M. Flom Associates, Inc.
International Compliance Testing Laboratory
3356 N. San Marcos Place, Suite 107
Chandler, AZ 85225
toll-free: (866) 311-3268
fax: (480) 926-3598
http://www.mflom.com
info@mflom.com

Date: January 14, 2005

Federal Communications Commission
Via Electronic Filing

Attention: Authorization & Evaluation Division

Applicant: Maxus Technologies USA Inc.
Equipment: MGR-319L
FCC ID: SKT-R319L-0410
FCC Rules: 15, 24E, Confidentiality

Gentlemen:

On behalf of the Applicant, enclosed please find Application Form 731, Engineering Test Report and all pertinent documentation, the whole for approval of the referenced equipment as shown.

Filing fees are attached.

We trust the same is in order. Should you need any further information, kindly contact the writer who is authorized to act as agent.

Sincerely yours,

David E. Lee, Compliance Test Manager

enclosure(s)
cc: Applicant
DEL/del

List of Exhibits
(FCC **Certification** (Transmitters) - Revised 9/28/98)

Applicant: Maxus Technologies USA Inc.

FCC ID: SKT-R319L-0410

By Applicant:

1. Letter Of Authorization

2. Identification Drawings, 2.1033(c)(11)
   - Label
   - Location of Label
   - Compliance Statement
   - Location of Compliance Statement

3. Photographs, 2.1033(c)(12)

4. Documentation: 2.1033(c)
   - (3) User Manual
   - (9) Tune-Up/Alignment Procedure
   - (10) Schematic Diagram
   - (10) Operational Description
   - Block Diagram
   - Parts List
   - Active Devices

By M.F.A. Inc.

A. Testimonial & Statement of Certification

M. Flom Associates, Inc.
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Transmitter Certification

of

FCC ID: SKT-R319L-0410
Model: MGR-319L

to

Federal Communications Commission

Rule Part(s) 24E

Date Of Report: January 14, 2005

On the Behalf of the Applicant:

Maxus Technologies USA Inc.

At the Request of:

P.O. Deposit Check #1168

Maxus Technologies USA Inc.
3820 Del Amo Blvd., Suite 216
Torrance, CA 90503

Attention of:

Jay Lim
(310) 793-9000
email: jlim@maxustek.com

Supervised By:

David E. Lee, Compliance Test Manager

The Applicant has been cautioned as to the following:

15.21 Information to User.

The users manual or instruction manual for an intentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

15.27(a) Special Accessories.

Equipment marketed to a consumer must be capable of complying with the necessary regulations in the configuration in which the equipment is marketed. Where special accessories, such as shielded cables and/or special connectors are required to enable an unintentional or intentional radiator to comply with the emission limits in this part, the equipment must be marketed with, i.e. shipped and sold with, those special accessories. However, in lieu of shipping or packaging the special accessories with the unintentional or intentional radiator, the responsible party may employ other methods of ensuring that the special accessories are provided to the consumer, without additional charge.

Information detailing any alternative method used to supply the special accessories for a grant of equipment authorization or retained in the verification records, as appropriate. The party responsible for the equipment, as detailed in § 2.909 of this chapter, shall ensure that these special accessories are provided with the equipment. The instruction manual for such devices shall include appropriate instructions on the first page of text concerned with the installation of the device that these special accessories must be used with the device. It is the responsibility of the user to use the needed special accessories supplied with the equipment.

Table Of Contents

Required information per ISO/IEC Guide 25-1990, paragraph 13.2:

a) **Test Report**

b) Laboratory: M. Flom Associates, Inc.
(FCC: 31040/SIT) 3356 N. San Marcos Place, Suite 107
(Canada: IC 2044) Chandler, AZ 85225

c) Report Number: d0510040

d) Client: Maxus Technologies USA Inc.
3820 Del Amo Blvd., Suite 216
Torrance, CA 90503

e) Identification: MGR-319L
FCC ID: SKT-R319L-0410
Description: PCS Signal Booster

f) EUT Condition: Not required unless specified in individual tests.

g) Report Date: January 14, 2005
EUT Received: December 13, 2004

h, j, k): As indicated in individual tests.

i) Sampling method: No sampling procedure used.

l) Uncertainty: In accordance with MFA internal quality manual.

m) Supervised by:

David E. Lee, Compliance Test Manager

n) Results: The results presented in this report relate only to the item tested.

o) Reproduction: This report must not be reproduced, except in full, without written permission from this laboratory.

List of General Information Required for Certification

In Accordance with FCC Rules and Regulations,
Volume II, Part 2 and to 24E, Confidentiality

Sub-Part 2.1033

(c)(1): **Name and Address of Applicant**:

Maxus Technologies USA Inc.
3820 Del Amo Blvd., Suite 216
Torrance, CA 90503

Manufacturer:

Applicant

(c)(2): **FCC ID**: SKT-R319L-0410

Model Number: MGR-319L

(c)(3): **Instruction Manual(s)**:

Please See Attached Exhibits

(c)(4): **Type of Emission**: F9W, GXW, DXW

(c)(5): **Frequency Range, MHz**: Uplink 1850 - 1880
Down Link 1930 - 1960

(c)(6): **Power Rating, Watts**: 0.010 (10mW, 10dBm)
____ Switchable ____ Variable X N/A

(c)(7): **Maximum Power Rating, Watts**: 10

Subpart 2.1033 (continued)

(c)(8): Voltages & Currents in All Elements in Final RF Stage, Including Final Transistor or Solid State Device:

Collector Current, A	=	1.2
Collector Voltage, Vdc	=	5.1
Supply Voltage, Vdc	=	5.1

(c)(9): **Tune-Up Procedure**:

Please See Attached Exhibits

(c)(10): **Circuit Diagram/Circuit Description**:

Including description of circuitry & devices provided for determining and stabilizing frequency, for suppression of spurious radiation, for limiting modulation and limiting power.

Please See Attached Exhibits

(c)(11): **Label Information**:

Please See Attached Exhibits

(c)(12): **Photographs**:

Please See Attached Exhibits

(c)(13): **Digital Modulation Description**:

___ Attached Exhibits
_X_ N/A

(c)(14): **Test and Measurement Data**:

Follows

THE AMERICAN
ASSOCIATION
FOR LABORATORY
ACCREDITATION

ACCREDITED LABORATORY

A2LA has accredited

M. FLOM ASSOCIATES, INC.
Chandler, AZ

for technical competence in the field of

Electrical Testing

The accreditation covers the specific tests and types of tests listed on the agreed scope of accreditation. This laboratory meets the requirements of ISO/IEC 17025 - 1999 "General Requirements for the Competence of Testing and Calibration Laboratories" and any additional program requirements in the identified field of testing.

Presented this 14th day of June 2004.

President
For the Accreditation Council
Certificate Number 2152-01
Valid to August 31, 2006

A2LA

For tests or types of tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

A2LA

"A2LA has accredited M. Flom Associates, Inc. Chandler, AZ for technical competence in the field of Electrical Testing. The accreditation covers the specific tests and types of tests listed on the agreed scope of accreditation. This laboratory meets the requirements of ISO/IEC 17025 – 1999 'General Requirements for the Competence of Testing and Calibration Laboratories' and any additional program requirements in the identified field of testing."

Certificate Number: **2152-01**

UNITED STATES DEPARTMENT OF COMMERCE
National Institute of Standards and Technology
Gaithersburg, Maryland 20899-

September 15, 1999

Mr. Morton Flom
M. Flom Associates Inc.
3356 N. San Marcos Place, Suite 107
Chandler, AZ 85224

Dear Mr. Flom:

I am pleased to inform you that your laboratory has been validated by the Chinese Taipei Bureau of Standards, Metrology, and Inspection (BSMI) under the Asia Pacific Economic Cooperation Mutual Recognition Arrangement (APEC MRA). Your laboratory is now formally designated to act as a Conformity Assessment Body (CAB) under Appendix B, Phase I Procedures, of the APEC MRA between the American Institute in Taiwan (AIT) and the Taipei Economic and Cultural Representative Office (TECRO) in the United States, covering equipment subject to Electro-Magnetic Compatibility (EMC) requirements. The names of all validated and nominated laboratories will be posted on the NIST website at http://ts.nist.gov/acs under the "Asia" category.

As of August 1, 1999, you may submit test data to BSMI to verify that the equipment to be imported into Chinese Taipei satisfies the applicable EMC requirements. **Your assigned BSMI number is SL2-IN-E-041R; you must use this number when sending test reports to BSMI.** Your designation will remain in force as long as your NVLAP and/or A2LA and/or BSMI accreditation remains valid for the CNS 13438.

Please note that BSMI requires that the entity making application for the approval of regulated equipment must make such application in person at their Taipei office. BSMI also requires the name of the authorized signatories who are authorized to sign the test reports. You can send this information via fax to C-Taipei CAB Response Manager at 301-975-5414. **I am also enclosing a copy of the cover sheet that, according to BSMI requirements, must accompany every test report.**

NIST

If you have any questions, please contact Robert Gladhill at 301-975-4273 or Joe Dhillon at 301-975-5523. We appreciate your continued interest in our international conformity assessment activities.

Sincerely,

Belinda L. Collins, Ph.D.
Director, Office of Standards Services

Enclosure

NIST

I am pleased to inform you that your laboratory has been validated by the Chinese Taipei Bureau of Standards, Metrology and Inspection (BSMI) under the Asia Pacific Economic Cooperation Mutual Recognition Agreement (APEC MRA). Your laboratory is now formally designated to act as a Conformity Assessment Body (CAB) under Appendix B, Phase I Procedures, of the APEC MRA between the American Institute in Taiwan (AIT) and the Taipei Economic and Cultural Representative Office (TECRO) in the United States, covering equipment subject to Electro-Magnetic Compatibility (EMC) requirements. The names of all validated and nominated laboratories will be posted on the NIST website at http://ts.nist.gov/mra under the 'Asia' category."

BSMI Number: **SL2-IN-E-041R**

Sub-part
2.1033(c)(14): Test and Measurement Data

All tests and measurement data shown were performed in accordance with FCC Rules and Regulations, Volume II; Part 2, Sub-part J, Sections 2.947, 2.1033(c), 2.1041, 2.1046, 2.1047, 2.1079, 2.1051, 2.1053, 2.1055, 2.1057 and the following individual Parts:

_____ 21 – Domestic Public Fixed Radio Services
_____ 22 – Public Mobile Services
_____ 22 Subpart H - Cellular Radiotelephone Service
_____ 22.901(d) - Alternative technologies and auxiliary services
_____ 23 – International Fixed Public Radiocommunication services
X 24 – Personal Communications Services
_____ 74 Subpart H - Low Power Auxiliary Stations
_____ 80 – Stations in the Maritime Services
_____ 80 Subpart E - General Technical Standards
_____ 80 Subpart F - Equipment Authorization for Compulsory Ships
_____ 80 Subpart K - Private Coast Stations and Marine Utility Stations
_____ 80 Subpart S - Compulsory Radiotelephone Installations for Small Passenger Boats
_____ 80 Subpart T - Radiotelephone Installation Required for Vessels on the Great Lakes
_____ 80 Subpart U - Radiotelephone Installations Required by the Bridge-to-Bridge Act
_____ 80 Subpart V - Emergency Position Indicating Radiobeacons (EPIRB'S)
_____ 80 Subpart W - Global Maritime Distress and Safety System (GMDSS)
_____ 80 Subpart X - Voluntary Radio Installations
_____ 87 – Aviation Services
_____ 90 – Private Land Mobile Radio Services
_____ 94 – Private Operational-Fixed Microwave Service
_____ 95 Subpart A - General Mobile Radio Service (GMRS)
_____ 95 Subpart C - Radio Control (R/C) Radio Service
_____ 95 Subpart D - Citizens Band (CB) Radio Service
_____ 95 Subpart E - Family Radio Service
_____ 95 Subpart F - Interactive Video and Data Service (IVDS)
_____ 97 - Amateur Radio Service
_____ 101 – Fixed Microwave Services

Standard Test Conditions
and
Engineering Practices

Except as noted herein, the following conditions and procedures were observed during the testing:

In accordance with ANSI C63.4-1992/2001, section 6.1.9, and unless otherwise indicated in the specific measurement results, the ambient temperature of the actual EUT was maintained within the range of 10° to 40°C (50° to 104 °F) unless the particular equipment requirements specify testing over a different temperature range. Also, unless otherwise indicated, the humidity levels were in the range of 10% to 90% relative humidity.

Prior to testing, the EUT was tuned up in accordance with the manufacturer's alignment procedures. All external gain controls were maintained at the position of maximum and/or optimum gain throughout the testing.

Measurement results, unless otherwise noted, are worst-case measurements.

Page Number 7 of 65.

Name of Test: Carrier Output Power (Conducted)

Specification: 47 CFR 2.1046(a)

Guide: ANSI/TIA/EIA-603-1992, Paragraph 2.2.1

Test Equipment: As per attached page

Measurement Procedure

1. The EUT was connected to a resistive coaxial attenuator of normal load impedance, and the unmodulated output power was measured by means of an R. F. Power Meter.

2. Measurement accuracy is ±3%.

Measurement Results
(Worst case)

Power Setting	Frequency Range	RF Power, Watts
High – Saturated (Cut Off)	1850 – 1880MHz	0.010 (10dBm)
High – ALC Level (IMD Spec)	1850 - 1880MHz	0.005 (7dBm)
High – Saturated (Cut Off)	1930 - 1960MHz	0.010 (10dBm)
High – ALC Level (IMD Spec)	1930 - 1960MHz	0.005 (7dBm)

Both sections of the bi-directional amplifier contain an independent ALC circuit, which maintains the IMD specification level over a 25-30db dynamic input range. When the ALC limits are exceeded a cut-off circuit operates that shuts down the amplifier section until the input level is reduced preventing harmonics and spurious being transmitted by spikes or pulses at the amplifier input.

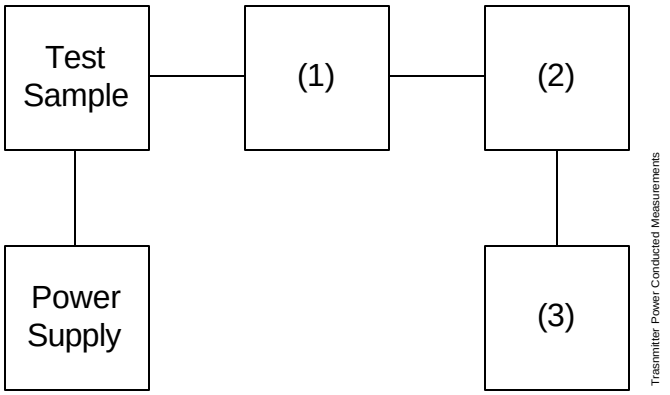
The operation of the ALC is described in the Theory of Operation accompanying this application.

Operation of the ALC between the low threshold and the cut-off point was verified in both directions and no anomalies, spurious oscillations or non-linearity was detected.

