

AB6NT1900FRM

Nortel Networks

NT 1900 FRM (1900 MHz Radio Module)

Addendum to the Test Report

FCC ID AB6NT1900FRM

AB6NT1900FRM

Summary

This Addendum to the test report is submitted following the FCC Correspondence Reference Number 22678 (731 Confirmation Number EA528649).

It contains following test results:

1. Frequency stability measurements
2. Spurious (Conductive) emissions at antenna terminals+

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1. Frequency stability measurements

Requirements

FCC Part 2.1055 Measurements required: Frequency stability

(a) The frequency stability shall be measured with variation of ambient temperature as follows:

1. From -30 deg. C to +50 deg. C for all equipment except that specified in paragraphs (a) (2) and (3) of this section.

...

(b) Frequency measurements shall be made at the extremes of the temperature range and at intervals of not more than 10 deg. centigrade through the range

...

(d) The frequency stability shall be measured with variation of primary supply voltage as follows:

1. Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.

...

1.1 Frequency stability over temperature range

Table 1. Frequency variation over temperature.

Channel	Temperature (degrees)	Frequency Error (Hz)	Frequency Error (ppm)
375 (1948.75MHz)	-30	-4.7	-0.002411802
375 (1948.75MHz)	-20	-3.1	-0.001590763
375 (1948.75MHz)	-10	-0.8	-0.00041052
375 (1948.75MHz)	0	2.8	0.001436818
375 (1948.75MHz)	10	-1.9	-0.000974984
375 (1948.75MHz)	20	5.7	0.002924952
375 (1948.75MHz)	30	-4.8	-0.002463117
375 (1948.75MHz)	40	-1.6	-0.000821039
375 (1948.75MHz)	50	-6.6	-0.003386786

Test result: Pass

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1.2 Frequency stability over voltage range

Table 2. Frequency variation with variation of supply voltage

Channel	Supply Voltage (V)	Frequency Error (Hz)	Frequency Error (ppm)
375 (1948.75MHz)	-40.8 (85% of nominal)	-3.5	-0.001796023
375 (1948.75MHz)	-48.0 (nominal)	-4.2	-0.002155228
375 (1948.75MHz)	55.2 (115% of nominal)	-7.1	-0.003643361

Test result: Pass

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2. Spurious Emissions at Antenna Terminals

Requirements

FCC Part 2.1051

The radio frequency voltage or powers generated within the equipment and appearing on a spurious frequency shall be checked at the output terminals when properly loaded with a suitable artificial antenna. Curves or equivalent data shall show the magnitude of each harmonic and other spurious emission than can be detected when the equipment is operated under conditions specified in 2.1049 as appropriate

The magnitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be specified

2.1 Test summary

The summary of the test results is shown in Table 3

Table 3.

Spurious Emissions at Antenna terminals Test Results

Band	Channel	Channel Frequency (MHZ)	Spurious Emission Frequency (MHz)	Spurious Emission Level (dBm)	Limit (dBm)
A	25	1931.25	1929.983	-14.30	-13
			17500.000	-32.30	-13
A	275	1943.75	1945.015	-18.43	-13
D	325	1946.26	1944.998	-19.97	-13
D	375	1948.75	1950.003	-16.80	-13
B	425	1951.25	1950.000	-18.00	-13
B	675	1963.75	1965.013	-17.30	-13
E	725	1966.25	1964.990	-18.63	-13
E	775	1968.75	1970.002	-16.30	-13
F	825	1971.25	1969.992	-17.83	-13
			17520.000	-32.57	-13
F	875	1973.75	18.400	-31.30	-13
			1975.000	-14.97	-13
C	925	1976.25	20.380	-29.97	-13
			1975.000	-15.00	-13
C	1175	1988.75	1990.167	-21.13	-13

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Test result: Pass

2.2 Equipment used

Unit Under Test

		<u>PEC</u>	<u>Rel</u>	<u>Serial #</u>
DPM's	A/D Band	NTGS53JA	5	CLWVPP201G2F
DPM's	B/E Band	NTGS53KA	5	CLWVMM1009WT
DPM's	A/D Band	NTGS53LA	5	CLWVMM1009J2
TRM		NPGS58CA	5	NNTM537TK663
PAM		NTGS57AA	22	NNTM5339VPLN

Test Equipment

	<u>Cal Due</u>	<u>Asset #</u>	<u>Serial #</u>
HP 8565E Spectrum Analyzer	Feb. 17, 2002	Z0134851	N/A
HP EPM-442 Power Meter	May 12,2004	Z0059968	N/A
HP 8482A Power Sensor	May 12,2004	N/A	3318A29942
Weinshel Attenuator Model 48-30-43	N/A	N/A	BJ6055

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2.3 Detailed Results

Spurious emissions at antenna terminals

A & D bands, Channel 25, 1931.25MHz

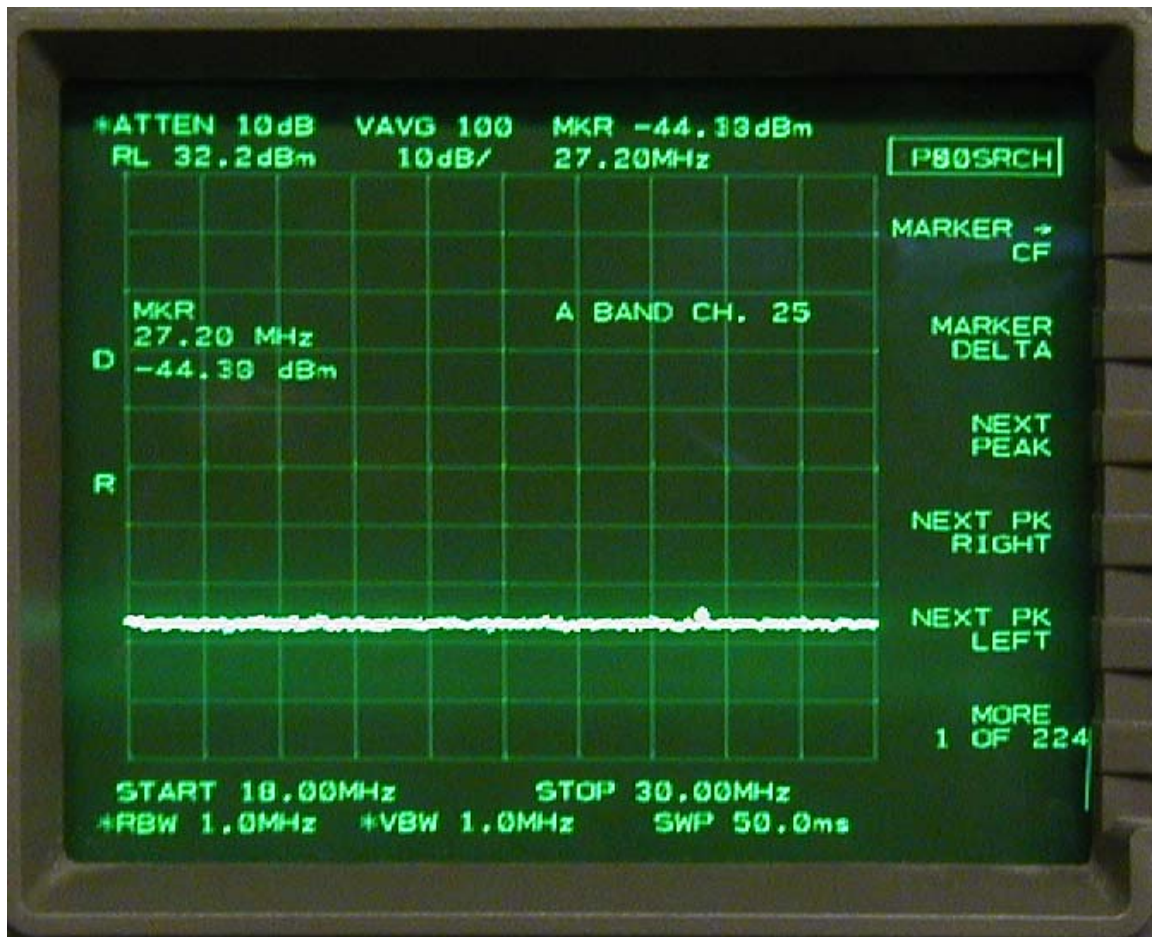


Figure 1 :
18 MHz – 30 MHz

Spur frequency : 27.20 MHz,
Spur level : -44.33 dBm < -33 dBm

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Spurious emissions at antenna terminals

A & D bands, Channel 25, 1931.25MHz

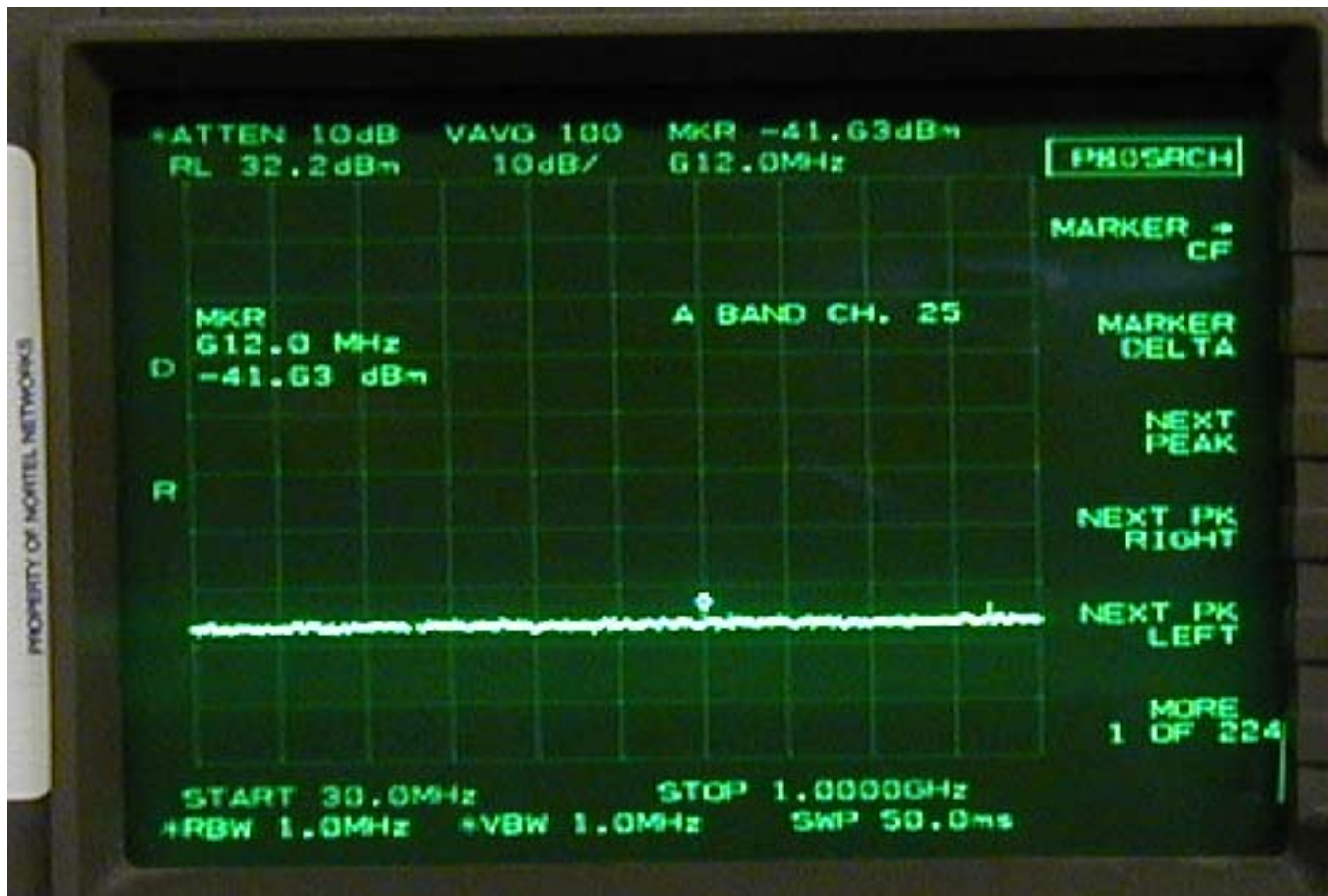


Figure 2 :
30 MHz – 1 GHz

Spur frequency : 612.0 MHz,
Spur level : -41.63 dBm < -33 dBm

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Spurious emissions at antenna terminals

A & D bands, Channel 25, 1931.25MHz

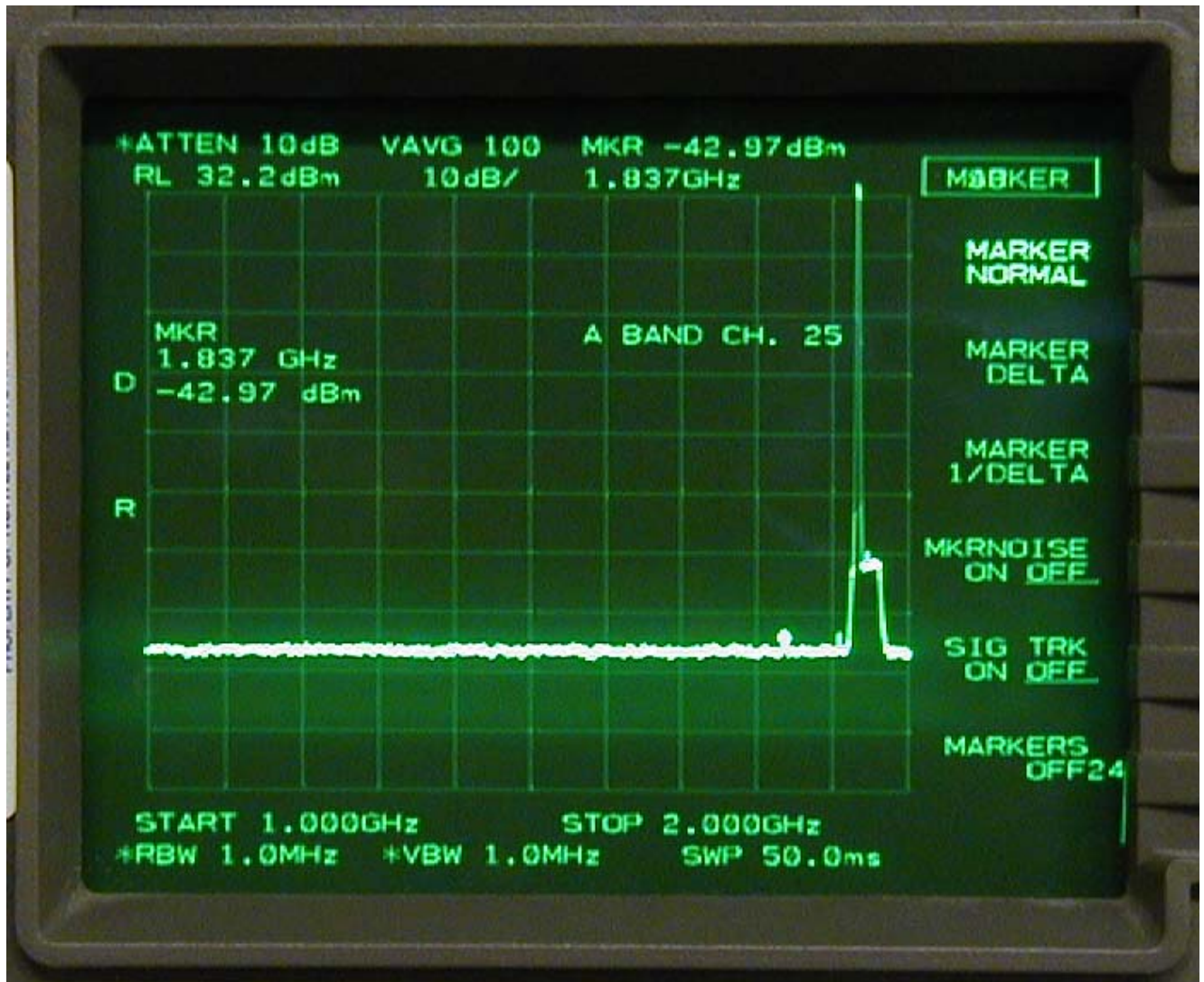


Figure 3:
1GHz - 2GHz

Spur frequency 1,837 MHz,
Spur level : -42.97dBm < -33 dBm

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Spurious emissions at antenna terminals

A & D bands, Channel 25, 1931.25MHz

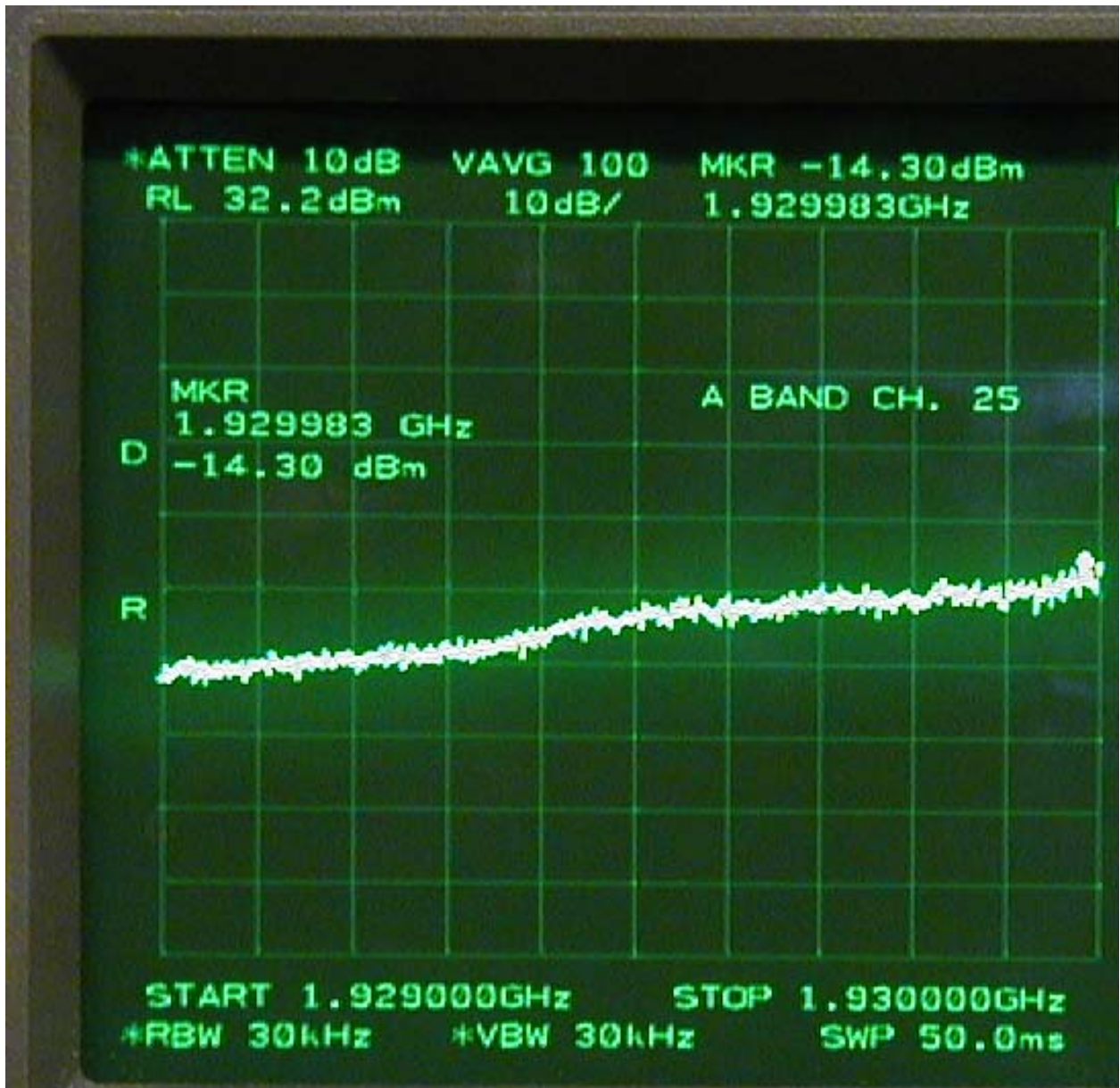


Figure: 4
1.929GHz – 1.930GHz

Spur frequency 1.929983,
Spur level : -14.30 dBm

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Spurious emissions at antenna terminals

A & D bands, Channel 25, 1931.25MHz

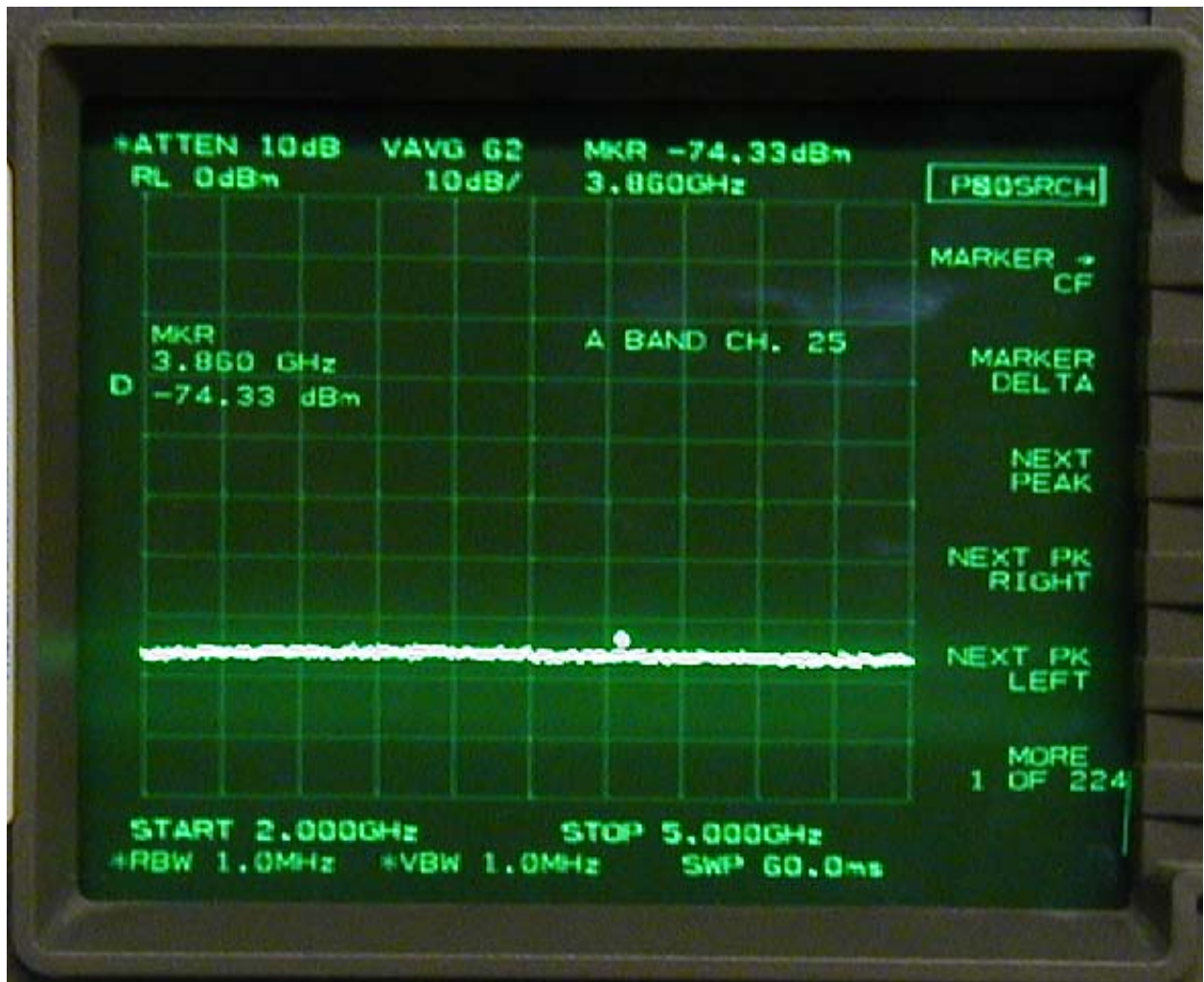


Figure 5:
2GHz – 5GHz

Spur frequency 3,860 MHz,
Spur level : $-74.33\text{dBm} + 32.7\text{ dB} = -41.6\text{ dBm} < -33\text{ dBm}$

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Spurious emissions at antenna terminals
A & D bands, Channel 25, 1931.25MHz

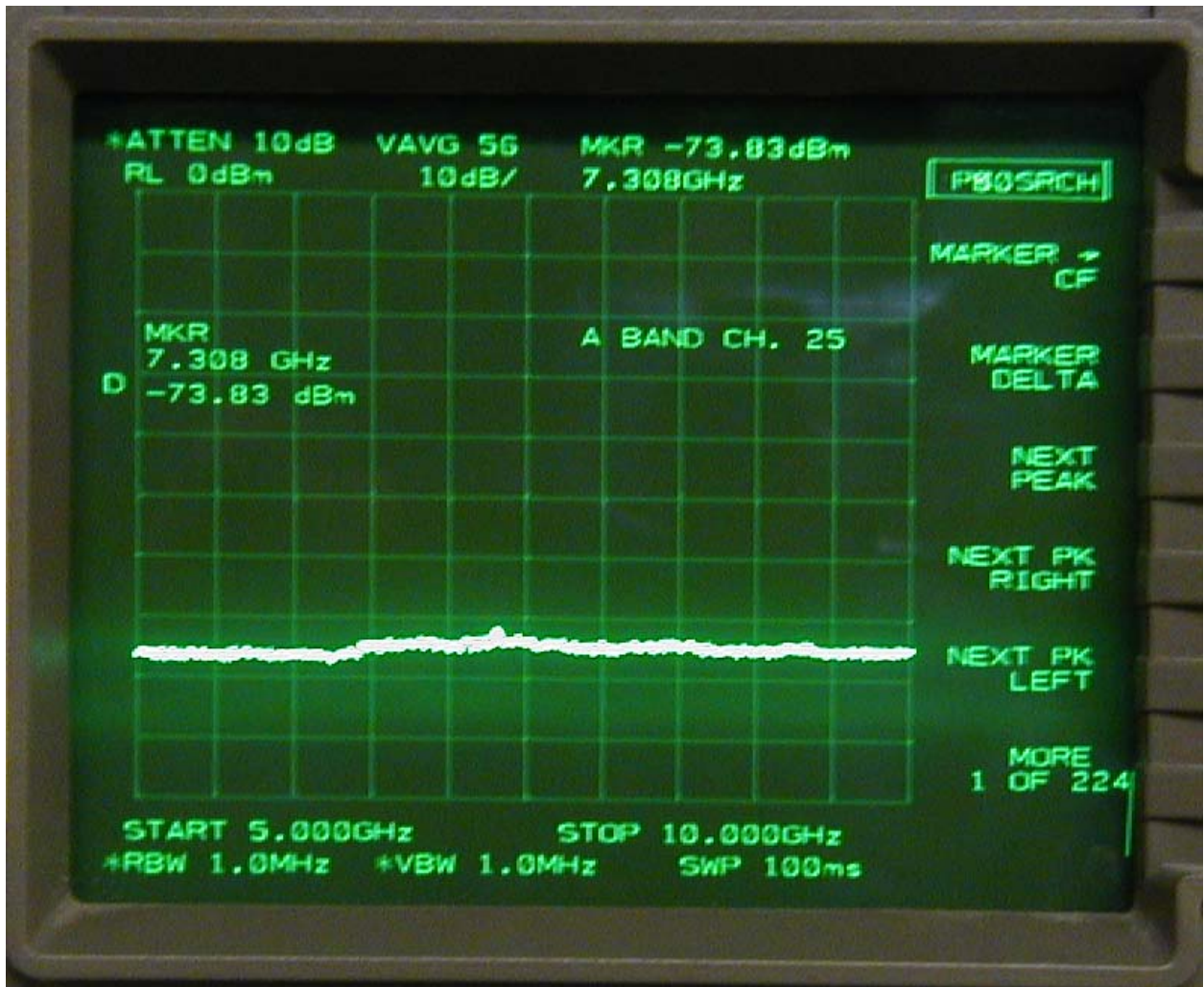


Figure 6:
5GHz – 10 GHz

Spur frequency 7.308 GHz,
Spur level : $-73.83\text{dBm} + 33.6\text{ dB} = -40.2\text{ dBm} < -33\text{ dBm}$

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Spurious emissions at antenna terminals

A & D bands, Channel 25, 1931.25MHz

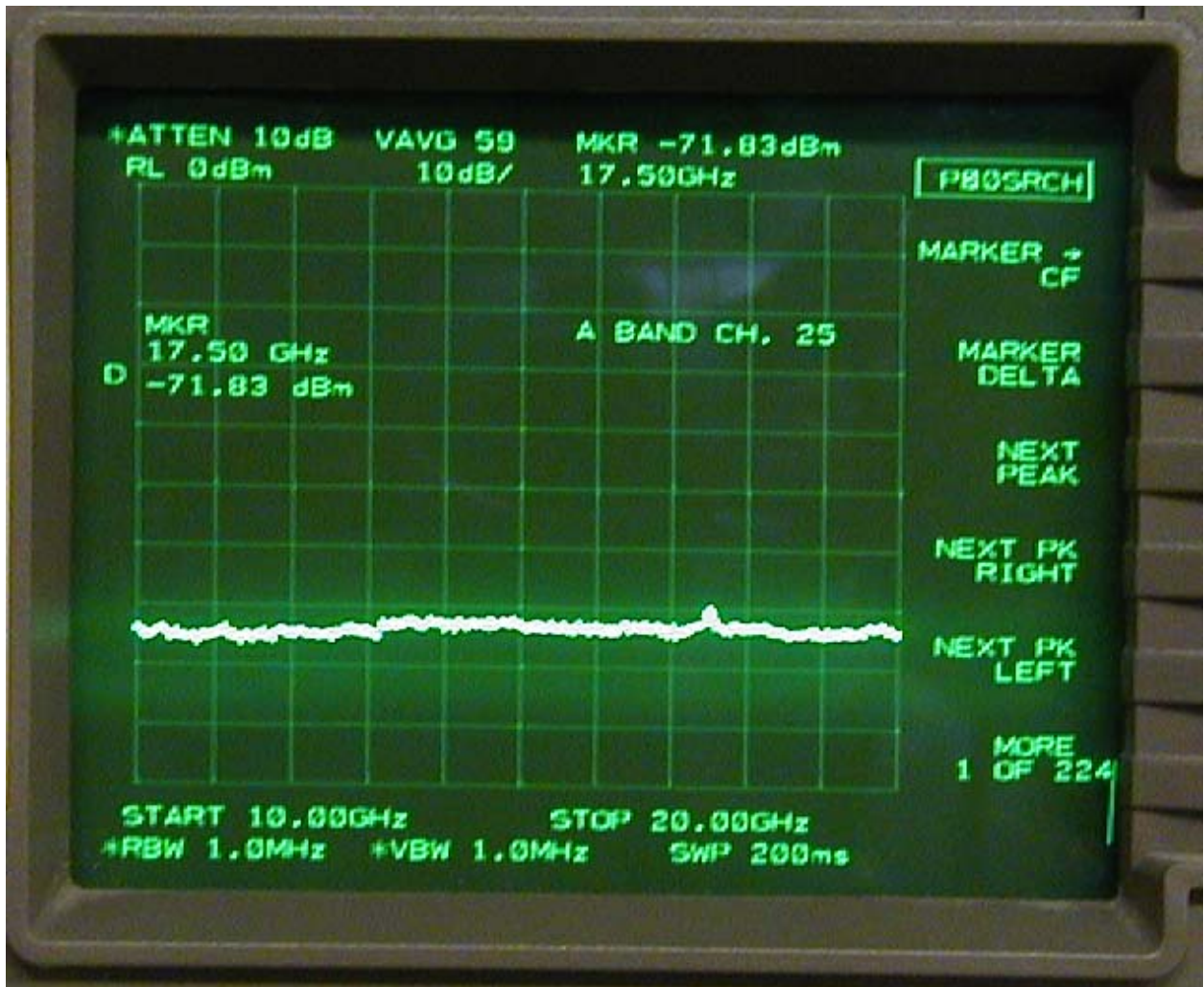


Figure 7:

10 GHz – 20 GH

Spur frequency 17.50 GHz,

Spur level : $-71.83\text{dBm} + 39.5\text{ dB} = -32.3\text{ dBm}$

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TRM 1900 MHz, A & D bands, Channel 275, 1943.75 MHz

Spurious emissions at antenna terminals

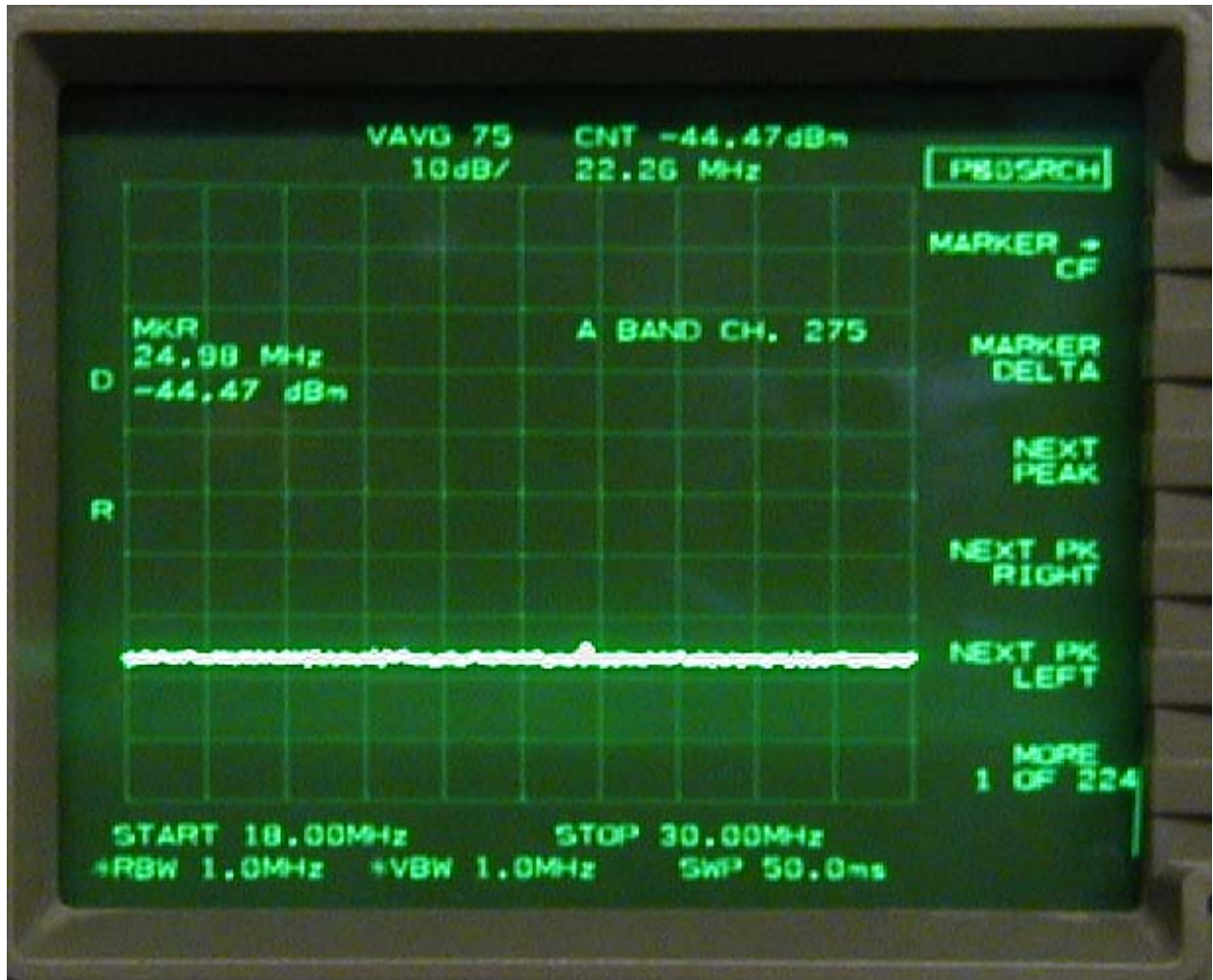


Figure 8 :
18 MHz – 30 MHz

Spur frequency : 24.90 MHz,
Spur level : -44.47 dBm < -33 dBm

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Spurious emissions at antenna terminals

