Standards Council of Canada
Accredited Laboratory
Scope of Accreditation 75

Conseil canadien des normes
Laboratoire accrédité
Portée d'accréditation 75

TM

Test Report:	5W45697, issue 2
Applicant:	Aastra Telecom Inc. 155 Snow Boulevard Concord, ON L4K 4N9
Equipment Under Test: (EUT)	480i Cordless Base Station
FCC ID:	SDV480ICT
In Accordance With:	**FCC Part 15, Subpart C** Frequency Hopping Systems 2400 - 2483.5 MHz
Tested By:	Nemko Canada Inc. 303 River Road, R.R. 5 Ottawa, Ontario K1V 1H2
Authorized By:	Sim Jagpal, General Manager
Date:	28 September 2005
Total Number of Pages:	49

Table of Contents

Section 1. Summary of Test Results

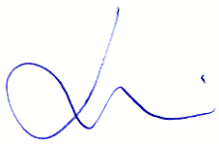
General

All measurements are traceable to national standards.

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15, Subpart C, Paragraph 15.247 for Frequency Hopping Spread Spectrum devices. Radiated tests were conducted is accordance with ANSI C63.4-2003. Radiated emissions are made on an open area test site. A description of the test facility is on file with the FCC.

THIS TEST REPORT RELATES ONLY TO THE ITEM(S) TESTED.

THE FOLLOWING DEVIATIONS FROM, ADDITIONS TO, OR EXCLUSIONS FROM THE TEST SPECIFICATIONS HAVE BEEN MADE.
See " Summary of Test Data".



TESTED BY: _____ DATE: 28 September 2005
Xu Jin, Wireless Specialist

Summary Of Test Data

Name Of Test	Para. No.	Result
Powerline Conducted Emissions	15.207(a)	Complied
Channel Separation	15.247(a)(1)	Complied
Time of Occupancy	15.247(a)(1)(iii)	Complied
20 dB Occupied Bandwidth	15.247(a)(1)	Complied
Number of Hopping Channels	15.247(a)(1)(iii)	Complied
Peak Power Output	15.247(b)(1)	Complied
Spurious Emissions (Antenna Conducted)	15.247(c)	N/A(1)
Spurious Emissions (Radiated)	15.247(c)	Complied

Footnotes For N/A's: **(1) No access port.**

Test Conditions:

Indoor Temperature: 23°C
Humidity: 56 %

Outdoor Temperature: 24°C
Humidity: 70 %

Note:

Customer has declared that the radio circuitry is identical in the cordless handset to that previously assessed under Nemko Project 07975.(CM-16). They also declared that the external adaptor is identical to that assessed under Nemko Project 07975.

In this report, the test was only conducted against the 480i base station for EIRP and transmitter spurious emissions. The handset data and rest of the base station test result were taken from Nemko report 4W07975 and Nemko EMC report 5R45679.

Section 2. General Equipment Specification

Manufacturer:	Aastra Telecom Inc.
Model No.:	Hand Unit: CM 16 Base Unit: 480i
Serial No.:	Hand Unit: D80151401805 Base Unit: CLSBR004
Date Received In Laboratory:	May 25, 2005
Nemko Identification No.:	Hand Unit: CM 16----#10 Base Unit: 480i-----#9
Frequency Range:	2400-2483 MHz
Modulation	GFSK
Tunable Bands:	1
Number of Channels:	Base: 94 channels Handset: 94 channels
Min. Channel Spacing:	Base: 877 KHz Handset: 860 KHz
Emissions Designator:	667KF1D
User Frequency Adjustment:	None
Output Power:	Base: 23.01dBm (0.2 W) Handset: 23.77dBm (0.238 W)

Section 3. Power line Conducted Emissions

Para. No.: 15.207 (a)

Test Performed By: Michel Dorion	**Date of Test: May 25, 2005**

Minimum Standard: **CISPR 22-96**

Limits For Conducted Disturbance At The Mains Ports Of Class B

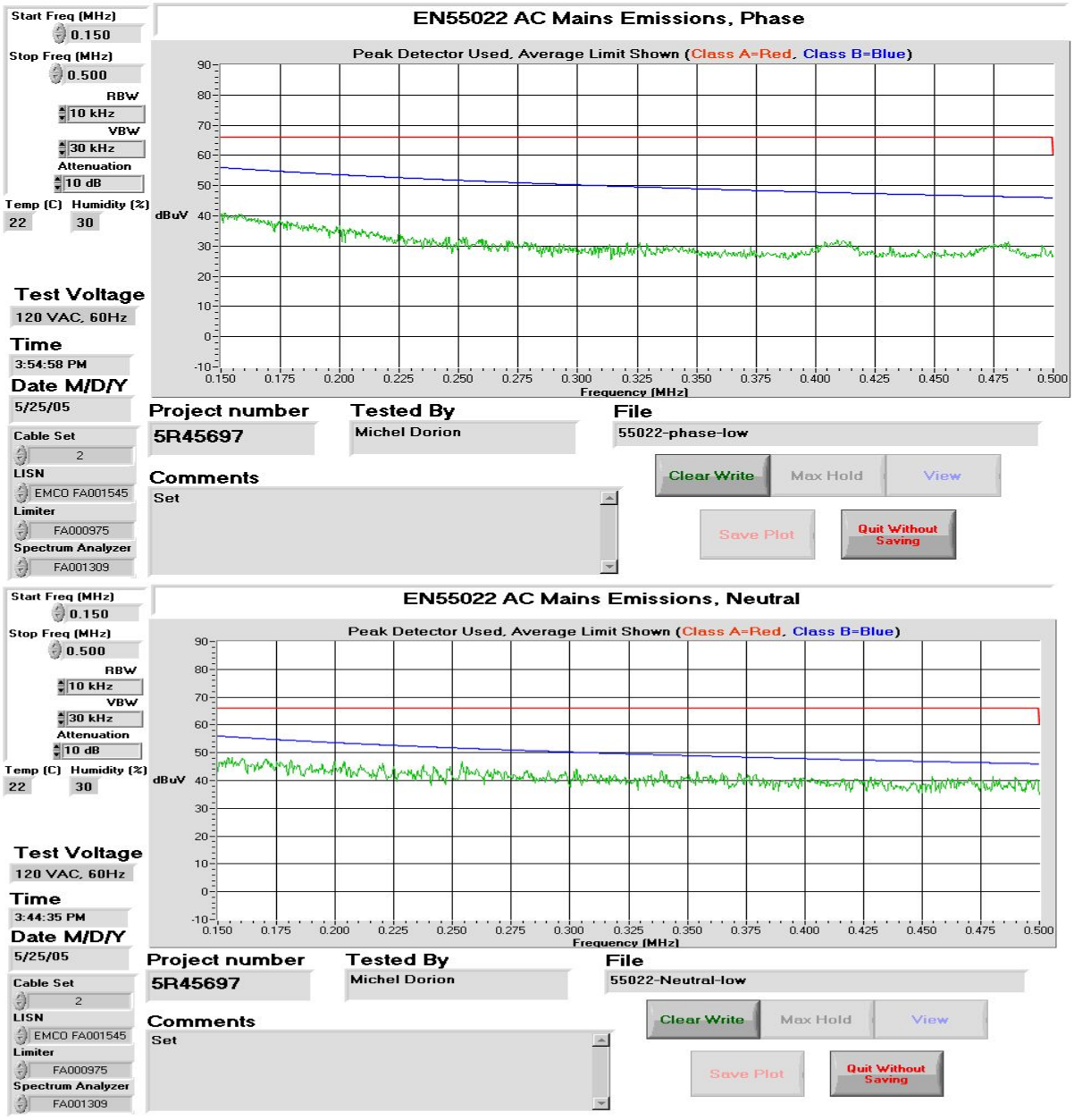
Frequency Range MHz	Limits dB(μV)		Result
	Quasi-Peak	Average	
0.15 to 0.50	66 to 56	56 to 46	Complies
0.5 to 5	56	46	
5 to 30	60	50	

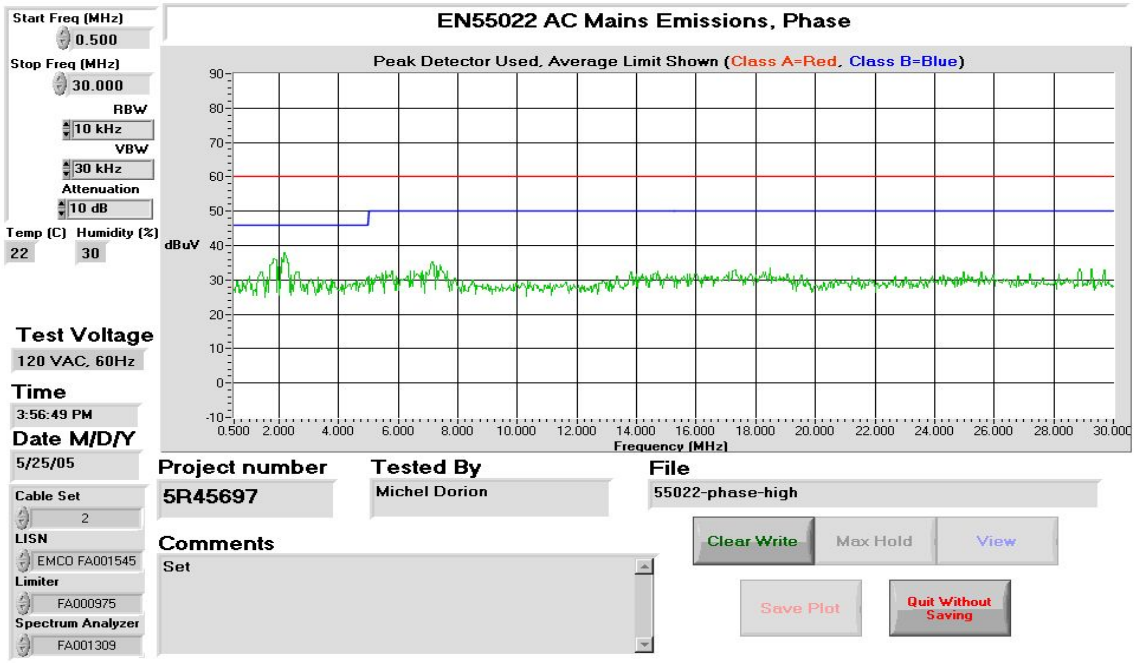
Note:
1. The lower limit shall apply at the transition frequency.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 to 0.50MHz.

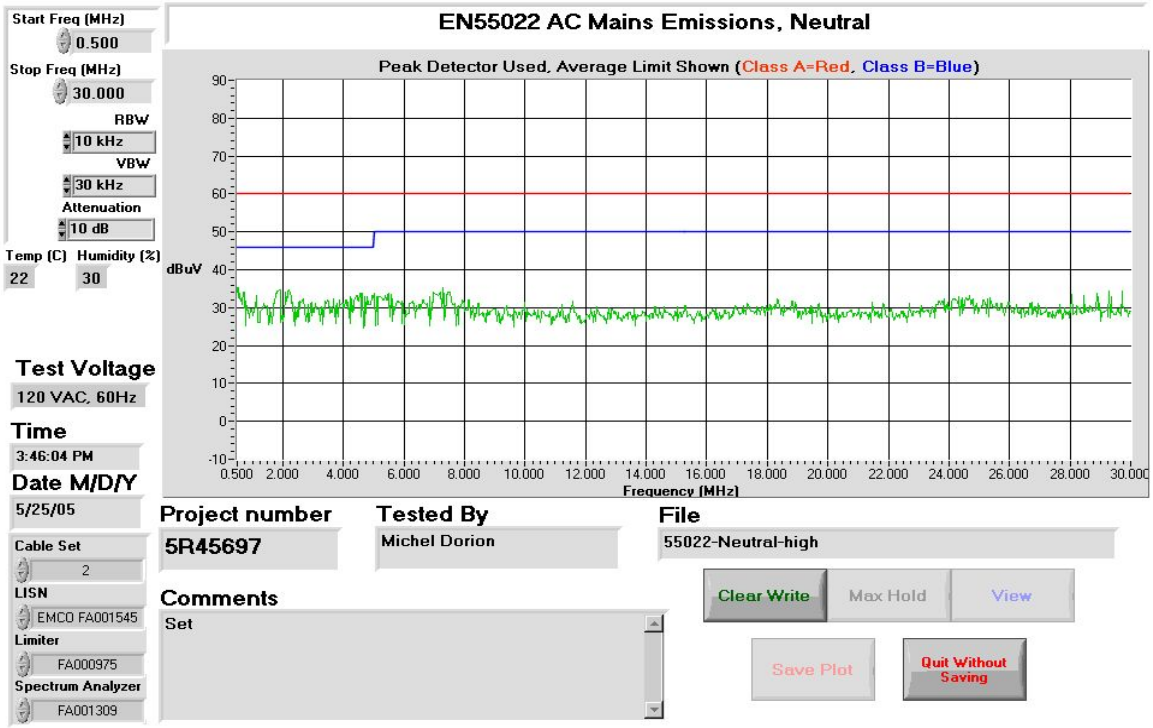
Test Results: Complied.

Measurement Data: See attached graph(s).

