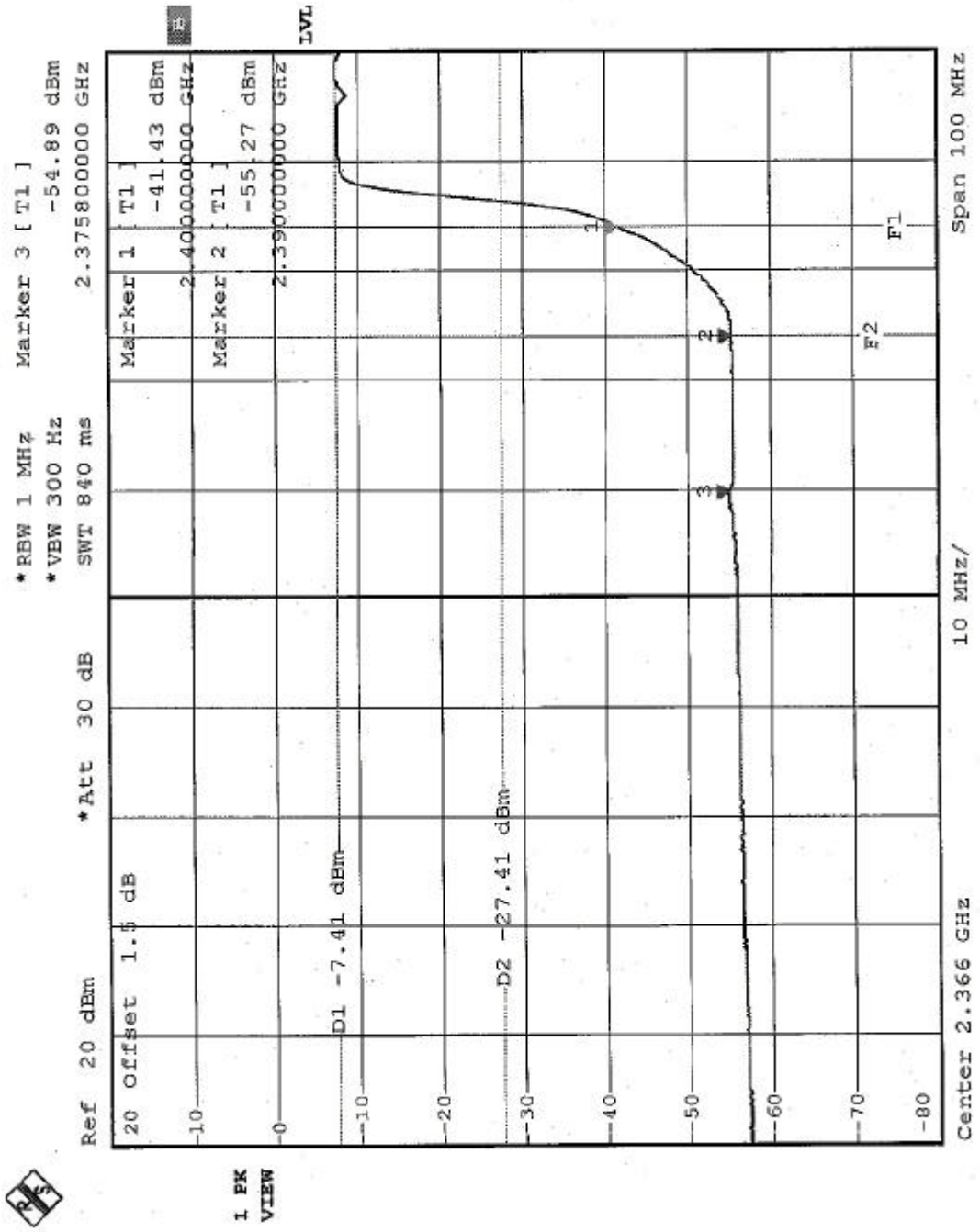
4.6.6 TEST RESULTS(A)-OFDM

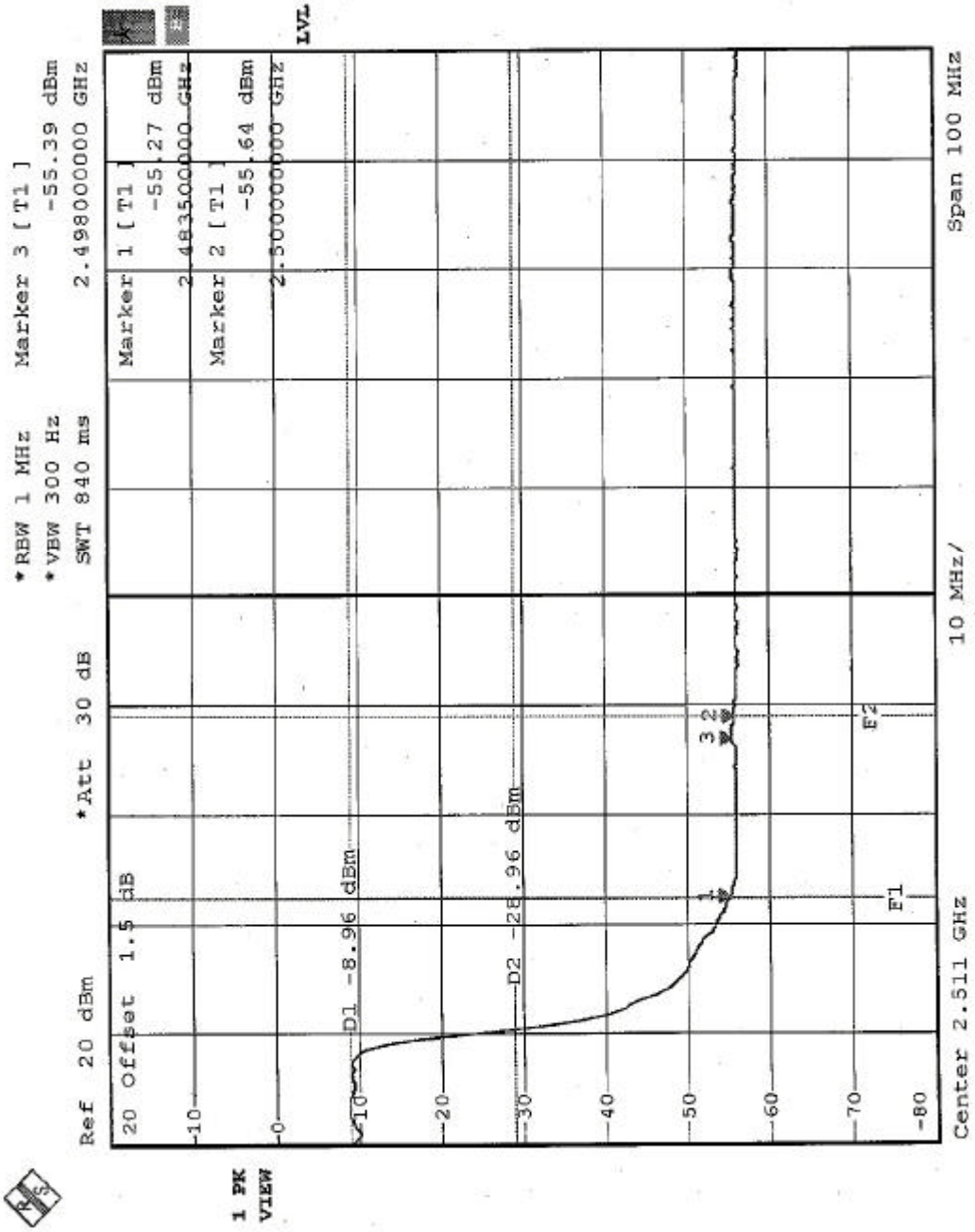
◆ TEST MODE: Antenna 1

The spectrum plots are attached on the following 2 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(C).

NOTE (1): The band edge emission plot on the following first page shows 47.47dB delta between carrier maximum power and local maximum emission in restrict band (2.3758GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.8 is 93.0dBuV/m, so the maximum field strength in restrict band is 93.0-47.47=45.53dBuV/m which is under 54 dBuV/m limit.

NOTE (2): The band edge emission plot on the following second page shows 46.43dB delta between carrier maximum power and local maximum emission in restrict band (2.498GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.8 is 88.1dBuV/m, so the maximum field strength in restrict band is 88.1-46.43=41.67dBuV/m which is under 54 dBuV/m limit.


Ref 20 dBm
Att 30 dB
RBW 1 MHz
VBW 300 Hz
SWT 840 ms
Marker 3 [T1]
-54.89 dBm
2.375800000 GHz
Marker 1 [T1]
-41.43 dBm
2.400000000 GHz
Marker 2 [T1]
-55.27 dBm
2.390000000 GHz
Offset 1.5 dB
D1 -7.41 dBm
D2 -27.41 dBm
1 PK
VIEW
Center 2.366 GHz
10 MHz/
Span 100 MHz
F1
F2


Ref 20 dBm
Att 30 dB
RBW 1 MHz
VBW 300 Hz
SWT 840 ms
Marker 3 [T1]
-55.39 dBm
2.498000000 GHz
Marker 1 [T1]
-55.27 dBm
2.483500000 GHz
Marker 2 [T1]
-55.64 dBm
2.500000000 GHz
20 Offset 1.5 dB
D1 -8.96 dBm
D2 -28.96 dBm
1 PK VIEW
Center 2.511 GHz
10 MHz/
Span 100 MHz

