



Product Service

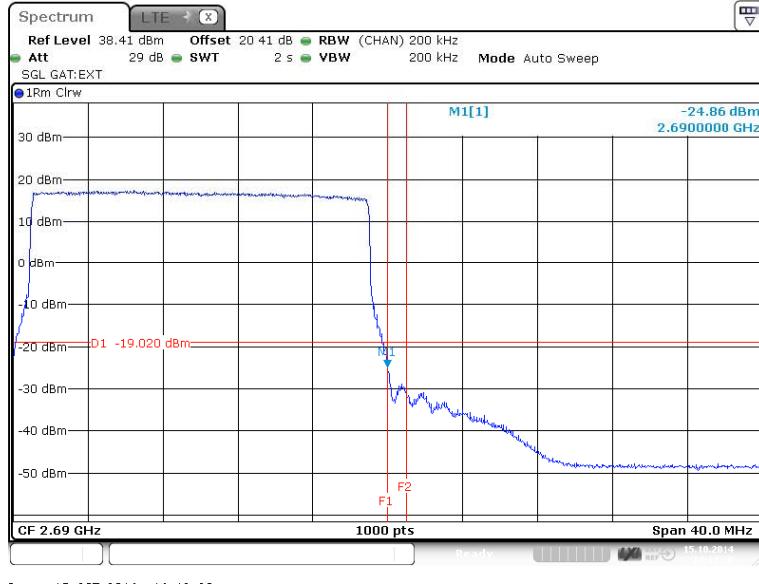
FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



Date: 13.OCT.2014 13:34:47

**Figure 211 Spurious Emissions (Lower Band Edge) – 64QAM (2506.0 MHz) (20MHz Channel BW)**



Date: 15.OCT.2014 14:13:30

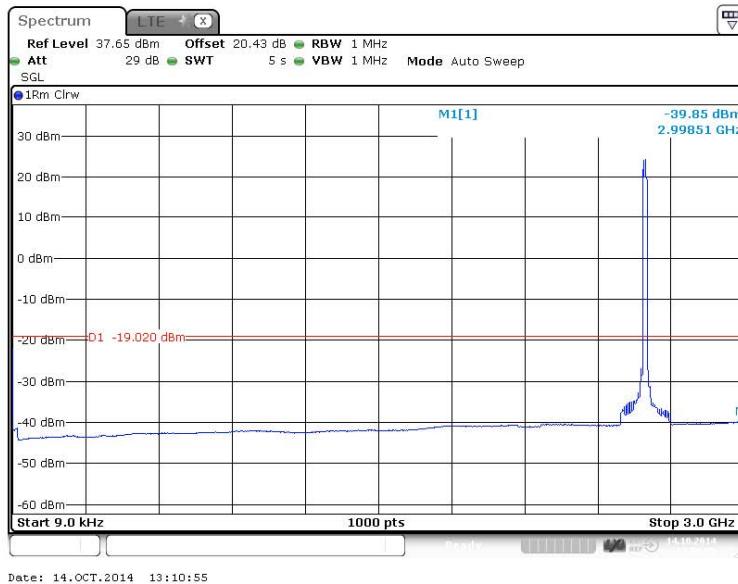
**Figure 212 Spurious Emissions (Upper Band Edge) – 64QAM (2680.0 MHz) (20MHz Channel BW)**



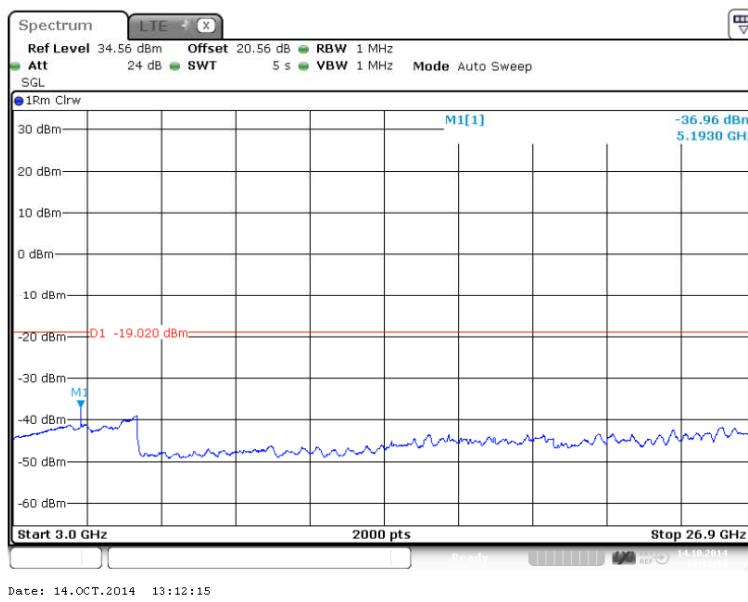
Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 213 Spurious Emissions (9kHz – 3GHz) – 64QAM (2593.0 MHz) (20MHz Channel BW)**



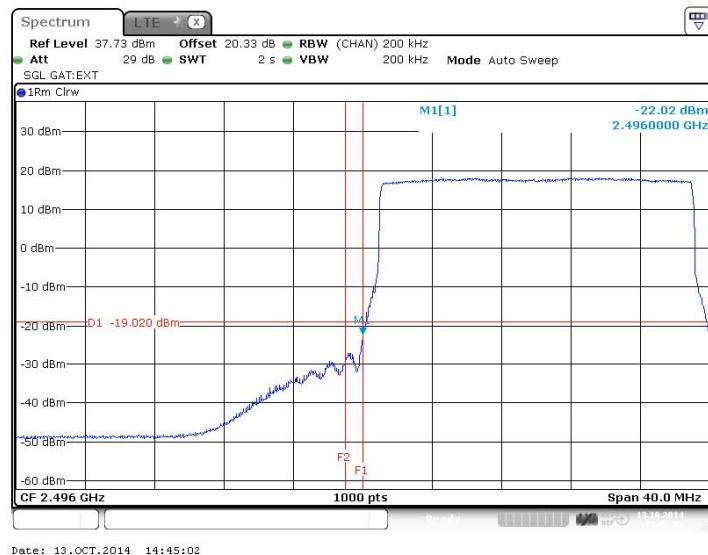
**Figure 214 Spurious Emissions (3GHz – 26.900GHz) – 64QAM (2593.0 MHz) (20MHz Channel BW)**



Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124

**Config E ANT2/Main:**

**Figure 215 Spurious Emissions (Lower Band Edge) – QPSK (2506.0 MHz) (20MHz Channel BW)**



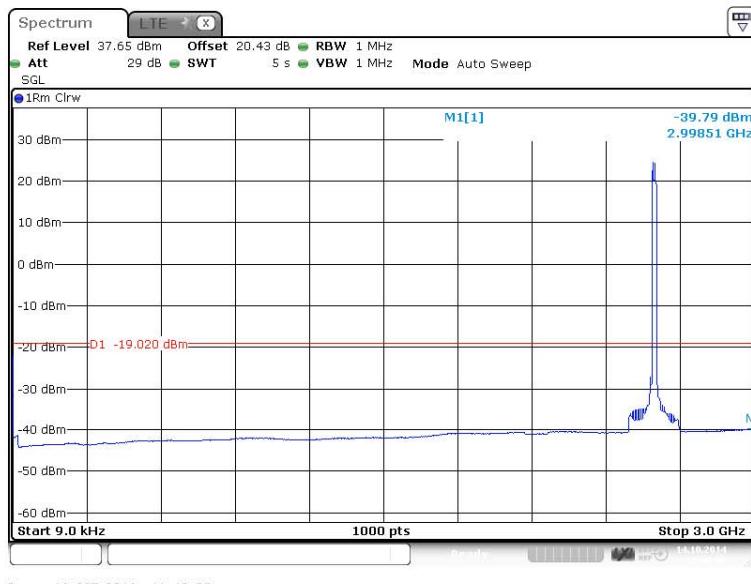
**Figure 216 Spurious Emissions (Upper Band Edge) – QPSK (2680.0 MHz) (20MHz Channel BW)**



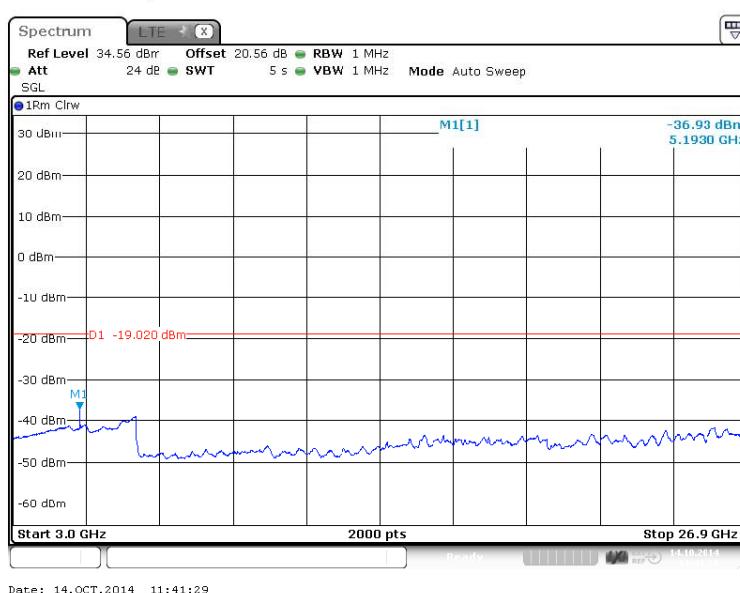
Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 217 Spurious Emissions (9kHz – 3GHz) - QPSK (2593.0 MHz) (20MHz Channel BW)**



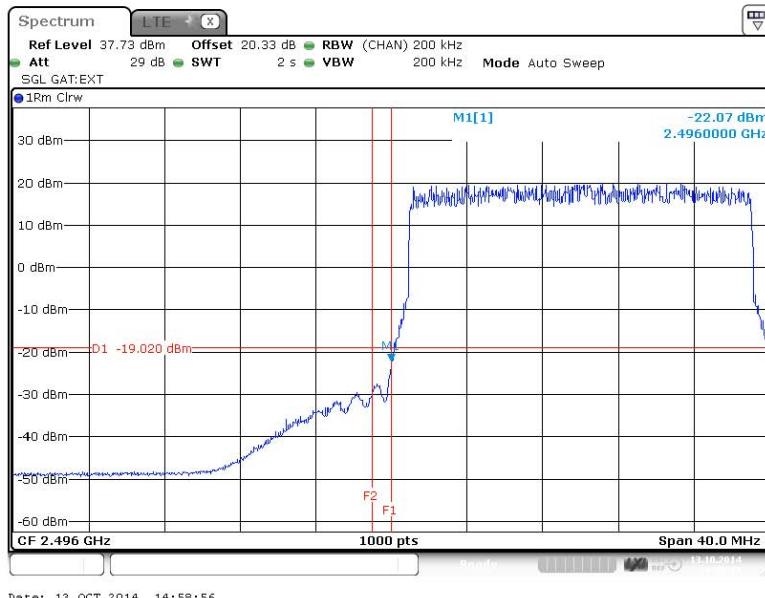
**Figure 218 Spurious Emissions (3GHz – 26.900GHz) – QPSK (2593.0 MHz) (20MHz Channel BW)**



