

6 Spurious Emissions at Antenna Terminals

6.1 Test Specification

FCC Part 27, Subpart C, Sections 27.53(a)(1)

6.2 Test Procedure

(Temperature (24°C)/ Humidity (35%RH))

The E.U.T. antenna terminal was connected to the spectrum analyzer through an external attenuator and an appropriate coaxial cable.

The evaluation was performed in the frequency band from 9.0kHz-24.0GHz without band edges tests, and for each modulation separately

6.3 Test Limit

The power of any emission outside of the authorized operating frequency ranges (2345-2360 MHz) must be attenuated below the transmitting power (P) by a factor of at least as specified in this section.

Frequency Band (MHz)	Calculated Factor (dBc)
$f < 2285.0$	$75 + 10 \cdot \log(0.1) = 65.0$
$2285.0\text{MHz} < f < 2287.5\text{MHz}$	$72 + 10 \cdot \log(0.1) = 62.0$
$2287.5\text{MHz} < f < 2300.0\text{MHz}$	$70 + 10 \cdot \log(0.1) = 60.0$
$2300.0\text{MHz} < f < 2305.0\text{MHz}$	$43 + 10 \cdot \log(0.1) = 33.0$
$2305.0\text{MHz} < f < 2320.0\text{MHz}$	$43 + 10 \cdot \log(0.1) = 33.0$
$2320.0\text{MHz} < f < 2345.0\text{MHz}$	$75 + 10 \cdot \log(0.1) = 65.0$
$2345.0\text{MHz} < f < 2360.0\text{MHz}$	$43 + 10 \cdot \log(0.1) = 33.0$
$2360.0\text{MHz} < f < 2362.5\text{MHz}$	$43 + 10 \cdot \log(0.1) = 33.0$
$2362.5\text{MHz} < f < 2365.0\text{MHz}$	$55 + 10 \cdot \log(0.1) = 45.0$
$2365.0\text{MHz} < f < 2367.5\text{MHz}$	$70 + 10 \cdot \log(0.1) = 60.0$
$2367.5\text{MHz} < f < 2370.0\text{MHz}$	$72 + 10 \cdot \log(0.1) = 62.0$
$2370.0 < f$	$75 + 10 \cdot \log(0.1) = 65.0$

Figure 88 Mask Limit Table

6.4 Test Results

JUDGEMENT: Passed

See additional information in Figure 89 to Figure 184.

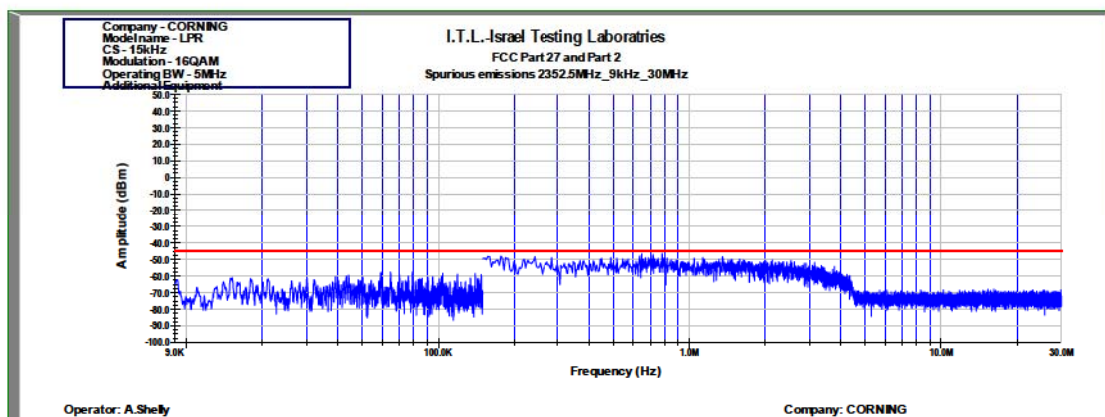


Figure 89: Spurious Emissions at Antenna Terminal 16QAM, 2352.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

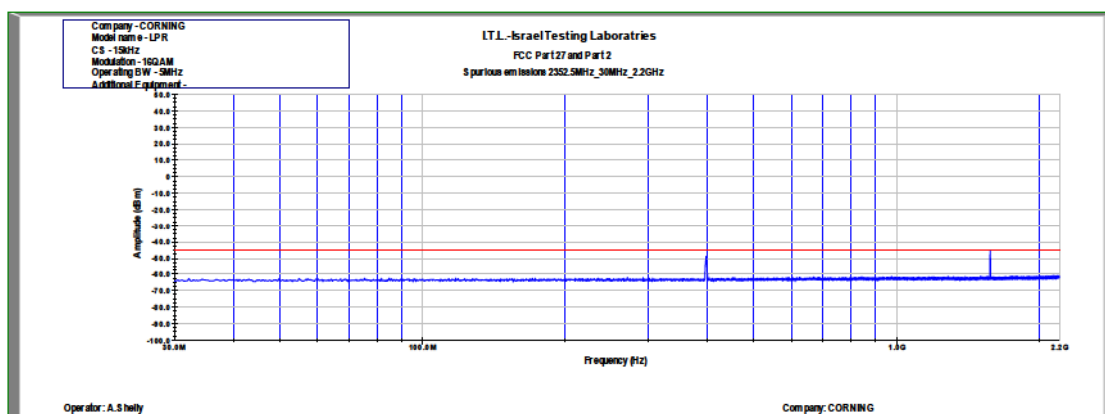


Figure 90: Spurious Emissions at Antenna Terminal 16QAM, 2352.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

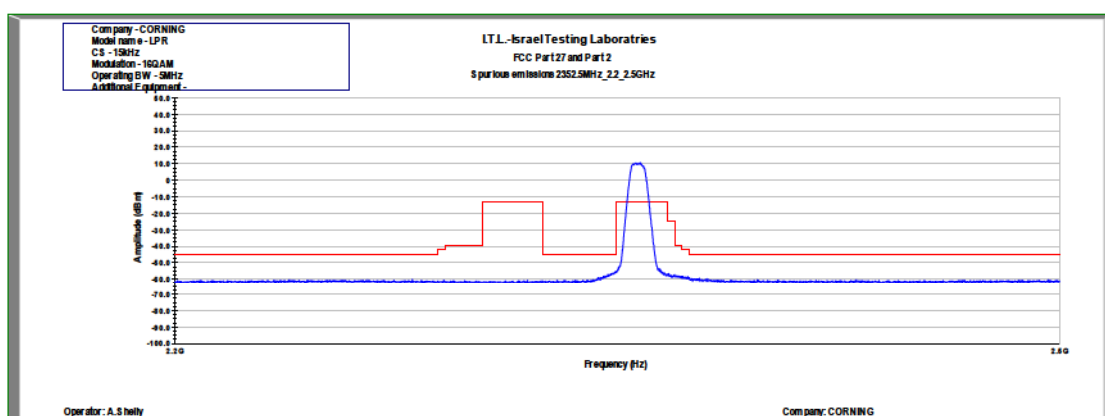


Figure 91: Spurious Emissions at Antenna Terminal 16QAM, 2352.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

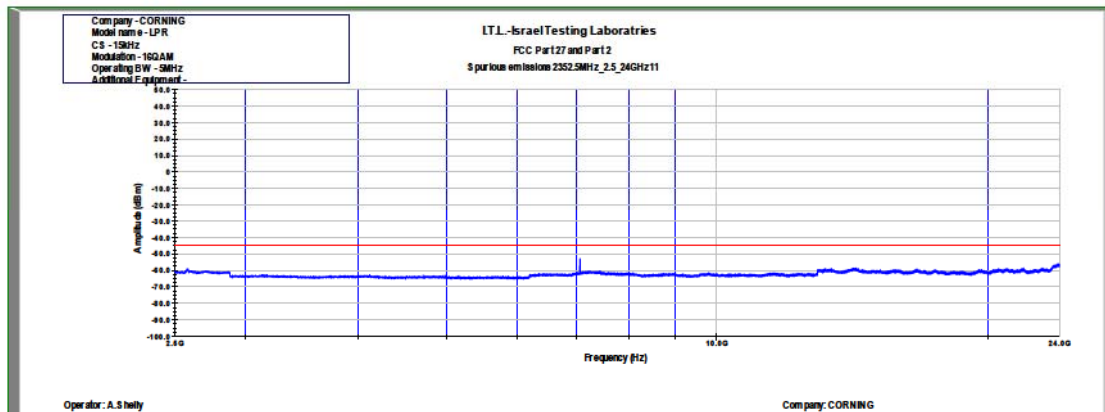


Figure 92: Spurious Emissions at Antenna Terminal 16QAM, 2352.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

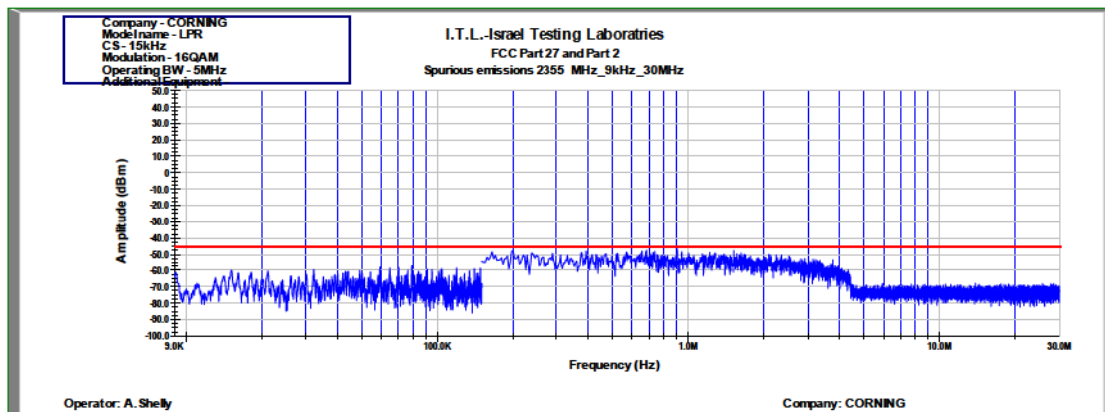


Figure 93: Spurious Emissions at Antenna Terminal 16QAM, 2355.0MHz, B.W. 5MHz, Sub Carrier 15 kHz

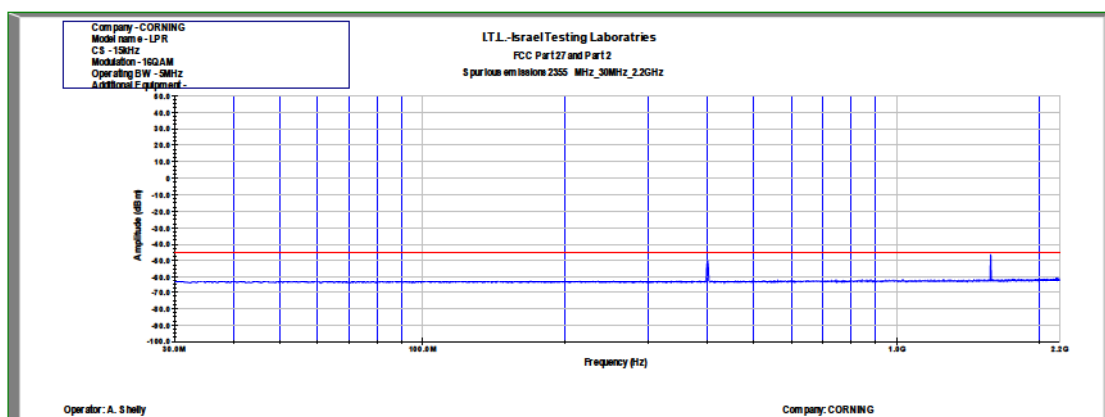


Figure 94: Spurious Emissions at Antenna Terminal 16QAM, 2355.0MHz, B.W. 5MHz, Sub Carrier 15 kHz

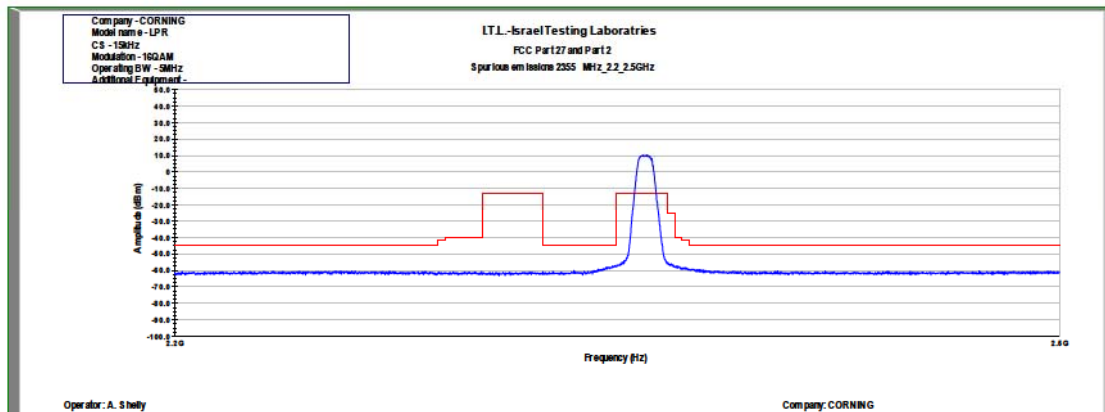


Figure 95: Spurious Emissions at Antenna Terminal 16QAM, 2355.0MHz, B.W. 5MHz, Sub Carrier 15 kHz

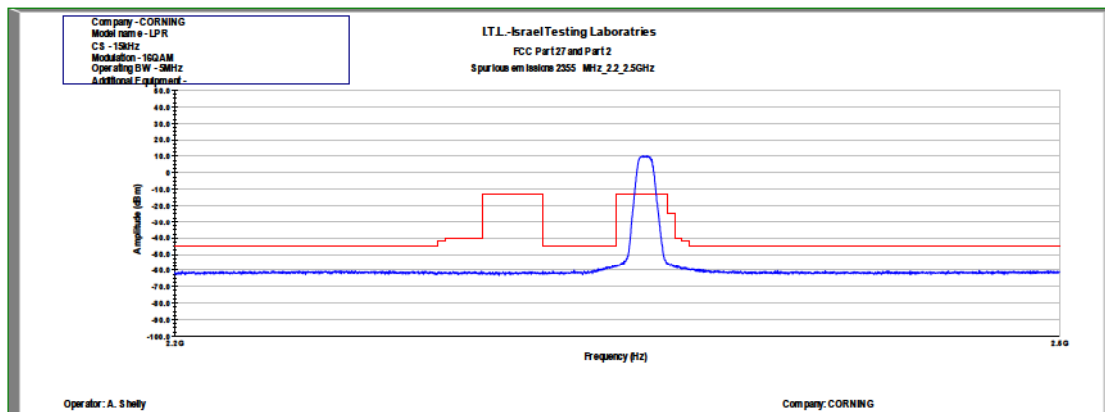


Figure 96: Spurious Emissions at Antenna Terminal 16QAM, 2355.0MHz, B.W. 5MHz, Sub Carrier 15 kHz

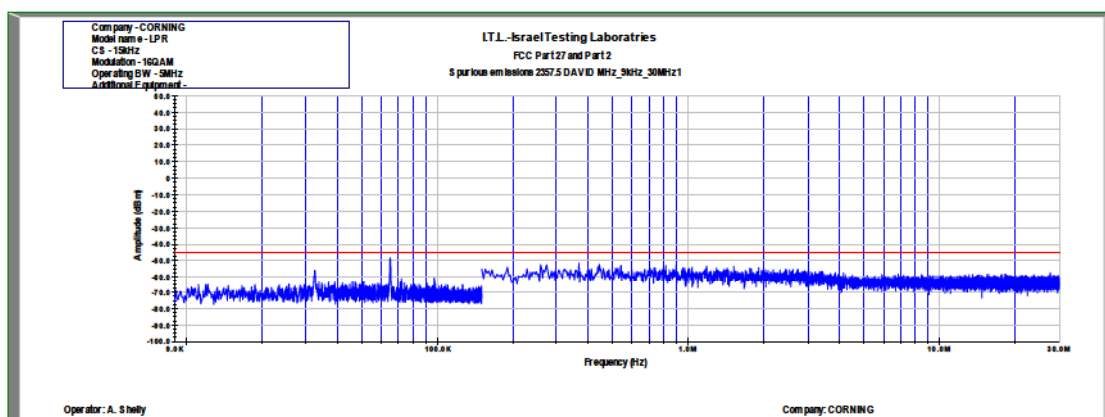


Figure 97: Spurious Emissions at Antenna Terminal 16QAM, 2357.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

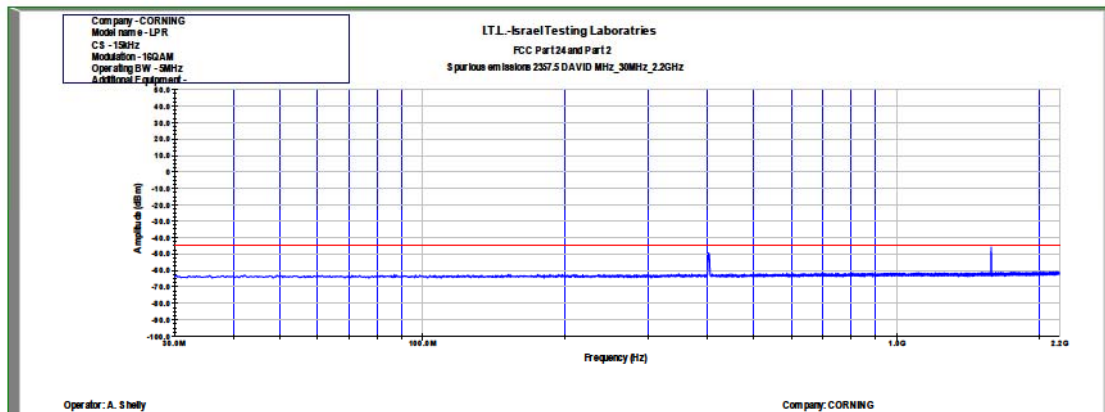


Figure 98: Spurious Emissions at Antenna Terminal 16QAM, 2357.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

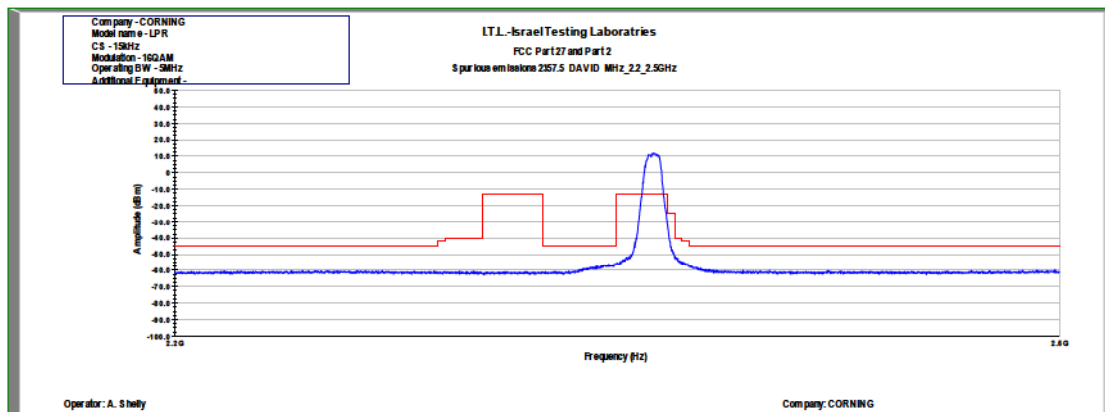


Figure 99: Spurious Emissions at Antenna Terminal 16QAM, 2357.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

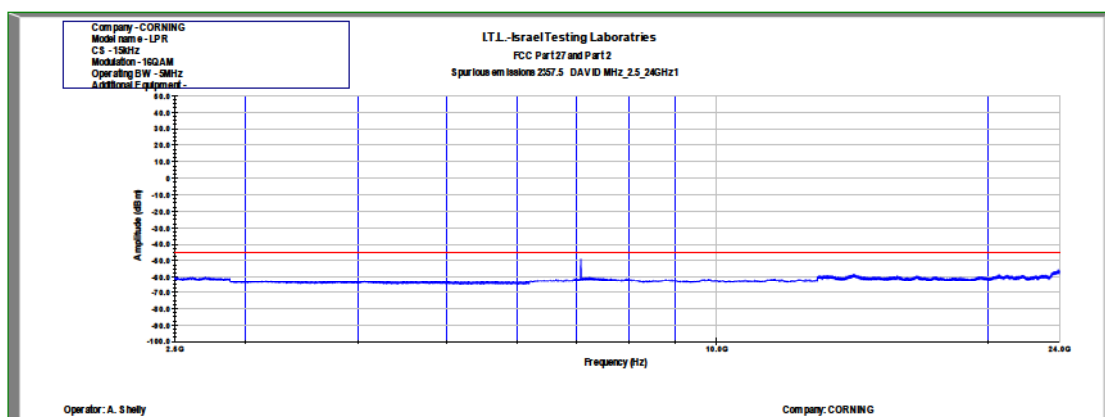


Figure 100: Spurious Emissions at Antenna Terminal 16QAM, 2357.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

