

***EMC* EMISSION - TEST REPORT**

JQA APPLICATION No. : KL80010421

Name of Product : HF/VHF Transceiver

Model/Type No. : IC-746PRO

FCC ID : AFJ IC-746PRO

Applicant : ICOM Incorporated

Address : 1-6-19, Kuratsukuri, Kami, Hirano-ku, Osaka, Japan

Manufacturer : ICOM Incorporated

Address : 1-6-19, Kuratsukuri, Kami, Hirano-ku, Osaka, Japan

Receive date of EUT : November 7, 2001

Final Judgement : **Passed**

TEST RESULTS IN THIS REPORT are obtained in use of equipment that is traceable to National Institute of Advanced Industrial Science and Technology(AIST) under METI Japan and Communications Research Lab.(CRL) under MPHPT Japan.

THE TEST RESULTS only responds to the test sample. This test report shall not be reproduced except in full.

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TEST REGULATION

FCC Rules and Regulations Part 15 Subpart A and B (February 28, 2001)

- ☐ - Class A Digital Device
- ☐ - Class B Digital Device
- ☒ - Scanning Receiver

Test procedure:

The tests were performed according to the procedures in ANSI C63.4-1992.

GENERAL INFORMATION

Test facility:

- 1) Test Facility located at Kita-Kansai : 1st and 2nd Open Sites (3 m Site)
Test Facility located at Kameoka Open Site (3, 10 and 30 m, on common plane)
FCC filing No. : 31040/SIT 1300F2
- 2) KITA-KANSAI TESTING CENTER is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance established in Title 15, Part 285 Code of Federal Regulations.
NVLAP Lab Code: 200191-0

Description of the Equipment Under Test (EUT):

- | | |
|-------------------------------------|--|
| 1) Name | : HF/VHF Transceiver |
| 2) Model/Type No. | : IC-746PRO |
| 3) Product Type | : Pre-Production (S/N: 00005) |
| 4) Category | : Scanning Receiver |
| 5) EUT Authorization | : ☐ - Verification ☒ - Certification ☐ - D.o.C. |
| 6) Highest frequency used/generated | : 60.0 MHz |
| 7) Highest local frequency | : 238.455 MHz |
| 8) Power Rating | : DC 13.8V |

Definitions for symbols used in this test report:

- ☒ - Black box indicates that the listed condition, standard or equipment is applicable for this Report.
- ☐ - Blank box indicates that the listed condition, standard or equipment is not applicable for this Report.

TEST CONDITIONS

AC Powerline Conducted Emission Measurement
was performed in the following test site.

Test location:

KITA-KANSAI Testing Center

7-7, Ishimaru, 1-Chome, Mino-Shi, Osaka, 562-0027, Japan

● - Shielded room

KAMEOKA EMC Branch

9-1, Ozaki, Inukanno, Nishibetsuin-Cho, Kameoka-Shi, Kyoto, 621-0126, Japan

○ - Shielded room

○ - On metal plane of open site

Used test instruments and sites:

Model No.	Device ID	Last Cal. Date	Cal. Interval
○ - ESCS 30	A - 1		
● - ESH 2	A - 2	May, 2001	1 Year
○ - ESH 2	A - 3		
● - KNW-407	D - 6	January, 2001	1 Year
○ - KNW-408	D - 11		
○ - KNW-242	D - 7		
○ - ESH3-Z5	D - 12		
○ - KNW-341C	D - 13		
○ - KNW-408	D - 14		
○ - KNW-244C	D - 77		
○ - KNW-408	D - 78		
○ - ESH2-Z5	D - 10		
○ - ESH2-Z3	D - 17		
○ - 65 BNC-50-0-1	H - 26		
○ - 65 BNC-50-0-1	H - 27		
○ - Cable	H - 7		
● - Cable	H - 8	January, 2001	1 Year

Environmental conditions:

Temperature: 21 °C Humidity: 42 %

Electromagnetic Field Radiated Emission Measurement

was performed in horizontal and vertical polarization, in the frequency range of 30 MHz - 1000 MHz, in the following test site.

Test location:

KITA-KANSAI Testing Center

7-7, Ishimaru, 1-Chome, Mino-Shi, Osaka, 562-0027, Japan

○ - 1st open test site (3 meters)

● - 2nd open test site (3 meters)

KAMEOKA EMC Branch

9-1, Ozaki, Inukanno, Nishibetsuin-Cho, Kameoka-Shi, Kyoto, 621-0126, Japan

○ - 1st open test site ○ - 3 m ○ - 10 m ○ - 30 m

○ - 2nd open test site ○ - 3 m ○ - 10 m

Validation of Site Attenuation:

1) Last Confirmed Date : October 9, 2001

2) Interval : 1 Year

Used test instruments:

Model No.	Device ID	Last Cal. Date	Cal. Interval
○ - ESV/ESV-Z3	A - 7 / A - 17	December, 2000	1 Year
● - ESV/ESV-Z3	A - 6 / A - 18		
○ - ESV/ESV-Z3	A - 4 / A - 20		
○ - ESV/ESV-Z3	A - 8 / A - 19		
○ - ESVS 10	A - 5	November, 2000	1 Year
○ - KBA-511A	C - 12		
○ - KBA-611	C - 22		
● - KBA-511A	C - 13		
● - KBA-611	C - 19	November, 2000	1 Year
○ - KBA-511A	C - 11	November, 2000	1 Year
○ - KBA-611	C - 21		
○ - Cable	H - 1		
○ - Cable	H - 2		
○ - Cable	H - 5	November, 2000	1 Year
● - Cable	H - 6		
○ - Cable	H - 9		

Environmental conditions:

Temperature: 15 °C Humidity: 29 %

Electromagnetic Field Radiated Emission Measurement

was performed in horizontal and vertical polarization, in the frequency range of 1 GHz - 2 GHz, in the following test site.

Test location:

KITA-KANSAI Testing Center

7-7, Ishimaru, 1-Chome, Mino-Shi, Osaka, 562-0027, Japan

○ - 1st open test site (3 meters)

○ - 2nd open test site (3 meters)

KAMEOKA EMC Branch

9-1, Ozaki, Inukanno, Nishibetsuin-Cho, Kameoka-Shi, Kyoto, 621-0126, Japan

○ - 1st open test site ○ - 3 m ○ - 10 m ○ - 30 m

○ - 2nd open test site ○ - 3 m ○ - 10 m

Used test instruments:

Model No.	Device ID	Last Cal. Date	Cal. Interval
○ - ESCS 30	A - 1		
○ - 8566B	A - 13		
○ - 8593A	A - 15		
○ - ESV	A - 6		
○ - 4T-10	D - 73		
○ - 4T-10	D - 74		
○ - WJ-6611-513	A - 23		
○ - WJ-6882-824	A - 21		
○ - DBL-0618N515	A - 33		
○ - 91888-2	C - 41 - 1		
○ - 91889-2	C - 41 - 2		
○ - 94613-1	C - 41 - 3		
○ - 91891-2	C - 41 - 4		
○ - 94614-1	C - 41 - 5		
○ - 3160-09	C - 48		
○ - 355C	D - 22		
○ - 355D	D - 23		
○ - MZ5010C	D - 81		
○ - Cable	C - 40 - 11		
○ - Cable	C - 40 - 12		

Environmental conditions:

Temperature: _____ °C Humidity: _____ %

Antenna-Conducted Power Measurement

was performed in the frequency range of 30 MHz - 1000 MHz, in the following test site.

Test location:

KITA-KANSAI Testing Center

7-7, Ishimaru, 1-Chome, Mino-Shi, Osaka, 562-0027, Japan

● - Shielded room

○ - Anechoic chamber

KAMEOKA EMC Branch

9-1, Ozaki, Inukanno, Nishibetsuin-Cho, Kameoka-Shi, Kyoto, 621-0126, Japan

○ - Shielded room

Used test instruments:

Model No.	Device ID	Last Cal. Date	Cal. Interval
● - ESCS 30	A - 1	August, 2001	1 Year
○ - 8566B	A - 13		
○ - 8593A	A - 15		
○ - ESV	A - 6		
○ - LSG-221	B - 15		
○ - 216/1	B - 16	June, 2001	1 Year
○ - MP614A	D - 56		
○ - 12B50/75	D - 55		
○ - 12N50/75B	D - 72		
● - 2-10	D - 40		
○ - 1506A	D - 21	June, 2001	1 Year
● - Cable	C - 40 - 9		

Environmental conditions:

Temperature: 22 °C Humidity: 40 %

38dB Rejection Test (§15.121(b))

was performed in the following test site.

