Exhibit 9 – Measured Data Index

Motorola Outdoor Unit (ODU)

FCC ID: MIJMILCPE-USA-01

Millitech Part No.: 9031295602

9.0 Introduction

9.0.1 Facility Description

EMI testing of the Motorola Outdoor Unit (ODU) was performed at the Motorola Systems Solutions Group's (SSG) EMI/TEMPEST Test Laboratory. This test laboratory is located in the southeast wing of the Hayden building at 8201 E. McDowell Road, Scottsdale, AZ. The EMI/TEMPEST Test Laboratory is certified and accredited through the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP).

9.0.2 Quality System

The EMI/TEMPEST Test Laboratory maintains a Quality Manual that describes the quality assurance program of the EMC/TEMPEST Facility to set forth procedures covering all quality assurance functions. This manual has been constructed to reflect a quality program in compliance with the requirements of the following:

- National Institute of Standards & Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP)
- NIST/NVLAP EMC MIL-STD 462 Program Handbook (Apr. 1994)
- NVLAP EMC and Telecommunications FCC Methods Handbook 150-11 (Apr. 1995)
- MIL-Q-9858A, MIL-STD 461, 462, 463, 461D, 462D
- National Security Agency Technical and Security Requirements Document for the Endorsed TEMPEST Test Services Program, NSA TSRD No. 88-8B, 5 Oct. 1993
- System Solution Group of Motorola Quality Six Sigma Program.

9.0.3 Standard References

47 CFR 2	Code of Federal Regulations, Title 47, Part 2, "Frequency Allocations and Radio Treaty Matters; General Rules and Regulations"
47 CFR 101	Code of Federal Regulations, Title 47, Part 101, "Fixed Microwave Devices"
C63.4-1992	American National Standards Institute (ANSI), "Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz"
NFPA-70	National Electric Code (1996)

9.1 Test Procedures

The transmitter portion of the Motorola ODU is subject to FCC Part 101 and Part 2 for FCC Certification for units deployable in the United States. The following tests, as specified in FCC Part 2, with limits as defined in FCC Part 101, and shown in Table 9.1-1 below were performed on the Motorola ODU. The transmitter was operated at its maximum rated output power (+17dBm) for all tests. The ODU can operate over the frequency range of 31.076 to 31.106 GHz.

Table 9.1-1 Tests Required for Certification of the Motorola ODU

Test Parameter	FCC Part 2 Paragraph Number	FCC Part 101 Paragraph Number	FCC Part 101 Limit
RF Power Output	2.1046	101.113	+55 dBW max. EIRP +42 dBW/MHz max. EIRP
Modulation Characteristics	2.1047	None	None
Occupied Bandwidth	2.1049	None	None
Spurious Emissions at Antenna Terminals	2.1051	101.111(a)(2) (ii) & (iii)	Refer to FCC Part 101
Field Strength of Spurious Emissions	2.1053	101.111(a)(2) (ii) & (iii)	Refer to FCC Part 101
Frequency Stability	2.1055	101.107	.001 %

9.1.1 RF Power Spectral Density

RF power spectral density was calculated by dividing the maximum rated output power by the 99% occupied bandwidth. The measurements were performed in a radiated mode using the setup of Figure 9.1-1. Modulation schemes, RF frequencies, and resolution bandwidths used during testing are shown in Table 9.1-2

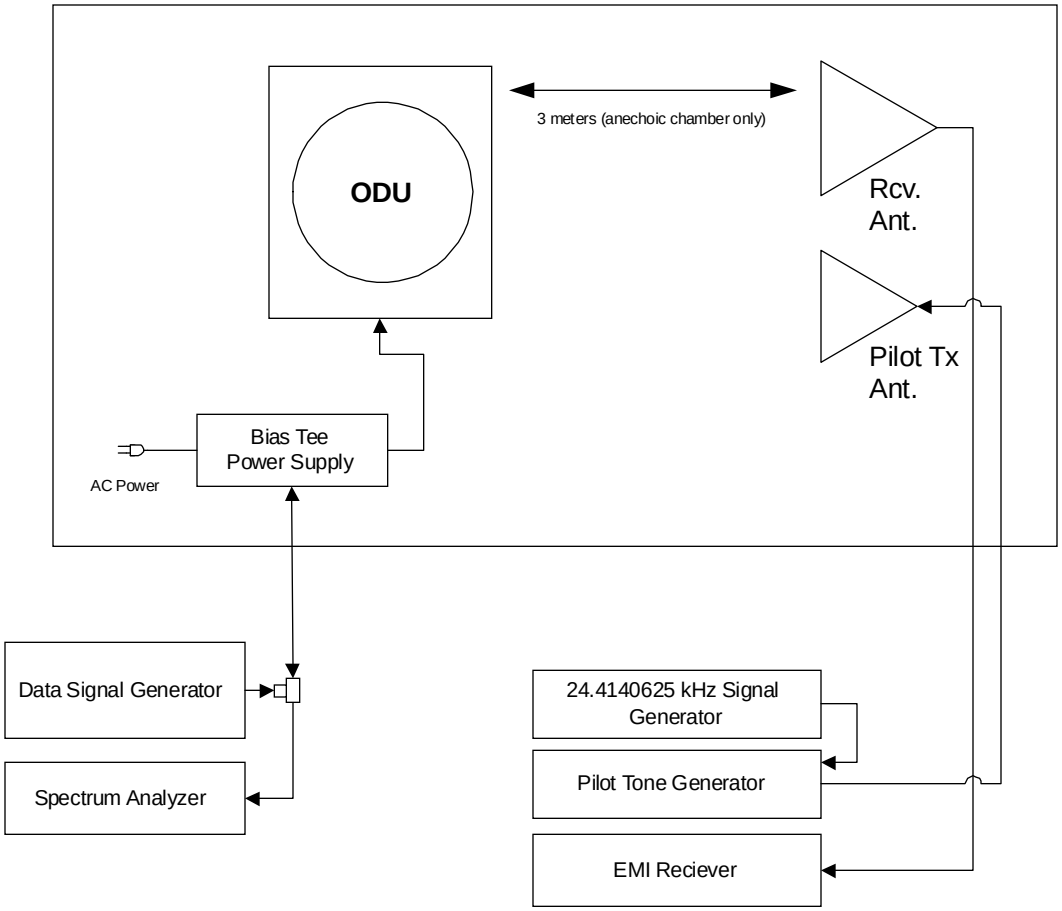
Table 9.1-2 IF Signal Input Parameters and Spectrum Analyzer Settings for Power Spectral Density and Occupied Bandwidth Tests

Signal Source	Modulation/ Data Rate (MSymbols/ sec.)	IF Tuned Freq. (MHz)	RF Freq. (GHz)	Measurement Bandwidth RBW/VBW (MHz/MHz)
Rohde & Schwarz	16QAM 0.384	11.00	31.0760	0.1/0.3
Rohde & Schwarz	QPSK 0.32	11.00	31.0760	0.1/0.3
Rohde & Schwarz	QPSK 0.64	11.00	31.0760	0.2/0.5
Rohde & Schwarz	QPSK 1.28	11.50	31.0765	0.3/1.0
Rohde & Schwarz	QPSK 2.56	12.50	31.0775	0.5/2.0
Rohde & Schwarz	16QAM 0.384	41.00	31.1060	0.1/0.3
Rohde & Schwarz	QPSK 0.32	41.00	31.1060	0.1/0.3
Rohde & Schwarz	QPSK 0.64	41.00	31.1060	0.2/0.5
Rohde & Schwarz	QPSK 1.28	41.00	31.1060	0.3/1.0
Rohde & Schwarz	QPSK 2.56	41.00	31.1060	0.5/2.0

9.1.2 Modulation Characteristics

There is no specification limit on modulation characteristics except that the modulation source shall be representative of that used in an actual installation. Commercial test equipment (Rohde and Schwarz AMIQ modulation generator) was used to generate the modulated IF input signal.

