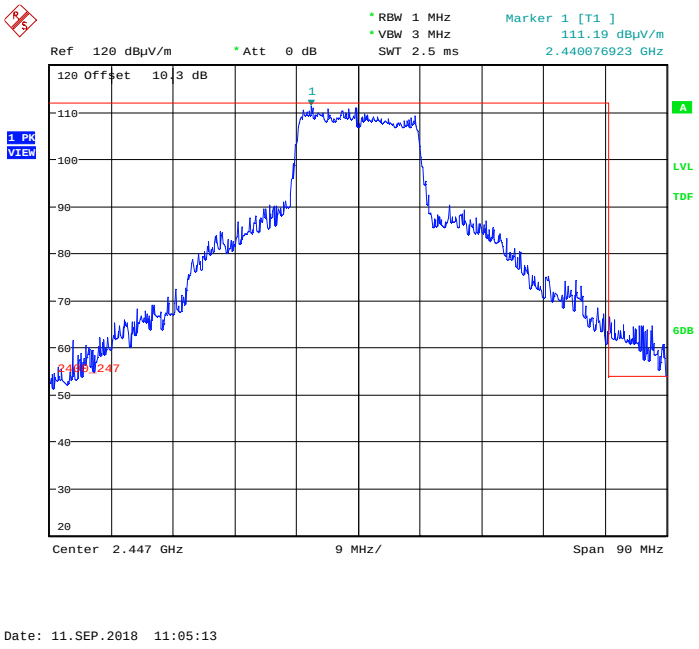
Plot 5.4.4.1.6.69. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS2, Power Setting 28, Channel 8, 2447 MHz



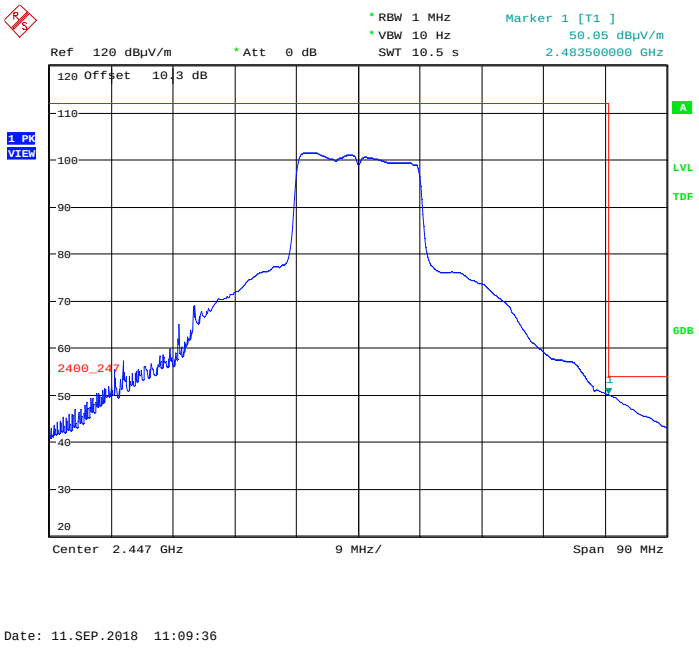
Plot 5.4.4.1.6.70. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS2, Power Setting 28, Channel 8, 2447 MHz



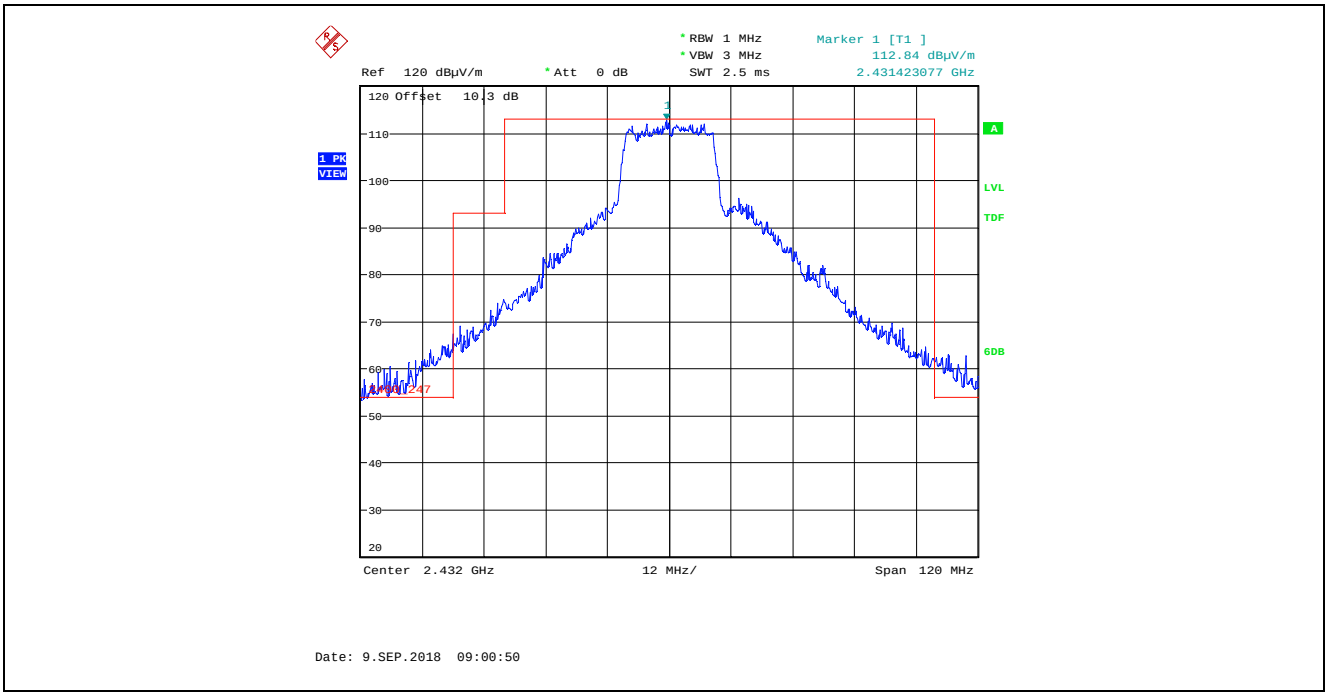
Plot 5.4.4.1.6.71. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS2, Power Setting 28, Channel 8, 2447 MHz



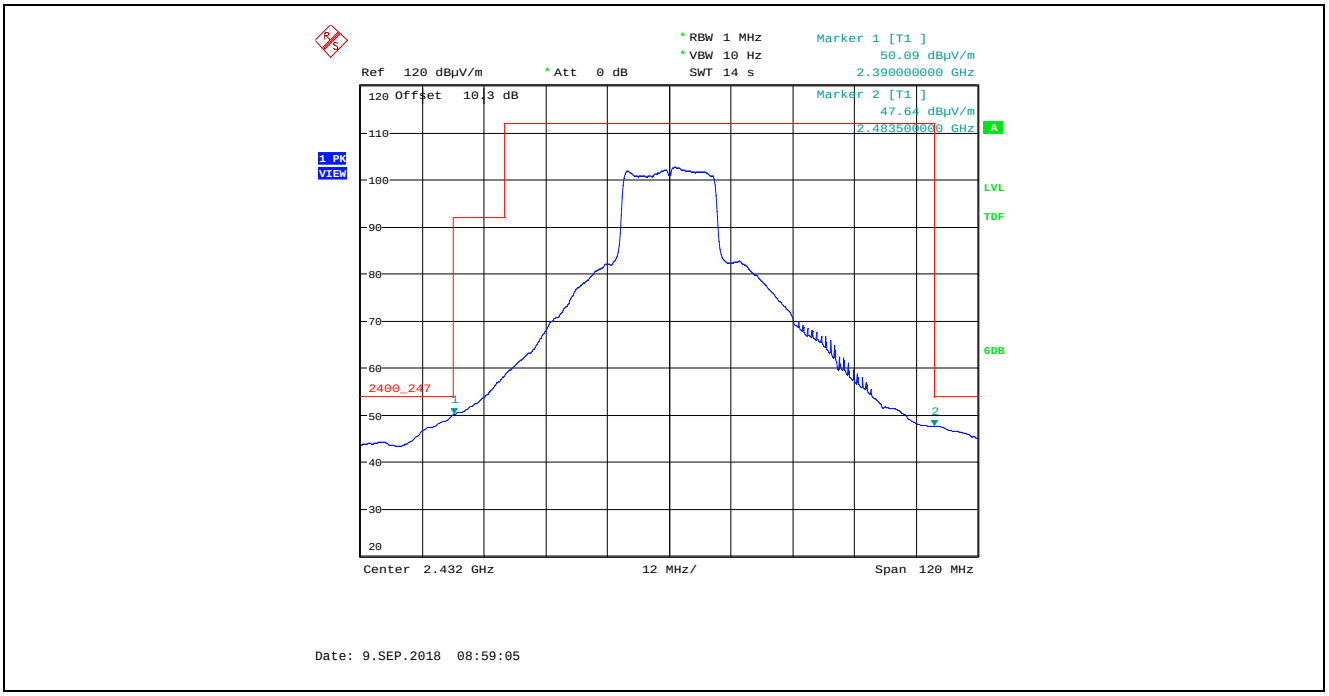
Plot 5.4.4.1.6.72. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS2, Power Setting 28, Channel 8, 2447 MHz



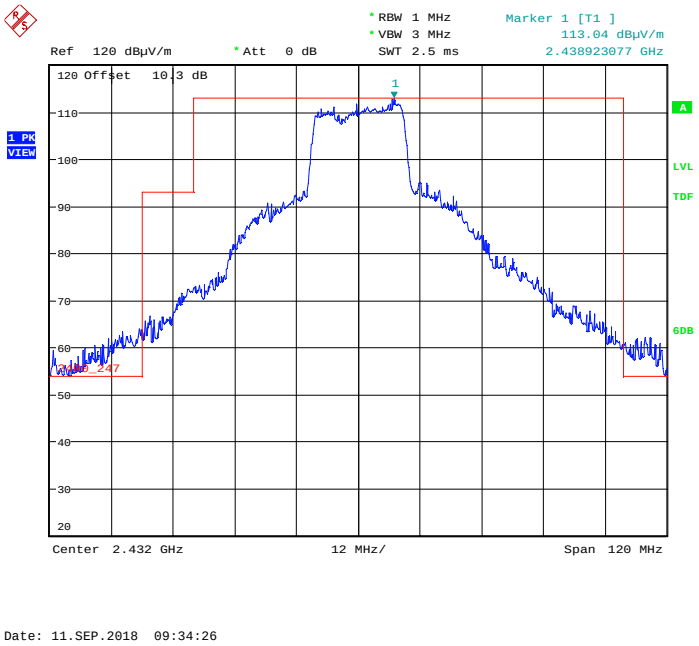
Plot 5.4.4.1.6.73. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS2, Power Setting 30, Channel 5, 2432 MHz



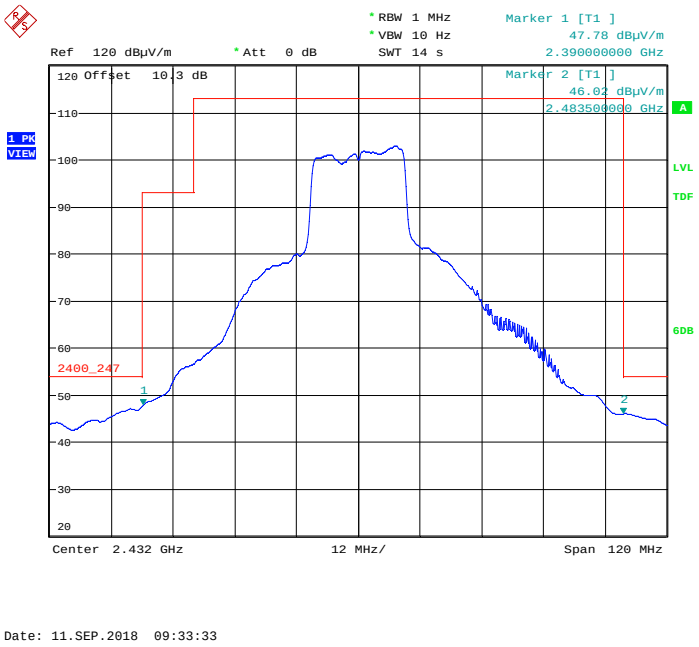
Plot 5.4.4.1.6.74. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS2, Power Setting 30, Channel 5, 2432 MHz



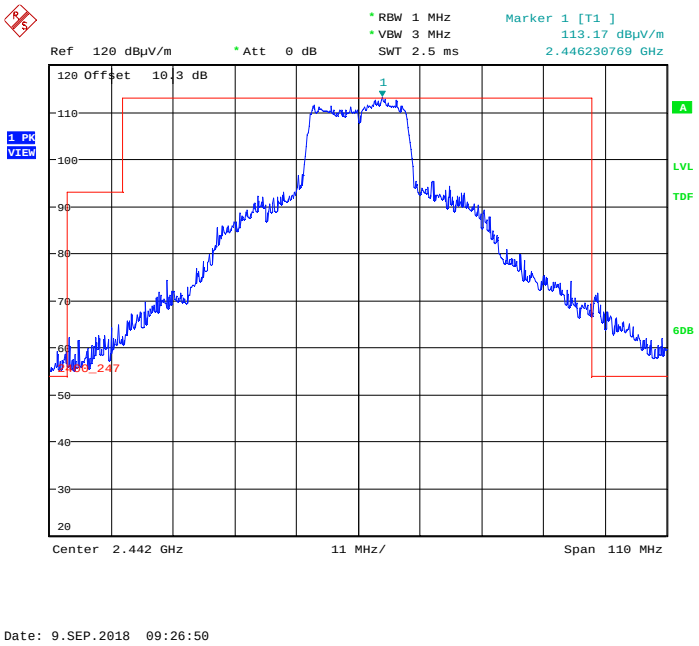
Plot 5.4.4.1.6.75. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS2, Power Setting 30, Channel 5, 2432 MHz



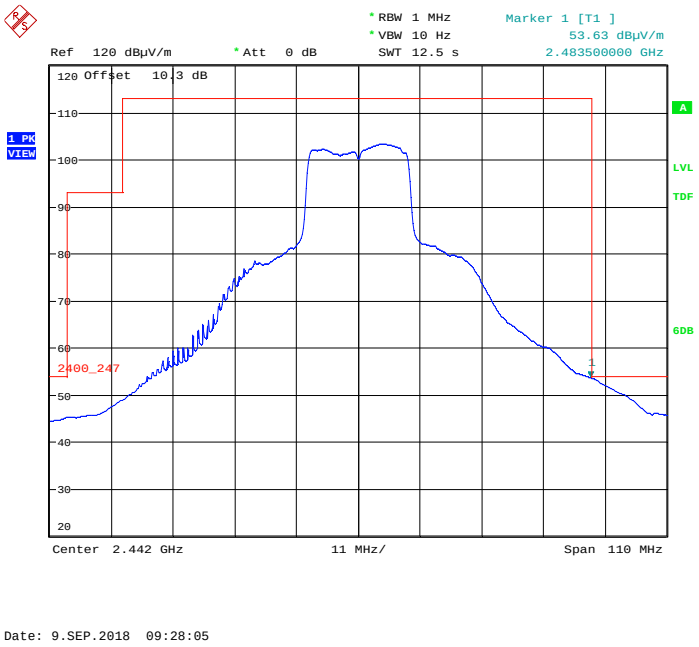
Plot 5.4.4.1.6.76. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS2, Power Setting 30, Channel 5, 2432 MHz



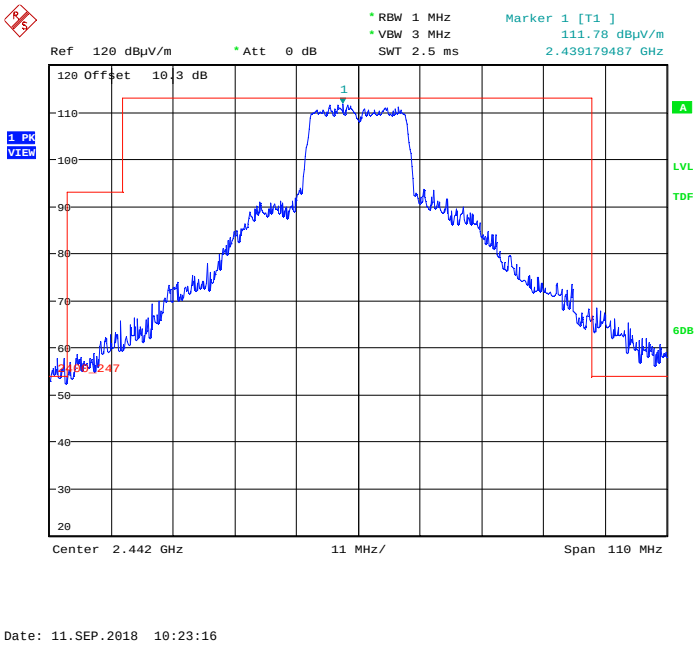
Plot 5.4.4.1.6.77. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS2, Power Setting 30, Channel 7, 2442 MHz



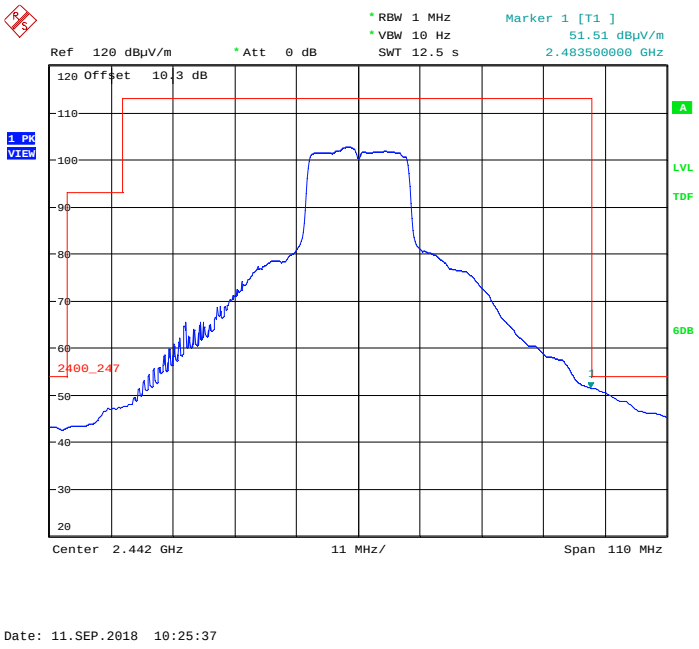
Plot 5.4.4.1.6.78. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS2, Power Setting 30, Channel 7, 2442 MHz



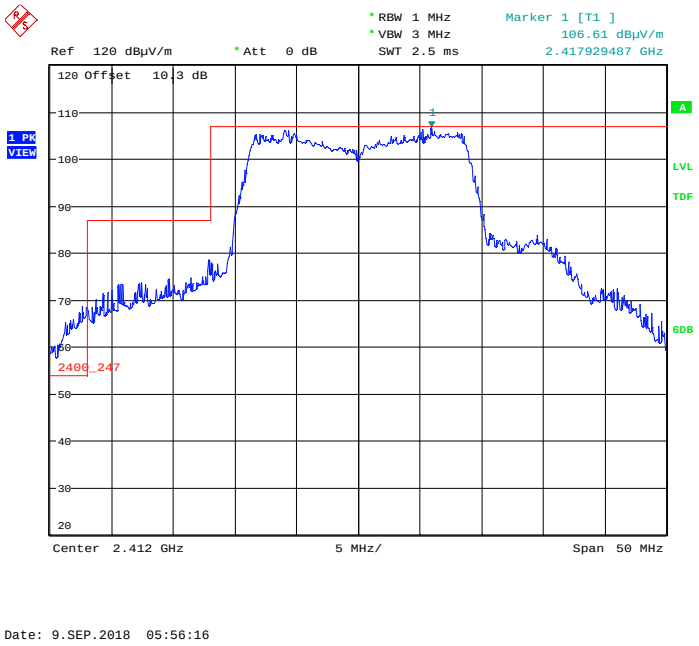
Plot 5.4.4.1.6.79. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS2, Power Setting 30, Channel 7, 2442 MHz



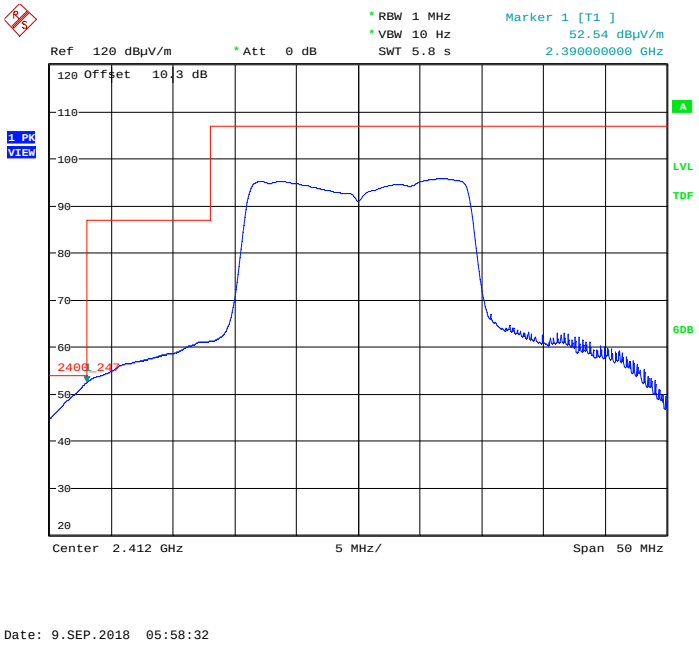
Plot 5.4.4.1.6.80. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS2, Power Setting 30, Channel 7, 2442 MHz



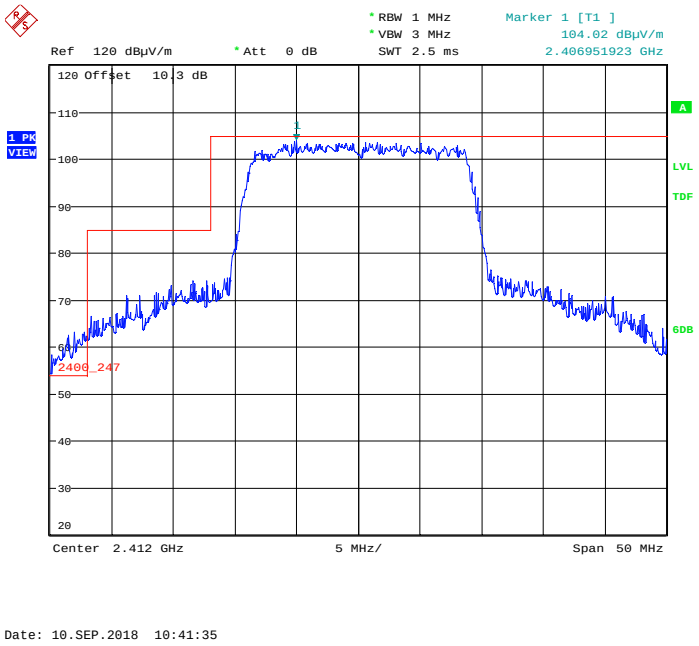
Plot 5.4.4.1.6.81. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS4, Power Setting 19, Channel 1, 2412 MHz



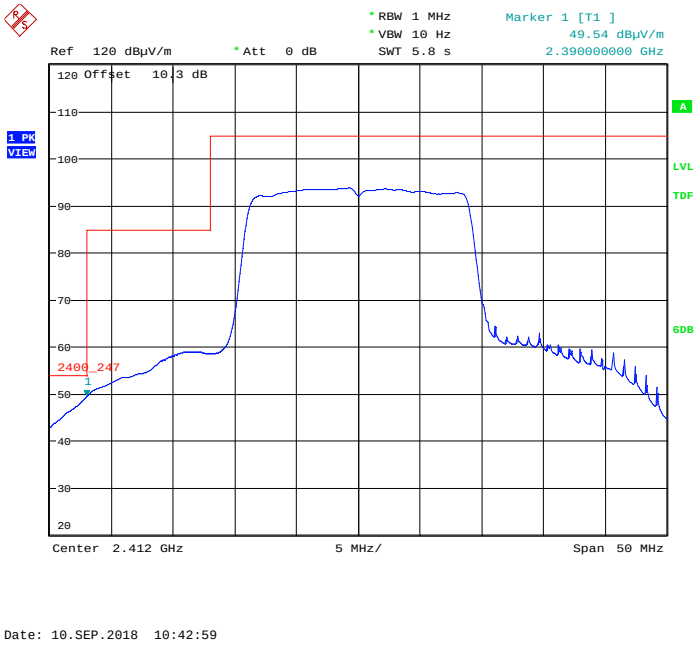
Plot 5.4.4.1.6.82. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS4, Power Setting 19, Channel 1, 2412 MHz



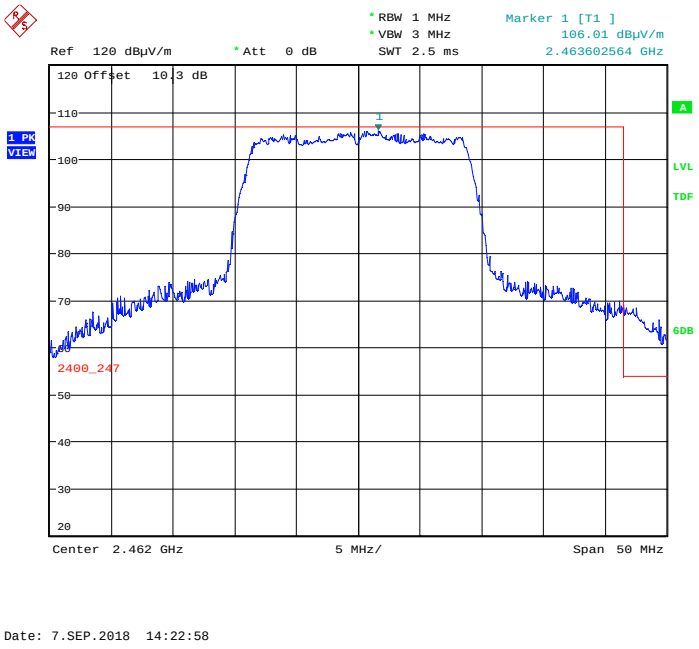
Plot 5.4.4.1.6.83. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS4, Power Setting 19, Channel 1, 2412 MHz



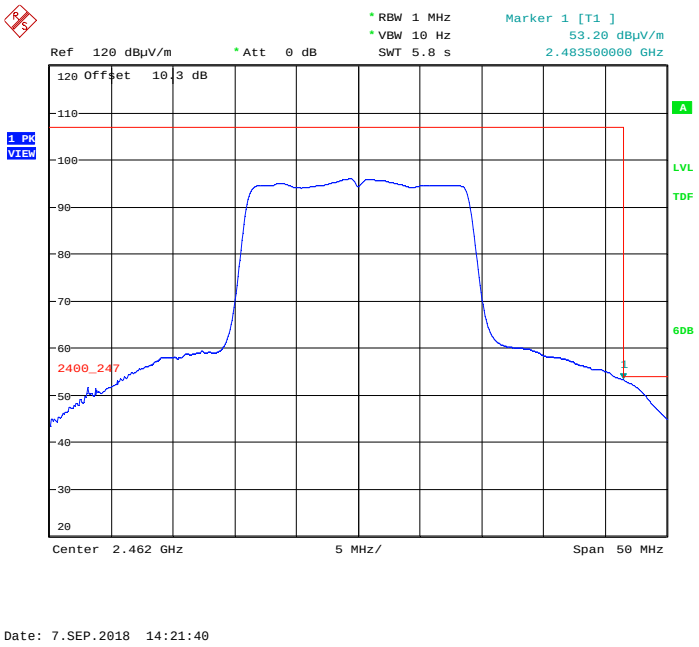
Plot 5.4.4.1.6.84. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS4, Power Setting 19, Channel 1, 2412 MHz



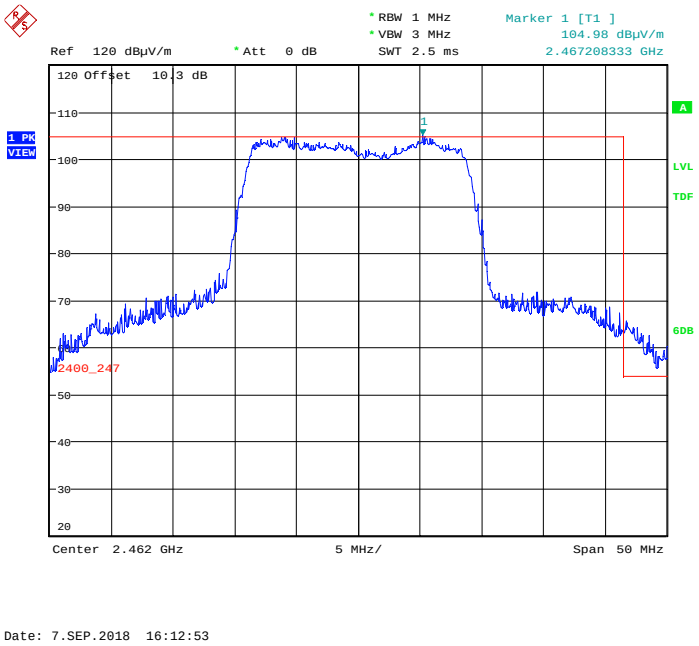
Plot 5.4.4.1.6.85. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS4, Power Setting 20, Channel 11, 2462 MHz



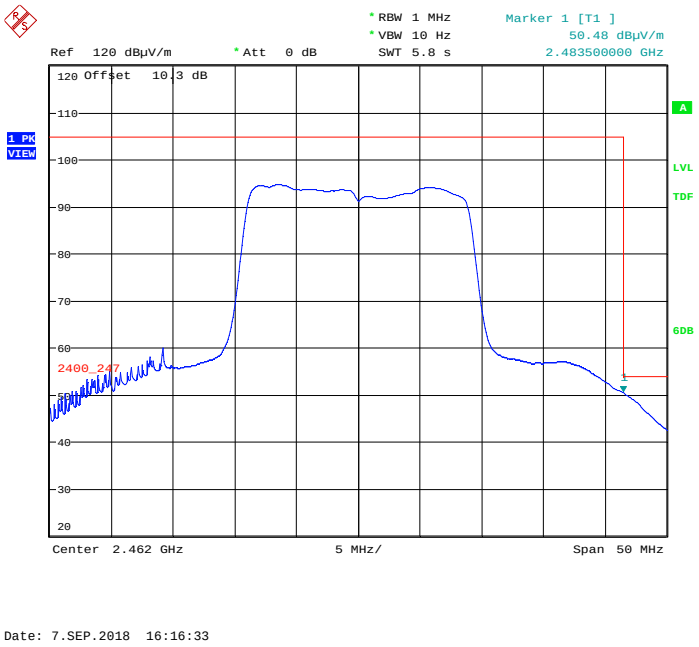
Plot 5.4.4.1.6.86. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS4, Power Setting 20, Channel 11, 2462 MHz



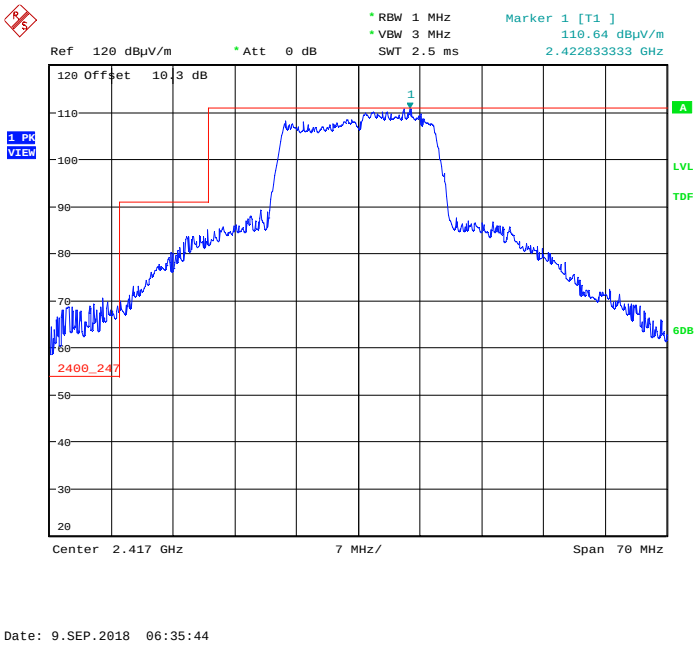
Plot 5.4.4.1.6.87. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS4, Power Setting 20, Channel 11, 2462 MHz



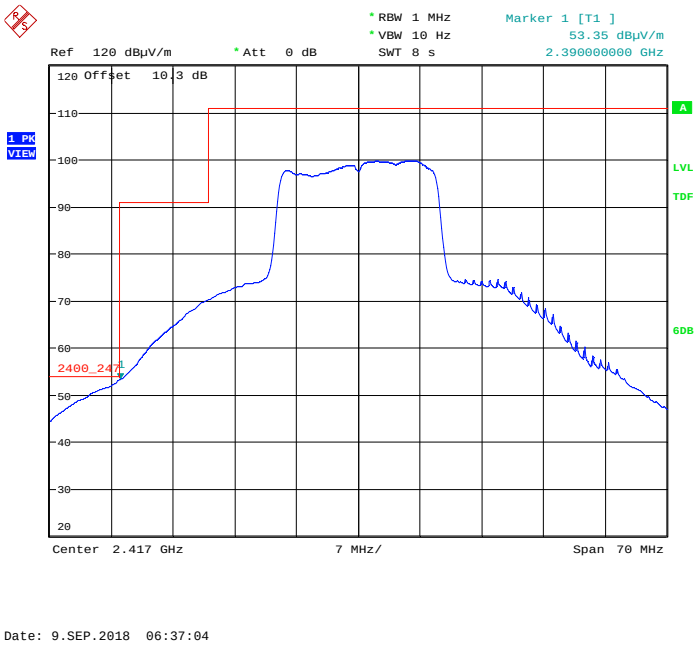
Plot 5.4.4.1.6.88. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS4, Power Setting 20, Channel 11, 2462 MHz



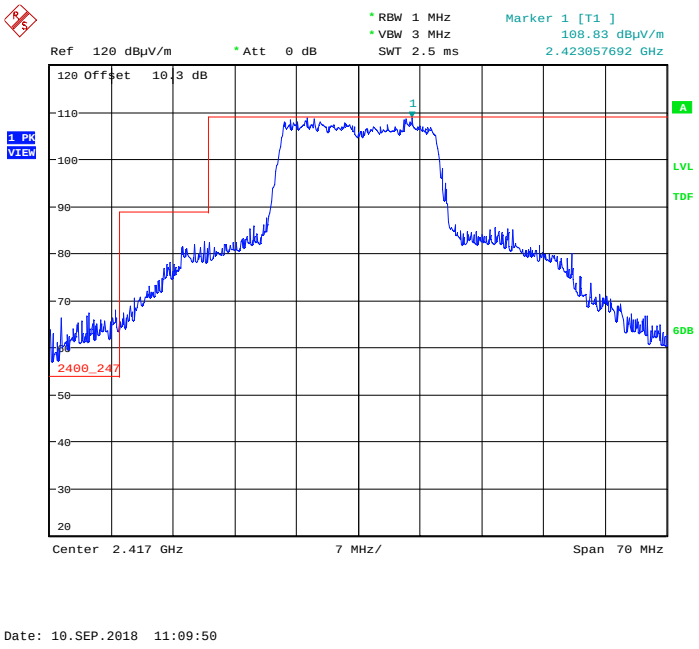
Plot 5.4.4.1.6.89. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS4, Power Setting 25, Channel 2, 2417 MHz



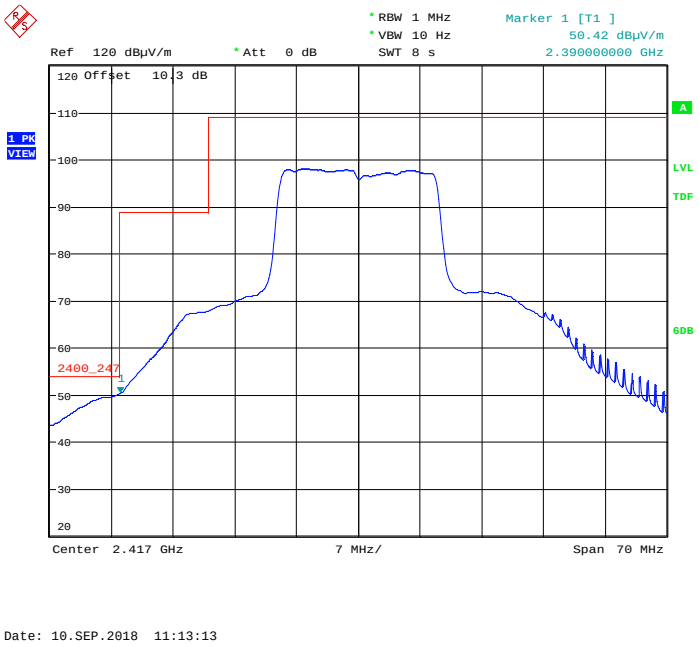
Plot 5.4.4.1.6.90. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS4, Power Setting 25, Channel 2, 2417 MHz



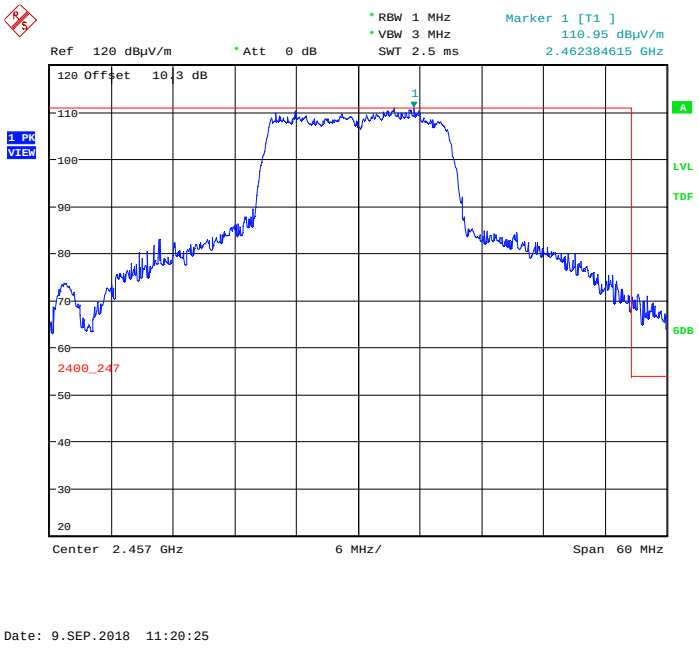
Plot 5.4.4.1.6.91. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS4, Power Setting 25, Channel 2, 2417 MHz



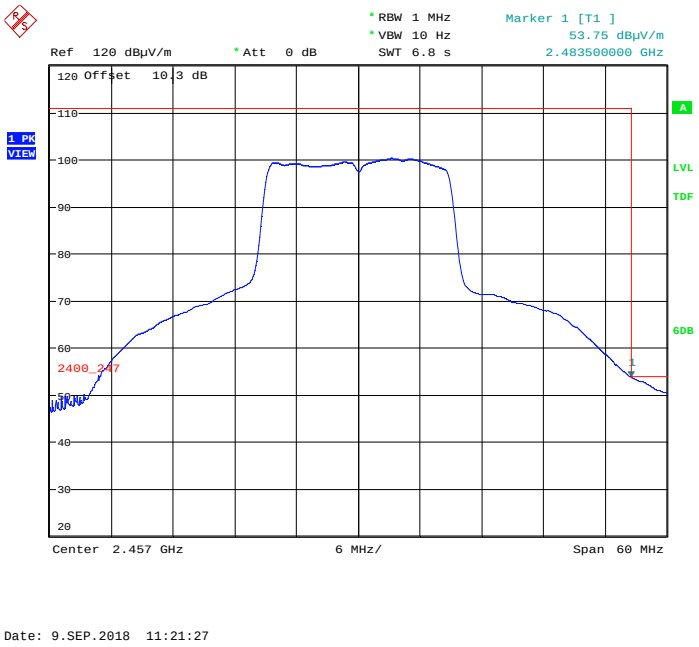
Plot 5.4.4.1.6.92. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS4, Power Setting 25, Channel 2, 2417 MHz



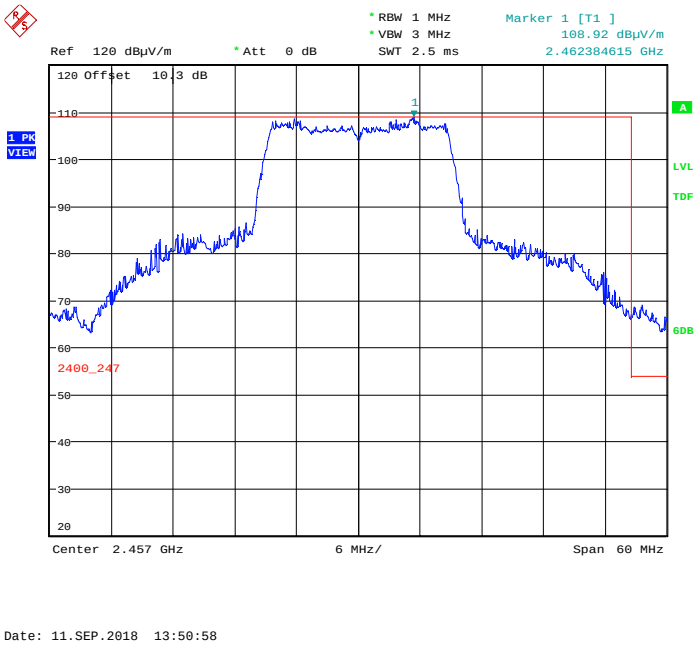
Plot 5.4.4.1.6.93. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS4, Power Setting 25, Channel 10, 2457 MHz



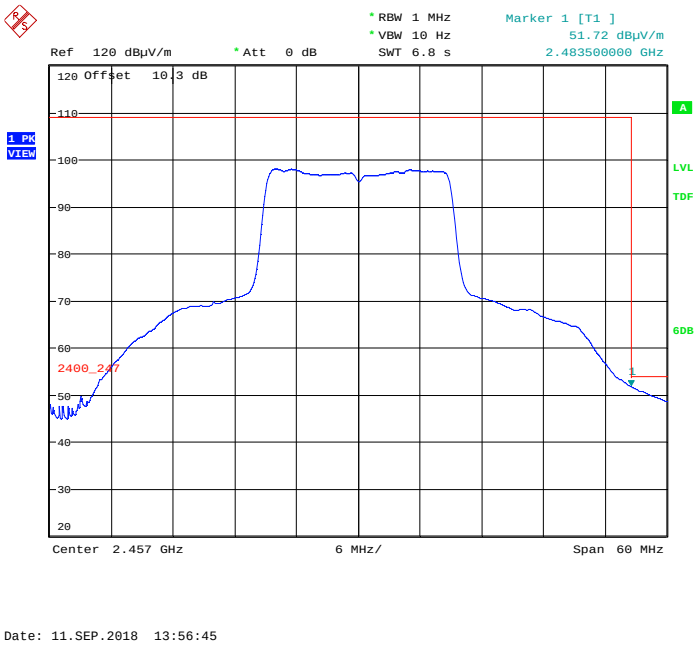
Plot 5.4.4.1.6.94. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS4, Power Setting 25, Channel 10, 2457 MHz



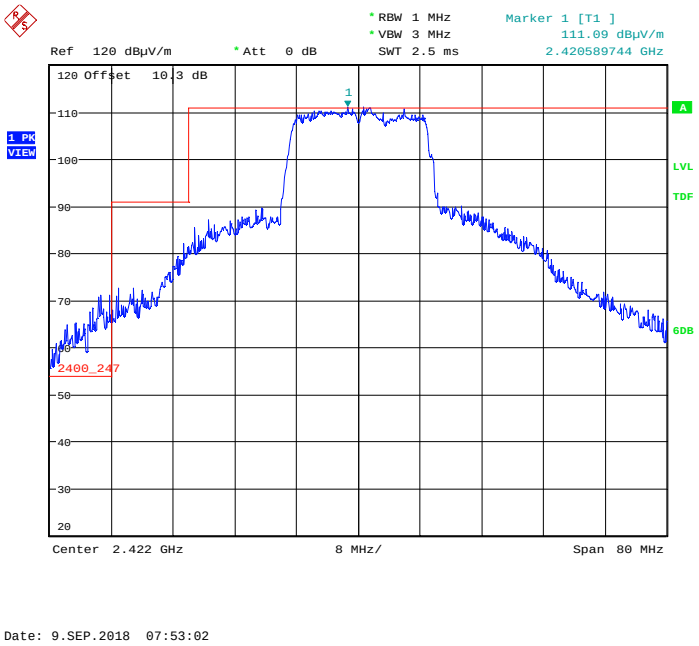
Plot 5.4.4.1.6.95. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS4, Power Setting 25, Channel 10, 2457 MHz



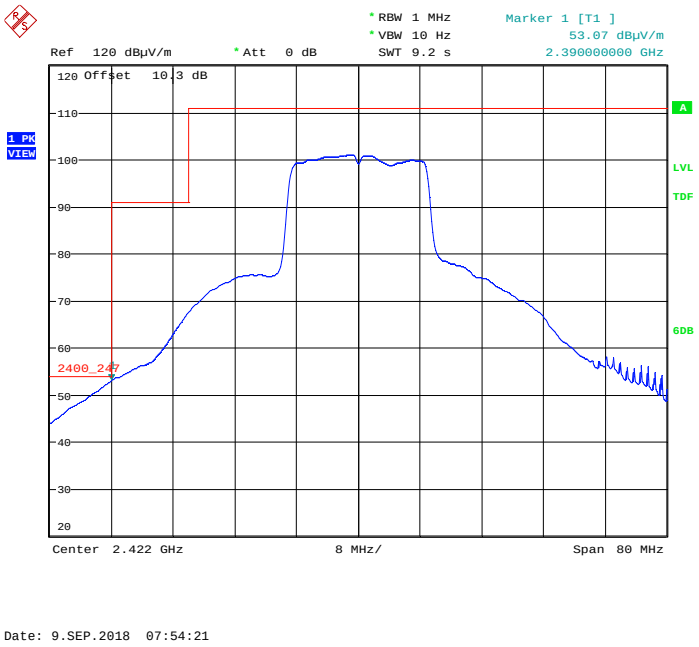
Plot 5.4.4.1.6.96. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS4, Power Setting 25, Channel 10, 2457 MHz



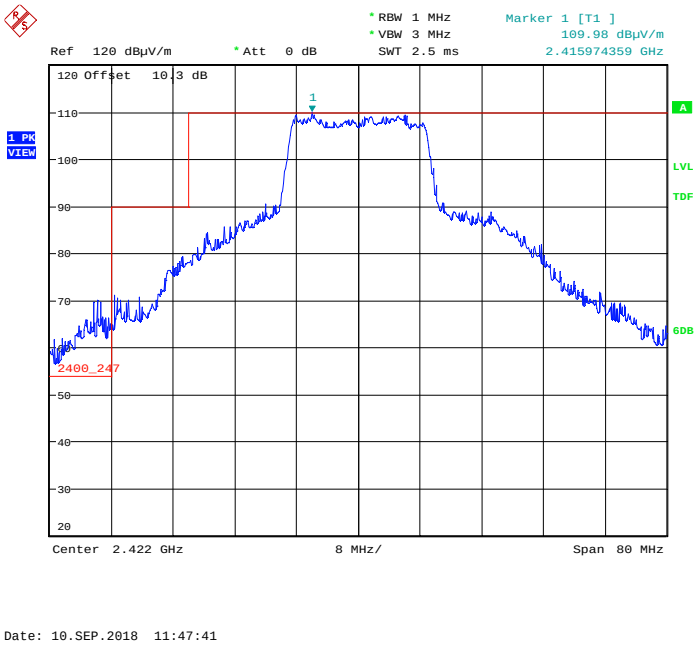
Plot 5.4.4.1.6.97. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS4, Power Setting 27, Channel 3, 2422 MHz



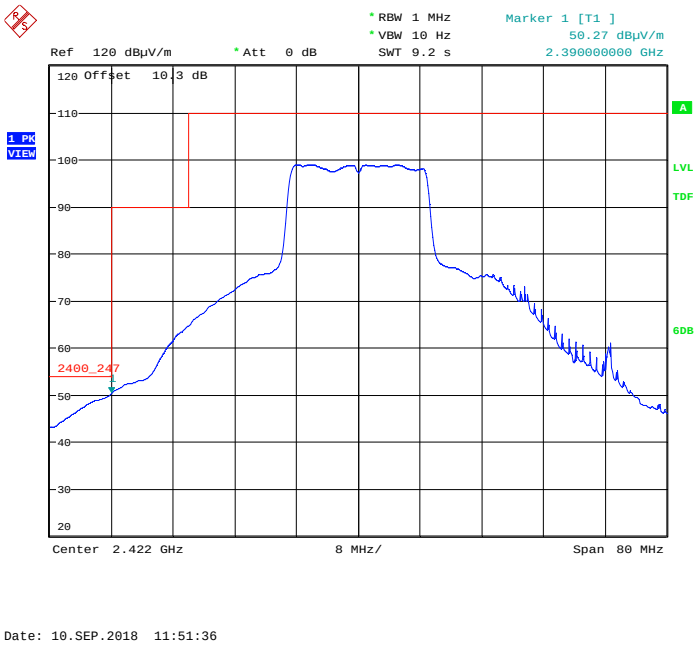
Plot 5.4.4.1.6.98. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS4, Power Setting 27, Channel 3, 2422 MHz



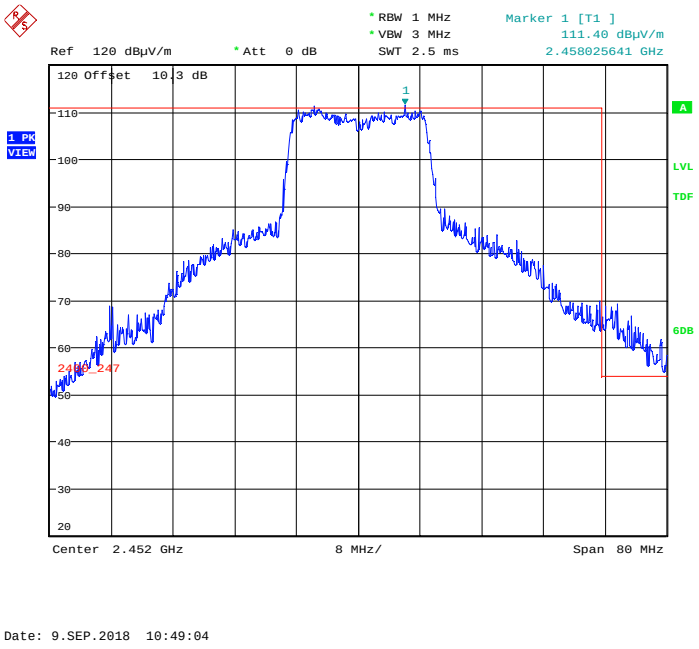
Plot 5.4.4.1.6.99. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS4, Power Setting 27, Channel 3, 2422 MHz



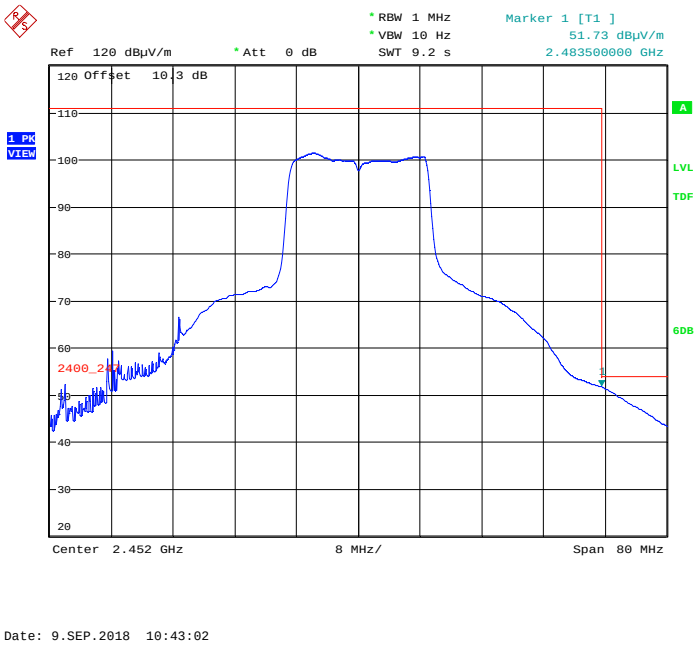
Plot 5.4.4.1.6.100. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS4, Power Setting 27, Channel 3, 2422 MHz



