

5.7. Test Results – EX-IT 2400-MHF 28-001 Antenna:**5.7.1. Receiver/Idle Mode Radiated Spurious Emissions****Test Summary:**

Test Engineer:	Nigel Davison	Test Date:	17 May 2011
Test Sample IMEI:	ID:1		
Antenna:	EX-IT 2400-MHF 28-001		

FCC/IC Part:	15.109 and RSS-Gen 4.10 / RSS-Gen 6.1
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.5 referencing ANSI C63.4
Frequency Range:	30 MHz to 1000 MHz

Environmental Conditions:

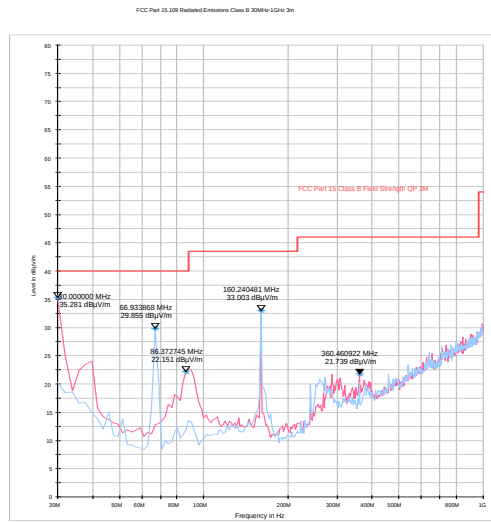
Temperature (°C):	24
Relative Humidity (%):	23

Results: Quasi Peak

Frequency (MHz)	Antenna Polarity	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Result
30.000	Vertical	35.3	40.0	4.7	Complied
66.933	Horizontal	29.9	40.0	10.1	Complied
86.372	Vertical	22.2	40.0	17.8	Complied
160.240	Horizontal	33.0	43.5	10.5	Complied
360.460	Vertical	21.7	46.0	24.3	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss.
2. All other emissions shown on the pre-scan plot were investigated and found to be ambient or >20 dB below the applicable limit or below the measurement system noise floor.

Receiver/Idle Mode Radiated Spurious Emissions (continued)

Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying table.

Receiver/Idle Mode Radiated Spurious Emissions (continued)**Test Summary:**

Test Engineer:	Nick Steele	Test Date:	17 May 2011
Test Sample IMEI:	ID:1		
Antenna:	EX-IT 2400-MHF 28-001		

FCC/IC Part:	15.109 and RSS-Gen 4.10 / RSS-Gen 6.1
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.6 referencing ANSI C63.4
Frequency Range:	1 GHz to 12.75 GHz

Environmental Conditions:

Temperature (°C):	23
Relative Humidity (%):	25

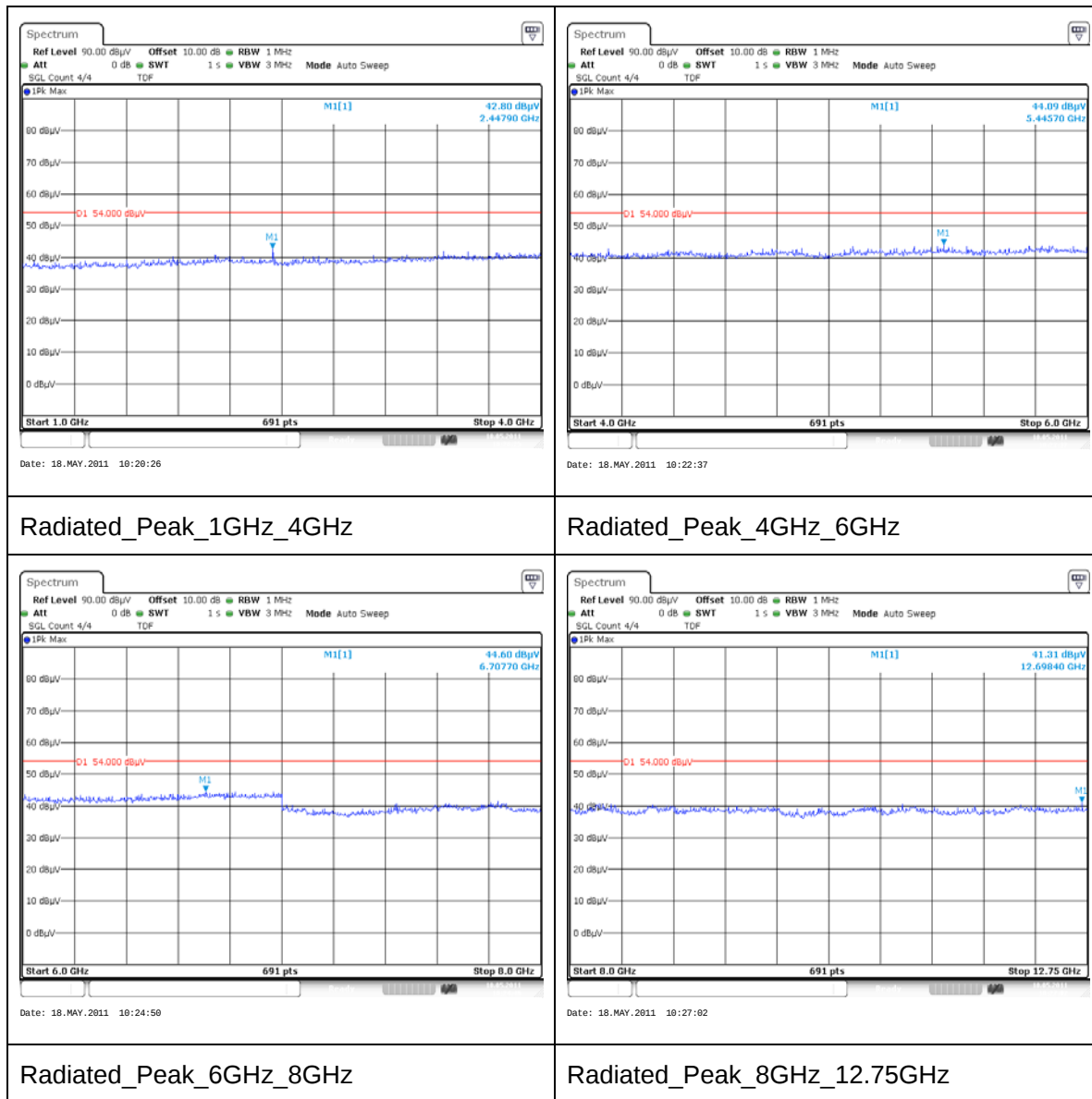
Results:

Frequency (MHz)	Antenna Polarity	Peak Level (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
6707.7	Vertical	44.6	*54.0	9.4	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss.
2. No spurious emissions were detected above the noise floor of the measuring receiver therefore the highest peak noise floor reading of the measuring receiver was recorded as shown in the table above.

* The average limit was compared to the peak level as opposed to being compared to the peak limit because this is the more stringent limit.

Receiver/Idle Mode Radiated Spurious Emissions (continued)

5.7.2. Transmitter Maximum Peak Output Power**Test Summary:**

Test Engineer:	David Lakeland	Test Date:	11 May 2011
Test Sample:	ID:1		

FCC Part:	15.247(b)(3)
Test Method Used:	As detailed in ANSI C63.10 Section 6.10.2

Note: Test method used – power meter

Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	29

Results: 802.11b

Channel	Frequency (MHz)	Mod Scheme	Data Rate (Mbps)	Conducted Peak Power (dBm)	Conducted Limit (dBm)	Margin (dB)	Result
Bottom	2412	BPSK	1	17.4	30	12.6	Complied
Middle	2437	BPSK	1	17.1	30	12.9	Complied
Top	2462	BPSK	1	16.3	30	13.7	Complied
Bottom	2412	QPSK	2	16.8	30	13.2	Complied
Middle	2437	QPSK	2	16.5	30	13.5	Complied
Top	2462	QPSK	2	16.2	30	13.8	Complied
Bottom	2412	QPSK	5.5	16.8	30	13.2	Complied
Middle	2437	QPSK	5.5	16.5	30	13.6	Complied
Top	2462	QPSK	5.5	16.1	30	13.9	Complied
Bottom	2412	QPSK	11	16.7	30	13.3	Complied
Middle	2437	QPSK	11	16.5	30	13.6	Complied
Top	2462	QPSK	11	16.2	30	13.9	Complied

Transmitter Maximum Peak Output Power (continued)**Results: 802.11g**

Channel	Frequency (MHz)	Mod Scheme	Data Rate (Mbps)	Conducte d Peak Power (dBm)	Conducte d Limit (dBm)	Margin (dB)	Result
Bottom	2412	BPSK	6	15.2	30	14.8	Complied
Middle	2437	BPSK	6	14.9	30	15.1	Complied
Top	2462	BPSK	6	14.6	30	15.4	Complied
Bottom	2412	BPSK	9	15.2	30	14.8	Complied
Middle	2437	BPSK	9	15.1	30	14.9	Complied
Top	2462	BPSK	9	15.1	30	14.9	Complied
Bottom	2412	QPSK	12	15.4	30	14.6	Complied
Middle	2437	QPSK	12	15.0	30	15.0	Complied
Top	2462	QPSK	12	14.7	30	15.3	Complied
Bottom	2412	QPSK	18	15.3	30	14.7	Complied
Middle	2437	QPSK	18	15.1	30	14.9	Complied
Top	2462	QPSK	18	14.7	30	15.3	Complied
Bottom	2412	16QAM	24	15.3	30	14.7	Complied
Middle	2437	16QAM	24	15.0	30	15.0	Complied
Top	2462	16QAM	24	14.7	30	15.3	Complied
Bottom	2412	16QAM	36	15.4	30	14.6	Complied
Middle	2437	16QAM	36	15.0	30	15.0	Complied
Top	2462	16QAM	36	14.7	30	15.3	Complied
Bottom	2412	16QAM	48	15.4	30	14.6	Complied
Middle	2437	16QAM	48	15.1	30	14.9	Complied
Top	2462	16QAM	48	14.8	30	15.3	Complied
Bottom	2412	64QAM	54	15.7	30	14.3	Complied
Middle	2437	64QAM	54	15.1	30	14.9	Complied
Top	2462	64QAM	54	14.7	30	15.3	Complied

Transmitter Maximum Peak Output Power (continued)**Results: 802.11n**

Channel	Frequency (MHz)	Mod Scheme	Data Rate (Mbps)	Conducted Peak Power (dBm)	Conducted Limit (dBm)	Margin (dB)	Result
Bottom	2412	BPSK	6.5	15.6	30	14.4	Complied
Middle	2437	BPSK	6.5	15.3	30	14.7	Complied
Top	2462	BPSK	6.5	15.0	30	15.0	Complied
Bottom	2412	QPSK	13	15.5	30	14.6	Complied
Middle	2437	QPSK	13	15.2	30	14.8	Complied
Top	2462	QPSK	13	14.9	30	15.1	Complied
Bottom	2412	QPSK	19.5	15.4	30	14.6	Complied
Middle	2437	QPSK	19.5	14.9	30	15.1	Complied
Top	2462	QPSK	19.5	14.8	30	15.3	Complied
Bottom	2412	16QAM	26	15.3	30	14.7	Complied
Middle	2437	16QAM	26	15.1	30	14.9	Complied
Top	2462	16QAM	26	14.8	30	15.2	Complied
Bottom	2412	16QAM	39	15.6	30	14.4	Complied
Middle	2437	16QAM	39	15.6	30	14.4	Complied
Top	2462	16QAM	39	14.9	30	15.1	Complied
Bottom	2412	64QAM	52	15.4	30	14.6	Complied
Middle	2437	64QAM	52	15.2	30	14.8	Complied
Top	2462	64QAM	52	15.6	30	14.4	Complied
Bottom	2412	64QAM	58.5	16.3	30	13.7	Complied
Middle	2437	64QAM	58.5	15.4	30	14.6	Complied
Top	2462	64QAM	58.5	15.0	30	15.1	Complied
Bottom	2412	64QAM	65	16.0	30	14.0	Complied
Middle	2437	64QAM	65	15.4	30	14.6	Complied
Top	2462	64QAM	65	16.1	30	13.9	Complied

5.7.3. Transmitter Maximum Equivalent Isotropically Radiated Power (EIRP)

FCC Part:	15.247(b)(3)
Test Method Used:	As detailed in ANSI C63.10 Section 6.10.2

Results: 802.11b

Channel	Mod Scheme	Data Rate (Mbps)	Antenna Gain (dBi)	Conducted Peak Power (dBm)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	BPSK	1	3	17.4	20.4	36.0	15.6	Complied
Middle	BPSK	1	3	17.1	20.1	36.0	15.9	Complied
Top	BPSK	1	3	16.3	19.3	36.0	16.7	Complied
Bottom	QPSK	2	3	16.8	19.8	36.0	16.2	Complied
Middle	QPSK	2	3	16.5	19.5	36.0	16.5	Complied
Top	QPSK	2	3	16.2	19.2	36.0	16.8	Complied
Bottom	QPSK	5.5	3	16.8	19.8	36.0	16.2	Complied
Middle	QPSK	5.5	3	16.5	19.5	36.0	16.5	Complied
Top	QPSK	5.5	3	16.1	19.1	36.0	16.9	Complied
Bottom	QPSK	11	3	16.7	19.7	36.0	16.3	Complied
Middle	QPSK	11	3	16.5	19.5	36.0	16.5	Complied
Top	QPSK	11	3	16.2	19.2	36.0	16.8	Complied

Transmitter Maximum Equivalent Isotropically Radiated Power (EIRP) (Continued)**Results: 802.11g**

Channel	Mod Scheme	Data Rate (Mbps)	Antenna Gain (dBi)	Conducted Peak Power (dBm)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	BPSK	6	3	15.2	18.2	36.0	17.8	Complied
Middle	BPSK	6	3	14.9	17.9	36.0	18.1	Complied
Top	BPSK	6	3	14.6	17.6	36.0	18.4	Complied
Bottom	BPSK	9	3	15.2	18.2	36.0	17.8	Complied
Middle	BPSK	9	3	15.1	18.1	36.0	17.9	Complied
Top	BPSK	9	3	15.1	18.1	36.0	17.9	Complied
Bottom	QPSK	12	3	15.4	18.4	36.0	17.6	Complied
Middle	QPSK	12	3	15.0	18.0	36.0	18.0	Complied
Top	QPSK	12	3	14.7	17.7	36.0	18.3	Complied
Bottom	QPSK	18	3	15.3	18.3	36.0	17.7	Complied
Middle	QPSK	18	3	15.1	18.1	36.0	17.9	Complied
Top	QPSK	18	3	14.7	17.7	36.0	18.3	Complied
Bottom	16QAM	24	3	15.3	18.3	36.0	17.7	Complied
Middle	16QAM	24	3	15.0	18.0	36.0	18.0	Complied
Top	16QAM	24	3	14.7	17.7	36.0	18.3	Complied
Bottom	16QAM	36	3	15.4	18.4	36.0	17.6	Complied
Middle	16QAM	36	3	15.0	18.0	36.0	18.0	Complied
Top	16QAM	36	3	14.7	17.7	36.0	18.3	Complied
Bottom	16QAM	48	3	15.4	18.4	36.0	17.6	Complied
Middle	16QAM	48	3	15.1	18.1	36.0	17.9	Complied
Top	16QAM	48	3	14.8	17.8	36.0	18.2	Complied
Bottom	64QAM	54	3	15.7	18.7	36.0	17.3	Complied
Middle	64QAM	54	3	15.1	18.1	36.0	17.9	Complied
Top	64QAM	54	3	14.7	17.7	36.0	18.3	Complied

Transmitter Maximum Equivalent Isotropically Radiated Power (EIRP) (Continued)**Results: 802.11n**

Channel	Mod Scheme	Data Rate (Mbps)	Antenna Gain (dBi)	Conducted Peak Power (dBm)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	BPSK	6.5	3	15.6	18.6	36.0	17.4	Complied
Middle	BPSK	6.5	3	15.3	18.3	36.0	17.7	Complied
Top	BPSK	6.5	3	15.0	18.0	36.0	18.0	Complied
Bottom	QPSK	13	3	15.5	18.5	36.0	17.5	Complied
Middle	QPSK	13	3	15.2	18.2	36.0	17.8	Complied
Top	QPSK	13	3	14.9	17.9	36.0	18.1	Complied
Bottom	QPSK	19.5	3	15.4	18.4	36.0	17.6	Complied
Middle	QPSK	19.5	3	14.9	17.9	36.0	18.1	Complied
Top	QPSK	19.5	3	14.8	17.8	36.0	18.2	Complied
Bottom	16QAM	26	3	15.3	18.3	36.0	17.7	Complied
Middle	16QAM	26	3	15.1	18.1	36.0	17.9	Complied
Top	16QAM	26	3	14.8	17.8	36.0	18.2	Complied
Bottom	16QAM	39	3	15.6	18.6	36.0	17.4	Complied
Middle	16QAM	39	3	15.6	18.6	36.0	17.4	Complied
Top	16QAM	39	3	14.9	17.9	36.0	18.1	Complied
Bottom	64QAM	52	3	15.4	18.4	36.0	17.6	Complied
Middle	64QAM	52	3	15.2	18.2	36.0	17.8	Complied
Top	64QAM	52	3	15.6	18.6	36.0	17.4	Complied
Bottom	64QAM	58.5	3	16.3	19.3	36.0	16.7	Complied
Middle	64QAM	58.5	3	15.4	18.4	36.0	17.6	Complied
Top	64QAM	58.5	3	15.0	18.0	36.0	18.0	Complied
Bottom	64QAM	65	3	16.0	19.0	36.0	17.0	Complied
Middle	64QAM	65	3	15.4	18.4	36.0	17.6	Complied
Top	64QAM	65	3	16.1	19.1	36.0	16.9	Complied

5.7.4. Transmitter Radiated Emissions**Test Summary:**

Test Engineer:	Andrew Edwards	Test Date:	17 May 2011
Test Sample Serial No:	ID:1		
Antenna:	EX-IT 2400-MHF 28-001		

FCC/IC Part:	15.247(d), 15.209(a), RSS-Gen 4.9 and RSS-210 A8.5
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.5 referencing ANSI C63.4
Frequency Range	30 MHz to 1000 MHz

Environmental Conditions:

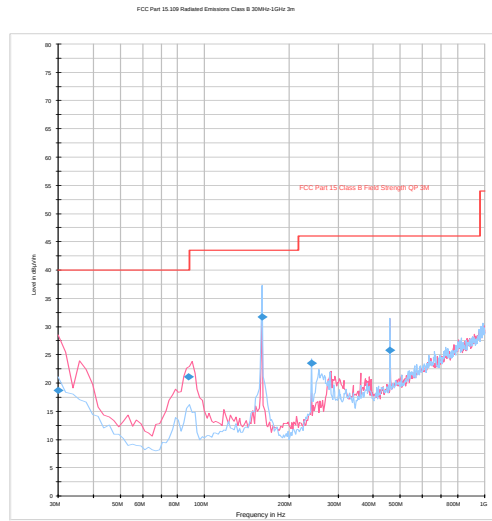
Temperature (°C):	23
Relative Humidity (%):	23

Results: Top Channel

Frequency (MHz)	Antenna Polarity	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
30.000	Vertical	35.3	40.0	4.7	Complied
66.933	Horizontal	29.9	40.0	10.1	Complied
86.372	Vertical	22.2	40.0	17.8	Complied
160.240	Horizontal	33.0	43.5	10.5	Complied
360.460	Vertical	21.7	46.0	24.3	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss
2. The preliminary scans showed similar emission levels below 1 GHz, for each channel of operation. Therefore final radiated emissions measurements were performed with the EUT set to the top channel only.
3. All other emissions were at least 20 dB below the appropriate limit or below the noise floor of the measurement system.

Transmitter Radiated Emissions (continued)

Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying table.

Transmitter Radiated Emissions (continued)**Test Summary:**

Test Engineer:	Nigel Davison	Test Date:	17 and 19 May 2011
Test Sample Serial No:	ID:1		
Antenna:	EX-IT 2400-MHF 28-001		

FCC/IC Part:	15.247(d), 15.209(a), RSS-Gen 4.9 and RSS-210 A8.5
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.6 referencing ANSI C63.4
Frequency Range	1 GHz to 26.5 GHz

Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	27

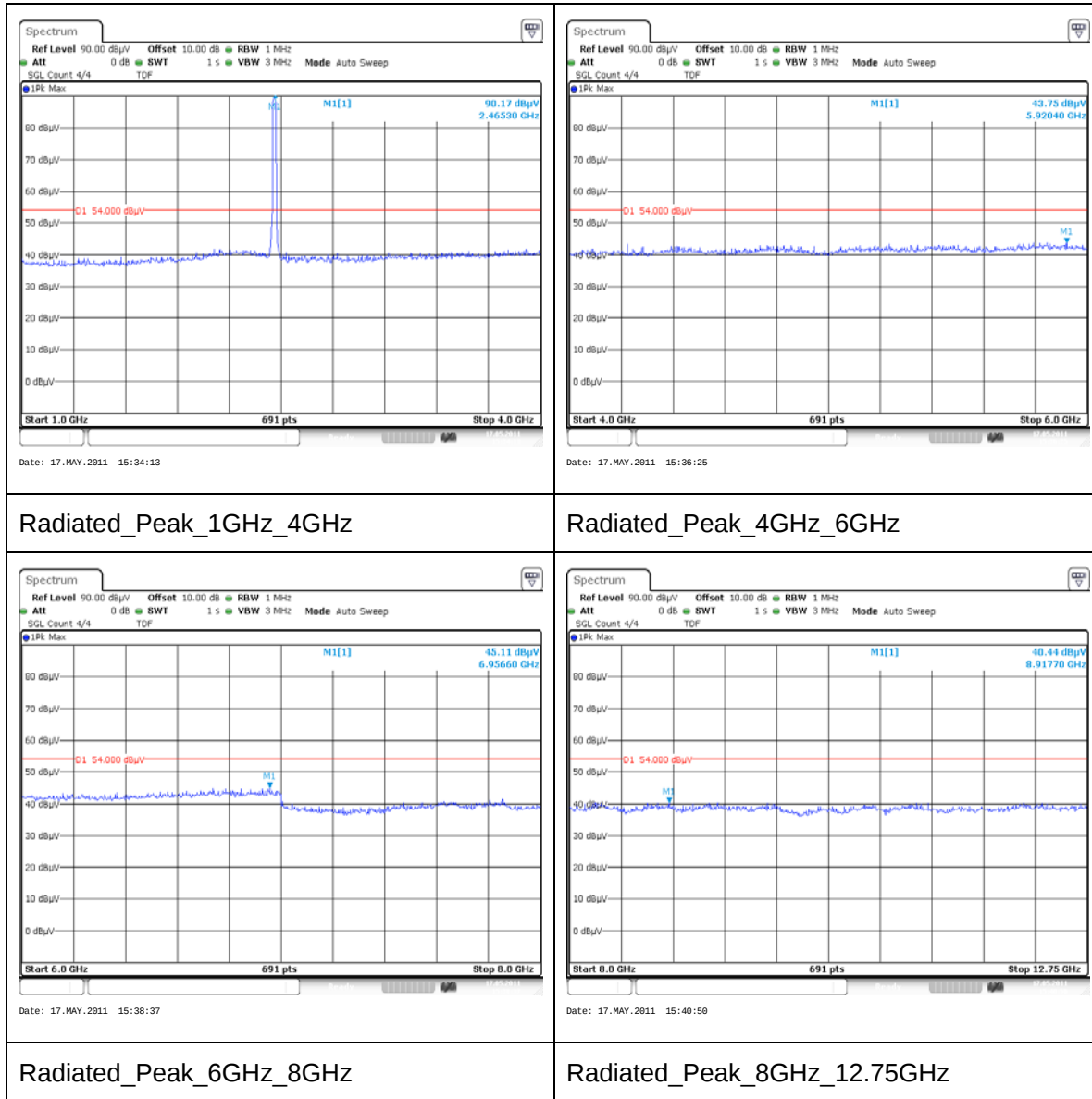
Results:

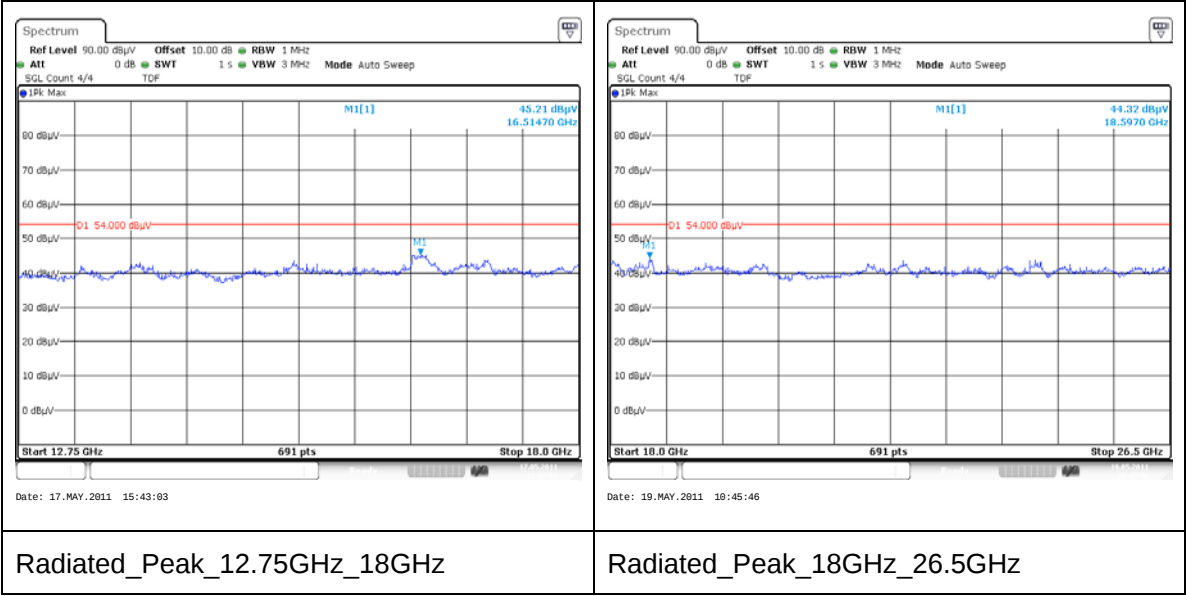
Frequency (MHz)	Antenna Polarity	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
16514.7	Vertical	45.2	*54.0	8.8	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss
2. All other emissions shown on the pre-scan plot were investigated and found to be ambient or >20 dB below the applicable limit or below the measurement system noise floor.
3. No spurious emissions were detected above the noise floor of the measuring receiver therefore the highest peak noise floor reading of the measuring receiver was recorded as shown in the table above.
4. The emission shown on the 1 GHz to 4 GHz plot is the EUT fundamental.

* The average limit was compared to the peak level as opposed to being compared to the peak limit because this is the more stringent limit.

Transmitter Radiated Emissions (continued)



5.7.5. Transmitter Band Edge Radiated Emissions**Test Summary:**

Test Engineer:	Nigel Davison	Test Date:	10 May and 18 May 2011
Test Sample Serial No:	ID:1		
Antenna:	EX-IT 2400-MHF 28-001		

FCC/IC Part:	15.247(d), 15.209(a), RSS-Gen 4.9 and RSS-210 A8.5
Test Method Used:	As detailed in ANSI C63.10 Section 6.9.2

Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	30

Results: Peak and Average 802.11b

Frequency (MHz)	Data Rate Mbps	Modulation Type	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
2400.0	1	BPSK	52.1	*76.8	24.7	Complied
2483.5	1	BPSK	51.2	74.0	22.8	Complied
2483.5	1	BPSK	39.6	54.0	14.4	Complied
2400.0	2	QPSK	52.4	*76.3	23.9	Complied
2483.5	2	QPSK	51.3	74.0	22.7	Complied
2483.5	2	QPSK	39.9	54.0	14.1	Complied
2400.0	5.5	CCK	50.7	*77.1	26.4	Complied
2483.5	5.5	CCK	50.9	74.0	23.1	Complied
2483.5	5.5	CCK	39.6	54.0	14.4	Complied
2400.0	11	CCK	51.2	*76.9	25.7	Complied
2483.5	11	CCK	51.5	74.0	22.5	Complied
2483.5	11	CCK	39.6	54.0	14.4	Complied

Transmitter Band Edge Radiated Emissions (continued)**Results: Peak and Average 802.11g**

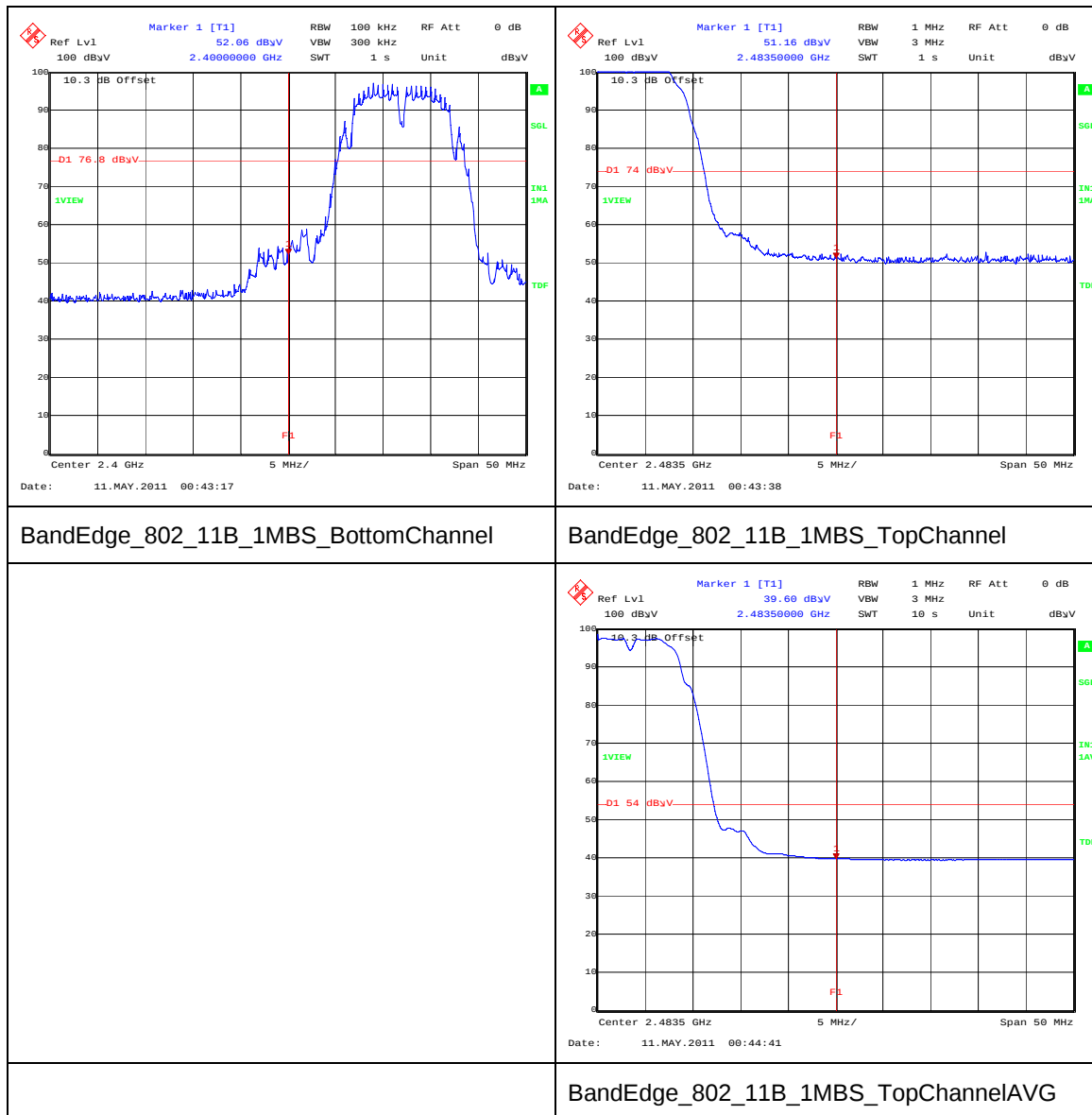
Frequency (MHz)	Data Rate Mbps	Modulation Type	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2400.0	6	BPSK	61.8	*71.6	9.8	Complied
2483.5	6	BPSK	56.3	74.0	17.7	Complied
2483.5	6	BPSK	41.3	54.0	12.7	Complied
2400.0	9	BPSK	61.2	*71.6	10.4	Complied
2483.5	9	BPSK	59.9	74.0	14.1	Complied
2483.5	9	BPSK	41.4	54.0	12.6	Complied
2400.0	12	QPSK	59.7	*71.6	11.9	Complied
2483.5	12	QPSK	55.1	74.0	18.9	Complied
2483.5	12	QPSK	41.3	54.0	12.7	Complied
2400.0	18	QPSK	61.8	*72.0	10.2	Complied
2483.5	18	QPSK	54.8	74.0	19.2	Complied
2483.5	18	QPSK	41.3	54.0	12.7	Complied
2400.0	24	16QAM	60.3	*72.8	12.5	Complied
2483.5	24	16QAM	56.6	74.0	17.4	Complied
2483.5	24	16QAM	41.4	54.0	12.6	Complied
2400.0	36	16QAM	60.5	*72.3	11.8	Complied
2483.5	36	16QAM	55.2	74.0	18.8	Complied
2483.5	36	16QAM	41.4	54.0	12.6	Complied
2400.0	48	64QAM	60.5	*73.3	12.8	Complied
2483.5	48	64QAM	56.1	74.0	17.9	Complied
2483.5	48	64QAM	41.4	54.0	12.6	Complied
2400.0	54	64QAM	60.1	*72.5	12.4	Complied
2483.5	54	64QAM	51.0	74.0	23.0	Complied
2483.5	54	64QAM	41.4	54.0	12.6	Complied

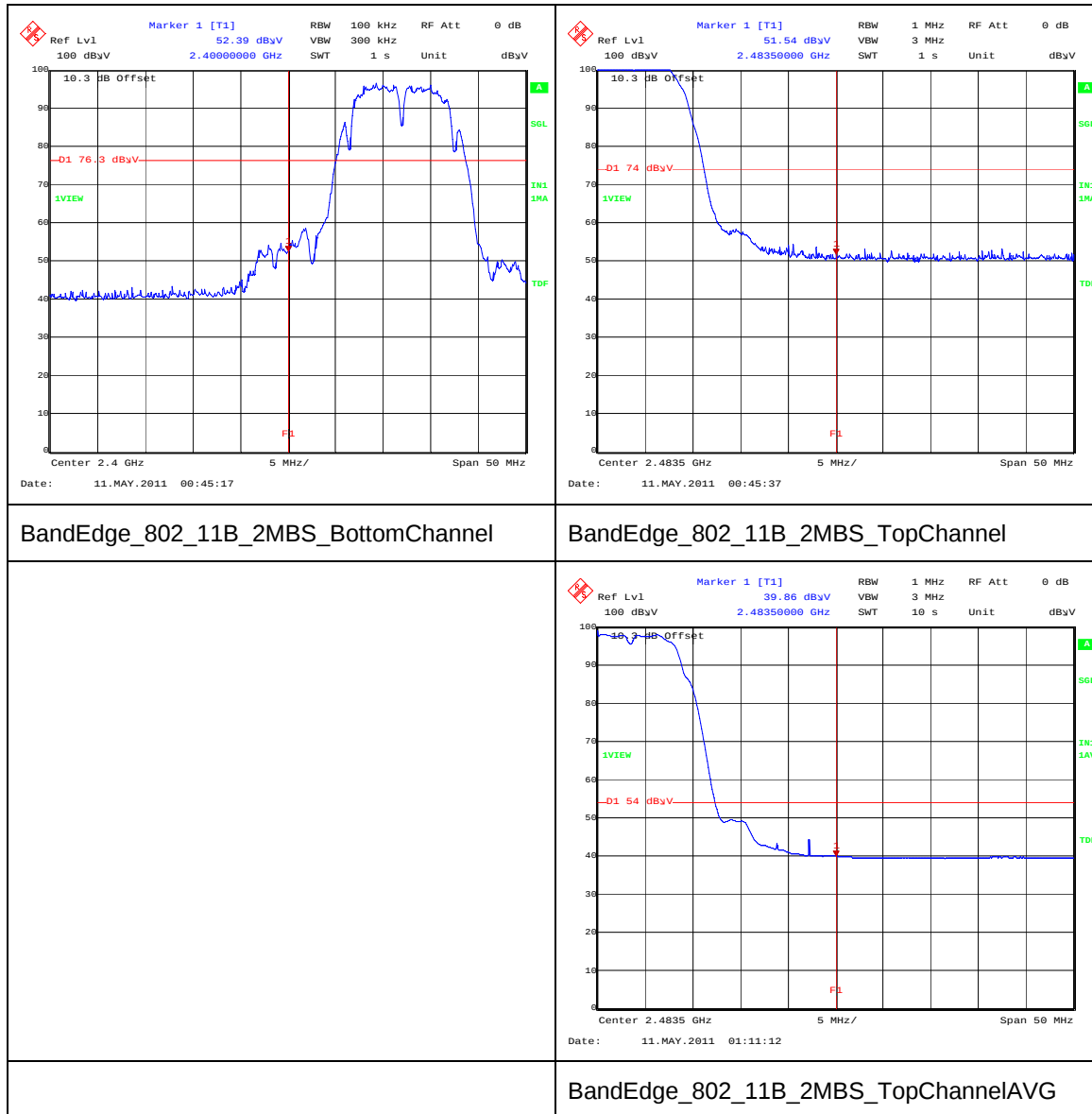
Transmitter Band Edge Radiated Emissions (continued)**Results: Peak and Average 802.11n**

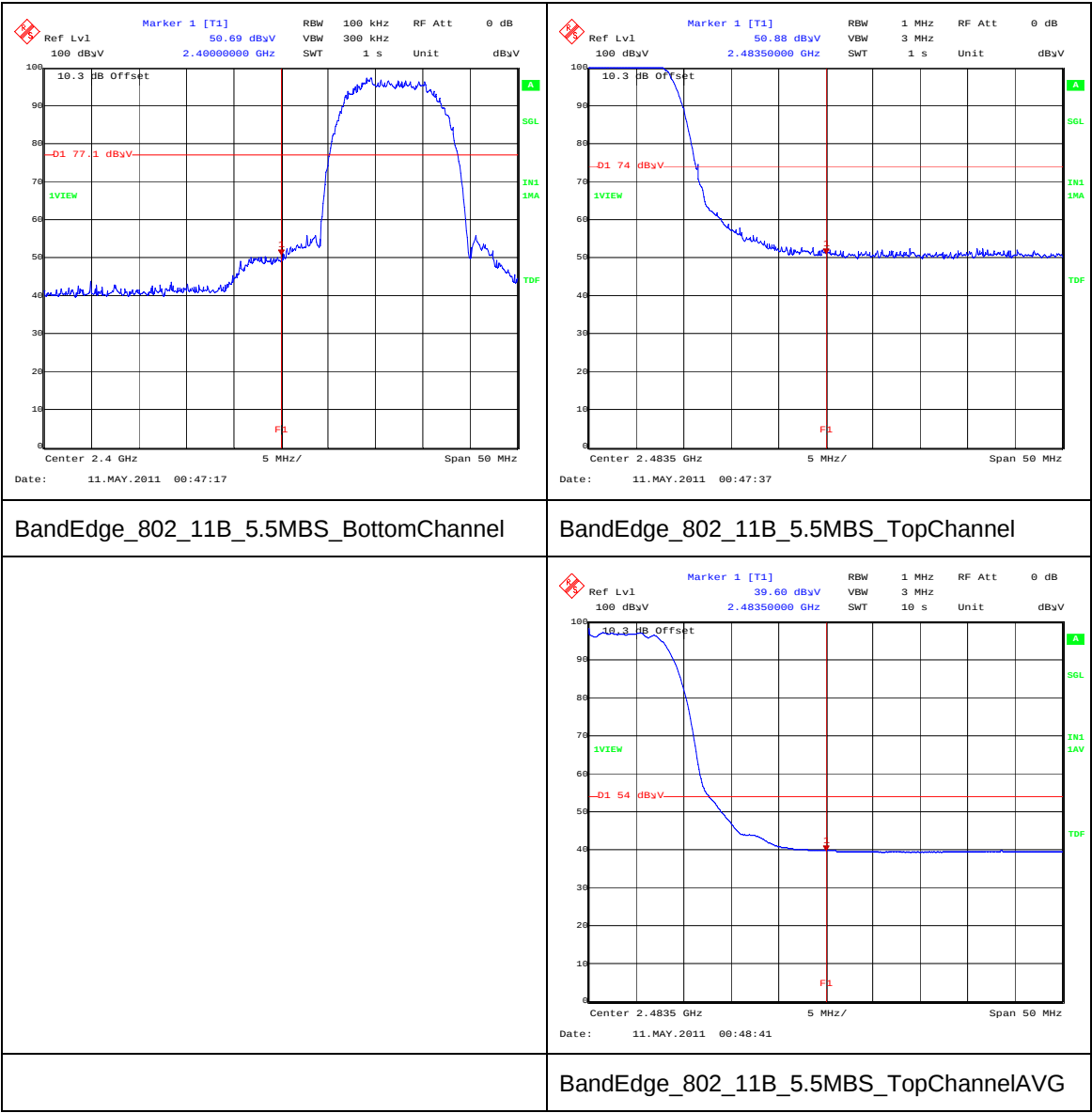
Frequency (MHz)	Data Rate Mbps	Modulation Type	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2400.0	6.5	BPSK	57.3	*69.0	11.7	Complied
2483.5	6.5	BPSK	53.7	74.0	20.3	Complied
2483.5	6.5	BPSK	40.9	54.0	13.1	Complied
2400.0	13	BPSK	54.6	*69.1	14.5	Complied
2483.5	13	BPSK	53.2	74.0	20.8	Complied
2483.5	13	BPSK	41.0	54.0	13.0	Complied
2400.0	19.5	QPSK	55.1	*68.4	13.3	Complied
2483.5	19.5	QPSK	54.0	74.0	20.0	Complied
2483.5	19.5	QPSK	40.9	54.0	13.1	Complied
2400.0	26	QPSK	56.1	*69.7	13.6	Complied
2483.5	26	QPSK	54.8	74.0	19.2	Complied
2483.5	26	QPSK	45.5	54.0	8.5	Complied
2400.0	39	16QAM	55.6	*70.3	14.7	Complied
2483.5	39	16QAM	52.8	74.0	21.2	Complied
2483.5	39	16QAM	40.9	54.0	13.1	Complied
2400.0	52	16QAM	56.1	*69.9	13.8	Complied
2483.5	52	16QAM	53.5	74.0	20.5	Complied
2483.5	52	16QAM	40.9	54.0	13.1	Complied
2400.0	58.5	64QAM	54.7	*70.1	15.4	Complied
2483.5	58.5	64QAM	54.4	74.0	19.6	Complied
2483.5	58.5	64QAM	41.2	54.0	12.8	Complied
2400.0	65	64QAM	55.8	*70.2	14.4	Complied
2483.5	65	64QAM	54.0	74.0	20.0	Complied
2483.5	65	64QAM	40.9	54.0	13.1	Complied

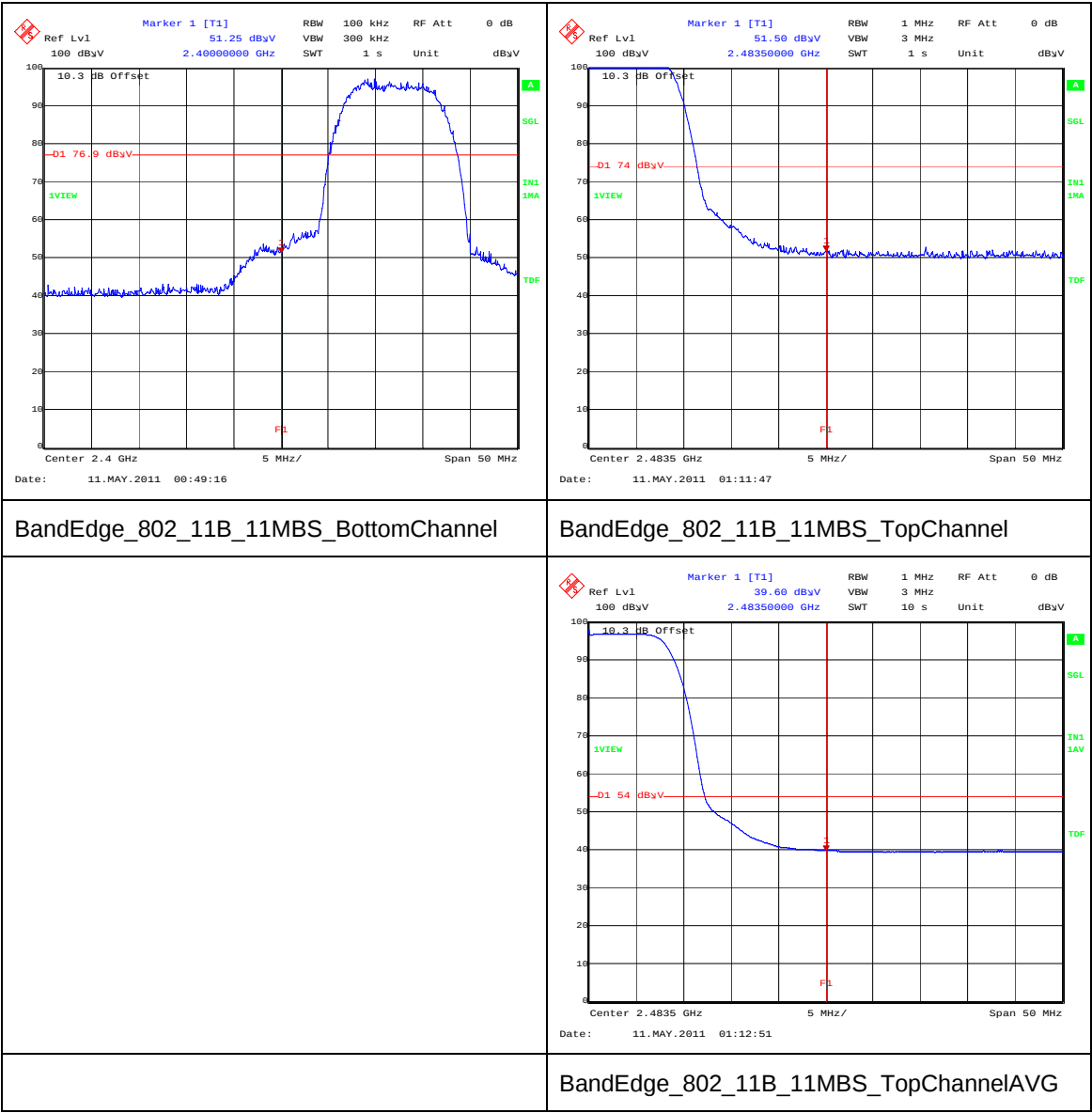
Note(s):

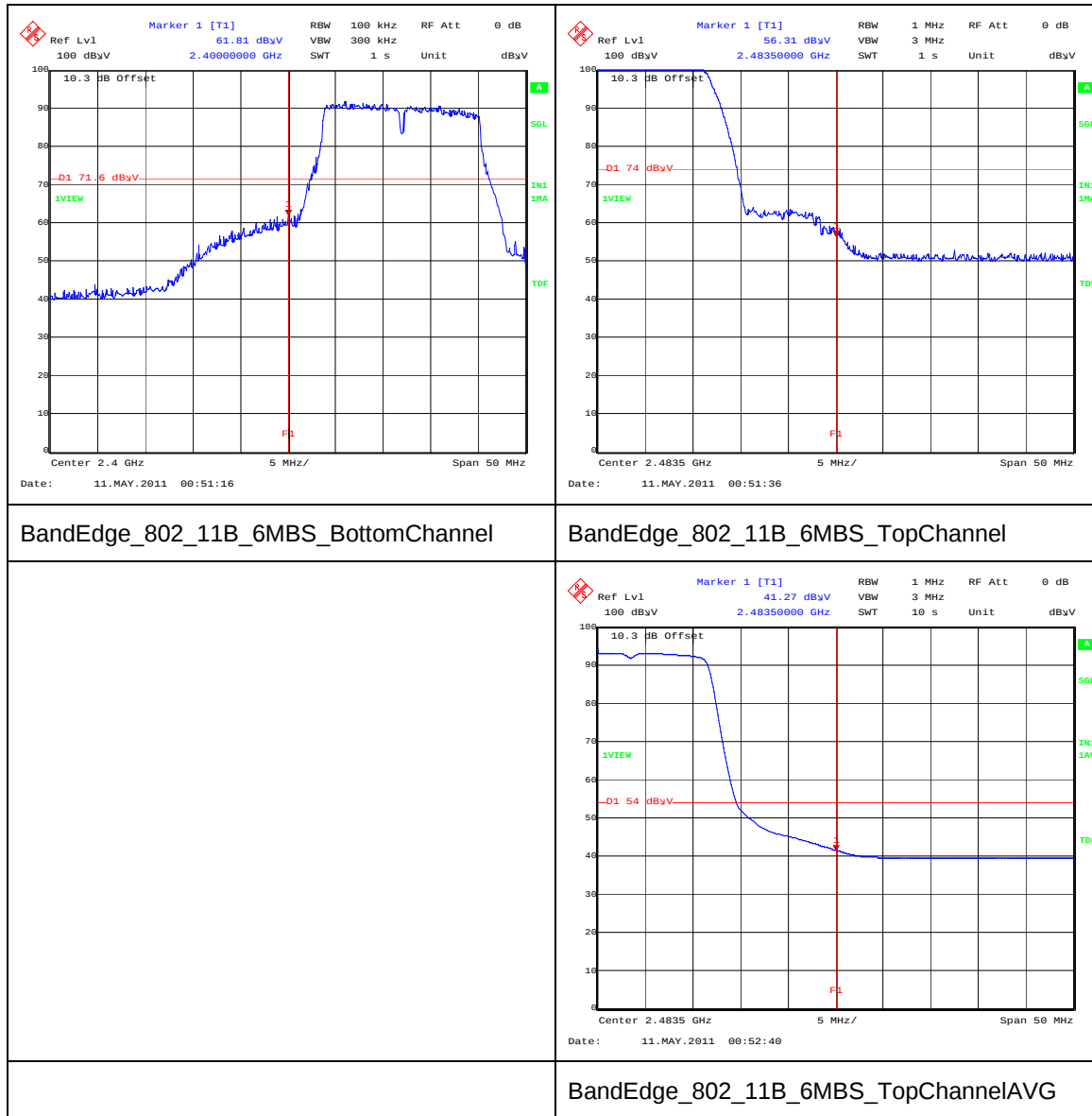
1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss.
2. * -20 dBc limit.

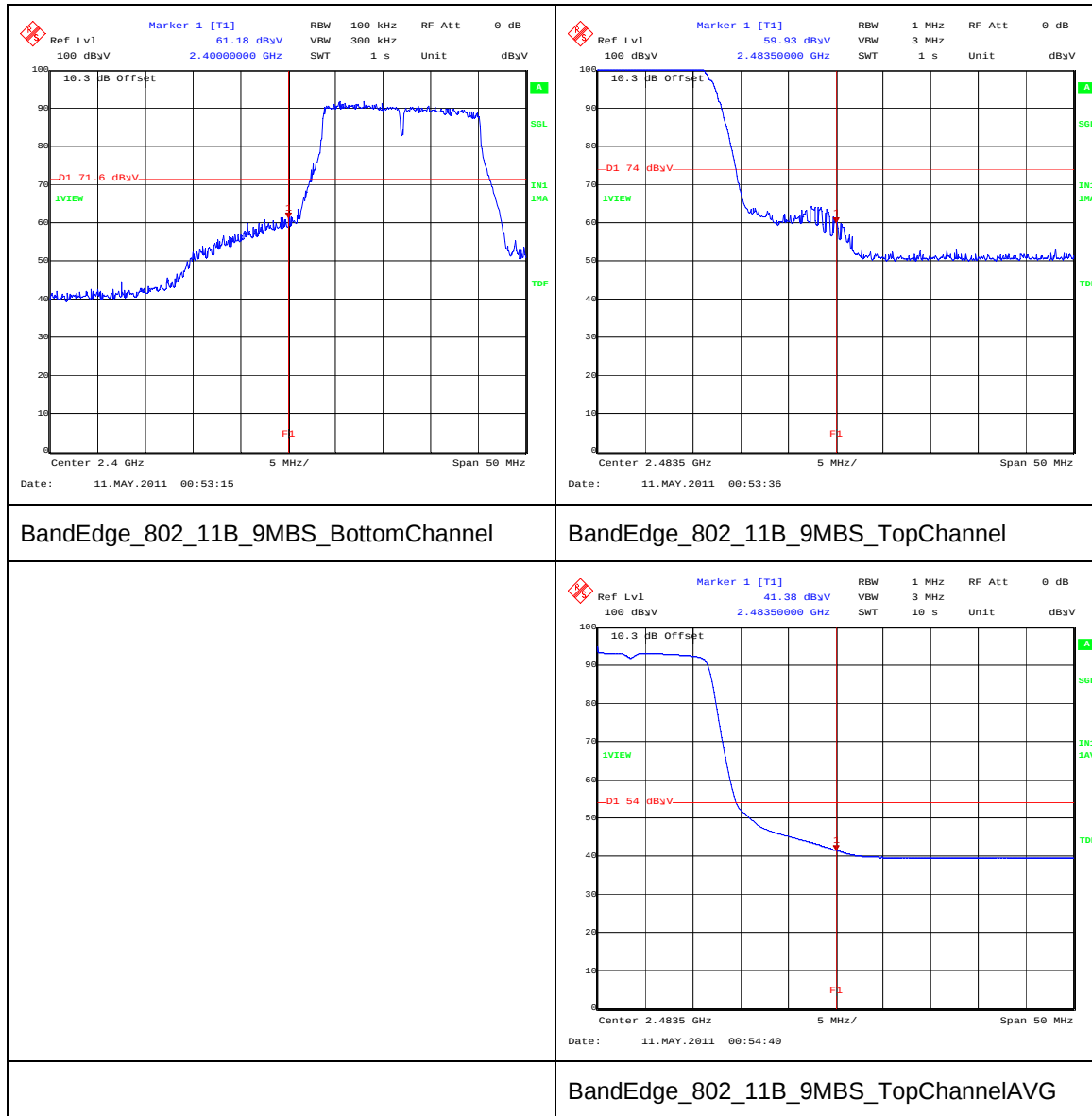
Transmitter Band Edge Radiated Emissions (continued)

