



Test Report: 4W30055 Issue 2

Applicant: VTech Engineering Canada Ltd.
Suite 200 – 7671 Alderbridge Way
Richmond, B.C., Canada V6X 1Z9

**Equipment Under Test:
(EUT)** VTech 5858
5.8GHz Digital Frequency Hopping Spread Spectrum
Cordless Telephone

FCC ID:

In Accordance With: **FCC Part 15.247, Subpart C**
FHSS System and Digitally Modulated Radiators
5725-5850MHz

Tested By: Nemko Canada Inc.
303 River Road, R.R. 5
Ottawa, Ontario K1V 1H2

A handwritten signature in blue ink, appearing to read 'Glen Westwell'.

Authorized By: Glen Westwell, Wireless Specialist

Date: 9 December 2004

Total Number of Pages: 47

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EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

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. Radiated tests were conducted in accordance with ANSI C63.4-2001. 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.

TESTED BY: Kevin Carr, EMC/EMI/Wireless Specialist DATE: 9 December 2004

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This report applies only to the items tested.

EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

Summary Of Test Data

Name Of Test	Para. No.	Result
Powerline Conducted Emissions	15.207(a)	Complied
6dB Bandwidth	15.247(a)(2)	Complied
20 dB Bandwidth	15.247(a)(1)(ii)	Complied
Number of Hopping Channels	15.247(a)(1)(ii)	Complied
Occupancy Time	15.247(f)	Complied
Minimum Channel Separation	15.247(a)(1)	Complied
Peak Output Power	15.247(b)(1)	Complied
Spurious Emissions (Radiated)	15.247(c)	Complied

Test Conditions:

Indoor Temperature: 23°C
 Humidity: 48%

Outdoor Temperature: 5°C
 Humidity: 42%

EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

Section 2. General Equipment Specification

Manufacturer:	VTech (Dongguan) Electronics and Communications Ltd.
Model/Serial No. of EUT	Base: M/N: 5858, S/N: None Handset: M/N: 5858, S/N: HS2
Date Received In Laboratory:	23 Sept. 2004
Nemko Identification No.:	1, 2, 3, 4, 5, 6, 7, 8
Frequency Band of Operation:	5725-5850MHz
Frequency Range of EUT:	5744.736 MHz – 5825.952 MHz
Peak Output Power (measured):	Handset: 21.6dBm Base: 29.5dBm
Number of Hopping Channels:	95 available (75 chosen for hopping)
Channel Spacing:	864kHz
Modulation:	GFSK
Antenna Gain(s):	Handset = 0dBi Base = 2.2dBi

EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

Equipment Configuration List				
Item	Description	Identification: (M/N #, S/N #, P/N #, Rev.)		
(A)	Base	5858, S/N: None		
(B)	Handset	5858, S/N: None		
(C)	DC Feed & Ring-up Unit	FA000249		
(D)	GPE Sw. Mode Psu	M/N: GPE-838-07100, S/N: None		
• (E)	Headset			
EUT Ports				
Item	Description	Indoor/Outdoor	Type (See Legend)	Qty
1	I/P Pwr	Indoor	2	1
2	POTS	Indoor	3	1
3	Headset	Indoor	4	1
4	USB	Indoor	4	1
Inter-Connection Cables				
Item	Description	Shielded	Ferrite	Length (m)
i.	22AWGX2C	No	No	2.0
ii.	4 Cond. RJ-11, 300-840SL	No	No	2.0
iii.	3 Cond. headset	Yes	No	1.0
iv.	USB, AWM-E101344	Yes	Yes	2.0
Legend: 1 = AC Power Input/Output, 2 = DC Power Input/Output, 3 = Telecom, 4 = Non-telecom I/O, 5 = Maintenance, 6 = Fiber Optic				
Notes				
None/Comments				
Configuration of the Equipment Under Test (EUT)				
D 120VAC, 60Hz (i) 1 A 2 (ii) C 120VAC, 60Hz 3 B 4 (iii) E (iv)				

EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

Section 3. Powerline Conducted Emissions**Para. No.: 15.207(a)**

Test Performed By: Kevin Carr	Date of Test: 30 Sept. 2004
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Test Results: Pass

General		
These tests were conducted using measurement procedures of ANSI C63.4-2001. The equipment was tested for conducted emissions from 0.15MHz to 30MHz using a 50 microhenry line impedance stabilization network (L.I.S.N.) as described in ANSI C63.4-2001. Peripheral equipment was also operated through a 50 microhenry L.I.S.N.		
Limits For Conducted Disturbance At The Mains Ports: Paragraph No. 15.107 for Class B		
Frequency Range MHz	Limits dB(μV)	
	Quasi-Peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.5 to 5	56	46
5 to 30	60	50
Notes		
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.		

Measurement Data: See attached graph(s) and tabulated data

EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

Phase

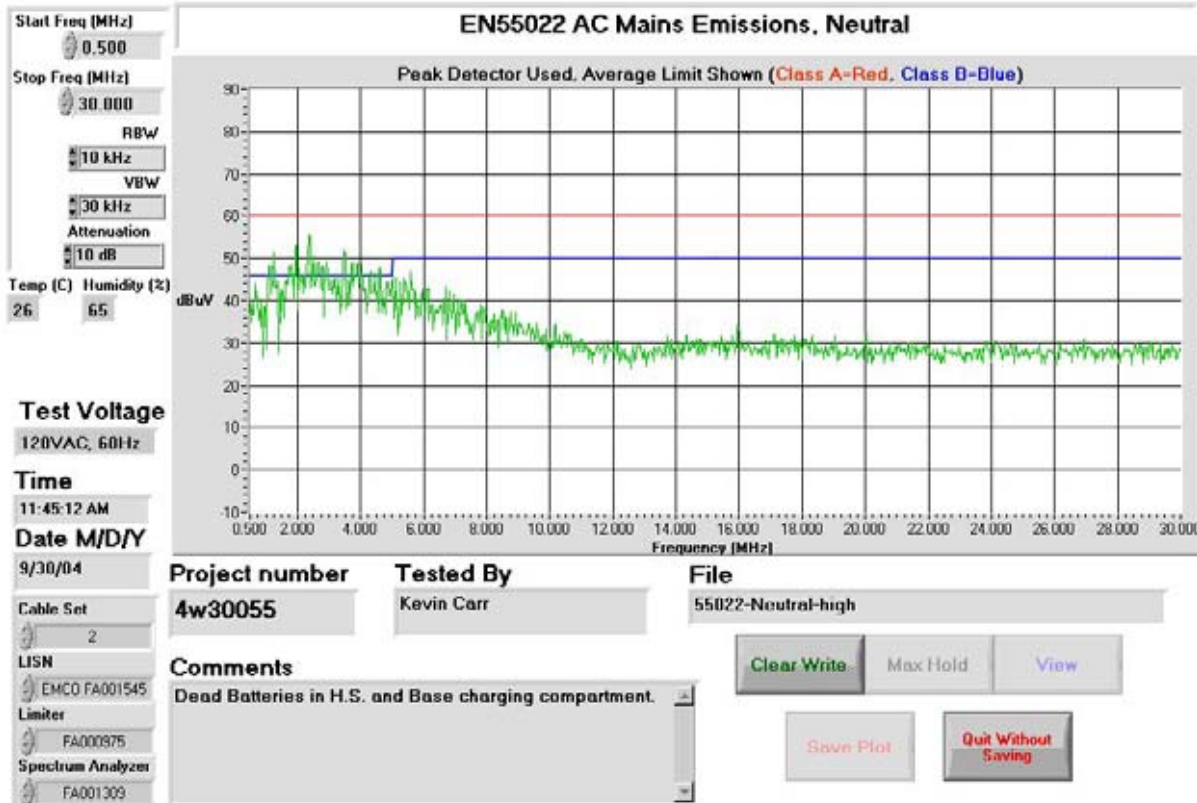
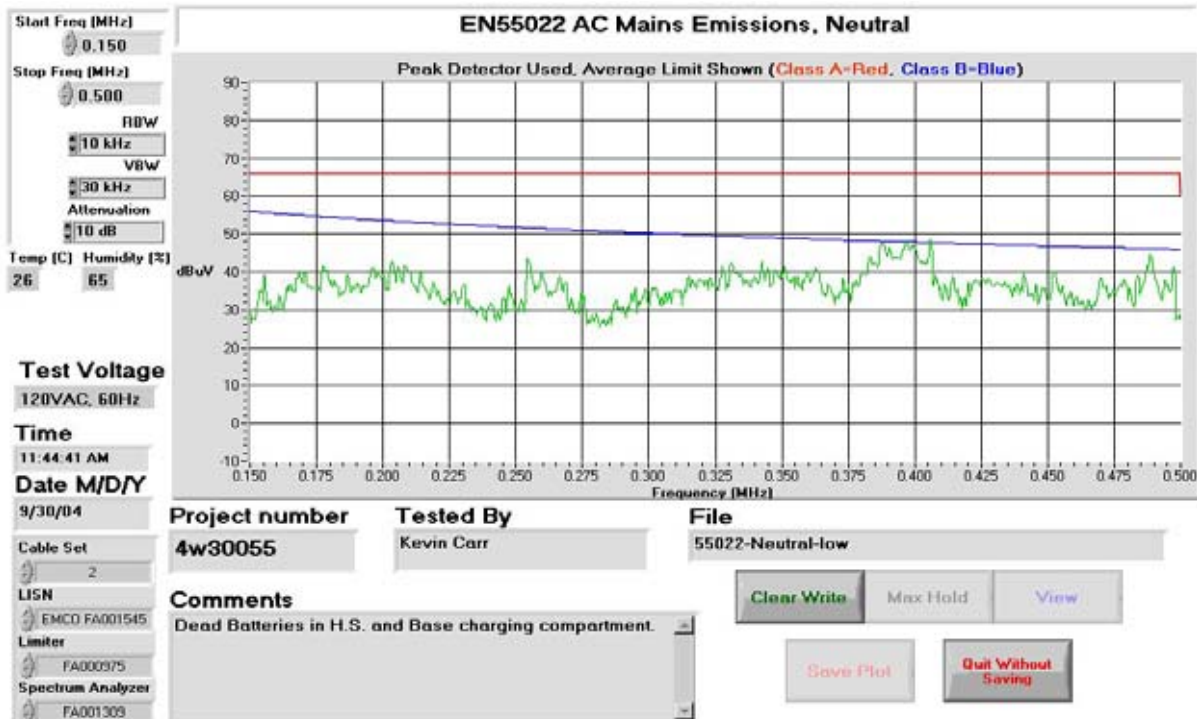
No.	Frequency of Emission (MHz)	Detector	Emission Level (dBuV)	LISN Loss (dB)	Cable Loss (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)
1	0.3900	Quasi-Peak	45.1	0	0	45.1	58.1	13.0
		Average	28.7	0	0	28.7	48.1	19.4
2	0.4000	Quasi-Peak	41.1	0	0.2	41.3	57.9	16.6
		Average	32	0	0.2	32.2	47.9	15.7
3	1.7500	Quasi-Peak	47.5	0.1	0	47.6	56.0	8.4
		Average	26.3	0.1	0	26.4	46.0	19.6
4	2.0000	Quasi-Peak	42.3	0.1	0	42.4	56.0	13.6
		Average	34.4	0.1	0	34.5	46.0	11.5
5	2.5000	Quasi-Peak	45.1	0.1	0	45.2	56.0	10.8
		Average	33.4	0.1	0	33.5	46.0	12.5
6	3.0000	Quasi-Peak	41.4	0.1	0.2	41.7	56.0	14.3
		Average	29.1	0.1	0.2	29.4	46.0	16.6
7	3.5000	Quasi-Peak	43.3	0.1	0.2	43.6	56.0	12.4
		Average	30.9	0.1	0.2	31.2	46.0	14.8
8	4.0000	Quasi-Peak	42.4	0.1	0	42.5	56.0	13.5
		Average	26	0.1	0	26.1	46.0	19.9
9	4.5000	Quasi-Peak	42	0.1	0.2	42.3	56.0	13.7
		Average	31.4	0.1	0.2	31.7	46.0	14.3
10	5.0000	Quasi-Peak	40.6	0.1	0.2	40.9	60.0	19.1
		Average	30.7	0.1	0.2	31	50.0	19.0
11	5.5000	Quasi-Peak	39.4	0.2	0.4	40	60.0	20.0
		Average	29.2	0.2	0.4	29.8	50.0	20.2

EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

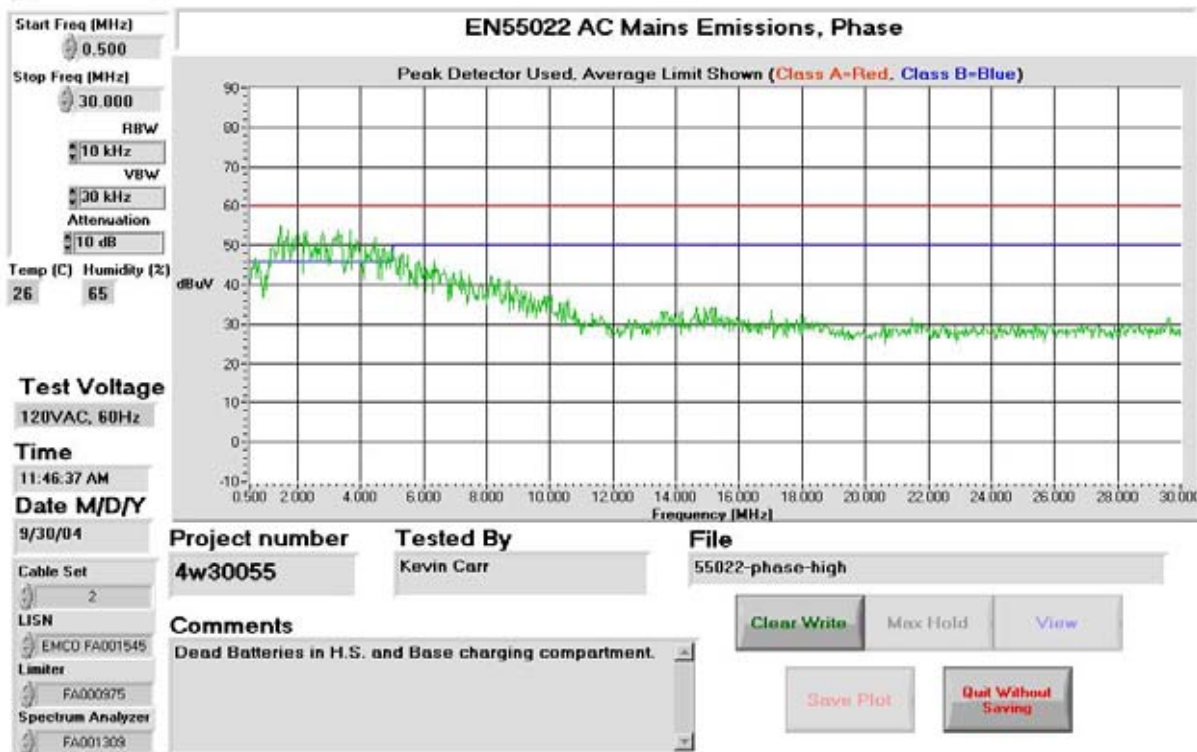
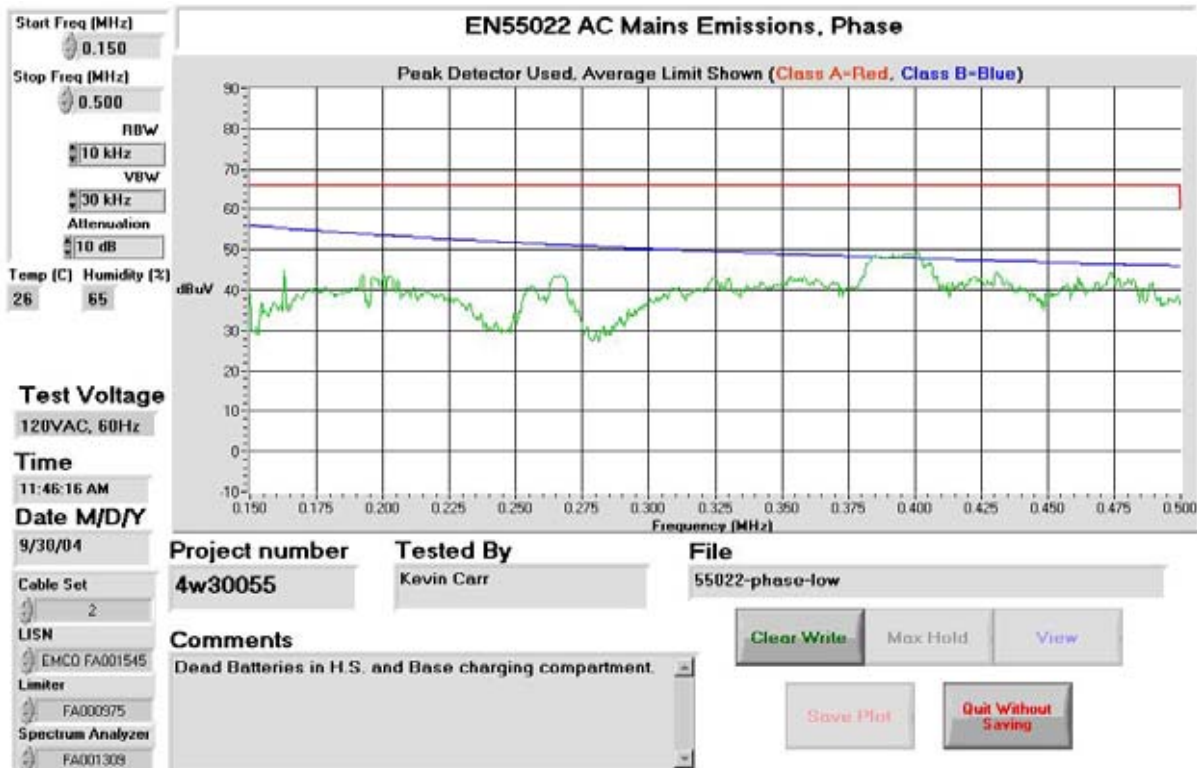
Neutral

