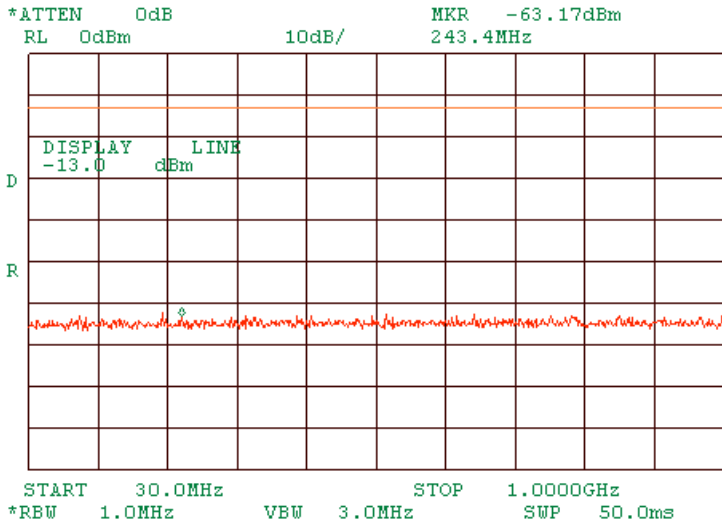
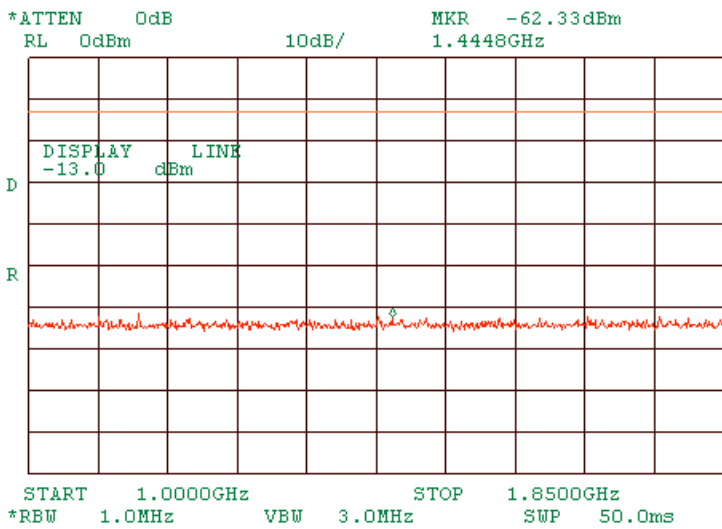


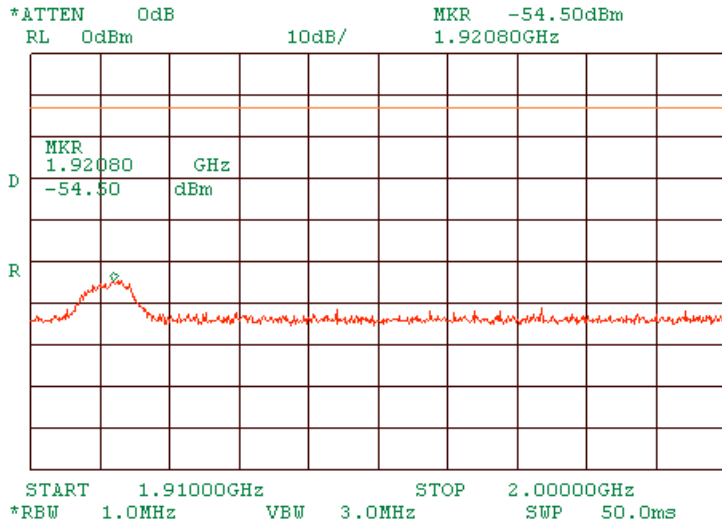
CDMA transmit mode 30 – 1000 MHz.



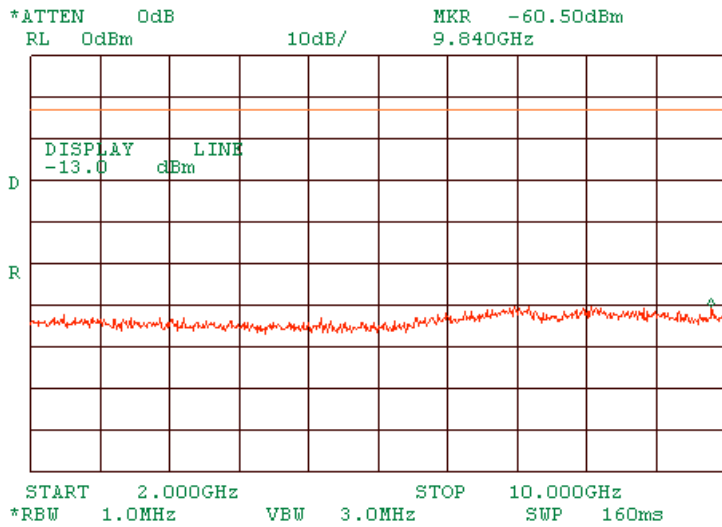
CDMA transmit mode 1000 – 1850 MHz.



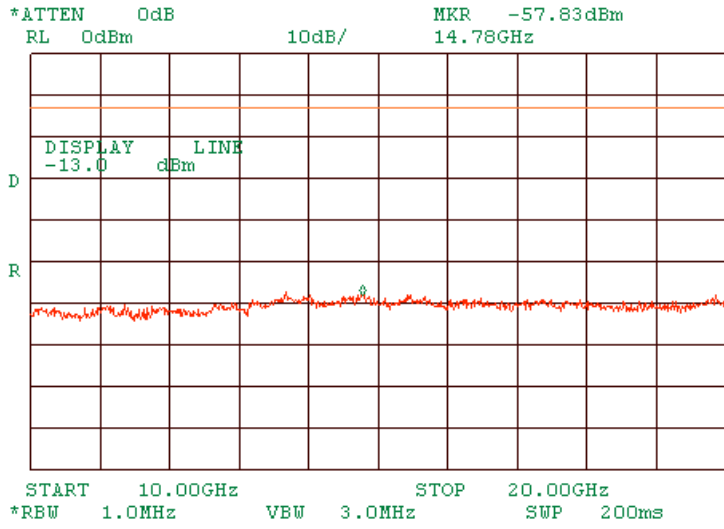
CDMA transmit mode 1910 – 2000 MHz.



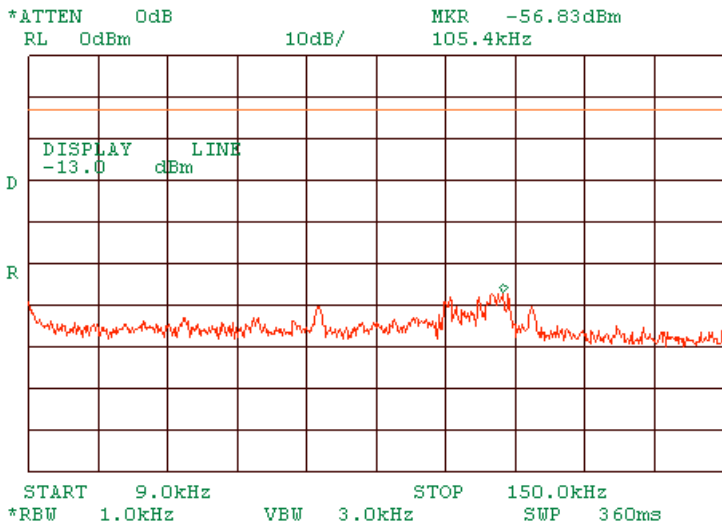
CDMA transmit mode 2000 – 10000 MHz.



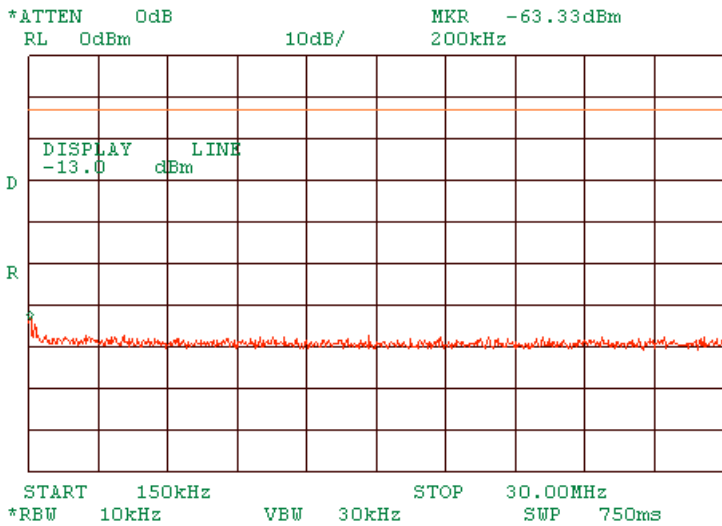
CDMA transmit mode 10000 – 20000 MHz.



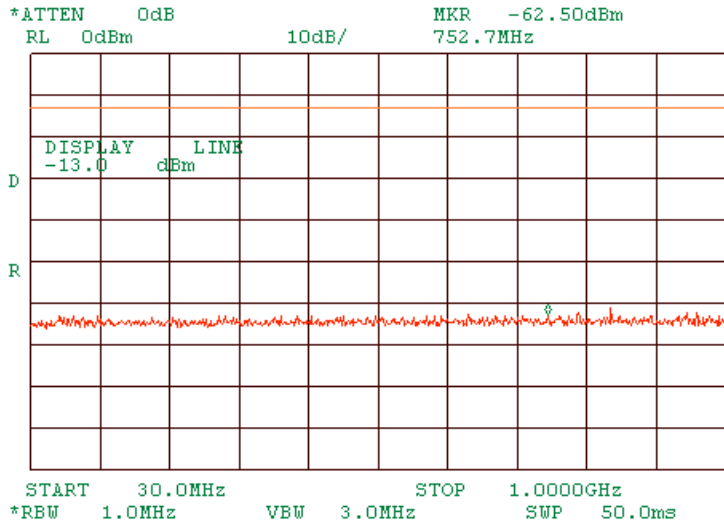
Modulation = QPSK
 Bit Rate = 1.288 Mbps
 IP = -50 dBm
 CDMA transmit mode 9 – 150 kHz.



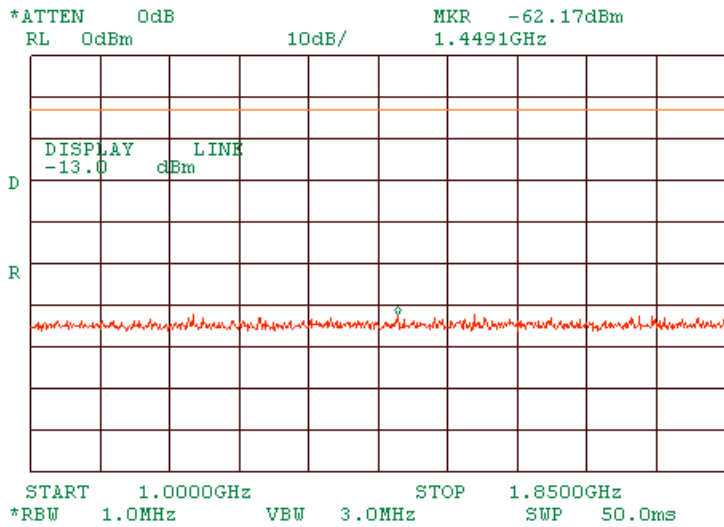
CDMA transmit mode 0.150 – 30 MHz.



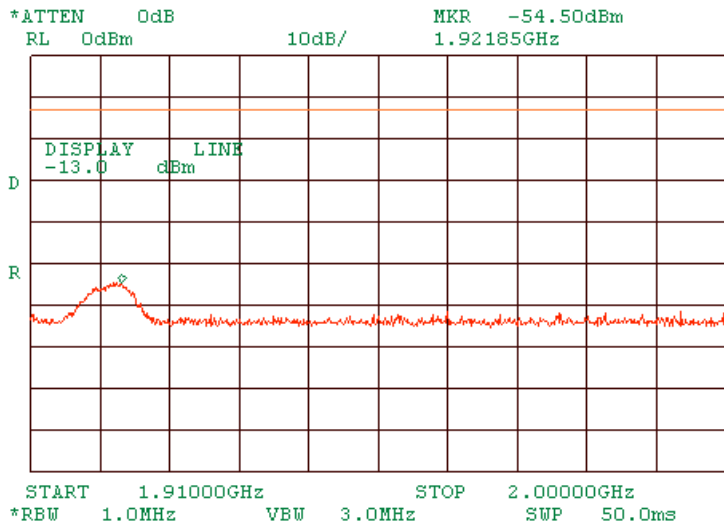
CDMA transmit mode 30 – 1000 MHz.



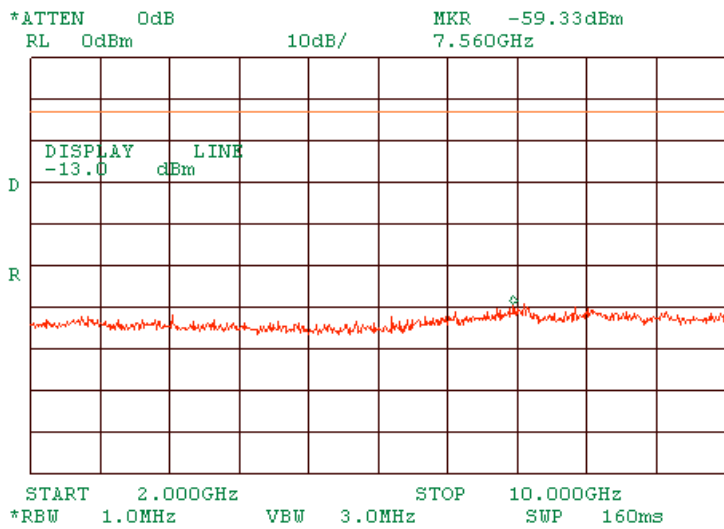
CDMA transmit mode 1000 – 1850 MHz.



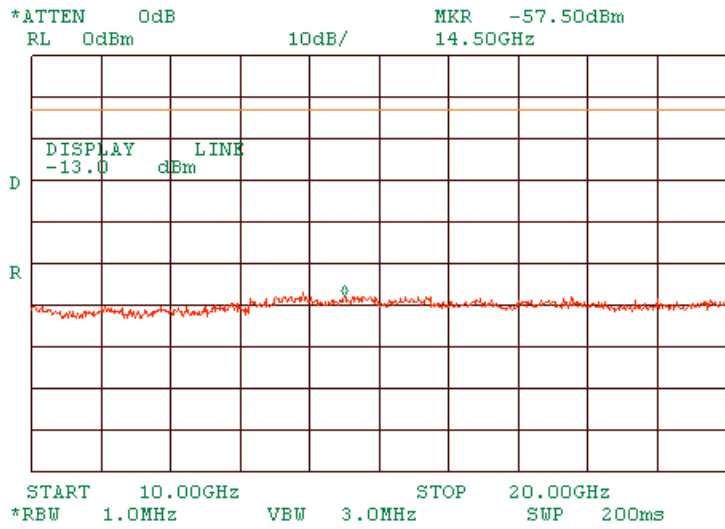
CDMA transmit mode 1910 – 2000 MHz.



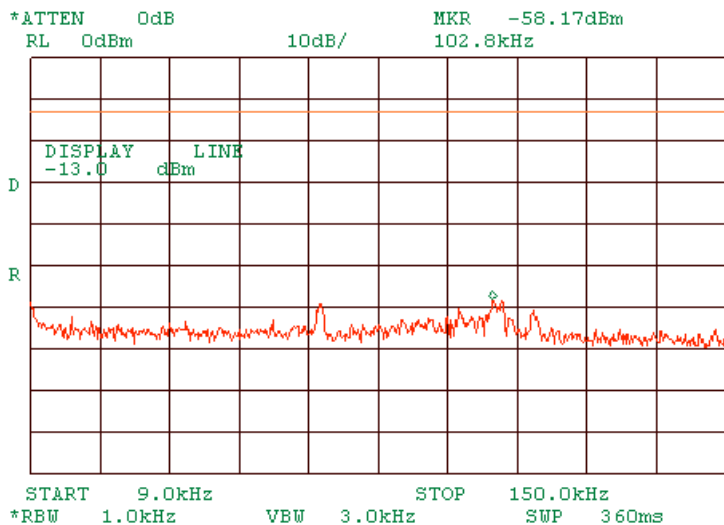
CDMA transmit mode 2000 – 10000 MHz.



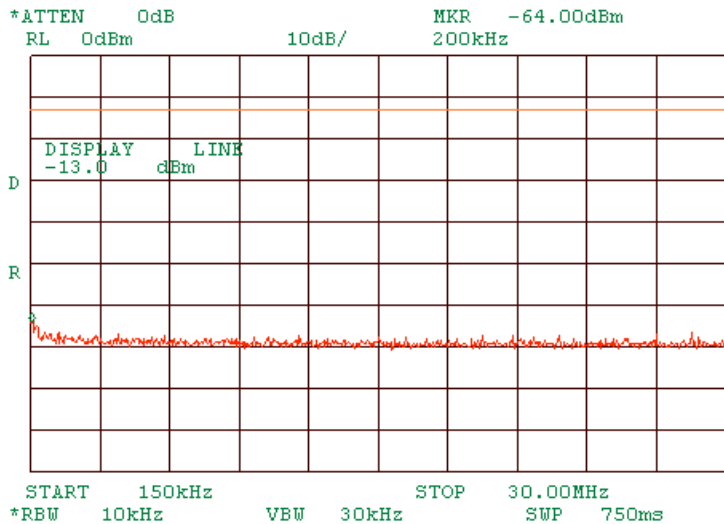
CDMA transmit mode 10000 – 20000 MHz.



Modulation = OQPSK
Bit Rate = 1.288 Mbps
IP = -50 dBm
CDMA transmit mode 9 - 150 kHz.



CDMA transmit mode 0.150 - 30 MHz.

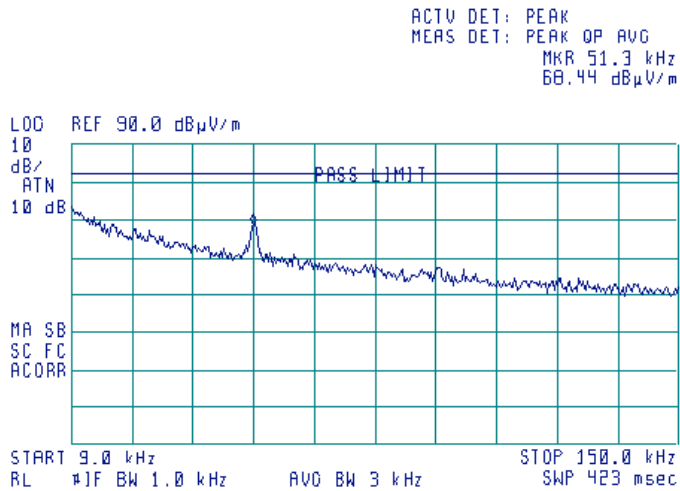


Date 18 May 2004
Test Radiated spurious emissions
Project 15867, Mobile Access 1200 + Mobile Access 1000
Humidity 46%
Temperature 24 C
Air pressure 1014hPa
Test equipment 521, 1947, 121, 589, 603
Assigned band Downlink: 1930 – 1990MHz Uplink: 1850 – 1910MHz
IP = input power
Op = output power
G = gain
Mod = input modulation

Radiated spurious emissions DOWNLINK

IP = 36 dBm
CW transmit mode 9 – 150 kHz.

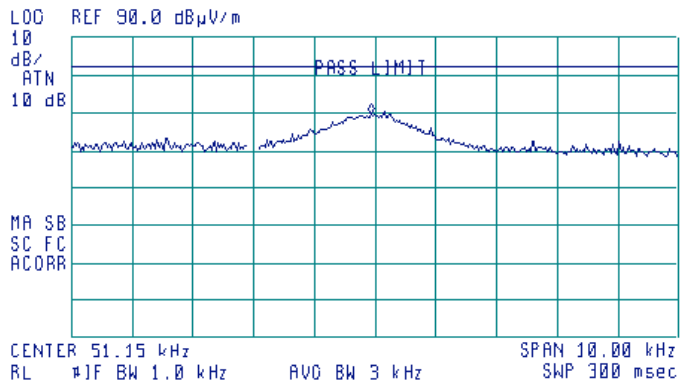
12:06:37 MAY 18, 2004



CW transmit mode Spurious.

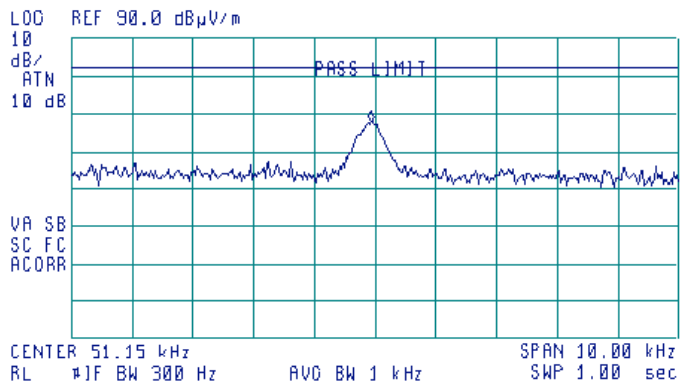
11:56:42 MAY 18, 2004

ACTV DET: PEAK
MEAS DET: PEAK OP AVG
MKR 51.00 kHz
69.71 dB μ V/m



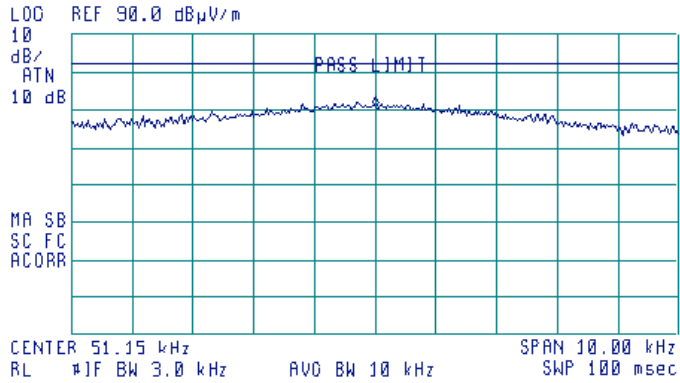
11:58:13 MAY 18, 2004

ACTV DET: PEAK
MEAS DET: PEAK OP AVG
MKR 51.00 kHz
67.00 dB μ V/m



11:59:07 MAY 18, 2004

ACTV DET: PEAK
 MEAS DET: PEAK QP AVG
 MKR 51.15 kHz
 70.64 dB μ V/m



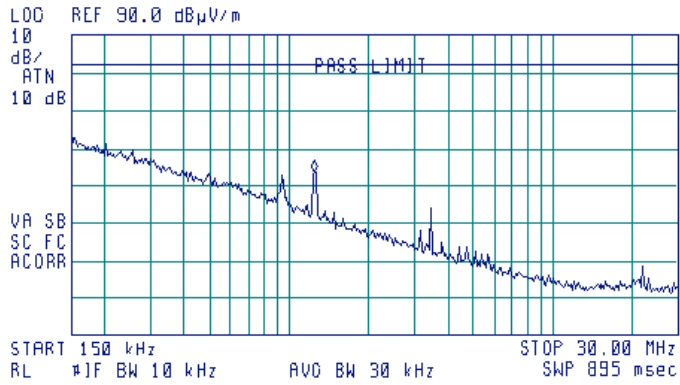
The signal is a narrow band signal. No need to apply the factor.
 The source for the spurious is a power supply.

Signal	Freq (MHz)	Peak Amp (dBuV/m)	Peak Lim1 (dB)	QP Amp (dBuV/m)	QP - Lim1 (dB)	LimitLine1 (dBuV/m)	Corrections (dB)	Pol.	Height (m)	Az. (deg)
2	0.051468	71.44	-10.79	67.03	-15.20	82.23	13.80	V	1.1	224

CW transmit mode 0.150 – 30 MHz.

13:29:21 MAY 18, 2004

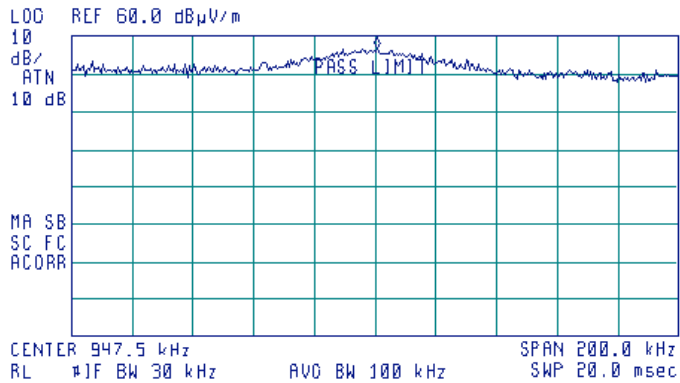
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 1.25 MHz
53.70 dB μ V/m



CW transmit mode spurious.

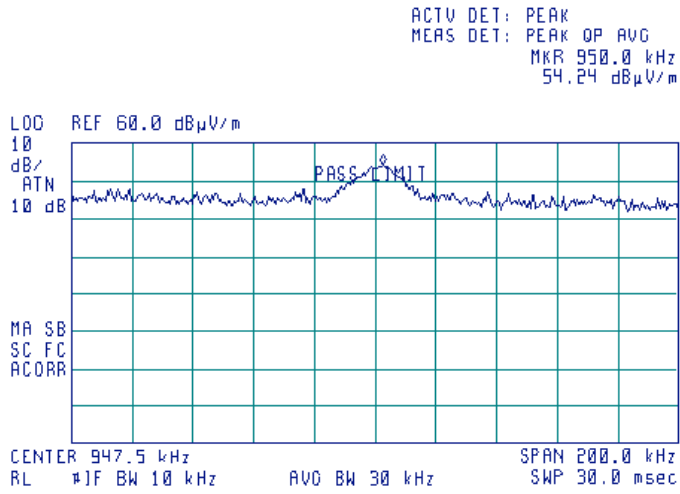
13:20:46 MAY 18, 2004

ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 948.0 kHz
56.68 dB μ V/m



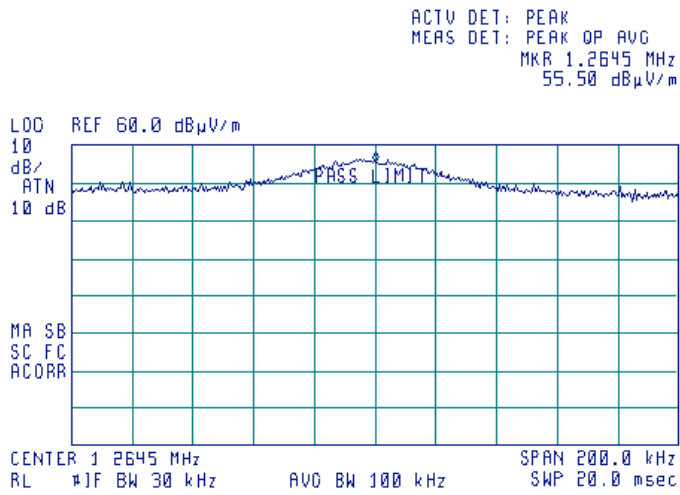
CW transmit mode spurious.

13:21:53 MAY 18, 2004



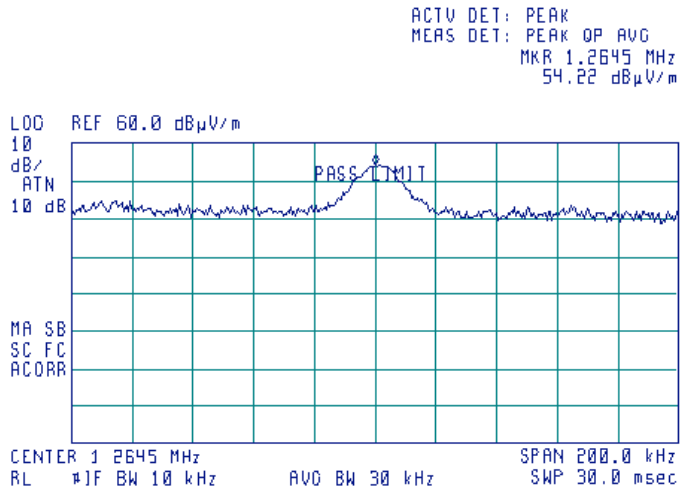
CW transmit mode spurious.

13:17:34 MAY 18, 2004



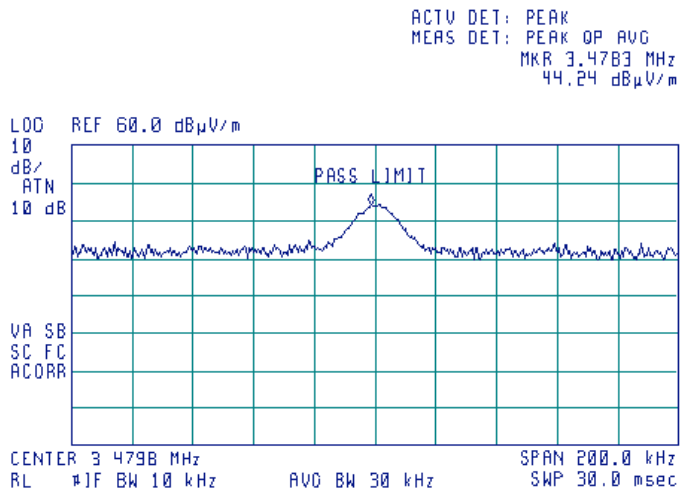
CW transmit mode spurious.

13:16:26 MAY 18, 2004



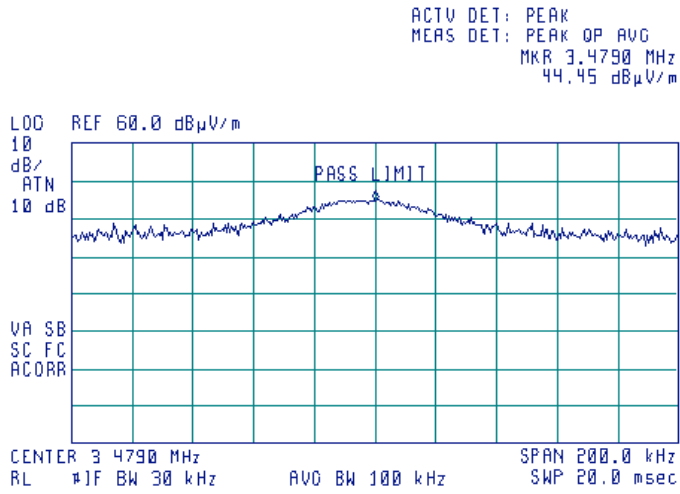
CW transmit mode spurious.

13:15:33 MAY 18, 2004



CW transmit mode spurious.

13:19:11 MAY 18, 2004



Narrow band signals, no need to add 20 dB integration factor.

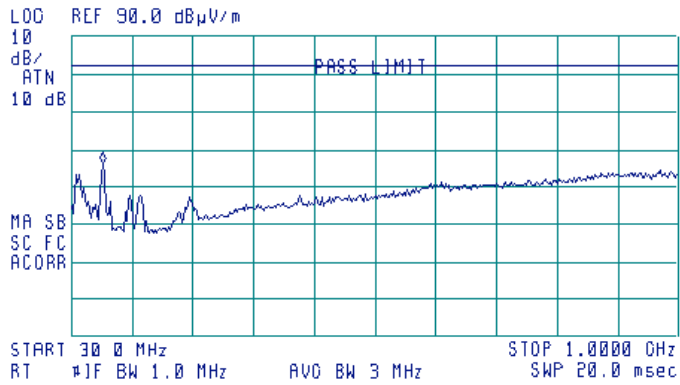
Signal from power supply

Signal	Freq (MHz)	Peak Amp (dBuV/m)	Peak - Lim1 (dB)	QP Amp (dBuV/m)	QP - Lim1 (dB)	LimitLine1 (dBuV/m)	Pol	Height (m)	Az (deg)
1	0.939700	57.08	-25.15	54.49	-27.74	82.23	V	1.1	216
2	1.266000	55.10	-27.13	53.35	-28.88	82.23	V	1.1	220
3	3.479750	45.08	-37.15	43.32	-38.91	82.23	V	1.1	210

CW transmit mode 30 – 1000 MHz.

11:14:23 MAY 18, 2004

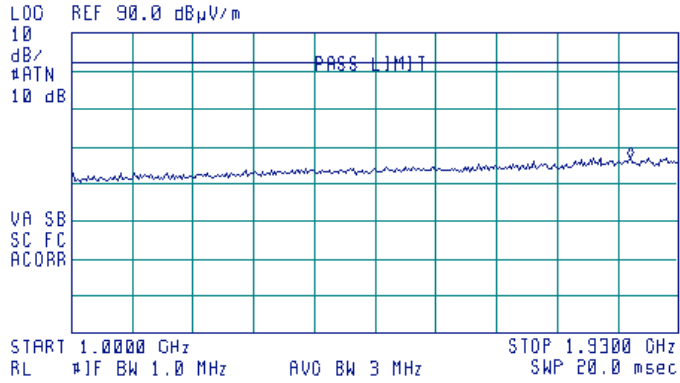
ACTV DET: PEAK
MEAS DET: PEAK OP AVG
MKR 80.9 MHz
56.27 dB μ V/m



CW transmit mode 1000 – 1930 MHz.

