



Nemko


Test Report: 3W07663, Issue 2

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

**Equipment Under Test:
(EUT)** E2525 & E2555

In Accordance With: **FCC Part 15, Subpart C**
Frequency Hopping Transmitters
2400 - 2483.5 MHz

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

Authorized By: 
Glen Westwell, Wireless Technologist

Date: 12 December 2003

Total Number of Pages: 48

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EQUIPMENT: E2525 & E2555

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 in accordance with ANSI C63.4-1992. 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. NONE



TESTED BY: _____
Kevin Carr, EMC/EMI/Wireless Specialist

DATE: 12 December 2003

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This report applies only to the items tested.

EQUIPMENT: E2525 & E2555

Summary Of Test Data

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

Footnotes For N/A's: No Access Port

Additional Note: The handset & base pair are using the same RF module, so only one handset & one base. Model E2555 was selected due to it's extra keypad circuitry on the base unit.

Test Conditions:

Indoor Temperature: 22°C
Humidity: 55%

Outdoor Temperature: 7°C
Humidity: 54%

EQUIPMENT: E2525 & E2555

Section 3. Powerline Conducted Emissions

Para. No.: 15.207 (a)

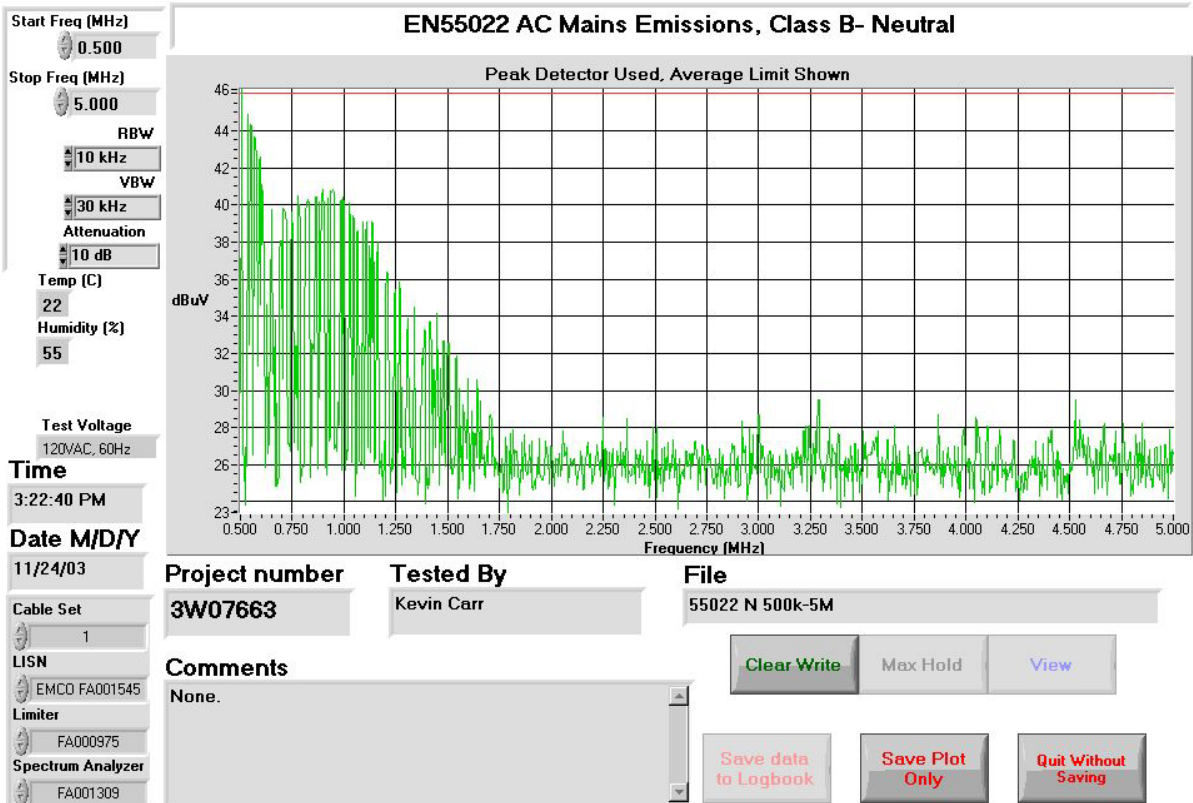
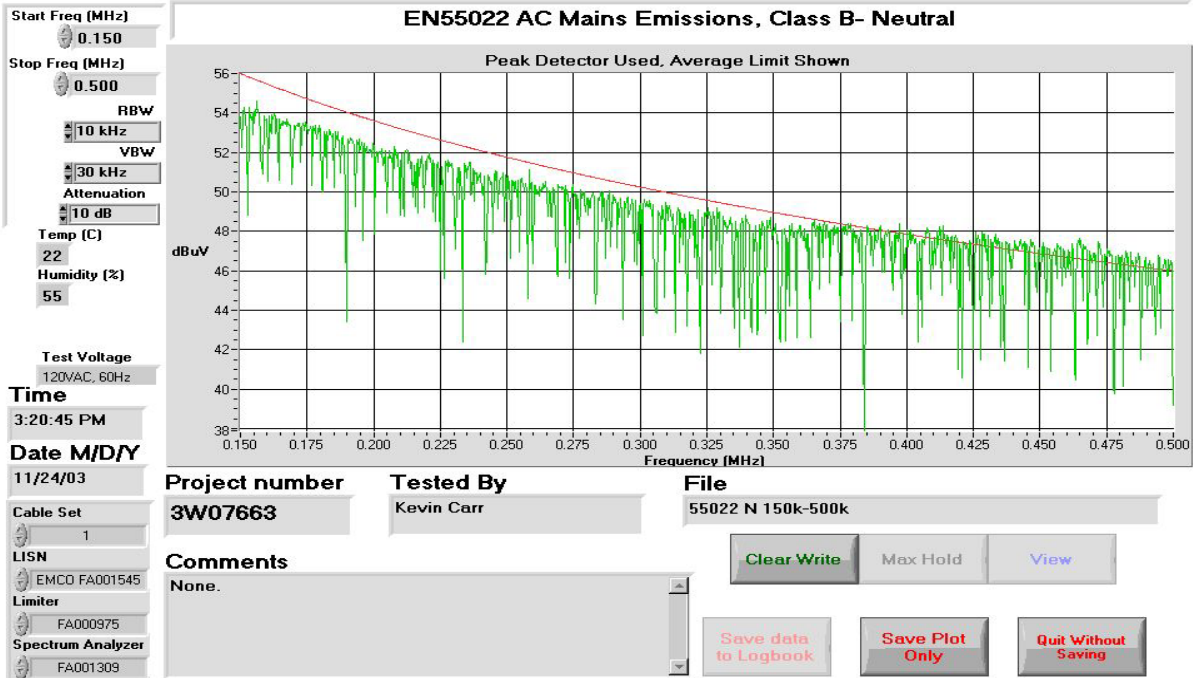
Test Performed By: Kevin Carr	Date of Test: 24 Nov. 2003
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Test Results: Complies

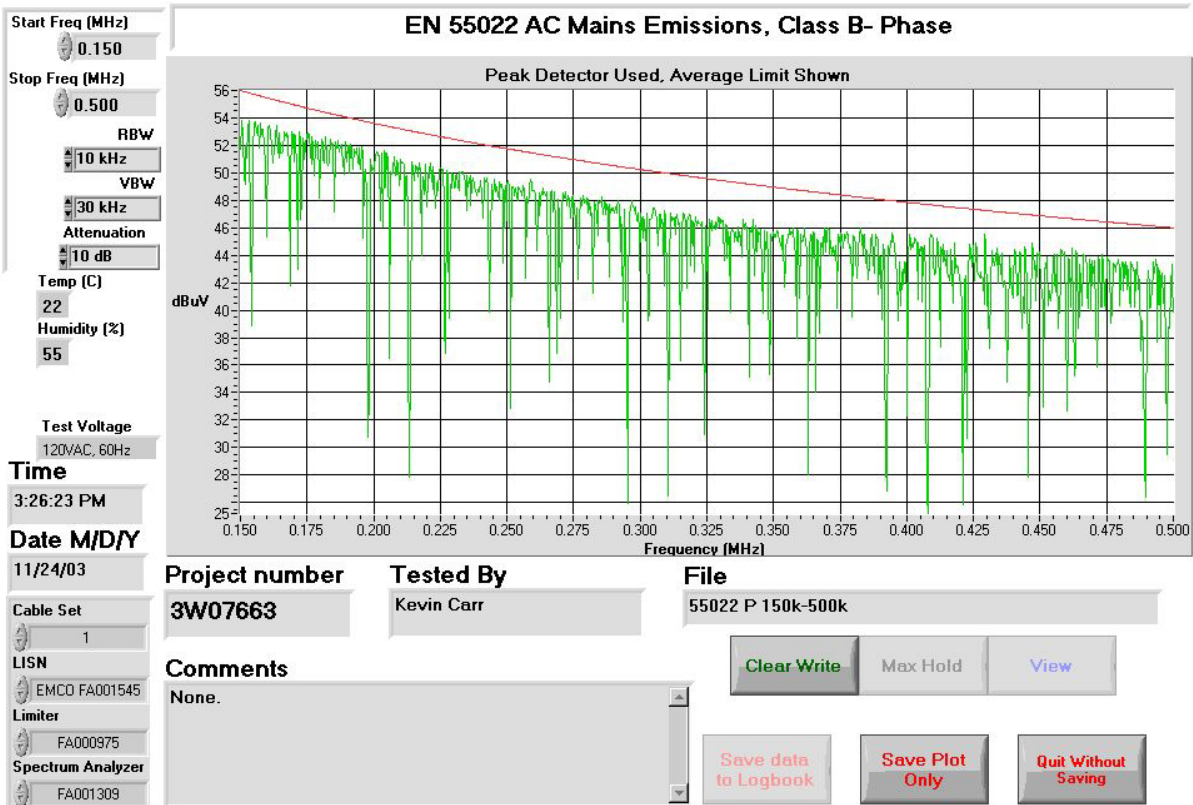
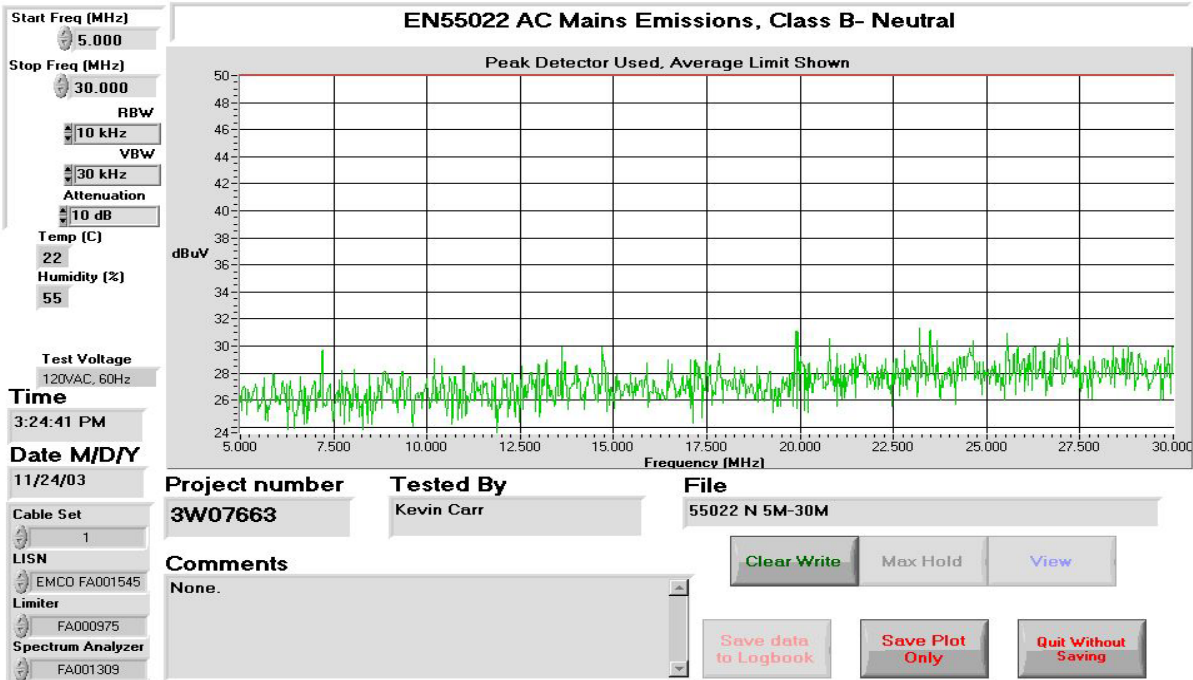
Measurement Data: See attached graph(s).