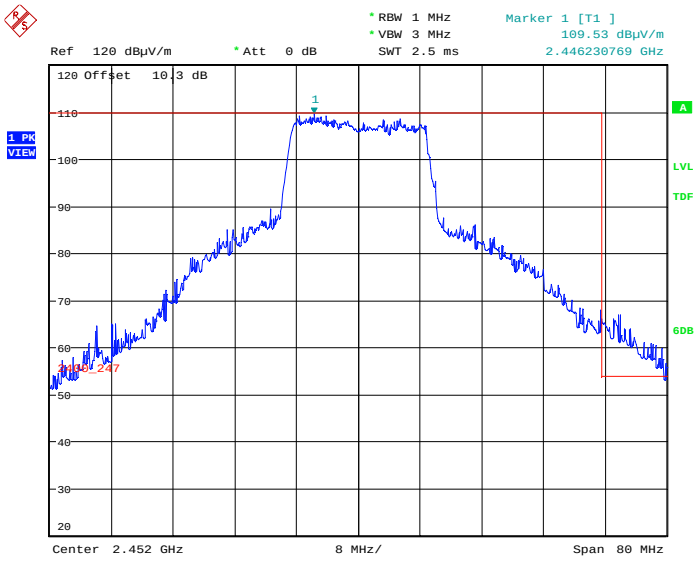
Plot 5.4.4.1.6.101. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS4, Power Setting 26, Channel 9, 2452 MHz



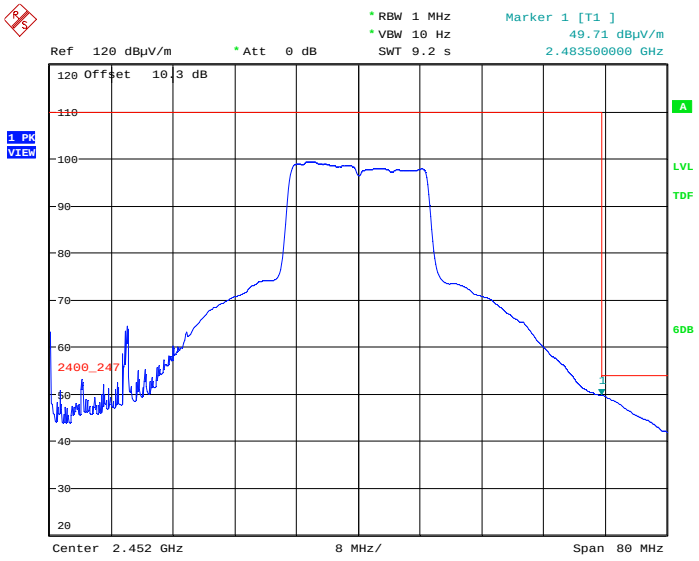
Plot 5.4.4.1.6.102. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS4, Power Setting 26, Channel 9, 2452 MHz



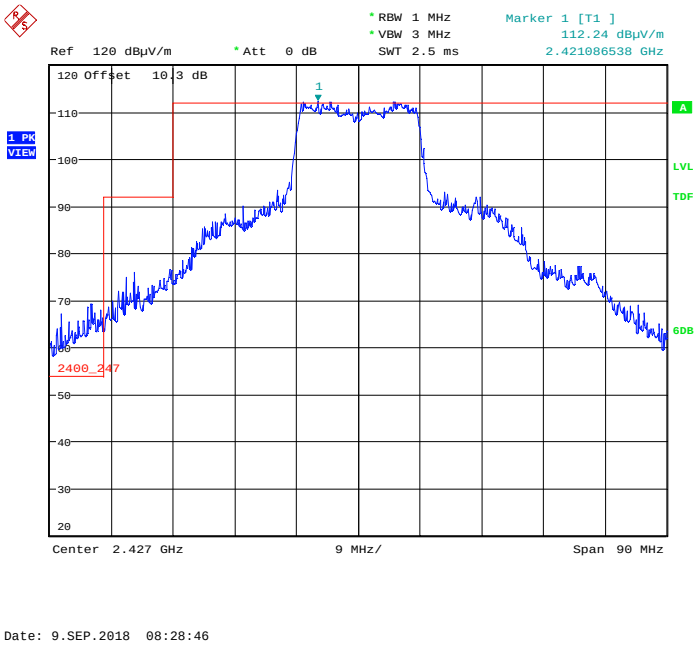
Plot 5.4.4.1.6.103. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS4, Power Setting 26, Channel 9, 2452 MHz



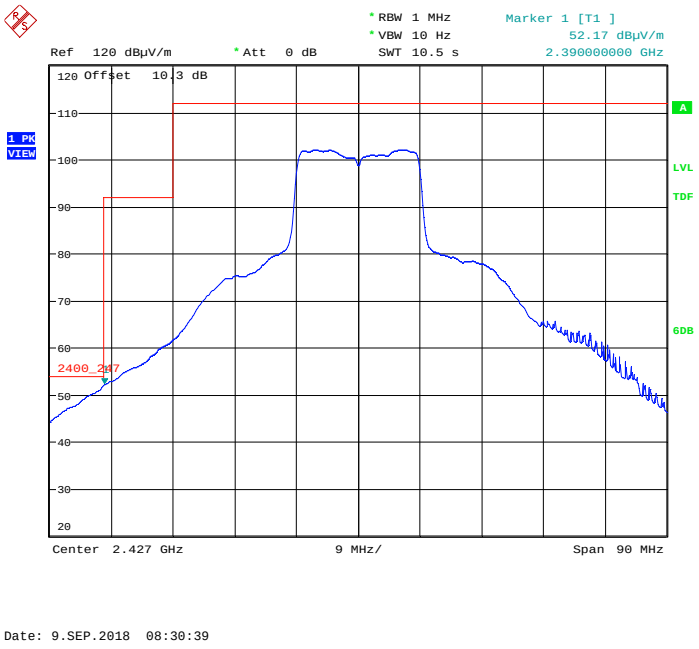
Plot 5.4.4.1.6.104. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS4, Power Setting 26, Channel 9, 2452 MHz



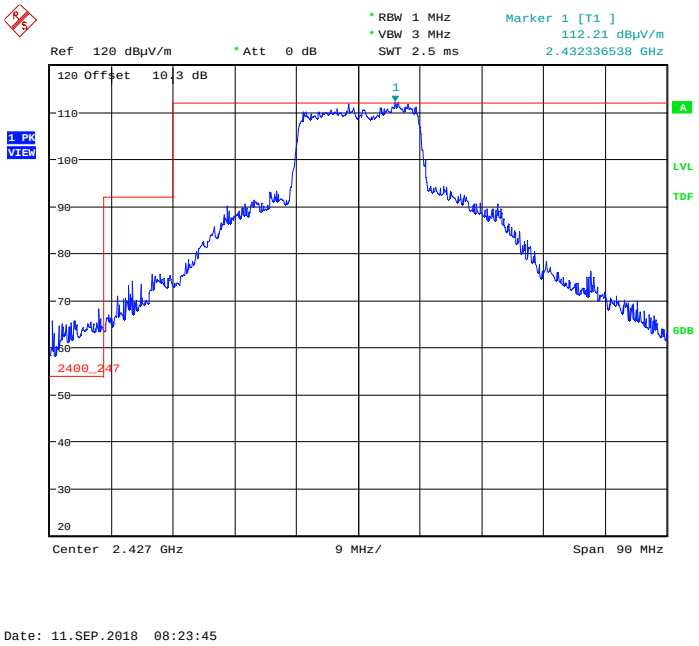
Plot 5.4.4.1.6.105. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS4, Power Setting 29, Channel 4, 2427 MHz



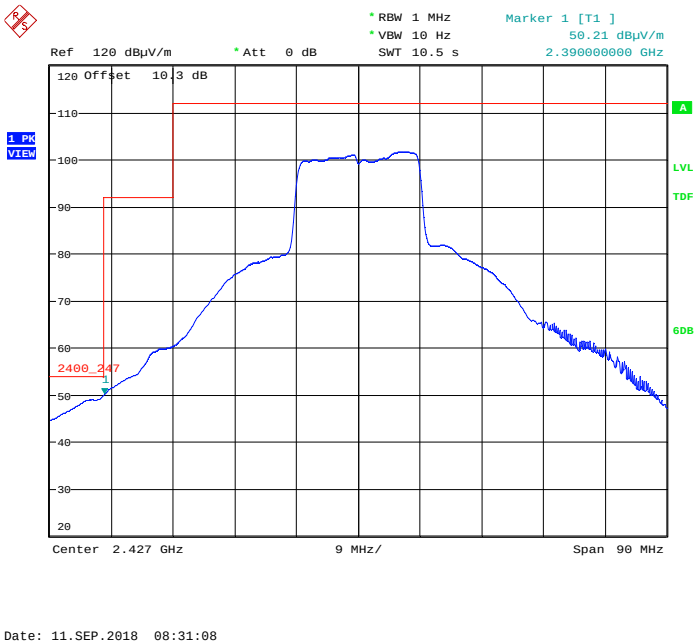
Plot 5.4.4.1.6.106. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS4, Power Setting 29, Channel 4, 2427 MHz



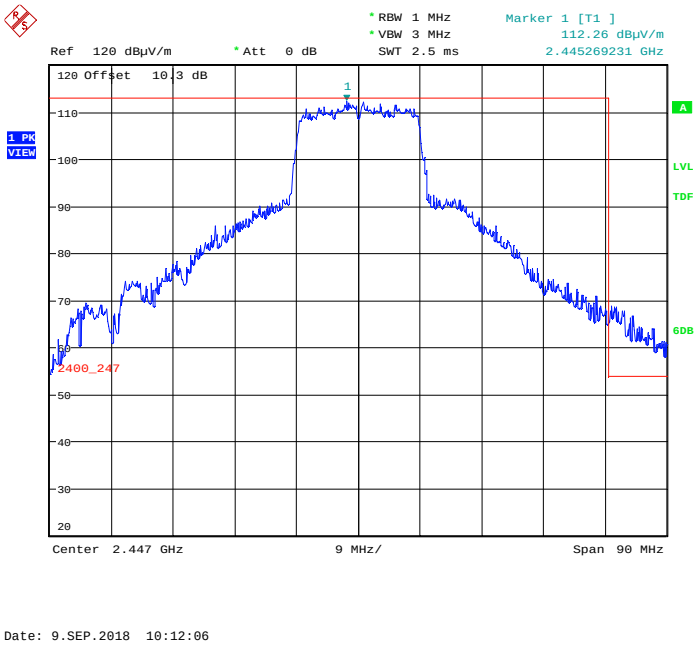
Plot 5.4.4.1.6.107. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS4, Power Setting 29, Channel 4, 2427 MHz



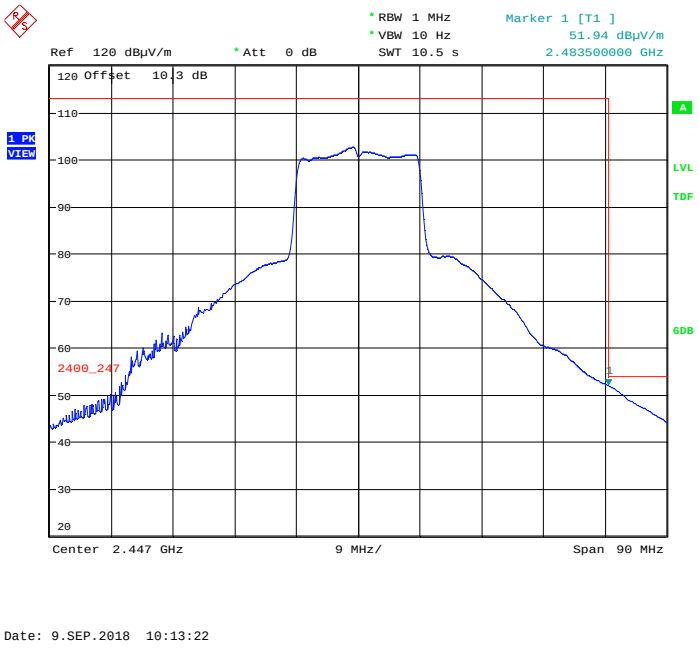
Plot 5.4.4.1.6.108. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS4, Power Setting 29, Channel 4, 2427 MHz



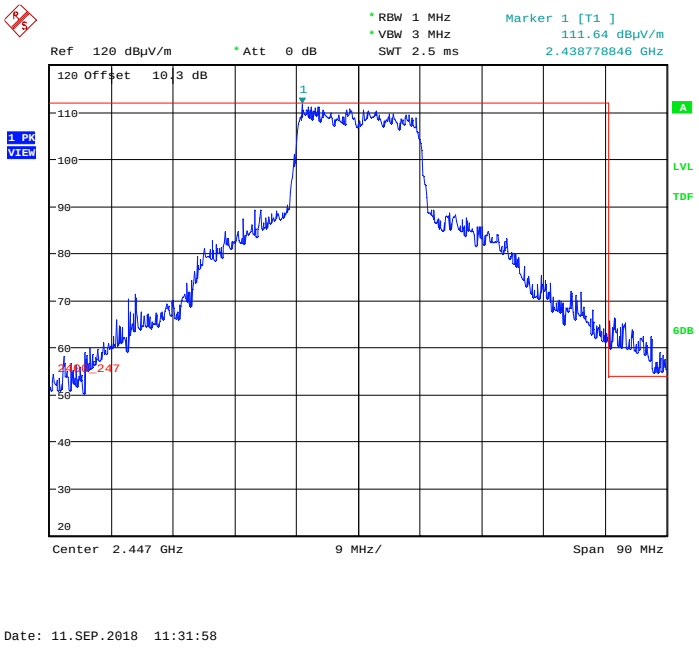
Plot 5.4.4.1.6.109. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS4, Power Setting 28, Channel 8, 2447 MHz



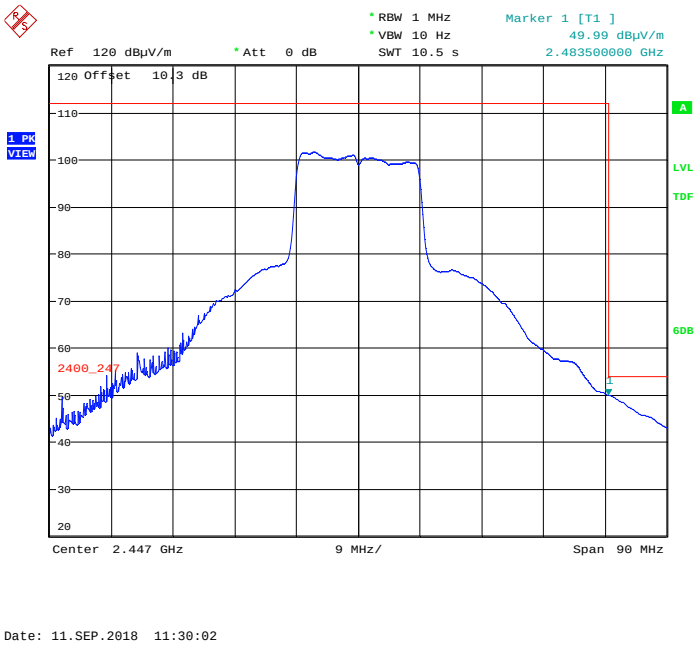
Plot 5.4.4.1.6.110. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS4, Power Setting 28, Channel 8, 2447 MHz



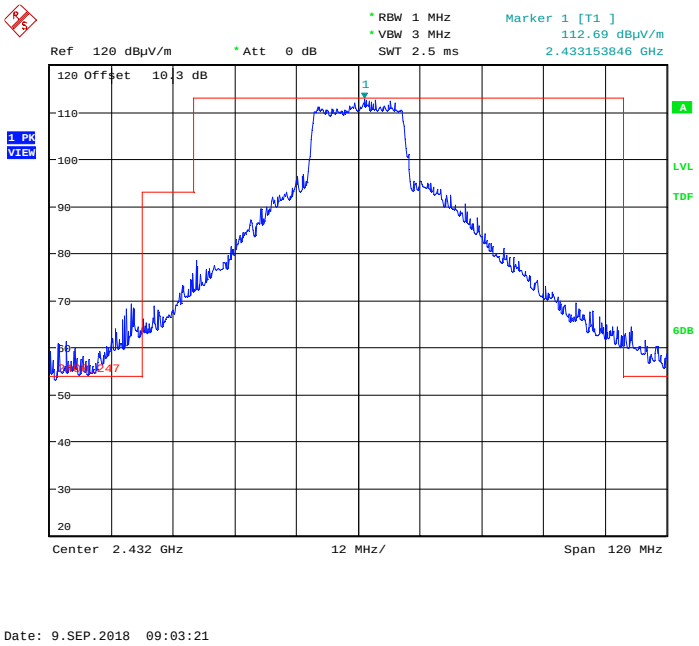
Plot 5.4.4.1.6.111. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS4, Power Setting 28, Channel 8, 2447 MHz



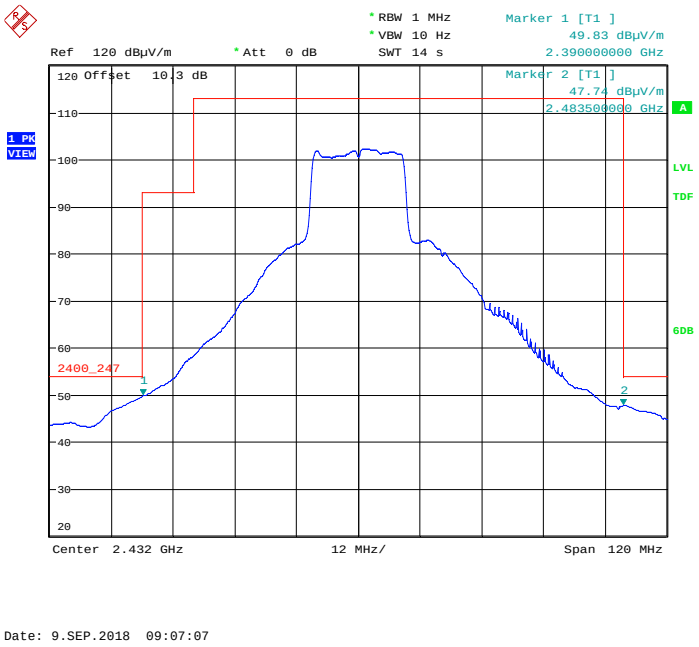
Plot 5.4.4.1.6.112. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS4, Power Setting 28, Channel 8, 2447 MHz



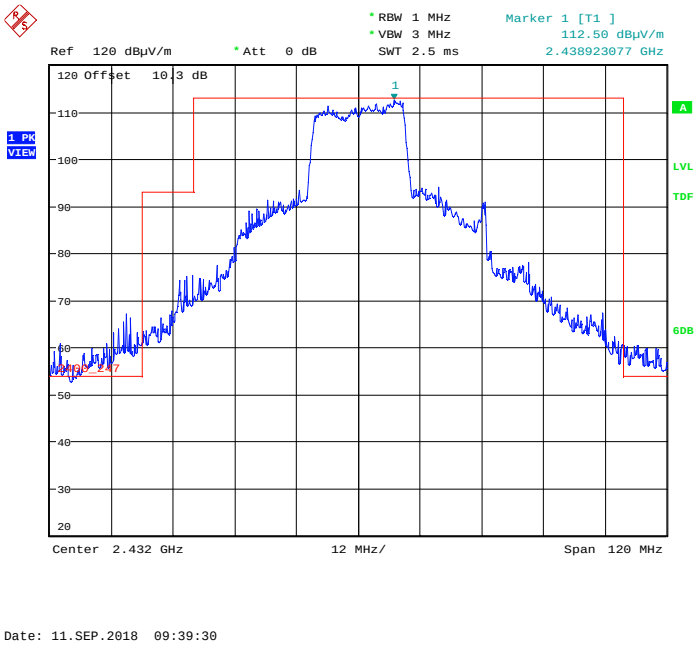
Plot 5.4.4.1.6.113. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS4, Power Setting 30, Channel 5, 2432 MHz



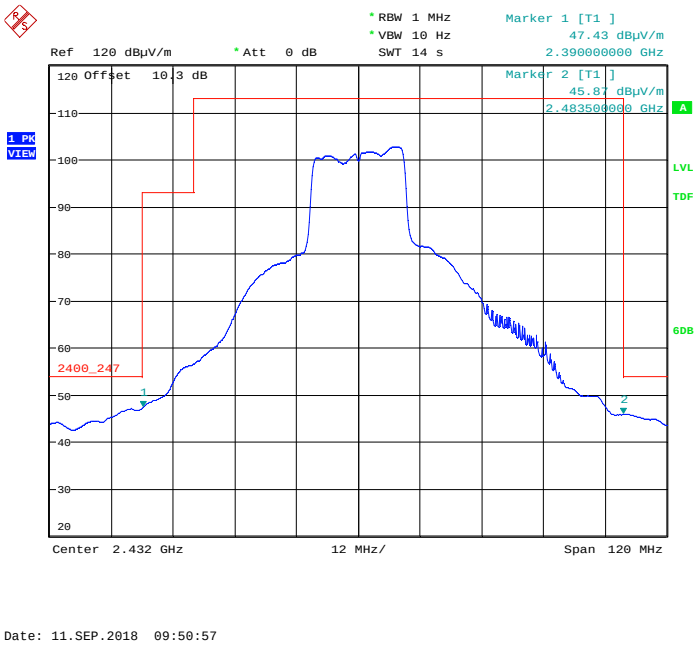
Plot 5.4.4.1.6.114. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS4, Power Setting 30, Channel 5, 2432 MHz



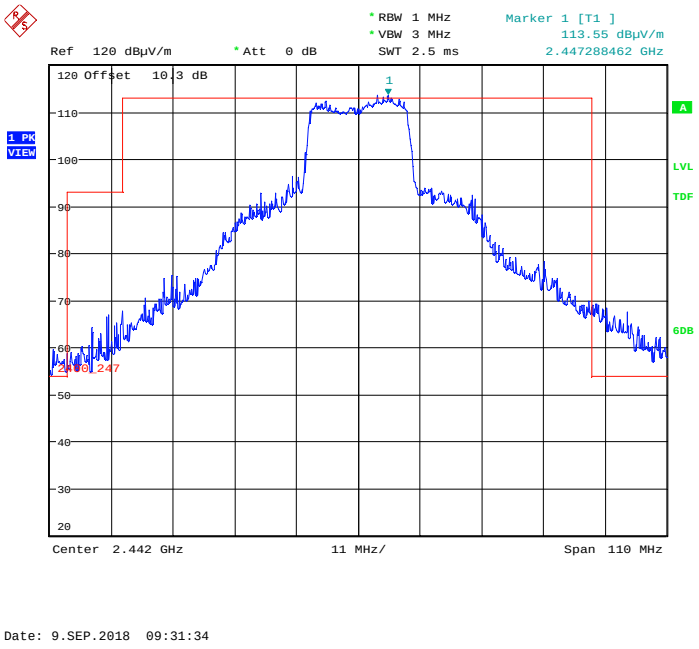
Plot 5.4.4.1.6.115. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS4, Power Setting 30, Channel 5, 2432 MHz



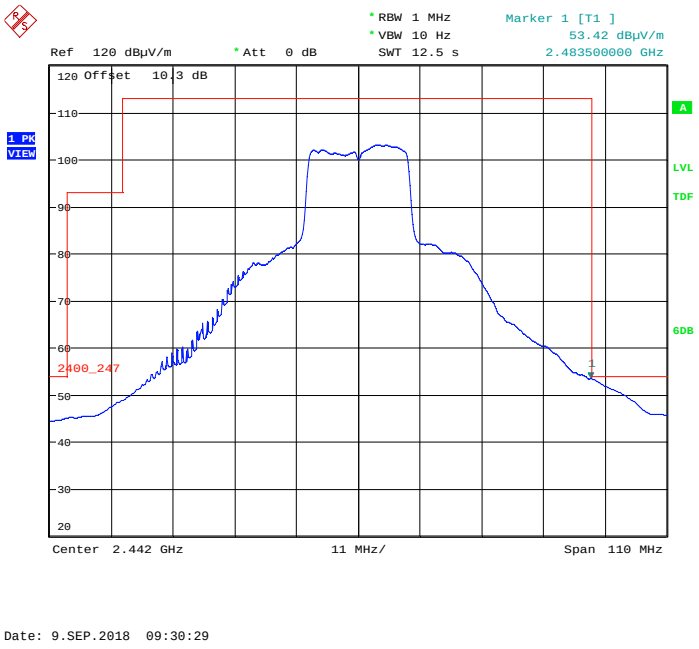
Plot 5.4.4.1.6.116. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS4, Power Setting 30, Channel 5, 2432 MHz



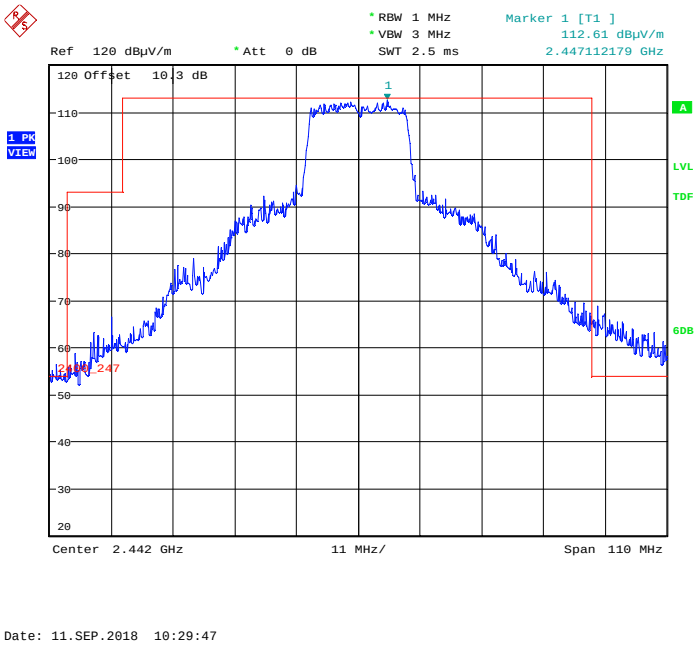
Plot 5.4.4.1.6.117. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS4, Power Setting 30, Channel 7, 2442 MHz



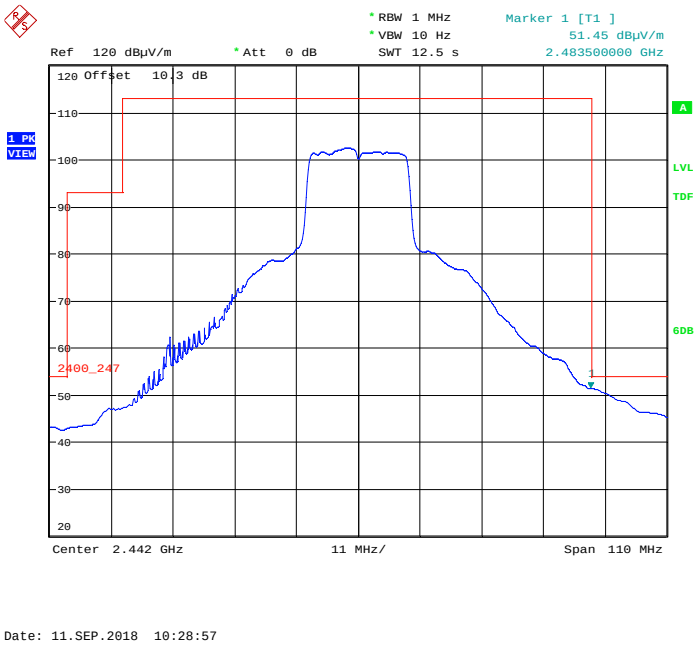
Plot 5.4.4.1.6.118. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS4, Power Setting 30, Channel 7, 2442 MHz



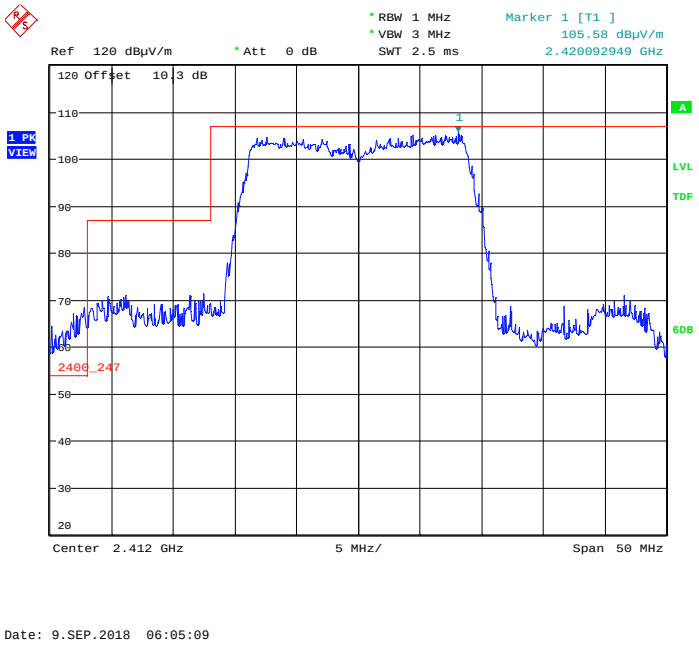
Plot 5.4.4.1.6.119. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS4, Power Setting 30, Channel 7, 2442 MHz



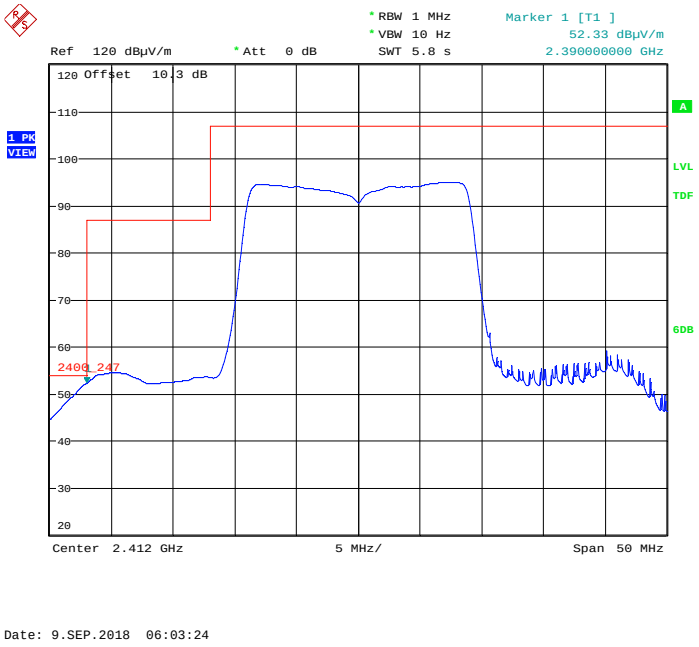
Plot 5.4.4.1.6.120. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS4, Power Setting 30, Channel 7, 2442 MHz



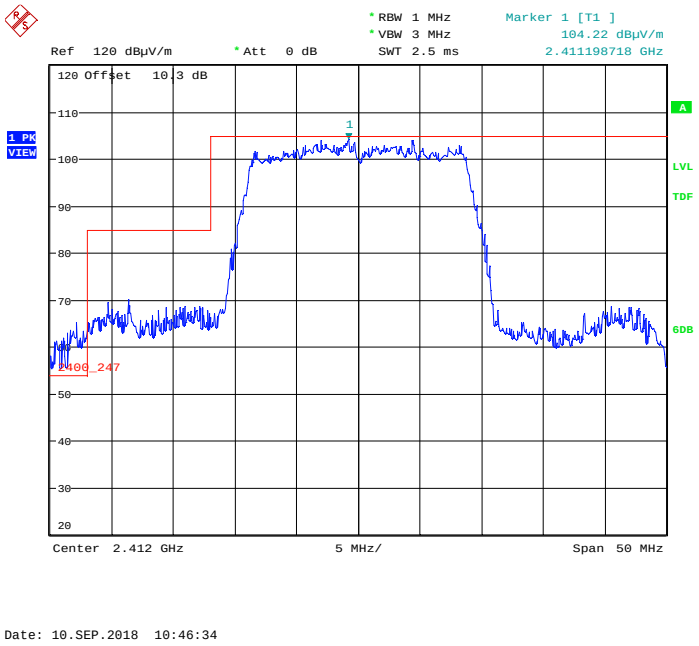
Plot 5.4.4.1.6.121. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS7, Power Setting 19, Channel 1, 2412 MHz



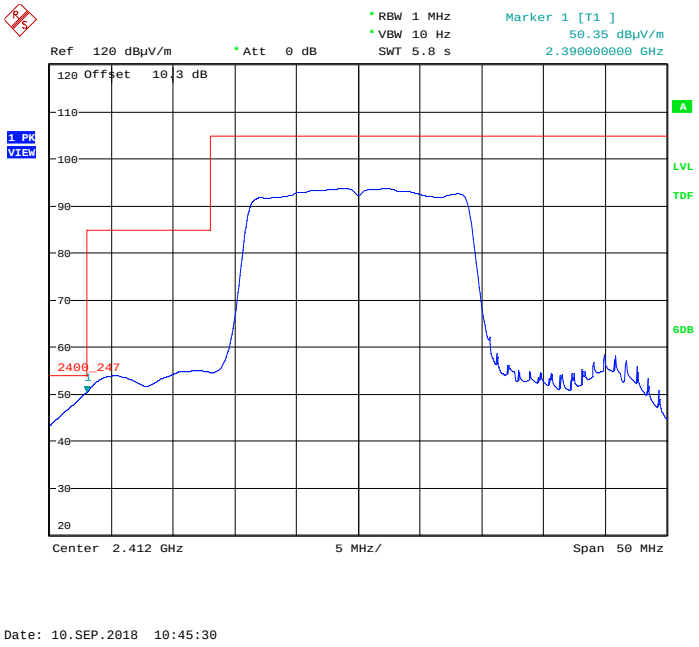
Plot 5.4.4.1.6.122. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS7, Power Setting 19, Channel 1, 2412 MHz



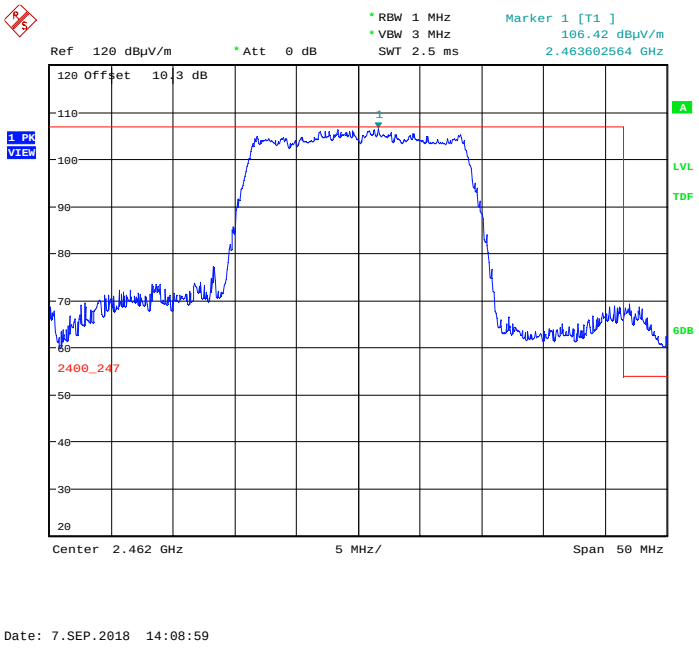
Plot 5.4.4.1.6.123. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS7, Power Setting 19, Channel 1, 2412 MHz



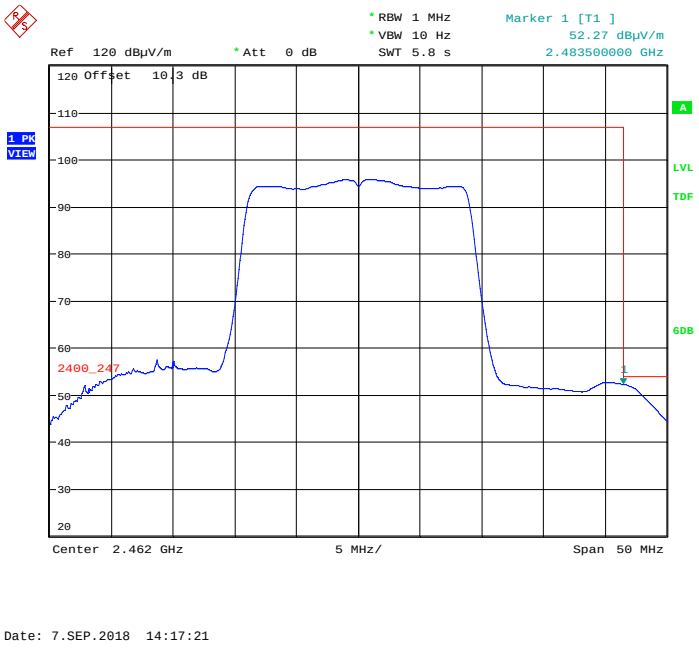
Plot 5.4.4.1.6.124. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS7, Power Setting 19, Channel 1, 2412 MHz



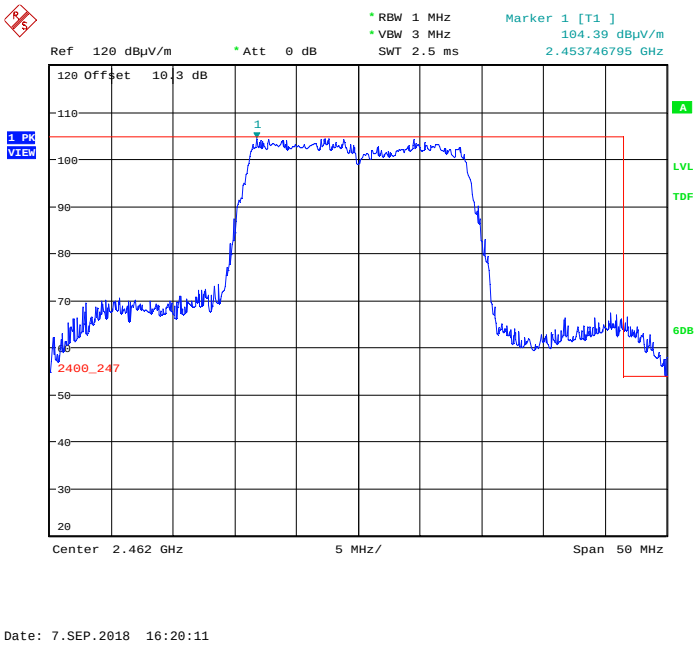
Plot 5.4.4.1.6.125. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS7, Power Setting 20, Channel 11, 2462 MHz



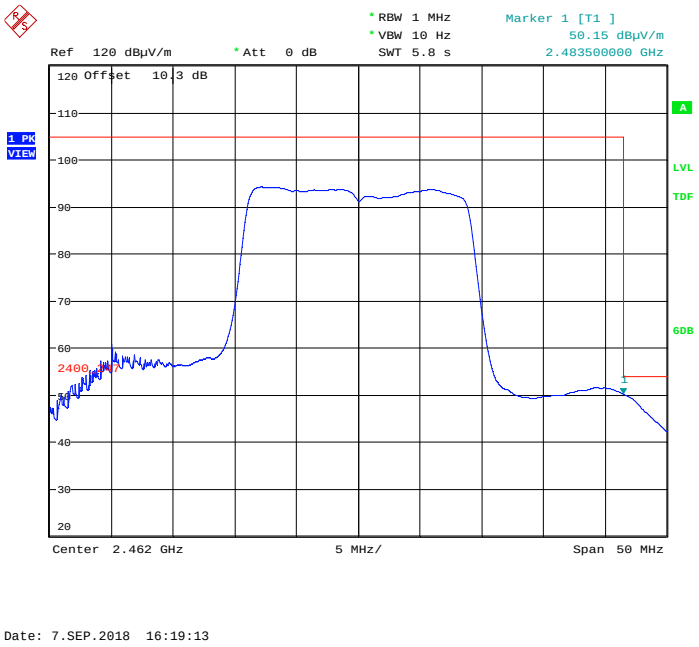
Plot 5.4.4.1.6.126. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS7, Power Setting 20, Channel 11, 2462 MHz



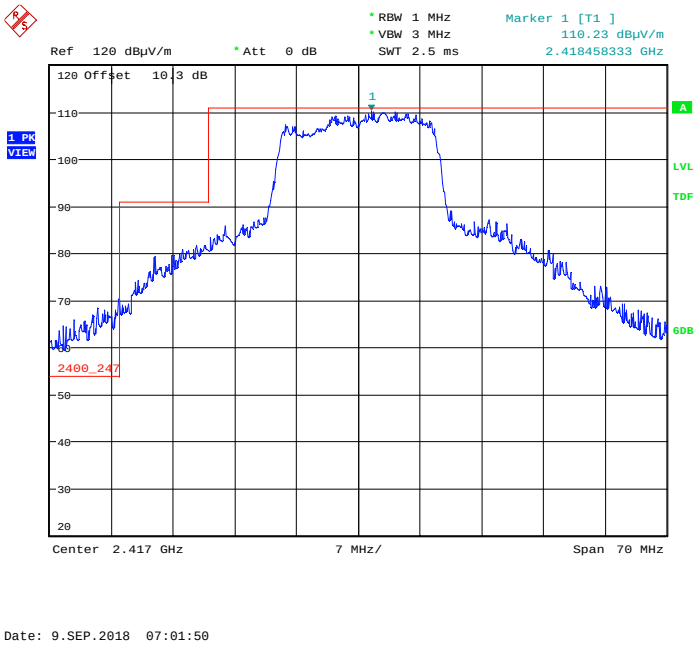
Plot 5.4.4.1.6.127. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS7, Power Setting 20, Channel 11, 2462 MHz



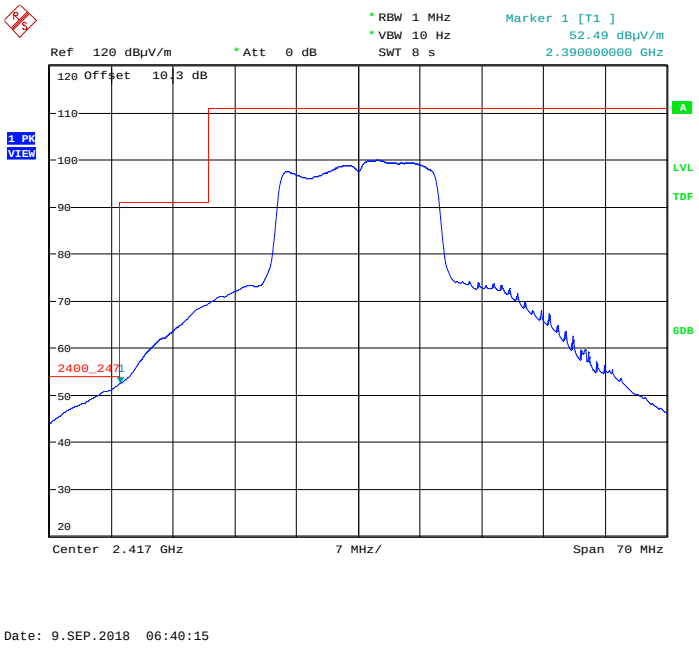
Plot 5.4.4.1.6.128. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS7, Power Setting 20, Channel 11, 2462 MHz



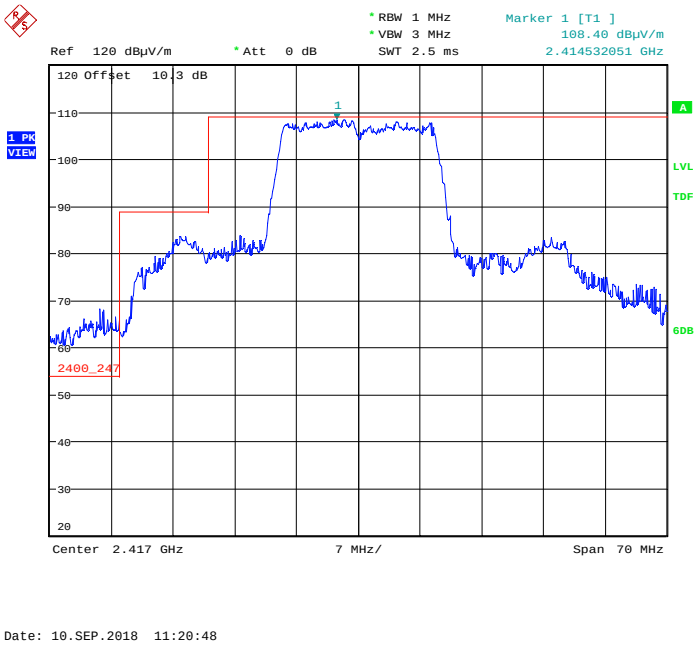
Plot 5.4.4.1.6.129. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS7, Power Setting 25, Channel 2, 2417 MHz



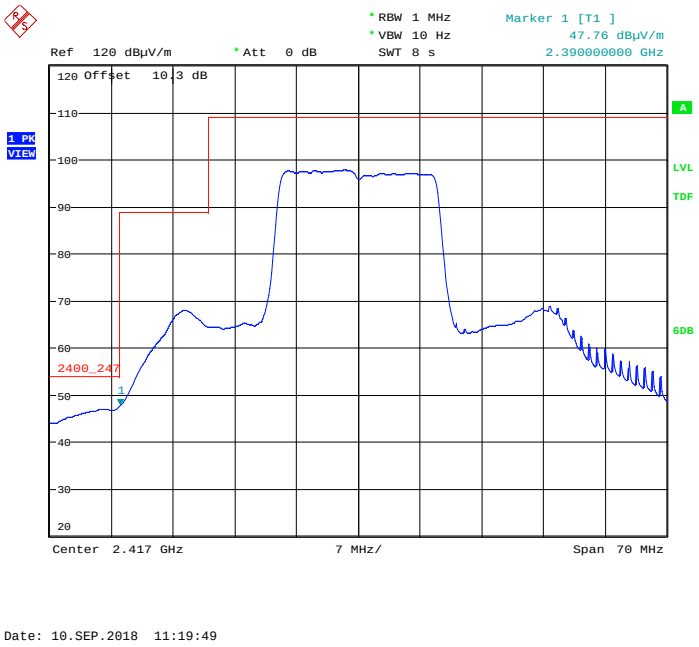
Plot 5.4.4.1.6.130. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS7, Power Setting 25, Channel 2, 2417 MHz



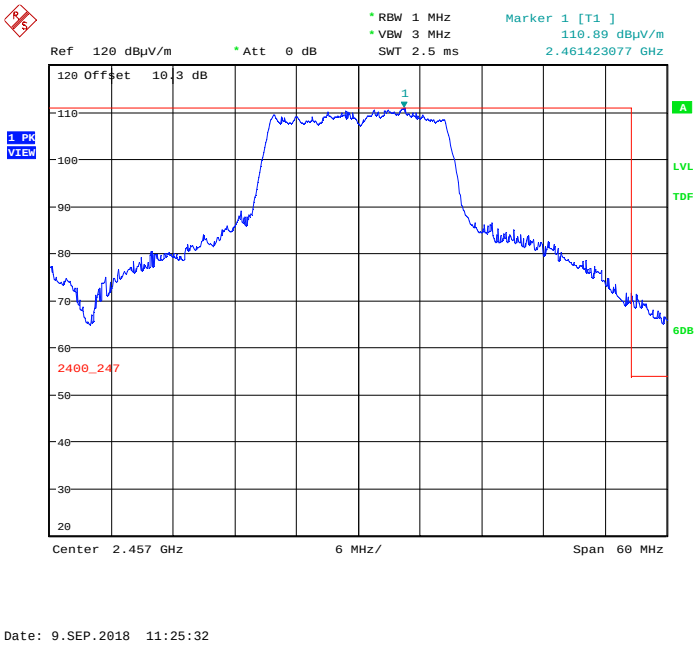
Plot 5.4.4.1.6.131. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS7, Power Setting 25, Channel 2, 2417 MHz



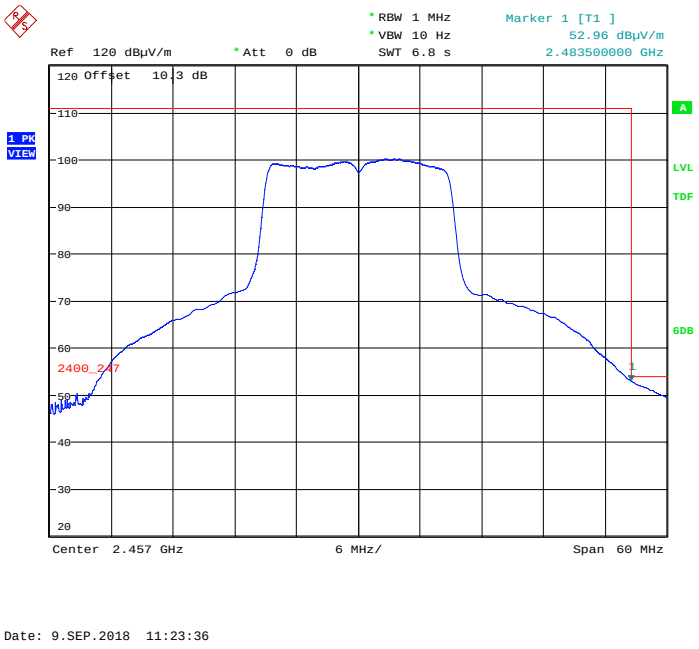
Plot 5.4.4.1.6.132. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS7, Power Setting 25, Channel 2, 2417 MHz



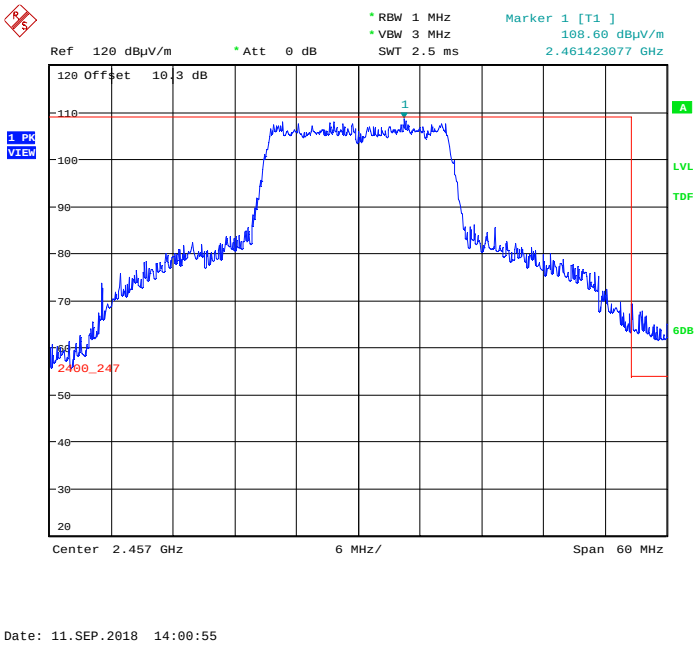
Plot 5.4.4.1.6.133. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS7, Power Setting 25, Channel 10, 2457 MHz



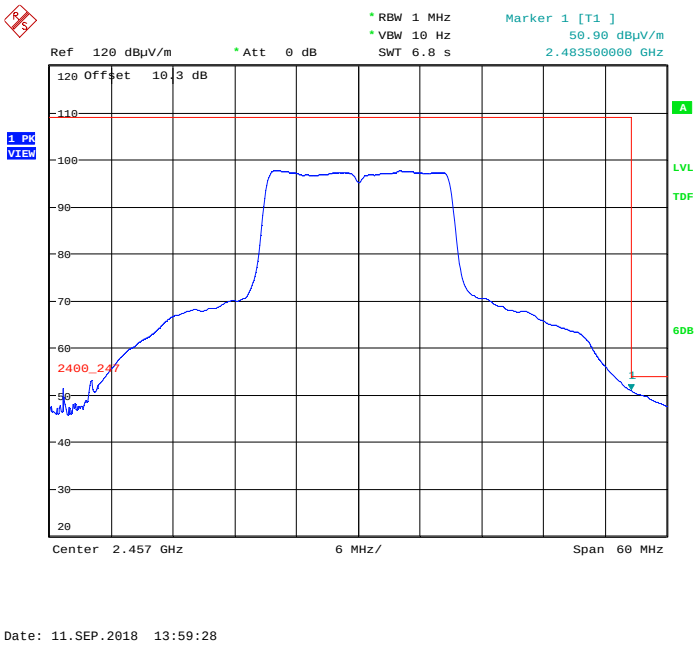
Plot 5.4.4.1.6.134. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS7, Power Setting 25, Channel 10, 2457 MHz



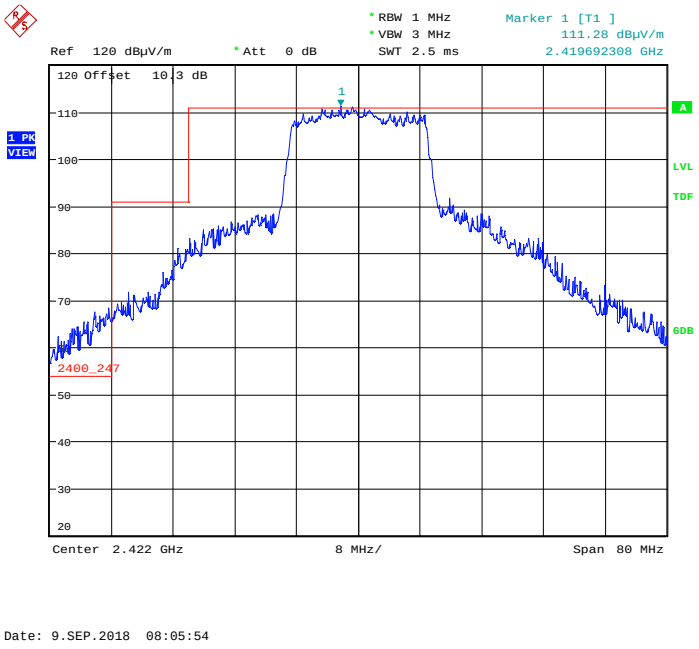
Plot 5.4.4.1.6.135. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS7, Power Setting 25, Channel 10, 2457 MHz



