

TEST REPORT

Equipment Under Test : PRO-711 Wireless Transmitter/Camera
Model No. : 3001112, 3001113, 3001114

Applicant : TALITOR(FAR EAST) COMPANY LIMITED
Address of Applicant : 2FL., 48-1, CHUANG CHIN ROAD, PAN CHIAO 220,
TAIPEI, TAIWAN R.O.C.

Standards:

FCC Part 15 subpart C

In the configuration tested, the EUT complied with the standards specified above.

Remarks:

This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS Taiwan E&E Services or testing done by SGS Taiwan E&E Services in connection with distribution or use of the product described in this report must be approved by SGS Taiwan E&E Services in writing.

Tested by : Alex Hsieh **Date** : 2003/5/16

Approved by : Robert Chang **Date** : 2003/8/12

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1. General Information

1.1 Testing Laboratory

SGS Taiwan Ltd. (FCC Registration number: 573967)
1F, No. 134, Wukung Road, Wuku industrial zone
Taipei county , Taiwan , R.O.C.
Telephone : +886-2-2299-3279
Fax : +886-2-2298-2698
Internet : <http://www.sgs.com.tw>

1.2 Details of Applicant

Name : TALITOR(FAR EAST) COMPANY LIMITED
Address : 2FL., 48-1, CHUANG CHIN ROAD, PAN CHIAO 220,
TAIPEI, TAIWAN R.O.C.

1.3 Description of EUT(s)

| | | |
|---|-------------------|-------------------------------------|
| 1 | Product name | PRO-711 Wireless Transmitter/Camera |
| 2 | Product ID | 3001112, 3001113, 3001114 |
| 3 | Supply Voltage | AC 110V |
| 4 | Carrier Frequency | 2414MHz, 2430Mhz, 2450Mhz, 2468MHz |

1.4 Operation Procedure

The EUT is a wireless transmitting module with camera and microphone, powered by 110V AC to 9V DC adaptor. We put the EUT in the center of Turntable, power on. The distance from receiving antenna to EUT is 3 meter. The testing method follows FCC 47 CFR part 15 subpart C and ANSI C63.4 1992.

Different model number means different lens (focus length) attached, there is no difference with the transmitter's performance.

2.Summary of Results

| subclause | Parameter to be measures | Verdict | Page |
|------------------|---|-------------|------|
| 15.207 | Conducted Limits | <i>PASS</i> | 7 |
| 15.209 | Radiated emission Limits, general requirement | <i>PASS</i> | 9 |
| 15.249(a)(1) | Field strength of fundamental | <i>PASS</i> | 34 |
| 15.249(d)(1)(ii) | Band-Edge Emission | <i>PASS</i> | 39 |

3. Instruments List

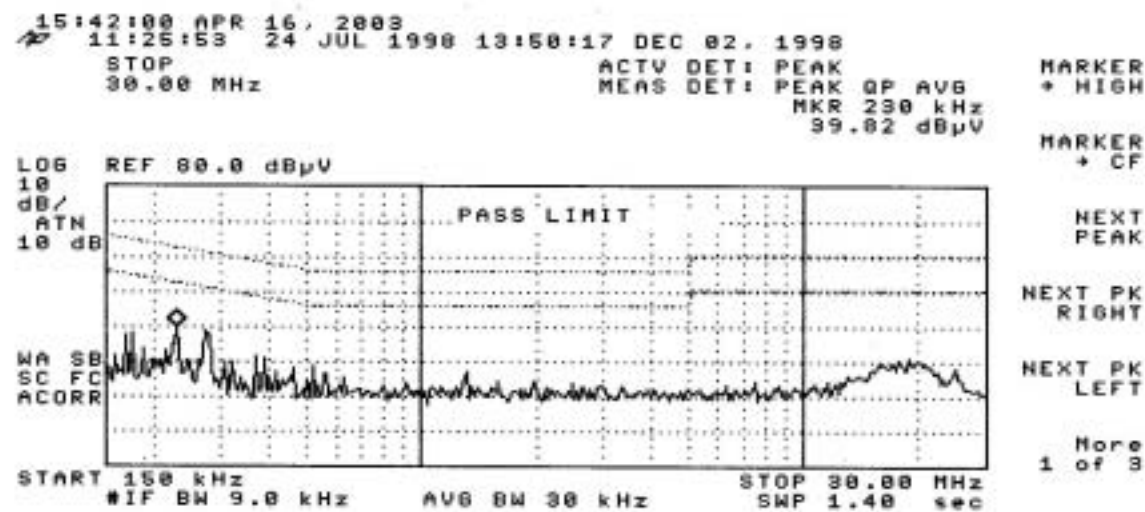
| Instrument | Model | Serial number | Calibration date |
|---------------------|--------------------------|---------------|------------------|
| Desktop PC | HP723D | TW23420337 | N/A |
| Spectrum Analyzer | Agilent 7405A | US40240202 | Jun. 1, 2002 |
| Pre-amplifier | HP 8449B | 3008A00578 | Feb. 23, 2003 |
| Antennna | Schwarzbeck BBHA9170A | 184 / 185 | July 01, 2002 |
| Antenna | Schwarzbeck BBHA9120A | 309/320 | July 01, 2002 |
| Antenna | Schwarzbeck VULB9163 | 152 | July 01, 2002 |
| RF Signal generator | Agilent 83752A | 3601A02720 | Sep. 04, 2002 |
| EMC Analyzer | HP 8594EM | 3624A00203 | Dec. 13, 2002 |
| EMI Test Receiver | R&S ESCS 30 | 828985/004 | Oct. 11, 2002 |
| Transient Limiter | HP 11947A | 3107A02062 | Jul. 24, 2002 |
| L.I.S.N | Rolf-Heine NNB-2/16Z | 99012 | Oct. 08, 2002 |

4. Measurements

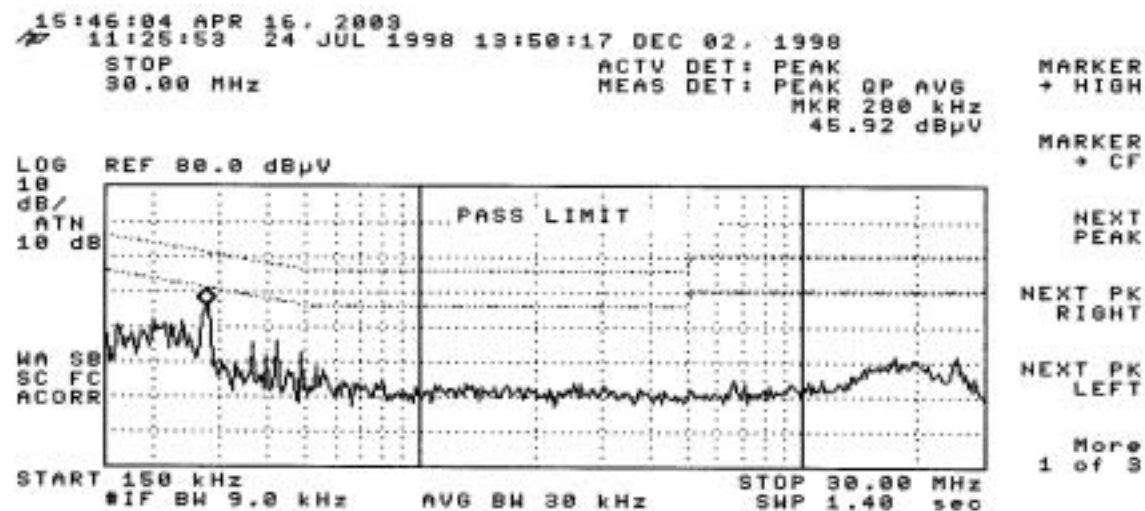
4.1 Conducted Limits

SUBCLAUSE 15.207

Line



Neural



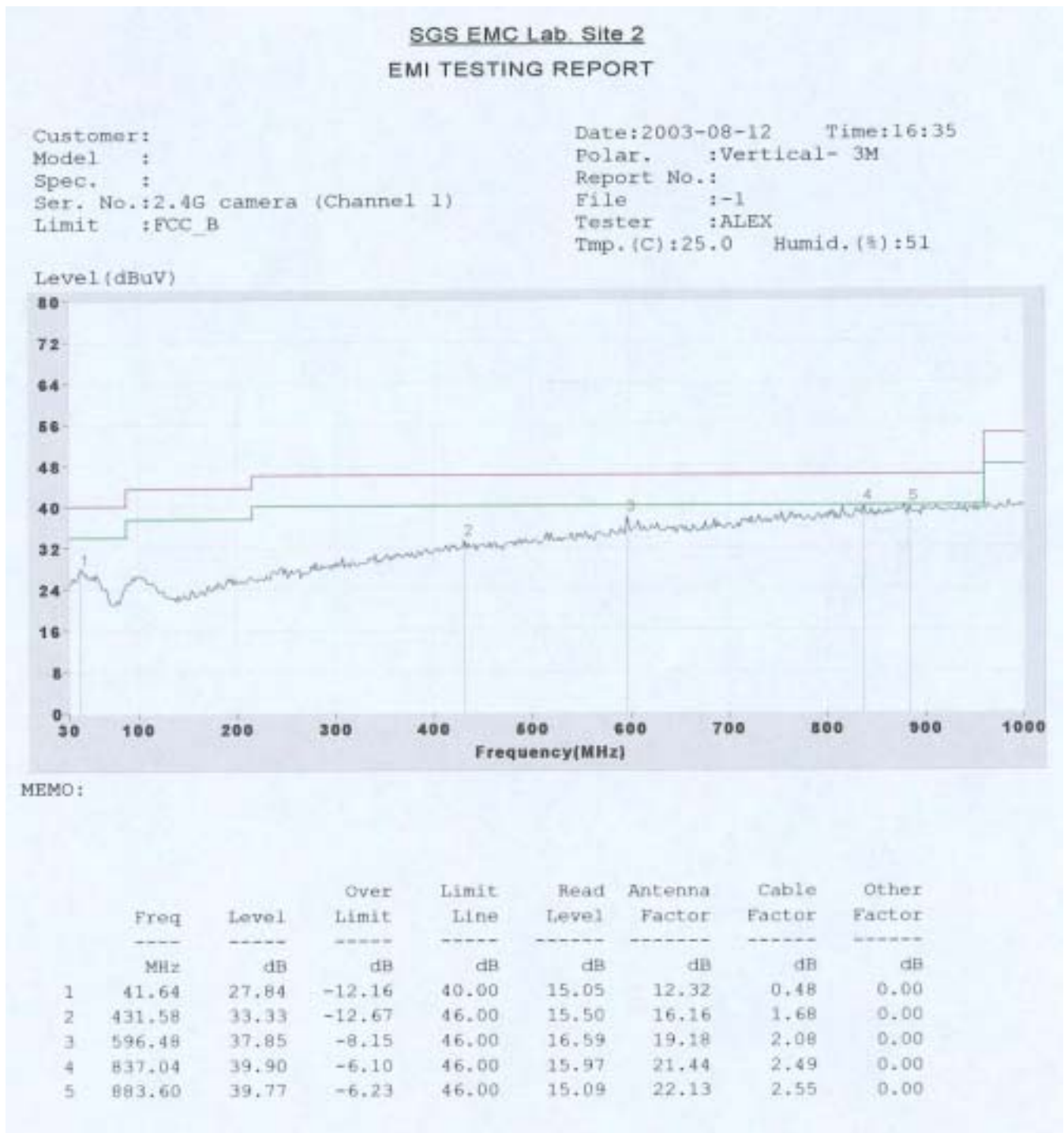
4.1.1 Limits (EN55022)

| Frequency range Mhz | Limits dB(uV) | |
|------------------------|---------------|----------|
| | Quasi-peak | Average |
| 0.15 to 0.5 | 66 to 56 | 56 to 46 |
| 0.5 to 5 | 56 | 46 |
| 5 to 30 | 60 | 50 |

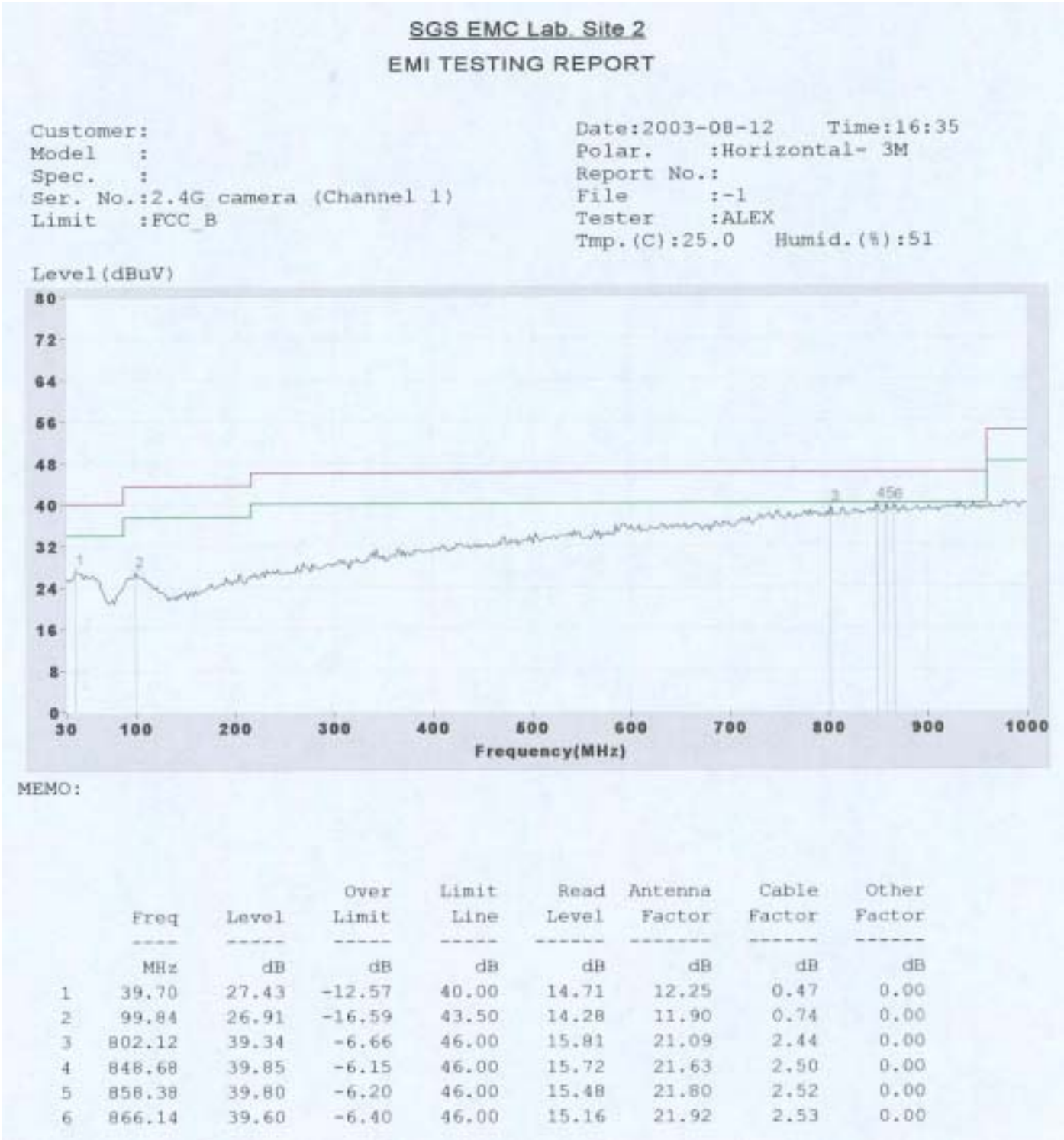
4.2 Radiated emission Limits, general requirement SUBCLAUSE 15.209