EQUIPMENT: E2525 & E2555

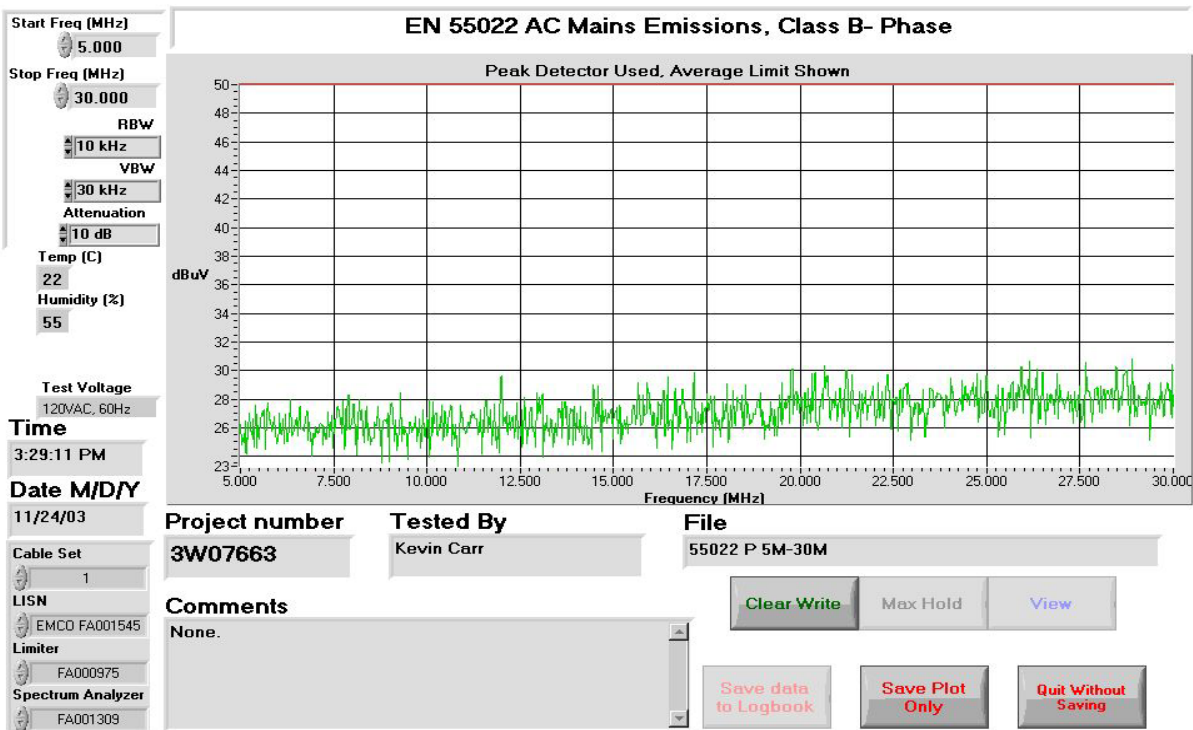
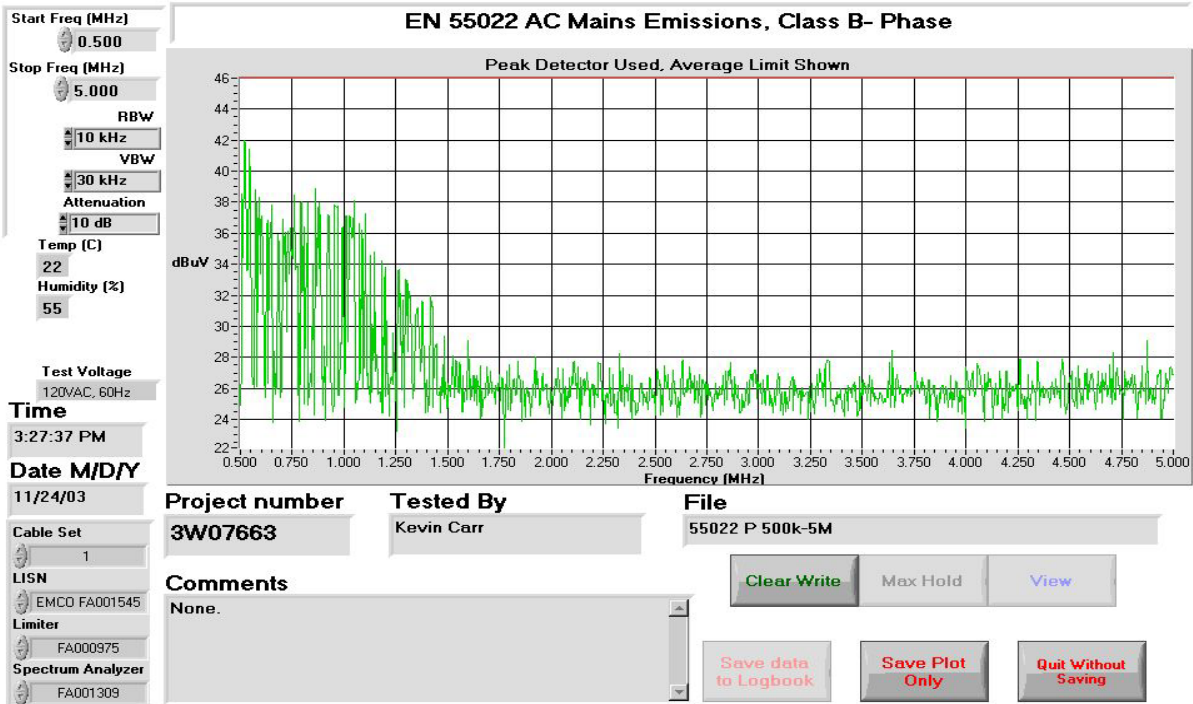
Powerline Conducted Emission Plots



EQUIPMENT: E2525 & E2555



EQUIPMENT: E2525 & E2555



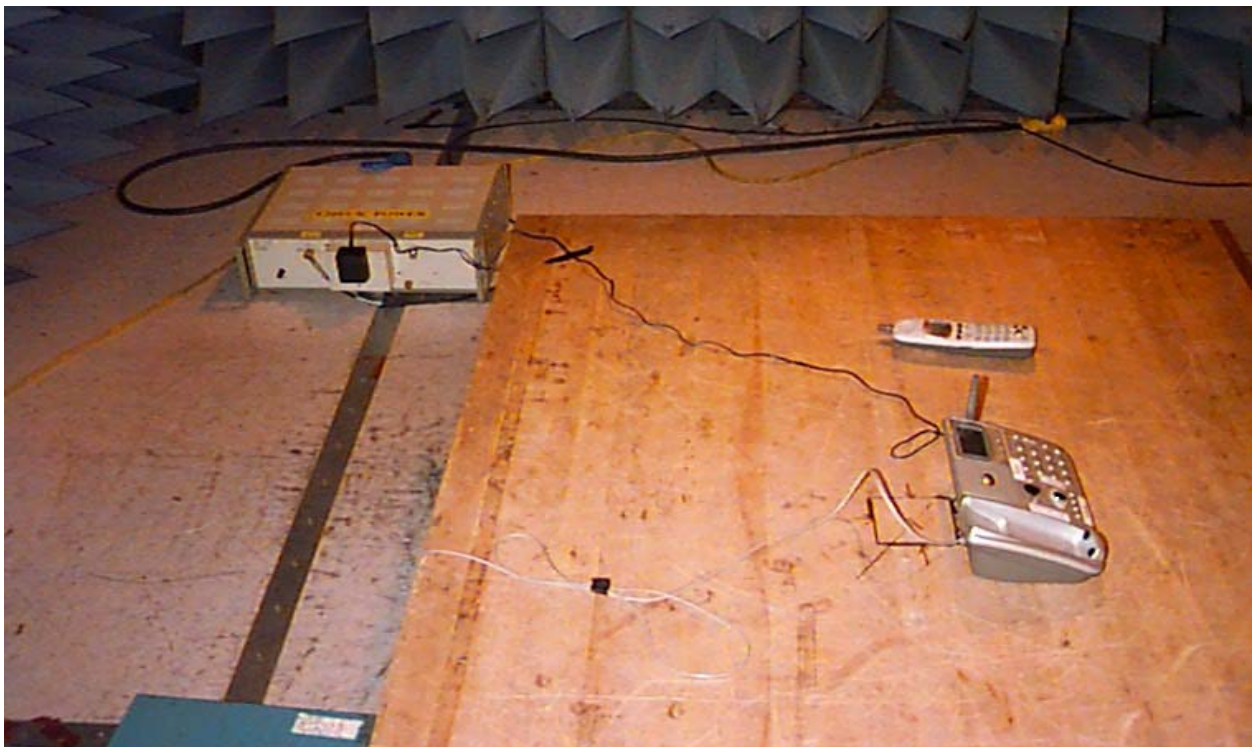
EQUIPMENT: E2525 & E2555

Conducted Disturbance at Mains Port Test Data, continued:

Port under test:				Test Voltage:					
Conductor	Frequency (MHz)	Detector	Level (dBμV)	LISN Loss (dB)	Cable Loss (dB)	Result (dBμV)	Limit (dBμV)	Margin (dB)	
Neutral	0.4000	Quasi-Peak	37.5	0.1	0.2	37.8	57.9	20.1	
		Average	17.8	0.1	0.2	18.1	47.9	29.8	
	0.3750	Quasi-Peak	37.5	0.1	0	37.6	58.4	20.8	
		Average	-0.9	0.1	0	-0.8	48.4	49.2	
	0.4250	Quasi-Peak	36.9	0.1	0	37	57.3	20.3	
		Average	-0.7	0.1	0	-0.6	47.3	47.9	
	0.4500	Quasi-Peak	36.4	0.1	0	36.5	56.9	20.4	
		Average	0.2	0.1	0	0.3	46.9	46.6	
	0.4750	Quasi-Peak	35.8	0.1	0.2	36.1	56.4	20.3	
		Average	0.4	0.1	0.2	0.7	46.4	45.7	
	0.4650	Quasi-Peak	36	0.1	0.2	36.3	56.6	20.3	
		Average	-0.7	0.1	0.2	-0.4	46.6	47.0	
	Observations:								

EQUIPMENT: E2525 & E2555

Set-up Photo:



EQUIPMENT: E2525 & E2555

Section 4. Channel Separation

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

Test Performed By: Kevin Carr	Date of Test: 24 Nov. 2003
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Test Results: Complies

