3.4 FCC Part 15 Subpart C Field Strength of Fundamental

3.4.1 Equipment Used

Equipment Used	Asset #	Serial #	Cal Date
Tektronix 496 Spectrum Analyzer	56	B010206	4/02
Hewlett Packard 8566B Spectrum Analyzer	47	2637A04064	7/01
Hewlett Packard 8566 Display Analyzer Main	46	2648A14289	7/01
Hewlett Packard 85685A RF Preselector	48	2648A00483	7/01
EMCO 3115 Microwave Horn Antenna	376	2796	1/02

3.4.2 Test Conditions

The field strength of the fundamental was measured by placing the OpenSky ISM Radio set up on a wooden table above the turntable at a distance of 3 meters from a tuned dipole antenna within Open Area Test Site A.

The OpenSky ISM Radio was configured to operate in the continuous mode of operation to maximize the emissions. The OpenSky ISM Radio was set up and powered by 48VDC for radiated emission tests.

The OpenSky ISM Radio has the option of six antennas that can be connected to it, all six antenna were tested. They are as follows:

1. Pacific Wireless, M/N PMANT25-HD-PF1 Gain 24dBi
2. M/A-Com, M/N ANAD-159W-A-10-SM Gain 16dBi
3. M/A-Com, M/N ANCC-156A-S-12-NM Gain 7dBi
4. MAXRAD, M/N MFB24006 Gain 6dBi
5. MAXRAD, M/N MFB24008 Gain 8dBi
6. MAXRAD, M/N MFB24010 Gain 10dBi

3.4.3 Test Method

The test method of ANSI C63.4 was followed, for the field strength of the fundamental emission measurements. A manual scan was performed. During this scan, the antenna, turntable and the EUT' were manipulated to maximize the emission level.

3.4.4 Results

The M/A-Com OpenSky ISM Radio meets the FCC Part 15 Subpart C field strength fundamental.

3.4.5 Test Data

FIELD STRENGTH OF THE FUNDAMENTAL

CUSTOMER: M/A-COM
EQUIPMENT: TRANSCEIVER TOWER
TESTED BY: ROBERT FOSTER
OPERATING MODE: FULL POWER
ANTENNA DISTANCE: 3 METERS

DATE: JUNE 7, 2001
TEST NUMBER: 4
PROCEDURE: ANSI C63.4 & FCC 97-114
TEST SPEC: FCC PART 15 SUBPART C

Pacific Wireless PMANT25-HD-PF1

FREQUENCY GHz	PEAK MEASURED LEVEL -dBm	QUASI-PEAK MEASURED LEVEL dBuV	ANTENNA HEIGHT (METERS)	TURNTABLE AZIMUTH (DEGREES)	ANTENNA H/V	ANTENNA FAC/CABLE LOSS dB	FIELD LEVEL dBuV/m ✯	LIMIT dBuV/m (QP)
2.41	47	-	1.0	0	V	32.2	92.2	93.9
2.43	47	-	1.0	0	V	32.2	92.2	93.9
2.44	48	-	1.0	0	V	32.2	91.2	93.9

M/A-Com, M/N ANAD-159W-A-10-SM

FREQUENCY GHz	PEAK MEASURED LEVEL -dBm	QUASI-PEAK MEASURED LEVEL dBuV	ANTENNA HEIGHT (METERS)	TURNTABLE AZIMUTH (DEGREES)	ANTENNA H/V	ANTENNA FAC/CABLE LOSS dB	FIELD LEVEL dBuV/m ✯	LIMIT dBuV/m (QP)
2.41	61	-	1.0	0	V	32.2	78.2	93.9
2.42	61	-	1.0	0	V	32.2	78.2	93.9
2.43	63	-	1.0	0	V	32.2	76.2	93.9

M/A-Com ANCC-156A-S-12-NM

FREQUENCY GHz	PEAK MEASURED LEVEL -dBm	QUASI-PEAK MEASURED LEVEL dBuV	ANTENNA HEIGHT (METERS)	TURNTABLE AZIMUTH (DEGREES)	ANTENNA H/V	ANTENNA FAC/CABLE LOSS dB	FIELD LEVEL dBuV/m ✯	LIMIT dBuV/m (QP)
2.41	64	-	1.0	0	V	32.2	75.2	93.9
2.42	63	-	1.0	0	V	32.2	76.2	93.9
2.43	64	-	1.0	0	V	32.2	75.2	93.9

Test Data

MAXRAD MFB24006

FREQUENCY GHz	PEAK MEASURED LEVEL -dBm	QUASI-PEAK MEASURED LEVEL dBuV	ANTENNA HEIGHT (METERS)	TURNTABLE AZIMUTH (DEGREES)	ANTENNA H/V	ANTENNA FAC/CABLE LOSS dB	FIELD LEVEL dBuV/m ✯	LIMIT dBuV/m (QP)
2.41	64	-	1.0	0	V	32.2	75.2	93.9
2.42	63	-	1.0	0	V	32.2	76.2	93.9
2.43	65	-	1.0	0	V	32.2	77.2	93.9

MAXRAD MFB24008

FREQUENCY GHz	PEAK MEASURED LEVEL -dBm	QUASI-PEAK MEASURED LEVEL dBuV	ANTENNA HEIGHT (METERS)	TURNTABLE AZIMUTH (DEGREES)	ANTENNA H/V	ANTENNA FAC/CABLE LOSS dB	FIELD LEVEL dBuV/m ✯	LIMIT dBuV/m (QP)
2.41	61	-	1.0	0	V	32.2	78.2	93.9
2.42	60	-	1.0	0	V	32.2	79.2	93.9
2.43	61	-	1.0	0	V	32.2	78.2	93.9

MAXRAD MFB24010

FREQUENCY GHz	PEAK MEASURED LEVEL -dBm	QUASI-PEAK MEASURED LEVEL dBuV	ANTENNA HEIGHT (METERS)	TURNTABLE AZIMUTH (DEGREES)	ANTENNA H/V	ANTENNA FAC/CABLE LOSS dB	FIELD LEVEL dBuV/m ✯	LIMIT dBuV/m (QP)
2.41	60	-	1.0	0	V	32.2	80.2	93.9
2.42	59	-	1.0	0	V	32.2	80.2	93.9
2.43	59	-	1.0	0	V	32.2	80.2	93.9

✯All signals greater than 3dB from the limit are calculate to the nearest whole number.
✯Field Level (dBuV/m) = [107 – Measured level (dBm)] + Antenna Factor/Cable Loss (dB)
Ambient Temperature: 68°F Humidity: 25 % Atmospheric Pressure: 29.8″
NOTES:

FORM CTS-DS-001R