



Product Service

FCC ID:
VBNAHFB-01

Test Report No:
D555117518

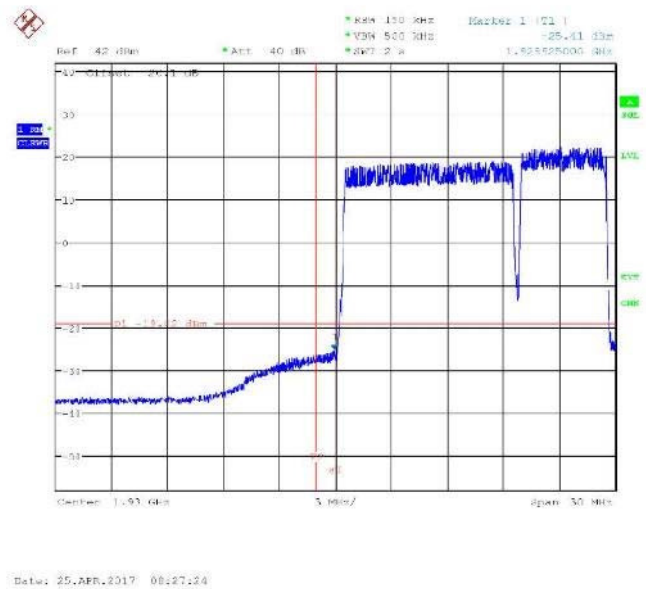


Figure 113 Spurious Emissions (Lower Band Edge) – 16QAM (1935.0/1942.2 MHz) (10 MHz/5MHz Channel BW)

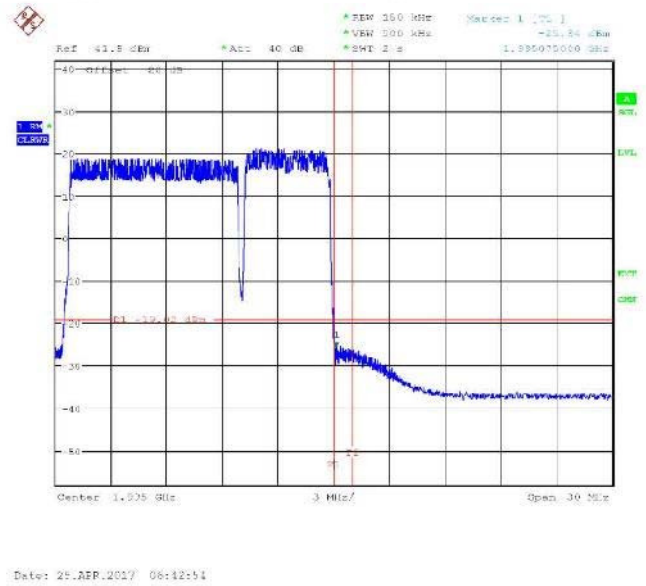


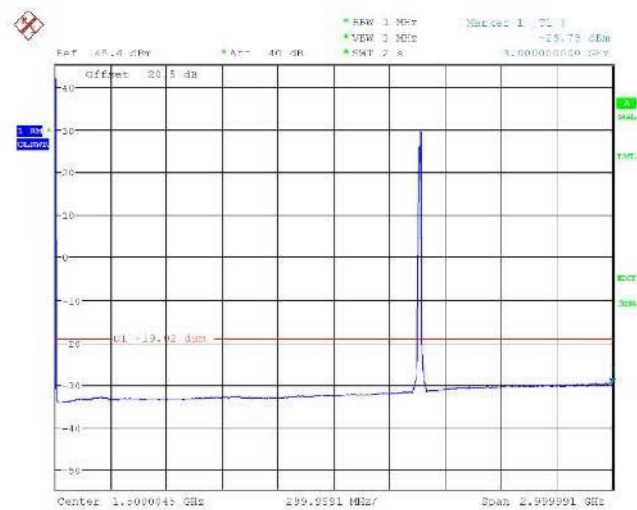
Figure 114 Spurious Emissions (Upper Band Edge) – 16QAM (1985.3/1992.5 MHz) (10 MHz/5MHz Channel BW)



Product Service

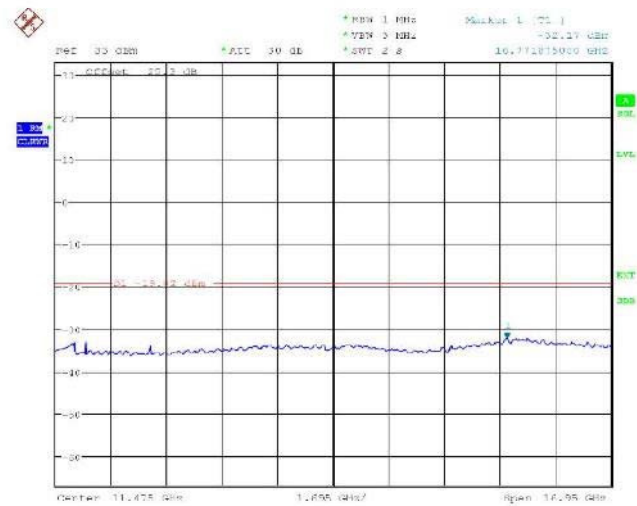
FCC ID:
VBNAHFB-01

Test Report No:
D555117518



Date: 25.APR.2017 12:36:42

Figure 115 Spurious Emissions (9kHz – 3GHz) – 16QAM (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)



Date: 25.APR.2017 12:36:11

Figure 116 Spurious Emissions (3GHz – 19.950GHz) – 16QAM (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)

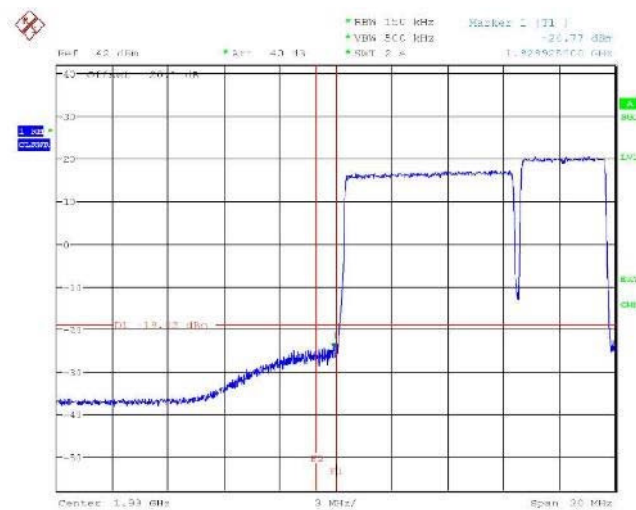
FCC 47 CFR part 24
(2016)

02. May 2017

Page 94 of 124

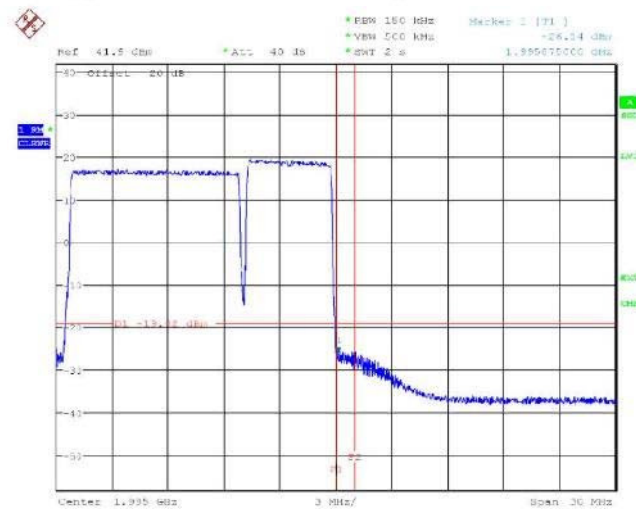


Product Service

FCC ID:
VBNAHFB-01Test Report No:
D555117518

Date: 25.APR.2017 06:29:03

Figure 117 Spurious Emissions (Lower Band Edge) – 64QAM (1935.0/1942.2 MHz) (10 MHz/5MHz Channel BW)



Date: 25.APR.2017 06:44:35

Figure 118 Spurious Emissions (Upper Band Edge) – 64QAM (1985.3/1992.5 MHz) (10 MHz/5MHz Channel BW)

FCC 47 CFR part 24
(2016)

02. May 2017

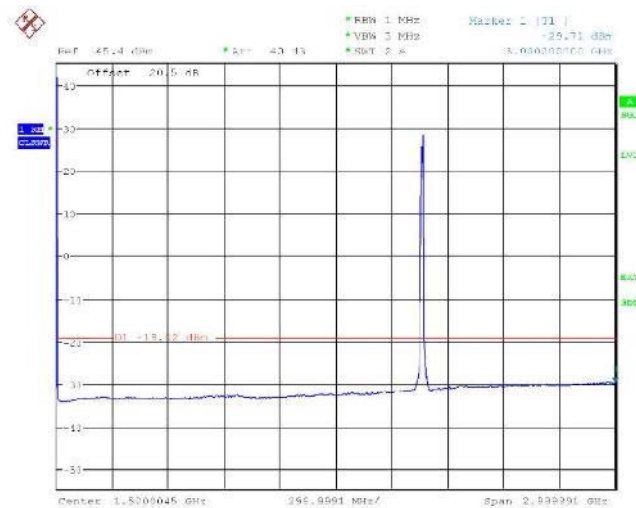
Page 95 of 124



Product Service

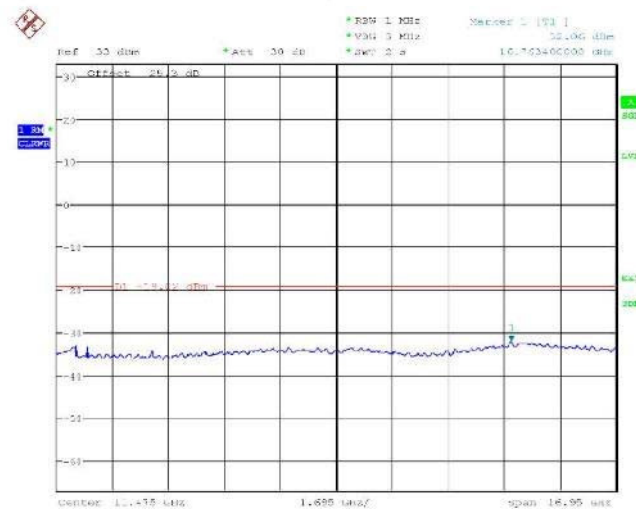
FCC ID:
VBNAHFB-01

Test Report No:
D555117518



Date: 25.APR.2017 12:00:49

Figure 119 Spurious Emissions (9kHz – 3GHz) – 64QAM (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)



Date: 25.APR.2017 12:16:04

Figure 120 Spurious Emissions (3GHz – 19.950GHz) – 64QAM (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)

FCC 47 CFR part 24
(2016)

