

*FCC PART 15, SUBPART B AND C
TEST METHOD: ANSI C63.4-1992*

for

**900 MHz HALF-DUPLEX
DATA TRANSCEIVER**

Model: M90SXCRN2

Prepared for

VTECH WIRELESS, INC.
1 CORPORATE PARK DRIVE, SUITE 100
IRVINE, CALIFORNIA 92606-5113

COMPATIBLE ELECTRONICS INC.
114 OLINDA DRIVE
BREA, CALIFORNIA 92823
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DATE: JUNE 1, 2000

	REPORT BODY	APPENDICES				TOTAL
		A	B	C	D	
PAGES	16	2	2	11	23	54

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1	Conducted Emissions Test Setup
2	Plot Map And Layout of Test Site



GENERAL REPORT SUMMARY

This electromagnetic emission test report is generated by Compatible Electronics Inc., which is an independent testing and consulting firm. The test report is based on testing performed by Compatible Electronics personnel according to the measurement procedures described in the test specifications given below and in the "Test Procedures" section of this report.

The measurement data and conclusions appearing herein relate only to the sample tested and this report may not be reproduced in any form unless done so in full with the written permission of Compatible Electronics.

This report must not be used to claim product endorsement by NVLAP or any other agency of the U.S. Government.

Device Tested: 900 MHz Half-Duplex Data Transceiver
 Model: M90SXCRN2
 S/N: N/A

Product Description: See Expository Statement.

Modifications: The EUT was not modified during the testing.

Manufacturer: VTech Wireless, Inc.
 1 Corporate Park Drive, Suite 100
 Irvine, California 92606-5113

Test Date: May 25, 2000

IC File # for Canada IC2154-D

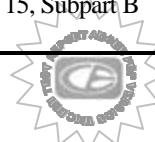
Test Specifications: EMI requirements
 FCC Title 47, Part 15 Subpart C, Sections 15.205, 15.207, and 15.249

Test Procedure: ANSI C63.4: 1992

Test Deviations: The test procedure was not deviated from during the testing.

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions, 450 kHz - 30 MHz	Complies with the Class B limits of FCC Title 47, Part 15 Subpart B; and Subpart C, section 15.207
2	Radiated RF Emissions, 10 kHz - 9300 MHz	Complies with the limits of FCC Title 47, Part 15, Subpart B and Subpart C, sections 15.205 and 15.249



1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the 900 MHz Half-Duplex Data Transceiver Model: M90SXCRN2. The EMI measurements were performed according to the measurement procedure described in ANSI C63.4: 1992. The tests were performed in order to determine whether the electromagnetic emissions from the equipment under test, referred to as EUT hereafter, are within the specification limits defined by FCC Title 47, Part 15, Subpart B and Subpart C, sections 15.205, 15.207, and 15.249.



2. ADMINISTRATIVE DATA

2.1 Location of Testing

The EMI tests described herein were performed at the test facility of Compatible Electronics, 114 Olinda Drive, Brea, California 92823.

2.2 Traceability Statement

The calibration certificates of all test equipment used during the test are on file at the location of the test. The calibration is traceable to the National Institute of Standards and Technology (NIST).

2.3 Cognizant Personnel

VTech Wireless, Inc.

Terry Flach
Thomas Craft

Compatible Electronics Inc.

Kyle Fujimoto Test Engineer
Scott McCutchan Lab Manager

2.4 Date Test Sample was Received

The test sample was received on May 25, 2000.

2.5 Disposition of the Test Sample

The test sample was returned to VTech Wireless, Inc. on June 1, 2000.

2.6 Abbreviations and Acronyms

The following abbreviations and acronyms may be used in this document.

RF	Radio Frequency
EMI	Electromagnetic Interference
EUT	Equipment Under Test
P/N	Part Number
S/N	Serial Number
HP	Hewlett Packard
ITE	Information Technology Equipment
CML	Corrected Meter Limit
LISN	Line Impedance Stabilization Network



3.**APPLICABLE DOCUMENTS**

The following documents are referenced or used in the preparation of this EMI Test Report.

SPEC	TITLE
FCC Title 47, Subpart C.	FCC Rules – Radio frequency devices (including digital devices) – Intentional Radiators
ANSI C63.4 1992	Methods of measurement of radio-noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz.
FCC Title 47, Subpart B.	FCC Rules – Radio frequency devices (including digital devices) – Unintentional Radiators



4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration - EMI

Setup and operation of the equipment under test.

Specifics of the EUT and Peripherals Tested

The 900 MHz Half-Duplex Data Transceiver Model: M90SXCRN2 (EUT) was connected to the laptop computer and antenna via its RS-232 and RF output ports, respectively. The laptop computer was also connected to a printer and power supply via its parallel and power ports, respectively. The EUT was continuously receiving and transmitting.

The 1.625 inch vertical whip was used for testing. The antenna was investigated in three orthogonal axis during the initial scan. The final fundamental and harmonics data was taken in the worst case axis as shown below:

Antenna

Worst Case Axis

1.625 inch vertical whip

Y

For the spurious and conducted emissions, the data was taken with the antenna mentioned above.

Please see Appendix D for the data sheets.



4.1.1

Cable Construction and Termination

Cable 1 This is a 1 foot unshielded cable connecting the EUT to the laptop computer. It has a terminal block connected to the data pins (3 through 10) at the EUT end and a D-9 pin connector at the laptop computer end.

Cable 2 This is a 1 foot unshielded cable connecting the EUT to the laptop computer. It has a terminal block connected to the power pins (1 and 2) at the EUT end and a 6 pin mini DIN at the laptop computer end.

Cable 5 This is a 6 foot unshielded cable connecting the EUT to the AC Adapter. It has a 1/8 inch power connector at the EUT end and a two pin power connector at the AC Adapter end.

Cable 4 This is a 5 foot braid and foil shielded cable connecting the printer to the laptop computer. It has a Centronics metallic type connector at the printer end and a D-25 pin metallic connector at the laptop computer end. The cable was bundled to a length of bundled to a length of 1 meter. The shield of the cable was grounded to the chassis via the connectors.

Cable 3 This is a 1 foot braid shielded cable connecting the EUT to the antenna. It has a metallic MMCX miniature coax connector at each end. The shield of the cable was grounded to the chassis via the connectors.



5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID
900 MHz HALF-DUPLEX DATA TRANSCEIVER (EUT)	VTECH WIRELESS, INC.	M90SXCRN2	N/A	NRLM90SXCRN2
LAPTOP COMPUTER	TOSHIBA	PA124OU VCD	X7345171-1	DoC
AC ADAPTER	TOSHIBA	PA245OU	N/A	N/A
PRINTER	CITIZEN	LSP-10	1215253-83	DLK66TLSP-10
1.625 INCH VERTICAL WHIP (EUT)	VTECH WIRELESS, INC.	N/A	N/A	N/A



5.2 EMI Test Equipment

EQUIPMENT TYPE	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. DUE DATE
Spectrum Analyzer	Hewlett Packard	8566B	3638A08768	Dec. 14, 1999	Dec. 14, 2000
Preamplifier	Com Power	PA-102	1017	Jan. 11, 2000	Jan. 11, 2001
Quasi-Peak Adapter	Hewlett Packard	85650A	2811A01363	Dec. 14, 1999	Dec. 14, 2000
RF Attenuator	Sertek	412-10	N/A	Nov. 22, 1999	Nov. 22, 2000
LISN	Com Power	LI-215	12075	Nov. 13, 1999	Nov. 13, 2000
LISN	Com Power	LI-215	12078	Nov. 13, 1999	Nov. 13, 2000
Biconical Antenna	Com Power	AB-100	1548	Oct. 14, 1999	Oct. 14, 2000
Log Periodic Antenna	Com Power	AL-100	16039	Oct. 14, 1999	Oct. 14, 2000
Turntable	Com Power	TT-100	N/A	N/A	N/A
Computer	Hewlett Packard	HP98561A	2522A05178	N/A	N/A
Printer	Hewlett Packard	2225A	2925S33268	N/A	N/A
Plotter	Hewlett Packard	7440A	8726K38417	N/A	N/A
Microwave Preamplifier	Com-Power	PA-122	25195	Jan. 13, 2000	Jan. 13, 2001
Horn Antenna	Antenna Research	DRG-118/A	1053	Dec. 8, 1995	N/A
Loop Antenna	Com-Power	AL-130	25309	May 25, 2000	May 25, 2001



6. TEST SITE DESCRIPTION

6.1 Test Facility Description

Please refer to section 2.1 and 7.1 of this report for EMI test location.

6.2 EUT Mounting, Bonding and Grounding

The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 0.8 meters above the ground plane.