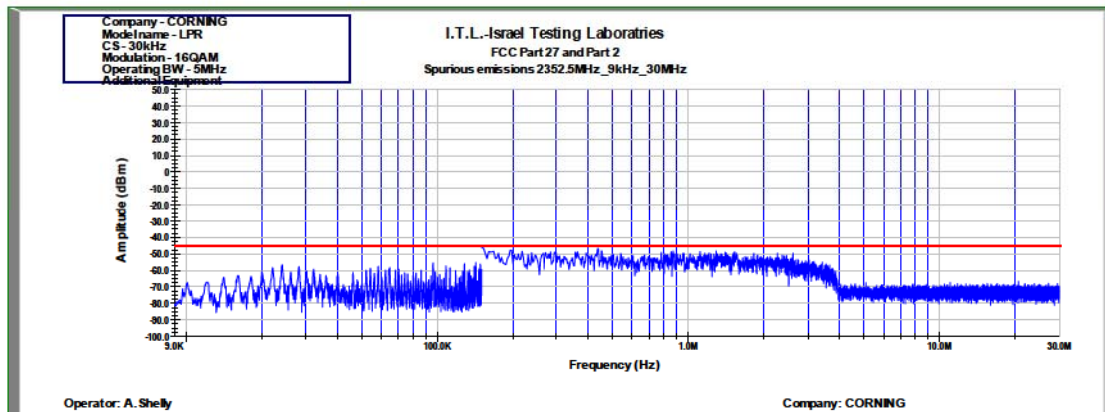


Figure 101: Spurious Emissions at Antenna Terminal 16QAM, 2352.5MHz, B.W. 5MHz, Sub Carrier 30 kHz

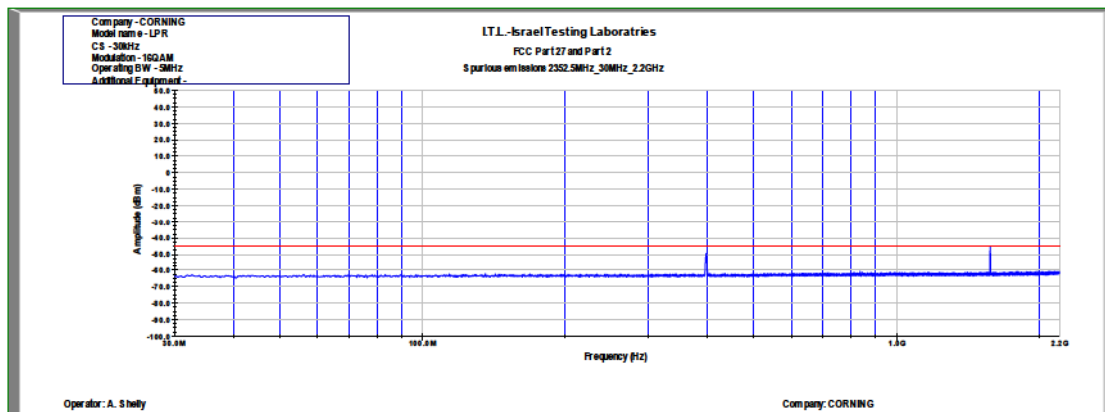


Figure 102: Spurious Emissions at Antenna Terminal 16QAM, 2532.5MHz, B.W. 5MHz, Sub Carrier 30 kHz

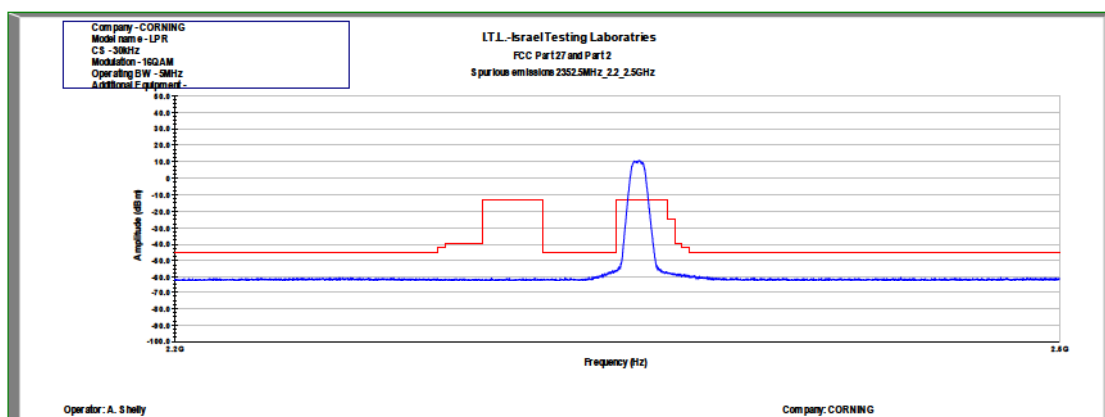


Figure 103: Spurious Emissions at Antenna Terminal 16QAM, 2532.5MHz, B.W. 5MHz, Sub Carrier 30 kHz

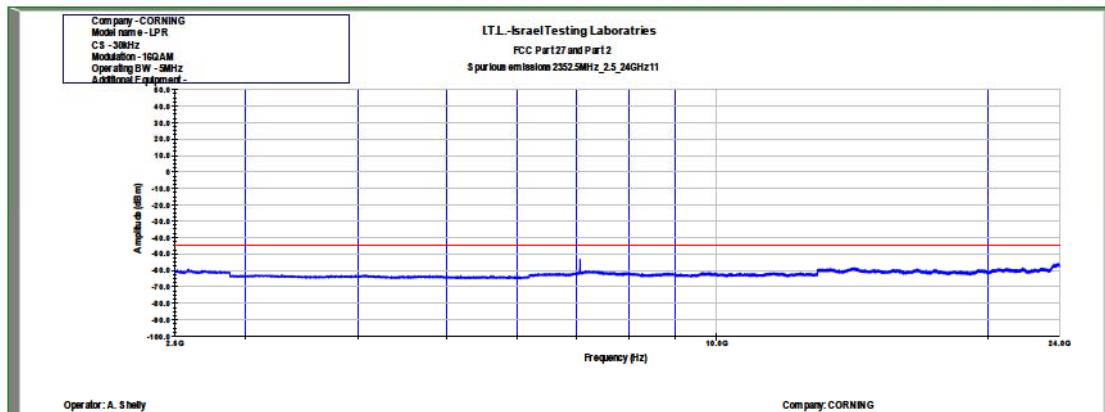


Figure 104: Spurious Emissions at Antenna Terminal 16QAM, 2532.5MHz, B.W. 5MHz, Sub Carrier 30 kHz

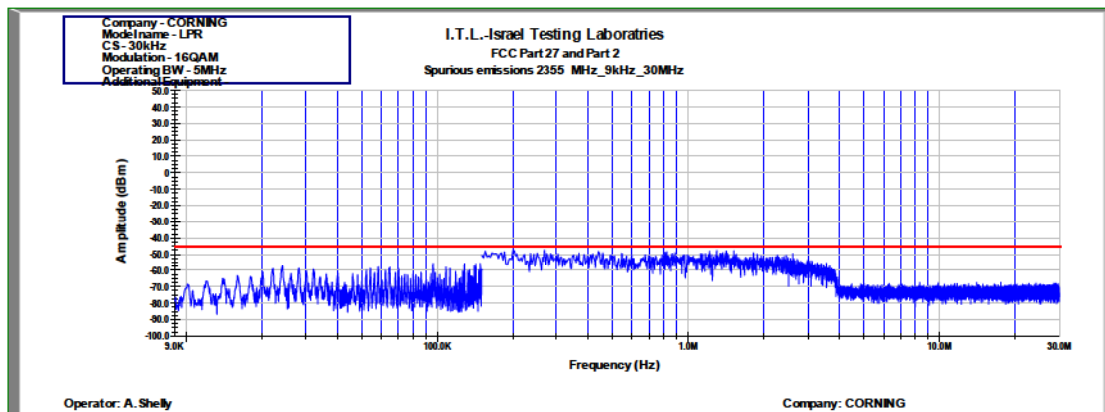


Figure 105: Spurious Emissions at Antenna Terminal 16QAM, 2355.0MHz, B.W. 5MHz, Sub Carrier 30 kHz

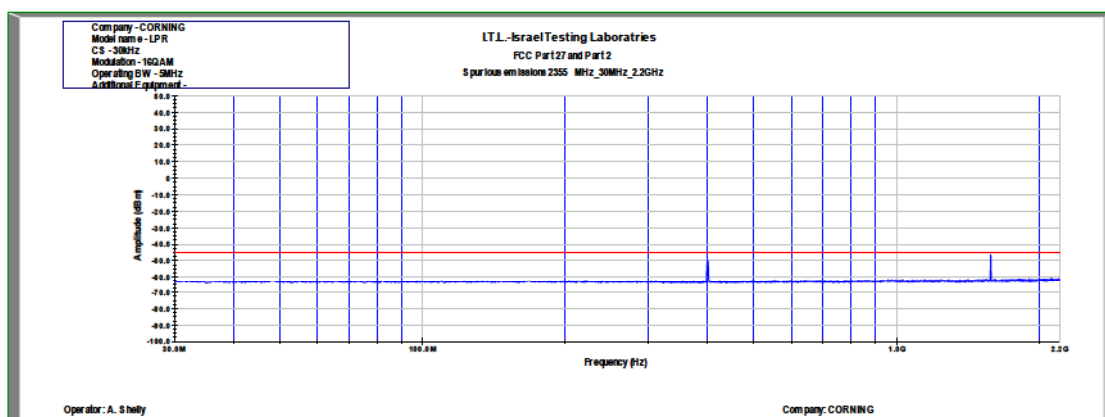


Figure 106: Spurious Emissions at Antenna Terminal 16QAM, 2355.0MHz, B.W. 5MHz, Sub Carrier 30 kHz

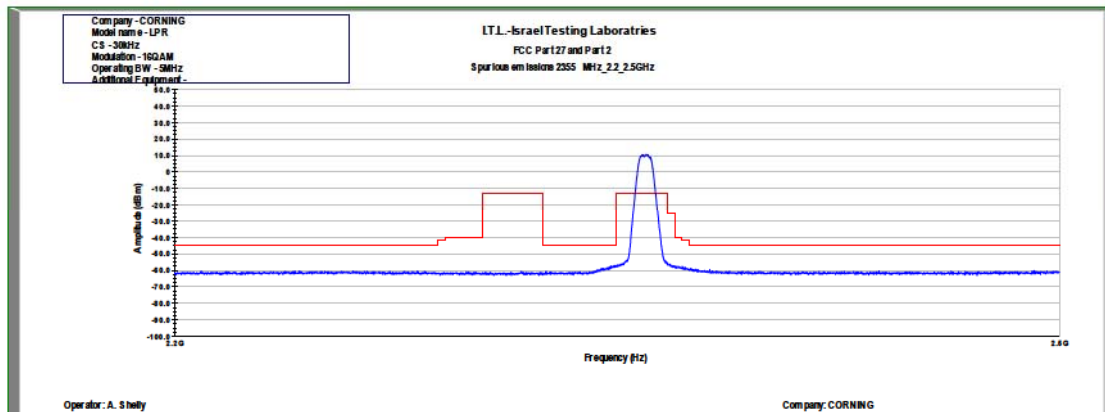


Figure 107: Spurious Emissions at Antenna Terminal 16QAM, 2355.0MHz, B.W. 5MHz, Sub Carrier 30 kHz

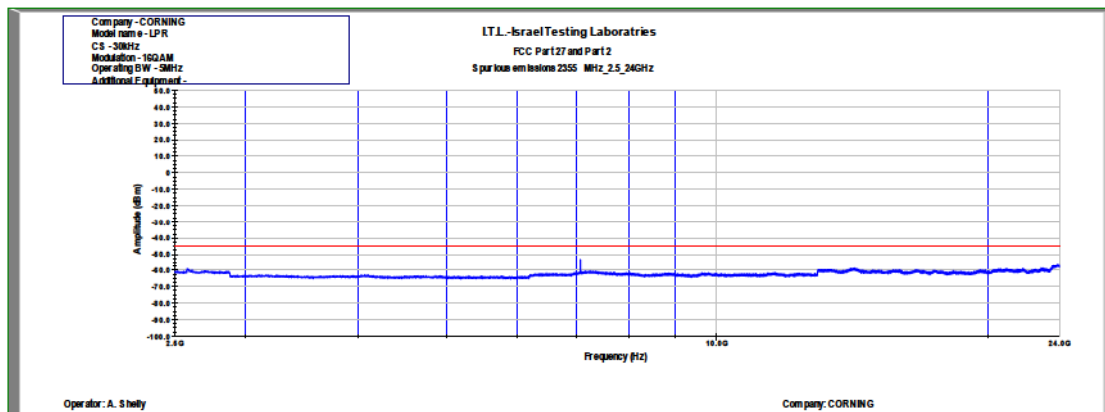


Figure 108: Spurious Emissions at Antenna Terminal 16QAM, 23550.0MHz, B.W. 5MHz, Sub Carrier 30 kHz

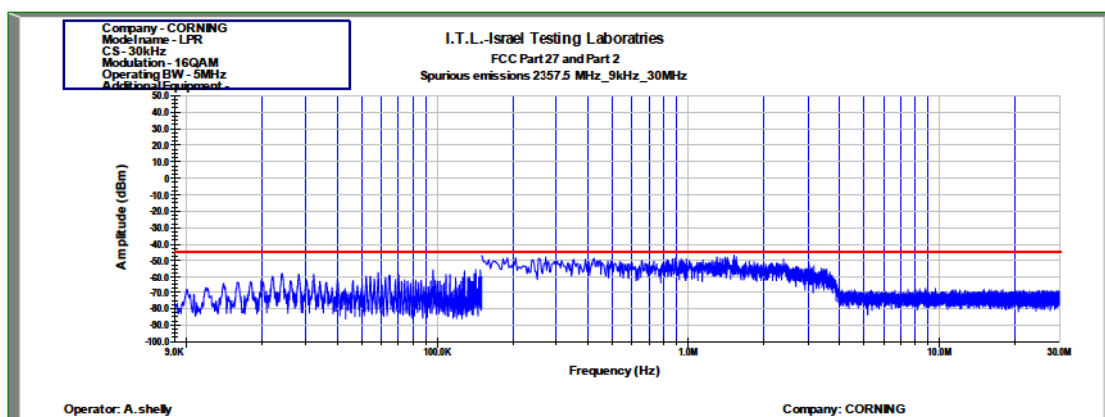


Figure 109: Spurious Emissions at Antenna Terminal 16QAM, 2357.5MHz, B.W. 5MHz, Sub Carrier 30 kHz

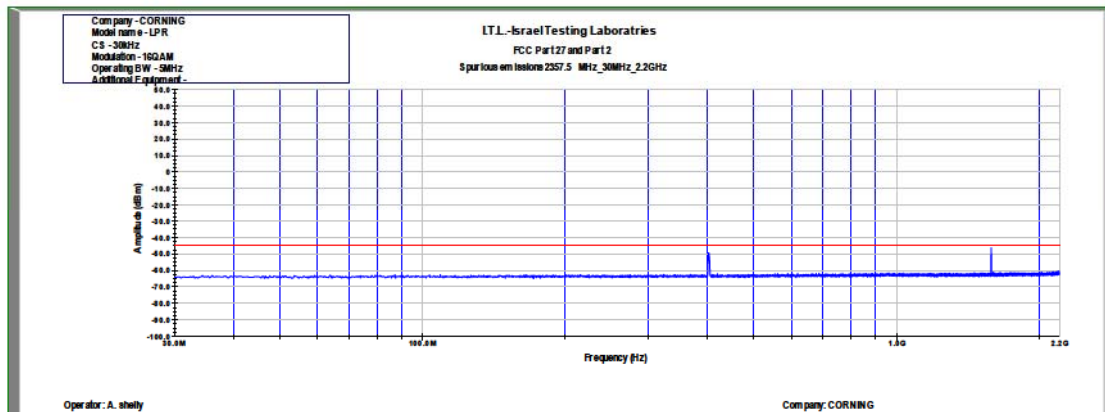


Figure 110: Spurious Emissions at Antenna Terminal 16QAM, 2357.5MHz, B.W. 5MHz, Sub Carrier 30 kHz

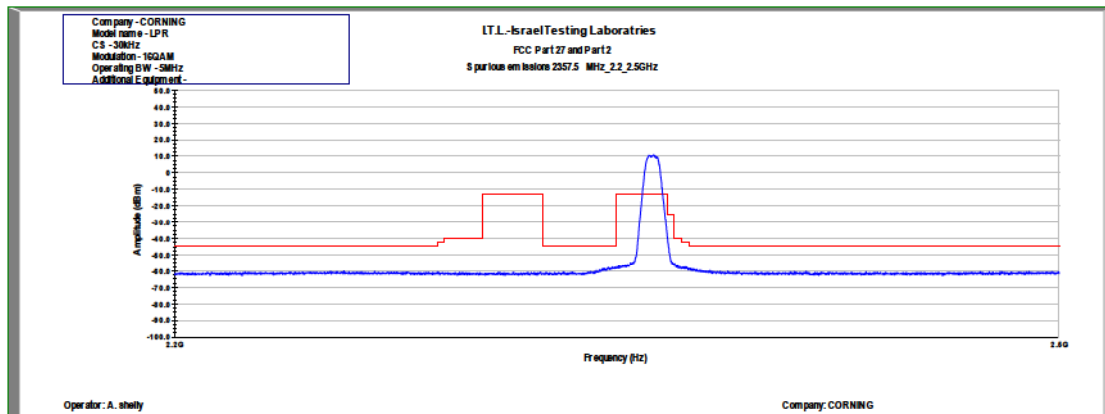


Figure 111: Spurious Emissions at Antenna Terminal 16QAM, 2357.5MHz, B.W. 5MHz, Sub Carrier 30 kHz

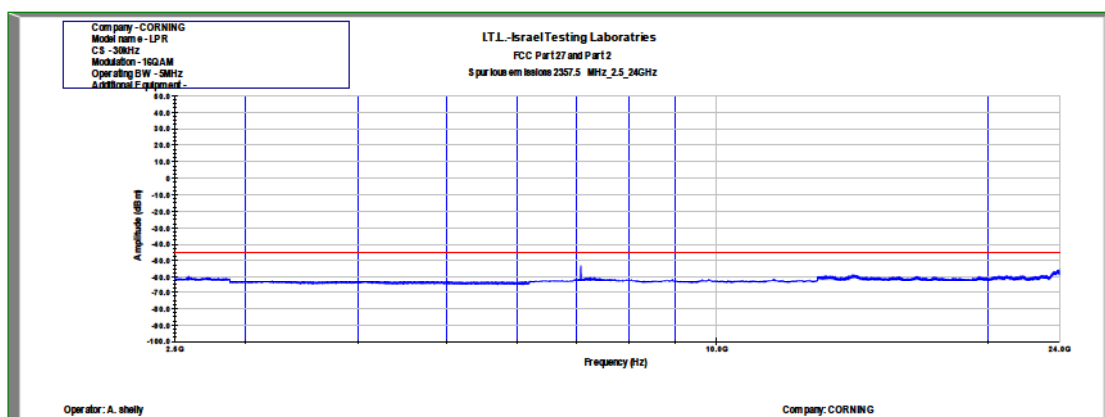


Figure 112: Spurious Emissions at Antenna Terminal 16QAM, 2357.5MHz, B.W. 5MHz, Sub Carrier 30 kHz