02. May 2017

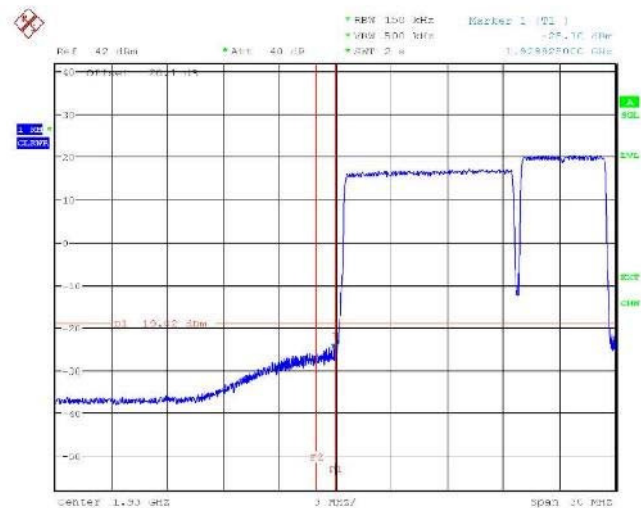
Page 96 of 124



Product Service

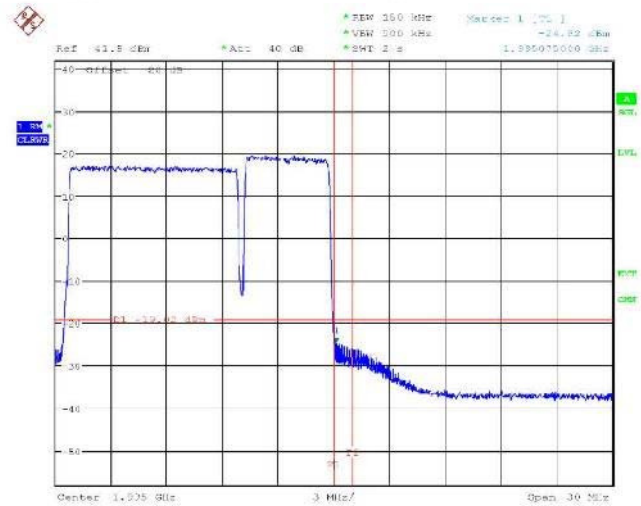
FCC ID:
VBNAHFB-01

Test Report No:
D555117518



Date: 25.APR.2017 00:30:35

Figure 121 Spurious Emissions (Lower Band Edge) – 256QAM (1935.0/1942.2 MHz) (10 MHz/5MHz Channel BW)



Date: 25.APR.2017 08:45:01

Figure 122 Spurious Emissions (Upper Band Edge) – 256QAM (1985.3/1992.5 MHz) (10 MHz/5MHz Channel BW)

FCC 47 CFR part 24
(2016)

02. May 2017

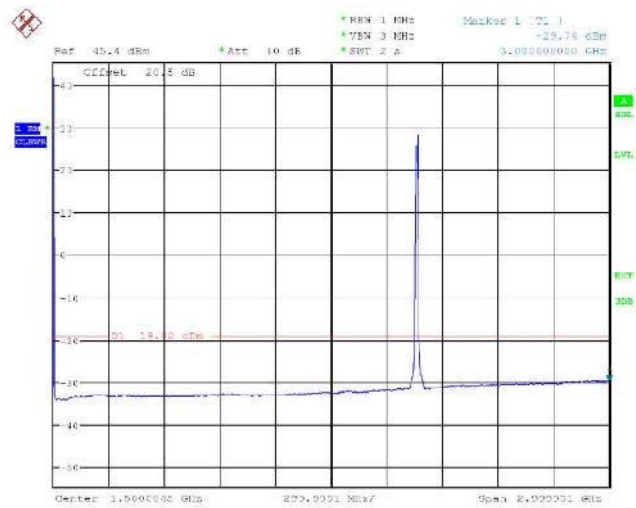
Page 97 of 124



Product Service

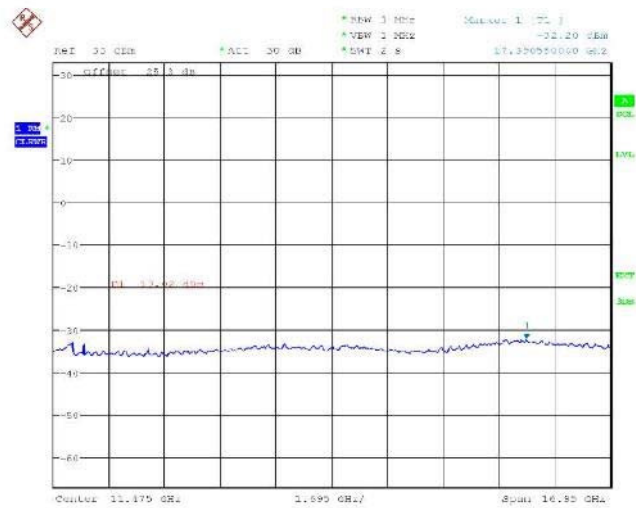
FCC ID:
VBNAHFB-01

Test Report No:
D555117518



Date: 25.APR.2017 12:43:02

Figure 123 Spurious Emissions (9kHz – 3GHz) – 256QAM (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)



Date: 25.APR.2017 13:30:26

Figure 124 Spurious Emissions (3GHz – 19.950GHz) – 256QAM (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)

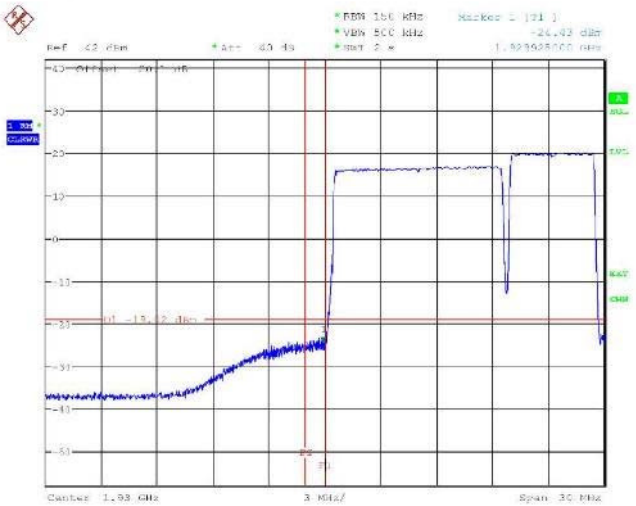


Product Service

FCC ID:
VBNAHFB-01

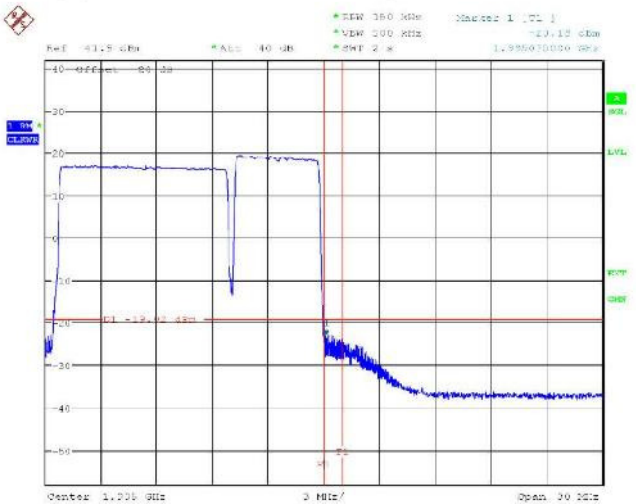
Test Report No:
D555117518

Config B ANT3:



Date: 24.APR.2017 13:37:48

Figure 125 Spurious Emissions (Lower Band Edge) – QPSK (1935.0/1942.2 MHz) (10 MHz/5MHz Channel BW)



Date: 25.APR.2017 06:29:46

Figure 126 Spurious Emissions (Upper Band Edge) – QPSK (1985.3/1992.5 MHz) (10 MHz/5MHz Channel BW)

FCC 47 CFR part 24
(2016)

02. May 2017

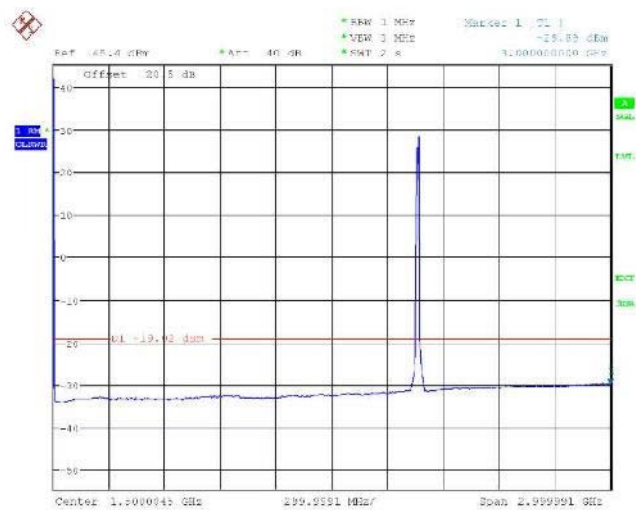
Page 99 of 124



Product Service

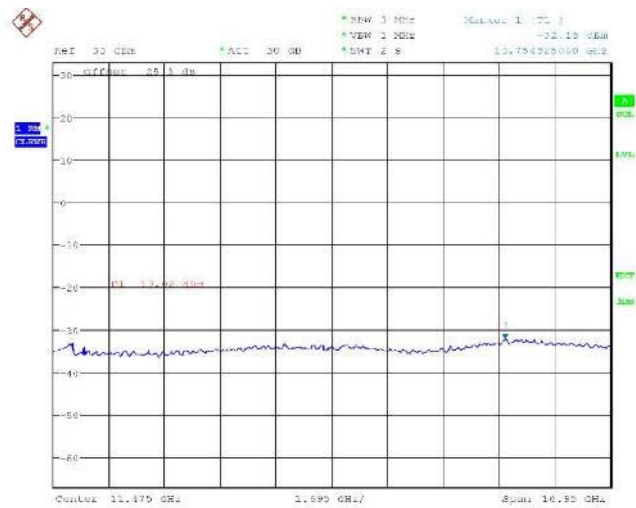
FCC ID:
VBNAHFB-01

Test Report No:
D555117518



Date: 25.APR.2017 11:39:54

Figure 127 Spurious Emissions (9kHz – 3GHz) - QPSK (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)



Date: 25.APR.2017 13:41:52

Figure 128 Spurious Emissions (3GHz – 19.950GHz) – QPSK (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)

FCC 47 CFR part 24
(2016)

