Nemko USA, Inc.
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CERTIFICATION TEST REPORT

Class II Permissive Change

PART 15.247C
IC RSS-210

To Add the
EC20 EXTENDED COVERAGE ANTENNA KIT
For The Transceiver
Model: Base 6000

FCC ID#: BYMBASE6000
IC: 1860A-C0M6000

PREPARED FOR:

HM Electronics, Inc.
14110 Stowe Dr.
Poway, CA 92064

Prepared on: April 24, 2009
Report Number: 2008 03124889 FCC
Project Number: 25916-2
NEx Number: 124889

Total Pages: 21

DOCUMENT HISTORY

REVISION	DATE	COMMENTS
-	April 24, 2009	Prepared By: Alan Laudani
-	April 24, 2009	Initial Release: Alan Laudani

NOTE: Nemko USA, Inc. hereby makes the following statements so as to conform to Chapter 10 (Test Reports) Requirements of ANSI C63.4 (2003) "Methods and Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz":

- The unit described in this report was received at Nemko USA, Inc.'s facilities on March 26, 2009.
- Testing was performed on the unit described in this report on March 26, 20009 to April 24, 2009.
- The Test Results reported herein apply only to the Unit actually tested, and to substantially identical Units.
- This report does not imply the endorsement of the Federal Communications Commission (FCC), Industry Canada, NVLAP or any other government agency.

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CERTIFICATION

Nemko USA, Inc., an independent Electromagnetic Compatibility (EMC) Test Laboratory, produced this Test Report and performed the Radio Frequency Interference (RFI) testing and data evaluation contained herein.

Nemko USA, Inc.'s measurement facility is currently registered with the United States Federal Communications Commission (FCC) in accordance with the provisions of 47 United States Code (CFR) Part 2, Subpart I, Section 2.948(a). A current description of Nemko USA, Inc.'s measurement facility is on file with the FCC. Nemko USA Inc. has additionally satisfied the FCC that it complies with the requirements set forth in 47 CFR Part 2, Subpart I, Section 2.948(d) regarding the accreditation of EMC laboratories.

The RFI testing, test data collection and test data evaluation were accomplished in accordance with the ANSI C63.4–2003 Standard, and in accordance with the applicable sections of the FCC rules (47 CFR Parts 2 and 15). The testing was also accomplished in accordance with Industry Canada's ICES-003 standard for unintentional radiating device per EMCAB-3, Issue 3 (May 1998). The administrative summary of this test report provides a description of the test sample.

I hereby certify that the test data, test data evaluation, and equipment configurations used to compile this test report are a true and accurate representation of the test sample's radio frequency interference characteristics as of the test date(s), and, for the design of the test sample.

Alan Laudani
RF/EMC Engineer

1. ADMINISTRATIVE DATA AND TEST SUMMARY

1.1. Administrative Data

CLIENT:	HM Electronics, Inc. 14110 Stowe Dr. Poway, CA 92064
CONTACT: E-Mail:	Victor Lerner vlerner@hme.com
DATE (S) OF TEST:	March 26, 2009 to April 24, 2009
EQUIPMENT UNDER TEST (EUT): EUT SERIAL NUMBER:	Transceiver G27717-1A1 Rev E
MODEL:	Base 6000
CONDITION UPON RECEIPT:	Suitable for Test
TEST SPECIFICATION:	FCC, Part 15.247, Subpart C Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5850 MHz and 24.0-24.25 GHz bands and RSS 210 (Issue 7, June 2007) Annex 8 - Frequency Hopping and Digital Modulation Systems Operating in the Bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz

1.2. Test Summary

Specification	*Frequency Range*	*Compliance Status*
FCC, CFR 47, Section 15.207	0.15 MHz - 30.00 MHz	Not Tested[1]
FCC, CFR 47, Section 15.209	30 MHz – 10th Harmonic	Not Tested[1]
FCC CFR 47, §15.247 Plus Bandedge	2401.902 to 2481.408 MHz	PASS
RSS-210 - Low Power License Exempt Radio-communication Devices (All Frequency Bands)	2401.902 to 2481.408 MHz	PASS

[1]Testing was deemed not required as the antenna-cable assembly would not contribute to these emissions.

Refer to the test results section for further details.