Measurement Data: Channel Separation:
Base: 870kHz
Handset: 860kHz

EQUIPMENT: E2525 & E2555

Section 5. Number of Hopping Channels

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

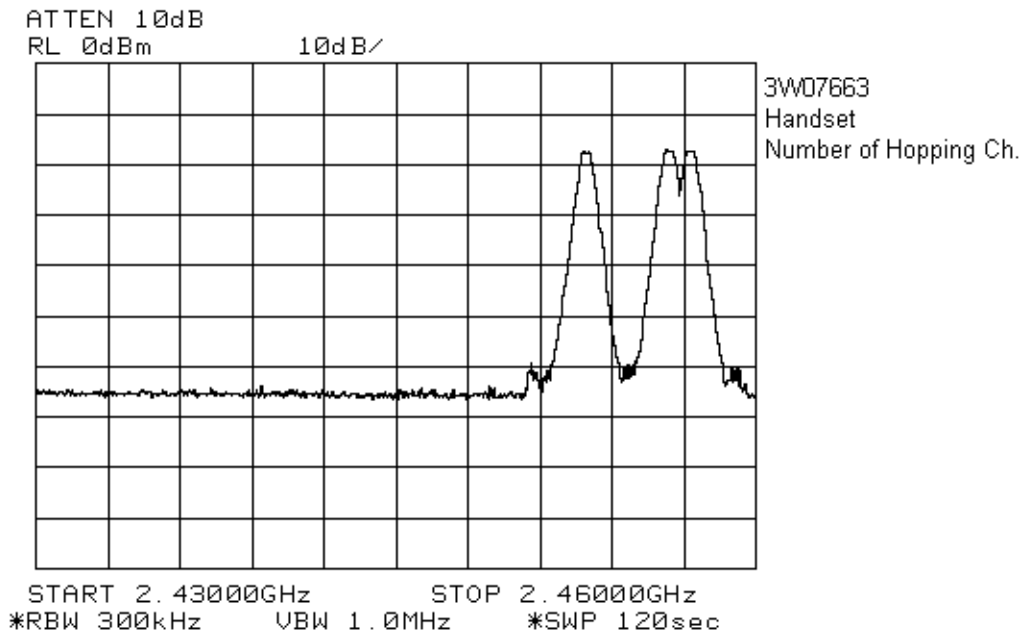
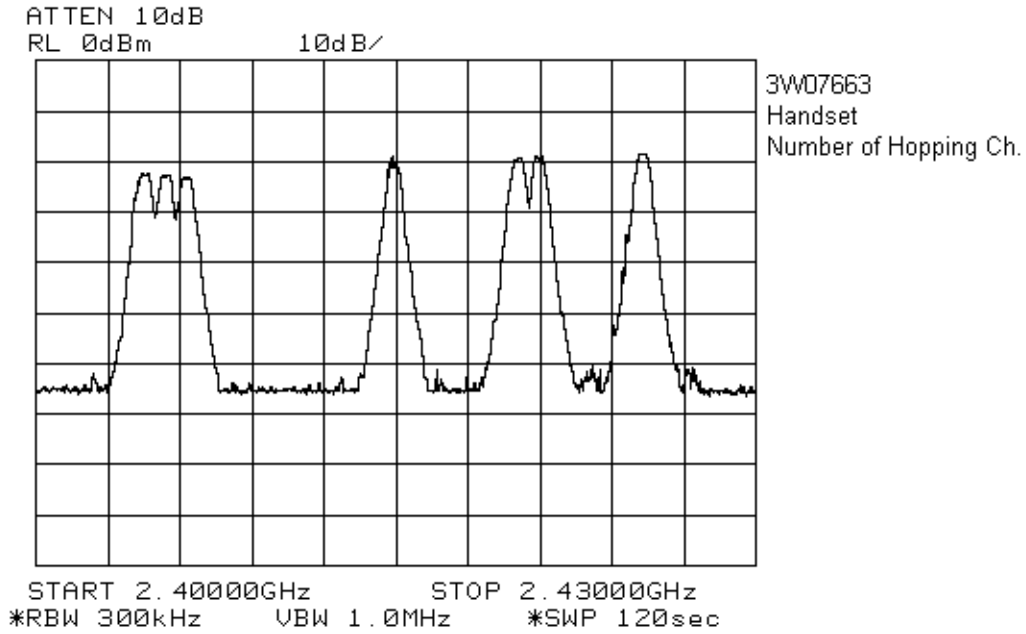
Test Performed By: Kevin Carr	Date of Test: 24 Nov. 2003
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Test Results: Complies

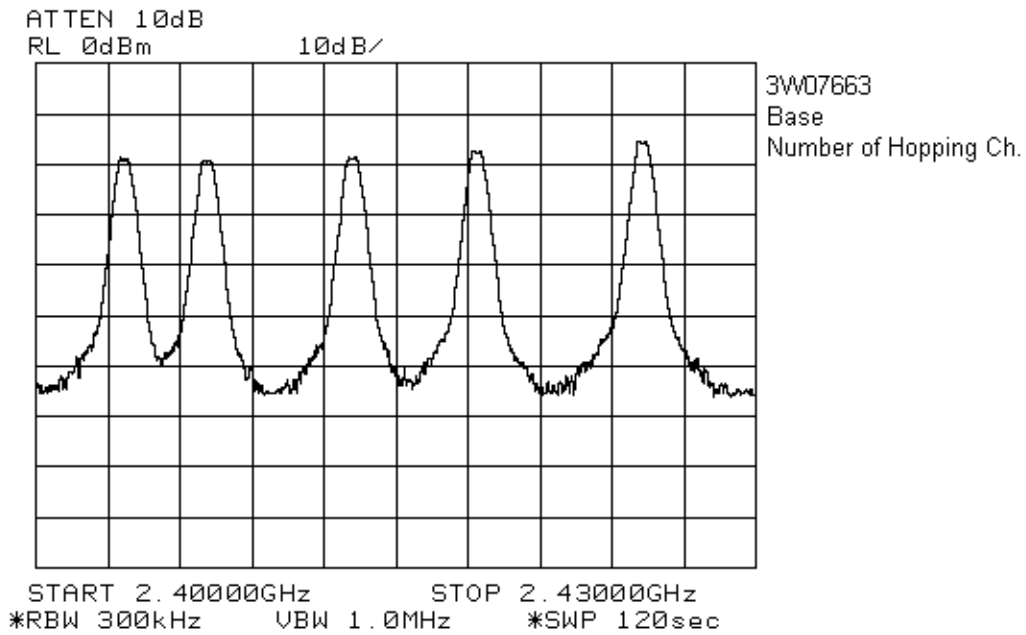
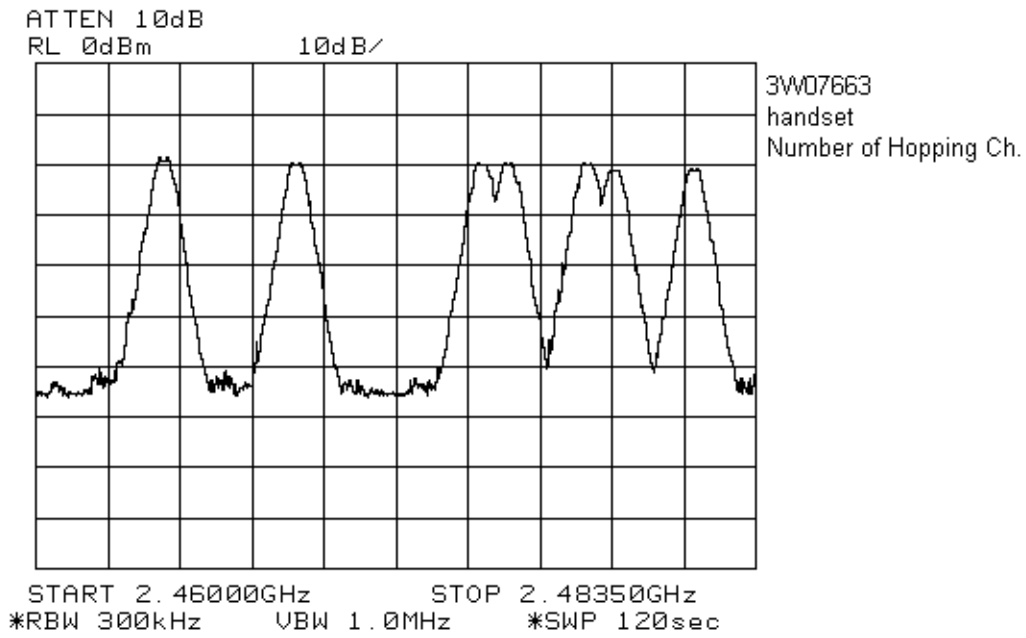
Measurement Data: Number of Hopping Frequencies: 17

EQUIPMENT: E2525 & E2555

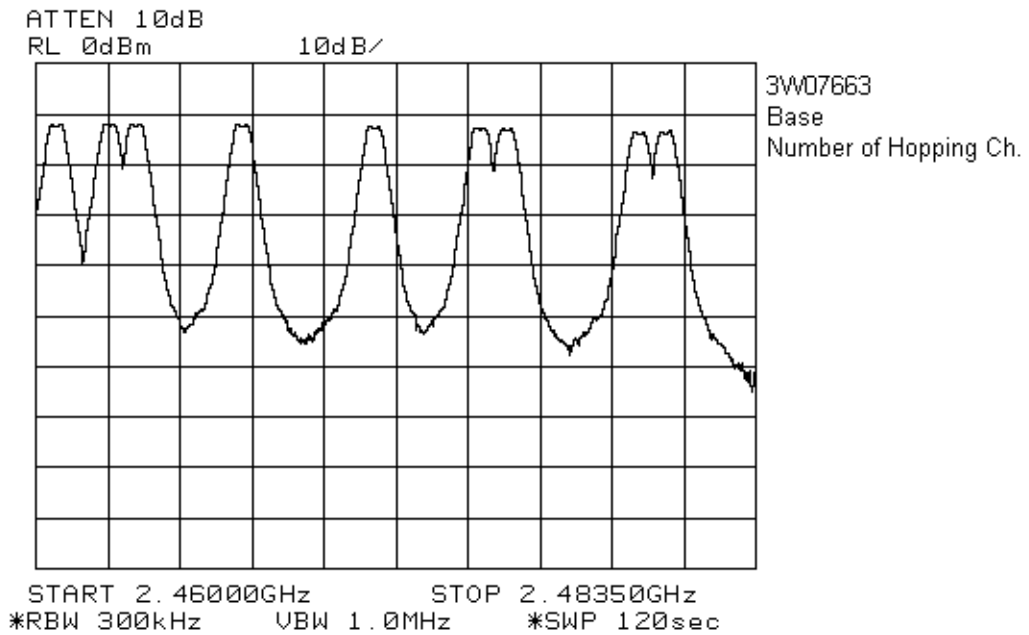
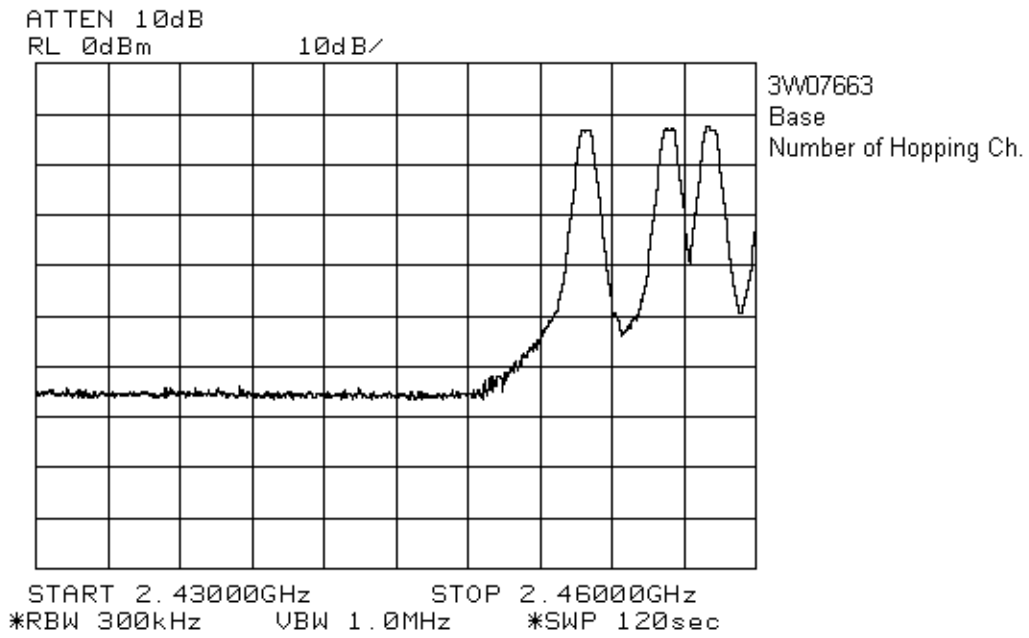
Number of Hopping Channel Plots:



