

4.6 BAND EDGES MEASUREMENT

4.6.1 LIMITS OF BAND EDGES MEASUREMENT

Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

4.6.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
SPECTRUM ANALYZER	FSEK30	100049	Aug. 12, 2005

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.6.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low loss cable. Set both RBW and VBW of spectrum analyzer to 1MHz and 10Hz with suitable frequency span including 100 MHz bandwidth from band edge. The band edges was measured and recorded.

The spectrum plots (Peak RBW=VBW=100kHz ; Average RBW=1MHz, VBW=1kHz) are attached on the following pages.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

4.6.5 EUT OPERATING CONDITION

Same as Item 4.3.6

4.6.6 TEST RESULTS

The spectrum plots are attached on the following 12 pages. D2 line indicates the highest level, D1 line indicates the 20dB offset below D2. It shows compliance with the requirement in part 15.247(d).

4.6.7 TEST RESULTS(A)

NOTE:

The band edge emission plot of DSSS technique on page 56 show 57.88dB between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.8 is 108.70dBuV/m (Peak), so the maximum field strength in restrict band is $108.70 - 57.88 = 50.82$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot of DSSS technique on page 57 show 58.43dB between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.8 is 102.70dBuV/m (Average), so the maximum field strength in restrict band is $102.70 - 58.43 = 44.27$ dBuV/m which is under 54dBuV/m limit.

The band edge emission plot of DSSS technique on page 59 show 55.89 dB between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.8 is 108.84dBuV/m (Peak), so the maximum field strength in restrict band is $108.84 - 55.89 = 52.95$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot of DSSS technique on page 60 show 58.09dB between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.8 is 102.51dBuV/m (Average), so the maximum field strength in restrict band is $102.51 - 58.09 = 44.42$ dBuV/m which is under 54dBuV/m limit.

4.6.8 TEST RESULTS(B)

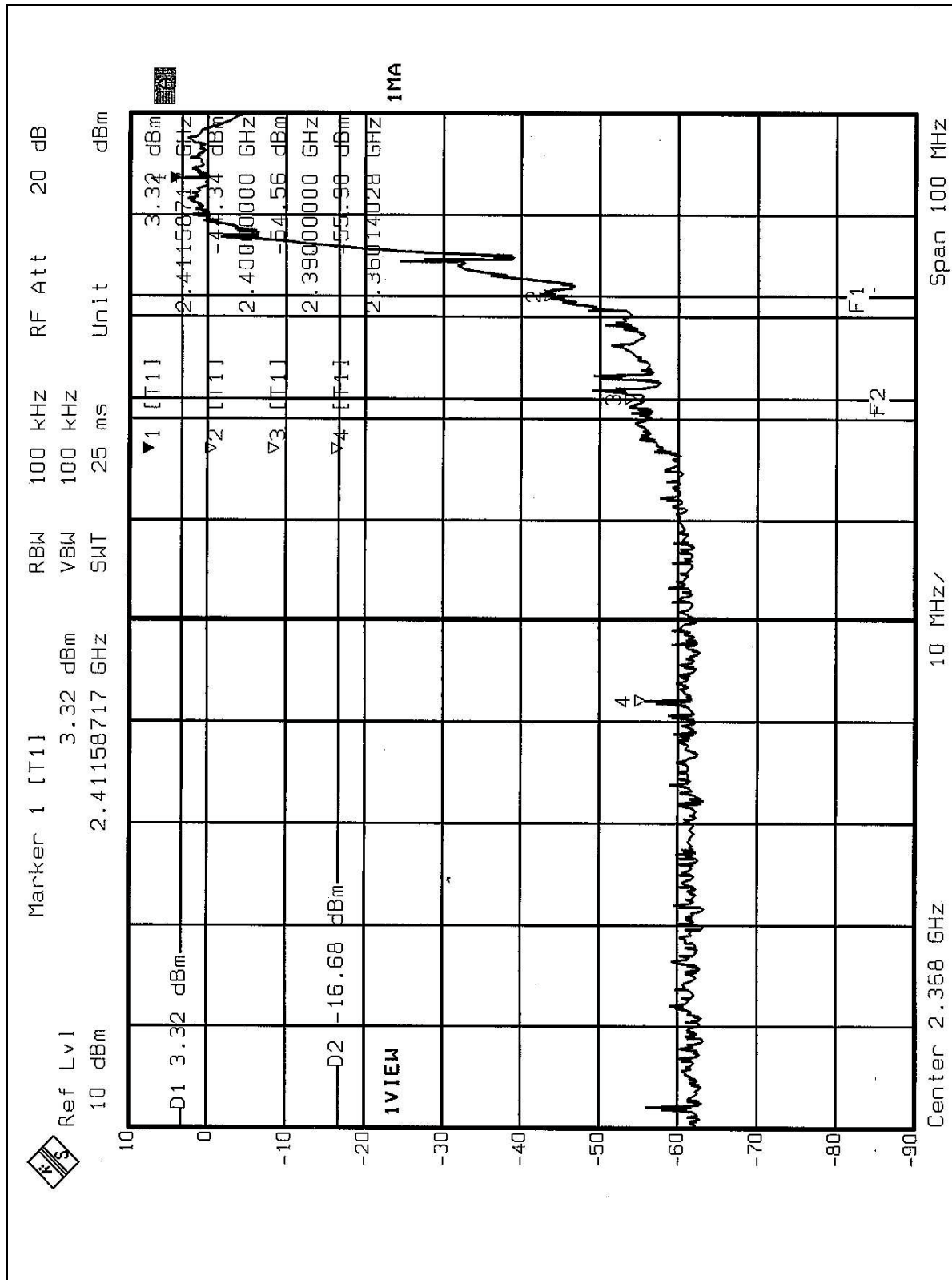
NOTE:

