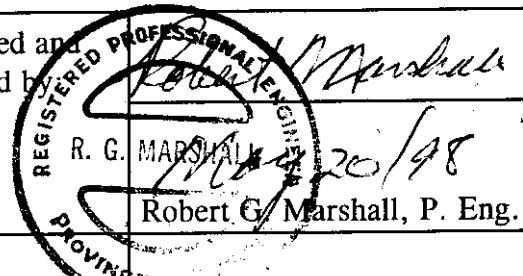


Marstech Limited

11 Kelfield Street, Etobicoke, Ontario, Canada, M9W 5A1
Telephone (416) 246-1116, Fax (416) 246-1020

TEST REPORT			
REPORT DATE:		April 22, 1998	
		REPORT NO: 98141D	
CONTENTS:	See Table of Contents		
SUBMITTOR:	THOMSON CONSUMER ELECTRONICS, INC. Audio & Communications Product Dev. 101 West 103rd Street Indianapolis, IN 46290-1102 USA		
SUBJECT:	Model No:	2-9776(XXXX)	
	FCC ID:	G9H2-9776	
TEST SPECIFICATION	FCC CFR 47 15.233 AND 2.989 Sections: 15.35, 15.107, 15.109, 15.207 and 15.209 NOTE: Tests Conducted Are "Type" Tests.		
DATE SAMPLE RECEIVED:	April 3, 1998	DATE TESTED:	April 3, 14-16 & 20, 1998
RESULTS:	Equipment tested complies with referenced specification.		
ALTERATIONS	None		
Tested by:	Original signed by:	Approved and Certified by:	
	Jim Sims		
	Ed Chang/Hiran De Silva		
	Date:		
THIS REPORT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF MARSTECH LIMITED. This report was prepared by Marstech Limited for the account of the "Submittor". The material in it reflects Marstech's judgement in light of the information available to it at the time of preparation. Any use which a Third Party makes of this report, or any reliance on decisions to be made based on it, are the responsibility of such Third Parties. Marstech accepts no responsibility for damages, if any, suffered by any Third Party as a result of decisions made or actions based on this report			

Authorized by:
Professional Engineers
Ontario



Engineering &
Administrative



Testing For FCC
Submissions/Verifications

Industry Canada
Industrie Canada



Approved Test Facility



TECHNICAL REPORT - FCC 2.1033(b)Applicant

Thomson Consumer Electronics, Inc.
 Audio & Communications Product Dev.
 101 West 103rd Street
 Indianapolis, IN
 46290-1102 USA

FCC Identifier

G9H2-9776

Manufacturer

Integrated Display Technology Ltd.
 Block D, Xixian Chen Tian Industrial Estate
 Xixian Town, Bao An City
 China

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<u>Exhibit</u>	<u>Description</u>	<u>FCC Ref.</u>	<u>Page</u>
A	Installation and Operating Instructions Furnished to the User.	2.1033(b)(3)	Exhibit A Exhibit A(1)-1
B	Description of Circuit Functions	2.1033(b)(4)	Exhibit B Exhibit B(1)-1
C	Block Diagram	2.1033(b)(5)	Exhibit C Exhibit (1)-1 to -2
	Schematic Diagram		Exhibit C(2)-1 to -5
D	Report of Measurements	2.1033(b)(6)	Exhibit D
	Device Measured		Exhibit D(1)-1
	Test Facility and Equipment		Exhibit D(2)-1 to -3
	Test Results and Methods		Exhibit D(3)-1 to -31
E	Photographs	2.1033(b)(7)	Exhibit E
	Label		Exhibit E(1)-1 to -2
	Equipment		Exhibit E(2)-1 to -7

EXHIBIT D

(FCC Ref. 2.1033(b)(6))

"Report of Measurements"

EXHIBIT D(1)

DEVICE MEASURED

(FCC Ref. 2.1033(b)(6))

APPLICANT:

Thomson Consumer Electronics, Inc.
Audio & Communications Product Dev.
101 West 103rd Street
Indianapolis, IN
46290-1102 USA

MANUFACTURER:

Integrated Display Technology Ltd.
Block D, Xixian Chen Tian Industrial Estate
Xixian Town, Bao An City
China

FCC IDENTIFIER:

G9H2-9776

TRADE NAME:

GE

MODEL NUMBER:

2-9776(XXXX)

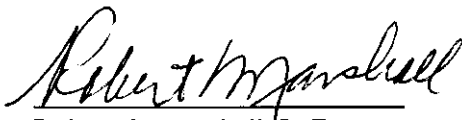
SERIAL NO.:

N/M

Marstech Limited
11 Kelfield Street
Etobicoke, Ontario
M9W 5A1 CANADA

TECHNICIANS:

Jim Sims - Com-Serve Corp.
Hiran De Silva - Marstech Limited
Edward Chang - Marstech Limited


Robert G. Marshall, P. Eng.

Date: May 26/98

EXHIBIT D(2)

TEST FACILITY AND EQUIPMENT LIST

FACILITIES

Radiated ANSI C63.4 (FCC OET/55) open field 3 meter test range. This test range is protected from the cold and moisture by a non-conductive enclosure.

Conducted 2.5m Anechoic Chamber

EQUIPMENT

Hewlett-Packard spectrum analyzer # 8554 RF & 141T video.
Anritsu 2601 A spectrum analyzer.
Advantest R3261A Spectrum Analyzer
Hewlett-Packard RF generator # 8640 B with an 002 doubler
Hewlett-Packard attenuator 30 dB # 11708A.
Narda 20 watt (20 dB) attenuator
Compliance Design P950 Preamp (16 dB)..... 25 MHZ - 1.0 GHZ
A.H. Systems biconical antenna;20 MHZ - 330 MHZ
A.H. Systems log periodic antenna;300 MHZ - 1.8 GHZ
Eaton dipole antennas; T1, T2, T325 MHZ - 1.0 GHZ
CDI Roberts dipole antennas; T1, T2, T3 & T4.....25 MHZ - 1.0 GHZ

NOTE:

The Anritsu 2601 A spectrum analyzer, the Hewlett-Packard spectrum analyzer and the Advantest R3261A spectrum analyzer are calibrated annually, and that calibration is directly traceable to the National Research Council of Canada (NRC). This equipment is only used by qualified technicians and only for the purpose of EMI measurements. The three meter test range has been carefully evaluated to the ANSI document C63.4 and will be remeasured for reflections and losses every three years.

FEDERAL COMMUNICATIONS COMMISSION

7435 Oakland Mills Road
Columbia, MD 21046
Telephone: 301-725-1585 (ext-218)
Facsimile: 301-344-2060

September 23, 1997

IN REPLY REFER TO
31040/SIT
1300F2

Electrohome Electronics Ltd
809 Wellington Street, North
Kitchener, Ontario N2G 4J6, Canada

Attention: Garry Gallagher


Re: Measurement facility located at Roseville
(3 meter site)

Gentlemen:

Your submission of the description of the subject measurement facility has been reviewed and found to be in compliance with the requirements of Section 2.948 of the FCC Rules. The description has, therefore, been placed on file and the name of your organization added to the Commission's list of facilities whose measurement data will be accepted in conjunction with applications for certification or notification under Parts 15 or 18 of the Commission's Rules. Our list will also indicate that the facility complies with the radiated and AC line conducted test site criteria in ANSI C63.4-1992. Please note that this filing must be updated for any changes made to the facility, and at least every three years the data on file must be certified as current.

Per your request, the above mentioned facility has been also added to our list of those who perform these measurement services for the public on a fee basis. This list is published periodically and is also available on the Laboratory's Public Access Link as described in the enclosed Public Notice.

Sincerely,



Thomas W. Phillips
Electronics Engineer
Customer Service Branch

FCC ID: G9H2-9776
EXHIBIT D(2)-2
Marstech Report No. 98141D

EXHIBIT D(2)

SPECTRUM ANALYZER -	ANRITSU MS2601A S/N MT64544 - NEXT CALIBRATION APRIL 1999
MULTIMETER -	FLUKE 75
POWER SUPPLY -	IN HOUSE
OVEN -	IN HOUSE
FREEZER -	IN HOUSE

SUMMARY OF RESULTSCOMPLIANCE
(yes) (no)**FIELD STRENGTH OF THE CARRIER FREQUENCIES**

Handset:	48 MHz and 49 MHz bands	(x)	()
Base Station:	43/44 MHz and 46 MHz bands	(x)	()

OCCUPIED BANDWIDTH

Handset:	48 MHz and 49 MHz bands	(x)	()
Base Station:	43/44 MHz and 46 MHz bands	(x)	()

SPURIOUS RADIATED EMISSIONS

Handset:	48 MHz and 49 MHz bands	(x)	()
Base Station:	43/44 MHz and 46 MHz bands	(x)	()

LINE CONDUCTED SPURIOUS EMISSIONS

Base Station:	<u>Telephone Mode:</u>	(x)	()
	43/44 MHz and 46 MHz bands		

TRANSMITTER ENVIRONMENTAL TESTS

Handset:	(x)	()
Base Station:	(x)	()

EQUIPMENT REQUIREMENTS AND IDENTIFICATION

a) Manufacturers or applicants name:	(x)	()
b) FCC ID:	(x)	()
c) Serial number:	(N/M)	()
d) Antenna:	(x)	()
e) Operator controls:	(x)	()
f) Security Coding	(x)	()
g) Equipment/Packaging Marking	(x)	()

CARRIER FREQUENCY FIELD STRENGTH

RESULTS

Handset: Maximum field strength of 5,506 $\mu\text{V/M}$: Channel # 01

Handset: Maximum field strength of 4,410 $\mu\text{V/M}$: Channel # 25

Base Station:

Modes:

Telephone: Maximum field strength of 4,061 $\mu\text{V/M}$: Channel # 01

Telephone: Maximum field strength of 2,557 $\mu\text{V/M}$: Channel # 25

TEST CONDITIONS

Equipment Positioning:

Handset: vertical or upright

Base Station: standing on its back with the antenna extended in the vertical plane.

