

Attachment B

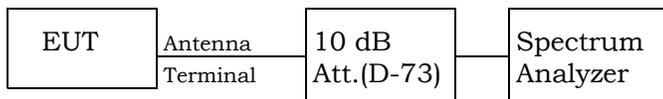
Antenna Conducted Spurious Emission Measurement (§2.1051,§24.238)

Test Procedure :

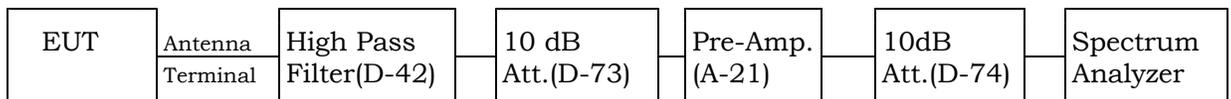
The Antenna Conducted Emission was measured with a spectrum analyzer. The test system is shown as follows:

PCS1900

1) Frequency Range : 9kHz - 2.2GHz



2) Frequency Range : 2.2GHz -5.8GHz



3) Frequency Range : 5.8GHz - 20GHz

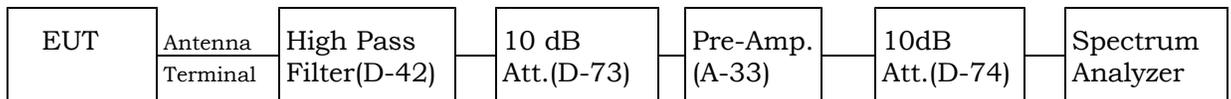


Fig.2 Antenna Conducted Spurious Emission Measurement

JQA Application No.: KL80040002
Model No. : GX15
FCC ID : APYHRO00035

Regulation : CFR 47 FCC Rules Part 24
Issue Date : April 15, 2004

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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

Used test instruments:

Model No.	Device ID	Last Cal. Date	Cal. Interval
○ - MP721C	D - 66		
● - 4T-10	D - 73	May, 2003	1 Year
● - 4T-10	D - 74	May, 2003	1 Year
○ - 2-10	D - 79		
○ - 2-10	D - 80		
○ - WJ-6611-513	A - 23		
● - WJ-6882-824	A - 21	May, 2003	1 Year
● - DBL-0618N515	A - 33	May, 2003	1 Year
● - UHP-127	D - 42	May, 2003	1 Year
○ - UHP-128	D - 43		
● - 8566B	A - 13	February, 2003	1 Year
○ - 8593A	A - 15		

Environmental conditions:

Temperature: 23 °C Humidity: 55 %

Antenna-Conducted Spurious Emission Measurement PCS 1900

Test Date: April 5, 2004
 Temp.: 23 °C, Humi: 55 %

CH	Transmitting Frequency [MHz]	Measured Frequency [MHz]	Corr. Factor [dB]	Meter Readings [dBm]	Limits [dBm]	Results [dBm]	Margin [dB]	Remarks
512	1850.200	3700.400	-19.4	-27.0	-13.0	-46.4	+33.4	C
		5550.600	-20.7	-3.3	-13.0	-24.0	+11.0	C
		7400.800	-9.7	-11.9	-13.0	-21.6	+8.6	C
		9251.000	-10.0	-15.2	-13.0	-25.2	+12.2	C
		11101.200	-10.5	-38.1	-13.0	-48.6	+35.6	C
		12951.400	-10.3	-24.4	-13.0	-34.7	+21.7	C
		14801.600	-10.7	-48.0	-13.0	-58.7	+45.7	C
661	1880.000	3760.000	-20.1	-24.6	-13.0	-44.7	+31.7	C
		5640.000	-7.9	-18.3	-13.0	-26.2	+13.2	C
		7520.000	-9.7	-17.7	-13.0	-27.4	+14.4	C
		9400.000	-10.1	-14.0	-13.0	-24.1	+11.1	C
		11280.000	-10.0	-43.2	-13.0	-53.2	+40.2	C
		13160.000	-10.6	-16.4	-13.0	-27.0	+14.0	C
		15040.000	-10.6	-38.3	-13.0	-48.9	+35.9	C
16920.000	-10.1	-47.9	-13.0	-58.0	+45.0	C		
810	1909.800	3819.600	-19.4	-25.8	-13.0	-45.2	+32.2	C
		5729.400	-19.7	-14.9	-13.0	-34.6	+21.6	C
		7639.200	-10.2	-29.6	-13.0	-39.8	+26.8	C
		9549.000	-10.3	-24.1	-13.0	-34.4	+21.4	C
		11458.800	-10.5	< -60.0	-13.0	< -70.5	> +57.5	C
		13368.600	-10.6	-32.3	-13.0	-42.9	+29.9	C
		15278.400	-10.5	-50.8	-13.0	-61.3	+48.3	C