14:07:16 MAY 18, 2004

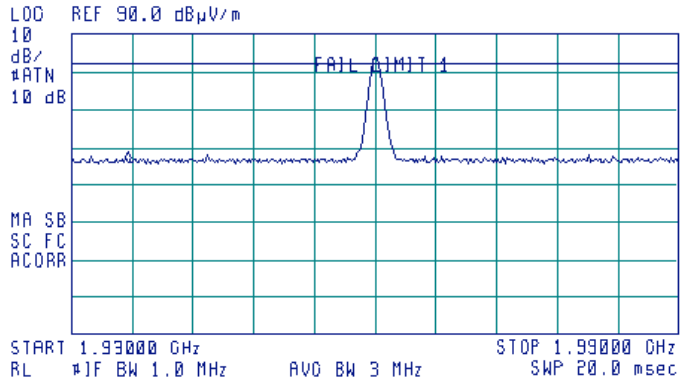
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 1.8556 GHz
56.92 dB μ V/m



CW transmit mode 1930 – 1990 MHz.

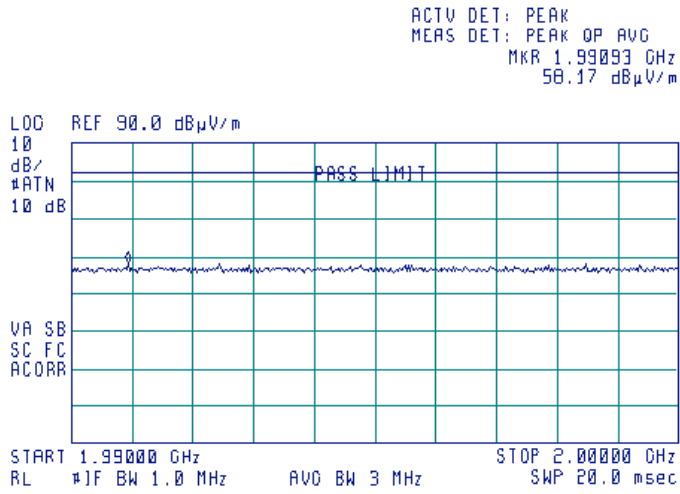
14:14:24 MAY 18, 2004

ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 1.9355 GHz
55.75 dB μ V/m



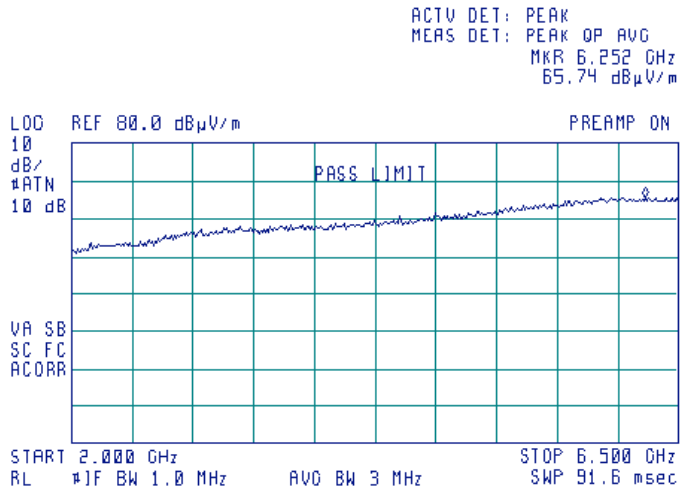
CW transmit mode 1990 – 2000 MHz.

14:10:31 MAY 10, 2004

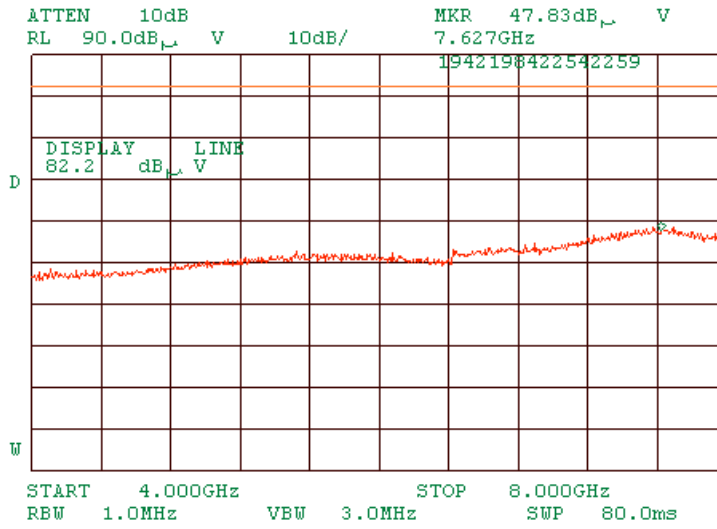


CW transmit mode 2000 – 6500 MHz.

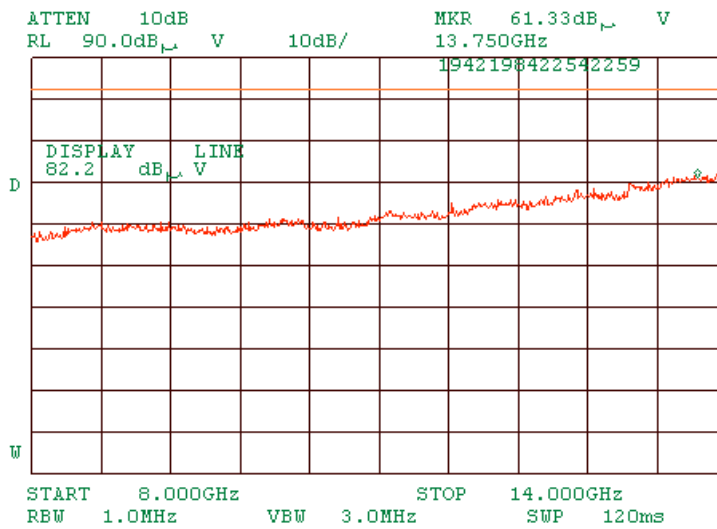
16:17:57 MAY 10, 2004



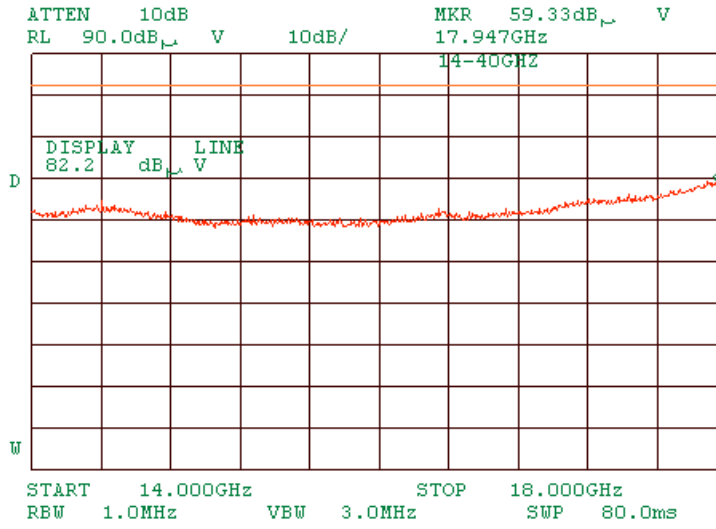
CW transmit mode 4000 – 8000 MHz.



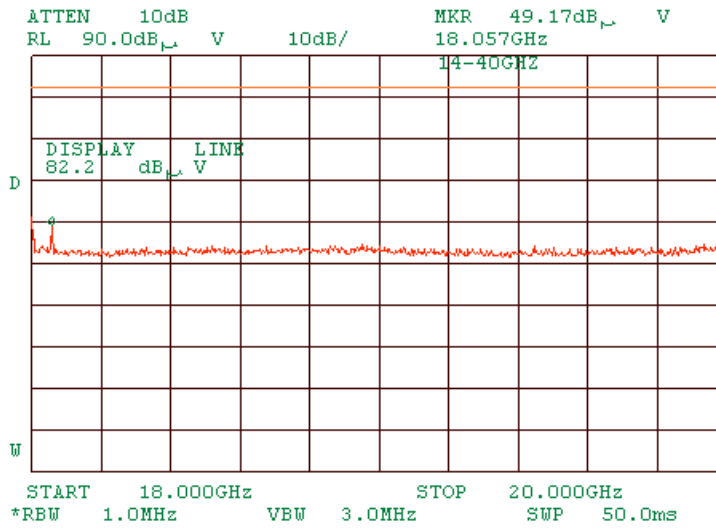
CW transmit mode 8000 – 14000 MHz.



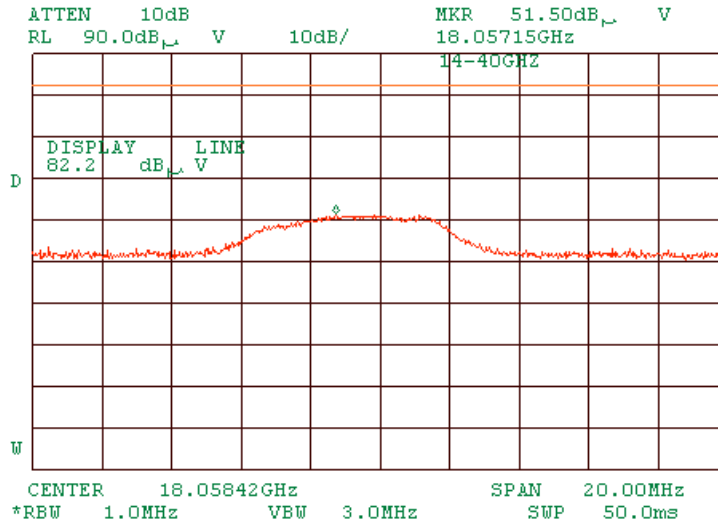
CW transmit mode 14000 – 18000 MHz.



CW transmit mode 18000 – 20000 MHz.



CW transmit mode Spurious



Signal	Freq (GHz)	Peak Amp (dBuV/m)	Peak - Lim1 (dB)	LimitLine1 (dBuV/m)	Corrections (dB)	Pol.	Height (m)	Az. (deg)
1	18.05715	51.5	-30.73	82.23	13.80	H	1	230

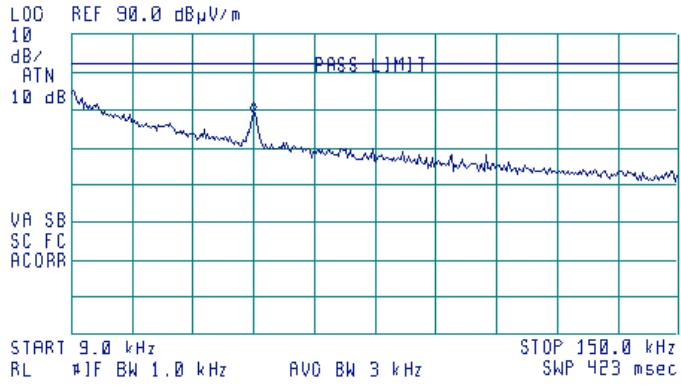
Substitution method:

Signal	Freq (MHz)	Peak Amp (dBuV/m)	Gen out (dBm)	Again (dBd)	Cable Loss (dB)	Limit (dBm)	Margin (dB)
1	18.0579	51.5	-63.3	21.15	2.61	-13	-31.41

IP = 10 dBm
CW transmit mode 9 – 150 kHz.

12:13:08 MAY 18, 2004

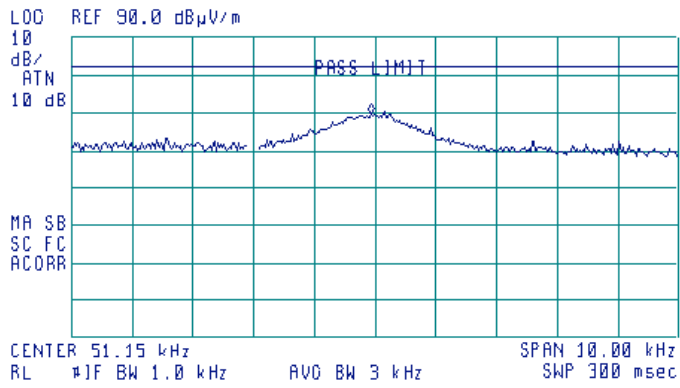
ACTV DET: PEAK
MEAS DET: PEAK OP AVG
MKR 51.3 kHz
69.40 dB μ V/m



CW transmit mode Spurious.

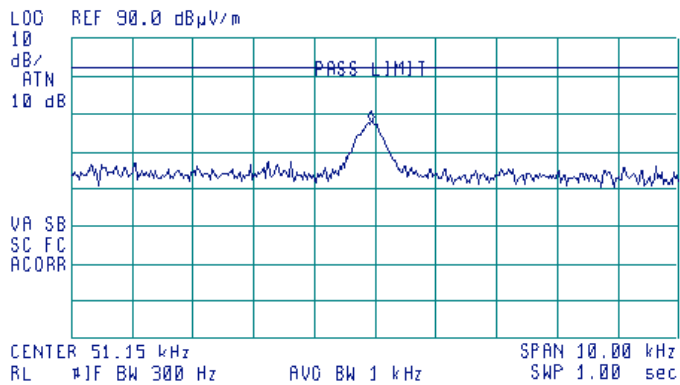
11:56:42 MAY 18, 2004

ACTV DET: PEAK
MEAS DET: PEAK OP AVG
MKR 51.00 kHz
69.71 dB μ V/m



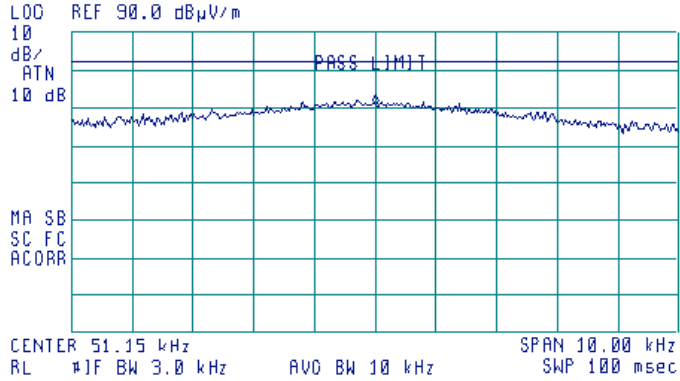
11:58:13 MAY 18, 2004

ACTV DET: PEAK
MEAS DET: PEAK OP AVG
MKR 51.00 kHz
67.00 dB μ V/m



11:59:07 MAY 18, 2004

ACTV DET: PEAK
 MEAS DET: PEAK QP AVG
 MKR 51.15 kHz
 70.64 dB μ V/m



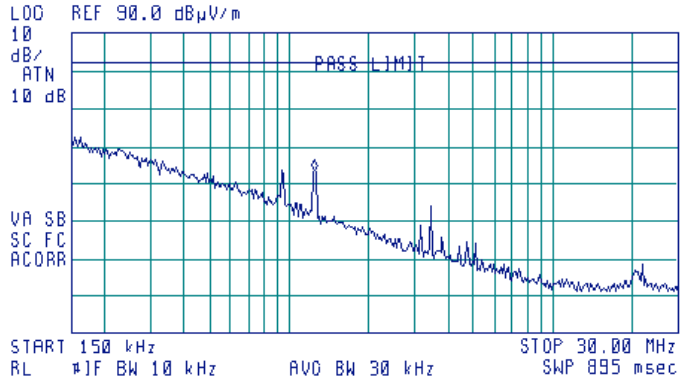
The signal is a narrow band signal. No need to apply the factor.
 The source for the spurious is a power supply.

Signal	Freq (MHz)	Peak Amp (dBuV/m)	Peak Lim1 (dB)	QP Amp (dBuV/m)	QP - Lim1 (dB)	LimitLine1 (dBuV/m)	Corrections (dB)	Pol.	Height (m)	Az. (deg)
2	0.051468	71.44	-10.79	67.03	-15.20	82.23	13.80	V	1.1	224

CW transmit mode 0.150 – 30 MHz.

13:23:04 MAY 10, 2004

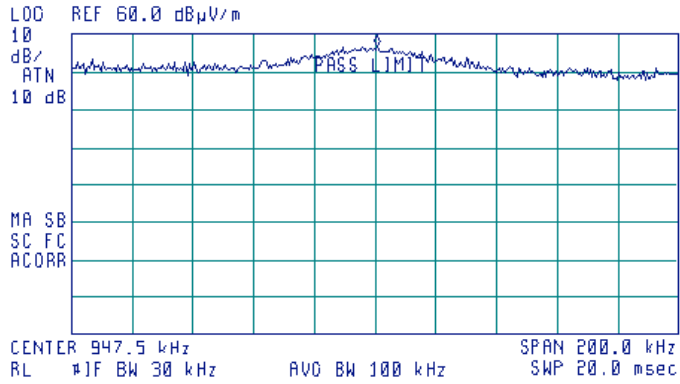
ACTV DET: PEAK
MEAS DET: PEAK OP AVG
MKR 1.25 MHz
53.30 dB μ V/m



CW transmit mode spurious.

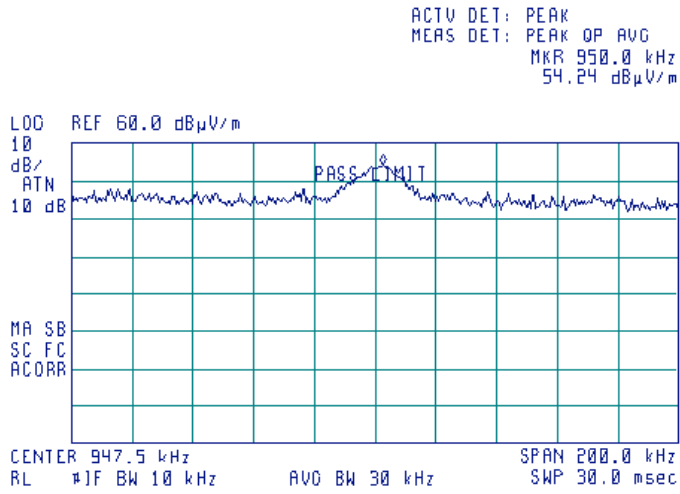
13:20:46 MAY 10, 2004

ACTV DET: PEAK
MEAS DET: PEAK OP AVG
MKR 948.0 kHz
56.68 dB μ V/m



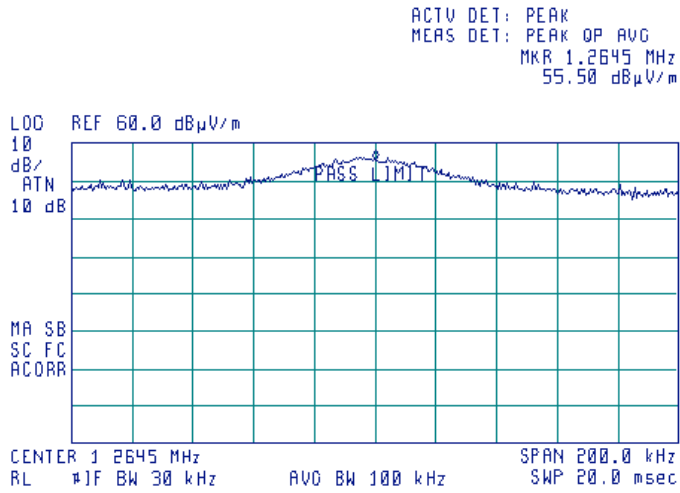
CW transmit mode spurious.

13:21:53 MAY 18, 2004



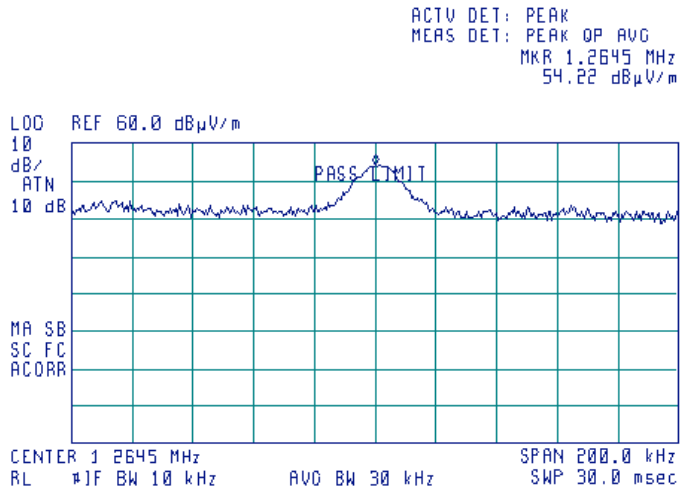
CW transmit mode spurious.

13:17:34 MAY 18, 2004



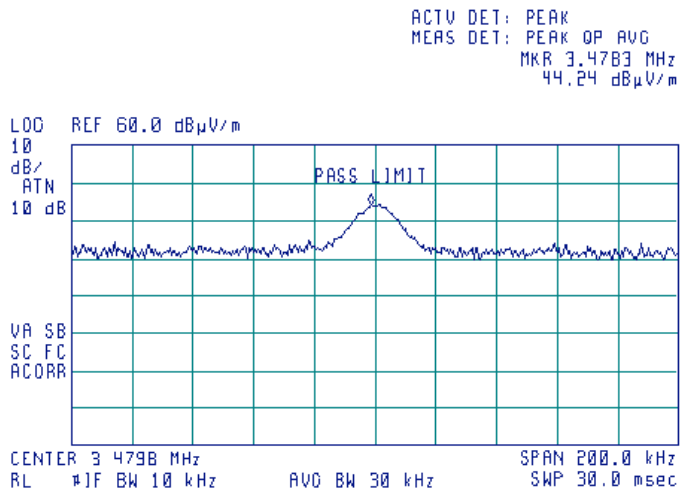
CW transmit mode spurious.

13:16:26 MAY 18, 2004



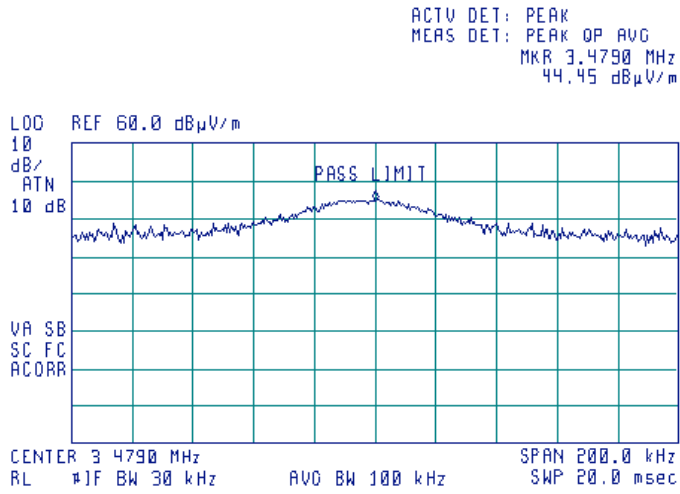
CW transmit mode spurious.

13:15:33 MAY 18, 2004



CW transmit mode spurious.

13:19:11 MAY 18, 2004



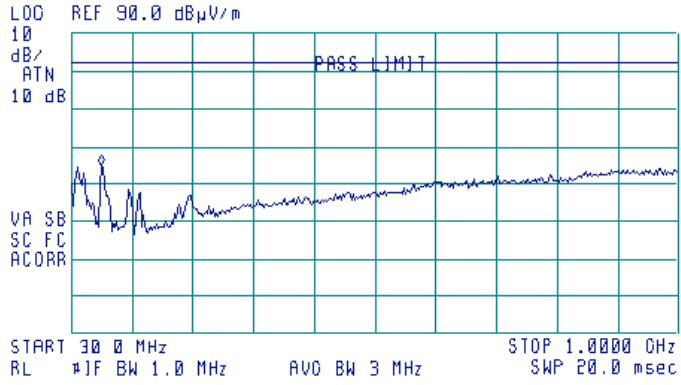
Narrow band signals, no need to add 20 dB integration factor.
 Signal from power supply

Signal	Freq (MHz)	Peak Amp (dBuV/m)	Peak - Lim1 (dB)	QP Amp (dBuV/m)	QP - Lim1 (dB)	LimitLine1 (dBuV/m)	Pol	Height (m)	Az (deg)
1	0.939700	57.08	-25.15	54.49	-27.74	82.23	V	1.1	216
2	1.266000	55.10	-27.13	53.35	-28.88	82.23	V	1.1	220
3	3.479750	45.08	-37.15	43.32	-38.91	82.23	V	1.1	210

CW transmit mode 30 – 1000 MHz.

11:16:38 MAY 18, 2004

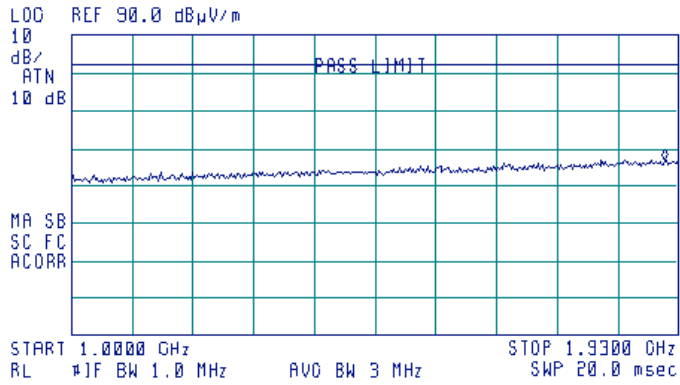
ACTV DET: PEAK
MEAS DET: PEAK OP AVG
MKR 78.5 MHz
54.76 dB μ V/m



CW transmit mode 1000 – 1930 MHz.

13:57:55 MAY 18, 2004

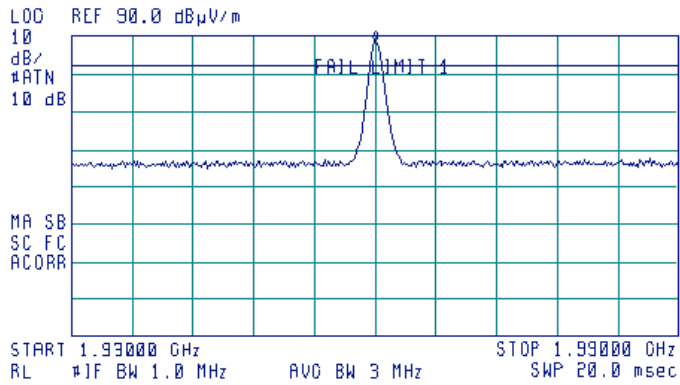
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 1.9091 GHz
56.72 dB μ V/m



CW transmit mode 1930 – 1990 MHz.

14:01:01 MAY 18, 2004

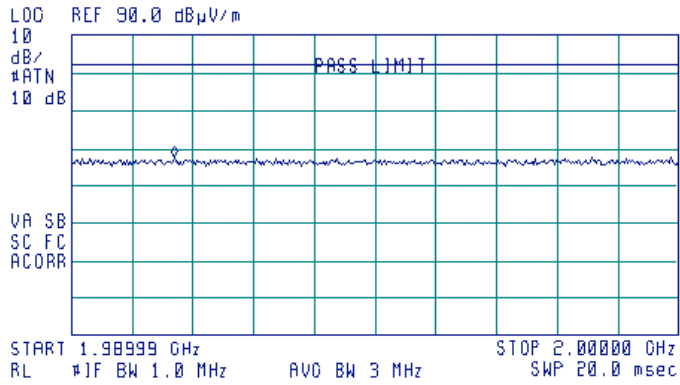
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 1.9600 GHz
88.63 dB μ V/m



CW transmit mode 1990 – 2000 MHz.

14:03:03 MAY 18, 2004

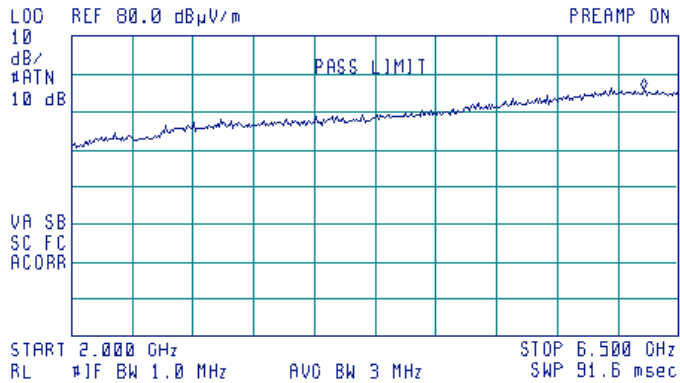
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 1.99169 GHz
57.50 dB μ V/m



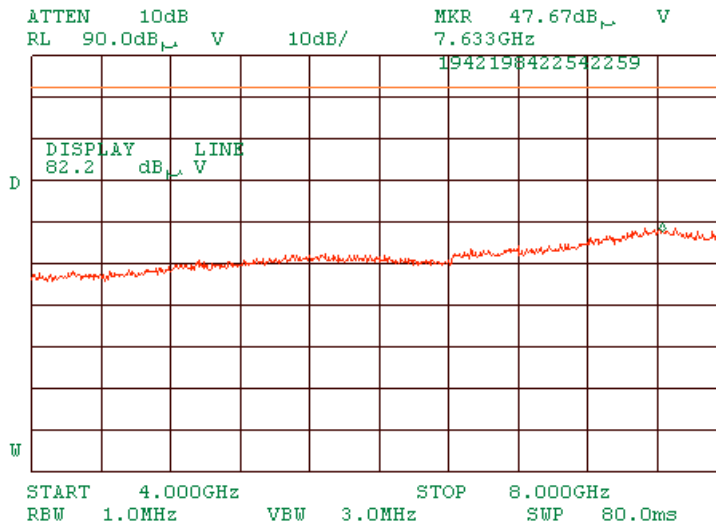
CW transmit mode 2000 – 6500 MHz.

16:14:01 MAY 18, 2004

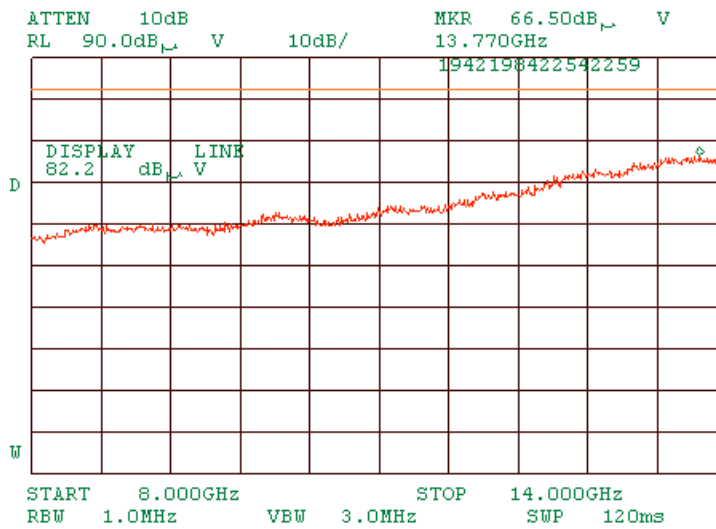
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 6.241 GHz
65.03 dB μ V/m



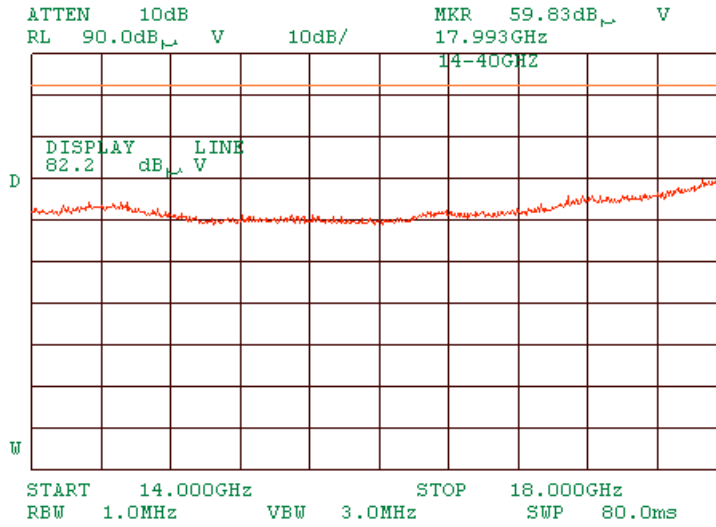
CW transmit mode 4000 – 8000 MHz.



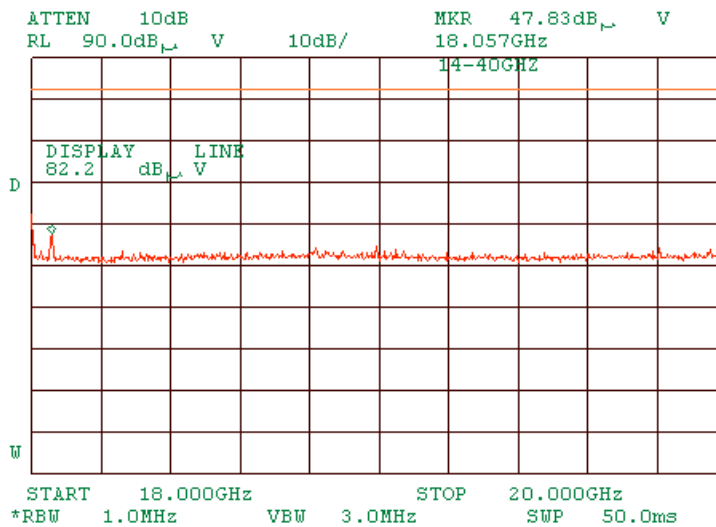
CW transmit mode 8000 – 14000 MHz.