Alan Laudani
EMC Engineer

2. SYSTEM CONFIGURATION

2.1. Description and Method of Exercising the EUT

The Base 6000 is a Transceiver. Its function is to communicate. The EUT was exercised by a special test program to set a frequency to test, full power with and without modulation (burst mode). The purpose of this test report is to introduce an antenna-the EC20, Extended Coverage Antenna Kit to be added to the certification by a Class II Permissive Change. The Radiated Output power with the EC20 is less than the original certification configuration with no change to frequencies of use, enclosure spurious emissions, bandwidth, frequency hopping or operation. When the new antenna-cable assembly is used, only one port is active. The antenna-cable assembly will be professionally installed.

The EUT's performance during test was evaluated against the performance criterion specified by applicable test standards. Performance results are detailed in the test results section of this report.

2.2. System Components and Power Cables

DEVICE	MANUFACTURER MODEL # SERIAL #	POWER CABLE
EUT - Transceiver	HM Electronics, Inc. Model: Base 6000 Serial #: G27717-1A1 Rev E	20 AWG 24 VDC
EUT Power Supply	OEM Model # SYS1097-4812 Serial # 0311007508	Three prong power cord 100--240 Vac 50/60 Hz

2.3. Device Interconnection and I/O Cables

Connection	I/O Cable
No connections	

2.4. Design Modifications for Compliance

The following design modifications were made to the EUT during testing.

No design modifications were made to the EUT during testing.

2.5. Technical Specifications of the EUT

Manufacturer: HM Electronics, Inc.

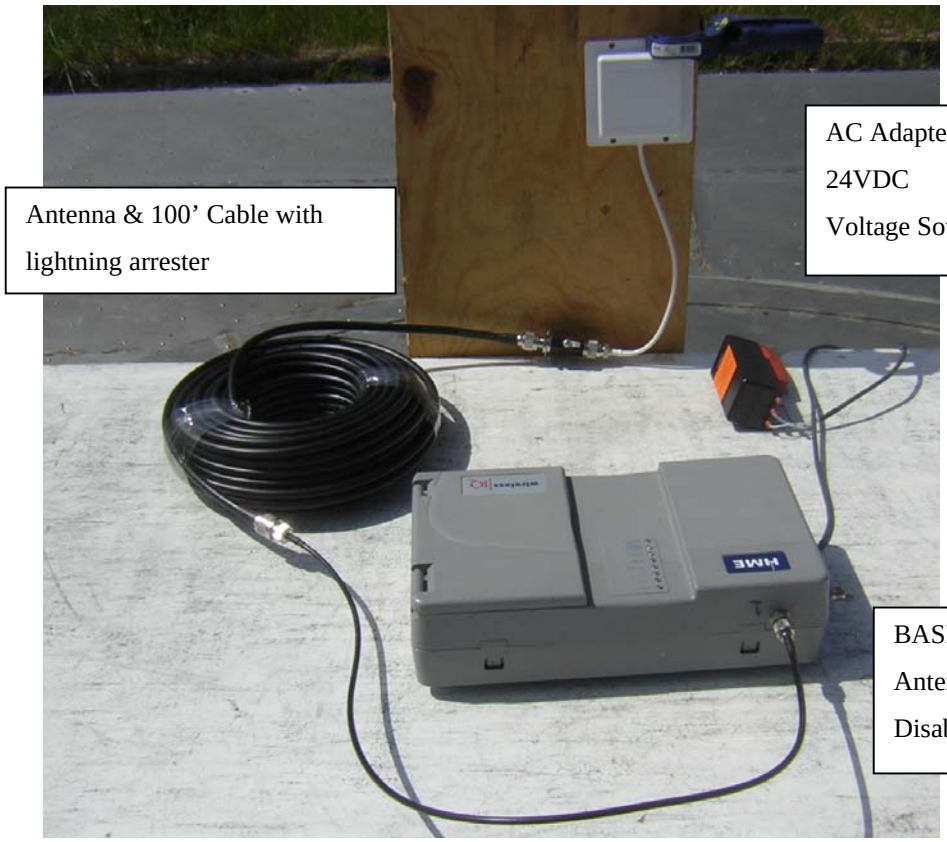
Operating Frequency: 2401.920 MHz to 2481.408 MHz in the 2400-2483.5 MHz Band

Rated Power: 18.68 dBm, Conducted.