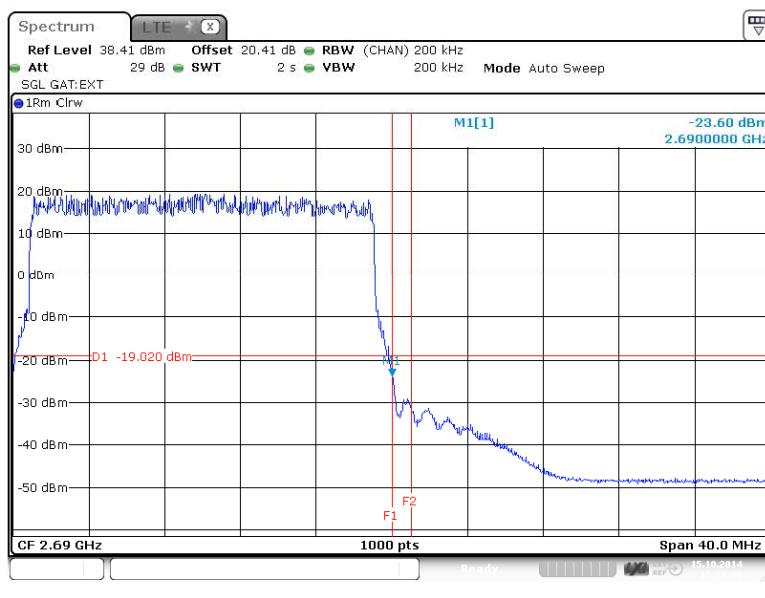
Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 219 Spurious Emissions (Lower Band Edge) – 16QAM (2506.0 MHz) (20MHz Channel BW)**



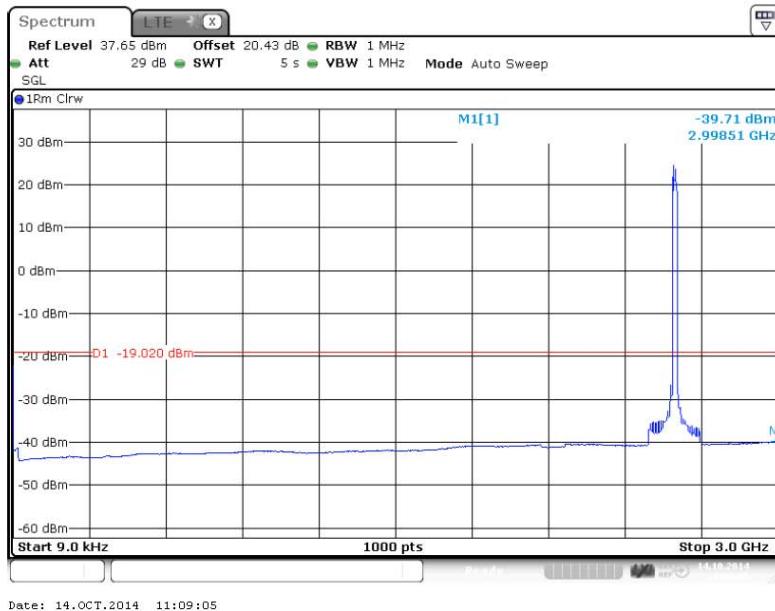
**Figure 220 Spurious Emissions (Upper Band Edge) – 16QAM (2680.0 MHz) (20MHz Channel BW)**



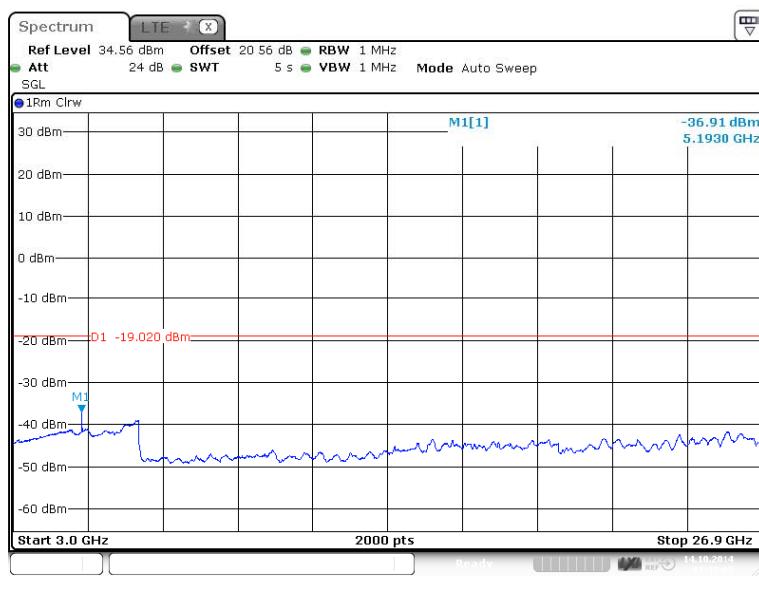
Product Service

FCC ID:  
VBNFWHHD-01

Test Report No:  
D522886124



**Figure 221 Spurious Emissions (9kHz – 3GHz) – 16QAM (2593.0 MHz) (20MHz Channel BW)**



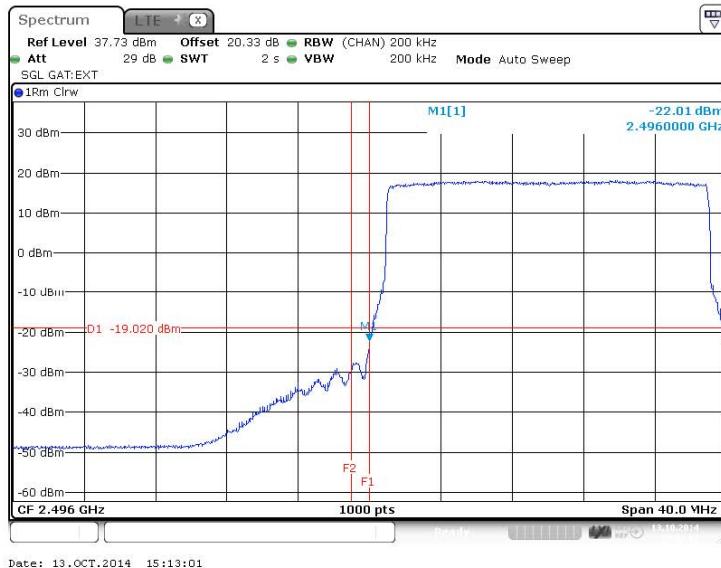
**Figure 222 Spurious Emissions (3GHz – 26.900GHz) – 16QAM (2593.0 MHz) (20MHz Channel BW)**



Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 223 Spurious Emissions (Lower Band Edge) – 64QAM (2506.0 MHz) (20MHz Channel BW)**



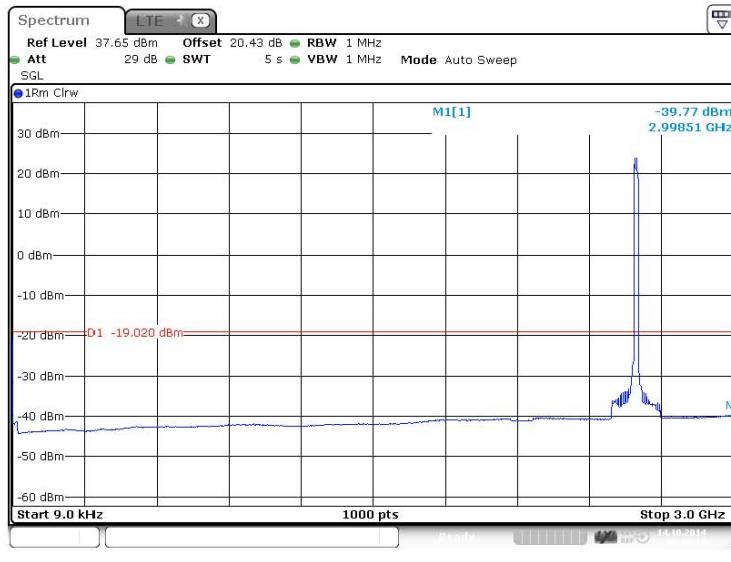
**Figure 224 Spurious Emissions (Upper Band Edge) – 64QAM (2680.0 MHz) (20MHz Channel BW)**



Product Service

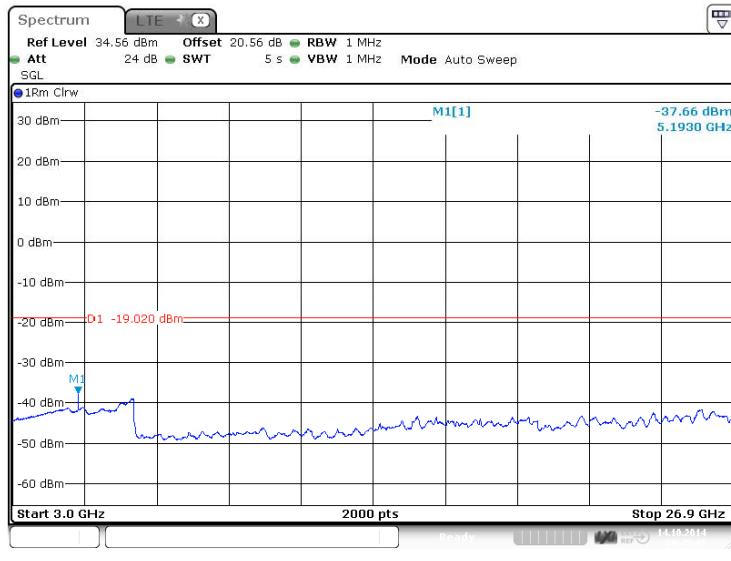
FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



Date: 14.OCT.2014 09:48:10

**Figure 225 Spurious Emissions (9kHz – 3GHz) – 64QAM (2593.0 MHz) (20MHz Channel BW)**



Date: 14.OCT.2014 09:45:45

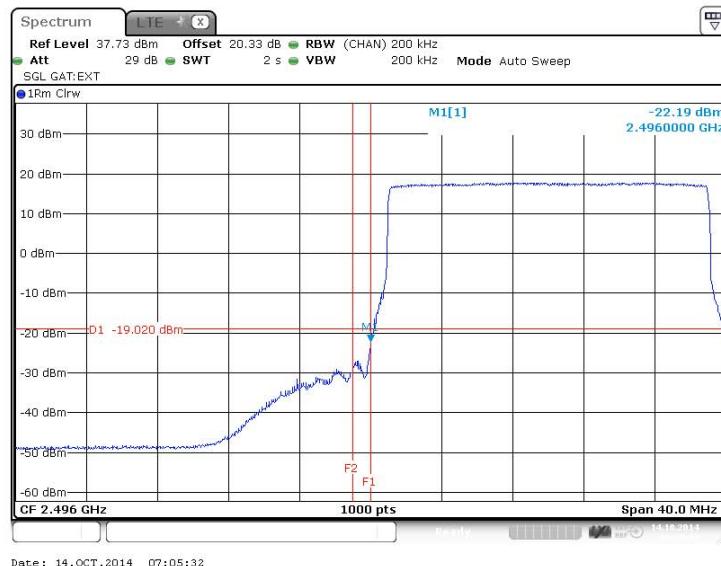
**Figure 226 Spurious Emissions (3GHz – 26.900GHz) – 64QAM (2593.0 MHz) (20MHz Channel BW)**