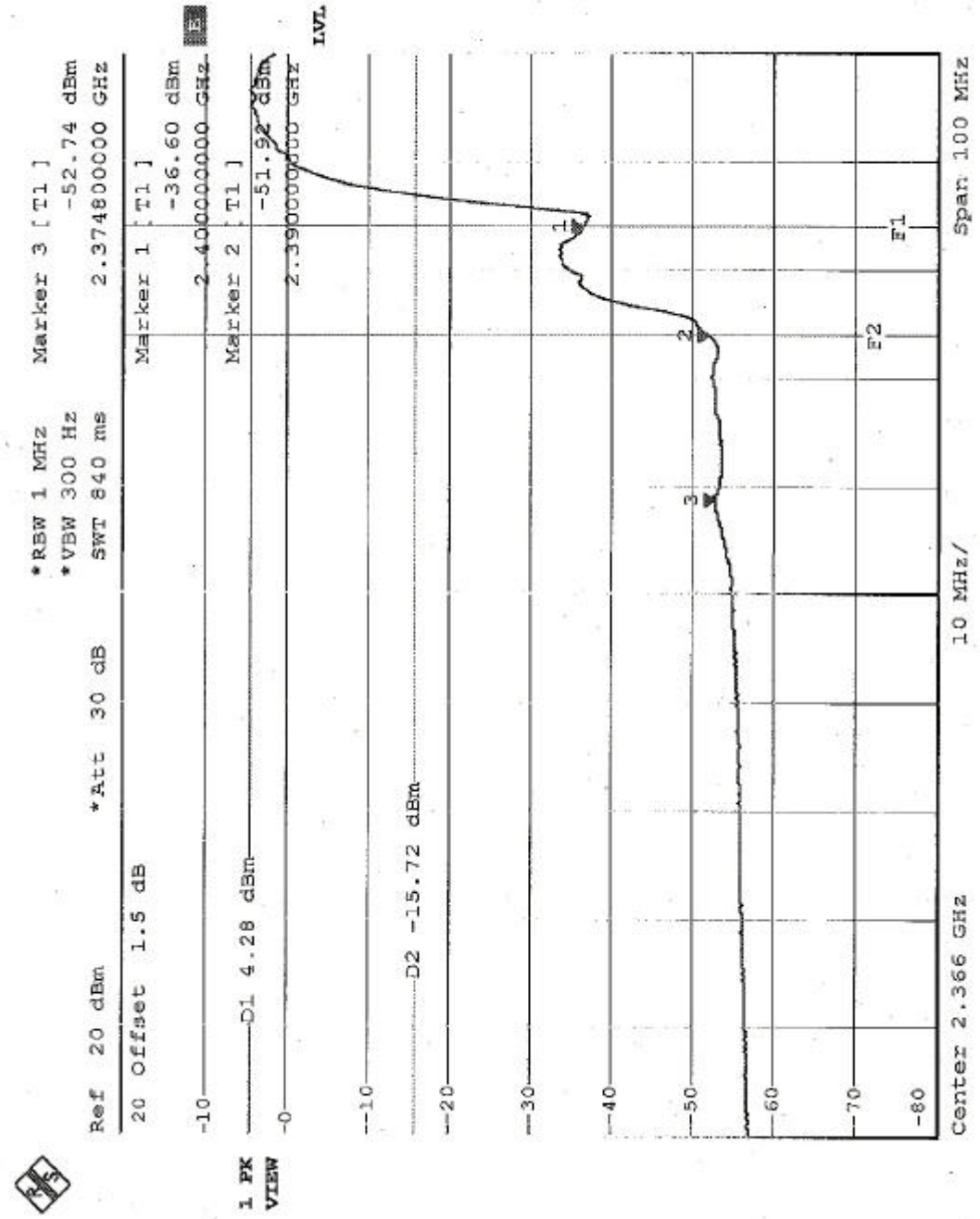
4.6.7 TEST RESULTS (B)-DSSS

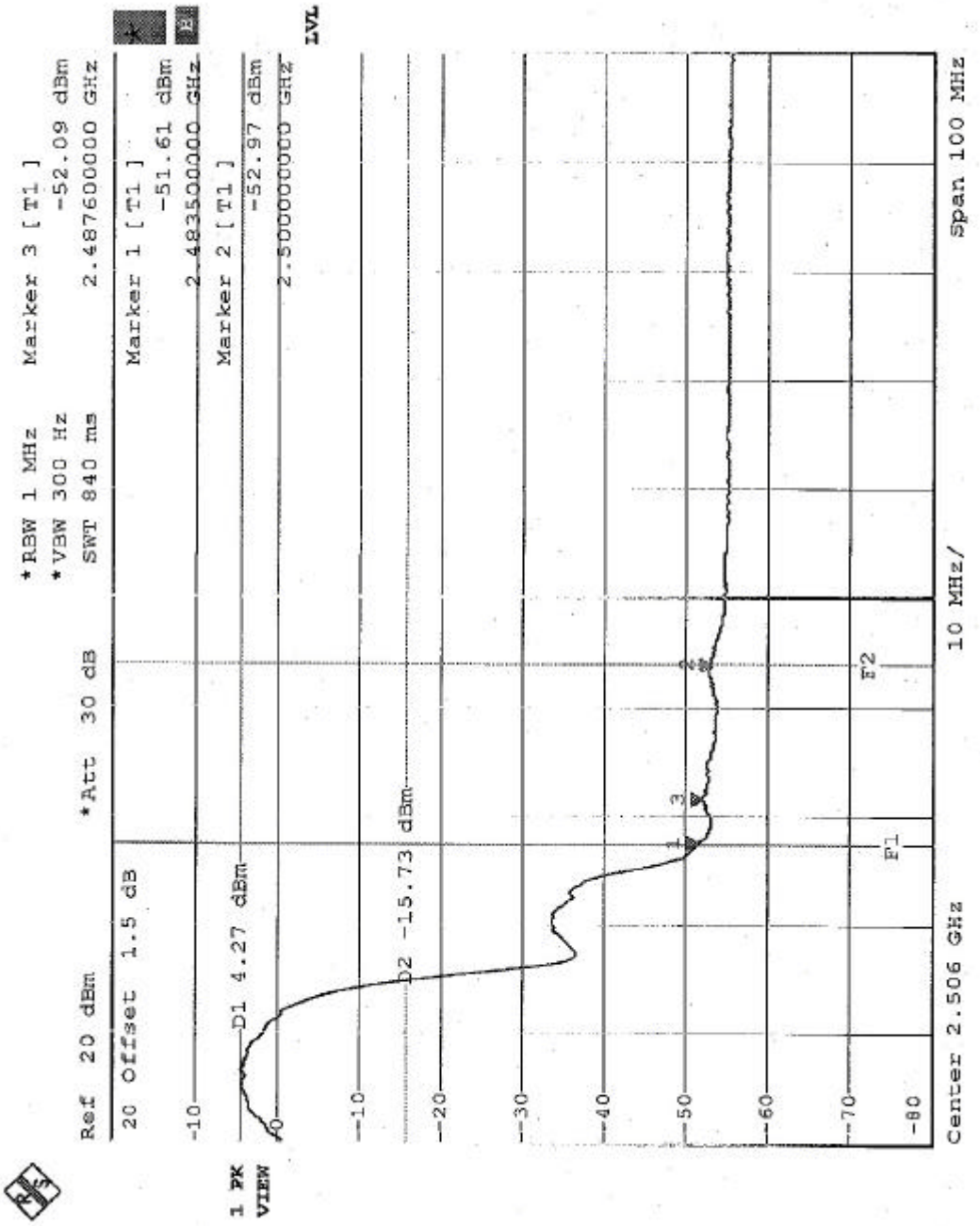
◆ TEST MODE: Antenna 2

The spectrum plots are attached on the following 2 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(C).

NOTE (1): The band edge emission plot on the following first page shows 56.20dB delta 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 4.2.10 is 102.0dBuV/m, so the maximum field strength in restrict band is 102.0-56.20=45.8dBuV/m which is under 54 dBuV/m limit.

NOTE (2): The band edge emission plot on the following second page shows 56.36dB delta between carrier maximum power and local maximum emission in restrict band (2.4876GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.10 is 103.1dBuV/m, so the maximum field strength in restrict band is 103.1-56.36=46.74dBuV/m which is under 54 dBuV/m limit.


Ref 20 dBm
*Att 30 dB
*RBW 1 MHz
*VBW 300 Hz
SWT 840 ms
Marker 3 [T1]
-52.74 dBm
2.374800000 GHz
Marker 1 [T1]
-36.60 dBm
2.400000000 GHz
Marker 2 [T1]
-51.92 dBm
2.390000000 GHz
20 Offset 1.5 dB
D1 4.28 dBm
D2 -15.72 dBm
1 PK
VIEW
LVL
Center 2.366 GHz
10 MHz/
Span 100 MHz


Ref 20 dBm
20 Offset 1.5 dB
*Att 30 dB
*RBW 1 MHz
*VBW 300 Hz
SWT 840 ms
Marker 3 [T1]
-52.09 dBm
2.487600000 GHz
Marker 1 [T1]
-51.61 dBm
2.483500000 GHz
Marker 2 [T1]
-52.97 dBm
2.500000000 GHz
1 PK
VIEW
D1 4.27 dBm
D2 -15.73 dBm
LVL
F1
F2
Center 2.506 GHz
10 MHz/
Span 100 MHz