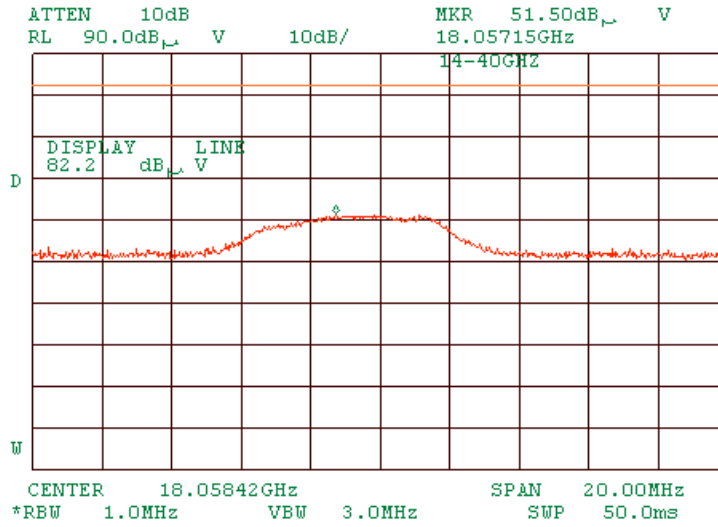
CW transmit mode 14000 – 18000 MHz.



CW transmit mode 18000 – 20000 MHz.



CW transmit mode Spurious



Signal	Freq (GHz)	Peak Amp (dBuV/m)	Peak - Lim1 (dB)	LimitLine1 (dBuV/m)	Corrections (dB)	Pol.	Height (m)	Az. (deg)
2	18.05715	51.5	-30.73	82.23	13.80	H	1	230

Substitution method:

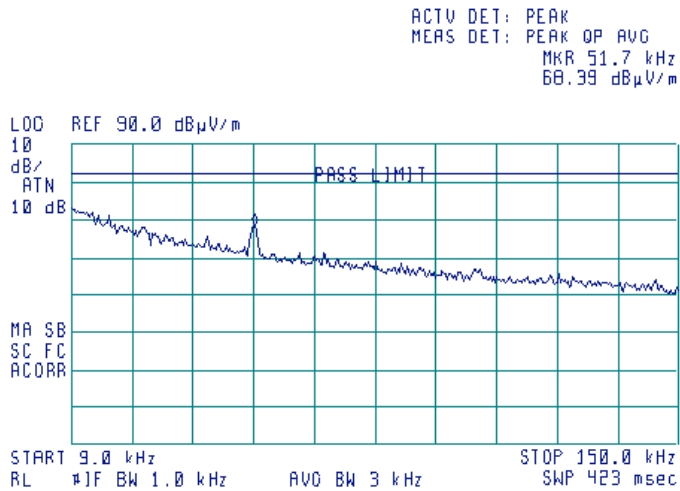
Signal	Freq (MHz)	Peak Amp (dBuV/m)	Gen out (dBm)	Again (dBd)	Cable Loss (dB)	Limit (dBm)	Margin (dB)
1	18.0579	51.5	-63.3	21.15	2.61	-13	-31.41

Date 18 May 2004
Test Radiated spurious emissions
Project 15867, Mobile Access 1200 Add-on (optical module)
Humidity 46%
Temperature 24 C
Air pressure 1014hPa
Test equipment 521, 1947, 121, 589, 603
Assigned band Downlink: 1930 – 1990MHz Uplink: 1850 – 1910MHz
IP = input power
Op = output power
G = gain
Mod = input modulation

Radiated spurious emissions DOWNLINK

IP = 36 dBm
CW transmit mode 9 – 150 kHz.

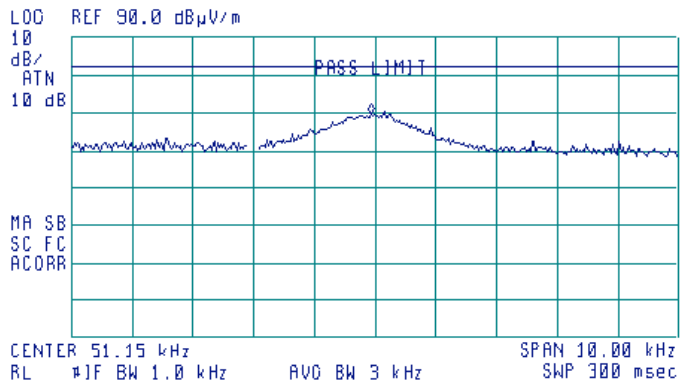
12:20:25 MAY 18, 2004



CW transmit mode Spurious.

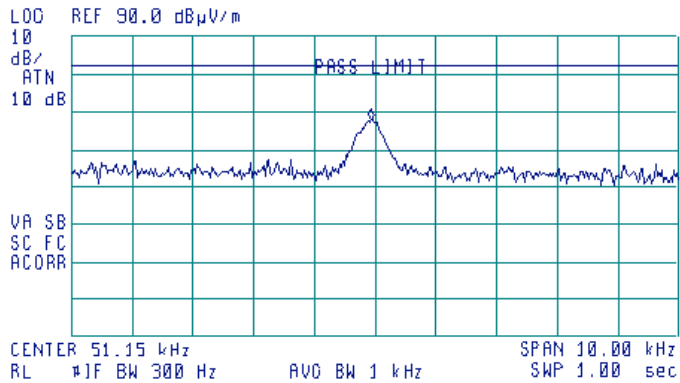
11:56:42 MAY 18, 2004

ACTV DET: PEAK
MEAS DET: PEAK OP AVG
MKR 51.00 kHz
69.71 dB μ V/m



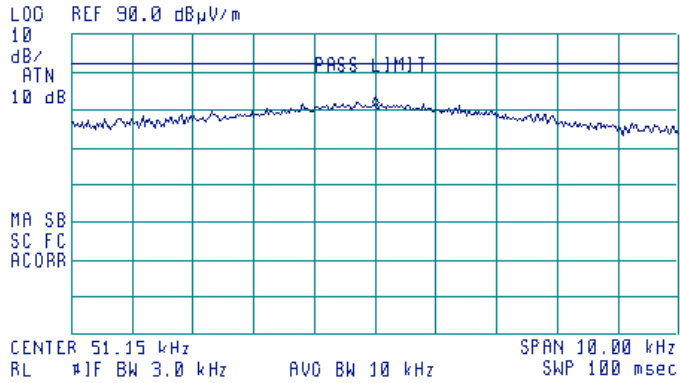
11:58:13 MAY 18, 2004

ACTV DET: PEAK
MEAS DET: PEAK OP AVG
MKR 51.00 kHz
67.00 dB μ V/m



11:59:07 MAY 18, 2004

ACTV DET: PEAK
 MEAS DET: PEAK QP AVG
 MKR 51.15 kHz
 70.64 dB μ V/m



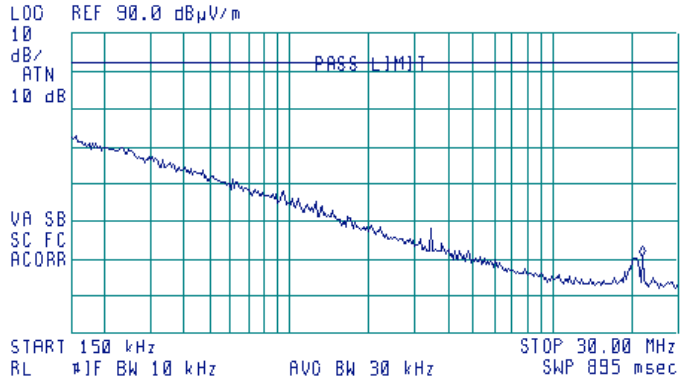
The signal is a narrow band signal. No need to apply the factor.
 The source for the spurious is a power supply.

Signal	Freq (MHz)	Peak Amp (dBuV/m)	Peak Lim1 (dB)	QP Amp (dBuV/m)	QP - Lim1 (dB)	LimitLine1 (dBuV/m)	Corrections (dB)	Pol.	Height (m)	Az. (deg)
2	0.051468	71.44	-10.79	67.03	-15.20	82.23	13.80	V	1.1	224

CW transmit mode 0.150 – 30 MHz.

12:26:36 MAY 18, 2004

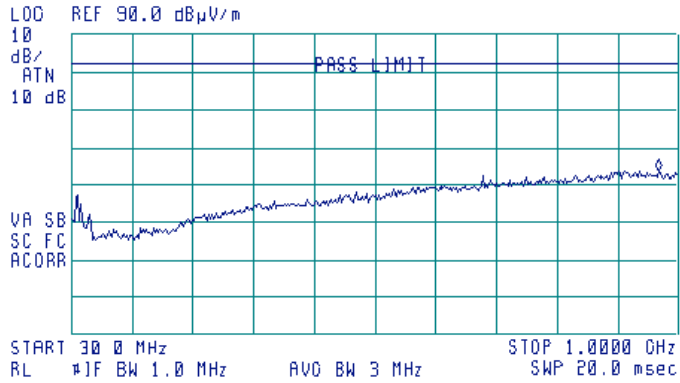
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 21.85 MHz
30.33 dB μ V/m



CW transmit mode 30 – 1000 MHz.

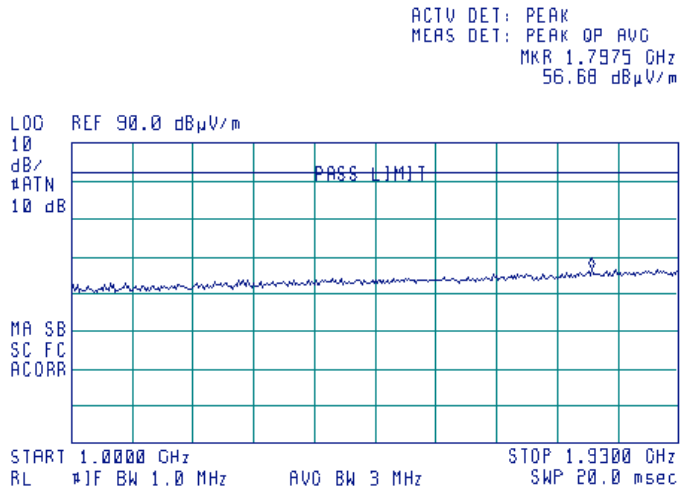
11:06:42 MAY 18, 2004

ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 968.5 MHz
53.64 dB μ V/m



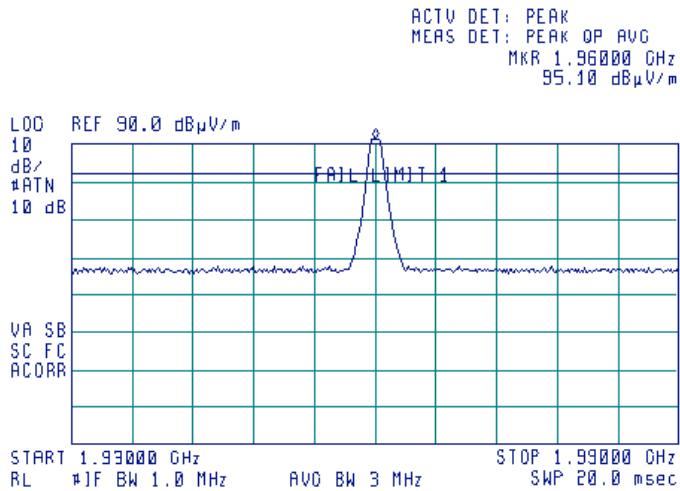
CW transmit mode 1000 – 1930 MHz.

14:31:09 MAY 18, 2004



CW transmit mode 1930 – 1990 MHz.

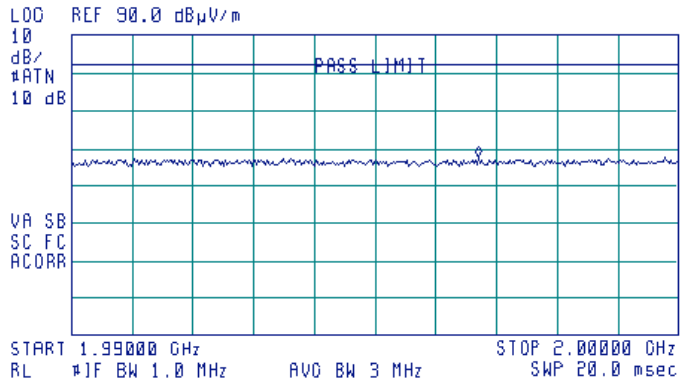
14:34:37 MAY 18, 2004



CW transmit mode 1990 – 2000 MHz.

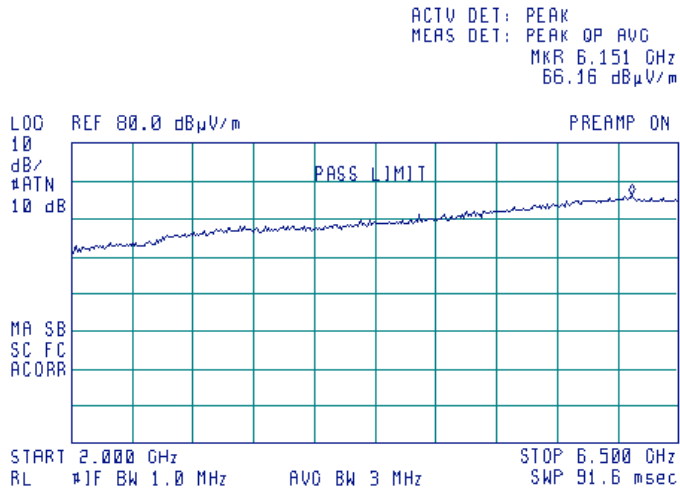
14:36:32 MAY 18, 2004

ACTV DET: PEAK
MEAS DET: PEAK OP AVG
MKR 1.99670 GHz
57.65 dB μ V/m

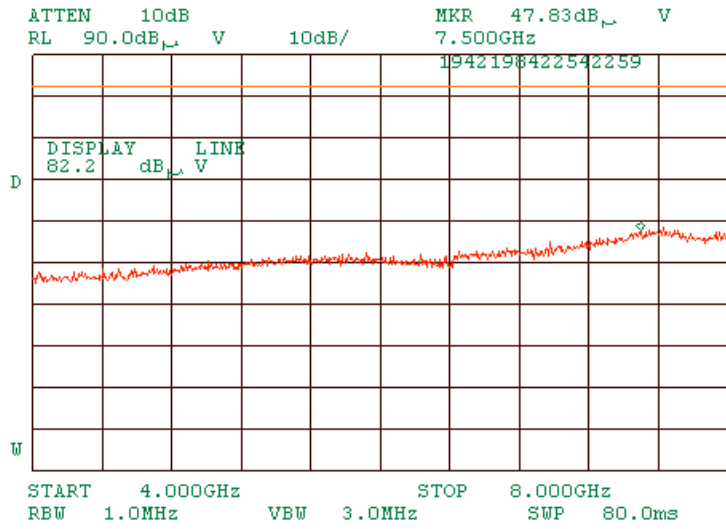


CW transmit mode 2000 – 6500 MHz.

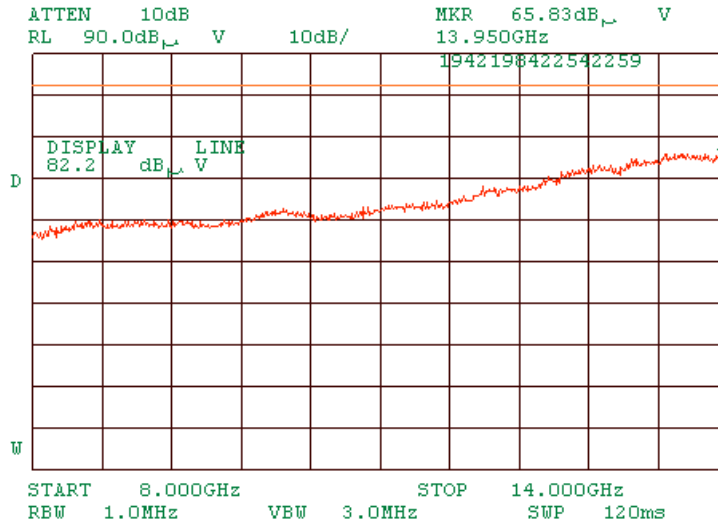
16:22:30 MAY 18, 2004



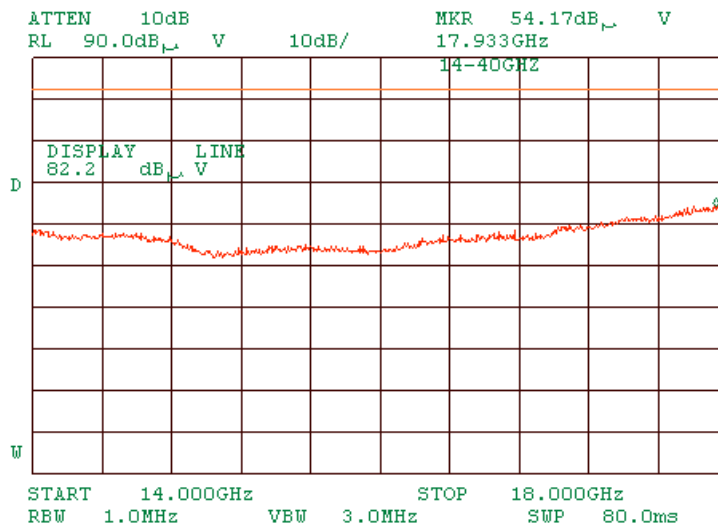
CW transmit mode 4000 – 8000 MHz.



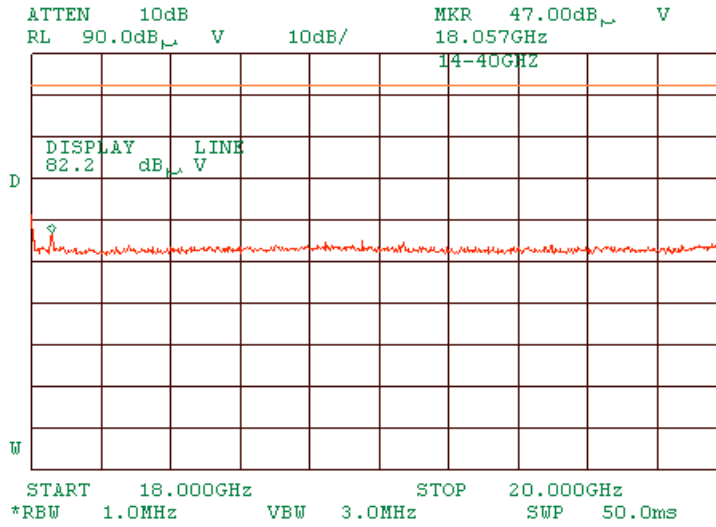
CW transmit mode 8000 – 14000 MHz.



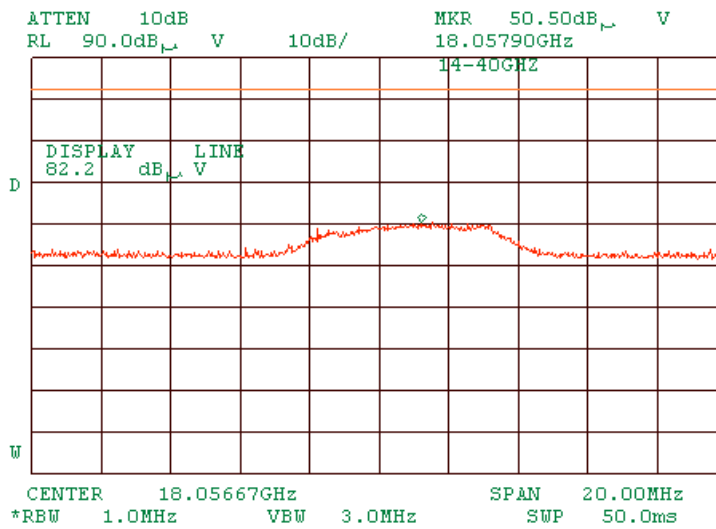
CW transmit mode 14000 – 18000 MHz.



CW transmit mode 18000 – 20000 MHz.



CW transmit mode spurious



Signal	Freq (MHz)	Peak Amp (dBuV/m)	Peak Lim1 (dB)	LimitLine1 (dBuV/m)	Corrections (dB)	Pol.	Height (m)	Az. (deg)
2	0.051468	50.5	-31.8	82.23	13.80	H	1	246

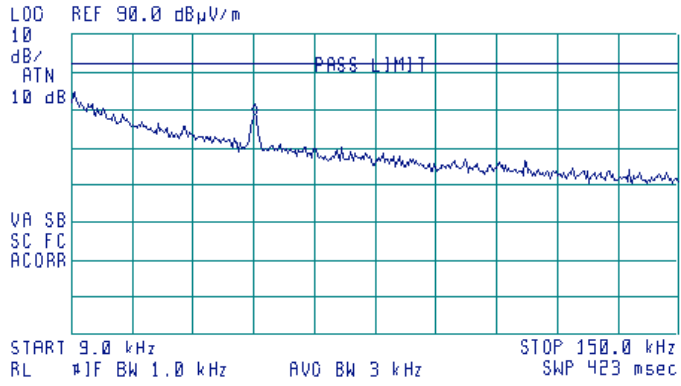
Substitution method:

Signal	Freq (MHz)	Peak Amp (dBuV/m)	Gen out (dBm)	Again (dBd)	Cable Loss (dB)	Limit (dBm)	Margin (dB)
1	18.0579	50.5	-64.3	21.15	2.61	-13	-32.76

IP = 10 dBm
CW transmit mode 9 – 150 kHz.

12:16:51 MAY 18, 2004

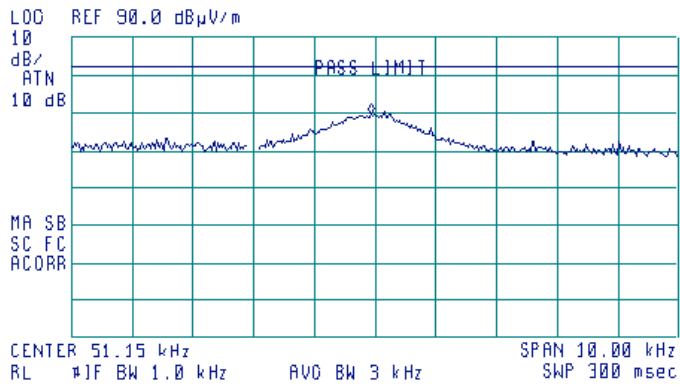
ACTV DET: PEAK
MEAS DET: PEAK OP AVG
MKR 51.7 kHz
68.49 dB μ V/m



CW transmit mode Spurious.

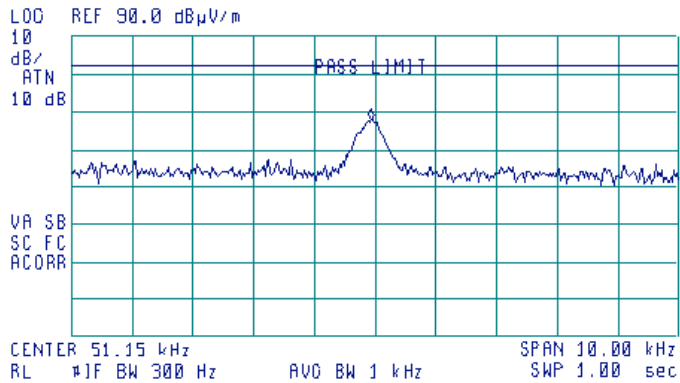
11:56:42 MAY 18, 2004

ACTV DET: PEAK
MEAS DET: PEAK OP AVG
MKR 51.00 kHz
69.71 dB μ V/m



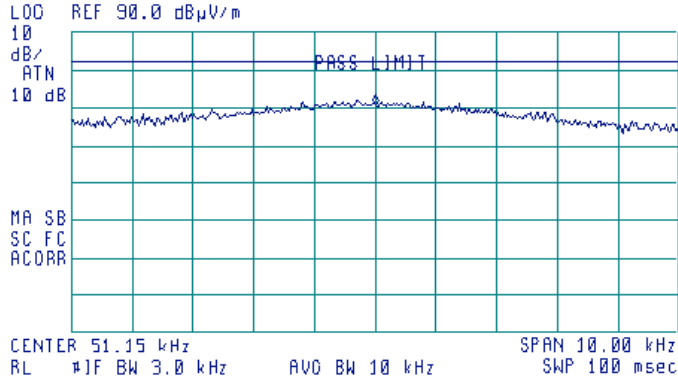
11:58:13 MAY 18, 2004

ACTV DET: PEAK
MEAS DET: PEAK OP AVG
MKR 51.00 kHz
67.00 dB μ V/m



11:59:07 MAY 18, 2004

ACTV DET: PEAK
 MEAS DET: PEAK QP AVG
 MKR 51.15 kHz
 70.64 dBμV/m



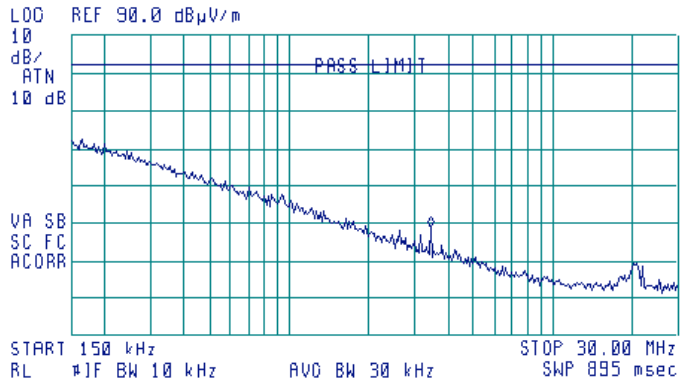
The signal is a narrow band signal. No need to apply the factor.
 The source for the spurious is a power supply.

Signal	Freq (MHz)	Peak Amp (dBuV/m)	Peak Lim1 (dB)	QP Amp (dBuV/m)	QP - Lim1 (dB)	LimitLine1 (dBuV/m)	Corrections (dB)	Pol.	Height (m)	Az. (deg)
2	0.051468	71.44	-10.79	67.03	-15.20	82.23	13.80	V	1.1	224

CW transmit mode 0.150 – 30 MHz.

12:28:44 MAY 18, 2004

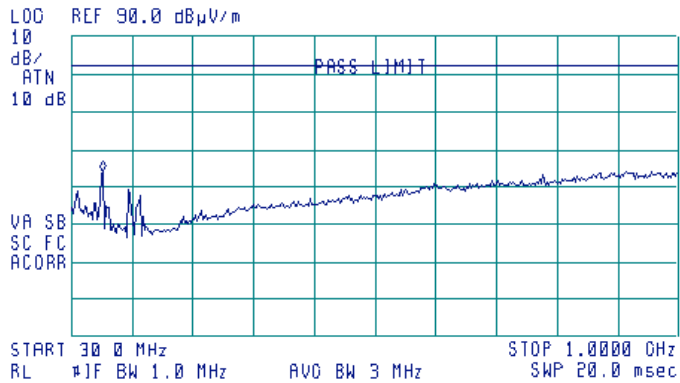
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 3.47 MHz
39.01 dB μ V/m



CW transmit mode 30 – 1000 MHz.

10:51:16 MAY 18, 2004

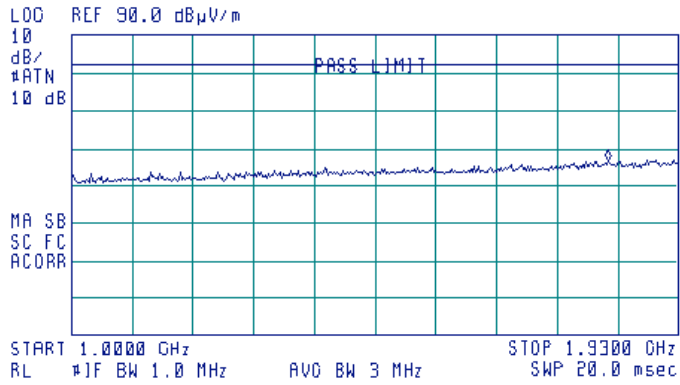
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 80.9 MHz
54.15 dB μ V/m



CW transmit mode 1000 – 1930 MHz.

14:21:55 MAY 18, 2004

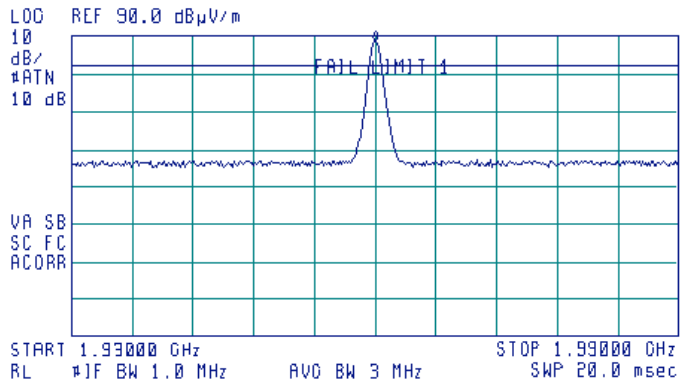
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 1.8207 GHz
56.65 dB μ V/m



CW transmit mode 1930 – 1990 MHz.

14:18:07 MAY 18, 2004

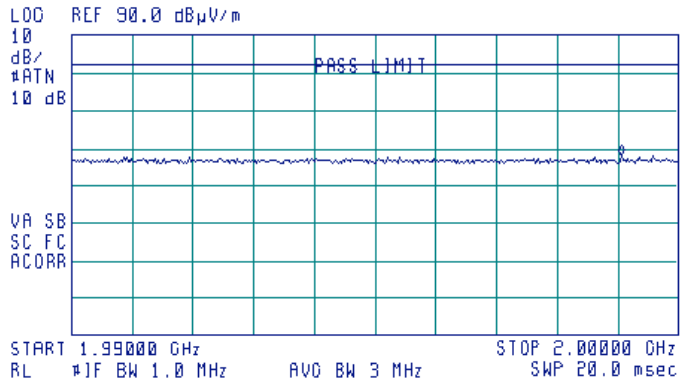
ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 1.96000 GHz
88.79 dB μ V/m



CW transmit mode 1990 – 2000 MHz.

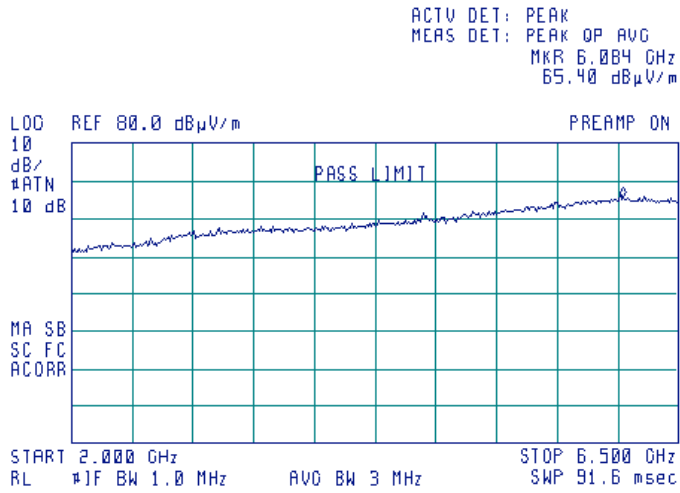
14:27:54 MAY 18, 2004

ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 1.99905 GHz
57.91 dB μ V/m

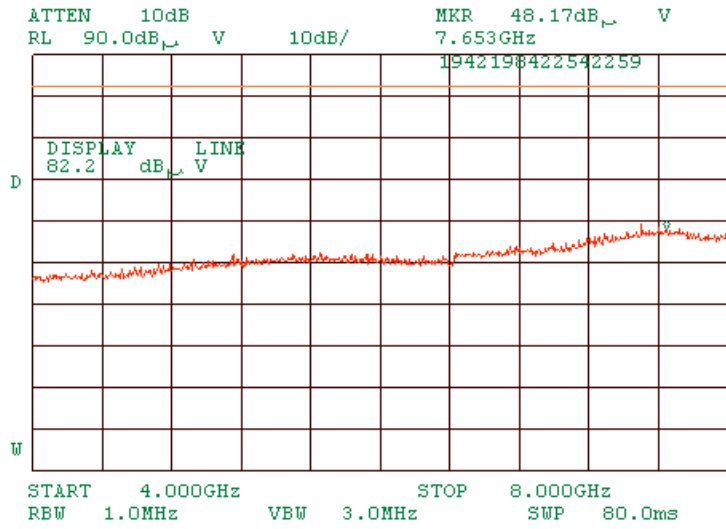


CW transmit mode 2000 – 6500 MHz.

