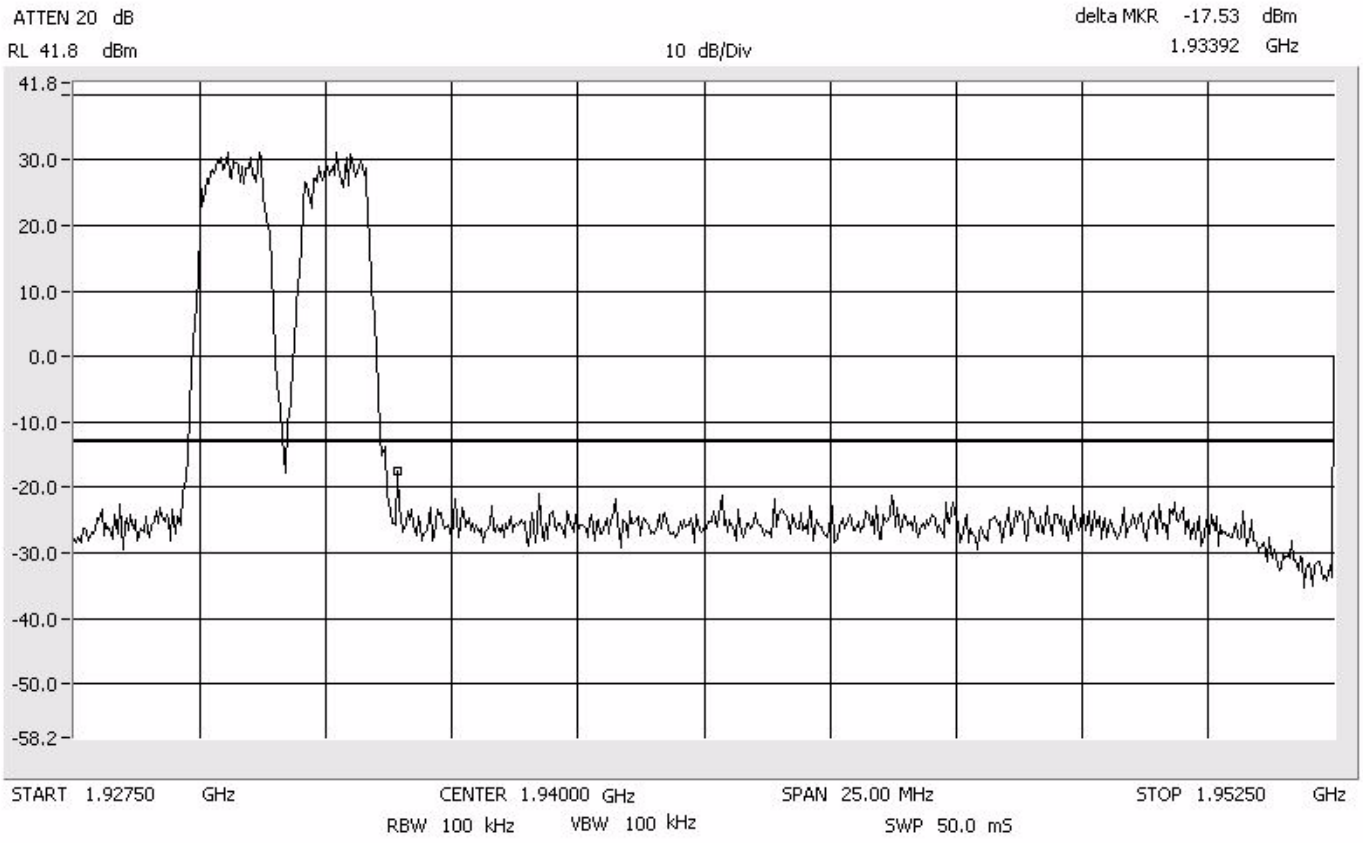
CDMA
AD Band

Intermodulation
Close - Lower
PCS 1900 MHz

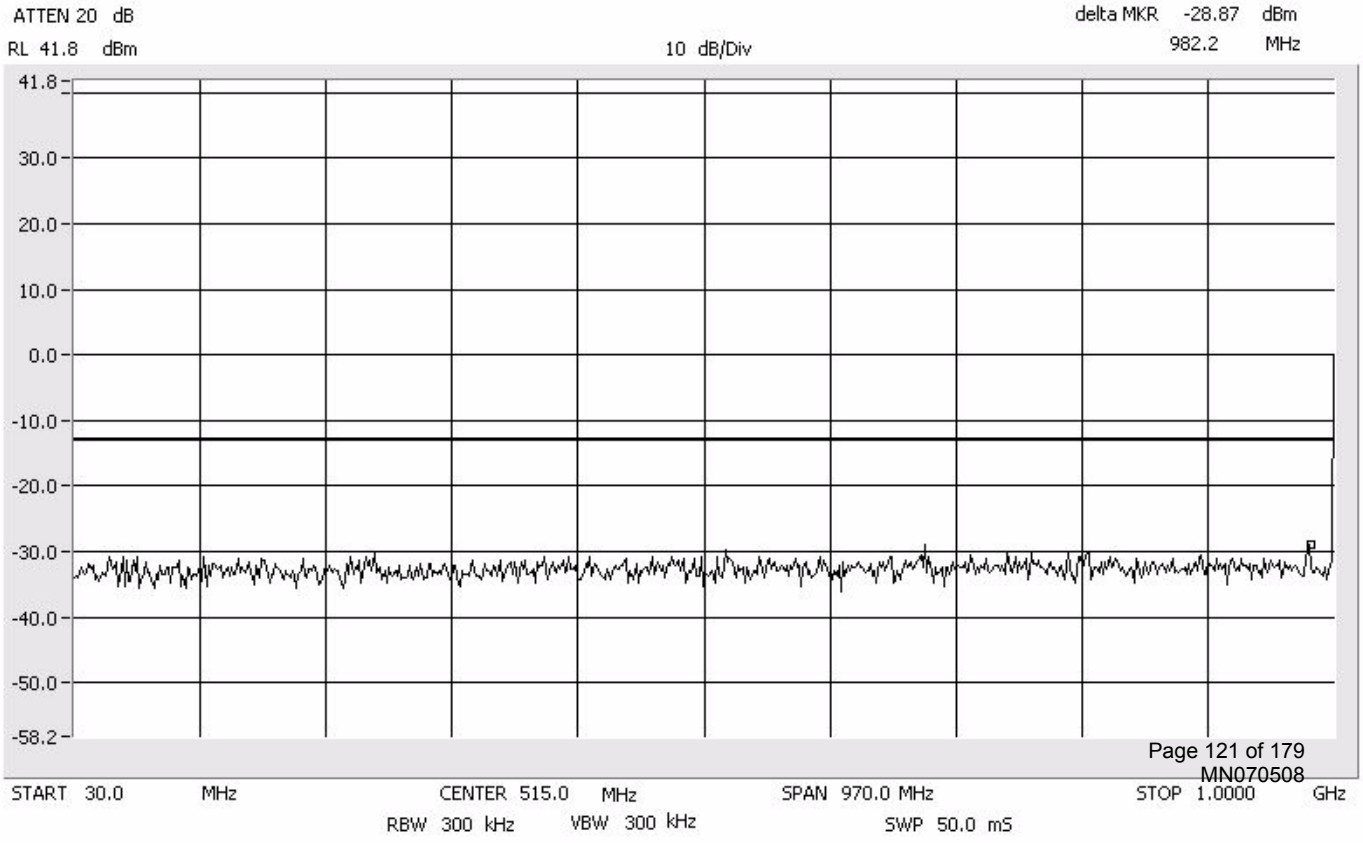
Center: 1940.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



CDMA
AD Band

Intermodulation
Close - Lower
PCS 1900 MHz

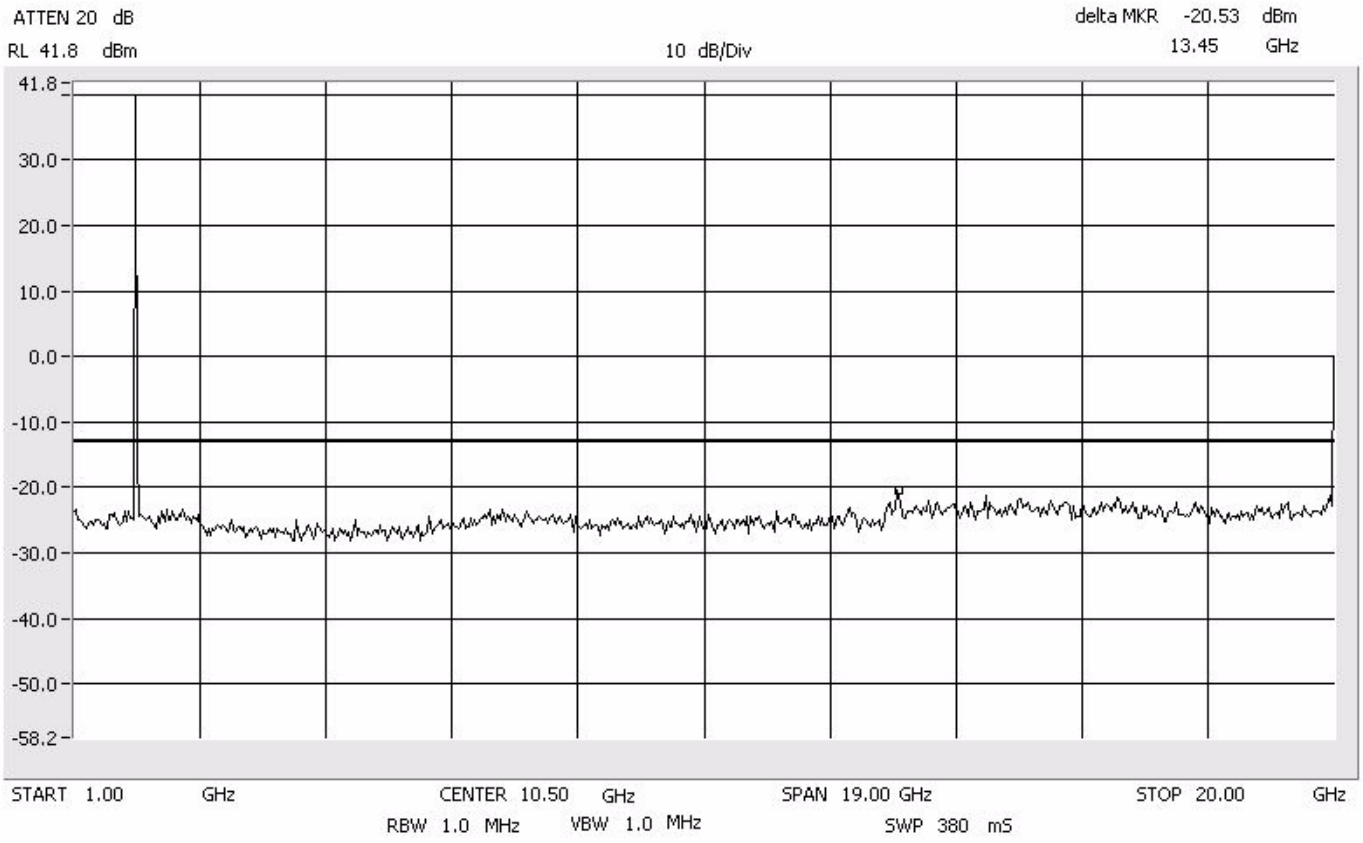
Span: 30 MHz to 1 GHz
RBW/VBW: 300 kHz



CDMA
AD Band

Intermodulation
Close - Lower
PCS 1900 MHz

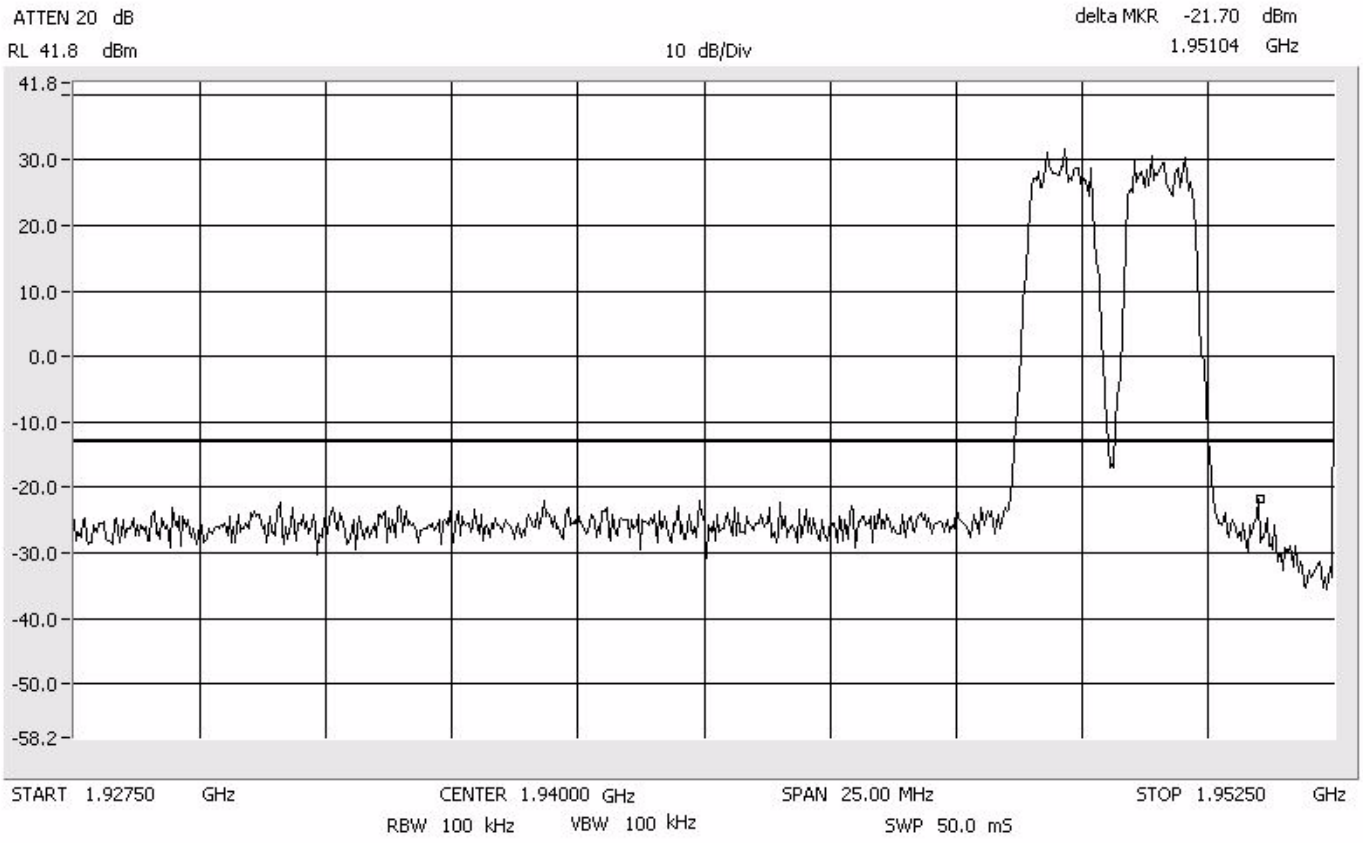
Span: 1 GHz to 20 GHz
RBW/VBW: 1 MHz



CDMA
AD Band

Intermodulation
Close - Upper
PCS 1900 MHz

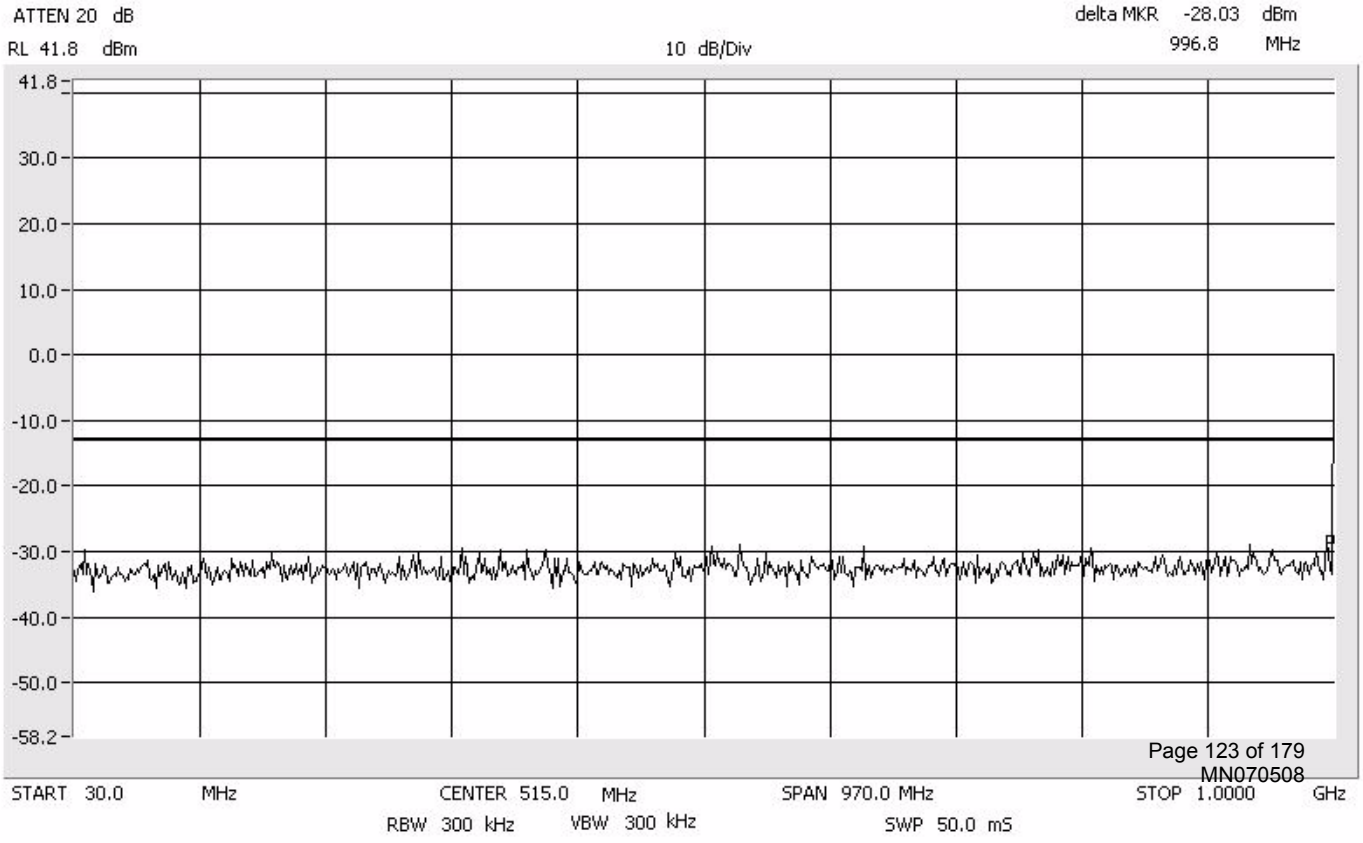
Center: 1940.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



CDMA
AD Band

Intermodulation
Close - Upper
PCS 1900 MHz

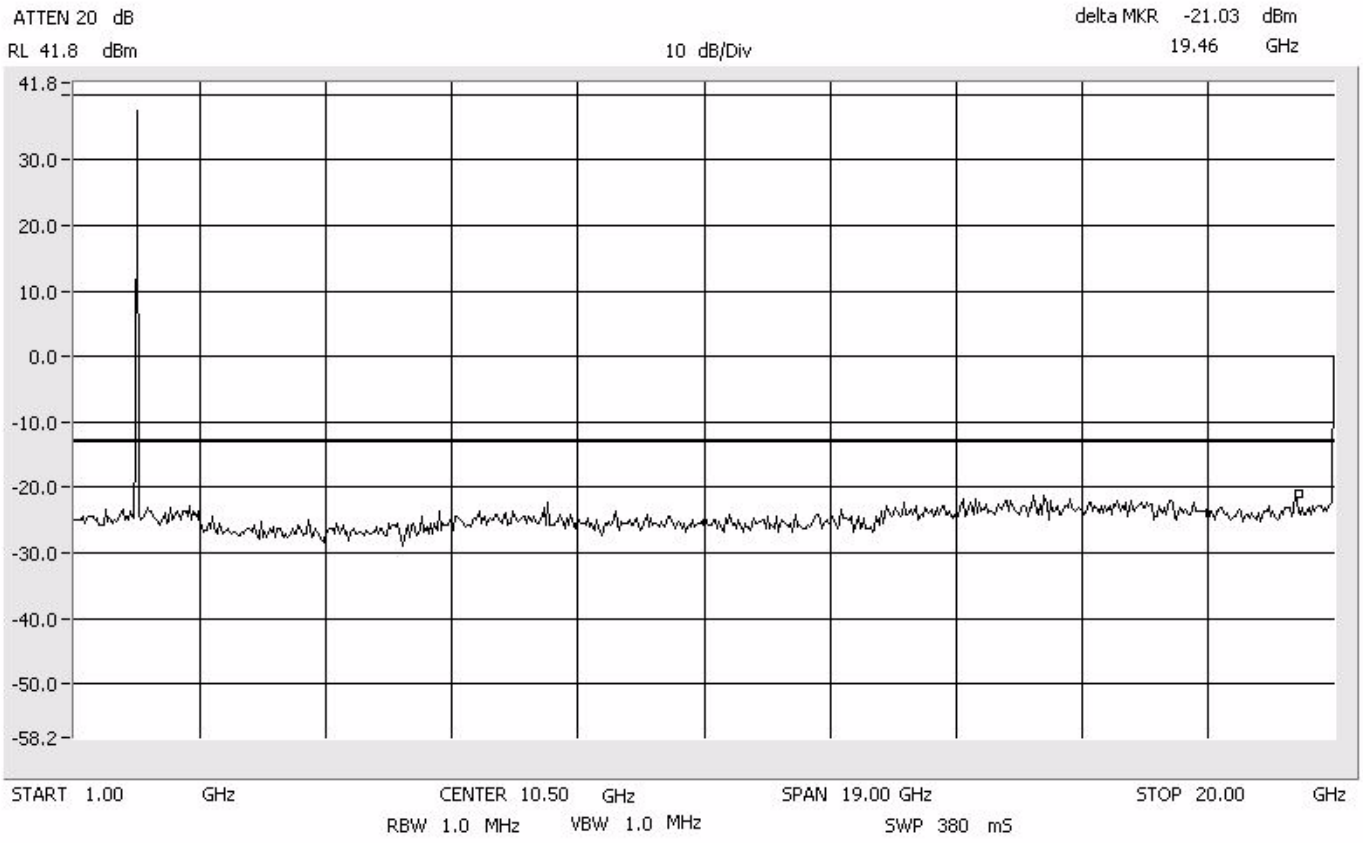
Span: 30 MHz to 1 GHz
RBW/VBW: 300 kHz



CDMA
AD Band

Intermodulation
Close - Upper
PCS 1900 MHz

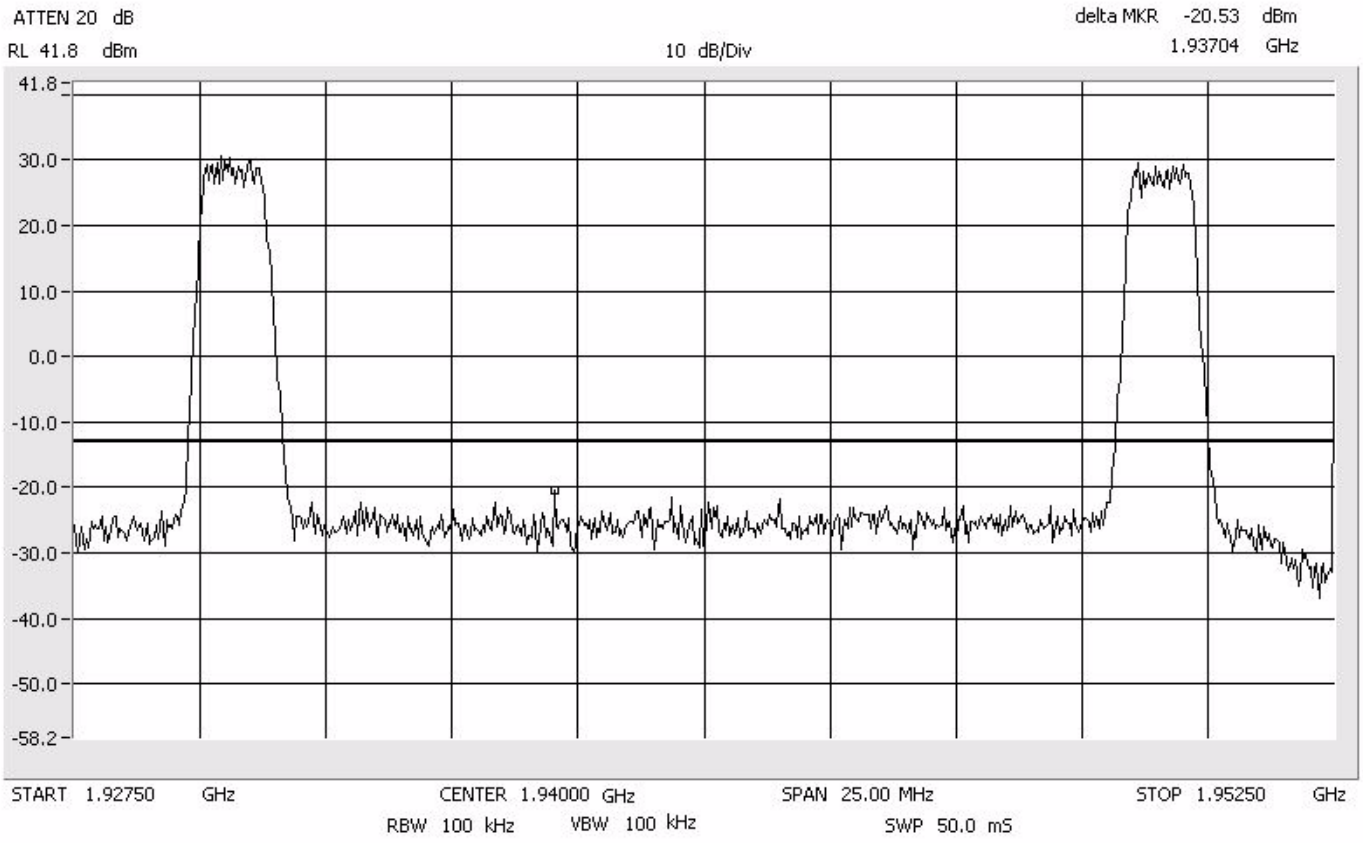
Span: 1 GHz to 20 GHz
RBW/VBW: 1 MHz



CDMA
AD Band

Intermodulation
Apart
PCS 1900 MHz

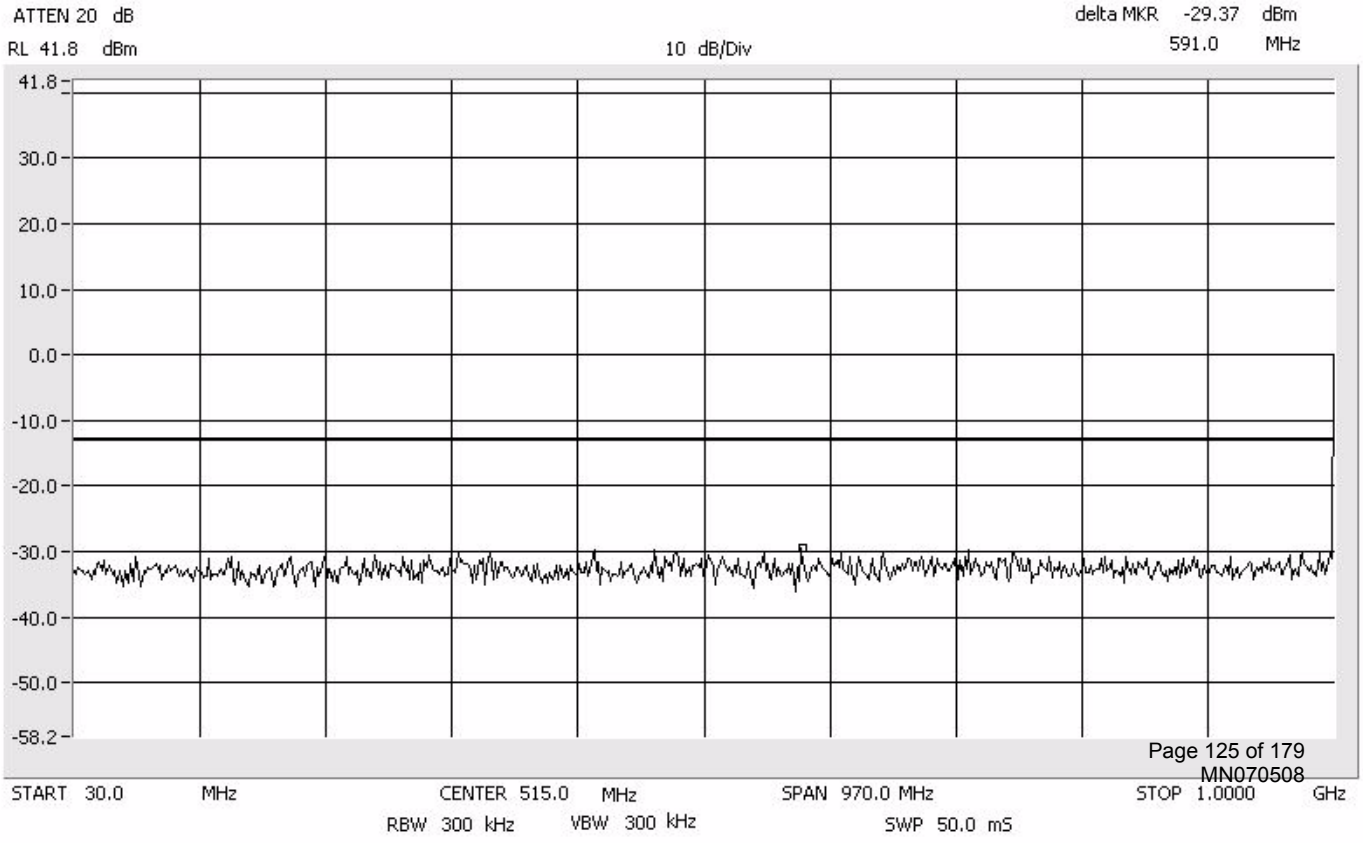
Center: 1940.0 MHz
Span: 25 MHz
RBW/VBW: 100 kHz