The EUT was not grounded.



7. TEST PROCEDURES

The following sections describe the test methods and the specifications for the tests. Test results are also included in this section.

7.1 Conducted Emissions Test

The spectrum analyzer was used as a measuring meter along with the quasi-peak adapter. The data was collected with the spectrum analyzer in the peak detect mode with the "Max Hold" feature activated. The quasi-peak detector was used only where indicated in the data sheets. A 10 dB attenuation pad was used for the protection of the spectrum analyzer input stage, and the spectrum analyzer offset was adjusted accordingly to read the actual data measured. The LISN output was read by the spectrum analyzer. The output of the second LISN was terminated by a 50 ohm termination. The effective measurement bandwidth used for the conducted emissions test was 9 kHz.

Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The EUT was powered through the LISN, which was bonded to the ground plane. The LISN power was filtered and the filter was bonded to the ground plane. The EUT was set up with the minimum distances from any conductive surfaces as specified in ANSI C63.4: 1992. The excess power cord was wrapped in a figure eight pattern to form a bundle not exceeding 0.4 meters in length.

The initial test data was taken in manual mode while scanning the frequency ranges of 0.45 MHz to 1.6 MHz, 1.6 MHz to 5 MHz and 5 MHz to 30 MHz. The conducted emissions from the EUT were maximized for operating mode as well as cable placement. Once a predominant frequency (within 12 dB of the limit) was found, it was more closely examined with the spectrum analyzer span adjusted to 1 MHz.

The final data was collected under program control by the HP 9000/300 in several overlapping sweeps by running the spectrum analyzer at a minimum scan rate of 10 seconds per octave.



7.2

Radiated Emissions (Spurious and Harmonics) Test

The spectrum analyzer was used as a measuring meter along with the quasi-peak adapter. Amplifiers were used to increase the sensitivity of the instrument. The Com Power Preamplifier Model: PA-102 was used for frequencies from 30 MHz to 1 GHz, and the Hewlett Packard Microwave Preamplifier Model: 8449B was used for frequencies above 1 GHz. The spectrum analyzer was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the spectrum analyzer records the highest measured reading over all the sweeps. The quasi-peak adapter was used only for those readings which are marked accordingly on the data sheets. The frequencies above 1 GHz were averaged manually by narrowing the video filter down to 1 Hz and slowing the sweep time to keep the amplitude reading calibrated. The measurement bandwidths and transducers used for the radiated emissions test were:

FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
10 kHz to 150 kHz	200 Hz	Active Loop Antenna
150 kHz to 30 MHz	9 kHz	Active Loop Antenna
30 MHz to 300 MHz	120 kHz	Biconical Antenna
300 MHz to 1 GHz	120 kHz	Log Periodic Antenna
1 GHz to 9.3 GHz	1 MHz	Horn Antenna

The open field test site of Compatible Electronics, Inc. was used for radiated emission testing. This test site is set up according to ANSI C63.4: 1992. Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The turntable supporting the EUT is remote controlled using a motor. The turntable permits EUT rotation of 360 degrees in order to maximize emissions. Also, the antenna mast allows height variation of the antenna from 1 meter to 4 meters. Data was collected in the worst case (highest emission) configuration of the EUT. At each reading, the EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters (for E field radiated field strength). The gunsight method was used when measuring with the horn antenna in order to ensure accurate results.

The presence of ambient signals was verified by turning the EUT off. In case an ambient signal was detected, the measurement bandwidth was reduced temporarily and verification was made that an additional adjacent peak did not exist. This ensures that the ambient signal does not hide any emissions from the EUT. The EUT was tested at a 3 meter test distance to obtain final test data.



7.3

RF Band Edges

Spectral plots of both the low and high channels were taken of the EUT to show that the emissions at the band edges (902 and 928 MHz) were attenuated by at least 50 dB below the level of the fundamental or to the general radiated emissions limits in FCC Title 47, Subpart C, section 15.209, whichever is the lesser attenuation. The spectral plots are located in Appendix D.



8. CONCLUSIONS

The 900 MHz Half-Duplex Data Transceiver Model: M90SXCRN2 meets all of the specification limits defined in FCC Title 47, Part 15, Subpart B and Subpart C, sections 15.205, 15.207, and 15.249.



APPENDIX A

MODIFICATIONS TO THE EUT



MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC 15.249 specifications.

All the rework described below was implemented during the test in a method that could be reproduced in all the units by the manufacturer.

Modifications:

No modifications were made to the EUT.



APPENDIX B

***ADDITIONAL MODELS COVERED
UNDER THIS REPORT***



ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

900 MHz Half-Duplex Data Transceiver
Model: M90SXCRN2
S/N: N/A

There were no additional models covered under this report.



APPENDIX C

DIAGRAMS, CHARTS AND PHOTOS



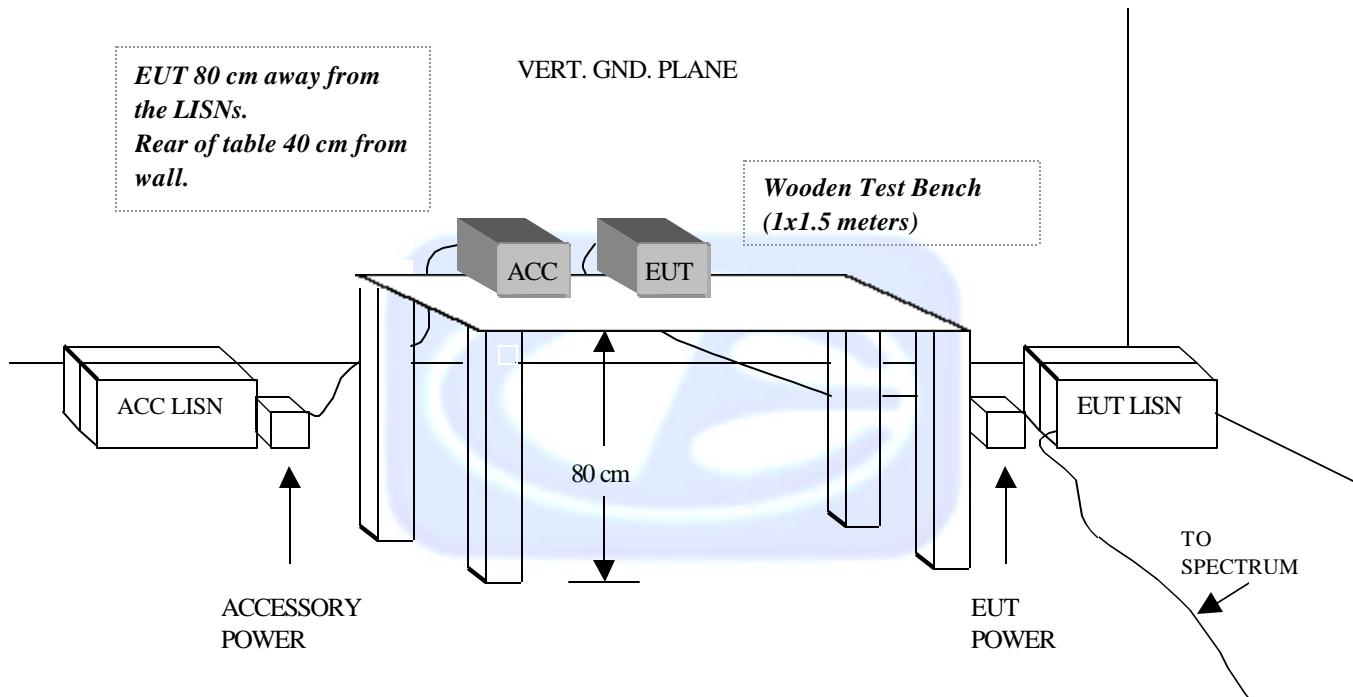
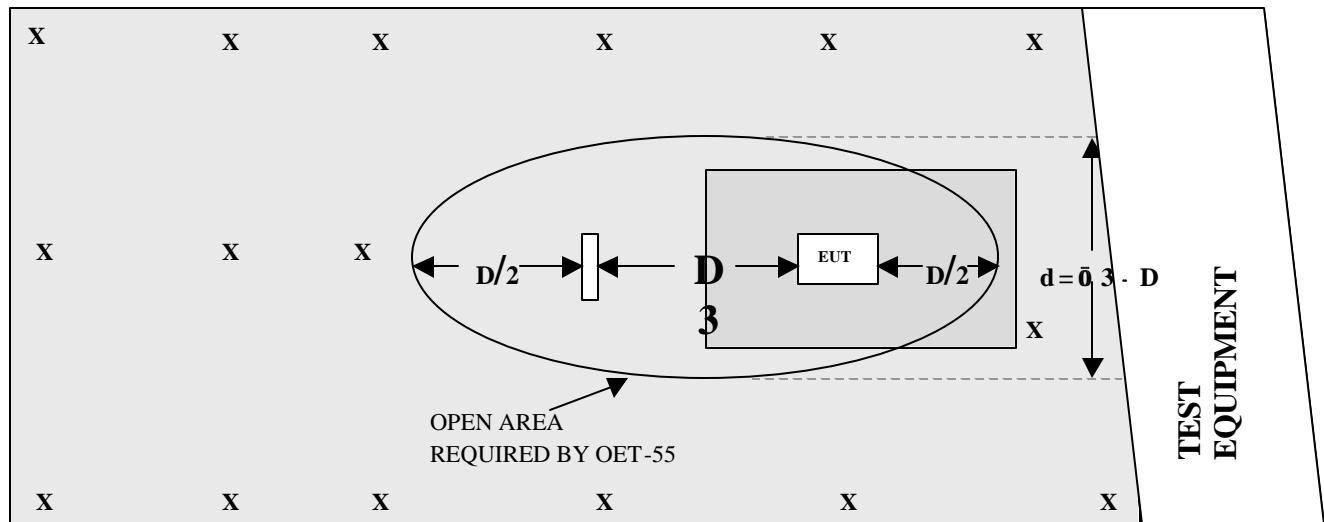
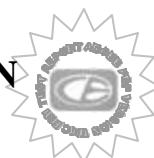
FIGURE 1: CONDUCTED EMISSIONS TEST SETUP