Sample of calculated result at 7400.8 MHz, as the Minimum Margin point:

Corr. Factor = -9.7 dB
 +) Meter Reading = -11.9 dBm
 Result = -21.6 dBm

Minimum Margin: -13.0 - (-21.6) = 8.6 (dB)

The point shown on " ____ " is the Minimum Margin Point.

Applied Limits:

-13.0 [dBm] = $10\log(\text{TP}[\text{mW}]) - (43 + 10\log(\text{tp}[\text{W}])) = 10\log(\text{TP}[\text{mW}]) - (43 + (10 \log(\text{TP}[\text{mW}]) - 30))$

where $\text{tp}[\text{W}] = \text{TP}[\text{mW}] / 1000$: Transmitter power at antenna terminal

$10\log(\text{tp}[\text{W}]) = 10\log(\text{TP}[\text{mW}]) - 30$

Correction factor details:

Cable Loss + 10dB Pad Att. [dB] (9 kHz - 2.2 GHz)

Cable Loss + 20dB Pad Att. + High Pass Filter Loss (D-42) - Pre-Amp. Gain [dB] (over 5.8 GHz)

- Note: 1) The spectrum was scanned 9 kHz to 20 GHz and all emissions not reported were more than 20 dB below the applied limits.
 2) The spectrum analyzer displays were printed out in Attachment B.

Remarks:

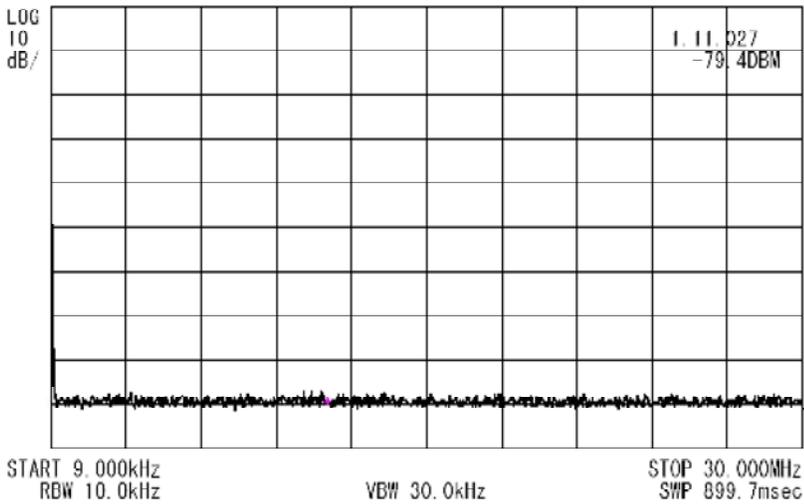
	Detector Function	RES B.W.	V.B.W.	Sweep Time
A	Peak	10 kHz	30 kHz	20 msec.
B	Peak	100 kHz	300 kHz	20 msec.
C	Peak	1 MHz	3 MHz	20 msec.