CDMA
AD Band

Intermodulation
Apart
PCS 1900 MHz

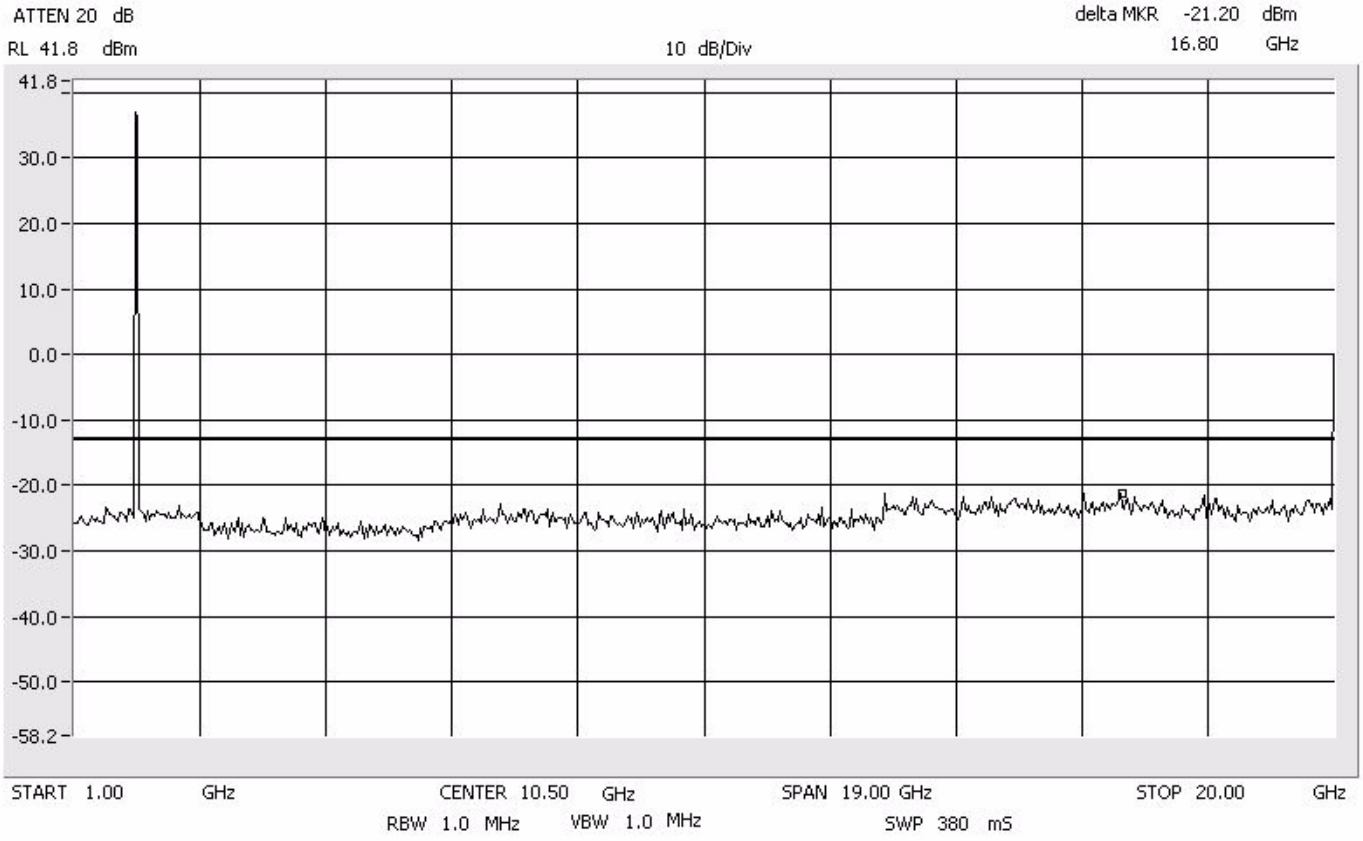
Span: 30 MHz to 1 GHz
RBW/VBW: 300 kHz



CDMA
AD Band

Intermodulation
Apart
PCS 1900 MHz

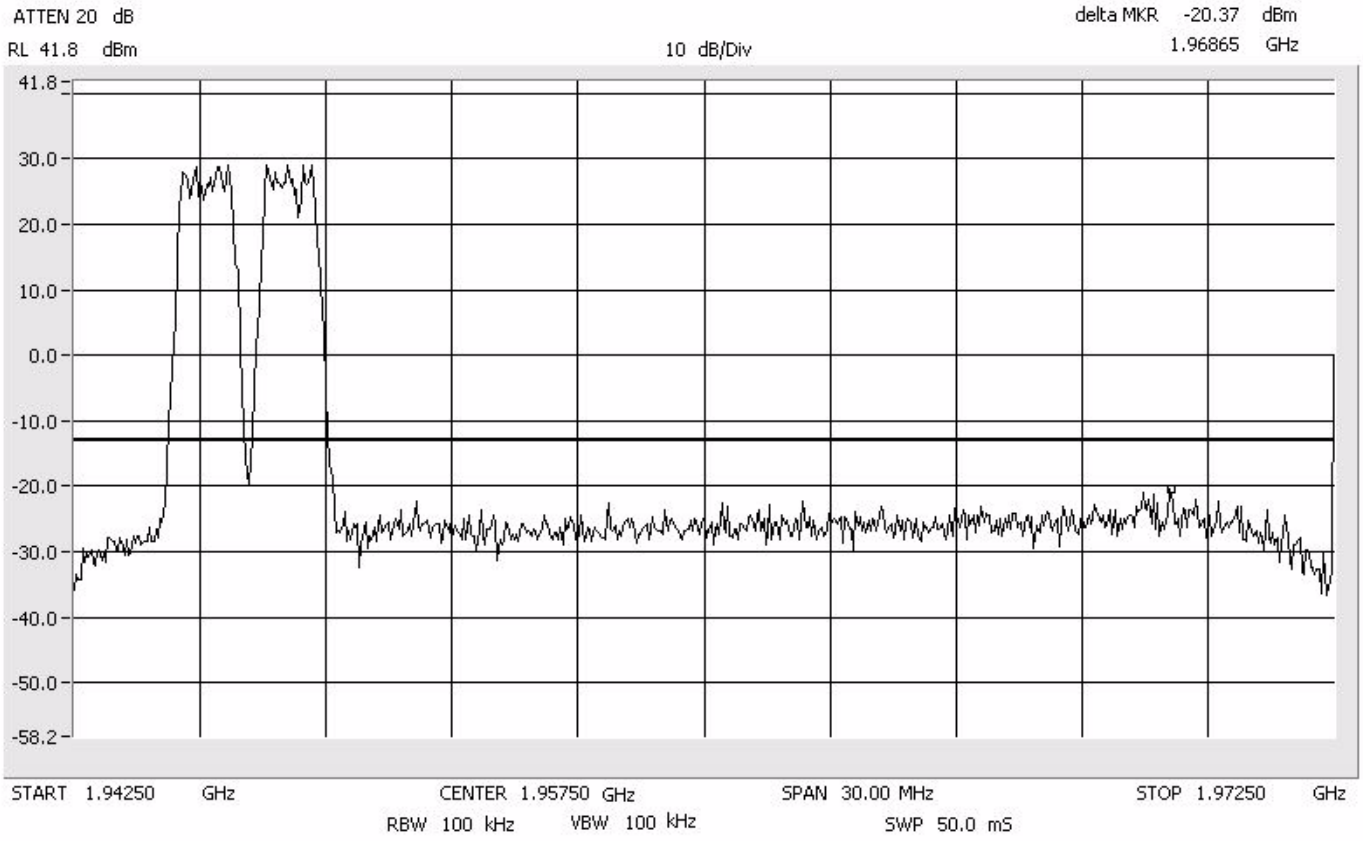
Span: 1 GHz to 20 GHz
RBW/VBW: 1 MHz



CDMA
DBE Band

Intermodulation
Close - Lower
PCS 1900 MHz

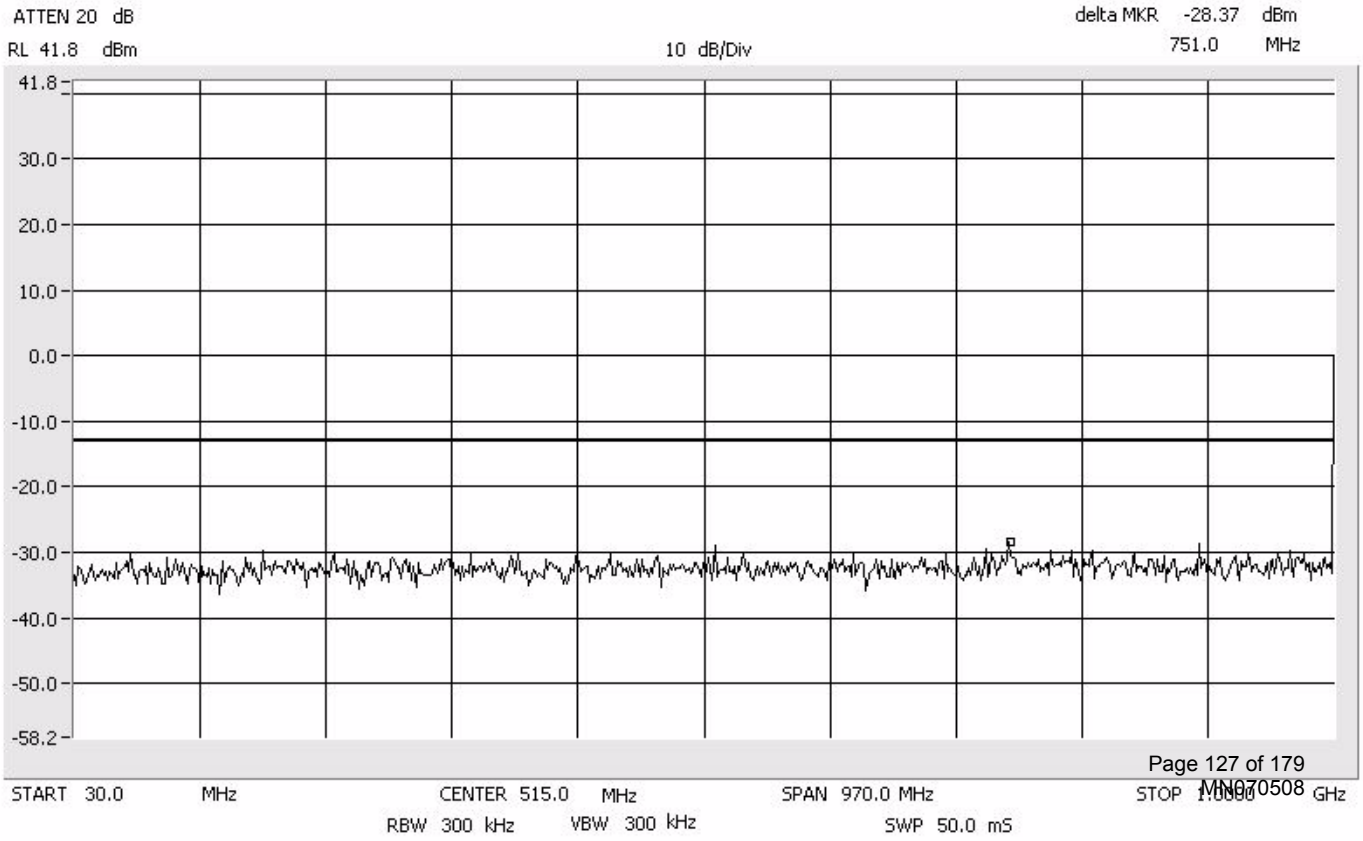
Center: 1957.5 MHz
Span: 30 MHz
RBW/VBW: 100 kHz



CDMA
DBE Band

Intermodulation
Close - Lower
PCS 1900 MHz

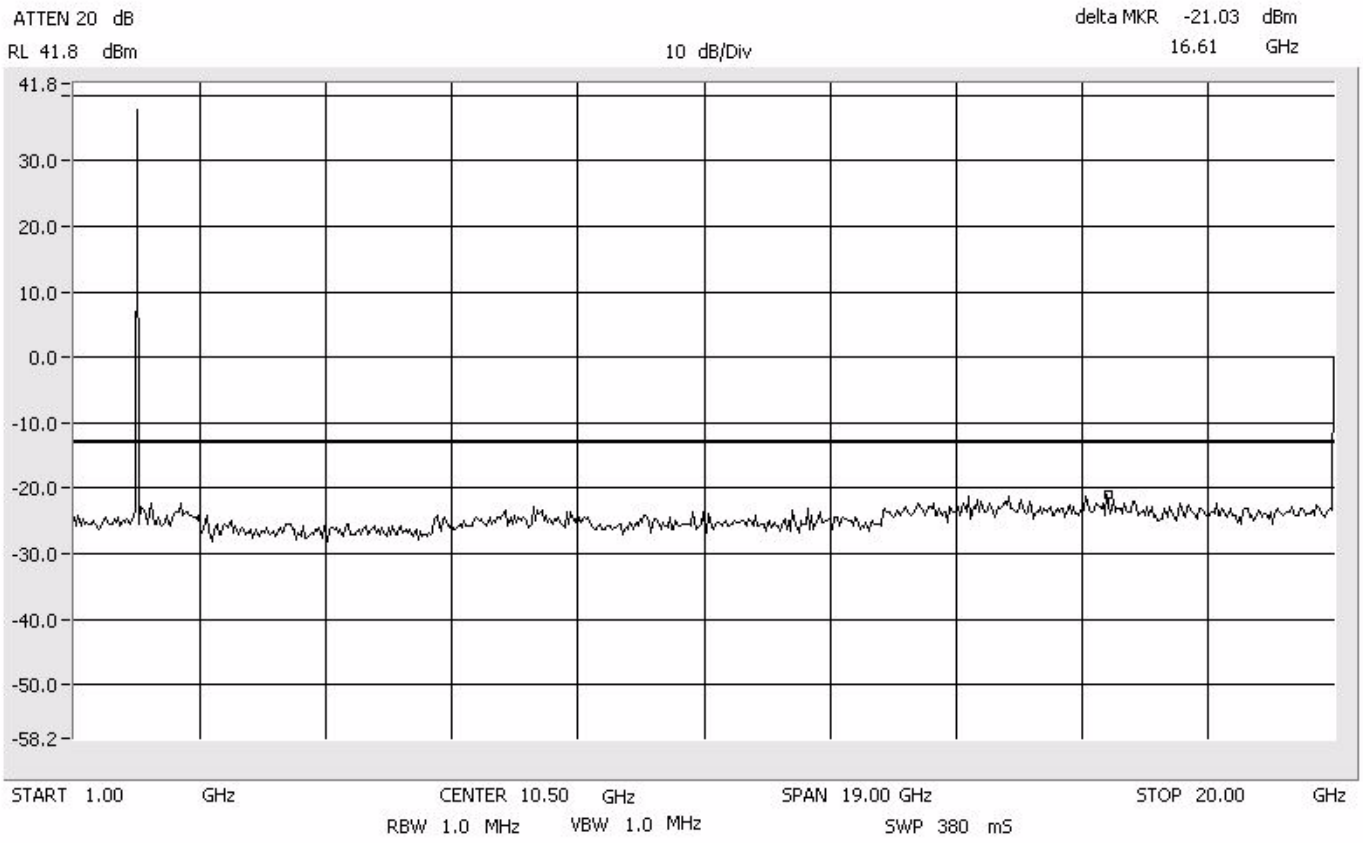
Span: 30 MHz to 1 GHz
RBW/VBW: 300 kHz



CDMA
DBE Band

Intermodulation
Close - Lower
PCS 1900 MHz

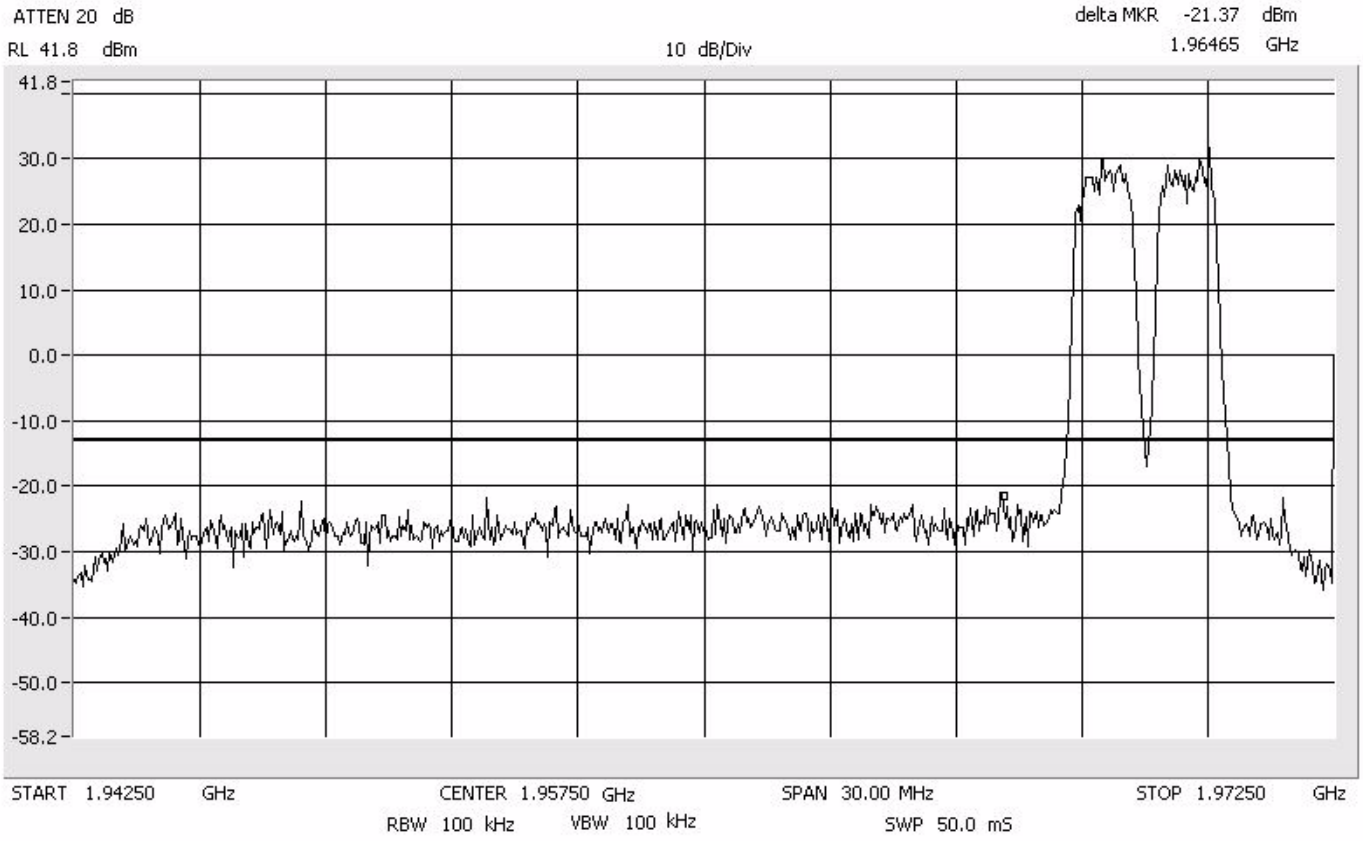
Span: 1 GHz to 20 GHz
RBW/VBW: 1 MHz



CDMA
DBE Band

Intermodulation
Close - Upper
PCS 1900 MHz

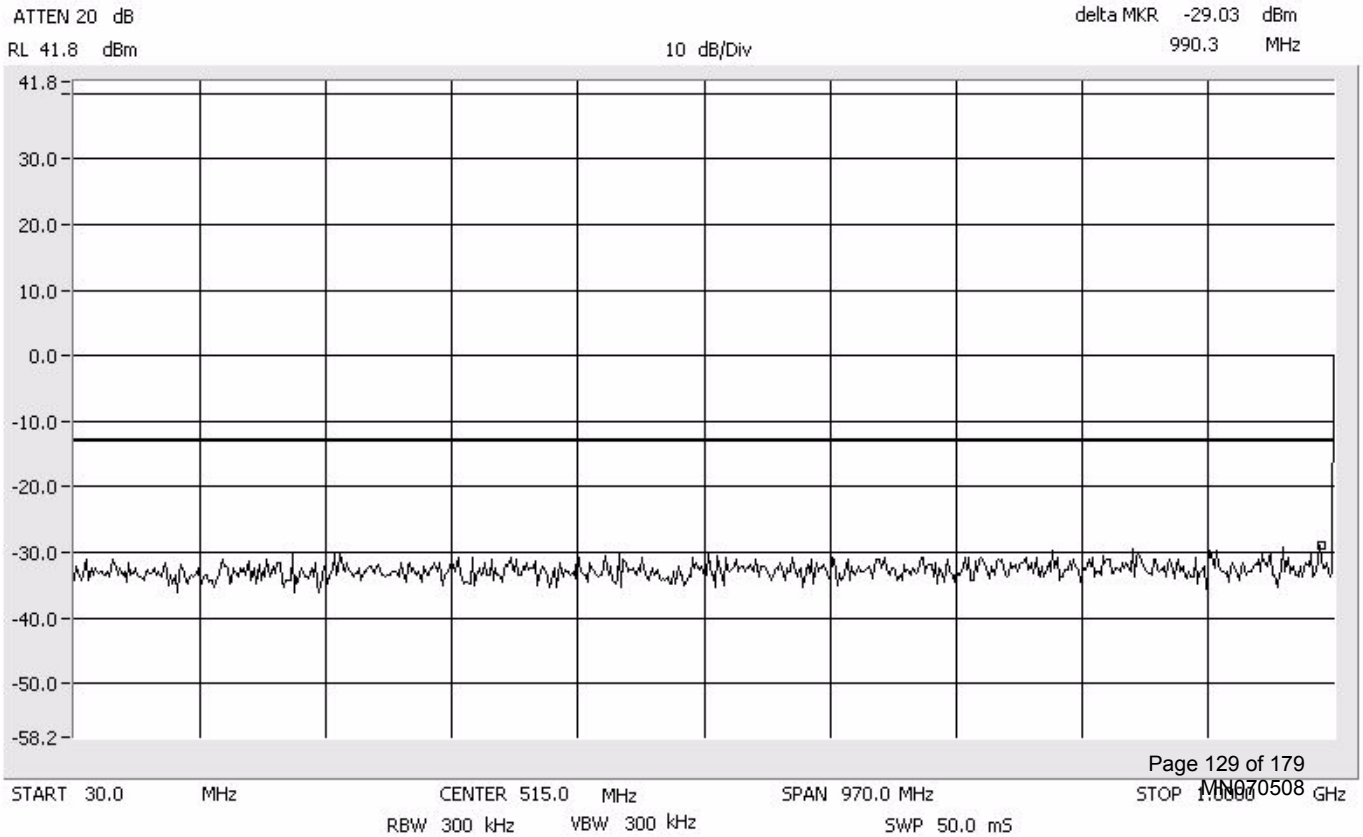
Center: 1957.5 MHz
Span: 30 MHz
RBW/VBW: 100 kHz



CDMA
DBE Band

Intermodulation
Close - Upper
PCS 1900 MHz

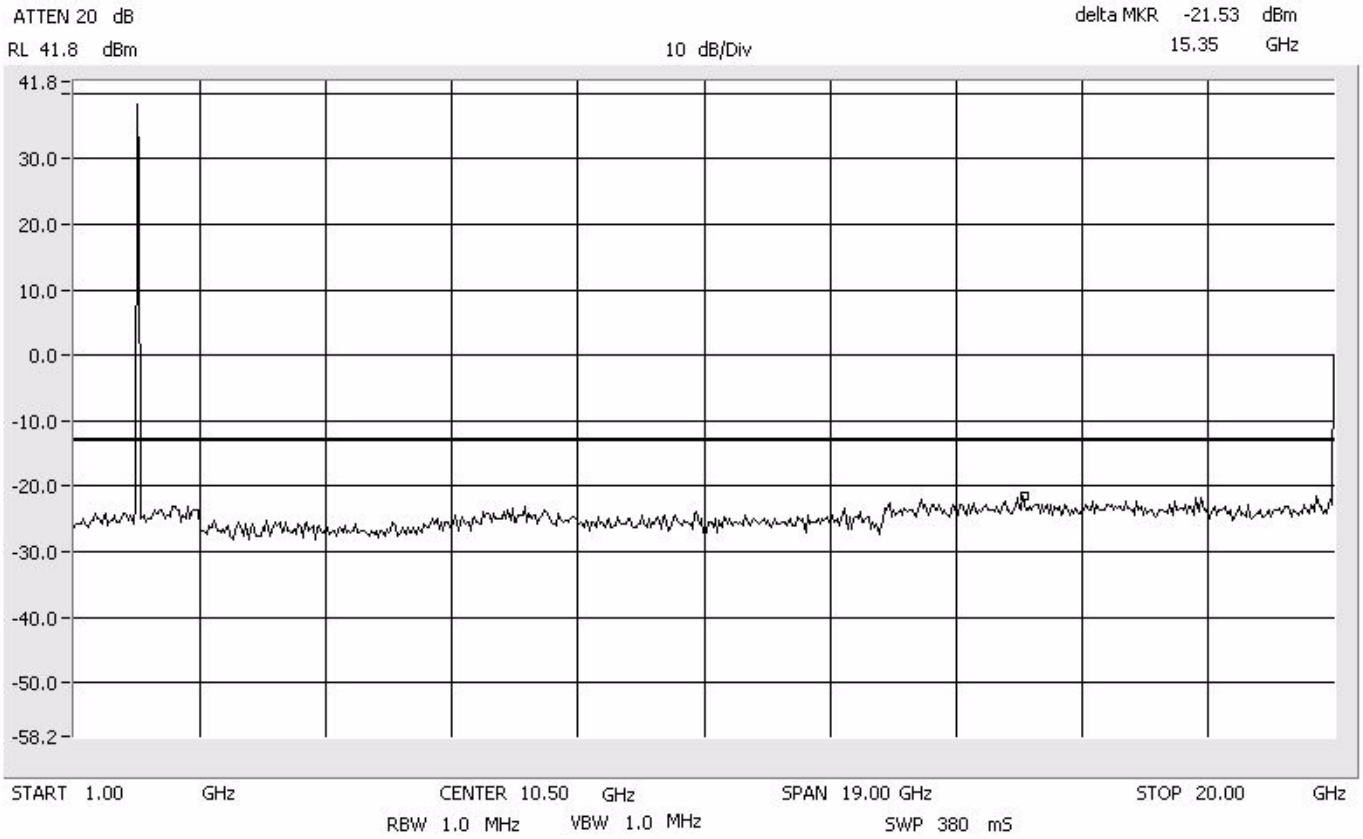
Span: 30 MHz to 1 GHz
RBW/VBW: 300 kHz



CDMA
DBE Band

Intermodulation
Close - Upper
PCS 1900 MHz

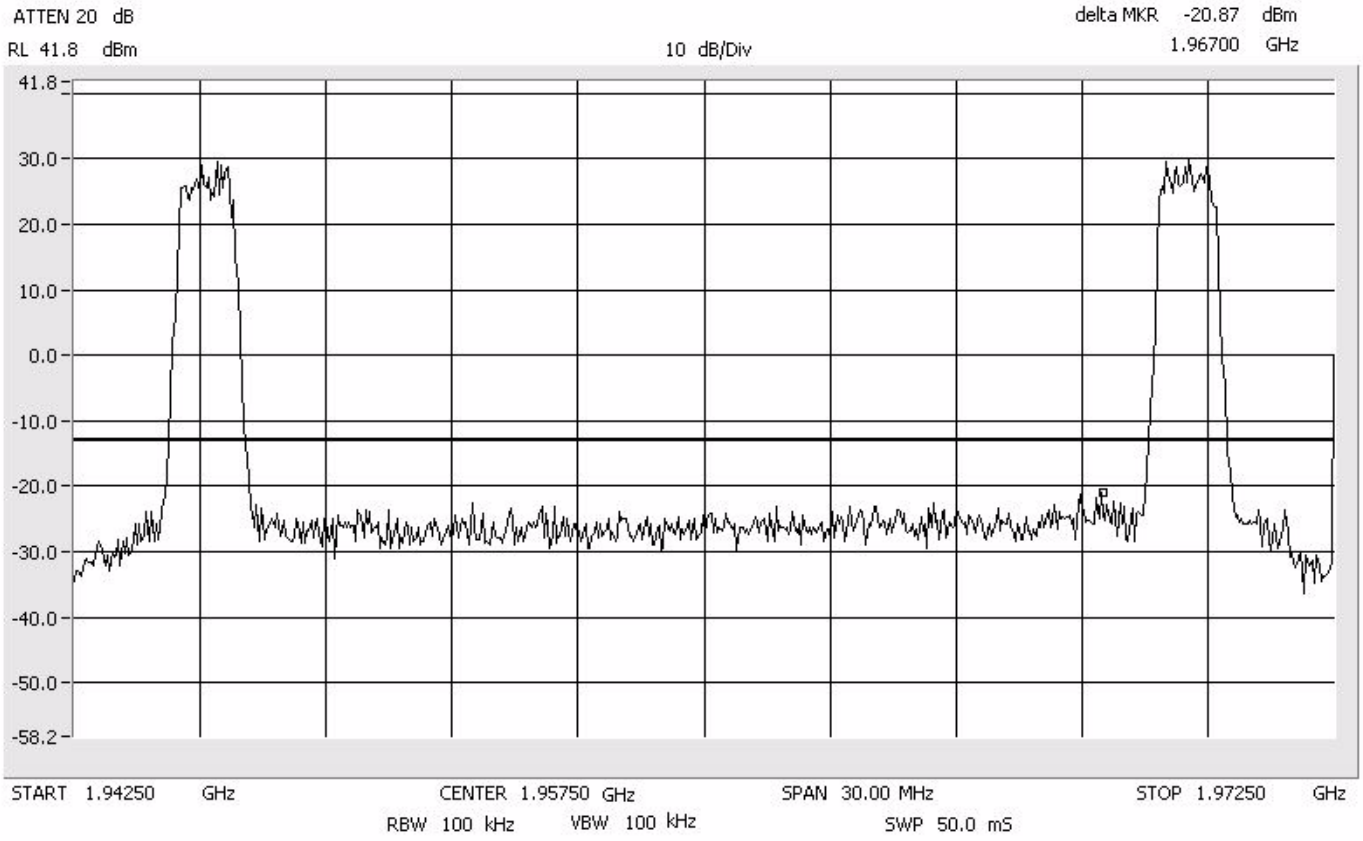
Span: 1 GHz to 20 GHz
RBW/VBW: 1 MHz



CDMA
DBE Band

Intermodulation
Apart
PCS 1900 MHz

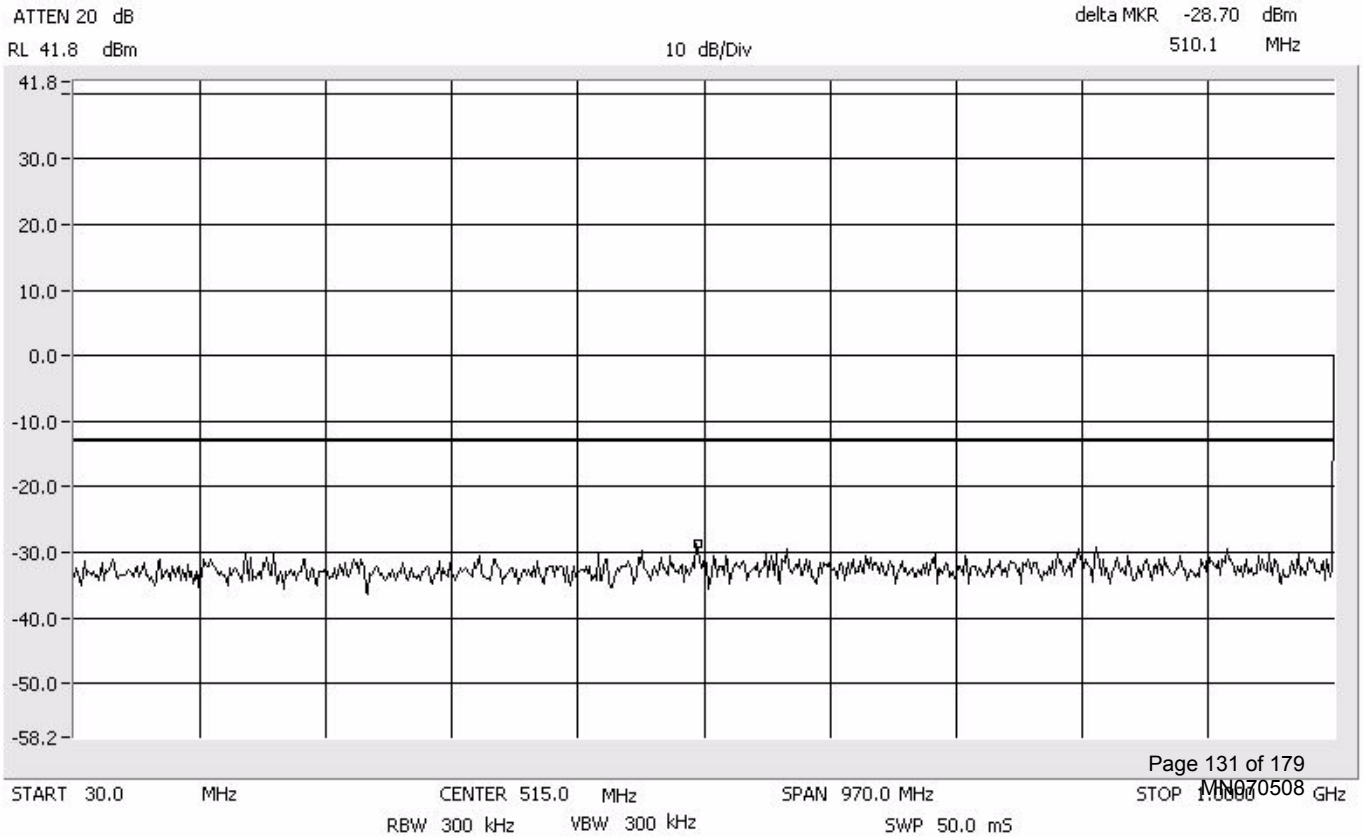
Center: 1957.5 MHz
Span: 30 MHz
RBW/VBW: 100 kHz