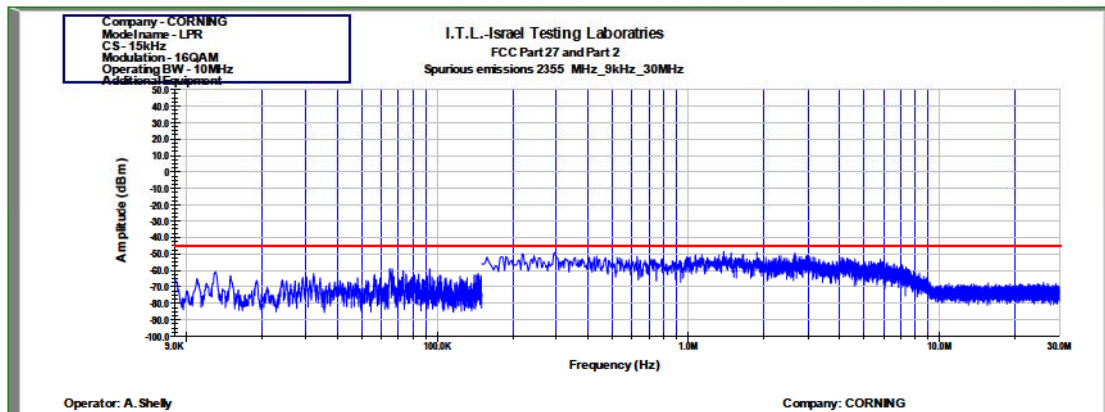


Figure 113: Spurious Emissions at Antenna Terminal 16QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 15 kHz

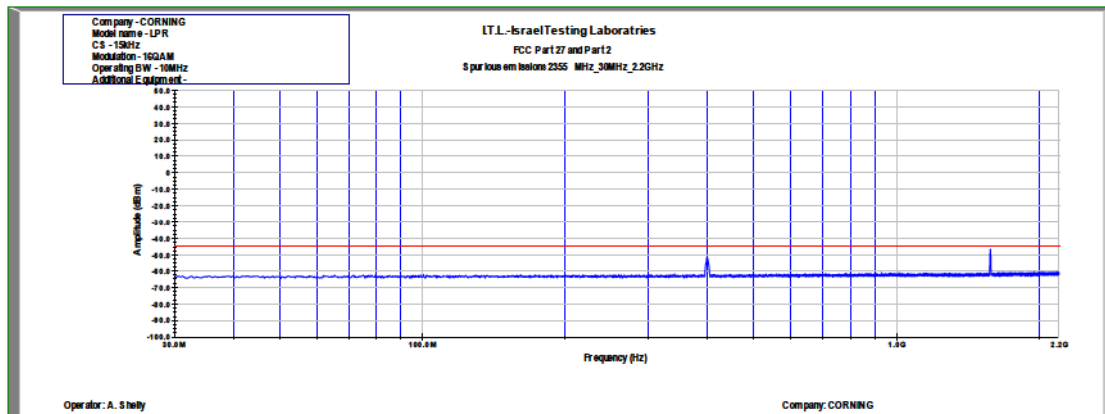


Figure 114: Spurious Emissions at Antenna Terminal 16QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 15 kHz

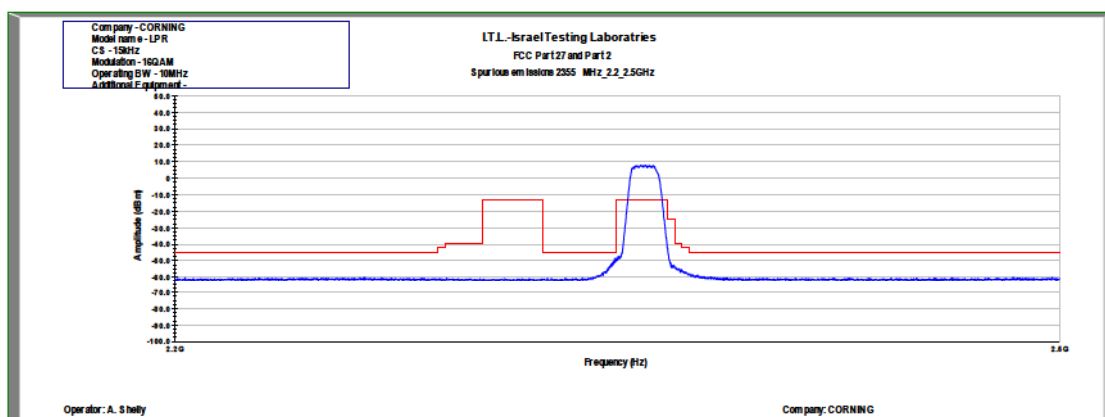


Figure 115: Spurious Emissions at Antenna Terminal 16QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 15 kHz

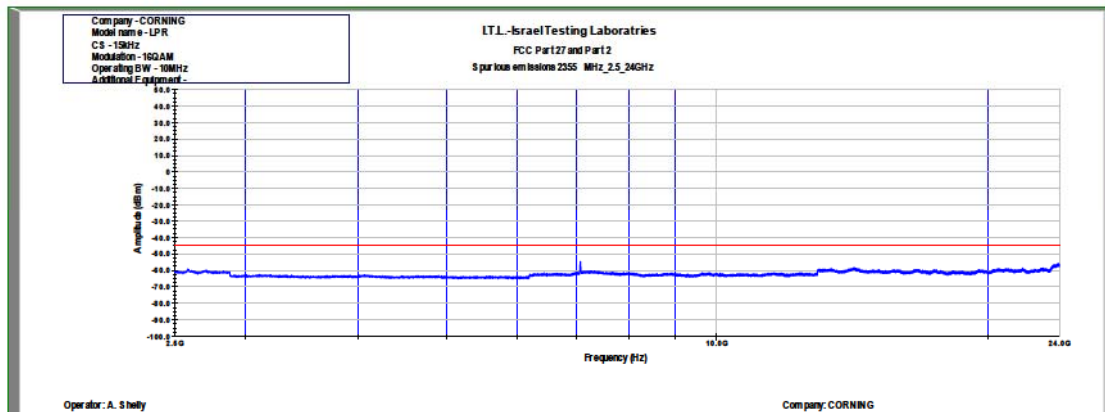


Figure 116: Spurious Emissions at Antenna Terminal 16QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 15 kHz

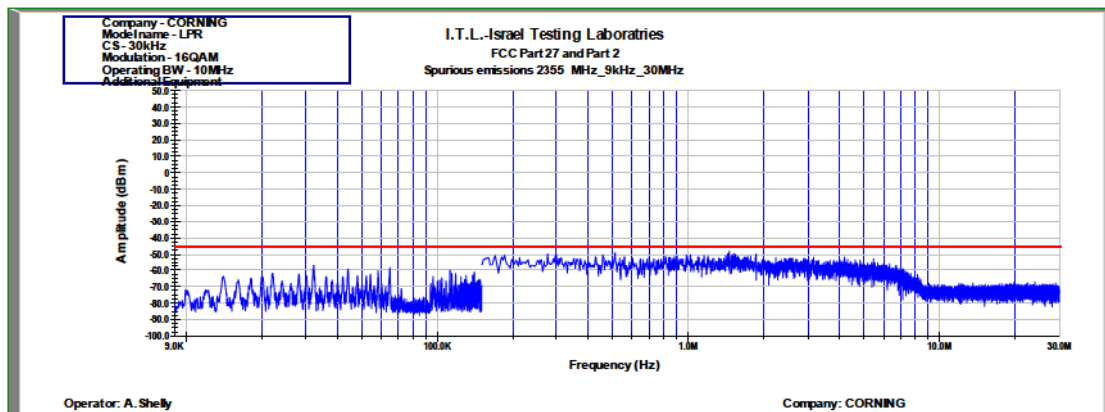


Figure 117: Spurious Emissions at Antenna Terminal 16QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 30 kHz

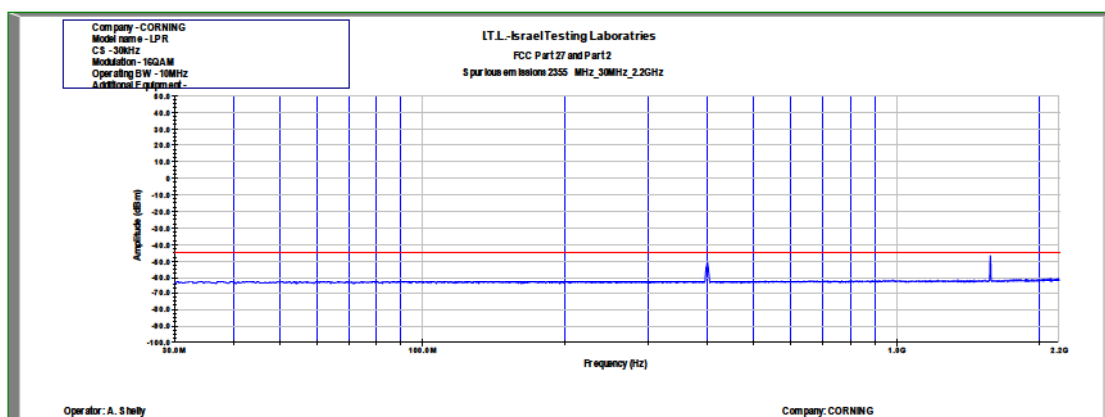


Figure 118: Spurious Emissions at Antenna Terminal 16QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 30 kHz

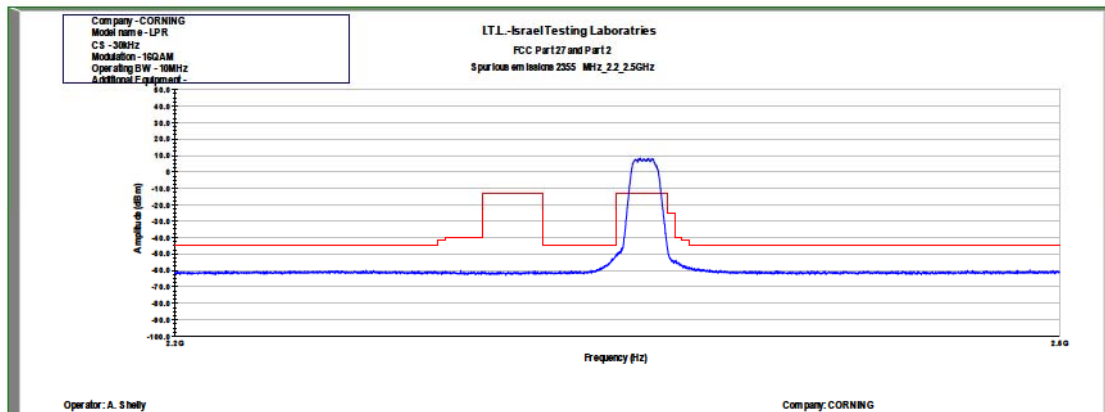


Figure 119: Spurious Emissions at Antenna Terminal 16QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 30 kHz

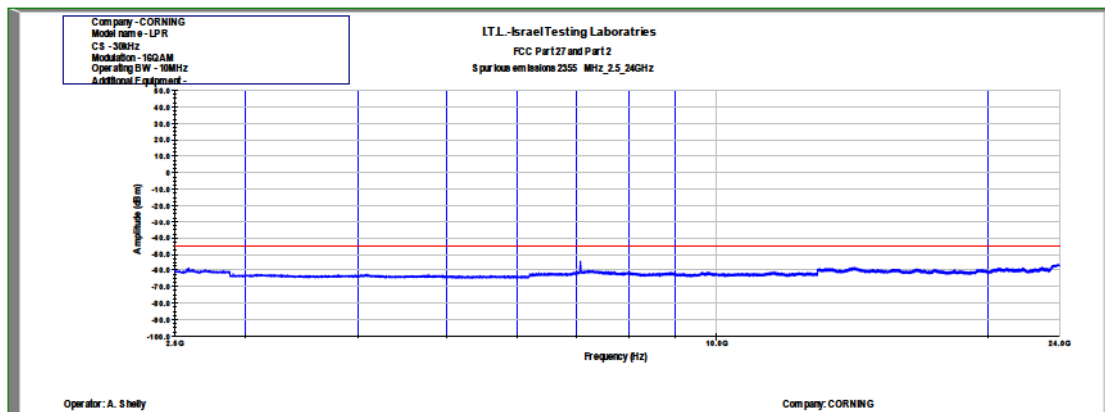


Figure 120: Spurious Emissions at Antenna Terminal 16QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 30 kHz

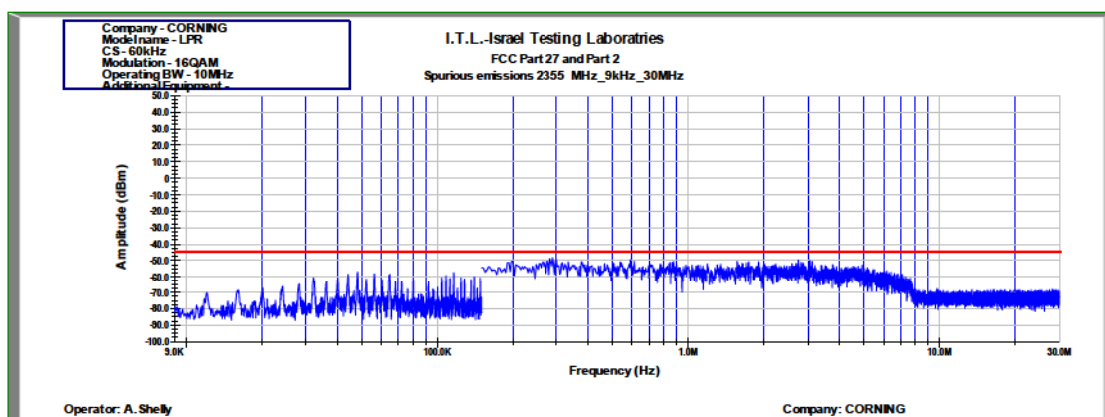


Figure 121: Spurious Emissions at Antenna Terminal 16QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 60 kHz

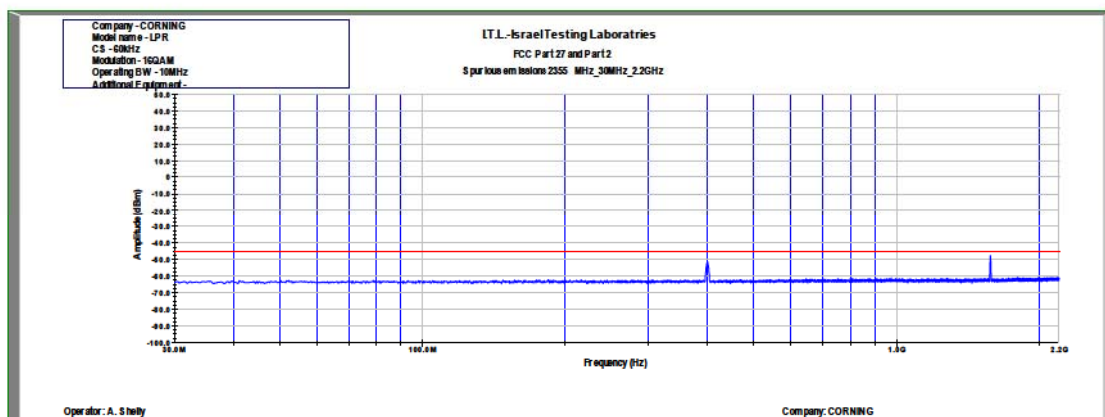


Figure 122: Spurious Emissions at Antenna Terminal 16QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 60 kHz

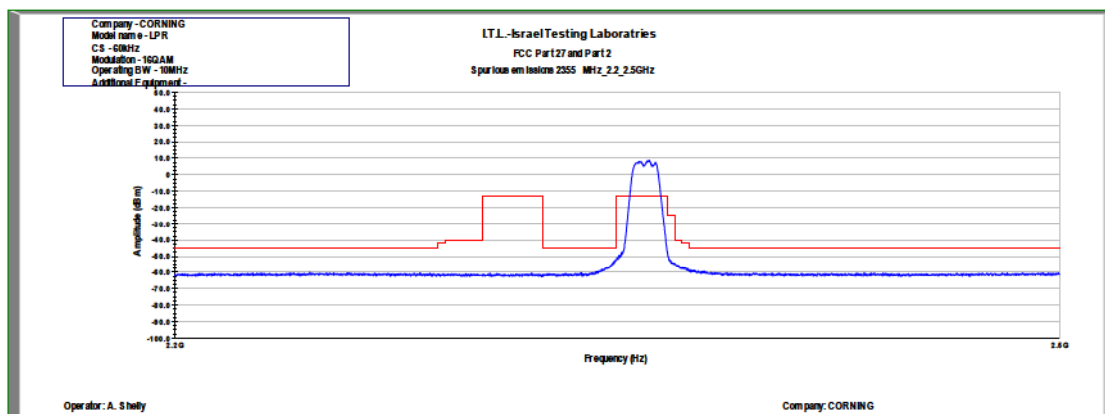


Figure 123: Spurious Emissions at Antenna Terminal 16QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 60 kHz

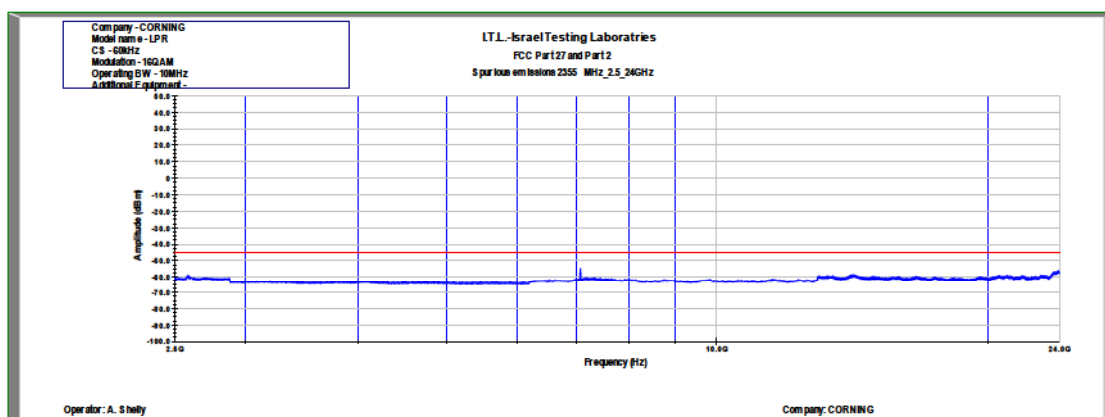


Figure 124: Spurious Emissions at Antenna Terminal 16QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 60 kHz

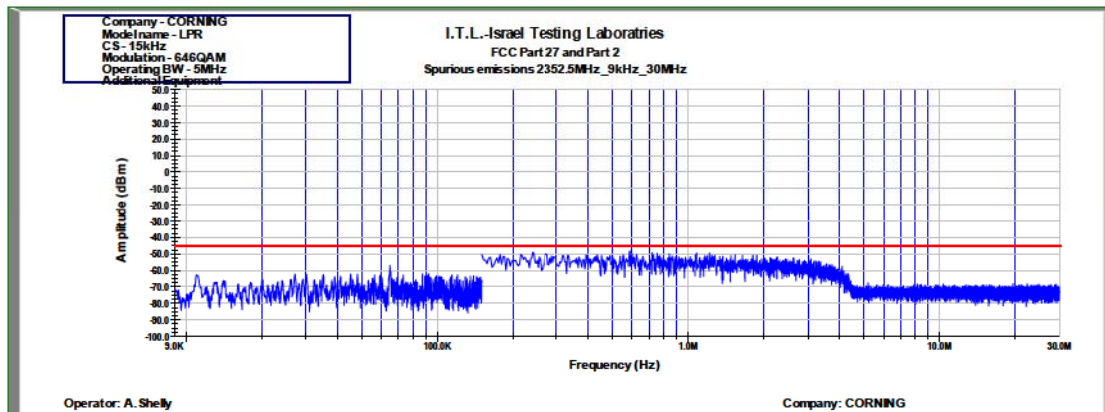


Figure 125: Spurious Emissions at Antenna Terminal 64QAM, 2352.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