EQUIPMENT: E2525 & E2555



EQUIPMENT: E2525 & E2555



EQUIPMENT: E2525 & E2555

Section 6. Time of Occupancy

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

Test Performed By: Kevin Carr	Date of Test: 24 Nov. 2003
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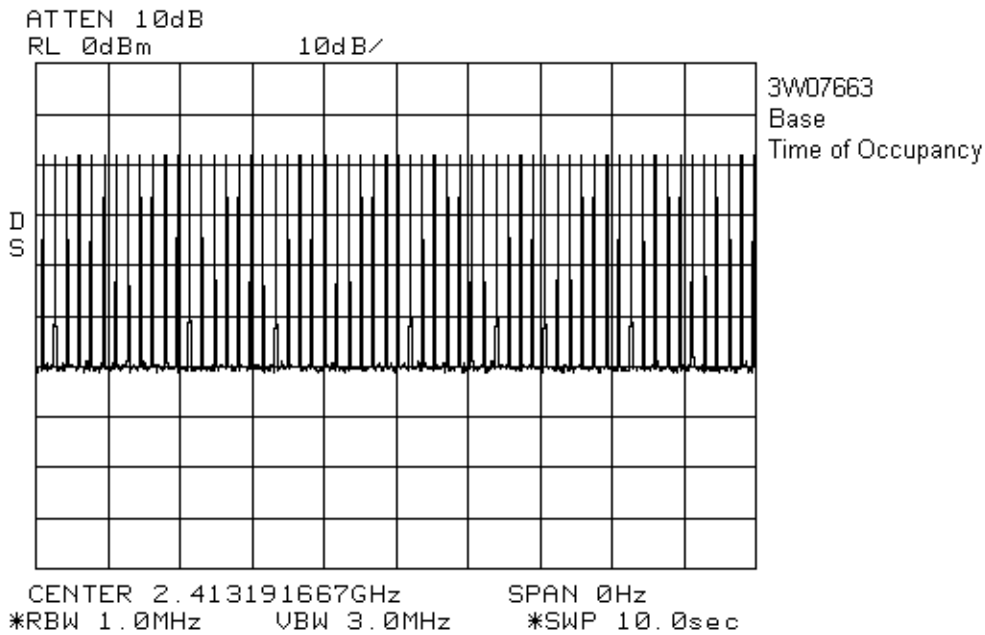
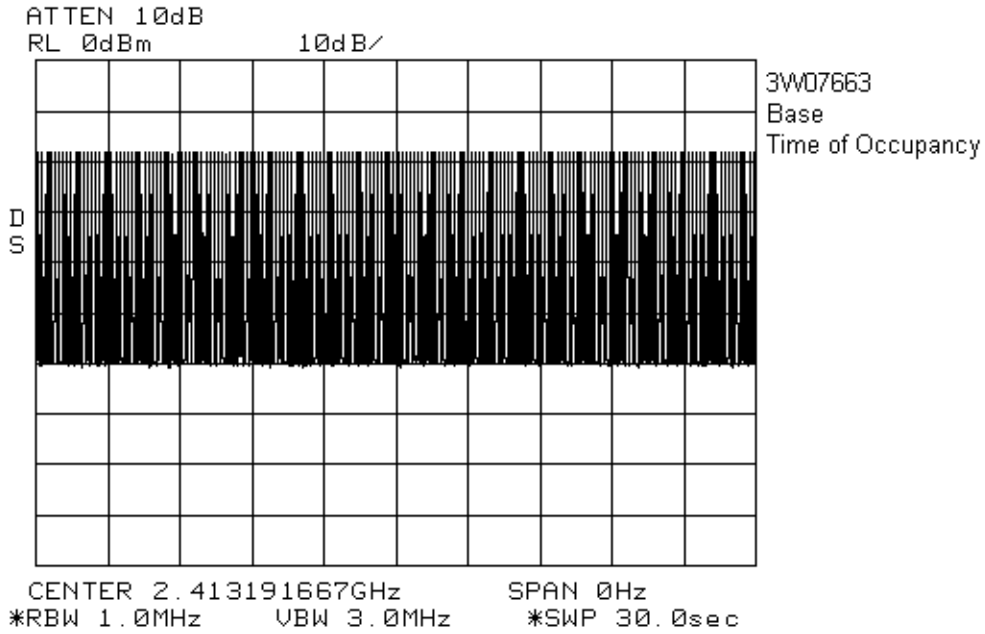
Test Results: Complies

Measurement Data: Maximum Dwell Time On Any Channel:

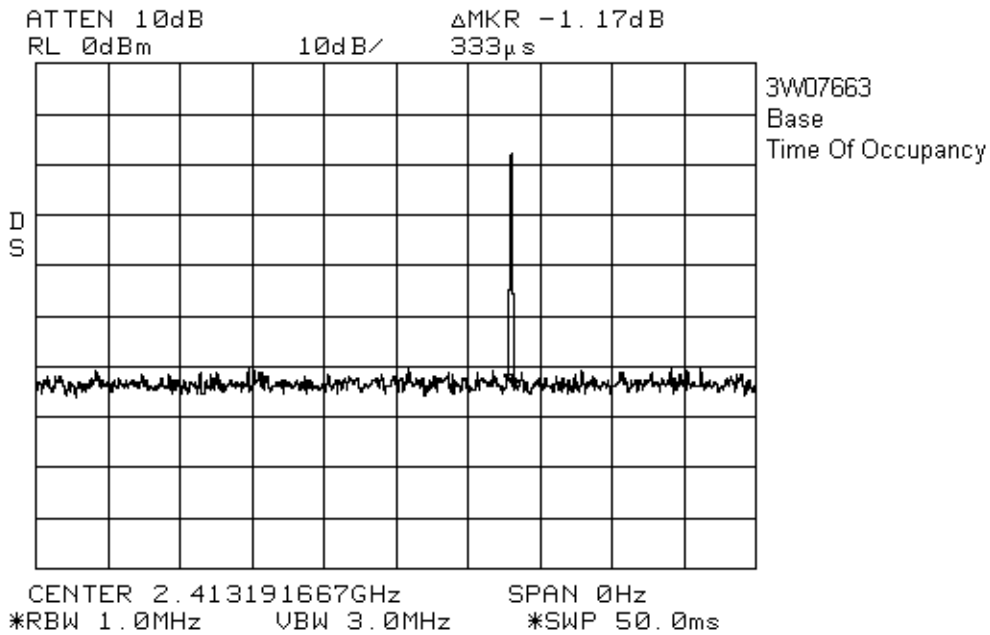
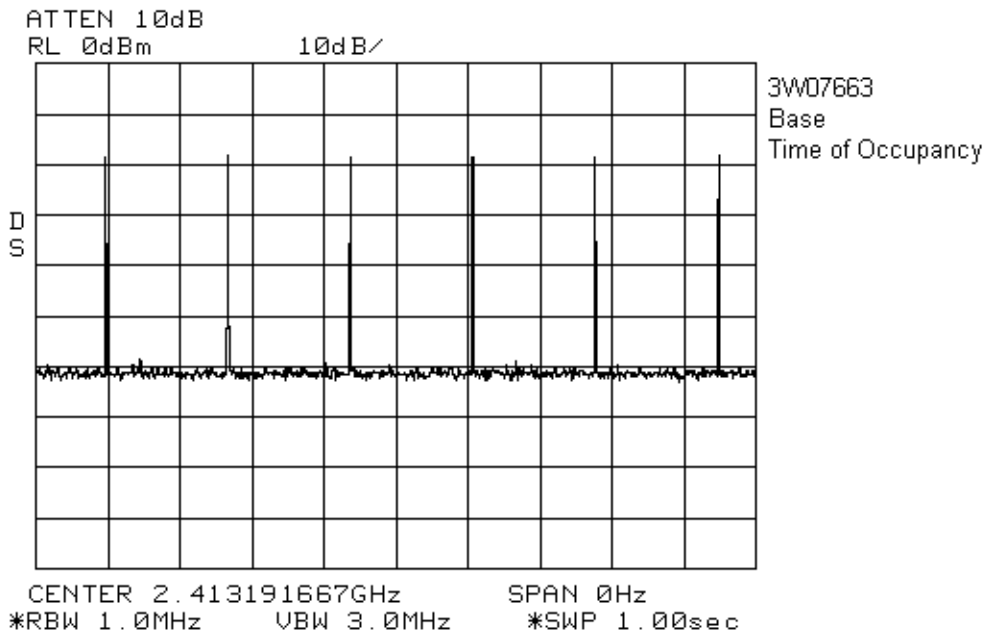
PP: 180mS
FP: 59.9mS

EQUIPMENT: E2525 & E2555

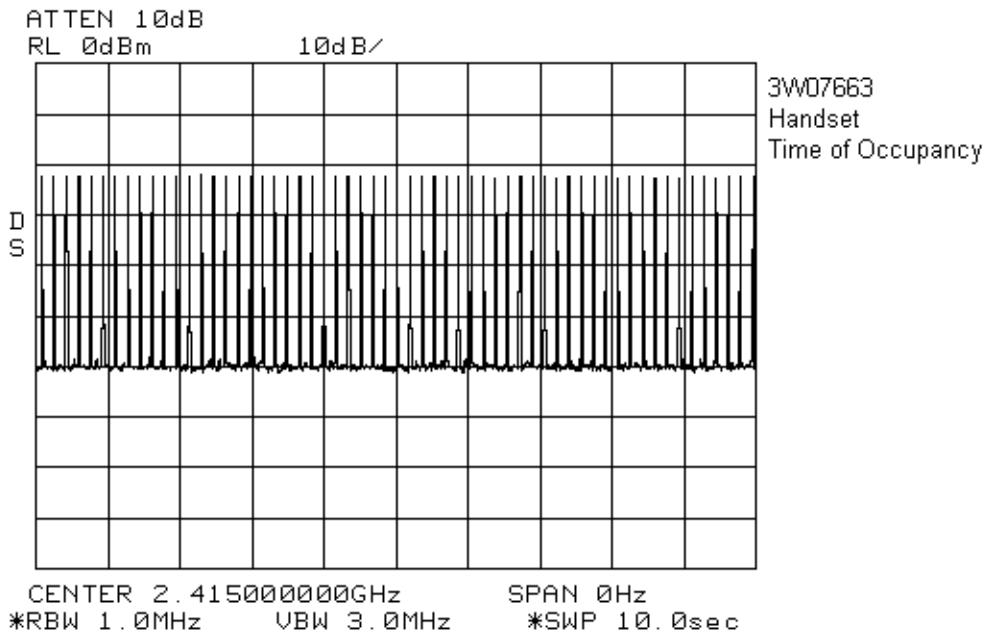
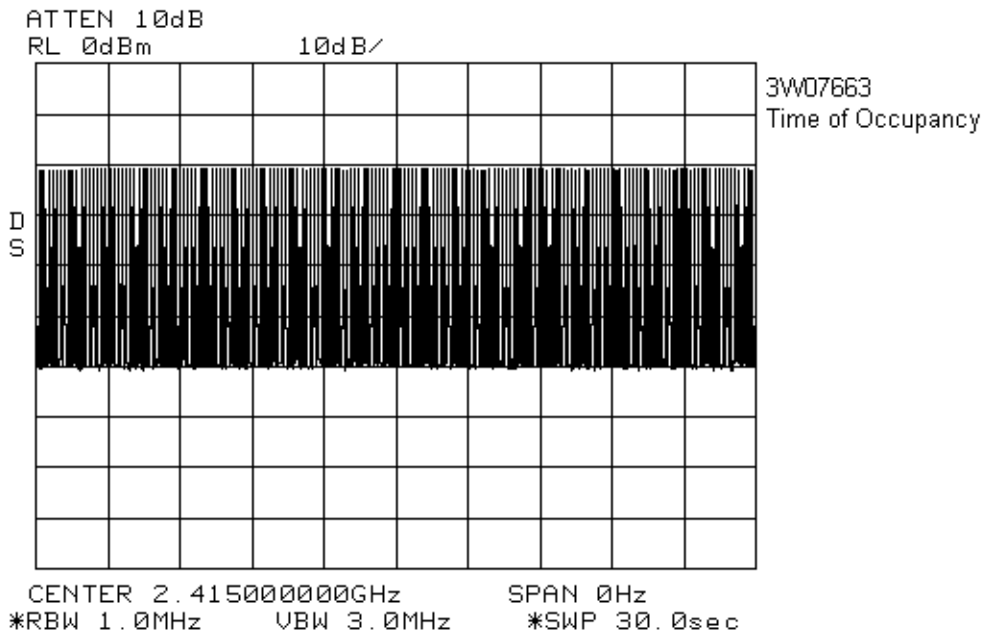
Time Of Occupancy Plots.