Tester : Shigeru Kinoshita

Antenna Conducted Spurious Emission Measurement

Transmitting Frequency : 1850.200 MHz (512 ch)
Frequency Range : 9kHz - 30 MHz

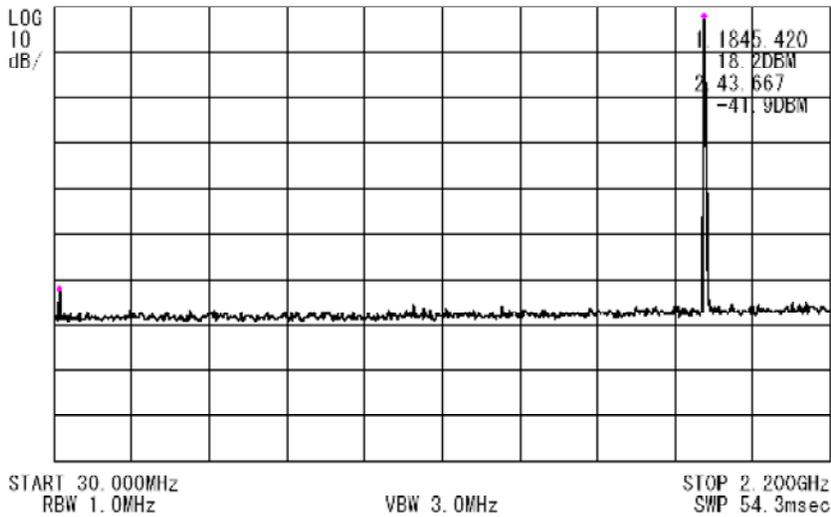
Antenna Conducted Spurious PGS1900 2004/04/05 15:04:12
1850.2MHz(512ch) 9kHz-30MHz
REF 10.0 DBM ATT 20dB



Antenna Conducted Spurious Emission Measurement

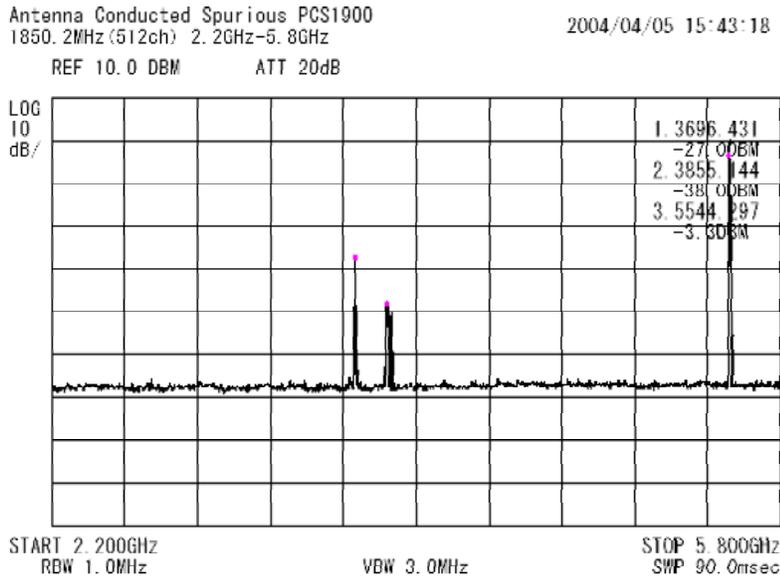
Transmitting Frequency : 1850.200 MHz (512 ch)
Frequency Range : 30MHz - 2.2GHz

Antenna Conducted Spurious PGS1900 2004/04/05 15:20:45
1850.2MHz(512ch) 30MHz-2.2GHz
REF 20.0 DBM ATT 30dB