Part 1: Transmit at channel 1 , 30Mhz to 1Ghz

Vertical

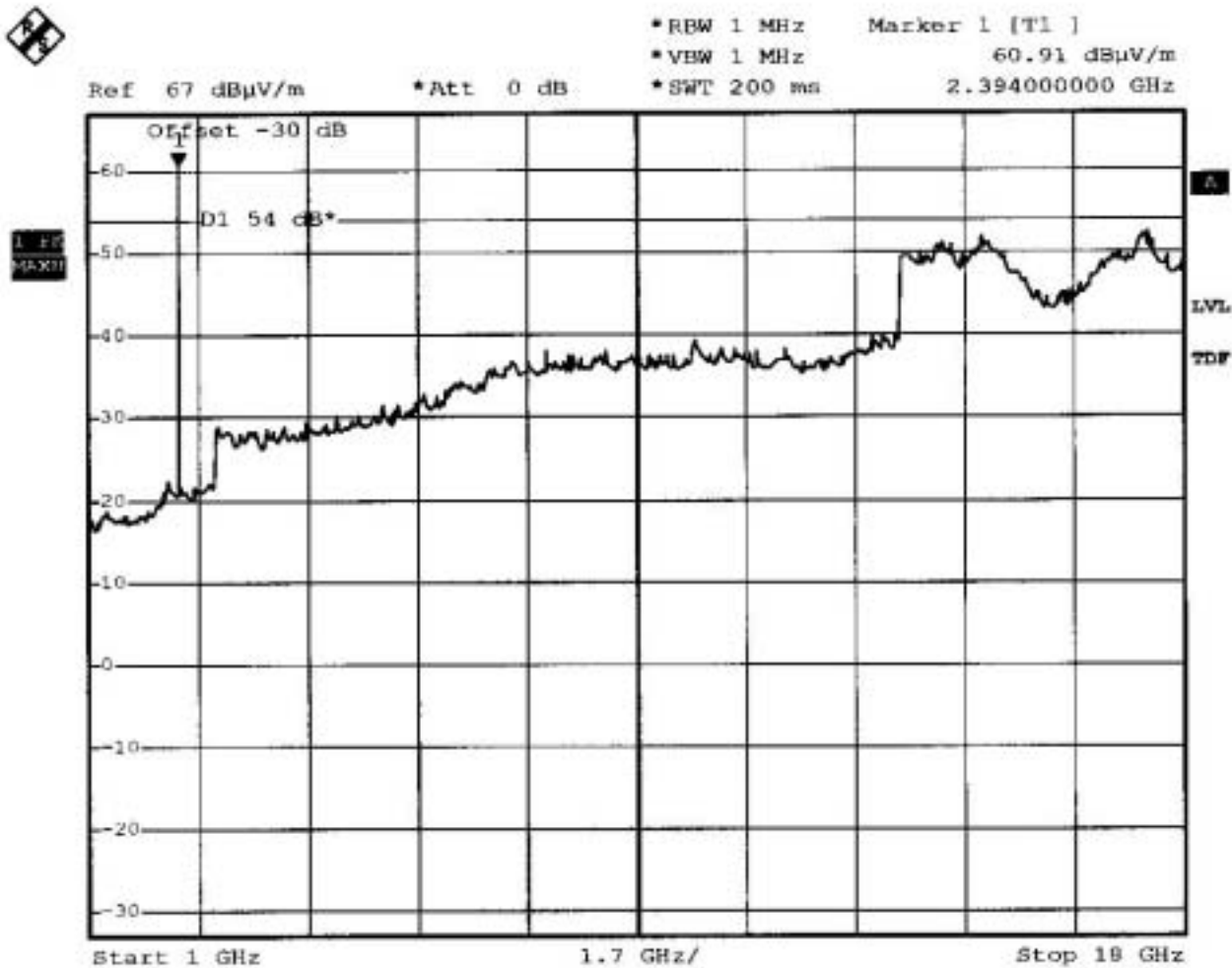


Horizontal

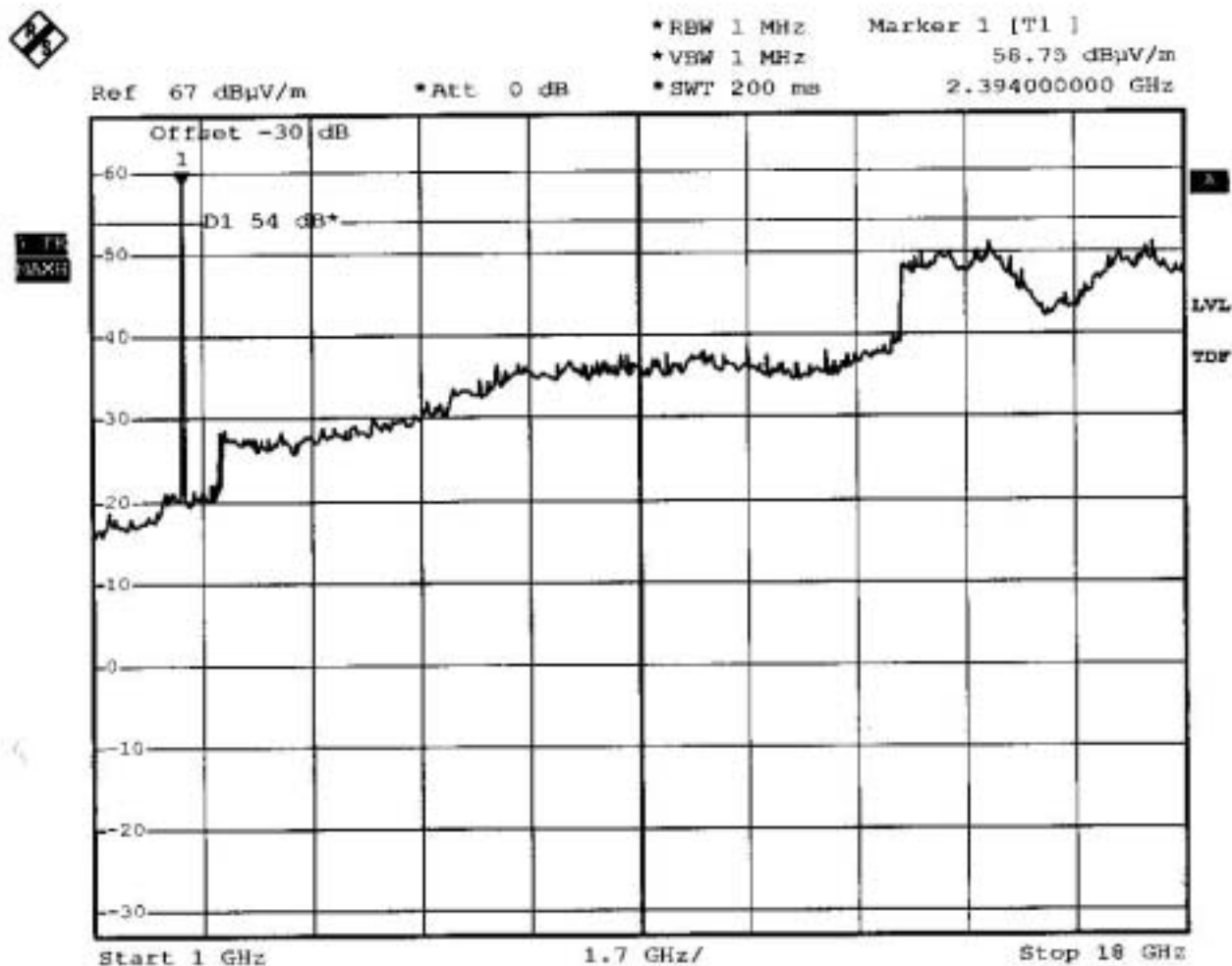


Transmit at channel 1 , 1Ghz to 18 Ghz

Vertical

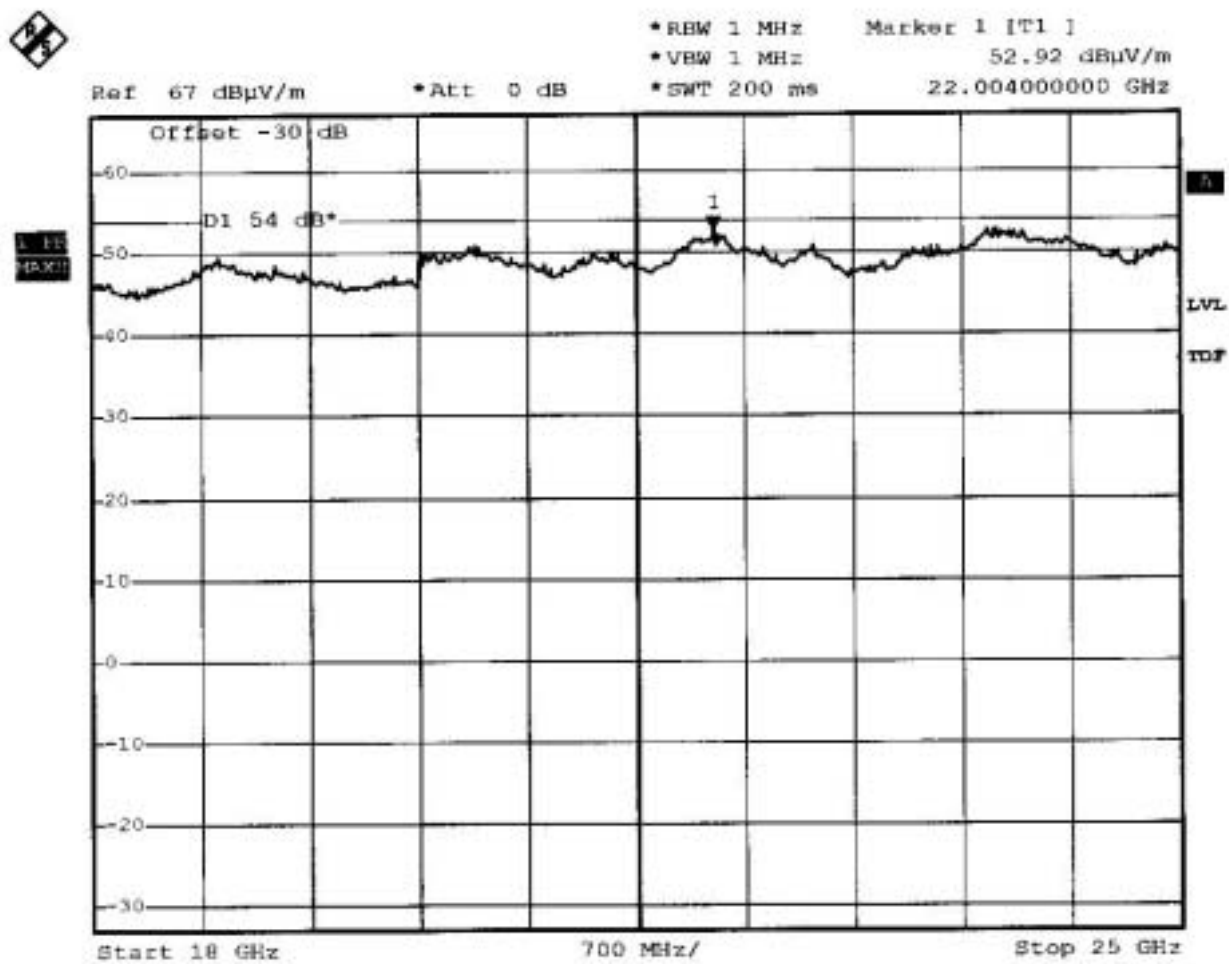


Horizontal

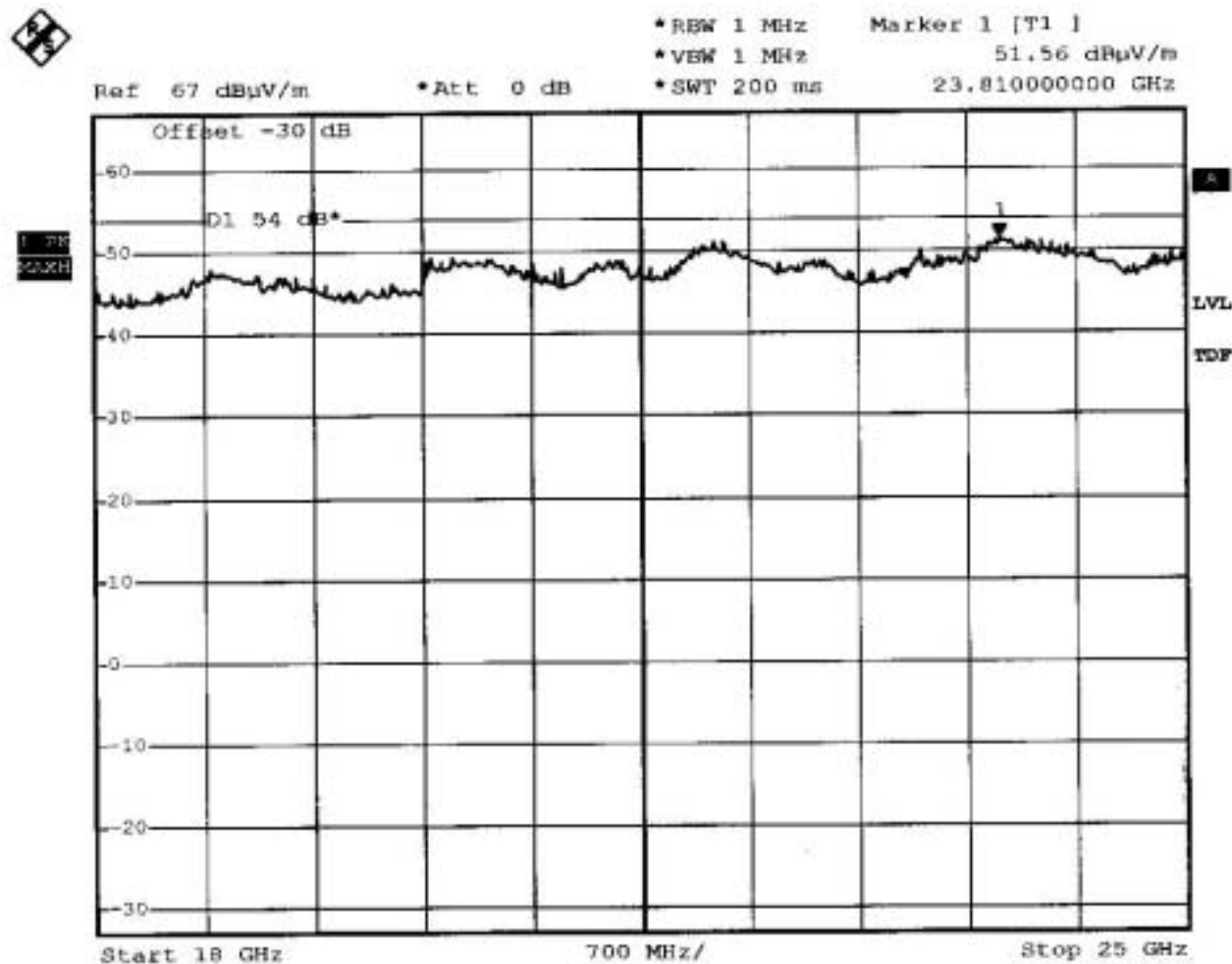


Transmit at channel 1 , 18Ghz to 25Ghz

Vertical

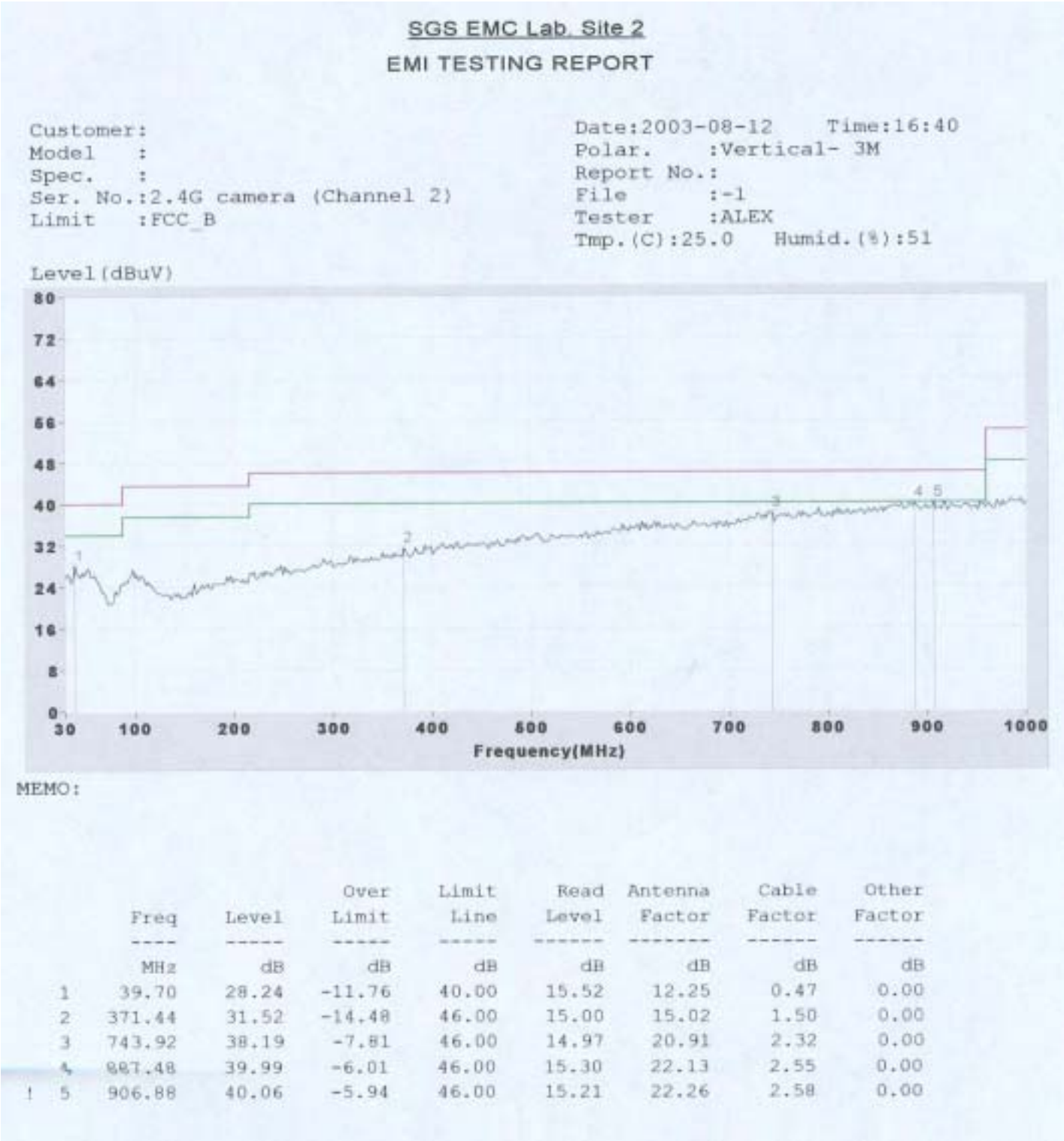


Horizontal



Part2: Transmit at channel 2 , 30Mhz to 1Ghz

Vertical



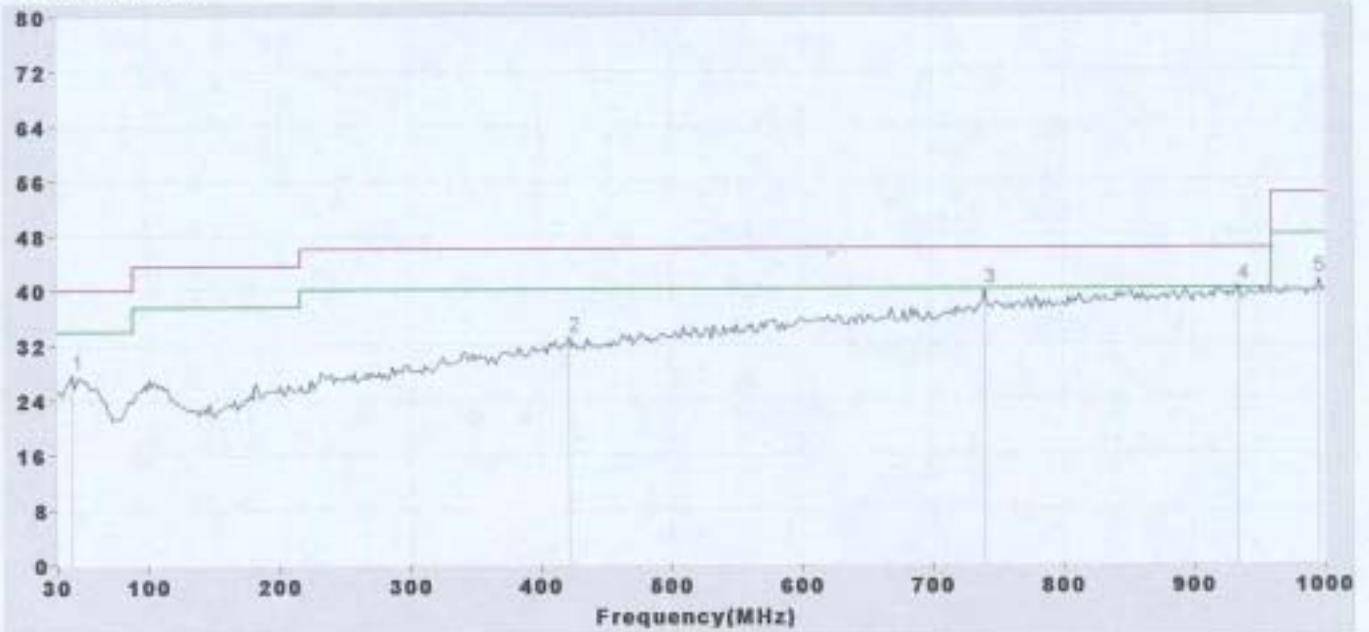
Horizontal

SGS EMC Lab. Site 2
EMI TESTING REPORT

Customer:
Model :
Spec. :
Ser. No.:2.4G camera (Channel 2)
Limit :FCC_B

Date:2003-08-12 Time:16:39
Polar. :Horizontal- 3M
Report No.:
File :~1
Tester :ALEX