02. May 2017

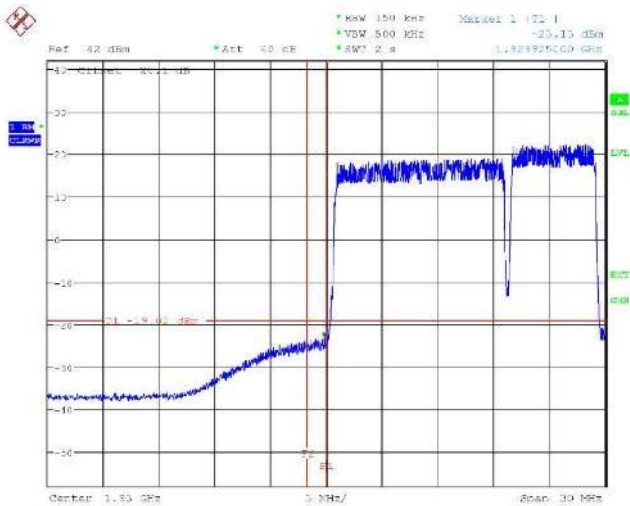
Page 100 of 124



Product Service

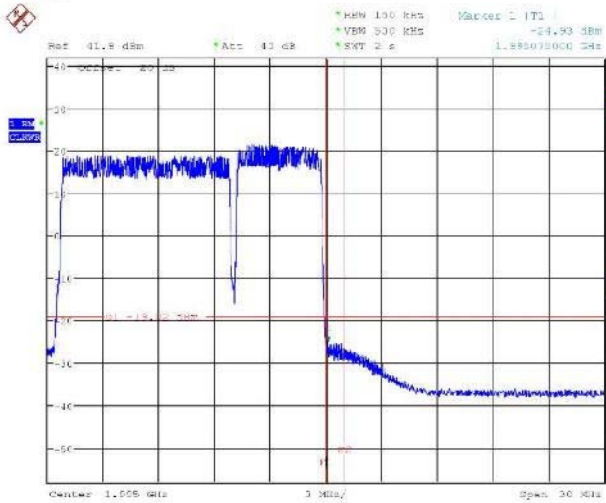
FCC ID:
VBNAHFB-01

Test Report No:
D555117518



Date: 24.APR.2017 13:46:58

Figure 129 Spurious Emissions (Lower Band Edge) – 16QAM (1935.0/1942.2 MHz) (10 MHz/5MHz Channel BW)



Date: 25.APR.2017 06:31:06

Figure 130 Spurious Emissions (Upper Band Edge) – 16QAM (1985.3/1992.5 MHz) (10 MHz/5MHz Channel BW)

FCC 47 CFR part 24
(2016)

02. May 2017

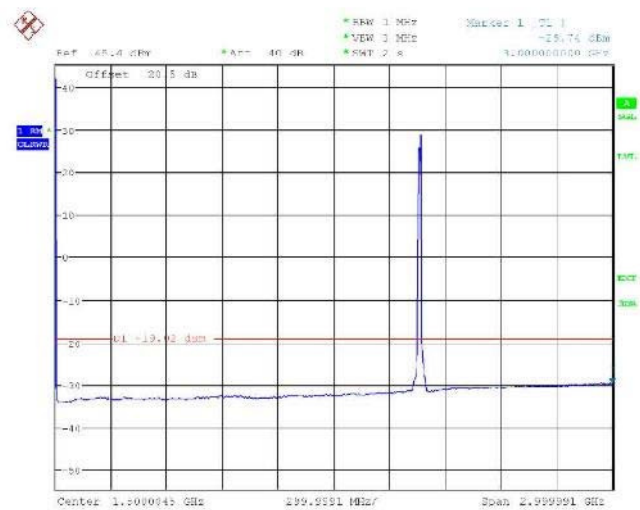
Page 101 of 124



Product Service

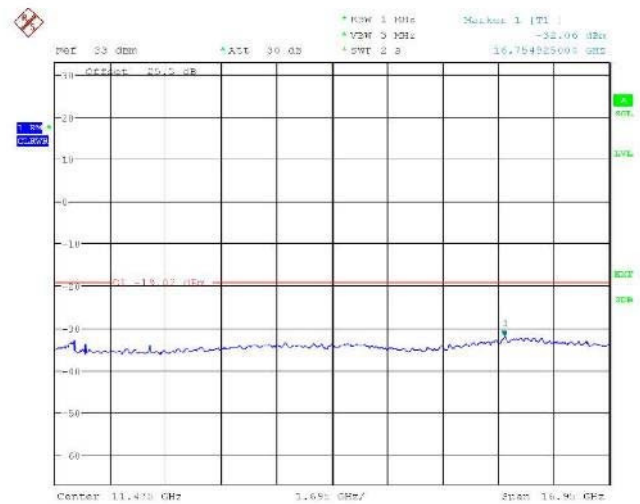
FCC ID:
VBNAHFB-01

Test Report No:
D555117518



Date: 25.APR.2017 11:41:14

Figure 131 Spurious Emissions (9kHz – 3GHz) – 16QAM (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)



Date: 25.APR.2017 12:45:08

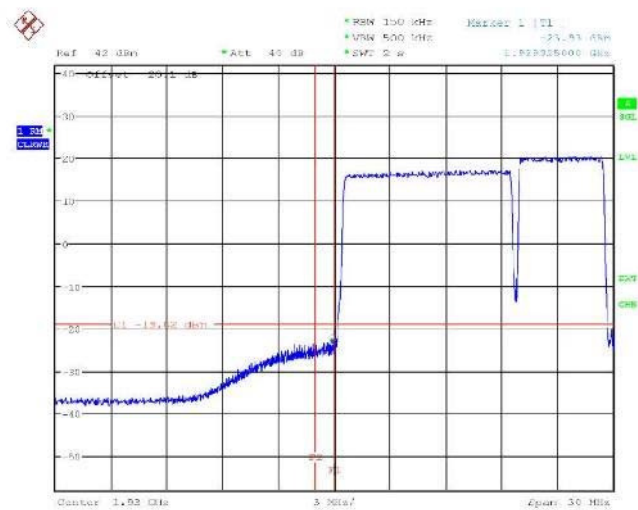
Figure 132 Spurious Emissions (3GHz – 19.950GHz) – 16QAM (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)



Product Service

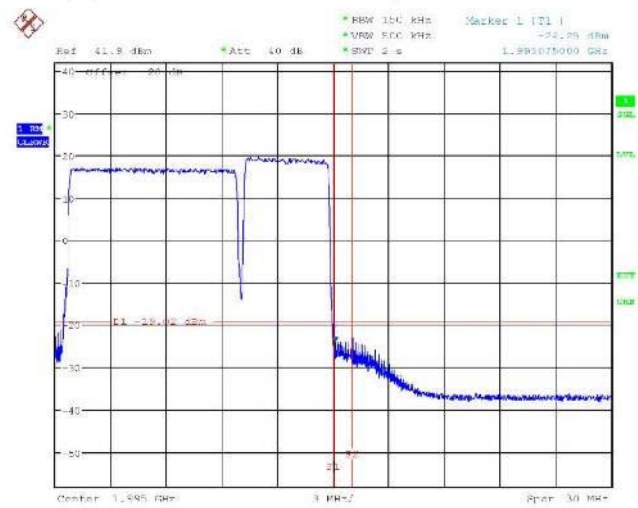
FCC ID:
VBNAHFB-01

Test Report No:
D555117518



Date: 24.APR.2017 13:50:54

Figure 133 Spurious Emissions (Lower Band Edge) – 64QAM (1935.0/1942.2 MHz) (10 MHz/5MHz Channel BW)



Date: 25.APR.2017 06:34:25

Figure 134 Spurious Emissions (Upper Band Edge) – 64QAM (1985.3/1992.5 MHz) (10 MHz/5MHz Channel BW)

FCC 47 CFR part 24
(2016)

02. May 2017

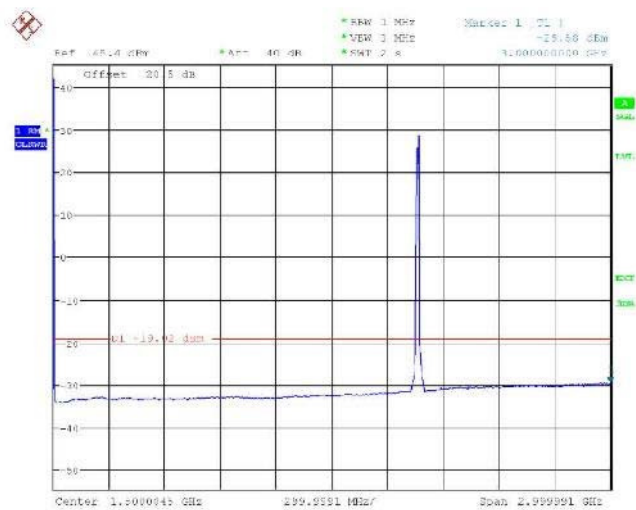
Page 103 of 124



Product Service

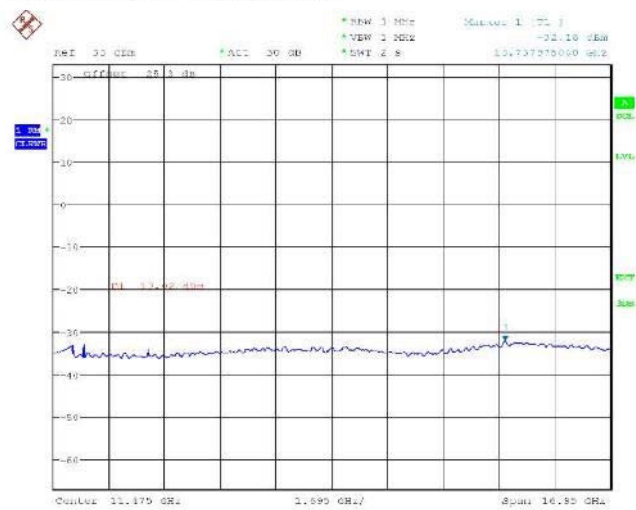
FCC ID:
VBNAHFB-01

Test Report No:
D555117518



Date: 25.APR.2017 11:42:56

Figure 135 Spurious Emissions (9kHz – 3GHz) – 64QAM (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)



Date: 25.APR.2017 13:46:47

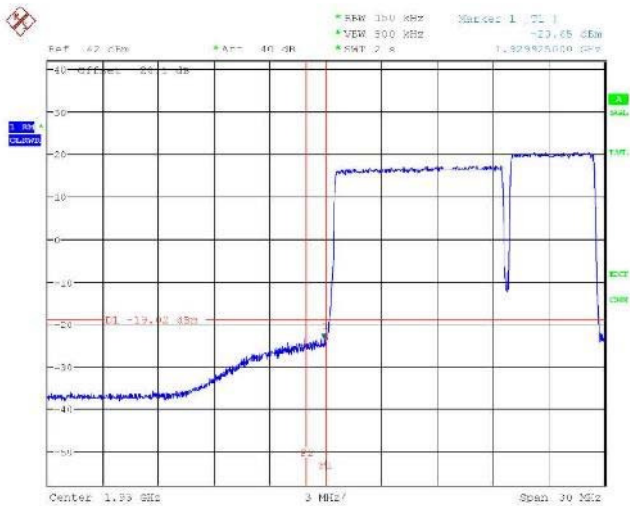
Figure 136 Spurious Emissions (3GHz – 19.950GHz) – 64QAM (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)