Product Service

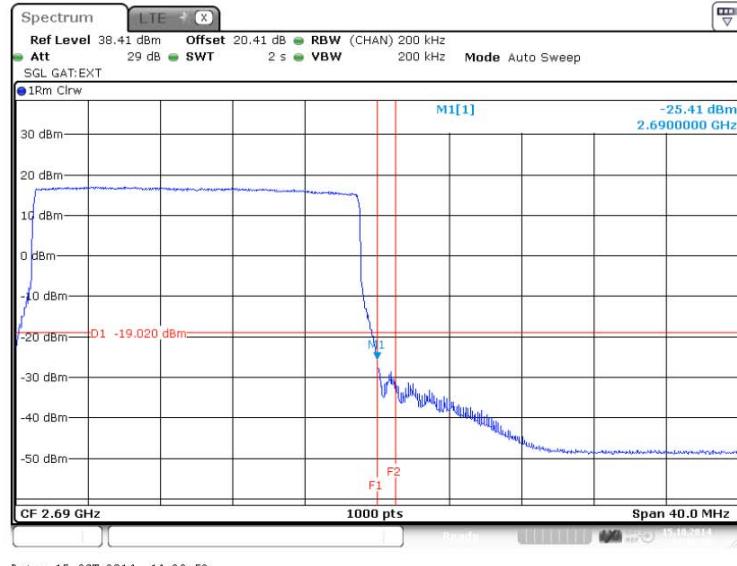
FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124

**Config E ANT2/Div:**

Date: 14.OCT.2014 07:05:32

**Figure 227 Spurious Emissions (Lower Band Edge) – QPSK (2506.0 MHz) (20MHz Channel BW)**



Date: 15.OCT.2014 14:33:52

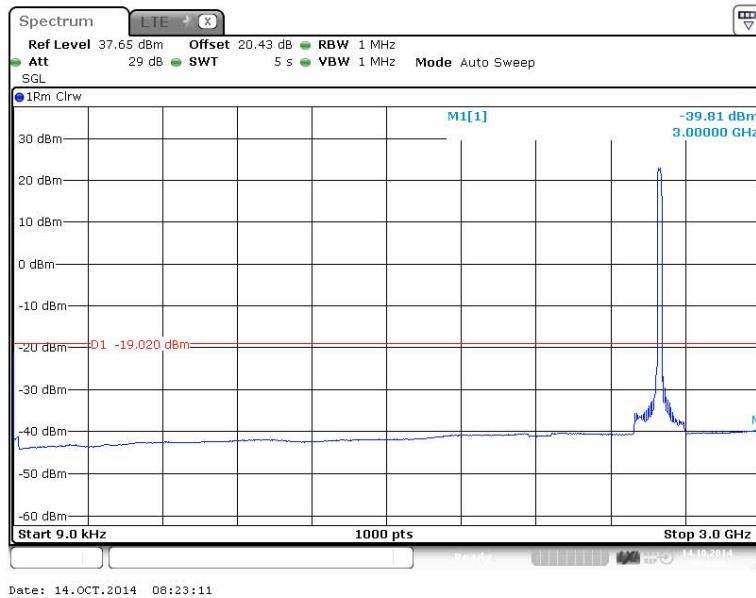
**Figure 228 Spurious Emissions (Upper Band Edge) – QPSK (2680.0 MHz) (20MHz Channel BW)**



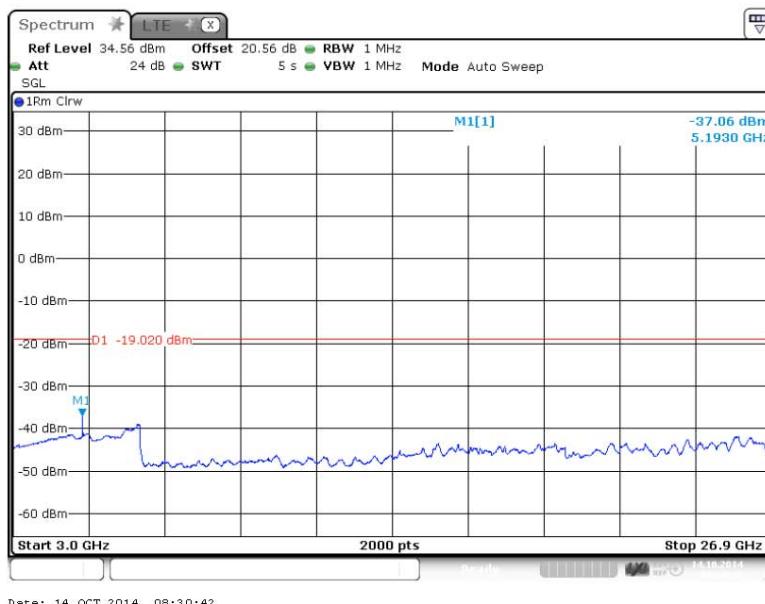
Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 229 Spurious Emissions (9kHz – 3GHz) - QPSK (2593.0 MHz) (20MHz Channel BW)**



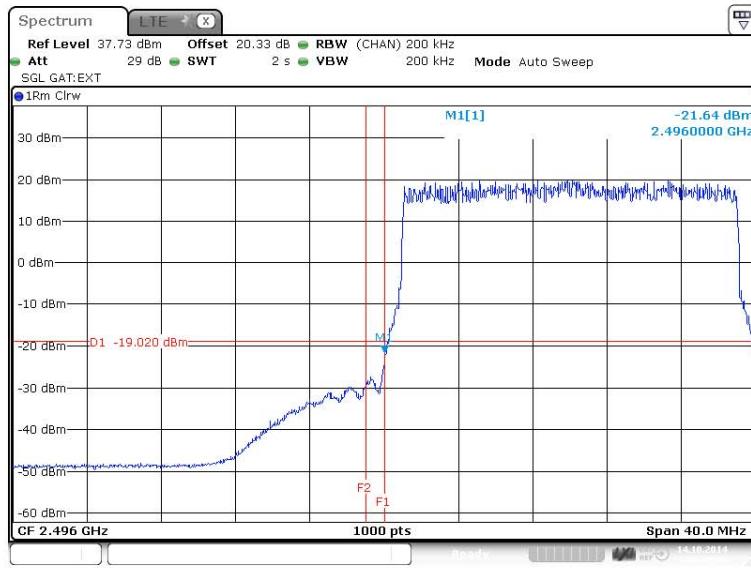
**Figure 230 Spurious Emissions (3GHz – 26.900GHz) – QPSK (2593.0 MHz) (20MHz Channel BW)**



Product Service

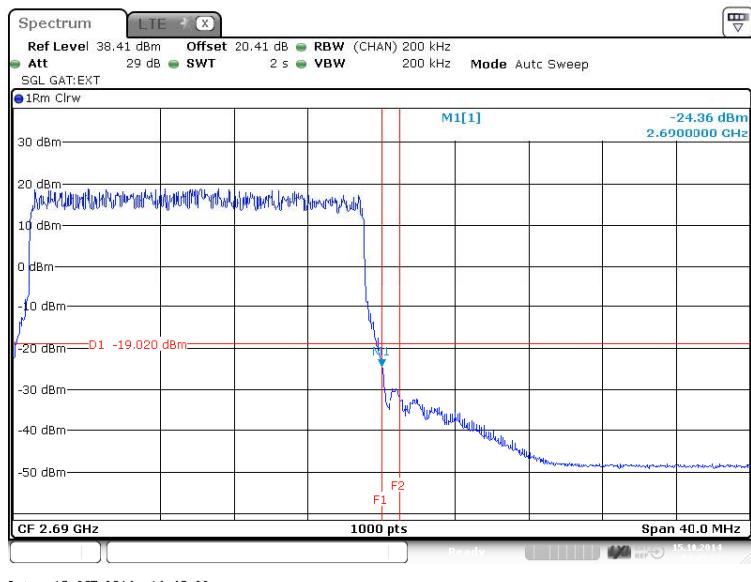
FCC ID:  
VBNFWHHD-01

Test Report No:  
D522886124



Date: 14.OCT.2014 06:52:56

**Figure 231 Spurious Emissions (Lower Band Edge) – 16QAM (2506.0 MHz) (20MHz Channel BW)**



Date: 15.OCT.2014 14:45:22

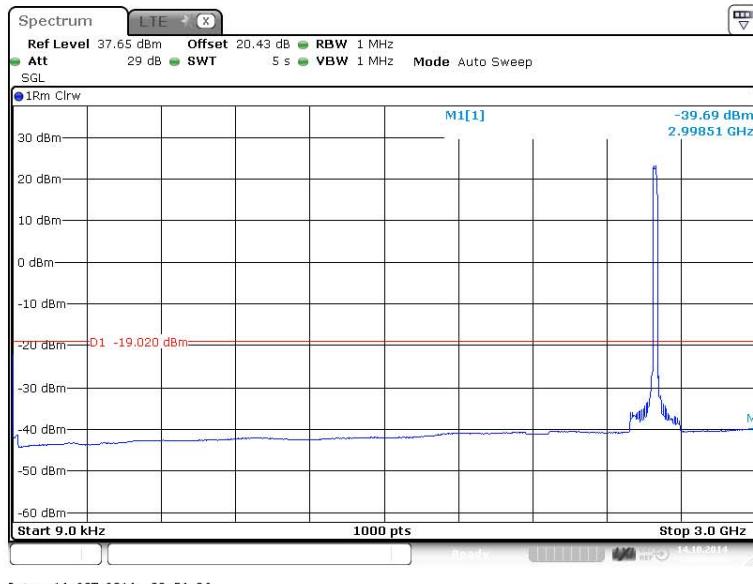
**Figure 232 Spurious Emissions (Upper Band Edge) – 16QAM (2680.0 MHz) (20MHz Channel BW)**



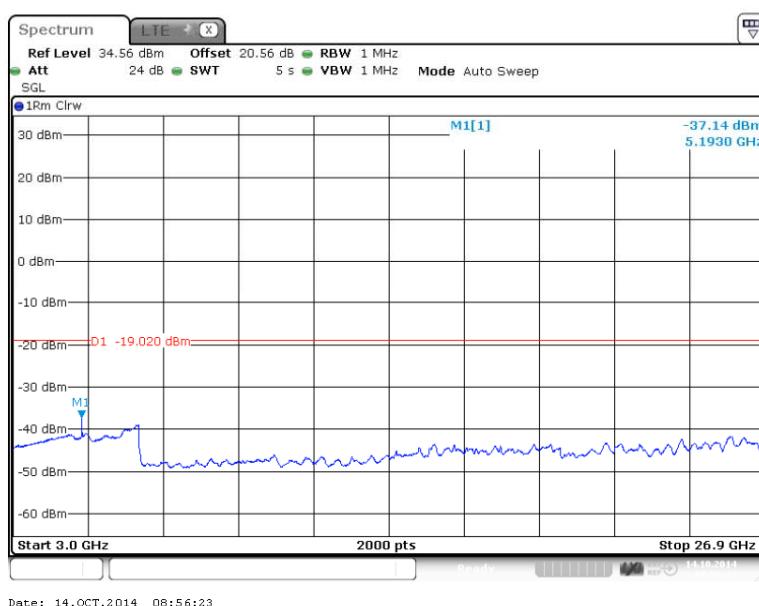
Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 233 Spurious Emissions (9kHz – 3GHz) – 16QAM (2593.0 MHz) (20MHz Channel BW)**