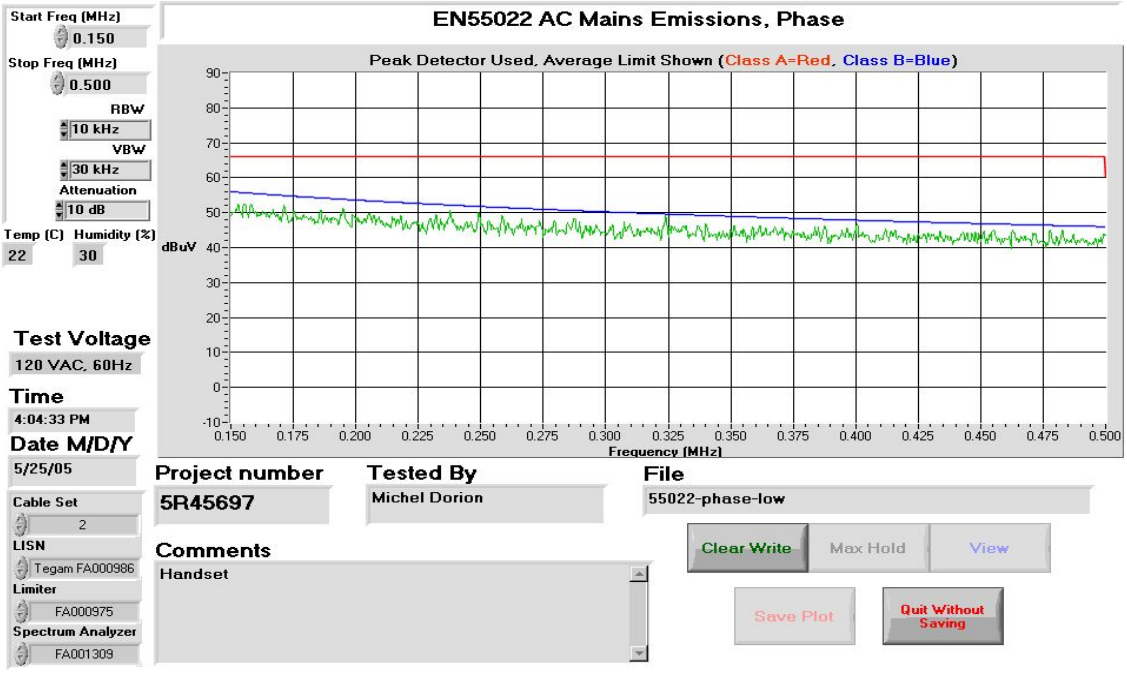
Conducted Disturbance—Base Unit

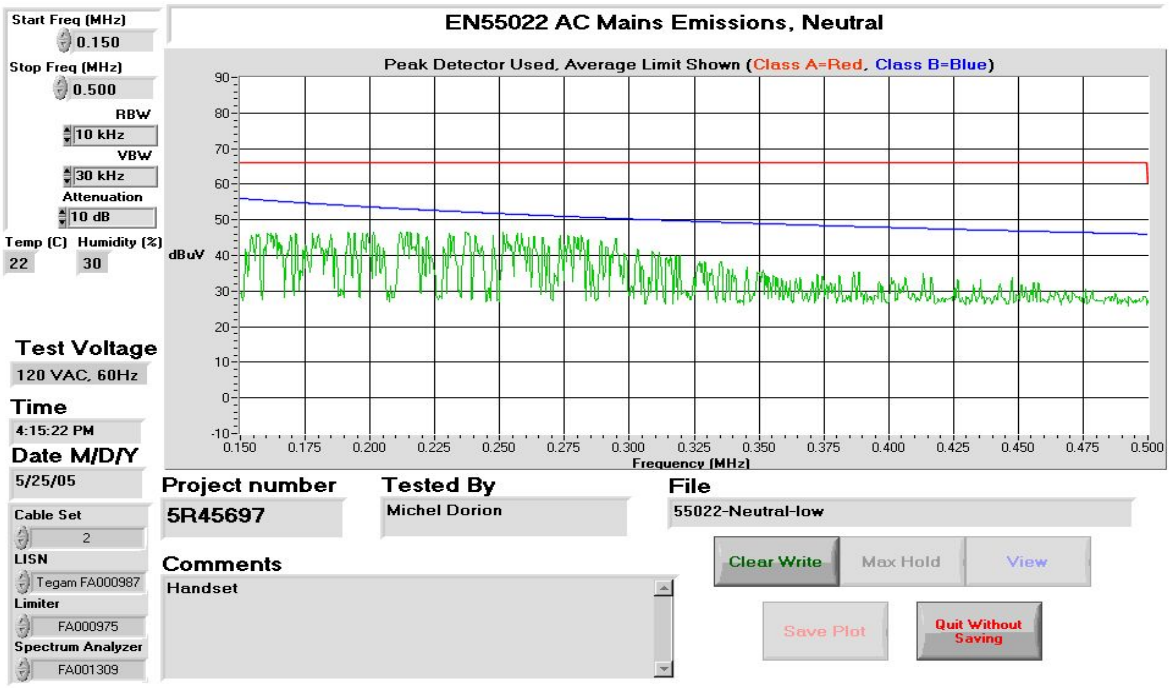


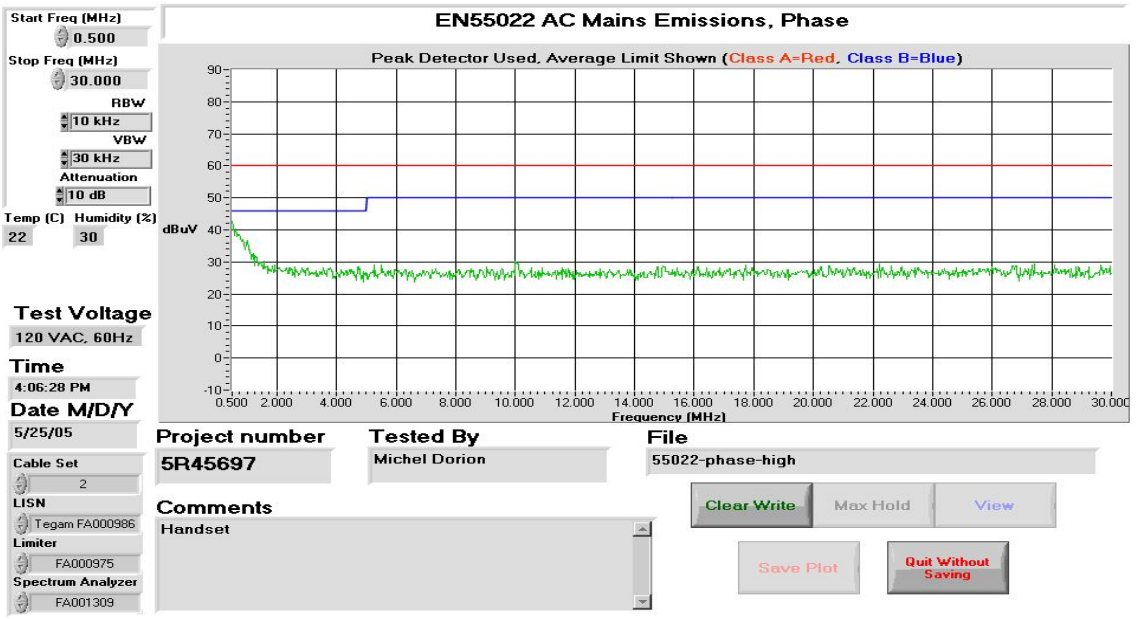

EN55022 AC Mains Emissions, Phase
Peak Detector Used, Average Limit Shown (Class A=Red, Class B=Blue)
Start Freq (MHz)
0.500
Stop Freq (MHz)
30.000
RBW
10 kHz
VBW
30 kHz
Attenuation
10 dB
Temp (C)
22
Humidity (%)
30
dBuV
Frequency (MHz)
Test Voltage
120 VAC, 60Hz
Time
3:56:49 PM
Date M/D/Y
5/25/05
Cable Set
2
LISN
EMCO FA001545
Limiter
FA000975
Spectrum Analyzer
FA001309
Project number
5R45697
Tested By
Michel Dorion
File
55022-phase-high
Comments
Set
Clear Write
Max Hold
View
Save Plot
Quit Without Saving

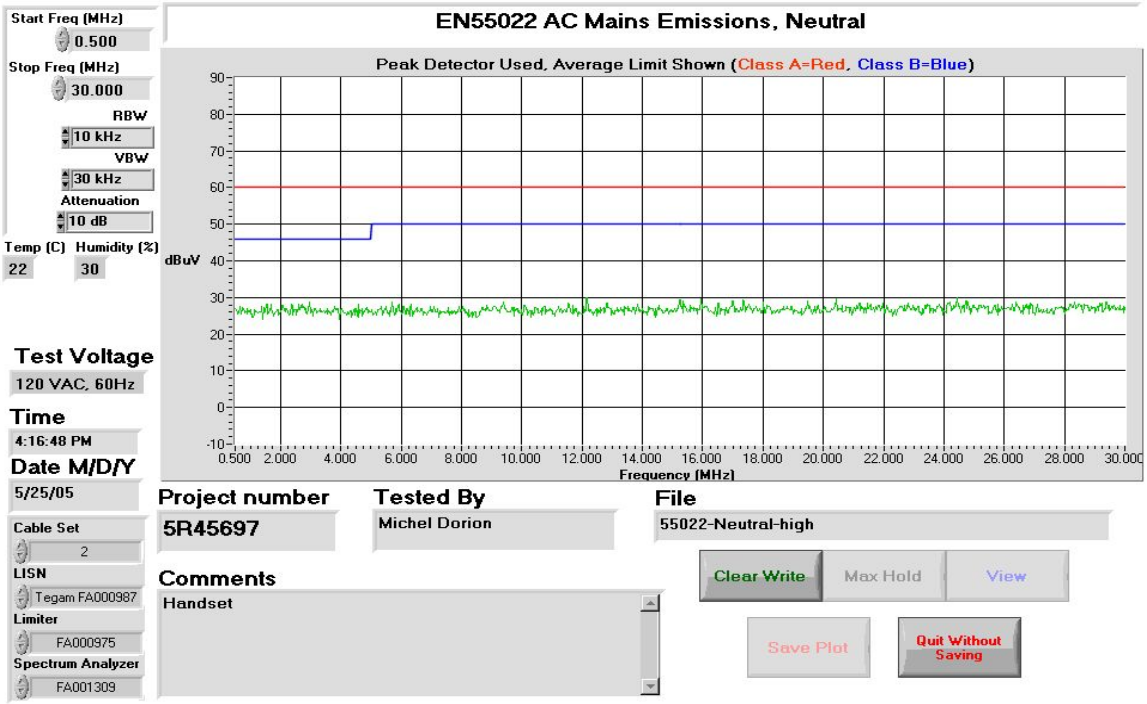

EN55022 AC Mains Emissions, Neutral
Peak Detector Used, Average Limit Shown (Class A=Red, Class B=Blue)
Start Freq (MHz)
0.500
Stop Freq (MHz)
30.000
RBW
10 kHz
VBW
30 kHz
Attenuation
10 dB
Temp (C)
22
Humidity (%)
30
dBuV
Frequency (MHz)
Test Voltage
120 VAC, 60Hz
Time
3:46:04 PM
Date M/D/Y
5/25/05
Cable Set
2
LISN
EMCO FA001545
Limiter
FA000975
Spectrum Analyzer
FA001309
Project number
5R45697
Tested By
Michel Dorion
File
55022-Neutral-high
Comments
Set
Clear Write
Max Hold
View
Save Plot
Quit Without Saving

Conducted Disturbance—Hand Unit

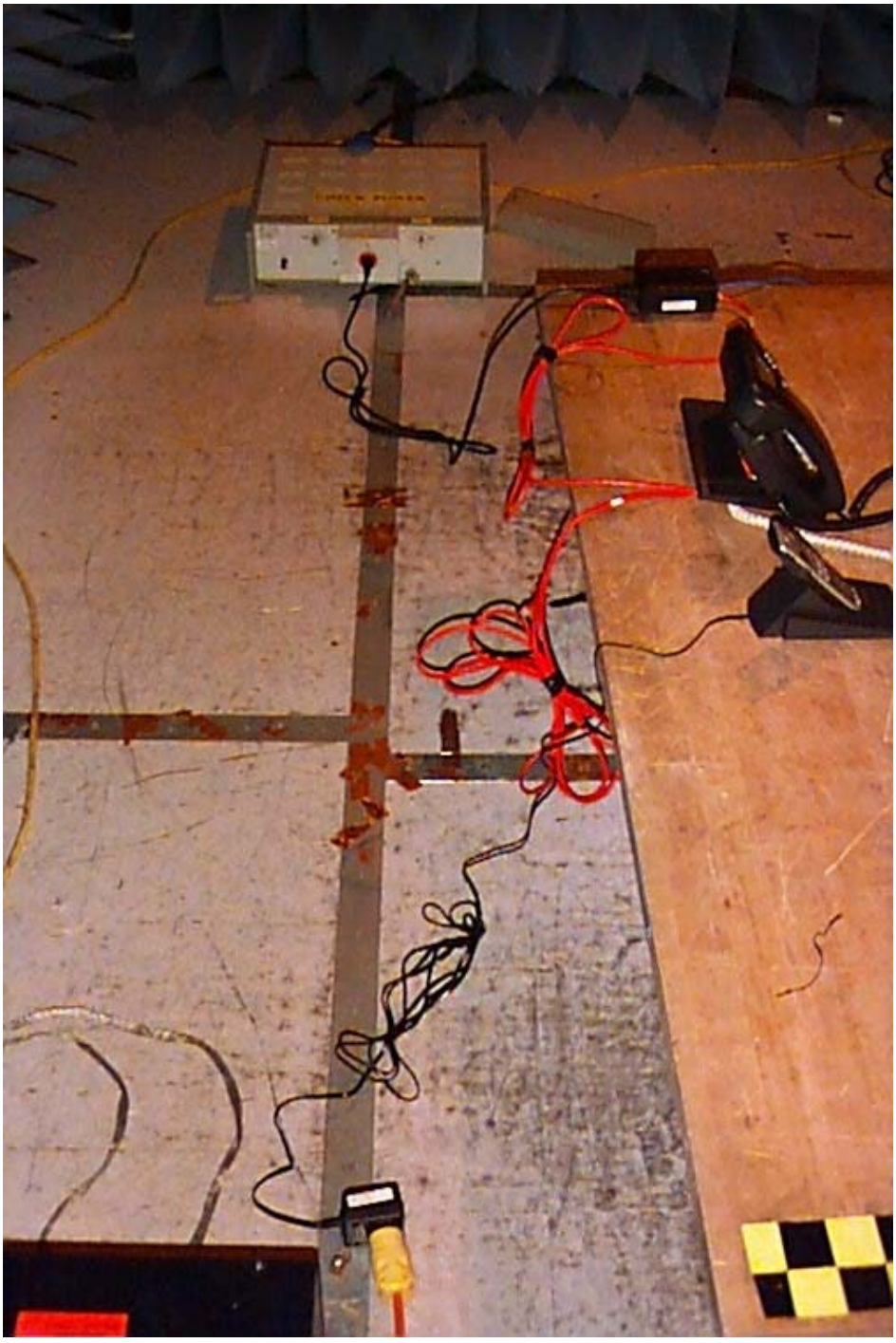





Start Freq (MHz)
0.500
Stop Freq (MHz)
30.000
RBW
10 kHz
VBW
30 kHz
Attenuation
10 dB
Temp (C) Humidity (%)
22 30
Test Voltage
120 VAC, 60Hz
Time
4:06:28 PM
Date M/D/Y
5/25/05
Cable Set
2
LISN
Tegam FA000986
Limiter
FA000975
Spectrum Analyzer
FA001309
EN55022 AC Mains Emissions, Phase
Peak Detector Used, Average Limit Shown (Class A=Red, Class B=Blue)
dBuV
Frequency (MHz)
Project number
5R45697
Tested By
Michel Dorion
File
55022-phase-high
Comments
Handset
Clear Write
Max Hold
View
Save Plot
Quit Without Saving


Start Freq (MHz)
0.500
Stop Freq (MHz)
30.000
RBW
10 kHz
VBW
30 kHz
Attenuation
10 dB
Temp (C) Humidity (%)
22 30
Test Voltage
120 VAC, 60Hz
Time
4:16:48 PM
Date M/D/Y
5/25/05
Cable Set
2
LISN
Tegam FA000987
Limiter
FA000975
Spectrum Analyzer
FA001309
EN55022 AC Mains Emissions, Neutral
Peak Detector Used, Average Limit Shown (Class A=Red, Class B=Blue)
dBuV
Frequency (MHz)
Project number
5R45697
Tested By
Michel Dorion
File
55022-Neutral-high
Comments
Handset
Clear Write
Max Hold
View
Save Plot
Quit Without Saving

Test Setup Photo



Section 4. Channel Separation

Para. No.: 15.247 (a)(1)

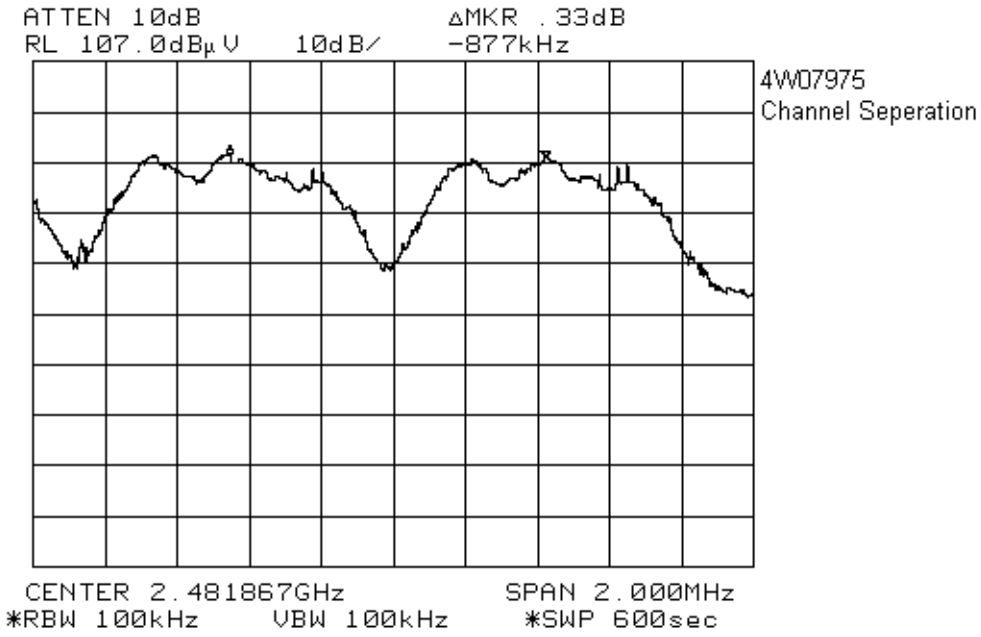
Test Performed By: Kevin Carr & Daxesh Thakker	**Date of Test: 12 May 2004 & 25 June 2004**

Test Results: Complied.