Anechoic Chamber or Environmental Chamber



Data Generator settings:
Frequency: 11 - 41 MHz
Data source: PRBS
Modulation/Symbol rate:
16QAM 0.384 MS/s
QPSK 0.32 MS/s
QPSK 0.64 MS/s
QPSK 1.28 MS/s
QPSK 2.56 MS/s
Filter: SQR COS / 0.15

Pilot Tone Generator settings:
Frequency: 27.644 GHz
Output Power: -45 dBm
Modulation source:
External 24.4140625 kHz
Drive level: 2Vptp
Coupling: 100 kHz
Modulation: FM; 1 MHz/V Deviation

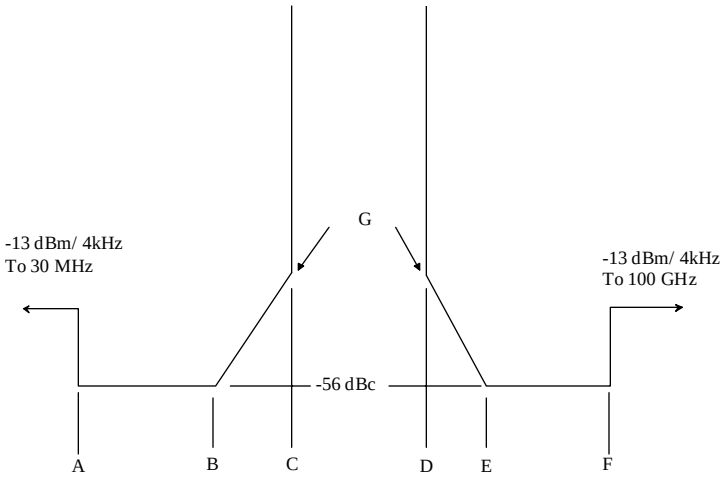
Figure 9.1-1 Radiated Test Setup

9.1.3 Occupied Bandwidth

The occupied bandwidth measurements were performed in a radiated mode. See the RF power spectral density measurement paragraph 9.1.1 for the appropriate resolution bandwidths. The 99% occupied bandwidth measurement is an automated measurement performed by the spectrum analyzer.

9.1.4 Radiated Spurious Emissions – Antenna Port

Radiated emissions were measured over the frequency range of 10 to 40 GHz. Refer to Figure 9.1-1 for test setup and Figure 9.1-2 for test limits. For frequencies ± 250% of the allocated bandwidth centered at 31.150 GHz spectrum analyzer plots were made with the emission mask shown in Figure 9.1-2. This limit was loaded into the limit lines function of the spectrum analyzer and then corrected for resolution bandwidths other than 1 MHz.



	A	B	C	D	E	F	G
Band A-D2 150 MHz	30075	30986.5	31075	31225	31313.5	31525	-32.75 dBc

Figure 9.1-2 Conducted Spurious Emissions Mask

9.1.5 Radiated Spurious Emissions

Radiated spurious emission from case and cables were measured over the frequency range of 30 MHz to 100 GHz in an anecohic chamber (20ft x 24ft x 16ft). Refer to Figure 9.1-1 for test setup. The Motorola ODU transmit output was routed to the standard ODU transmit antenna.

For all emissions, measurements were made at a distance of 3 meters. All four sides of the EUT and both vertical and horizontal polarizations were tested for maximum radiated levels. Due to the operational frequency of the EUT and the fact that no emissions were detected, no Open Area Test Site (OATS) measurements were made.

For frequencies greater than 40 GHz, measurements were limited to harmonics of the local oscillator and the transmitter fundamental frequency.

9.1.6 Frequency Stability

The Motorola ODU was tested for frequency stability over the temperature range of -30^{o} to $+50^{o}$ C. The unit was operated at maximum rated power in a CW mode. During the test the input power was varied over a range of +/- 15% of its nominal value of –48 Vdc. Refer to Figure 9.1-1 for test setup.

9.2 Test Results

9.2.1 RF Power Spectral Density Measurement Test Results

All measurements were made at the Motorola ODU maximum rated output power of +17 dBm measured at the transmit port of the roof unit. With an antenna gain of 34 dBi, the maximum EIRP of the Motorola ODU, when operated at maximum rated output of +17 dBm, is +21 dBW. This value is within the limit specified in Part 101 Paragraph 101.113 of 55 dBW. RF power spectral density was calculated by dividing the maximum rated output power by the 99% occupied bandwidth of the Motorola ODU. See Table 9.2-1 for the measured power density results.

Table 9.2-1 RF Power Density and Occupied Bandwidth Table

Modulation/ Data Rate (MSymbols/ sec.)	IF Tuned Freq. (MHz)	RF Freq. (GHz)	Measurement Bandwidth RBW/VBW (MHz/MHz)	Occupied Bandwidth (kHz)	Antenna Gain (dBi)	Rated Output Power (dBm)	Power Density (dBW/MHz)
16QAM 0.384	11.00	31.0760	0.1/0.3	551.1	34	17	23.59
QPSK 0.32	11.00	31.0760	0.1/0.3	496.0	34	17	24.05
QPSK 0.64	11.00	31.0760	0.2/0.5	986.0	34	17	21.06
QPSK 1.28	11.50	31.0765	0.3/1.0	1,804.0	34	17	18.44
QPSK 2.56	12.50	31.0775	0.5/2.0	3,457.0	34	17	15.61
16QAM 0.384	41.00	31.1060	0.1/0.3	556.1	34	17	23.55
QPSK 0.32	41.00	31.1060	0.1/0.3	496.0	34	17	24.05
QPSK 0.64	41.00	31.1060	0.2/0.5	989.0	34	17	21.05
QPSK 1.28	41.00	31.1060	0.3/1.0	1,804.0	34	17	18.44
QPSK 2.56	41.00	31.1060	0.5/2.0	3,457.0	34	17	15.61

9.2.2 Occupied Bandwidth Measurement Tests Results

All measurements were made at the Motorola ODU maximum rated output power of +17 dBm measured at the transmit port of the ODU. See Table 9.2-1 for occupied bandwidth measurement data.

9.2.3 Radiated Spurious Emissions – Antenna Port Measurement Test Results

All measurements were made at the Motorola ODU maximum rated output power of +17 dBm measured at the transmit port of the ODU. Measurements were made with one meter seperation distance and in the direct boresite of the transmit antenna. Band edge measurements were performed with the measurement bandwidths listed in Table 9.2-2. Measurements were also made over the frequency range of ± 250 percent of the allocated frequency band from the band center.

Figures A – 1 and A – 5 are expanded views of the radiated emission mask at the allocated band edge (31.075 GHz). These measurements were made with resolution bandwidth other than 1 MHz and therefore, the mask was adjusted to correct to a 1 MHz reference bandwidth. Figures A – 6 and A – 7 are complete views of the radiated emission mask over the ± 250 of the allocated band (31.075 to 31.225 GHz). Refer to Figure A-8 for a photograph of the antenna terminal radiated spurious emissions measurement test setup.

Table 9.2-2 Radiated Spurious Emissions Table

Modulation/ Data Rate (MSymbols/ sec.)	IF Tuned Freq. (MHz)	RF Freq. (GHz)	Measurement Bandwidth RBW/VBW (MHz/MHz)	Figure No.
16QAM 0.384	11.00	31.0760	0.1/0.3	A - 1
QPSK 0.32	11.00	31.0760	0.1/0.3	A - 2
QPSK 0.64	11.00	31.0760	0.2/0.5	A - 3
QPSK 1.28	11.50	31.0765	0.3/1.0	A - 4
QPSK 2.56	12.50	31.0775	0.5/2.0	A - 5
16QAM 0.384	11.00	31.0760	1.0/3.0	A - 6
16QAM 0.384	41.00	31.1060	1.0/3.0	A - 7

9.2.4 Radiated Spurious Emissions Measurement Test Results

Radiated spurious emissions measurements were performed for the operating conditions listed in Table 9.2-3. All measurements were made at the Motorola ODU maximum rated output power of +17 dBm with the antenna installed and transmitting as in a normal installation. Refer to Figure B - 3 for a photograph of the Motorola ODU as set up and to Figure B-4 for a photograph of the BiConilog antenna, one of the antennas used for the radiated spurious emissions measurement test.

