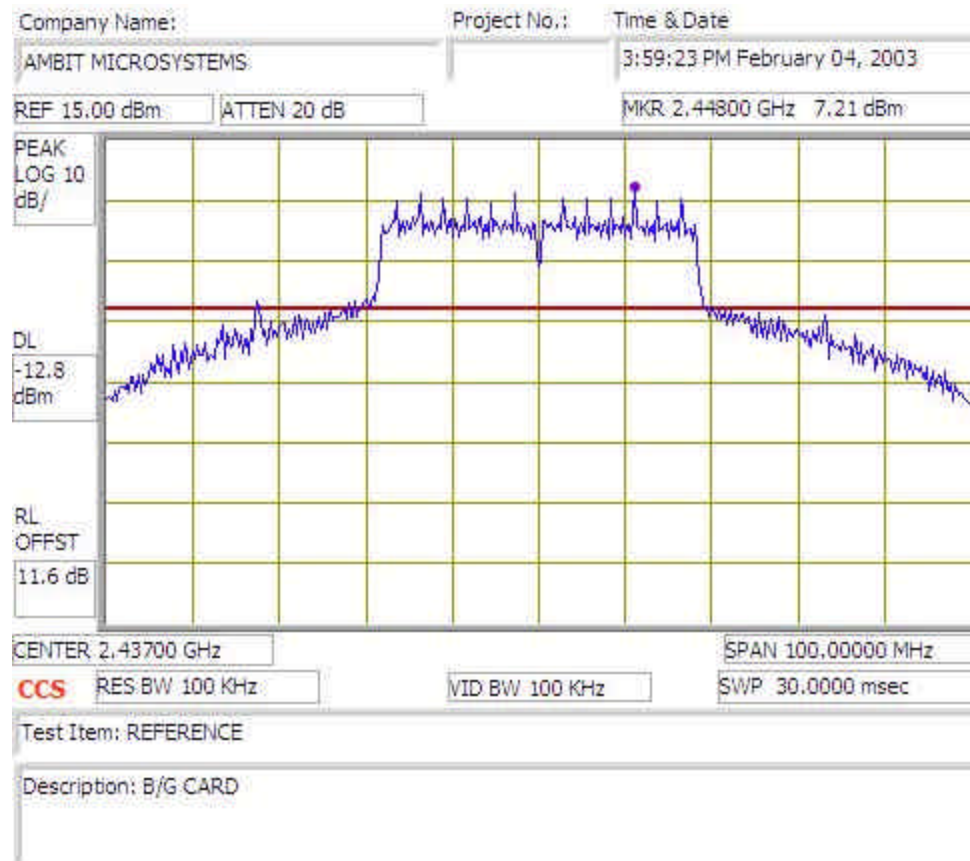
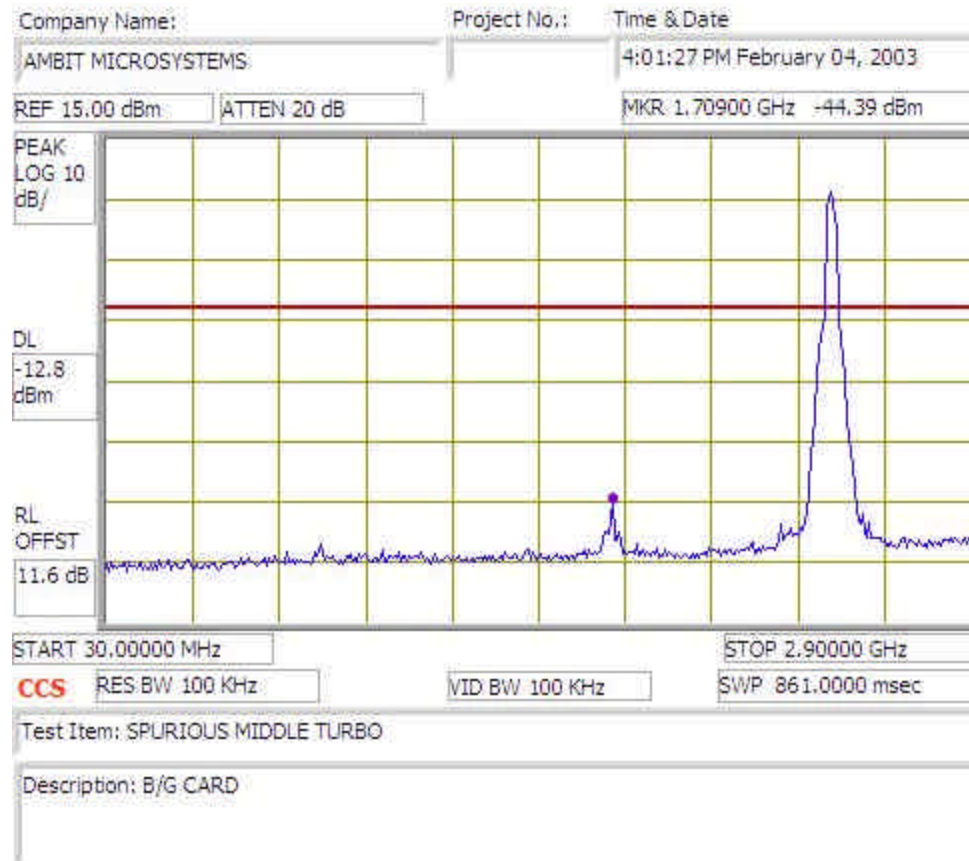
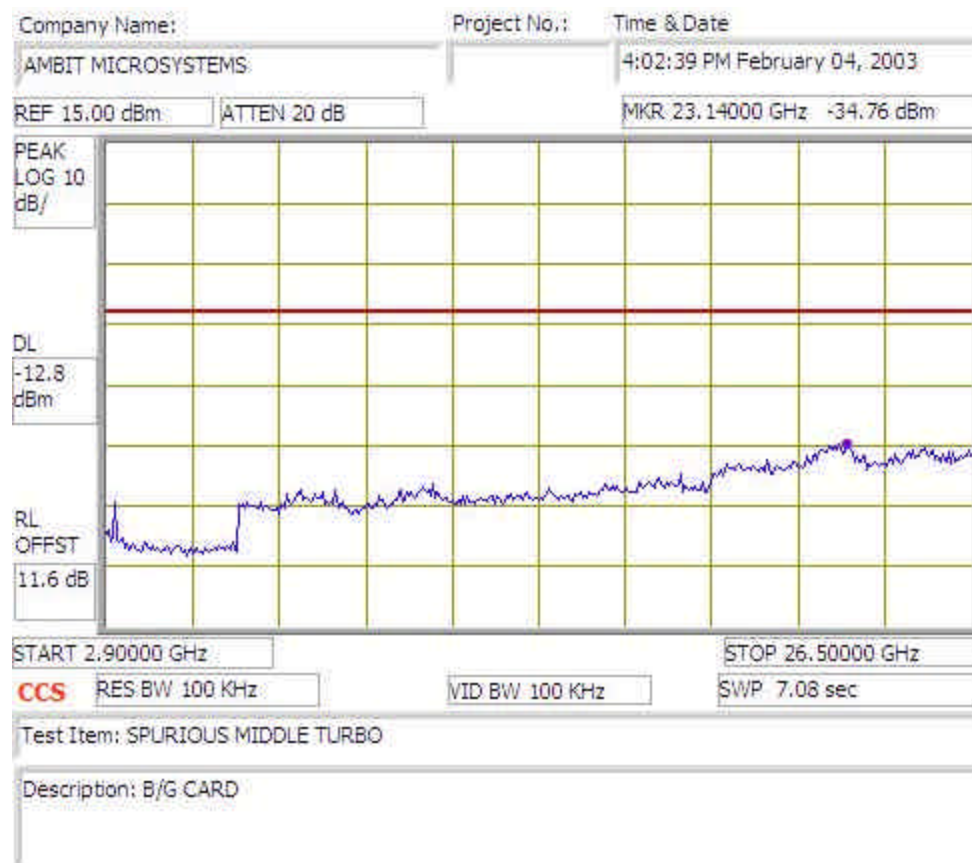


CONDUCTED SPURIOUS EMISSIONS (2.4 GHZ g BAND, TURBO MODE)





8.6. RADIATED EMISSIONS

TEST SETUP

The EUT is placed on the wooden table. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4/1992.

The EUT is set to transmit in a continuous mode.

TEST PROCEDURE

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

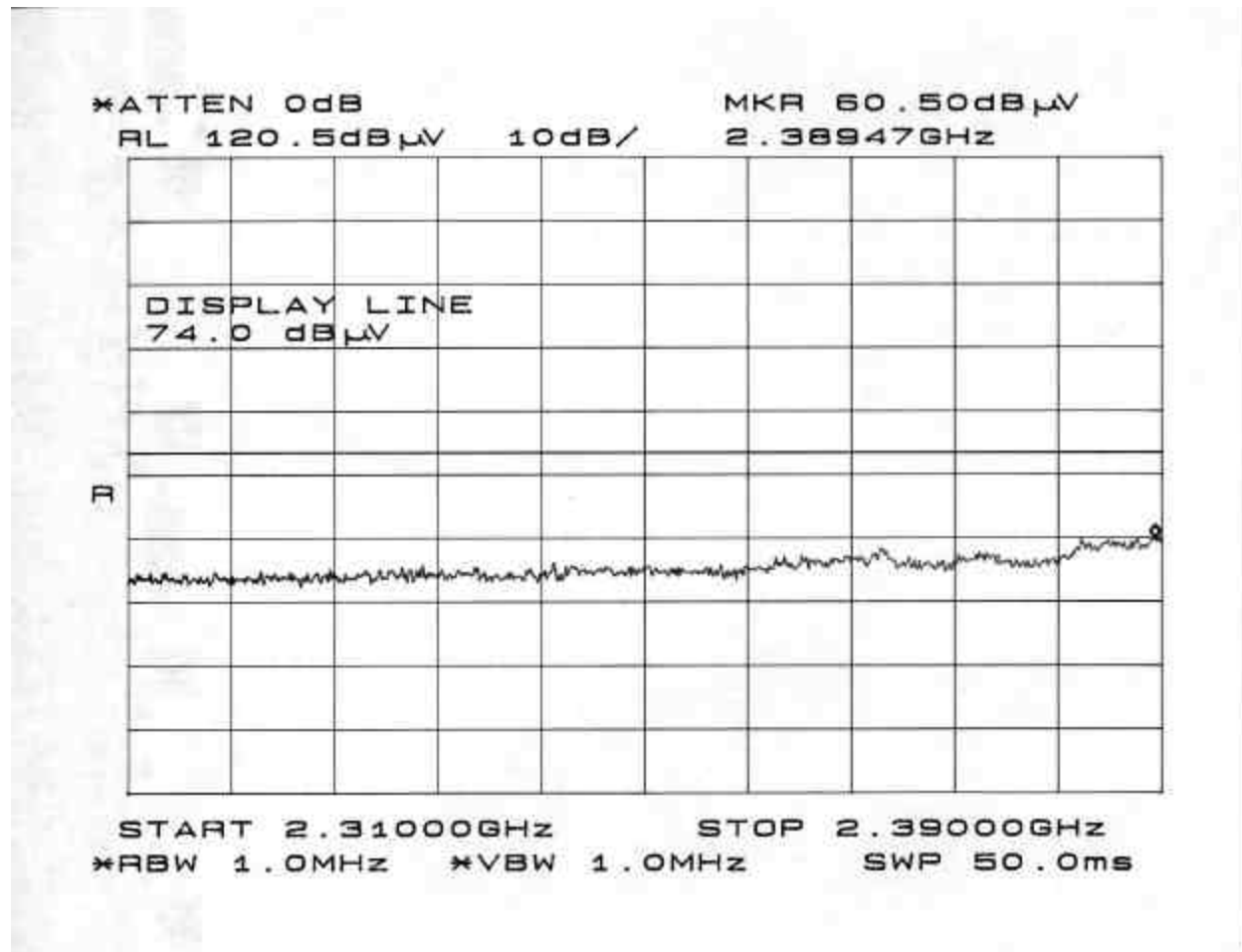
For measurements above 1 GHz, the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