Supervised By: David E. Lee, Compliance Test Manager

Transmitter Power Conducted Measurements

Test 1: RF Power Output
Test 2: Frequency Stability



	Asset (as applicable)	Description	s/n	Cycle	Last Cal
(1)	**Coaxial Attenuator**				
X	i00222	Pasternack 30dB	222	NCR	
	i00223	Pasternack 30dB	223	NCR	
(2)	**Power Meters**				
X	i00020	HP 8901A Power Mode	2105A01087	12 mo	Apr-04
(3)	**Frequency Counter**				
	i00020	HP 8901A Frequency Mode	2105A01087	12 mo	Apr-04

Name of Test: Unwanted Emissions (Transmitter Conducted)

Specification: 47 CFR 2.1051

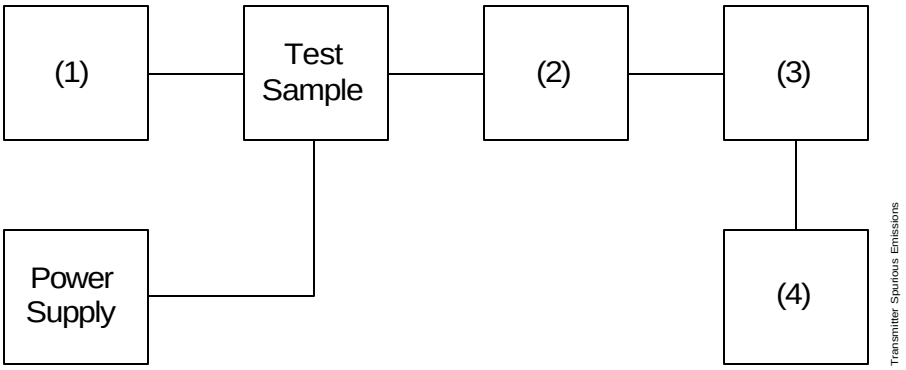
Guide: ANSI/TIA/EIA-603-1992, Paragraph 2.2.13

Measurement Procedure

A) The emissions were measured for the worst case as follows:
   1). within a band of frequencies defined by the carrier frequency plus and minus one channel.
   2). from the lowest frequency generated in the EUT and to at least the 10th harmonic of the carrier frequency, or 40 GHz, whichever is lower.

B) The magnitude of spurious emissions that are attenuated more than 20 dB below the permissible value need not be specified.

Transmitter Test Set-Up: Spurious Emission



	Asset	Description	s/n		
(1) **Exciter/Driver**					
X	Rental	HP E4438C	MY42082921	24 mo.	Feb-04
X	Rental	HP E4438C	US41461197	24 mo.	Jul-03
X	i00257	R&S Signal Generator 301	-	12 mo.	Sep-04
X	i00154	4 x 25 Ω Combiner	154	NCR	
(2) **Coaxial Attenuator**					
X	i00231/2	PASTERNACK PE7021-30 (30 dB)	231 or 232	NCR	
	i0012/3	NARDA 766 (10 dB)	7802 or 7802A	NCR	
(3) **Filters; Notch, HP, LP, BP**					
		None required			
(4) **Spectrum Analyzer**					
X	i00048	HP 8566B Spectrum Analyzer	2511A01467	12 mo.	Oct-04
X	i00029	HP 8563E Spectrum Analyzer	3213A00104	12 mo.	May-04

Name of Test: Unwanted Emissions (Transmitter Conducted)

Measurement Results

Summary:

Frequency of carrier, MHz	=	Up Link 1850, 1865, 1880 Down Link 1930, 1945, 1960
Spectrum Searched, GHz	=	0 to 10 x F_C
All Other Emissions	=	= 20 dB Below Limit

Limit(s)

-(43+10xLOG P) = based on full power of 10dBm (10mW) -23dBc (-13dBm)

Tabulated Results follow:

Measurement Results

g0510059: 2005-Jan-12 Wed 11:40:00
State: 2: Up Link TDMA Ambient Temperature: 20°C ± 3°C

Frequency Tuned, MHz	Frequency Emission, MHz	Level, dBm	Level, dBc	Margin, dB
1850.040000	3700.080000	-59.24	-69.24	46.24
1865.000000	3730.000000	-62.78	-72.78	49.78
1880.000000	3760.000000	-58.51	-68.51	45.51
1850.040000	5550.120000	-54.77	-64.77	41.77
1865.000000	5595.000000	-57.28	-67.28	44.28
1880.000000	5640.000000	-58.42	-68.42	45.42
1850.040000	7400.160000	-59.66	-69.66	46.66
1865.000000	7460.000000	-55.57	-65.57	42.57
1880.000000	7520.000000	-62.42	-72.42	49.42
1850.040000	9250.200000	-59.14	-69.14	46.14
1865.000000	9325.000000	-56.56	-66.56	43.56
1880.000000	9400.000000	-61.58	-71.58	48.58
1850.040000	11100.240000	-59.93	-69.93	46.93
1865.000000	11190.000000	-57.94	-67.94	44.94
1880.000000	11280.000000	-58.70	-68.70	45.70
1850.040000	12950.280000	-62.35	-72.35	49.35
1865.000000	13055.000000	-57.64	-67.64	44.64
1880.000000	13160.000000	-58.51	-68.51	45.51
1850.040000	14800.320000	-53.85	-63.85	40.85
1865.000000	14920.000000	-61.73	-71.73	48.73
1880.000000	15040.000000	-54.54	-64.54	41.54
1850.040000	16650.360000	-56.31	-66.31	43.31
1865.000000	16785.000000	-60.98	-70.98	47.98
1880.000000	16920.000000	-62.40	-72.40	49.40

g0510059: 2005-Jan-12 Wed 11:40:00
State: 2: Up Link CDMA Ambient Temperature: 20°C ± 3°C

Frequency Tuned, MHz	Frequency Emission, MHz	Level, dBm	Level, dBc	Margin, dB
1851.250000	3702.500000	-55.73	-65.73	42.73
1865.000000	3730.000000	-57.75	-67.75	44.75
1880.000000	3760.000000	-62.35	-72.35	49.35
1851.250000	5553.750000	-57.95	-67.95	44.95
1865.000000	5595.000000	-55.31	-65.31	42.31
1880.000000	5640.000000	-61.84	-71.84	48.84
1851.250000	7405.000000	-62.36	-72.36	49.36
1865.000000	7460.000000	-54.42	-64.42	41.42
1880.000000	7520.000000	-62.16	-72.16	49.16
1851.250000	9256.250000	-56.26	-66.26	43.26
1865.000000	9325.000000	-61.52	-71.52	48.52
1880.000000	9400.000000	-60.27	-70.27	47.27
1851.250000	11107.500000	-62.00	-72.00	49.00
1865.000000	11190.000000	-53.82	-63.82	40.82
1880.000000	11280.000000	-60.18	-70.18	47.18
1851.250000	12958.750000	-58.20	-68.20	45.20
1865.000000	13055.000000	-59.78	-69.78	46.78
1880.000000	13160.000000	-60.31	-70.31	47.31
1851.250000	14810.000000	-59.33	-69.33	46.33
1865.000000	14920.000000	-58.05	-68.05	45.05
1880.000000	15040.000000	-61.28	-71.28	48.28
1851.250000	16661.250000	-59.72	-69.72	46.72
1865.000000	16785.000000	-55.22	-65.22	42.22
1880.000000	16920.000000	-53.36	-63.36	40.36

g0510059: 2005-Jan-12 Wed 11:40:00

State: 2: Up Link GSM Ambient Temperature: 20°C ± 3°C

Frequency Tuned, MHz	Frequency Emission, MHz	Level, dBm	Level, dBc	Margin, dB
1850.200000	3700.400000	-61.75	-71.75	48.75
1865.000000	3730.000000	-57.40	-67.40	44.40
1880.000000	3760.000000	-53.66	-63.66	40.66
1850.200000	5550.600000	-54.04	-64.04	41.04
1865.000000	5595.000000	-53.23	-63.23	40.23
1880.000000	5640.000000	-60.08	-70.08	47.08
1850.200000	7400.800000	-55.12	-65.12	42.12
1865.000000	7460.000000	-54.57	-64.57	41.57
1880.000000	7520.000000	-56.18	-66.18	43.18
1850.200000	9251.000000	-61.03	-71.03	48.03
1865.000000	9325.000000	-54.20	-64.20	41.20
1880.000000	9400.000000	-56.11	-66.11	43.11
1850.200000	11101.200000	-61.70	-71.70	48.70
1865.000000	11190.000000	-56.59	-66.59	43.59
1880.000000	11280.000000	-62.30	-72.30	49.30
1850.200000	12951.400000	-57.57	-67.57	44.57
1865.000000	13055.000000	-56.36	-66.36	43.36
1880.000000	13160.000000	-54.12	-64.12	41.12
1850.200000	14801.600000	-53.73	-63.73	40.73
1865.000000	14920.000000	-61.56	-71.56	48.56
1880.000000	15040.000000	-60.25	-70.25	47.25
1850.200000	16651.800000	-61.88	-71.88	48.88
1865.000000	16785.000000	-59.35	-69.35	46.35
1880.000000	16920.000000	-53.85	-63.85	40.85

g0510060: 2005-Jan-12 Wed 12:50:00

State: 2: Down Link TDMA Ambient Temperature: 20°C ± 3°C

Frequency Tuned, MHz	Frequency Emission, MHz	Level, dBm	Level, dBc	Margin, dB
1930.040000	3860.080000	-60.64	-70.64	47.64
1945.000000	3890.000000	-59.95	-69.95	46.95
1960.000000	3920.000000	-55.19	-65.19	42.19
1930.040000	5790.120000	-61.15	-71.15	48.15
1945.000000	5835.000000	-54.76	-64.76	41.76
1960.000000	5880.000000	-59.07	-69.07	46.07
1930.040000	7720.160000	-55.82	-65.82	42.82
1945.000000	7780.000000	-53.64	-63.64	40.64
1960.000000	7840.000000	-53.41	-63.41	40.41
1930.040000	9650.200000	-61.02	-71.02	48.02
1945.000000	9725.000000	-58.10	-68.10	45.10
1960.000000	9800.000000	-56.69	-66.69	43.69
1930.040000	11580.240000	-56.06	-66.06	43.06
1945.000000	11670.000000	-60.34	-70.34	47.34
1960.000000	11760.000000	-62.04	-72.04	49.04
1930.040000	13510.280000	-53.06	-63.06	40.06
1945.000000	13615.000000	-58.10	-68.10	45.10
1960.000000	13720.000000	-59.24	-69.24	46.24
1930.040000	15440.320000	-60.60	-70.60	47.60
1945.000000	15560.000000	-55.38	-65.38	42.38
1960.000000	15680.000000	-54.99	-64.99	41.99
1930.040000	17370.360000	-56.81	-66.81	43.81
1945.000000	17505.000000	-53.77	-63.77	40.77
1960.000000	17640.000000	-60.52	-70.52	47.52
1930.040000	3860.080000	-60.64	-70.64	47.64
1945.000000	3890.000000	-59.95	-69.95	46.95
1960.000000	3920.000000	-55.19	-65.19	42.19

g0510060: 2005-Jan-12 Wed 12:50:00

State: 2: Down Link CDMA Ambient Temperature: 20°C ± 3°C

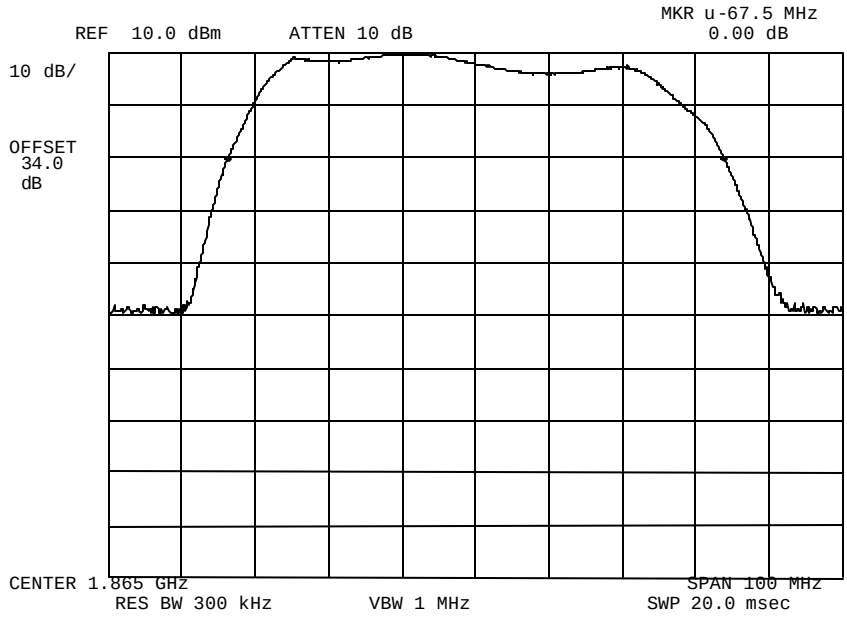
Frequency Tuned, MHz	Frequency Emission, MHz	Level, dBm	Level, dBc	Margin, dB
1931.250000	3862.500000	-53.43	-63.43	40.43
1945.000000	3890.000000	-53.23	-63.23	40.23
1960.000000	3920.000000	-60.45	-70.45	47.45
1931.250000	5793.750000	-62.97	-72.97	49.97
1945.000000	5835.000000	-54.35	-64.35	41.35
1960.000000	5880.000000	-53.09	-63.09	40.09
1931.250000	7725.000000	-60.85	-70.85	47.85
1945.000000	7780.000000	-59.39	-69.39	46.39
1960.000000	7840.000000	-58.05	-68.05	45.05
1931.250000	9656.250000	-60.84	-70.84	47.84
1945.000000	9725.000000	-53.86	-63.86	40.86
1960.000000	9800.000000	-56.83	-66.83	43.83
1931.250000	11587.500000	-54.69	-64.69	41.69
1945.000000	11670.000000	-56.46	-66.46	43.46
1960.000000	11760.000000	-55.90	-65.90	42.90
1931.250000	13518.750000	-59.54	-69.54	46.54
1945.000000	13615.000000	-59.94	-69.94	46.94
1960.000000	13720.000000	-60.20	-70.20	47.20
1931.250000	15450.000000	-59.66	-69.66	46.66
1945.000000	15560.000000	-58.51	-68.51	45.51
1960.000000	15680.000000	-55.00	-65.00	42.00
1931.250000	17381.250000	-58.86	-68.86	45.86
1945.000000	17505.000000	-60.45	-70.45	47.45
1960.000000	17640.000000	-53.05	-63.05	40.05

g0510060: 2005-Jan-12 Wed 12:50:00

State: 2: Down Link GSM Ambient Temperature: 20°C ± 3°C

Frequency Tuned, MHz	Frequency Emission, MHz	Level, dBm	Level, dBc	Margin, dB
1930.200000	3860.400000	-54.15	-64.15	41.15
1945.000000	3890.000000	-54.70	-64.70	41.70
1960.000000	3920.000000	-54.09	-64.09	41.09
1930.200000	5790.600000	-56.21	-66.21	43.21
1945.000000	5835.000000	-62.95	-72.95	49.95
1960.000000	5880.000000	-62.63	-72.63	49.63
1930.200000	7720.800000	-57.73	-67.73	44.73
1945.000000	7780.000000	-53.89	-63.89	40.89
1960.000000	7840.000000	-61.01	-71.01	48.01
1930.200000	9651.000000	-54.62	-64.62	41.62
1945.000000	9725.000000	-58.41	-68.41	45.41
1960.000000	9800.000000	-57.84	-67.84	44.84
1930.200000	11581.200000	-54.67	-64.67	41.67
1945.000000	11670.000000	-53.10	-63.10	40.10
1960.000000	11760.000000	-61.75	-71.75	48.75
1930.200000	13511.400000	-62.26	-72.26	49.26
1945.000000	13615.000000	-59.37	-69.37	46.37
1960.000000	13720.000000	-58.52	-68.52	45.52
1930.200000	15441.600000	-60.25	-70.25	47.25
1945.000000	15560.000000	-57.21	-67.21	44.21
1960.000000	15680.000000	-56.57	-66.57	43.57
1930.200000	17371.800000	-60.73	-70.73	47.73
1945.000000	17505.000000	-55.70	-65.70	42.70
1960.000000	17640.000000	-57.03	-67.03	44.03