Test location:

KITA-KANSAI Testing Center

7-7, Ishimaru, 1-Chome, Mino-Shi, Osaka, 562-0027, Japan

● - Shielded room

○ - Anechoic chamber

KAMEOKA EMC Branch

9-1, Ozaki, Inukanno, Nishibetsuin-Cho, Kameoka-Shi, Kyoto, 621-0126, Japan

○ - Shielded room

Used test instruments:

Model No.	Device ID	Last Cal. Date	Cal. Interval
○ - MG645A	B - 4		
● - 6062A	B - 44	May, 2001	1 Year
○ - 339A	--		

Environmental conditions:

Temperature: 23 °C Humidity: 58 %

CONFIGURATION OF EUT

The Equipment Under Test (EUT) consists of:

Description	Applicant (Manufacturer)	Model No. (Serial No.)	FCC ID
HF/VHF Transceiver	ICOM Incorporated (ICOM Incorporated)	IC-746PRO (00005)	AFJ IC-746PRO

The measurement was carried out with the following equipment connected:

Description	Grantee/Distributor	Model No. (Serial No.)	FCC ID
DC Power Supply	ICOM Incorporated	IC-5P (1793)	N/A
Antenna Tuner	ICOM Incorporated	AH-4 (00026)	N/A
CI-V Level Converter	ICOM Incorporated	CT-17 (08434)	N/A
External Speaker	ICOM Incorporated	SP-21 (--)	N/A
Microphone	ICOM Incorporated	HM-36 (--)	N/A
Headphones	Victor Corporation	HP-D330 (--)	N/A

Type of Interface Cable(s) and the AC Power Cord used with the EUT:

	Description	Port	Shielded Cable	Shell Material	Ferrite Core	Cable Length
1	EUT	PHONES	NO	--	NO	3.0 m
	Headphones	--		--		
2	EUT	ELEC-KEY	NO	--	NO	1.3 m
	No termination	--		--		
3	EUT	MIC	YES	Metal	NO	0.5 m
	Microphone	--		--		
4	EUT	SEND	YES	Metal	NO	1.3 m
	No termination	--		--		
5	EUT	ALC	NO	--	NO	1.3 m
	No termination	--		--		
6	EUT	EXT SP	NO	--	NO	0.9 m
	External Speaker	--		--		
7	EUT	REMOTE	NO	--	NO	1.4 m
	CI-V Level Converter	CI-V REMOTE(1)		--		
8	EUT	ACC(1)	YES	Metal	NO	1.2 m
	No termination	--		--		
9	EUT	ACC(2)	YES	Metal	NO	1.2 m
	No termination	--		--		
10	EUT	KEY	NO	--	NO	1.3 m
	No termination	--		--		

	Description	Port	Shielded Cable	Shell Material	Ferrite Core	Cable Length
11	EUT	TUNER	NO	--	NO	4.3 m
	Antenna Tuner	--		--		
12	EUT	144MHz ANT	--	--	--	-- m
	50Ω termination	--		--		
13	EUT	ANT1	--	--	--	-- m
	50Ω termination	--		--		
14	EUT	ANT2	--	--	--	-- m
	50Ω termination	--		--		
15	EUT	DATA	YES	Metal	NO	1.2 m
	No termination	--		--		
16	Earth Cord (EUT)	GND	NO	--	NO	1.5 m
17	DC Power Cord (EUT / DC Power Supply)	DC 13.8V	NO	--	NO	2.9 m
18	AC Power Cord (DC Power Supply) 1φ 2-pin plug	--	NO	--	NO	1.6 m
19	Earth Cord (DC Power Supply)	GND	NO	--	NO	1.4 m

Operation - mode of the EUT:

1) Relation between receiving frequency and local frequency

No.	Receiving Frequency [MHz]		Local Frequency [MHz]			3rd LO
			1st LO	2nd LO		
1	0.0300 -	1.5990	64.4850 -	66.0540	64.0000	0.4910
2	1.6000 -	1.9990	66.0550 -	66.4540	64.0000	0.4910
3	2.0000 -	3.9990	66.4550 -	68.4540	64.0000	0.4910
4	4.0000 -	7.9990	68.4550 -	72.4540	64.0000	0.4910
5	8.0000 -	10.9990	72.4550 -	75.4540	64.0000	0.4910
6	11.0000 -	14.9990	75.4550 -	79.4540	64.0000	0.4910
7	15.0000 -	21.9990	79.4550 -	86.4540	64.0000	0.4910
8	22.0000 -	29.9990	86.4550 -	94.4540	64.0000	0.4910
9	30.0000 -	49.9990	94.4550 -	114.4540	64.0000	0.4910
10	50.0000 -	53.9990	114.4550 -	118.4540	64.0000	0.4910
11	54.0000 -	60.0000	118.4550 -	124.4550	64.0000	0.4910
12	108.0000 -	174.0000	172.4550 -	238.4550	64.0000	0.4910

- 2) Respective Intermediate Frequency : 1st IF / 64.455 MHz (Upper)
2nd IF / 0.455 MHz (Lower)
3rd IF / 0.036 MHz (Upper)
- 3) Type of Antenna Terminal : ANT 1 / M-Type 50 Ω (Unbalanced)
ANT 2 / M-Type 50 Ω (Unbalanced)
144MHz ANT / M-Type 50 Ω (Unbalanced)
- 4) Receiving mode : AM (0.030 - 60.0 MHz)
FM (108 - 174 MHz)

Test system:

The EUT has three ANT (ANT 1, ANT 2, 144MHz ANT) ports, two ACC ports, a SEND port, an ALC port, a REMOTE port, a TUNER port, a DATA port, a EXT SP port, a PHONES port, a MIC port, a KEY port, and a ELEC-KEY port.

Special accessories:

None

The used (generated) frequencies in the EUT:

MAIN CPU : 19.6608 MHz
SUB CPU : 9.8304 MHz
PLL IC : 32.0 MHz
CTRL UNIT CPU : 6.144 MHz
DSP UNIT : 60.0 MHz, 24.576 MHz

EUT Modification

- - No modifications were conducted by JQA to achieve compliance to applied levels.
- - To achieve compliance to applied levels, the following change(s) were made by JQA during the compliance test.

The modification(s) will be implemented in all production models of this equipment.

Applicant	: N/A	Date	: N/A
Typed Name	: N/A	Position	: N/A

Responsible Party

Responsible Party of Test Item(Product)

Responsible party :

Contact Person :

Signatory

Deviation from Standard

- - No deviations from the standard described in page 3.
- - The following deviations were employed from the standard described in page 3.

TEST RESULTS

AC Powerline Conducted Emission 450 kHz - 30 MHz

The requirements are	● - Passed	○ - Not Passed
Min. limit margin	<u>34.9</u> dB at <u>0.45</u> MHz	
Max. limit exceeding	<u> </u> dB at <u> </u> MHz	
Uncertainty of measurement results	<u>+ 2.1</u> dB(2σ)	<u>- 2.1</u> dB(2σ)

Remarks: _____

Electromagnetic Field Radiated Emission 30 MHz - 1000 MHz

The requirements are	● - Passed	○ - Not Passed
Min. limit margin	<u>14.0</u> dB at <u>238.455</u> MHz	
Max. limit exceeding	<u> </u> dB at <u> </u> MHz	
Uncertainty of measurement results	<u>+ 4.9</u> dB(2σ)	<u>- 5.0</u> dB(2σ)

Remarks: _____

Antenna-Conducted Power 30 MHz - 1000 MHz

The requirements are	● - Passed	○ - Not Passed
Min. limit margin	More than <u>30.0</u> dB at <u>1000.0</u> MHz	
Max. limit exceeding	<u> </u> dB at <u> </u> MHz	
Uncertainty of measurement results	<u>+ 2.3</u> dB(2σ)	<u>- 2.3</u> dB(2σ)

Remarks: _____

38dB Rejection Test (§15.121(b))

The requirements are

● - Passed ○ - Not Passed

Min. limit margin

_____ - _____ dB at _____ - _____ MHz

Max. limit exceeding

_____ dB at _____ MHz

Uncertainty of measurement results

_____ - _____ dB(2 σ) _____ - _____ dB(2 σ)

Remarks: No frequency of response was detected.

SUMMARY

GENERAL REMARKS :

The EUT was tested according to the requirements of FCC Rules and Regulations Part 15 Subpart A and B (February 28, 2001) under the test configuration, as shown in page 17.

The conclusion for the test items of which are required by the applied regulation is indicated under the final judgement.

FINAL JUDGEMENT :

The "as received" sample;

- - fulfill the test requirements of the regulation mentioned on page 3.
- - fulfill the test requirements of the regulation mentioned on page 3, but with certain qualifications.
- - doesn't fulfill the test regulation mentioned on page 3.

Begin of testing : November 15, 2001

End of testing : November 19, 2001

- JAPAN QUALITY ASSURANCE ORGANIZATION -

Approved by :

Issued by :



Akio Hosoda
Manager
EMC Div.
JQA KITA-KANSAI Testing Center



Shigeru Kinoshita
Deputy Manager
EMC Div.
JQA KITA-KANSAI Testing Center

AC Powerline Conducted Emission Measurement Scanning Receiver

Receiving Frequency : 52..0000 MHz

Test Date: November 15, 2001
Temp.: 21 °C ; Humi.: 42 %

Frequency [MHz]	Correction Factor [dB]	Meter Readings [dB(μV)]				Limits [dB(μV)]	Results [dB(μV)]		Margin [dB]	Remarks (Note 2)
		VA		VB			QP	AV		
		QP	AV	QP	AV		QP	AV		
0.45	0.1	<10.0	-	13.0	-	48.0	13.1	-	+34.9	A
1.00	0.1	<10.0	-	<10.0	-	48.0	<10.1	-	>+37.9	A
3.00	0.3	<10.0	-	<10.0	-	48.0	<10.3	-	>+37.7	A
5.00	0.4	<10.0	-	<10.0	-	48.0	<10.4	-	>+37.6	A
10.00	0.5	<10.0	-	<10.0	-	48.0	<10.5	-	>+37.5	A
13.00	0.6	<10.0	-	<10.0	-	48.0	<10.6	-	>+37.4	A
20.00	0.8	<10.0	-	<10.0	-	48.0	<10.8	-	>+37.2	A
30.00	0.9	<10.0	-	<10.0	-	48.0	<10.9	-	>+37.1	A

Sample of calculated result at 0.45 MHz, as the Minimum Margin point:

Correction Factor = 0.1 dB
+) Meter Reading = 13.0 dB(μV)
Result = 13.1 dB(μV)

Minimum Margin : 48.0 - 13.1 = 34.9(dB)

The point shown on “ ” is the Minimum Margin Point.

Note 1:

1)The correction factor includes the LISN insertion loss and the cable loss.