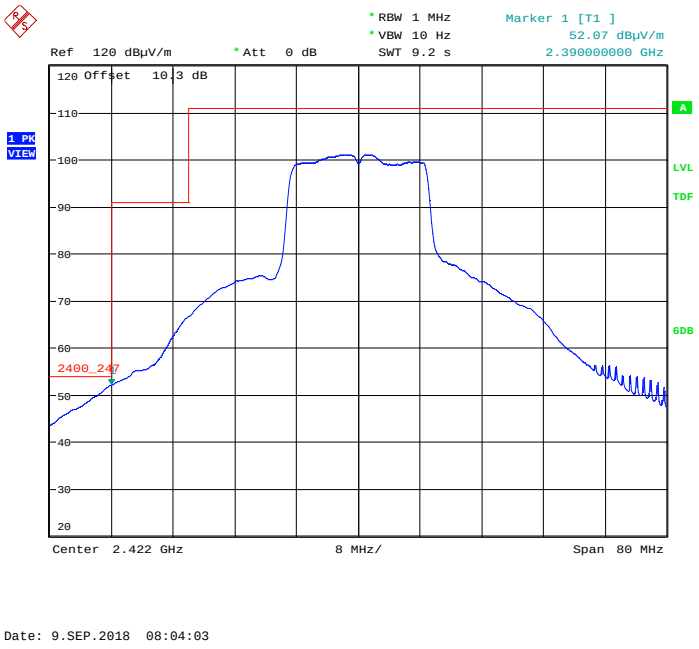
Plot 5.4.4.1.6.136. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS7, Power Setting 25, Channel 10, 2457 MHz



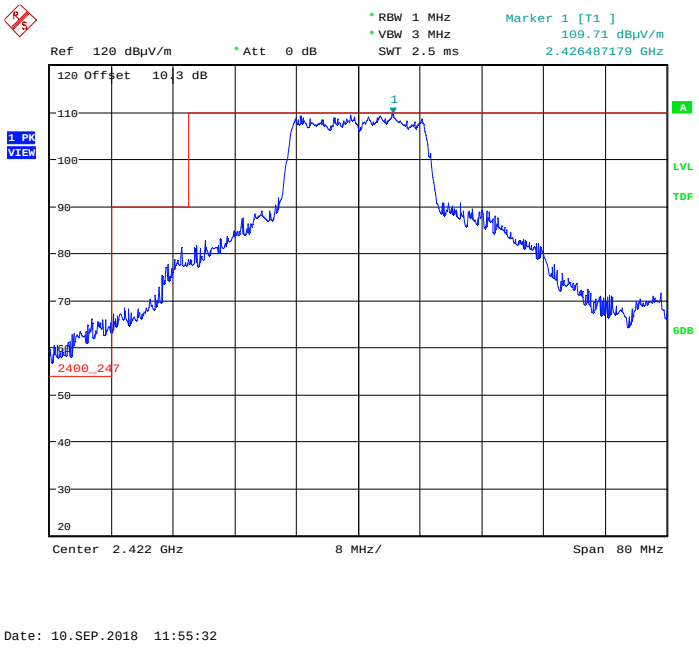
Plot 5.4.4.1.6.137. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS7, Power Setting 27, Channel 3, 2422 MHz



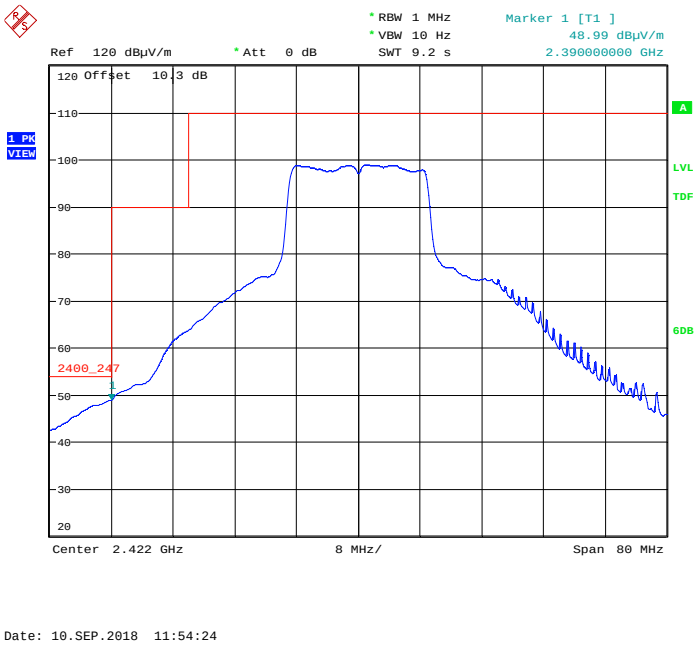
Plot 5.4.4.1.6.138. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS7, Power Setting 27, Channel 3, 2422 MHz



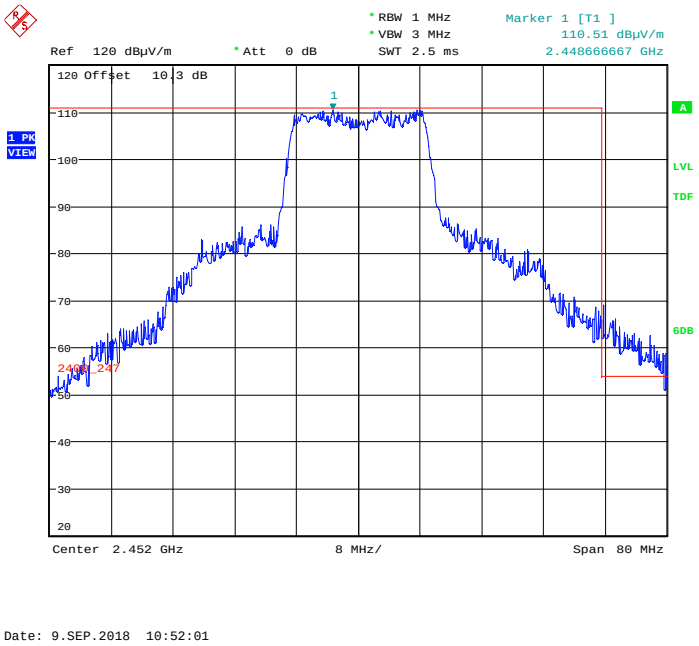
Plot 5.4.4.1.6.139. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS7, Power Setting 27, Channel 3, 2422 MHz



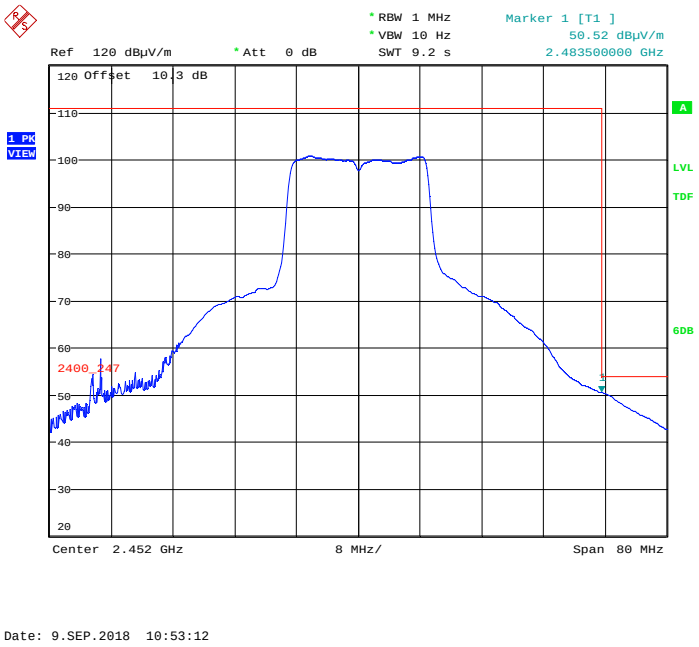
Plot 5.4.4.1.6.140. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS7, Power Setting 27, Channel 3, 2422 MHz



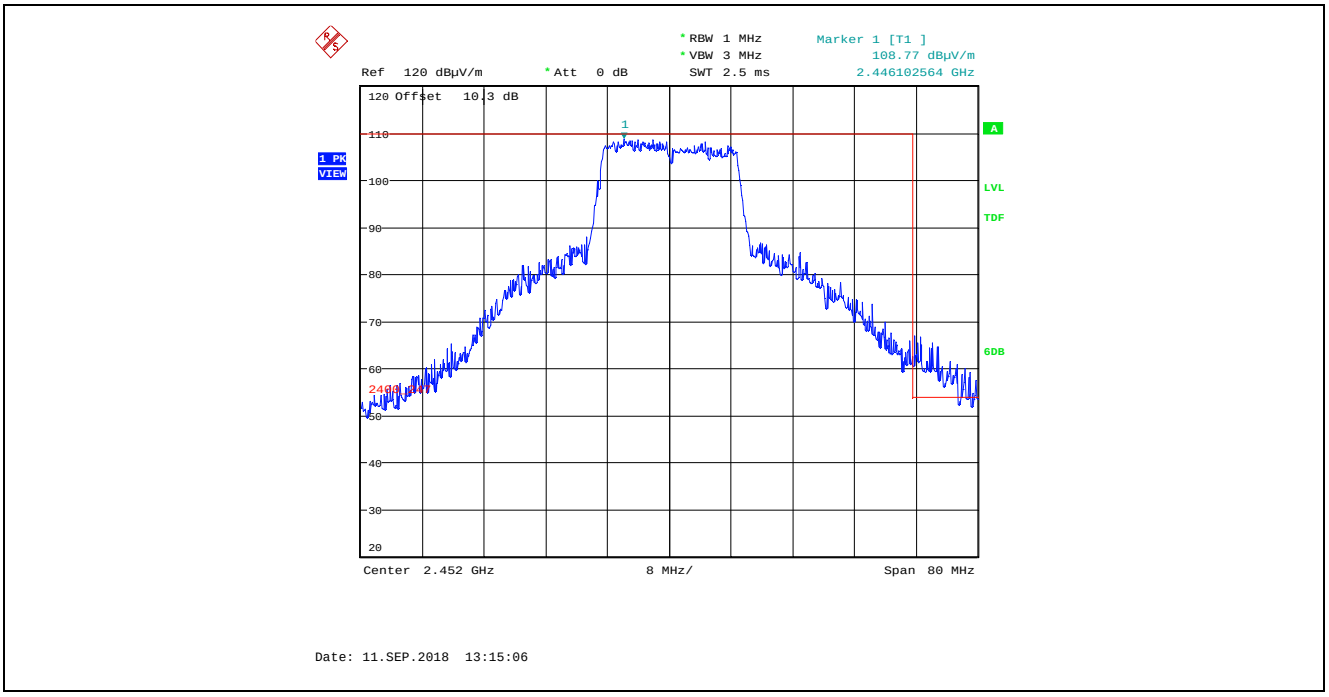
Plot 5.4.4.1.6.141. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS7, Power Setting 26, Channel 9, 2452 MHz



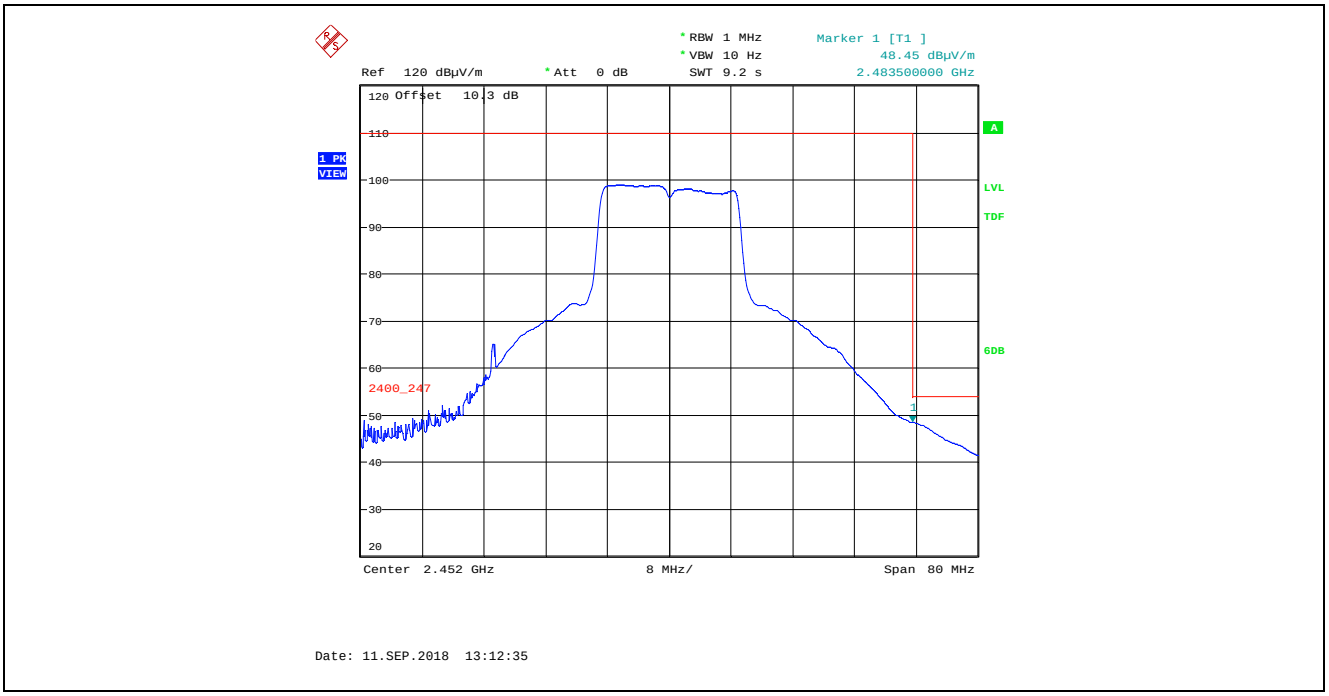
Plot 5.4.4.1.6.142. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS7, Power Setting 26, Channel 9, 2452 MHz



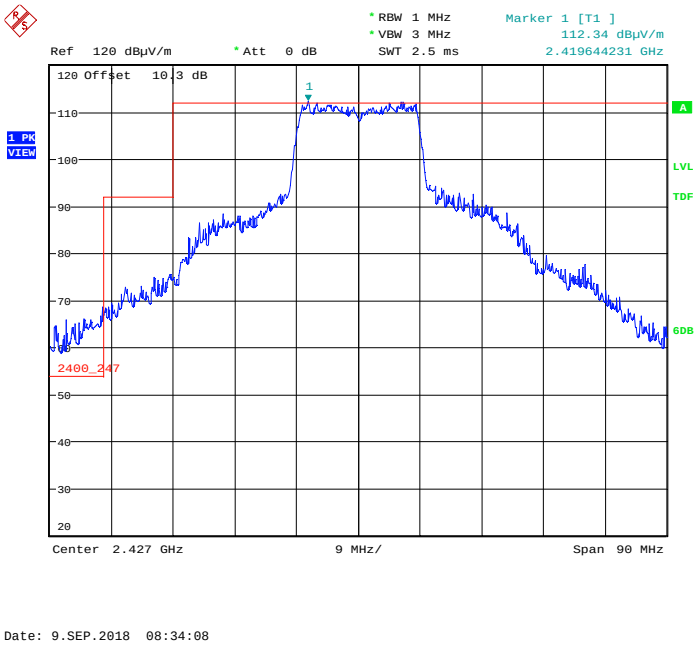
Plot 5.4.4.1.6.143. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS7, Power Setting 26, Channel 9, 2452 MHz



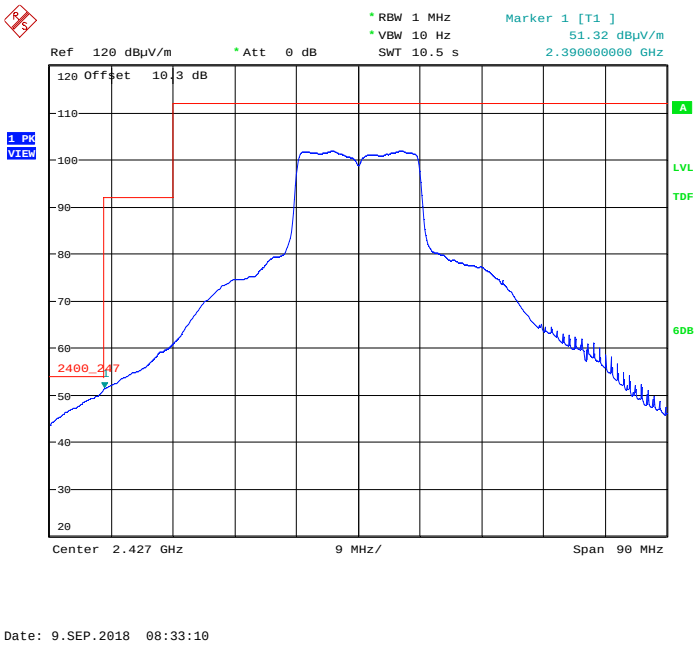
Plot 5.4.4.1.6.144. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS7, Power Setting 26, Channel 9, 2452 MHz



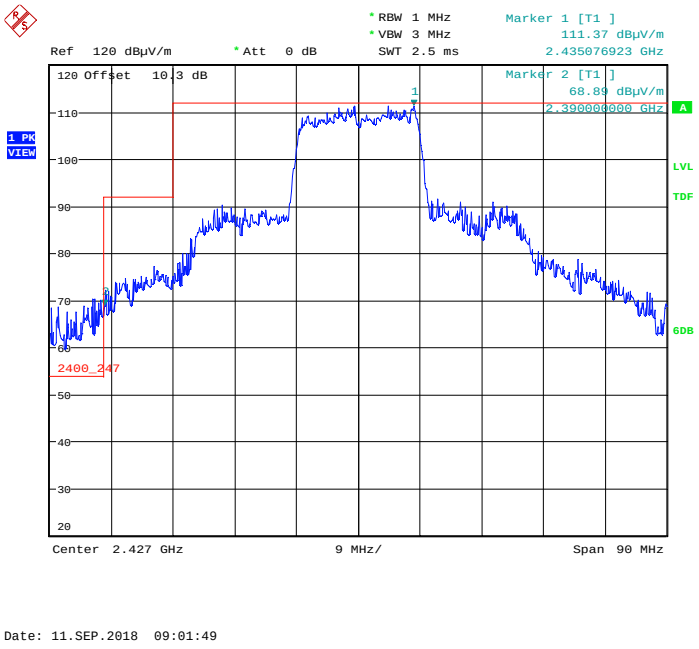
Plot 5.4.4.1.6.145. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS7, Power Setting 29, Channel 4, 2427 MHz



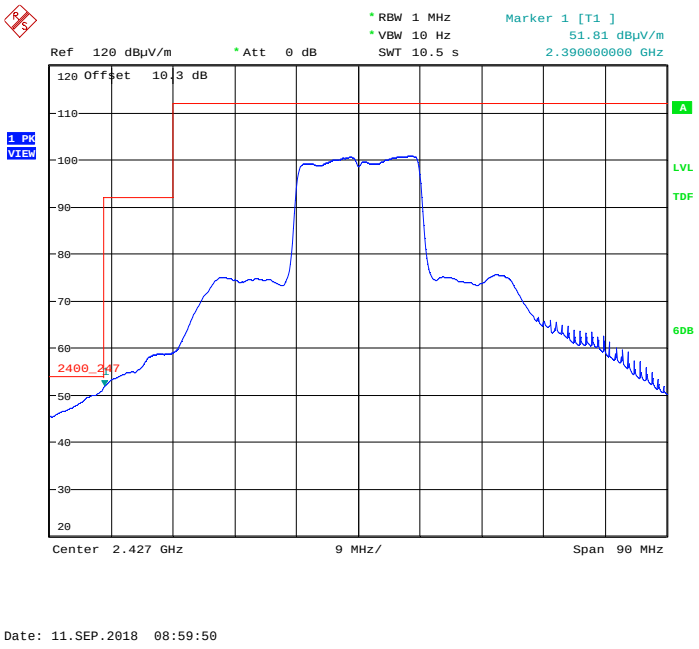
Plot 5.4.4.1.6.146. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS7, Power Setting 29, Channel 4, 2427 MHz



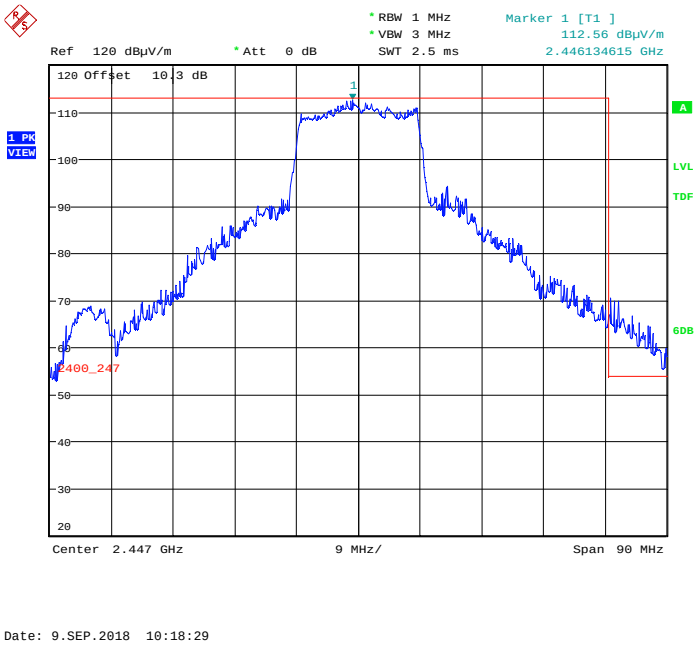
Plot 5.4.4.1.6.147. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS7, Power Setting 29, Channel 4, 2427 MHz



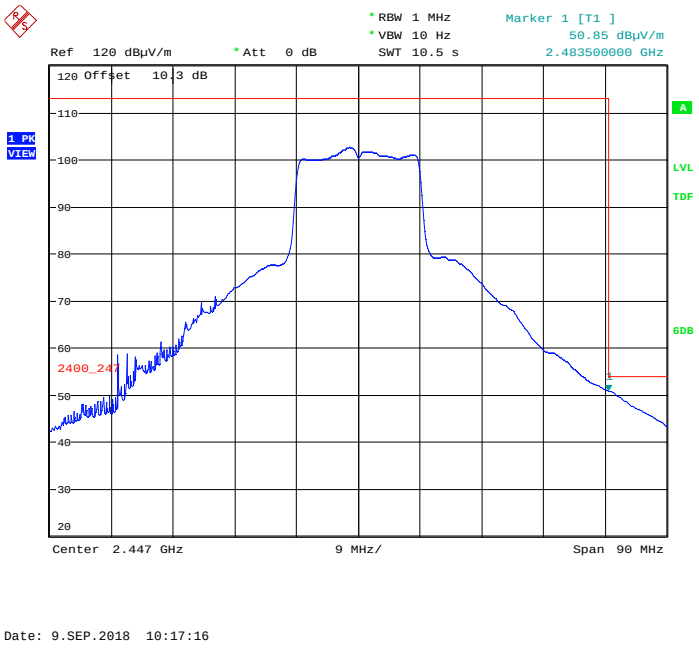
Plot 5.4.4.1.6.148. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS7, Power Setting 29, Channel 4, 2427 MHz



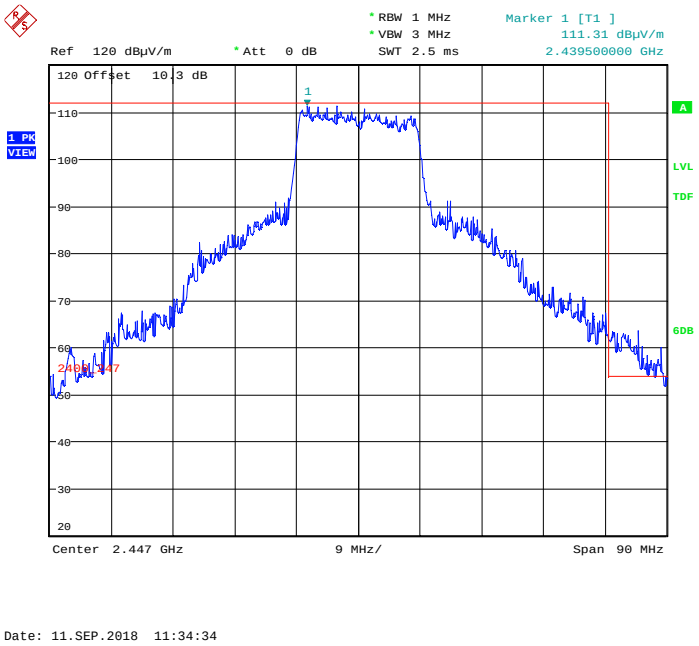
Plot 5.4.4.1.6.149. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS7, Power Setting 28, Channel 8, 2447 MHz



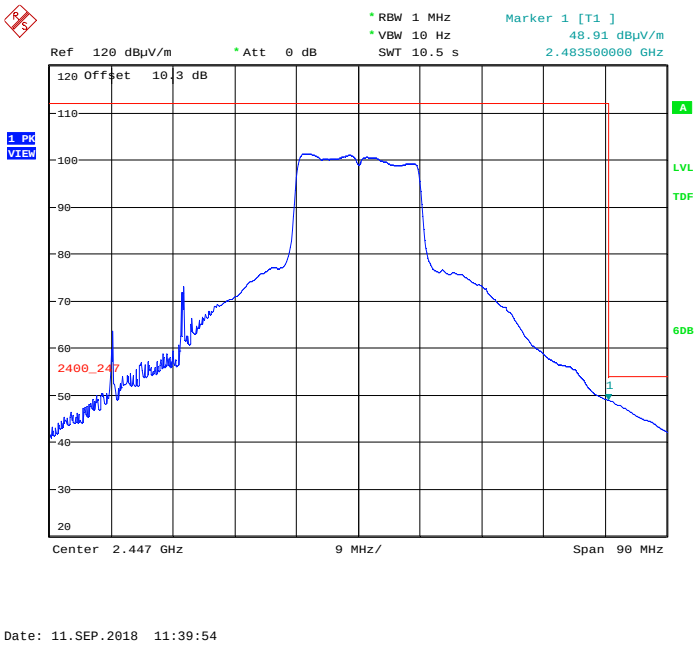
Plot 5.4.4.1.6.150. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS7, Power Setting 28, Channel 8, 2447 MHz



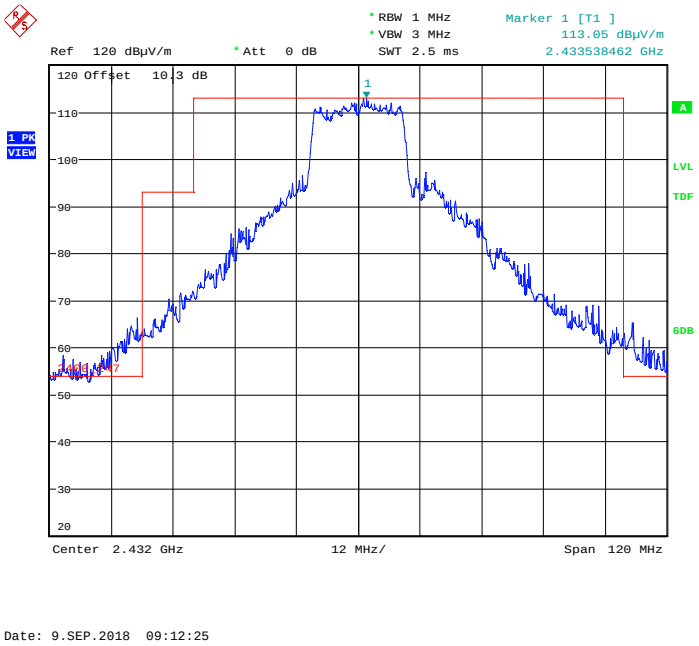
Plot 5.4.4.1.6.151. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS7, Power Setting 28, Channel 8, 2447 MHz



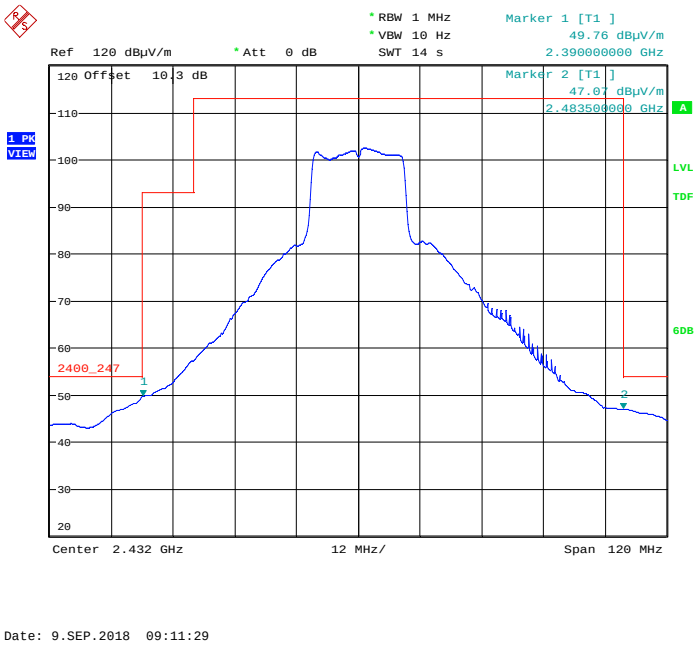
Plot 5.4.4.1.6.152. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS7, Power Setting 28, Channel 8, 2447 MHz



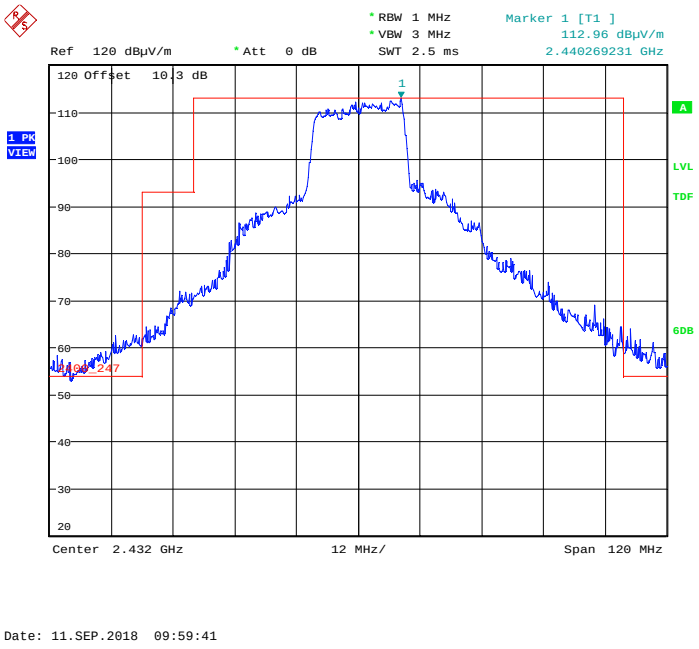
Plot 5.4.4.1.6.153. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS7, Power Setting 30, Channel 5, 2432 MHz



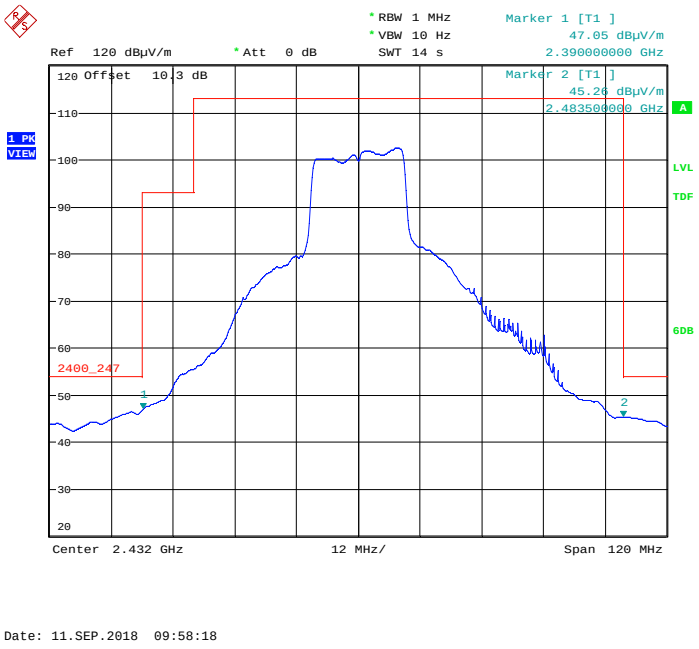
Plot 5.4.4.1.6.154. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS7, Power Setting 30, Channel 5, 2432 MHz



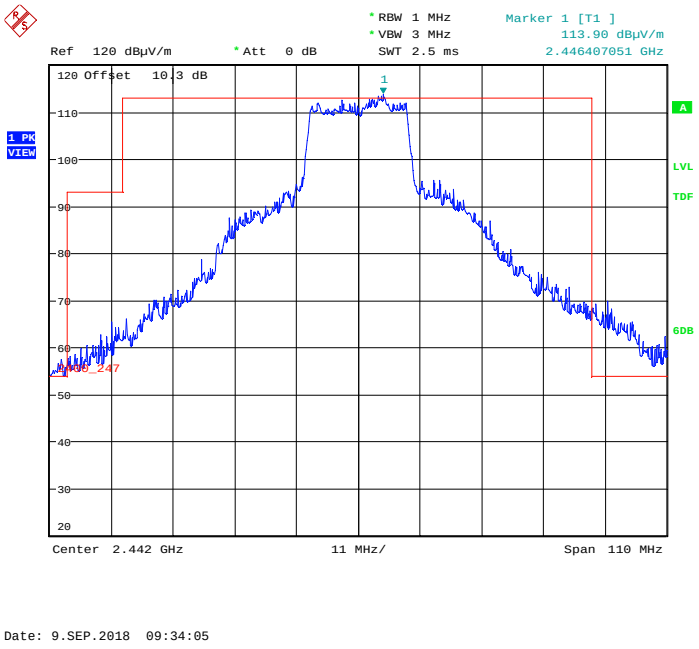
Plot 5.4.4.1.6.155. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS7, Power Setting 30, Channel 5, 2432 MHz



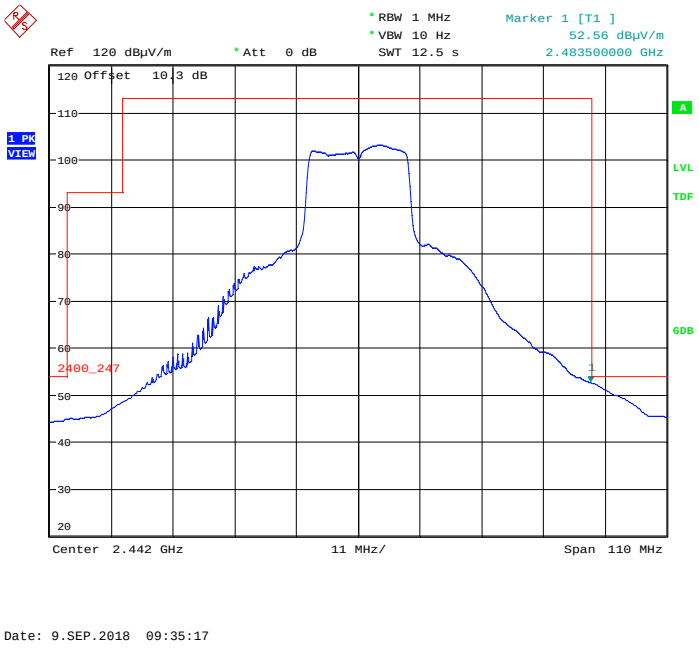
Plot 5.4.4.1.6.156. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS7, Power Setting 30, Channel 5, 2432 MHz



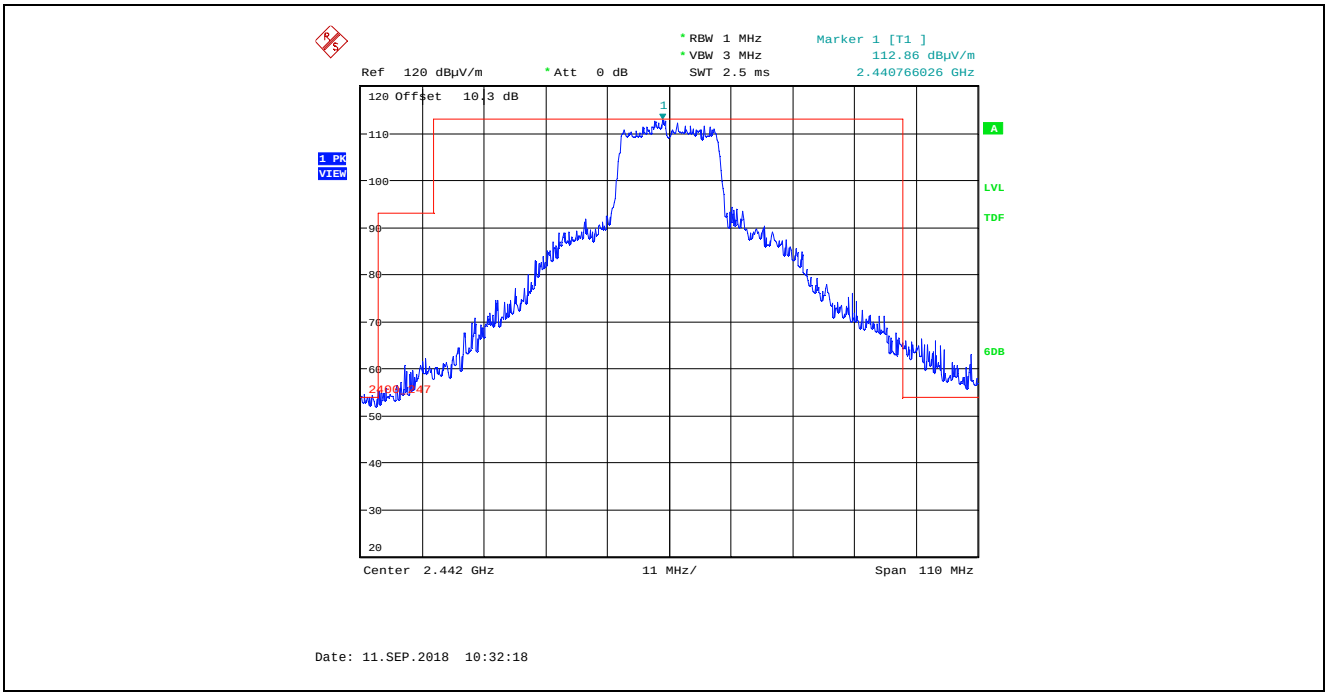
Plot 5.4.4.1.6.157. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS7, Power Setting 30, Channel 7, 2442 MHz



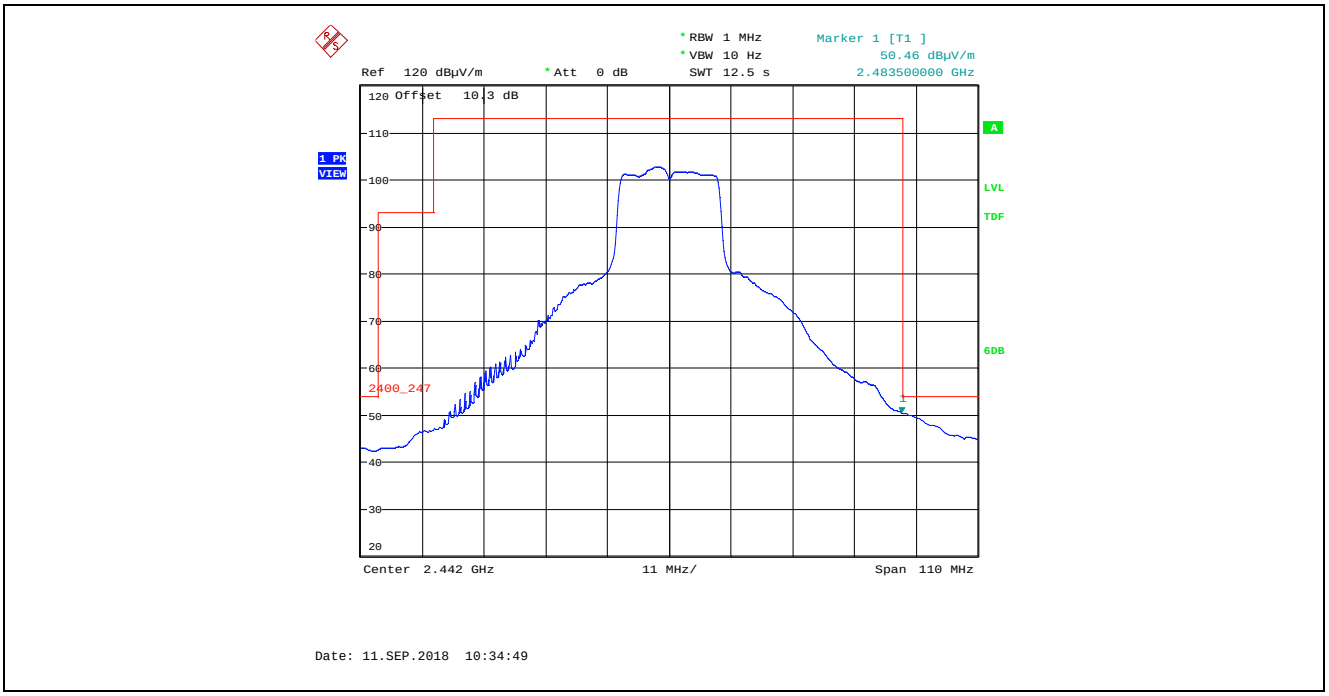
Plot 5.4.4.1.6.158. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS7, Power Setting 30, Channel 7, 2442 MHz



Plot 5.4.4.1.6.159. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS7, Power Setting 30, Channel 7, 2442 MHz



Plot 5.4.4.1.6.160. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS7, Power Setting 30, Channel 7, 2442 MHz



5.4.4.2. Test Configuration 2: EUT with Airgain 1.6 dBi FPC Dipole Antenna

5.4.4.2.1. Spurious Radiated Emissions for 802.11b 1Mbps DBPSK

Fundamental Frequency:	2412 MHz
Frequency Test Range:	30 MHz – 25 GHz
Power Setting:	22

Frequency (MHz)	RF Peak Level (dBµV/m)	RF Avg Level (dBµV/m)	Antenna Plane (H/V)	Limit 15.209 (dBµV/m)	Limit 15.247 (dBµV/m)	Margin (dB)	Pass/ Fail
2412	111.68	--	V	--	--	--	--
2412	114.15	--	H	--	--	--	--
4824	49.23	38.83	V	54.0	94.2	-15.2	Pass*
4824	48.69	38.53	H	54.0	94.2	-15.5	Pass*

*Field strength of emissions appearing within restricted frequency bands shall not exceed the limits in § 15.209.

Fundamental Frequency:	2437 MHz
Frequency Test Range:	30 MHz – 25 GHz
Power Setting:	22

Frequency (MHz)	RF Peak Level (dBµV/m)	RF Avg Level (dBµV/m)	Antenna Plane (H/V)	Limit 15.209 (dBµV/m)	Limit 15.247 (dBµV/m)	Margin (dB)	Pass/ Fail
2437	109.22	--	V	--	--	--	--
2437	114.84	--	H	--	--	--	--
4874	49.88	37.12	V	54.0	94.8	-16.9	Pass*
4874	50.10	37.59	H	54.0	94.8	-16.4	Pass*

*Field strength of emissions appearing within restricted frequency bands shall not exceed the limits in § 15.209.

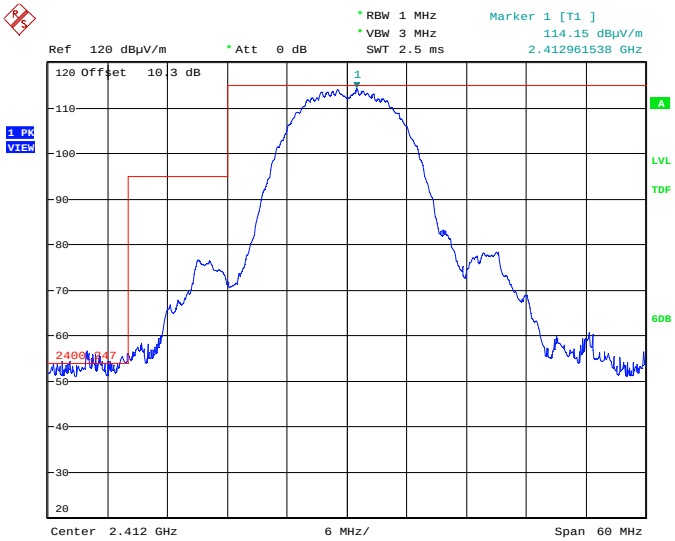
Fundamental Frequency:	2462 MHz
Frequency Test Range:	30 MHz – 25 GHz
Power Setting:	22 (for fundamental)

Frequency (MHz)	RF Peak Level (dBµV/m)	RF Avg Level (dBµV/m)	Antenna Plane (H/V)	Limit 15.209 (dBµV/m)	Limit 15.247 (dBµV/m)	Margin (dB)	Pass/ Fail
2462	108.55	--	V	--	--	--	--
2462	114.77	--	H	--	--	--	--
4924	48.25	36.33	V	54.0	94.8	-17.7	Pass*
4924	48.56	36.57	H	54.0	94.8	-17.4	Pass*

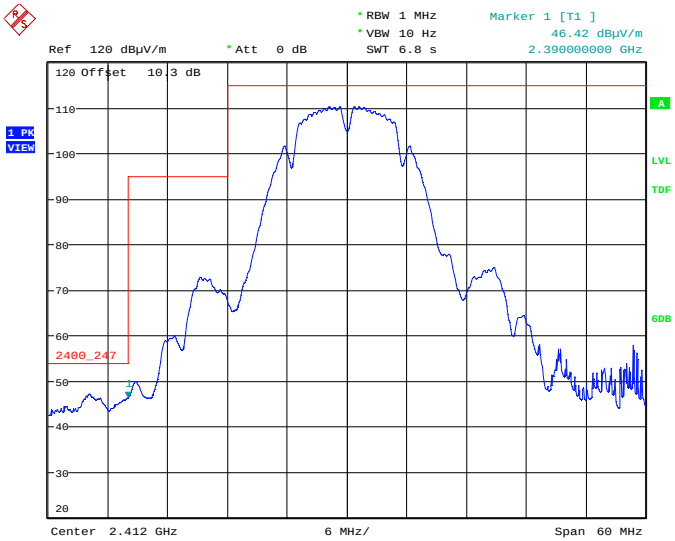
*Field strength of emissions appearing within restricted frequency bands shall not exceed the limits in § 15.209.