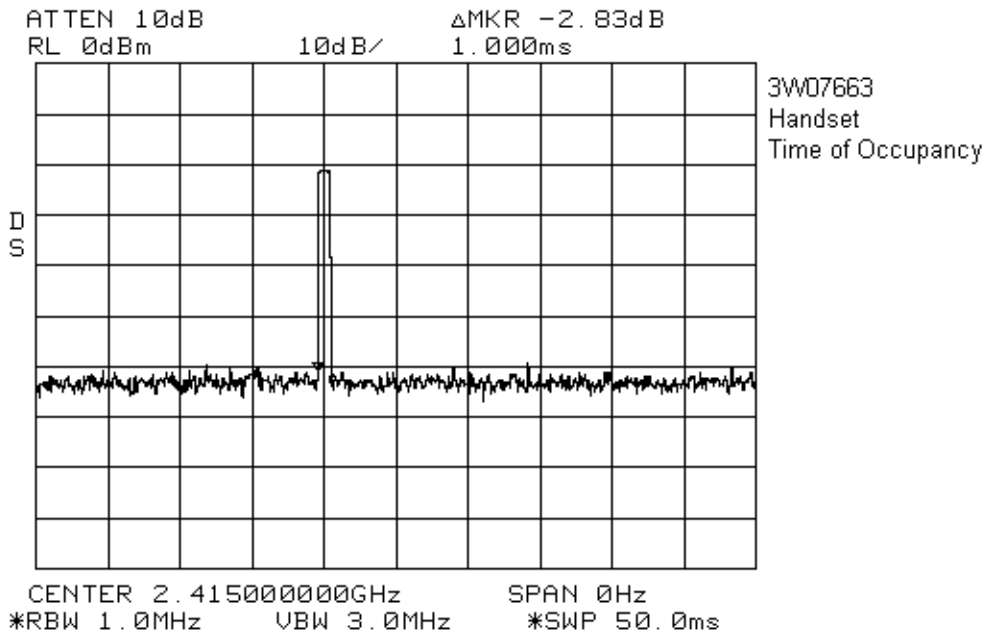
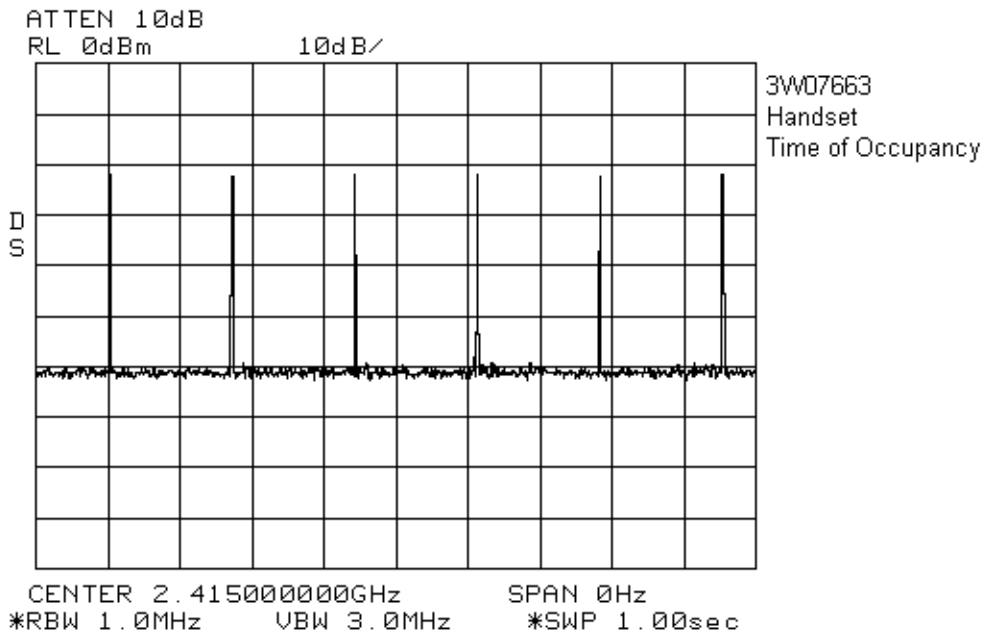
EQUIPMENT: E2525 & E2555



EQUIPMENT: E2525 & E2555



EQUIPMENT: E2525 & E2555



EQUIPMENT: E2525 & E2555

Section 7. Occupied Bandwidth

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

Test Performed By: Kevin Carr	Date of Test: 24 Nov. 2003
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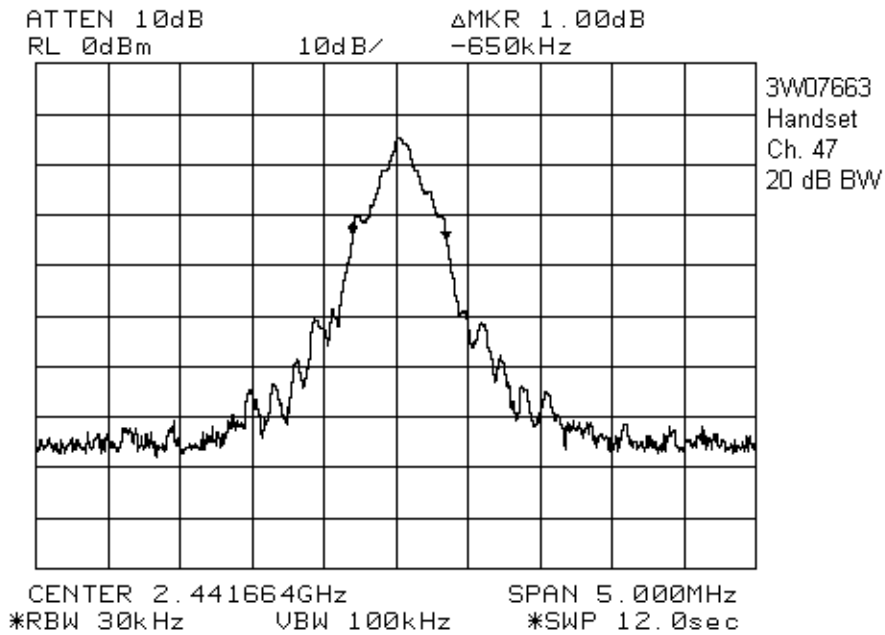
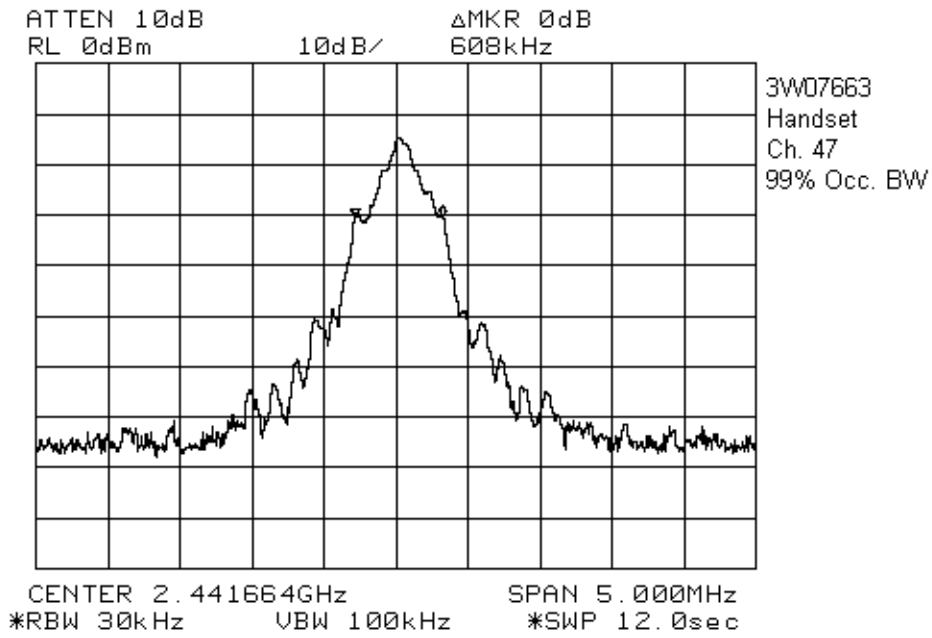
Test Results: Complies

Measurement Data: See Plots

Base:
99%: 642kHz
20 dB: 700kHz

Handset
99%: 683kHz
20 dB: 767kHz

EQUIPMENT: E2525 & E2555



Section 8. Peak Power Output

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

Test Performed By: Kevin Carr	Date of Test: 24 Nov. 2003
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Test Results: Complies. The maximum peak power output of the transmitter is

Base = 0.1114 Watts, 20.5dBm
 Handset = 0.1226W, 20.9dBm

The Base Station was tested at +/- 15% of AC line voltage. The received level did not change
 The Handset was tested with fresh batteries.

This EUT was searched in 3 orthogonal axis 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:

Base (worst Case)
 Field Strength: 118.2dBuV/m@3m

Handset (worst Case)
 Field Strength: 117.6dBuV/m@3m

Antennas:

Device	Gain (dBi)	Gain Numeric
Handset	1.5 dBi	1.41
Base Station	2.5 dBi	1.78

EQUIPMENT: E2525 & E2555

Radiated Disturbance Test Data

Test Date: 26 Nov.2003							
Engineer's Name: Kevin Carr							
Base Station							
Tested as per: Table Top							
Test Distance (meters): 3				Range: 1			
Freq. (MHz)	Ant.	Pol. V/H	RCVD Signal (dBµV)	Ant. Factor (dB)	Amp. Gain (dB)	Cable Loss (dB)	Field Strength (dBµV/m)
2401.0000	Horn2	V	81.7	28.9	N/A	4.8	115.4
2401.0700	Horn2	H	74.6	28.9	N/A	4.8	108.3
2441.5300	Horn2	V	84.0	28.9	N/A	5.3	118.2
2441.6000	Horn2	H	78.4	28.9	N/A	5.3	112.6
2482.4500	Horn2	V	82.4	28.9	N/A	5.9	117.2
2482.3500	Horn2	H	74.2	28.9	N/A	5.9	109.0
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/VBW = 1/3MHz					

Test Date: 26 Nov. 2003							
Engineer's Name: Kevin Carr							
Handset							
Tested as per: Table Top							
Test Distance (meters): 3				Range: 1			
Freq. (MHz)	Ant.	Pol. V/H	RCVD Signal (dBµV)	Ant. Factor (dB)	Amp. Gain (dB)	Cable Loss (dB)	Field Strength (dBµV/m)
2401.0200	Horn2	V	79.9	28.9	N/A	4.8	113.6
2400.9800	Horn2	H	80.5	28.9	N/A	4.8	114.2
2482.2000	Horn2	V	79.3	28.9	N/A	5.9	114.1
2482.4800	Horn2	H	82.4	28.9	N/A	5.9	117.2
2441.1630	Horn2	V	81.5	28.9	N/A	5.3	115.7
2441.8000	Horn1	H	83.1	29.2	N/A	5.3	117.6
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/VBW = 1/3MHz					

EQUIPMENT: E2525 & E2555

Section 9. Spurious Emissions (Radiated)

Para. No.: 15.247 (c)

Test Performed By: Kevin Carr	Date of Test: 26 Nov. 2003
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Test Results: Complies

The worst case emission level is 53.1 dB μ V/m @ 3m at 4883.24MHz. This is 0.9 dB below the specification limit.