Remarks:

Note 2	Detector Function	IF Bandwidth
A	CISPR QP	9 kHz
B	Average	10 kHz

Tester : Yuzo Tanaka

Electromagnetic Field Radiated Emission Measurement Scanning Receiver

Test Date: November 15, 2001
 Temp.: 15 °C ; Humi.: 29 %

Tuning range: 0.0300 MHz - 1.5990 MHz

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Antenna Factor [dB(1/m)]	Cable Loss [dB]	Meter Readings [dB(μV)]		Limits [dB(μV/m)]	Results [dB(μV/m)]		Margin [dB]	Remarks (Note 2)
				Hori.	Vert.		Hori.	Vert.		
0.0300	64.4850	5.1	0.8	0.0	< 0.0	40.0	5.9	< 5.9	+34.1	A
	128.9700	11.1	1.1	< 0.0	< 0.0	43.5	< 12.2	< 12.2	> +31.3	A
	193.4550	14.6	1.5	< 0.0	< 0.0	43.5	< 16.1	< 16.1	> +27.4	A
	257.9400	17.1	1.7	< 0.0	< 0.0	46.0	< 18.8	< 18.8	> +27.2	A
	322.4250	19.1	1.9	< -5.0	< -5.0	46.0	< 16.0	< 16.0	> +30.0	A
	386.9100	20.8	2.1	< -5.0	< -5.0	46.0	< 17.9	< 17.9	> +28.1	A
	451.3950	22.3	2.4	< -5.0	< -5.0	46.0	< 19.7	< 19.7	> +26.3	A
	515.8800	23.6	2.5	< -5.0	< -5.0	46.0	< 21.1	< 21.1	> +24.9	A
	580.3650	24.7	2.7	< -5.0	< -5.0	46.0	< 22.4	< 22.4	> +23.6	A
	644.8500	25.7	2.9	< -5.0	< -5.0	46.0	< 23.6	< 23.6	> +22.4	A
	709.3350	26.6	3.0	< -5.0	< -5.0	46.0	< 24.6	< 24.6	> +21.4	A
	773.8200	27.5	3.1	< -5.0	< -5.0	46.0	< 25.6	< 25.6	> +20.4	A
	838.3050	28.2	3.3	< -5.0	< -5.0	46.0	< 26.5	< 26.5	> +19.5	A
	902.7900	28.9	3.4	< -5.0	< -5.0	46.0	< 27.3	< 27.3	> +18.7	A
	967.2750	29.6	3.5	< -5.0	< -5.0	54.0	< 28.1	< 28.1	> +25.9	A
1.5990	66.0540	5.3	0.8	< 0.0	< 0.0	40.0	< 6.1	< 6.1	> +33.9	A
	132.1080	11.3	1.1	< 0.0	< 0.0	43.5	< 12.4	< 12.4	> +31.1	A
	198.1620	14.8	1.5	< 0.0	< 0.0	43.5	< 16.3	< 16.3	> +27.2	A
	264.2160	17.3	1.7	< 0.0	< 0.0	46.0	< 19.0	< 19.0	> +27.0	A
	330.2700	19.3	1.9	< -5.0	< -5.0	46.0	< 16.2	< 16.2	> +29.8	A
	396.3240	21.1	2.1	< -5.0	< -5.0	46.0	< 18.2	< 18.2	> +27.8	A
	462.3780	22.5	2.4	< -5.0	< -5.0	46.0	< 19.9	< 19.9	> +26.1	A
	528.4320	23.8	2.5	< -5.0	< -5.0	46.0	< 21.3	< 21.3	> +24.7	A
	594.4860	24.9	2.7	< -5.0	< -5.0	46.0	< 22.6	< 22.6	> +23.4	A
	660.5400	25.9	2.9	< -5.0	< -5.0	46.0	< 23.8	< 23.8	> +22.2	A
	726.5940	26.8	3.0	< -5.0	< -5.0	46.0	< 24.8	< 24.8	> +21.2	A
	792.6480	27.7	3.2	< -5.0	< -5.0	46.0	< 25.9	< 25.9	> +20.1	A
	858.7020	28.4	3.3	< -5.0	< -5.0	46.0	< 26.7	< 26.7	> +19.3	A
	924.7560	29.2	3.5	< -5.0	< -5.0	46.0	< 27.7	< 27.7	> +18.3	A
	990.8100	29.8	3.6	< -5.0	< -5.0	54.0	< 28.4	< 28.4	> +25.6	A

Tuning range: 1.6000 MHz - 1.9990 MHz

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Antenna Factor [dB(1/m)]	Cable Loss [dB]	Meter Readings [dB(μV)]		Limits [dB(μV/m)]	Results [dB(μV/m)]		Margin [dB]	Remarks (Note 2)
				Hori.	Vert.		Hori.	Vert.		
1.8000	66.2550	5.3	0.8	< 0.0	< 0.0	40.0	< 6.1	< 6.1	> +33.9	A
	132.5100	11.3	1.1	< 0.0	< 0.0	43.5	< 12.4	< 12.4	> +31.1	A
	198.7650	14.9	1.5	< 0.0	< 0.0	43.5	< 16.4	< 16.4	> +27.1	A
	265.0200	17.4	1.7	< 0.0	< 0.0	46.0	< 19.1	< 19.1	> +26.9	A
	331.2750	19.3	1.9	< -5.0	< -5.0	46.0	< 16.2	< 16.2	> +29.8	A
	397.5300	21.1	2.1	< -5.0	< -5.0	46.0	< 18.2	< 18.2	> +27.8	A
	463.7850	22.6	2.4	< -5.0	< -5.0	46.0	< 20.0	< 20.0	> +26.0	A
	530.0400	23.8	2.5	< -5.0	< -5.0	46.0	< 21.3	< 21.3	> +24.7	A
	596.2950	25.0	2.7	< -5.0	< -5.0	46.0	< 22.7	< 22.7	> +23.3	A
	662.5500	26.0	2.9	< -5.0	< -5.0	46.0	< 23.9	< 23.9	> +22.1	A
	728.8050	26.9	3.0	< -5.0	< -5.0	46.0	< 24.9	< 24.9	> +21.1	A
	795.0600	27.7	3.2	< -5.0	< -5.0	46.0	< 25.9	< 25.9	> +20.1	A
	861.3150	28.5	3.3	< -5.0	< -5.0	46.0	< 26.8	< 26.8	> +19.2	A
	927.5700	29.2	3.5	< -5.0	< -5.0	46.0	< 27.7	< 27.7	> +18.3	A
	993.8250	29.8	3.6	< -5.0	< -5.0	54.0	< 28.4	< 28.4	> +25.6	A

Tuning range: 2.0000 MHz - 3.9990 MHz

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Antenna Factor [dB(1/m)]	Cable Loss [dB]	Meter Readings [dB(μV)]		Limits [dB(μV/m)]	Results [dB(μV/m)]		Margin [dB]	Remarks (Note 2)
				Hori.	Vert.		Hori.	Vert.		
2.0000	66.4550	5.4	0.8	< 0.0	< 0.0	40.0	< 6.2	< 6.2	> +33.8	A
	132.9100	11.4	1.1	< 0.0	< 0.0	43.5	< 12.5	< 12.5	> +31.0	A
	199.3650	14.9	1.5	< 0.0	< 0.0	43.5	< 16.4	< 16.4	> +27.1	A
	265.8200	17.4	1.7	< 0.0	< 0.0	46.0	< 19.1	< 19.1	> +26.9	A
	332.2750	19.4	1.9	< -5.0	< -5.0	46.0	< 16.3	< 16.3	> +29.7	A
	398.7300	21.1	2.1	< -5.0	< -5.0	46.0	< 18.2	< 18.2	> +27.8	A
	465.1850	22.6	2.4	< -5.0	< -5.0	46.0	< 20.0	< 20.0	> +26.0	A
	531.6400	23.9	2.5	< -5.0	< -5.0	46.0	< 21.4	< 21.4	> +24.6	A
	598.0950	25.0	2.7	< -5.0	< -5.0	46.0	< 22.7	< 22.7	> +23.3	A
	664.5500	26.0	2.9	< -5.0	< -5.0	46.0	< 23.9	< 23.9	> +22.1	A
	731.0050	26.9	3.0	< -5.0	< -5.0	46.0	< 24.9	< 24.9	> +21.1	A
	797.4600	27.7	3.2	< -5.0	< -5.0	46.0	< 25.9	< 25.9	> +20.1	A
	863.9150	28.5	3.3	< -5.0	< -5.0	46.0	< 26.8	< 26.8	> +19.2	A
	930.3700	29.2	3.5	< -5.0	< -5.0	46.0	< 27.7	< 27.7	> +18.3	A
	996.8250	29.9	3.6	< -5.0	< -5.0	54.0	< 28.5	< 28.5	> +25.5	A
3.9990	68.4540	5.6	0.8	< 0.0	< 0.0	40.0	< 6.4	< 6.4	> +33.6	A
	136.9080	11.6	1.2	< 0.0	< 0.0	43.5	< 12.8	< 12.8	> +30.7	A
	205.3620	15.2	1.5	< 0.0	< 0.0	43.5	< 16.7	< 16.7	> +26.8	A
	273.8160	17.6	1.7	< 0.0	< 0.0	46.0	< 19.3	< 19.3	> +26.7	A
	342.2700	19.7	2.0	< -5.0	< -5.0	46.0	< 16.7	< 16.7	> +29.3	A
	410.7240	21.4	2.2	< -5.0	< -5.0	46.0	< 18.6	< 18.6	> +27.4	A
	479.1780	22.9	2.4	< -5.0	< -5.0	46.0	< 20.3	< 20.3	> +25.7	A
	547.6320	24.1	2.6	< -5.0	< -5.0	46.0	< 21.7	< 21.7	> +24.3	A
	616.0860	25.3	2.7	< -5.0	< -5.0	46.0	< 23.0	< 23.0	> +23.0	A
	684.5400	26.3	2.9	< -5.0	< -5.0	46.0	< 24.2	< 24.2	> +21.8	A
	752.9940	27.2	3.1	< -5.0	< -5.0	46.0	< 25.3	< 25.3	> +20.7	A
	821.4480	28.0	3.2	< -5.0	< -5.0	46.0	< 26.2	< 26.2	> +19.8	A
	889.9020	28.8	3.4	< -5.0	< -5.0	46.0	< 27.2	< 27.2	> +18.8	A
	958.3560	29.5	3.5	< -5.0	< -5.0	46.0	< 28.0	< 28.0	> +18.0	A