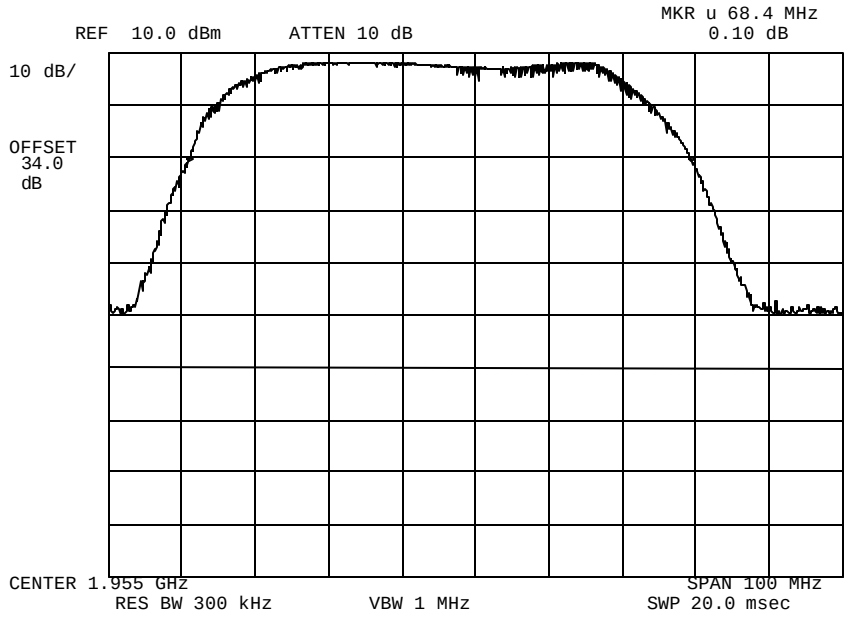
Name of Test: Swept Band Width
g0510097: 2005-Jan-14 Fri 16:00:00
State: 2:High Power



Power: HIGH
Modulation: BAND WIDTH (20dB)

Supervised By: David E. Lee, Compliance Test Manager

Name of Test: Swept Band Width
g0510098: 2005-Jan-14 Fri 16:14:00
State: 2:High Power



Power: HIGH
Modulation: BAND WIDTH (20dB)

Supervised By: David E. Lee, Compliance Test Manager

Name of Test: Emission Masks (Occupied Bandwidth)

Specification: 47 CFR 2.1049(c)(1)

Guide: ANSI/TIA/EIA-603-1992, Paragraph 2.2.11

Test Equipment: As per previous page

Measurement Procedure

1. The EUT and test equipment were set up as shown on the following page, with the Spectrum Analyzer connected.

2. For EUTs supporting audio modulation, the audio signal generator was adjusted to the frequency of maximum response and with output level set for ±2.5 kHz deviation (or 50% modulation). With level constant, the signal level was increased 16 dB.

3. For EUTs supporting digital modulation, the digital modulation mode was operated to its maximum extent.

4. The Occupied Bandwidth was measured with the Spectrum Analyzer controls set as shown on the test results.

5. Measurement Results: Attached

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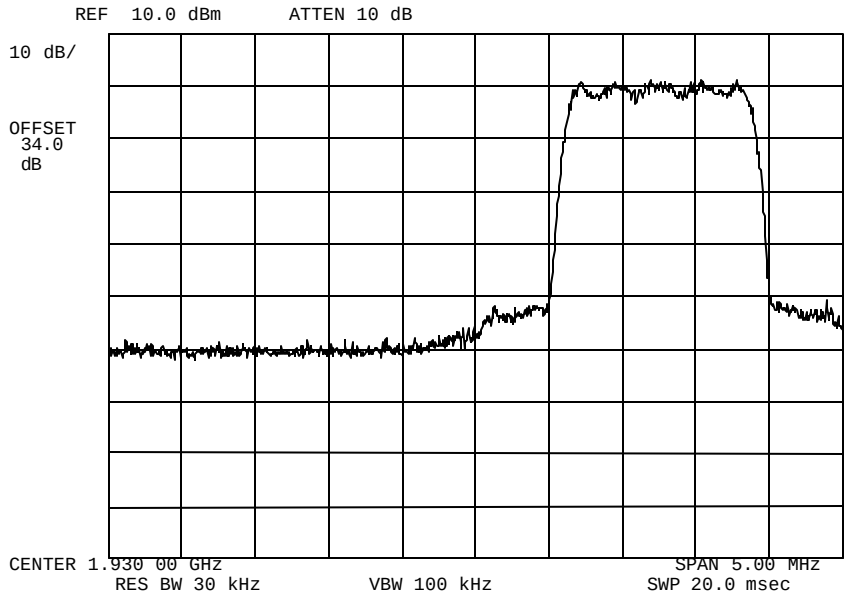
Name of Test: Emission Masks (Occupied Bandwidth)
g0510073: 2005-Jan-14 Fri 11:40:00
State: 2:High Power



Power: HIGH
Modulation: DOWN LINK CDMA LO

Supervised By: David E. Lee, Compliance Test Manager

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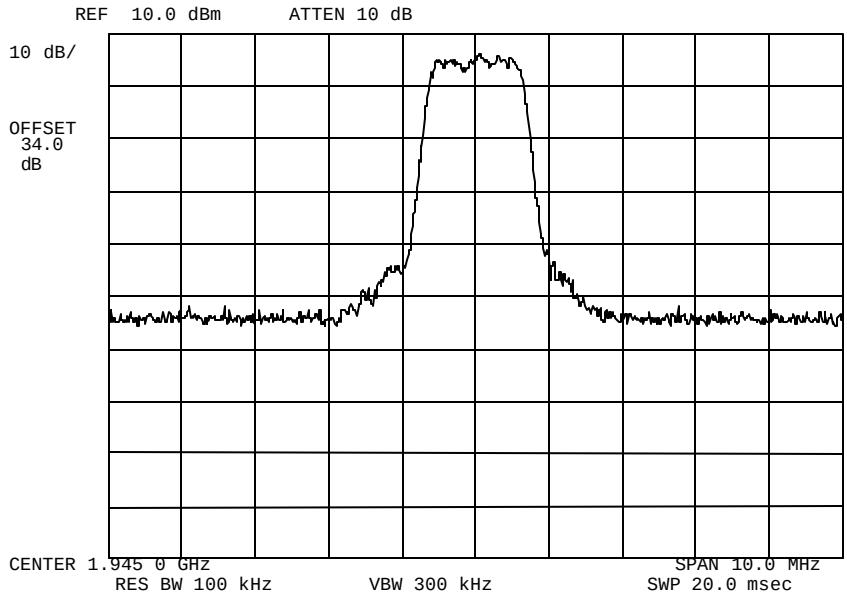
Name of Test: Emission Masks (Occupied Bandwidth)
g0510082: 2005-Jan-14 Fri 12:01:00
State: 2:High Power



Power: HIGH
Modulation: DOWN LINK CDMA MID

Supervised By: David E. Lee, Compliance Test Manager

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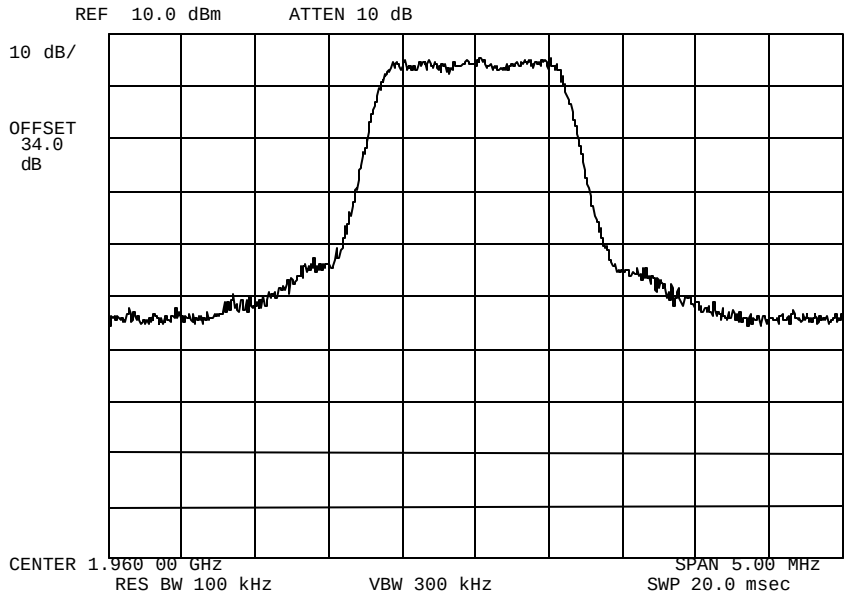
Name of Test: Emission Masks (Occupied Bandwidth)
g0510077: 2005-Jan-14 Fri 11:48:00
State: 2:High Power



Power: HIGH
Modulation: DOWN LINK CDMA HI

Supervised By: David E. Lee, Compliance Test Manager

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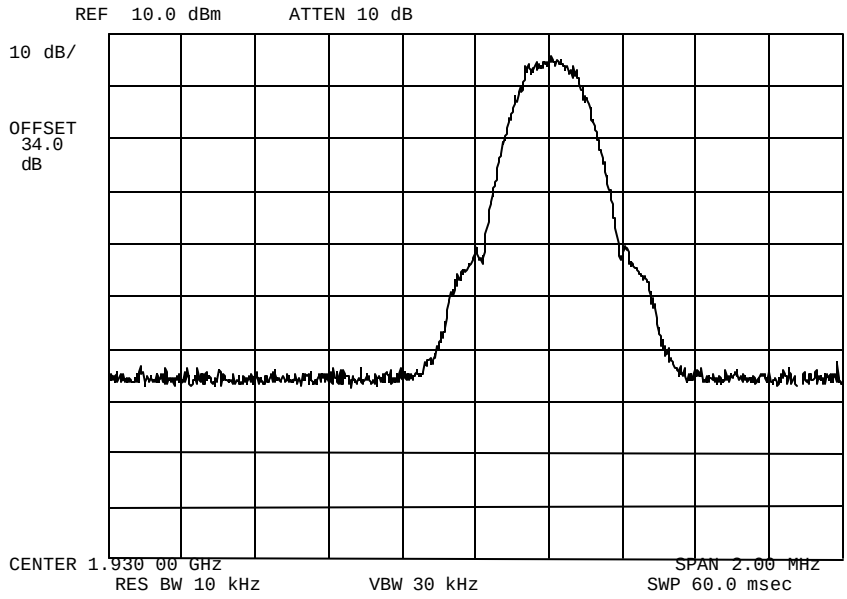
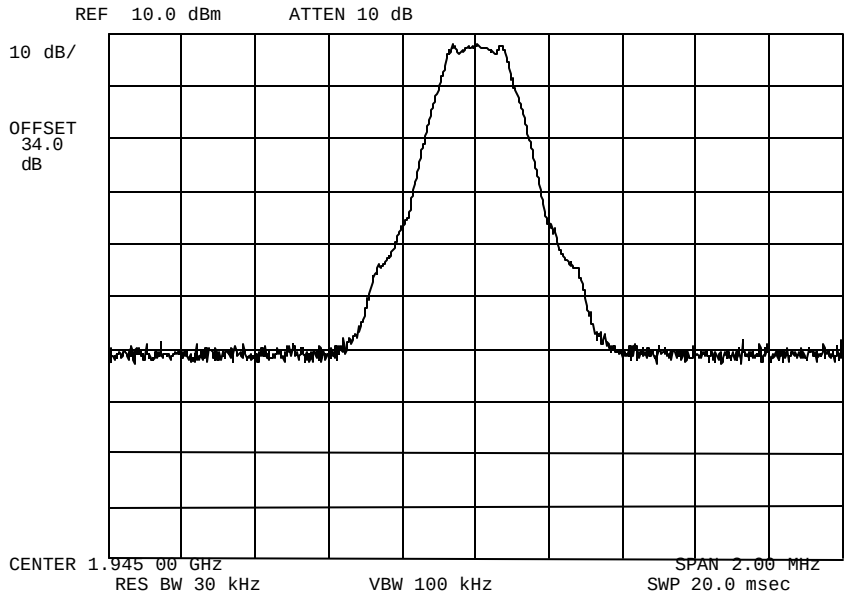
Name of Test: Emission Masks (Occupied Bandwidth)
g0510074: 2005-Jan-14 Fri 11:42:00
State: 2:High Power



Power: HIGH
Modulation: DOWN LINK GSM LO

Supervised By: David E. Lee, Compliance Test Manager

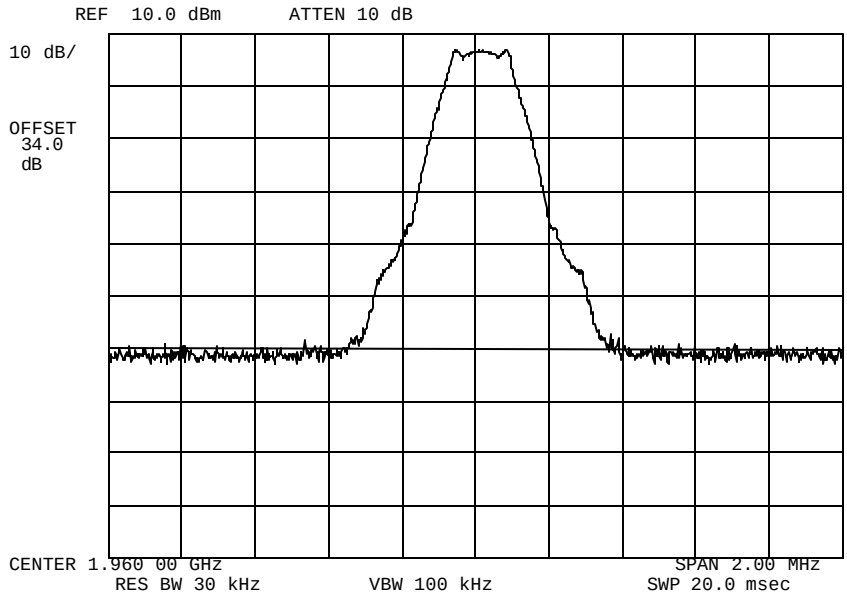
Name of Test: Emission Masks (Occupied Bandwidth)
g0510079: 2005-Jan-14 Fri 11:54:00
State: 2:High Power



Power: HIGH
Modulation: DOWN LINK GSM MID

Supervised By: David E. Lee, Compliance Test Manager

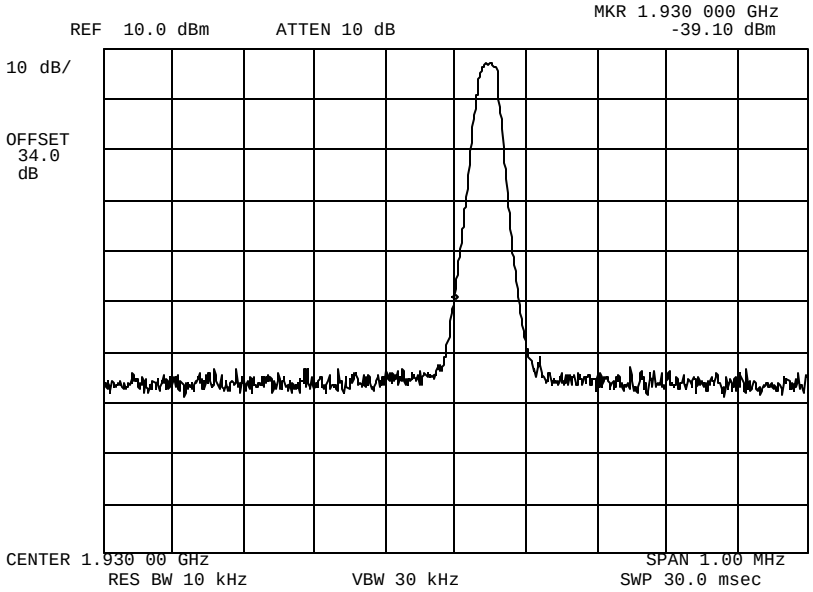
Name of Test: Emission Masks (Occupied Bandwidth)
g0510078: 2005-Jan-14 Fri 11:50:00
State: 2:High Power