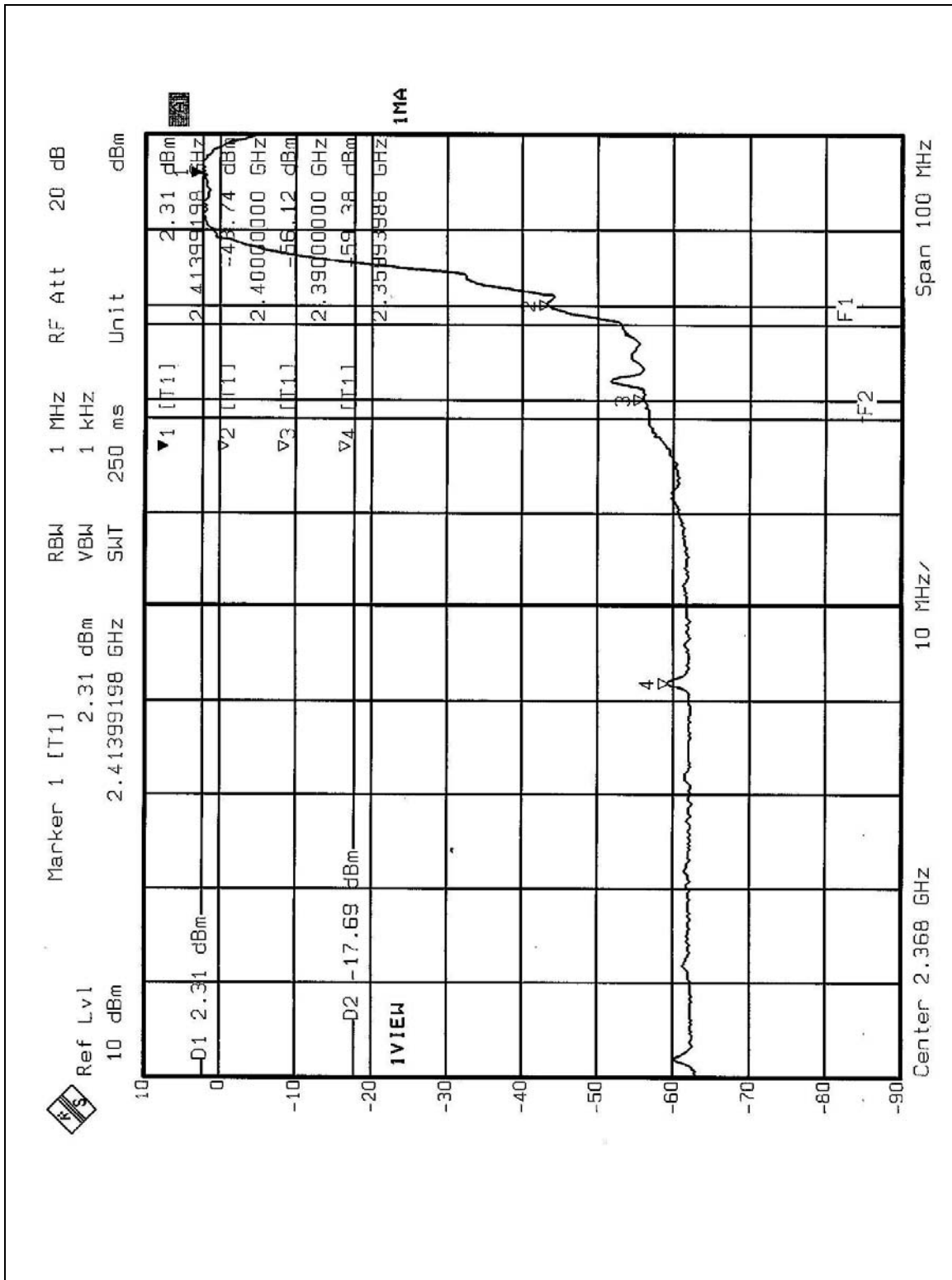
The band edge emission plot of OFDM technique on page 62 show 51.21 dB between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.8 is 108.40dBuV/m (Peak), so the maximum field strength in restrict band is $108.40 - 51.21 = 57.19$ dBuV/m which is under 74dBuV/m limit.

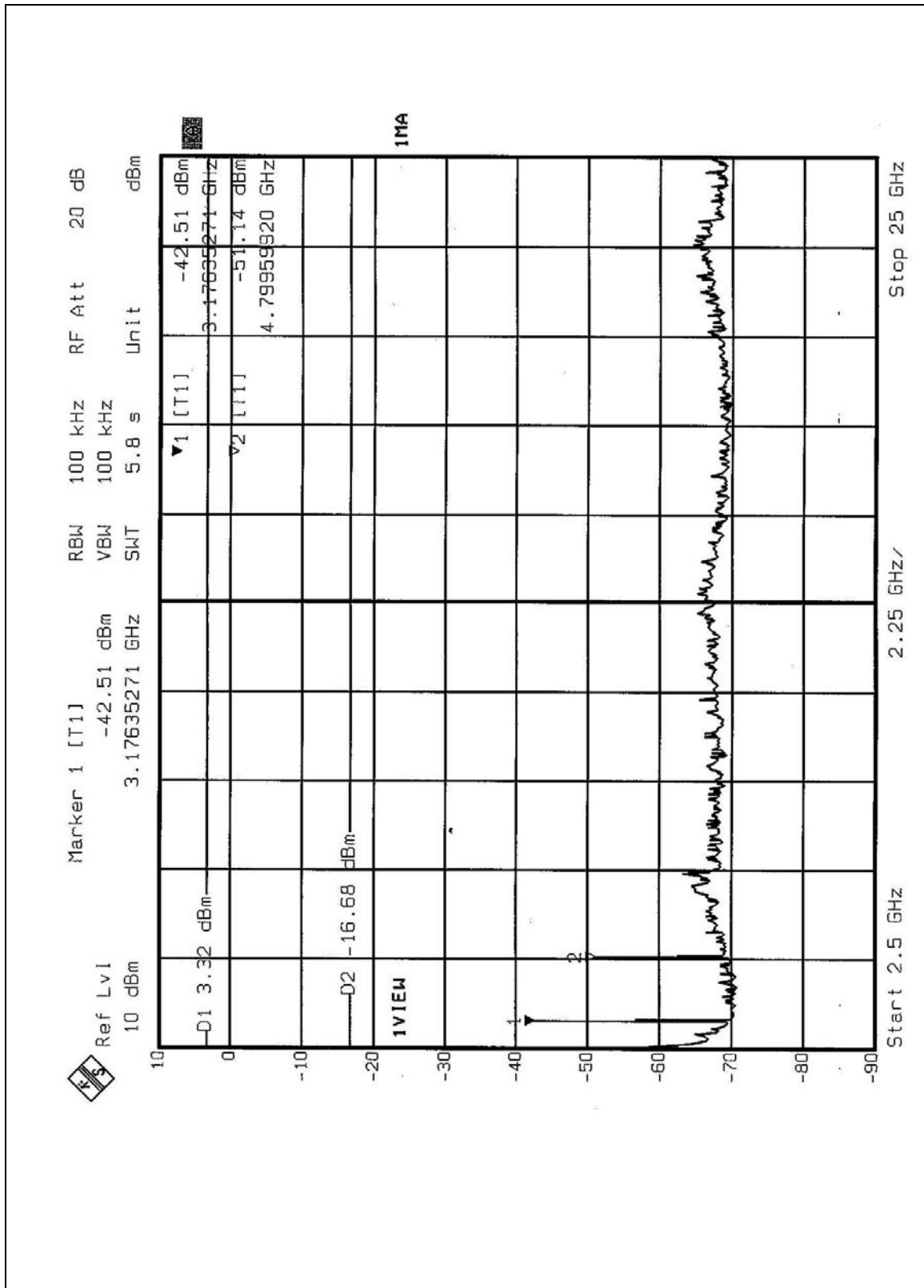
The band edge emission plot of OFDM technique on page 63 show 55.35dB between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.8 is 102.40dBuV/m (Average), so the maximum field strength in restrict band is $102.40 - 55.35 = 47.05$ dBuV/m which is under 54dBuV/m limit.