FIGURE 2: PLOT MAP AND LAYOUT OF RADIATED SITE**OPEN LAND > 15 METERS****OPEN LAND > 15 METERS****OPEN LAND > 15 METERS**

**FRONT VIEW**

VTECH WIRELESS, INC.
900 MHz HALF-DUPLEX DATA TRANSCEIVER
Model: M90SXCRN2
FCC SUBPART B AND C - RADIATED EMISSIONS – 5-25-00

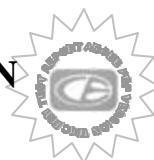
**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**

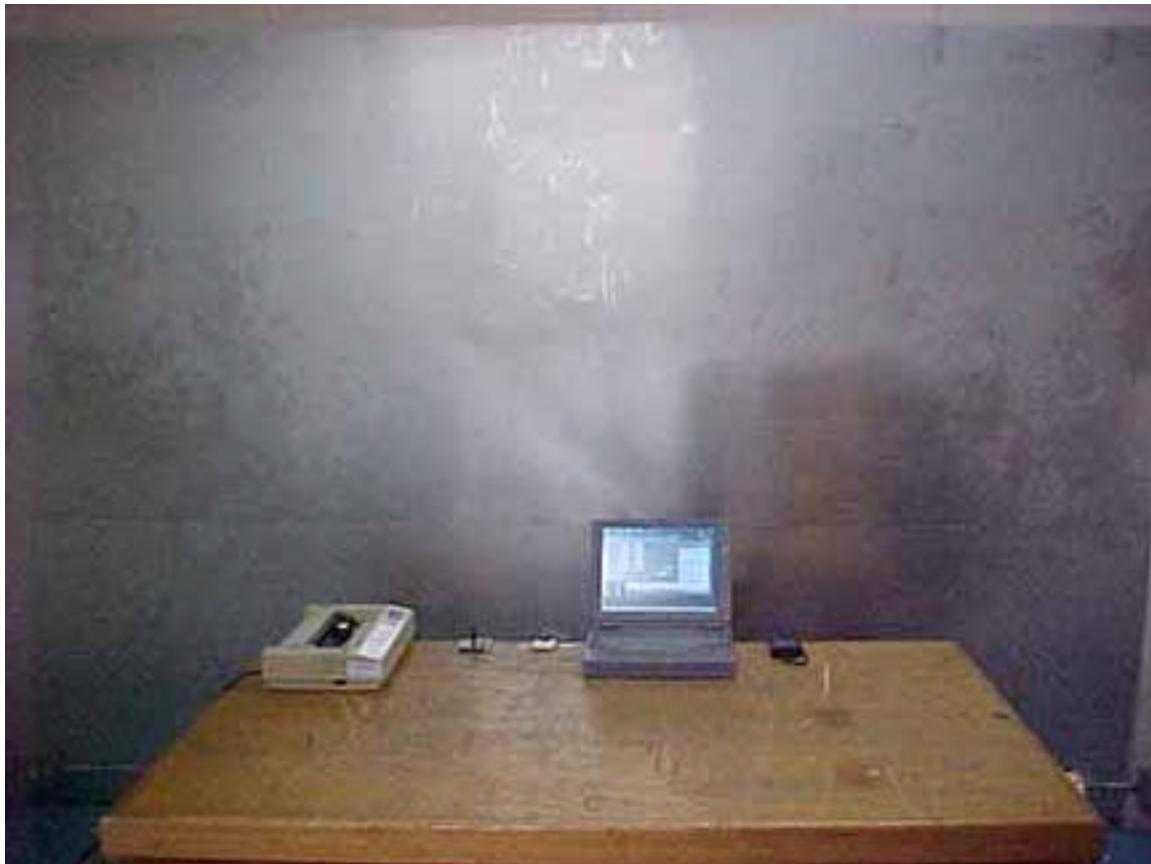


**REAR VIEW**

VTECH WIRELESS, INC.
900 MHz HALF-DUPLEX DATA TRANSCEIVER
Model: M90SXCRN2
FCC SUBPART B AND C - RADIATED EMISSIONS – 5-25-00

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**





FRONT VIEW

VTECH WIRELESS, INC.
900 MHz HALF-DUPLEX DATA TRANSCEIVER
Model: M90SXCRN2
FCC SUBPART B AND C - CONDUCTED EMISSIONS – 5-25-00

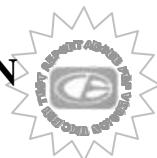
**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**

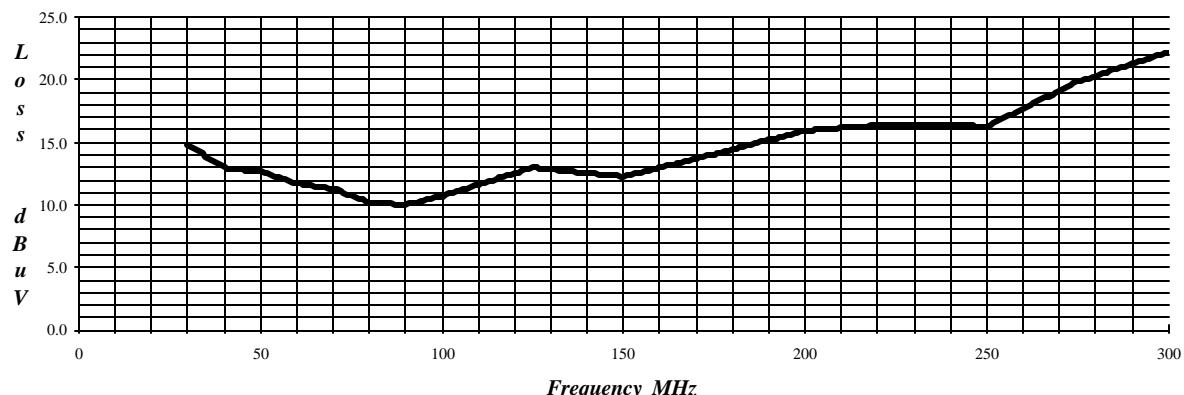
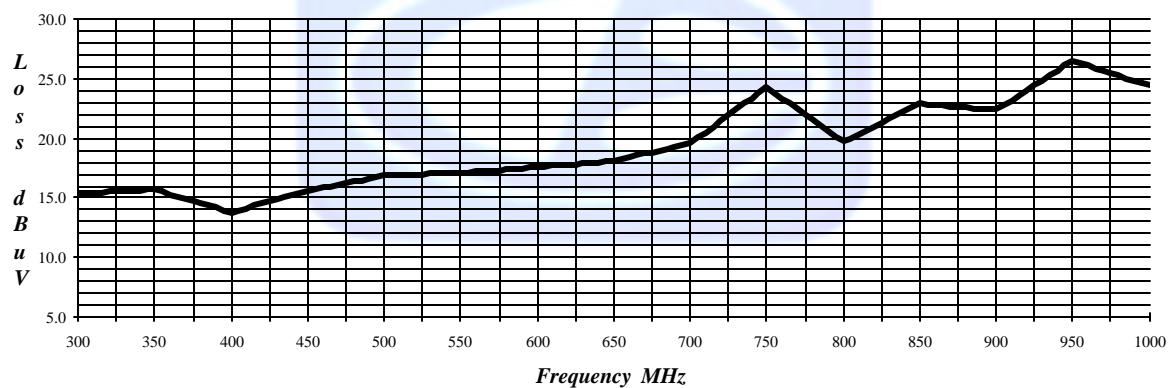
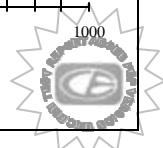
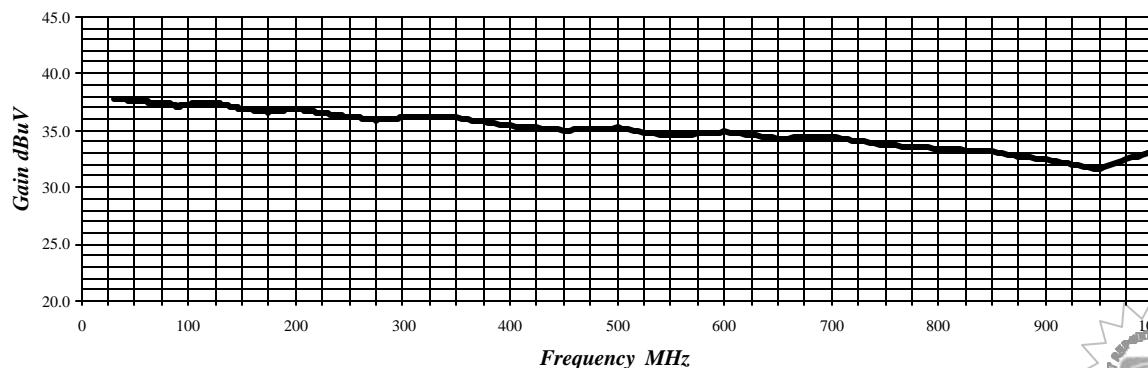