CDMA
DBE Band

Intermodulation
Apart
PCS 1900 MHz

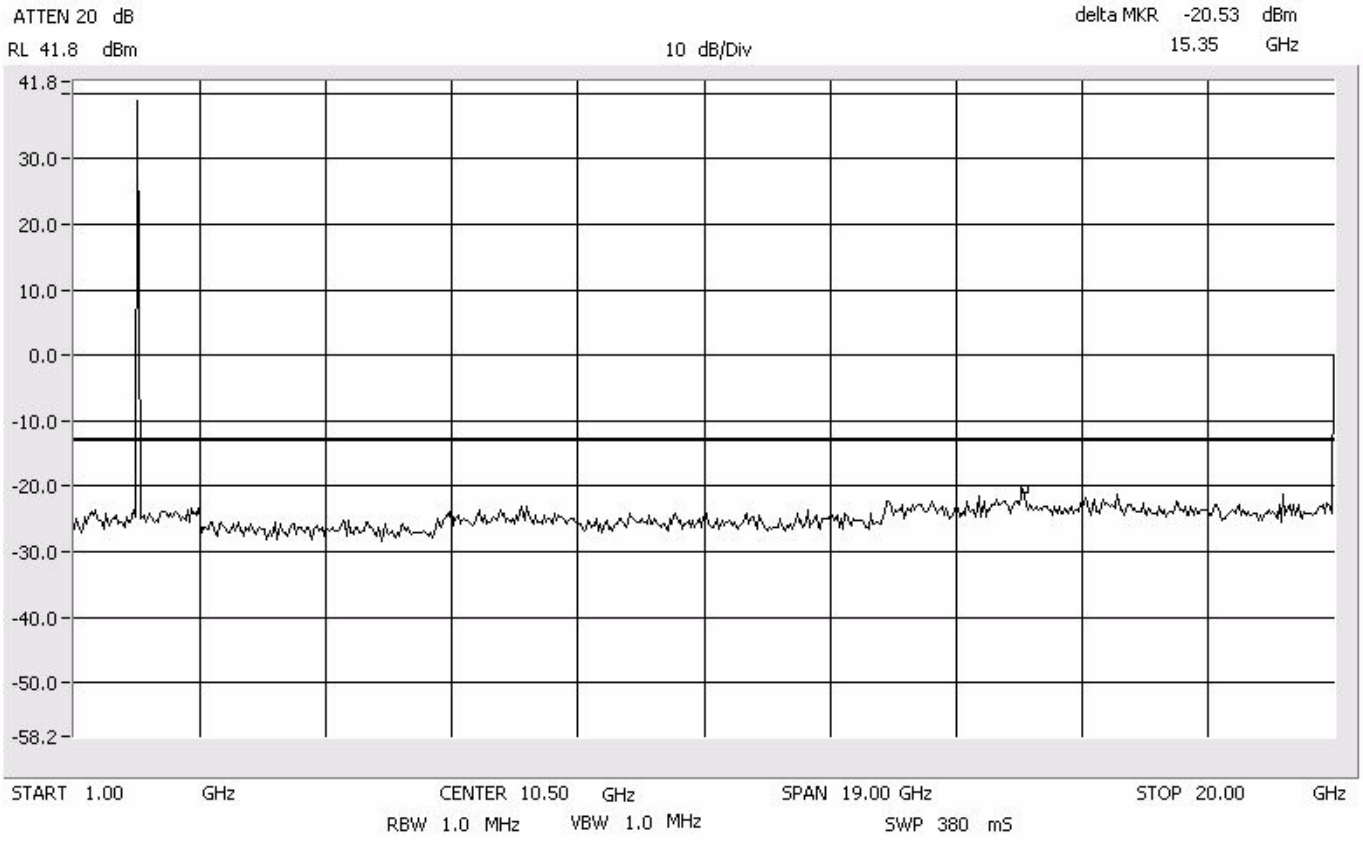
Span: 30 MHz to 1 GHz
RBW/VBW: 300 kHz



CDMA
DBE Band

Intermodulation
Apart
PCS 1900 MHz

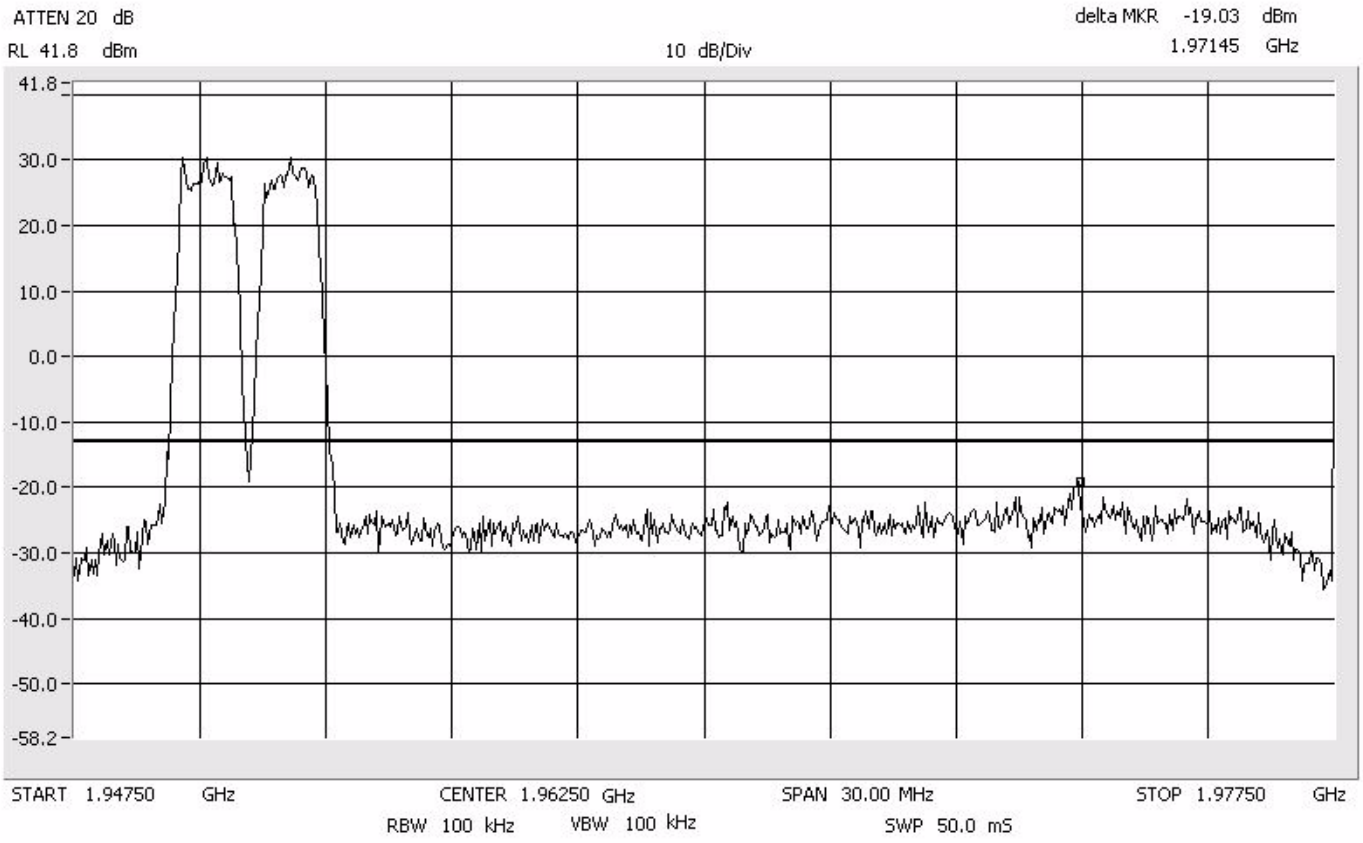
Span: 1 GHz to 20 GHz
RBW/VBW: 1 MHz



CDMA
BEF Band

Intermodulation
Close - Lower
PCS 1900 MHz

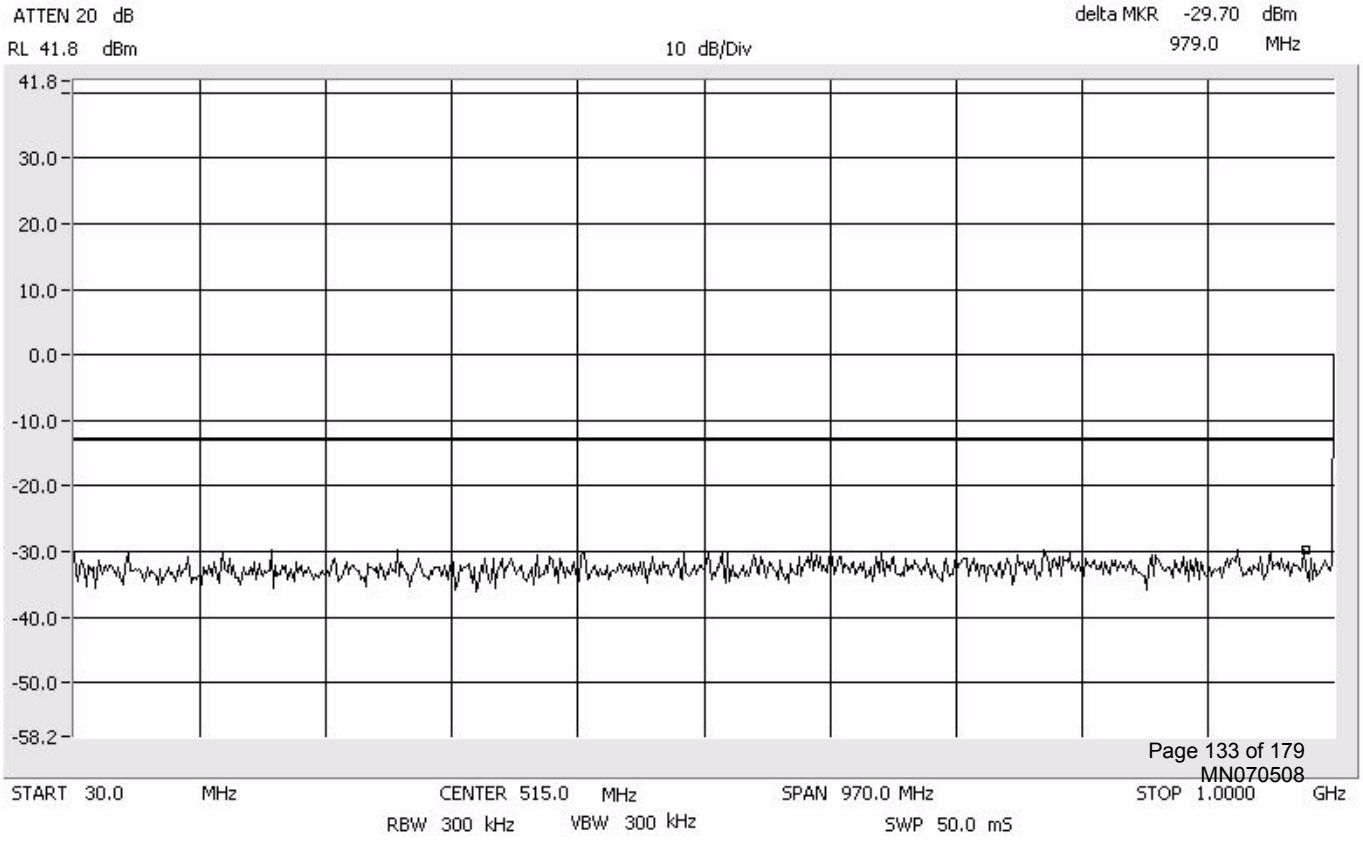
Center: 1962.5 MHz
Span: 30 MHz
RBW/VBW: 100 kHz



CDMA
BEF Band

Intermodulation
Close - Lower
PCS 1900 MHz

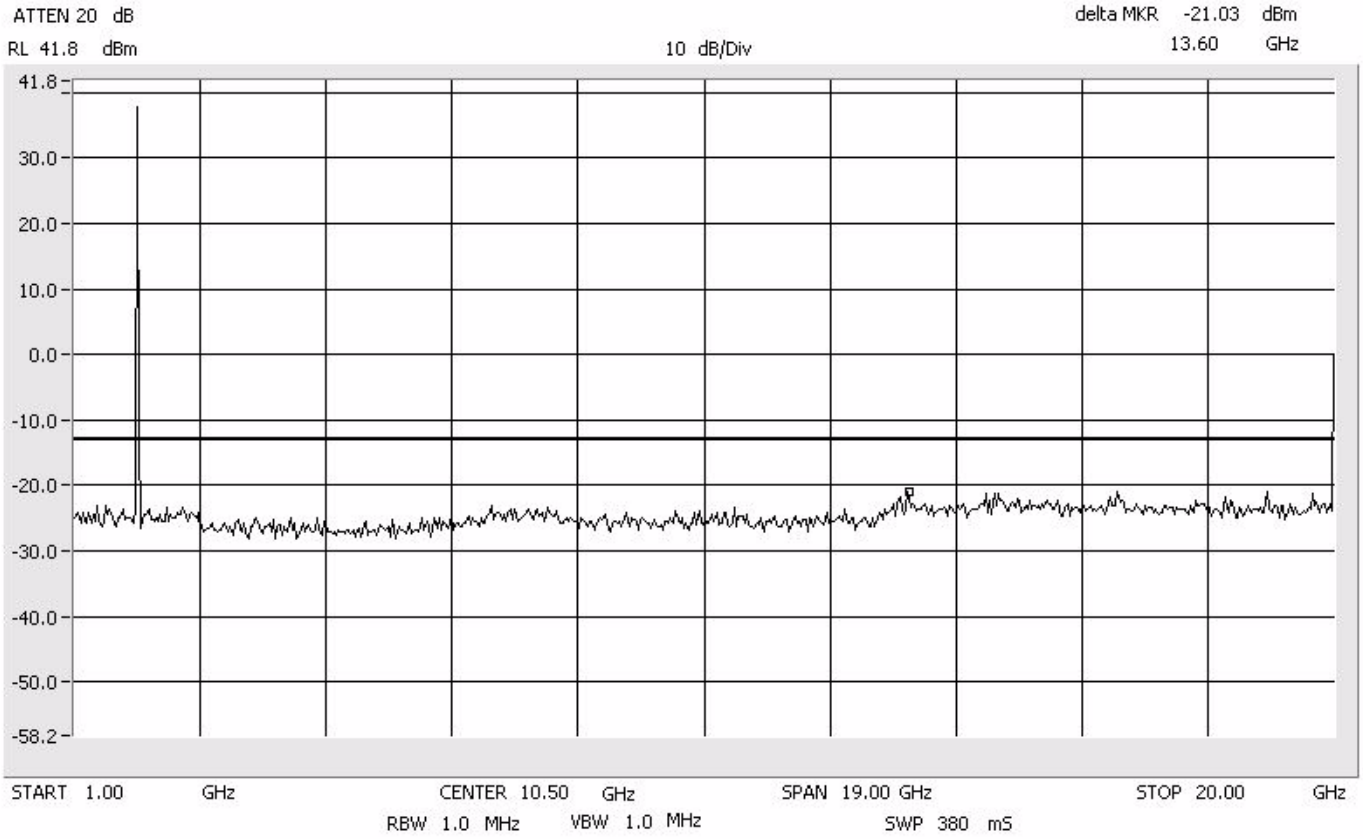
Span: 30 MHz to 1 GHz
RBW/VBW: 300 kHz



CDMA
BEF Band

Intermodulation
Close - Lower
PCS 1900 MHz

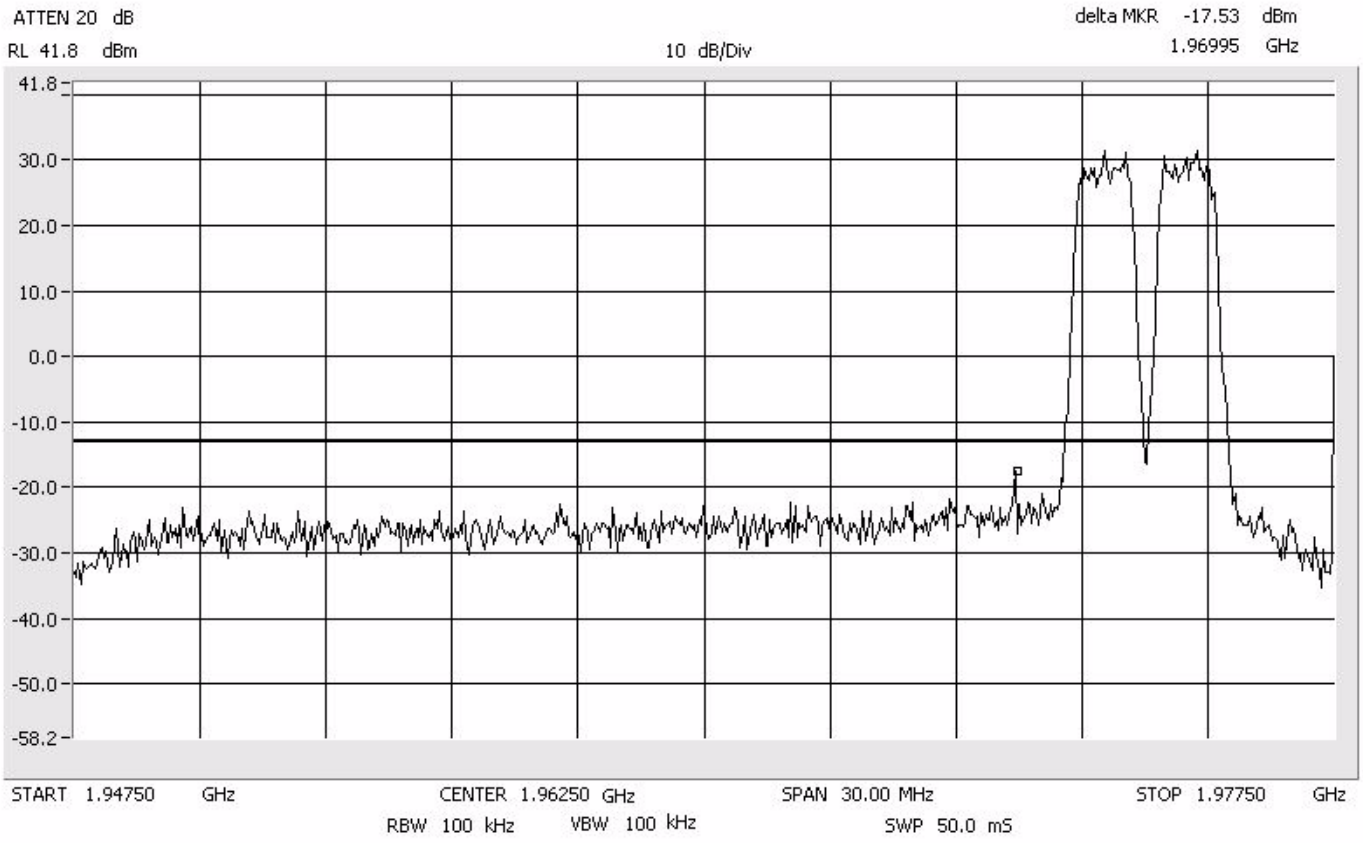
Span: 1 GHz to 20 GHz
RBW/VBW: 1 MHz



CDMA
BEF Band

Intermodulation
Close - Upper
PCS 1900 MHz

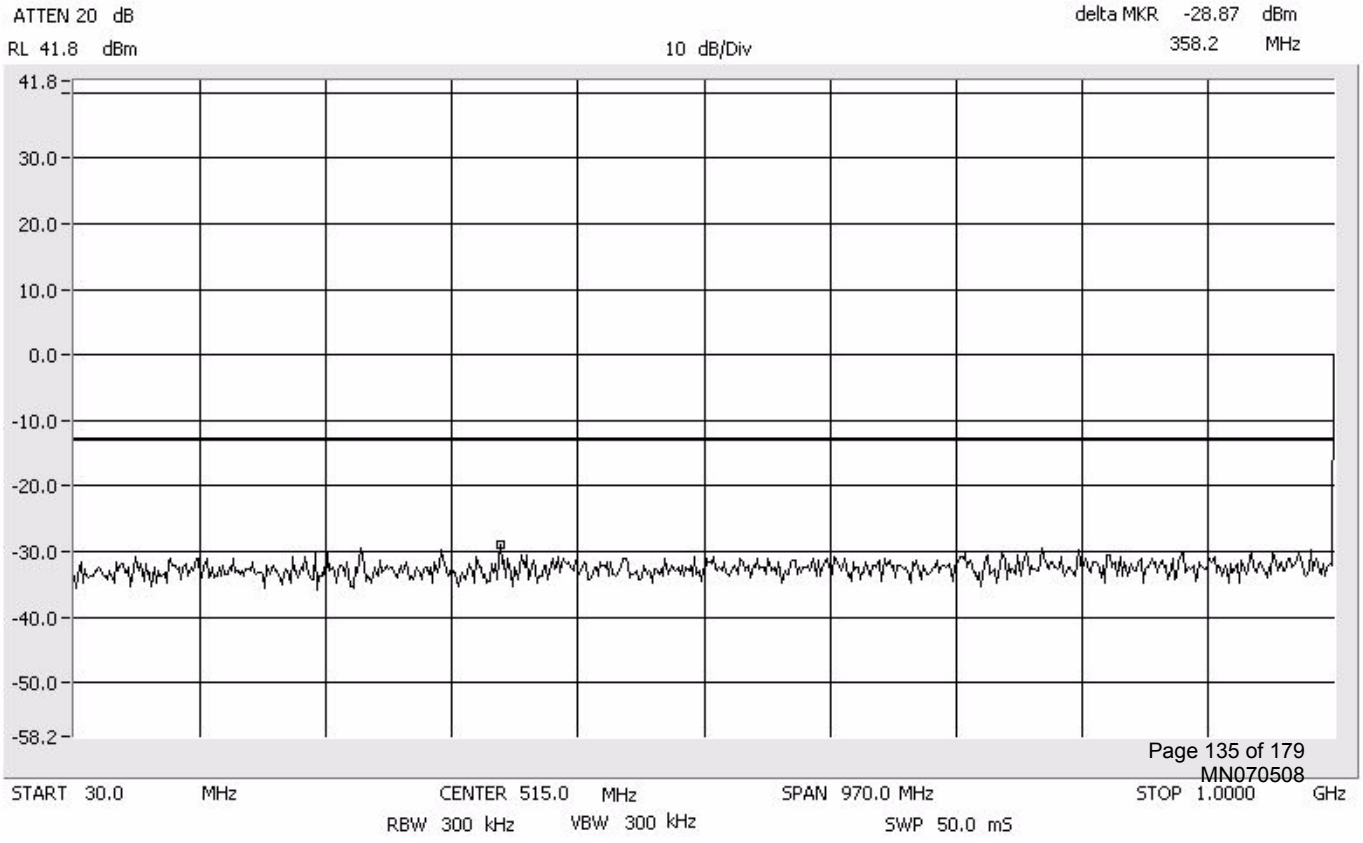
Center: 1962.5 MHz
Span: 30 MHz
RBW/VBW: 100 kHz



CDMA
BEF Band

Intermodulation
Close - Upper
PCS 1900 MHz

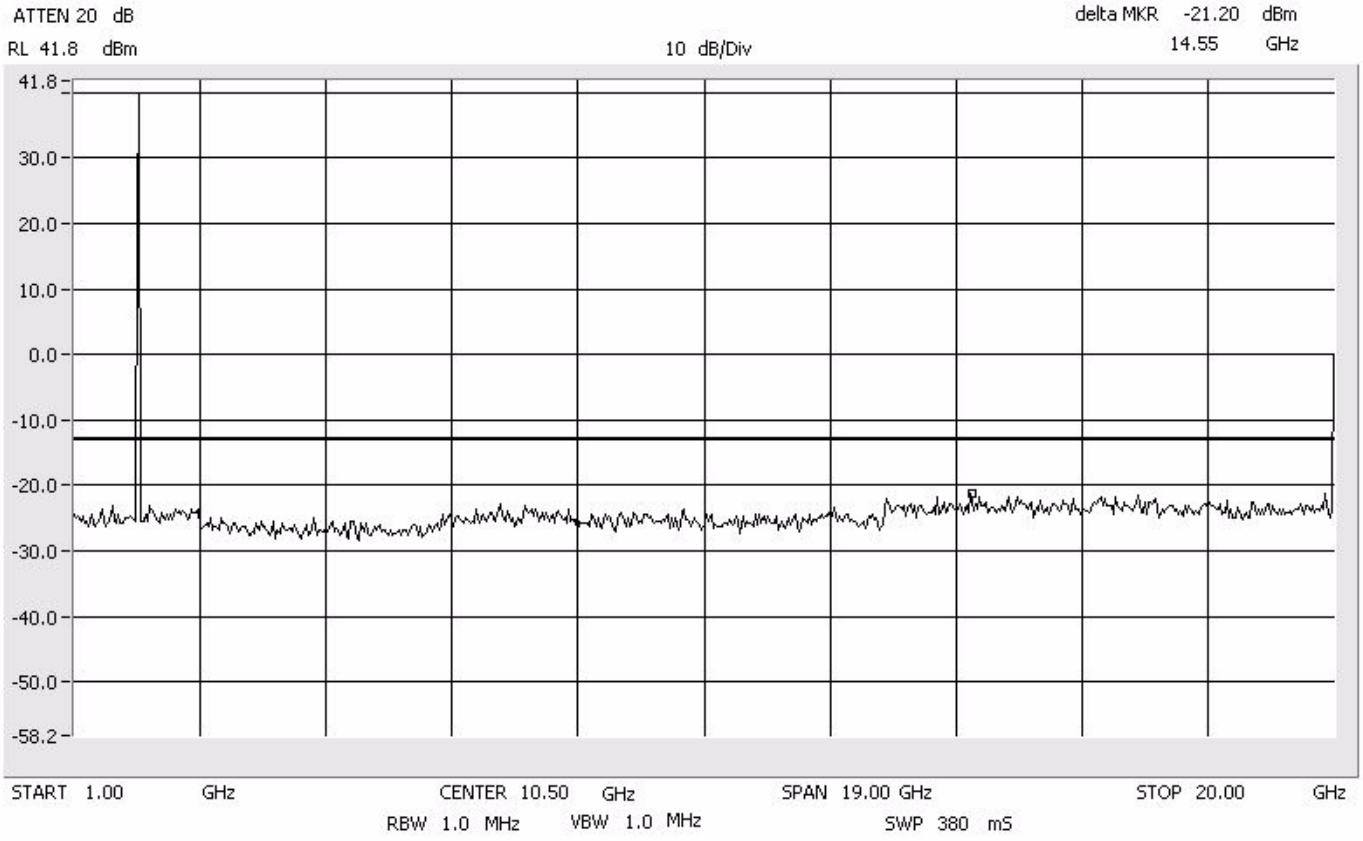
Span: 30 MHz to 1 GHz
RBW/VBW: 300 kHz



CDMA
BEF Band

Intermodulation
Close - Upper
PCS 1900 MHz

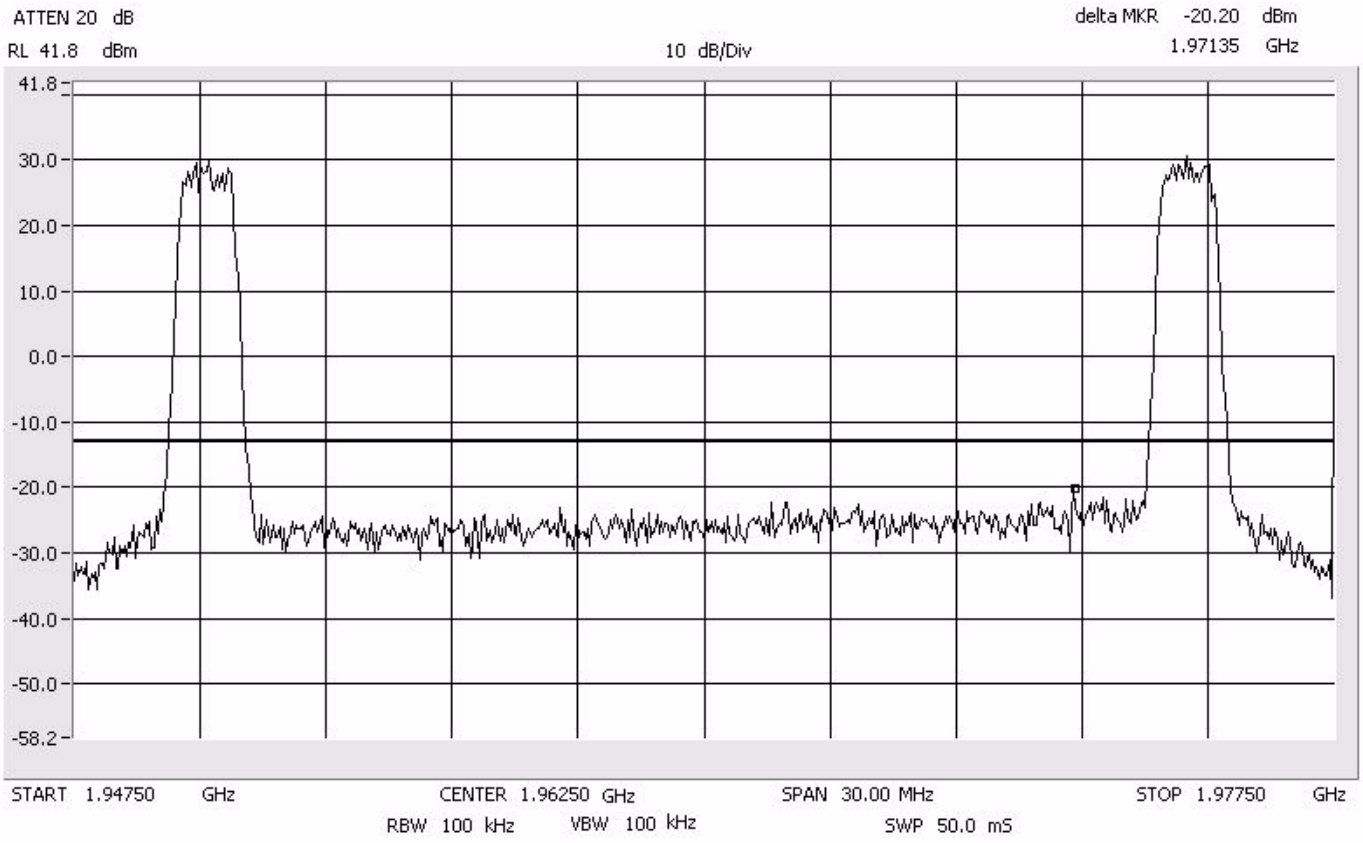
Span: 1 GHz to 20 GHz
RBW/VBW: 1 MHz



CDMA
BEF Band

Intermodulation
Apart
PCS 1900 MHz

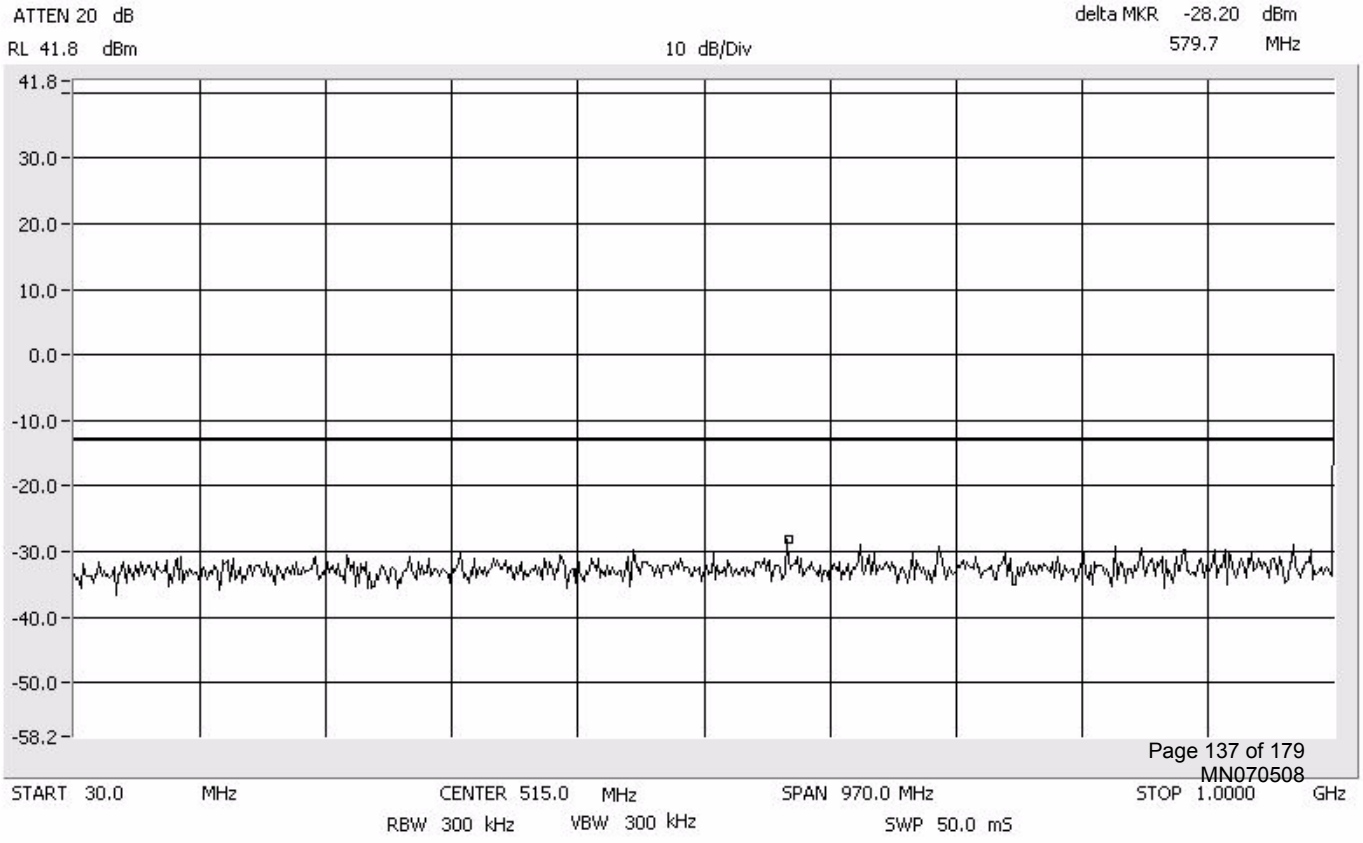
Center: 1962.5 MHz
Span: 30 MHz
RBW/VBW: 100 kHz