Modulation: Digital FHSS

Antenna Connector: Inverse TNC-Adapter

Power Source: 120 VAC 60 Hz



3. DESCRIPTION OF TEST SITE AND ENVIRONMENT

3.1. Description of Test Site

The test site is located at 11696 Sorrento Valley Road, Suite F, San Diego, CA 92121. The site is physically located 18 miles Northwest of downtown San Diego. The general area is a valley 1.5 miles east of the Pacific Ocean. This particular part of the valley tends to minimize ambient levels, i.e. radio and TV broadcast stations and land mobile communications. The three and ten-meter Open Area Test Site (OATS) is located behind the office/lab building. It conforms to the normalized site attenuation limits and construction specifications as set in the EN 55022 (1987), CISPR 16 and 22 (1985) and ANSI C63.4-2001 documents. The OATS normalized site attenuation characteristics are verified for compliance every year, and registered with the Federal Communications Commission under Registration Number 90579 and Industry Canada under 2040B-1 and 2040B-2.

3.2. Test Environment

All tests were performed under the following environmental conditions:

Temperature range	:	13 – 17 ^{o}C
Humidity range	:	55 - 60%
Pressure range	:	100 - 103 kPa
Power supply range	:	120VAC 60Hz (±15%)

4. DESCRIPTION OF TESTING METHODS

4.1. Introduction

As required in 47 CFR, Parts 2 and 15, the methods employed to test the radiated and conducted emissions (as applicable) of the EUT are those contained within the American National Standards Institute (ANSI) document ANSI C63.4–2003, titled "Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz." All applicable FCC Rule Sections that provide further guidance for performance of such testing are also observed.

For General Test Configuration please refer to Figure 1 on the following page.

Digital devices sold in Canada are required to comply with the Interference Causing Equipment Standard for Digital Apparatus, ICES-003. These test methods and limits are specified in the Canadian Standards Association's (CSA) Standard C108.8-M1983 (1-1-94 version) and are "essentially equivalent" with FCC, Part 15 and CISPR 22 (EN55022) rules for unintentional radiators per EMCAB-3, Issue 3 (May 1998). No further testing is required for compliance to ICES-003.

4.2. Configuration and Methods of Measurements for Conducted Emissions

Section 7 of ANSI C63.4 determines the general configuration of the EUT and associated equipment, as well as the test platform for conducted emissions testing. Tabletop devices are placed on a non-conducting surface 80 centimeters above the ground plane floor and 40 centimeters from the ground plane wall. The EUT and associated system are configured to operate continuously, representing a "normally operating" mode. The EUT is powered via a Line Impedance Stabilization Network (LISN). The emissions are recorded using the required bandwidth of 9 kHz in the quasi-peak mode. The average amplitude is also observed employing a 10 kHz bandwidth to determine the presence of broadband RFI. When such interference is caused by broadband sources (as defined by the FCC and ANSI Rules), the deviation guidelines contained in Section 11.3.1 of ANSI C63.4 are employed, which allows a correction factor of 13 dB to be subtracted from the quasi-peak reading. The emission levels are then compared to the applicable FCC limits to determine compliance.

4.3. Configuration and Methods of Measurements for Frequency Identification

When performing all testing of equipment, the actual emissions of the EUT are segregated from ambient signals present within the laboratory or the open-field test range. Preliminary testing is performed to ensure that ambient signals are sufficiently low to allow for proper observation of the emissions from the EUT. Incoming power lines are filtered using a 120 dB, 30-ampere; 115/208-volt filter to assist in reducing ambient signals for tests of levels of conducted emissions. Ambients within the laboratory are compared to those noted at the nearby open-field site to discriminate between signals produced from the EUT and ambient signals. In the event that a significant emission is produced by the EUT at a frequency which is also demonstrating significant ambient signals, the spectrum analyzer is placed in the peak mode, the bandwidth is narrowed, the EUT's signal is centered on the analyzer, the scan width is expanded to 50 kHz while monitoring the audio to ensure that only the EUT signal is present, the analyzer is switched to quasi-peak mode, and the level of the EUT signal is recorded.

4.4. Configuration and Methods of Measurements for Radiated Emissions

Section 8 of ANSI C63.4 determines the general configuration and procedures for measuring the radiated emissions of equipment under test. Initially, the primary emission frequencies are identified inside the test lab by positioning a broadband receive antenna one meter from the EUT to locate frequencies of significant radiation. Next, the EUT and associated system are placed on a turntable on a ten meter open area test site (registered with the FCC in accord with its Rules and ANSI C63.4) and the receive antenna is located at a distance of ten meters from the EUT.