A & D bands, Channel 275, 1943.75 MHz

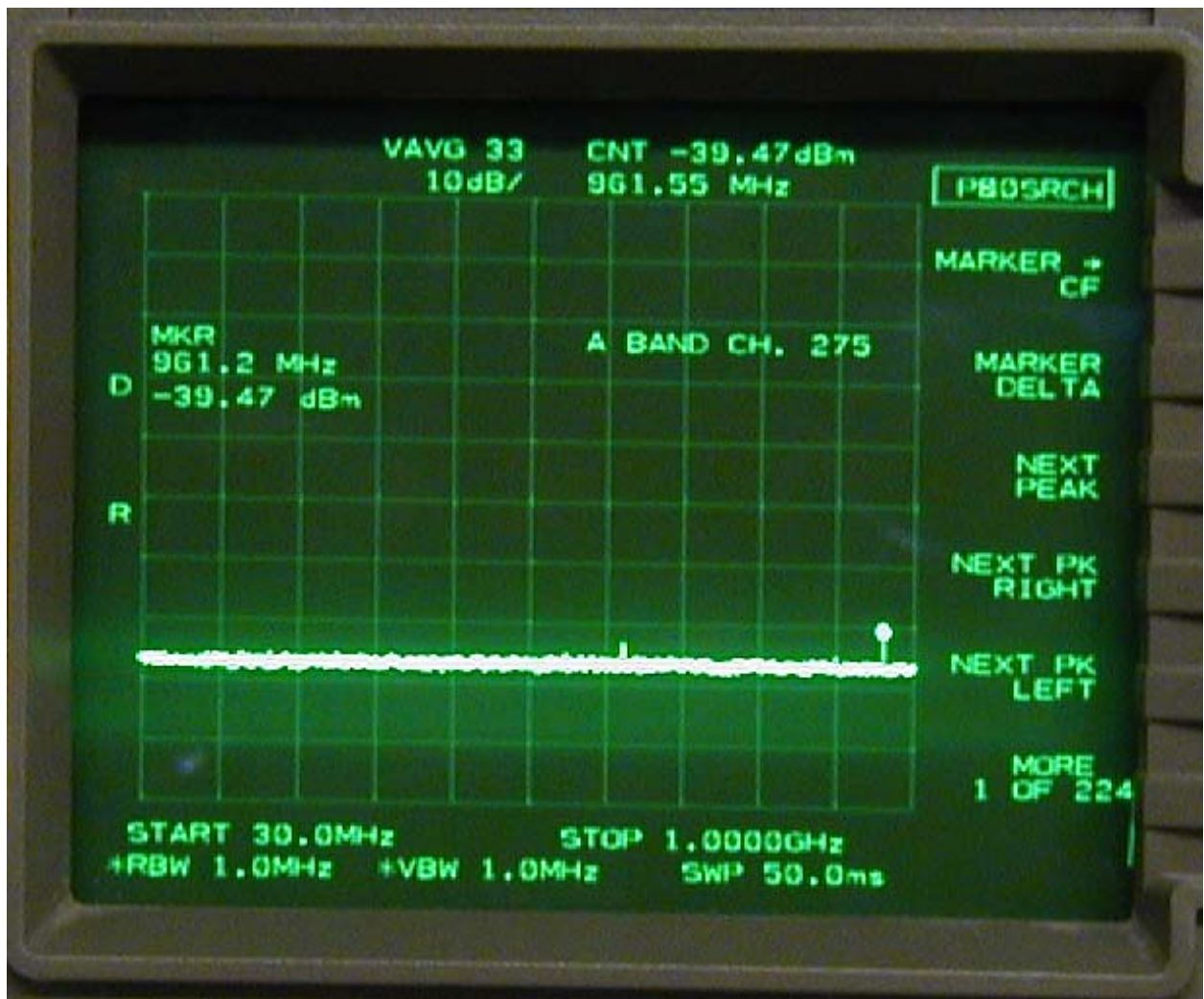


Figure 9 :
30 MHz – 1 GHz

Spur frequency : 961.2 MHz,
Spur level : -39.47 dBm < -33 dBm

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Spurious emissions at antenna terminals

A & D bands, Channel 275, 1943.75 MHz

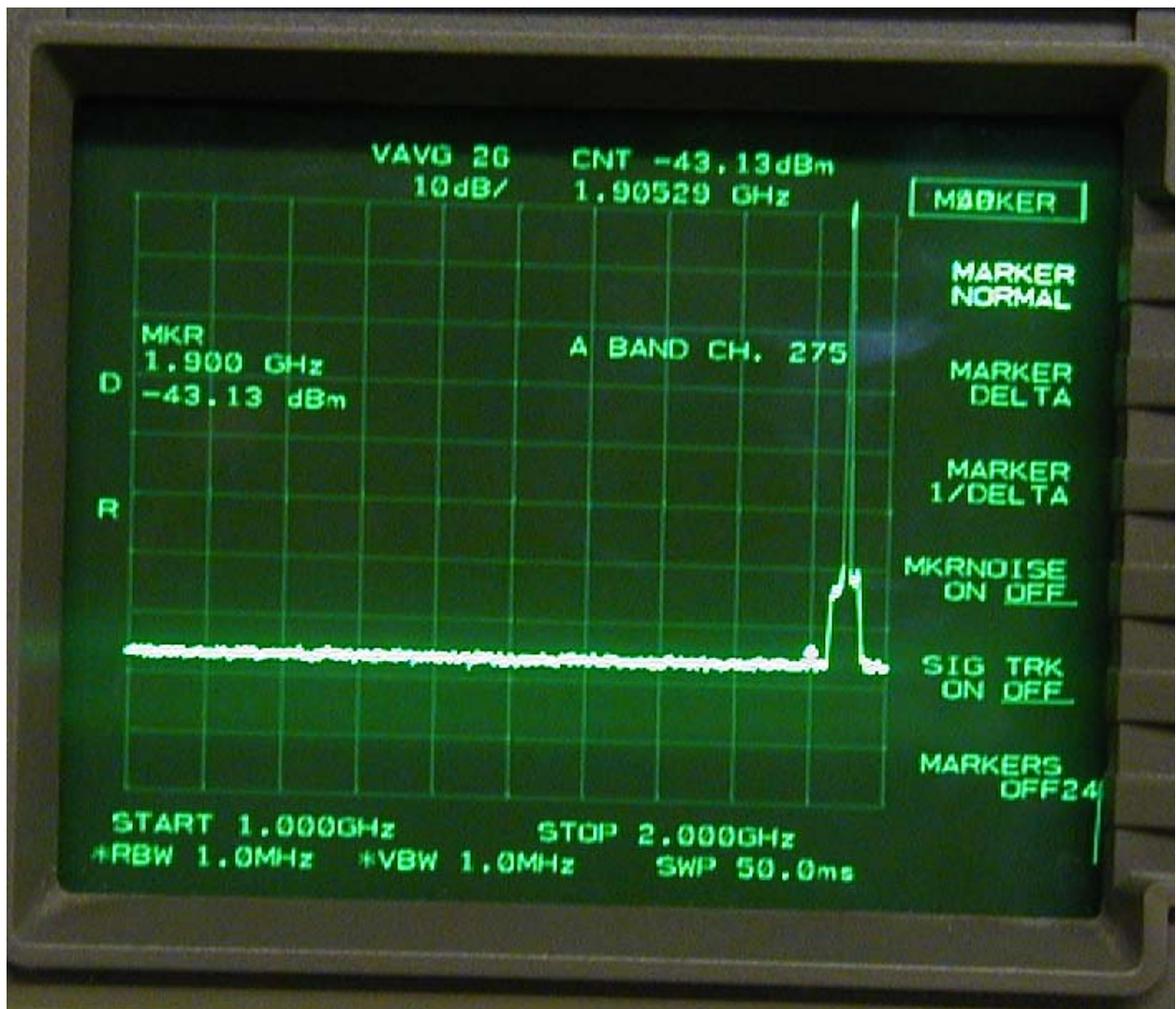


Figure 10:
1GHz - 2GHz

Spur frequency 1900 MHz,
Spur level : -43.13 dBm < -33 dBm

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Spurious emissions at antenna terminals

A & D bands, Channel 275, 1943.75 MHz

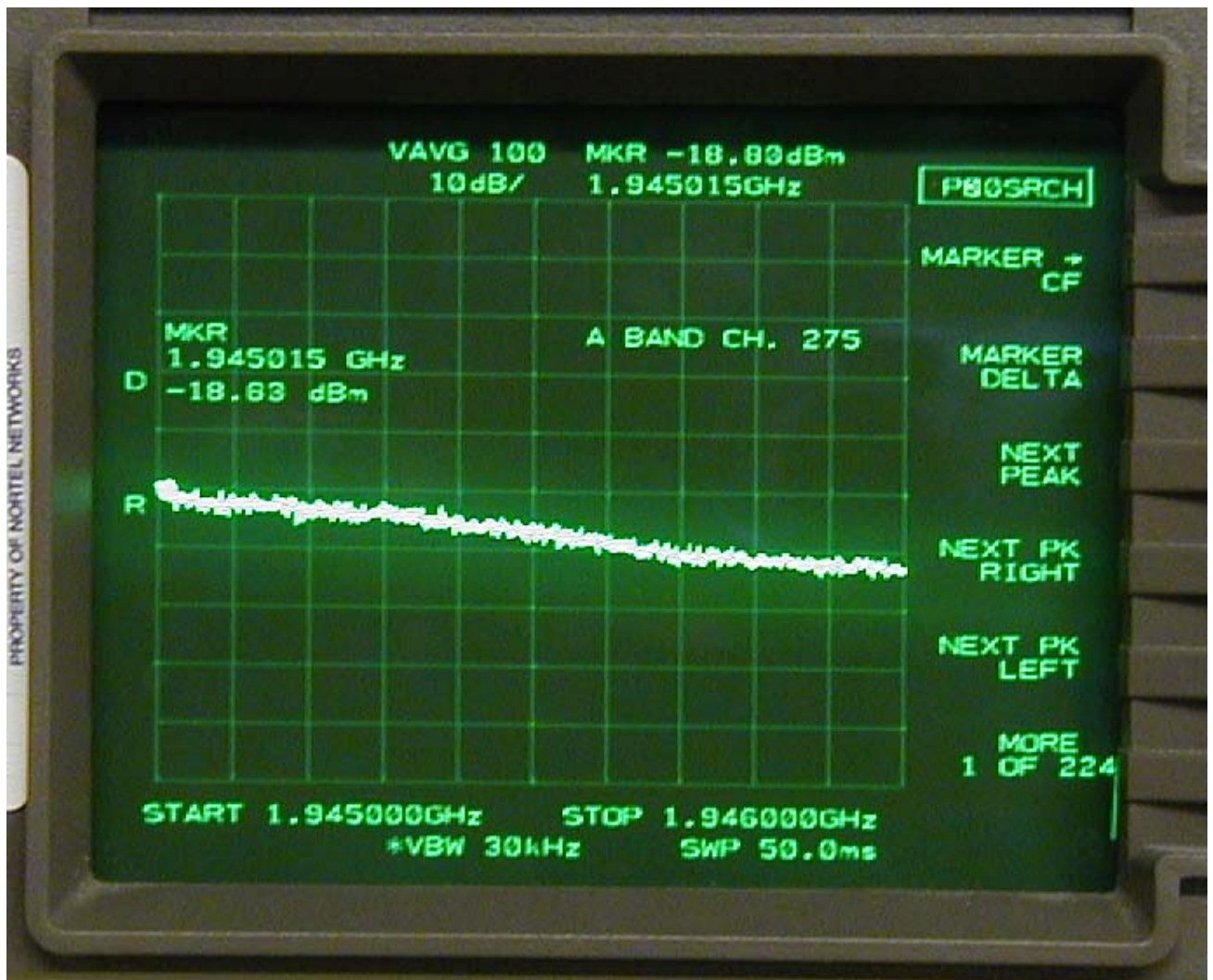


Figure: 11

1.945GHz – 1.946GHz

Spur frequency 1.945015 GHz,

Spur level : -18.83 dBm

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Spurious emissions at antenna terminals

A & D bands, Channel 275, 1943.75 MHz

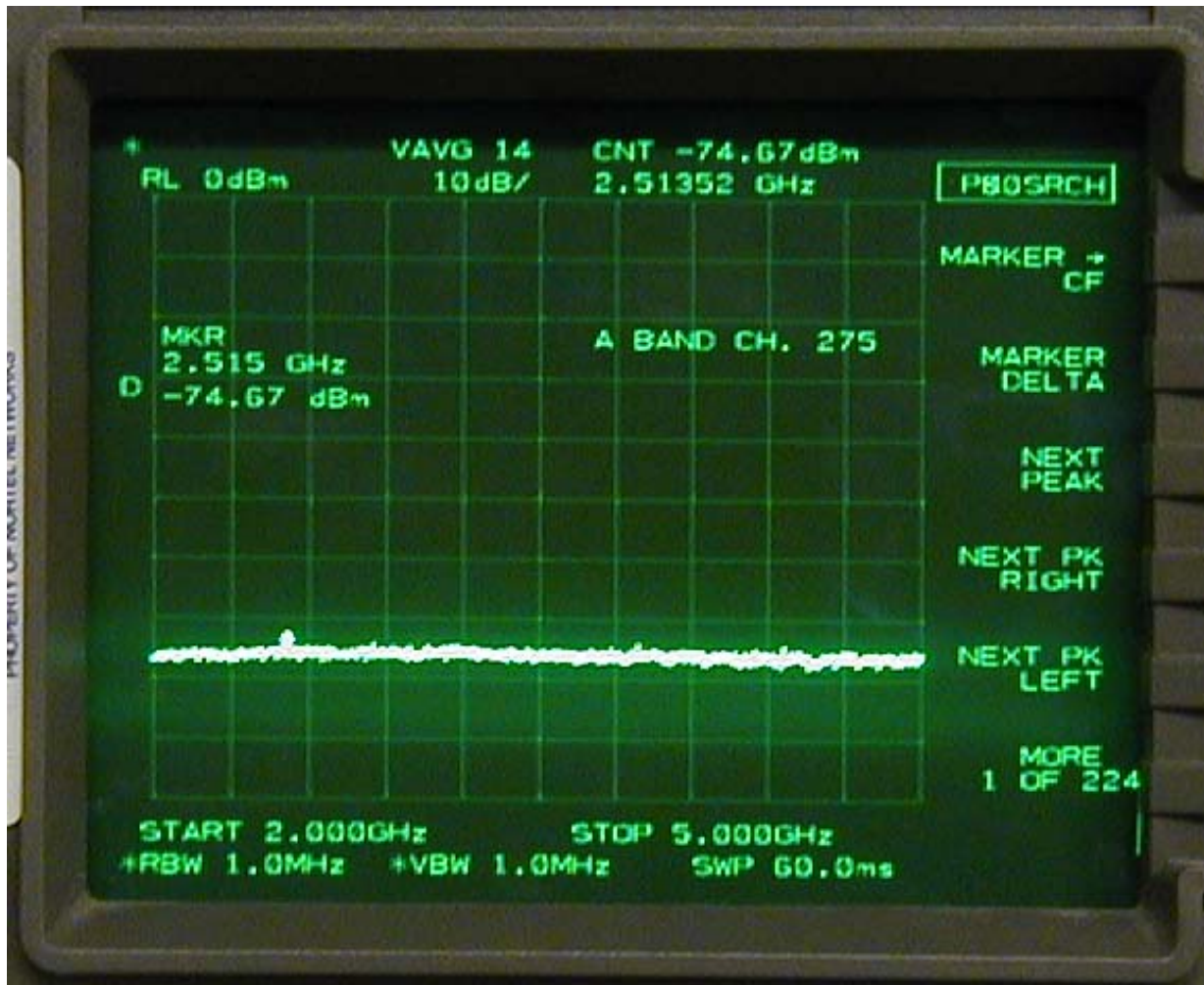


Figure 12:
2GHz – 5GHz

Spur frequency 2.51352 GHz,
Spur level : -74.67dBm +32.5 dB = -42.17 dBm < 33 dBm

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Spurious emissions at antenna terminals

A & D bands, Channel 275, 1943.75 MHz

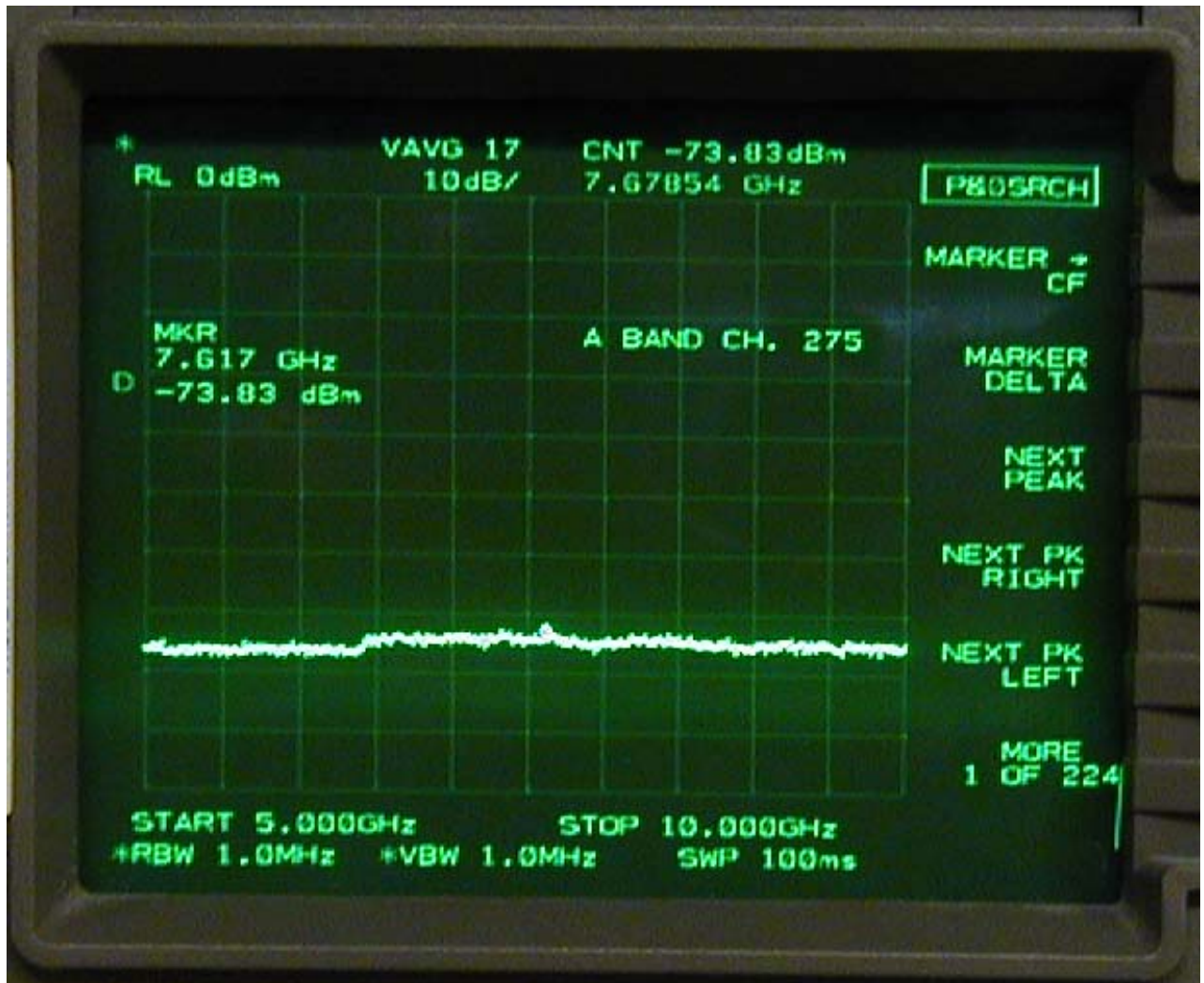


Figure 13:
5GHz – 10 GHz

Spur frequency 7.67854 GHz,

Spur level : -73.83dBm + 33.5 dB = -40.33 dBm < -33 dBm

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Spurious emissions at antenna terminals

A & D bands, Channel 275, 1943.75 MHz

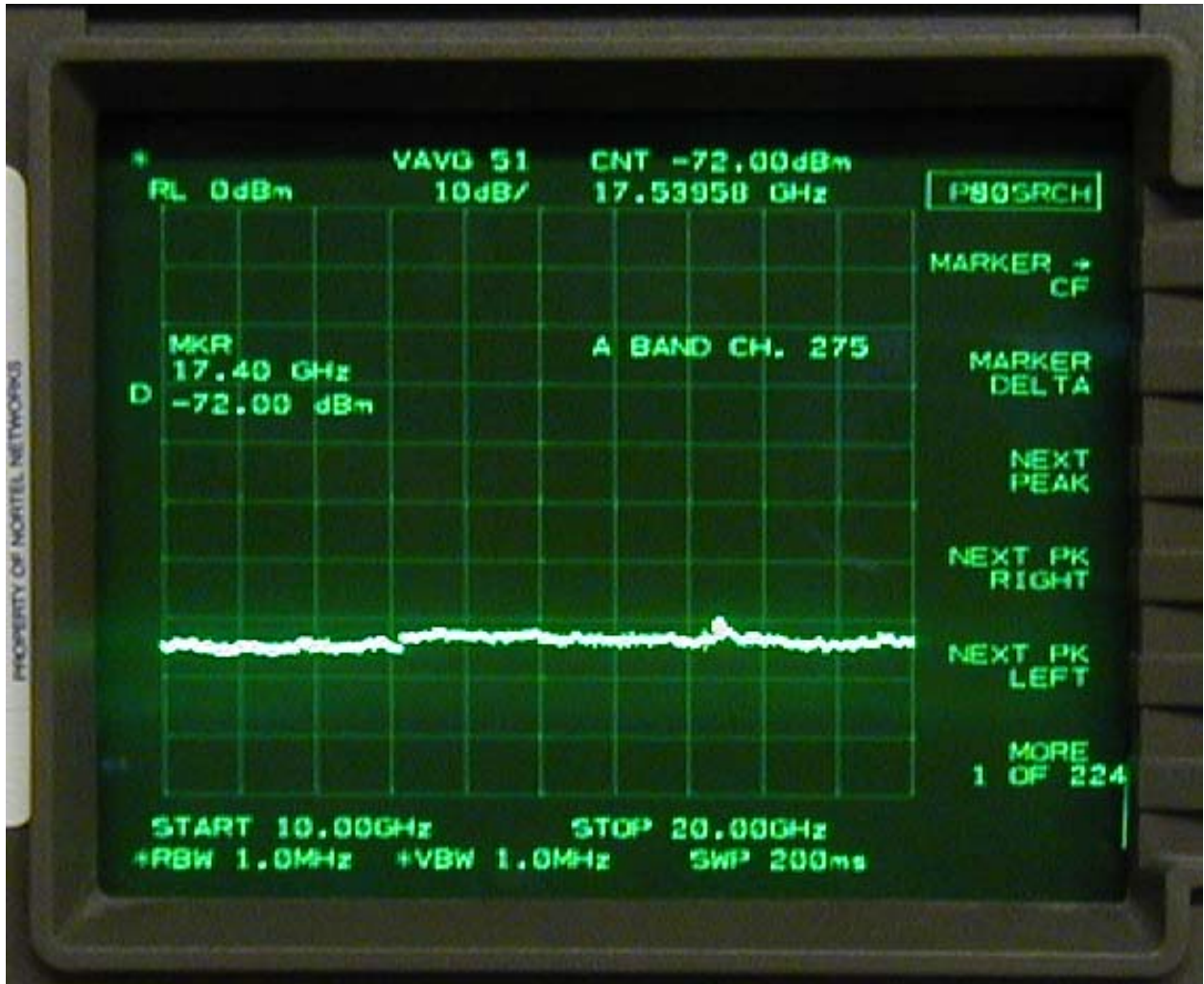


Figure 14:
10 GHz – 20 GHz

Spur frequency 17.40 GHz,
Spur level : -72.00 dBm + 37.1 dB = - 34.9 dBm < 33 dBm

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TRM 1900 MHz, A & D bands, Channel 325, 1946.25 MHz

Spurious emissions at antenna terminals

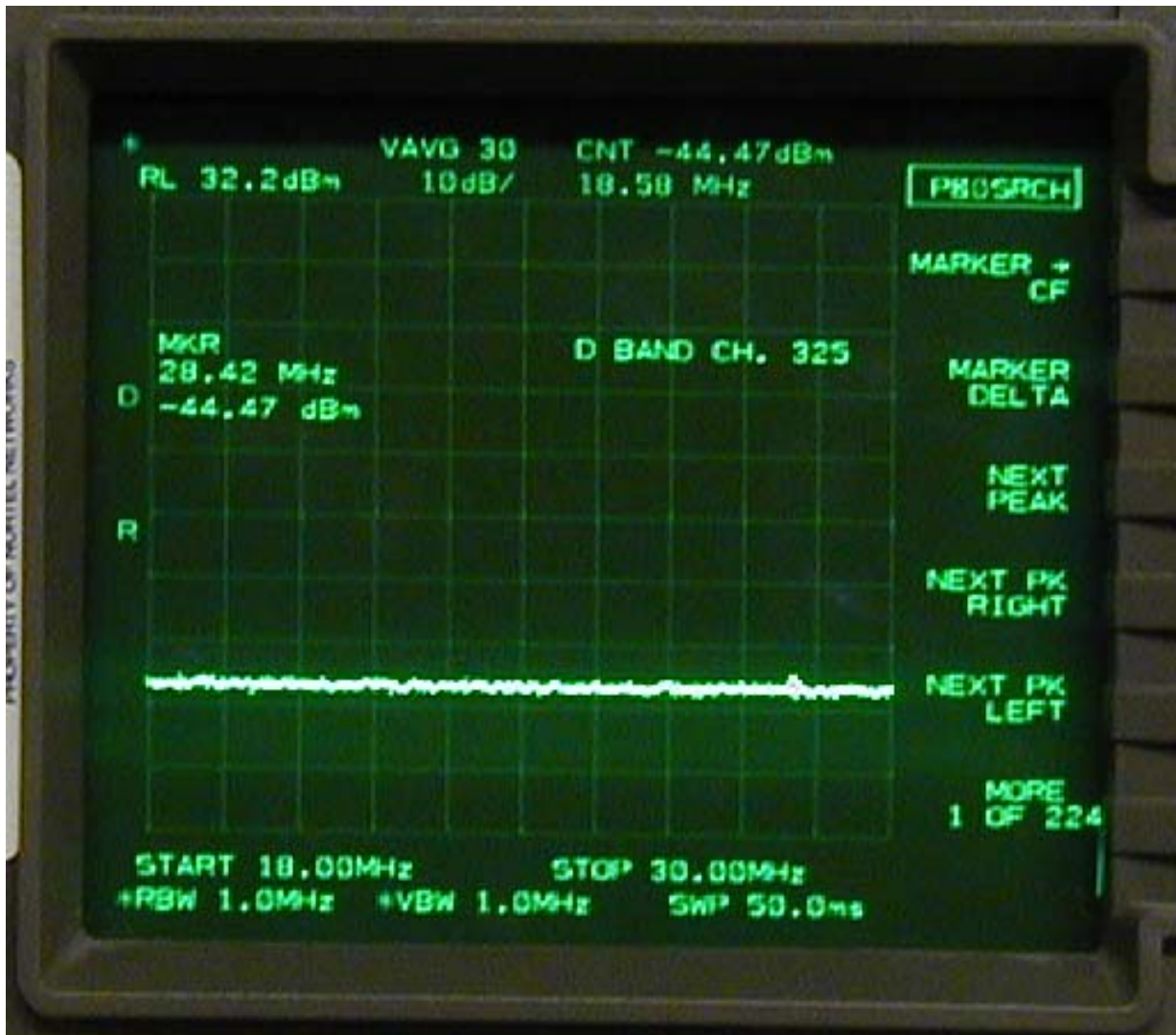


Figure 15 :
18 MHz – 30 MHz

Spur frequency : -28.42 MHz,
Spur level : -44.47 dBm < -33 dBm

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Spurious emissions at antenna terminals

A & D bands, Channel 325, 1946.25 MHz

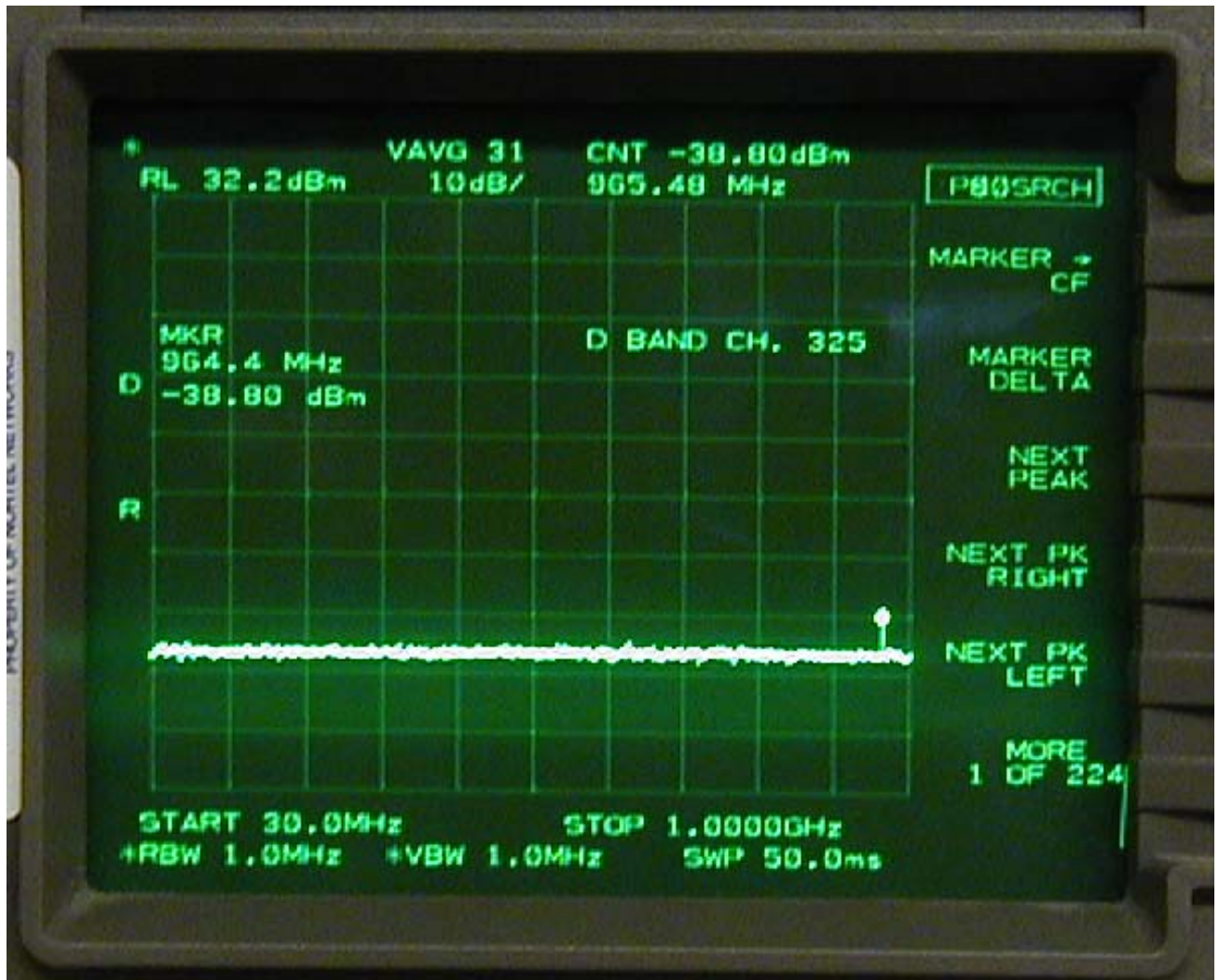


Figure 16 :
30 MHz – 1 GHz

Spur frequency : 964.4 MHz,
Spur level : --38.80 dBm < -33 dBm

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Spurious emissions at antenna terminals

A & D bands, Channel 325, 1946.25 MHz

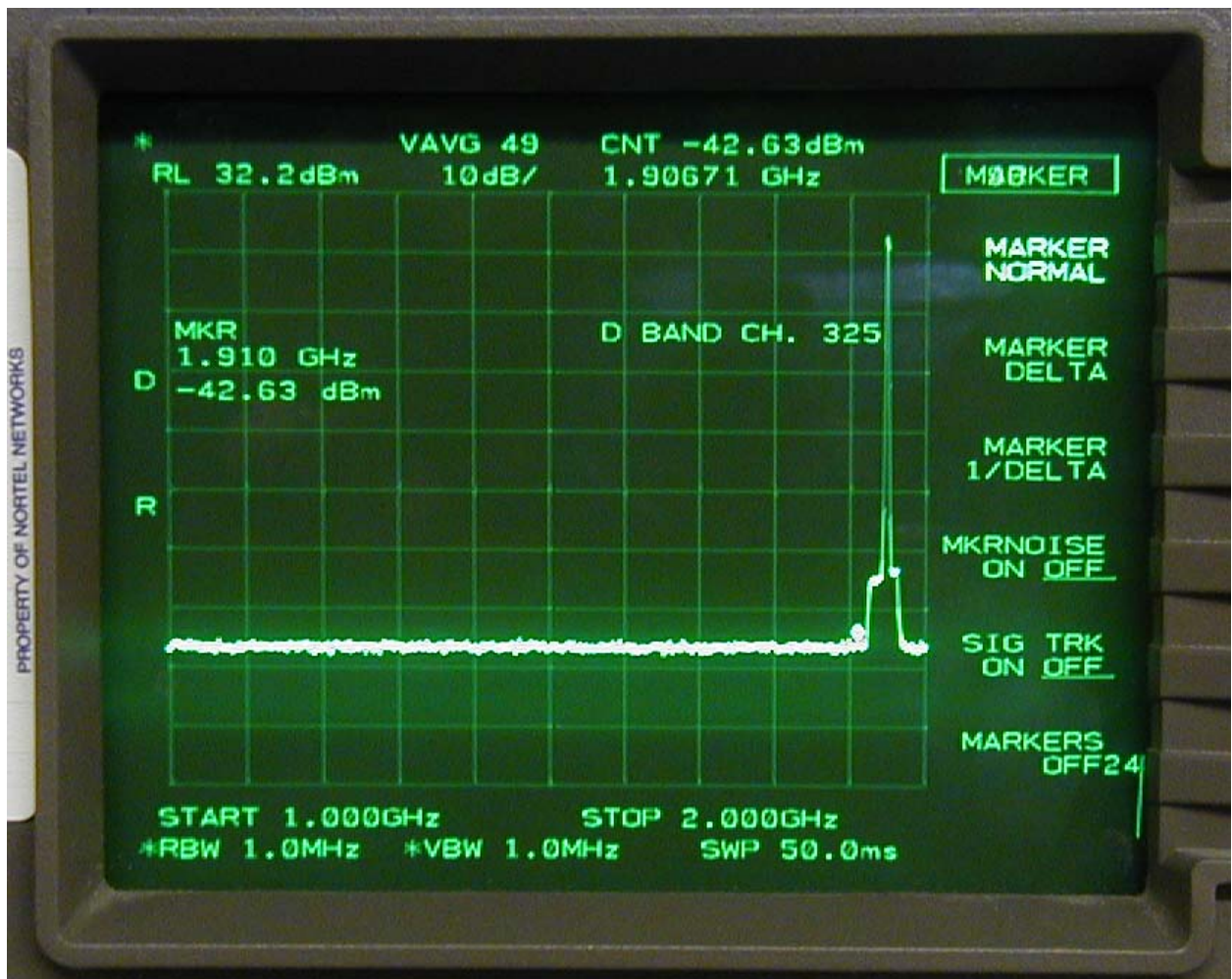


Figure 17:
1GHz - 2GHz

Spur frequency 1.910GHz ,
Spur level : - 42.63dBm < - 33 dBm

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Spurious emissions at antenna terminals

A & D bands, Channel 325, 1946.25 MHz

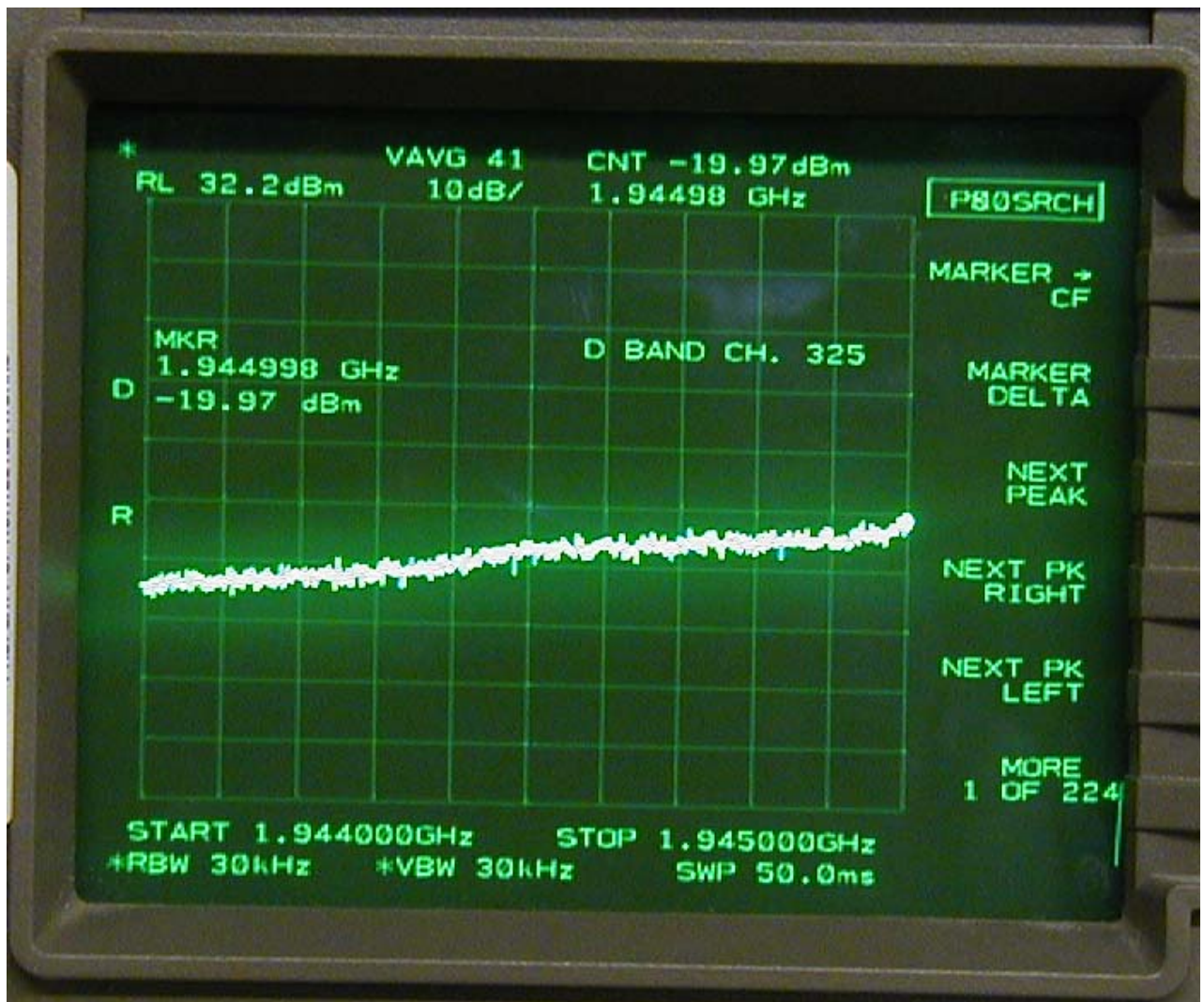


Figure: 18

1.929GHz – 1.930GHz

Spur frequency 1.944998,

Spur level : -19.97 dBm

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Spurious emissions at antenna terminals

