

**FCC 15.247 / RSS-GEN**

AeroVironment  
 mDDL  
 Model: 65900  
 Antenna: Twin Patch

Date: 03/05/2013  
 Lab: B  
 Tested By: Kyle Fujimoto

**Low Channel  
 Transmit Mode - X-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2403								N/A
2403								DONE VIA CONDCUTED
4806	42.69	V	74	-31.31	Peak	1.25	155	
4806	34.24	V	54	-19.76	Avg	1.25	155	
7209	51.6	V	74	-22.4	Peak	1.25	155	
7209	41.92	V	54	-12.08	Avg	1.25	155	
9612								No Emission Detected
9612								
12015								No Emission Detected
12015								
14418								No Emission Detected
14418								
16821								No Emission Detected
16821								
19224								No Emission Detected
19224								
21627								No Emission Detected
21627								
24030								No Emission Detected
24030								

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Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2403								N/A
2403								DONE VIA CONDUCUTED
4806	45.26	H	74	-28.74	Peak	1.25	135	
4806	34.28	H	54	-19.72	Avg	1.25	135	
7209	44.1	H	74	-29.9	Peak	1.35	145	
7209	33.44	H	54	-20.56	Avg	1.35	145	
9612								No Emission Detected
9612								
12015								No Emission Detected
12015								
14418								No Emission Detected
14418								
16821								No Emission Detected
16821								
19224								No Emission Detected
19224								
21627								No Emission Detected
21627								
24030								No Emission Detected
24030								

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 Model: 65900  
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 Date: 03/05/2013  
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**Low Channel  
Transmit Mode - Y-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2403								N/A
2403								DONE VIA CONDCUTED
4806	42.69	V	74	-31.31	Peak	2	135	
4806	29.69	V	54	-24.31	Avg	2	135	
7209	52.21	V	74	-21.79	Peak	1.25	155	
7209	41.86	V	54	-12.14	Avg	1.25	155	
9612								No Emission Detected
9612								
12015								No Emission Detected
12015								
14418								No Emission Detected
14418								
16821								No Emission Detected
16821								
19224								No Emission Detected
19224								
21627								No Emission Detected
21627								
24030								No Emission Detected
24030								

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Freq. (MHz)	Level (dBUV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2403								N/A
2403								DONE VIA CONDCUTED
4806	42.6	H	74	-31.4	Peak	1.25	135	
4806	33.33	H	54	-20.67	Avg	1.25	135	
7209	52.9	H	74	-21.1	Peak	1.25	135	
7209	42.21	H	54	-11.79	Avg	1.25	135	
9612								No Emission
9612								Detected
12015								No Emission
12015								Detected
14418								No Emission
14418								Detected
16821								No Emission
16821								Detected
19224								No Emission
19224								Detected
21627								No Emission
21627								Detected
24030								No Emission
24030								Detected

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 Antenna: Twin Patch

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**Low Channel  
Transmit Mode - Z-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2403								N/A
2403								DONE VIA CONDCUTED
4806	42.9	V	74	-31.1	Peak	1.25	165	
4806	33.68	V	54	-20.32	Avg	1.25	165	
7209	51.3	V	74	-22.7	Peak	1.25	175	
7209	42.12	V	54	-11.88	Avg	1.25	175	
9612								No Emission Detected
9612								
12015								No Emission Detected
12015								
14418								No Emission Detected
14418								
16821								No Emission Detected
16821								
19224								No Emission Detected
19224								
21627								No Emission Detected
21627								
24030								No Emission Detected
24030								

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**Low Channel  
 Transmit Mode - Z-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2403								N/A
2403								DONE VIA CONDCUTED
4806	43.01	H	74	-30.99	Peak	1.25	155	
4806	34.59	H	54	-19.41	Avg	1.25	155	
7209	50.5	H	74	-23.5	Peak	1.35	165	
7209	41.96	H	54	-12.04	Avg	1.35	165	
9612								No Emission Detected
9612								Detected
12015								No Emission Detected
12015								Detected
14418								No Emission Detected
14418								Detected
16821								No Emission Detected
16821								Detected
19224								No Emission Detected
19224								Detected
21627								No Emission Detected
21627								Detected
24030								No Emission Detected
24030								Detected

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Date: 03/05/2013  
 Lab: B  
 Tested By: Kyle Fujimoto

**Middle Channel  
 Transmit Mode - X-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2439								N/A
2439								DONE VIA CONDCUTED
4878	44.01	V	74	-29.99	Peak	1.25	135	
4878	44.26	V	54	-9.74	Avg	1.25	135	
7317	51.4	V	74	-22.6	Peak	1.35	155	
7317	41.96	V	54	-12.04	Avg	1.35	155	
9756								No Emission Detected
12195								No Emission Detected
14634								No Emission Detected
17073								No Emission Detected
19512								No Emission Detected
21951								No Emission Detected
24390								No Emission Detected

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 Date: 03/05/2013  
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**Middle Channel  
Transmit Mode - X-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2439								N/A
2439								DONE VIA CONDCUTED
4878	44.21	H	74	-29.79	Peak	1.25	155	
4878	30.56	H	54	-23.44	Avg	1.25	155	
7317	51.4	H	74	-22.6	Peak	1.35	175	
7317	41.92	H	54	-12.08	Avg	1.35	175	
9756								No Emission
9756								Detected
12195								No Emission
12195								Detected
14634								No Emission
14634								Detected
17073								No Emission
17073								Detected
19512								No Emission
19512								Detected
21951								No Emission
21951								Detected
24390								No Emission
24390								Detected



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**Middle Channel  
Transmit Mode - Y-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2439								N/A
2439								DONE VIA CONDCUTED
4878	44.59	V	74	-29.41	Peak	1.25	135	
4878	30.58	V	54	-23.42	Avg	1.25	135	
7317	51.01	V	74	-22.99	Peak	1.35	155	
7317	41.25	V	54	-12.75	Avg	1.35	155	
9756								No Emission Detected
9756								
12195								No Emission Detected
12195								
14634								No Emission Detected
14634								
17073								No Emission Detected
17073								
19512								No Emission Detected
19512								
21951								No Emission Detected
21951								
24390								No Emission Detected
24390								

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**Middle Channel  
 Transmit Mode - Y-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2439								N/A
2439								DONE VIA CONDUCUTED
4878	43.49	H	74	-30.51	Peak	1.25	155	
4878	30.57	H	54	-23.43	Avg	1.25	155	
7317	52.05	H	74	-21.95	Peak	1.35	165	
7317	42.15	H	54	-11.85	Avg	1.35	165	
9756								No Emission Detected
9756								Detected
12195								No Emission Detected
12195								Detected
14634								No Emission Detected
14634								Detected
17073								No Emission Detected
17073								Detected
19512								No Emission Detected
19512								Detected
21951								No Emission Detected
21951								Detected
24390								No Emission Detected
24390								Detected

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**Middle Channel  
 Transmit Mode - Z-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2439								N/A
2439								DONE VIA CONDCUTED
4878	42.21	V	74	-31.79	Peak	1.25	155	
4878	30.68	V	54	-23.32	Avg	1.25	155	
7317	50.95	V	74	-23.05	Peak	1.35	175	
7317	40.68	V	54	-13.32	Avg	1.35	175	
9756								No Emission Detected
9756								Detected
12195								No Emission Detected
12195								Detected
14634								No Emission Detected
14634								Detected
17073								No Emission Detected
17073								Detected
19512								No Emission Detected
19512								Detected
21951								No Emission Detected
21951								Detected
24390								No Emission Detected
24390								Detected

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 Transmit Mode - Z-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2439								N/A
2439								DONE VIA CONDCUTED
4878	41.69	H	74	-32.31	Peak	1.25	165	
4878	29.86	H	54	-24.14	Avg	1.25	165	
7317	51.05	H	74	-22.95	Peak	1.25	175	
7317	41.26	H	54	-12.74	Avg	1.25	175	
9756								No Emission Detected
9756								Detected
12195								No Emission Detected
12195								Detected
14634								No Emission Detected
14634								Detected
17073								No Emission Detected
17073								Detected
19512								No Emission Detected
19512								Detected
21951								No Emission Detected
21951								Detected
24390								No Emission Detected
24390								Detected

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 Lab: B  
 Tested By: Kyle Fujimoto

**High Channel**
**Transmit Mode - X-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2475								N/A
2475								DONE VIA CONDCUTED
4950	48.59	V	74	-25.41	Peak	1.25	135	
4950	41.2	V	54	-12.8	Avg	1.25	135	
7425	50.85	V	74	-23.15	Peak	1.35	145	
7425	42.59	V	54	-11.41	Avg	1.35	145	
9900								No Emission Detected
9900								
12375								No Emission Detected
12375								
14850								No Emission Detected
14850								
17325								No Emission Detected
17325								
19800								No Emission Detected
19800								
22275								No Emission Detected
22275								
24750								No Emission Detected
24750								

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**High Channel  
 Transmit Mode - X-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2475								N/A
2475								DONE VIA CONDCUTED
4950	42.15	H	74	-31.85	Peak	1.25	155	
4950	33.69	H	54	-20.31	Avg	1.25	155	
7425	50.62	H	74	-23.38	Peak	1.35	165	
7425	41.54	H	54	-12.46	Avg	1.35	165	
9900								No Emission Detected
9900								
12375								No Emission Detected
12375								
14850								No Emission Detected
14850								
17325								No Emission Detected
17325								
19800								No Emission Detected
19800								
22275								No Emission Detected
22275								
24750								No Emission Detected
24750								

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**High Channel  
Transmit Mode - Y-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2475								N/A
2475								DONE VIA CONDCUTED
4950	42.59	V	74	-31.41	Peak	1.25	155	
4950	33.41	V	54	-20.59	Avg	1.25	155	
7425	51.26	V	74	-22.74	Peak	1.35	165	
7425	42.29	V	54	-11.71	Avg	1.35	165	
9900								No Emission Detected
9900								Detected
12375								No Emission Detected
12375								Detected
14850								No Emission Detected
14850								Detected
17325								No Emission Detected
17325								Detected
19800								No Emission Detected
19800								Detected
22275								No Emission Detected
22275								Detected
24750								No Emission Detected
24750								Detected

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Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2475								N/A
2475								DONE VIA CONDCUTED
4950	43.68	H	74	-30.32	Peak	1.25	225	
4950	32.59	H	54	-21.41	Avg	1.25	225	
7425	45.29	H	74	-28.71	Peak	1.35	180	
7425	33.89	H	54	-20.11	Avg	1.35	180	
9900								No Emission Detected
9900								
12375								No Emission Detected
12375								
14850								No Emission Detected
14850								
17325								No Emission Detected
17325								
19800								No Emission Detected
19800								
22275								No Emission Detected
22275								
24750								No Emission Detected
24750								



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**High Channel  
 Transmit Mode - Z-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2475								N/A
2475								DONE VIA CONDCUTED
4950	44.58	V	74	-29.42	Peak	1.25	155	
4950	30.67	V	54	-23.33	Avg	1.25	155	
7425	43.97	V	74	-30.03	Peak	1.35	165	
7425	33.88	V	54	-20.12	Avg	1.35	165	
9900								No Emission
9900								Detected
12375								No Emission
12375								Detected
14850								No Emission
14850								Detected
17325								No Emission
17325								Detected
19800								No Emission
19800								Detected
22275								No Emission
22275								Detected
24750								No Emission
24750								Detected

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Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2475								N/A
2475								DONE VIA CONDCUTED
4950	44.26	H	74	-29.74	Peak	1.25	165	
4950	30.58	H	54	-23.42	Avg	1.25	165	
7425	50.26	H	74	-23.74	Peak	1.35	175	
7425	42.25	H	54	-11.75	Avg	1.35	175	
9900								No Emission Detected
9900								
12375								No Emission Detected
12375								
14850								No Emission Detected
14850								
17325								No Emission Detected
17325								
19800								No Emission Detected
19800								
22275								No Emission Detected
22275								
24750								No Emission Detected
24750								

**Test Location** : Compatible Electronics **Page:** 1/1  
**Customer** : Aerovionrment **Date:** 02 / 14 / 2013  
**Manufacturer** : Aerovironment **Time:** 10:07:43 AM  
**Eut name** : mDDL **Lab:** D  
**Model** : 65900 **Test Distance** : 3.00  
**Serial #** :  
**Specification** : RSS-210/RSS-GEN  
**Distance correction factor (20 \* log(test/spec))** : 0.00  
**Test Mode** : Spurious Emissions: 10 kHz to 1 GHz  
 Twin Patch Antenna  
 Qualification Data  
 Test Engineer: Kyle Fujimoto