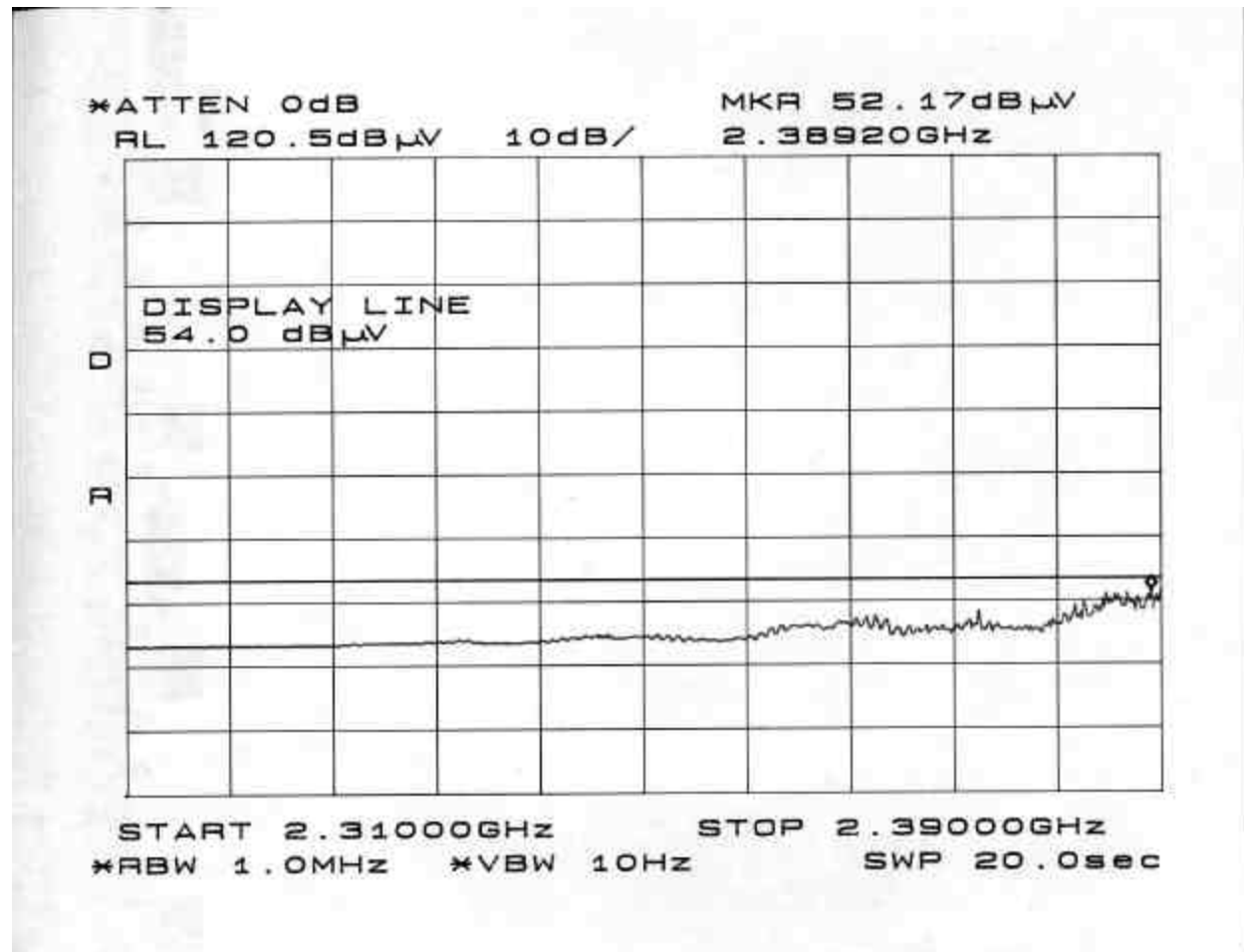
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels within the 2.4 GHz band.

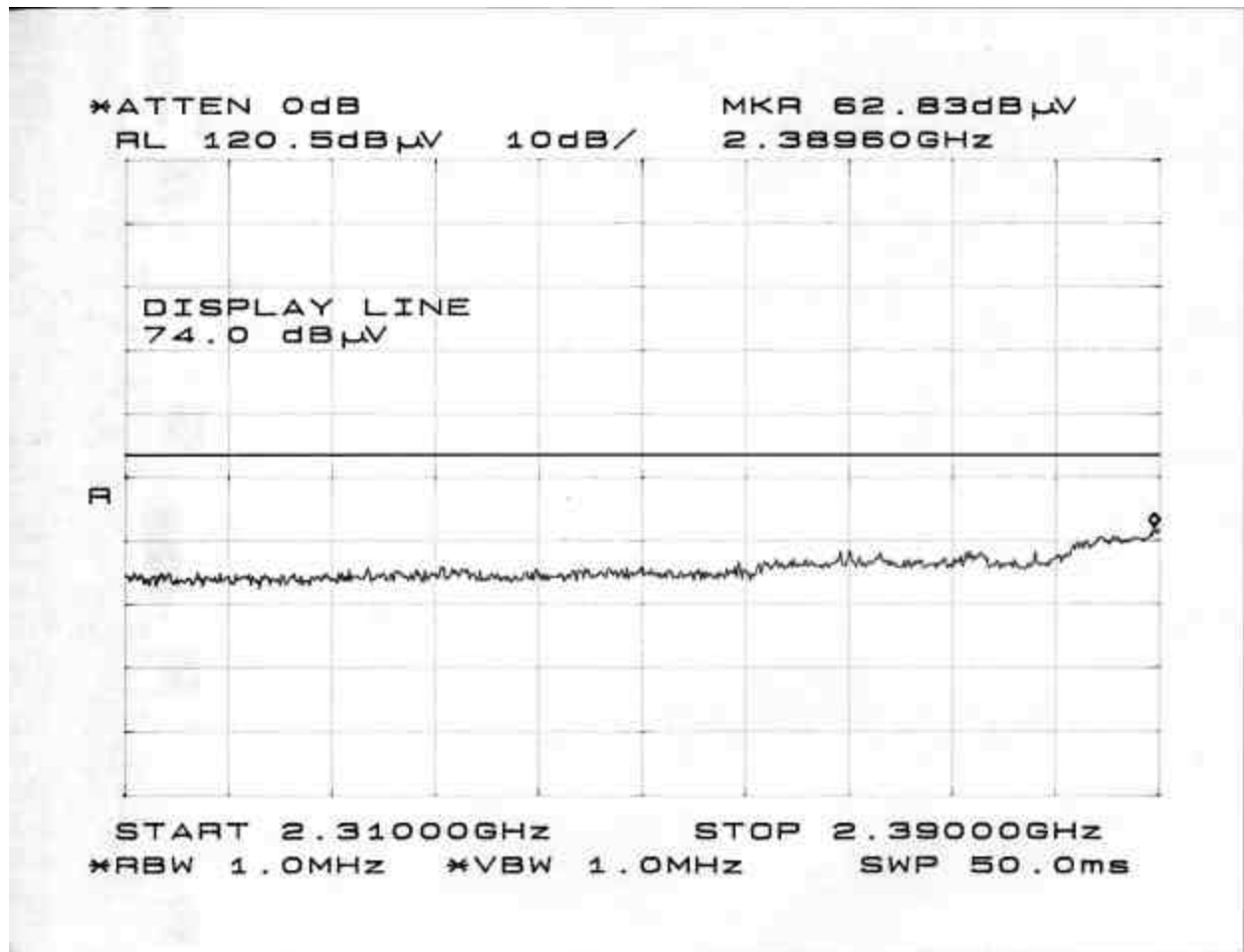
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The frequency span is set small enough to easily differentiate between broadcast stations, intermittent ambient signals and EUT emissions. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the suspected signal. Measurements were made with the antenna polarized in both the vertical and the horizontal positions.