A & D bands, Channel 325, 1946.25 MHz

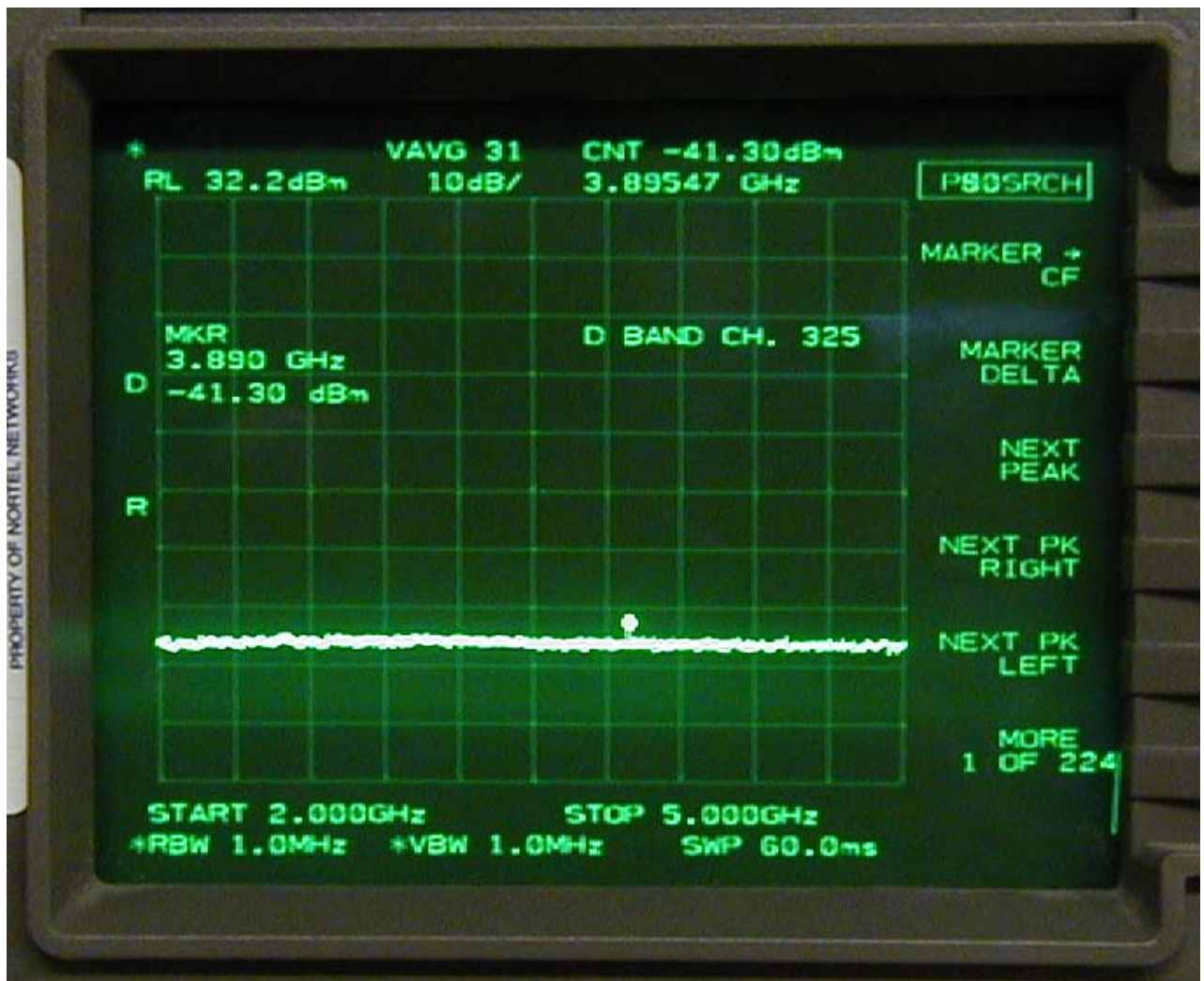


Figure 19:
2GHz – 5GHz

Spur frequency 3,890 MHz,
Spur level : -41.30dBm< - 33 dBm

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Spurious emissions at antenna terminals
A & D bands, Channel 325, 1946.25 MHz

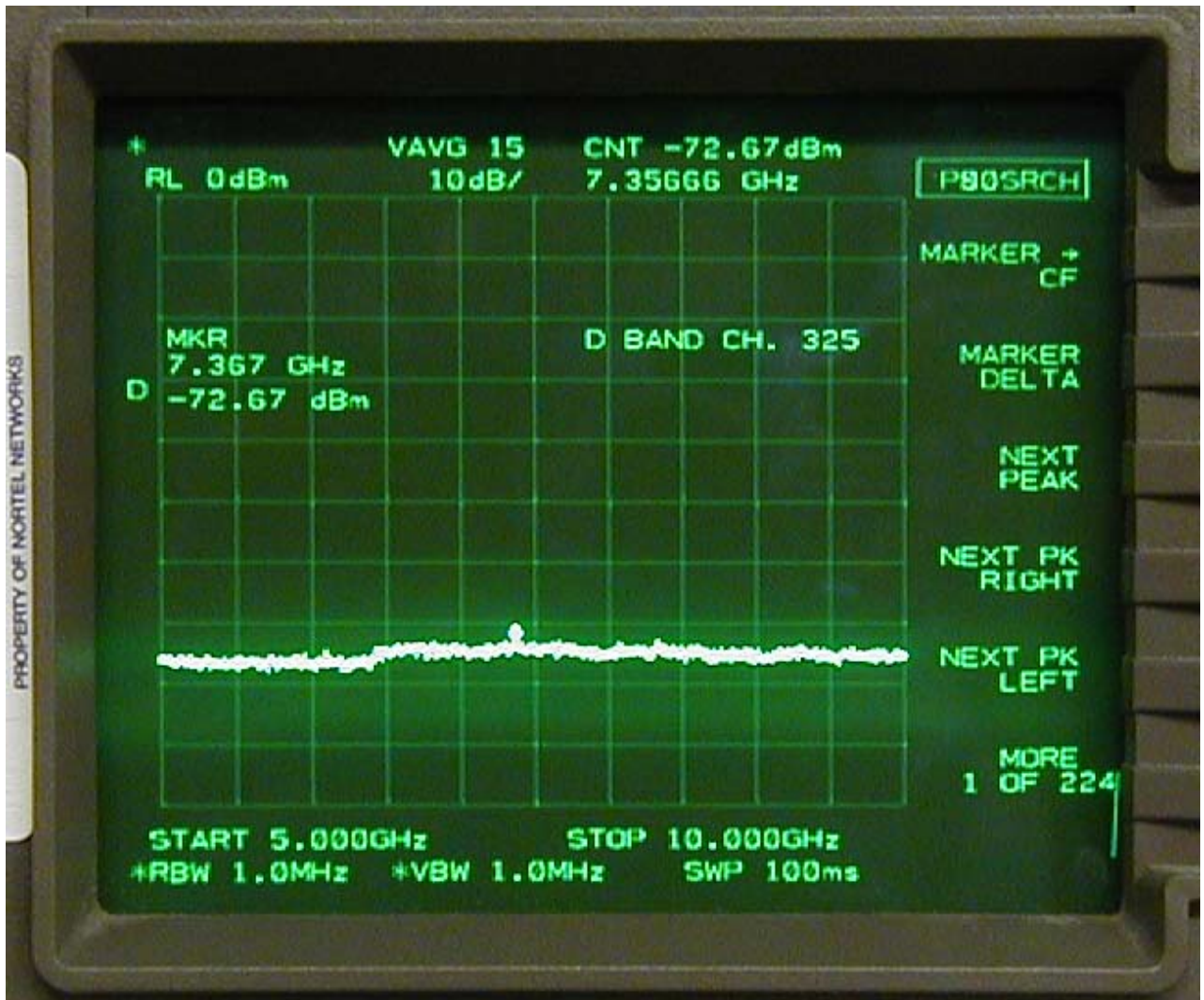


Figure 20:
5GHz – 10 GHz

Spur frequency 7.367 GHz,
Spur level : -72.67dBm + 33.5 = - 39.17 dB <-33 dBm

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Spurious emissions at antenna terminals

A & D bands, Channel 325, 1946.25 MHz

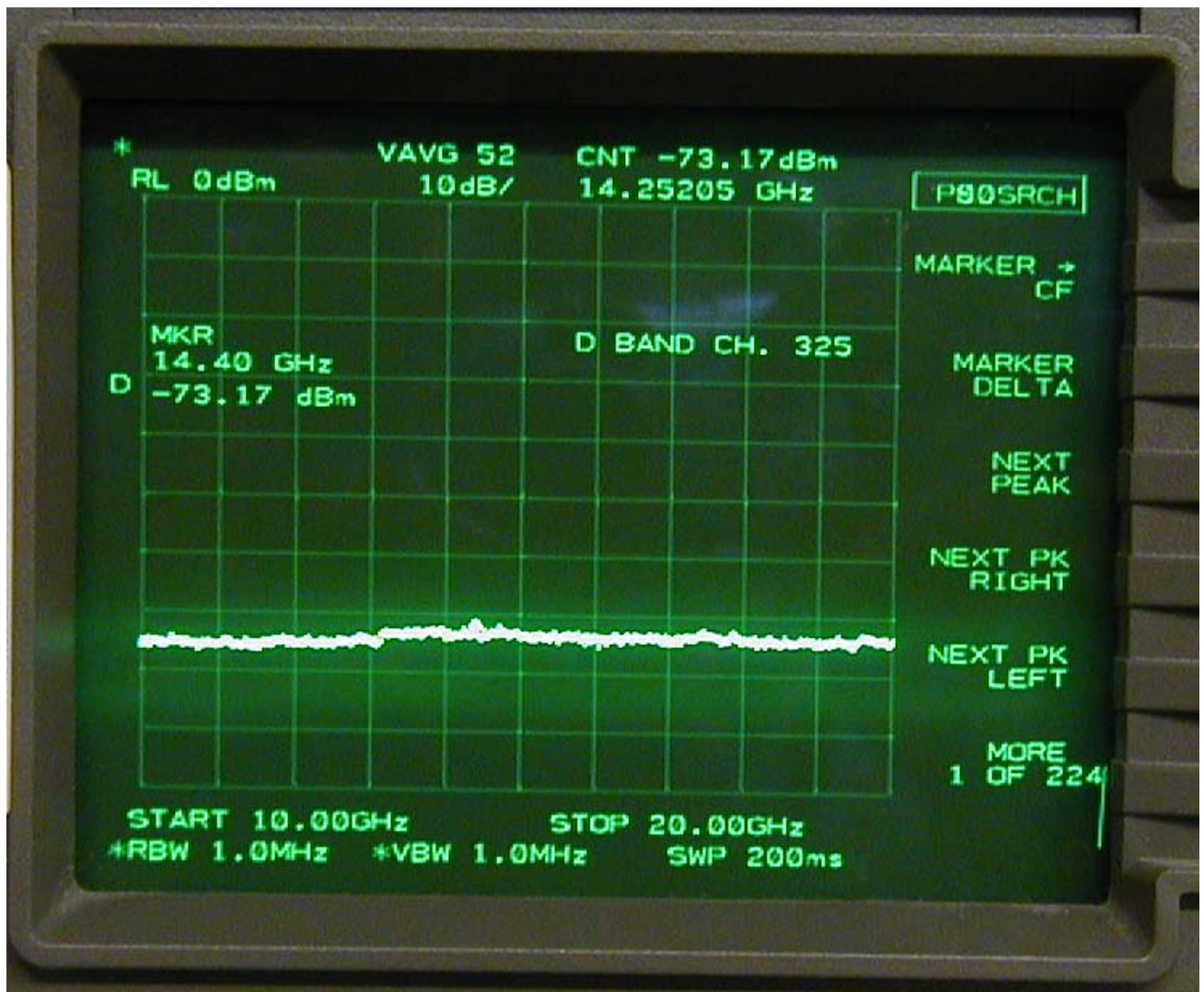


Figure 21:
10 GHz – 20 GH

Spur frequency 14.40 GHz,
Spur level : -73.17dBm +35.1 dB = - 38.07 dBm <- 33 dBm

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TRM 1900 MHz A & D bands, Channel 375, 1948.75 MHz

Spurious emissions at antenna terminals

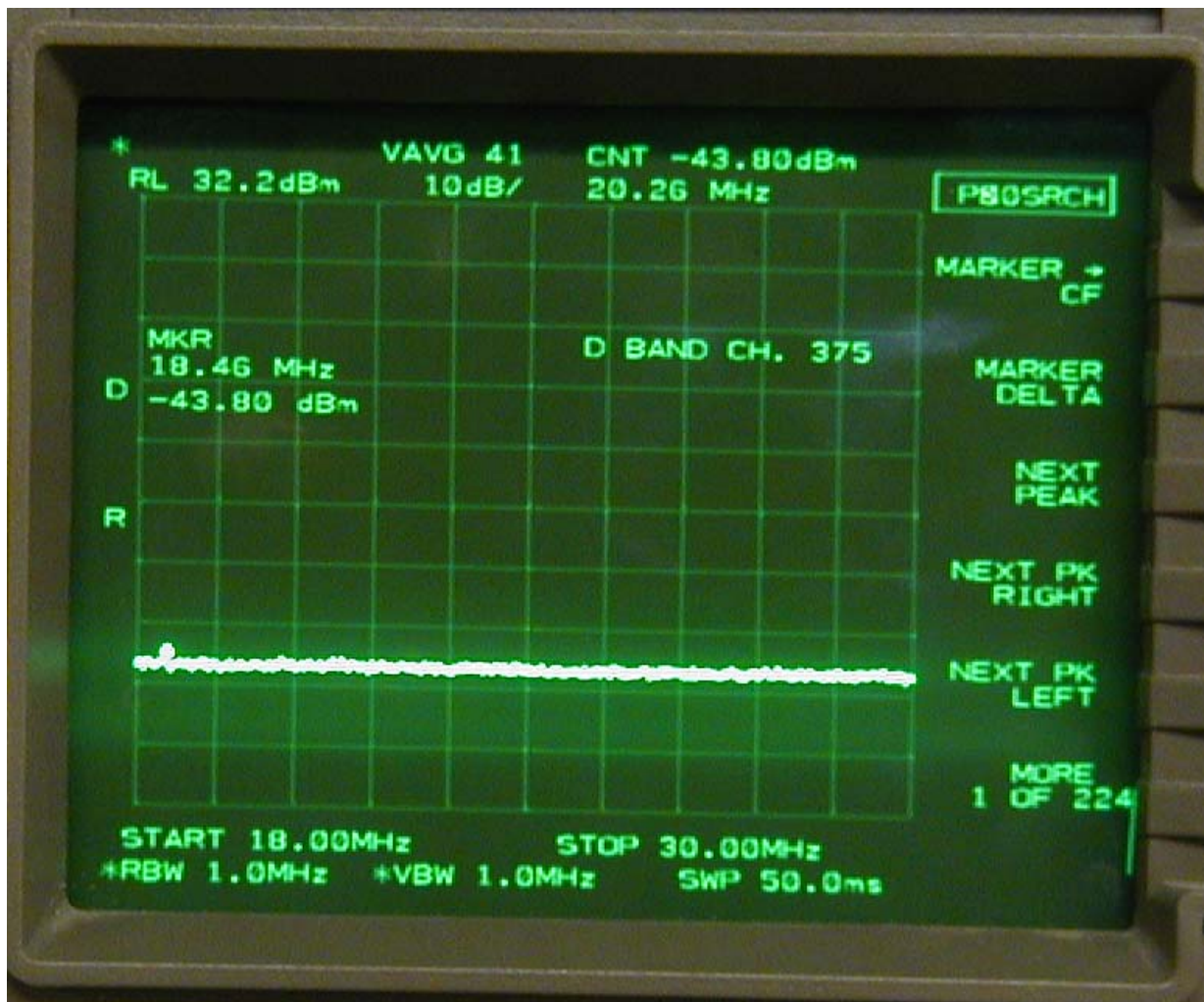


Figure 22 :
18 MHz – 30 MHz

Spur frequency : 18.46 MHz,
Spur level : -43.80 dBm < -33 dBm

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Spurious emissions at antenna terminals A & D bands, Channel 375, 1948.75 MHz

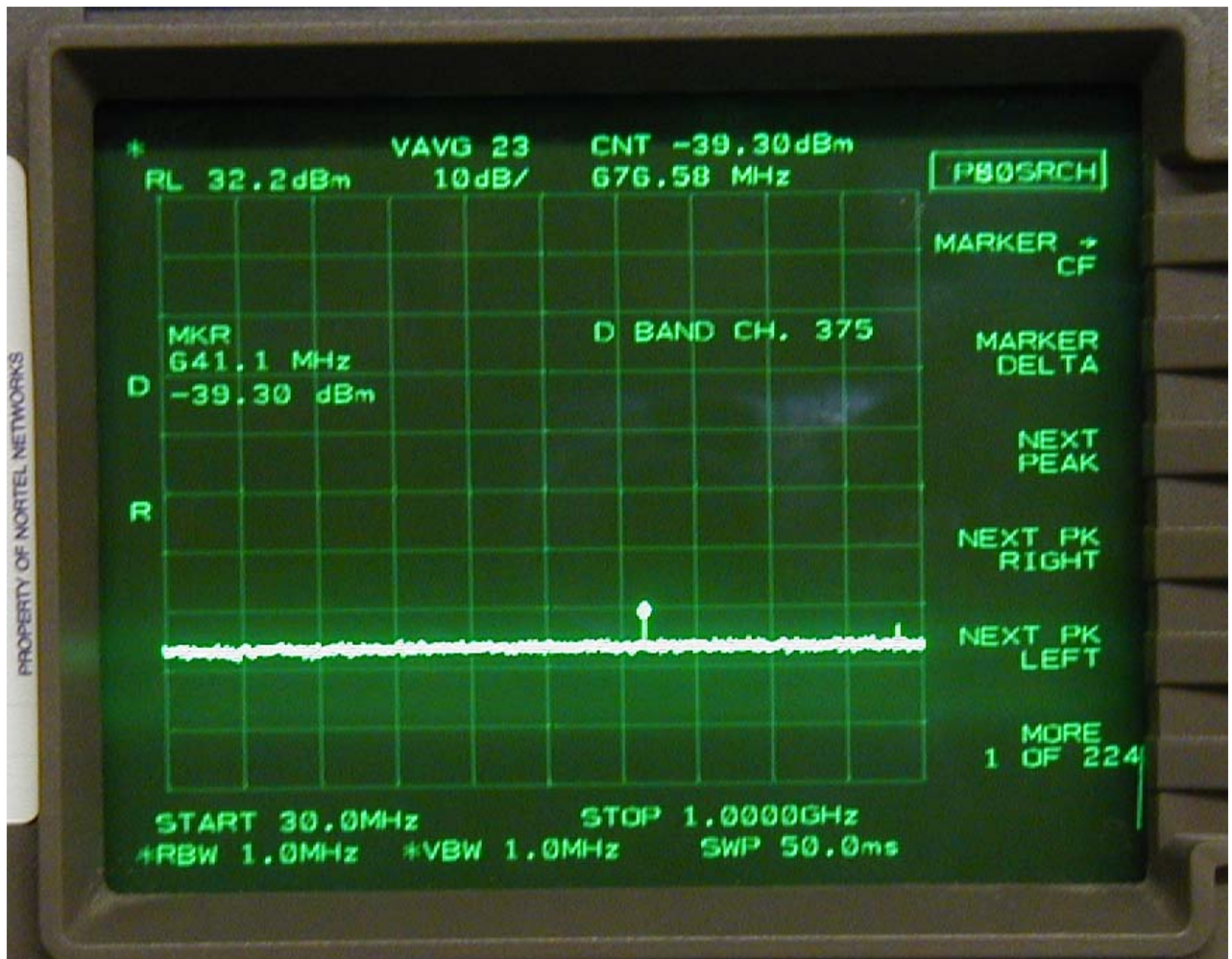


Figure 23 :
30 MHz – 1 GHz

Spur frequency : 641.1 MHz,
Spur level : -39.30 dBm < -33 dBm

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Spurious emissions at antenna terminals

A & D bands, Channel 375, 1948.75 MHz

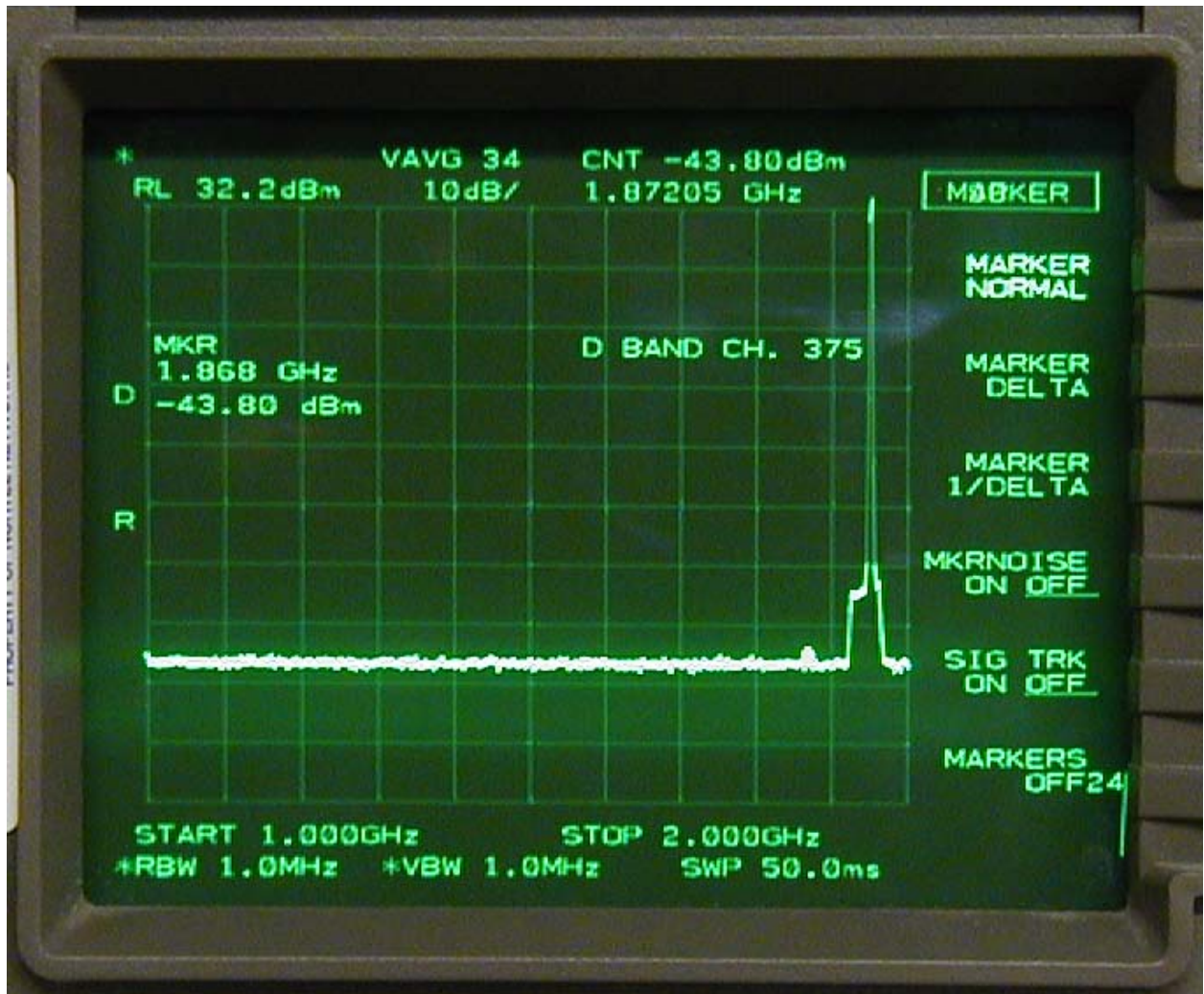


Figure 24:
1GHz - 2GHz

Spur frequency 1.868 GHz

Spur level : -43.80dBm < - 33 dBm

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Spurious emissions at antenna terminals

A & D bands, Channel 375, 1948.75 MHz

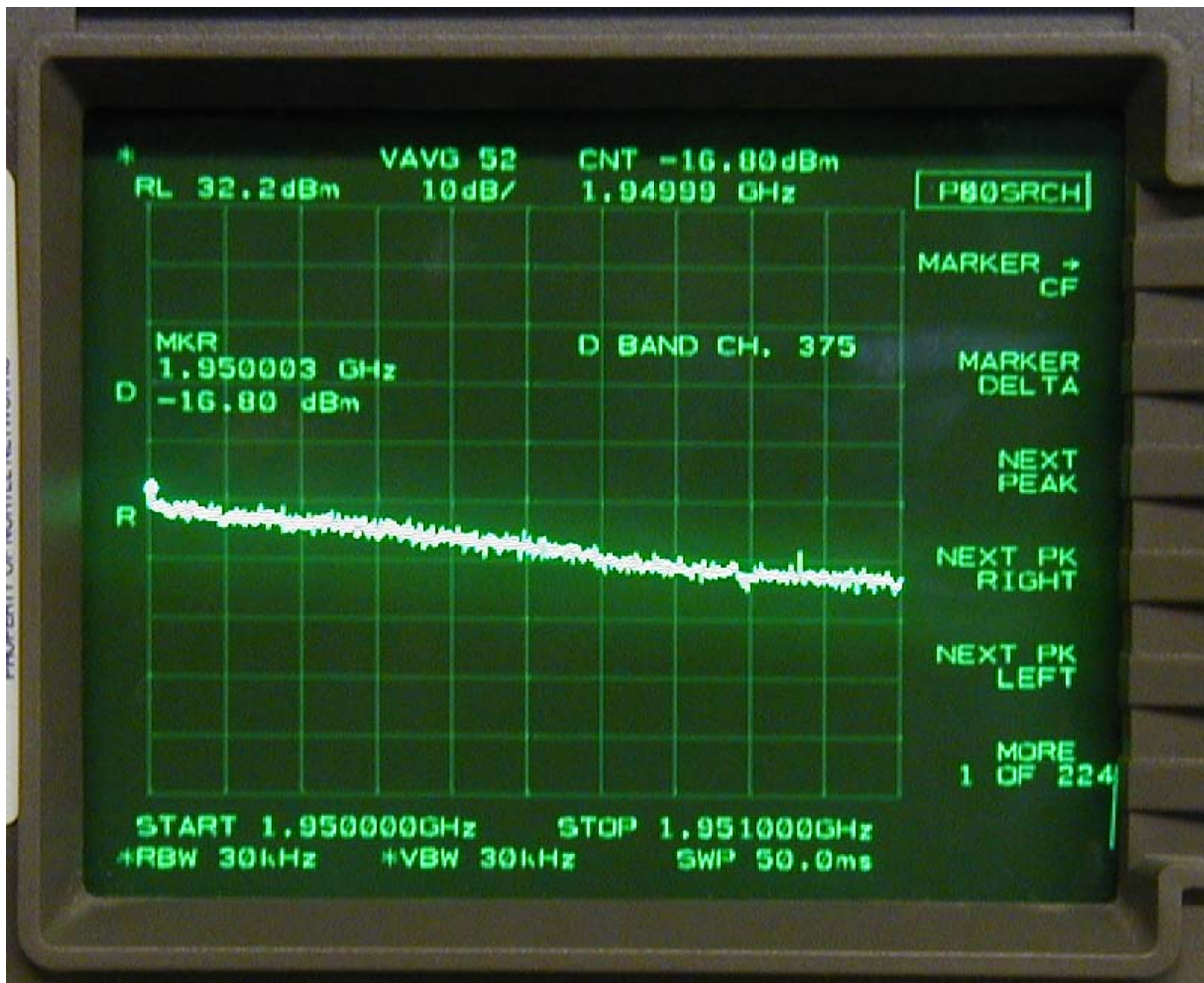


Figure: 25

1.95GHz – 1.951GHz

Spur frequency 1.950003 GHz,

Spur level : -16.80 dBm

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Spurious emissions at antenna terminals

A & D bands, Channel 375, 1948.75 MHz

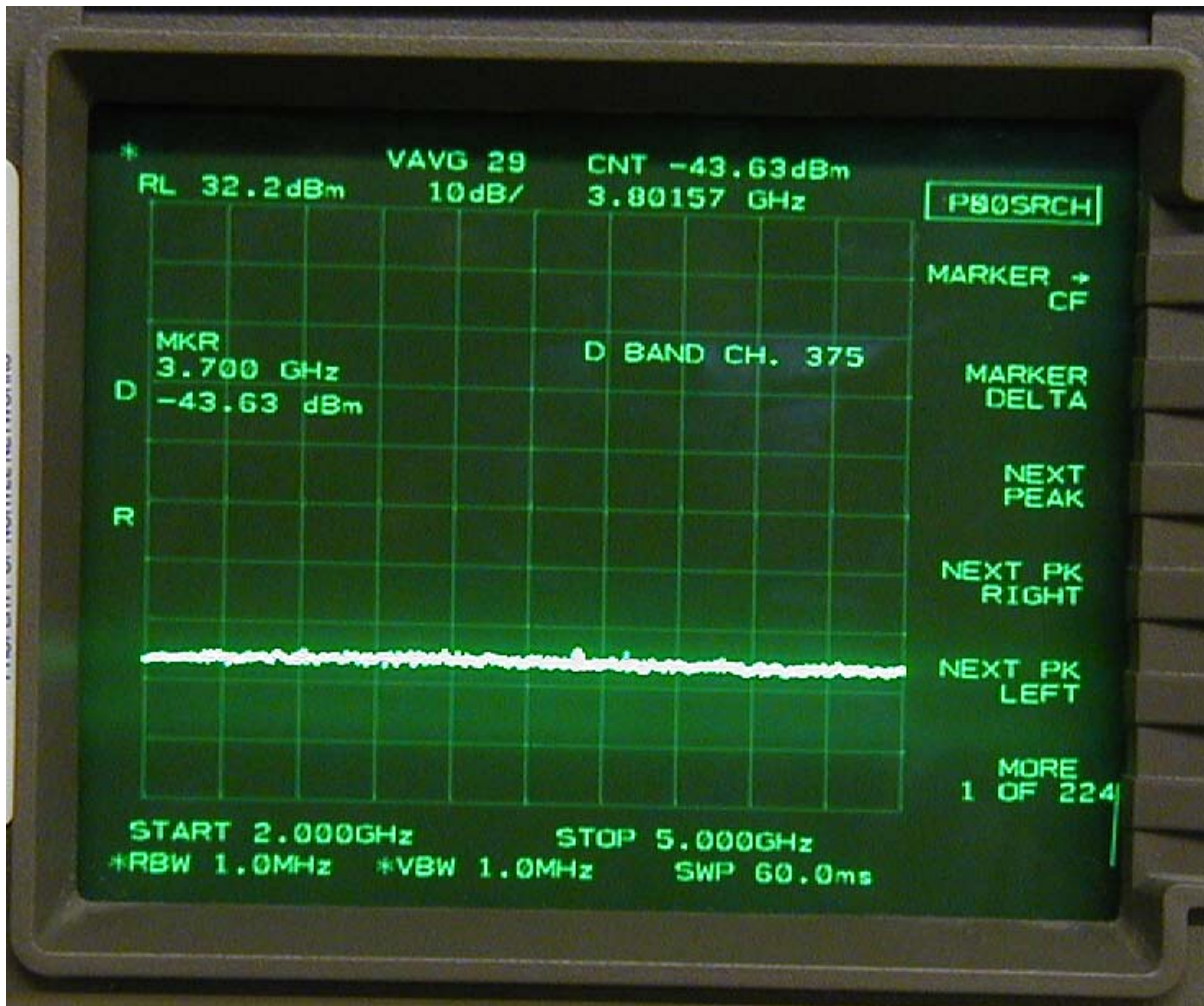


Figure 26:
2GHz – 5GHz

Spur frequency 3,700 MHz,
Spur level : -43.63dBm < -33 dBm

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Spurious emissions at antenna terminals
A & D bands, Channel 375, 1948.75 MHz

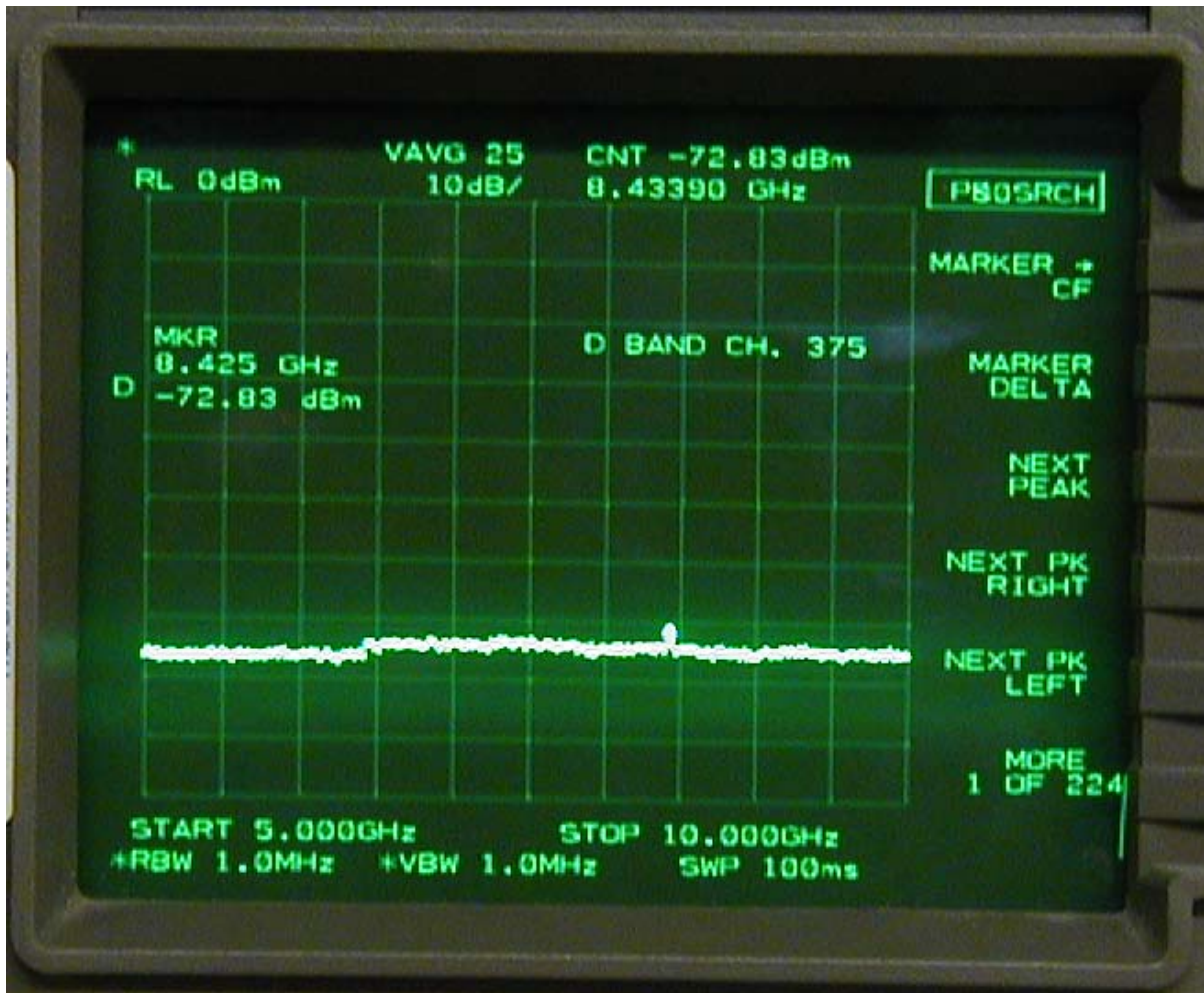


Figure 27:
5GHz – 10 GHz

Spur frequency 7.308 GHz,
Spur level : -73.83dBm + 33.5 dB = - 40.33 dBm < -33 dBm

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Spurious emissions at antenna terminals