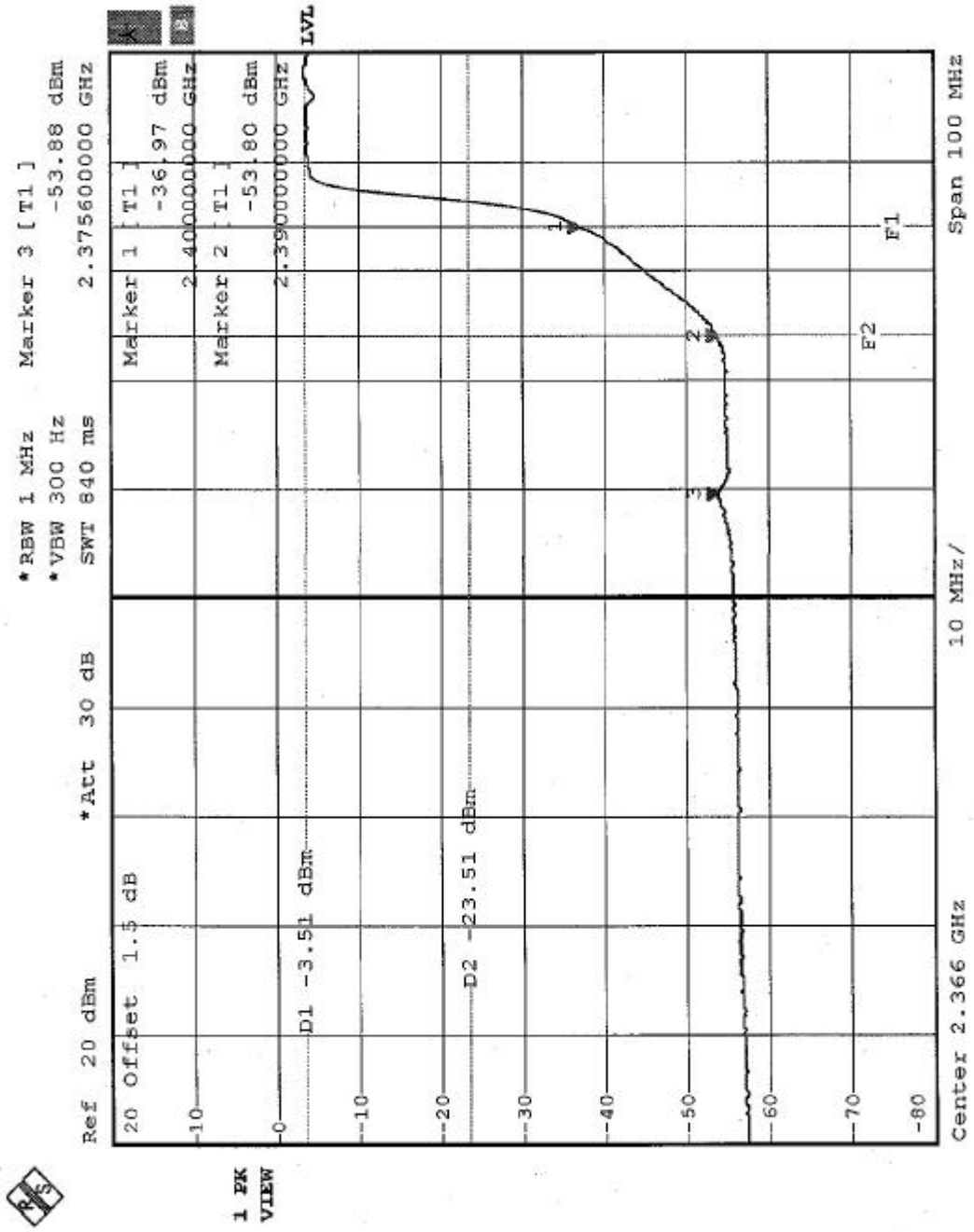
4.6.8 TEST RESULTS(B)-OFDM

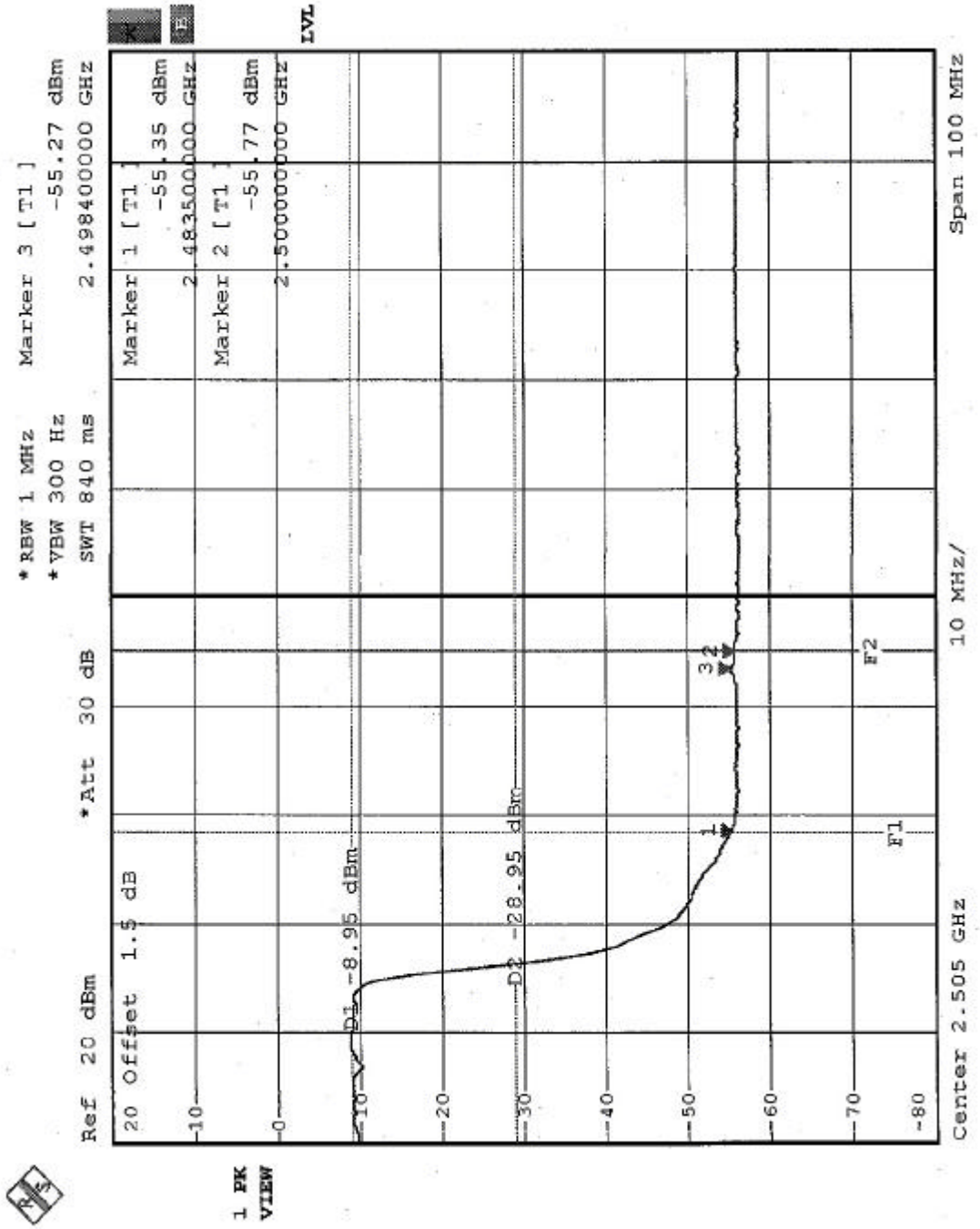
◆ TEST MODE: Antenna 2

The spectrum plots are attached on the following 2 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(C).