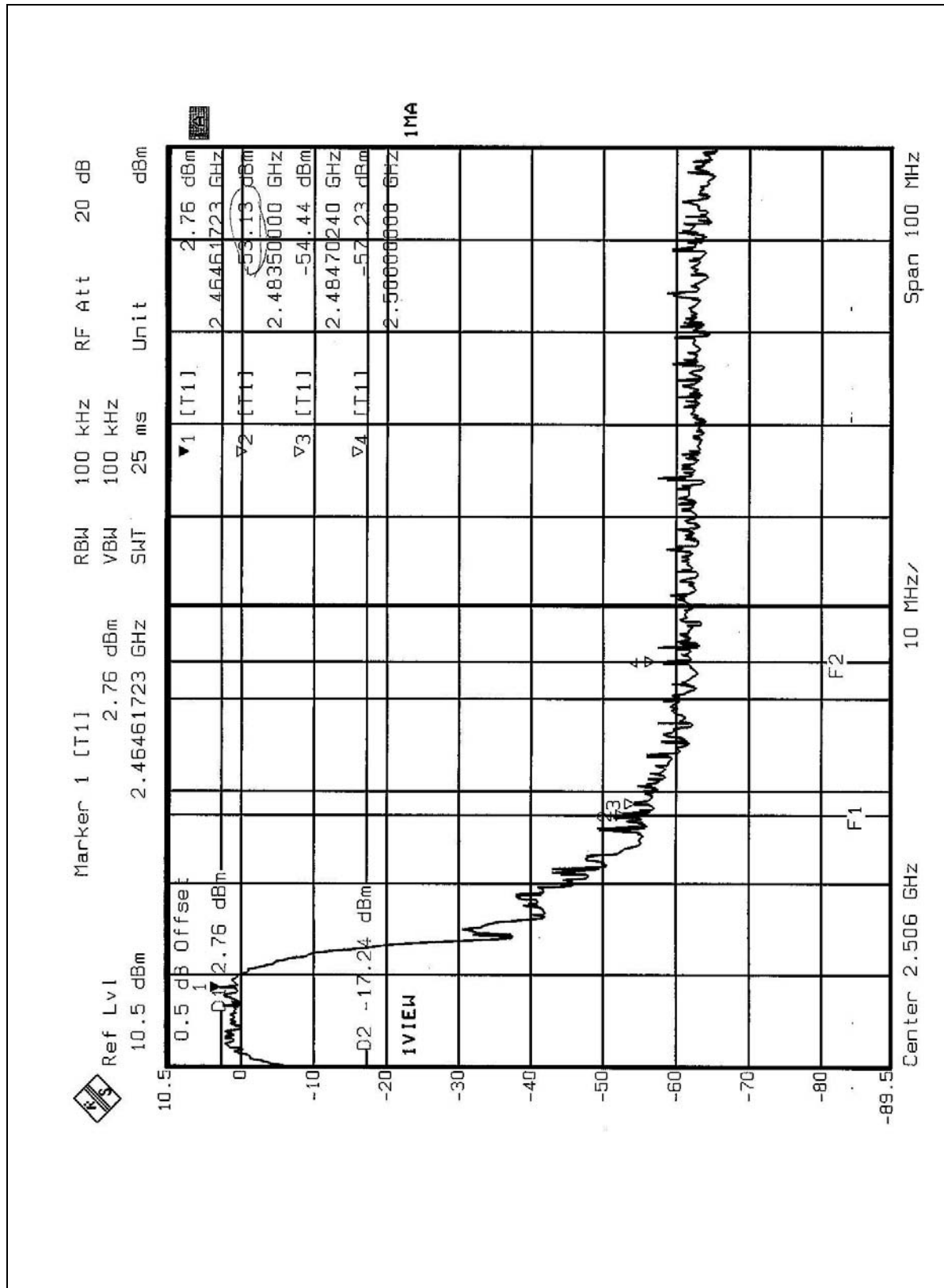
The band edge emission plot of OFDM technique on page 65 show 47.59 dB between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.8 is 108.11dBuV/m (Peak), so the maximum field strength in restrict band is $108.11 - 47.59 = 60.52$ dBuV/m which is under 74dBuV/m limit.