Antenna Polarization:

Handset: vertical

Base Station: vertical

Antenna Type: T.1; tuned half wave dipole

Measurement Bandwidth: 100 KHz (IF)

Supply Voltages:

Handset: 3.6 VDC from an internal battery.

Base Station: 120 VAC/60 Hz to 15 VDC (adapter)

METHODS OF MEASUREMENT

The cordless phone components were placed in turn on a one metre high, non-metallic turntable. Measurements were made in a minimum of 3 positions for the handset and 2 for the base station. If adjustable, the whip antennas were fully extended.

For each of the above conditions the turntable was rotated through 360 degrees while the receiving antenna, at three (3) metres from the EUT, was varied in height from 1 to 4 metres and set in both planes of polarization to find the maximum signal strength. The unmodulated carrier level was measured using a spectrum analyzer and a substitution signal from an RF generator. The measured level was converted to a field strength using the antenna correction factors and cable losses.

All base station measurements were made with the equipment under test connected to an artificial telephone line network, with 48 VDC applied.

OCCUPIED BANDWIDTH RESULTS

RESULTS

The highest level emission resulting from the modulation process exceeding the specified frequency range of ± 10 KHz (20 KHz) over the carrier frequency was:

Handset:

Unmodulated carrier level: **-35 dB** (30 dB external pad) **Channel # 01**

Unmodulated carrier level: **-36 dB** (30 dB external pad) **Channel # 25**

a) At the maximum frequency deviation at 2,500 Hz: Channel # 01

-74 dB at -12.5 KHz.

b) At the maximum frequency deviation at 2,500 Hz: Channel # 25

-78 dB at +12.5 KHz.

Base Station:

Unmodulated carrier level: **-48 dB** (30 dB external pad) **Channel # 01**

Unmodulated carrier level: **-52 dB** (30 dB external pad) **Channel # 25**

Telephone:

a) At the maximum frequency deviation at 2,500 Hz: Channel # 01

-77 dB at -12.5 KHz.

b) At the maximum frequency deviation at 2,500 Hz: Channel # 25

-81 dB at -12.5 KHz.

METHODS OF MEASUREMENT

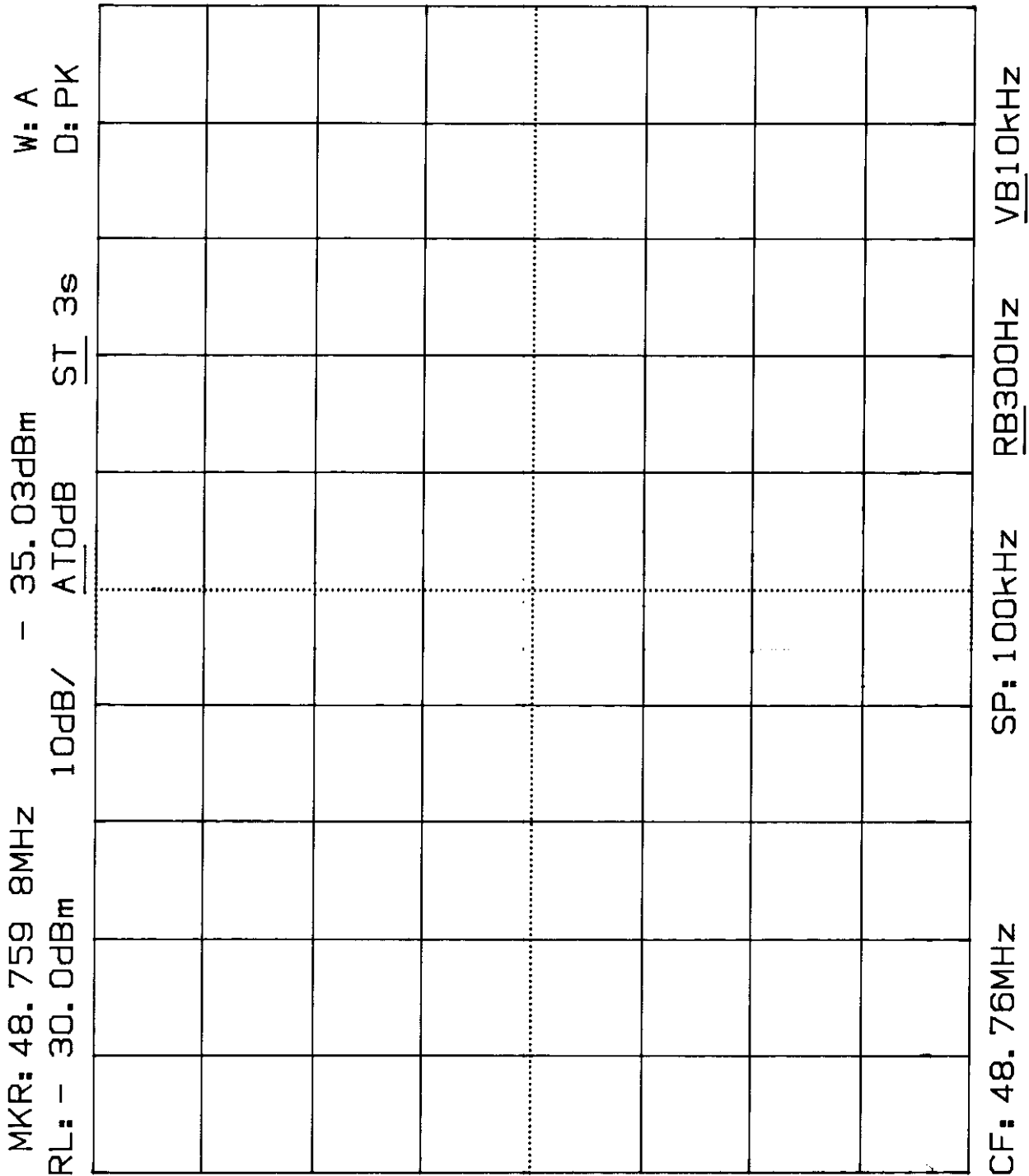
Each transmitter was operated in turn under the standard test conditions specified, and at the maximum output power. An external 2,500 Hz audio signal was coupled to the standard input port and adjusted to a level which produced 85% of the measured "Maximum Frequency Deviation". In this case, the base station and the handset modulation in-band emissions, meet the requirements at maximum frequency deviation. Levels for compliance have therefore been evaluated at these levels. Any internal modulation source that normally operates on a continuous basis was disabled.

A portion of the radio frequency power delivered by the transmitter into the standard output termination was coupled to a spectrum analyzer.

If the cordless telephone contained an internal modulation source that normally operates continuously or for more than three (3) seconds, then the above test was also repeated with the external 2,500 Hz disconnected.

Please refer to the attached results.