**REAR VIEW**

VTECH WIRELESS, INC.
900 MHz HALF-DUPLEX DATA TRANSCEIVER
Model: M90SXCRN2
FCC SUBPART B AND C - CONDUCTED EMISSIONS – 5-25-00

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



LAB "D" BICONICAL ANTENNA AB-100 S/N 01548 Cal: 10-14-99**LAB "D" LOG PERIODIC ANTENNA AL-100 S/N 16039 Cal: 10-14-99****PREAMPLIFIER EFFECTIVE GAIN AT 3 METERS PA-102 S/N: 1017 Lab "D"
Effective 1-16-99**

COM-POWER PA-122
MICROWAVE PREAMPLIFIER
S/N: 25195

CALIBRATION DATE: JANUARY 13, 2000

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	34.4	9.0	30.7
1.1	34.1	9.5	31.5
1.2	34.2	10.0	31.0
1.3	34.1	10.5	31.4
1.4	33.9	11.0	30.7
1.5	33.8	11.5	29.5
1.6	33.0	12.0	27.8
1.7	33.3	12.5	31.4
1.8	33.3	13.0	31.0
1.9	31.9	13.5	31.0
2.0	32.7	14.0	31.5
2.5	31.8	14.5	30.2
3.0	31.7	15.0	29.2
3.5	31.9	15.5	30.1
4.0	31.0	16.0	29.0
4.5	31.4	16.5	27.8
5.0	31.1	17.0	30.8
5.5	31.0	17.5	31.5
6.0	32.0	18.0	30.8
6.5	31.6		
7.0	32.3		
7.5	32.9		
8.0	32.1		
8.5	31.6		



E-FIELD ANTENNA FACTOR CALIBRATION

$$E(\text{dB V/m}) = V_o(\text{dB V}) + AFE(\text{dB/m})$$

Model number : DRG-118/A

Frequency GHz	AFE dB/m	Gain dBi
1	22.3	8.0
2	26.7	9.5
3	29.7	10.1
4	29.5	12.8
5	32.3	12.0
6	32.4	13.4
7	36.1	11.0
8	37.4	10.9
9	36.8	12.5
10	39.5	10.7
11	39.6	11.5
12	39.8	12.0
13	39.7	12.8
14	41.8	11.3
15	41.9	11.9
16	38.1	16.3
17	41.0	13.9
18	46.5	8.9

Serial number : 1053
Job number : 96-092
Remarks : 3 meter calibration
Standards : LPD-118/A, TE-1000

Temperature : 72° F
Humidity : 56 %
Traceability : A01887
Date : December 08, 1995

Calibrated By

Com-Power Corporation

(949) 587-9800

Antenna Calibration

Antenna Type:			Loop Antenna
Model:			AL-130
Serial Number:			25309
Calibration Date:			05/25/00
Frequency MHz	Magnetic (dB/m)	Electric dB/m	
0.009	-41.0	10.5	
0.01	-41.0	10.5	
0.02	-41.9	9.6	
0.05	-41.9	9.6	
0.075	-41.8	9.7	
0.1	-42.2	9.3	
0.15	-42.2	9.3	
0.25	-40.7	10.8	
0.5	-42.1	9.4	
0.75	-40.9	10.6	
1	-41.3	10.2	
2	-40.8	10.7	
3	-41.1	10.4	
4	-41.2	10.3	
5	-40.7	10.8	
10	-40.6	10.9	
15	-42.0	9.5	
20	-42.0	9.5	
25	-42.9	8.6	
30	-42.3	9.2	
Trans. Antenna Height	2 meter		
Receiving Antenna Height	2 meter		

APPENDIX D

DATA SHEETS



RADIATED EMISSIONS

DATA SHEETS



RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.249)

COMPANY	VTECH WIRELESS										DATE	5/25/00
EUT	900 MHz HALF-DUPLEX DATA TRANSCEIVER										DUTY CYCLE	N/A
MODEL	M90SXCRN2										PEAK TO AVG	N/A
S/N	N/A										TEST DIST.	3 METERS
TEST ENGINEER	KYLE FUJIMOTO										LAB	D

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
903.3000	55.9	55.8 Q	H	1.5	180	Y	LOW	22.7	4.6	0.0	83.1	-11.0	94.0	
903.3000	65.9	65.8 Q	V	2.0	180	Y	LOW	22.7	4.6	0.0	93.1	-1.0	94.0	
919.1500	56.1	56.0 A	H	1.0	180	Y	MID	24.0	4.6	0.0	84.6	-9.5	94.0	
919.1500	63.9	63.8 A	V	1.0	180	Y	MID	24.0	4.6	0.0	92.4	-1.7	94.0	
927.5000	54.4	54.3 A	H	1.0	180	Y	HIGH	24.7	4.5	0.0	83.5	-10.5	94.0	
927.5000	60.5	60.4 A	V	1.0	90	Y	HIGH	24.7	4.5	0.0	89.6	-4.4	94.0	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.249)



COMPATIBLE
ELECTRONICS

COMPANY	VTECH WIRELESS											DATE	5/25/00
EUT	900 MHz HALF-DUPLEX DATA TRANSCEIVER											DUTY CYCLE	N/A
MODEL	M90SXCRN2											PEAK TO AVG	N/A
S/N	N/A											TEST DIST.	3 METERS
TEST ENGINEER	KYLE FUJIMOTO											LAB	D

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
1806.6000	58.9	58.1	A	H	1.0	180	Y	LOW	24.5	3.5	33.3	52.8	-1.2	54.0
1806.6000	56.4	55.7	A	V	1.0	180	Y	LOW	24.5	3.5	33.3	50.4	-3.6	54.0
1838.3000	57.5	56.3	A	H	1.5	180	Y	MID	24.5	3.5	33.3	51.0	-3.0	54.0
1838.3000	57.5	56.7	A	V	1.0	180	Y	MID	24.5	3.5	33.3	51.4	-2.6	54.0
1855.0000	57.0	55.8	A	H	1.0	180	Y	HIGH	24.5	3.7	31.9	52.1	-1.9	54.0
1855.0000	57.0	56.1	A	V	1.0	180	Y	HIGH	24.5	3.7	31.9	52.4	-1.6	54.0

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING



RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.249)

COMPANY	VTECH WIRELESS										DATE	5/25/00
EUT	900 MHz HALF-DUPLEX DATA TRANSCEIVER										DUTY CYCLE	N/A
MODEL	M90SXCRN2										PEAK TO AVG	N/A
S/N	N/A										TEST DIST.	3 METERS
TEST ENGINEER	KYLE FUJIMOTO										LAB	D