NOTE (1): The band edge emission plot on the following first page shows 50.37dB delta 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 4.2.11 is 92.8dBuV/m, so the maximum field strength in restrict band is 92.8-50.37=42.43dBuV/m which is under 54 dBuV/m limit.

NOTE (2): The band edge emission plot on the following second page shows 46.32dB delta between carrier maximum power and local maximum emission in restrict band (2.4984GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.11 is 88.1dBuV/m, so the maximum field strength in restrict band is 88.1-46.32=41.78dBuV/m which is under 54 dBuV/m limit.


Ref 20 dBm
*Att 30 dB
*RBW 1 MHz
*VBW 300 Hz
SWT 840 ms
Marker 3 [T1]
-53.88 dBm
2.375600000 GHz
Marker 1 [T1]
-36.97 dBm
2.400000000 GHz
Marker 2 [T1]
-53.80 dBm
2.390000000 GHz
20 Offset 1.5 dB
D1 -3.51 dBm
D2 -23.51 dBm
1 PK
VIEW
LVL
F1
F2
Center 2.366 GHz
10 MHz/
Span 100 MHz


Ref 20 dBm
Att 30 dB
RBW 1 MHz
VBW 300 Hz
SWT 840 ms
Marker 3 [T1]
-55.27 dBm
2.498400000 GHz
Marker 1 [T1]
-55.35 dBm
2.483500000 GHz
Marker 2 [T1]
-55.77 dBm
2.500000000 GHz
20 Offset 1.5 dB
D1 -8.95 dBm
D2 -28.95 dBm
F1
F2
1 PK
VIEW
Center 2.505 GHz
10 MHz/
Span 100 MHz