Tuning range: 4.0000 MHz - 7.9990 MHz

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Antenna Factor [dB(1/m)]	Cable Loss [dB]	Meter Readings [dB(μV)]		Limits [dB(μV/m)]	Results [dB(μV/m)]		Margin [dB]	Remarks (Note 2)
				Hori.	Vert.		Hori.	Vert.		
4.0000	68.4550	5.6	0.8	< 0.0	< 0.0	40.0	< 6.4	< 6.4	> +33.6	A
	136.9100	11.6	1.2	< 0.0	< 0.0	43.5	< 12.8	< 12.8	> +30.7	A
	205.3650	15.2	1.5	< 0.0	< 0.0	43.5	< 16.7	< 16.7	> +26.8	A
	273.8200	17.6	1.7	< 0.0	< 0.0	46.0	< 19.3	< 19.3	> +26.7	A
	342.2750	19.7	2.0	< -5.0	< -5.0	46.0	< 16.7	< 16.7	> +29.3	A
	410.7300	21.4	2.2	< -5.0	< -5.0	46.0	< 18.6	< 18.6	> +27.4	A
	479.1850	22.9	2.4	< -5.0	< -5.0	46.0	< 20.3	< 20.3	> +25.7	A
	547.6400	24.1	2.6	< -5.0	< -5.0	46.0	< 21.7	< 21.7	> +24.3	A
	616.0950	25.3	2.7	< -5.0	< -5.0	46.0	< 23.0	< 23.0	> +23.0	A
	684.5500	26.3	2.9	< -5.0	< -5.0	46.0	< 24.2	< 24.2	> +21.8	A
	753.0050	27.2	3.1	< -5.0	< -5.0	46.0	< 25.3	< 25.3	> +20.7	A
	821.4600	28.0	3.2	< -5.0	< -5.0	46.0	< 26.2	< 26.2	> +19.8	A
	889.9150	28.8	3.4	< -5.0	< -5.0	46.0	< 27.2	< 27.2	> +18.8	A
	958.3700	29.5	3.5	< -5.0	< -5.0	46.0	< 28.0	< 28.0	> +18.0	A
7.9990	72.4540	6.1	0.8	< 0.0	< 0.0	40.0	< 6.9	< 6.9	> +33.1	A
	144.9080	12.1	1.2	< 0.0	< 0.0	43.5	< 13.3	< 13.3	> +30.2	A
	217.3620	15.6	1.5	< 0.0	< 0.0	46.0	< 17.1	< 17.1	> +28.9	A
	289.8160	18.1	1.8	< 0.0	< 0.0	46.0	< 19.9	< 19.9	> +26.1	A
	362.2700	20.2	2.0	< -5.0	< -5.0	46.0	< 17.2	< 17.2	> +28.8	A
	434.7240	21.9	2.3	< -5.0	< -5.0	46.0	< 19.2	< 19.2	> +26.8	A
	507.1780	23.4	2.4	< -5.0	< -5.0	46.0	< 20.8	< 20.8	> +25.2	A
	579.6320	24.7	2.7	< -5.0	< -5.0	46.0	< 22.4	< 22.4	> +23.6	A
	652.0860	25.8	2.9	< -5.0	< -5.0	46.0	< 23.7	< 23.7	> +22.3	A
	724.5400	26.8	3.0	< -5.0	< -5.0	46.0	< 24.8	< 24.8	> +21.2	A
	796.9940	27.7	3.2	< -5.0	< -5.0	46.0	< 25.9	< 25.9	> +20.1	A
	869.4480	28.6	3.3	< -5.0	< -5.0	46.0	< 26.9	< 26.9	> +19.1	A
	941.9020	29.3	3.5	< -5.0	< -5.0	46.0	< 27.8	< 27.8	> +18.2	A

Tuning range: 8.0000 MHz - 10.9990 MHz

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Antenna Factor [dB(1/m)]	Cable Loss [dB]	Meter Readings [dB(μV)]		Limits [dB(μV/m)]	Results [dB(μV/m)]		Margin [dB]	Remarks (Note 2)
				Hori.	Vert.		Hori.	Vert.		
8.0000	72.4550	6.1	0.8	< 0.0	< 0.0	40.0	< 6.9	< 6.9	> +33.1	A
	144.9100	12.1	1.2	< 0.0	< 0.0	43.5	< 13.3	< 13.3	> +30.2	A
	217.3650	15.6	1.5	< 0.0	< 0.0	46.0	< 17.1	< 17.1	> +28.9	A
	289.8200	18.1	1.8	< 0.0	< 0.0	46.0	< 19.9	< 19.9	> +26.1	A
	362.2750	20.2	2.0	< -5.0	< -5.0	46.0	< 17.2	< 17.2	> +28.8	A
	434.7300	21.9	2.3	< -5.0	< -5.0	46.0	< 19.2	< 19.2	> +26.8	A
	507.1850	23.4	2.4	< -5.0	< -5.0	46.0	< 20.8	< 20.8	> +25.2	A
	579.6400	24.7	2.7	< -5.0	< -5.0	46.0	< 22.4	< 22.4	> +23.6	A
	652.0950	25.8	2.9	< -5.0	< -5.0	46.0	< 23.7	< 23.7	> +22.3	A
	724.5500	26.8	3.0	< -5.0	< -5.0	46.0	< 24.8	< 24.8	> +21.2	A
	797.0050	27.7	3.2	< -5.0	< -5.0	46.0	< 25.9	< 25.9	> +20.1	A
	869.4600	28.6	3.3	< -5.0	< -5.0	46.0	< 26.9	< 26.9	> +19.1	A
	941.9150	29.3	3.5	< -5.0	< -5.0	46.0	< 27.8	< 27.8	> +18.2	A
10.9990	75.4540	6.5	0.8	< 0.0	< 0.0	40.0	< 7.3	< 7.3	> +32.7	A
	150.9080	12.5	1.2	< 0.0	< 0.0	43.5	< 13.7	< 13.7	> +29.8	A
	226.3620	16.0	1.5	< 0.0	< 0.0	46.0	< 17.5	< 17.5	> +28.5	A
	301.8160	18.5	1.8	< -5.0	< -5.0	46.0	< 15.3	< 15.3	> +30.7	A
	377.2700	20.6	2.1	< -5.0	< -5.0	46.0	< 17.7	< 17.7	> +28.3	A
	452.7240	22.3	2.4	< -5.0	< -5.0	46.0	< 19.7	< 19.7	> +26.3	A
	528.1780	23.8	2.5	< -5.0	< -5.0	46.0	< 21.3	< 21.3	> +24.7	A
	603.6320	25.1	2.7	< -5.0	< -5.0	46.0	< 22.8	< 22.8	> +23.2	A
	679.0860	26.2	2.9	< -5.0	< -5.0	46.0	< 24.1	< 24.1	> +21.9	A
	754.5400	27.2	3.1	< -5.0	< -5.0	46.0	< 25.3	< 25.3	> +20.7	A
	829.9940	28.1	3.3	< -5.0	< -5.0	46.0	< 26.4	< 26.4	> +19.6	A
	905.4480	29.0	3.4	< -5.0	< -5.0	46.0	< 27.4	< 27.4	> +18.6	A
	980.9020	29.7	3.6	< -5.0	< -5.0	54.0	< 28.3	< 28.3	> +25.7	A

Tuning range: 11.0000 MHz - 14.9990 MHz

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Antenna Factor [dB(1/m)]	Cable Loss [dB]	Meter Readings [dB(μV)]		Limits [dB(μV/m)]	Results [dB(μV/m)]		Margin [dB]	Remarks (Note 2)
				Hori.	Vert.		Hori.	Vert.		
11.0000	75.4550	6.5	0.8	< 0.0	< 0.0	40.0	< 7.3	< 7.3	> +32.7	A
	150.9100	12.5	1.2	< 0.0	< 0.0	43.5	< 13.7	< 13.7	> +29.8	A
	226.3650	16.0	1.5	< 0.0	< 0.0	46.0	< 17.5	< 17.5	> +28.5	A
	301.8200	18.5	1.8	< -5.0	< -5.0	46.0	< 15.3	< 15.3	> +30.7	A
	377.2750	20.6	2.1	< -5.0	< -5.0	46.0	< 17.7	< 17.7	> +28.3	A
	452.7300	22.3	2.4	< -5.0	< -5.0	46.0	< 19.7	< 19.7	> +26.3	A
	528.1850	23.8	2.5	< -5.0	< -5.0	46.0	< 21.3	< 21.3	> +24.7	A
	603.6400	25.1	2.7	< -5.0	< -5.0	46.0	< 22.8	< 22.8	> +23.2	A
	679.0950	26.2	2.9	< -5.0	< -5.0	46.0	< 24.1	< 24.1	> +21.9	A
	754.5500	27.2	3.1	< -5.0	< -5.0	46.0	< 25.3	< 25.3	> +20.7	A
	830.0050	28.1	3.3	< -5.0	< -5.0	46.0	< 26.4	< 26.4	> +19.6	A
	905.4600	29.0	3.4	< -5.0	< -5.0	46.0	< 27.4	< 27.4	> +18.6	A
	980.9150	29.7	3.6	< -5.0	< -5.0	54.0	< 28.3	< 28.3	> +25.7	A
14.9990	79.4540	6.9	0.9	< 8.0	< 13.0	40.0	< 15.8	< 20.8	> +19.2	A
	158.9080	12.9	1.3	< 0.0	< 0.0	43.5	< 14.2	< 14.2	> +29.3	A
	238.3620	16.4	1.6	< 0.0	< 0.0	46.0	< 18.0	< 18.0	> +28.0	A
	317.8160	18.9	1.9	< -5.0	< -5.0	46.0	< 15.8	< 15.8	> +30.2	A
	397.2700	21.1	2.1	< -5.0	< -5.0	46.0	< 18.2	< 18.2	> +27.8	A
	476.7240	22.8	2.4	< -5.0	< -5.0	46.0	< 20.2	< 20.2	> +25.8	A
	556.1780	24.3	2.6	< -5.0	< -5.0	46.0	< 21.9	< 21.9	> +24.1	A
	635.6320	25.6	2.9	< -5.0	< -5.0	46.0	< 23.5	< 23.5	> +22.5	A
	715.0860	26.7	3.0	< -5.0	< -5.0	46.0	< 24.7	< 24.7	> +21.3	A
	794.5400	27.7	3.2	< -5.0	< -5.0	46.0	< 25.9	< 25.9	> +20.1	A
	873.9940	28.6	3.3	< -5.0	< -5.0	46.0	< 26.9	< 26.9	> +19.1	A
	953.4480	29.4	3.5	< -5.0	< -5.0	46.0	< 27.9	< 27.9	> +18.1	A