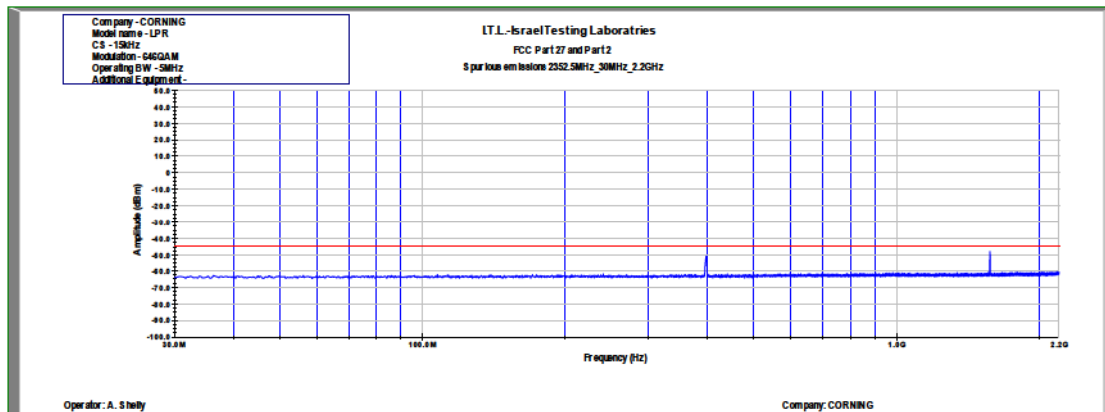


Figure 126: Spurious Emissions at Antenna Terminal 64QAM, 2352.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

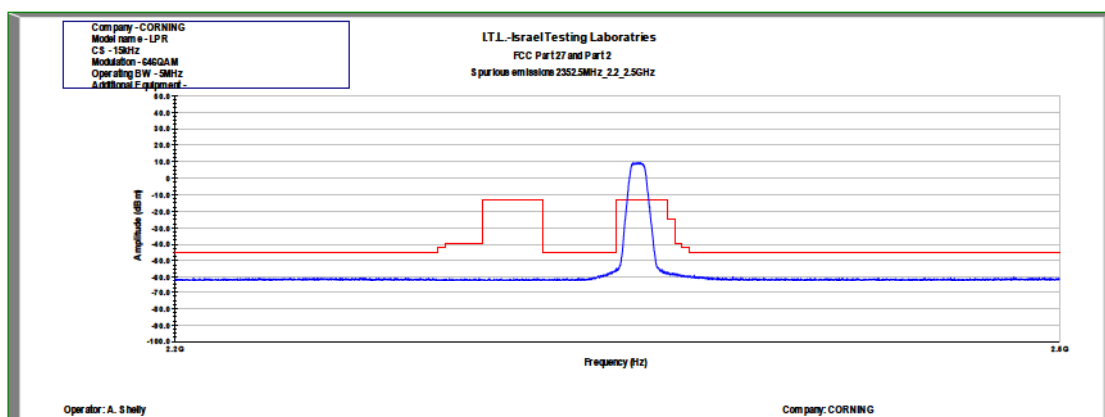


Figure 127: Spurious Emissions at Antenna Terminal 64QAM, 2352.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

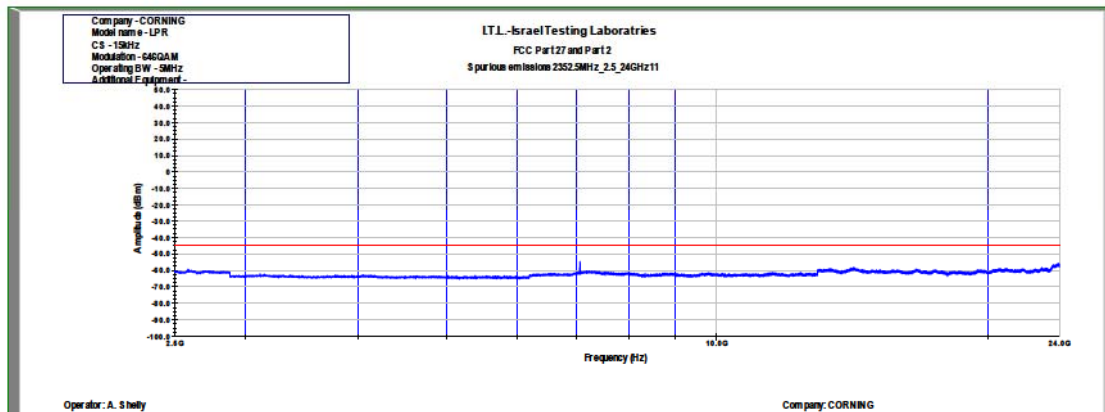


Figure 128: Spurious Emissions at Antenna Terminal 64QAM, 2352.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

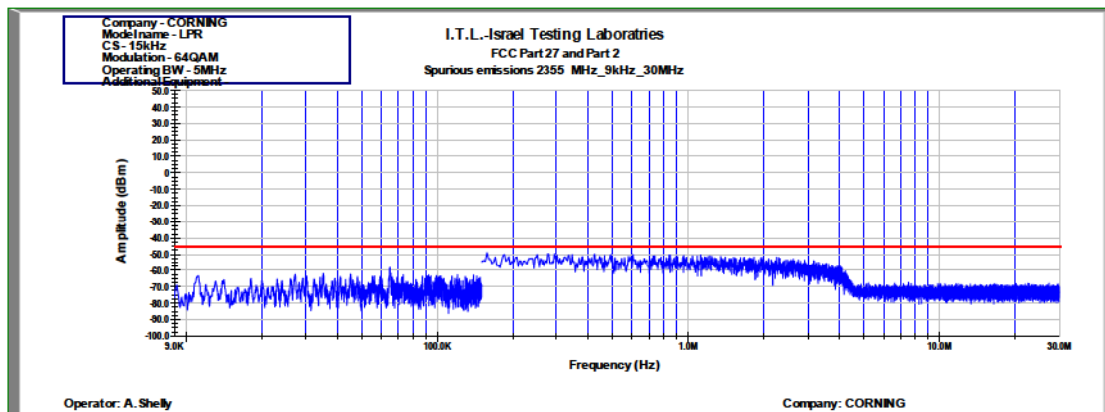


Figure 129: Spurious Emissions at Antenna Terminal 64QAM, 2355.0MHz, B.W. 5MHz, Sub Carrier 15 kHz

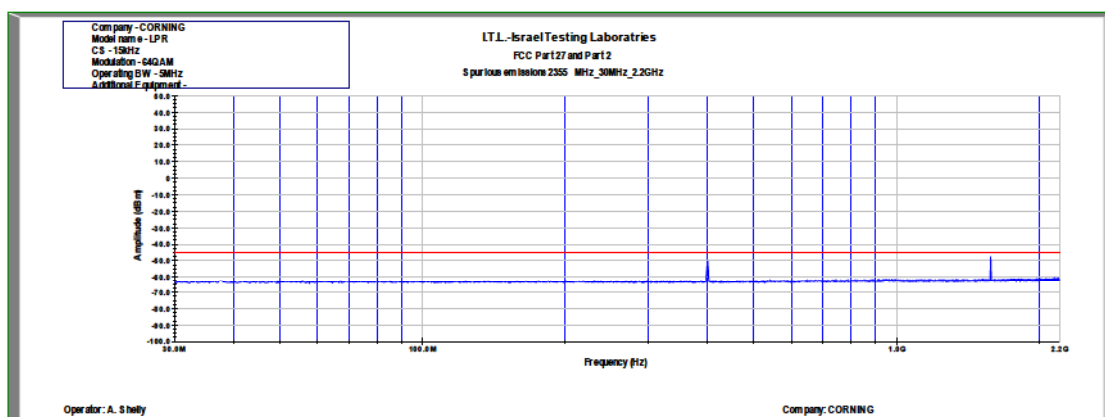


Figure 130: Spurious Emissions at Antenna Terminal 64QAM, 2355.0MHz, B.W. 5MHz, Sub Carrier 15 kHz

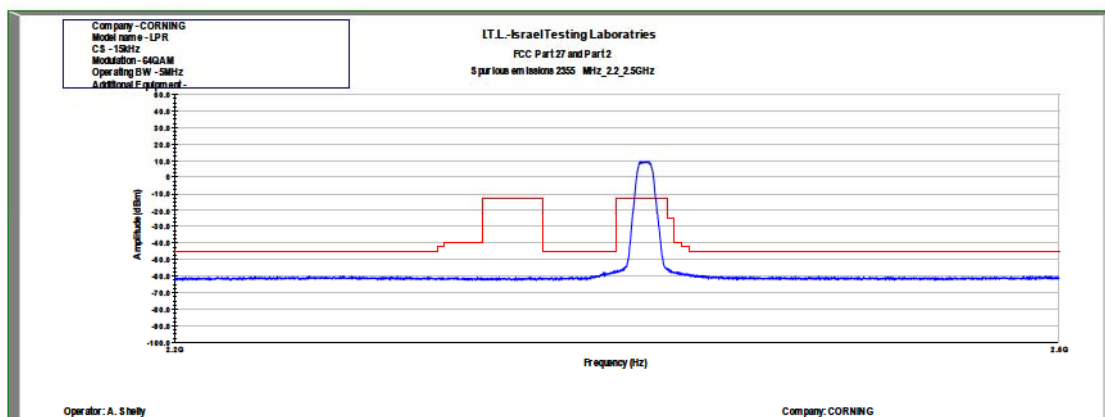


Figure 131: Spurious Emissions at Antenna Terminal 64QAM, 2355.0MHz, B.W. 5MHz, Sub Carrier 15 kHz

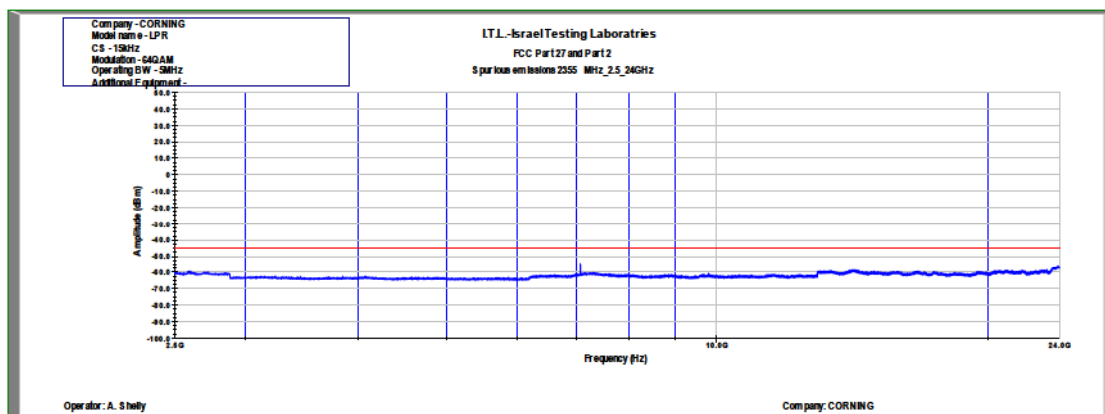


Figure 132: Spurious Emissions at Antenna Terminal 64QAM, 2355.0MHz, B.W. 5MHz, Sub Carrier 15 kHz

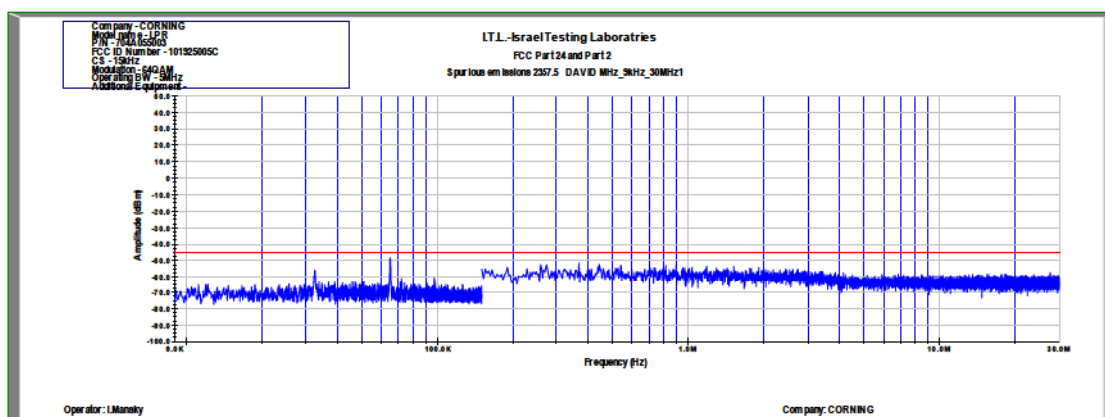


Figure 133: Spurious Emissions at Antenna Terminal 64QAM, 2357.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

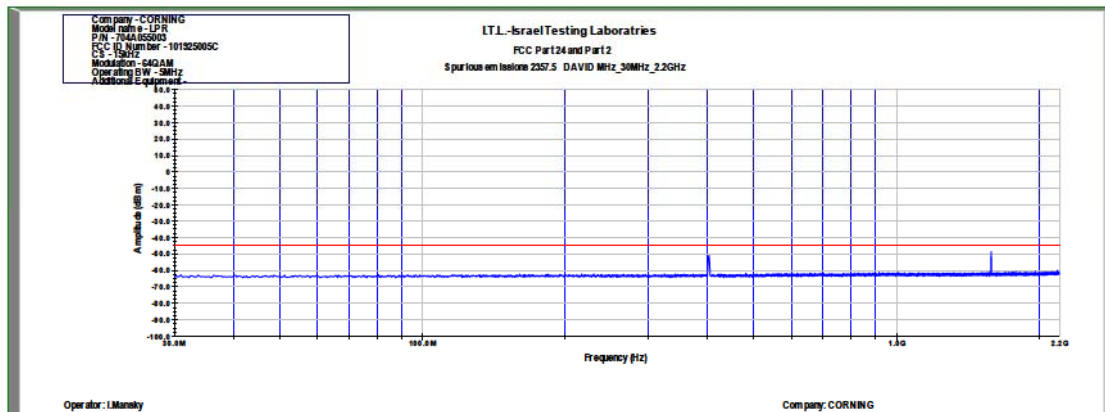


Figure 134: Spurious Emissions at Antenna Terminal 64QAM, 2357.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

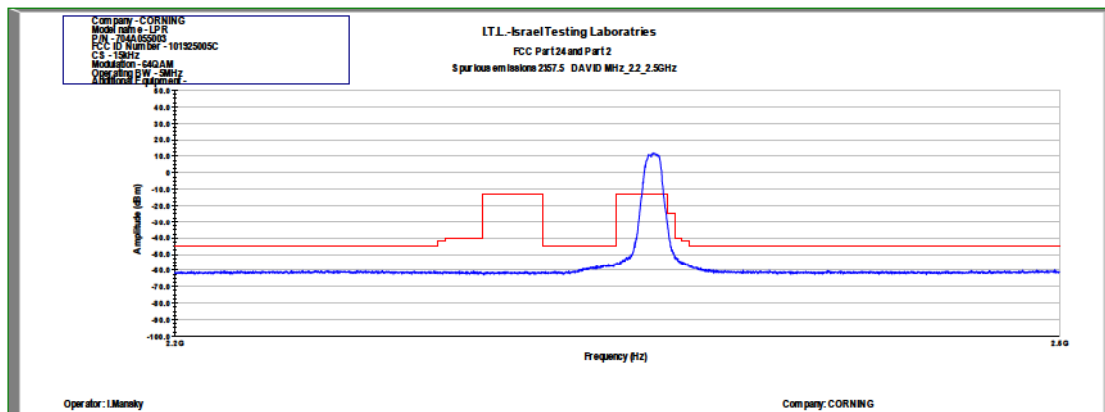


Figure 135: Spurious Emissions at Antenna Terminal 64QAM, 2357.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

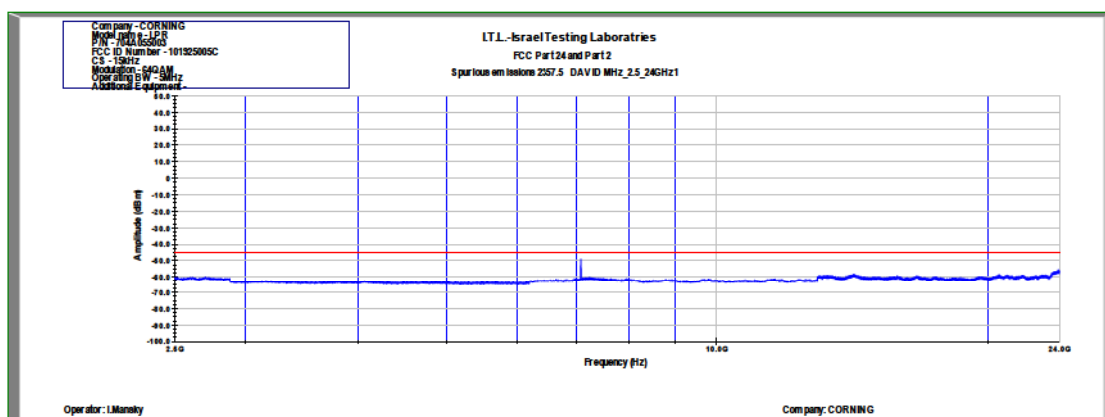


Figure 136: Spurious Emissions at Antenna Terminal 64QAM, 2357.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

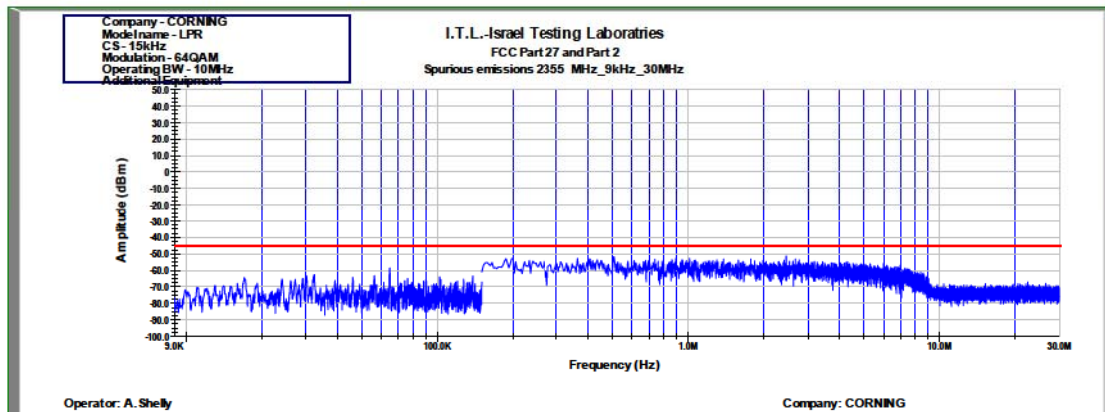


Figure 137: Spurious Emissions at Antenna Terminal 64QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 15 kHz

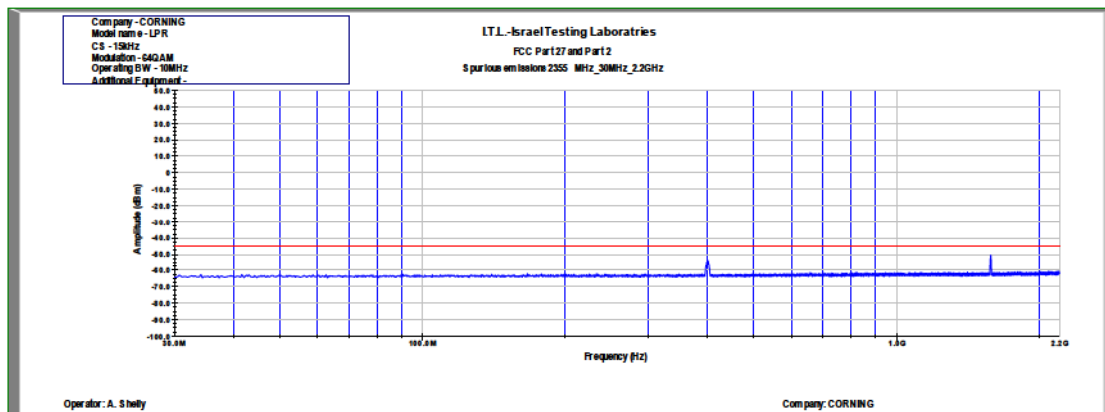


Figure 138: Spurious Emissions at Antenna Terminal 64QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 15 kHz