Table 9.2-3 Radiated Spurious Emissions Table

Modulation/ Data Rate (MSymbols/ sec.)	IF Tuned Freq. (MHz)	RF Freq. (GHz)	Measurement Bandwidth RBW/VBW (MHz/MHz)	Figure No.
16 QAM 0.384	11.0	31.076	1.0/3.0	B - 1
16 QAM 0.384	41.0	31.106	1.0/3.0	B - 2

4.5 Frequency Stability Measurement Test Results

All measurements were taken on February 11, 2000. Tabulated test data is contained in Table 9.2-4. Results from this test are plotted in Appendix C, Figure C-1. Refer to Figure C-2 for a photograph of the Motorola ODU as set up in the Temperature Chamber and to Figure C-3 for a photograph of the test equipment used in support of the temperature stability test on the ODU.

Table 9.2-4 Frequency Stability Measurement Table

$f_{0=}$	31.091 GHz			% Error		
°C	f @ rated voltage in GHz	f @ -15% rated voltage in GHz	f @ +15% rated voltage in GHz	% Error @ -15% rated voltage	% Error @ +15% rated voltage	FCC Limit
-30	31.09100913	31.09100910	31.09100907	0.000029%	0.000029%	±.0005%
-20	31.09100860	31.09100867	31.09100850	0.000028%	0.000027%	±.0005%
-10	31.09100743	31.09100740	31.09100747	0.000024%	0.000024%	±.0005%
0	31.09100663	31.09100663	31.09100663	0.000021%	0.000021%	±.0005%
10	31.09100590	31.09100593	31.09100590	0.000019%	0.000019%	±.0005%
20	31.09100510	31.09100510	31.09100503	0.000016%	0.000016%	±.0005%
30	31.09100430	31.09100430	31.09100430	0.000014%	0.000014%	±.0005%
40	31.09100370	31.09100370	31.09100370	0.000012%	0.000012%	±.0005%
50	31.09100350	31.09100350	31.09100360	0.000011%	0.000012%	±.0005%