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	Limit = L dBuV/m	Delta R-L dB
1V	37.480	36.60	0.50	11.55	38.23	10.42	40.00	-29.58
2H	37.840	51.10	0.50	11.60	38.22	24.98	40.00	-15.02
3H	49.000	46.70	0.77	11.26	38.47	20.26	40.00	-19.74
4V	49.000	51.40	0.77	11.26	38.47	24.96	40.00	-15.04
5H	82.880	48.40	0.83	6.33	38.43	17.13	40.00	-22.87
6V	82.880	51.20	0.83	6.33	38.43	19.93	40.00	-20.07
7H	85.780	50.50	0.86	6.97	38.46	19.87	40.00	-20.13
8H	120.051	49.90	1.08	13.20	38.56	25.62	43.50	-17.88
9V	120.051	51.30	1.08	13.20	38.56	27.02	43.50	-16.48
10H	139.680	53.10	1.22	11.64	38.48	27.47	43.50	-16.03
11H	160.248	56.70	1.34	12.73	38.44	32.33	43.50	-11.17
12H	200.038	62.20	1.40	15.80	38.50	40.90	43.50	-2.60
13V	200.038	58.20	1.40	15.80	38.50	36.90	43.50	-6.60
14H	200.039Qp	59.10	1.40	15.80	38.50	37.80	43.50	-5.70
15H	240.075	62.10	1.62	15.00	38.15	40.57	46.00	-5.43
16H	280.075	59.30	1.82	17.81	38.15	40.78	46.00	-5.22
17V	280.075	44.70	1.82	17.81	38.15	26.18	46.00	-19.82
18V	320.000	42.80	1.98	13.08	38.20	19.66	46.00	-26.34
19H	320.000	50.00	1.98	13.08	38.20	26.86	46.00	-19.14
20V	360.020	43.90	2.14	13.46	38.23	21.27	46.00	-24.73
21H	360.080	50.50	2.14	13.46	38.23	27.87	46.00	-18.13
22V	400.000	43.50	2.30	14.50	38.26	22.04	46.00	-23.96
23H	400.080	51.00	2.30	14.50	38.26	29.54	46.00	-16.46
24V	440.000	45.60	2.30	15.22	37.68	25.44	46.00	-20.56
25H	440.000	49.80	2.30	15.22	37.68	29.64	46.00	-16.36
26V	480.020	46.20	2.60	15.64	37.96	26.48	46.00	-19.52
27V	504.048	61.10	2.80	15.86	38.26	41.50	46.00	-4.50
28H	504.500	51.40	2.80	15.87	38.27	31.81	46.00	-14.19
29V	640.000	44.80	3.26	19.06	38.67	28.45	46.00	-17.55
30H	640.000	50.40	3.26	19.06	38.67	34.05	46.00	-11.95

**Test Location** : Compatible Electronics **Page:** 1/2  
**Customer** : Aerovionrment **Date:** 02 / 14 / 2013  
**Manufacturer** : Aerovionrment **Time:** 11:14:48 AM  
**Eut name** : mDDL **Lab:** D  
**Model** : 65900 **Test Distance** : 3.00  
**Serial #** :  
**Specification** : RSS-GEN/RSS-210  
**Distance correction factor (20 \* log(test/spec))** : 0.00  
**Test Mode** : Spurious Emissions: 10 kHz to 1 GHz  
 Monopole Antenna  
 Qualification Data  
 Test Engineer: Kyle Fujimoto

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	Limit = L dBuV/m	Delta R-L dB
1H	37.606	53.10	0.50	11.56	38.22	26.94	40.00	-13.06
2V	37.618	58.80	0.50	11.57	38.22	32.64	40.00	-7.36
3V	40.008	56.40	0.50	11.90	38.20	30.60	40.00	-9.40
4H	40.039	49.90	0.50	11.89	38.20	24.09	40.00	-15.91
5H	49.126	51.30	0.77	11.28	38.47	24.88	40.00	-15.12
6V	49.134	57.10	0.77	11.28	38.47	30.68	40.00	-9.32
7H	83.160	52.40	0.83	6.40	38.43	21.20	40.00	-18.80
8V	83.168	58.60	0.83	6.40	38.43	27.40	40.00	-12.60
9H	119.843	56.80	1.08	13.18	38.56	32.50	43.50	-11.00
10V	119.851	58.20	1.08	13.18	38.56	33.90	43.50	-9.60
11H	120.051	54.00	1.08	13.20	38.56	29.72	43.50	-13.78
12H	139.680	52.80	1.22	11.64	38.48	27.17	43.50	-16.33
13H	160.000	56.30	1.34	12.70	38.44	31.90	43.50	-11.60
14V	200.008	56.90	1.40	15.80	38.50	35.60	43.50	-7.90
15H	200.039	57.10	1.40	15.80	38.50	35.80	43.50	-7.70
16H	200.039	57.10	1.40	15.80	38.50	35.80	43.50	-7.70
17H	240.039	58.20	1.62	15.00	38.15	36.67	46.00	-9.33
18V	240.047	55.10	1.62	15.00	38.15	33.57	46.00	-12.43
19H	280.324	60.40	1.82	17.83	38.15	41.91	46.00	-4.09
20V	280.332	58.40	1.82	17.83	38.15	39.91	46.00	-6.09
21H	320.043	62.40	1.98	13.08	38.20	39.26	46.00	-6.74
22V	320.048	53.90	1.98	13.08	38.20	30.76	46.00	-15.24
23H	360.043	56.00	2.14	13.46	38.23	33.37	46.00	-12.63
24V	360.048	61.10	2.14	13.46	38.23	38.47	46.00	-7.53
25H	400.043	59.10	2.30	14.50	38.26	37.64	46.00	-8.36
26V	400.048	55.70	2.30	14.50	38.26	34.24	46.00	-11.76
27V	440.048	57.40	2.30	15.22	37.68	37.25	46.00	-8.75
28H	440.075	62.60	2.30	15.22	37.67	42.45	46.00	-3.55
29V	480.048	60.90	2.60	15.64	37.96	41.18	46.00	-4.82
30H	480.075	60.90	2.60	15.64	37.96	41.18	46.00	-4.82
31V	504.048	67.20	2.80	15.86	38.26	47.60	46.00	1.60
32V	504.049Qp	61.68	2.80	15.86	38.26	42.08	46.00	-3.92
33V	518.897	52.50	2.80	16.10	38.35	33.05	46.00	-12.95
34V	520.050	60.90	2.80	16.12	38.36	41.46	46.00	-4.54
35H	520.075	56.30	2.80	16.12	38.36	36.86	46.00	-9.14

<b>Test Location</b>	: Compatible Electronics	<b>Page</b>	: 2/2
<b>Customer</b>	: Aerovionrment	<b>Date</b>	: 02 / 14 / 2013
<b>Manufacturer</b>	: Aerovironment	<b>Time</b>	: 11:14:48 AM
<b>Eut name</b>	: mDDL	<b>Lab</b>	: D
<b>Model</b>	: 65900	<b>Test Distance</b>	: 3.00
<b>Serial #</b>	:		
<b>Specification</b>	: RSS-GEN/RSS-210		
<b>Distance correction factor (20 * log(test/spec))</b>			: 0.00
<b>Test Mode</b>	: Spurious Emissions: 10 kHz to 1 GHz Monopole Antenna Qualification Data Test Engineer: Kyle Fujimoto		

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	Limit = L dBuV/m	Delta R-L dB
36V	528.050	49.90	2.80	16.25	38.40	30.55	46.00	-15.45
37V	560.043	50.40	2.86	17.06	38.56	31.76	46.00	-14.24
38V	640.043	50.90	3.26	19.06	38.67	34.55	46.00	-11.45
39V	720.043	52.20	3.54	20.50	38.50	37.74	46.00	-8.26
40V	760.043	53.70	3.62	20.84	38.34	39.82	46.00	-6.18
41V	800.043	52.80	3.70	21.00	38.23	39.27	46.00	-6.73
42V	840.043	47.80	3.86	22.84	37.79	36.71	46.00	-9.29
43V	960.043	40.90	4.14	24.22	36.68	32.58	54.00	-21.42



**FCC Class B / FCC 15.247 / RSS-GEN**

 AeroVironment  
 mDDL  
 Model: 65900  
 Antenna: Twin Patch

 Date: 03/05/2013  
 Lab: B  
 Tested By: Kyle Fujmoto

**Non Harmonic Emissions from the Tx and Digital Portion - 1 GHz to 25000 MHz  
 Reciever Portion - 1 GHz to 25000 MHz**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								No Emissions Found for the Digital Portion from 1 GHz to 25000 MHz for both Vertical and Horizontal Polarizations
								No Non Harmonic Emissions Found for the Tx Mode from 1 GHz to 25000 MHz for both Vertical and Horizontal Polarizations
								No Emissions Found for the Receiver Portion from 1 GHz to 25000 MHz for both Vertical and Horizontal Polarizations
								Tested in the X-Axis, Y-Axis, and Z-Axis

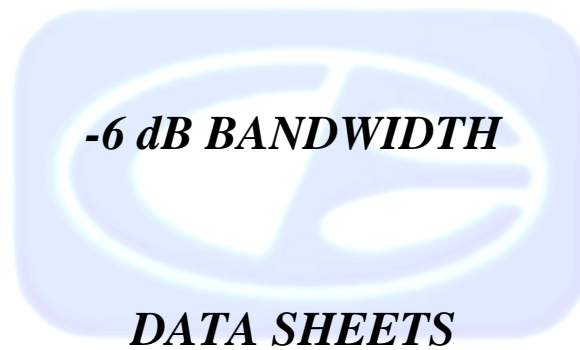
**FCC Class B / FCC 15.247 / RSS-GEN**

AeroVironment  
 mDDL  
 Model: 65900  
 Antenna: Monopole


Date: 03/05/2013  
 Lab: B  
 Tested By: Kyle Fujimoto

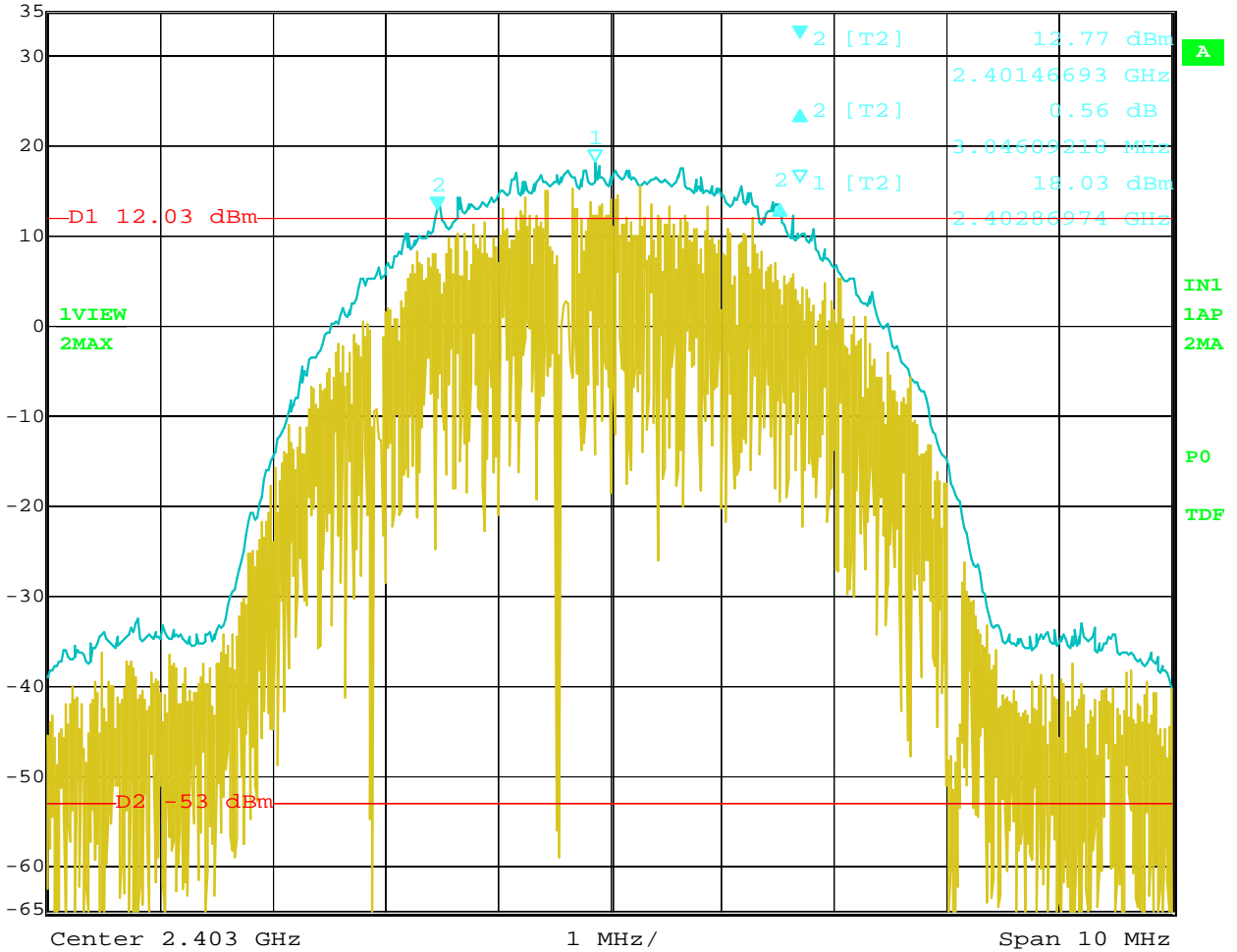
**Non Harmonic Emissions from the Tx and Digital Portion - 1 GHz to 25000 MHz  
 Reciever Portion - 1 GHz to 25000 MHz**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								No Emissions Found for the Digital Portion from 1 GHz to 25000 MHz for both Vertical and Horizontal Polarizations
								No Non Harmonic Emissions Found for the Tx Mode from 1 GHz to 25000 MHz for both Vertical and Horizontal Polarizations
								No Emissions Found for the Receiver Portion from 1 GHz to 25000 MHz for both Vertical and Horizontal Polarizations
								Tested in the X-Axis, Y-Axis, and Z-Axis