5.4.4.2.2. Band–Edge RF Radiated Emissions for 802.11b

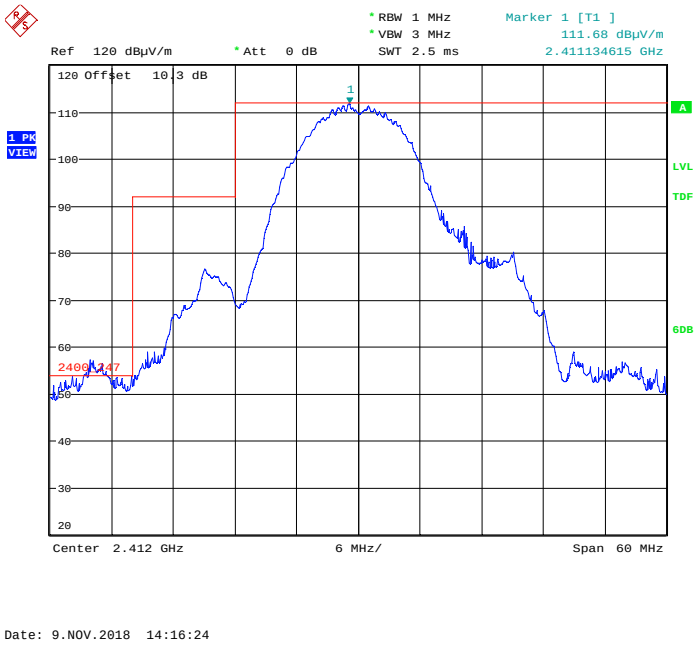
Plot 5.4.4.2.2.1. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
1 Mbps DBPSK, Power Setting 22, Channel 1, 2412 MHz



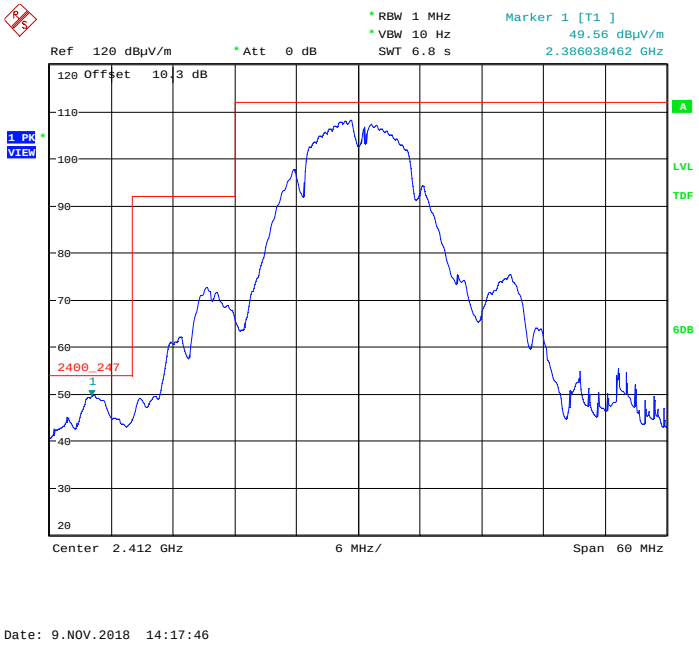
Plot 5.4.4.2.2.2. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
1 Mbps DBPSK, Power Setting 22, Channel 1, 2412 MHz



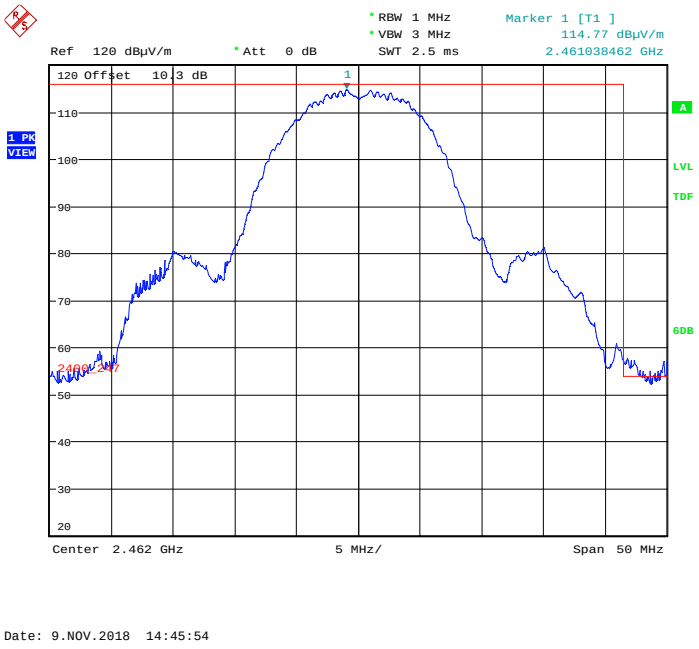
Plot 5.4.4.2.2.3. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
1 Mbps DBPSK, Power Setting 22, Channel 1, 2412 MHz



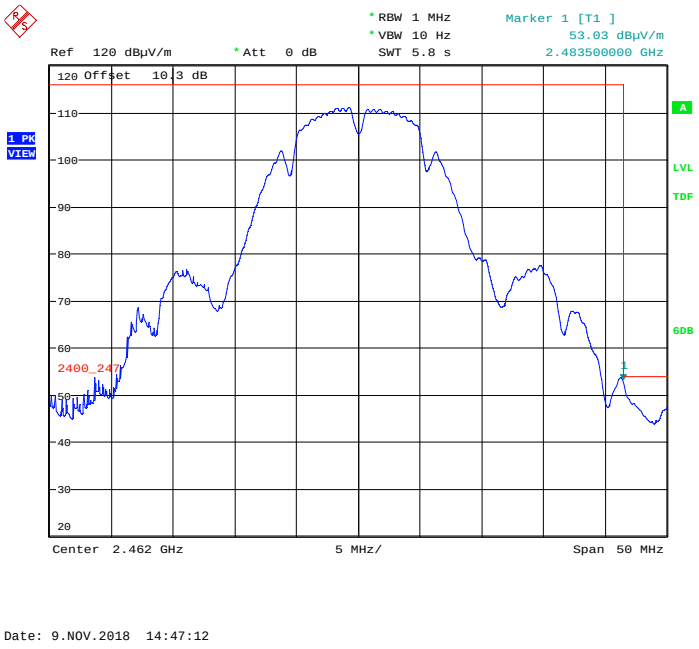
Plot 5.4.4.2.2.4. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
1 Mbps DBPSK, Power Setting 22, Channel 1, 2412 MHz



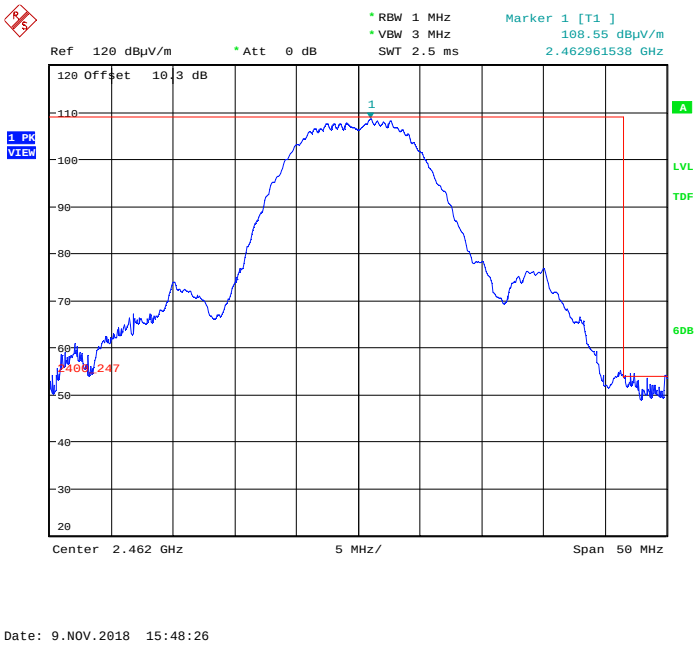
Plot 5.4.4.2.2.5. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
1 Mbps DBPSK, Power Setting 22, Channel 11, 2462 MHz



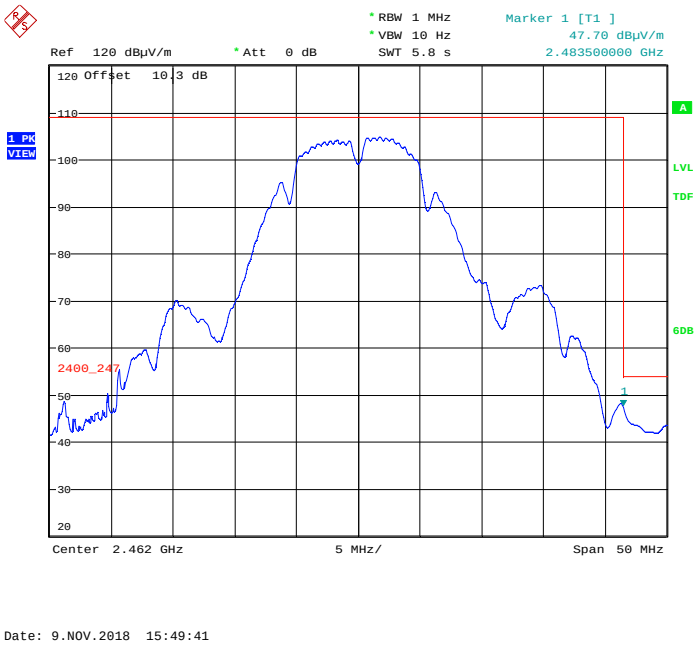
Plot 5.4.4.2.2.6. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
1 Mbps DBPSK, Power Setting 22, Channel 11, 2462 MHz



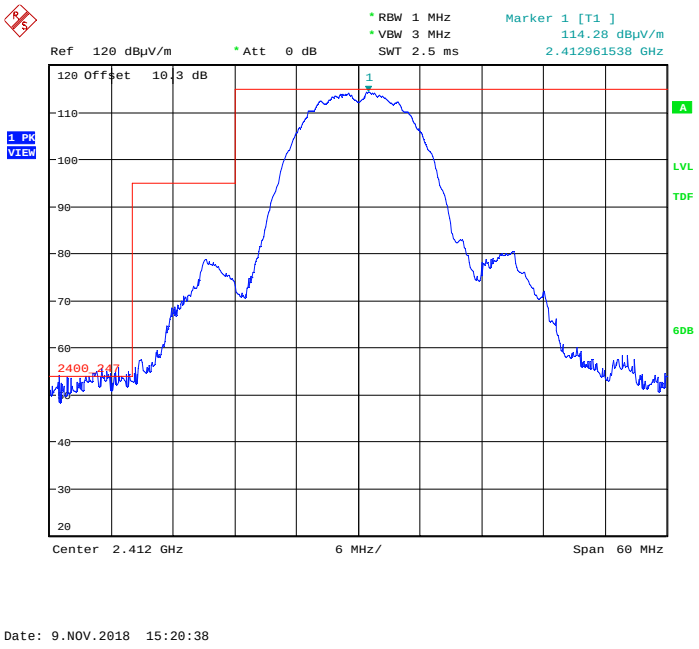
Plot 5.4.4.2.2.7. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
1 Mbps DBPSK, Power Setting 22, Channel 11, 2462 MHz



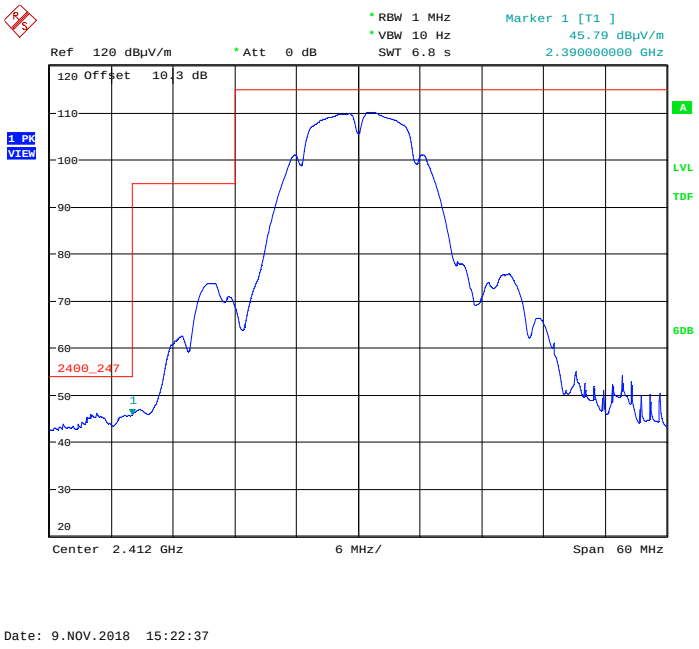
Plot 5.4.4.2.2.8. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
1 Mbps DBPSK, Power Setting 22, Channel 11, 2462 MHz



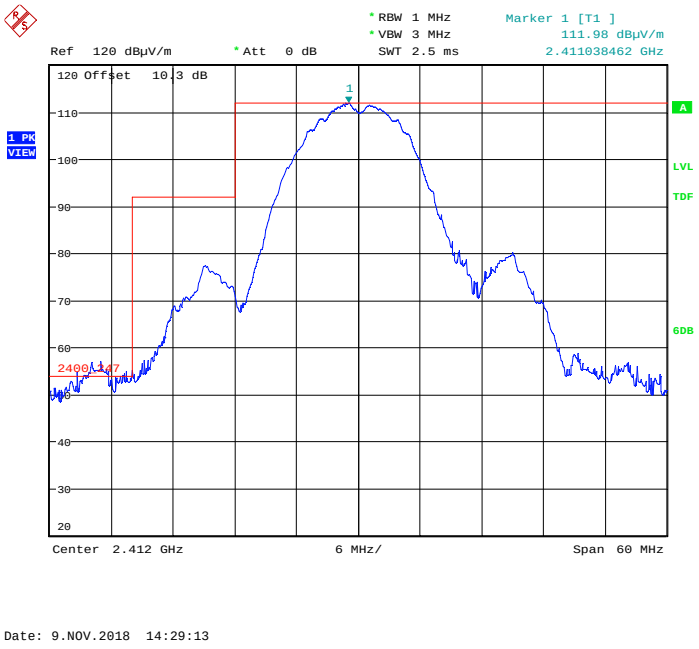
Plot 5.4.4.2.2.9. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
2 Mbps DQPSK, Power Setting 22, Channel 1, 2412 MHz



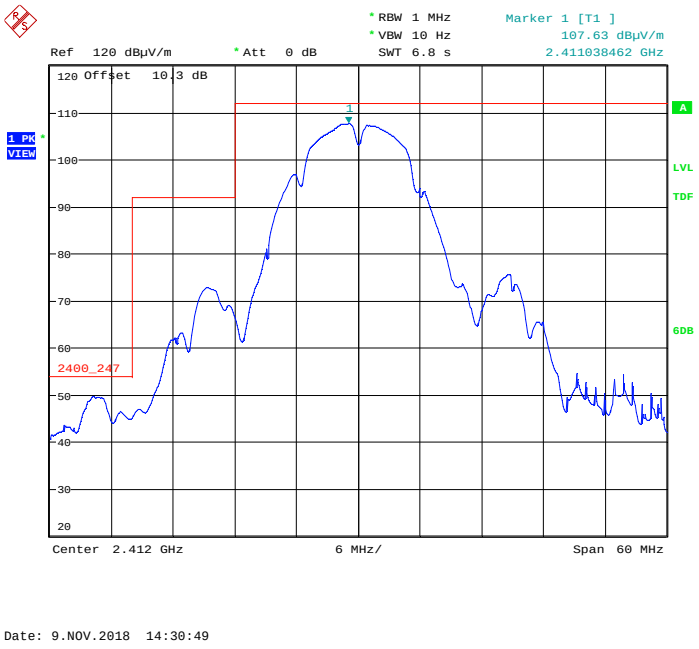
Plot 5.4.4.2.2.10. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
2 Mbps DQPSK, Power Setting 22, Channel 1, 2412 MHz



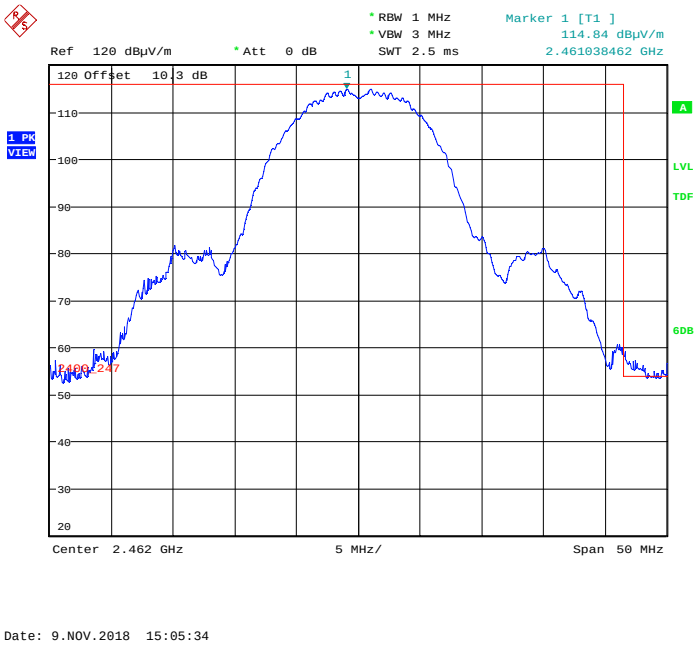
Plot 5.4.4.2.2.11. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
2 Mbps DQPSK, Power Setting 22, Channel 1, 2412 MHz



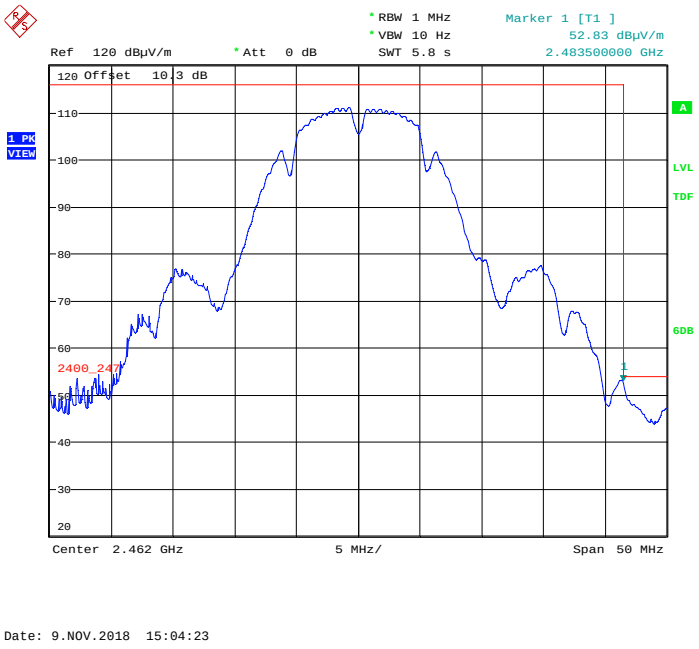
Plot 5.4.4.2.2.12. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
2 Mbps DQPSK, Power Setting 22, Channel 1, 2412 MHz



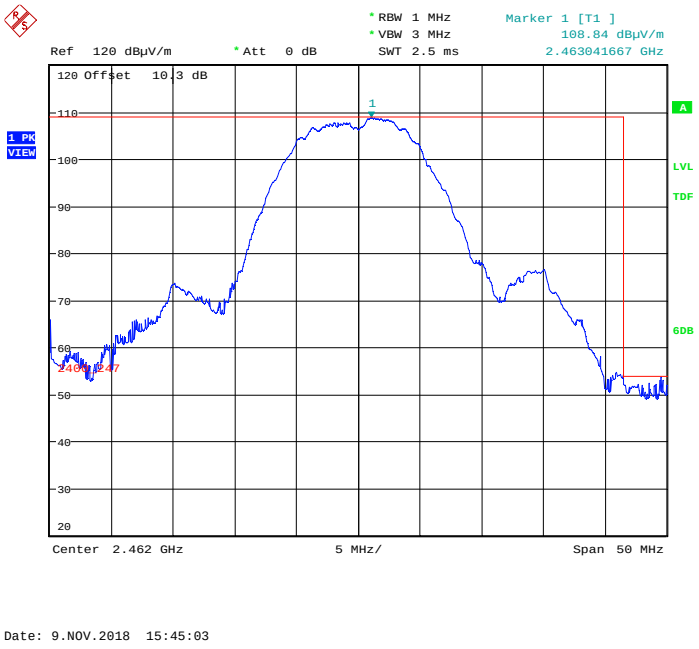
Plot 5.4.4.2.2.13. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
2 Mbps DQPSK, Power Setting 22, Channel 11, 2462 MHz



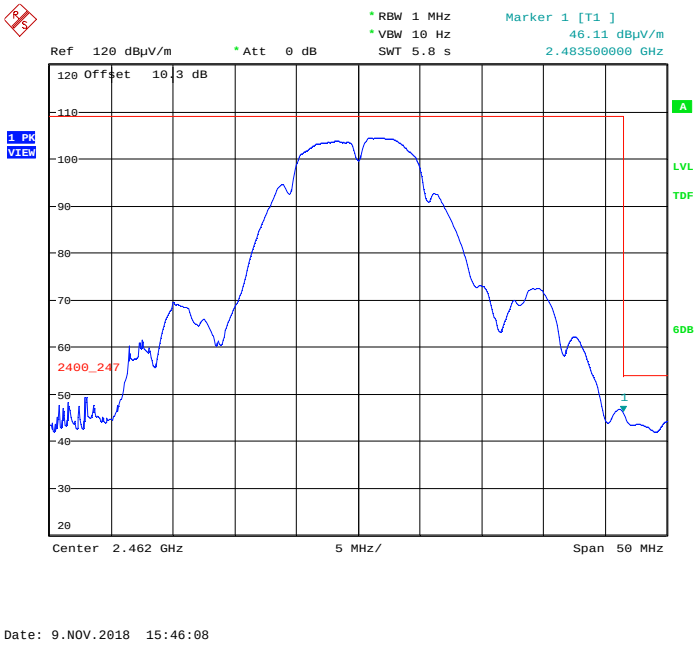
Plot 5.4.4.2.2.14. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
2 Mbps DQPSK, Power Setting 22, Channel 11, 2462 MHz



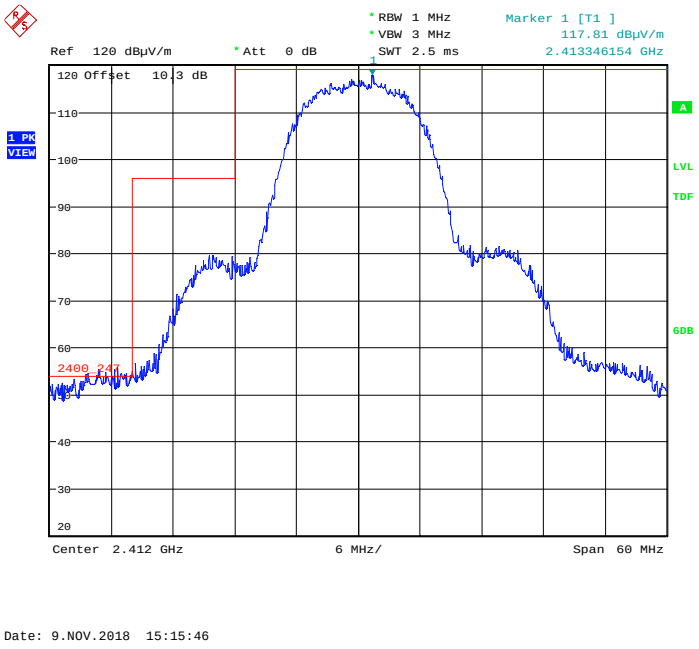
Plot 5.4.4.2.2.15. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
2 Mbps DQPSK, Power Setting 22, Channel 11, 2462 MHz



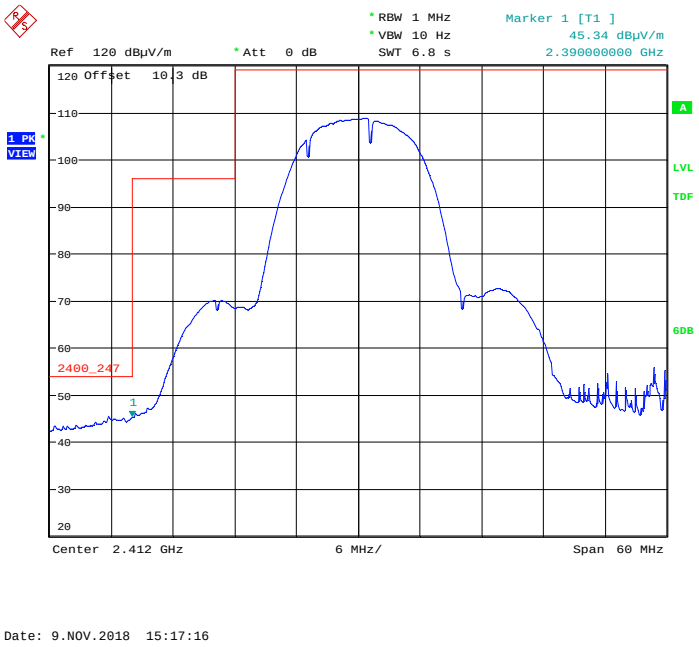
Plot 5.4.4.2.2.16. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
2 Mbps DQPSK, Power Setting 22, Channel 11, 2462 MHz



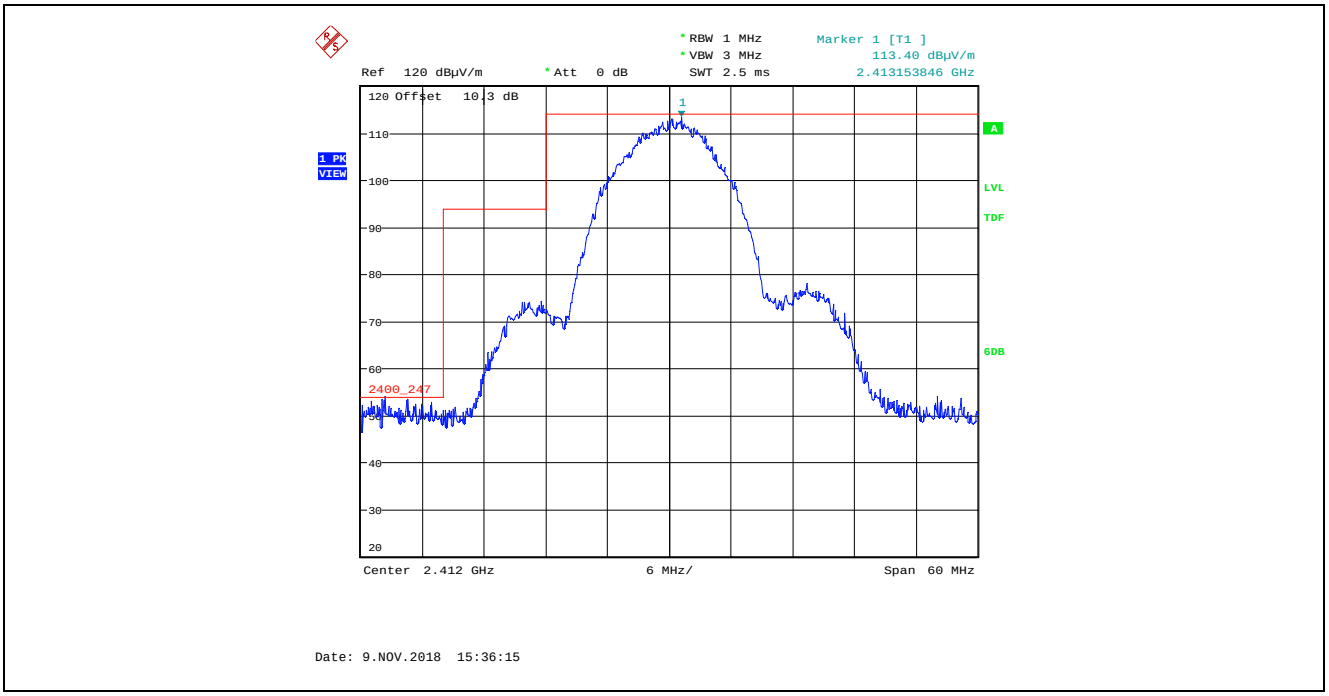
Plot 5.4.4.2.2.17. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
11 Mbps CCK, Power Setting 22, Channel 1, 2412 MHz



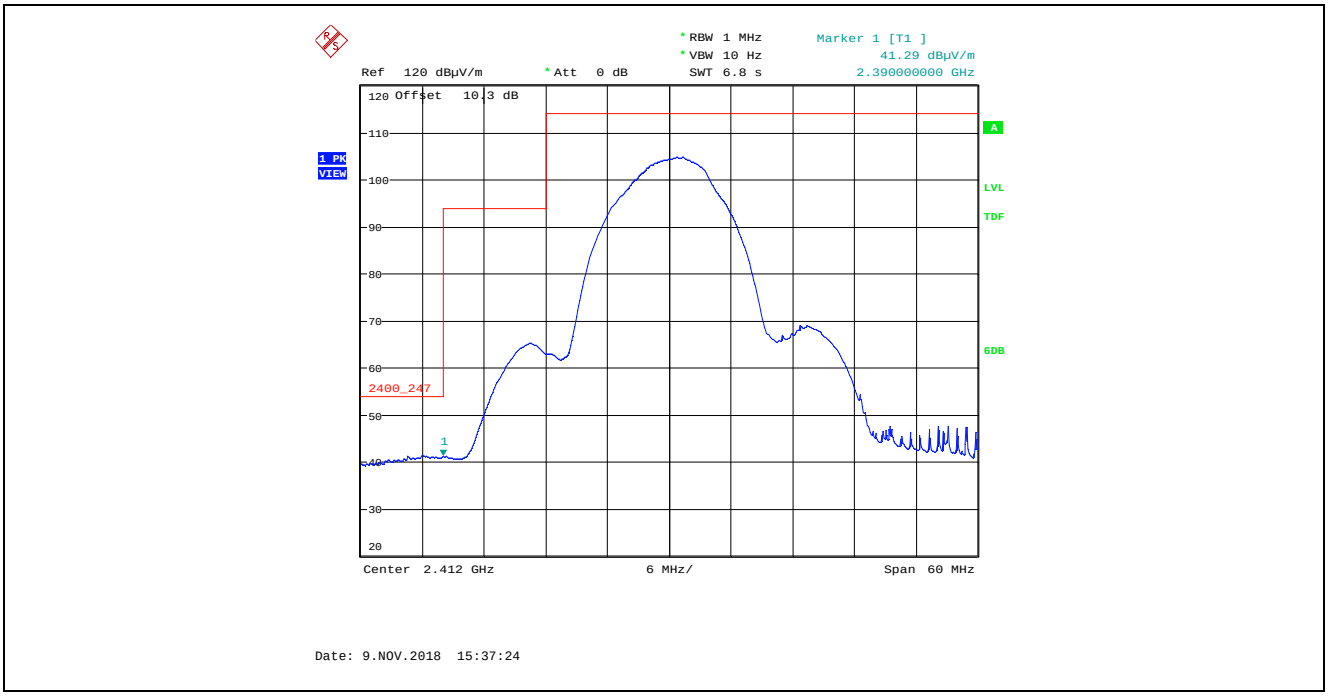
Plot 5.4.4.2.2.18. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
11 Mbps CCK, Power Setting 22, Channel 1, 2412 MHz



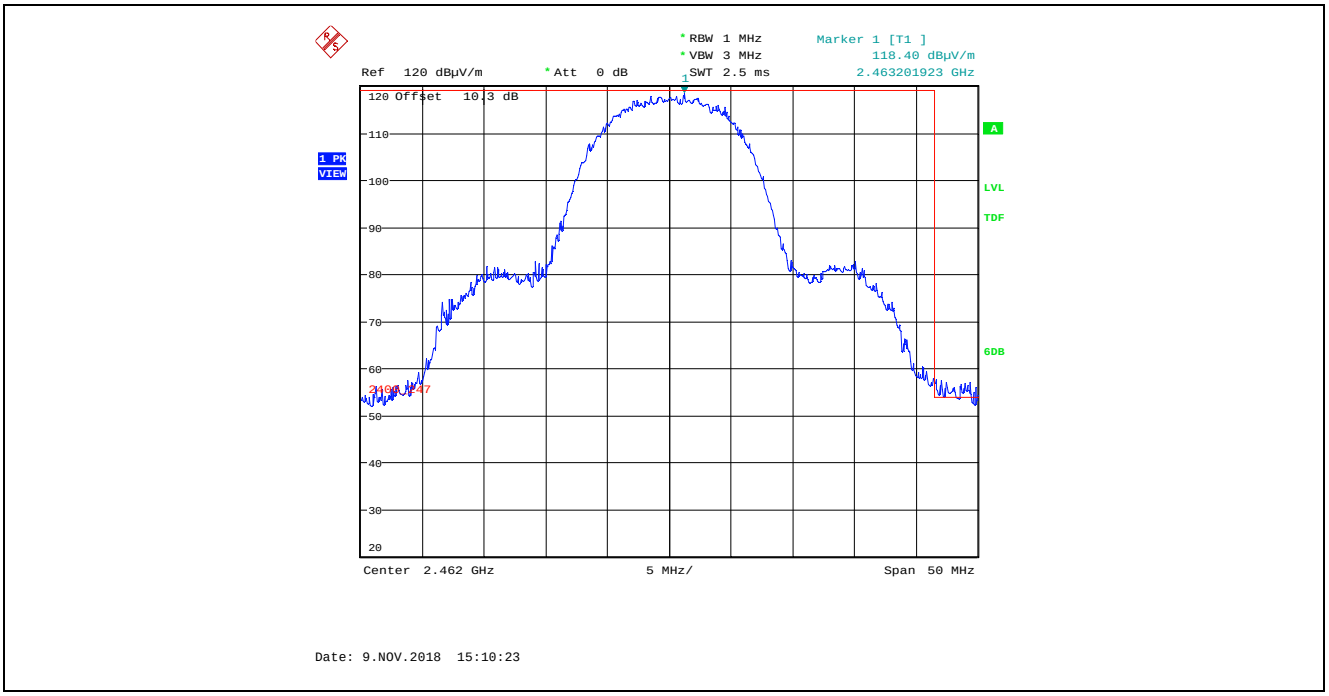
Plot 5.4.4.2.2.19. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
11 Mbps CCK, Power Setting 22, Channel 1, 2412 MHz



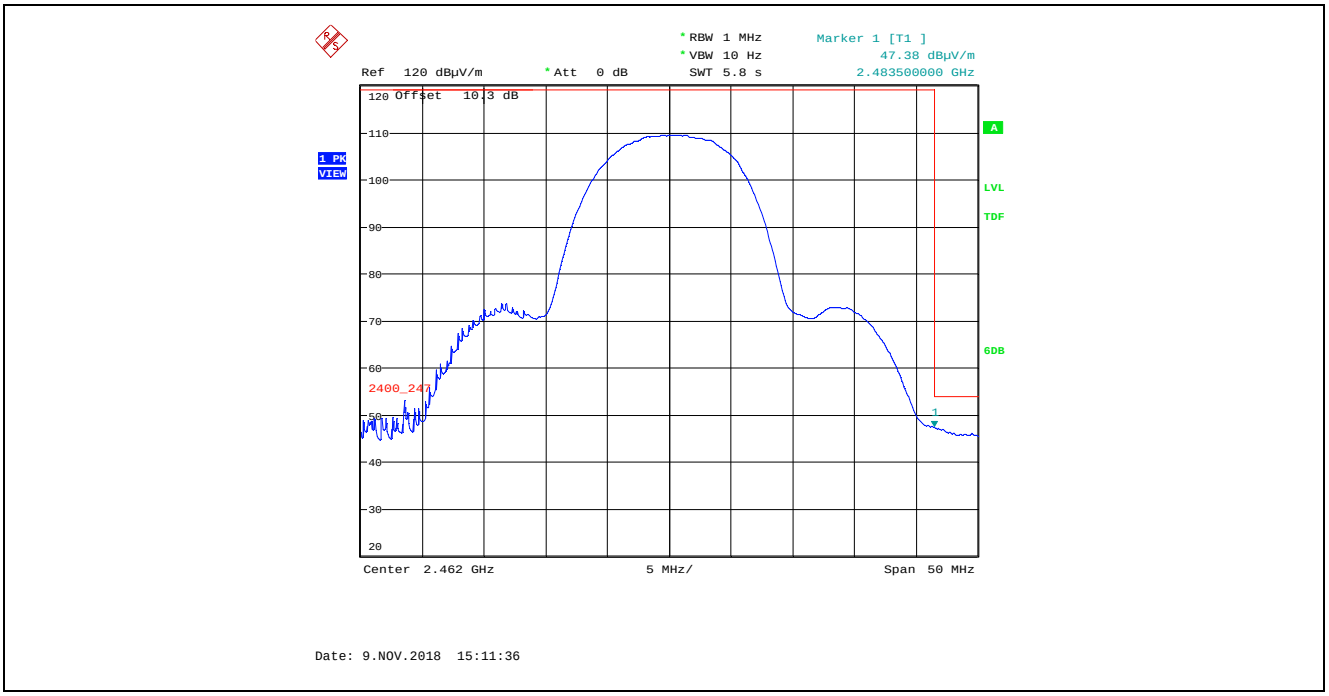
Plot 5.4.4.2.2.20. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
11 Mbps CCK, Power Setting 22, Channel 1, 2412 MHz



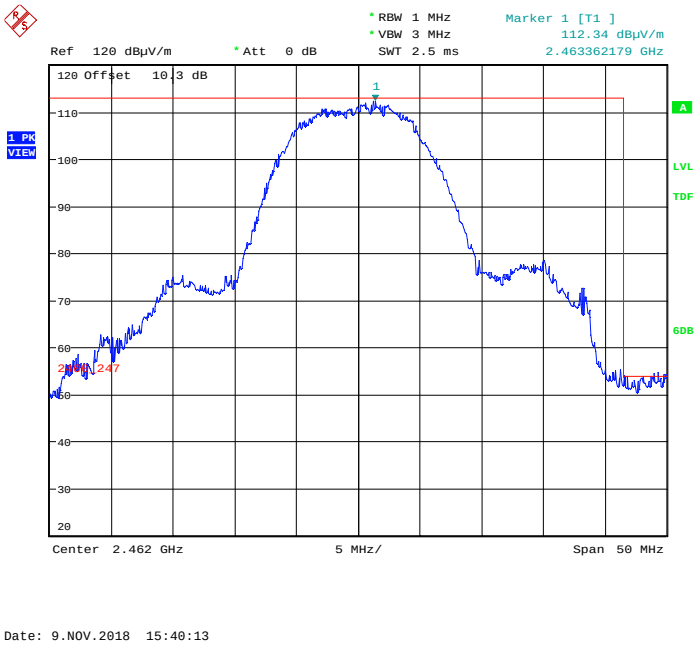
Plot 5.4.4.2.2.21. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
11 Mbps CCK, Power Setting 22, Channel 11, 2462 MHz



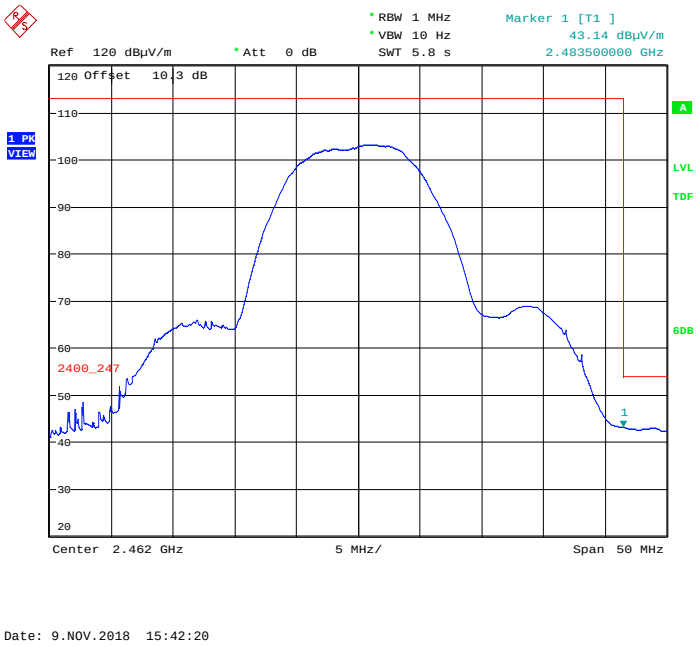
Plot 5.4.4.2.2.22. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
11 Mbps CCK, Power Setting 22, Channel 11, 2462 MHz



Plot 5.4.4.2.2.23. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
11 Mbps CCK, Power Setting 22, Channel 11, 2462 MHz



Plot 5.4.4.2.2.24. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
11 Mbps CCK, Power Setting 22, Channel 11, 2462 MHz



5.4.4.2.3. Spurious Radiated Emissions for 802.11g 54 Mbps 64-QAM

Fundamental Frequency:	2412 MHz						
Frequency Test Range:	30 MHz – 25 GHz						
Power Setting:	16						
Frequency (MHz)	**RF Peak Level (dBµV/m)**	**RF Avg Level (dBµV/m)**	**Antenna Plane (H/V)**	**Limit 15.209 (dBµV/m)**	**Limit 15.247 (dBµV/m)**	**Margin (dB)**	**Pass/ Fail**
2412	101.37	--	V	--	--	--	--
2412	108.82	--	H	--	--	--	--
*	*	*	V/H	*	*	*	*

*Spurious emissions are more than 20 dB below the applicable limit.

Fundamental Frequency:	2437 MHz						
Frequency Test Range:	30 MHz – 25 GHz						
Power Setting:	16						
Frequency (MHz)	**RF Peak Level (dBµV/m)**	**RF Avg Level (dBµV/m)**	**Antenna Plane (H/V)**	**Limit 15.209 (dBµV/m)**	**Limit 15.247 (dBµV/m)**	**Margin (dB)**	**Pass/ Fail**
2437	103.24	--	V	--	--	--	--
2437	109.73	--	H	--	--	--	--
*	*	*	V/H	*	*	*	*

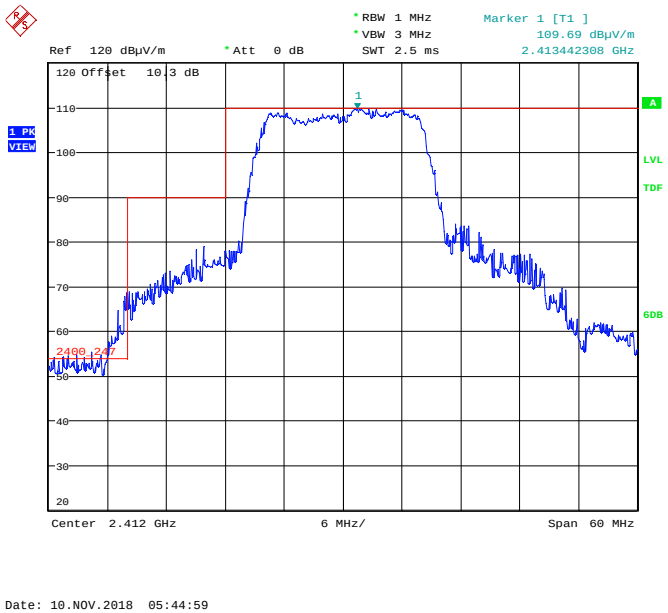
*Spurious emissions are more than 20 dB below the applicable limit.

Fundamental Frequency:	2462 MHz						
Frequency Test Range:	30 MHz – 25 GHz						
Power Setting:	16						
Frequency (MHz)	**RF Peak Level (dBµV/m)**	**RF Avg Level (dBµV/m)**	**Antenna Plane (H/V)**	**Limit 15.209 (dBµV/m)**	**Limit 15.247 (dBµV/m)**	**Margin (dB)**	**Pass/ Fail**
2462	105.08	--	V	--	--	--	--
2462	110.93	--	H	--	--	--	--
*	*	*	V/H	*	*	*	*

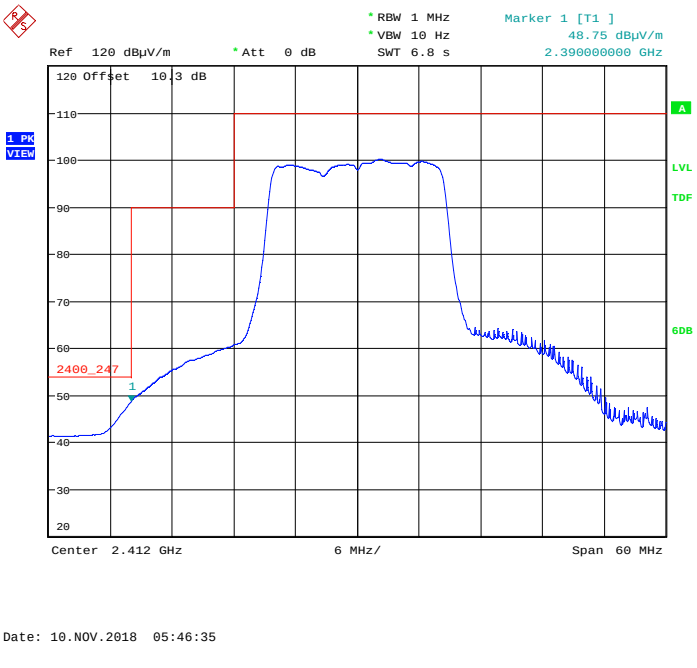
*Spurious emissions are more than 20 dB below the applicable limit.

5.4.4.2.4. Band–Edge RF Radiated Emissions for 802.11g

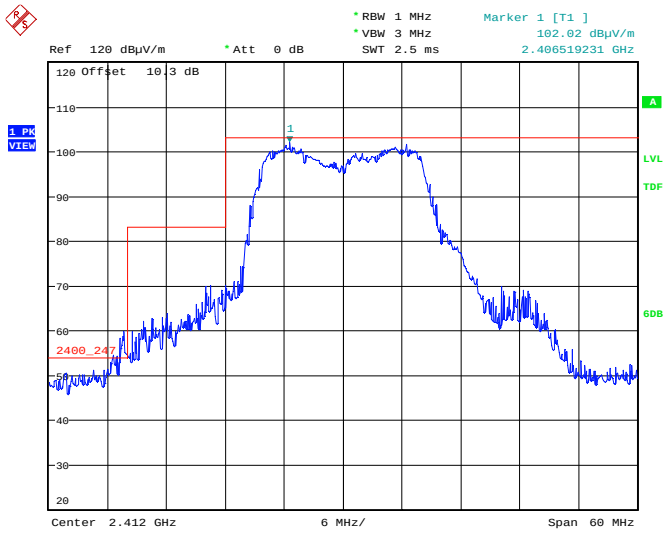
Plot 5.4.4.2.4.1. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
9 Mbps BPSK, Power Setting 16, Channel 1, 2412 MHz



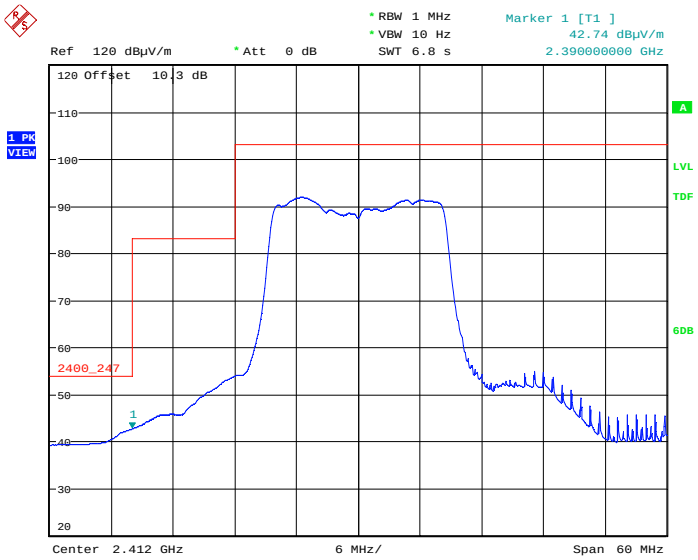
Plot 5.4.4.2.4.2. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
9 Mbps BPSK, Power Setting 16, Channel 1, 2412 MHz



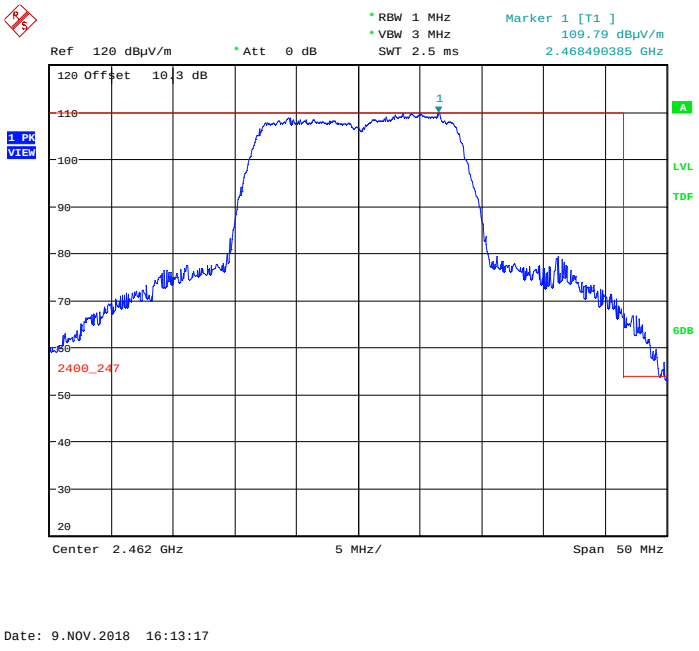
Plot 5.4.4.2.4.3. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
9 Mbps BPSK, Power Setting 16, Channel 1, 2412 MHz



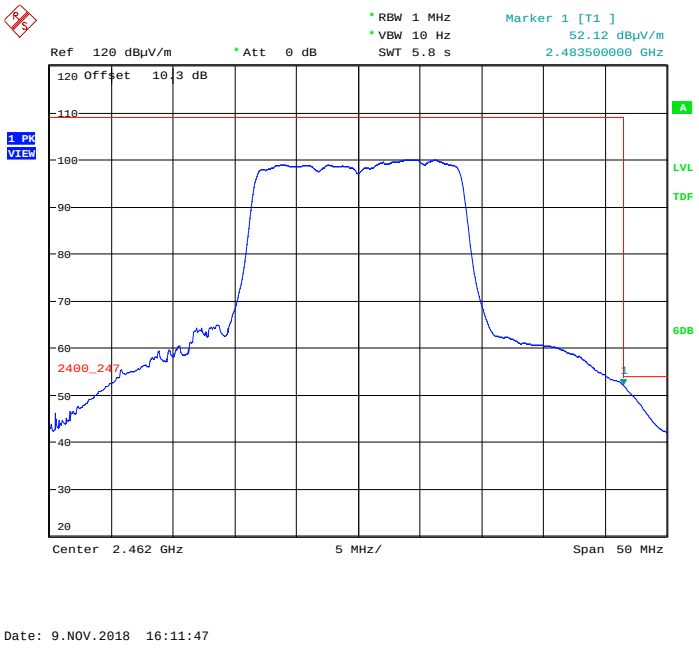
Plot 5.4.4.2.4.4. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
9 Mbps BPSK, Power Setting 16, Channel 1, 2412 MHz



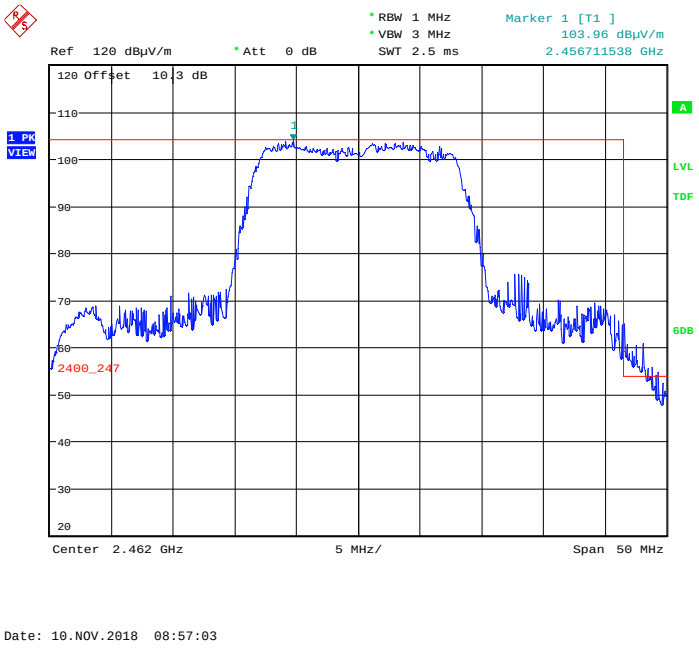
Plot 5.4.4.2.4.5. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
9 Mbps BPSK, Power Setting 16, Channel 11, 2462 MHz



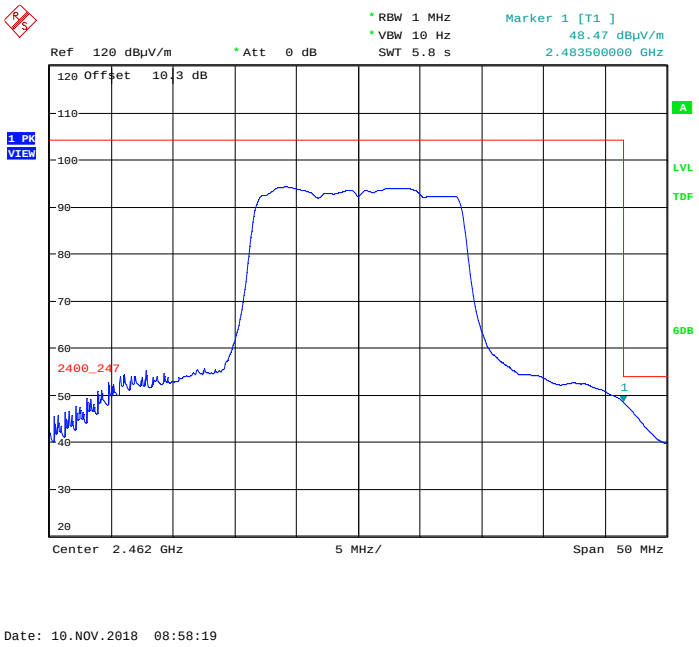
Plot 5.4.4.2.4.6. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
9 Mbps BPSK, Power Setting 16, Channel 11, 2462 MHz



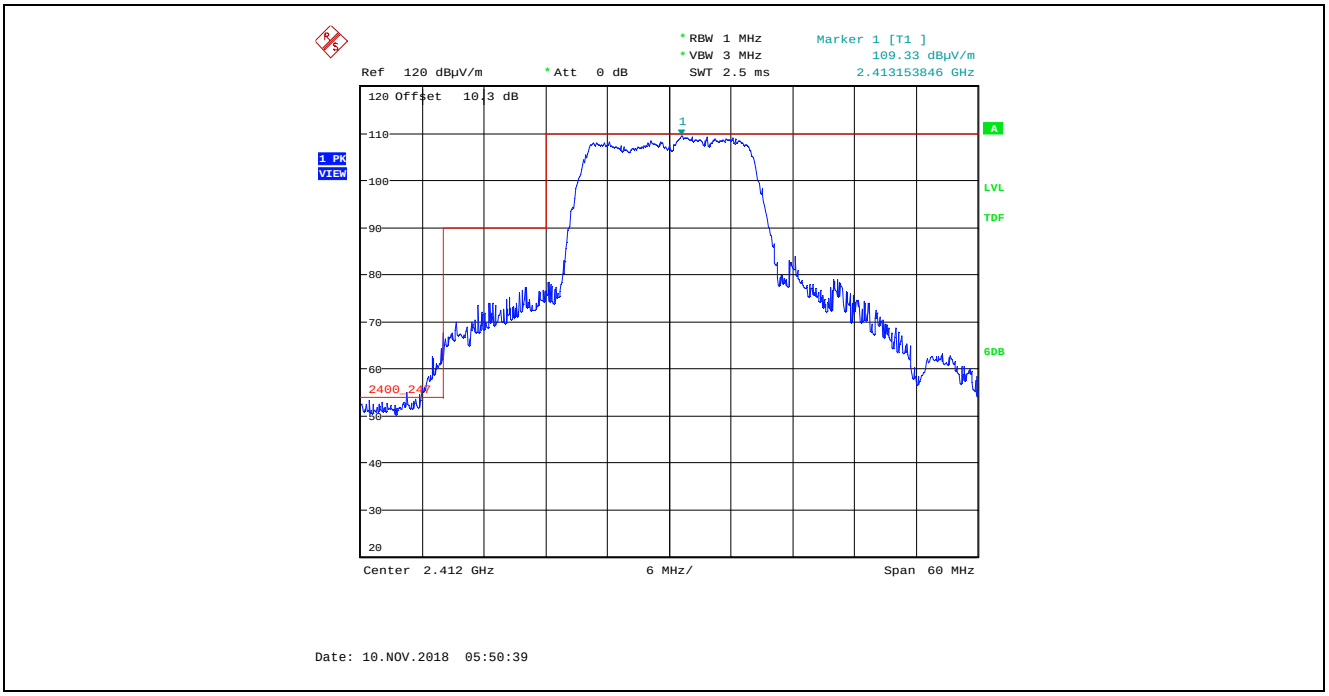
Plot 5.4.4.2.4.7. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
9 Mbps BPSK, Power Setting 16, Channel 11, 2462 MHz



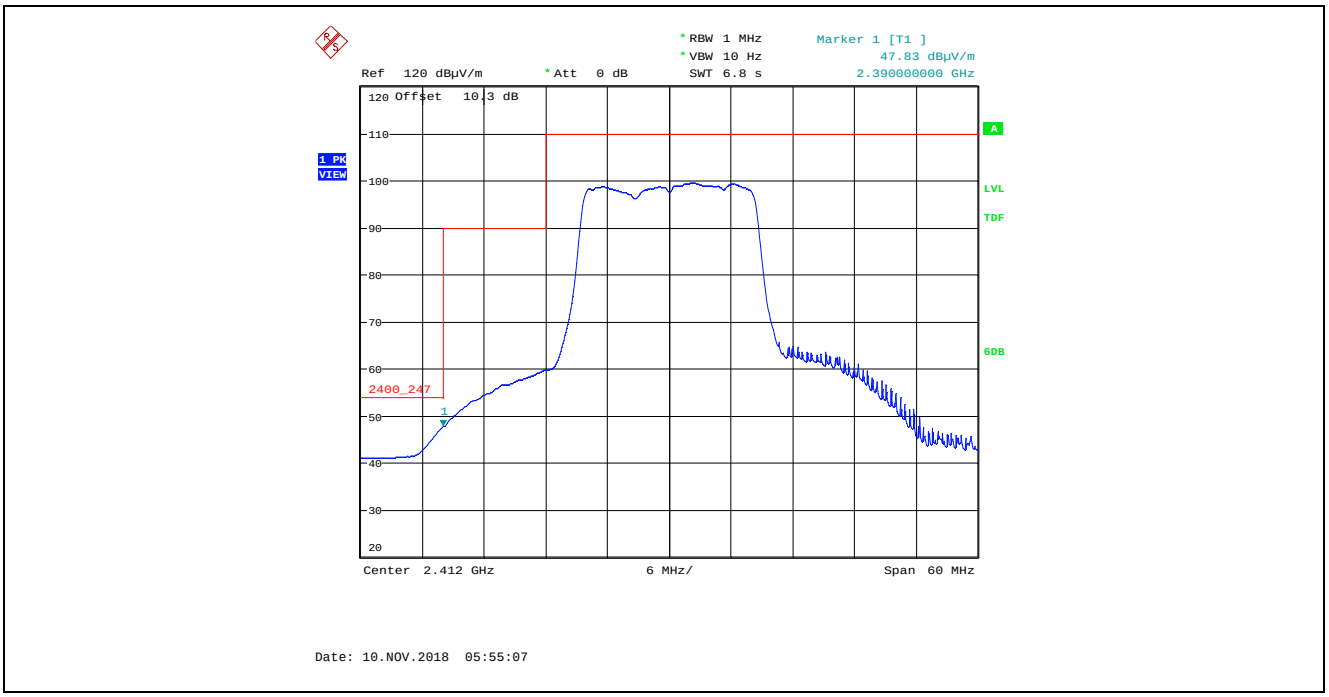
Plot 5.4.4.2.4.8. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
9 Mbps BPSK, Power Setting 16, Channel 11, 2462 MHz