Appendix A

Antenna Terminal Radiated Spurious Emissions Measurement

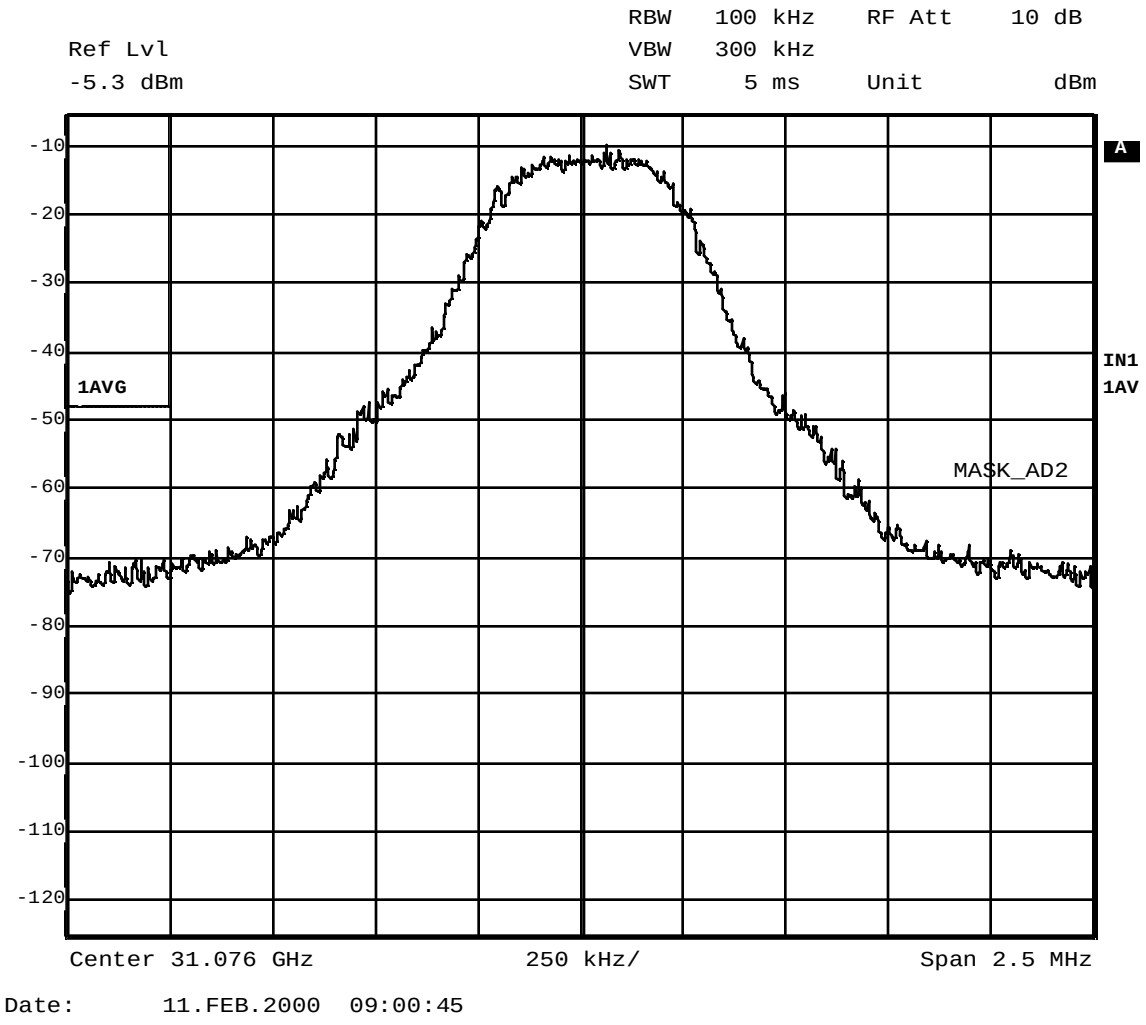


Figure A – 1 Emission Mask; 31.076 GHz; 16 QAM 0.384 MS/s

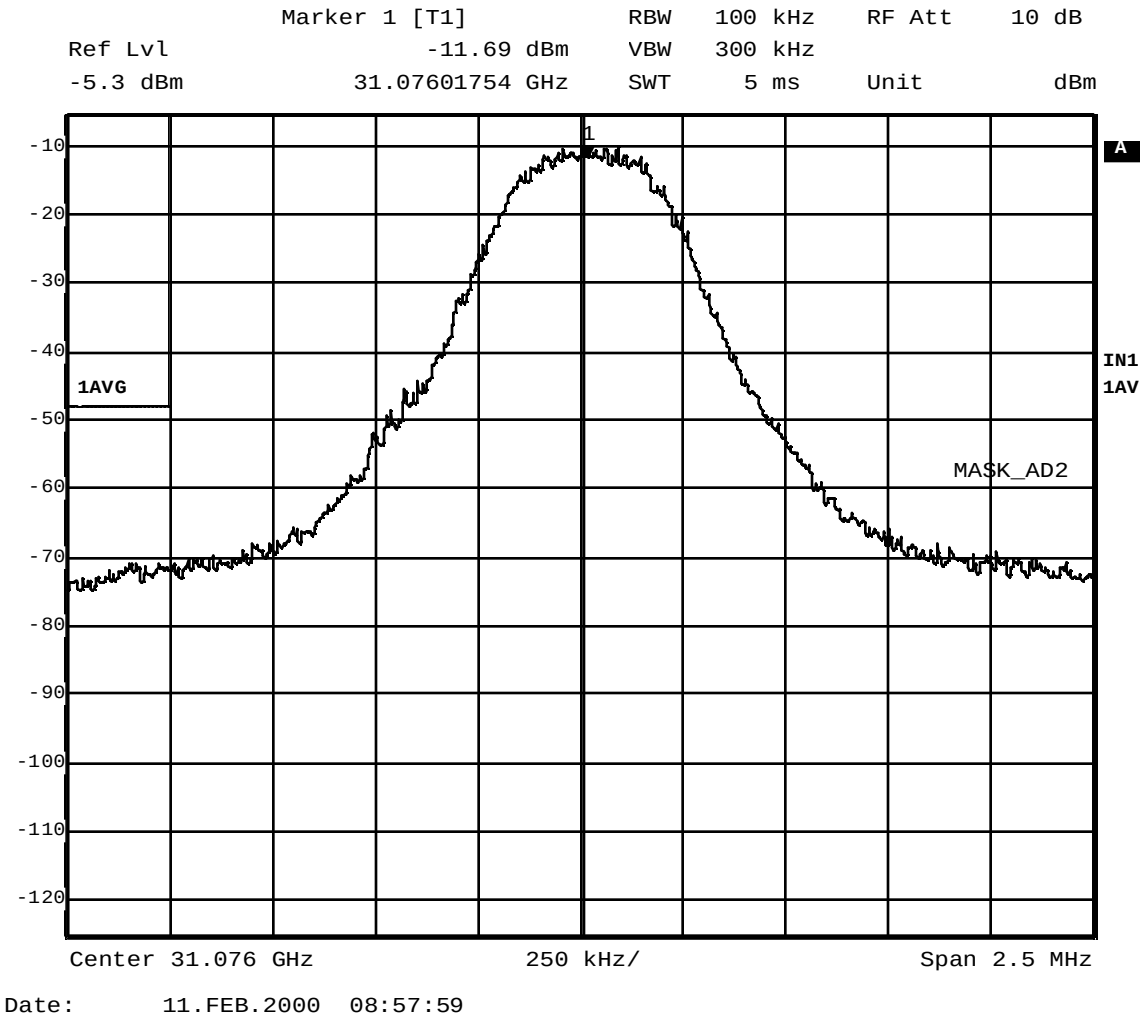


Figure A – 2 Emission Mask; 31.076 GHz; QPSK 0.32 MS/s

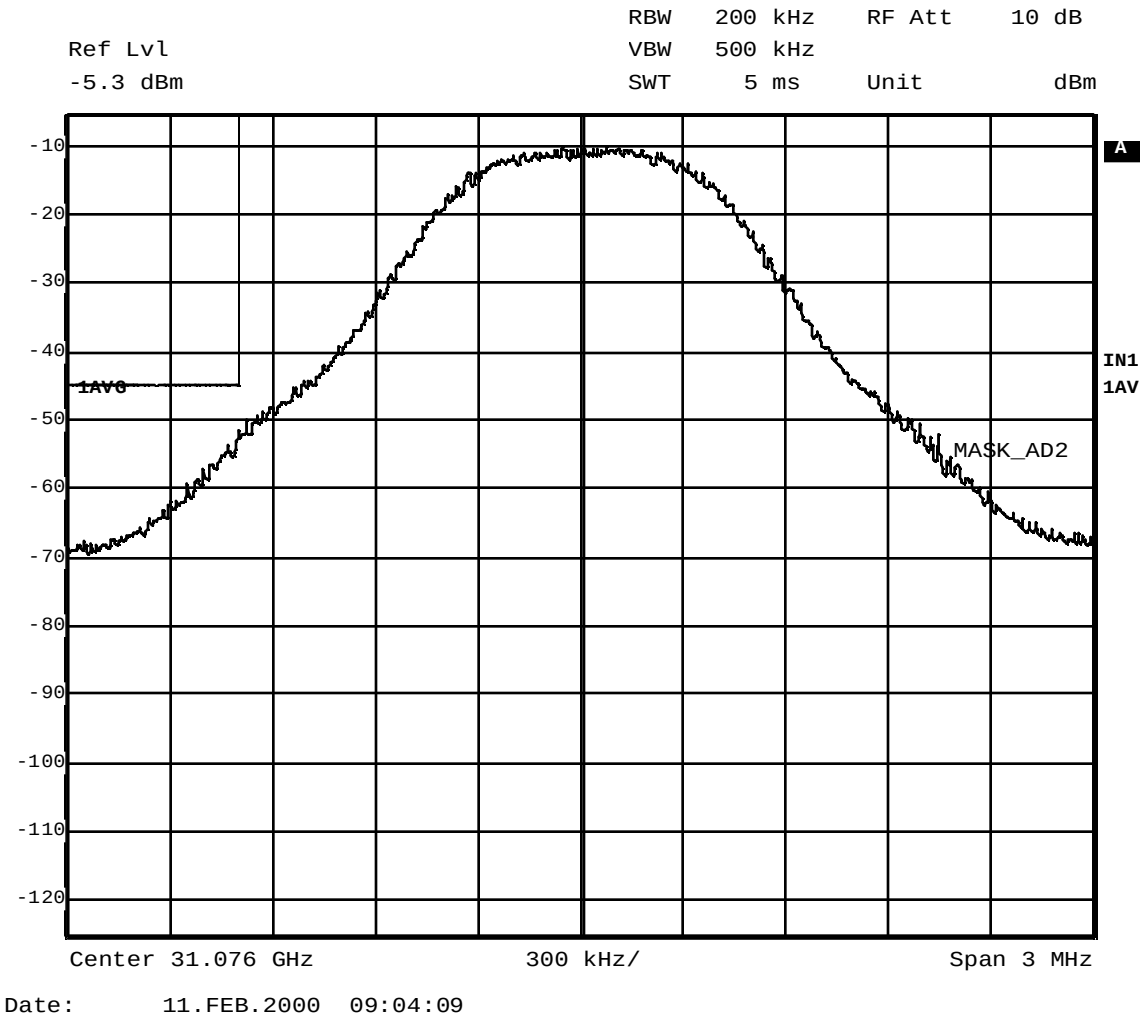


Figure A – 3 Emission Mask; 31.076 GHz; QPSK 0.64 MS/s

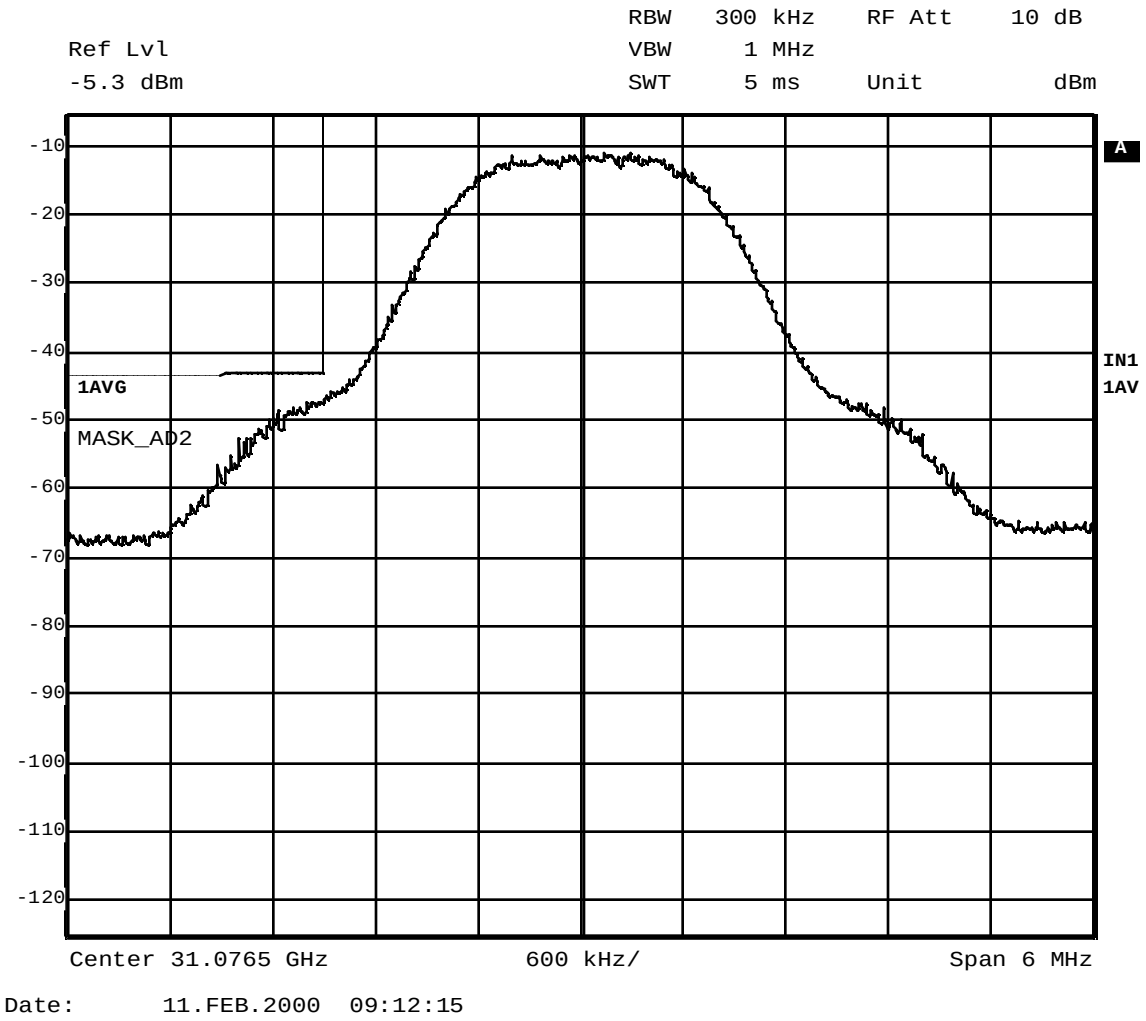


Figure A – 4 Emission Mask; 31.0765 GHz; QPSK 1.28 MS/s

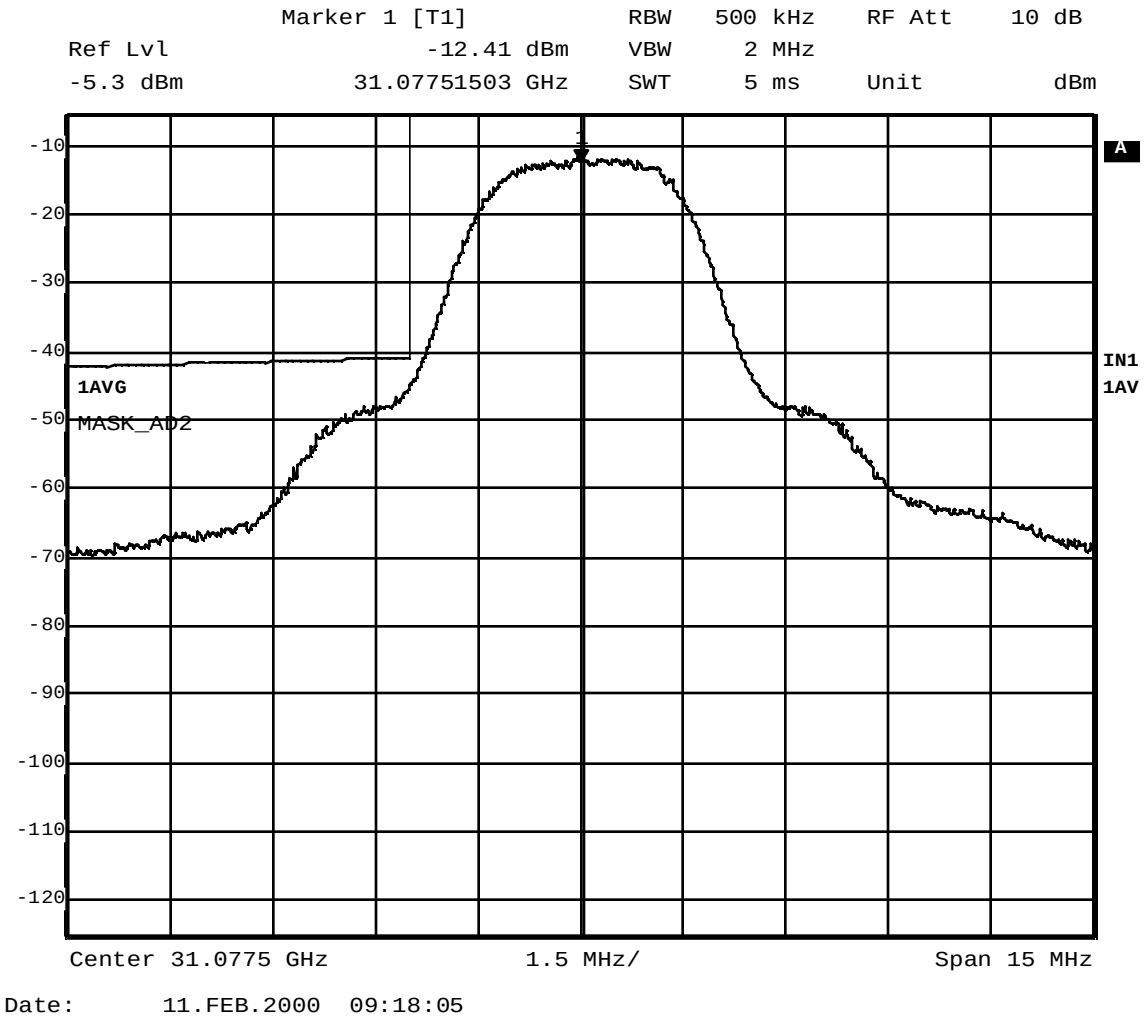


Figure A – 5 Emission Mask; 31.0775 GHz; QPSK 2.56 MS/s

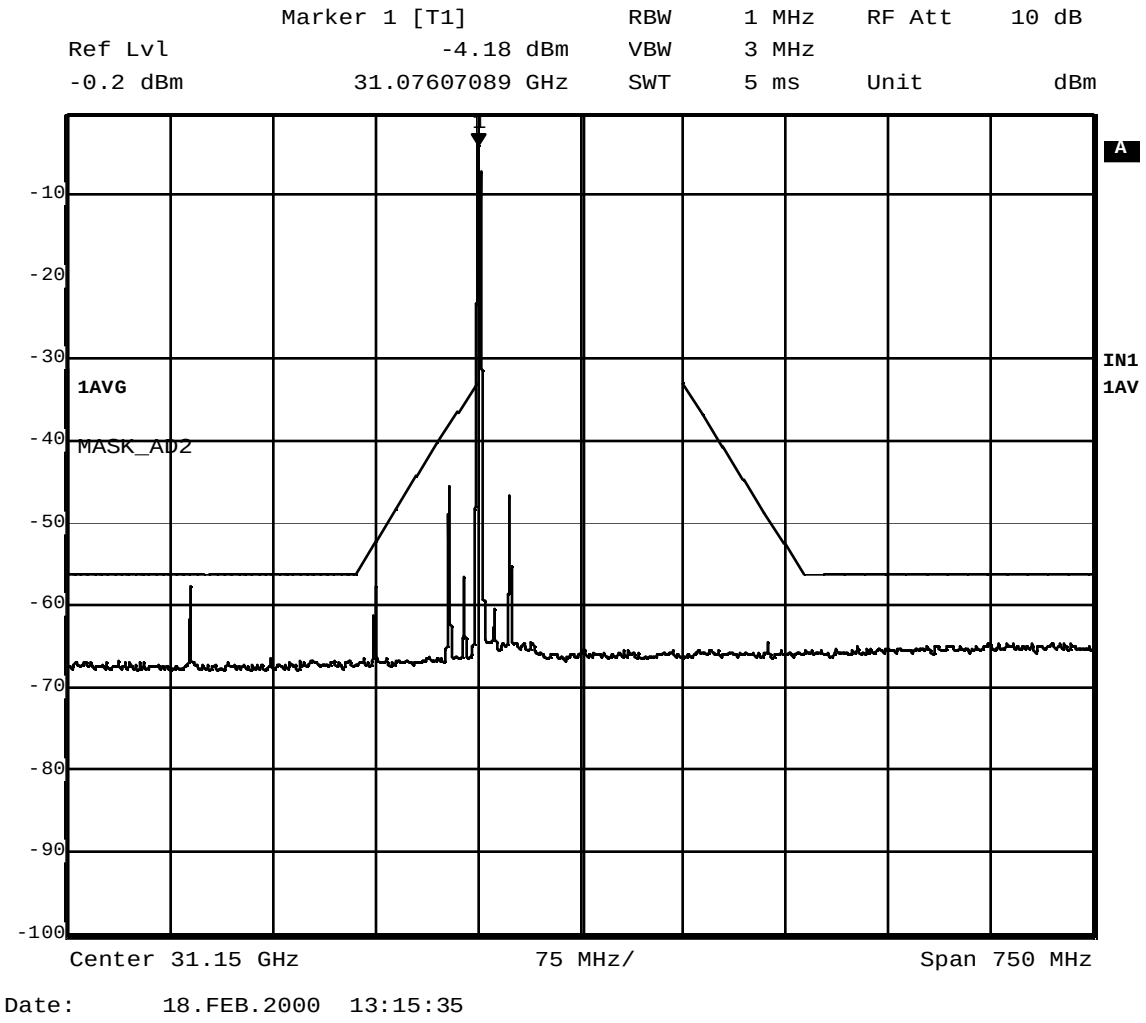