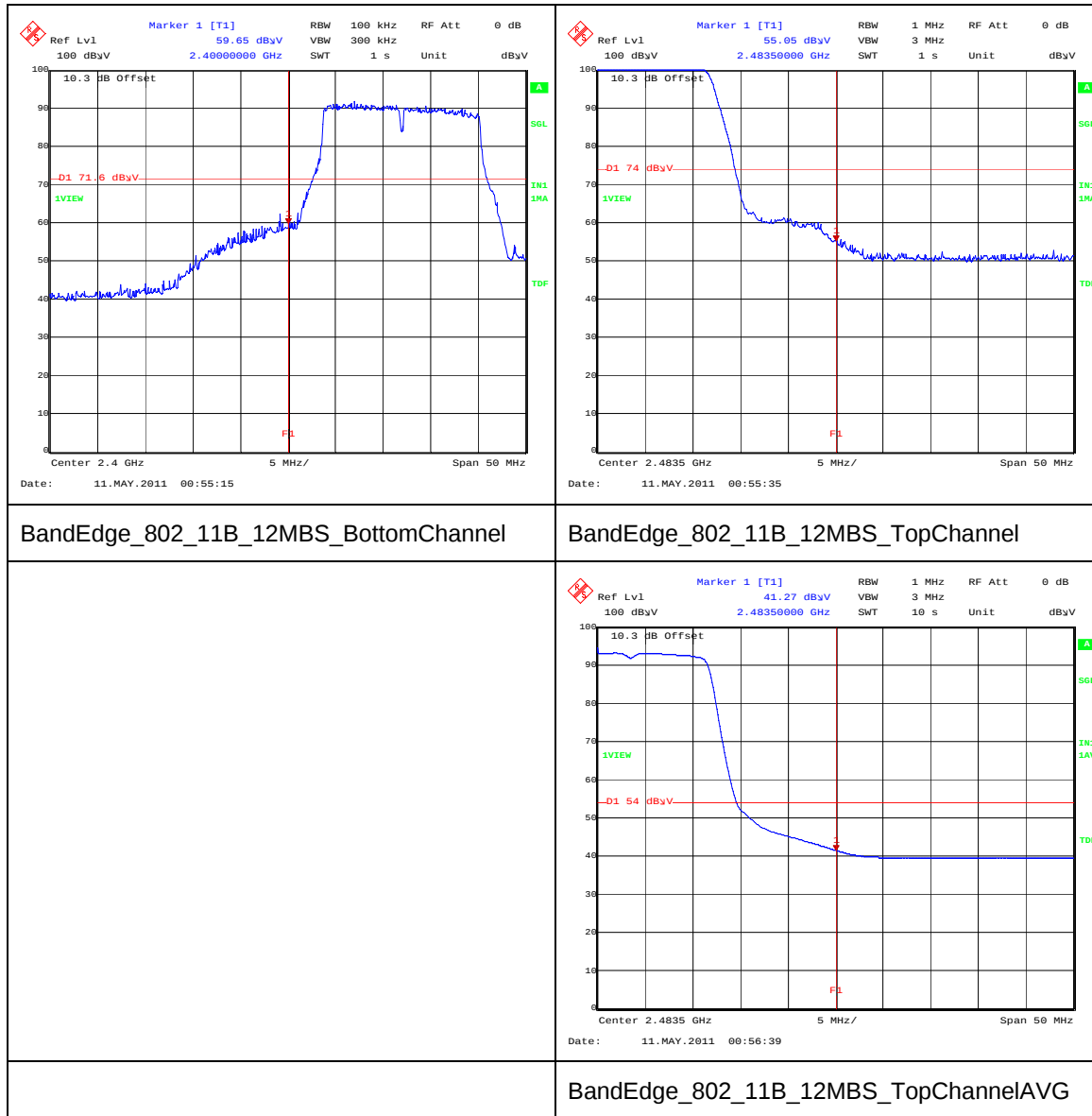


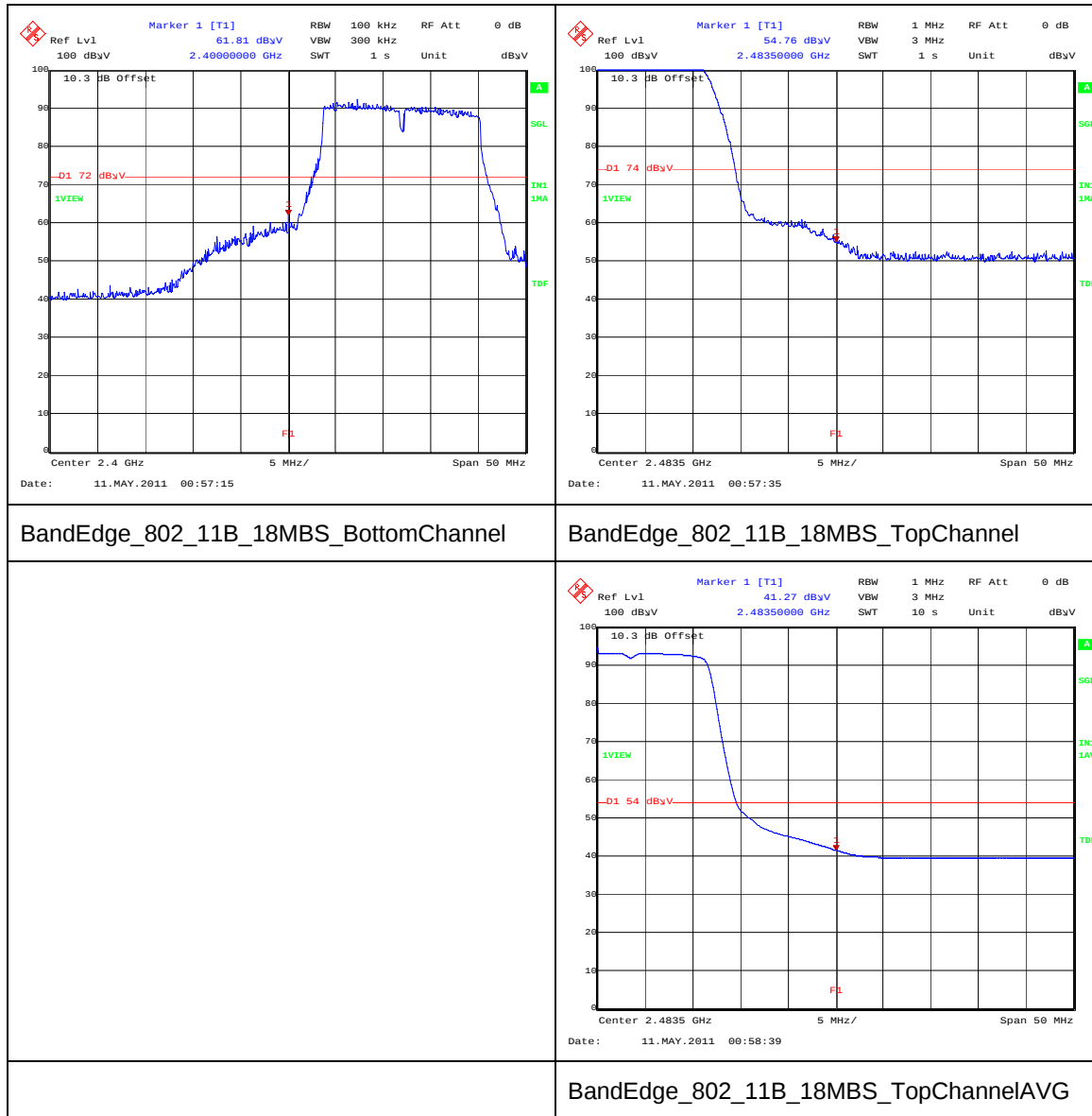


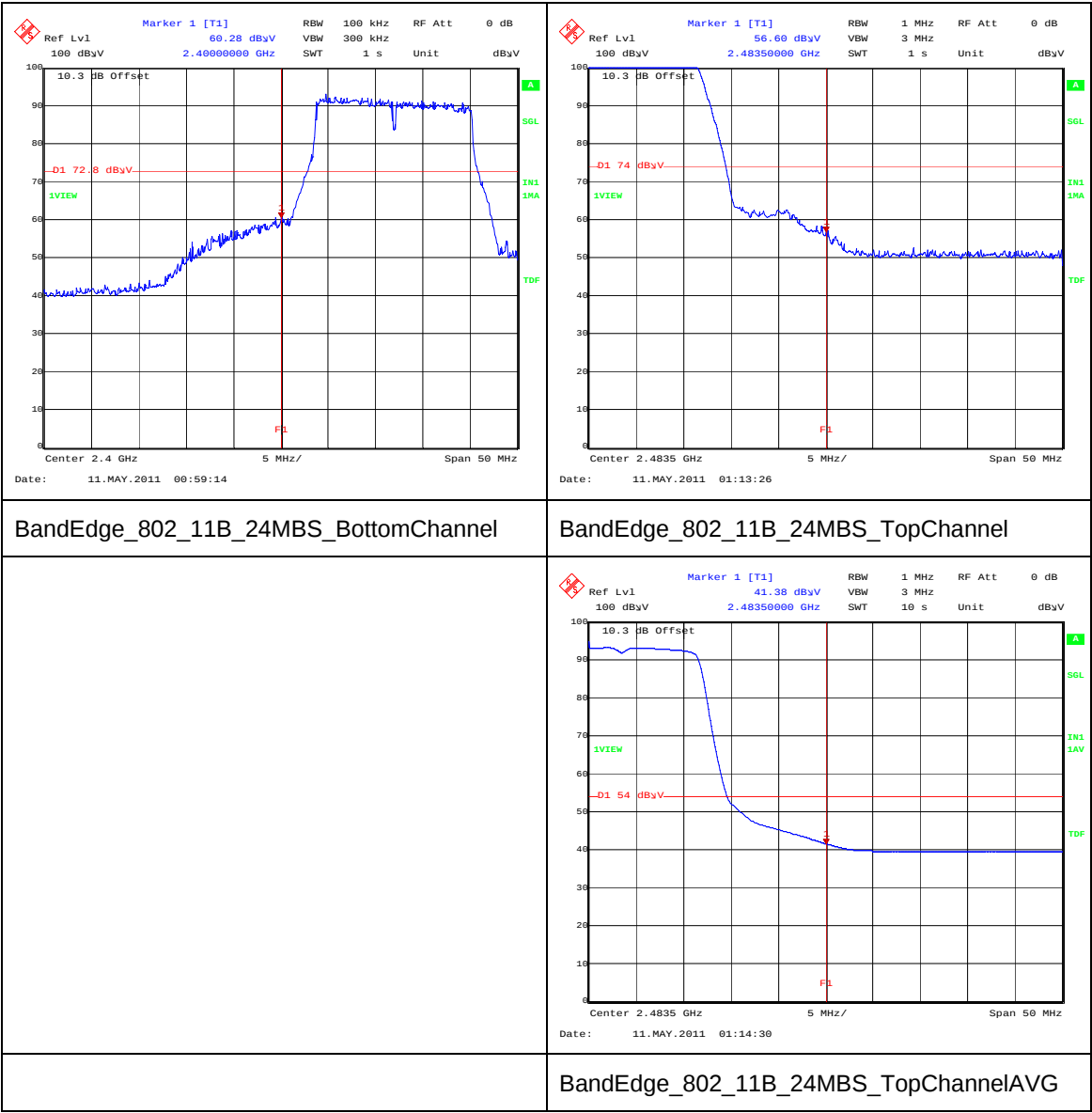


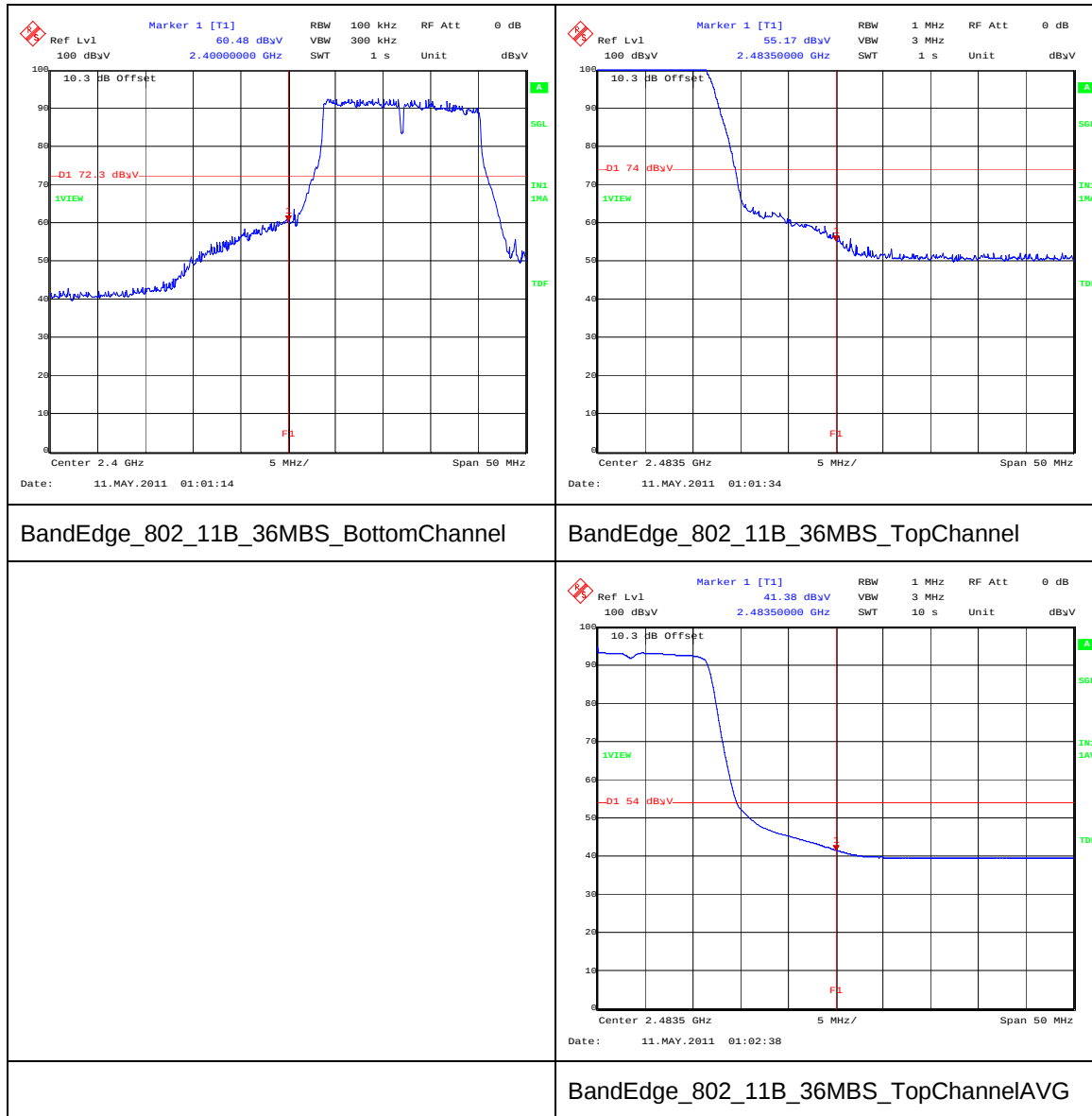


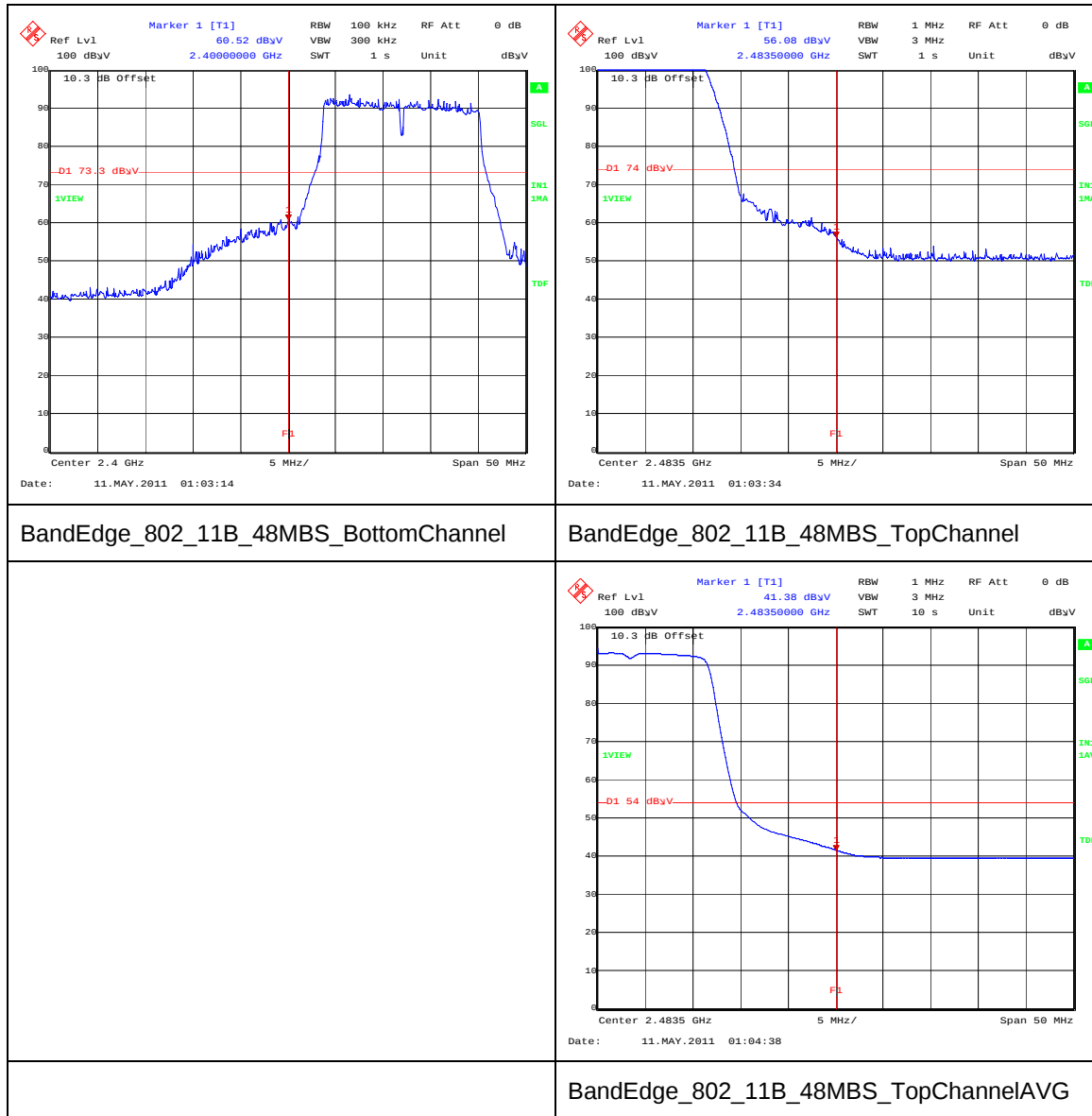


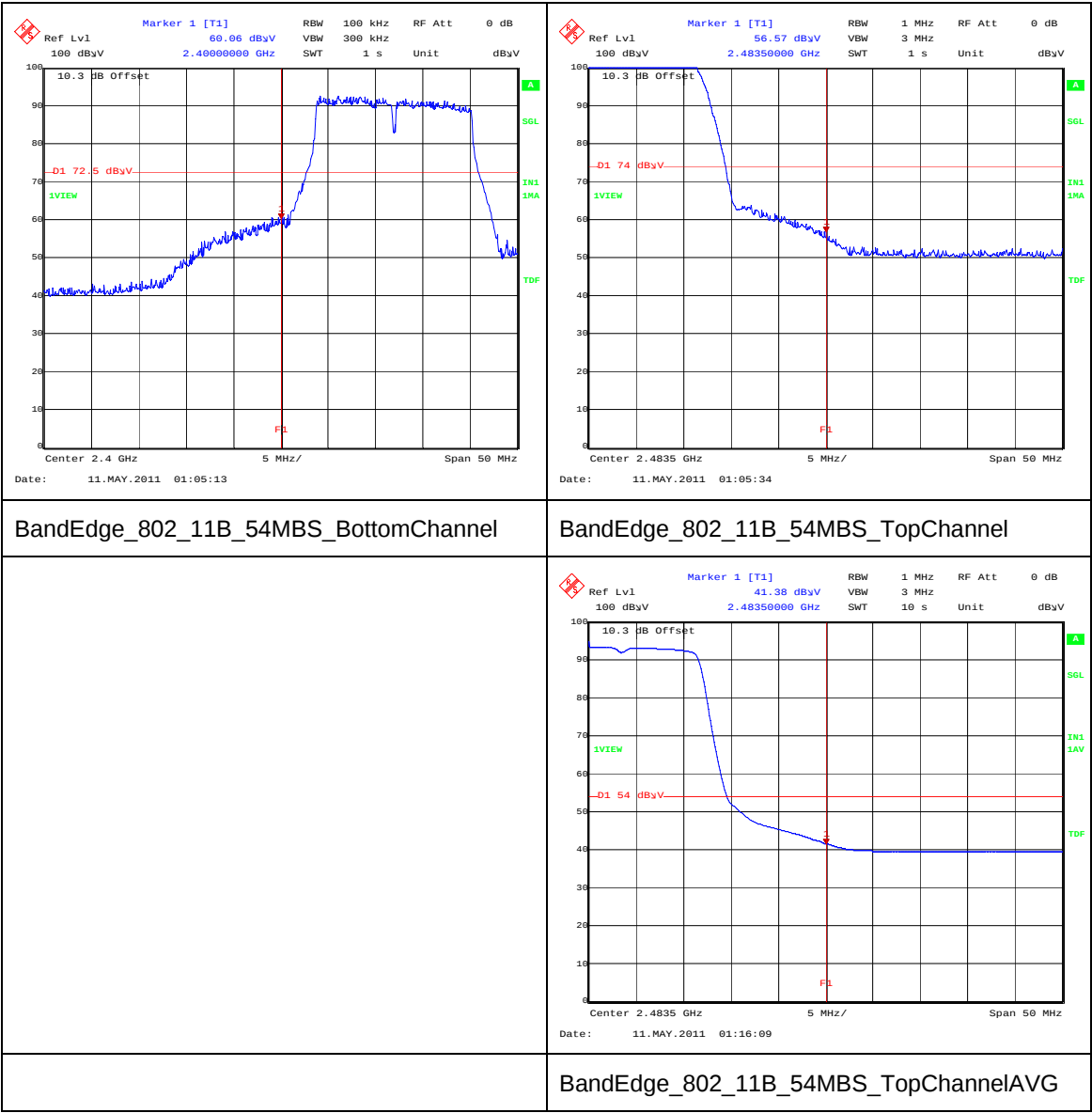


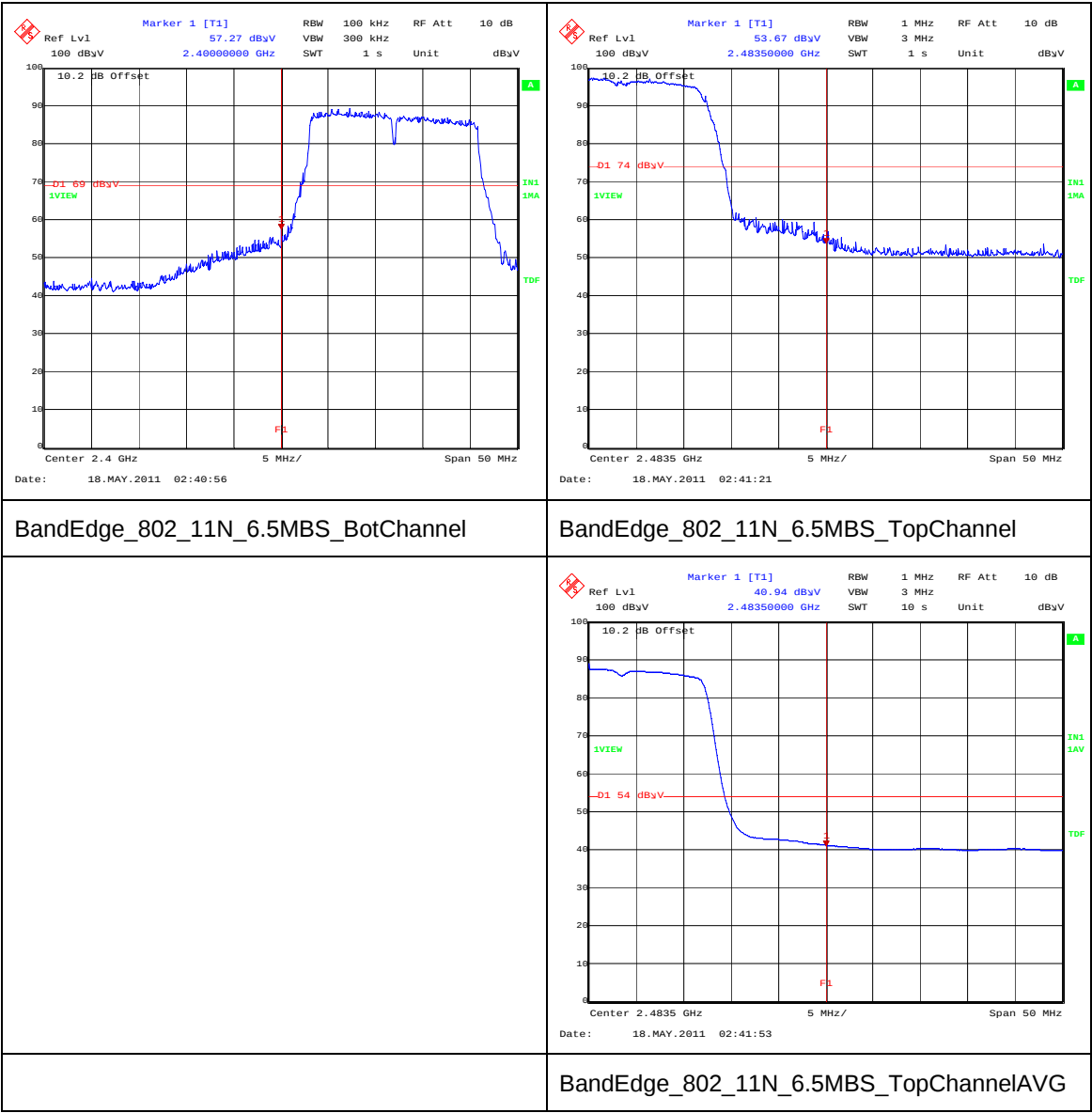


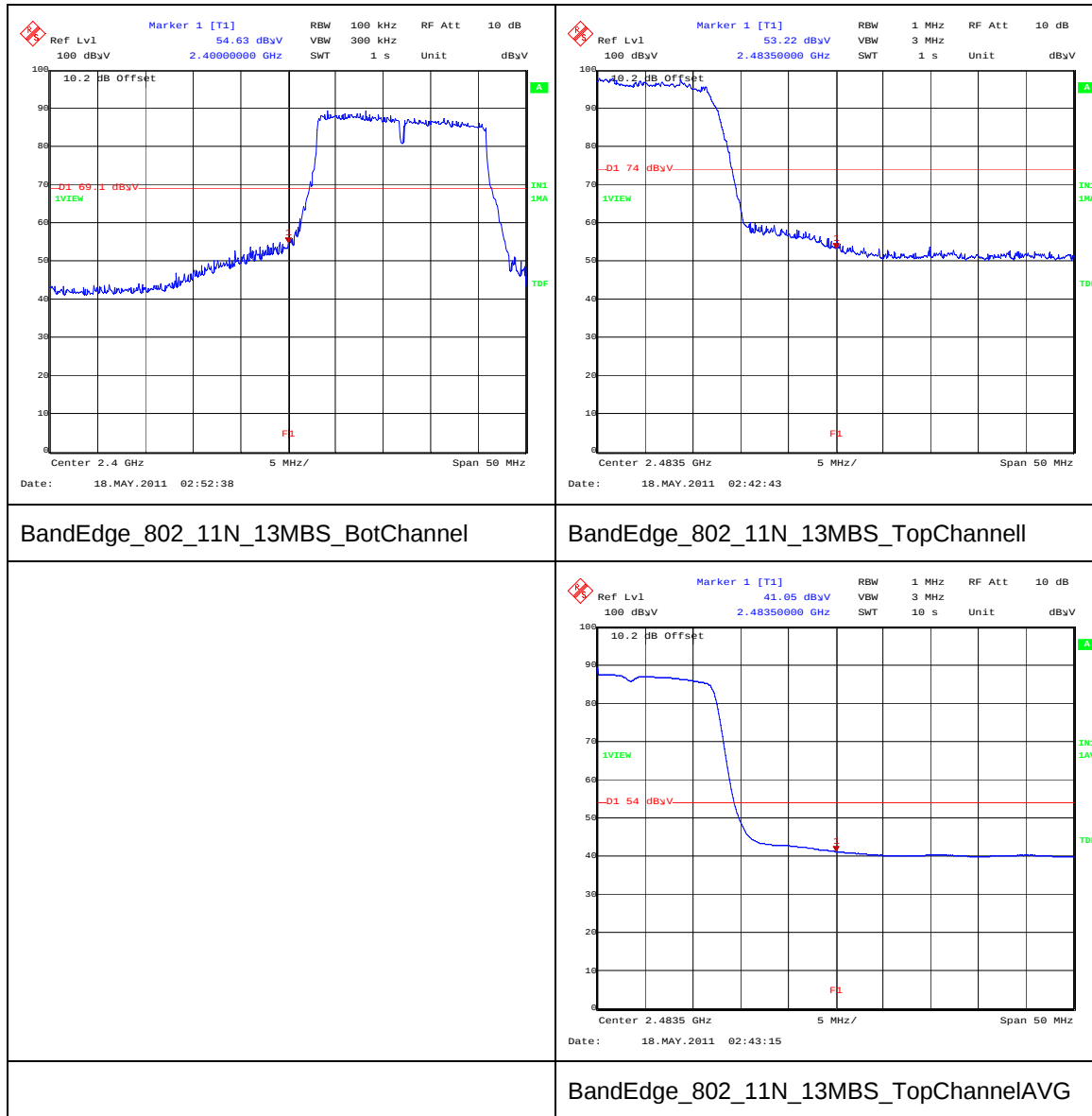


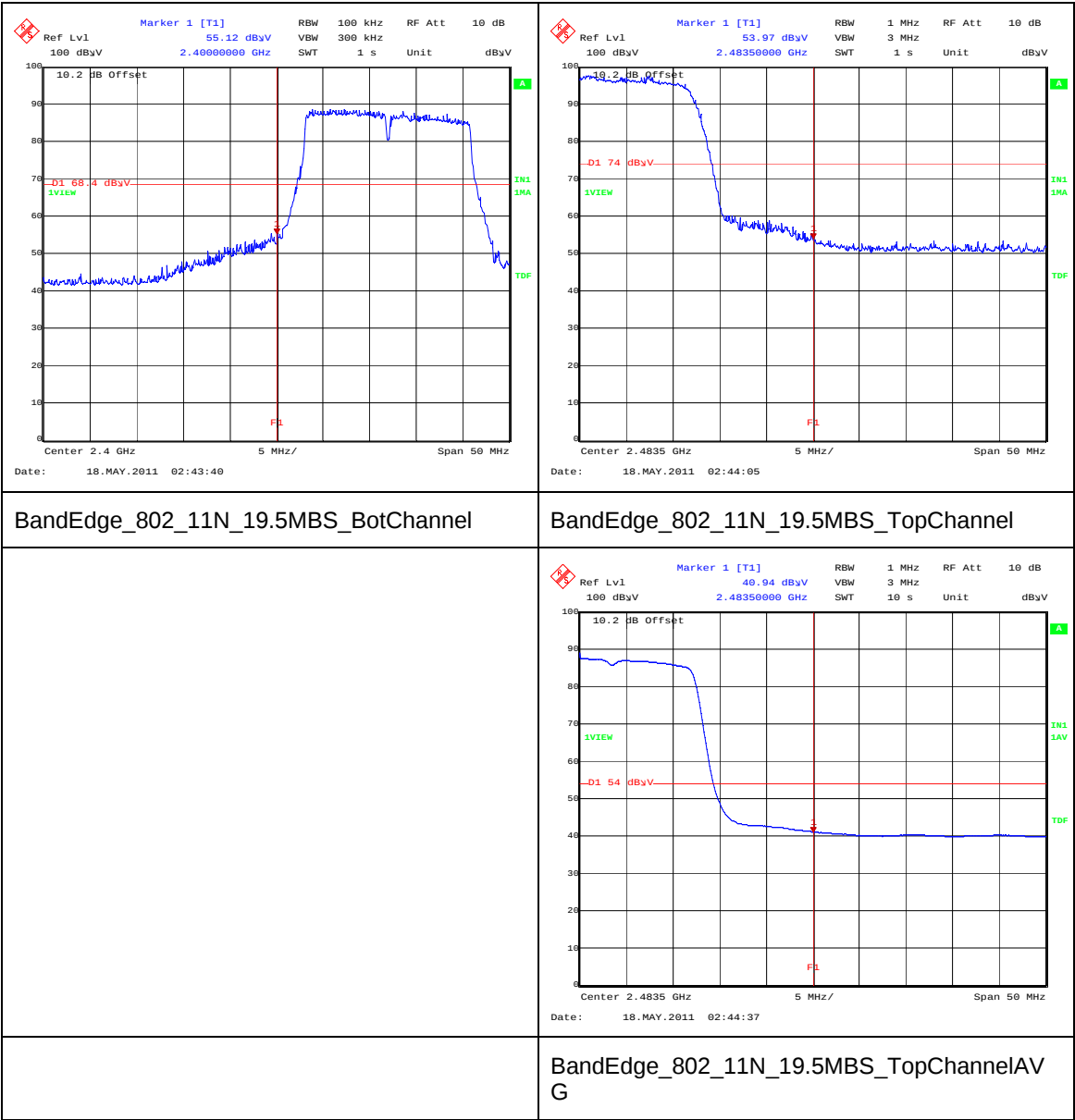


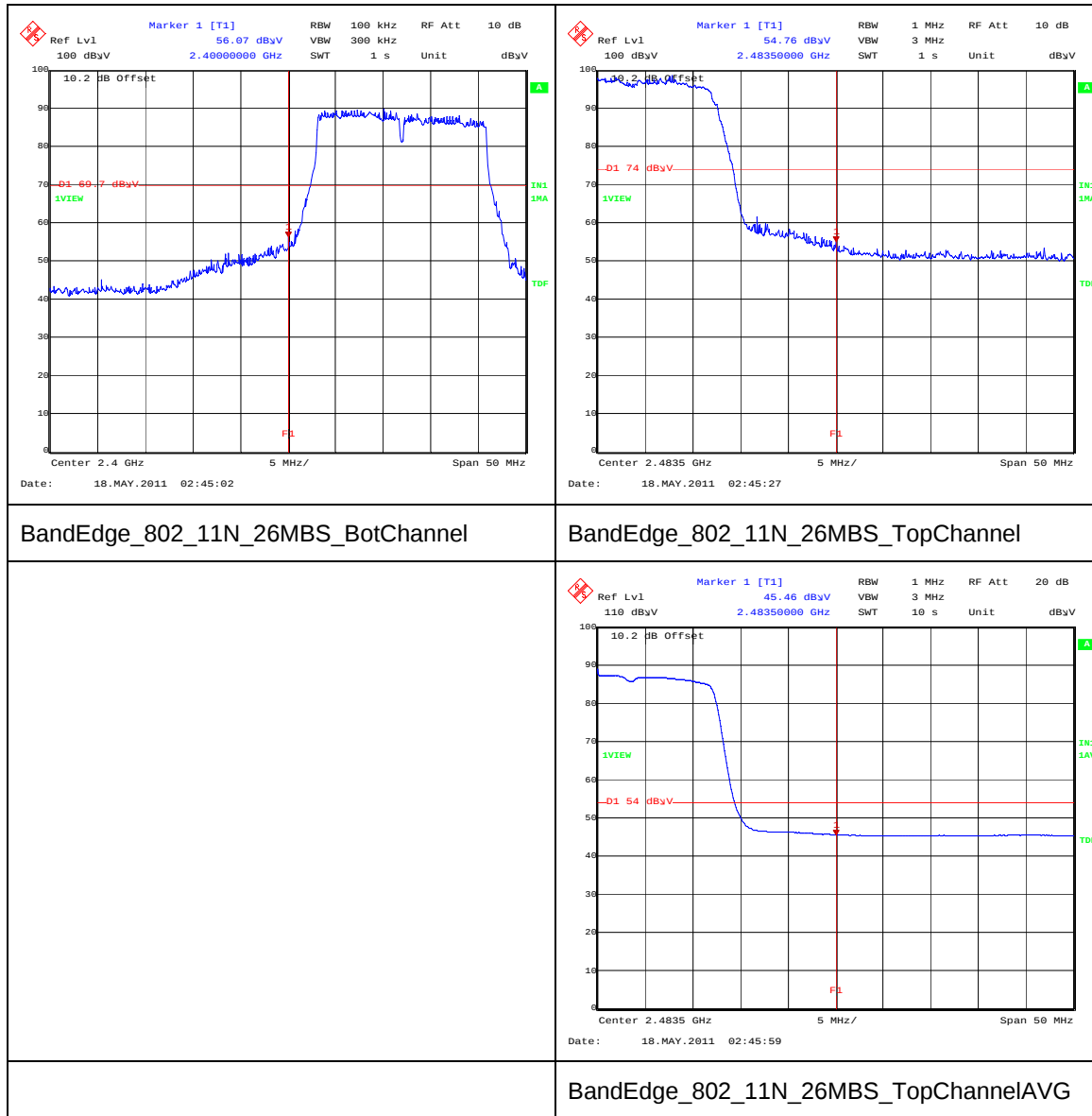


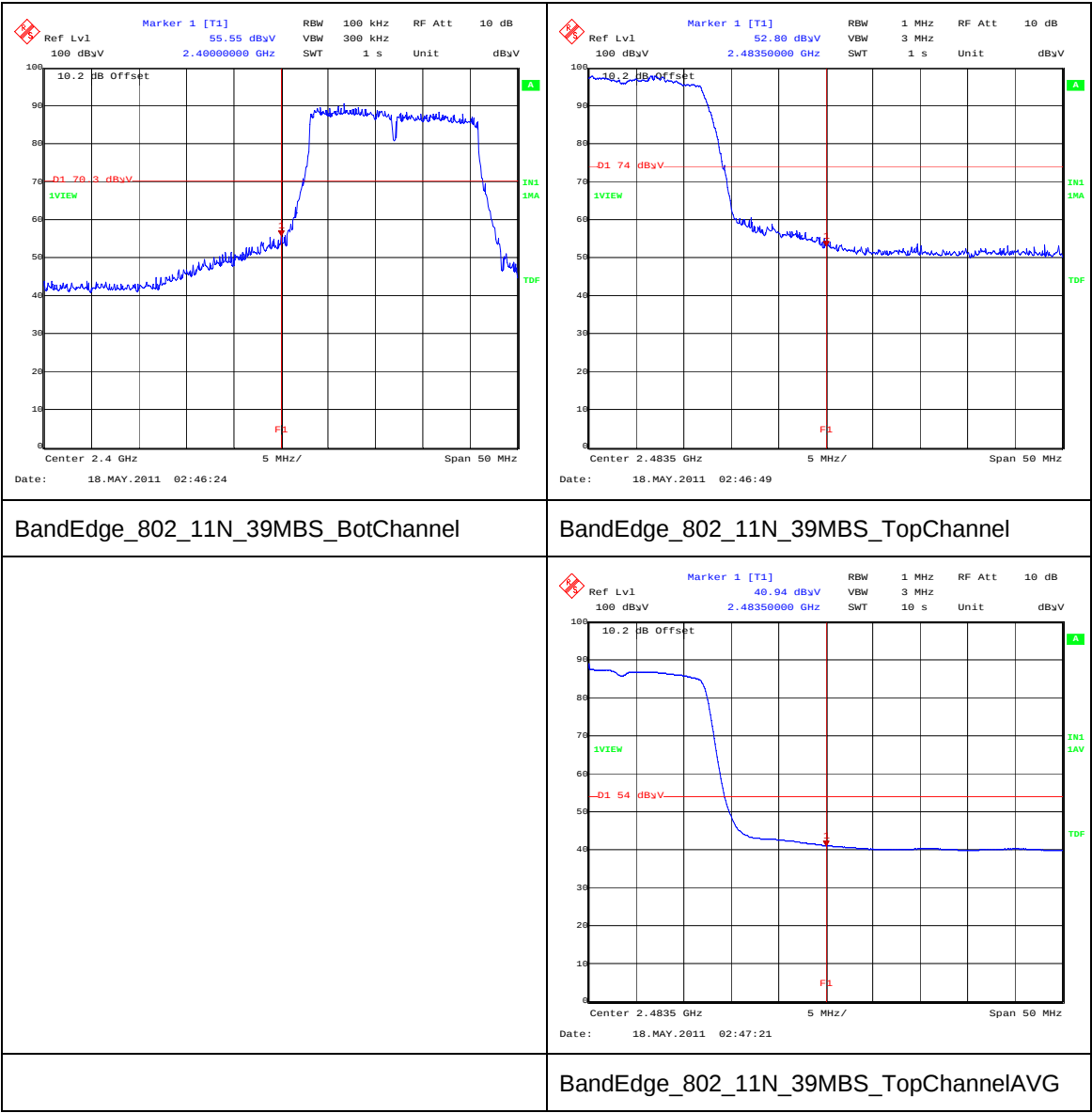


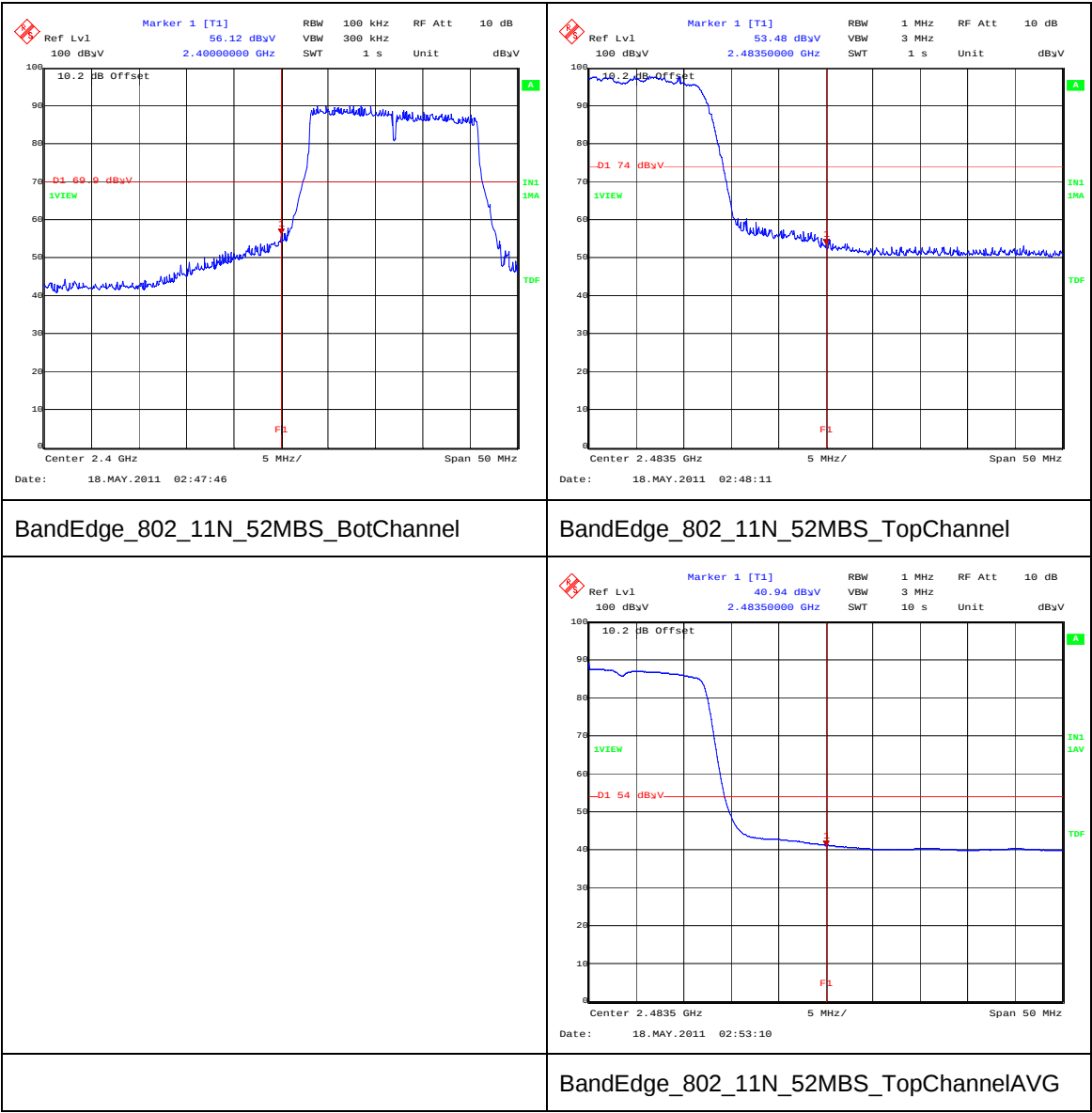


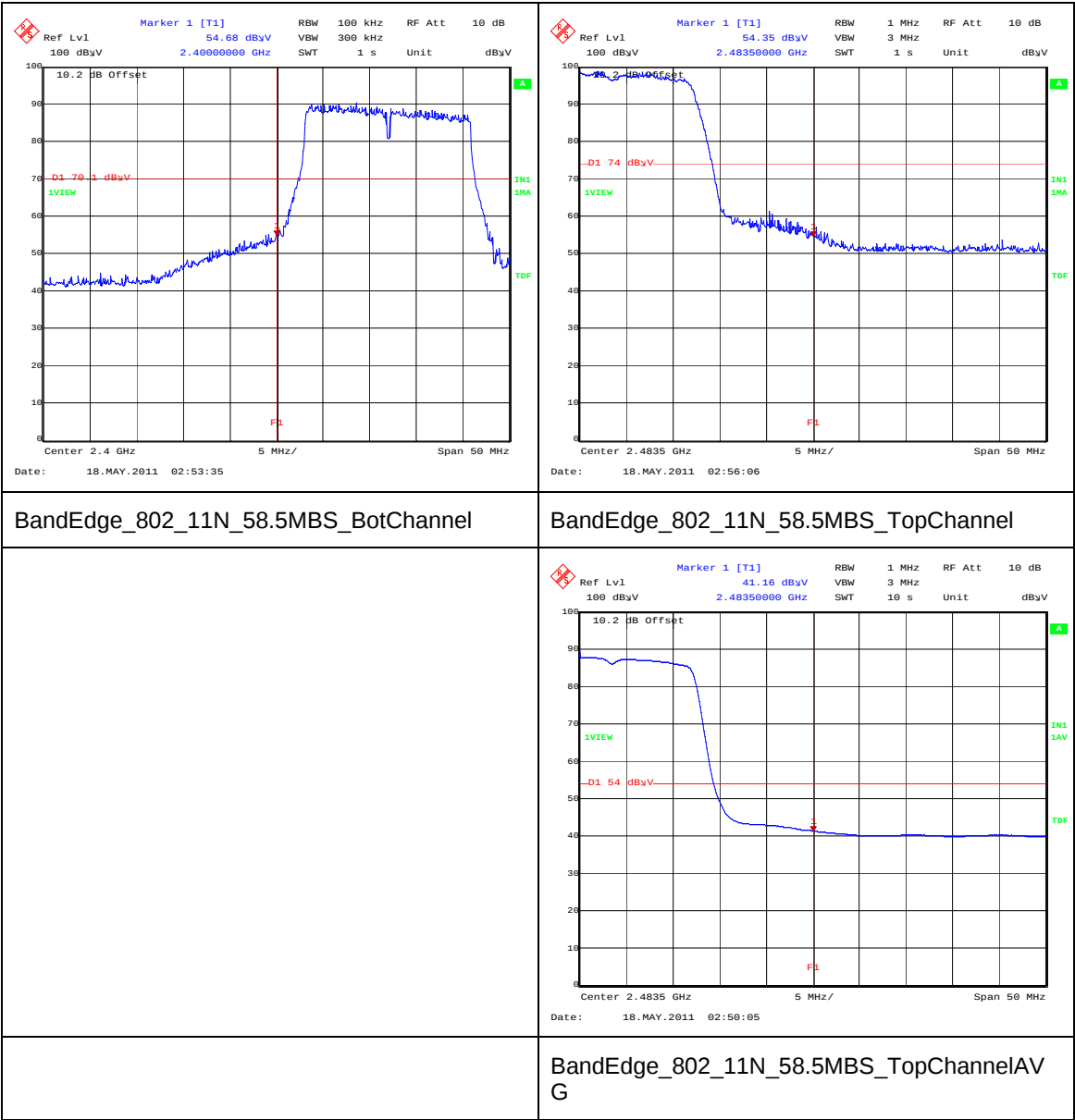


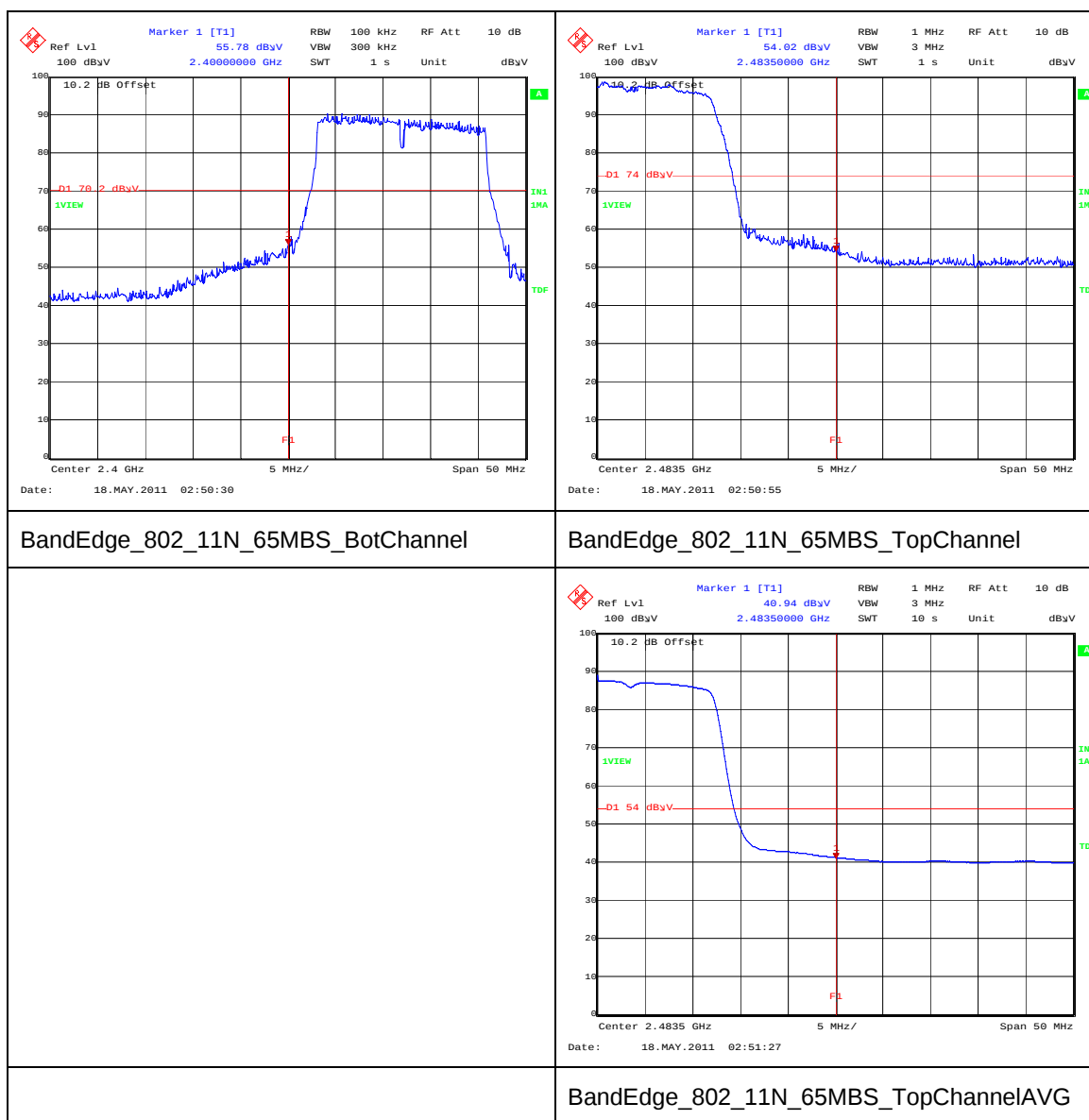












5.8. Test Results – EX-IT 2400-MHF 70-001 Antenna:**5.8.1. Receiver/Idle Mode Radiated Spurious Emissions****Test Summary:**

Test Engineer:	Nigel Davison	Test Date:	17 May 2011
Test Sample IMEI:	ID:1		
Antenna:	EX-IT 2400-MHF 70-001		

FCC/IC Part:	15.109 and RSS-Gen 4.10 / RSS-Gen 6.1
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.5 referencing ANSI C63.4
Frequency Range:	30 MHz to 1000 MHz

Environmental Conditions:

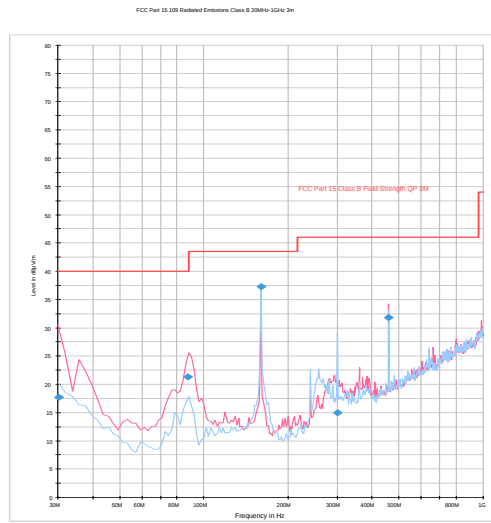
Temperature (°C):	24
Relative Humidity (%):	23

Results: Quasi Peak

Frequency (MHz)	Antenna Polarity	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
30.000	Vertical	29.3	40.0	10.7	Complied
86.372	Vertical	23.3	40.0	16.7	Complied
160.240	Horizontal	37.2	43.5	6.3	Complied
239.939	Horizontal	21.6	46.0	24.4	Complied
459.599	Horizontal	32.1	46.0	13.9	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss.
2. All other emissions shown on the pre-scan plot were investigated and found to be ambient or >20 dB below the applicable limit or below the measurement system noise floor.

Receiver/Idle Mode Radiated Spurious Emissions (continued)

Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying table.

Receiver/Idle Mode Radiated Spurious Emissions (continued)**Test Summary:**

Test Engineer:	Nick Steele	Test Date:	17 May 2011
Test Sample IMEI:	ID:1		
Antenna:	EX-IT 2400-MHF 70-001		

FCC/IC Part:	15.109 and RSS-Gen 4.10 / RSS-Gen 6.1
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.6 referencing ANSI C63.4
Frequency Range:	1 GHz to 12.75 GHz

Environmental Conditions:

Temperature (°C):	23
Relative Humidity (%):	25

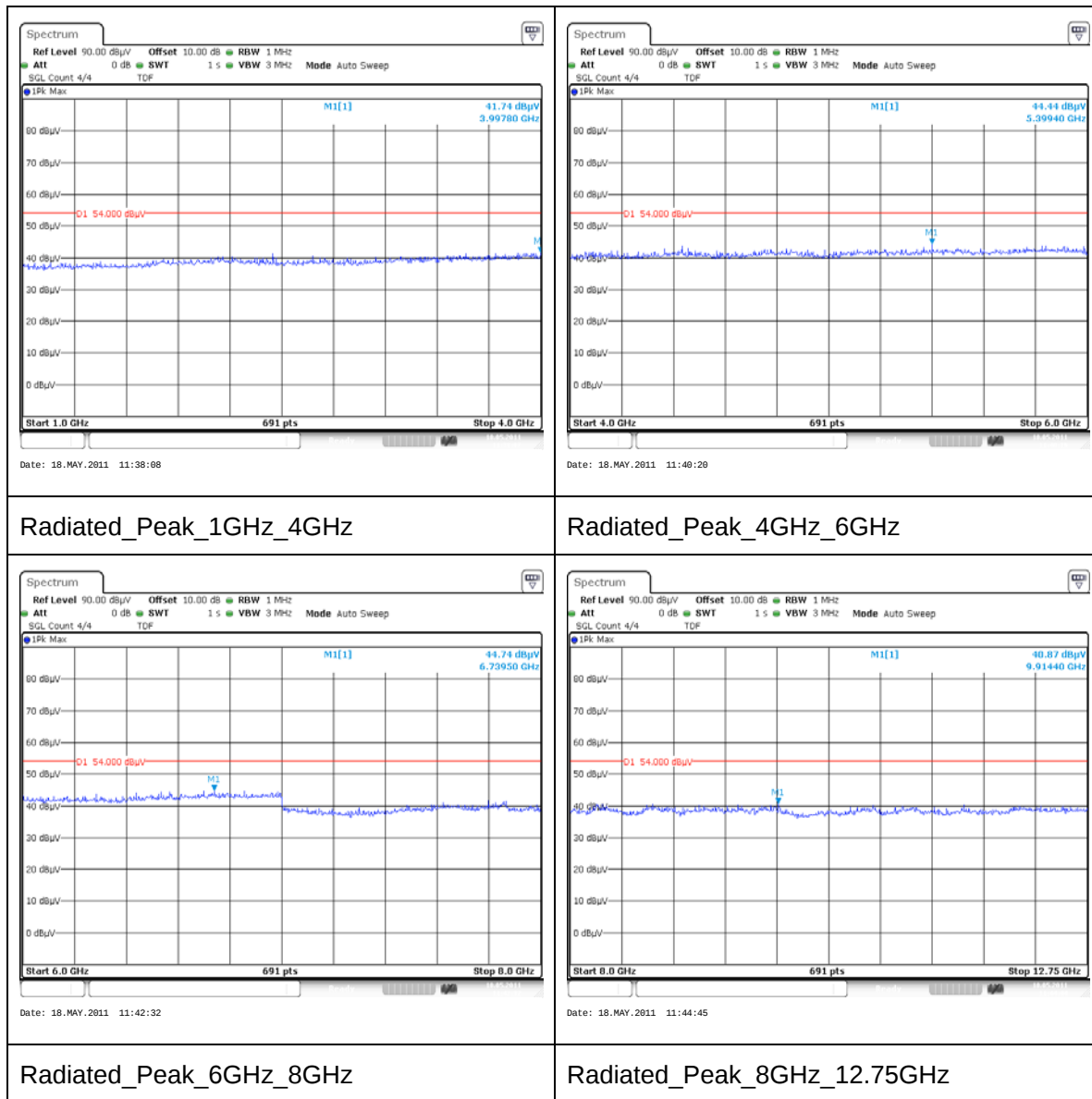
Results:

Frequency (MHz)	Antenna Polarity	Peak Level (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
6739.5	Vertical	44.7	*54.0	9.3	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss.
2. No spurious emissions were detected above the noise floor of the measuring receiver therefore the highest peak noise floor reading of the measuring receiver was recorded as shown in the table above.

* The average limit was compared to the peak level as opposed to being compared to the peak limit because this is the more stringent limit.

Receiver/Idle Mode Radiated Spurious Emissions (continued)

5.8.2. Transmitter Maximum Peak Output Power**Test Summary:**

Test Engineer:	David Lakeland	Test Date:	11 May 2011
Test Sample:	ID:1		

FCC Part:	15.247(b)(3)
Test Method Used:	As detailed in ANSI C63.10 Section 6.10.2

Note: Test method used – power meter

Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	29

Results: 802.11b

Channel	Frequency (MHz)	Mod Scheme	Data Rate (Mbps)	Conducted Peak Power (dBm)	Conducted Limit (dBm)	Margin (dB)	Result
Bottom	2412	BPSK	1	17.4	30	12.6	Complied
Middle	2437	BPSK	1	17.1	30	12.9	Complied
Top	2462	BPSK	1	16.3	30	13.7	Complied
Bottom	2412	QPSK	2	16.8	30	13.2	Complied
Middle	2437	QPSK	2	16.5	30	13.5	Complied
Top	2462	QPSK	2	16.2	30	13.8	Complied
Bottom	2412	QPSK	5.5	16.8	30	13.2	Complied
Middle	2437	QPSK	5.5	16.5	30	13.6	Complied
Top	2462	QPSK	5.5	16.1	30	13.9	Complied
Bottom	2412	QPSK	11	16.7	30	13.3	Complied
Middle	2437	QPSK	11	16.5	30	13.6	Complied
Top	2462	QPSK	11	16.2	30	13.9	Complied

Transmitter Maximum Peak Output Power (continued)**Results: 802.11g**

Channel	Frequency (MHz)	Mod Scheme	Data Rate (Mbps)	Conducte d Peak Power (dBm)	Conducte d Limit (dBm)	Margin (dB)	Result
Bottom	2412	BPSK	6	15.2	30	14.8	Complied
Middle	2437	BPSK	6	14.9	30	15.1	Complied
Top	2462	BPSK	6	14.6	30	15.4	Complied
Bottom	2412	BPSK	9	15.2	30	14.8	Complied
Middle	2437	BPSK	9	15.1	30	14.9	Complied
Top	2462	BPSK	9	15.1	30	14.9	Complied
Bottom	2412	QPSK	12	15.4	30	14.6	Complied
Middle	2437	QPSK	12	15.0	30	15.0	Complied
Top	2462	QPSK	12	14.7	30	15.3	Complied
Bottom	2412	QPSK	18	15.3	30	14.7	Complied
Middle	2437	QPSK	18	15.1	30	14.9	Complied
Top	2462	QPSK	18	14.7	30	15.3	Complied
Bottom	2412	16QAM	24	15.3	30	14.7	Complied
Middle	2437	16QAM	24	15.0	30	15.0	Complied
Top	2462	16QAM	24	14.7	30	15.3	Complied
Bottom	2412	16QAM	36	15.4	30	14.6	Complied
Middle	2437	16QAM	36	15.0	30	15.0	Complied
Top	2462	16QAM	36	14.7	30	15.3	Complied
Bottom	2412	16QAM	48	15.4	30	14.6	Complied
Middle	2437	16QAM	48	15.1	30	14.9	Complied
Top	2462	16QAM	48	14.8	30	15.3	Complied
Bottom	2412	64QAM	54	15.7	30	14.3	Complied
Middle	2437	64QAM	54	15.1	30	14.9	Complied
Top	2462	64QAM	54	14.7	30	15.3	Complied

Transmitter Maximum Peak Output Power (continued)**Results: 802.11n**

Channel	Frequency (MHz)	Mod Scheme	Data Rate (Mbps)	Conducted Peak Power (dBm)	Conducted Limit (dBm)	Margin (dB)	Result
Bottom	2412	BPSK	6.5	15.6	30	14.4	Complied
Middle	2437	BPSK	6.5	15.3	30	14.7	Complied
Top	2462	BPSK	6.5	15.0	30	15.0	Complied
Bottom	2412	QPSK	13	15.5	30	14.6	Complied
Middle	2437	QPSK	13	15.2	30	14.8	Complied
Top	2462	QPSK	13	14.9	30	15.1	Complied
Bottom	2412	QPSK	19.5	15.4	30	14.6	Complied
Middle	2437	QPSK	19.5	14.9	30	15.1	Complied
Top	2462	QPSK	19.5	14.8	30	15.3	Complied
Bottom	2412	16QAM	26	15.3	30	14.7	Complied
Middle	2437	16QAM	26	15.1	30	14.9	Complied
Top	2462	16QAM	26	14.8	30	15.2	Complied
Bottom	2412	16QAM	39	15.6	30	14.4	Complied
Middle	2437	16QAM	39	15.6	30	14.4	Complied
Top	2462	16QAM	39	14.9	30	15.1	Complied
Bottom	2412	64QAM	52	15.4	30	14.6	Complied
Middle	2437	64QAM	52	15.2	30	14.8	Complied
Top	2462	64QAM	52	15.6	30	14.4	Complied
Bottom	2412	64QAM	58.5	16.3	30	13.7	Complied
Middle	2437	64QAM	58.5	15.4	30	14.6	Complied
Top	2462	64QAM	58.5	15.0	30	15.1	Complied
Bottom	2412	64QAM	65	16.0	30	14.0	Complied
Middle	2437	64QAM	65	15.4	30	14.6	Complied
Top	2462	64QAM	65	16.1	30	13.9	Complied

5.8.3. Transmitter Maximum Equivalent Isotropically Radiated Power (EIRP)

FCC Part:	15.247(b)(3)
Test Method Used:	As detailed in ANSI C63.10 Section 6.10.2

Results: 802.11b

Channel	Mod Scheme	Data Rate (Mbps)	Antenna Gain (dBi)	Conducted Peak Power (dBm)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	BPSK	1	3	17.4	20.4	36.0	15.6	Complied
Middle	BPSK	1	3	17.1	20.1	36.0	15.9	Complied
Top	BPSK	1	3	16.3	19.3	36.0	16.7	Complied
Bottom	QPSK	2	3	16.8	19.8	36.0	16.2	Complied
Middle	QPSK	2	3	16.5	19.5	36.0	16.5	Complied
Top	QPSK	2	3	16.2	19.2	36.0	16.8	Complied
Bottom	QPSK	5.5	3	16.8	19.8	36.0	16.2	Complied
Middle	QPSK	5.5	3	16.5	19.5	36.0	16.5	Complied
Top	QPSK	5.5	3	16.1	19.1	36.0	16.9	Complied
Bottom	QPSK	11	3	16.7	19.7	36.0	16.3	Complied
Middle	QPSK	11	3	16.5	19.5	36.0	16.5	Complied
Top	QPSK	11	3	16.2	19.2	36.0	16.8	Complied

Transmitter Maximum Equivalent Isotropically Radiated Power (EIRP) (Continued)**Results: 802.11g**

Channel	Mod Scheme	Data Rate (Mbps)	Antenna Gain (dBi)	Conducted Peak Power (dBm)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	BPSK	6	3	15.2	18.2	36.0	17.8	Complied
Middle	BPSK	6	3	14.9	17.9	36.0	18.1	Complied
Top	BPSK	6	3	14.6	17.6	36.0	18.4	Complied
Bottom	BPSK	9	3	15.2	18.2	36.0	17.8	Complied
Middle	BPSK	9	3	15.1	18.1	36.0	17.9	Complied
Top	BPSK	9	3	15.1	18.1	36.0	17.9	Complied
Bottom	QPSK	12	3	15.4	18.4	36.0	17.6	Complied
Middle	QPSK	12	3	15.0	18.0	36.0	18.0	Complied
Top	QPSK	12	3	14.7	17.7	36.0	18.3	Complied
Bottom	QPSK	18	3	15.3	18.3	36.0	17.7	Complied
Middle	QPSK	18	3	15.1	18.1	36.0	17.9	Complied
Top	QPSK	18	3	14.7	17.7	36.0	18.3	Complied
Bottom	16QAM	24	3	15.3	18.3	36.0	17.7	Complied
Middle	16QAM	24	3	15.0	18.0	36.0	18.0	Complied
Top	16QAM	24	3	14.7	17.7	36.0	18.3	Complied
Bottom	16QAM	36	3	15.4	18.4	36.0	17.6	Complied
Middle	16QAM	36	3	15.0	18.0	36.0	18.0	Complied
Top	16QAM	36	3	14.7	17.7	36.0	18.3	Complied
Bottom	16QAM	48	3	15.4	18.4	36.0	17.6	Complied
Middle	16QAM	48	3	15.1	18.1	36.0	17.9	Complied
Top	16QAM	48	3	14.8	17.8	36.0	18.2	Complied
Bottom	64QAM	54	3	15.7	18.7	36.0	17.3	Complied
Middle	64QAM	54	3	15.1	18.1	36.0	17.9	Complied
Top	64QAM	54	3	14.7	17.7	36.0	18.3	Complied

Transmitter Maximum Equivalent Isotropically Radiated Power (EIRP) (Continued)**Results: 802.11n**

Channel	Mod Scheme	Data Rate (Mbps)	Antenna Gain (dBi)	Conducted Peak Power (dBm)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	BPSK	6.5	3	15.6	18.6	36.0	17.4	Complied
Middle	BPSK	6.5	3	15.3	18.3	36.0	17.7	Complied
Top	BPSK	6.5	3	15.0	18.0	36.0	18.0	Complied
Bottom	QPSK	13	3	15.5	18.5	36.0	17.5	Complied
Middle	QPSK	13	3	15.2	18.2	36.0	17.8	Complied
Top	QPSK	13	3	14.9	17.9	36.0	18.1	Complied
Bottom	QPSK	19.5	3	15.4	18.4	36.0	17.6	Complied
Middle	QPSK	19.5	3	14.9	17.9	36.0	18.1	Complied
Top	QPSK	19.5	3	14.8	17.8	36.0	18.2	Complied
Bottom	16QAM	26	3	15.3	18.3	36.0	17.7	Complied
Middle	16QAM	26	3	15.1	18.1	36.0	17.9	Complied
Top	16QAM	26	3	14.8	17.8	36.0	18.2	Complied
Bottom	16QAM	39	3	15.6	18.6	36.0	17.4	Complied
Middle	16QAM	39	3	15.6	18.6	36.0	17.4	Complied
Top	16QAM	39	3	14.9	17.9	36.0	18.1	Complied
Bottom	64QAM	52	3	15.4	18.4	36.0	17.6	Complied
Middle	64QAM	52	3	15.2	18.2	36.0	17.8	Complied
Top	64QAM	52	3	15.6	18.6	36.0	17.4	Complied
Bottom	64QAM	58.5	3	16.3	19.3	36.0	16.7	Complied
Middle	64QAM	58.5	3	15.4	18.4	36.0	17.6	Complied
Top	64QAM	58.5	3	15.0	18.0	36.0	18.0	Complied
Bottom	64QAM	65	3	16.0	19.0	36.0	17.0	Complied
Middle	64QAM	65	3	15.4	18.4	36.0	17.6	Complied
Top	64QAM	65	3	16.1	19.1	36.0	16.9	Complied

5.8.4. Transmitter Radiated Emissions**Test Summary:**

Test Engineer:	Andrew Edwards	Test Date:	17 May 2011
Test Sample Serial No:	ID:1		
Antenna:	EX-IT 2400-MHF 70-001		

FCC/IC Part:	15.247(d), 15.209(a), RSS-Gen 4.9 and RSS-210 A8.5
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.5 referencing ANSI C63.4
Frequency Range	30 MHz to 1000 MHz

Environmental Conditions:

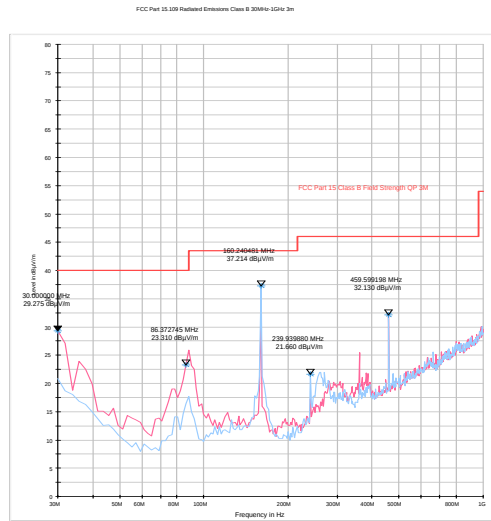
Temperature (°C):	23
Relative Humidity (%):	23

Results: Top Channel

Frequency (MHz)	Antenna Polarity	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
30.000	Vertical	29.3	40.000	10.7	Complied
86.372	Vertical	23.3	40.000	16.7	Complied
160.240	Horizontal	37.2	43.500	6.3	Complied
239.939	Horizontal	21.6	46.000	24.4	Complied
459.599	Horizontal	32.1	46.000	13.9	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss
2. The preliminary scans showed similar emission levels below 1 GHz, for each channel of operation. Therefore final radiated emissions measurements were performed with the EUT set to the top channel only.
3. All other emissions were at least 20 dB below the appropriate limit or below the noise floor of the measurement system.

Transmitter Radiated Emissions (continued)

Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying table.

Transmitter Radiated Emissions (continued)**Test Summary:**

Test Engineer:	Nigel Davison	Test Date:	17 and 19 May 2011
Test Sample Serial No:	ID:1		
Antenna:	EX-IT 2400-MHF 70-001		

FCC/IC Part:	15.247(d), 15.209(a), RSS-Gen 4.9 and RSS-210 A8.5
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.6 referencing ANSI C63.4
Frequency Range	1 GHz to 26.5 GHz

Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	27

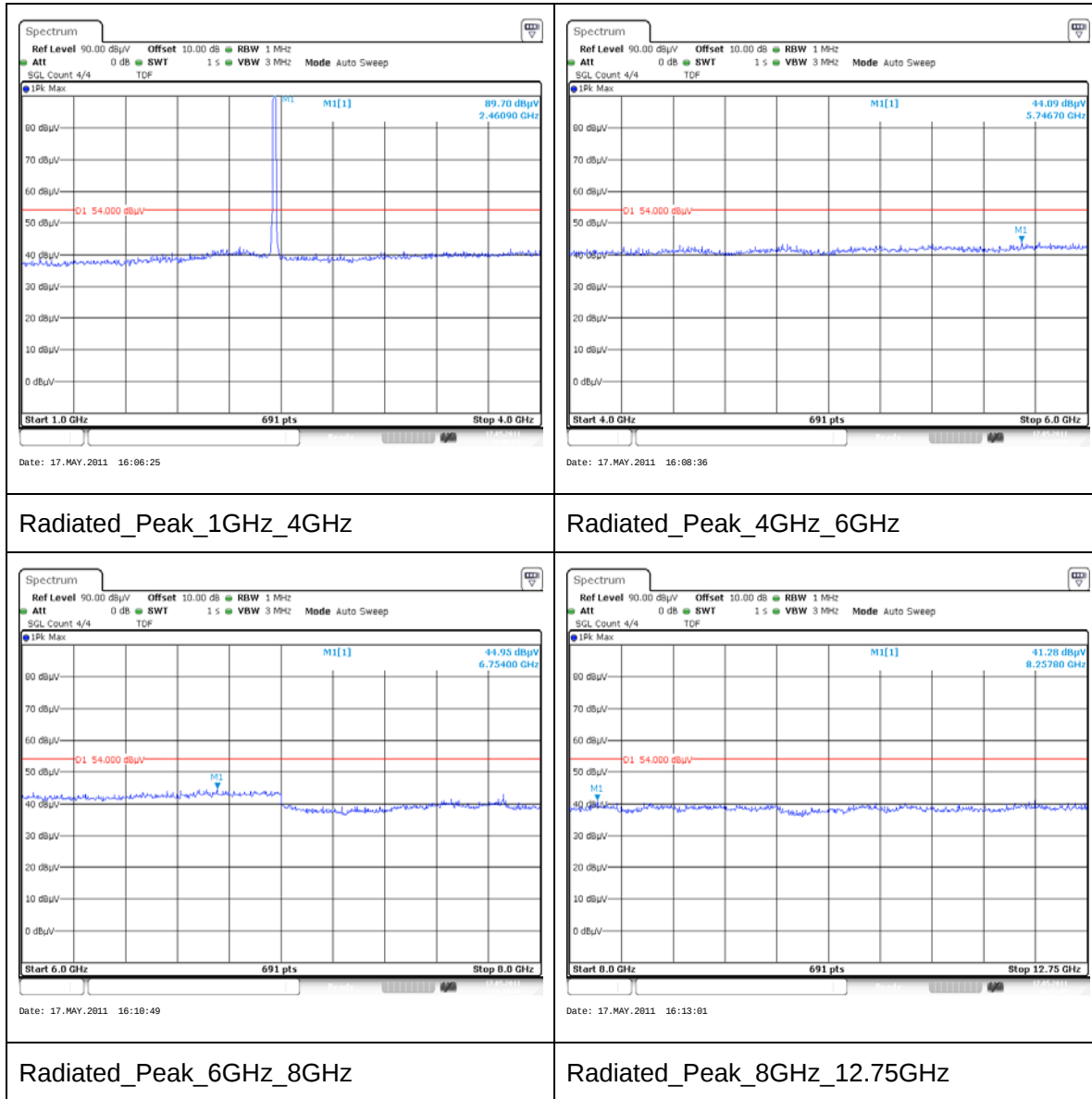
Results:

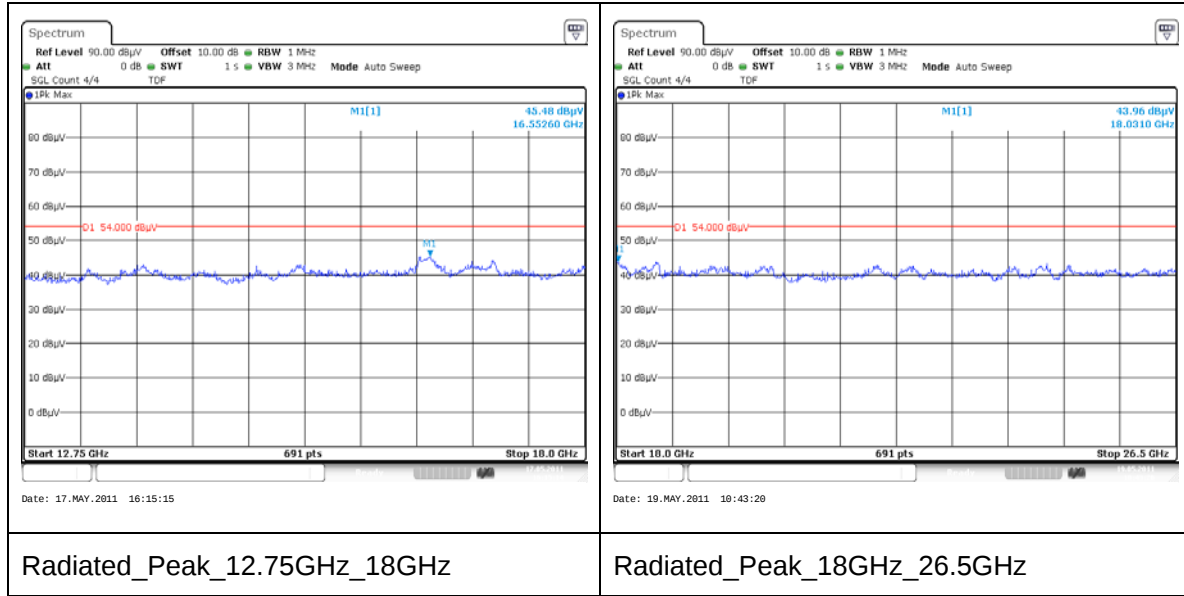
Frequency (MHz)	Antenna Polarity	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
16552.6	Vertical	45.5	*54.0	8.5	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss
2. All other emissions shown on the pre-scan plot were investigated and found to be ambient or >20 dB below the applicable limit or below the measurement system noise floor.
3. No spurious emissions were detected above the noise floor of the measuring receiver therefore the highest peak noise floor reading of the measuring receiver was recorded as shown in the table above.
4. The emission shown on the 1 GHz to 4 GHz plot is the EUT fundamental.

* The average limit was compared to the peak level as opposed to being compared to the peak limit because this is the more stringent limit.