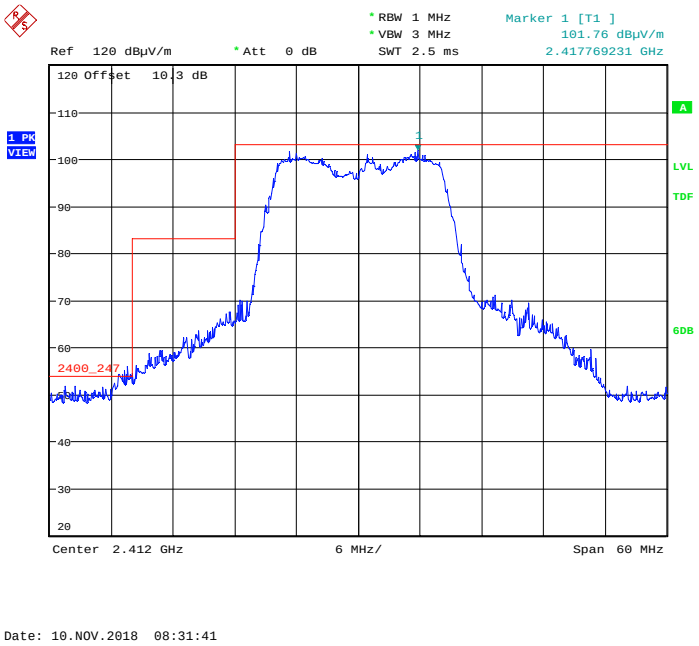
Plot 5.4.4.2.4.9. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
18 Mbps QPSK, Power Setting 16, Channel 1, 2412 MHz



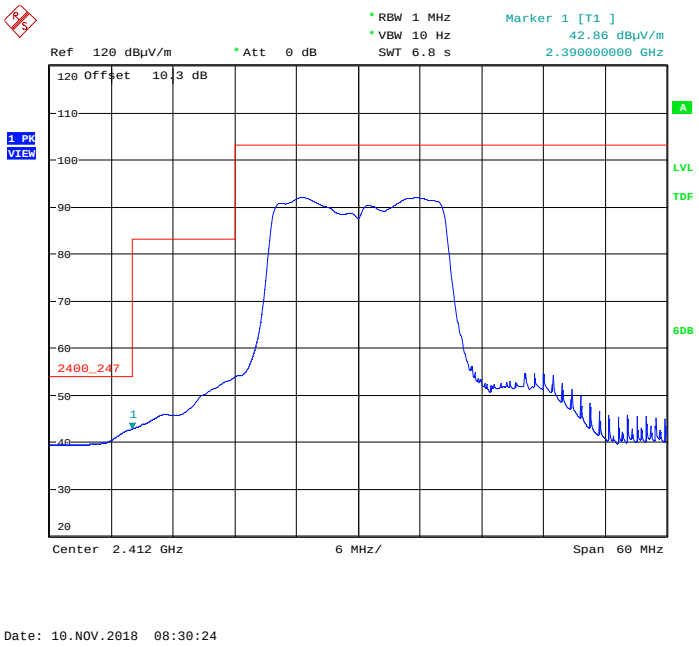
Plot 5.4.4.2.4.10. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
18 Mbps QPSK, Power Setting 16, Channel 1, 2412 MHz



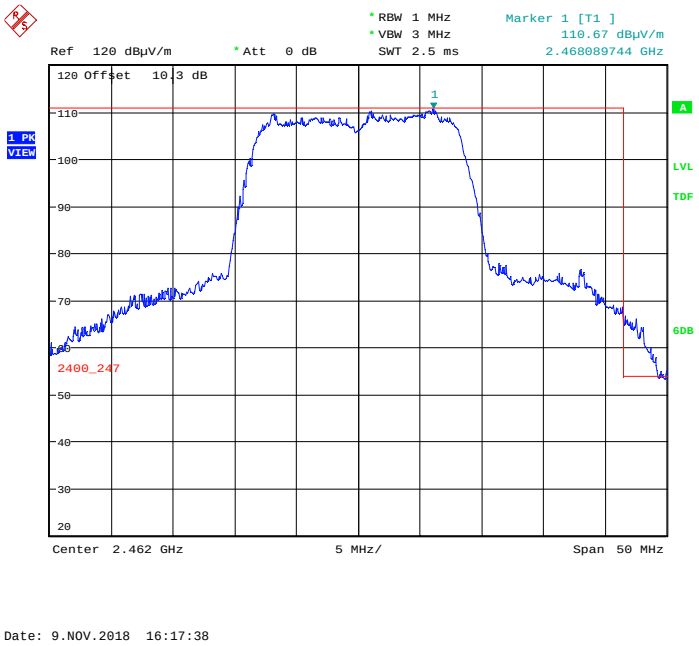
Plot 5.4.4.2.4.11. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
18 Mbps QPSK, Power Setting 16, Channel 1, 2412 MHz



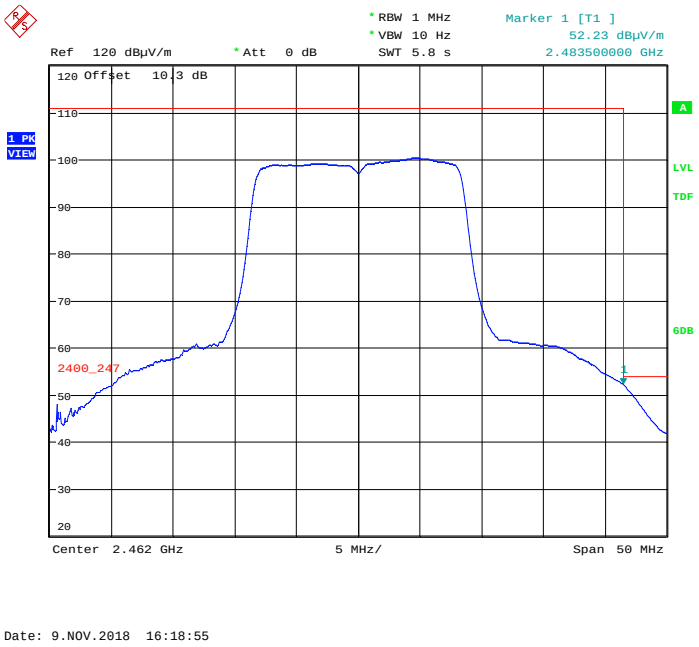
Plot 5.4.4.2.4.12. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
18 Mbps QPSK, Power Setting 16, Channel 1, 2412 MHz



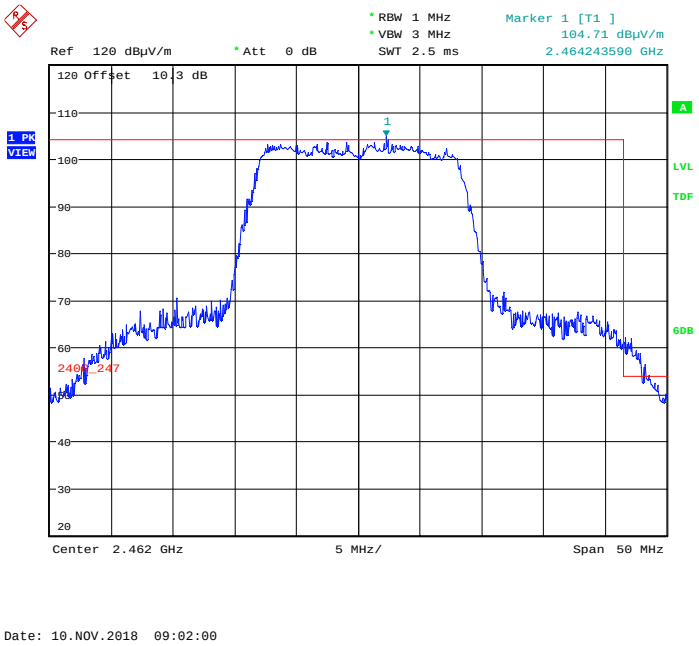
Plot 5.4.4.2.4.13. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
18 Mbps QPSK, Power Setting 16, Channel 11, 2462 MHz



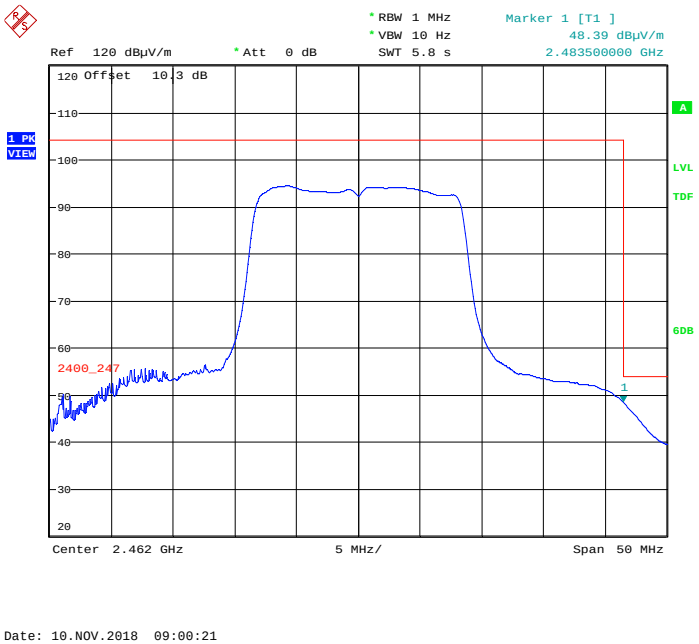
Plot 5.4.4.2.4.14. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
18 Mbps QPSK, Power Setting 16, Channel 11, 2462 MHz



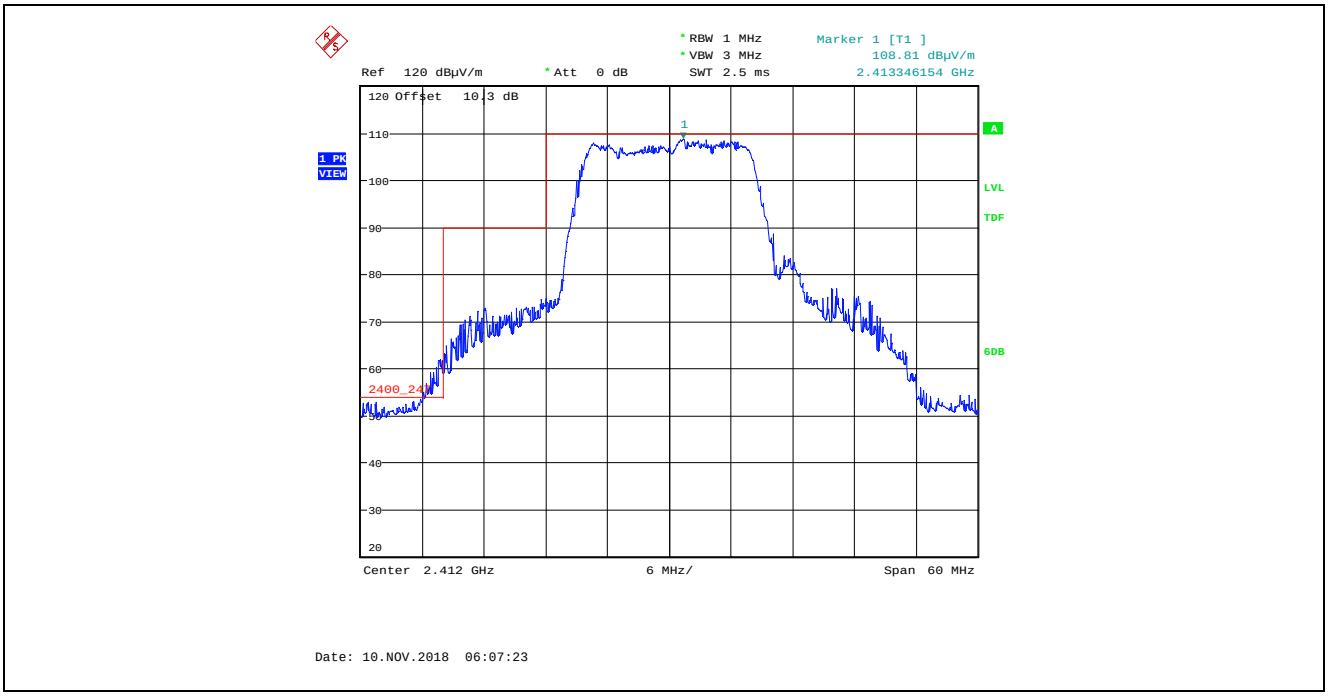
Plot 5.4.4.2.4.15. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
18 Mbps QPSK, Power Setting 16, Channel 11, 2462 MHz



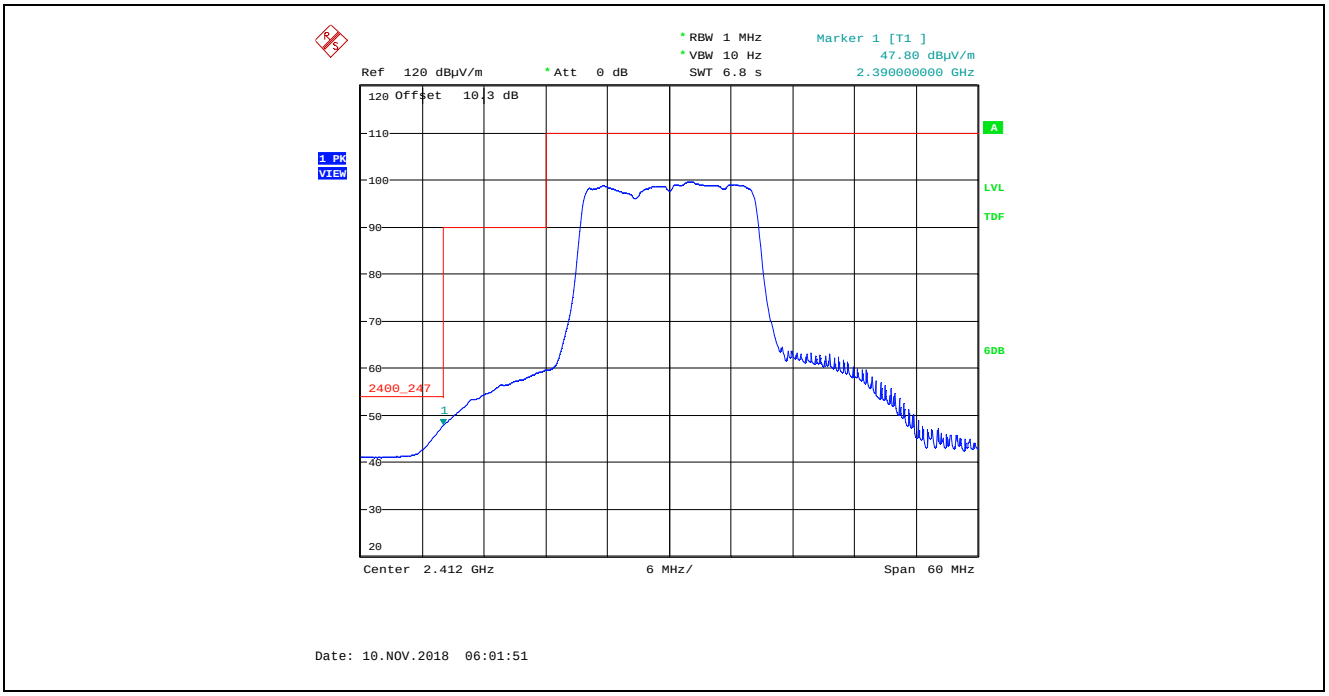
Plot 5.4.4.2.4.16. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
18 Mbps QPSK, Power Setting 16, Channel 11, 2462 MHz



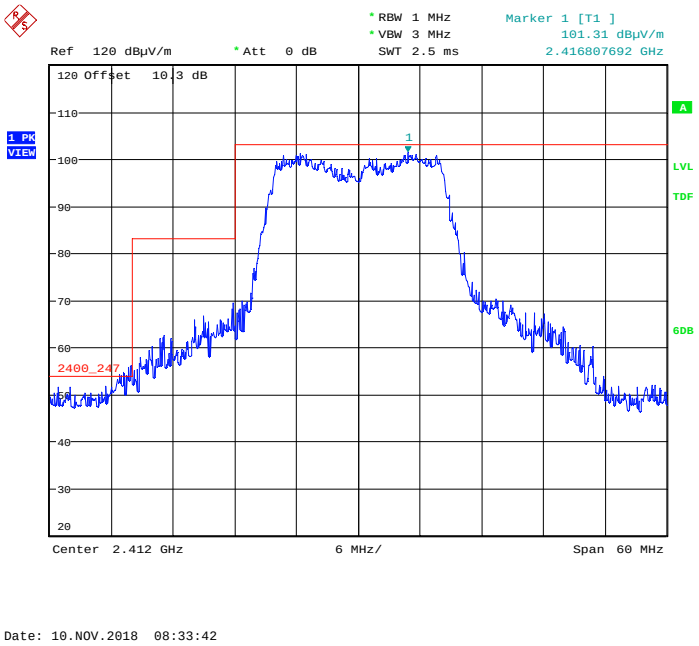
Plot 5.4.4.2.4.17. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
36 Mbps 16-QAM, Power Setting 16, Channel 1, 2412 MHz



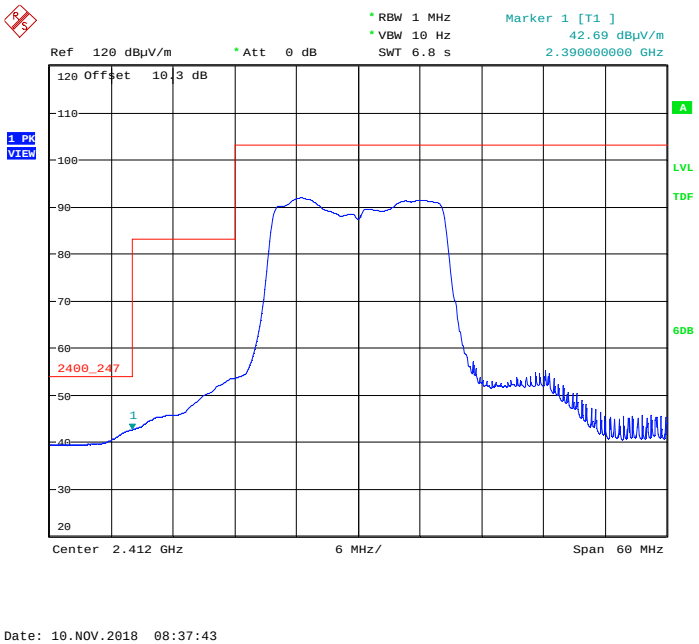
Plot 5.4.4.2.4.18. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
36 Mbps 16-QAM, Power Setting 16, Channel 1, 2412 MHz



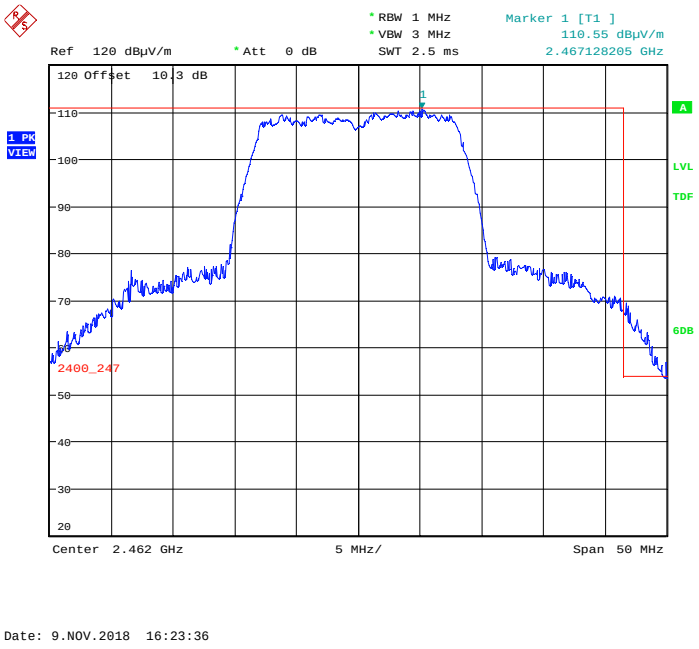
Plot 5.4.4.2.4.19. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
36 Mbps 16-QAM, Power Setting 16, Channel 1, 2412 MHz



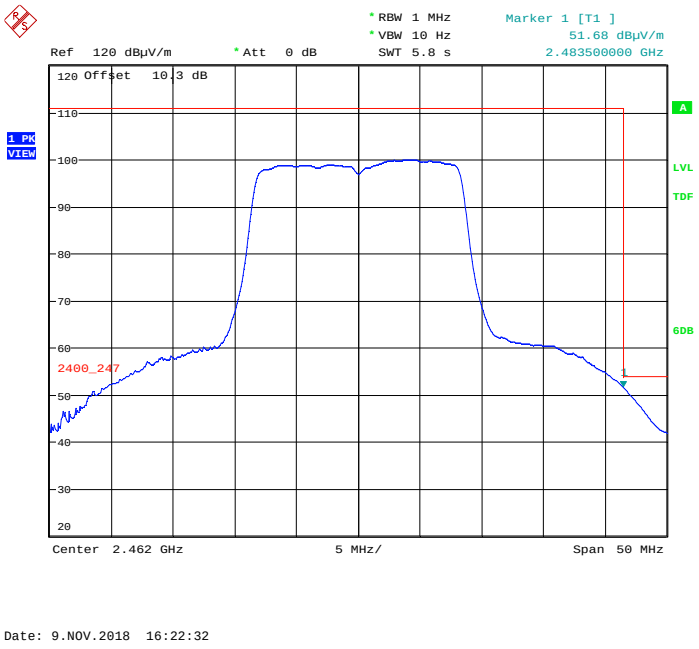
Plot 5.4.4.2.4.20. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
36 Mbps 16-QAM, Power Setting 16, Channel 1, 2412 MHz



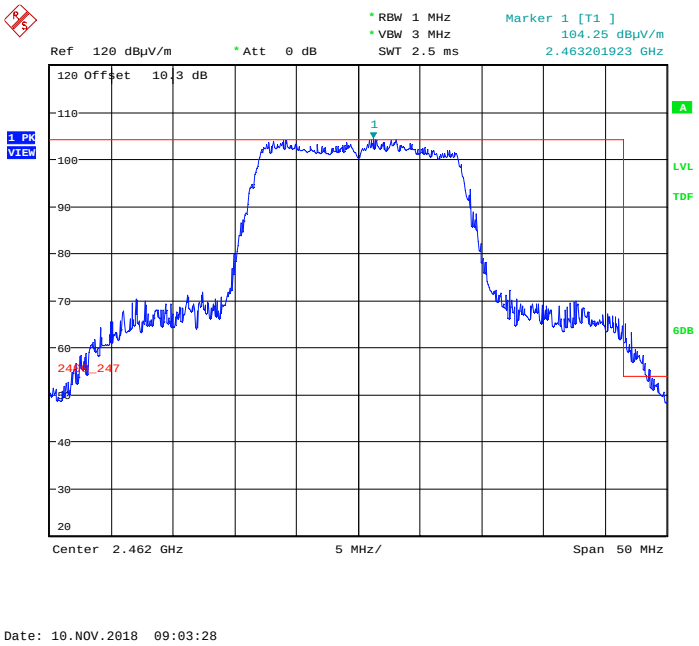
Plot 5.4.4.2.4.21. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
36 Mbps 16-QAM, Power Setting 16, Channel 11, 2462 MHz



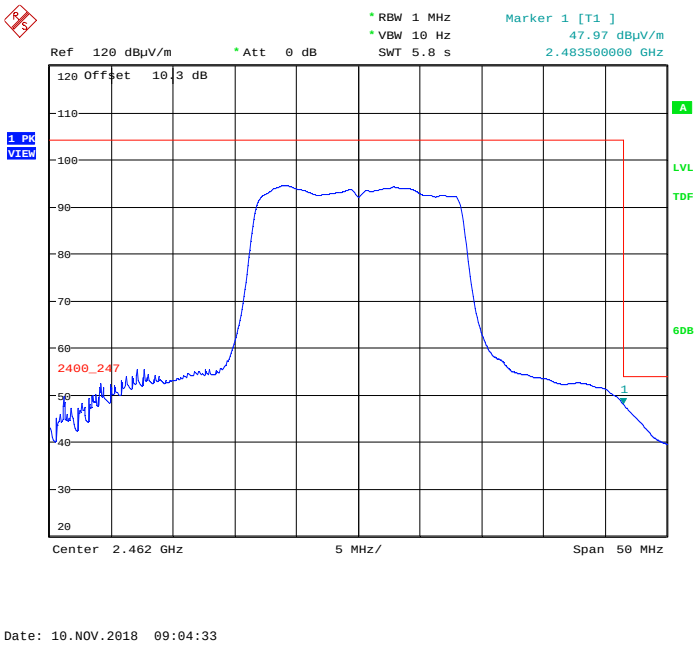
Plot 5.4.4.2.4.22. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
36 Mbps 16-QAM, Power Setting 16, Channel 11, 2462 MHz



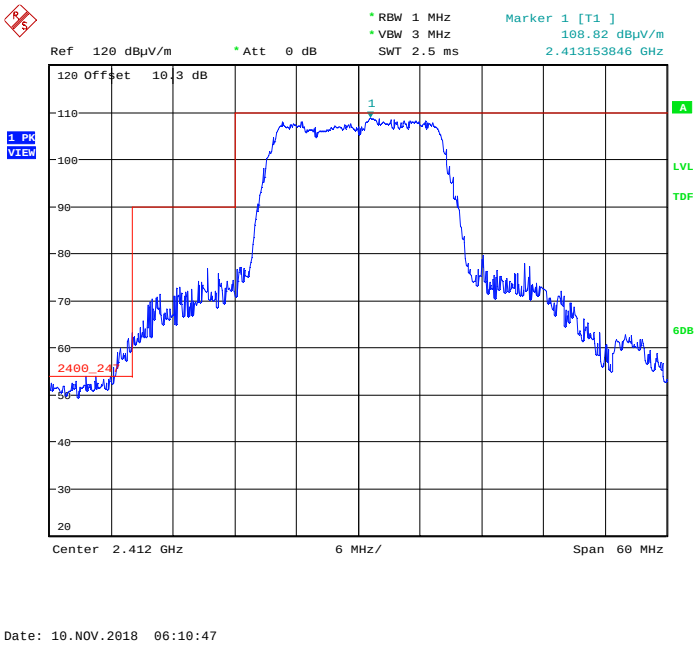
Plot 5.4.4.2.4.23. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
36 Mbps 16-QAM, Power Setting 16, Channel 11, 2462 MHz



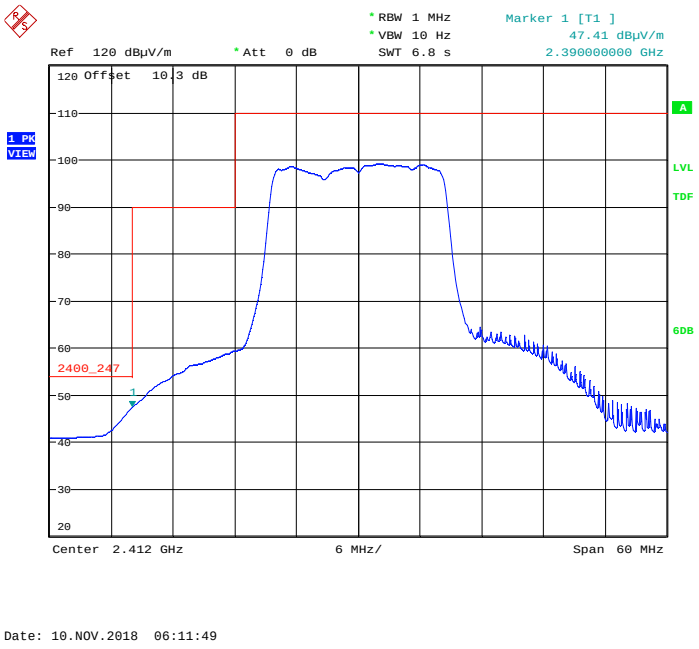
Plot 5.4.4.2.4.24. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
36 Mbps 16-QAM, Power Setting 16, Channel 11, 2462 MHz



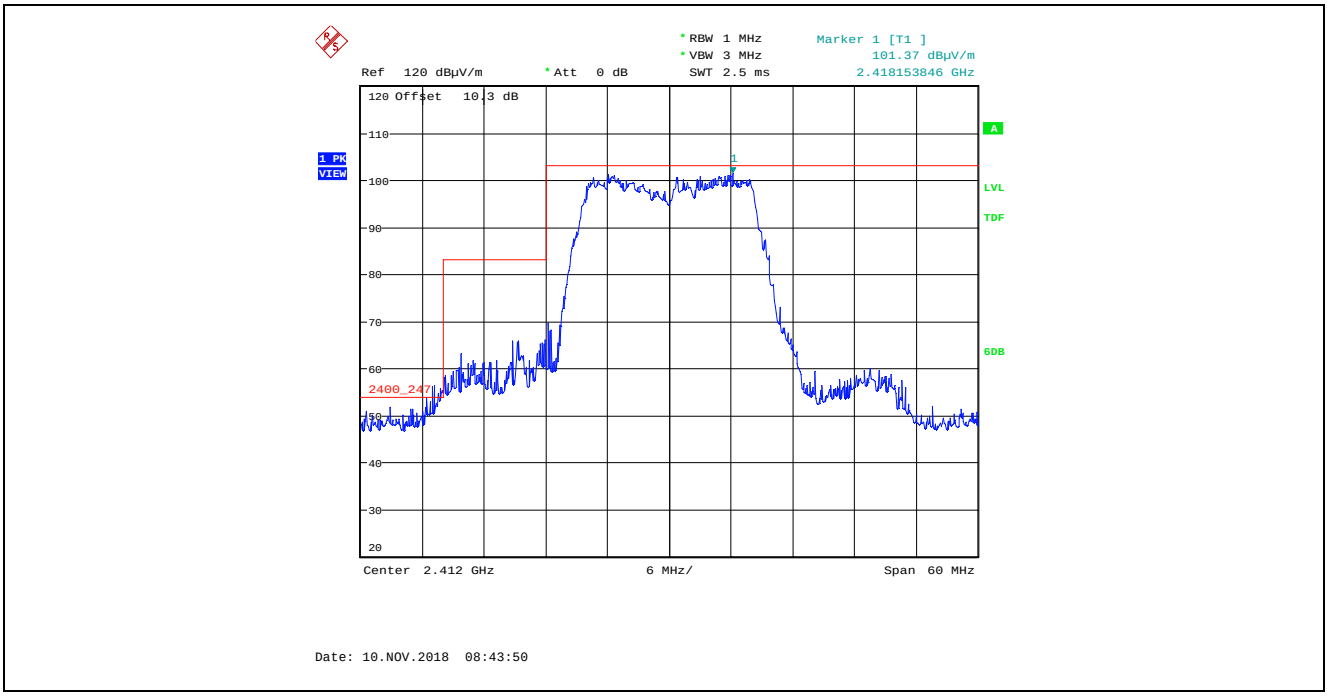
Plot 5.4.4.2.4.25. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
54 Mbps 64-QAM, Power Setting 16, Channel 1, 2412 MHz



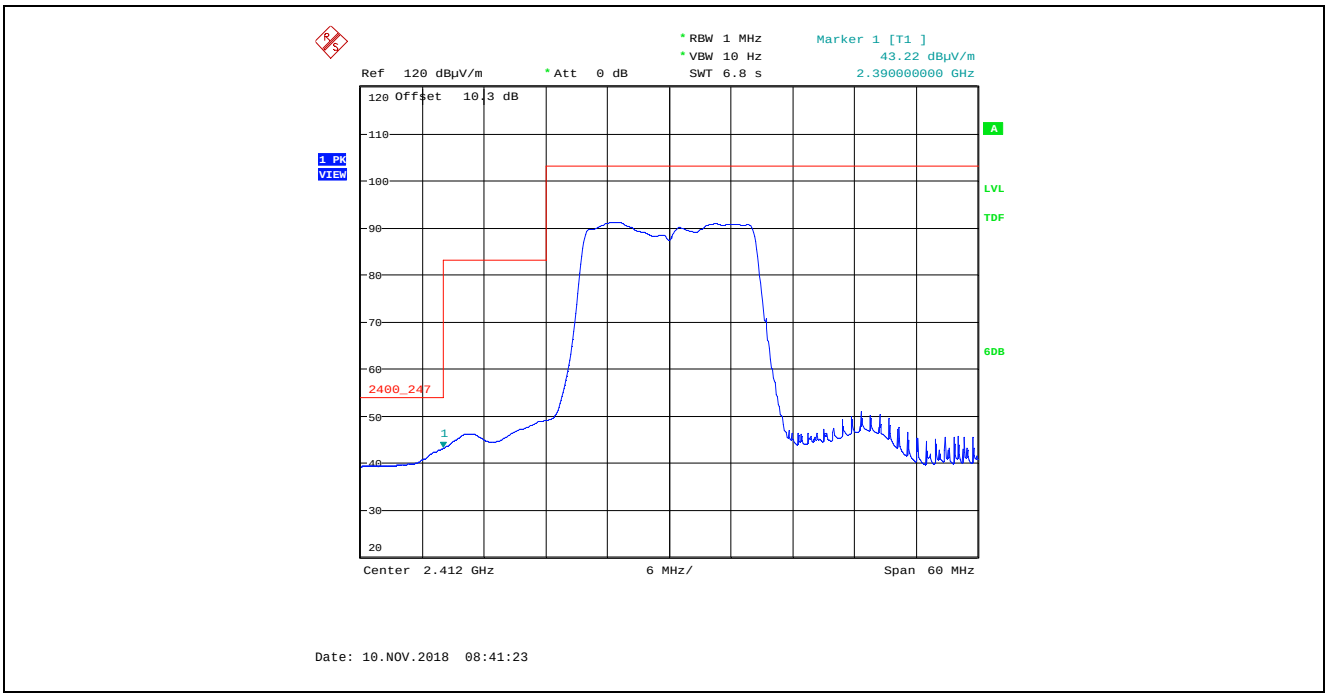
Plot 5.4.4.2.4.26. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
54 Mbps 64-QAM, Power Setting 16, Channel 1, 2412 MHz



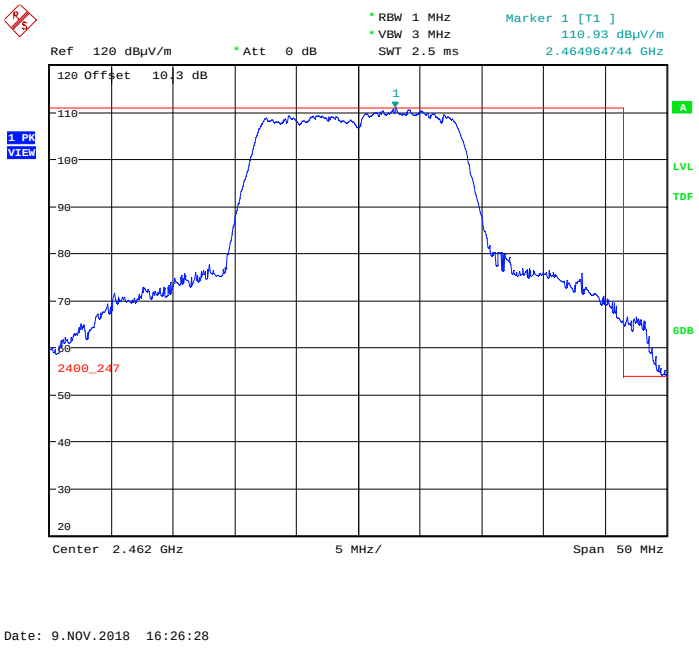
Plot 5.4.4.2.4.27. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
54 Mbps 64-QAM, Power Setting 16, Channel 1, 2412 MHz



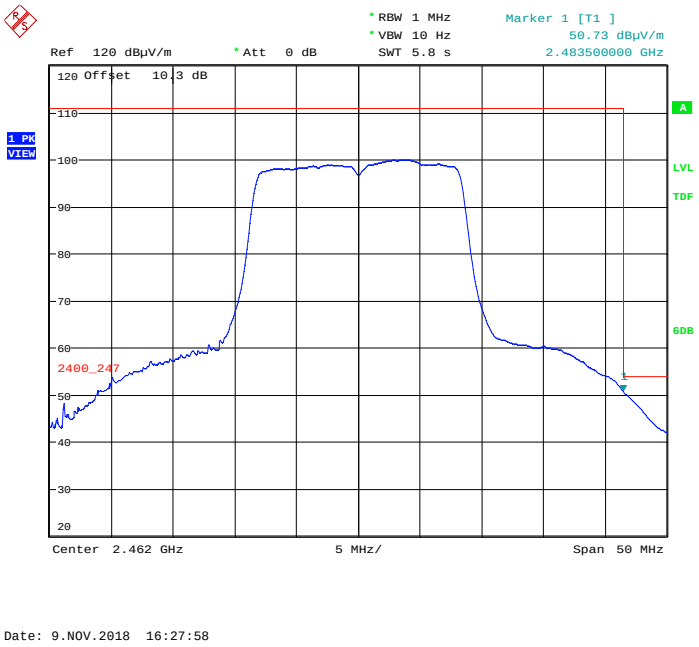
Plot 5.4.4.2.4.28. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
54 Mbps 64-QAM, Power Setting 16, Channel 1, 2412 MHz



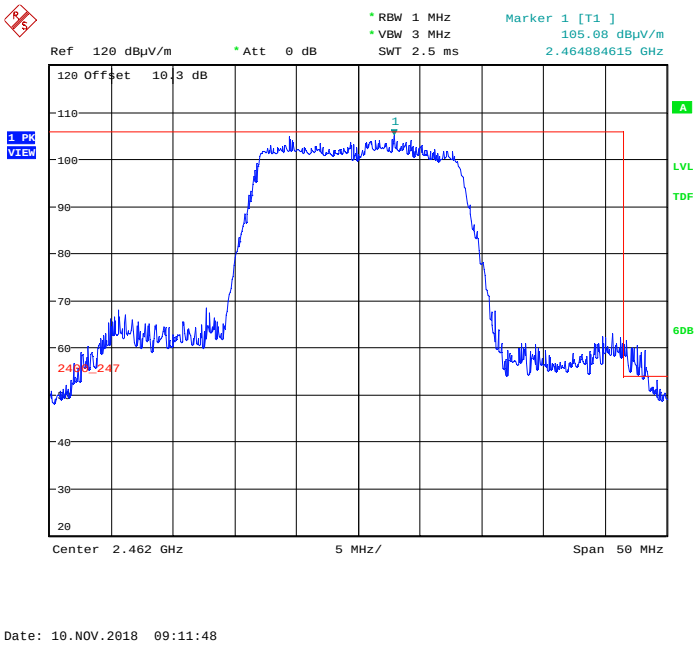
Plot 5.4.4.2.4.29. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
54 Mbps 64-QAM, Power Setting 16, Channel 11, 2462 MHz



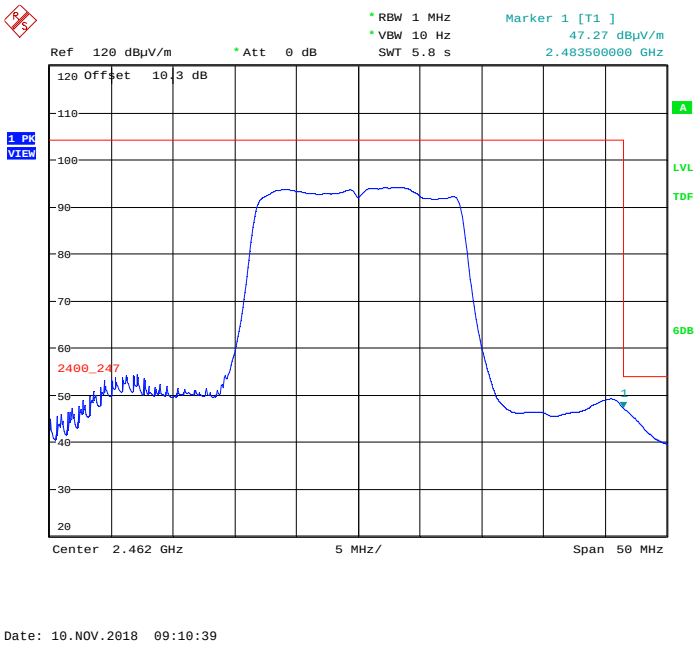
Plot 5.4.4.2.4.30. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
54 Mbps 64-QAM, Power Setting 16, Channel 11, 2462 MHz



Plot 5.4.4.2.4.31. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
54 Mbps 64-QAM, Power Setting 16, Channel 11, 2462 MHz



Plot 5.4.4.2.4.32. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
54 Mbps 64-QAM, Power Setting 16, Channel 11, 2462 MHz



5.4.4.2.5. Spurious Radiated Emissions for 802.11n MCS7

Fundamental Frequency:	2412 MHz						
Frequency Test Range:	30 MHz – 25 GHz						
Power Setting:	15						
Frequency (MHz)	**RF Peak Level (dBµV/m)**	**RF Avg Level (dBµV/m)**	**Antenna Plane (H/V)**	**Limit 15.209 (dBµV/m)**	**Limit 15.247 (dBµV/m)**	**Margin (dB)**	**Pass/ Fail**
2412	100.18	--	V	--	--	--	--
2412	109.08	--	H	--	--	--	--
*	*	*	V/H	*	*	*	*

*Spurious emissions are more than 20 dB below the applicable limit.

Fundamental Frequency:	2437 MHz						
Frequency Test Range:	30 MHz – 25 GHz						
Power Setting:	15						
Frequency (MHz)	**RF Peak Level (dBµV/m)**	**RF Avg Level (dBµV/m)**	**Antenna Plane (H/V)**	**Limit 15.209 (dBµV/m)**	**Limit 15.247 (dBµV/m)**	**Margin (dB)**	**Pass/ Fail**
2437	102.33	--	V	--	--	--	--
2437	109.21	--	H	--	--	--	--
*	*	*	V/H	*	*	*	*

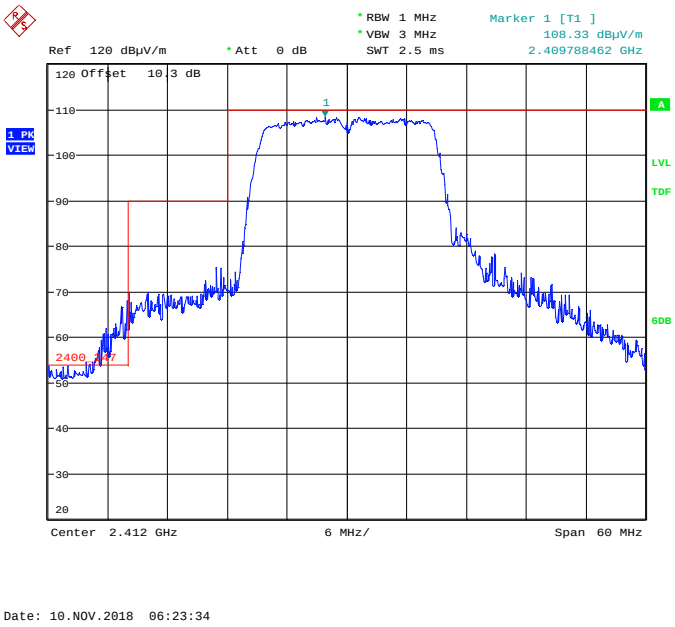
*Spurious emissions are more than 20 dB below the applicable limit.

Fundamental Frequency:	2462 MHz						
Frequency Test Range:	30 MHz – 25 GHz						
Power Setting:	15						
Frequency (MHz)	**RF Peak Level (dBµV/m)**	**RF Avg Level (dBµV/m)**	**Antenna Plane (H/V)**	**Limit 15.209 (dBµV/m)**	**Limit 15.247 (dBµV/m)**	**Margin (dB)**	**Pass/ Fail**
2462	103.78	--	V	--	--	--	--
2462	109.62	--	H	--	--	--	--
*	*	*	V/H	*	*	*	*

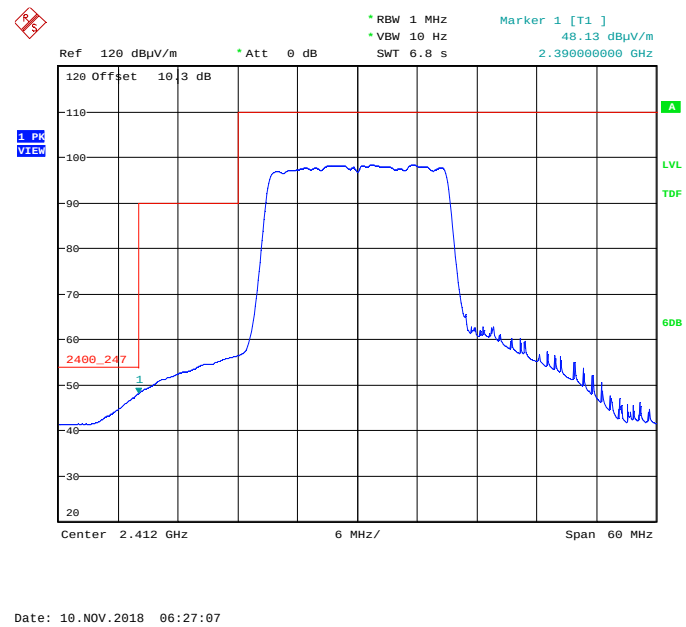
*Spurious emissions are more than 20 dB below the applicable limit.