Figure A – 6 Emission Mask; 31.076 GHz; 16 QAM 0.384 MS/s

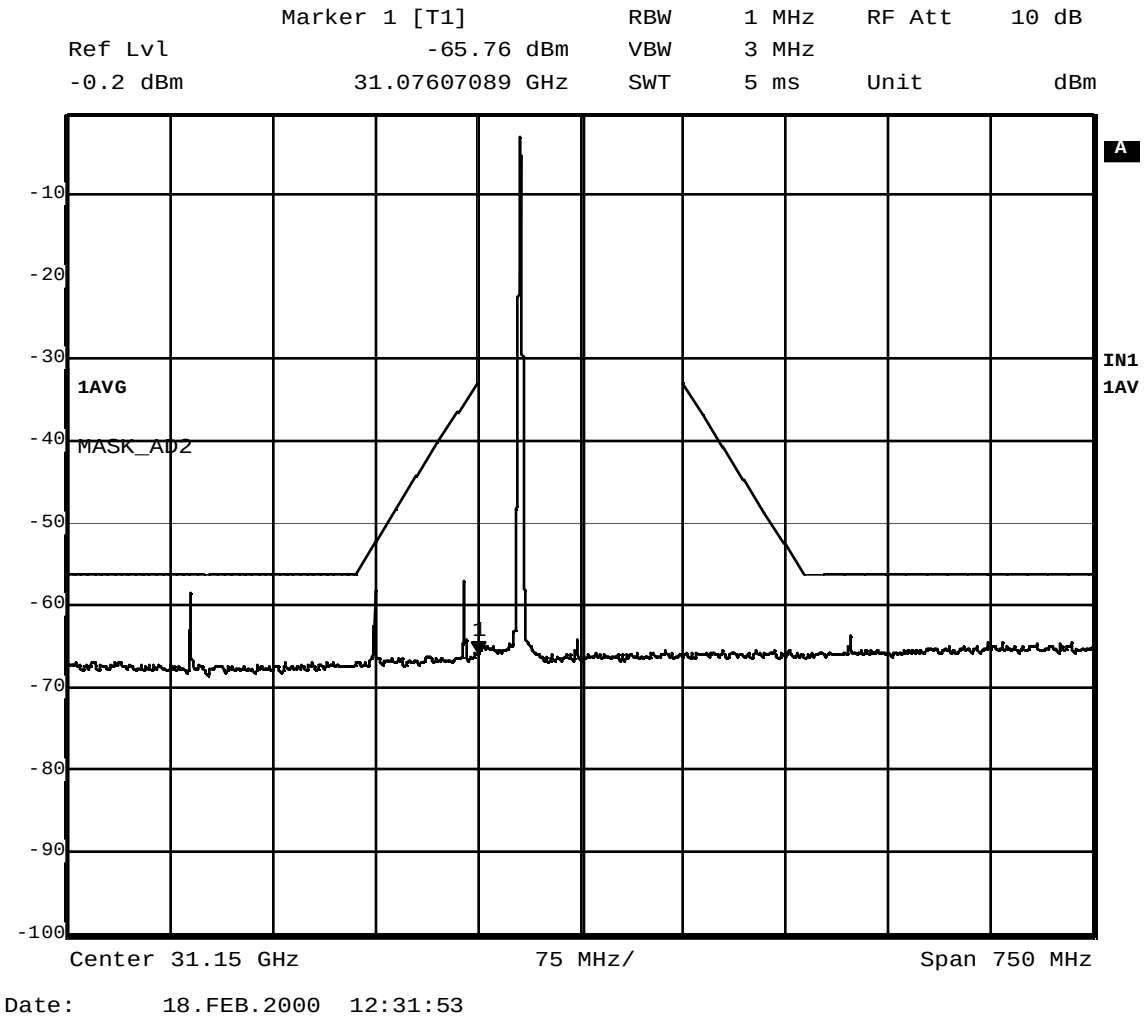


Figure A – 7 Emission Mask; 31.106 GHz; 16 QAM 0.384 MS/s

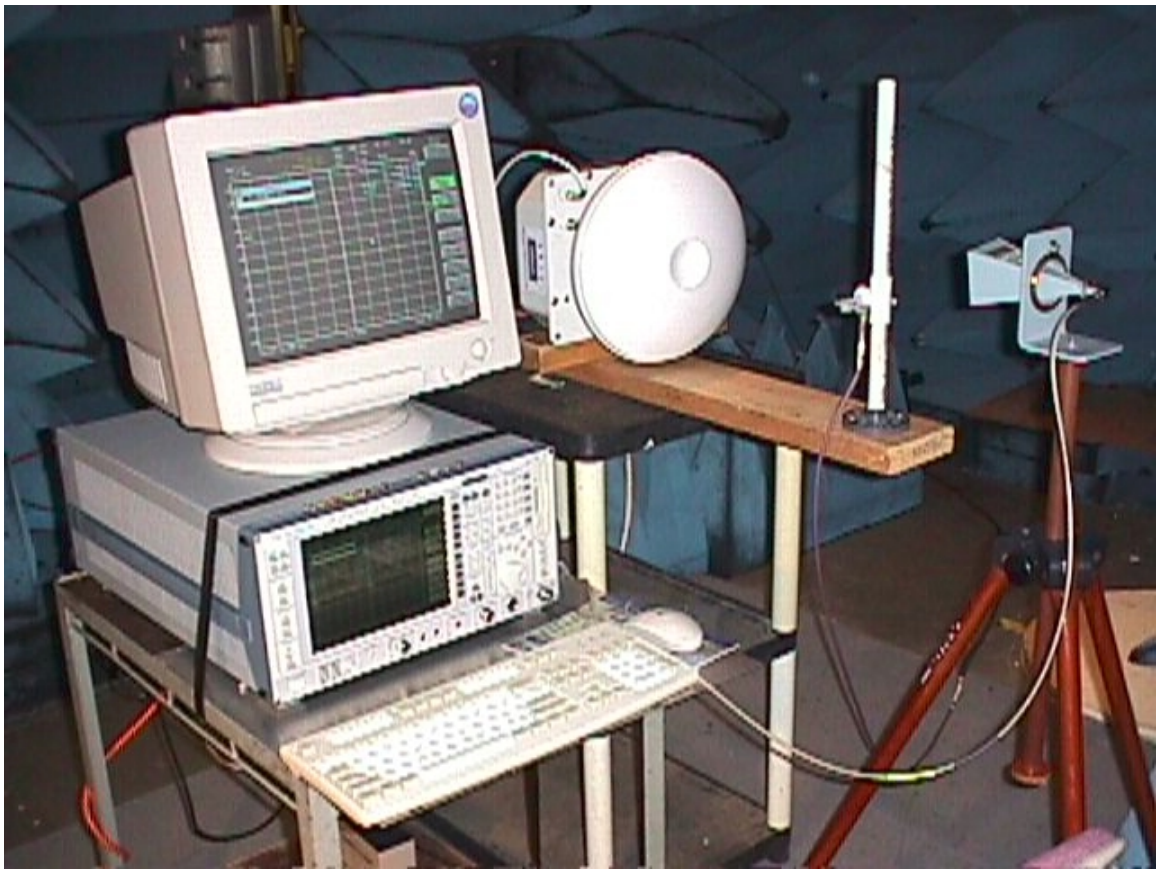


Figure A – 8 Test Setup; Emission Mask

Appendix B

Radiated Spurious Emission Measurement

Client : Motorola Date : 2/19/00

EUT Model : Millitech ODU P/N : 9031295602

EUT Configuration : Tx 31.076 GHz; Maximum Output Power; 16 QAM 0.384 MSps

For frequencies with ± 250% of allocated bandwidth excluding intentional transmit frequency								
Frequency (GHz)	Meter Reading (dBμV)	Measurement Bandwidth RBW/VBW (MHz)	Bandwidth Correction Factor (dB)	Cable Loss* (dB)	Antenna Factor (dB)	Corrected Level (dBμV/m /MHz)	Limit (dBμV/m /MHz)	Comments
For frequencies < -250% and > 250% of allocated bandwidth								
Frequency (GHz)	Meter Reading (dBμV)	Measurement Bandwidth RBW/VBW (kHz)	Bandwidth Correction Factor (dB)	Cable Loss* (dB)	Antenna Factor (dB)	Corrected Level (dBμV/m /4kHz)	Limit (dBμV/m /4kHz)	Comments
62.152	5	30/30	-8.75	22.0	43.4	61.6	84.4	Tx 2nd Harmonic; **Rcv. Noise**
93.228	5	30/30	-8.75	40.0	46.7	83.0	84.4	Tx 3rd Harmonic; **Rcv. Noise**
* Cable loss includes external mixer loss and cable loss								

No emissions detected.