The EUT and associated system are configured to operate continuously, representing a "normally operating" mode. All significant radiated emissions are recorded when maximum radiation on each frequency is observed, in accordance with part 8 of ANSI C63.4–2003 and Section 15.33 of the FCC Rules. To ensure that the maximum emission at each discrete frequency of interest is observed, the receive antenna is varied in height from one to four meters and rotated to horizontal and vertical polarities, and the turntable is also rotated to determine the worst emitting configuration. The numerical results of the test are included herein to demonstrate compliance.

The numerical results that are applied to the emissions limits are arrived at by the following method:
Example: A=RR+CL+AF
A = Amplitude dBuV/m
RR = Receiver Reading dBuV
CL = cable loss dB
AF = antenna factor dB/m

Example Frequency = 110MHz
18.5 dBuV (spectrum analyzer reading)
+3.0 dB (cable loss @ frequency)
21.5 dBuV
+15.4 dB/m (antenna factor @ frequency)
36.9 dBuV/m Final adjusted value

The final adjusted value is then compared to the appropriate emission limit to determine compliance.

5. Test Results

5.1. Conducted Emissions Test Data – Transmit Mode

Client	HM Electronics, Inc.	Temperature		°F
PAN #	25916-2	Relative Humidity		%
EUT Name	Transceiver	Barometric Pressure		Hg
EUT Model	Base 6000	Test Location	Enclosure 1	
Governing Doc	CFR 47, Part 15B	Test Engineer	Alan Laudani	
Basic Standard	Sec. 15.207	Date		
Parameters	Not Tested.			

5.2. Conducted Emissions Test Data – Receive mode

Client	HM Electronics, Inc.	Temperature		°F
PAN #	25916-2	Relative Humidity		%
EUT Name	Transceiver	Barometric Pressure		Hg
EUT Model	Base 6000	Test Location	Enclosure 1	
Governing Doc	CFR 47, Part 15B	Test Engineer	Alan Laudani	
Basic Standard	Sec. 15.107	Date		
Parameters	Not tested.			

5.3 Radiated Emissions Test Data – Receive mode

Radiated Emissions Data

Job # : 10897-1 Date : 4-24-09 Page 1 of 1
NEX #: 115051 Time : 0900
Staff : aal

Client Name : HM Electronics
EUT Name : Wireless Base Station
EUT Model # : BASE 6000
EUT Serial # :
EUT Config. : Receive Mode

Specification : CFR47 Part 15, Subpart B, Class B
RSS--Gen 4.10

Loop Ant. #: NA
Bicon Ant.#: 128_3m
Log Ant.#: 110_3M
DRG Ant. # NA
Cable LF#: NOATS
Cable HF#: NA
Preamp LF#: NA
Preamp HF# NA

Temp. (°C) : 15
Humidity (%) : 74
Spec An.#: 898
Spec An. Display #: 898
QP #: 898
PreSelect#: 899

EUT Voltage : 120
EUT Frequency : 60
Phase:
NOATS
SOATS X
Distance < 1000 MHz: 3 m
Distance > 1000 MHz: 3 m

Quasi-Peak	RBW:	120 kHz
	Video Bandwidth	300 kHz
Peak	RBW:	1 MHz
	Video Bandwidth	3 MHz
Average	RBW:	1 MHz
	Video Bandwidth	10 Hz

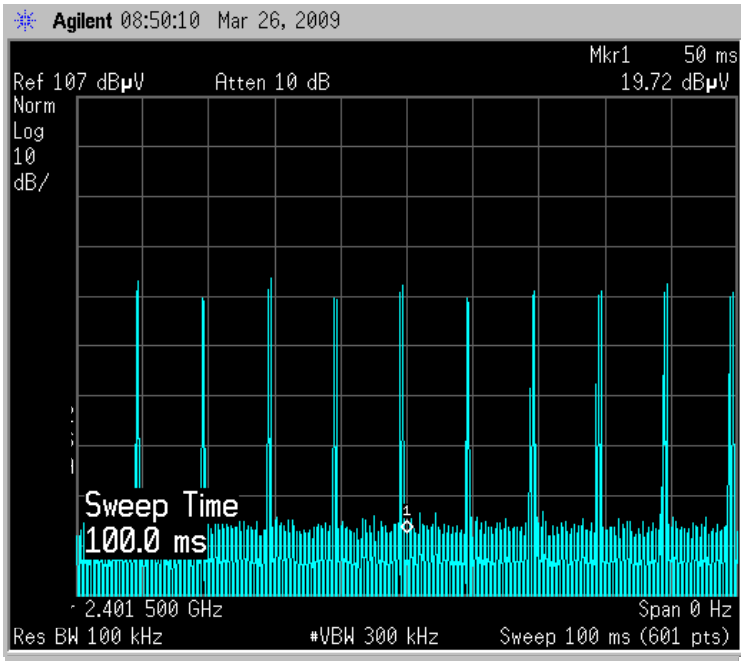
Measurements below 1 GHz are Quasi-Peak values, unless otherwise stated.
Measurements above 1 GHz are Average values, unless otherwise stated.