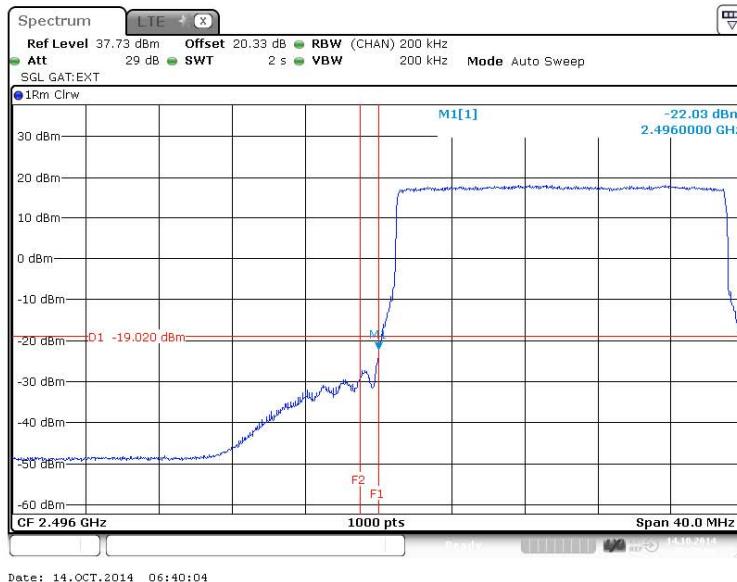
**Figure 234 Spurious Emissions (3GHz – 26.900GHz) – 16QAM (2593.0 MHz) (20MHz Channel BW)**



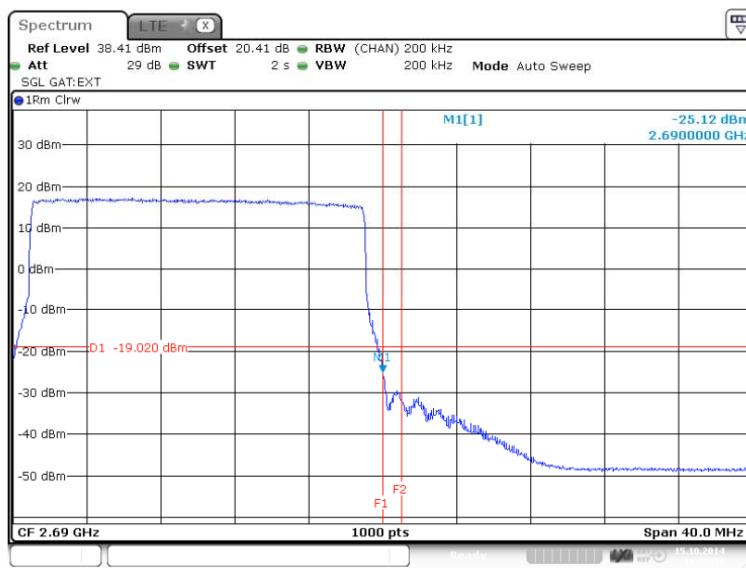
Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 235 Spurious Emissions (Lower Band Edge) – 64QAM (2506.0 MHz) (20MHz Channel BW)**



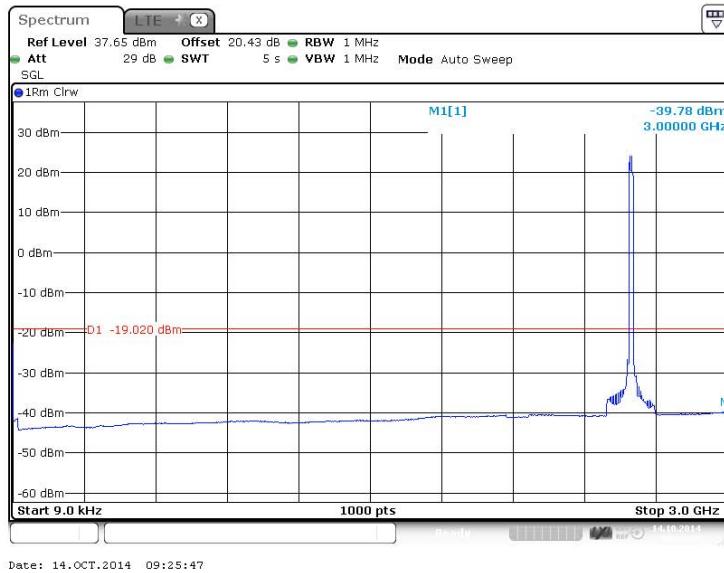
**Figure 236 Spurious Emissions (Upper Band Edge) – 64QAM (2680.0 MHz) (20MHz Channel BW)**



Product Service

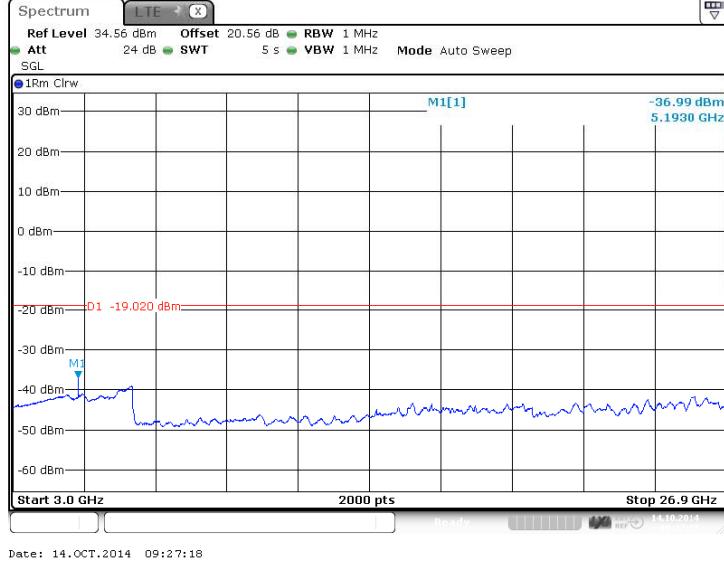
FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



Date: 14.OCT.2014 09:25:47

**Figure 237 Spurious Emissions (9kHz – 3GHz) – 64QAM (2593.0 MHz) (20MHz Channel BW)**



Date: 14.OCT.2014 09:27:18

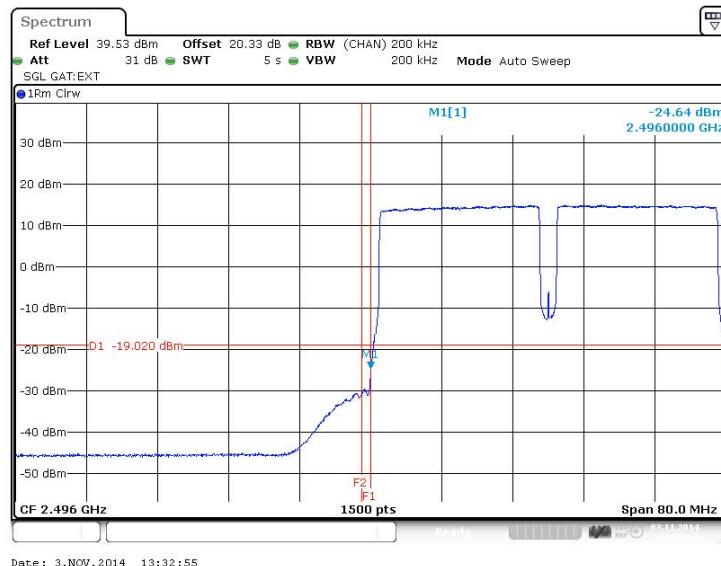
**Figure 238 Spurious Emissions (3GHz – 26.900GHz) – 64QAM (2593.0 MHz) (20MHz Channel BW)**



Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124

**Config F ANT2/Main:**

Date: 3.NOV.2014 13:32:55

**Figure 239 Spurious Emissions (Lower Band Edge) – QPSK (2506.0/2526.0 MHz) (20MHz Channel BW)**



Date: 4.NOV.2014 08:59:18

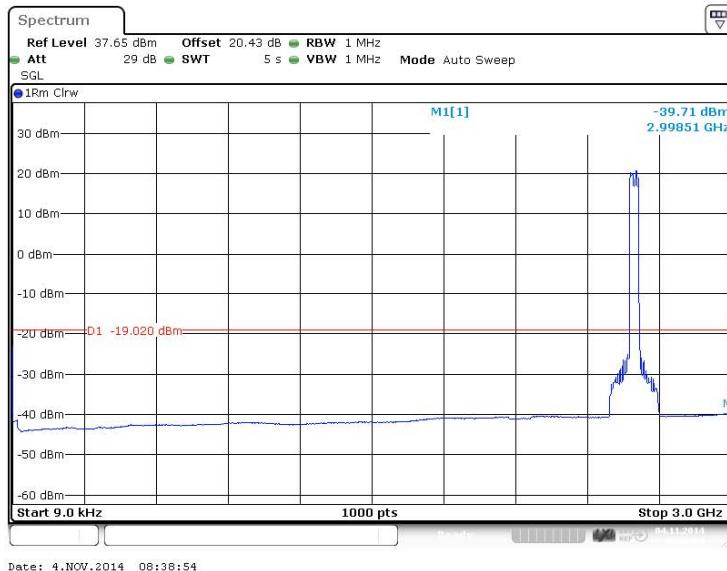
**Figure 240 Spurious Emissions (Upper Band Edge) – QPSK (2660.0/2680.0 MHz) (20MHz Channel BW)**



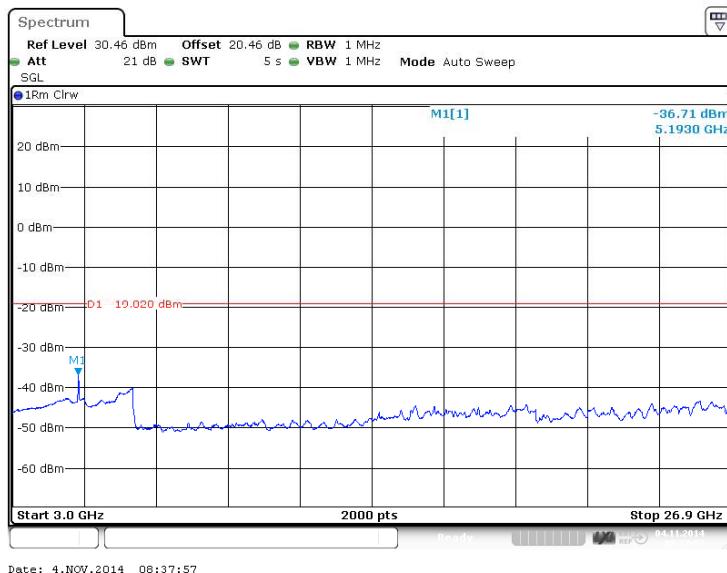
Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 241 Spurious Emissions (9kHz – 3GHz) - QPSK (2583.0/2603.0 MHz) (20MHz Channel BW)**



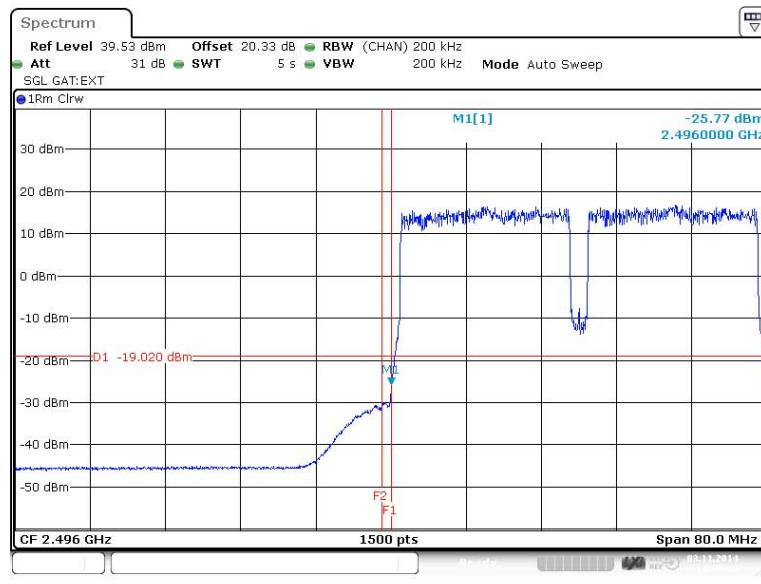
**Figure 242 Spurious Emissions (3GHz – 26.900GHz) – QPSK (2583.0/2603.0 MHz) (20MHz Channel BW)**