Power: HIGH
Modulation: DOWN LINK GSM HI

Supervised By: David E. Lee, Compliance Test Manager

Name of Test: Emission Masks (Occupied Bandwidth)
g0510075: 2005-Jan-14 Fri 11:45:00
State: 2:High Power



Power: HIGH
Modulation: DOWN LINK TDMA LO

Supervised By: David E. Lee, Compliance Test Manager

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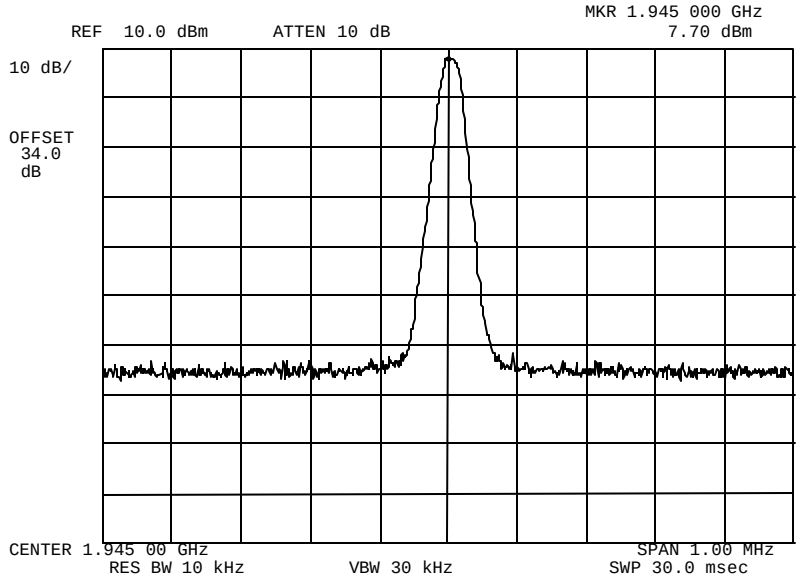
Name of Test: Emission Masks (Occupied Bandwidth)
g0510081: 2005-Jan-14 Fri 11:58:00
State: 2:High Power



Power: HIGH
Modulation: DOWN LINK TDMA MID

Supervised By: David E. Lee, Compliance Test Manager

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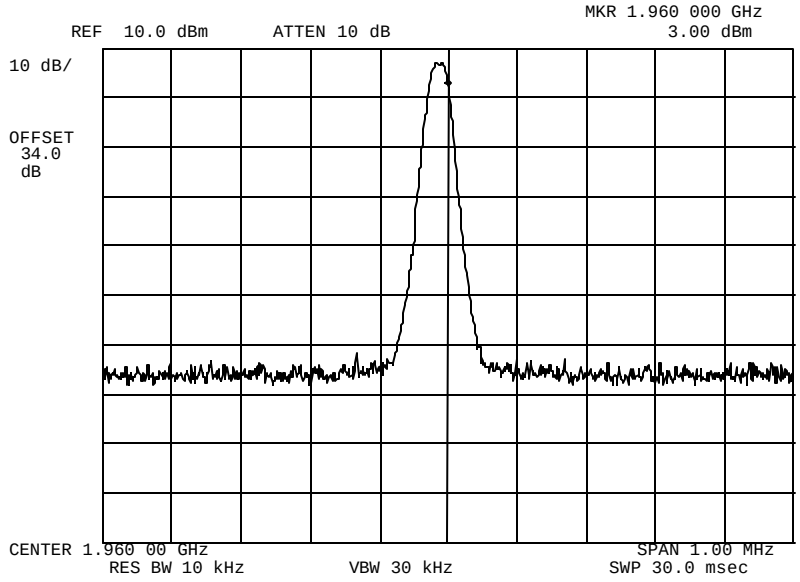
Name of Test: Emission Masks (Occupied Bandwidth)
g0510076: 2005-Jan-14 Fri 11:47:00
State: 2:High Power



Power: HIGH
Modulation: DOWN LINK TDMA HI

Supervised By: David E. Lee, Compliance Test Manager

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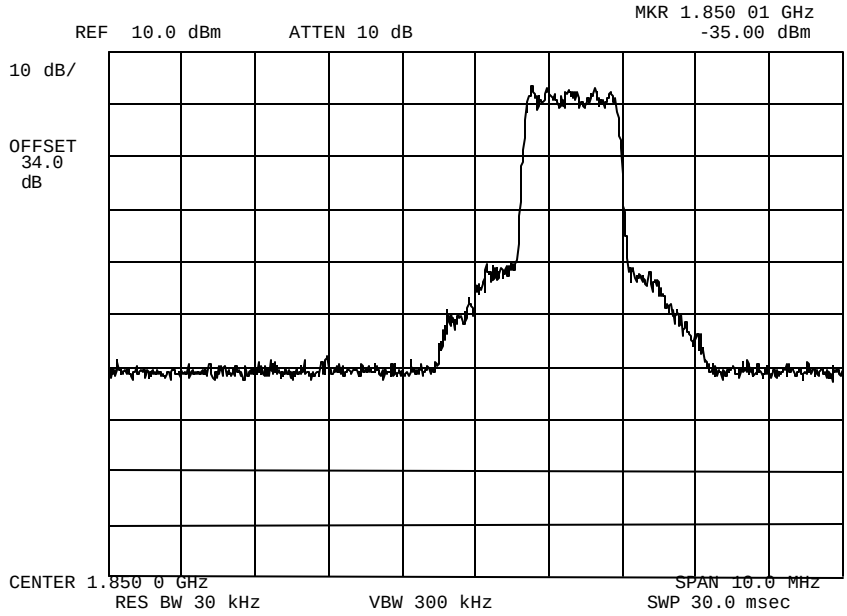
Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0510058: 2005-Jan-14 Fri 08:53:00
State: 2:High Power Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: CDMA UPLINK LO

Performed by: David E. Lee, Compliance Test Manager

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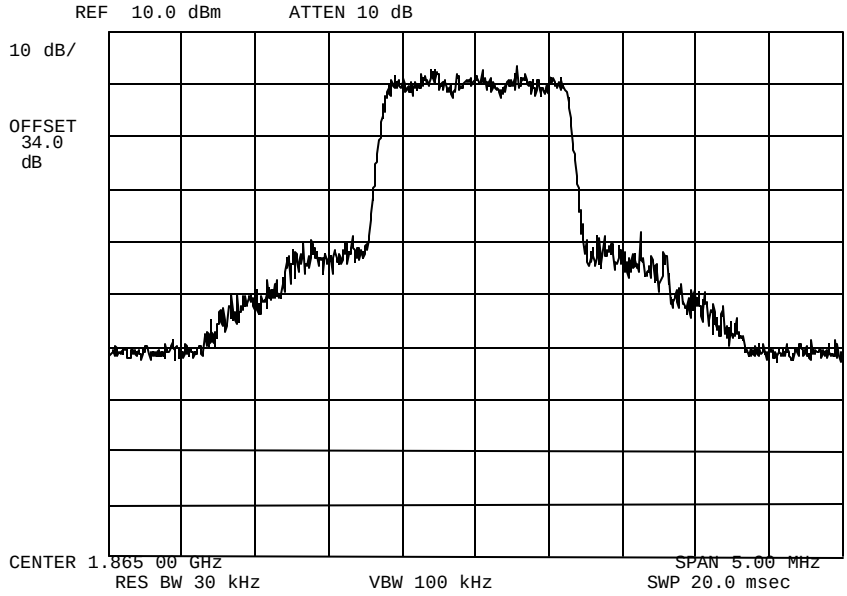
Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0510064: 2005-Jan-14 Fri 09:05:00
State: 2:High Power Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: CDMA UPLINK MID

Performed by: David E. Lee, Compliance Test Manager

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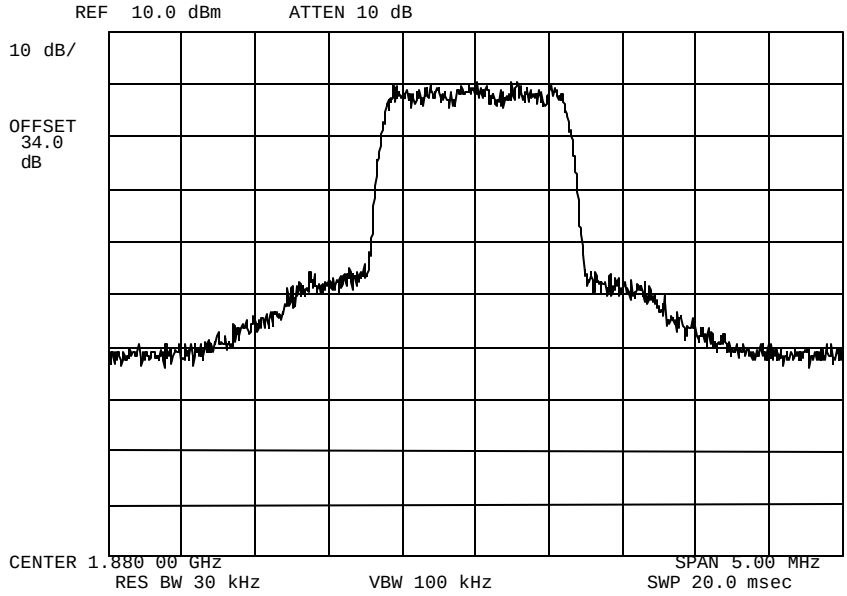
Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0510063: 2005-Jan-14 Fri 09:03:00
State: 2:High Power Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: CDMA UPLINK HI

Performed by: David E. Lee, Compliance Test Manager

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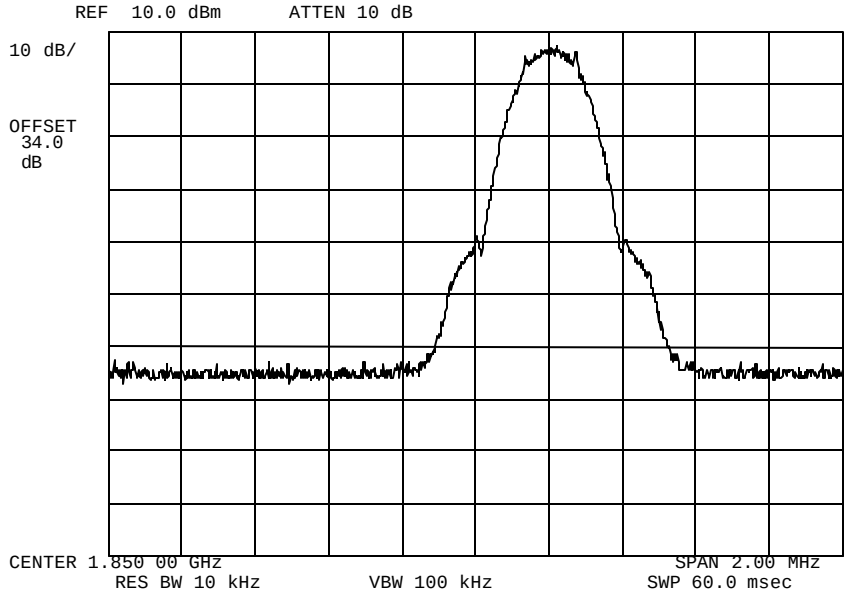
Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0510060: 2005-Jan-14 Fri 08:58:00
State: 2:High Power Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: GSM UPLINK LO

Performed by: David E. Lee, Compliance Test Manager

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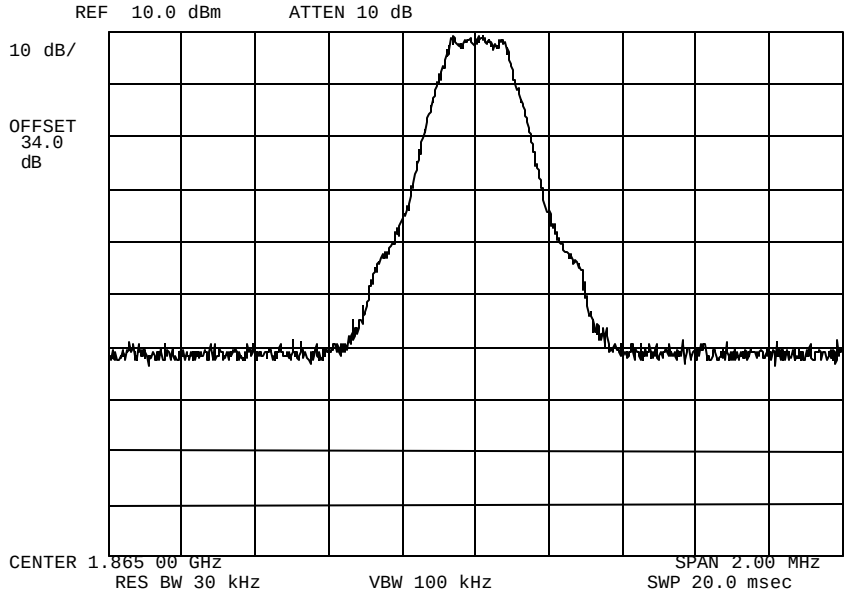
Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0510066: 2005-Jan-14 Fri 09:08:00
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: GSM UPLINK MID

Performed by: David E. Lee, Compliance Test Manager

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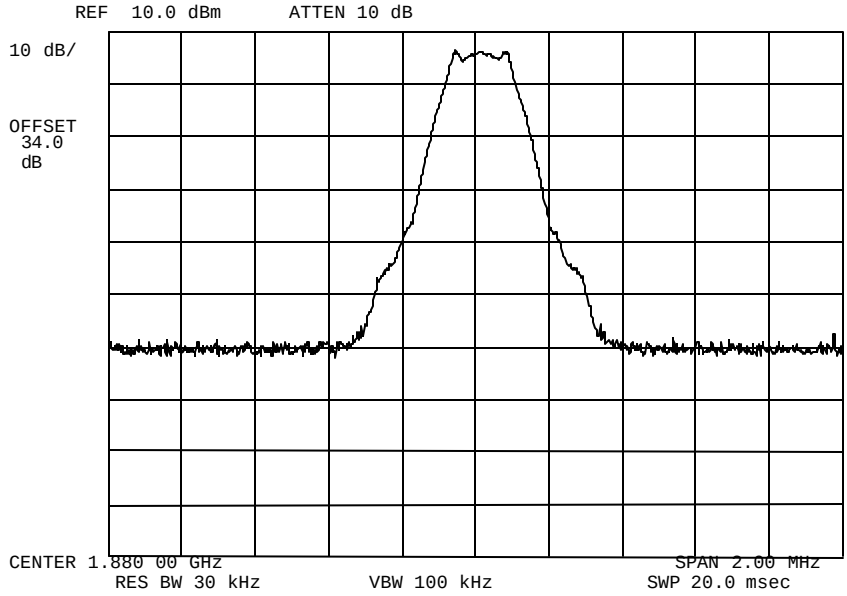
Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0510061: 2005-Jan-14 Fri 09:01:00
State: 2:High Power Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: GSM UPLINK HI