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
2709.9000	37.5	A	H	1.0	180	Y	LOW	28.2	4.5	31.8	38.4	-15.6	54.0	
2709.9000	36.2	A	V	1.0	180	Y	LOW	28.2	4.5	31.8	37.1	-16.9	54.0	
2757.4500	39.0		H	1.0	180	Y	MID	29.7	4.6	31.7	41.6	-12.4	54.0	
2757.4500	39.5	A	V	1.0	270	Y	MID	29.7	4.6	31.7	42.1	-11.9	54.0	
2782.5000	37.9	A	H	1.0	180	Y	HIGH	29.7	4.6	31.7	40.5	-13.5	54.0	
2782.5000	37.1	A	V	1.0	180	Y	HIGH	29.7	4.6	31.7	39.7	-14.3	54.0	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.249)

COMPANY	VTECH WIRELESS										DATE	5/25/00
EUT	900 MHz HALF-DUPLEX DATA TRANSCEIVER										DUTY CYCLE	N/A
MODEL	M90SXCRN2										PEAK TO AVG	N/A
S/N	N/A										TEST DIST.	3 METERS
TEST ENGINEER	KYLE FUJIMOTO										LAB	D

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Correcte Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
3613.2000	38.9	A	H	1.0	180	Y	LOW	29.6	5.0	31.9	41.6	-12.4	54.0	
3613.2000	37.7	A	V	1.0	180	Y	LOW	29.6	5.0	31.9	40.4	-13.6	54.0	
3676.6000	36.0	A	H	1.0	180	Y	MID	29.6	5.0	31.9	38.7	-15.3	54.0	
3676.6000	41.4	A	V	1.0	180	Y	MID	29.6	5.0	31.9	44.1	-9.9	54.0	
3710.0000	35.6	A	H	1.0	270	Y	HIGH	29.6	5.0	31.9	38.3	-15.7	54.0	
3710.0000	37.0	A	V	1.0	180	Y	HIGH	29.6	5.0	31.9	39.7	-14.3	54.0	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING



COMPATIBLE
ELECTRONICS

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.249)

COMPANY	VTECH WIRELESS										DATE	5/25/00
EUT	900 MHz HALF-DUPLEX DATA TRANSCEIVER										DUTY CYCLE	N/A
MODEL	M90SXCRN2										PEAK TO AVG	N/A
S/N	N/A										TEST DIST.	3 METERS
TEST ENGINEER	KYLE FUJIMOTO										LAB	D

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
4516.5000	39.2	A	H	1.0	180	Y	LOW	30.9	5.6	31.4	44.3	-9.7	54.0	
4516.5000	35.9	A	V	1.0	180	Y	LOW	30.9	5.6	31.4	41.0	-13.0	54.0	
4595.7500	38.7	A	H	1.0	180	Y	MID	30.9	5.6	31.4	43.8	-10.2	54.0	
4595.7500	40.8	A	V	1.0	270	Y	MID	30.9	5.6	31.4	45.9	-8.1	54.0	
4637.5000	38.8	A	H	1.0	180	Y	HIGH	30.9	5.6	31.4	43.9	-10.1	54.0	
4637.5000	34.9	A	V	1.0	270	Y	HIGH	30.9	5.6	31.4	40.0	-14.0	54.0	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.249)

COMPANY	VTECH WIRELESS											DATE	5/25/00	
EUT	900 MHz HALF-DUPLEX DATA TRANSCEIVER											DUTY CYCLE	N/A	
MODEL	M90SXCRN2											PEAK TO AVG	N/A	
S/N	N/A											TEST DIST.	3 METERS	
TEST ENGINEER	KYLE FUJIMOTO											LAB	D	
Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi- Peak (QP)	Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
5419.8000	38.4	A	H	1.0	180	Y	LOW	32.4	6.0	31.0	45.8	-8.2	54.0	
5419.8000	36.3	A	V	1.0	0	Y	LOW	32.4	6.0	31.0	43.7	-10.3	54.0	
5514.9000	37.7	A	H	1.0	180	Y	MID	32.4	6.0	31.0	45.1	-8.9	54.0	
5514.9000	40.7	A	V	1.0	270	Y	MID	32.4	6.0	31.0	48.1	-5.9	54.0	
5565.0000	38.9	A	H	1.0	180	Y	HIGH	32.4	6.0	31.0	46.3	-7.7	54.0	
5565.0000	36.2	A	V	1.0	180	Y	HIGH	32.4	6.0	31.0	43.6	-10.4	54.0	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING



COMPATIBLE
ELECTRONICS

Page: 1 of 4

Test location: Compatible Electronics
Customer : VTECH WIRELESS Date : 5/25/2000
Manufacturer : VTECH WIRELESS Time : 9.23
EUT name : 900 MHZ HALF-DUPLEX DATA TRANSCEIVER
Model : M90SXCRN2
Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
Distance correction factor($20 \times \log(\text{test/spec})$) : 0.00
Test Mode : SPURIOUS EMISSIONS
VERTICAL POLARIZATION 30 TO 300 MHZ
TEMPERATURE 62 DEGREES F.
RELATIVE HUMIDITY 85%
TESTED BY: Kyle Fujimoto
KYLE FUJIMOTO

Pol	Freq	Rdng	Cable	Ant	Amp	Cor'd	limit	Delta
	MHz	dBuV	loss	factor	gain	rdg = R	= L	R-L
			dB	dB	dB	dBuV	dBuV/m	dB
1V	44.47	50.10	0.84	12.83	38.64	25.13	40.00	-14.87
2V	59.08	57.10	0.81	11.81	38.79	30.93	40.00	-9.07
3V	66.39	58.70	0.93	11.48	38.86	32.24	40.00	-7.76
4V	80.28	58.20	1.01	10.21	38.79	30.63	40.00	-9.37
5V	90.30	62.00	1.20	10.05	38.60	34.65	43.50	-8.85
6V	95.28	62.90	1.25	10.40	38.60	35.96	43.50	-7.54
7V	96.12	55.00	1.26	10.46	38.60	28.13	43.50	-15.37
8V	99.54	61.30	1.30	10.71	38.60	34.70	43.50	-8.80
9V	105.34	59.00	1.32	11.22	38.64	32.90	43.50	-10.60
10V	132.72	58.20	1.46	12.78	38.77	33.67	43.50	-9.83
11V	135.39	65.90	1.48	12.69	38.76	41.32	43.50	-2.18
12V	135.39	63.86	1.48	12.69	38.76	39.28Qp	43.50	-4.22
13V	145.40	67.30	1.56	12.39	38.72	42.53	43.50	-0.97
14V	145.40	63.99	1.56	12.39	38.72	39.22Qp	43.50	-4.28
15V	150.41	63.30	1.60	12.28	38.70	38.48	43.50	-5.02
16V	155.43	65.40	1.60	12.64	38.72	40.92	43.50	-2.58
17V	155.43	61.60	1.60	12.64	38.72	37.12Qp	43.50	-6.38
18V	170.46	63.40	1.60	13.74	38.78	39.96	43.50	-3.54
19V	199.02	57.70	1.79	15.88	38.61	36.76	43.50	-6.74
20V	225.58	57.50	1.90	16.44	38.80	37.05	46.00	-8.95
21V	232.15	55.10	1.96	16.39	38.74	34.71	46.00	-11.29
22V	255.64	48.50	2.12	17.07	38.58	29.12	46.00	-16.88
23V	265.29	47.80	2.16	18.45	38.54	29.87	46.00	-16.13

Test location: Compatible Electronics
 Customer : VTECH WIRELESS Date : 5/25/2000
 Manufacturer : VTECH WIRELESS Time : 9.23
 EUT name : 900 MHZ HALF-DUPLEX DATA TRANSCEIVER
 Model : M90SXCRN2
 Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
 Distance correction factor($20 \times \log(\text{test/spec})$) : 0.00
 Test Mode : SPURIOUS EMISSIONS
 HORIZONTAL POLARIZATION 30 TO 300 MHZ
 TEMPERATURE 62 DEGREES F.
 RELATIVE HUMIDITY 85%
 TESTED BY: Kyle Fujimoto
 KYLE FUJIMOTO