Product Service

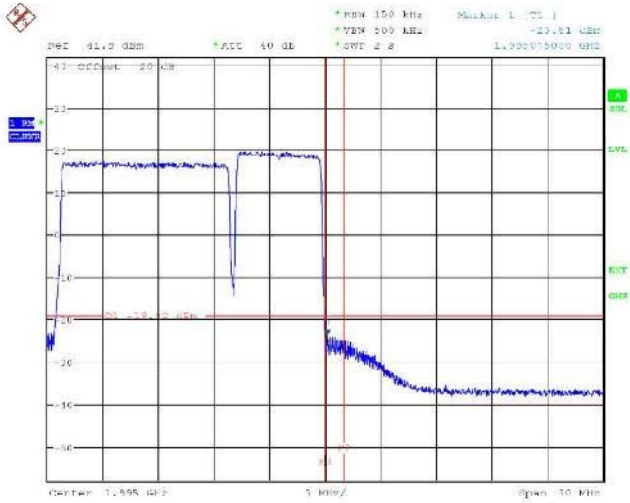
FCC ID:
VBNAHFB-01

Test Report No:
D555117518



Date: 24.APR.2017 13:07:12

Figure 137 Spurious Emissions (Lower Band Edge) – 256QAM (1935.0/1942.2 MHz) (10 MHz/5MHz Channel BW)



Date: 25.APR.2017 06:36:20

Figure 138 Spurious Emissions (Upper Band Edge) – 256QAM (1985.3/1992.5 MHz) (10 MHz/5MHz Channel BW)

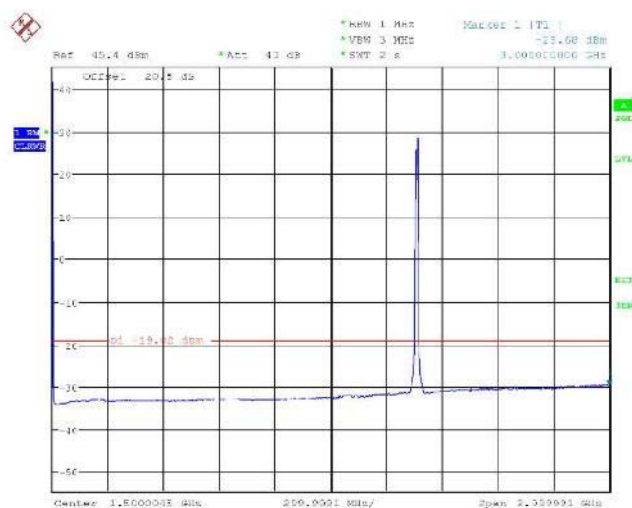
FCC 47 CFR part 24
(2016)

02. May 2017

Page 105 of 124

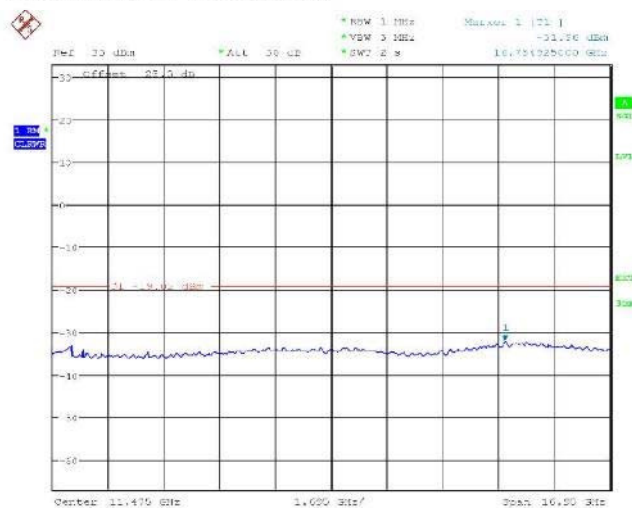


Product Service

FCC ID:
VBNAHFB-01Test Report No:
D555117518

Date: 25.APR.2017 11:44:01

Figure 139 Spurious Emissions (9kHz – 3GHz) – 256QAM (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)



Date: 25.APR.2017 15:47:57

Figure 140 Spurious Emissions (3GHz – 19.950GHz) – 256QAM (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)

Config B ANT4:FCC 47 CFR part 24
(2016)

02. May 2017

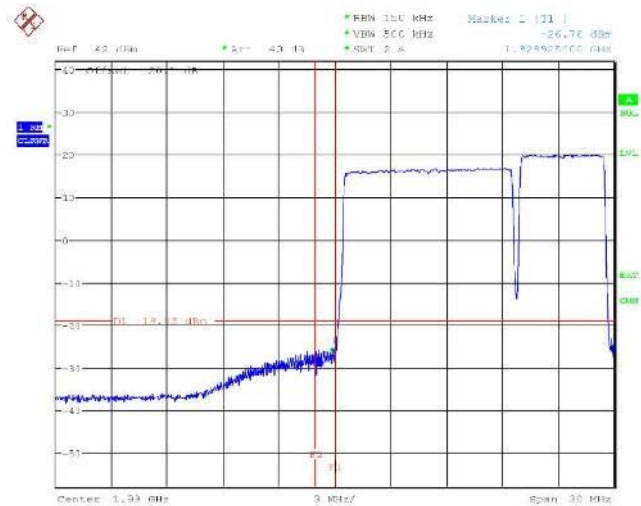
Page 106 of 124



Product Service

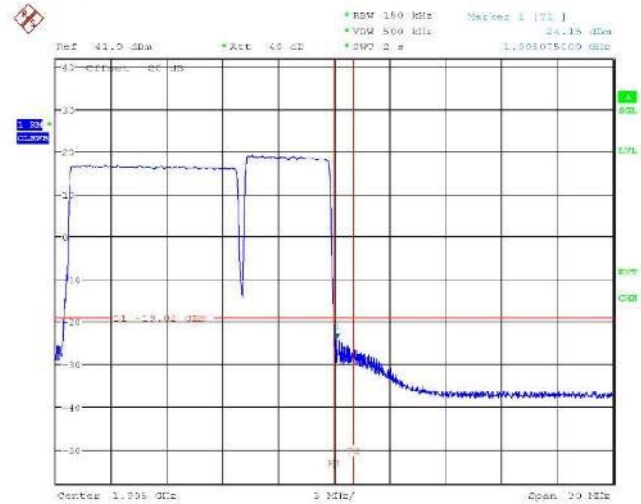
FCC ID:
VBNAHFB-01

Test Report No:
D555117518



Date: 24.APR.2017 11:26:40

Figure 141 Spurious Emissions (Lower Band Edge) – QPSK (1935.0/1942.2 MHz) (10 MHz/5MHz Channel BW)



Date: 25.APR.2017 06:10:37

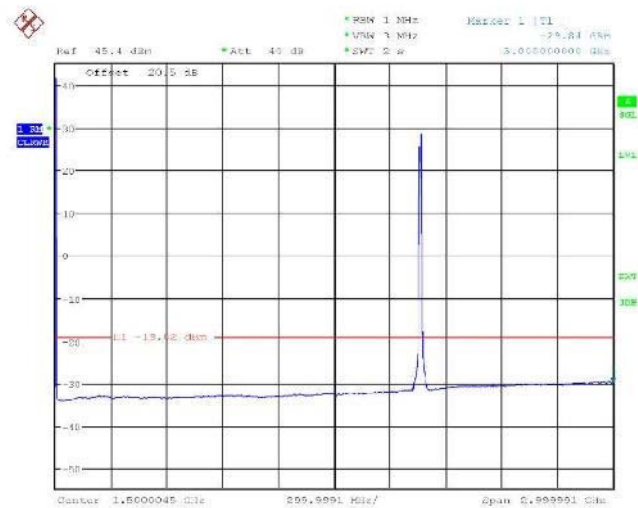
Figure 142 Spurious Emissions (Upper Band Edge) – QPSK (1985.3/1992.5 MHz) (10 MHz/5MHz Channel BW)



Product Service

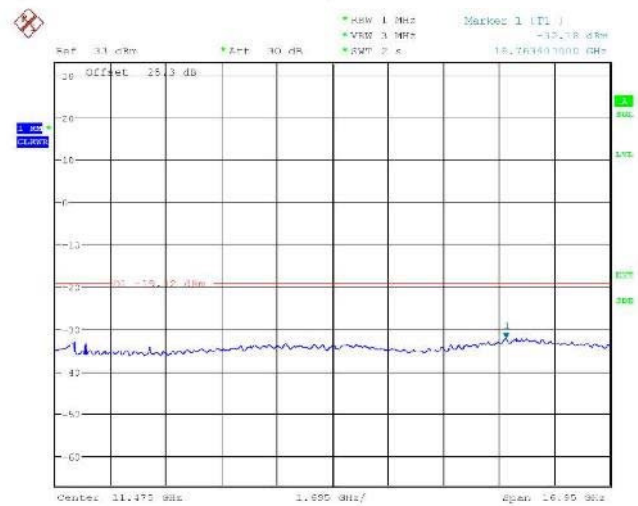
FCC ID:
VBNAHFB-01

Test Report No:
D555117518



Date: 25.APR.2017 11:26:52

Figure 143 Spurious Emissions (9kHz – 3GHz) - QPSK (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)



Date: 25.APR.2017 12:30:23

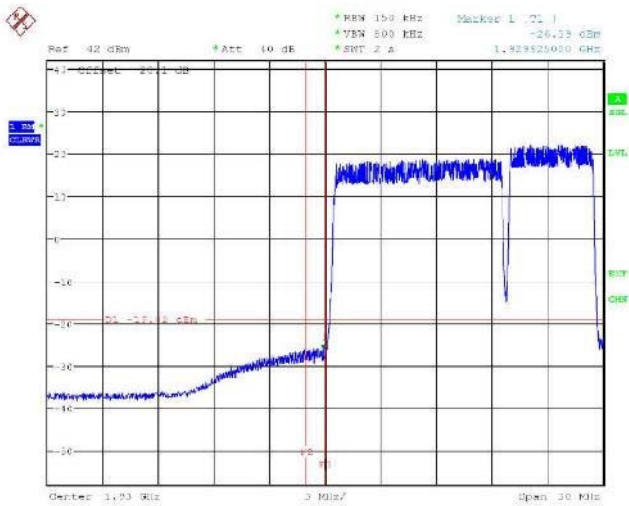
Figure 144 Spurious Emissions (3GHz – 19.950GHz) – QPSK (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)