Antenna Conducted Spurious Emission Measurement

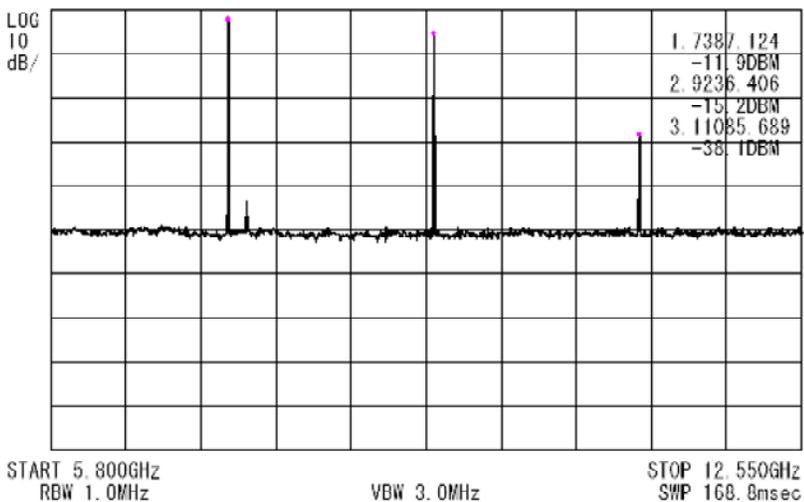
Transmitting Frequency : 1850.200 MHz (512 ch)
Frequency Range : 2.2GHz - 5.8GHz



Antenna Conducted Spurious Emission Measurement

Transmitting Frequency : 1850.200 MHz (512 ch)
Frequency Range : 5.8GHz - 12.55GHz

Antenna Conducted Spurious PCS1900
1850.2MHz(512ch) 5.8GHz-12.55GHz
2004/04/05 16:14:45
REF -10.0 DBM ATT 10dB

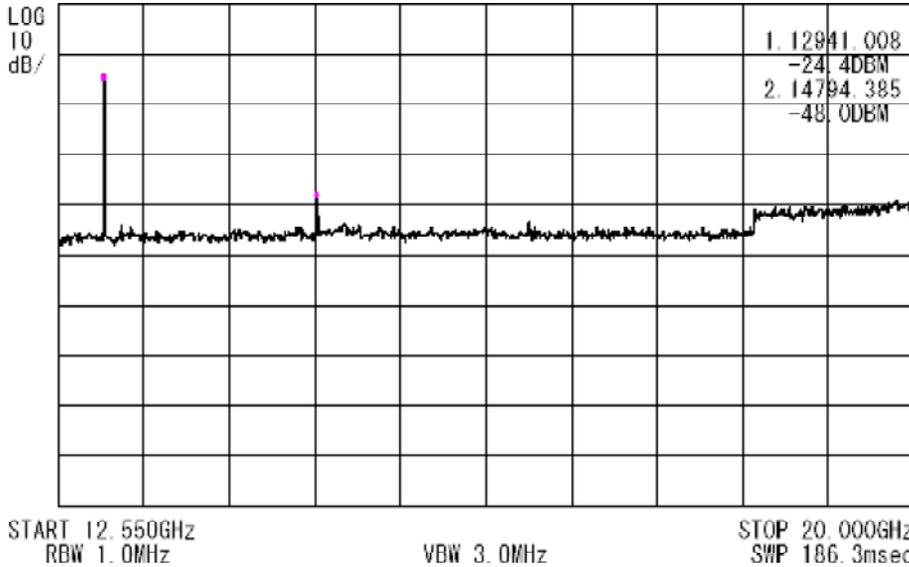


Antenna Conducted Spurious Emission Measurement

Transmitting Frequency : 1850.200 MHz (512 ch)
Frequency Range : 12.55GHz - 20.0GHz

Antenna Conducted Spurious PCS1900
1850.2MHz (512ch) 12.55GHz-20GHz
REF -10.0 DBM ATT 10dB