HANDSET; UNMODULATED CARRIER LEVEL
 MODEL 2-9776 (XXXX) ; 48 MHz



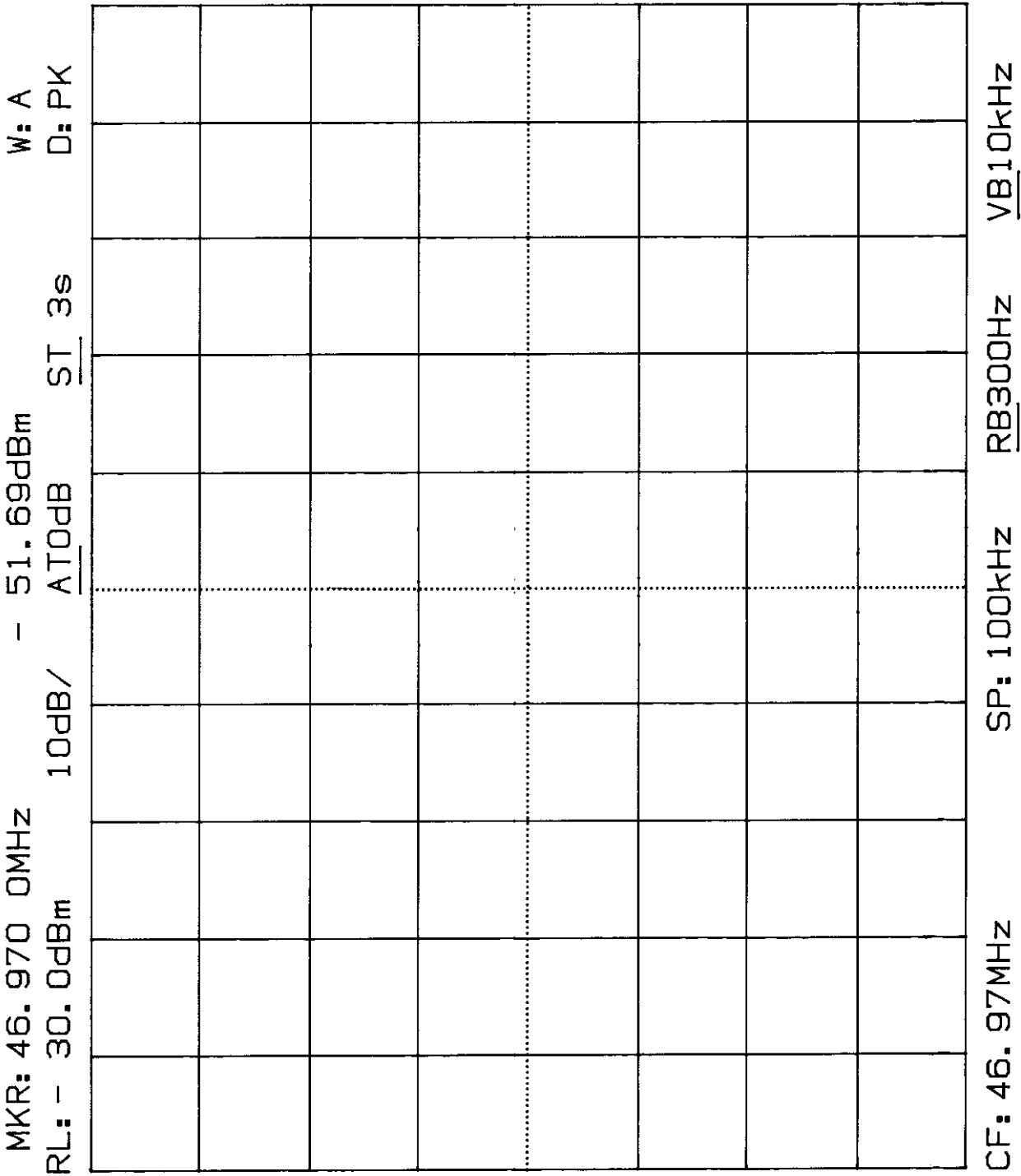
HANDSET; UNMODULATED CARRIER LEVEL
MODEL 2-9776 (XXXX); 49 MHz

[illegible]

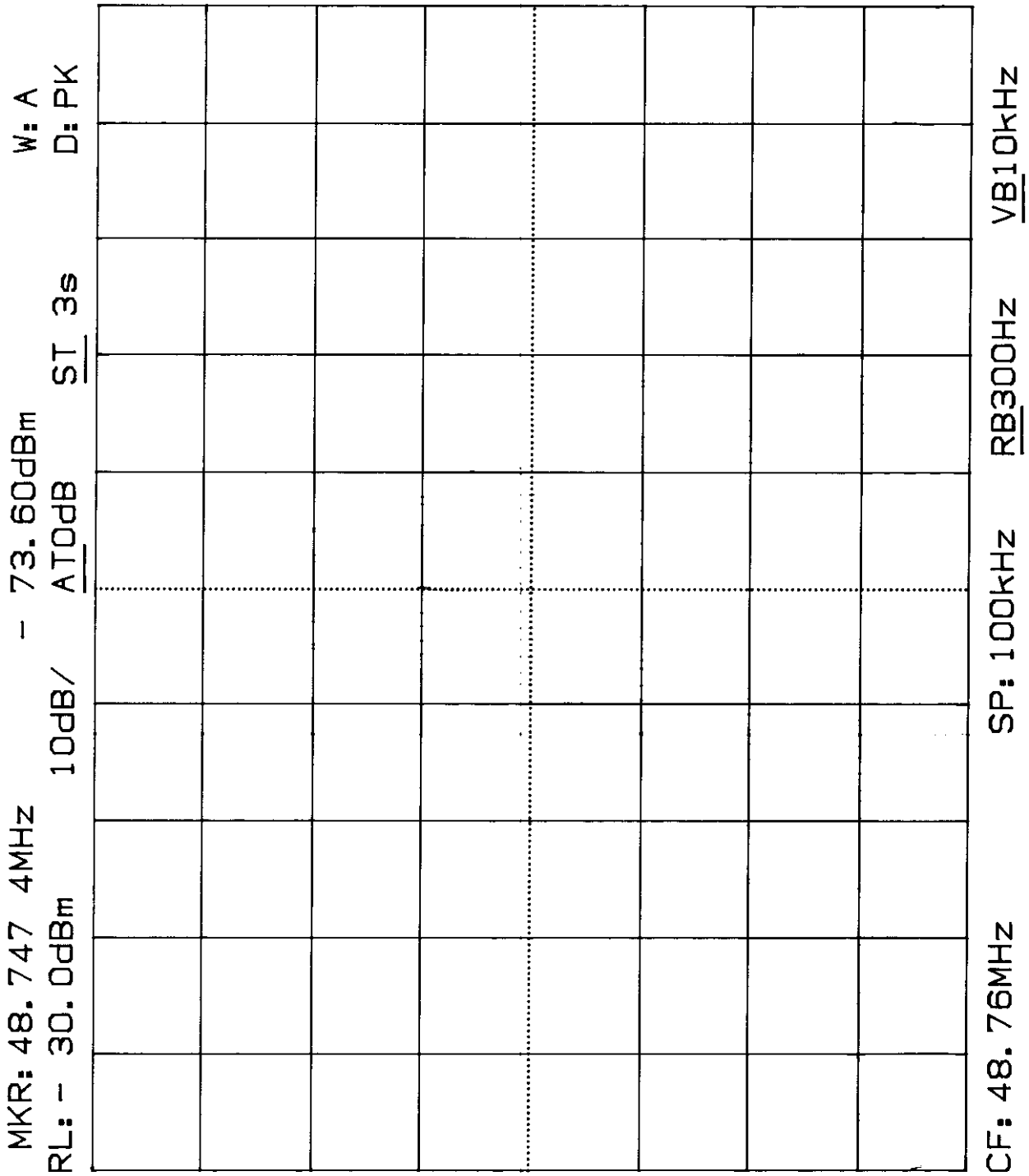
BASE STATION; UNMODULATED CARRIER LEVEL
MODEL 2-9776(XXXX); 43/44 MHz

[illegible]

BASE STATION; UNMODULATED CARRIER LEVEL
MODEL 2-9776 (XXXX) ; 46 MHz



OUT-OF-BAND HANDSET; 48 MHz
4.00 VOLTS AT MFD; MODEL 2-9776 (XXXX)



MKR:	49.982	4MHz	-	77.91dBm	W: A
RL:	-	30.0dBm	10dB/	AT0dB	D: PK
				ST	3s

[illegible]