Figure B – 1 Motorola ODU, Radiated Spurious Emissions, F_o = 31.076 GHz

Client : Motorola Date : 2/19/00

EUT Model : Millitech ODU P/N : 9031295602

EUT Configuration : Tx 31.106 GHz; Maximum Output Power; 16 QAM 0.384 MSps

For frequencies with ± 250% of allocated bandwidth excluding intentional transmit frequency								
Frequency (GHz)	Meter Reading (dBμV)	Measurement Bandwidth RBW/VBW (MHz)	Bandwidth Correction Factor (dB)	Cable Loss* (dB)	Antenna Factor (dB)	Corrected Level (dBμV/m /MHz)	Limit (dBμV/m /MHz)	Comments
For frequencies < -250% and > 250% of allocated bandwidth								
Frequency (GHz)	Meter Reading (dBμV)	Measurement Bandwidth RBW/VBW (kHz)	Bandwidth Correction Factor (dB)	Cable Loss* (dB)	Antenna Factor (dB)	Corrected Level (dBμV/m /4kHz)	Limit (dBμV/m /4kHz)	Comments
62.212	5	30/30	-8.75	22.0	43.4	61.6	84.4	Tx 2nd Harmonic; **Rcv. Noise**
93.318	5	30/30	-8.75	40.0	46.7	83.0	84.4	Tx 3rd Harmonic; **Rcv. Noise**
* Cable loss includes external mixer loss and cable loss								

No emissions detected.