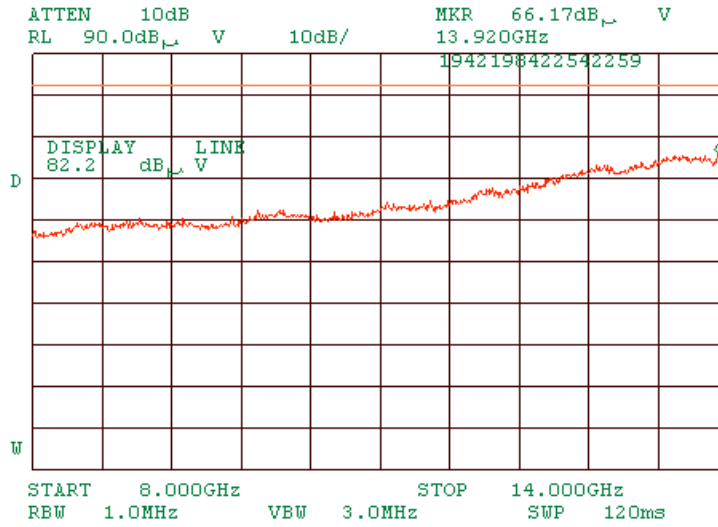
16:24:59 MAY 18, 2004



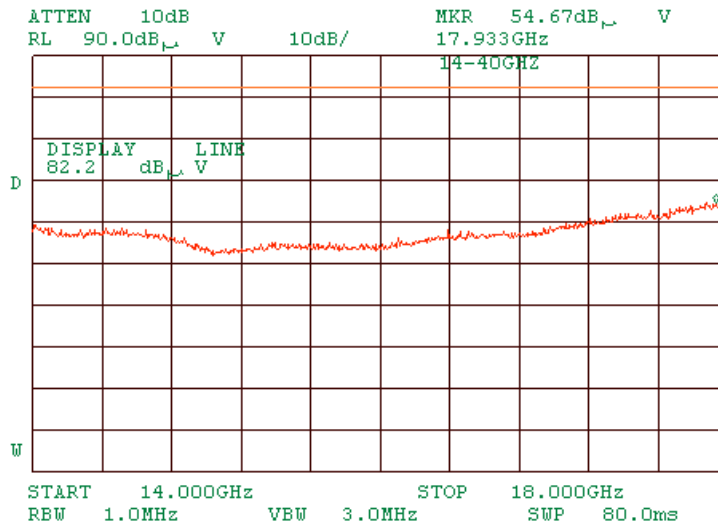
CW transmit mode 4000 – 8000 MHz.



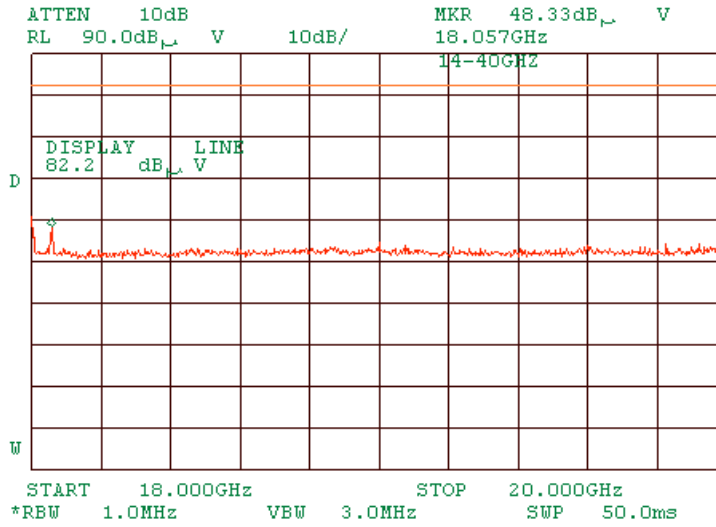
CW transmit mode 8000 – 14000 MHz.



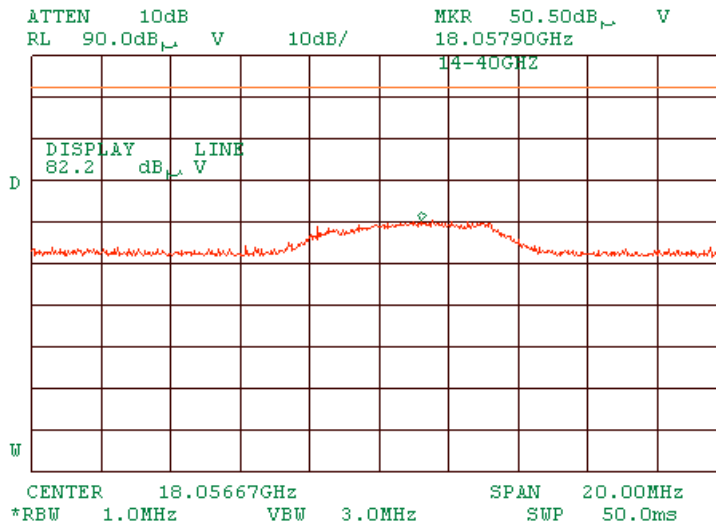
CW transmit mode 14000 – 18000 MHz.



CW transmit mode 18000 – 20000 MHz.



CW transmit mode spurious



Signal	Freq (MHz)	Peak Amp (dBuV/m)	Peak Lim1 (dB)	LimitLine1 (dBuV/m)	Corrections (dB)	Pol.	Height (m)	Az. (deg)
1	18.0579	50.5	-31.8	82.23	13.80	H	1	246

Substitution method:

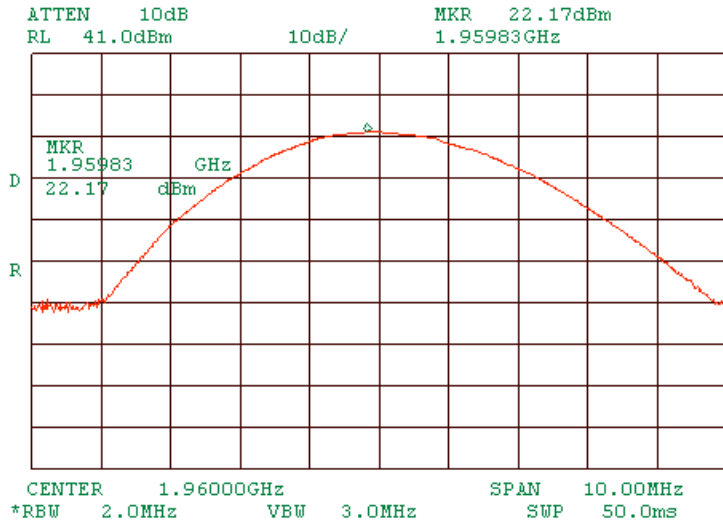
Signal	Freq (MHz)	Peak Amp (dBuV/m)	Gen out (dBm)	Again (dBd)	Cable Loss (dB)	Limit (dBm)	Margin (dB)
1	18.0579	50.5	-64.3	21.15	2.61	-13	-32.76

Date 18 May 2004
Test **Output power**
Project 15867, Mobile Access 1200 and 1000
Humidity 46%
Temperature 24 C
Air pressure 1014hPa
Test equipment 521, 1947, 121, 589, 603
Assigned band Downlink: 1930 – 1990MHz Uplink: 1850 – 1910MHz
IP = input power
Op = output power
G = gain
Mod = input modulation

Output power DOWNLINK

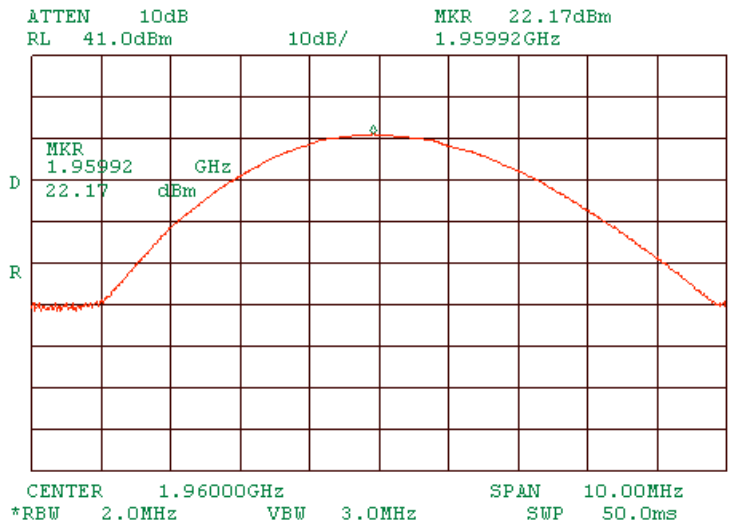
MOD = CW

Port 1 MID channel



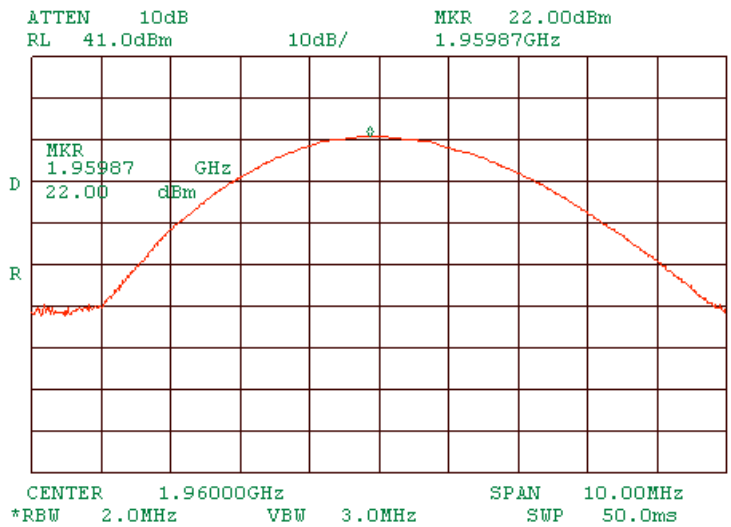
$P_{OUT} = 22.17 \text{ dBm}$

Port 2 MID channel



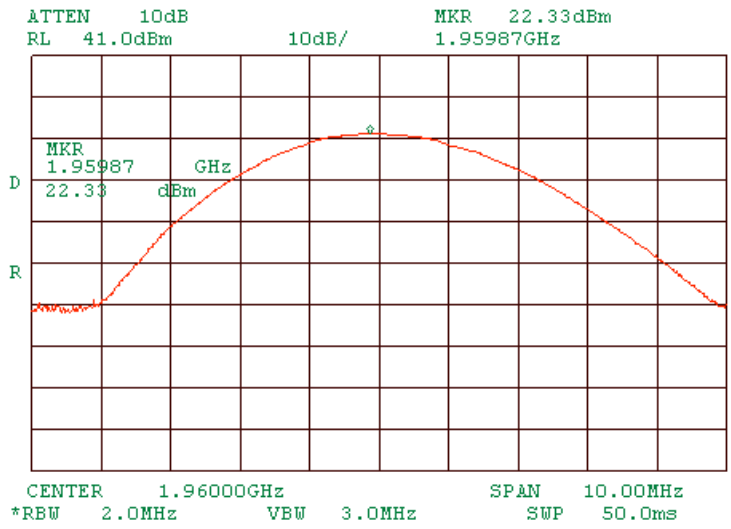
P_{OUT}=22.17 dBm

Port 3 MID channel



P_{OUT}=22.00 dBm

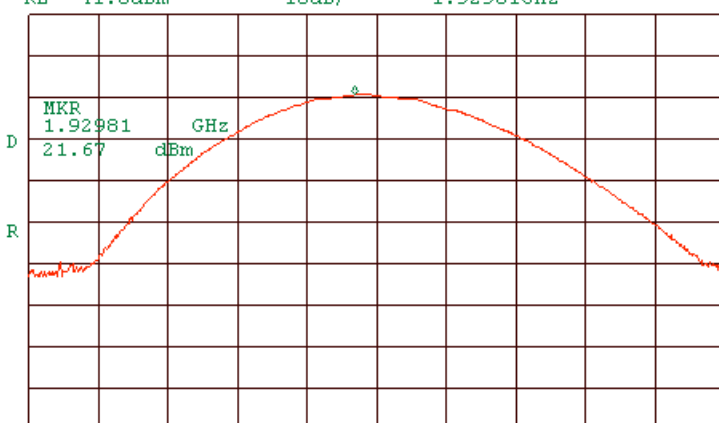
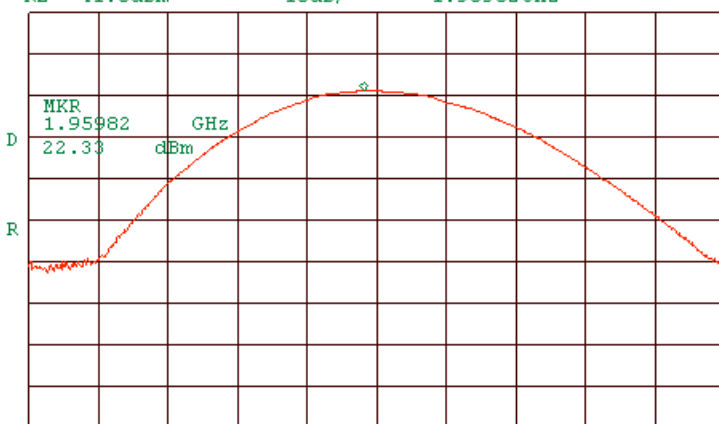
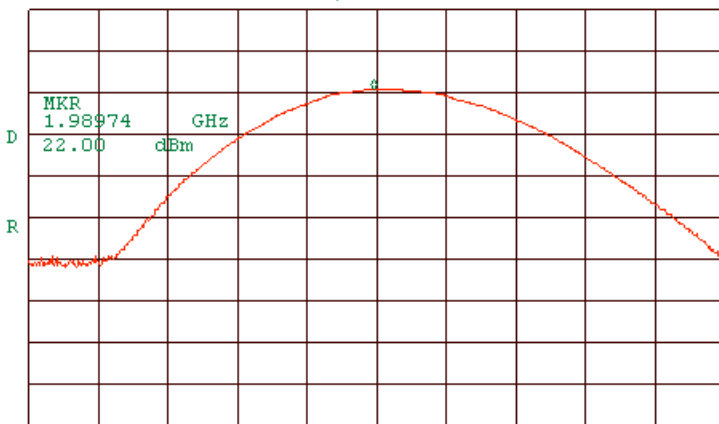
Port 4 MID channel

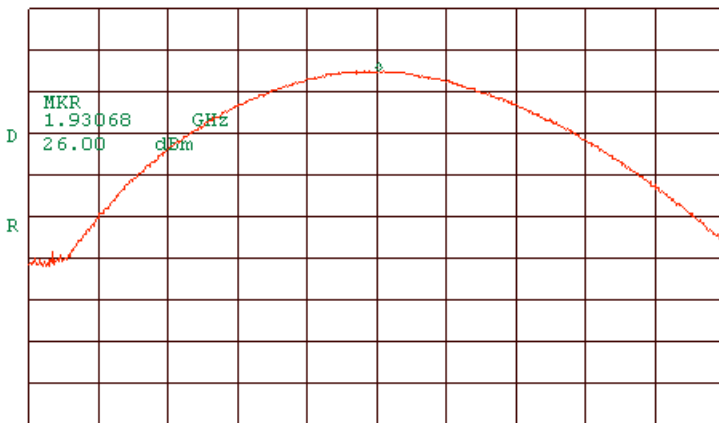
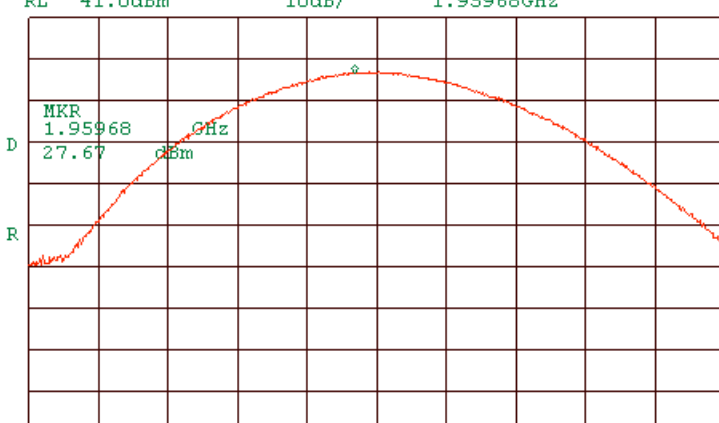
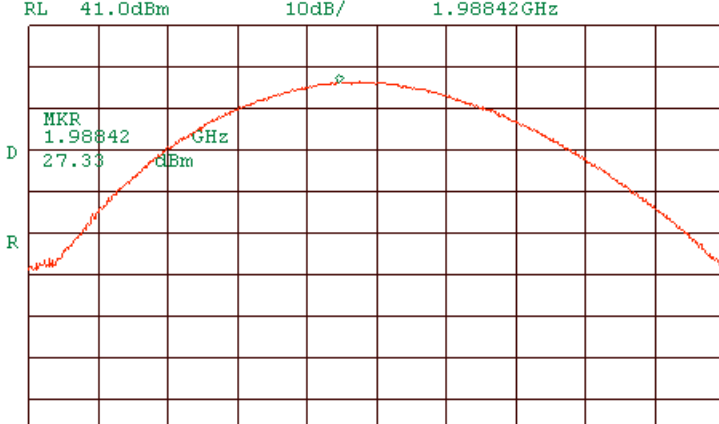


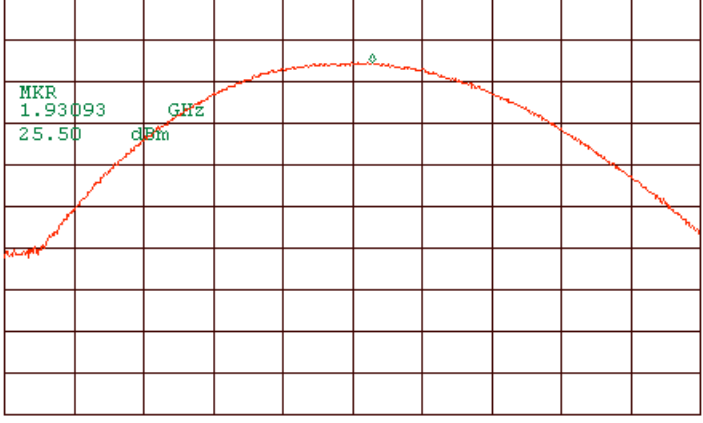
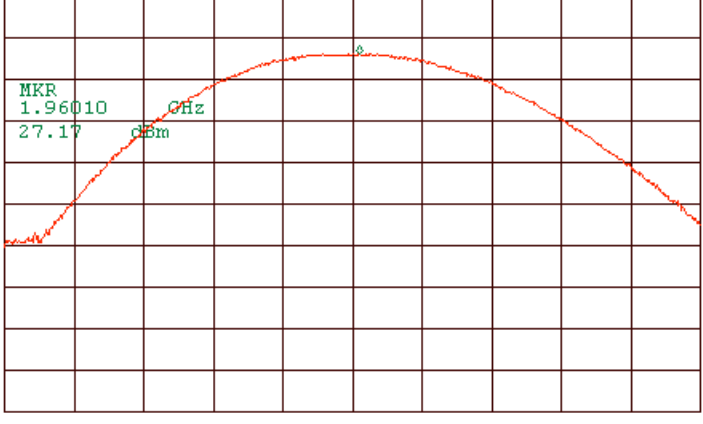
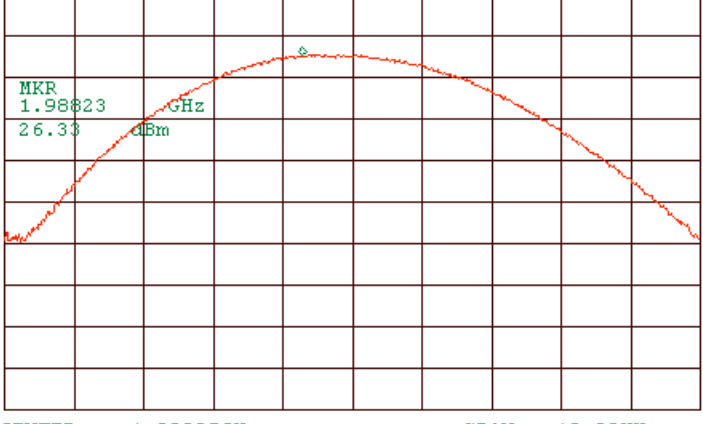
$P_{OUT} = 22.33 \text{ dBm}$

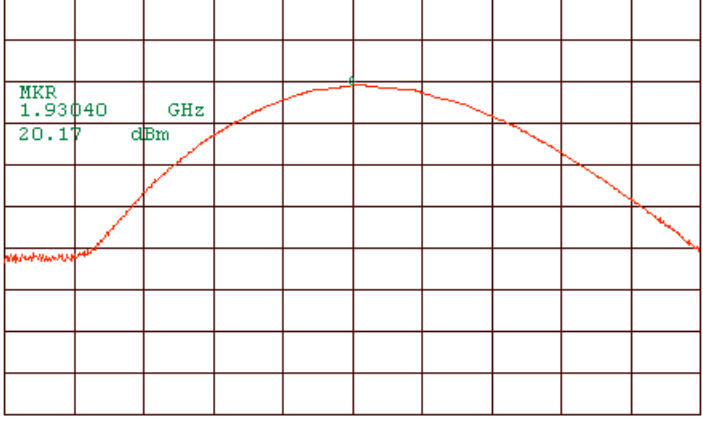
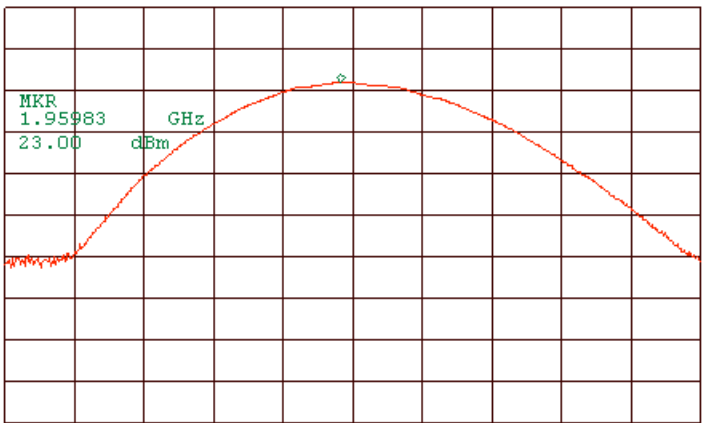
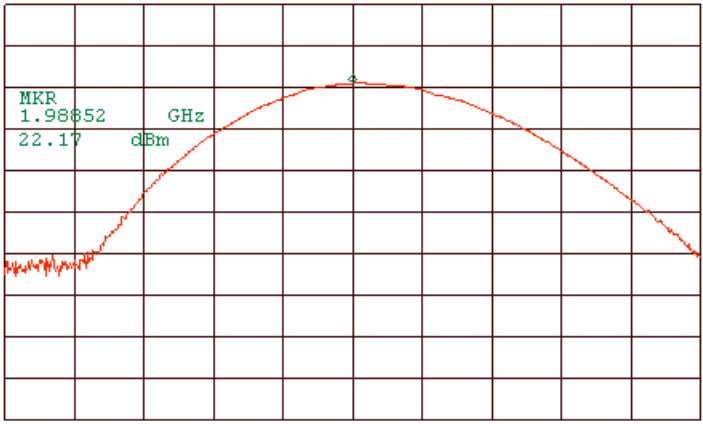
Max output power on Port 4. The further measurements will be made on port 1.

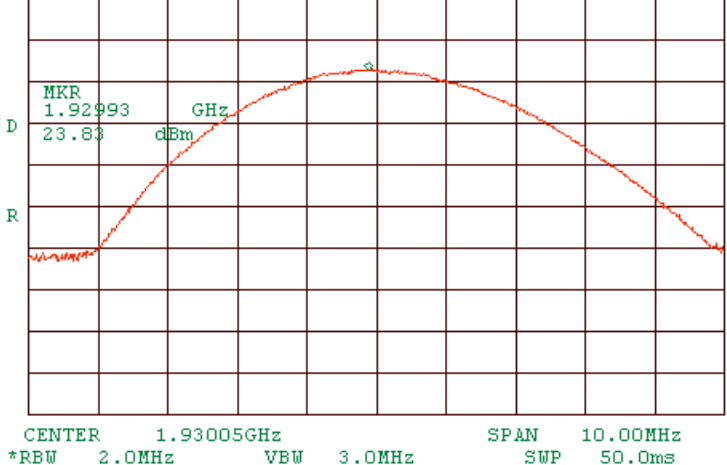
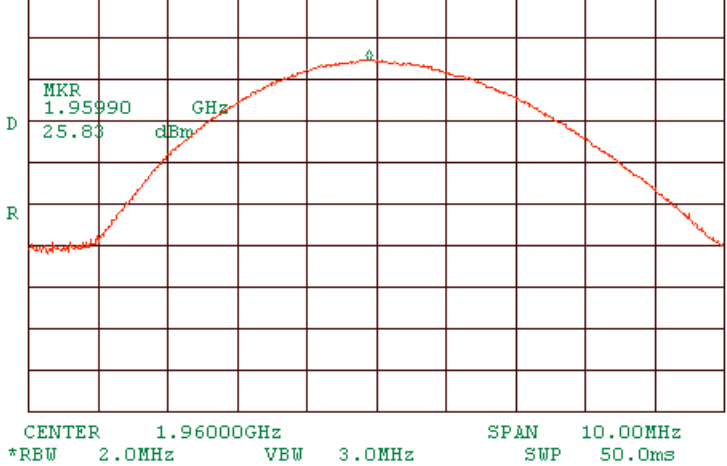
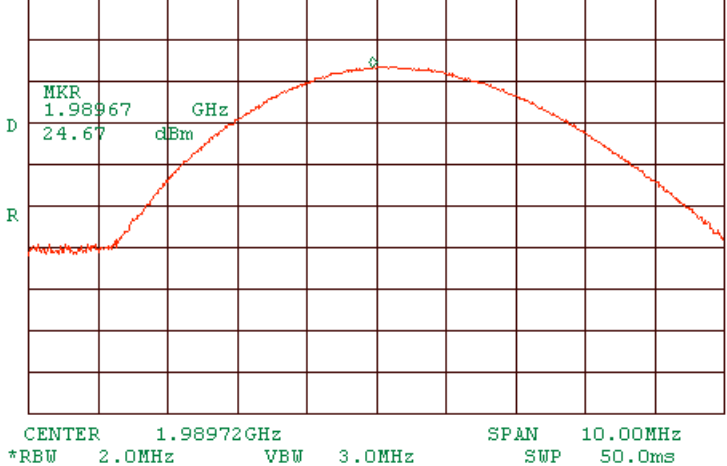
IP = 36dBm

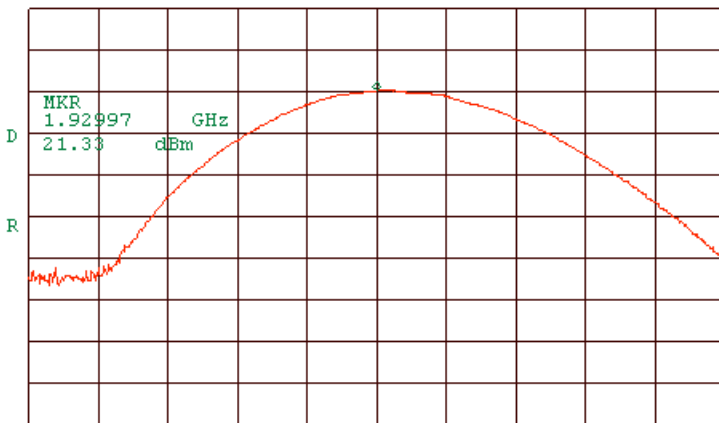
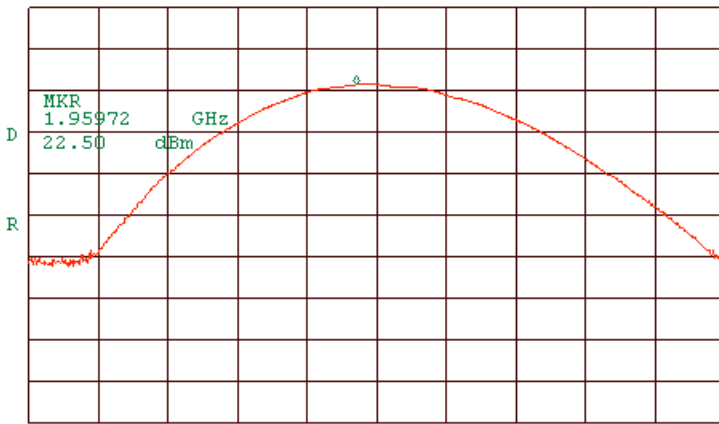
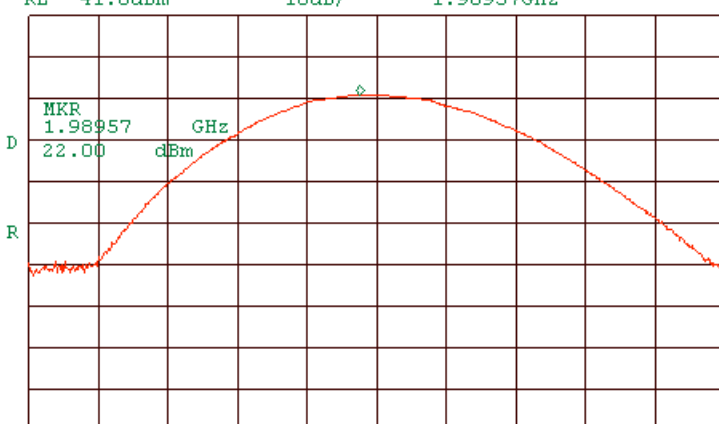
<p>Port 1 LOW channel</p> <p>$P_{OUT} = 21.67 \text{ dBm}$</p> <p>$F = 1930.0125 \text{ MHz}$</p> <p>IP = 36dBm</p> <p>Standard = CW</p>	<p>ATTEN 10dB RL 41.0dBm 10dB/ MKR 21.67dBm 1.92981GHz</p>  <p>CENTER 1.93013GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 MID channel</p> <p>$P_{OUT} = 22.33 \text{ dBm}$</p> <p>$F = 1960 \text{ MHz}$</p>	<p>ATTEN 10dB RL 41.0dBm 10dB/ MKR 22.33dBm 1.95982GHz</p>  <p>CENTER 1.96000GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 HIGH channel</p> <p>$P_{OUT} = 22.00 \text{ dBm}$</p> <p>$F = 1989.9875 \text{ MHz}$</p>	<p>ATTEN 10dB RL 41.0dBm 10dB/ MKR 22.00dBm 1.98974GHz</p>  <p>CENTER 1.98978GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>

Port 1 LOW channel	<p> ATTEN 10dB RL 41.0dBm 10dB/ MKR 26.00dBm 1.93068GHz </p>  <p> CENTER 1.93065GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms </p>
Port 1 MID channel	<p> ATTEN 10dB RL 41.0dBm 10dB/ MKR 27.67dBm 1.95968GHz </p>  <p> CENTER 1.96000GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms </p>
Port 1 HIGH channel	<p> ATTEN 10dB RL 41.0dBm 10dB/ MKR 27.33dBm 1.98842GHz </p>  <p> CENTER 1.98895GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms </p>