CDMA
BEF Band

Intermodulation
Apart
PCS 1900 MHz

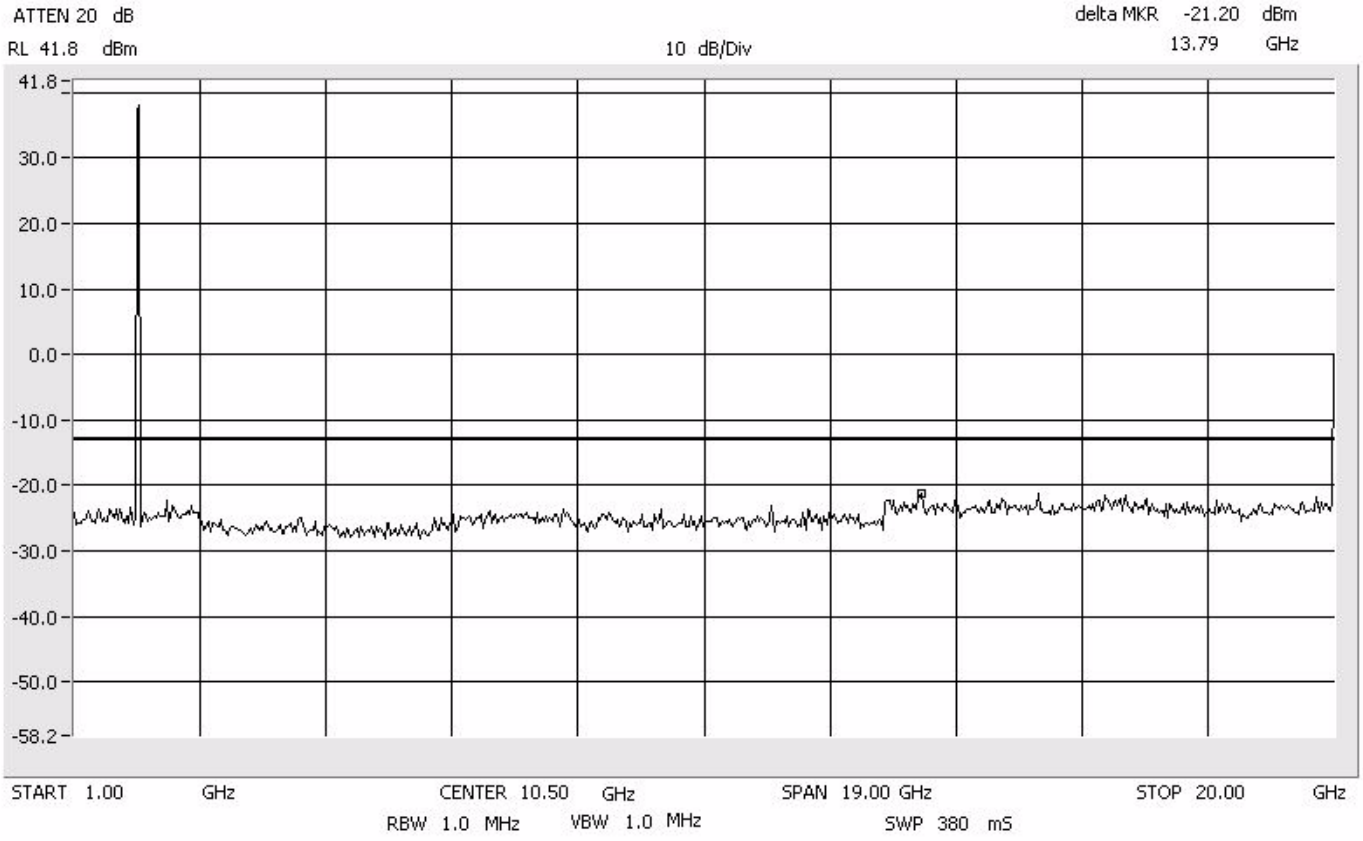
Span: 30 MHz to 1 GHz
RBW/VBW: 300 kHz



CDMA
BEF Band

Intermodulation
Apart
PCS 1900 MHz

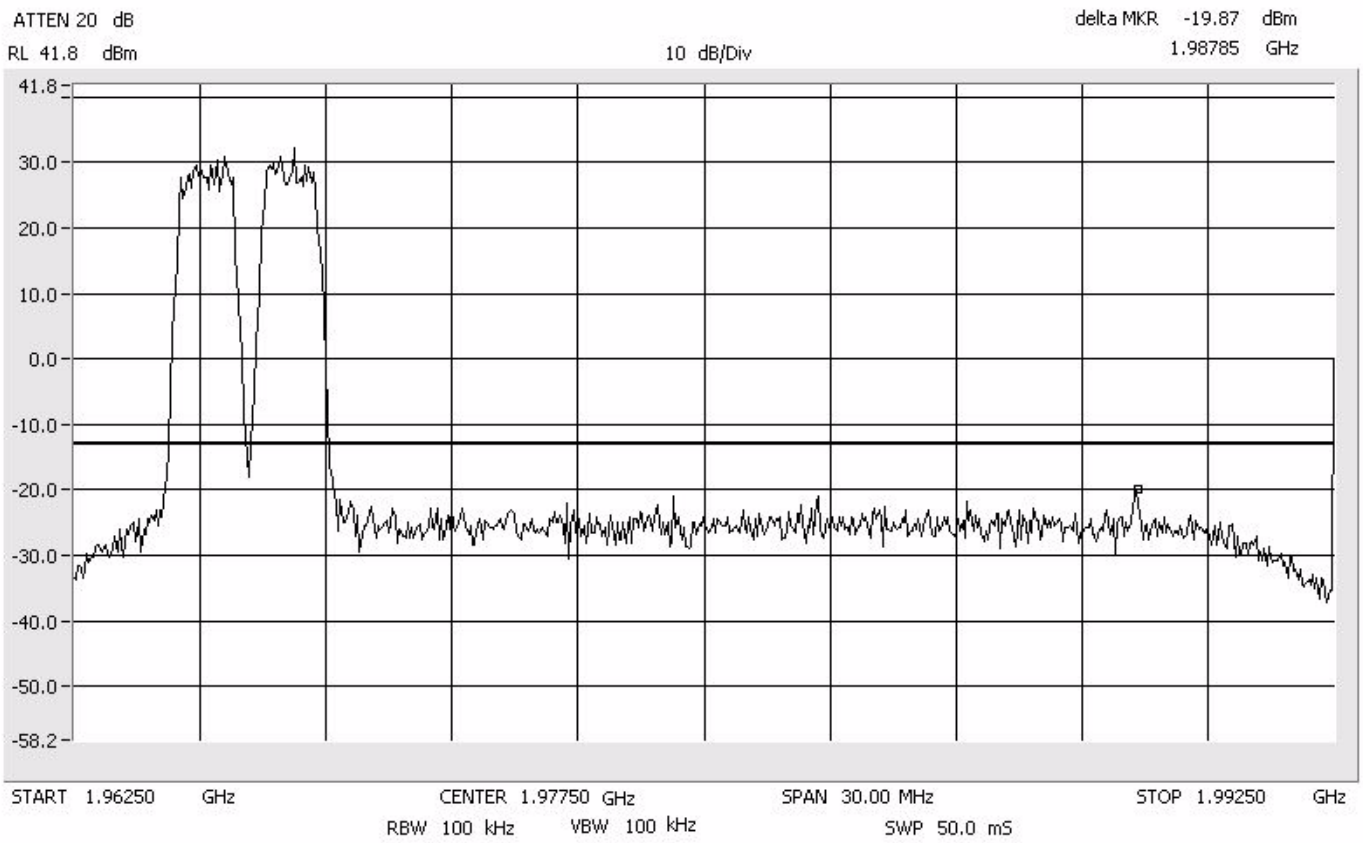
Span: 1 GHz to 20 GHz
RBW/VBW: 1 MHz



CDMA
EFC Band

Intermodulation
Close - Lower
PCS 1900 MHz

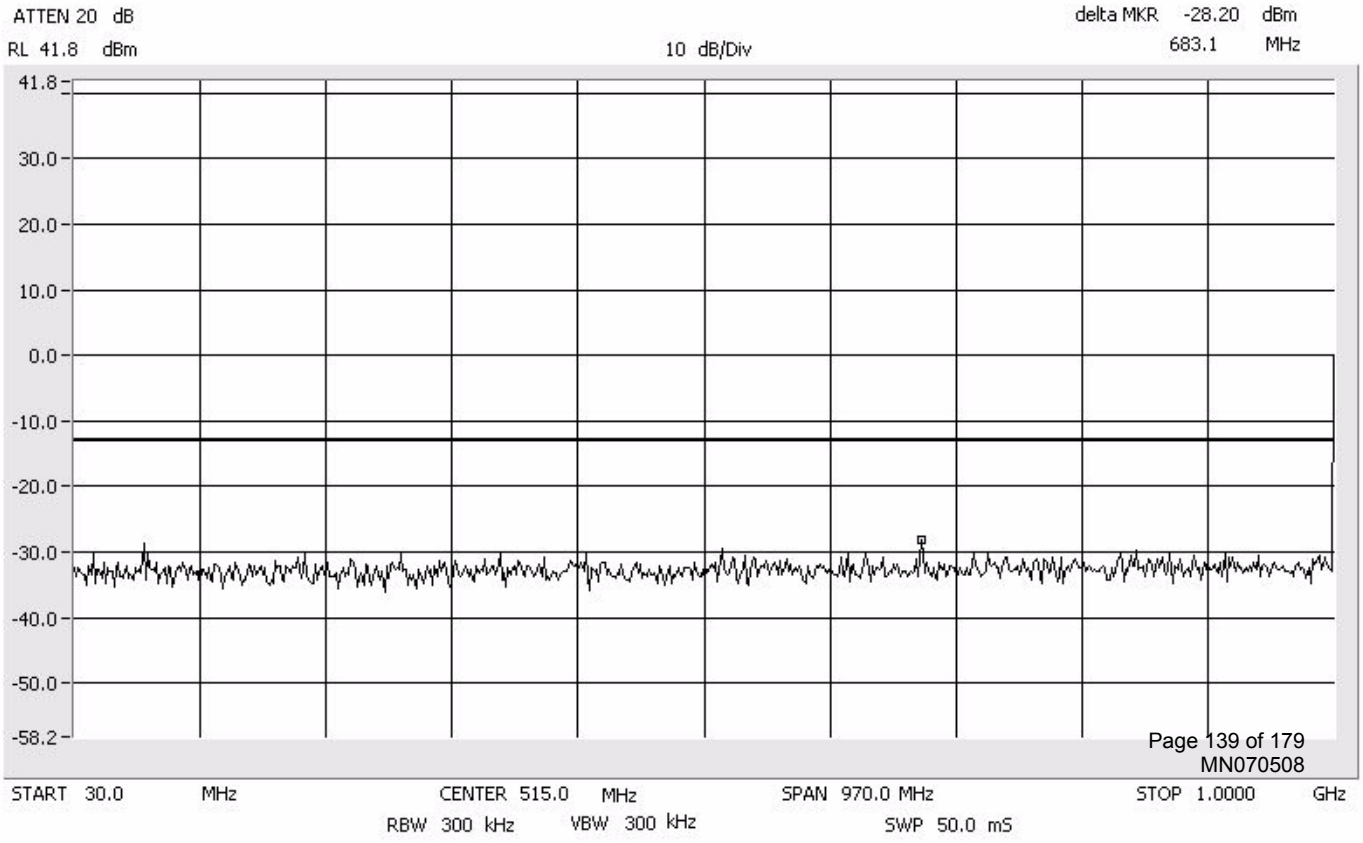
Center: 1977.5 MHz
Span: 30 MHz
RBW/VBW: 100 kHz



CDMA
EFC Band

Intermodulation
Close - Lower
PCS 1900 MHz

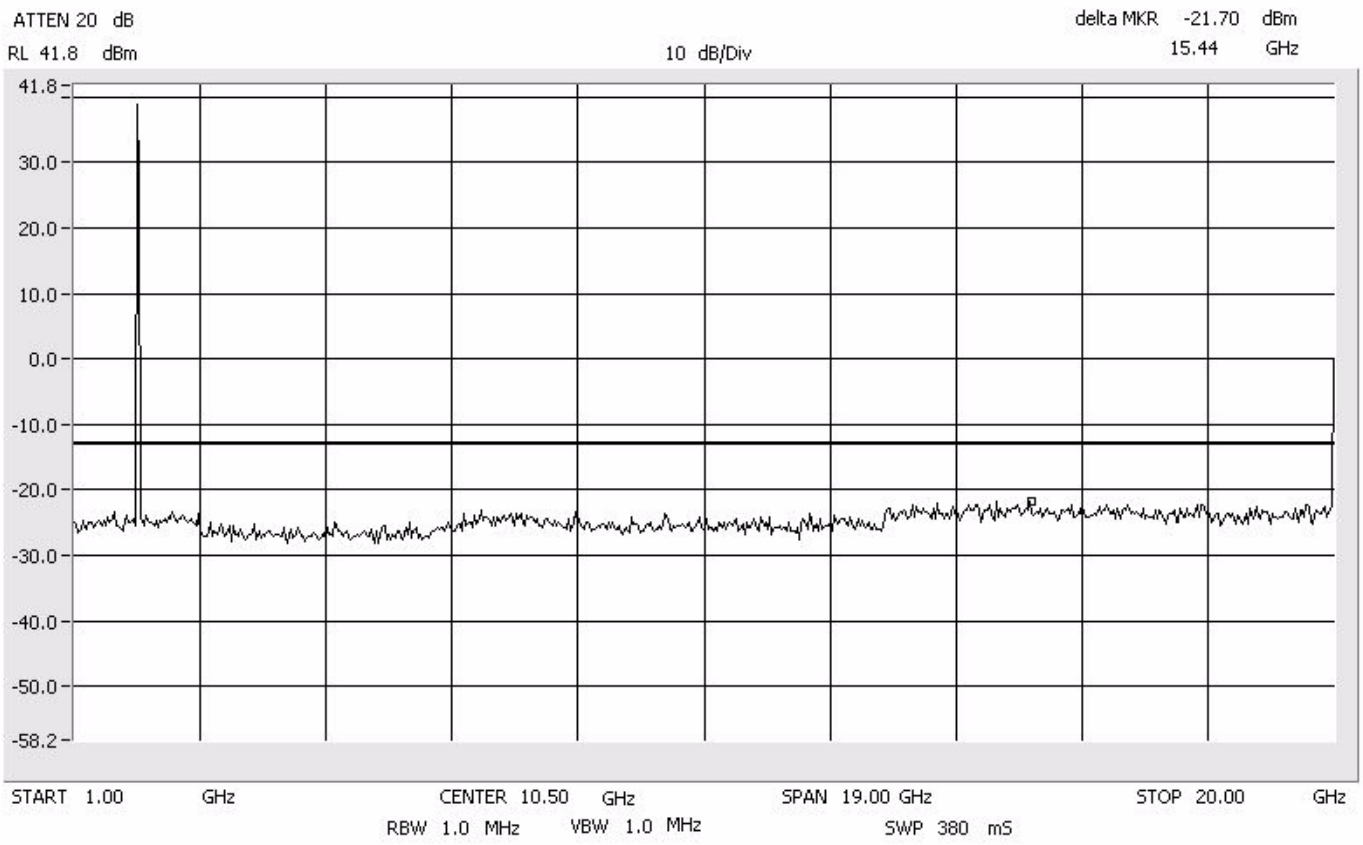
Span: 30 MHz to 1 GHz
RBW/VBW: 300 kHz



CDMA
EFC Band

Intermodulation
Close - Lower
PCS 1900 MHz

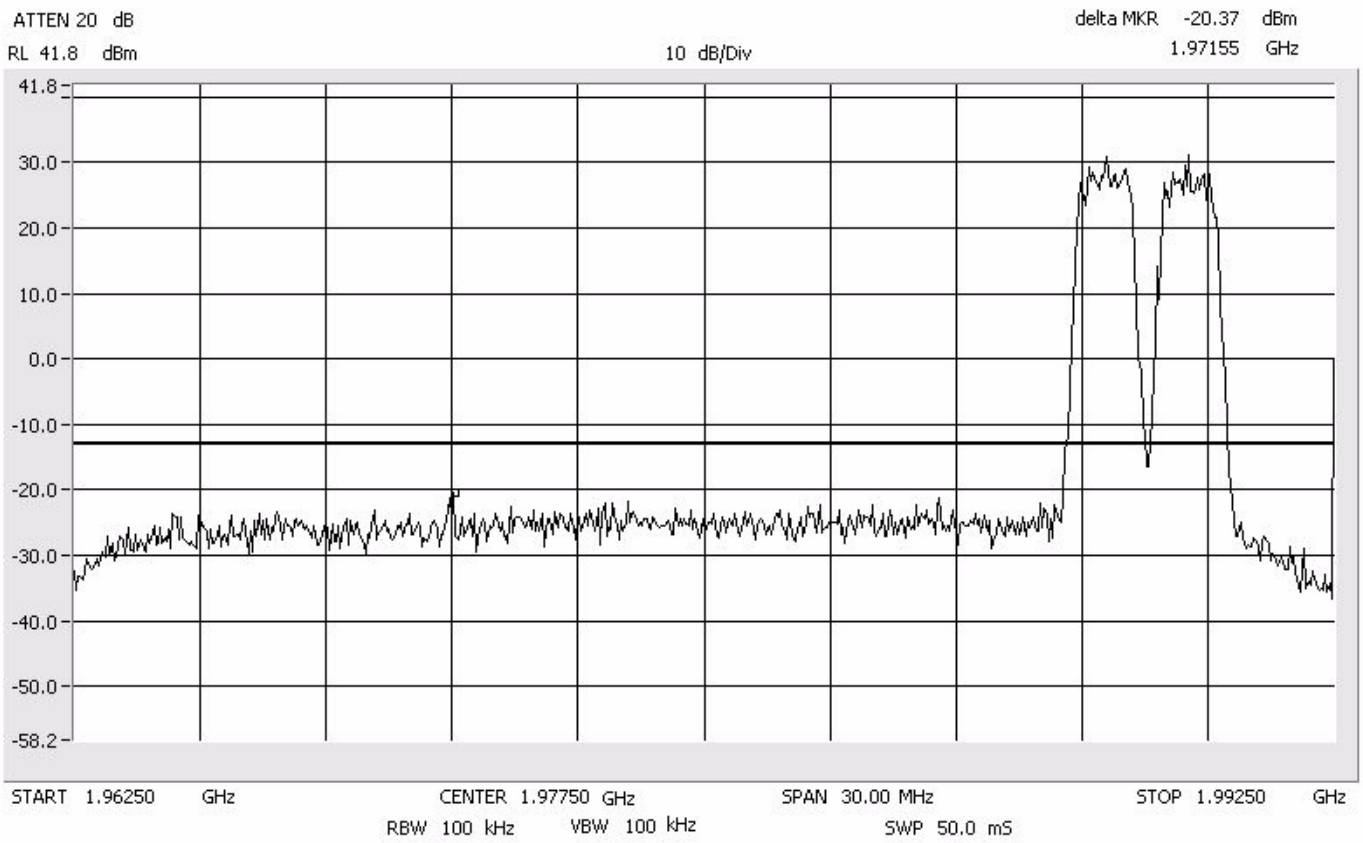
Span: 1 GHz to 20 GHz
RBW/VBW: 1 MHz



CDMA
EFC Band

Intermodulation
Close - Upper
PCS 1900 MHz

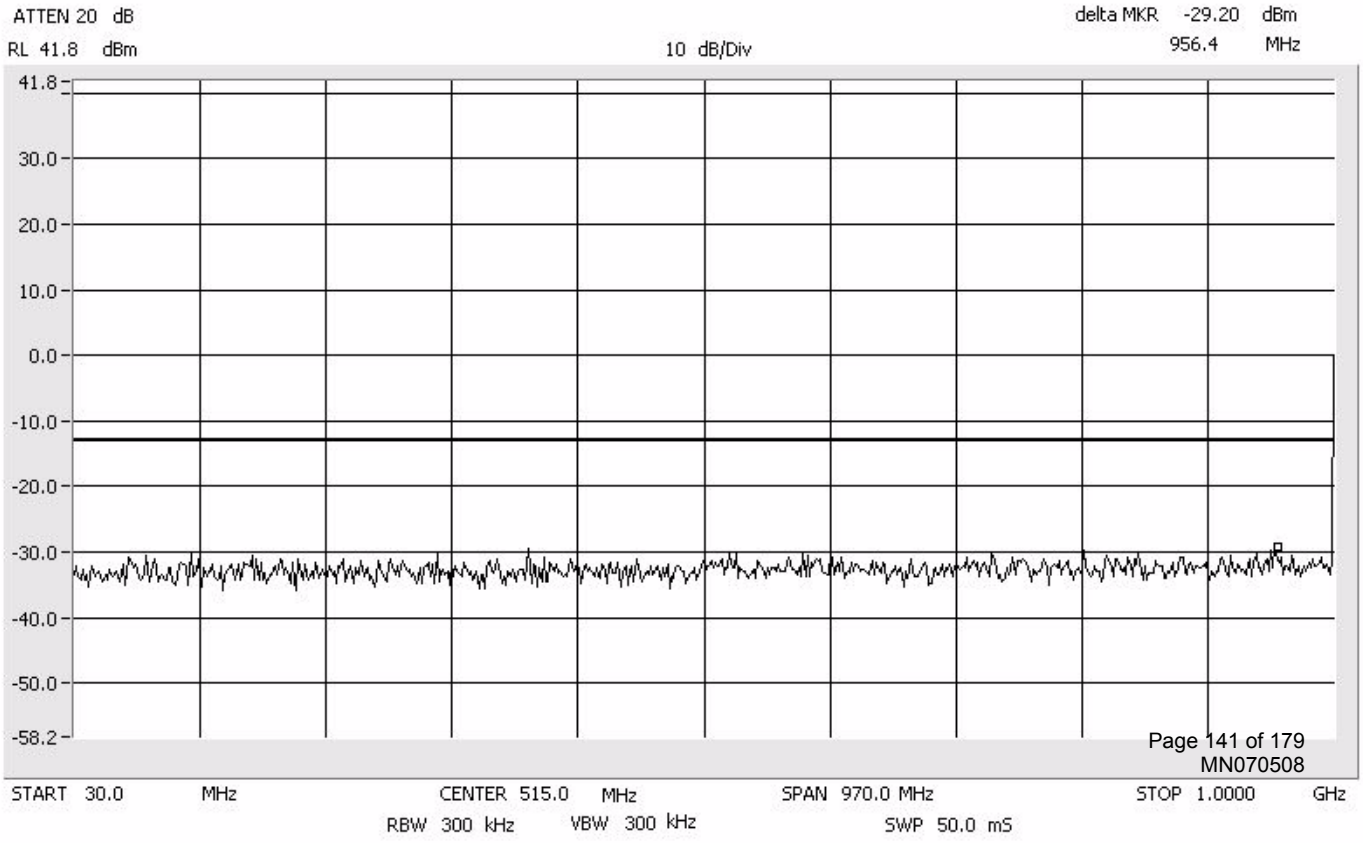
Center: 1977.5 MHz
Span: 30 MHz
RBW/VBW: 100 kHz



CDMA
EFC Band

Intermodulation
Close - Upper
PCS 1900 MHz

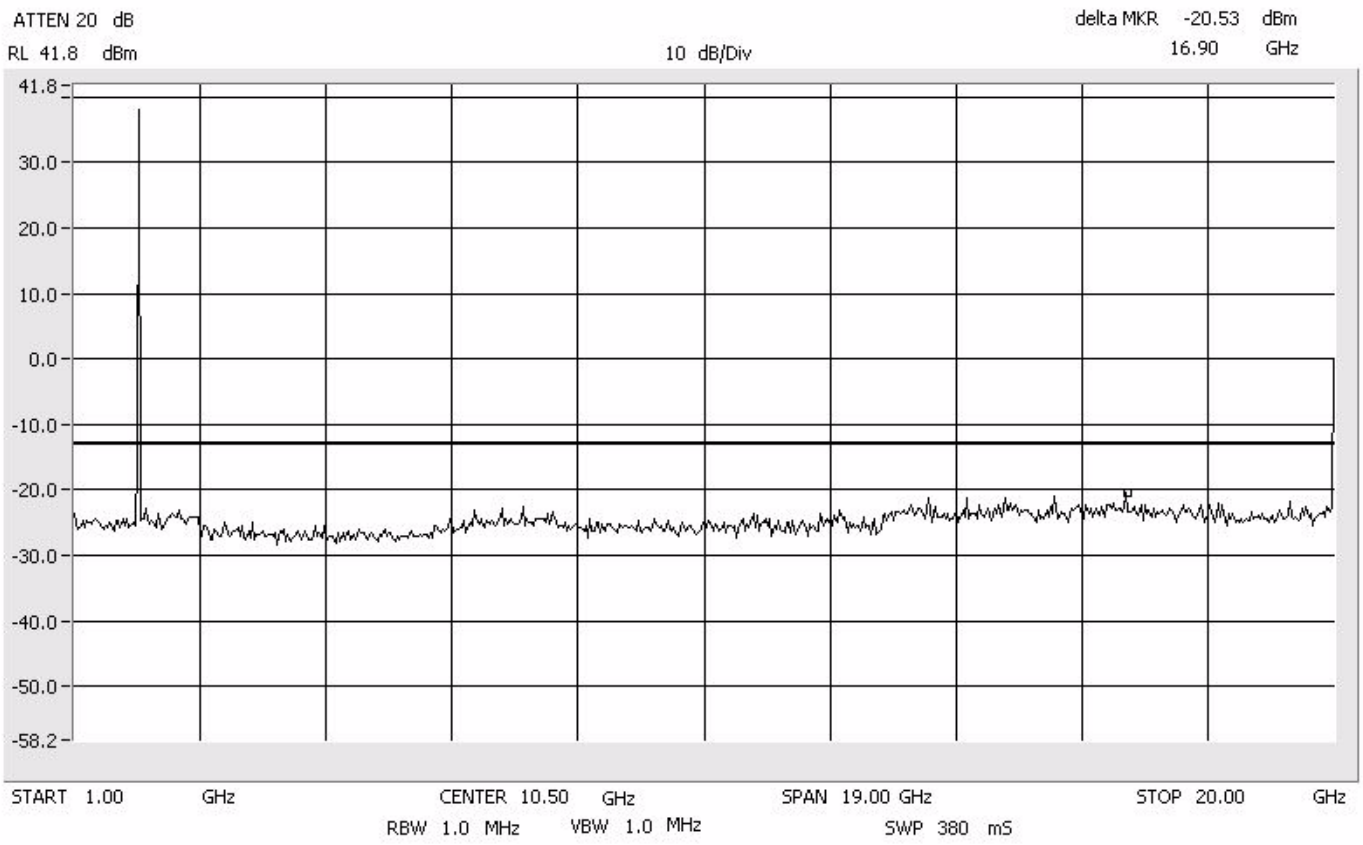
Span: 30 MHz to 1 GHz
RBW/VBW: 300 kHz



CDMA
EFC Band

Intermodulation
Close - Upper
PCS 1900 MHz

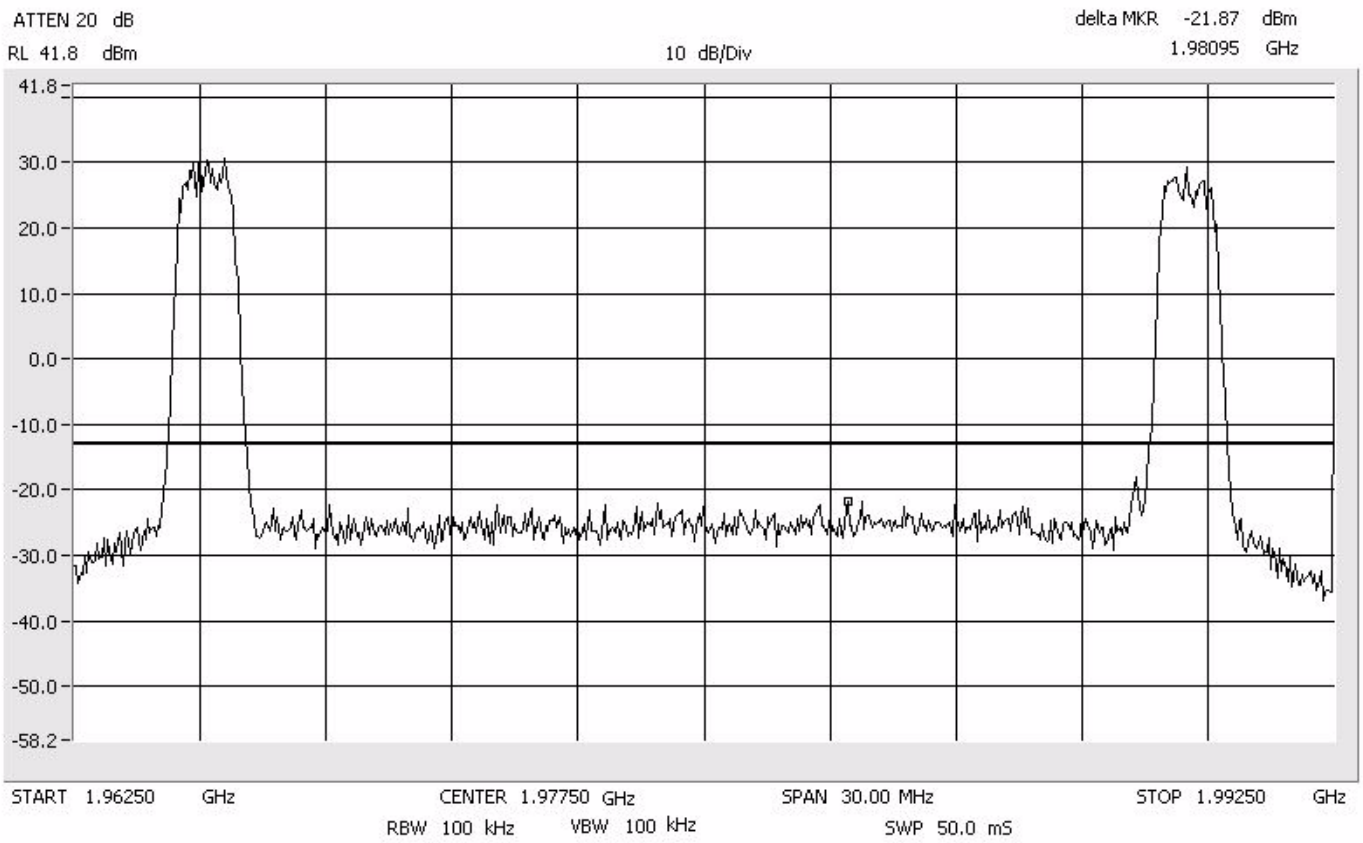
Span: 1 GHz to 20 GHz
RBW/VBW: 1 MHz



CDMA
EFC Band

Intermodulation
Apart
PCS 1900 MHz

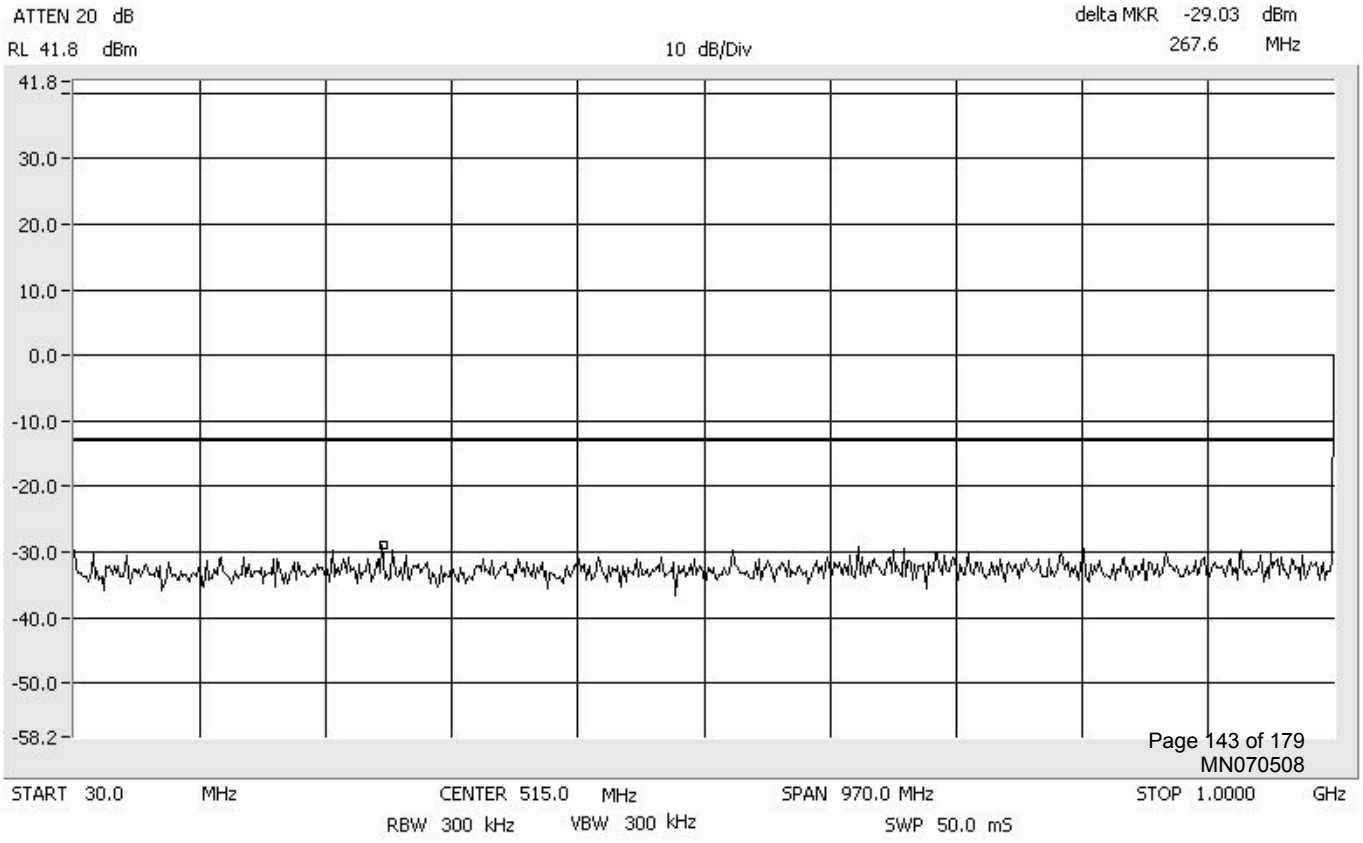
Center: 1977.5 MHz
Span: 30 MHz
RBW/VBW: 100 kHz



CDMA
EFC Band

Intermodulation
Apart
PCS 1900 MHz

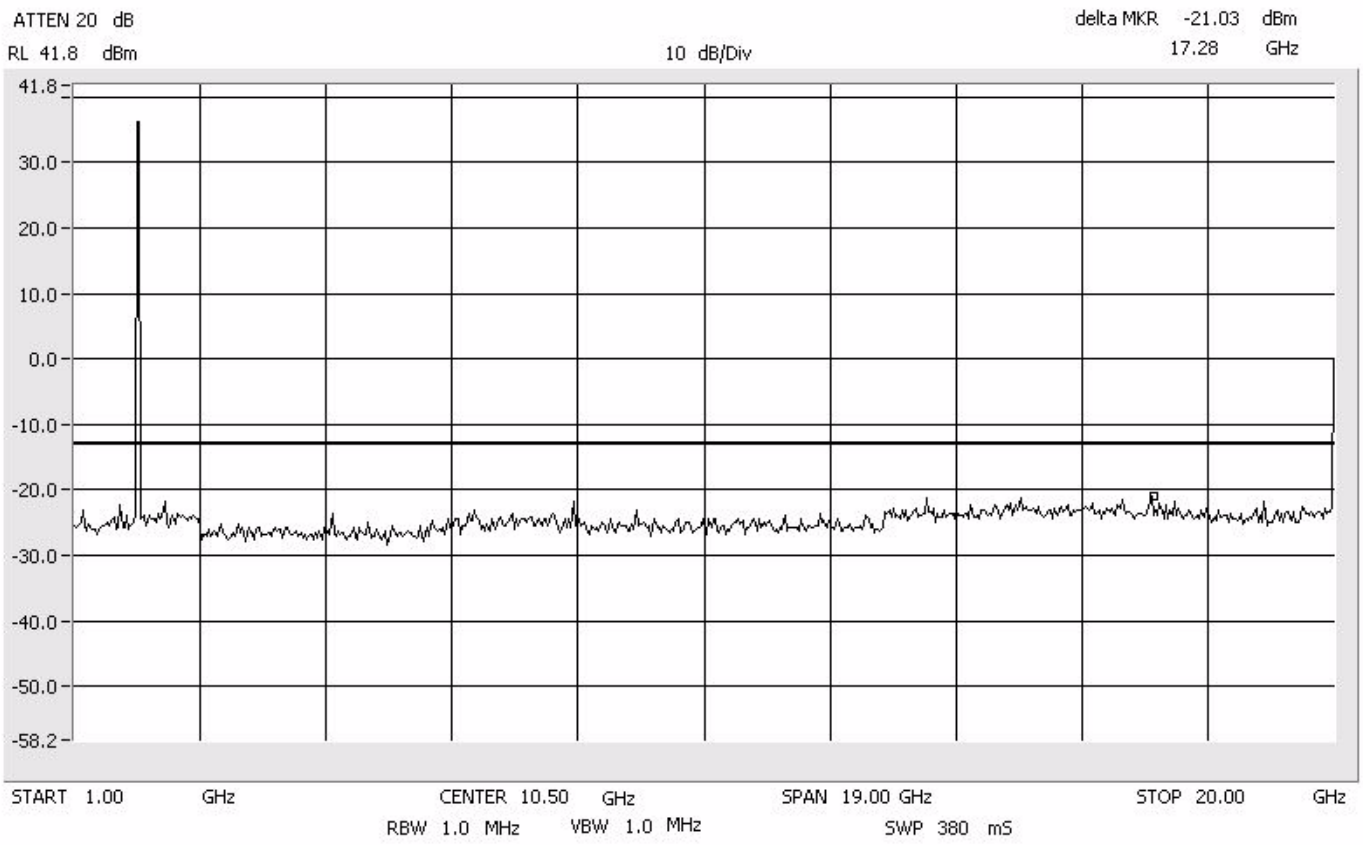
Span: 30 MHz to 1 GHz
RBW/VBW: 300 kHz



CDMA
EFC Band

Intermodulation
Apart
PCS 1900 MHz

Span: 1 GHz to 20 GHz
RBW/VBW: 1 MHz



Occupied Bandwidth Modulation Test for ADC Inc.
Digivance® SCS
Model Number DGVC-4X1X4X1X200SYS

Back

An input/output Occupied Bandwidth test was done with modulation types: TDMA, GSM, EDGE, CDMA, EVDO, and W-CDMA. The purpose was to determine the amount of distortion added to different types of modulation schemes by the EUT. The following plots show input signals vs. output signals.