Performed by: David E. Lee, Compliance Test Manager

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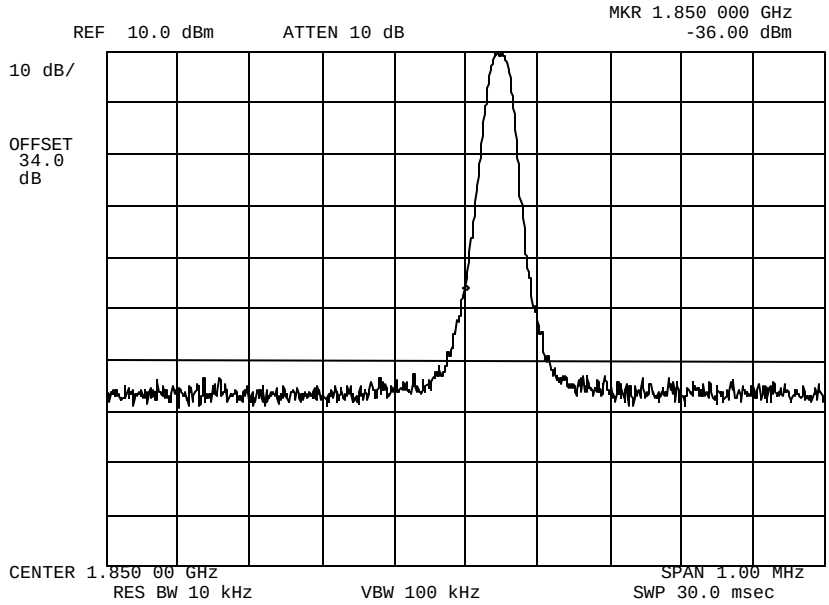
Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0510059: 2005-Jan-14 Fri 08:57:00
State: 2:High Power Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: TDMA UPLINK LO

Performed by: David E. Lee, Compliance Test Manager

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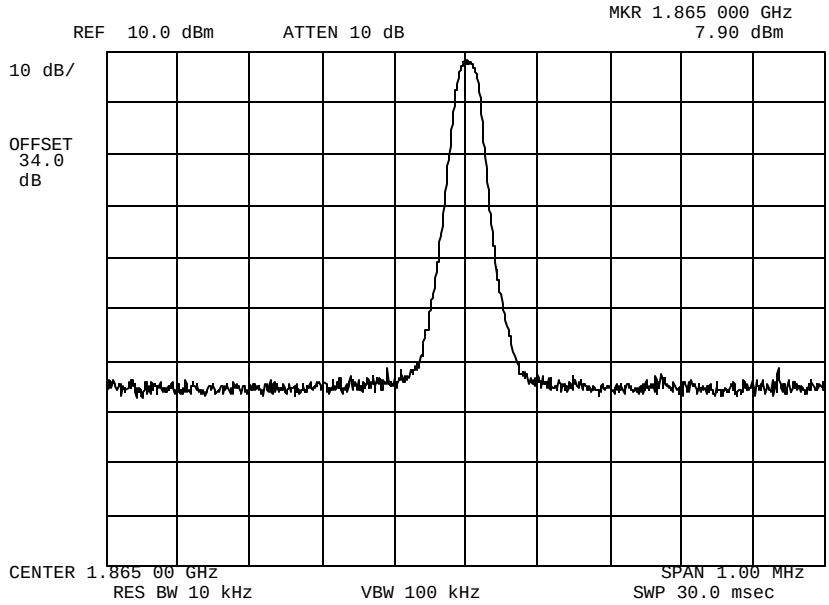
Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0510065: 2005-Jan-14 Fri 09:07:00
State: 2:High Power Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: TDMA UPLINK MID

Performed by: David E. Lee, Compliance Test Manager

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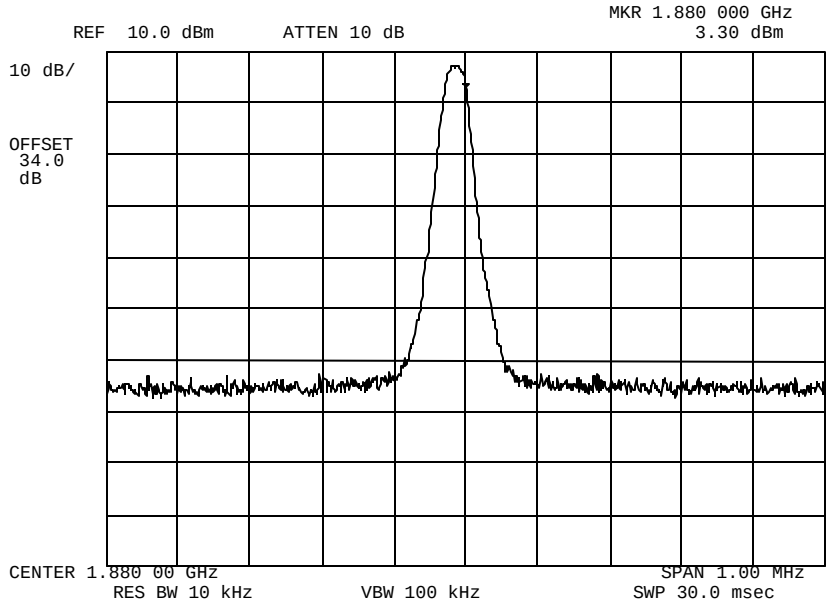
Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0510062: 2005-Jan-14 Fri 09:02:00
State: 2:High Power Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: TDMA UPLINK HI

Performed by: David E. Lee, Compliance Test Manager

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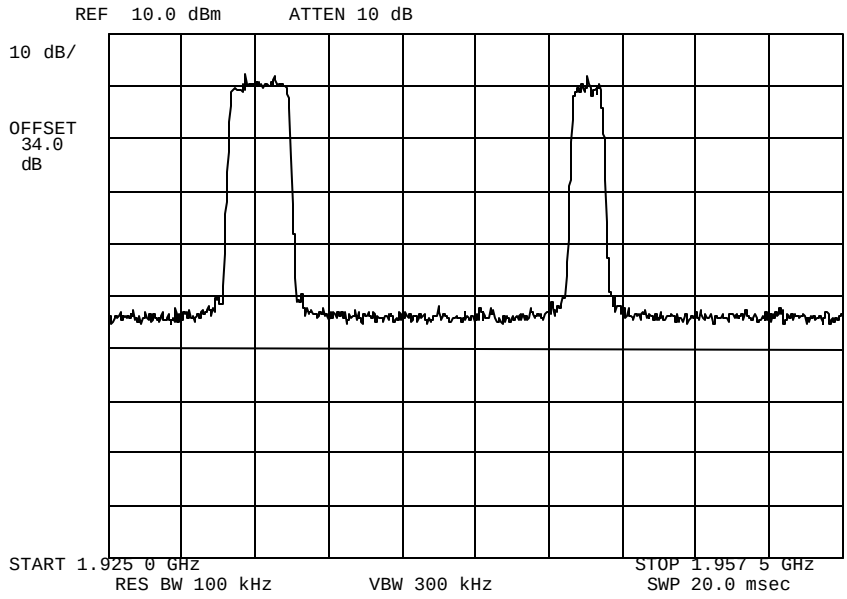
Name of Test: Multi Carrier IMD Products
g0510083: 2005-Jan-14 Fri 12:13:00
State: 2:High Power



Power: HIGH
Modulation: 3 TONE CDMA DOWN LINK
1 of 2

Supervised By: David E. Lee, Compliance Test Manager

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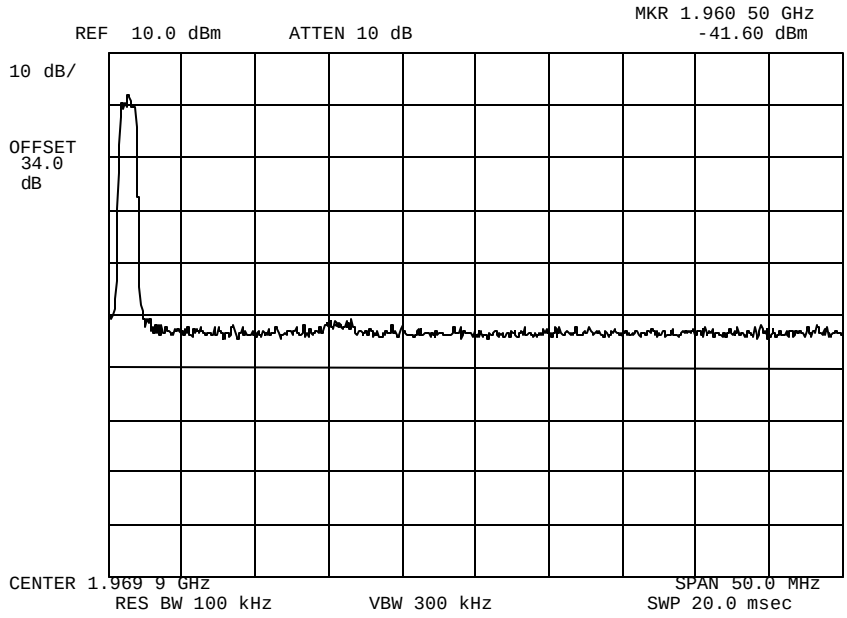
Name of Test: Multi Carrier IMD Products)
g0510086: 2005-Jan-14 Fri 12:18:00
State: 2:High Power



Power: HIGH
Modulation: 3 TONE CDMA DOWN LINK
2 of 2

Supervised By: David E. Lee, Compliance Test Manager

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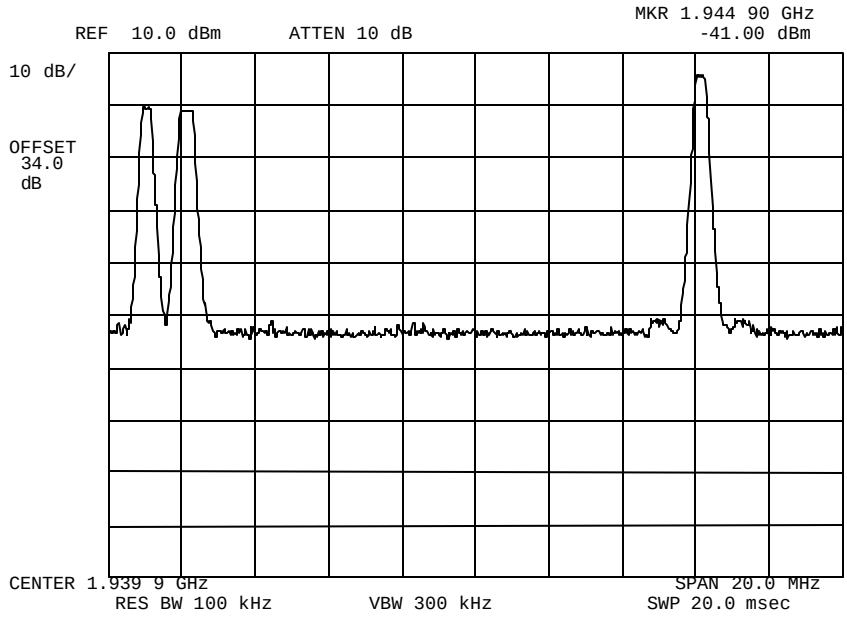
Name of Test: Multi Carrier IMD Products
g0510087: 2005-Jan-14 Fri 12:30:00
State: 2:High Power



Power: HIGH
Modulation: 3 TONE GSM DOWN LINK
1 of 2

Supervised By: David E. Lee, Compliance Test Manager

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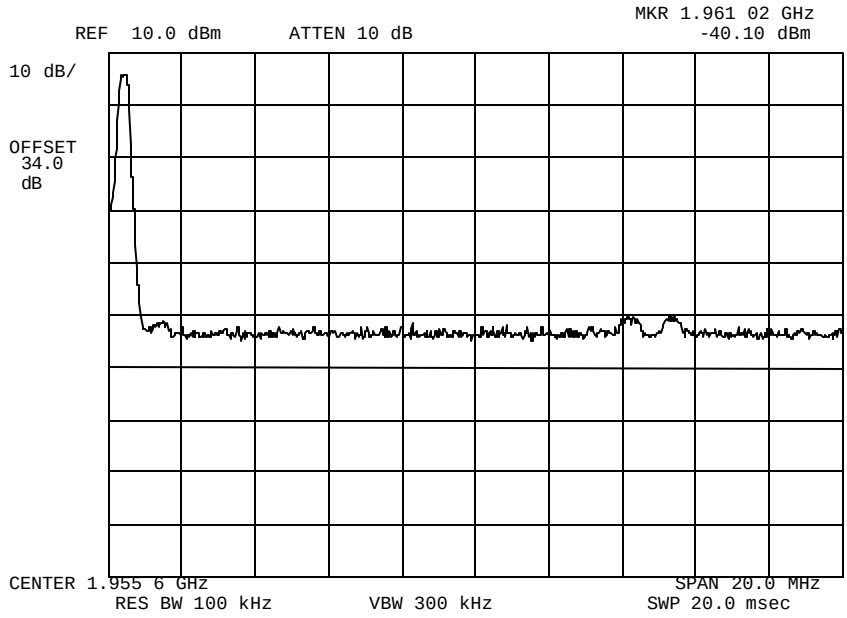
Name of Test: Multi Carrier IMD Products
g0510088: 2005-Jan-14 Fri 12:31:00
State: 2:High Power



Power: HIGH
Modulation: 3 TONE GSM DOWN LINK
2 of 2

Supervised By: David E. Lee, Compliance Test Manager

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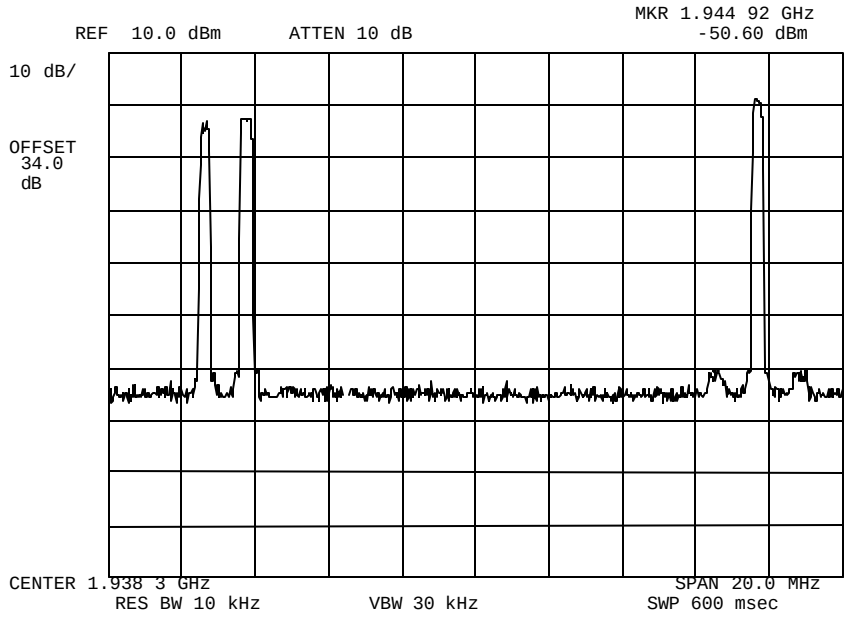
Name of Test: Multi Carrier IMD Products
g0510089: 2005-Jan-14 Fri 12:34:00
State: 2:High Power