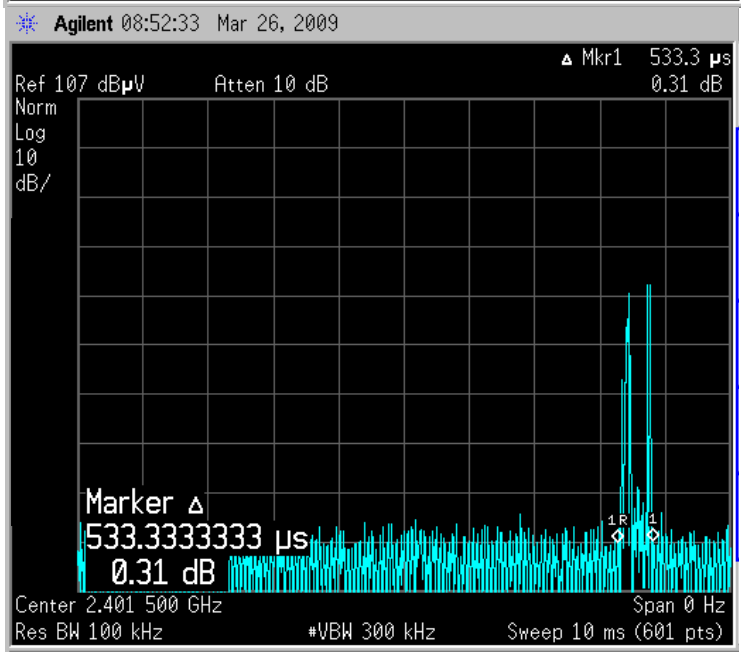
Meas. Freq. (MHz)	Meter Reading **Vertical**	Meter Reading **Horizontal**	Det.	EUT Side F/L/R/B	Ant. Height m	Max. Reading (dBµV)	Corrected Reading (dBµV/m)	Spec. limit (dBµV/m)	CR/SL Diff. (dB)	Pass Fail	Comment
34.6	12.1	9.8	Q	-	1.0	12.1	26.5	40.0	-13.5	Pass	Mid channel
45.2	12.0	16.2	Q	-	1.0	16.2	28.4	40.0	-11.6	Pass	
65.1	21.4	14.5	Q	-	1.0	21.4	32.8	40.0	-7.2	Pass	
175.2	20.1	20.6	Q	-	1.0	20.6	38.8	43.5	-4.7	Pass	
373.0	6.3	6.1	Q	-	1.0	6.3	24.8	46.0	-21.3	Pass	
559.0	5.3	5.4	Q	-	1.0	5.4	27.8	46.0	-18.2	Pass	
622.0	4.1	17.8	Q	-	1.0	17.8	41.8	46.0	-4.3	Pass	
653.0	5.5	10.6	Q	-	1.0	10.6	35.4	46.0	-10.6	Pass	
915.0	6.7	11.3	Q	-	1.0	11.3	40.5	46.0	-5.5	Pass	

Emissions were searched for between 30 MHz to 7500 MHz, no other emissions within 20 dB of the limits were found.

5.3. Duty Cycle Measurement

RSS-210 Annex 8.1(4)
Digital Word = 533.3 microseconds
Duty cycle = 10 x 533.3 microseconds in 100ms
Duty cycle = 5.333 ms in 100ms
Duty Cycle Factor = 20*log(.0053) = -25.5dB
FCC limits DCF to –20dB





5.4. Bandwidth

RSS-210 Annex 8.1(4)

(a)(1) Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25kHz or the 20dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25kHz or two-thirds of the 20dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power now greater than 125mW.

15.247(a)(1)

Test Results: Not tested, Antenna-cable assembly would not affect bandwidth.

5.5. Radiated Power Level and Radiated Spurious Emissions

RSS-210 Annex 8.4(2)

(a) Operation under the provisions of this Section is limited to frequency hopping and digitally modulated intentional radiators that comply with the following provisions:

(1) Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25kHz or the 20dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25kHz or two-thirds of the 20dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system-hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average of each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

Power Level Limits 125 mWatt or 115.0 dBuV/m @3m. EUT complies.