CF: 49.97MHz
SP: 100kHz
RB300kHz
VB10kHz

W: A
D: PK

-76.94dBm

MKR: 43.707 6MHz

10dB/

RL: - 30.0dBm

35

ATODB

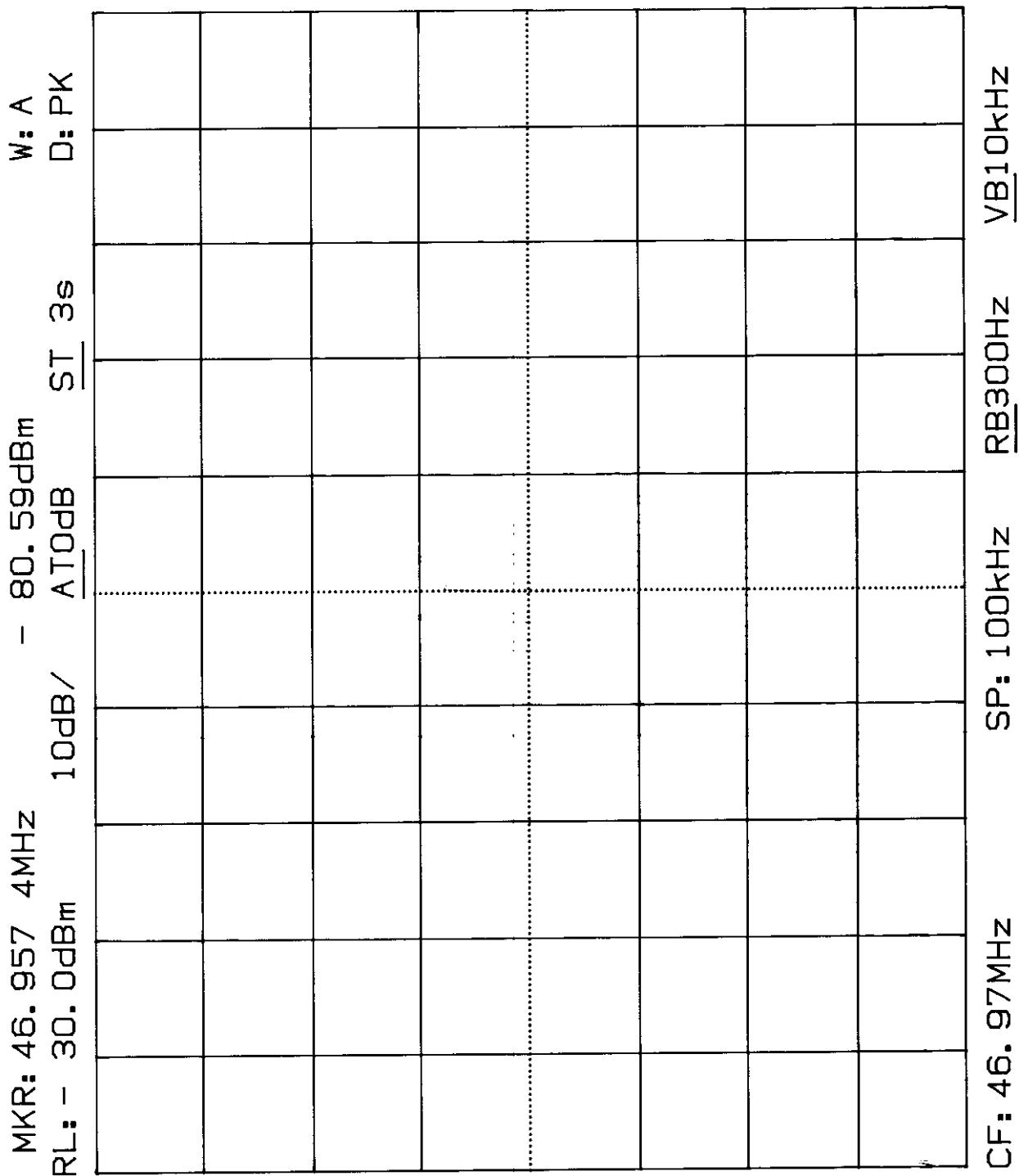
VB10KHZ

RB300HZ

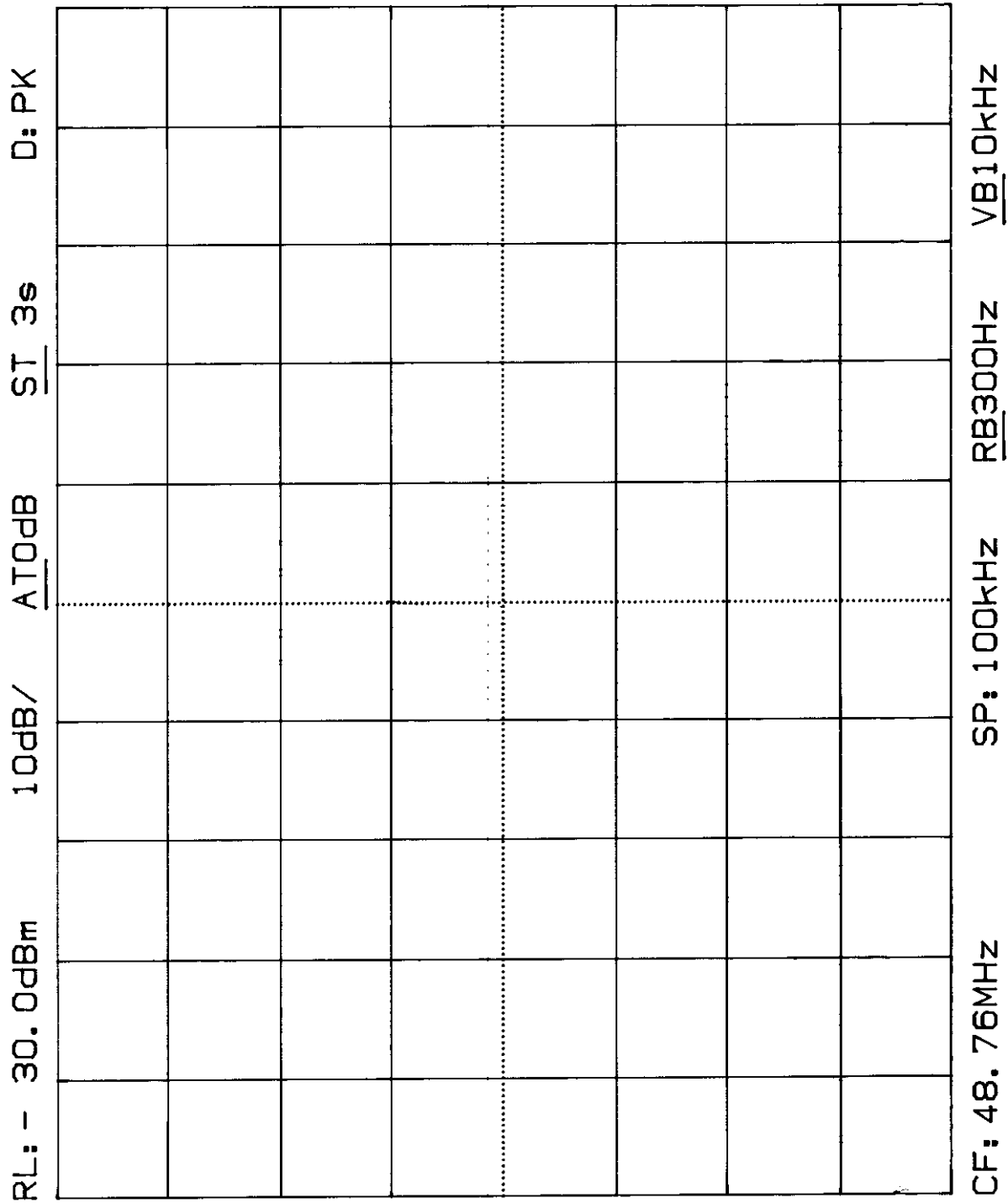
SP: 100kHz

CF: 43.72MHz

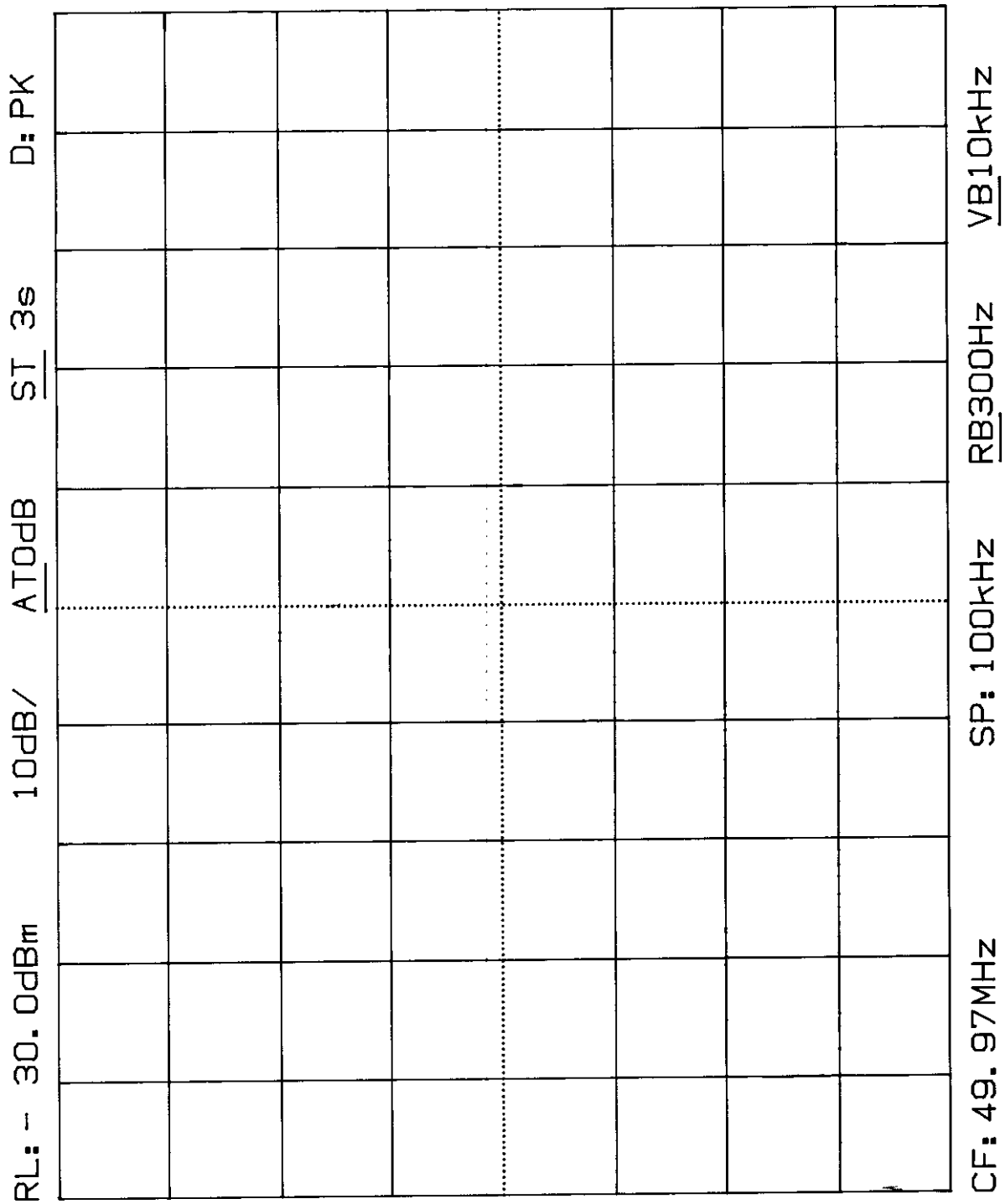
OUT-OF-BAND BASE STATION; 46 MHz
4.00 VOLTS AT MFD; MODEL 2-9776 (XXXX)