Tuning range: 15.0000 MHz - 21.9990 MHz

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Antenna Factor [dB(1/m)]	Cable Loss [dB]	Meter Readings [dB(μV)]		Limits [dB(μV/m)]	Results [dB(μV/m)]		Margin [dB]	Remarks (Note 2)
				Hori.	Vert.		Hori.	Vert.		
15.0000	79.4550	6.9	0.9	< 8.0	< 13.0	40.0	< 15.8	< 20.8	> +19.2	A
	158.9100	12.9	1.3	< 0.0	< 0.0	43.5	< 14.2	< 14.2	> +29.3	A
	238.3650	16.4	1.6	< 0.0	< 0.0	46.0	< 18.0	< 18.0	> +28.0	A
	317.8200	18.9	1.9	< -5.0	< -5.0	46.0	< 15.8	< 15.8	> +30.2	A
	397.2750	21.1	2.1	< -5.0	< -5.0	46.0	< 18.2	< 18.2	> +27.8	A
	476.7300	22.8	2.4	< -5.0	< -5.0	46.0	< 20.2	< 20.2	> +25.8	A
	556.1850	24.3	2.6	< -5.0	< -5.0	46.0	< 21.9	< 21.9	> +24.1	A
	635.6400	25.6	2.9	< -5.0	< -5.0	46.0	< 23.5	< 23.5	> +22.5	A
	715.0950	26.7	3.0	< -5.0	< -5.0	46.0	< 24.7	< 24.7	> +21.3	A
	794.5500	27.7	3.2	< -5.0	< -5.0	46.0	< 25.9	< 25.9	> +20.1	A
	874.0050	28.6	3.3	< -5.0	< -5.0	46.0	< 26.9	< 26.9	> +19.1	A
	953.4600	29.4	3.5	< -5.0	< -5.0	46.0	< 27.9	< 27.9	> +18.1	A
21.9990	86.4540	7.6	0.9	< 4.0	< 0.0	40.0	< 12.5	< 8.5	> +27.5	A
	172.9080	13.7	1.3	< 0.0	< 0.0	43.5	< 15.0	< 15.0	> +28.5	A
	259.3620	17.2	1.7	< 0.0	< 0.0	46.0	< 18.9	< 18.9	> +27.1	A
	345.8160	19.8	2.0	< -5.0	< -5.0	46.0	< 16.8	< 16.8	> +29.2	A
	432.2700	21.9	2.2	< -5.0	< -5.0	46.0	< 19.1	< 19.1	> +26.9	A
	518.7240	23.6	2.5	< -5.0	< -5.0	46.0	< 21.1	< 21.1	> +24.9	A
	605.1780	25.1	2.7	< -5.0	< -5.0	46.0	< 22.8	< 22.8	> +23.2	A
	691.6320	26.4	2.9	< -5.0	< -5.0	46.0	< 24.3	< 24.3	> +21.7	A
	778.0860	27.5	3.1	< -5.0	< -5.0	46.0	< 25.6	< 25.6	> +20.4	A
	864.5400	28.5	3.3	< -5.0	< -5.0	46.0	< 26.8	< 26.8	> +19.2	A
	950.9940	29.4	3.5	< -5.0	< -5.0	46.0	< 27.9	< 27.9	> +18.1	A

Tuning range: 22.0000 MHz - 29.9990 MHz

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Antenna Factor [dB(1/m)]	Cable Loss [dB]	Meter Readings [dB(μV)]		Limits [dB(μV/m)]	Results [dB(μV/m)]		Margin [dB]	Remarks (Note 2)
				Hori.	Vert.		Hori.	Vert.		
22.0000	86.4550	7.6	0.9	< 4.0	< 0.0	40.0	< 12.5	< 8.5	> +27.5	A
	172.9100	13.7	1.3	< 0.0	< 0.0	43.5	< 15.0	< 15.0	> +28.5	A
	259.3650	17.2	1.7	< 0.0	< 0.0	46.0	< 18.9	< 18.9	> +27.1	A
	345.8200	19.8	2.0	< -5.0	< -5.0	46.0	< 16.8	< 16.8	> +29.2	A
	432.2750	21.9	2.2	< -5.0	< -5.0	46.0	< 19.1	< 19.1	> +26.9	A
	518.7300	23.6	2.5	< -5.0	< -5.0	46.0	< 21.1	< 21.1	> +24.9	A
	605.1850	25.1	2.7	< -5.0	< -5.0	46.0	< 22.8	< 22.8	> +23.2	A
	691.6400	26.4	2.9	< -5.0	< -5.0	46.0	< 24.3	< 24.3	> +21.7	A
	778.0950	27.5	3.1	< -5.0	< -5.0	46.0	< 25.6	< 25.6	> +20.4	A
	864.5500	28.5	3.3	< -5.0	< -5.0	46.0	< 26.8	< 26.8	> +19.2	A
	951.0050	29.4	3.5	< -5.0	< -5.0	46.0	< 27.9	< 27.9	> +18.1	A
29.9990	94.4540	8.4	0.9	< 0.0	< 0.0	43.5	< 9.3	< 9.3	> +34.2	A
	188.9080	14.4	1.5	< 0.0	< 0.0	43.5	< 15.9	< 15.9	> +27.6	A
	283.3620	17.9	1.7	< 0.0	< 0.0	46.0	< 19.6	< 19.6	> +26.4	A
	377.8160	20.6	2.1	< -5.0	< -5.0	46.0	< 17.7	< 17.7	> +28.3	A
	472.2700	22.7	2.4	< -5.0	< -5.0	46.0	< 20.1	< 20.1	> +25.9	A
	566.7240	24.5	2.6	< -5.0	< -5.0	46.0	< 22.1	< 22.1	> +23.9	A
	661.1780	25.9	2.9	< -5.0	< -5.0	46.0	< 23.8	< 23.8	> +22.2	A
	755.6320	27.2	3.1	< -5.0	< -5.0	46.0	< 25.3	< 25.3	> +20.7	A
	850.0860	28.3	3.3	< -5.0	< -5.0	46.0	< 26.6	< 26.6	> +19.4	A
	944.5400	29.4	3.5	< -5.0	< -5.0	46.0	< 27.9	< 27.9	> +18.1	A

Tuning range: 30.0000 MHz - 49.9990 MHz

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Antenna Factor [dB(1/m)]	Cable Loss [dB]	Meter Readings [dB(μV)]		Limits [dB(μV/m)]	Results [dB(μV/m)]		Margin [dB]	Remarks (Note 2)
				Hori.	Vert.		Hori.	Vert.		
30.0000	94.4550	8.4	0.9	< 0.0	< 0.0	43.5	< 9.3	< 9.3	> +34.2	A
	188.9100	14.4	1.5	< 0.0	< 0.0	43.5	< 15.9	< 15.9	> +27.6	A
	283.3650	17.9	1.7	< 0.0	< 0.0	46.0	< 19.6	< 19.6	> +26.4	A
	377.8200	20.6	2.1	< -5.0	< -5.0	46.0	< 17.7	< 17.7	> +28.3	A
	472.2750	22.7	2.4	< -5.0	< -5.0	46.0	< 20.1	< 20.1	> +25.9	A
	566.7300	24.5	2.6	< -5.0	< -5.0	46.0	< 22.1	< 22.1	> +23.9	A
	661.1850	25.9	2.9	< -5.0	< -5.0	46.0	< 23.8	< 23.8	> +22.2	A
	755.6400	27.2	3.1	< -5.0	< -5.0	46.0	< 25.3	< 25.3	> +20.7	A
	850.0950	28.3	3.3	< -5.0	< -5.0	46.0	< 26.6	< 26.6	> +19.4	A
	944.5500	29.4	3.5	< -5.0	< -5.0	46.0	< 27.9	< 27.9	> +18.1	A
40.0000	104.4550	9.3	1.0	3.0	4.0	43.5	13.3	14.3	+29.2	A
	208.9100	15.3	1.5	< 0.0	< 0.0	43.5	< 16.8	< 16.8	> +26.7	A
	313.3650	18.8	1.9	< -5.0	< -5.0	46.0	< 15.7	< 15.7	> +30.3	A
	417.8200	21.6	2.2	0.0	-4.0	46.0	23.8	19.8	+22.2	A
	522.2750	23.7	2.5	< -5.0	< -5.0	46.0	< 21.2	< 21.2	> +24.8	A
	626.7300	25.4	2.9	< -5.0	< -5.0	46.0	< 23.3	< 23.3	> +22.7	A
	731.1850	26.9	3.0	< -5.0	< -5.0	46.0	< 24.9	< 24.9	> +21.1	A
	835.6400	28.2	3.3	< -5.0	< -5.0	46.0	< 26.5	< 26.5	> +19.5	A
	940.0950	29.3	3.5	< -5.0	< -5.0	46.0	< 27.8	< 27.8	> +18.2	A
49.9990	114.4540	10.1	1.0	6.0	7.0	43.5	17.1	18.1	+25.4	A
	228.9080	16.1	1.5	< 0.0	< 0.0	46.0	< 17.6	< 17.6	> +28.4	A
	343.3620	19.7	2.0	< -5.0	< -5.0	46.0	< 16.7	< 16.7	> +29.3	A
	457.8160	22.4	2.4	< -5.0	< -5.0	46.0	< 19.8	< 19.8	> +26.2	A
	572.2700	24.6	2.6	< -5.0	< -5.0	46.0	< 22.2	< 22.2	> +23.8	A
	686.7240	26.3	2.9	< -5.0	< -5.0	46.0	< 24.2	< 24.2	> +21.8	A
	801.1780	27.8	3.2	< -5.0	< -5.0	46.0	< 26.0	< 26.0	> +20.0	A
	915.6320	29.1	3.4	< -5.0	< -5.0	46.0	< 27.5	< 27.5	> +18.5	A