Tmp.(C):25.0 Humid.(%):51

Level (dBuV)

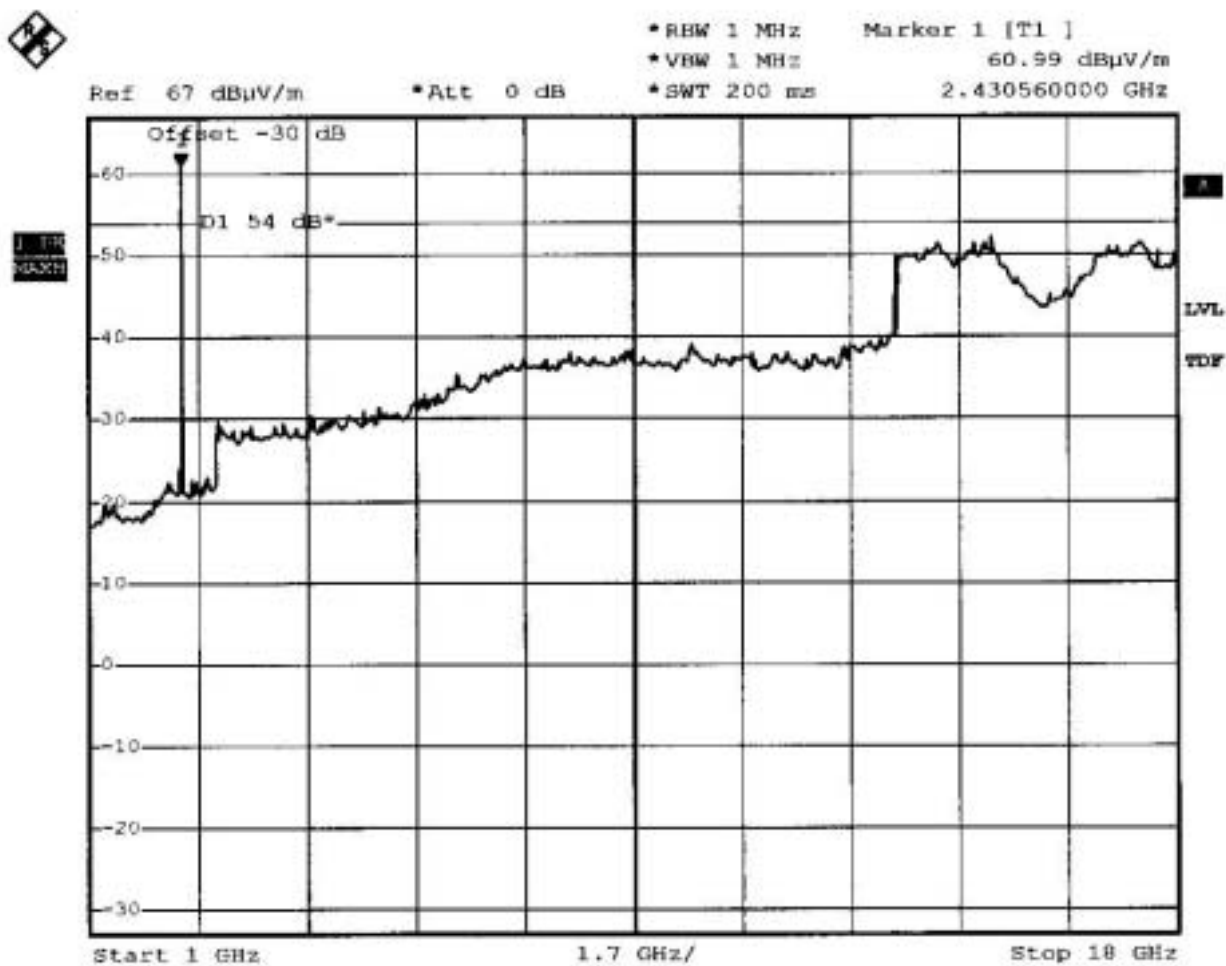


MEMO:

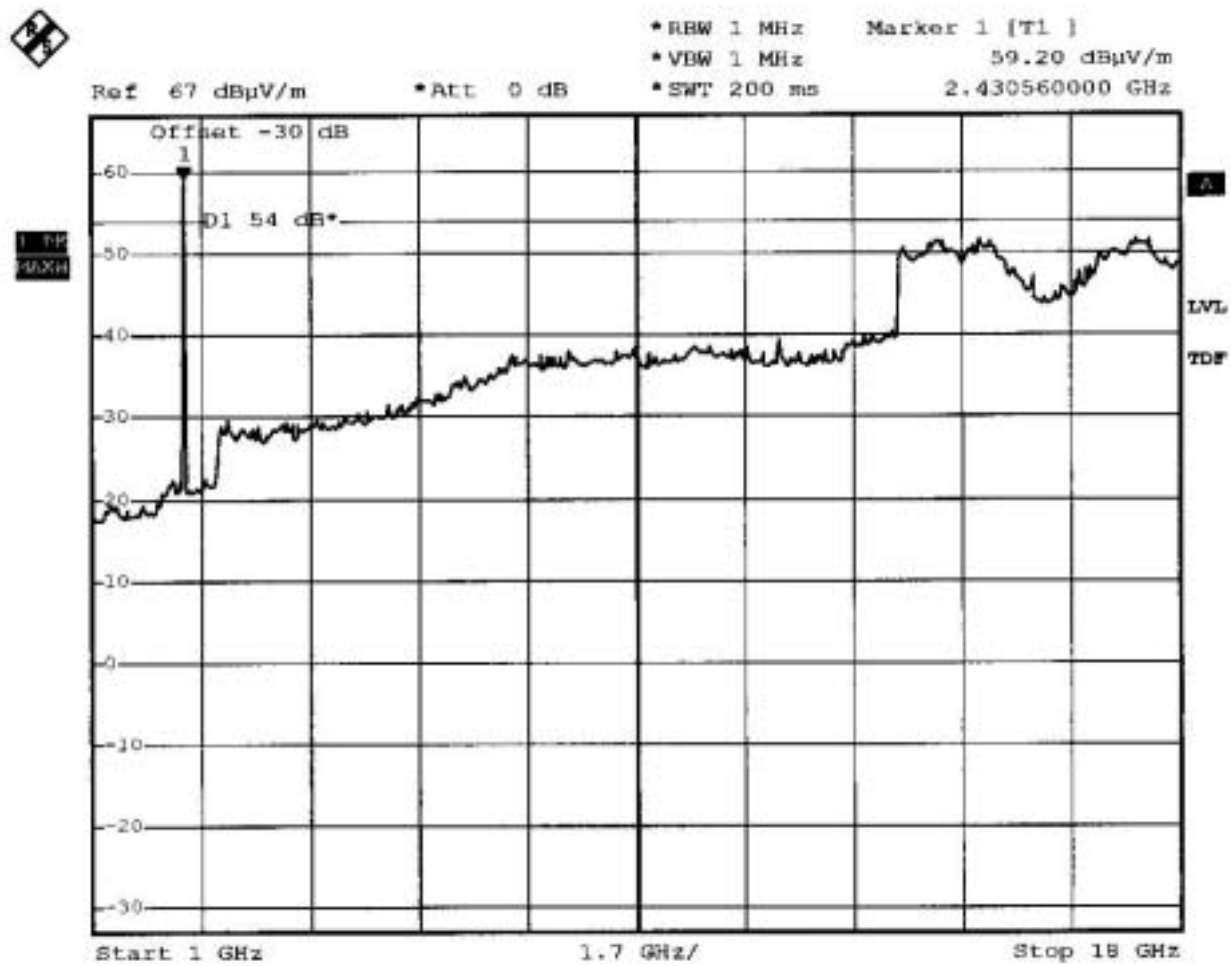
| | Freq | Level | Over | Limit | Read | Antenna | Cable | Other |
|-----|--------|-------|--------|-------|-------|---------|--------|--------|
| | ----- | ----- | Limit | Line | Level | Factor | Factor | Factor |
| | MHz | dB | dB | dB | dB | dB | dB | dB |
| 1 | 41.64 | 27.64 | -12.36 | 40.00 | 14.85 | 12.32 | 0.48 | 0.00 |
| 2 | 421.88 | 32.98 | -13.02 | 46.00 | 15.23 | 16.09 | 1.65 | 0.00 |
| 3 | 740.04 | 39.76 | -6.24 | 46.00 | 16.54 | 20.91 | 2.31 | 0.00 |
| ! 4 | 934.04 | 40.27 | -5.73 | 46.00 | 15.20 | 22.43 | 2.64 | 0.00 |
| 5 | 996.12 | 41.19 | -12.81 | 54.00 | 15.59 | 22.83 | 2.77 | 0.00 |