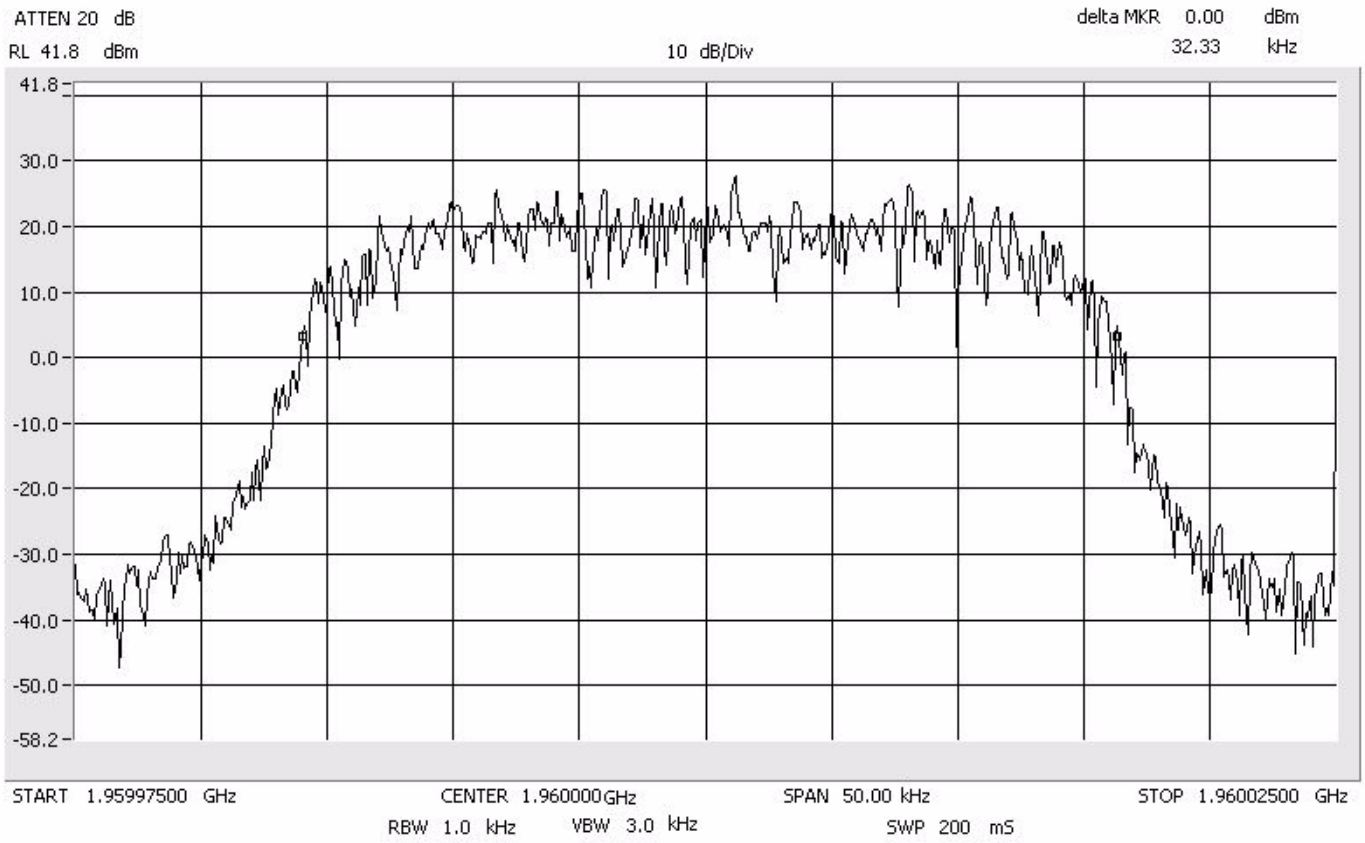
The resolution bandwidth is reduced to 1% of the estimated emission bandwidth and the video bandwidth is set to 3 times the resolution bandwidth. The markers are moved to the -20 dB points (from the previously established center frequency level) on either side of center frequency.

Results:

Pass (see plots)