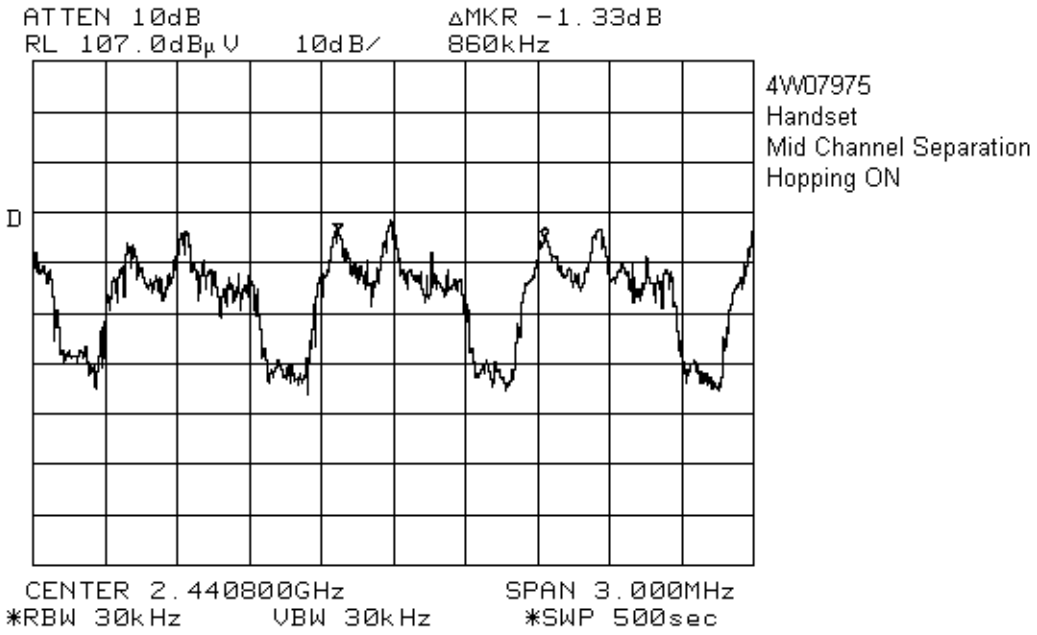
Measurement Data: **Minimum Channel Separation**
Base: 877 KHz, 20dB BW = 700kHz
Handset: 860 KHz. 20dB BW = 708kHz

Channel Separation Plots

Base



Handset



Section 5. Number of Hopping Channels

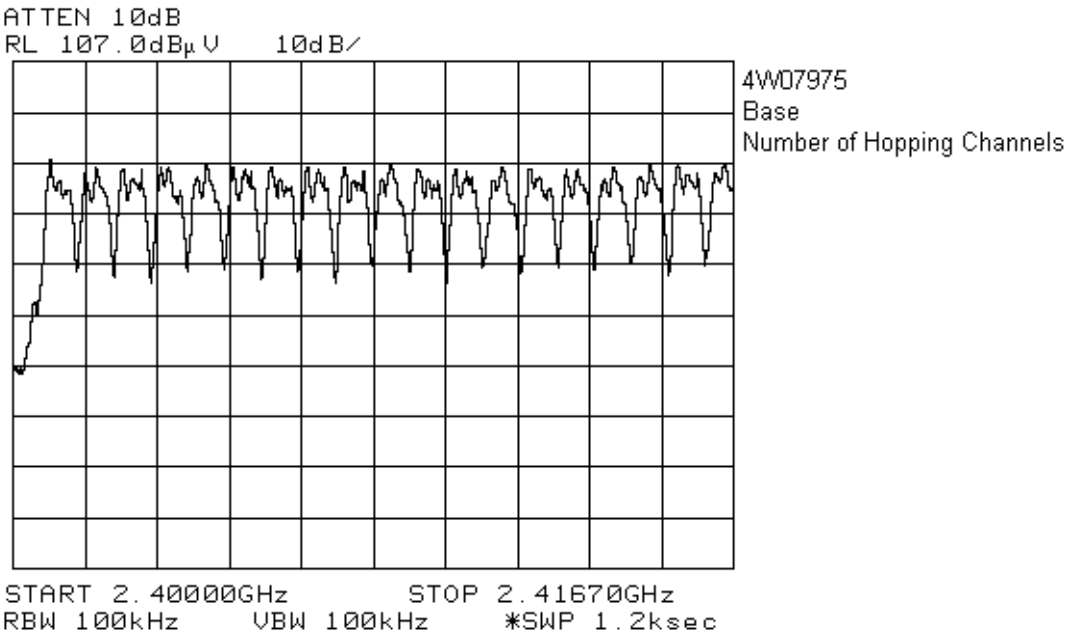
Para. No.: 15.247(a)(1)(iii)

Test Performed By: Kevin Carr & Daxesh Thakker	**Date of Test: 11 May 2004 & 25 June 2004**

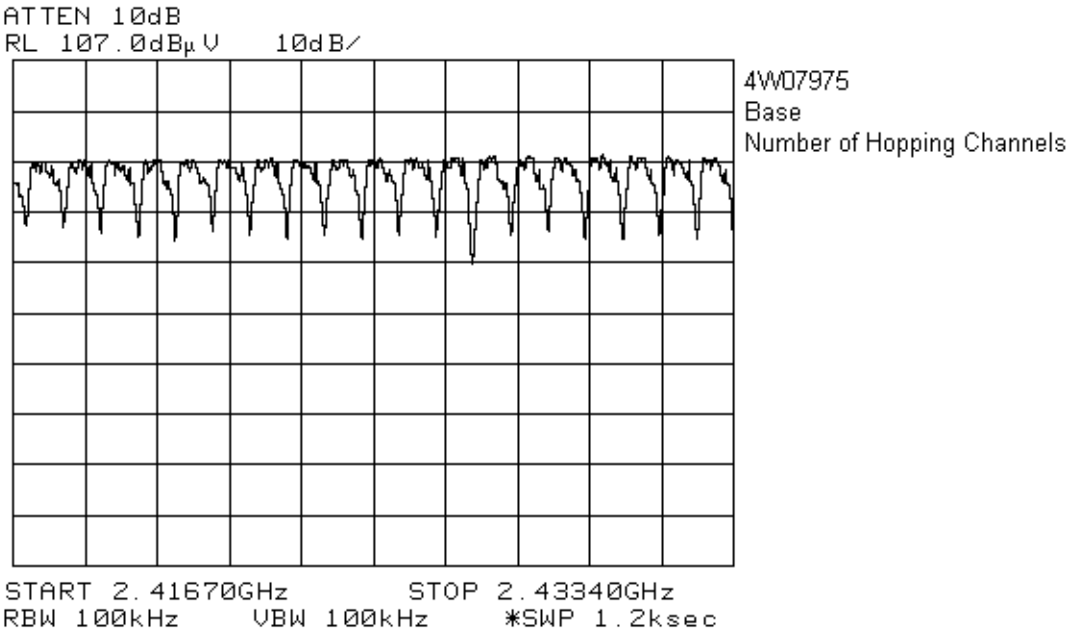
Test Results: Complied

Measurement Data: Number of Hopping Channel Frequencies:
Base: 94 channels
Handset: 94 channels