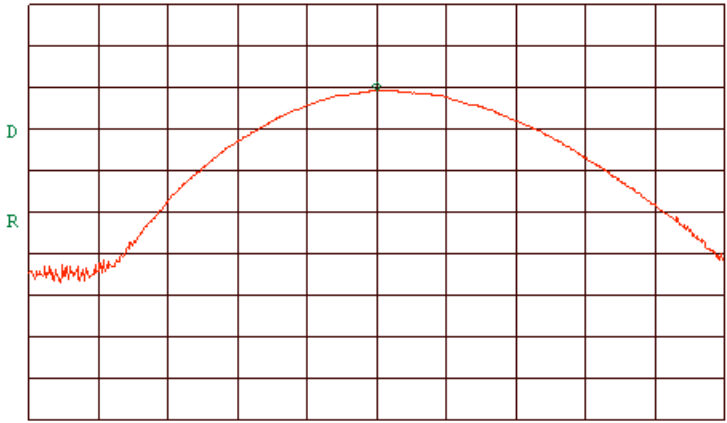
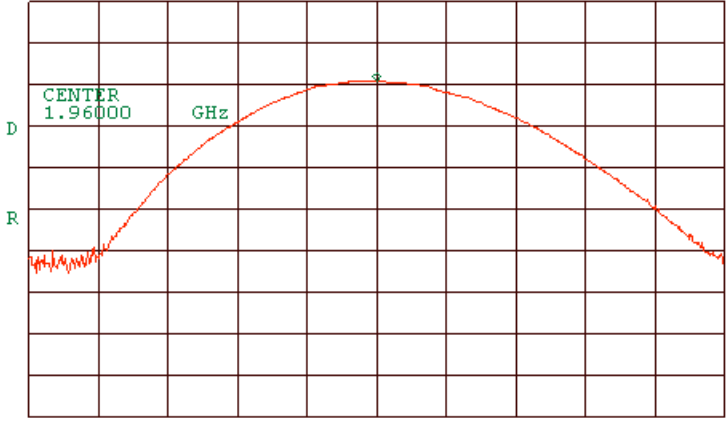
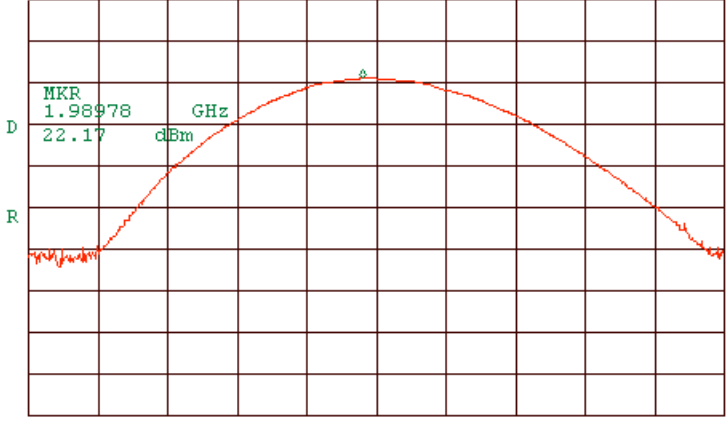
<p>Port 1 LOW channel</p> <p>$P_{OUT} = 25.50\text{dBm}$</p> <p>$F = 1930.625\text{ MHz}$</p> <p>$IP = 36\text{dBm}$</p> <p>Standard = CDMA</p> <p>Mod = OQPSK</p> <p>Bit rate = 1.2288 Mbps</p>	<p>ATTEN 10dB MKR 25.50dBm</p> <p>RL 41.0dBm 10dB/ 1.93093GHz</p>  <p>CENTER 1.93065GHz SPAN 10.00MHz</p> <p>*RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 MID channel</p> <p>$P_{OUT} = 27.17\text{ dBm}$</p> <p>$F = 1960\text{ MHz}$</p>	<p>ATTEN 10dB MKR 27.17dBm</p> <p>RL 41.0dBm 10dB/ 1.96010GHz</p>  <p>CENTER 1.96000GHz SPAN 10.00MHz</p> <p>*RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 HIGH channel</p> <p>$P_{OUT} = 26.33\text{ dBm}$</p> <p>$F = 1988.75\text{ MHz}$</p>	<p>ATTEN 10dB MKR 26.33dBm</p> <p>RL 41.0dBm 10dB/ 1.98823GHz</p>  <p>CENTER 1.98895GHz SPAN 10.00MHz</p> <p>*RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>

<p>Port 1 LOW channel</p> <p>$P_{OUT} = 20.17\text{dBm}$</p> <p>F = 1930.0125 MHz</p> <p>IP = 36dBm</p> <p>Standard = FM</p> <p>Mod = FM</p> <p>Deviation = 2.5 kHz</p> <p>Rate = 2500 Hz</p>	<p>ATTEN 10dB MKR 20.17dBm</p> <p>RL 41.0dBm 10dB/ 1.93040GHz</p>  <p>D MKR 1.93040 GHz 20.17 dBm</p> <p>R</p> <p>CENTER 1.93042GHz SPAN 10.00MHz</p> <p>*RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 MID channel</p> <p>$P_{OUT} = 23.00\text{ dBm}$</p> <p>F = 1960 MHz</p>	<p>ATTEN 10dB MKR 23.00dBm</p> <p>RL 41.0dBm 10dB/ 1.95983GHz</p>  <p>D MKR 1.95983 GHz 23.00 dBm</p> <p>R</p> <p>CENTER 1.96000GHz SPAN 10.00MHz</p> <p>*RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 HIGH channel</p> <p>$P_{OUT} = 22.17\text{ dBm}$</p> <p>F = 1989.9875 MHz</p>	<p>ATTEN 10dB MKR 22.17dBm</p> <p>RL 41.0dBm 10dB/ 1.98852GHz</p>  <p>D MKR 1.98852 GHz 22.17 dBm</p> <p>R</p> <p>CENTER 1.98852GHz SPAN 10.00MHz</p> <p>*RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>

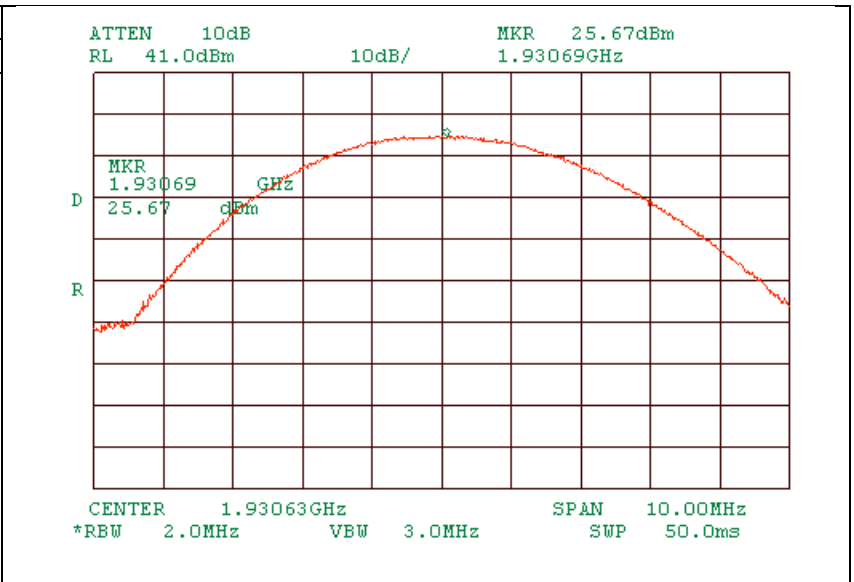
Port 1 LOW channel $P_{OUT} = 23.83 \text{ dBm}$	ATTEN 10dB MKR 23.83dBm RL 41.0dBm 10dB/ 1.92993GHz
F = 1930.05 MHz IP = 36dBm Standard = TDMA Mod = PI/4 DQPSK Bit Rate = 48.6 kbps	 <p>CENTER 1.93005GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
Port 1 MID channel $P_{OUT} = 25.83 \text{ dBm}$	ATTEN 10dB MKR 25.83dBm RL 41.0dBm 10dB/ 1.95990GHz
F = 1960 MHz	 <p>CENTER 1.96000GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
Port 1 HIGH channel $P_{OUT} = 24.67 \text{ dBm}$	ATTEN 10dB MKR 24.67dBm RL 41.0dBm 10dB/ 1.98967GHz
F = 1989.99 MHz	 <p>CENTER 1.98972GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>

<p>Port 1 LOW channel</p> <p>$P_{OUT} = 21.33\text{dBm}$</p> <p>F = 1930.2 MHz</p> <p>IP = 36dBm</p> <p>Standard = GSM</p> <p>Mod = GMSK</p> <p>Bit Rate = 270.833 kbps</p>	<p>ATTEN 10dB MKR 21.33dBm RL 41.0dBm 10dB/ 1.92997GHz</p>  <p>CENTER 1.92997GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 MID channel</p> <p>$P_{OUT} = 22.50\text{ dBm}$</p> <p>F = 1960 MHz</p>	<p>ATTEN 10dB MKR 22.50dBm RL 41.0dBm 10dB/ 1.95972GHz</p>  <p>CENTER 1.96000GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 HIGH channel</p> <p>$P_{OUT} = 22.00\text{ dBm}$</p> <p>F = 1989.8 MHz</p>	<p>ATTEN 10dB MKR 22.00dBm RL 41.0dBm 10dB/ 1.98957GHz</p>  <p>CENTER 1.98980GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>

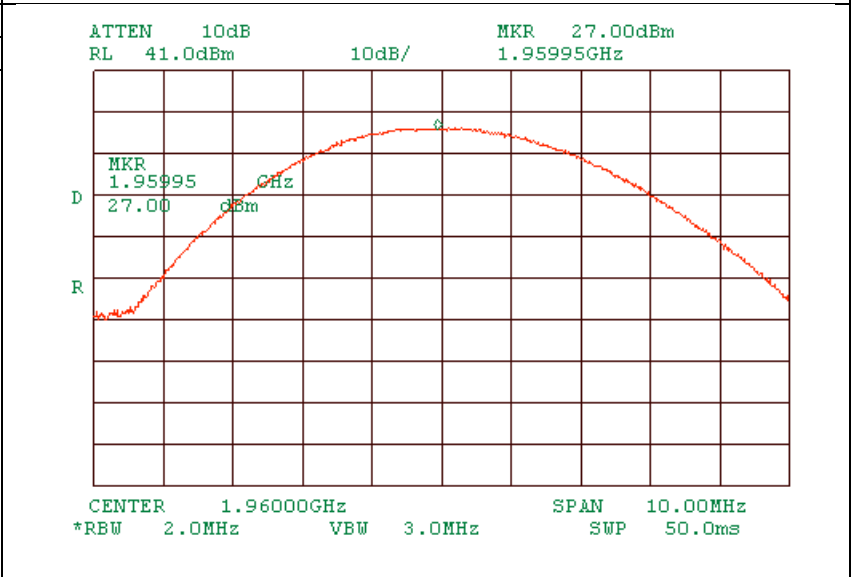
IP = 10dBm

<p>Port 1 LOW channel $P_{OUT} = 20.33 \text{ dBm}$ $F = 1930.0125 \text{ MHz}$ IP = 10dBm Standard = CW</p>	<p>ATTEN 10dB MKR 20.33dBm RL 41.0dBm 10dB/ 1.92990GHz</p>  <p>CENTER 1.92990GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 MID channel $P_{OUT} = 21.83 \text{ dBm}$ $F = 1960 \text{ MHz}$</p>	<p>ATTEN 10dB MKR 21.83dBm RL 41.0dBm 10dB/ 1.96000GHz</p>  <p>CENTER 1.96000 GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 HIGH channel $P_{OUT} = 22.17 \text{ dBm}$ $F = 1989.9875 \text{ MHz}$</p>	<p>ATTEN 10dB MKR 22.17dBm RL 41.0dBm 10dB/ 1.98978GHz</p>  <p>CENTER 1.98998GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>

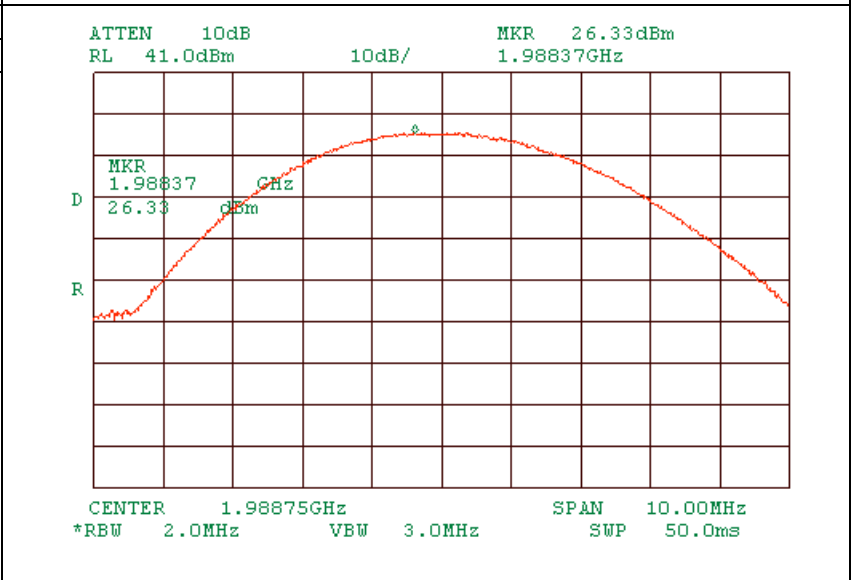
Port 1 LOW channel
 $P_{OUT} = 25.67 \text{ dBm}$
 $F = 1930.625 \text{ MHz}$
 $IP = 10 \text{ dBm}$
 Standard = CDMA
 Mod = OQPSK
 Bit rate = 1.2288 Mbps

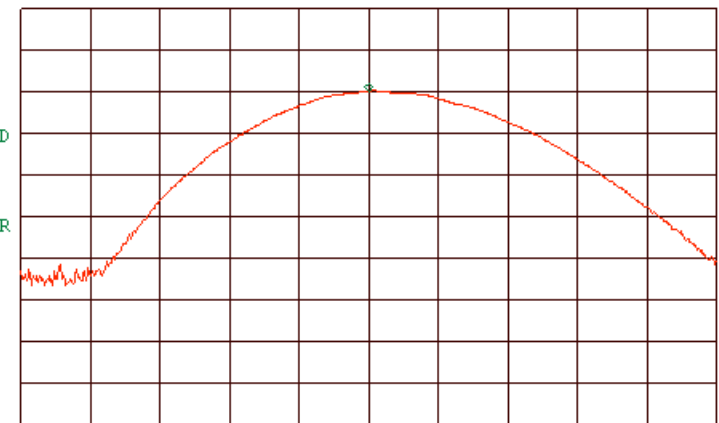
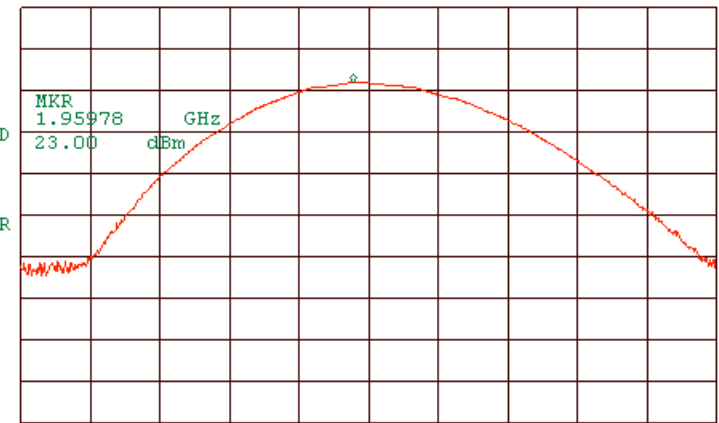
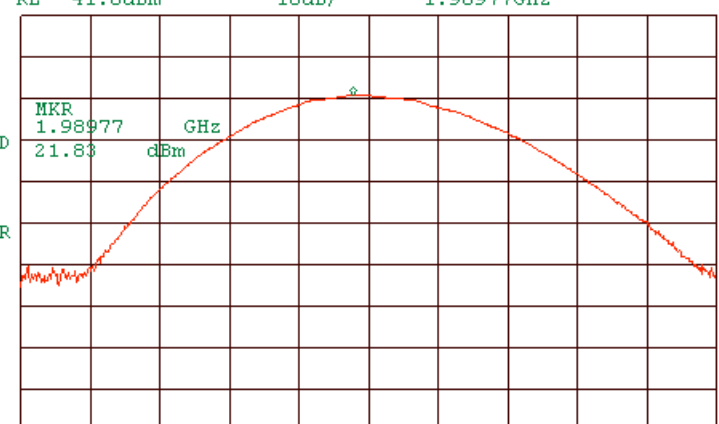


Port 1 MID channel
 $P_{OUT} = 27.00 \text{ dBm}$
 $F = 1960 \text{ MHz}$

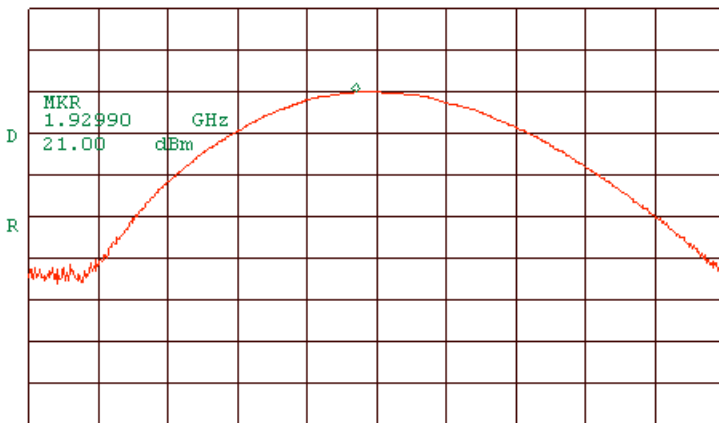
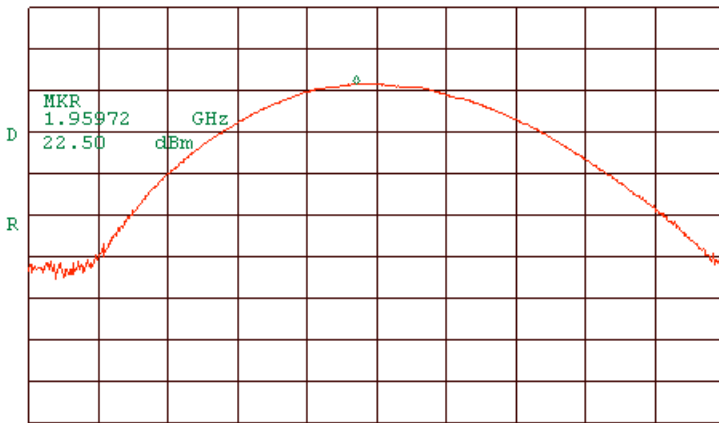
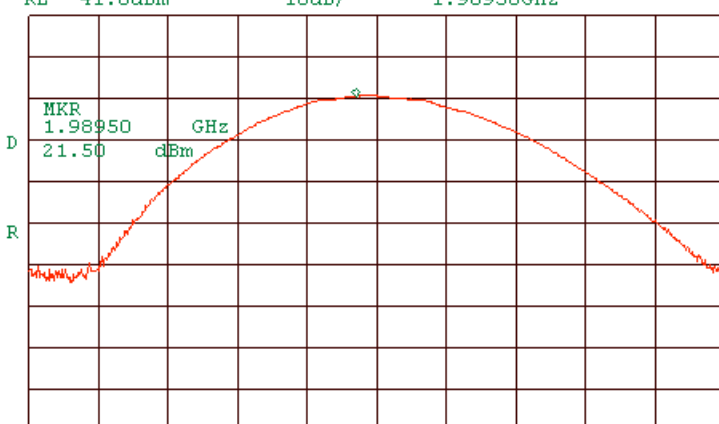


Port 1 HIGH channel
 $P_{OUT} = 26.33 \text{ dBm}$
 $F = 1988.75 \text{ MHz}$



<p>Port 1 LOW channel</p> <p>P_{OUT}=21.17dBm</p> <p>F = 1930.0125 MHz</p> <p>IP = 10dBm</p> <p>Standard = FM</p> <p>Mod = FM</p> <p>Deviation = 2.5 kHz</p> <p>Rate = 2500 Hz</p>	<p>ATTEN 10dB</p> <p>RL 41.0dBm</p> <p>10dB/</p> <p>MKR 21.17dBm</p> <p>1.92980GHz</p>  <p>CENTER 1.92980GHz</p> <p>*RBW 2.0MHz</p> <p>VBW 3.0MHz</p> <p>SPAN 10.00MHz</p> <p>SWP 50.0ms</p>
<p>Port 1 MID channel</p> <p>P_{OUT}=23.00 dBm</p> <p>F = 1960 MHz</p>	<p>ATTEN 10dB</p> <p>RL 41.0dBm</p> <p>10dB/</p> <p>MKR 23.00dBm</p> <p>1.95978GHz</p>  <p>MKR 1.95978 GHz</p> <p>23.00 dBm</p> <p>CENTER 1.96000GHz</p> <p>*RBW 2.0MHz</p> <p>VBW 3.0MHz</p> <p>SPAN 10.00MHz</p> <p>SWP 50.0ms</p>
<p>Port 1 HIGH channel</p> <p>P_{OUT}=21.83 dBm</p> <p>F = 1989.9875 MHz</p>	<p>ATTEN 10dB</p> <p>RL 41.0dBm</p> <p>10dB/</p> <p>MKR 21.83dBm</p> <p>1.98977GHz</p>  <p>MKR 1.98977 GHz</p> <p>21.83 dBm</p> <p>CENTER 1.98999GHz</p> <p>*RBW 2.0MHz</p> <p>VBW 3.0MHz</p> <p>SPAN 10.00MHz</p> <p>SWP 50.0ms</p>

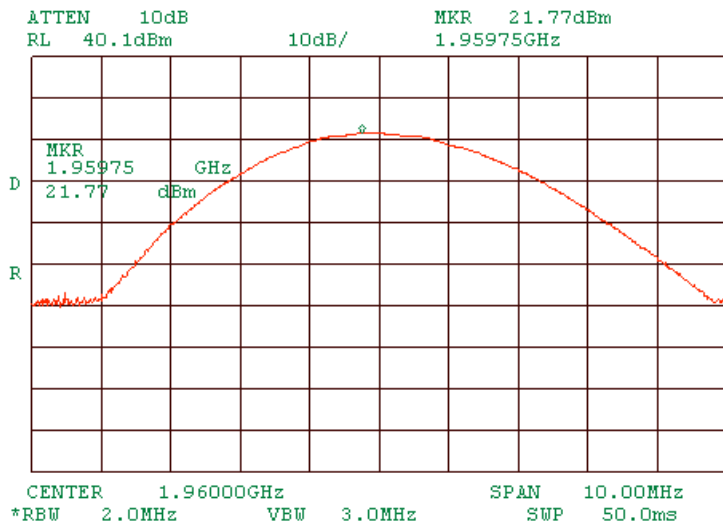
<p>Port 1 LOW channel $P_{OUT} = 23.33\text{dBm}$ $F = 1930.05\text{ MHz}$ $IP = 10\text{dBm}$ Standard = TDMA Mod = PI/4 DQPSK Bit Rate = 48.6 kbps</p>	<p>ATTEN 10dB MKR 23.33dBm RL 41.0dBm 10dB/ 1.93000GHz</p> <p>CENTER 1.93000GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 MID channel $P_{OUT} = 25.17\text{ dBm}$ $F = 1960\text{ MHz}$</p>	<p>ATTEN 10dB MKR 25.17dBm RL 41.0dBm 10dB/ 1.95973GHz</p> <p>CENTER 1.96000GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 HIGH channel $P_{OUT} = 24.00\text{ dBm}$ $F = 1989.99\text{ MHz}$</p>	<p>ATTEN 10dB MKR 24.00dBm RL 41.0dBm 10dB/ 1.98981GHz</p> <p>CENTER 1.98999GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>

<p>Port 1 LOW channel</p> <p>$P_{OUT} = 21.00 \text{ dBm}$</p> <p>F = 1930.2 MHz</p> <p>IP = 10dBm</p> <p>Standard = GSM</p> <p>Mod = GMSK</p> <p>Bit Rate = 270.833 kbps</p>	<p>ATTEN 10dB MKR 21.00dBm RL 41.0dBm 10dB/ 1.92990GHz</p>  <p>CENTER 1.93020GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 MID channel</p> <p>$P_{OUT} = 22.50 \text{ dBm}$</p> <p>F = 1960 MHz</p>	<p>ATTEN 10dB MKR 22.50dBm RL 41.0dBm 10dB/ 1.95972GHz</p>  <p>CENTER 1.96000GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 HIGH channel</p> <p>$P_{OUT} = 21.50 \text{ dBm}$</p> <p>F = 1989.8 MHz</p>	<p>ATTEN 10dB MKR 21.50dBm RL 41.0dBm 10dB/ 1.98950GHz</p>  <p>CENTER 1.98980GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>

Date 18 May 2004
Test Output power
Project 15867, Mobile Access 1200 Add-on (optical module)
Humidity 46%
Temperature 24 C
Air pressure 1014hPa
Test equipment 521, 1947, 121, 589, 603
Assigned band Downlink: 1930 – 1990MHz Uplink: 1850 – 1910MHz
IP = input power
Op = output power
G = gain
Mod = input modulation

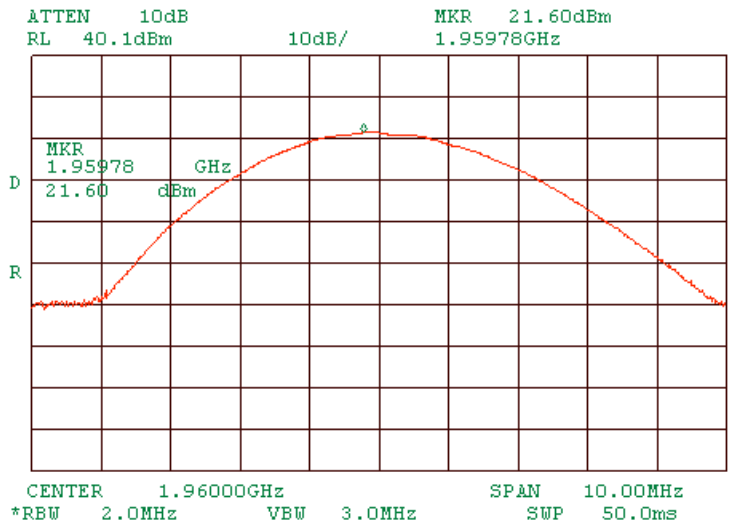
Output power DOWNLINK

Mod = CW
 $F_{LOW} = 1930.0125 \text{ MHz}$
 $F_{MID} = 1960 \text{ MHz}$
 $F_{HIGH} = 1989.9875 \text{ MHz}$
Port 1 MID channel



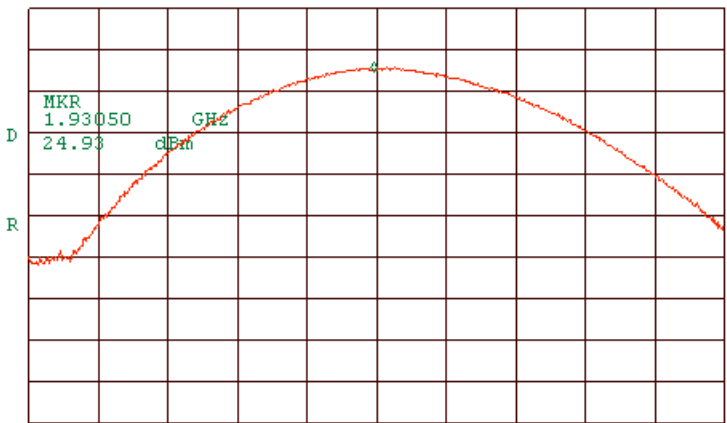
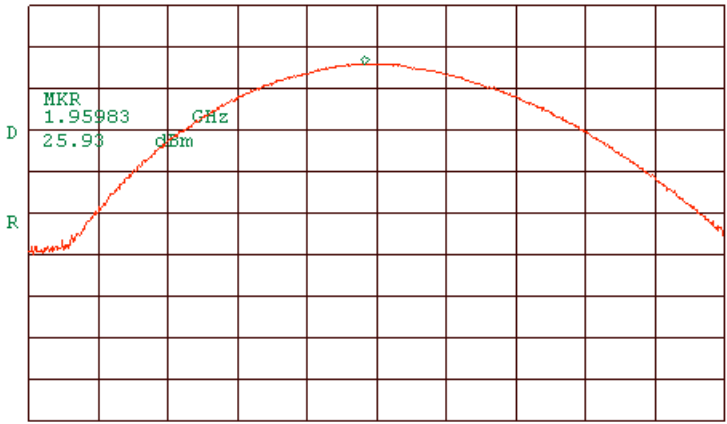
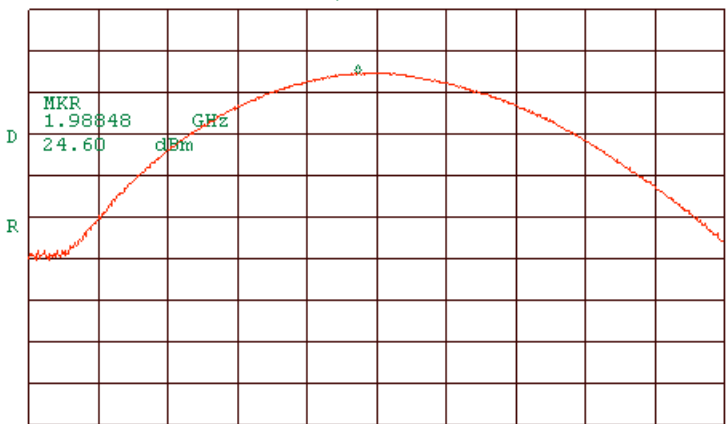
$P_{OUT} = 21.77 \text{ dBm}$

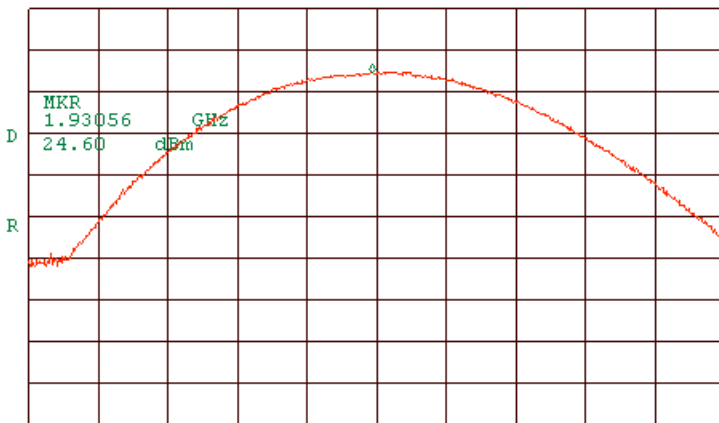
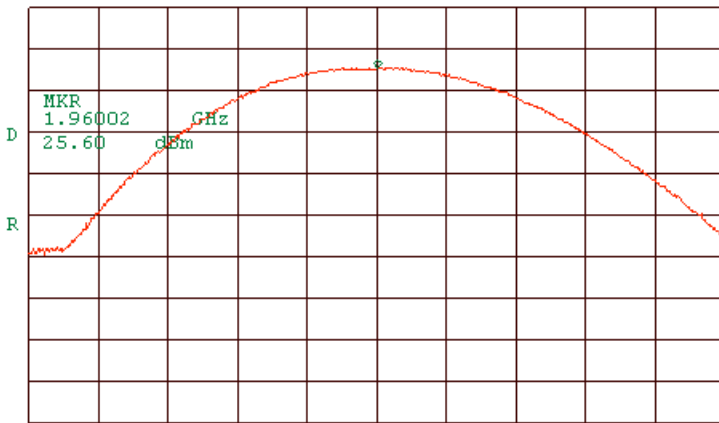
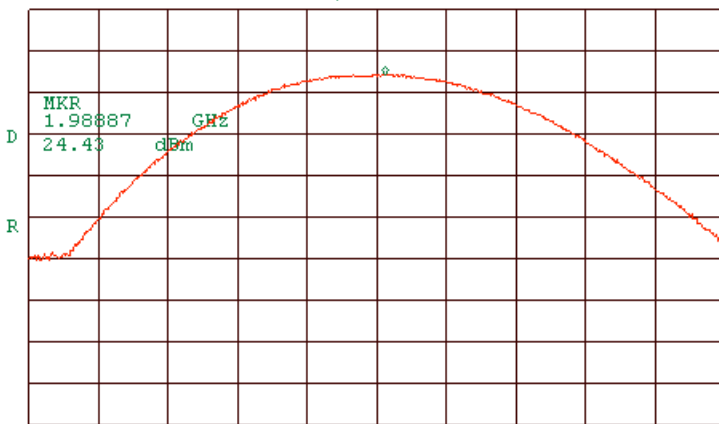
Port 4 MID channel

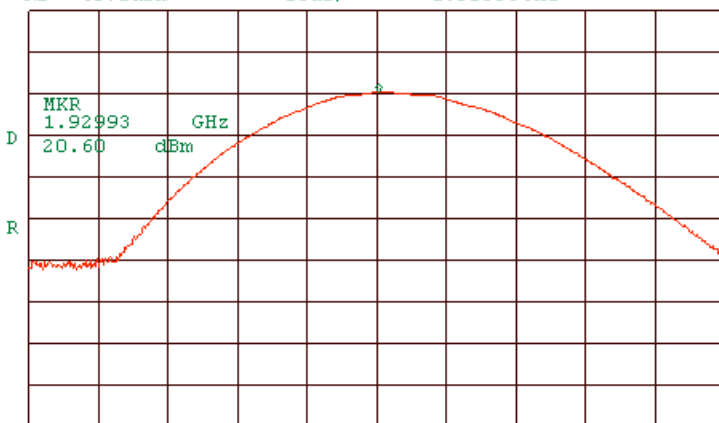
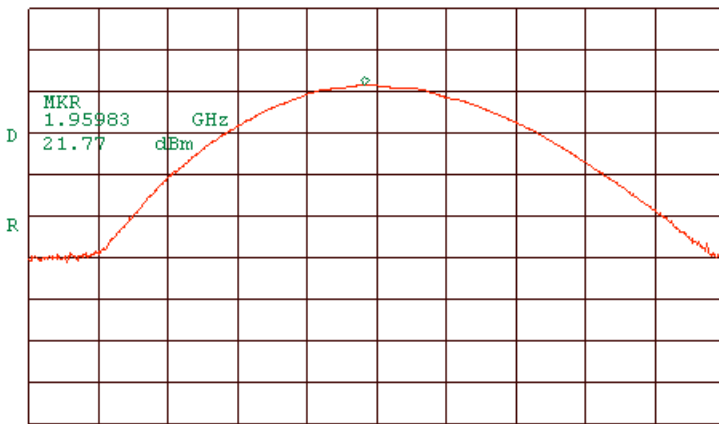
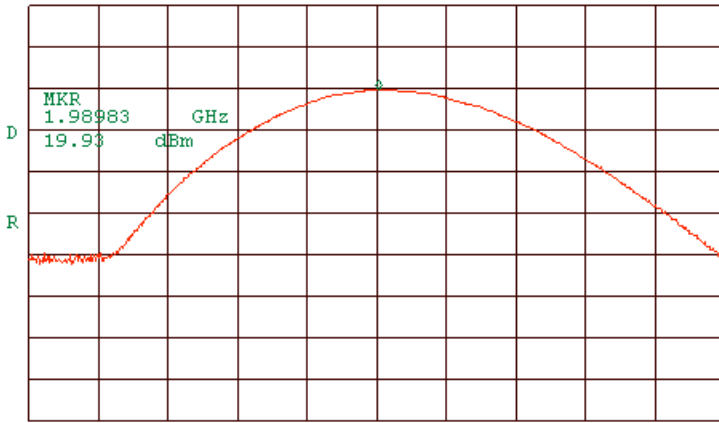


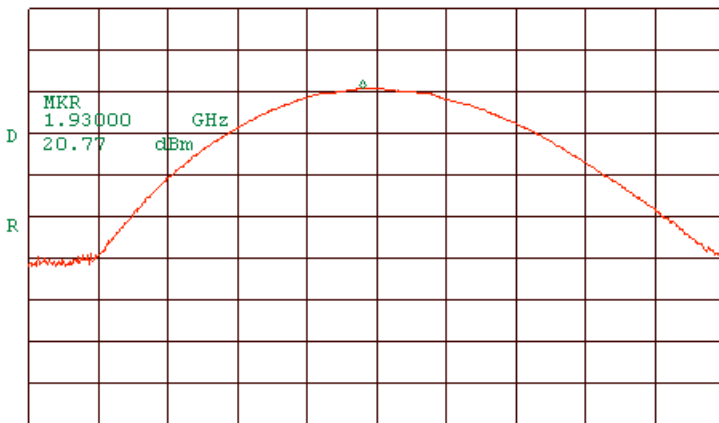
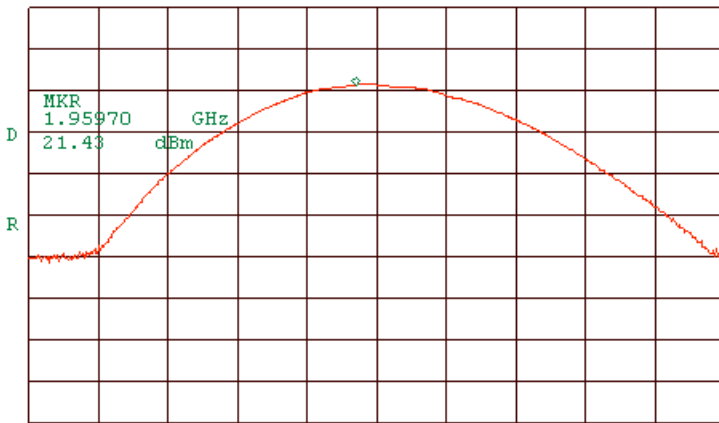
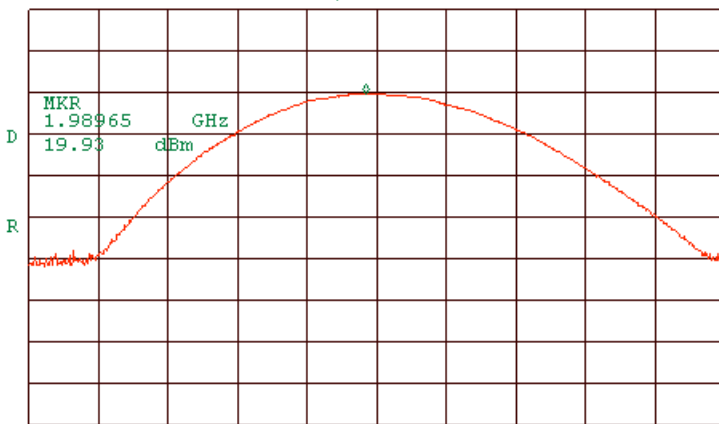
$P_{OUT} = 21.60 \text{ dBm}$

Max output power on Port 1. The further measurements will be made on port 1.