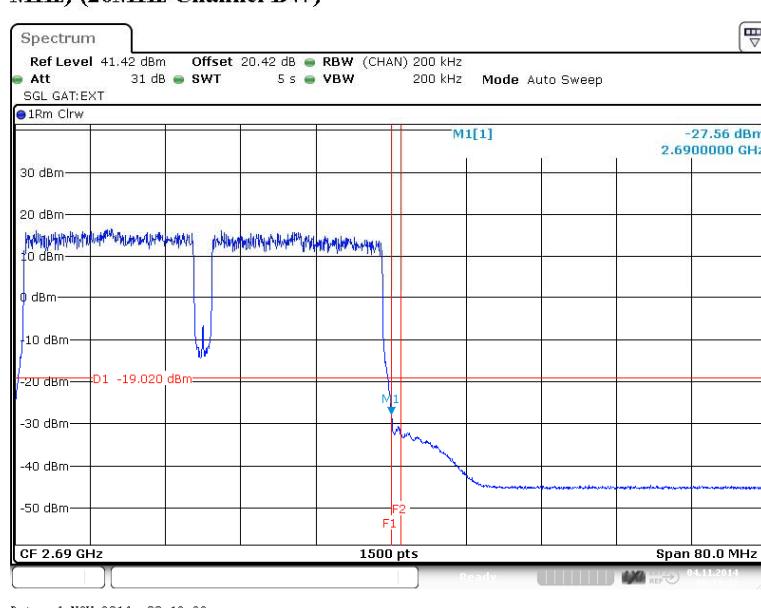
Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 243 Spurious Emissions (Lower Band Edge) – 16QAM (2506.0/2526.0 MHz) (20MHz Channel BW)**



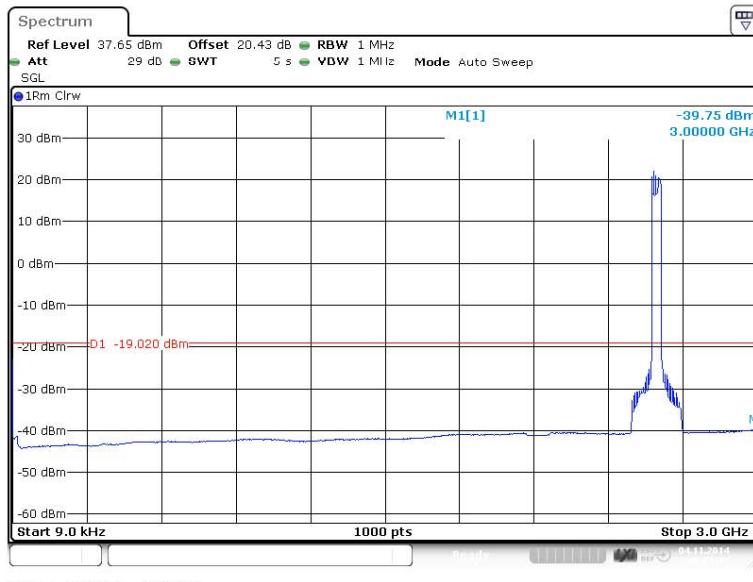
**Figure 244 Spurious Emissions (Upper Band Edge) – 16QAM (2660.0/2680.0 MHz) (20MHz Channel BW)**



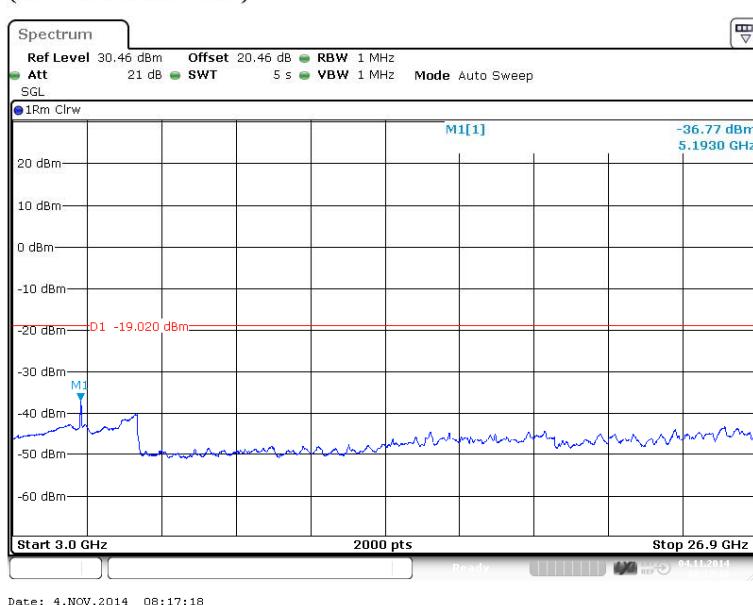
Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 245 Spurious Emissions (9kHz – 3GHz) – 16QAM (2583.0/2603.0 MHz) (20MHz Channel BW)**



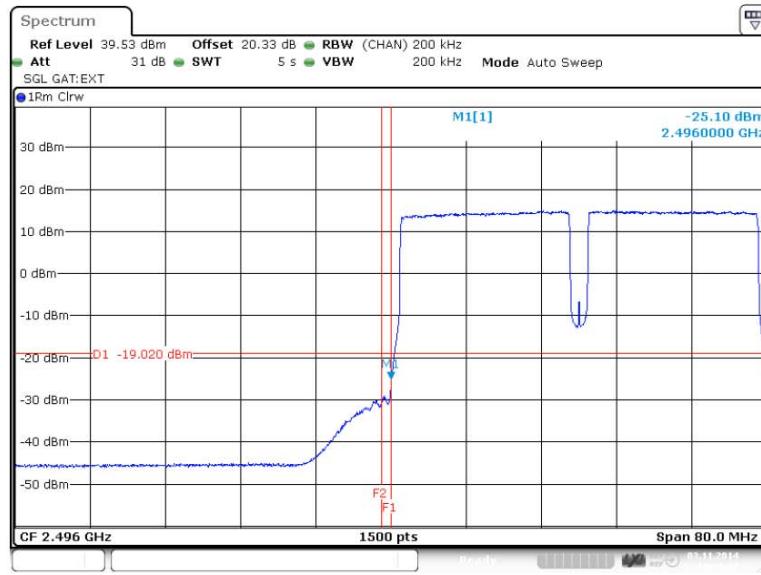
**Figure 246 Spurious Emissions (3GHz – 26.900GHz) – 16QAM (2583.0/2603.0 MHz) (20MHz Channel BW)**



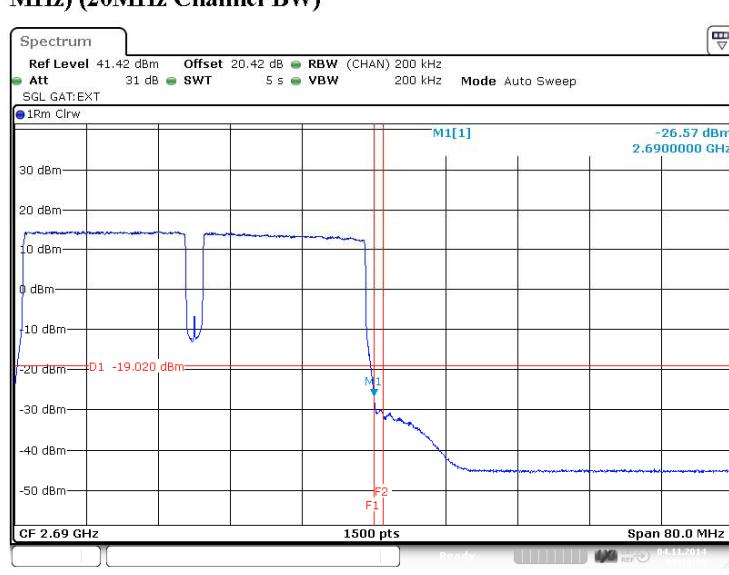
Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 247 Spurious Emissions (Lower Band Edge) – 64QAM (2506.0/2526.0 MHz) (20MHz Channel BW)**



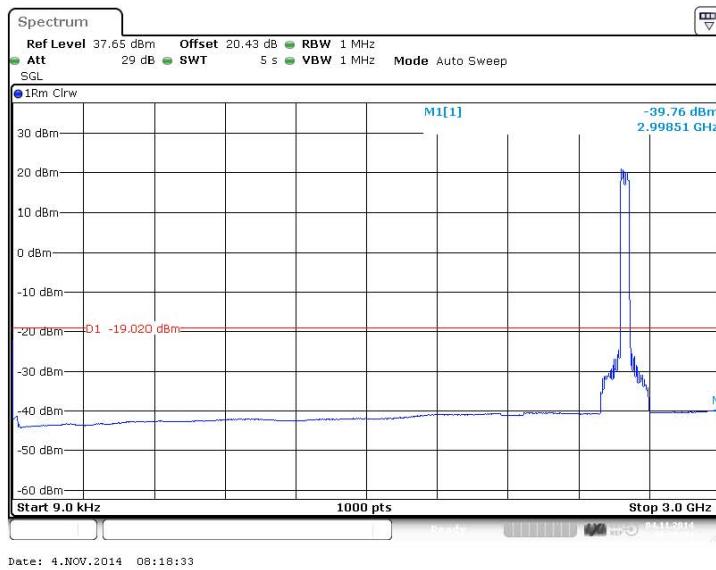
**Figure 248 Spurious Emissions (Upper Band Edge) – 64QAM (2660.0/2680.0 MHz) (20MHz Channel BW)**



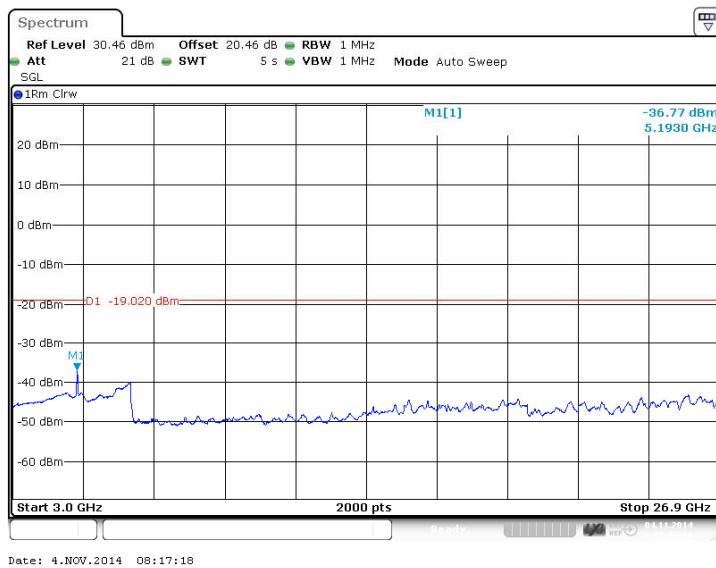
Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 249 Spurious Emissions (9kHz – 3GHz) – 64QAM (2583.0/2603.0 MHz) (20MHz Channel BW)**