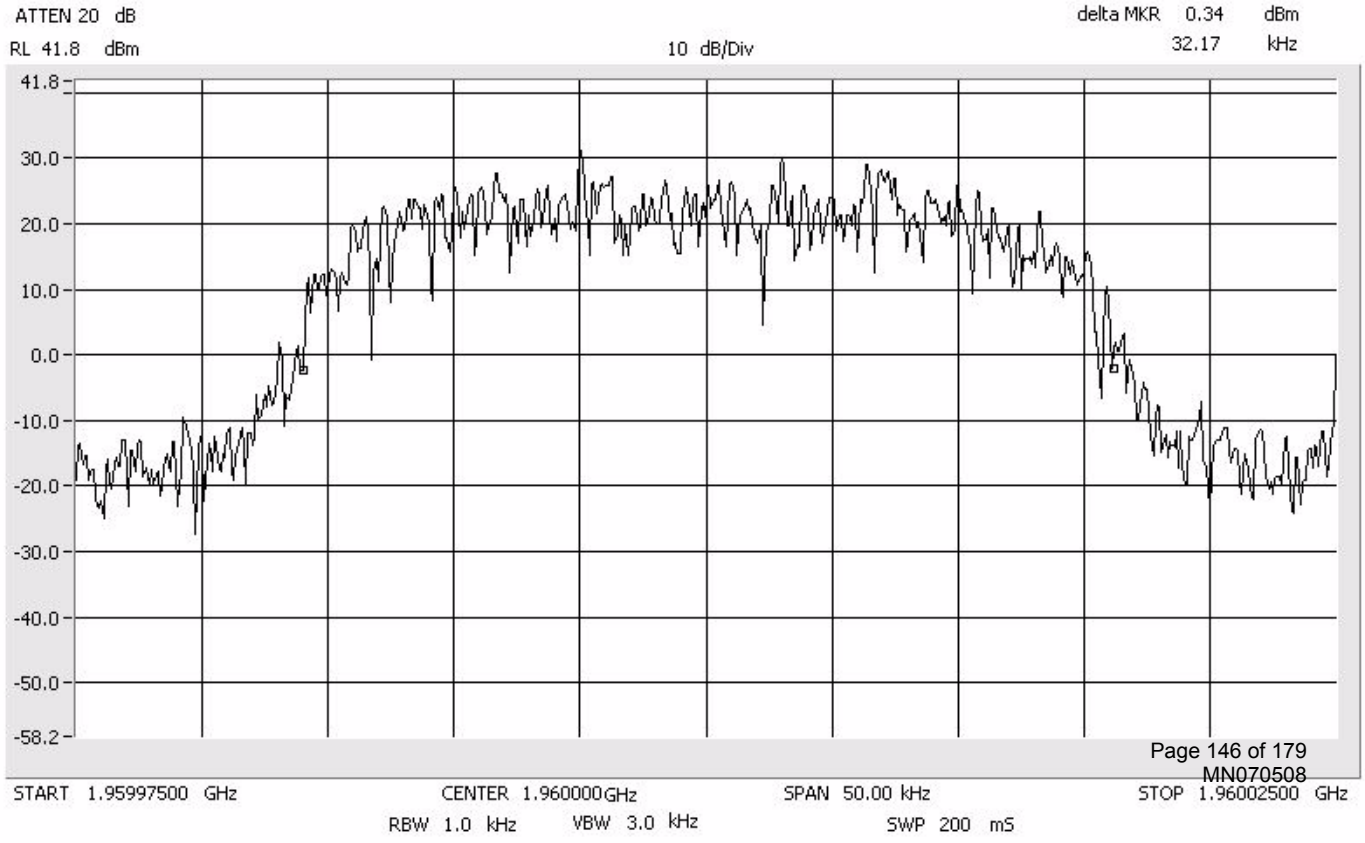
Occupied Bandwidth
TDMA
Signal In

Span: 50 kHz
RBW: 1 kHz
VBW: 3 kHz



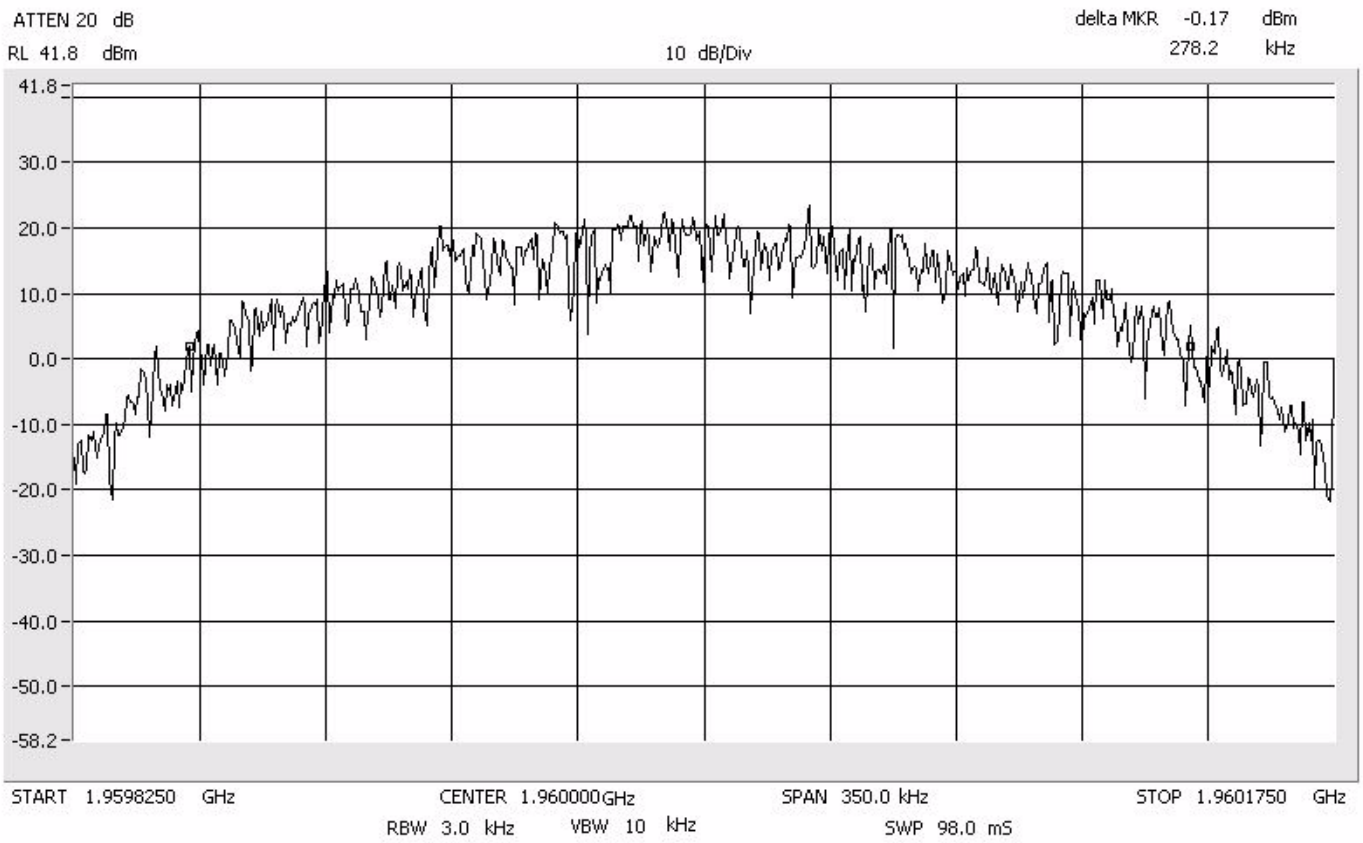
Occupied Bandwidth
TDMA
Signal Out

Span: 50 kHz
RBW: 1 kHz
VBW: 3 kHz



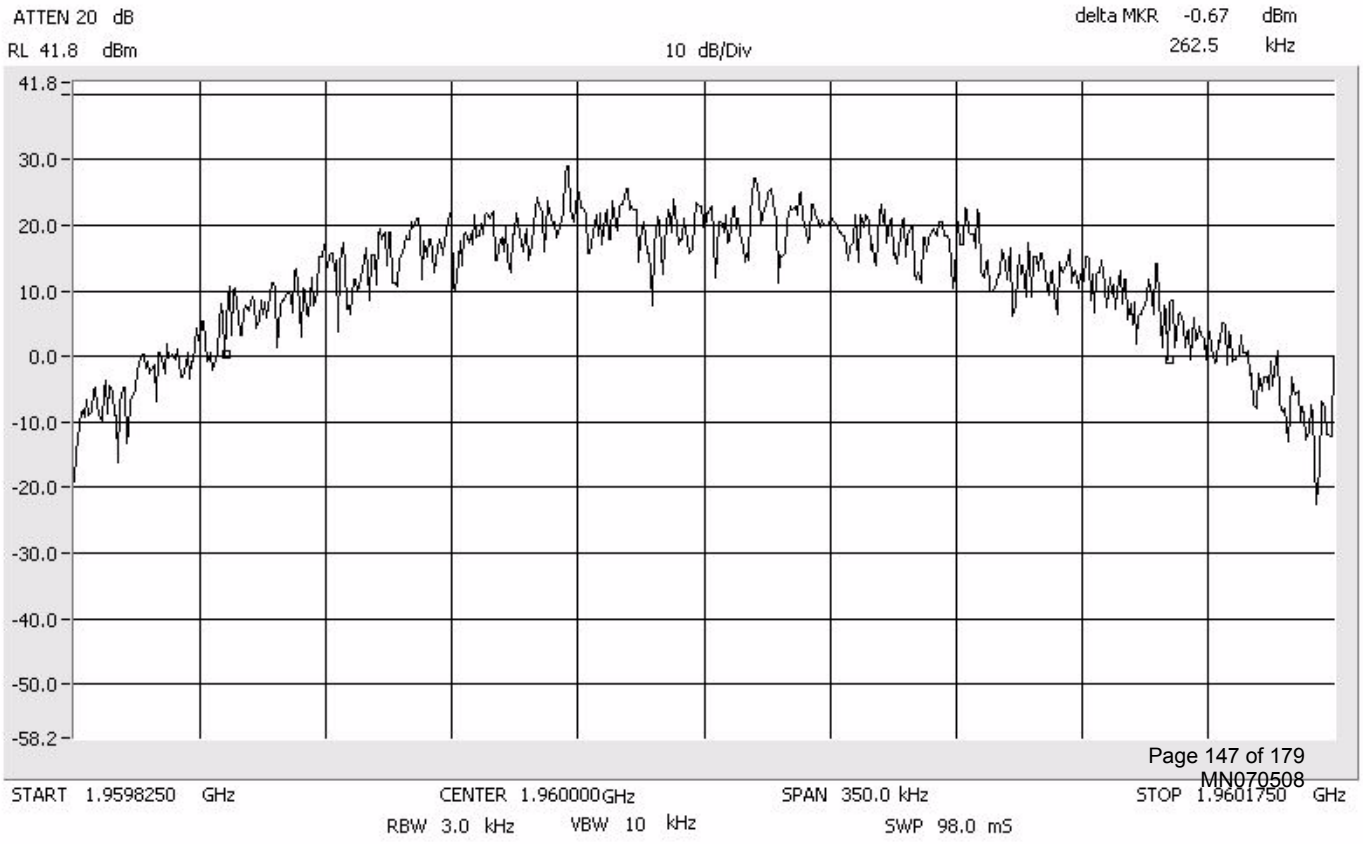
Occupied Bandwidth
GSM
Signal In

Span: 350 kHz
RBW: 3 kHz
VBW: 10 kHz



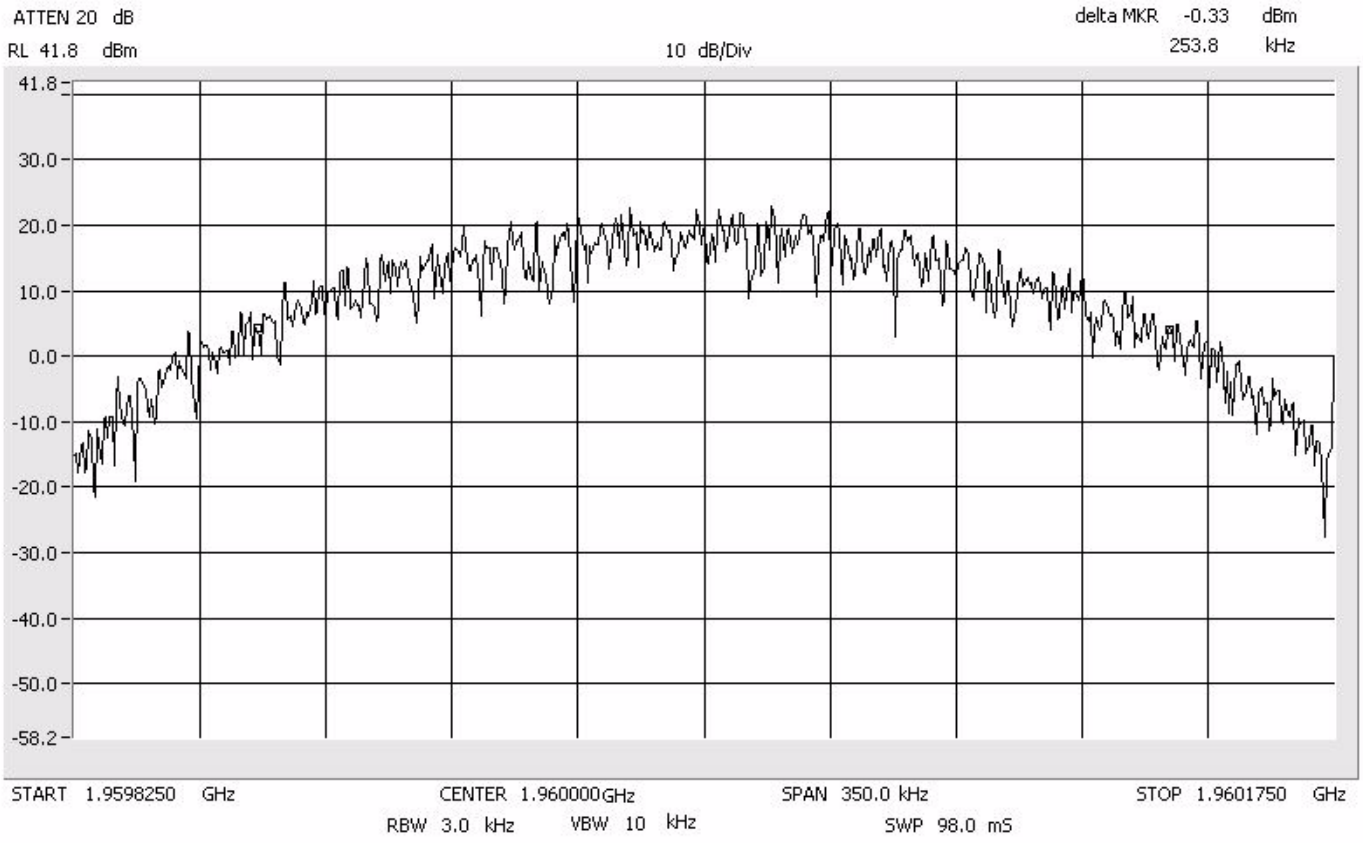
Occupied Bandwidth
GSM
Signal Out

Span: 350 kHz
RBW: 3 kHz
VBW: 10 kHz



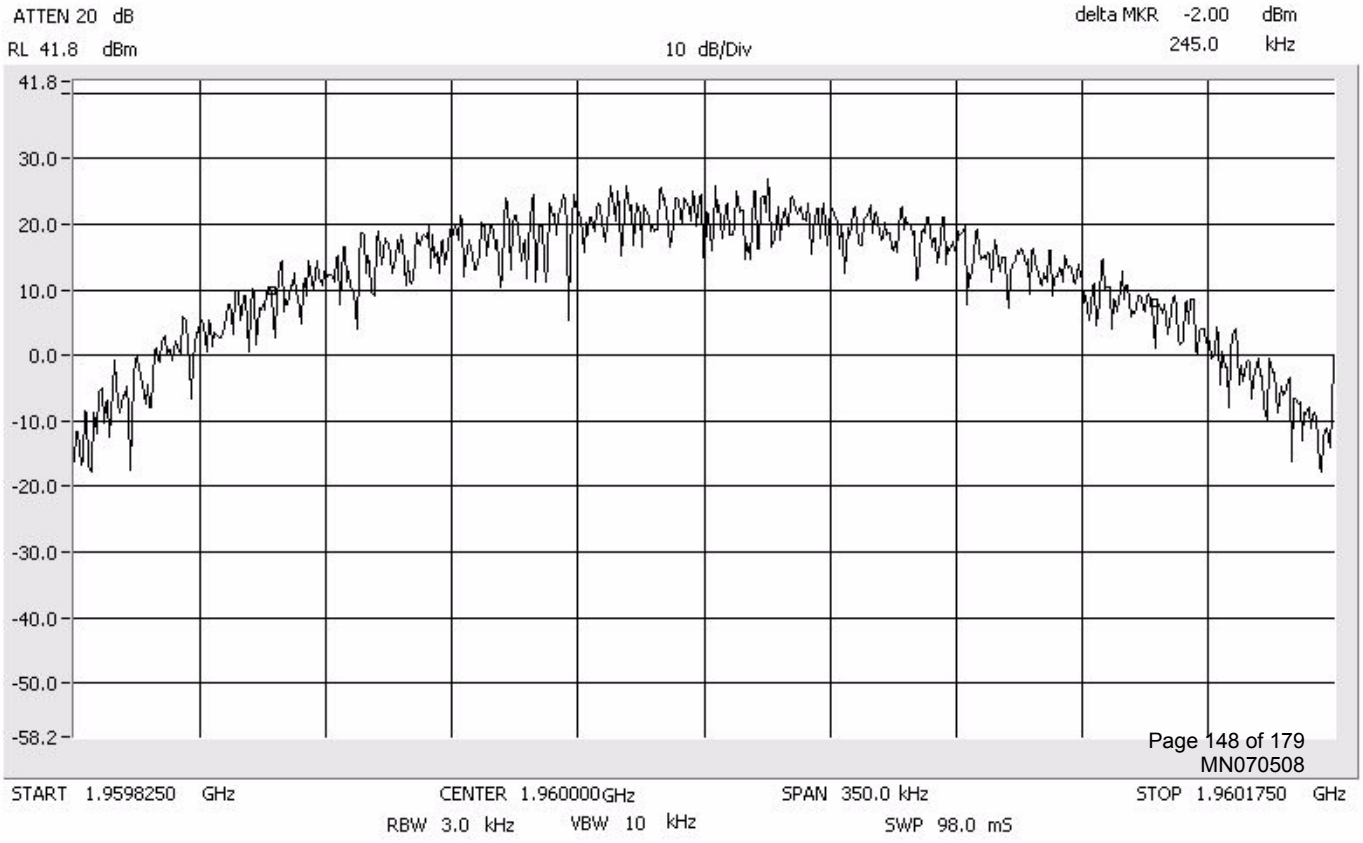
Occupied Bandwidth
EDGE
Signal In

Span: 350 kHz
RBW: 3 kHz
VBW: 10 kHz



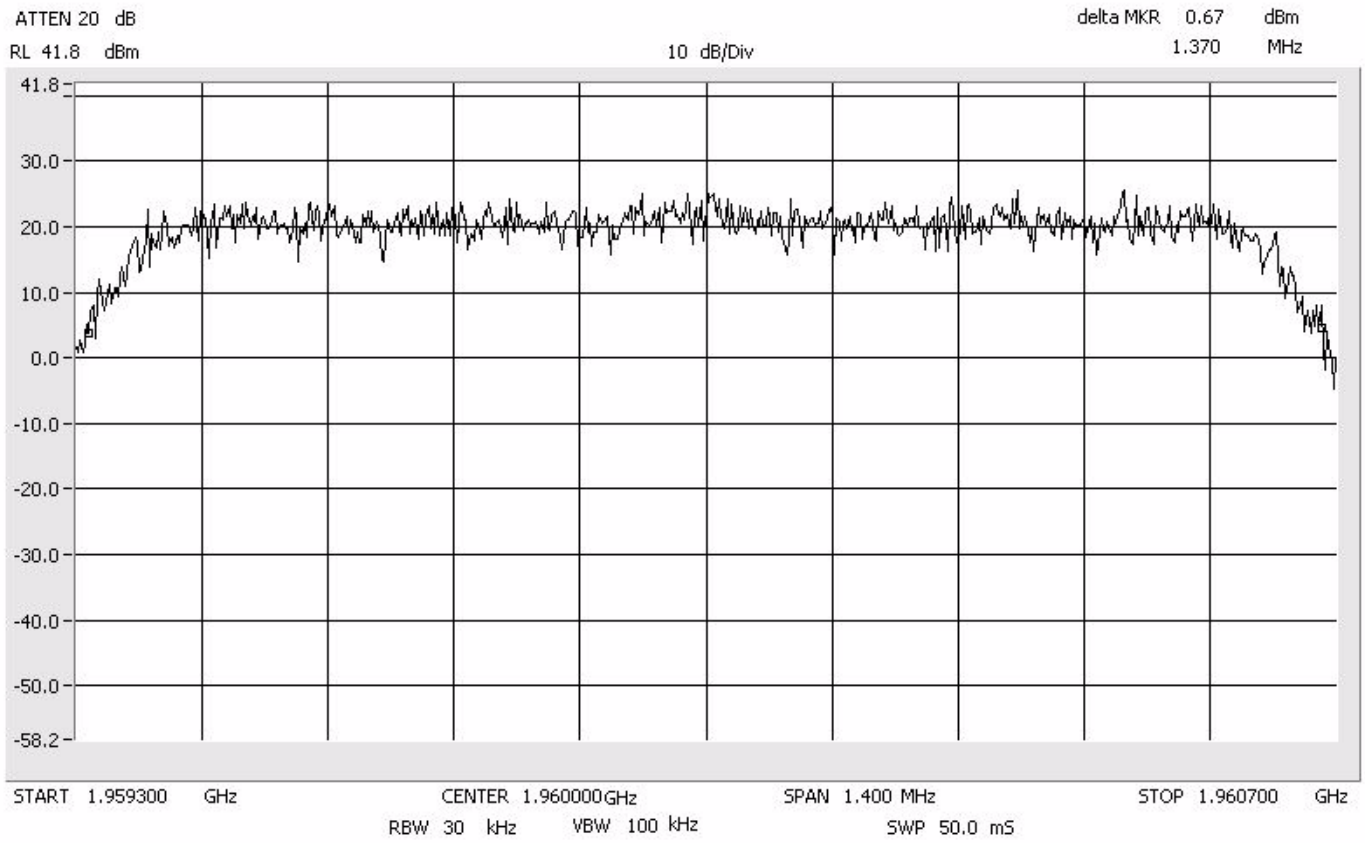
Occupied Bandwidth
EDGE
Signal Out

Span: 350 kHz
RBW: 3 kHz
VBW: 10 kHz



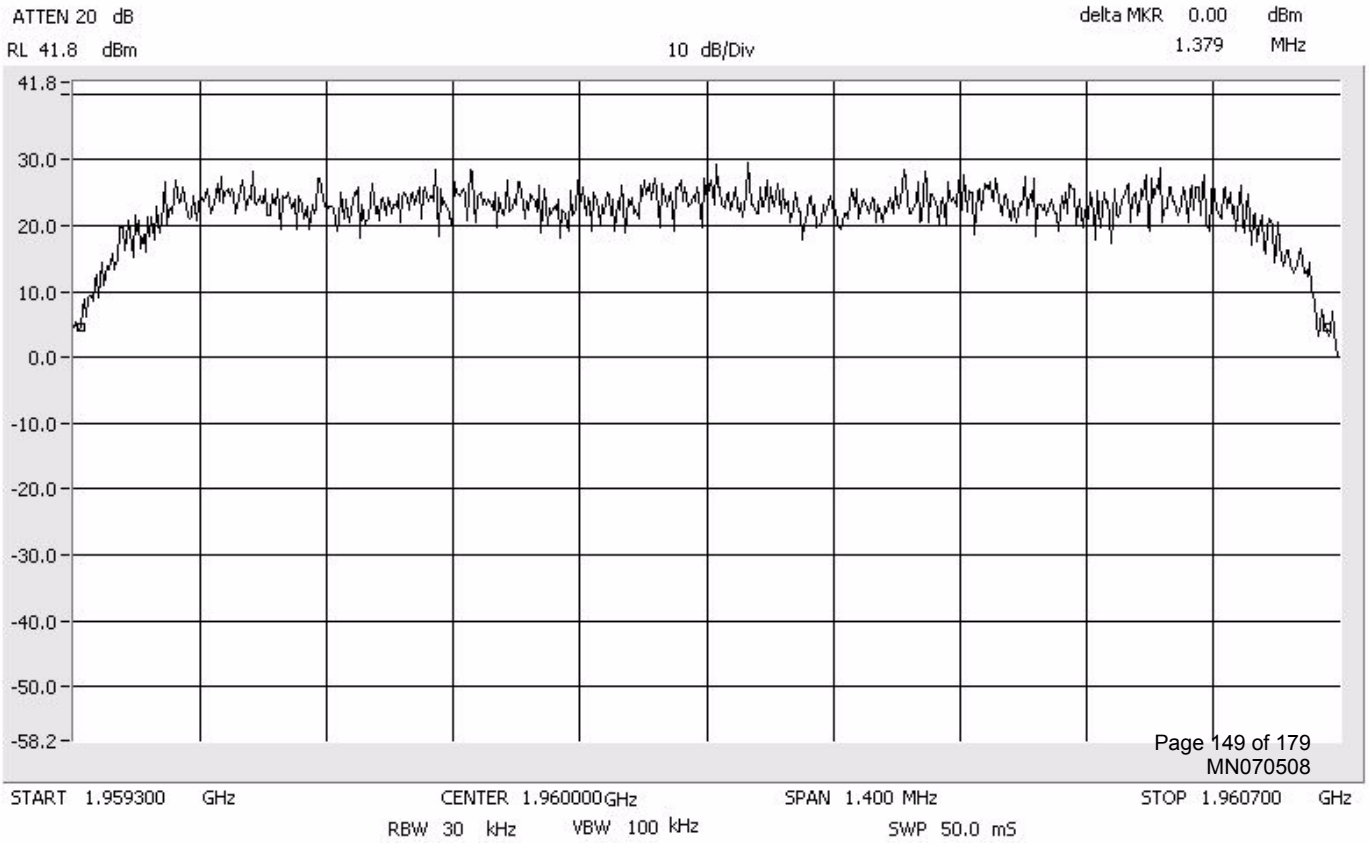
Occupied Bandwidth
CDMA
Signal In

Span: 1.4 MHz
RBW: 30 kHz
VBW: 100 kHz



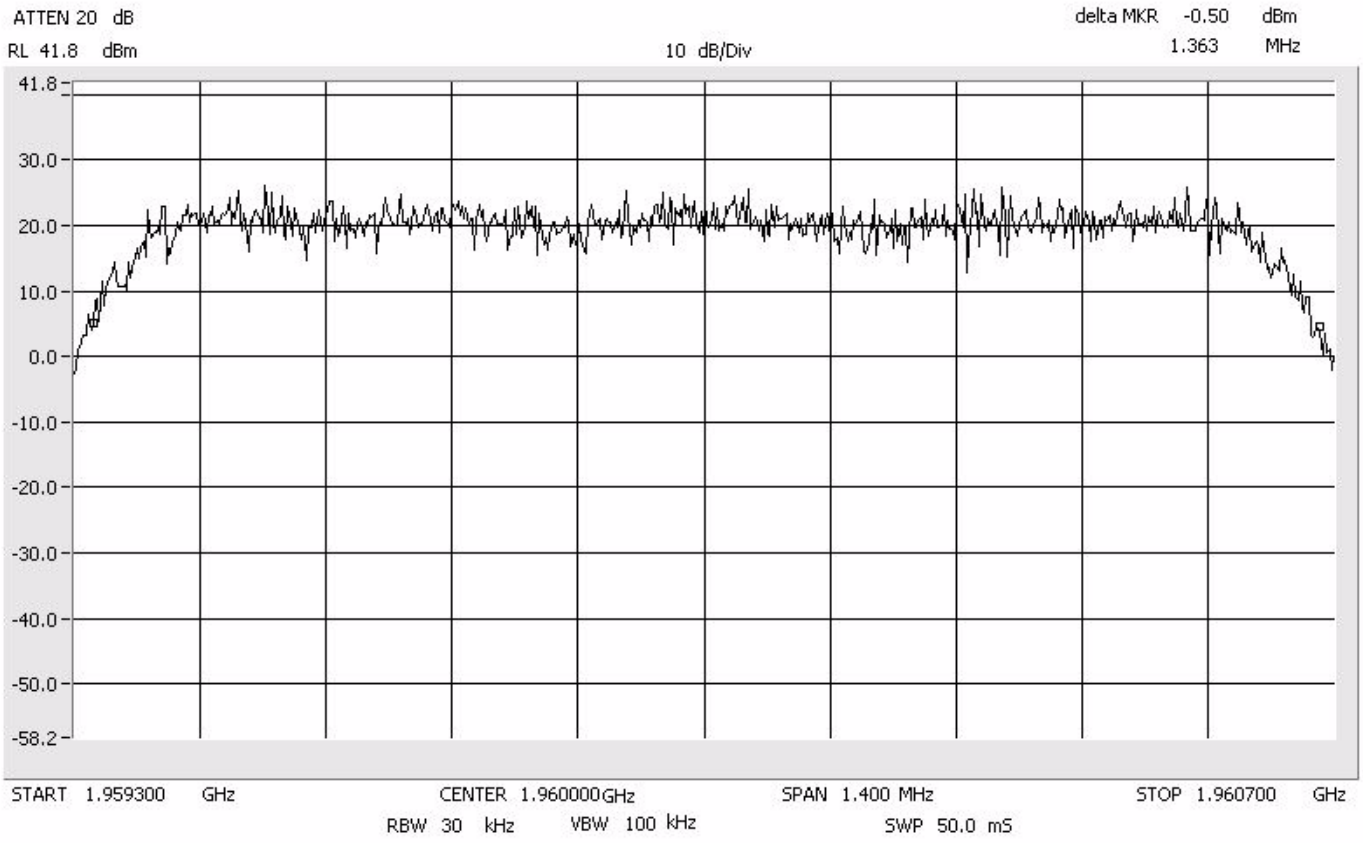
Occupied Bandwidth
CDMA
Signal Out

Span: 1.4 MHz
RBW: 30 kHz
VBW: 100 kHz



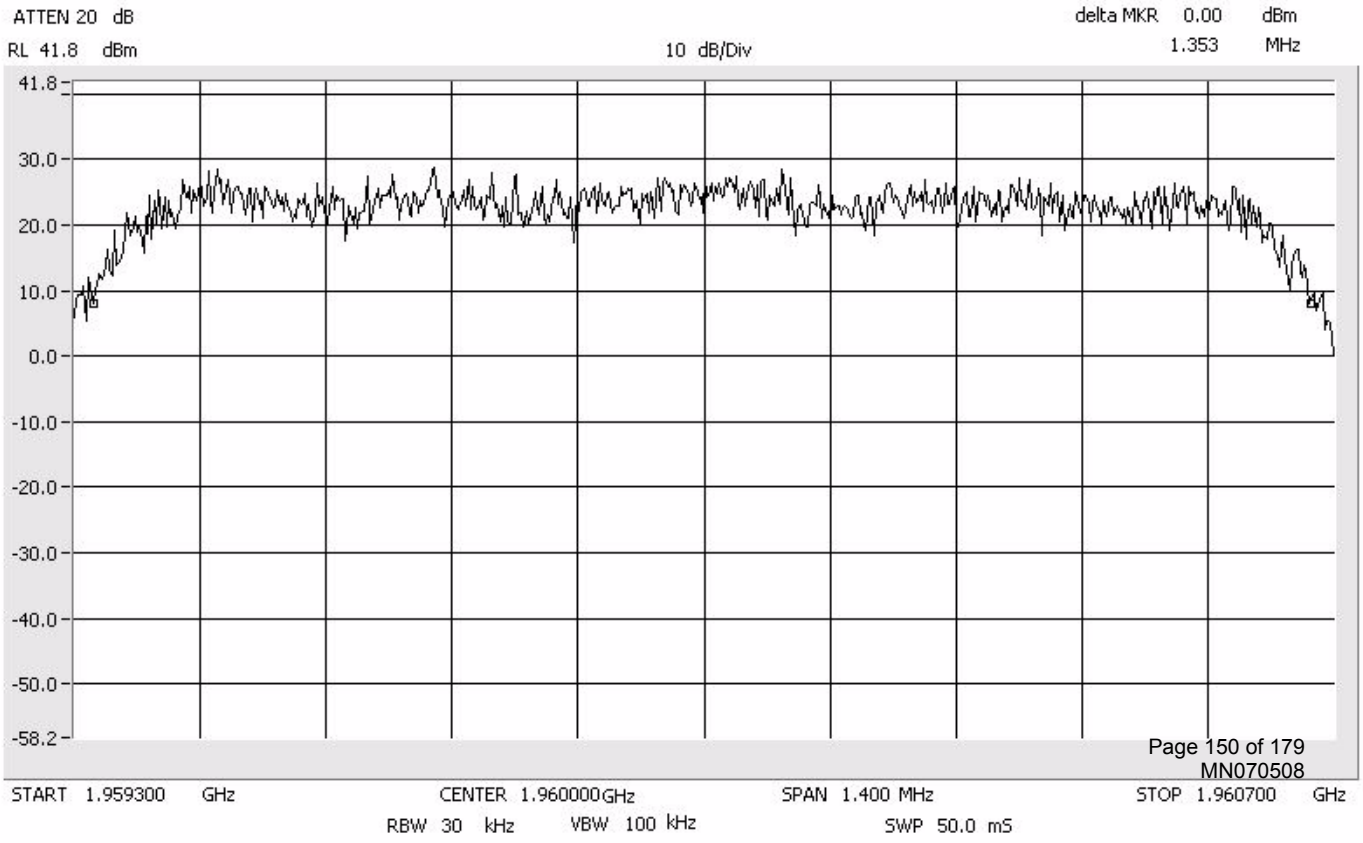
Occupied Bandwidth
EVDO
Signal In

Span: 1.4 MHz
RBW: 30 kHz
VBW: 100 kHz



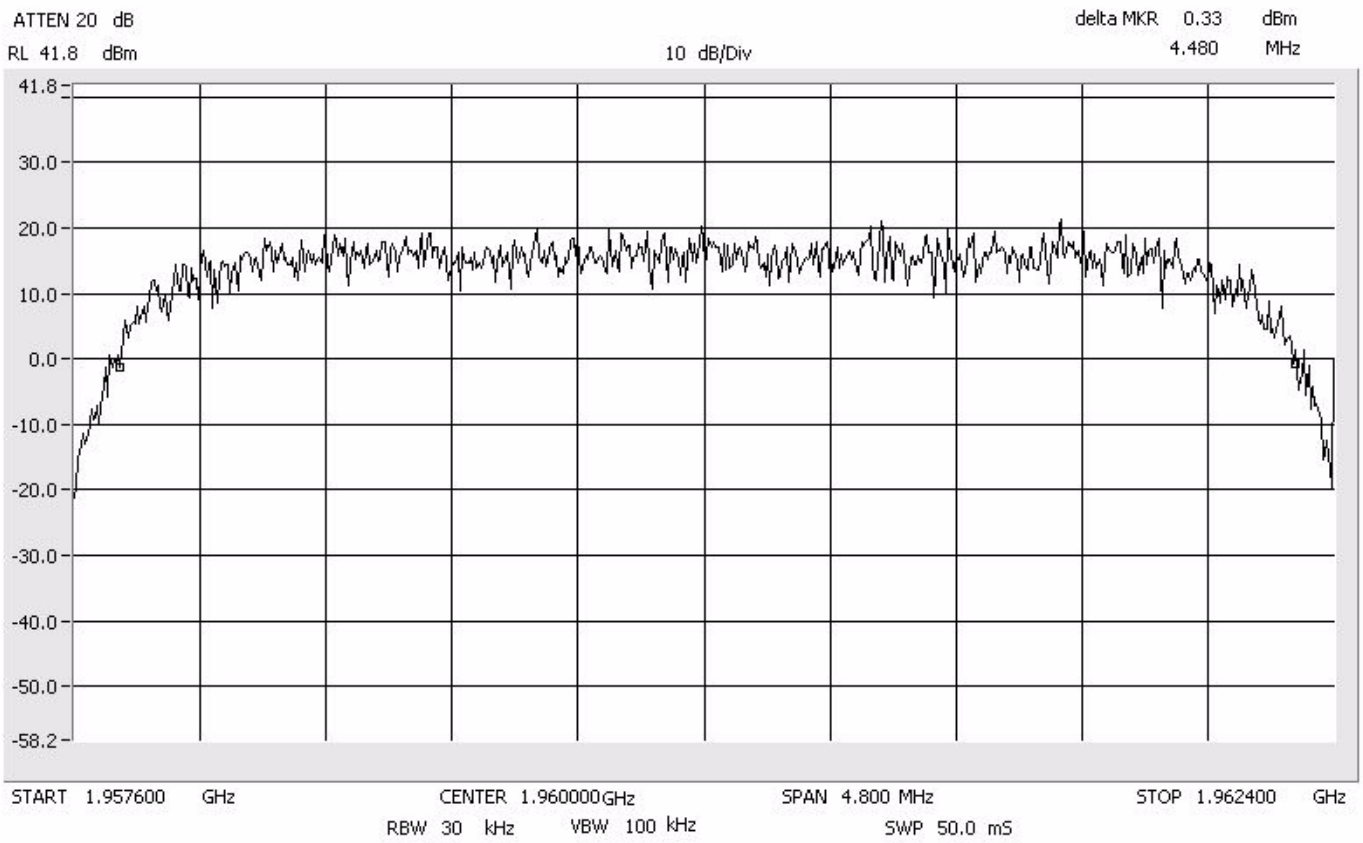
Occupied Bandwidth
EVDO
Signal Out

Span: 1.4 MHz
RBW: 30 kHz
VBW: 100 kHz



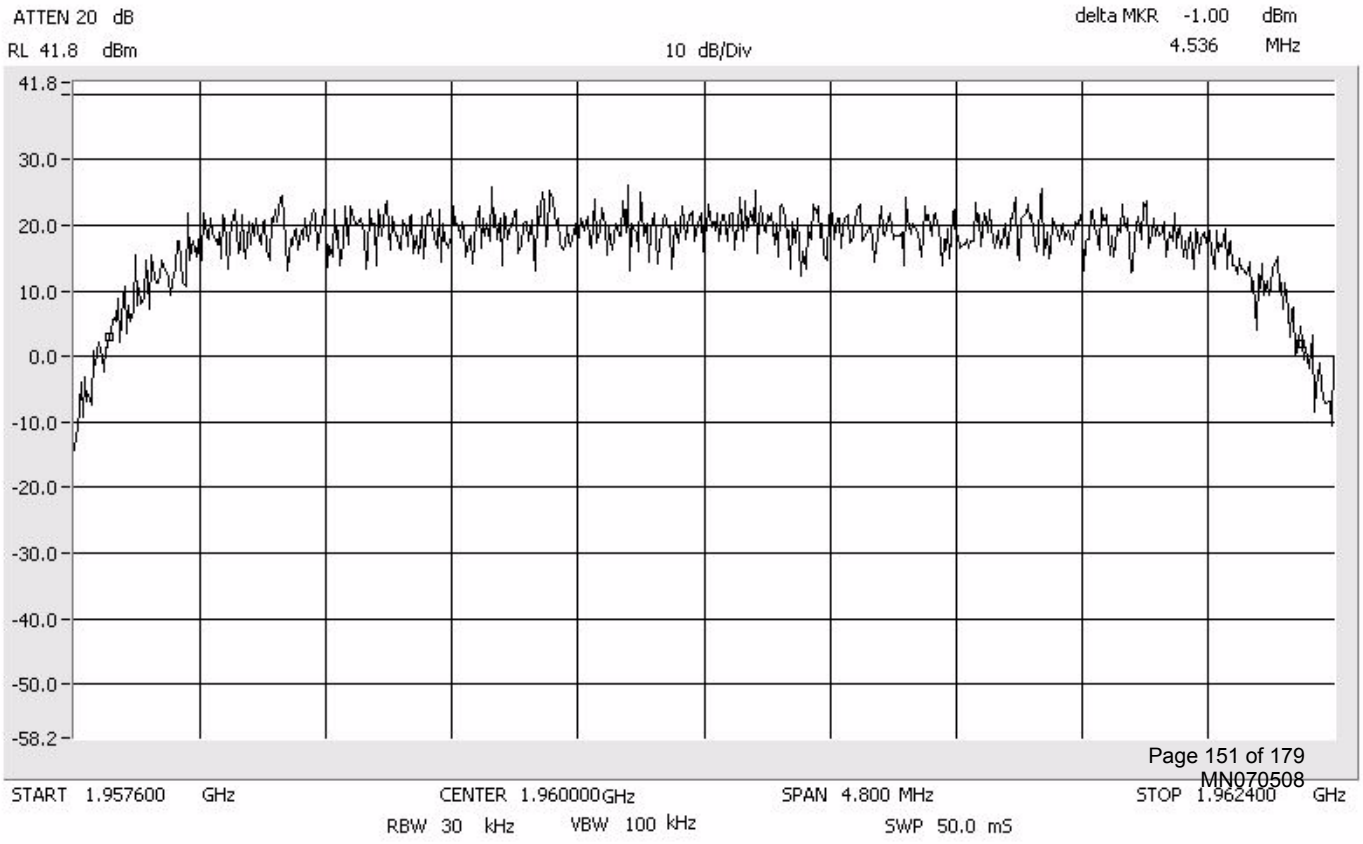
Occupied Bandwidth
W-CDMA
Signal In

Span: 4.8 MHz
RBW: 30 kHz
VBW: 100 kHz



Occupied Bandwidth
W-CDMA
Signal Out

Span: 4.8 MHz
RBW: 30 kHz
VBW: 100 kHz



Frequency Tolerance Test for ADC Inc.
Digivance® SCS
Model Number DGVC-4X1X4X1X200SYS

Back

EUT PCS (1900 MHz - AD)

HOST	REMOTE			
Input Voltage	**Input Voltage**	**Carrier Frequency**	**Measured Frequency**	**Meets Requirements?**
24 VDC	100 VAC	1930.200 MHz	1930.200 MHz	Yes
36 VDC	175 VAC	1930.200 MHz	1930.200 MHz	Yes
48 VDC	250 VAC	1930.200 MHz	1930.200 MHz	Yes
24 VDC	100 VAC	1940.000 MHz	1940.000 MHz	Yes
36 VDC	175 VAC	1940.000 MHz	1940.000 MHz	Yes
48 VDC	250 VAC	1940.000 MHz	1940.000 MHz	Yes
24 VDC	100 VAC	1949.800 MHz	1949.800 MHz	Yes
36 VDC	175 VAC	1949.800 MHz	1949.800 MHz	Yes
48 VDC	250 VAC	1949.800 MHz	1949.800 MHz	Yes
Temperature		**Carrier Frequency**	**Measured Frequency**	**Meets Requirements?**
-30 Deg. C		1930.200 MHz	1930.200 MHz	Yes
-20 Deg. C		1930.200 MHz	1930.200 MHz	Yes
-10 Deg. C		1930.200 MHz	1930.200 MHz	Yes
0 Deg. C		1930.200 MHz	1930.200 MHz	Yes
10 Deg. C		1930.200 MHz	1930.200 MHz	Yes
20 Deg. C		1930.200 MHz	1930.200 MHz	Yes
30 Deg. C		1930.200 MHz	1930.200 MHz	Yes
40 Deg. C		1930.200 MHz	1930.200 MHz	Yes
50 Deg. C		1930.200 MHz	1930.200 MHz	Yes
-30 Deg. C		1940.000 MHz	1940.000 MHz	Yes
-20 Deg. C		1940.000 MHz	1940.000 MHz	Yes
-10 Deg. C		1940.000 MHz	1940.000 MHz	Yes
0 Deg. C		1940.000 MHz	1940.000 MHz	Yes
10 Deg. C		1940.000 MHz	1940.000 MHz	Yes
20 Deg. C		1940.000 MHz	1940.000 MHz	Yes
30 Deg. C		1940.000 MHz	1940.000 MHz	Yes
40 Deg. C		1940.000 MHz	1940.000 MHz	Yes
50 Deg. C		1940.000 MHz	1940.000 MHz	Yes
-30 Deg. C		1949.800 MHz	1949.800 MHz	Yes
-20 Deg. C		1949.800 MHz	1949.800 MHz	Yes
-10 Deg. C		1949.800 MHz	1949.800 MHz	Yes
0 Deg. C		1949.800 MHz	1949.800 MHz	Yes
10 Deg. C		1949.800 MHz	1949.800 MHz	Yes
20 Deg. C		1949.800 MHz	1949.800 MHz	Yes
30 Deg. C		1949.800 MHz	1949.800 MHz	Yes
40 Deg. C		1949.800 MHz	1949.800 MHz	Yes
50 Deg. C		1949.800 MHz	1949.800 MHz	Yes

Frequency Tolerance Test for ADC Inc.
Digivance® SCS
Model Number DGVC-4X1X4X1X200SYS

EUT PCS (1900 MHz - DBE)

HOST	REMOTE			
Input Voltage	**Input Voltage**	**Carrier Frequency**	**Measured Frequency**	**Meets Requirements?**
24 VDC	100 VAC	1945.200 MHz	1945.200 MHz	Yes
36 VDC	175 VAC	1945.200 MHz	1945.200 MHz	Yes
48 VDC	250 VAC	1945.200 MHz	1945.200 MHz	Yes
24 VDC	100 VAC	1957.500 MHz	1957.500 MHz	Yes
36 VDC	175 VAC	1957.500 MHz	1957.500 MHz	Yes
48 VDC	250 VAC	1957.500 MHz	1957.500 MHz	Yes
24 VDC	100 VAC	1969.800 MHz	1969.800 MHz	Yes
36 VDC	175 VAC	1969.800 MHz	1969.800 MHz	Yes
48 VDC	250 VAC	1969.800 MHz	1969.800 MHz	Yes
Temperature		**Carrier Frequency**	**Measured Frequency**	**Meets Requirements?**
-30 Deg. C		1945.200 MHz	1945.200 MHz	Yes
-20 Deg. C		1945.200 MHz	1945.200 MHz	Yes
-10 Deg. C		1945.200 MHz	1945.200 MHz	Yes
0 Deg. C		1945.200 MHz	1945.200 MHz	Yes
10 Deg. C		1945.200 MHz	1945.200 MHz	Yes
20 Deg. C		1945.200 MHz	1945.200 MHz	Yes
30 Deg. C		1945.200 MHz	1945.200 MHz	Yes
40 Deg. C		1945.200 MHz	1945.200 MHz	Yes
50 Deg. C		1945.200 MHz	1945.200 MHz	Yes
-30 Deg. C		1957.500 MHz	1957.500 MHz	Yes
-20 Deg. C		1957.500 MHz	1957.500 MHz	Yes
-10 Deg. C		1957.500 MHz	1957.500 MHz	Yes
0 Deg. C		1957.500 MHz	1957.500 MHz	Yes
10 Deg. C		1957.500 MHz	1957.500 MHz	Yes
20 Deg. C		1957.500 MHz	1957.500 MHz	Yes
30 Deg. C		1957.500 MHz	1957.500 MHz	Yes
40 Deg. C		1957.500 MHz	1957.500 MHz	Yes
50 Deg. C		1957.500 MHz	1957.500 MHz	Yes
-30 Deg. C		1969.800 MHz	1969.800 MHz	Yes
-20 Deg. C		1969.800 MHz	1969.800 MHz	Yes
-10 Deg. C		1969.800 MHz	1969.800 MHz	Yes
0 Deg. C		1969.800 MHz	1969.800 MHz	Yes
10 Deg. C		1969.800 MHz	1969.800 MHz	Yes
20 Deg. C		1969.800 MHz	1969.800 MHz	Yes
30 Deg. C		1969.800 MHz	1969.800 MHz	Yes
40 Deg. C		1969.800 MHz	1969.800 MHz	Yes
50 Deg. C		1969.800 MHz	1969.800 MHz	Yes

Frequency Tolerance Test for ADC Inc.
Digivance® SCS
Model Number DGVC-4X1X4X1X200SYS

EUT PCS (1900 MHz - BEF)

HOST	REMOTE			
Input Voltage	**Input Voltage**	**Carrier Frequency**	**Measured Frequency**	**Meets Requirements?**
24 VDC	100 VAC	1950.200 MHz	1950.200 MHz	Yes
36 VDC	175 VAC	1950.200 MHz	1950.200 MHz	Yes
48 VDC	250 VAC	1950.200 MHz	1950.200 MHz	Yes
24 VDC	100 VAC	1962.500 MHz	1962.500 MHz	Yes
36 VDC	175 VAC	1962.500 MHz	1962.500 MHz	Yes
48 VDC	250 VAC	1962.500 MHz	1962.500 MHz	Yes
24 VDC	100 VAC	1974.800 MHz	1974.800 MHz	Yes
36 VDC	175 VAC	1974.800 MHz	1974.800 MHz	Yes
48 VDC	250 VAC	1974.800 MHz	1974.800 MHz	Yes
Temperature		**Carrier Frequency**	**Measured Frequency**	**Meets Requirements?**
-30 Deg. C		1950.200 MHz	1950.200 MHz	Yes
-20 Deg. C		1950.200 MHz	1950.200 MHz	Yes
-10 Deg. C		1950.200 MHz	1950.200 MHz	Yes
0 Deg. C		1950.200 MHz	1950.200 MHz	Yes
10 Deg. C		1950.200 MHz	1950.200 MHz	Yes
20 Deg. C		1950.200 MHz	1950.200 MHz	Yes
30 Deg. C		1950.200 MHz	1950.200 MHz	Yes
40 Deg. C		1950.200 MHz	1950.200 MHz	Yes
50 Deg. C		1950.200 MHz	1950.200 MHz	Yes
-30 Deg. C		1962.500 MHz	1962.500 MHz	Yes
-20 Deg. C		1962.500 MHz	1962.500 MHz	Yes
-10 Deg. C		1962.500 MHz	1962.500 MHz	Yes
0 Deg. C		1962.500 MHz	1962.500 MHz	Yes
10 Deg. C		1962.500 MHz	1962.500 MHz	Yes
20 Deg. C		1962.500 MHz	1962.500 MHz	Yes
30 Deg. C		1962.500 MHz	1962.500 MHz	Yes
40 Deg. C		1962.500 MHz	1962.500 MHz	Yes
50 Deg. C		1962.500 MHz	1962.500 MHz	Yes
-30 Deg. C		1974.800 MHz	1974.800 MHz	Yes
-20 Deg. C		1974.800 MHz	1974.800 MHz	Yes
-10 Deg. C		1974.800 MHz	1974.800 MHz	Yes
0 Deg. C		1974.800 MHz	1974.800 MHz	Yes
10 Deg. C		1974.800 MHz	1974.800 MHz	Yes
20 Deg. C		1974.800 MHz	1974.800 MHz	Yes
30 Deg. C		1974.800 MHz	1974.800 MHz	Yes
40 Deg. C		1974.800 MHz	1974.800 MHz	Yes
50 Deg. C		1974.800 MHz	1974.800 MHz	Yes

Frequency Tolerance Test for ADC Inc.
Digivance® SCS
Model Number DGVC-4X1X4X1X200SYS

EUT PCS (1900 MHz - EFC)

HOST	REMOTE			
Input Voltage	**Input Voltage**	**Carrier Frequency**	**Measured Frequency**	**Meets Requirements?**
24 VDC	100 VAC	1965.200 MHz	1965.200 MHz	Yes
36 VDC	175 VAC	1965.200 MHz	1965.200 MHz	Yes
48 VDC	250 VAC	1965.200 MHz	1965.200 MHz	Yes
24 VDC	100 VAC	1977.500 MHz	1977.500 MHz	Yes
36 VDC	175 VAC	1977.500 MHz	1977.500 MHz	Yes
48 VDC	250 VAC	1977.500 MHz	1977.500 MHz	Yes
24 VDC	100 VAC	1989.800 MHz	1989.800 MHz	Yes
36 VDC	175 VAC	1989.800 MHz	1989.800 MHz	Yes
48 VDC	250 VAC	1989.800 MHz	1989.800 MHz	Yes
Temperature		**Carrier Frequency**	**Measured Frequency**	**Meets Requirements?**
-30 Deg. C		1965.200 MHz	1965.200 MHz	Yes
-20 Deg. C		1965.200 MHz	1965.200 MHz	Yes
-10 Deg. C		1965.200 MHz	1965.200 MHz	Yes
0 Deg. C		1965.200 MHz	1965.200 MHz	Yes
10 Deg. C		1965.200 MHz	1965.200 MHz	Yes
20 Deg. C		1965.200 MHz	1965.200 MHz	Yes
30 Deg. C		1965.200 MHz	1965.200 MHz	Yes
40 Deg. C		1965.200 MHz	1965.200 MHz	Yes
50 Deg. C		1965.200 MHz	1965.200 MHz	Yes
-30 Deg. C		1977.500 MHz	1977.500 MHz	Yes
-20 Deg. C		1977.500 MHz	1977.500 MHz	Yes
-10 Deg. C		1977.500 MHz	1977.500 MHz	Yes
0 Deg. C		1977.500 MHz	1977.500 MHz	Yes
10 Deg. C		1977.500 MHz	1977.500 MHz	Yes
20 Deg. C		1977.500 MHz	1977.500 MHz	Yes
30 Deg. C		1977.500 MHz	1977.500 MHz	Yes
40 Deg. C		1977.500 MHz	1977.500 MHz	Yes
50 Deg. C		1977.500 MHz	1977.500 MHz	Yes
-30 Deg. C		1989.800 MHz	1989.800 MHz	Yes
-20 Deg. C		1989.800 MHz	1989.800 MHz	Yes
-10 Deg. C		1989.800 MHz	1989.800 MHz	Yes
0 Deg. C		1989.800 MHz	1989.800 MHz	Yes
10 Deg. C		1989.800 MHz	1989.800 MHz	Yes
20 Deg. C		1989.800 MHz	1989.800 MHz	Yes
30 Deg. C		1989.800 MHz	1989.800 MHz	Yes
40 Deg. C		1989.800 MHz	1989.800 MHz	Yes
50 Deg. C		1989.800 MHz	1989.800 MHz	Yes

6.0 APPENDIX B

Intertek Test Data

Back to Test Data:

Substitution Results:
Page 18 of 21

Back to Table of Contents:

Test Engineer: Norman Shpilsher **Date:** 18 April, 2007

Test Procedure:
Test measurements were made in accordance with ANSI C63.4-2003, Standard Methods of Measurement of Radio Noise Emissions from Low-Voltage Electrical and Electronics Equipment in the Range of 9 kHz to 40 GHz.

Test Site Location:
The test site is a 3 meter Semi-Anechoic Chamber, constructed by Panashield™ Inc. and located
inside the building at 7250 Hudson Blvd. Suite 100, Oakdale, MN 55128.

Test Site Description:
The 3 meter Semi-Anechoic Chamber is constructed of Panabolt™ modular RF shielding and self-supported with structural steel designed for the local seismic zone rating. The chamber has the nominal size of 20' wide x 29' long x 18' high. All walls and ceiling of the chamber are treated with FFG-1000 Ferrite Grid absorber which was developed specifically to meet international requirements for EMC anechoic chambers for emissions and immunity measurements. To meet high frequency testing white HY-35 hybrid absorber is mounted on the ferrites in specular regions of the chamber.

The chamber has a 2 meter diameter ANSI test volume area and meets the requirements of ANSI C63.4 (1992), EN55022, and FCC Part 15 standards for testing at a 3 meter path length.

FCC Registration Number: 90706
IC Registration Number: 4359

TEST DATA

Test Data Number: 3120522MIN-001
Project Number: 3120522

Testing performed on the
SCS-PCS/PCS Dual

to
47 CFR, Part 24:2006

For
ADC Telecommunications Inc.

Test Performed by:	Test Authorized by:
Intertek	ADC Telecommunications Inc.
7250 Hudson Blvd. Suite 100	5341 12th Avenue East
Oakdale, MN 55128	Shakopee, MN 55379

Prepared by: _____ Date: April 18, 2007
Norman Shpilsher

TABLE OF CONTENTS

1.0 JOB DESCRIPTION

Equipment:	SCS-PCS/PCS Dual
Description:	Personal Communication Service, Street Coverage Solution
Transmitter Operating Range:	1930 to 1990MHz
Customer:	Mr. Mark Miska ADC Telecommunications Inc. 5341 12th Avenue East Shakopee, MN 55379 Phone: 952-403-8340
Test Standards:	**47 CFR, Part 24:2006**
Date Sample Submitted:	April 16, 2007
Test Work Started:	April 16, 2007
Test Work Completed:	April 17, 2007
Test Sample Conditions:	Good

2.0 TEST RESULTS

Referring to the performance criteria and the operating mode during the tests specified in this report, the equipment complies with the requirements according to the following standards.

TEST STANDARD	TEST	COMMENTS
Part 24	Spurious Enclosure Radiated Emissions	Pass

The EUT enclosure Radiated Emissions were tested with terminated RF output ports at both transmitters tuned to low (1930MHz), middle (1960MHz), and upper (1960MHz) operating frequency.
Testing was performed in frequency range from 30MHz to 20GHz.

Radiated Emissions in frequency range from 30MHz to 1GHz are shown in Tables 1 to 3 and Graphs 1 to 3.
Radiated Emissions in frequency range from 1 to 10GHz are shown in Tables 4 to 6 and Graphs 4 to 6.
Spurious Radiated Emissions in frequency range from 18 to 20GHz does not vary with the transmitters operating frequency and are shown in Graphs 7.
The maximum Spurious Enclosure Radiated Emissions of -13dBm were converted to 82.2dBμV/m field strength limits at 3m.
No emissions were detected above 9GHz.

Spurious Radiated Emissions Power measurements (substitution measurements) were made for frequencies with emissions level above 20dB below the field strength limits and are shown in Table 7.

Emissions at transmitters operating frequencies were removed from all tables.