A & D bands, Channel 375, 1948.75 MHz

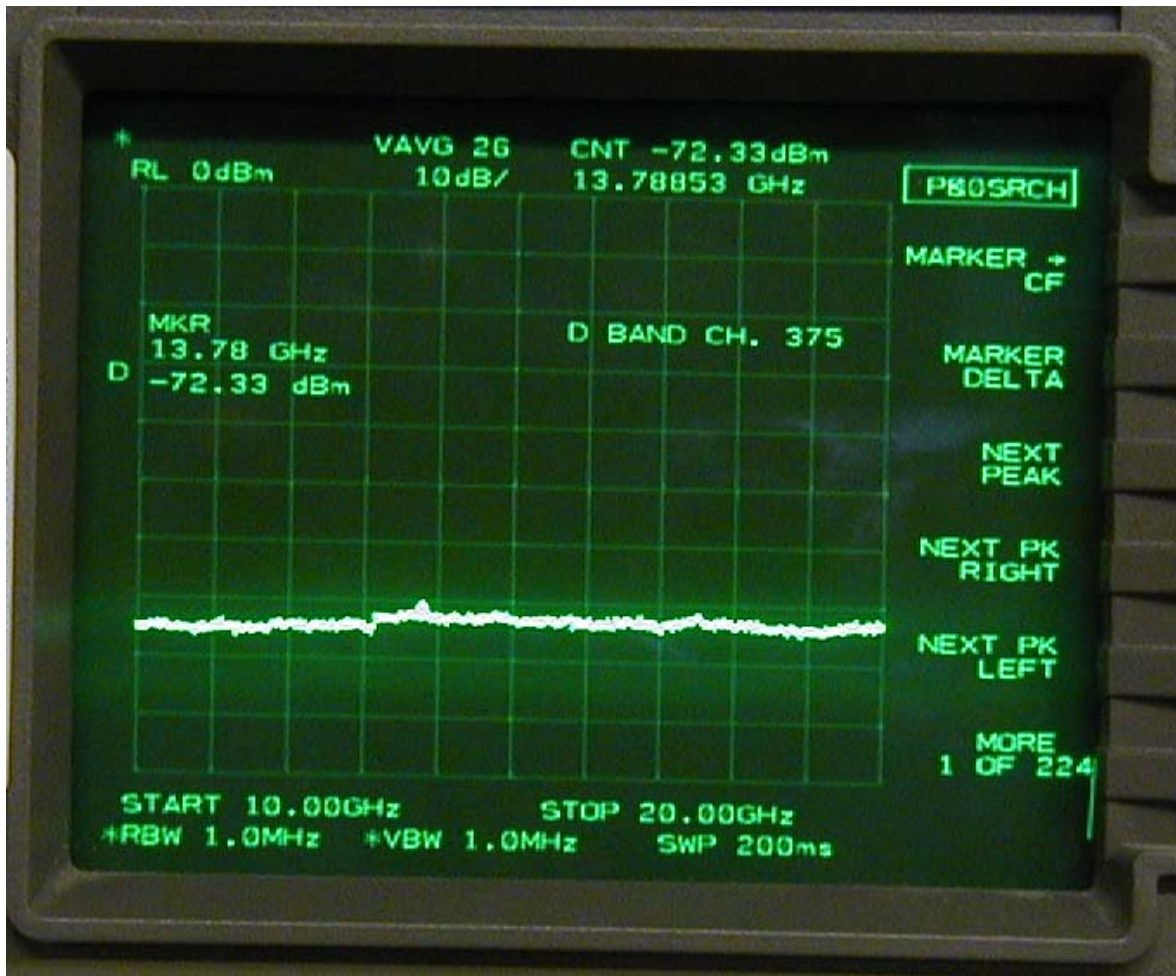


Figure 28:

10 GHz – 20 GH

Spur frequency 13.78 GHz,

Spur level : -72.33dBm + 35.1dB = - 37.23 dBm < - 33 dBm

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TRM 1900 B & E bands, B & E bands, Channel 425, 1951.25 MHz

Spurious emissions at antenna terminals

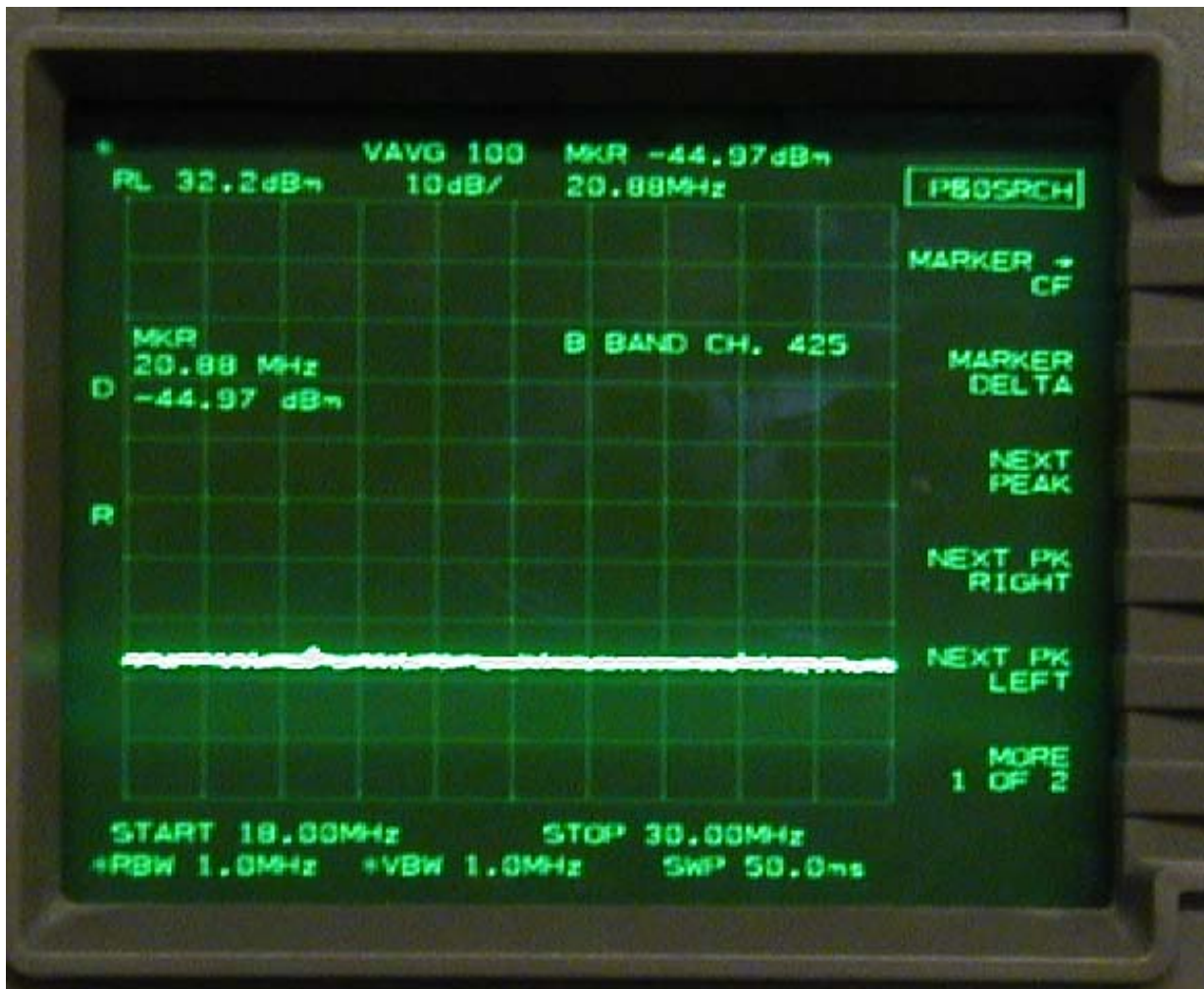


Figure 29 :
18 MHz – 30 MHz

Spur frequency : 20.88 MHz,
Spur level : -44.97 dBm < -33 dBm

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Spurious emissions at antenna terminals B & E bands, Channel 425, 1951.25 MHz

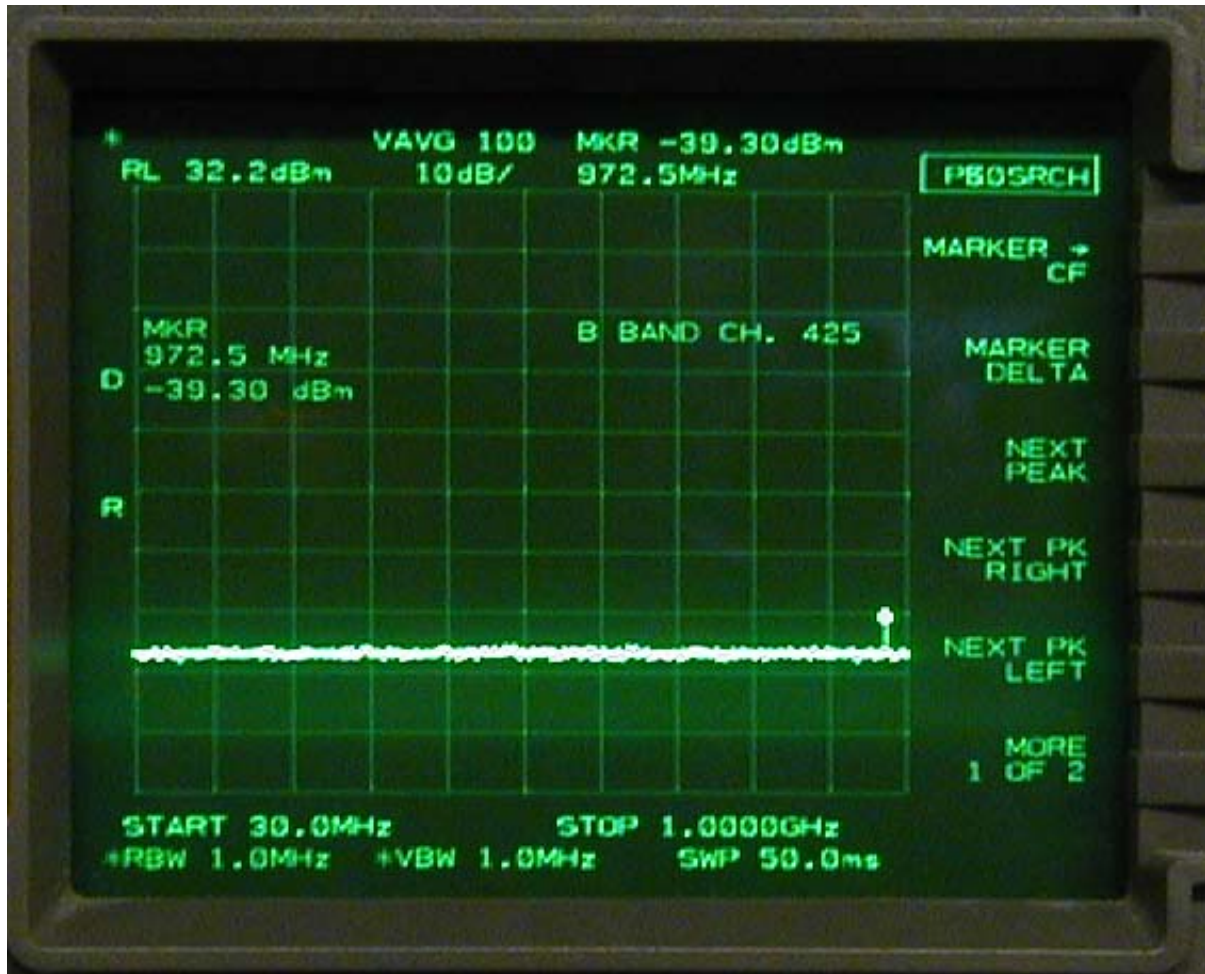


Figure 30 :
30 MHz – 1 GHz

Spur frequency : 972.5 MHz,
Spur level : -39.30 dBm < -33 dBm

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Spurious emissions at antenna terminals
B & E bands, Channel 425, 1951.25 MHz

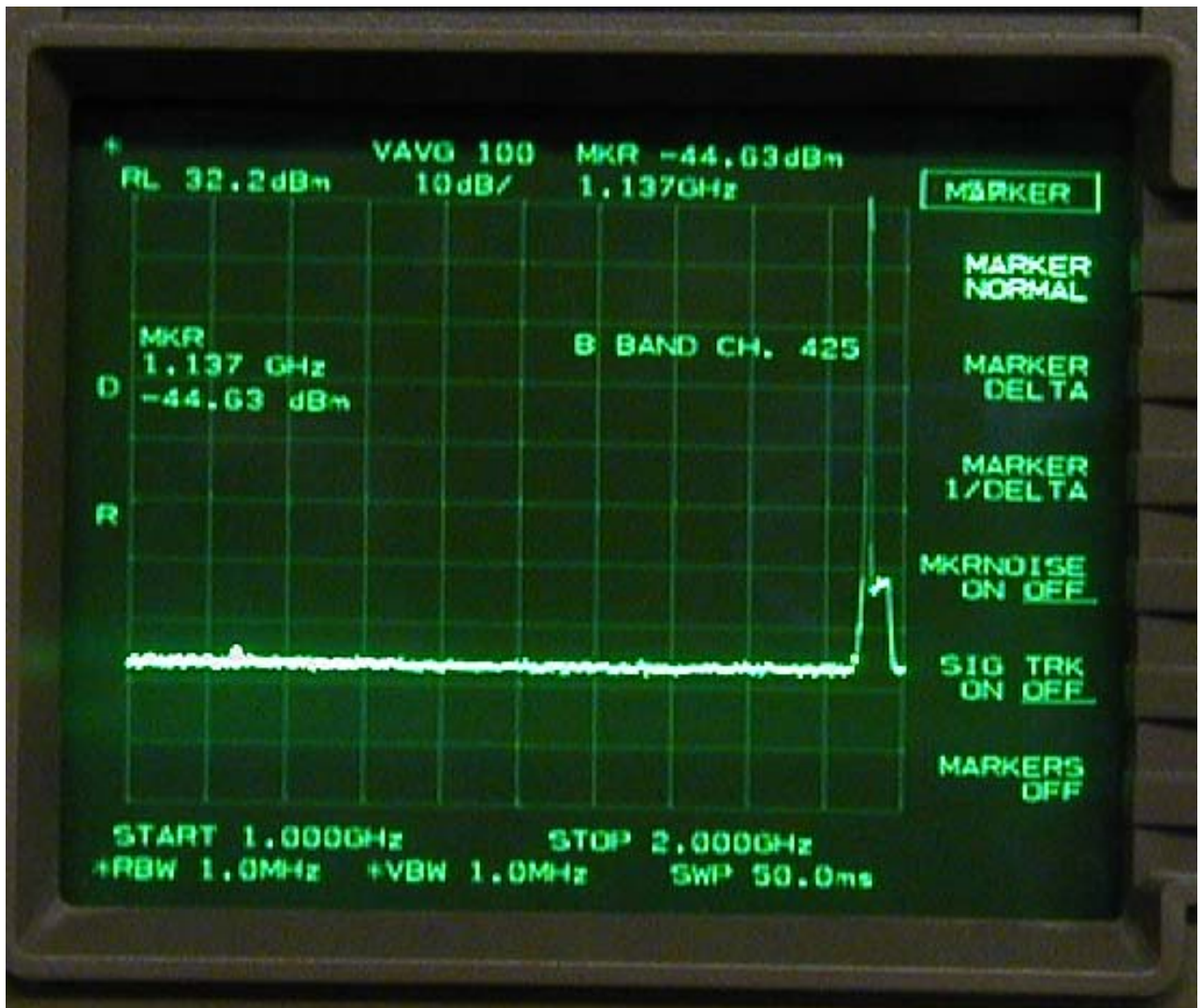


Figure 31:
1GHz - 2GHz

Spur frequency 1.137GHz,
Spur level : -44.63< -33 dBm

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Spurious emissions at antenna terminals
B & E bands, Channel 425, 1951.25 MHz

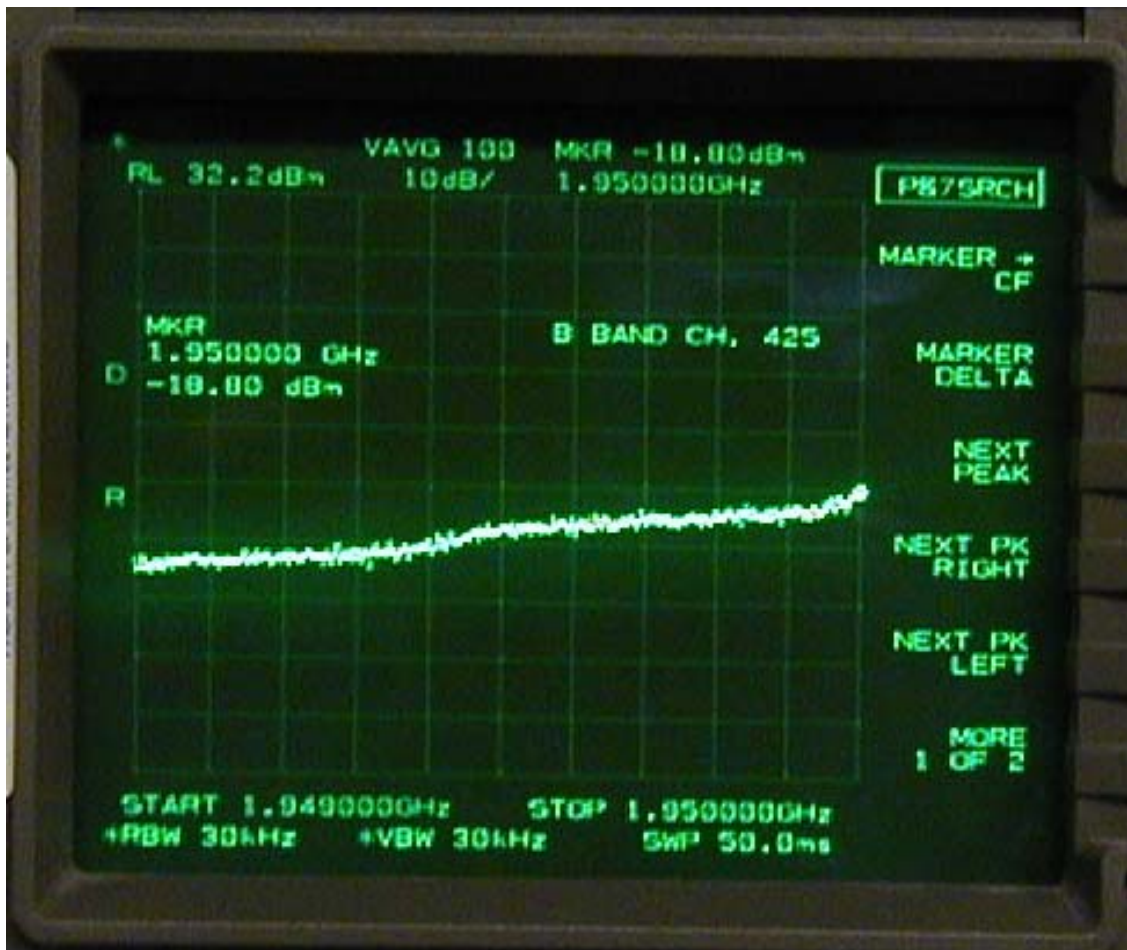


Figure: 32
1.949GHz – 1.950GHz

Spur frequency 1.950 GHz,
Spur level : -18.00 dBm

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Spurious emissions at antenna terminals

B & E bands, Channel 425, 1951.25 MHz

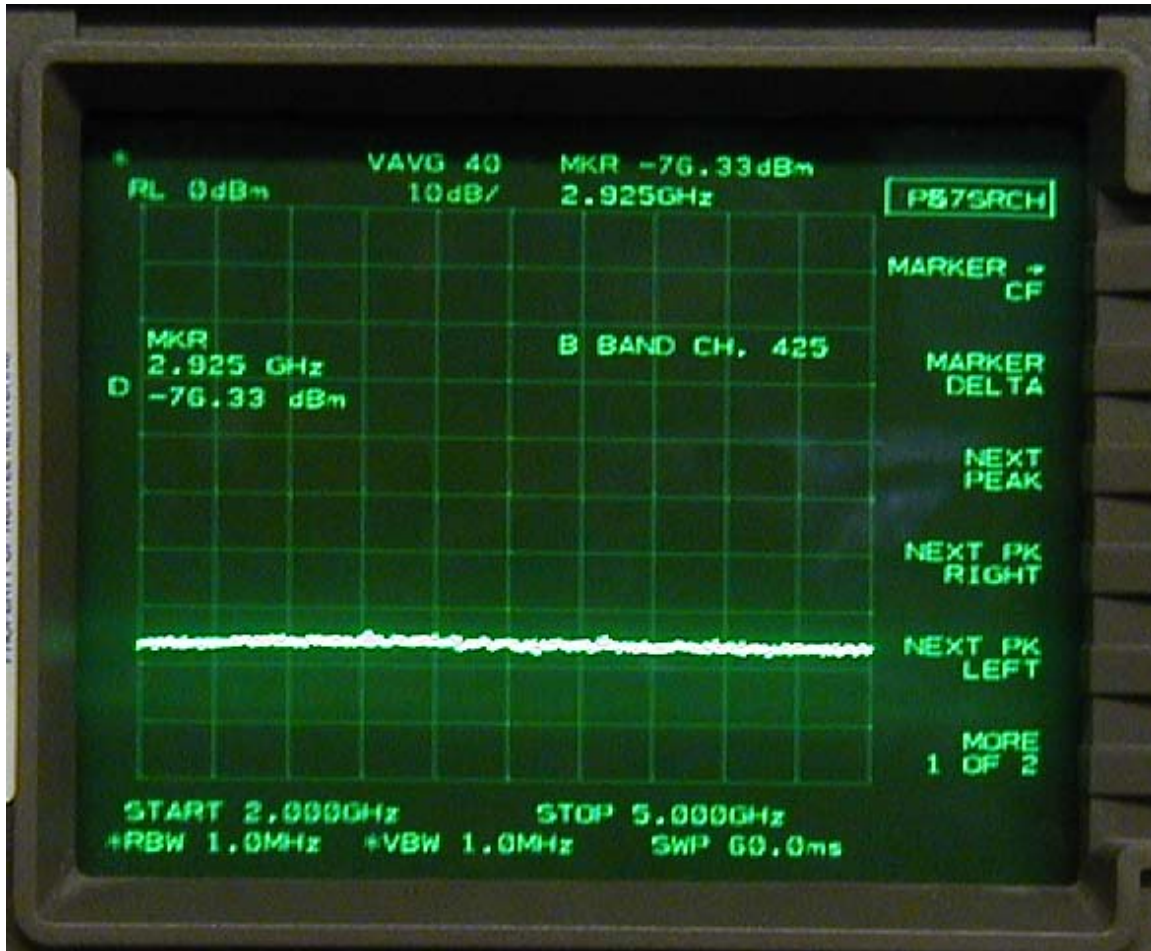


Figure 33:
2GHz – 5GHz

Spur frequency 2.925 GHz ,
Spur level : $-76.33\text{dBm} + 32.5\text{ dB} = -43.83\text{ dBm} < -33\text{ dBm}$

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Spurious emissions at antenna terminals B & E bands, Channel 425, 1951.25 MHz

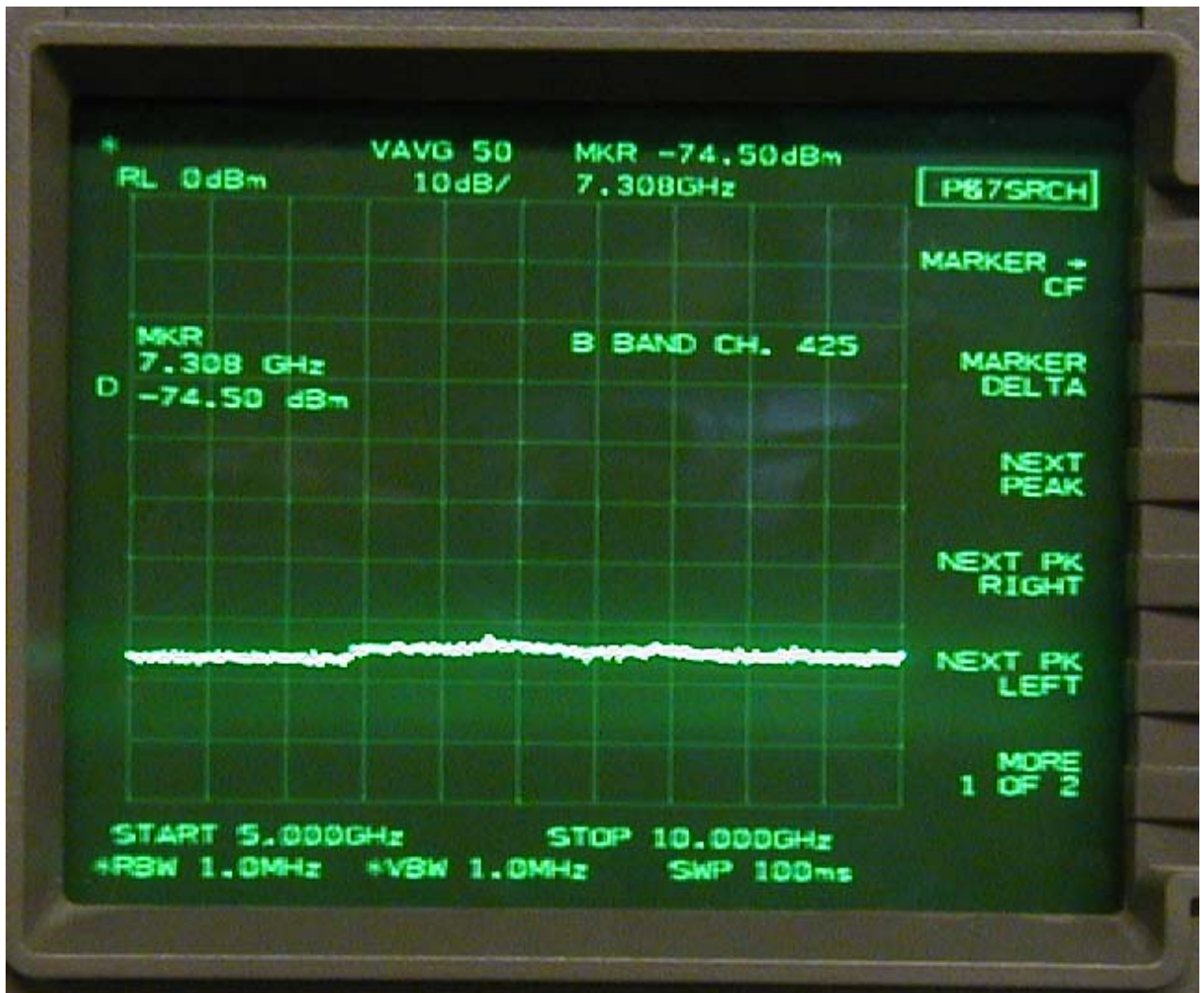


Figure 34:
5GHz – 10 GHz

Spur frequency 7.308 GHz,
Spur level : -74.50 dBm + 33.5 dB = -41 dBm < -33 dBm

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Spurious emissions at antenna terminals

B & E bands, Channel 425, 1951.25 MHz

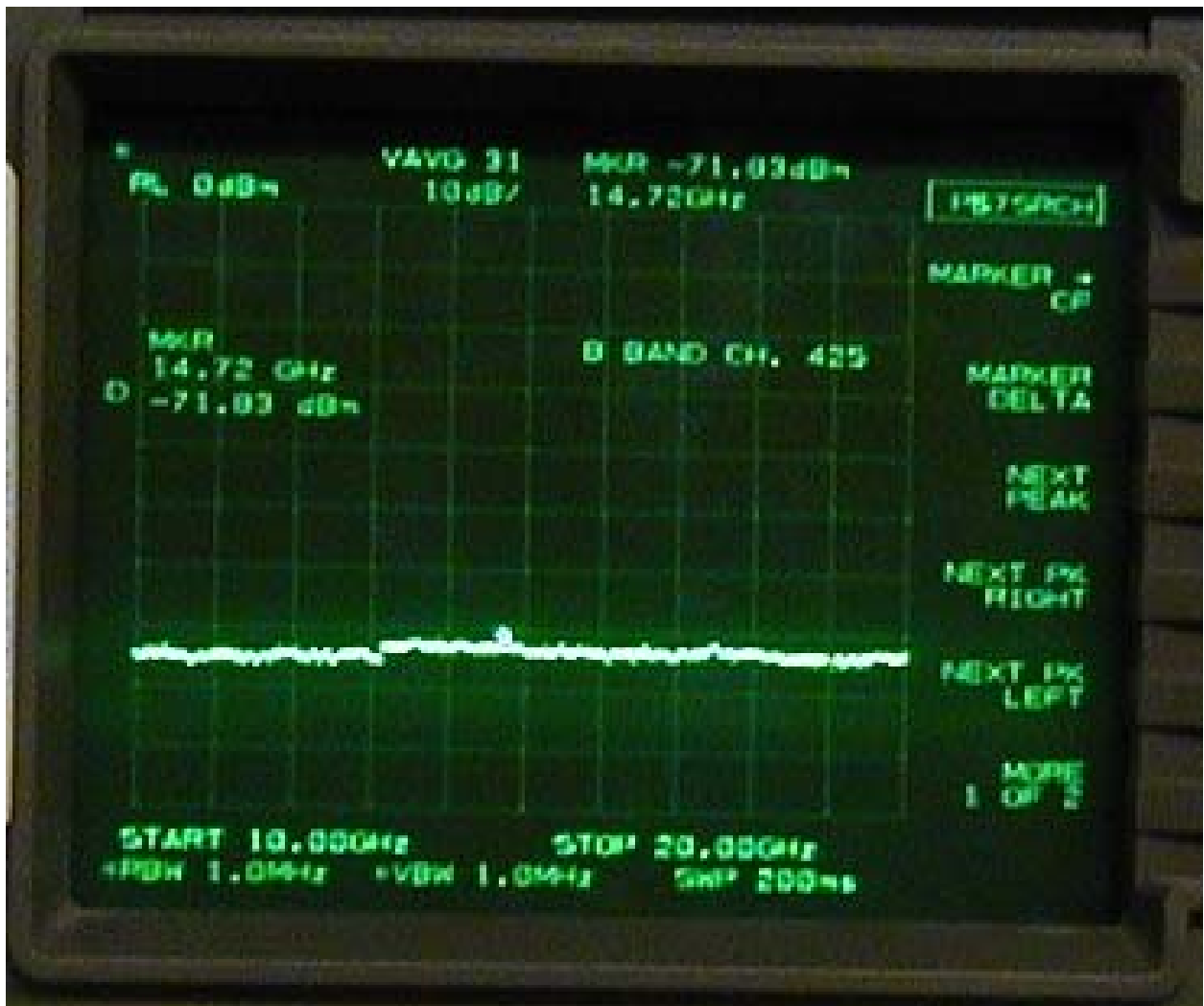


Figure 35:
10 GHz – 20 GHz

Spur frequency 14.72 GHz,
Spur level : -71.03 dBm + 35.2 dB = 35.83 dBm < - 33 dBm

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TRM 1900 MHz, B & E bands, Channel 725, 1966.25 MHz

Spurious emissions at antenna terminals

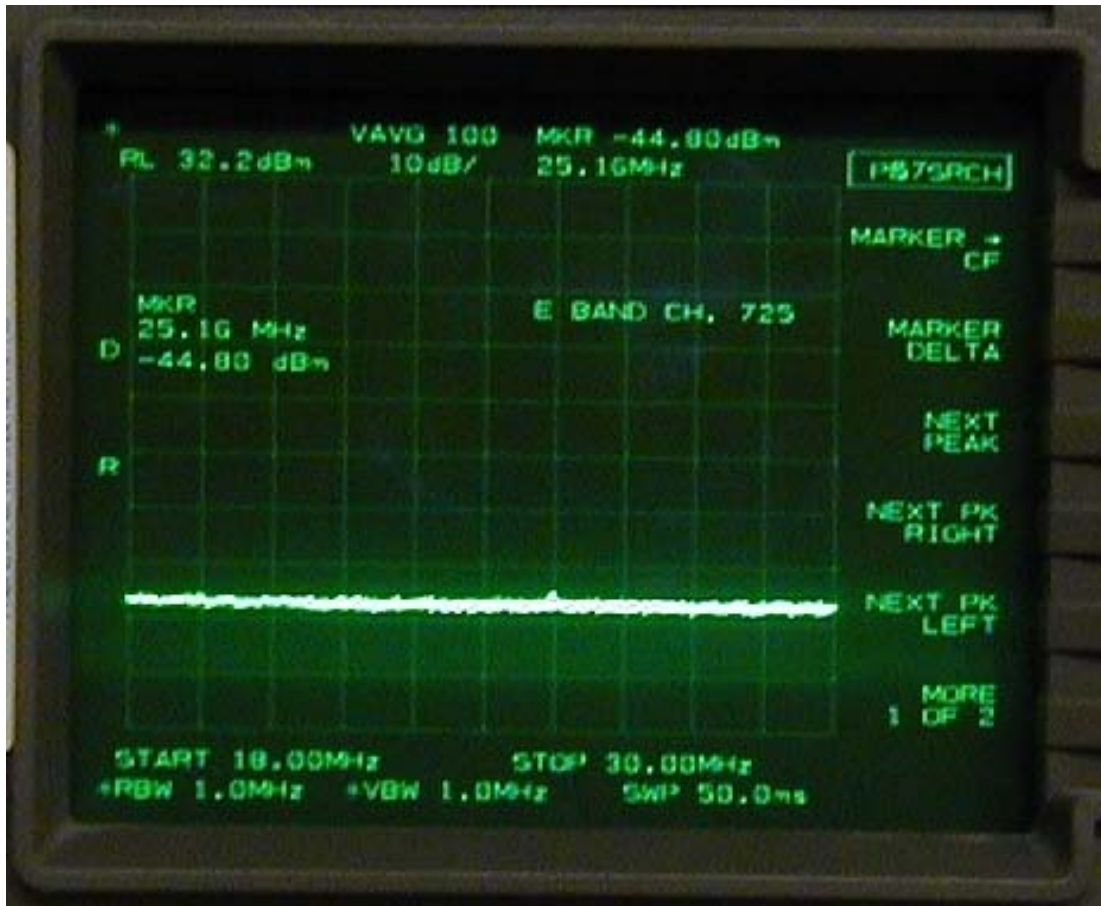


Figure 36 :
18 MHz – 30 MHz

Spur frequency : 25.16 MHz,
Spur level : -44.00 dBm < -33 dBm

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Spurious emissions at antenna terminals
B & E bands, Channel 725, 1966.25 MHz



Figure 37 :
30 MHz – 1 GHz

Spur frequency : 995.2 MHz,
Spur level : -40.47 dBm < -33 dBm

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Spurious emissions at antenna terminals
B & E bands, Channel 725, 1966.25 MHz

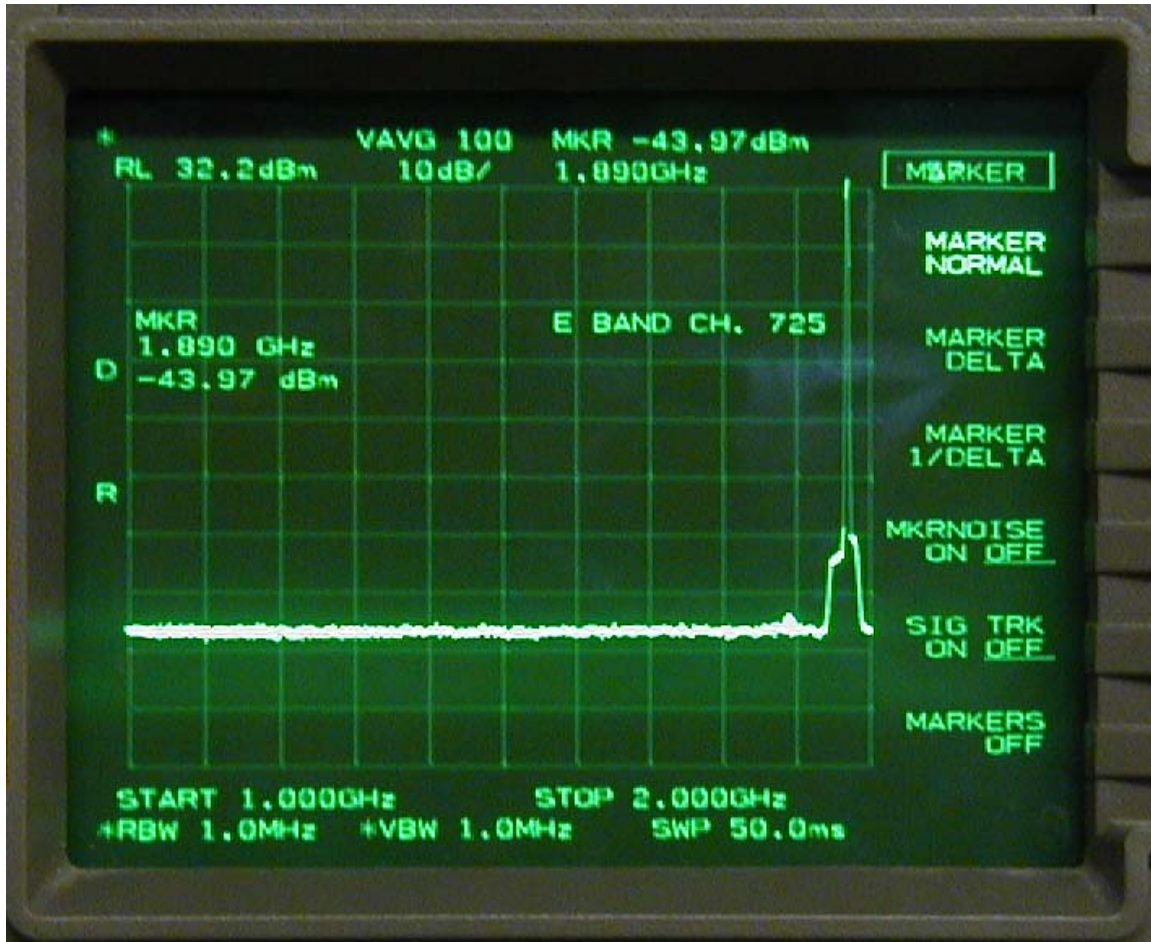


Figure 38:
1GHz - 2GHz

Spur frequency 1.890 GHz,
Spur level : -43.97 dBm < -33 dBm

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Spurious emissions at antenna terminals
B & E bands, Channel 725, 1966.25 MHz