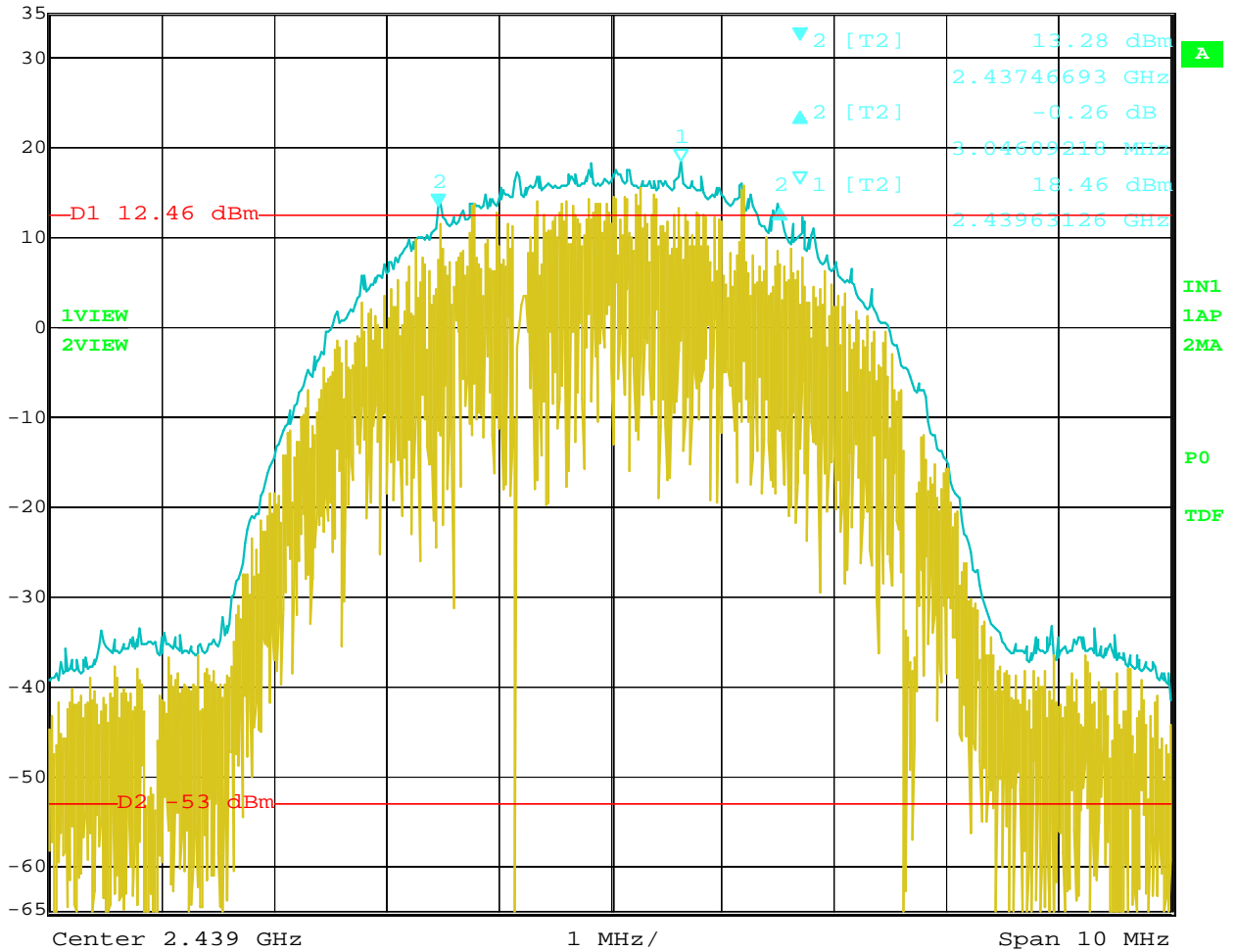
	Max/Ref Lvl	Delta 2 [T2]	RBW	100 kHz	RF Att	40 dB
	35 dBm	0.56 dB	VBW	300 kHz		
	25 dBm	3.04609218 MHz	SWT	5 ms	Unit	dBm



Date: 4.MAR.2013 10:10:08


Bandwidth 6 dB - Low Channel

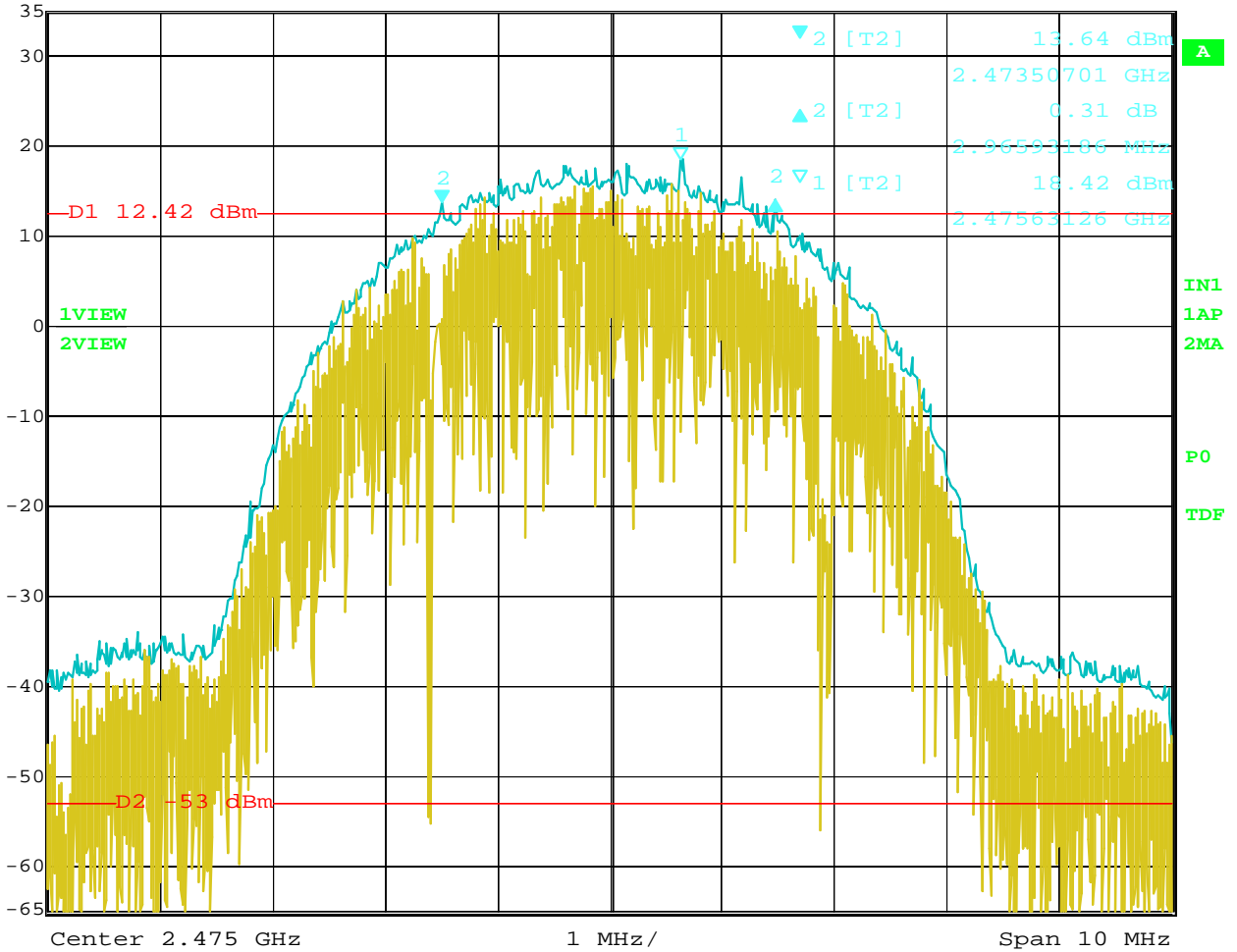
	Max/Ref Lvl	Delta 2 [T2]	RBW	100 kHz	RF Att	40 dB
	35 dBm	-0.26 dB	VBW	300 kHz		
	25 dBm	3.04609218 MHz	SWT	5 ms	Unit	dBm



Date: 4.MAR.2013 10:11:37

Bandwidth 6 dB - Middle Channel

	Max/Ref Lvl	Delta 2 [T2]	RBW	100 kHz	RF Att	40 dB
	35 dBm	0.31 dB	VBW	300 kHz		
	25 dBm	2.96593186 MHz	SWT	5 ms	Unit	dBm



Date: 4.MAR.2013 10:13:46

Bandwidth 6 dB – High Channel

***PEAK POWER OUTPUT***

***DATA SHEETS***

**PEAK OUTPUT POWER**

mDDL


Model: 65900

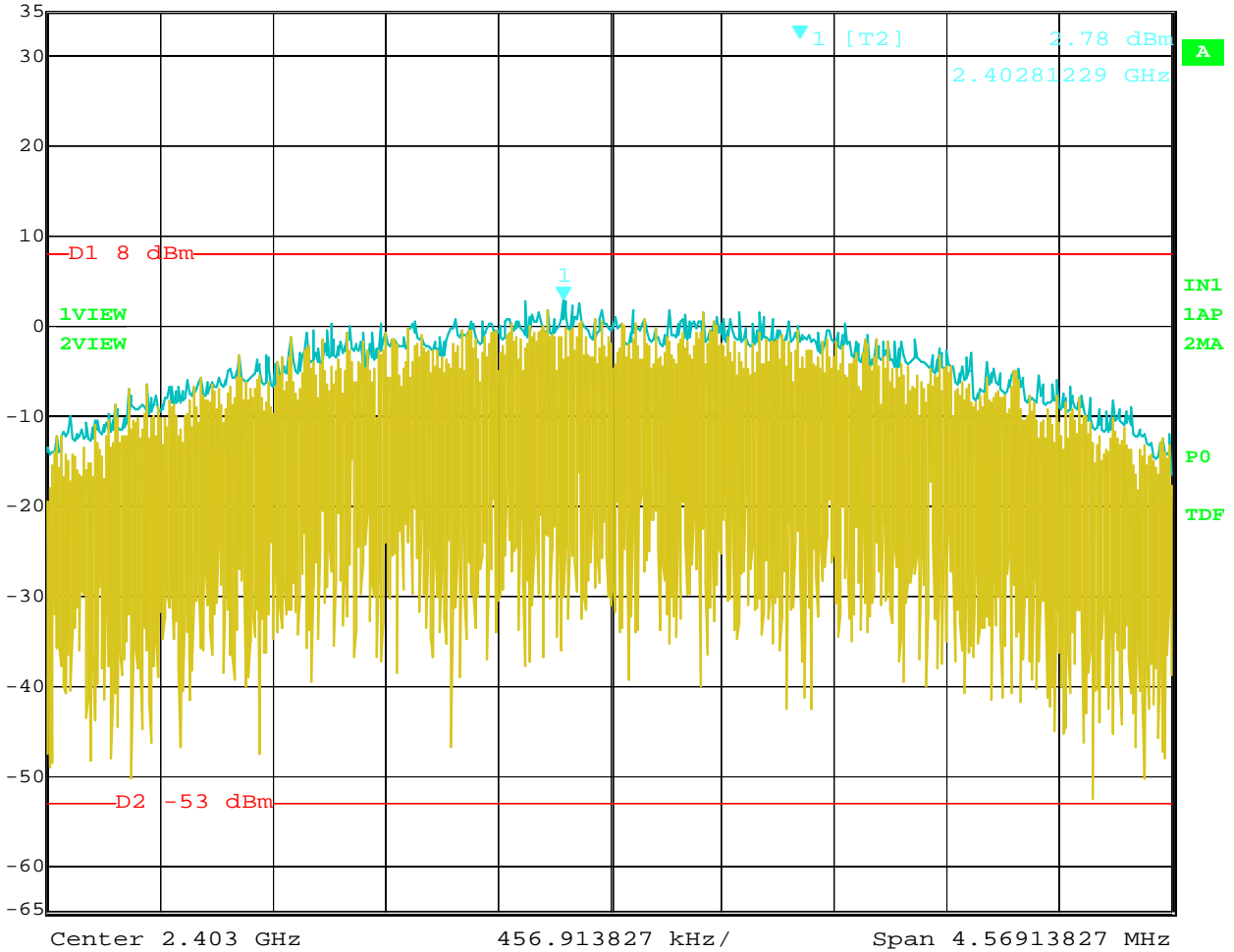
<b>CHANNEL</b>	<b>PEAK POWER OUTPUT (dBm)</b>
LOW (2403 MHz)	25.43
MIDDLE (2439 MHz)	25.38
HIGH (2475 MHz)	26.01