Product Service

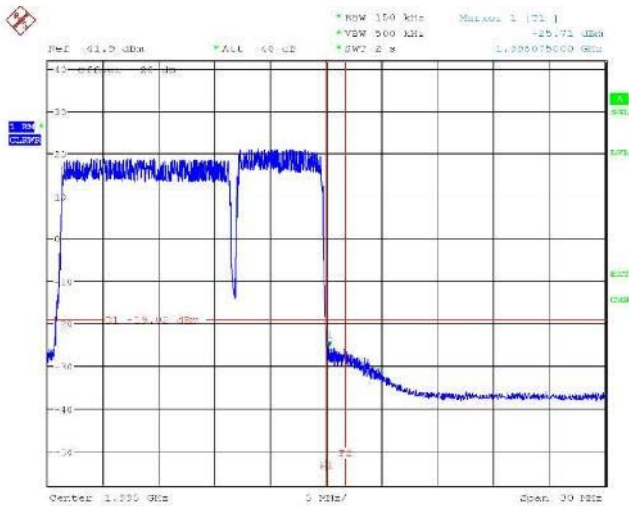
FCC ID:
VBNAHFB-01

Test Report No:
D555117518



Date: 24.APR.2017 10:23:50

Figure 145 Spurious Emissions (Lower Band Edge) – 16QAM (1935.0/1942.2 MHz) (10 MHz/5MHz Channel BW)



Date: 25.APR.2017 06:18:58

Figure 146 Spurious Emissions (Upper Band Edge) – 16QAM (1985.3/1992.5 MHz) (10 MHz/5MHz Channel BW)

FCC 47 CFR part 24
(2016)

02. May 2017

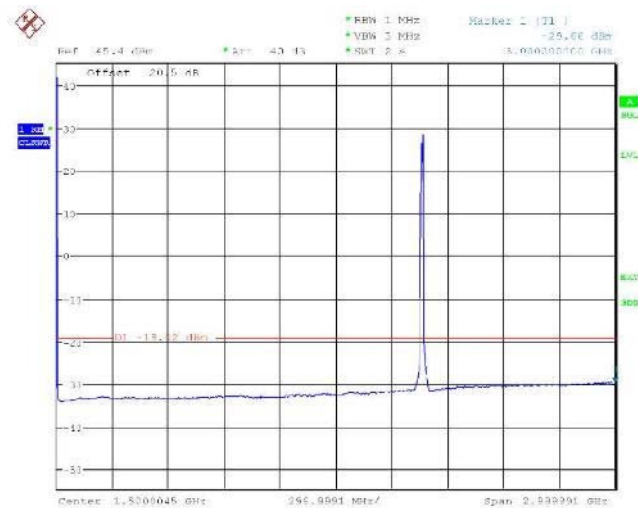
Page 109 of 124



Product Service

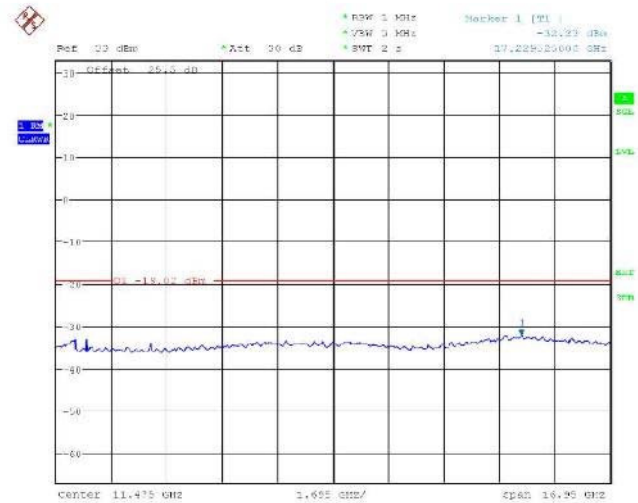
FCC ID:
VBNAHFB-01

Test Report No:
D555117518



Date: 25.APR.2017 11:33:19

Figure 147 Spurious Emissions (9kHz – 3GHz) – 16QAM (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)



Date: 25.APR.2017 12:53:57

Figure 148 Spurious Emissions (3GHz – 19.950GHz) – 16QAM (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)

FCC 47 CFR part 24
(2016)

02. May 2017

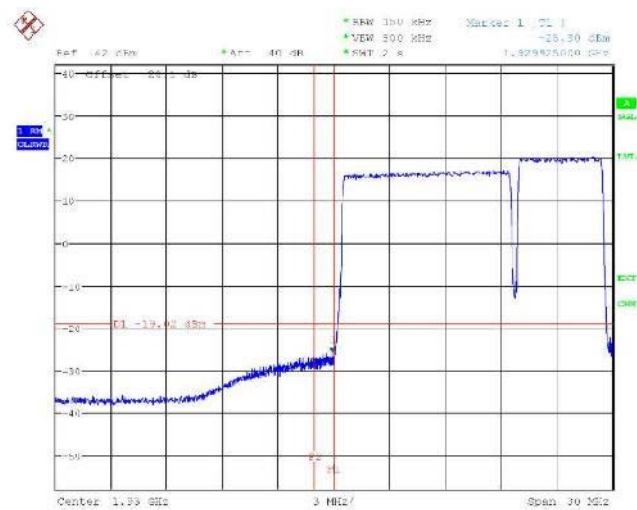
Page 110 of 124



Product Service

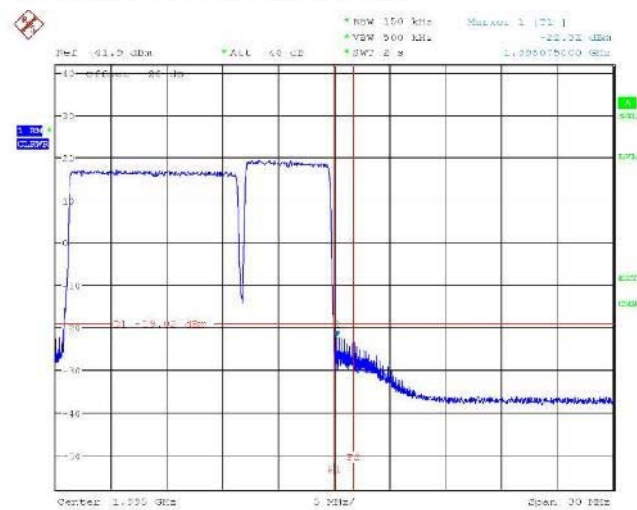
FCC ID:
VBNAHFB-01

Test Report No:
D555117518



Date: 24.APR.2017 12:35:27

Figure 149 Spurious Emissions (Lower Band Edge) – 64QAM (1935.0/1942.2 MHz) (10 MHz/5MHz Channel BW)



Date: 25.APR.2017 06:22:14

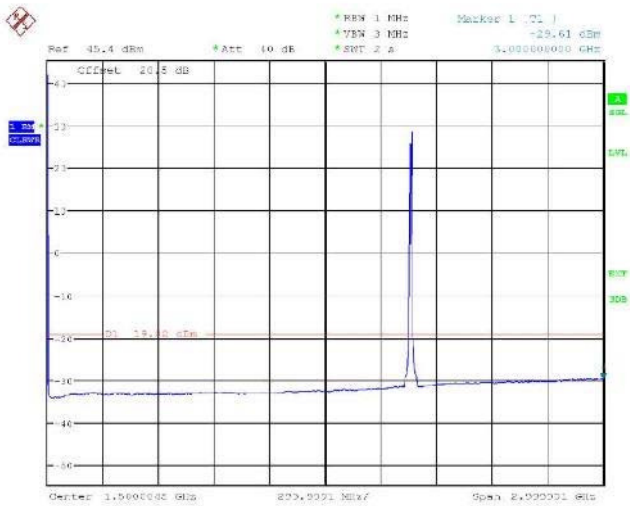
Figure 150 Spurious Emissions (Upper Band Edge) – 64QAM (1985.3/1992.5 MHz) (10 MHz/5MHz Channel BW)



Product Service

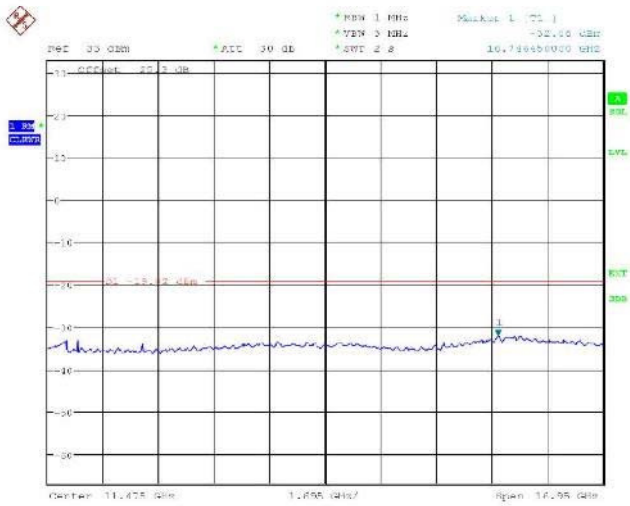
FCC ID:
VBNAHFB-01

Test Report No:
D555117518



Date: 25.APR.2017 11:34:44

Figure 151 Spurious Emissions (9kHz – 3GHz) – 64QAM (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)



Date: 25.APR.2017 13:53:20

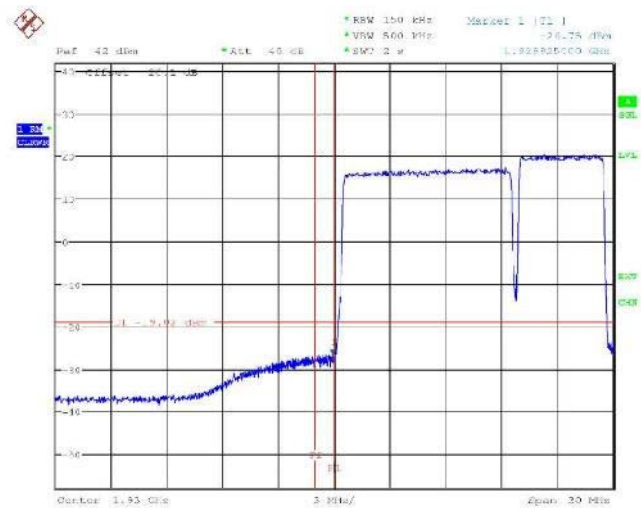
Figure 152 Spurious Emissions (3GHz – 19.950GHz) – 64QAM (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)



Product Service

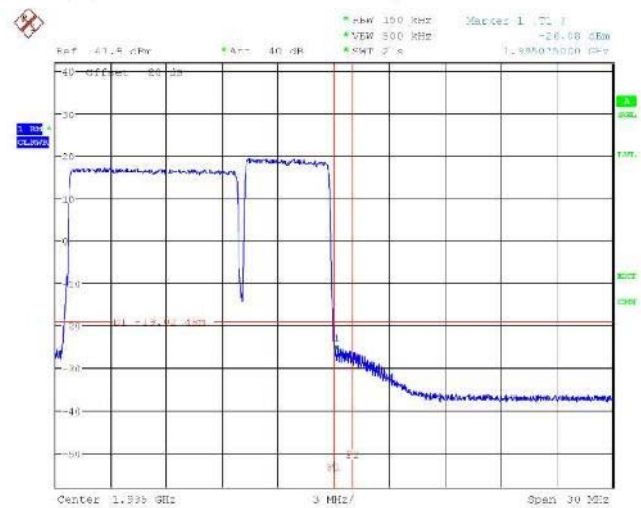
FCC ID:
VBNAHFB-01

Test Report No:
D555117518



Date: 21.APR.2017 12:02:06

Figure 153 Spurious Emissions (Lower Band Edge) – 256QAM (1935.0/1942.2 MHz) (10 MHz/5MHz Channel BW)