Transmitter Radiated Emissions (continued)



5.8.5. Transmitter Band Edge Radiated Emissions**Test Summary:**

Test Engineer:	Nigel Davison	Test Date:	10 May and 18 May 2011
Test Sample Serial No:	ID:1		
Antenna:	EX-IT 2400-MHF 70-001		

FCC/IC Part:	15.247(d), 15.209(a), RSS-Gen 4.9 and RSS-210 A8.5
Test Method Used:	As detailed in ANSI C63.10 Section 6.9.2

Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	30

Results: Peak and Average 802.11b

Frequency (MHz)	Data Rate Mbps	Modulation Type	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2400.0	1	BPSK	50.4	*73.9	23.5	Complied
2483.5	1	BPSK	50.3	74.0	23.7	Complied
2483.5	1	BPSK	39.5	54.0	14.5	Complied
2400.0	2	QPSK	49.2	*73.4	24.2	Complied
2483.5	2	QPSK	51.6	74.0	22.4	Complied
2483.5	2	QPSK	39.3	54.0	14.7	Complied
2400.0	5.5	CCK	45.8	*74.0	28.2	Complied
2483.5	5.5	CCK	51.1	74.0	22.9	Complied
2483.5	5.5	CCK	39.3	54.0	14.7	Complied
2400.0	11	CCK	48.4	*73.7	25.3	Complied
2483.5	11	CCK	51.5	74.0	22.5	Complied
2483.5	11	CCK	39.3	54.0	14.7	Complied

Transmitter Band Edge Radiated Emissions (continued)**Results: Peak and Average 802.11g**

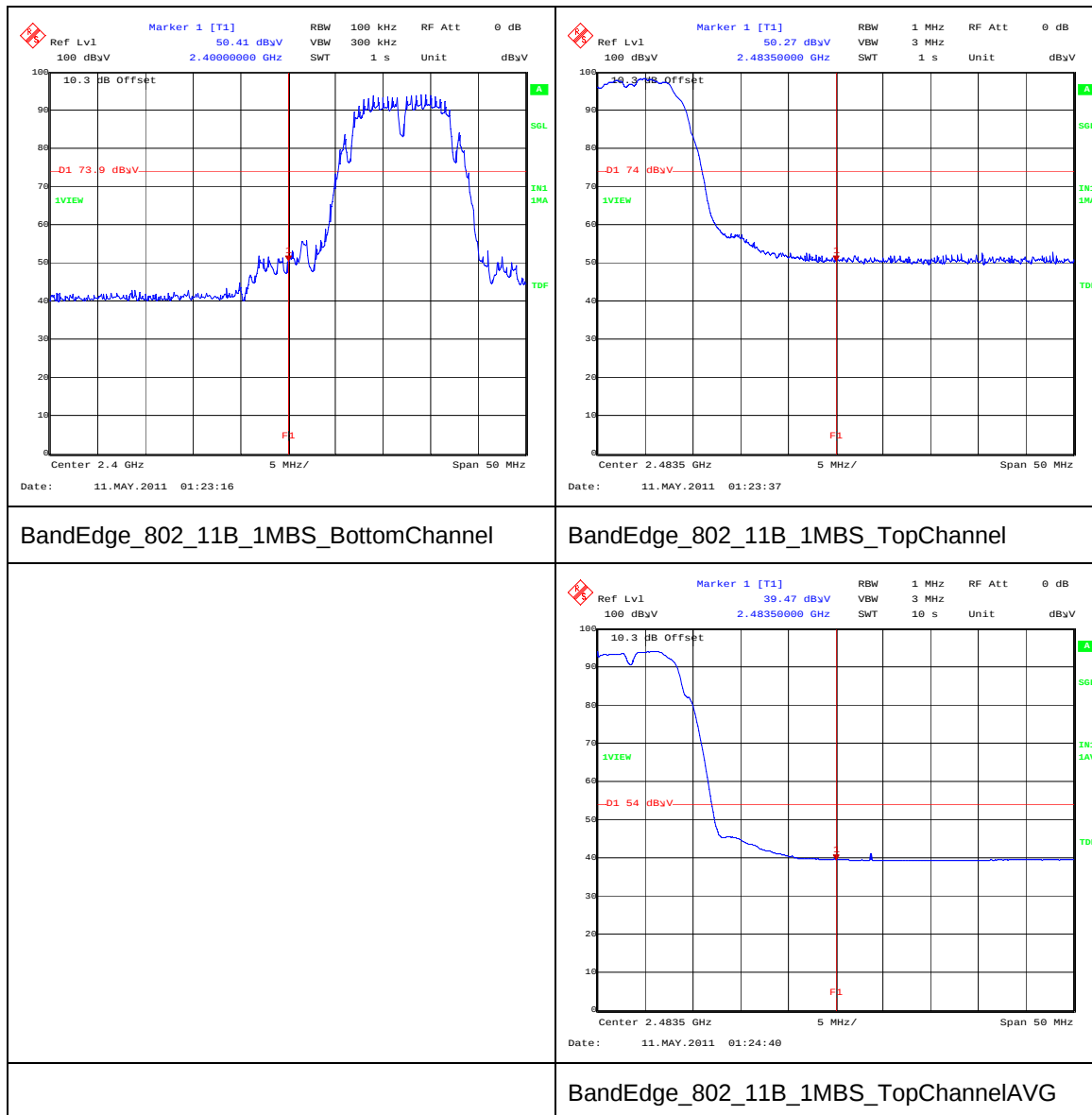
Frequency (MHz)	Data Rate Mbps	Modulation Type	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2400.0	6	BPSK	57.5	*67.9	10.4	Complied
2483.5	6	BPSK	57.7	74.0	16.3	Complied
2483.5	6	BPSK	40.9	54.0	13.1	Complied
2400.0	9	BPSK	57.2	*68.6	11.4	Complied
2483.5	9	BPSK	55.7	74.0	18.3	Complied
2483.5	9	BPSK	41.0	54.0	13.0	Complied
2400.0	12	QPSK	55.9	*68.4	12.5	Complied
2483.5	12	QPSK	53.3	74.0	20.7	Complied
2483.5	12	QPSK	40.9	54.0	13.1	Complied
2400.0	18	QPSK	56.1	*68.6	12.5	Complied
2483.5	18	QPSK	54.7	74.0	19.3	Complied
2483.5	18	QPSK	41.0	54.0	13.0	Complied
2400.0	24	16QAM	55.7	*69.4	13.7	Complied
2483.5	24	16QAM	56.0	74.0	18.0	Complied
2483.5	24	16QAM	41.2	54.0	12.8	Complied
2400.0	36	16QAM	57.3	*70.4	13.1	Complied
2483.5	36	16QAM	54.9	74.0	19.1	Complied
2483.5	36	16QAM	41.0	54.0	13.0	Complied
2400.0	48	64QAM	57.0	*70.4	13.4	Complied
2483.5	48	64QAM	55.4	74.0	18.6	Complied
2483.5	48	64QAM	41.0	54.0	13.0	Complied
2400.0	54	64QAM	56.6	*69.7	13.1	Complied
2483.5	54	64QAM	54.2	74.0	19.8	Complied
2483.5	54	64QAM	40.9	54.0	13.1	Complied

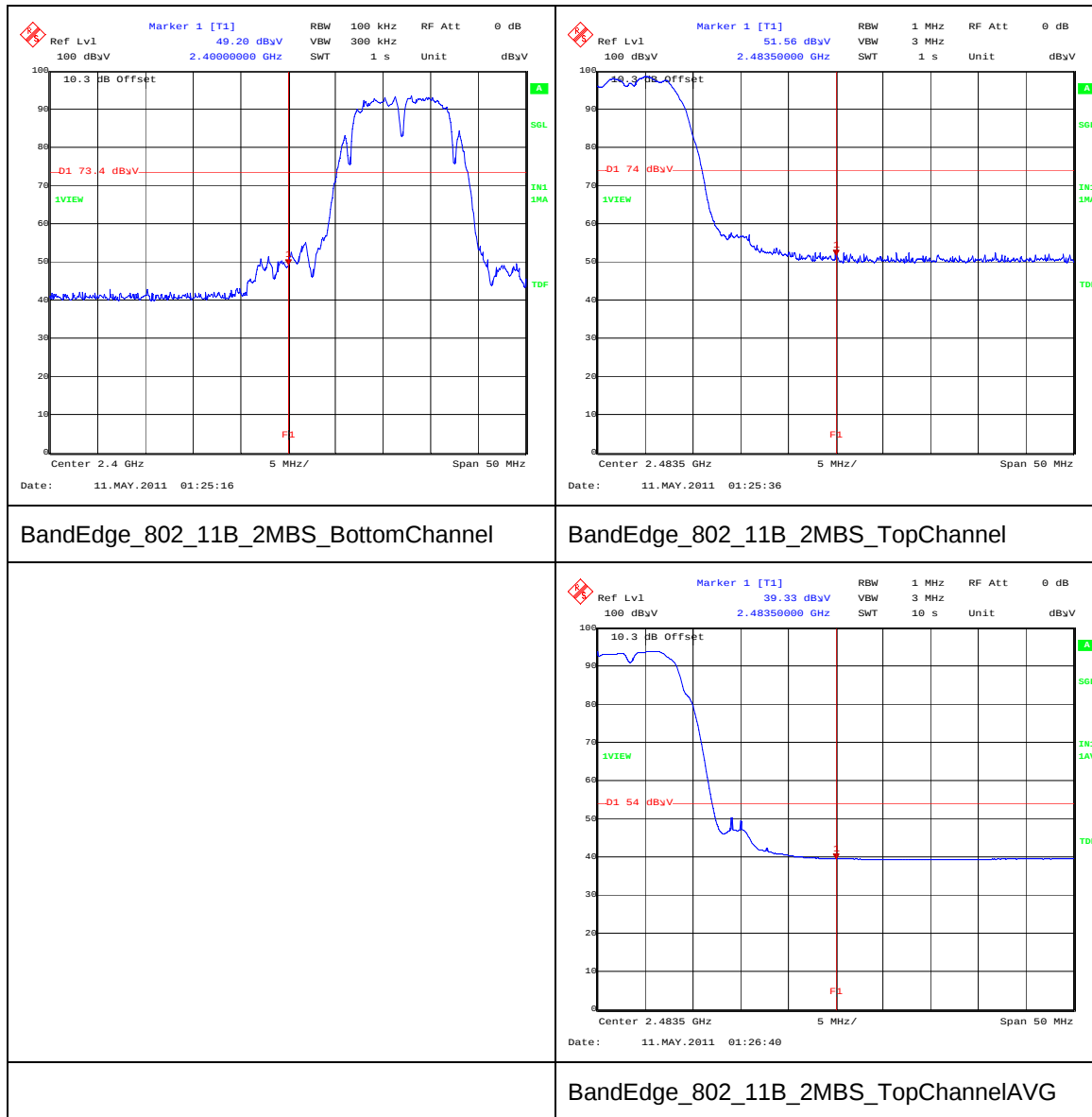
Transmitter Band Edge Radiated Emissions (continued)**Results: Peak and Average 802.11n**

Frequency (MHz)	Data Rate Mbps	Modulation Type	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2400.0	6.5	BPSK	56.8	*69.2	12.4	Complied
2483.5	6.5	BPSK	55.4	74.0	18.6	Complied
2483.5	6.5	BPSK	41.2	54.0	12.8	Complied
2400.0	13	BPSK	54.6	*68.7	14.1	Complied
2483.5	13	BPSK	53.2	74.0	20.8	Complied
2483.5	13	BPSK	41.0	54.0	13.0	Complied
2400.0	19.5	QPSK	56.2	*68.6	12.4	Complied
2483.5	19.5	QPSK	53.1	74.0	20.9	Complied
2483.5	19.5	QPSK	40.9	54.0	13.1	Complied
2400.0	26	QPSK	54.4	*69.9	15.5	Complied
2483.5	26	QPSK	52.8	74.0	21.2	Complied
2483.5	26	QPSK	40.9	54.0	13.1	Complied
2400.0	39	16QAM	55.2	*69.4	14.2	Complied
2483.5	39	16QAM	54.4	74.0	19.6	Complied
2483.5	39	16QAM	40.9	54.0	13.1	Complied
2400.0	52	16QAM	56.0	*70.3	14.3	Complied
2483.5	52	16QAM	54.4	74.0	19.6	Complied
2483.5	52	16QAM	40.9	54.0	13.1	Complied
2400.0	58.5	64QAM	55.5	*70.3	14.8	Complied
2483.5	58.5	64QAM	53.7	74.0	20.3	Complied
2483.5	58.5	64QAM	41.0	54.0	13.0	Complied
2400.0	65	64QAM	56.6	*69.7	13.1	Complied
2483.5	65	64QAM	54.1	74.0	19.9	Complied
2483.5	65	64QAM	56.8	54.0	12.8	Complied

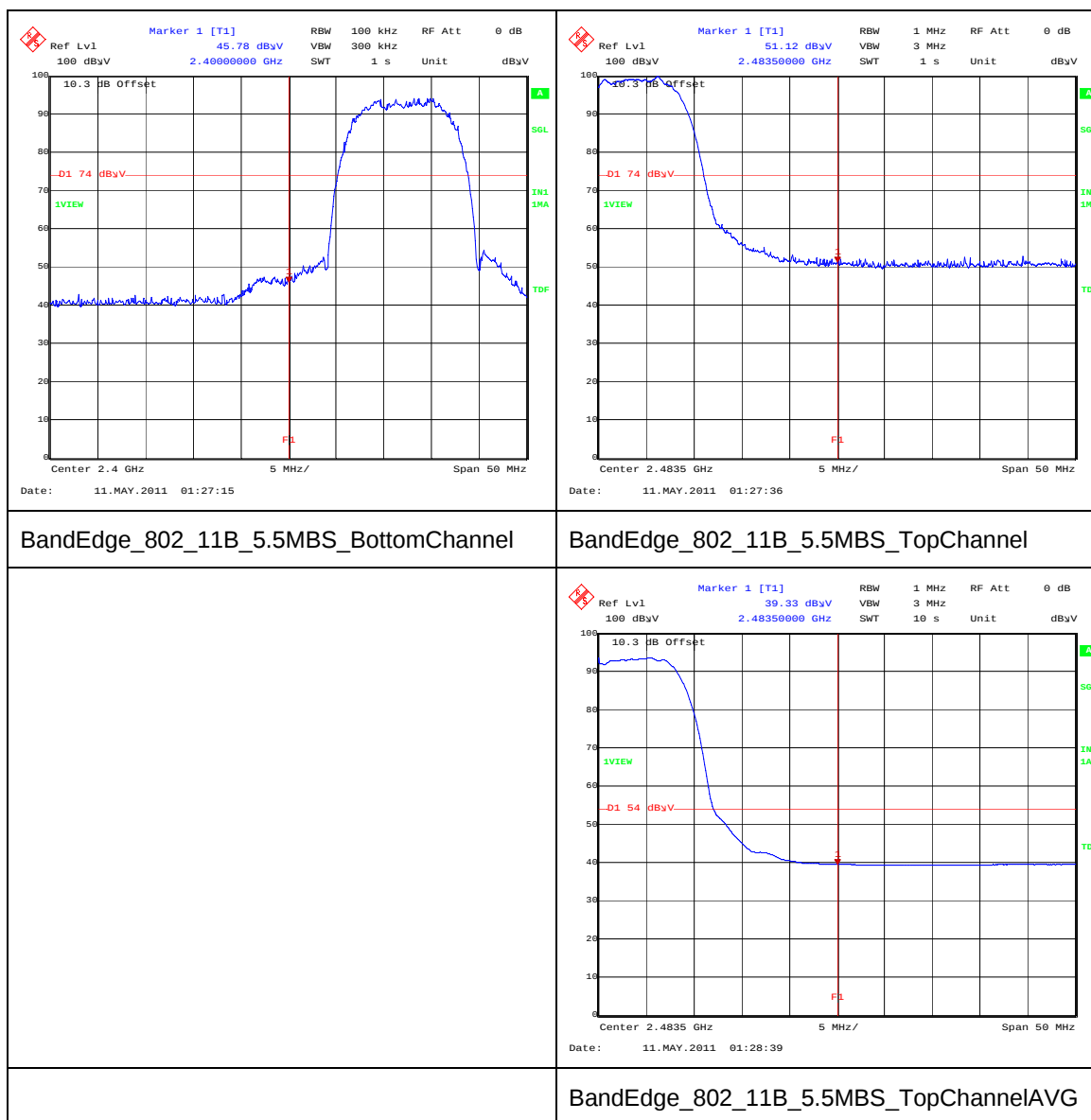
Note(s):

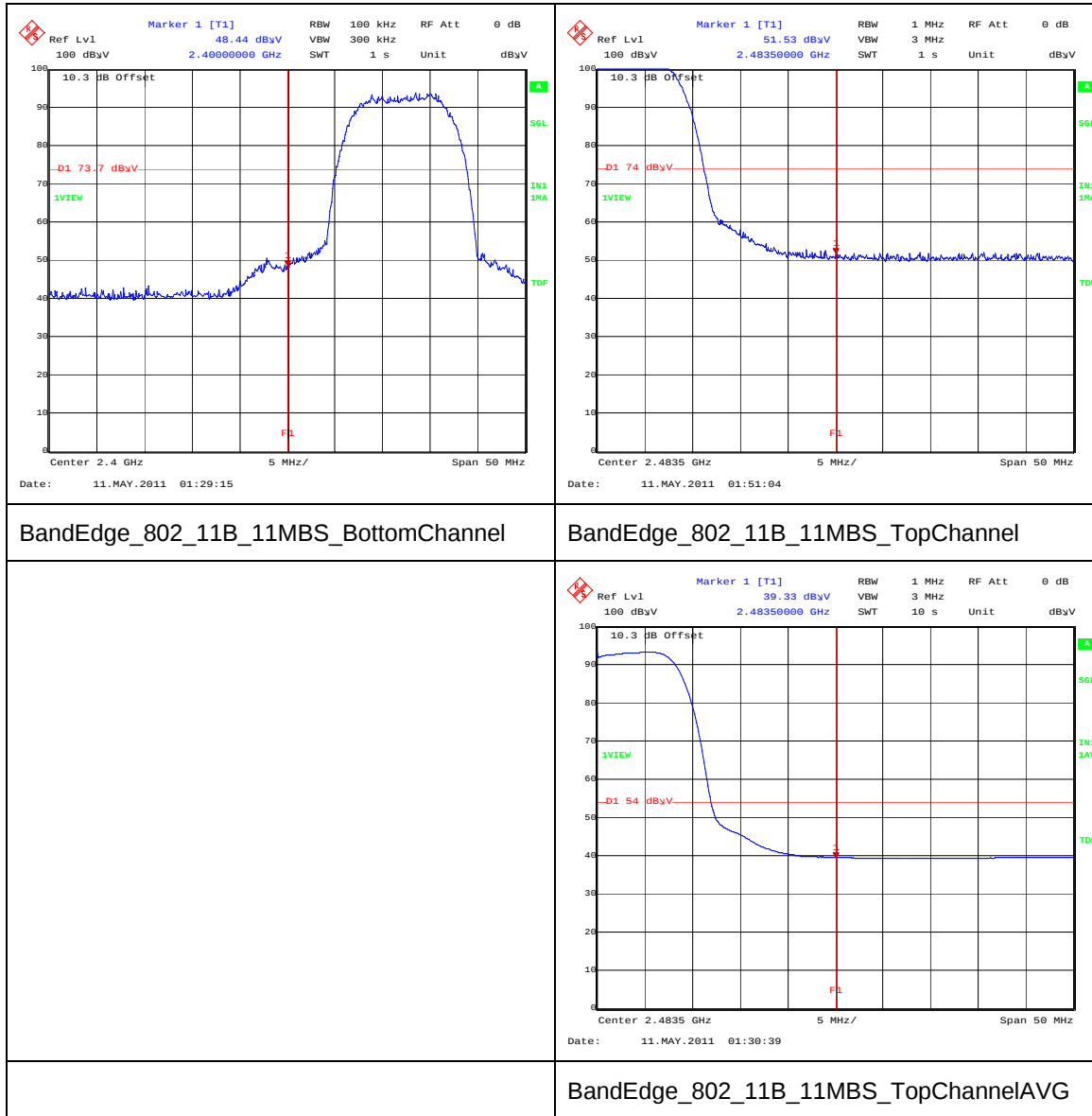
1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss.
2. * -20 dBc limit.

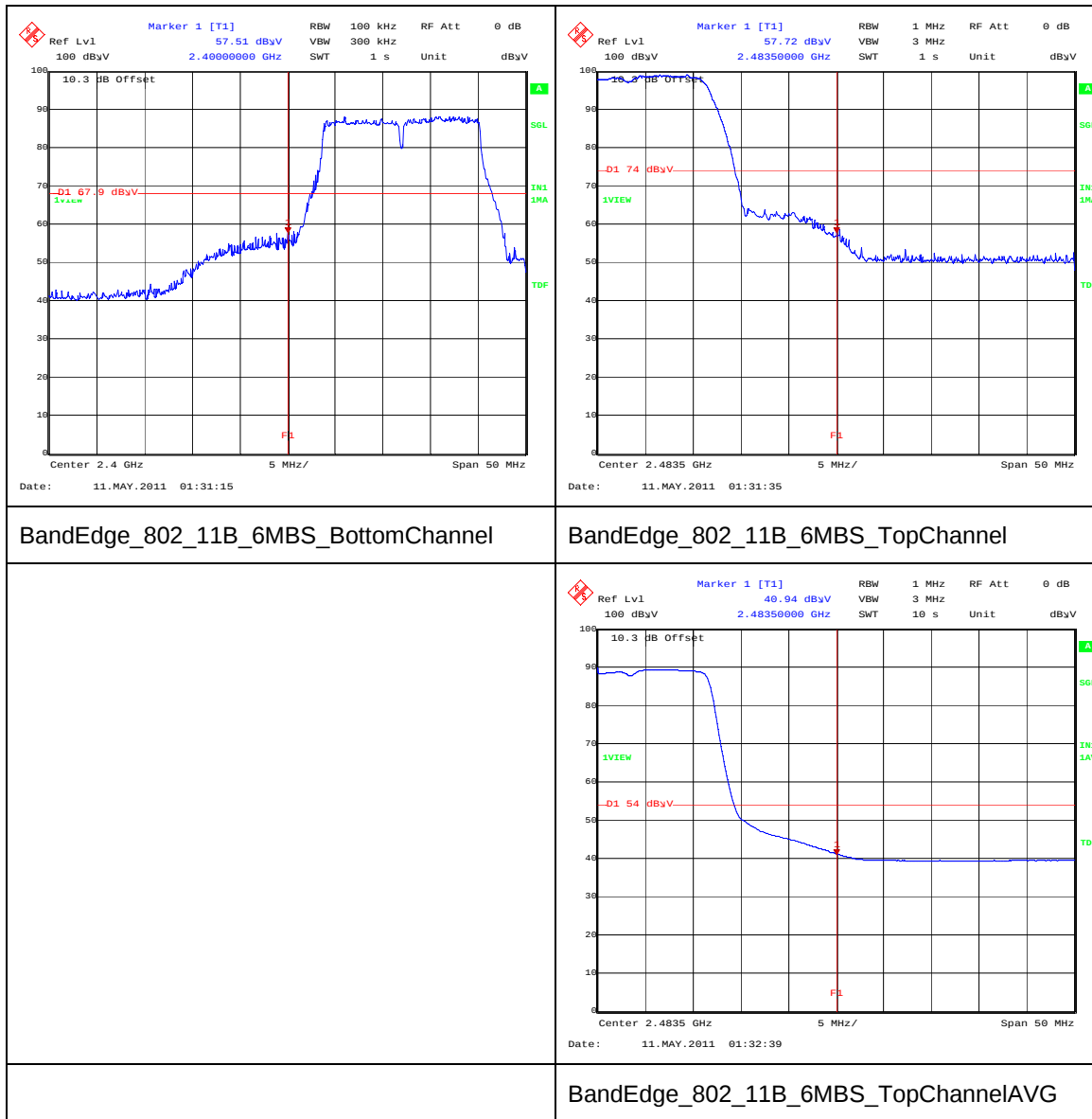
Transmitter Band Edge Radiated Emissions (continued)

Transmitter Band Edge Radiated Emissions (continued)

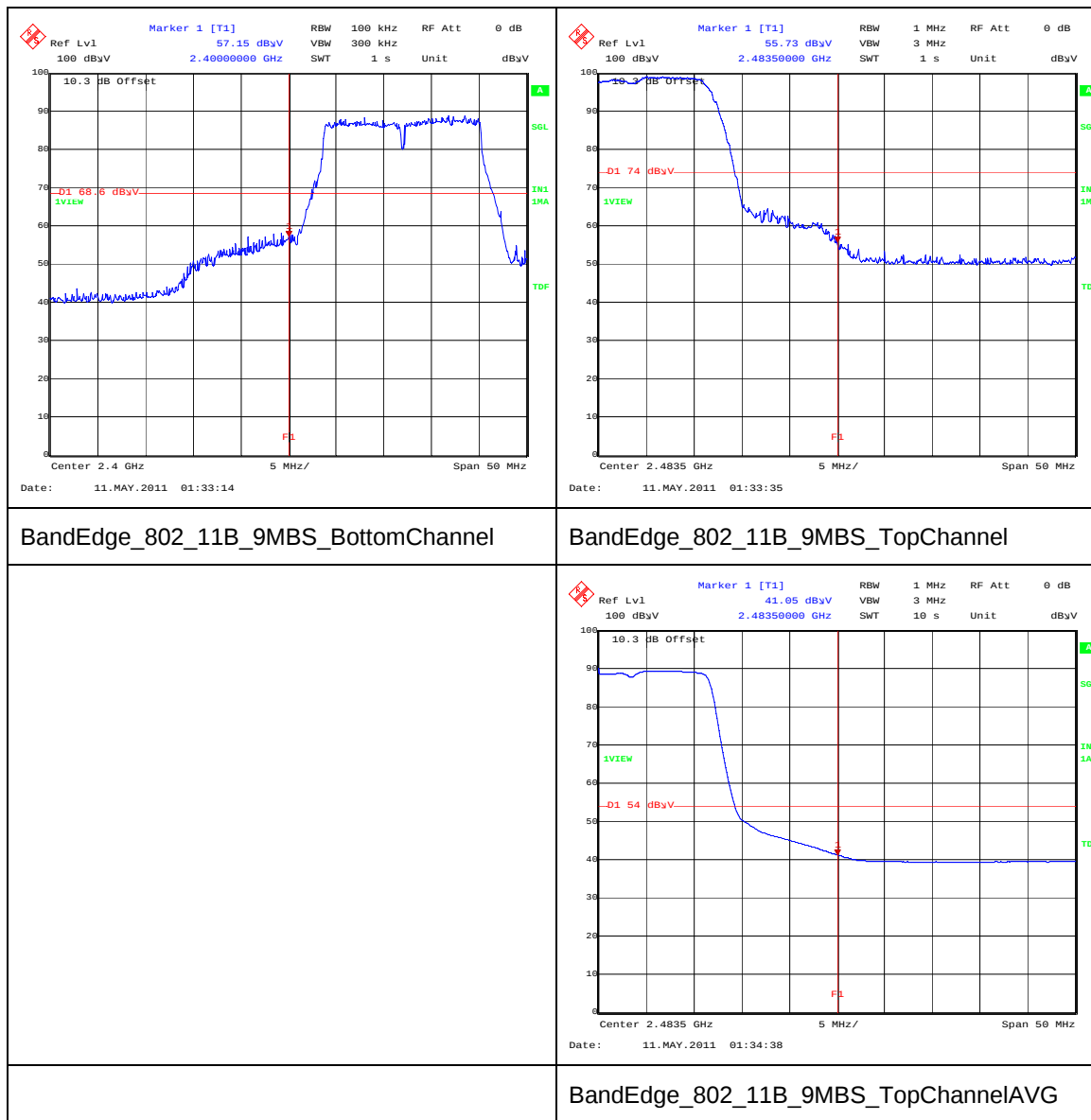
Transmitter Band Edge Radiated Emissions (continued)

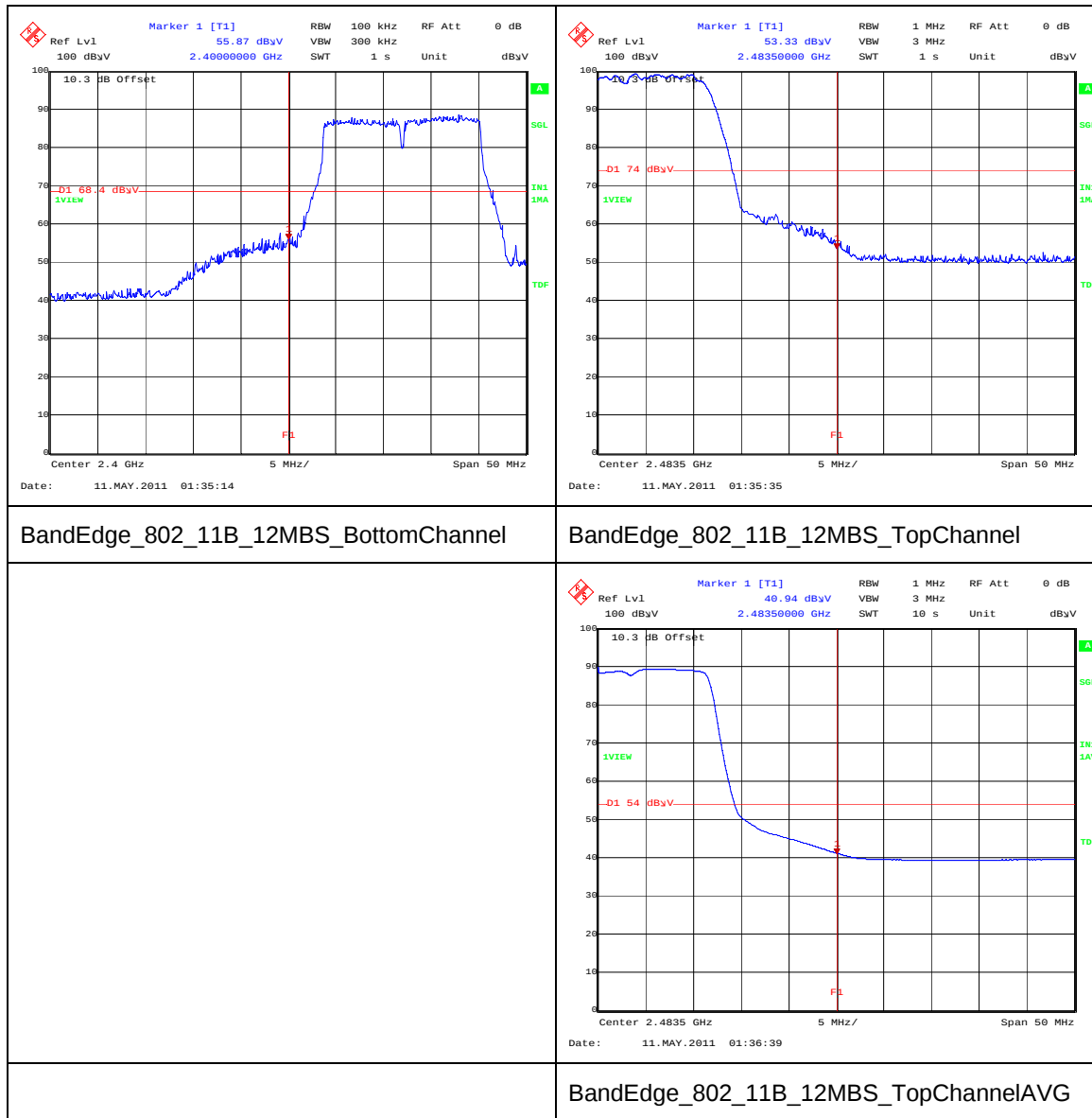


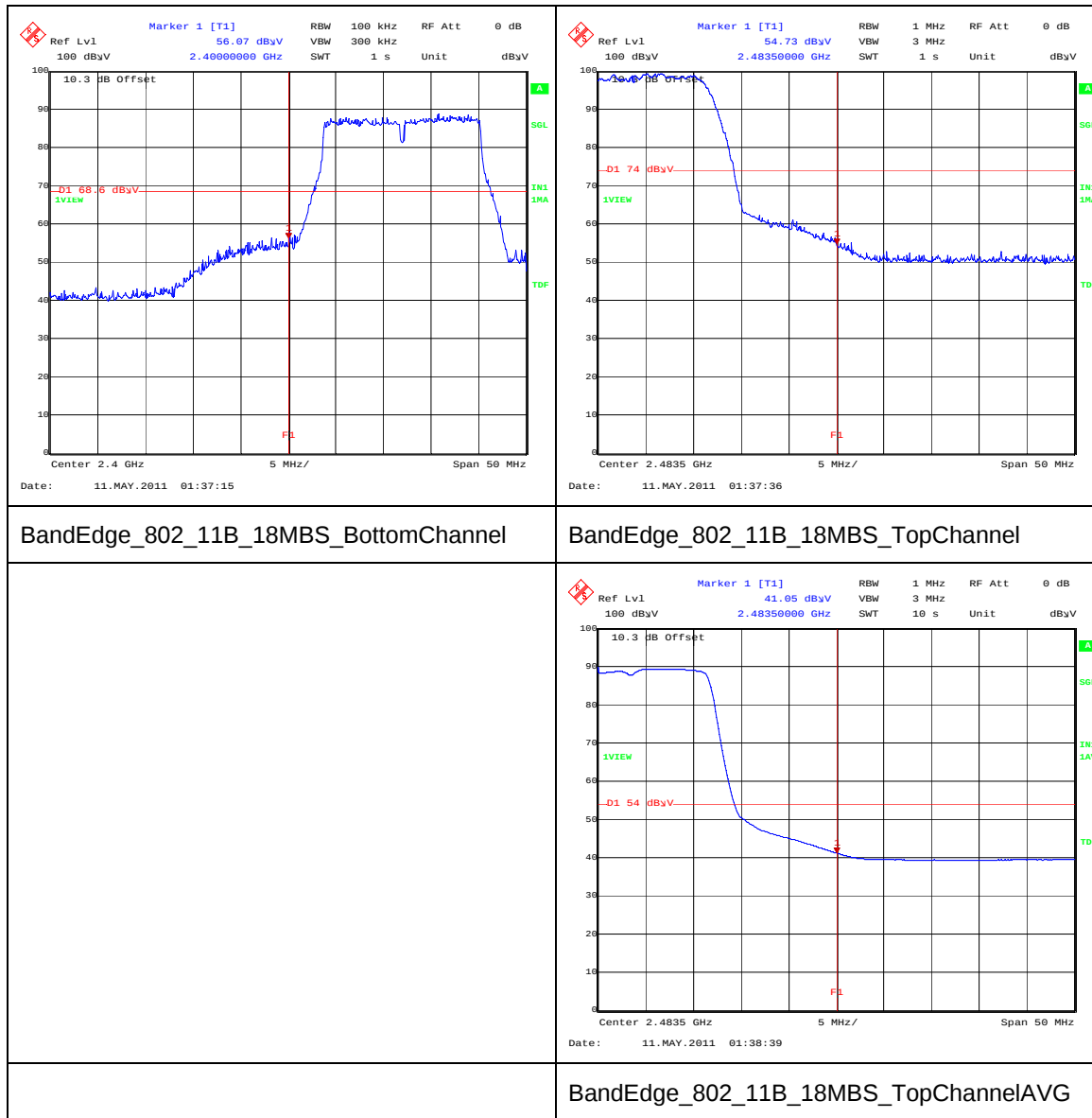
Transmitter Band Edge Radiated Emissions (continued)

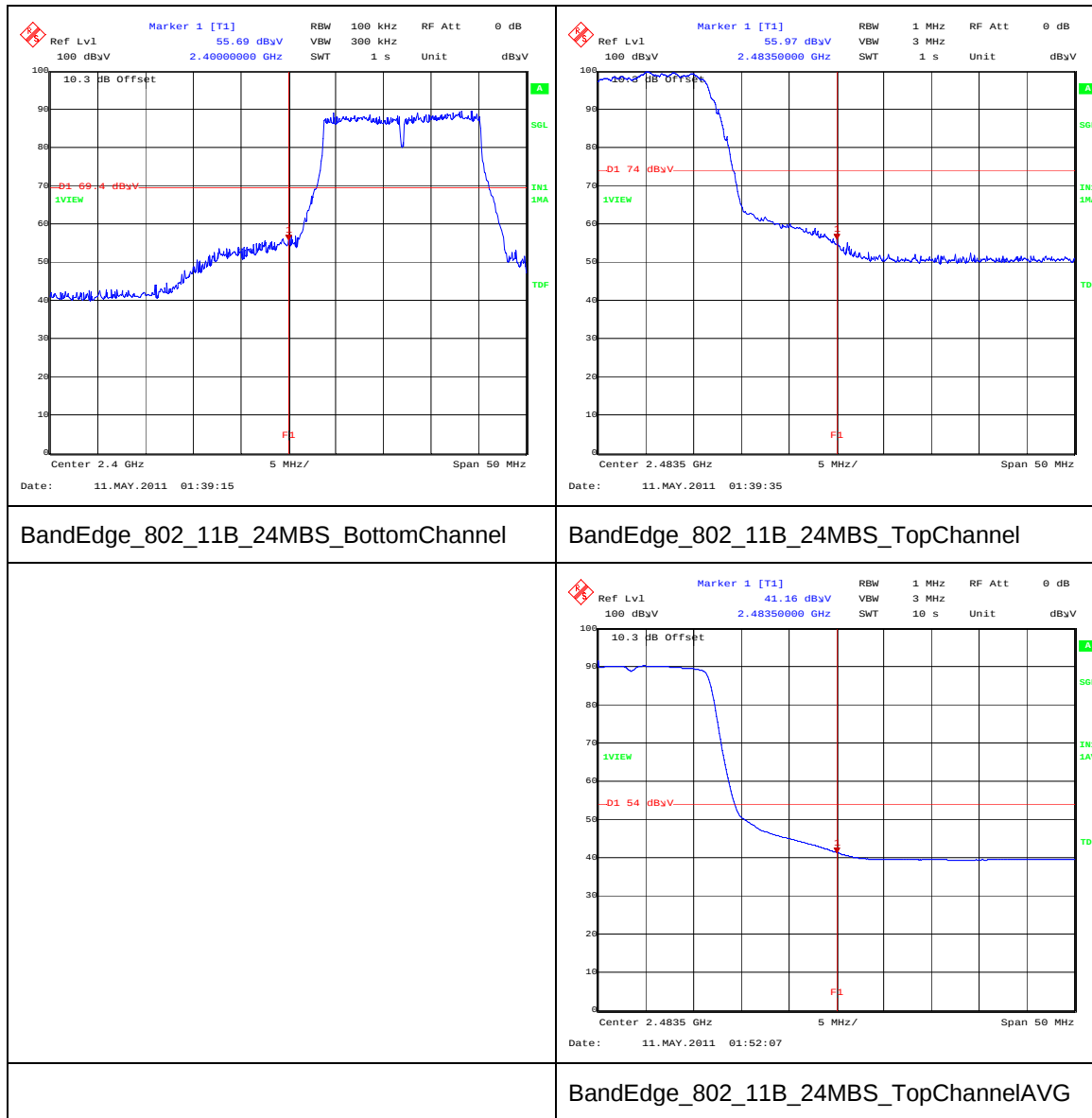
Transmitter Band Edge Radiated Emissions (continued)

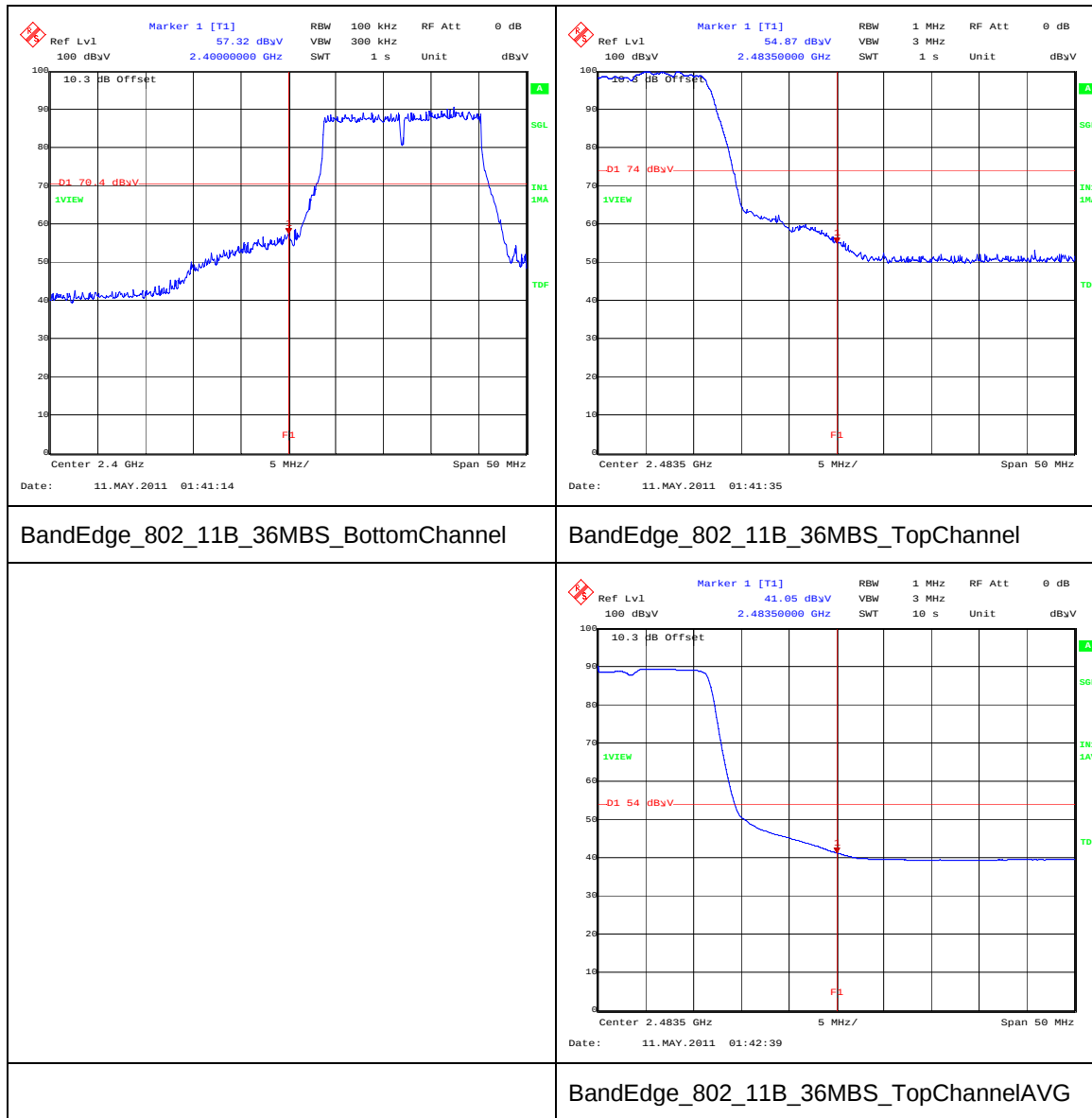
Transmitter Band Edge Radiated Emissions (continued)



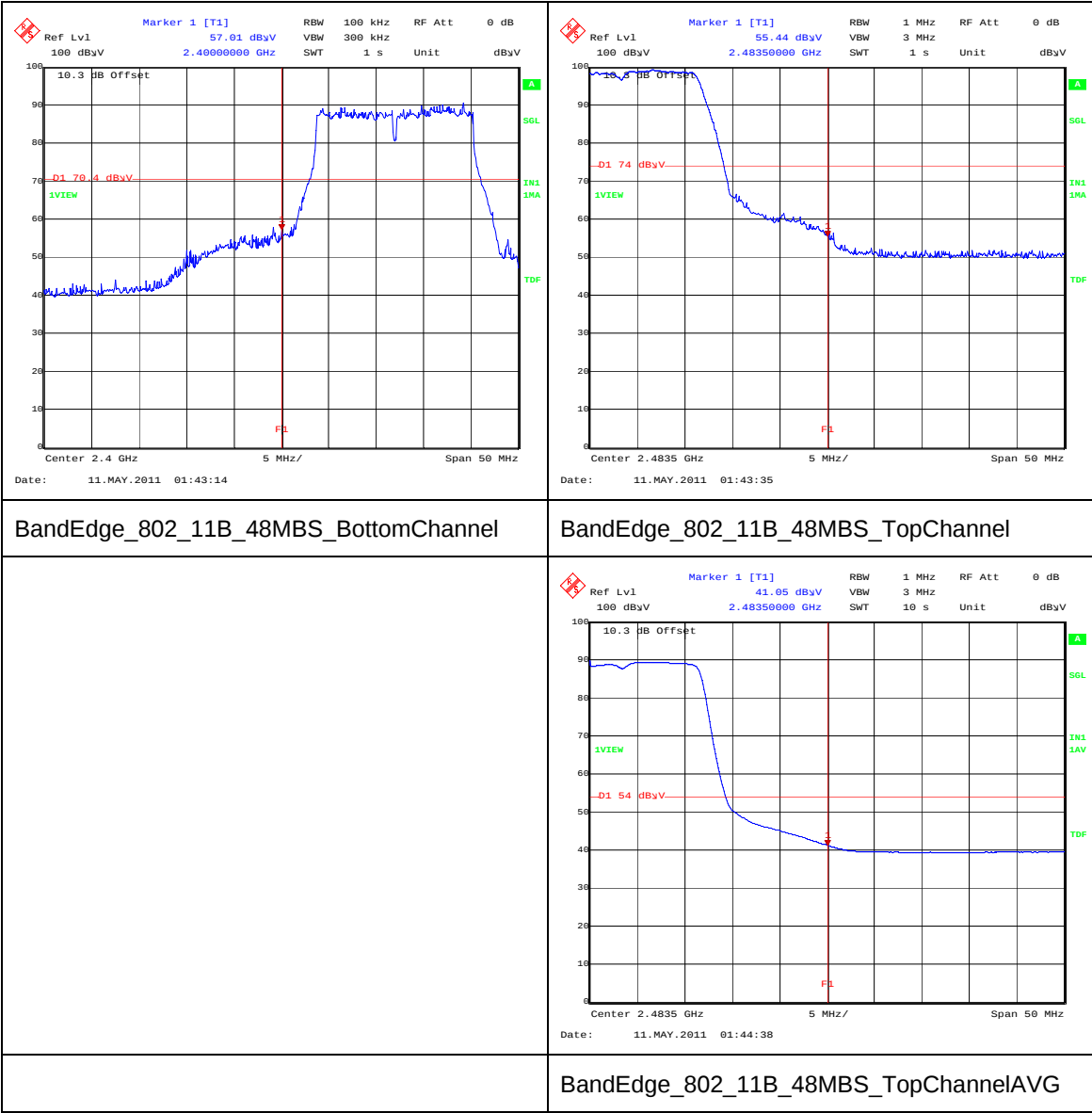
Transmitter Band Edge Radiated Emissions (continued)

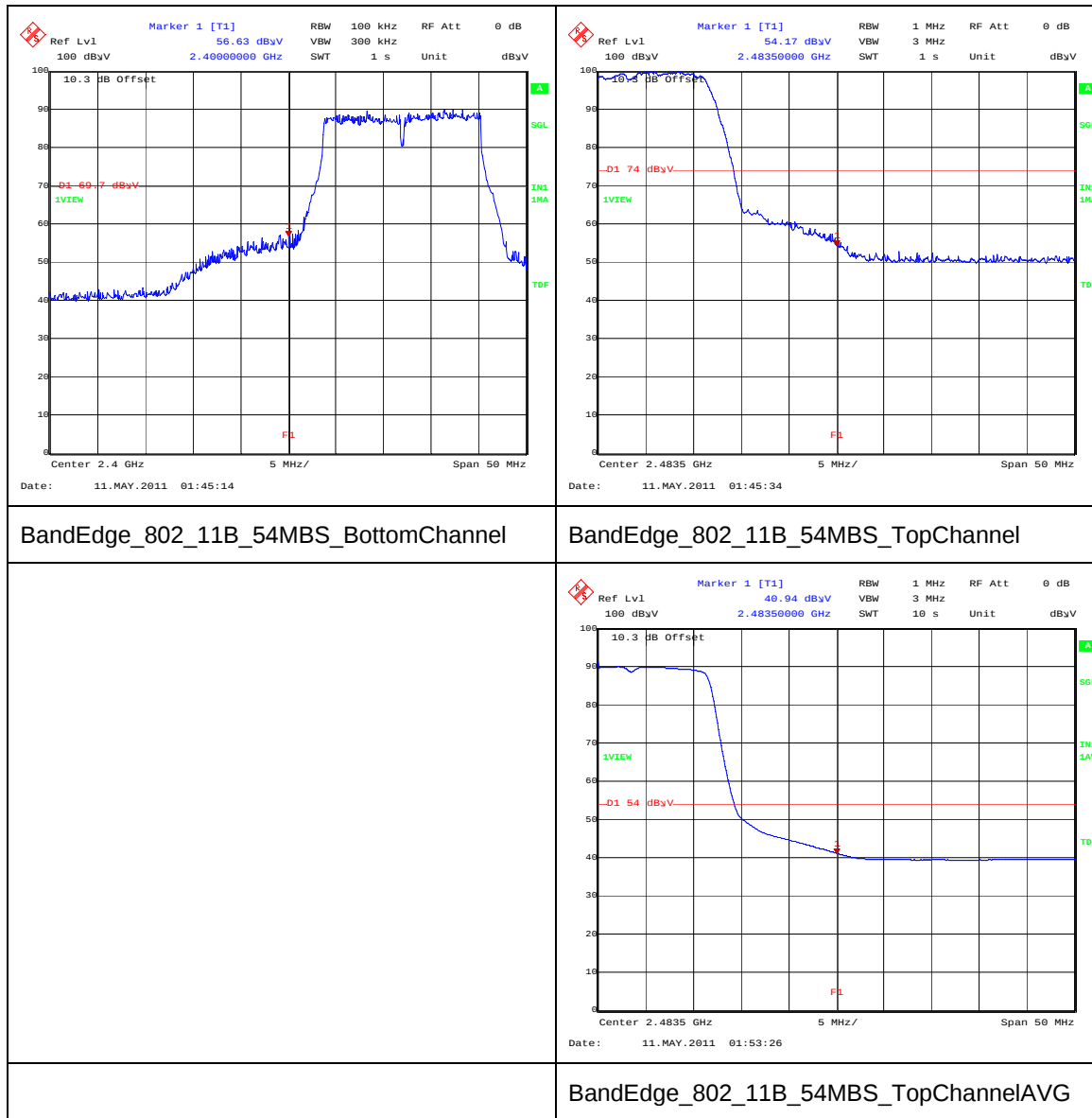
Transmitter Band Edge Radiated Emissions (continued)

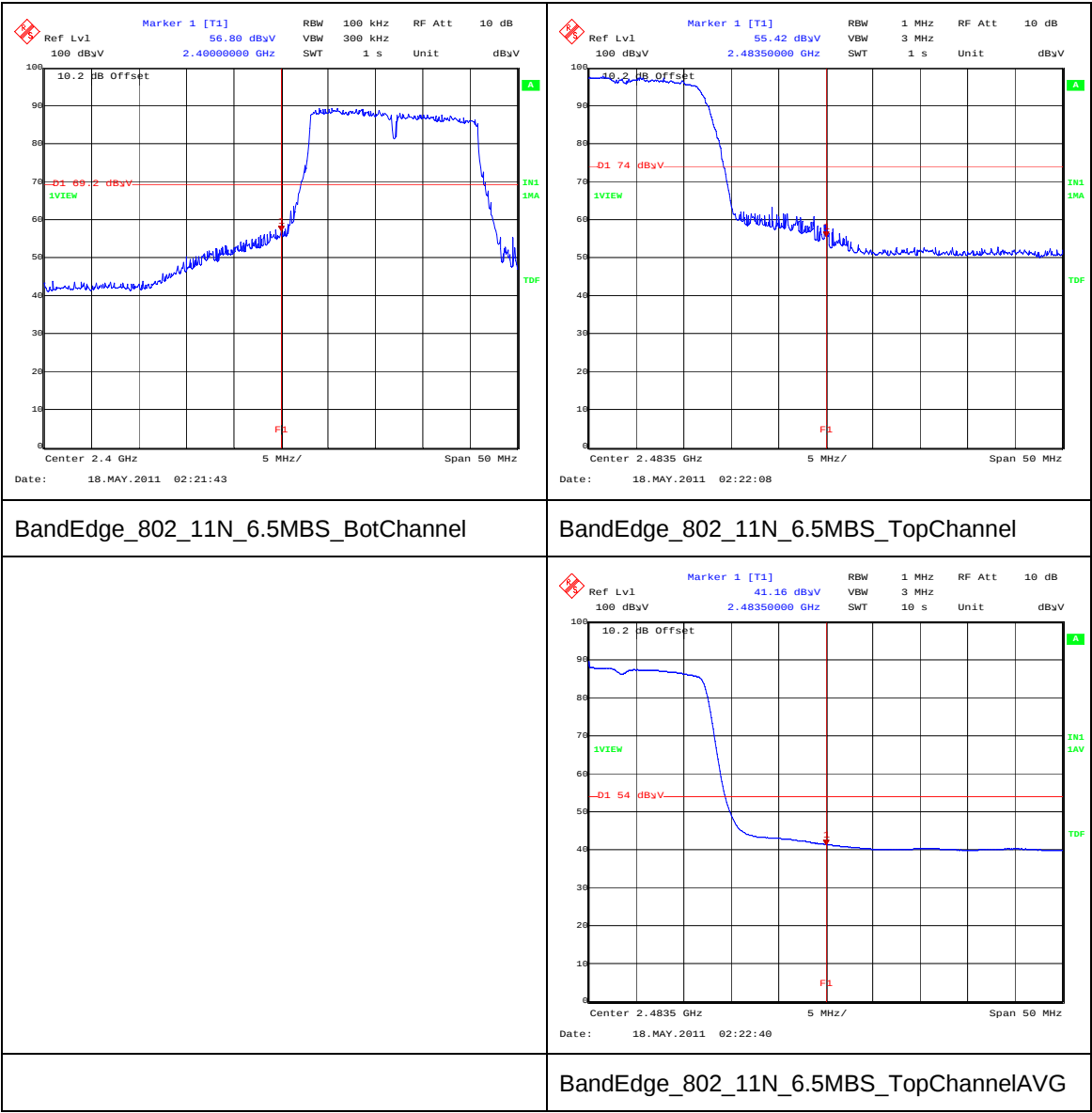
Transmitter Band Edge Radiated Emissions (continued)

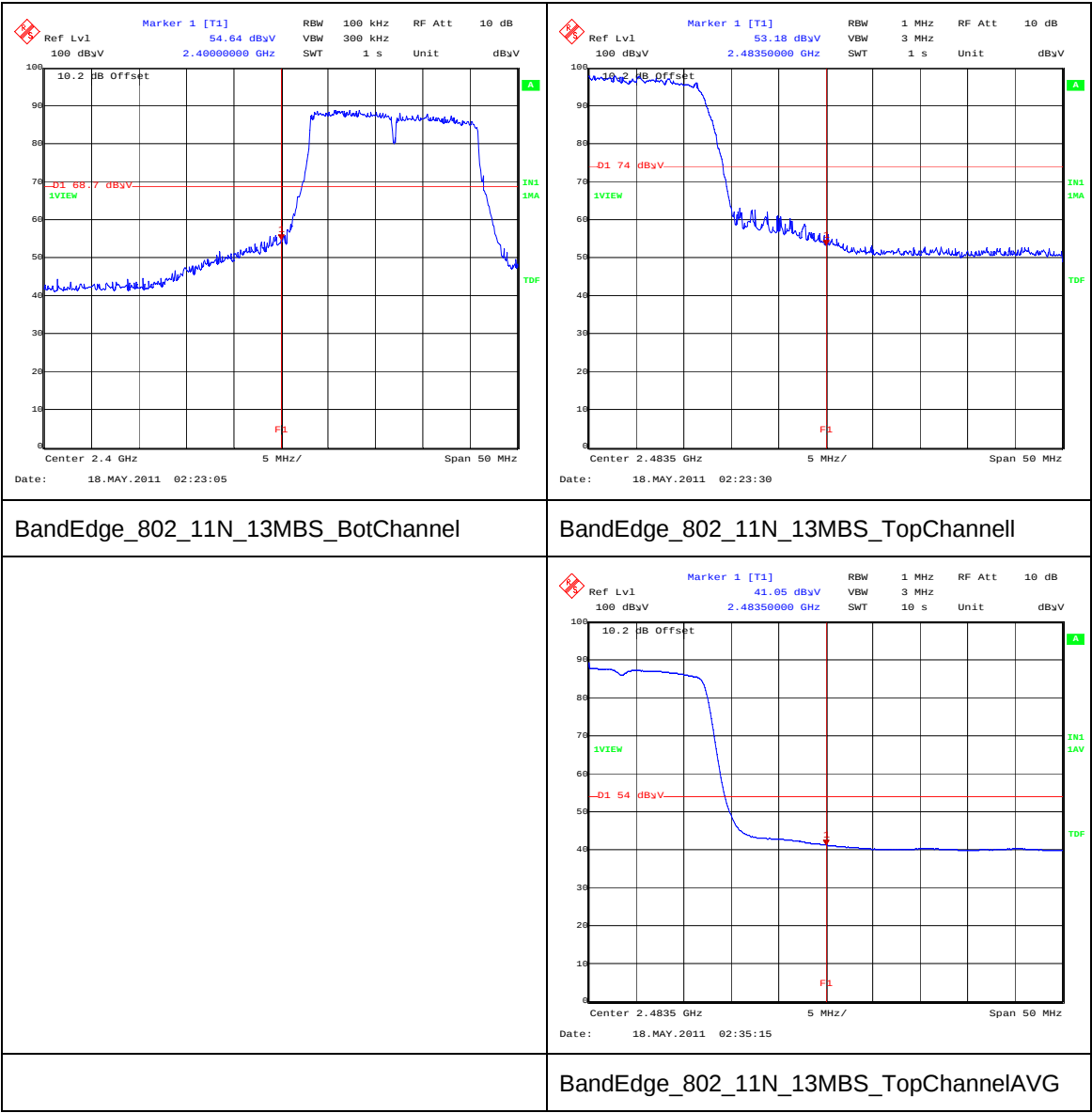
Transmitter Band Edge Radiated Emissions (continued)

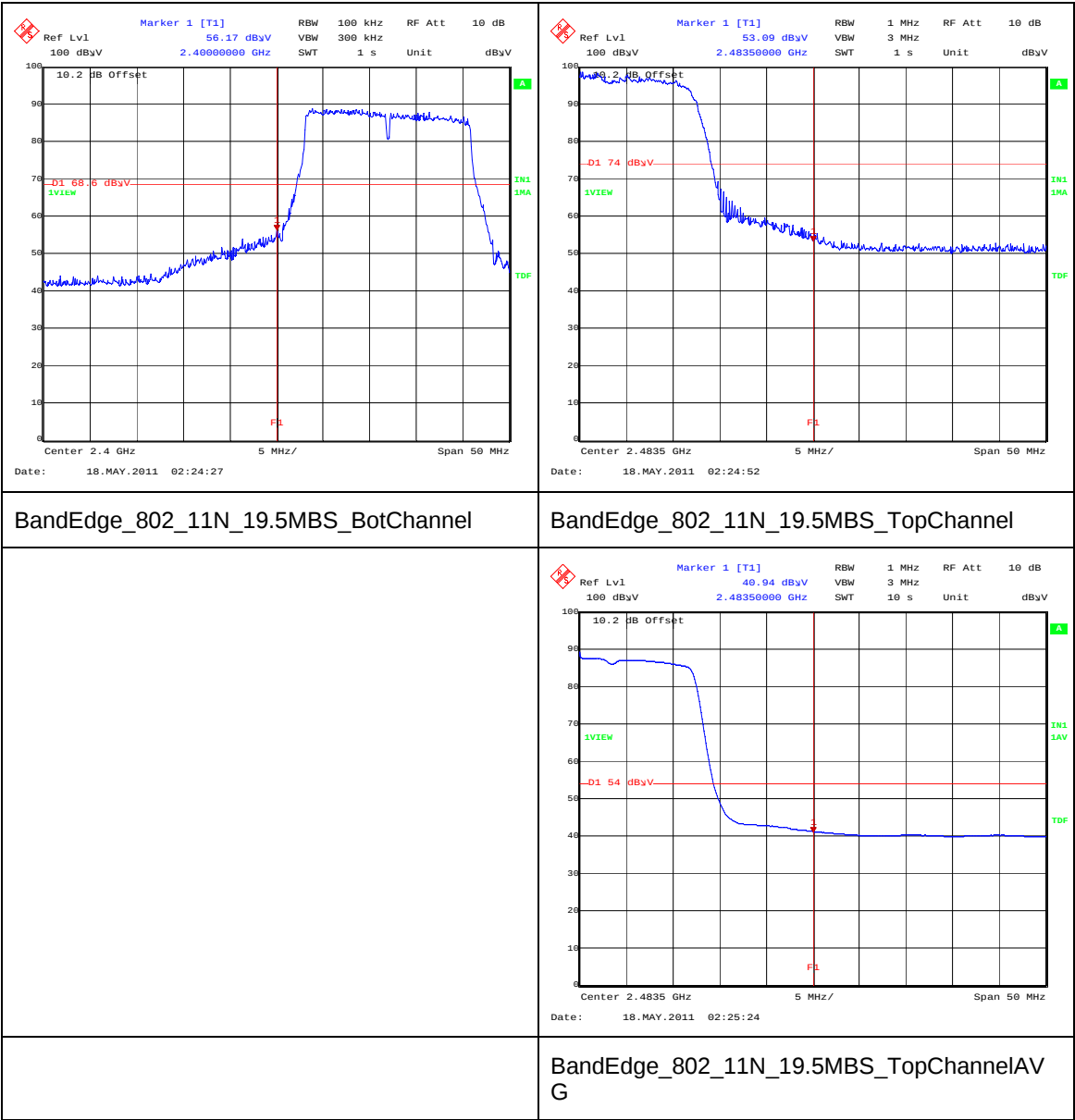
Transmitter Band Edge Radiated Emissions (continued)

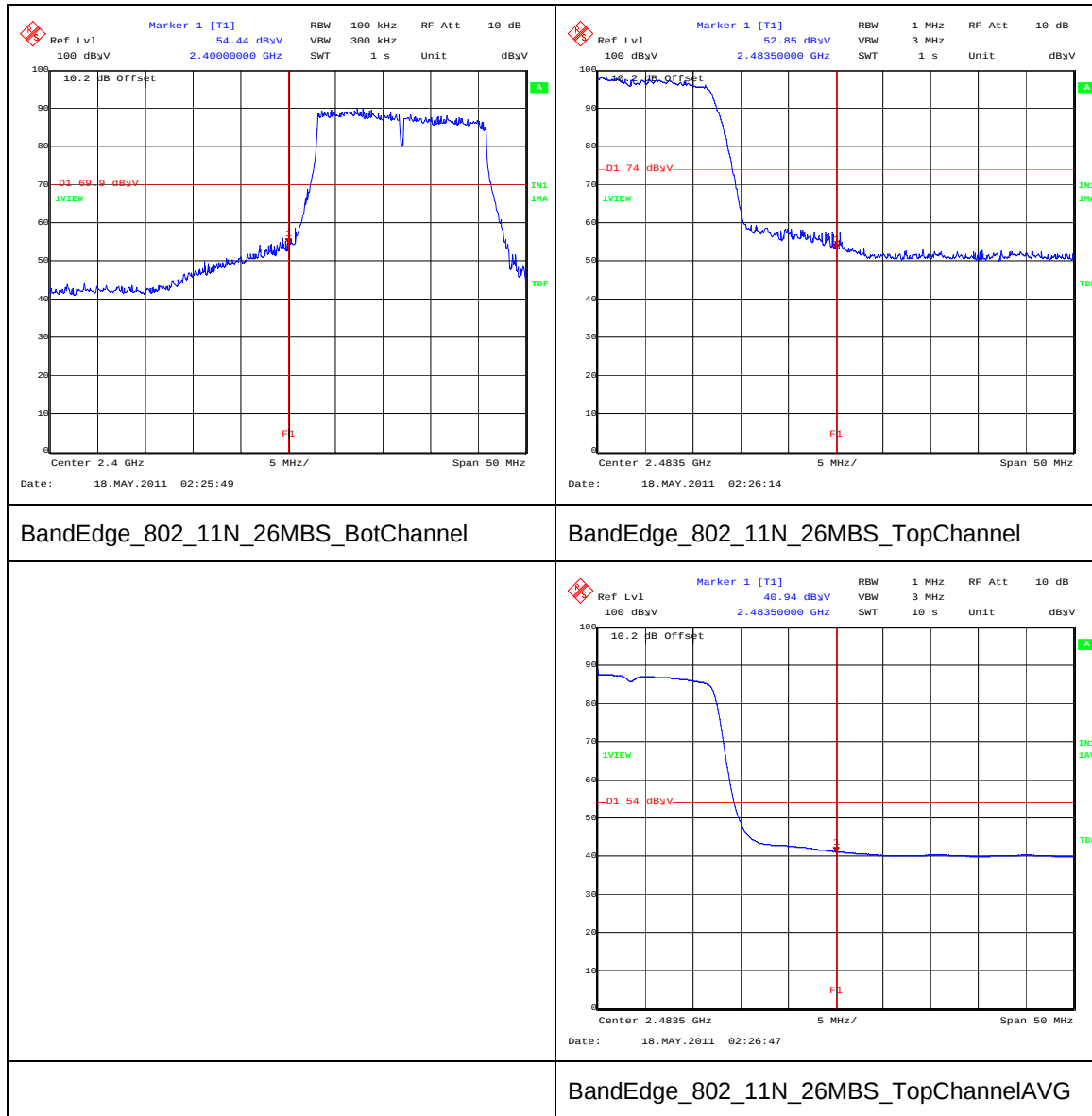


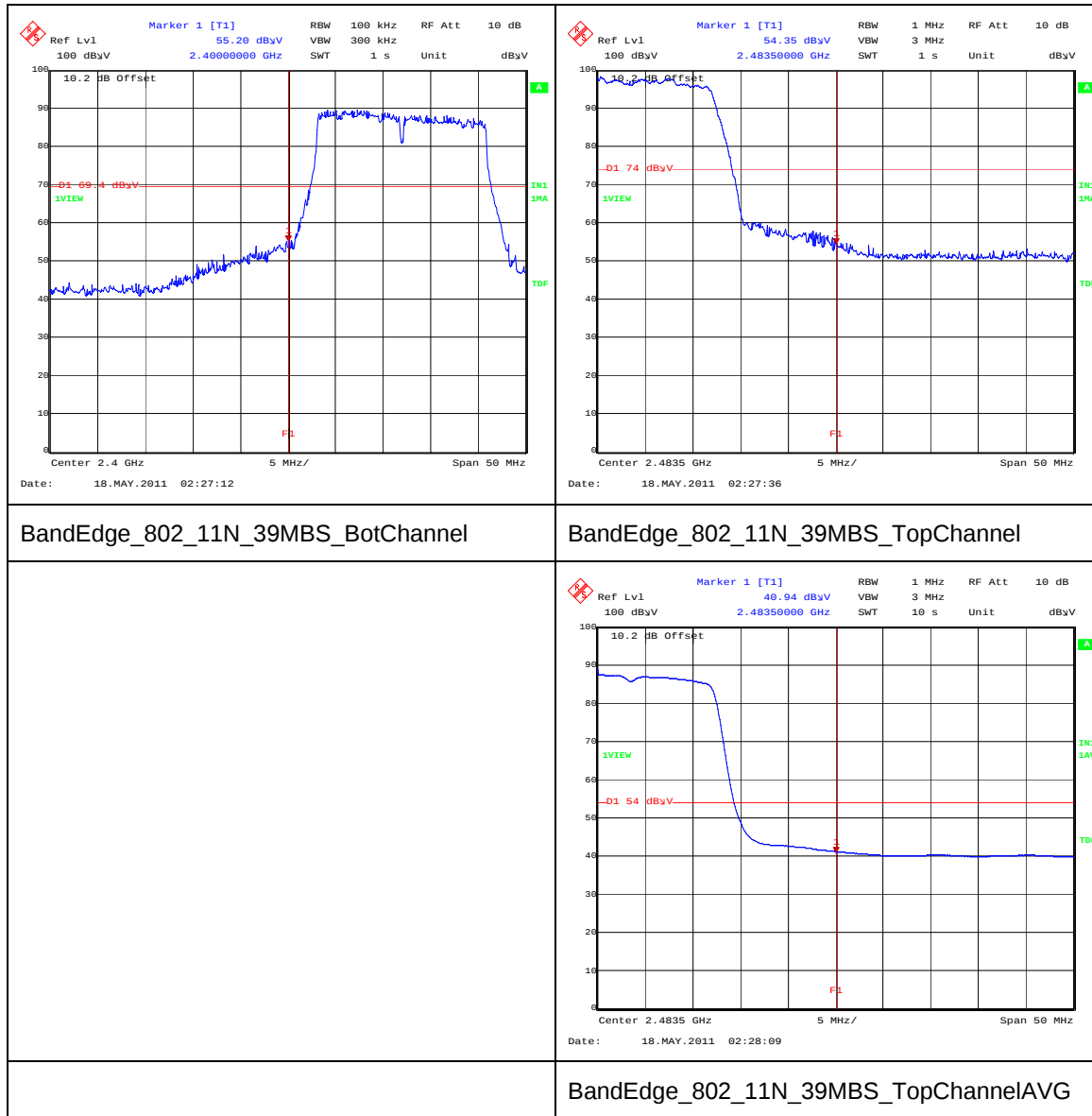
Transmitter Band Edge Radiated Emissions (continued)