$10^{[(\text{Field Strength in dBuV/m} - 120)/20]}$ = Field Strength in V/m

$[(\text{Field Strength in V/m} \times 3\text{m})/5.5]^2$ = Power in Watts

Measured 110.9 dBuV/m @ 3m which translates to a radiated power of 0.0366 W.

0.0366 W =15.64 dBm EIRP

Test Results:

Original Test report no.: G0M20306-7970-P-15 with 2 dBi antenna.

Original Test report measured conducted power at 18.68 dBm
EIRP with New Antenna Assembly gain of -0.6 dB = 18.08 dBm

	Effective Isotropic Radiated Power		
	Low Channel	**Mid Channel**	**High Channel**
Original Data	18.96 dBm	19.35 dBm	19.75 dBm
With New Antenna Assembly	13.57 dBm	15.64 dBm	11.57 dBm

Corrected Reading = Max of Horizontal/Vertical + Antenna Factor + cable loss – Preamp.
@ 2400 MHz: 23.6 + 28.3 + 8.9 – 0 (no preamp) = 60.8

Harmonics reported were measured when the EC20 was installed into the port that promoted the higher fundamental power output. Spurious emissions were searched for from 1000 MHz to 10 times the highest transmit frequency or 25000 MHz. 15.209: 74 Peak, 54 Ave., dBuV/m @ 3m. 15.205 Restricted bands, EUT complies. No other emissions found within 20 dB of the limits.

Radiated Emissions Data

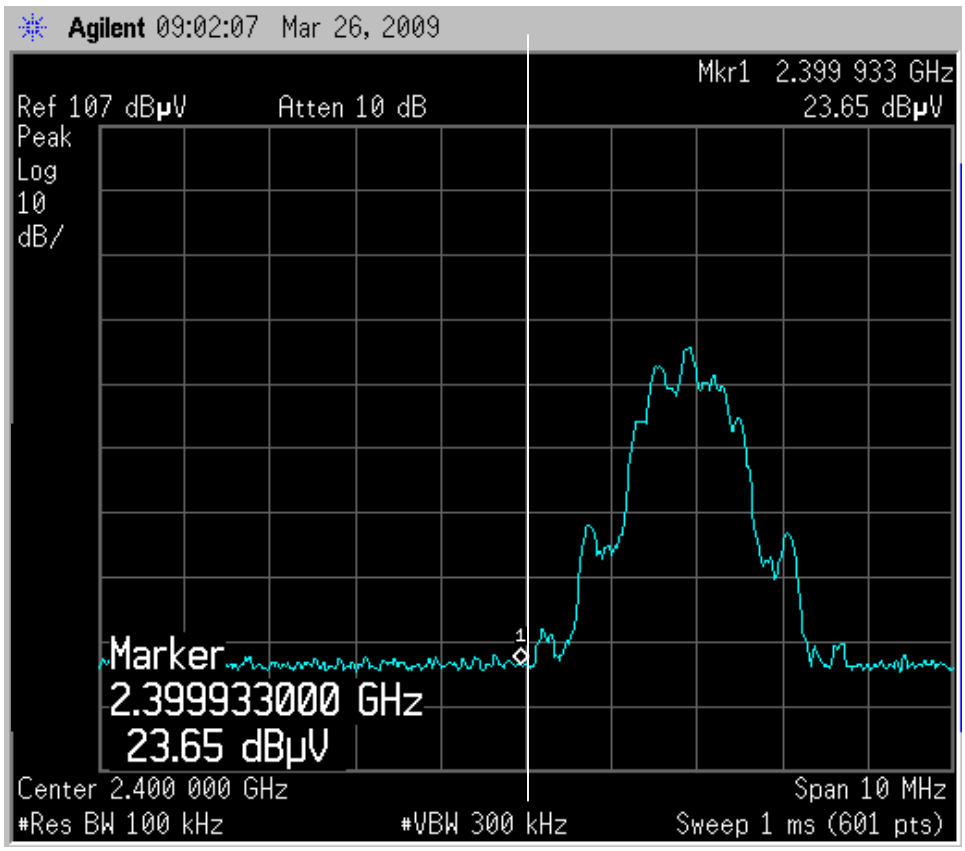
Job # :	10897-1	Date :	3-26-09	Page 1 of 1	
NEX #:	115051	Time :	0940		
		Staff :	aal		
Client Name :	HM Electronics			EUT Voltage :	120
EUT Name :	Wireless Base Station			EUT Frequency :	60
EUT Model # :	BASE 6000			Phase:	1
EUT Serial # :				NOATS	
EUT Config. :	Transmitting --Test Mode			SOATS	X
	New Directional Antenna			Distance < 1000 MHz:	3 m
				Distance > 1000 MHz:	3 m
Specification :	CFR47 Part 15, Subpart C, 15.247, 15.205, 15.209			Fundamental RBW:	5 MHz
Loop Ant. #:	NA			Video Bandwidth	5 MHz
Bicon Ant.#:	na	Temp. (°C) :	14	Quasi-Peak RBW:	120 kHz
Log Ant.#:	na	Humidity (%) :	58	Video Bandwidth	300 kHz
DRG Ant. #	529	Spec An.#:	911	Peak RBW:	1 MHz
Cable LF#:	SOATS	Spec An. Display #:	911	Video Bandwidth	3 MHz
Cable HF#:	60FT	QP #:	NA	Average = Peak + DCF	
Preamp LF#:	902	PreSelect#:	NA		
Preamp HF#	317	DCF	-20		