Date: 20.APR.2017 06:24:22

Figure 154 Spurious Emissions (Upper Band Edge) – 256QAM (1985.3/1992.5 MHz) (10 MHz/5MHz Channel BW)

FCC 47 CFR part 24
(2016)

02. May 2017

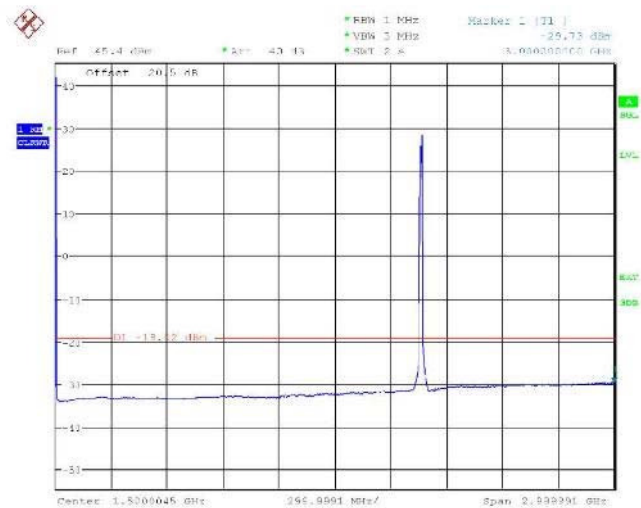
Page 113 of 124



Product Service

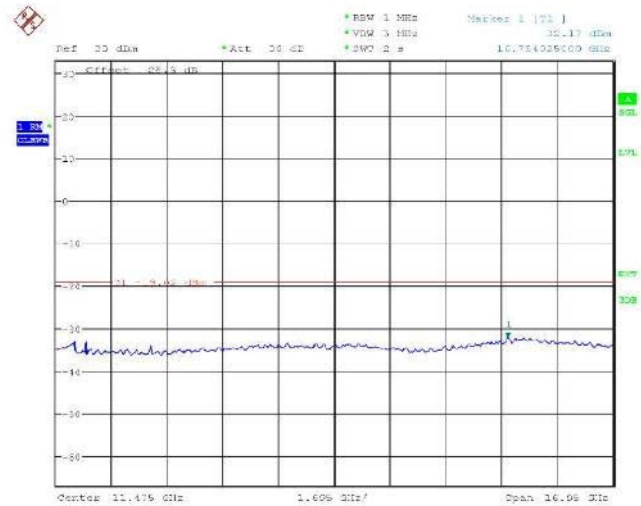
FCC ID:
VBNAHFB-01

Test Report No:
D555117518



Date: 20.APR.2017 11:26:13

Figure 155 Spurious Emissions (9kHz – 3GHz) – 256QAM (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)



Date: 20.APR.2017 13:56:52

Figure 156 Spurious Emissions (3GHz – 19.950GHz) – 256QAM (1958.9/1966.1 MHz) (10 MHz/5MHz Channel BW)

FCC 47 CFR part 24
(2016)

02. May 2017

Page 114 of 124



FCC ID:
VBNAHFB-01

Test Report No:
D555117518

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

Config A, B:

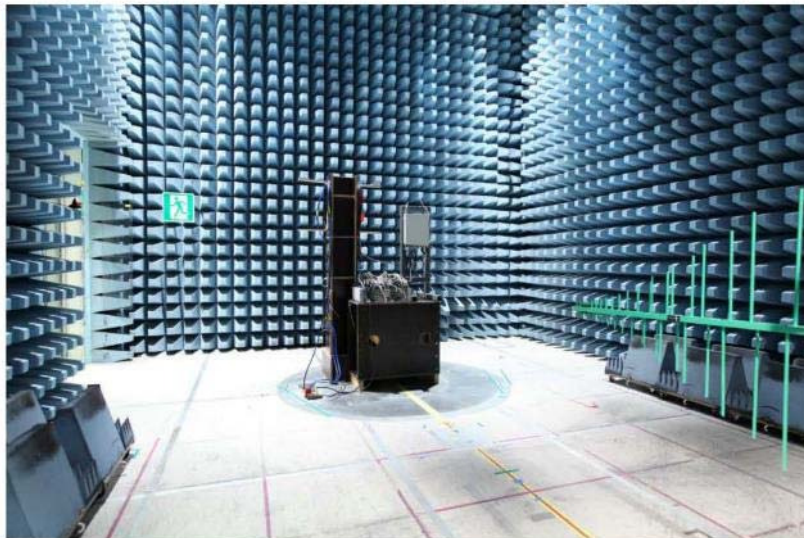


Figure 157 Photograph of the anechoic chamber with the EUT



Product Service

FCC ID:
VBNAHFB-01

Test Report No:
D555117518

Config A:

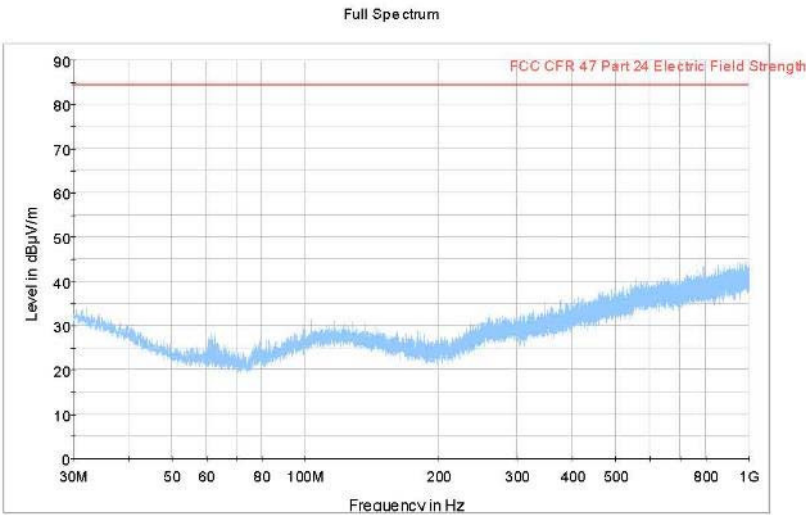


Figure 158 Radiated Emission 30 MHz – 1 GHz (1940 MHz) (20MHz Channel BW)

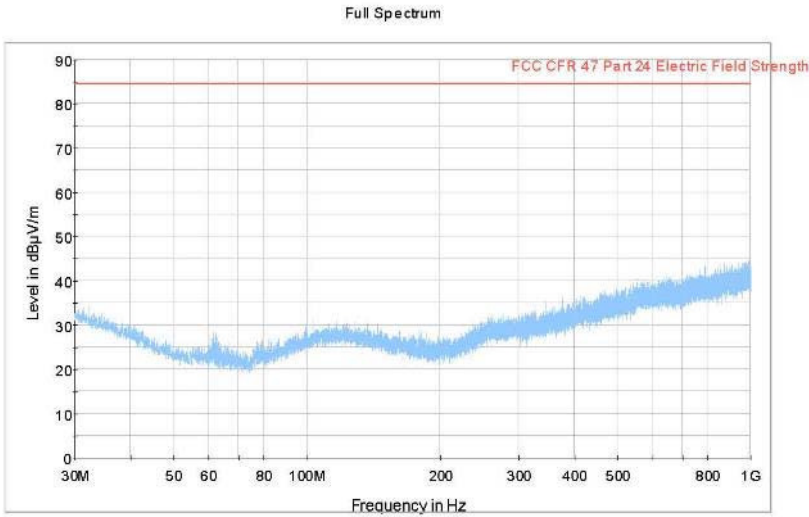


Figure 159 Radiated Emission 30 MHz – 1 GHz (1962.5 MHz) (20MHz Channel BW)



FCC ID:
VBNAHFB-01

Test Report No:
D555117518

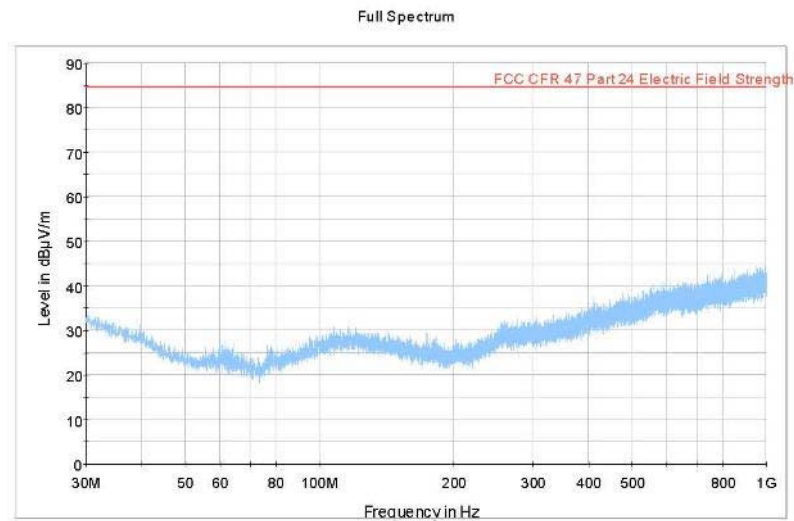


Figure 160 Radiated Emission 30 MHz – 1 GHz (1985 MHz) (20MHz Channel BW)

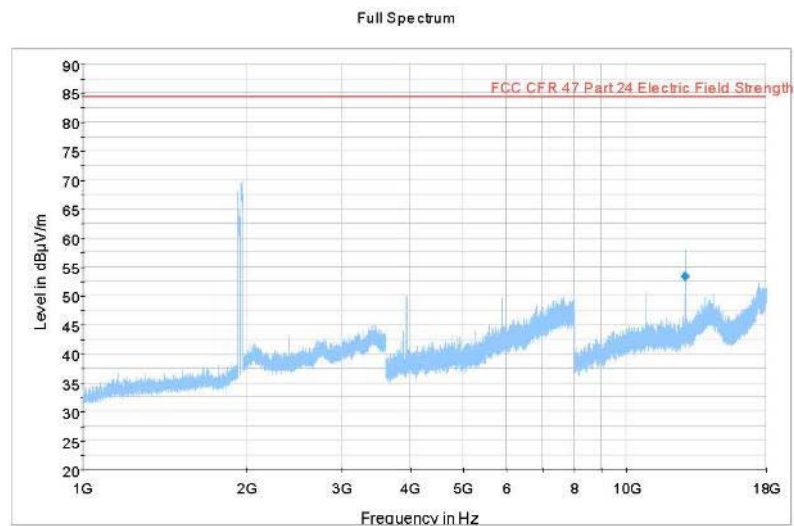


Figure 161 Radiated Emission 1 GHz – 18 GHz (1940 MHz) (20MHz Channel BW)