5.4.4.2.6. Band–Edge RF Radiated Emissions for 802.11n

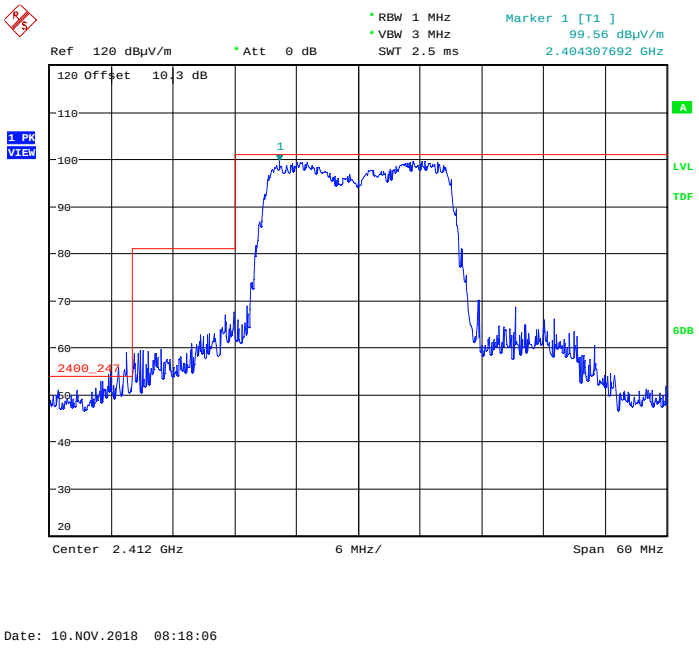
Plot 5.4.4.2.6.1. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS0, Power Setting 15, Channel 1, 2412 MHz



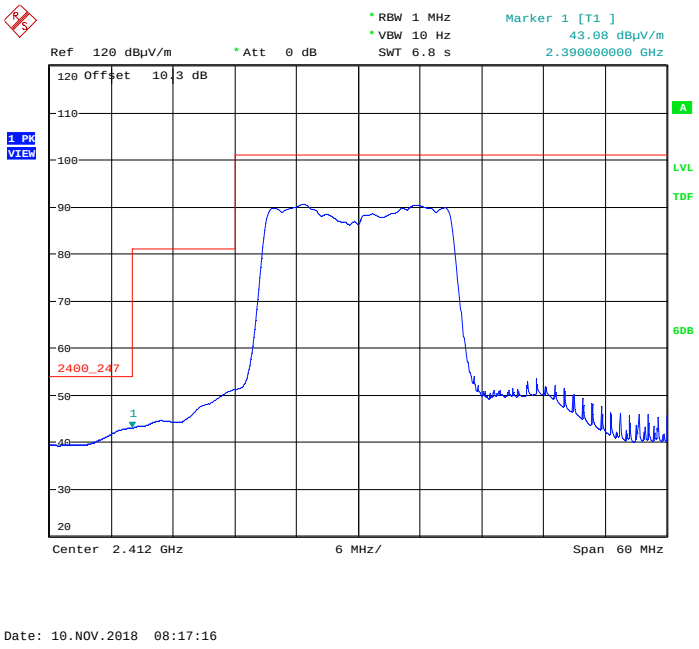
Plot 5.4.4.2.6.2. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS0, Power Setting 15, Channel 1, 2412 MHz



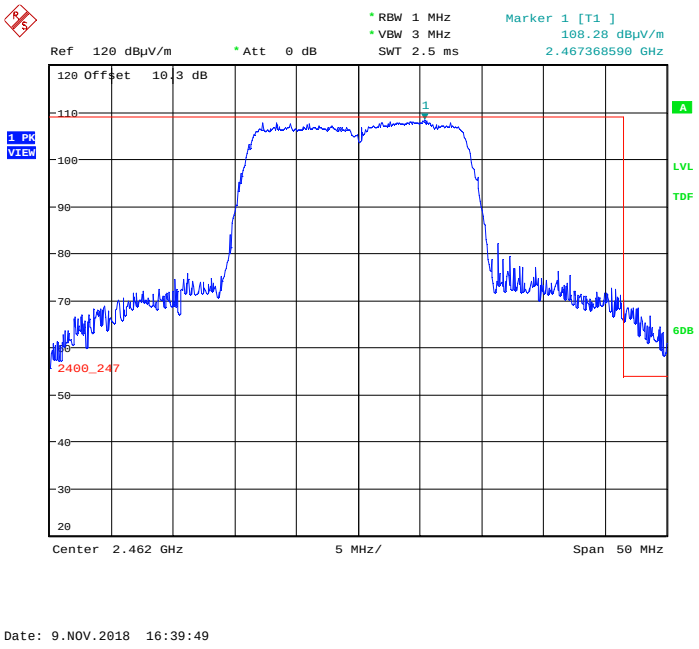
Plot 5.4.4.2.6.3. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS0, Power Setting 15, Channel 1, 2412 MHz



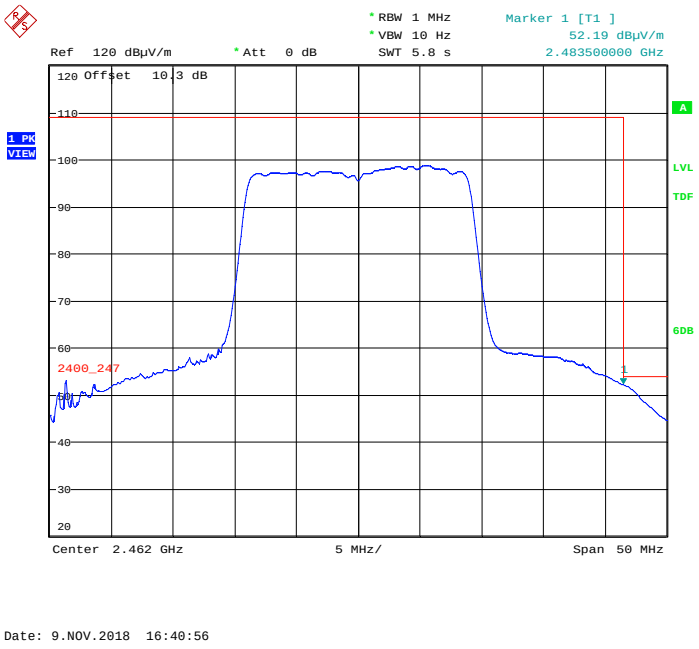
Plot 5.4.4.2.6.4. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS0, Power Setting 15, Channel 1, 2412 MHz



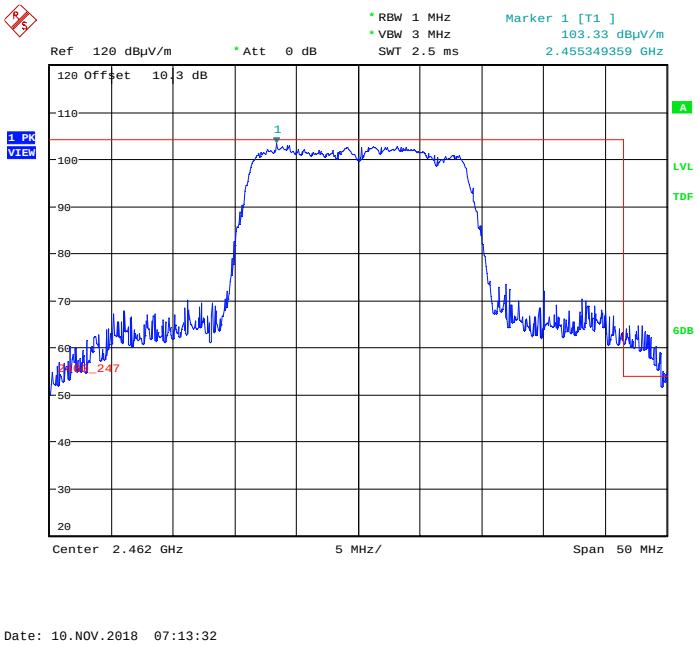
Plot 5.4.4.2.6.5. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS0, Power Setting 15, Channel 11, 2462 MHz



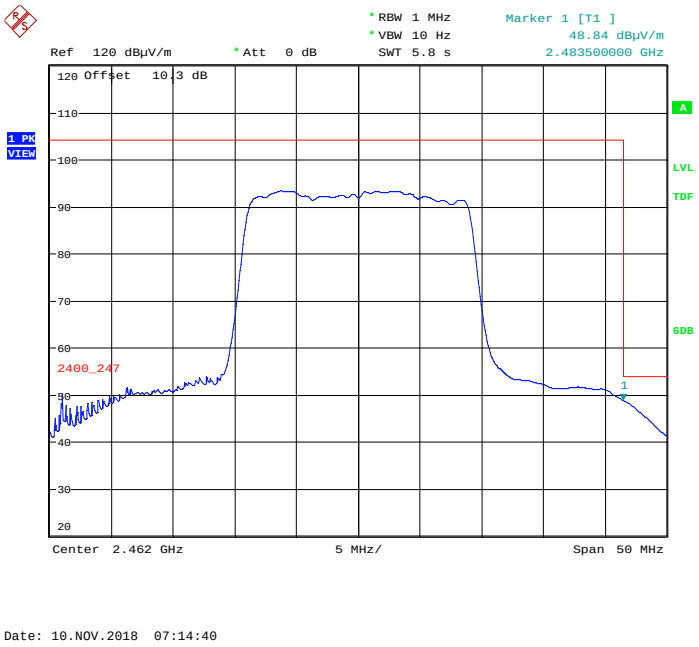
Plot 5.4.4.2.6.6. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS0, Power Setting 15, Channel 11, 2462 MHz



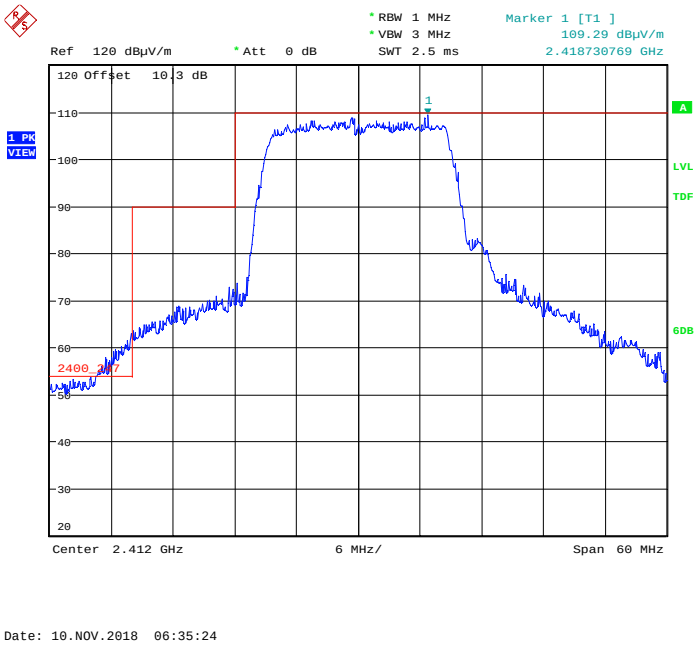
Plot 5.4.4.2.6.7. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS0, Power Setting 15, Channel 11, 2462 MHz



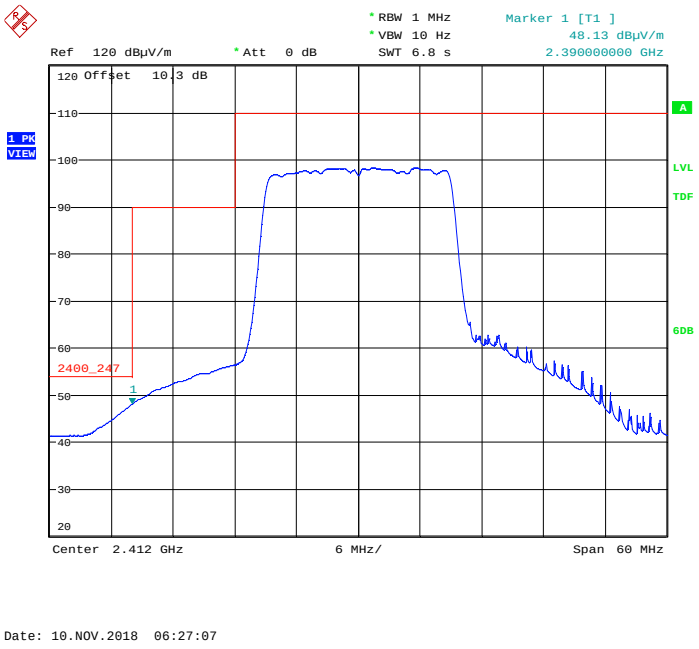
Plot 5.4.4.2.6.8. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS0, Power Setting 15, Channel 11, 2462 MHz



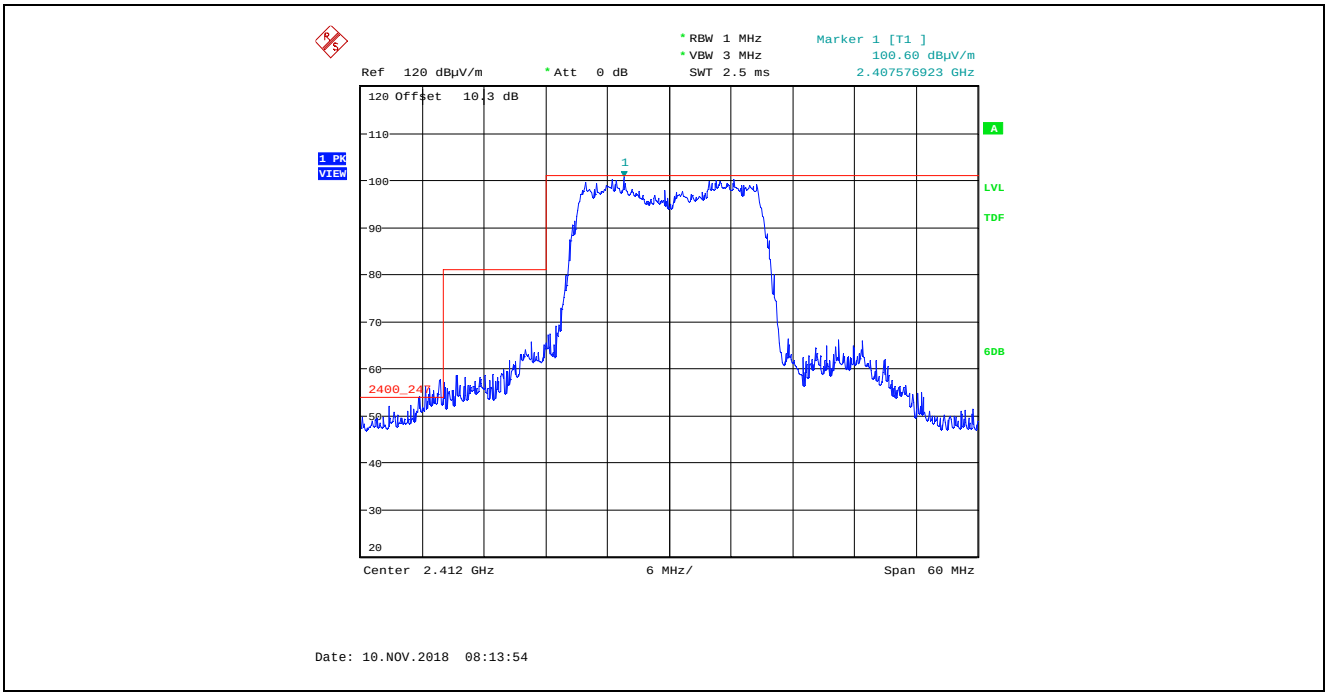
Plot 5.4.4.2.6.9. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS2, Power Setting 15, Channel 1, 2412 MHz



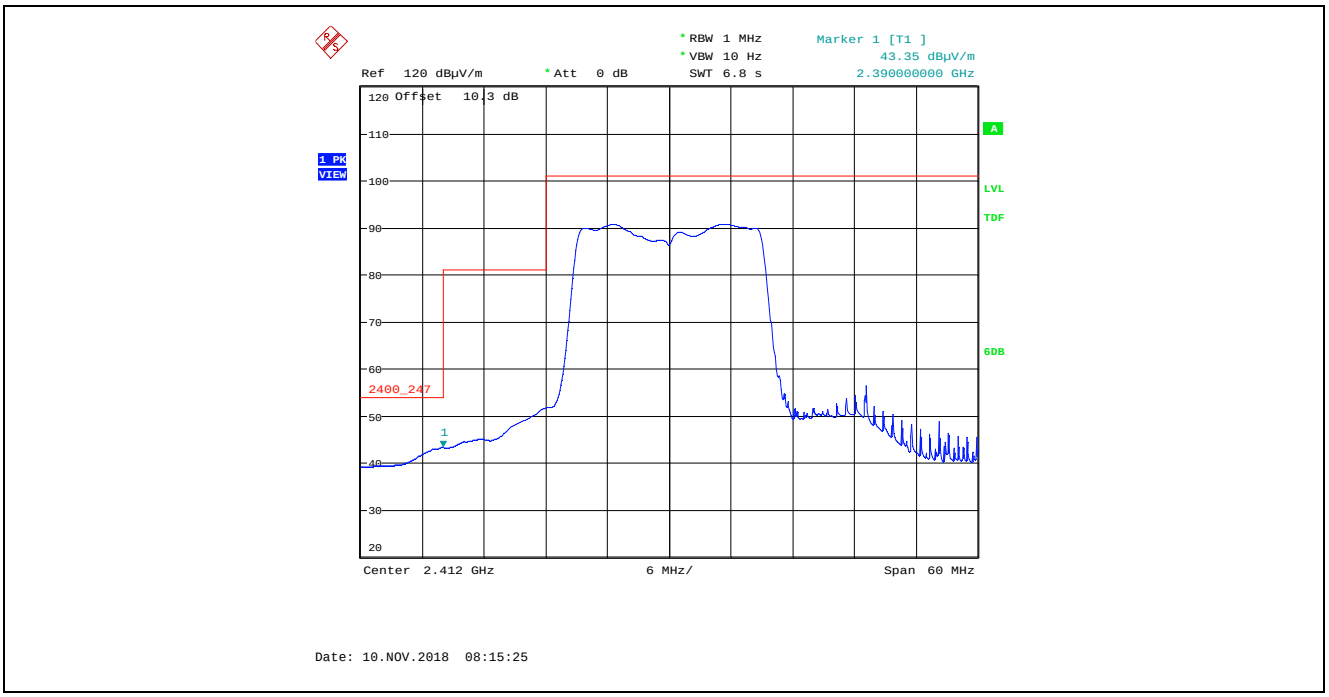
Plot 5.4.4.2.6.10. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS2, Power Setting 15, Channel 1, 2412 MHz



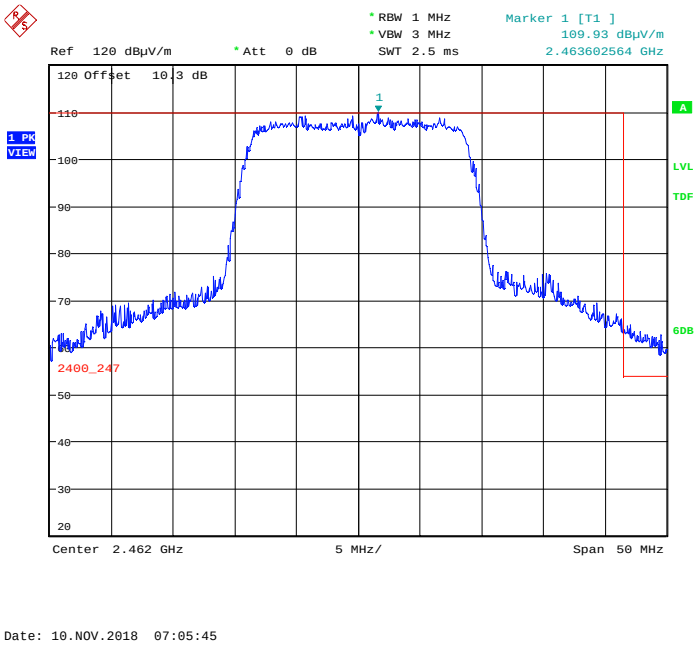
Plot 5.4.4.2.6.11. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS2, Power Setting 15, Channel 1, 2412 MHz



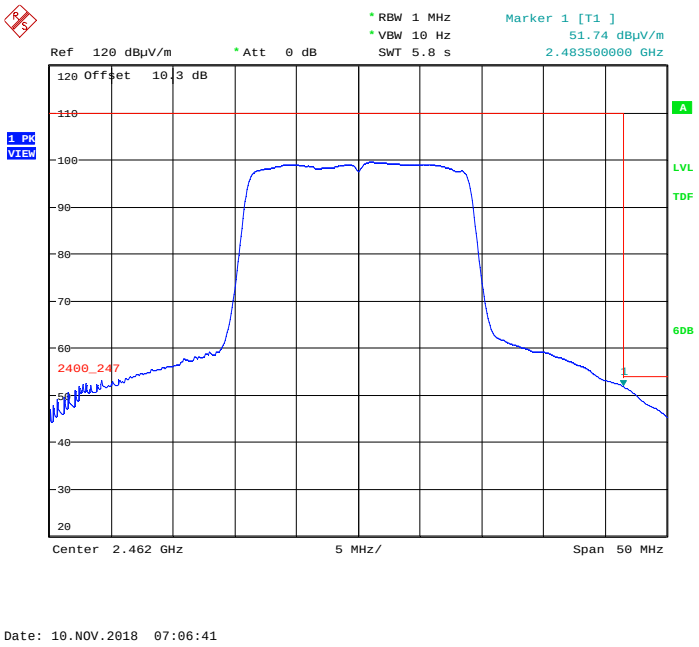
Plot 5.4.4.2.6.12. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS2, Power Setting 15, Channel 1, 2412 MHz



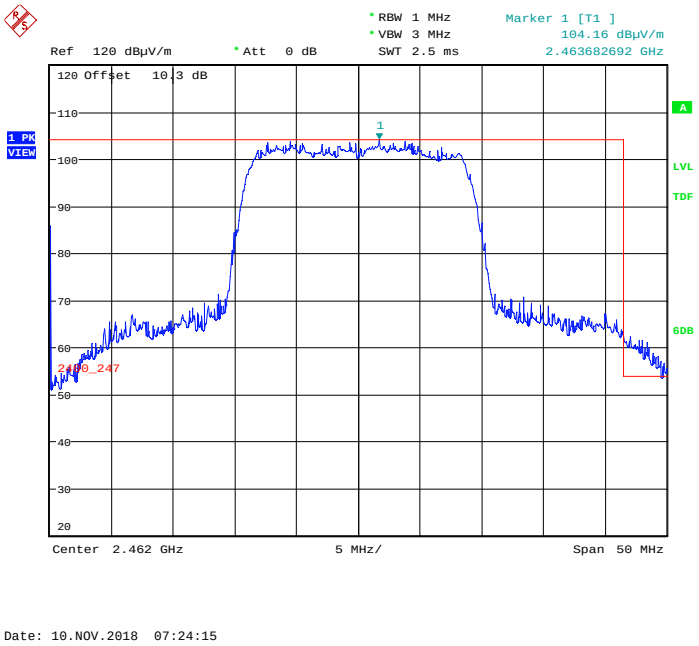
Plot 5.4.4.2.6.13. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS2, Power Setting 15, Channel 11, 2462 MHz



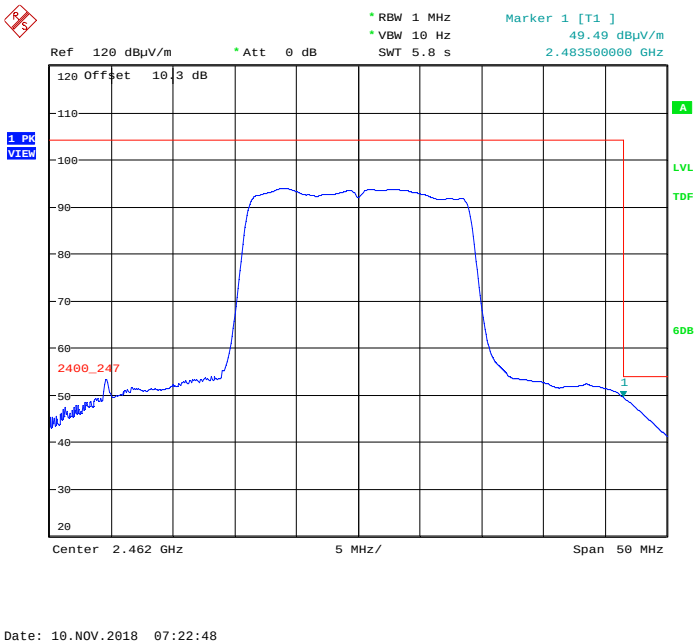
Plot 5.4.4.2.6.14. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS2, Power Setting 15, Channel 11, 2462 MHz



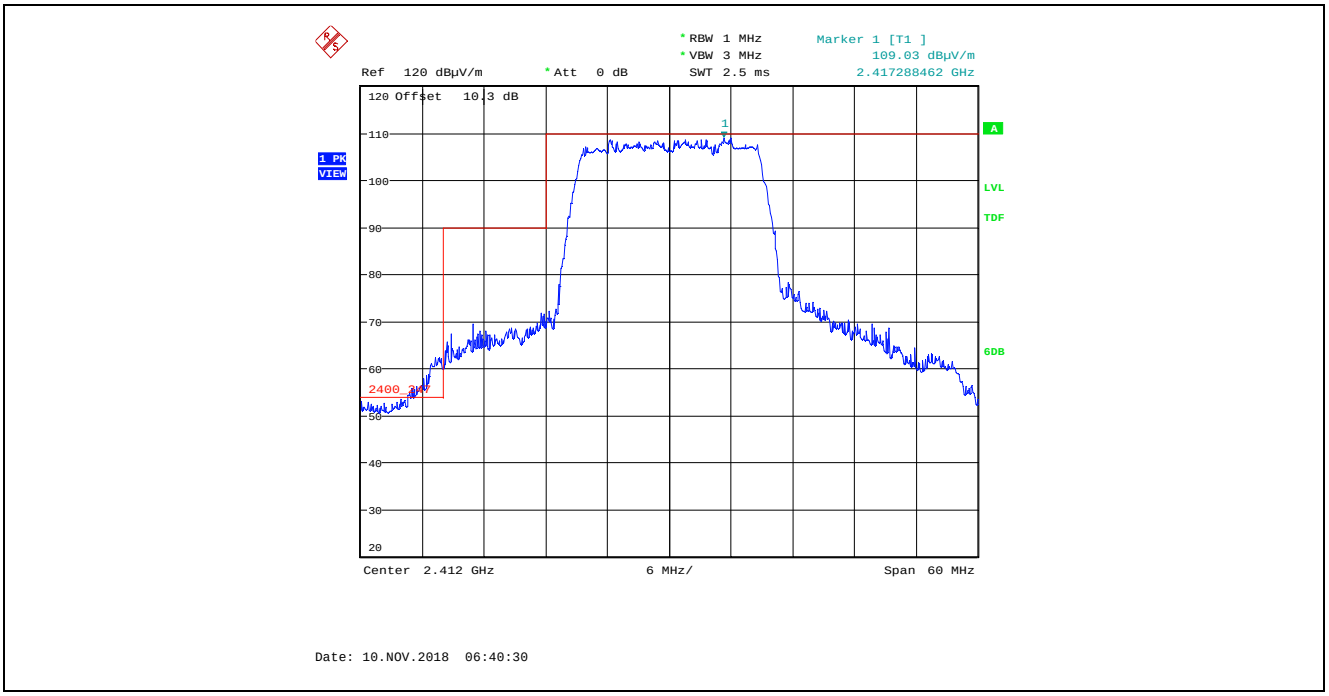
Plot 5.4.4.2.6.15. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS2, Power Setting 15, Channel 11, 2462 MHz



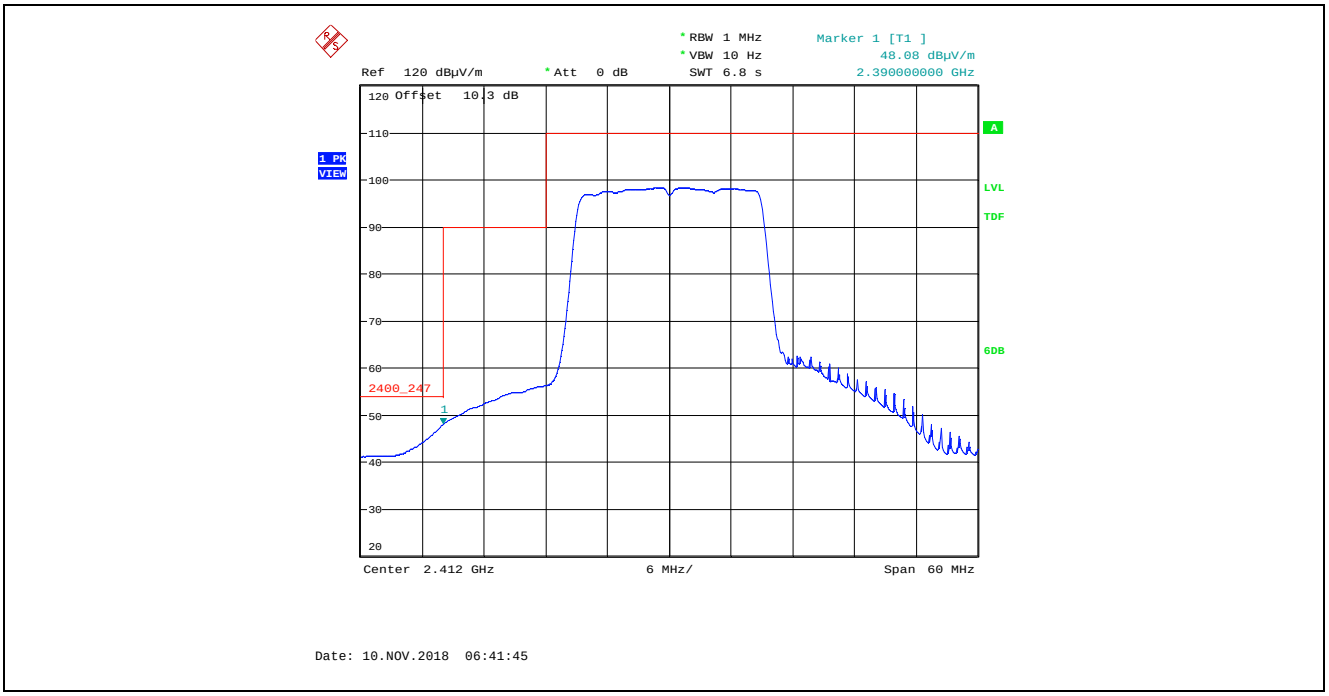
Plot 5.4.4.2.6.16. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS2, Power Setting 15, Channel 11, 2462 MHz



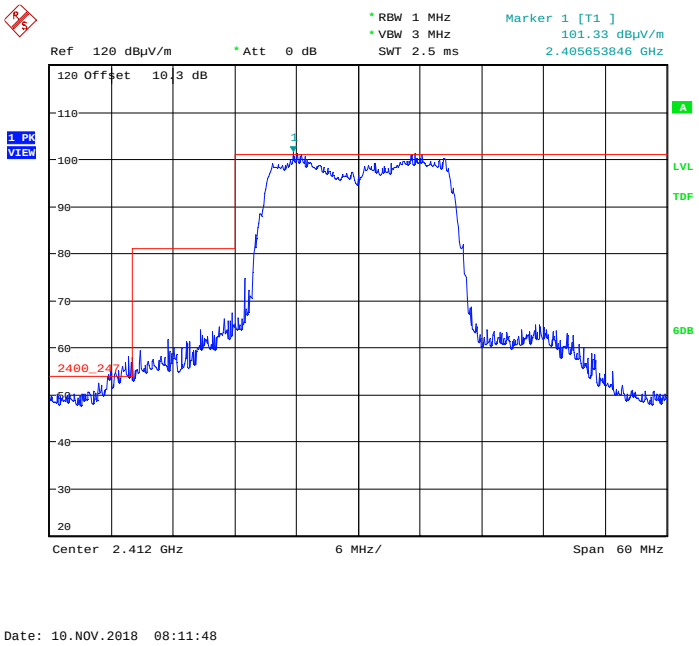
Plot 5.4.4.2.6.17. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS4, Power Setting 15, Channel 1, 2412 MHz



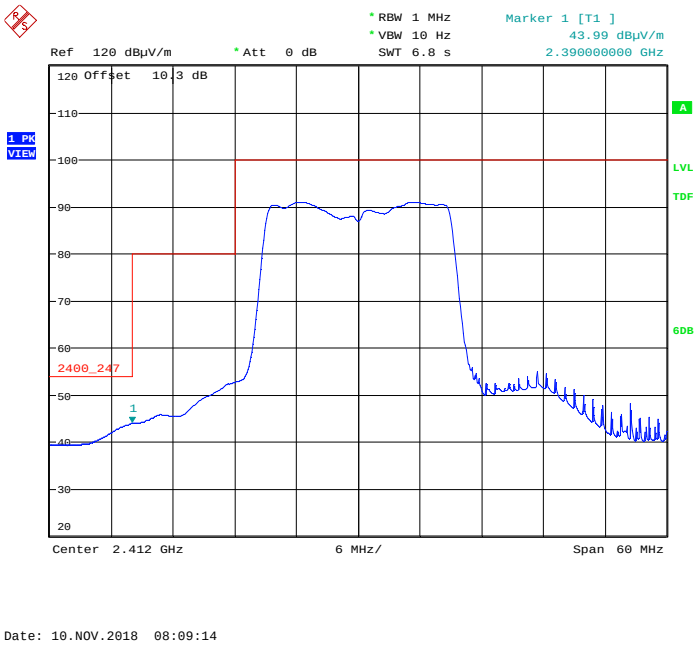
Plot 5.4.4.2.6.18. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS4, Power Setting 15, Channel 1, 2412 MHz



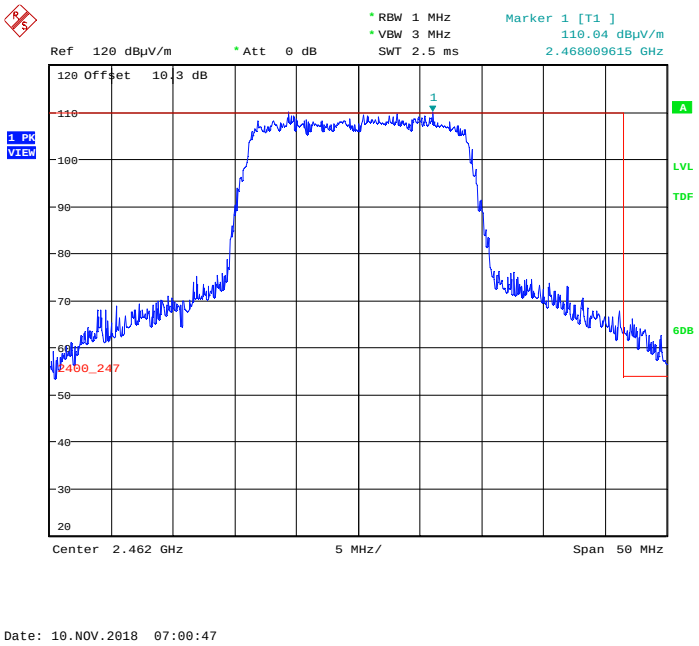
Plot 5.4.4.2.6.19. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS4, Power Setting 15, Channel 1, 2412 MHz



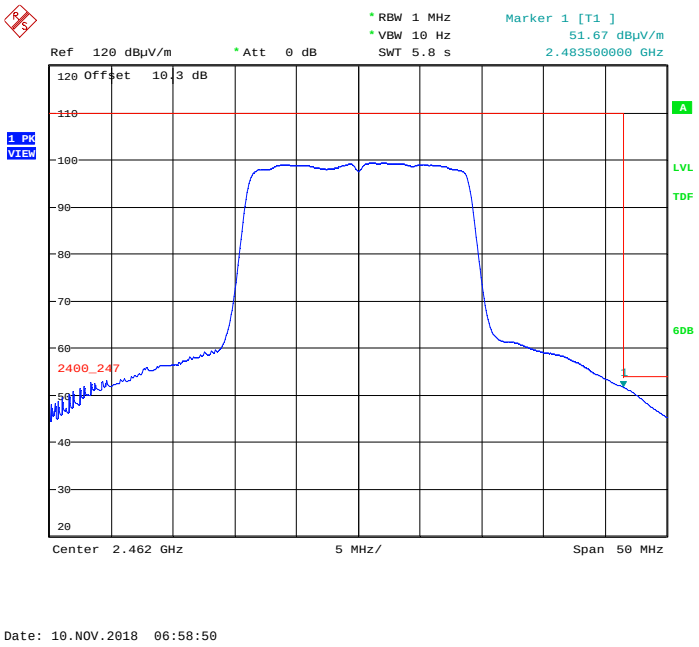
Plot 5.4.4.2.6.20. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS4, Power Setting 15, Channel 1, 2412 MHz



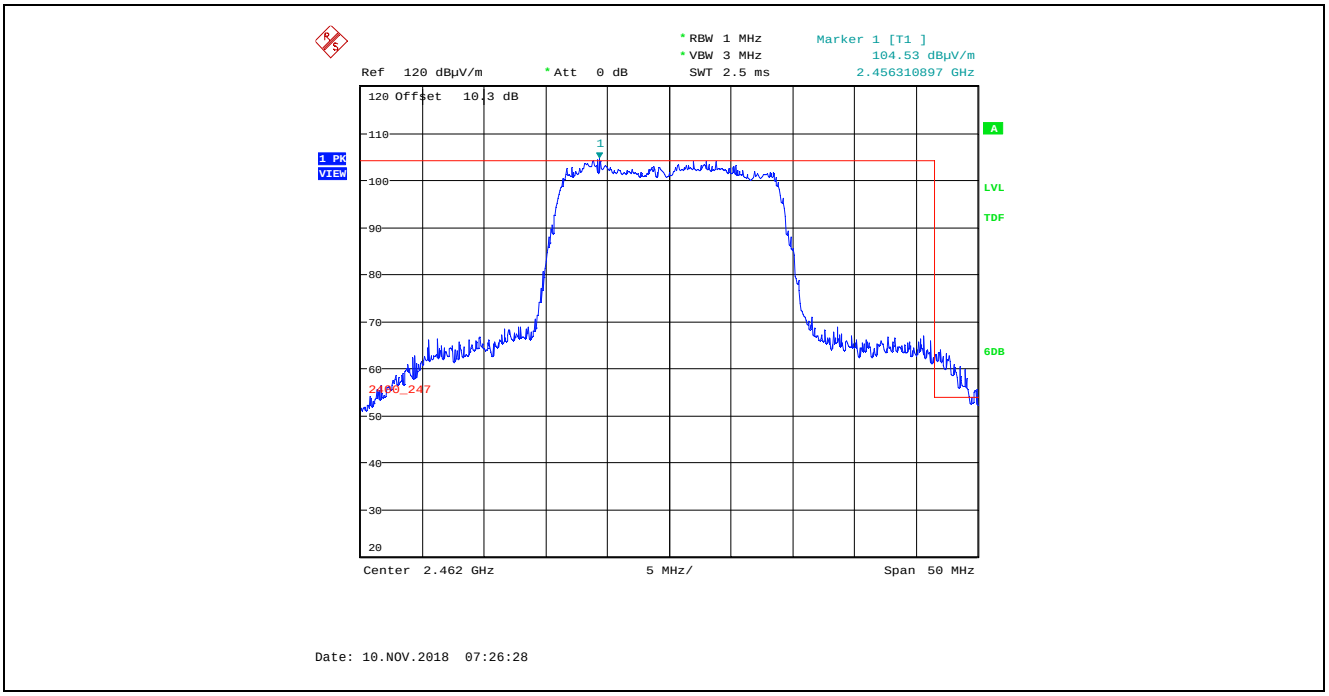
Plot 5.4.4.2.6.21. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS4, Power Setting 15, Channel 11, 2462 MHz



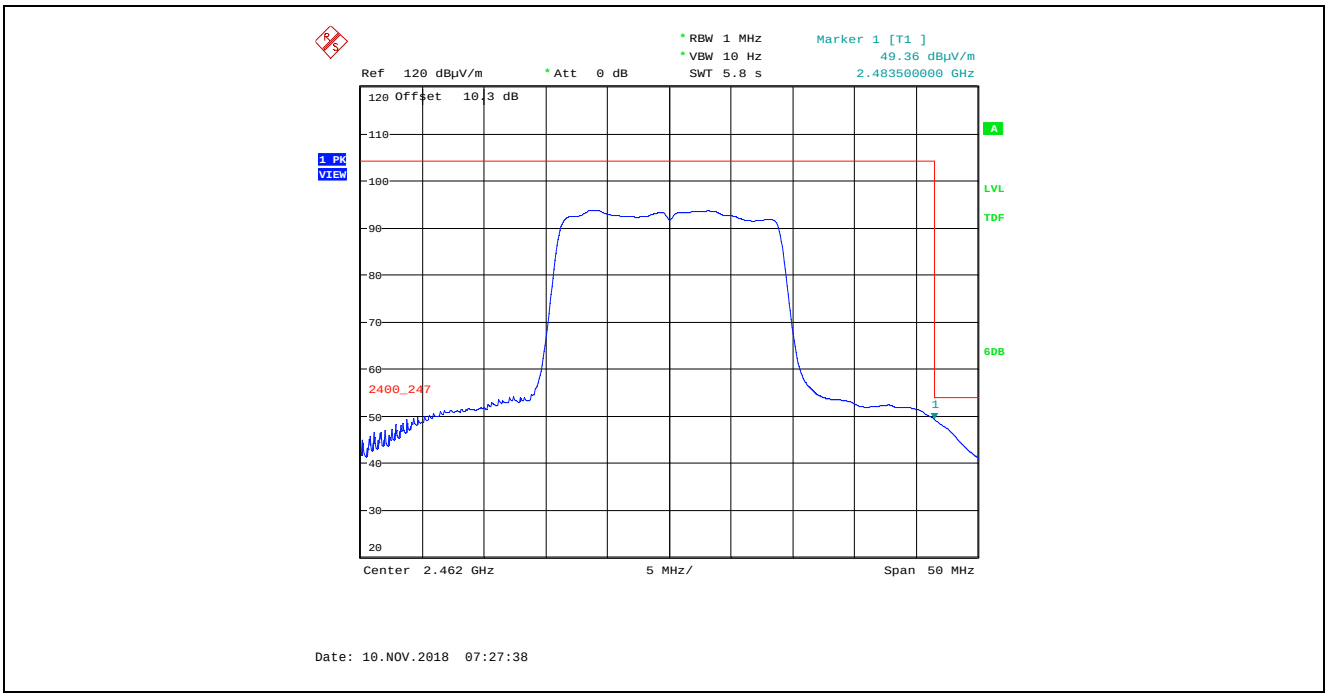
Plot 5.4.4.2.6.22. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS4, Power Setting 15, Channel 11, 2462 MHz



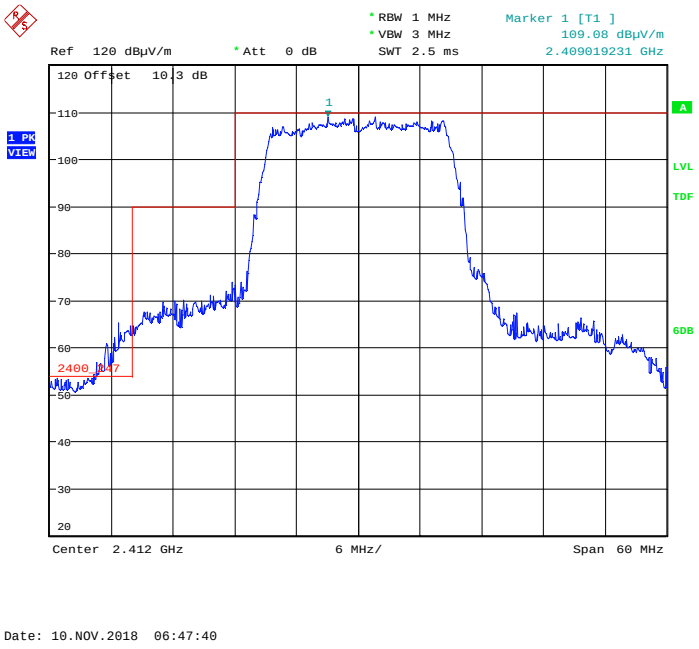
Plot 5.4.4.2.6.23. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS4, Power Setting 15, Channel 11, 2462 MHz



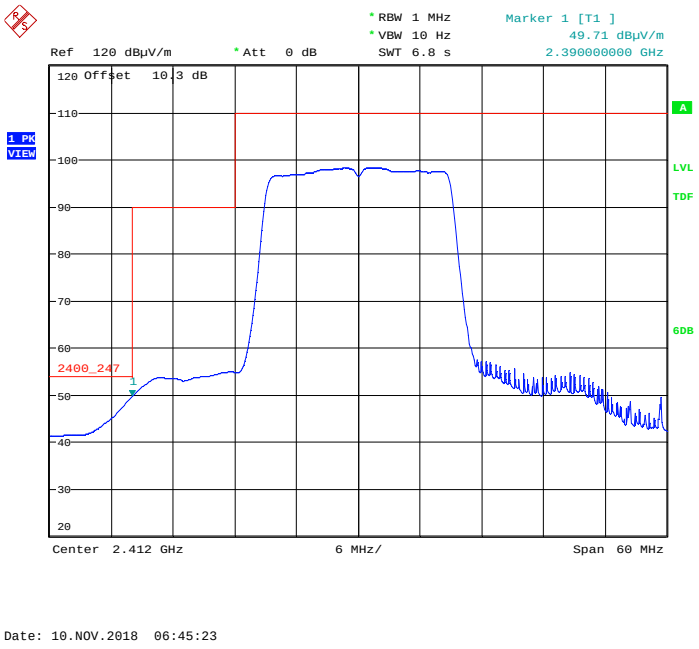
Plot 5.4.4.2.6.24. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS4, Power Setting 15, Channel 11, 2462 MHz



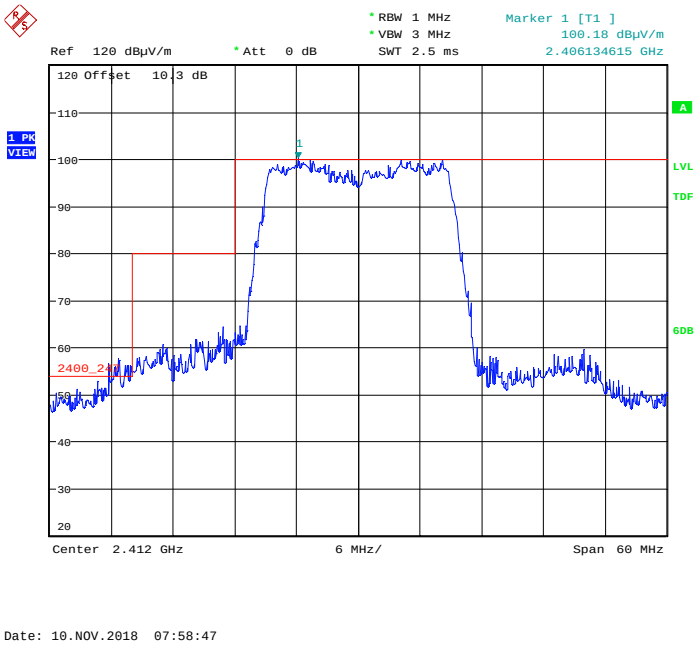
Plot 5.4.4.2.6.25. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS7, Power Setting 15, Channel 1, 2412 MHz



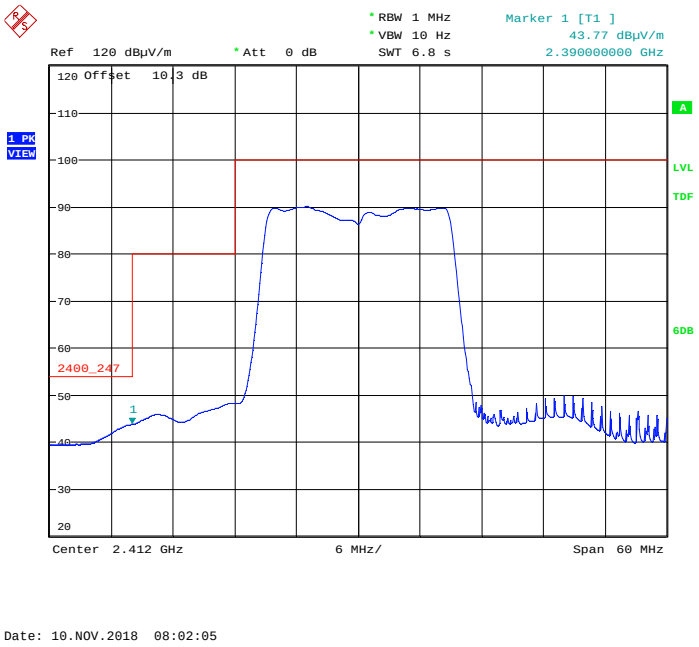
Plot 5.4.4.2.6.26. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS7, Power Setting 15, Channel 1, 2412 MHz



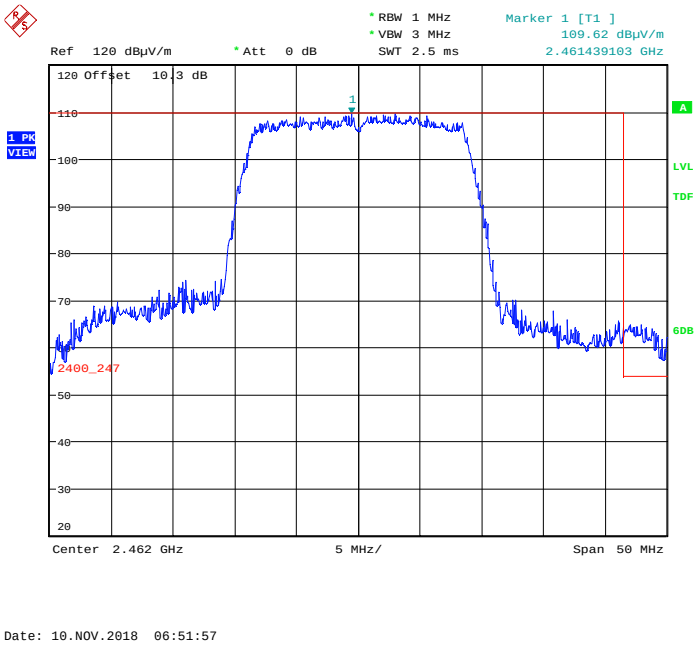
Plot 5.4.4.2.6.27. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS7, Power Setting 15, Channel 1, 2412 MHz



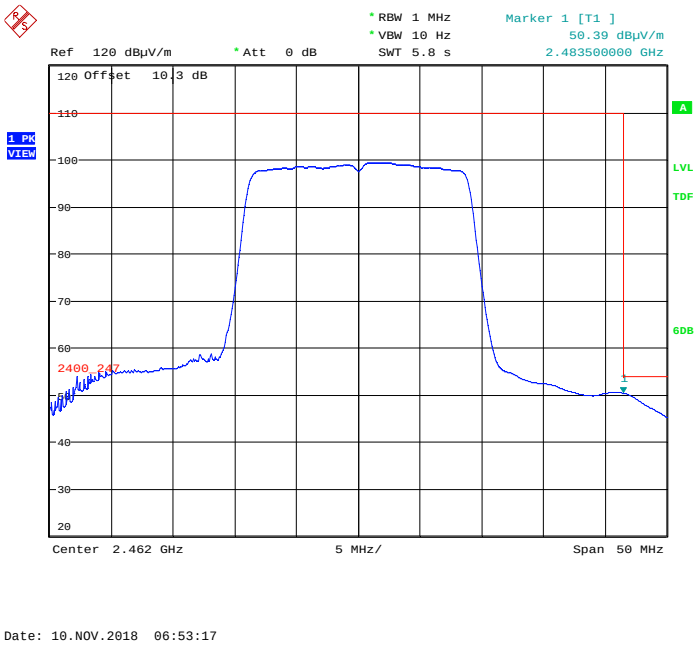
Plot 5.4.4.2.6.28. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS7, Power Setting 15, Channel 1, 2412 MHz



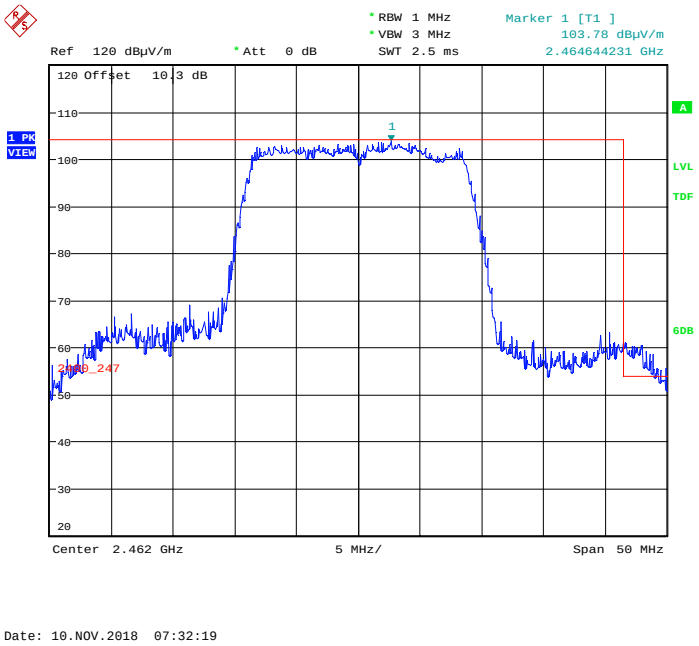
Plot 5.4.4.2.6.29. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Peak
MCS7, Power Setting 15, Channel 11, 2462 MHz



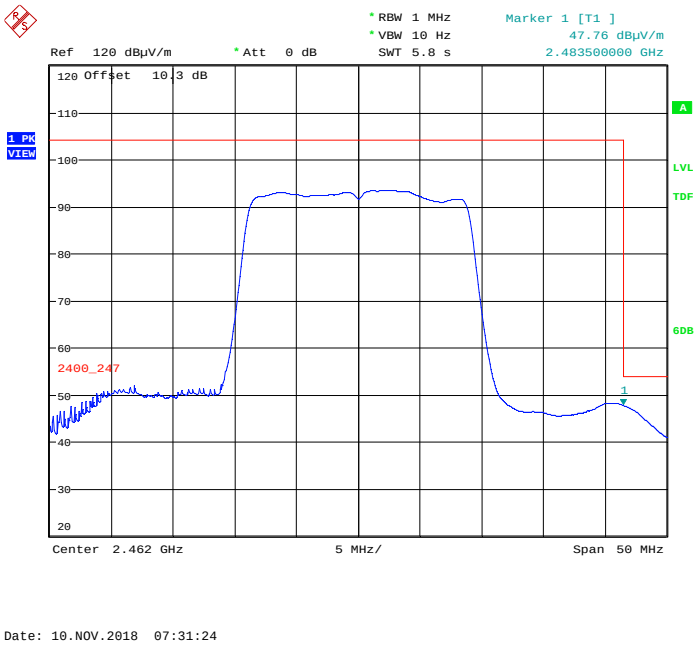
Plot 5.4.4.2.6.30. Band-Edge RF Radiated Emissions at 3 m, Horizontal Polarization, Average
MCS7, Power Setting 15, Channel 11, 2462 MHz



Plot 5.4.4.2.6.31. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Peak
MCS7, Power Setting 15, Channel 11, 2462 MHz



Plot 5.4.4.2.6.32. Band-Edge RF Radiated Emissions at 3 m, Vertical Polarization, Average
MCS7, Power Setting 15, Channel 11, 2462 MHz



5.5. POWER SPECTRAL DENSITY [§ 15.247(e)]

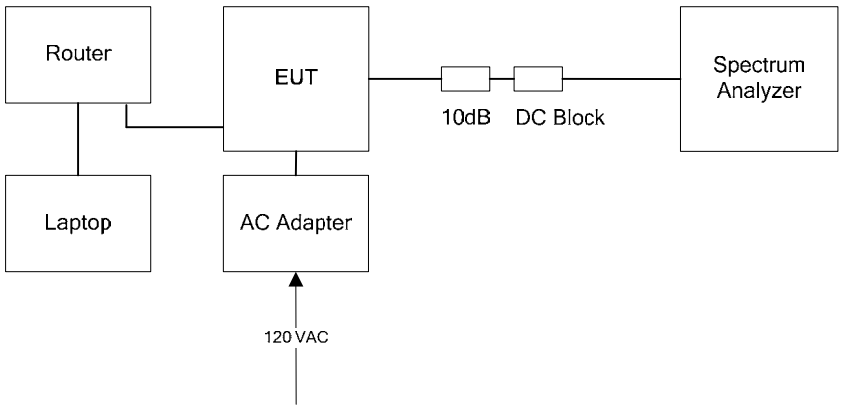
5.5.1. Limit(s)

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

5.5.2. Method of Measurements

FCC KDB 558074 D01 15.247 Meas Guidance v05, Section 8.4 / ANSI C63.10 Subclause 11.10.2 Method PKPSD (peak PSD).

5.5.3. Test Arrangement



5.5.4. Test Data

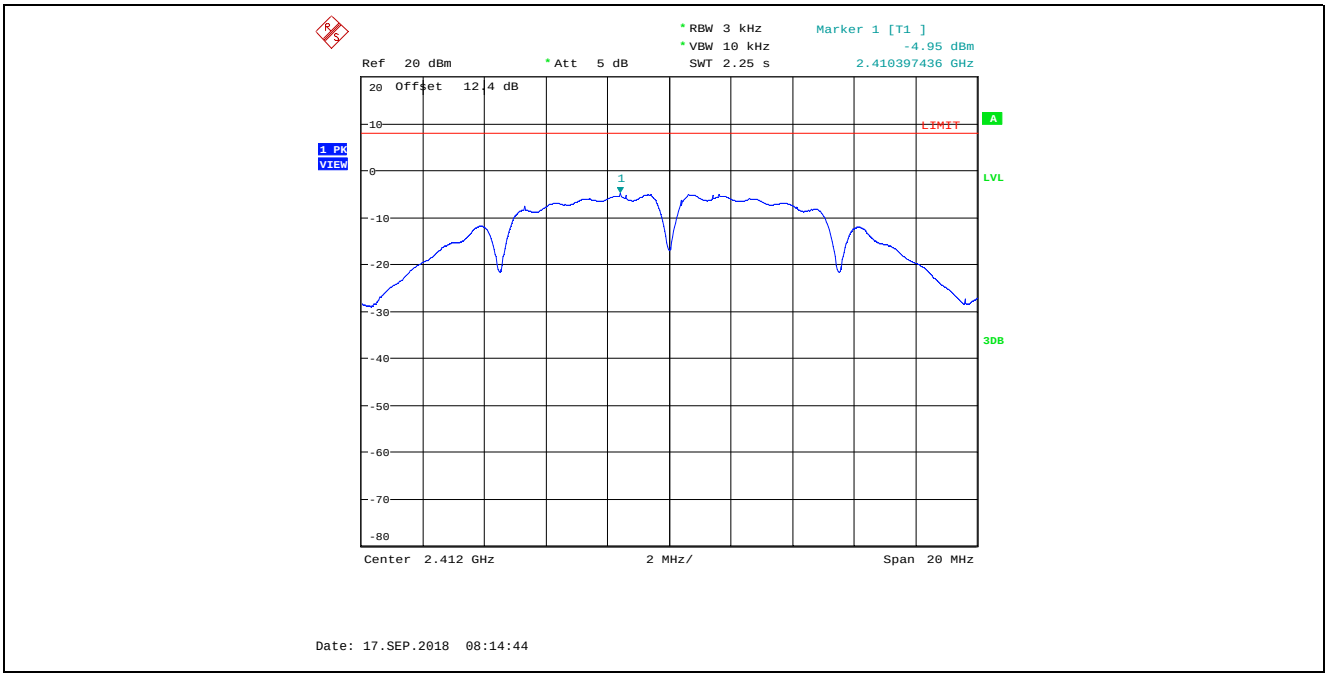
Remark: For worst case, the test conducted with the highest power setting at 30 to demonstrate compliance with power spectral density limit.