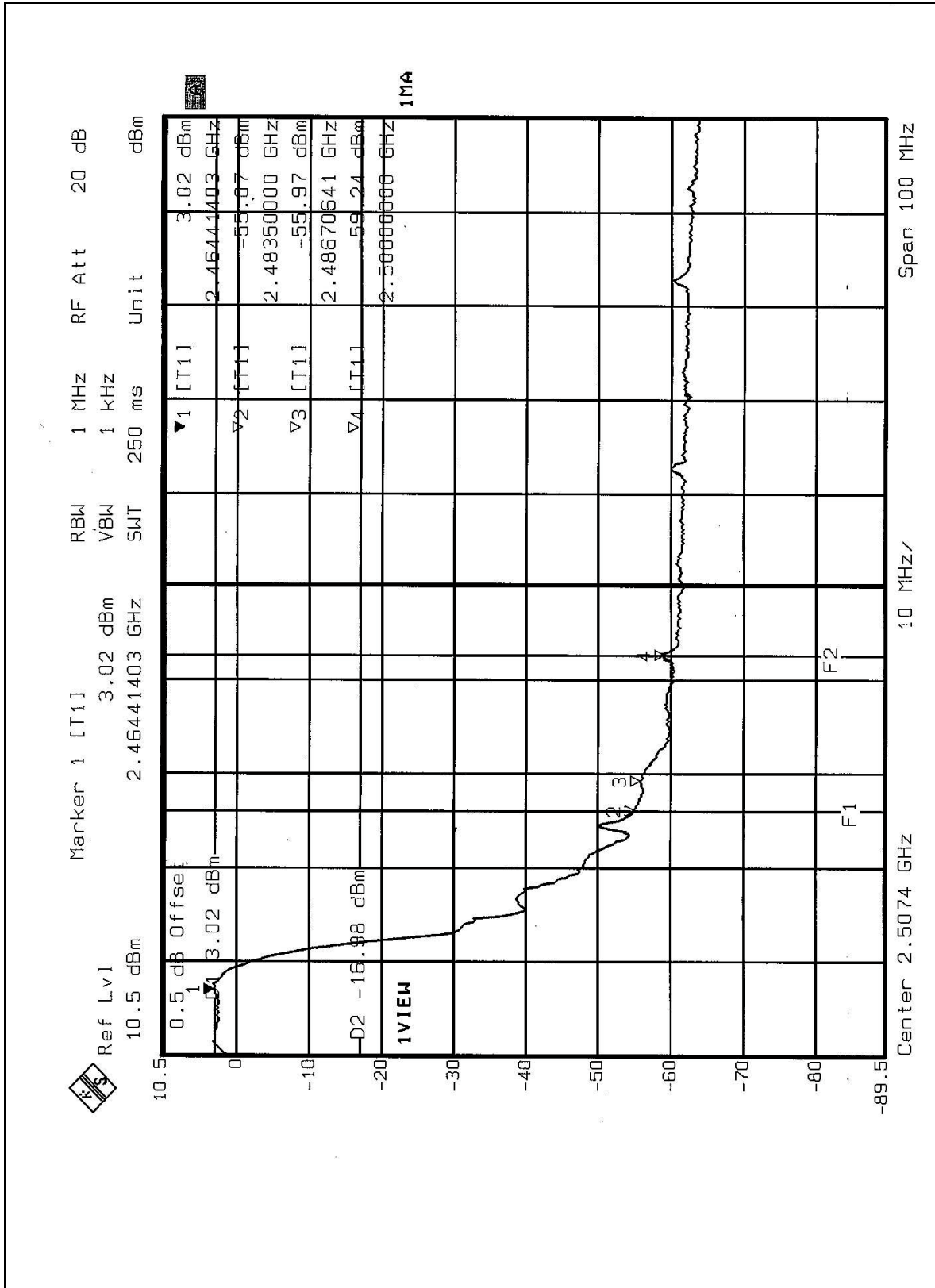
The band edge emission plot of OFDM technique on page 66 show 49.24dB between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.8 is 102.02dBuV/m (Average), so the maximum field strength in restrict band is $102.02 - 49.24 = 52.78$ dBuV/m which is under 54dBuV/m limit.