***SPECTRAL DENSITY OUTPUT***

***DATA SHEETS***

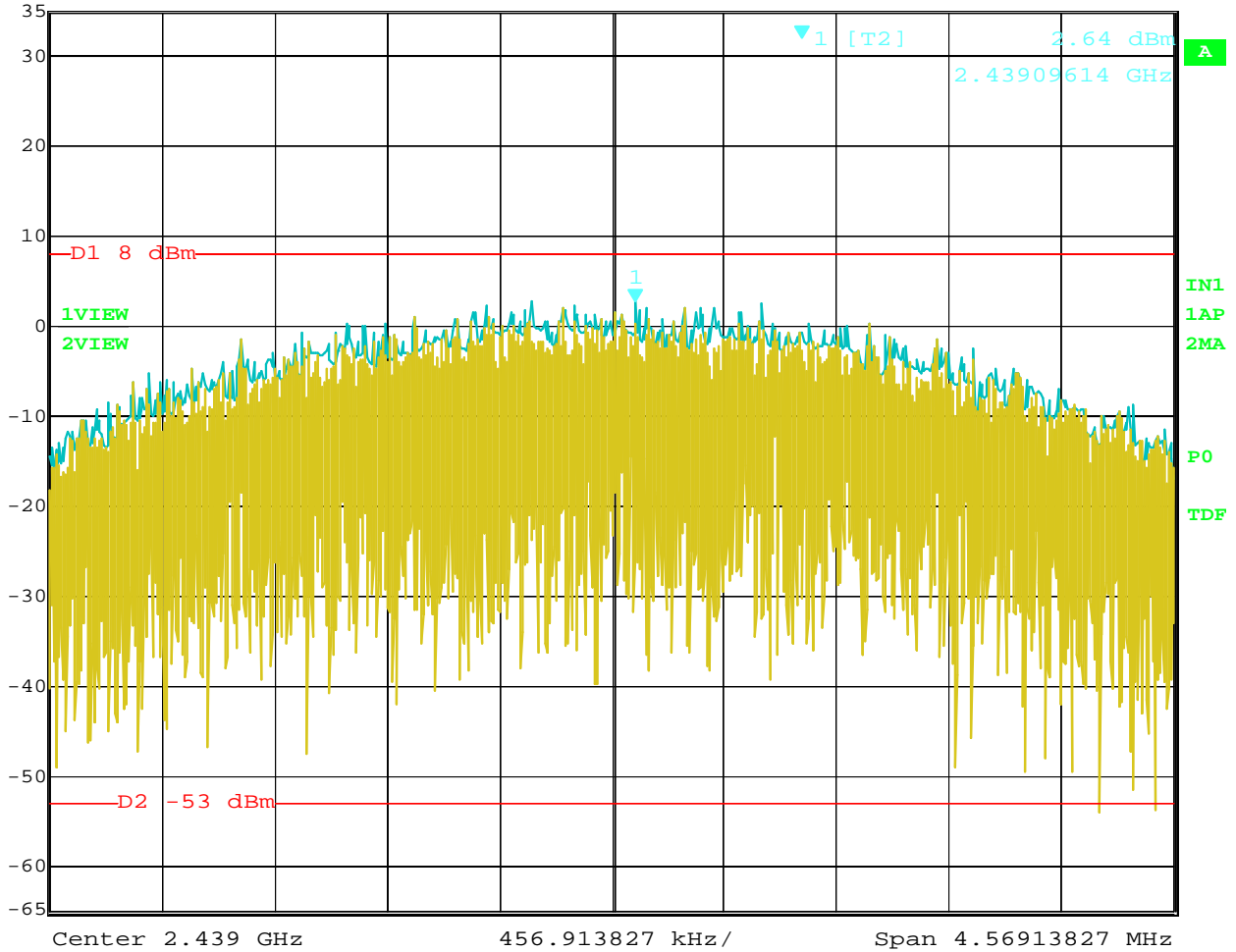

 Max/Ref Lvl    Marker 1 [T2]    RBW    3 kHz    RF Att    40 dB  
 35 dBm                            2.78 dBm    VBW    10 kHz  
 25 dBm                            2.40281229 GHz    SWT    1.3 s    Unit    dBm



Date: 4.MAR.2013 10:23:50

Spectral Density Output – Low Channel


RSS
 Max/Ref Lvl    Marker 1 [T2]    RBW    3 kHz    RF Att    40 dB  
 35 dBm                            2.64 dBm    VBW    10 kHz  
 25 dBm                            2.43909614 GHz    SWT    1.3 s    Unit    dBm

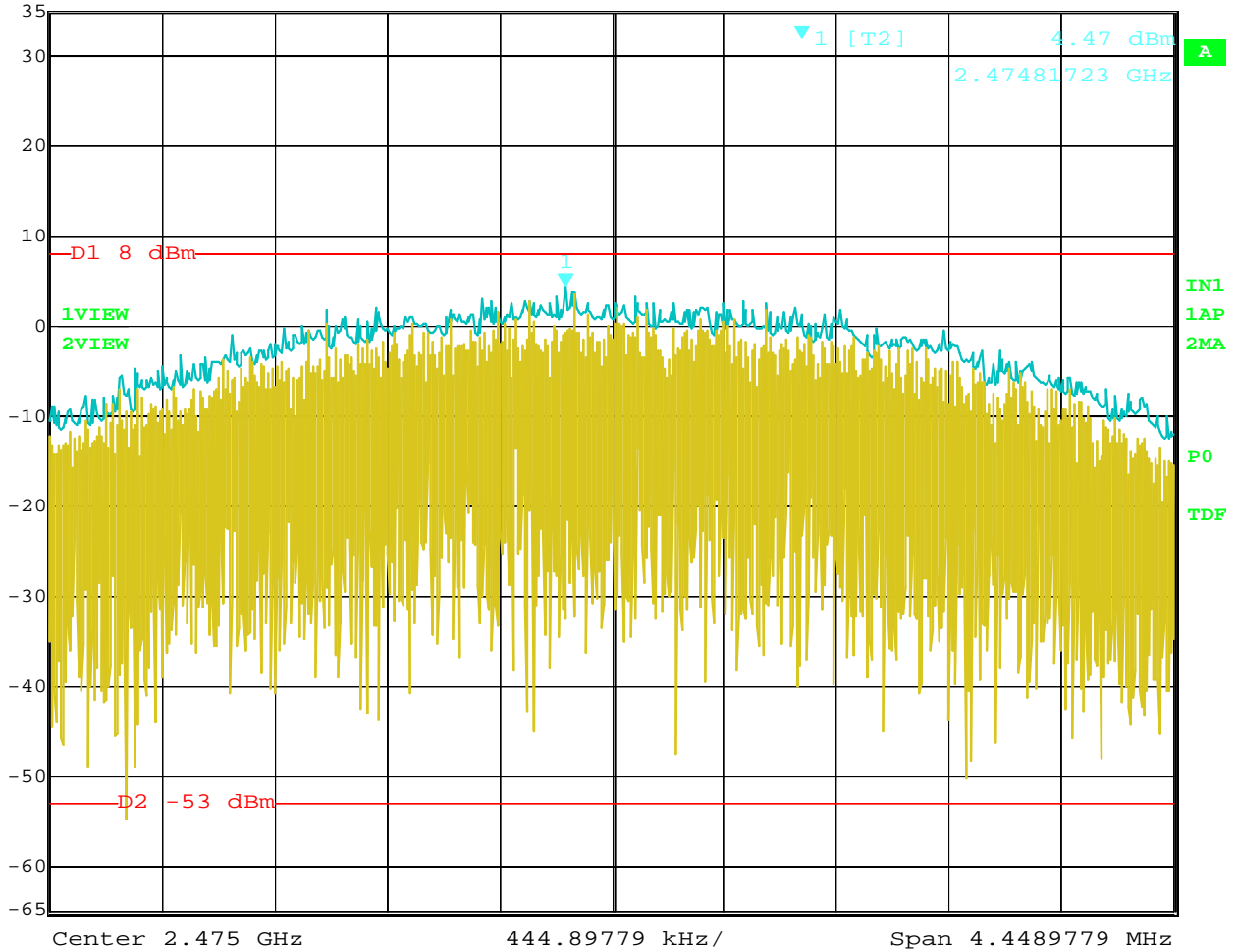


Date:            4.MAR.2013    10:24:20

Spectral Density Output – Middle Channel




 Max/Ref Lvl    Marker 1 [T2]    RBW    3 kHz    RF Att    40 dB  
 35 dBm                            4.47 dBm    VBW    10 kHz  
 25 dBm                            2.47481723 GHz    SWT    1.25 s    Unit            dBm