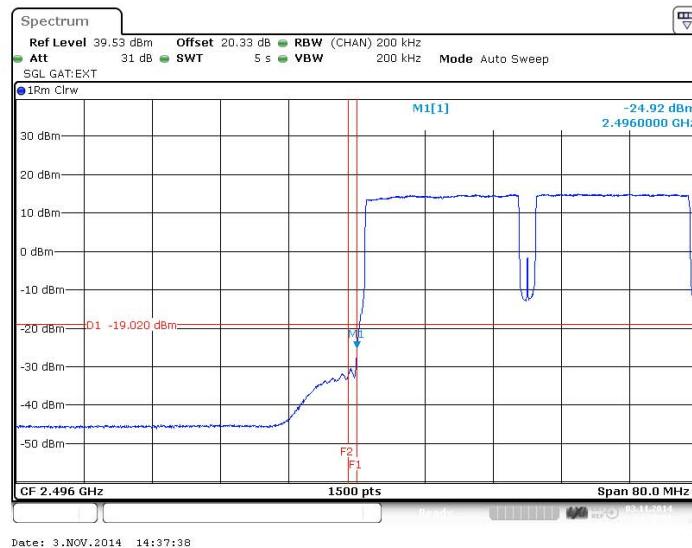
**Figure 250 Spurious Emissions (3GHz – 26.900GHz) – 64QAM (2583.0/2603.0 MHz) (20MHz Channel BW)**



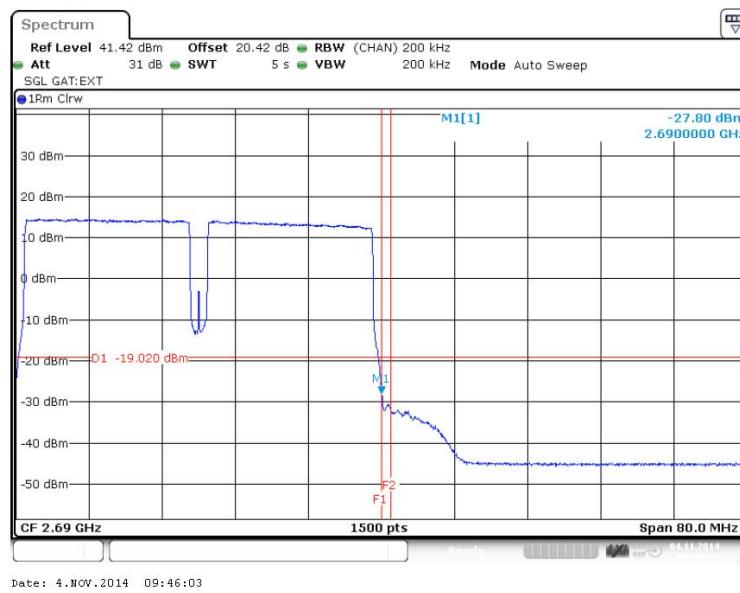
Product Service

FCC ID:  
VBNFWHHD-01

Test Report No:  
D522886124

**Config F ANT2/Div:**

**Figure 251 Spurious Emissions (Lower Band Edge) – QPSK (2506.0/2526.0 MHz) (20MHz Channel BW)**



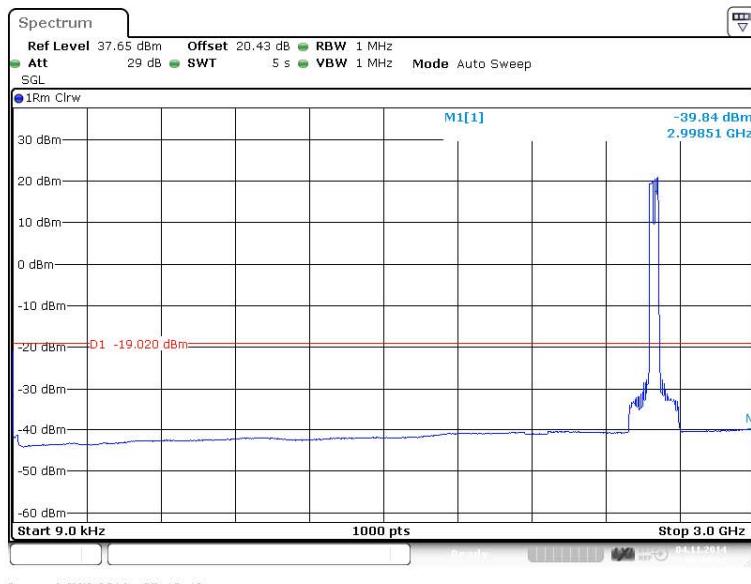
**Figure 252 Spurious Emissions (Upper Band Edge) – QPSK (2660.0/2680.0 MHz) (20MHz Channel BW)**



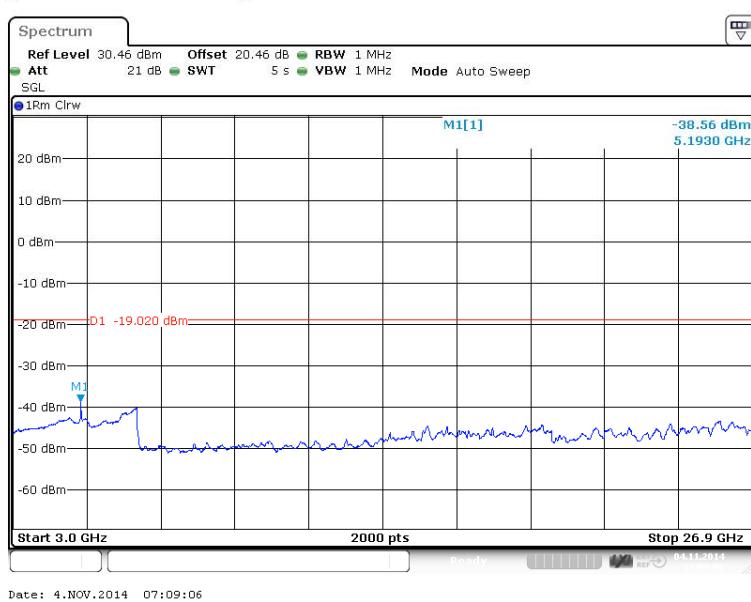
Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 253 Spurious Emissions (9kHz – 3GHz) - QPSK (2583.0/2603.0 MHz) (20MHz Channel BW)**



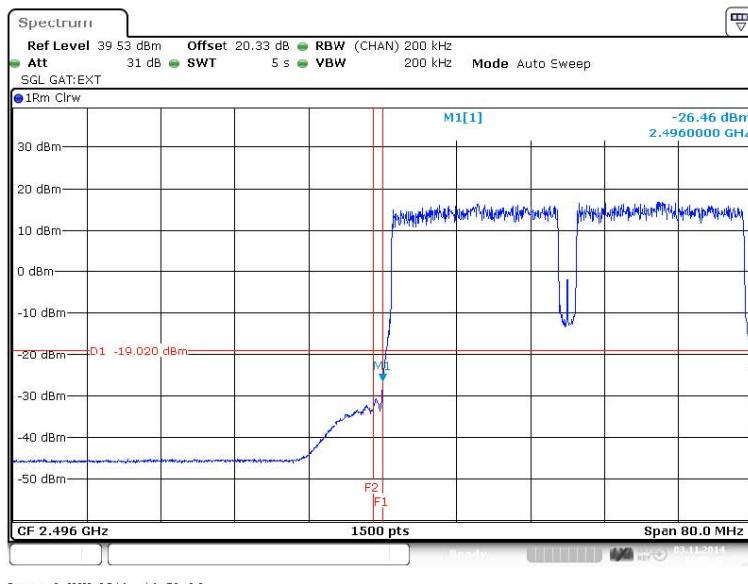
**Figure 254 Spurious Emissions (3GHz – 26.900GHz) – QPSK (2583.0/2603.0 MHz) (20MHz Channel BW)**



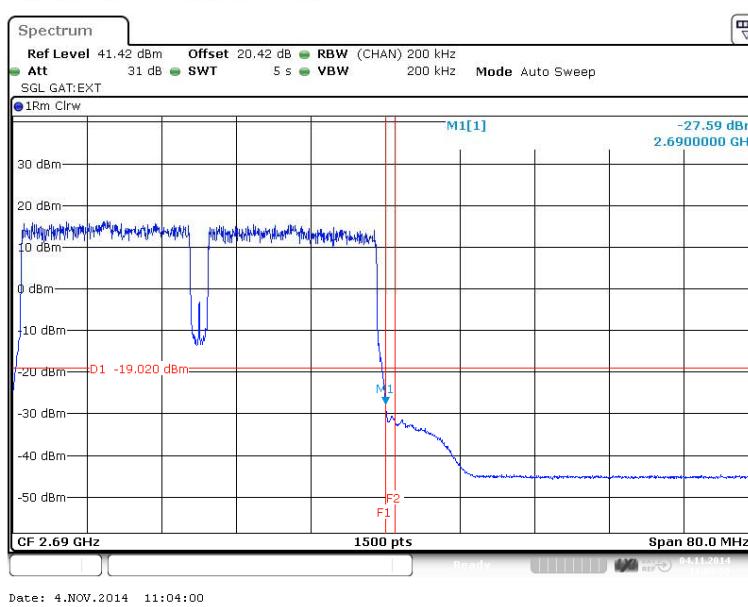
Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 255 Spurious Emissions (Lower Band Edge) – 16QAM (2506.0/2526.0 MHz) (20MHz Channel BW)**



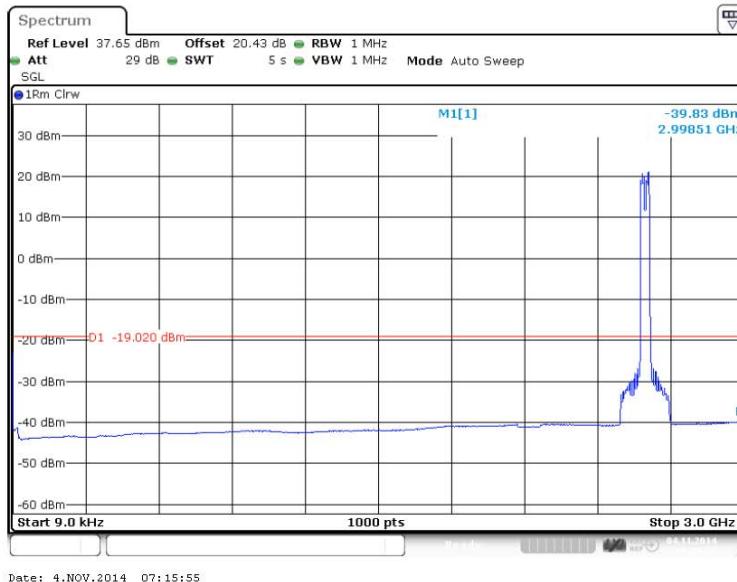
**Figure 256 Spurious Emissions (Upper Band Edge) – 16QAM (2660.0/2680.0 MHz) (20MHz Channel BW)**



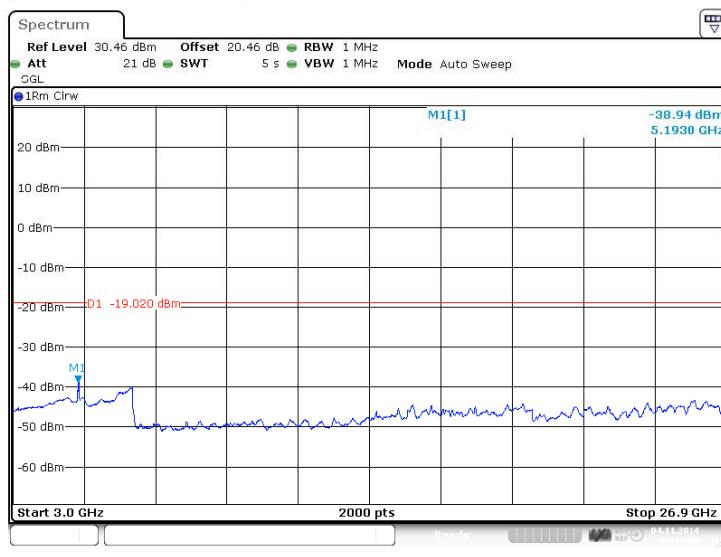
Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 257 Spurious Emissions (9kHz – 3GHz) – 16QAM (2583.0/2603.0 MHz) (20MHz Channel BW)**