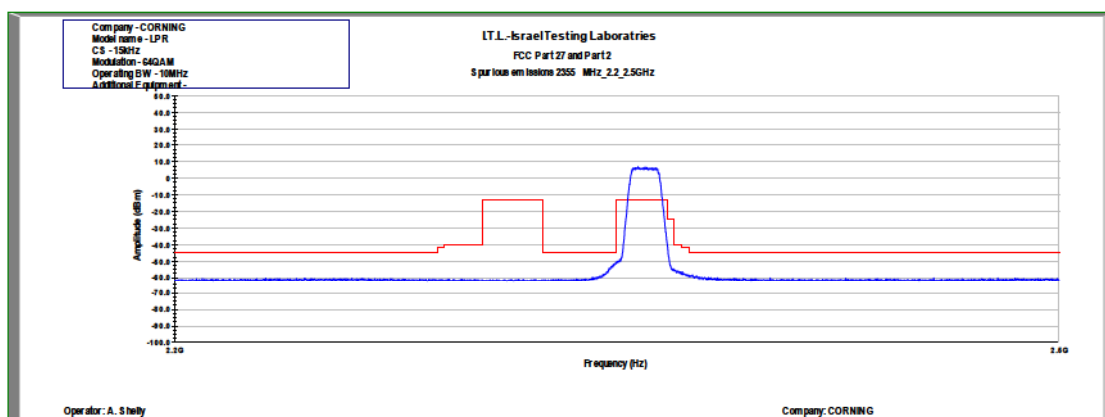


Figure 139: Spurious Emissions at Antenna Terminal 64QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 15 kHz

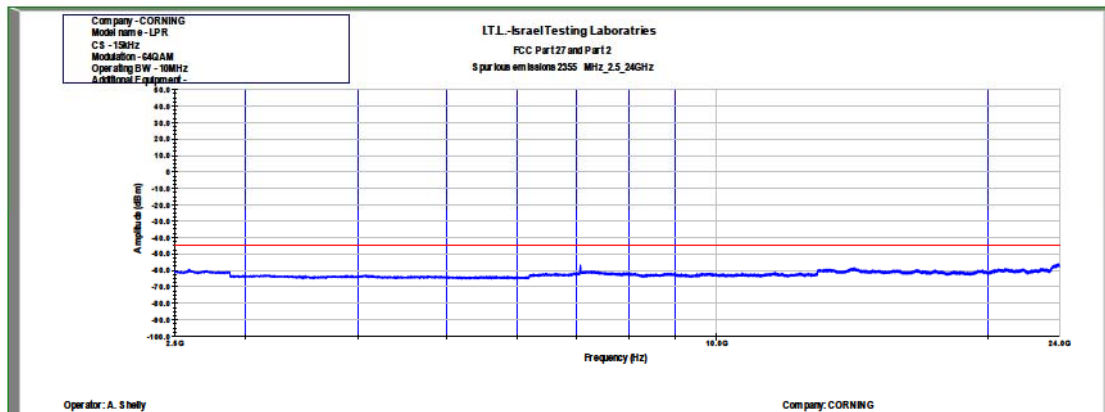


Figure 140: Spurious Emissions at Antenna Terminal 64QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 15 kHz

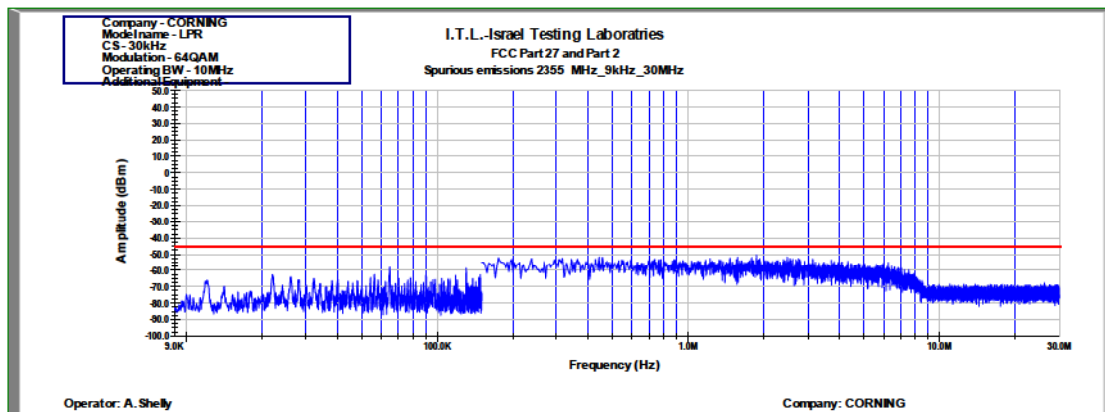


Figure 141: Spurious Emissions at Antenna Terminal 64QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 30 kHz

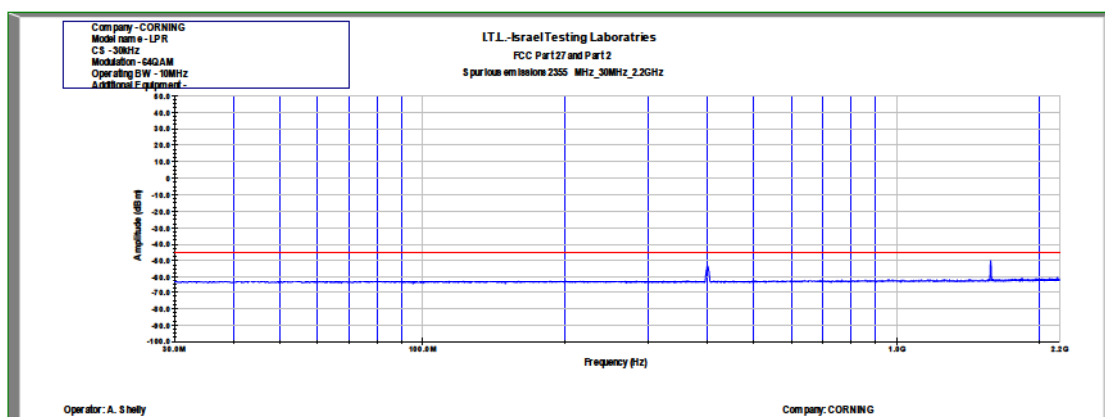


Figure 142: Spurious Emissions at Antenna Terminal 64QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 30 kHz

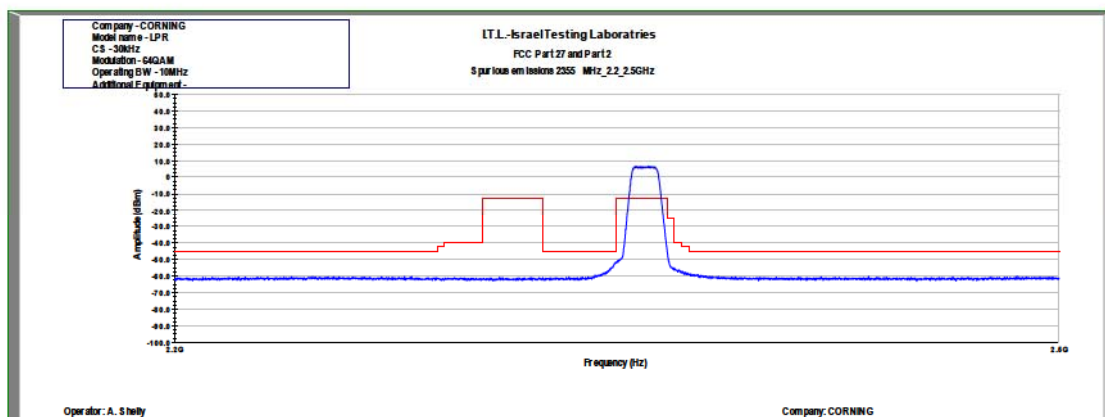


Figure 143: Spurious Emissions at Antenna Terminal 64QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 30 kHz

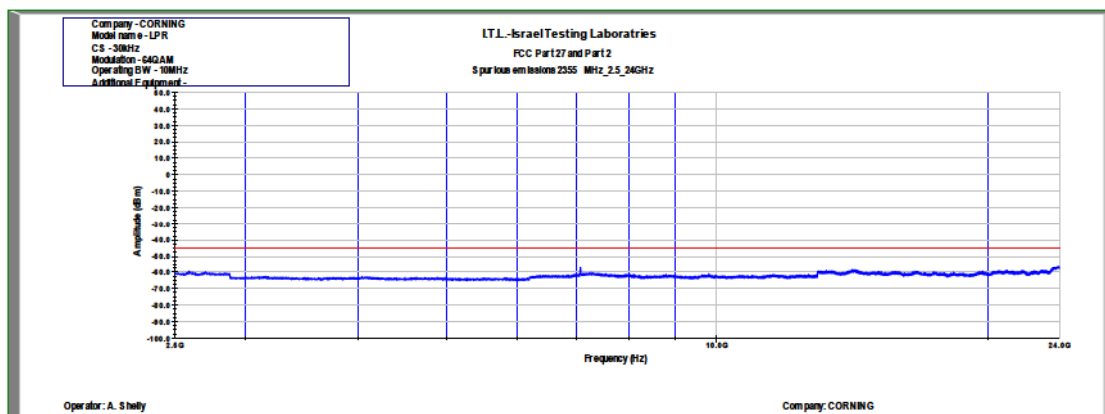


Figure 144: Spurious Emissions at Antenna Terminal 64QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 30 kHz

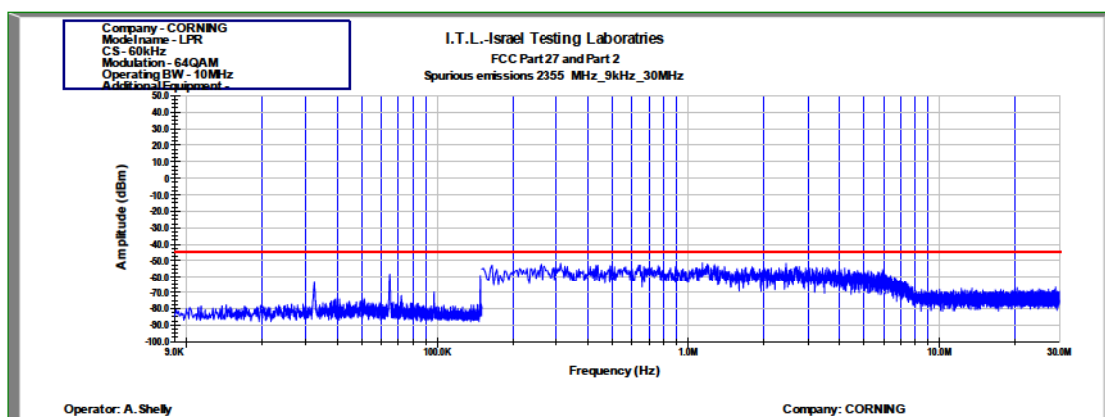


Figure 145: Spurious Emissions at Antenna Terminal 64QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 60 kHz

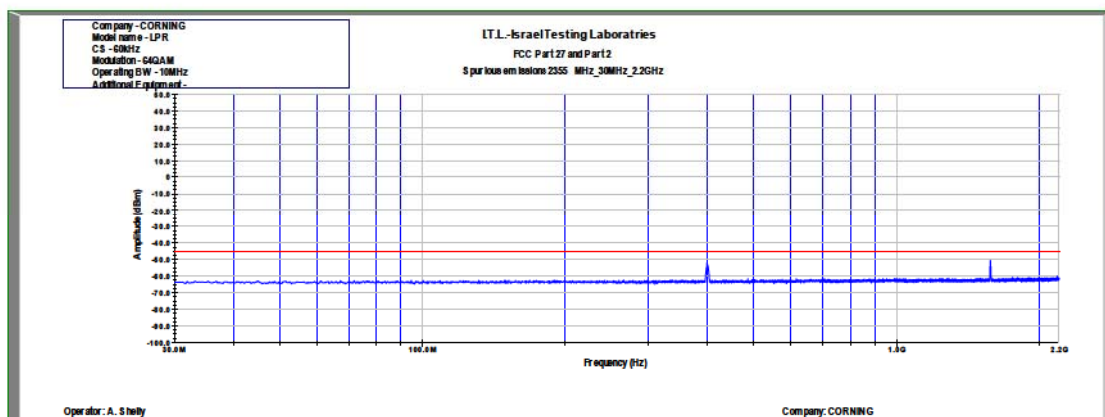


Figure 146: Spurious Emissions at Antenna Terminal 64QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 60 kHz

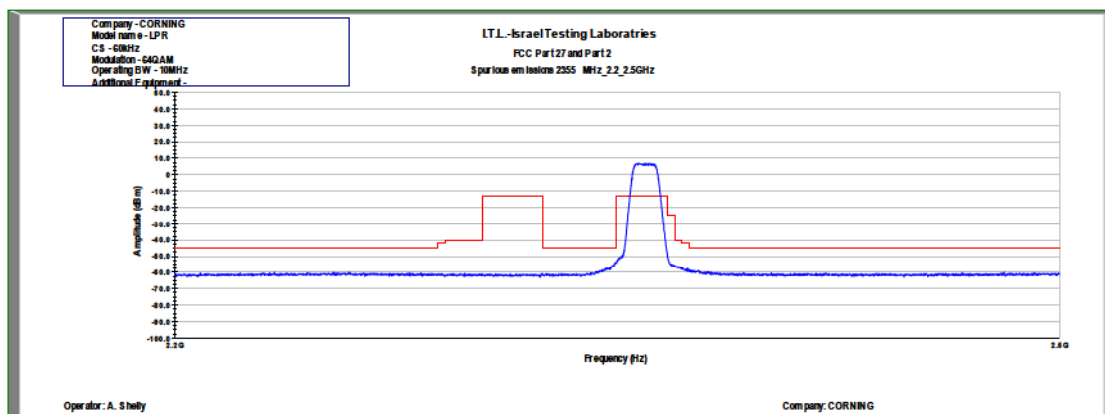


Figure 147: Spurious Emissions at Antenna Terminal 64QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 60 kHz

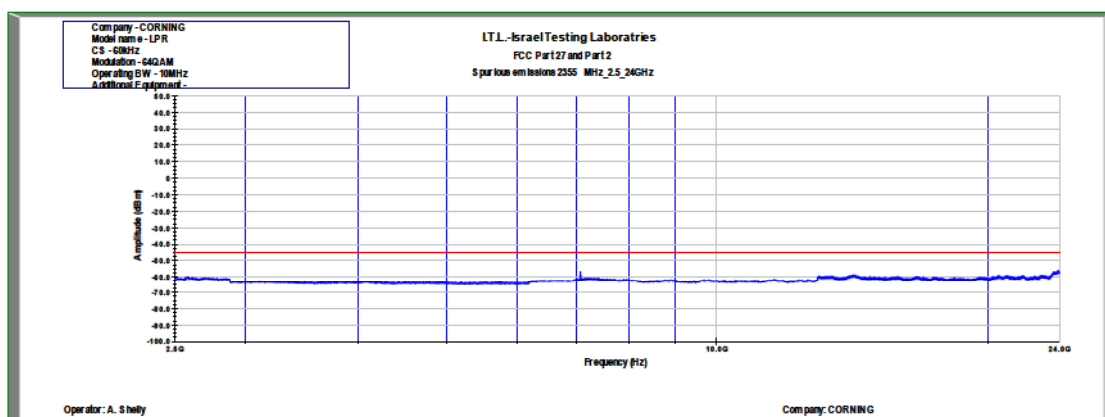


Figure 148: Spurious Emissions at Antenna Terminal 64QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 60 kHz

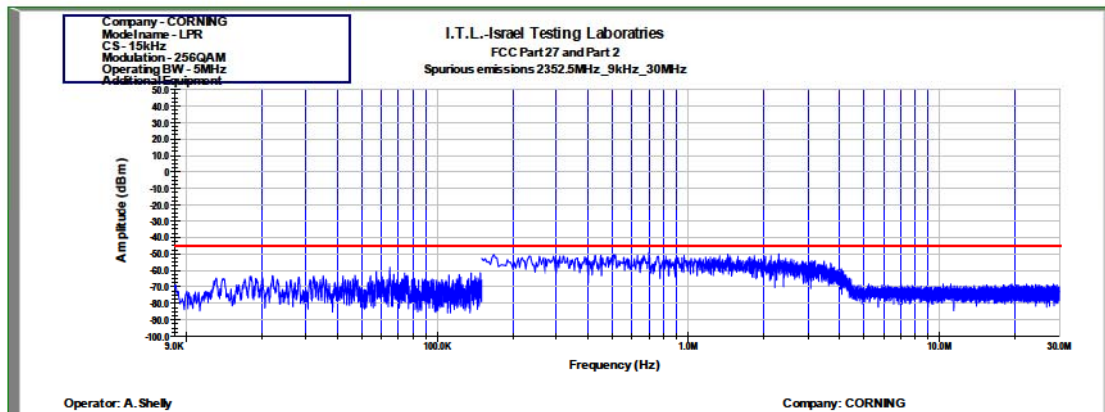


Figure 149: Spurious Emissions at Antenna Terminal 256QAM, 2352.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

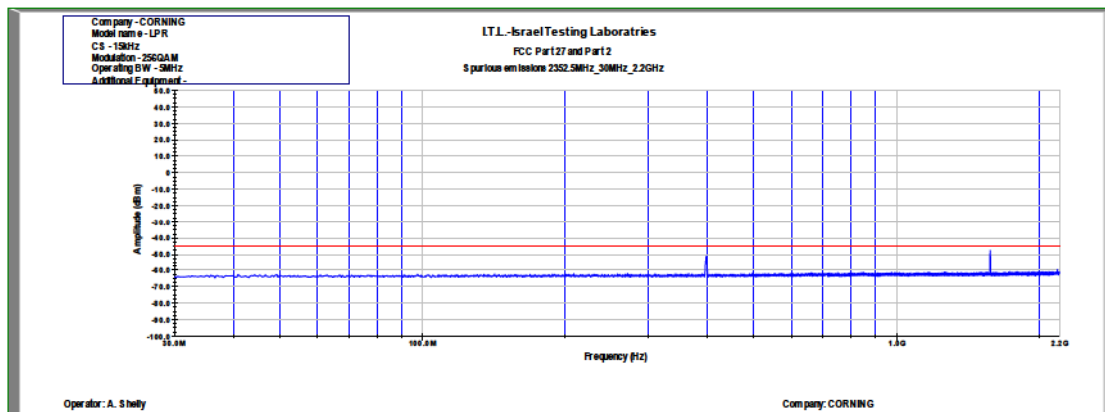


Figure 150: Spurious Emissions at Antenna Terminal 256QAM, 2352.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

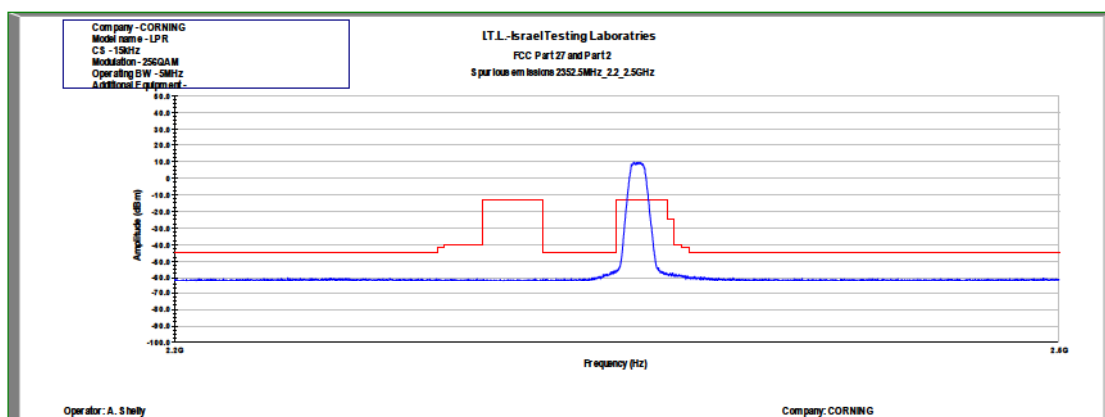


Figure 151: Spurious Emissions at Antenna Terminal 256QAM, 2352.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

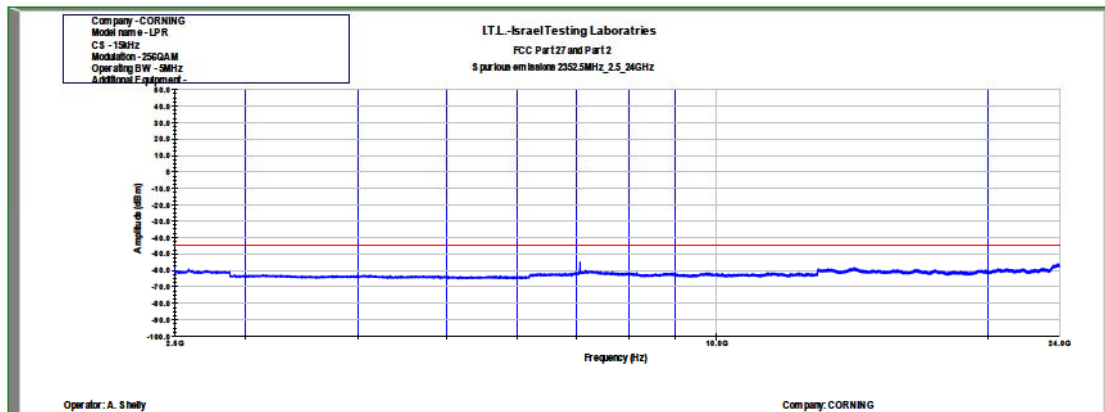


Figure 152: Spurious Emissions at Antenna Terminal 256QAM, 2352.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