Date:            4.MAR.2013    10:28:40

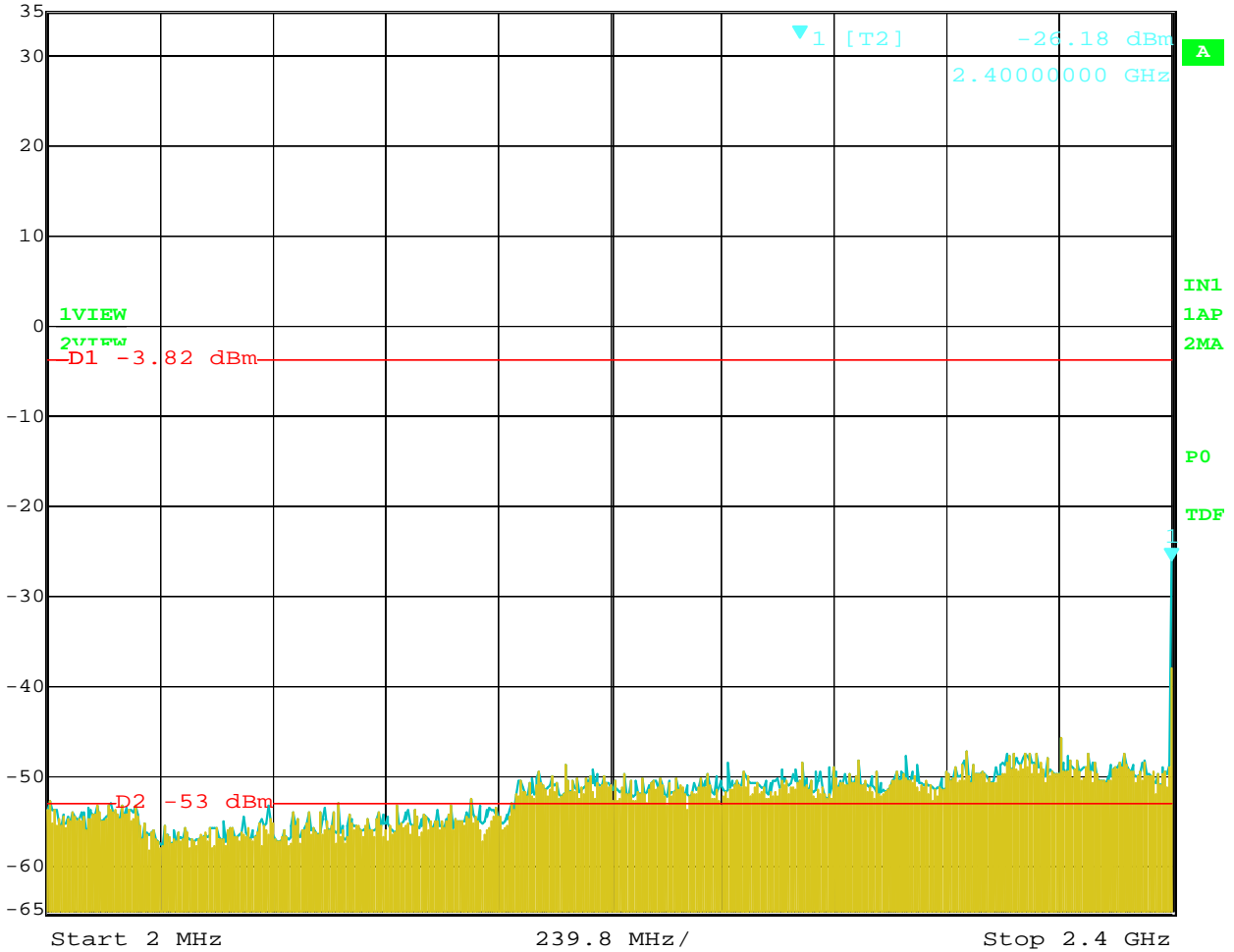
Spectral Density Output – High Channel



***RF ANTENNA CONDUCTED***

***DATA SHEETS***

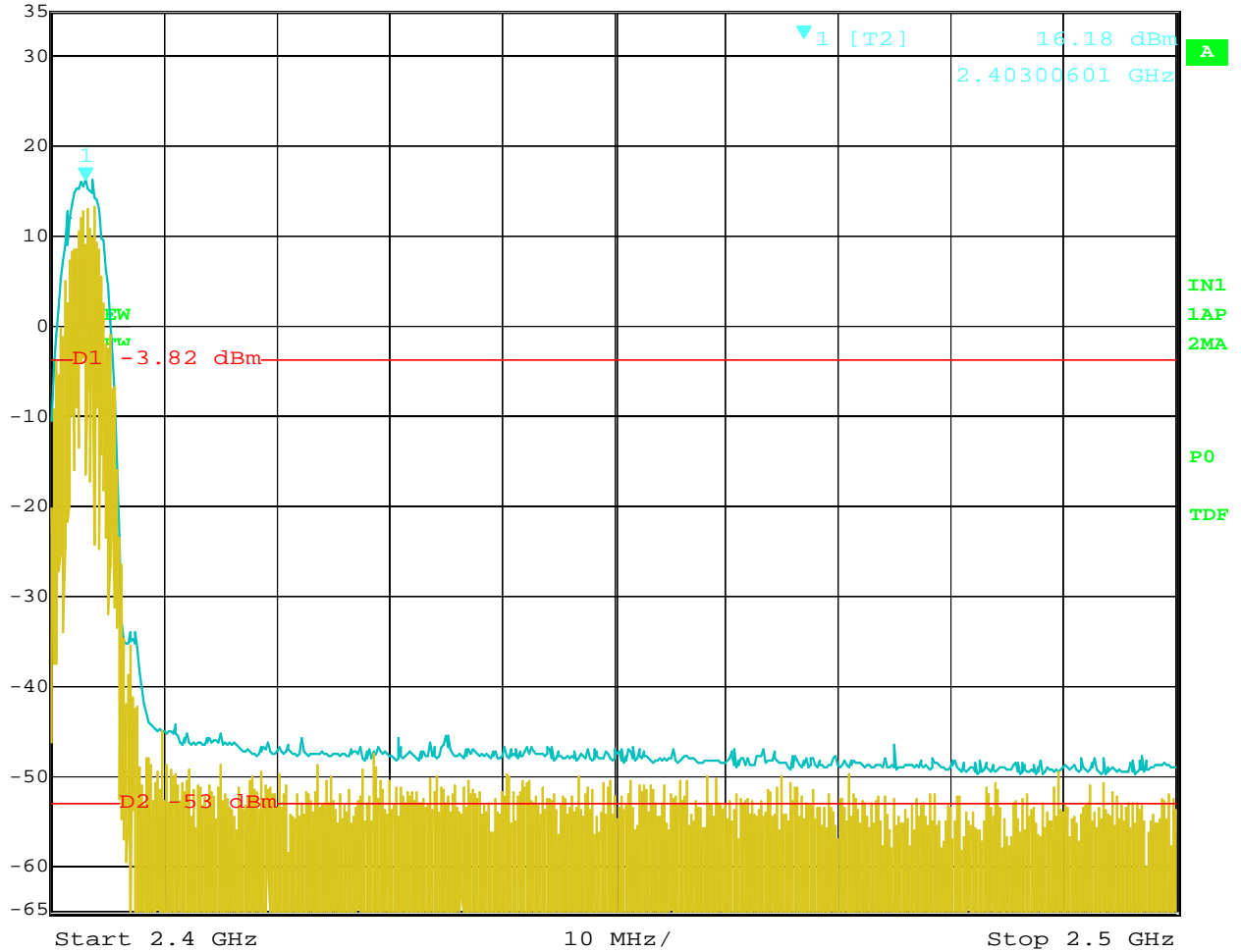
 Max/Ref Lvl    Marker 1 [T2]    RBW 100 kHz    RF Att 40 dB  
35 dBm    -26.18 dBm    VBW 300 kHz  
25 dBm    2.40000000 GHz    SWT 1.25 s    Unit dBm



Date: 4.MAR.2013 13:24:50

RF Antenna Conducted Test – Low Channel – 2 MHz to 2.4 GHz

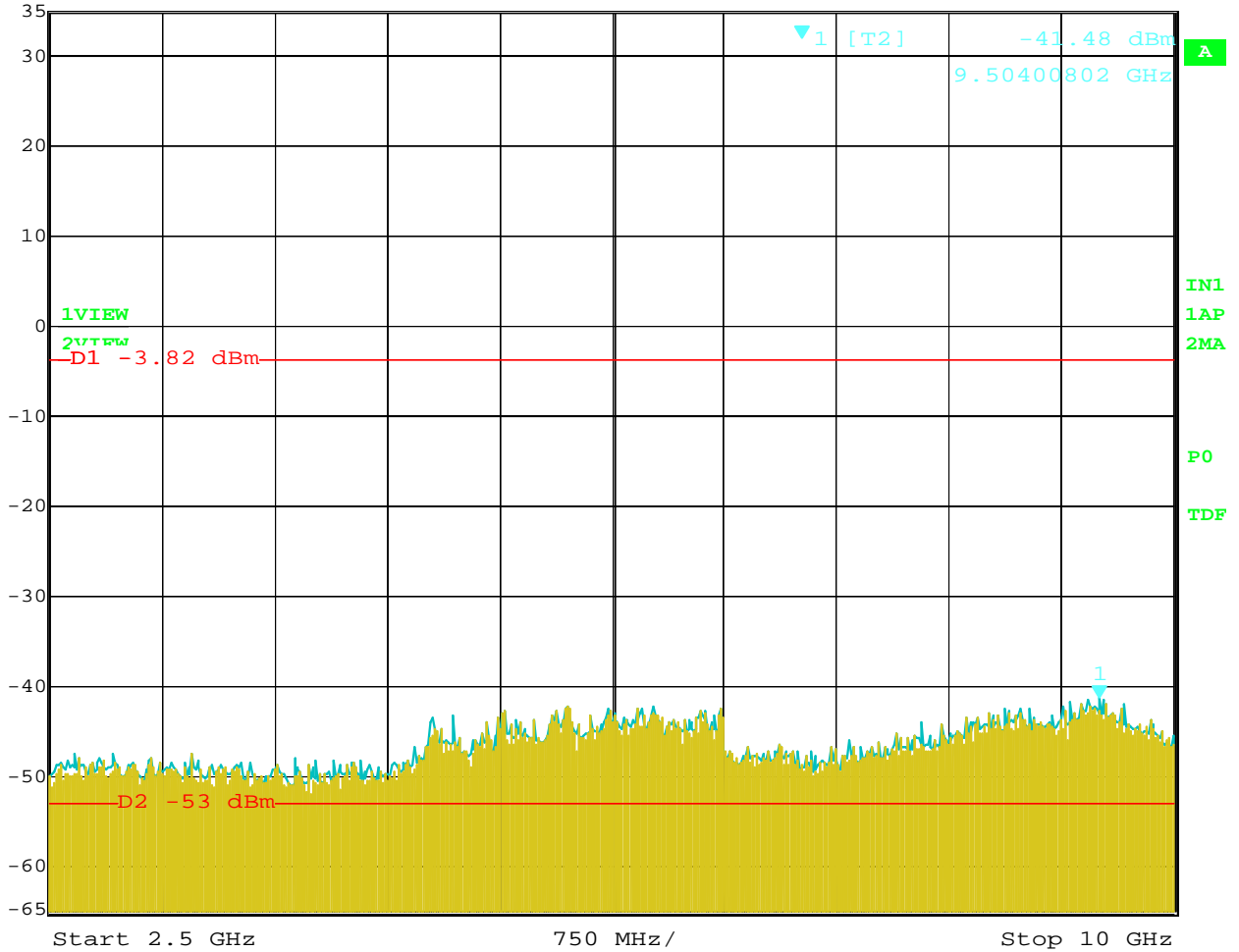
RSS
 Max/Ref Lvl    **Marker 1 [T2]**    RBW    100 kHz    RF Att    40 dB  
                  35 dBm                            16.18 dBm    VBW    300 kHz  
                  25 dBm                            2.40300601 GHz    SWT    25 ms    Unit            dBm



Date: 4.MAR.2013 13:24:00

RF Antenna Conducted Test – Low Channel – 2.4 GHz to 2.5 GHz

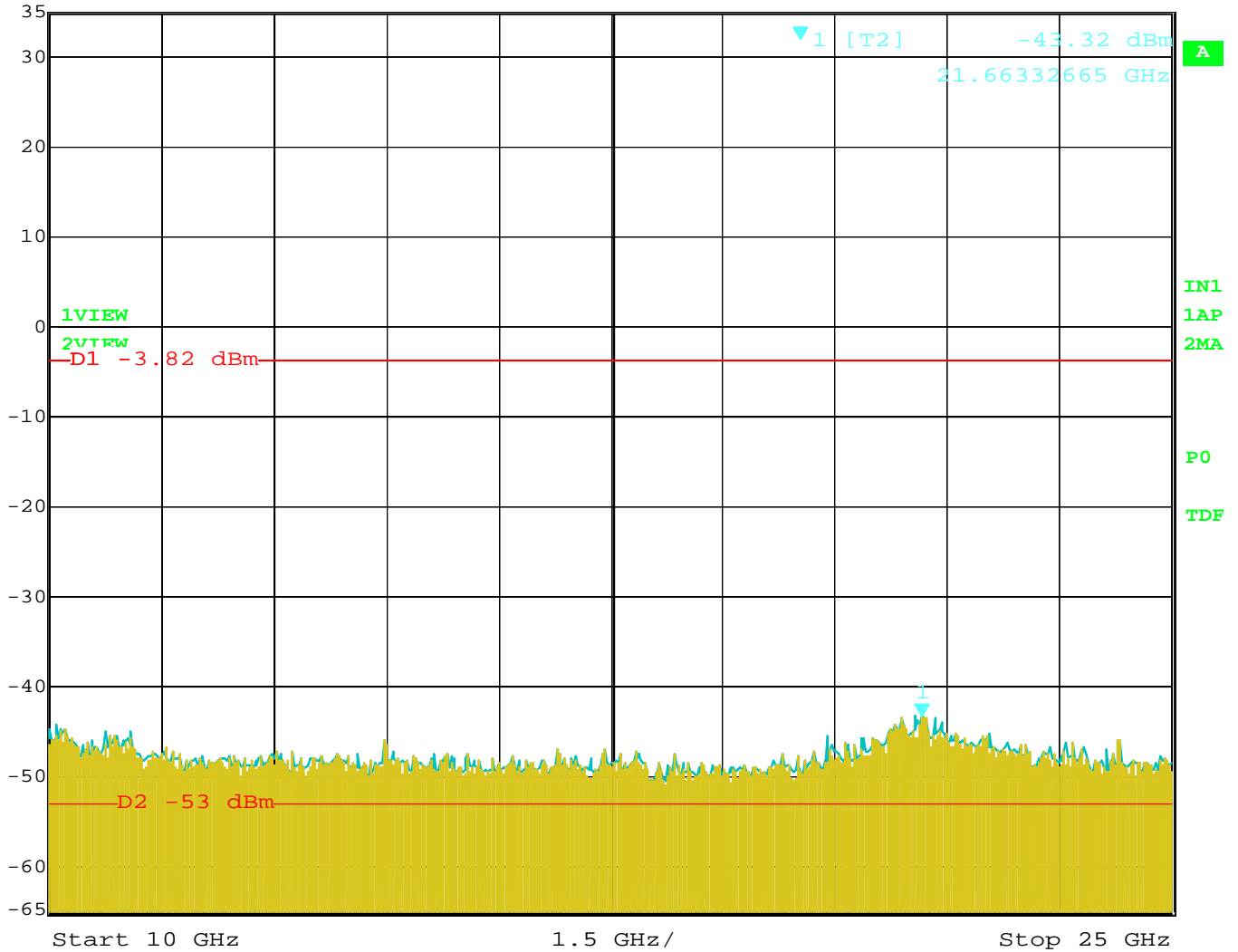
Max/Ref Lvl     Marker 1 [T2]     RBW 100 kHz     RF Att 40 dB  
 35 dBm     -41.48 dBm     VBW 300 kHz  
 25 dBm     9.50400802 GHz     SWT 1.9 s     Unit dBm



Date: 4.MAR.2013 13:25:19


RF Antenna Conducted Test – Low Channel – 2.5 GHz to 10 GHz

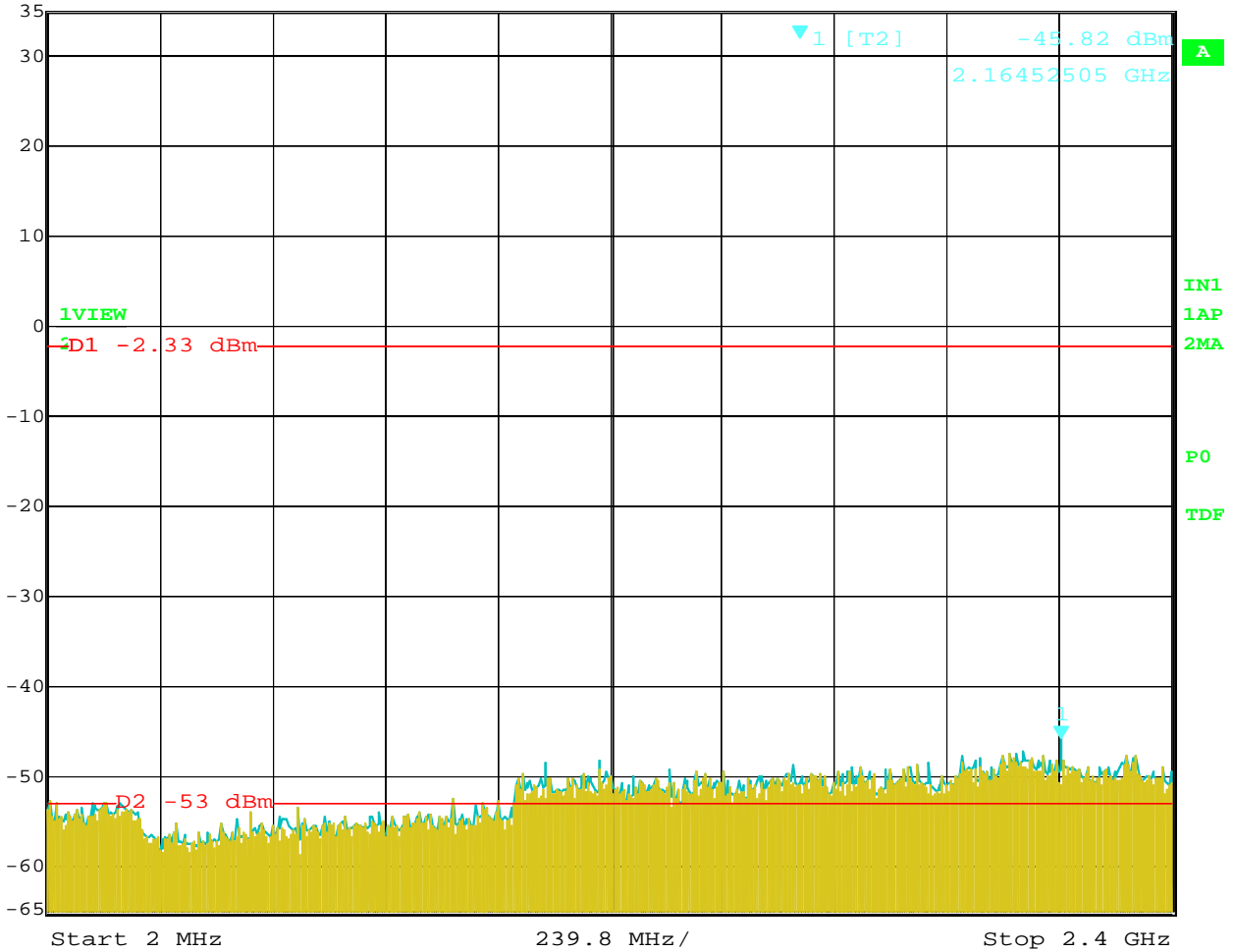
◆ Max/Ref Lvl    Marker 1 [T2]    RBW    100 kHz    RF Att    40 dB  
 35 dBm                                    -43.32 dBm    VBW    300 kHz  
 25 dBm                                    21.66332665 GHz    SWT    3.8 s    Unit    dBm