FCC ID:
VBNAHFB-01

Test Report No:
D555117518

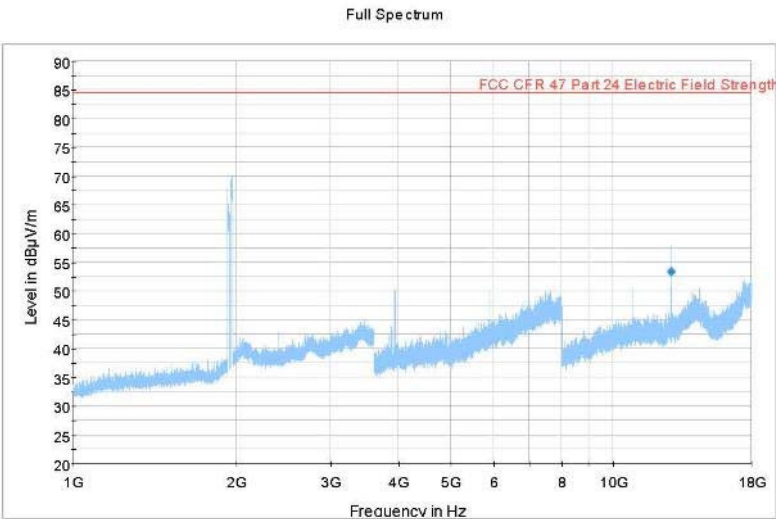


Figure 162 Radiated Emission 1 GHz – 18 GHz (1962.5 MHz) (20MHz Channel BW)

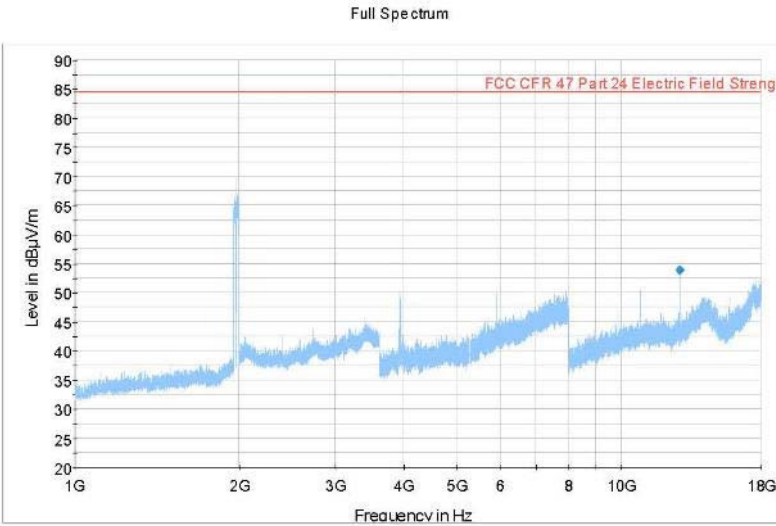


Figure 163 Radiated Emission 1 GHz – 18 GHz (1985 MHz) (20MHz Channel BW)



Product Service

FCC ID:
VBNAHFB-01

Test Report No:
D555117518

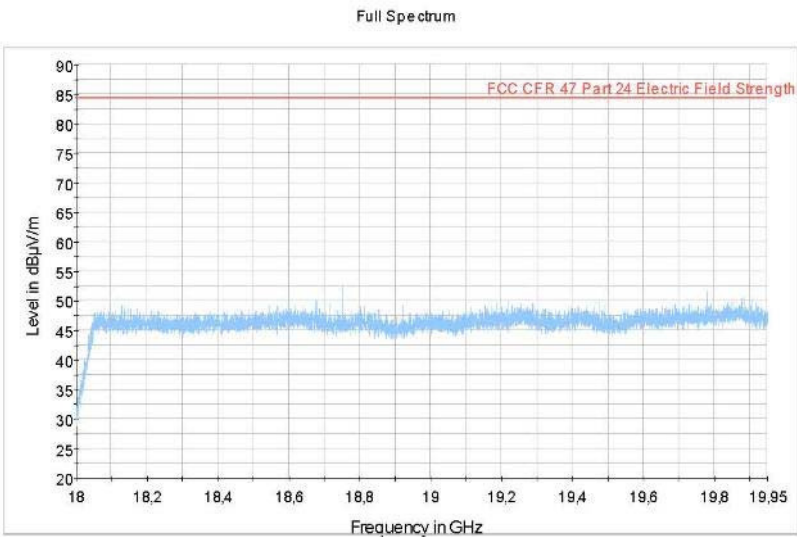


Figure 164 Radiated Emission 18 GHz – 19.95 GHz (1940 MHz) (20MHz Channel BW)

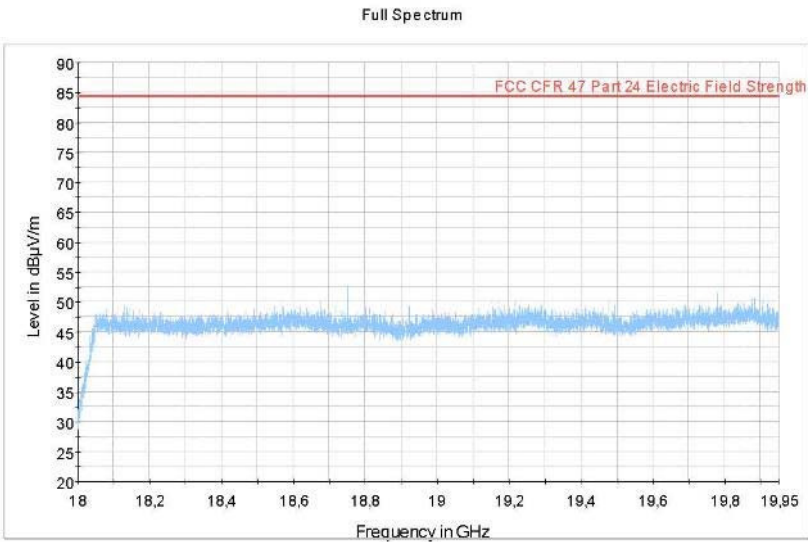


Figure 165 Radiated Emission 18 GHz – 19.95 GHz (1962.5 MHz) (20MHz Channel BW)



Product Service

FCC ID:
VBNAHFB-01

Test Report No:
D555117518

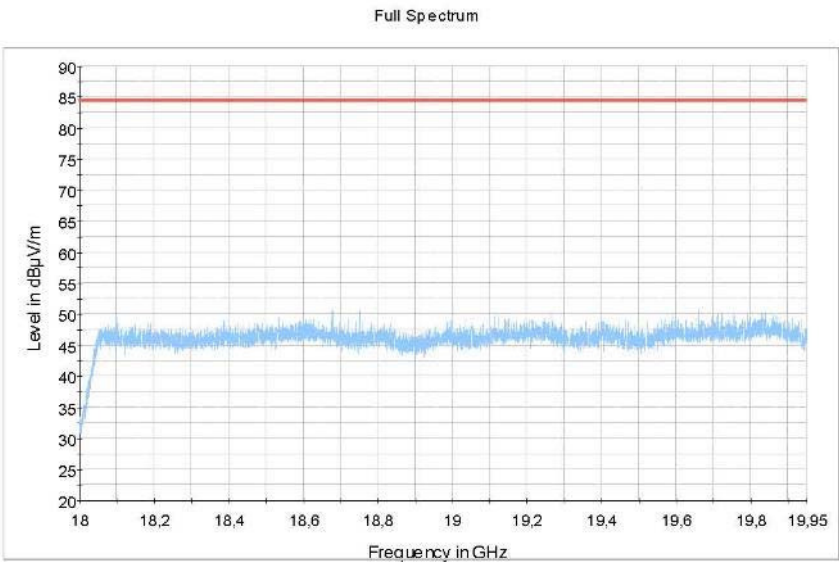


Figure 166 Radiated Emission 18 GHz – 19.95 GHz (1985 MHz) (20MHz Channel BW)

Config B:

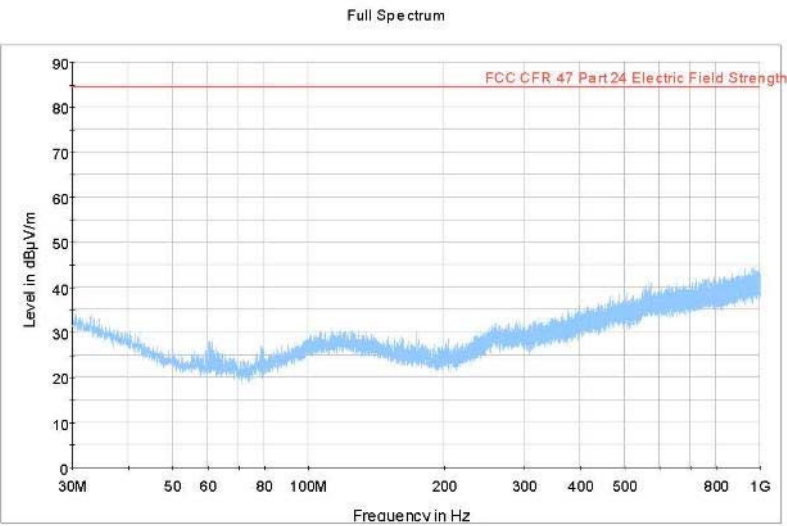


Figure 167 Radiated Emission 30 MHz – 1 GHz (1935.0/1942.2 MHz) (10MHz/5MHz Channel BW)

FCC 47 CFR part 24
(2016)

02. May 2017

Page 120 of 124



FCC ID:
VBNAHFB-01

Test Report No:
D555117518

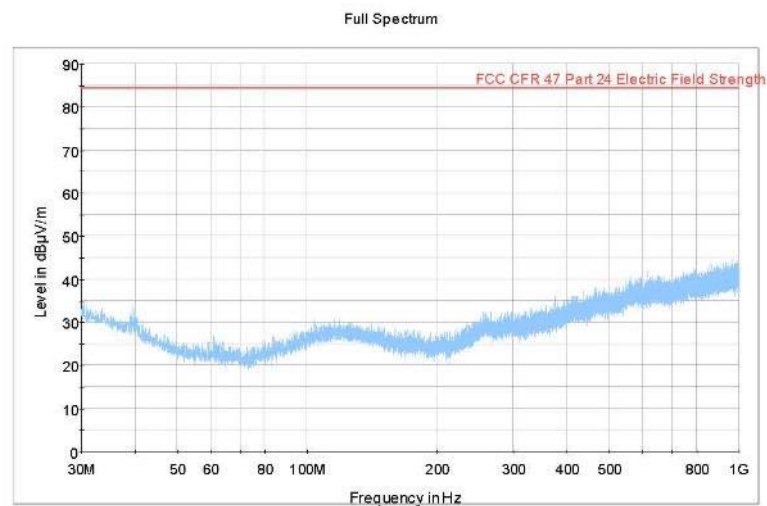


Figure 168 Radiated Emission 30 MHz – 1 GHz (1958.9/1966.1 MHz)
(10MHz/5MHz Channel BW)