No.	Frequency of Emission (MHz)	Detector	Emission Level (dBuV)	LISN Loss (dB)	Cable Loss (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)
1	0.3800	Quasi-Peak	28.9	0.1	0.2	29.2	58.3	29.1
		Average	9.4	0.1	0.2	9.7	48.3	38.6
2	0.4000	Quasi-Peak	42.1	0.1	0.2	42.4	57.9	15.5
		Average	24	0.1	0.2	24.3	47.9	23.6
3	0.4100	Quasi-Peak	32.3	0.1	0.2	32.6	57.6	25.0
		Average	14.3	0.1	0.2	14.6	47.6	33.0
4	1.7500	Quasi-Peak	44.2	0.1	0	44.3	56.0	11.7
		Average	28.3	0.1	0	28.4	46.0	17.6
5	2.0000	Quasi-Peak	42.3	0.1	0	42.4	56.0	13.6
		Average	30.7	0.1	0	30.8	46.0	15.2
6	2.5000	Quasi-Peak	42.5	0.1	0	42.6	56.0	13.4
		Average	28.9	0.1	0	29	46.0	17.0
7	3.0000	Quasi-Peak	39.1	0.1	0.2	39.4	56.0	16.6
		Average	27.1	0.1	0.2	27.4	46.0	18.6
8	3.5000	Quasi-Peak	40.9	0.1	0.2	41.2	56.0	14.8
		Average	20.4	0.1	0.2	20.7	46.0	25.3
9	4.0000	Quasi-Peak	40.5	0.1	0	40.6	56.0	15.4
		Average	28	0.1	0	28.1	46.0	17.9
10	4.5000	Quasi-Peak	39.3	0.1	0.2	39.6	56.0	16.4
		Average	28	0.1	0.2	28.3	46.0	17.7
11	5.0000	Quasi-Peak	39.2	0.1	0.2	39.5	60.0	20.5
		Average	27.9	0.1	0.2	28.2	50.0	21.8
12	5.5000	Quasi-Peak	37.5	0.2	0.4	38.1	60.0	21.9
		Average	27.2	0.2	0.4	27.8	50.0	22.2

EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

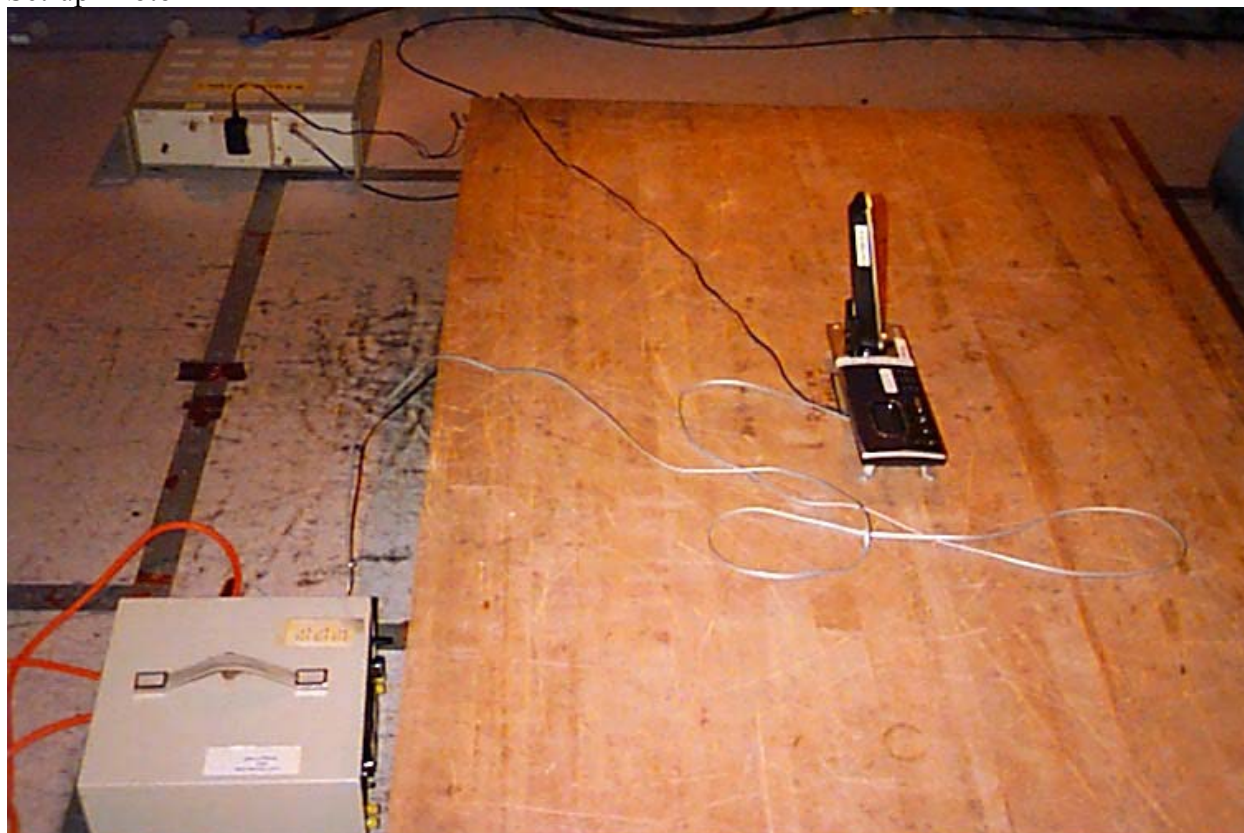


EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone



EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

Set-up Photo



EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

Section 4. 20 dB Bandwidth

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

Test Performed By: Kevin Carr	Date of Test: 1 Oct 2004
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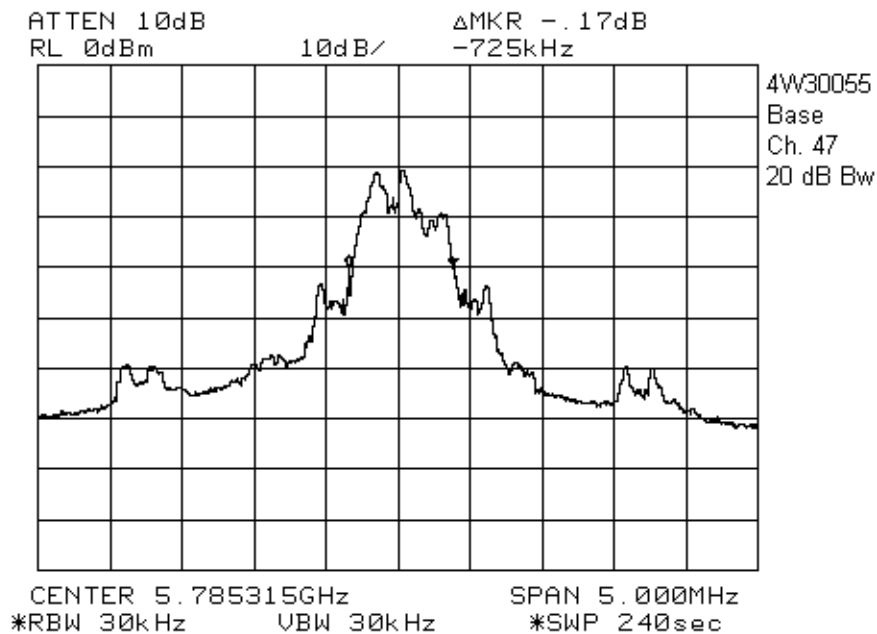
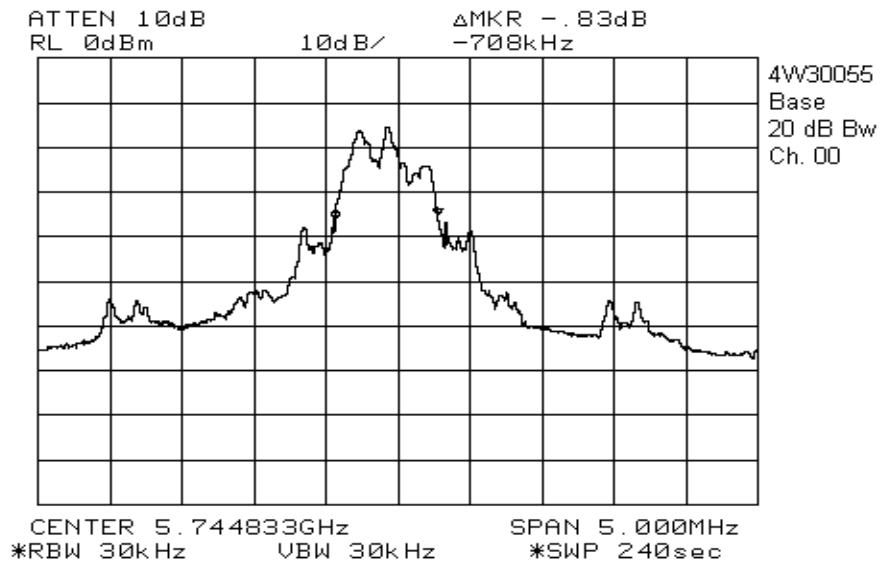
Limit: $\leq 1\text{MHz}$

Measurement Data: See Plots

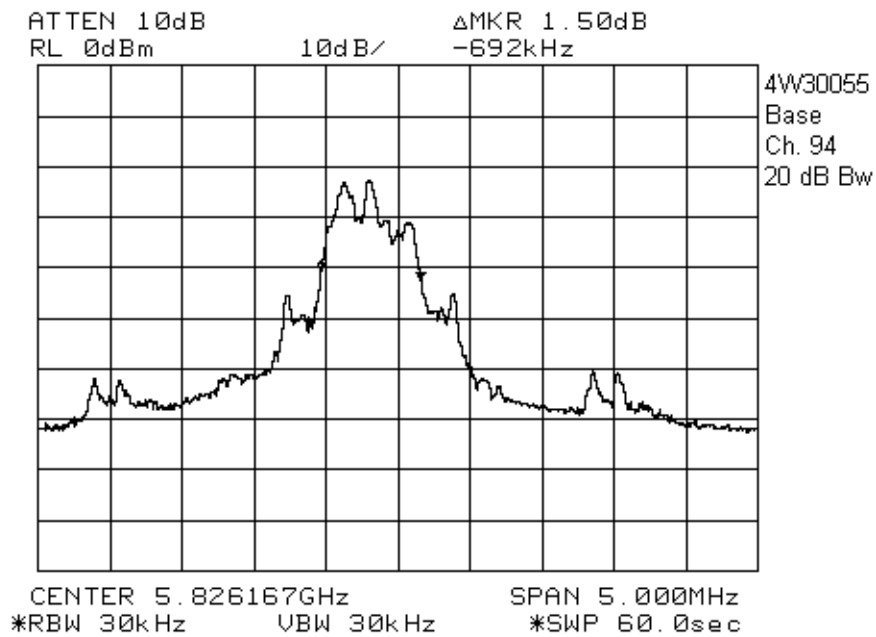
20dB BW (kHz)	Ch. 00	Ch. 47	Ch. 94
Base	708	725	692
Handset	717	717	708

EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

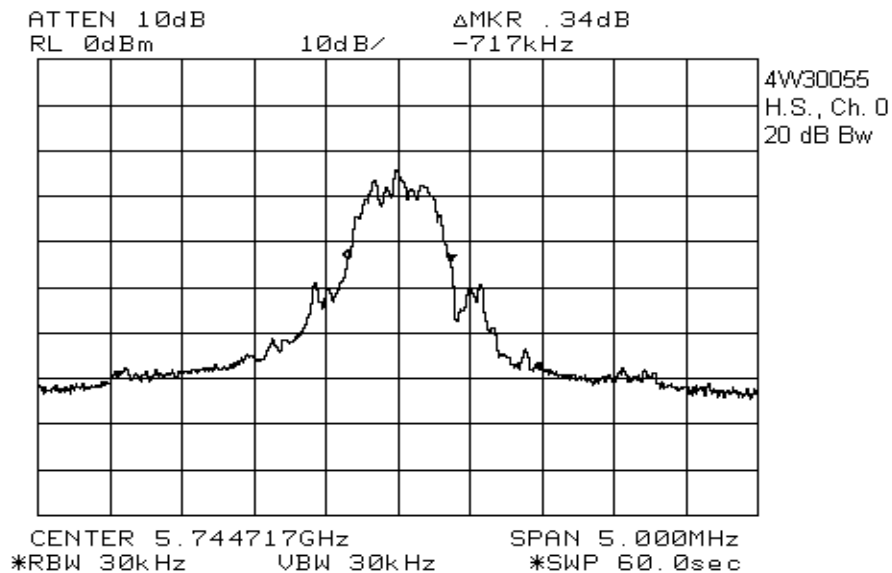
Base



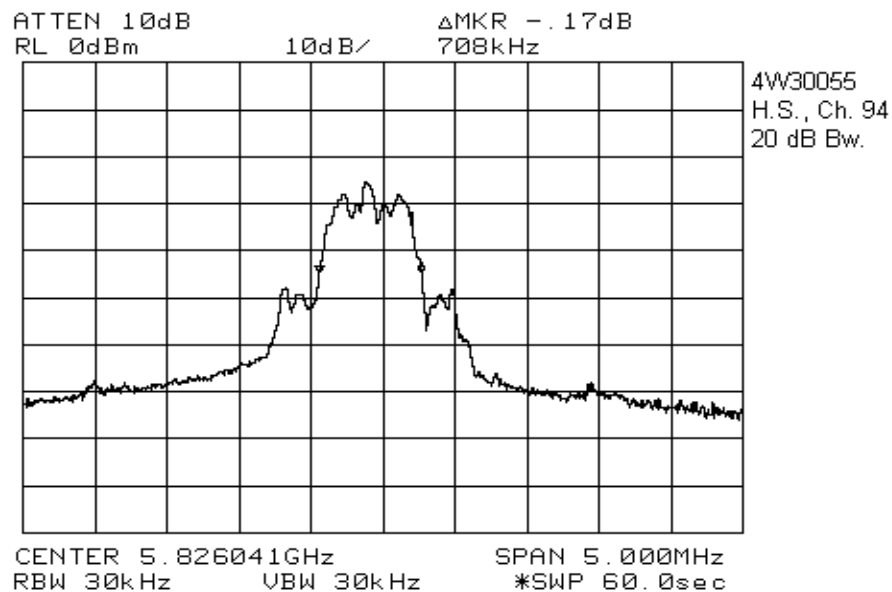
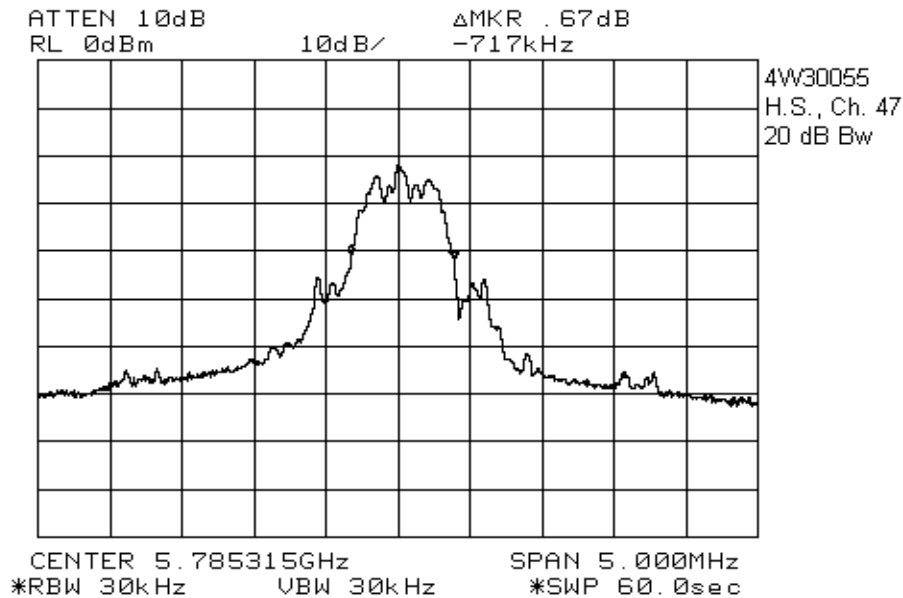
EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone



Handset



EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone



EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

Section 5. Occupancy Time

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

Test Performed By: Kevin Carr	Date of Test: 1 Oct 2004
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Limit: 400mS/30sec

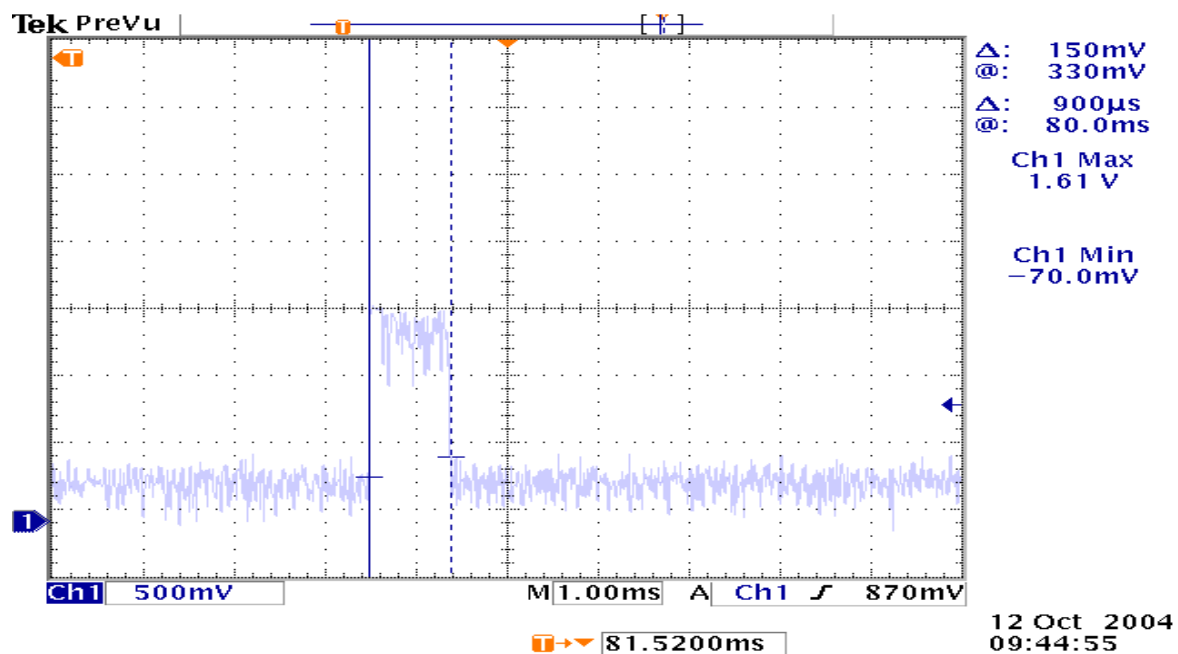
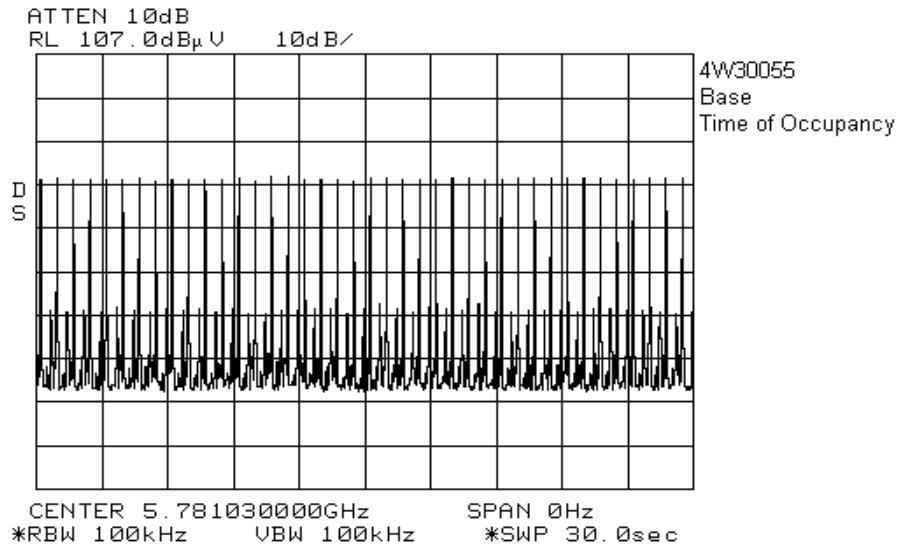
Measurement Data: See Plots

Handset = 40mS/30S

Base = 36mS/30S

EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

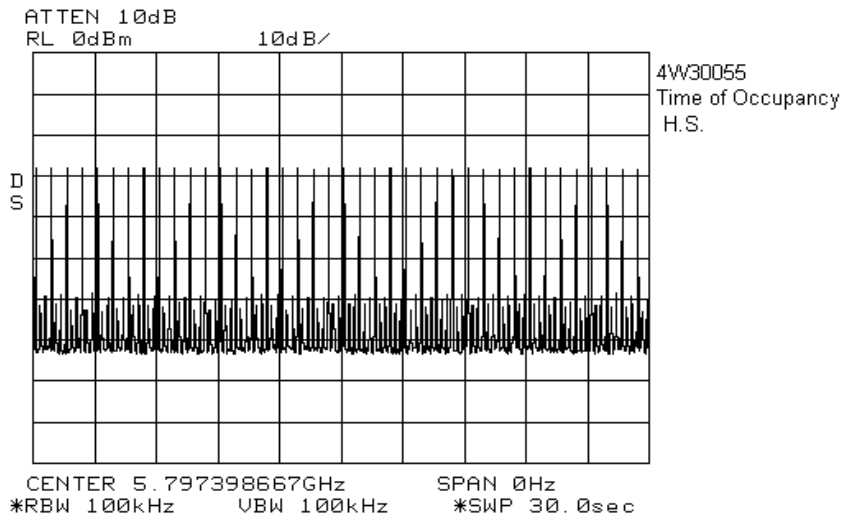
Base



$$T \text{ of } O = 40 \times 900 \mu S = 36 \text{ mS}$$

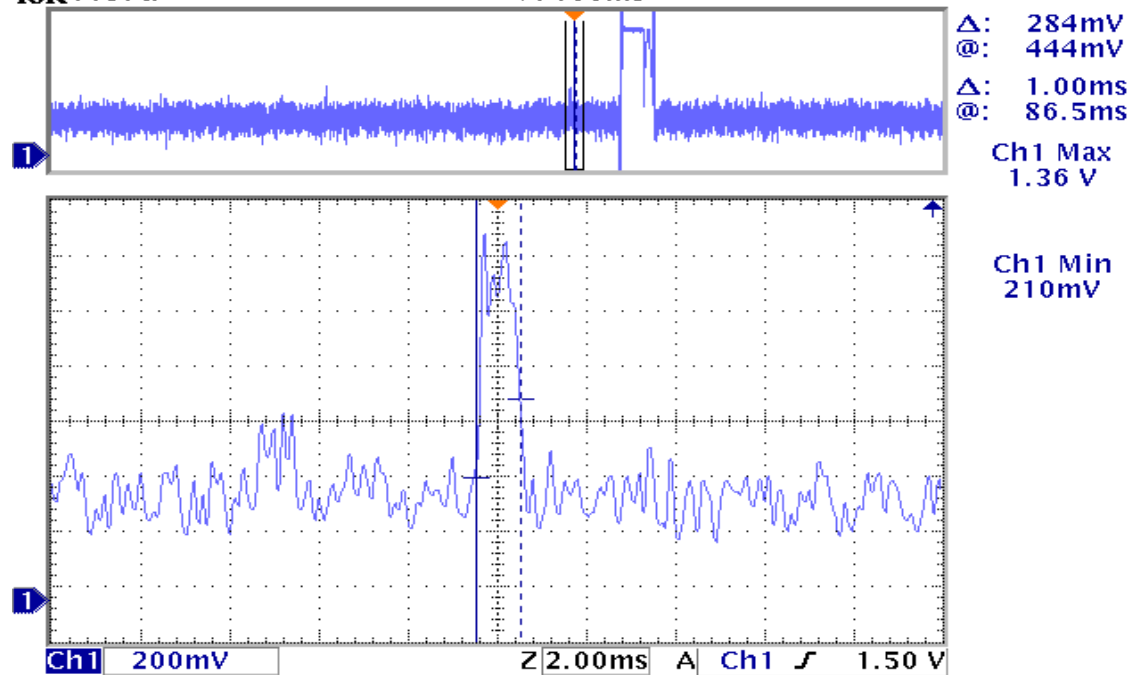
EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

Handset



Tek PreVu

M 100ms



27 Sep 2004
11:05:54

T of O = 40x1mS = 40mS

EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

Section 6. Number of Hopping Channels

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

Test Performed By: Kevin Carr	Date of Test: 4 Oct 2004
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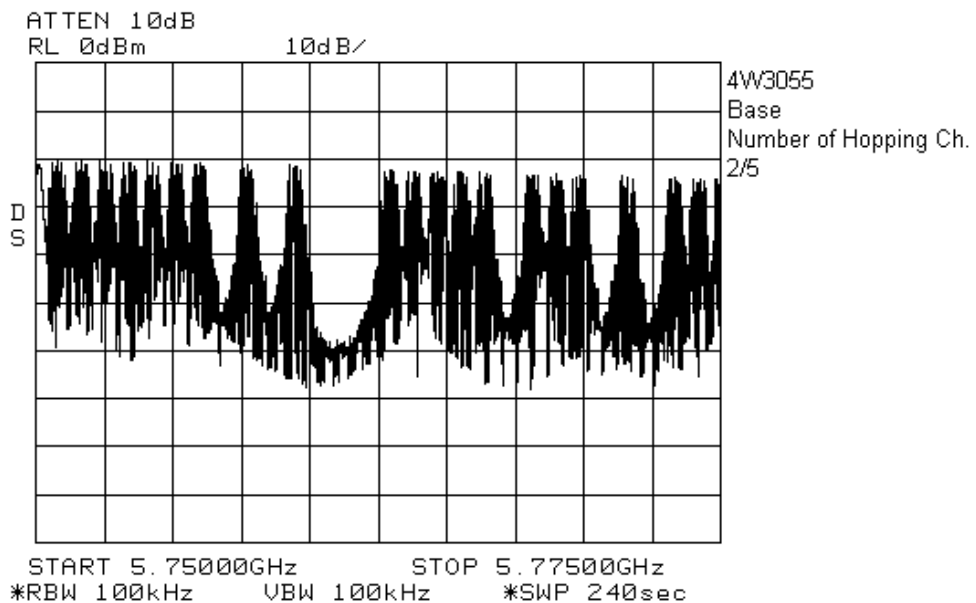
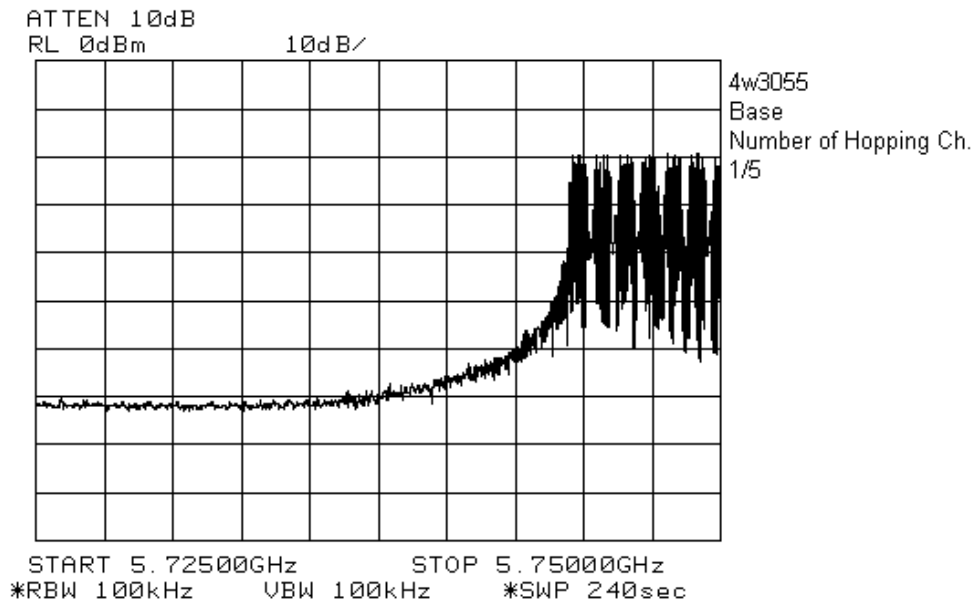
Limit: Frequency hopping systems operating in the 5725-5850 MHz band shall use at least 75 hopping frequencies.