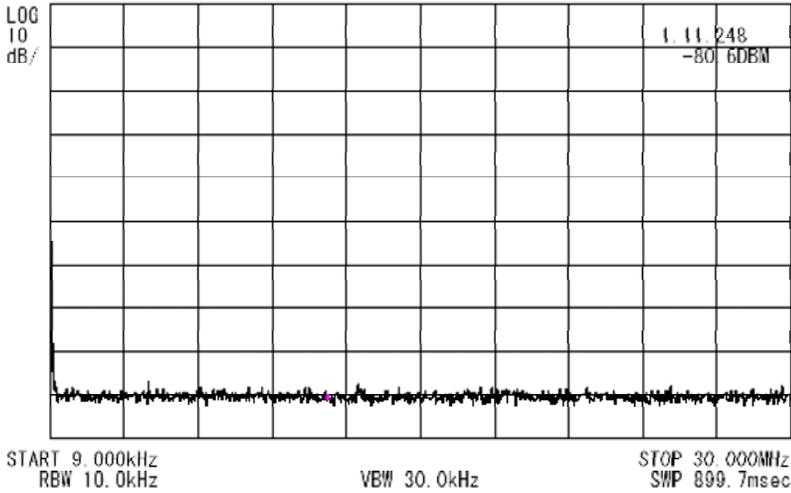
2004/04/05 16:18:40



Antenna Conducted Spurious Emission Measurement

Transmitting Frequency : 1880.000 MHz (661 ch)
Frequency Range : 9kHz - 30 MHz

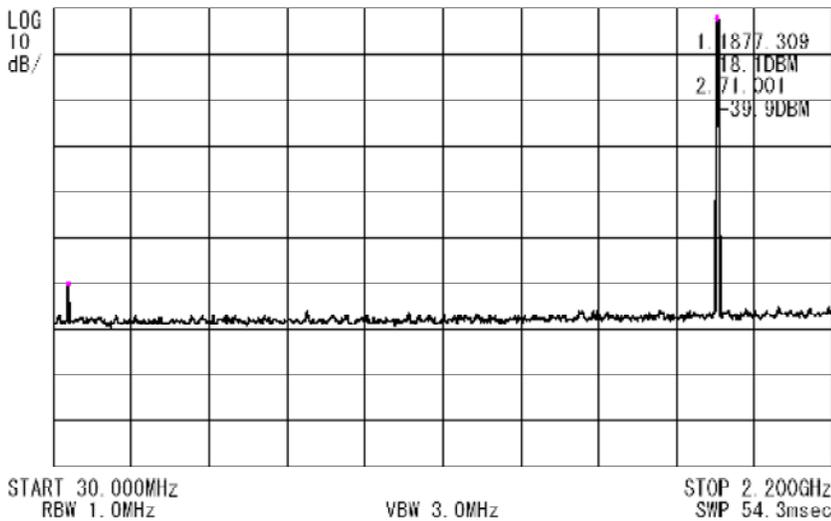
Antenna Conducted Spurious PCS1900 2004/04/05 15:06:28
1880.0MHz(661ch) 9kHz-30MHz
REF 10.0 DBM ATT 20dB



Antenna Conducted Spurious Emission Measurement

Transmitting Frequency : 1880.000 MHz (661 ch)
Frequency Range : 30MHz - 2.2GHz

Antenna Conducted Spurious PCS1900 2004/04/05 15:18:42
1880.0MHz(661ch) 30MHz-2.2GHz
REF 20.0 DBM ATT 30dB