Date:            4.MAR.2013    13:25:53

RF Antenna Conducted Test – Low Channel – 10 GHz to 25 GHz

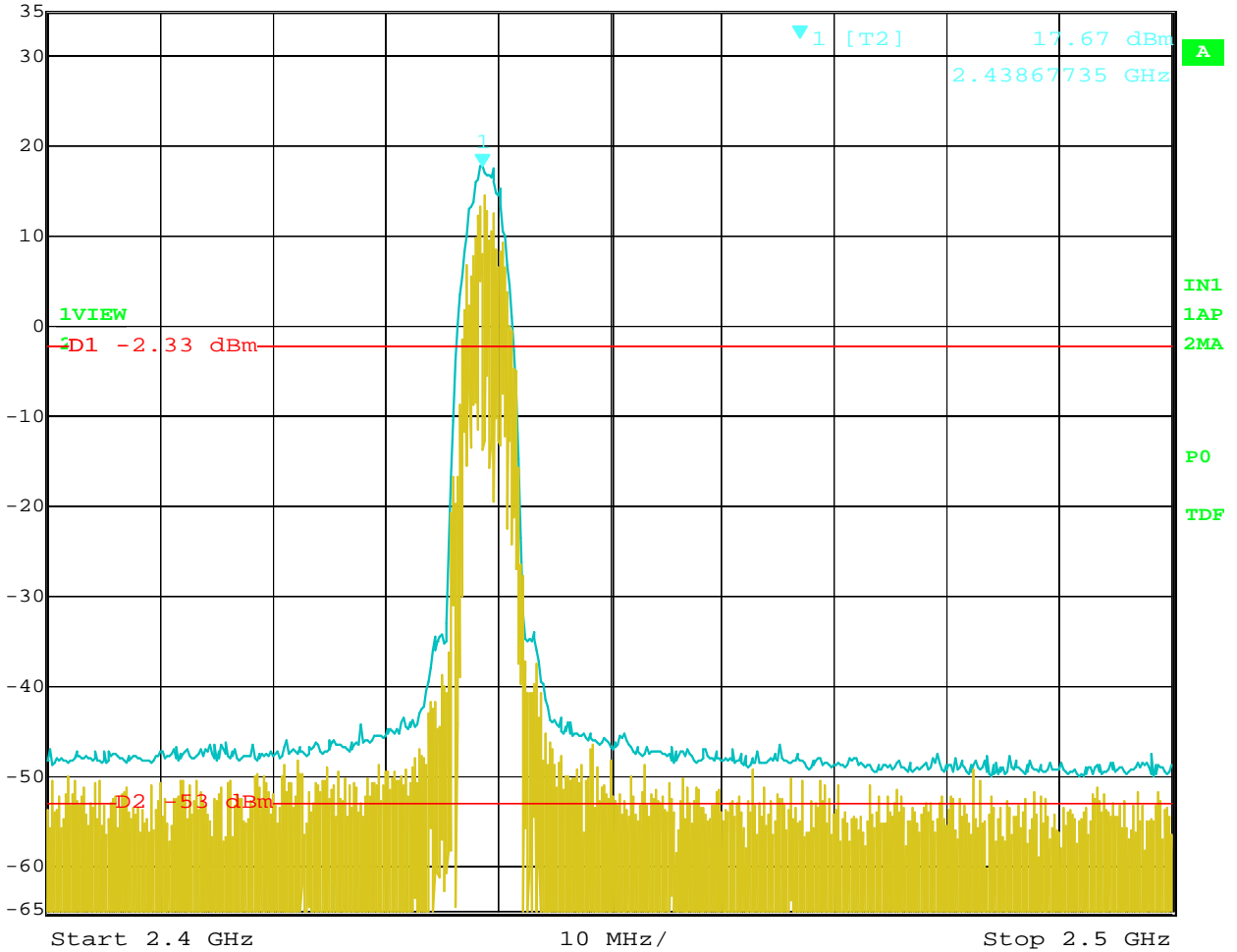
 Max/Ref Lvl    Marker 1 [T2]    RBW    100 kHz    RF Att    40 dB  
35 dBm                                    -45.82 dBm    VBW    300 kHz  
25 dBm                                    2.16452505 GHz    SWT    1.25 s    Unit                    dBm



Date:            4.MAR.2013    13:18:45

RF Antenna Conducted Test – Middle Channel – 2 MHz to 2.4 GHz

	Max/Ref Lvl	Marker 1 [T2]	RBW	100 kHz	RF Att	40 dB
	35 dBm	17.67 dBm	VBW	300 kHz		
	25 dBm	2.43867735 GHz	SWT	25 ms	Unit	dBm

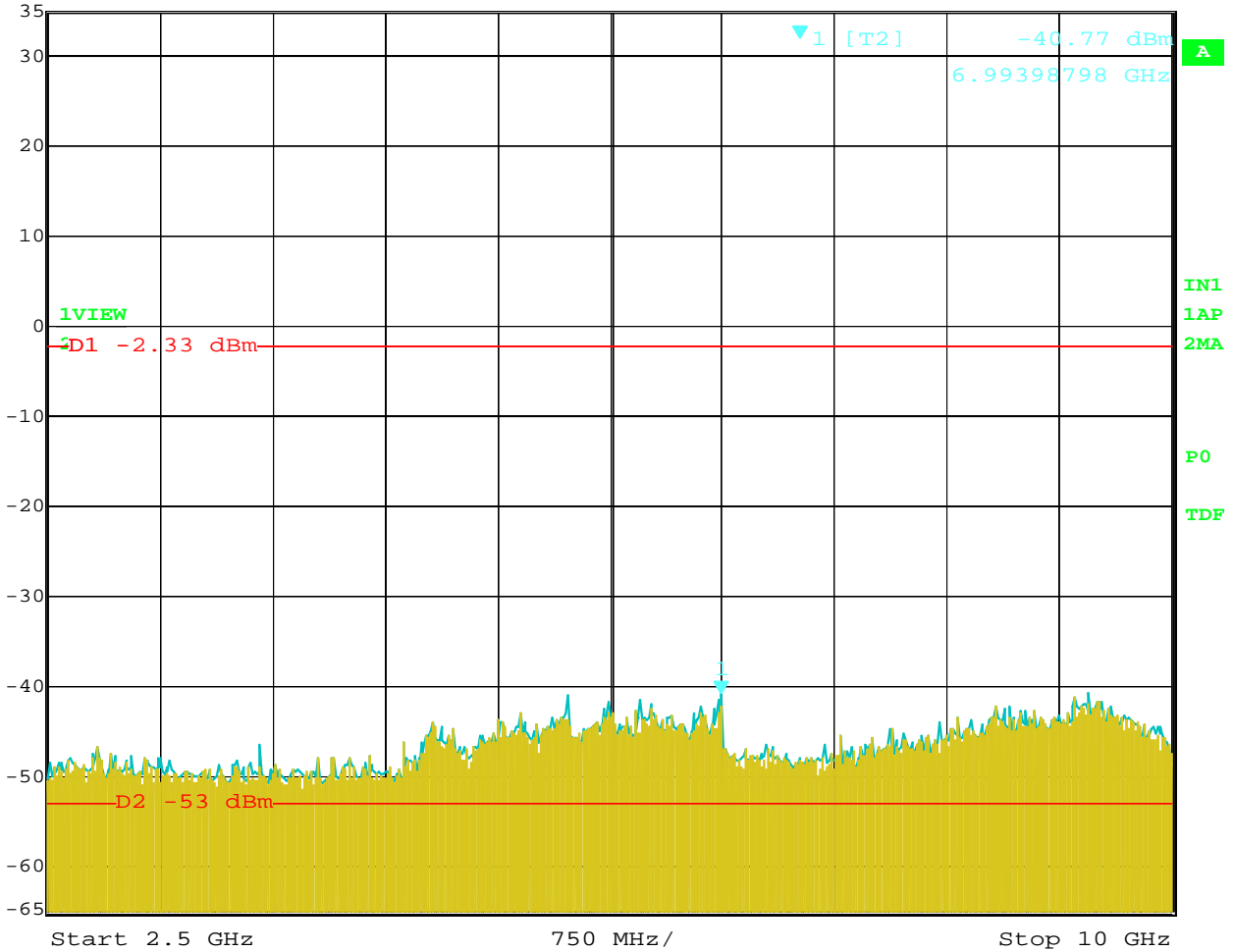


Date: 4.MAR.2013 13:18:17

RF Antenna Conducted Test – Middle Channel – 2.4 GHz to 2.5 GHz



RSS Max/Ref Lvl    Marker 1 [T2]    RBW 100 kHz    RF Att 40 dB  
 35 dBm    -40.77 dBm    VBW 300 kHz  
 25 dBm    6.99398798 GHz    SWT 1.9 s    Unit dBm