MAXIMUM FREQUENCY DEVIATION; 48 MHz
HANDSET; 4.00 VOLTS MODEL 2-9776 (XXXX)

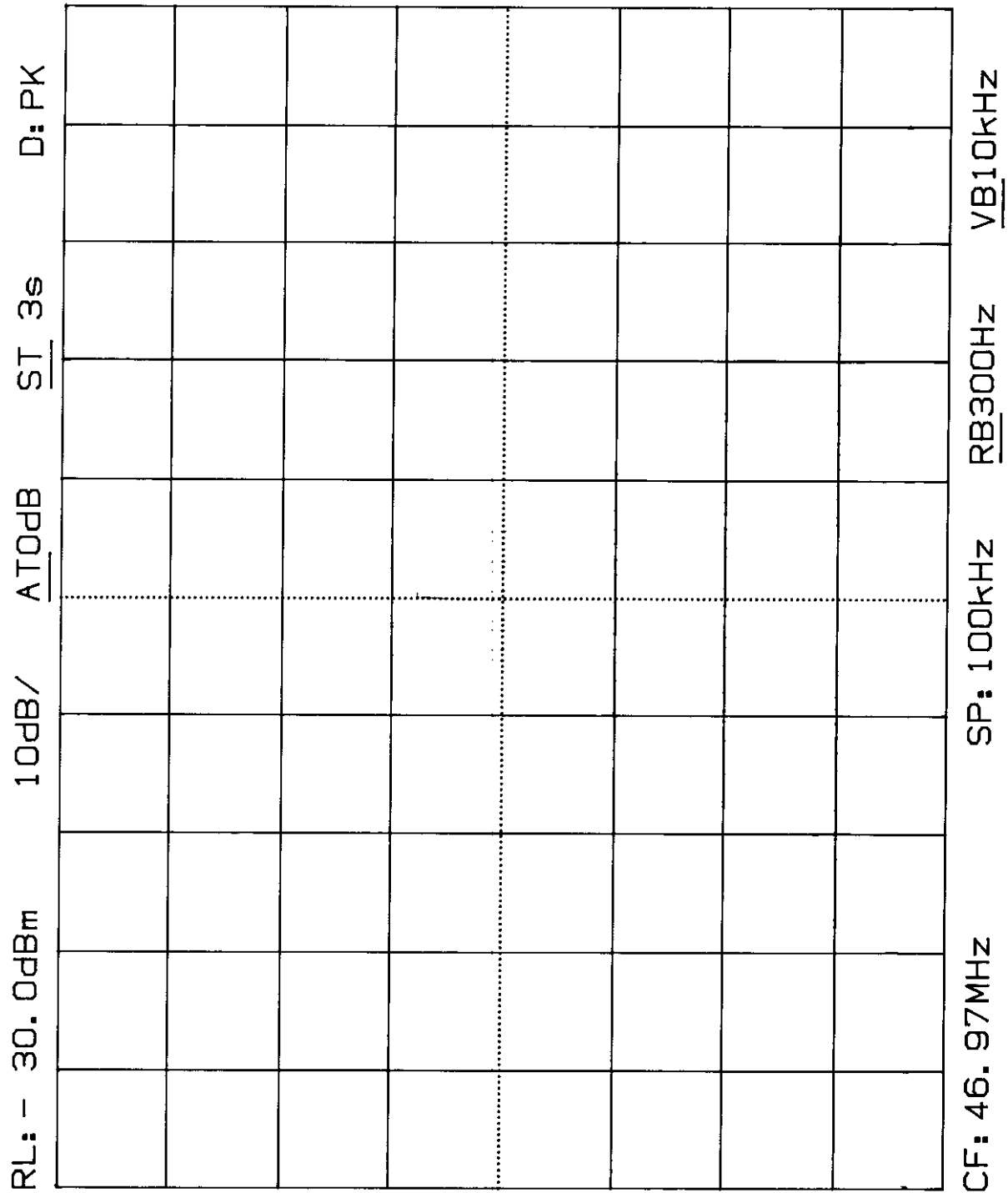


MAXIMUM FREQUENCY DEVIATION; 49 MHz
HANDSET; 4.00 VOLTS MODEL 2-9776 (XXXX)



[illegible]

MAXIMUM FREQUENCY DEVIATION; 46 MHz
BASE STATION; 4.00 VOLTS MODEL 2-9776 (XXXX)



SPURIOUS RADIATED EMISSIONS

RESULTS

The maximum field strength of any spurious emission, with respect to the applicable limit, to 1,000 MHz, while transmitting or receiving was:

Handset: **Maximum field strength of: NONE FOUND at 000.00 MHz; Channel 01**
 Maximum field strength of: NONE FOUND at 000.00 MHz; Channel 25

Base Station: **Maximum field strength of: NONE FOUND at 000.00 MHz; Channel 01**
 Maximum field strength of: NONE FOUND at 000.00 MHz; Channel 25
 Maximum field strength of 92.6 μ V/M: at 39.00 MHz; RECEIVE

TEST CONDITIONS

Equipment Positioning:

Handset: laying on its side and vertical or upright
Base Station: standing on its back with the antenna extended in the vertical plane.

Antenna Polarization:

Handset: vertical and horizontal
Base Station: vertical and horizontal
Base Station: Receive vertical

Measurement Bandwidth: 100 KHz/120 KHz Q.P. (IF)

Supply Voltages:

Handset: 3.6 VDC from an internal battery.
Base Station: 120 VAC/60 Hz to 15 VDC (adapter)

METHODS OF MEASUREMENT

The cordless phone components were placed in turn on a one metre high, non-metallic turntable. Measurements were made in a minimum of 3 positions for the handset and 2 for the base station. If adjustable, the whip antennas were fully extended.

For each of the above conditions the turntable was rotated through 360 degrees while the receiving antenna, at three (3) metres from the EUT, was varied in height from 1 to 4 metres and set in both planes of polarization to find the maximum signal strength. The level was measured using a spectrum analyzer and a substitution signal from an RF generator. The measured level was converted to a field strength using the antenna correction factors and cable losses.

All base station measurements were made with the equipment under test connected to an artificial telephone line network, with 48 VDC applied.

RADIATED EMISSION RESULTS

BW: 100/120 KHz

Span: 5 to 50 MHz

BASE STATION

TEST # MODE	FREQ MHz BAND	LEVEL μ V	ANT. TYPE (PZ)	ANT. FACT.	F.S. μ V/M	LIMIT μ V/M	DIFF. TO LIMIT; dB
01 RX	36.95	10.0	B/C V	3.7	37.0	100	-8.64
02 RX	39.00	77.2	RT.1 V	1.2	92.6	100	-0.66
03 RX	78.00	08.5	B/C V	4.0	34.0	100	-9.37
04 RX	252.18	06.6	B/C H	12.4	81.8	200	-7.76
05 RX	324.60	06.9	L/P H	15.6	107.6	200	-5.38
06 RX	360.40	06.0	L/P H	9.1	54.6	200	-11.28
CARRIER	43.720	3,100.0	RT.1 V	1.31	4061.0	10,000	-7.83
CARRIER	46.970	1,880.0	RT.1 V	1.36	2556.8	10,000	-11.85

HANDSET

TEST # MODE	FREQ MHz BAND	LEVEL μ V	ANT. TYPE (PZ)	ANT. FACT.	F.S. μ V/M	LIMIT μ V/M	DIFF. TO LIMIT; dB
CARRIER	48.760	3,850.0	RT.1 V	1.43	5505.5	10,000	-5.18
CARRIER	49.970	3,000.0	RT.1 V	1.47	4410.0	10,000	-7.11

POWER LINE CONDUCTED EMISSIONS

RESULTS

The largest RF voltages on the AC power lines, over the frequency range of 450 KHz to 30 MHz, was **7.61 μ V (17.63 dB μ V) at 7.20 MHz** from the base station while transmitting and/or receiving. (B side of the line in the telephone mode) Refer to the attached results.

TEST CONDITIONS

<u>Measurement Bandwidth:</u>	9 KHz Q.P. (IF)
<u>AC Test Voltage:</u>	120 VAC (filtered and stabilized)
<u>Mode of Operation:</u>	Telephone

METHODS OF MEASUREMENT

The base station portion of the cordless phone was placed on a wooden table directly above a 50 ohm line impedance stabilization network.(LISN) If adjustable, the whip antenna was fully extended vertically and the AC power attachment cord went directly down to the LISN. The LISN is grounded directly to the floor of the test facility. Excess AC cord was coiled in a figure eight pattern before connecting directly to the 50 micro-henry LISN.