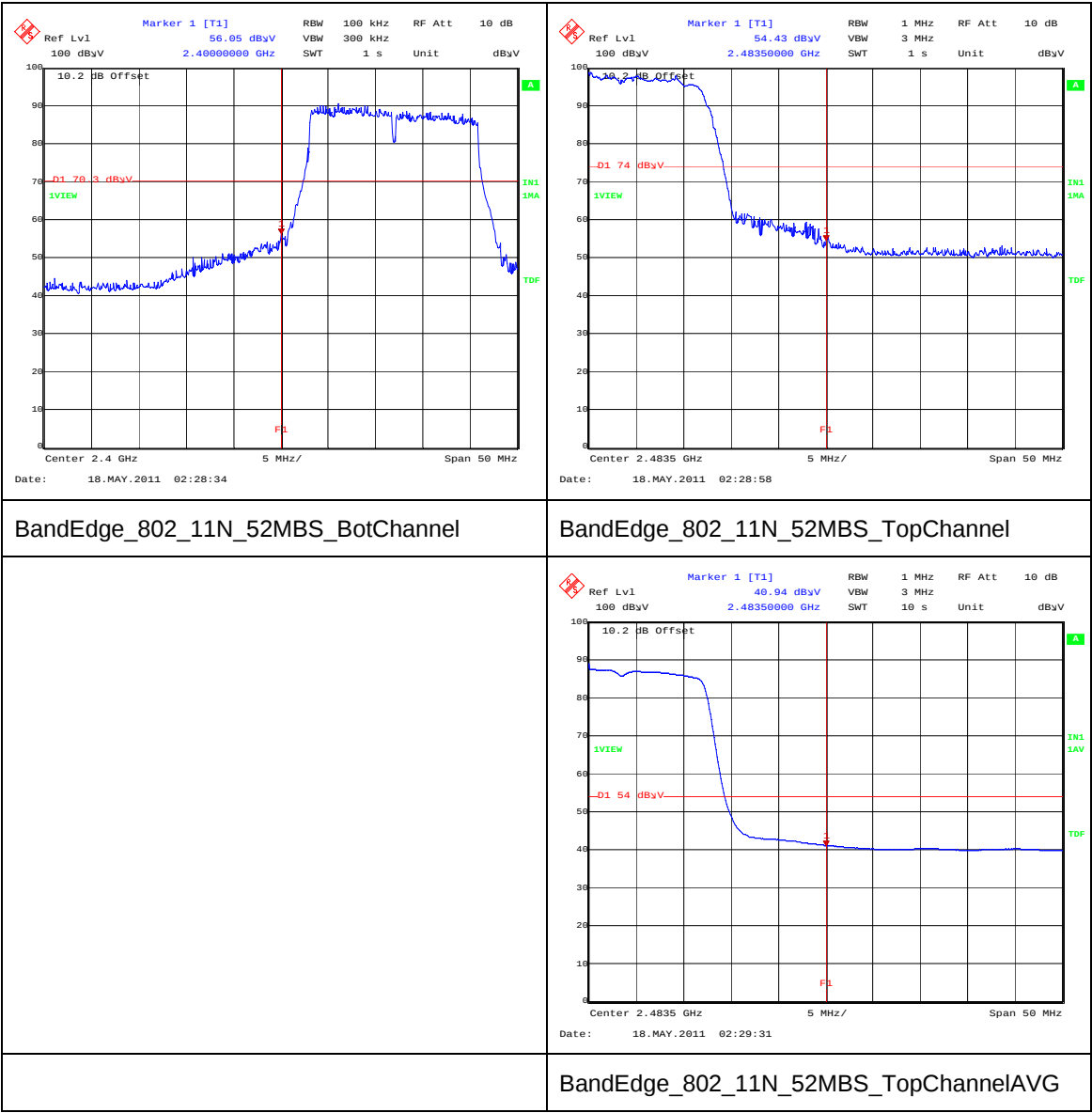


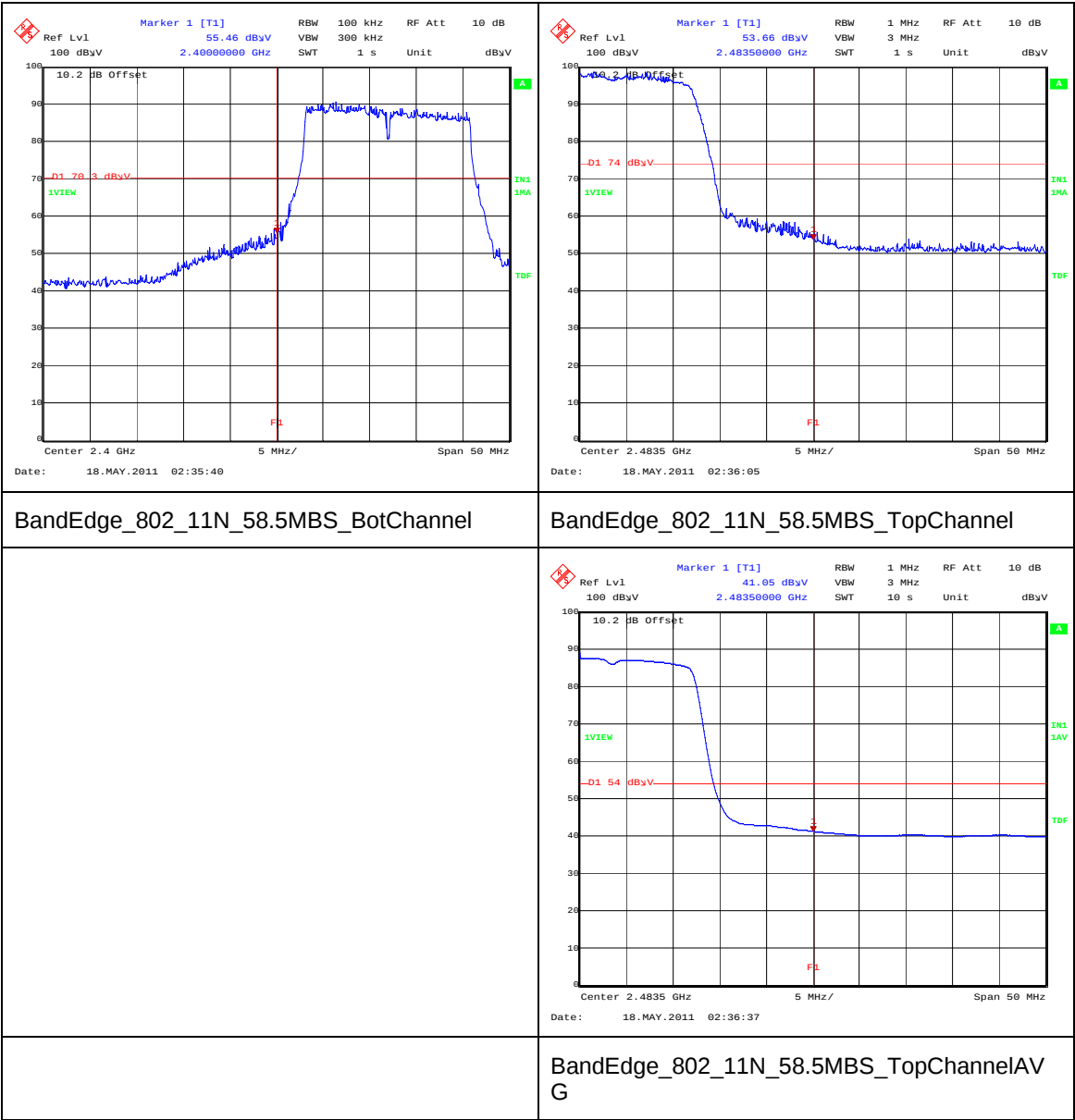


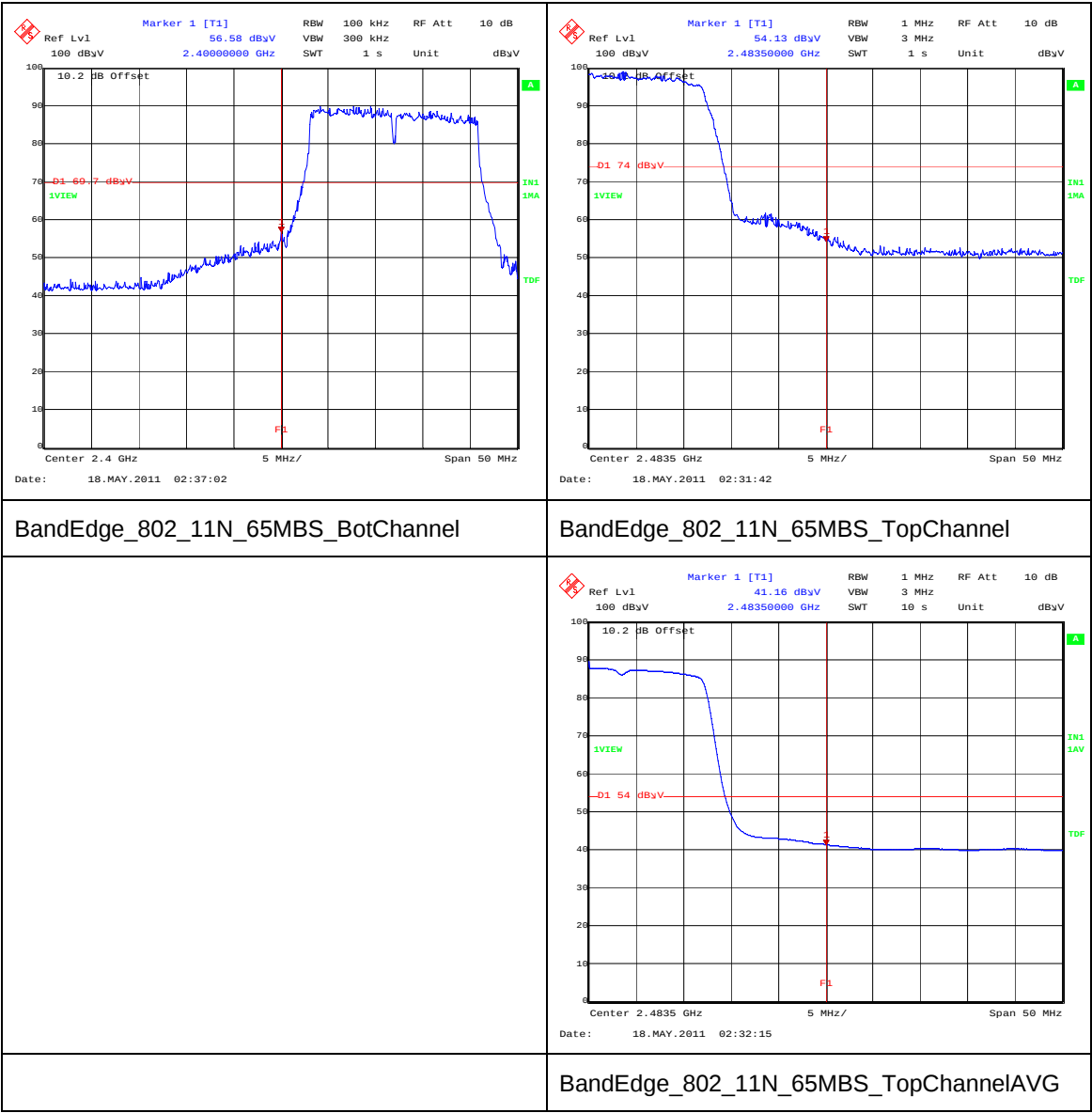












5.9. Test Results – EX-IT 2400-SMA 70-002 Antenna**5.9.1. Receiver/Idle Mode Radiated Spurious Emissions****Test Summary:**

Test Engineer:	Nigel Davison	Test Date:	17 May 2011
Test Sample IMEI:	ID:1		
Antenna:	EX-IT 2400-SMA 70-002		

FCC/IC Part:	15.109 and RSS-Gen 4.10 / RSS-Gen 6.1
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.5 referencing ANSI C63.4
Frequency Range:	30 MHz to 1000 MHz

Environmental Conditions:

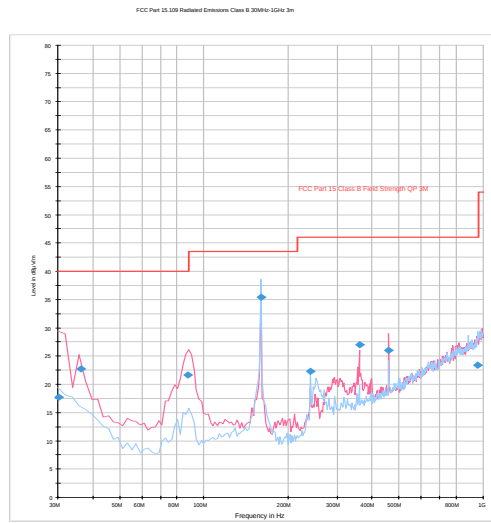
Temperature (°C):	24
Relative Humidity (%):	23

Results: Quasi Peak

Frequency (MHz)	Antenna Polarity	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Result
30.187	Vertical	17.8	40.0	22.2	Complied
36.250	Vertical	22.7	40.0	17.3	Complied
87.916	Vertical	21.7	40.0	18.3	Complied
159.995	Horizontal	35.4	43.5	8.1	Complied
239.983	Horizontal	22.3	46.0	23.7	Complied
360.013	Vertical	27.0	46.0	19.0	Complied
458.834	Vertical	26.0	46.0	20.0	Complied
953.919	Horizontal	23.3	46.0	22.7	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss.
2. All other emissions shown on the pre-scan plot were investigated and found to be ambient or >20 dB below the applicable limit or below the measurement system noise floor.

Receiver/Idle Mode Radiated Spurious Emissions (continued)

Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying table.

Receiver/Idle Mode Radiated Spurious Emissions (continued)**Test Summary:**

Test Engineer:	Nick Steele	Test Date:	17 May 2011
Test Sample IMEI:	ID:1		
Antenna:	EX-IT 2400-SMA 70-002		

FCC/IC Part:	15.109 and RSS-Gen 4.10 / RSS-Gen 6.1
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.6 referencing ANSI C63.4
Frequency Range:	1 GHz to 12.75 GHz

Environmental Conditions:

Temperature (°C):	23
Relative Humidity (%):	25

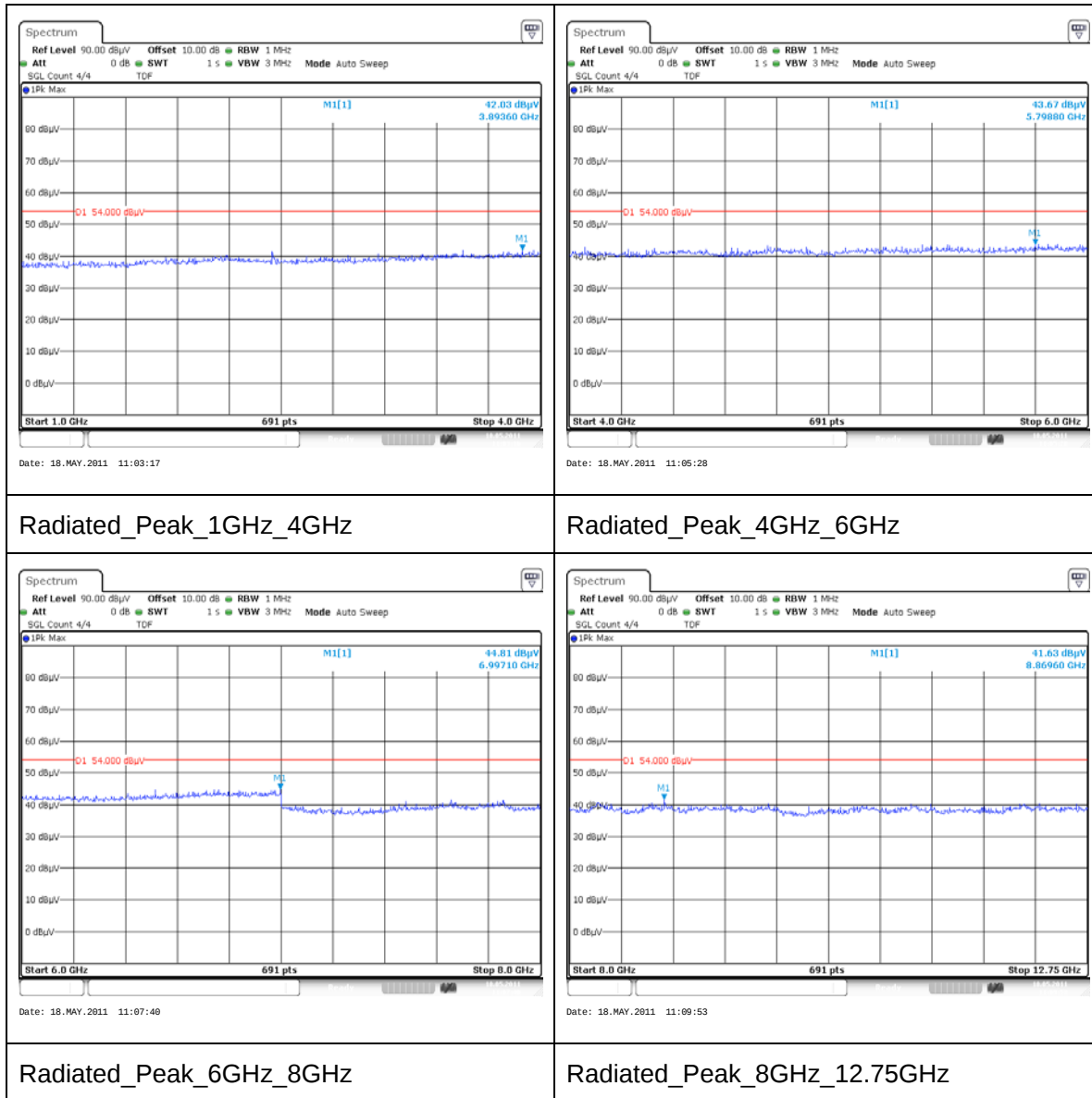
Results:

Frequency (MHz)	Antenna Polarity	Peak Level (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
6997.1	Vertical	44.8	*54.0	9.2	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss.
2. No spurious emissions were detected above the noise floor of the measuring receiver therefore the highest peak noise floor reading of the measuring receiver was recorded as shown in the table above.

* The average limit was compared to the peak level as opposed to being compared to the peak limit because this is the more stringent limit.

Receiver/Idle Mode Radiated Spurious Emissions (continued)

5.9.2. Transmitter Maximum Peak Output Power**Test Summary:**

Test Engineer:	David Lakeland	Test Date:	11 May 2011
Test Sample:	ID:1		

FCC Part:	15.247(b)(3)
Test Method Used:	As detailed in ANSI C63.10 Section 6.10.2

Note: Test method used – power meter

Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	29

Results: 802.11b

Channel	Frequency (MHz)	Mod Scheme	Data Rate (Mbps)	Conducted Peak Power (dBm)	Conducted Limit (dBm)	Margin (dB)	Result
Bottom	2412	BPSK	1	17.4	30	12.6	Complied
Middle	2437	BPSK	1	17.1	30	12.9	Complied
Top	2462	BPSK	1	16.3	30	13.7	Complied
Bottom	2412	QPSK	2	16.8	30	13.2	Complied
Middle	2437	QPSK	2	16.5	30	13.5	Complied
Top	2462	QPSK	2	16.2	30	13.8	Complied
Bottom	2412	QPSK	5.5	16.8	30	13.2	Complied
Middle	2437	QPSK	5.5	16.5	30	13.6	Complied
Top	2462	QPSK	5.5	16.1	30	13.9	Complied
Bottom	2412	QPSK	11	16.7	30	13.3	Complied
Middle	2437	QPSK	11	16.5	30	13.6	Complied
Top	2462	QPSK	11	16.2	30	13.9	Complied

Transmitter Maximum Peak Output Power (continued)**Results: 802.11g**

Channel	Frequency (MHz)	Mod Scheme	Data Rate (Mbps)	Conducte d Peak Power (dBm)	Conducte d Limit (dBm)	Margin (dB)	Result
Bottom	2412	BPSK	6	15.2	30	14.8	Complied
Middle	2437	BPSK	6	14.9	30	15.1	Complied
Top	2462	BPSK	6	14.6	30	15.4	Complied
Bottom	2412	BPSK	9	15.2	30	14.8	Complied
Middle	2437	BPSK	9	15.1	30	14.9	Complied
Top	2462	BPSK	9	15.1	30	14.9	Complied
Bottom	2412	QPSK	12	15.4	30	14.6	Complied
Middle	2437	QPSK	12	15.0	30	15.0	Complied
Top	2462	QPSK	12	14.7	30	15.3	Complied
Bottom	2412	QPSK	18	15.3	30	14.7	Complied
Middle	2437	QPSK	18	15.1	30	14.9	Complied
Top	2462	QPSK	18	14.7	30	15.3	Complied
Bottom	2412	16QAM	24	15.3	30	14.7	Complied
Middle	2437	16QAM	24	15.0	30	15.0	Complied
Top	2462	16QAM	24	14.7	30	15.3	Complied
Bottom	2412	16QAM	36	15.4	30	14.6	Complied
Middle	2437	16QAM	36	15.0	30	15.0	Complied
Top	2462	16QAM	36	14.7	30	15.3	Complied
Bottom	2412	16QAM	48	15.4	30	14.6	Complied
Middle	2437	16QAM	48	15.1	30	14.9	Complied
Top	2462	16QAM	48	14.8	30	15.3	Complied
Bottom	2412	64QAM	54	15.7	30	14.3	Complied
Middle	2437	64QAM	54	15.1	30	14.9	Complied
Top	2462	64QAM	54	14.7	30	15.3	Complied

Transmitter Maximum Peak Output Power (continued)**Results: 802.11n**

Channel	Frequency (MHz)	Mod Scheme	Data Rate (Mbps)	Conducted Peak Power (dBm)	Conducted Limit (dBm)	Margin (dB)	Result
Bottom	2412	BPSK	6.5	15.6	30	14.4	Complied
Middle	2437	BPSK	6.5	15.3	30	14.7	Complied
Top	2462	BPSK	6.5	15.0	30	15.0	Complied
Bottom	2412	QPSK	13	15.5	30	14.6	Complied
Middle	2437	QPSK	13	15.2	30	14.8	Complied
Top	2462	QPSK	13	14.9	30	15.1	Complied
Bottom	2412	QPSK	19.5	15.4	30	14.6	Complied
Middle	2437	QPSK	19.5	14.9	30	15.1	Complied
Top	2462	QPSK	19.5	14.8	30	15.3	Complied
Bottom	2412	16QAM	26	15.3	30	14.7	Complied
Middle	2437	16QAM	26	15.1	30	14.9	Complied
Top	2462	16QAM	26	14.8	30	15.2	Complied
Bottom	2412	16QAM	39	15.6	30	14.4	Complied
Middle	2437	16QAM	39	15.6	30	14.4	Complied
Top	2462	16QAM	39	14.9	30	15.1	Complied
Bottom	2412	64QAM	52	15.4	30	14.6	Complied
Middle	2437	64QAM	52	15.2	30	14.8	Complied
Top	2462	64QAM	52	15.6	30	14.4	Complied
Bottom	2412	64QAM	58.5	16.3	30	13.7	Complied
Middle	2437	64QAM	58.5	15.4	30	14.6	Complied
Top	2462	64QAM	58.5	15.0	30	15.1	Complied
Bottom	2412	64QAM	65	16.0	30	14.0	Complied
Middle	2437	64QAM	65	15.4	30	14.6	Complied
Top	2462	64QAM	65	16.1	30	13.9	Complied

5.9.3. Transmitter Maximum Equivalent Isotropically Radiated Power (EIRP)

FCC Part:	15.247(b)(3)
Test Method Used:	As detailed in ANSI C63.10 Section 6.10.2

Results: 802.11b

Channel	Mod Scheme	Data Rate (Mbps)	Antenna Gain (dBi)	Conducted Peak Power (dBm)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	BPSK	1	3	17.4	20.4	36.0	15.6	Complied
Middle	BPSK	1	3	17.1	20.1	36.0	15.9	Complied
Top	BPSK	1	3	16.3	19.3	36.0	16.7	Complied
Bottom	QPSK	2	3	16.8	19.8	36.0	16.2	Complied
Middle	QPSK	2	3	16.5	19.5	36.0	16.5	Complied
Top	QPSK	2	3	16.2	19.2	36.0	16.8	Complied
Bottom	QPSK	5.5	3	16.8	19.8	36.0	16.2	Complied
Middle	QPSK	5.5	3	16.5	19.5	36.0	16.5	Complied
Top	QPSK	5.5	3	16.1	19.1	36.0	16.9	Complied
Bottom	QPSK	11	3	16.7	19.7	36.0	16.3	Complied
Middle	QPSK	11	3	16.5	19.5	36.0	16.5	Complied
Top	QPSK	11	3	16.2	19.2	36.0	16.8	Complied

Transmitter Maximum Equivalent Isotropically Radiated Power (EIRP) (Continued)**Results: 802.11g**

Channel	Mod Scheme	Data Rate (Mbps)	Antenna Gain (dBi)	Conducted Peak Power (dBm)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	BPSK	6	3	15.2	18.2	36.0	17.8	Complied
Middle	BPSK	6	3	14.9	17.9	36.0	18.1	Complied
Top	BPSK	6	3	14.6	17.6	36.0	18.4	Complied
Bottom	BPSK	9	3	15.2	18.2	36.0	17.8	Complied
Middle	BPSK	9	3	15.1	18.1	36.0	17.9	Complied
Top	BPSK	9	3	15.1	18.1	36.0	17.9	Complied
Bottom	QPSK	12	3	15.4	18.4	36.0	17.6	Complied
Middle	QPSK	12	3	15.0	18.0	36.0	18.0	Complied
Top	QPSK	12	3	14.7	17.7	36.0	18.3	Complied
Bottom	QPSK	18	3	15.3	18.3	36.0	17.7	Complied
Middle	QPSK	18	3	15.1	18.1	36.0	17.9	Complied
Top	QPSK	18	3	14.7	17.7	36.0	18.3	Complied
Bottom	16QAM	24	3	15.3	18.3	36.0	17.7	Complied
Middle	16QAM	24	3	15.0	18.0	36.0	18.0	Complied
Top	16QAM	24	3	14.7	17.7	36.0	18.3	Complied
Bottom	16QAM	36	3	15.4	18.4	36.0	17.6	Complied
Middle	16QAM	36	3	15.0	18.0	36.0	18.0	Complied
Top	16QAM	36	3	14.7	17.7	36.0	18.3	Complied
Bottom	16QAM	48	3	15.4	18.4	36.0	17.6	Complied
Middle	16QAM	48	3	15.1	18.1	36.0	17.9	Complied
Top	16QAM	48	3	14.8	17.8	36.0	18.2	Complied
Bottom	64QAM	54	3	15.7	18.7	36.0	17.3	Complied
Middle	64QAM	54	3	15.1	18.1	36.0	17.9	Complied
Top	64QAM	54	3	14.7	17.7	36.0	18.3	Complied

Transmitter Maximum Equivalent Isotropically Radiated Power (EIRP) (Continued)**Results: 802.11n**

Channel	Mod Scheme	Data Rate (Mbps)	Antenna Gain (dBi)	Conducted Peak Power (dBm)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	BPSK	6.5	3	15.6	18.6	36.0	17.4	Complied
Middle	BPSK	6.5	3	15.3	18.3	36.0	17.7	Complied
Top	BPSK	6.5	3	15.0	18.0	36.0	18.0	Complied
Bottom	QPSK	13	3	15.5	18.5	36.0	17.5	Complied
Middle	QPSK	13	3	15.2	18.2	36.0	17.8	Complied
Top	QPSK	13	3	14.9	17.9	36.0	18.1	Complied
Bottom	QPSK	19.5	3	15.4	18.4	36.0	17.6	Complied
Middle	QPSK	19.5	3	14.9	17.9	36.0	18.1	Complied
Top	QPSK	19.5	3	14.8	17.8	36.0	18.2	Complied
Bottom	16QAM	26	3	15.3	18.3	36.0	17.7	Complied
Middle	16QAM	26	3	15.1	18.1	36.0	17.9	Complied
Top	16QAM	26	3	14.8	17.8	36.0	18.2	Complied
Bottom	16QAM	39	3	15.6	18.6	36.0	17.4	Complied
Middle	16QAM	39	3	15.6	18.6	36.0	17.4	Complied
Top	16QAM	39	3	14.9	17.9	36.0	18.1	Complied
Bottom	64QAM	52	3	15.4	18.4	36.0	17.6	Complied
Middle	64QAM	52	3	15.2	18.2	36.0	17.8	Complied
Top	64QAM	52	3	15.6	18.6	36.0	17.4	Complied
Bottom	64QAM	58.5	3	16.3	19.3	36.0	16.7	Complied
Middle	64QAM	58.5	3	15.4	18.4	36.0	17.6	Complied
Top	64QAM	58.5	3	15.0	18.0	36.0	18.0	Complied
Bottom	64QAM	65	3	16.0	19.0	36.0	17.0	Complied
Middle	64QAM	65	3	15.4	18.4	36.0	17.6	Complied
Top	64QAM	65	3	16.1	19.1	36.0	16.9	Complied

5.9.4. Transmitter Radiated Emissions**Test Summary:**

Test Engineer:	Andrew Edwards	Test Date:	17 May 2011
Test Sample Serial No:	ID:1		
Antenna:	EX-IT 2400-SMA 70-002		

FCC/IC Part:	15.247(d), 15.209(a), RSS-Gen 4.9 and RSS-210 A8.5
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.5 referencing ANSI C63.4
Frequency Range	30 MHz to 1000 MHz

Environmental Conditions:

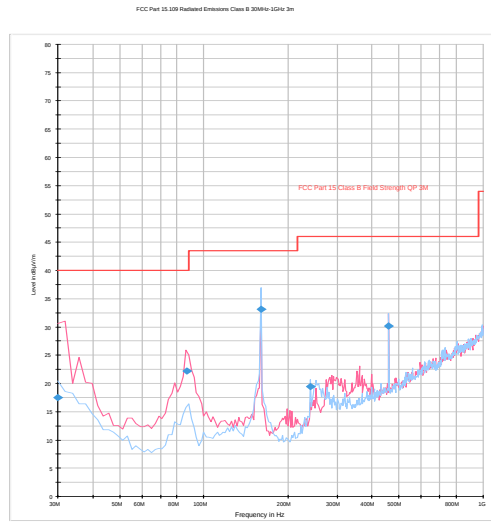
Temperature (°C):	23
Relative Humidity (%):	23

Results: Top Channel

Frequency (MHz)	Antenna Polarity	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
30.000	Vertical	17.5	40.0	22.5	Complied
86.887	Vertical	22.2	40.0	17.8	Complied
159.995	Horizontal	33.1	43.5	10.4	Complied
239.983	Horizontal	19.5	46.0	26.5	Complied
458.776	Vertical	30.2	46.0	15.80	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss
2. The preliminary scans showed similar emission levels below 1 GHz, for each channel of operation. Therefore final radiated emissions measurements were performed with the EUT set to the top channel only.
3. All other emissions were at least 20 dB below the appropriate limit or below the noise floor of the measurement system.

Transmitter Radiated Emissions (continued)

Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying table.

Transmitter Radiated Emissions (continued)**Test Summary:**

Test Engineer:	Nigel Davison	Test Date:	17 and 19 May 2011
Test Sample Serial No:	ID:1		
Antenna:	EX-IT 2400-SMA 70-002		

FCC/IC Part:	15.247(d), 15.209(a), RSS-Gen 4.9 and RSS-210 A8.5
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.6 referencing ANSI C63.4
Frequency Range	1 GHz to 26.5 GHz

Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	27

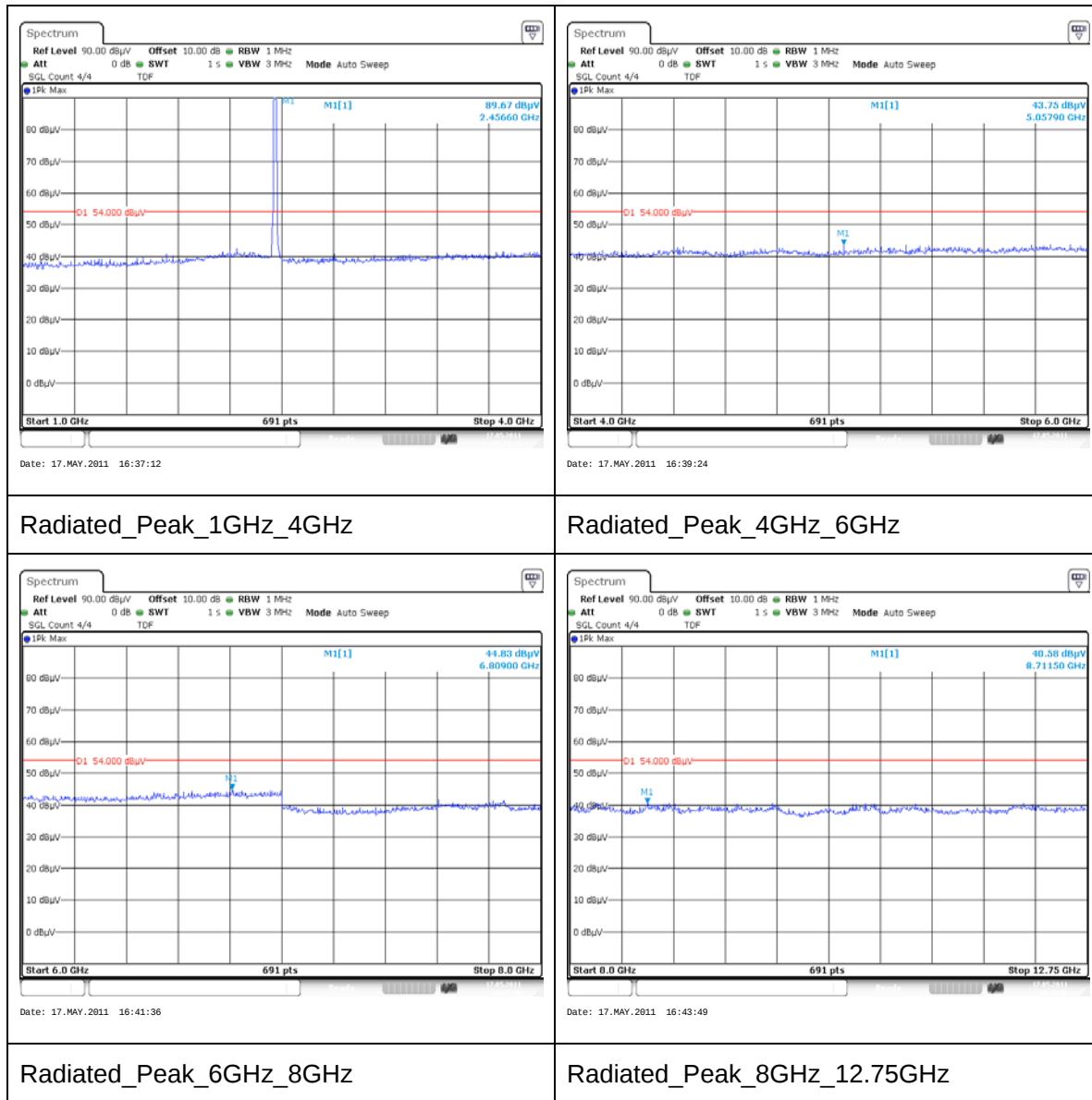
Results:

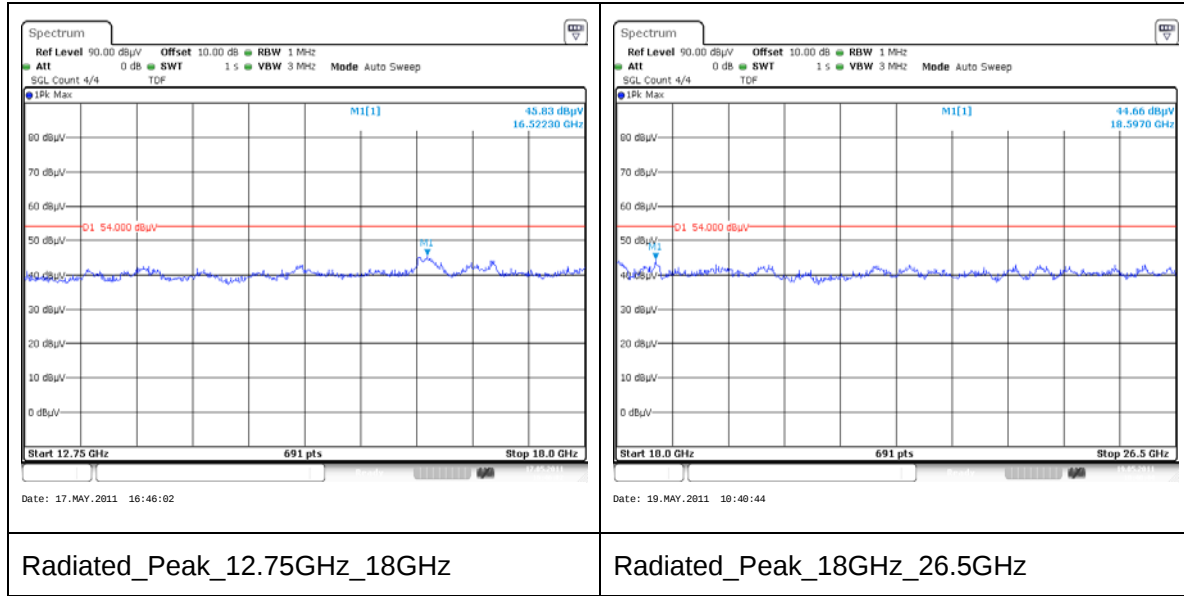
Frequency (MHz)	Antenna Polarity	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
16522.3	Vertical	45.8	*54.0	8.2	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss
2. All other emissions shown on the pre-scan plot were investigated and found to be ambient or >20 dB below the applicable limit or below the measurement system noise floor.
3. No spurious emissions were detected above the noise floor of the measuring receiver therefore the highest peak noise floor reading of the measuring receiver was recorded as shown in the table above.
4. The emission shown on the 1 GHz to 4 GHz plot is the EUT fundamental.

* The average limit was compared to the peak level as opposed to being compared to the peak limit because this is the more stringent limit.

Transmitter Radiated Emissions (continued)



5.9.5. Transmitter Band Edge Radiated Emissions**Test Summary:**

Test Engineer:	Nigel Davison	Test Date:	10 May and 18 May 2011
Test Sample Serial No:	ID:1		
Antenna:	EX-IT 2400-SMA 70-002		

FCC/IC Part:	15.247(d), 15.209(a), RSS-Gen 4.9 and RSS-210 A8.5
Test Method Used:	As detailed in ANSI C63.10 Section 6.9.2

Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	30

Results: Peak and Average 802.11b

Frequency (MHz)	Data Rate Mbps	Modulation Type	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2400.0	1	BPSK	48.8	*76.2	27.4	Complied
2483.5	1	BPSK	51.9	74.0	22.1	Complied
2483.5	1	BPSK	39.6	54.0	14.4	Complied
2400.0	2	QPSK	49.2	*75.9	26.7	Complied
2483.5	2	QPSK	50.9	74.0	23.1	Complied
2483.5	2	QPSK	39.6	54.0	14.4	Complied
2400.0	5.5	CCK	45.3	*76.6	31.3	Complied
2483.5	5.5	CCK	50.7	74.0	23.3	Complied
2483.5	5.5	CCK	39.6	54.0	14.4	Complied
2400.0	11	CCK	48.1	*76.4	28.3	Complied
2483.5	11	CCK	50.8	74.0	23.2	Complied
2483.5	11	CCK	39.6	54.0	14.4	Complied

Transmitter Band Edge Radiated Emissions (continued)**Results: Peak and Average 802.11g**

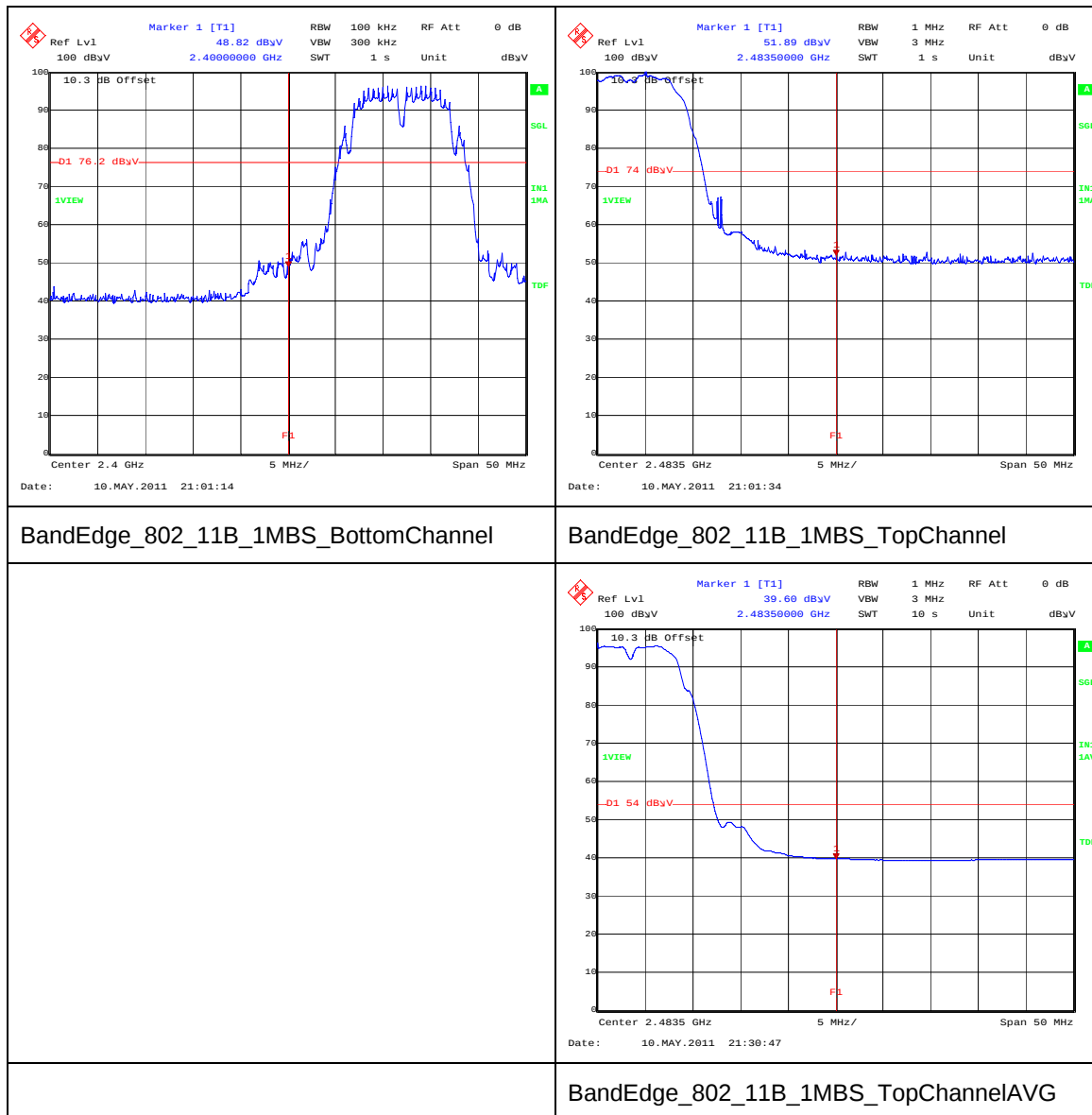
Frequency (MHz)	Data Rate Mbps	Modulation Type	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2400.0	6	BPSK	57.5	*70.5	13.0	Complied
2483.5	6	BPSK	57.5	74.0	16.5	Complied
2483.5	6	BPSK	41.8	54.0	12.2	Complied
2400.0	9	BPSK	58.2	*70.2	12.0	Complied
2483.5	9	BPSK	59.3	74.0	14.7	Complied
2483.5	9	BPSK	41.7	54.0	12.3	Complied
2400.0	12	QPSK	55.6	*70.9	15.3	Complied
2483.5	12	QPSK	56.6	74.0	17.4	Complied
2483.5	12	QPSK	41.7	54.0	12.3	Complied
2400.0	18	QPSK	56.1	*70.8	14.7	Complied
2483.5	18	QPSK	54.9	74.0	19.1	Complied
2483.5	18	QPSK	41.7	54.0	12.3	Complied
2400.0	24	16QAM	55.4	*71.4	16.0	Complied
2483.5	24	16QAM	56.5	74.0	17.5	Complied
2483.5	24	16QAM	41.7	54.0	12.3	Complied
2400.0	36	16QAM	54.6	*71.8	17.2	Complied
2483.5	36	16QAM	55.5	74.0	18.5	Complied
2483.5	36	16QAM	41.8	54.0	12.2	Complied
2400.0	48	64QAM	55.6	*71.7	16.1	Complied
2483.5	48	64QAM	56.4	74.0	17.6	Complied
2483.5	48	64QAM	41.7	54.0	12.3	Complied
2400.0	54	64QAM	55.7	*71.7	16.0	Complied
2483.5	54	64QAM	57.8	74.0	16.2	Complied
2483.5	54	64QAM	41.7	54.0	12.3	Complied

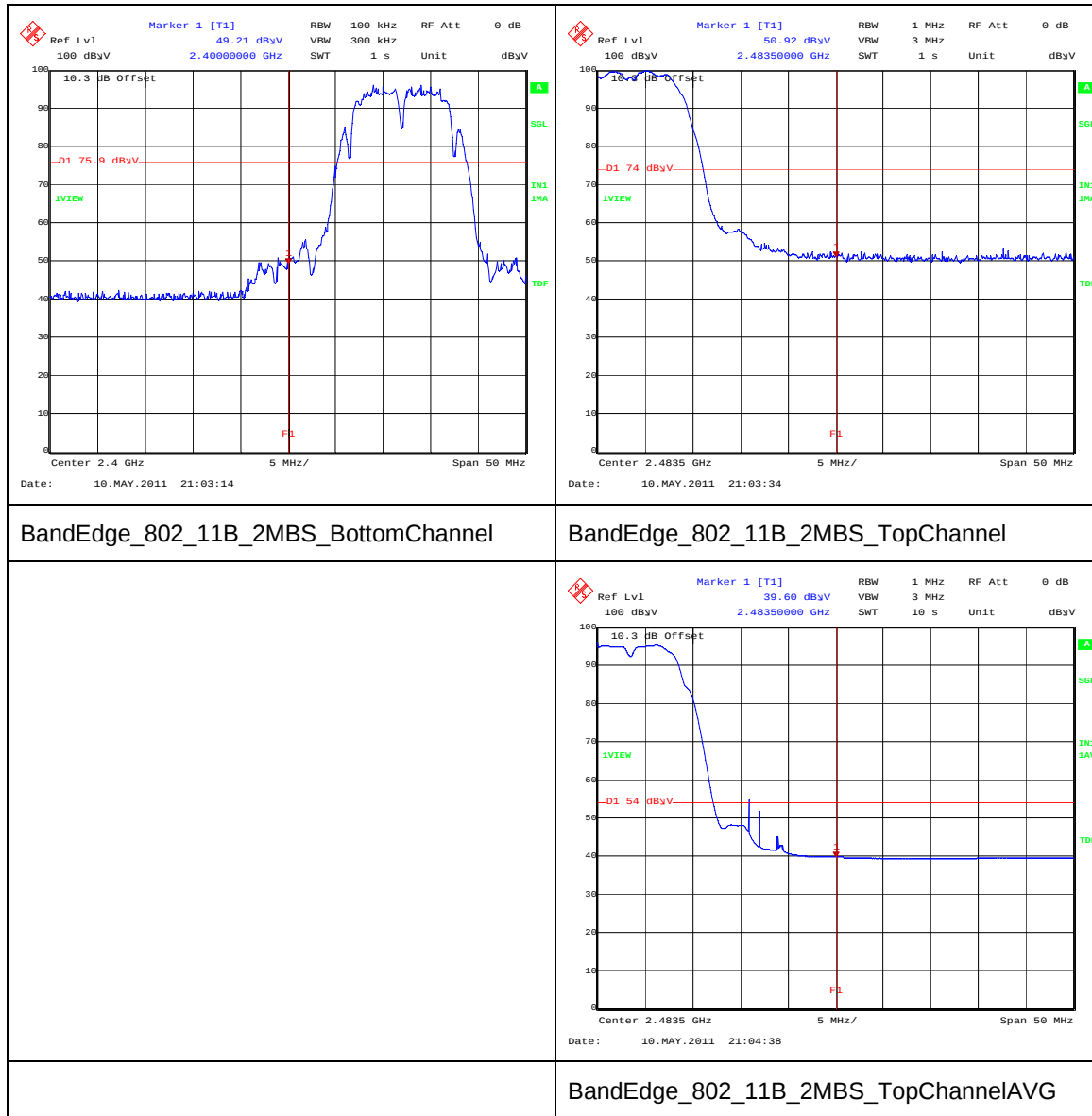
Transmitter Band Edge Radiated Emissions (continued)**Results: Peak and Average 802.11n**

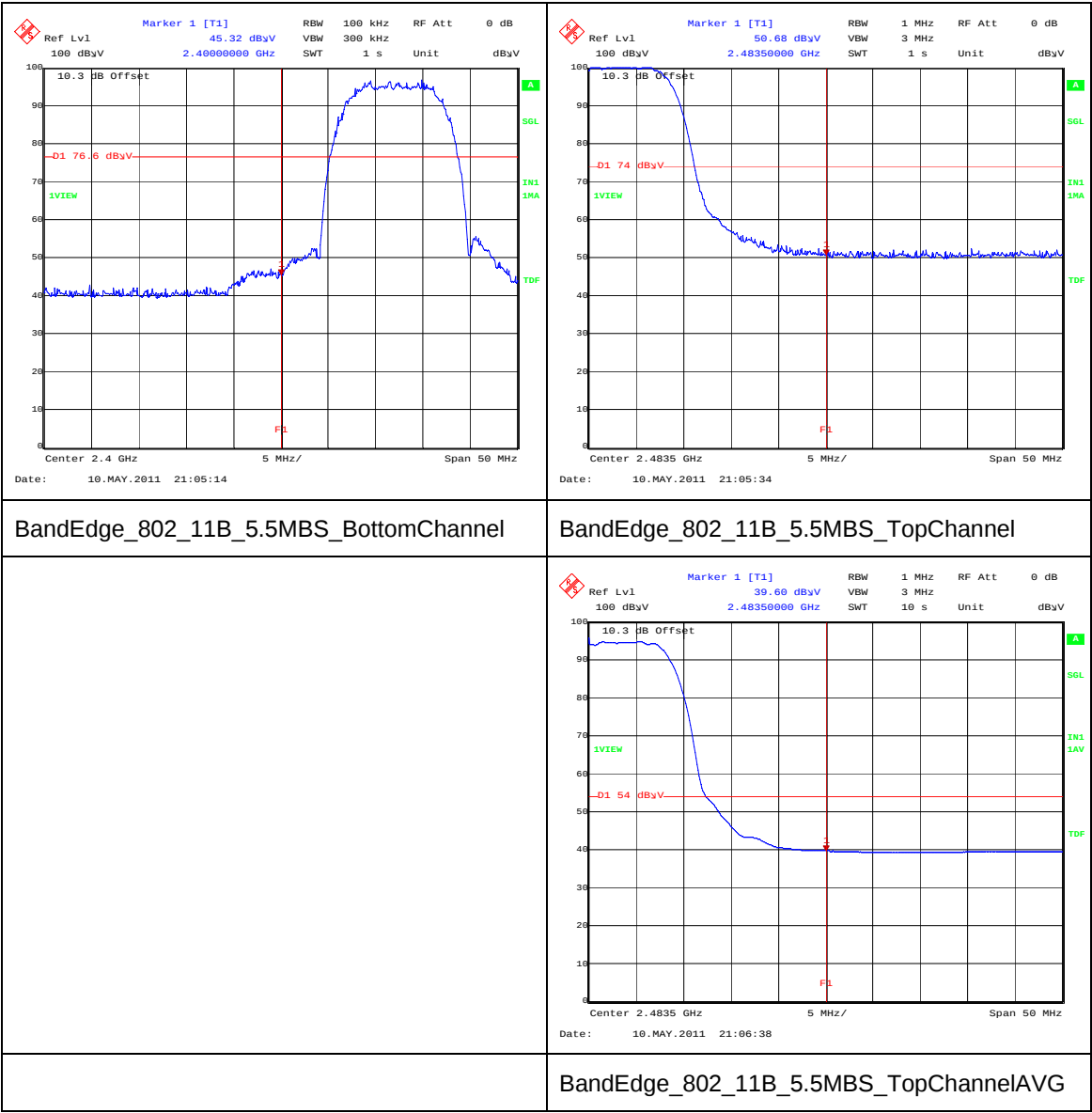
Frequency (MHz)	Data Rate Mbps	Modulation Type	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2400.0	6.5	BPSK	56.1	*69.0	12.9	Complied
2483.5	6.5	BPSK	54.0	74.0	20.0	Complied
2483.5	6.5	BPSK	40.9	54.0	13.1	Complied
2400.0	13	BPSK	55.2	*68.4	13.2	Complied
2483.5	13	BPSK	55.4	74.0	18.6	Complied
2483.5	13	BPSK	40.9	54.0	13.1	Complied
2400.0	19.5	QPSK	54.8	*68.8	14.0	Complied
2483.5	19.5	QPSK	53.0	74.0	21.0	Complied
2483.5	19.5	QPSK	40.9	54.0	13.1	Complied
2400.0	26	QPSK	54.5	*69.7	15.2	Complied
2483.5	26	QPSK	52.7	74.0	21.3	Complied
2483.5	26	QPSK	40.8	54.0	13.2	Complied
2400.0	39	16QAM	55.5	*69.6	14.1	Complied
2483.5	39	16QAM	53.7	74.0	20.3	Complied
2483.5	39	16QAM	40.8	54.0	13.2	Complied
2400.0	52	16QAM	54.9	*70.1	15.2	Complied
2483.5	52	16QAM	53.9	74.0	20.1	Complied
2483.5	52	16QAM	40.9	54.0	13.1	Complied
2400.0	58.5	64QAM	55.6	*70.2	14.6	Complied
2483.5	58.5	64QAM	54.4	74.0	19.6	Complied
2483.5	58.5	64QAM	41.0	54.0	13.0	Complied
2400.0	65	64QAM	55.2	*70.0	14.8	Complied
2483.5	65	64QAM	54.6	74.0	19.4	Complied
2483.5	65	64QAM	40.9	54.0	13.1	Complied

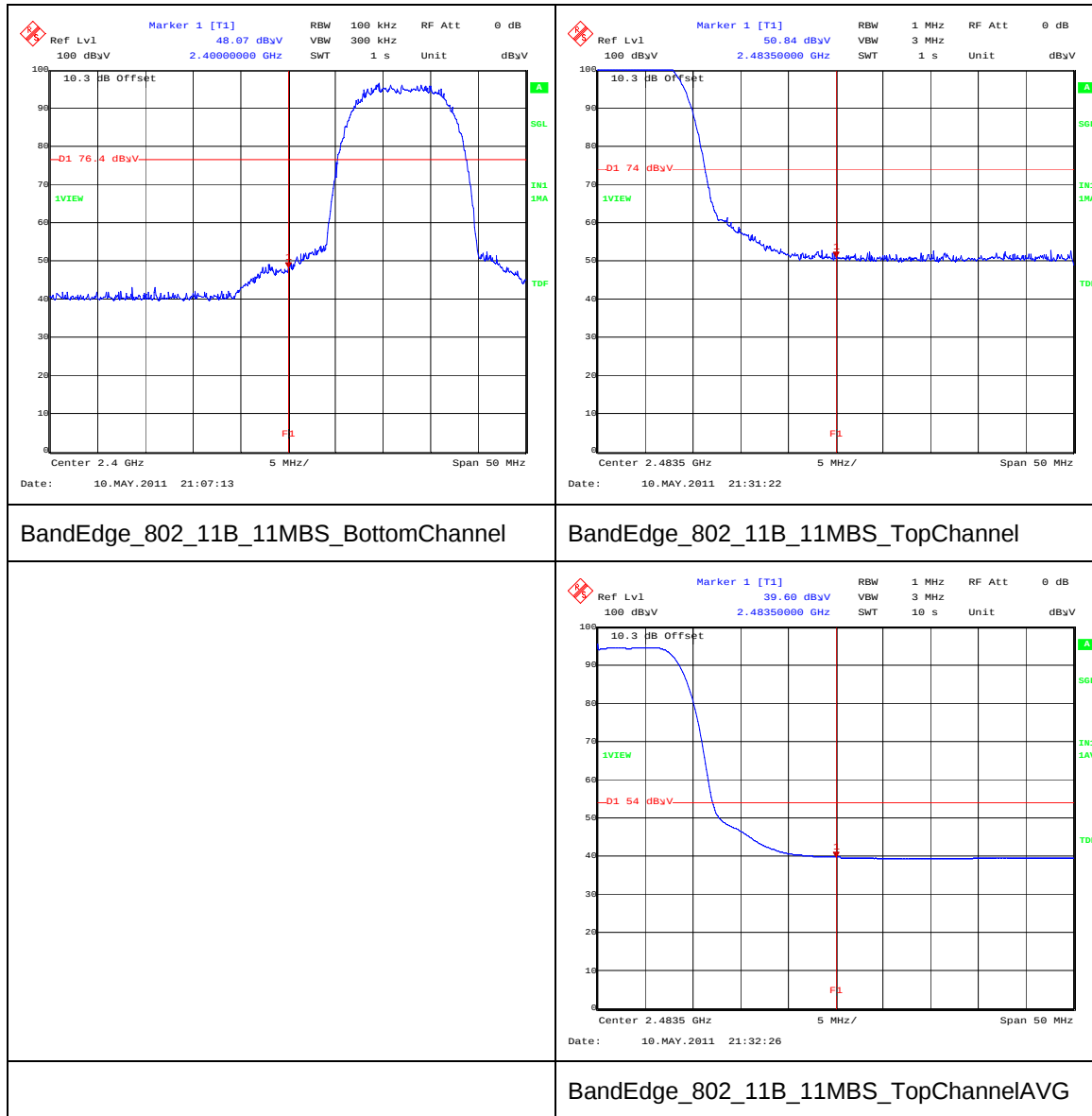
Note(s):

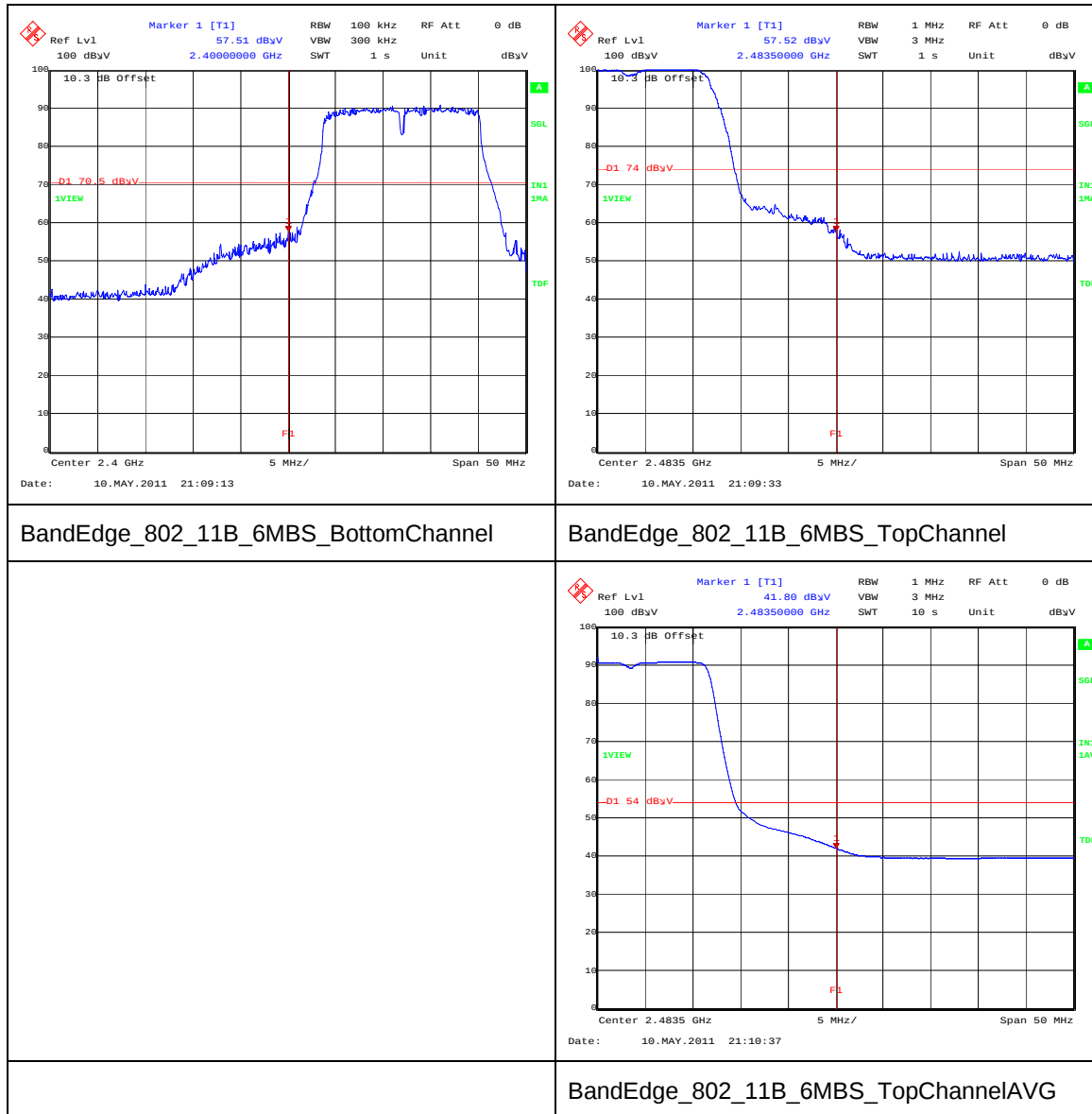
1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss.
2. * -20 dBc limit.