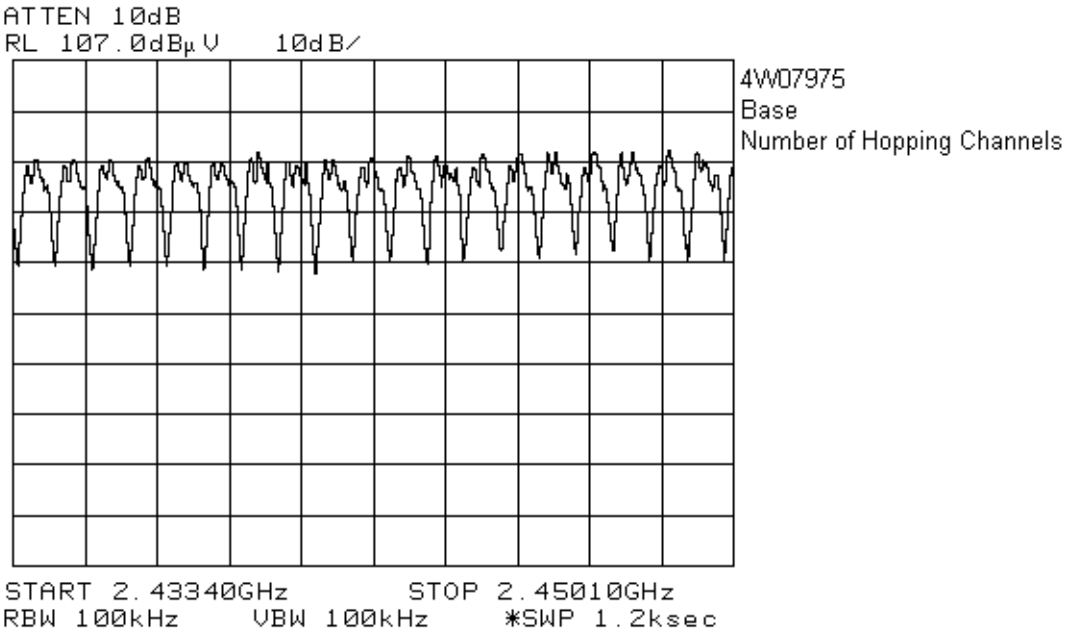
Number of Hopping Channels
Base station



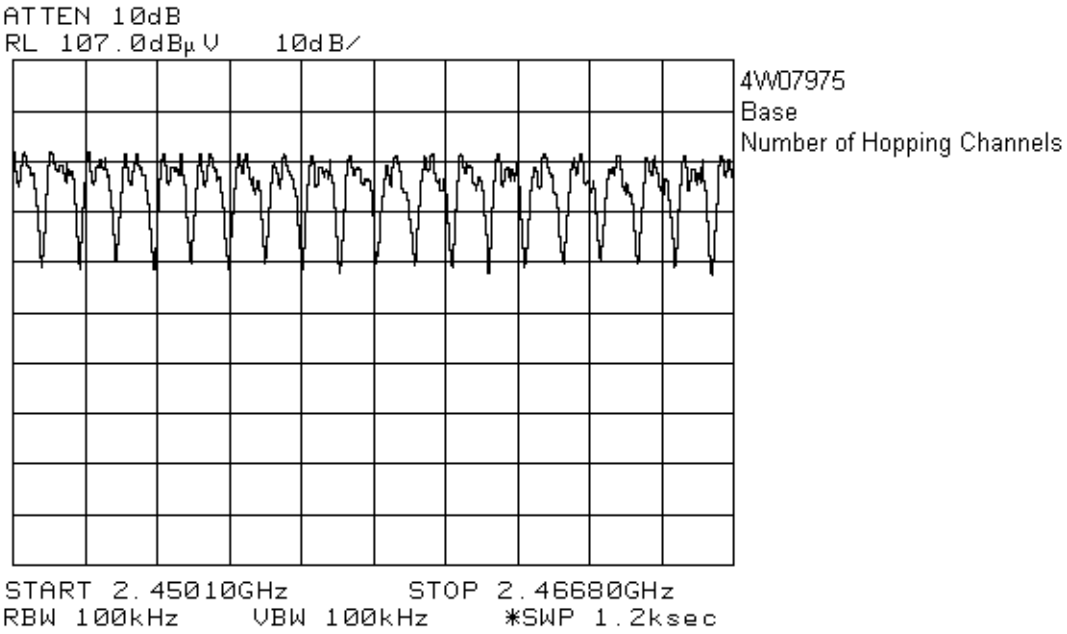
Band 1 showing 19 channels



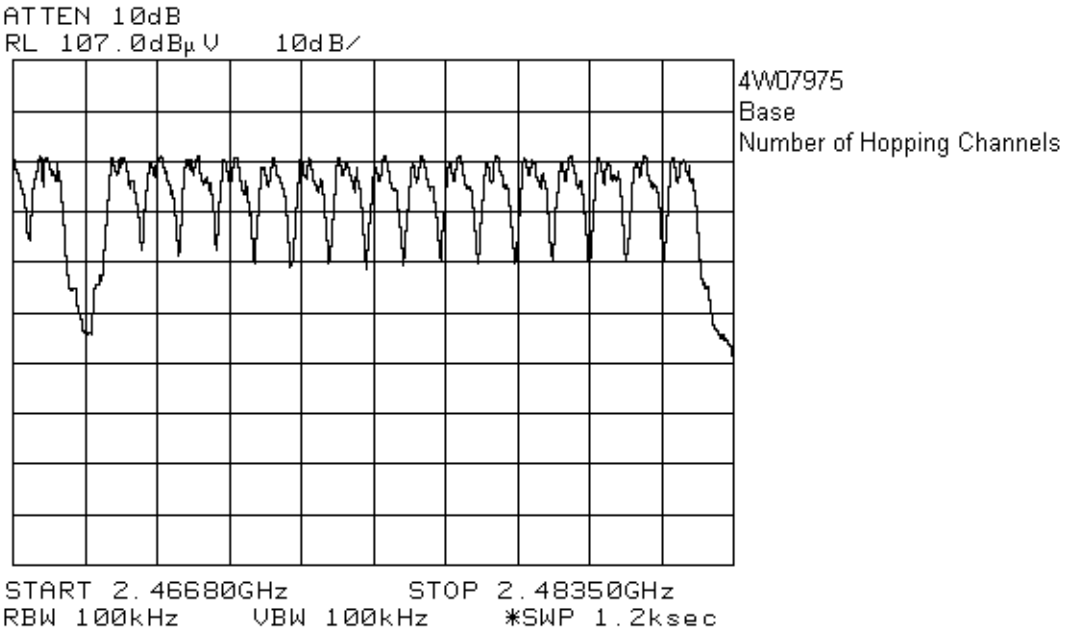
Band 2 showing 19 channels



Band 3 showing 19 channels



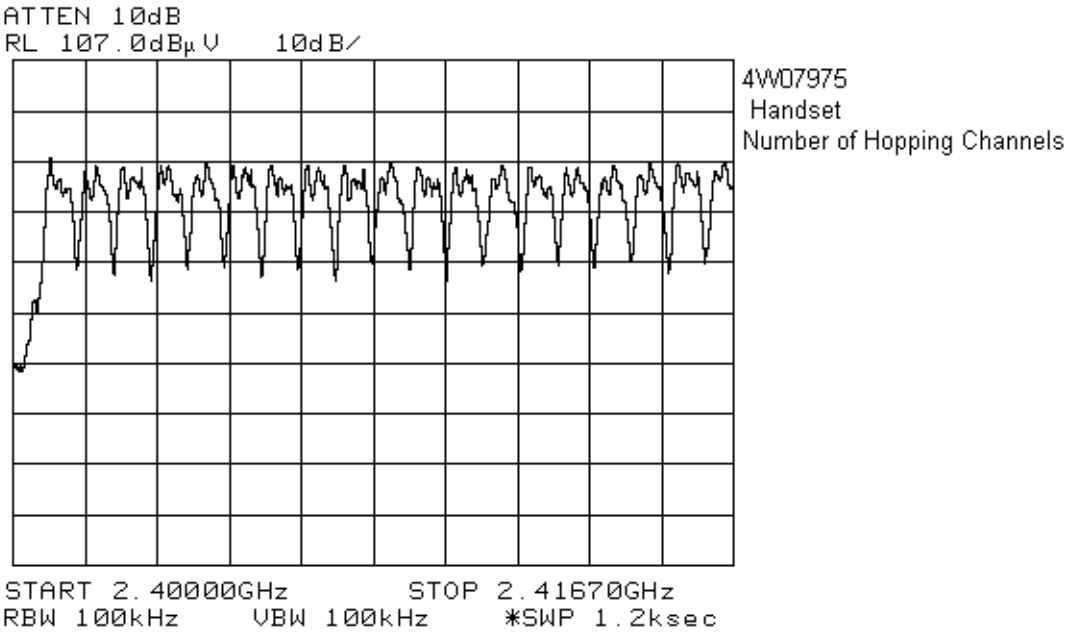
Band 4 showing 20 channels



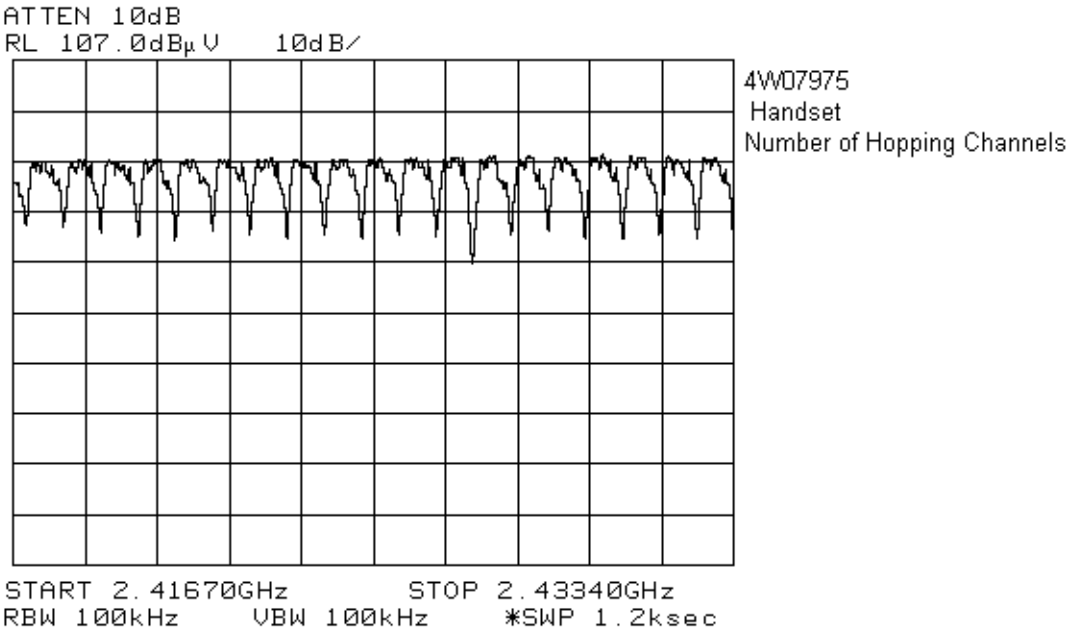
Band 5 showing 17 channels

94 channels total

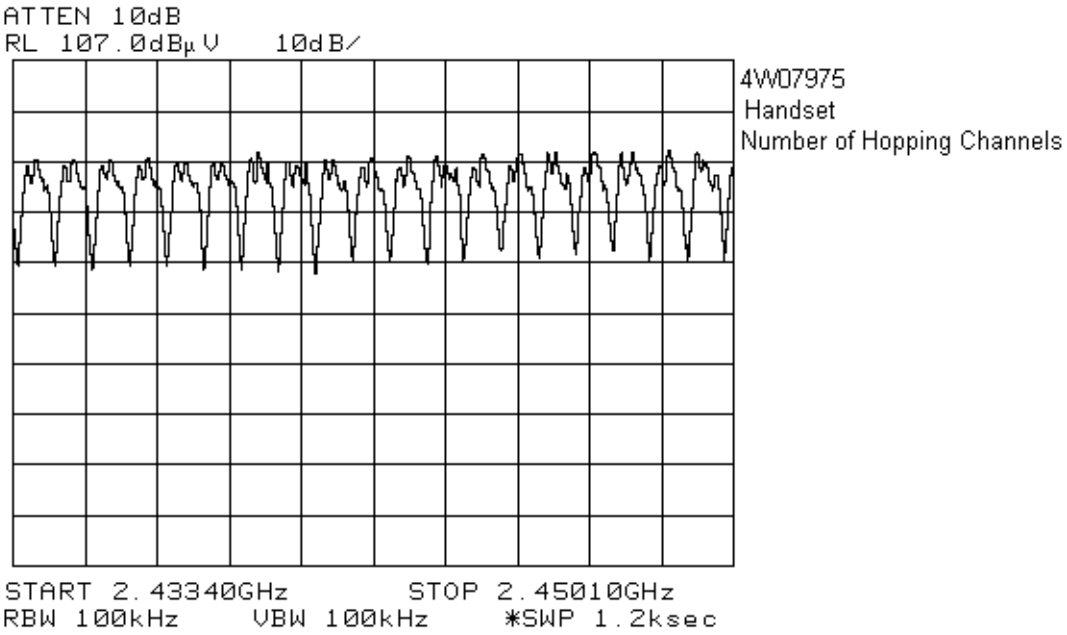
Handset



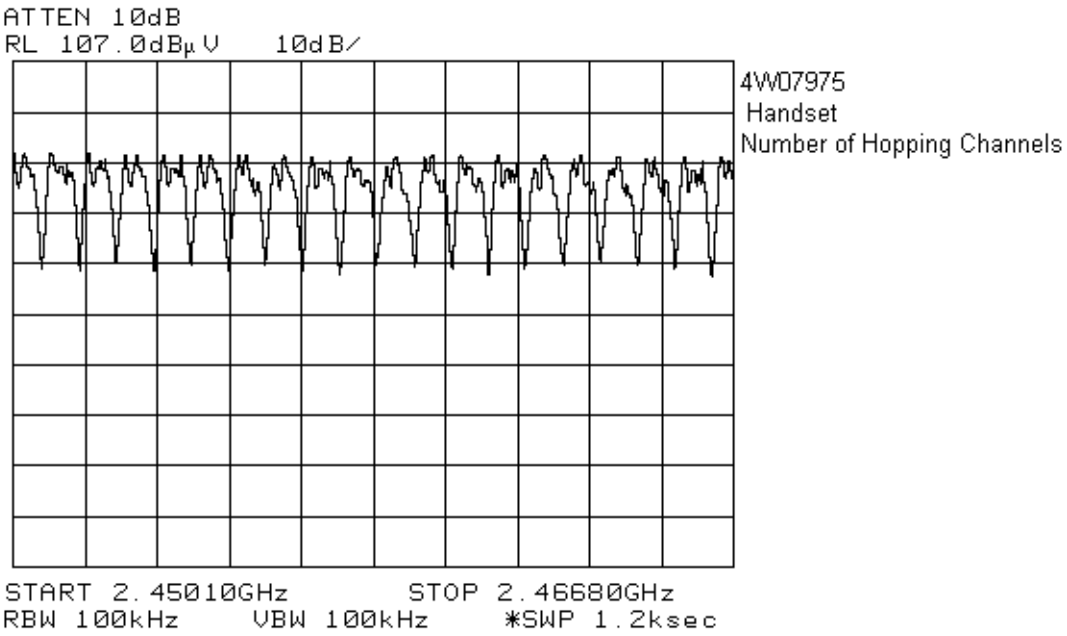
Band 1 showing 19 channels



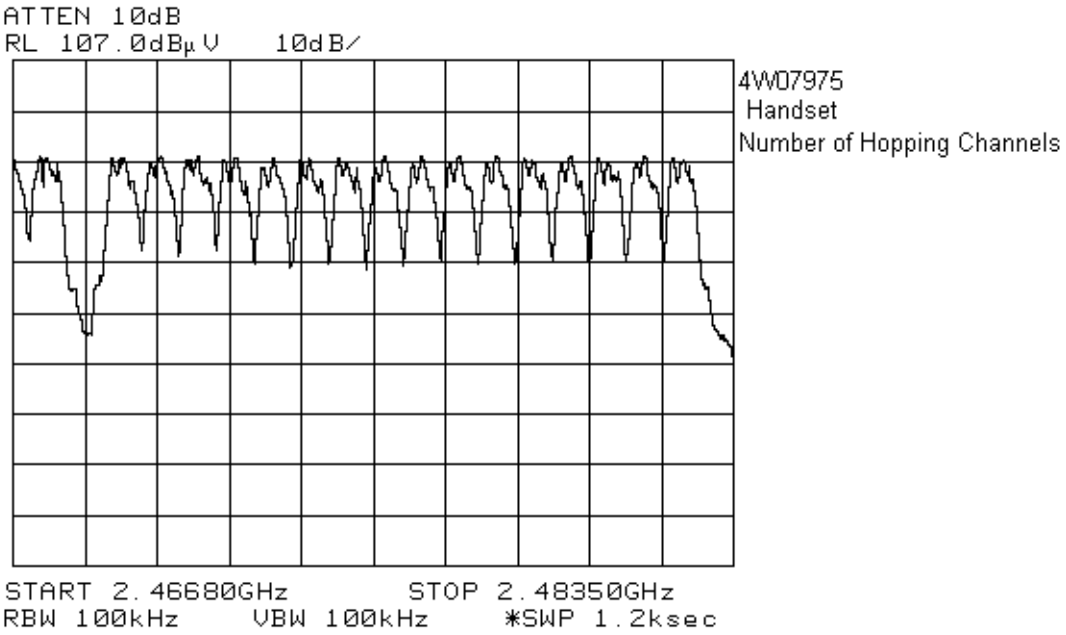
Band 2 showing 19 channels



Band 3 showing 19 channels



Band 4 showing 20 channels



Band 5 showing 17 channels

94 channels total

Section 6. Time of Occupancy

Para. No.: 15.247 (a)(1)(iii)

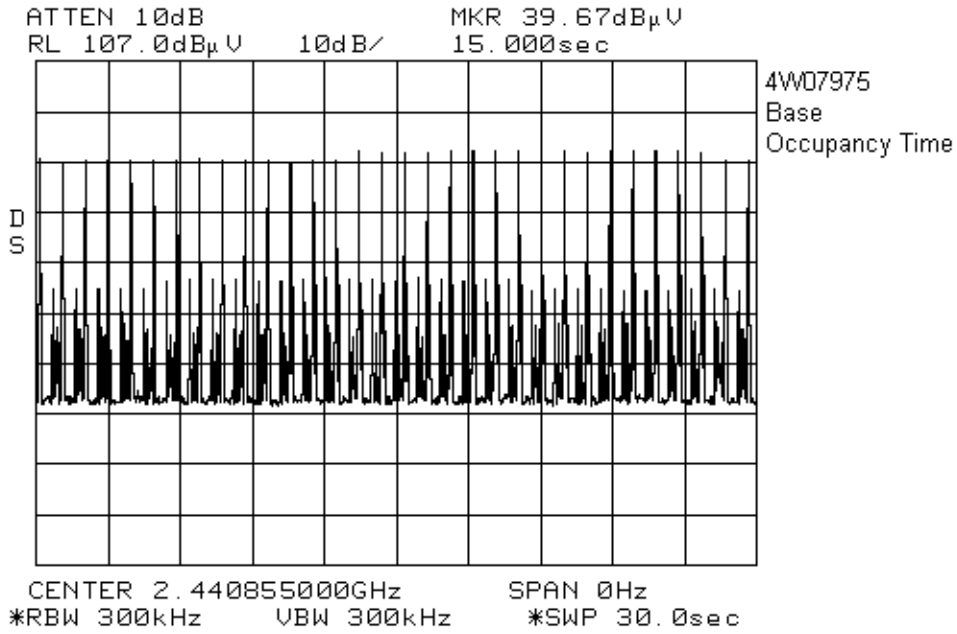
Test Performed By: Kevin Carr & Daxesh Thakker	**Date of Test: May 11, 2004** **June 12, 2004**

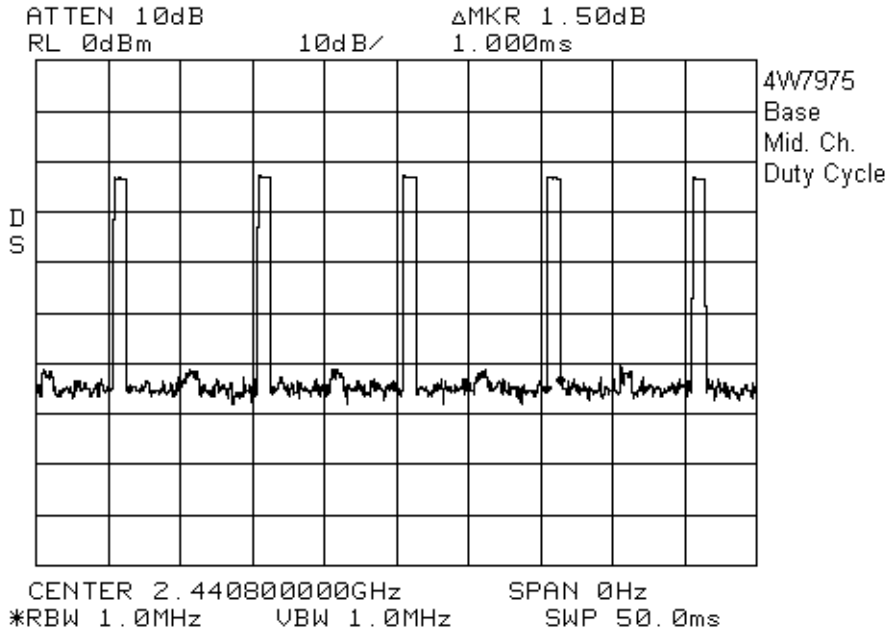
Test Results: Complies

Measurement Data: Maximum Dwell Time On Any Channel:
See Plots.

Base: 32 mSec
Handset: 25.76 mSec

Time Of Occupancy Plots.
Base



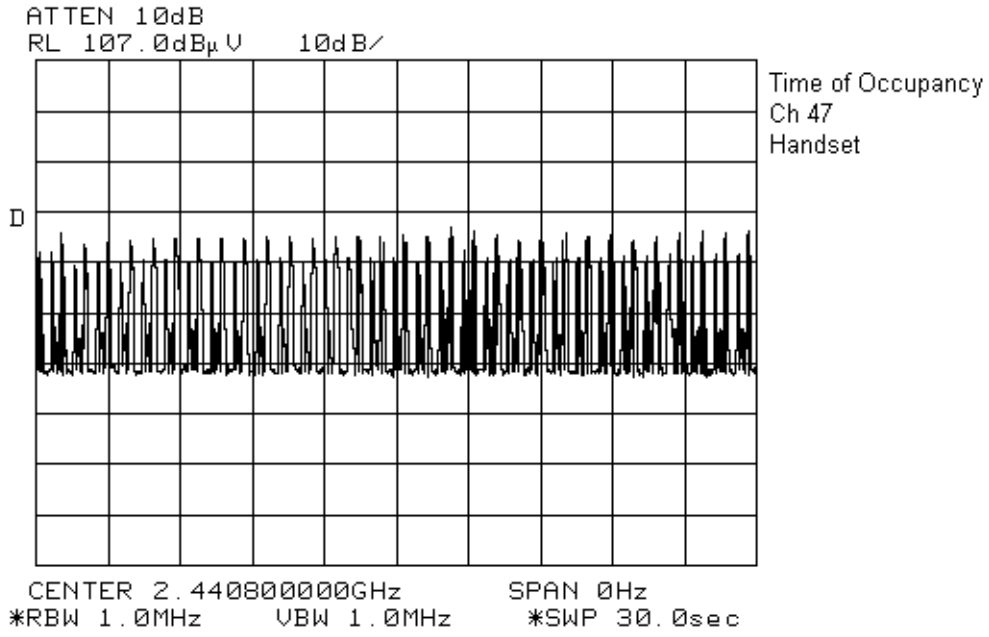


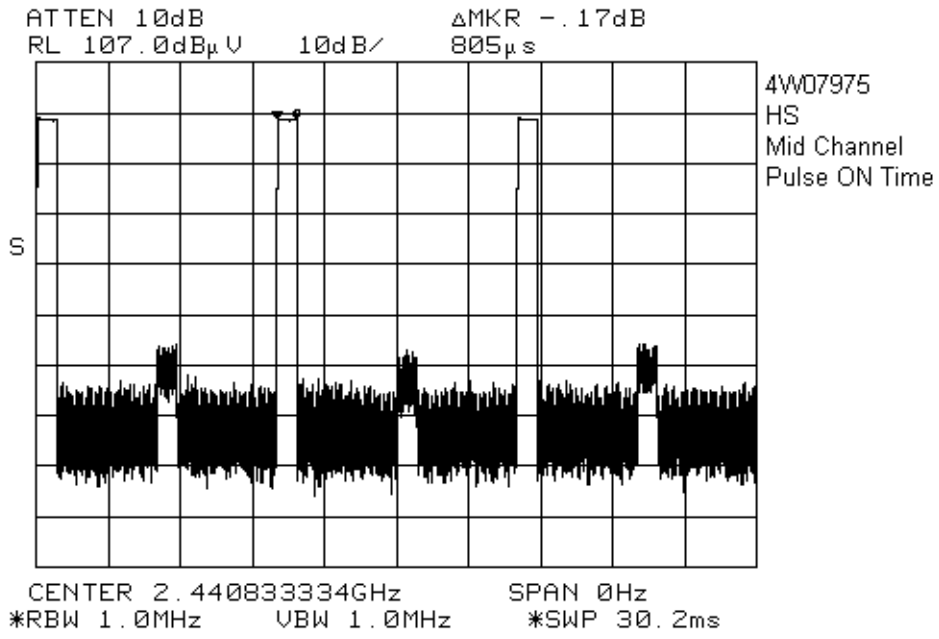
Active Slot showing 1 mSec On-Time

Time of Occupancy showing 32 hits per 30sec

32 * 1 = 32 mSec

Handset





Active Slot showing 805 µSec On-Time

Time of Occupancy showing 32 hits per 30sec

32 * 0.805 = 25.76 mSec

Section 7. Occupied Bandwidth

Para. No.: 15.247 (a)(1))

Test Performed By: Kevin Carr & Daxesh Thakker	**Date of Test: 12 May 2004, 25 June 2004, 18 Oct. 2004**