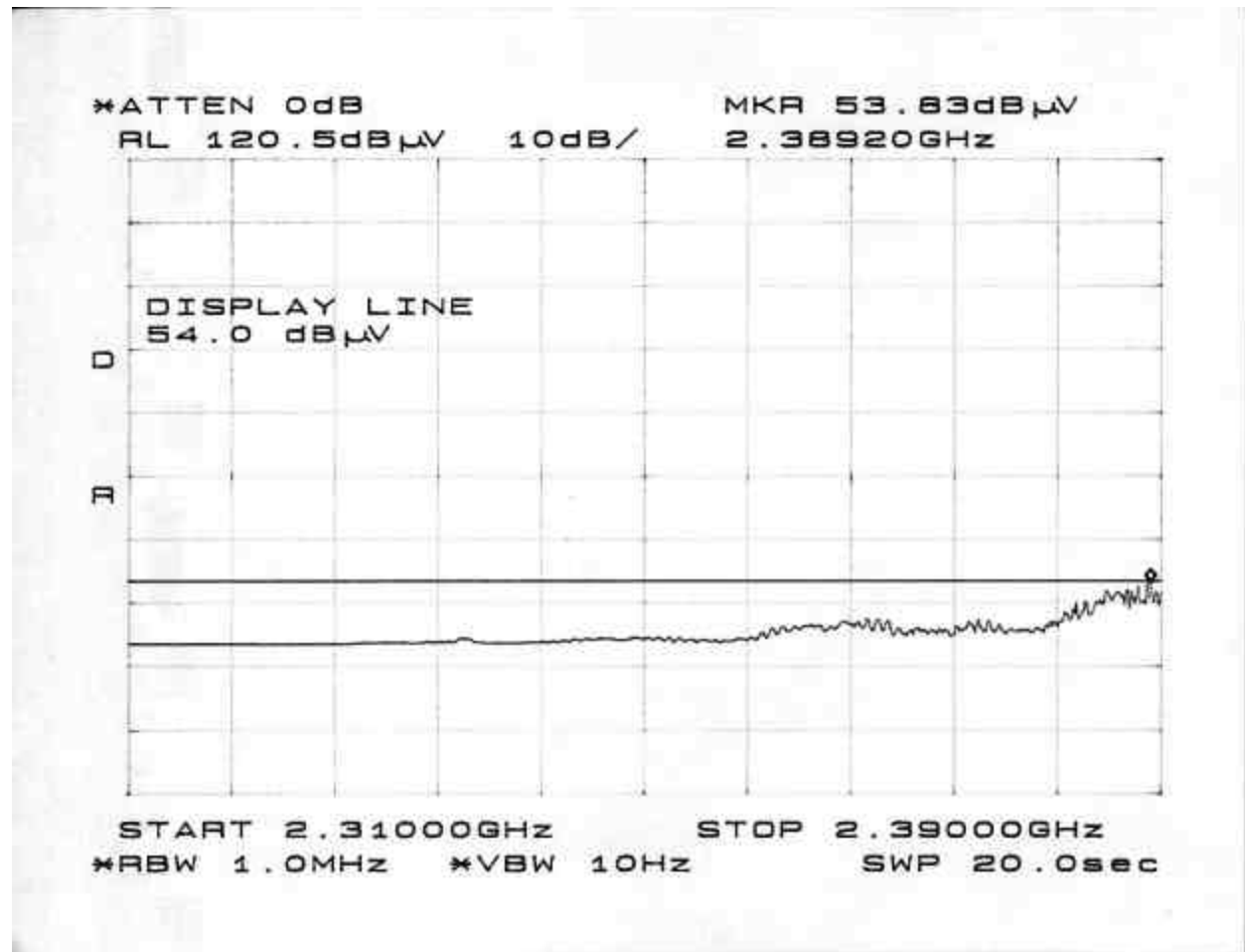
TEST RESULTS

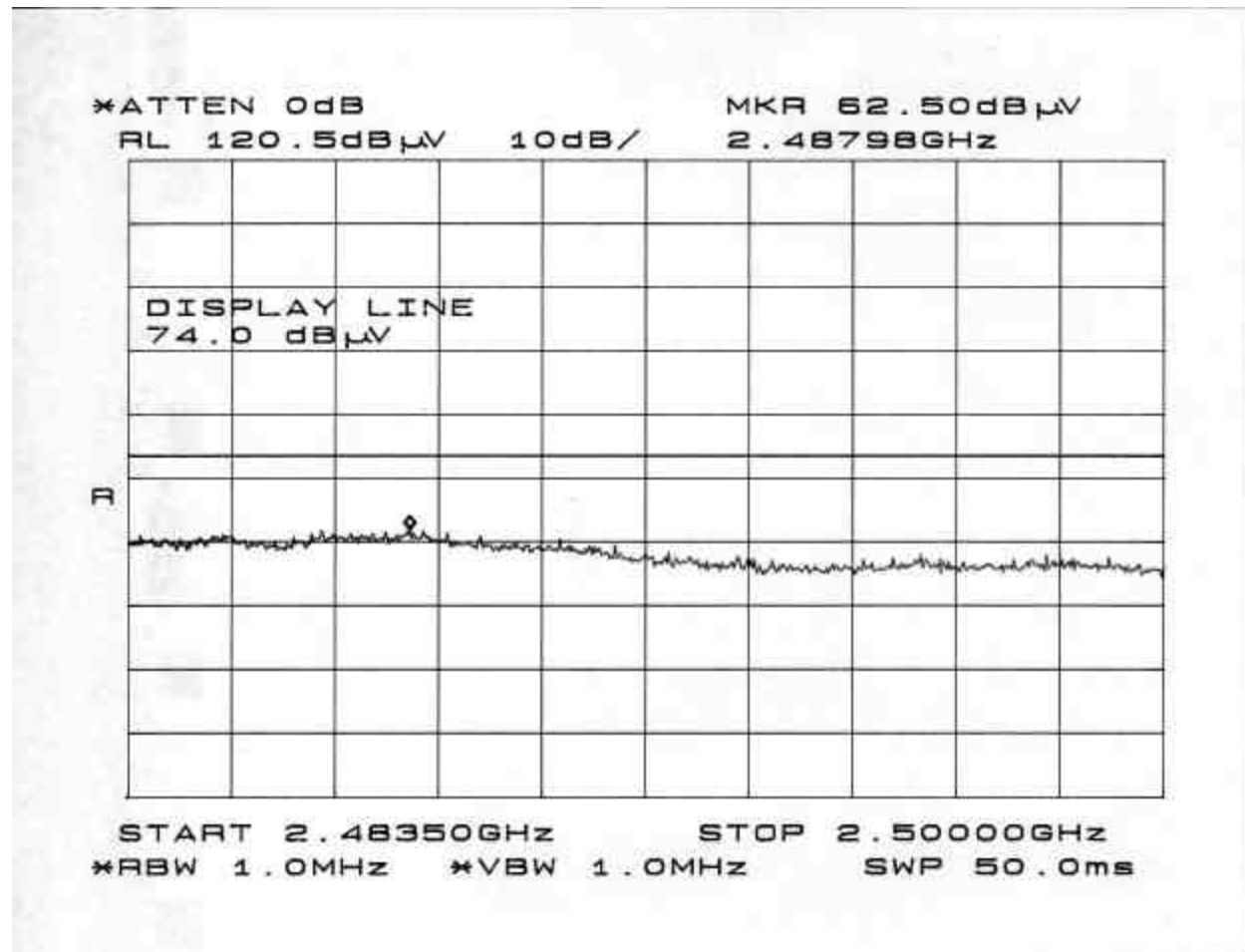
No non-compliance noted:

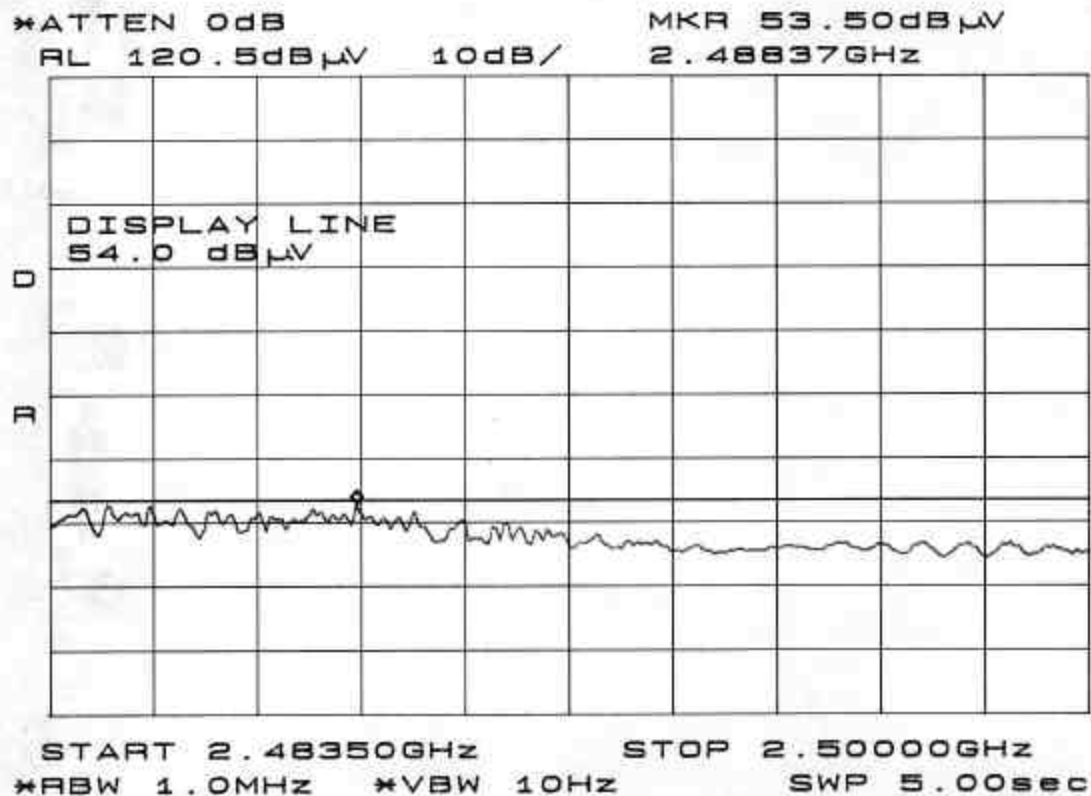
RESTRICTED BAND RADIATED EMISSIONS (LOW CHANNEL, HORIZONTAL POLARIZATION)
(B MODE)

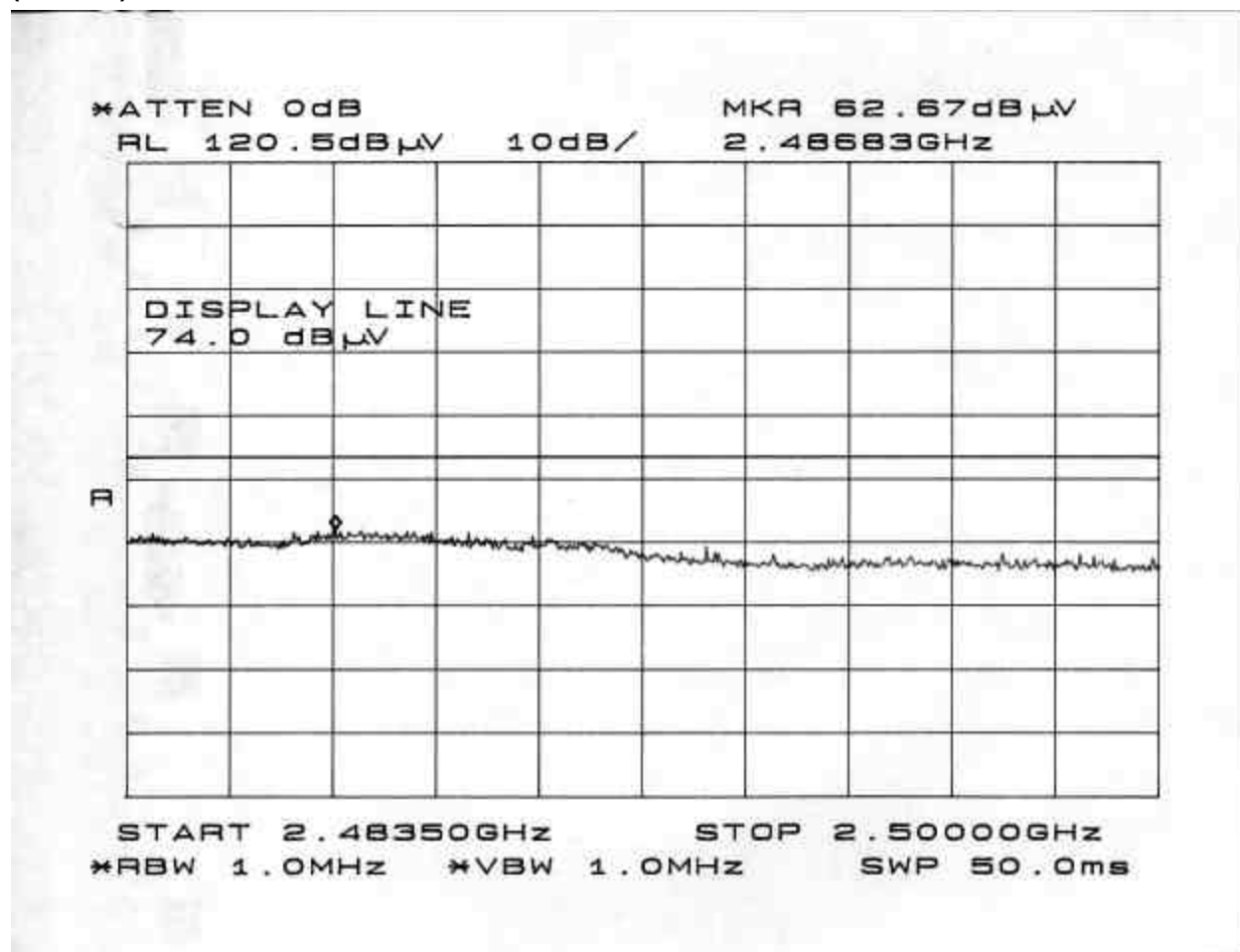


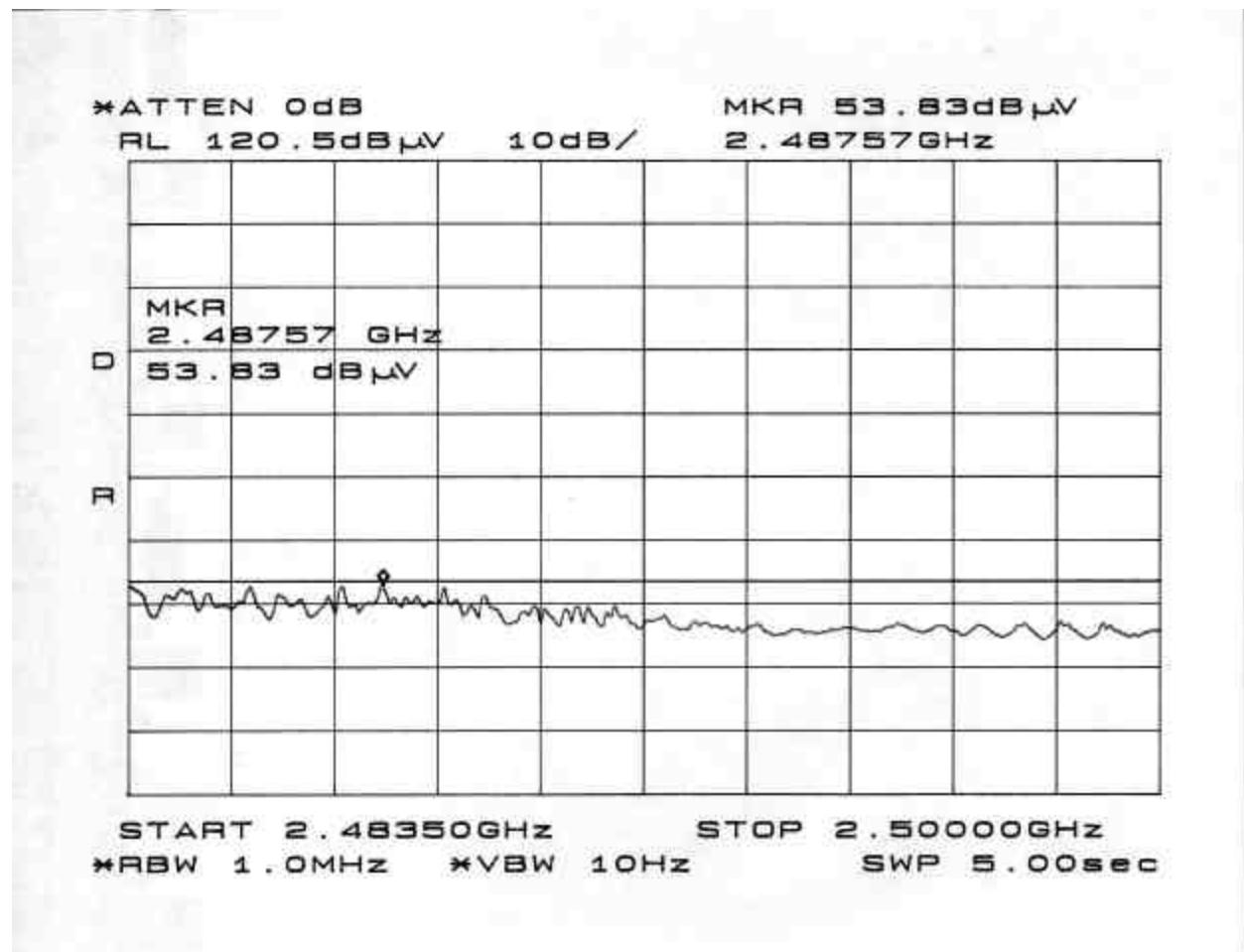
RESTRICTED BAND RADIATED EMISSIONS (LOW CHANNEL, VERTICAL POLARIZATION)
(B MODE)