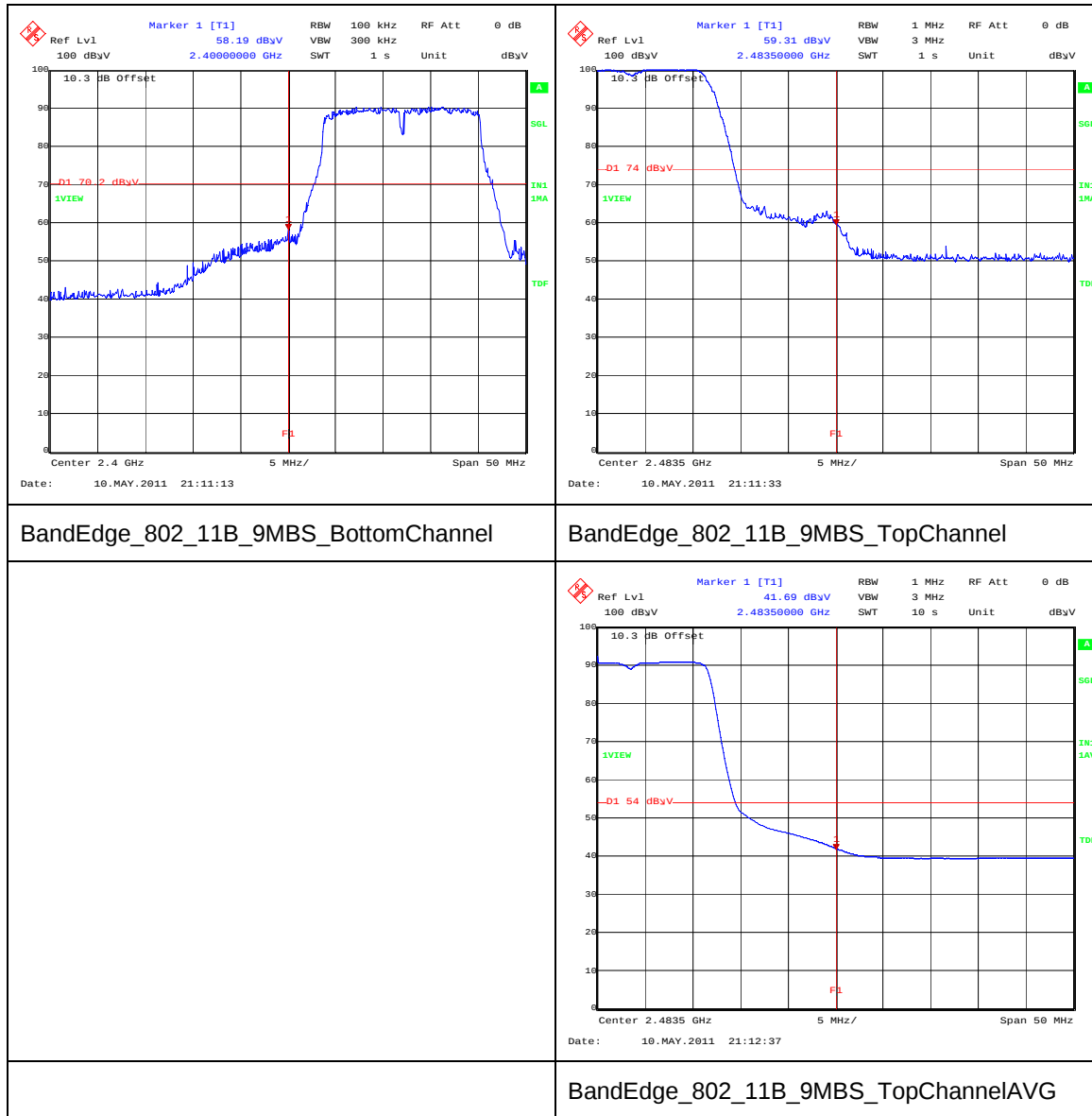
Transmitter Band Edge Radiated Emissions (continued)

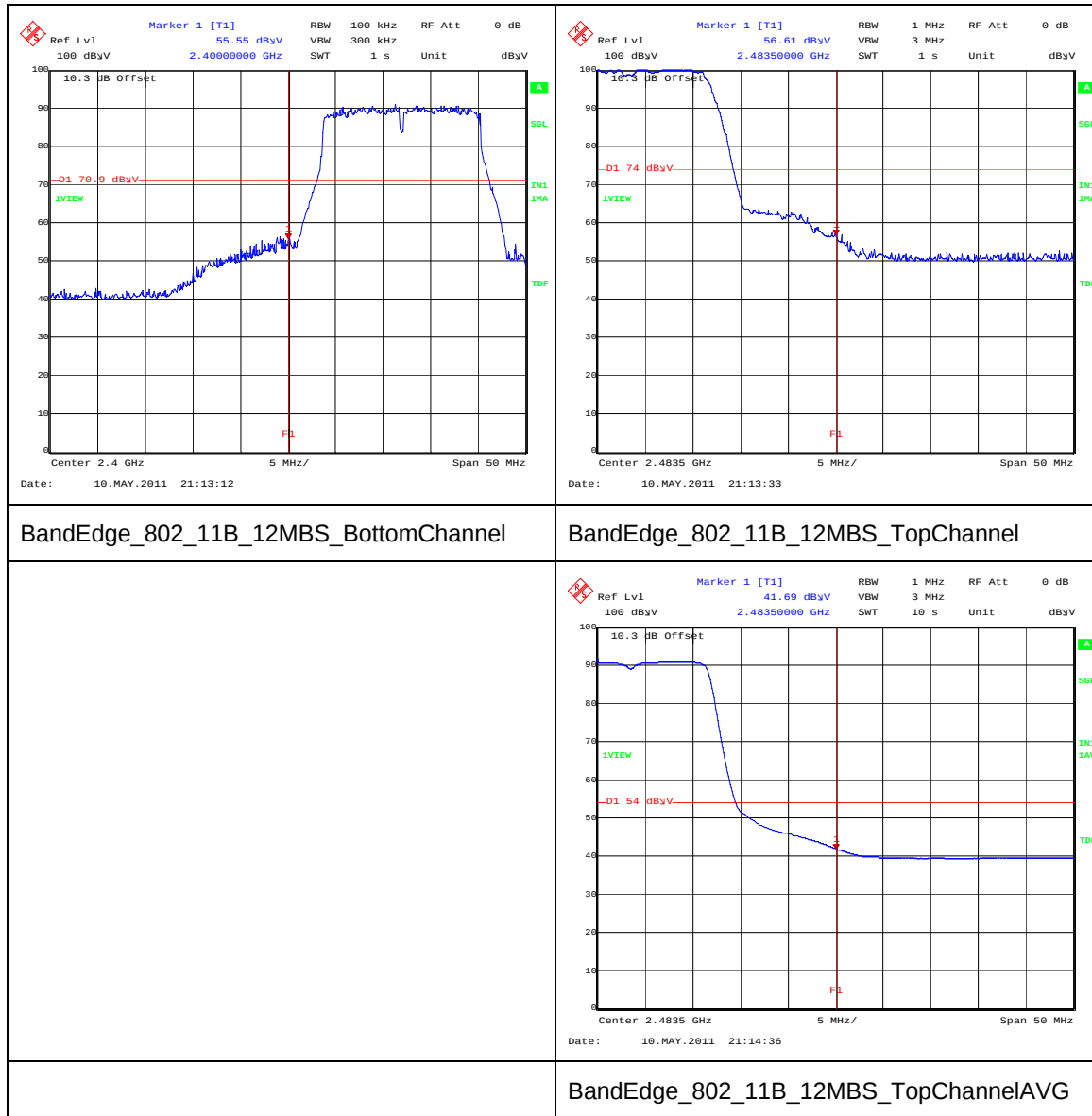


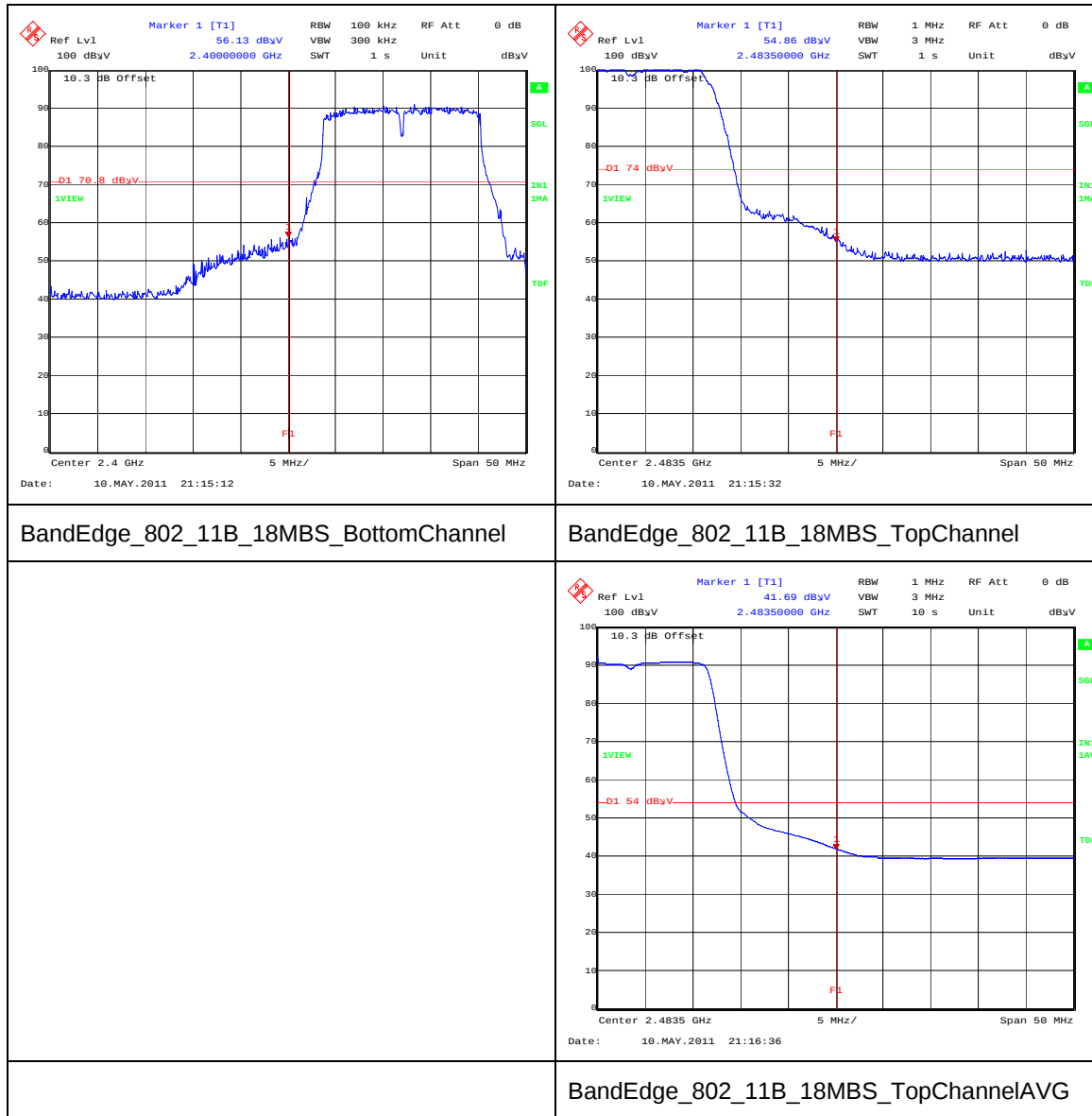


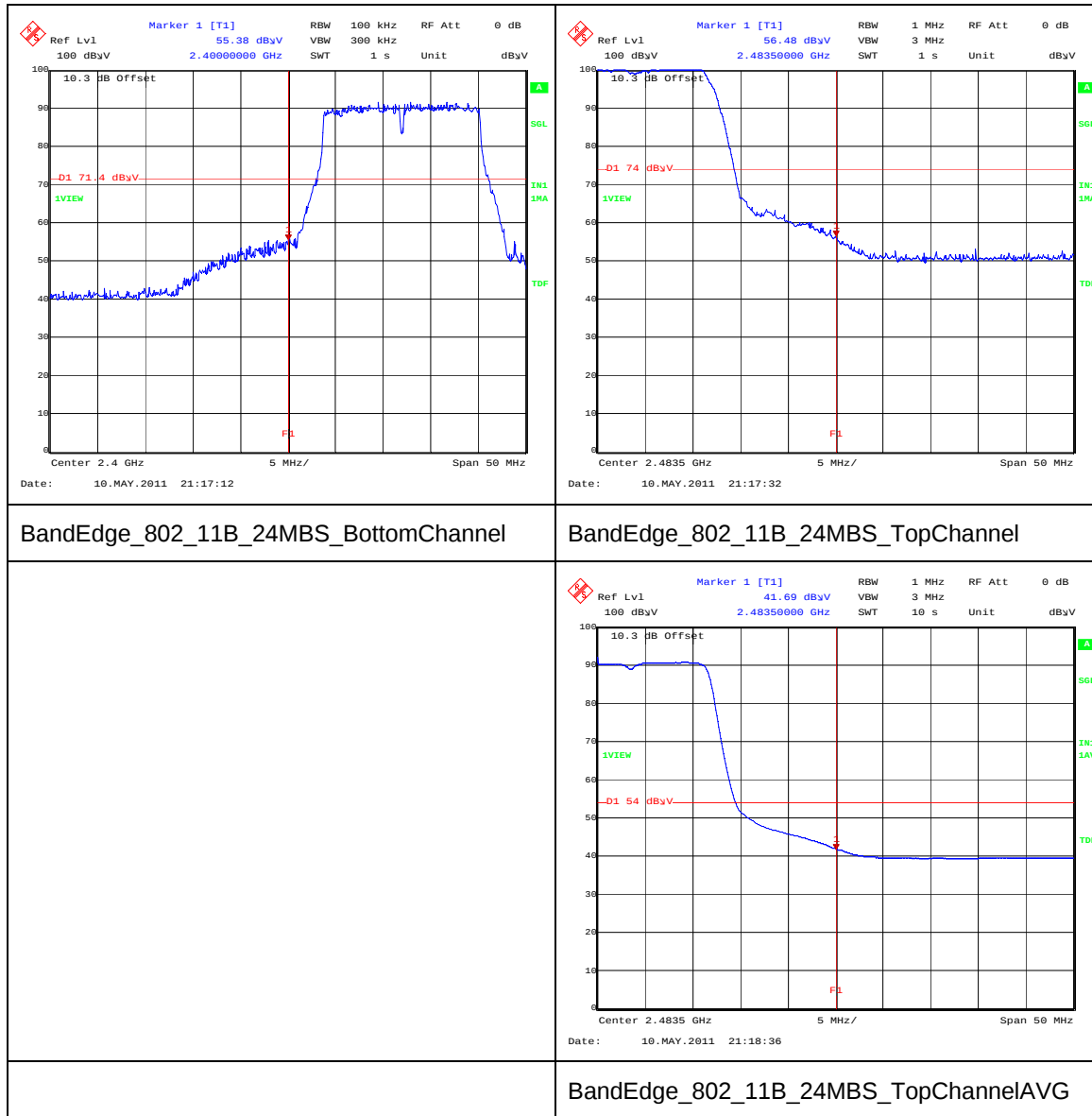


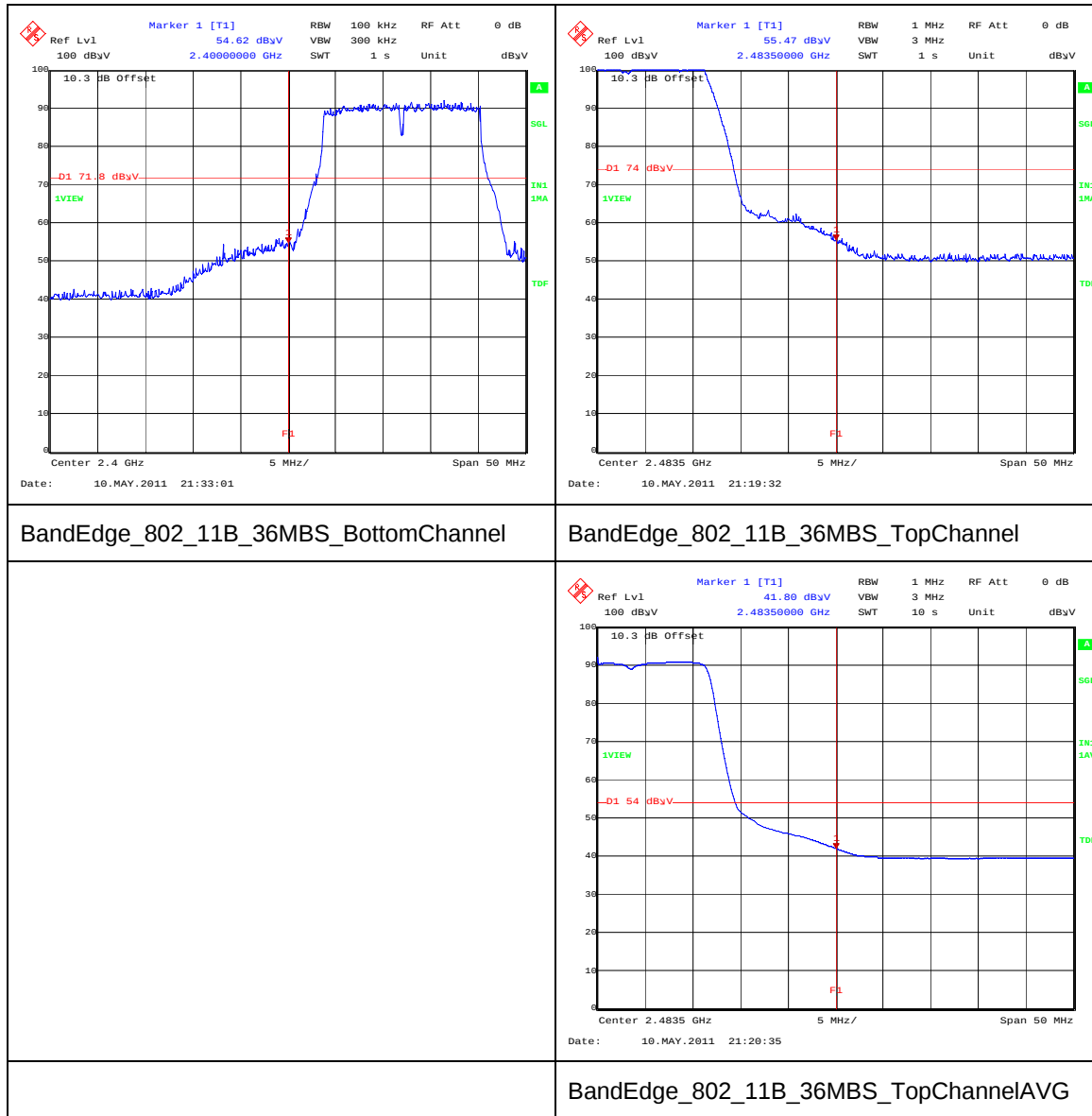


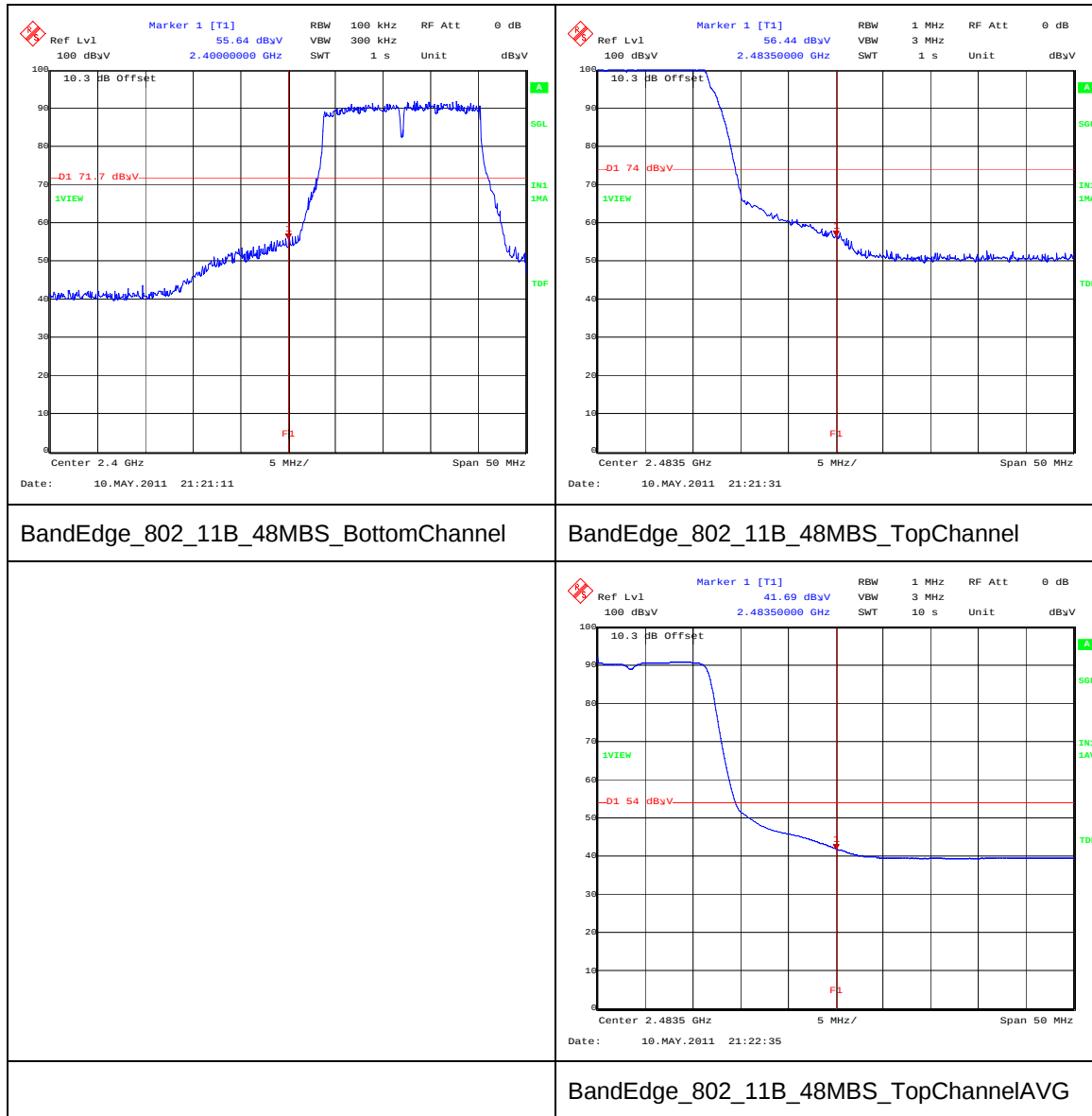


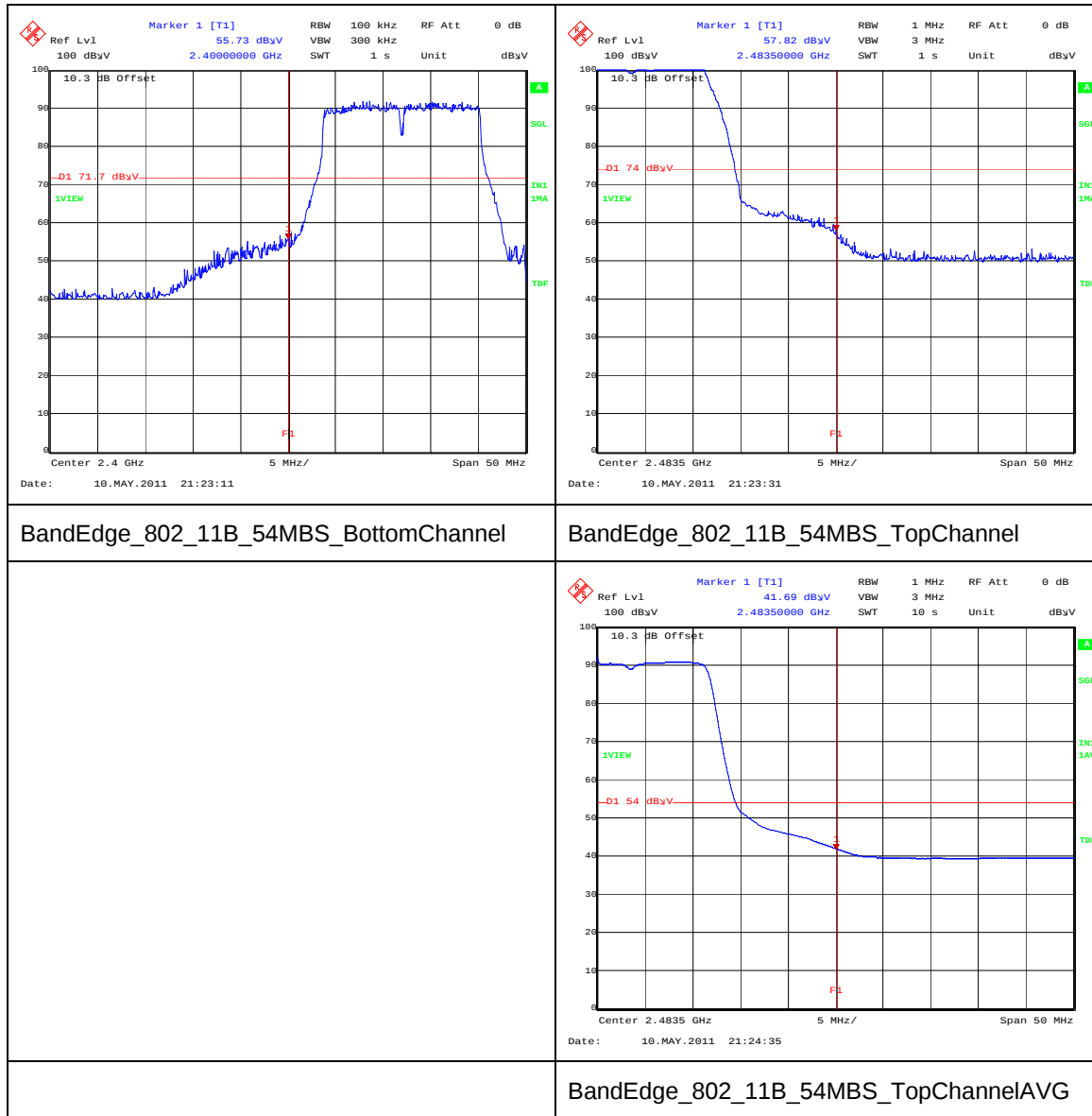


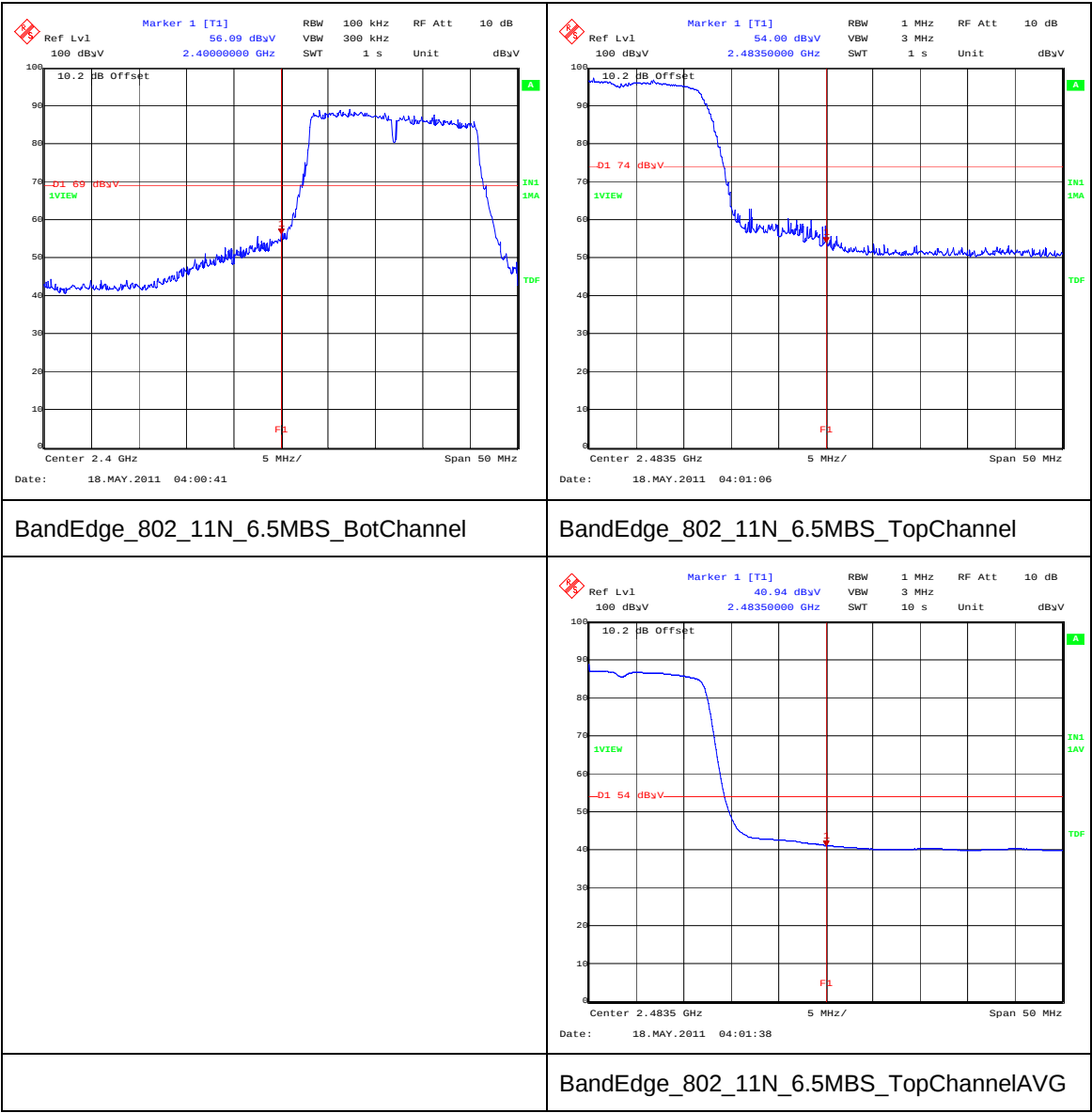


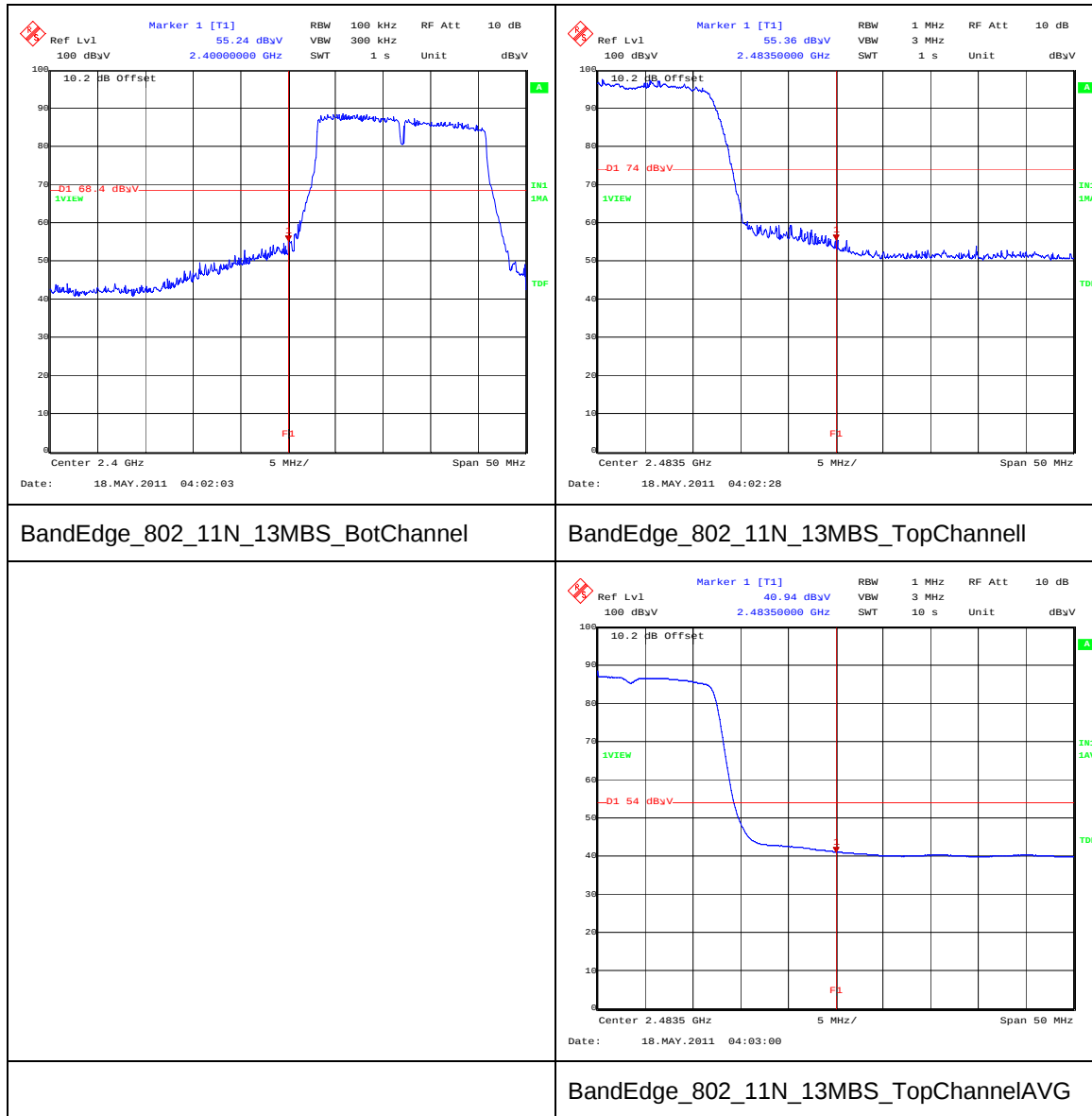


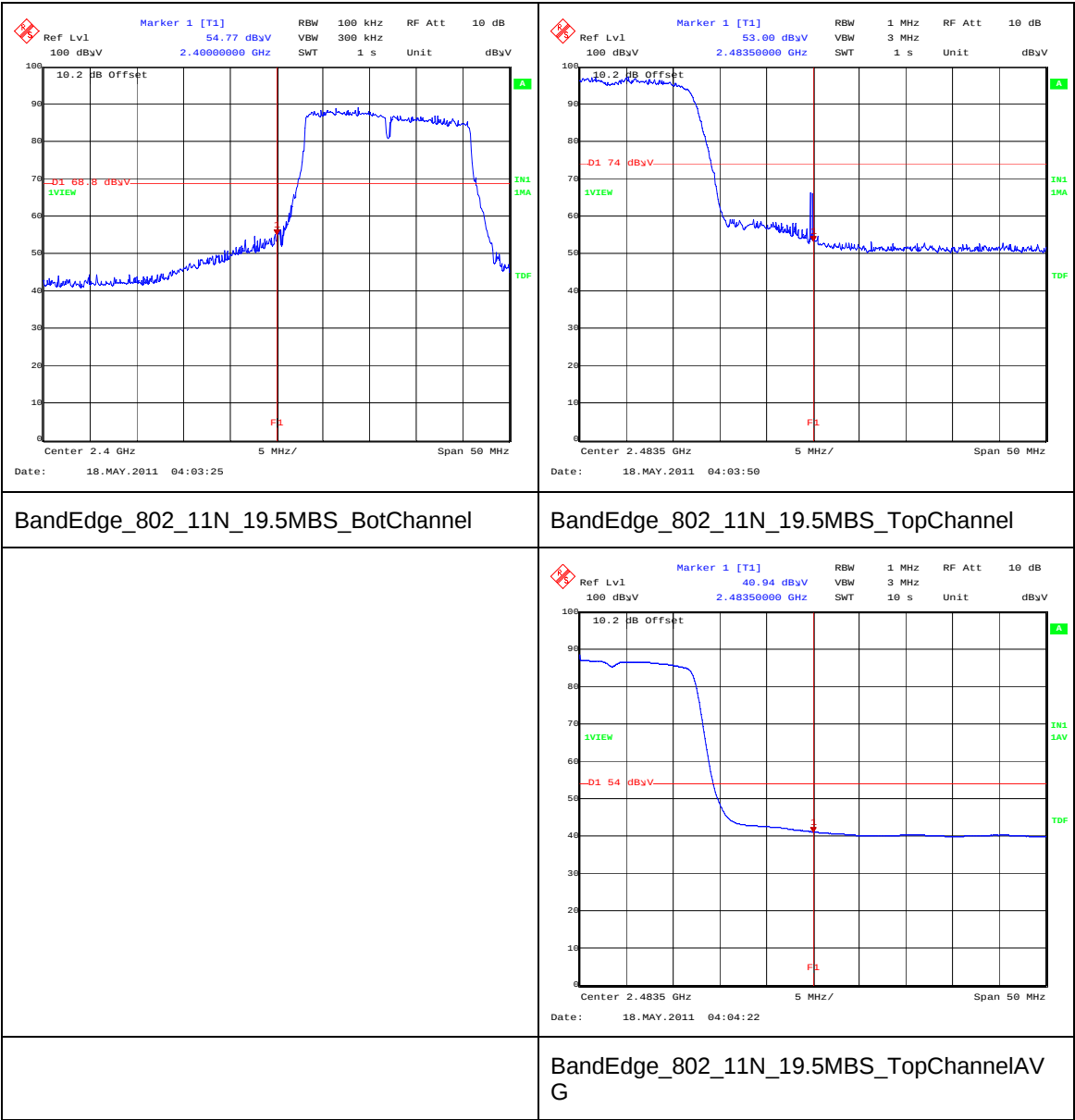


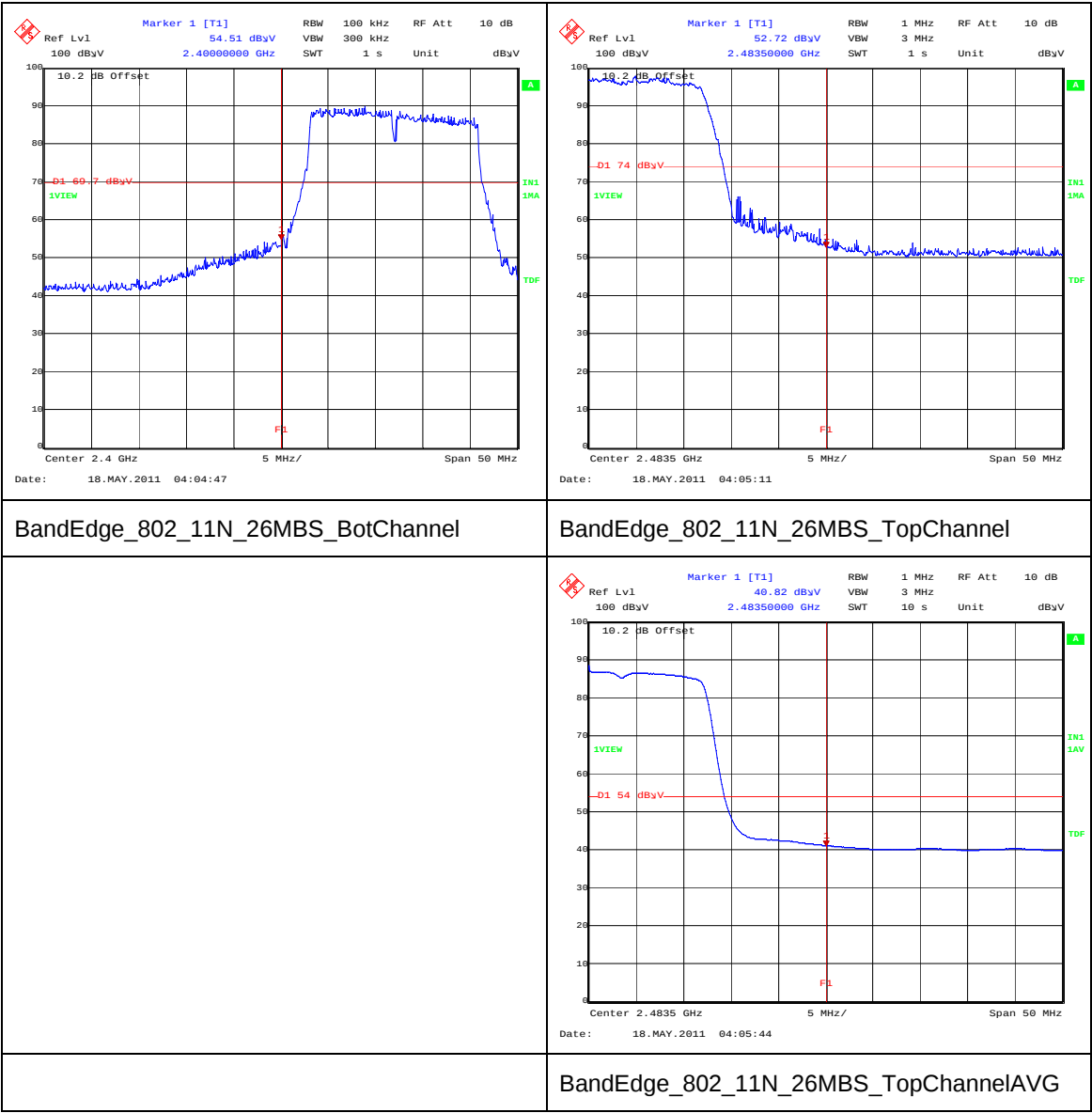


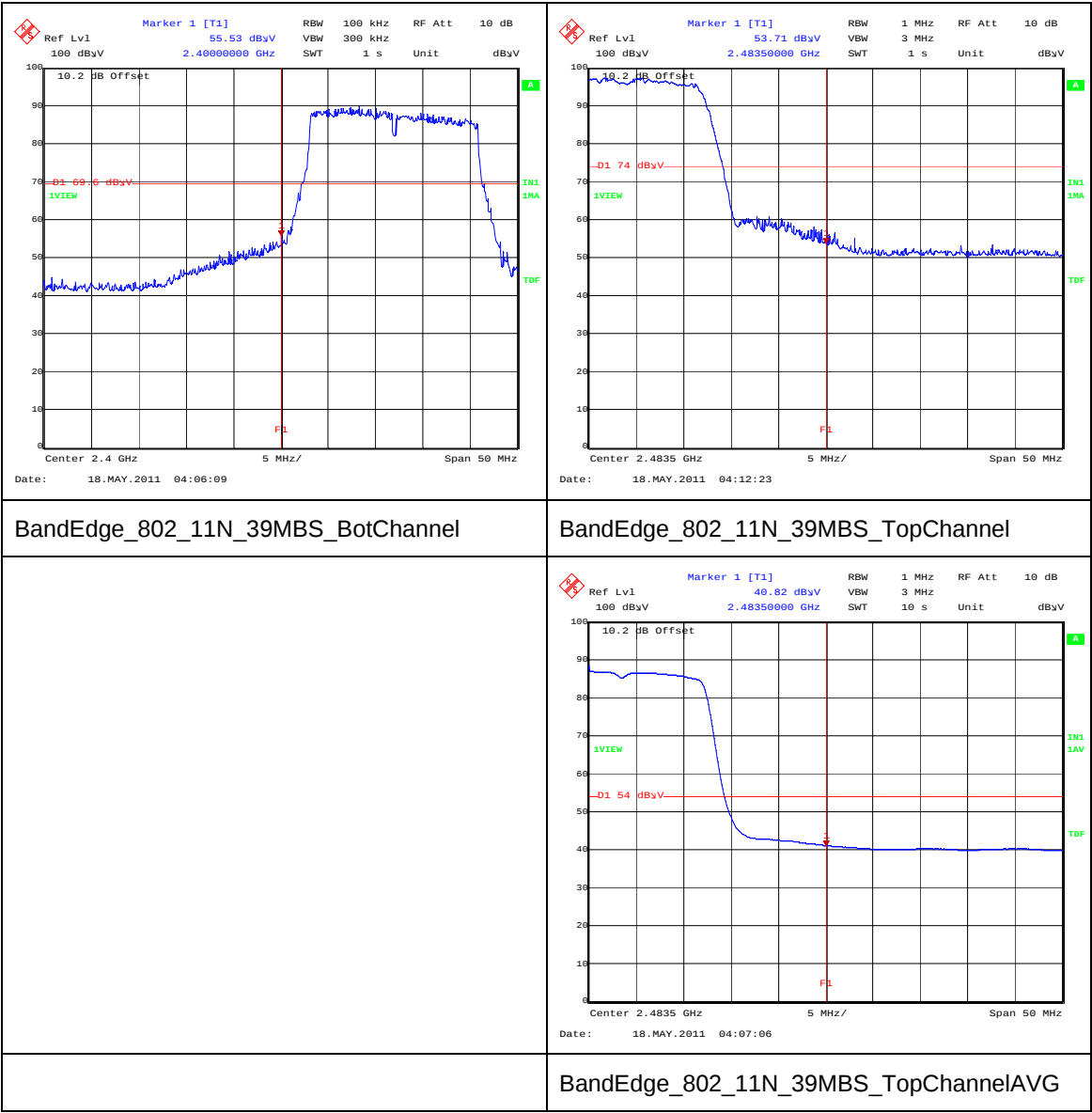


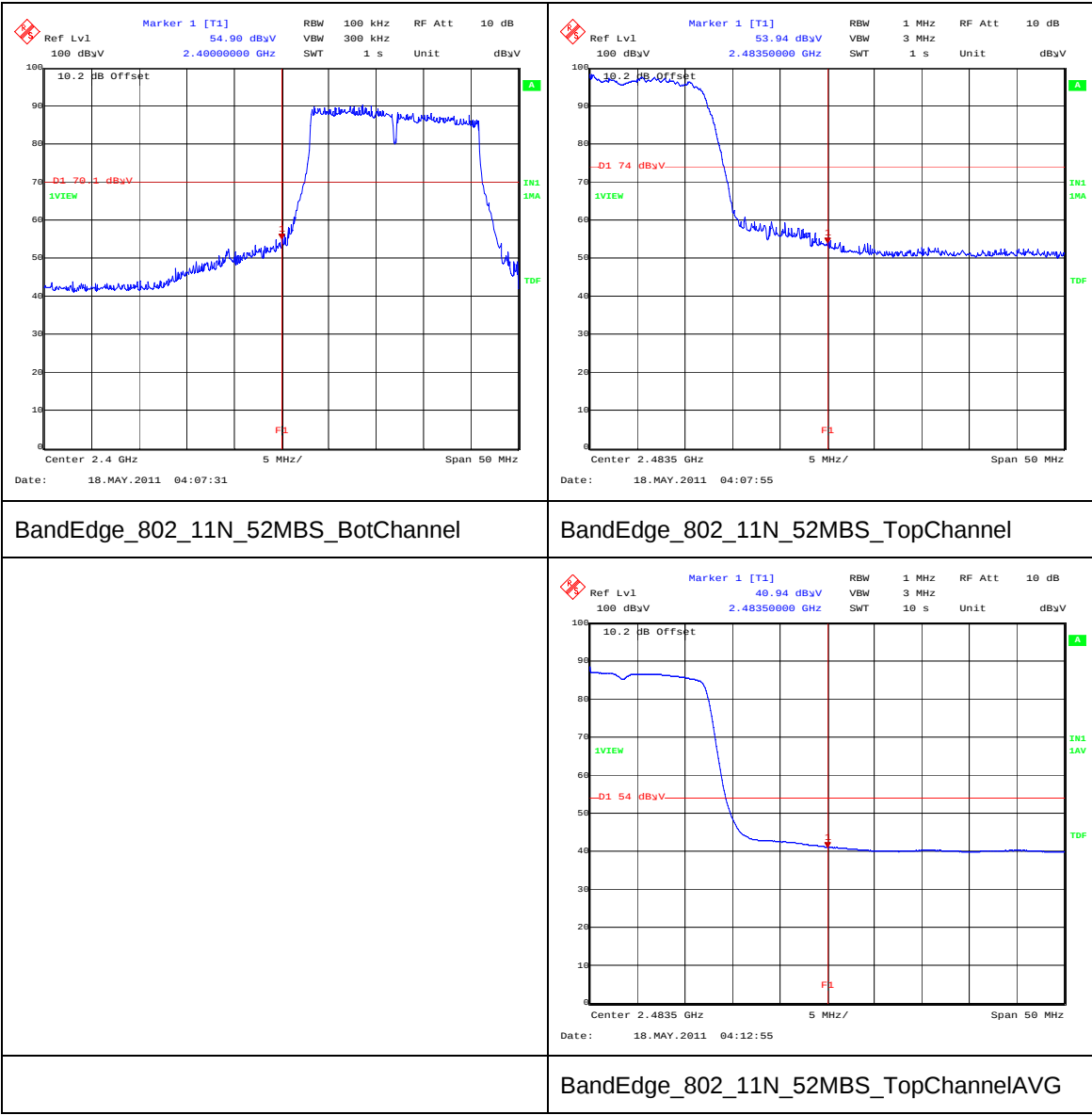


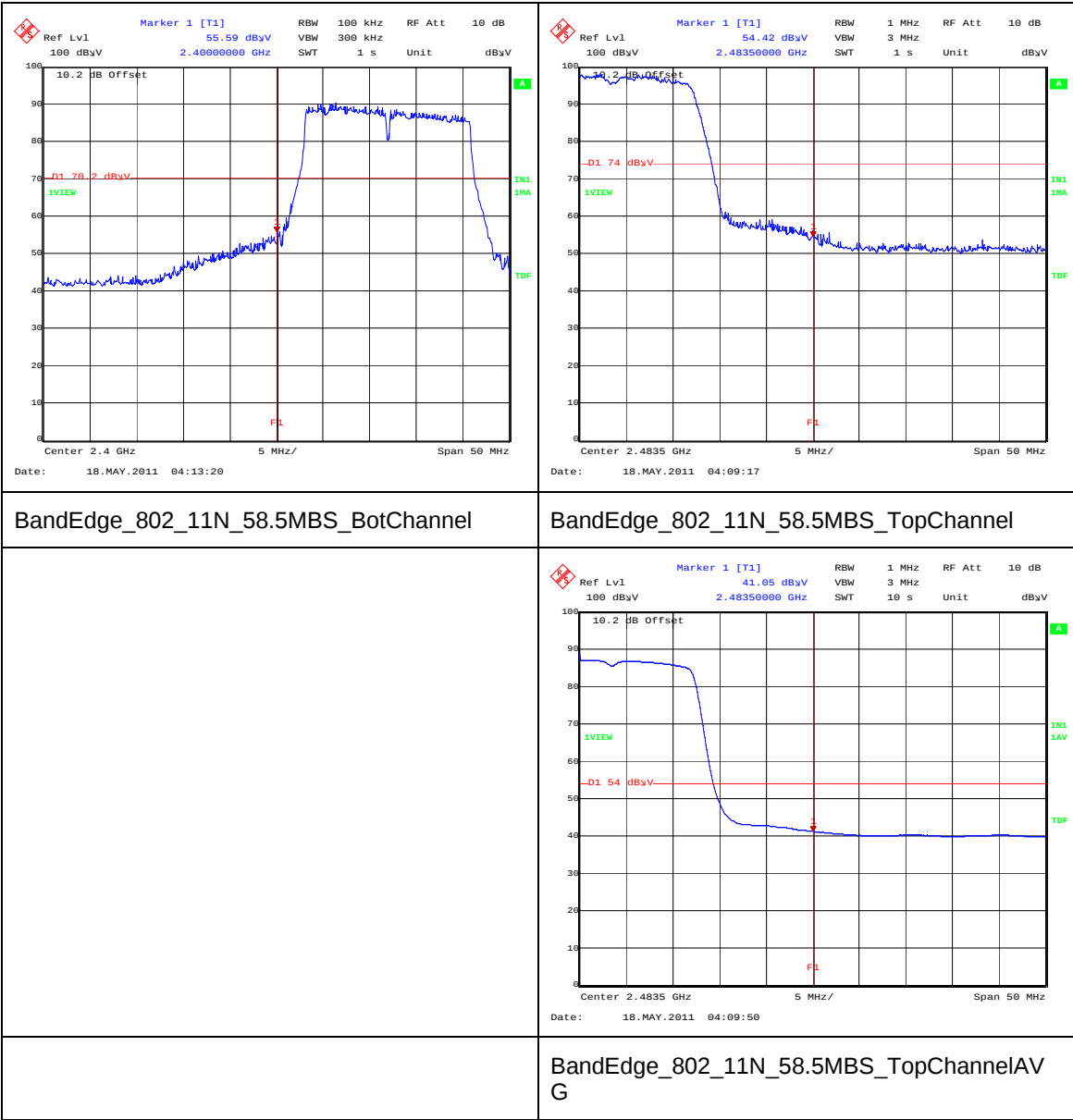


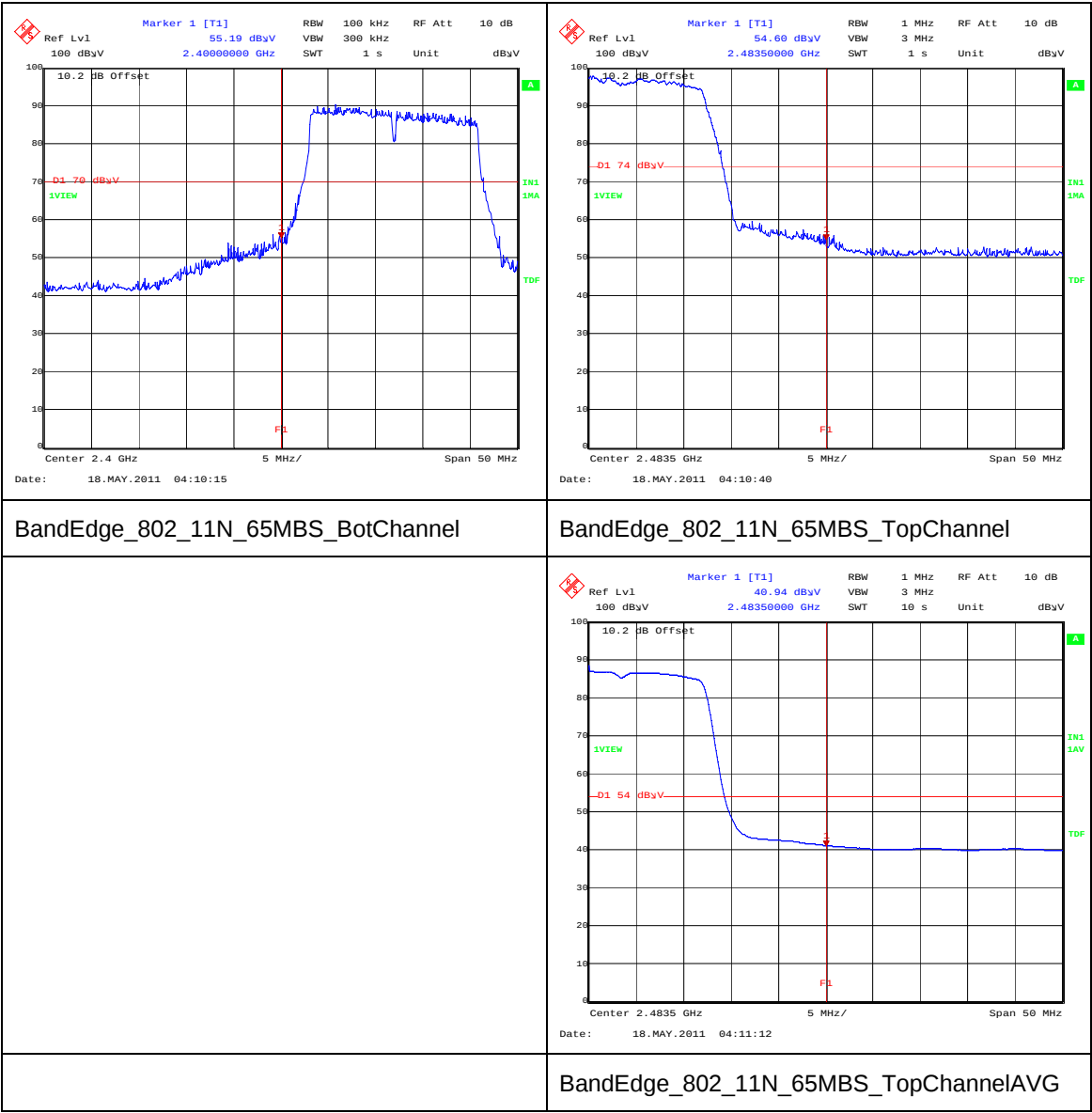












5.10. Test Results – PlanTec m70cxr Antenna:**5.10.1. Receiver/Idle Mode Radiated Spurious Emissions****Test Summary:**

Test Engineer:	Nigel Davison	Test Date:	17 May 2011
Test Sample IMEI:	ID:1		
Antenna:	PlanTec m70cxr		

FCC/IC Part:	15.109 and RSS-Gen 4.10 / RSS-Gen 6.1
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.5 referencing ANSI C63.4
Frequency Range:	30 MHz to 1000 MHz

Environmental Conditions:

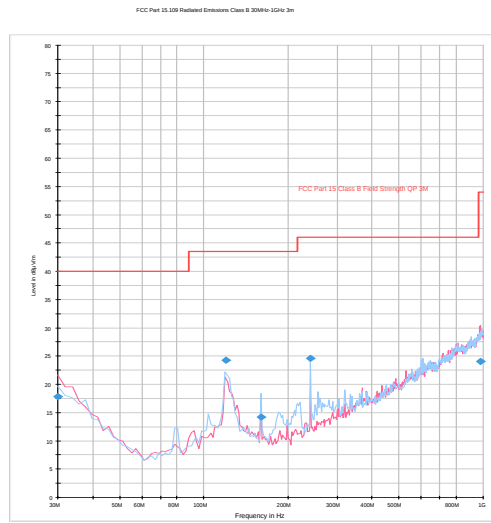
Temperature (°C):	24
Relative Humidity (%):	23

Results: Quasi Peak

Frequency (MHz)	Antenna Polarity	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Result
30.105	Vertical	17.8	40.0	22.2	Complied
120.000	Horizontal	24.3	43.5	19.2	Complied
160.014	Horizontal	14.2	43.5	29.3	Complied
240.002	Horizontal	24.6	46.0	21.4	Complied
976.726	Vertical	24.1	54.0	29.9	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss.
2. All other emissions shown on the pre-scan plot were investigated and found to be ambient or >20 dB below the applicable limit or below the measurement system noise floor.

Receiver/Idle Mode Radiated Spurious Emissions (continued)

Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying table.

Receiver/Idle Mode Radiated Spurious Emissions (continued)**Test Summary:**

Test Engineer:	Nick Steele	Test Date:	17 May 2011
Test Sample IMEI:	ID:1		
Antenna:	PlanTec m70cxr		

FCC/IC Part:	15.109 and RSS-Gen 4.10 / RSS-Gen 6.1
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.6 referencing ANSI C63.4
Frequency Range:	1 GHz to 12.75 GHz

Environmental Conditions:

Temperature (°C):	23
Relative Humidity (%):	25

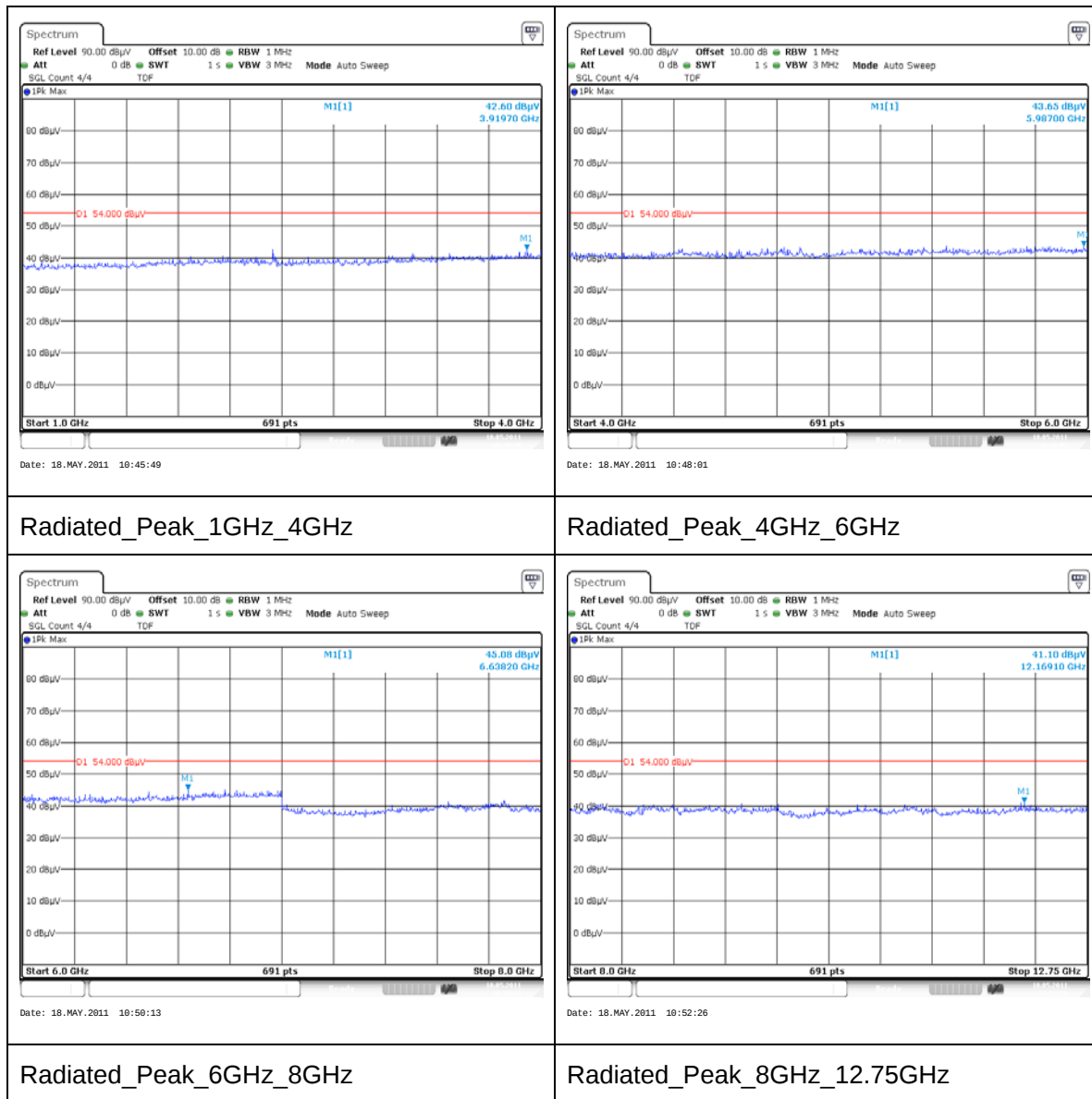
Results:

Frequency (MHz)	Antenna Polarity	Peak Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
6638.2	Vertical	45.1	*54.0	8.9	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss.
2. No spurious emissions were detected above the noise floor of the measuring receiver therefore the highest peak noise floor reading of the measuring receiver was recorded as shown in the table above.

* The average limit was compared to the peak level as opposed to being compared to the peak limit because this is the more stringent limit.

Receiver/Idle Mode Radiated Spurious Emissions (continued)

5.10.2. Transmitter Maximum Peak Output Power**Test Summary:**

Test Engineer:	David Lakeland	Test Date:	11 May 2011
Test Sample:	ID:1		

FCC Part:	15.247(b)(3)
Test Method Used:	As detailed in ANSI C63.10 Section 6.10.2

Note: Test method used – power meter

Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	29

Results: 802.11b

Channel	Frequency (MHz)	Mod Scheme	Data Rate (Mbps)	Conducted Peak Power (dBm)	Conducted Limit (dBm)	Margin (dB)	Result
Bottom	2412	BPSK	1	17.4	30	12.6	Complied
Middle	2437	BPSK	1	17.1	30	12.9	Complied
Top	2462	BPSK	1	16.3	30	13.7	Complied
Bottom	2412	QPSK	2	16.8	30	13.2	Complied
Middle	2437	QPSK	2	16.5	30	13.5	Complied
Top	2462	QPSK	2	16.2	30	13.8	Complied
Bottom	2412	QPSK	5.5	16.8	30	13.2	Complied
Middle	2437	QPSK	5.5	16.5	30	13.6	Complied
Top	2462	QPSK	5.5	16.1	30	13.9	Complied
Bottom	2412	QPSK	11	16.7	30	13.3	Complied
Middle	2437	QPSK	11	16.5	30	13.6	Complied
Top	2462	QPSK	11	16.2	30	13.9	Complied

Transmitter Maximum Peak Output Power (continued)**Results: 802.11g**

Channel	Frequency (MHz)	Mod Scheme	Data Rate (Mbps)	Conducted Peak Power (dBm)	Conducted Limit (dBm)	Margin (dB)	Result
Bottom	2412	BPSK	6	15.2	30	14.8	Complied
Middle	2437	BPSK	6	14.9	30	15.1	Complied
Top	2462	BPSK	6	14.6	30	15.4	Complied
Bottom	2412	BPSK	9	15.2	30	14.8	Complied
Middle	2437	BPSK	9	15.1	30	14.9	Complied
Top	2462	BPSK	9	15.1	30	14.9	Complied
Bottom	2412	QPSK	12	15.4	30	14.6	Complied
Middle	2437	QPSK	12	15.0	30	15.0	Complied
Top	2462	QPSK	12	14.7	30	15.3	Complied
Bottom	2412	QPSK	18	15.3	30	14.7	Complied
Middle	2437	QPSK	18	15.1	30	14.9	Complied
Top	2462	QPSK	18	14.7	30	15.3	Complied
Bottom	2412	16QAM	24	15.3	30	14.7	Complied
Middle	2437	16QAM	24	15.0	30	15.0	Complied
Top	2462	16QAM	24	14.7	30	15.3	Complied
Bottom	2412	16QAM	36	15.4	30	14.6	Complied
Middle	2437	16QAM	36	15.0	30	15.0	Complied
Top	2462	16QAM	36	14.7	30	15.3	Complied
Bottom	2412	16QAM	48	15.4	30	14.6	Complied
Middle	2437	16QAM	48	15.1	30	14.9	Complied
Top	2462	16QAM	48	14.8	30	15.3	Complied
Bottom	2412	64QAM	54	15.7	30	14.3	Complied
Middle	2437	64QAM	54	15.1	30	14.9	Complied
Top	2462	64QAM	54	14.7	30	15.3	Complied

Transmitter Maximum Peak Output Power (continued)**Results: 802.11n**

Channel	Frequency (MHz)	Mod Scheme	Data Rate (Mbps)	Conducted Peak Power (dBm)	Conducted Limit (dBm)	Margin (dB)	Result
Bottom	2412	BPSK	6.5	15.6	30	14.4	Complied
Middle	2437	BPSK	6.5	15.3	30	14.7	Complied
Top	2462	BPSK	6.5	15.0	30	15.0	Complied
Bottom	2412	QPSK	13	15.5	30	14.6	Complied
Middle	2437	QPSK	13	15.2	30	14.8	Complied
Top	2462	QPSK	13	14.9	30	15.1	Complied
Bottom	2412	QPSK	19.5	15.4	30	14.6	Complied
Middle	2437	QPSK	19.5	14.9	30	15.1	Complied
Top	2462	QPSK	19.5	14.8	30	15.3	Complied
Bottom	2412	16QAM	26	15.3	30	14.7	Complied
Middle	2437	16QAM	26	15.1	30	14.9	Complied
Top	2462	16QAM	26	14.8	30	15.2	Complied
Bottom	2412	16QAM	39	15.6	30	14.4	Complied
Middle	2437	16QAM	39	15.6	30	14.4	Complied
Top	2462	16QAM	39	14.9	30	15.1	Complied
Bottom	2412	64QAM	52	15.4	30	14.6	Complied
Middle	2437	64QAM	52	15.2	30	14.8	Complied
Top	2462	64QAM	52	15.6	30	14.4	Complied
Bottom	2412	64QAM	58.5	16.3	30	13.7	Complied
Middle	2437	64QAM	58.5	15.4	30	14.6	Complied
Top	2462	64QAM	58.5	15.0	30	15.1	Complied
Bottom	2412	64QAM	65	16.0	30	14.0	Complied
Middle	2437	64QAM	65	15.4	30	14.6	Complied
Top	2462	64QAM	65	16.1	30	13.9	Complied

5.10.3. Transmitter Maximum Equivalent Isotropically Radiated Power (EIRP)

FCC Part:	15.247(b)(3)
Test Method Used:	As detailed in ANSI C63.10 Section 6.10.2

Results: 802.11b

Channel	Mod Scheme	Data Rate (Mbps)	Antenna Gain (dBi)	Conducted Peak Power (dBm)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	BPSK	1	1	17.4	18.4	36.0	17.6	Complied
Middle	BPSK	1	1	17.1	18.1	36.0	17.9	Complied
Top	BPSK	1	1	16.3	17.3	36.0	18.7	Complied
Bottom	QPSK	2	1	16.8	17.8	36.0	18.2	Complied
Middle	QPSK	2	1	16.5	17.5	36.0	18.5	Complied
Top	QPSK	2	1	16.2	17.2	36.0	18.8	Complied
Bottom	QPSK	5.5	1	16.8	17.8	36.0	18.2	Complied
Middle	QPSK	5.5	1	16.5	17.5	36.0	18.5	Complied
Top	QPSK	5.5	1	16.1	17.1	36.0	18.9	Complied
Bottom	QPSK	11	1	16.7	17.7	36.0	18.3	Complied
Middle	QPSK	11	1	16.5	17.5	36.0	18.5	Complied
Top	QPSK	11	1	16.2	17.2	36.0	18.8	Complied

Transmitter Maximum Equivalent Isotropically Radiated Power (EIRP) (Continued)**Results: 802.11g**

Channel	Mod Scheme	Data Rate (Mbps)	Antenna Gain (dBi)	Conducted Peak Power (dBm)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	BPSK	6	1	15.2	16.2	36.0	19.8	Complied
Middle	BPSK	6	1	14.9	15.9	36.0	20.1	Complied
Top	BPSK	6	1	14.6	15.6	36.0	20.4	Complied
Bottom	BPSK	9	1	15.2	16.2	36.0	19.8	Complied
Middle	BPSK	9	1	15.1	16.1	36.0	19.9	Complied
Top	BPSK	9	1	15.1	16.1	36.0	19.9	Complied
Bottom	QPSK	12	1	15.4	16.4	36.0	19.6	Complied
Middle	QPSK	12	1	15.0	16.0	36.0	20.0	Complied
Top	QPSK	12	1	14.7	15.7	36.0	20.3	Complied
Bottom	QPSK	18	1	15.3	16.3	36.0	19.7	Complied
Middle	QPSK	18	1	15.1	16.1	36.0	19.9	Complied
Top	QPSK	18	1	14.7	15.7	36.0	20.3	Complied
Bottom	16QAM	24	1	15.3	16.3	36.0	19.7	Complied
Middle	16QAM	24	1	15.0	16.0	36.0	20.0	Complied
Top	16QAM	24	1	14.7	15.7	36.0	20.3	Complied
Bottom	16QAM	36	1	15.4	16.4	36.0	19.6	Complied
Middle	16QAM	36	1	15.0	16.0	36.0	20.0	Complied
Top	16QAM	36	1	14.7	15.7	36.0	20.3	Complied
Bottom	16QAM	48	1	15.4	16.4	36.0	19.6	Complied
Middle	16QAM	48	1	15.1	16.1	36.0	19.9	Complied
Top	16QAM	48	1	14.8	15.8	36.0	20.2	Complied
Bottom	64QAM	54	1	15.7	16.7	36.0	19.3	Complied
Middle	64QAM	54	1	15.1	16.1	36.0	19.9	Complied
Top	64QAM	54	1	14.7	15.7	36.0	20.3	Complied

Transmitter Maximum Equivalent Isotropically Radiated Power (EIRP) (Continued)**Results: 802.11n**

Channel	Mod Scheme	Data Rate (Mbps)	Antenna Gain (dBi)	Conducted Peak Power (dBm)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	BPSK	6.5	1	15.6	16.6	36.0	19.4	Complied
Middle	BPSK	6.5	1	15.3	16.3	36.0	19.7	Complied
Top	BPSK	6.5	1	15.0	16.0	36.0	20.0	Complied
Bottom	QPSK	13	1	15.5	16.5	36.0	19.5	Complied
Middle	QPSK	13	1	15.2	16.2	36.0	19.8	Complied
Top	QPSK	13	1	14.9	15.9	36.0	20.1	Complied
Bottom	QPSK	19.5	1	15.4	16.4	36.0	19.6	Complied
Middle	QPSK	19.5	1	14.9	15.9	36.0	20.1	Complied
Top	QPSK	19.5	1	14.8	15.8	36.0	20.2	Complied
Bottom	16QAM	26	1	15.3	16.3	36.0	19.7	Complied
Middle	16QAM	26	1	15.1	16.1	36.0	19.9	Complied
Top	16QAM	26	1	14.8	15.8	36.0	20.2	Complied
Bottom	16QAM	39	1	15.6	16.6	36.0	19.4	Complied
Middle	16QAM	39	1	15.6	16.6	36.0	19.4	Complied
Top	16QAM	39	1	14.9	15.9	36.0	20.1	Complied
Bottom	64QAM	52	1	15.4	16.4	36.0	19.6	Complied
Middle	64QAM	52	1	15.2	16.2	36.0	19.8	Complied
Top	64QAM	52	1	15.6	16.6	36.0	19.4	Complied
Bottom	64QAM	58.5	1	16.3	17.3	36.0	18.7	Complied
Middle	64QAM	58.5	1	15.4	16.4	36.0	19.6	Complied
Top	64QAM	58.5	1	15.0	16.0	36.0	20.0	Complied
Bottom	64QAM	65	1	16.0	17.0	36.0	19.0	Complied
Middle	64QAM	65	1	15.4	16.4	36.0	19.6	Complied
Top	64QAM	65	1	16.1	17.1	36.0	18.9	Complied

5.10.4. Transmitter Radiated Emissions**Test Summary:**

Test Engineer:	Andrew Edwards	Test Date:	17 May 2011
Test Sample Serial No:	ID:1		
Antenna:	PlanTec m70cyr		

FCC/IC Part:	15.247(d), 15.209(a), RSS-Gen 4.9 and RSS-210 A8.5
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.5 referencing ANSI C63.4
Frequency Range	30 MHz to 1000 MHz

Environmental Conditions:

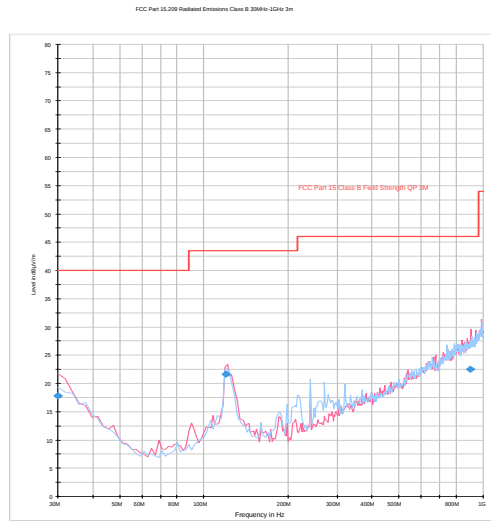
Temperature (°C):	23
Relative Humidity (%):	23

Results: Top Channel

Frequency (MHz)	Antenna Polarity	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
30.009	Vertical	17.9	40.0	22.1	Complied
120.020	Vertical	21.7	43.5	21.8	Complied
900.674	Vertical	22.5	46.0	23.5	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss
2. The preliminary scans showed similar emission levels below 1 GHz, for each channel of operation. Therefore final radiated emissions measurements were performed with the EUT set to the top channel only.
3. All other emissions were at least 20 dB below the appropriate limit or below the noise floor of the measurement system.