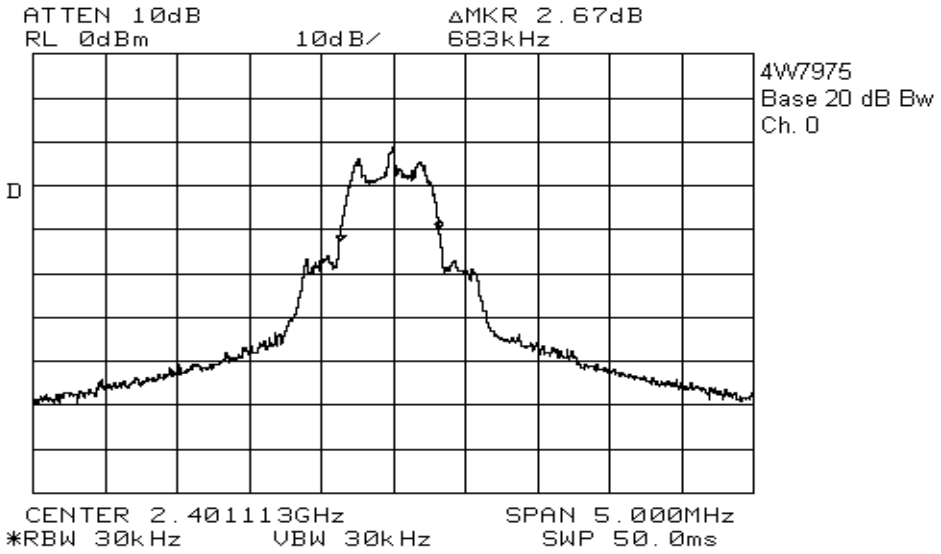
Test Results: Complied

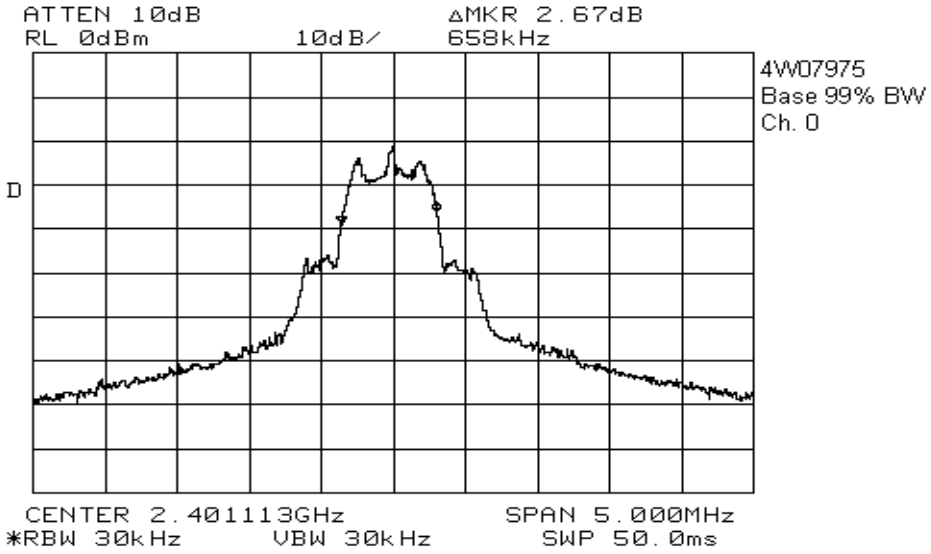
Measurement Data: See attached graphs.

Maximum 20 dB Bandwidth
Base: 700 KHz
Handset: 708 KHz

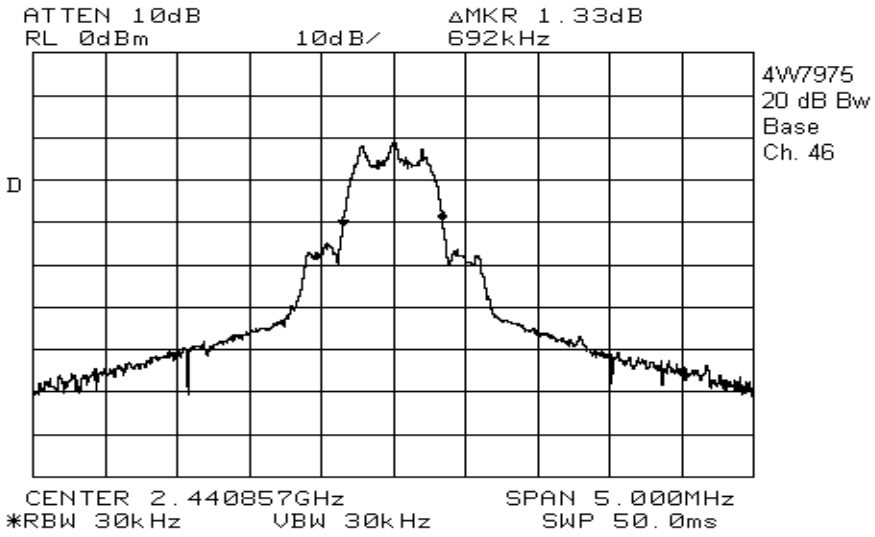
Maximum 99% Occupied Bandwidth
Base: 658 KHz
Handset: 667 KHz

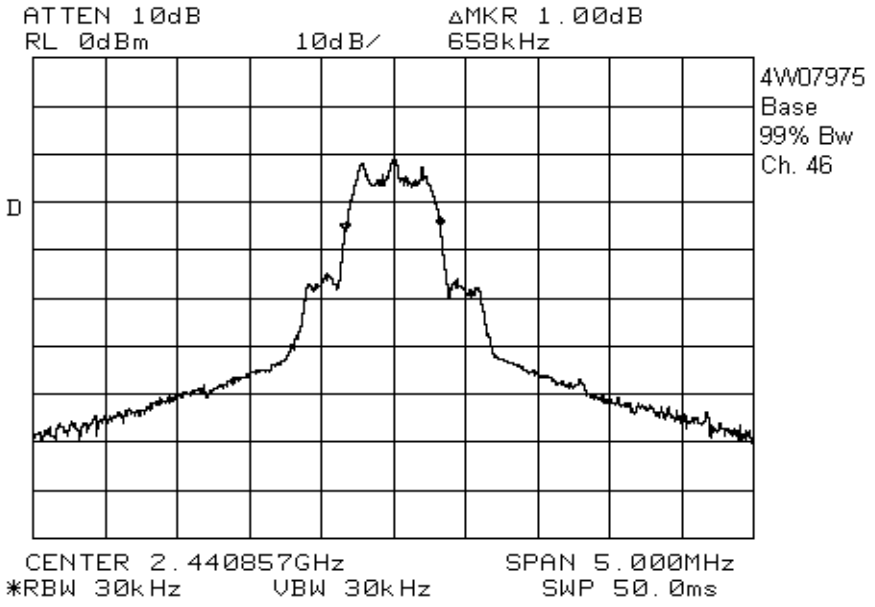
Occupied Bandwidth Plots
Base, Low Channel



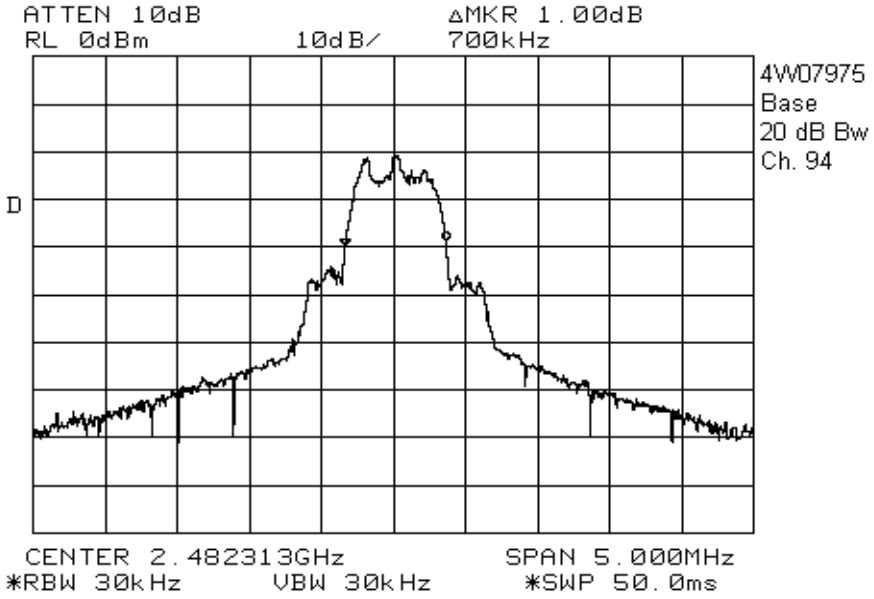


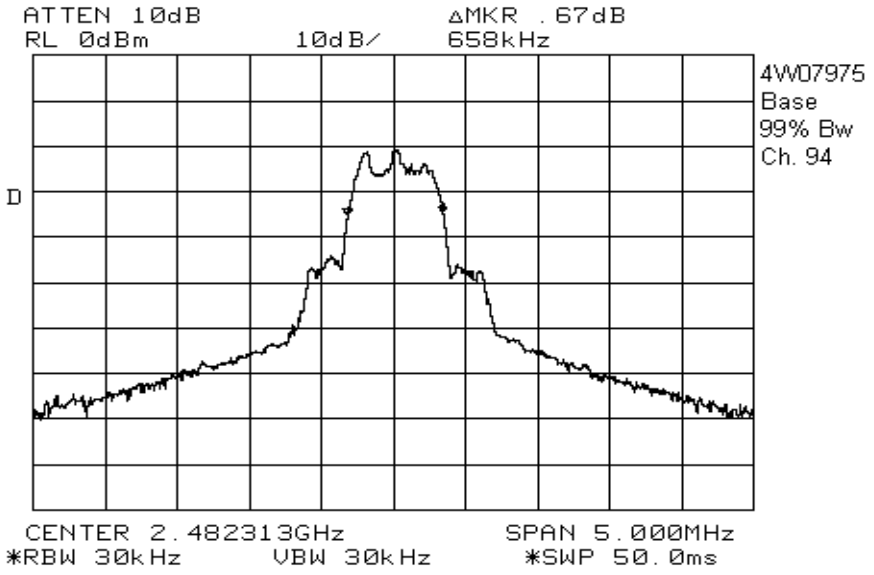
Mid. Channel


ATTEN 10dB
RL 0dBm
10dB/
ΔMKR 1.33dB
692kHz
4W7975
20 dB Bw
Base
Ch. 46
D
CENTER 2.440857GHz
SPAN 5.000MHz
*RBW 30kHz
VBW 30kHz
SWP 50.0ms

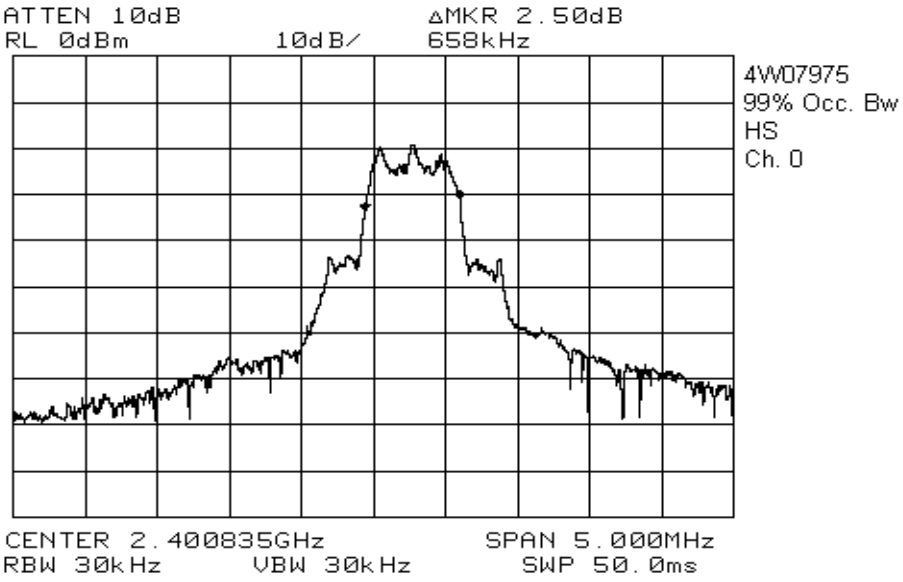

ATTEN 10dB
RL 0dBm
10dB/
ΔMKR 1.00dB
658kHz
4W07975
Base
99% Bw
Ch. 46
D
CENTER 2.440857GHz
SPAN 5.000MHz
*RBW 30kHz
VBW 30kHz
SWP 50.0ms