Tuning range: 50.0000 MHz - 53.9990 MHz

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Antenna Factor [dB(1/m)]	Cable Loss [dB]	Meter Readings [dB(μV)]		Limits [dB(μV/m)]	Results [dB(μV/m)]		Margin [dB]	Remarks (Note 2)
				Hori.	Vert.		Hori.	Vert.		
50.0000	114.4550	10.1	1.0	6.0	7.0	43.5	17.1	18.1	+25.4	A
	228.9100	16.1	1.5	< 0.0	< 0.0	46.0	< 17.6	< 17.6	> +28.4	A
	343.3650	19.7	2.0	< -5.0	< -5.0	46.0	< 16.7	< 16.7	> +29.3	A
	457.8200	22.4	2.4	< -5.0	< -5.0	46.0	< 19.8	< 19.8	> +26.2	A
	572.2750	24.6	2.6	< -5.0	< -5.0	46.0	< 22.2	< 22.2	> +23.8	A
	686.7300	26.3	2.9	< -5.0	< -5.0	46.0	< 24.2	< 24.2	> +21.8	A
	801.1850	27.8	3.2	< -5.0	< -5.0	46.0	< 26.0	< 26.0	> +20.0	A
	915.6400	29.1	3.4	< -5.0	< -5.0	46.0	< 27.5	< 27.5	> +18.5	A
53.9990	118.4540	10.4	1.1	4.0	8.0	43.5	15.5	19.5	+24.0	A
	236.9080	16.4	1.6	1.0	< 0.0	46.0	19.0	< 18.0	+27.0	A
	355.3620	20.0	2.0	< -5.0	< -5.0	46.0	< 17.0	< 17.0	> +29.0	A
	473.8160	22.8	2.4	< -5.0	< -5.0	46.0	< 20.2	< 20.2	> +25.8	A
	592.2700	24.9	2.7	< -5.0	< -5.0	46.0	< 22.6	< 22.6	> +23.4	A
	710.7240	26.6	3.0	< -5.0	< -5.0	46.0	< 24.6	< 24.6	> +21.4	A
	829.1780	28.1	3.3	< -5.0	< -5.0	46.0	< 26.4	< 26.4	> +19.6	A
	947.6320	29.4	3.5	< -5.0	< -5.0	46.0	< 27.9	< 27.9	> +18.1	A

Tuning range: 54.0000 MHz - 60.0000 MHz

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Antenna Factor [dB(1/m)]	Cable Loss [dB]	Meter Readings [dB(μV)]		Limits [dB(μV/m)]	Results [dB(μV/m)]		Margin [dB]	Remarks (Note 2)
				Hori.	Vert.		Hori.	Vert.		
54.0000	118.4550	10.4	1.1	3.0	9.0	43.5	14.5	20.5	+23.0	A
	236.9100	16.4	1.6	1.0	< 0.0	46.0	19.0	< 18.0	+27.0	A
	355.3650	20.0	2.0	< -5.0	< -5.0	46.0	< 17.0	< 17.0	> +29.0	A
	473.8200	22.8	2.4	< -5.0	< -5.0	46.0	< 20.2	< 20.2	> +25.8	A
	592.2750	24.9	2.7	< -5.0	< -5.0	46.0	< 22.6	< 22.6	> +23.4	A
	710.7300	26.6	3.0	< -5.0	< -5.0	46.0	< 24.6	< 24.6	> +21.4	A
	829.1850	28.1	3.3	< -5.0	< -5.0	46.0	< 26.4	< 26.4	> +19.6	A
	947.6400	29.4	3.5	< -5.0	< -5.0	46.0	< 27.9	< 27.9	> +18.1	A
60.0000	124.4550	10.8	1.1	3.0	7.0	43.5	14.9	18.9	+24.6	A
	248.9100	16.8	1.6	< 0.0	< 0.0	46.0	< 18.4	< 18.4	> +27.6	A
	373.3650	20.5	2.1	< -5.0	< -5.0	46.0	< 17.6	< 17.6	> +28.4	A
	497.8200	23.2	2.4	< -5.0	< -5.0	46.0	< 20.6	< 20.6	> +25.4	A
	622.2750	25.4	2.9	< -5.0	< -5.0	46.0	< 23.3	< 23.3	> +22.7	A
	746.7300	27.1	3.1	< -5.0	< -5.0	46.0	< 25.2	< 25.2	> +20.8	A
	871.1850	28.6	3.3	< -5.0	< -5.0	46.0	< 26.9	< 26.9	> +19.1	A
	995.6400	29.9	3.6	< -5.0	< -5.0	54.0	< 28.5	< 28.5	> +25.5	A

Tuning range: 108.0000 MHz - 174.0000 MHz

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Antenna Factor [dB(1/m)]	Cable Loss [dB]	Meter Readings [dB(μV)]		Limits [dB(μV/m)]	Results [dB(μV/m)]		Margin [dB]	Remarks (Note 2)
				Hori.	Vert.		Hori.	Vert.		
108.0000	172.4550	13.6	1.3	< 0.0	< 0.0	43.5	< 14.9	< 14.9	> +28.6	A
	344.9100	19.7	2.0	< -5.0	< -5.0	46.0	< 16.7	< 16.7	> +29.3	A
	517.3650	23.6	2.5	< -5.0	< -5.0	46.0	< 21.1	< 21.1	> +24.9	A
	689.8200	26.4	2.9	< -5.0	< -5.0	46.0	< 24.3	< 24.3	> +21.7	A
	862.2750	28.5	3.3	< -5.0	< -5.0	46.0	< 26.8	< 26.8	> +19.2	A
141.0000	205.4550	15.2	1.5	6.0	7.0	43.5	22.7	23.7	+19.8	A
	410.9100	21.4	2.2	4.0	1.0	46.0	27.6	24.6	+18.4	A
	616.3650	25.3	2.7	0.0	-1.0	46.0	28.0	27.0	+18.0	A
	821.8200	28.0	3.2	< -5.0	< -5.0	46.0	< 26.2	< 26.2	> +19.8	A
174.0000	238.4550	16.4	1.6	10.0	14.0	46.0	28.0	32.0	+14.0	A
	476.9100	22.8	2.4	2.0	-1.0	46.0	27.2	24.2	+18.8	A
	715.3650	26.7	3.0	-5.0	-3.0	46.0	24.7	26.7	+19.3	A
	953.8200	29.4	3.5	< -5.0	< -5.0	46.0	< 27.9	< 27.9	> +18.1	A

Other Disturbance Frequency Measurement

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Antenna Factor [dB(1/m)]	Cable Loss [dB]	Meter Readings [dB(μV)]		Limits [dB(μV/m)]	Results [dB(μV/m)]		Margin [dB]	Remarks (Note 2)
				Hori.	Vert.		Hori.	Vert.		
54.0000	39.3	0.9	0.6	< 18.0	< 21.0	40.0	< 19.5	< 22.5	> +17.5	A
	59.0	4.3	0.8	< 20.0	< 15.0	40.0	< 25.1	< 20.1	> +14.9	A
	165.9	13.3	1.3	< 14.0	< 12.0	43.5	< 28.6	< 26.6	> +14.9	A
	226.1	16.0	1.5	< 13.0	< 13.0	46.0	< 30.5	< 30.5	> +15.5	A
	268.5	17.5	1.7	2.0	< 5.0	46.0	21.2	< 24.2	> +21.8	A
	418.9	21.6	2.2	8.0	3.0	46.0	31.8	26.8	+14.2	A
	553.0	24.2	2.6	< -5.0	< -5.0	46.0	< 21.8	< 21.8	> +24.2	A
	628.4	25.5	2.9	-2.0	-2.0	46.0	26.4	26.4	+19.6	A
	774.2	27.5	3.1	< -5.0	< -5.0	46.0	< 25.6	< 25.6	> +20.4	A
	837.8	28.2	3.3	-3.0	-7.0	46.0	28.5	24.5	+17.5	A

Sample of calculated result at 238.4550 MHz, as the Minimum Margin point:

Antenna Factor	=	16.4 dB(1/m)
Corr. Factor	=	1.6 dB
+) Meter Reading	=	14.0 dB(μV)
Result	=	32.0 dB(μV/m)

Minimum Margin : 46.0 - 32.0 = 14.0(dB)

The point shown on “___” is the Minimum Margin Point.