Power: HIGH
Modulation: 3 TONE TDMA DOWN LINK
1 of 2

Supervised By: David E. Lee, Compliance Test Manager

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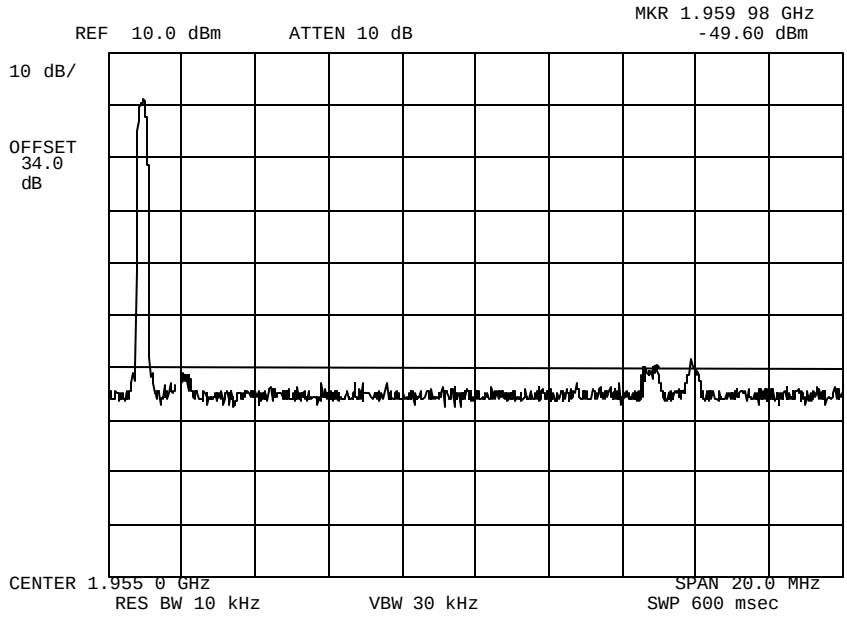
Name of Test: Multi Carrier IMD Products
g0510090: 2005-Jan-14 Fri 12:35:00
State: 2:High Power



Power: HIGH
Modulation: 3 TONE TDMA DOWN LINK
2 of 2

Supervised By: David E. Lee, Compliance Test Manager

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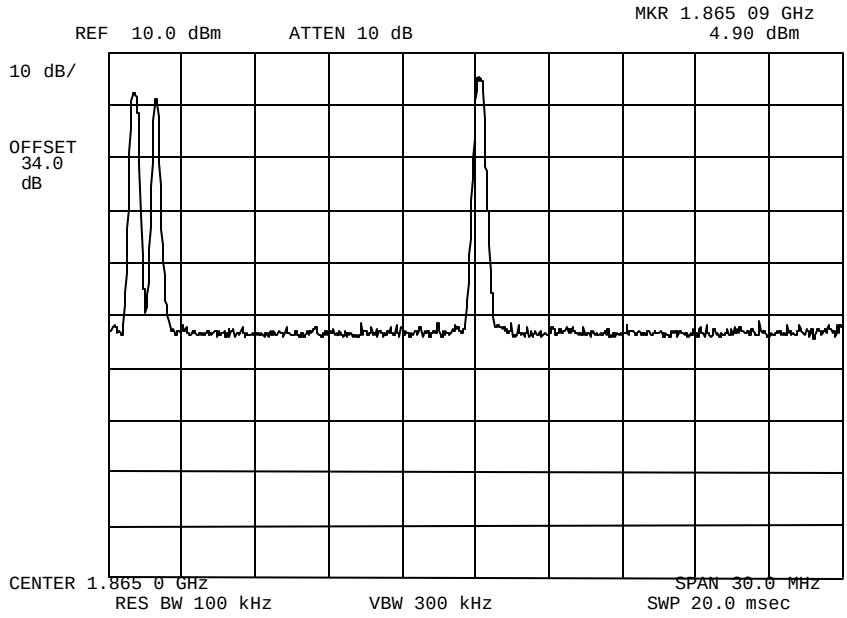
Name of Test: Multi Carrier IMD Products
g0510091: 2005-Jan-14 Fri 15:31:00
State: 2:High Power



Power: HIGH
Modulation: 3 TONE TDMA UPLINK
1 of 2

Supervised By: David E. Lee, Compliance Test Manager

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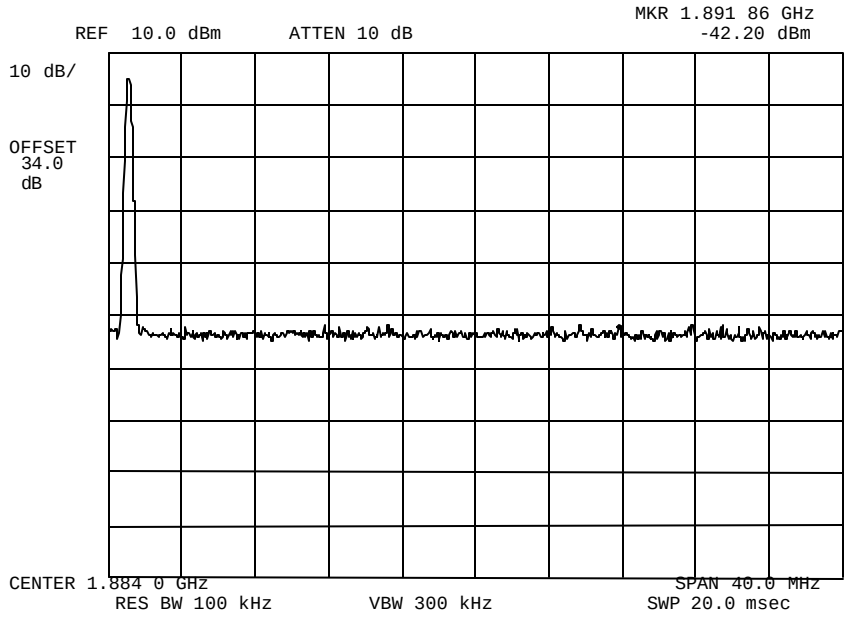
Name of Test: Multi Carrier IMD Products
g0510092: 2005-Jan-14 Fri 15:34:00
State: 2:High Power



Power: HIGH
Modulation: 3 TONE TDMA UPLINK
2 of 2

Supervised By: David E. Lee, Compliance Test Manager

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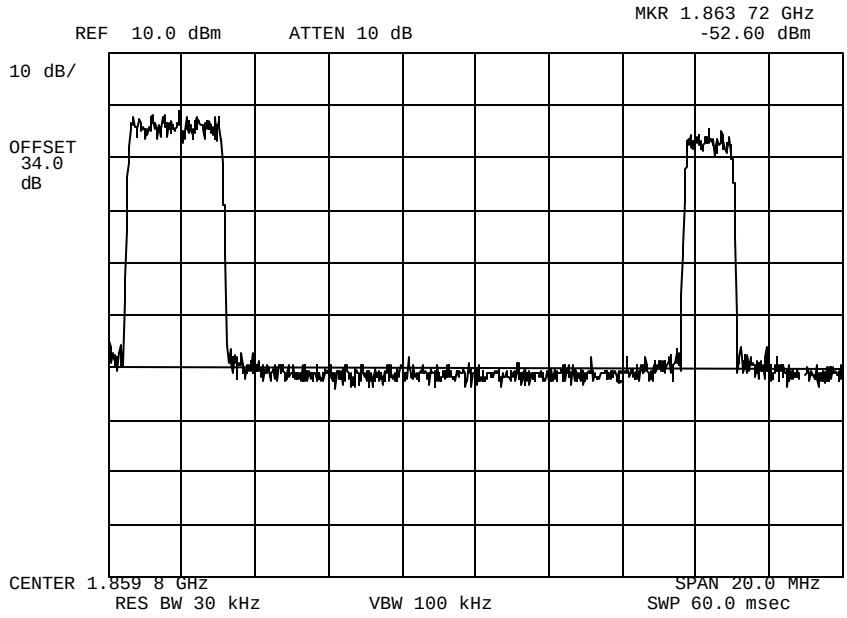
Name of Test: Multi Carrier IMD Products
g0510093: 2005-Jan-14 Fri 15:39:00
State: 2:High Power



Power: HIGH
Modulation: 3 TONE CDMA UPLINK
1 of 2

Supervised By: David E. Lee, Compliance Test Manager

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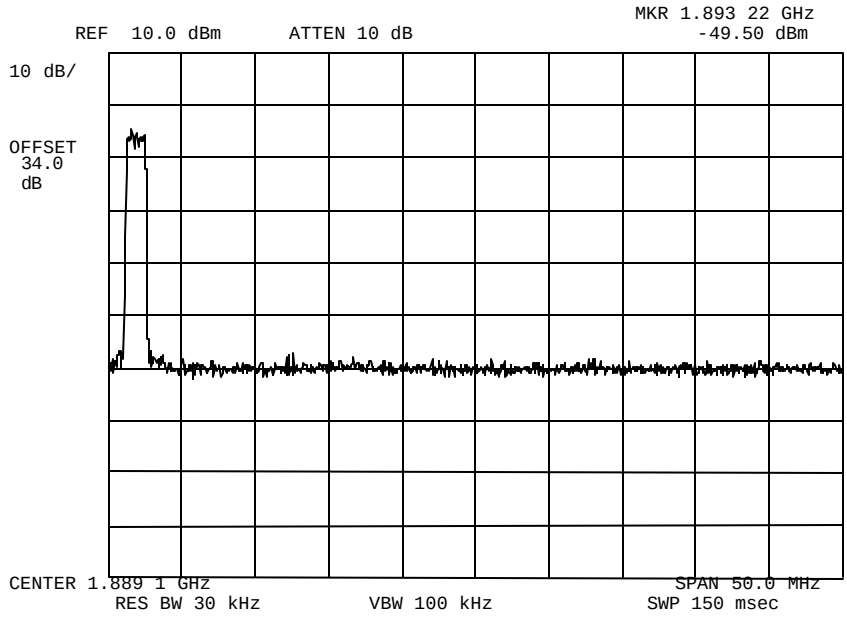
Name of Test: Multi Carrier IMD Products
g0510094: 2005-Jan-14 Fri 15:41:00
State: 2:High Power



Power: HIGH
Modulation: 3 TONE CDMA UPLINK
2 of 2

Supervised By: David E. Lee, Compliance Test Manager

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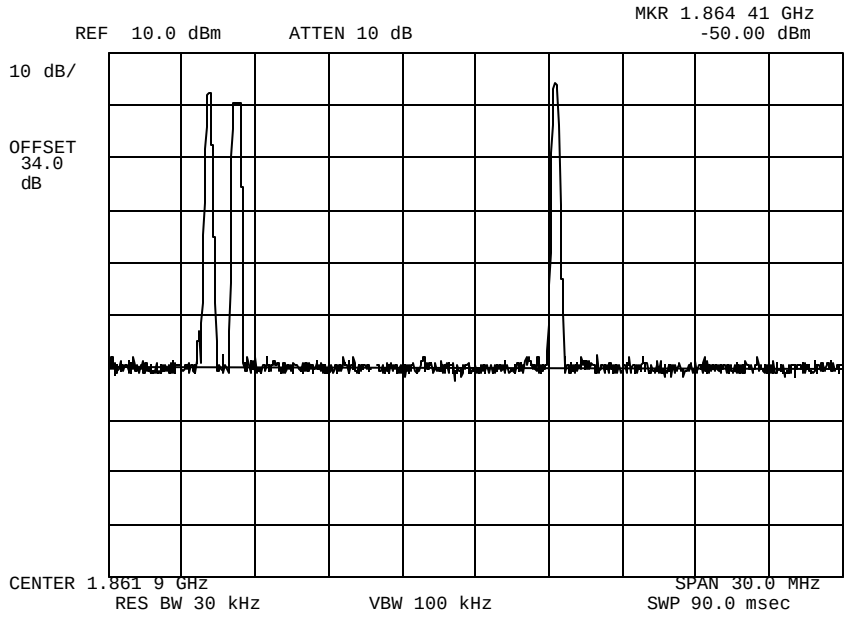
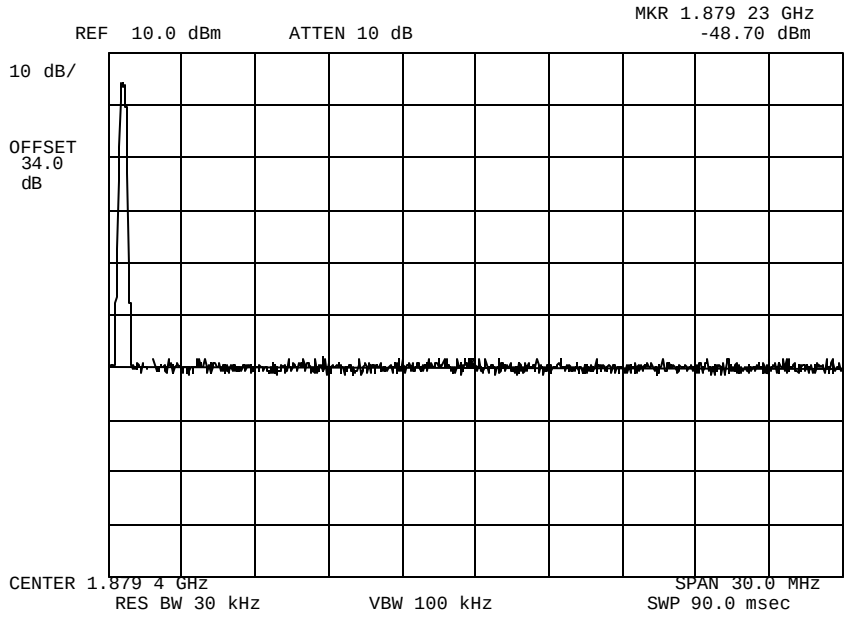
Name of Test: Multi Carrier IMD Products
g0510095: 2005-Jan-14 Fri 15:53:00
State: 2:High Power



Power: HIGH
Modulation: 3 TONE GSM UPLINK
1 of 2

Supervised By: David E. Lee, Compliance Test Manager

Name of Test: Multi Carrier IMD Products
g0510096: 2005-Jan-14 Fri 15:54:00
State: 2:High Power



Power: HIGH
Modulation: 3 TONE GSM UPLINK
2 of 2

Supervised By: David E. Lee, Compliance Test Manager

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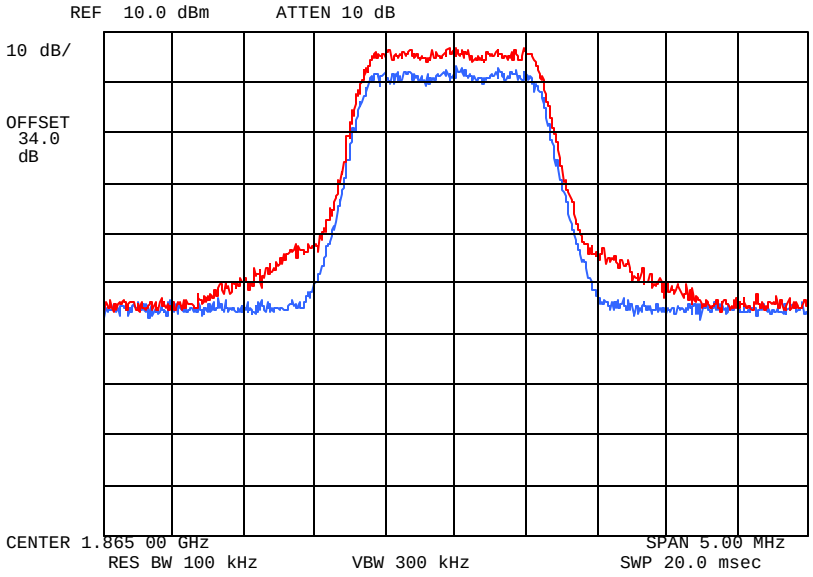
Name of Test: Emission Masks (Spectral Distortion)

Measurement Results

g0510023: 2005-Jan-05 Wed 06:23:00
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: CDMA UPLINK
SPECTRAL DISTORTION
(BLUE INPUT DIRECT, RED OUTPUT AFTER AMP AND 30dB ATTENUATOR)