Transmit at channel 2 , 1Ghz to 18Ghz

Vertical

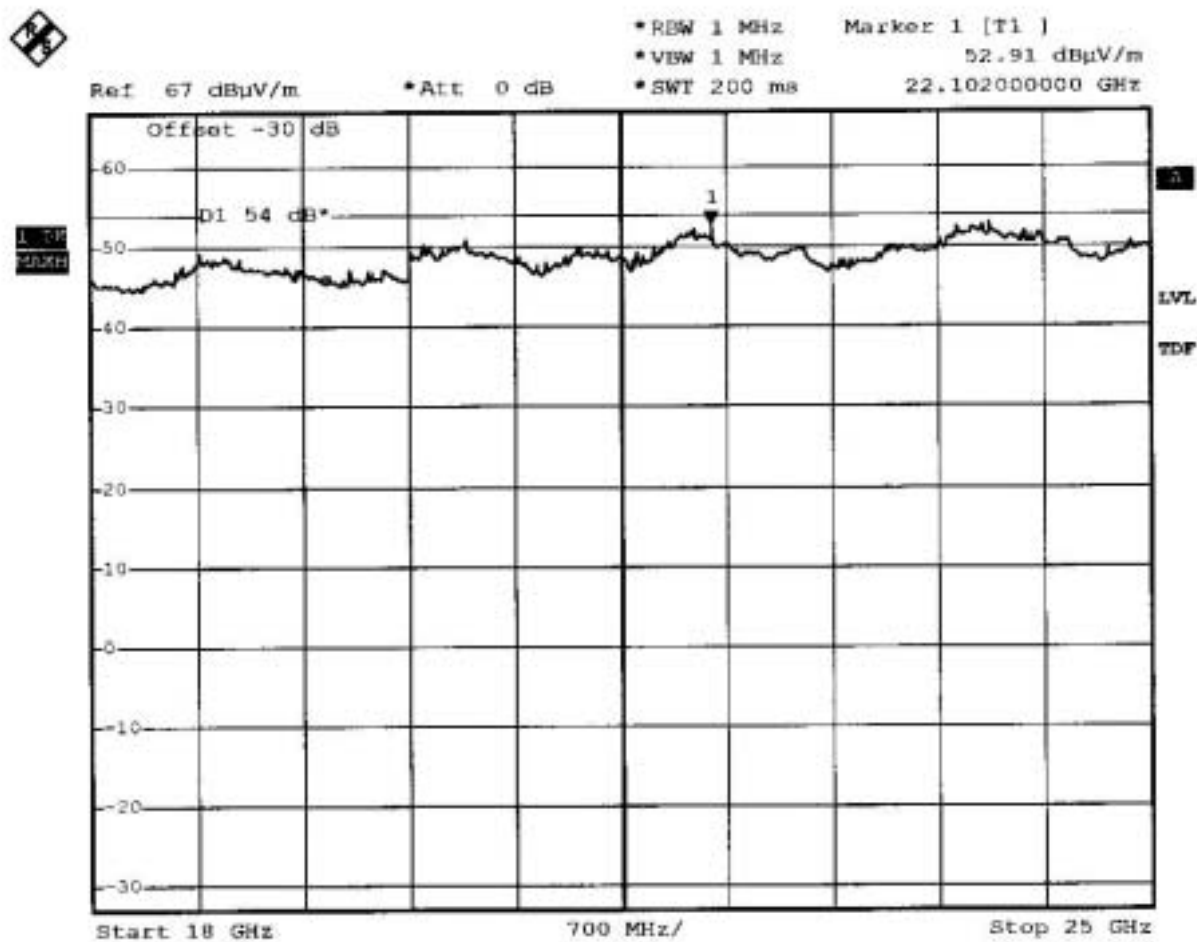


Horizontal

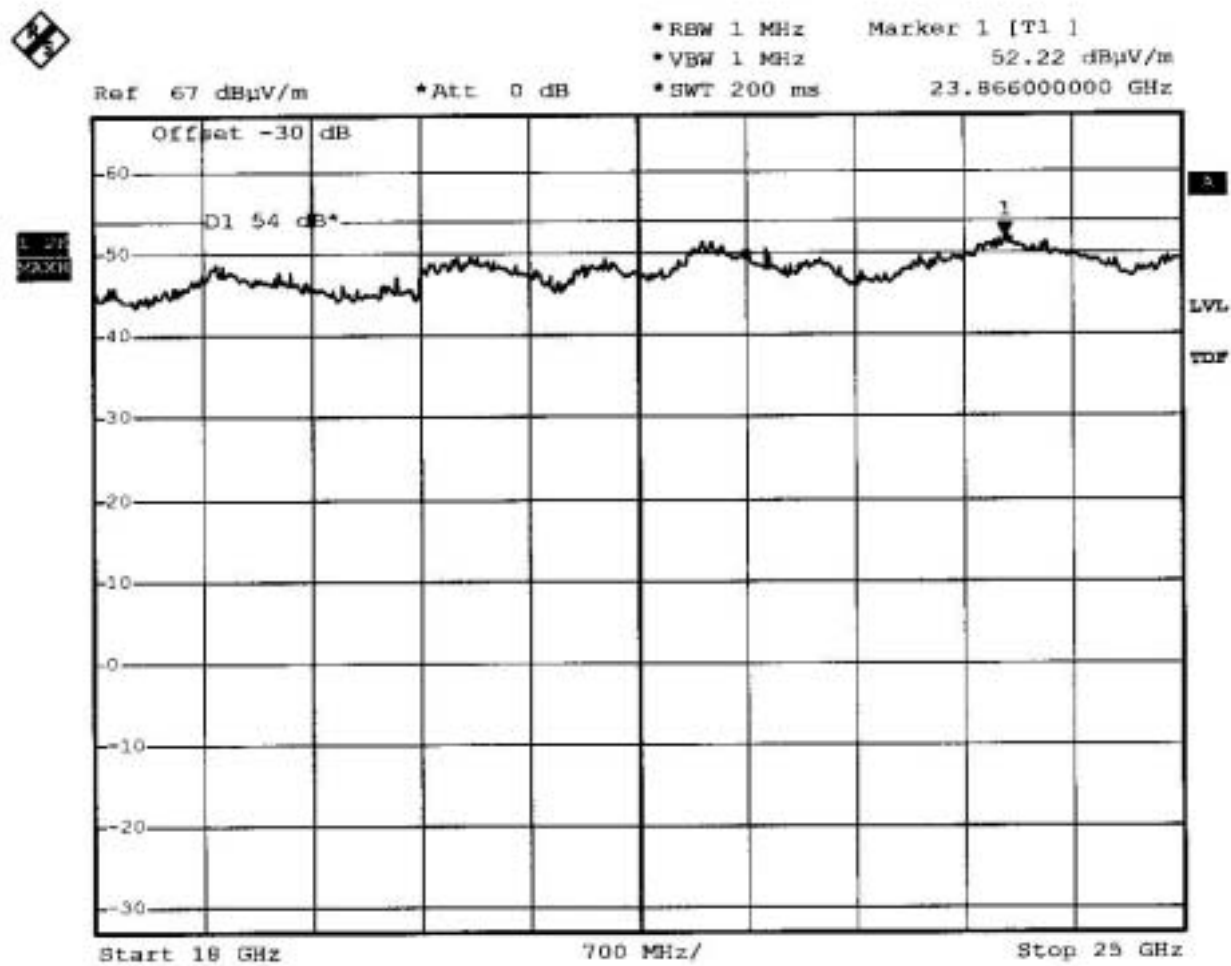


Transmit at channel 2 , 18Ghz to 25Ghz

Vertical

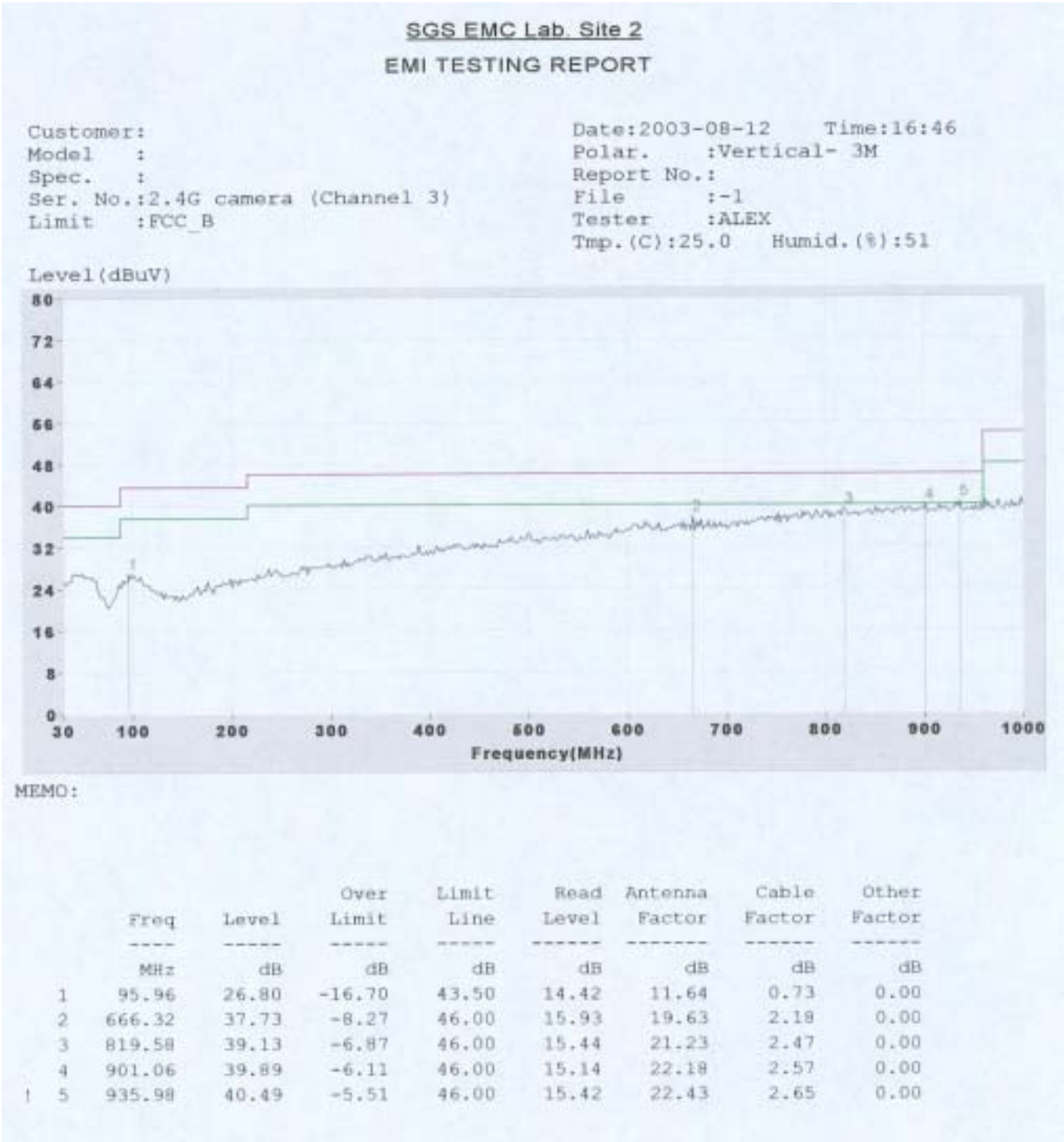


Horizontal

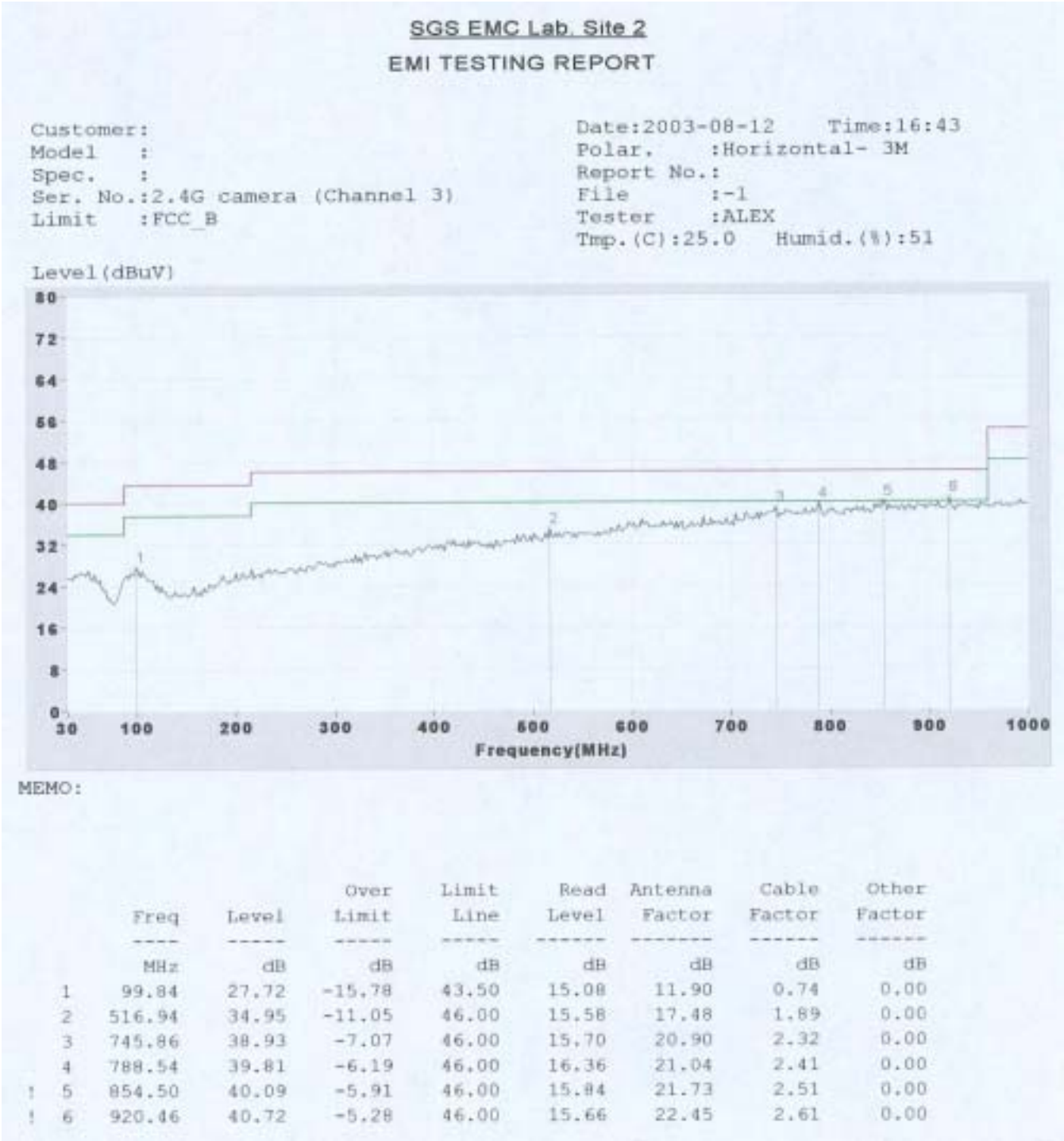


Part3: Transmit at channel 3 , 30Mhz to 1Ghz

Vertical

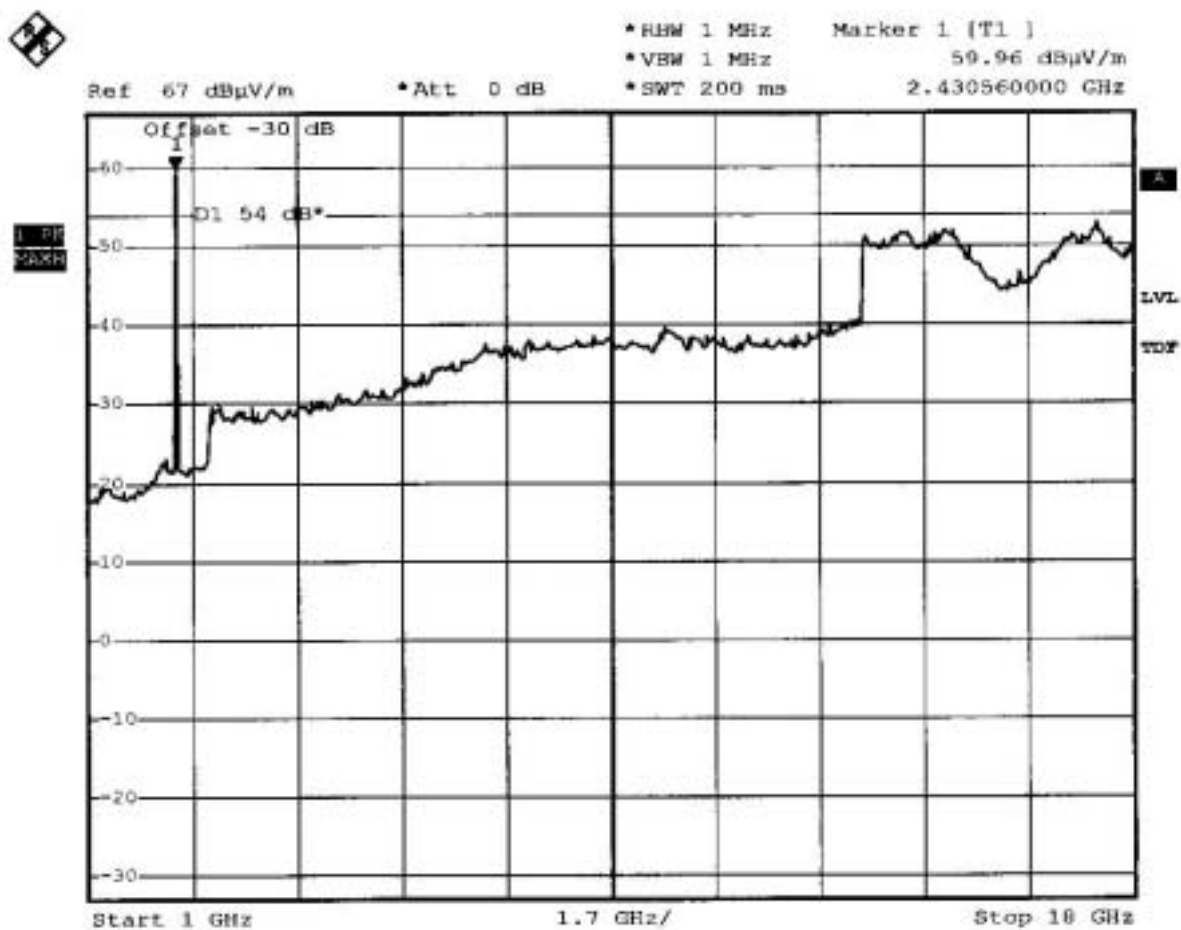