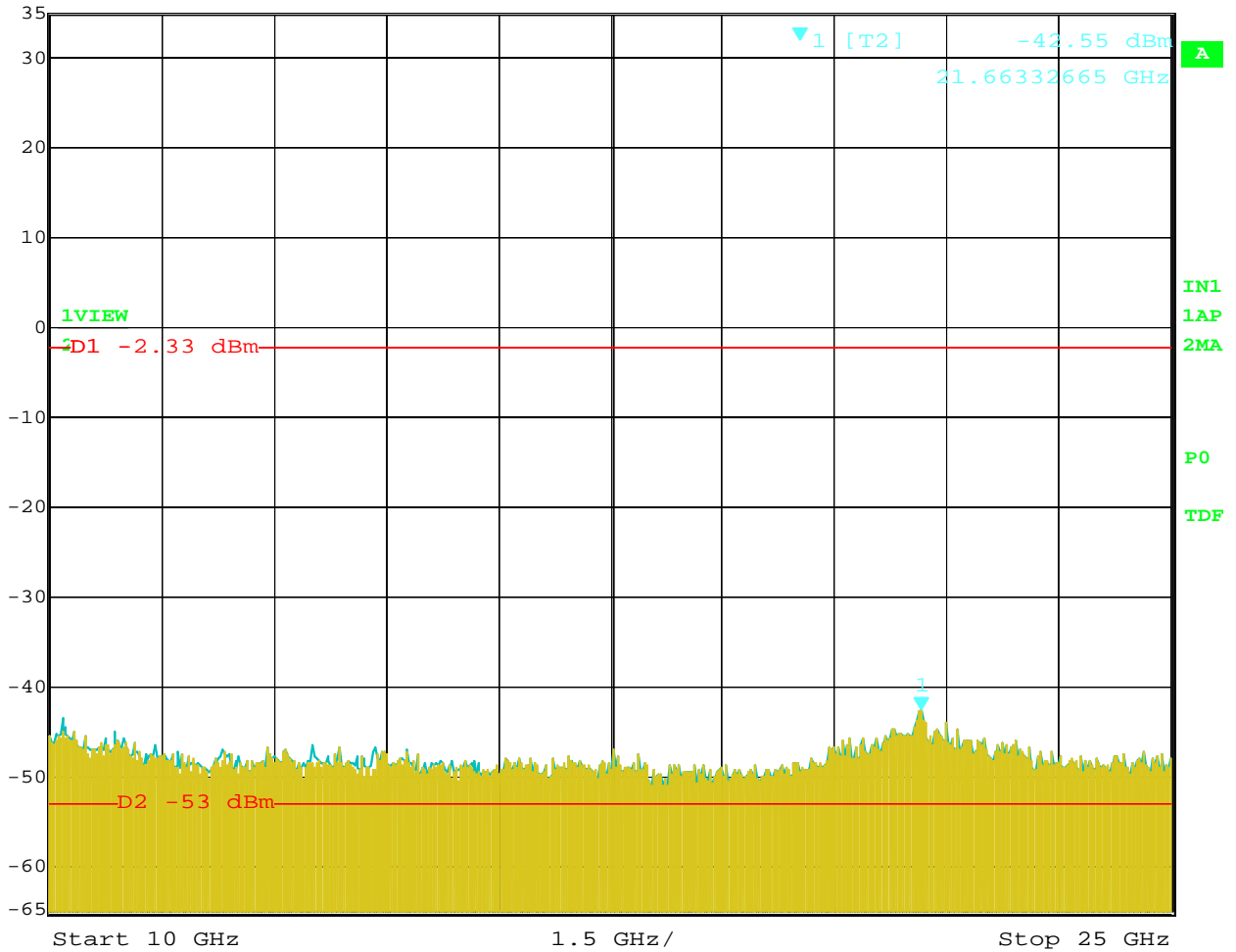


Date: 4.MAR.2013 13:19:12

RF Antenna Conducted Test – Middle Channel – 2.5 GHz to 10 GHz




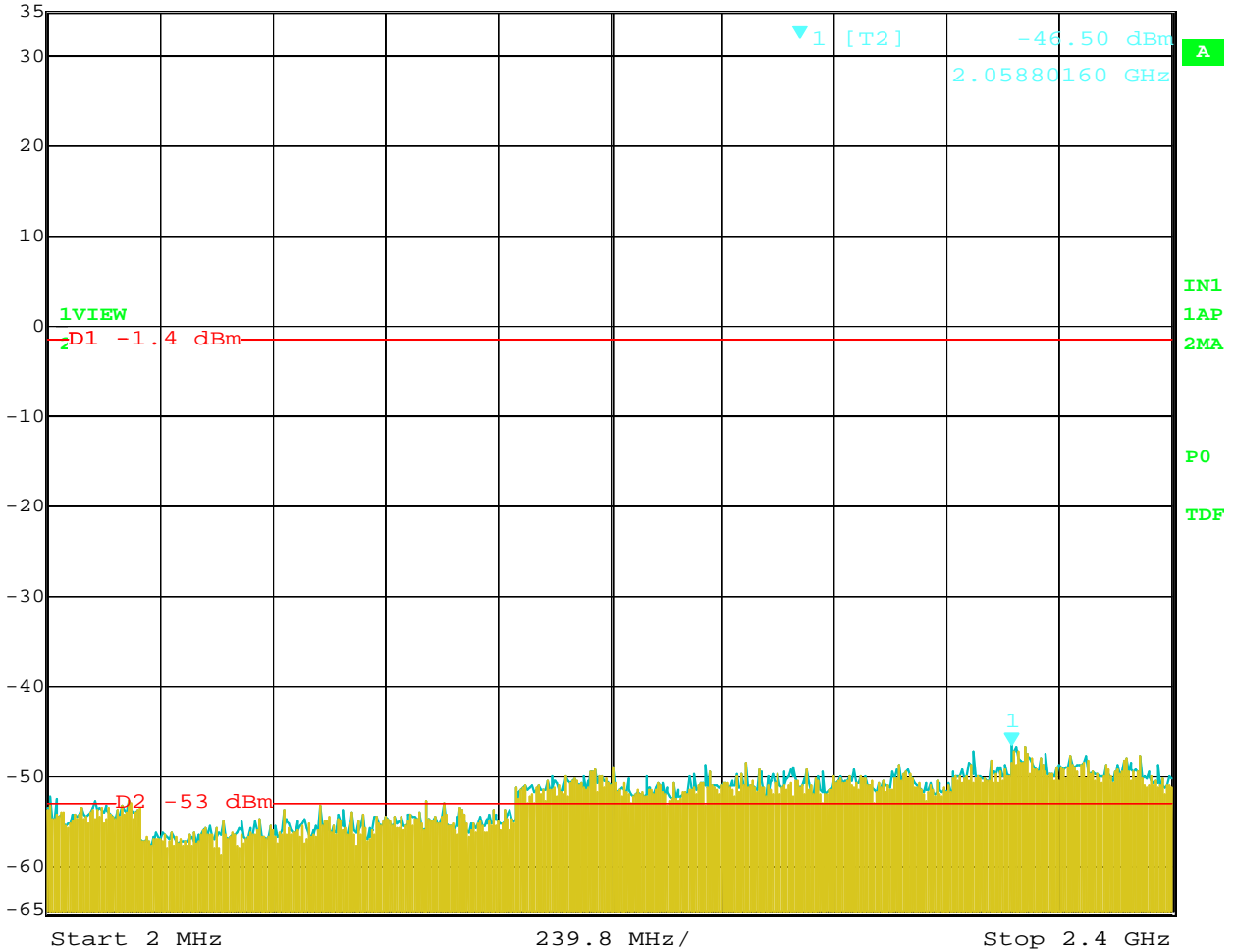
Max/Ref Lvl	Marker 1 [T2]	RBW	100 kHz	RF Att	40 dB
35 dBm	-42.55 dBm	VBW	300 kHz		
25 dBm	21.66332665 GHz	SWT	3.8 s	Unit	dBm



Date: 4.MAR.2013 13:19:38


RF Antenna Conducted Test – Middle Channel – 10 GHz to 25 GHz

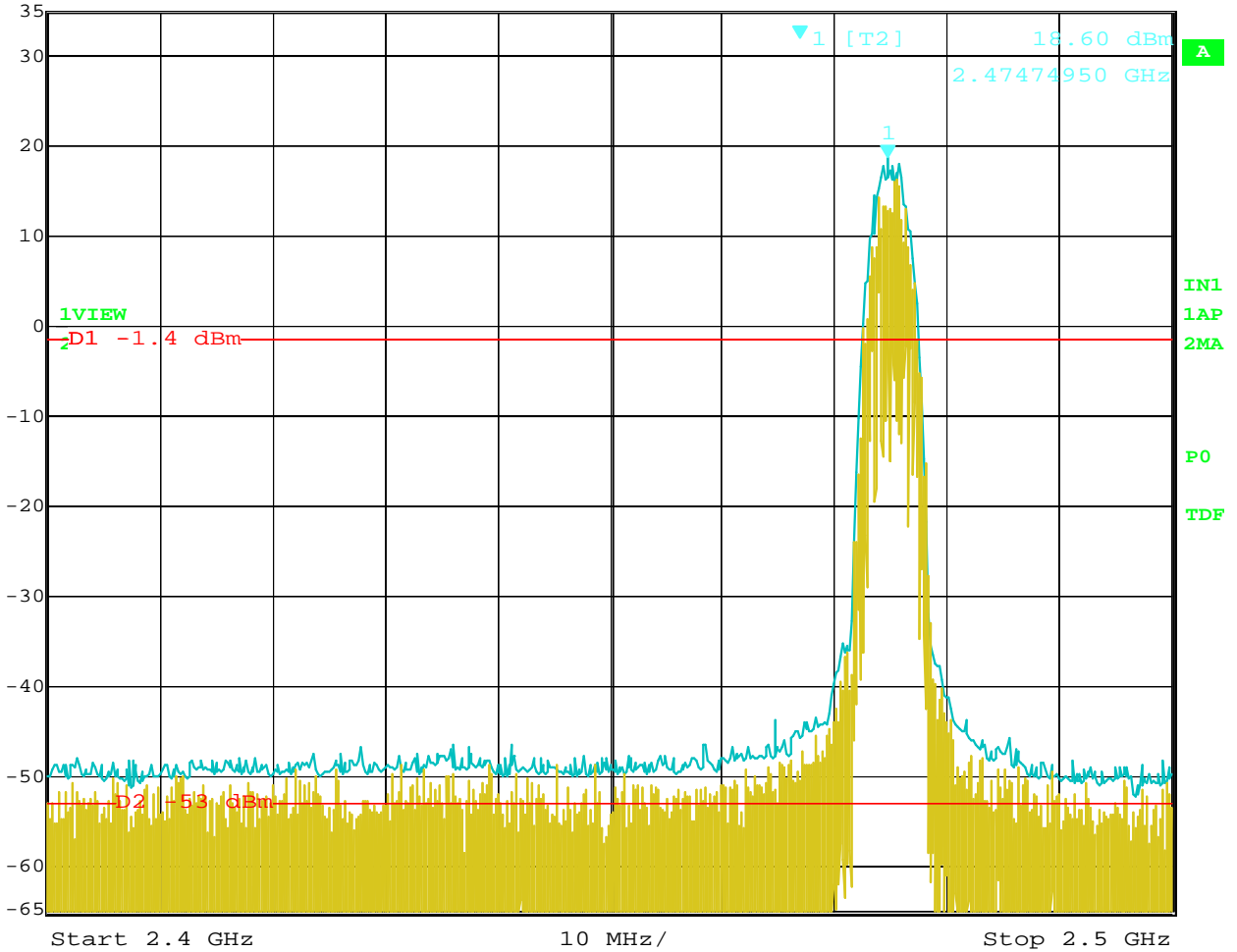
 Max/Ref Lvl    Marker 1 [T2]    RBW 100 kHz    RF Att 40 dB  
 35 dBm    -46.50 dBm    VBW 300 kHz  
 25 dBm    2.05880160 GHz    SWT 1.25 s    Unit dBm



Date: 4.MAR.2013 13:13:15


RF Antenna Conducted Test – High Channel – 2 MHz to 2.4 GHz

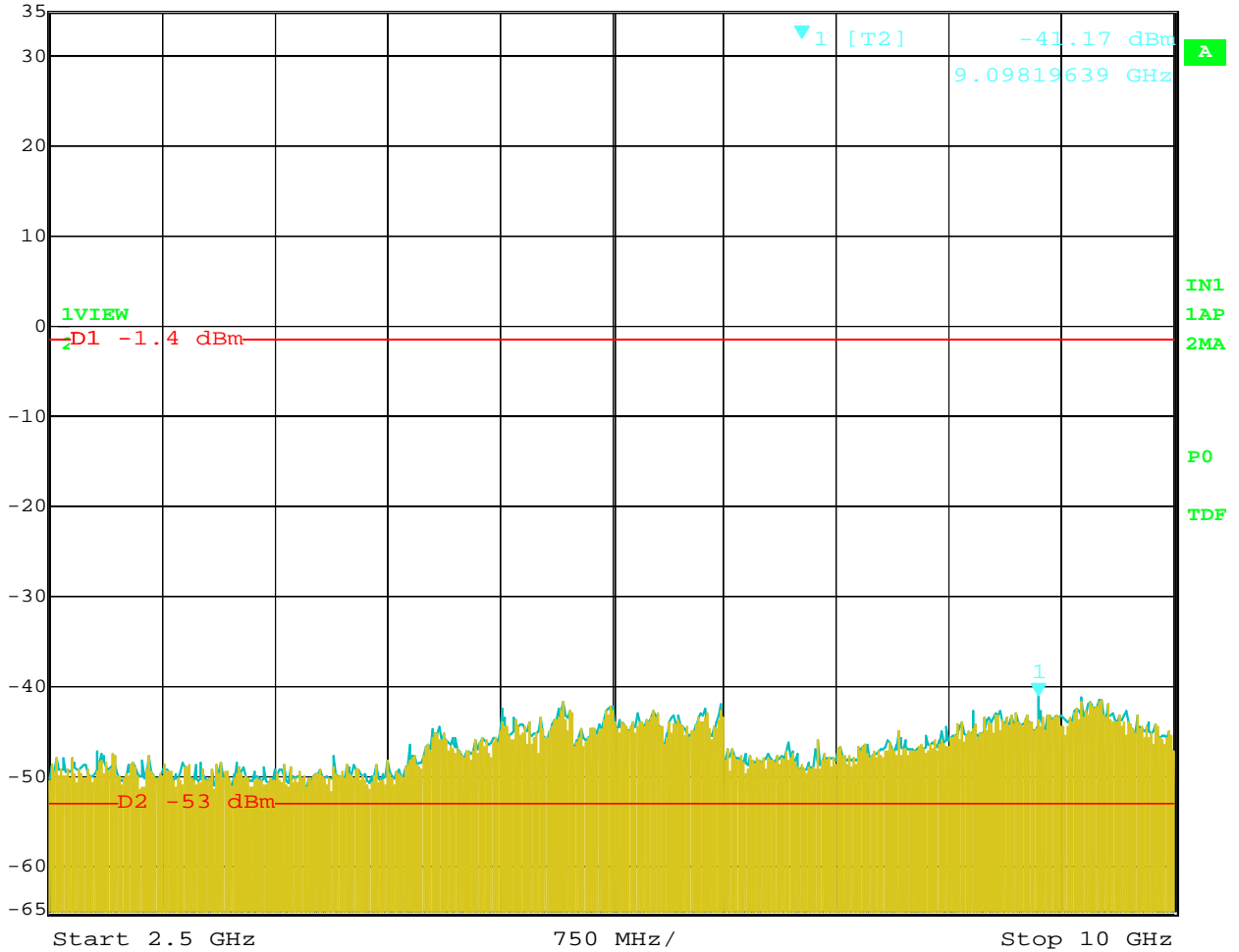
	Max/Ref Lvl	Marker 1 [T2]	RBW	100 kHz	RF Att	40 dB
	35 dBm	18.60 dBm	VBW	300 kHz		
	25 dBm	2.47474950 GHz	SWT	25 ms	Unit	dBm