Figure: 39
1.964GHz – 1.965GHz

Spur frequency 1.96499 GHz,
Spur level : -18.63 dBm

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Spurious emissions at antenna terminals

B & E bands, Channel 725, 1966.25 MHz

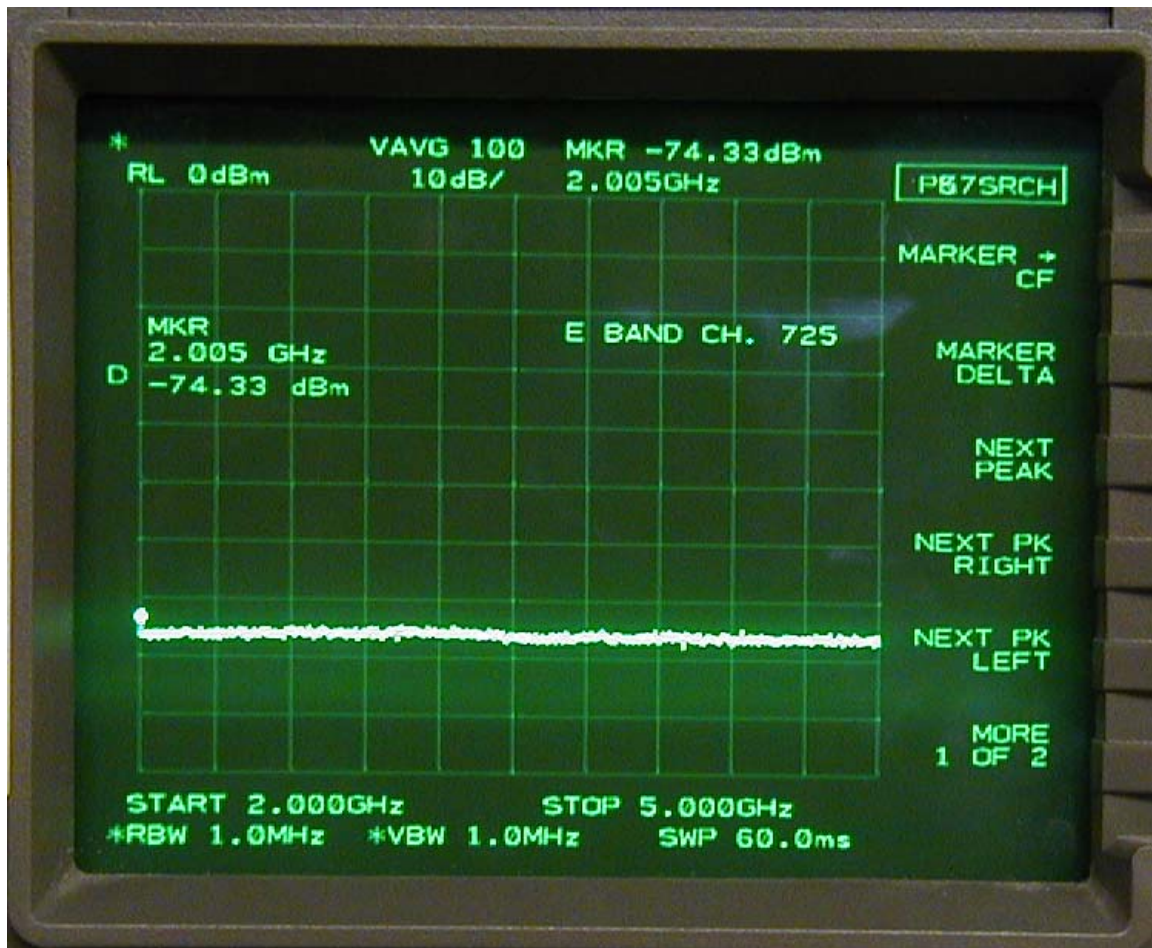


Figure 40:
2GHz – 5GHz

Spur frequency 2.05 GHz,

Spur level : -74.33dBm + 32.2 dB = 42.13 dBm < - 33 dBm

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Spurious emissions at antenna terminals
B & E bands, Channel 725, 1966.25 MHz

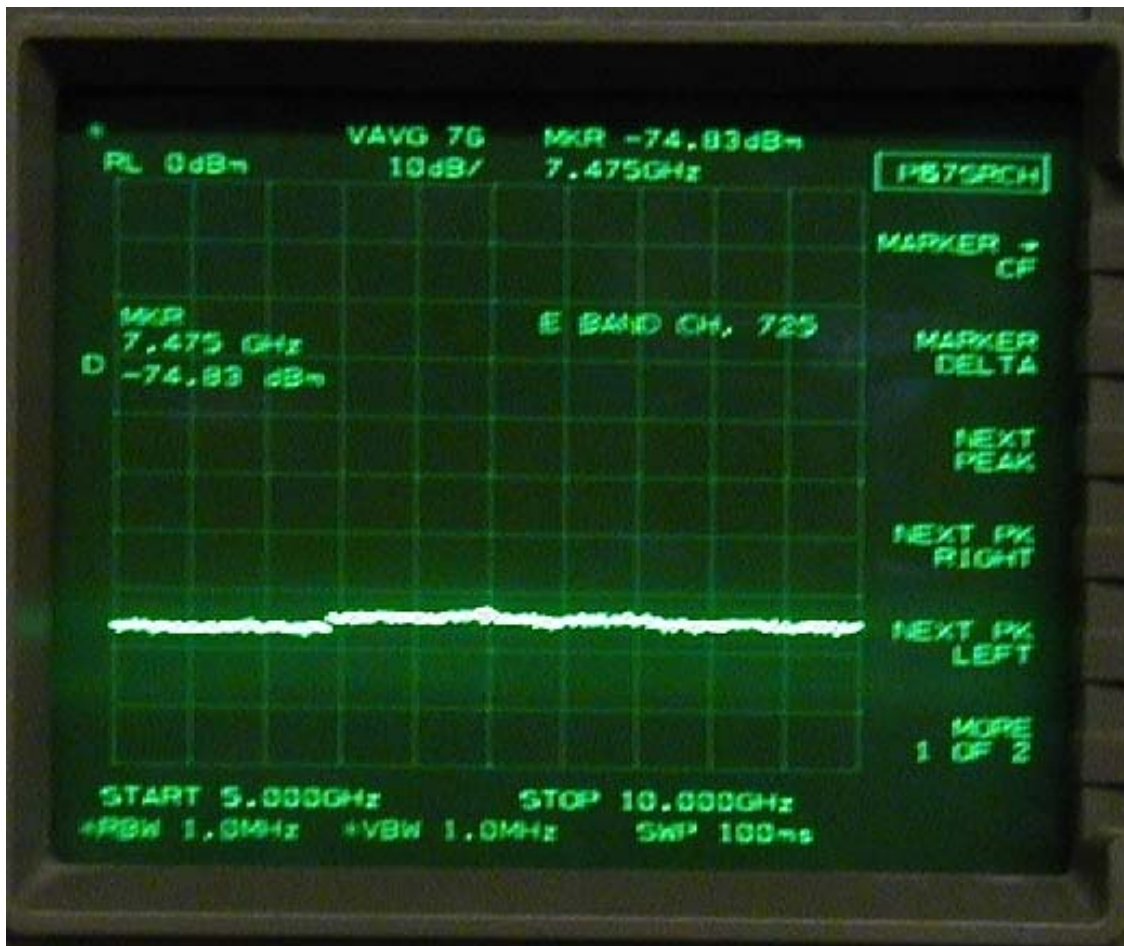


Figure 41:
5GHz – 10 GHz

Spur frequency 7.475 GHz,
Spur level : -74.03 dBm + 33.6 dB = -39.43 dBm < - 33 dBm

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Spurious emissions at antenna terminals

B & E bands, Channel 725, 1966.25 MHz



Figure 42:

10 GHz – 20 GH

Spur frequency 14.10 GHz,

Spur level : $-72.03 \text{ dBm} + 35.1 \text{ dB} = 36.93 \text{ dBm} < -33 \text{ dBm}$

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TRM 1900 MHz, B & E bands, Channel 775, 1968.75 MHz

Spurious emissions at antenna terminals



Figure 43 :
18 MHz – 30 MHz

Spur frequency : 18.14 MHz,
Spur level : --43.13 dBm < -33 dBm

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Spurious emissions at antenna terminals B & E bands, Channel 775, 1968.75 MHz

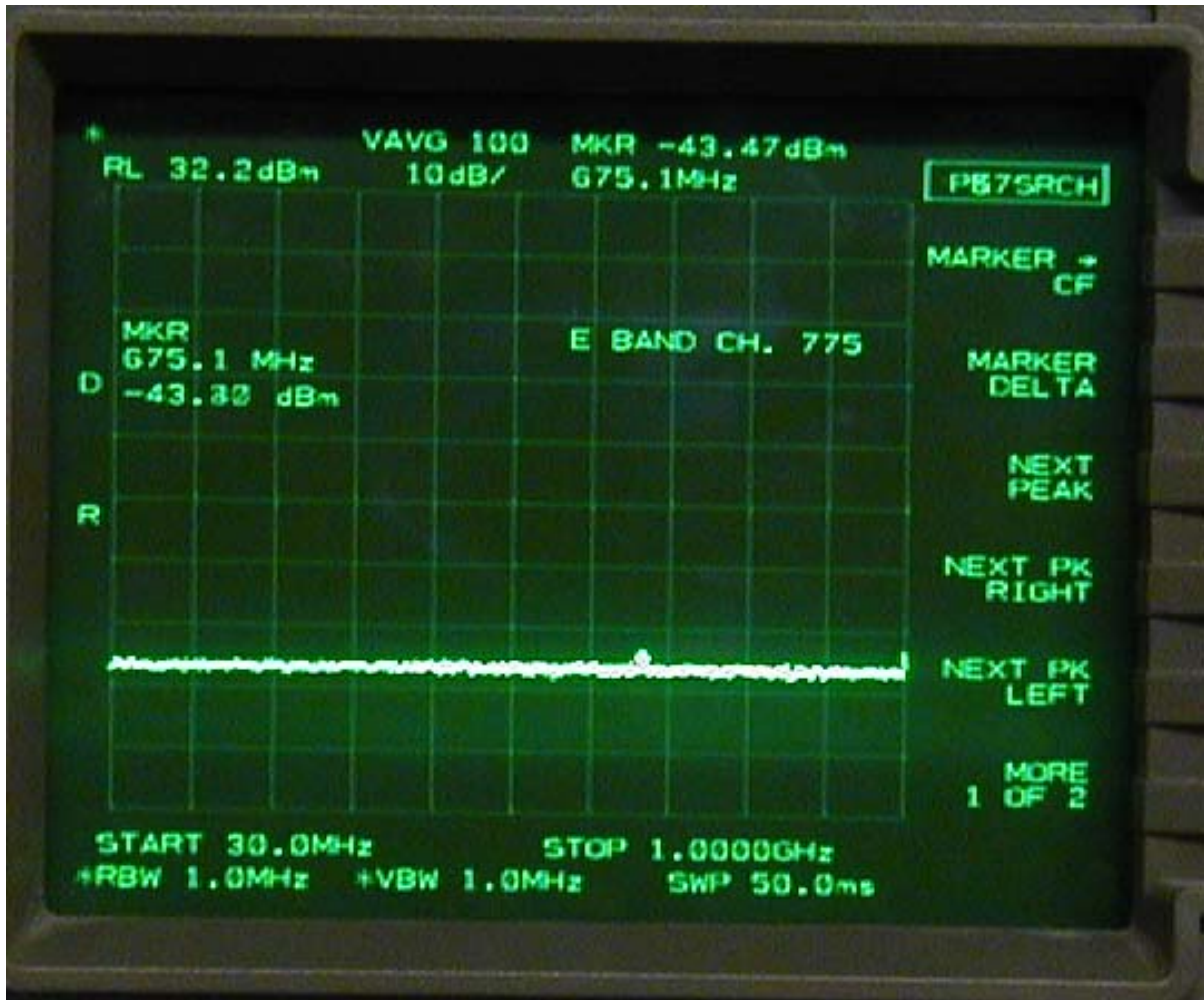


Figure 44 :
30 MHz – 1 GHz

Spur frequency : 675.1 MHz,
Spur level : -43.32 dBm < -33 dBm

AB6NT1900FRM

Spurious emissions at antenna terminals
B & E bands, Channel 775, 1968.75 MHz

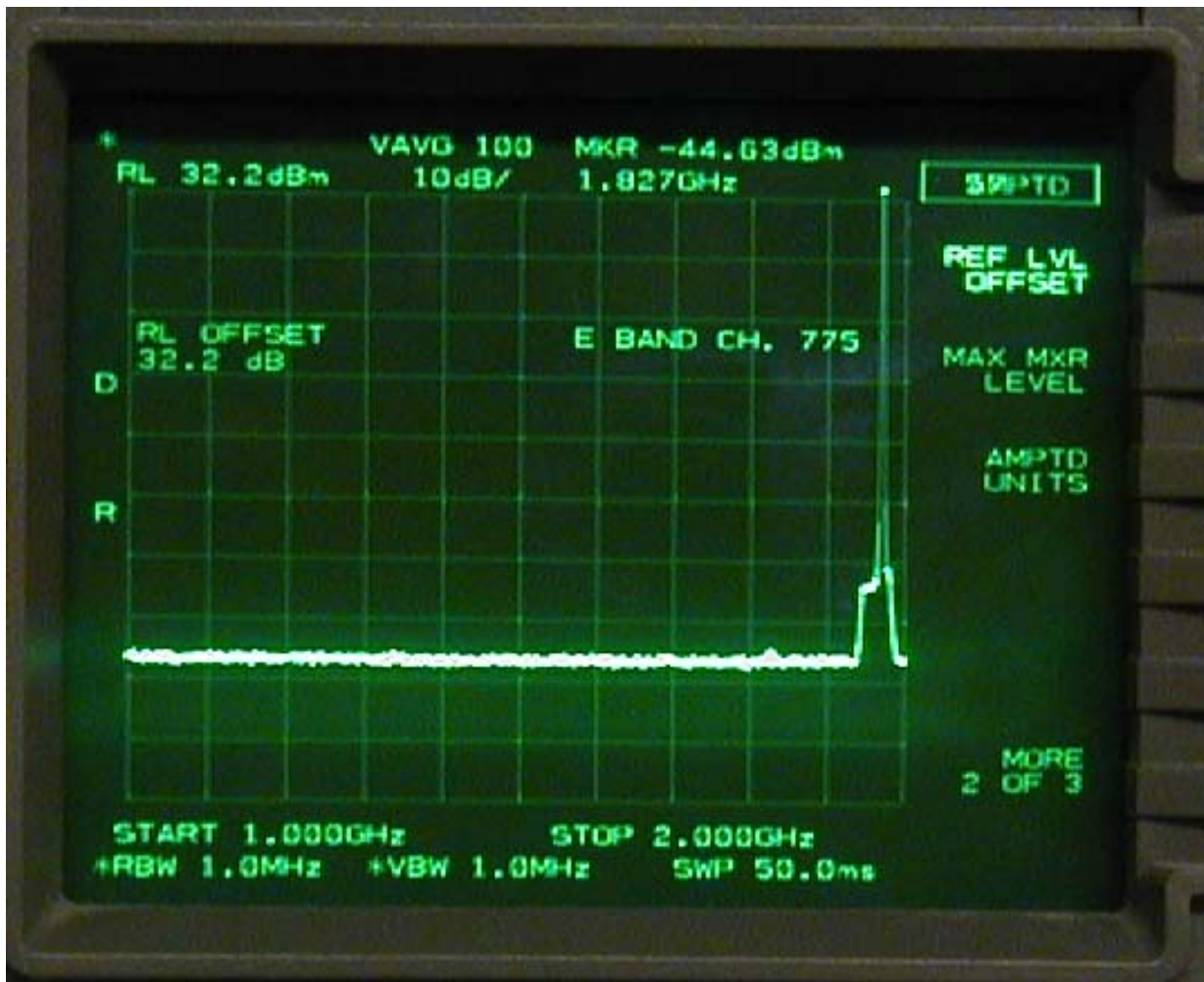


Figure 45:
1GHz - 2GHz

Spur frequency 1.827 GHz,
Spur level : -44.03 dBm < -33 dBm

AB6NT1900FRM

Spurious emissions at antenna terminals

B & E bands, Channel 775, 1968.75 MHz

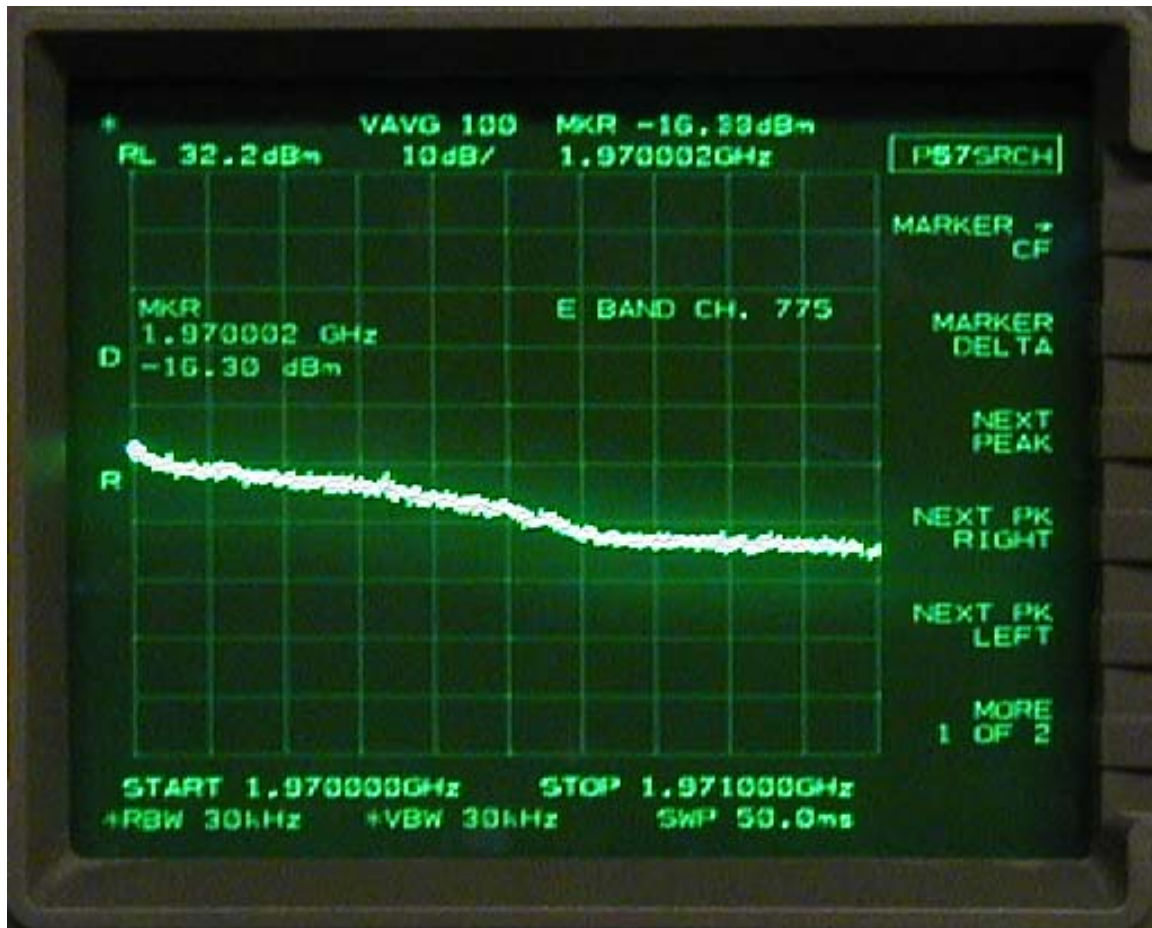


Figure: 46

1.970GHz – 1.971GHz

Spur frequency 1.970002,

Spur level : -16.30 dBm

AB6NT1900FRM

Spurious emissions at antenna terminals

B & E bands, Channel 775, 1968.75 MHz

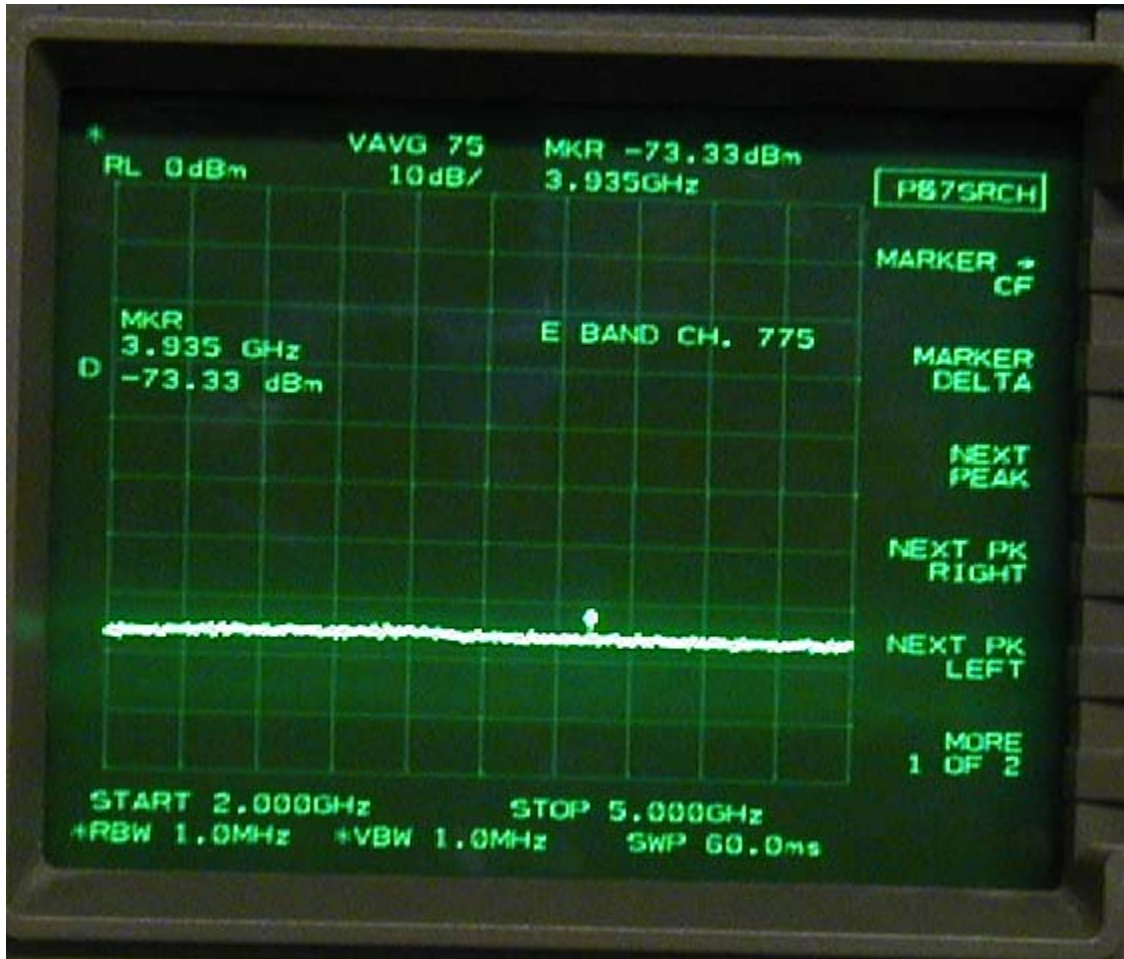


Figure 47:
2GHz – 5GHz

Spur frequency 3.935 GHz,
Spur level : -73.33 dBm +32.7 dB = - 40.63 dBm < - 33 dBm

AB6NT1900FRM

Spurious emissions at antenna terminals
B & E bands, Channel 775, 1968.75 MHz

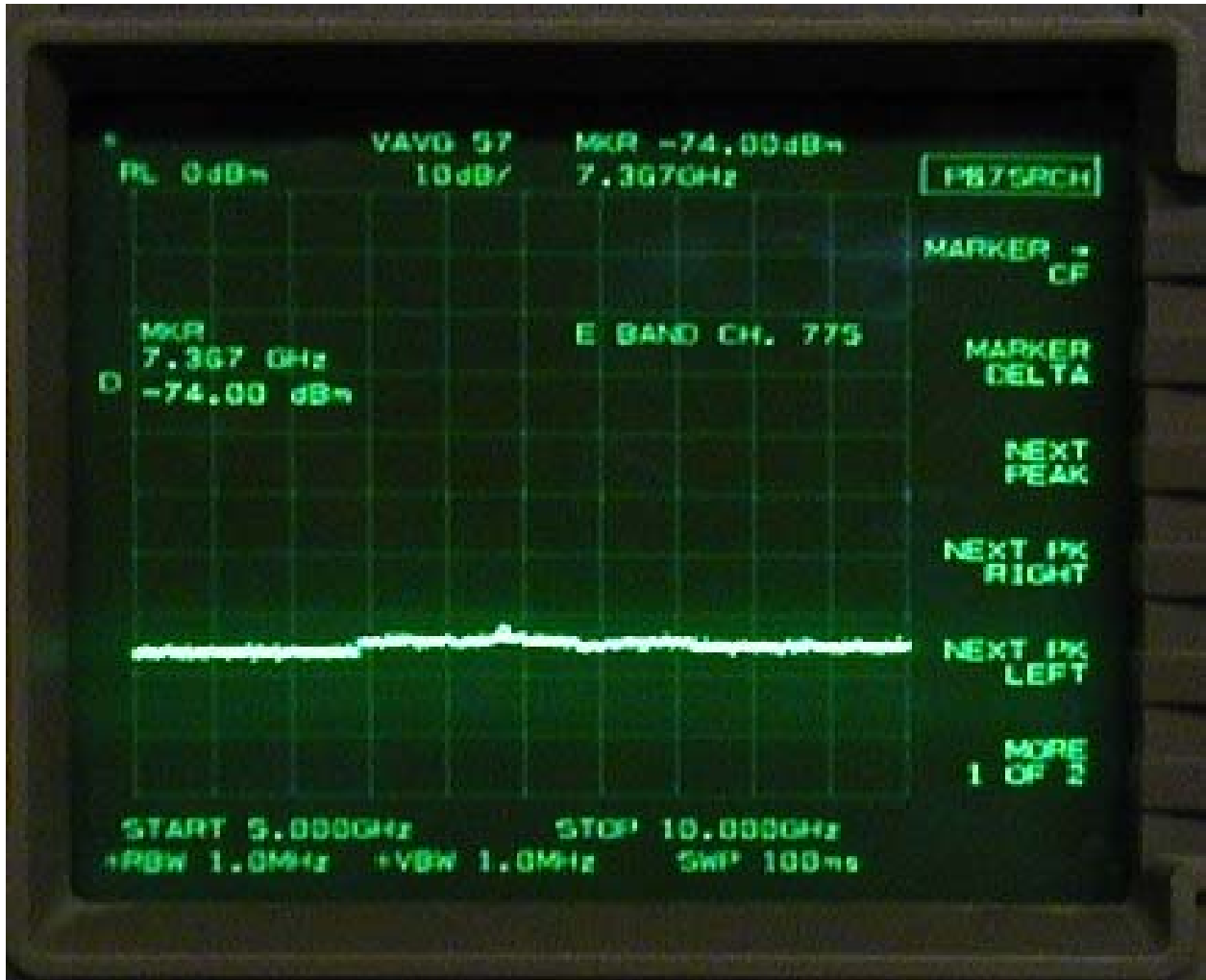


Figure 48:
5GHz – 10 GHz

Spur frequency 7.367 GHz,
Spur level : -74.00 dBm + 33.6 dB = - 40.4 dBm < - 33 dBm

AB6NT1900FRM

Spurious emissions at antenna terminals

B & E bands, Channel 775, 1968.75 MHz

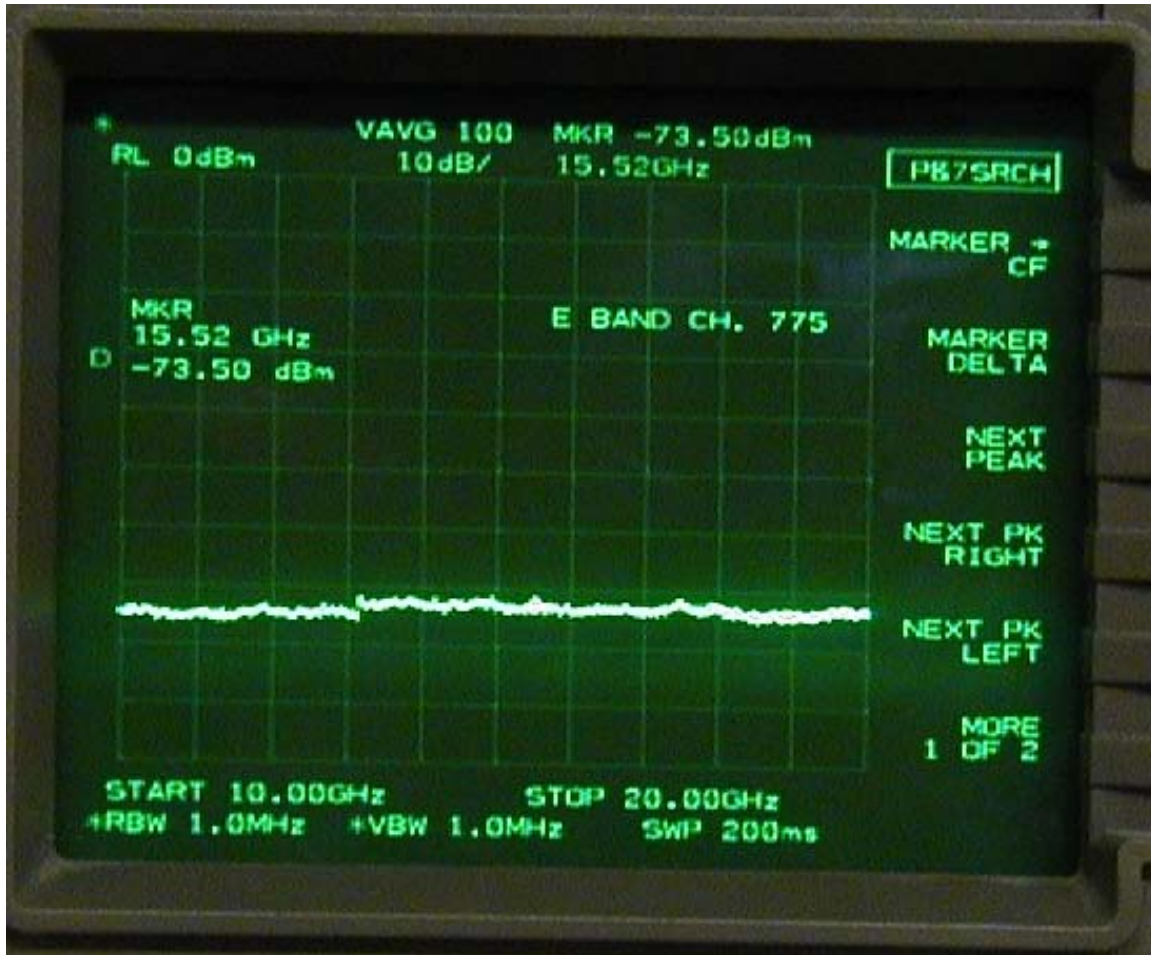


Figure 49

10 GHz – 20 GH

Spur frequency 15.52 GHz,

Spur level : $-73.50 \text{ dBm} + 35.7 \text{ dB} = -37.8 \text{ dBm} < -33 \text{ dBm}$

AB6NT1900FRM

TRM 1900 MHz B & E bands, Channel 675, 1963.75 MHz

Spurious emissions at antenna terminals

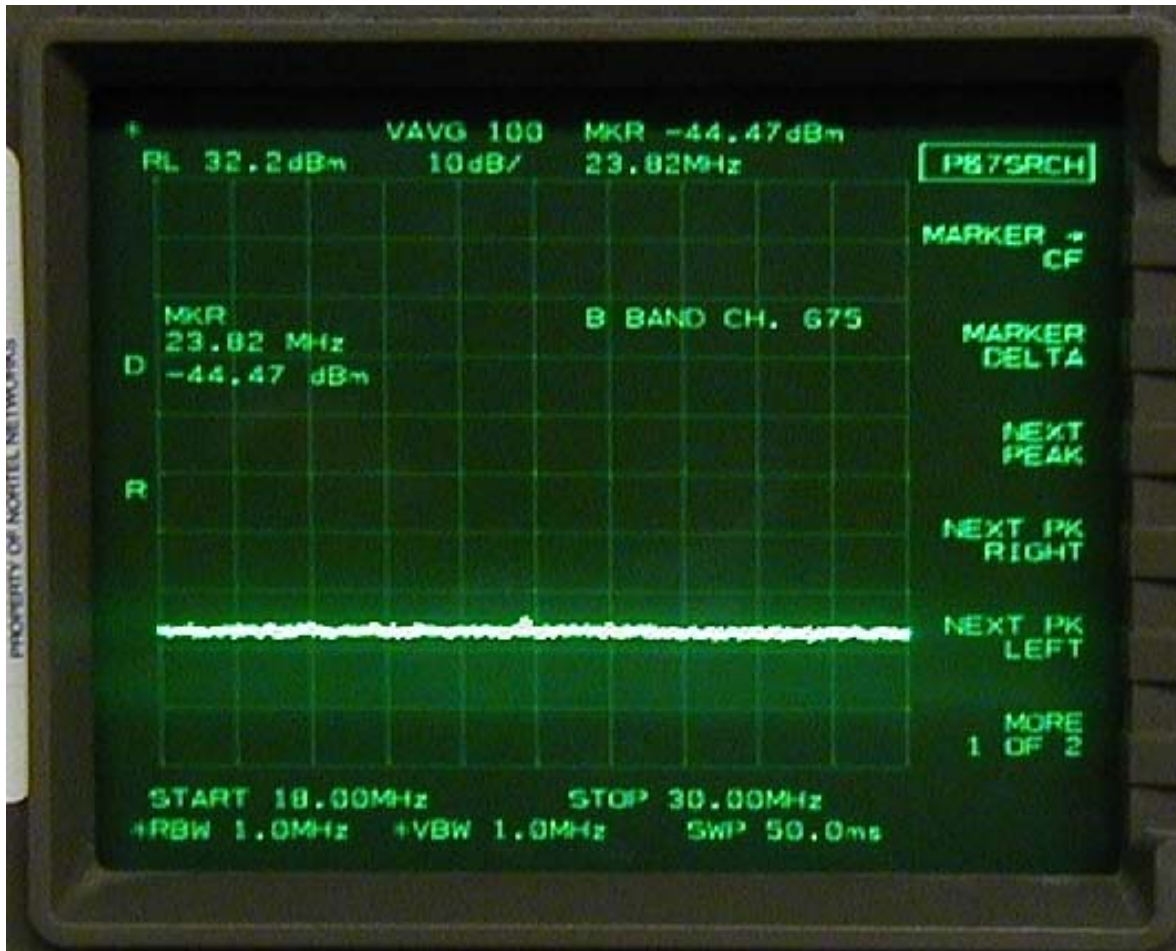


Figure 50 :
18 MHz – 30 MHz

Spur frequency : 23.02 MHz,
Spur level : -44.47 dBm < -33 dBm

AB6NT1900FRM

Spurious emissions at antenna terminals B & E bands, Channel 675, 1963.75 MHz

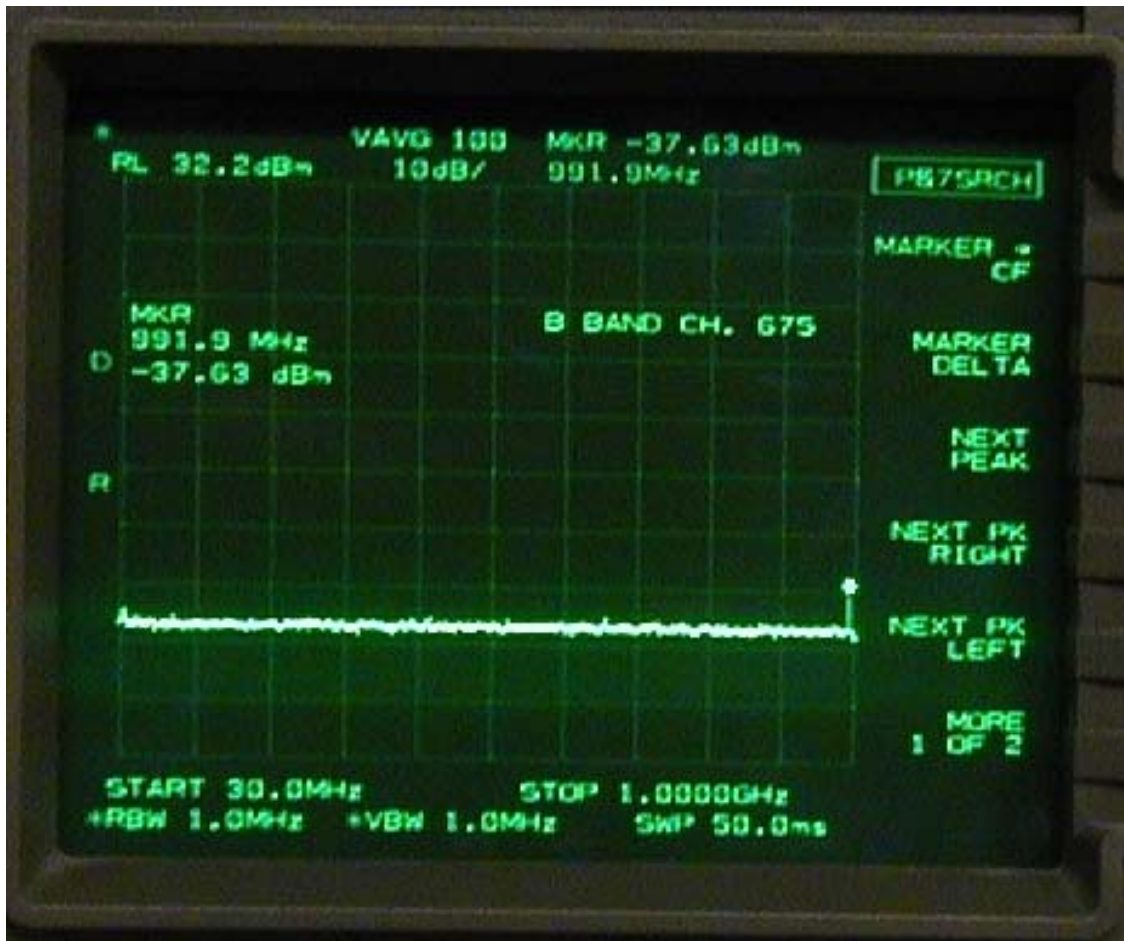


Figure 51 :
30 MHz – 1 GHz

Spur frequency : 991.9 MHz,
Spur level : -37.63 dBm < -33 dBm

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Spurious emissions at antenna terminals