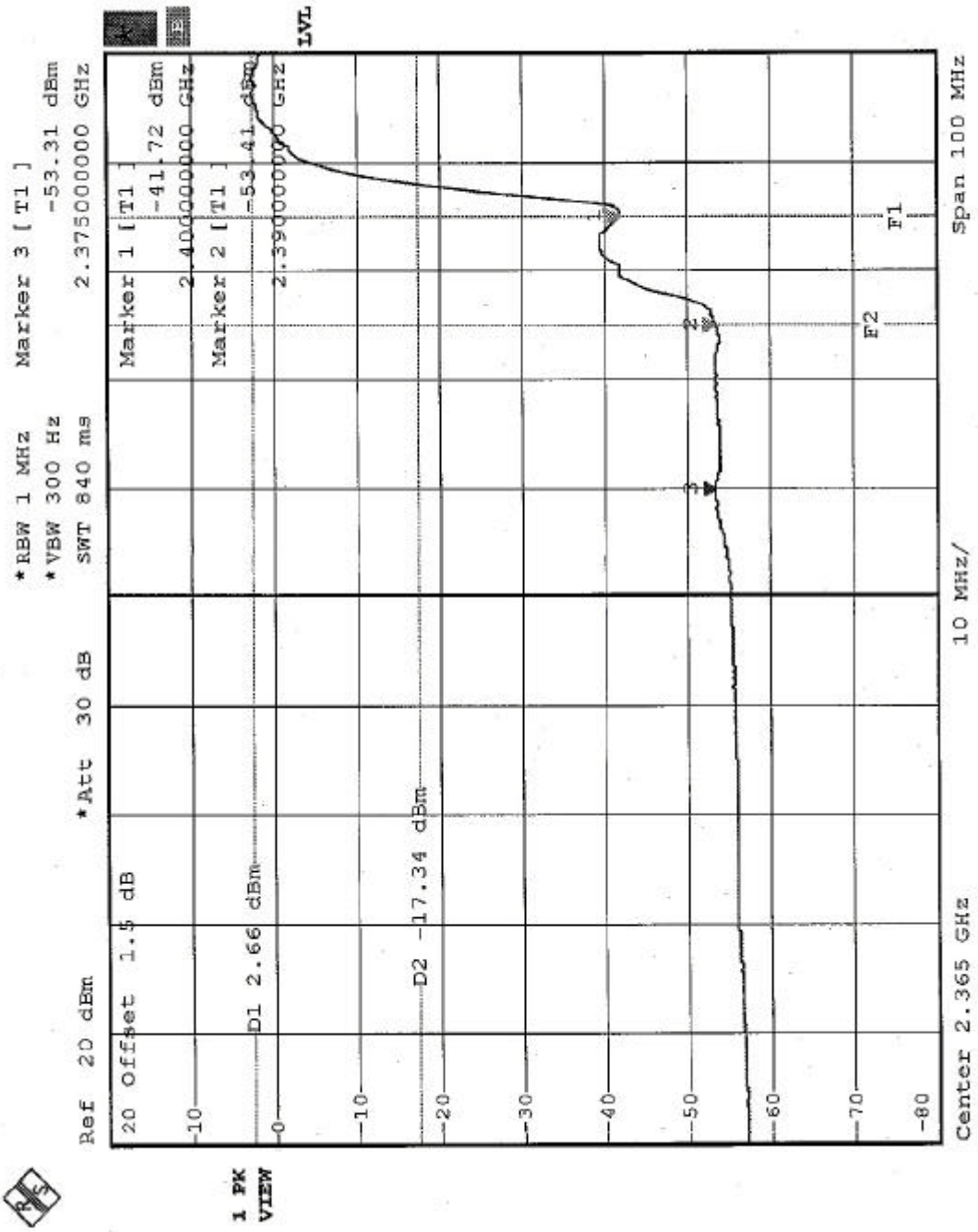
4.6.9 TEST RESULTS (C)-DSSS

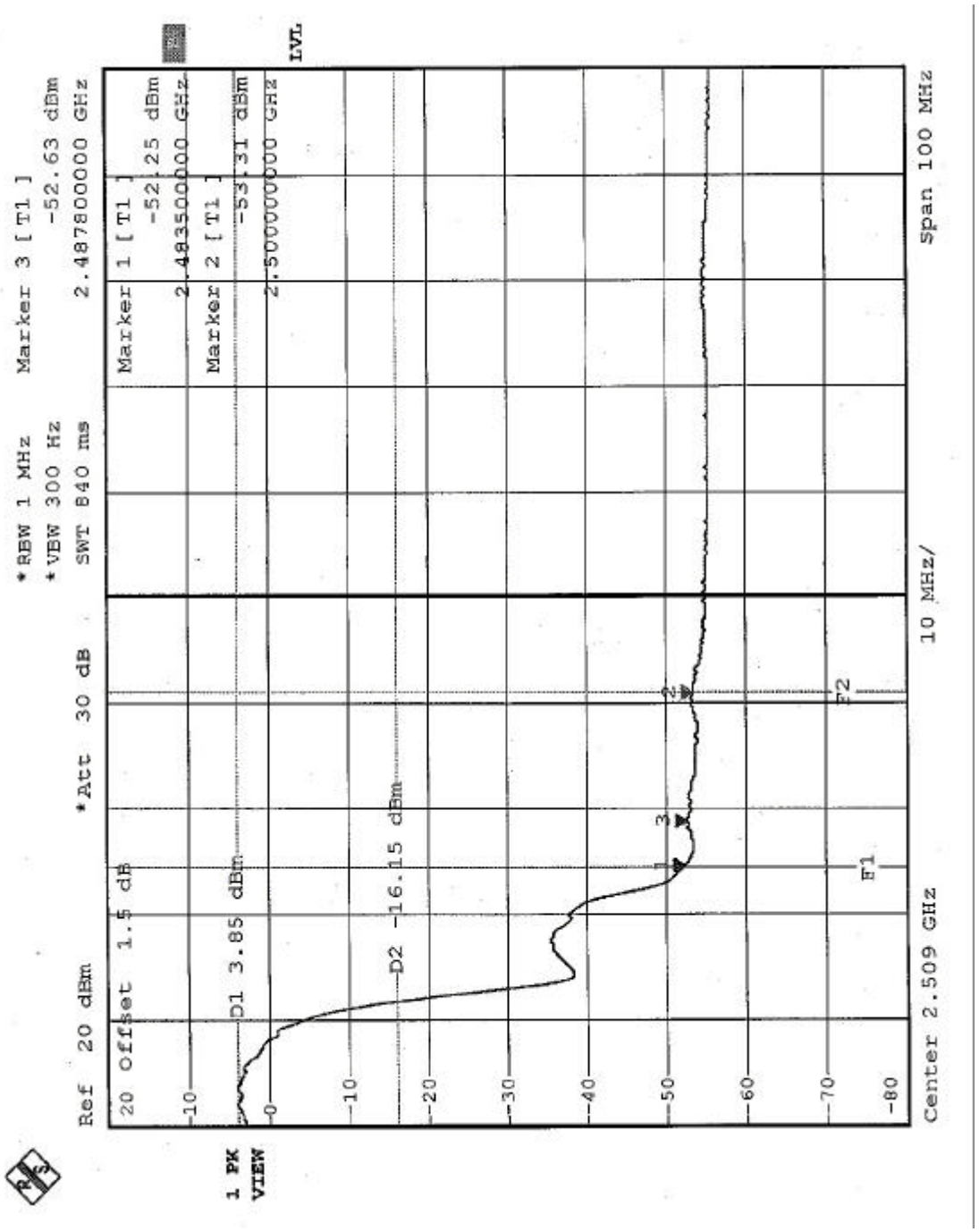
◆ TEST MODE: Antenna 3

The spectrum plots are attached on the following 2 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(C).

NOTE (1): The band edge emission plot on the following first page shows 55.97dB delta between carrier maximum power and local maximum emission in restrict band (2.375GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.13 is 101.9dBuV/m, so the maximum field strength in restrict band is 101.9-55.97=45.93dBuV/m which is under 54 dBuV/m limit.

NOTE (2): The band edge emission plot on the following second page shows 56.48dB delta between carrier maximum power and local maximum emission in restrict band (2.4878GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.13 is 102.9dBuV/m, so the maximum field strength in restrict band is 102.9-56.48=46.42dBuV/m which is under 54 dBuV/m limit.


Ref 20 dBm
*Att 30 dB
*RBW 1 MHz
*VBW 300 Hz
SWT 840 ms
Marker 3 [T1]
-53.31 dBm
2.375000000 GHz
Marker 1 [T1]
-41.72 dBm
2.400000000 GHz
Marker 2 [T1]
-53.41 dBm
2.390000000 GHz
20 Offset 1.5 dB
D1 2.66 dBm
D2 -17.34 dBm
1 PK
VIEW
LVL
F1
F2
Center 2.365 GHz
10 MHz/
Span 100 MHz


Ref 20 dBm
Att 30 dB
RBW 1 MHz
VBW 300 Hz
SWT 840 ms
Marker 3 [T1]
-52.63 dBm
2.487800000 GHz
Marker 1 [T1]
-52.25 dBm
2.483500000 GHz
Marker 2 [T1]
-53.31 dBm
2.500000000 GHz
1 PK
VIEW
D1 3.85 dBm
D2 -16.15 dBm
Center 2.509 GHz
10 MHz/
Span 100 MHz