Measurement Data: All Emissions within 20 dB of the limit have been reported. See attached table. This EUT's were searched in 3 orthogonal axis to determine worst case emissions. The handset was tested with a fresh set of Batteries. Fundamental Tx frequencies where searched to the 10th Harmonic. Digital and Non-Fund. related emissions where searched to the 5th Harmonic of the highest frequency used by the device.

Duty Cycle: -20dB

EQUIPMENT: E2525 & E2555

Radiated Disturbance Test Data: Handset Harmonics, Avg.

Test Date: 26 Nov. 2003											
Engineer's Name: Kevin Carr											
Tested as per: 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											
4801.8700	Horn2	V	82.1	34.1	53.2	-20.0	8.0	51.0	54.0	3.0	4-8GHz
4802.0000	Horn2	H	83.2	34.3	53.2	-20.0	8.1	52.4	54.0	1.6	4-8GHz
7202.8900	Horn2	V	72.6	36.8	53.7	-20.0	11.3	47.0	54.0	7.0	4-8GHz
7203.1600	Horn2	H	72.0	37.0	53.7	-20.0	11.3	46.6	54.0	7.4	4-8GHz
Ch. 47											
4883.3500	Horn2	V	81.0	34.2	52.6	-20.0	8.9	51.4	54.0	2.6	4-8GHz
4883.2400	Horn2	H	82.5	34.4	52.6	-20.0	8.9	53.1	54.0	0.9	4-8GHz
7324.7500	Horn2	V	71.7	36.8	53.7	-20.0	10.1	45.0	54.0	9.0	4-8GHz
7325.1100	Horn2	H	73.0	37.0	53.6	-20.0	10.1	46.5	54.0	7.5	4-8GHz
Ch. 94											
4964.4000	Horn2	V	79.0	34.2	52.3	-20.0	9.5	50.3	54.0	3.7	4-8GHz
4964.9300	Horn2	H	81.3	34.4	52.3	-20.0	9.5	52.9	54.0	1.1	4-8GHz
7446.5800	Horn2	V	70.2	36.8	53.2	-20.0	11.1	45.0	54.0	9.0	4-8GHz
7446.6300	Horn2	H	73.1	37.0	53.2	-20.0	11.1	48.1	54.0	5.9	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											
Notes:		Measurement Receiver = H.P.8565E, RBW/VBW = 1/3MHz, using a peak detector									

EQUIPMENT: E2525 & E2555

Radiated Disturbance Test Data: Base, Harmonics, Avg.

Test Date: 26 Nov. 2003											
Engineer's Name: Kevin Carr											
Tested as per: 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											
4802.2700	Horn2	V	69.8	34.1	53.2	-20.0	8.1	38.8	54.0	15.2	4-8GHz
4802.5300	Horn2	H	67.5	34.3	53.2	-20.0	8.1	36.7	54.0	17.3	4-8GHz
7203.1100	Horn2	V	63.0	36.8	53.7	-20.0	11.3	37.4	54.0	16.6	4-8GHz
7203.1000	Horn2	H	60.2	37.0	53.7	-20.0	11.3	34.8	54.0	19.2	4-8GHz
Ch. 47											
4883.3500	Horn2	V	69.7	34.2	52.6	-20.0	8.9	40.1	54.0	13.9	4-8GHz
4883.0500	Horn2	H	70.6	34.4	52.6	-20.0	8.9	41.2	54.0	12.8	4-8GHz
7324.6000	Horn2	V	66.3	36.8	53.7	-20.0	10.1	39.6	54.0	14.4	4-8GHz
7324.7800	Horn2	H	66.2	37.0	53.7	-20.0	10.1	39.7	54.0	14.3	4-8GHz
Ch. 94											
4964.3300	Horn2	V	68.6	34.2	52.3	-20.0	9.5	39.9	54.0	14.1	4-8GHz
4964.2500	Horn2	H	69.4	34.4	52.3	-20.0	9.5	40.9	54.0	13.1	4-8GHz
7446.8300	Horn2	V	65.6	36.8	53.2	-20.0	11.1	40.4	54.0	13.6	4-8GHz
7446.3300	Horn2	H	63.6	37.0	53.2	-20.0	11.1	38.6	54.0	15.4	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											
Notes:		Measurement Receiver = H.P.8565E, RBW/VBW = 1/3MHz, using a peak detector									

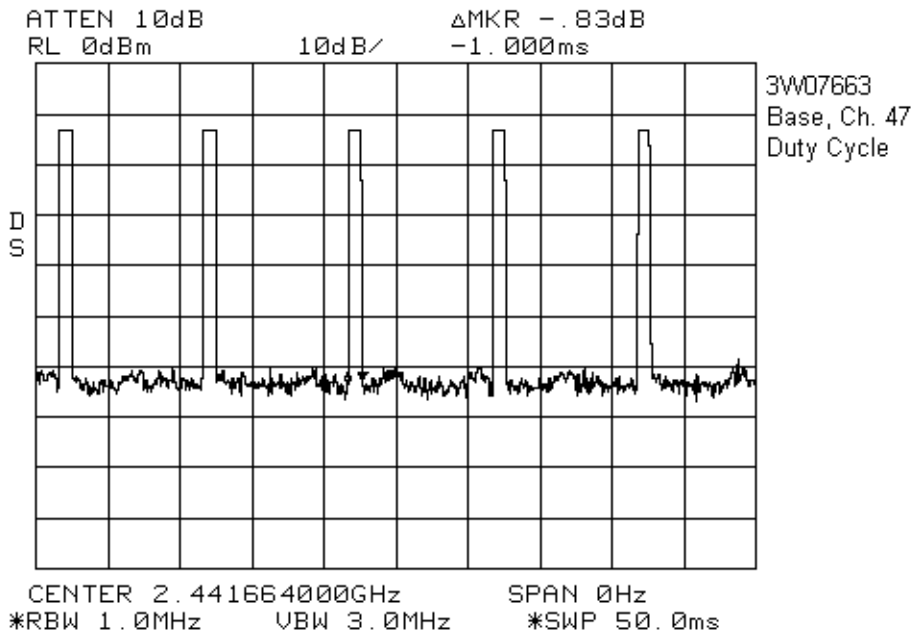
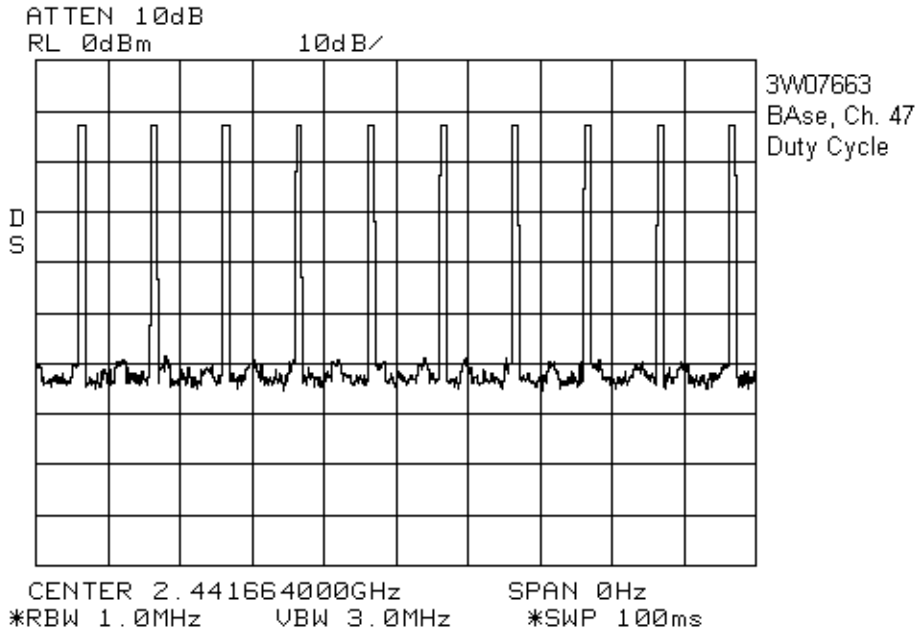
EQUIPMENT: E2525 & E2555