B & E bands, Channel 675, 1963.75 MHz

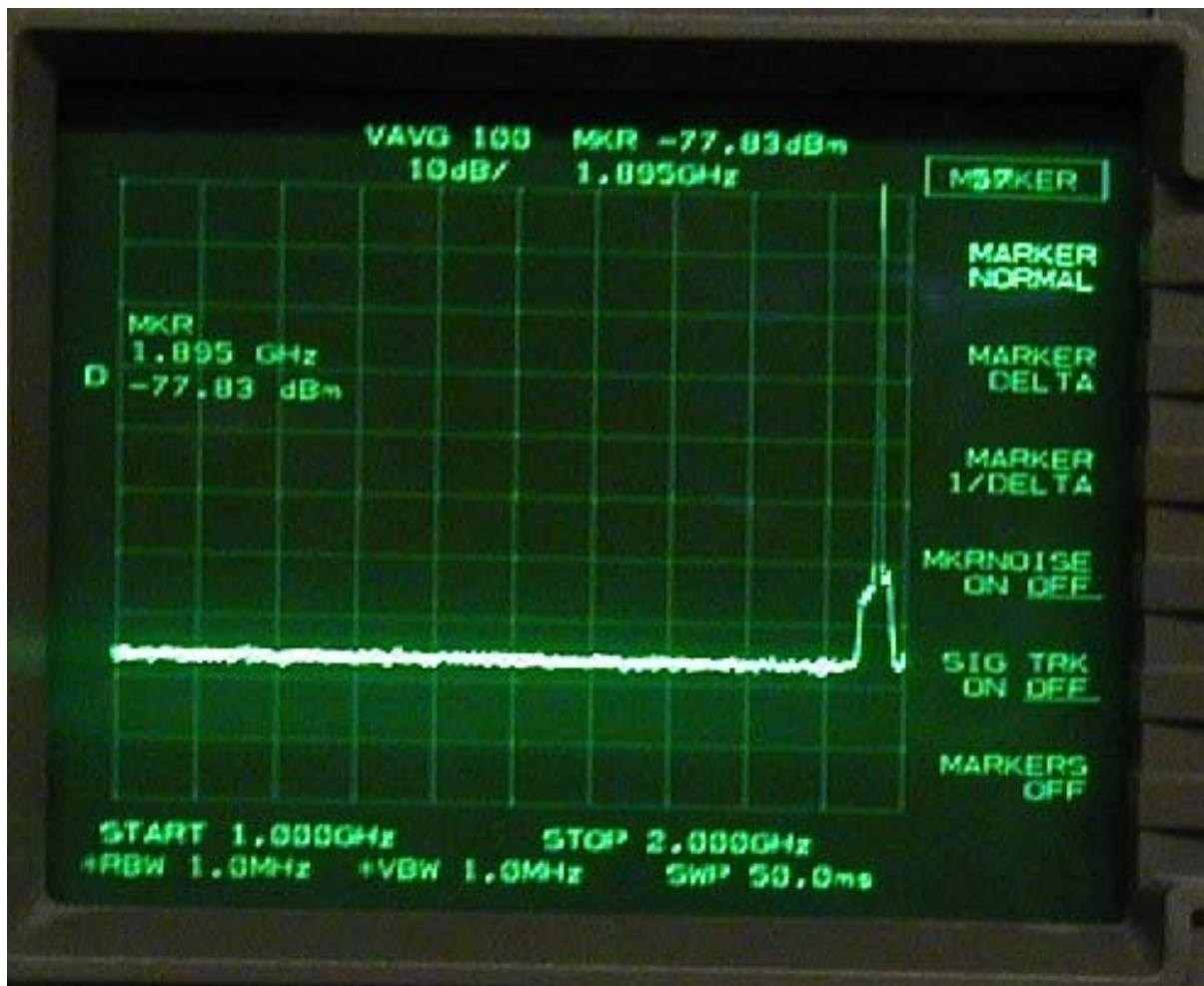


Figure 52:
1GHz - 2GHz

Spur frequency 1.895 GHz

Spur level : -77.83 dBm + 32.3 dB = - 45.63 < - 33 dBm

AB6NT1900FRM

Spurious emissions at antenna terminals
B & E bands, Channel 675, 1963.75 MHz

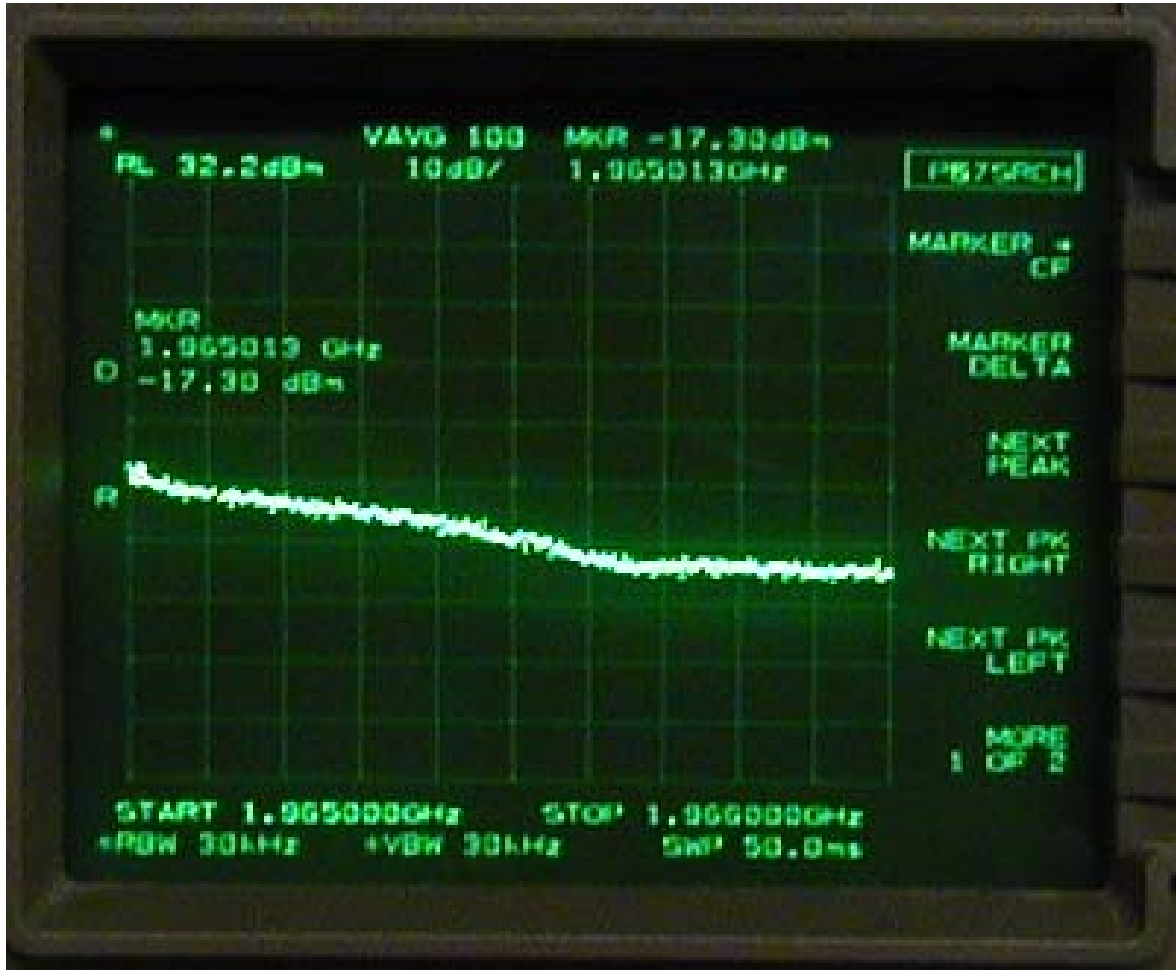


Figure: 53
1.965GHz – 1.966GHz

Spur frequency 1.965013 GHz,
Spur level : -17.30 dBm

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Spurious emissions at antenna terminals

B & E bands, Channel 675, 1963.75 MHz

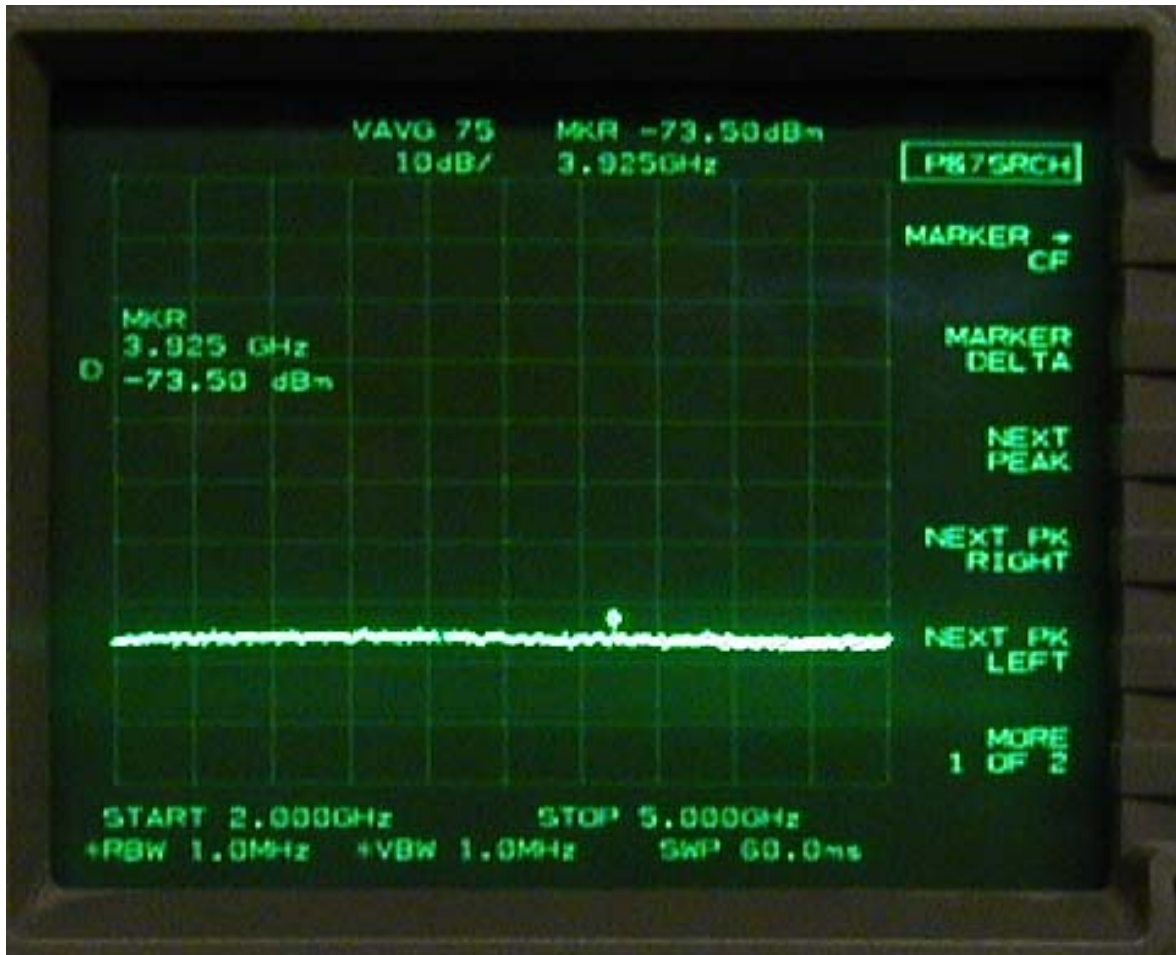


Figure 54:
2GHz – 5GHz

Spur frequency 3.925 GHz,

Spur level : -73.50dBm + 32.7dB = - 40.8 dBm < - 33 dBm

AB6NT1900FRM

Spurious emissions at antenna terminals
B & E bands, Channel 675, 1963.75 MHz

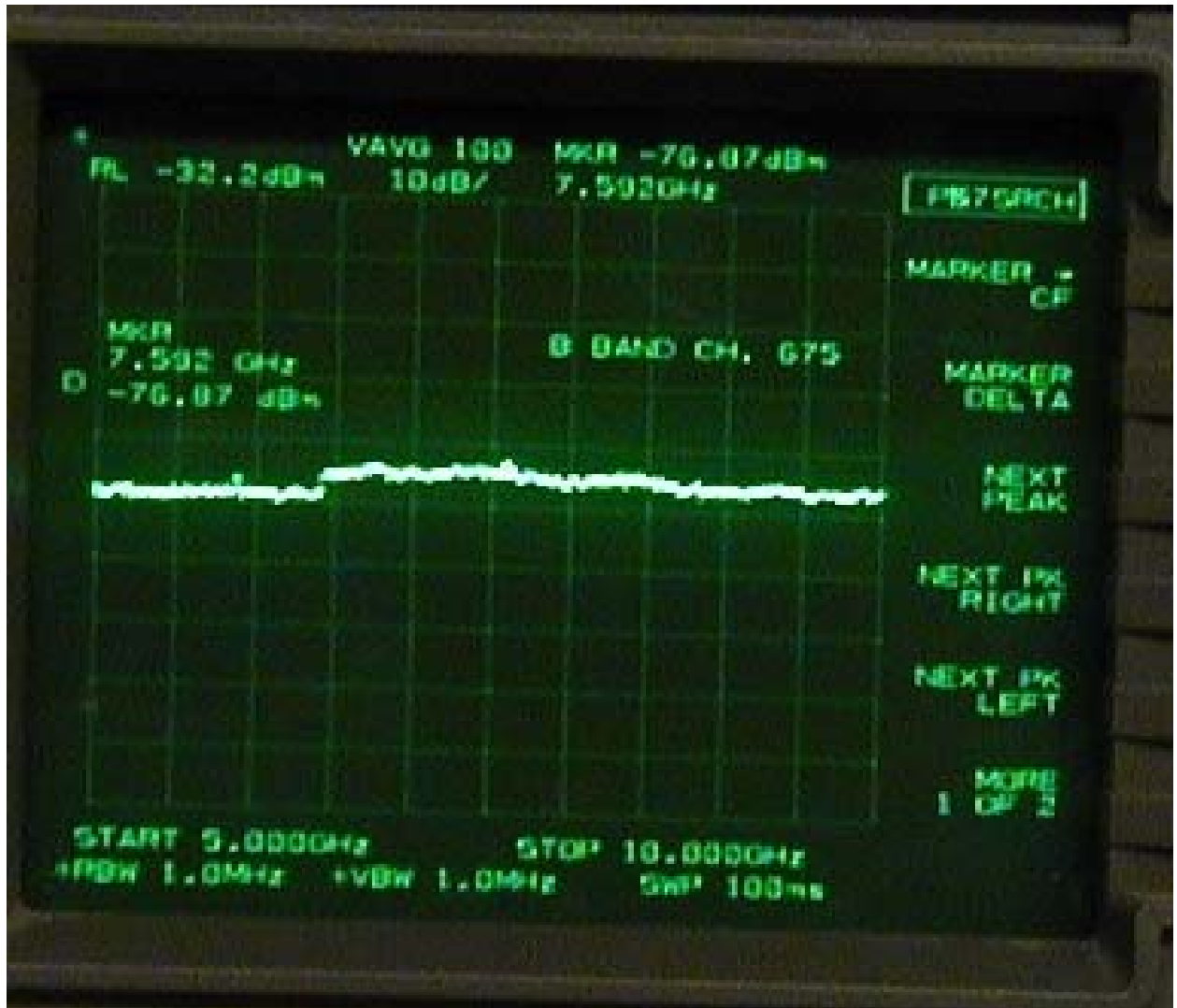


Figure 55:
5GHz – 10 GHz

Spur frequency 7.502 GHz,
Spur level : $-76.87dBm + 33.6 dB = -42.27 dBm < -33 dBm$

AB6NT1900FRM

Spurious emissions at antenna terminals

B & E bands, Channel 675, 1963.75 MHz

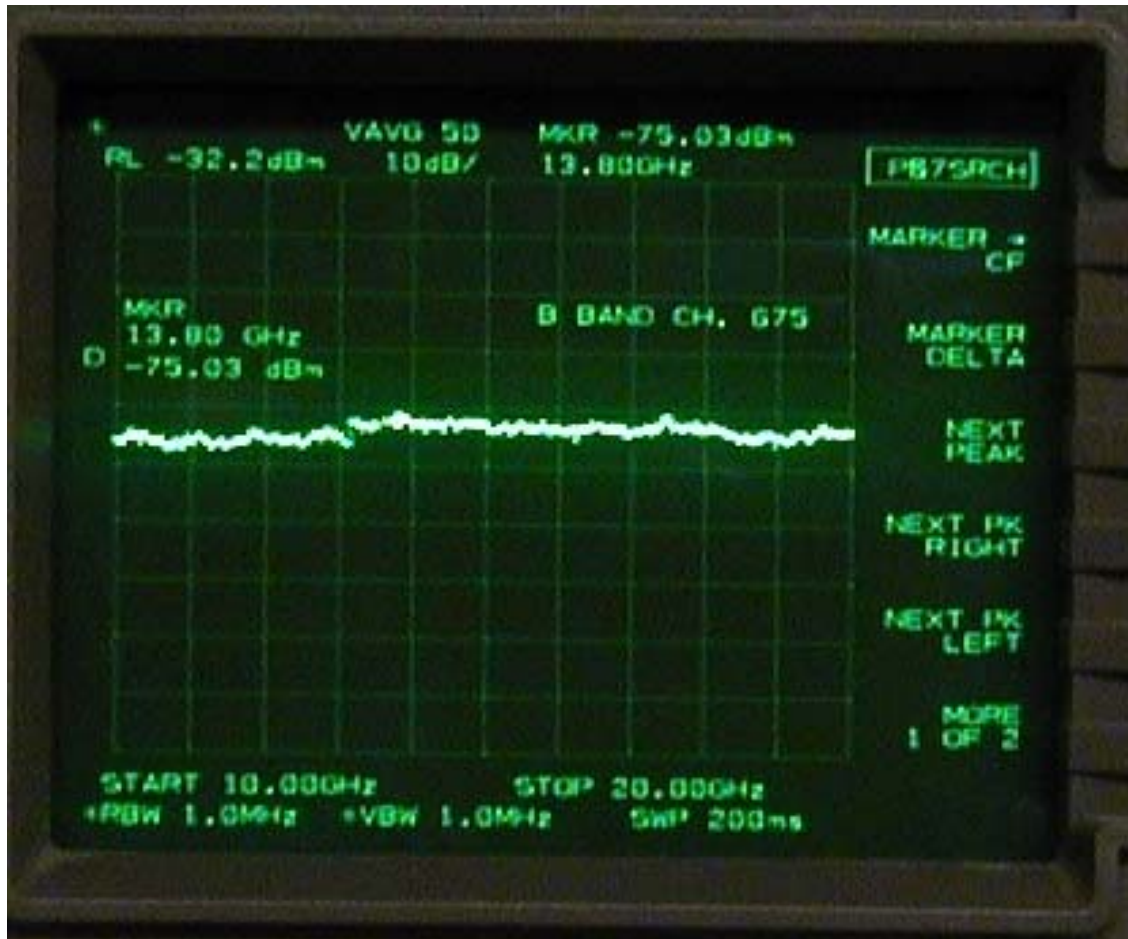


Figure 56:
10 GHz – 20 GHz

Spur frequency 13.80 GHz,

Spur level : $-75.03\text{dBm} + 35.2\text{ dB} = -39.83\text{ dBm} < -33\text{ dBm}$

AB6NT1900FRM

TRM 1900MHz C & F bands, Channel 825, 1971.25 MHz

Spurious emissions at antenna terminals

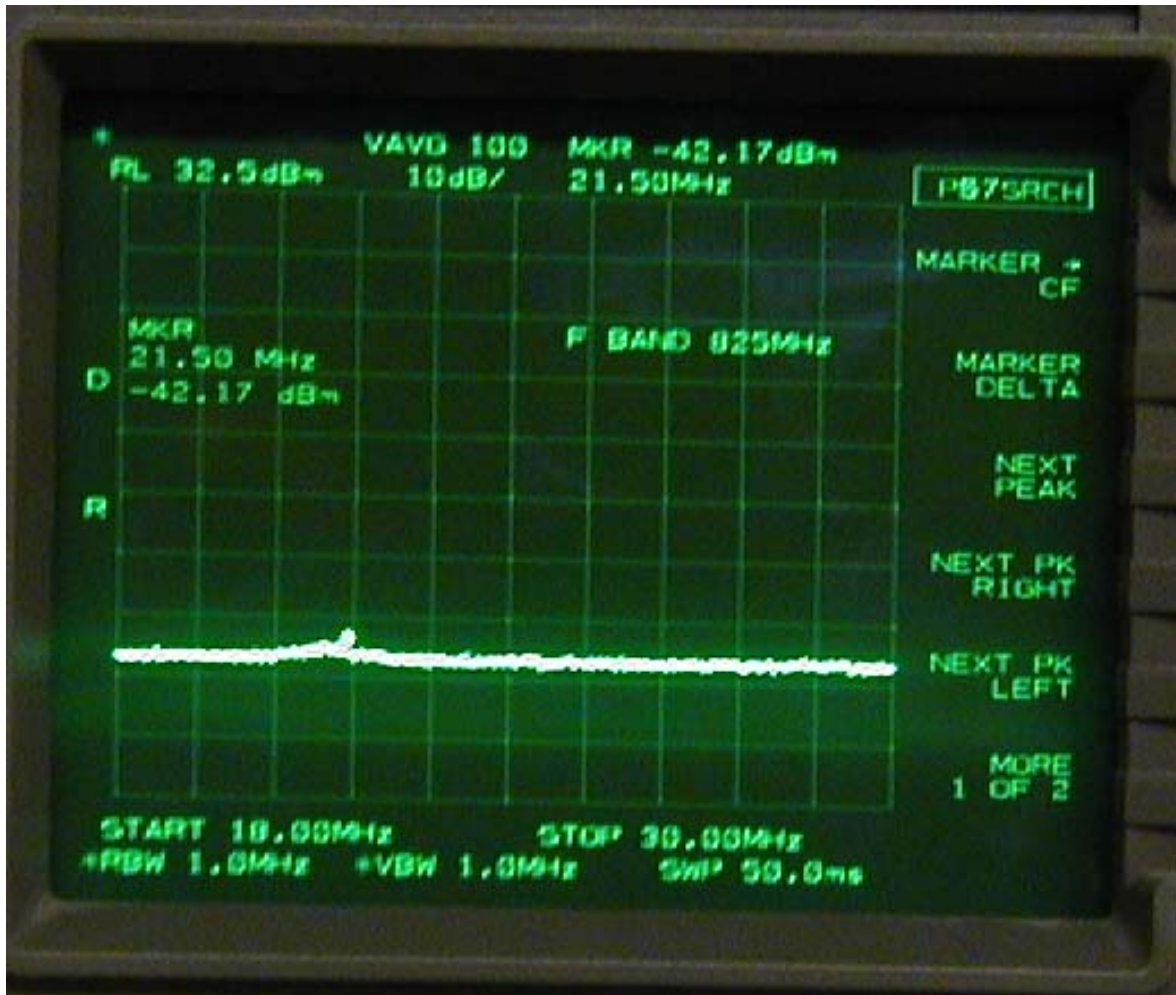


Figure 57:
18 MHz – 30 MHz

Spur frequency 21.50 MHz,
Spur level : -42.17 dBm < -33 dBm

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Spurious emissions at antenna terminals

C & F bands, Channel 825, 1971.25 MHz

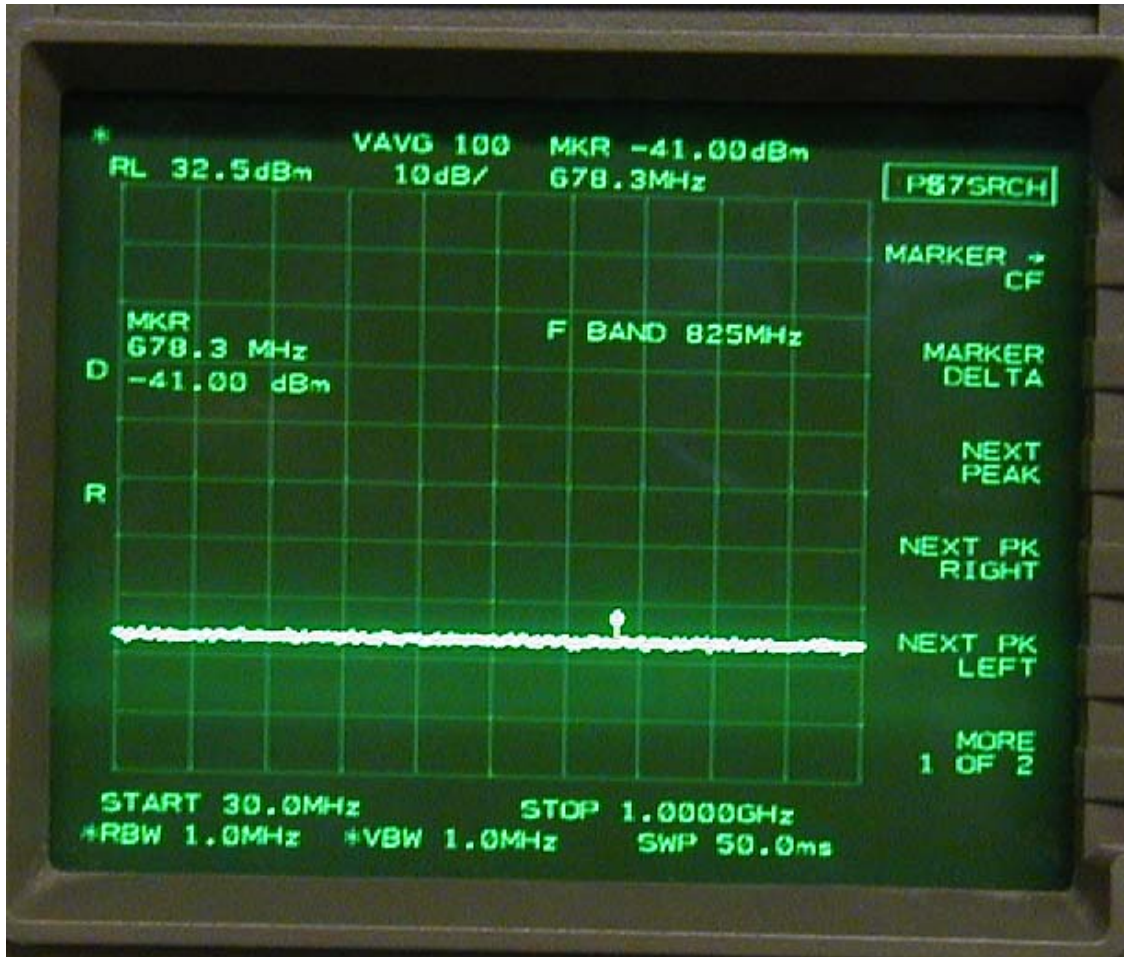


Figure 58:

30 MHz – 1 GH

Spur frequency 678.3 MHz,

Spur level : -41.00dBm < -33 dBm

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Spurious emissions at antenna terminals

C & F bands, Channel 825, 1971.25 MHz

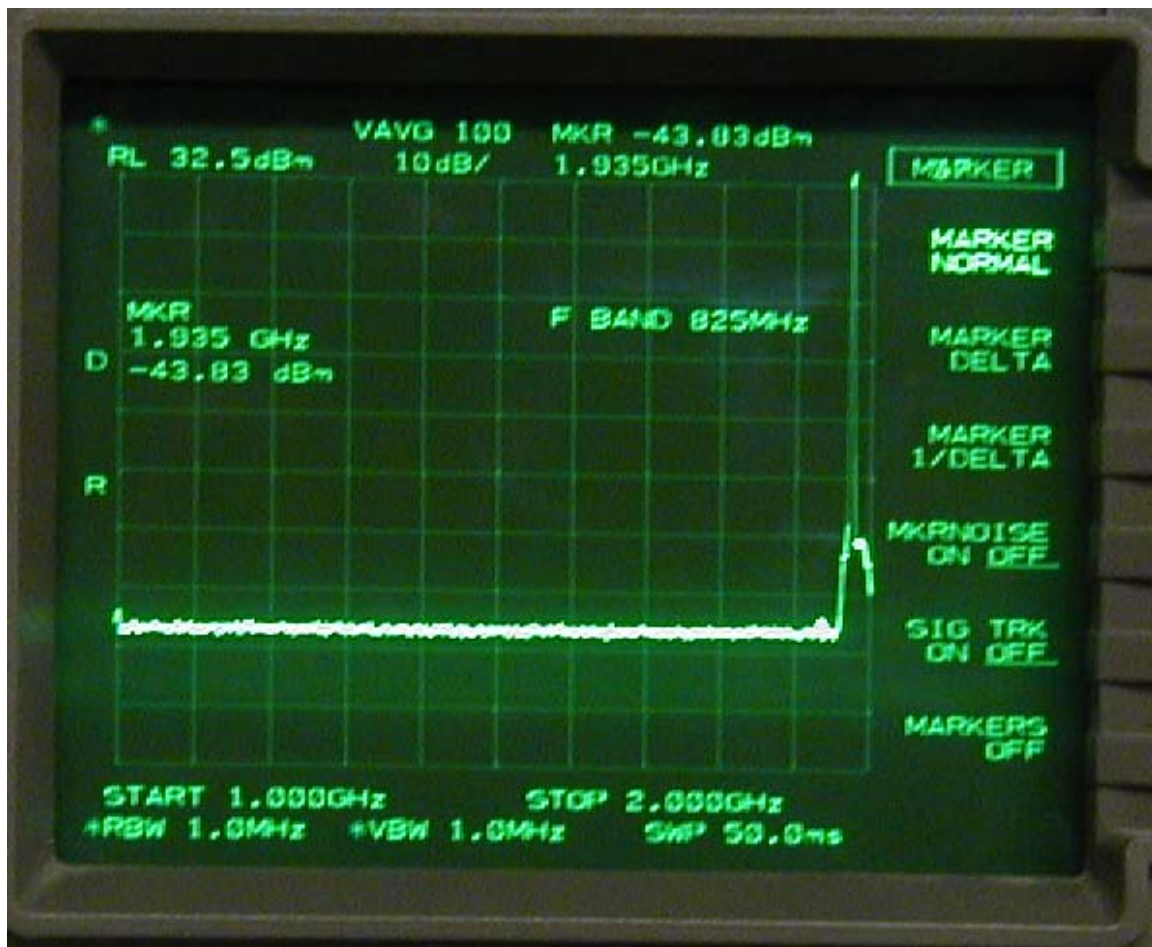


Figure 59:

1 GHz – 2 GHz

Spur frequency 1.935 GHz,

Spur level : -43.83 dBm < -33 dBm

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Spurious emissions at antenna terminals

C & F bands, Channel 825, 1971.25 MHz

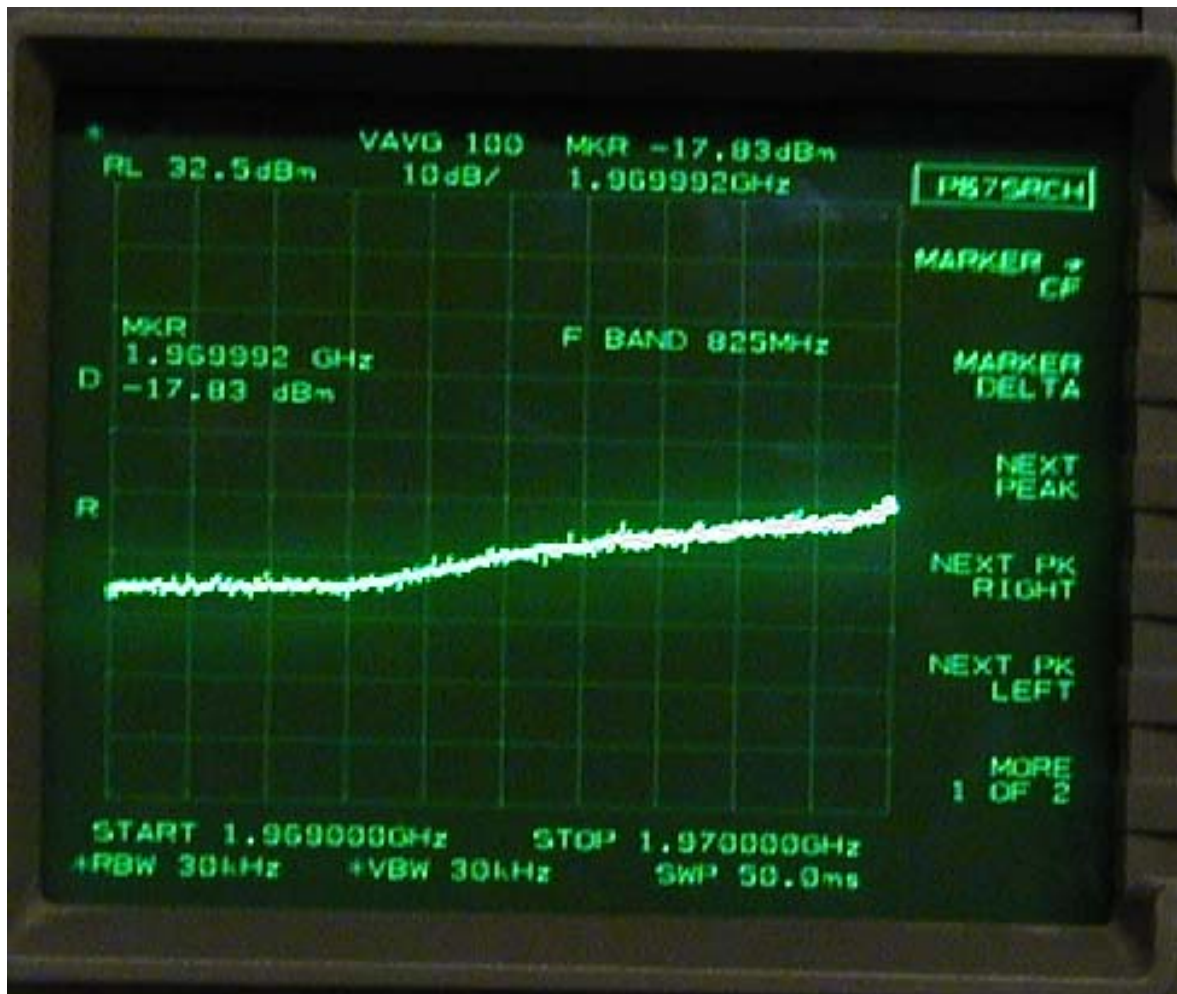


Figure 60:
1.969 GHz – 1.970 GH

Spur frequency 1.969992 GHz,
Spur level : -17.83 dBm

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Spurious emissions at antenna terminals