RESTRICTED BAND RADIATED EMISSIONS (HIGH CHANNEL, HORIZONTAL POLARIZATION)
(B MODE)

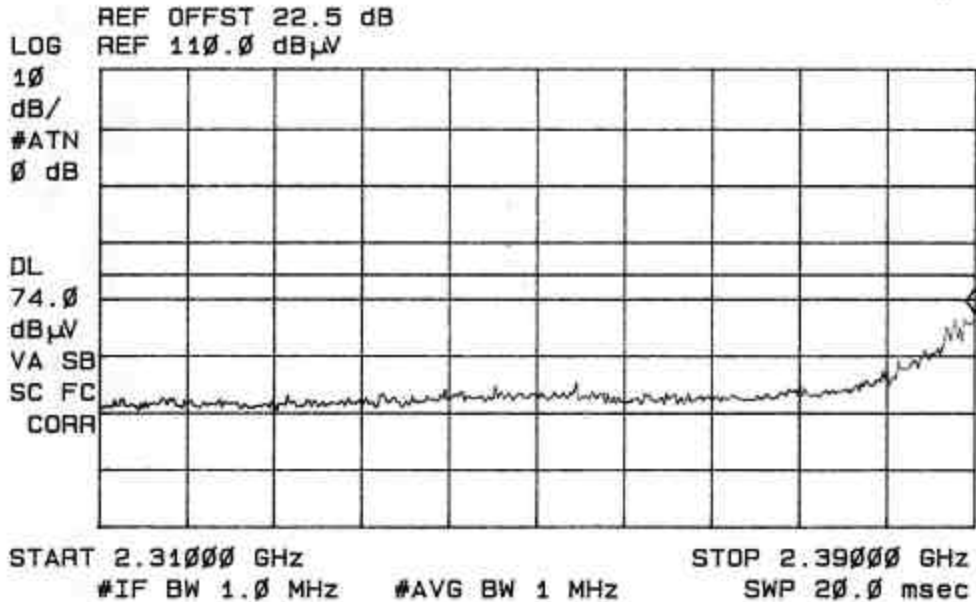


RESTRICTED BAND RADIATED EMISSIONS (HIGH CHANNEL, VERTICAL POLARIZATION)
(B MODE)

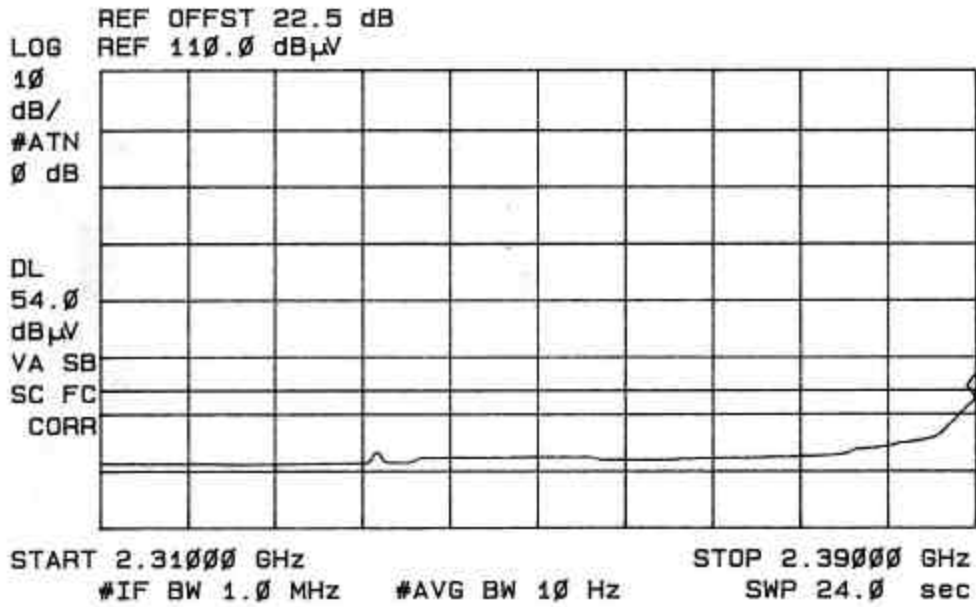


RESTRICTED BAND RADIATED EMISSIONS (LOW CHANNEL, HORIZONTAL POLARIZATION)
(G MODE)

10: 44: 25 JAN 09, 2003

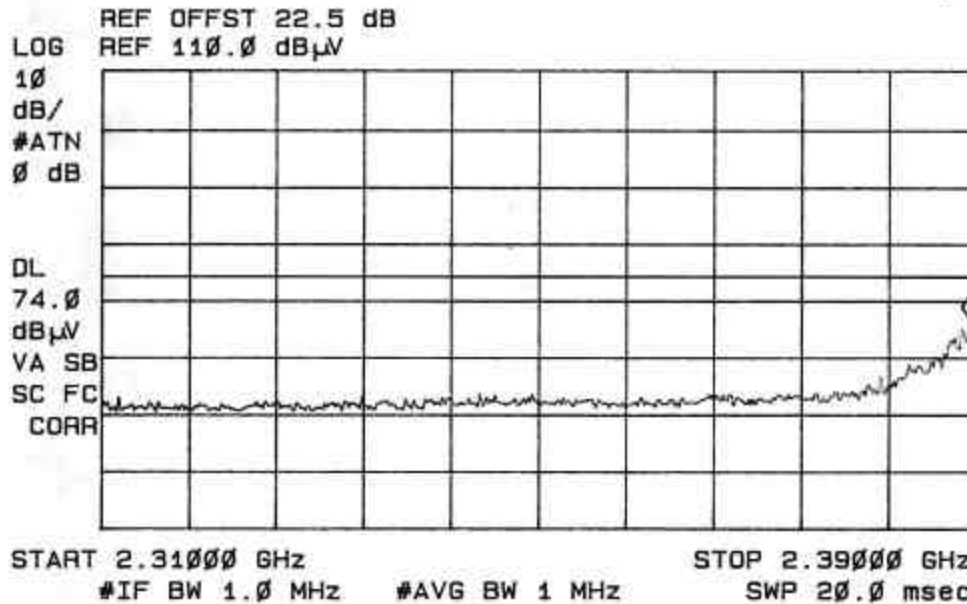
STOP
2.39000 GHzACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 2.39000 GHz
67.25 dB μ V

10: 47: 50 JAN 09, 2003

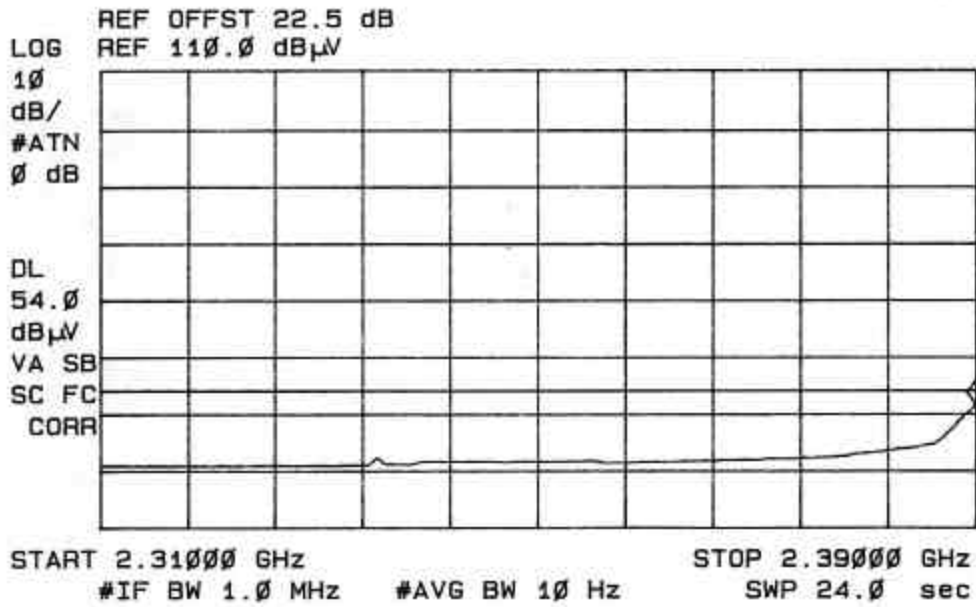
DISPLAY LINE
54.0 dBμVACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 2.39000 GHz
52.55 dBμV

RESTRICTED BAND RADIATED EMISSIONS (LOW CHANNEL, VERTICAL POLARIZATION)
(G MODE)

10: 39: 07 JAN 09, 2003

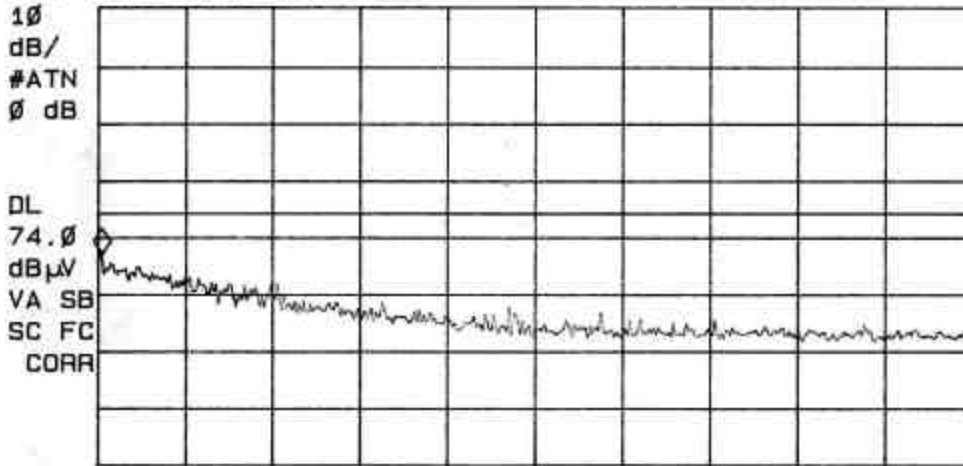
DISPLAY LINE
74.0 dB μ VACTV DET: PEAK
MEAS DET: PEAK GP AVG
MKR 2.38940 GHz
66.50 dB μ V

10:36:00 JAN 09, 2003

DISPLAY LINE
54.0 dB μ VACTV DET: PEAK
MEAS DET: PEAK GP AVG
MKR 2.39000 GHz
51.38 dB μ V

RESTRICTED BAND RADIATED EMISSIONS (HIGH CHANNEL, HORIZONTAL POLARIZATION)
(G MODE)