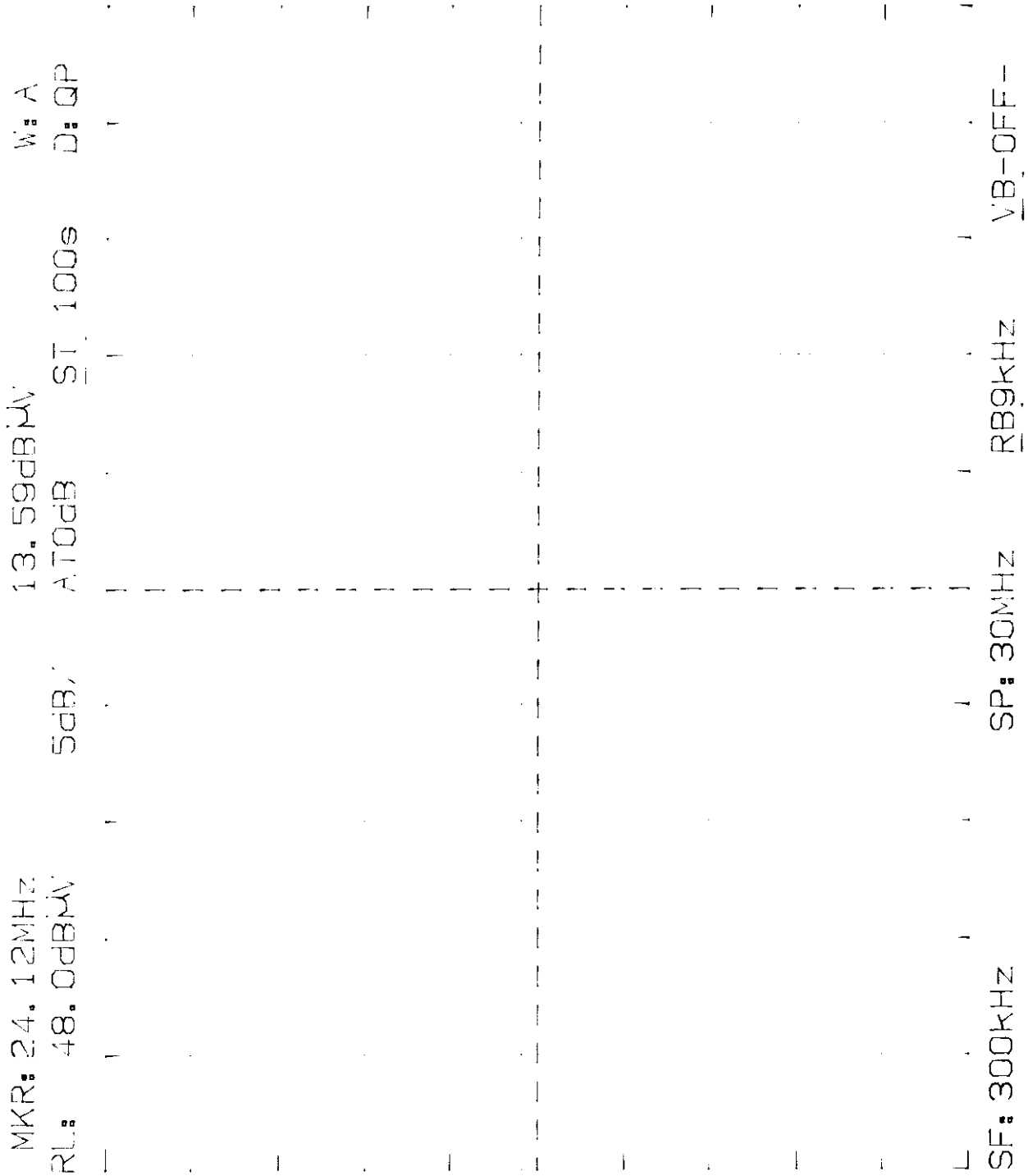
The base station was connected to a simulated 9,000 foot phone line and 48 VDC was applied. The 9,000 foot phone line network was grounded to the nearest AC outlet with a test lead.

A length of low loss RF foam cable was used to couple the RF voltages from the LISN to the spectrum analyzer. The base station transmitter was keyed on by the handset transmitting nearby. All of the RF voltages were recorded and are attached.

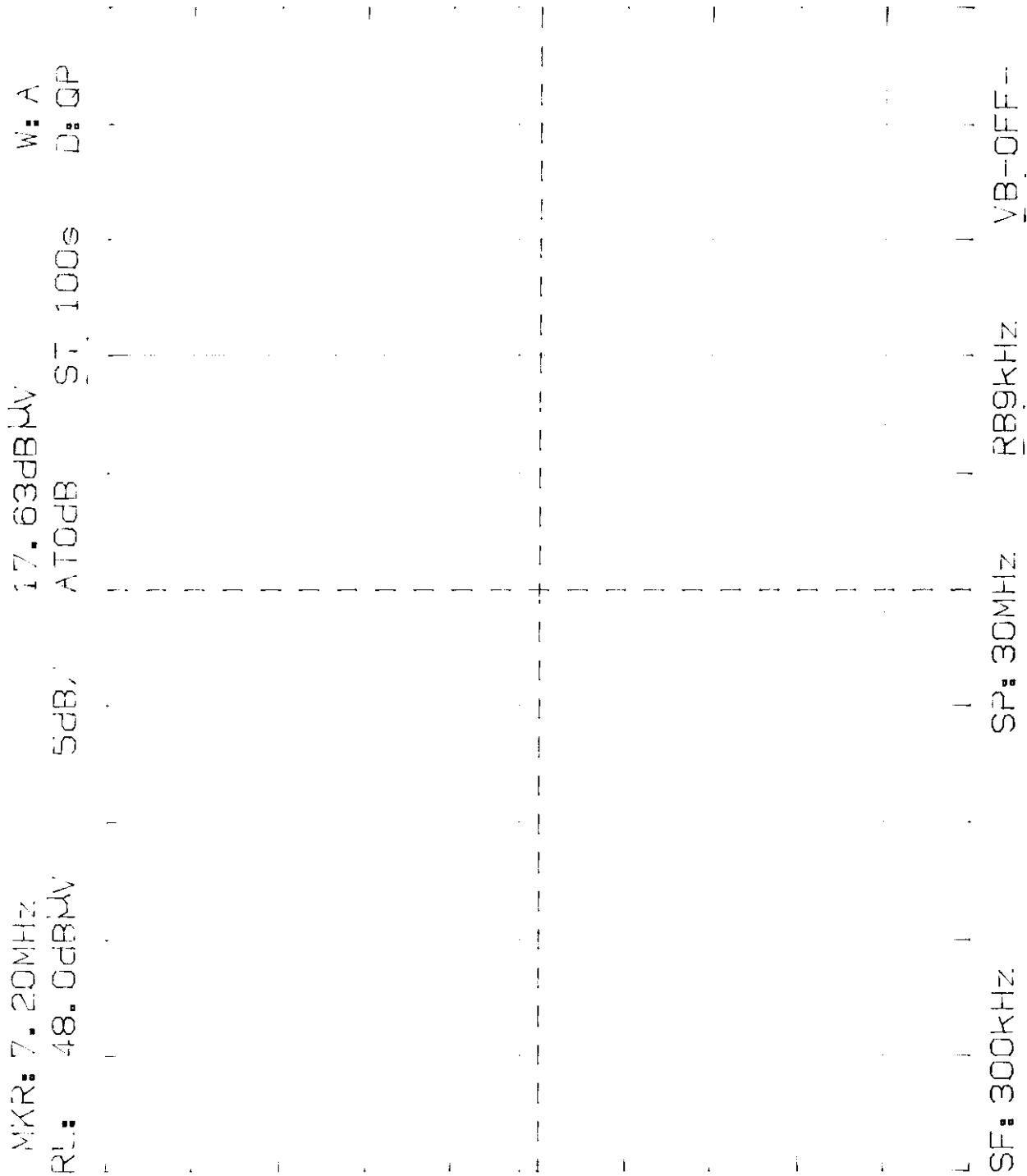
The base station was tested in all modes of operation which were applicable to the specific equipment under test. This included operating modes such as "calling/paging", quiescent or receive mode and standard telephone/transmit operation in both the 43/44 MHz and the 46 MHz bands.

If the cordless phone contained an intercom mode of operation, then this test was repeated in that mode. The attached results represent the **worst case results** in each test condition and frequency band.

POWER LINE CONDUCTED EMISSIONS
MODEL: 2-9776(XXXX) - SIDE: A



POWER LINE CONDUCTED EMISSIONS
MODEL: 2-9776(XXXX) - SIDE: B



TRANSMITTER ENVIRONMENTAL TESTS

FREQUENCY TOLERANCE OF CARRIER

MINIMUM PERFORMANCE STANDARD: The stability of the carrier frequency shall be maintained within +0.01 percent over a range of:

- a) Temperature from -20 to +50 degrees Celsius at normal supply voltage;
- b) Voltages that vary from 85 percent to 115 percent of the rated supply voltage at a temperature of +20 degrees Celsius.

TEST RESULTS:

Channel 1:

Handset: The largest deviation from the authorized carrier frequency of 48,760,000 Hz was +965 Hz ± 10 Hz at -20 degrees Celsius and 3.6 VDC. The test limit is ± 4876 Hz.