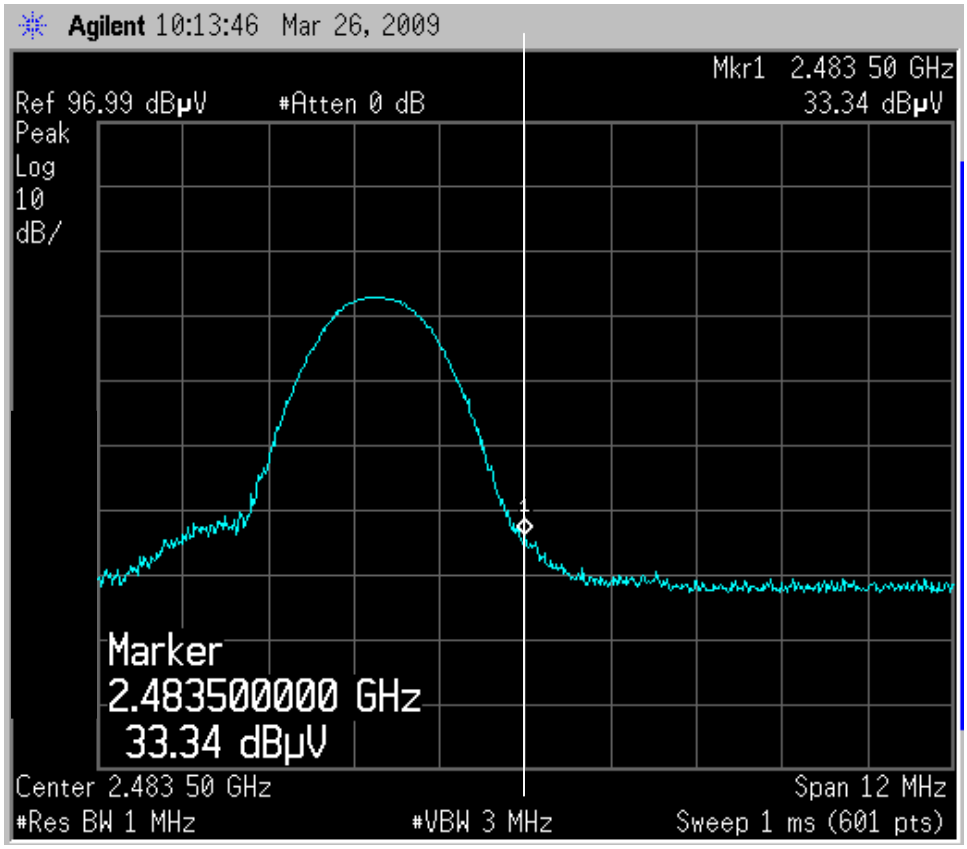
Measurements below 1 GHz are Quasi-Peak values, unless otherwise stated.
Measurements above 1 GHz are Average values, unless otherwise stated.