10: 26: 03 JAN 09, 2003

DISPLAY LINE
74.0 dB μ VACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 2.48358 GHz
66.89 dB μ VLOG REF OFFST 22.5 dB
10 REF 110.0 dB μ V

START 2.48350 GHz

#IF BW 1.0 MHz

#AVG BW 1 MHz

STOP 2.50000 GHz

SWP 20.0 msec

10: 28: 58 JAN 09, 2003

DISPLAY LINE

54.0 dBμV

ACTV DET: PEAK

MEAS DET: PEAK QP AVG

MKR 2.48350 GHz

48.87 dBμV

REF OFFST 22.5 dB

LOG REF 110.0 dBμV

10

dB/

#ATN

0 dB

DL

54.0

dBμV

VA SB

SC FC

CORR

START 2.48350 GHz

#IF BW 1.0 MHz

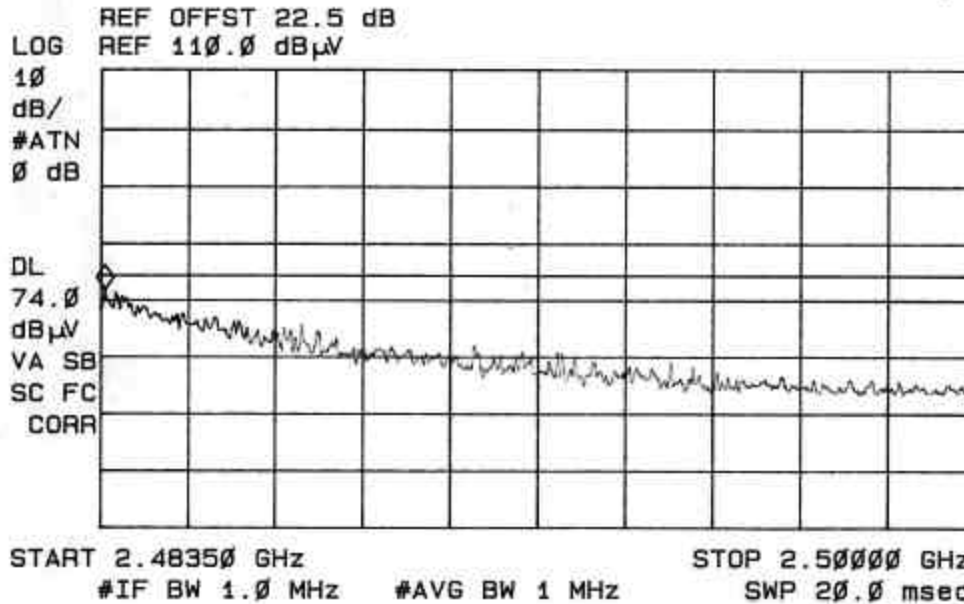
#AVG BW 10 Hz

STOP 2.50000 GHz

SWP 5.00 sec

RESTRICTED BAND RADIATED EMISSIONS (HIGH CHANNEL, VERTICAL POLARIZATION)
(G MODE)

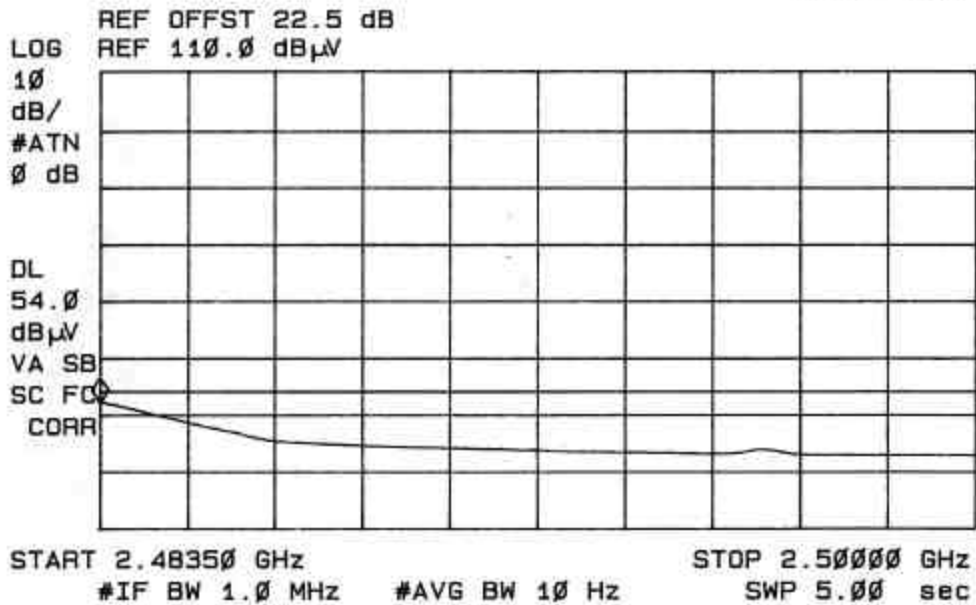
10: 17: 40 JAN 09, 2003

DISPLAY LINE
74.0 dBμVACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 2.48358 GHz
71.46 dBμV

10: 20: 40 JAN 09, 2003
~~10~~

DISPLAY LINE
 54.0 dB μ V

ACTV DET: PEAK
 MEAS DET: PEAK QP AVG
 MKR 2.48350 GHz
 51.99 dB μ V



HARMONIC AND SPURIOUS RADIATED EMISSIONS (B MODE)

2.412GHz

01/06/03

High Frequency Measurement

Compliance Certification Services, Morgan Hill Open Field Site

Test Engr: Frank Ibrahim
 Project #: 02U1750-1
 Company: AMBIT MICROSYSTEMS
 EUT Descrip.: 802.11 B/G MINI PCI CARD WITH AGENCY SERIES PP2170 LAPTOP
 EUT M/N: B/G CARD
 Test Target: FCC
 Mode Oper: 11b Base Mode, Fund = 2.412 GHz

Test Equipment:

| | | | | |
|--------------|-------------------|-----------------------|-------------------|-----------------------------|
| Cable (feet) | EMCO Horn 1-18GHz | Pre-amplifier 1-26GHz | Spectrum Analyzer | Horn > 18GHz |
| 15 | T72; S/N: 6739 | Miteq NSP2600-44 | 8564E Analyzer | T87; ARA 18-26GHz; S/N:1049 |

Peak Measurements:

 1 MHz Resolution Bandwidth
 1MHz Video Bandwidth

Average Measurements:

 1 MHz Resolution Bandwidth
 10Hz Video Bandwidth

| f GHz | Dist feet | Read Pk dBuV | Read Avg. dBuV | AF dB/m | CL dB | Amp dB | D Corr dB | HPF | Peak dBuV/m | Avg dBuV/m | Pk Lim dBuV/m | Avg Lim dBuV/m | Pk Mar dB | Avg Mar dB | Notes |
|--|-----------------------|-----------------|-------------------|------------|----------|-----------|--------------------------------|-----|----------------|---------------|------------------|-------------------|------------------------------|---------------|-------|
| 4.824 | 9.8 | 44.0 | 41.5 | 33.9 | 5.7 | -36.1 | 0.0 | 1.0 | 48.5 | 46.0 | 74.0 | 54.0 | -25.5 | -8.0 | V |
| 4.824 | 9.8 | 47.3 | 34.3 | 33.9 | 5.7 | -36.1 | 0.0 | 1.0 | 51.8 | 38.8 | 74.0 | 54.0 | -22.2 | -15.2 | H |
| NOTE: NO OTHER HARMONICS OR SPURIOUS EMISSIONS WERE DETECTED ABOVE THE NOISE FLOOR | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| f | Measurement Frequency | | | | | Amp | Preamp Gain | | | | | Avg Lim | Average Field Strength Limit | | |
| Dist | Distance to Antenna | | | | | D Corr | Distance Correct to 3 meters | | | | | Pk Lim | Peak Field Strength Limit | | |
| Read | Analyzer Reading | | | | | Avg | Average Field Strength @ 3 m | | | | | Avg Mar | Margin vs. Average Limit | | |
| AF | Antenna Factor | | | | | Peak | Calculated Peak Field Strength | | | | | Pk Mar | Margin vs. Peak Limit | | |
| CL | Cable Loss | | | | | HPF | High Pass Filter | | | | | | | | |

01/06/03 High Frequency Measurement

Compliance Certification Services, Morgan Hill Open Field Site

Test Engr: Frank Ibrahim
 Project #: 02U1750-1
 Company: AMBIT MICROSYSTEMS
 EUT Descrip.: 802.11 B/G MINI PCI CARD WITH AGENCY SERIES PP2170 LAPTOP
 EUT M/N: B/G CARD
 Test Target: FCC
 Mode Oper: 11b Base Mode, Fund = 2.437 GHz

Test Environment:

| | | | | |
|--------------|-------------------|-----------------------|-------------------|-----------------------------|
| Cable (feet) | EMCO Horn 1-18GHz | Pre-amplifier 1-26GHz | Spectrum Analyzer | Horn > 18GHz |
| 15 | T72; S/N: 6739 | Miteq NSP2600-44 | 8564E Analyzer | T87; ARA 18-26GHz; S/N:1049 |

Peak Measurements:

1 MHz Resolution Bandwidth
 1MHz Video Bandwidth

Average Measurements:

1 MHz Resolution Bandwidth
 10Hz Video Bandwidth

| f GHz | Dist feet | Read Pk dBuV | Read Avg. dBuV | AF dB/m | CL dB | Amp dB | D Corr dB | HPF | Peak dBuV/m | Avg dBuV/m | Pk Lim dBuV/m | Avg Lim dBuV/m | Pk Mar dB | Avg Mar dB | Notes |
|--|-----------------------|-----------------|-------------------|------------|----------|-----------|--------------------------------|-----|----------------|---------------|------------------|-------------------|------------------------------|---------------|-------|
| 4.874 | 9.8 | 47.6 | 46.9 | 34.0 | 5.8 | -36.1 | 0.0 | 1.0 | 52.3 | 51.6 | 74.0 | 54.0 | -21.7 | -2.4 | V |
| 7.311 | 9.8 | 36.7 | 33.0 | 37.1 | 7.3 | -36.3 | 0.0 | 1.0 | 45.8 | 42.1 | 74.0 | 54.0 | -28.2 | -11.9 | V |
| 4.874 | 9.8 | 39.2 | 35.0 | 34.0 | 5.8 | -36.1 | 0.0 | 1.0 | 43.9 | 39.7 | 74.0 | 54.0 | -30.1 | -14.3 | H |
| 7.311 | 9.8 | 36.3 | 31.0 | 37.1 | 7.3 | -36.3 | 0.0 | 1.0 | 45.4 | 40.1 | 74.0 | 54.0 | -28.6 | -13.9 | H |
| NOTE: NO OTHER HARMONICS OR SPURIOUS EMISSIONS WERE DETECTED ABOVE THE NOISE FLOOR | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| f | Measurement Frequency | | | | | Amp | Preamp Gain | | | | | Avg Lim | Average Field Strength Limit | | |
| Dist | Distance to Antenna | | | | | D Corr | Distance Correct to 3 meters | | | | | Pk Lim | Peak Field Strength Limit | | |
| Read | Analyzer Reading | | | | | Avg | Average Field Strength @ 3 m | | | | | Avg Mar | Margin vs. Average Limit | | |
| AF | Antenna Factor | | | | | Peak | Calculated Peak Field Strength | | | | | Pk Mar | Margin vs. Peak Limit | | |
| CL | Cable Loss | | | | | HPF | High Pass Filter | | | | | | | | |

REPORT NO: 02U1750-1

DATE: FEBRUARY 21, 2003

EUT: 802.11 b/g MINI PCI CARD WITH AGENCY SERIES PP2170 LAPTOP

FCC ID: MCLJ07H06902

2.462GHz

01/06/03 High Frequency Measurement

Compliance Certification Services, Morgan Hill Open Field Site

Test Engr: Frank Ibrahim
 Project #: 02U1750-1
 Company: AMBIT MICROSYSTEMS
 EUT Descrip.: 802.11 B/G MINI PCI CARD WITH AGENCY SERIES PP2170 LAPTOP
 EUT M/N: B/G CARD
 Test Target: FCC
 Mode Oper: 11b Base Mode, Fund = 2.462 GHz