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	limit = L dBuV/m	Delta R-L dB
1H	58.91	52.20	0.81	11.82	38.79	26.05	40.00	-13.95
2H	66.37	57.00	0.93	11.48	38.86	30.54	40.00	-9.46
3H	80.11	49.30	1.00	10.22	38.80	21.72	40.00	-18.28
4H	90.32	59.90	1.20	10.05	38.60	32.56	43.50	-10.94
5H	95.28	66.60	1.25	10.41	38.60	39.66	43.50	-3.84
6H	105.31	63.00	1.32	11.22	38.64	36.90	43.50	-6.60
7H	132.70	59.90	1.46	12.78	38.77	35.37	43.50	-8.13
8H	135.39	63.40	1.48	12.69	38.76	38.82	43.50	-4.68
9H	145.43	61.60	1.56	12.39	38.72	36.83	43.50	-6.67
10H	150.40	53.90	1.60	12.28	38.70	29.08	43.50	-14.42
11H	155.43	58.20	1.60	12.65	38.72	33.72	43.50	-9.78
12H	170.46	52.50	1.60	13.74	38.78	29.06	43.50	-14.44
13H	199.02	61.50	1.79	15.88	38.61	40.56	43.50	-2.94
14H	199.02	60.89	1.79	15.88	38.61	39.95Qp	43.50	-3.55
15H	232.21	56.20	1.96	16.39	38.74	35.81	46.00	-10.19
16H	255.62	55.10	2.12	17.07	38.58	35.72	46.00	-10.28
17H	265.32	54.40	2.16	18.45	38.54	36.47	46.00	-9.53



**COMPATIBLE
ELECTRONICS**

Page: 3 of 4

Test location: Compatible Electronics Date : 5/25/2000
Customer : VTECH WIRELESS Time : 9.23
Manufacturer : VTECH WIRELESS
EUT name : 900 MHZ HALF-DUPLEX DATA TRANSCEIVER
Model : M90SXCRN2
Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
Distance correction factor($20 \times \log(\text{test}/\text{spec})$) : 0.00
Test Mode : SPURIOUS EMISSIONS
VERTICAL POLARIZATION 300 TO 1000 MHz
TEMPERATURE 62 DEGREES F.
RELATIVE HUMIDITY 85%
TESTED BY: Kyle Fujimoto
KYLE FUJIMOTO

Pol	Freq	Rdng	Cable	Ant	Amp	Cor'd	limit	Delta
	MHz	dBuV	loss	factor	gain	rdg = R	= L	R-L
1V	364.82	59.90	2.63	15.11	38.60	39.04	46.00	-6.96
2V	397.91	59.10	2.70	13.84	38.60	37.04	46.00	-8.96
3V	431.10	48.80	2.76	14.90	38.29	28.18	46.00	-17.82
4V	433.06	47.20	2.77	14.98	38.27	26.67	46.00	-19.33
5V	457.28	39.70	2.84	15.79	38.07	20.26	46.00	-25.74
6V	464.30	50.20	2.89	15.97	38.04	31.01	46.00	-14.99
7V	481.17	47.90	2.99	16.40	37.98	29.31	46.00	-16.69
8V	497.40	49.50	3.08	16.81	37.91	31.49	46.00	-14.51
9V	563.79	49.70	3.54	17.24	38.95	31.53	46.00	-14.47

Test location: Compatible Electronics
 Customer : VTECH WIRELESS Date : 5/25/2000
 Manufacturer : VTECH WIRELESS Time : 9.23
 EUT name : 900 MHZ HALF-DUPLEX DATA TRANSCEIVER
 Model : M90SXCRN2
 Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
 Distance correction factor($20 \cdot \log(\text{test/spec})$) : 0.00
 Test Mode : SPURIOUS EMISSIONS
 HORIZONTAL POLARIZATION 300 TO 1000 MHZ
 TEMPERATURE 62 DEGREES F.
 RELATIVE HUMIDITY 85%
 TESTED BY: Kyle Fujimoto
 KYLE FUJIMOTO

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	limit = L dBuV/m	Delta R-L dB
1H	364.81	53.60	2.63	15.11	38.60	32.74	46.00	-13.26
2H	397.99	66.60	2.70	13.84	38.60	44.53	46.00	-1.47
3H	397.99	65.81	2.70	13.84	38.60	43.74Qp	46.00	-2.26
4H	400.99	54.90	2.70	13.80	38.59	32.81	46.00	-13.19
5H	431.15	60.50	2.76	14.91	38.29	39.88	46.00	-6.12
6H	441.08	50.10	2.78	15.27	38.19	29.96	46.00	-16.04
7H	451.07	45.60	2.81	15.63	38.10	25.94	46.00	-20.06
8H	456.10	51.40	2.84	15.76	38.08	31.92	46.00	-14.08
9H	457.09	39.70	2.84	15.78	38.07	20.25	46.00	-25.75
10H	464.21	43.20	2.89	15.96	38.04	24.01	46.00	-21.99
11H	481.17	45.90	2.99	16.40	37.98	27.31	46.00	-18.69
12H	497.39	46.10	3.08	16.81	37.91	28.09	46.00	-17.91
13H	530.56	51.30	3.41	17.01	38.69	33.02	46.00	-12.98
14H	729.55	45.90	3.88	20.14	38.24	31.68	46.00	-14.32
15H	795.84	52.90	3.91	19.74	37.74	38.80	46.00	-7.20



**COMPATIBLE
ELECTRONICS**

Page: 1 of 1

Test location: Compatible Electronics Date : 5/25/2000
Customer : VTECH WIRELESS Time : 9.23
Manufacturer : VTECH WIRELESS
EUT name : 900 MHZ HALF-DUPLEX DATA TRANSCEIVER
Model : M90SXCRN2
Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
Distance correction factor($20 \cdot \log(\text{test/spec})$) : 0.00
Test Mode : SPURIOUS EMISSIONS
10 kHz TO 30 MHz
TEMPERATURE 62 DEGREES F.
RELATIVE HUMIDITY 85%
TESTED BY: Kyle Fujimoto
KYLE FUJIMOTO

NO EMISSIONS FOUND BETWEEN 10 kHz AND 30 MHz IN
EITHER POLARIZATION FOR THE EUT



Test location: Compatible Electronics
Customer : VTECH WIRELESS Date : 5/25/2000
Manufacturer : VTECH WIRELESS Time : 9.23
EUT name : 900 MHZ HALF-DUPLEX DATA TRANSCEIVER
Model : M90SXCRN2
Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
Distance correction factor($20 \cdot \log(\text{test/spec})$) : 0.00
Test Mode : BAND EDGES AND RECEIVER MODE
TEMPERATURE 65 DEGREES F.
RELATIVE HUMIDITY 75%
TESTED BY: Kyle Fujimoto
KYLE FUJIMOTO

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	limit = L dBuV/m	Delta R-L dB
BAND EDGE READINGS								
1V	928.04	51.80	4.54	24.70	37.61	43.43	46.00	-2.57
2V	902.00	46.00	4.60	22.59	37.51	35.68	46.00	-10.32
RECEIVER LOW CHANNEL								
3V	867.65	40.20	4.47	22.72	37.50	29.89	46.00	-16.11
4H	867.68	47.10	4.47	22.72	37.50	36.79	46.00	-9.21
5V	1735.30	45.90	3.20	24.50	33.30	40.30	54.00	-13.70
6H	1735.30	48.10	3.20	24.50	33.30	42.50	54.00	-11.50
RECEIVER MIDDLE CHANNEL								
7V	883.29	51.00	4.53	22.58	37.50	40.61	46.00	-5.39
8H	883.33	50.40	4.53	22.58	37.50	40.01	46.00	-5.99
9V	1766.66	47.20	3.50	24.50	33.30	41.90	54.00	-12.10
10H	1766.66	48.80	3.50	24.50	33.30	43.50	54.00	-10.50
RECEIVER HIGH CHANNEL								
11V	891.84	40.40	4.57	22.50	37.50	29.97	46.00	-16.03
12H	891.84	40.80	4.57	22.50	37.50	30.37	46.00	-15.63
13V	1783.68	44.50	3.50	24.50	33.30	39.20	54.00	-14.80
14H	1733.68	46.20	3.50	24.50	33.30	40.90	54.00	-13.10

CONDUCTED EMISSIONS

DATA SHEETS





**COMPATIBLE
ELECTRONICS**

VTECH WIRELESS

900 MHZ HALF-DUPLEX TRANS.

MODEL: M90SXCRN2

FCC C - BLACK LEAD

TEST ENGINEER :