Operating Mode		Power Setting	Frequency (MHz)	PSD (dBm)	Max. Limit (dBm)
802.11b	1 Mbps DBPSK	30	2412	-4.95	8
		30	2437	-5.19	8
		30	2462	-5.16	8
	2 Mbps DQPSK	30	2412	1.69	8
		30	2437	1.45	8
		30	2462	1.57	8
	11 Mbps CCK	30	2412	1.18	8
		30	2437	1.32	8
		30	2462	1.34	8

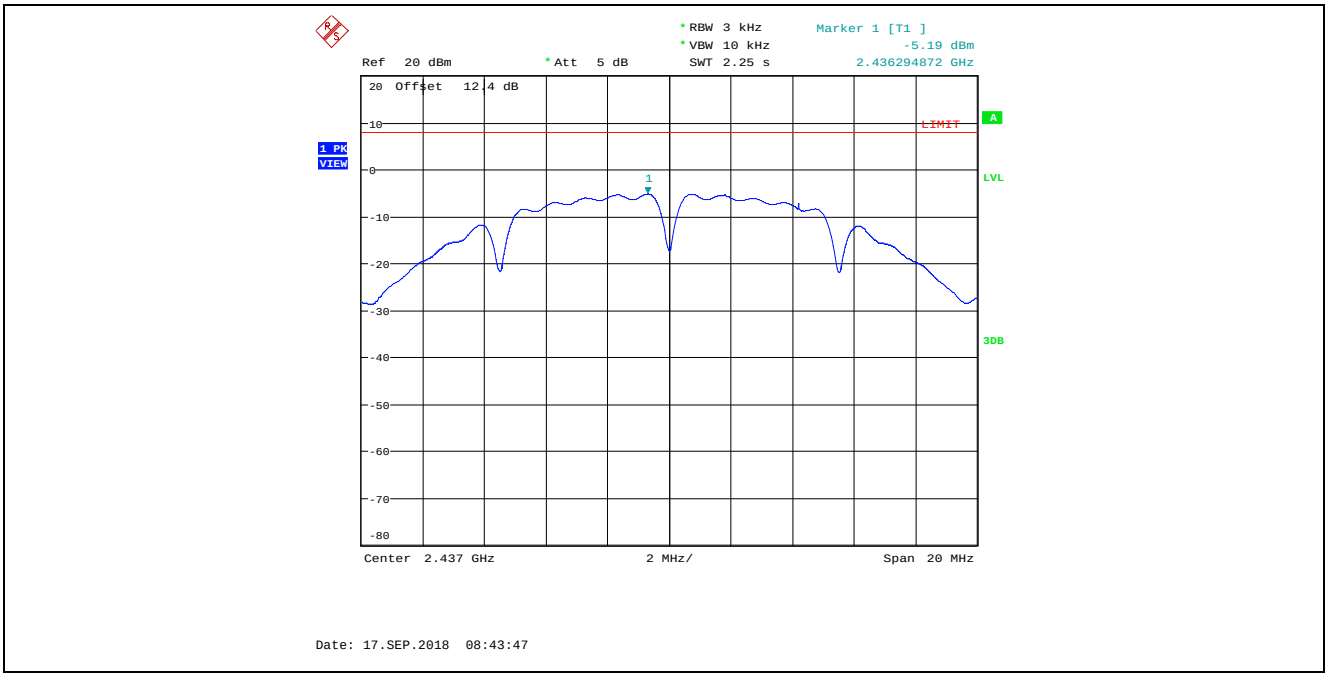
Operating Mode		Power Setting	Frequency (MHz)	PSD (dBm)	Max. Limit (dBm)
802.11g	9 Mbps BPSK	30	2412	-4.33	8
		30	2437	-4.43	8
		30	2462	-4.31	8
	18 Mbps QPSK	30	2412	-3.69	8
		30	2437	-4.02	8
		30	2462	-3.70	8
	36 Mbps 16-QAM	30	2412	-3.13	8
		30	2437	-2.83	8
		30	2462	-2.74	8
	54 Mbps 64-QAM	30	2412	-3.09	8
		30	2437	-3.19	8
		30	2462	-2.91	8
802.11n	MCS0	30	2412	-2.71	8
		30	2437	-2.70	8
		30	2462	-2.90	8
	MCS2	30	2412	-3.78	8
		30	2437	-3.29	8
		30	2462	-3.38	8
	MCS4	30	2412	-3.93	8
		30	2437	-3.47	8
		30	2462	-3.12	8
	MCS7	30	2412	-3.69	8
		30	2437	-3.71	8
		30	2462	-3.26	8

All test results contained in this engineering test report are traceable to National Institute of Standards and Technology (NIST)

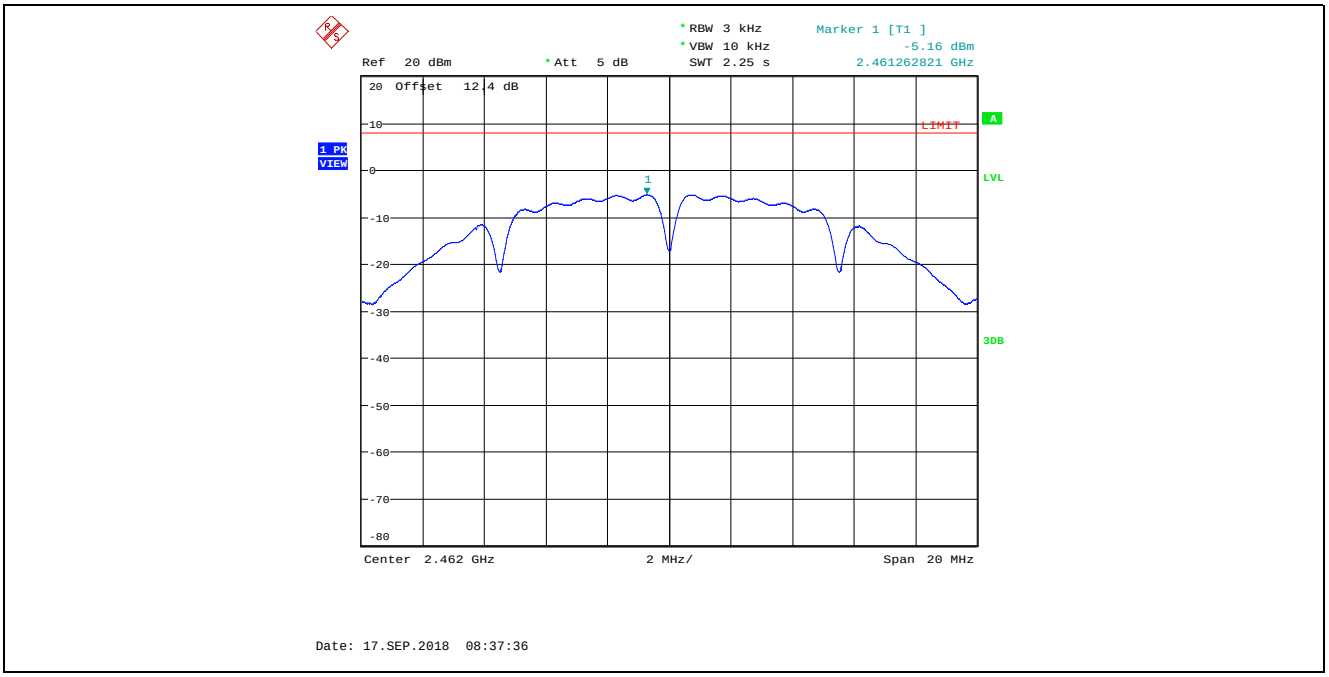
Plot 5.5.4.1. Power Spectral Density
802.11b, 1 Mbps DBPSK, Power Setting 30, Channel 1, 2412 MHz



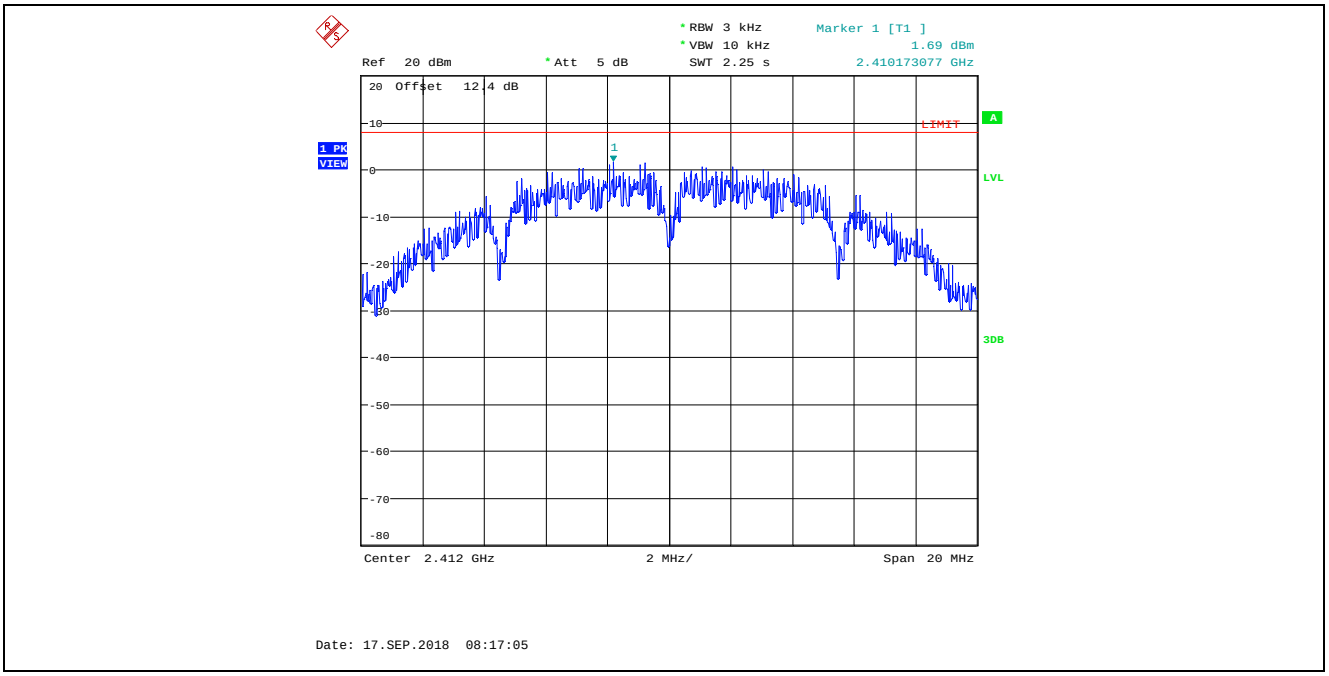
Plot 5.5.4.2. Power Spectral Density
802.11b, 1 Mbps DBPSK, Power Setting 30, Channel 6, 2437 MHz



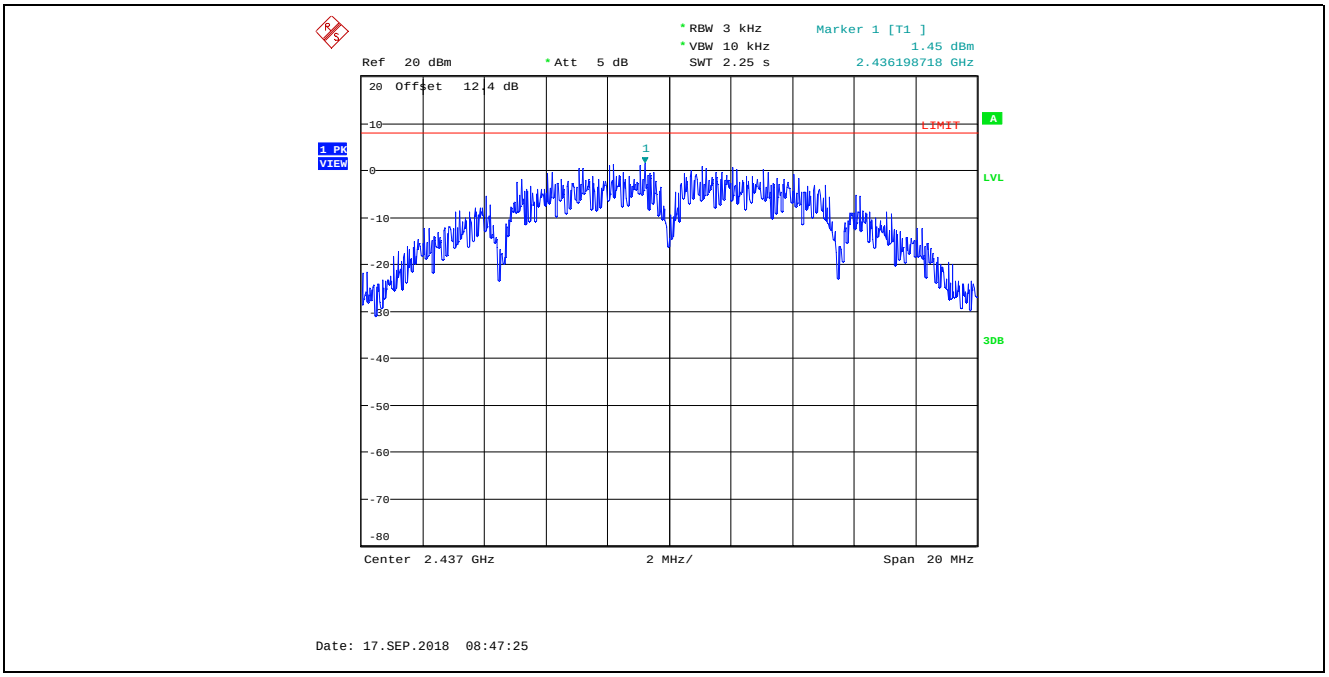
Plot 5.5.4.3. Power Spectral Density
802.11b, 1 Mbps DBPSK, Power Setting 30, Channel 11, 2462 MHz



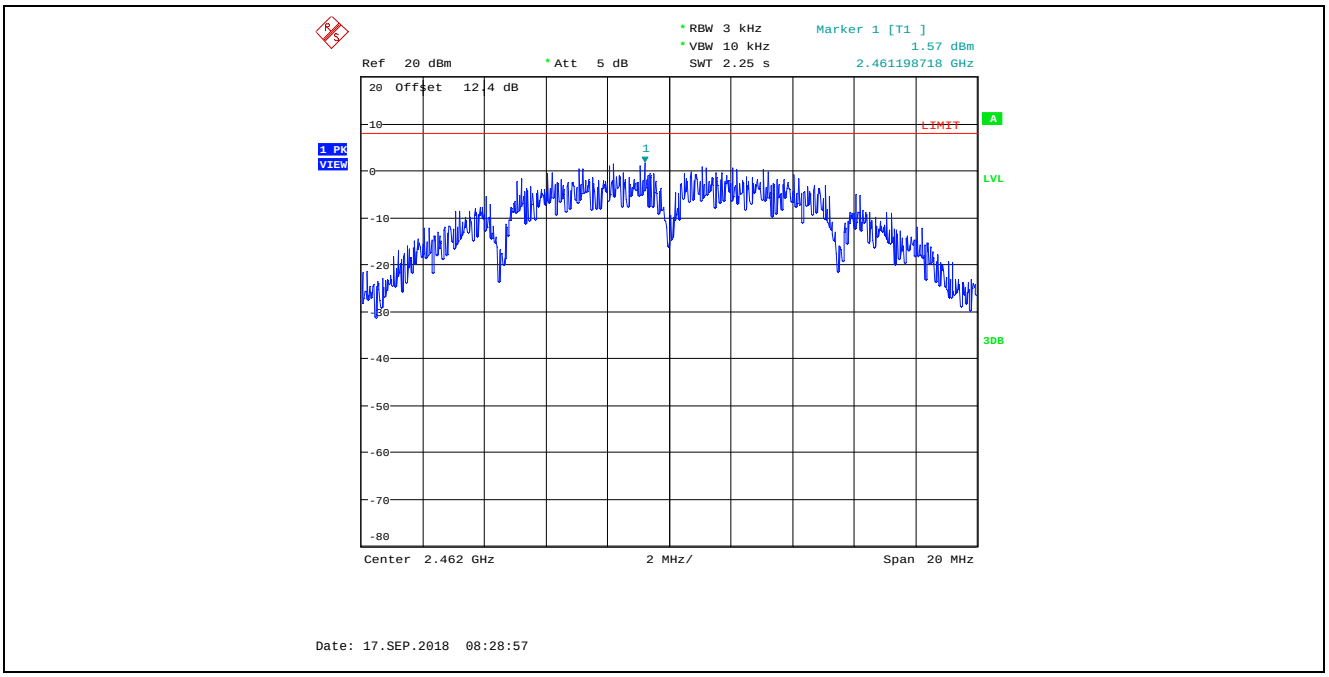
Plot 5.5.4.4. Power Spectral Density
802.11b, 2 Mbps DQPSK, Power Setting 30, Channel 1, 2412 MHz,



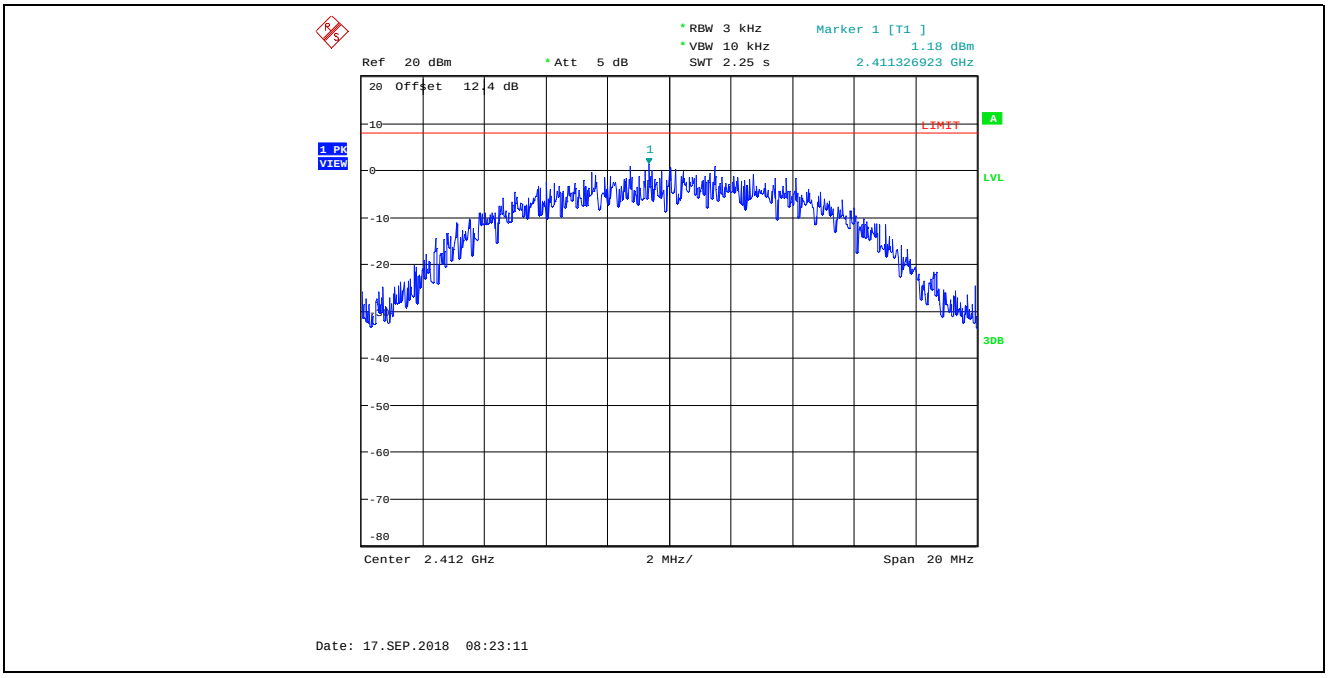
Plot 5.5.4.5. Power Spectral Density
802.11b, 2 Mbps DQPSK, Power Setting 30, Channel 6, 2437 MHz,



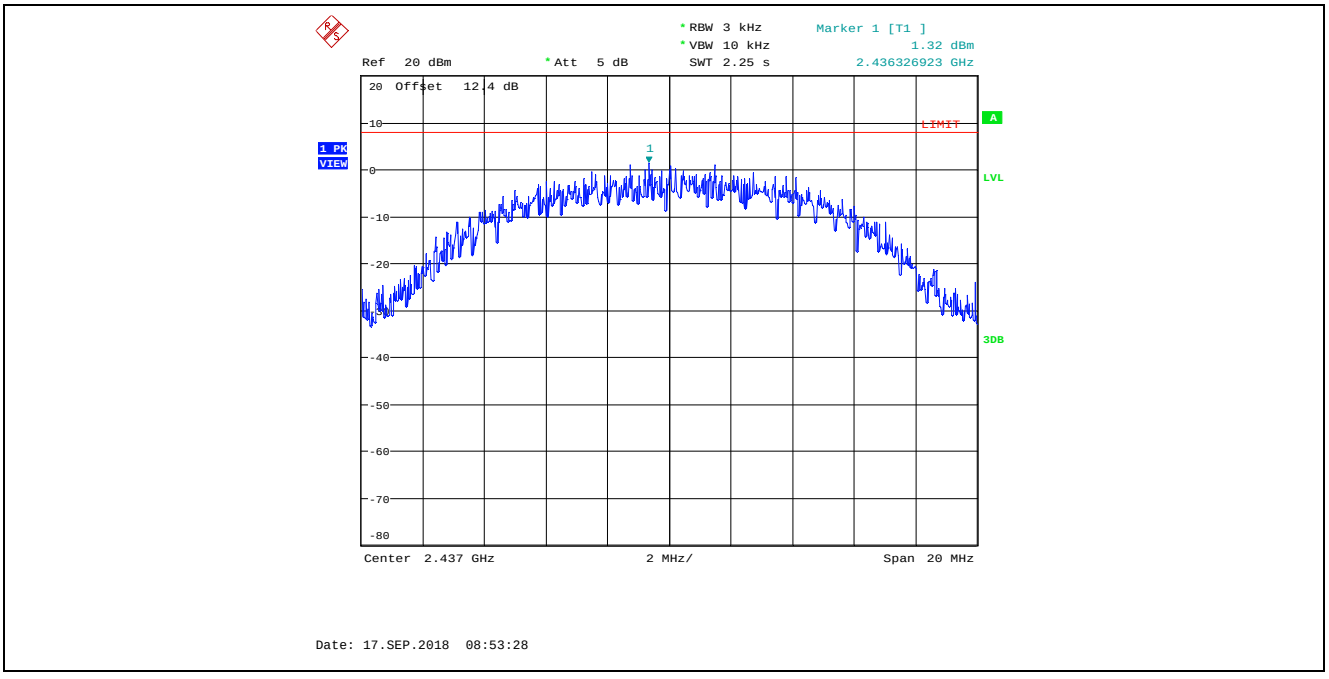
Plot 5.5.4.6. Power Spectral Density
802.11b, 2 Mbps DQPSK, Power Setting 30, Channel 11, 2462 MHz,



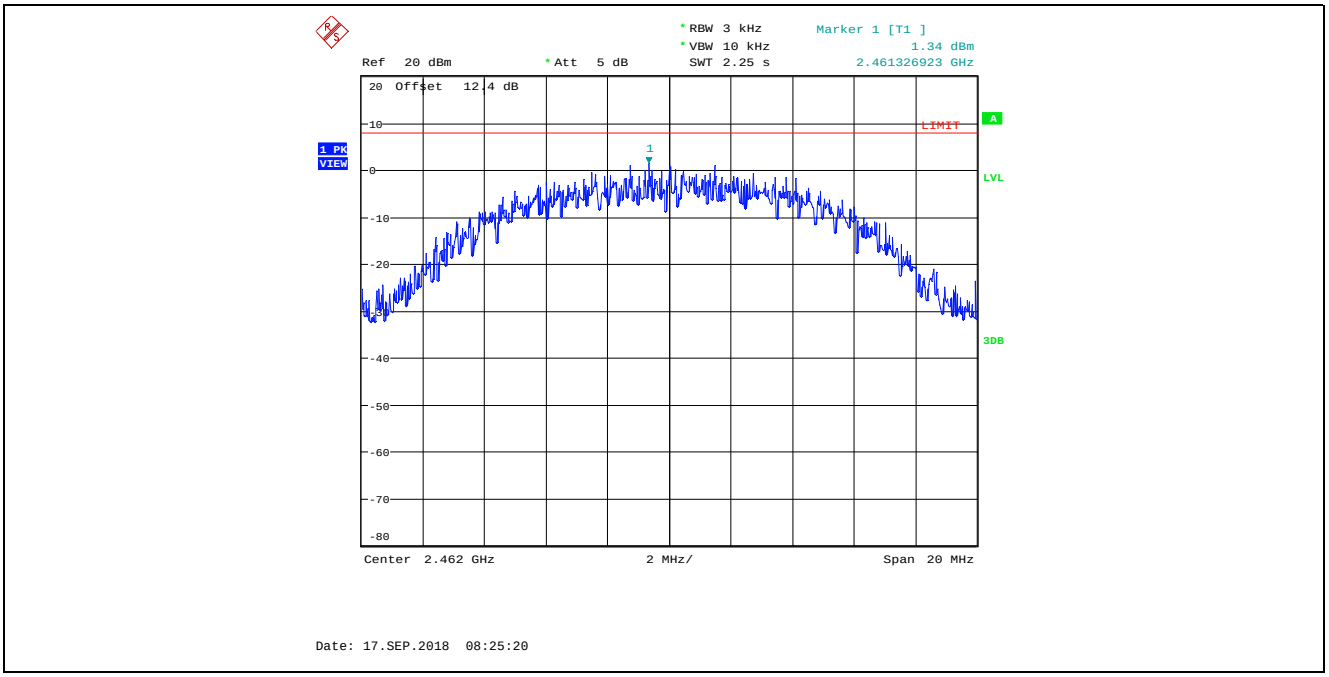
Plot 5.5.4.7. Power Spectral Density
802.11b, 11 Mbps CCK, Power Setting 30, Channel 1, 2412 MHz



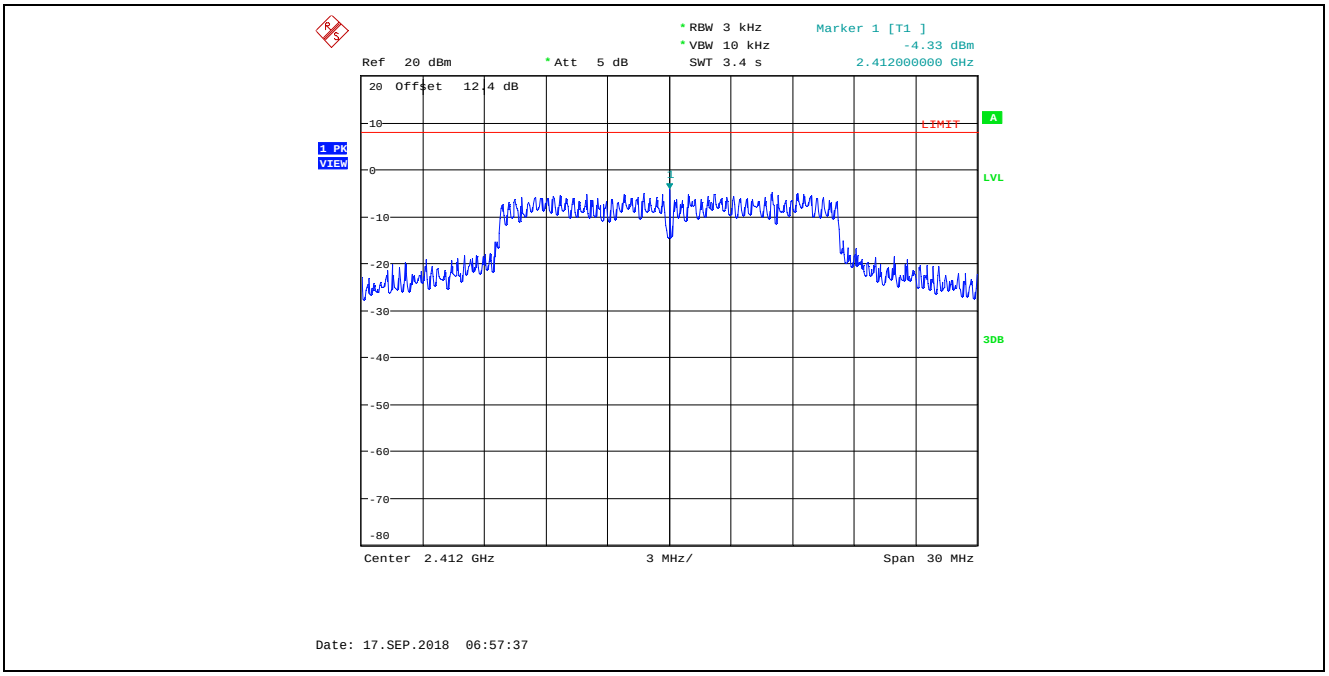
Plot 5.5.4.8. Power Spectral Density
802.11b, 11 Mbps CCK, Power Setting 30, Channel 6, 2437 MHz



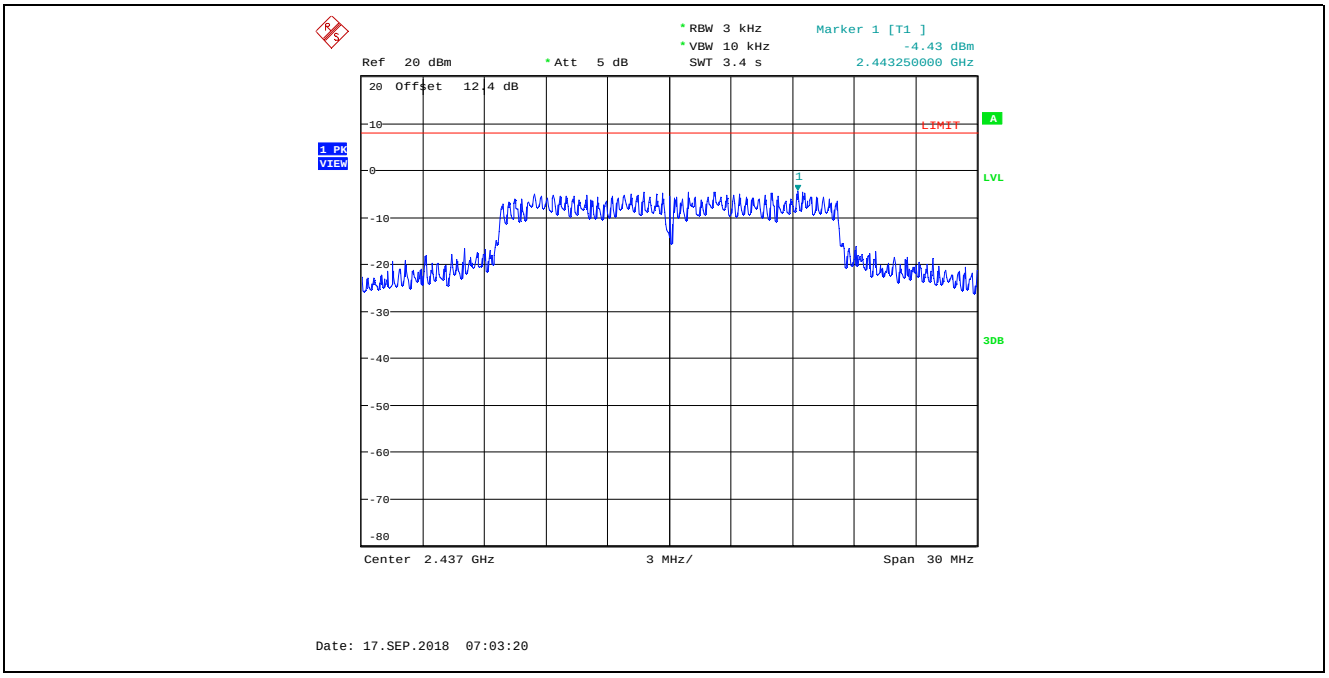
Plot 5.5.4.9. Power Spectral Density
802.11b, 11 Mbps CCK, Power Setting 30, Channel 11, 2462 MHz



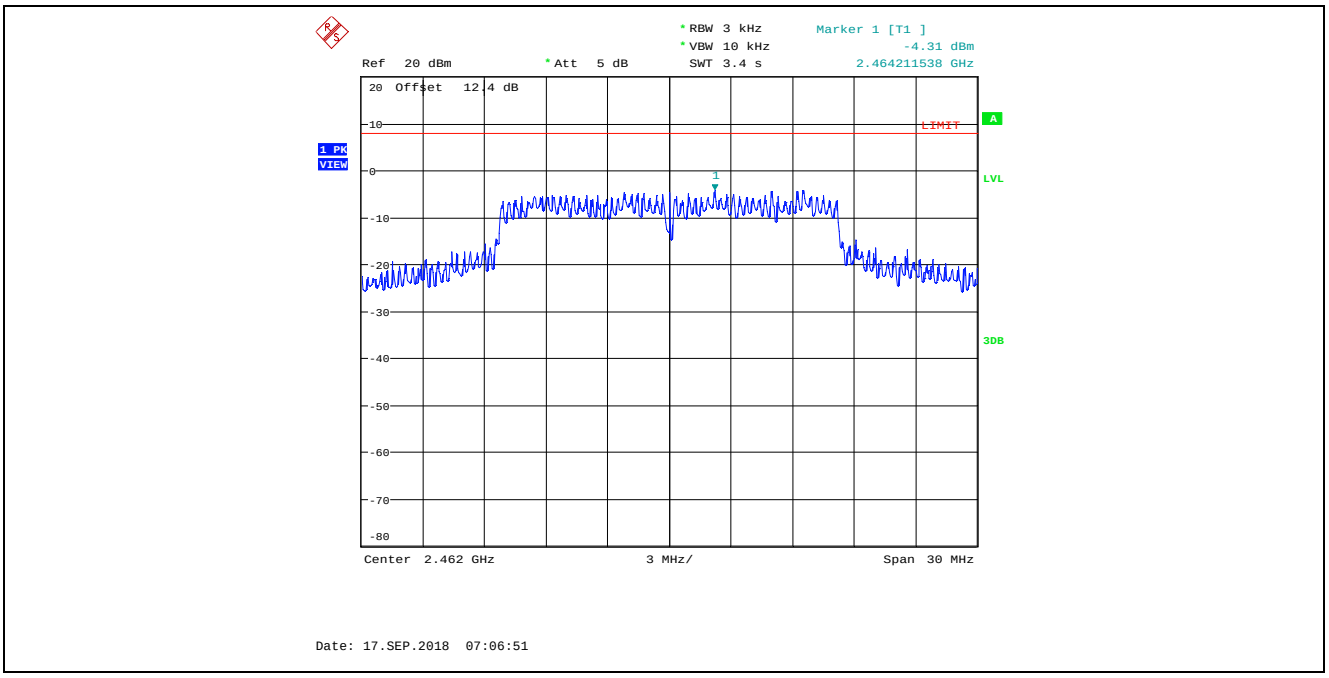
Plot 5.5.4.10. Power Spectral Density
802.11g, 9 Mbps BPSK, Power Setting 30, Channel 1, 2412 MHz



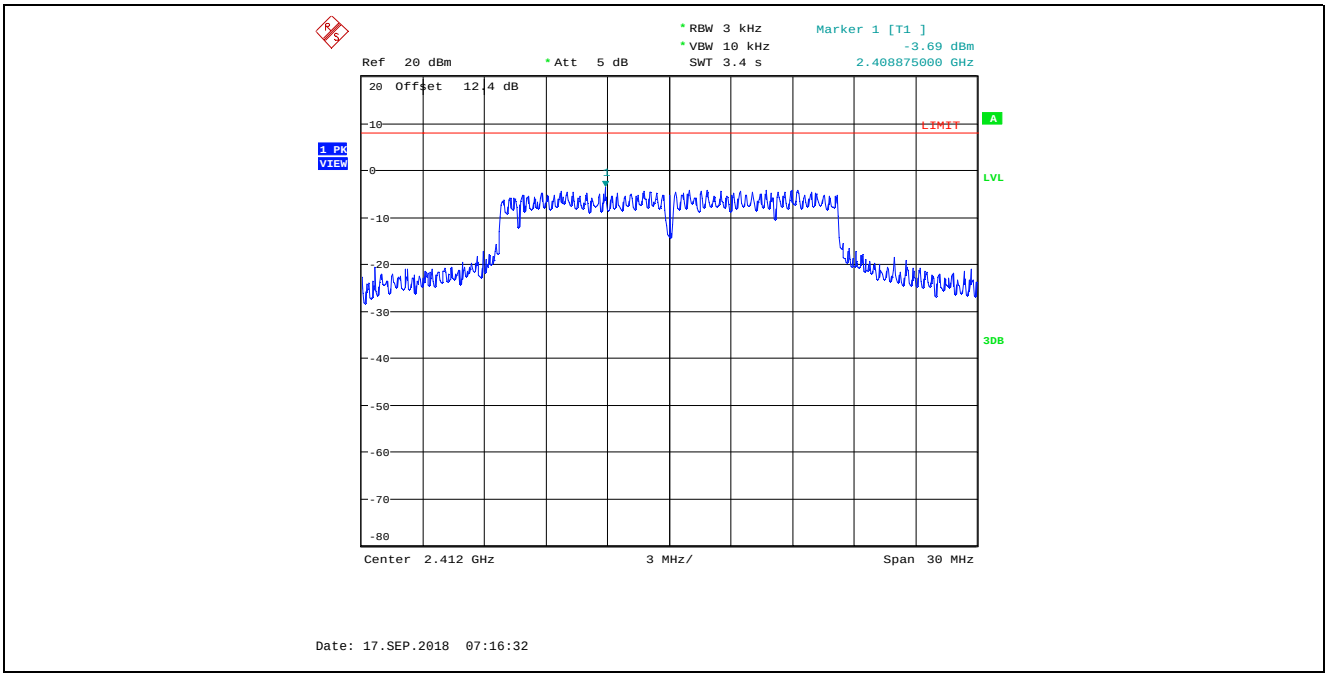
Plot 5.5.4.11. Power Spectral Density
802.11g, 9 Mbps BPSK, Power Setting 30, Channel 6, 2437 MHz



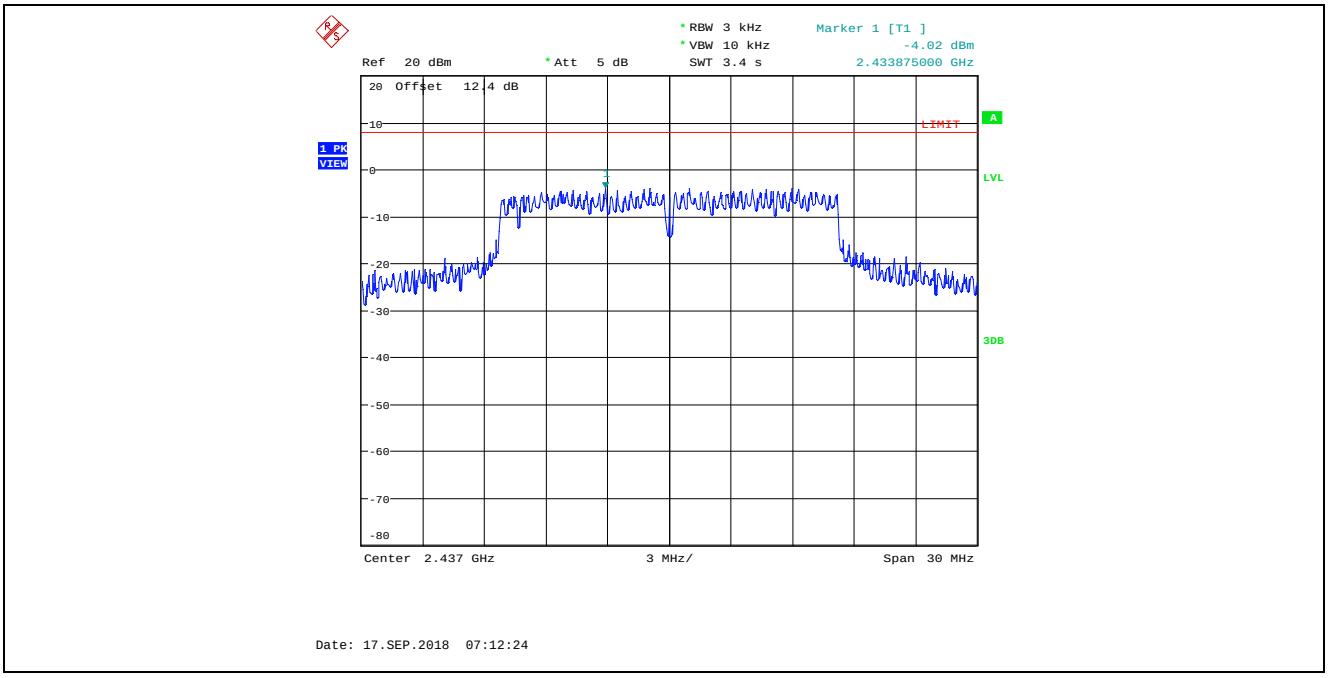
Plot 5.5.4.12. Power Spectral Density
802.11g, 9 Mbps BPSK, Power Setting 30, Channel 11, 2462 MHz



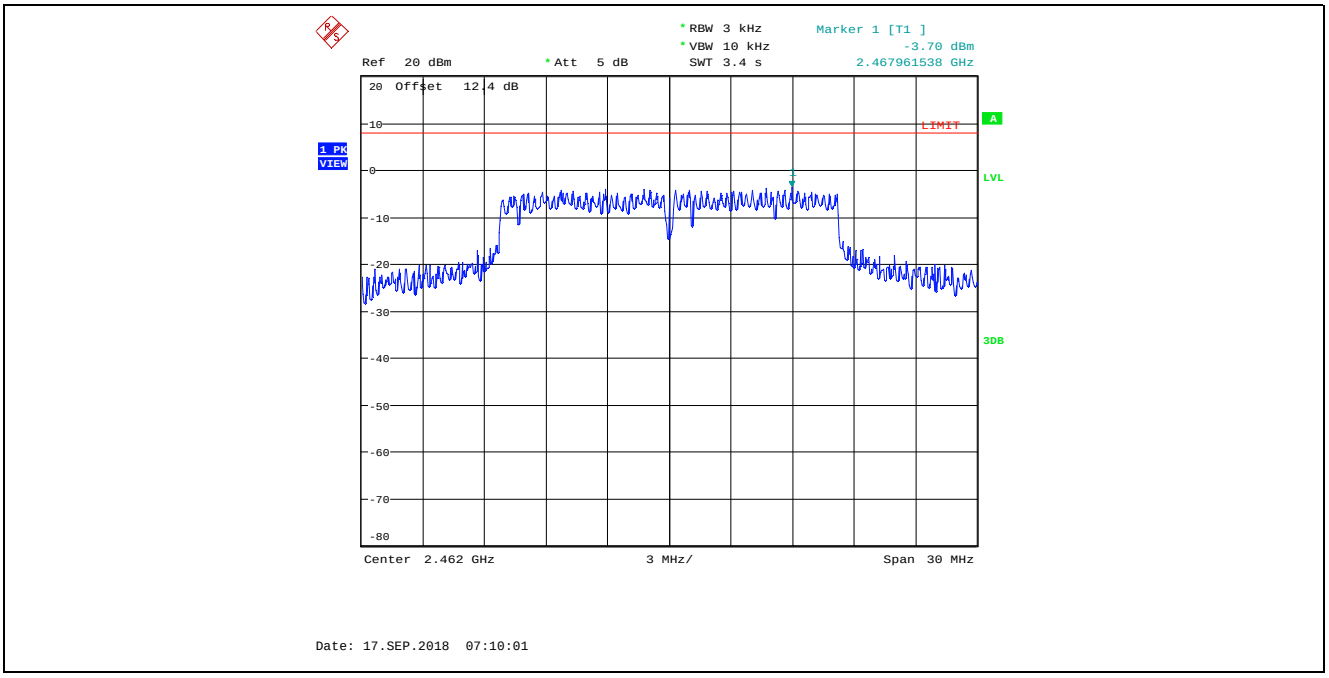
Plot 5.5.4.13. Power Spectral Density
802.11g, 18 Mbps QPSK, Power Setting 30, Channel 1, 2412 MHz



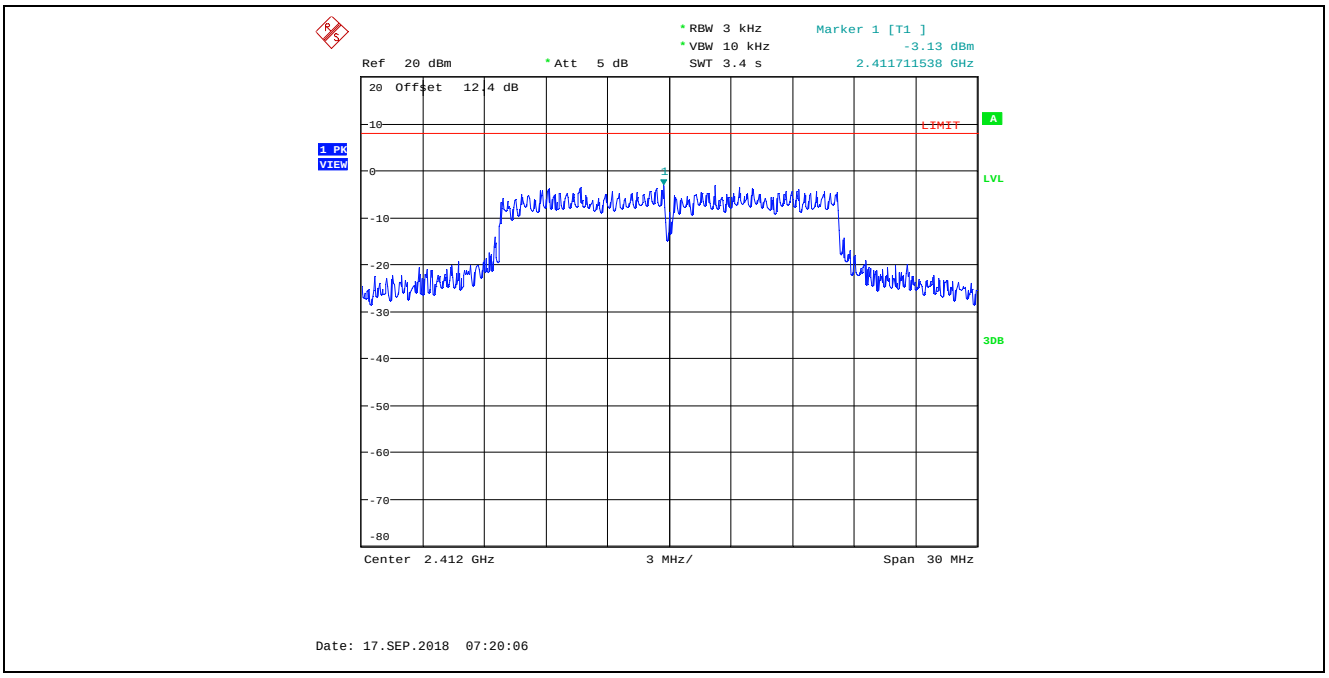
Plot 5.5.4.14. Power Spectral Density
802.11g, 18 Mbps QPSK, Power Setting 30, Channel 6, 2437 MHz



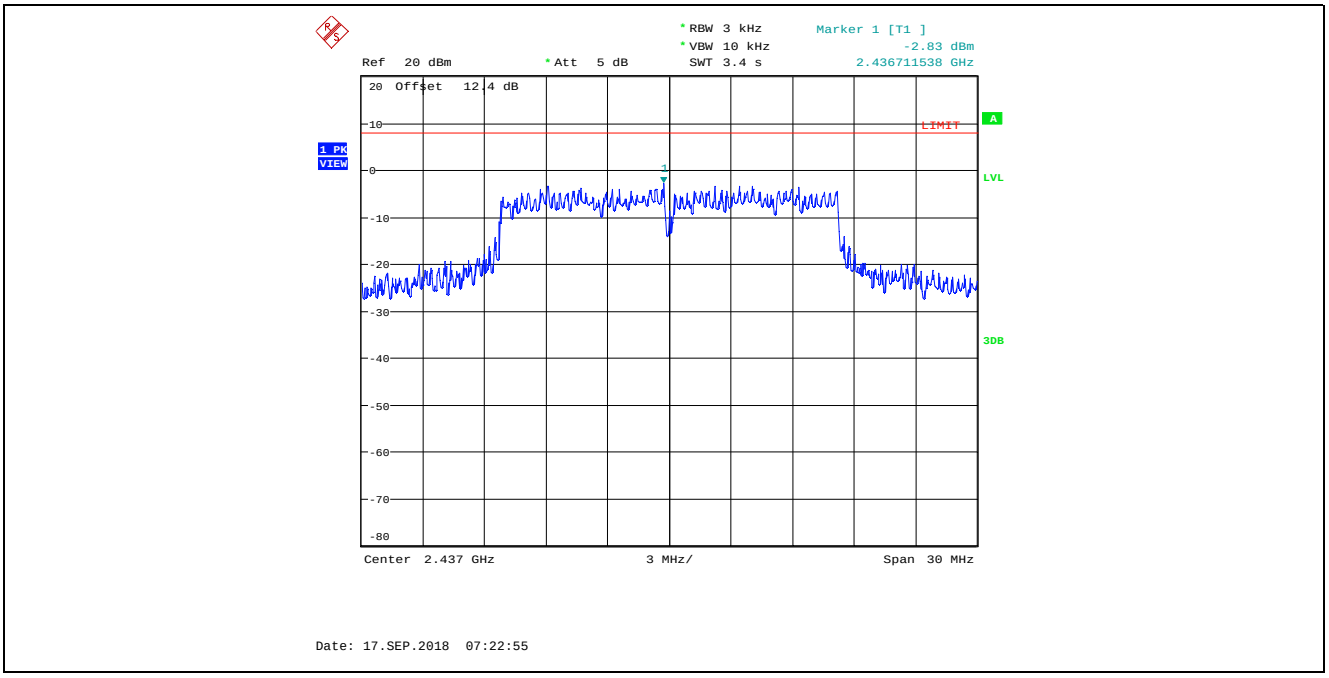
Plot 5.5.4.15. Power Spectral Density
802.11g, 18 Mbps QPSK, Power Setting 30, Channel 11, 2462 MHz



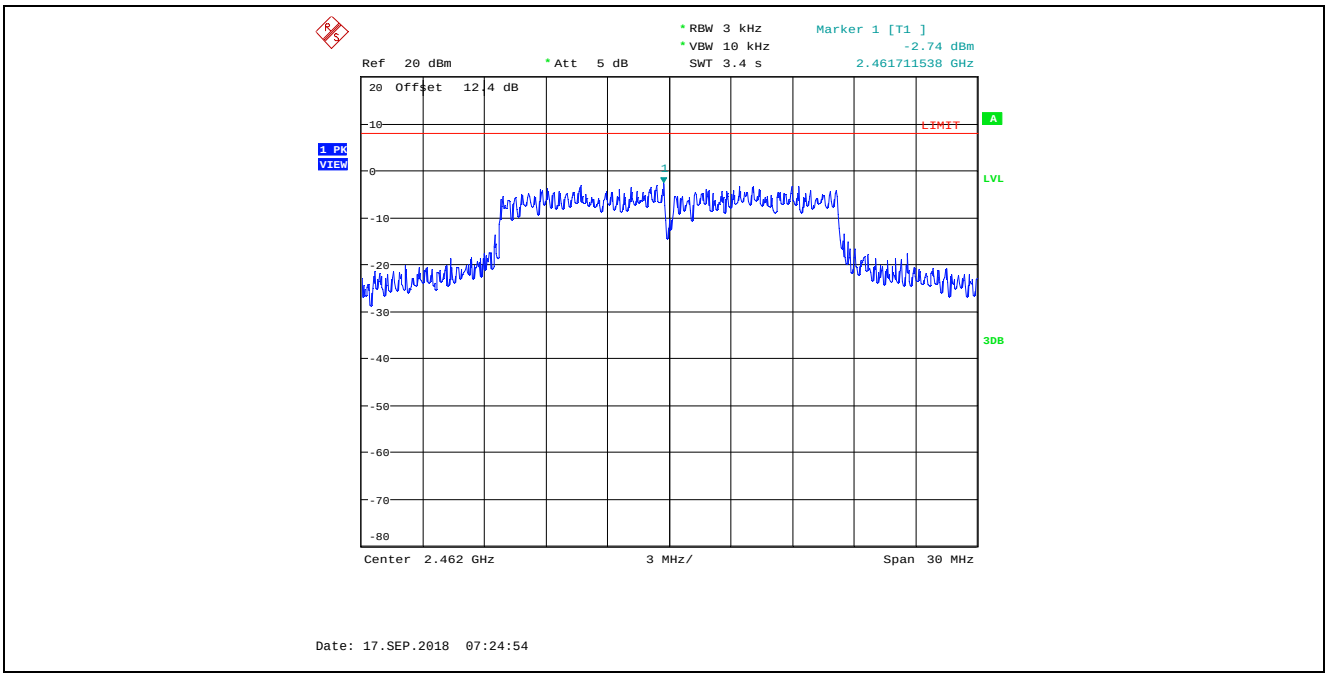
Plot 5.5.4.16. Power Spectral Density
802.11g, 36 Mbps 16-QAM, Power Setting 30, Channel 1, 2412 MHz