Radiated Disturbance Test Data: Digital Emissions

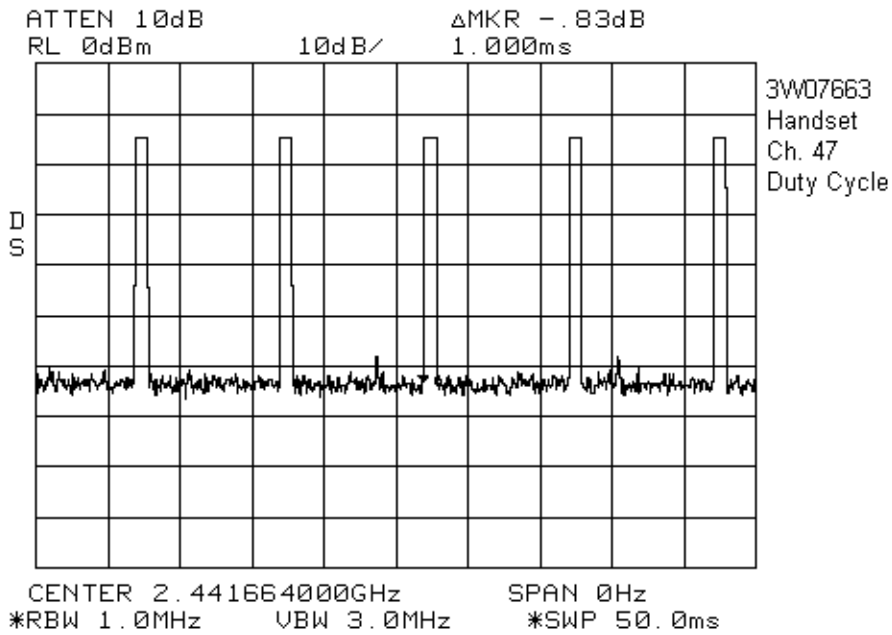
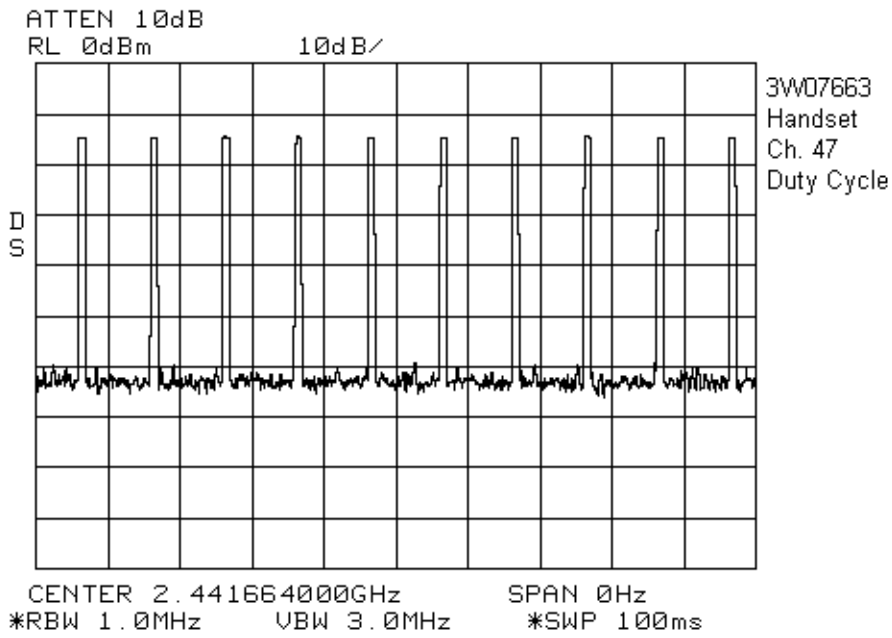
Test Date: 26 Nov. 2003											
Engineer's Name: Kevin Carr											
Tested as per Table Top											
Test Distance (meters): 3							Range: 1				
Freq. (MHz)	Ant.	Pol. V/H	RCVD Signal (dBµV)	Ant. Factor (dB)	Amp. Gain (dB)	Cable Loss (dB)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Amp.
30.1100	BC2	V	22.6	12.8	N/A	0.7	36.1	40.0	3.9	Q-Peak	N/A
30.1100	BC2	H	8.9	14.0	N/A	0.7	23.6	40.0	16.4	Q-Peak	N/A
62.2100	BC2	V	21.5	8.8	N/A	0.9	31.2	40.0	8.8	Q-Peak	N/A
62.2100	BC2	H	15.8	9.4	N/A	0.9	26.1	40.0	13.9	Q-Peak	N/A
51.8380	BC2	V	22.6	9.8	N/A	0.8	33.2	40.0	6.8	Q-Peak	N/A
51.8380	BC2	H	14.6	10.7	N/A	0.8	26.1	40.0	13.9	Q-Peak	N/A
41.4740	BC2	V	19.8	10.8	N/A	0.8	31.4	40.0	8.6	Q-Peak	N/A
41.4740	BC2	V	13.2	10.8	N/A	0.8	24.8	40.0	15.2	Q-Peak	N/A
124.4160	BC2	V	20.8	13.1	N/A	1.4	35.3	43.5	8.2	Q-Peak	N/A
124.4160	BC2	H	25.1	12.0	N/A	1.4	38.6	43.5	4.9	Q-Peak	N/A
93.3130	BC2	V	20.9	9.5	N/A	1.1	31.5	43.5	12.0	Q-Peak	N/A
93.3130	BC2	H	20.2	8.3	N/A	1.1	29.7	43.5	13.9	Q-Peak	N/A
155.5210	BC2	V	12.5	13.4	N/A	1.5	27.4	43.5	16.1	Q-Peak	N/A
155.5210	BC2	H	13.8	12.7	N/A	1.5	28.0	43.5	15.5	Q-Peak	N/A
466.5600	BC2	V	10.7	18.8	N/A	2.8	32.3	46.0	13.7	Q-Peak	N/A
466.5600	BC2	H	10.7	19.9	N/A	2.8	33.4	46.0	12.6	Q-Peak	N/A
445.8270	BC2	V	10.5	18.8	N/A	2.7	32.0	46.0	14.0	Q-Peak	N/A
445.8270	BC2	H	12.8	19.9	N/A	2.7	35.4	46.0	10.6	Q-Peak	N/A
314.9970	BC2	V	10.3	18.8	N/A	2.3	31.4	46.0	14.6	Q-Peak	N/A
314.9970	BC2	V	14.4	18.8	N/A	2.3	35.5	46.0	10.5	Q-Peak	N/A
311.0430	BC2	V	11.2	18.8	N/A	2.3	32.3	46.0	13.7	Q-Peak	N/A
311.0430	BC2	H	13.2	19.9	N/A	2.3	35.4	46.0	10.6	Q-Peak	N/A
342.1460	BC2	V	14.2	18.8	N/A	2.4	35.4	46.0	10.6	Q-Peak	N/A
342.1460	BC2	H	12.3	19.9	N/A	2.4	34.6	46.0	11.4	Q-Peak	N/A
315.0000	BC2	V	10.5	18.8	N/A	2.3	31.6	46.0	14.4	Q-Peak	N/A
315.0000	BC2	H	9.0	19.9	N/A	2.3	31.2	46.0	14.8	Q-Peak	N/A
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:											

EQUIPMENT: E2525 & E2555

Duty Cycle

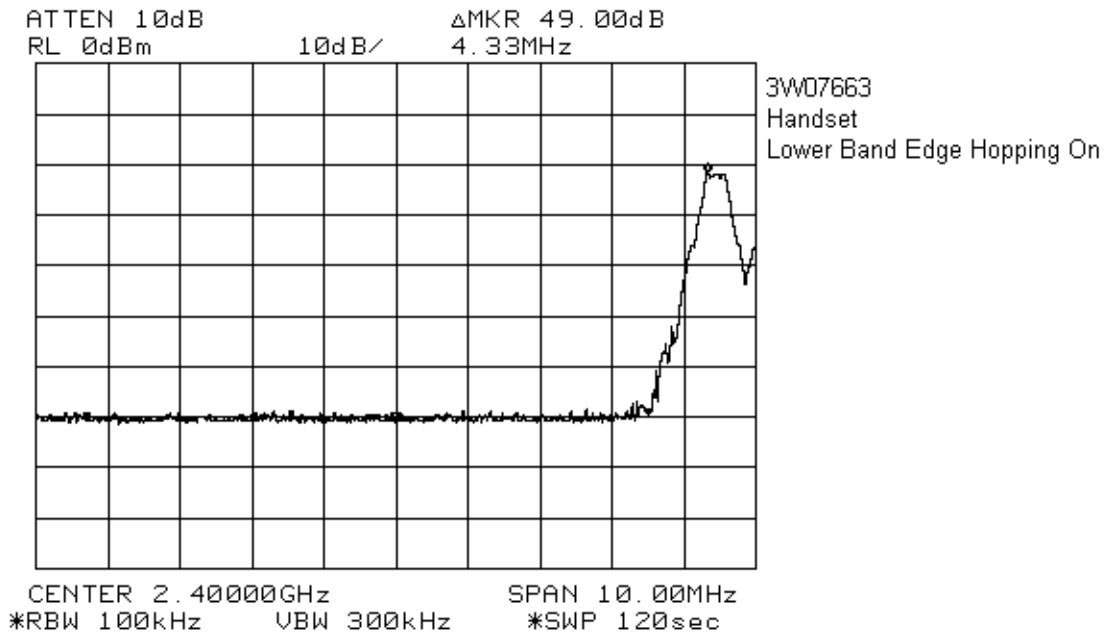
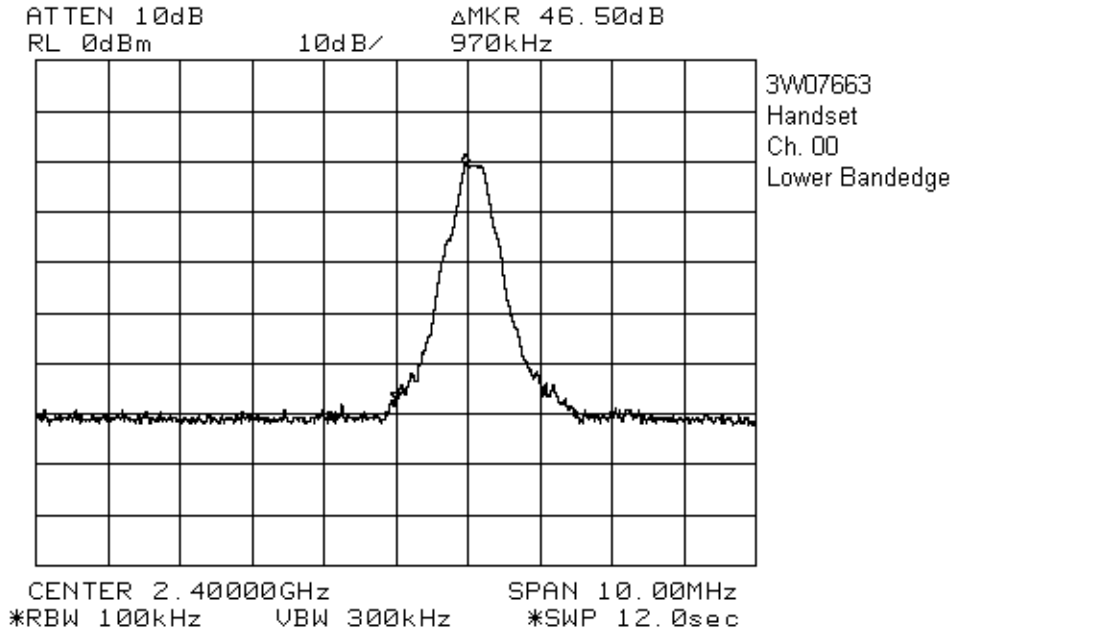