Measurement Data: See Plot(s)

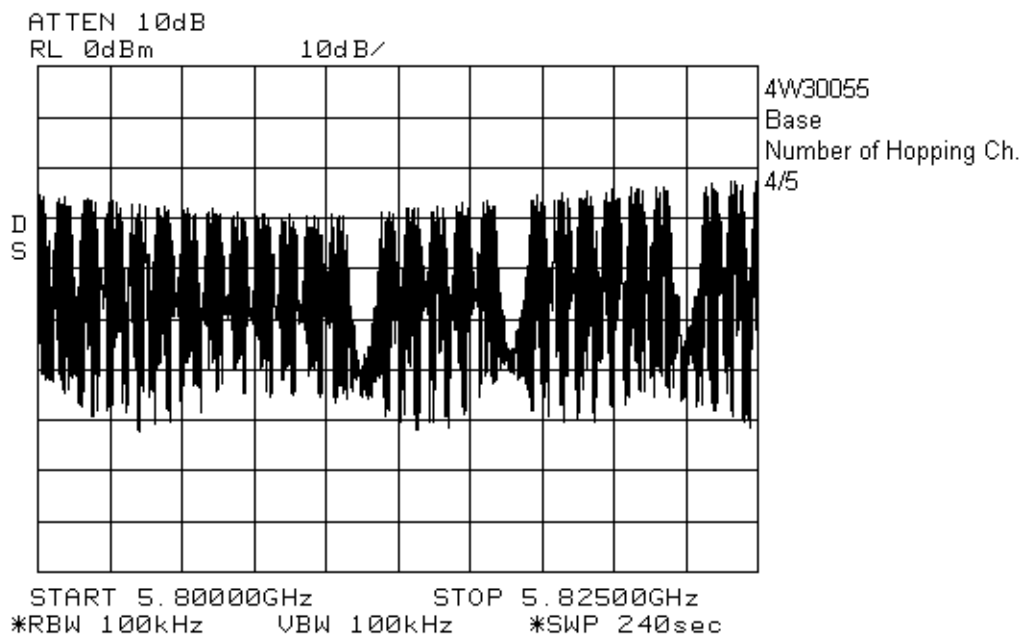
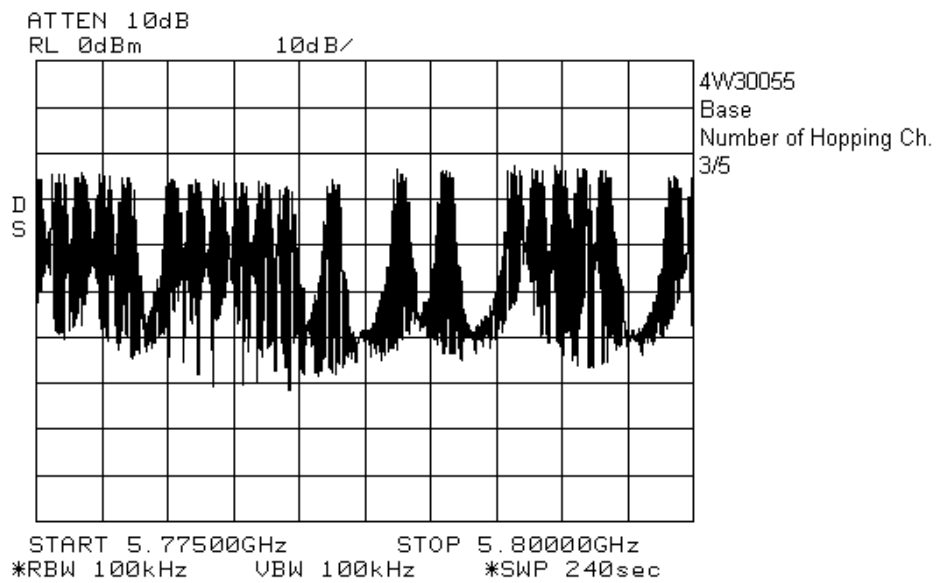
Base = 75
Handset = 75

EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

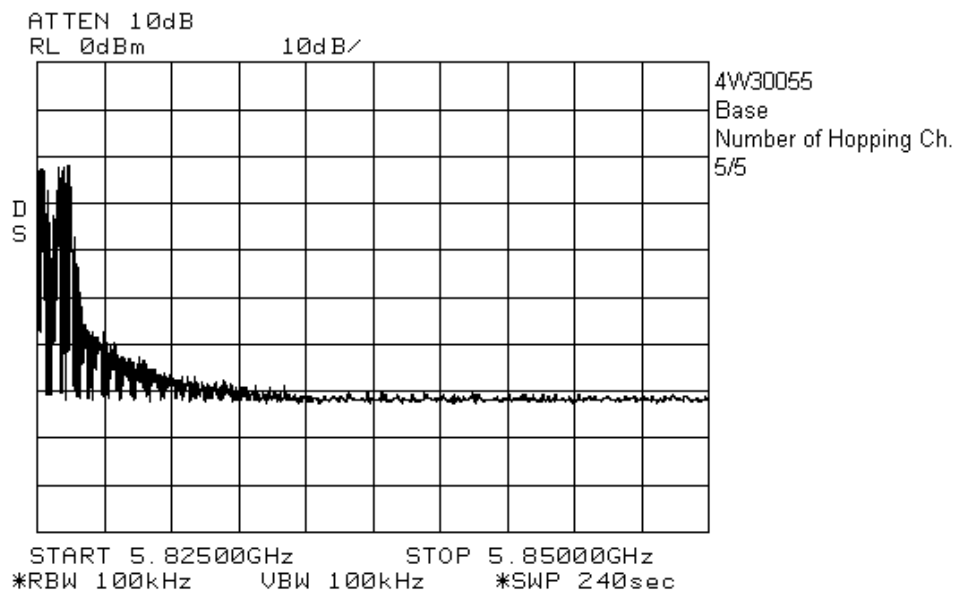
Base



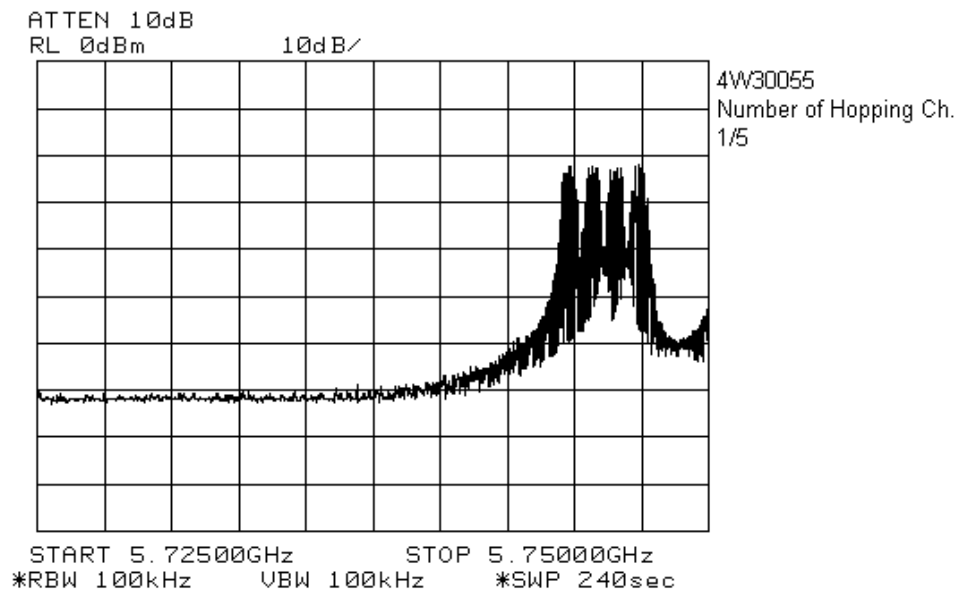
EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone



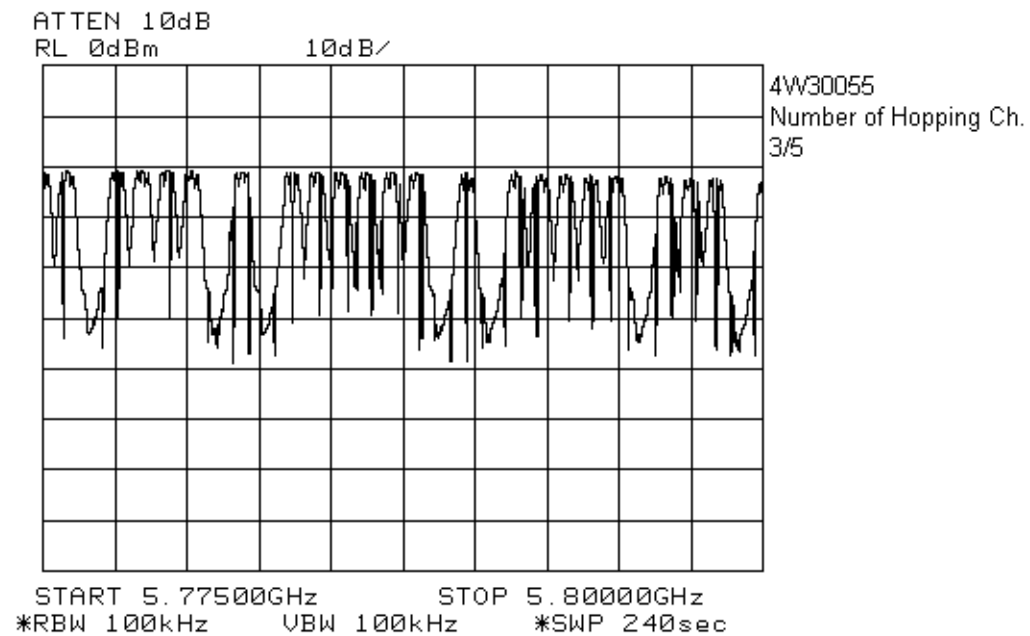
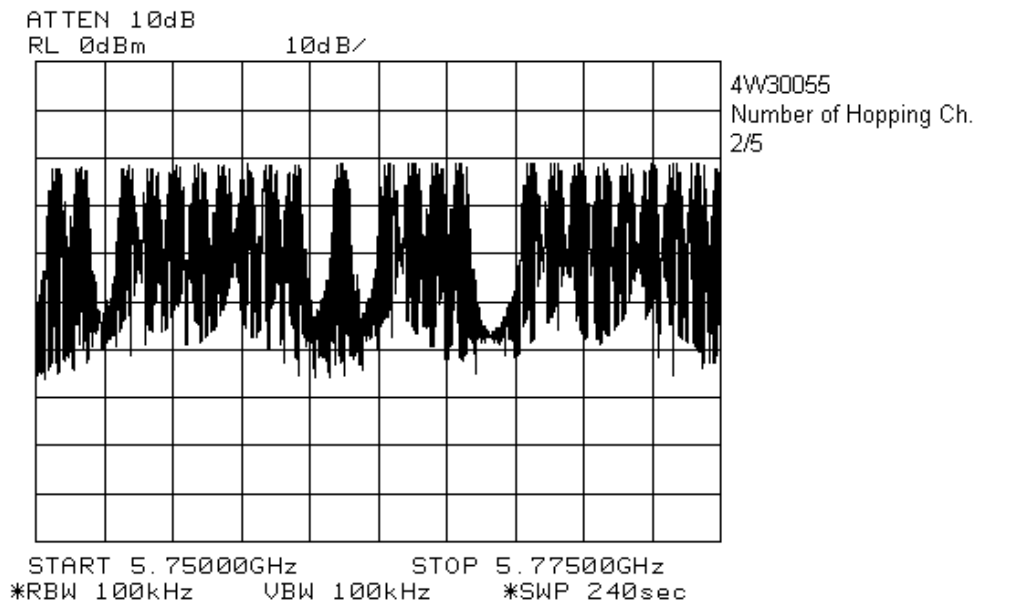
EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone



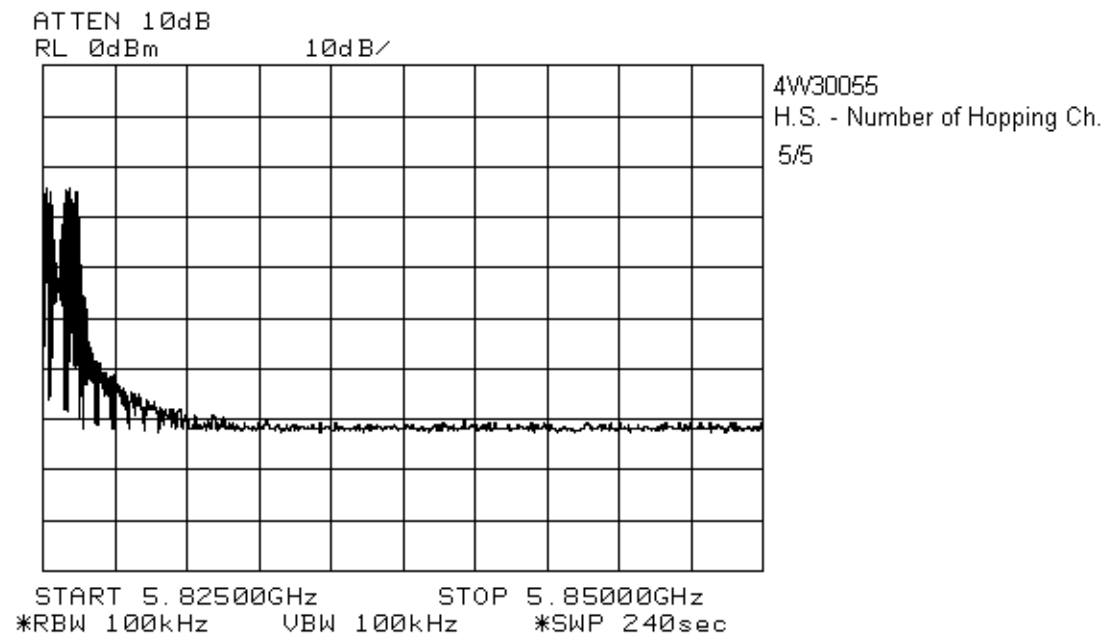
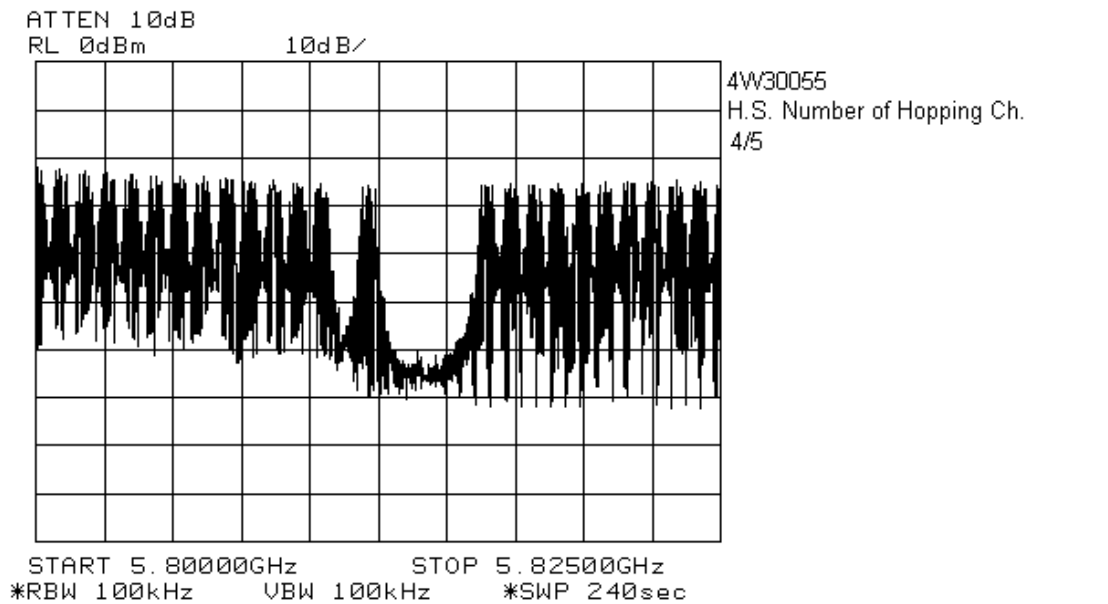
Handset



EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone



EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone



EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

Section 7. Minimum Channel Separation

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

Test Performed By: Kevin Carr	Date of Test: 4 Oct 2004
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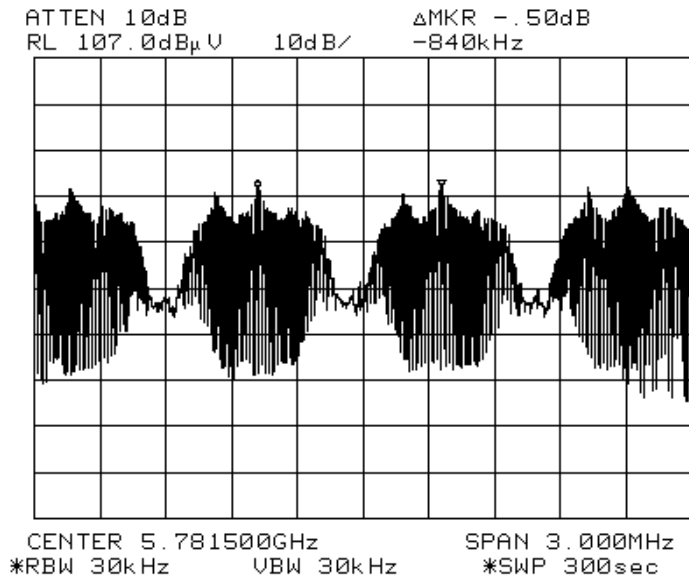
Limit: > 725MHz, Base (20dB BW)
> 717MHz. Handset (20dB BW)

Measurement Data: See Plot(s)

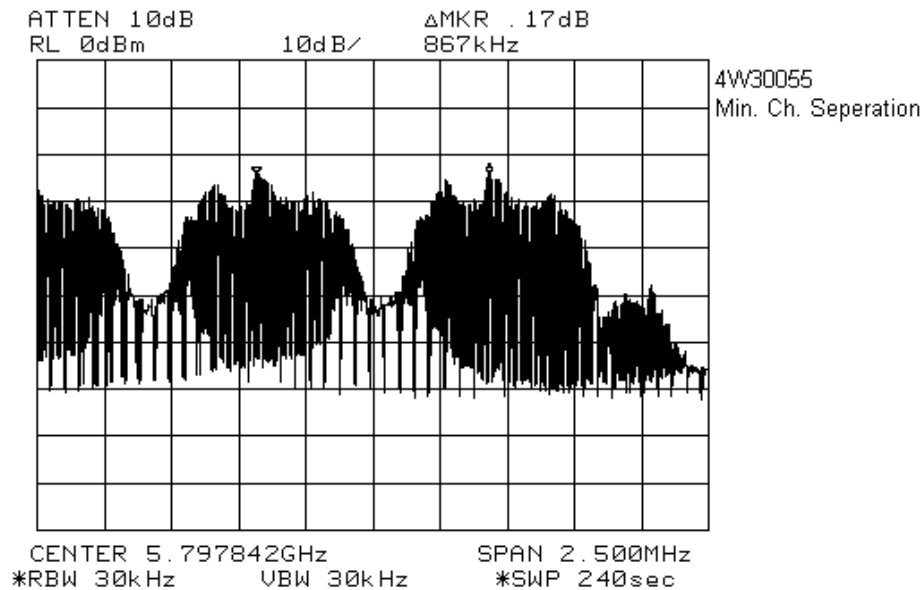
Base = 840kHz
Handset = 867kHz

EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

Base



Handset



EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

Section 8. Peak Output Power

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

Test Performed By: Kevin Carr	Date of Test: 5 Oct 2004
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Limit: 1W

Test Results: Complies. The maximum peak output power is:

Antenna Gain(s): Base: 126.9dBuV at 3m = 2.2131V/m.
Handset: 116.8dBuV at 3m= 0.69183V/m.
Base: 2.2dBi
Handset: 0dBi

$$P = \frac{E^2 R^2}{30G} = \frac{E^2 3^2}{30G}$$

Base = 29.5dBm
Handset = 21.6dBm

Measurement Data: See Tabulated Data.

EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

HS

Ch.	Freq.	Pol	ANT.	Rx	Cable loss	Ant Factor	F.S.
		V/H		dBuv	dB	dB/m	dBuV/m
low	5744.483	V	H2	70.1	3.6	34.5	108.2
	5744.583	H	H2	77.1	3.6	34.7	115.4
mid	5785.506	V	H2	69.5	3.6	34.5	107.6
	5785.506	H	H2	78.5	3.6	34.7	116.8
hi	5825.858	V	H2	69.3	3.6	34.5	107.4
	5825.858	H	H2	77.3	3.6	34.7	115.6

Base

Ch.	Freq.	Pol	ANT.	Rx	Cable loss	Ant Factor	F.S.
		V/H		dBuv	dB	dB/m	dBuV/m
low	5744.473	V	H2	88.8	3.6	34.5	126.9
	5744.473	H	H2	83.5	3.6	34.7	121.8
mid	5785.285	V	H2	87.9	3.6	34.5	126
	5785.105	H	H2	80.6	3.6	34.7	118.9
hi	5826.035	V	H2	88.1	3.6	34.5	126.2
	5825.910	H	H2	80.4	3.6	34.7	118.7

EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

Section 9. Spurious Emissions

Para. No.: 15.247(d)

Test Performed By: Kevin Carr	Date of Test: 30 Sept 2004
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Limit: 20dBc/100kHz
15.205(a), 15.209(a)

Measurement Data: See plots and tabulated data

Duty Cycle Calculations

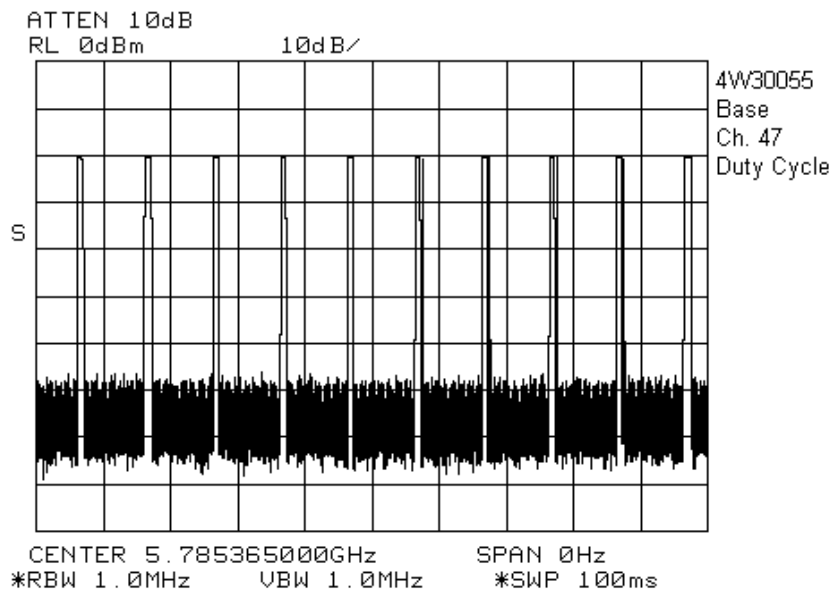
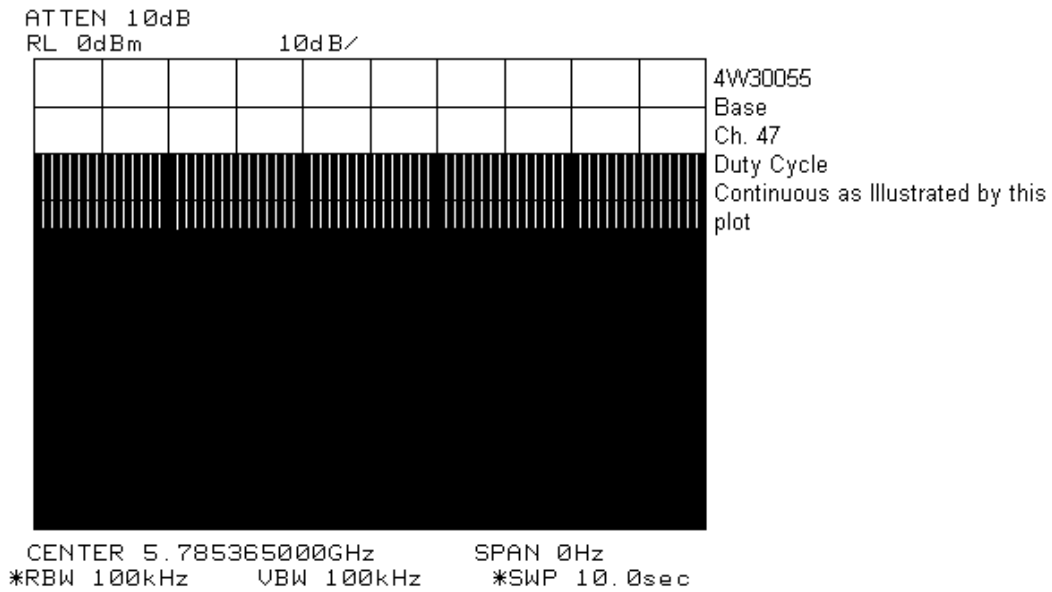
Base: $20\text{Log}(0.9\text{mS}/100\text{mS}) = -20.9\text{dB}$

Handset: $20\text{Log}(1.0\text{mS}/100\text{mS}) = -20.0\text{ dB}$

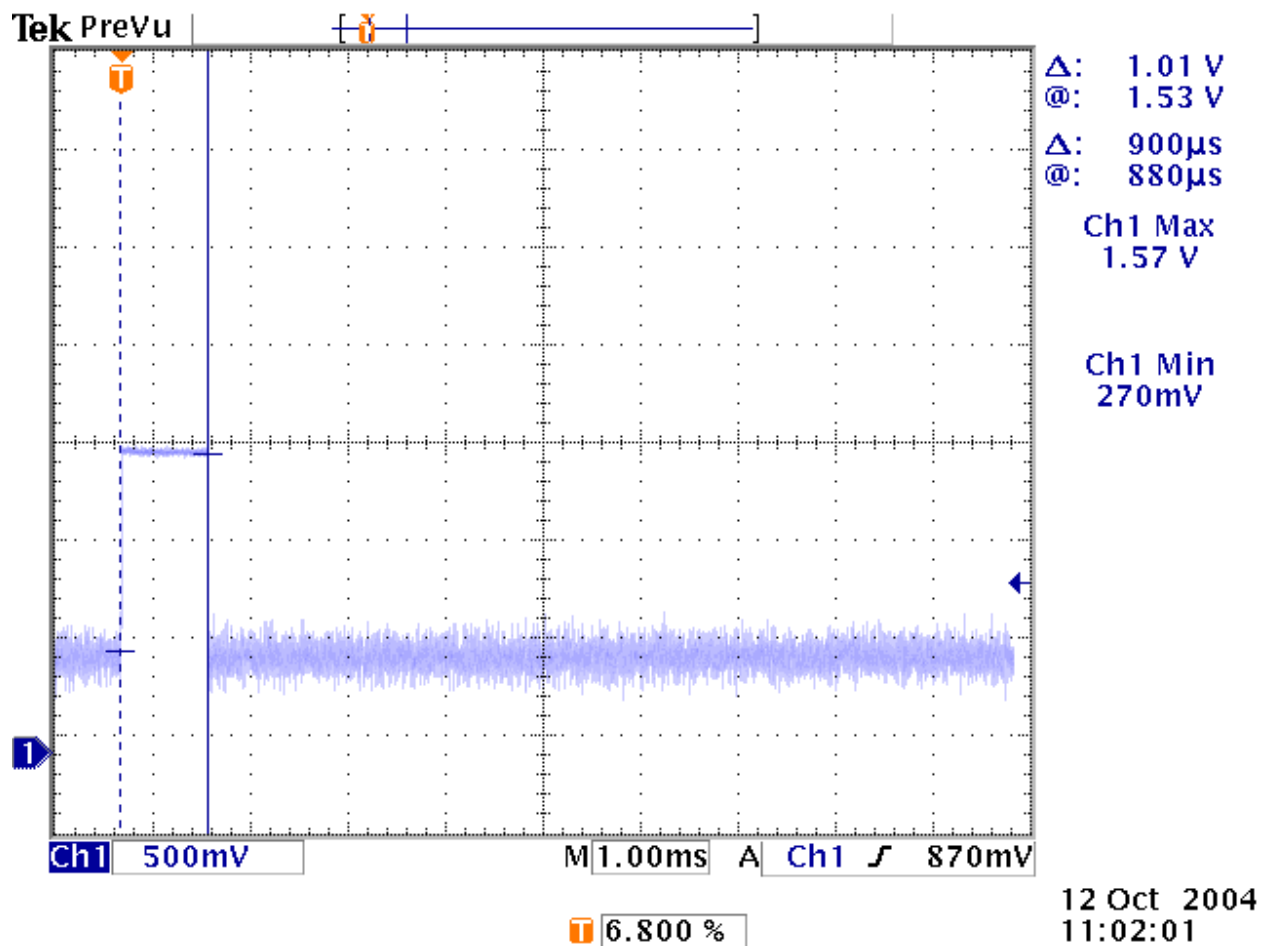
Maximum allowed: - 20dB

EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

Base

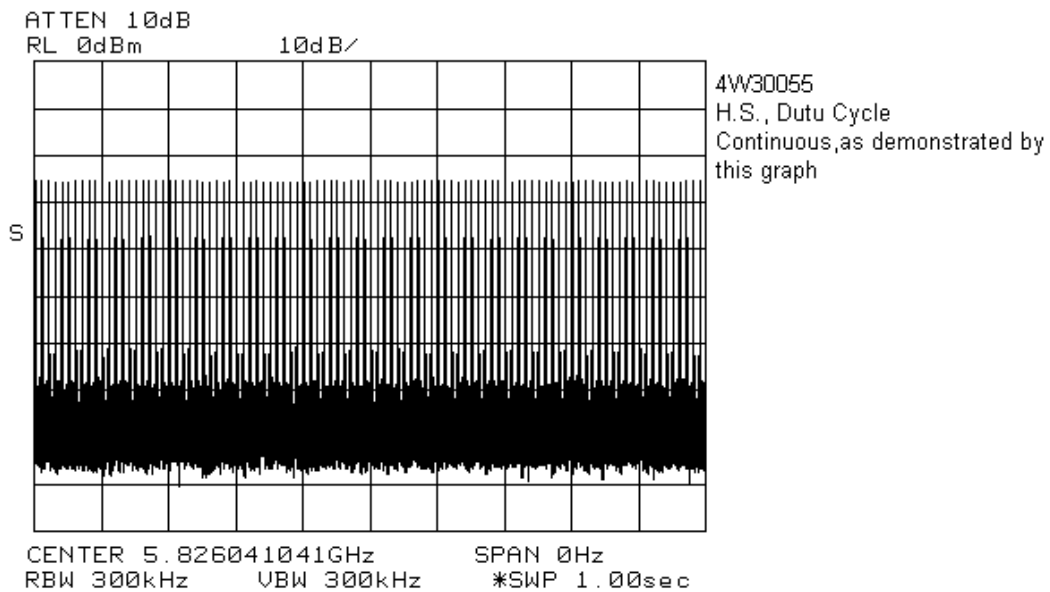
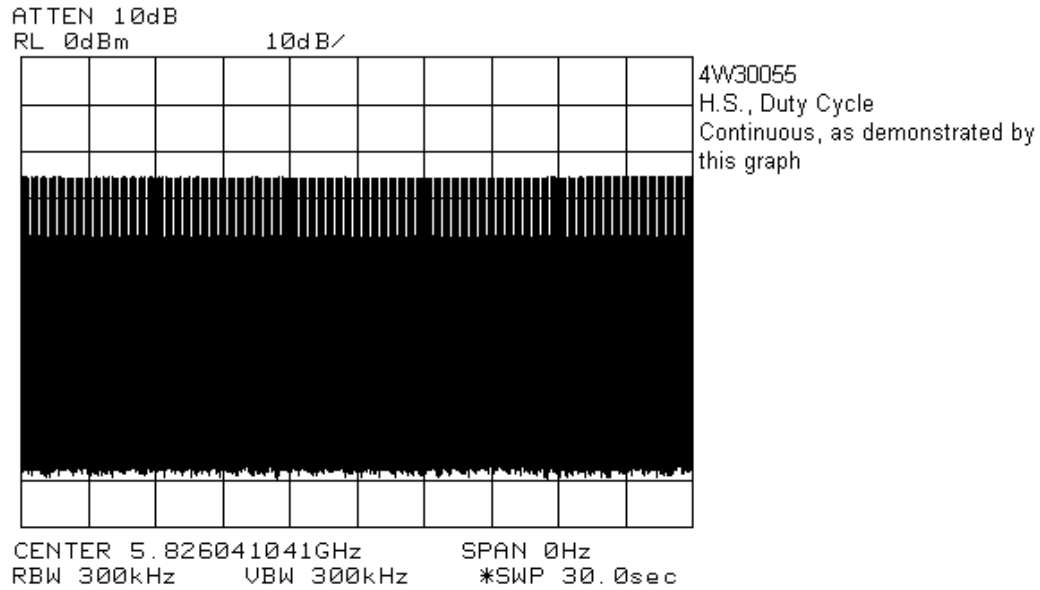


EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

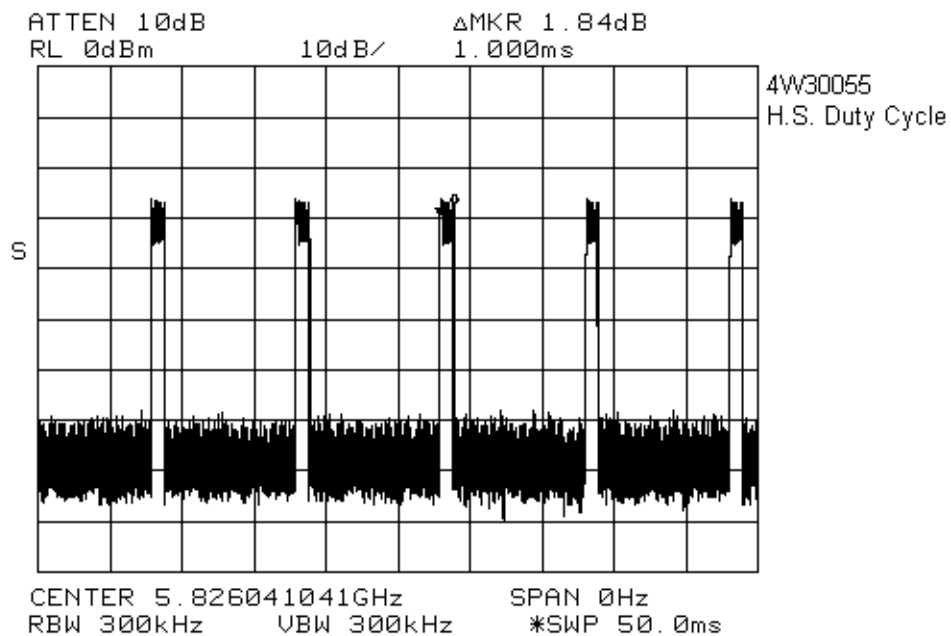
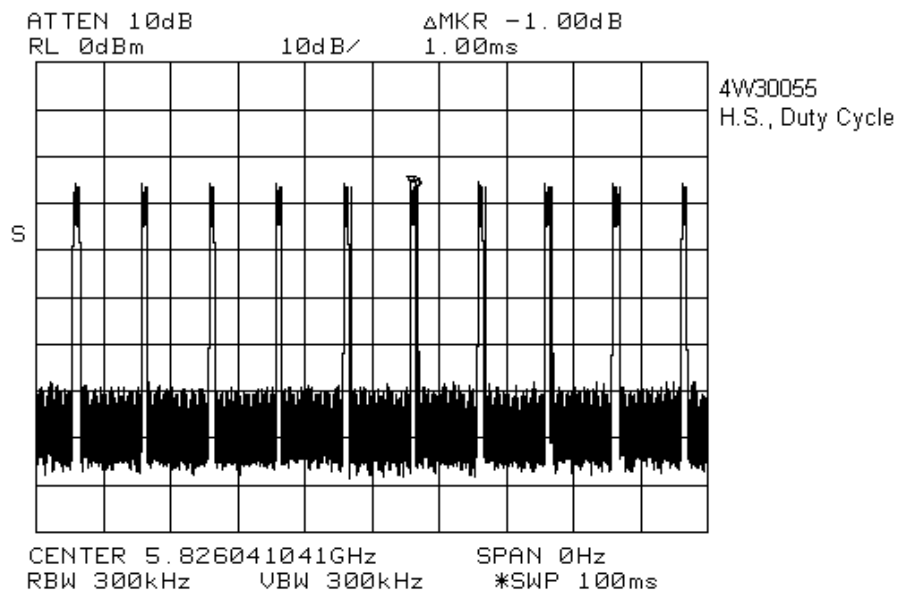


EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

Handset



EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone



*EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone***Radiated Disturbance Test Data: Handset**

Engineer's Name: Kevin Carr											
Tested as per: Table Top											
Test Distance (meters): 3						Test Distance (meters): 3					
Freq. (MHz)	Ant.	Pol. V/H	RCVD Signal (dBμV)	Ant. Factor (dB)	Amp. Gain (dB)	Passband filter Loss (dB)	Duty Cycle Corr. (dB)	Cable Loss (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)
Low Ch.											
11488.966	V	H2	47	39.3	42.5	2.7	----	6.3	52.8	96.8	44
11488.966	H	H2	52	39.3	42.5	2.7	----	6.3	57.8	96.8	39
17233.449	V	H2	49.2	42.5	42.1	2.2	----	6.5	58.3	96.8	38.5
17233.449	H	H2	55	42.3	42.1	2.2	----	6.5	63.9	96.8	32.9
22977.932	V	H5	47	45.7	41.3	----	----	7.5	58.9	96.8	37.9
22977.932	H	H5	45	45.7	41.3	----	----	7.5	56.9	96.8	39.9
28722.415	V	H5	32	46.5	32.7	----	----	8.2	54	96.8	42.8
28722.415	H	H5	31	46.5	32.7	----	----	8.2	53	96.8	43.8
34466.898	V	H5	36	49.2	29.9	----	----	8.9	64.2	96.8	32.6
34466.898	H	H5	37	49.2	29.9	----	----	8.9	65.2	96.8	31.6
Mid Ch.											
11571.360	V	H2	40	39.3	42.3	2.7	----	6.3	46	96.8	50.8
11571.360	H	H2	40	39.3	42.3	2.7	----	6.3	46	96.8	50.8
17357.040	V	H2	47	42.5	40.5	2.2	----	6.5	57.7	96.8	39.1
17357.040	H	H2	48	42.3	40.5	2.2	----	6.5	58.5	96.8	38.3
23142.720	V	H5	47	45.7	40.4	----	----	7.2	59.5	96.8	37.3
23142.720	H	H5	47	45.7	40.4	----	----	7.2	59.5	96.8	37.3
28928.400	V	H5	33	46.5	36.3	----	----	8	51.2	96.8	45.6
28928.400	H	H5	37	46.5	36.3	----	----	8	55.2	96.8	41.6
34714.080	V	H5	34	49.2	29.4	----	----	8.4	62.2	96.8	34.6
34714.080	H	H5	37	49.2	29.4	----	----	8.4	65.2	96.8	31.6
High Ch.											
11651.716	V	H2	43	40.9	42.3	2.7	----	6	50.3	96.8	46.5
11651.716	H	H2	53	40.9	42.3	2.7	----	6	60.3	96.8	36.5
17477.574	V	H2	47	43.5	39.7	2.2	----	6	59	96.8	37.8
17477.574	H	H2	47	43.5	39.7	2.2	----	6	59	96.8	37.8
23303.432	V	H5	48.8	45.7	40.8	----	----	7	60.7	96.8	36.1
23303.432	H	H5	47	45.7	40.8	----	----	7	58.9	96.8	37.9
29129.290	V	H5	32	46.5	35.3	----	----	7.6	50.8	96.8	46
29129.290	H	H5	35	46.5	35.3	----	----	7.6	53.8	96.8	43
34955.148	V	H5	34	49.2	29	----	----	8.7	62.9	96.8	33.9
34955.148	H	H5	35	49.2	29	----	----	8.7	63.9	96.8	32.9
Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole Note 2: Positive Peak detector used Notes: Measurement Receiver = H.P.8565E, RBW/VBW = 1/3MHz											

*EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone***Radiated Disturbance Test Data: Handset, Restricted Bands**

Test Date: 30 Sept. 2004											
Engineer's Name: Kevin Carr											
Tested as per: Table Top											
Test Distance (meters): 3						Test Distance (meters): 3					
Freq. (MHz)	Ant.	Pol. V/H	RCVD Signal (dBμV)	Ant. Factor (dB)	Amp. Gain (dB)	Passband filter Loss (dB)	Duty Cycle Corr. (dB)	Cable Loss (dB)	Level (dBμV)	Limit (dBμV)	Margin (dB)
Low Ch.											
11488.966	V	H2	47	39.3	42.5	2.7	----	6.3	52.8	74	21.2
11488.966	H	H2	52	39.3	42.5	2.7	----	6.3	57.8	74	16.2
11488.966	V	H2	47	39.3	42.5	2.7	20	6.3	32.8	54	21.2
11488.966	H	H2	52	39.3	42.5	2.7	20	6.3	37.8	54	16.2
22977.932	V	H5	47	45.7	41.3	----	----	7.5	58.9	74	15.1
22977.932	H	H5	45	45.7	41.3	----	----	7.5	56.9	74	17.1
22977.932	V	H5	47	45.7	41.3	----	20	7.5	38.9	54	15.1
22977.932	H	H5	45	45.7	41.3	----	20	7.5	36.9	54	17.1
Mid Ch.											
11571.360	V	H2	40	39.3	42.3	2.7	----	6.3	46	74	28
11571.360	H	H2	40	39.3	42.3	2.7	----	6.3	46	74	28
11571.360	V	H2	40	39.3	42.3	2.7	20	6.3	26	54	28
11571.360	H	H2	40	39.3	42.3	2.7	20	6.3	26	54	28
High Ch.											
11651.716	V	H2	43	40.9	42.3	2.7	----	6	50.3	74	23.7
11651.716	H	H2	53	40.9	42.3	2.7	----	6	60.3	74	13.7
11651.716	V	H2	43	40.9	42.3	2.7	20	6	30.3	54	23.7
11651.716	H	H2	53	40.9	42.3	2.7	20	6	40.3	54	13.7
Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole											
Note 2: Positive Peak detector used											
Notes: Measurement Receiver = H.P.8565E, RBW/VBW = 1/3MHz											

*EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone***Radiated Disturbance Test Data: Base**

Engineer's Name: Kevin Carr											
Tested as per: Table Top											
Test Distance (meters): 3						Test Distance (meters): 3					
Freq. (MHz)	Ant.	Pol. V/H	RCVD Signal (dBμV)	Ant. Factor (dB)	Amp. Gain (dB)	Passband filter Loss (dB)	Duty Cycle Corr. (dB)	Cable Loss (dB)	Level (dBμV)	Limit (dBμV)	Margin (dB)
Low Ch.											
11488.930	V	H2	64.8	39.3	42.5	2.7	----	6.3	70.6	106.9	36.3
11489.950	H	H2	61.8	39.3	42.5	2.7	----	6.3	67.6	106.9	39.3
17234.660	V	H2	68.2	42.5	42.1	2.2	----	6.5	77.3	106.9	29.6
17234.500	H	H2	62.8	42.3	42.1	2.2	----	6.5	71.7	106.9	35.2
22978.180	V	40G	52.3	45.7	41.3	----	----	7.5	64.2	106.9	42.7
22978.650	H	40G	50.7	45.7	41.3	----	----	7.5	62.6	106.9	44.3
28723.120	V	40G	32.5	46.5	32.7	----	----	8.2	54.5	106.9	52.4
28723.120	H	40G	33	46.5	32.7	----	----	8.2	55	106.9	51.9
34467.900	V	40G	35	49.2	29.9	----	----	8.9	63.2	106.9	43.7
34467.590	H	40G	35	49.2	29.9	----	----	8.9	63.2	106.9	43.7
Mid Ch.											
11570.300	V	H2	65.2	39.3	42.3	2.7	----	6.3	71.2	106.9	35.7
11570.500	H	H2	60.5	39.3	42.3	2.7	----	6.3	66.5	106.9	40.4
17355.390	V	H2	67.1	42.5	40.5	2.2	----	6.5	77.8	106.9	29.1
17355.670	H	H2	61.6	42.3	40.5	2.2	----	6.5	72.1	106.9	34.8
23140.470	V	40G	59	45.7	40.4	----	----	7.2	71.5	106.9	35.4
23140.830	H	40G	57.3	45.7	40.4	----	----	7.2	69.8	106.9	37.1
28925.710	V	40G	34.7	46.5	36.3	----	----	8	52.9	106.9	54
28925.710	H	40G	35	46.5	36.3	----	----	8	53.2	106.9	53.7
34710.810	V	40G	35	49.2	29.4	----	----	8.4	63.2	106.9	43.7
34710.810	H	40G	35	49.2	29.4	----	----	8.4	63.2	106.9	43.7
High Ch.											
11651.163	V	H2	66.5	40.9	42.3	2.7	----	6	73.8	106.9	33.1
11651.800	H	H2	63.1	40.9	42.3	2.7	----	6	70.4	106.9	36.5
17477.420	V	H2	65.3	43.5	39.7	2.2	----	6	77.3	106.9	29.6
17477.420	H	H2	58.4	43.5	39.7	2.2	----	6	70.4	106.9	36.5
23303.570	V	40G	57.2	45.7	40.8	----	----	7	69.1	106.9	37.8
23302.970	H	40G	54.3	45.7	40.8	----	----	7	66.2	106.9	40.7
29129.800	V	40G	31.5	46.5	35.3	----	----	7.6	50.3	106.9	56.6
29129.800	H	40G	34	46.5	35.3	----	----	7.6	52.8	106.9	54.1
34955.760	V	40G	35	49.2	29	----	----	8.7	63.9	106.9	43
34955.760	H	40G	35.3	49.2	29	----	----	8.7	64.2	106.9	42.7
Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole Note 2: Positive Peak detector used Notes: Measurement Receiver = H.P.8565E, RBW/VBW = 1/3MHz											

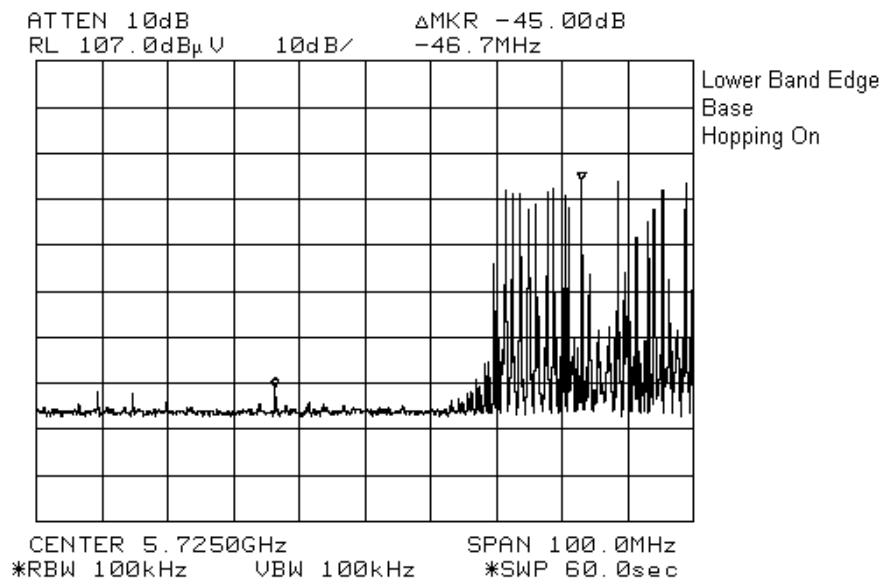
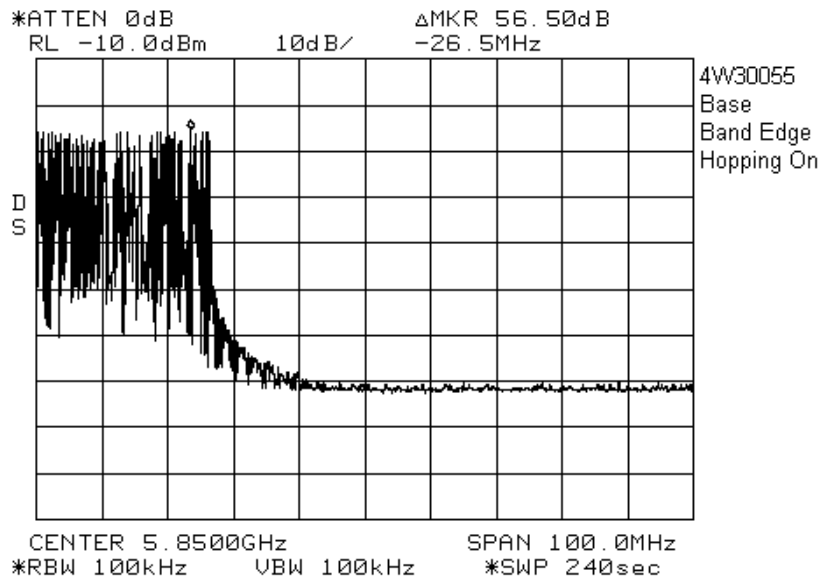
*EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone***Radiated Disturbance Test Data: Base, Restricted Bands**