C & F bands, Channel 825, 1971.25 MHz

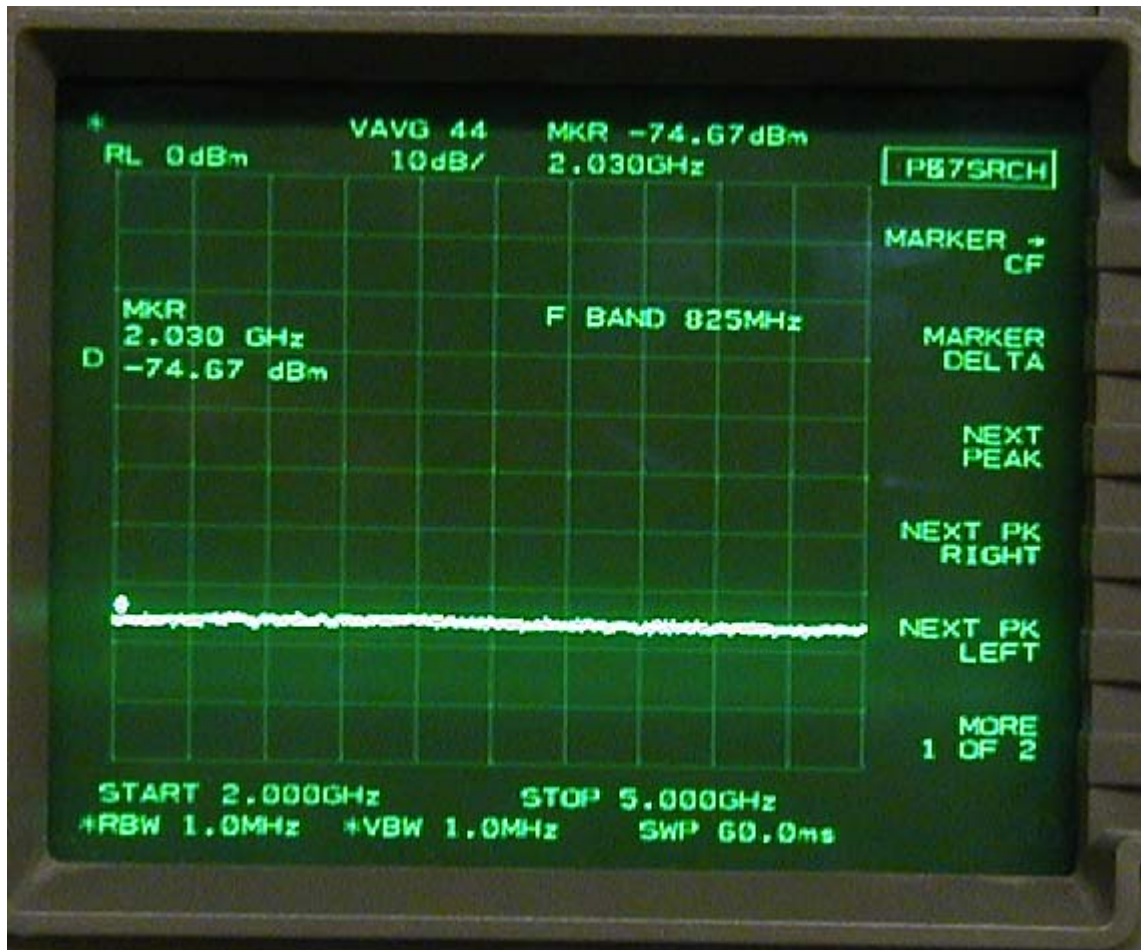


Figure 61:
2 GHz – 5 GHz

Spur frequency 2.03 GHz,

Spur level : $-74.67 \text{ dBm} + 32.2 \text{ dB} = -42.47 \text{ dBm} < -33 \text{ dBm}$

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Spurious emissions at antenna terminals

C & F bands, Channel 825, 1971.25 MHz

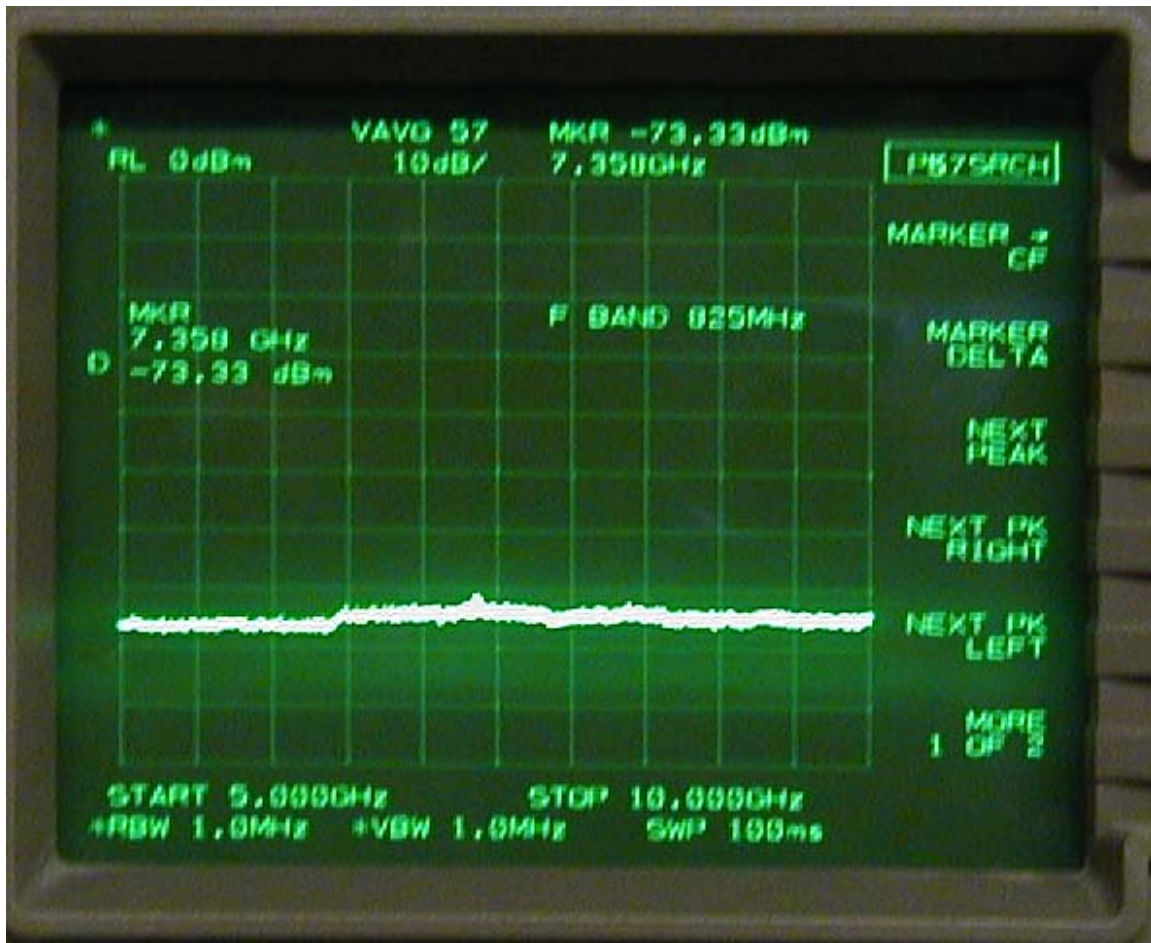


Figure 62:
5 GHz – 10 GHz

Spur frequency 7.35 GHz,

Spur level : -73.33dBm + 33.6dB = - 39.73 dBm < - 33 dBm

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Spurious emissions at antenna terminals
C & F bands, Channel 825, 1971.25 MHz

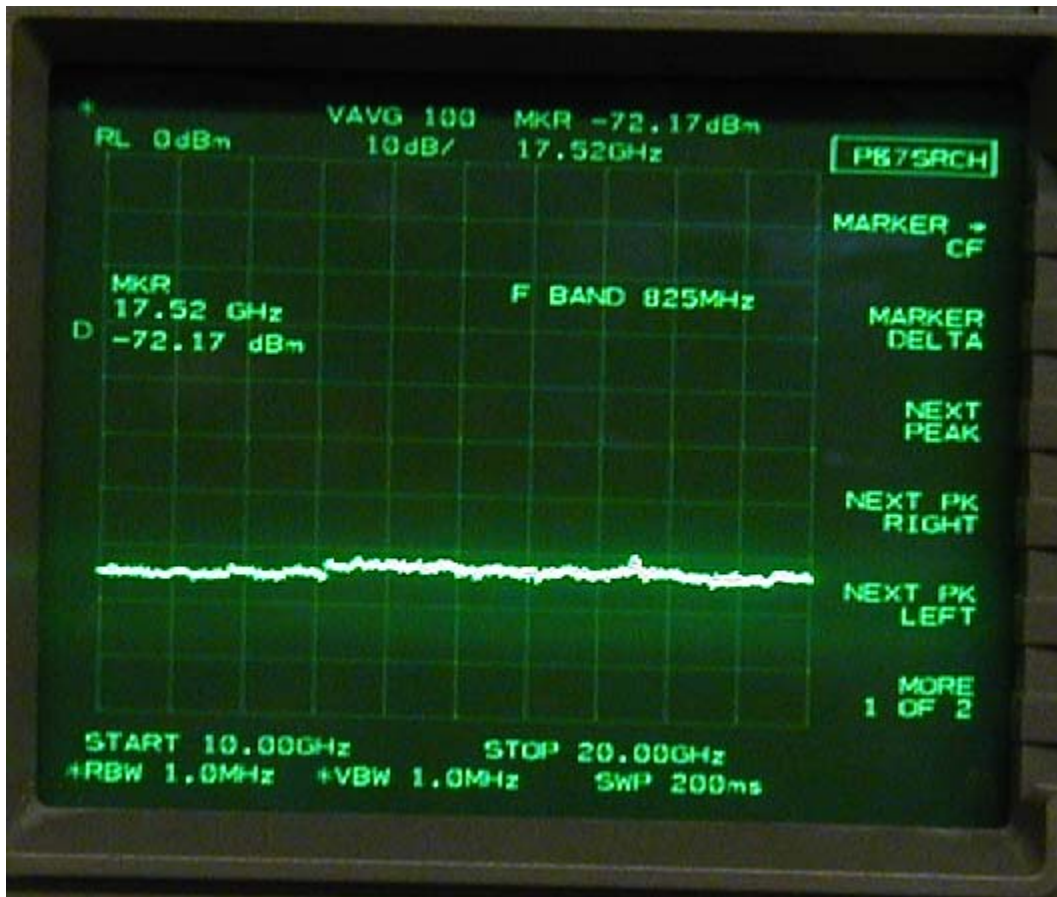


Figure 63:
10 GHz – 20 GH

Spur frequency 17.52 GHz,
Spur level : -72.17dBm + 39.6 dB = -32.57 dBm

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TRM 1900MHz C & F bands, Channel 875, 1973.75 MHz

Spurious emissions at antenna terminals

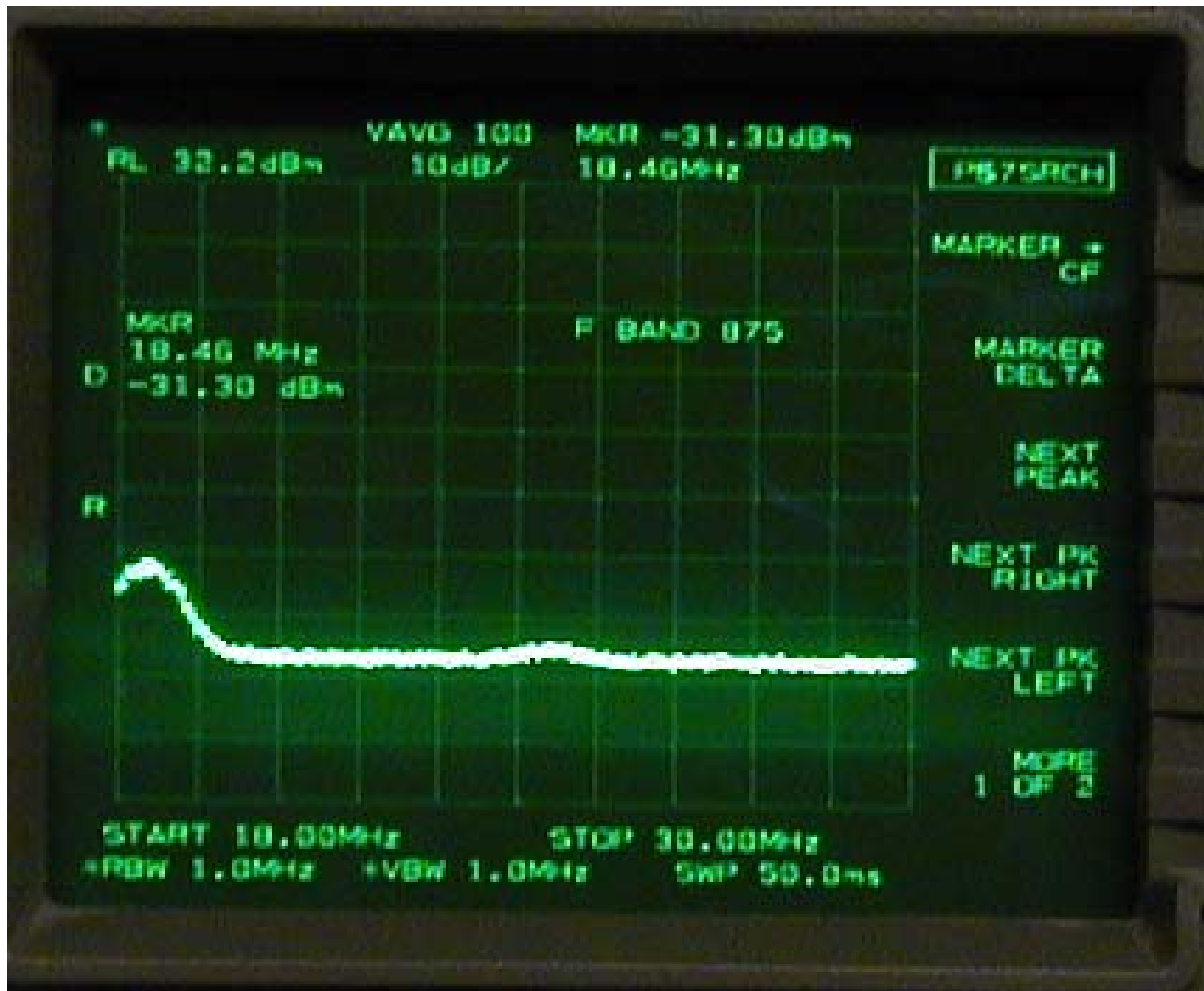


Figure 64:
18 MHz – 30 MHz

Spur frequency 18.40 MHz,
Spur level : -31.30 dBm

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Spurious emissions at antenna terminals
C & F bands, Channel 875, 1973.75 MHz



Figure 65:
30 MHz – 1 GH

Spur frequency 683.1 MHz,
Spur level : -41.97 dBm < - 33 dBm

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Spurious emissions at antenna terminals
C & F bands, Channel 875, 1973.75 MHz

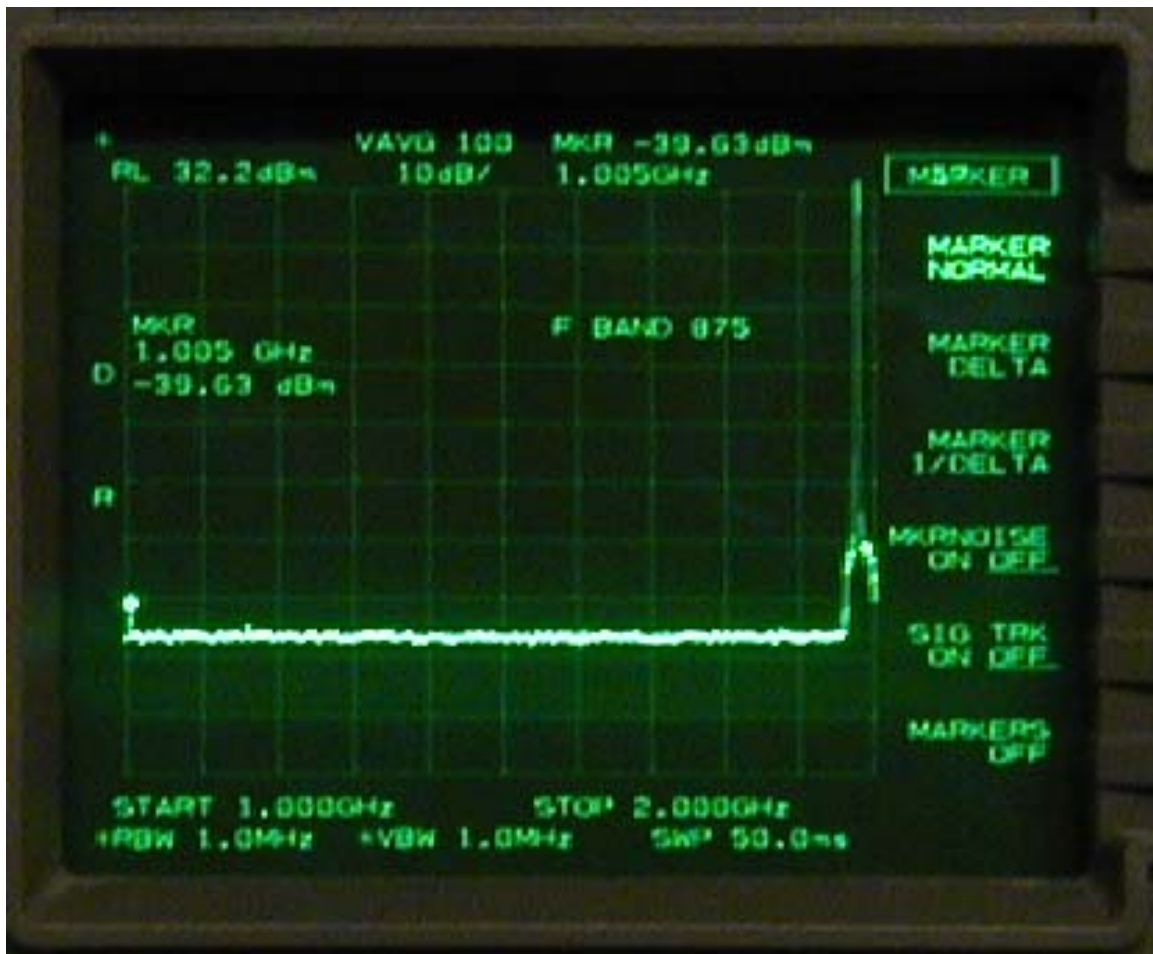


Figure 66:
1 GHz – 2 GH

Spur frequency 1.005 GHz,
Spur level : -39.03 dBm < -33 dBm

AB6NT1900FRM

Spurious emissions at antenna terminals
C & F bands, Channel 875, 1973.75 MHz



Figure 67:
1.975 GHz – 1.976 GH

Spur frequency 1.975 GHz,
Spur level : -14.97 dBm

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Spurious emissions at antenna terminals
C & F bands, Channel 875, 1973.75 MHz



Figure 68:
2 GHz – 5 GHz

Spur frequency 3.945 MHz,
Spur level : $-74.17 \text{ dBm} + 32.7 \text{ dB} = -41.47 \text{ dBm} < -33 \text{ dBm}$

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Spurious emissions at antenna terminals C & F bands, Channel 875, 1973.75 MHz

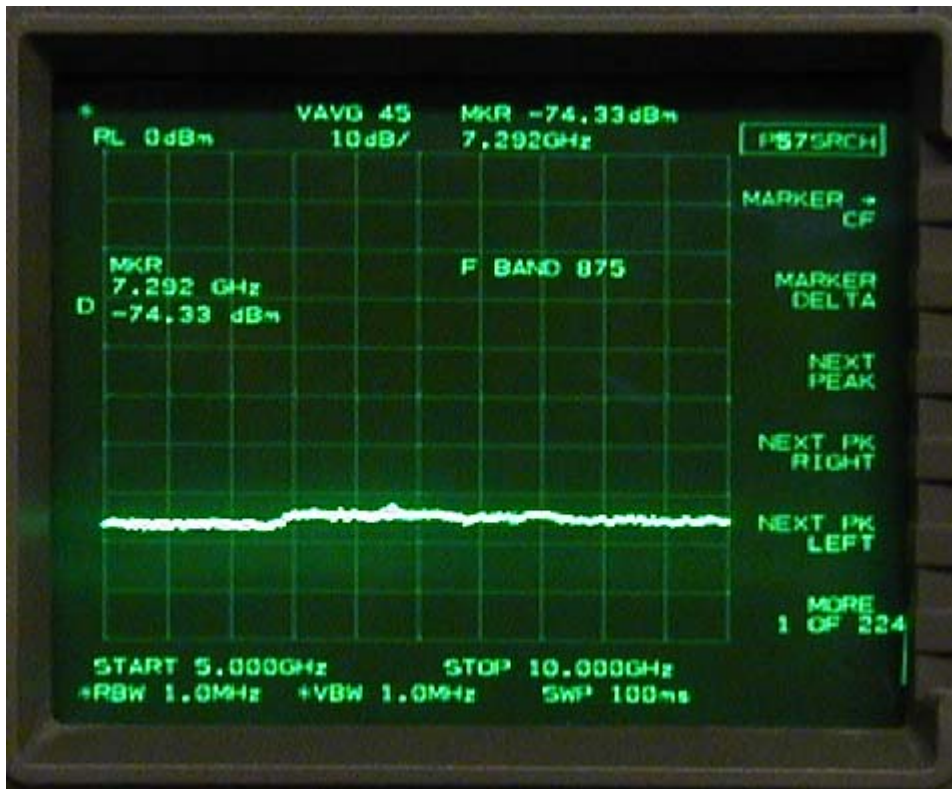


Figure 69:
5 GHz – 10 GH

Spur frequency 7.292 GHz,
Spur level : $-74.33\text{dBm} + 33.6\text{dB} = -40.73\text{ dBm} < -33\text{ dBm}$

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Spurious emissions at antenna terminals

C & F bands, Channel 875, 1973.75 MHz

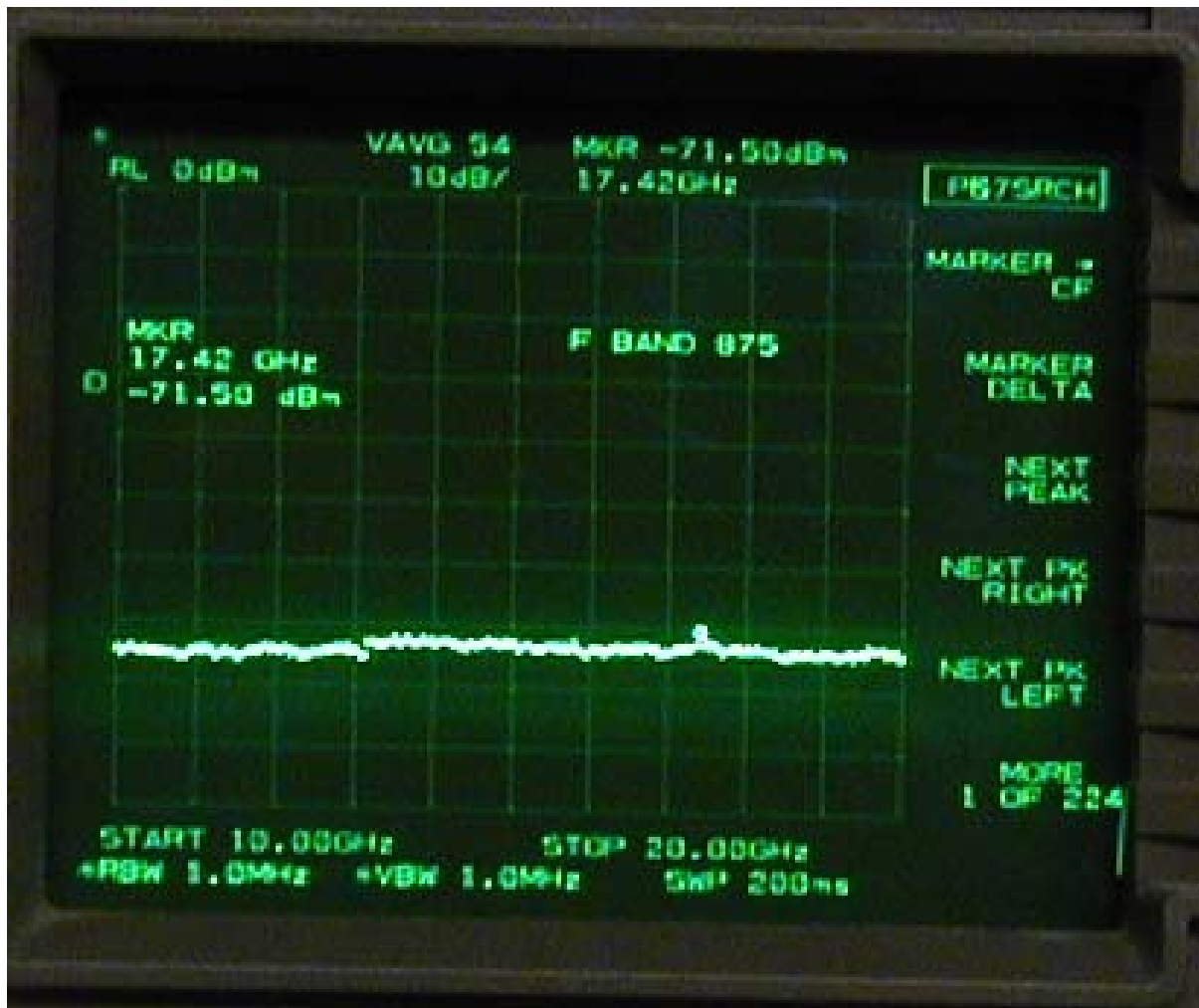


Figure 70:

10 GHz – 20 GH

Spur frequency 77.42 GHz,

Spur level : -71.50dBm + 37.1 dB = -34.4 dBm < - 33 dBm

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TRM 1900MHz C & F bands, Channel 925, 1976.25 MHz

Spurious emissions at antenna terminals

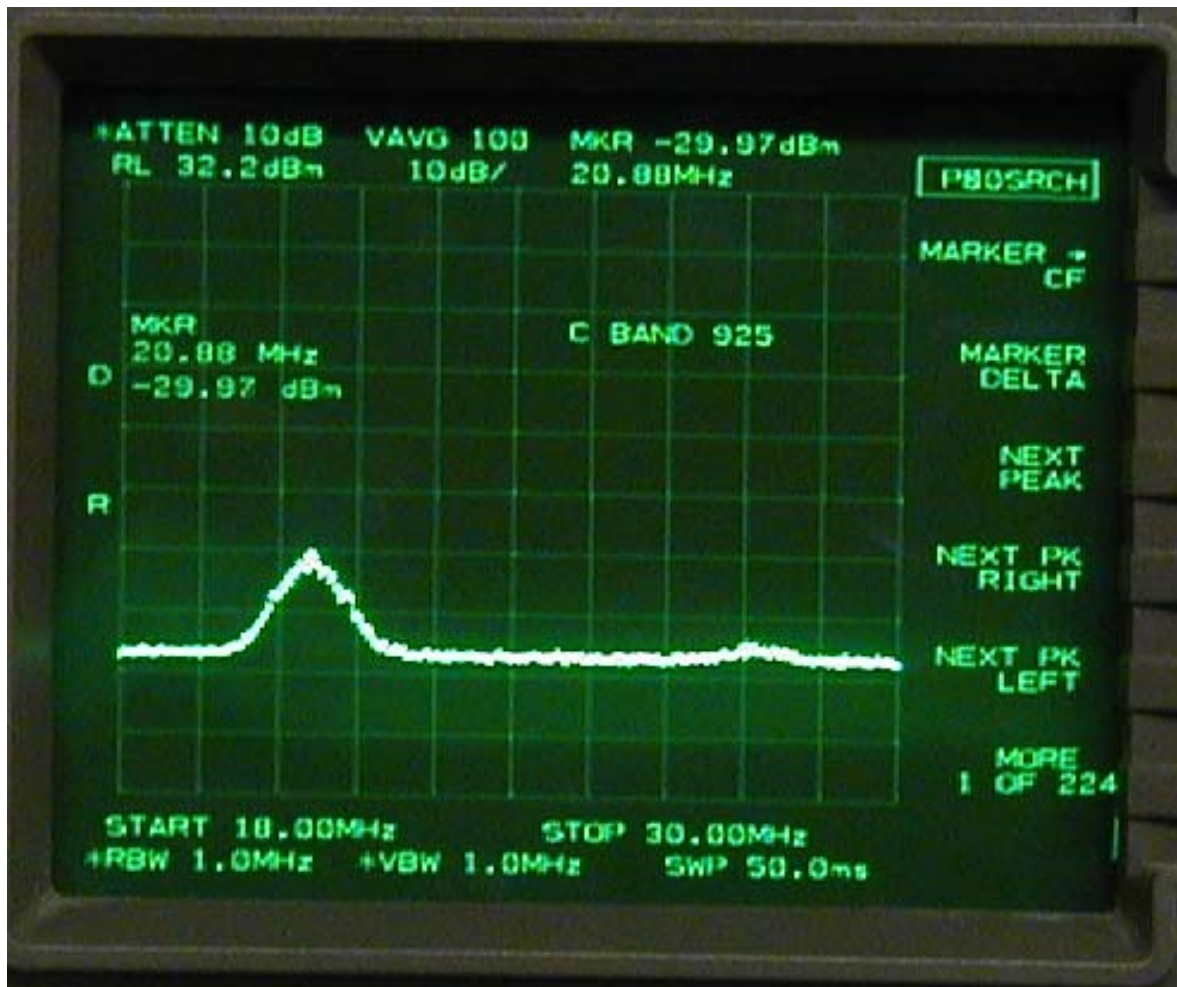


Figure 71:

18 MHz – 30 MHz

Spur frequency 20.38 MHz,
Spur level : -29.97 dBm

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Spurious emissions at antenna terminals C & F bands, Channel 925, 1976.25 MHz

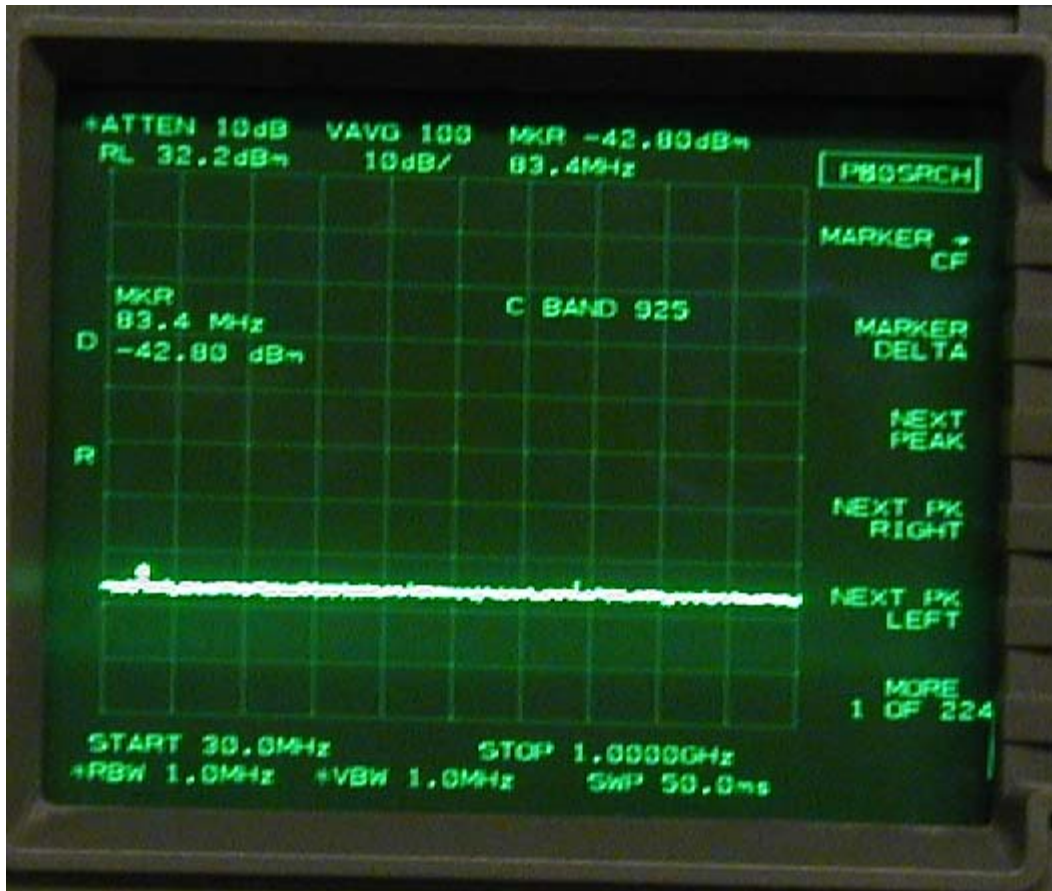


Figure 72:
30 MHz – 1 GH

Spur frequency 83.4 MHz,
Spur level : -42.80 dBm < -33 dBm

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Spurious emissions at antenna terminals C & F bands, Channel 925, 1976.25 MHz

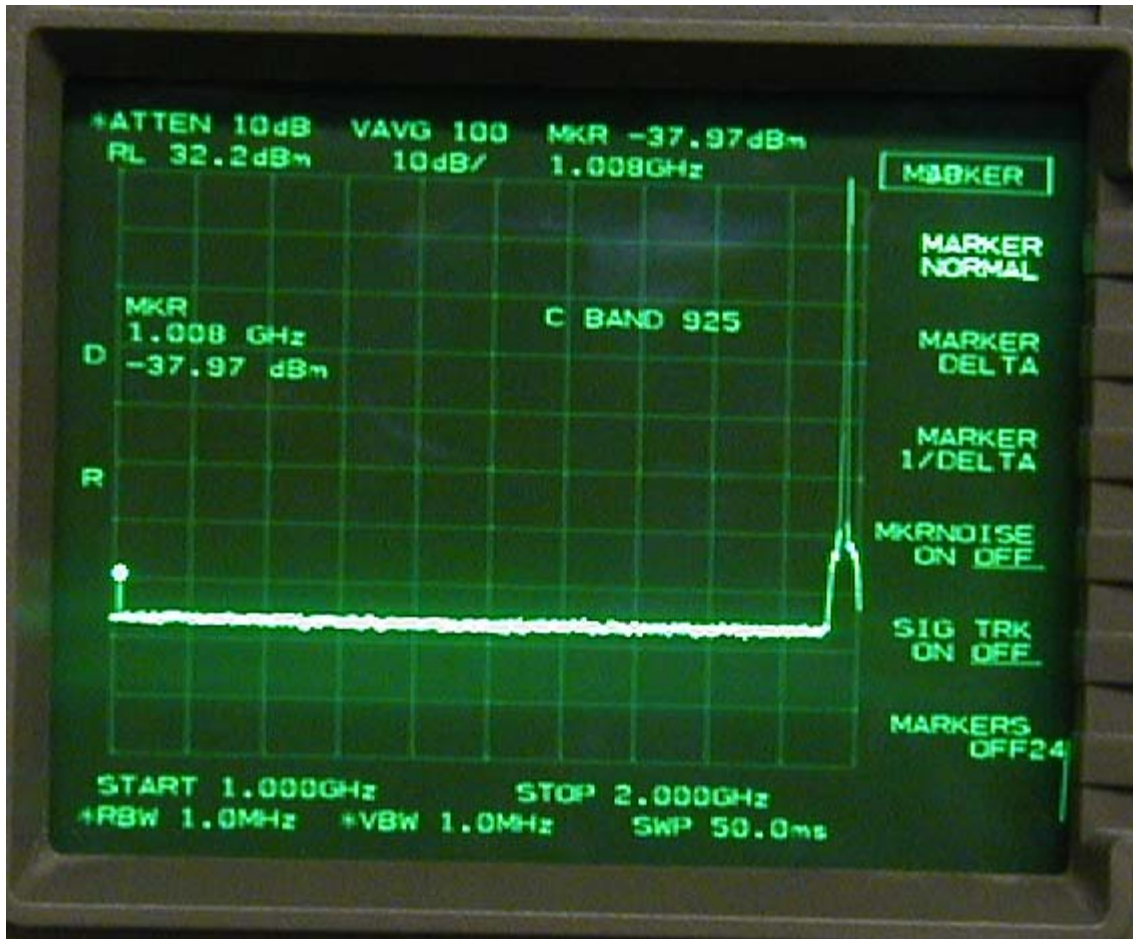


Figure 73:
1 GHz – 2 GH

Spur frequency 1.008 GHz,
Spur level : -37.97dBm < - 33 dBm

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Spurious emissions at antenna terminals C & F bands, Channel 925, 1976.25 MHz