EQUIPMENT: E2525 & E2555

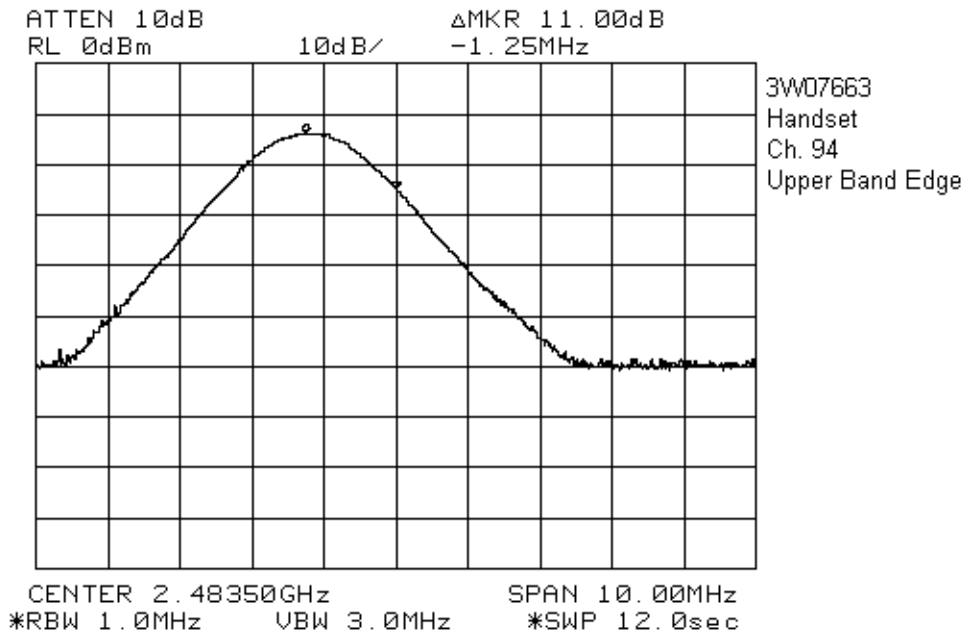


EQUIPMENT: E2525 & E2555

20 dB band Edge

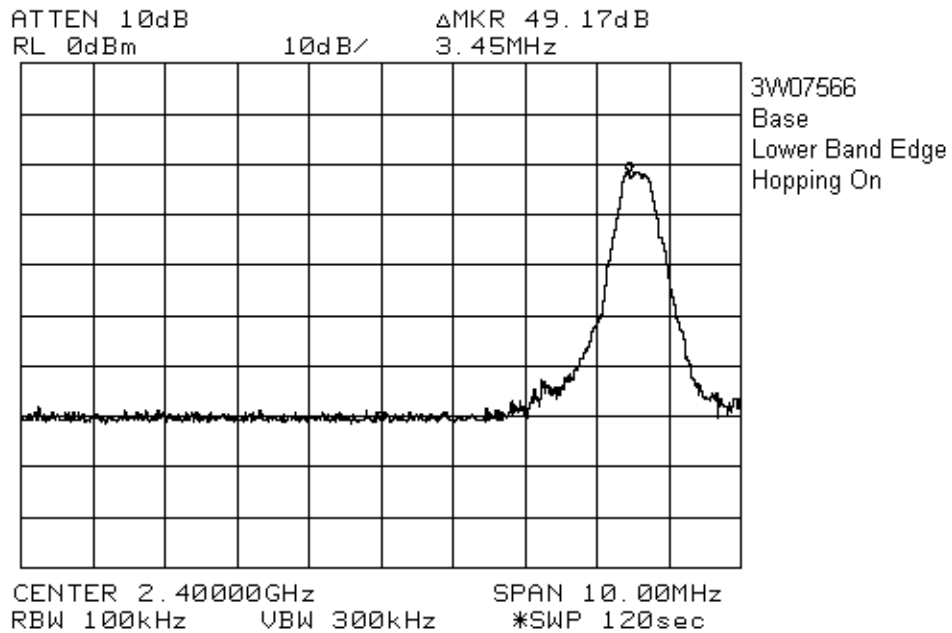
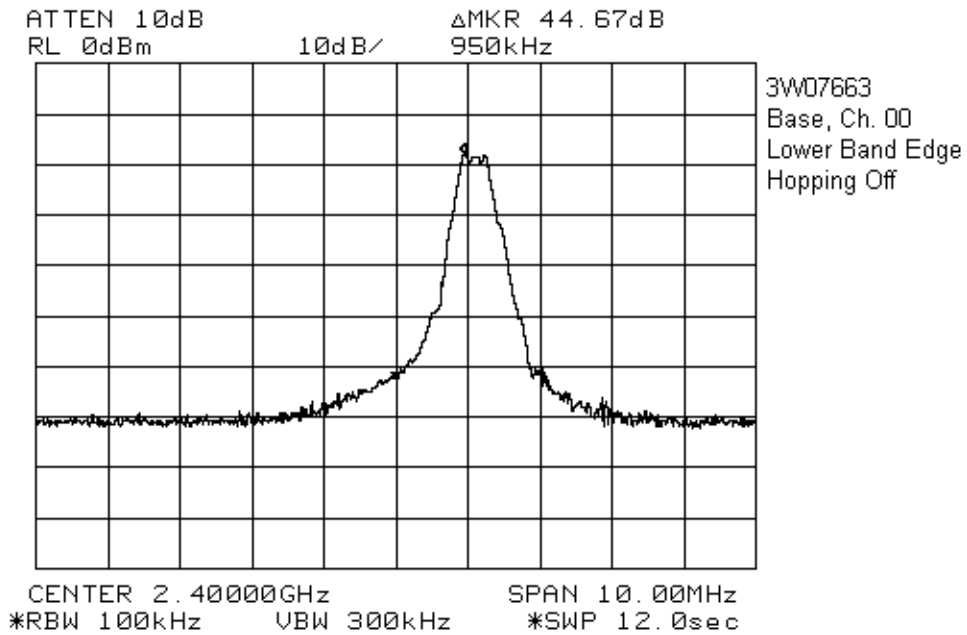


EQUIPMENT: E2525 & E2555

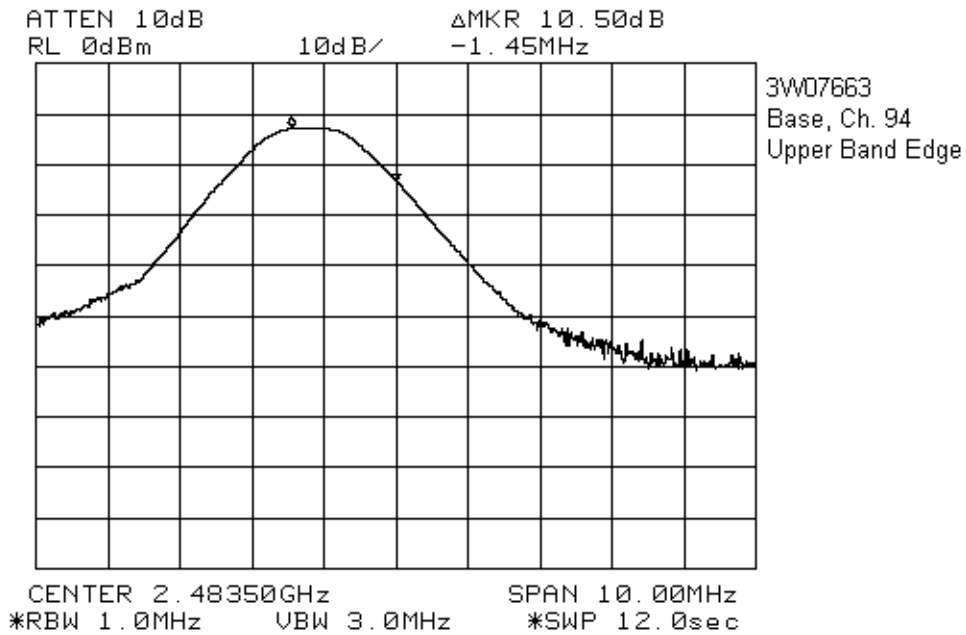


Peak Level Band Edge: $82.4\text{dBuV} + 34.8\text{dB} = 117.2\text{dBuV/m}@3\text{m}$
Peak Band Edge (Marker Delta): $117.2\text{dBuV/m} - 47.0\text{dB} = 70.2\text{dBuV/m}@3\text{m}$
Average: $70.2\text{dBuV/m} - 20\text{dB} = 50.2\text{dBuV/m}@3\text{m}$

EQUIPMENT: E2525 & E2555



EQUIPMENT: E2525 & E2555



Peak Level Band Edge: $84.0\text{dBuV} + 34.2\text{dB} = 118.2\text{dBuV/m}@3\text{m}$
Peak Band Edge (Marker Delta): $118.2\text{dBuV/m} - 47.5\text{dB} = 70.7\text{dBuV/m}@3\text{m}$
Average: $70.7\text{dBuV/m} - 20\text{dB} = 50.7\text{dBuV/m}@3\text{m}$

EQUIPMENT: E2525 & E2555

Set-up Photo:

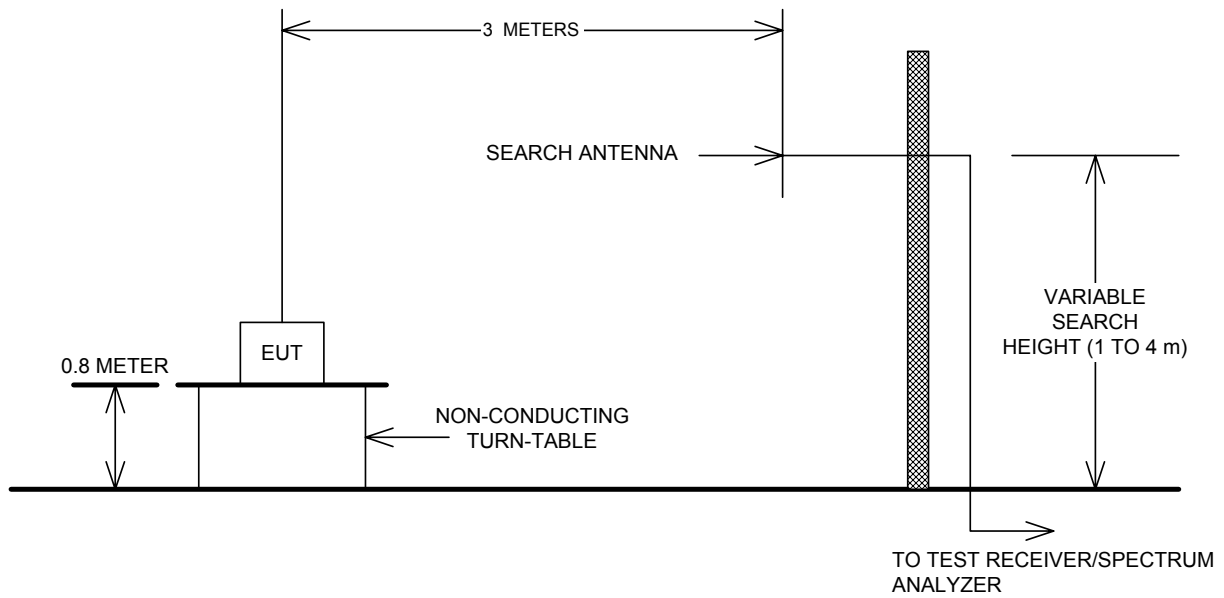


EQUIPMENT: E2525 & E2555

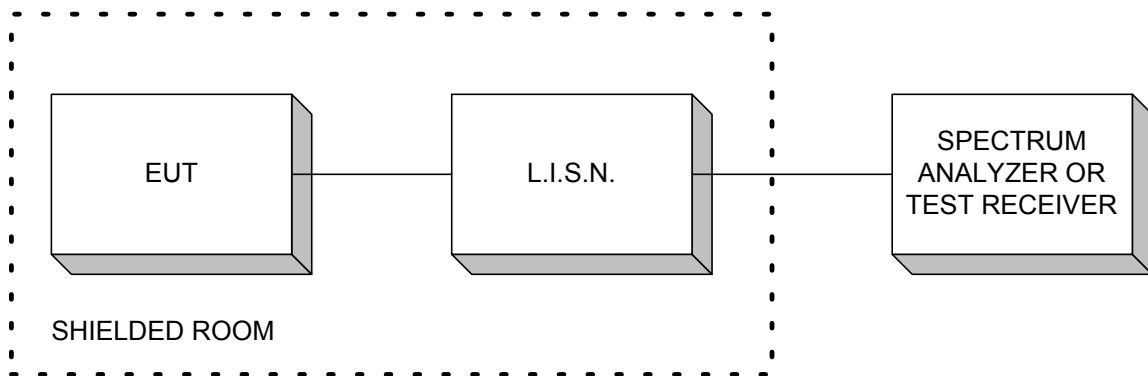


Section 10. Block Diagrams

Test Site For Radiated Emissions



Conducted Emissions



EQUIPMENT: E2525 & E2555

Peak Power At Antenna Terminals



EQUIPMENT: E2525 & E2555

Section 11. Test Equipment List

Equipment List – Prescan for Radiated Emissions (Shielded Chamber)

CAL Cycle	Equipment	Manufacturer	Model No.	Asset/Serial No.	Last Cal.	Next Cal.
1 Year	Spectrum Analyzer	Hewlett-Packard	8565E	FA000981	July. 03/03	July. 03/04
1 Year	Spectrum Analyzer	Hewlett-Packard	8566B	FA001309	June. 05/03	June. 05/04
1 Year	Spectrum Analyzer Display	Hewlett-Packard	85662A	FA001309	June. 05/03	June. 05/04
NCR	Bilog	Schaffner	CBL6112B	FA001504	NCR	NCR
1 Year	Horn Antenna #2	EMCO	3115	FA000825	Dec. 09/02	Dec. 09/03
COU	Horn 18 – 26.5 GHz	Electro-Metrics	SH-50/60-1	FA000479	COU	COU
1 Year	18.0 – 40.0GHz Horn Antenna	EMCO	3116	FA001847	Feb. 13/03	Feb. 13/04
NCR	0.1 – 1300 MHz Amplifier	Hewlett Packard	8447D	FA001748	NCR	NCR
1 Year	1.0 – 2.0 GHz Amplifier	JCA	12-400	FA001498	June. 18/03	June. 18/04
1 Year	2.0 – 4.0 GHz Amplifier	JCA	24-600	FA001496	June. 18/03	June. 18/04
1 Year	4.0 – 8.0 GHz Amplifier	JCA	48-600	FA001497	June. 18/03	June. 18/04
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

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. 24/03	July. 24/04
1 Year	Spectrum Analyzer	Hewlett-Packard	8565E	FA000981	July. 03/03	July. 03/04
1 Year	Horn Antenna #2	EMCO	3115	FA000825	Dec. 09/02	Dec. 09/03
COU	Horn 18 – 26.5 GHz	Electro-Metrics	SH-50/60-1	FA000479	COU	COU
1 Year	1.0 – 2.0 GHz Amplifier	JCA	12-400	FA001498	June. 18/03	June. 18/04
1 Year	2.0 – 4.0 GHz Amplifier	JCA	24-600	FA001496	June. 18/03	June. 18/04
1 Year	4.0 – 8.0 GHz Amplifier	JCA	48-600	FA001497	June. 18/03	June. 18/04
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

Note: N/A = Not Applicable, NCR = No Cal Required, COU = CAL On Use, OUT = Out For CAL/Repair