<p>Port 1 LOW channel</p> <p>$P_{OUT} = 24.93 \text{ dBm}$</p> <p>F = 1930.625 MHz</p> <p>IP = 10dBm</p> <p>Standard = CDMA</p> <p>Mod = QPSK</p> <p>Bit rate = 1.2288 Mbps</p>	<p>ATTEN 10dB RL 40.1dBm 10dB/ MKR 24.93dBm 1.93050GHz</p>  <p>CENTER 1.93053GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 MID channel</p> <p>$P_{OUT} = 25.93 \text{ dBm}$</p> <p>F = 1960 MHz</p>	<p>ATTEN 10dB RL 40.1dBm 10dB/ MKR 25.93dBm 1.95983GHz</p>  <p>CENTER 1.96000GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 HIGH channel</p> <p>$P_{OUT} = 24.60 \text{ dBm}$</p> <p>F = 1988.75 MHz</p>	<p>ATTEN 10dB RL 40.1dBm 10dB/ MKR 24.60dBm 1.98848GHz</p>  <p>CENTER 1.98875GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>

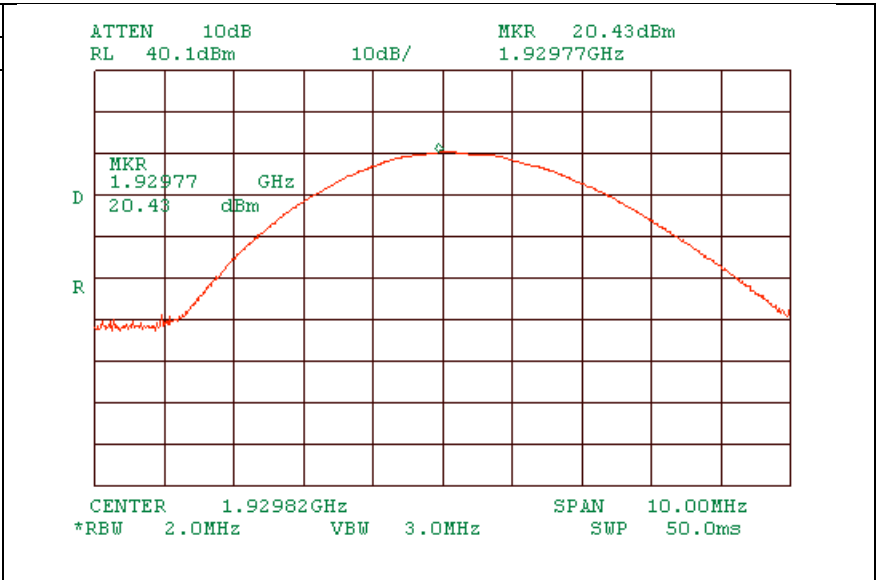
<p>Port 1 LOW channel</p> <p>$P_{OUT} = 24.60\text{dBm}$</p> <p>F = 1930.625 MHz</p> <p>IP = 10dBm</p> <p>Standard = CDMA</p> <p>Mod = OQPSK</p> <p>Bit rate = 1.2288 Mbps</p>	<p>ATTEN 10dB MKR 24.60dBm</p> <p>RL 40.1dBm 10dB/ 1.93056GHz</p>  <p>CENTER 1.93063GHz SPAN 10.00MHz</p> <p>*RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 MID channel</p> <p>$P_{OUT} = 25.60\text{ dBm}$</p> <p>F = 1960 MHz</p>	<p>ATTEN 10dB MKR 25.60dBm</p> <p>RL 40.1dBm 10dB/ 1.96002GHz</p>  <p>CENTER 1.96000GHz SPAN 10.00MHz</p> <p>*RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 HIGH channel</p> <p>$P_{OUT} = 24.43\text{ dBm}$</p> <p>F = 1988.75 MHz</p>	<p>ATTEN 10dB MKR 24.43dBm</p> <p>RL 40.1dBm 10dB/ 1.98887GHz</p>  <p>CENTER 1.98875GHz SPAN 10.00MHz</p> <p>*RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>

<p>Port 1 LOW channel</p> <p>$P_{OUT} = 20.60\text{dBm}$</p> <p>F = 1930.0125 MHz</p> <p>IP = 10dBm</p> <p>Standard = FM</p> <p>Mod = FM</p> <p>Deviation = 2.5 kHz</p> <p>Rate = 2500 Hz</p>	<p>ATTEN 10dB RL 40.1dBm 10dB/ MKR 20.60dBm 1.92993GHz</p>  <p>D MKR 1.92993 GHz 20.60 dBm</p> <p>R</p> <p>CENTER 1.92989GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 MID channel</p> <p>$P_{OUT} = 21.77\text{ dBm}$</p> <p>F = 1960 MHz</p>	<p>ATTEN 10dB RL 40.1dBm 10dB/ MKR 21.77dBm 1.95983GHz</p>  <p>D MKR 1.95983 GHz 21.77 dBm</p> <p>R</p> <p>CENTER 1.96000GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 HIGH channel</p> <p>$P_{OUT} = 19.93\text{ dBm}$</p> <p>F = 1989.9875 MHz</p>	<p>ATTEN 10dB RL 40.1dBm 10dB/ MKR 19.93dBm 1.98983GHz</p>  <p>D MKR 1.98983 GHz 19.93 dBm</p> <p>R</p> <p>CENTER 1.98980GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>

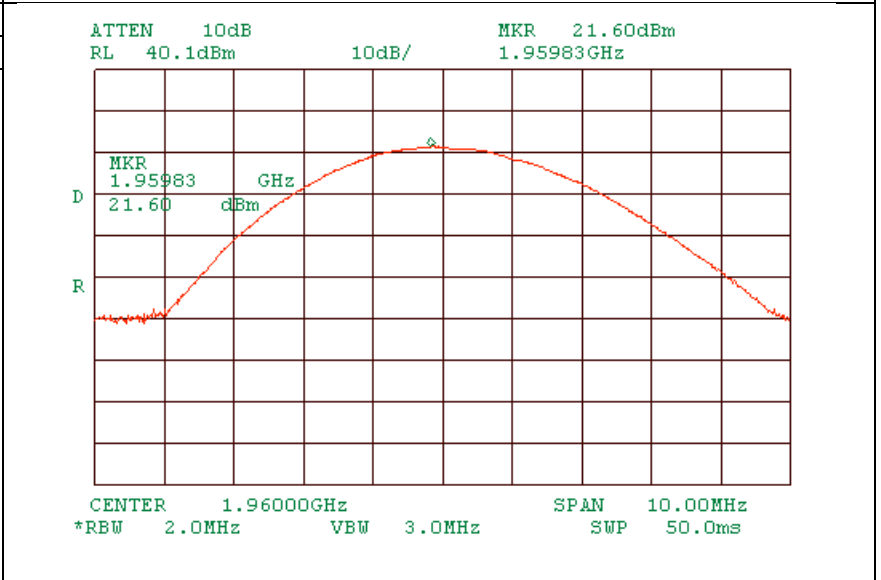
<p>Port 1 LOW channel</p> <p>$P_{OUT} = 20.77\text{dBm}$</p> <p>F = 1930.2 MHz</p> <p>IP = 10dBm</p> <p>Standard = GSM</p> <p>Mod = GMSK</p> <p>Bit Rate = 270.833 kbps</p>	<p>ATTEN 10dB MKR 20.77dBm</p> <p>RL 40.1dBm 10dB/ 1.93000GHz</p>  <p>CENTER 1.93020GHz SPAN 10.00MHz</p> <p>*RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 MID channel</p> <p>$P_{OUT} = 21.43\text{ dBm}$</p> <p>F = 1960 MHz</p>	<p>ATTEN 10dB MKR 21.43dBm</p> <p>RL 40.1dBm 10dB/ 1.95970GHz</p>  <p>CENTER 1.96000GHz SPAN 10.00MHz</p> <p>*RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 HIGH channel</p> <p>$P_{OUT} = 19.93\text{ dBm}$</p> <p>F = 1989.8 MHz</p>	<p>ATTEN 10dB MKR 19.93dBm</p> <p>RL 40.1dBm 10dB/ 1.98965GHz</p>  <p>CENTER 1.98980GHz SPAN 10.00MHz</p> <p>*RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>

IP = 36dBm

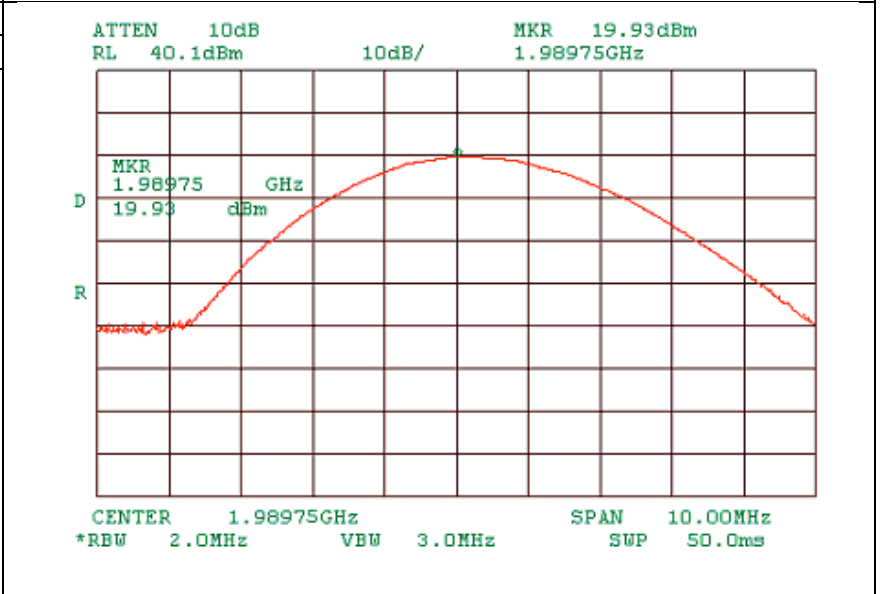
Port 1 LOW channel
 P_{OUT} = 20.43 dBm
 F = 1930.0125 MHz
 IP = 36dBm
 Standard = CW

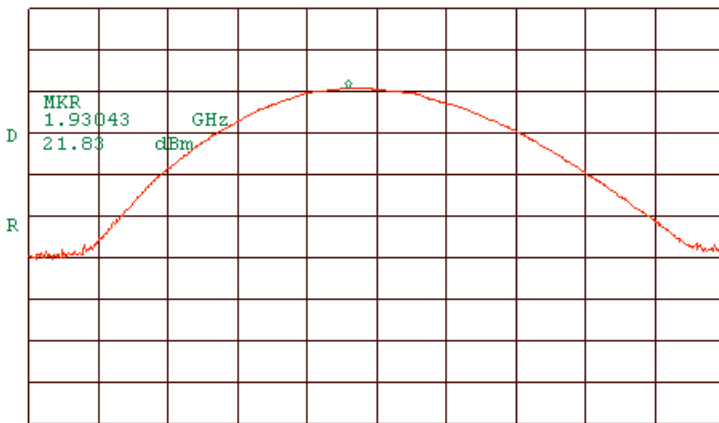
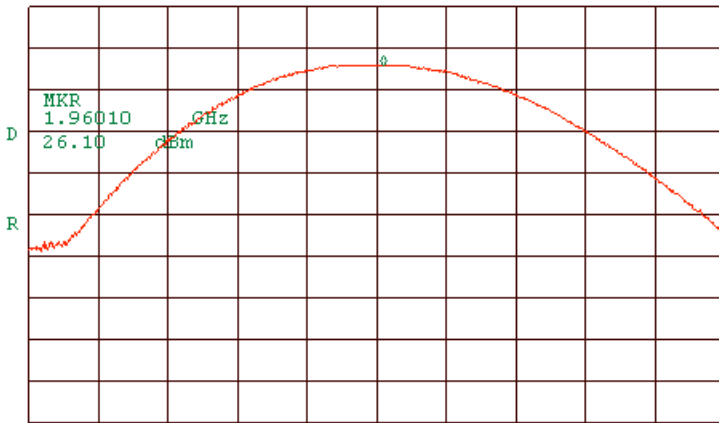
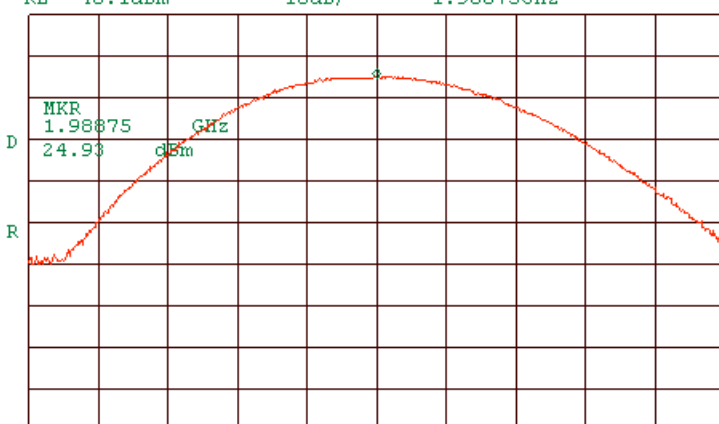


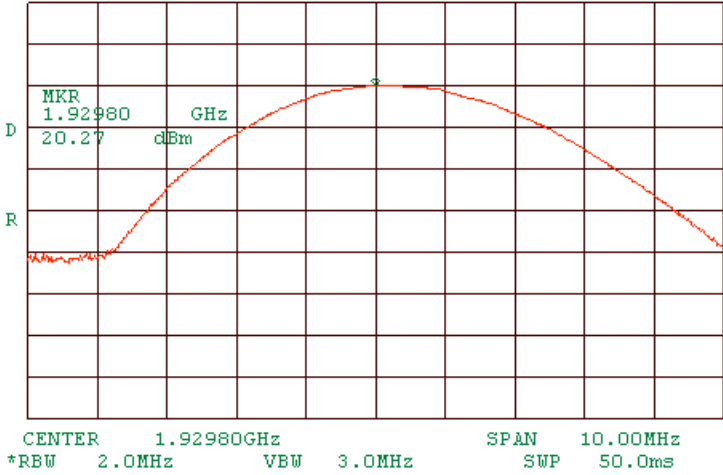
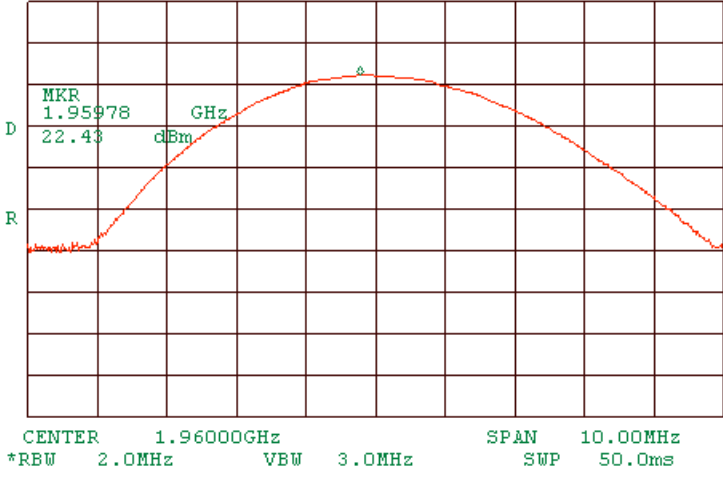
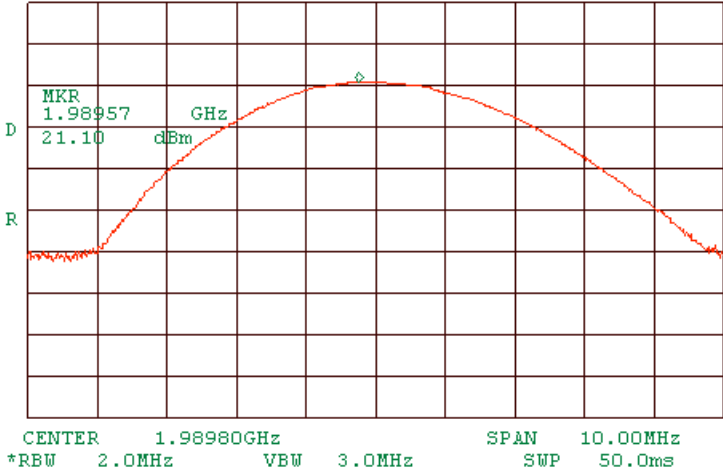
Port 1 MID channel
 P_{OUT} = 21.60 dBm
 F = 1960 MHz



Port 1 HIGH channel
 P_{OUT} = 21.43 dBm
 F = 1989.9875 MHz



<p>Port 1 LOW channel</p> <p>$P_{OUT} = 21.83\text{dBm}$</p> <p>$F = 1930.625\text{ MHz}$</p> <p>$IP = 36\text{dBm}$</p> <p>Standard = CDMA</p> <p>Mod = OQPSK</p> <p>Bit rate = 1.2288 Mbps</p>	<p>ATTEN 10dB MKR 21.83dBm</p> <p>RL 41.0dBm 10dB/ 1.93043GHz</p>  <p>CENTER 1.93083GHz SPAN 10.00MHz</p> <p>*RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 MID channel</p> <p>$P_{OUT} = 26.10\text{ dBm}$</p> <p>$F = 1960\text{ MHz}$</p>	<p>ATTEN 10dB MKR 26.10dBm</p> <p>RL 40.1dBm 10dB/ 1.96010GHz</p>  <p>CENTER 1.96000GHz SPAN 10.00MHz</p> <p>*RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 HIGH channel</p> <p>$P_{OUT} = 24.93\text{ dBm}$</p> <p>$F = 1988.75\text{ MHz}$</p>	<p>ATTEN 10dB MKR 24.93dBm</p> <p>RL 40.1dBm 10dB/ 1.98875GHz</p>  <p>CENTER 1.98875GHz SPAN 10.00MHz</p> <p>*RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>

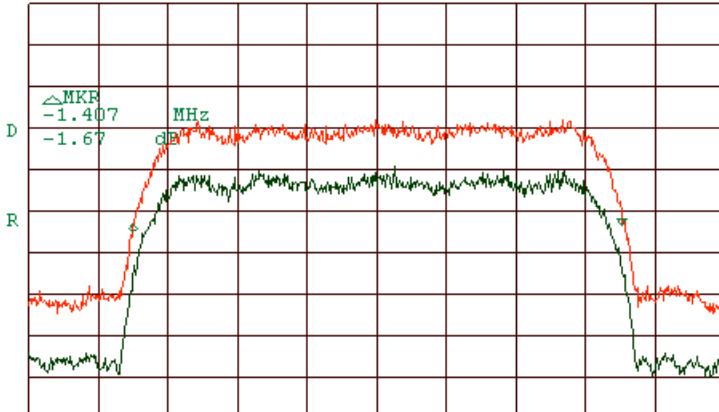
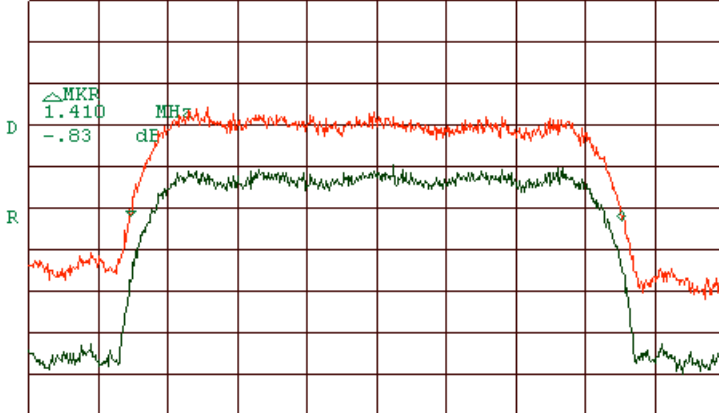
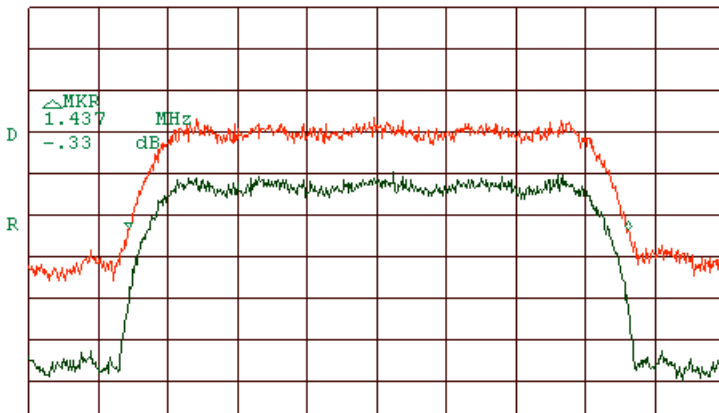
<p>Port 1 LOW channel</p> <p>$P_{OUT} = 20.27 \text{ dBm}$</p> <p>F = 1930.2 MHz</p> <p>IP = 36dBm</p> <p>Standard = GSM</p> <p>Mod = GMSK</p> <p>Bit Rate = 270.833 kbps</p>	<p>ATTEN 10dB MKR 20.27dBm RL 40.1dBm 10dB/ 1.92980GHz</p>  <p>CENTER 1.92980GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 MID channel</p> <p>$P_{OUT} = 22.43 \text{ dBm}$</p> <p>F = 1960 MHz</p>	<p>ATTEN 10dB MKR 22.43dBm RL 40.1dBm 10dB/ 1.95978GHz</p>  <p>CENTER 1.96000GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>
<p>Port 1 HIGH channel</p> <p>$P_{OUT} = 19.93 \text{ dBm}$</p> <p>F = 1989.8 MHz</p>	<p>ATTEN 10dB MKR 21.10dBm RL 40.1dBm 10dB/ 1.98957GHz</p>  <p>CENTER 1.98980GHz SPAN 10.00MHz *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms</p>

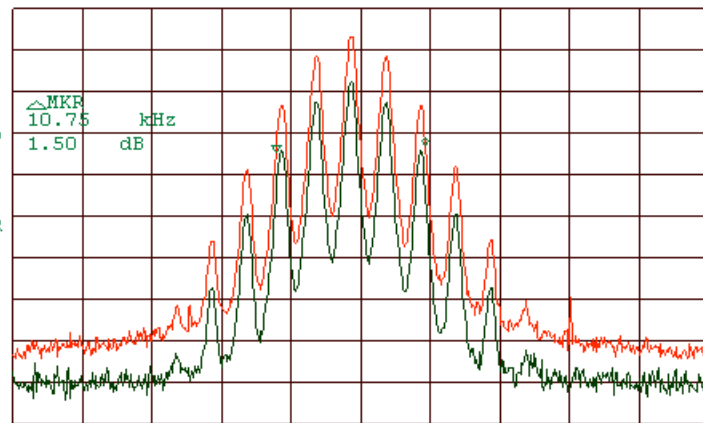
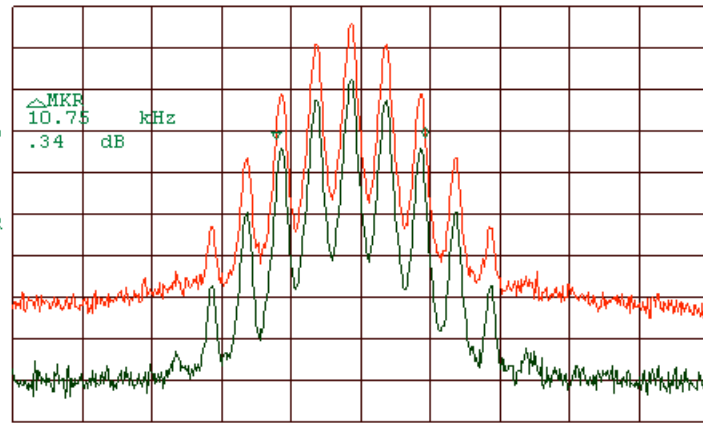
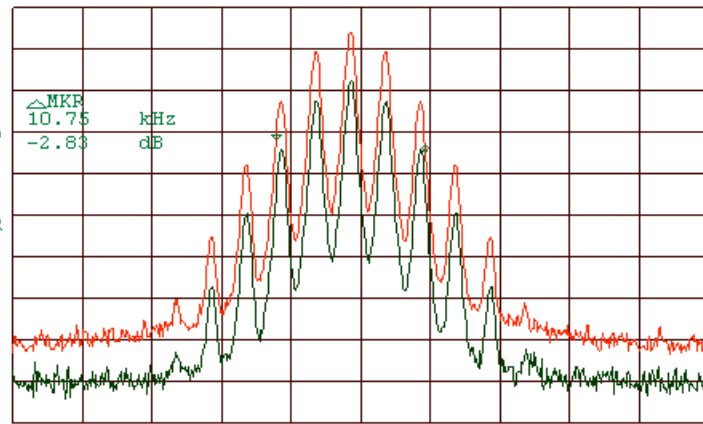
Date 18 May 2004
Test Occupied bandwidth
Project 15867, Mobile Access 1200 and 1000
Humidity 46%
Temperature 24 C
Air pressure 1014hPa
Test equipment 521, 1947, 121, 589, 603
Assigned band Downlink: 1930 – 1990MHz Uplink: 1850 – 1910MHz
IP = input power
Op = output power
G = gain
Mod = input modulation

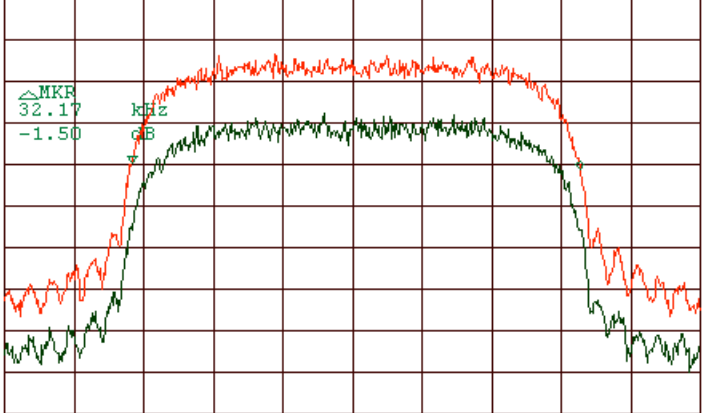
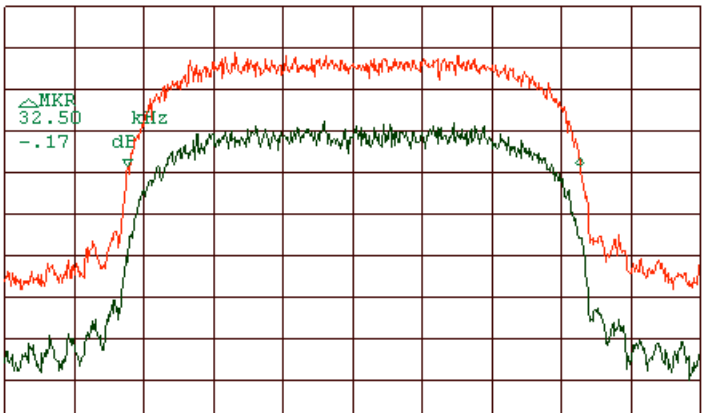
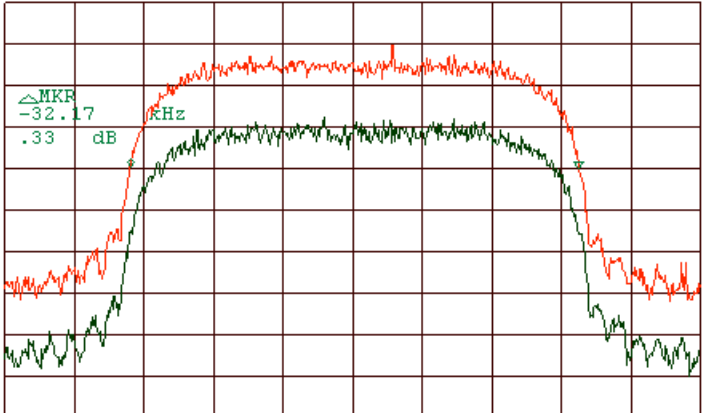
Occupied bandwidth DOWNLINK

$F_{LOW} = 1930.0125 \text{ MHz}$
 $F_{MID} = 1960 \text{ MHz}$
 $F_{HIGH} = 1989.9875 \text{ MHz}$