Figure B – 2 Motorola ODU, Radiated Spurious Emissions, F_o = 31.106 GHz

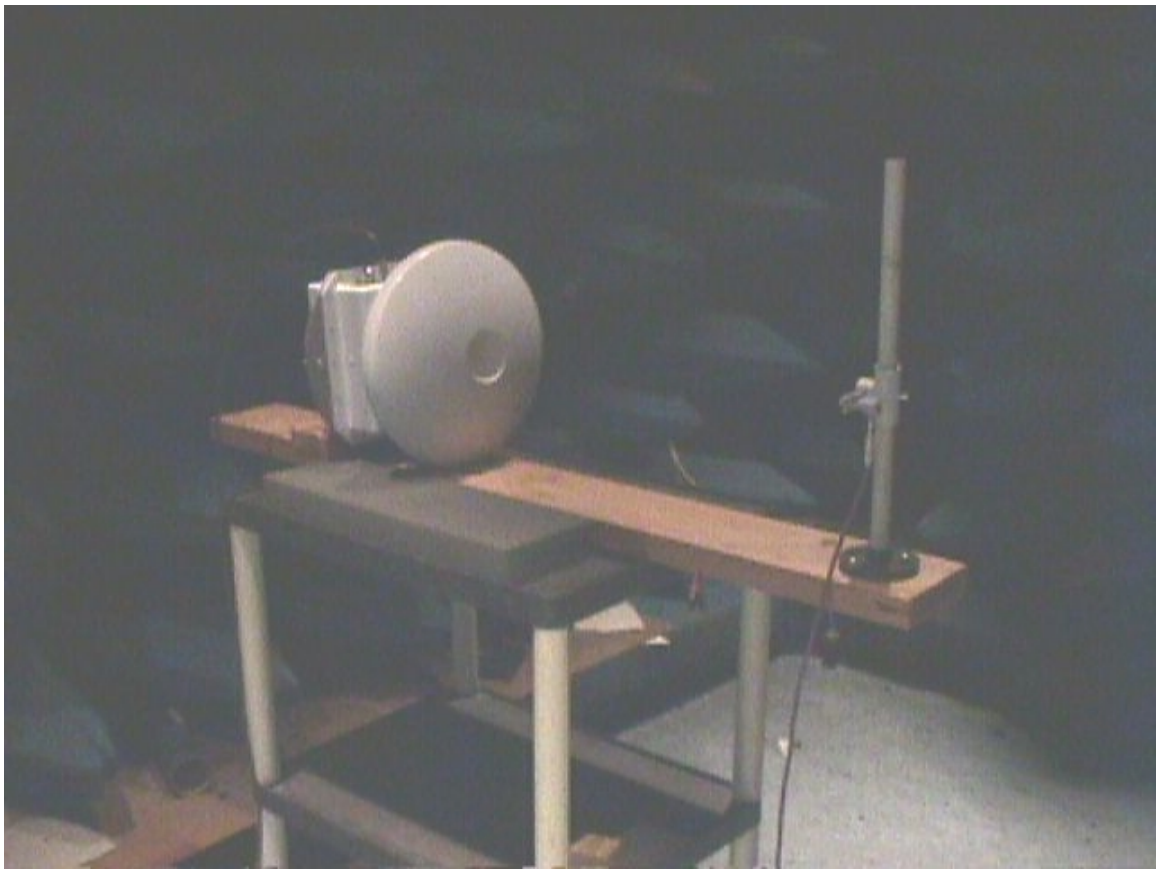


Figure B – 3 Motorola ODU Setup, Radiated Spurious Emissions

Figure B – 4 Receive Antenna, Radiated Spurious Emissions

Appendix C

Frequency Stability Measurement

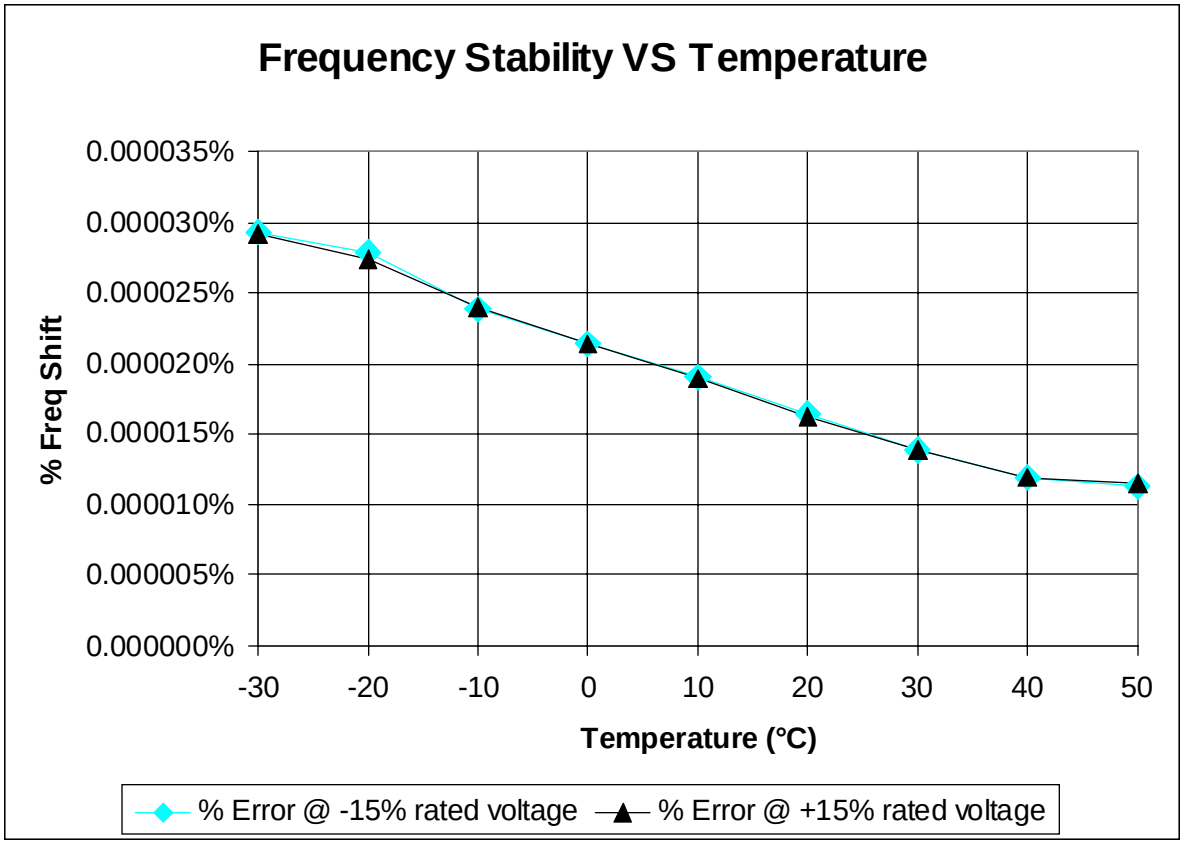


Figure C – 1 Frequency Stability Graph

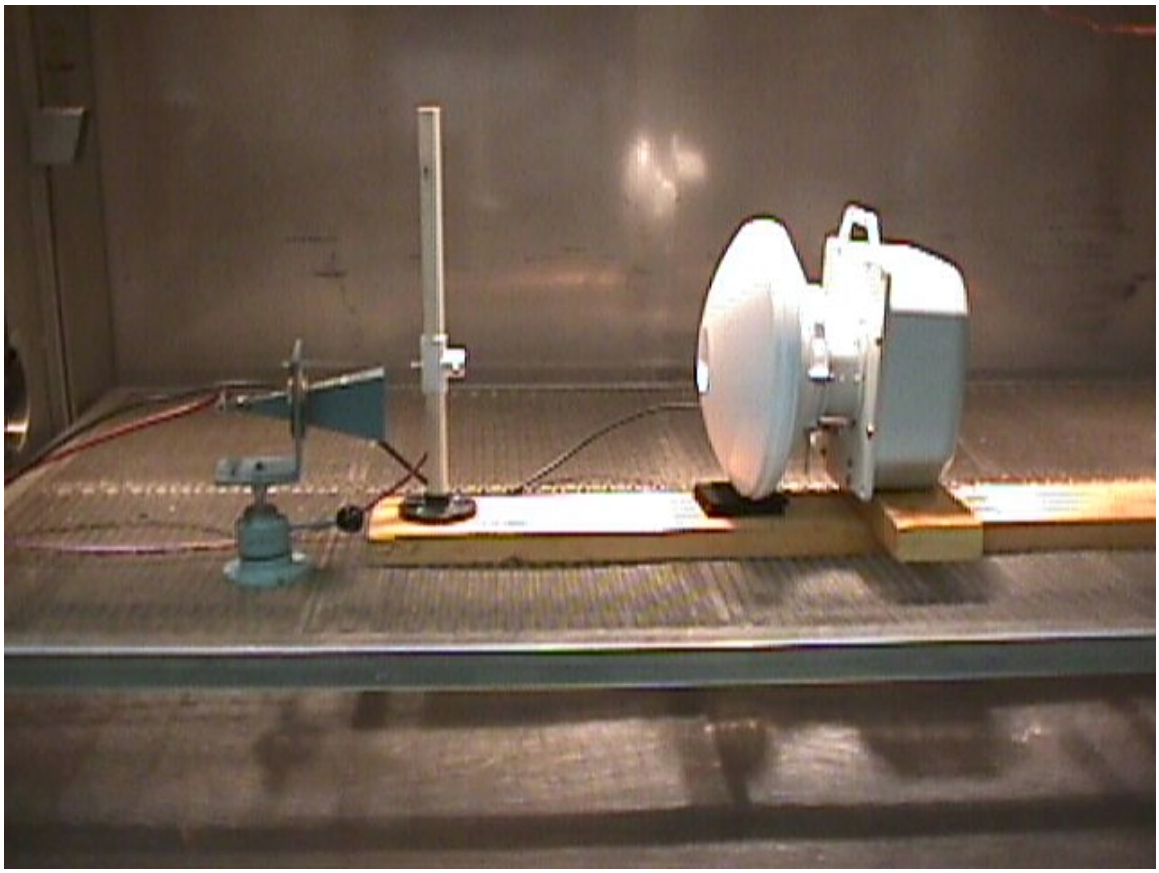


Figure C – 2 Test Setup, Frequency Stability Testing of the Motorola ODU

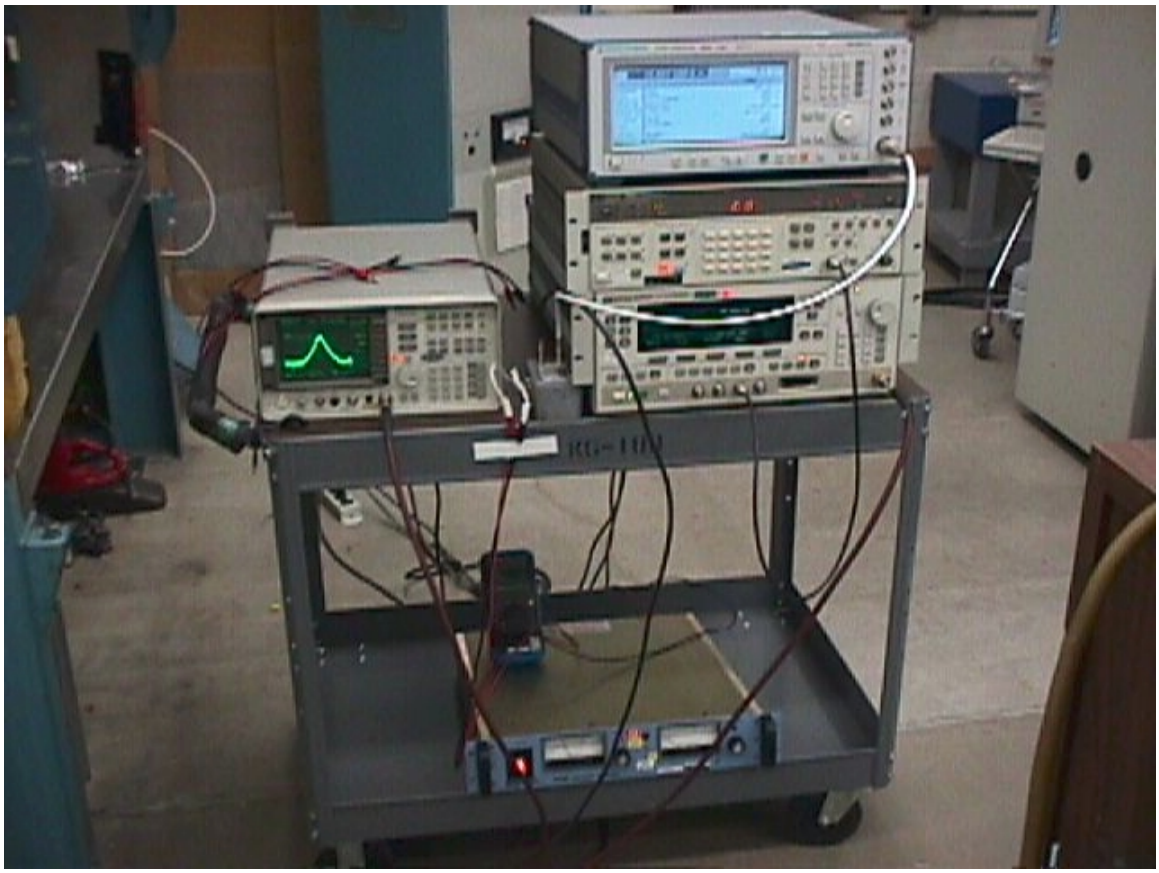


Figure C – 3 Test Setup, Frequency Stability Testing of the Motorola ODU