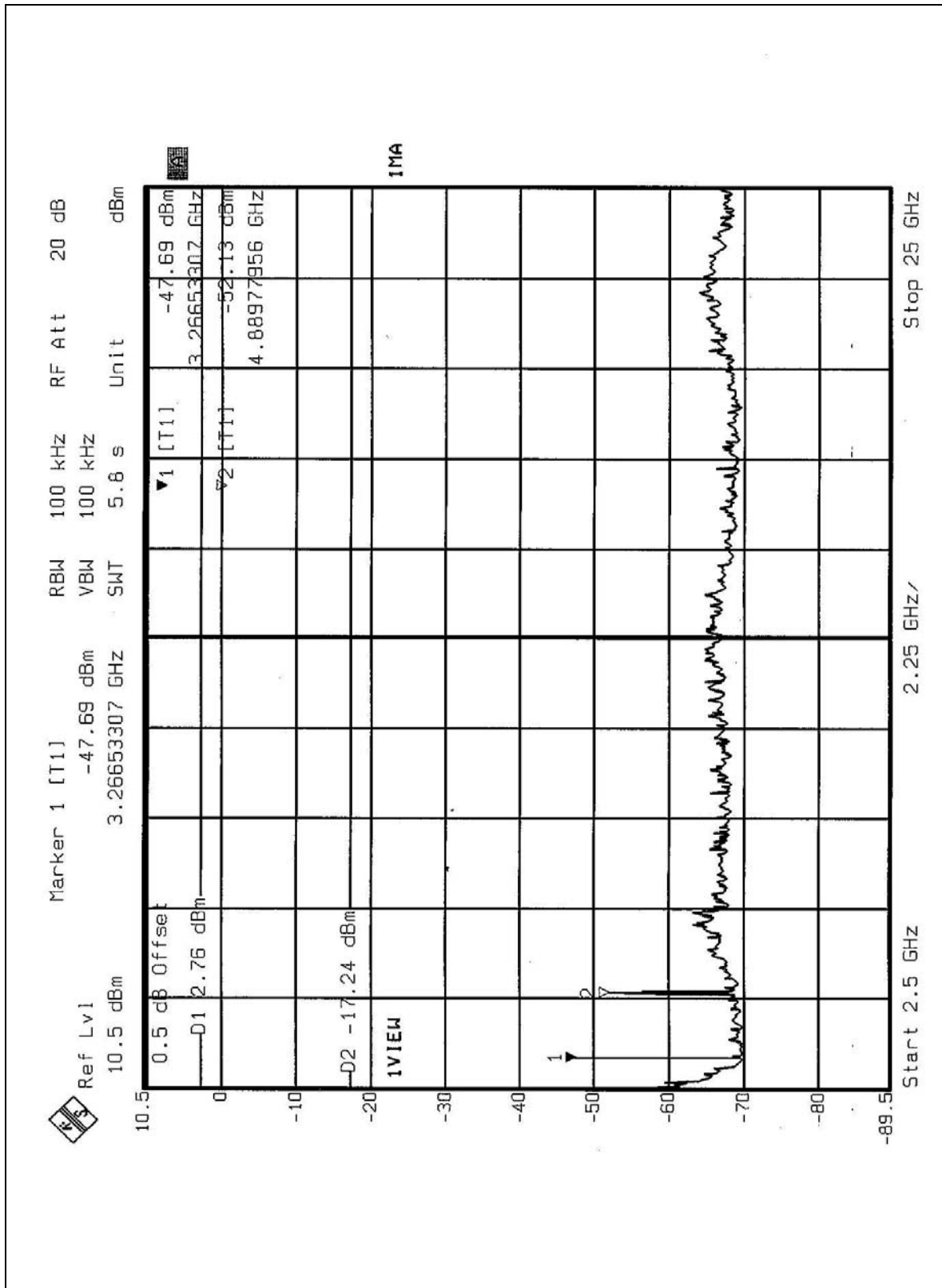


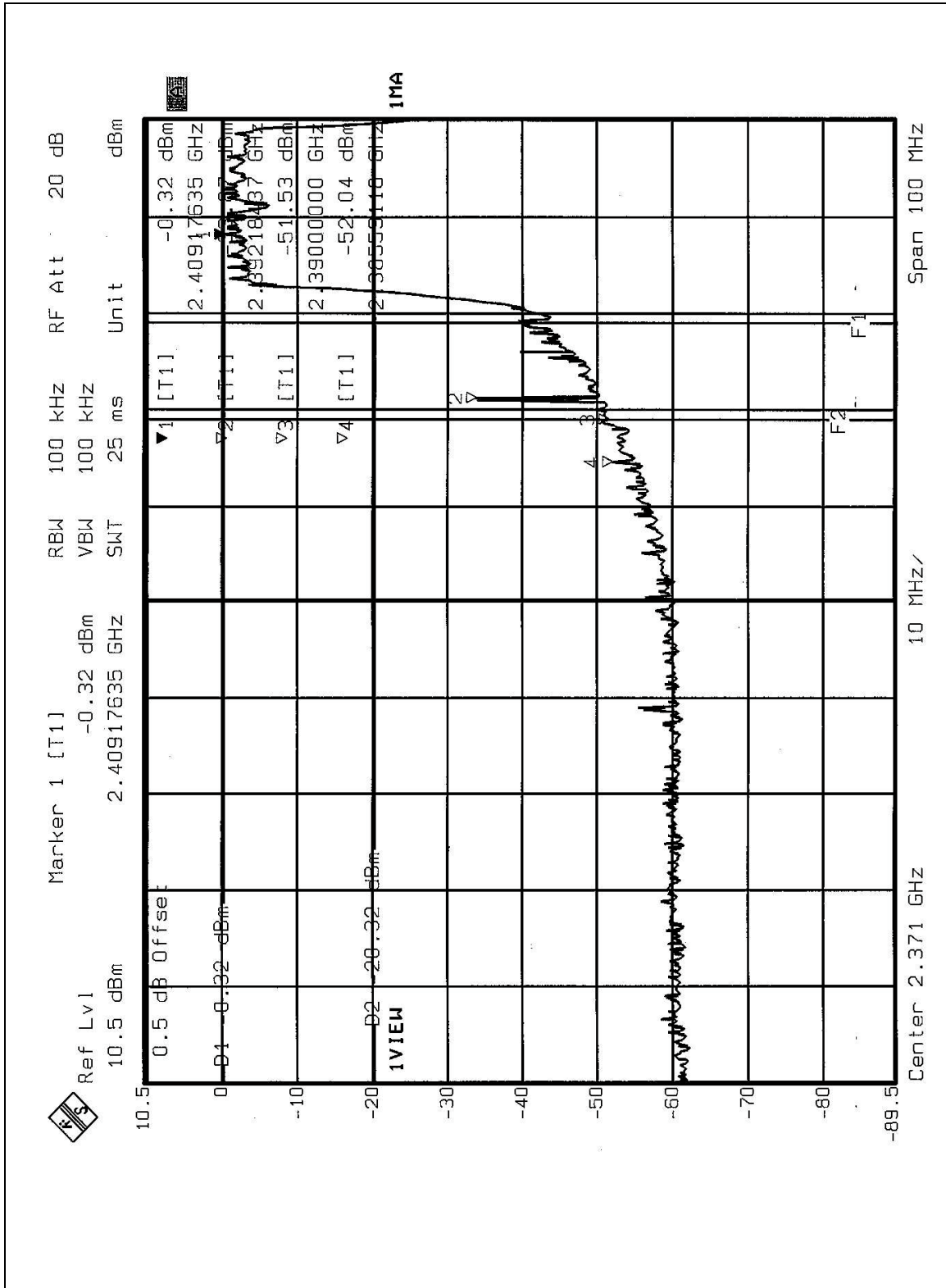


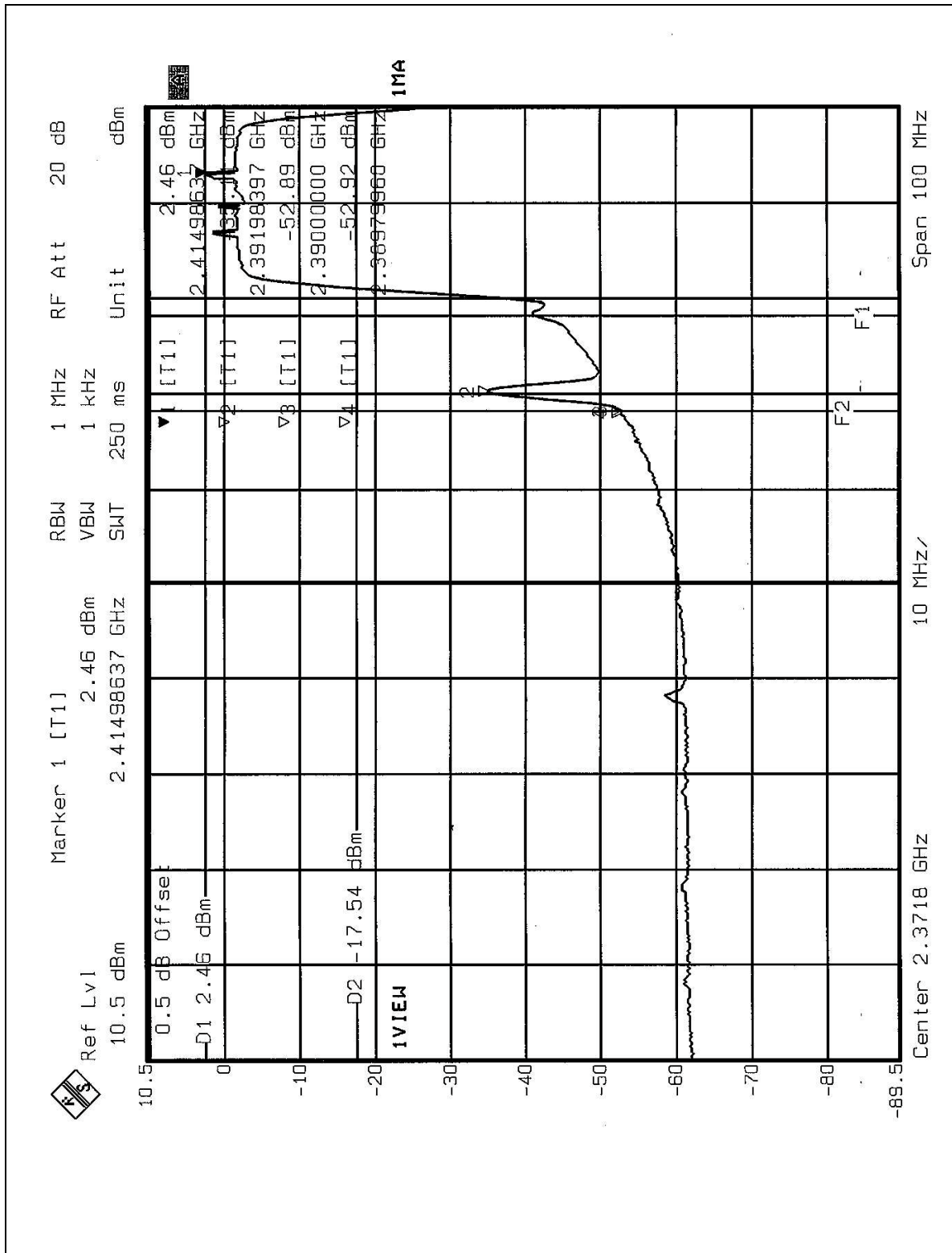


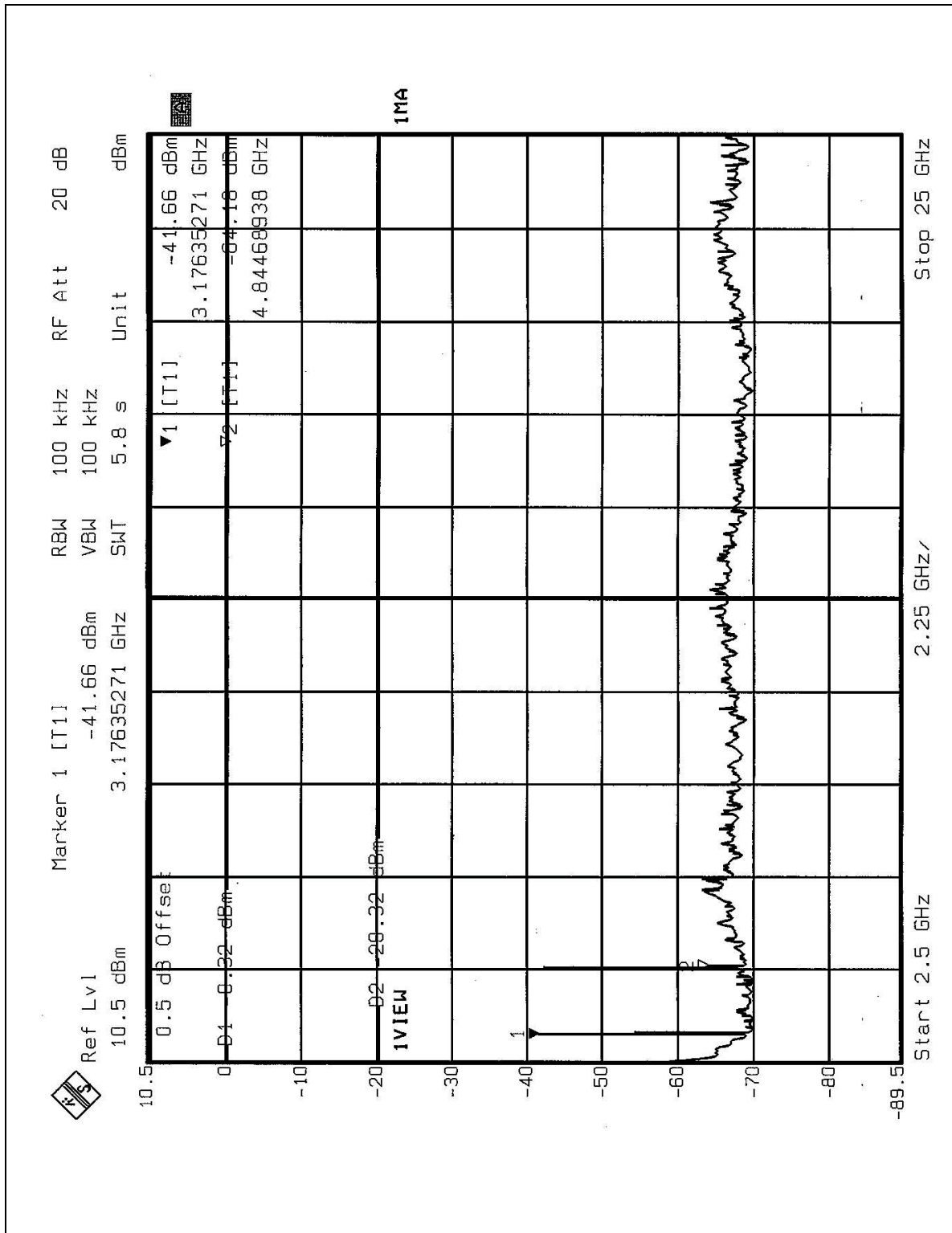


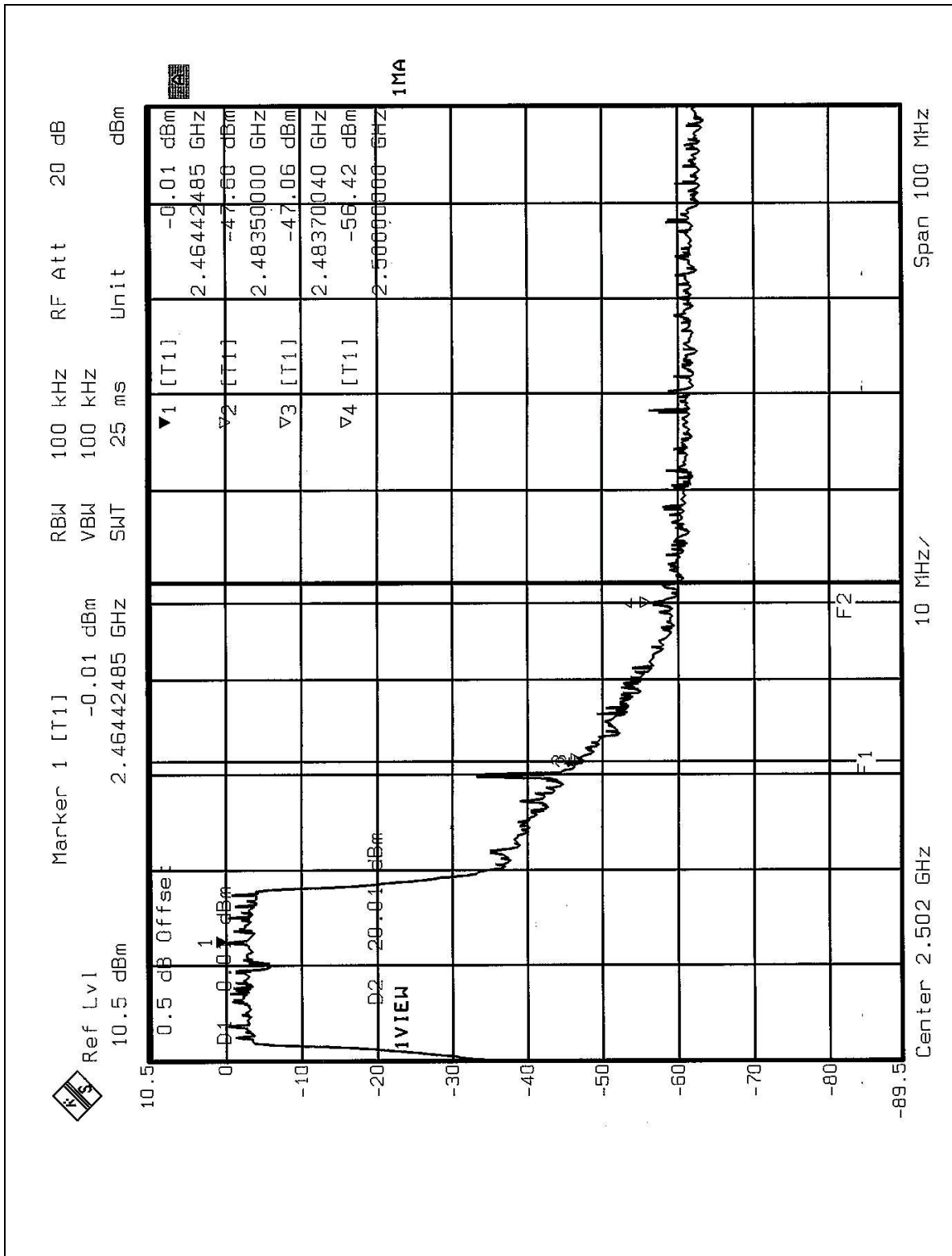


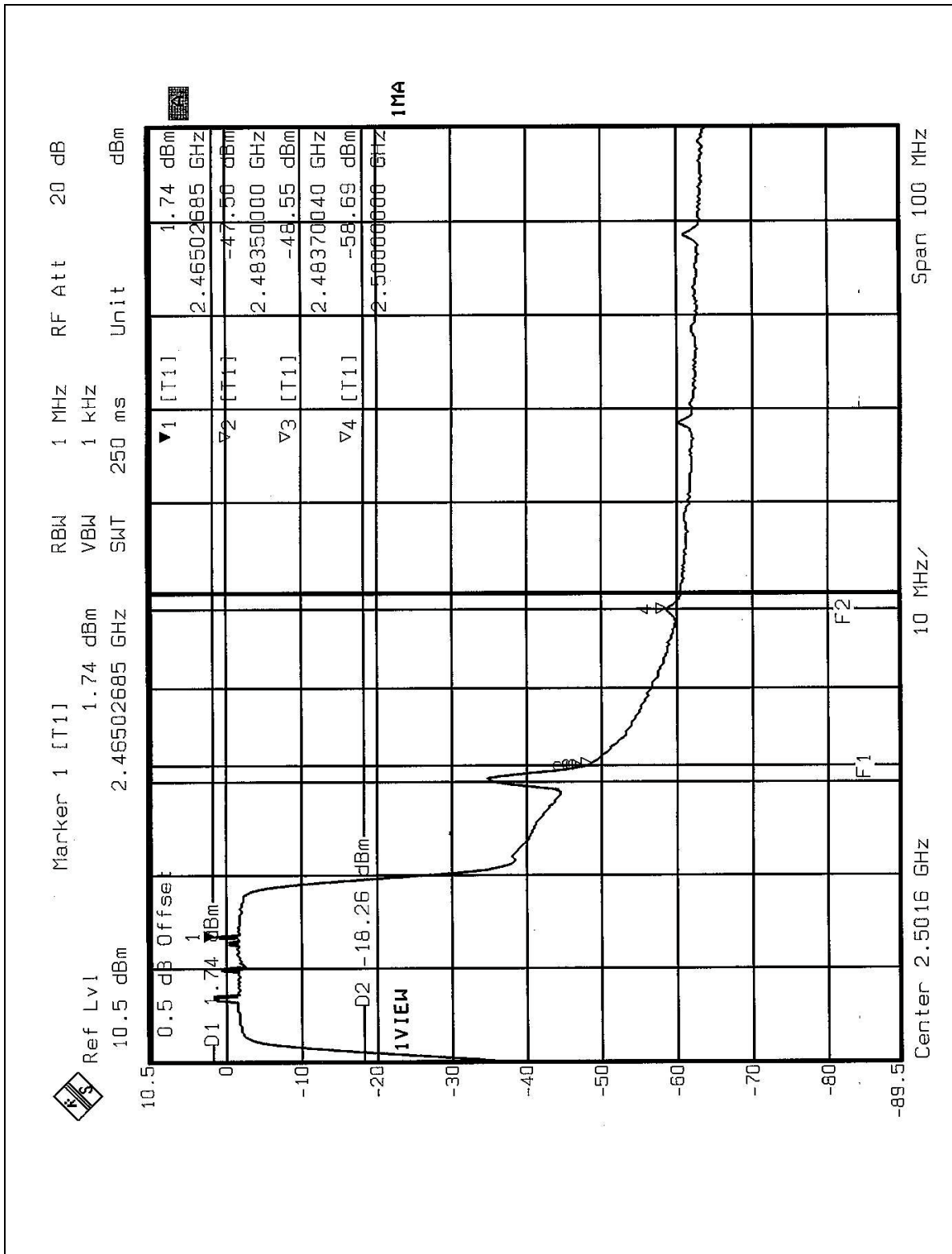


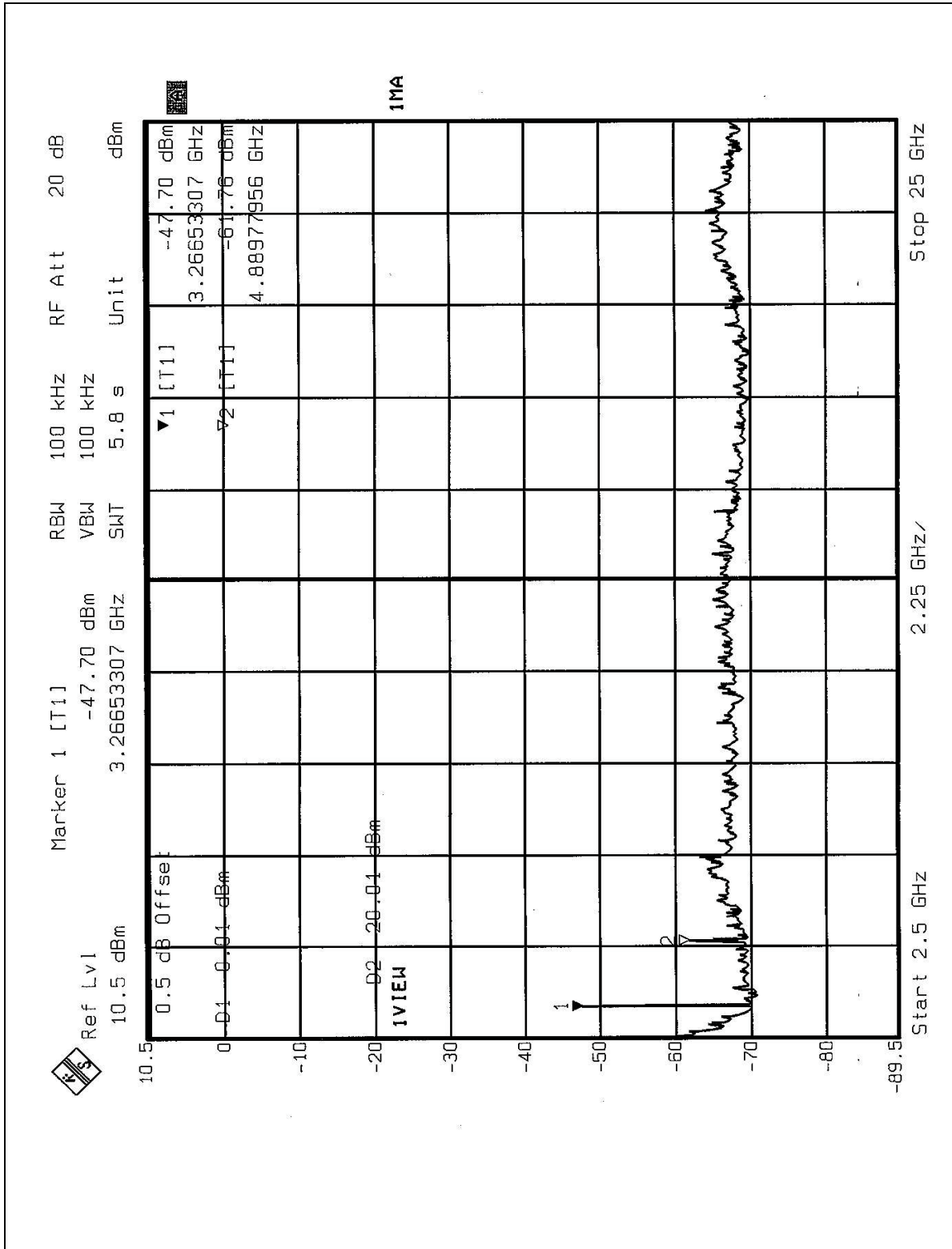