IP = 10dBm

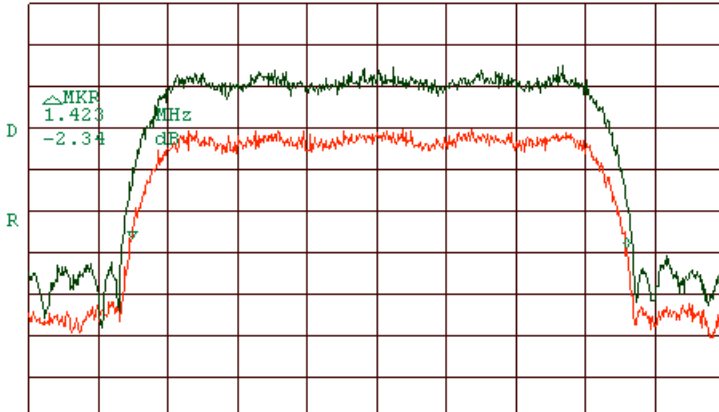
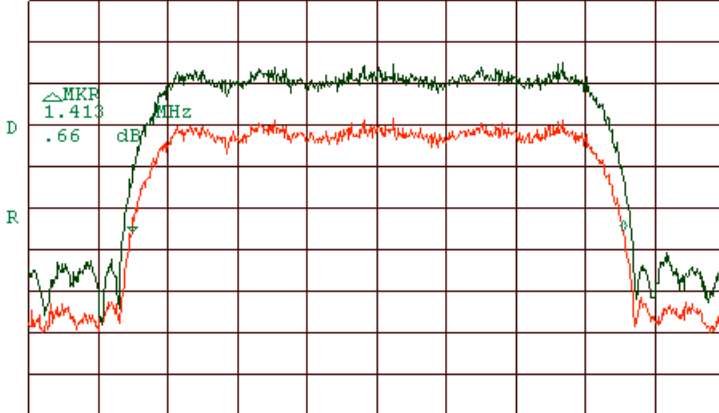
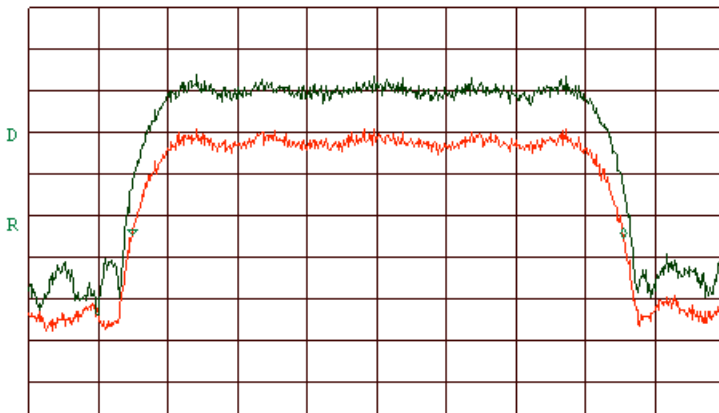
<p>Port 1 LOW channel OBW = 1.407 MHz F = 1930.625 MHz IP = 10dBm Standard = CDMA Mod = QPSK Bit rate = 1.2288 Mbps</p> <p>Upper signal = Output power Lower signal = Incident power</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR -1.67dB -1.407MHz</p>  <p>CENTER 1.930622GHz SPAN 2.000MHz *RBW 300Hz VBW 1.0kHz SWP 56.0sec</p>
<p>Port 1 MID channel OBW = 1.41 MHz F = 1960 MHz</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR -.83dB 1.410MHz</p>  <p>CENTER 1.960000GHz SPAN 2.000MHz *RBW 300Hz VBW 1.0kHz SWP 56.0sec</p>
<p>OBW = 1.437 MHz P_{OUT} = 24.60 dBm F = 1988.75 MHz</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR -.33dB 1.437MHz</p>  <p>CENTER 1.988750GHz SPAN 2.000MHz *RBW 300Hz VBW 1.0kHz SWP 56.0sec</p>

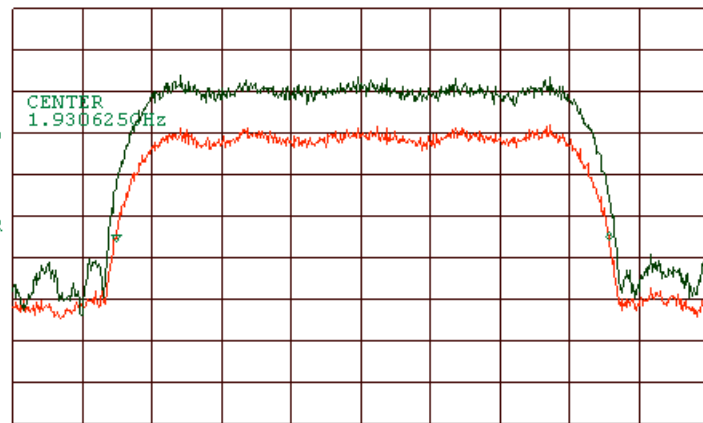
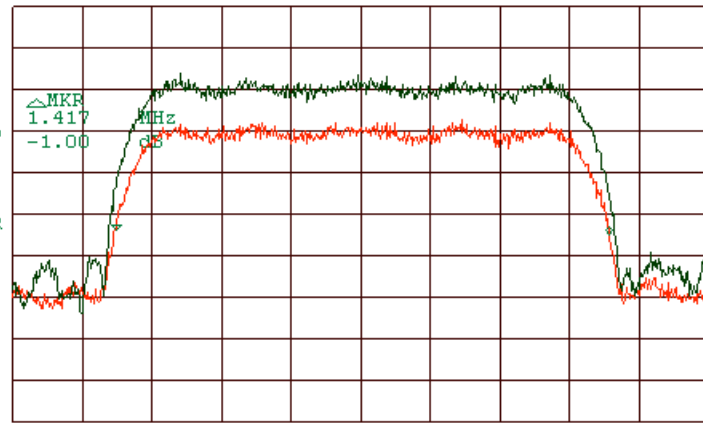
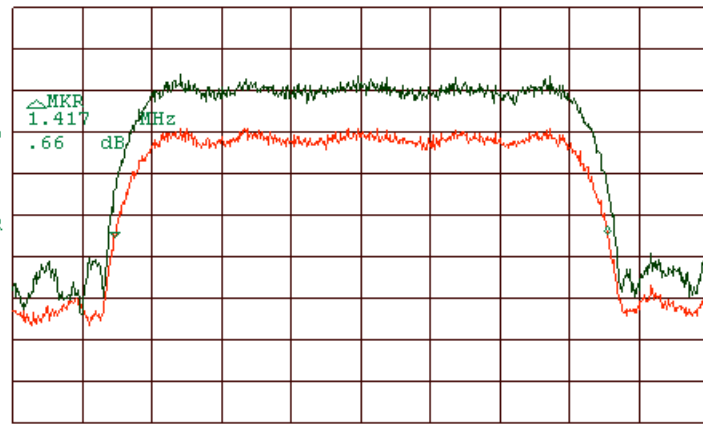
<p>Port 1 LOW channel OBW = 10.75 kHz F = 1930.0125 MHz IP = 10dBm Standard = FM Mod = FM Deviation = 2.5 kHz Rate = 2500 Hz</p> <p>Upper signal = Output power Lower signal = Incident power</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR 1.50dB 10.75kHz</p>  <p>CENTER 1.93001250GHz SPAN 50.00kHz *RBW 300Hz VBW 1.0kHz SWP 1.40sec</p>
<p>Port 1 MID channel OBW = 10.75 kHz F = 1960 MHz</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR .34dB 10.75kHz</p>  <p>CENTER 1.96000000GHz SPAN 50.00kHz *RBW 300Hz VBW 1.0kHz SWP 1.40sec</p>
<p>Port 1 MID channel OBW = 10.75 kHz F = 1989.9875 MHz</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR -2.83dB 10.75kHz</p>  <p>CENTER 1.98998750GHz SPAN 50.00kHz *RBW 300Hz VBW 1.0kHz SWP 1.40sec</p>

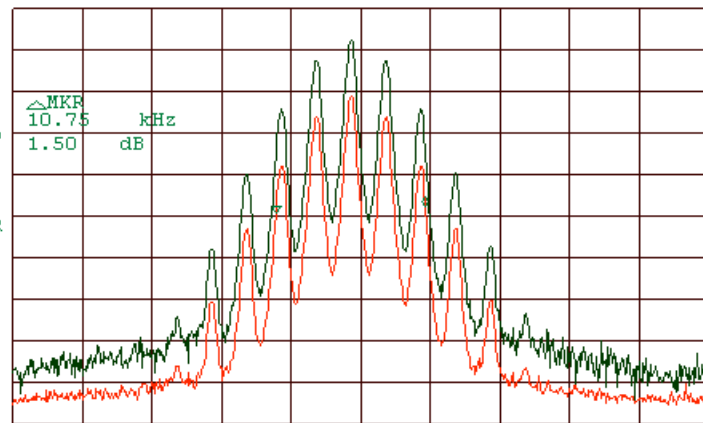
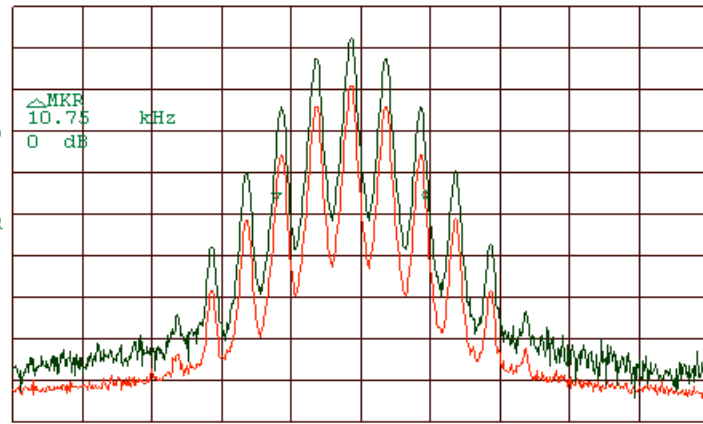
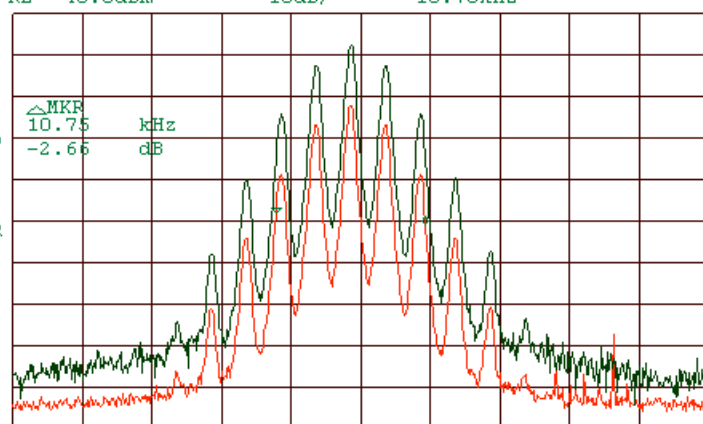
<p>Port 1 LOW channel OBW = 32.17 kHz F = 1930.05 MHz IP = 10dBm Standard = TDMA Mod = PI/4 DQPSK Bit Rate = 48.6 kbps</p> <p>Upper signal = Output power Lower signal = Incident power</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/</p> <p>△MKR -1.50dB 32.17kHz</p>  <p>CENTER 1.93005000GHz *RBW 300Hz VBW 1.0kHz SPAN 50.00kHz SWP 1.40sec</p>
<p>Port 1 MID channel OBW = 32.50 kHz F = 1960 MHz</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/</p> <p>△MKR -.17dB 32.50kHz</p>  <p>CENTER 1.96000000GHz *RBW 300Hz VBW 1.0kHz SPAN 50.00kHz SWP 1.40sec</p>
<p>Port 1 MID channel OBW = 32.17 kHz F = 1989.99 MHz</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/</p> <p>△MKR .33dB -32.17kHz</p>  <p>CENTER 1.98999000GHz *RBW 300Hz VBW 1.0kHz SPAN 50.00kHz SWP 1.40sec</p>

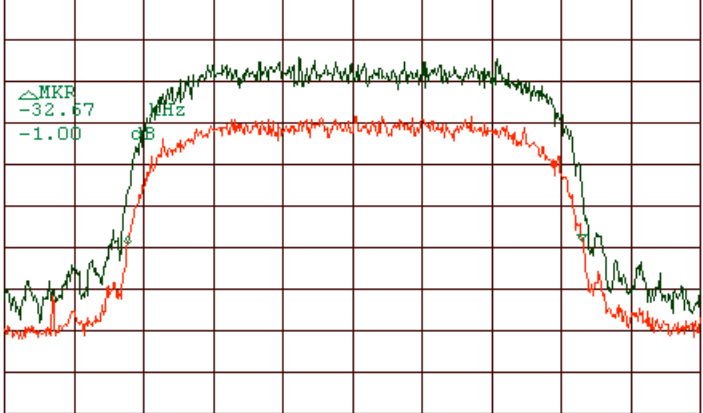
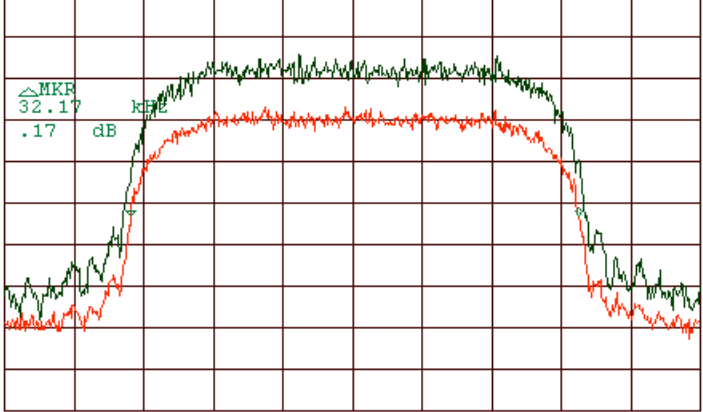
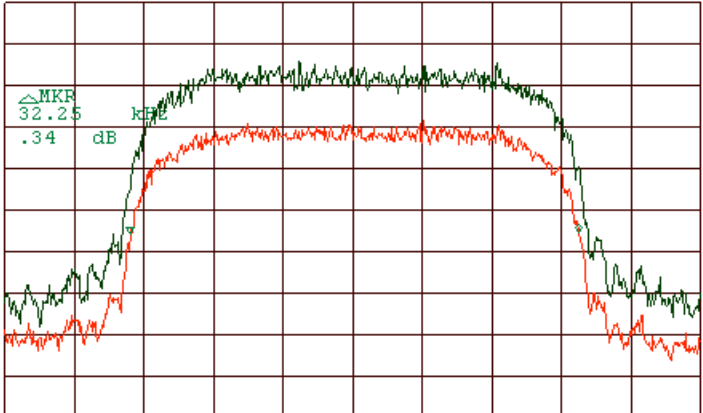
<p>Port 1 LOW channel OBW = 306.7 kHz F = 1930.2 MHz IP = 10dBm Standard = GSM Mod = GMSK Bit Rate = 270.833 kbps</p> <p>Upper signal = Output power Lower signal = Incident power</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR 0dB 306.7kHz</p> <p>CENTER 1.9302000GHz SPAN 500.0kHz *RBW 300Hz VBW 1.0kHz SWP 14.0sec</p>
<p>Port 1 MID channel OBW = 312.5 kHz F = 1960 MHz</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR 0dB 312.5kHz</p> <p>CENTER 1.9600000GHz SPAN 500.0kHz *RBW 300Hz VBW 1.0kHz SWP 14.0sec</p>
<p>Port 1 MID channel OBW = 311.7 kHz F = 1989.8 MHz</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR -.84dB 311.7kHz</p> <p>CENTER 1.9898000GHz SPAN 500.0kHz *RBW 300Hz VBW 1.0kHz SWP 14.0sec</p>

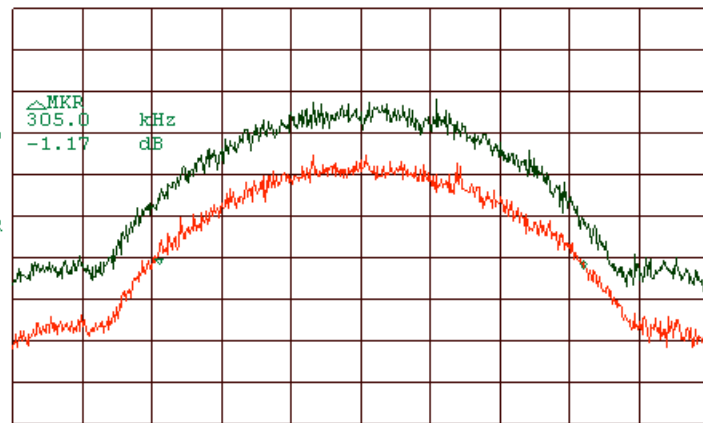
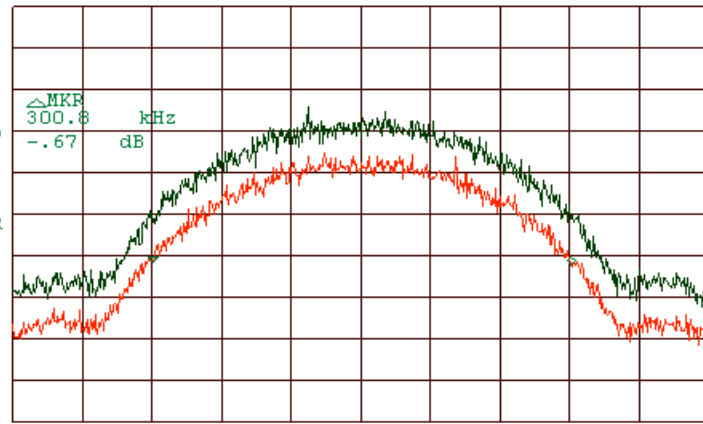
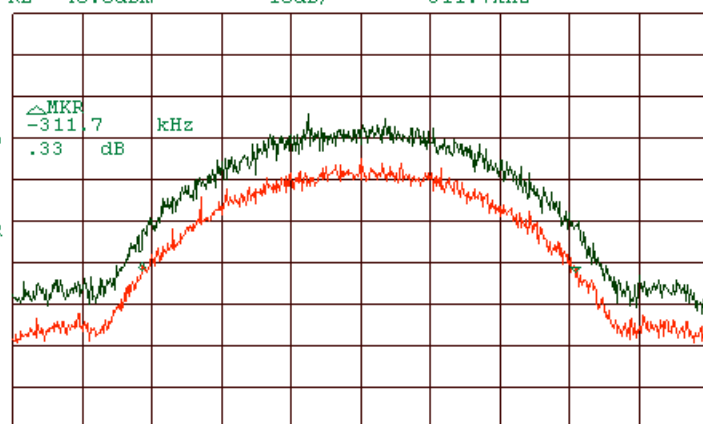
IP = 36dBm

<p>Port 1 LOW channel OBW = 1.423 MHz F = 1930.625 MHz IP = 10dBm Standard = CDMA Mod = QPSK Bit rate = 1.2288 Mbps</p> <p>Upper signal = Incident power Lower signal = Output power</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR -2.34dB 1.423MHz</p>  <p>CENTER 1.930625GHz SPAN 2.000MHz *RBW 300Hz VBW 1.0kHz SWP 56.0sec</p>
<p>Port 1 MID channel OBW = 1.413 MHz F = 1960 MHz</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR .66dB 1.413MHz</p>  <p>CENTER 1.960000GHz SPAN 2.000MHz *RBW 300Hz VBW 1.0kHz SWP 56.0sec</p>
<p>Port 1 MID channel OBW = 1.413 MHz F = 1988.75 MHz</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR -.50dB 1.413MHz</p>  <p>CENTER 1.988750GHz SPAN 2.000MHz *RBW 300Hz VBW 1.0kHz SWP 56.0sec</p>

<p>Port 1 LOW channel OBW = 1.417 kHz F = 1930.625 MHz IP = 10dBm Standard = CDMA Mod = OQPSK Bit rate = 1.2288 Mbps</p> <p>Upper signal = Incident power Lower signal = Output power</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR 1.417MHz .17dB</p>  <p>CENTER 1.930625GHz *RBW 300Hz VBW 1.0kHz SPAN 2.000MHz SWP 56.0sec</p>
<p>Port 1 MID channel OBW = 1.417 kHz F = 1960 MHz</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR 1.417MHz -1.00dB</p>  <p>CENTER 1.960000GHz *RBW 300Hz VBW 1.0kHz SPAN 2.000MHz SWP 56.0sec</p>
<p>Port 1 MID channel OBW = 1.417 kHz F = 1988.75 MHz</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR 1.417MHz .66dB</p>  <p>CENTER 1.988750GHz *RBW 300Hz VBW 1.0kHz SPAN 2.000MHz SWP 56.0sec</p>

<p>Port 1 LOW channel OBW = 10.75 kHz F = 1930.0125 MHz IP = 10dBm Standard = FM Mod = FM Deviation = 2.5 kHz Rate = 2500 Hz</p> <p>Upper signal = Incident power Lower signal = Output power</p>	<p>ATTEN 10dB RL 40.0dBm 10dB/</p> <p>△MKR 1.50dB 10.75kHz</p>  <p>CENTER 1.93001250GHz *RBW 300Hz VBW 1.0kHz SPAN 50.00kHz SWP 1.40sec</p>
<p>Port 1 MID channel OBW = 10.75 kHz F = 1960 MHz</p>	<p>ATTEN 10dB RL 40.0dBm 10dB/</p> <p>△MKR 0dB 10.75kHz</p>  <p>CENTER 1.96000000GHz *RBW 300Hz VBW 1.0kHz SPAN 50.00kHz SWP 1.40sec</p>
<p>Port 1 MID channel OBW = 10.75 kHz F = 1989.9875 MHz</p>	<p>ATTEN 10dB RL 40.0dBm 10dB/</p> <p>△MKR -2.66dB 10.75kHz</p>  <p>CENTER 1.98998750GHz *RBW 300Hz VBW 1.0kHz SPAN 50.00kHz SWP 1.40sec</p>

<p>Port 1 LOW channel OBW = 32.67 kHz F = 1930.05 MHz IP = 10dBm Standard = TDMA Mod = PI/4 DQPSK Bit Rate = 48.6 kbps</p> <p>Upper signal = Incident power Lower signal = Output power</p>	<p>ATTEN 10dB ΔMKR -1.00dB RL 40.0dBm 10dB/ -32.67kHz</p>  <p>CENTER 1.93005000GHz SPAN 50.00kHz *RBW 300Hz VBW 1.0kHz SWP 1.40sec</p>
<p>Port 1 MID channel OBW = 32.17 kHz F = 1960 MHz</p>	<p>ATTEN 10dB ΔMKR .17dB RL 40.0dBm 10dB/ 32.17kHz</p>  <p>CENTER 1.96000000GHz SPAN 50.00kHz *RBW 300Hz VBW 1.0kHz SWP 1.40sec</p>
<p>Port 1 MID channel OBW = 32.25 kHz F = 1989.99 MHz</p>	<p>ATTEN 10dB ΔMKR .34dB RL 40.0dBm 10dB/ 32.25kHz</p>  <p>CENTER 1.98999000GHz SPAN 50.00kHz *RBW 300Hz VBW 1.0kHz SWP 1.40sec</p>

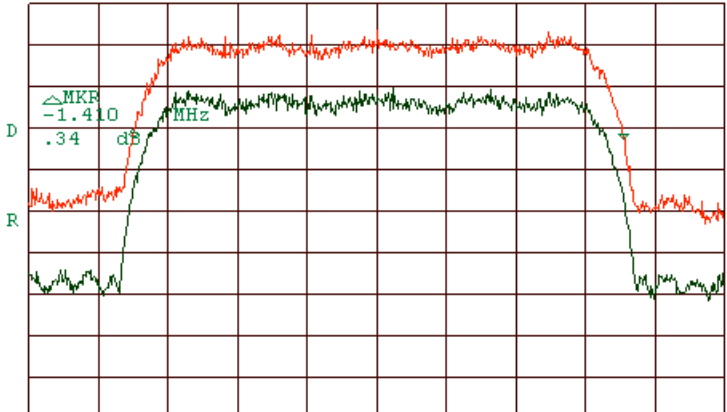
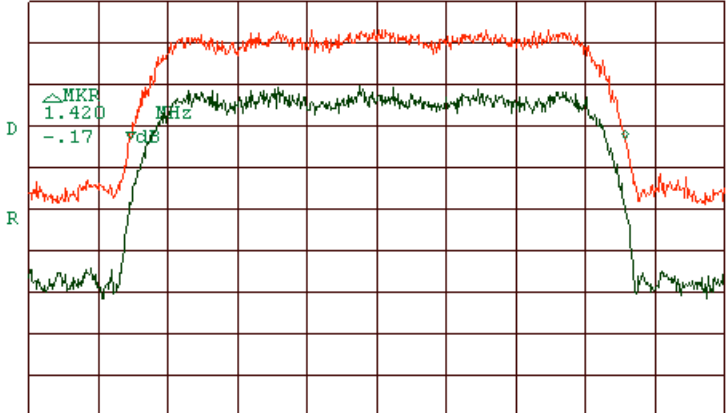
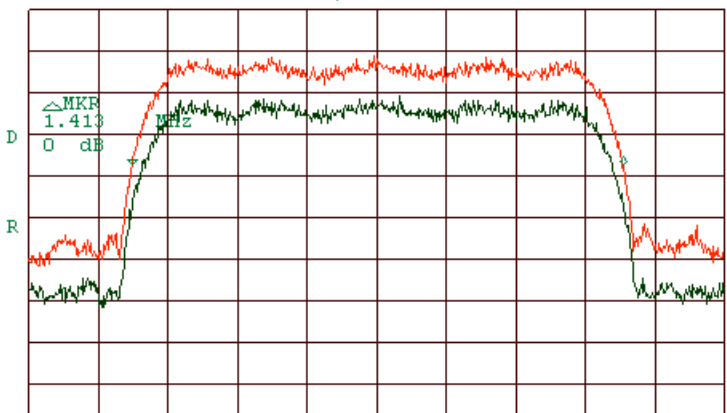
<p>Port 1 LOW channel OBW = 305.0 kHz F = 1930.2 MHz IP = 10dBm Standard = GSM Mod = GMSK Bit Rate = 270.833 kbps</p> <p>Upper signal = Incident power Lower signal = Output power</p>	<p>ATTEN 10dB RL 40.0dBm 10dB/</p> <p>△MKR -1.17dB 305.0kHz</p>  <p>CENTER 1.9302000GHz SPAN 500.0kHz *RBW 300Hz VBW 1.0kHz SWP 14.0sec</p>
<p>Port 1 MID channel OBW = 300.8 kHz F = 1960 MHz</p>	<p>ATTEN 10dB RL 40.0dBm 10dB/</p> <p>△MKR -.67dB 300.8kHz</p>  <p>CENTER 1.9600000GHz SPAN 500.0kHz *RBW 300Hz VBW 1.0kHz SWP 14.0sec</p>
<p>Port 1 MID channel OBW = 311.7 kHz F = 1989.8 MHz</p>	<p>ATTEN 10dB RL 40.0dBm 10dB/</p> <p>△MKR .33dB -311.7kHz</p>  <p>CENTER 1.9898000GHz SPAN 500.0kHz *RBW 300Hz VBW 1.0kHz SWP 14.0sec</p>

Date 18 May 2004
Test Occupied bandwidth
Project 15867, Mobile Access 1200 Add-on (optical module)
Humidity 46%
Temperature 24 C
Air pressure 1014hPa
Test equipment 521, 1947, 121, 589, 603
Assigned band Downlink: 1930 – 1990MHz Uplink: 1850 – 1910MHz
IP = input power
Op = output power
G = gain
Mod = input modulation

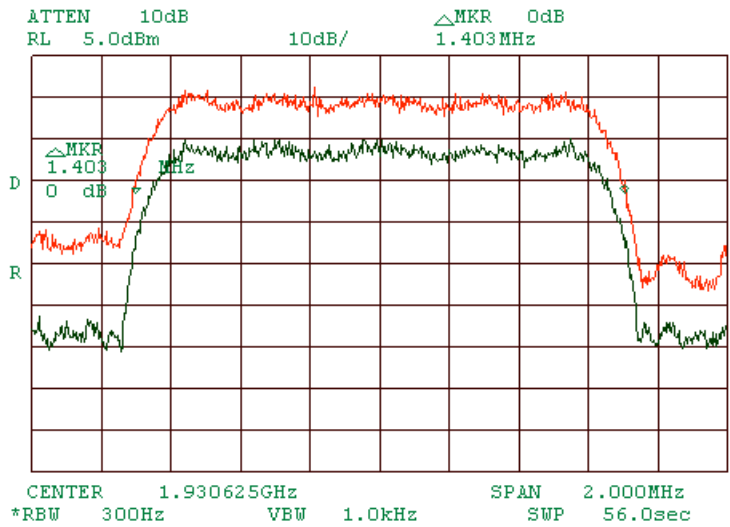
Occupied bandwidth DOWNLINK

$F_{LOW} = 1930.0125 \text{ MHz}$
 $F_{MID} = 1960 \text{ MHz}$
 $F_{HIGH} = 1989.9875 \text{ MHz}$

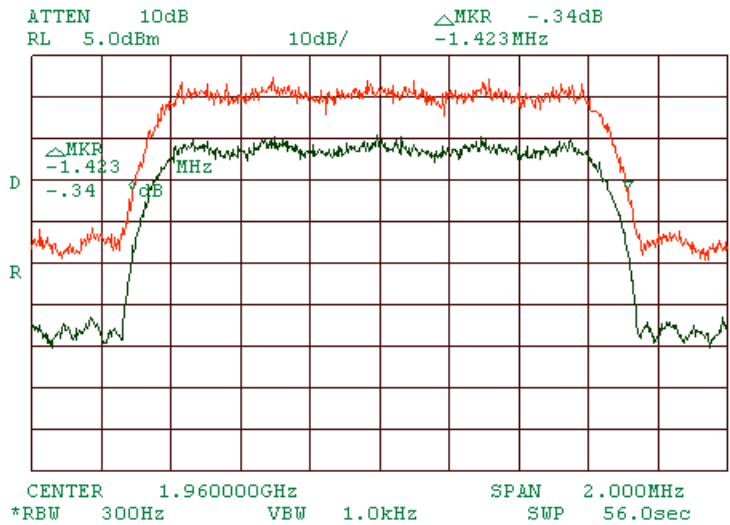
IP = 10dBm

<p>Port 1 LOW channel OBW = 1.41 MHz F = 1930.625 MHz IP = 10dBm Standard = CDMA Mod = QPSK Bit rate = 1.2288 Mbps</p> <p>Upper signal = Output power Lower signal = Incident power</p>	<p>ATTEN 10dB RL 5.0dBm 10dB/</p> <p>△MKR .34dB -1.410MHz</p>  <p>CENTER 1.930624GHz SPAN 2.000MHz *RBW 300Hz VBW 1.0kHz SWP 56.0sec</p>
<p>Port 1 MID channel OBW = 1.42 MHz F = 1960 MHz</p>	<p>ATTEN 10dB RL 5.0dBm 10dB/</p> <p>△MKR -.17dB 1.420MHz</p>  <p>CENTER 1.960000GHz SPAN 2.000MHz *RBW 300Hz VBW 1.0kHz SWP 56.0sec</p>
<p>Port 1 HIGH channel OBW = 1.413 MHz F = 1988.75 MHz</p>	<p>ATTEN 10dB RL 5.0dBm 10dB/</p> <p>△MKR 0dB 1.413MHz</p>  <p>CENTER 1.988750GHz SPAN 2.000MHz *RBW 300Hz VBW 1.0kHz SWP 56.0sec</p>

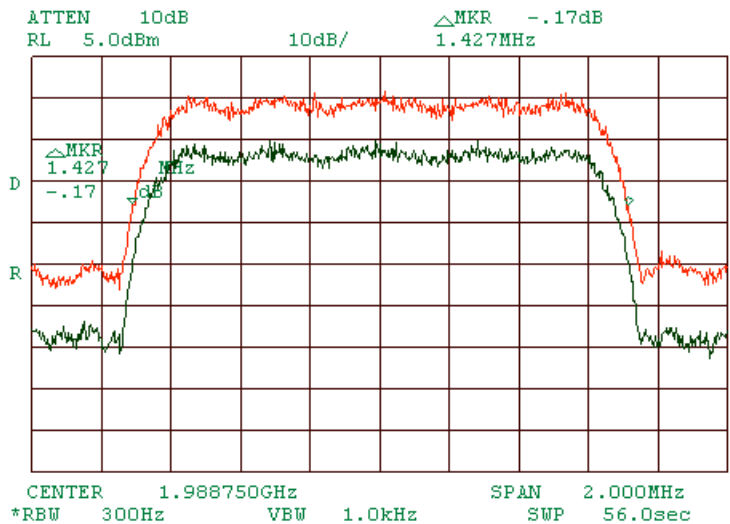
Port 1 LOW channel
 OBW = 1.403 MHz
 F = 1930.625 MHz
 IP = 10dBm
 Standard = CDMA
 Mod = OQPSK
 Bit rate = 1.2288 Mbps
 Upper signal = Output power
 Lower signal = Incident power