Transmitter Radiated Emissions (continued)

Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying table.

Transmitter Radiated Emissions (continued)**Test Summary:**

Test Engineer:	Nigel Davison	Test Date:	17 and 19 May 2011
Test Sample Serial No:	ID:1		
Antenna:	PlanTec m70cxr		

FCC/IC Part:	15.247(d), 15.209(a), RSS-Gen 4.9 and RSS-210 A8.5
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.6 referencing ANSI C63.4
Frequency Range	1 GHz to 26.5 GHz

Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	27

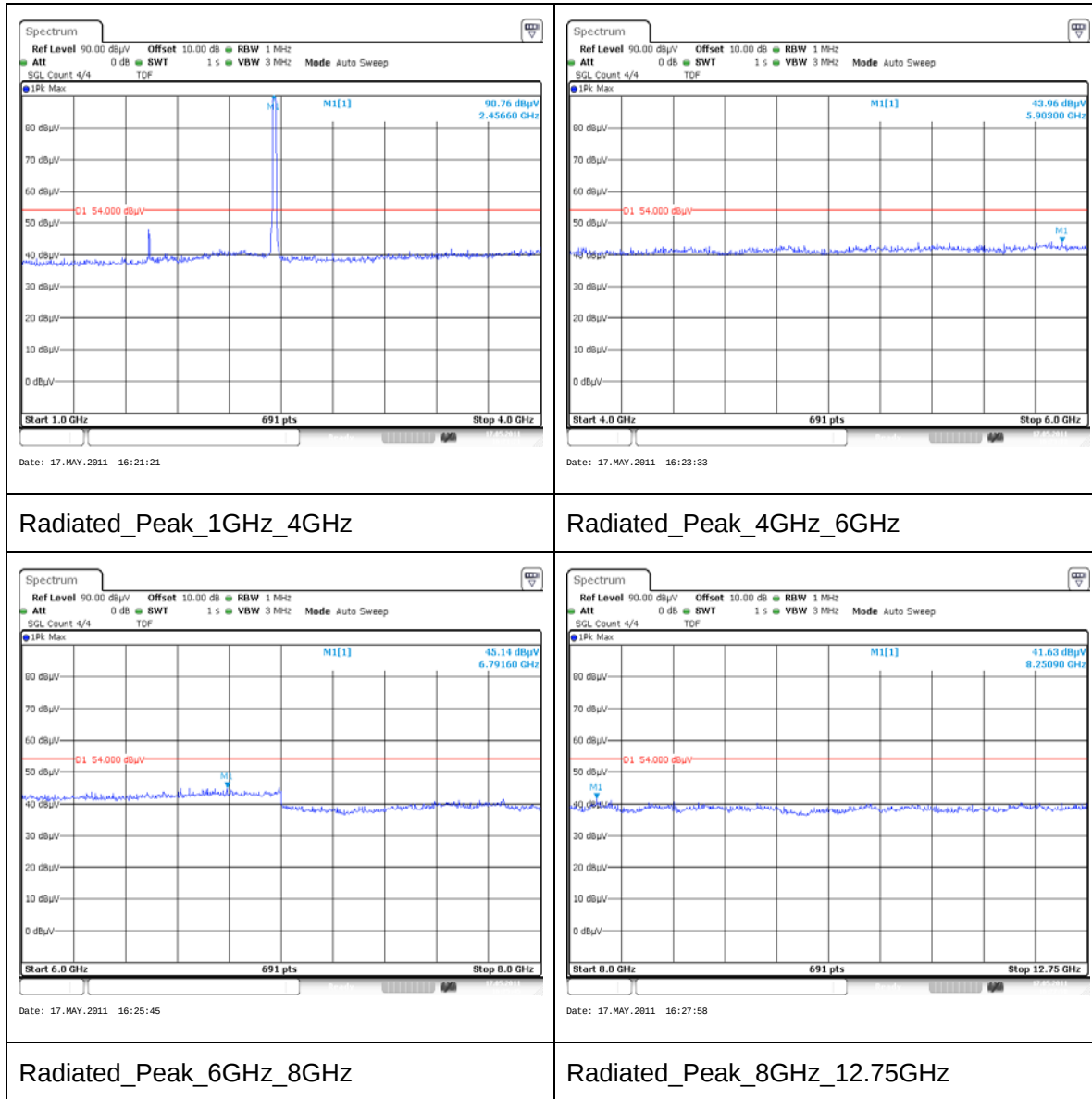
Results:

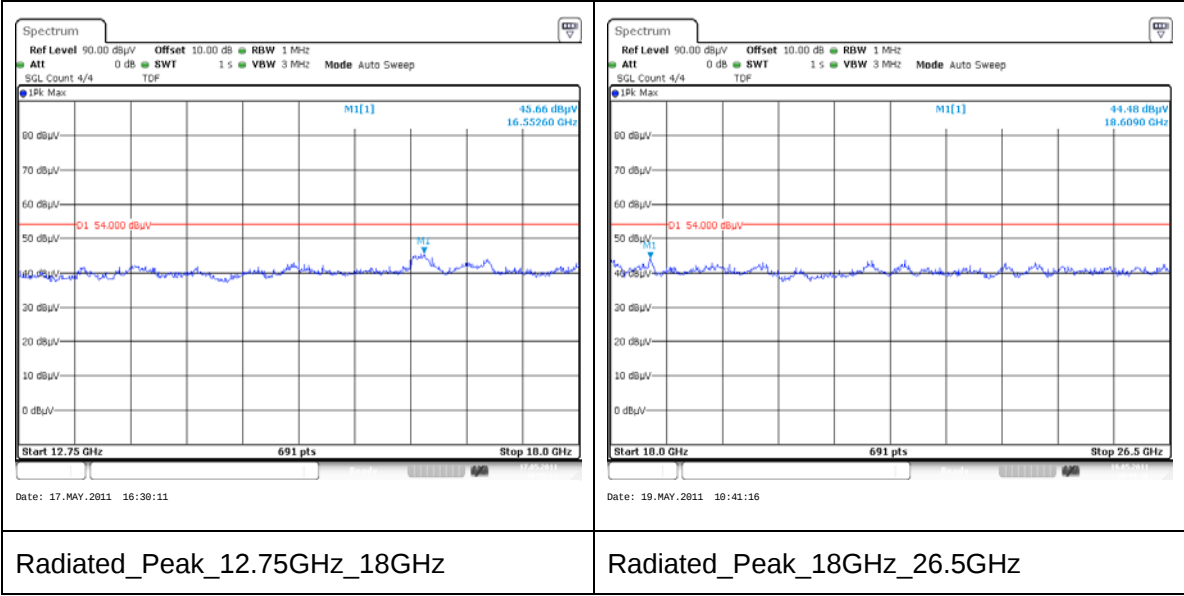
Frequency (MHz)	Antenna Polarity	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
16552.6	Vertical	45.7	*54.0	8.3	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss
2. All other emissions shown on the pre-scan plot were investigated and found to be ambient or >20 dB below the applicable limit or below the measurement system noise floor.
3. No spurious emissions were detected above the noise floor of the measuring receiver therefore the highest peak noise floor reading of the measuring receiver was recorded as shown in the table above.
4. The emission shown on the 1 GHz to 4 GHz plot is the EUT fundamental.

* The average limit was compared to the peak level as opposed to being compared to the peak limit because this is the more stringent limit.

Transmitter Radiated Emissions (continued)



5.10.5. Transmitter Band Edge Radiated Emissions**Test Summary:**

Test Engineer:	Nigel Davison	Test Date:	10 May and 18 May 2011
Test Sample Serial No:	ID:1		
Antenna:	PlanTec m70cxr		

FCC/IC Part:	15.247(d), 15.209(a), RSS-Gen 4.9 and RSS-210 A8.5
Test Method Used:	As detailed in ANSI C63.10 Section 6.9.2

Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	30

Results: Peak and Average 802.11b

Frequency (MHz)	Data Rate Mbps	Modulation Type	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
2400.0	1	BPSK	45.4	*69.7	24.3	Complied
2483.5	1	BPSK	52.0	74.0	22.0	Complied
2483.5	1	BPSK	38.9	54.0	15.1	Complied
2400.0	2	QPSK	44.6	*69.5	24.9	Complied
2483.5	2	QPSK	50.8	74.0	23.2	Complied
2483.5	2	QPSK	39.1	54.0	14.9	Complied
2400.0	5.5	CCK	43.2	*69.8	26.6	Complied
2483.5	5.5	CCK	50.8	74.0	23.2	Complied
2483.5	5.5	CCK	38.9	54.0	15.1	Complied
2400.0	11	CCK	44.0	*69.2	25.2	Complied
2483.5	11	CCK	49.8	74.0	24.2	Complied
2483.5	11	CCK	39.1	54.0	14.9	Complied

Transmitter Band Edge Radiated Emissions (continued)**Results: Peak and Average 802.11g**

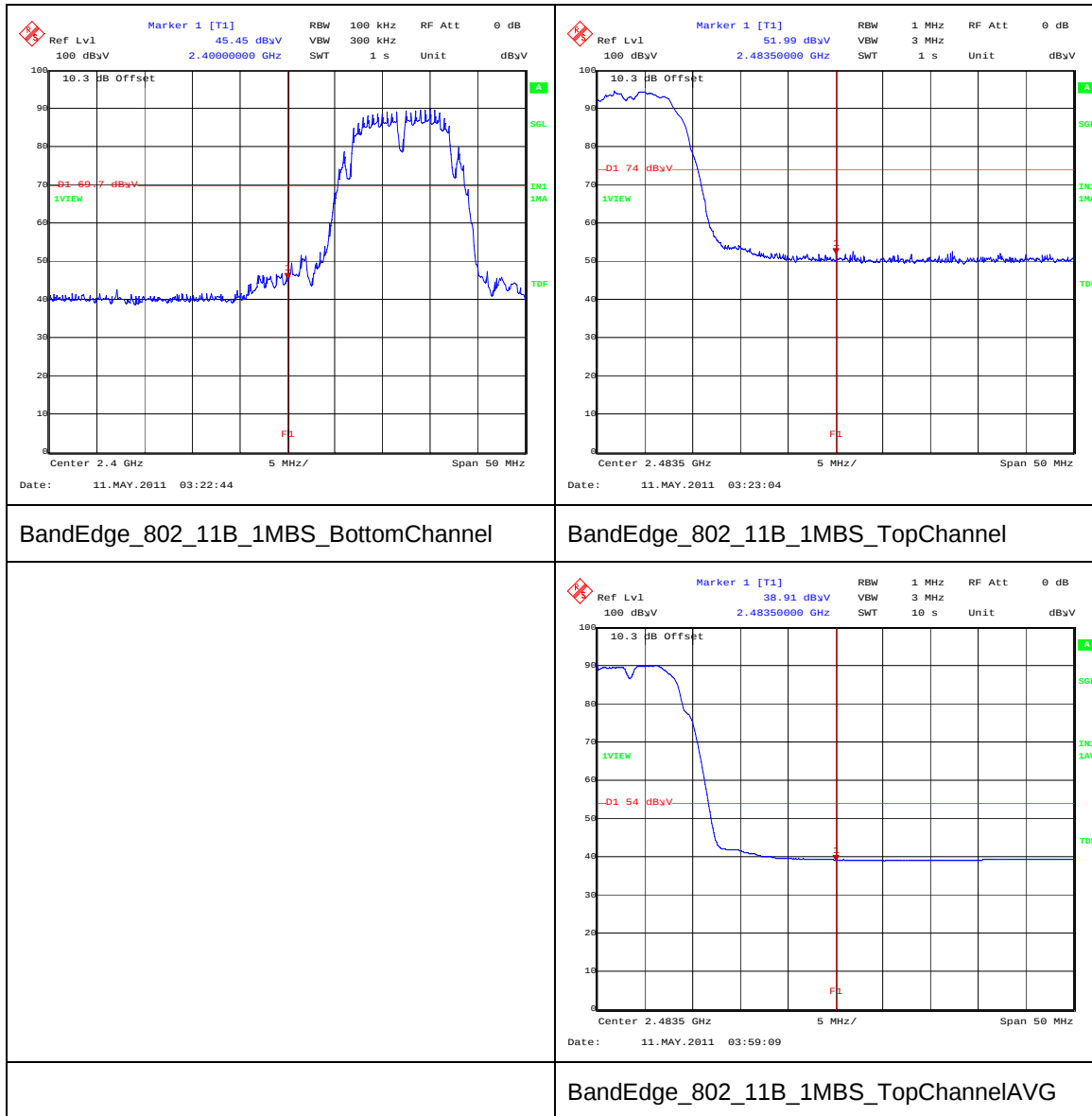
Frequency (MHz)	Data Rate Mbps	Modulation Type	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2400.0	6	BPSK	52.2	*64.0	11.8	Complied
2483.5	6	BPSK	53.2	74.0	20.8	Complied
2483.5	6	BPSK	39.6	54.0	14.4	Complied
2400.0	9	BPSK	52.4	*63.7	11.3	Complied
2483.5	9	BPSK	55.7	74.0	18.3	Complied
2483.5	9	BPSK	39.6	54.0	14.4	Complied
2400.0	12	QPSK	51.0	*63.6	12.6	Complied
2483.5	12	QPSK	50.6	74.0	23.4	Complied
2483.5	12	QPSK	39.6	54.0	14.4	Complied
2400.0	18	QPSK	51.3	*64.2	12.9	Complied
2483.5	18	QPSK	51.5	74.0	22.5	Complied
2483.5	18	QPSK	39.6	54.0	14.4	Complied
2400.0	24	16QAM	51.5	*64.7	13.2	Complied
2483.5	24	16QAM	51.8	74.0	22.2	Complied
2483.5	24	16QAM	39.6	54.0	14.4	Complied
2400.0	36	16QAM	51.2	*65.7	14.5	Complied
2483.5	36	16QAM	51.4	74.0	22.6	Complied
2483.5	36	16QAM	39.6	54.0	14.4	Complied
2400.0	48	64QAM	51.9	*65.7	13.8	Complied
2483.5	48	64QAM	52.2	74.0	21.8	Complied
2483.5	48	64QAM	39.6	54.0	14.4	Complied
2400.0	54	64QAM	51.8	*65.0	13.2	Complied
2483.5	54	64QAM	51.6	74.0	22.4	Complied
2483.5	54	64QAM	39.6	54.0	14.4	Complied

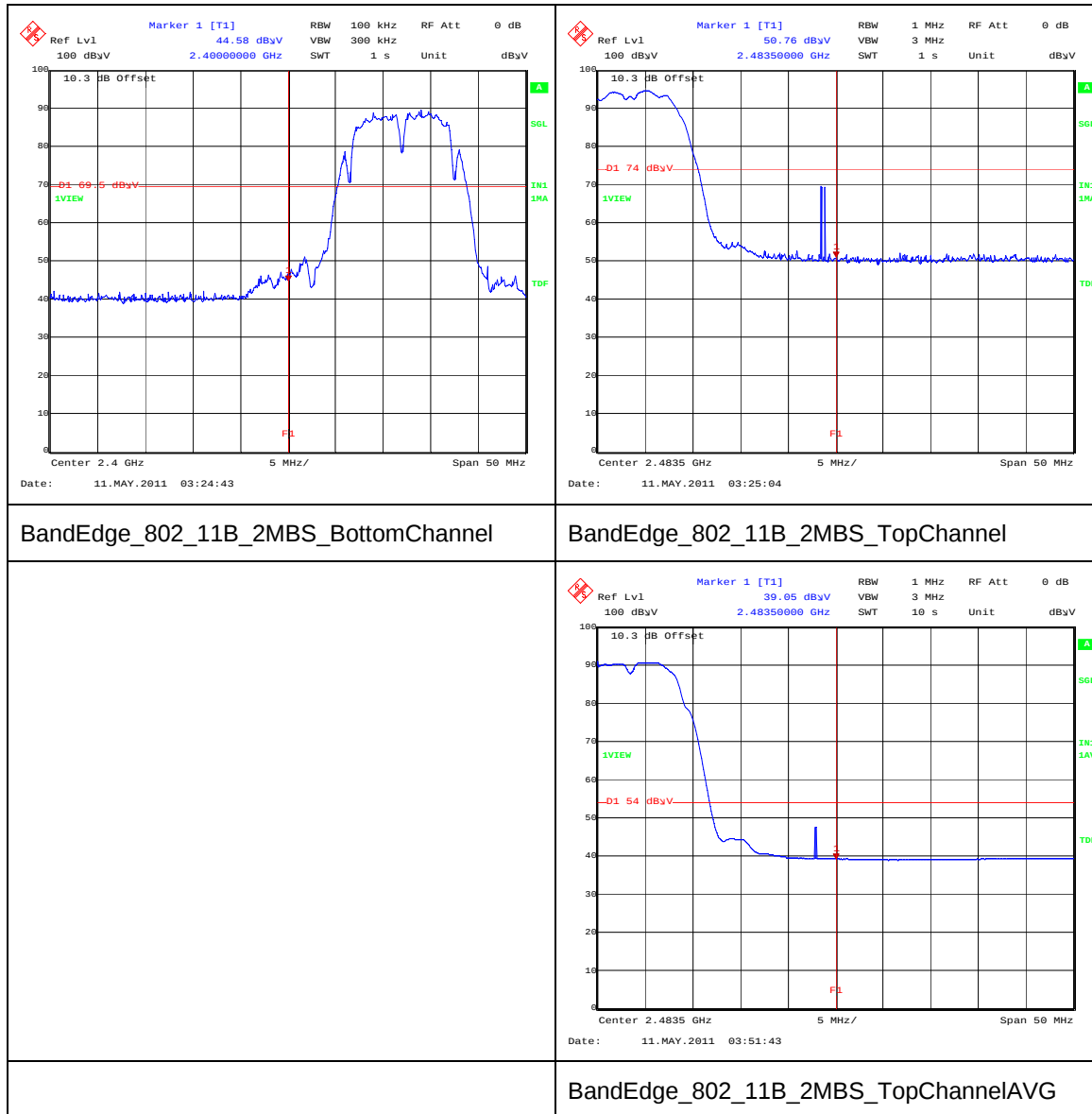
Transmitter Band Edge Radiated Emissions (continued)**Results: Peak and Average 802.11n**

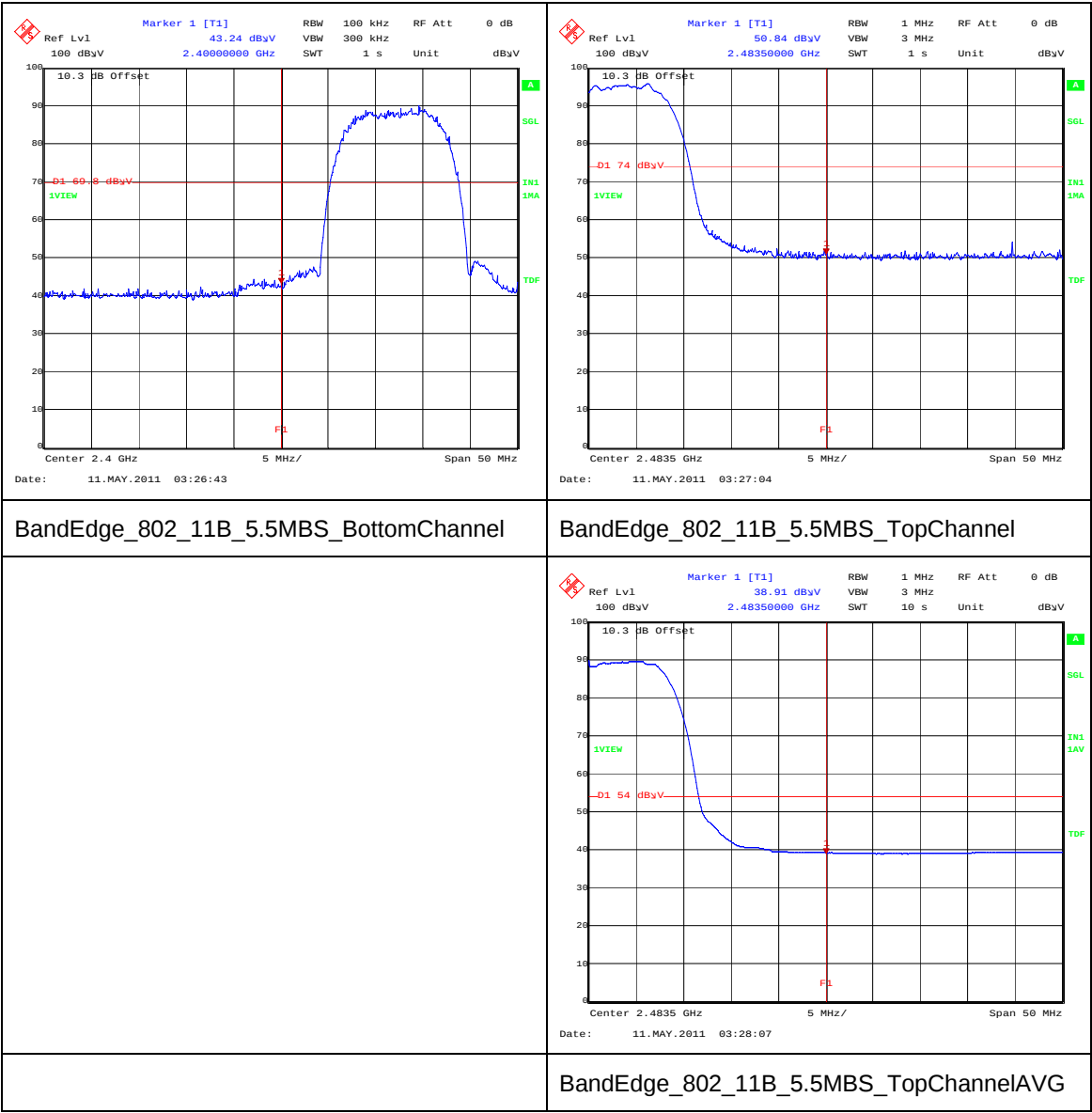
Frequency (MHz)	Data Rate Mbps	Modulation Type	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2400.0	6.5	BPSK	56.1	*68.5	12.4	Complied
2483.5	6.5	BPSK	54.2	74.0	19.8	Complied
2483.5	6.5	BPSK	40.9	54.0	13.1	Complied
2400.0	13	BPSK	55.6	*68.9	13.3	Complied
2483.5	13	BPSK	53.0	74.0	21.0	Complied
2483.5	13	BPSK	40.9	54.0	13.1	Complied
2400.0	19.5	QPSK	55.3	*68.7	13.4	Complied
2483.5	19.5	QPSK	52.3	74.0	21.7	Complied
2483.5	19.5	QPSK	40.9	54.0	13.1	Complied
2400.0	26	QPSK	56.1	*69.7	13.6	Complied
2483.5	26	QPSK	52.7	74.0	21.3	Complied
2483.5	26	QPSK	40.8	54.0	13.2	Complied
2400.0	39	16QAM	55.2	*70.1	14.9	Complied
2483.5	39	16QAM	57.0	74.0	17.0	Complied
2483.5	39	16QAM	40.9	54.0	13.1	Complied
2400.0	52	16QAM	54.8	*69.7	14.9	Complied
2483.5	52	16QAM	53.0	74.0	21.0	Complied
2483.5	52	16QAM	40.9	54.0	13.1	Complied
2400.0	58.5	64QAM	56.4	*69.7	13.3	Complied
2483.5	58.5	64QAM	53.4	74.0	20.6	Complied
2483.5	58.5	64QAM	45.7	54.0	8.3	Complied
2400.0	65	64QAM	56.0	*70.2	14.2	Complied
2483.5	65	64QAM	55.4	74.0	18.6	Complied
2483.5	65	64QAM	40.9	54.0	13.1	Complied

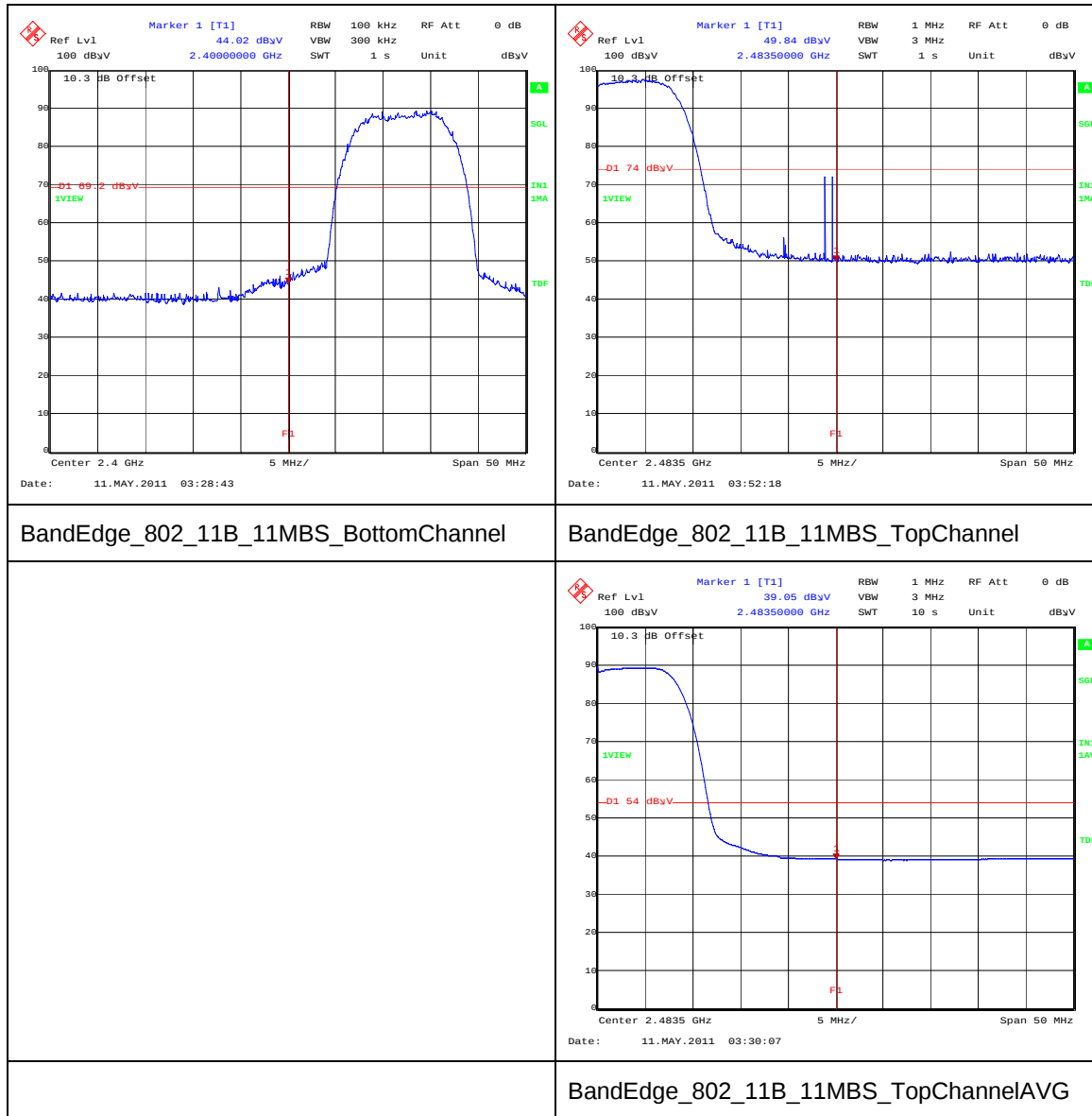
Note(s):

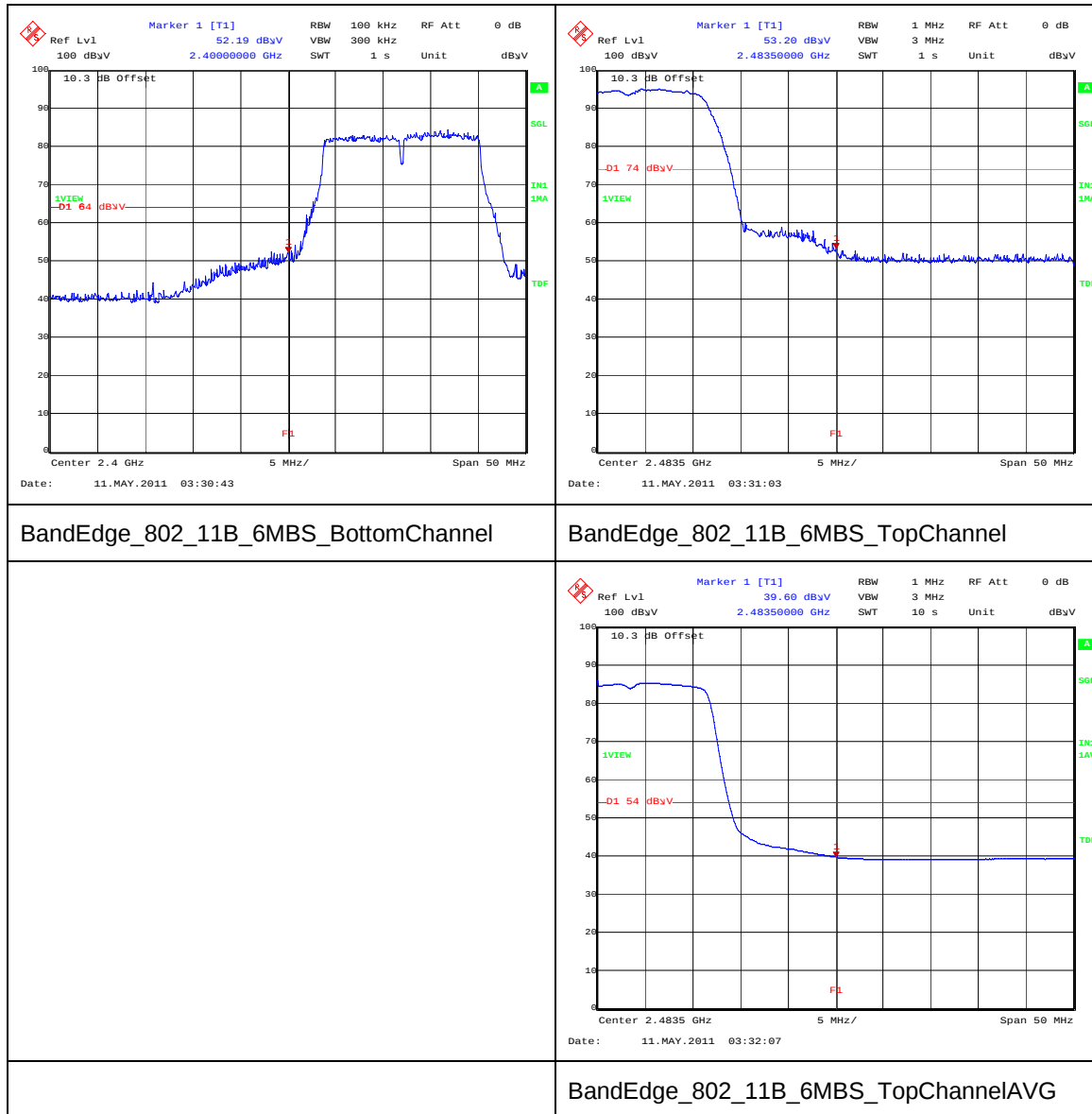
1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss.
2. * -20 dBc limit.

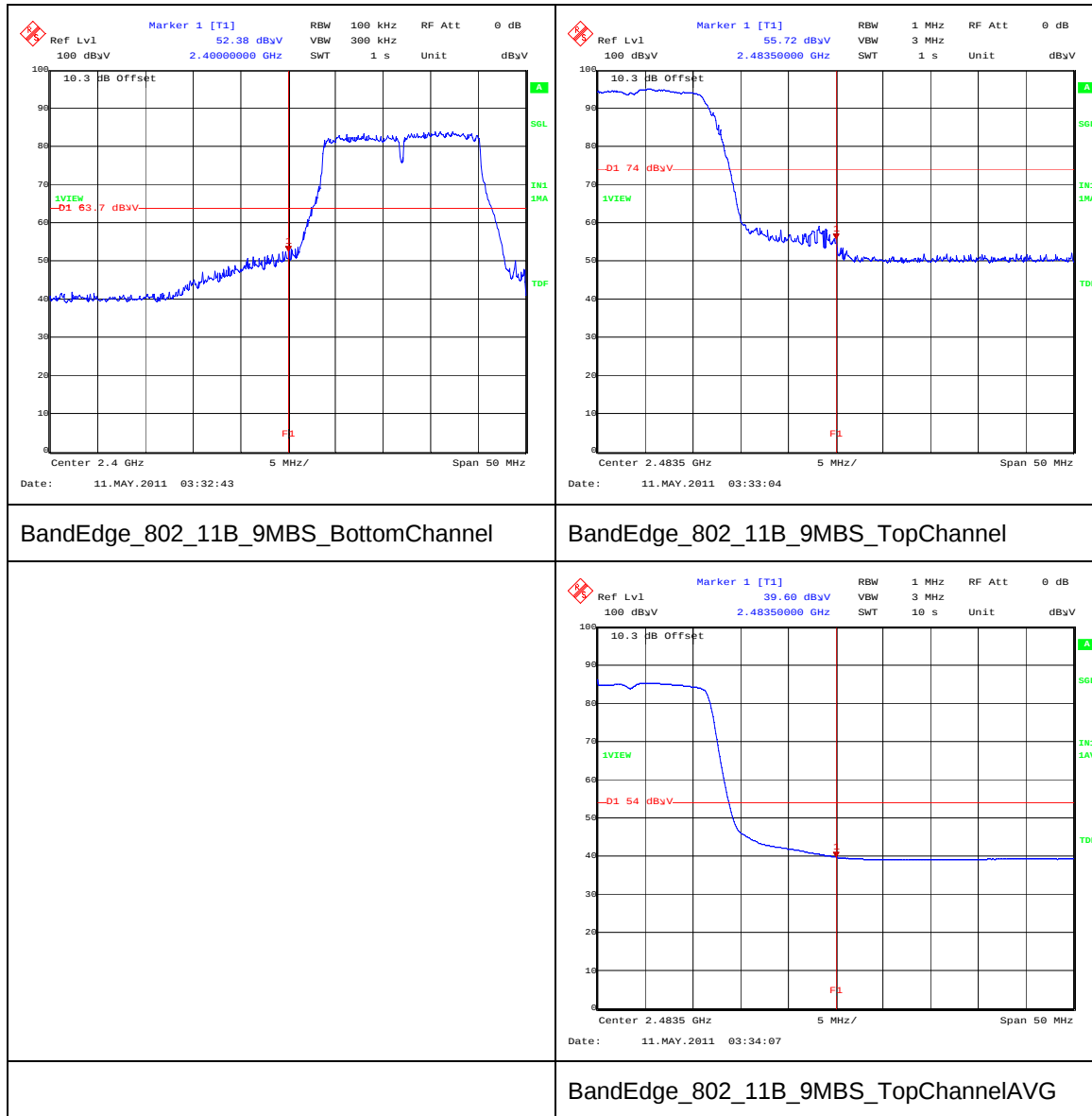
Transmitter Band Edge Radiated Emissions (continued)