4.7 ANTENNA REQUIREMENT

4.7.1 STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

4.7.2 ANTENNA CONNECTED CONSTRUCTION

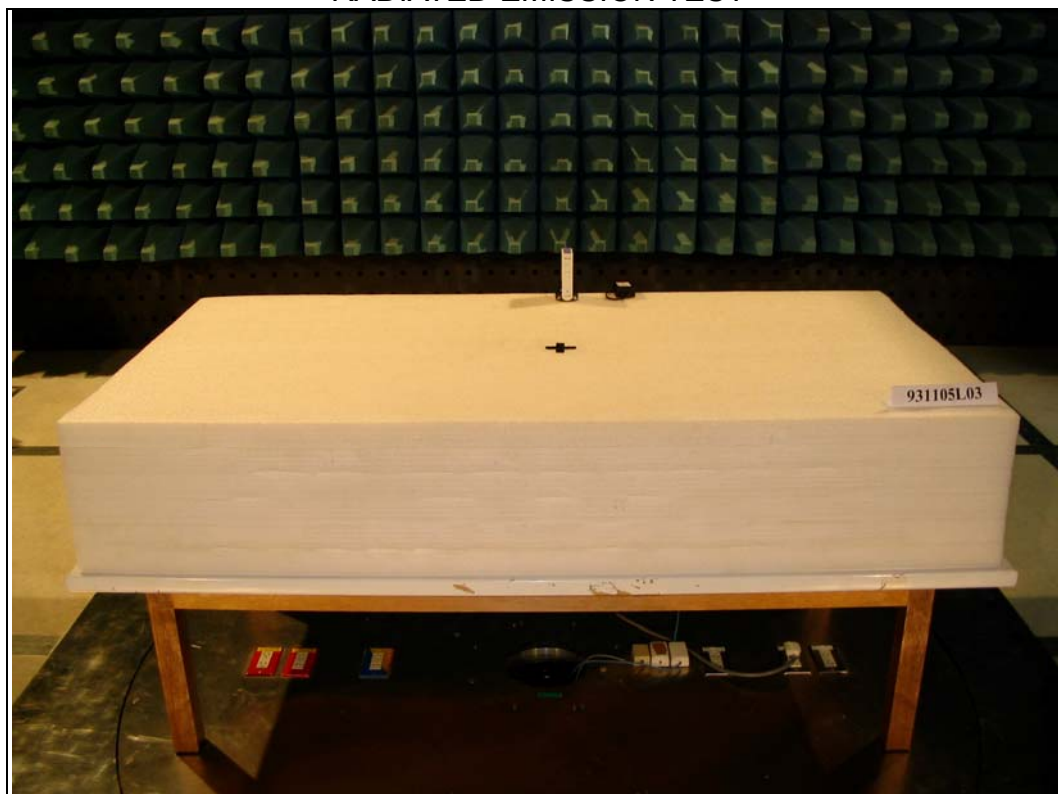
The antenna used in this product is Printed antenna without connector. And the maximum Gain of this antenna is 0.7dBi.

5 PHOTOGRAPHS OF THE TEST CONFIGURATION

CONDUCTED EMISSION TEST



RADIATED EMISSION TEST



6 INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025:

USA	FCC, NVLAP, UL, A2LA
Germany	TUV Rheinland
Japan	VCCI
Norway	NEMKO
Canada	INDUSTRY CANADA , CSA
R.O.C.	CNLA, BSMI, DGT
Netherlands	Telefication
Singapore	PSB , GOST-ASIA(MOU)
Russia	CERTIS(MOU)

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site:

www.adt.com.tw/index.5/phtml. If you have any comments, please feel free to contact us at the following:

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The address and road map of all our labs can be found in our web site also.