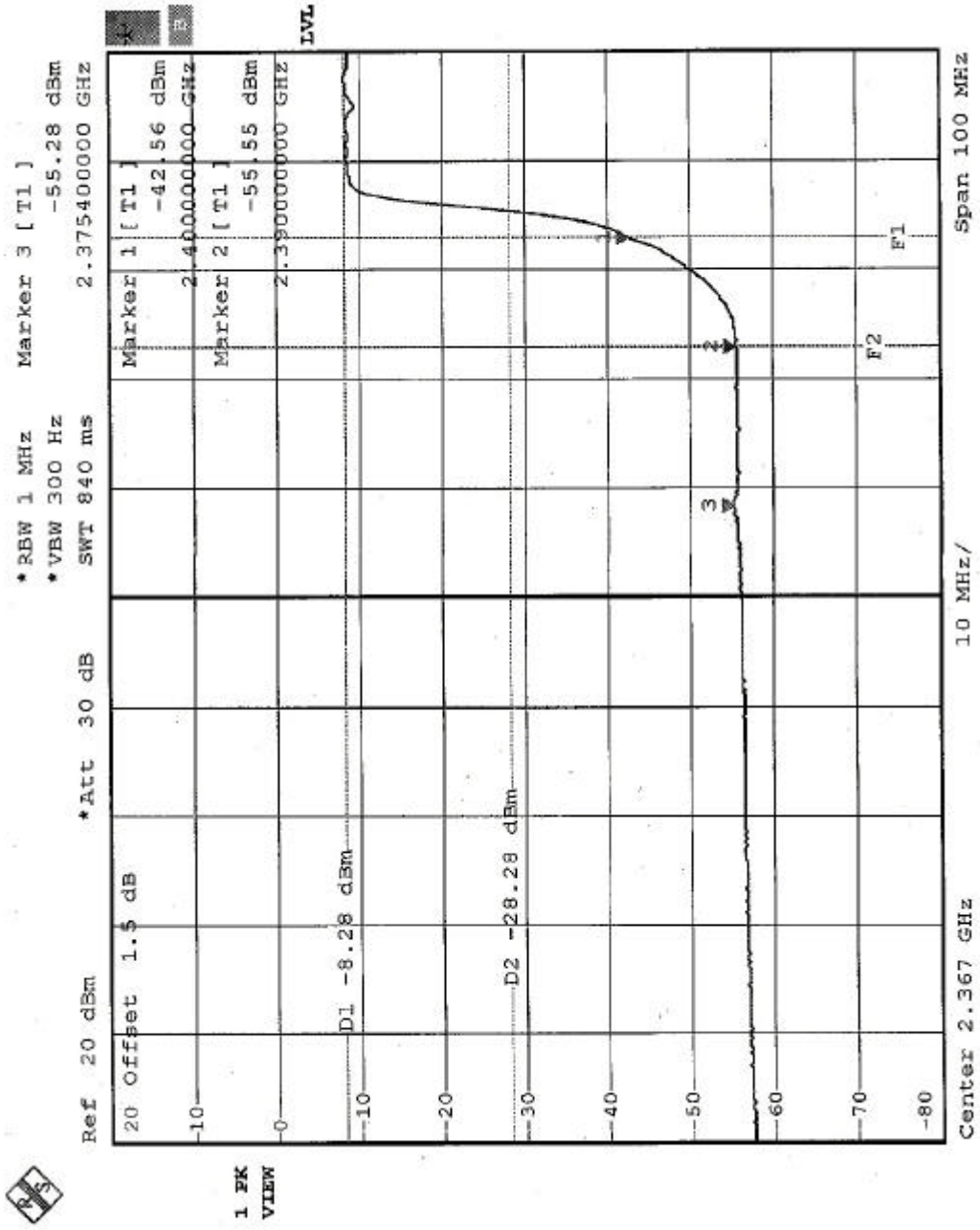
4.6.10 TEST RESULTS(C)-OFDM

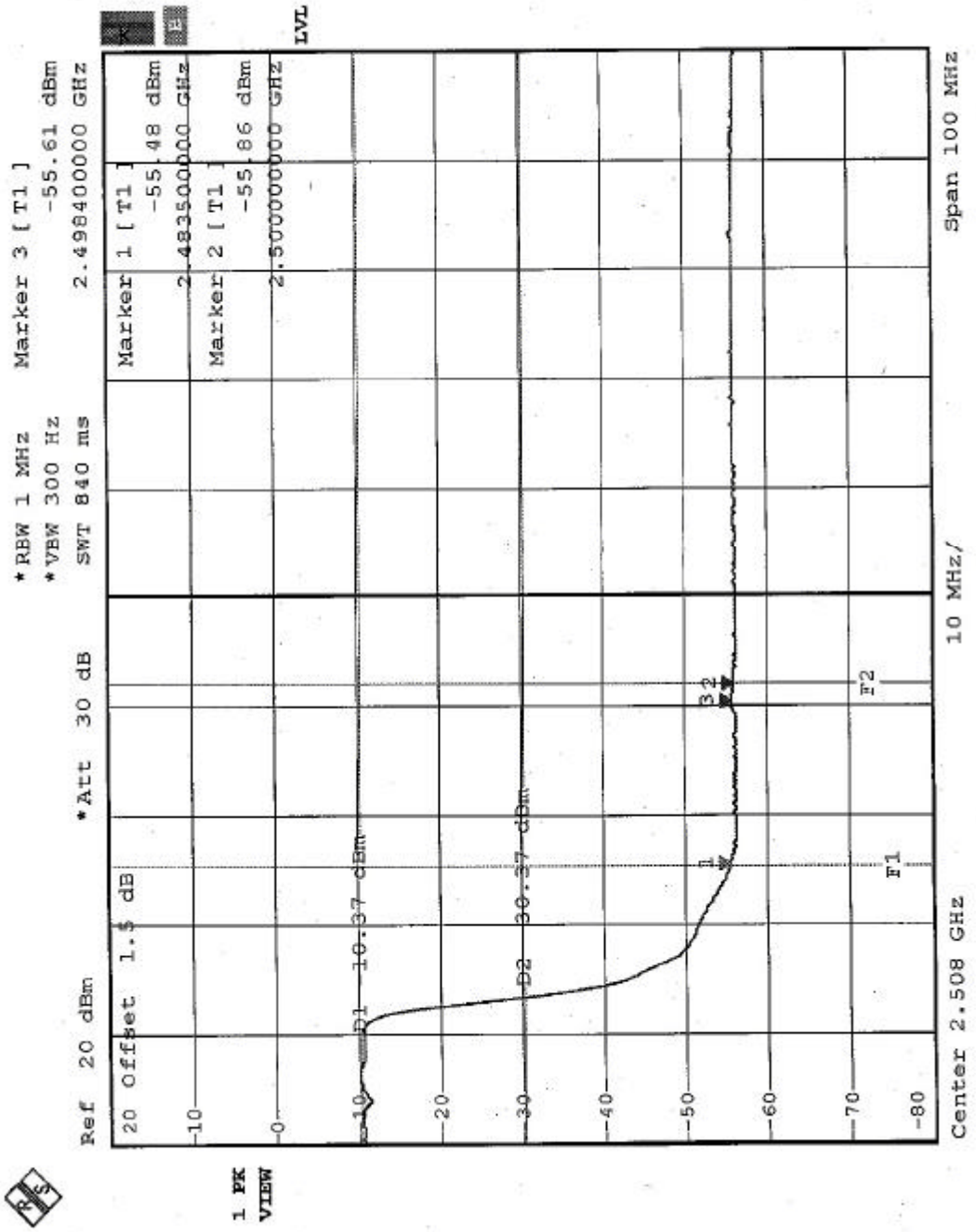
◆ TEST MODE: Antenna 3

The spectrum plots are attached on the following 2 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(C).

NOTE (1): The band edge emission plot on the following first page shows 47.0dB delta between carrier maximum power and local maximum emission in restrict band (2.3754GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.14 is 93.1dBuV/m, so the maximum field strength in restrict band is 93.1-47.0=46.10dBuV/m which is under 54 dBuV/m limit.

NOTE (2): The band edge emission plot on the following second page shows 45.24dB delta between carrier maximum power and local maximum emission in restrict band (2.4984GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.14 is 88.1dBuV/m, so the maximum field strength in restrict band is 88.1-45.24=42.86dBuV/m which is under 54 dBuV/m limit.