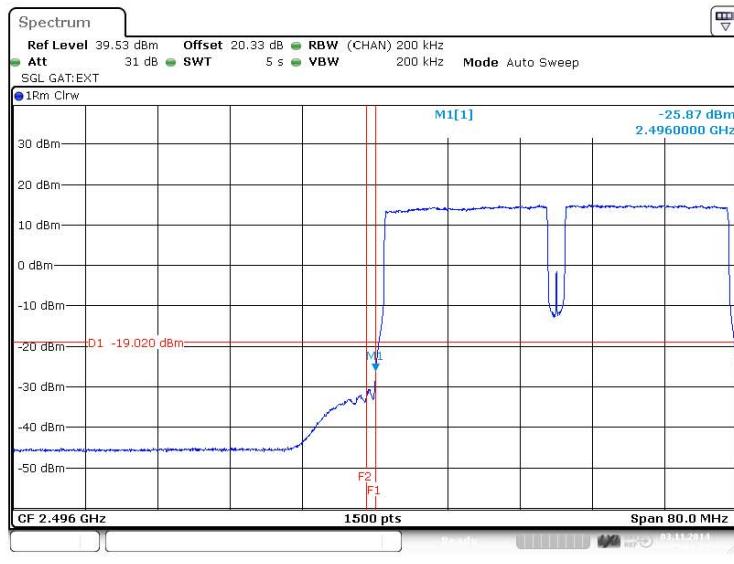
**Figure 258 Spurious Emissions (3GHz – 26.900GHz) – 16QAM (2583.0/2603.0 MHz) (20MHz Channel BW)**



Product Service

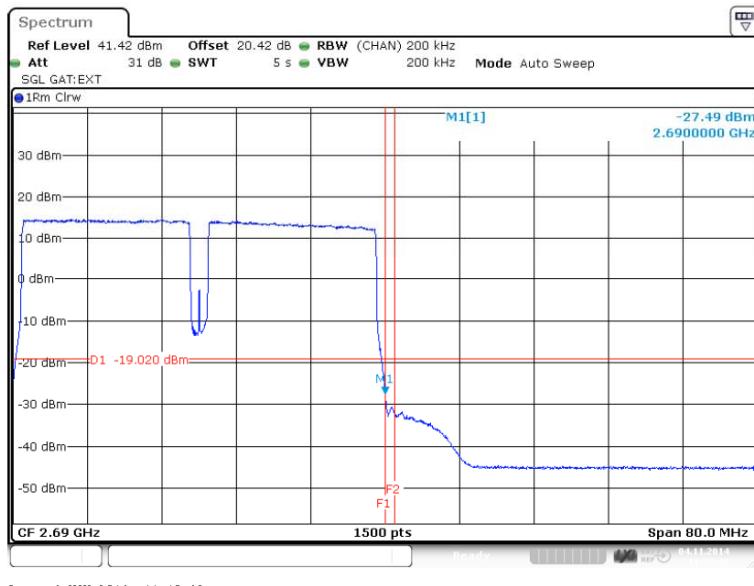
FCC ID:  
VBNFWHHD-01

Test Report No:  
D522886124



Date: 3.NOV.2014 15:01:21

**Figure 259 Spurious Emissions (Lower Band Edge) – 64QAM (2506.0/2526.0 MHz) (20MHz Channel BW)**



Date: 4.NOV.2014 11:19:42

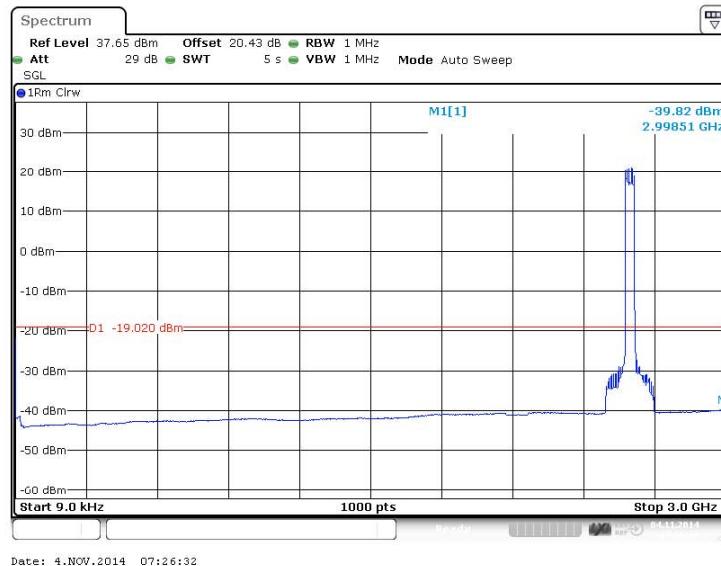


Product Service

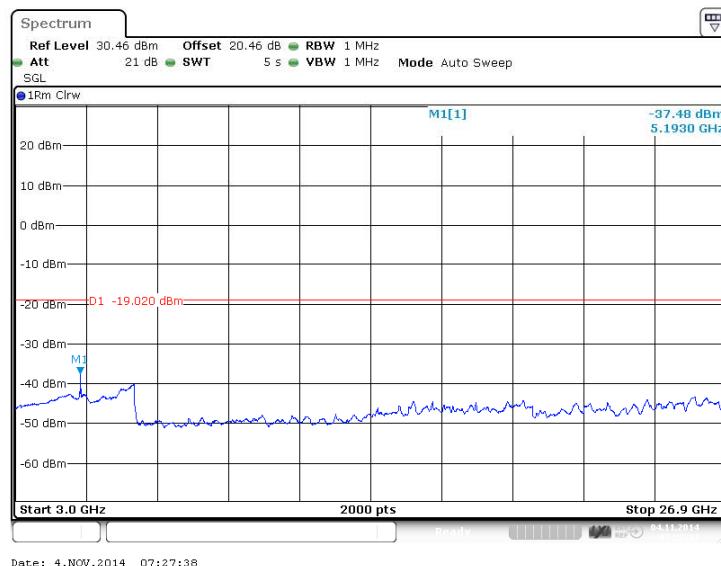
FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124

**Figure 260 Spurious Emissions (Upper Band Edge) – 64QAM (2660.0/2680.0 MHz) (20MHz Channel BW)**



**Figure 261 Spurious Emissions (9kHz – 3GHz) – 64QAM (2583.0/2603.0 MHz) (20MHz Channel BW)**



**Figure 262 Spurious Emissions (3GHz – 26.900GHz) – 64QAM (2583.0/2603.0 MHz) (20MHz Channel BW)**



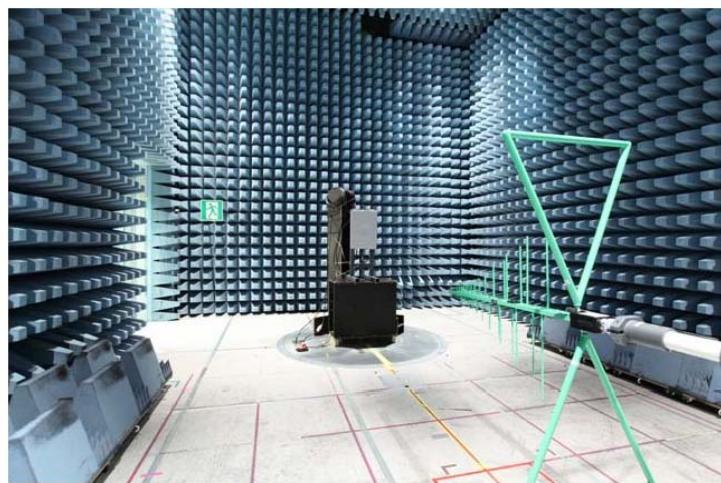
Product Service

FCC ID:  
VBNFWHD-01

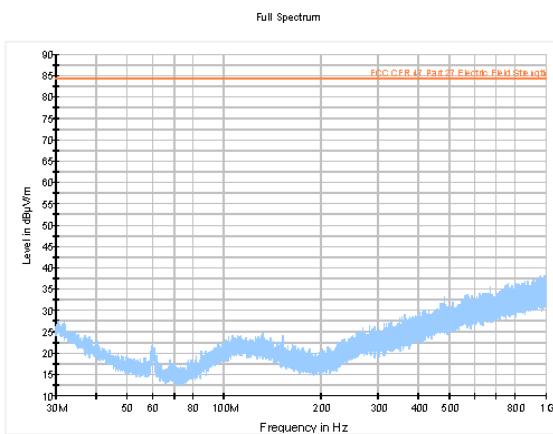
Test Report No:  
D522886124

#### 5.2.4. Test No. 5: Field Strength of Spurious Radiation

Config A, B:



**Figure 263** Photograph of the anechoic chamber with the EUT



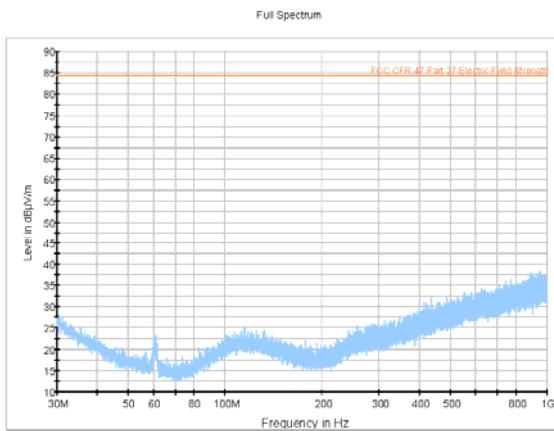
**Figure 264** Radiated Emission 30 MHz – 1 GHz (2501.1 MHz and 2593 MHz MHz) (10MHz Channel BW)



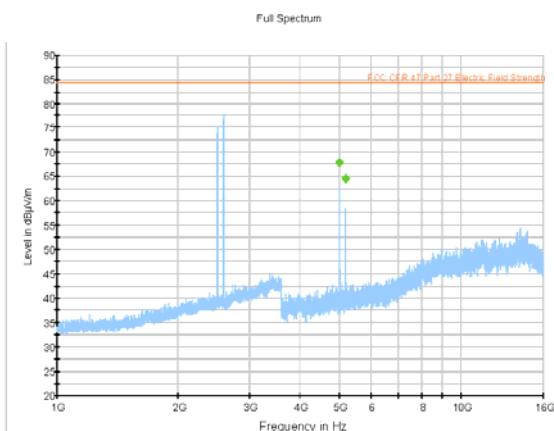
Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 265 Radiated Emission 30 MHz – 1 GHz (2593 MHz and 2685 MHz)  
(10MHz Channel BW)**



**Figure 266 Radiated Emission 1 GHz – 16 GHz (2501.1 MHz and 2593 MHz)  
(10MHz Channel BW)**

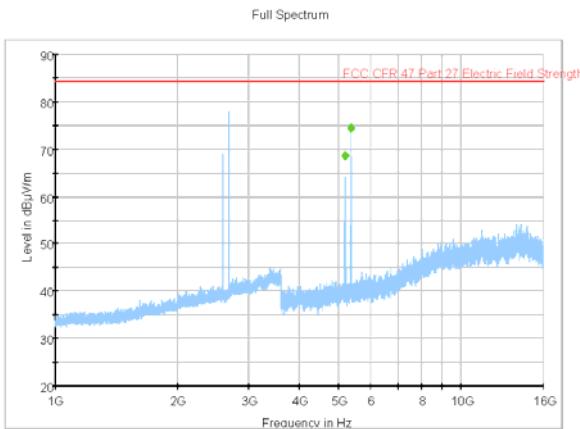
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)
5003.471000	67.88	84.40	16.52
5185.635333	64.51	84.40	20.25