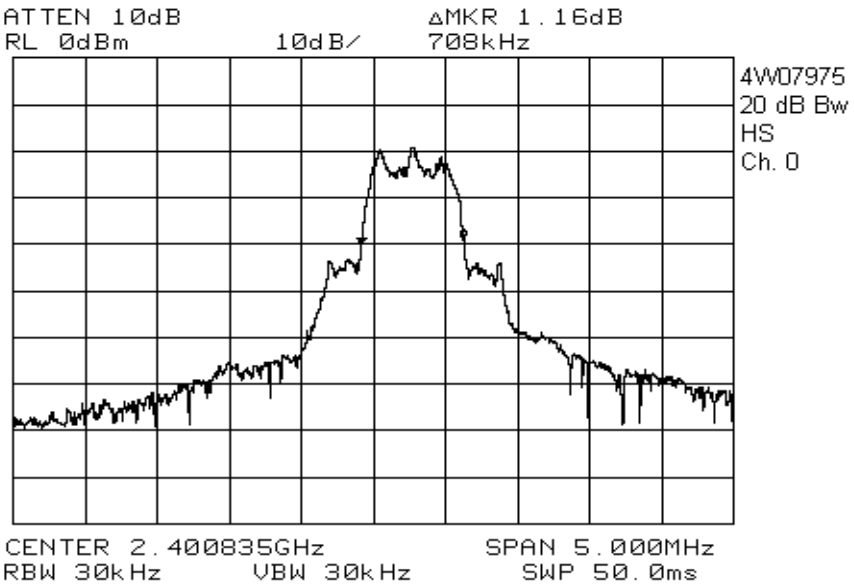
Upper Channel



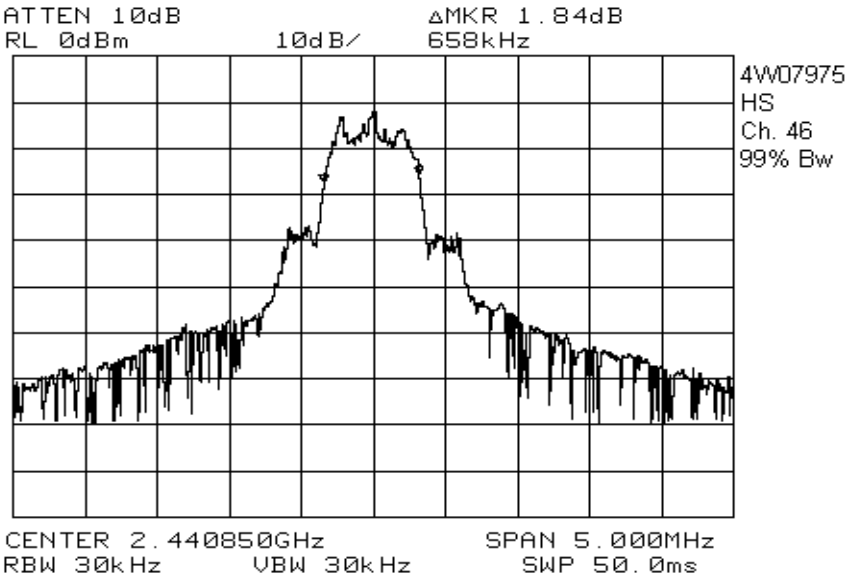


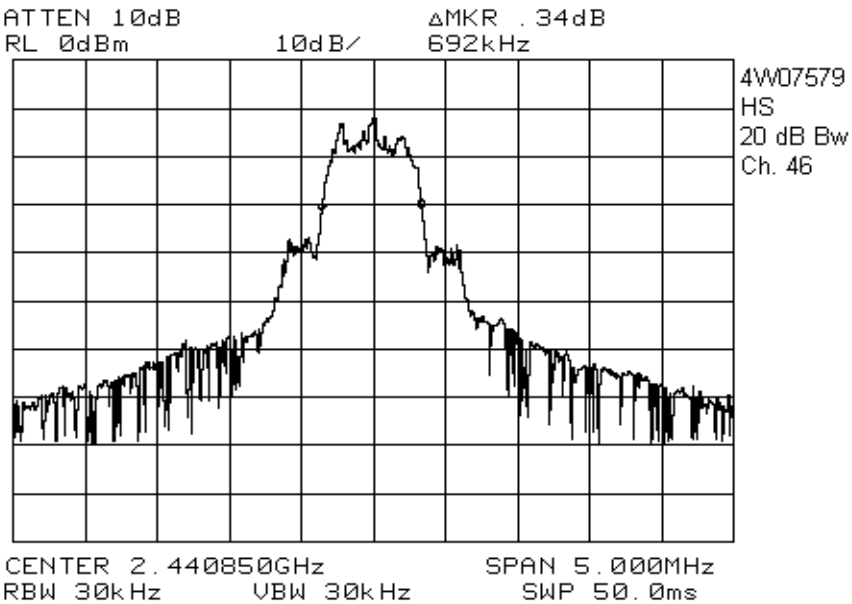
Handset, Low channel



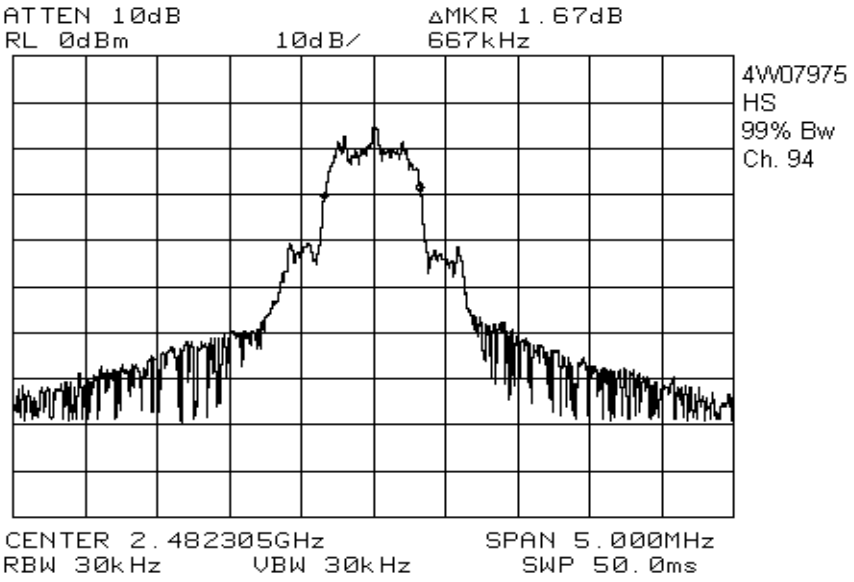


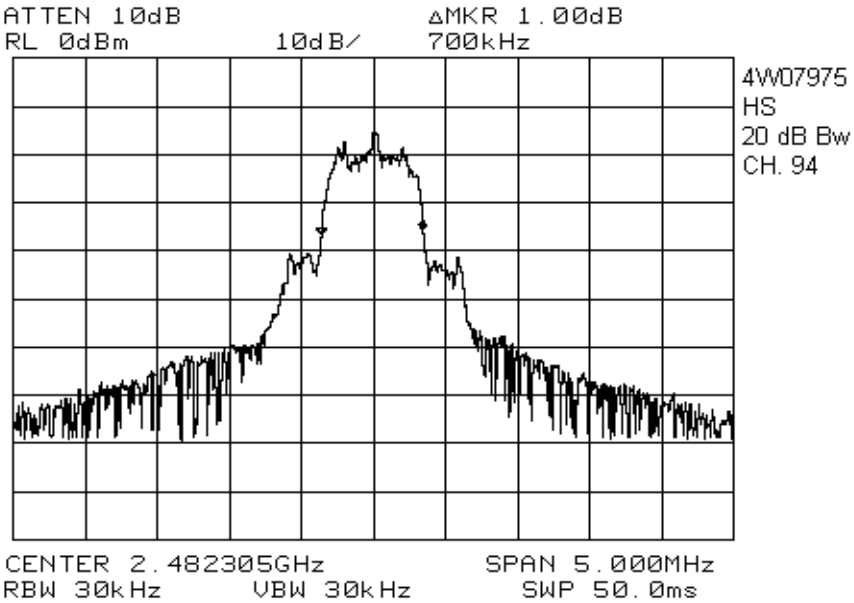
Mid channel


ATTEN 10dB
RL 0dBm
10dB/
ΔMKR 1.84dB
658kHz
4W07975
HS
Ch. 46
99% Bw
CENTER 2.440850GHz
SPAN 5.000MHz
RBW 30kHz
VBW 30kHz
SWP 50.0ms


ATTEN 10dB
RL 0dBm
10dB/
ΔMKR .34dB
692kHz
4W07579
HS
20 dB Bw
Ch. 46
CENTER 2.440850GHz
SPAN 5.000MHz
RBW 30kHz
VBW 30kHz
SWP 50.0ms

Upper channel





Section 8. Peak Power Output

Para. No.: 15.247 (b)(1)

Test Performed By: Daxesh Thakker	**Date of Test: 24 June 2004**
Xu Jin	**Date of Test: 16, June 2005**

Standards Limits: For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

Test Results: Complied.

The maximum peak power output of the transmitter is calculated with the equation $P = \{E^2R^2/30G)$, where

	E, V/mtr @ 3m	R, mtr	G
Base	0.97	3	1.41
Handset	1.49	3	2.81

Base = 0.2W, 23.01dBm
Handset = 0.238W, 23.77dBm

The Base Station was tested at +/- 15% of AC line voltage. No change in power level was observed.

The Handset was tested with a fresh battery.

This EUT was searched in 3 orthogonal axes to determine worst-case emissions.

Measurement Data:

Detachable antenna? ☐ Yes ☒ No
If yes, state the type of non-standard connector used at the antenna port:

Directional Gain of Antenna:
Base: 1.5 dBi or 1.41 Numeric.
Handset: 4.5 dBi or 2.81 Numeric.

Base (worst Case)
Field Strength: 119.7 dBμV/m @ 3m or 0.97 V/m @ 3m.

Handset (worst Case)
Field Strength: 123.5 dBμV/m @ 3m or 1.49 V/m @ 3m.

Radiated Emissions Test Data:

Test Date: 16 June, 2005

Engineer's Name: Xu Jin

Base Station fundamental

Tested as per (Table Top/Floor Standing): Table Top

Test Distance (meters): 3 | Range: 1

Freq. (MHz)	Ant.	Pol. V/H	RCVD Signal (dBμV)	Ant. Factor (dB)	Cable Loss (dB)	Field Strength (dBμV/m)	Detector
2401.0560	Horn1	H	85.3	28.8	5.2	119.3	Peak
2401.0560	Horn1	V	82.4	28.8	5.2	116.4	Peak
2440.8000	Horn1	V	84.2	28.8	5.8	118.8	Peak
2440.8000	Horn1	H	85.1	28.8	5.8	119.7	Peak
2482.2720	Horn1	H	82.4	28.8	6.4	117.6	Peak
2482.2720	Horn1	V	83.7	28.8	6.4	118.9	Peak

Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole
Note 2: Detector Legend: Q-Peak = 120 kHz RBW, Average = 1.0 MHz RBW
Below 1GHz, Peak detector with 100 kHz RBW, 100KHz VBW
Above 1GHz, Peak detector with 1.0MHz RBW, 1.0MHz VBW

Test Date: 24 June, 2004

Engineer's Name: Daxesh Thakker

Handset fundamental

Tested as per (Table Top/Floor Standing): Table Top

Test Distance (meters): 3 | Range: 1

Freq. (MHz)	Ant.	Pol. V/H	RCVD Signal (dBµV)	Ant. Factor (dB)	Cable Loss (dB)	Field Strength (dBµV/m)
2401.1530	Horn1	V	82.0	29.2	4.8	116.0
2401.1530	Horn1	H	86.9	29.2	4.8	120.9
2440.9200	Horn1	V	81.5	29.2	5.3	116.0
2440.9200	Horn1	H	86.5	29.2	5.3	121.0
2482.2820	Horn1	V	77.6	29.2	5.9	112.7
2482.2820	Horn1	H	88.4	29.2	5.9	123.5

Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole
Note 2: Detector Legend: Q-Peak = 120 kHz RBW, Average = 1.0 MHz RBW

Notes: Measurement Receiver = H.P.8565E, RBW = 1MHz

Section 9. Spurious Emissions (Radiated)

Para. No.: 15.247 (c)

Test Performed By: Phil Taffinder & Daxesh Thakker	**Date of Test: 19 April 2004 & 10 June 2004**
Xu Jin	**June 16, 2005**

Test Results: Complied.

Test Data: See attached table.

Duty Cycle Calculation:

Base: 20Log{(10 × 0.8)/100} = -21.94dB.
Handset: 20Log{(10 ×0.805)/100} = -38.11dB, Max. allowed -20 dB.

Note:

The Spectrum was searched from 30MHz to 25GHz.

These results apply to emissions found in the restricted bands defined in FCC Part 15 Subpart C, 15.205.

The EUT was measured on three orthogonal axis.

Average measurements were calculated using the duty cycle correction factor and the peak measurement.

Only emissions within 20dB below the limit have been reported

Radiated Disturbance Test Data: Base station

Test Date: 16 June, 2005

Engineer's Name: Xu Jin

Tested as per (Table Top/Floor Standing): Table Top

Test Distance (meters): 3 | Range: 1

Freq. (MHz)	Ant.	Pol. V/H	RCVD Signal (dBµV)	Ant. Factor (dB)	Amp. Gain (dB)	Duty Cycle Corr. Factor (dB)	Cable Loss (dB)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
Ch. 00											
4802.1120	Horn1	V	71.0	33.4	53.2	-21.9	7.3	36.6	54.0	17.4	Average
								58.5	74.0	15.5	Peak
4802.1120	Horn1	H	69.5	33.5	53.2	-21.9	7.3	35.2	54.0	18.8	Average
								57.1	74.0	16.9	Peak
7203.1680	Horn1	H	61.4	36.7	53.7	-21.9	11.0	33.5	54.0	20.5	Average
								55.4	74.0	18.6	Peak
7203.1680	Horn1	V	60.7	36.5	53.7	-21.9	11.0	32.5	54.0	21.5	Average
								54.4	74	19.6	Peak
Ch. 47											
4881.6000	Horn1	V	71.1	33.4	52.6	-21.9	8.0	38.0	54.0	16.0	Average
								59.9	74.0	14.1	Peak
4881.6000	Horn1	H	68.2	33.5	52.6	-21.9	8.0	35.2	54.0	18.8	Average
								57.1	74.0	16.9	Peak
7322.4000	Horn1	H	62.7	36.7	53.7	-21.9	10.0	33.8	54.0	20.2	Average
								55.7	74.0	18.3	Peak
7322.4000	Horn1	V	64.1	36.5	53.7	-21.9	10.0	35.0	54.0	19.0	Average
								56.9	74.0	17.1	Peak
Ch. 94											
4964.5440	Horn1	V	65.3	33.4	52.3	-21.9	8.4	32.9	54.0	21.1	Average
								54.8	74.0	19.2	Peak
4964.5440	Horn1	H	67.5	33.5	52.3	-21.9	8.4	35.2	54.0	18.8	Average
								57.1	74.0	16.9	Peak
7446.8160	Horn1	H	63.6	36.7	53.2	-21.9	8.9	34.1	54.0	19.9	Average
								56.0	74.0	18.0	Peak
7446.8160	Horn1	V	64.1	36.5	53.2	-21.9	8.9	34.4	54.0	19.6	Average
								56.3	74.0	17.7	Peak

Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole
Note 2: Detector Legend: Q-Peak = 120 kHz RBW, Average = 1.0 MHz RBW
Below 1GHz, Peak detector with 100 kHz RBW, 100KHz VBW
Above 1GHz, Peak detector with 1.0MHz RBW, 1.0MHz VBW

Radiated Disturbance Test Data: Handset

Test Date: 24 June, 2004

Engineer's Name: Daxesh Thakker

Tested as per (Table Top/Floor Standing): Table Top

Test Distance (meters): 3 | Range: 1

Freq. (MHz)	Ant.	Pol. V/H	RCVD Signal (dBµV)	Ant. Factor (dB)	Amp. Gain (dB)	Duty Cycle Corr. Factor (dB)	Cable Loss (dB)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Amp.
Ch. 00											
4802.2110	Horn1	V	62.8	34.3	53.2	-20.0	8.1	32.0	54.0	22.0	4-8GHz
4802.2110	Horn1	H	61.4	34.1	53.2	-20.0	8.1	30.4	54.0	23.6	4-8GHz
7203.3170	Horn1	V	67.5	36.5	53.7	-20.0	11.3	41.6	54.0	12.4	4-8GHz
7203.3170	Horn1	H	63.9	36.5	53.7	-20.0	11.3	38.0	54.0	16.0	4-8GHz
Ch. 47											
4842.0250	Horn1	V	59.6	34.3	52.9	-20.0	8.5	29.5	54.0	24.5	4-8GHz
4842.0250	Horn1	H	60.4	34.2	52.9	-20.0	8.5	30.1	54.0	23.9	4-8GHz
7243.1310	Horn1	V	60.5	36.5	53.7	-20.0	11.2	34.6	54.0	19.4	4-8GHz
7243.1310	Horn1	H	60.6	36.5	53.7	-20.0	11.2	34.6	54.0	19.4	4-8GHz
Ch. 94											
4964.5000	Horn1	V	60.0	34.4	52.3	-20.0	9.5	31.5	54.0	22.5	4-8GHz
4964.5000	Horn1	H	60.0	34.2	52.3	-20.0	9.5	31.3	54.0	22.7	4-8GHz
7446.7500	Horn1	V	60.3	36.5	53.2	-20.0	11.1	34.8	54.0	19.2	4-8GHz
7446.7500	Horn1	H	60.6	36.5	53.2	-20.0	11.1	35.1	54.0	18.9	4-8GHz

Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole
Note 2: Detector Legend: Q-Peak = 120 kHz RBW, Average = 1.0 MHz RBW
Note 3: The EUT was searched up to 10 harmonics of the fundamental.

Notes: Measurement Receiver = H.P.8565E, RBW = 1MHz

Digital Emissions

Test Date: 01-June-2005

Engineer's Name: Michel Dorion

Tested as per: Table Top

Mains Input Voltage: 120 VAC | **Mains Input Frequency: 60 Hz**

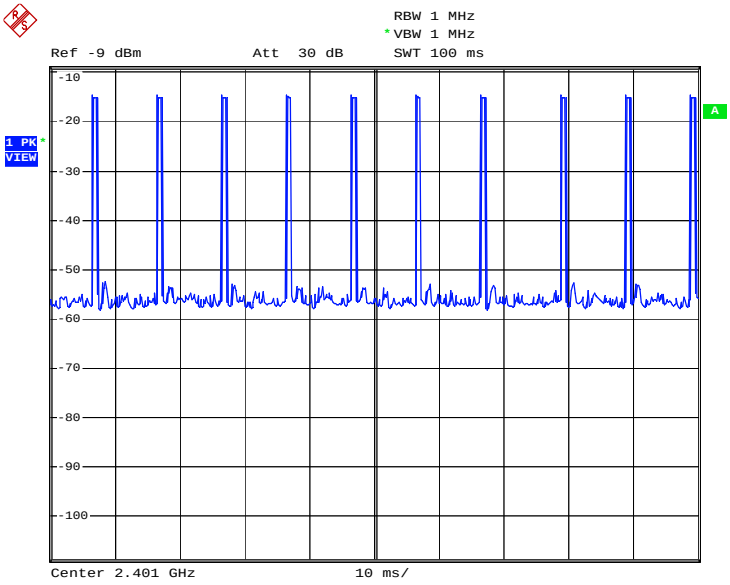
Enclosure Investigation Data

Test Distance (meters): 3 | **Dome: 2**

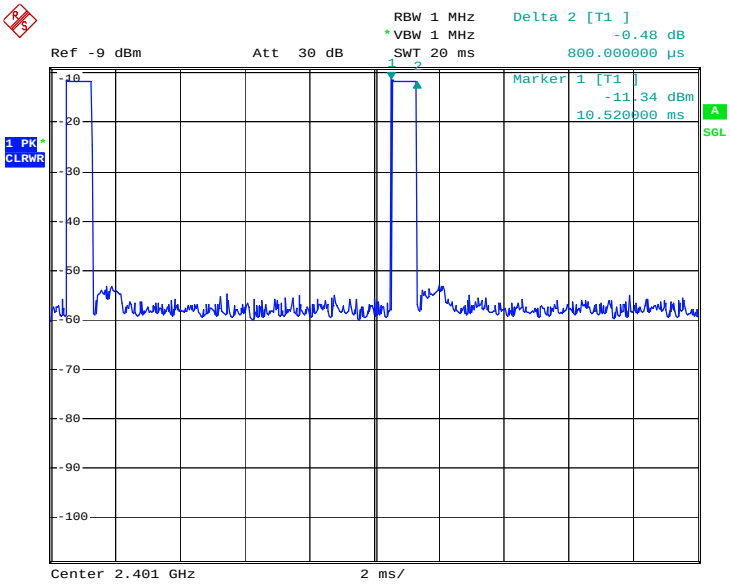
Freq. (MHz)	Ant.	Pol. V/H	RCVD Signal (dBμV)	Ant. Factor (dB)	Amp. Gain (dB)	Cable Loss (dB)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Amp.
499.9820	LP1	V	22.7	17.6	N/A	4.1	44.4	46.0	1.6	Q-Peak	N/A
599.9792	LP1	V	19.8	18.8	N/A	4.5	43.1	46.0	2.9	Q-Peak	N/A
599.9810	LP1	H	18.7	19.8	N/A	4.5	43.0	46.0	3.0	Q-Peak	N/A
699.9748	LP1	V	18.1	21.0	N/A	4.9	44.0	46.0	2.0	Q-Peak	N/A
699.9777	LP1	H	16.8	21.2	N/A	4.9	42.9	46.0	3.1	Q-Peak	N/A
799.9725	LP1	H	15.6	22.5	N/A	5.2	43.3	46.0	2.7	Q-Peak	N/A