Performed by: Bobby Leanio

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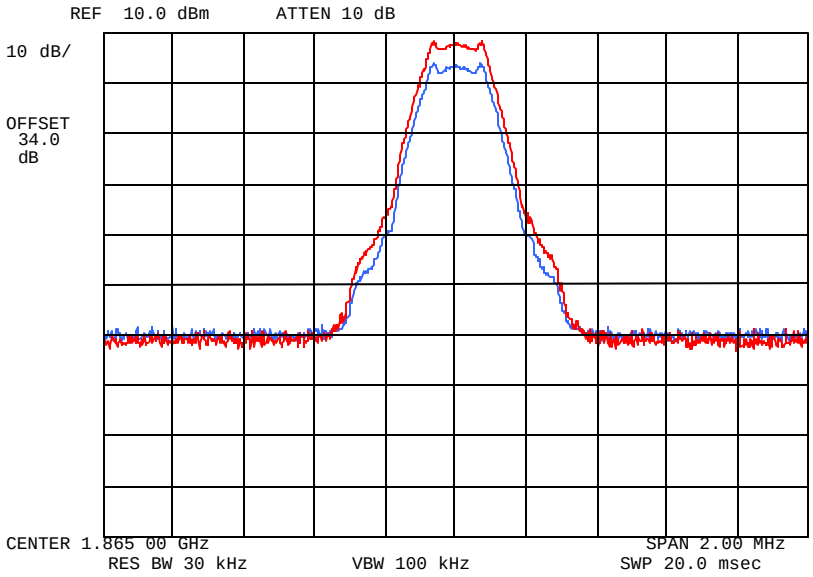
Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0510024: 2005-Jan-05 Wed 07:39:00
State: 2:High Power Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: GSM UPLINK
SPECTRAL DISTORTION
(BLUE INPUT DIRECT, RED OUTPUT AFTER AMP AND 30dB ATTENUATOR)

Performed by: Bobby Leanio

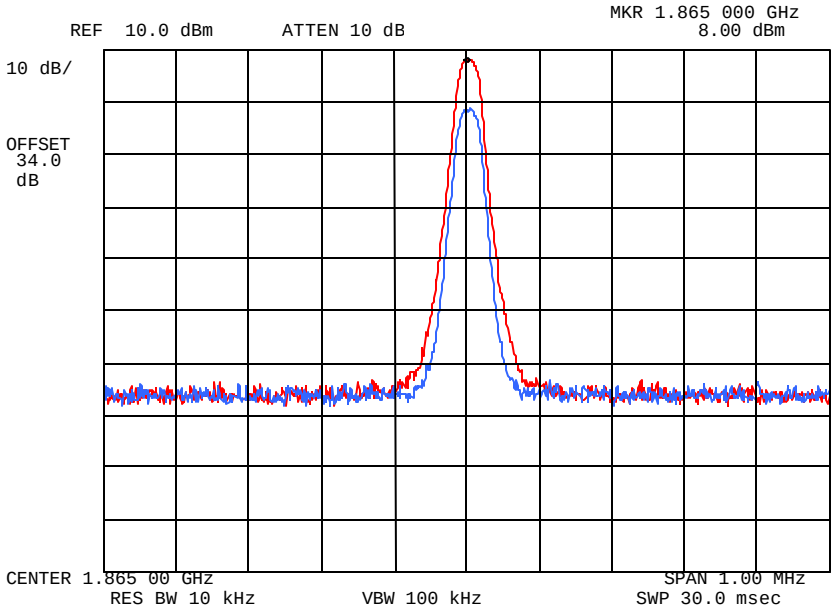
Page Number 51 of 65.

Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0510025: 2005-Jan-05 Wed 07:41:00
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: TDMA UPLINK
SPECTRAL DISTORTION
(BLUE INPUT DIRECT, RED OUTPUT AFTER AMP AND 30dB ATTENUATOR)

Performed by: Bobby Leanio

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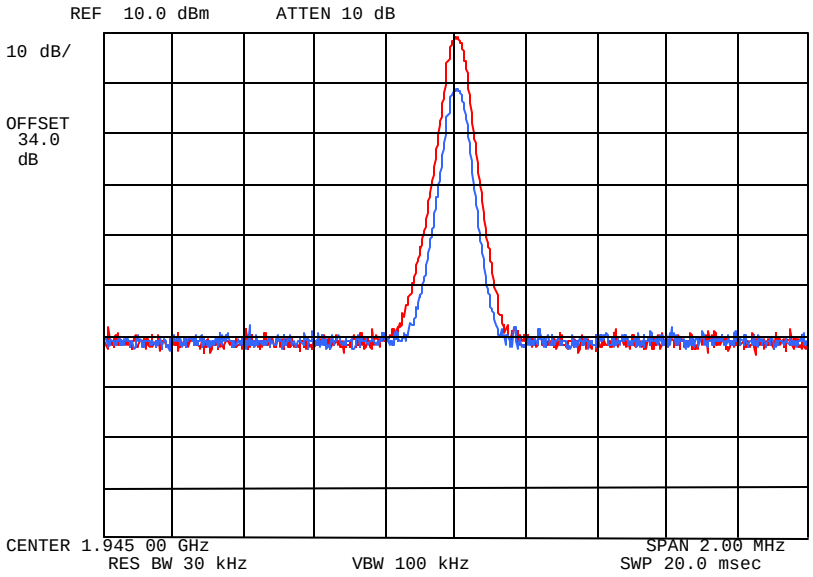
Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0510026: 2005-Jan-05 Wed 07:45:00
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: TDMA DOWNLINK
SPECTRAL DISTORTION
(BLUE INPUT DIRECT, RED OUTPUT AFTER AMP AND 30dB ATTENUATOR)

Performed by: Bobby Leanio

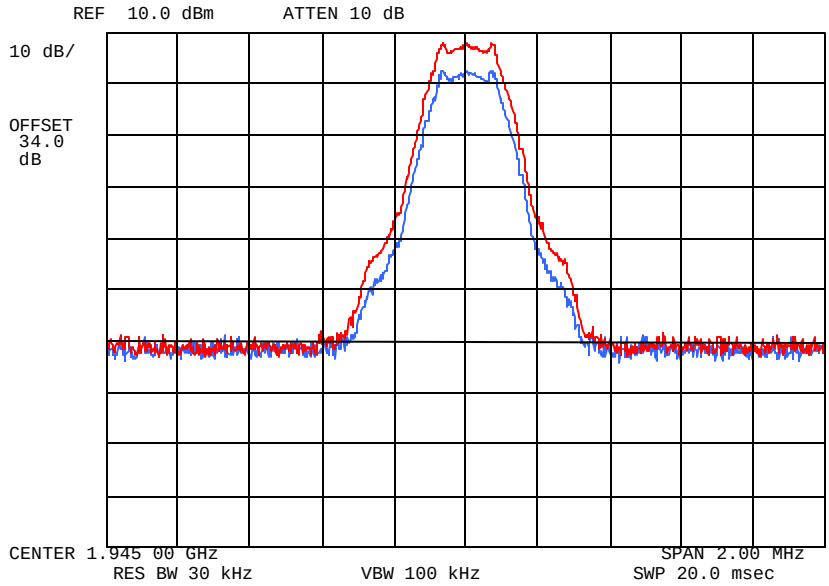
Page Number 53 of 65.

Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0510027: 2005-Jan-05 Wed 07:48:00
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: GSM DOWNLINK
SPECTRAL DISTORTION
(BLUE INPUT DIRECT, RED OUTPUT AFTER AMP AND 30dB ATTENUATOR)

Performed by: Bobby Leanio

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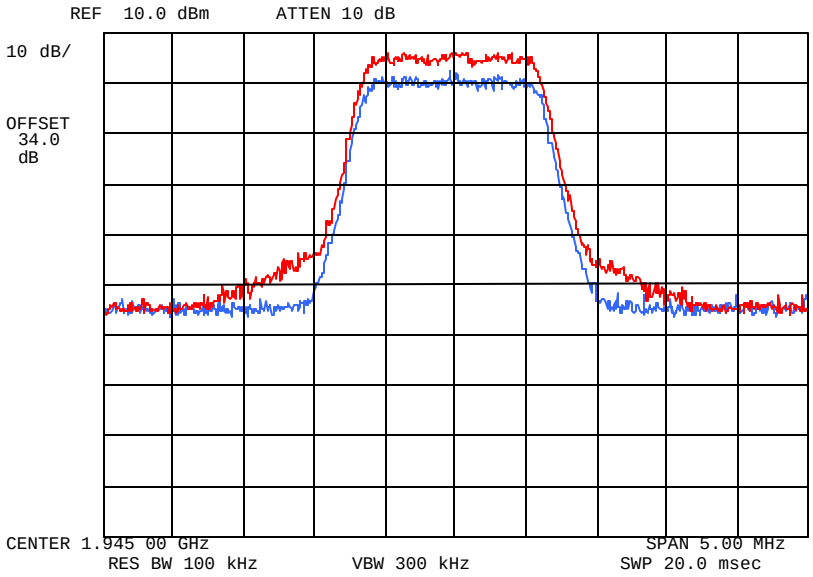
Name of Test: Emission Masks (Occupied Bandwidth)

Measurement Results

g0510028: 2005-Jan-05 Wed 07:51:00
State: 2:High Power

Ambient Temperature: 23°C ± 3°C



Power: HIGH
Modulation: CDMA DOWNLINK
SPECTRAL DISTORTION
(BLUE INPUT DIRECT, RED OUTPUT AFTER AMP AND 30dB ATTENUATOR)

Performed by: Bobby Leanio

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Name of Test: RF Power Output (Radiated)

Specification: 47 CFR 2.1046(a)

Test Equipment: As per attached page

Measurement Procedure (Radiated)

1. The EUT was placed on an open-field site and its radiated field strength at a known distance was measured by means of a spectrum analyzer. Equivalent loading was calculated from the equation $P_t=((E \times R)^2/49.2)$ watts, where R = 3m.

2. Measurement accuracy is ±1.5 dB.

Measurement Results

g0510054: 2005-Jan-13 Thu 10:27:00
State: 2:High Power – Fully Driven -0 Down link

Mode	Frequency Tuned, MHz	Frequency Emission, MHz	Meter, dBuV/m	CF, dB	EIRP, dBm
TDMA	1930.040000	1930.053000	56.92	42.58	2.1
GSM	1930.200000	1930.213000	57.06	42.59	2.3
CDMA	1931.250000	1931.263000	56.20	42.60	1.4

g0510054: 2005-Jan-13 Thu 10:27:00
State: 2:High Power– Fully Driven – Down link

Mode	Frequency Tuned, MHz	Frequency Emission, MHz	Meter, dBuV/m	CF, dB	EIRP, dBm
GSM	1945.000000	1945.013000	55.84	42.77	1.2
CDMA	1945.000000	1945.013000	52.30	42.77	-2.3
TDMA	1945.000000	1945.013000	55.68	42.77	1.1

g0510054: 2005-Jan-13 Thu 10:27:00
State: 2:High Power– Fully Driven – Down link

Mode	Frequency Tuned, MHz	Frequency Emission, MHz	Meter, dBuV/m	CF, dB	EIRP, dBm
GSM	1960.000000	1960.013000	55.39	42.96	1.0
CDMA	1960.000000	1960.013000	50.57	42.96	-3.8
TDMA	1960.000000	1960.013000	53.44	42.96	-1.0

g0510055: 2005-Jan-13 Thu 11:07:00
State: 2:High Power– Fully Driven – Up link

Mode	Frequency Tuned, MHz	Frequency Emission, MHz	Meter, dBuV/m	CF, dB	EIRP, dBm
TDMA	1850.040000	1850.053000	60.3	41.58	4.5
GSM	1850.200000	1850.213000	60.59	41.58	4.8
CDMA	1851.250000	1851.263000	60.18	41.60	4.4

g0510055: 2005-Jan-13 Thu 11:07:00
State: 2:High Power– Fully Driven – Up link

Mode	Frequency Tuned, MHz	Frequency Emission, MHz	Meter, dBuV/m	CF, dB	EIRP, dBm
CDMA	1875.000000	1875.013000	61.02	41.90	5.5
TDMA	1875.000000	1875.013000	65.72	41.90	10.2
GSM	1875.000000	1875.013000	65.14	41.90	9.7

g0510055: 2005-Jan-13 Thu 11:07:00
State: 2:High Power– Fully Driven – Up link

Mode	Frequency Tuned, MHz	Frequency Emission, MHz	Meter, dBuV/m	CF, dB	EIRP, dBm
TDMA	1880.000000	1880.013000	65.67	41.96	10.3
GSM	1880.000000	1880.013000	66.23	41.96	10.8
CDMA	1880.000000	1880.013000	59.45	41.96	4.0

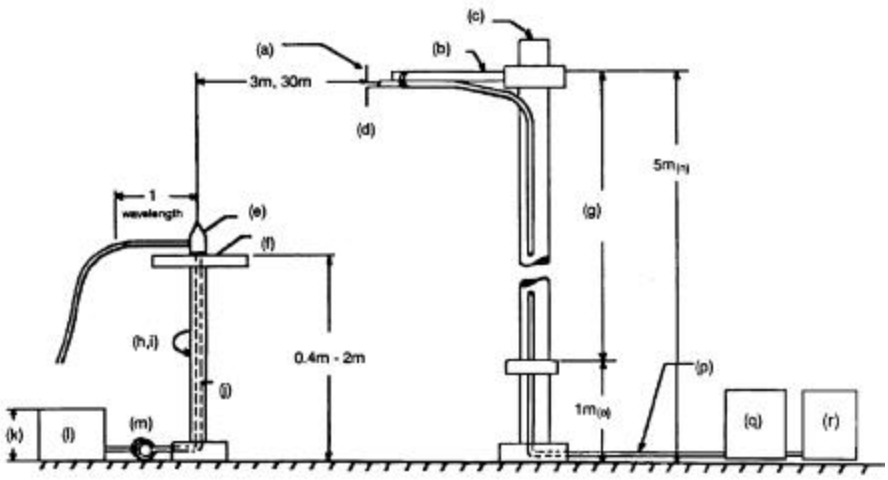
CDMA/TDMA/NAMPS (As Appropriate) Mode:

The emission bandwidth exceeds the measurement bandwidth of the test receiver.