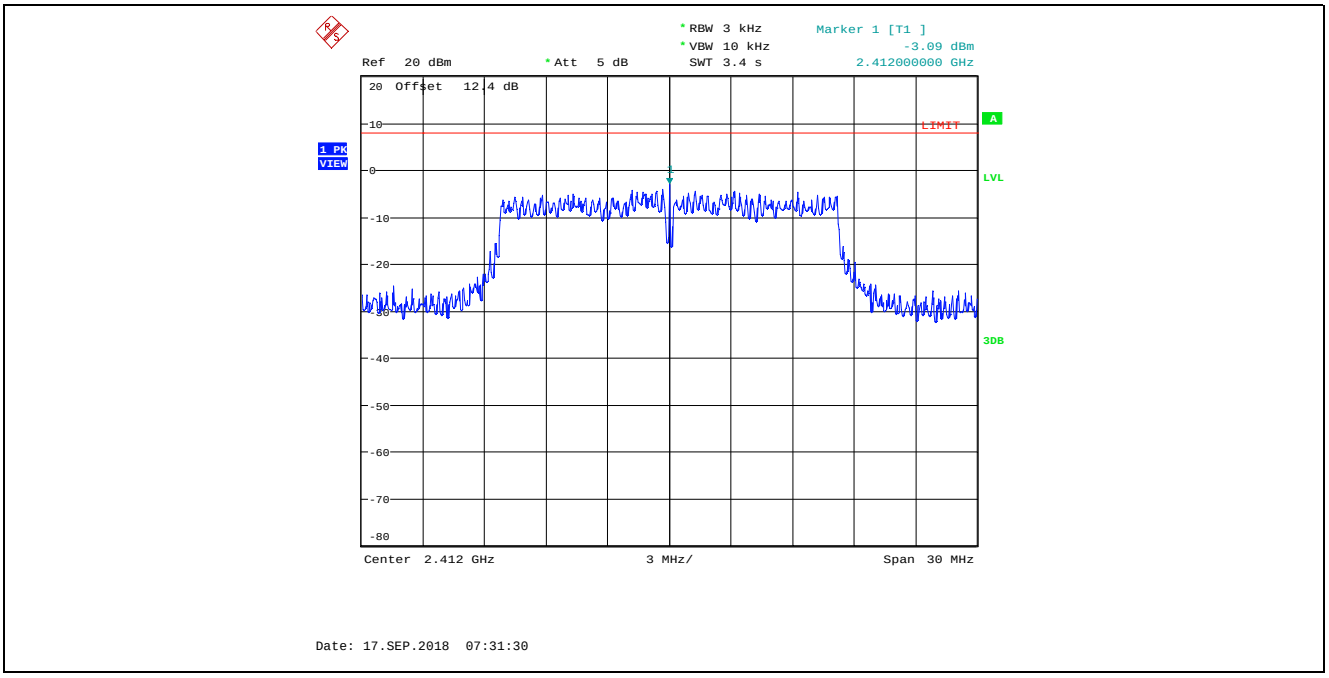
Plot 5.5.4.17. Power Spectral Density
802.11g, 36 Mbps 16-QAM, Power Setting 30, Channel 6, 2437 MHz



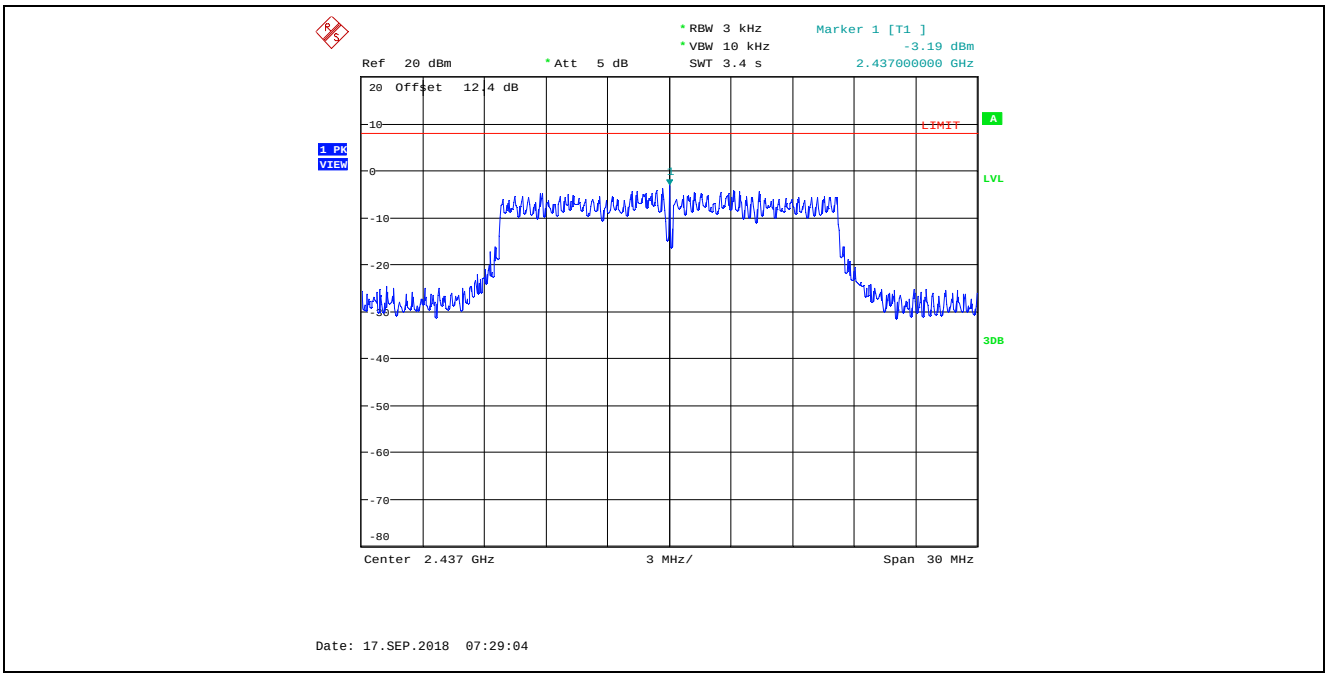
Plot 5.5.4.18. Power Spectral Density
802.11g, 36 Mbps 16-QAM, Power Setting 30, Channel 11, 2462 MHz



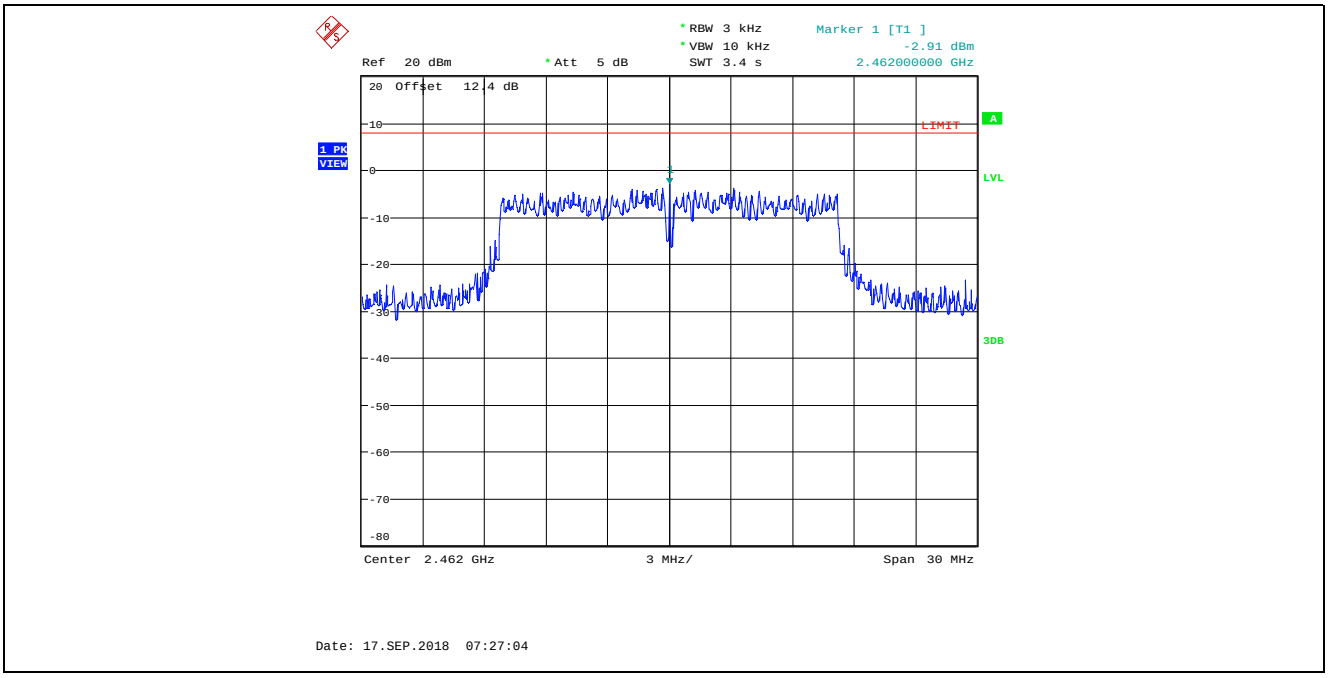
Plot 5.5.4.19. Power Spectral Density
802.11g, 54 Mbps 64-QAM, Power Setting 30, Channel 1, 2412 MHz



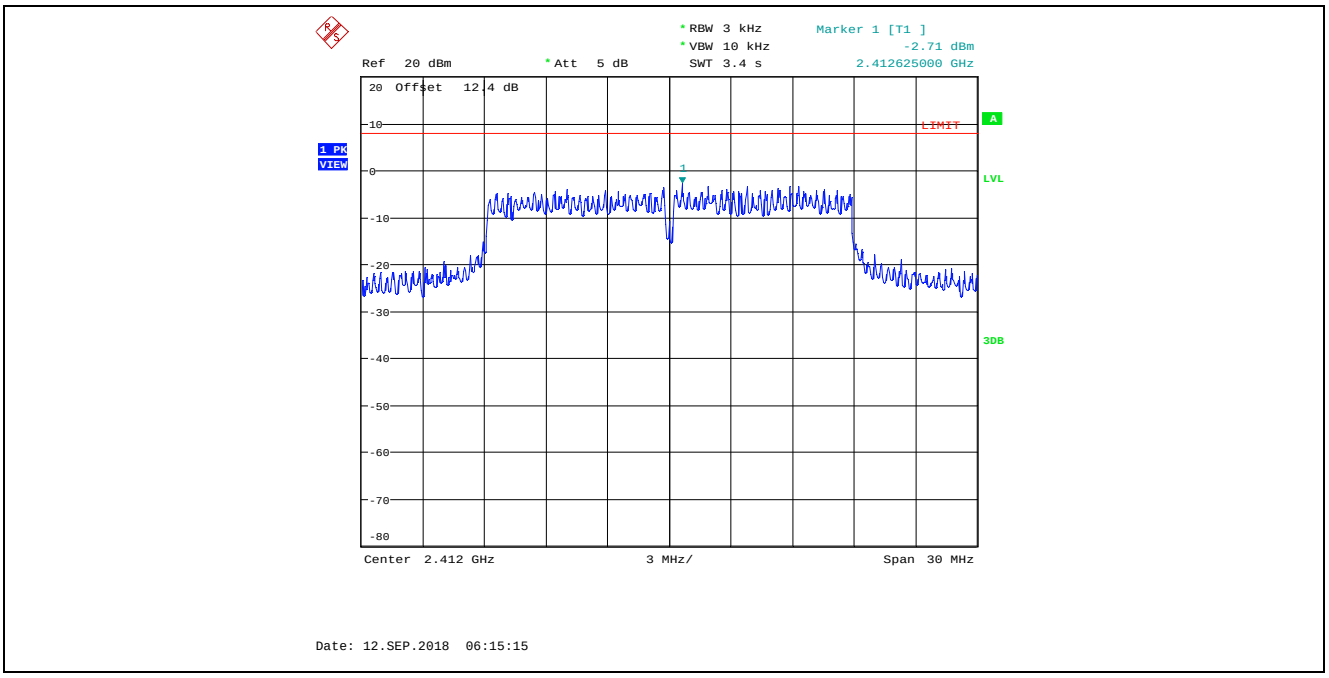
Plot 5.5.4.20. Power Spectral Density
802.11g, 54 Mbps 64-QAM, Power Setting 30, Channel 6, 2437 MHz



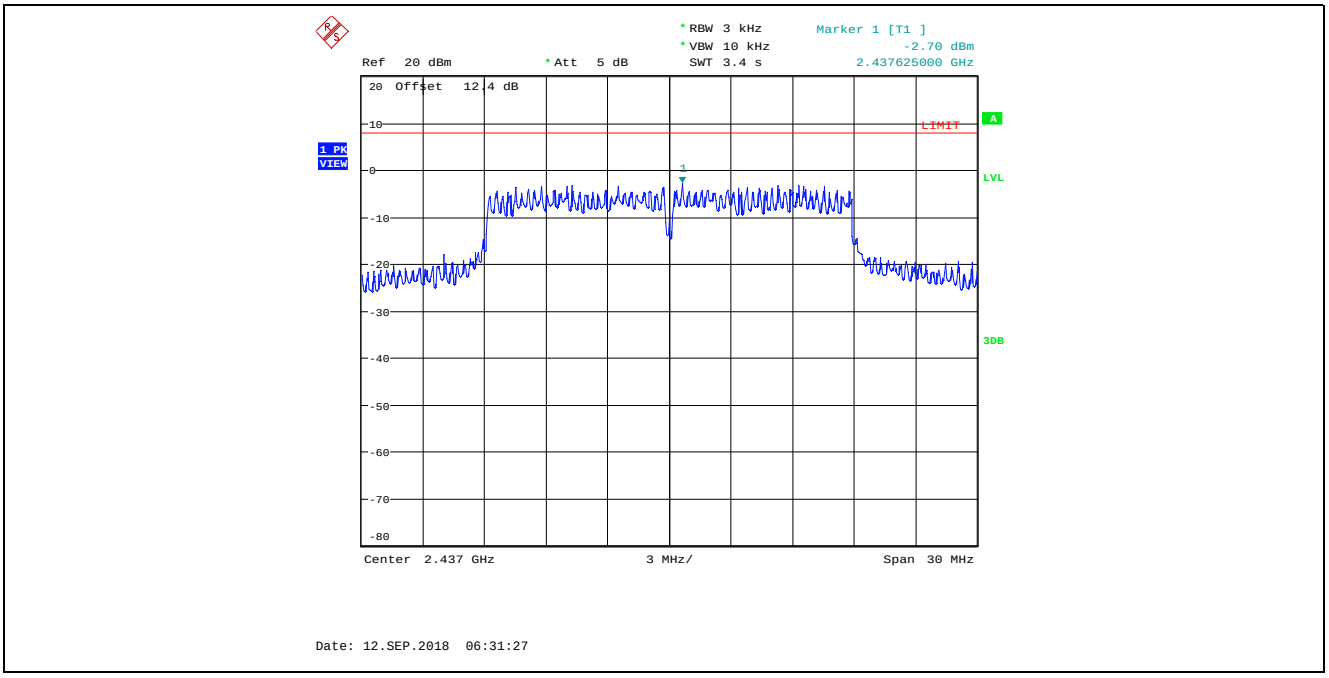
Plot 5.5.4.21. Power Spectral Density
802.11g, 54 Mbps 64-QAM, Power Setting 30, Channel 11, 2462 MHz



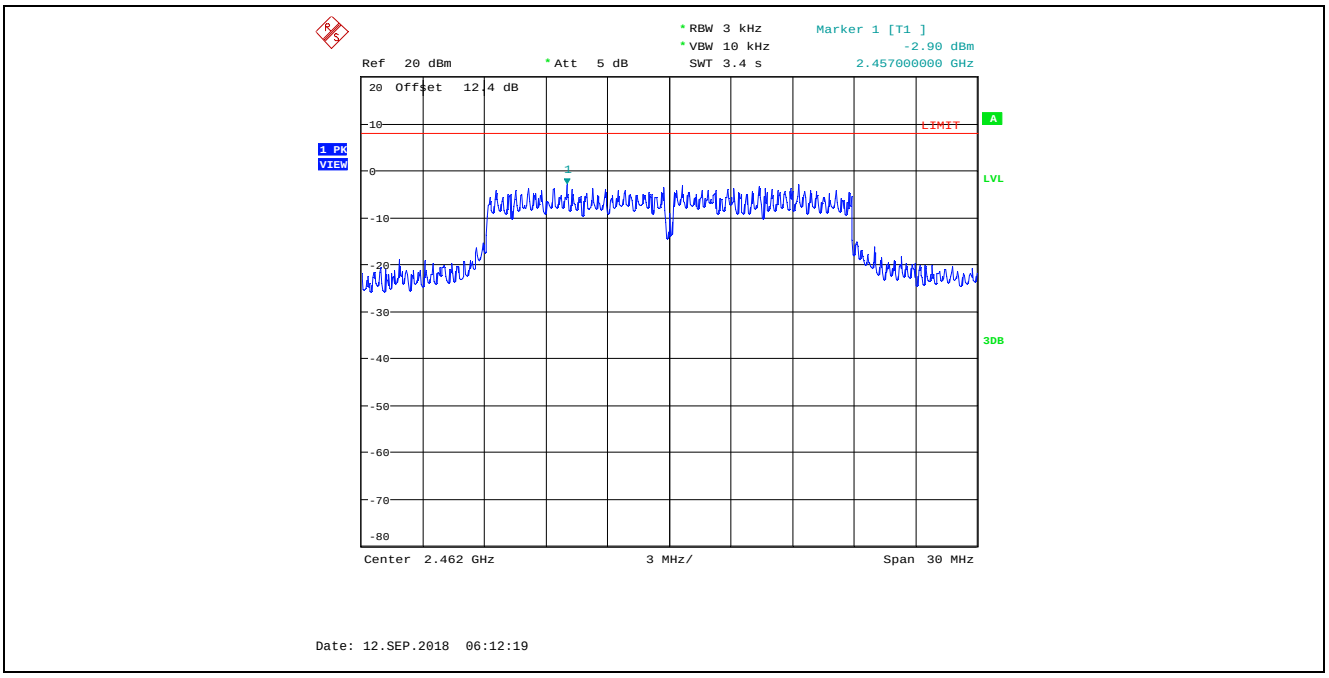
Plot 5.5.4.22. Power Spectral Density
802.11n, MCS0, Power Setting 30, Channel 1, 2412 MHz



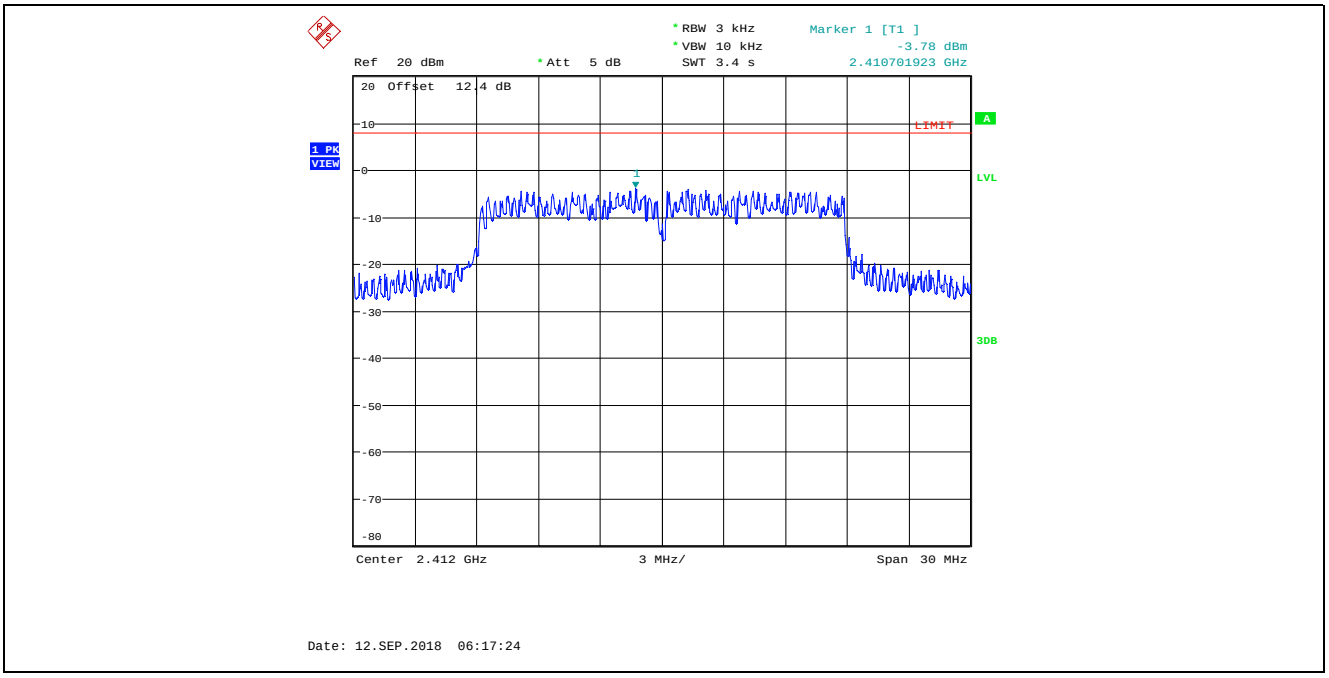
Plot 5.5.4.23. Power Spectral Density
802.11n, MCS0, Power Setting 30, Channel 6, 2437 MHz



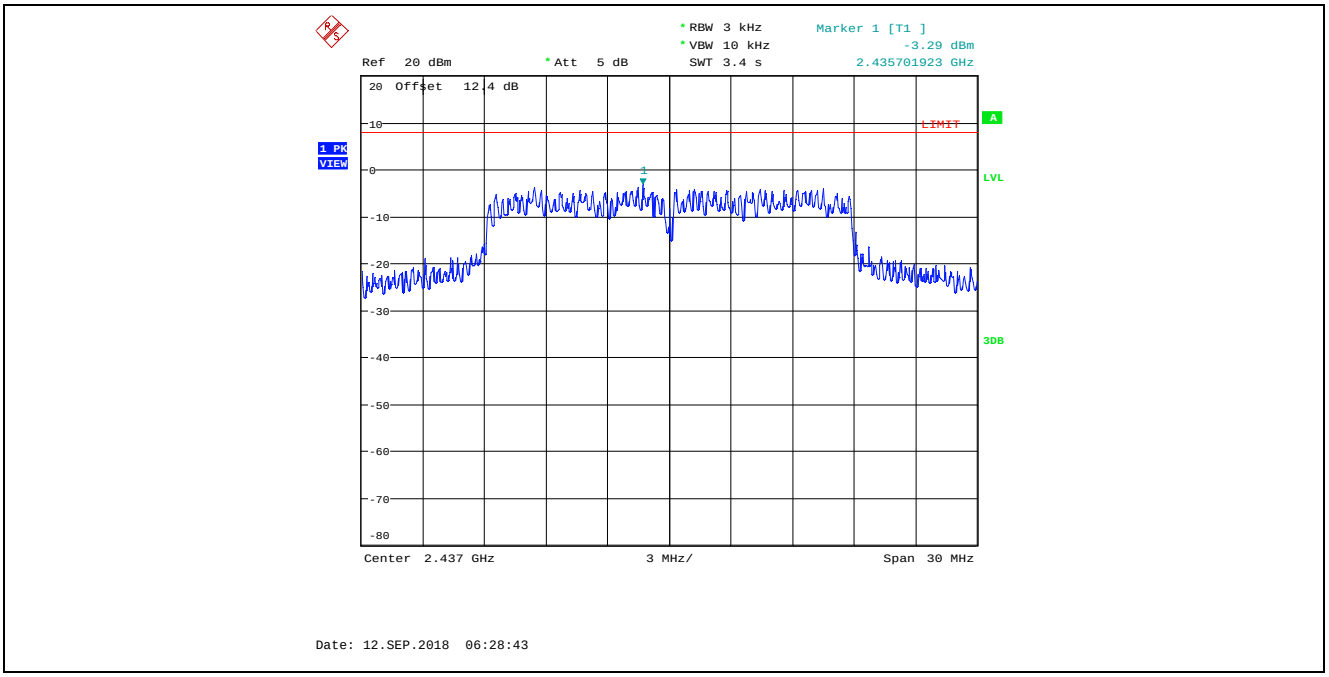
Plot 5.5.4.24. Power Spectral Density
802.11n, MCS0, Power Setting 30, Channel 11, 2462 MHz



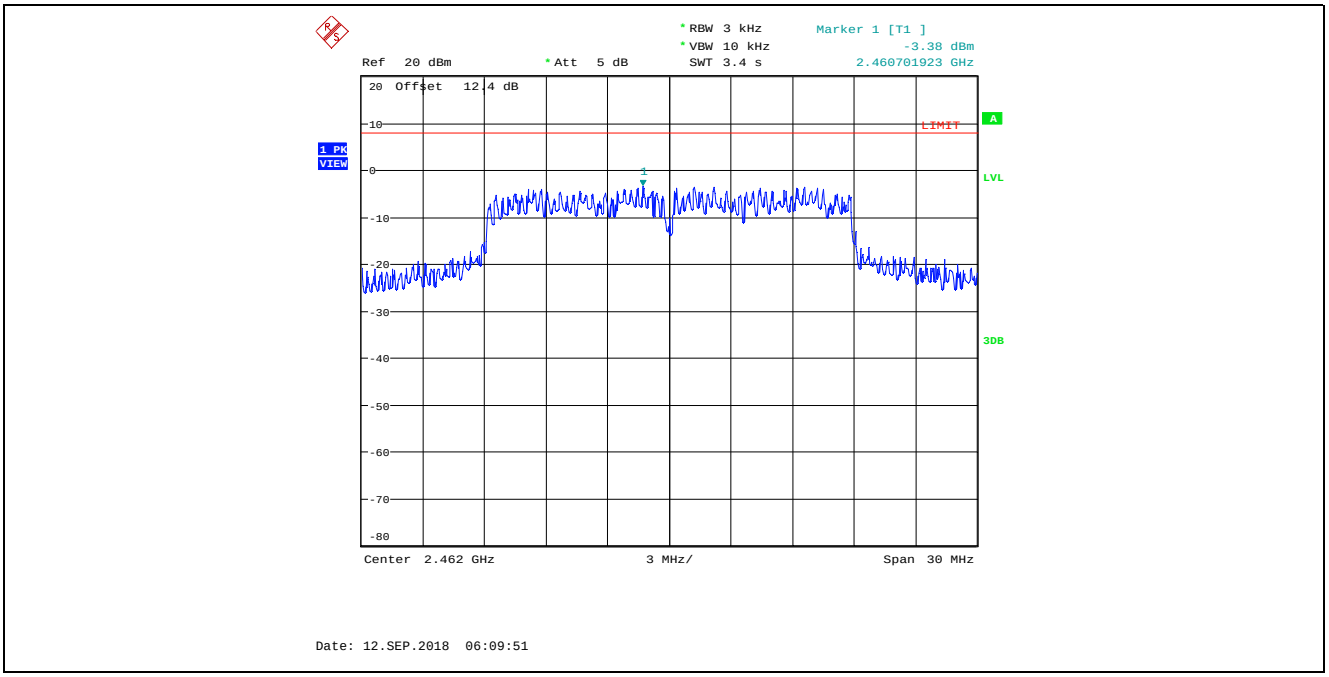
Plot 5.5.4.25. Power Spectral Density
802.11n, MCS2, Power Setting 30, Channel 1, 2412 MHz



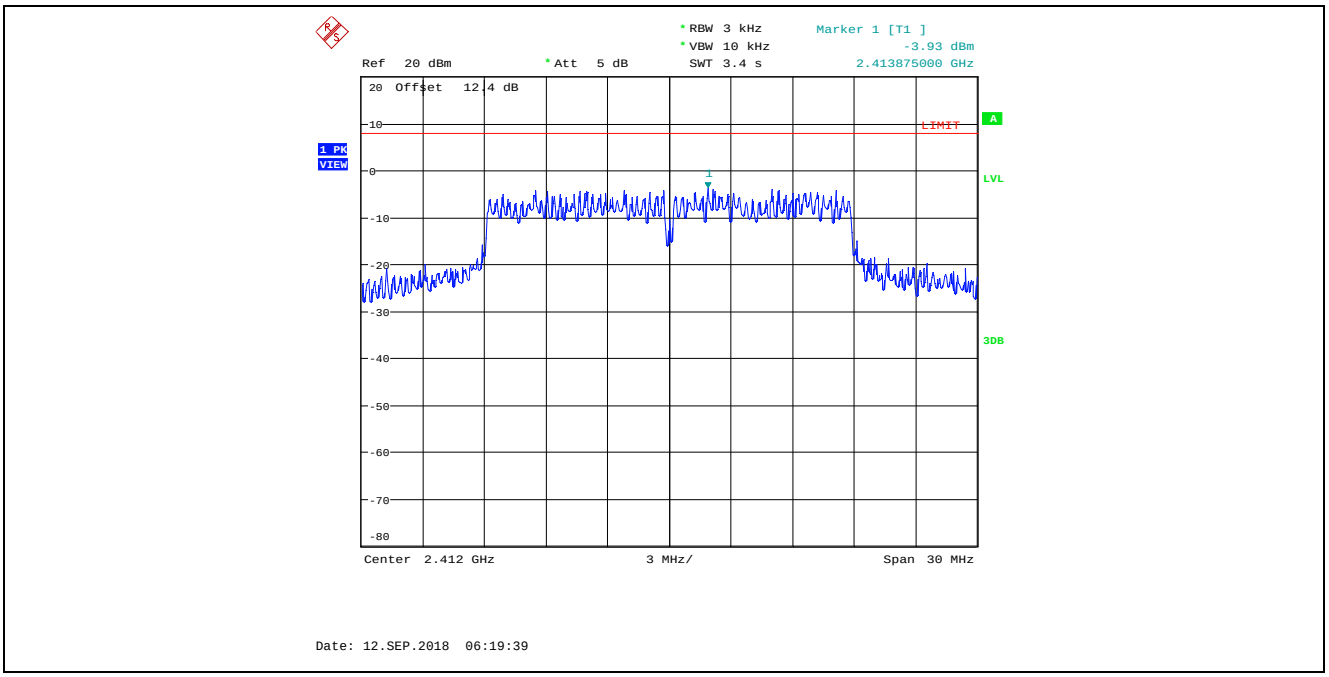
Plot 5.5.4.26. Power Spectral Density
802.11n, MCS2, Power Setting 30, Channel 6, 2437 MHz



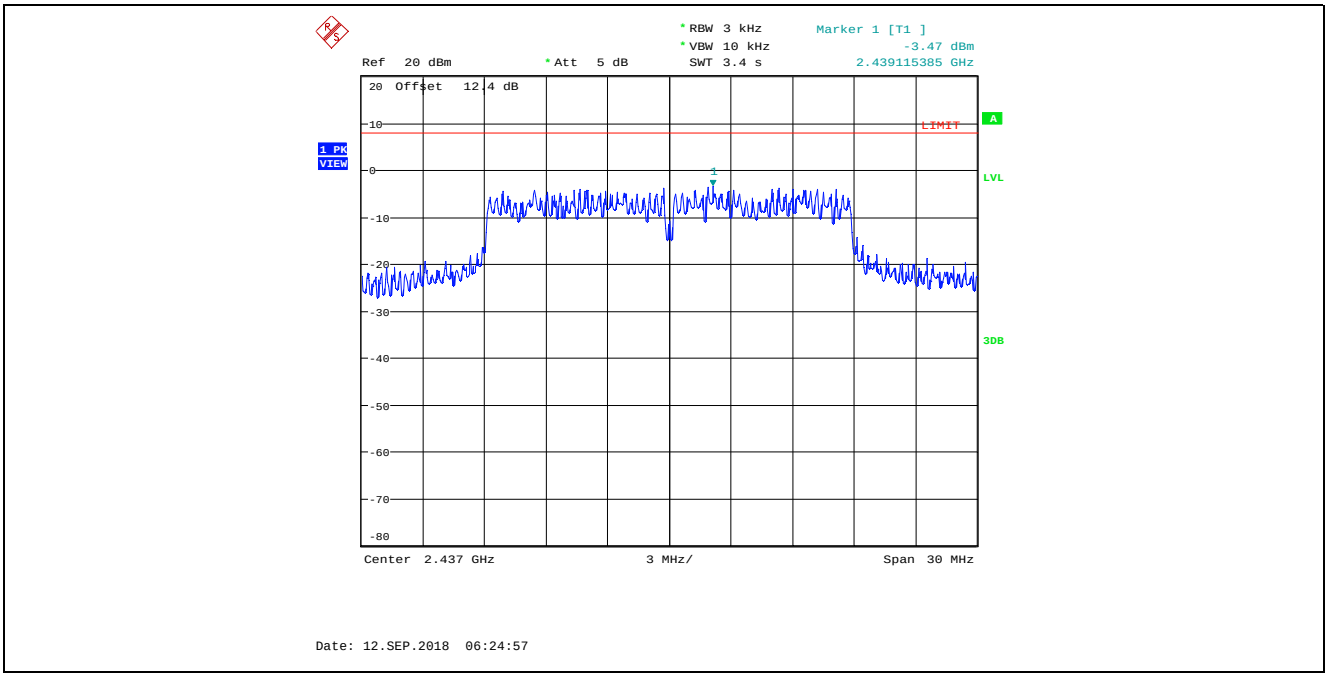
Plot 5.5.4.27. Power Spectral Density
802.11n, MCS2, Power Setting 30, Channel 11, 2462 MHz



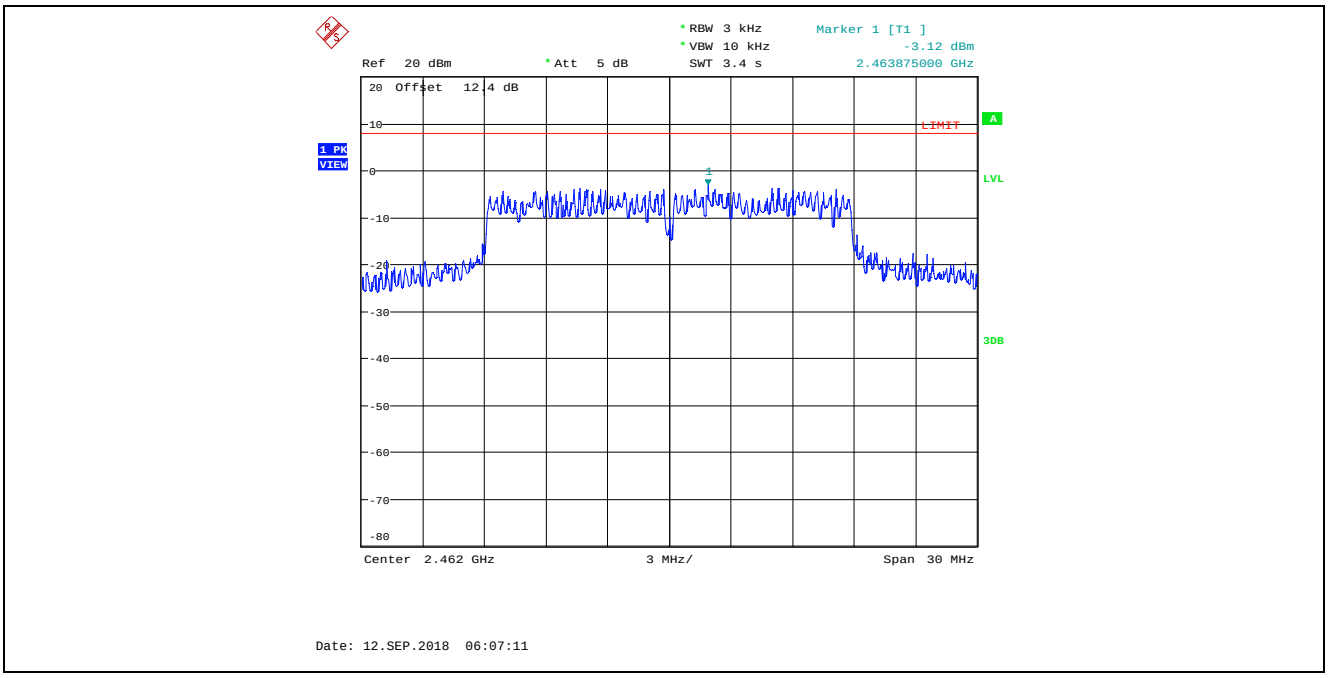
Plot 5.5.4.28. Power Spectral Density
802.11n, MCS4, Power Setting 30, Channel 1, 2412 MHz



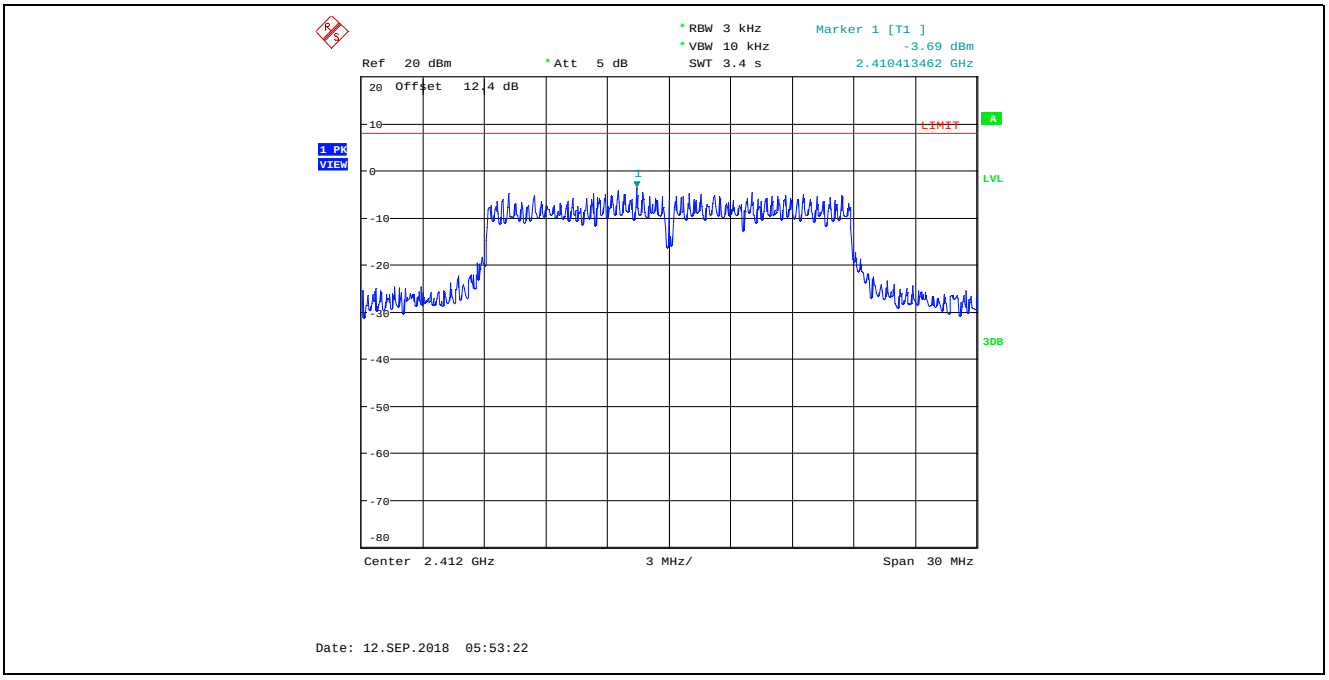
Plot 5.5.4.29. Power Spectral Density
802.11n, MCS4, Power Setting 30, Channel 6, 2437 MHz



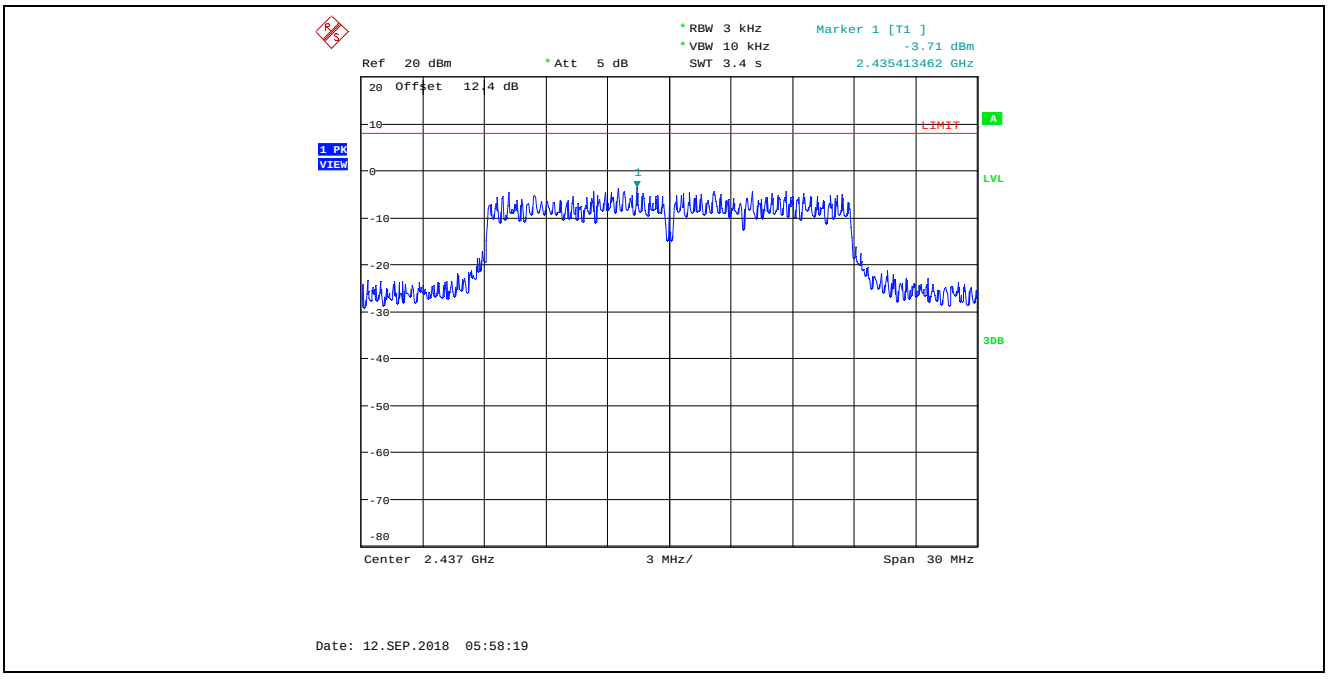
Plot 5.5.4.30. Power Spectral Density
802.11n, MCS4, Power Setting 30, Channel 11, 2462 MHz



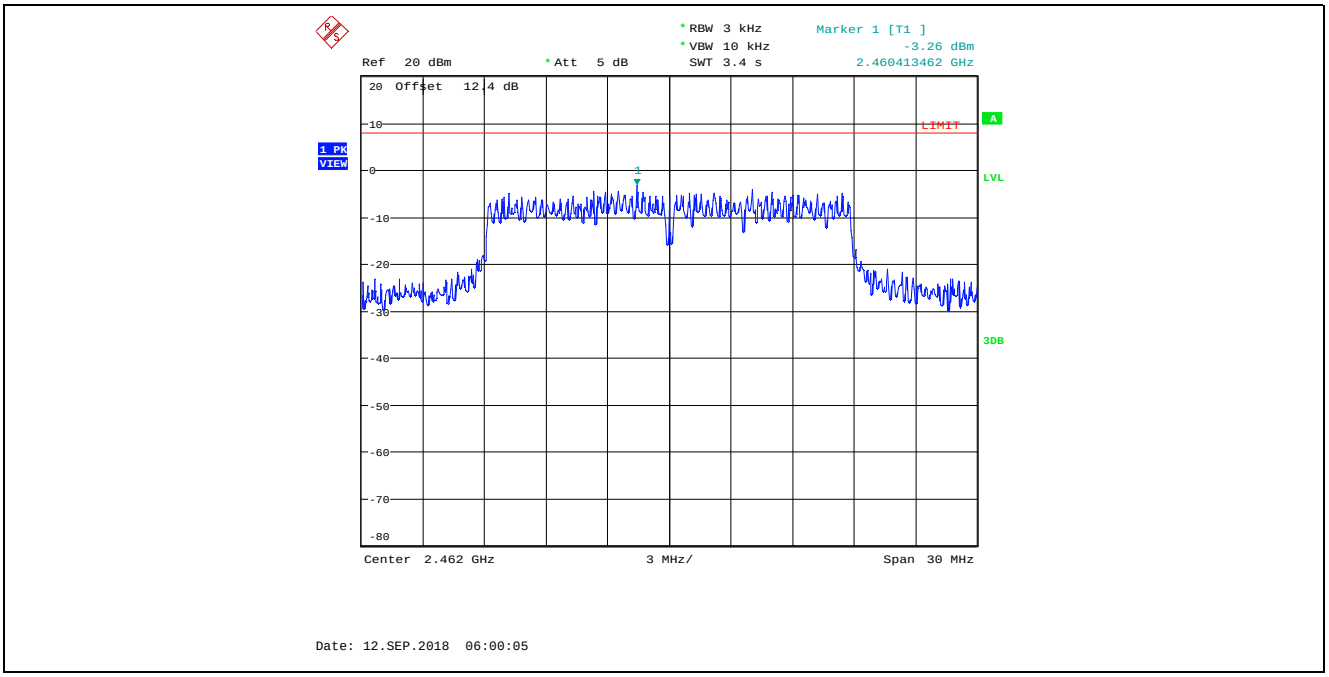
Plot 5.5.4.31. Power Spectral Density
802.11n, MCS7, Power Setting 30, Channel 1, 2412 MHz



Plot 5.5.4.32. Power Spectral Density
802.11n, MCS7, Power Setting 30, Channel 6, 2437 MHz



Plot 5.5.4.33. Power Spectral Density
802.11n, MCS7, Power Setting 30, Channel 11, 2462 MHz



5.6. RF EXPOSURE REQUIRMENTS [§§ 15.247(i), 1.1310 & 2.1091]

5.6.1. Limits

§ **1.1310:** The criteria listed in the following table shall be used to evaluate the environmental impact of human exposure to radio-frequency (RF) radiation as specified in 1.1307(b).

Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*($900/f^2$)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*($180/f^2$)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

f = frequency in MHz
* = Plane-wave equivalent power density

Note 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

Note 2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

5.6.2. Method of Measurements

Calculation Method of Power Density/RF Safety Distance:

$$S = \frac{PG}{4\pi \cdot r^2} = \frac{EIRP}{4\pi \cdot r^2}$$

Where, P: power input to the antenna in mW
EIRP: Equivalent (effective) isotropic radiated power.
S: power density mW/cm^2
G: numeric gain of antenna relative to isotropic radiator
r: distance to centre of radiation in cm

5.6.3. RF Evaluation

Remark(s):

The EUT contained ZigBee/ BLE and WiFi radio modules with the following operating conditions:

- BLE and WiFi may transmit at the same time
- Zigbee and WiFi may transmit at the same time
- BLE and Zigbee will NOT transmit at the same time

Pursuant to KDB 447498 D01 General RF Exposure Guidance v06, Section 7.2:

Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneously transmitting antennas incorporated in a host device is ≤ 1.0, according to calculated/estimated, numerically modeled, or measured field strengths or power density.

The sum of the MPE ratios for all simultaneously transmitting antennas incorporated in the EUT is ≤ 1.0 as calculated in the following table.

EUT Co-located MPE for BLE/Zigbee with WiFi Radio								
Transmitter	**Frequency Band (MHz)**	**Frequency**	**Max. EIRP (dBm)**	**Max. EIRP (mW)**	**Evaluation Distance (cm)**	**Power Density (mW/cm^2)**	**Power Density Limit (mW/cm^2)**	**Power Density MPE Ratio**
BLE	2402-2480	2402	25.53	357.273	20	0.071	1.0	**0.071**
Zigbee	2405-2480	2405	25.47	352.371	20	0.070	1.0	0.070
802.11b	2412-2462	2412	28.36	685.488	20	0.136	1.0	0.136
802.11g	2412-2462	2412	28.83	763.836	20	0.152	1.0	**0.152**
802.11n	2412-2462	2412	28.65	732.825	20	0.146	1.0	0.146
Worst Case Combination (BLE with WiFi 802.11g mode) :								**0.223**

EXHIBIT 6. TEST EQUIPMENT LIST

Test Instruments	Manufacturer	Model No.	Serial No.	Frequency Range	Cal. Due Date
Spectrum Analyzer	Agilent	E7405A	US39440181	9 kHz–26.5 GHz	04 Feb 2019
Attenuator	Pasternack	PE7010-20	ATT13	DC–2 GHz	21 Mar 2019
LISN	EMCO	3825/2R	1165	10 kHz–30 MHz	03 Nov 2018
Spectrum Analyzer	Rohde & Schwarz	FSU26	200946	20Hz–26.5 GHz	25 Jul 2020
DC Block	Hewlett Packard	11742A	12460	0.045 – 26.5 GHz	See Note 1
Attenuator	Hewlett Packard	8493C	0465	DC - 26.5 GHz	See Note 1
EMI Receiver	Rohde & Schwarz	ESU40	100037	20Hz–40 GHz	04 May 2019
RF Amplifier	Com-Power	PAM-0118A	551052	0.5 – 18 GHz	26 Jun 2019
RF Amplifier	Hewlett Packard	84498	3008A00769	1 – 26.5 GHz	01 Oct 2019
Biconilog	EMCO	3142C	00026873	26-3000 MHz	27 Apr 2020
Horn Antenna	EMCO	3155	5061	1 – 18 GHz	30 Apr 2020
Horn Antenna	ETS-Lindgren	3160-09	001183858	18 – 26.5 GHz	11 Oct 2019
High Pass Filter	K & L	11SH10-4000/T12000	4	Cut off 2.4 GHz	See Note 1
Band Reject Filter	Micro-Tronics	BRM50701	105	Cut off 2.4-2.483 GHz	See Note 1
Attenuator	Pasternack	PE7024-10	4	DC–26.5 GHz	See Note 1
Peak Power Analyzer	Hewlett Packard	8991A	3342A00657	0.5 - 40 GHz	18 Aug 2019
Peak Power Sensor	Hewlett Packard	84814A	3205A00175	0.5 - 40 GHz	18 Aug 2019
Attenuator	Hewlett Packard	8493C	0461	DC - 26.5 GHz	See Note 1
Note 1: Internal Verification/Calibration check					

All test results contained in this engineering test report are traceable to National Institute of Standards and Technology (NIST)

EXHIBIT 7. MEASUREMENT UNCERTAINTY

The measurement uncertainties stated were calculated in accordance with the requirements of CISPR 16-4-2 @ IEC:2003 and JCGM 100:2008 (GUM 1995) – Guide to the Expression of Uncertainty in Measurement.

7.1. LINE CONDUCTED EMISSION MEASUREMENT UNCERTAINTY

	Line Conducted Emission Measurement Uncertainty (9 kHz – 30 MHz):	**Measured**	**Limit**
u_c	**Combined standard uncertainty:** $u_c(y) = \sqrt{\sum_{I=1}^{m} u_i^2(y)}$	**± 1.44**	**± 1.8**
U	**Expanded uncertainty U:** $U = 2u_c(y)$	**± 2.89**	**± 3.6**

7.2. RADIATED EMISSION MEASUREMENT UNCERTAINTY

	Radiated Emission Measurement Uncertainty @ 3m, Horizontal (30-1000 MHz):	**Measured (dB)**	**Limit (dB)**
u_c	**Combined standard uncertainty:** $u_c(y) = \sqrt{\sum_{I=1}^{m} u_i^2(y)}$	**± 2.39**	**± 2.6**
U	**Expanded uncertainty U:** $U = 2u_c(y)$	**± 4.79**	**± 5.2**

	Radiated Emission Measurement Uncertainty @ 3m, Vertical (30-1000 MHz):	**Measured (dB)**	**Limit (dB)**
u_c	**Combined standard uncertainty:** $u_c(y) = \sqrt{\sum_{I=1}^{m} u_i^2(y)}$	**± 2.39**	**± 2.6**
U	**Expanded uncertainty U:** $U = 2u_c(y)$	**± 4.78**	**± 5.2**

	Radiated Emission Measurement Uncertainty @ 3 m, Horizontal & Vertical (1 – 18 GHz):	**Measured (dB)**	**Limit (dB)**
u_c	**Combined standard uncertainty:** $u_c(y) = \sqrt{\sum_{I=1}^{m} u_i^2(y)}$	**± 1.87**	**Under consideration**
U	**Expanded uncertainty U:** $U = 2u_c(y)$	**± 3.75**	**Under consideration**