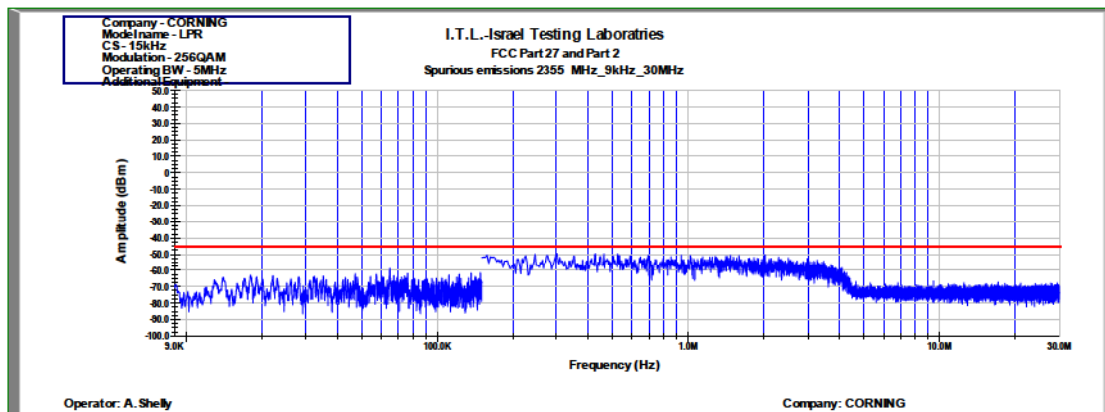


Figure 153: Spurious Emissions at Antenna Terminal 256QAM, 2355.0MHz, B.W. 5MHz, Sub Carrier 15 kHz

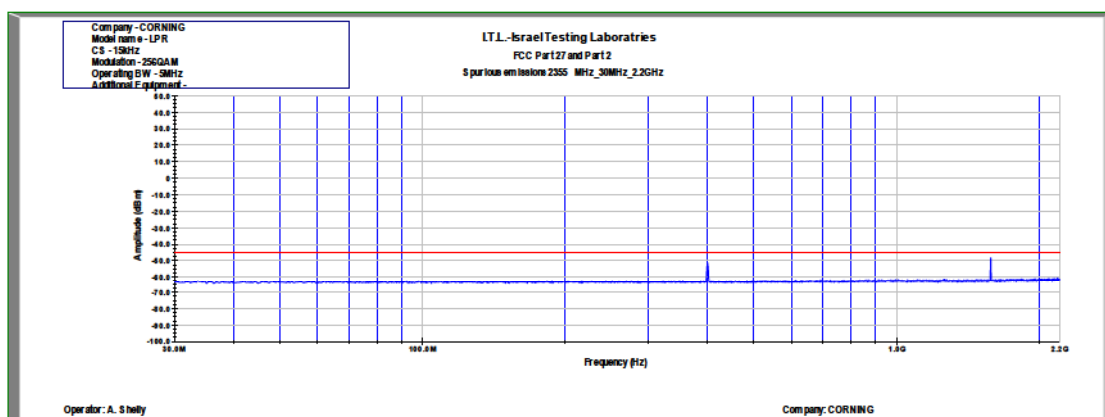


Figure 154: Spurious Emissions at Antenna Terminal 256QAM, 2355.0MHz, B.W. 5MHz, Sub Carrier 15 kHz

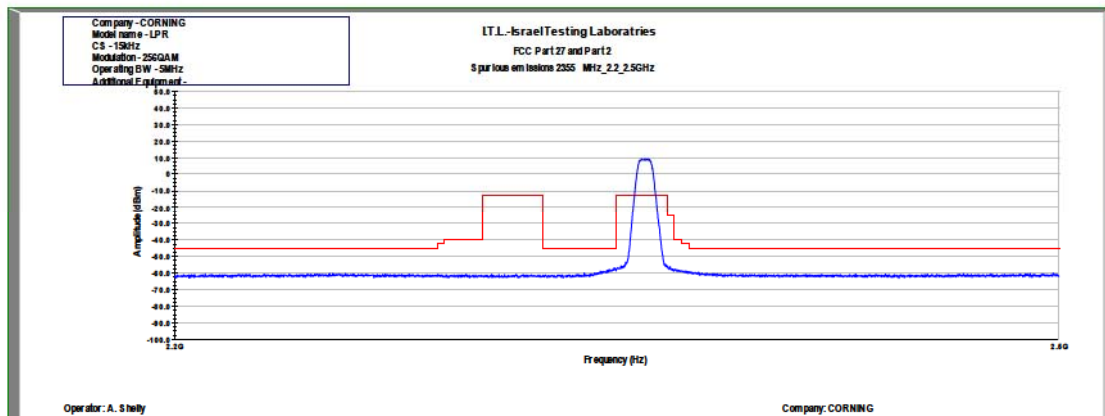


Figure 155: Spurious Emissions at Antenna Terminal 256QAM, 2355.0MHz, B.W. 5MHz, Sub Carrier 15 kHz

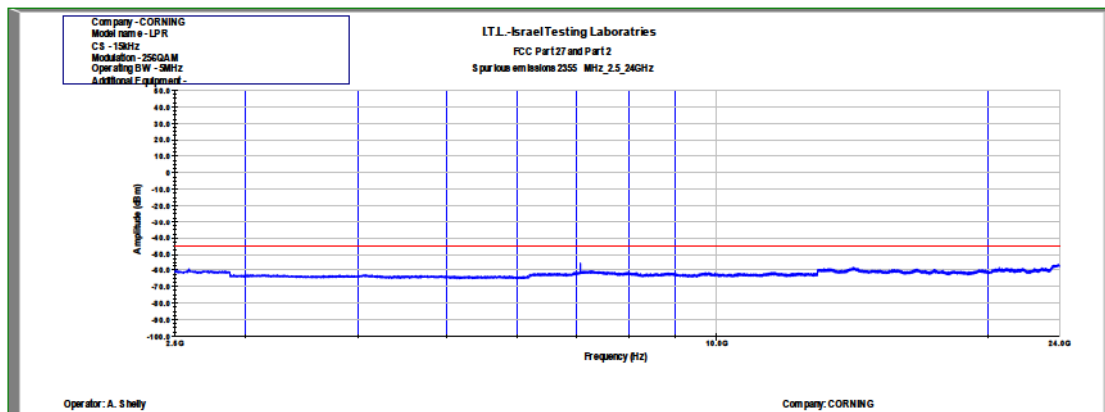


Figure 156: Spurious Emissions at Antenna Terminal 256QAM, 2355.0MHz, B.W. 5MHz, Sub Carrier 15 kHz

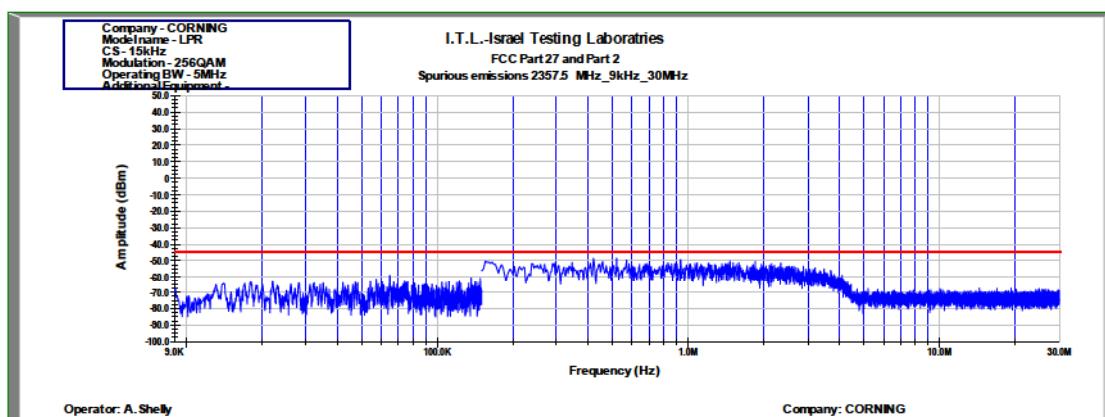


Figure 157: Spurious Emissions at Antenna Terminal 256QAM, 2357.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

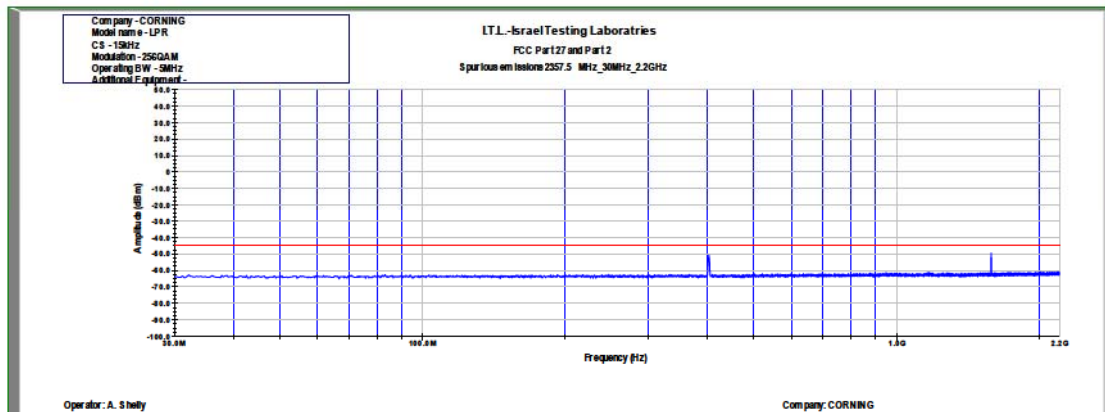


Figure 158: Spurious Emissions at Antenna Terminal 256QAM, 2357.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

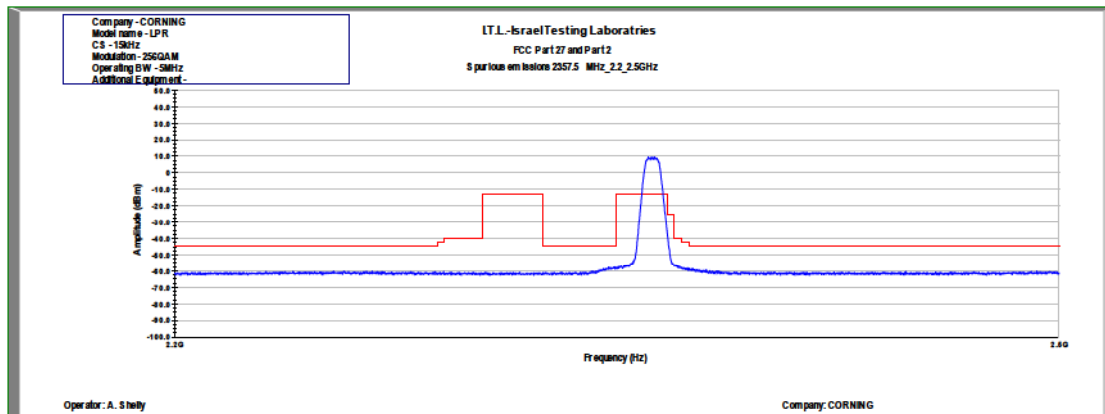


Figure 159: Spurious Emissions at Antenna Terminal 256QAM, 2357.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

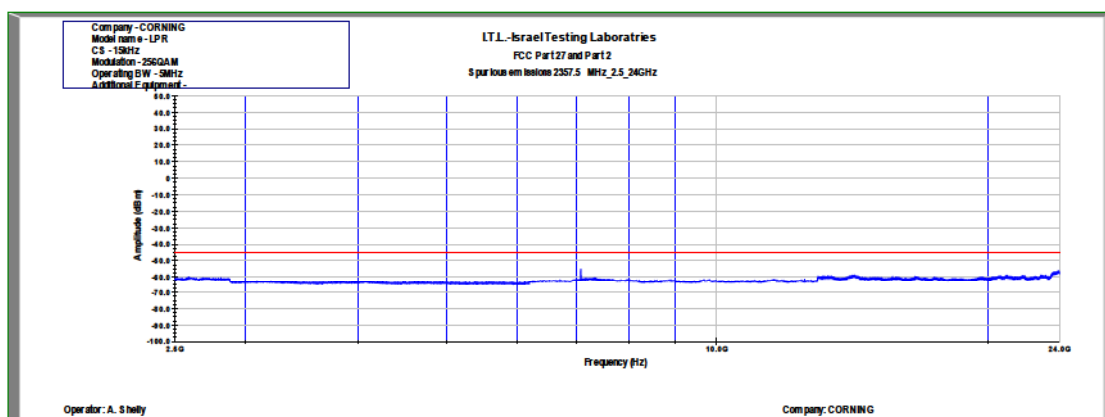


Figure 160: Spurious Emissions at Antenna Terminal 256QAM, 2357.5MHz, B.W. 5MHz, Sub Carrier 15 kHz

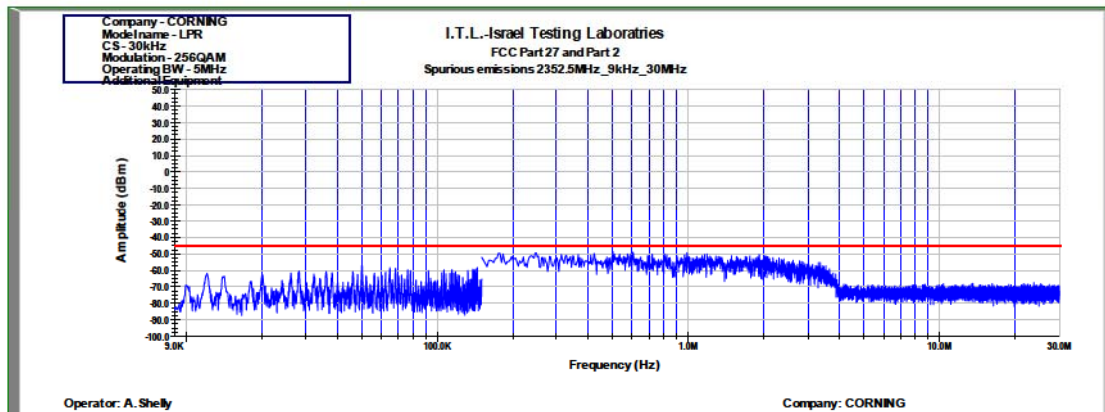


Figure 161: Spurious Emissions at Antenna Terminal 256QAM, 2352.5MHz, B.W. 5MHz, Sub Carrier 30 kHz

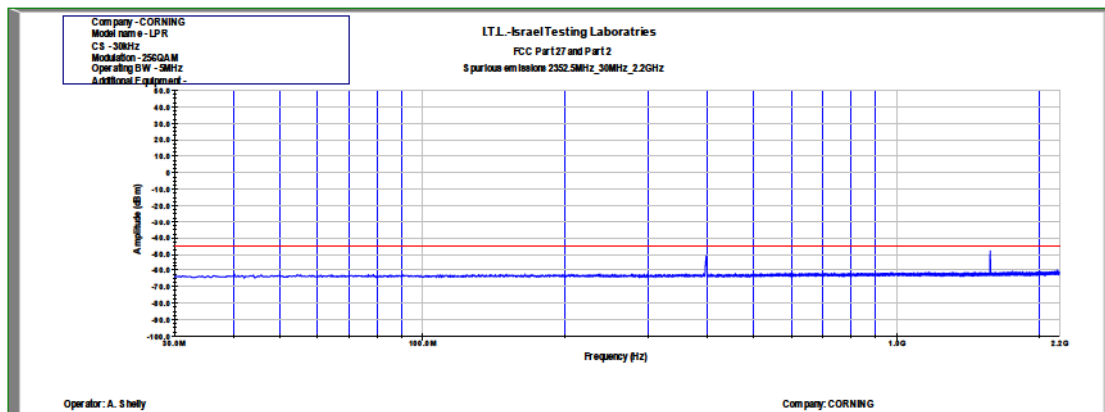


Figure 162: Spurious Emissions at Antenna Terminal 256QAM, 2352.5MHz, B.W. 5MHz, Sub Carrier 30 kHz

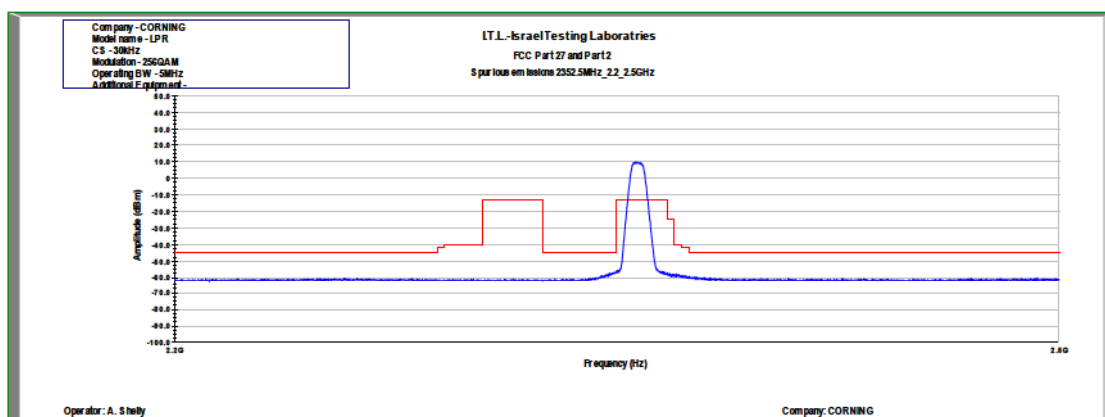


Figure 163: Spurious Emissions at Antenna Terminal 256QAM, 2352.5MHz, B.W. 5MHz, Sub Carrier 30 kHz

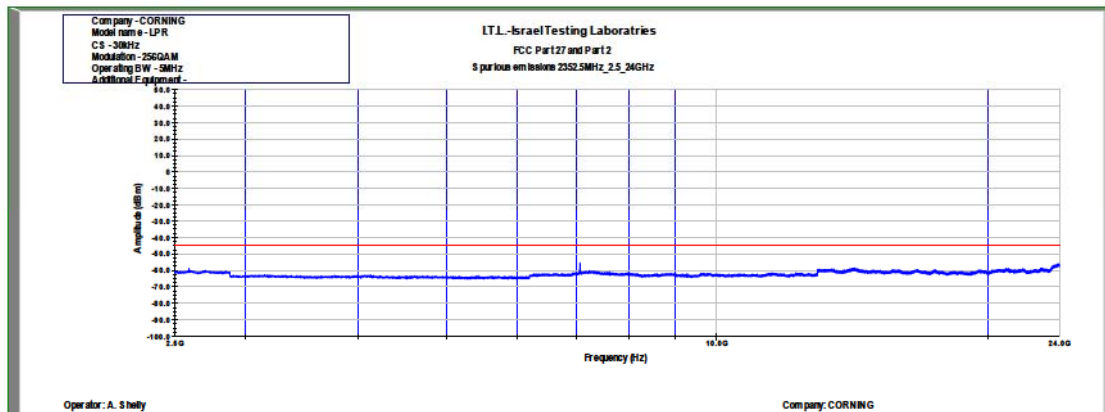


Figure 164: Spurious Emissions at Antenna Terminal 256QAM, 2352.5MHz, B.W. 5MHz, Sub Carrier 30 kHz

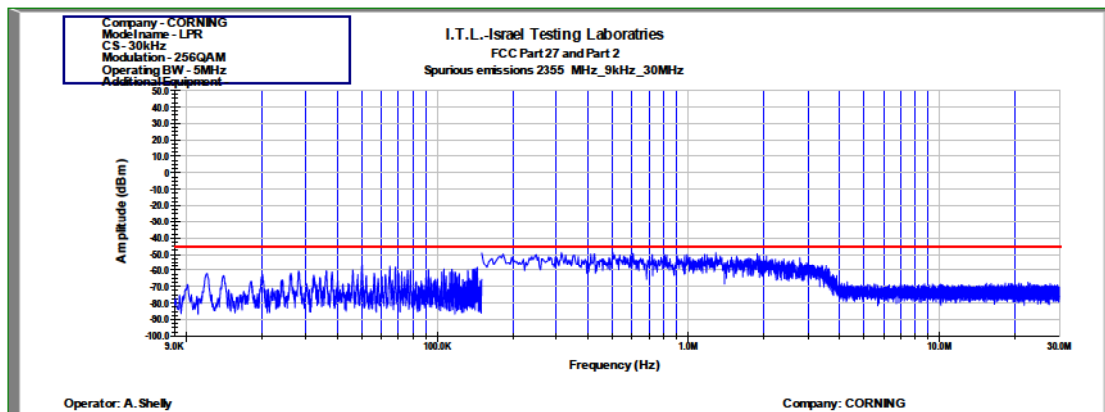


Figure 165: Spurious Emissions at Antenna Terminal 256QAM, 2355.0MHz, B.W. 5MHz, Sub Carrier 30 kHz