Test Date: 30 Sept. 2004											
Engineer's Name: Kevin Carr											
Tested as per: Table Top											
Test Distance (meters): 3						Test Distance (meters): 3					
Freq. (MHz)	Ant.	Pol. V/H	RCVD Signal (dBμV)	Ant. Factor (dB)	Amp. Gain (dB)	Passband filter Loss (dB)	Duty Cycle Corr. (dB)	Cable Loss (dB)	Level (dBμV)	Limit (dBμV)	Margin (dB)
Low Ch.											
11488.930	V	H2	64.8	39.3	42.5	2.7	----	6.3	70.6	74	3.4
11489.950	H	H2	61.8	39.3	42.5	2.7	----	6.3	67.6	74	6.4
11488.930	V	H2	64.8	39.3	42.5	2.7	20	6.3	50.6	54	3.4
11489.950	H	H2	61.8	39.3	42.5	2.7	20	6.3	47.6	54	6.4
22978.180	V	40G	52.3	45.7	41.3	----	----	7.5	64.2	74	9.8
22978.650	H	40G	50.7	45.7	41.3	----	----	7.5	62.6	74	11.4
22978.180	V	40G	52.3	45.7	41.3	----	20	7.5	44.2	54	9.8
22978.650	H	40G	50.7	45.7	41.3	----	20	7.5	42.6	54	11.4
Mid Ch.											
11570.300	V	H2	65.2	39.3	42.3	2.7	----	6.3	71.2	74	2.8
11570.500	H	H2	60.5	39.3	42.3	2.7	----	6.3	66.5	74	7.5
11570.300	V	H2	65.2	39.3	42.3	2.7	20	6.3	51.2	54	2.8
11570.500	H	H2	60.5	39.3	42.3	2.7	20	6.3	46.5	54	7.5
23140.470	V	40G	59	45.7	40.4	----	----	7.2	71.5	74	2.5
23140.830	H	40G	57.3	45.7	40.4	----	----	7.2	69.8	74	4.2
23140.470	V	40G	59	45.7	40.4	----	20	7.2	51.5	54	2.5
23140.830	H	40G	57.3	45.7	40.4	----	20	7.2	49.8	54	4.2
High Ch.											
11651.163	V	H2	66.5	40.9	42.3	2.7	----	6	73.8	74	0.2
11651.800	H	H2	63.1	40.9	42.3	2.7	----	6	70.4	74	3.6
11651.163	V	H2	66.5	40.9	42.3	2.7	20	6	53.8	54	0.2
11651.800	H	H2	63.1	40.9	42.3	2.7	20	6	50.4	54	3.6
23303.570	V	40G	57.2	45.7	40.8	----	----	7	69.1	74	4.9
23302.970	H	40G	54.3	45.7	40.8	----	----	7	66.2	74	7.8
23303.570	V	40G	57.2	45.7	40.8	----	20	7	49.1	54	4.9
23302.970	H	40G	54.3	45.7	40.8	----	20	7	46.2	54	7.8
Note 1: Antenna Legend: BC = Biconical, BL = Bilog, LP = Log-Periodic, Horn = Horn, ED = EMCO Dipole											
Note 2: Positive Peak detector used											
Notes: Measurement Receiver = H.P.8565E, RBW/VBW = 1/3MHz											

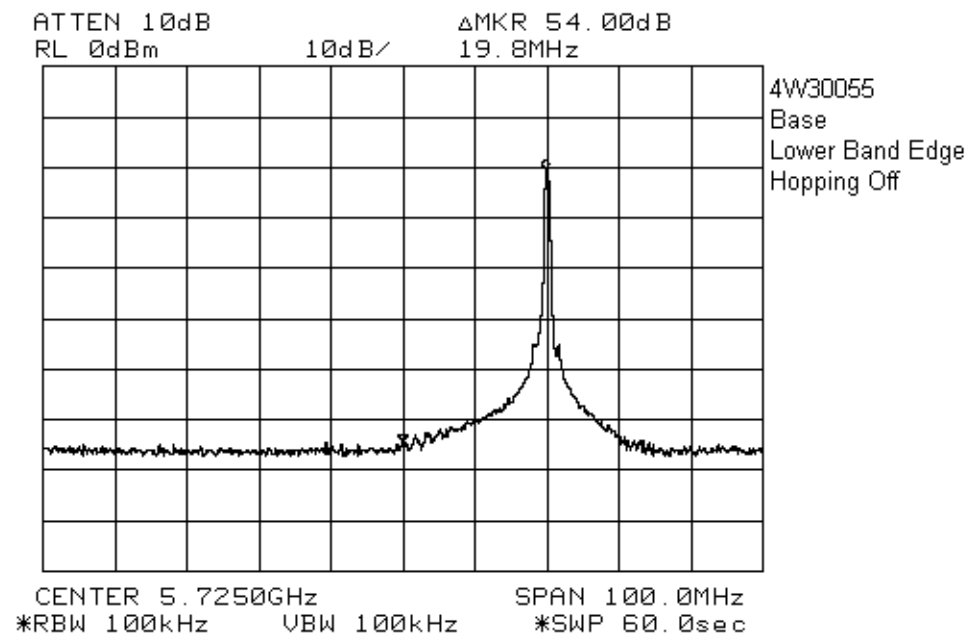
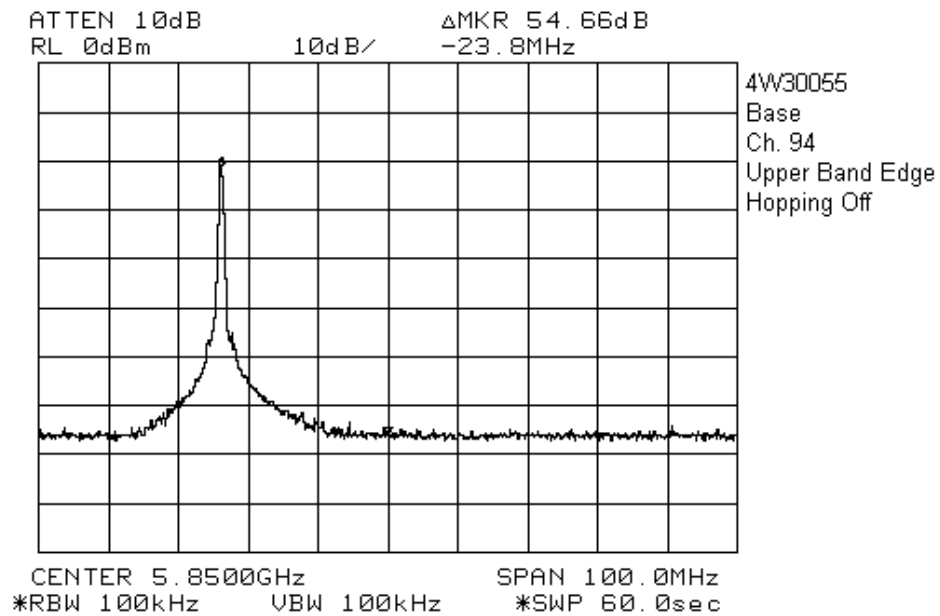
EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

20 dB Bandedge

Base

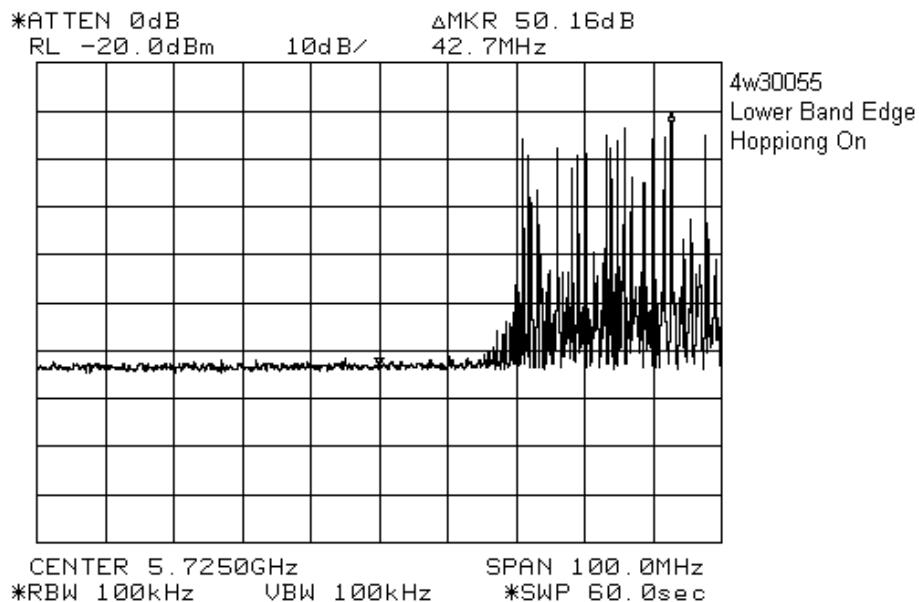
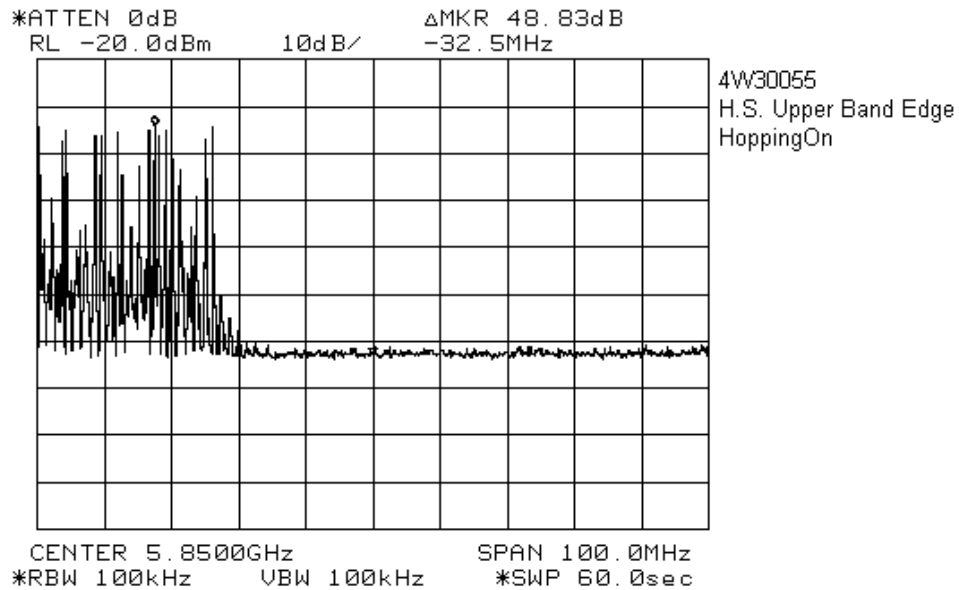


EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

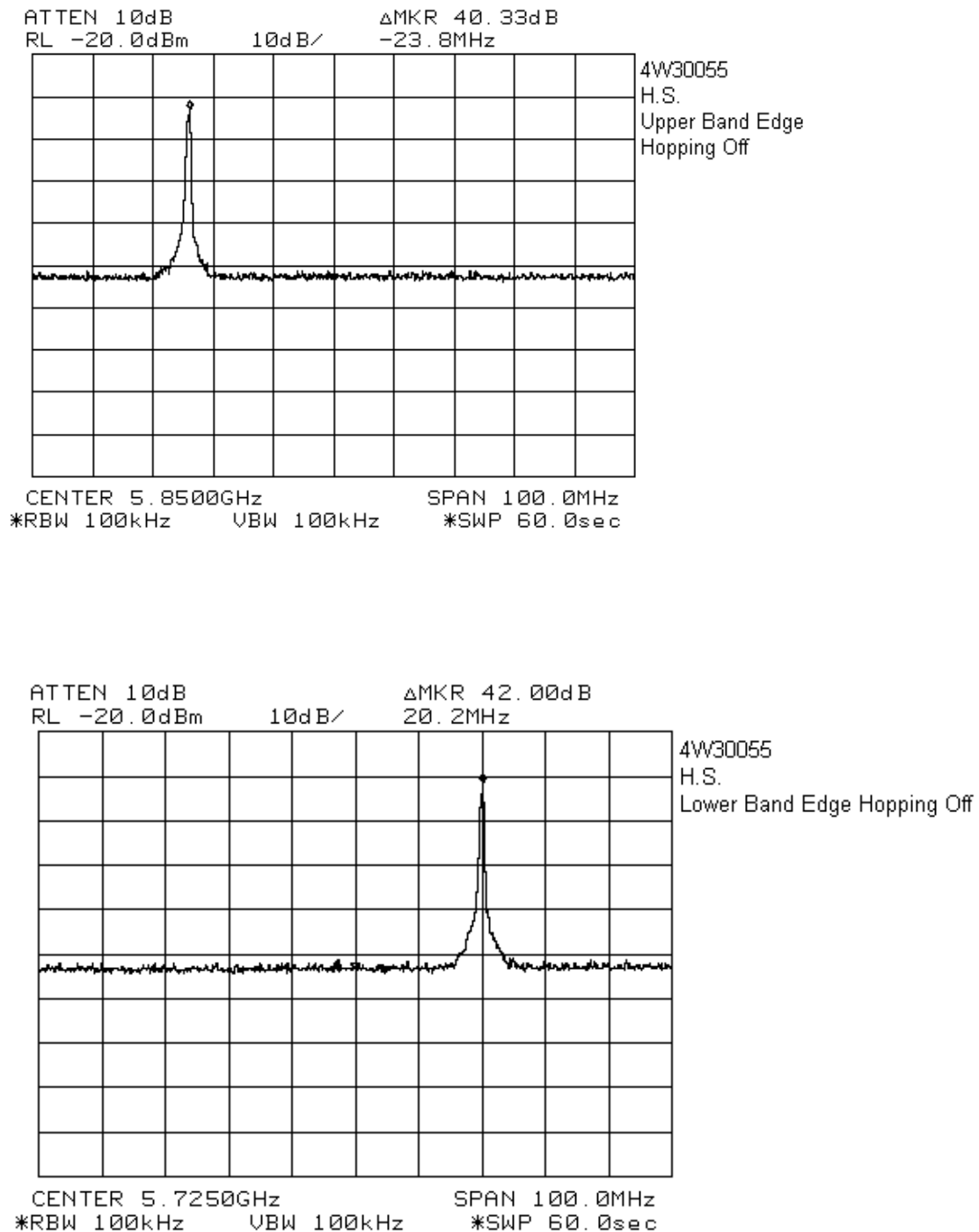


EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

Handset

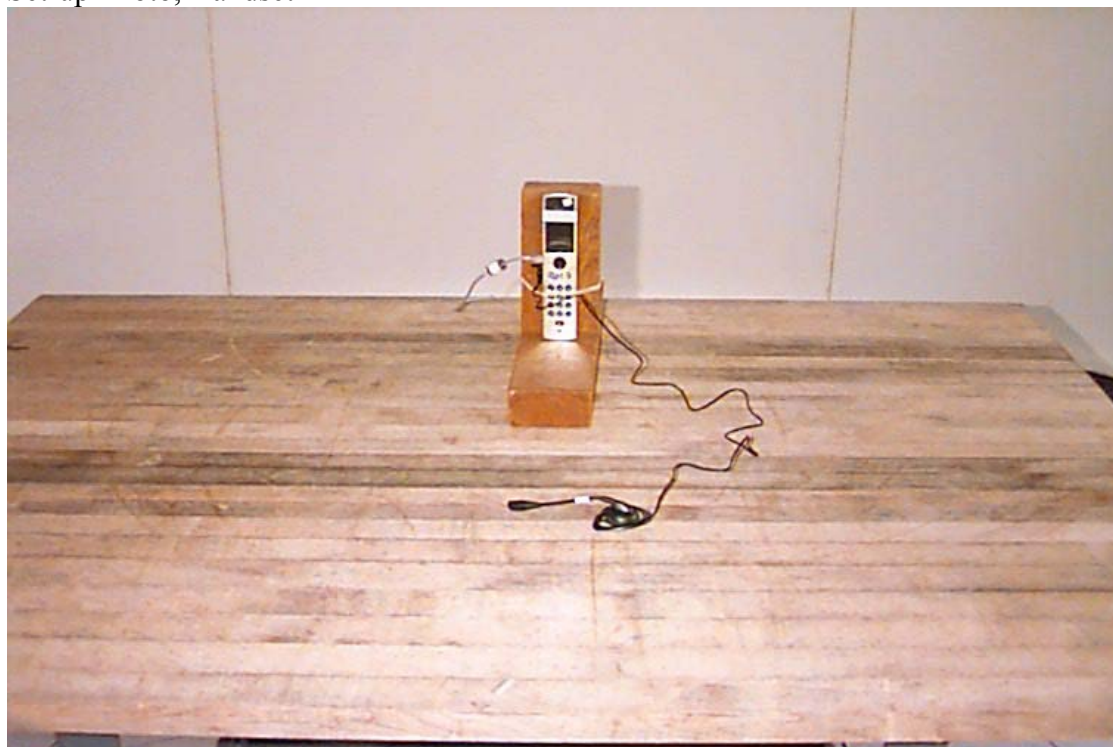


EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone



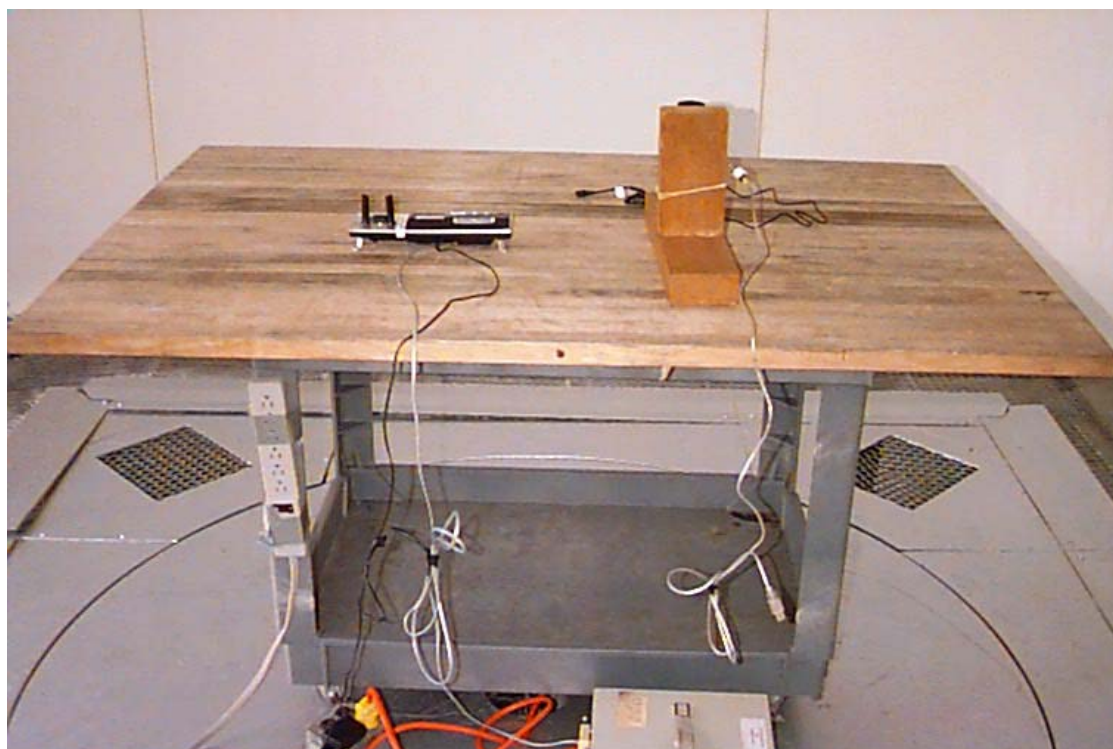
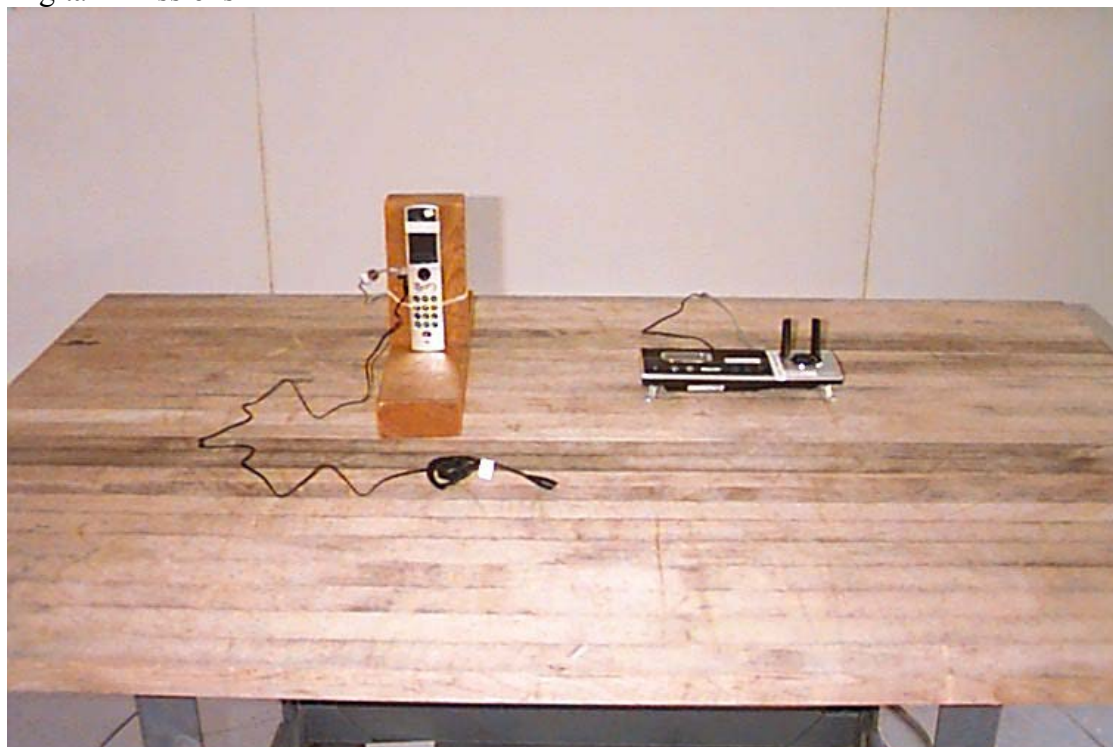
EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

Set-up Photo, Handset



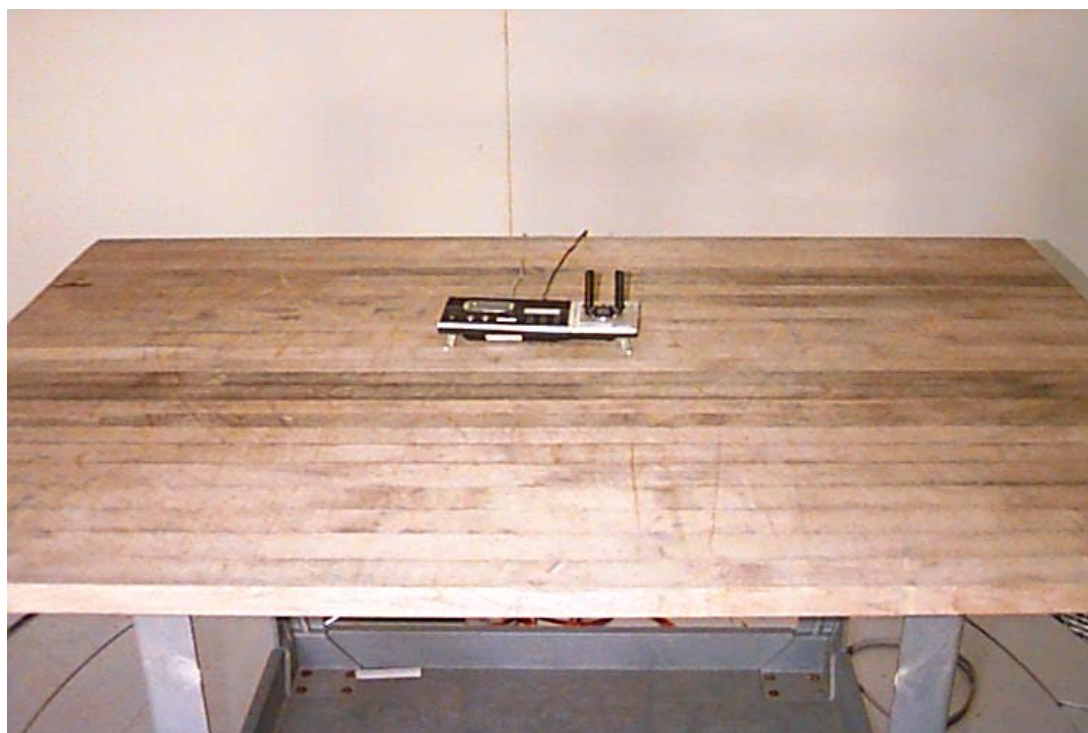
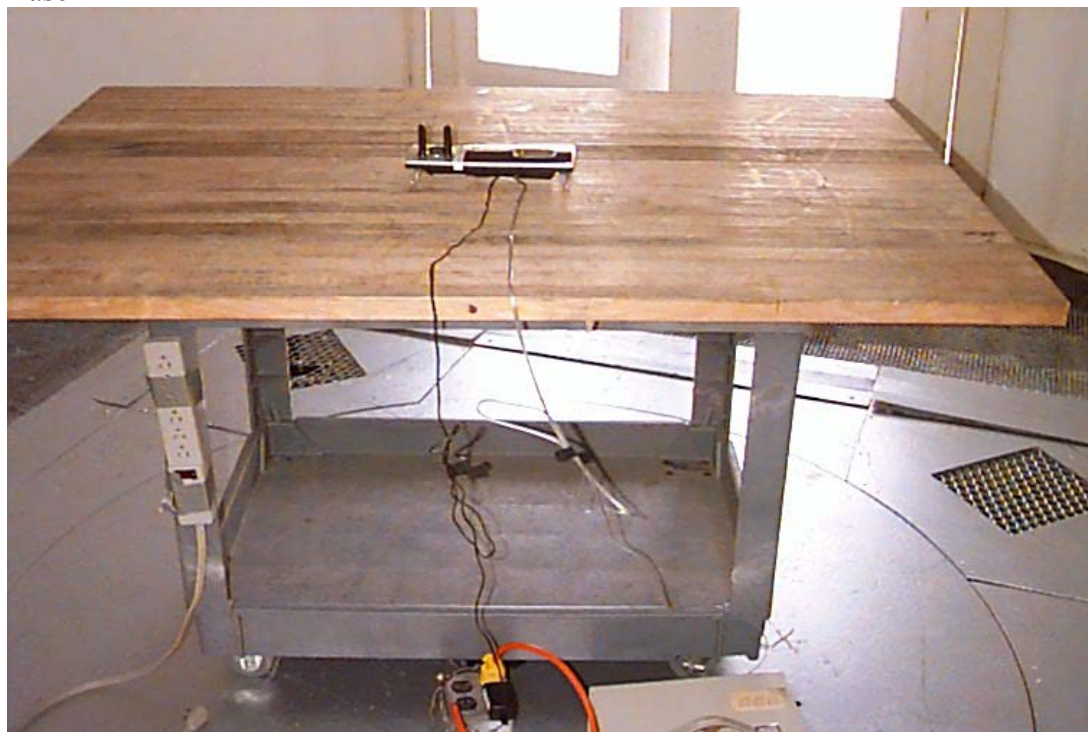
EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

Digital Emissions



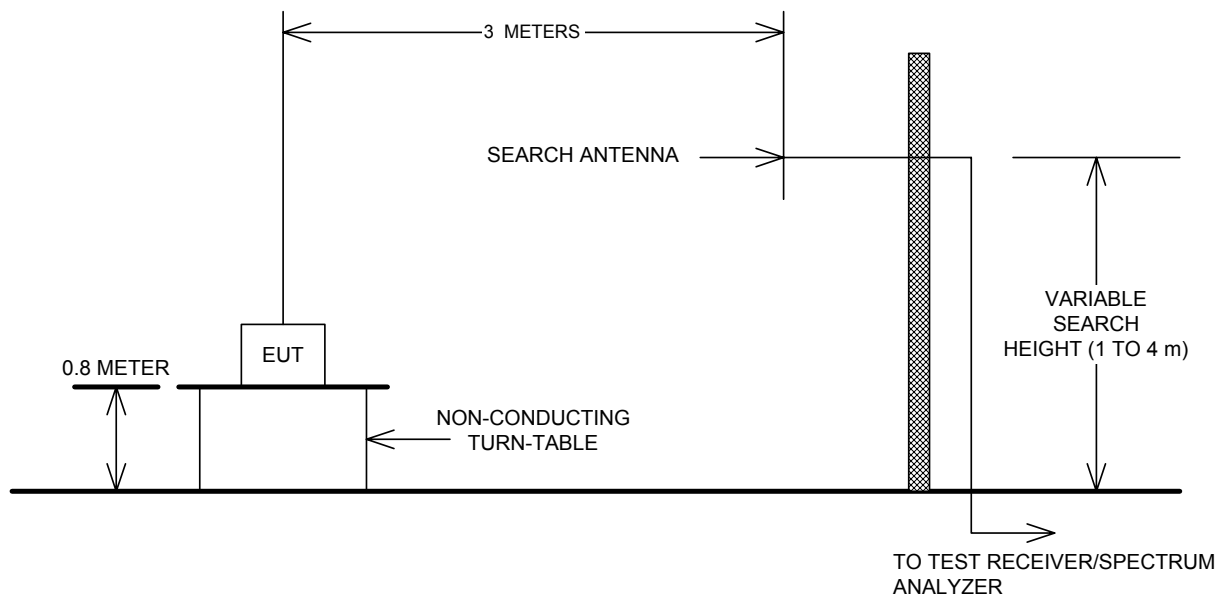
EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone

Base

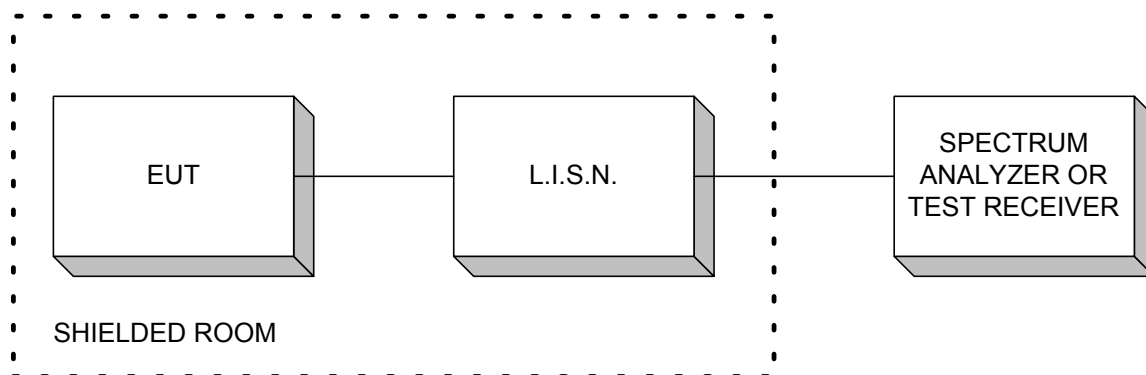


Section 10. Block Diagrams

Test Site For Radiated Emissions



AC Power Line Conducted Emissions



*EQUIPMENT: VTech 5858, 5.8GHz Digital FHSS, Cordless Phone***Section 11. Test Equipment List**

Conducted Disturbance at Mains Test Equipment Used:

CAL Cycle	Equipment	Manufacturer	Model No.	Asset/Serial No.	Last Cal.	Next Cal.
1 Year	LISN	EMCO	4825/2	FA001545	Oct. 30/03	Oct. 30/04
1 Year	Spectrum Analyzer	Hewlett-Packard	8566B	FA001309	May 28/04	May 28/05
1 Year	Spectrum Analyzer Display	Hewlett-Packard	85662A	FA001309	May 28/04	May 28/05
1 Year	Transient Limiter	Hewlett-Packard	1194 7A	FA000975	June 10/04	June 10/05
Note: N/A = Not Applicable, NCR = No Cal Required, COU = CAL On Use, OUT = Out For CAL/Repair						

Equipment List - Radiated Emissions

CAL Cycle	Equipment	Manufacturer	Model No.	Asset/Serial No.	Last Cal.	Next Cal.
1 Year	Receiver	Rohde & Schwarz	ESVS-30	FA001437	July 26/04	July 26/05
1 Year	Spectrum Analyzer	Hewlett Packard	8565E	FA000981	31 May 04	31 May 05
1 Year	Biconical (1) Antenna	EMCO	3109	FA000805	April 23/04	April 23/05
1 Year	Horn Antenna	EMCO #1	3115	FA000649	18 Dec 03	18 Dec 04
1 Year	Log Periodic Antenna #1	EMCO	LPA-25	FA000477	Aug. 26/04	Aug. 26/05
1 Year	RF AMP	JCA	4-8 GHz	FA001497	18 June 04	18 June 05
1 Year	RF AMP	JCA	2-4 GHz	FA001496	18 June 04	18 June 05
1 Year	RF AMP	JCA	1-2 GHz	FA001498	18 June 04	18 June 05
1 Year	Horn Antenna	EMCO #5	3116	FA001847	19 Jan 04	19 Jan 05
COU	8.2 – 12 GHz Passband Filter	Dorado	WA-90-S	-----	COU	COU
COU	12 – 18 GHz Passband Filter	Dorado	62-SMA	-----	COU	COU
COU	5.0 – 18.0 GHz Amplifier	NARDA	DWT-186N23U40	FA001409	COU	COU
COU	18.0 – 26.0 GHz Amplifier	NARDA	BBS-1826N612	FA001550	COU	COU
COU	26 – 40.0 GHz Amplifier	NARDA	DBL-2640N610	FA001556	COU	COU
Note: N/A = Not Applicable, NCR = No Cal Required, COU = CAL On Use, OUT = Out For CAL/Repair						