Base Station: The largest deviation from the authorized carrier frequency of 43,720,000 Hz was +541 Hz ± 10 Hz at -20 degrees Celsius and 120 VAC. This was within the ± 4372 Hz limit.

Channel 25:

Handset: The largest deviation from the authorized carrier frequency of 49,970,000 Hz was +1011 Hz ± 10 Hz at -20 degrees Celsius and 3.6 VDC. The test limit is ± 4997 Hz.

Base Station: The largest deviation from the authorized carrier frequency of 46,970,000 Hz was +598 Hz ± 10 Hz at -20 degrees Celsius and 120 VAC. This was within the ± 4697 Hz limit.

TEST CONDITIONS:

Supply Voltages: 85%, 100% and 115% of 120VAC, $\pm 2\%$

Stabilization Time: 60 minutes

Temperature: -20, -10, 0, +10, +20, +30, +40 and +50, ± 3 degrees Celsius

Modulation: Both transmitters were unmodulated.

METHOD OF MEASUREMENT:

Both the base and handset components were placed individually in a thermal chamber. The frequency was monitored by a spectrum analyzer and recorded at 1 minute intervals.

The base station was powered from a variable AC transformer. The handset battery was disconnected to enable external DC power operation. The antennae of both transmitters were replaced with short lengths of miniature 50 Ω cable fitted with BNC connectors, for shielded connections to the frequency counter.

At +20 degrees Celsius, after the chamber had stabilized for at least 60 minutes and the samples had been turned off for 15 minutes, the transmitters were operated continuously for 5 minutes at each voltage condition. At the temperature extremes, each transmitter was operated for 5 minutes following stabilization. The frequencies were recorded at 1 minute intervals. The temperature was monitored by a thermocouple on the enclosure.

ENVIRONMENTAL TEST RESULTS FCC 15**CHANNEL 1**

	<u>BASE</u>	<u>HANDSET</u>				
+50°C	<u>120V</u>	<u>3.6V</u>				
	43719677	48759361				
	43719648	48759292				
	43719621	48759267				
	43719616	48759236				
	43719593	48759223				
+40°C	<u>120V</u>	<u>3.6V</u>				
	43719808	48759570				
	43719778	48759545				
	43719774	48759499				
	43719752	48759479				
	43719736	48759438				
+30°C	<u>120V</u>	<u>3.6V</u>				
	43719892	48759774				
	43719875	48759714				
	43719850	48759695				
	43719834	48759645				
	43719811	48759624				
+20°C	<u>102V</u>	<u>120V</u>	<u>138V</u>	<u>3.06V</u>	<u>3.6V</u>	<u>4.14V</u>
	43719988	43719984	43719986	48759887	48759944	48760011
	43719990	43719985	43719986	48759892	48759943	48760006
	43719984	43719985	43719987	48759898	48759947	48760007
	43719987	43719988	43719990	48759902	48759945	48760007
	43719989	43719988	43719987	48759905	48759948	48760007
+10°C	<u>120V</u>				<u>3.6V</u>	
	43720180				48760314	
	43720193				48760320	
	43720197				48760350	
	43720227				48760385	
	43720252				48760466	

0°C	<u>120V</u>	<u>3.6V</u>
	43720341	48760627
	43720347	48760665
	43720374	48760700
	43720382	48760739
	43720405	48760772
-10°C	<u>120V</u>	<u>3.6V</u>
	43720441	48760887
	43720446	48760902
	43720458	48760926
	43720465	48760941
	43720477	48760927
-20°C	<u>120V</u>	<u>3.6V</u>
	43720536	48760937
	43720536	48760944
	43720538	48760951
	43720538	48760952
	43720541	48760965

MODEL NO.: 2-9776(XXXX)

DATE: April 15, 1998

BASE FREQ: 43,720,000 Hz

HANDSET FREQ: 48,760,000 Hz

ENVIRONMENTAL TEST RESULTS FCC 15CHANNEL 25

	<u>BASE</u>	<u>HANDSET</u>				
+50°C	<u>120V</u>	<u>3.6V</u>				
	46969659	49969228				
	46969633	49969201				
	46969630	49969187				
	46969618	49969177				
	46969597	49969155				
+40°C	<u>120V</u>	<u>3.6V</u>				
	46969889	49969628				
	46969878	49969595				
	46969849	49969560				
	46969837	49969514				
	46969810	49969493				
+30°C	<u>120V</u>	<u>3.6V</u>				
	46969977	49969791				
	46969950	49969761				
	46969938	49969715				
	46969917	49969688				
	46969908	49969645				
+20°C	<u>102V</u>	<u>120V</u>	<u>138V</u>	<u>3.06V</u>	<u>3.6V</u>	<u>4.14V</u>
	46970011	46970011	46970011	49969931	49969983	49970058
	46970012	46970011	46970013	49969940	49969978	49970052
	46970010	46970021	46970013	49969945	49969978	49970053
	46970009	46970014	46970014	49969949	49969984	49970054
	46970011	46970015	46970015	49969956	49969987	49970053
+10°C	<u>120V</u>				<u>3.6V</u>	
	46970071				49970041	
	46970126				49970172	
	46970153				49970206	
	46970175				49970274	
	46970200				49970298	

0°C	<u>120V</u>	<u>3.6V</u>
	46970221	49970364
	46970255	49970394
	46970266	49970462
	46970297	49970501
	46970347	49970636
-10°C	<u>120V</u>	<u>3.6V</u>
	46970412	49970757
	46970418	49970811
	46970429	49970833
	46970436	49970868
	46970440	49970890
-20°C	<u>120V</u>	<u>3.6V</u>
	46970586	49970998
	46970588	49971002
	46970593	49971003
	46970592	49971007
	46970598	49971011

MODEL NO.: 2-9776(XXXX)

DATE: April 16, 1998

BASE FREQ: 46,970,000 Hz

HANDSET FREQ: 49,970,000 Hz

CLEAR CHANNEL DETECTION

Test Procedure

Setup the equipment as per figure 1.

Verification of Base Unit Detector

1. Connect the base unit to an AC source and place the handset in the off hook mode and select channel 3.
2. Using the spectrum analyzer verify the base and handset frequencies are on channel 3 using the RX antenna.
3. Put the handset on hook.
4. Set the signal generator to channel 3 modulated at 1KHz dev., approx. 20KHz, to produce approximately -30dBm to -40dBm on the analyzer from the RX antenna when feeding this signal to the TX antenna several seconds.
5. Turn the handset on and go off hook.
6. Re-measure the base and handset frequencies. They must be other than the initial ones.
7. Busy the resulting frequency and repeat the above steps.

Verification of Handset Unit Detector

1. Connect the base unit to an AC source and place the handset in the off hook mode and select channel 1.
2. Using the spectrum analyzer verify the base and handset frequencies are on channel 1 using the RX antenna.
3. Put the handset on hook.
4. Set the signal generator to channel 1 modulated at 1KHz dev., approx. 20KHz, to produce approximately -30dBm to -40dBm on the analyzer from the RX antenna when feeding this signal to the TX antenna for several seconds.
5. Place the handset off hook.
6. Re-measure the base and handset frequencies. They must be other than the initial ones.
7. Busy the resulting frequency and repeat the above steps.

TESTS RESULTS

Model: 2-9776(XXXX)