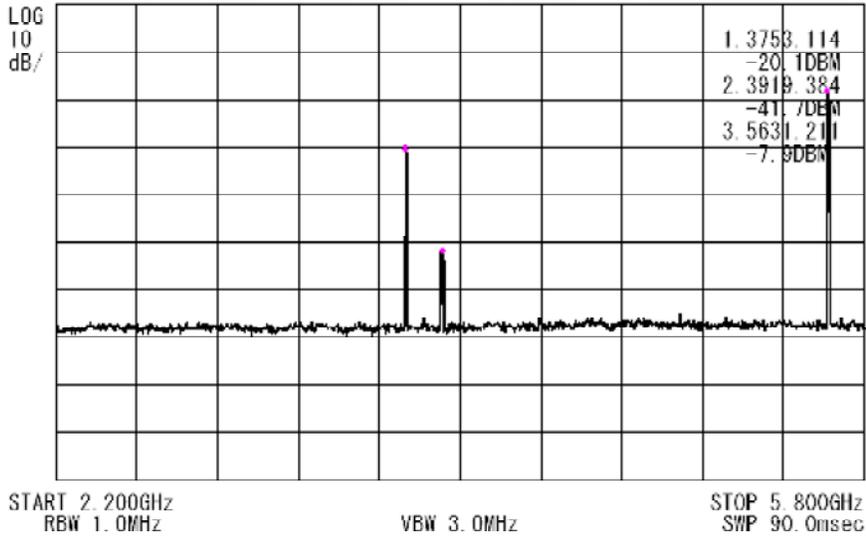


Antenna Conducted Spurious Emission Measurement

Transmitting Frequency : 1880.000 MHz (661 ch)
Frequency Range : 2.2GHz - 5.8GHz

Antenna Conducted Spurious PGS1900
1880.0MHz (661ch) 2.2GHz-5.8GHz

REF 10.0 DBM ATT 20dB



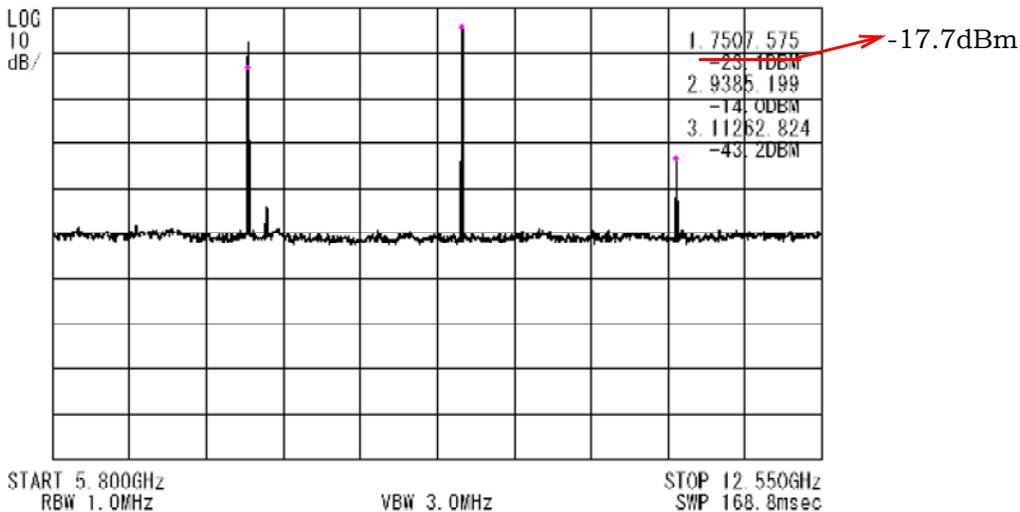
Antenna Conducted Spurious Emission Measurement

Transmitting Frequency : 1880.000 MHz (661 ch)
Frequency Range : 5.8GHz - 12.55GHz

Antenna Conducted Spurious PGS1900
1880.0MHz (661ch) 5.8GHz-12.55GHz

2004/04/05 16:11:07

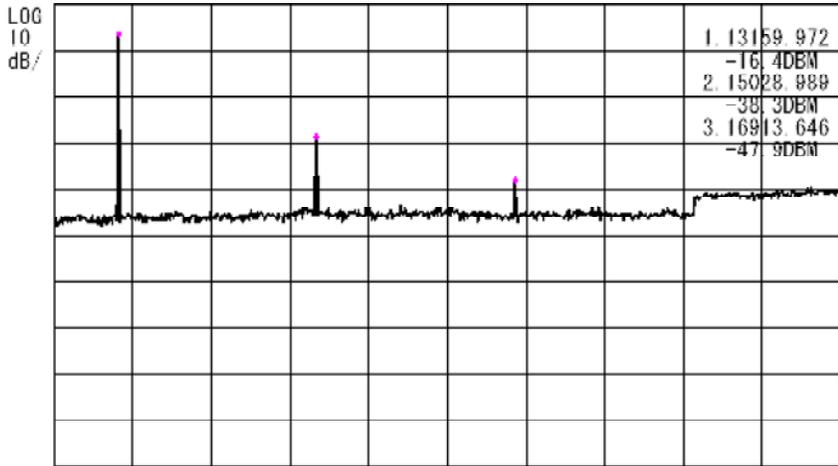
REF -10.0 DBM ATT 10dB



Antenna Conducted Spurious Emission Measurement

Transmitting Frequency : 1880.000 MHz (661 ch)
Frequency Range : 12.55GHz - 20.0GHz