Kyle Fujimoto

KYLE FUJIMOTO

5/25/2000

8:29:49

30 highest peaks above -50.00 dB of CLASS B limit line

Peak criteria : 0.10 dB, Curve : Peak

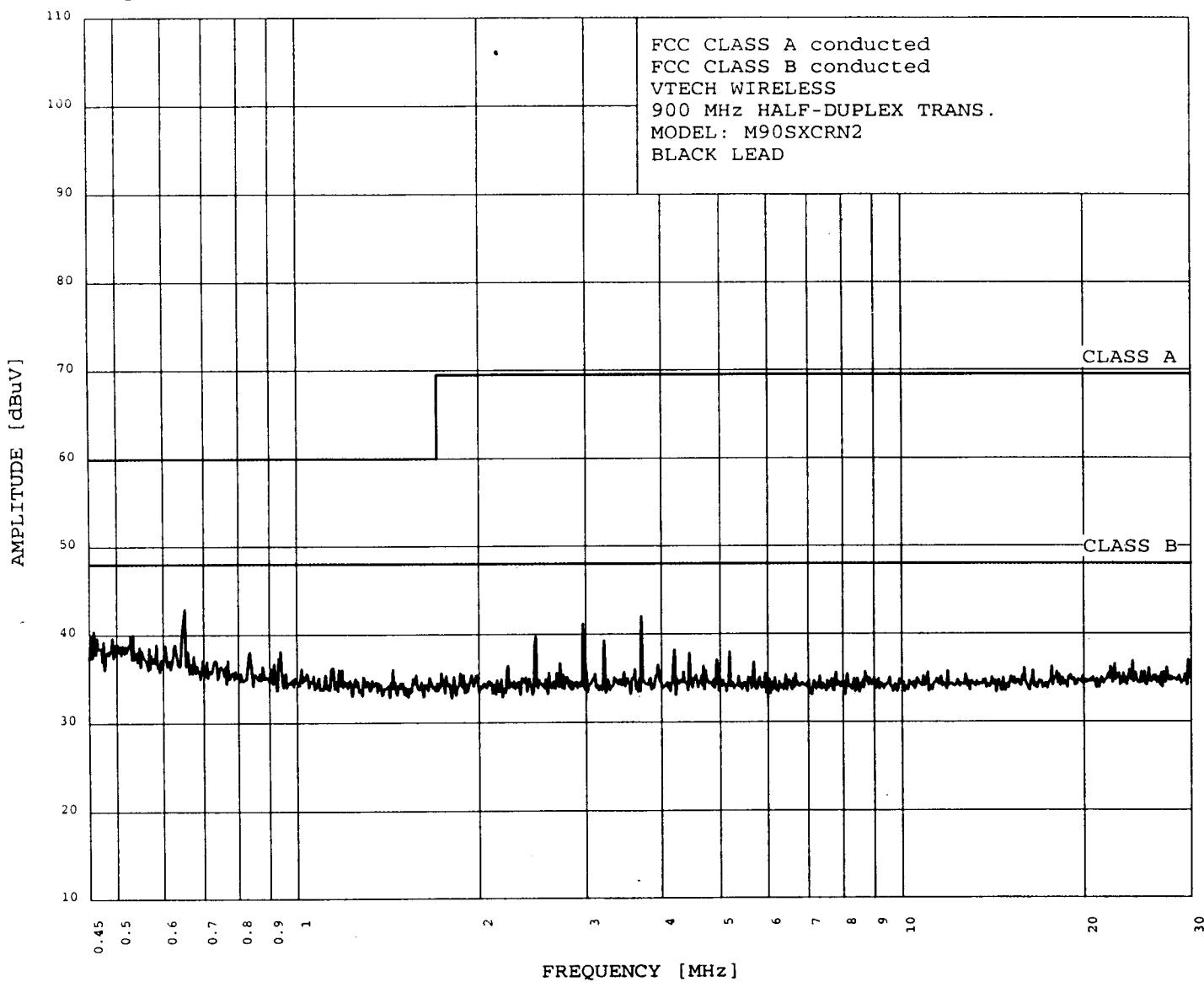
Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.652	42.90	48.00	-5.10
2	3.706	41.99	48.00	-6.01
3	2.968	41.14	48.00	-6.86
4	0.458	40.40	48.00	-7.60
5	0.452	40.00	48.00	-8.00
6	0.532	40.00	48.00	-8.00
7	0.528	39.80	48.00	-8.20
8	2.478	39.72	48.00	-8.28
9	0.464	39.60	48.00	-8.40
10	0.492	39.60	48.00	-8.40
11	3.215	39.26	48.00	-8.74
12	0.476	39.20	48.00	-8.80
13	0.500	39.00	48.00	-9.00
14	0.584	38.90	48.00	-9.10
15	0.627	38.90	48.00	-9.10
16	0.496	38.80	48.00	-9.20
17	0.511	38.80	48.00	-9.20
18	0.604	38.80	48.00	-9.20
19	0.507	38.70	48.00	-9.30
20	0.517	38.70	48.00	-9.30
21	0.546	38.60	48.00	-9.40
22	0.472	38.50	48.00	-9.50
23	0.567	38.50	48.00	-9.50
24	4.206	38.21	48.00	-9.79
25	0.551	38.20	48.00	-9.80
26	0.484	38.10	48.00	-9.90
27	0.660	38.10	48.00	-9.90
28	0.939	38.10	48.00	-9.90
29	0.539	38.00	48.00	-10.00
30	0.835	38.00	48.00	-10.00



COMPATIBLE
ELECTRONICS

EMISSION LEVEL [dBuV] PEAK
Graph for Peak

5/25/2000 8:29:49





**COMPATIBLE
ELECTRONICS**

5/25/2000

8:32:14

VTECH WIRELESS
900 MHz HALF-DUPLEX TRANS.
MODEL: M90SXCRN2
FCC C - WHITE LEAD
TEST ENGINEER : Kyle Fujimoto
KYLE FUJIMOTO