Note 1:

- 1) The highest frequency generated or used in the EUT : 60.0 MHz
- 2) The highest local frequency : 238.455 MHz
- 3) The upper frequency of measurement range : 1000 MHz

Remarks:

Note 2	Detector Function	IF Bandwidth
A	CISPR QP	120 kHz
B	Peak	1 MHz
C	Average	1 MHz

Tester : Yuzo Tanaka

Antenna-Conducted Power Measurement Scanning Receiver

Test Date: November 16, 2001
Temp.: 22 °C ; Humi.: 40 %

Tuning range: 0.0300 MHz - 1.5990 MHz (ANT1/ANT2/144MHz ANT)

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Attenuation Pad Loss [dB]	Meter Readings [dB(μV)]	Limits at 50Ω [dB(μV)]	Results [dB(μV)]	Margin [dB]	Remarks (Note 2)
0.0300	64.4850	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	128.9700	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	193.4550	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	257.9400	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	322.4250	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	386.9100	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	451.3950	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	515.8800	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	580.3650	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	644.8500	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	709.3350	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	773.8200	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	838.3050	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	902.7900	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	967.2750	10.0	< 10.0	50.0	< 20.0	> +30.0	A
1.5990	66.0540	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	132.1080	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	198.1620	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	264.2160	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	330.2700	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	396.3240	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	462.3780	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	528.4320	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	594.4860	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	660.5400	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	726.5940	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	792.6480	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	858.7020	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	924.7560	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	990.8100	10.0	< 10.0	50.0	< 20.0	> +30.0	A

Tuning range: 1.6000 MHz - 1.9990 MHz (ANT1/ANT2/144MHz ANT)

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Attenuation Pad Loss [dB]	Meter Readings [dB(μV)]	Limits at 50Ω [dB(μV)]	Results [dB(μV)]	Margin [dB]	Remarks (Note 2)
1.8000	66.2550	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	132.5100	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	198.7650	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	265.0200	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	331.2750	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	397.5300	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	463.7850	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	530.0400	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	596.2950	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	662.5500	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	728.8050	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	795.0600	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	861.3150	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	927.5700	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	993.8250	10.0	< 10.0	50.0	< 20.0	> +30.0	A

Tuning range: 2.0000 MHz - 3.9990 MHz (ANT1/ANT2/144MHz ANT)

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Attenuation Pad Loss [dB]	Meter Readings [dB(μ V)]	Limits at 50 Ω [dB(μ V)]	Results [dB(μ V)]	Margin [dB]	Remarks (Note 2)
2.0000	66.4550	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	132.9100	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	199.3650	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	265.8200	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	332.2750	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	398.7300	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	465.1850	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	531.6400	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	598.0950	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	664.5500	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	731.0050	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	797.4600	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	863.9150	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	930.3700	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	996.8250	10.0	< 10.0	50.0	< 20.0	> +30.0	A
3.9990	68.4540	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	136.9080	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	205.3620	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	273.8160	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	342.2700	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	410.7240	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	479.1780	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	547.6320	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	616.0860	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	684.5400	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	752.9940	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	821.4480	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	889.9020	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	958.3560	10.0	< 10.0	50.0	< 20.0	> +30.0	A

Tuning range: 4.0000 MHz - 7.9990 MHz (ANT1/ANT2/144MHz ANT)

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Attenuation Pad Loss [dB]	Meter Readings [dB(μV)]	Limits at 50Ω [dB(μV)]	Results [dB(μV)]	Margin [dB]	Remarks (Note 2)
4.0000	68.4550	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	136.9100	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	205.3650	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	273.8200	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	342.2750	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	410.7300	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	479.1850	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	547.6400	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	616.0950	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	684.5500	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	753.0050	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	821.4600	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	889.9150	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	958.3700	10.0	< 10.0	50.0	< 20.0	> +30.0	A
7.9990	72.4540	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	144.9080	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	217.3620	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	289.8160	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	362.2700	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	434.7240	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	507.1780	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	579.6320	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	652.0860	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	724.5400	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	796.9940	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	869.4480	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	941.9020	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	1014.3560	10.0	< 10.0	50.0	< 20.0	> +30.0	B

Tuning range: 8.0000 MHz - 10.9990 MHz (ANT1/ANT2/144MHz ANT)

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Attenuation Pad Loss [dB]	Meter Readings [dB(μ V)]	Limits at 50 Ω [dB(μ V)]	Results [dB(μ V)]	Margin [dB]	Remarks (Note 2)
8.0000	72.4550	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	144.9100	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	217.3650	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	289.8200	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	362.2750	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	434.7300	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	507.1850	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	579.6400	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	652.0950	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	724.5500	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	797.0050	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	869.4600	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	941.9150	10.0	< 10.0	50.0	< 20.0	> +30.0	A
10.9990	75.4540	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	150.9080	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	226.3620	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	301.8160	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	377.2700	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	452.7240	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	528.1780	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	603.6320	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	679.0860	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	754.5400	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	829.9940	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	905.4480	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	980.9020	10.0	< 10.0	50.0	< 20.0	> +30.0	A

Tuning range: 11.0000 MHz - 14.9990 MHz (ANT1/ANT2/144MHz ANT)

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Attenuation Pad Loss [dB]	Meter Readings [dB(μ V)]	Limits at 50 Ω [dB(μ V)]	Results [dB(μ V)]	Margin [dB]	Remarks (Note 2)
11.0000	75.4550	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	150.9100	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	226.3650	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	301.8200	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	377.2750	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	452.7300	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	528.1850	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	603.6400	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	679.0950	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	754.5500	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	830.0050	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	905.4600	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	980.9150	10.0	< 10.0	50.0	< 20.0	> +30.0	A
14.9990	79.4540	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	158.9080	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	238.3620	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	317.8160	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	397.2700	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	476.7240	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	556.1780	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	635.6320	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	715.0860	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	794.5400	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	873.9940	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	953.4480	10.0	< 10.0	50.0	< 20.0	> +30.0	A

Tuning range: 15.0000 MHz - 21.9990 MHz (ANT1/ANT2/144MHz ANT)

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Attenuation Pad Loss [dB]	Meter Readings [dB(μ V)]	Limits at 50 Ω [dB(μ V)]	Results [dB(μ V)]	Margin [dB]	Remarks (Note 2)
15.0000	79.4550	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	158.9100	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	238.3650	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	317.8200	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	397.2750	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	476.7300	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	556.1850	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	635.6400	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	715.0950	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	794.5500	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	874.0050	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	953.4600	10.0	< 10.0	50.0	< 20.0	> +30.0	A
21.9990	86.4540	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	172.9080	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	259.3620	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	345.8160	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	432.2700	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	518.7240	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	605.1780	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	691.6320	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	778.0860	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	864.5400	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	950.9940	10.0	< 10.0	50.0	< 20.0	> +30.0	A

Tuning range: 22.0000 MHz - 29.9990 MHz (ANT1/ANT2/144MHz ANT)

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Attenuation Pad Loss [dB]	Meter Readings [dB(μ V)]	Limits at 50 Ω [dB(μ V)]	Results [dB(μ V)]	Margin [dB]	Remarks (Note 2)
22.0000	86.4550	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	172.9100	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	259.3650	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	345.8200	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	432.2750	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	518.7300	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	605.1850	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	691.6400	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	778.0950	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	864.5500	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	951.0050	10.0	< 10.0	50.0	< 20.0	> +30.0	A
29.9990	94.4540	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	188.9080	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	283.3620	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	377.8160	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	472.2700	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	566.7240	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	661.1780	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	755.6320	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	850.0860	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	944.5400	10.0	< 10.0	50.0	< 20.0	> +30.0	A

Tuning range: 30.0000 MHz - 49.9990 MHz (ANT1/ANT2/144MHz ANT)

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Attenuation Pad Loss [dB]	Meter Readings [dB(μ V)]	Limits at 50 Ω [dB(μ V)]	Results [dB(μ V)]	Margin [dB]	Remarks (Note 2)
30.0000	94.4550	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	188.9100	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	283.3650	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	377.8200	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	472.2750	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	566.7300	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	661.1850	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	755.6400	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	850.0950	10.0	< 10.0	50.0	< 20.0	> +30.0	A
40.0000	944.5500	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	104.4550	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	208.9100	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	313.3650	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	417.8200	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	522.2750	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	626.7300	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	731.1850	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	835.6400	10.0	< 10.0	50.0	< 20.0	> +30.0	A
49.9990	940.0950	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	114.4540	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	228.9080	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	343.3620	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	457.8160	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	572.2700	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	686.7240	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	801.1780	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	915.6320	10.0	< 10.0	50.0	< 20.0	> +30.0	A

Tuning range: 50.0000 MHz - 53.9990 MHz (ANT1/ANT2/144MHz ANT)

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Attenuation Pad Loss [dB]	Meter Readings [dB(μV)]	Limits at 50Ω [dB(μV)]	Results [dB(μV)]	Margin [dB]	Remarks (Note 2)
50.0000	114.4550	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	228.9100	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	343.3650	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	457.8200	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	572.2750	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	686.7300	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	801.1850	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	915.6400	10.0	< 10.0	50.0	< 20.0	> +30.0	A
53.9990	118.4540	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	236.9080	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	355.3620	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	473.8160	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	592.2700	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	710.7240	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	829.1780	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	947.6320	10.0	< 10.0	50.0	< 20.0	> +30.0	A

Tuning range: 54.0000 MHz - 60.0000 MHz (ANT1/ANT2/144MHz ANT)