Test Environment

| | | | | |
|--------------|-------------------|-----------------------|-------------------|-----------------------------|
| Cable (feet) | EMCO Horn 1-18GHz | Pre-amplifier 1-26GHz | Spectrum Analyzer | Horn > 18GHz |
| 15 | T72; S/N: 6739 | Miteq NSP2600-44 | 8564E Analyzer | T87; ARA 18-26GHz; S/N:1049 |

Peak Measurements:

1 MHz Resolution Bandwidth
 1MHz Video Bandwidth

Average Measurements:

1 MHz Resolution Bandwidth
 10Hz Video Bandwidth

| f GHz | Dist feet | Read Pk dBuV | Read Avg. dBuV | AF dB/m | CL dB | Amp dB | D Corr dB | HPF | Peak dBuV/m | Avg dBuV/m | Pk Lim dBuV/m | Avg Lim dBuV/m | Pk Mar dB | Avg Mar dB | Notes |
|--|-----------------------|-----------------|-------------------|------------|----------|-----------|--------------------------------|-----|----------------|---------------|------------------|-------------------|------------------------------|---------------|-------|
| 4.924 | 9.8 | 50.8 | 47.7 | 34.2 | 5.8 | -36.1 | 0.0 | 1.0 | 55.7 | 52.6 | 74.0 | 54.0 | -18.3 | -1.4 | V |
| 7.386 | 9.8 | 39.2 | 36.9 | 37.3 | 7.3 | -36.2 | 0.0 | 1.0 | 48.5 | 46.2 | 74.0 | 54.0 | -25.5 | -7.8 | V |
| 4.924 | 9.8 | 41.9 | 37.3 | 34.2 | 5.8 | -36.1 | 0.0 | 1.0 | 46.8 | 42.2 | 74.0 | 54.0 | -27.2 | -11.8 | H |
| 7.386 | 9.8 | 36.2 | 30.3 | 37.3 | 7.3 | -36.2 | 0.0 | 1.0 | 45.5 | 39.6 | 74.0 | 54.0 | -28.5 | -14.4 | H |
| NOTE: NO OTHER HARMONICS OR SPURIOUS EMISSIONS WERE DETECTED ABOVE THE NOISE FLOOR | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| f | Measurement Frequency | | | | | Amp | Preamp Gain | | | | | Avg Lim | Average Field Strength Limit | | |
| Dist | Distance to Antenna | | | | | D Corr | Distance Correct to 3 meters | | | | | Pk Lim | Peak Field Strength Limit | | |
| Read | Analyzer Reading | | | | | Avg | Average Field Strength @ 3 m | | | | | Avg Mar | Margin vs. Average Limit | | |
| AF | Antenna Factor | | | | | Peak | Calculated Peak Field Strength | | | | | Pk Mar | Margin vs. Peak Limit | | |
| CL | Cable Loss | | | | | HPF | High Pass Filter | | | | | | | | |

REPORT NO: 02U1750-1

DATE: FEBRUARY 21, 2003

EUT: 802.11 b/g MINI PCI CARD WITH AGENCY SERIES PP2170 LAPTOP

FCC ID: MCLJ07H06902

HARMONIC AND SPURIOUS RADIATED EMISSIONS (G NORMAL MODE)

2.412GHz

01/06/03 High Frequency Measurement

Compliance Certification Services, Morgan Hill Open Field Site

Test Engr: Frank Ibrahim
 Project #: 02U1750-1
 Company: AMBIT MICROSYSTEMS
 EUT Descrip.: 802.11 B/G MINI PCI CARD WITH AGENCY SERIES PP2170 LAPTOP
 EUT M/N: B/G CARD
 Test Target: FCC
 Mode Oper: 11g Base Mode, Fund = 2.412 GHz,

Test Equipment:

| Cable (feet) | EMCO Horn 1-18GHz | Pre-amplifier 1-26GHz | Spectrum Analyzer | Horn > 18GHz |
|--------------|-------------------|-----------------------|-------------------|-----------------------------|
| 15 | T72; S/N: 6739 | Miteq NSP2600-44 | 8564E Analyzer | T87; ARA 18-26GHz; S/N:1049 |

Peak Measurements:

1 MHz Resolution Bandwidth
 1MHz Video Bandwidth

Average Measurements:

1 MHz Resolution Bandwidth
 10Hz Video Bandwidth

| f GHz | Dist feet | Read Pk dBuV | Read Avg. dBuV | AF dB/m | CL dB | Amp dB | D Corr dB | HPF | Peak dBuV/m | Avg dBuV/m | Pk Lim dBuV/m | Avg Lim dBuV/m | Pk Mar dB | Avg Mar dB | Notes |
|--|-----------------------|-----------------|-------------------|------------|----------|-----------|--------------------------------|-----|----------------|---------------|------------------|-------------------|------------------------------|---------------|-------|
| 4.824 | 9.8 | 49.2 | 44.1 | 33.9 | 5.7 | -36.1 | 0.0 | 1.0 | 53.7 | 48.6 | 74.0 | 54.0 | -20.3 | -5.4 | V |
| 4.824 | 9.8 | 40.3 | 34.5 | 33.9 | 5.7 | -36.1 | 0.0 | 1.0 | 44.8 | 39.0 | 74.0 | 54.0 | -29.2 | -15.0 | H |
| NOTE: NO OTHER HARMONICS OR SPURIOUS EMISSIONS WERE DETECTED ABOVE THE NOISE FLOOR | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| f | Measurement Frequency | | | | | Amp | Preamp Gain | | | | | Avg Lim | Average Field Strength Limit | | |
| Dist | Distance to Antenna | | | | | D Corr | Distance Correct to 3 meters | | | | | Pk Lim | Peak Field Strength Limit | | |
| Read | Analyzer Reading | | | | | Avg | Average Field Strength @ 3 m | | | | | Avg Mar | Margin vs. Average Limit | | |
| AF | Antenna Factor | | | | | Peak | Calculated Peak Field Strength | | | | | Pk Mar | Margin vs. Peak Limit | | |
| CL | Cable Loss | | | | | HPF | High Pass Filter | | | | | | | | |

01/06/03 High Frequency Measurement

Compliance Certification Services, Morgan Hill Open Field Site

Test Engr: Frank Ibrahim
 Project #: 02U1750-1
 Company: AMBIT MICROSYSTEMS
 EUT Descrip.: 802.11 B/G MINI PCI CARD WITH AGENCY SERIES PP2170 LAPTOP
 EUT M/N: B/G CARD
 Test Target: FCC
 Mode Oper: 11g Base Mode, Fund = 2.437 GHz.

Test Environment:

| | | | | |
|--------------|-------------------|-----------------------|-------------------|-----------------------------|
| Cable (feet) | EMCO Horn 1-18GHz | Pre-amplifier 1-26GHz | Spectrum Analyzer | Horn > 18GHz |
| 15 | T72; S/N: 6739 | Miteq NSP2600-44 | 8564E Analyzer | T87; ARA 18-26GHz; S/N:1049 |

Peak Measurements:

1 MHz Resolution Bandwidth
 1MHz Video Bandwidth

Average Measurements:

1 MHz Resolution Bandwidth
 10Hz Video Bandwidth

| f GHz | Dist feet | Read Pk dBuV | Read Avg. dBuV | AF dB/m | CL dB | Amp dB | D Corr dB | HPF | Peak dBuV/m | Avg dBuV/m | Pk Lim dBuV/m | Avg Lim dBuV/m | Pk Mar dB | Avg Mar dB | Notes |
|--|-----------------------|-----------------|-------------------|------------|----------|-----------|--------------------------------|-----|----------------|---------------|------------------|-------------------|------------------------------|---------------|-------|
| 4.874 | 9.8 | 42.0 | 31.9 | 34.0 | 5.8 | -36.1 | 0.0 | 1.0 | 46.7 | 36.6 | 74.0 | 54.0 | -27.3 | -17.4 | V |
| 7.311 | 9.8 | 42.8 | 30.1 | 37.1 | 7.3 | -36.3 | 0.0 | 1.0 | 51.9 | 39.2 | 74.0 | 54.0 | -22.1 | -14.8 | V |
| 4.874 | 9.8 | 38.6 | 30.0 | 34.0 | 5.8 | -36.1 | 0.0 | 1.0 | 43.3 | 34.7 | 74.0 | 54.0 | -30.7 | -19.3 | H |
| 7.311 | 9.8 | 40.1 | 30.2 | 37.1 | 7.3 | -36.3 | 0.0 | 1.0 | 49.2 | 39.3 | 74.0 | 54.0 | -24.8 | -14.7 | H |
| NOTE: NO OTHER HARMONICS OR SPURIOUS EMISSIONS WERE DETECTED ABOVE THE NOISE FLOOR | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| f | Measurement Frequency | | | | | Amp | Preamp Gain | | | | | Avg Lim | Average Field Strength Limit | | |
| Dist | Distance to Antenna | | | | | D Corr | Distance Correct to 3 meters | | | | | Pk Lim | Peak Field Strength Limit | | |
| Read | Analyzer Reading | | | | | Avg | Average Field Strength @ 3 m | | | | | Avg Mar | Margin vs. Average Limit | | |
| AF | Antenna Factor | | | | | Peak | Calculated Peak Field Strength | | | | | Pk Mar | Margin vs. Peak Limit | | |
| CL | Cable Loss | | | | | HPF | High Pass Filter | | | | | | | | |

REPORT NO: 02U1750-1

DATE: FEBRUARY 21, 2003

EUT: 802.11 b/g MINI PCI CARD WITH AGENCY SERIES PP2170 LAPTOP

FCC ID: MCLJ07H06902

2.462GHz

01/06/03 High Frequency Measurement

Compliance Certification Services, Morgan Hill Open Field Site

Test Engr: Frank Ibrahim
 Project #: 02U1750-1
 Company: AMBIT MICROSYSTEMS
 EUT Descrip.: 802.11 B/G MINI PCI CARD WITH AGENCY SERIES PP2170 LAPTOP
 EUT M/N: B/G CARD
 Test Target: FCC
 Mode Oper: 11g Base Mode, Fund = 2.462 GHz.

Test Environment

| Cable (feet) | EMCO Horn 1-18GHz | Pre-amplifier 1-26GHz | Spectrum Analyzer | Horn > 18GHz |
|--------------|-------------------|-----------------------|-------------------|-----------------------------|
| 15 | T72; S/N: 6739 | Miteq NSP2600-44 | 8564E Analyzer | T87; ARA 18-26GHz; S/N:1049 |

Peak Measurements:

1 MHz Resolution Bandwidth
 1MHz Video Bandwidth

Average Measurements:

1 MHz Resolution Bandwidth
 10Hz Video Bandwidth

| f GHz | Dist feet | Read Pk dBuV | Read Avg. dBuV | AF dB/m | CL dB | Amp dB | D Corr dB | HPF | Peak dBuV/m | Avg dBuV/m | Pk Lim dBuV/m | Avg Lim dBuV/m | Pk Mar dB | Avg Mar dB | Notes |
|--|-----------------------|-----------------|-------------------|------------|----------|-----------|--------------------------------|-----|----------------|---------------|------------------|-------------------|------------------------------|---------------|-------|
| 4.924 | 9.8 | 47.8 | 37.1 | 34.2 | 5.8 | -36.1 | 0.0 | 1.0 | 52.7 | 42.0 | 74.0 | 54.0 | -21.3 | -12.0 | V |
| 7.386 | 9.8 | 37.8 | 30.1 | 37.3 | 7.3 | -36.2 | 0.0 | 1.0 | 47.1 | 39.4 | 74.0 | 54.0 | -26.9 | -14.6 | V |
| 4.924 | 9.8 | 39.5 | 30.0 | 34.2 | 5.8 | -36.1 | 0.0 | 1.0 | 44.4 | 34.9 | 74.0 | 54.0 | -29.6 | -19.1 | H |
| 7.386 | 9.8 | 36.6 | 30.2 | 37.3 | 7.3 | -36.2 | 0.0 | 1.0 | 45.9 | 39.5 | 74.0 | 54.0 | -28.1 | -14.5 | H |
| NOTE: NO OTHER HARMONICS OR SPURIOUS EMISSIONS WERE DETECTED ABOVE THE NOISE FLOOR | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| f | Measurement Frequency | | | | | Amp | Preamp Gain | | | | | Avg Lim | Average Field Strength Limit | | |
| Dist | Distance to Antenna | | | | | D Corr | Distance Correct to 3 meters | | | | | Pk Lim | Peak Field Strength Limit | | |
| Read | Analyzer Reading | | | | | Avg | Average Field Strength @ 3 m | | | | | Avg Mar | Margin vs. Average Limit | | |
| AF | Antenna Factor | | | | | Peak | Calculated Peak Field Strength | | | | | Pk Mar | Margin vs. Peak Limit | | |
| CL | Cable Loss | | | | | HPF | High Pass Filter | | | | | | | | |