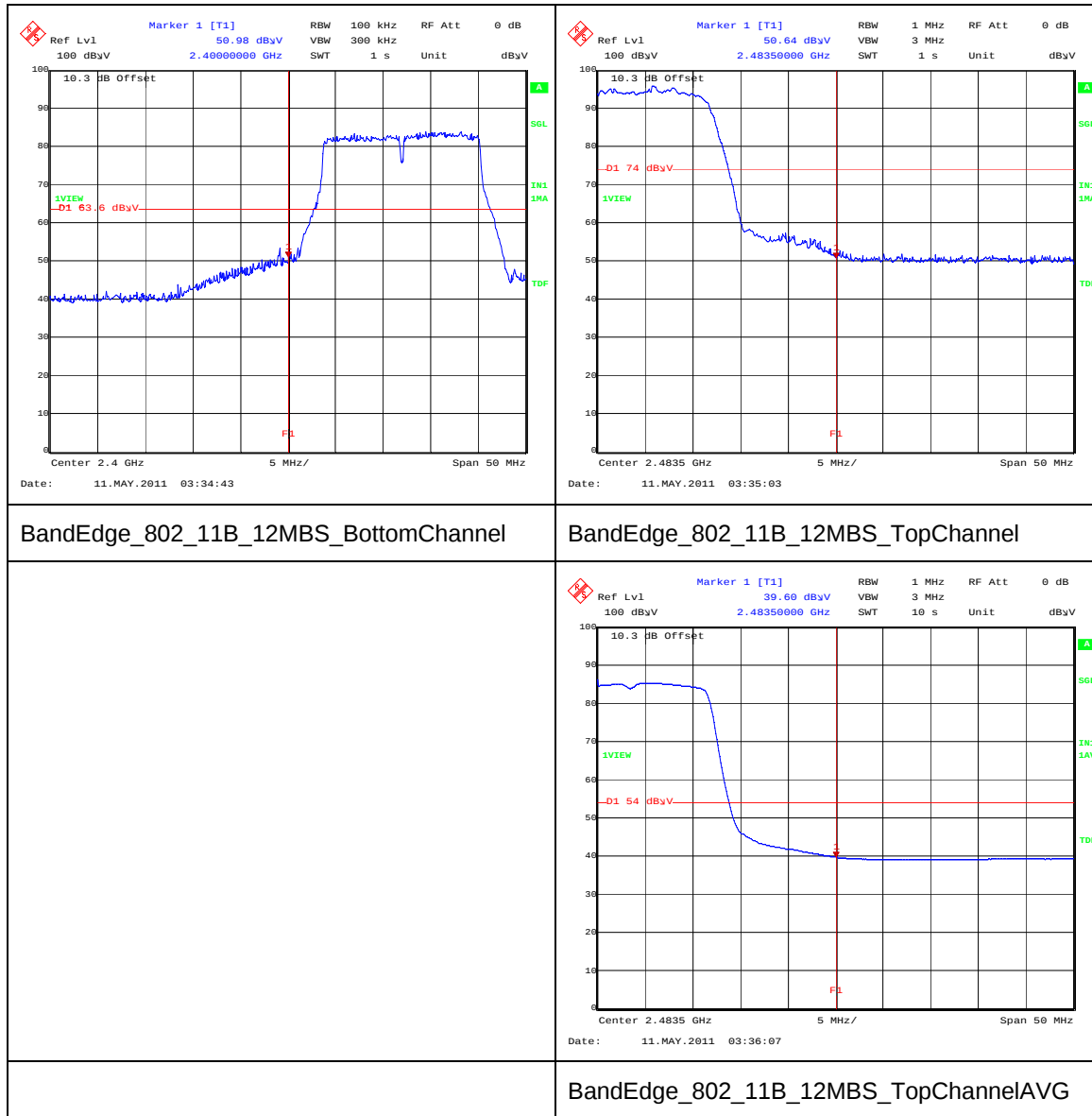


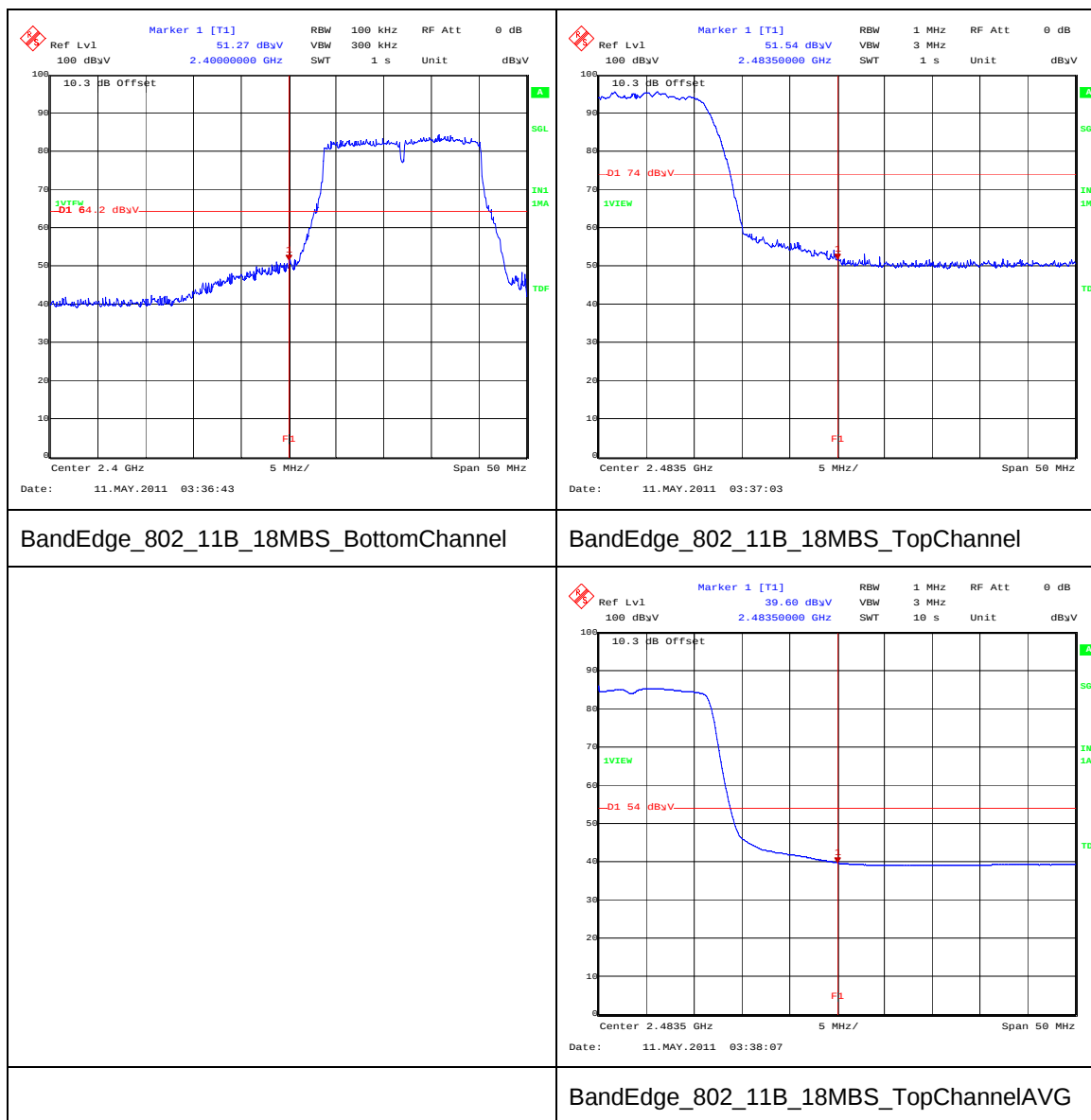


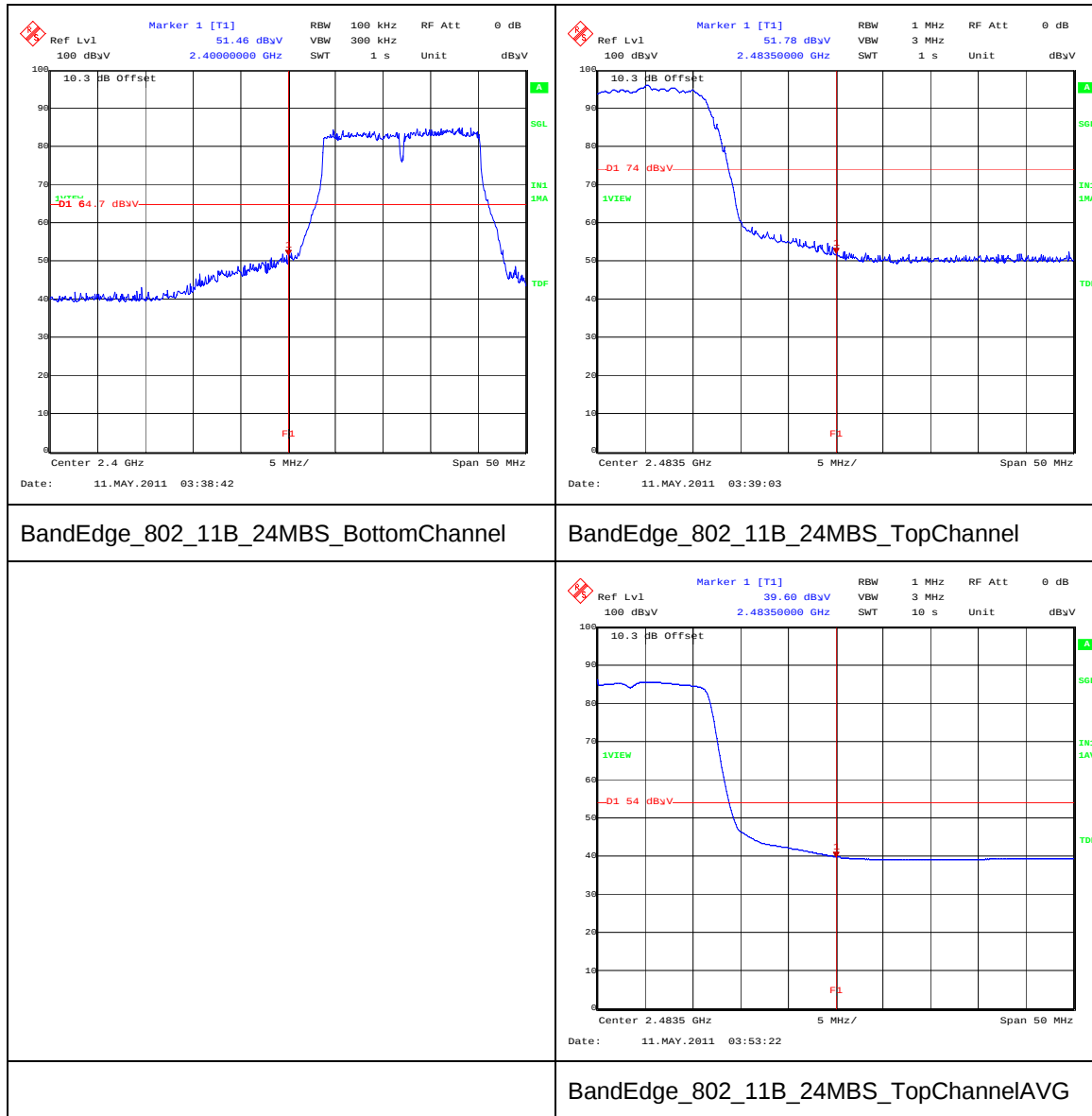


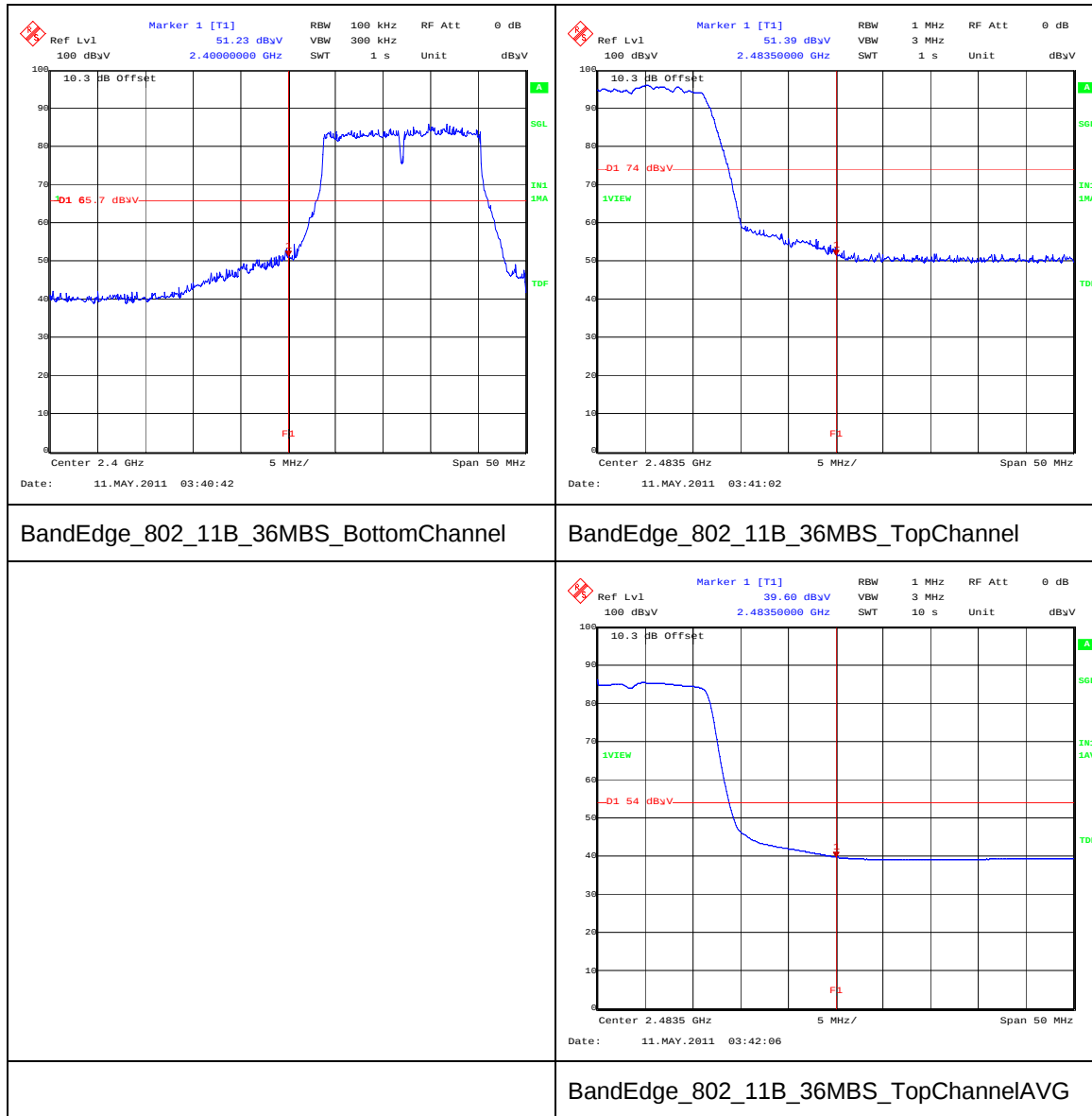


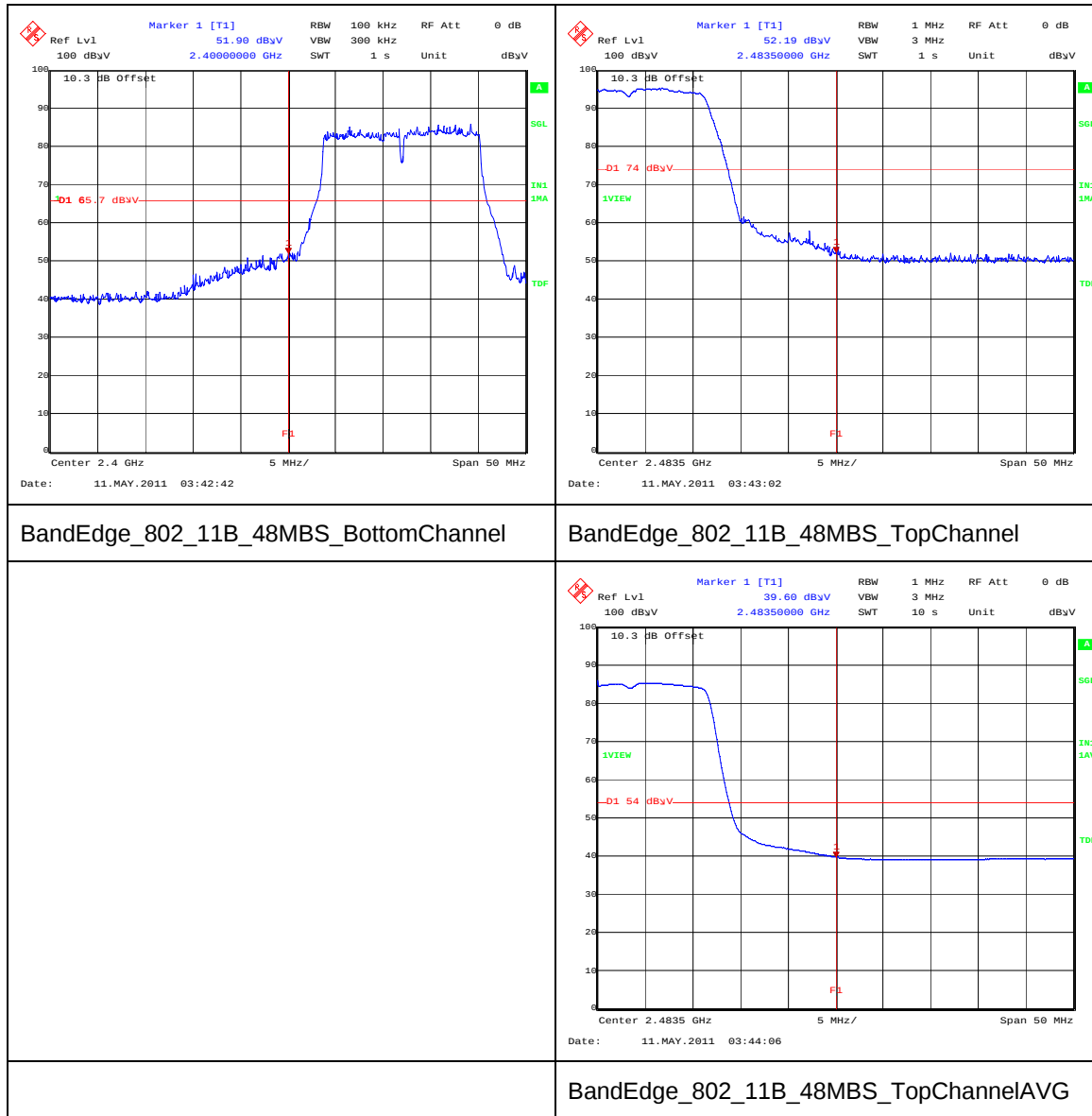


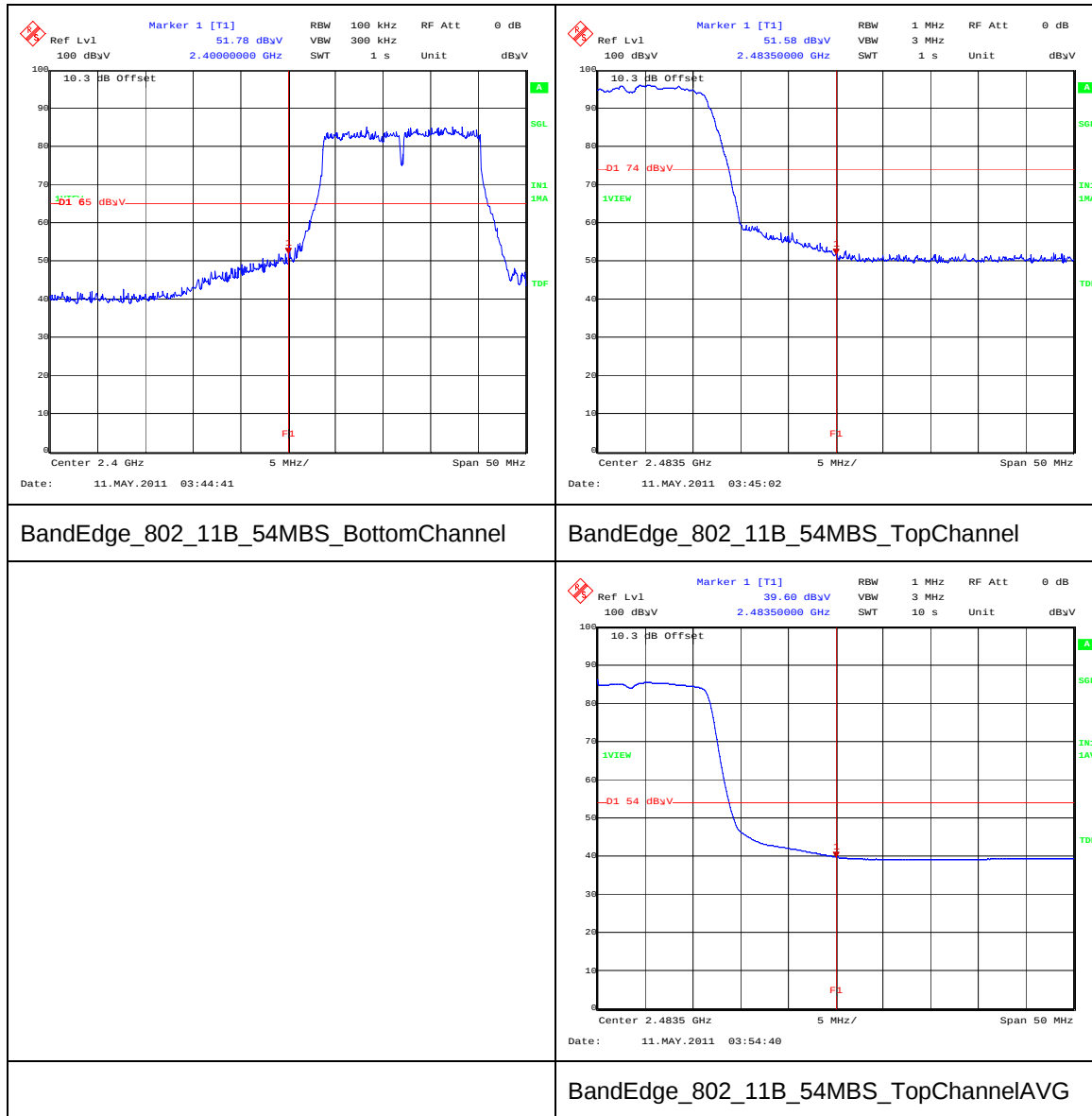


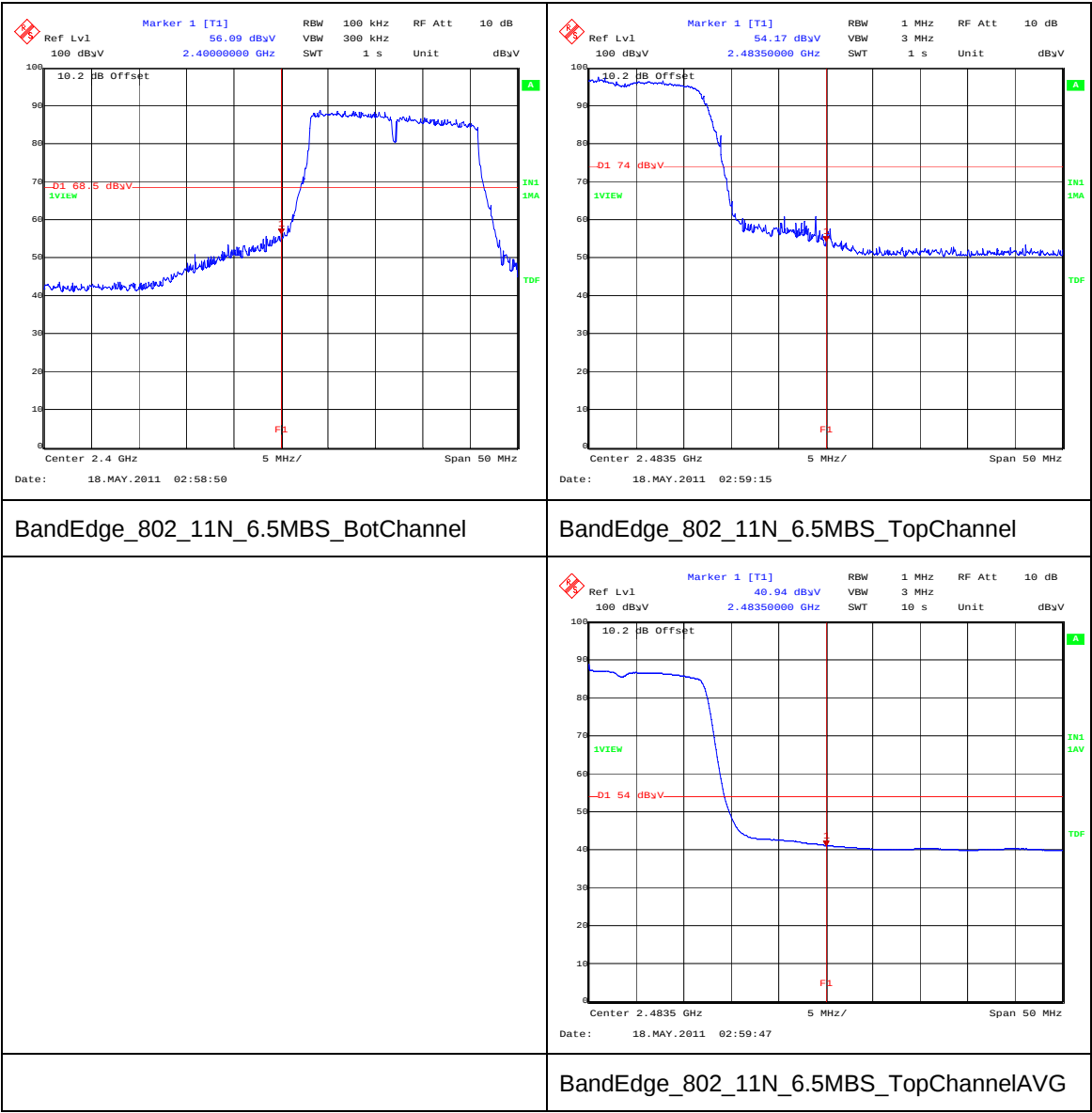


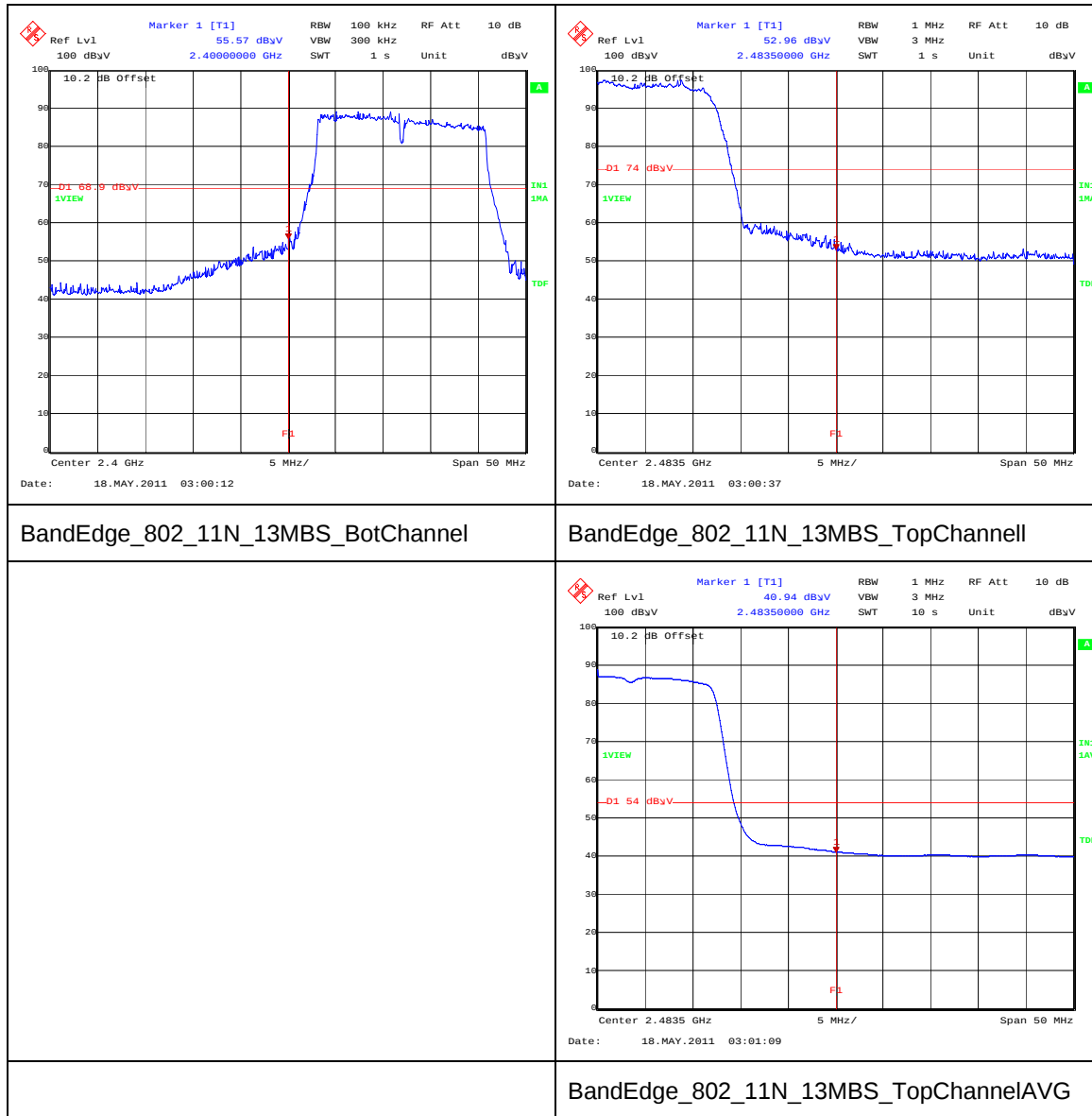


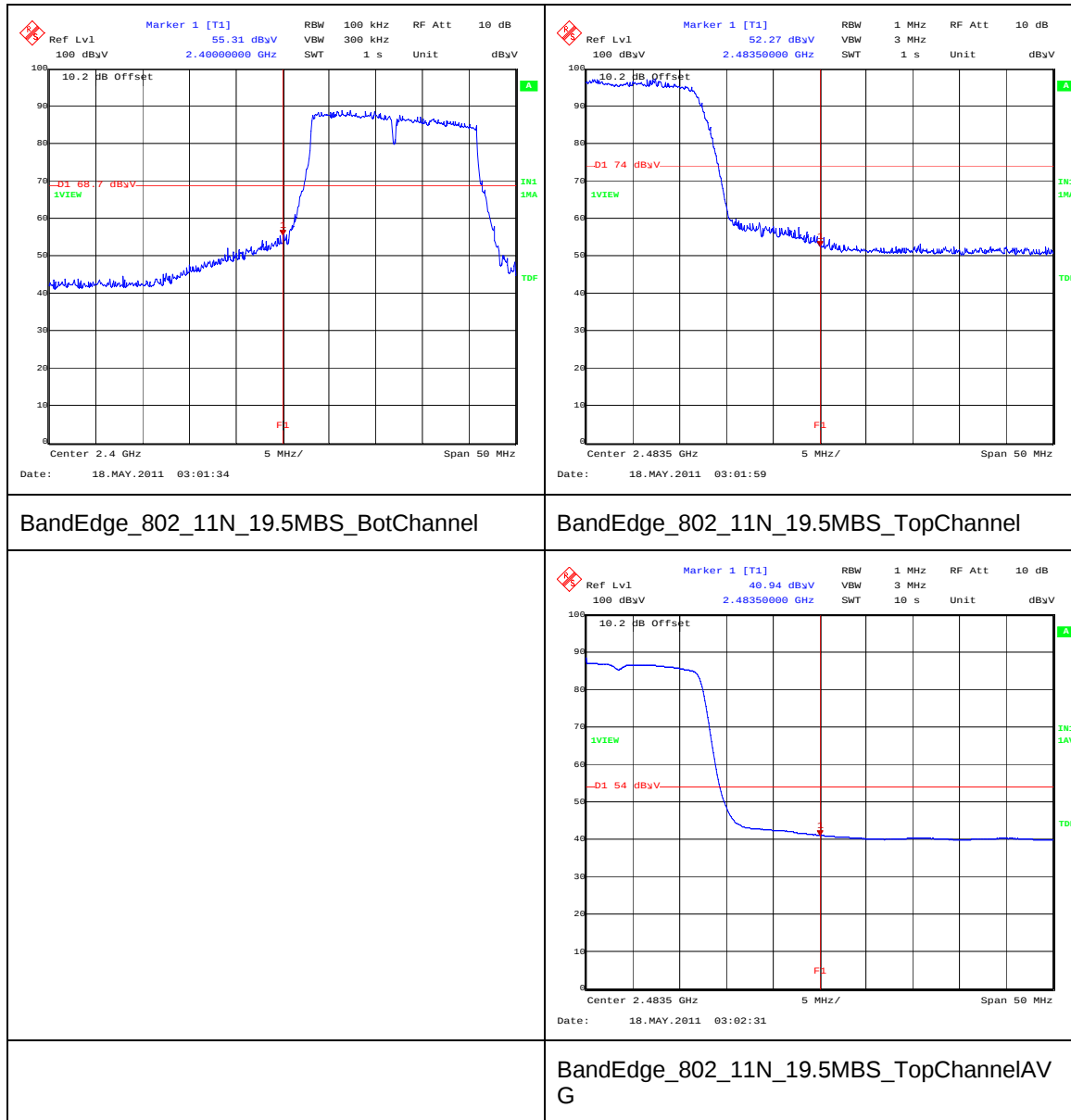


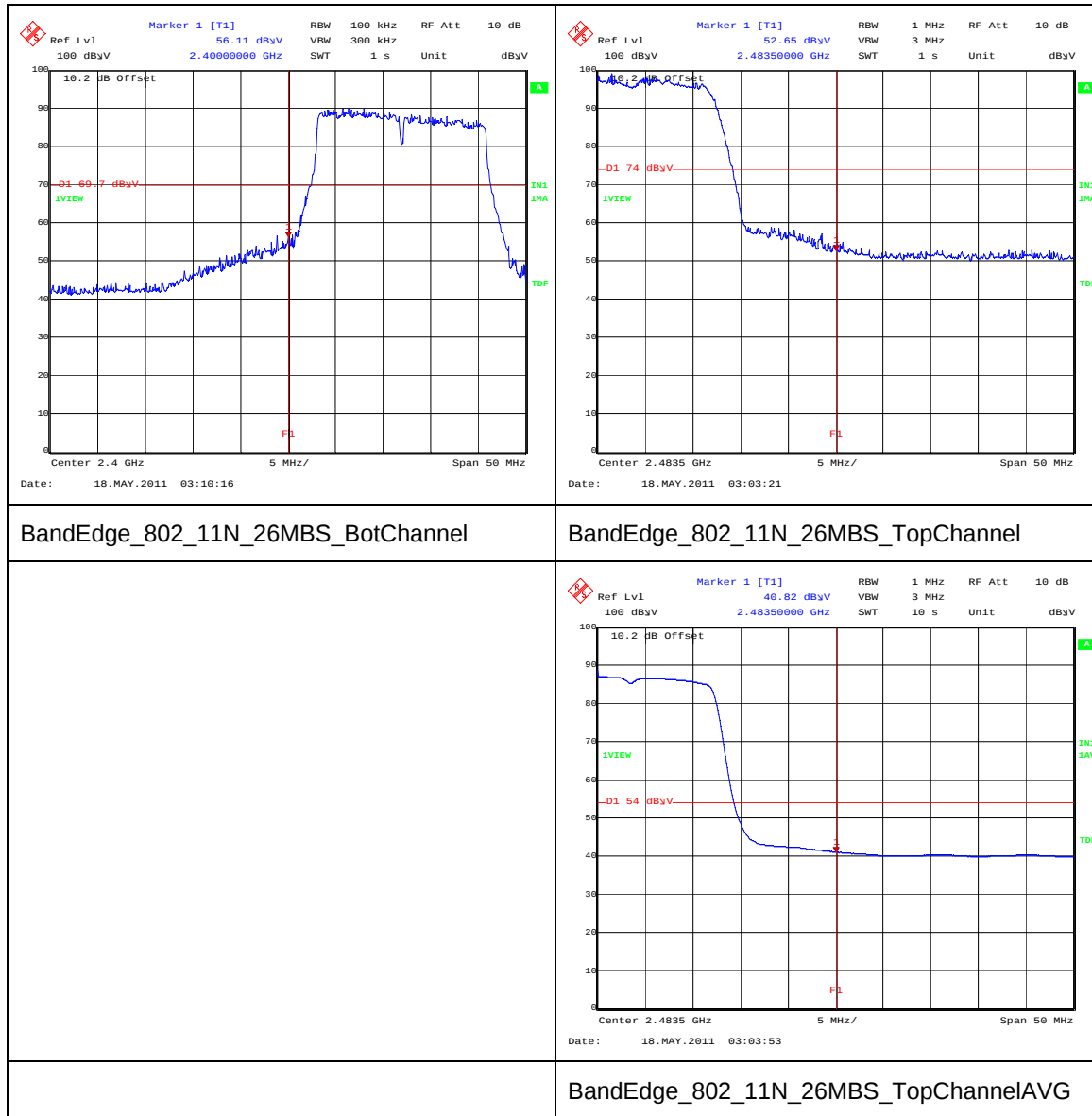


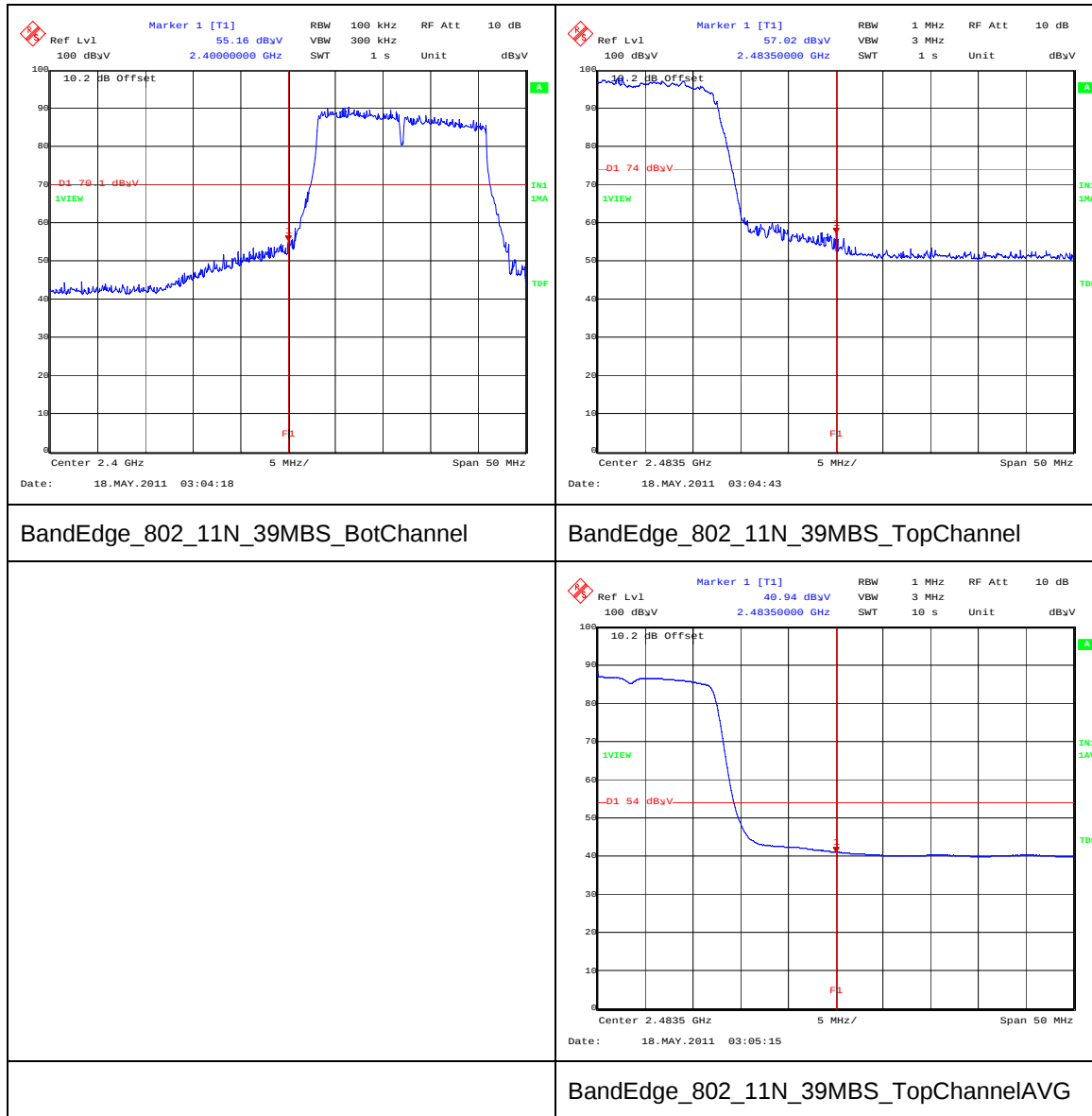


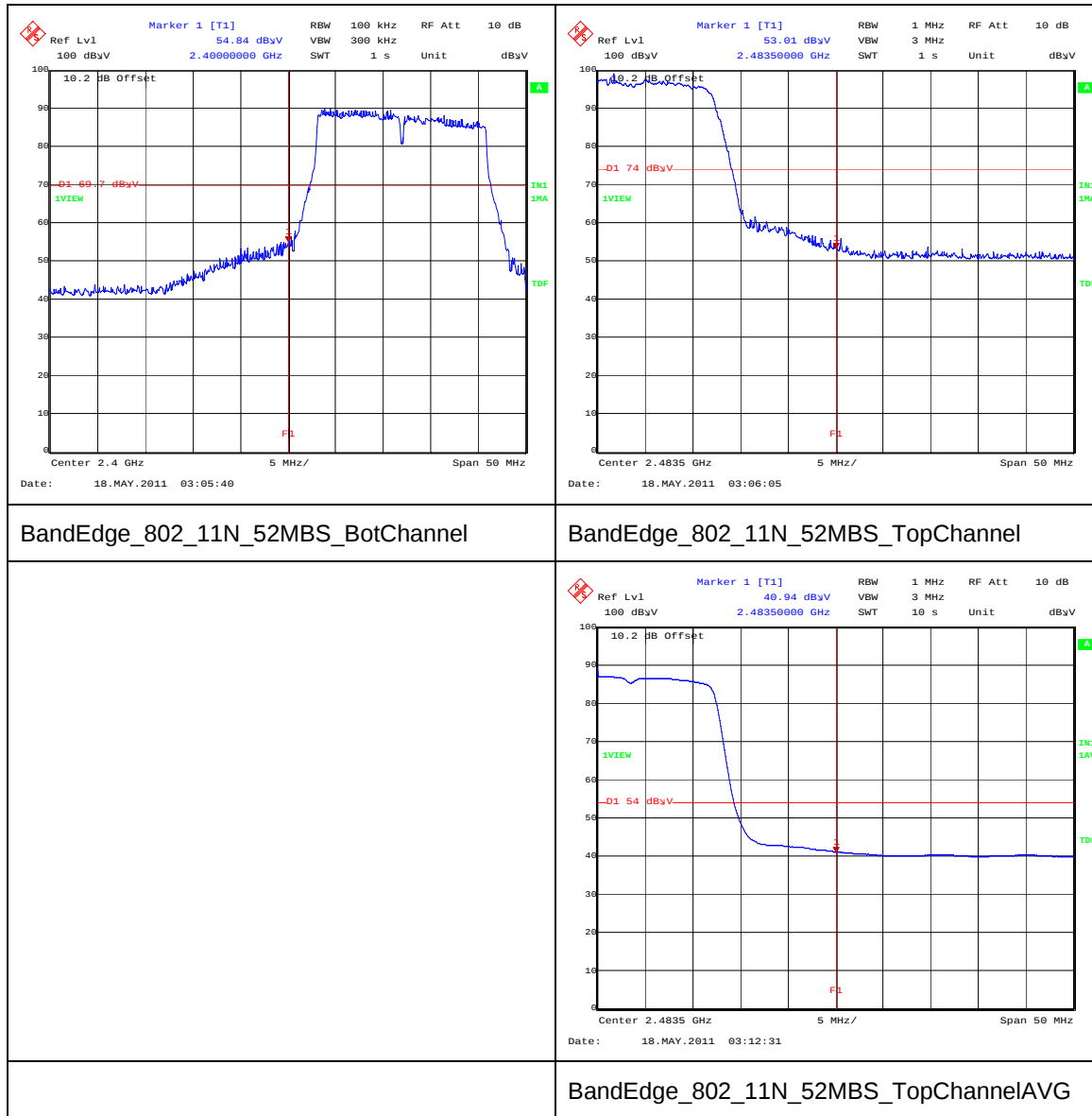


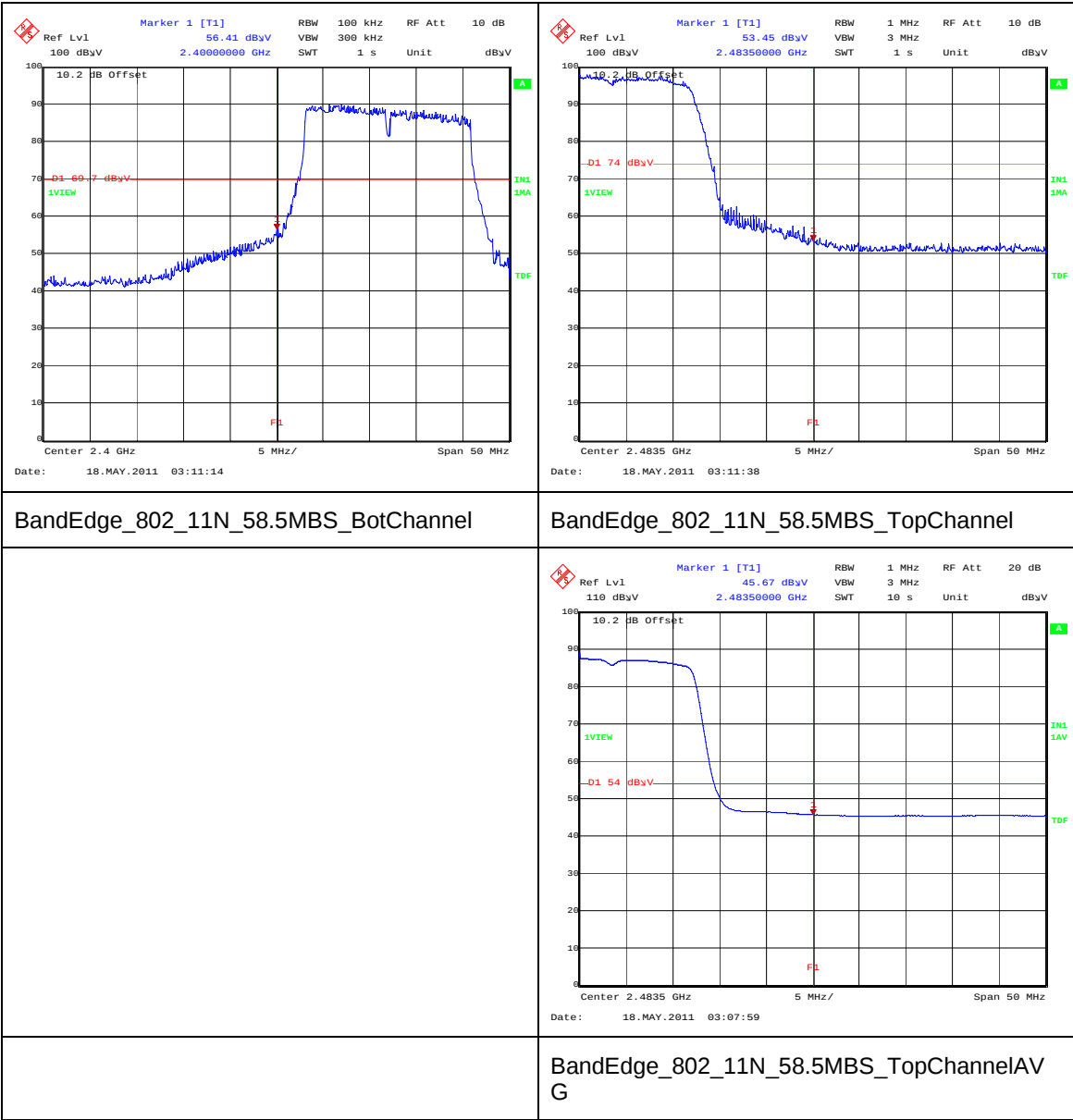


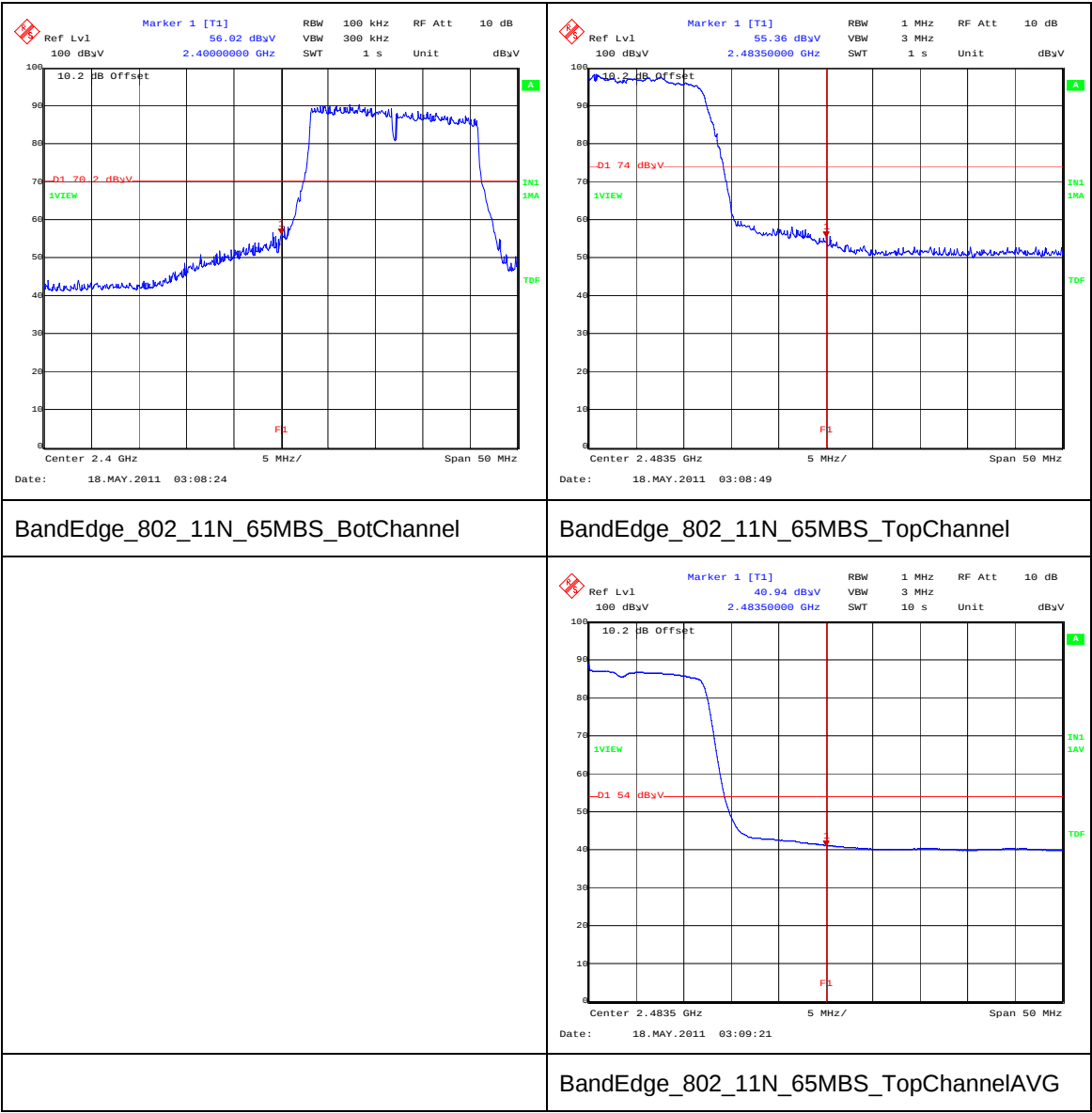












5.11. Test Results – PSTG0-2400HS Antenna:**5.11.1. Receiver/Idle Mode Radiated Spurious Emissions****Test Summary:**

Test Engineer:	Nigel Davison	Test Date:	17 May 2011
Test Sample IMEI:	ID:1		
Antenna:	PSTG0-2400HS		

FCC/IC Part:	15.109 and RSS-Gen 4.10 / RSS-Gen 6.1
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.5 referencing ANSI C63.4
Frequency Range:	30 MHz to 1000 MHz

Environmental Conditions:

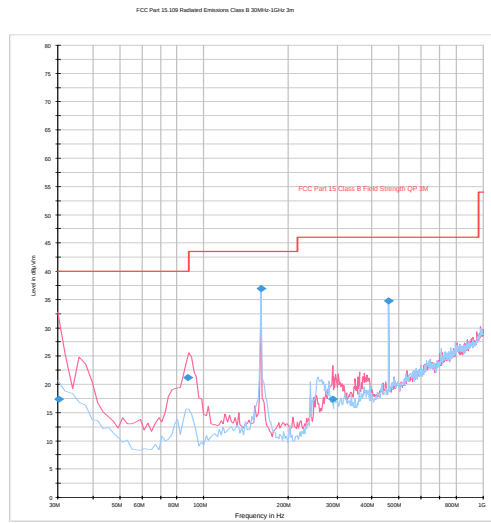
Temperature (°C):	24
Relative Humidity (%):	23

Results: Quasi Peak

Frequency (MHz)	Antenna Polarity	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Result
30.134	Vertical	17.4	40.0	22.6	Complied
87.839	Vertical	21.2	40.0	18.8	Complied
159.995	Horizontal	37.0	43.5	6.5	Complied
289.013	Vertical	17.3	46.0	28.7	Complied
458.815	Vertical	34.8	46.0	11.2	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss.
2. All other emissions shown on the pre-scan plot were investigated and found to be ambient or >20 dB below the applicable limit or below the measurement system noise floor.

Receiver/Idle Mode Radiated Spurious Emissions (continued)

Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying table.

Receiver/Idle Mode Radiated Spurious Emissions (continued)**Test Summary:**

Test Engineer:	Nick Steele	Test Date:	17 May 2011
Test Sample IMEI:	ID:1		
Antenna:	PSTG0-2400HS		

FCC/IC Part:	15.109 and RSS-Gen 4.10 / RSS-Gen 6.1
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.6 referencing ANSI C63.4
Frequency Range:	1 GHz to 12.75 GHz

Environmental Conditions:

Temperature (°C):	23
Relative Humidity (%):	25

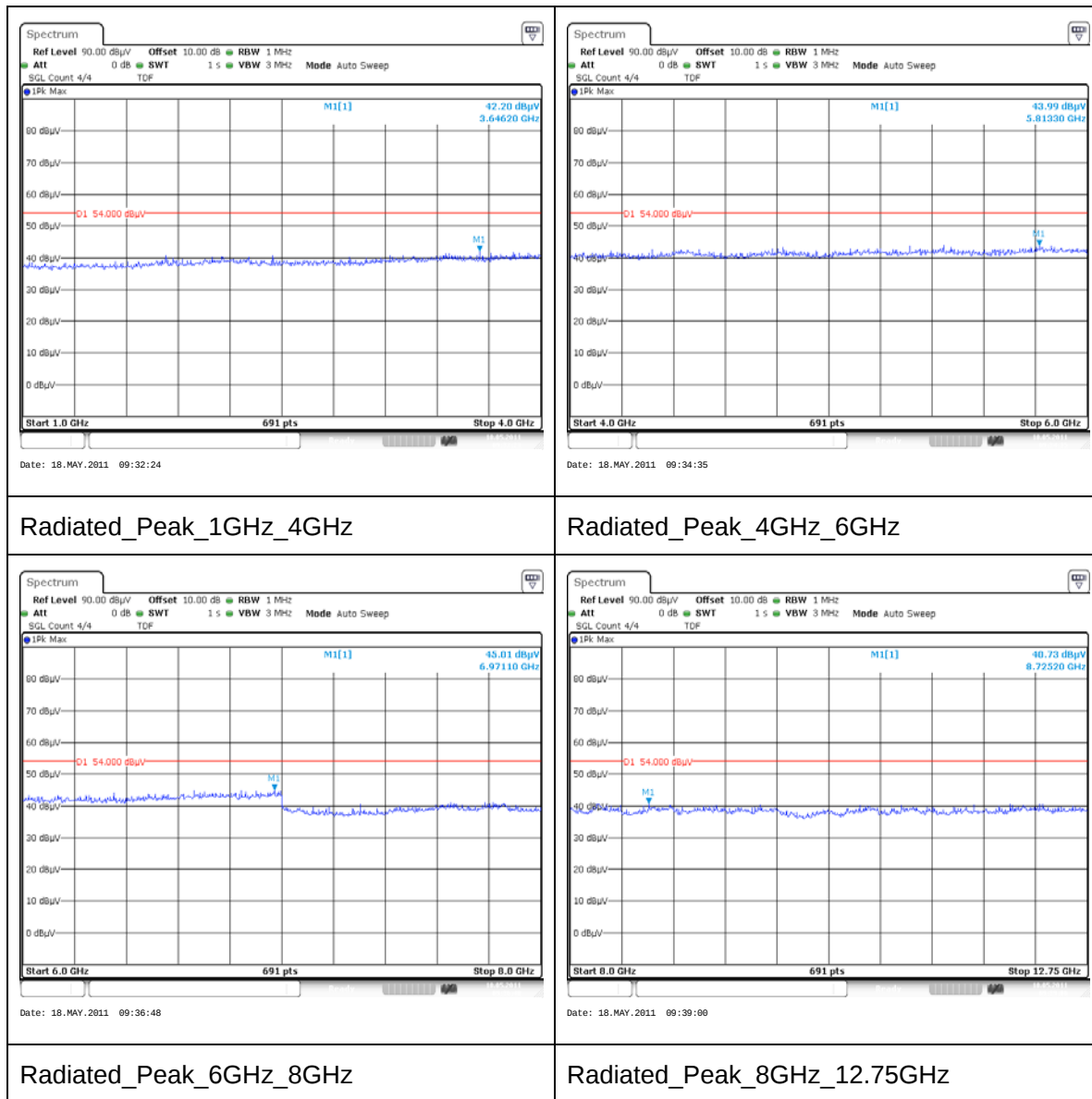
Results:

Frequency (MHz)	Antenna Polarity	Peak Level (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
6971.1	Vertical	45.0	*54.0	9.0	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss.
2. No spurious emissions were detected above the noise floor of the measuring receiver therefore the highest peak noise floor reading of the measuring receiver was recorded as shown in the table above.

* The average limit was compared to the peak level as opposed to being compared to the peak limit because this is the more stringent limit.

Receiver/Idle Mode Radiated Spurious Emissions (continued)

5.11.2. Transmitter Maximum Peak Output Power**Test Summary:**

Test Engineer:	David Lakeland	Test Date:	11 May 2011
Test Sample:	ID:1		

FCC Part:	15.247(b)(3)
Test Method Used:	As detailed in ANSI C63.10 Section 6.10.2

Note: Test method used – power meter

Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	29

Results: 802.11b

Channel	Frequency (MHz)	Mod Scheme	Data Rate (Mbps)	Conducted Peak Power (dBm)	Conducted Limit (dBm)	Margin (dB)	Result
Bottom	2412	BPSK	1	17.4	30	12.6	Complied
Middle	2437	BPSK	1	17.1	30	12.9	Complied
Top	2462	BPSK	1	16.3	30	13.7	Complied
Bottom	2412	QPSK	2	16.8	30	13.2	Complied
Middle	2437	QPSK	2	16.5	30	13.5	Complied
Top	2462	QPSK	2	16.2	30	13.8	Complied
Bottom	2412	QPSK	5.5	16.8	30	13.2	Complied
Middle	2437	QPSK	5.5	16.5	30	13.6	Complied
Top	2462	QPSK	5.5	16.1	30	13.9	Complied
Bottom	2412	QPSK	11	16.7	30	13.3	Complied
Middle	2437	QPSK	11	16.5	30	13.6	Complied
Top	2462	QPSK	11	16.2	30	13.9	Complied

Transmitter Maximum Peak Output Power (continued)**Results: 802.11g**

Channel	Frequency (MHz)	Mod Scheme	Data Rate (Mbps)	Conducte d Peak Power (dBm)	Conducte d Limit (dBm)	Margin (dB)	Result
Bottom	2412	BPSK	6	15.2	30	14.8	Complied
Middle	2437	BPSK	6	14.9	30	15.1	Complied
Top	2462	BPSK	6	14.6	30	15.4	Complied
Bottom	2412	BPSK	9	15.2	30	14.8	Complied
Middle	2437	BPSK	9	15.1	30	14.9	Complied
Top	2462	BPSK	9	15.1	30	14.9	Complied
Bottom	2412	QPSK	12	15.4	30	14.6	Complied
Middle	2437	QPSK	12	15.0	30	15.0	Complied
Top	2462	QPSK	12	14.7	30	15.3	Complied
Bottom	2412	QPSK	18	15.3	30	14.7	Complied
Middle	2437	QPSK	18	15.1	30	14.9	Complied
Top	2462	QPSK	18	14.7	30	15.3	Complied
Bottom	2412	16QAM	24	15.3	30	14.7	Complied
Middle	2437	16QAM	24	15.0	30	15.0	Complied
Top	2462	16QAM	24	14.7	30	15.3	Complied
Bottom	2412	16QAM	36	15.4	30	14.6	Complied
Middle	2437	16QAM	36	15.0	30	15.0	Complied
Top	2462	16QAM	36	14.7	30	15.3	Complied
Bottom	2412	16QAM	48	15.4	30	14.6	Complied
Middle	2437	16QAM	48	15.1	30	14.9	Complied
Top	2462	16QAM	48	14.8	30	15.3	Complied
Bottom	2412	64QAM	54	15.7	30	14.3	Complied
Middle	2437	64QAM	54	15.1	30	14.9	Complied
Top	2462	64QAM	54	14.7	30	15.3	Complied

Transmitter Maximum Peak Output Power (continued)**Results: 802.11n**

Channel	Frequency (MHz)	Mod Scheme	Data Rate (Mbps)	Conducted Peak Power (dBm)	Conducted Limit (dBm)	Margin (dB)	Result
Bottom	2412	BPSK	6.5	15.6	30	14.4	Complied
Middle	2437	BPSK	6.5	15.3	30	14.7	Complied
Top	2462	BPSK	6.5	15.0	30	15.0	Complied
Bottom	2412	QPSK	13	15.5	30	14.6	Complied
Middle	2437	QPSK	13	15.2	30	14.8	Complied
Top	2462	QPSK	13	14.9	30	15.1	Complied
Bottom	2412	QPSK	19.5	15.4	30	14.6	Complied
Middle	2437	QPSK	19.5	14.9	30	15.1	Complied
Top	2462	QPSK	19.5	14.8	30	15.3	Complied
Bottom	2412	16QAM	26	15.3	30	14.7	Complied
Middle	2437	16QAM	26	15.1	30	14.9	Complied
Top	2462	16QAM	26	14.8	30	15.2	Complied
Bottom	2412	16QAM	39	15.6	30	14.4	Complied
Middle	2437	16QAM	39	15.6	30	14.4	Complied
Top	2462	16QAM	39	14.9	30	15.1	Complied
Bottom	2412	64QAM	52	15.4	30	14.6	Complied
Middle	2437	64QAM	52	15.2	30	14.8	Complied
Top	2462	64QAM	52	15.6	30	14.4	Complied
Bottom	2412	64QAM	58.5	16.3	30	13.7	Complied
Middle	2437	64QAM	58.5	15.4	30	14.6	Complied
Top	2462	64QAM	58.5	15.0	30	15.1	Complied
Bottom	2412	64QAM	65	16.0	30	14.0	Complied
Middle	2437	64QAM	65	15.4	30	14.6	Complied
Top	2462	64QAM	65	16.1	30	13.9	Complied

5.11.3. Transmitter Maximum Equivalent Isotropically Radiated Power (EIRP)

FCC Part:	15.247(b)(3)
Test Method Used:	As detailed in ANSI C63.10 Section 6.10.2

Results: 802.11b

Channel	Mod Scheme	Data Rate (Mbps)	Antenna Gain (dBi)	Conducted Peak Power (dBm)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	BPSK	1	0	17.4	17.4	36.0	18.6	Complied
Middle	BPSK	1	0	17.1	17.1	36.0	18.9	Complied
Top	BPSK	1	0	16.3	16.3	36.0	19.7	Complied
Bottom	QPSK	2	0	16.8	16.8	36.0	19.2	Complied
Middle	QPSK	2	0	16.5	16.5	36.0	19.5	Complied
Top	QPSK	2	0	16.2	16.2	36.0	19.8	Complied
Bottom	QPSK	5.5	0	16.8	16.8	36.0	19.2	Complied
Middle	QPSK	5.5	0	16.5	16.5	36.0	19.5	Complied
Top	QPSK	5.5	0	16.1	16.1	36.0	19.9	Complied
Bottom	QPSK	11	0	16.7	16.7	36.0	19.3	Complied
Middle	QPSK	11	0	16.5	16.5	36.0	19.5	Complied
Top	QPSK	11	0	16.2	16.2	36.0	19.8	Complied

Transmitter Maximum Equivalent Isotropically Radiated Power (EIRP) (Continued)**Results: 802.11g**

Channel	Mod Scheme	Data Rate (Mbps)	Antenna Gain (dBi)	Conducted Peak Power (dBm)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	BPSK	6	0	15.2	15.2	36.0	20.8	Complied
Middle	BPSK	6	0	14.9	14.9	36.0	21.1	Complied
Top	BPSK	6	0	14.6	14.6	36.0	21.4	Complied
Bottom	BPSK	9	0	15.2	15.2	36.0	20.8	Complied
Middle	BPSK	9	0	15.1	15.1	36.0	20.9	Complied
Top	BPSK	9	0	15.1	15.1	36.0	20.9	Complied
Bottom	QPSK	12	0	15.4	15.4	36.0	20.6	Complied
Middle	QPSK	12	0	15.0	15.0	36.0	21.0	Complied
Top	QPSK	12	0	14.7	14.7	36.0	21.3	Complied
Bottom	QPSK	18	0	15.3	15.3	36.0	20.7	Complied
Middle	QPSK	18	0	15.1	15.1	36.0	20.9	Complied
Top	QPSK	18	0	14.7	14.7	36.0	21.3	Complied
Bottom	16QAM	24	0	15.3	15.3	36.0	20.7	Complied
Middle	16QAM	24	0	15.0	15.0	36.0	21.0	Complied
Top	16QAM	24	0	14.7	14.7	36.0	21.3	Complied
Bottom	16QAM	36	0	15.4	15.4	36.0	20.6	Complied
Middle	16QAM	36	0	15.0	15.0	36.0	21.0	Complied
Top	16QAM	36	0	14.7	14.7	36.0	21.3	Complied
Bottom	16QAM	48	0	15.4	15.4	36.0	20.6	Complied
Middle	16QAM	48	0	15.1	15.1	36.0	20.9	Complied
Top	16QAM	48	0	14.8	14.8	36.0	21.2	Complied
Bottom	64QAM	54	0	15.7	15.7	36.0	20.3	Complied
Middle	64QAM	54	0	15.1	15.1	36.0	20.9	Complied
Top	64QAM	54	0	14.7	14.7	36.0	21.3	Complied

Transmitter Maximum Equivalent Isotropically Radiated Power (EIRP) (Continued)**Results: 802.11n**

Channel	Mod Scheme	Data Rate (Mbps)	Antenna Gain (dBi)	Conducted Peak Power (dBm)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Bottom	BPSK	6.5	0	15.6	15.6	36.0	20.4	Complied
Middle	BPSK	6.5	0	15.3	15.3	36.0	20.7	Complied
Top	BPSK	6.5	0	15.0	15.0	36.0	21.0	Complied
Bottom	QPSK	13	0	15.5	15.5	36.0	20.5	Complied
Middle	QPSK	13	0	15.2	15.2	36.0	20.8	Complied
Top	QPSK	13	0	14.9	14.9	36.0	21.1	Complied
Bottom	QPSK	19.5	0	15.4	15.4	36.0	20.6	Complied
Middle	QPSK	19.5	0	14.9	14.9	36.0	21.1	Complied
Top	QPSK	19.5	0	14.8	14.8	36.0	21.2	Complied
Bottom	16QAM	26	0	15.3	15.3	36.0	20.7	Complied
Middle	16QAM	26	0	15.1	15.1	36.0	20.9	Complied
Top	16QAM	26	0	14.8	14.8	36.0	21.2	Complied
Bottom	16QAM	39	0	15.6	15.6	36.0	20.4	Complied
Middle	16QAM	39	0	15.6	15.6	36.0	20.4	Complied
Top	16QAM	39	0	14.9	14.9	36.0	21.1	Complied
Bottom	64QAM	52	0	15.4	15.4	36.0	20.6	Complied
Middle	64QAM	52	0	15.2	15.2	36.0	20.8	Complied
Top	64QAM	52	0	15.6	15.6	36.0	20.4	Complied
Bottom	64QAM	58.5	0	16.3	16.3	36.0	19.7	Complied
Middle	64QAM	58.5	0	15.4	15.4	36.0	20.6	Complied
Top	64QAM	58.5	0	15.0	15.0	36.0	21.0	Complied
Bottom	64QAM	65	0	16.0	16.0	36.0	20.0	Complied
Middle	64QAM	65	0	15.4	15.4	36.0	20.6	Complied
Top	64QAM	65	0	16.1	16.1	36.0	19.9	Complied

5.11.4. Transmitter Radiated Emissions**Test Summary:**

Test Engineer:	Andrew Edwards	Test Date:	17 May 2011
Test Sample Serial No:	ID:1		
Antenna:	PSTG0-2400HS		

FCC/IC Part:	15.247(d), 15.209(a), RSS-Gen 4.9 and RSS-210 A8.5
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.5 referencing ANSI C63.4
Frequency Range	30 MHz to 1000 MHz

Environmental Conditions:

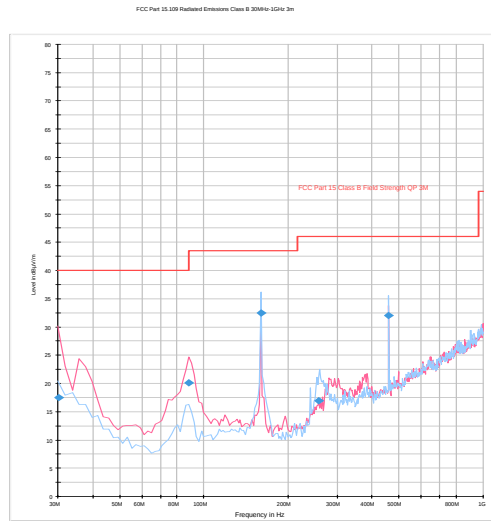
Temperature (°C):	23
Relative Humidity (%):	23

Results: Top Channel

Frequency (MHz)	Antenna Polarity	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
30.192	Vertical	17.5	40.0	22.5	Complied
88.089	Vertical	20.1	43.5	23.4	Complied
159.995	Horizontal	32.5	43.5	11.0	Complied
258.200	Horizontal	17.0	46.0	29.0	Complied
458.767	Horizontal	32.0	46.0	14.0	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss
2. The preliminary scans showed similar emission levels below 1 GHz, for each channel of operation. Therefore final radiated emissions measurements were performed with the EUT set to the top channel only.
3. All other emissions were at least 20 dB below the appropriate limit or below the noise floor of the measurement system.

Transmitter Radiated Emissions (continued)

Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying table.

Transmitter Radiated Emissions (continued)**Test Summary:**

Test Engineer:	Nigel Davison	Test Date:	17 and 19 May 2011
Test Sample Serial No:	ID:1		
Antenna:	PSTG0-2400HS		

FCC/IC Part:	15.247(d), 15.209(a), RSS-Gen 4.9 and RSS-210 A8.5
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3 and 6.6 referencing ANSI C63.4
Frequency Range	1 GHz to 26.5 GHz

Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	27

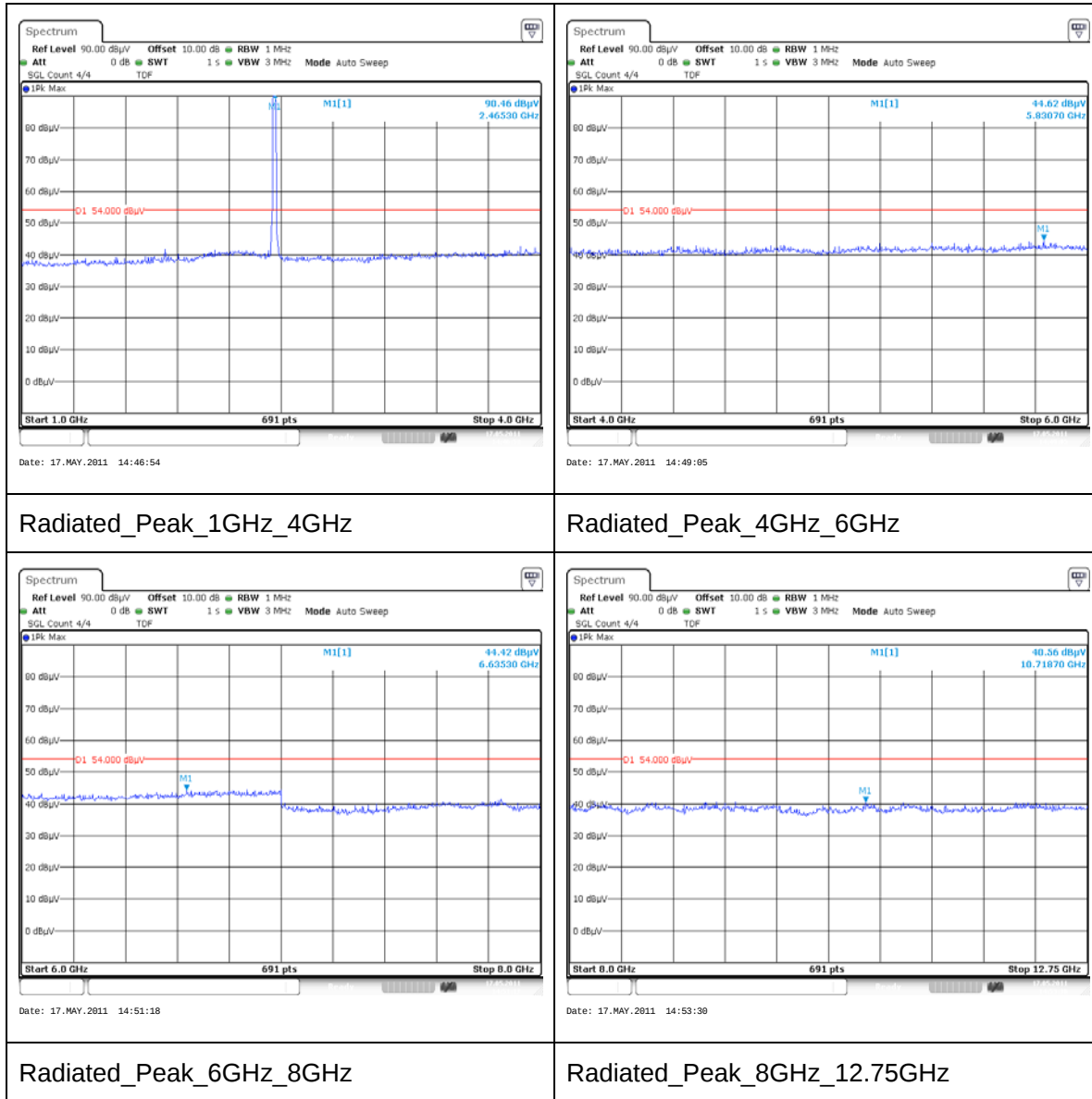
Results:

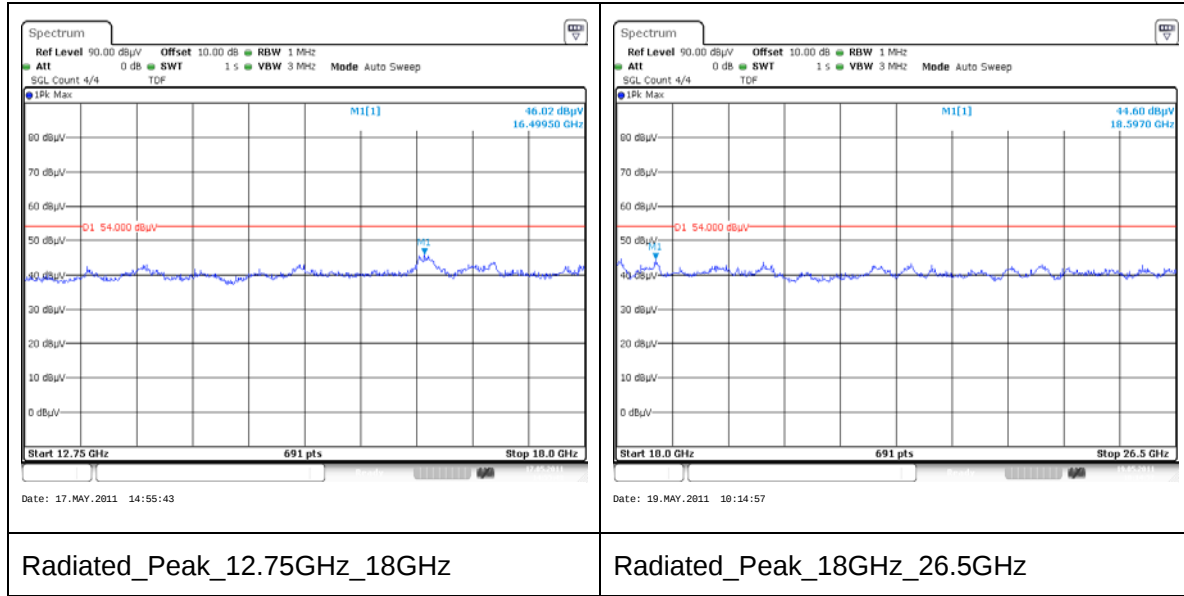
Frequency (MHz)	Antenna Polarity	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
16499.5	Vertical	46.0	*54.0	8.0	Complied

Note(s):

1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss
2. All other emissions shown on the pre-scan plot were investigated and found to be ambient or >20 dB below the applicable limit or below the measurement system noise floor.
3. No spurious emissions were detected above the noise floor of the measuring receiver therefore the highest peak noise floor reading of the measuring receiver was recorded as shown in the table above.
4. The emission shown on the 1 GHz to 4 GHz plot is the EUT fundamental.

* The average limit was compared to the peak level as opposed to being compared to the peak limit because this is the more stringent limit.

Transmitter Radiated Emissions (continued)



5.11.5. Transmitter Band Edge Radiated Emissions**Test Summary:**

Test Engineer:	Nigel Davison	Test Date:	10 May and 18 May 2011
Test Sample Serial No:	ID:1		
Antenna:	PSTG0-2400HS		

FCC/IC Part:	15.247(d), 15.209(a), RSS-Gen 4.9 and RSS-210 A8.5
Test Method Used:	As detailed in ANSI C63.10 Section 6.9.2

Environmental Conditions:

Temperature (°C):	25
Relative Humidity (%):	30

Results: Peak and Average 802.11b

Frequency (MHz)	Data Rate Mbps	Modulation Type	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2400.0	1	BPSK	51.3	*75.7	24.4	Complied
2483.5	1	BPSK	50.8	74.0	23.2	Complied
2483.5	1	BPSK	39.6	54.0	14.4	Complied
2400.0	2	QPSK	51.9	*75.4	23.5	Complied
2483.5	2	QPSK	50.8	74.0	23.2	Complied
2483.5	2	QPSK	39.5	54.0	14.5	Complied
2400.0	5.5	CCK	47.1	*76.0	28.9	Complied
2483.5	5.5	CCK	50.8	74.0	23.2	Complied
2483.5	5.5	CCK	39.5	54.0	14.5	Complied
2400.0	11	CCK	51.6	*75.9	24.3	Complied
2483.5	11	CCK	51.7	74.0	22.3	Complied
2483.5	11	CCK	39.5	54.0	14.5	Complied

Transmitter Band Edge Radiated Emissions (continued)**Results: Peak and Average 802.11g**

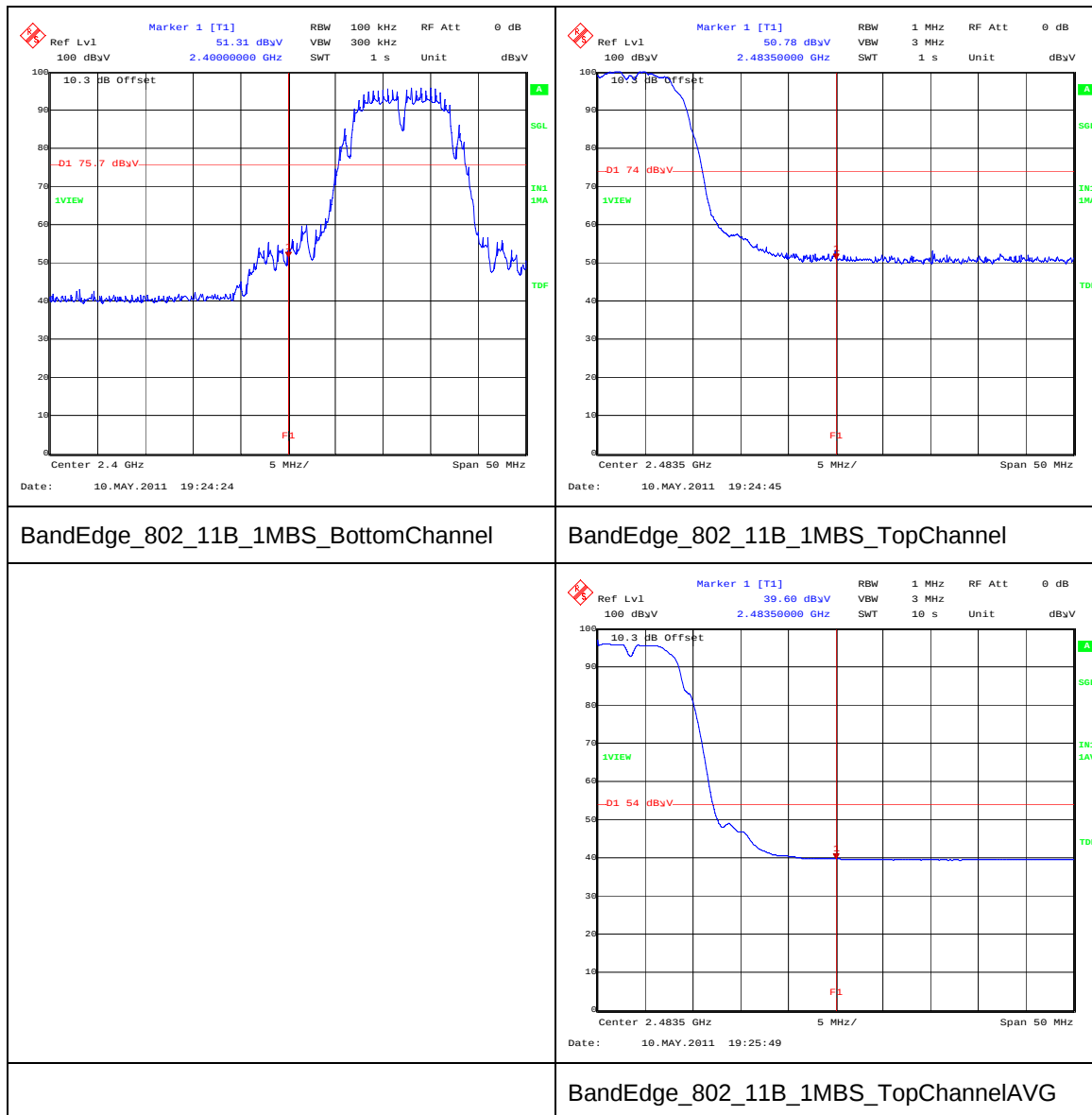
Frequency (MHz)	Data Rate Mbps	Modulation Type	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2400.0	6	BPSK	61.2	*69.8	8.6	Complied
2483.5	6	BPSK	54.5	74.0	19.5	Complied
2483.5	6	BPSK	41.2	54.0	12.8	Complied
2400.0	9	BPSK	60.8	*69.7	8.9	Complied
2483.5	9	BPSK	55.8	74.0	18.2	Complied
2483.5	9	BPSK	41.2	54.0	12.8	Complied
2400.0	12	QPSK	58.0	*69.8	11.8	Complied
2483.5	12	QPSK	55.2	74.0	18.8	Complied
2483.5	12	QPSK	45.4	54.0	8.6	Complied
2400.0	18	QPSK	57.8	*69.7	11.9	Complied
2483.5	18	QPSK	57.1	74.0	16.9	Complied
2483.5	18	QPSK	45.4	54.0	8.6	Complied
2400.0	24	16QAM	58.0	*70.6	12.6	Complied
2483.5	24	16QAM	56.8	74.0	17.2	Complied
2483.5	24	16QAM	45.4	54.0	8.6	Complied
2400.0	36	16QAM	59.1	*70.5	11.4	Complied
2483.5	36	16QAM	56.6	74.0	17.4	Complied
2483.5	36	16QAM	45.4	54.0	8.6	Complied
2400.0	48	64QAM	58.4	*71.6	13.2	Complied
2483.5	48	64QAM	56.9	74.0	17.1	Complied
2483.5	48	64QAM	45.4	54.0	8.6	Complied
2400.0	54	64QAM	59.3	*71.1	11.8	Complied
2483.5	54	64QAM	58.2	74.0	15.8	Complied
2483.5	54	64QAM	45.4	54.0	8.6	Complied

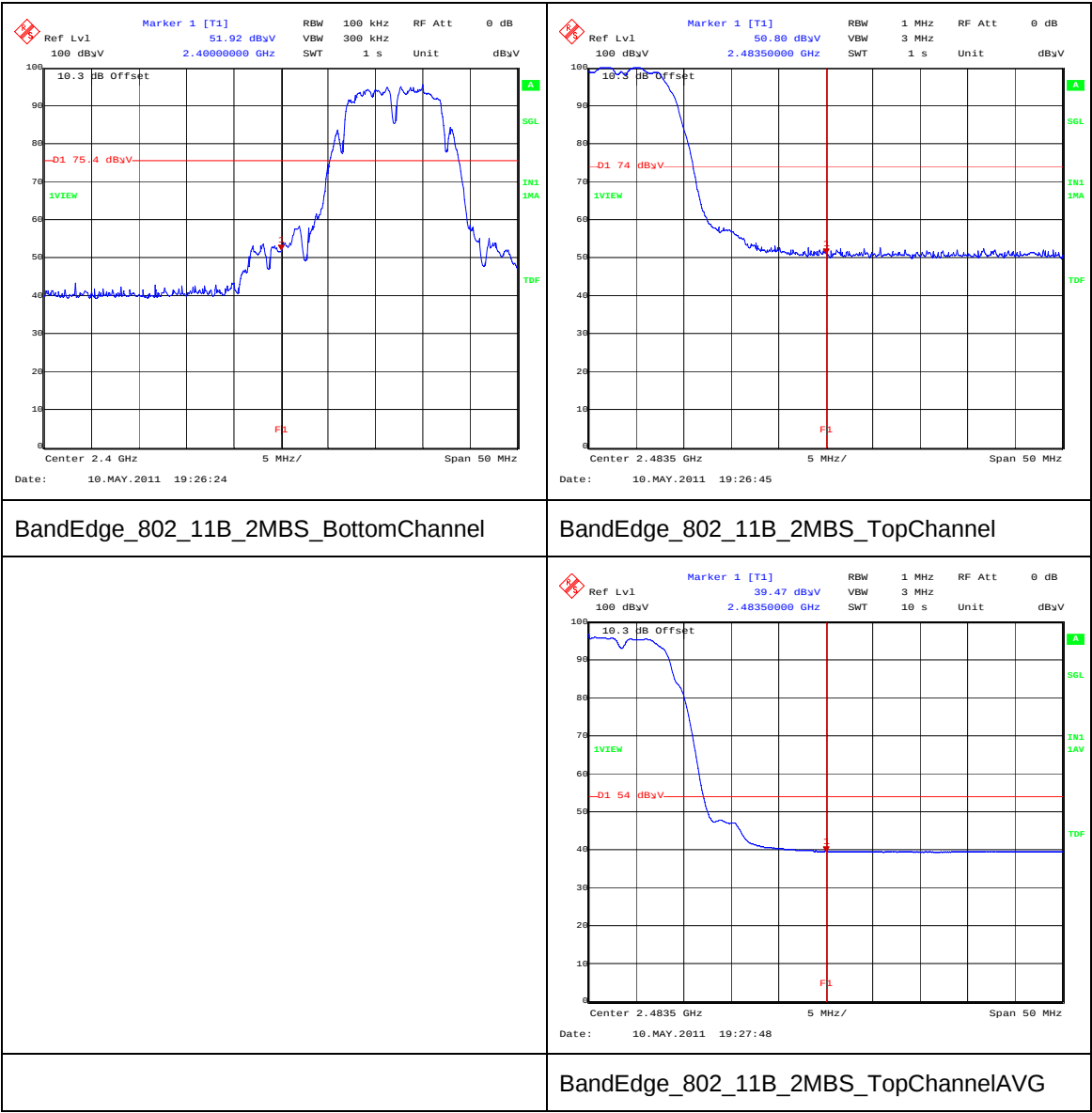
Transmitter Band Edge Radiated Emissions (continued)**Results: Peak and Average 802.11n**

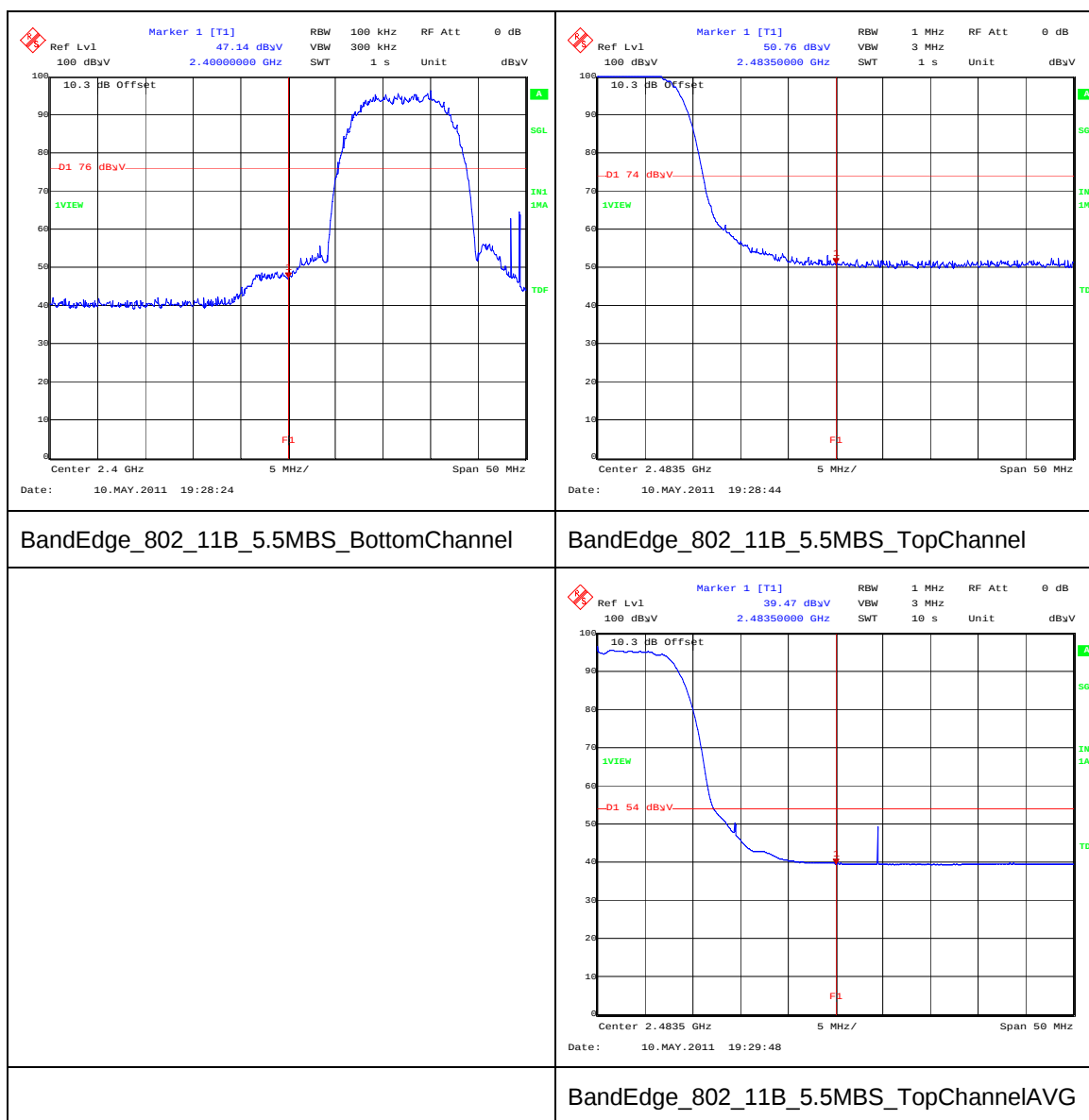
Frequency (MHz)	Data Rate Mbps	Modulation Type	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
2400.0	6.5	BPSK	56.7	*68.5	11.8	Complied
2483.5	6.5	BPSK	54.6	74.0	19.4	Complied
2483.5	6.5	BPSK	41.2	54.0	12.8	Complied
2400.0	13	BPSK	56.4	*69.7	13.3	Complied
2483.5	13	BPSK	54.5	74.0	19.5	Complied
2483.5	13	BPSK	40.9	54.0	13.1	Complied
2400.0	19.5	QPSK	55.5	*68.6	13.1	Complied
2483.5	19.5	QPSK	54.7	74.0	19.3	Complied
2483.5	19.5	QPSK	40.9	54.0	13.1	Complied
2400.0	26	QPSK	54.4	*69.5	15.1	Complied
2483.5	26	QPSK	54.6	74.0	19.4	Complied
2483.5	26	QPSK	40.8	54.0	13.2	Complied
2400.0	39	16QAM	55.3	*69.8	14.5	Complied
2483.5	39	16QAM	52.6	74.0	21.4	Complied
2483.5	39	16QAM	40.8	54.0	13.2	Complied
2400.0	52	16QAM	54.0	*69.9	15.9	Complied
2483.5	52	16QAM	55.9	74.0	18.1	Complied
2483.5	52	16QAM	40.9	54.0	13.1	Complied
2400.0	58.5	64QAM	55.2	*70.1	14.9	Complied
2483.5	58.5	64QAM	54.7	74.0	19.3	Complied
2483.5	58.5	64QAM	40.9	54.0	13.1	Complied
2400.0	65	64QAM	54.5	*70.1	15.6	Complied
2483.5	65	64QAM	54.7	74.0	19.3	Complied
2483.5	65	64QAM	41.0	54.0	13.0	Complied

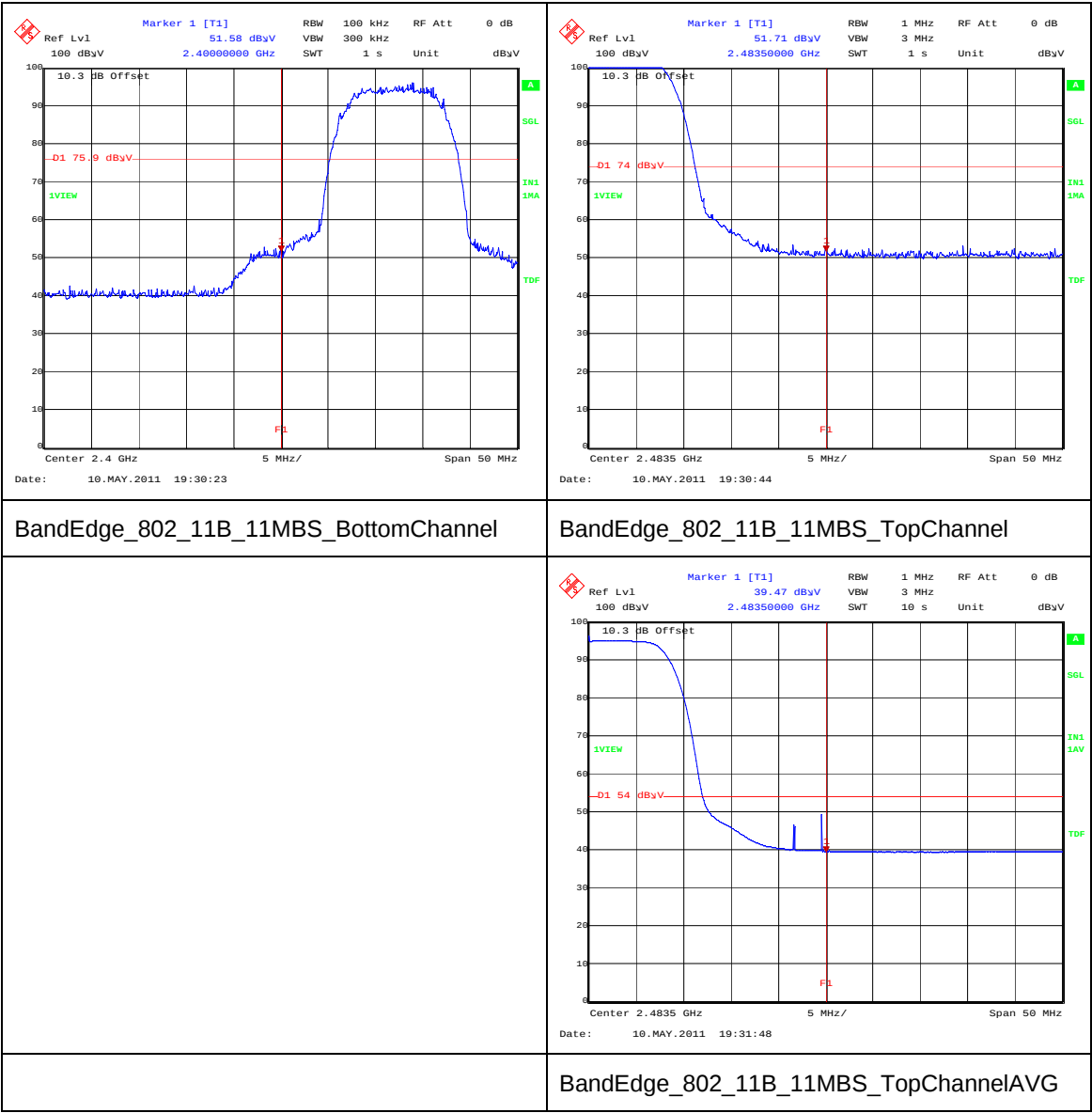
Note(s):

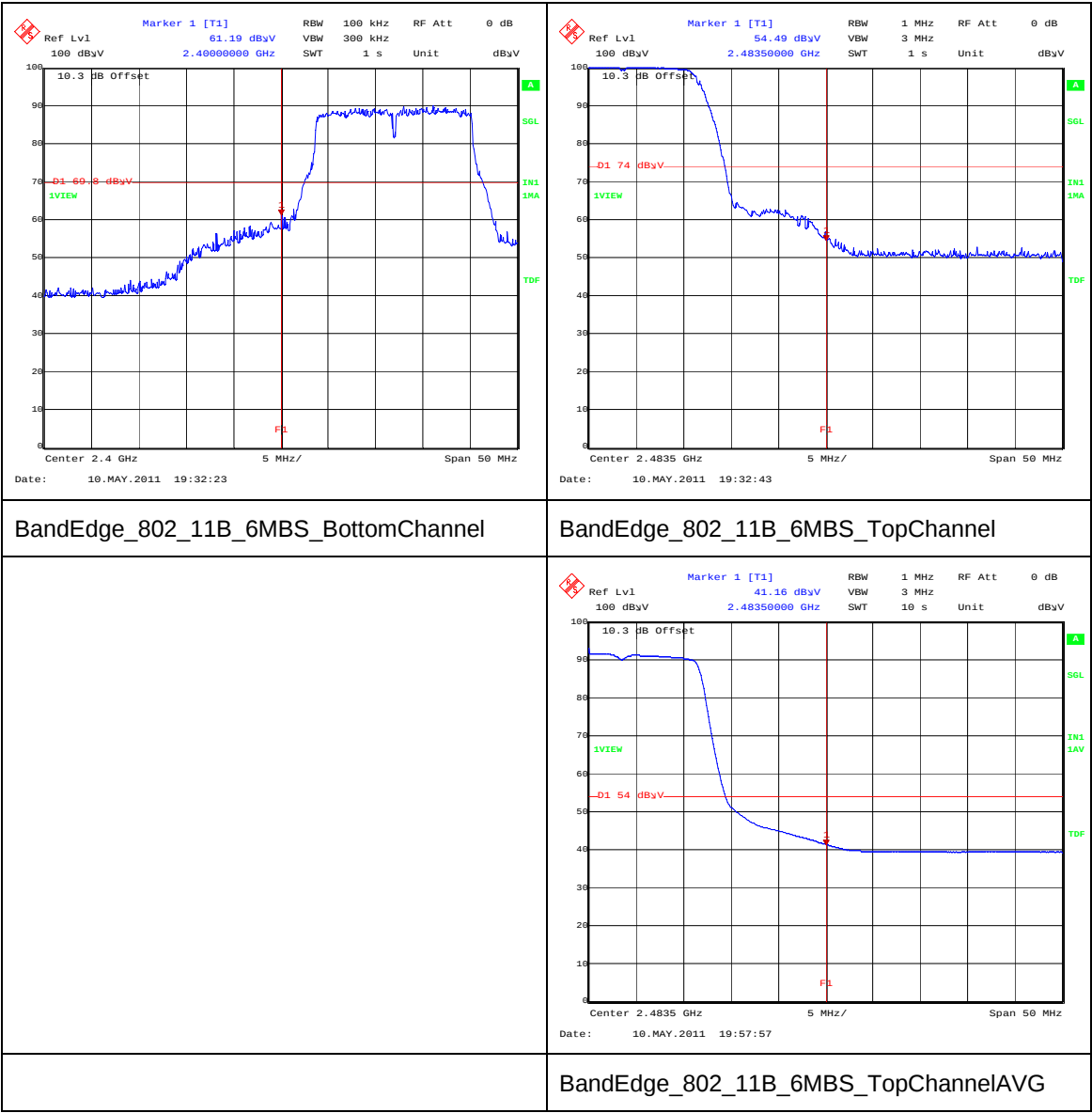
1. The final measured value, for the given emission, in the table above incorporates the calibrated antenna factor and cable loss.
2. * -20 dBc limit.