Horizontal

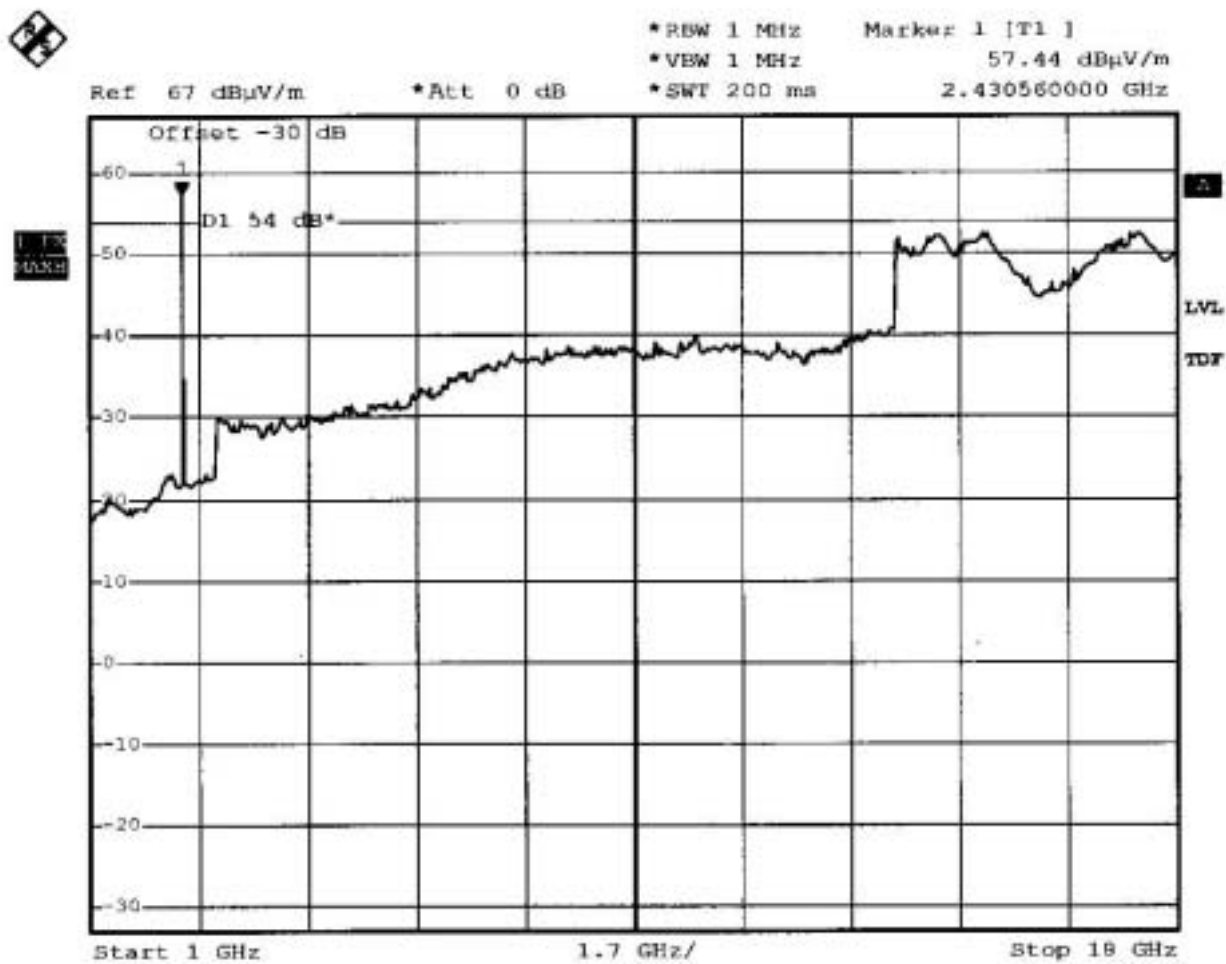


Transmit at channel 3 , 1Ghz to 18Ghz

Vertical

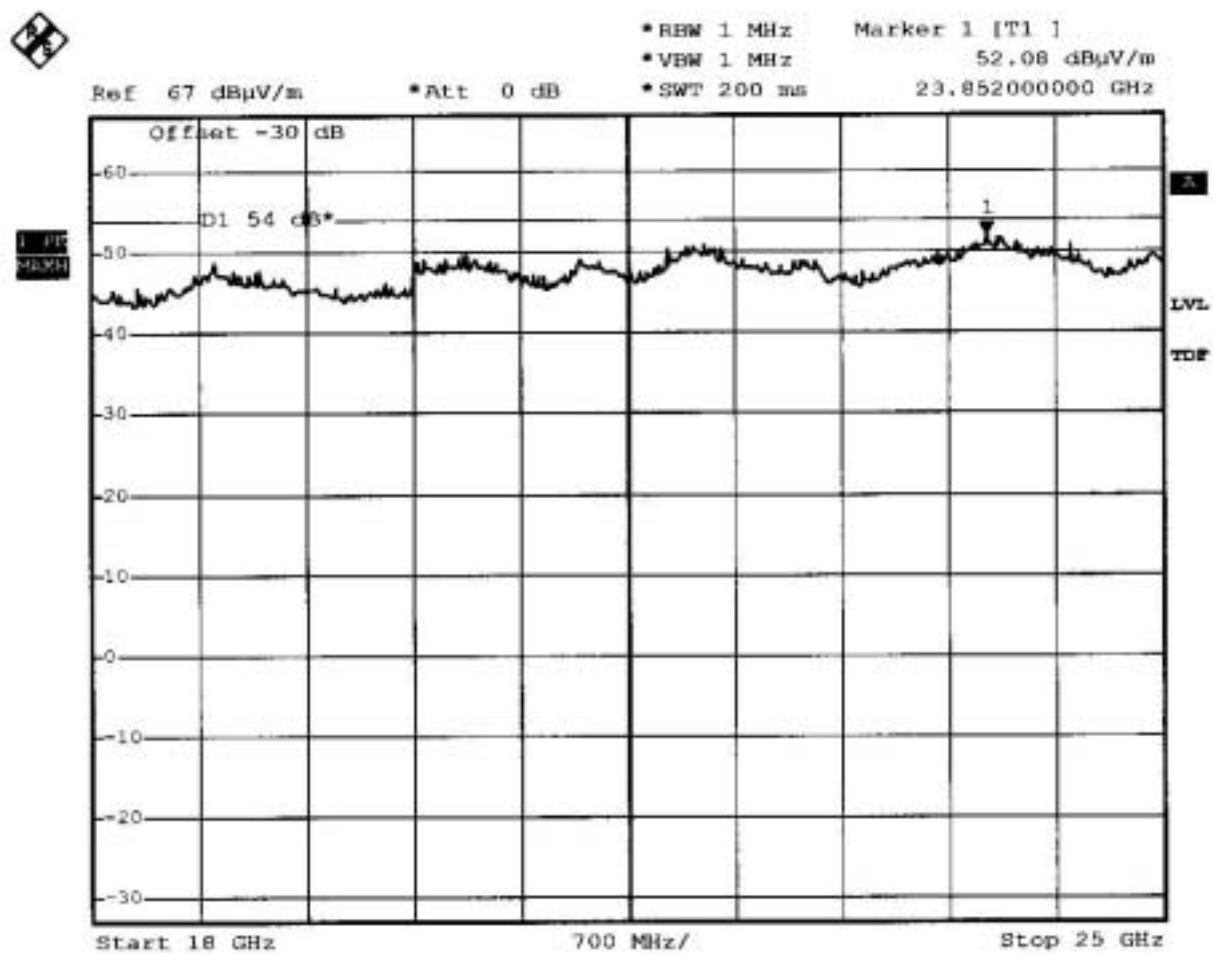


Horizontal

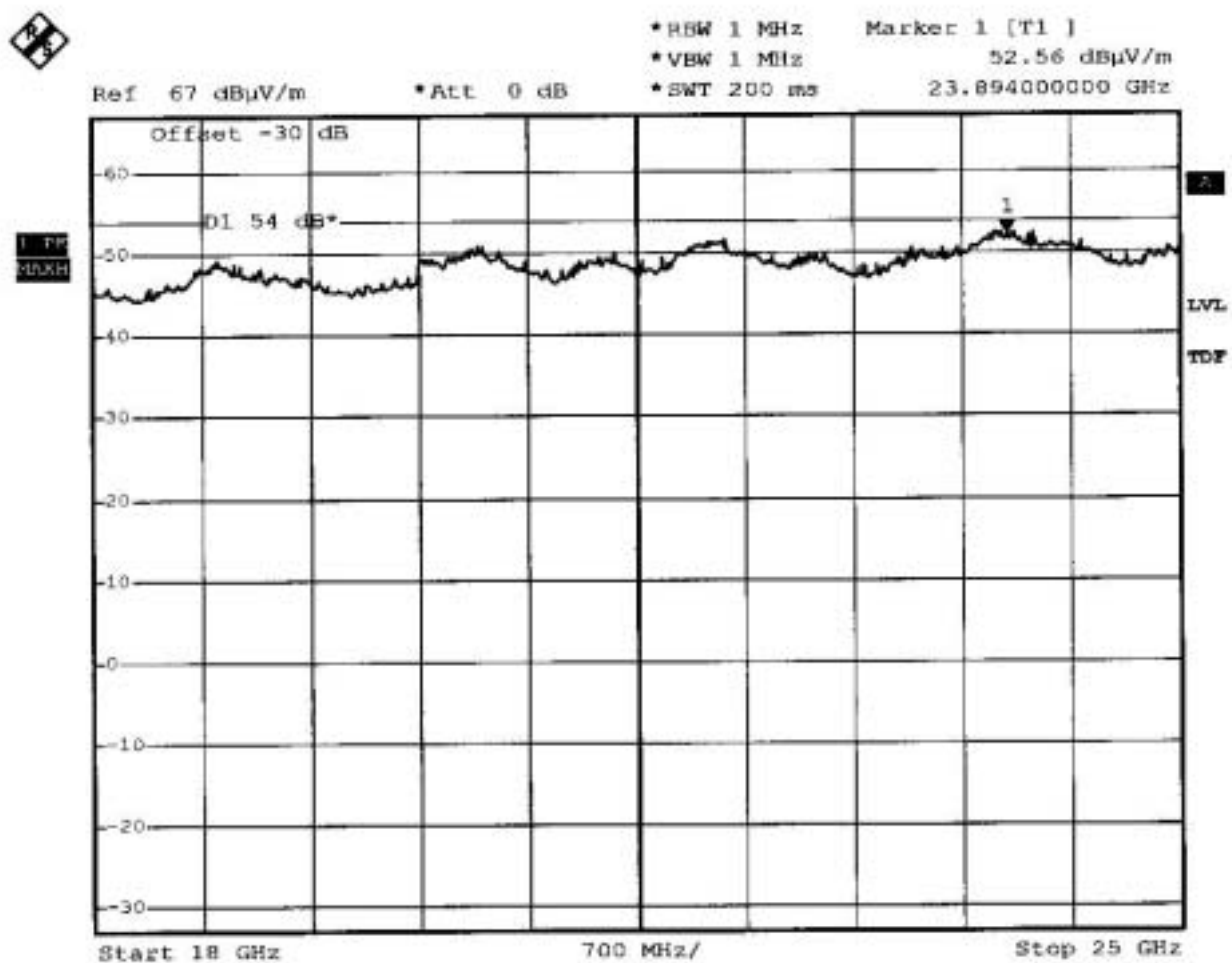


Transmit at channel 3 , 18Ghz to 25Ghz

Vertical

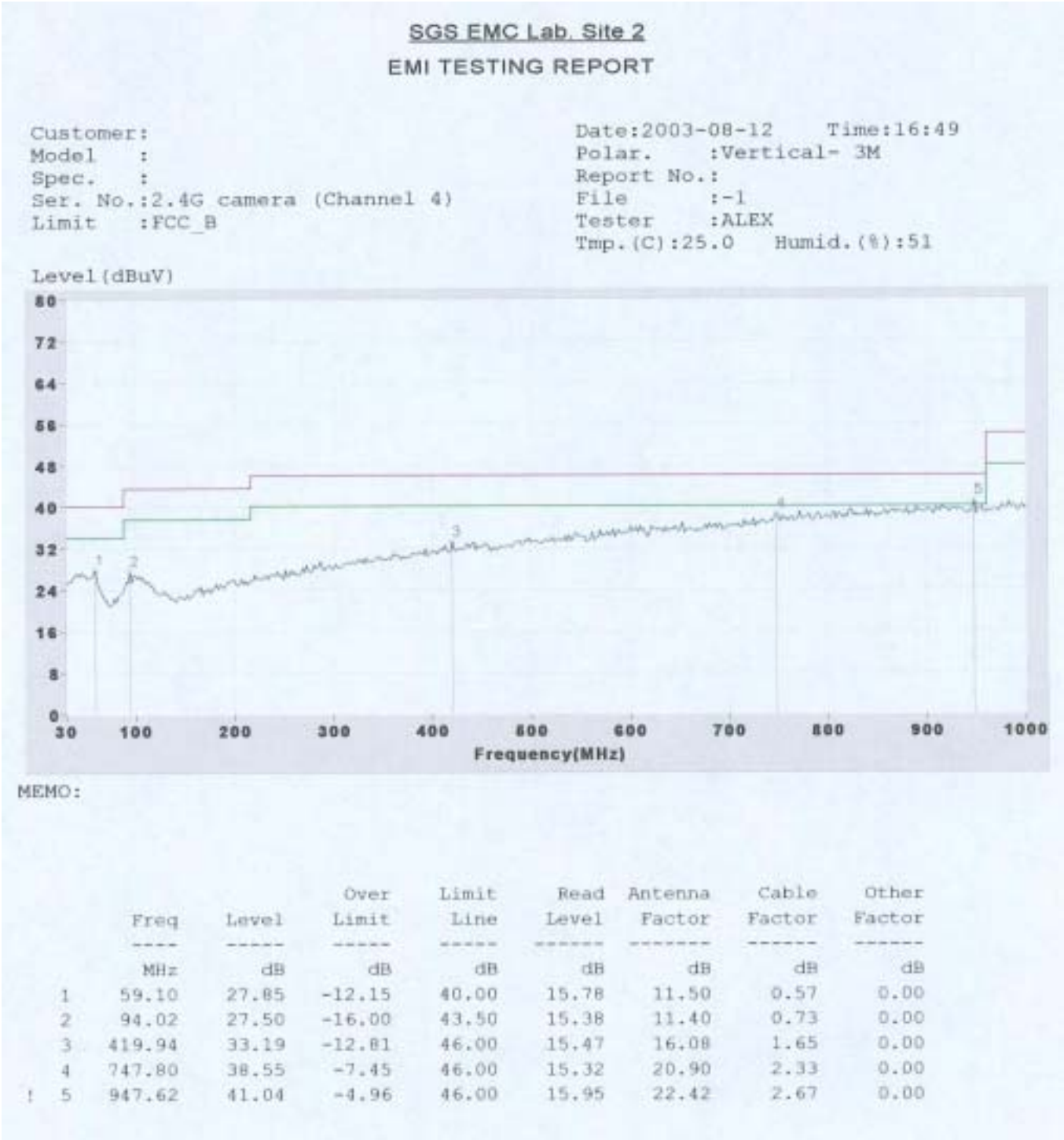


Horizontal

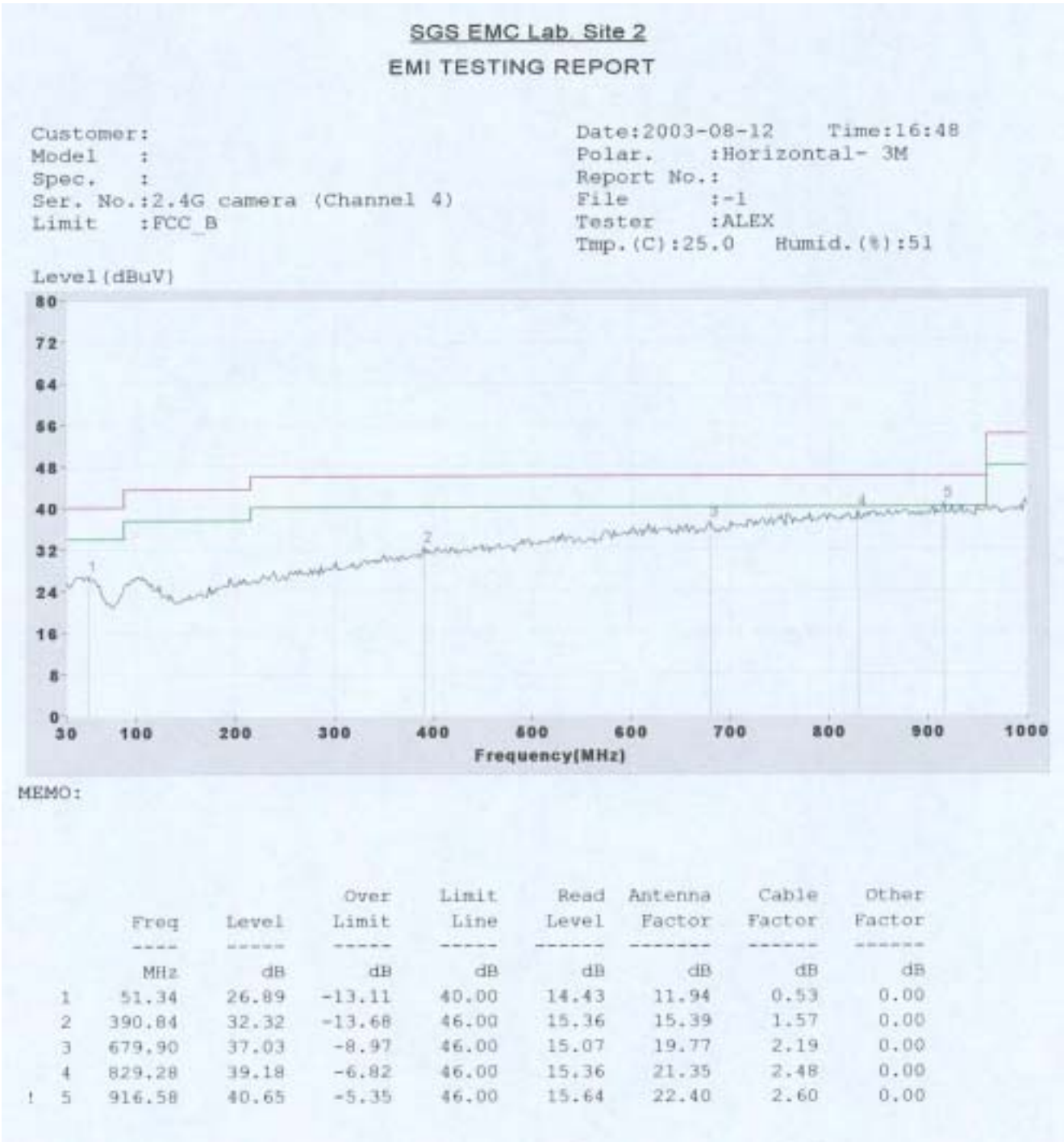


Part4: Transmit at channel 4 , 30Mhz to 1Ghz

Vertical