HARMONIC AND SPURIOUS RADIATED EMISSIONS (G TURBO MODE)

2.437GHz

01/06/03

High Frequency Measurement

Compliance Certification Services, Morgan Hill Open Field Site

Test Engr: Frank Ibrahim
 Project #: 02U1750-1
 Company: AMBIT MICROSYSTEMS
 EUT Descrip.: 802.11 B/G MINI PCI CARD WITH AGENCY SERIES PP2170 LAPTOP
 EUT M/N: B/G CARD
 Test Target: FCC
 Mode Oper: 11g Turbo Mode, Fund = 2.437 GHz

Test Equipment:

| | | | | |
|--------------|-------------------|-----------------------|-------------------|-----------------------------|
| Cable (feet) | EMCO Horn 1-18GHz | Pre-amplifier 1-26GHz | Spectrum Analyzer | Horn > 18GHz |
| 15 | T72; S/N: 6739 | Miteq NSP2600-44 | 8564E Analyzer | T87; ARA 18-26GHz; S/N:1049 |

Peak Measurements:

 1 MHz Resolution Bandwidth
 1MHz Video Bandwidth

Average Measurements:

 1 MHz Resolution Bandwidth
 10Hz Video Bandwidth

| f GHz | Dist feet | Read Pk dBuV | Read Avg. dBuV | AF dB/m | CL dB | Amp dB | D Corr dB | HPF | Peak dBuV/m | Avg dBuV/m | Pk Lim dBuV/m | Avg Lim dBuV/m | Pk Mar dB | Avg Mar dB | Notes |
|--|-----------------------|-----------------|-------------------|------------|----------|-----------|--------------------------------|-----|----------------|---------------|------------------|-------------------|------------------------------|---------------|-------|
| 4.874 | 9.8 | 40.6 | 30.2 | 34.0 | 5.8 | -36.1 | 0.0 | 1.0 | 45.3 | 34.9 | 74.0 | 54.0 | -28.7 | -19.1 | V |
| 7.311 | 9.8 | 44.9 | 32.6 | 37.1 | 7.3 | -36.3 | 0.0 | 1.0 | 54.0 | 41.7 | 74.0 | 54.0 | -20.0 | -12.3 | V |
| | | | | | | | | | | | | | | | |
| NOTE: NO OTHER HARMONICS OR SPURIOUS EMISSIONS WERE DETECTED ABOVE THE NOISE FLOOR | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| f | Measurement Frequency | | | | | Amp | Preamp Gain | | | | | Avg Lim | Average Field Strength Limit | | |
| Dist | Distance to Antenna | | | | | D Corr | Distance Correct to 3 meters | | | | | Pk Lim | Peak Field Strength Limit | | |
| Read | Analyzer Reading | | | | | Avg | Average Field Strength @ 3 m | | | | | Avg Mar | Margin vs. Average Limit | | |
| AF | Antenna Factor | | | | | Peak | Calculated Peak Field Strength | | | | | Pk Mar | Margin vs. Peak Limit | | |
| CL | Cable Loss | | | | | HPF | High Pass Filter | | | | | | | | |

DIGITAL DEVICE RADIATED EMISSIONS

FCC, VCCI, CISPR, CE, AUSTEL, NZ
UL, CSA, TUV, BSMI, DHHS, NVLAP

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Project #: 02u1750
Report #: 021303b2
Date & Time: 02/13/03 4:48 PM
Test Engr: neelsh raj

Company: AMBIT MICROSYSTEMS
EUT Description: 802.11 b/g MINI PCICARD WITH AGENCY SERIES PP2170 LAPTOP
Test Configuration: EUT/AC ADAPTER/MONITOR/USB MOUSE
Type of Test: CISPR22-B
Mode of Operation: TX

[<< Main Sheet](#)

| Freq (MHz) | Reading (dBuV) | AF (dB) | Class (dB) | Pre-amp (dB) | Level (dBuV/m) | Limit EN B | Margin (dB) | Pol (H/V) | Az (Deg) | Height (Meter) | Mark (P/Q/A) |
|---------------|-------------------|------------|---------------|-----------------|-------------------|---------------|----------------|--------------|-------------|-------------------|-----------------|
| 628.67 | 37.10 | 18.74 | 6.45 | 28.96 | 33.34 | 37.00 | -3.66 | 10mV | 180.00 | 3.00 | QP |
| 133.33 | 39.04 | 11.33 | 2.86 | 28.34 | 24.90 | 30.00 | -5.10 | 10mV | 180.00 | 1.00 | P |
| 133.33 | 38.20 | 11.33 | 2.86 | 28.34 | 24.06 | 30.00 | -5.94 | 10mH | 180.00 | 1.00 | P |
| 624.10 | 35.30 | 18.74 | 6.42 | 28.95 | 31.51 | 37.00 | -5.49 | 10mV | 180.00 | 1.00 | P |
| 628.68 | 35.30 | 18.74 | 6.45 | 28.96 | 31.54 | 37.00 | -5.46 | 10mH | 135.00 | 1.00 | P |
| 624.10 | 34.00 | 18.74 | 6.42 | 28.95 | 30.21 | 37.00 | -6.79 | 10mH | 180.00 | 1.00 | P |
| 6 Worst | Data | | | | | | | | | | |

8.7. POWERLINE CONDUCTED EMISSIONS

TEST SETUP

The EUT is placed on a wooden table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane on the floor.

The EUT is set to transmit in a continuous mode.

TEST PROCEDURE

The resolution bandwidth is set to 10 kHz for both peak detection and quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

Line conducted data is recorded for both NEUTRAL and HOT lines.

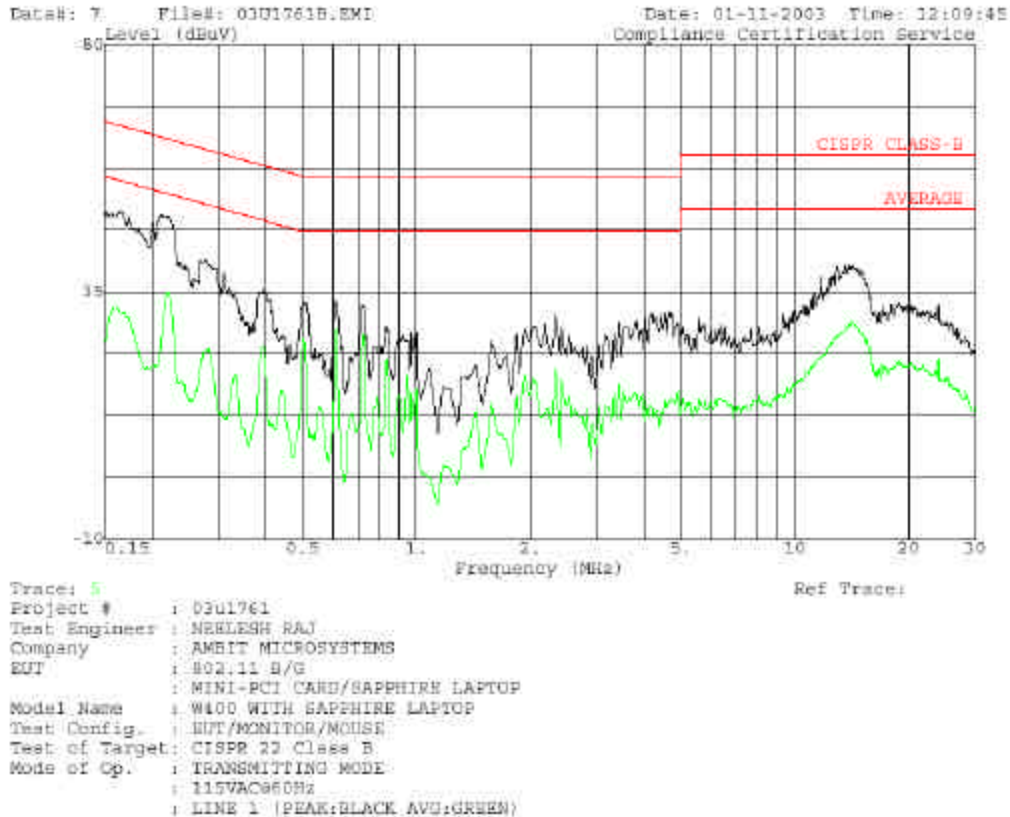
RESULTS

No non-compliance noted:

| CONDUCTED EMISSIONS DATA (115VAC 60Hz) | | | | | | | | | |
|--|-----------|-----------|-----------|-------|-------|-------|---------|---------|---------|
| Freq. | Reading | | | Closs | Limit | EN_B | Margin | | Remark |
| (MHz) | PK (dBuV) | QP (dBuV) | AV (dBuV) | (dB) | QP | AV | QP (dB) | AV (dB) | L1 / L2 |
| 0.21 | 48.81 | -- | 27.88 | 0.00 | 64.20 | 54.20 | -15.39 | -26.32 | L1 |
| 0.17 | 49.58 | -- | 31.18 | 0.00 | 65.57 | 55.57 | -15.99 | -24.39 | L1 |
| 0.27 | 40.56 | -- | 24.11 | 0.00 | 62.46 | 52.46 | -21.90 | -28.35 | L1 |
| 0.21 | 52.28 | -- | 22.94 | 0.00 | 64.43 | 54.43 | -12.15 | -31.49 | L2 |
| 0.17 | 51.58 | -- | 32.85 | 0.00 | 65.57 | 55.57 | -13.99 | -22.72 | L2 |
| 0.28 | 42.56 | -- | 25.26 | 0.00 | 62.37 | 52.37 | -19.81 | -27.11 | L2 |
| 6 Worst Data | | | | | | | | | |