Legend:
Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole
Detector Legend: Q-Peak = 120kHz RBW, Average = 1.0MHz RBW

Duty Cycle Plots
Base station

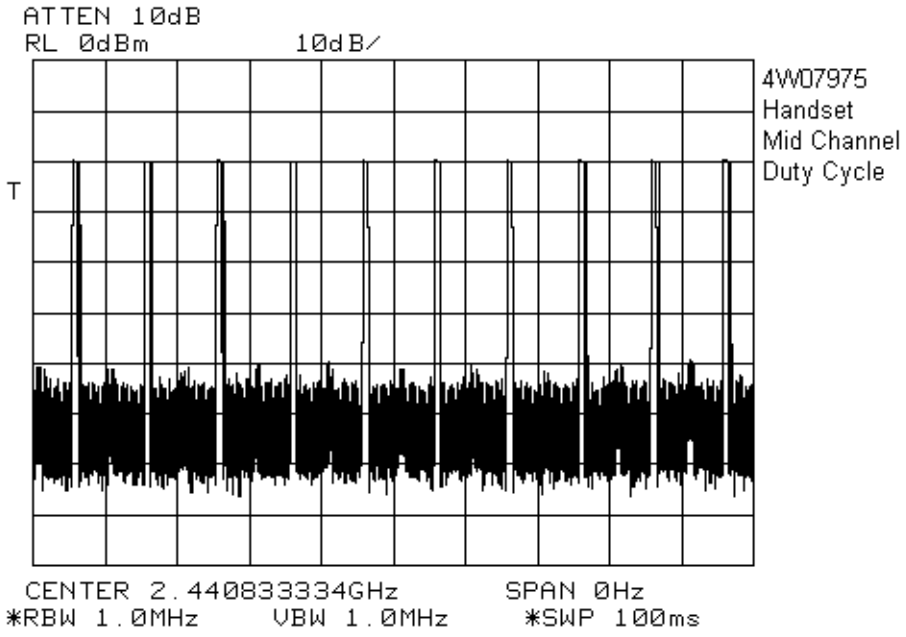


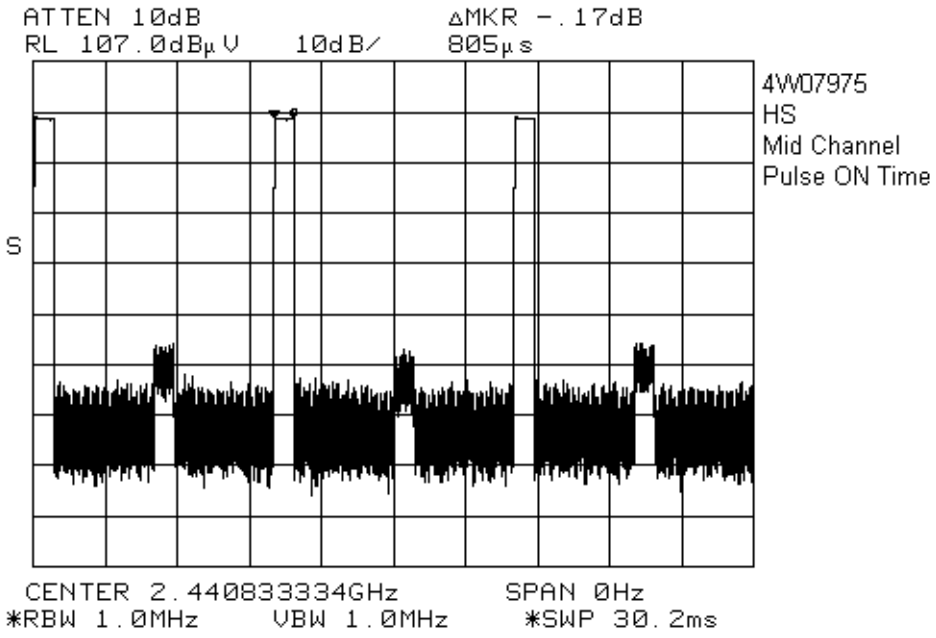
Date: 16.JUN.2005 15:17:58



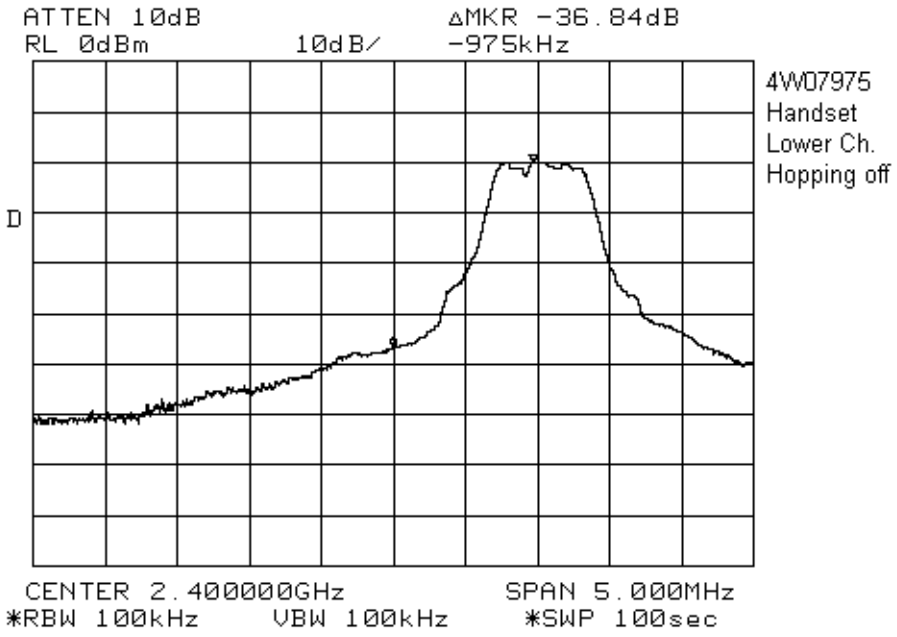
Date: 16.JUN.2005 15:21:55

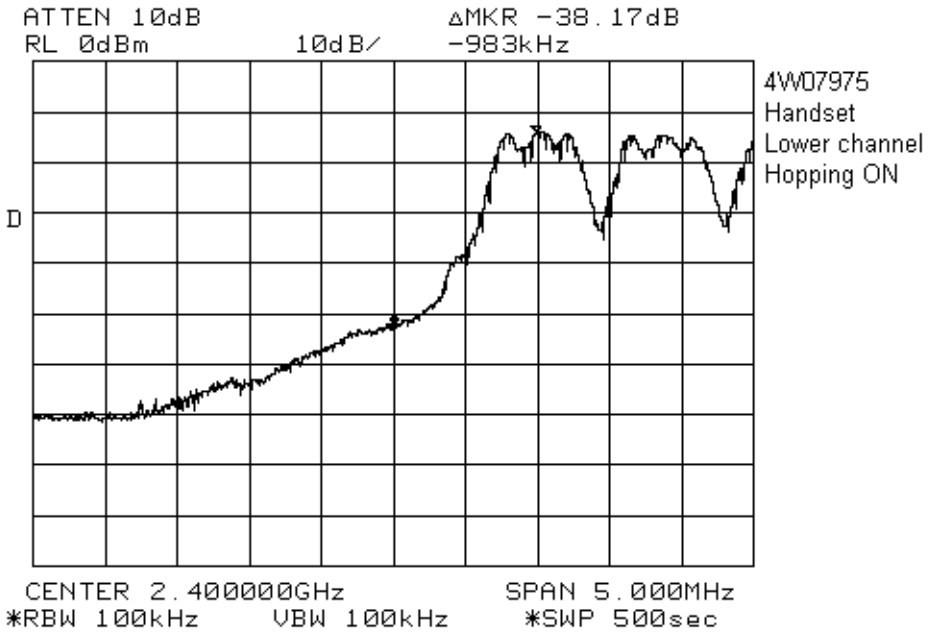
Handset

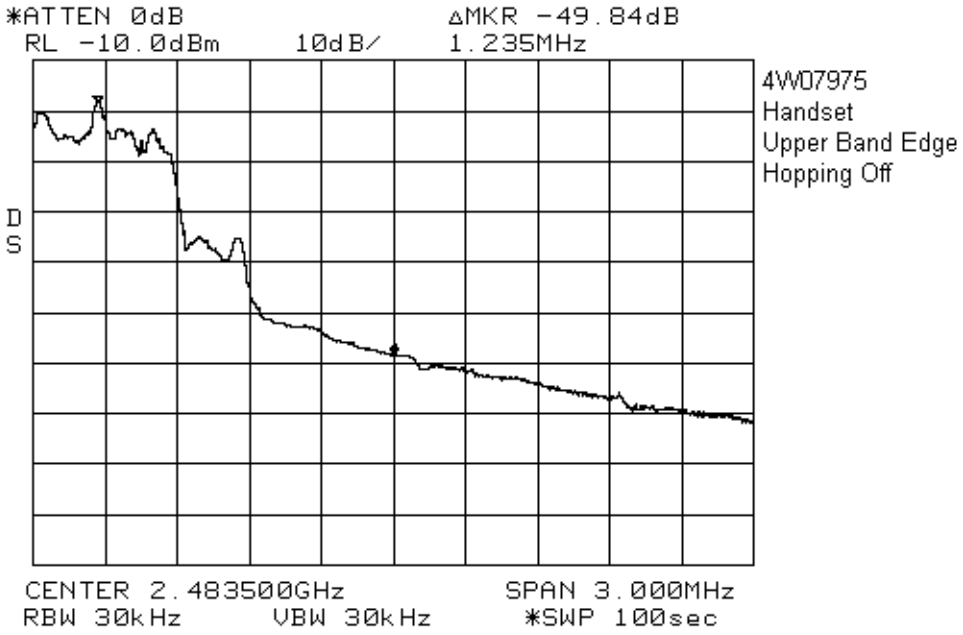

ATTEN 10dB
RL 0dBm
10dB/
4WW07975
Handset
Mid Channel
Duty Cycle
T
CENTER 2.440833334GHz
SPAN 0Hz
*RBW 1.0MHz
VBW 1.0MHz
*SWP 100ms

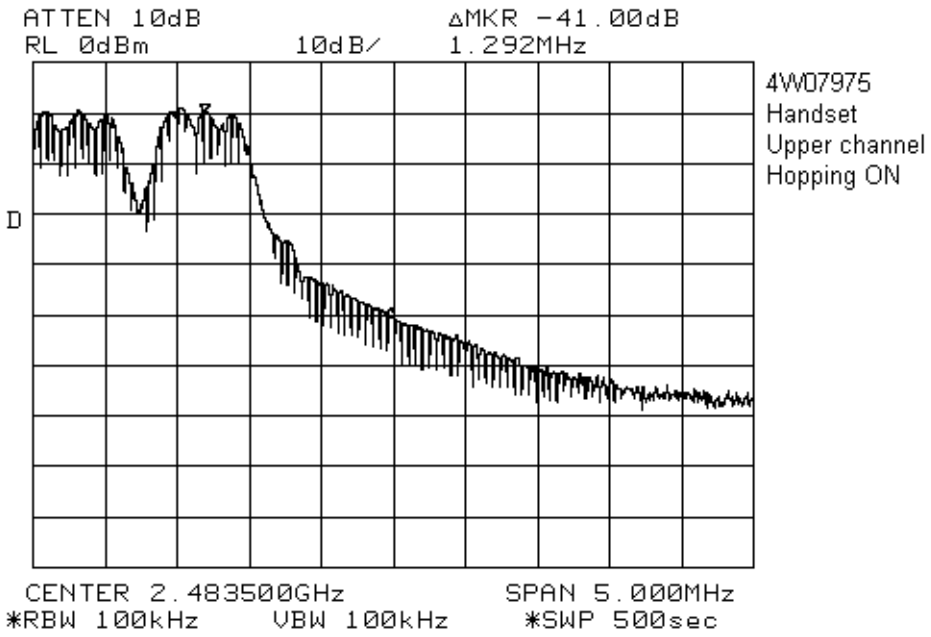

ATTEN 10dB
ΔMKR -.17dB
RL 107.0dBμV
10dB/
805μs
4WW07975
HS
Mid Channel
Pulse ON Time
S
CENTER 2.440833334GHz
SPAN 0Hz
*RBW 1.0MHz
VBW 1.0MHz
*SWP 30.2ms

20dB Band Edge
Handset

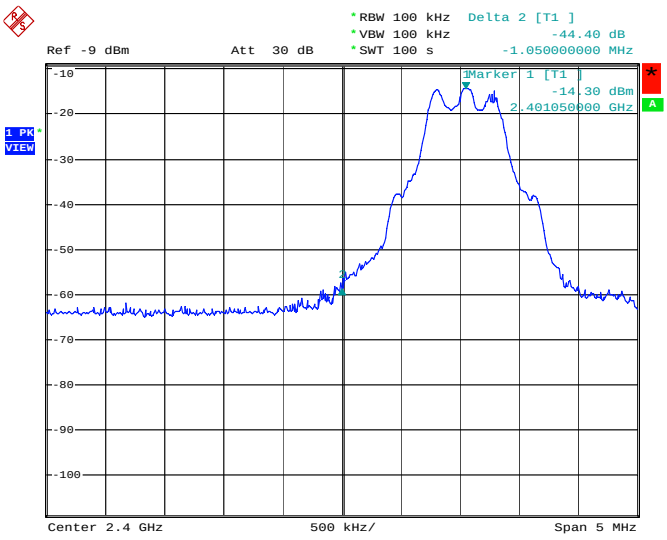





*ATTEN 0dB
ΔMKR -49.84dB
RL -10.0dBm
10dB/
1.235MHz
4WO7975
Handset
Upper Band Edge
Hopping Off
D
S
CENTER 2.483500GHz
SPAN 3.000MHz
RBW 30kHz
VBW 30kHz
*SWP 100sec

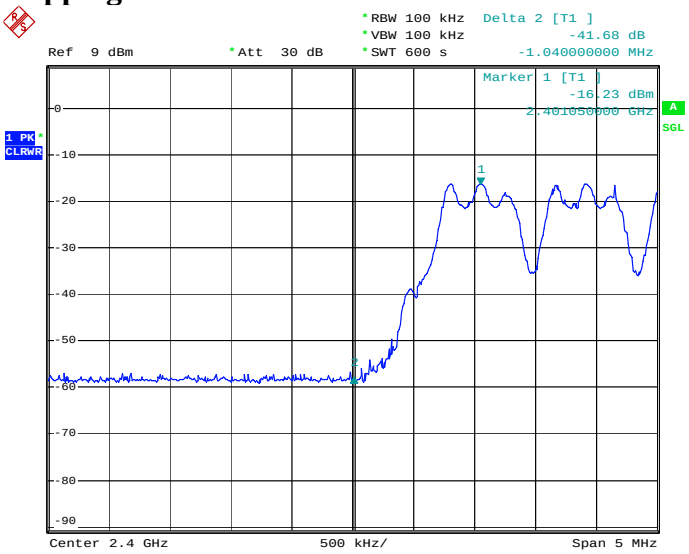

ATTEN 10dB
ΔMKR -41.00dB
RL 0dBm
10dB/
1.292MHz
4WO7975
Handset
Upper channel
Hopping ON
D
CENTER 2.483500GHz
SPAN 5.000MHz
*RBW 100kHz
VBW 100kHz
*SWP 500sec