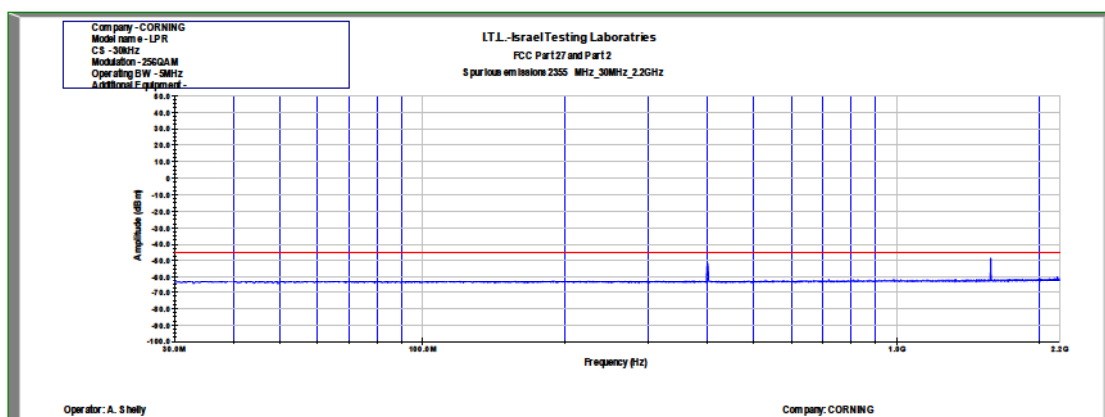


Figure 166: Spurious Emissions at Antenna Terminal 256QAM, 2355.0MHz, B.W. 5MHz, Sub Carrier 30 kHz

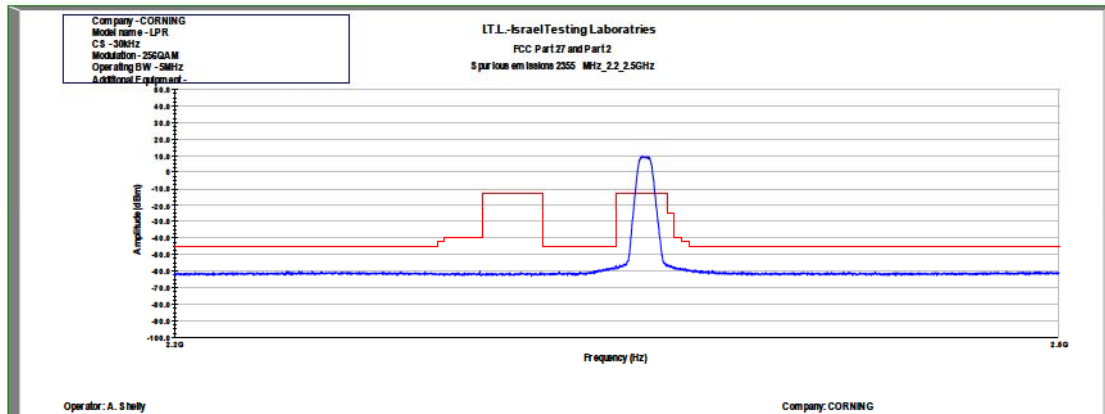


Figure 167: Spurious Emissions at Antenna Terminal 256QAM, 2355.0MHz, B.W. 5MHz, Sub Carrier 30 kHz

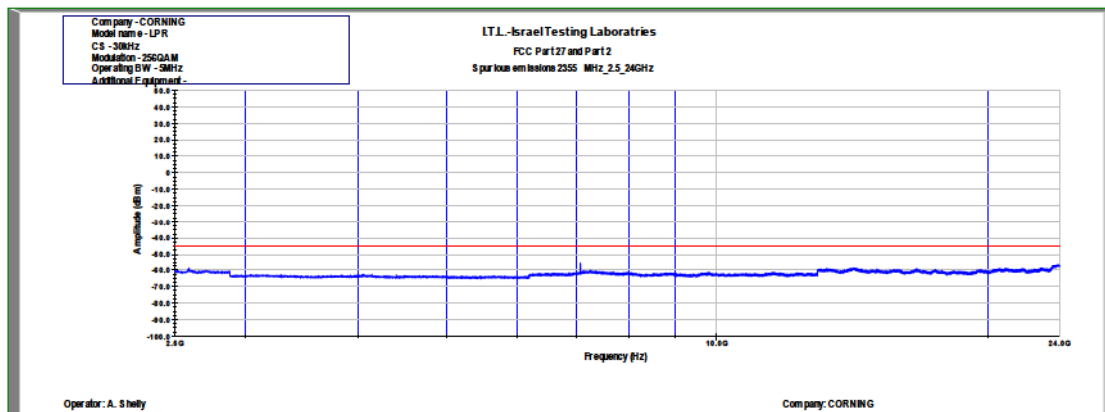


Figure 168: Spurious Emissions at Antenna Terminal 256QAM, 2355.0MHz, B.W. 5MHz, Sub Carrier 30 kHz

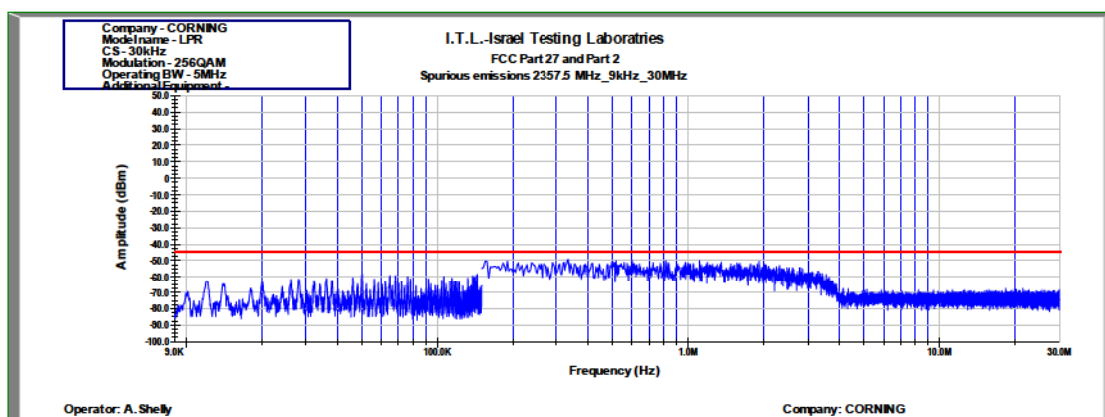


Figure 169: Spurious Emissions at Antenna Terminal 256QAM, 2357.5MHz, B.W. 5MHz, Sub Carrier 30 kHz

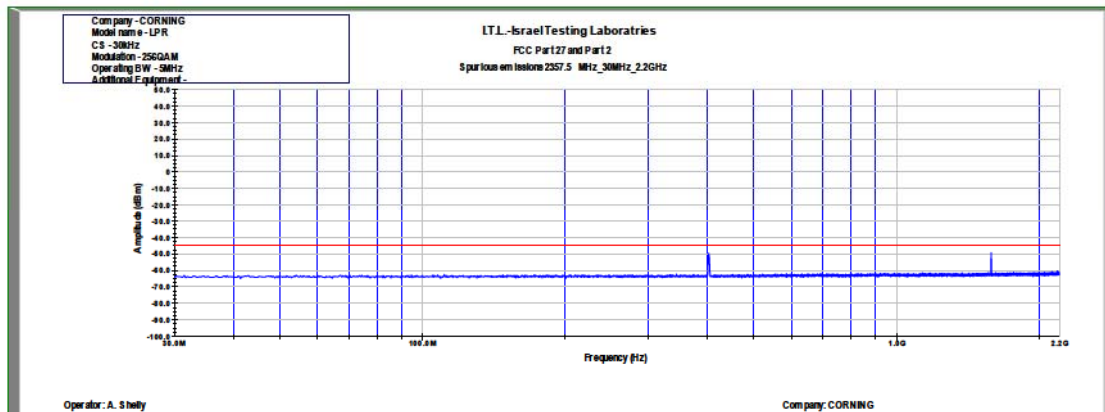


Figure 170: Spurious Emissions at Antenna Terminal 256QAM, 2357.5MHz, B.W. 5MHz, Sub Carrier 30 kHz

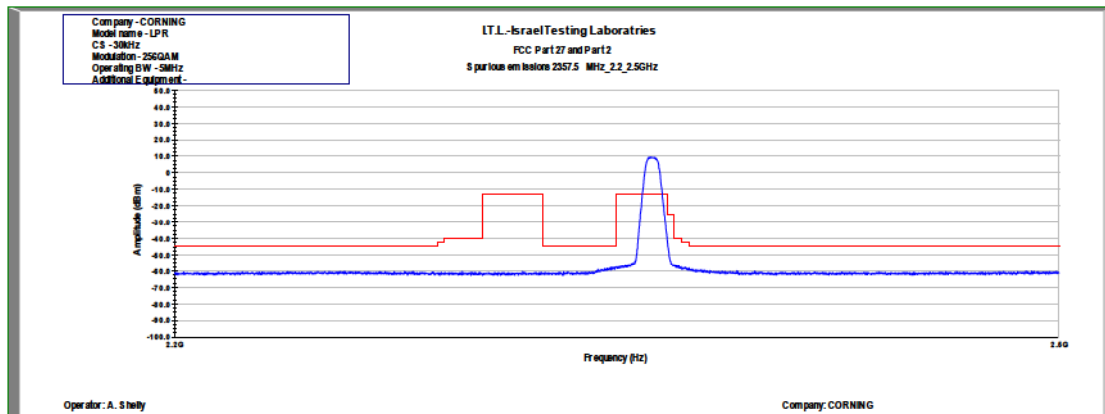


Figure 171: Spurious Emissions at Antenna Terminal 256QAM, 2357.5MHz, B.W. 5MHz, Sub Carrier 30 kHz

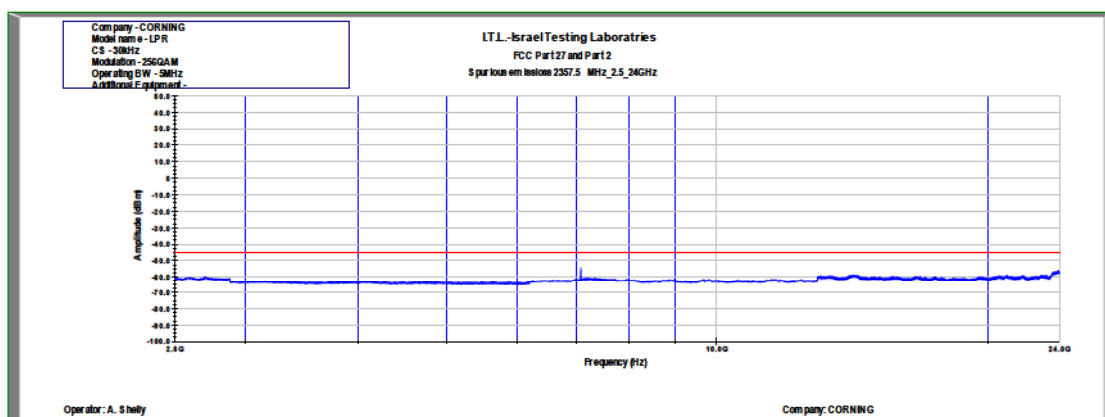


Figure 172: Spurious Emissions at Antenna Terminal 256QAM, 2357.5MHz, B.W. 5MHz, Sub Carrier 30 kHz

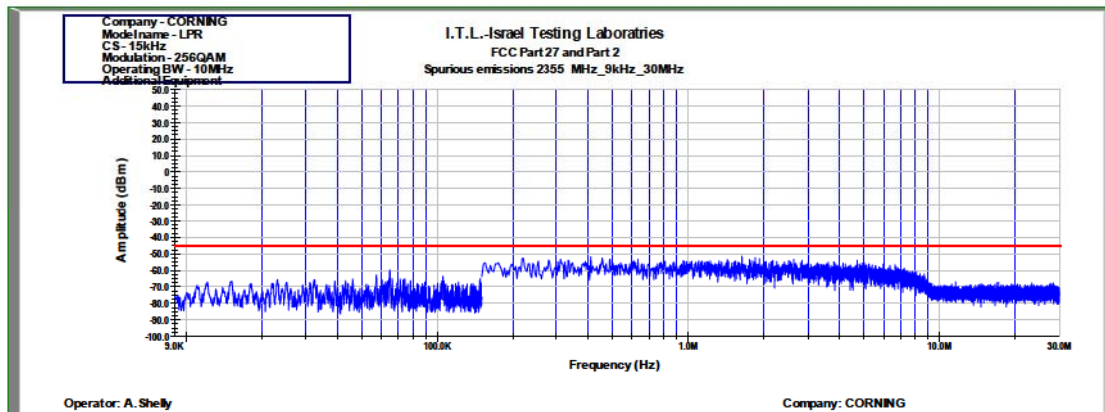


Figure 173: Spurious Emissions at Antenna Terminal 256QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 15 kHz

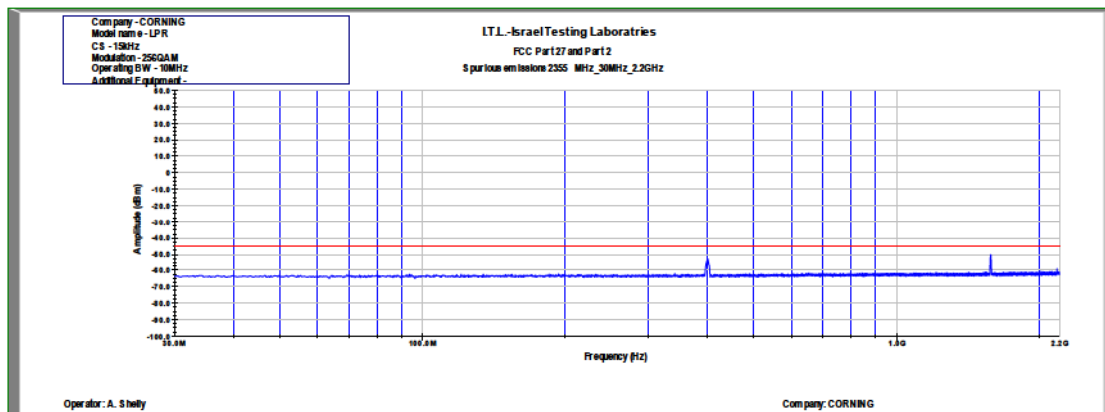


Figure 174: Spurious Emissions at Antenna Terminal 256QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 15 kHz

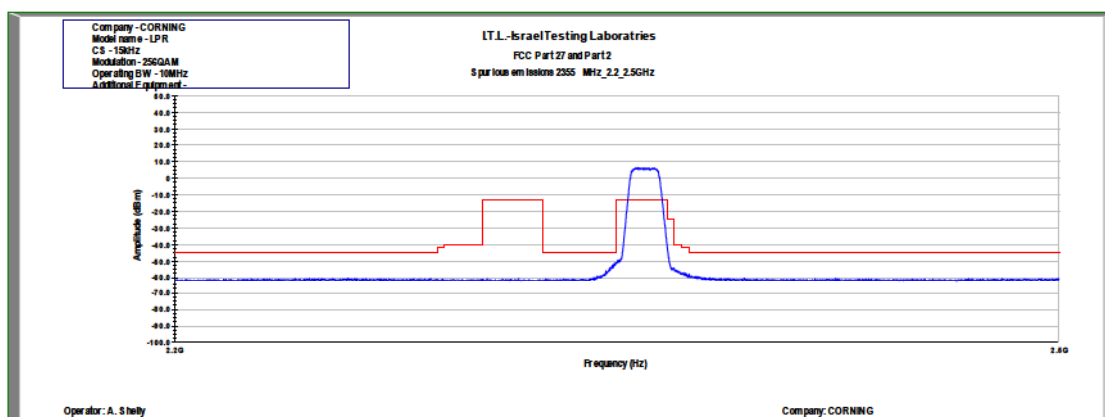


Figure 175: Spurious Emissions at Antenna Terminal 256QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 15 kHz

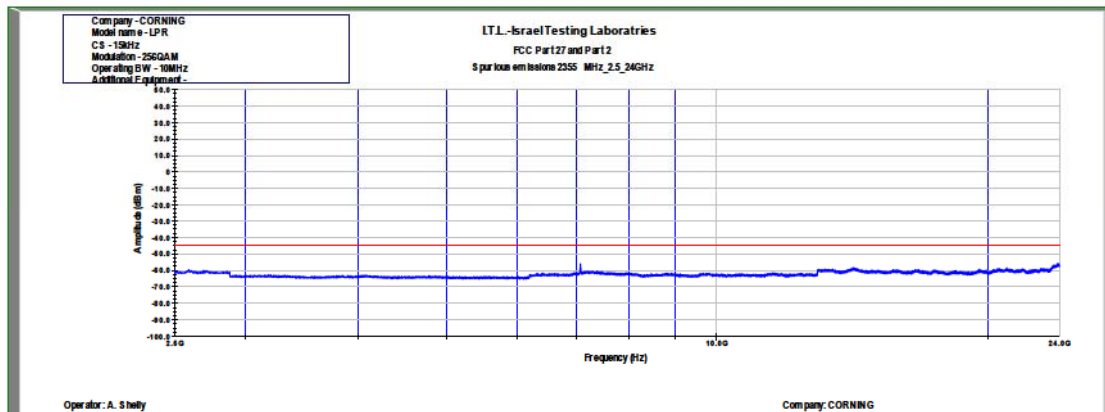


Figure 176: Spurious Emissions at Antenna Terminal 256QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 15 kHz

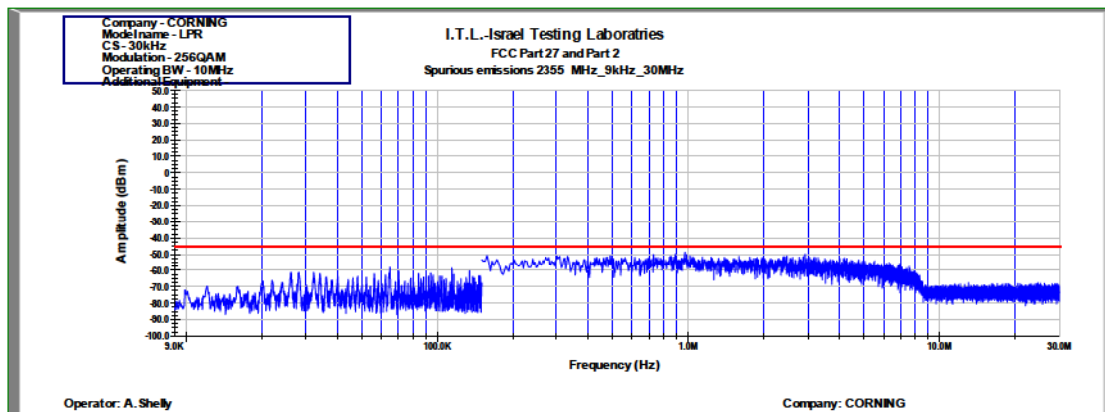


Figure 177: Spurious Emissions at Antenna Terminal 256QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 30 kHz