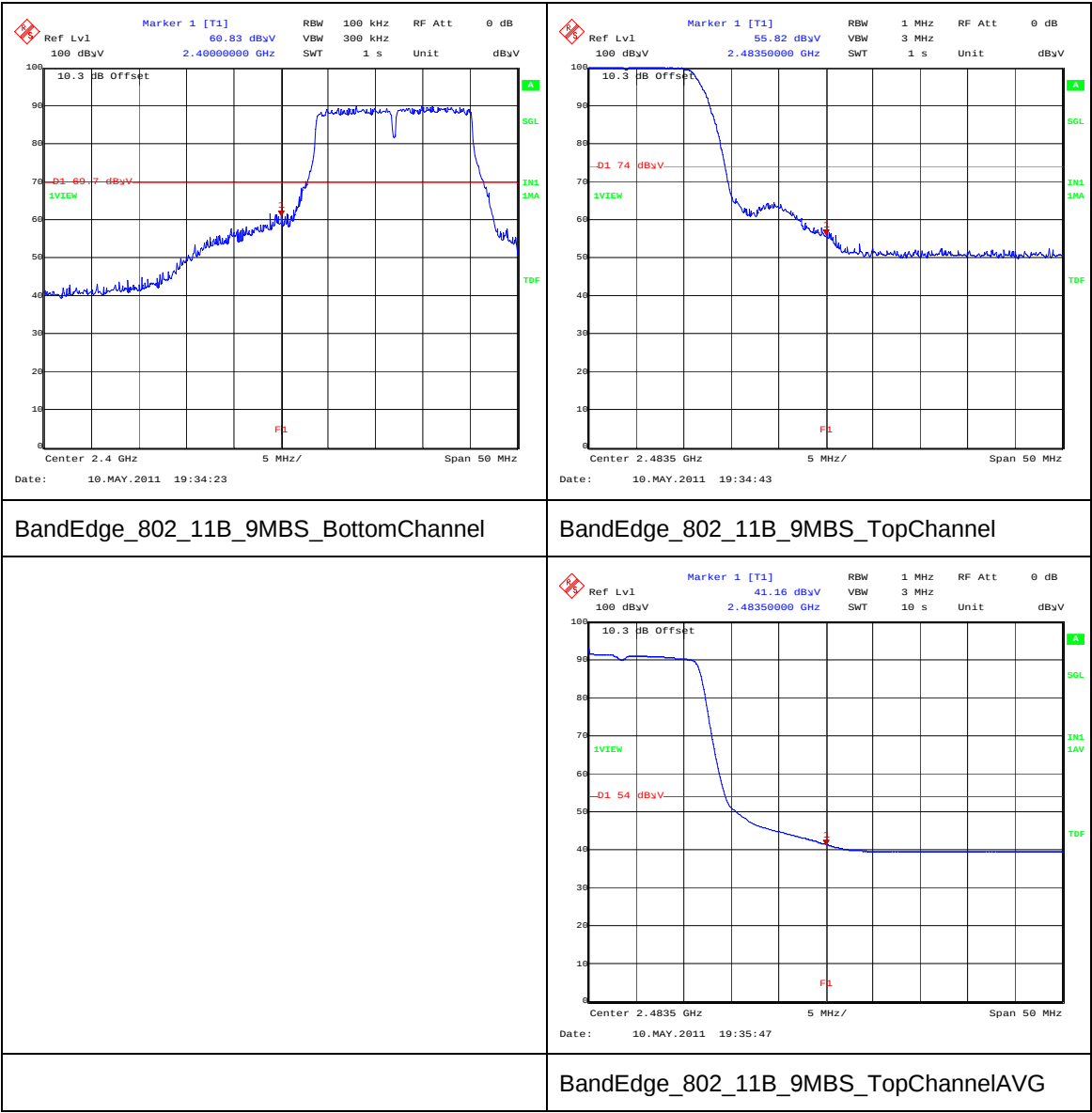
Transmitter Band Edge Radiated Emissions (continued)

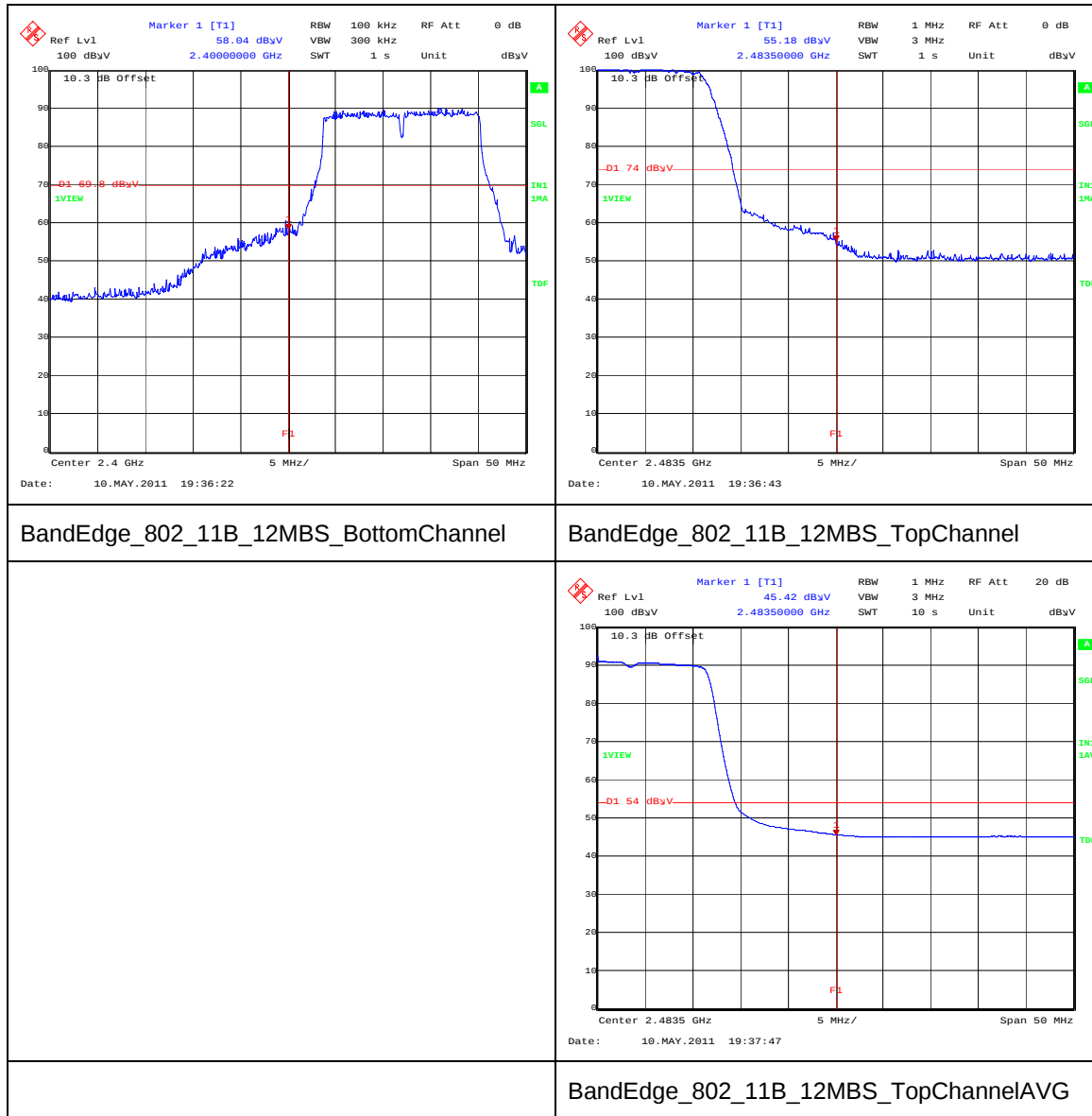


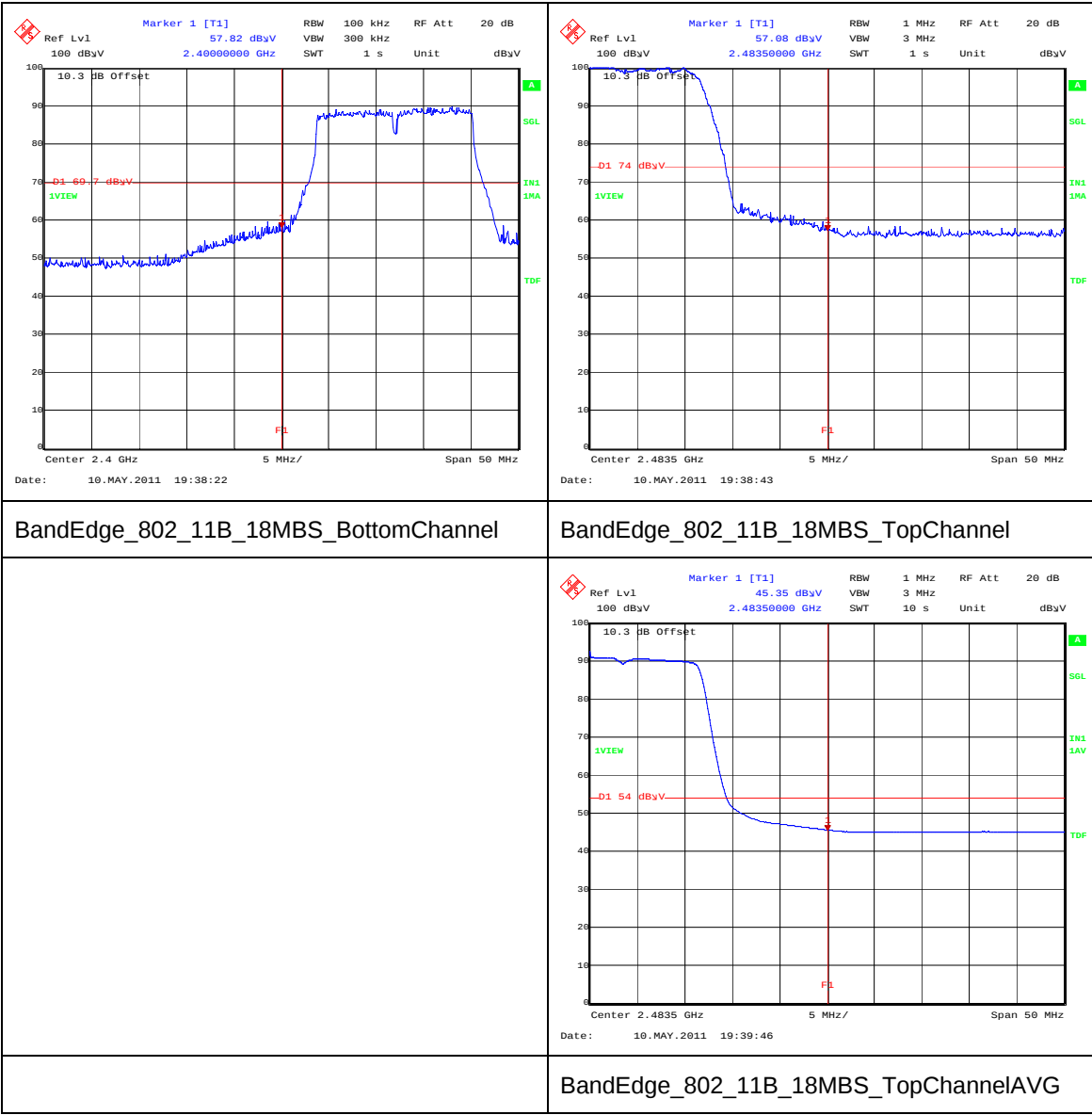


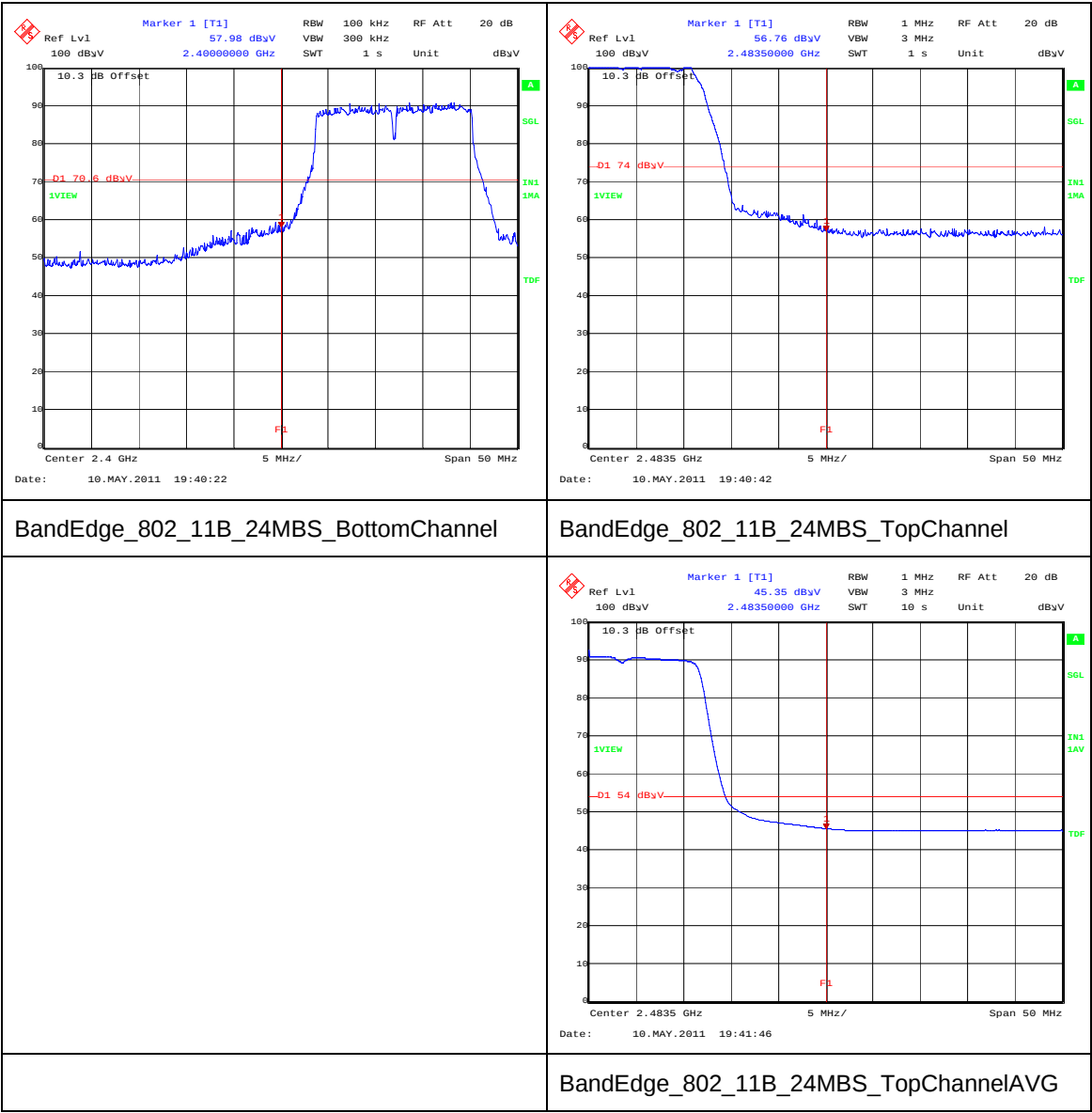


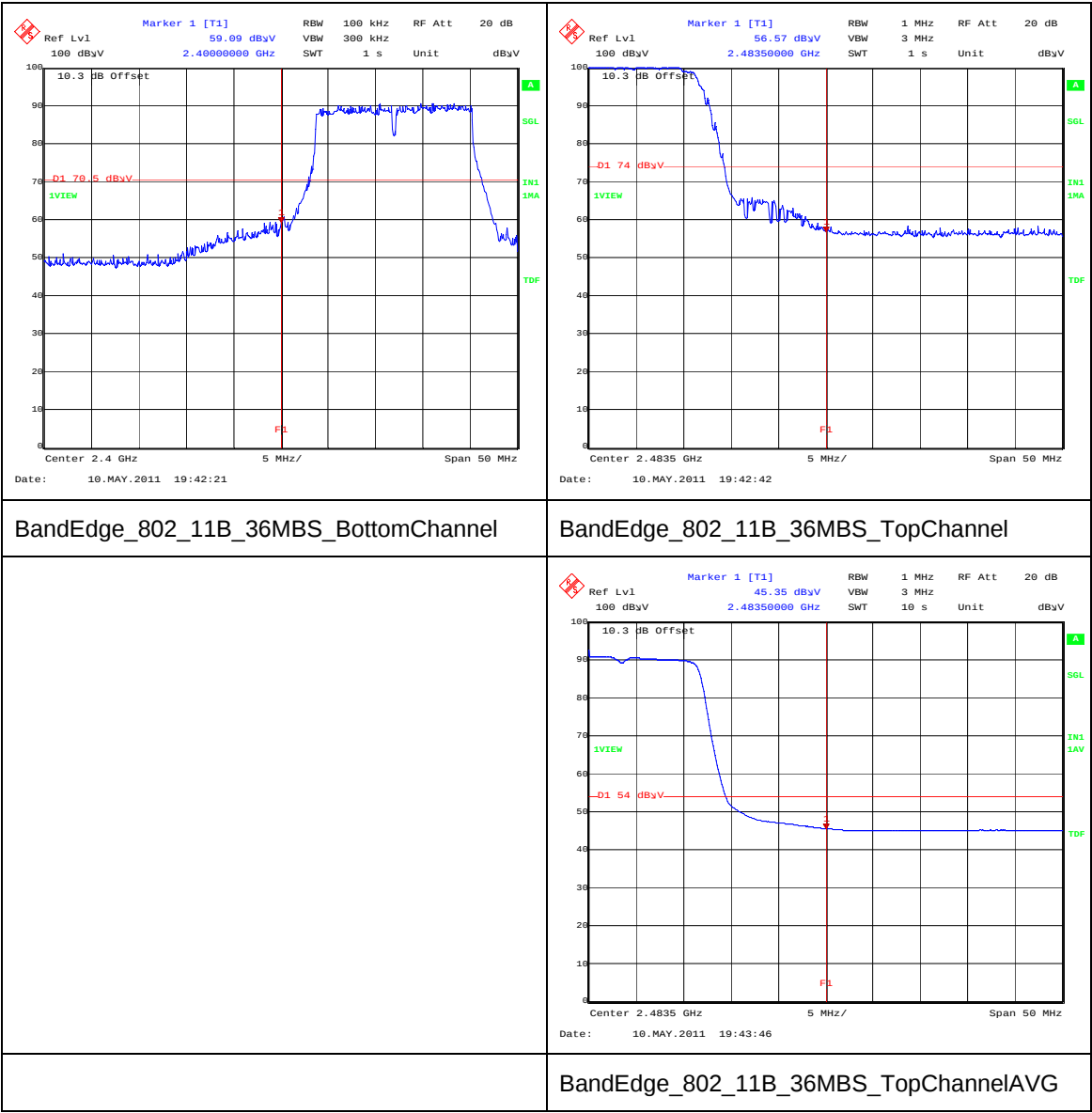


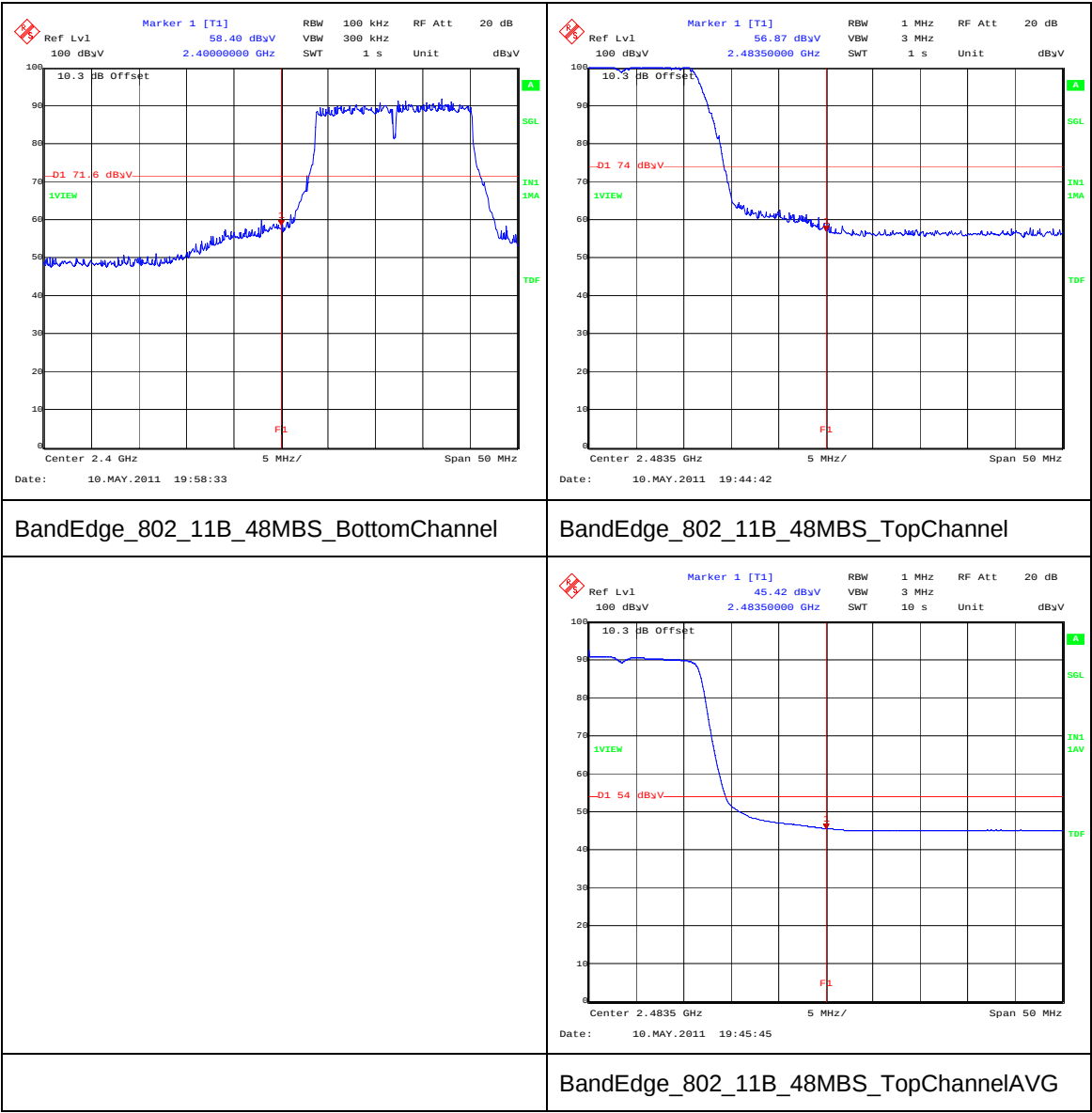


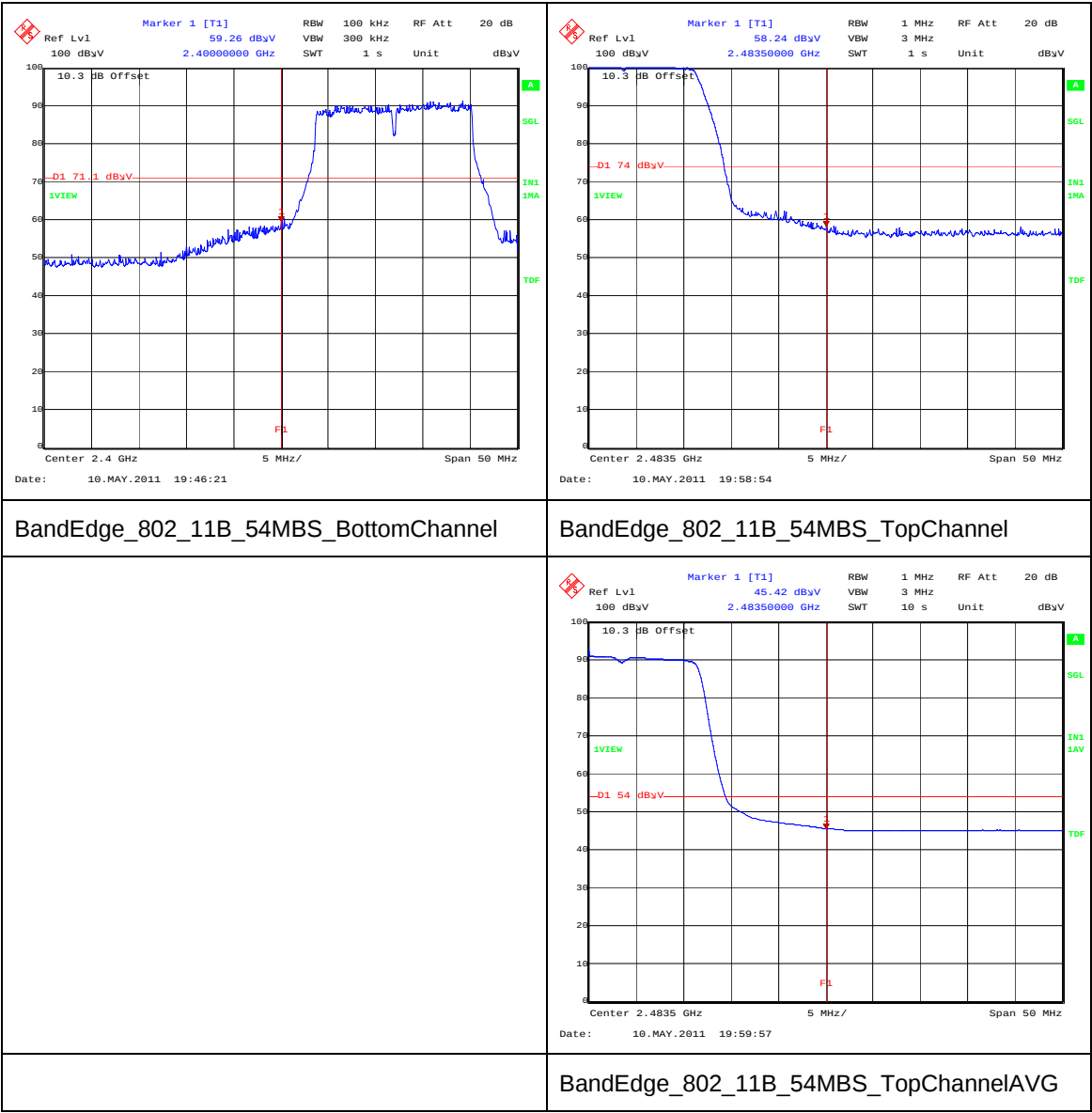


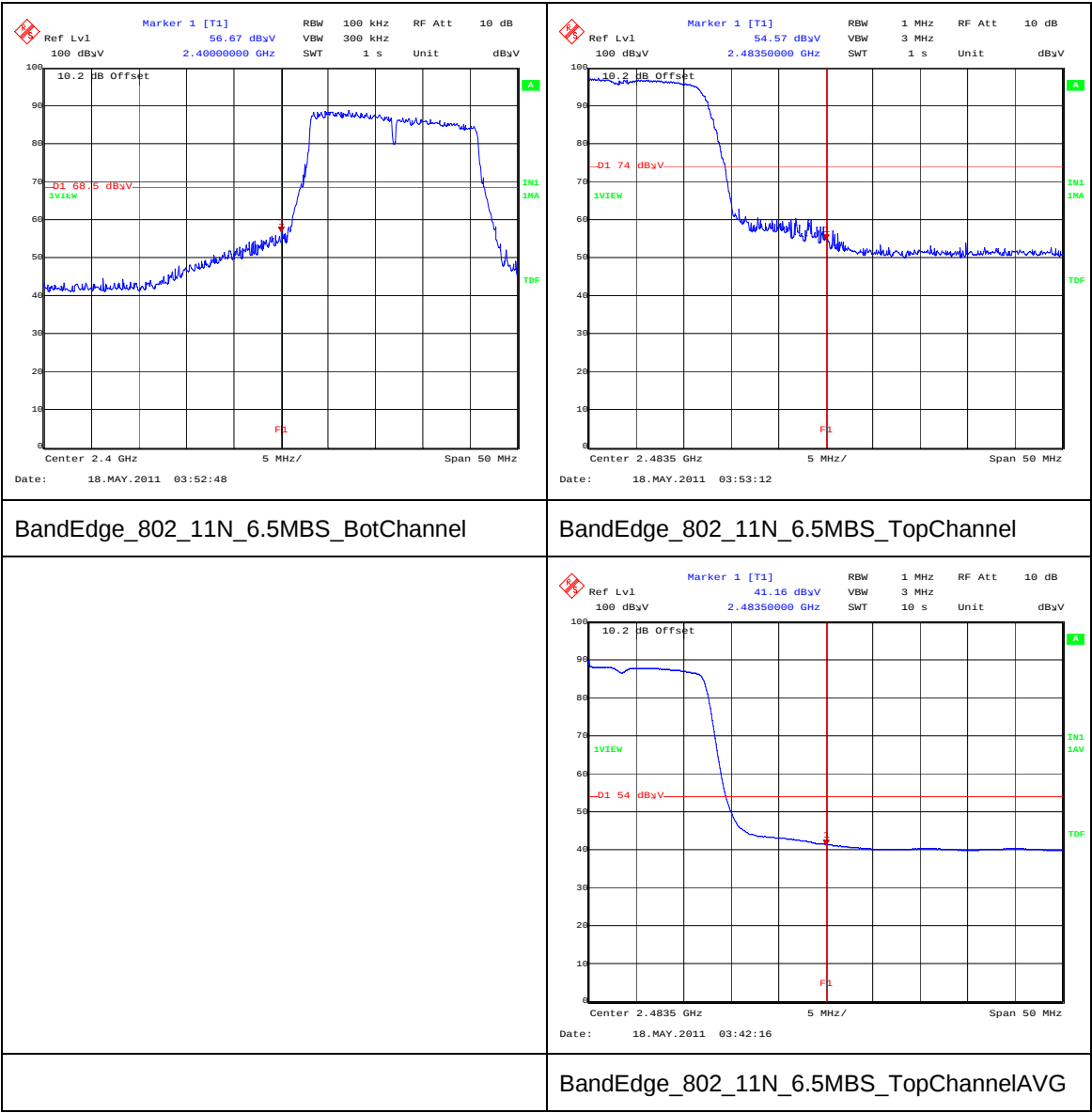


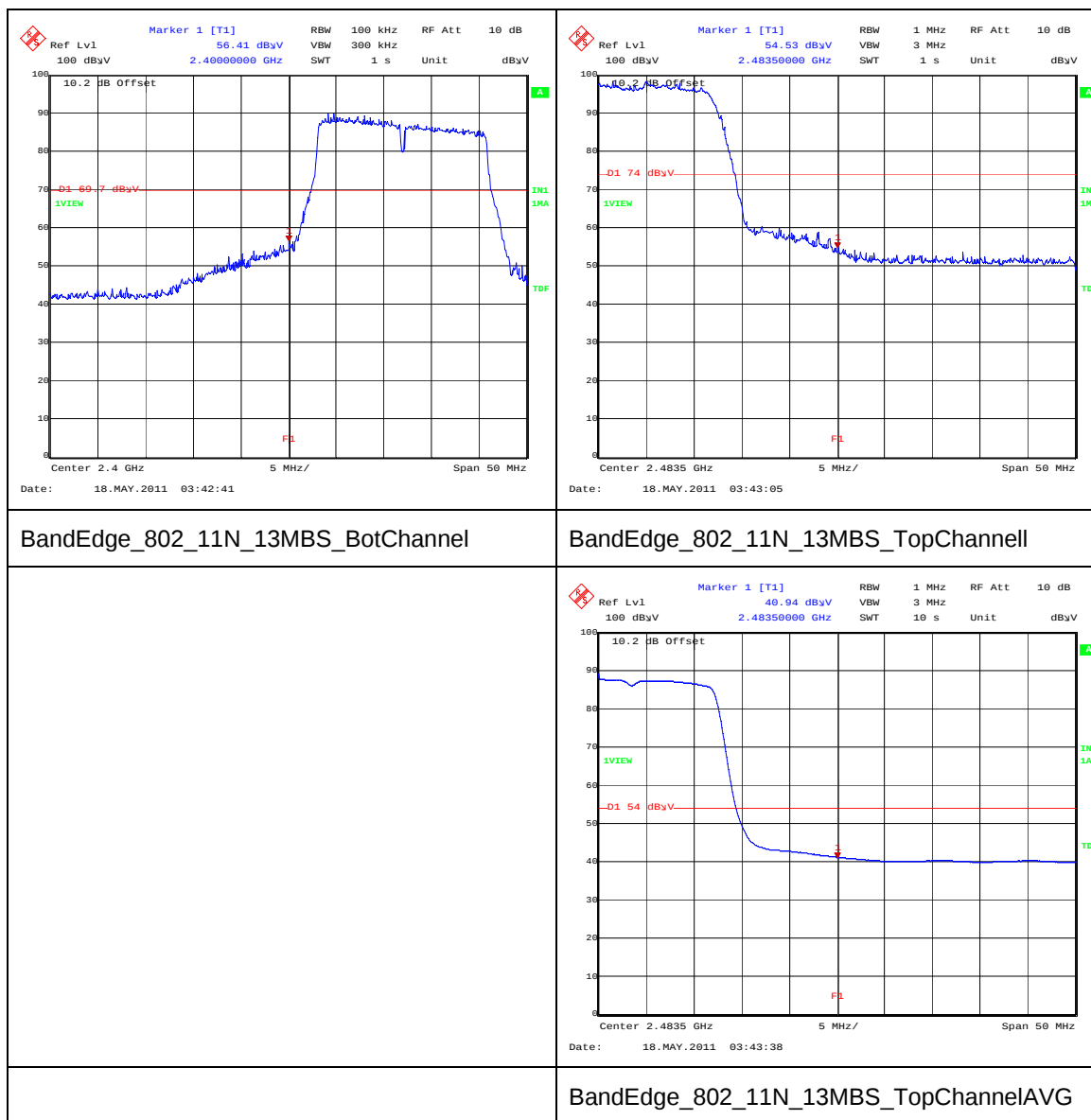


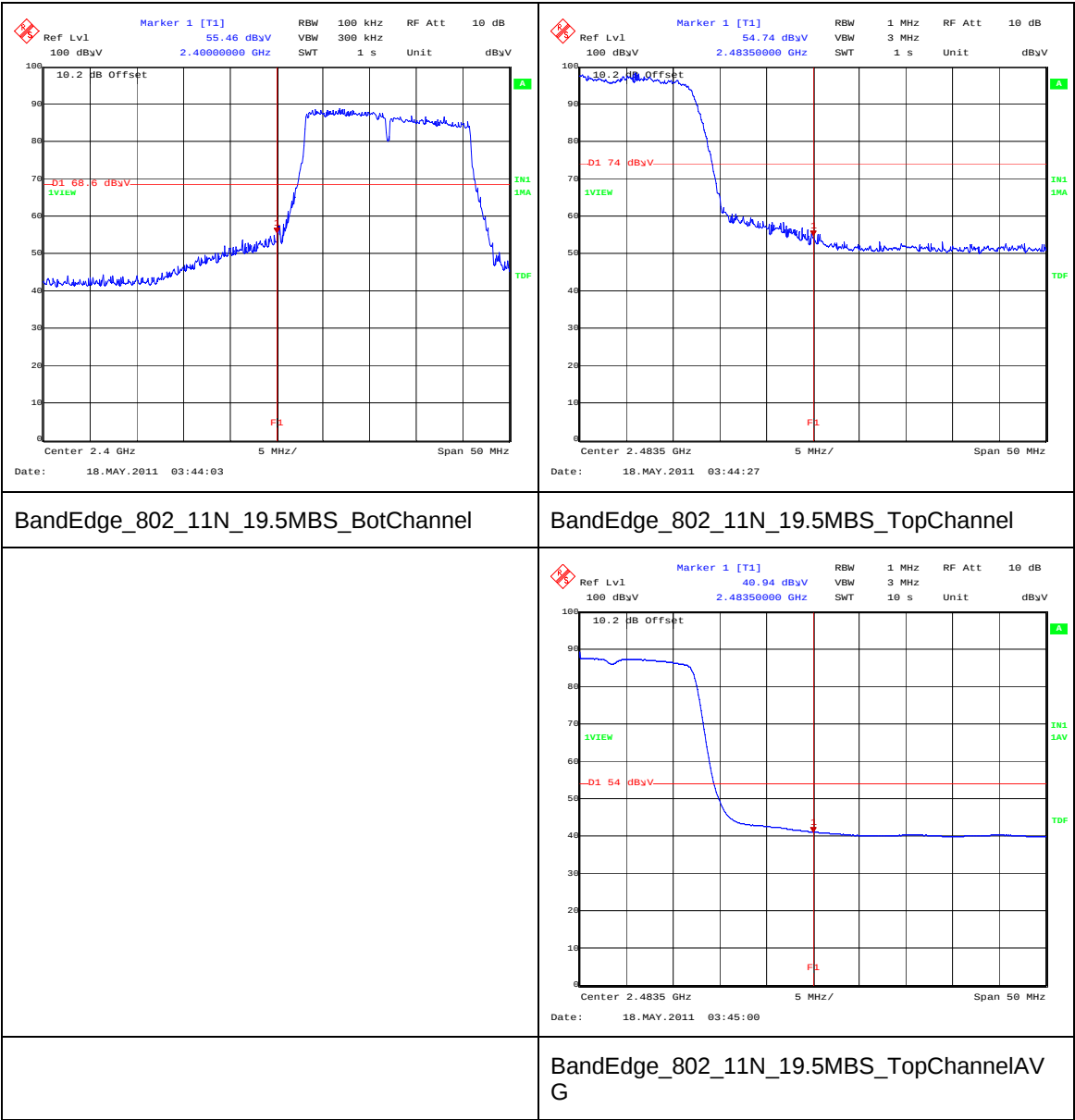


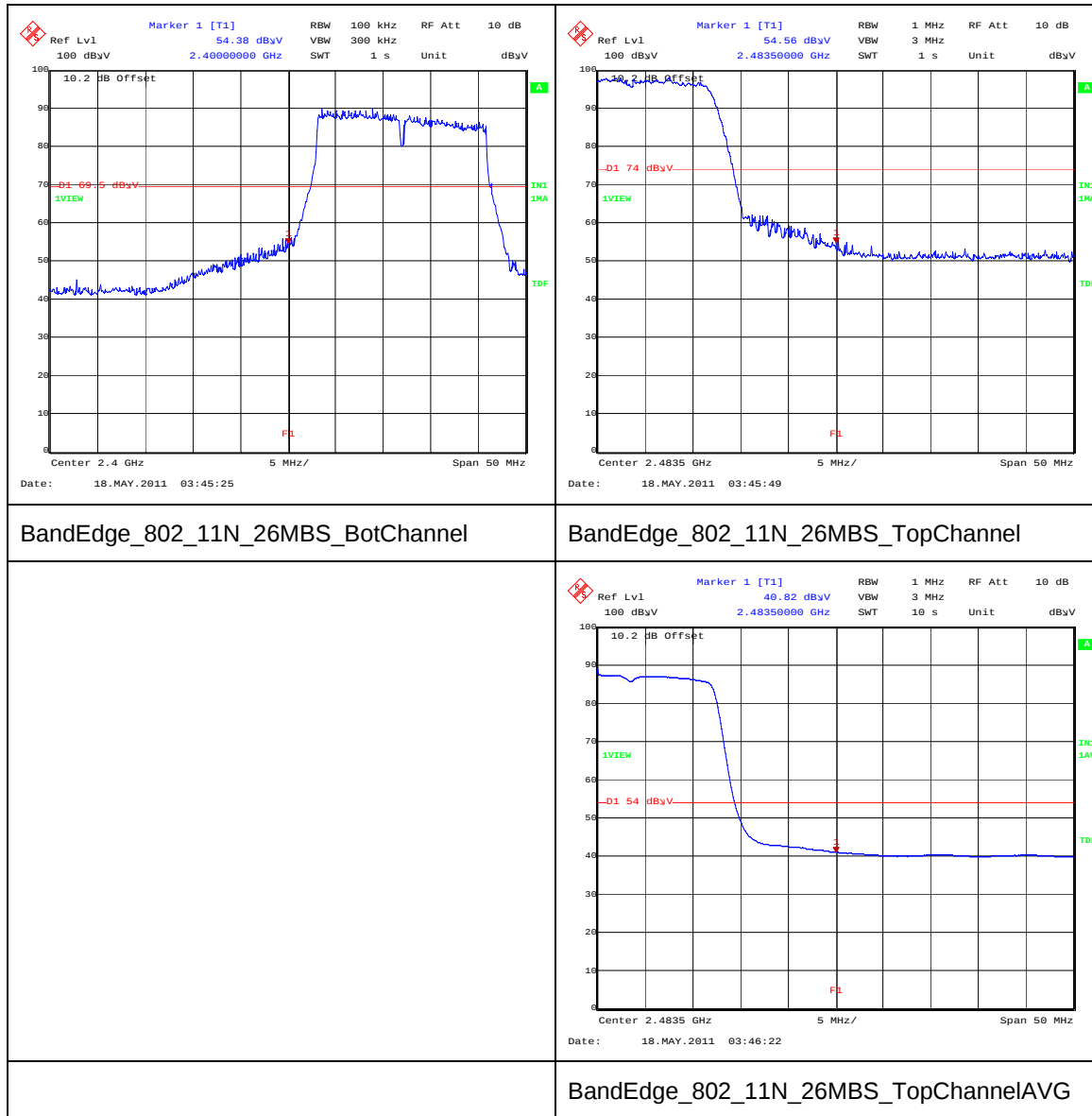


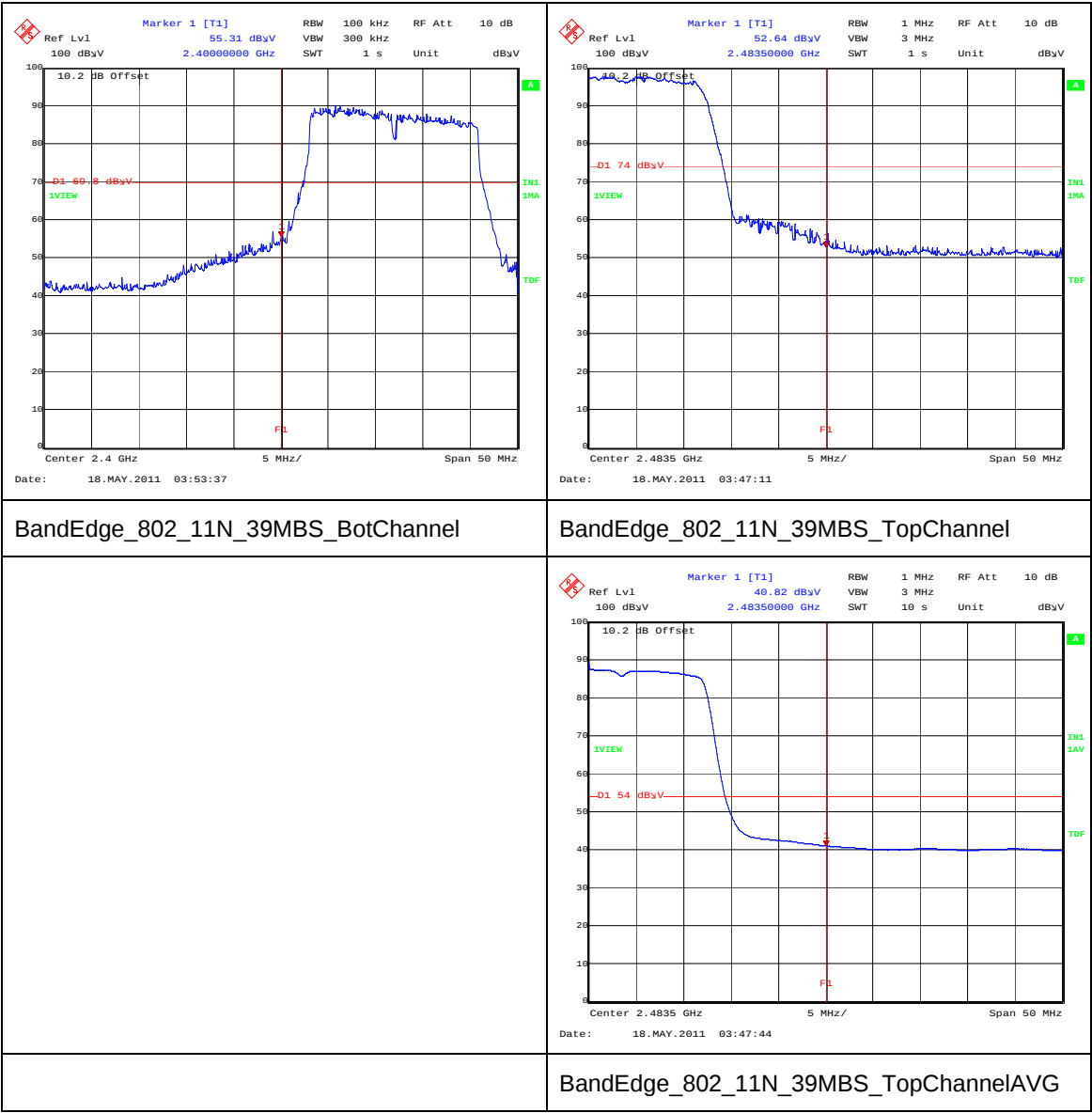


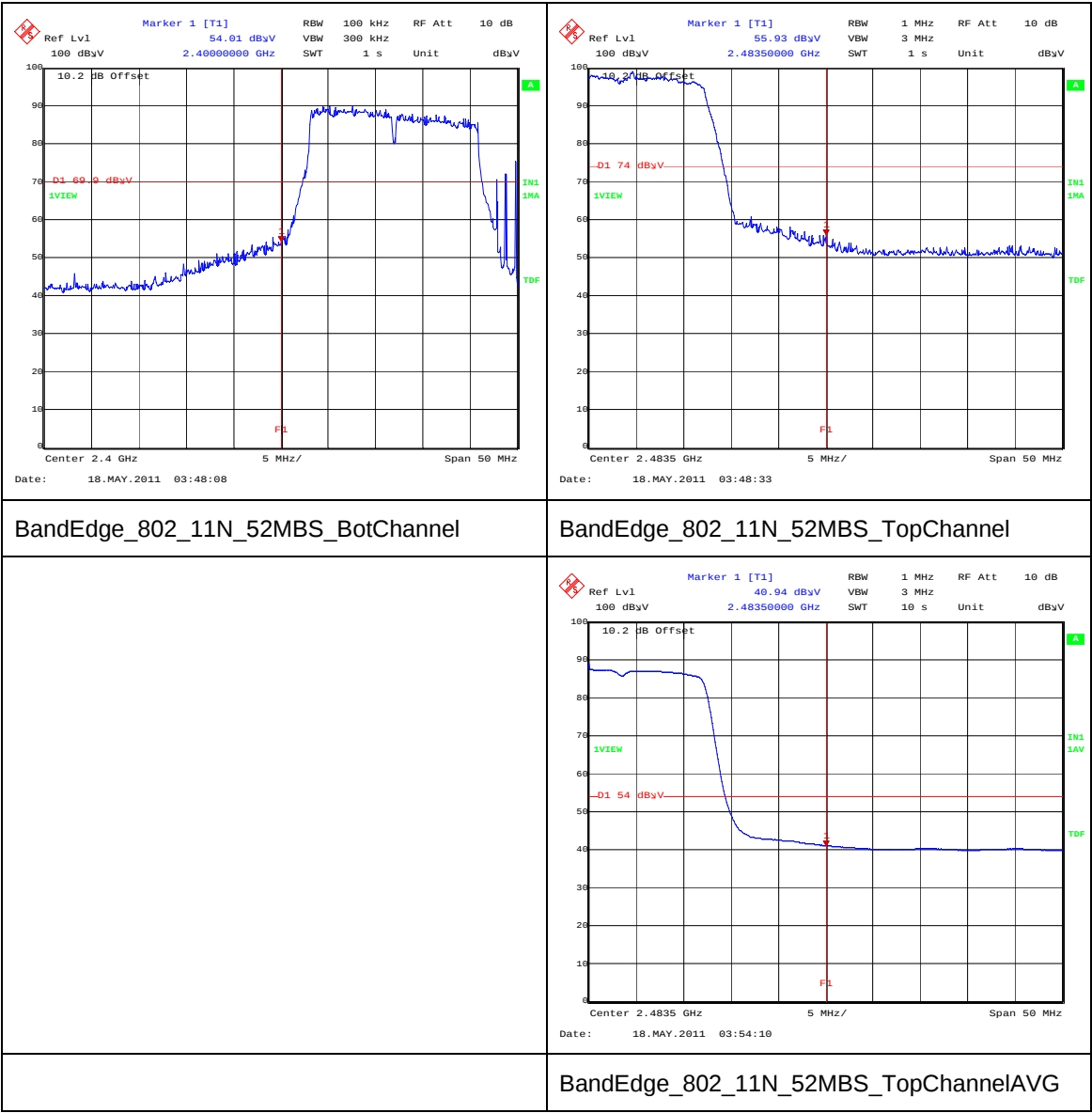


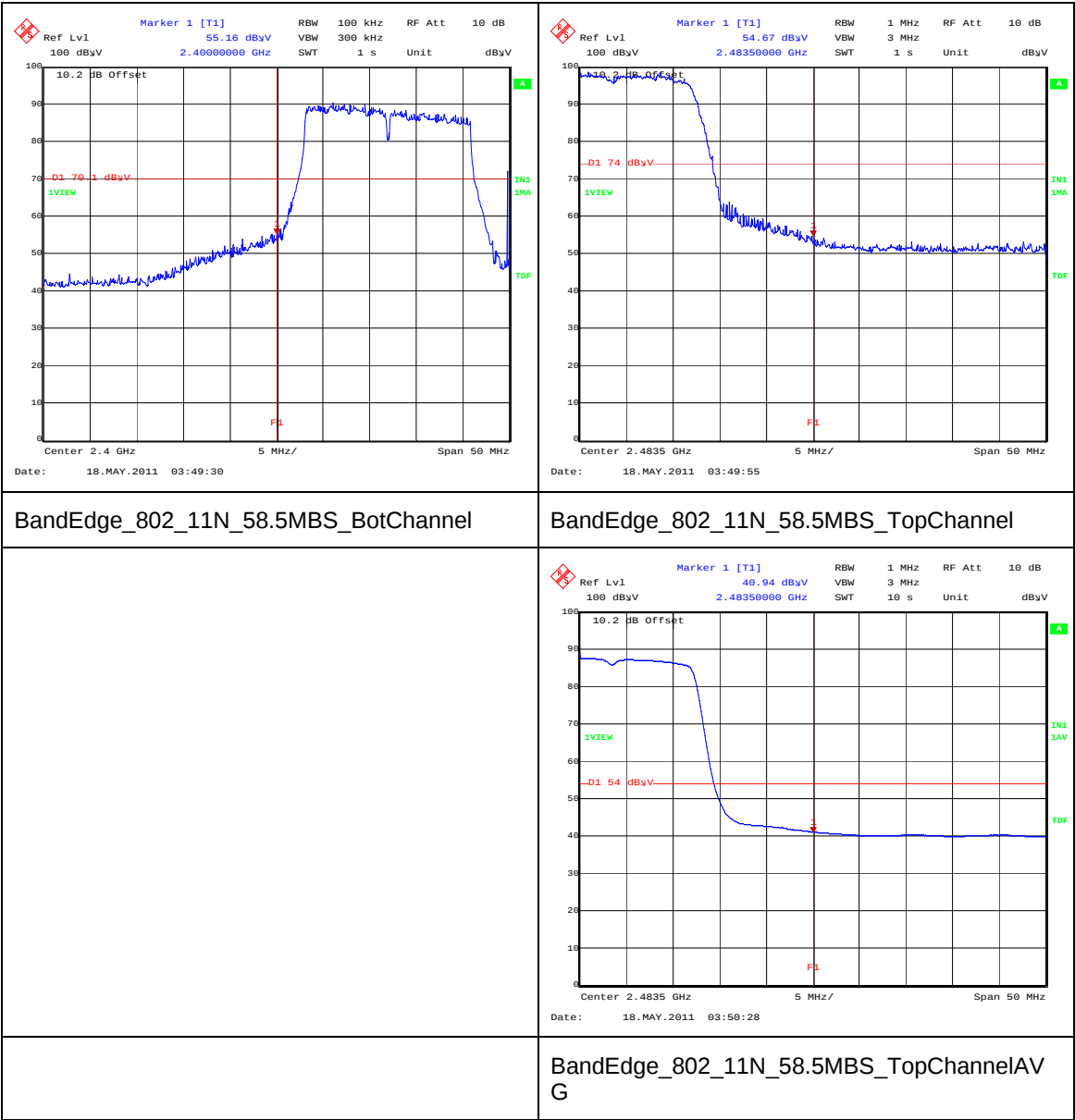


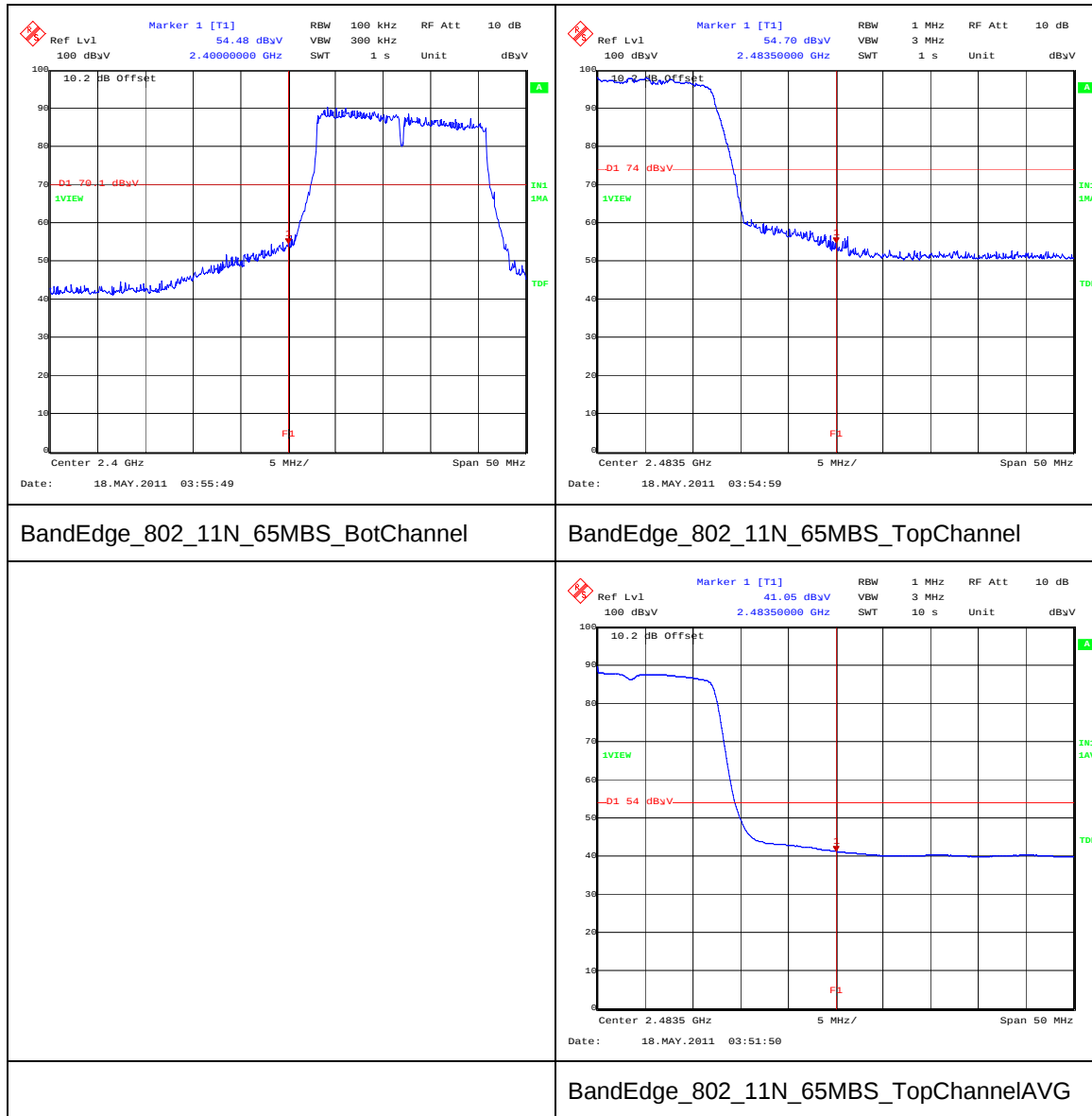












6. Measurement Uncertainty

No measurement or test can ever be perfect and the imperfections give rise to error of measurement in the results. Consequently the result of a measurement is only an approximation to the value of the measurand (the specific quantity subject to measurement) and is only complete when accompanied by a statement of the uncertainty of the approximation.

The expression of uncertainty of a measurement result allows realistic comparison of results with reference values and limits given in specifications and standards.

The uncertainty of the result may need to be taken into account when interpreting the measurement results.

The reported expanded uncertainties below are based on a standard uncertainty multiplied by an appropriate coverage factor such that a confidence level of approximately 95% is maintained. For the purposes of this document "approximately" is interpreted as meaning "effectively" or "for most practical purposes".

Measurement Type	Range	Confidence Level (%)	Calculated Uncertainty
Maximum Peak Output Power	2.4 GHz to 2.4835 GHz	95%	±0.27 dB
Radiated Spurious Emissions	30 MHz to 25 GHz	95%	±4.68 dB

The methods used to calculate the above uncertainties are in line with those recommended within the various measurement specifications. Where measurement specifications do not include guidelines for the evaluation of measurement uncertainty the published guidance of the appropriate accreditation body is followed.

Appendix 1. Test Equipment Used

RFI No.	Instrument	Manufacturer	Type No.	Serial No.	Date Calibration Due	Cal. Interval (Months)
A1534	Pre Amplifier	Hewlett Packard	8449B	3008A00405	06 Jun 2011	12
A1818	Antenna	EMCO	3115	00075692	05 Sep 2011	12
A253	Antenna	Flann Microwave	12240-20	128	05 Sep 2011	12
A254	Antenna	Flann Microwave	14240-20	139	05 Sep 2011	12
A255	Antenna	Flann Microwave	16240-20	519	05 Sep 2011	12
A256	Antenna	Flann Microwave	18240-20	400	05 Sep 2011	12
A288	Antenna	Chase	CBL6111A	1589	05 Sep 2011	12
A436	Antenna	Flann Microwave	20240-20	330	05 Sep 2011	12
K0002	3m RSE Chamber	Rainford EMC	N/A	N/A	05 Sep 2011	12
M127	Spectrum Analyser	Rohde & Schwarz	FSEB 30	842 659/016	15 Sep 2011	12
K0001	5m Semi-Anechoic Chamber	Rainford EMC	N/A	N/A	25 June 2011	12
L1028	Spectrum Analyser	Rohde & Schwarz	FSV 30	100854	28 Feb 2012	12
M1124	Spectrum Analyser	Rohde & Schwarz	ESI26	100046K	22 June 2011	12
L1014	Test Receiver	Rohde & Schwarz	ESIB40	100014	17 Sept 2011	12

NB In accordance with UKAS requirements all the measurement equipment is on a calibration schedule.