Antenna Conducted Spurious PCS1900
1880.0MHz (661ch) 12.55GHz-20GHz
REF -10.0 DBM ATT 10dB
2004/04/05 16:23:56

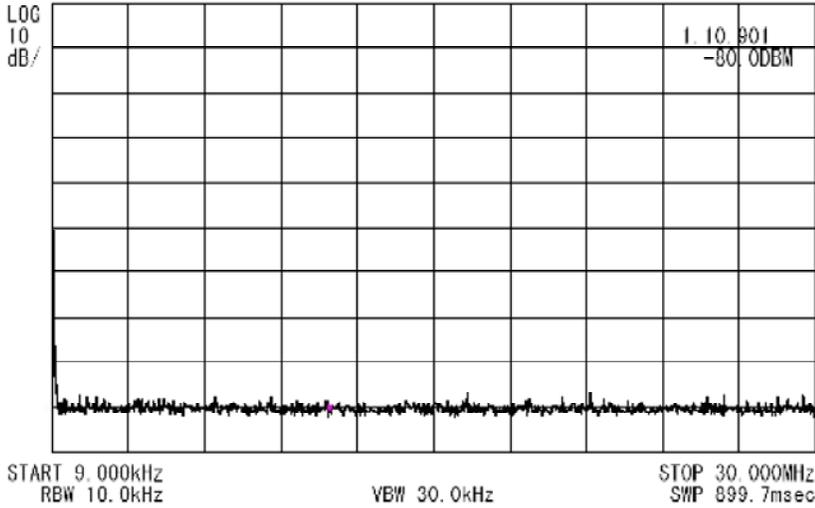


START 12.550GHz RBW 1.0MHz VBW 3.0MHz STOP 20.000GHz SWP 186.3msec

Antenna Conducted Spurious Emission Measurement

Transmitting Frequency : 1909.800 MHz (810 ch)
Frequency Range : 9kHz - 30 MHz

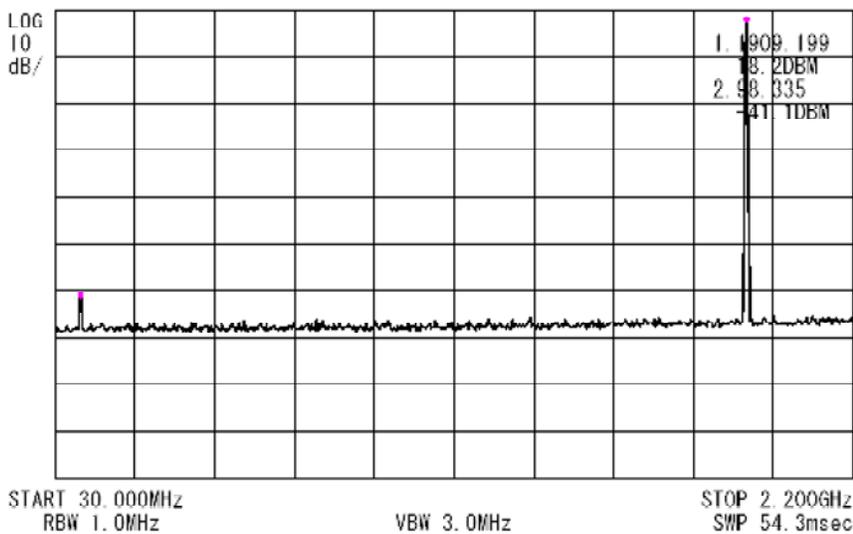
Antenna Conducted Spurious PGS1900 2004/04/05 15:08:14
1909.8MHz (810ch) 9kHz-30MHz
REF 10.0 DBM ATT 20dB