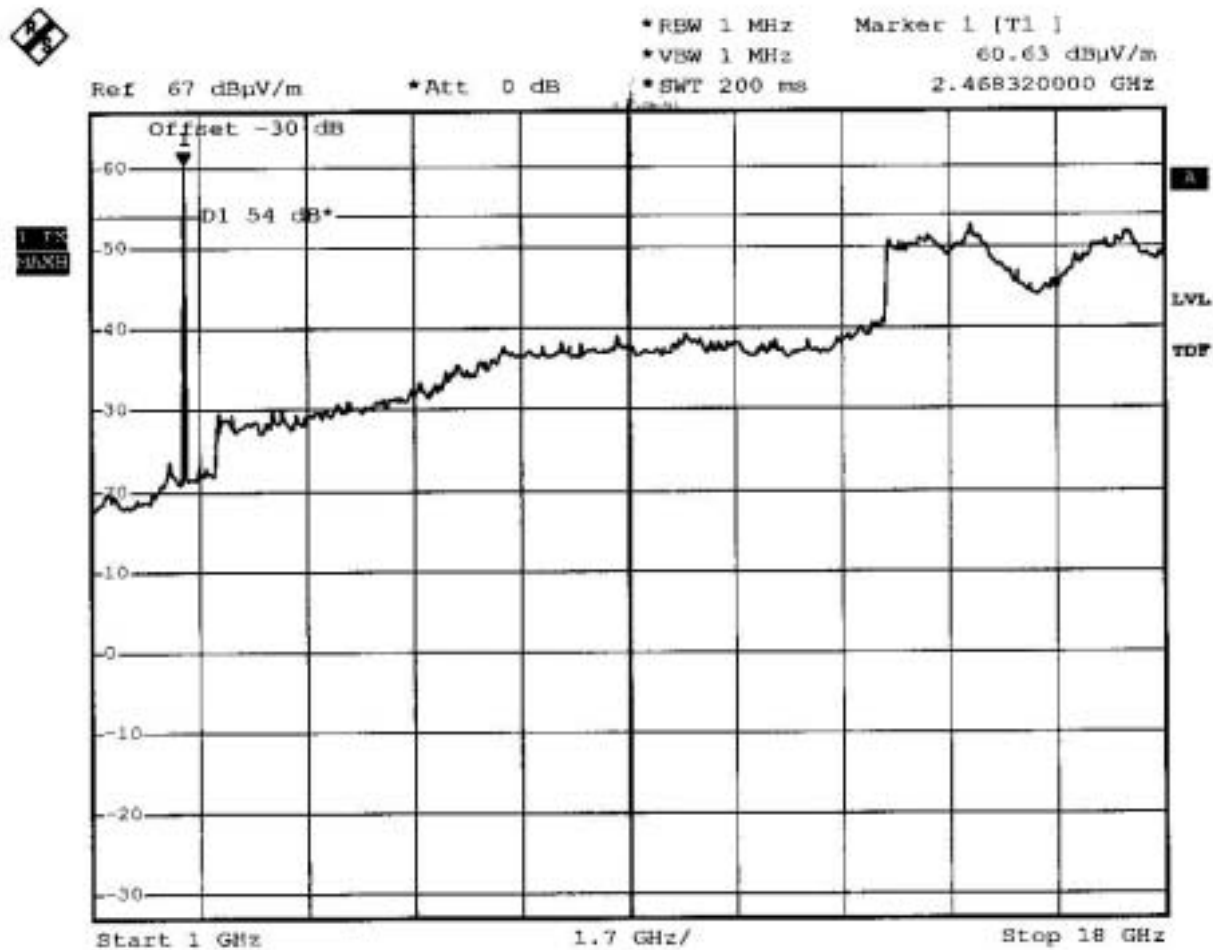


Horizontal

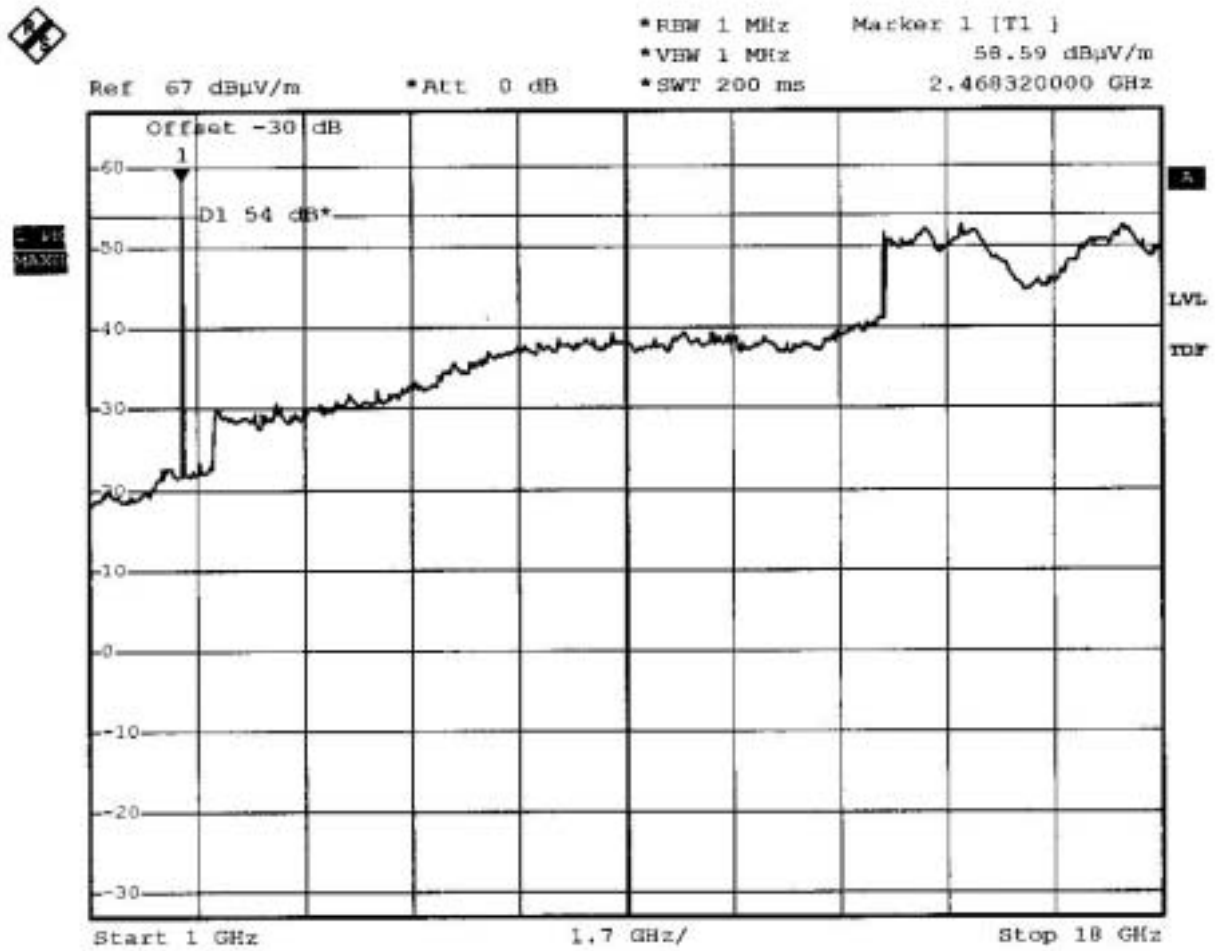


Transmit at channel 4 , 1Ghz to 18Ghz

Vertical

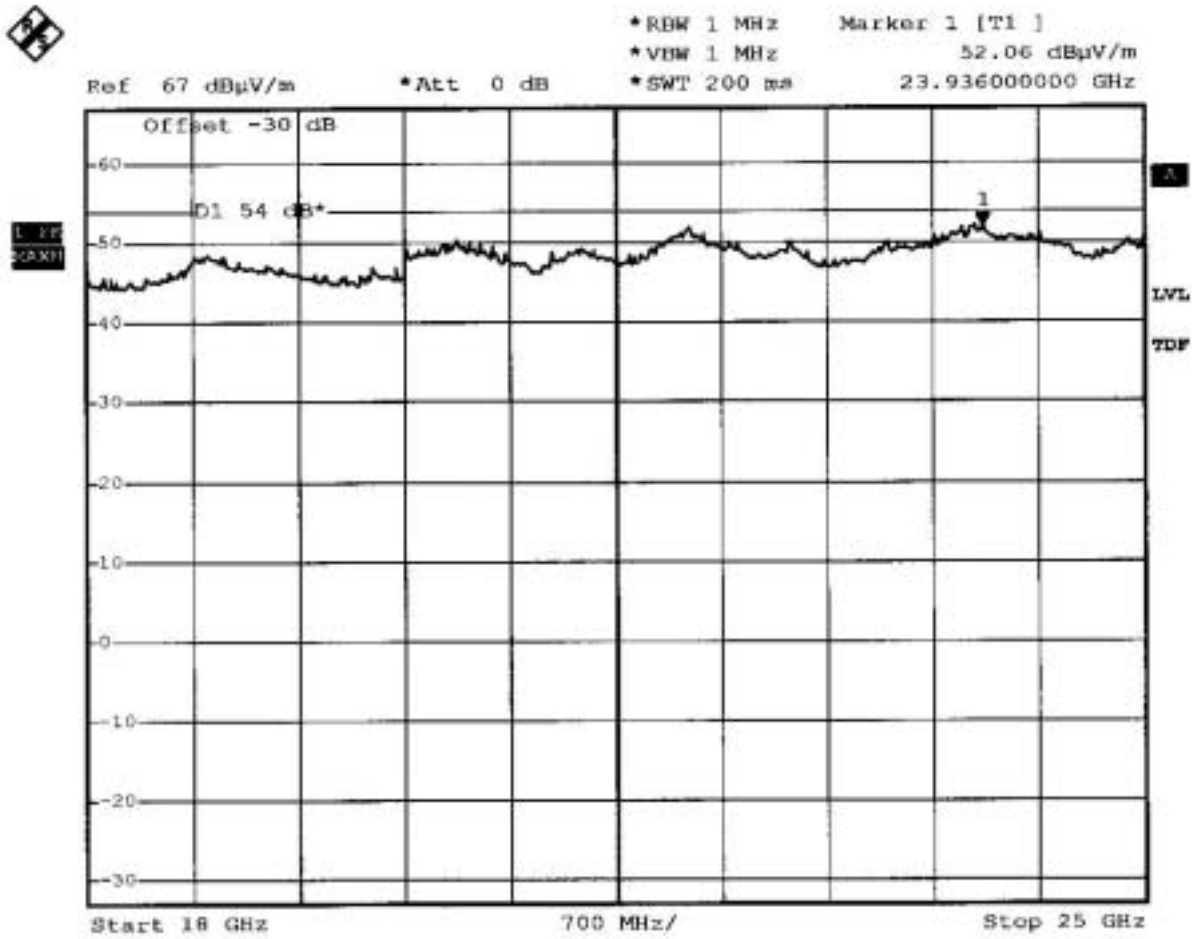


Horizontal

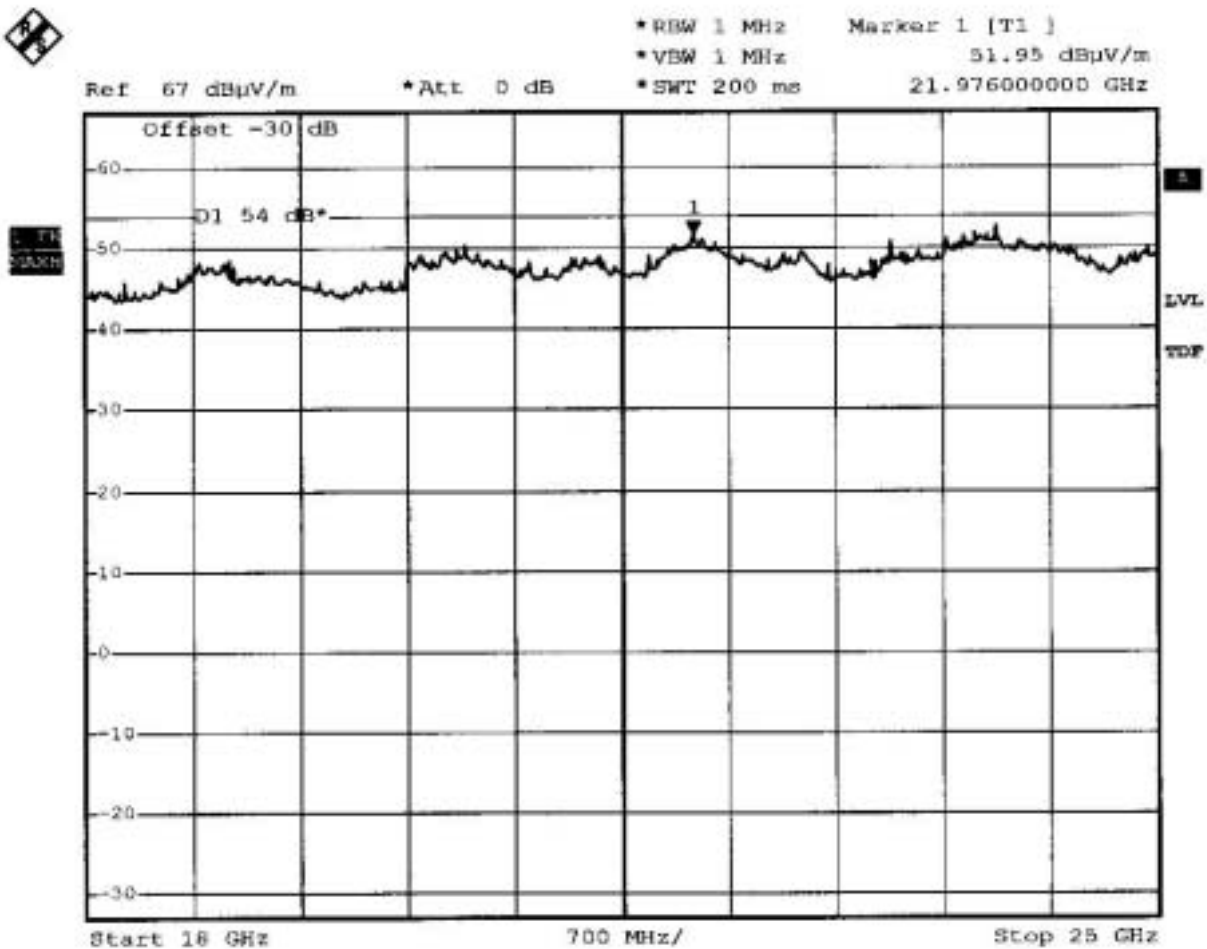


Transmit at channel 4 , 18Ghz to 25Ghz

Vertical



Horizontal

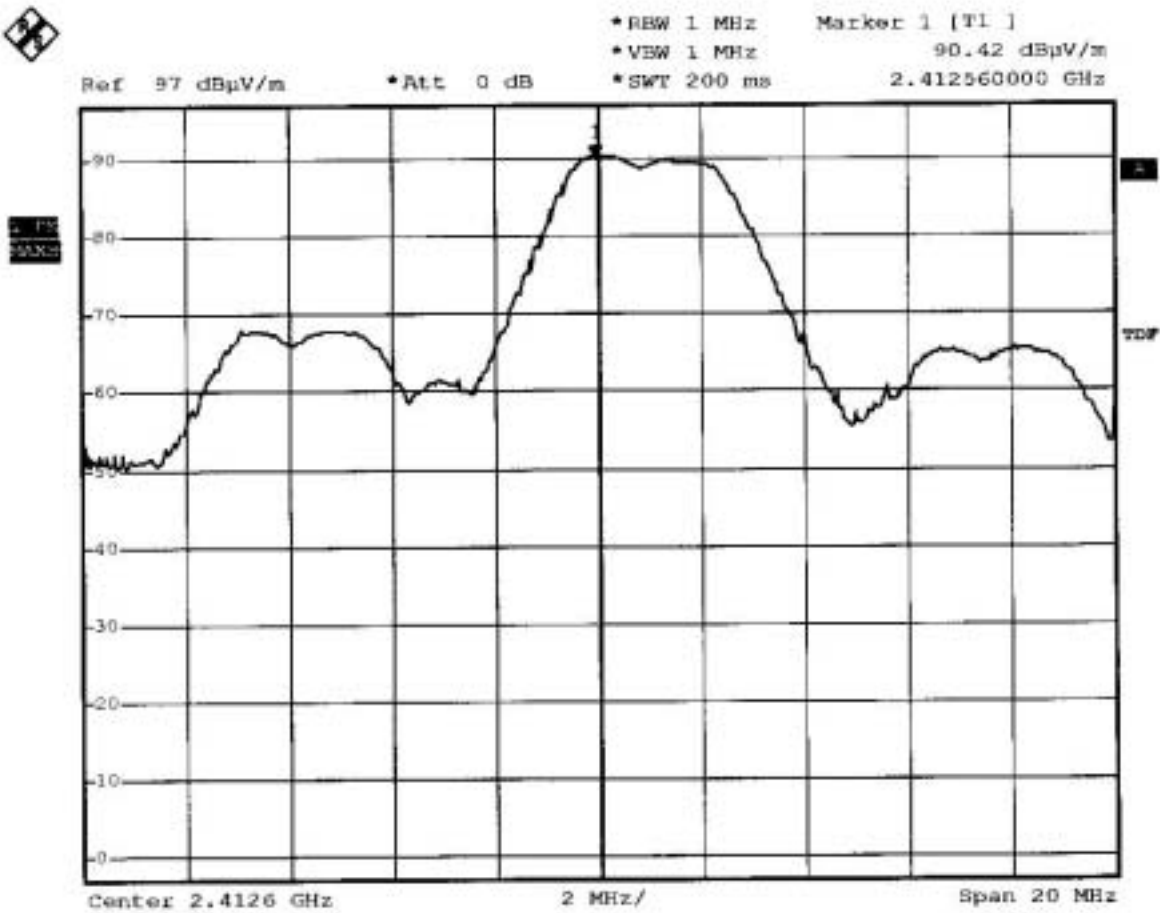


4.2.1 Limits

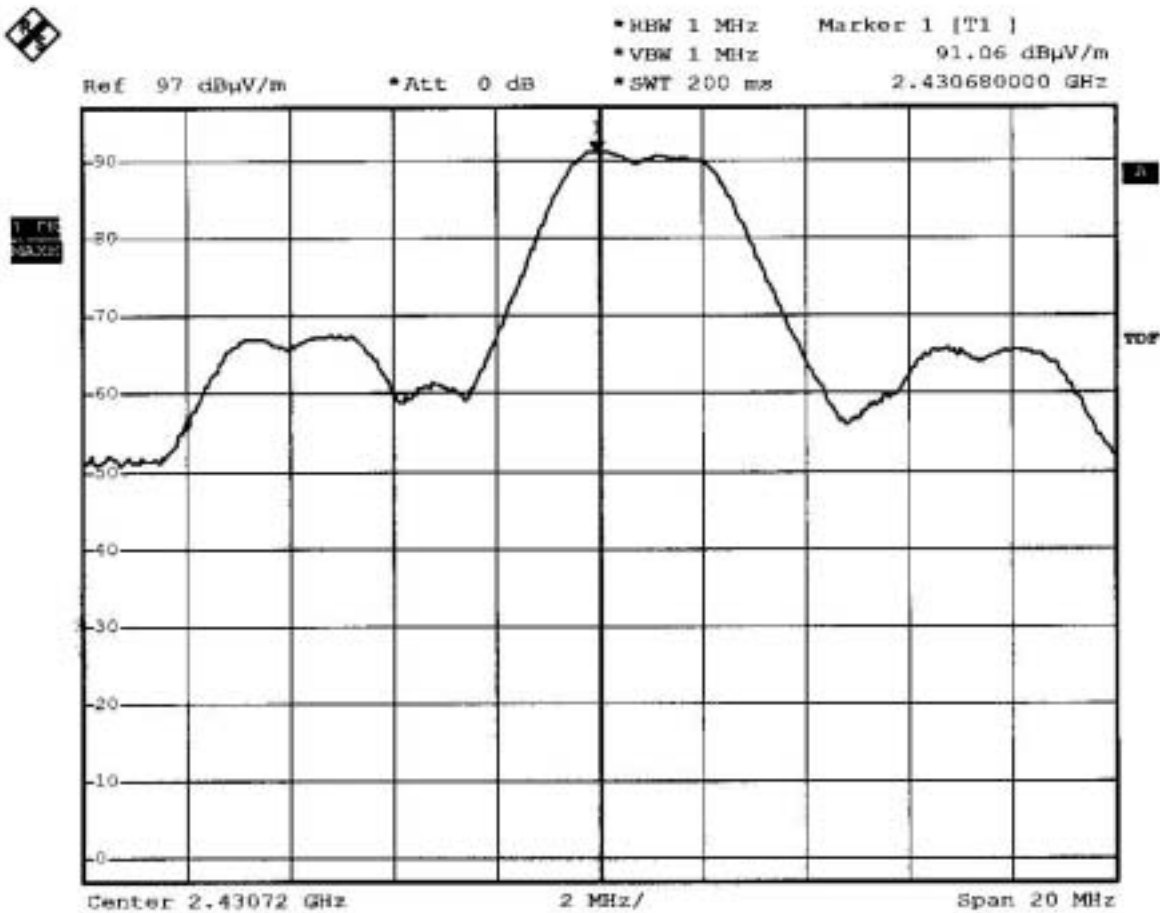
| Frequency (MHz) | Field Strength (microvolts/meter) | Measurement Distance (meters) |
|--------------------|--------------------------------------|----------------------------------|
| 0.009 - 0.490 | 2400/F(kHz) | 300 |
| 0.490 - 1.705 | 24000/F(kHz) | 30 |
| 1.705 - 30.0 | 30 | 30 |
| 30 - 88 | 100 ** | 3 |
| 88 - 216 | 150 ** | 3 |
| 216 - 960 | 200 ** | 3 |
| Above 960 | 500 | 3 |