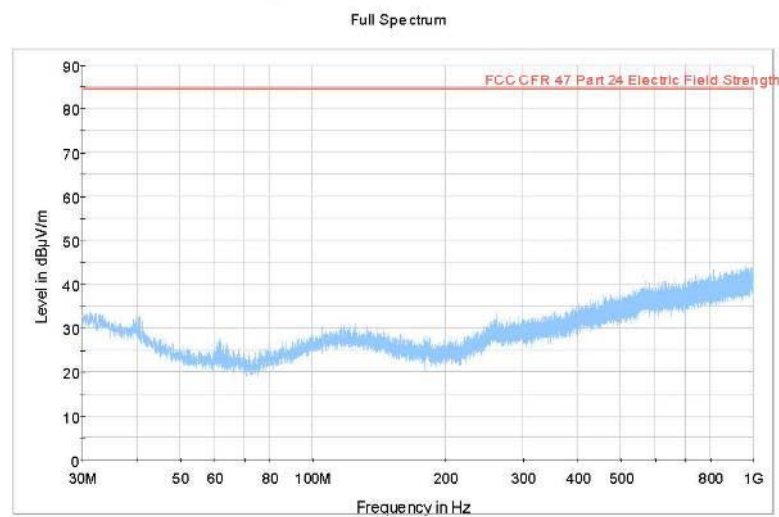


Figure 169 Radiated Emission 30 MHz – 1 GHz (1985.3/1992.5 MHz)
(10MHz/5MHz Channel BW)



Product Service

FCC ID:
VBNAHFB-01

Test Report No:
D555117518

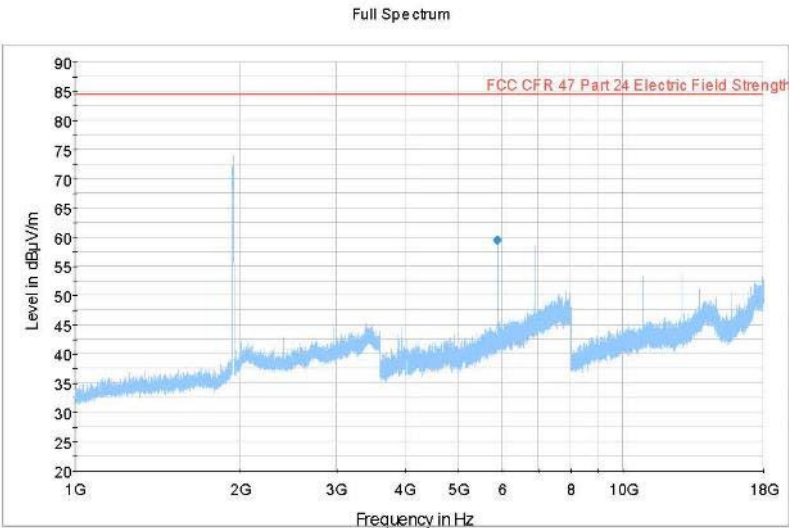


Figure 170 Radiated Emission 1 GHz – 18GHz (1935.0/1942.2 MHz)
(10MHz/5MHz Channel BW)

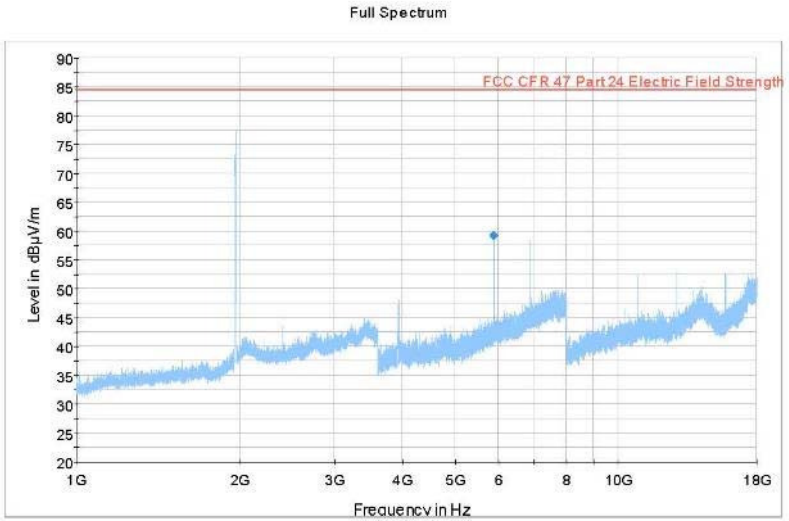


Figure 171 Radiated Emission 1 GHz – 18GHz (1958.9/1966.1 MHz)
(10MHz/5MHz Channel BW)



FCC ID:
VBNAHFB-01

Test Report No:
D555117518

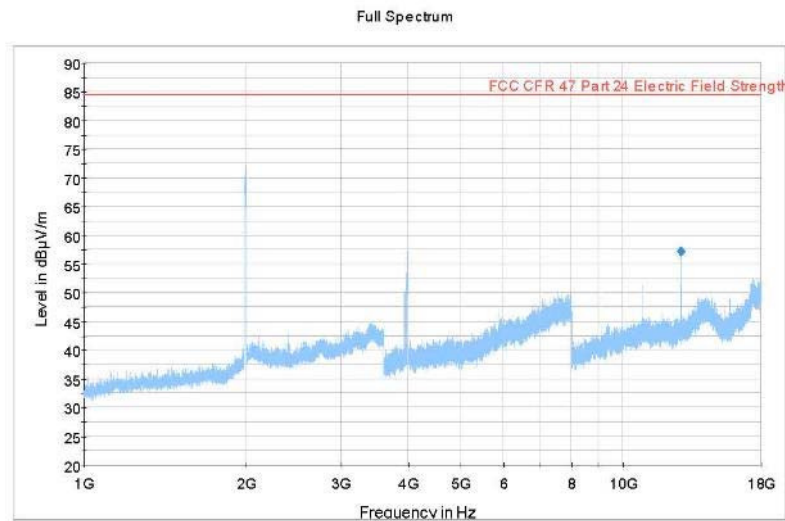


Figure 172 Radiated Emission 1 GHz – 18 GHz (1985.3/1992.5 MHz)
(10MHz/5MHz Channel BW)

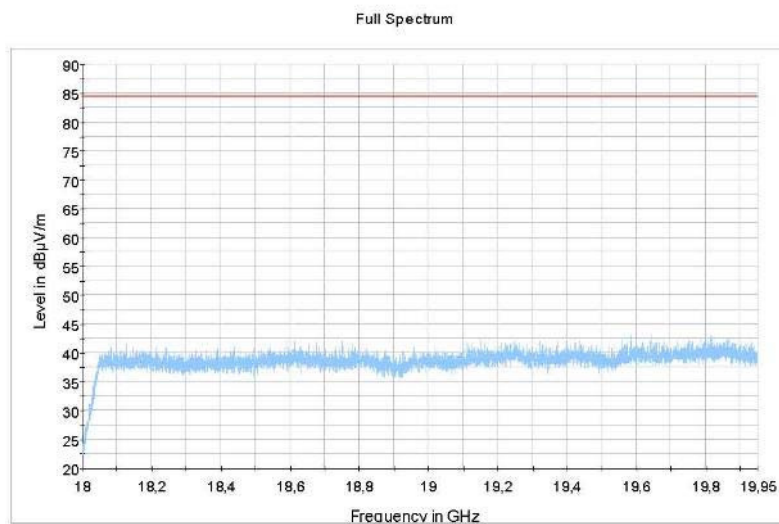


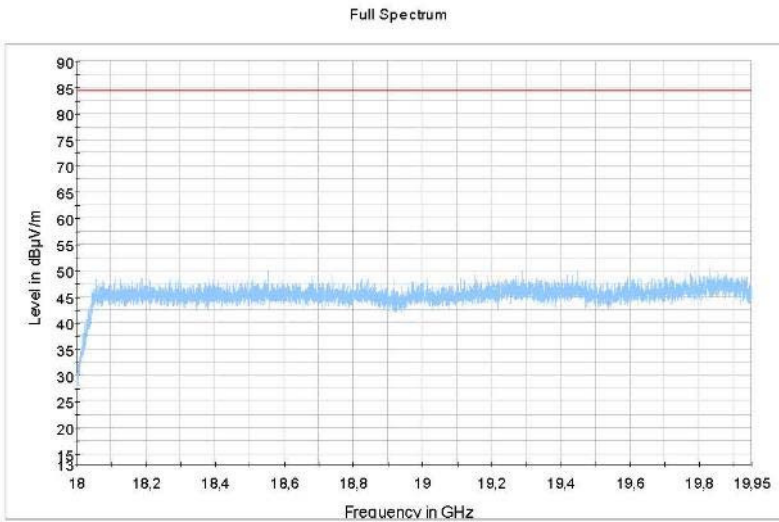
Figure 173 Radiated Emission 18 GHz – 19.95 GHz (1935.0/1942.2 MHz)
(10MHz/5MHz Channel BW)



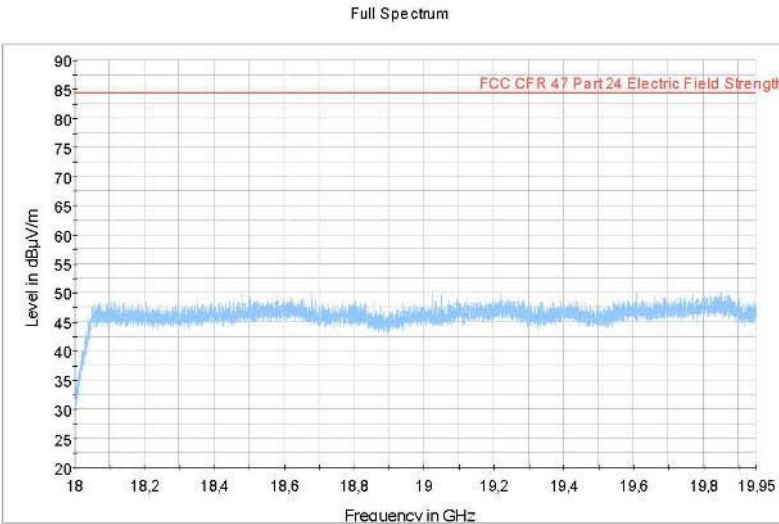
Product Service

FCC ID:
VBNAHFB-01

Test Report No:
D555117518



**Figure 174 Radiated Emission 18 GHz – 19.95 GHz (1958.9/1966.1 MHz)
(10MHz/5MHz Channel BW)**



**Figure 175 Radiated Emission 18 GHz – 19.95 GHz (1985.3/1992.5 MHz)
(10MHz/5MHz Channel BW)**