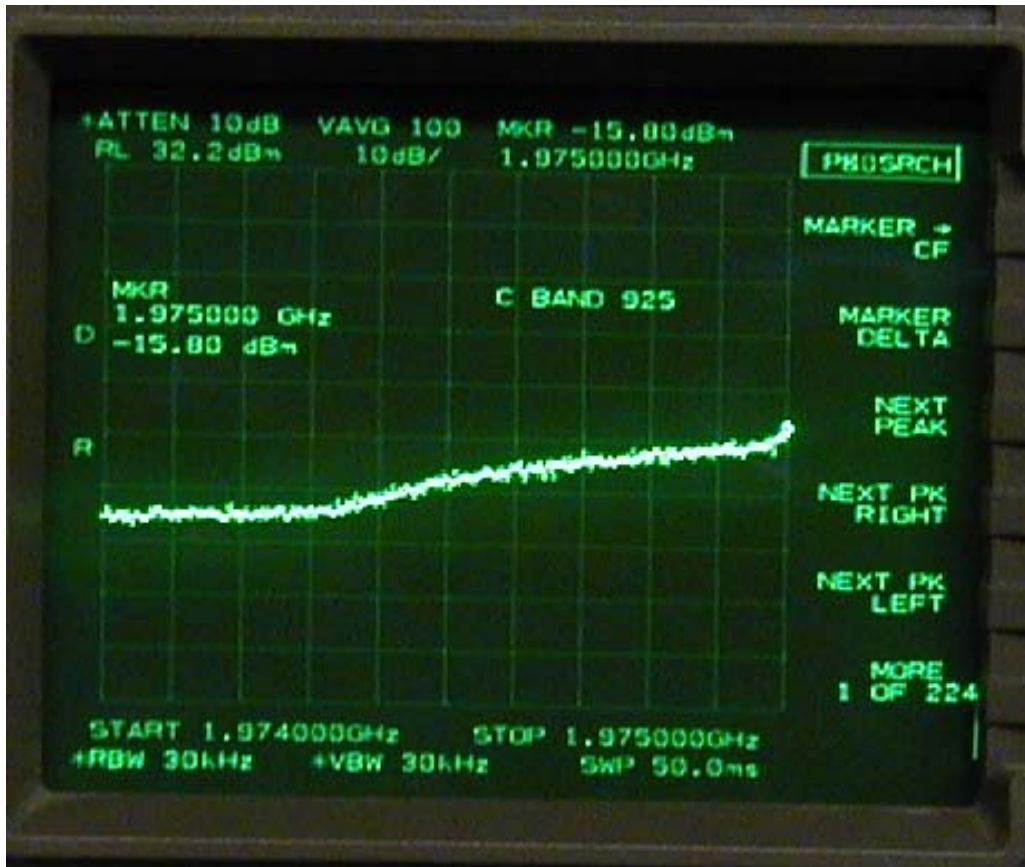


Figure 74:
1.974 GHz – 1.975 GHz

Spur frequency 1.975 GHz,
Spur level : -15.00 dBm

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Spurious emissions at antenna terminals C & F bands, Channel 925, 1976.25 MHz

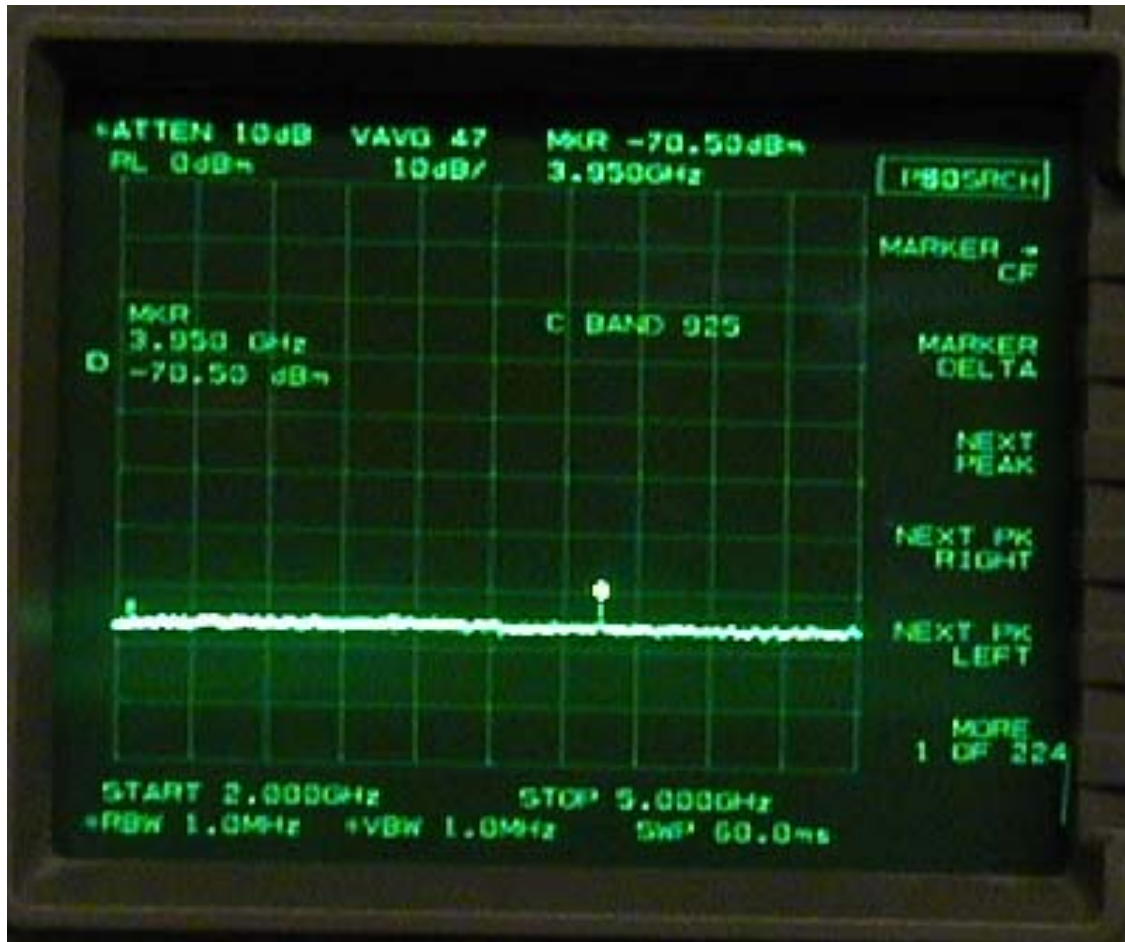


Figure 75:
2 GHz – 5 GHz

Spur frequency 3.950 GHz,
Spur level : $-70.50 \text{ dBm} + 32.7 \text{ dB} = -37.8 \text{ dBm} < -33 \text{ dBm}$

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Spurious emissions at antenna terminals

C & F bands, Channel 925, 1976.25 MHz

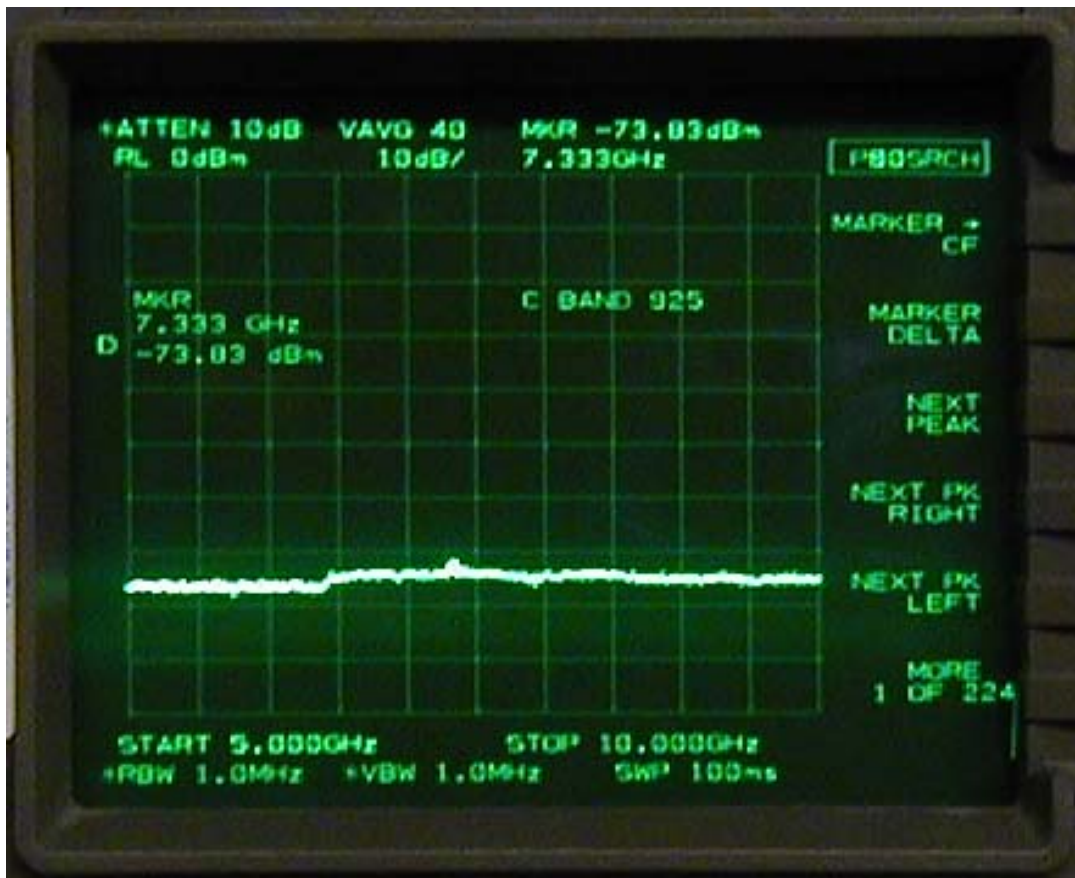


Figure 76:
5 GHz – 10 GHz

Spur frequency 7.333 GHz,
Spur level : -73.03 dBm +33.6 dB = - 39.43 dBm < - 33 dBm

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Spurious emissions at antenna terminals C & F bands, Channel 925, 1976.25 MHz

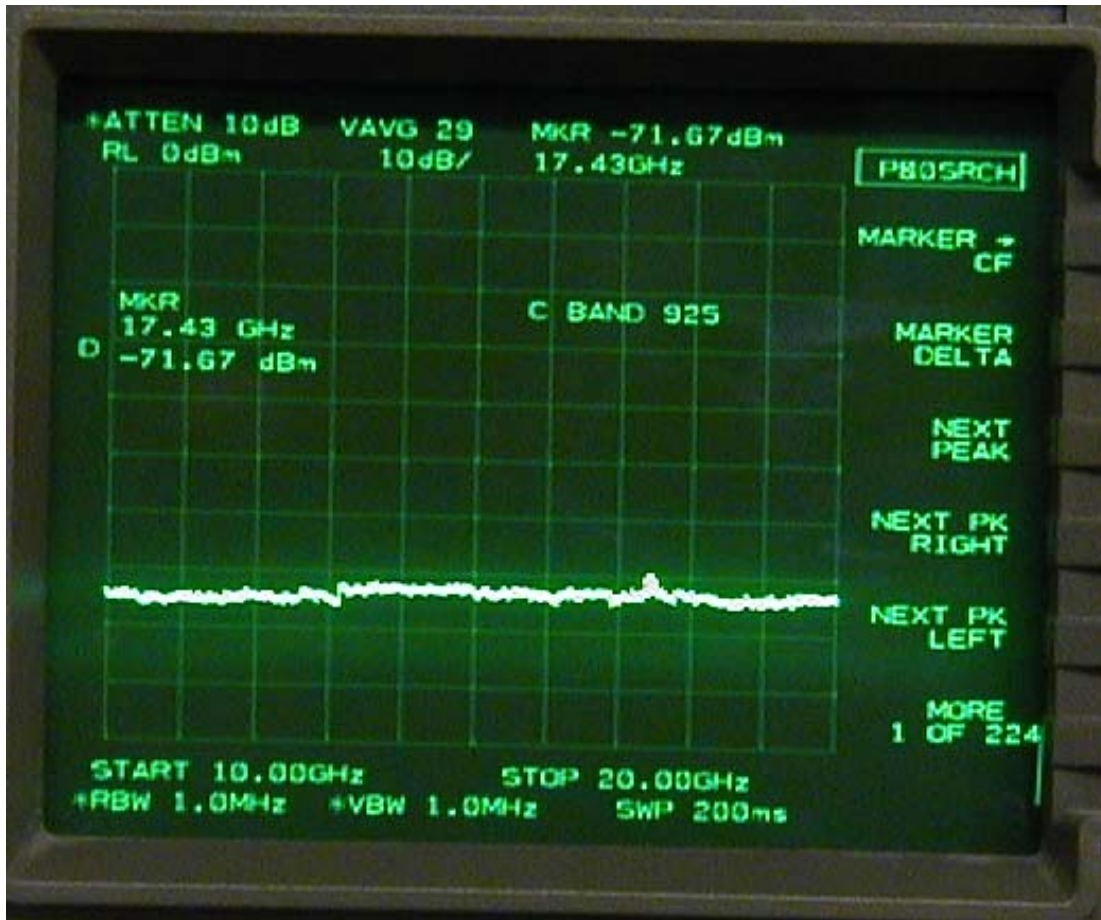


Figure 77:
10 GHz – 20 GHz

Spur frequency 17.43 GHz,
Spur level : $-71.67 \text{ dBm} + 37.1 \text{ dB} = -34.57 \text{ dBm} < -33 \text{ dBm}$

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TRM 1900MHz C & F bands, Channel 1175, 1988.75 MHz

Spurious emissions at antenna terminals

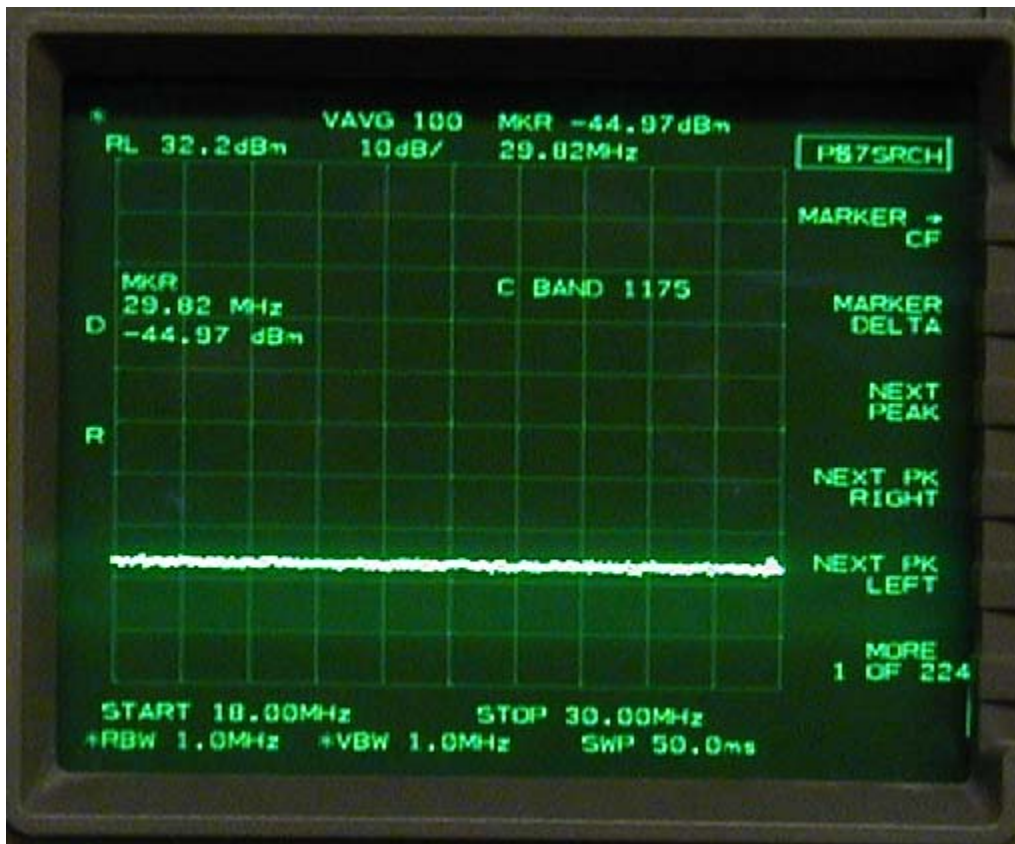


Figure 78:
18 MHz – 30 MHz

Spur frequency 29.02 MHz,
Spur level : -44.97 dBm < -33 dBm

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Spurious emissions at antenna terminals C & F bands, Channel 1175, 1988.75 MHz

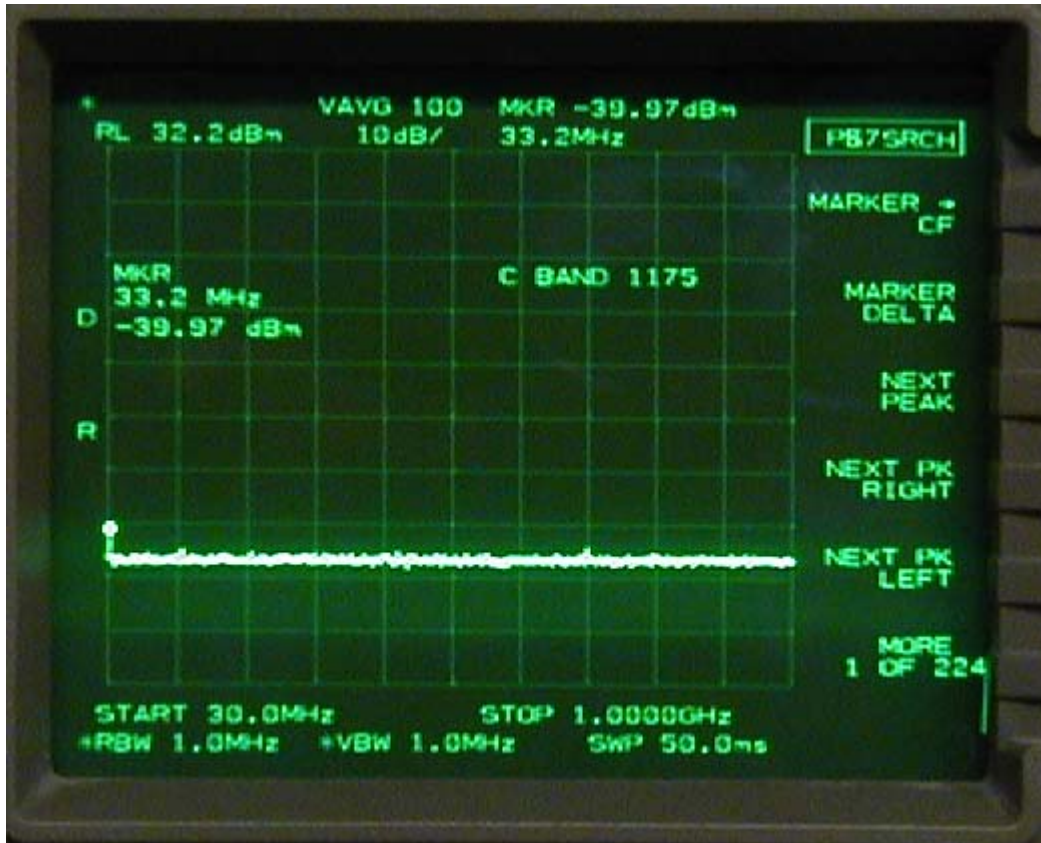


Figure 79:
30 MHz – 1 GHz

Spur frequency 33.2 GHz,
Spur level : -39.97 dBm < -33 dBm

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Spurious emissions at antenna terminals C & F bands, Channel 1175, 1988.75 MHz

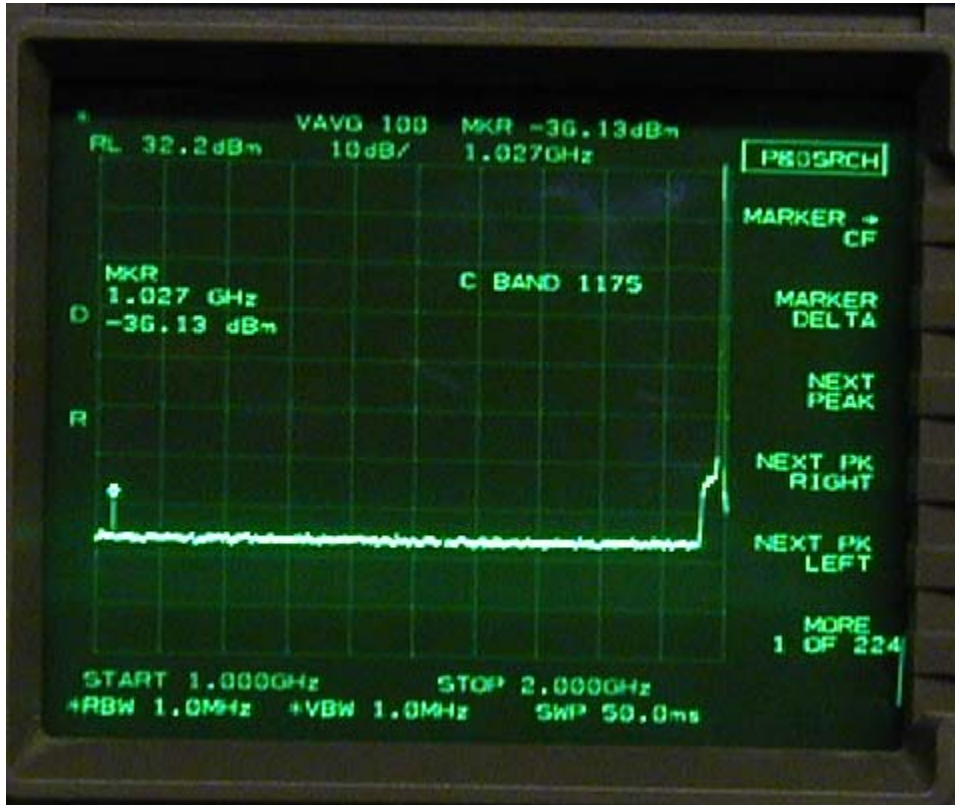


Figure 80:
1 GHz – 2 GHz

Spur frequency 1.027 GHz,
Spur level : -36.13 dBm < - 33 dBm

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Spurious emissions at antenna terminals C & F bands, Channel 1175, 1988.75 MHz

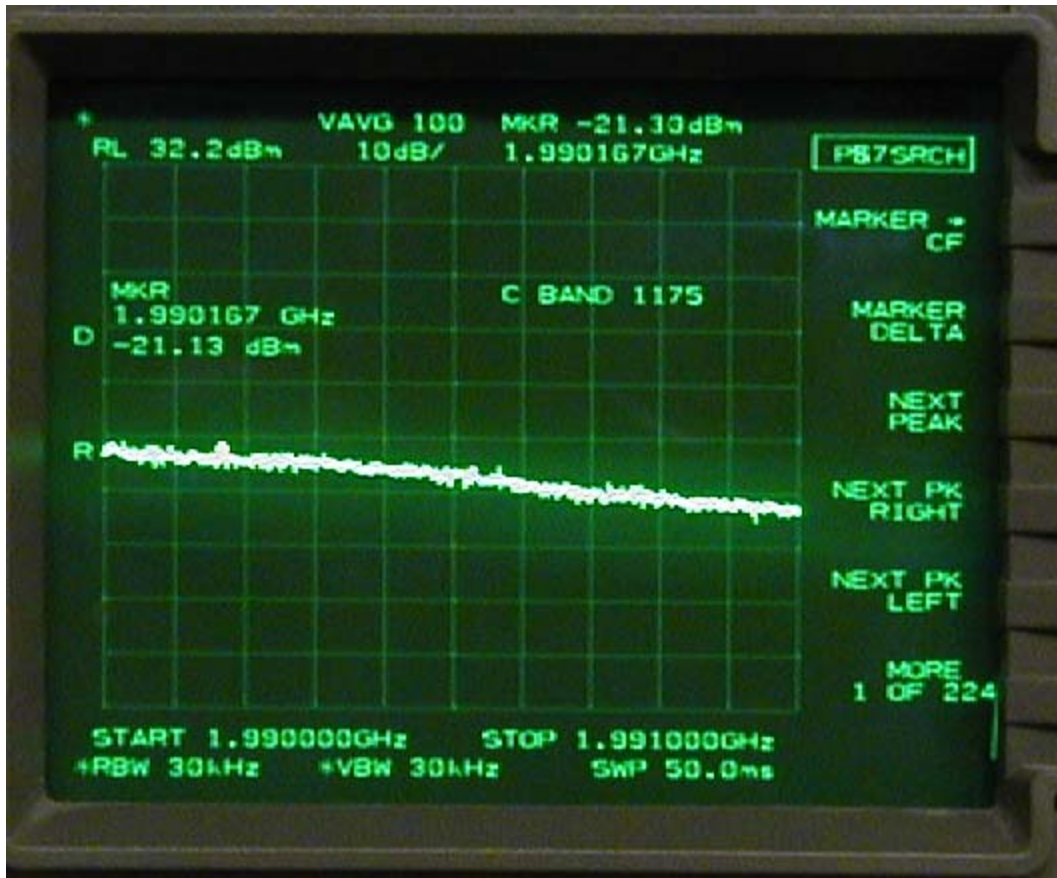


Figure 81:
1.990 GHz – 1.991 GHz

Spur frequency 1.990167 GHz,
Spur level : -21.13 dBm

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Spurious emissions at antenna terminals C & F bands, Channel 1175, 1988.75 MHz

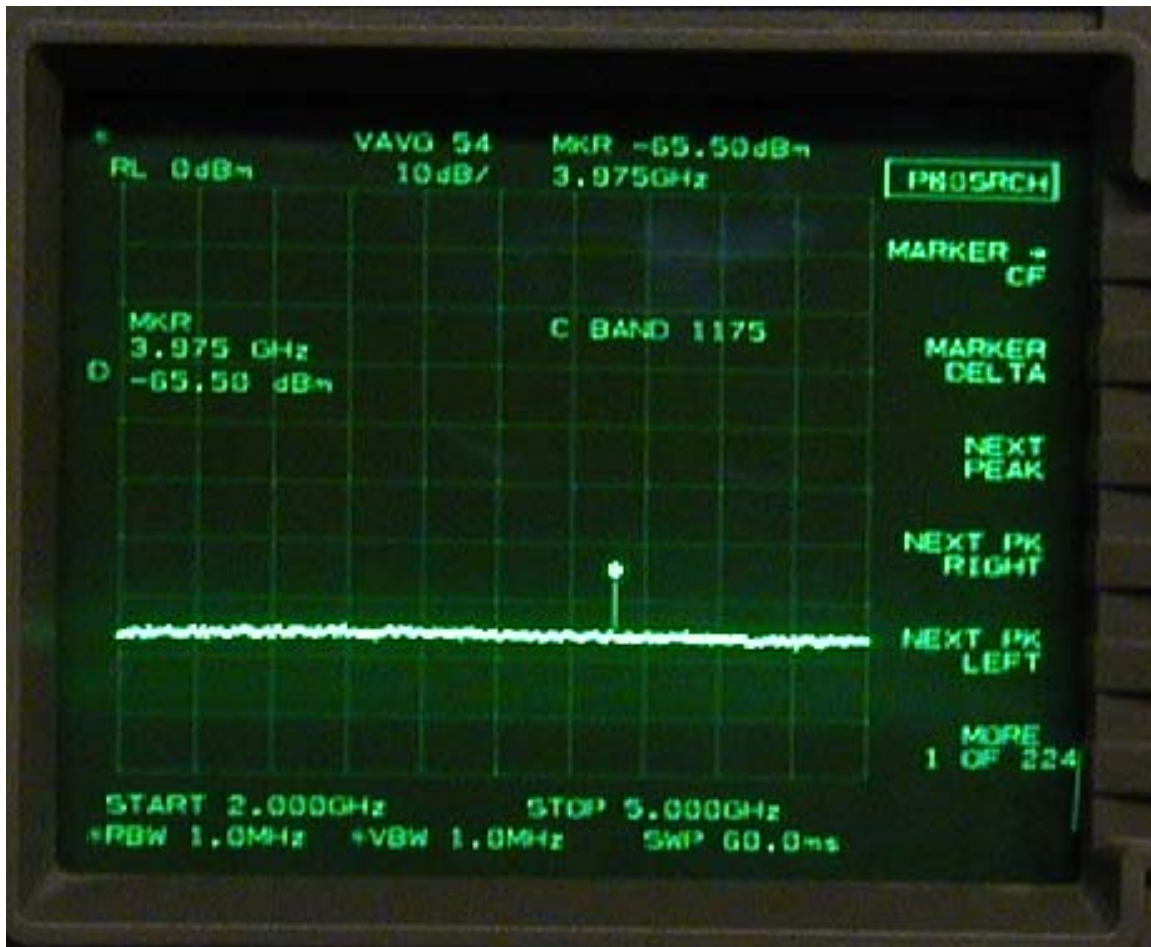


Figure 82:
2 GHz – 5 GHz

Spur frequency 3.975 GHz,
Spur level : $-65.50 \text{ dBm} + 32.7 \text{ dB} = -32.8 \text{ dBm}$

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Spurious emissions at antenna terminals C & F bands, Channel 1175, 1988.75 MHz

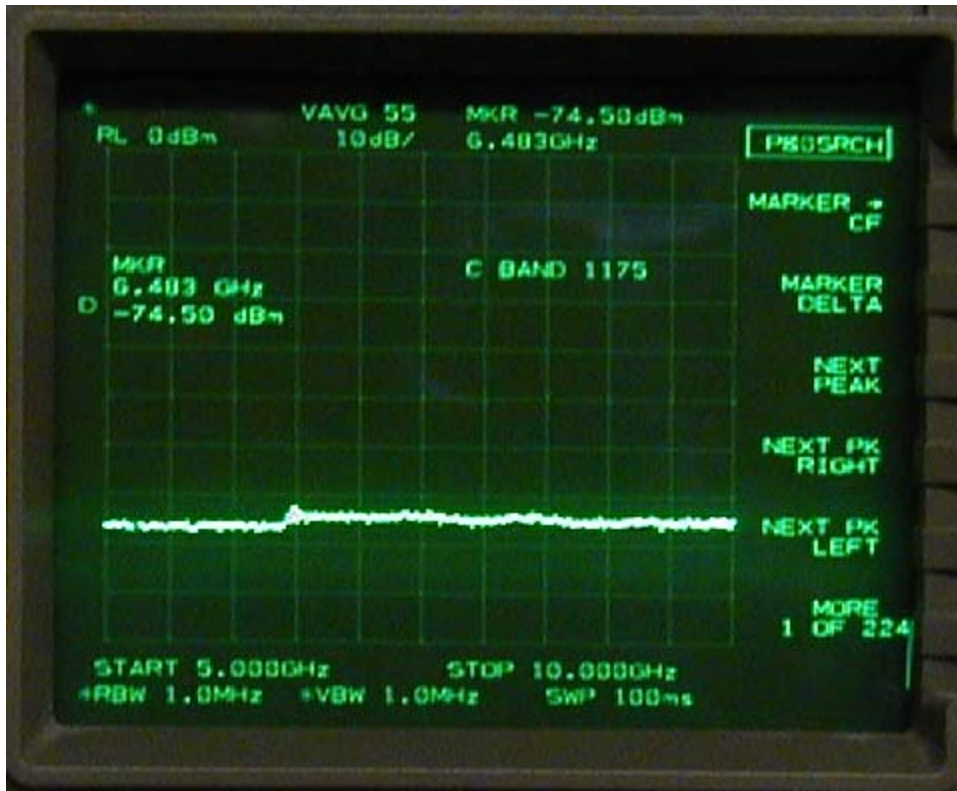


Figure 83:
5 GHz – 10 GHz

Spur frequency 6.483 GHz,
Spur level : -74.50 dBm + 33.5dB = -41dBm < -33 dBm

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Spurious emissions at antenna terminals C & F bands, Channel 1175, 1988.75 MHz

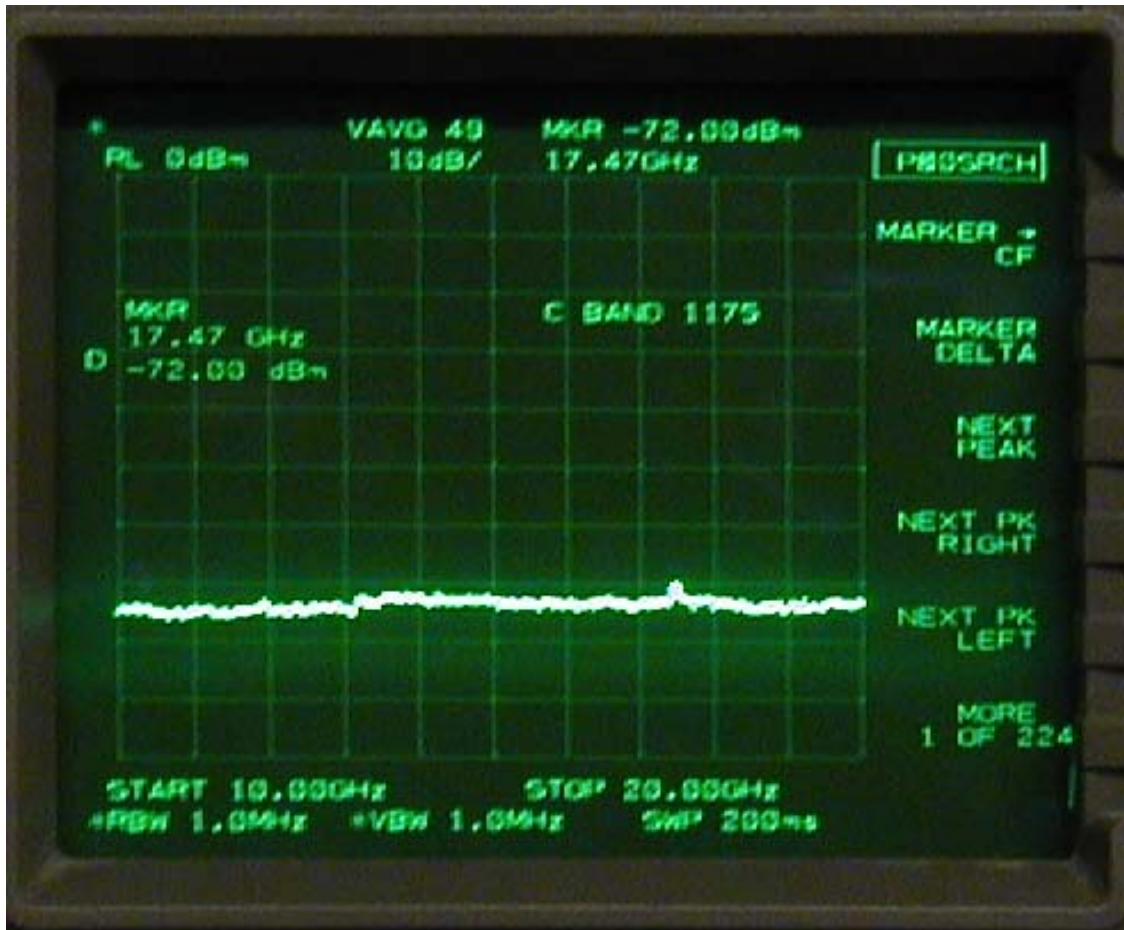


Figure 84:
10 GHz – 20 GHz

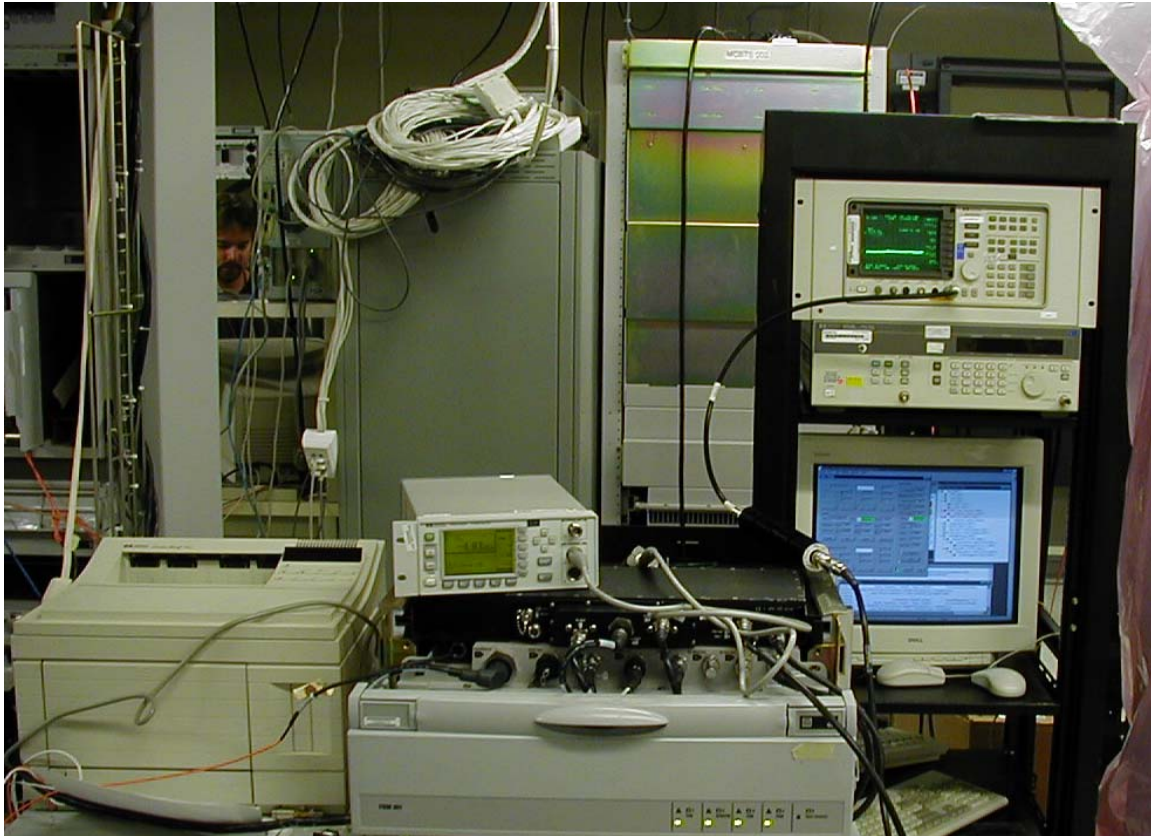
Spur frequency 17.47 GHz,
Spur level : -72.00 dBm + 37.1 dB = -34.9 dBm < -33 dBm

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2.4 Test setup

The test setup is shown in fig 85

Figure 85 test setup



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