20 dB Band Edge
Base Unit __Low band edge
Hopping off



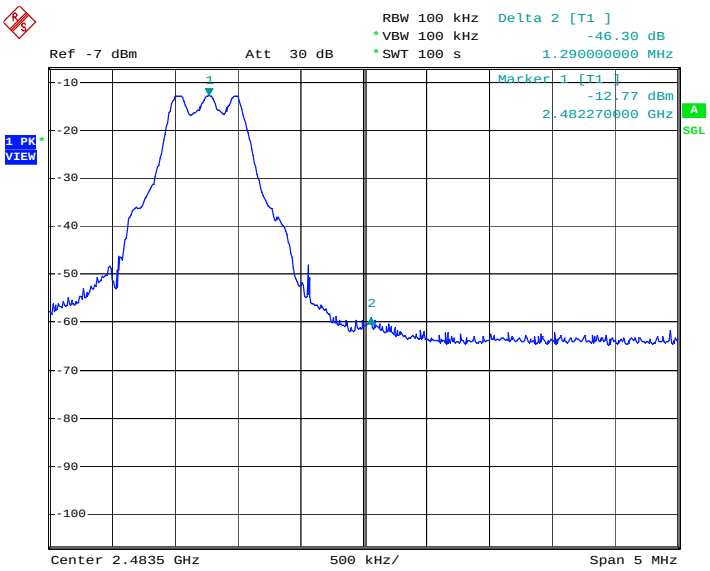
Date: 16.JUN.2005 15:30:35

Hopping on



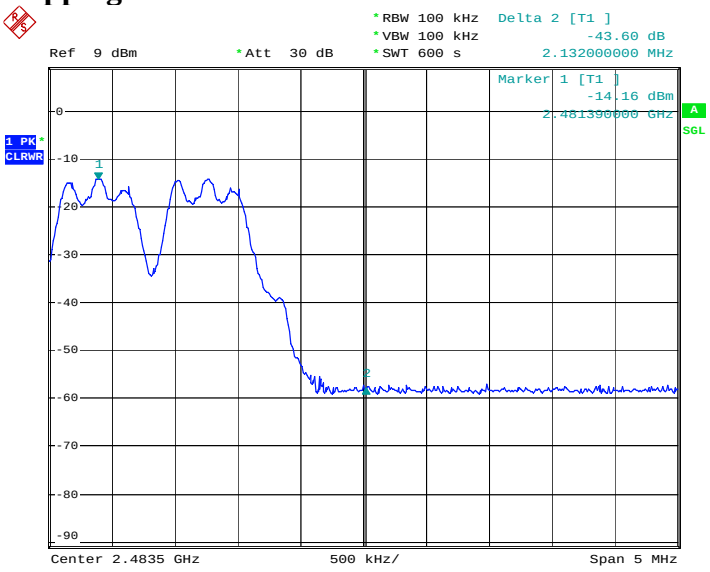
Date: 16.JUN.2005 17:04:36

Base Unit__ High Band Edge
Hopping off



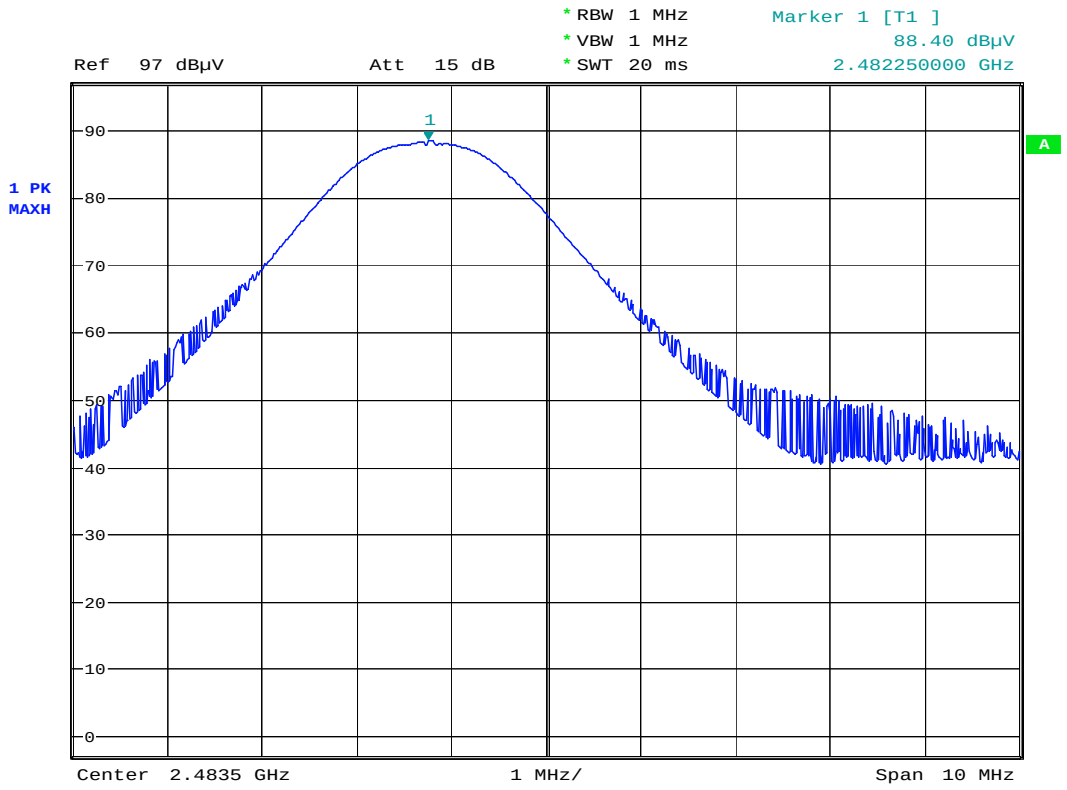
Date: 16.JUN.2005 15:37:31

Hopping on



Date: 16.JUN.2005 17:17:30

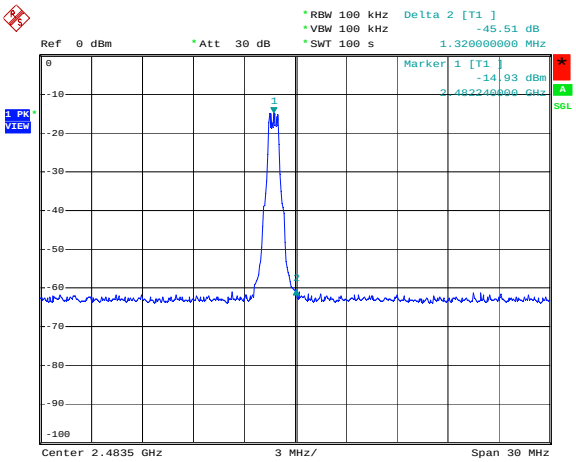
Band Edge (Restricted Band)
Marker Delta Method Calculation:
Handset



Date: 25.JUN.2004 00:44:50

Peak Level, Band Edge = 88.4 dBuV + 29.2dB + 5.9 = 123.5dBuV @ 3m.
Peak Band Edge Level (Marker Delta): = 123.5 dBuV/m – 49.84 = 73.66dBuV/m at 3 m.
Average = 73.66 dBuV/m -20 = 53.66 dBuV/m @ 3m.
Limit is 54 dBuV/m @ 3m.

Restricted Band Check---- Marker Delta Measurement
Base Unit



Date: 16.JUN.2005 17:53:08

Measured Peak Field Strength for highest Channel 94: 118.9dBuV/m at 3m.
Delta Value from Higher Level of Fundamental to Restricted Band Edge=-45.51dB

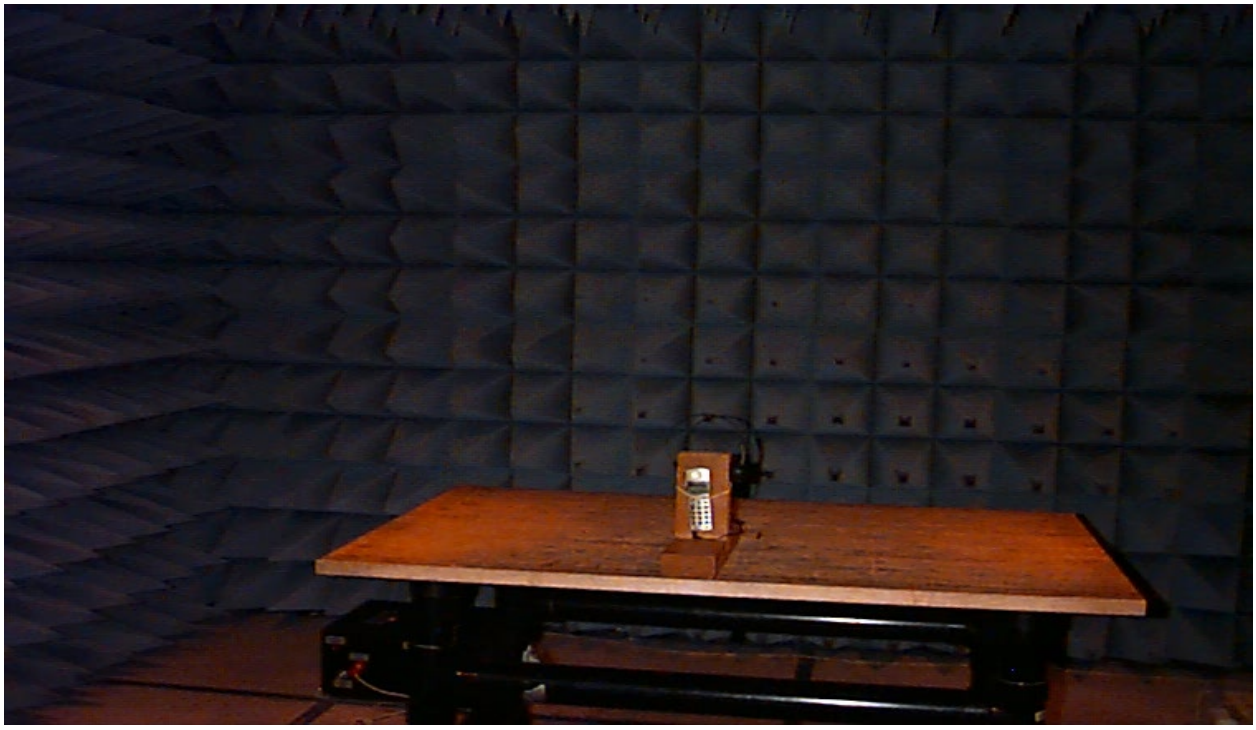
Peak Band Edge Level (Marker Delta): = 118.9dBuV/m – 45.51dB = 73.39dBuV/m at 3 m.
Limit=74dBuV/m at 3m.

Average = 73.39dBuV/m –21.94dB(Duty Cycle)= 51.45dBuV/m at 3m.
Limit is 54dBuV/m at 3m.

Set-up photo:

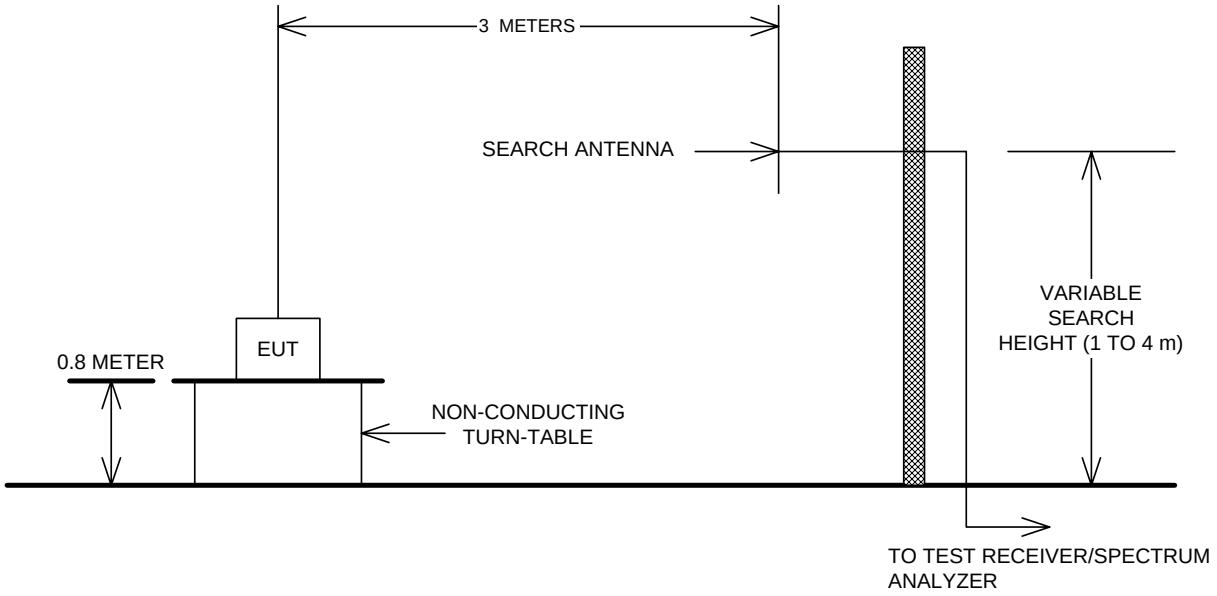
Base

Handset

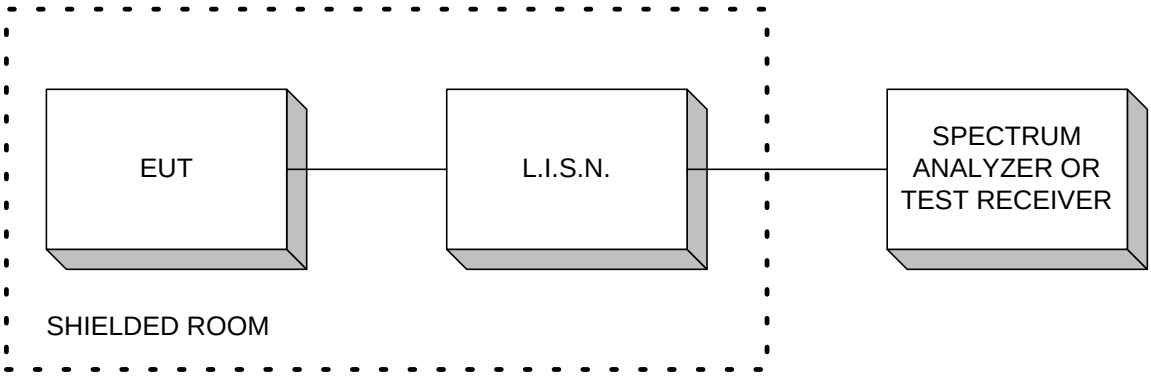


Section 10. Block Diagrams

Test Site For Radiated Emissions



Conducted Emissions



Section 11. Test Equipment List

EQUIPMENT	MANUFACTURER	MODEL	SERIAL	LAST CAL.	NEXT CAL.
Spectrum Analyzer	Rohde & Schwarz	FSP	FA001920	Mar 22/05	Mar 22/06
Spectrum Analyzer	Hewlett-Packard	8566B	FA001309	May 18/05	May 18/06
Spectrum Analyzer Display	Hewlett-Packard	85662A	FA001309	May 18/05	May 18/06
0.1 – 1300 MHz Amplifier	Hewlett Packard	8447D	FA001909	Jan. 13/05	Jan. 13/06
1.0 – 2.0 GHz Amplifier	JCA	12-400	FA001498	June 18/04	June 18/05
2.0 – 4.0 GHz Amplifier	JCA	24-600	FA001496	June 18/04	June 18/05
4.0 – 8.0 GHz Amplifier	JCA	48-600	FA001497	June 18/04	June 18/05
5.0 – 18.0 GHz Amplifier	NARDA	DWT-186N23U40	FA001409	COU	COU
18.0 – 26.0 GHz Amplifier	Narda	BBS-1826N612	FA001550	COU	COU
Biconical Antenna	EMCO	3109	FA000904	Aug. 03/04	Aug. 03/05
Horn Antenna #1	EMCO	3115	FA000649	Dec. 22/04	Dec. 22/05
Log Periodic Antenna	EMCO	LPA-25	FA000477	Aug. 26/04	Aug. 26/05
LISN	EMCO	4825/2	FA001545	Jan. 13/05	Jan. 13/06
LISN	Tegam	95300-50	FA000986	Jan. 20/05	Jan. 20/06
LISN	Tegam	95300-50	FA000987	Jan. 20/05	Jan. 20/06
Transient Limiter	Hewlett-Packard	1194 7A	FA000975	May 25/05	May 25/06