Ref 20 dBm
*Att 30 dB
*RBW 1 MHz
*VBW 300 Hz
SWT 840 ms
Marker 3 [T1]
-55.28 dBm
2.375400000 GHz
Marker 1 [T1]
-42.56 dBm
2.400000000 GHz
Marker 2 [T1]
-55.55 dBm
2.390000000 GHz
20 Offset 1.5 dB
D1 -8.28 dBm
D2 -28.28 dBm
1 PK
VIEW
LVL
Center 2.367 GHz
10 MHz/
Span 100 MHz
F1
F2


Ref 20 dBm
Att 30 dB
*RBW 1 MHz
*VBW 300 Hz
SWT 840 ms
Marker 3 [T1]
-55.61 dBm
2.498400000 GHz
Marker 1 [T1]
-55.48 dBm
2.483500000 GHz
Marker 2 [T1]
-55.86 dBm
2.500000000 GHz
LVL
20 Offset 1.5 dB
D1 10.37 dBm
D2 30.37 dBm
1 PK
VIEW
Center 2.508 GHz
10 MHz/
Span 100 MHz

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.

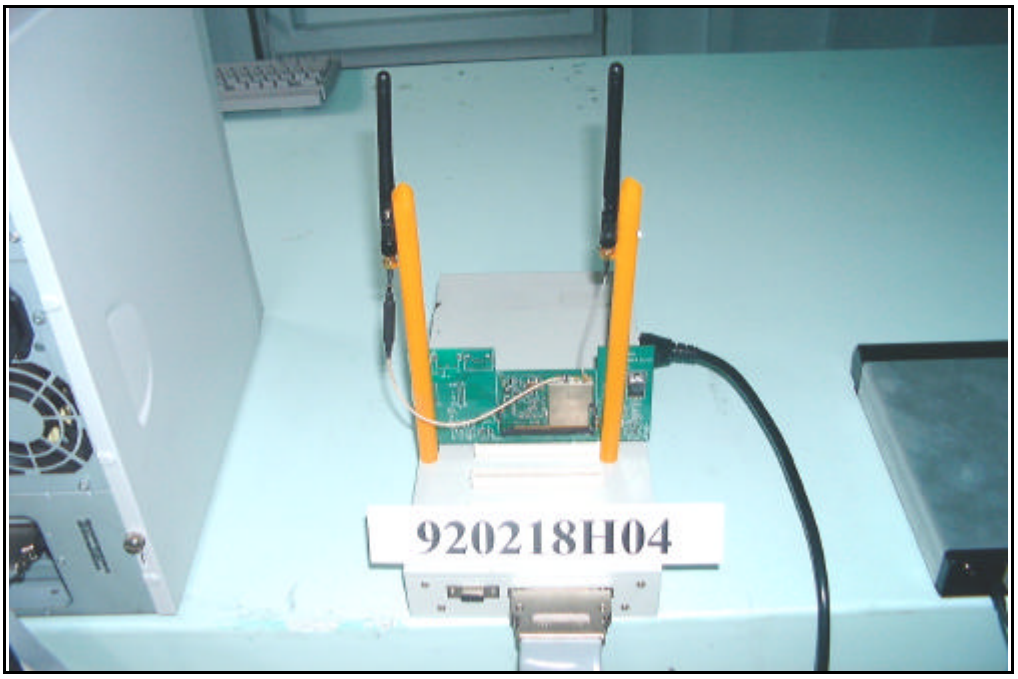
4.7.2 ANTENNA CONNECTED CONSTRUCTION

The antenna types used in this product are Dipole antennas with UFL and Integral connector. And the maximum Gain of this antenna is only 2.0dBi.

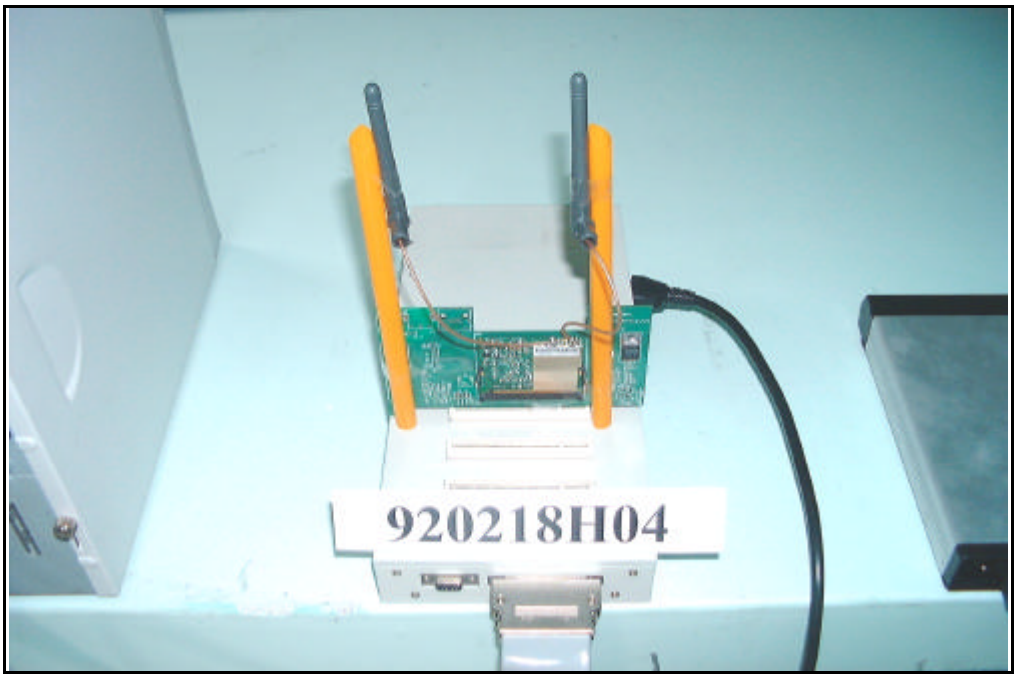
5 PHOTOGRAPHS OF THE TEST CONFIGURATION

CONDUCTED EMISSION TEST

RADIATED EMISSION TEST (Antenna 1)


920218H04

RADIATED EMISSION TEST (Antenna 2)


920218H04

RADIATED EMISSION TEST (Antenna 3)

920218H04

6 INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., were founded in 1988 to provide our best service in EMC and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025, Guide 25 or EN 45001:

USA	FCC, NVLAP, UL
Germany	TUV Rheinland
Japan	VCCI
New Zealand	MoC
Norway	NEMKO
Canada	INDUSTRY CANADA
R.O.C.	CNLA, BSMI

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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Tel: 886-35-935343
Fax: 886-35-935342

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Tel: 886-3-3270910
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The address and road map of all our labs can be found in our web site also.