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Attenuation Pad Loss [dB]	Meter Readings [dB(μ V)]	Limits at 50 Ω [dB(μ V)]	Results [dB(μ V)]	Margin [dB]	Remarks (Note 2)
54.0000	118.4550	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	236.9100	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	355.3650	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	473.8200	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	592.2750	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	710.7300	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	829.1850	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	947.6400	10.0	< 10.0	50.0	< 20.0	> +30.0	A
60.0000	124.4550	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	248.9100	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	373.3650	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	497.8200	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	622.2750	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	746.7300	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	871.1850	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	995.6400	10.0	< 10.0	50.0	< 20.0	> +30.0	A

Tuning range: 54.0000 MHz - 60.0000 MHz (ANT1/ANT2/144MHz ANT)

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Attenuation Pad Loss [dB]	Meter Readings [dB(μ V)]	Limits at 50 Ω [dB(μ V)]	Results [dB(μ V)]	Margin [dB]	Remarks (Note 2)
108.0000	172.4550	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	344.9100	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	517.3650	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	689.8200	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	862.2750	10.0	< 10.0	50.0	< 20.0	> +30.0	A
141.0000	205.4550	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	410.9100	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	616.3650	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	821.8200	10.0	< 10.0	50.0	< 20.0	> +30.0	A
174.0000	238.4550	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	476.9100	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	715.3650	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	953.8200	10.0	< 10.0	50.0	< 20.0	> +30.0	A

Other Disturbance (ANT1/ANT2/144MHz ANT)

Frequency to which tuned [MHz]	Measured Frequency [MHz]	Attenuation Pad Loss [dB]	Meter Readings [dB(μV)]	Limits at 50Ω [dB(μV)]	Results [dB(μV)]	Margin [dB]	Remarks (Note 2)
54.0000	30.0	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	50.0	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	100.0	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	300.0	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	500.0	10.0	< 10.0	50.0	< 20.0	> +30.0	A
	1000.0	10.0	< 10.0	50.0	< 20.0	> +30.0	A

Sample of calculated result at 1000.0 MHz , as the Minimum Margin point:

$$\begin{array}{rcl}
 \text{Attenuation Pad Loss} & = & 10.0 \text{ dB} \\
 +) \text{ Meter Reading} & = & <10.0 \text{ dB}(\mu\text{V}) \\
 \hline
 \text{Result} & = & <20.0 \text{ dB}(\mu\text{V})
 \end{array}$$

Minimum Margin : 50.0 - <20.0 = >30.0(dB)

The point shown on “___” is the Minimum Margin Point.

Conversion of applied limits (refer to §15.111(a))

$$50.0 \text{ [dB}(\mu\text{V})] = 20\log\{\sqrt{2}[\text{nW}]\times 10^{-9} \times 50[\Omega] \times 10^3\}$$

Note 1:

- 1) The highest frequency generated or used in the EUT : 60.0 MHz
- 2) The highest local frequency : 238.455 MHz
- 3) The upper frequency of measurement range : 1000 MHz

Remarks:

Note 2	Detector Function	IF Bandwidth
A	CISPR QP	120 kHz
B	Peak	1 MHz
C	Average	1 MHz

Tester : Yuzo Tanaka

38dB Rejection Test for Mobile Band Scanning Receiver

Test Date: November 19, 2001
Temp.: 23 °C ; Humi.: 58 %

Connected Antenna Terminal : ANT1

Injected Frequency [MHz]	Detected Frequency [MHz]	12dB SINAD Level at Injected Frequency [dBm]	12dB SINAD Level at Detected Frequency [dBm]	Rejection [dB]	Margin [dB]
824.040	No Point Detected	N/A	N/A	N/A	N/A
836.505	No Point Detected	N/A	N/A	N/A	N/A
848.970	No Point Detected	N/A	N/A	N/A	N/A

Sample of calculated result at N/A MHz, as the Minimum Margin point:

$$\begin{array}{rcl} 12\text{dB SINAD Level at Detected Frequency} & = & \text{N/A dBm} \\ -) 12\text{dB SINAD Level at Injected Frequency} & = & \text{N/A dBm} \\ \hline \text{Rejection} & = & \text{N/A dB} \end{array}$$

Minimum Margin : N/A

The point shown on “_____” is the Minimum Margin Point.

Tester : Yuzo Tanaka

38dB Rejection Test for Base Band Scanning Receiver

Test Date: November 19, 2001
Temp.: 23 °C ; Humi.: 58 %

Connected Antenna Terminal : ANT1

Injected Frequency [MHz]	Detected Frequency [MHz]	12dB SINAD Level at Injected Frequency [dBm]	12dB SINAD Level at Detected Frequency [dBm]	Rejection [dB]	Margin [dB]
869.040	No Point Detected	N/A	N/A	N/A	N/A
881.505	No Point Detected	N/A	N/A	N/A	N/A
893.970	No Point Detected	N/A	N/A	N/A	N/A

Sample of calculated result at N/A MHz, as the Minimum Margin point:

$$\begin{array}{rcl} 12\text{dB SINAD Level at Detected Frequency} & = & \text{N/A dBm} \\ -) 12\text{dB SINAD Level at Injected Frequency} & = & \text{N/A dBm} \\ \hline \text{Rejection} & = & \text{N/A dB} \end{array}$$

Minimum Margin : N/A

The point shown on “____” is the Minimum Margin Point.

Tester : Yuzo Tanaka

38dB Rejection Test for Mobile Band Scanning Receiver

Test Date: November 19, 2001
Temp.: 23 °C ; Humi.: 58 %

Connected Antenna Terminal : ANT2

Injected Frequency [MHz]	Detected Frequency [MHz]	12dB SINAD Level at Injected Frequency [dBm]	12dB SINAD Level at Detected Frequency [dBm]	Rejection [dB]	Margin [dB]
824.040	No Point Detected	N/A	N/A	N/A	N/A
836.505	No Point Detected	N/A	N/A	N/A	N/A
848.970	No Point Detected	N/A	N/A	N/A	N/A

Sample of calculated result at N/A MHz, as the Minimum Margin point:

$$\begin{array}{rcl} 12\text{dB SINAD Level at Detected Frequency} & = & \text{N/A dBm} \\ -) 12\text{dB SINAD Level at Injected Frequency} & = & \text{N/A dBm} \\ \hline \text{Rejection} & = & \text{N/A dB} \end{array}$$

Minimum Margin : N/A

The point shown on “_____” is the Minimum Margin Point.

Tester : Yuzo Tanaka

38dB Rejection Test for Base Band Scanning Receiver

Test Date: November 19, 2001
Temp.: 23 °C ; Humi.: 58 %

Connected Antenna Terminal : ANT2

Injected Frequency [MHz]	Detected Frequency [MHz]	12dB SINAD Level at Injected Frequency [dBm]	12dB SINAD Level at Detected Frequency [dBm]	Rejection [dB]	Margin [dB]
869.040	No Point Detected	N/A	N/A	N/A	N/A
881.505	No Point Detected	N/A	N/A	N/A	N/A
893.970	No Point Detected	N/A	N/A	N/A	N/A

Sample of calculated result at N/A MHz, as the Minimum Margin point:

$$\begin{array}{rcl} 12\text{dB SINAD Level at Detected Frequency} & = & \text{N/A dBm} \\ -) 12\text{dB SINAD Level at Injected Frequency} & = & \text{N/A dBm} \\ \hline \text{Rejection} & = & \text{N/A dB} \end{array}$$

Minimum Margin : N/A

The point shown on “____” is the Minimum Margin Point.

Tester : Yuzo Tanaka

38dB Rejection Test for Mobile Band Scanning Receiver

Test Date: November 19, 2001
Temp.: 23 °C ; Humi.: 58 %

Connected Antenna Terminal : 144MHz ANT

Injected Frequency [MHz]	Detected Frequency [MHz]	12dB SINAD Level at Injected Frequency [dBm]	12dB SINAD Level at Detected Frequency [dBm]	Rejection [dB]	Margin [dB]
824.040	No Point Detected	N/A	N/A	N/A	N/A
836.505	No Point Detected	N/A	N/A	N/A	N/A
848.970	No Point Detected	N/A	N/A	N/A	N/A

Sample of calculated result at N/A MHz, as the Minimum Margin point:

$$\begin{array}{rcl} 12\text{dB SINAD Level at Detected Frequency} & = & \text{N/A dBm} \\ -) 12\text{dB SINAD Level at Injected Frequency} & = & \text{N/A dBm} \\ \hline \text{Rejection} & = & \text{N/A dB} \end{array}$$

Minimum Margin : N/A

The point shown on “_____” is the Minimum Margin Point.

Tester : Yuzo Tanaka

38dB Rejection Test for Base Band Scanning Receiver

Test Date: November 19, 2001
Temp.: 23 °C ; Humi.: 58 %

Connected Antenna Terminal : 144MHz ANT

Injected Frequency [MHz]	Detected Frequency [MHz]	12dB SINAD Level at Injected Frequency [dBm]	12dB SINAD Level at Detected Frequency [dBm]	Rejection [dB]	Margin [dB]
869.040	No Point Detected	N/A	N/A	N/A	N/A
881.505	No Point Detected	N/A	N/A	N/A	N/A
893.970	No Point Detected	N/A	N/A	N/A	N/A

Sample of calculated result at N/A MHz, as the Minimum Margin point:

$$\begin{array}{rcl} 12\text{dB SINAD Level at Detected Frequency} & = & \text{N/A dBm} \\ -) 12\text{dB SINAD Level at Injected Frequency} & = & \text{N/A dBm} \\ \hline \text{Rejection} & = & \text{N/A dB} \end{array}$$

Minimum Margin : N/A

The point shown on “_____” is the Minimum Margin Point.

Tester : Yuzo Tanaka