Product Service

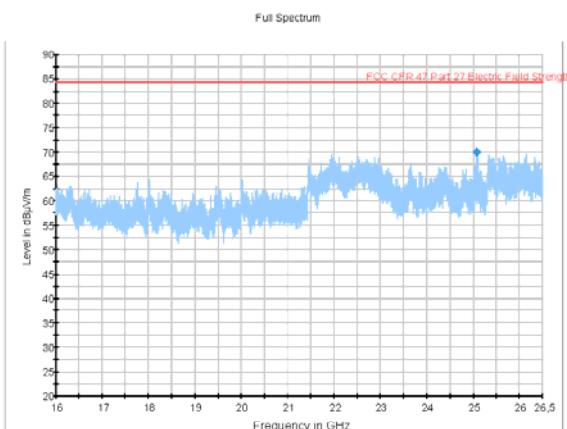
FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 267 Radiated Emission 1 GHz – 16 GHz (2593 MHz and 2685 MHz)  
(10MHz Channel BW)**

Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
5186.341333	68.65	84.40	15.75
5369.864000	74.61	84.40	9.79



**Figure 268 Radiated Emission 16 GHz – 26.5 GHz (2501.1 MHz and 2593 MHz)  
(10MHz Channel BW)**

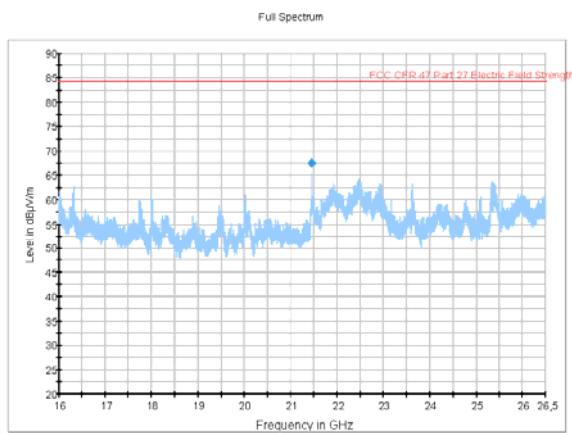
Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
25082.150000	69.93	84.40	14.47



Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 269 Radiated Emission 16 GHz – 26.5 GHz (2593 MHz and 2685 MHz)  
(10MHz Channel BW)**

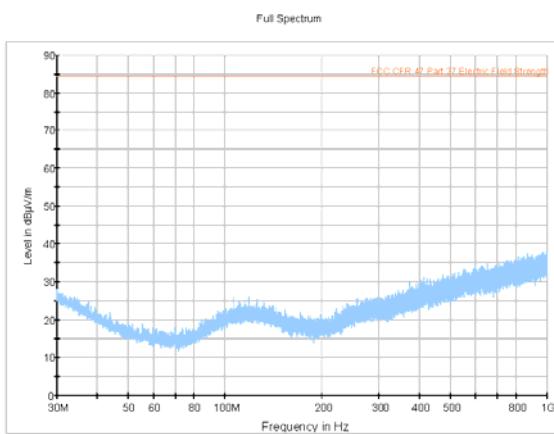
Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
21454.750000	67.51	84.40	16.89



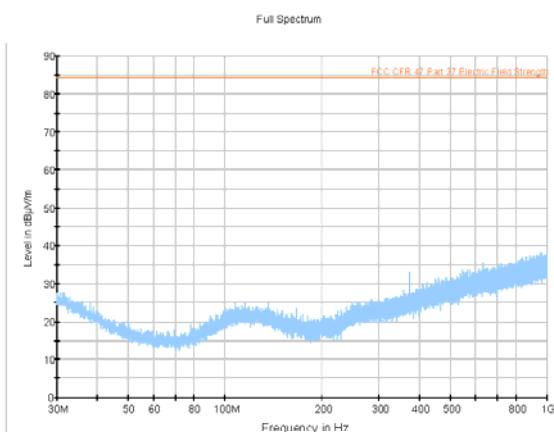
Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124

**Config B:**

**Figure 270 Radiated Emission 30 MHz – 1 GHz (2501/2511 MHz) (10MHz Channel BW)**



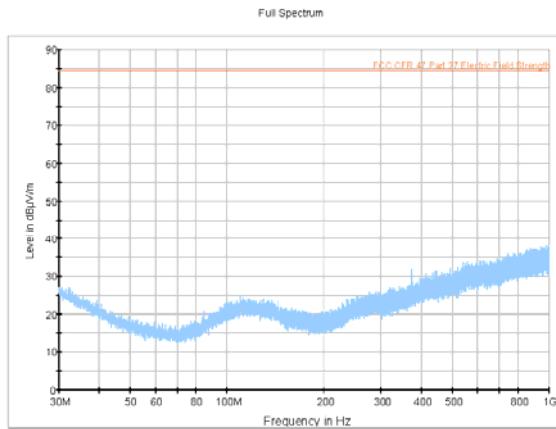
**Figure 271 Radiated Emission 30 MHz – 1 GHz (2588/2598 MHz) (10MHz Channel BW)**



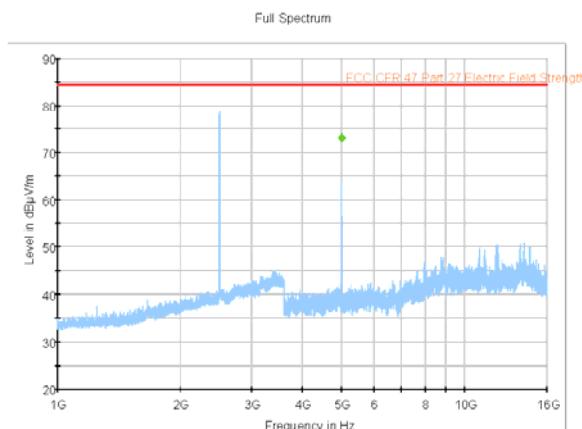
Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 272 Radiated Emission 30 MHz – 1 GHz (2675/2685 MHz) (10MHz Channel BW)**



**Figure 273 Radiated Emission 1 GHz – 16GHz (2501/2511 MHz) (10MHz Channel BW)**

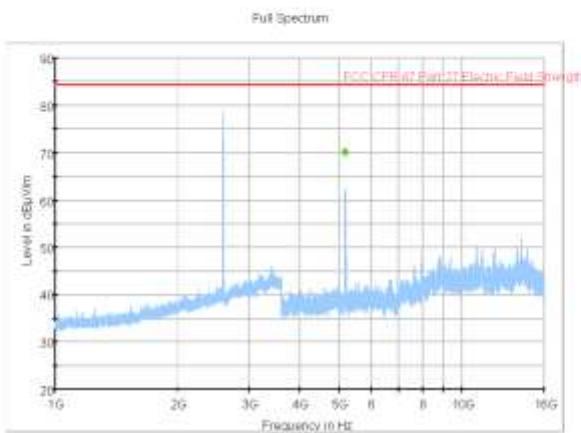
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)
5000.620333	73.06	84.40	11.34



Product Service

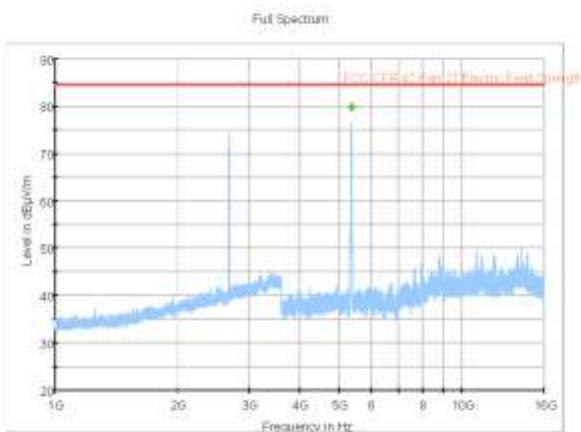
FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 274 Radiated Emission 1 GHz – 16GHz (2588/2598 MHz) (10MHz Channel BW)**

Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
5176.711667	70.06	84.40	14.34



**Figure 275 Radiated Emission 1 GHz – 16GHz (2675/2685 MHz) (10MHz Channel BW)**

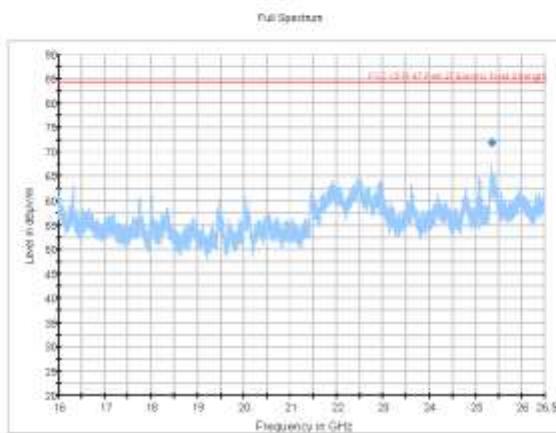
Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
5355.405667	79.78	84.40	4.62



Product Service

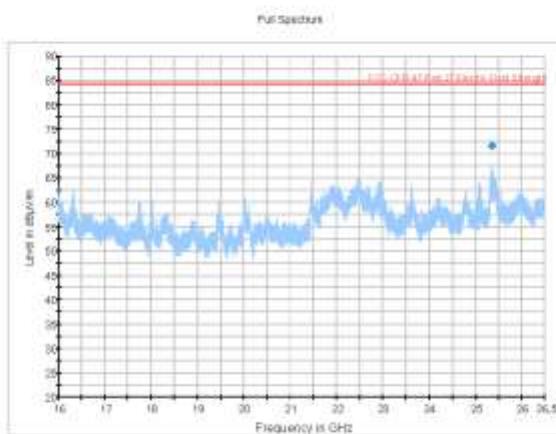
FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 276 Radiated Emission 16 GHz – 26.5 GHz (2501/2511 MHz) (10MHz Channel BW)**

Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
25350.600000	71.91	84.40	12.49



**Figure 277 Radiated Emission 16 GHz – 26.5 GHz (2588/2598 MHz) (10MHz Channel BW)**

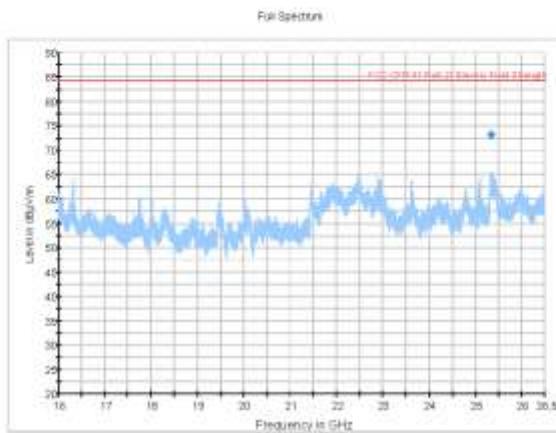
Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
25350.600000	71.66	84.40	12.74



Product Service

FCC ID:  
VBNFWHD-01

Test Report No:  
D522886124



**Figure 278 Radiated Emission 16 GHz – 26.5 GHz (2675/2685 MHz) (10MHz Channel BW)**

Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)
25348.150000	73.14	84.40	11.26