4.3 Field Strength of Fundamental**SUBCLAUSE15.249(a)**

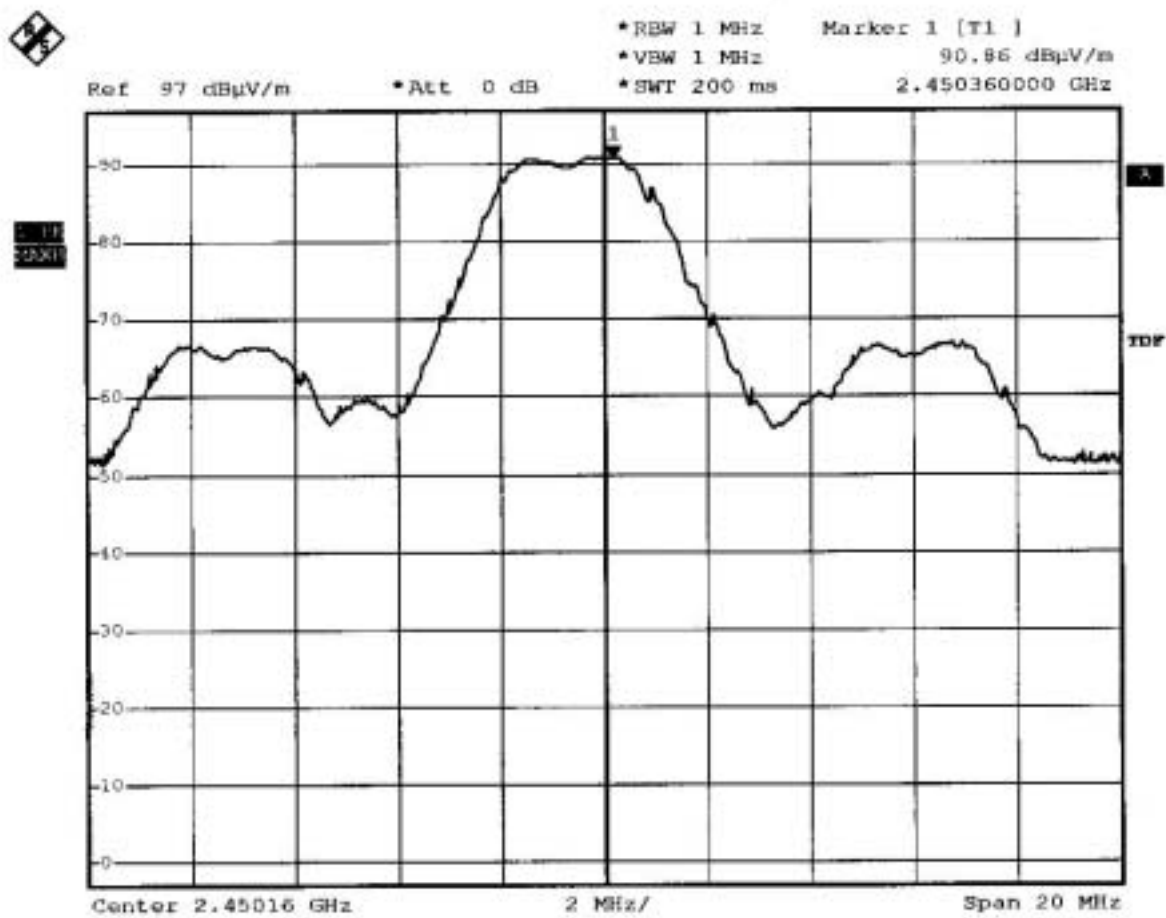
1. Channel 1



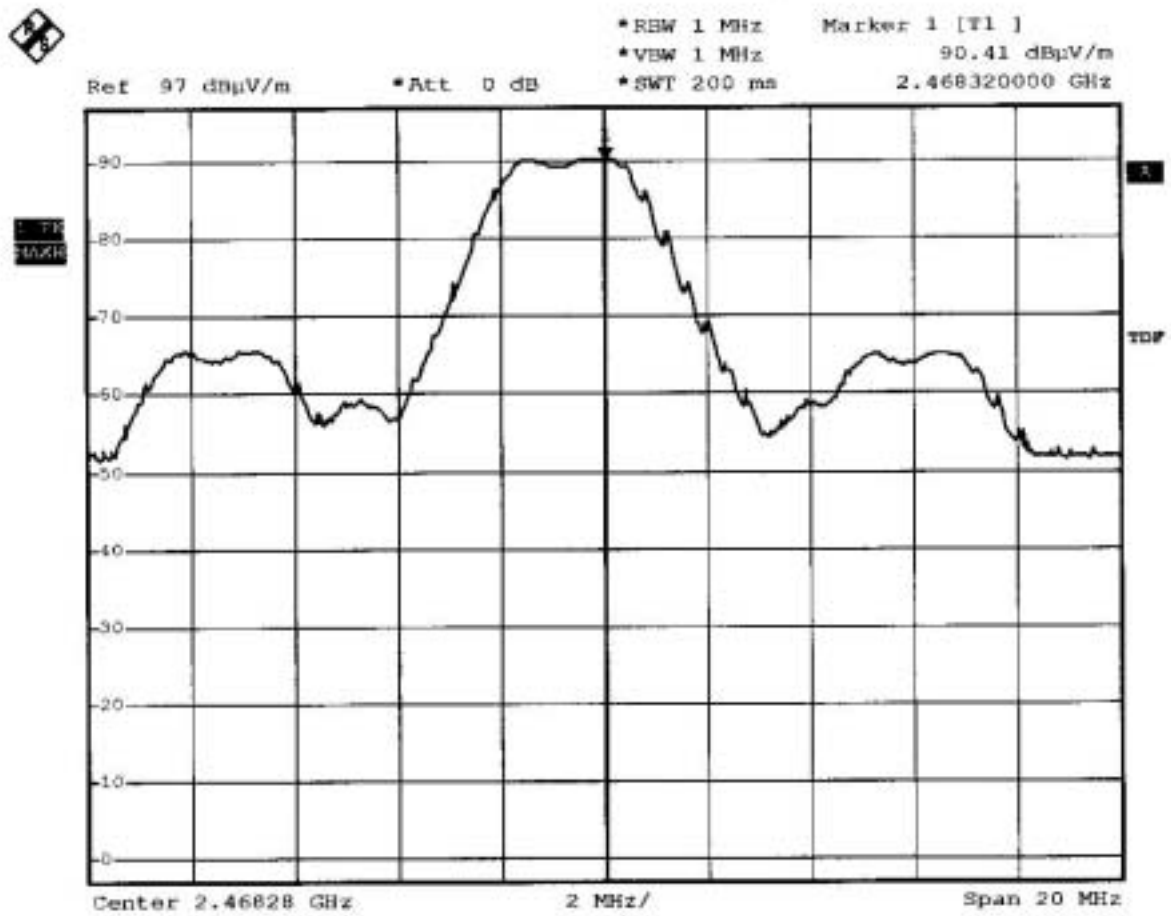
2. Channel 2



3. Channel 3



4. Channel 4



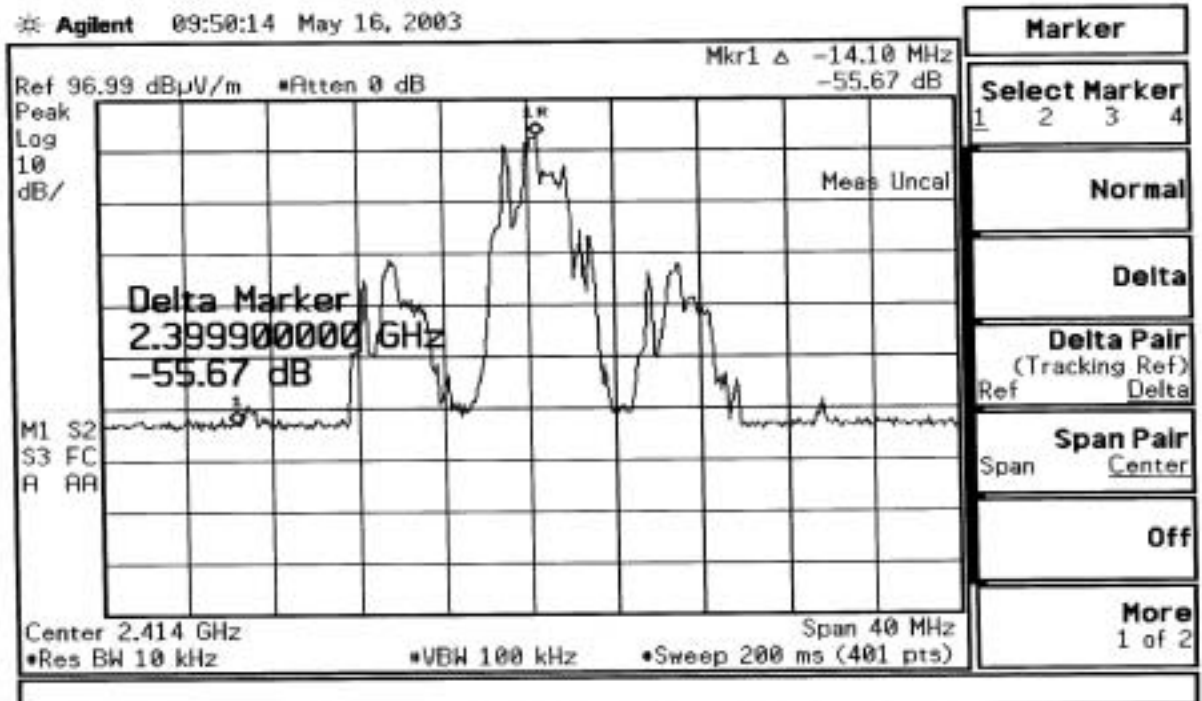
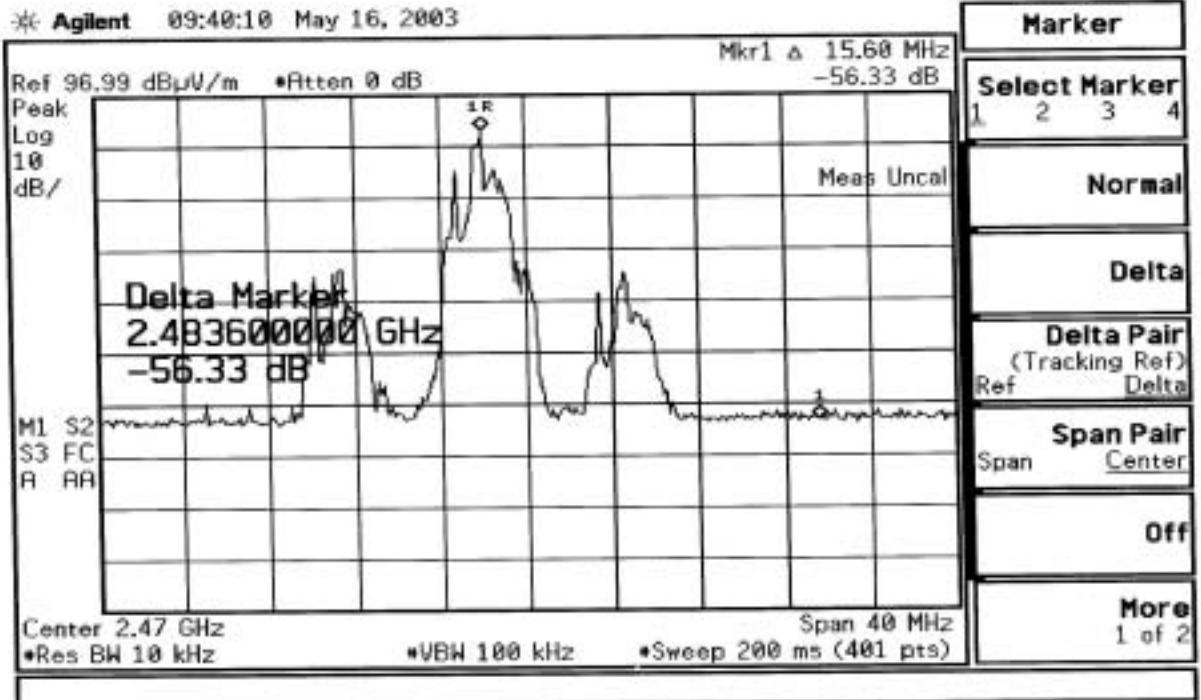
| Channel | Channel 1 | Channel 2 | Channel 3 | Channel 4 |
|-----------------------------------|-----------|-----------|-----------|-----------|
| Field Strength(dBuV/m) at 3 meter | 90.42 | 91.06 | 90.86 | 90.41 |

4.3.1 Limit

| Fundamental Frequency | Field Strength of Fundamental (millivolts/meter) | Field Strength of Harmonics (microvolts/meter) |
|--------------------------|--|--|
| 902 - 928 MHz | 50 | 500 |
| 2400 - 2483.5 MHz | 50 | 500 |
| 5725 - 5875 MHz | 50 | 500 |
| 24.0 - 24.25 GHz | 250 | 2500 |

4.4 Band-Edge Emission

SUBCLAUSE 15.249(d)



| | Lower edge (2400Mhz) | Upper edge (2483.5Mhz) |
|--------------------------|---------------------------------|-----------------------------------|
| Peak to band edge | 56.33 db | 55.67 db |

4.4.1 Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in section 15.209, whichever is the lesser attenuation.

APPENDIX: Photographs of Test Setup

<Photos are saved seperately>

APPENDIX : Photographs of EUT

Internal photos

<The Photos are saved separately >

External photos

<The Photos are saved separately >