Date: April 9, 1998

Base Unit Detector

Step 2 - Check initial channel

43,820,079 Hz
Base

Channel 3

Step 6 - Recheck channel frequencies

44,120,074 Hz
Base

Channel 7

Step 7 - Recheck channel frequencies

44,320,068 Hz
Base

Channel 11

Step 7 - Recheck channel frequencies

44,480,063 Hz
Base

Channel 15

Step 7 - Recheck channel frequencies

46,710,067 Hz
Base

Channel 19

Step 7 - Recheck channel frequencies

46,870,065 Hz
Base

Channel 23

Handset Unit Detector

Step 2 - Check initial channel

48,760,003 Hz
Handset

Channel 1

Step 6 - Recheck channel frequencies

49,019,997 Hz
Handset

Channel 5

Step 7 - Recheck channel frequencies

49,199,992 Hz
Handset

Channel 9

Step 7 - Recheck channel frequencies

49,399,985 Hz
Handset

Channel 13

Step 7 - Recheck channel frequencies

49,844,975 Hz
Handset

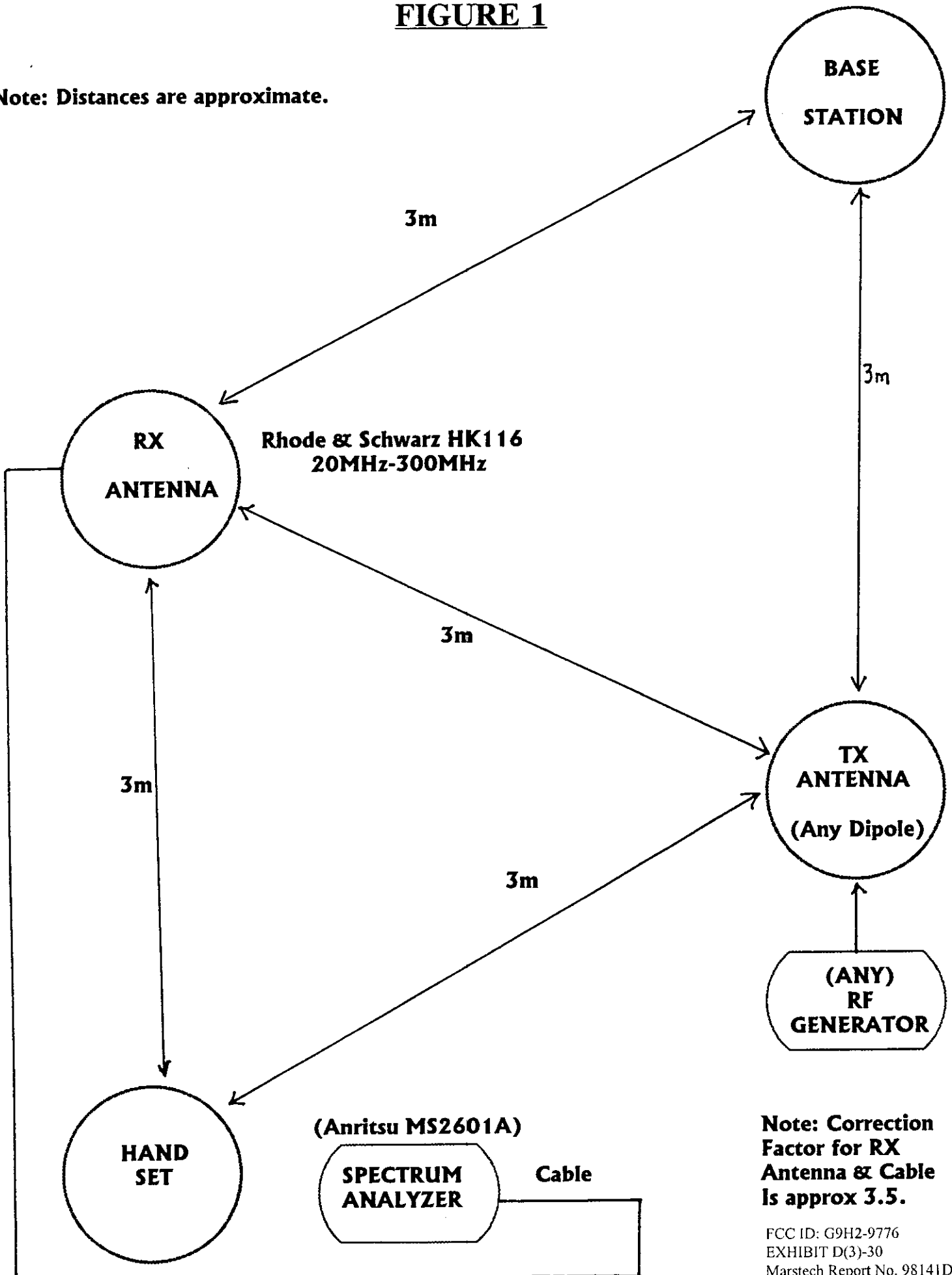
Channel 17

Results: Satisfactory

Technician: Hiran De Silva

FIGURE 1

Note: Distances are approximate.



2-9776

D-1

VI. Verify According to the 15.233(b)(2)(i) Requirements

According to 15.233(b)(2)(i), an automatic channel selection mechanism that will prevent establishment of a link on any occupied frequency on channels one through fifteen must be incorporated. The following test method is used to confirm this function:

1. Turn on the EUT and record the frequency of base from the spectrum analyzer.
2. Turn off the EUT.
3. Set the signal generator(HP3325B) to the frequency recorded in step 1.
4. Turn on the EUT again and read the frequency from the spectrum analyzer. If the reading is not same as the frequency recorded in step 1, this means the EUT complies with the requirements.
5. Press the channel select button 25 times and read the frequency every time the button is pressed. If the frequency reading is not same as the frequency recorded in step 1, this means the EUT complies with the requirements.
6. Repeat steps 1-5 for the handset.
7. Repeat steps 1-6 for another frequency pairs.

P/S: The level of the radiated signal generated by signal generator is set to 10dB below, 10dB above and equal to the EUT's radiated level respectively for testing.

RESULT : After three pairs of frequency (channel 1, 8, 15) was verified with the steps mentioned above, no frequency reading is recorded same as the pre-set frequency of signal generator.

EXHIBIT E

(FCC Ref. 2.1033(b)(7))

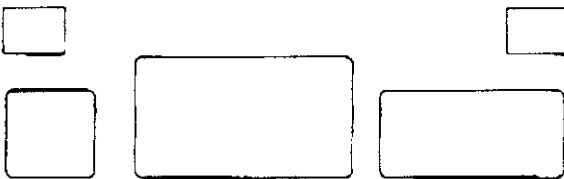
"Photographs"

P-4/7

MODEL NO.
2-9776A
HAC
CORDLESS TELEPHONE
IC REN : X.X
CANADA: XXXX XXX XXXX
POWER SOURCE 15V, DC
USE ONLY THOMSON POWER SUPPLY
5-4086



REFER INQUIRIES TO:
THOMSON CONSUMER
ELECTRONICS, INC.
MANAGER, CONSUMER
RELATIONS, P.O. BOX
1976 INDIANAPOLIS, IN
46206



THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS
SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT
CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY
INTERFERENCE RECEIVED INCLUDING INTERFERENCE THAT MAY CAUSE
UNDESIRABLE OPERATION.
PRIVACY OF COMMUNICATIONS MAY NOT BE INSURED WHEN USING
THIS PHONE.

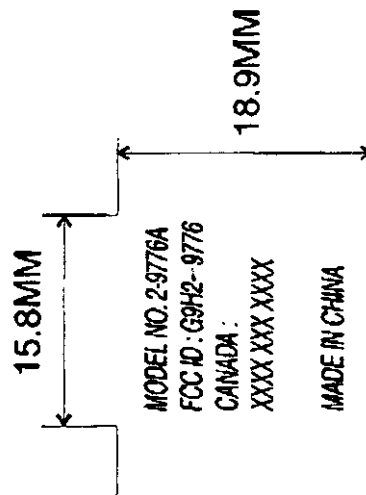
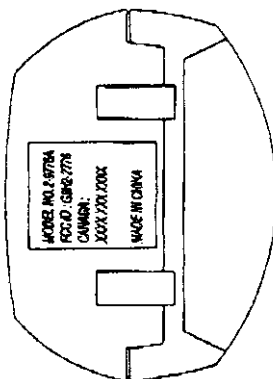
COMPLIES WITH PART 68 FCC RULES
FCC REG. NO. XXXXXX-XXXX-XX-X REN NO. X.XX
FCC ID: G9H2-9776 USOC: RJ 11C
MADE IN CHINA

CABINET COLOR IN ID2446 CH. GRAY
TEXT - ENGRAVING

APPROVAL				MKTR:		PAGE OF	
AW	(PDO)	TEXT (ENG)	TRANS	MODEL:	TE228SP	CU:	2-9776A
DATE	DATE	DATE	DATE	TITLE:	BACK CAB.		
AW	(CU)	TEXT (P MGR)	AW	PREPARED BY:	POLLY		
DATE	DATE	DATE	DATE	DATE:	15/4/98		
DATE	DATE	DATE	DATE	F/O:	P/N:		



INTEGRATED DISPLAY TECHNOLOGY LTD.



Color: Silver on Black

1.47

APPROVAL		MKTR		PAGE 1 OF 1	
AW	(REQ) TEXT (REQ) TRANS	MODEL:	TE228SP	CU:	TCE
DATE	DATE	TITLE:	H/S RATING LABEL		
AW	(CU) TEXT (REQ) AW (SUP)	PREPARED BY:	POLLY		
DATE	DATE	DATE:	19/2/98		
DATE	DATE	F/O:	P/N:		
idt INTEGRATED DISPLAY TECHNOLOGY LTD.					

EXHIBIT B

(FCC Ref. 2.1033(b)(4))

"Description of Circuit Functions"

14-MAY-1997 19:20

INT HK-TELECOM DIVISION

-952 2365 0501

P.1

3. CIRCUIT SCHEMATIC AND DESCRIPTION

P. 2 of 2
P15-1

The interface schematic diagram for the telephone is attached as Figure 2. The terminal categories of Section 68.304, categories (1) through (8), are indicated for each point of connection.

A description of all electrical circuitry which affects compliance with Part 68 is given below:

The electrical circuitry is that of a standard telephone instrument. It is composed of a high-impedance ringer in series with a capacitor, a network, a switch hook assembly and a receiver and transmitter.

The device is powered solely from the telephone loop to which it is connected, drawing the normal and permissive off-hook current from the serving central office or private branch exchange, when used with a PBX.

Ring current is received from the central office to cause the internal ringing to signal that a call is to be received. The device produces only human sensory sounds, and if provided with Dual-Tone, Multi-Frequency (DTMF) means of network address signaling such tone below the maximum permissible signal levels.

A typical industry standard drawing is attached showing all active and passive circuit elements. None can cause non-compliance with subpart D of Part 68.

The instrument consists of a baseplate on which elements are mounted and a cover housing. Photographs are attached showing exterior and interior details.