Antenna Conducted Spurious Emission Measurement

Transmitting Frequency : 1909.800 MHz (810 ch)
Frequency Range : 30MHz - 2.2GHz

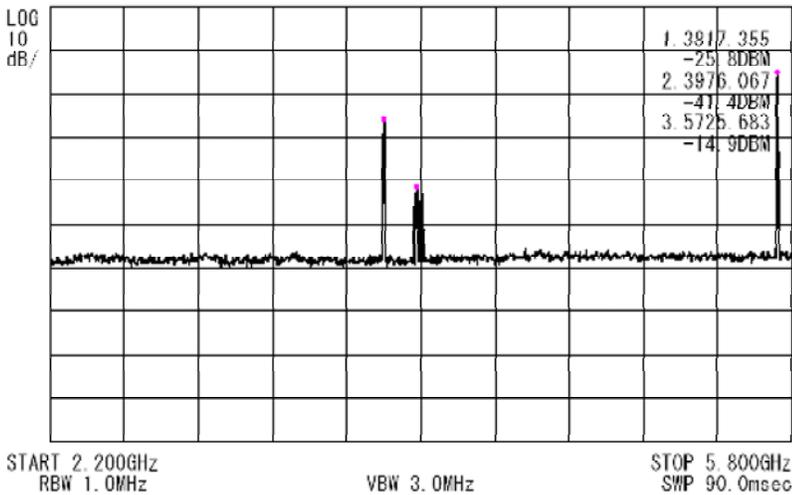
Antenna Conducted Spurious PGS1900 2004/04/05 15:16:22
1909.8MHz (810ch) 30MHz-2.2GHz
REF 20.0 DBM ATT 30dB



Antenna Conducted Spurious Emission Measurement

Transmitting Frequency : 1909.800 MHz (810 ch)
Frequency Range : 2.2GHz - 5.8GHz

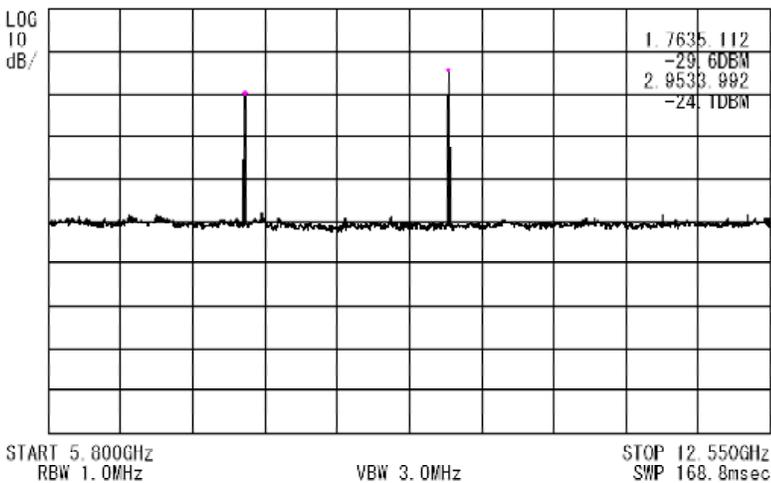
Antenna Conducted Spurious PCS1900
1909.8MHz (810ch) 2.2GHz-5.8GHz
2004/04/05 15:46:50
REF 0.0 DBM ATT 20dB



Antenna Conducted Spurious Emission Measurement

Transmitting Frequency : 1909.800 MHz (810 ch)
Frequency Range : 5.8GHz - 12.55GHz

Antenna Conducted Spurious PCS1900
1909.8MHz (810ch) 5.8GHz-12.55GHz
2004/04/05 16:08:32
REF -10.0 DBM ATT 10dB



Antenna Conducted Spurious Emission Measurement

Transmitting Frequency : 1909.800 MHz (810 ch)

Frequency Range : 12.55GHz - 20.0GHz

Antenna Conducted Spurious PGS1900

2004/04/05 16:26:30

1909.8MHz(810ch) 12.55GHz-20GHz

REF -10.0 DBM ATT 10dB