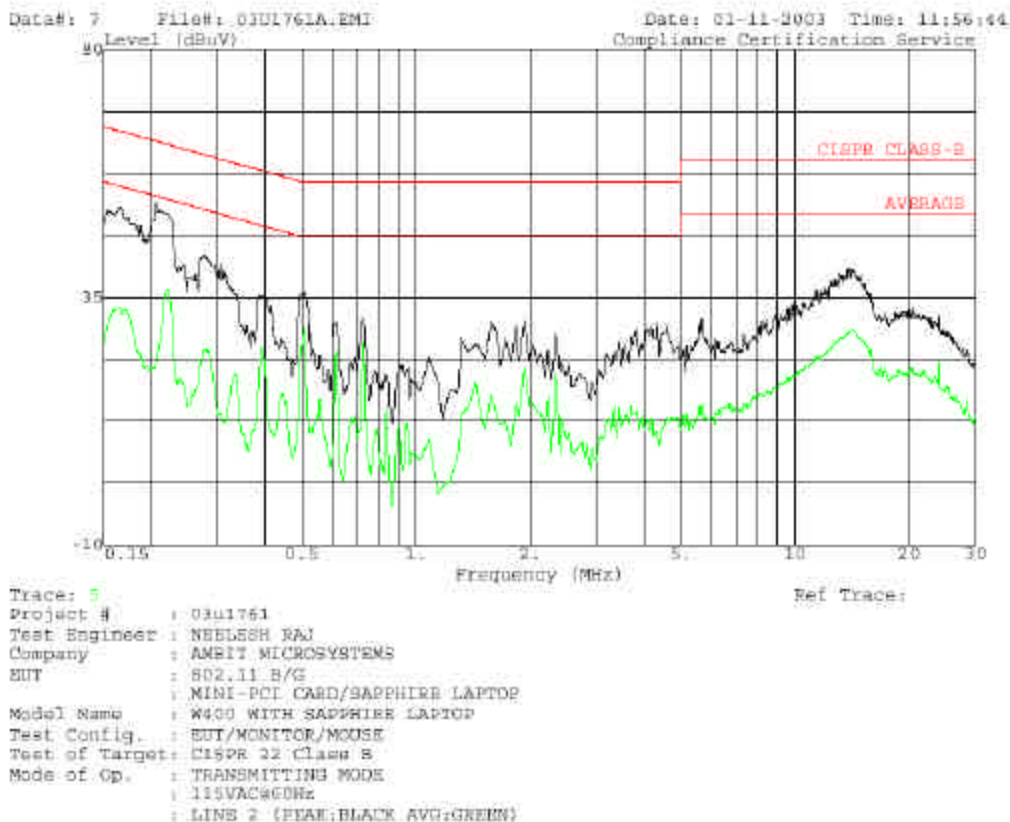


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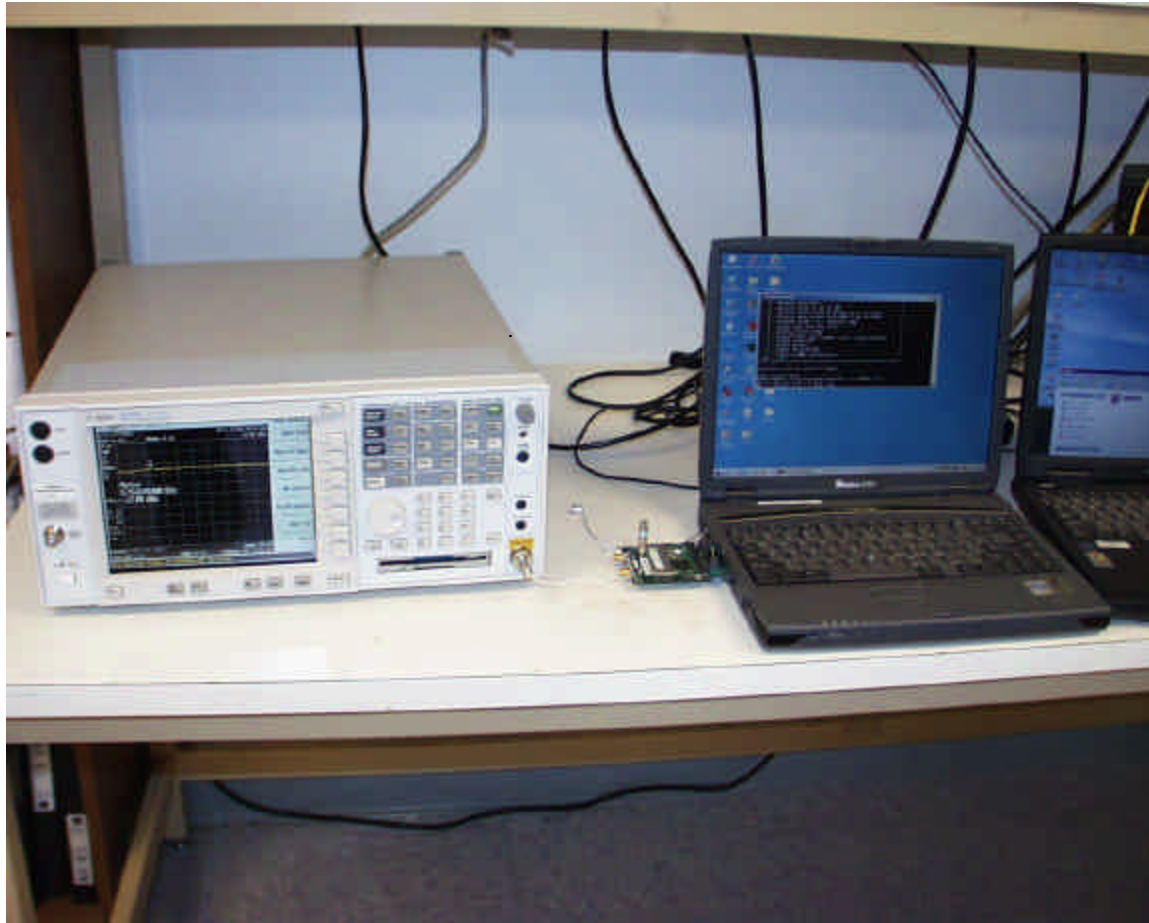


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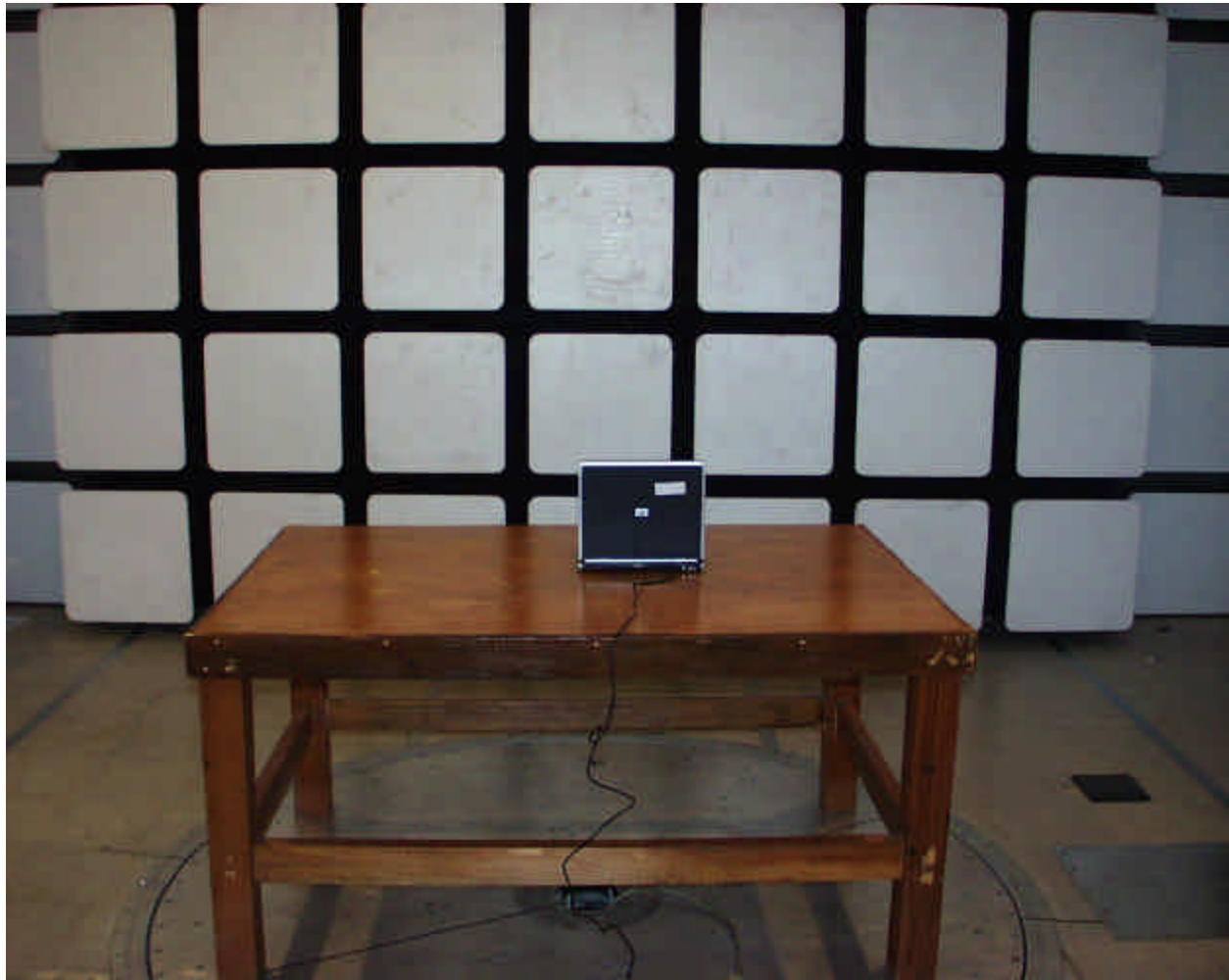
8.8. SETUP PHOTOS

ANTENNA PORT CONDUCTED RF MEASUREMENT SETUP



RADIATED RF MEASUREMENT SETUP





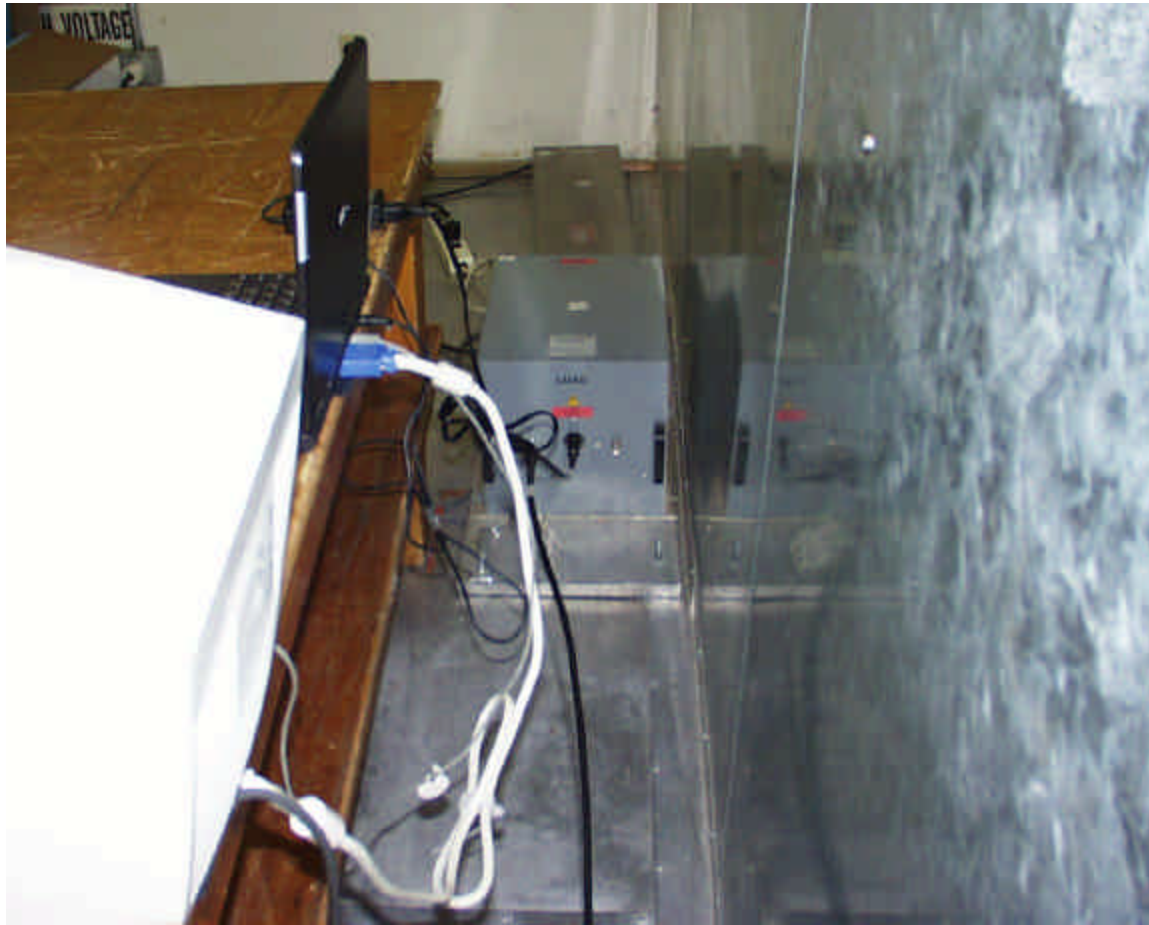
DIGITAL DEVICE RADIATED EMISSIONS MEASUREMENT SETUP





POWERLINE CONDUCTED EMISSIONS MEASUREMENT SETUP





END OF REPORT