Radiated Emissions from 30MHz to 1GHz **Date:** 04-16-2007

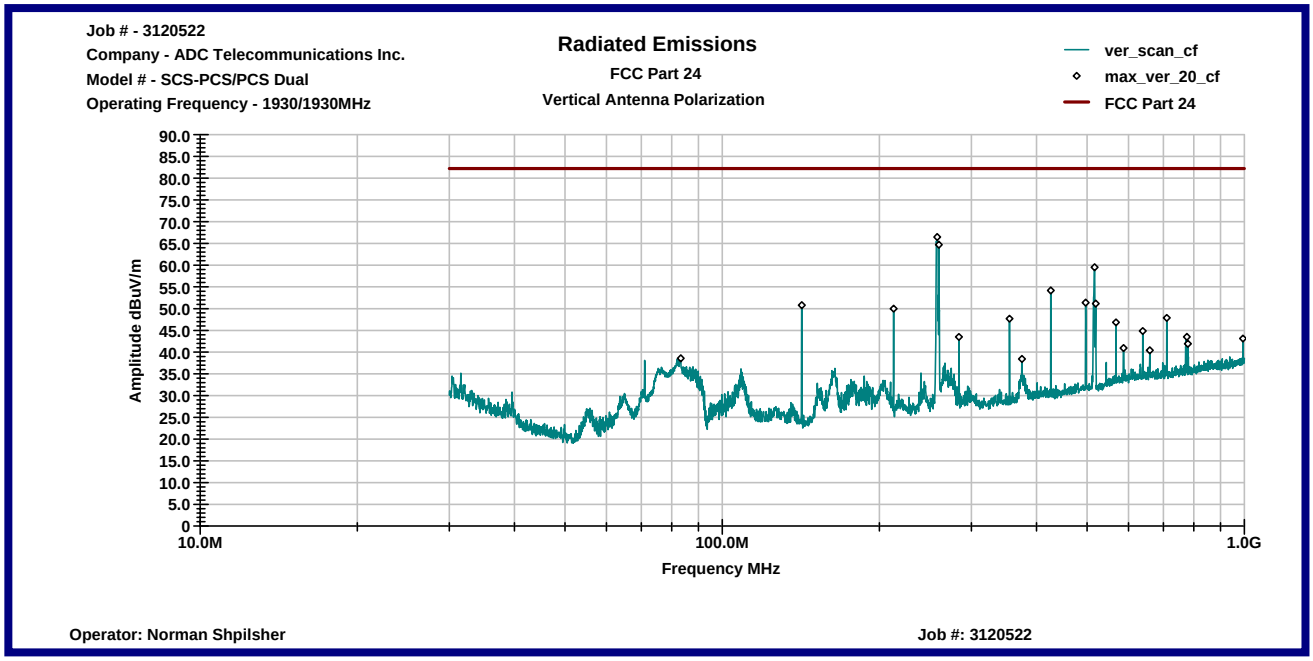
Company: ADC Telecommunications Inc.
Model: SCS-PCS/PCS Dual
Test Engineer: Norman Shpilsher
Special Info: Operating Frequency 1930/1930MHz
Standard: FCC Part 24
Test Site: 3m Anechoic Chamber, 3m measurement distance
Note: The table shows the worst case radiated emissions
Measurements were taken using a Peak detector

Table # 1

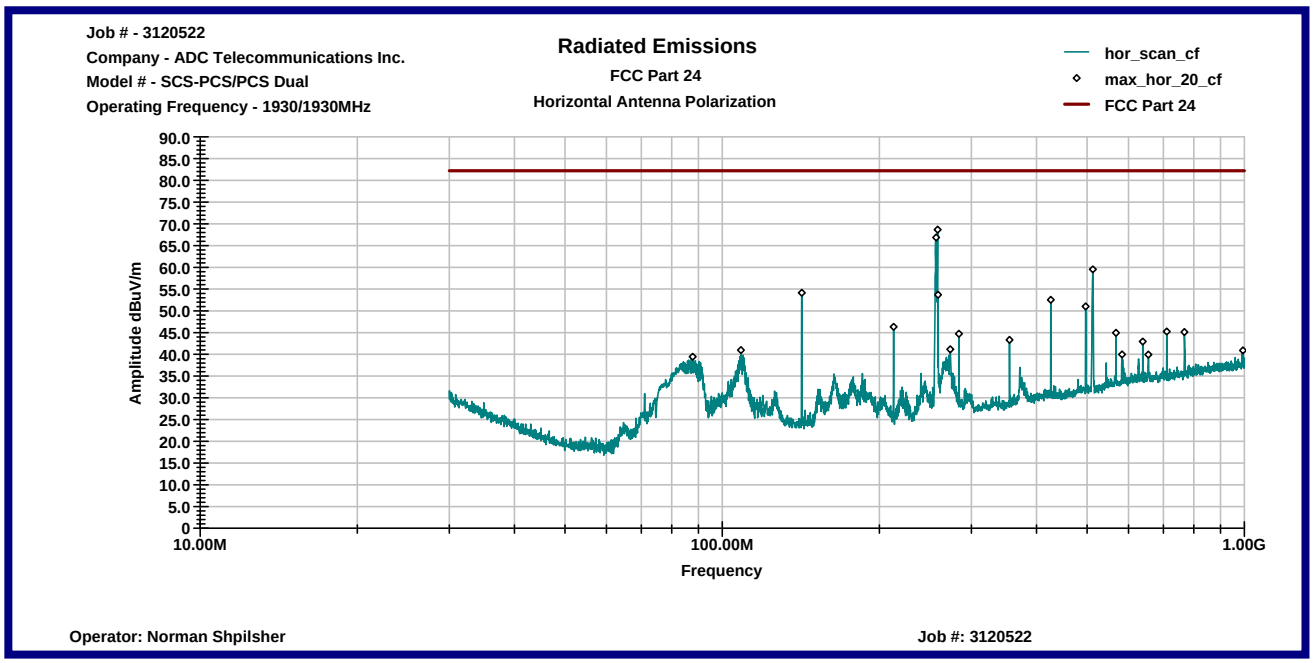
Frequency	Ant. Polarity	Reading dBµV	Ant.Factor dB1/m	Total at 3m dBµV/m	QP Limit dBµV/m	Margin dB
258.15 MHz	V	51.0	15.4	66.4	82.2	-15.8
259.92 MHz	V	49.2	15.5	64.7	82.2	-17.5
425.99 MHz	V	34.5	19.7	54.2	82.2	-28.1
496.6 MHz	V	30.8	20.6	51.4	82.2	-30.9
516.63 MHz	V	38.8	20.7	59.5	82.2	-22.7
519.41 MHz	V	30.4	20.7	51.1	82.2	-31.1
567.8 MHz	V	24.7	22.1	46.8	82.2	-35.4
638.99 MHz	V	22.1	22.8	44.8	82.2	-37.4
710.18 MHz	V	24.7	23.1	47.9	82.2	-34.3
142.07 MHz	H	41.3	12.8	54.1	82.2	-28.1
212.98 MHz	H	34.3	12.0	46.3	82.2	-35.9
256.82 MHz	H	51.5	15.3	66.8	82.2	-15.4
258.59 MHz	H	53.2	15.4	68.6	82.2	-13.6
259.04 MHz	H	38.2	15.5	53.7	82.2	-28.5
425.99 MHz	H	32.8	19.7	52.5	82.2	-29.7
496.6 MHz	H	30.4	20.6	51.0	82.2	-31.2
512.73 MHz	H	38.8	20.7	59.5	82.2	-22.7
710.18 MHz	H	22.1	23.1	45.2	82.2	-37.0

Graph #1
Radiated Emissions from 30MHz to 1GHz, 1930MHz Operating Frequency

Vertical Antenna Polarization



Horizontal Antenna Polarization



Radiated Emissions from 30MHz to 1GHz **Date:** 04-16-2007

Company: ADC Telecommunications Inc.
Model: SCS-PCS/PCS Dual
Test Engineer: Norman Shpilsher
Special Info: Operating Frequency 1960/1960MHz
Standard: FCC Part 24
Test Site: 3m Anechoic Chamber, 3m measurement distance
Note: The table shows the worst case radiated emissions
Measurements were taken using a Peak detector

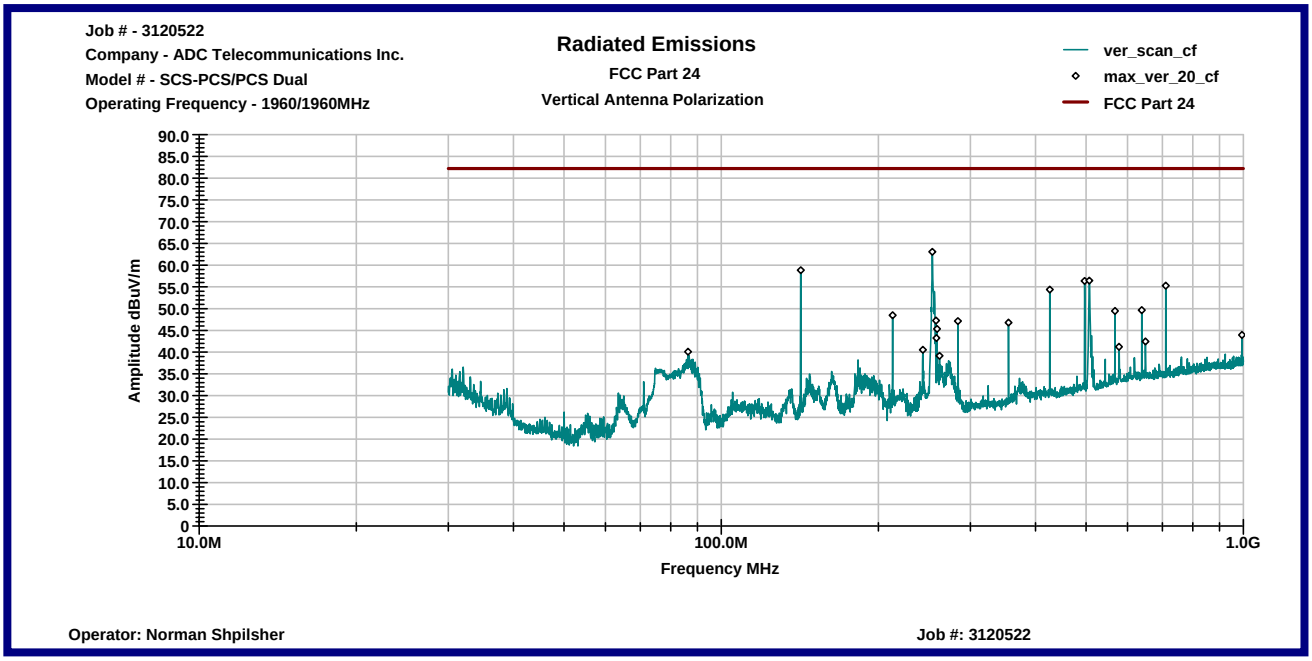
Table # 2

Frequency	Ant. Polarity	Reading dBµV	Ant.Factor dB1/m	Total at 3m dBµV/m	QP Limit dBµV/m	Margin dB
142.07 MHz	V	46.0	12.8	58.8	82.2	-23.4
212.98 MHz	V	36.5	12.0	48.5	82.2	-33.8
253.72 MHz	V	48.0	15.1	63.0	82.2	-19.2
425.99 MHz	V	34.7	19.7	54.4	82.2	-27.9
496.6 MHz	V	35.7	20.6	56.3	82.2	-25.9
507.17 MHz	V	35.8	20.7	56.4	82.2	-25.8
567.8 MHz	V	27.4	22.1	49.5	82.2	-32.8
638.99 MHz	V	26.9	22.8	49.6	82.2	-32.6
710.18 MHz	V	32.1	23.1	55.3	82.2	-26.9
142.07 MHz	H	47.0	12.8	59.8	82.2	-22.4
253.72 MHz	H	52.8	15.1	67.8	82.2	-14.4
257.04 MHz	H	40.4	15.3	55.8	82.2	-26.4
284.06 MHz	H	34.0	15.5	49.5	82.2	-32.7
425.99 MHz	H	33.3	19.7	52.9	82.2	-29.3
496.6 MHz	H	33.3	20.6	53.9	82.2	-28.3
507.17 MHz	H	35.0	20.7	55.6	82.2	-26.6
512.18 MHz	H	30.2	20.7	50.9	82.2	-31.3
710.18 MHz	H	32.5	23.1	55.6	82.2	-26.6

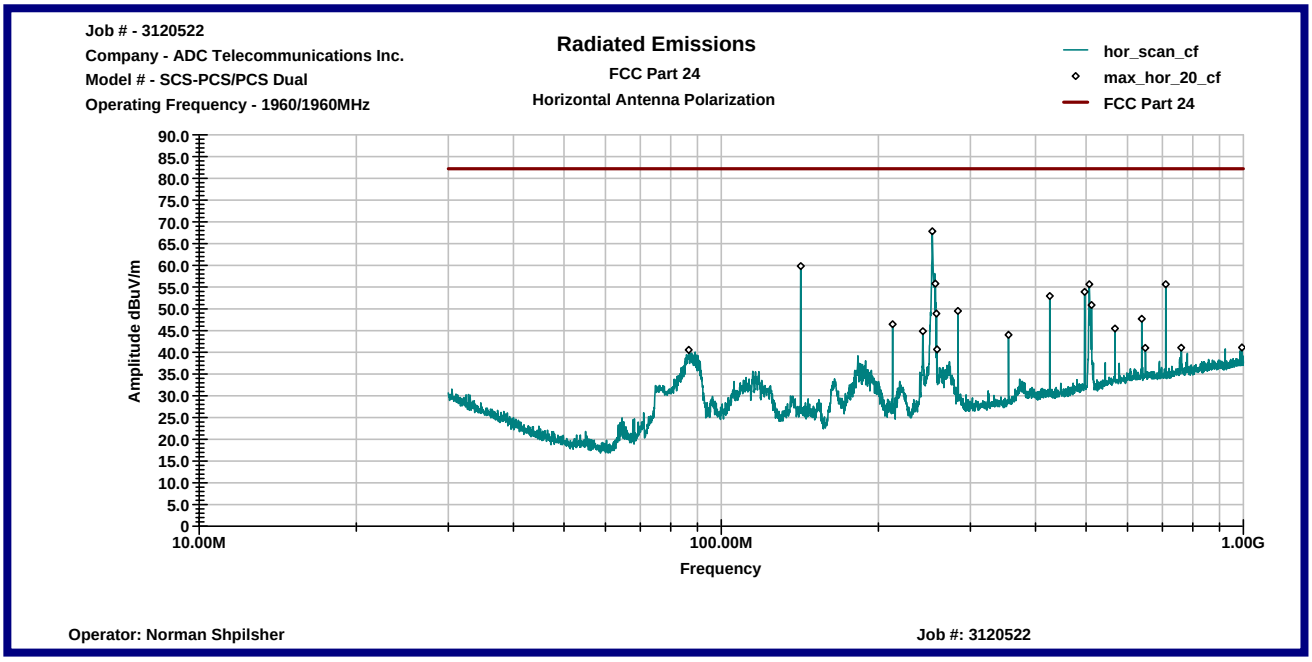
Graph #2

Radiated Emissions from 30MHz to 1GHz, 1960MHz Operating Frequency

Vertical Antenna Polarization



Horizontal Antenna Polarization



Radiated Emissions from 30MHz to 1GHz **Date:** 04-17-2007

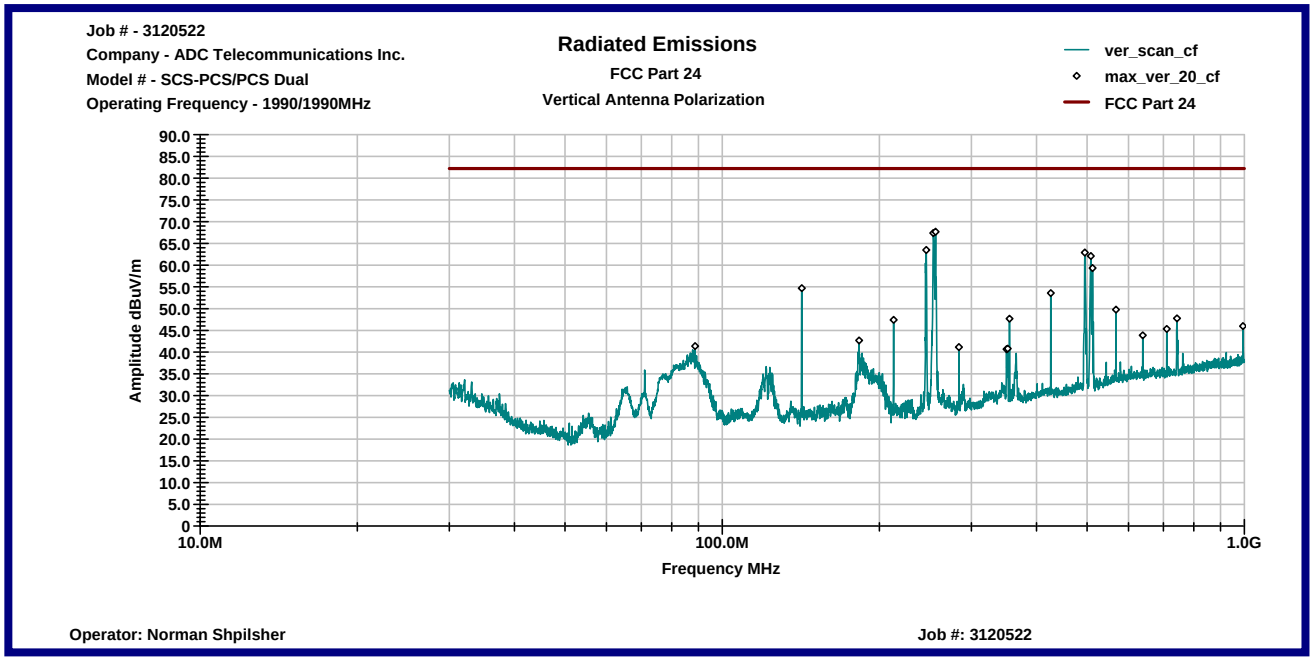
Company: ADC Telecommunications Inc.
Model: SCS-PCS/PCS Dual
Test Engineer: Norman Shpilsher
Special Info: Operating Frequency 1990/1990MHz
Standard: FCC Part 24
Test Site: 3m Anechoic Chamber, 3m measurement distance
Note: The table shows the worst case radiated emissions
Measurements were taken using a Peak detector

Table # 3

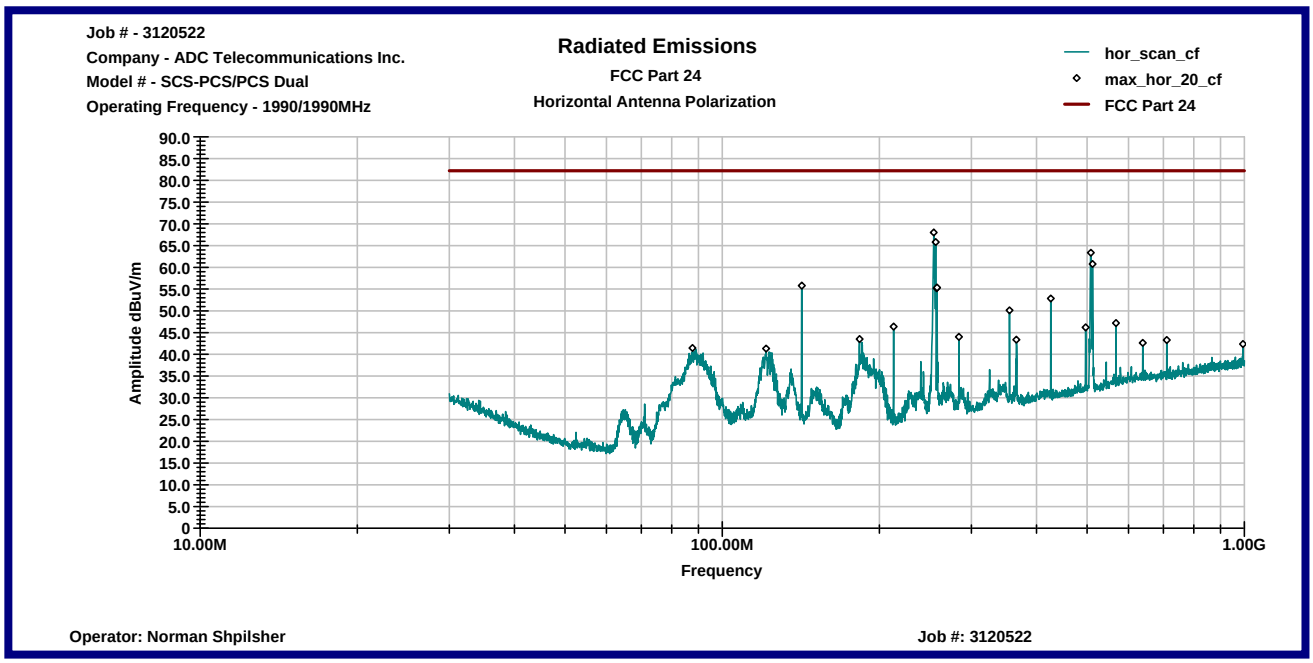
Frequency	Ant. Polarity	Reading dBµV	Ant.Factor dB1/m	Total at 3m dBµV/m	QP Limit dBµV/m	Margin dB
142.07 MHz	V	41.9	12.8	54.7	82.2	-27.5
245.97 MHz	V	49.0	14.4	63.5	82.2	-18.8
253.72 MHz	V	52.3	15.1	67.3	82.2	-14.9
256.16 MHz	V	52.4	15.3	67.6	82.2	-14.6
425.99 MHz	V	33.9	19.7	53.5	82.2	-28.7
494.93 MHz	V	42.3	20.6	62.9	82.2	-19.3
508.28 MHz	V	41.4	20.7	62.1	82.2	-20.1
512.18 MHz	V	38.6	20.7	59.3	82.2	-22.9
567.8 MHz	V	27.7	22.1	49.7	82.2	-32.5
142.07 MHz	H	43.0	12.8	55.8	82.2	-26.4
254.16 MHz	H	52.9	15.1	68.0	82.2	-14.2
256.38 MHz	H	50.5	15.3	65.8	82.2	-16.4
257.49 MHz	H	39.8	15.4	55.2	82.2	-27.0
257.93 MHz	H	40.0	15.4	55.3	82.2	-26.9
355.1 MHz	H	32.4	17.7	50.1	82.2	-32.1
425.99 MHz	H	33.1	19.7	52.8	82.2	-29.4
508.28 MHz	H	42.7	20.7	63.3	82.2	-18.9
512.18 MHz	H	40.1	20.7	60.7	82.2	-21.5

Graph #3
Radiated Emissions from 30MHz to 1GHz, 1990MHz Operating Frequency

Vertical Antenna Polarization



Horizontal Antenna Polarization



Radiated Emissions from 1to 18GHz **Date:** 04-16-2007

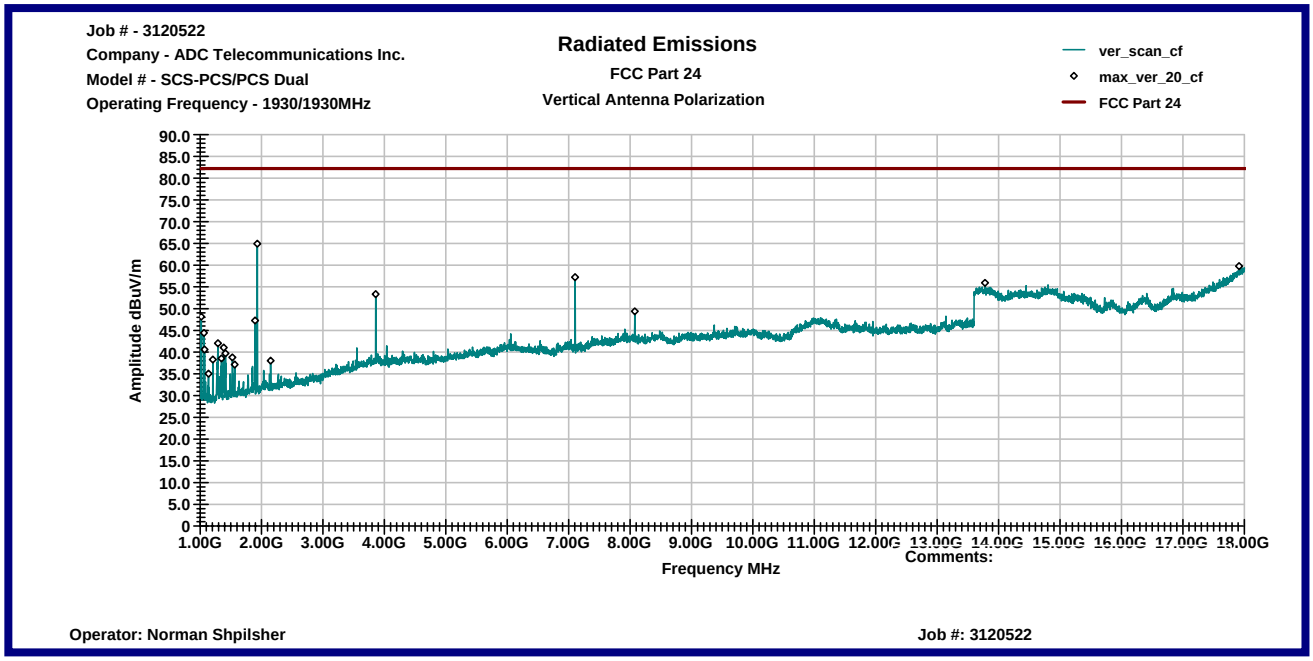
Company: ADC Telecommunications Inc.
Model: SCS-PCS/PCS Dual
Test Engineer: Norman Shpilsher
Special Info: Operating Frequency 1930/1930MHz
Standard: FCC Part 24
Test Site: 3m Anechoic Chamber, 3m measurement distance
Note: The table shows the worst case radiated emissions
All measurements were taken using a Peak detector

Table # 4

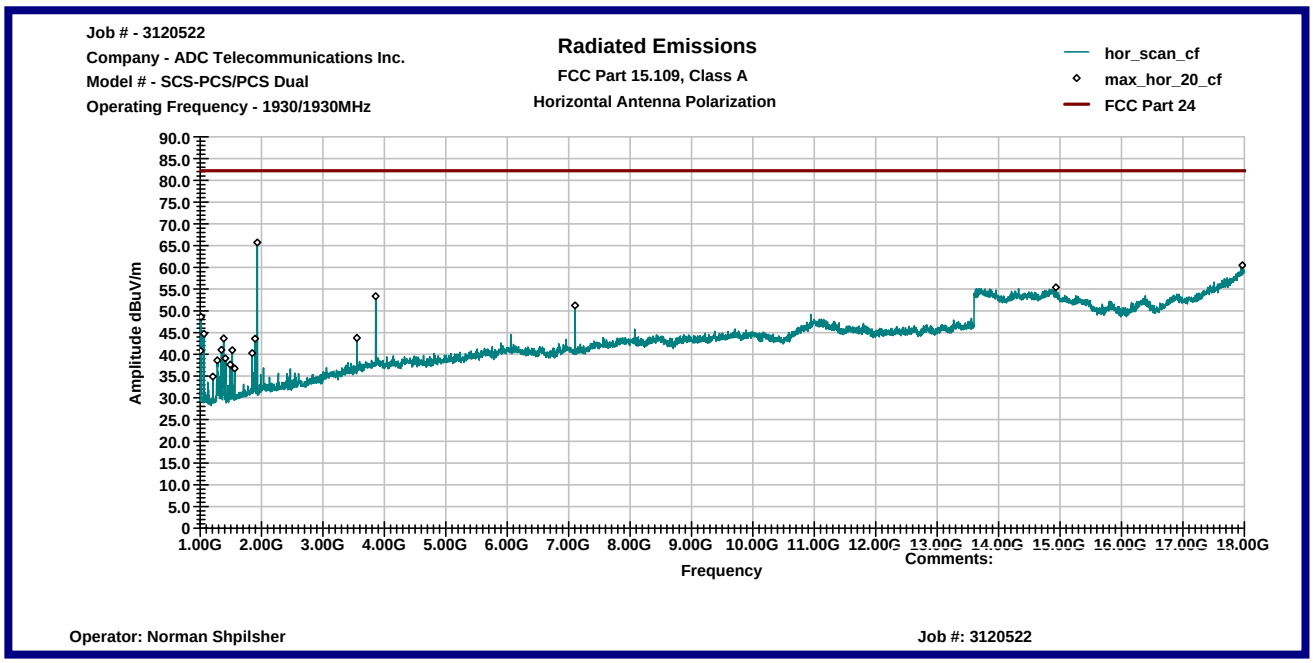
Frequency MHz	Antenna Polarity	Reading dBµV	Total C.F. dB1/m	Pre-Amp. Gain (dB)	Total at 3m dBµV/m	QP Limit dBµV/m	Margin dB
1.0183 GHz	V	61.1	26.8	39.8	48.1	82.2	-34.1
1.0628 GHz	V	57.1	27.0	39.8	44.4	82.2	-37.8
1.8945 GHz	V	56.0	30.0	38.8	47.3	82.2	-34.9
2.1482 GHz	V	45.6	30.8	38.4	38.0	82.2	-44.2
3.8586 GHz	V	55.2	35.7	37.7	53.3	82.2	-28.9
7.1043 GHz	V	53.3	41.0	37.1	57.2	82.2	-25.0
1.0157 GHz	H	61.6	26.8	39.8	48.6	82.2	-33.6
1.0628 GHz	H	57.5	27.0	39.8	44.7	82.2	-37.5
1.3845 GHz	H	55.2	27.9	39.5	43.6	82.2	-38.6
1.8945 GHz	H	52.4	30.0	38.8	43.6	82.2	-38.6
3.5526 GHz	H	46.7	34.7	37.6	43.7	82.2	-38.5
3.8586 GHz	H	55.3	35.7	37.7	53.3	82.2	-28.9
7.1043 GHz	H	47.3	41.0	37.1	51.2	82.2	-31.0

Graph #4
Radiated Emissions from 1 to 18GHz, 1930MHz Operating Frequency

Vertical Antenna Polarization



Horizontal Antenna Polarization



Radiated Emissions from 1to 18GHz **Date:** 04-16-2007

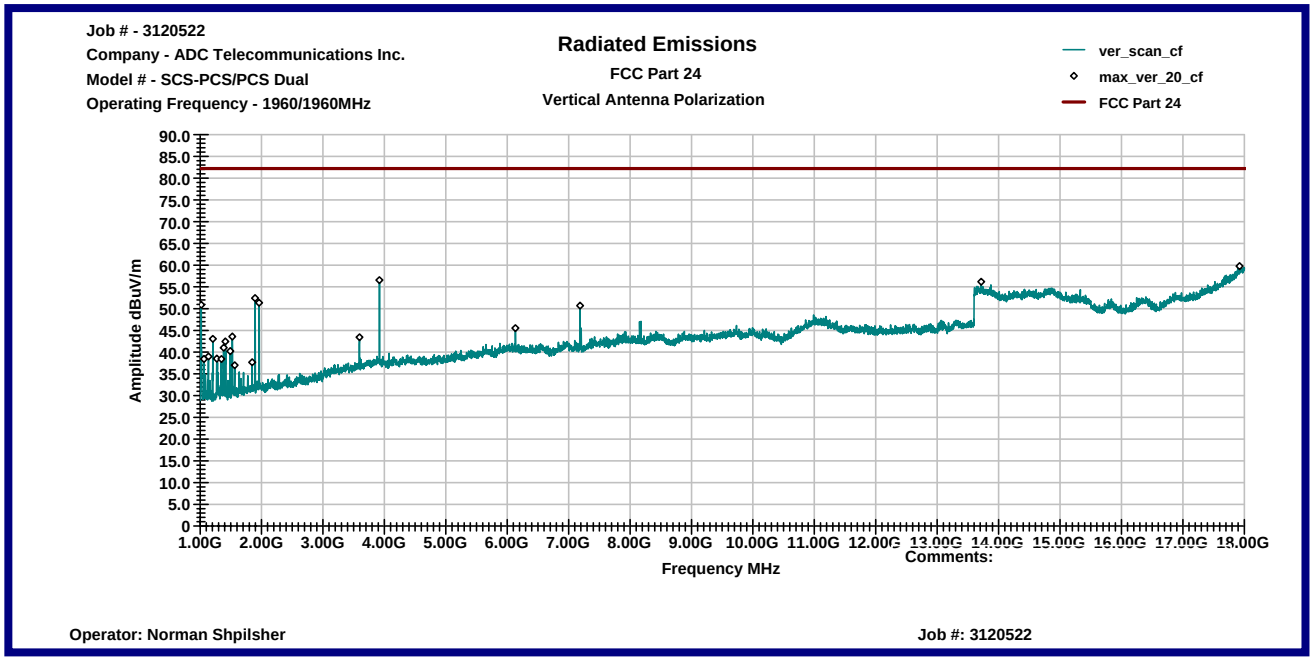
Company: ADC Telecommunications Inc.
Model: SCS-PCS/PCS Dual
Test Engineer: Norman Shpilsher
Special Info: Operating Frequency 1960/1960MHz
Standard: FCC Part 24
Test Site: 3m Anechoic Chamber, 3m measurement distance
Note: The table shows the worst case radiated emissions
All measurements were taken using a Peak detector