Supervised By:

David E. Lee,
Compliance Test Manager

Radiated Test Setup



NOTES:

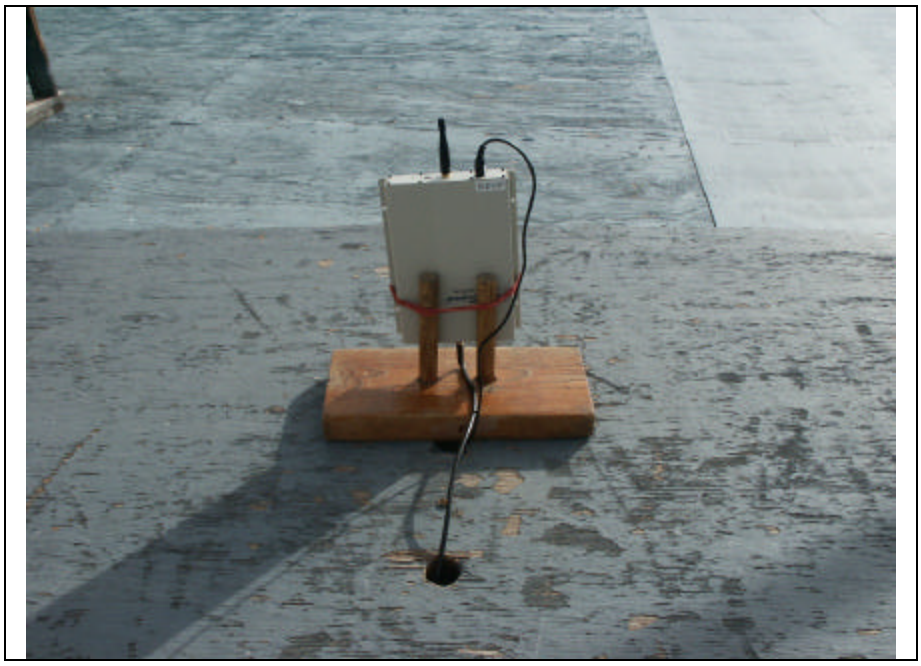
(a) Search Antenna - Rotatable on boom
(b) Non-metallic boom
(c) Non-metallic mast
(d) Adjustable horizontally
(e) Equipment Under Test
(f) Turntable
(g) Boom adjustable in height.
(h) External control cables routed horizontally at least one wavelength.
(i) Rotatable
(j) Cables routed through hollow turntable center
(k) 30 cm or less
(l) External power source
(m) 10 cm diameter coil of excess cable
(n) 25 cm (V), 1 m-7 m (V, H)
(o) 25 cm from bottom end of 'V', 1m normally
(p) Calibrated Cable at least 10m in length
(q) Amplifier (optional)
(r) Spectrum Analyzer

	Asset (as applicable)	Description	s/n	Cycle	Last Cal (Per ANSI C63.4-1992/2000 Draft, 10.1.4)
Transducer					
X	i00088	EMCO 3109-B 25MHz-300MHz	2336	24 mo.	Sep-03
X	i00089	Aprel 2001 200MHz-1GHz	001500	24 mo.	Sep-03
X	i00103	EMCO 3115 1GHz-18GHz	9208-3925	24 mo.	Sep-03
Amplifier					
	i00028	HP 8449A	2749A00121	12 mo.	Mar-04
Spectrum Analyzer					
X	i00029	HP 8563E	3213A00104	12 mo.	Mar-04
X	i00033	HP 85462A	3625A00357	12 mo.	Sep-04

Miscellaneous

Microphone	N/A
Antenna	Yes
All Ports Terminated	Yes

Test Setup: Radiated Emissions



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Name of Test: Field Strength of Spurious Radiation

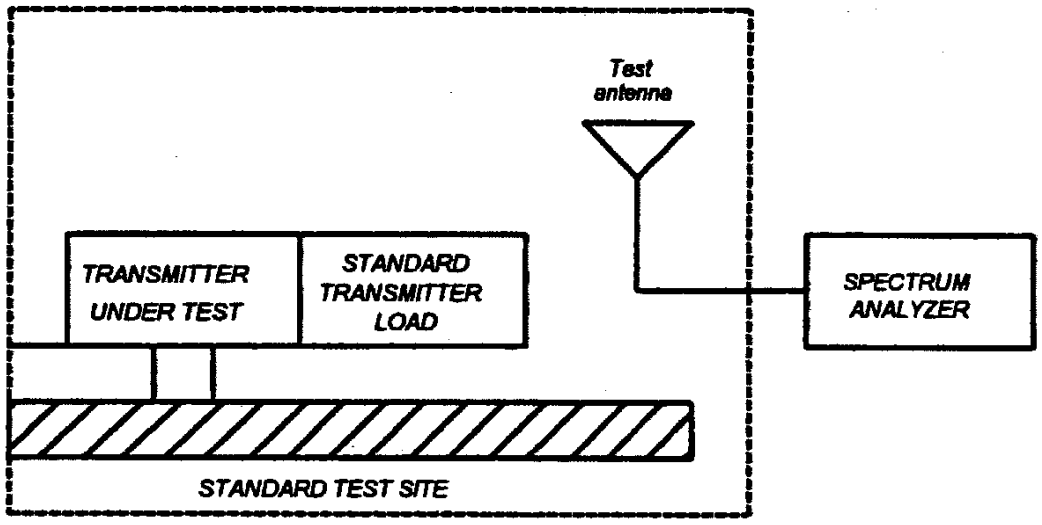
Specification: 47 CFR 2.1053(a)

Guide: ANSI/TIA/EIA-603-1992/2001, Paragraph 1.2.12 and Table 16, 47 CFR 22.917

Measurement Procedure

Definition:
Radiated spurious emissions are emissions from the equipment when transmitting into a non-radiating load on a frequency or frequencies, which are outside an occupied band sufficient to ensure transmission of information of required quality for the class of communications desired.

Method of Measurement:
A) Connect the equipment as illustrated
B) Adjust the spectrum analyzer for the following settings:
1) Resolution Bandwidth 100 kHz (<1 GHZ), 1 MHZ (> 1GHz).
2) Video Bandwidth = 3 times Resolution Bandwidth, or 30 kHz (22.917)
3) Sweep Speed ≤2000 Hz/second
4) Detector Mode = Mean or Average Power
C) Place the transmitter to be tested on the turntable in the standard test site. The transmitter is transmitting into a non-radiating load that is placed on the turntable. The RF cable to this load should be of minimum length.

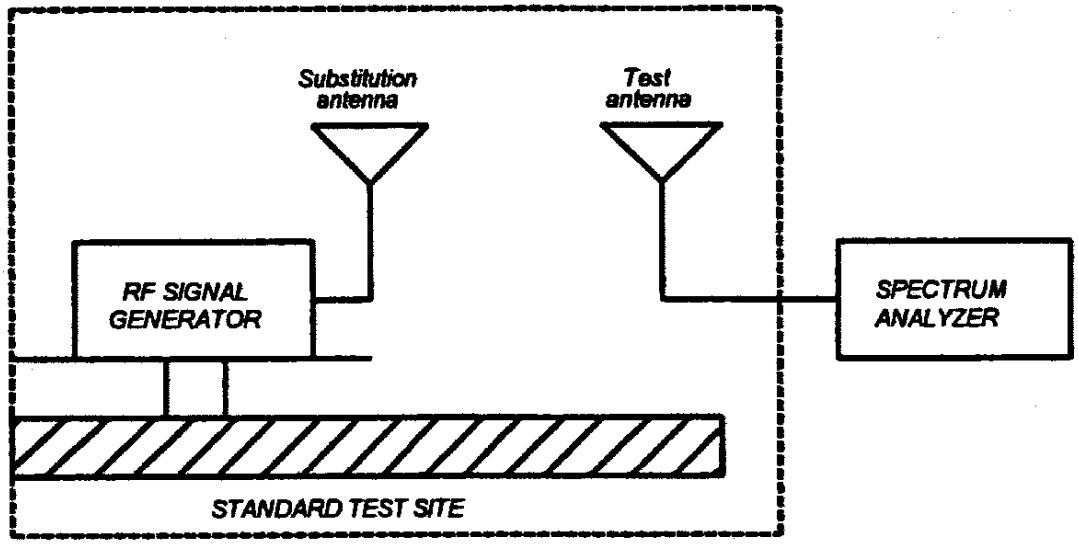


Name of Test: Field Strength of Spurious Radiation (Cont.)

D) For each spurious measurement the test antenna should be adjusted to the correct length for the frequency involved. This length may be determined from a calibration ruler supplied with the equipment. Measurements shall be made from the lowest radio frequency generated in the equipment to the tenth harmonic of the carrier, except for the region close to the carrier equal to ± the test bandwidth (see section 1.3.4.4).

E) For each spurious frequency, raise and lower the test antenna from 1 m to 4 m to obtain a maximum reading on the spectrum analyzer with the test antenna at horizontal polarity. Repeat this procedure to obtain the highest possible reading. Record this maximum reading.

F) Repeat step E) for each spurious frequency with the test antenna polarized vertically.



G) Reconnect the equipment as illustrated.

H) Keep the spectrum analyzer adjusted as in step B).

I) Remove the transmitter and replace it with a substitution antenna (the antenna should be half-wavelength for each frequency involved). The center of the substitution antenna should be approximately at the same location as the center of the transmitter. At lower frequencies, where the substitution antenna is very long, this will be impossible to achieve when the antenna is polarized vertically. In such case the lower end of the antenna should be 0.3 m above the ground.

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Name of Test: Field Strength of Spurious Radiation (Cont.)

J) Feed the substitution antenna at the transmitter end with a signal generator connected to the antenna by means of a non-radiating cable. With the antennas at both ends horizontally polarized and with the signal generator tuned to a particular spurious frequency, raise and lower the test antenna to obtain a maximum reading at the spectrum analyzer. Adjust the level of the signal generator output until the previously recorded maximum reading for this set of conditions is obtained. This should be done carefully repeating the adjustment of the test antenna and generator output.

K) Repeat step J) with both antennas vertically polarized for each spurious frequency.

L) Calculate power in dBm into a reference ideal half-wave dipole antenna by reducing the readings obtained in steps J) and K) by the power loss in the cable between the generator and the antenna and further corrected for the gain of the substitution antenna used relative to an ideal half-wave dipole antenna.

M) The levels recorded in step L) are absolute levels of radiated spurious emissions in dBm. The radiated spurious emissions in dB can be calculated by the following:

Radiated spurious emissions dB =

$10\log_{10}$(TX power in watts/0.001) – the levels in step l)

NOTE: It is permissible that other antennas provided can be referenced to a dipole.

Test Equipment

	Asset	Description	s/n	Cycle	Last Cal
Transducer					
	i00088	EMCO 3109-B 25MHz-300MHz	2336	24 mo.	Sep-03
X	i00089	Aprel 2001 200MHz-1GHz	001500	24 mo.	Sep-03
X	i00103	EMCO 3115 1GHz-18GHz	9208-3925	24 mo.	Jan-04
Amplifier					
X	i00028	HP 8449A	2749A00121	12 mo.	May-04
Spectrum Analyzer					
X	i00029	HP 8563E	3213A00104	12 mo.	May-04
X	i00033	HP 85462A	3625A00357	12 mo.	Sep-04
Substitution Generator					
	i00067	HP 8920A Communication TS	3345U01242	12 mo.	May-04
	i00207	HP 8753D Network Analyzer	3410A08514	12 mo.	Jun-04
X	Rental	HP E4438C	MY42082921	24 mo.	Feb-04

Microphone, Antenna Port, and Cabling

Microphone	N	Cable Length		Meters
Antenna Port Terminated	Y	Load	Y	Antenna Gain N/A
All Ports Terminated by Load	Y	Peripheral	N	

Name of Test: Field Strength of Spurious Radiation

Measurement Results

All Other Emissions (Worst Case Combinations) = -13dBm limit

Name of Test: Field Strength of Spurious Radiation
g0490090: 2004-Sep-16 Thu 13:49:00
State: 2:High Power Down Link (FM)

Frequency Tuned, MHz	Frequency Emission, MHz	Generator, dBm	Limit, dBm	Margin, dB
1945.000000	3890.000000	-48.71	-13.0	-35.71
1945.000000	5835.000000	-52.51		-39.51
1945.000000	7780.000000	-54.55		-41.55
1945.000000	9725.000000	-50.61		-37.61
1945.000000	11670.000000	-47.52		-34.52
1945.000000	13615.000000	-45.17		-32.17
1945.000000	15560.000000	-49.51		-36.51
1945.000000	17505.000000	-50.60		-37.60

Name of Test: Field Strength of Spurious Radiation
g0490091: 2004-Sep-16 Thu 14:44:00
State: 2:High Power Up Link (FM)

Frequency Tuned, MHz	Frequency Emission, MHz	Generator, dBm	Limit, dBm	Margin, dB
1865.000000	3730.000000	-50.67	-13.0	-37.67
1865.000000	5595.000000	-49.53		-36.53
1865.000000	7460.000000	-49.19		-36.19
1865.000000	9325.000000	-52.96		-39.96
1865.000000	11190.000000	-49.60		-36.60
1865.000000	13055.000000	-54.46		-41.46
1865.000000	14920.000000	-53.89		-40.89
1865.000000	16785.000000	-52.75		-39.75

Supervised By: David E. Lee,
Compliance Test Manager

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Name of Test: A/C Powerline Conducted Emissions

Specification: FCC: 47 CFR 15.107

Guide: IEEE Standard 213

Test Conditions: S. T. & H.

Test Equipment: As per attached page

Measurement Procedure

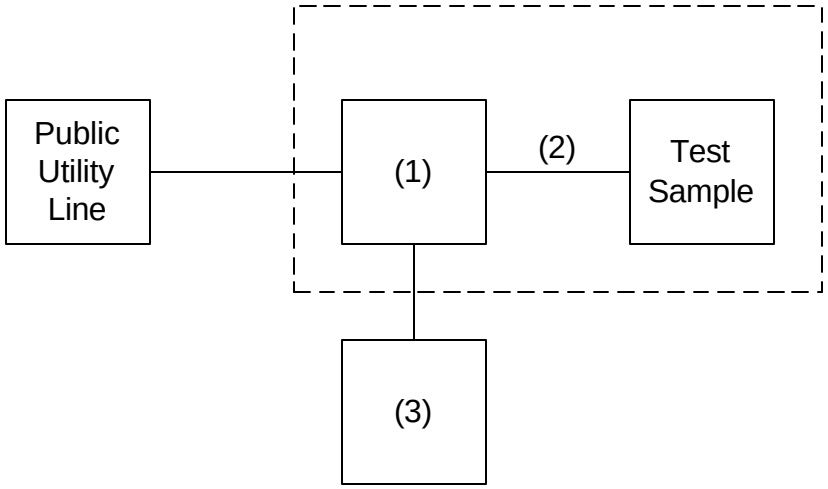
1. A test sample was connected to the Public Utility lines through a LISN (50 µH).

2. A reference level of 250 µV was set on the Spectrum Analyzer. The spectrum was searched over the range of 150 kHz to 30 MHz.

3. All other emissions were 20 dB or more below limit.

4. ____ The test sample used a charger.
   X The test sample does not use a charger.

AC Powerline Conducted Measurements



	Asset	Description	s/n	Cycle	Last Cal (Per ANSI C63.4-1992/2000 Draft, 10.1.4)
(1) **Line Impedance Stabilization Network**					
X	i00244	Fischer 50-20-2-01	2047	NCR	
(2) **Screen Room**					
X	I00170	Lindgren LG170	4999	NCR	
(3) **Spectrum Analyzer**					
X	i00033	HP 85462A	3625A00357	12 mo.	Sep-04
	i00048	HP 8566B	2511AD1467	12 mo.	Jul-04

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Name of Test: A/C Powerline Conducted Emissions

Results: Power Line Conducted

g0490082: 2004-Sep-15 Wed 16:00:00
State: 0:Line Side

Frequency Tuned, MHz	Frequency Emission, MHz	Level, dBuV	C.F., dB	µV/m
0.000000	0.509833	21.87	0.59	13.27
0.000000	1.359550	20.03	0.50	10.63
0.000000	2.059317	22.70	0.52	14.49
0.000000	3.858717	15.53	0.64	6.43
0.000000	22.652450	12.03	1.68	4.85
0.000000	23.102300	11.70	1.66	4.66

g0490083: 2004-Sep-15 Wed 16:02:00
State: 0:Neutral Side

Frequency Tuned, MHz	Frequency Emission, MHz	Level, dBuV	C.F., dB	µV/m
0.000000	0.259917	25.37	0.73	20.18
0.000000	0.959683	20.70	0.59	11.60
0.000000	2.009333	22.53	0.58	14.31
0.000000	4.508500	13.87	0.67	5.33
0.000000	22.702433	15.03	1.69	6.85
0.000000	24.151950	11.87	1.57	4.70

Supervised By: David E. Lee,
Compliance Test Manager

END OF TEST REPORT

Testimonial
and
Statement of Certification

This is to certify that:

1. **That** the application was prepared either by, or under the direct supervision of, the undersigned.

2. **That** the technical data supplied with the application was taken under my direction and supervision.

3. **That** the data was obtained on representative units, randomly selected.

4. **That**, to the best of my knowledge and belief, the facts set forth in the application and accompanying technical data are true and correct.

Certifying Engineer:

David E. Lee,
Compliance Test Manager