Meas. Freq. (MHz)	Meter Reading **Vertical**	Meter Reading **Horizontal**	Det.	EUT Side F/L/R/B	Ant. Height m	Max. Reading (dBµV)	Corrected Reading (dBµV/m)	Spec. limit (dBµV/m)	CR/SL Diff. (dB)	Pass Fail	Comment
2400.0	23.6	22.5	P	-	1.0	23.6	60.8	74.0	-13.2	Pass	LOWER BAND EDGE
2400.0	3.6	2.5	A	-	1.0	3.6	40.8	54.0	-13.2	Pass	
2401.920	71.6	68.1	P	-	1.0	71.6	108.8	115.3	-6.5	Pass	Ant Port 1
2401.920	56.8	49.8	P	-	1.0	56.8	94.0	115.3	-21.3	Pass	Ant Port 2
2441.664	73.7	69.7	P	-	1.0	73.7	110.9	115.3	-4.4	Pass	Ant Port 1
2441.664	73.7	69.3	P	-	1.0	73.7	110.9	115.3	-4.4	Pass	Ant Port 2
7324.992	46.7	42.6	P	-	1.0	46.7	66.3	74.0	-7.7	Pass	
7324.992	26.7	22.6	A	-	1.0	26.7	46.3	54.0	-7.7	Pass	
2481.408	69.5	67.3	P	-	1.0	69.5	106.7	115.3	-8.6	Pass	Ant Port 1
2481.408	69.6	68.1	P	-	1.0	69.6	106.8	115.3	-8.5	Pass	Ant Port 2
2481.5	77.7	68.3	P	-	1.0	77.7	114.9	115.3	-0.4	Pass	UP ORIGINAL
2481.5	68.3	74.6	P	-	1.0	74.6	111.8	115.3	-3.5	Pass	FLAT ORIGINAL
7444.224	42.8	41.7	P	-	1.0	42.8	63.2	74.0	-10.8	Pass	
7444.224	22.8	21.7	A	-	1.0	22.8	43.2	54.0	-10.8	Pass	
2483.5	33.3	27.7	P	-	1.0	33.3	70.5	74.0	-3.5	Pass	UPPER BAND EDGE
2483.5	13.3	7.7	A	-	1.0	13.3	50.5	54.0	-3.5	Pass	

Band Edge and Harmonics Verification

Sample Computations:
Max Reading= Meter Reading +Antenna Factor +Cable Loss
Peak hold measured 23.6 dBuV/m
60.8 = 23.6 + 28.3 + 8.9
Peak complies.
Average = Peak + DCF
Average = 40.8 dBuV/m, Average complies





Peak hold measured 23.6 dBuV/m
70.5 = 33.3 + 28.3 + 8.9
Peak complies.
Average = Peak + DCF
Average = 50.5 dBuV/m, Average complies

5.6. Number of Hopping Channels

RSS-210 Annex 8.1(4)

(iii) Frequency hopping systems in the 2400-2483.5 MHz band may utilize hopping channels whose 20dB bandwidth is greater than 1 MHz provided the systems use at least 15 non-overlapping channels. The total span of hopping channels shall be at least 75 MHz.

Test Results: Not tested, Antenna-cable assembly would not affect hopping program.

5.7. Channel Separation

15.247(a)(1) Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20dB bandwidth of the hopping channel, whichever is greater. Alternatively frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25kHz or two-thirds of the 20dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125mW.

Test Results: Not tested, Antenna-cable assembly would not affect frequency plan.

5.8. Time of Occupancy

RSS-210 Annex 8.1(4)

15.247 (a)(1)(iii) Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

Test Results: Not tested, Antenna-cable assembly would not affect hopping program.

5.9. Test Equipment

Nemko ID	Device	Manufacturer	Model	Serial Number	Cal Date	Cal Due Date
113	Antenna, Bicon	EMCO	3104	2996	20-Oct-08	20-Oct-10
111	Antenna, LPA	EMCO	3146	1382	10-Feb-09	10-Feb-10
919	Preamplifier	Spacek Labs MM-Wave Technology	100MHz to 40GHz	3M12 (SLK-35-3) and 3M13 (SLKa-35-4)	10-Nov-08	11-Nov-09
317	Preamplifier	HP	8449A	2749A00167	31-Mar-07	31-Mar-08
529	Antenna, DRWG	EMCO	3115	2505	30-Sep-08	30-Sep-10
911	Spectrum Analyzer	Agilent	E4440A	US41421266	06-Nov-08	06-Nov-09
128	Antenna, Bicon	EMCO	3104	2882	09-Feb-09	09-Feb-11
110	Antenna, LPA	Electrometrics	LPA-25	1217	10-Jan-09	10-Feb-11
898	EMI Receiver & filter set	HP	8546A	3625A00348	09-May-08	09-May-09
899	Filter Section	HP	85460A	3448A00288	09-May-08	09-May-09
625	Antenna, Dbl Ridge Horn	EMCO	3116	2325	Verified 3/26/09	