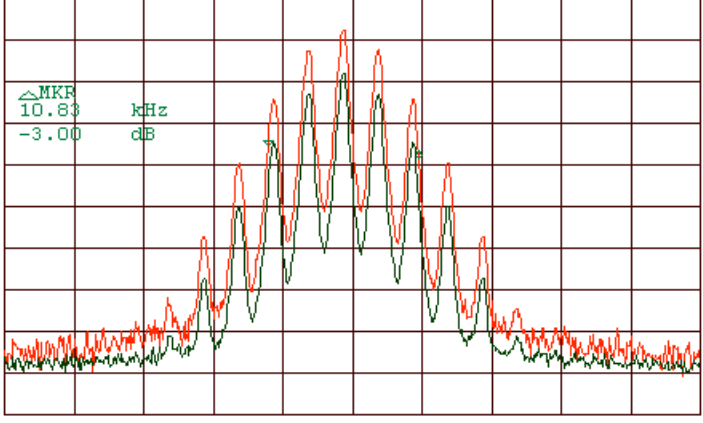
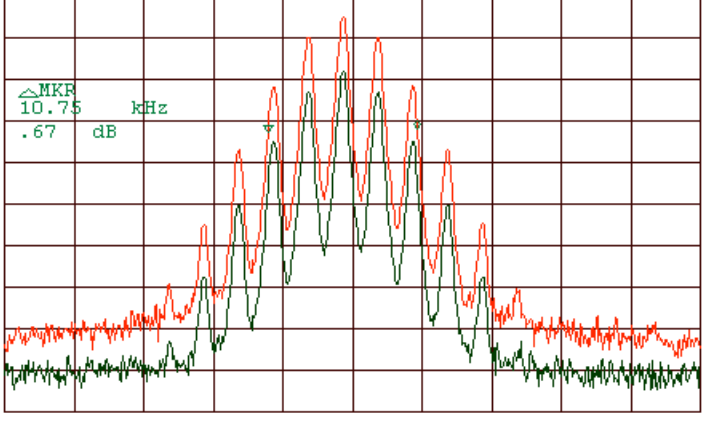
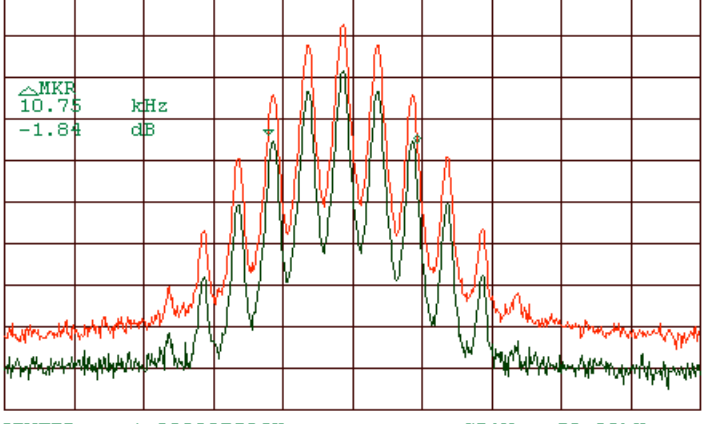


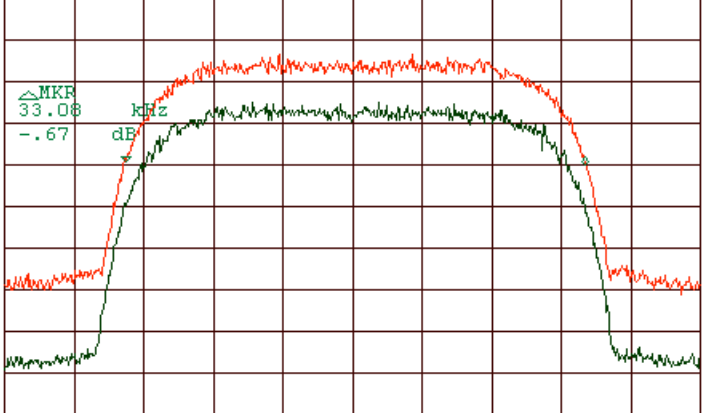
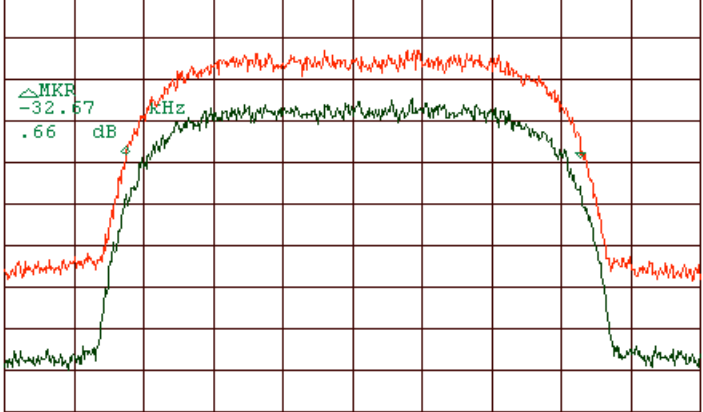
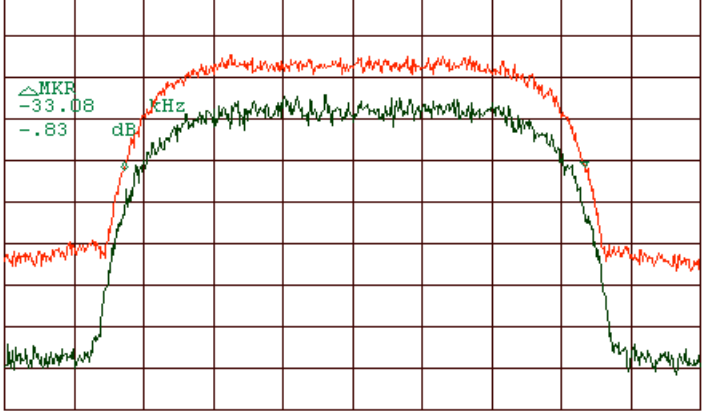
Port 1 MID channel
 OBW = 1.423 MHz
 F = 1960 MHz

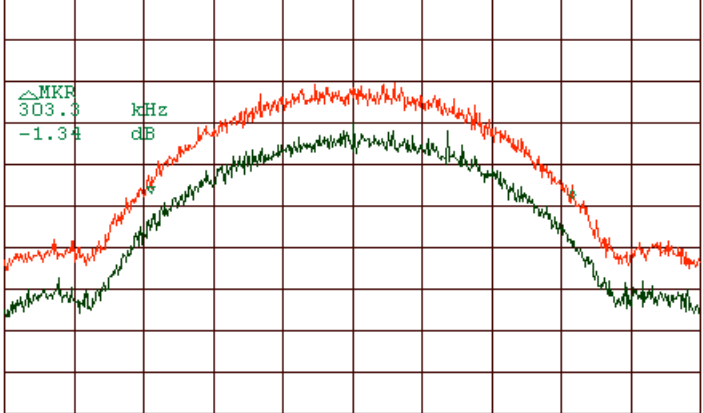
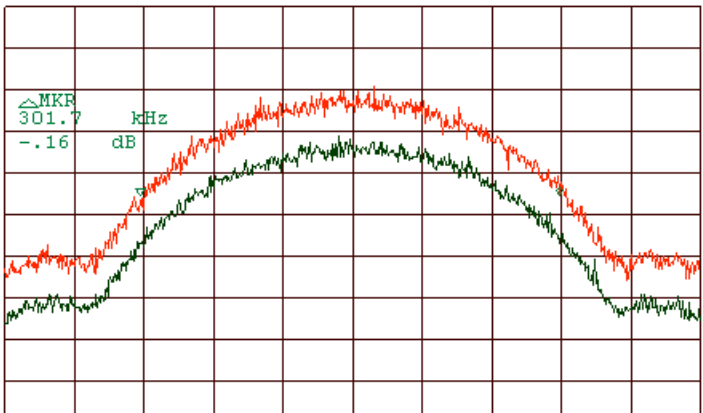
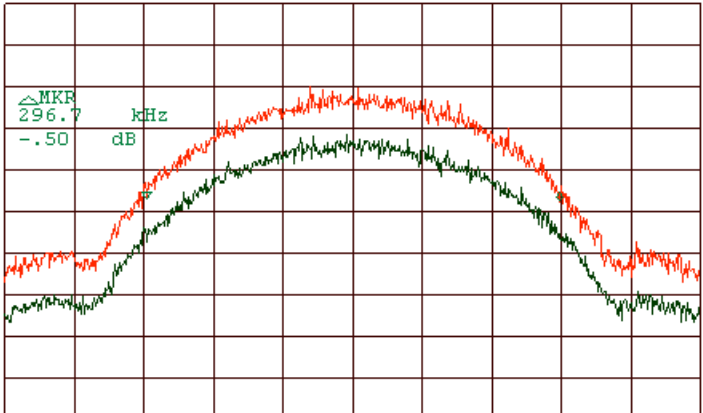


Port 1 HIGH channel
 OBW = 1.427 MHz
 F = 1988.75 MHz

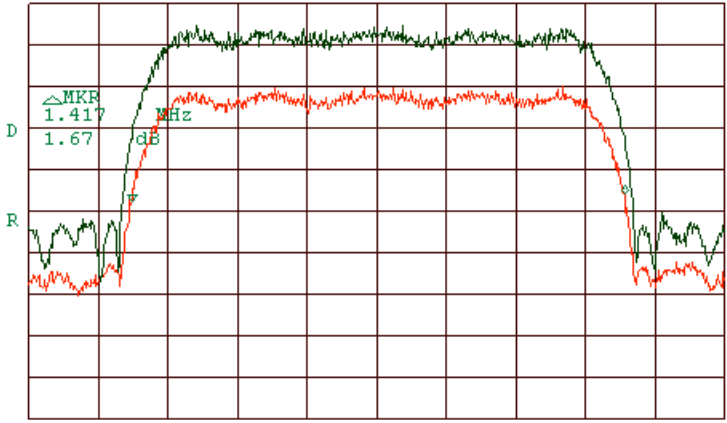
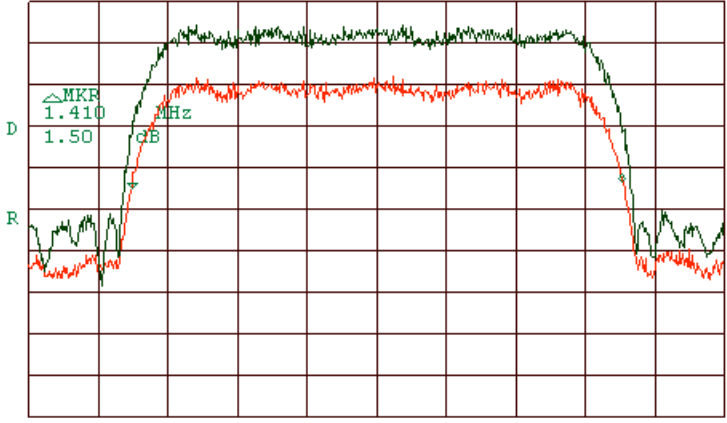
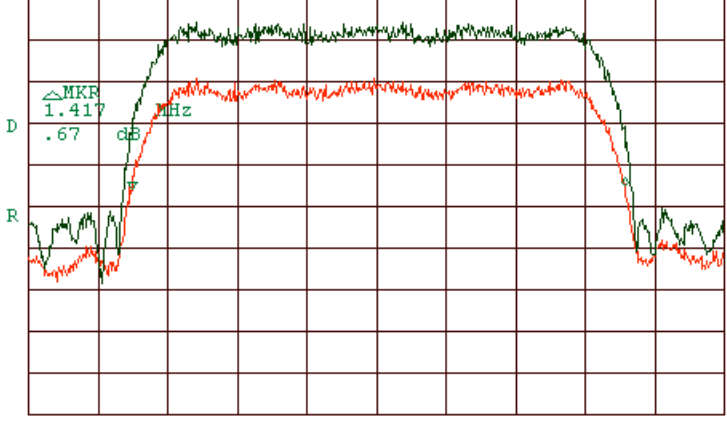


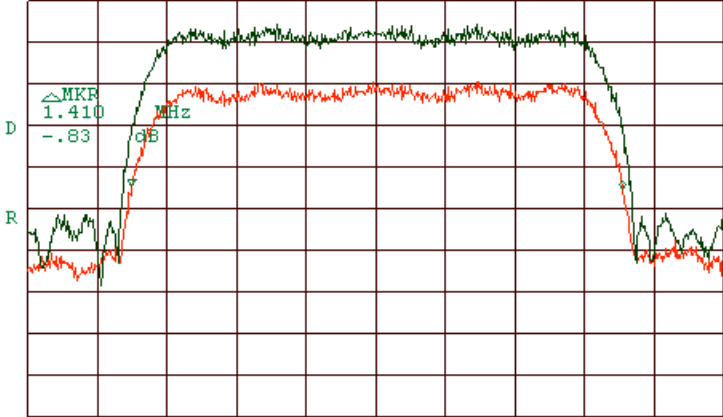

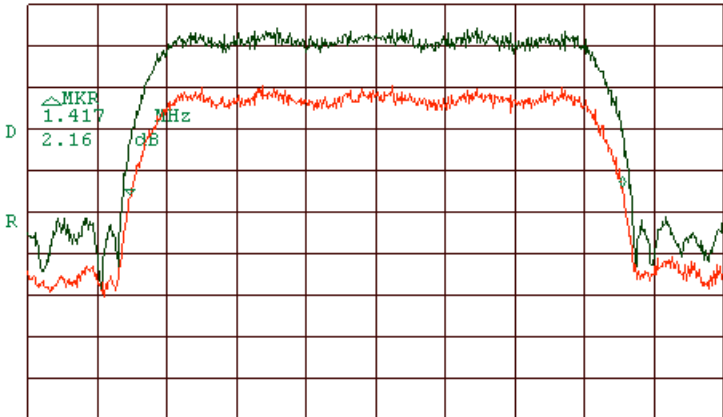
<p>Port 1 LOW channel</p> <p>OBW = 10.83 kHz</p> <p>F = 1930.0125 MHz</p> <p>IP = 10dBm</p> <p>Standard = FM</p> <p>Mod = FM</p> <p>Deviation = 2.5 kHz</p> <p>Rate = 2500 Hz</p> <p>Upper signal = Output power</p> <p>Lower signal = Incident power</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR -3.00dB 10.83kHz</p>  <p>CENTER 1.93001250GHz SPAN 50.00kHz *RBW 300Hz VBW 1.0kHz SWP 1.40sec</p>
<p>Port 1 MID channel</p> <p>OBW = 10.75 kHz</p> <p>F = 1960 MHz</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR .67dB 10.75kHz</p>  <p>CENTER 1.96000000GHz SPAN 50.00kHz *RBW 300Hz VBW 1.0kHz SWP 1.40sec</p>
<p>Port 1 HIGH channel</p> <p>OBW = 10.75 kHz</p> <p>F = 1989.9875 MHz</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR -1.84dB 10.75kHz</p>  <p>CENTER 1.98998750GHz SPAN 50.00kHz *RBW 300Hz VBW 1.0kHz SWP 1.40sec</p>

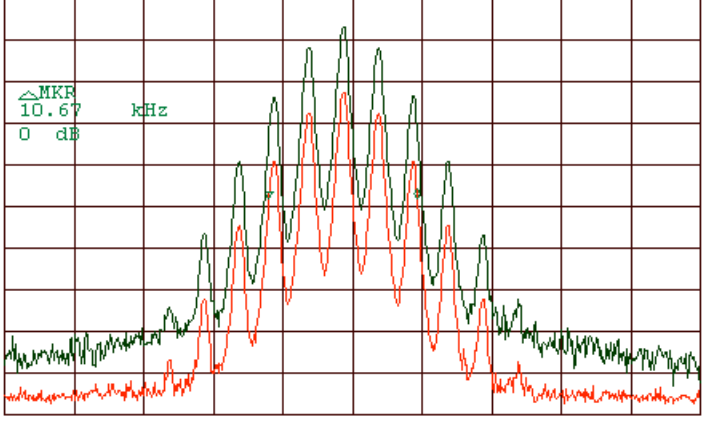
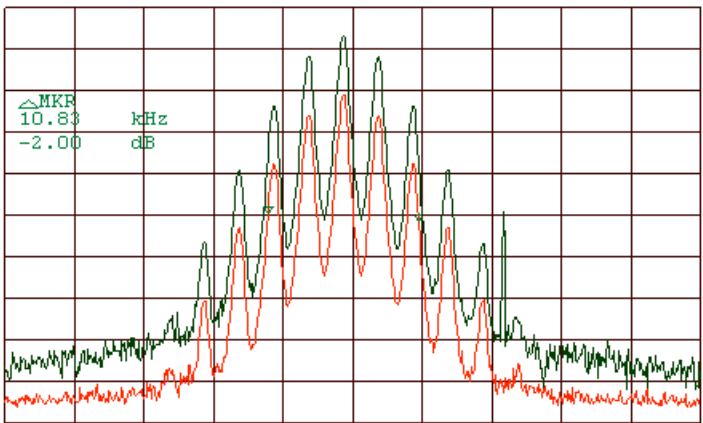
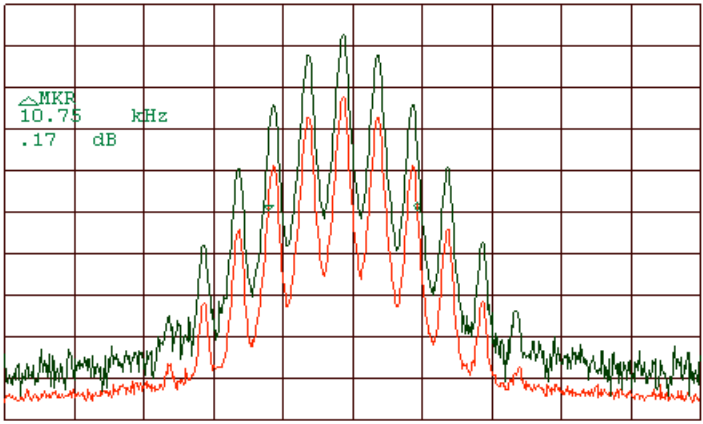
<p>Port 1 LOW channel</p> <p>OBW = 33.08 kHz</p> <p>F = 1930.05 MHz</p> <p>IP = 10dBm</p> <p>Standard = TDMA</p> <p>Mod = PI/4 DQPSK</p> <p>Bit Rate = 48.6 kbps</p> <p>Upper signal = Output power</p> <p>Lower signal = Incident power</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR -.67dB 33.08kHz</p>  <p>CENTER 1.93005000GHz SPAN 50.00kHz *RBW 300Hz VBW 1.0kHz SWP 1.40sec</p>
<p>Port 1 MID channel</p> <p>OBW = 32.67 kHz</p> <p>F = 1960 MHz</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR .66dB -32.67kHz</p>  <p>CENTER 1.96000000GHz SPAN 50.00kHz *RBW 300Hz VBW 1.0kHz SWP 1.40sec</p>
<p>Port 1 HIGH channel</p> <p>OBW = 33.08 kHz</p> <p>F = 1989.99 MHz</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR -.83dB -33.08kHz</p>  <p>CENTER 1.98999000GHz SPAN 50.00kHz *RBW 300Hz VBW 1.0kHz SWP 1.40sec</p>

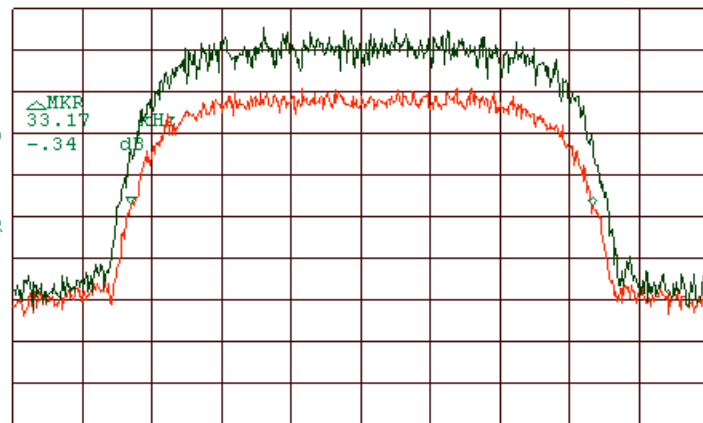
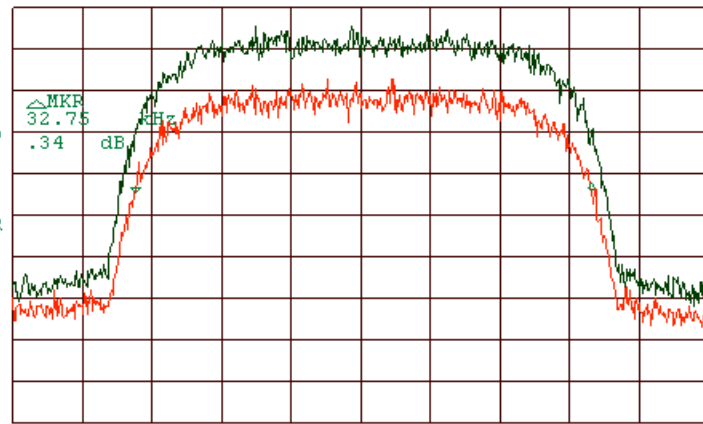
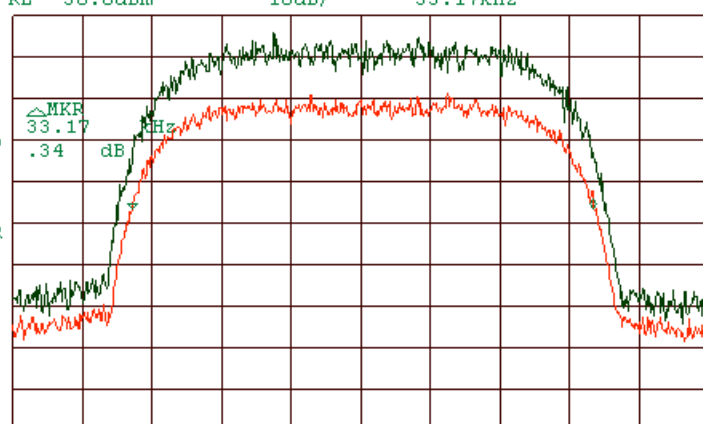
<p>Port 1 LOW channel</p> <p>OBW = 303.3 kHz</p> <p>F = 1930.2 MHz</p> <p>IP = 10dBm</p> <p>Standard = GSM</p> <p>Mod = GMSK</p> <p>Bit Rate = 270.833 kbps</p> <p>Upper signal = Output power</p> <p>Lower signal = Incident power</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR -1.34dB 303.3kHz</p>  <p>CENTER 1.9302000GHz SPAN 500.0kHz *RBW 300Hz VBW 1.0kHz SWP 14.0sec</p>
<p>Port 1 MID channel</p> <p>OBW = 301.7 kHz</p> <p>F = 1960 MHz</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR -.16dB 301.7kHz</p>  <p>CENTER 1.9600000GHz SPAN 500.0kHz *RBW 300Hz VBW 1.0kHz SWP 14.0sec</p>
<p>Port 1 HIGH channel</p> <p>OBW = 33.08 kHz</p> <p>F = 1989.8 MHz</p>	<p>ATTEN 10dB RL 25.0dBm 10dB/ ΔMKR -.50dB 296.7kHz</p>  <p>CENTER 1.9898000GHz SPAN 500.0kHz *RBW 300Hz VBW 1.0kHz SWP 14.0sec</p>

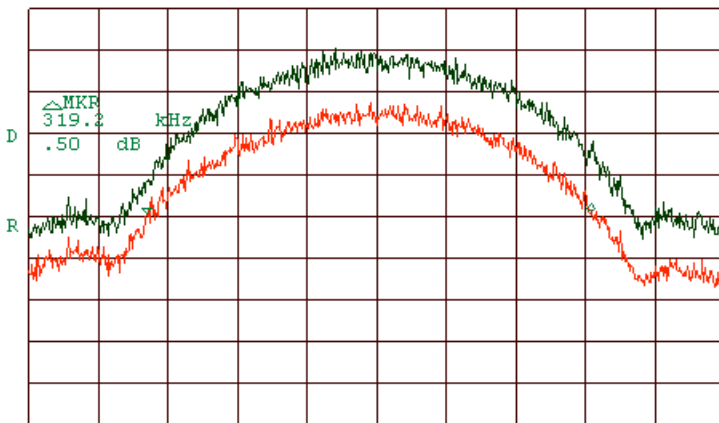
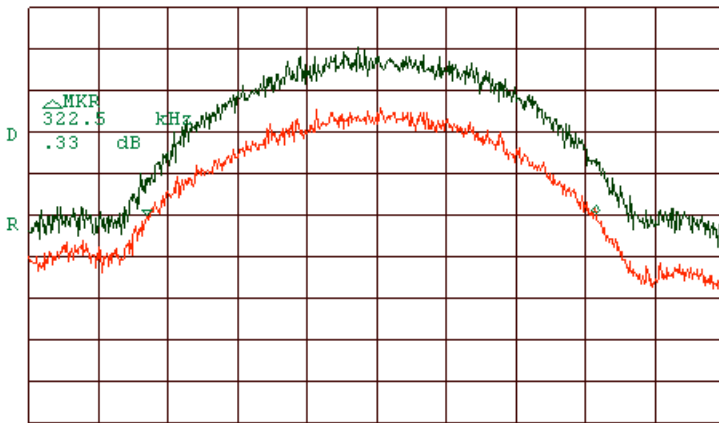
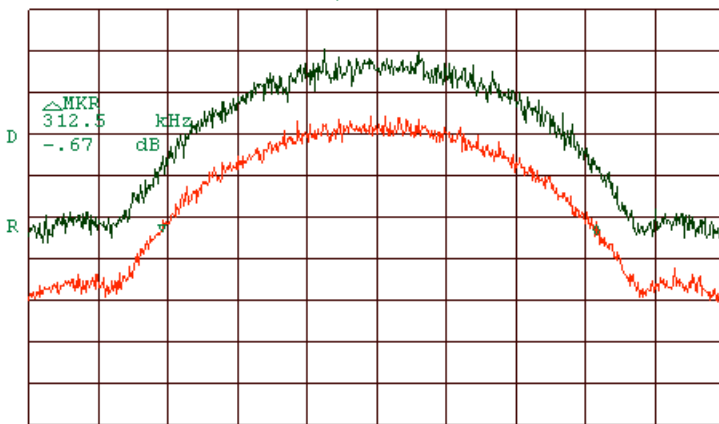
IP = 36dBm

<p>Port 1 LOW channel OBW = 1.417 MHz F = 1930.625 MHz IP = 36dBm Standard = CDMA Mod = QPSK Bit rate = 1.2288 Mbps</p> <p>Upper signal = Incident power Lower signal = Output power</p>	<p>ATTEN 10dB RL 15.0dBm 10dB/ ΔMKR 1.67dB 1.417MHz</p>  <p>CENTER 1.930625GHz SPAN 2.000MHz *RBW 300Hz VBW 1.0kHz SWP 56.0sec</p>
<p>Port 1 MID channel OBW = 1.410 MHz F = 1960 MHz</p>	<p>ATTEN 10dB RL 15.0dBm 10dB/ ΔMKR 1.50dB 1.410MHz</p>  <p>CENTER 1.960000GHz SPAN 2.000MHz *RBW 300Hz VBW 1.0kHz SWP 56.0sec</p>
<p>Port 1 HIGH channel OBW = 1.417 MHz F = 1988.75 MHz</p>	<p>ATTEN 10dB RL 15.0dBm 10dB/ ΔMKR .67dB 1.417MHz</p>  <p>CENTER 1.988750GHz SPAN 2.000MHz *RBW 300Hz VBW 1.0kHz SWP 56.0sec</p>

<p>Port 1 LOW channel OBW = 1.410 kHz F = 1930.625 MHz IP = 36dBm Standard = CDMA Mod = OQPSK Bit rate = 1.2288 Mbps</p> <p>Upper signal = Incident power Lower signal = Output power</p>	<p>ATTEN 10dB RL 15.0dBm 10dB/ ΔMKR -0.83dB 1.410MHz</p>  <p>CENTER 1.930625GHz SPAN 2.000MHz *RBW 300Hz VBW 1.0kHz SWP 56.0sec</p>
<p>Port 1 MID channel OBW = 1.403 kHz F = 1960 MHz</p>	<p>ATTEN 10dB RL 15.0dBm 10dB/ ΔMKR 0.16dB 1.403MHz</p>  <p>CENTER 1.960000GHz SPAN 2.000MHz *RBW 300Hz VBW 1.0kHz SWP 56.0sec</p>
<p>Port 1 HIGH channel OBW = 1.417 kHz F = 1988.75 MHz</p>	<p>ATTEN 10dB RL 15.0dBm 10dB/ ΔMKR 2.16dB 1.417MHz</p>  <p>CENTER 1.988750GHz SPAN 2.000MHz *RBW 300Hz VBW 1.0kHz SWP 56.0sec</p>

<p>Port 1 LOW channel</p> <p>OBW = 10.67 kHz</p> <p>F = 1930.0125 MHz</p> <p>IP = 36dBm</p> <p>Standard = FM</p> <p>Mod = FM</p> <p>Deviation = 2.5 kHz</p> <p>Rate = 2500 Hz</p> <p>Upper signal = Incident power</p> <p>Lower signal = Output power</p>	<p>ATTEN 10dB RL 40.0dBm 10dB/ ΔMKR 0dB 10.67kHz</p>  <p>D ΔMKR 10.67 kHz 0 dB</p> <p>R</p> <p>CENTER 1.93001250GHz SPAN 50.00kHz *RBW 300Hz VBW 1.0kHz SWP 1.40sec</p>
<p>Port 1 MID channel</p> <p>OBW = 10.83 kHz</p> <p>F = 1960 MHz</p>	<p>ATTEN 10dB RL 40.0dBm 10dB/ ΔMKR -2.00dB 10.83kHz</p>  <p>D ΔMKR 10.83 kHz -2.00 dB</p> <p>R</p> <p>CENTER 1.96000000GHz SPAN 50.00kHz *RBW 300Hz VBW 1.0kHz SWP 1.40sec</p>
<p>Port 1 HIGH channel</p> <p>OBW = 10.75 kHz</p> <p>F = 1989.9875 MHz</p>	<p>ATTEN 10dB RL 40.0dBm 10dB/ ΔMKR .17dB 10.75kHz</p>  <p>D ΔMKR 10.75 kHz .17 dB</p> <p>R</p> <p>CENTER 1.98898750GHz SPAN 50.00kHz *RBW 300Hz VBW 1.0kHz SWP 1.40sec</p>

<p>Port 1 LOW channel</p> <p>OBW = 33.17 kHz</p> <p>F = 1930.05 MHz</p> <p>IP = 36dBm</p> <p>Standard = TDMA</p> <p>Mod = PI/4 DQPSK</p> <p>Bit Rate = 48.6 kbps</p> <p>Upper signal = Incident power</p> <p>Lower signal = Output power</p>	<p>ATTEN 10dB ΔMKR -.34dB</p> <p>RL 30.0dBm 10dB/ 33.17kHz</p>  <p>CENTER 1.93005000GHz SPAN 50.00kHz</p> <p>*RBW 300Hz VBW 1.0kHz SWP 1.40sec</p>
<p>Port 1 MID channel</p> <p>OBW = 32.75 kHz</p> <p>F = 1960 MHz</p>	<p>ATTEN 10dB ΔMKR .34dB</p> <p>RL 30.0dBm 10dB/ 32.75kHz</p>  <p>CENTER 1.96000000GHz SPAN 50.00kHz</p> <p>*RBW 300Hz VBW 1.0kHz SWP 1.40sec</p>
<p>Port 1 HIGH channel</p> <p>OBW = 33.17 kHz</p> <p>F = 1989.99 MHz</p>	<p>ATTEN 10dB ΔMKR .34dB</p> <p>RL 30.0dBm 10dB/ 33.17kHz</p>  <p>CENTER 1.98999000GHz SPAN 50.00kHz</p> <p>*RBW 300Hz VBW 1.0kHz SWP 1.40sec</p>

<p>Port 1 LOW channel</p> <p>OBW = 319.2 kHz</p> <p>F = 1930.2 MHz</p> <p>IP = 36dBm</p> <p>Standard = GSM</p> <p>Mod = GMSK</p> <p>Bit Rate = 270.833 kbps</p> <p>Upper signal = Incident power</p> <p>Lower signal = Output power</p>	<p>ATTEN 10dB RL 30.0dBm 10dB/ ΔMKR .50dB 319.2kHz</p>  <p>CENTER 1.9302000GHz SPAN 500.0kHz *RBW 300Hz VBW 1.0kHz SWP 14.0sec</p>
<p>Port 1 MID channel</p> <p>OBW = 322.5 kHz</p> <p>F = 1960 MHz</p>	<p>ATTEN 10dB RL 30.0dBm 10dB/ ΔMKR .33dB 322.5kHz</p>  <p>CENTER 1.9600000GHz SPAN 500.0kHz *RBW 300Hz VBW 1.0kHz SWP 14.0sec</p>
<p>Port 1 HIGH channel</p> <p>OBW = 312.5 kHz</p> <p>F = 1989.8 MHz</p>	<p>ATTEN 10dB RL 30.0dBm 10dB/ ΔMKR -.67dB 312.5kHz</p>  <p>CENTER 1.9898000GHz SPAN 500.0kHz *RBW 300Hz VBW 1.0kHz SWP 14.0sec</p>