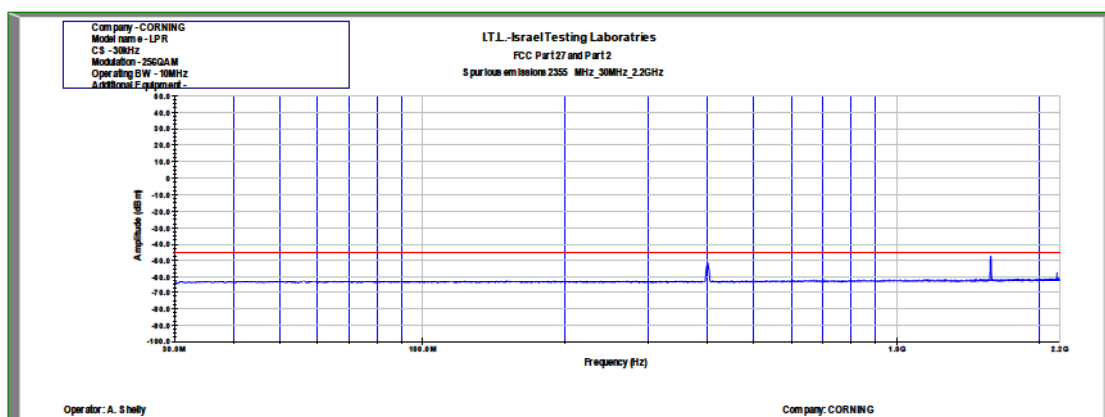


Figure 178: Spurious Emissions at Antenna Terminal 256QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 30 kHz

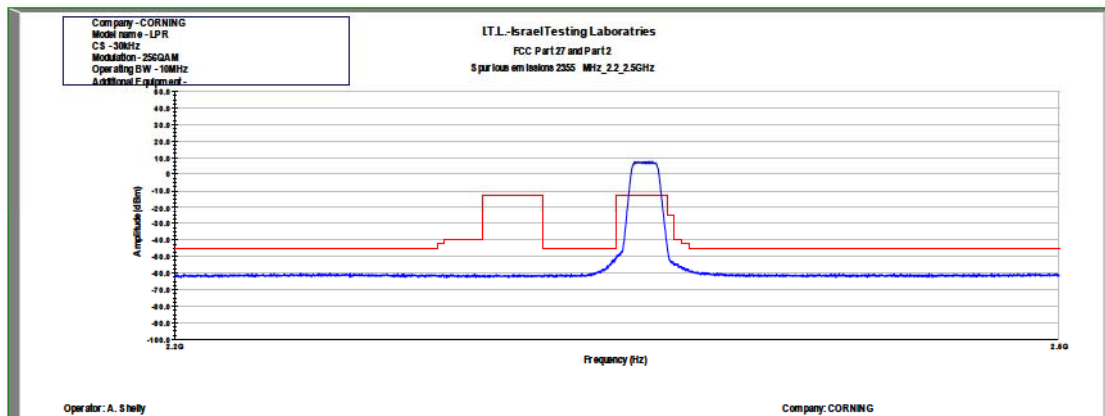


Figure 179: Spurious Emissions at Antenna Terminal 256QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 30 kHz

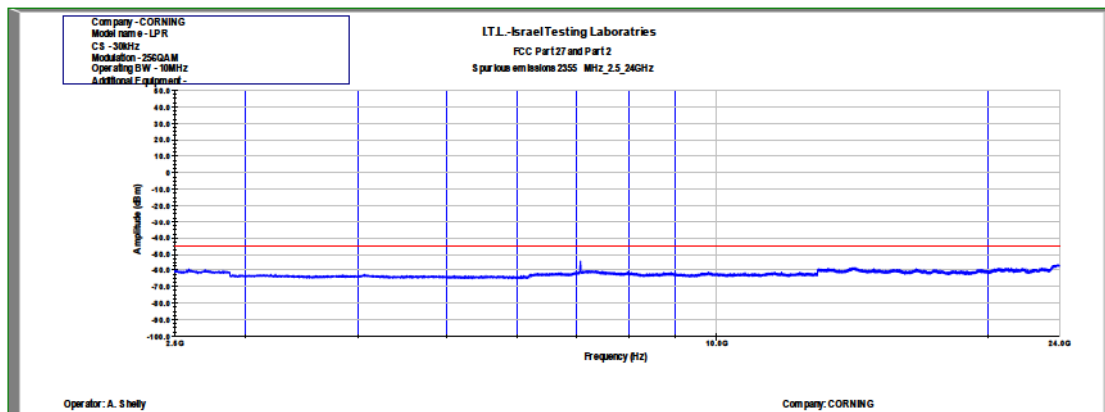


Figure 180: Spurious Emissions at Antenna Terminal 256QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 30 kHz

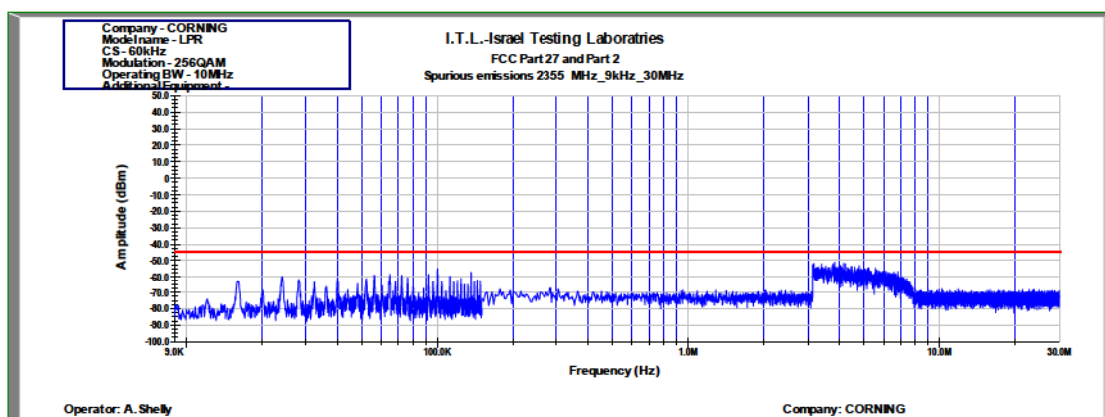


Figure 181: Spurious Emissions at Antenna Terminal 256QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 60 kHz

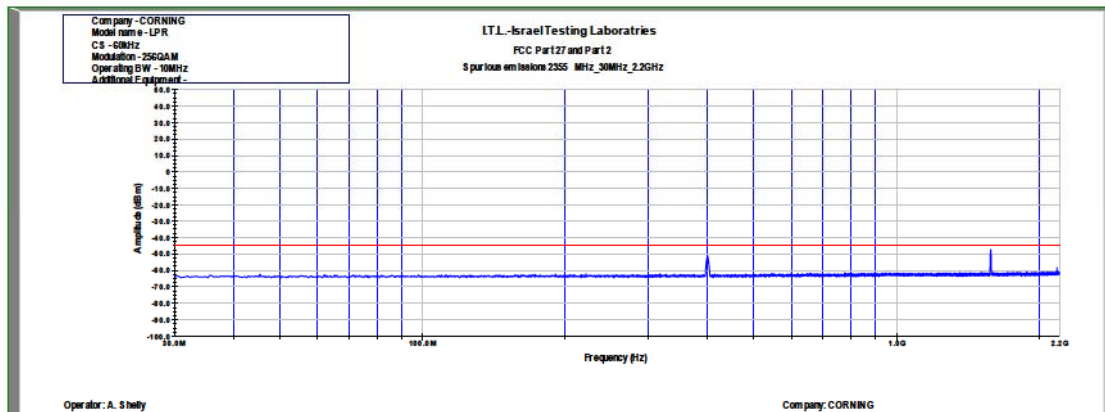


Figure 182: Spurious Emissions at Antenna Terminal 256QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 60 kHz

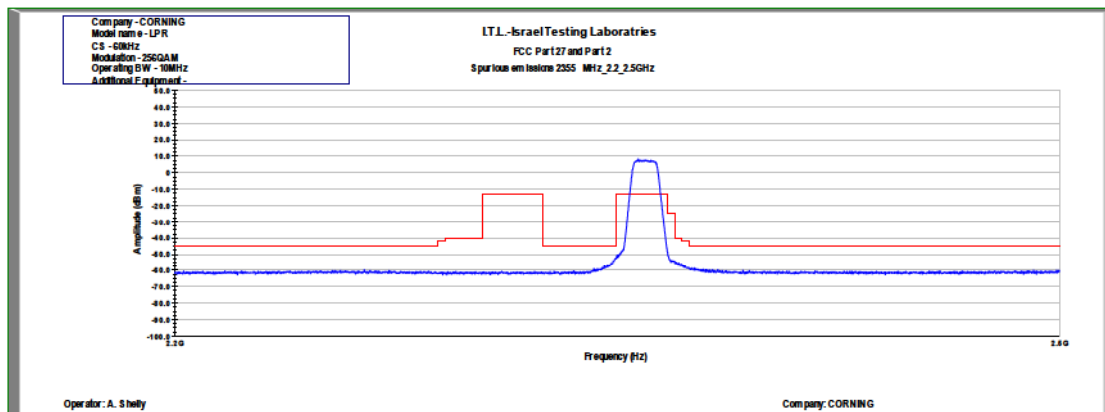


Figure 183: Spurious Emissions at Antenna Terminal 256QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 60 kHz

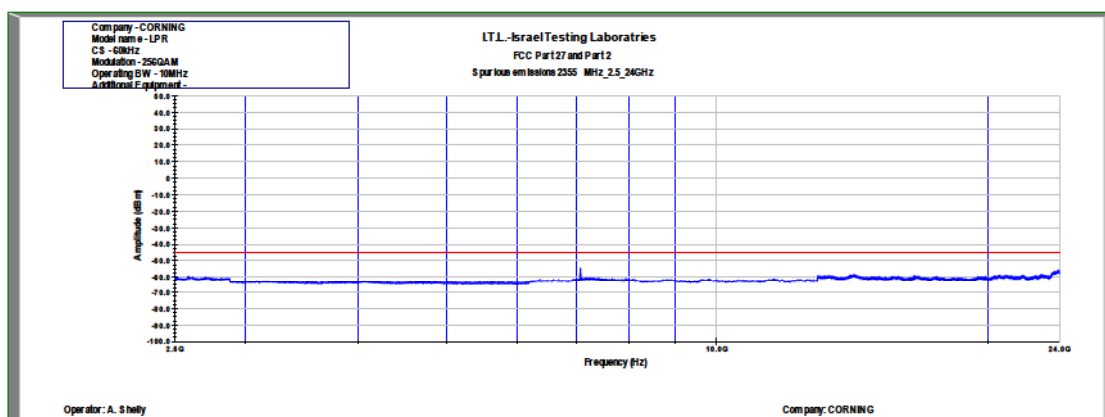


Figure 184: Spurious Emissions at Antenna Terminal 256QAM, 2355.0MHz, B.W. 10MHz, Sub Carrier 60 kHz

6.5 Test Equipment Used; Spurious Emissions at Antenna Terminals

Instrument	Manufacturer	Model	Serial Number	Calibration	
				Last Calibration Date	Next Calibration Due
EXA signal Analyzer	Agilent Technologies	N9010A	MY52220686	28 November 2018	28 November 2020
Sarokal Signal Generator	Mentor® (A Siemens Business)	X-Step-V	1904008	*	*
30 dB Attenuator	MCL	BW-S30W5	533	24 December 2019	24 December 2020

Table 8 Test Equipment Used

* New test equipment, purchased during January 2020.

7 Spurious Radiated Emission

7.1 Test Specification

FCC, Part 27, Subpart C, Section 27.53 (g)

7.2 Test Procedure

(Temperature (23°C)/ Humidity (47%RH))

The test method was based on ANSI/TIA-603-D: 2010, Section 2.2.12 Unwanted Emissions: Radiated Spurious.

For measurements between 0.009MHz-30MHz:

The E.U.T was tested inside the shielded room at a distance of 3 meters and the E.U.T was placed on a non-metallic table, 1.5 meters above the ground. The frequency range 0.009MHz-30MHz was scanned. The readings were maximized by the turntable azimuth between 0-360°, and the antenna polarization. The emissions were measured at a distance of 3 meters.

For measurements between 30.0MHz-1.0GHz:

A preliminary measurement to characterize the E.U.T was performed inside the shielded room at a distance of 3 meters, using peak detection mode and broadband antennas. The preliminary measurements produced a list of the highest emissions. The E.U.T was then transferred to the open site, and placed on a remote-controlled turntable. The E.U.T was placed on a non-metallic table, 0.8 meters above the ground. The frequency range 30.0MHz -1.0GHz was scanned and the list of the highest emissions was verified and updated accordingly.

The readings were maximized by adjusting the antenna height between 1-4 meters, the turntable azimuth between 0-360°, and the antenna polarization.

The emissions were measured at a distance of 3 meters.

For measurements between 1.0GHz-24.0GHz:

The E.U.T was tested inside the shielded room at a distance of 3 meters and the E.U.T was placed on a non-metallic table, 1.5 meters above the ground. The frequency range 1.0GHz -24.0GHz was scanned. The readings were maximized by the turntable azimuth between 0-360°, and the antenna polarization.

The emissions were measured at a distance of 3 meters.

The E.U.T. was replaced by a substitution antenna (dipole 30MHz-1GHz, Horn Antenna above 1GHz) driven by a signal generator.

The height was readjusted for maximum reading. The signal generator level was adjusted to obtain the same reading on the EMI receiver as in step (a).

The signals observed in step (a) were converted to radiated power using:

$$P_d(\text{dBm}) = P_g(\text{dBm}) - \text{Cable Loss (dB)} + \text{Substitution Antenna Gain (dBd)}$$

P_d = Dipole equivalent power (result).

P_g = Signal generator output level.

A Peak detector was used for this test.

Testing was performed when the RF port was connected to 50 Ω termination.

Evaluation was performed for all possible modulations, bandwidths, and sub carriers.

7.3 Test Limit

The power of any emission outside of the authorized operating frequency ranges (2345-2360 MHz) must be attenuated below the transmitting power (P) by a factor of at least as specified in this section.

Frequency Band (MHz)	Calculated Factor (dBc)
$f < 2285.0$	$75 + 10 \cdot \log(0.1) = 65.0$
$2285.0 \text{ MHz} < f < 2287.5 \text{ MHz}$	$72 + 10 \cdot \log(0.1) = 62.0$
$2287.5 \text{ MHz} < f < 2300.0 \text{ MHz}$	$70 + 10 \cdot \log(0.1) = 60.0$
$2300.0 \text{ MHz} < f < 2305.0 \text{ MHz}$	$43 + 10 \cdot \log(0.1) = 33.0$
$2305.0 \text{ MHz} < f < 2320.0 \text{ MHz}$	$43 + 10 \cdot \log(0.1) = 33.0$
$2320.0 \text{ MHz} < f < 2345.0 \text{ MHz}$	$75 + 10 \cdot \log(0.1) = 65.0$
$2345.0 \text{ MHz} < f < 2360.0 \text{ MHz}$	$43 + 10 \cdot \log(0.1) = 33.0$
$2360.0 \text{ MHz} < f < 2362.5 \text{ MHz}$	$43 + 10 \cdot \log(0.1) = 33.0$
$2362.5 \text{ MHz} < f < 2365.0 \text{ MHz}$	$55 + 10 \cdot \log(0.1) = 45.0$
$2365.0 \text{ MHz} < f < 2367.5 \text{ MHz}$	$70 + 10 \cdot \log(0.1) = 60.0$
$2367.5 \text{ MHz} < f < 2370.0 \text{ MHz}$	$72 + 10 \cdot \log(0.1) = 62.0$
$2370.0 < f$	$75 + 10 \cdot \log(0.1) = 65.0$

Figure 185 Mask Limit Table

7.4 Test Results

No emissions were detected above the EMI receiver noise level which is at least 10 dB margin below the limit.

Judgement: Passed

7.5 Test Instrumentation Used; Radiated Measurements

Instrument	Manufacturer	Model	Serial Number	Calibration	
				Last Calibration Date	Next Calibration Due
EMI Receiver	HP	8542E	3906A00276	March 03, 2020	March 03, 2021
RF Filter Section	HP	85420E	3705A00248	March 03, 2020	March 03, 2021
Spectrum Analyzer	HP	8593EM	3536A00120ADI	March 10, 2020	March 10, 2021
Active Loop Antenna	EMCO	6502	9506-2950	February 5, 2019	February 28, 2021
Antenna Biconical	EMCO	3110B	9912-3337	May 21, 2020	May 31, 2021
Antenna Log Periodic	EMCO	3146	9505-4081	May 31, 2020	May 31, 2022
Horn Antenna 1G-18G	ETS	3115	29845	May 31, 2018	May 31, 2021
Horn Antenna 18G-26.5G	ARA	SWH-28	1007	December 13, 2017	December 31, 2020
Low Noise Amplifier	Narda	LNA-DBS-0411N313	013	December 24, 2019	December 31, 2020
Low Noise Amplifier	Sophia Wireless	LNA 28-B	232	December 24, 2019	December 31, 2020
Vector Signal Generator	VIAVI	MTS 5800	WMNK0071690263	July 1, 2018	July 1, 2021
Semi Anechoic Civil Chamber	ETS	S81	SL 11643	NCR	NCR
Antenna Mast	ETS	2070-2	-	NCR	NCR
Turntable	ETS	2087	-	NCR	NCR
Mast & Table Controller	ETS/EMCO	2090	9608-1456	NCR	NCR

Table 9 Test Equipment Used

8 APPENDIX A - CORRECTION FACTORS

8.1 *Correction factors for RF OATS Cable 35m* *ITL #1784*

Frequency (MHz)	Cable loss (dB)
10.0	0.3
20.0	0.2
50.0	-0.1
100.0	-0.6
200.0	-1.2
500.0	-2.3
1000.0	-3.6

8.2 Correction factors for RF OATS Cable 10m
ITL #1794

Frequency(MHz)	Cable loss(dB)
10.0	-0.3
20.0	-0.3
50.0	-0.5
100.0	-0.7
200.0	-1.1
500.0	-1.8
1000.0	-2.7

8.3 Correction factors for Horn Antenna
Model: SWH-28
at 1 meter range.

FREQUENCY (GHz)	AFE (dB /m)	Gain (dB1)
18.0	40.3	16.1
19.0	40.3	16.3
20.0	40.3	16.1
21.0	40.3	16.3
22.0	40.4	16.8
23.0	40.5	16.4
24.0	40.5	16.6
25.0	40.5	16.7
26.0	40.6	16.4

8.4 Correction factors for Horn Antenna

Model: 3115

Antenna serial number: 29845

3 meter range

f(GHz)	AF(dB/m)	GA(dB)
0.75	25	3
1G	23.5	7
1.5G	26	8
2G	29	7
2.5G	27.5	10
3G	30	10
3.5G	31.5	10
4G	32.5	9.5
4.5G	32.5	10.5
5G	33	10.5
5.5G	35	10.5
6G	36.5	9.5
6.5G	36.5	10
7G	37.5	10
7.5G	37.5	10
8G	37.5	11
8.5G	38	11
9G	37.5	11.5
9.5G	38	11.5
10G	38.5	11.5
10.5G	38.5	12
11G	38.5	12.5
11.5G	38.5	13
12G	38	13.5
12.5G	38.5	13
13G	40	12
13.5G	41	12
14G	40	13
14.5G	39	14
15G	38	15.5
15.5G	37.5	16
16G	37.5	16
16.5G	39	15
17G	40	15
17.5G	42	13.5
18G	42.5	13

8.5 Correction factors for Log Periodic Antenna
EMCO, Model 3146,
Serial #9505-4081

Frequency [MHz]	AF [dB/m]
200.0	11.47
250.0	12.06
300.0	14.77
400.0	15.77
500.0	18.01
600.0	18.84
700.0	20.93
800.0	21.27
900.0	22.44
1000.0	24.10

8.6 Correction factors for Biconical Antenna
EMCO, Model 3110B,
Serial #9912-3337

Frequency [MHz]	AF [dB/m]
30.0	14.18
35.0	13.95
40.0	12.84
45.0	11.23
50.0	11.10
60.0	10.39
70.0	9.34
80.0	9.02
90.0	9.31
100.0	8.95
120.0	11.53
140.0	12.20
160.0	12.56
180.0	13.49
200.0	15.27

8.7 Correction factors for ACTIVE LOOP ANTENNA
Model 6502
S/N 9506-2950

f(MHz)	MAF(dBs/m)	AF(dB/m)
0.01	-33.1	18.4
0.02	-37.2	14.3
0.03	-38.2	13.3
0.05	-39.8	11.7
0.1	-40.1	11.4
0.2	-40.3	11.2
0.3	-40.3	11.2
0.5	-40.3	11.2
0.7	-40.3	11.2
1	-40.1	11.4
2	-40	11.5
3	-40	11.5
4	-40.1	11.4
5	-40.2	11.3
6	-40.4	11.1
7	-40.4	11.1
8	-40.4	11.1
9	-40.5	11
10	-40.5	11
20	-41.5	10
30	-43.5	8