Table # 5

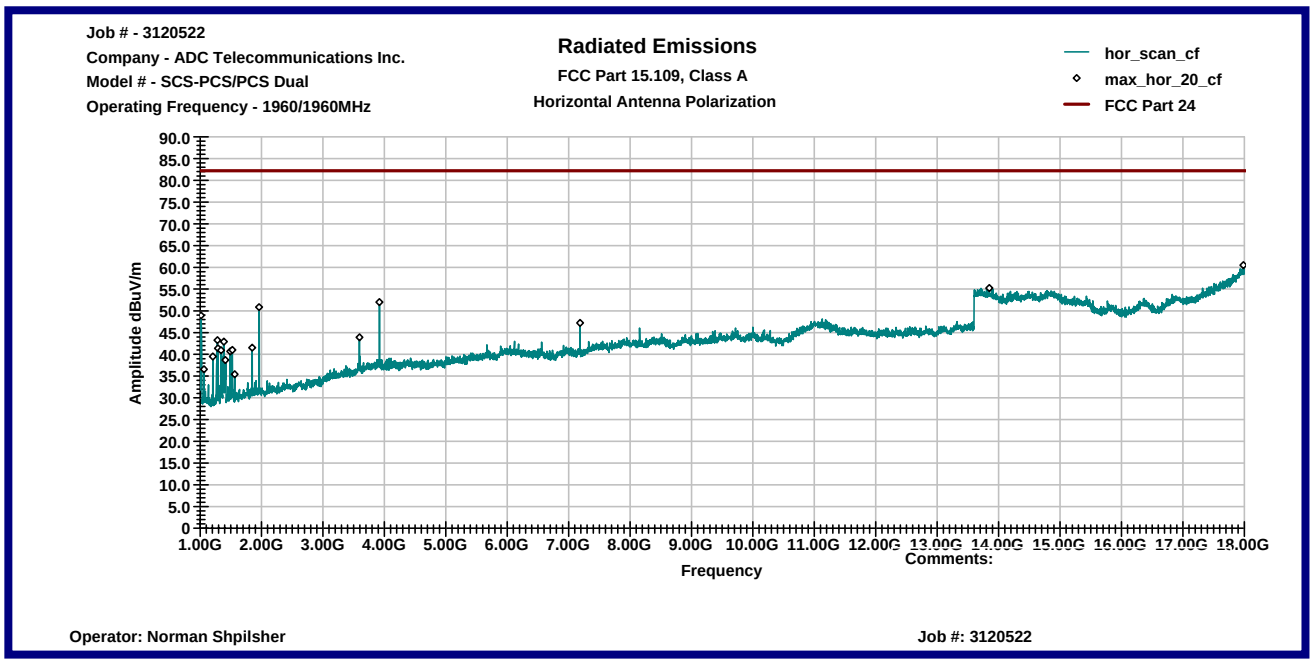
Frequency MHz	Antenna Polarity	Reading dBµV	Total C.F. dB1/m	Pre-Amp. Gain (dB)	Total at 3m dBµV/m	QP Limit dBµV/m	Margin dB
1.0183 GHz	V	63.8	26.8	39.8	50.9	82.2	-31.3
1.4106 GHz	V	53.9	28.0	39.5	42.4	82.2	-39.8
1.5231 GHz	V	54.6	28.3	39.4	43.6	82.2	-38.7
1.8945 GHz	V	61.2	30.0	38.8	52.4	82.2	-29.8
3.5945 GHz	V	46.2	34.8	37.6	43.4	82.2	-38.8
3.9188 GHz	V	58.3	35.9	37.7	56.5	82.2	-25.7
6.134 GHz	V	42.6	39.4	36.5	45.5	82.2	-36.7
7.1854 GHz	V	46.5	41.2	37.0	50.7	82.2	-31.5
1.0157 GHz	H	61.9	26.8	39.8	48.9	82.2	-33.3
1.2825 GHz	H	55.2	27.6	39.6	43.2	82.2	-39.0
1.3871 GHz	H	54.5	27.9	39.5	42.9	82.2	-39.3
3.5945 GHz	H	46.7	34.8	37.6	43.9	82.2	-38.3
3.9188 GHz	H	53.7	35.9	37.7	52.0	82.2	-30.2
7.1854 GHz	H	43.0	41.2	37.0	47.2	82.2	-35.0

Graph #5
Radiated Emissions from 1 to 18GHz, 1960MHz Operating Frequency

Vertical Antenna Polarization



Horizontal Antenna Polarization



Radiated Emissions from 1to 18GHz **Date:** 04-17-2007

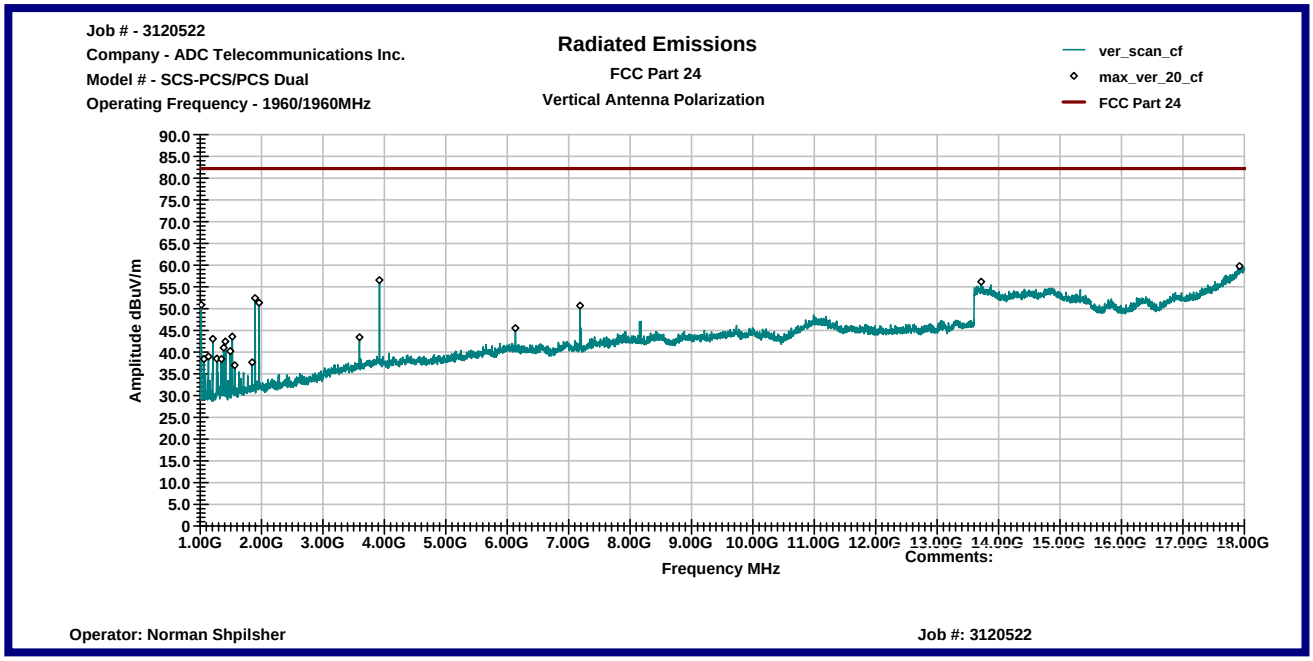
Company: ADC Telecommunications Inc.
Model: SCS-PCS/PCS Dual
Test Engineer: Norman Shpilsher
Special Info: Operating Frequency 1990/1990MHz
Standard: FCC Part 24
Test Site: 3m Anechoic Chamber, 3m measurement distance
Note: The table shows the worst case radiated emissions
All measurements were taken using a Peak detector

Table # 6

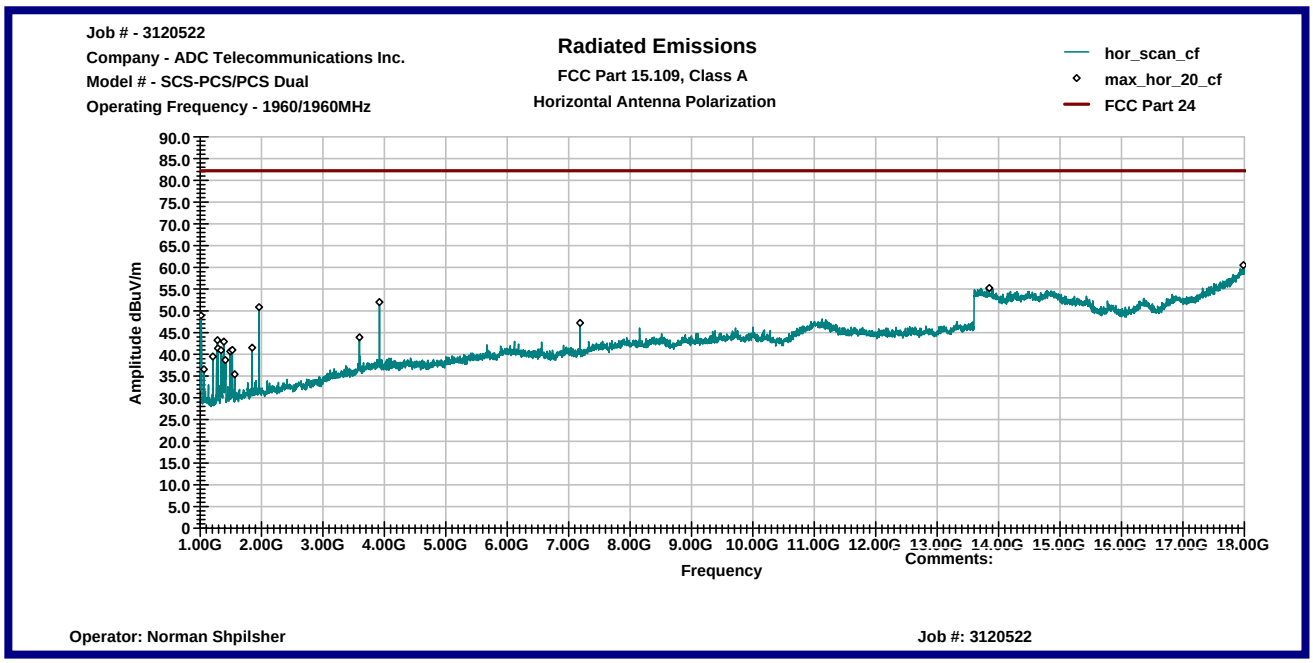
Frequency MHz	Antenna Polarity	Reading dBµV	Total C.F. dB1/m	Pre-Amp. Gain (dB)	Total at 3m dBµV/m	QP Limit dBµV/m	Margin dB
1.0183 GHz	V	63.8	26.8	39.8	50.9	82.2	-31.3
1.4106 GHz	V	53.9	28.0	39.5	42.4	82.2	-39.8
1.5231 GHz	V	54.6	28.3	39.4	43.6	82.2	-38.7
1.8945 GHz	V	61.2	30.0	38.8	52.4	82.2	-29.8
3.5945 GHz	V	46.2	34.8	37.6	43.4	82.2	-38.8
3.9188 GHz	V	58.3	35.9	37.7	56.5	82.2	-25.7
6.134 GHz	V	42.6	39.4	36.5	45.5	82.2	-36.7
7.1854 GHz	V	46.5	41.2	37.0	50.7	82.2	-31.5
1.0157 GHz	H	61.9	26.8	39.8	48.9	82.2	-33.3
1.2825 GHz	H	55.2	27.6	39.6	43.2	82.2	-39.0
1.3871 GHz	H	54.5	27.9	39.5	42.9	82.2	-39.3
3.5945 GHz	H	46.7	34.8	37.6	43.9	82.2	-38.3
3.9188 GHz	H	53.7	35.9	37.7	52.0	82.2	-30.2
7.1854 GHz	H	43.0	41.2	37.0	47.2	82.2	-35.0

Graph #6
Radiated Emissions from 1 to 18GHz, 1990MHz Operating Frequency

Vertical Antenna Polarization

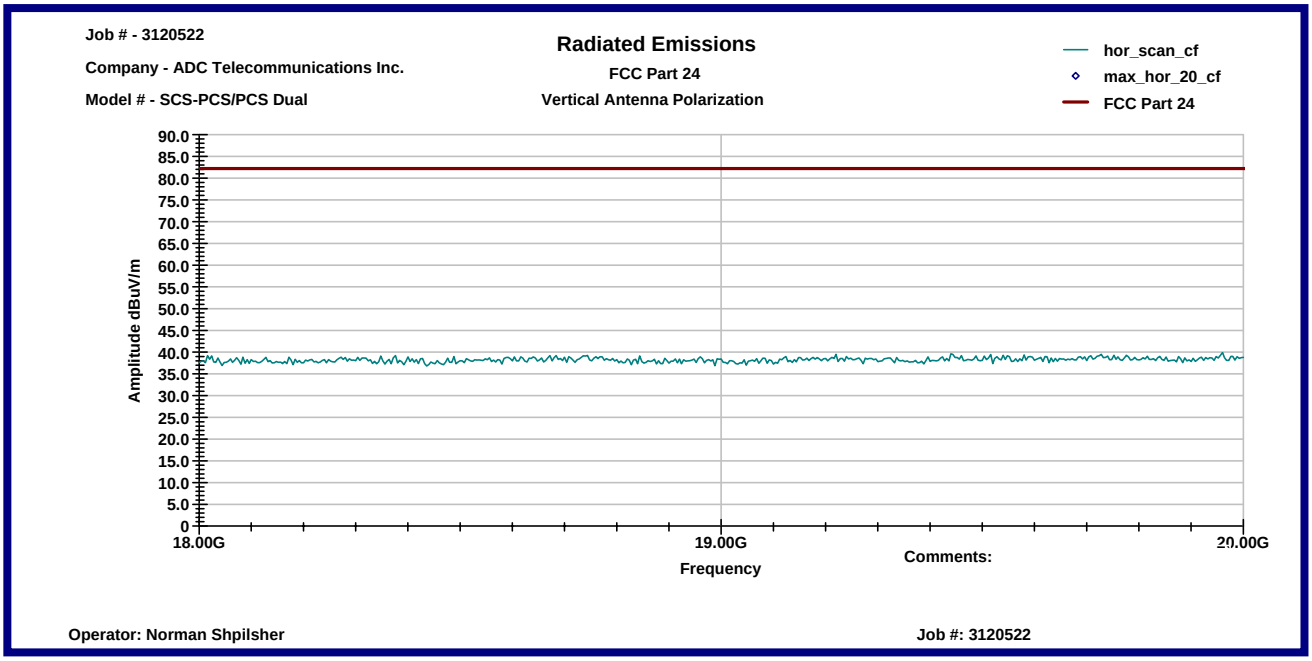


Horizontal Antenna Polarization

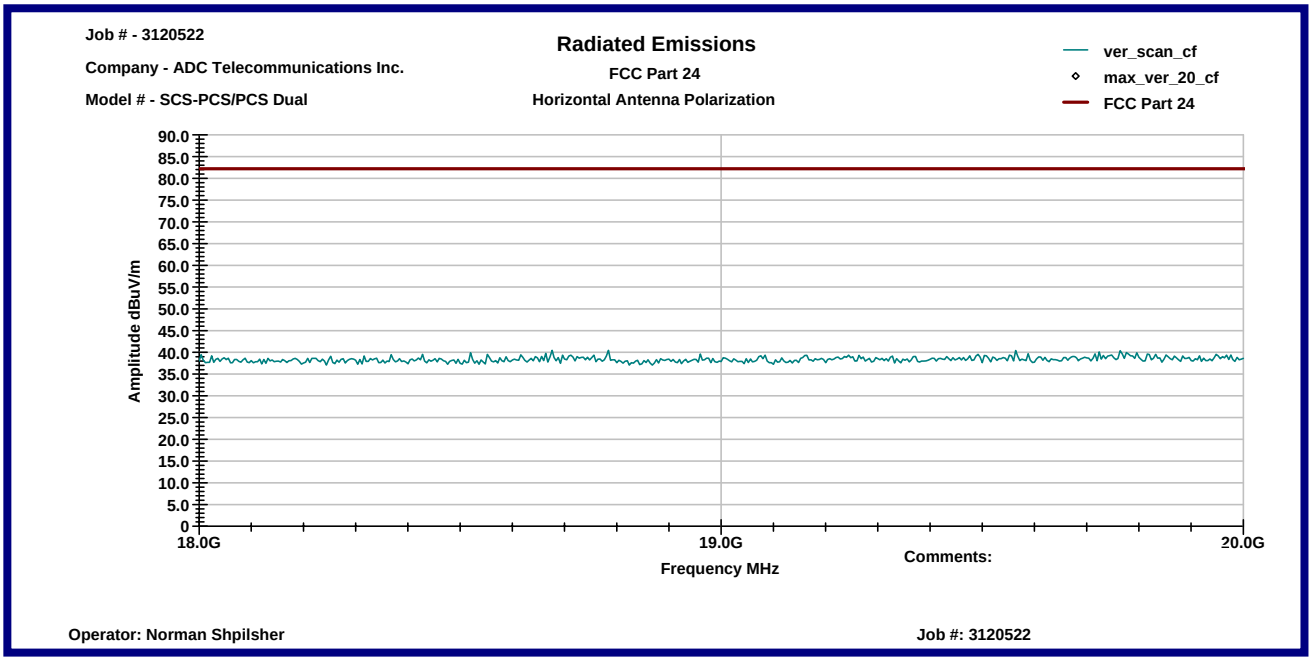


Graph #7
Radiated Emissions from 18 to 20GHz

Vertical Antenna Polarization



Horizontal Antenna Polarization



Spurious Radiated Emissions Power **Date:** 04-17-2007

Company: ADC Telecommunications Inc.
Model: SCS-PCS/PCS Dual
Test Engineer: Norman Shpilsher
Special Config. Info: Sabstitution Method
Standard: FCC Part 24
Frequency Range: 30MHz to 20GHz
Test Site: 3m Anechoic Chamber
Note: Measurements were taken for frequencies with emissions level above 20dB below the field strength limits.
Emissions at fundamental frequency removed from the Table

Table # 7

Frequency of Emissions MHz	Operating Frequency MHz	Antenna Polarity	Measured Emissions dBµV	Substitution Generator Power dBm	Substitution Antenna Gain dBi	Cable Loss dB	ERP Spur. Emissions dBm	Limit dBm	Margin dB
258.15	1930	V	51.0	-30.0	0.0	0.1	-30.1	-13.0	-17.1
259.92	1930	V	49.2	-34.6	0.0	0.1	-34.7	-13.0	-21.7
256.82	1930	H	51.5	-32.3	0.0	0.1	-32.4	-13.0	-19.4
258.59	1930	H	53.2	-30.5	0.0	0.1	-30.6	-13.0	-17.6
253.72	1960	V	48.0	-33.4	0.0	0.1	-33.5	-13.0	-20.5
253.72	1960	H	52.8	-30.9	0.0	0.1	-31.0	-13.0	-18.0
					0.0	0.1			
254.17	1990	V	52.9	-28.9	0.0	0.1	-29.0	-13.0	-16.0
256.38	1990	V	50.5	-30.5	0.0	0.1	-30.6	-13.0	-17.6
245.97	1990	H	49.0	-33.9	0.0	0.1	-34.0	-13.0	-21.0
253.72	1990	H	52.3	-31.5	0.0	0.1	-31.6	-13.0	-18.6
256.16	1990	H	52.4	-31.4	0.0	0.1	-31.5	-13.0	-18.5

3.0 TEST EQUIPMENT / ENVIRONMENTAL CONDITIONS

Receivers/Spectrum Analyzers and Test Software

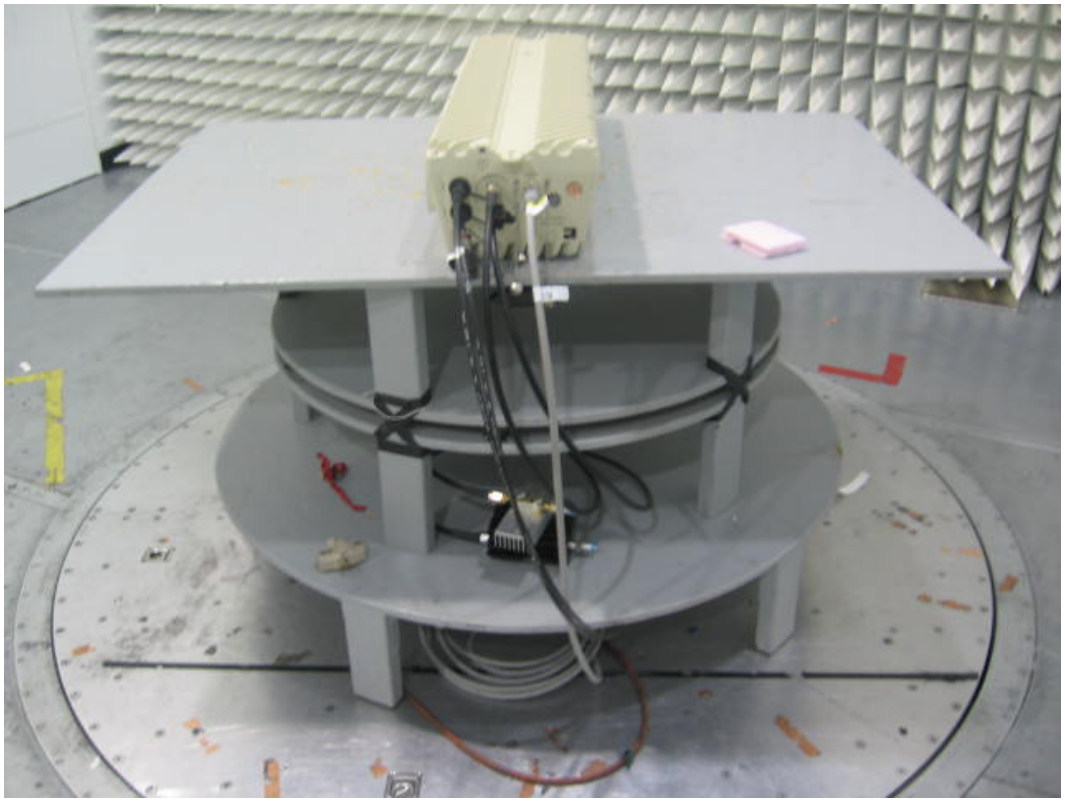
DESCRIPTION	SERIAL NO.	LAST CAL	CAL DUE	USED
Rohde & Schwarz FSP 40 Spectrum Analyzer	100024	07/06	07/07	X
Rohde & Schwarz ESCI Spectrum Analyzer	100358	04/06	04/18/07	X
TILE! Instrument Control System	Ver. 3.4 K.20	N/A	N/A	X

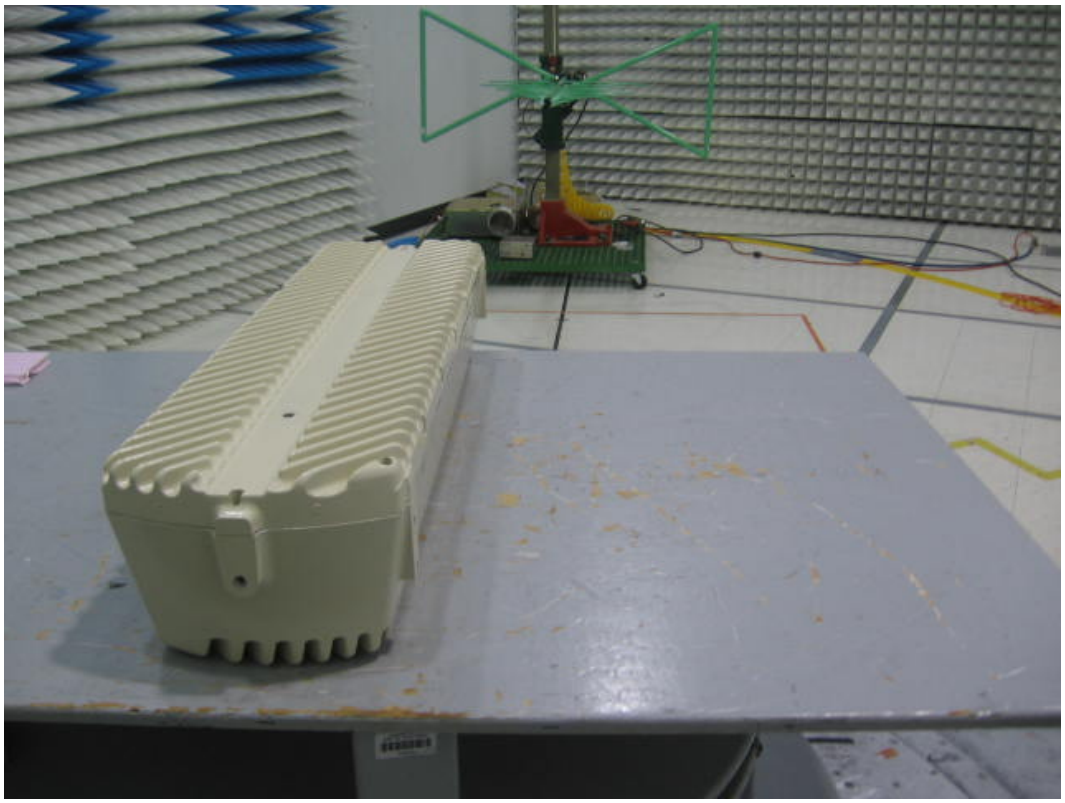
Antennas/Generators/Pre-Amps

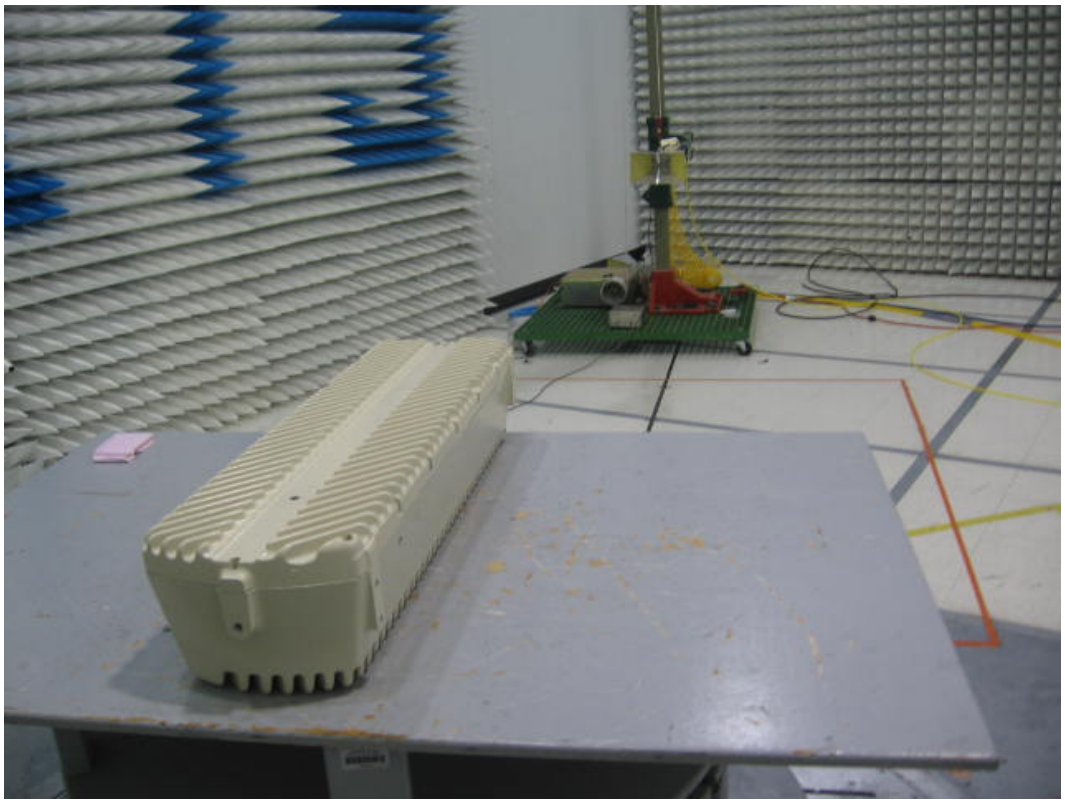
DESCRIPTION	SERIAL NO.	LAST CAL	CAL DUE	USED
Schaffner-Chase Bicono-Log Antenna	2630	08/06	08/07	X
EMCO Horn Antenna 3115	9507-4513	01/07	01/08	
EMCO Horn Antenna 3115	6579	03/07	03/08	X
EMCO Waveguide Horn Antenna 3116	9904-2423	07/06	07/07	X
CDI Roberts Antenna 3 140-400MHz	00598	N/A	N/A	X
CDI Roberts Antenna 4 400-1000MHz	00599	N/A	N/A	X
MITEQ AMF-5D Pre-Amplifier	1122951	02/07	02/08	X
MITEQ AMF-6F-16002600-25-10P Pre-Amplifier	1222383	09/06	09/07	X
HP 8340B Synthesized Sweeper	2819A01098	09/06	09/07	
Rohde & Schwarz SMY 02, Signal Generator	DE23691	10/06	10/07	X

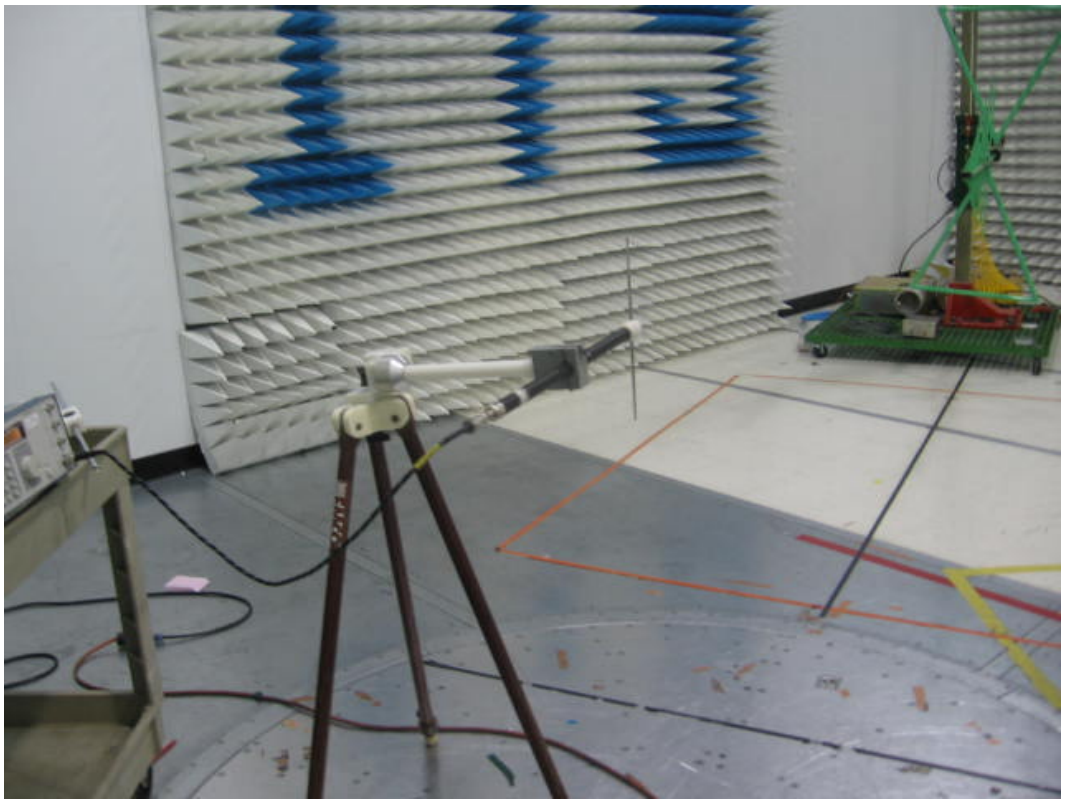
Temperature: 24° C
Relative Humidity: 31%
Atmospheric pressure: 98.5 kPa

4.0 CONFIGURATION PHOTOGRAPHS









7.0 APPENDIX C

Measurement Protocol

Back to Table of Contents:

Measurement Protocol

Environmental conditions of the lab, (ADC)
Temperature: 21 - 26º C
Relative Humidity: 21 - 24 %
Atmospheric Pressure: 97.8 - 100.0 kPa

Test Methodology:
Emission testing is performed according to the procedures in ANSI C63.4-2003.

Measurement Uncertainty
The test system for conducted emissions is defined as the signal generator(s), the power meter, the spectrum analyzer and the coaxial cable. The equipment comprising the test systems is calibrated prior to testing the EUT.

Justification
The Equipment Under Test (EUT) is configured in a typical user arrangement in accordance with the manufacturer's instructions. A cable is connected to each available port and either terminated with a peripheral into its characteristic impedance or left un-terminated. When appropriate, the cables are manually manipulated with respect to each other to obtain maximum emissions from the unit.

Radiated Emissions
The final level, in dBuV/m, equals the reading from the spectrum analyzer (Level dBuV), adding the antenna correction factor and cable loss factor (Factor dB) to it, and subtracting the preamp gain (and duty cycle correction factor, if applicable). This result then has the limit subtracted from it to provide the Delta, which gives the tabular data as shown in the data sheets in Appendix B.

Example:

FREQ (MHz)	LEVEL (dBuV)	CABLE/ANT/PREAMP FINAL (dB) (dB/m) (dB) (dBuV/m)	POL/HGT/AZ (m) (deg)	DELTA1
60.80	42.5Qp +	1.2 + 10.9 - 25.5 = 29.1	V 1.0 0.0	-10.9

Substitution Method
A cabinet (or enclosure) radiated emission scan was also made, at Intertek, with the EUT's antenna replaced with a termination to demonstrate case radiation compliance to the –13 dBm requirement. Radiated emissions from the EUT are measured in the frequency range of 30 to 20,000 MHz using a spectrum analyzer and appropriate broadband linearly polarized antennas. Table top equipment is placed on a 1.0 X 1.5 meter non-conducting table 80 centimeters above the ground plane. Floor standing equipment is place directly on the turntable/ground plane. Interface cable that are closer than 40 centimeters to the ground plane are bundled in the center in a serpentine fashion so they are at least 40 centimeters from the ground plane. Cables to simulators/testers (if used in this test) are routed through the center of the table and to a screen room located outside the test area. The antenna is positioned 3 meters horizontally from the EUT. To locate maximum emissions from the test sample the antenna is varied in height from 1 to 4 meters, measurement scans are made with both horizontal and vertical antenna polarizations and the EUT are rotated 360 degrees. The field strength levels were measured per ANSI C63.4. The EUT is then replaced with a tuned dipole antenna (below 1GHz) or horn antenna (above 1 GHz). The substitute antenna was placed in the same polarization as the test antenna. A signal generator was used to generate a signal level that matched the highest level measured from the EUT. The signal generator level minus the cable loss from the signal generator to the substitute antenna plus the substitute antenna gain equals the spurious power level.

Test Equipment
All measurement instrumentation is traceable to the National Institute of Standards and Technology and is calibrated according to internal procedure.