30 highest peaks above -50.00 dB of CLASS B limit line

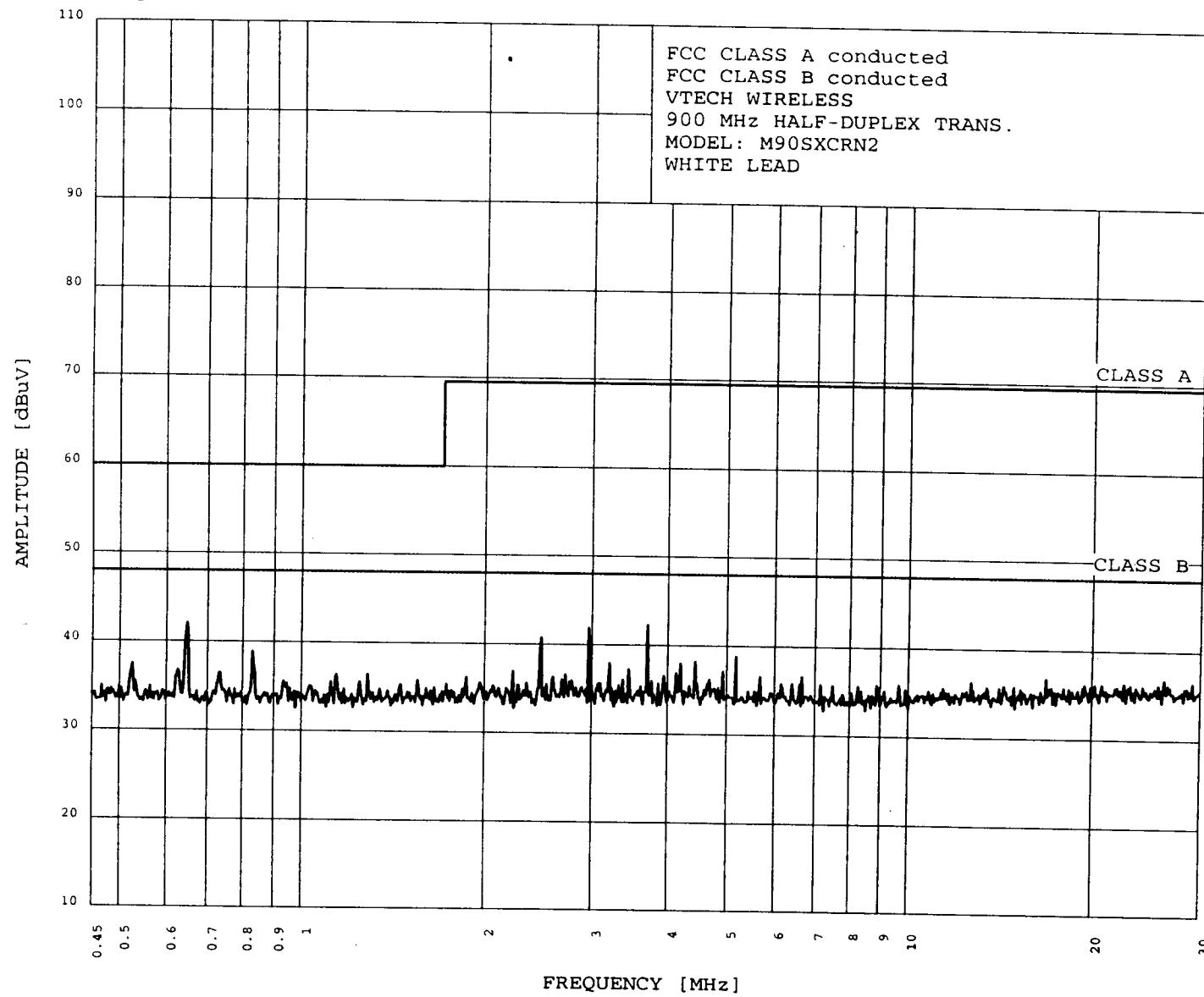
Peak criteria : 0.10 dB, Curve : Peak

Peak#	Freq(MHz)	Amp (dBuV)	Limit(dB)	Delta(dB)
1	3.706	42.28	48.00	-5.72
2	0.649	42.07	48.00	-5.93
3	2.968	41.85	48.00	-6.15
4	2.478	40.73	48.00	-7.27
5	0.831	38.87	48.00	-9.13
6	5.186	38.83	48.00	-9.17
7	4.442	38.20	48.00	-9.80
8	4.206	37.99	48.00	-10.01
9	3.215	37.96	48.00	-10.04
10	0.526	37.48	48.00	-10.52
11	3.452	37.27	48.00	-10.73
12	4.934	37.12	48.00	-10.88
13	2.229	36.92	48.00	-11.08
14	4.136	36.89	48.00	-11.11
15	26.250	36.79	48.00	-11.21
16	16.810	36.79	48.00	-11.21
17	0.627	36.77	48.00	-11.23
18	2.718	36.64	48.00	-11.36
19	6.673	36.64	48.00	-11.36
20	3.948	36.58	48.00	-11.42
21	5.690	36.57	48.00	-11.43
22	1.287	36.49	48.00	-11.51
23	0.736	36.47	48.00	-11.53
24	29.154	36.46	48.00	-11.54
25	1.144	36.39	48.00	-11.61
26	22.566	36.35	48.00	-11.65
27	2.594	36.34	48.00	-11.66
28	12.691	36.28	48.00	-11.72
29	1.869	36.21	48.00	-11.79
30	4.689	36.21	48.00	-11.79

EMISSION LEVEL [dBuV] PEAK
Graph for Peak

5/25/2000 8:32:14

FCC CLASS A conducted
FCC CLASS B conducted
VTECH WIRELESS
900 MHz HALF-DUPLEX TRANS.
MODEL: M90SXCRN2
WHITE LEAD



BAND EDGES

DATA SHEETS

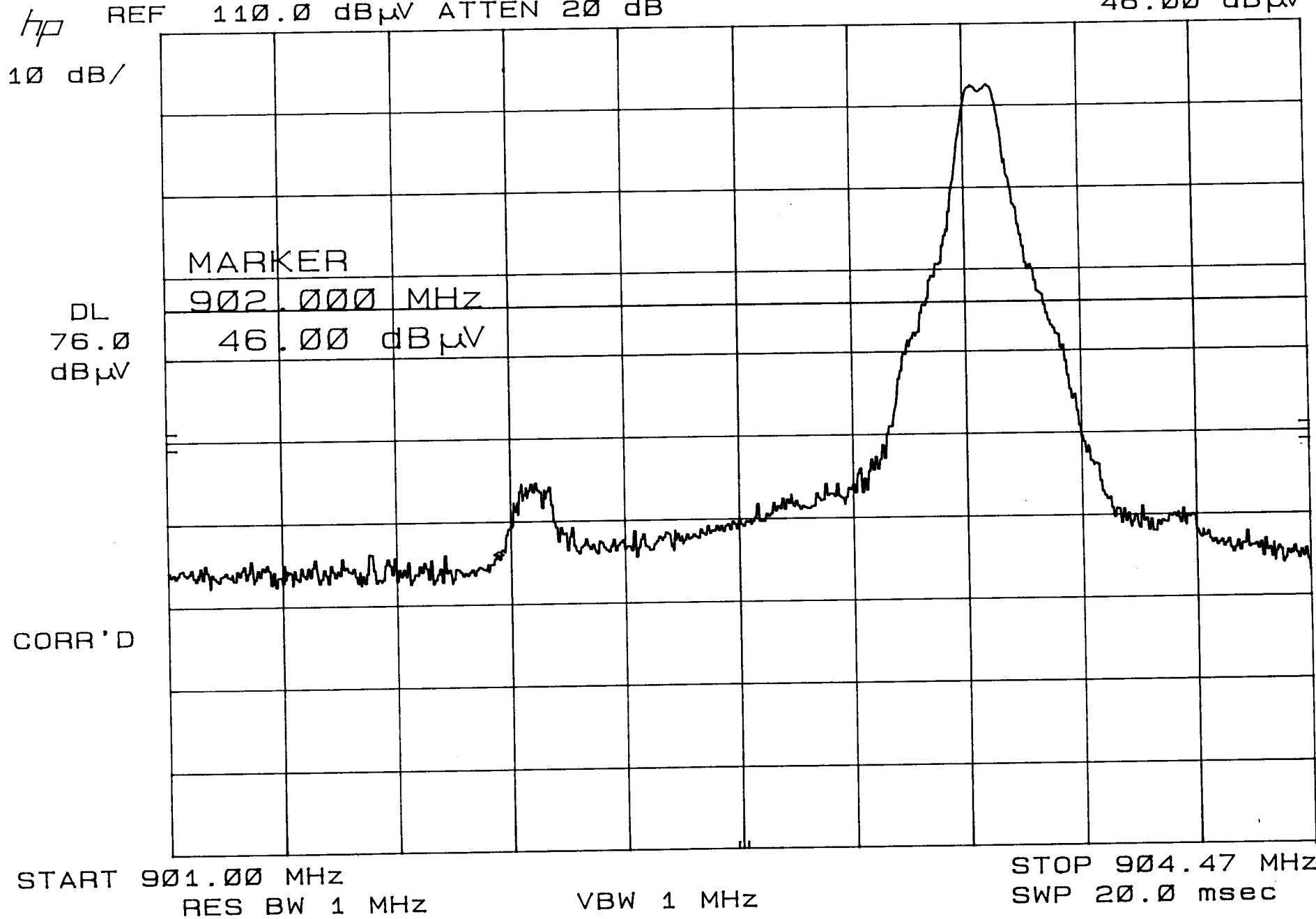


Test location: Compatible Electronics
 Customer : VTECH WIRELESS Date : 5/25/2000
 Manufacturer : VTECH WIRELESS Time : 9.23
 EUT name : 900 MHZ HALF-DUPLEX DATA TRANSCEIVER
 Model : M90SXCRN2
 Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
 Distance correction factor($20 * \log(\text{test/spec})$) : 0.00
 Test Mode : BAND EDGES AND RECEIVER MODE
 TEMPERATURE 65 DEGREES F.
 RELATIVE HUMIDITY 75%
 TESTED BY: Kyle Fujimoto
 KYLE FUJIMOTO

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	limit = L dBuV/m	Delta R-L dB
BAND EDGE READINGS								
1V	928.04	51.80	4.54	24.70	37.61	43.43	46.00	-2.57
2V	902.00	46.00	4.60	22.59	37.51	35.68	46.00	-10.32
RECEIVER LOW CHANNEL								
3V	867.65	40.20	4.47	22.72	37.50	29.89	46.00	-16.11
4H	867.68	47.10	4.47	22.72	37.50	36.79	46.00	-9.21
5V	1735.30	45.90	3.20	24.50	33.30	40.30	54.00	-13.70
6H	1735.30	48.10	3.20	24.50	33.30	42.50	54.00	-11.50
RECEIVER MIDDLE CHANNEL								
7V	883.29	51.00	4.53	22.58	37.50	40.61	46.00	-5.39
8H	883.33	50.40	4.53	22.58	37.50	40.01	46.00	-5.99
9V	1766.66	47.20	3.50	24.50	33.30	41.90	54.00	-12.10
10H	1766.66	48.80	3.50	24.50	33.30	43.50	54.00	-10.50
RECEIVER HIGH CHANNEL								
11V	891.84	40.40	4.57	22.50	37.50	29.97	46.00	-16.03
12H	891.84	40.80	4.57	22.50	37.50	30.37	46.00	-15.63
13V	1783.68	44.50	3.50	24.50	33.30	39.20	54.00	-14.80
14H	1733.68	46.20	3.50	24.50	33.30	40.90	54.00	-13.10

BAND EDGE OF LOW CHANNEL
REF 110.0 dB μ V ATTN 20 dB

HP MKR 902.000 MHz
46.00 dB μ V



BAND EDGE OF HIGH CHANNEL
REF 100.0 dB μ V ATTEN 10 dB

MKR 928.060 MHz
52.00 dB μ V