Date: 4.MAR.2013 13:12:36


RF Antenna Conducted Test – High Channel – 2.4 GHz to 2.5 GHz

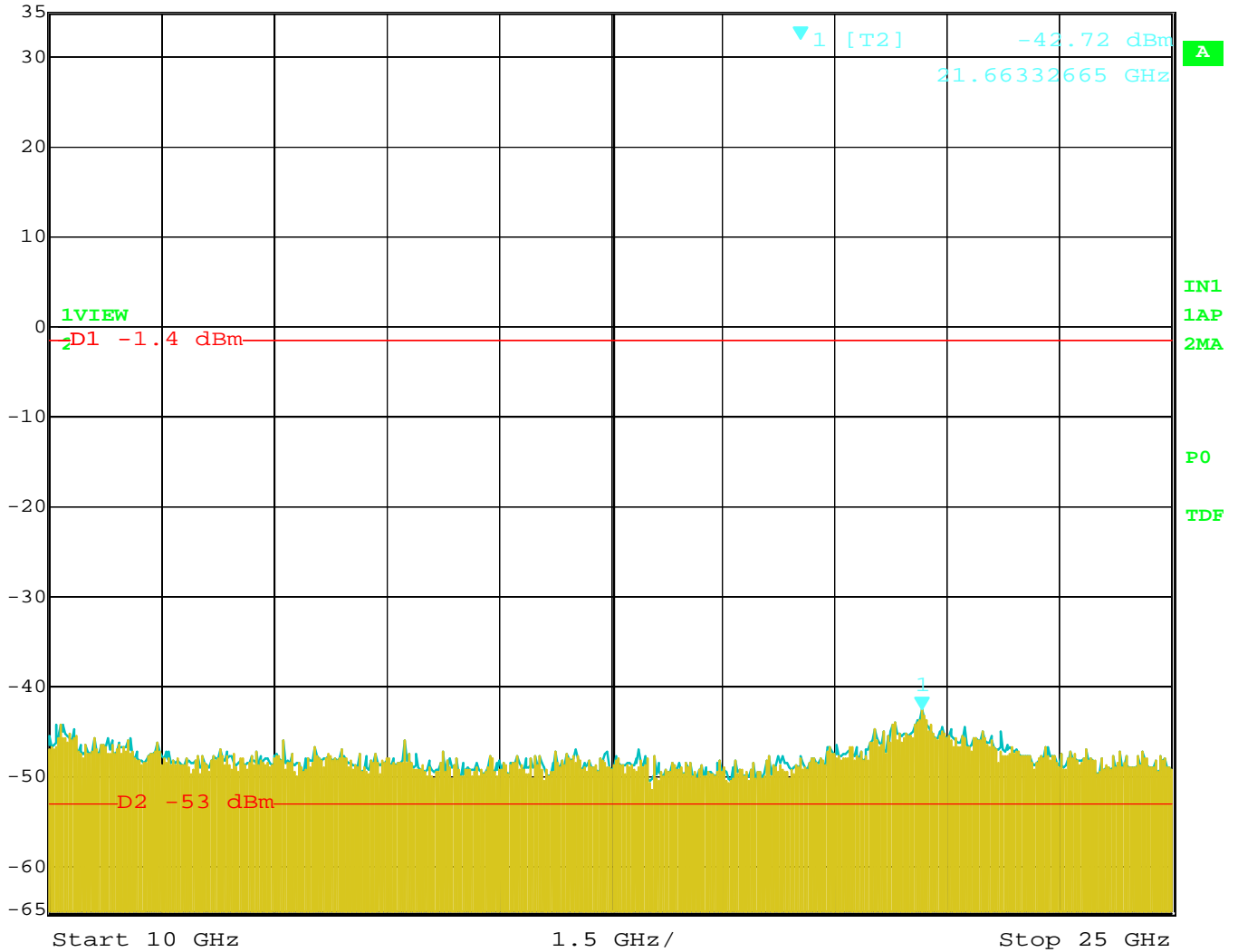
	Max/Ref Lvl	Marker 1 [T2]	RBW	100 kHz	RF Att	40 dB
	35 dBm	-41.17 dBm	VBW	300 kHz		
	25 dBm	9.09819639 GHz	SWT	1.9 s	Unit	dBm



Date: 4.MAR.2013 13:13:42

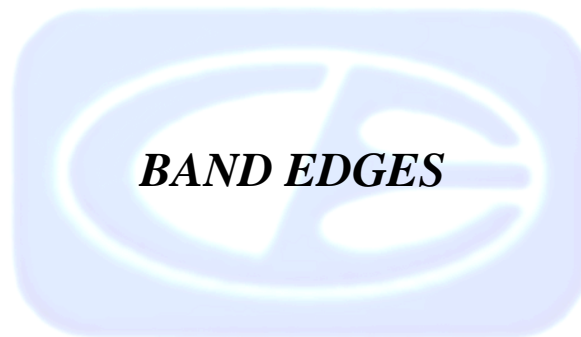
RF Antenna Conducted Test – High Channel – 2.5 GHz to 10 GHz

 Max/Ref Lvl    Marker 1 [T2]    RBW    100 kHz    RF Att    40 dB  
 35 dBm    -42.72 dBm    VBW    300 kHz  
 25 dBm    21.66332665 GHz    SWT    3.8 s    Unit    dBm



Date: 4.MAR.2013 13:14:12

RF Antenna Conducted Test – High Channel – 2.5 GHz to 10 GHz



***DATA SHEETS***

---

**Brea Division**  
114 Olinda Drive  
Brea, CA 92823  
(714) 579-0500

**Agoura Division**  
2337 Troutdale Drive  
Agoura, CA 91301  
(818) 597-0600

**Silverado Division**  
19121 El Toro Road  
Silverado, CA 92676  
(949) 589-0700

**Lake Forest Division**  
20621 Pascal Way  
Lake Forest, CA 92630  
(949) 587-0400

**FCC 15.247 / RSS-GEN**

 AeroVironment  
 mDDL  
 Model: 65900  
 Antenna: Monopole

 Date: 03/04/2013  
 Lab: B  
 Tested By: Kyle Fujimoto

**Y-Axis (Worst Case) - Low Channel**  
**Y-Axis (Worst Case) - High Channel**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2403	115.13	V	--	--	Peak	1.25	45	Fundamental of Low Channel
2403	106.77	V	--	--	Avg	1.25	45	@ 3 meters
2390	59.23	V	74	-14.77	Peak	1.25	45	No Marker Delta Method
2390	45.54	V	54	-8.46	Avg	1.25	45	Method Used
2475	113.29	V	--	--	Peak	1.25	45	Fundamental of High Channel
2475	104.85	V	--	--	Avg	1.25	45	@ 3 meters
2483.5	57.42	V	74	-16.58	Peak	1.25	45	No Marker Delta Method
2483.5	45.37	V	54	-8.63	Avg	1.25	45	Method Used



**FCC 15.247 / RSS-GEN**

AeroVironment  
 mDDL  
 Model: 65900  
 Antenna: Monopole

Date: 03/04/2013  
 Lab: B  
 Tested By: Kyle Fujimoto

**X-Axis (Worst Case) - Low Channel**  
**X-Axis (Worst Case) - High Channel**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2403	107.19	H	--	--	Peak	1.25	135	Fundamental of Low Channel @ 3 meters
2403	98.46	H	--	--	Avg	1.25	135	
2390	56.63	H	74	-17.37	Peak	1.25	135	No Marker Delta Method Method Used
2390	45.09	H	54	-8.91	Avg	1.25	135	
2475	106.1	H	--	--	Peak	1.25	135	Fundamental of High Channel @ 3 meters
2475	97.6	H	--	--	Avg	1.25	135	
2483.5	56.4	H	74	-17.6	Peak	1.25	135	No Marker Delta Method Method Used
2483.5	44.69	H	54	-9.31	Avg	1.25	135	



**FCC 15.247 / RSS-GEN**

AeroVironment  
 mDDL  
 Model: 65900  
 Antenna: Twin Patch

Date: 03/04/2013  
 Lab: B  
 Tested By: Kyle Fujimoto

Y-Axis (Worst Case) - Low Channel  
 Y-Axis (Worst Case) - High Channel

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2403	123.82	V	--	--	Peak	1.5	0	Fundamental of Low Channel
2403	115.75	V	--	--	Avg	1.5	0	@ 3 meters
2390	59.14	V	74	-14.86	Peak	1.5	0	No Marker Delta Method
2390	47.51	V	54	-6.49	Avg	1.5	0	Method Used
2475	125.06	V	--	--	Peak	1.5	0	Fundamental of High Channel
2475	116.63	V	--	--	Avg	1.5	0	@ 3 meters
2483.5	64.01	V	74	-9.99	Peak	1.5	0	No Marker Delta Method
2483.5	51.16	V	54	-2.84	Avg	1.5	0	Method Used

**FCC 15.247 / RSS-GEN**

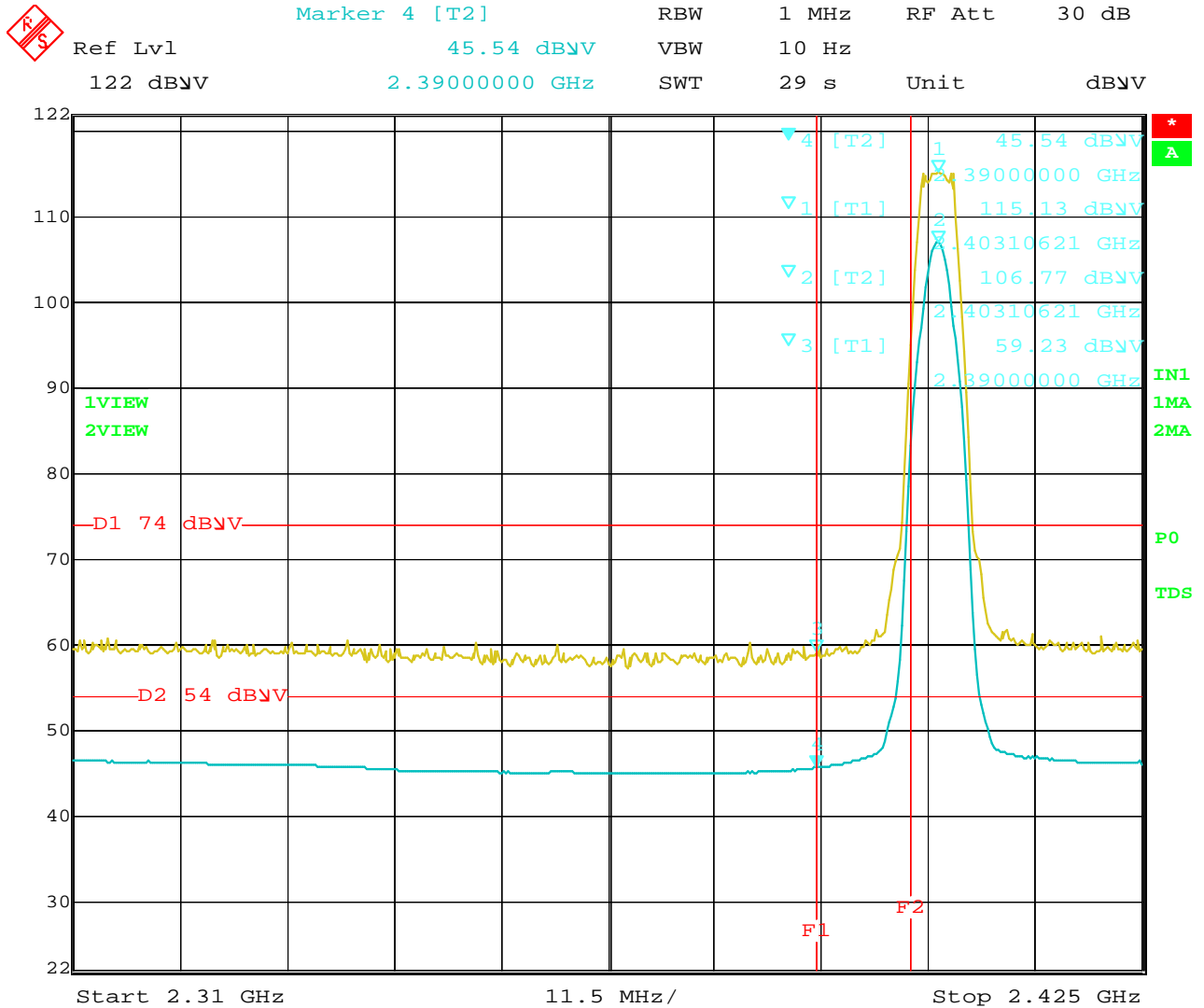
 AeroVironment  
 mDDL  
 Model: 65900  
 Antenna: Twin Patch

 Date: 03/04/2013  
 Lab: B  
 Tested By: Kyle Fujimoto

**Y-Axis (Worst Case) - Low Channel**  
**Y-Axis (Worst Case) - High Channel**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2403	113.06	H	--	--	Peak	1	0	Fundamental of Low Channel
2403	104.9	H	--	--	Avg	1	0	@ 3 meters
2390	57.13	H	74	-16.87	Peak	1	0	No Marker Delta Method
2390	45.17	H	54	-8.83	Avg	1	0	Method Used
2475	114.06	H	--	--	Peak	1.5	315	Fundamental of High Channel
2475	105.69	H	--	--	Avg	1.5	315	@ 3 meters
2483.5	57.94	H	74	-16.06	Peak	1.5	315	No Marker Delta Method
2483.5	45.92	H	54	-8.08	Avg	1.5	315	Method Used



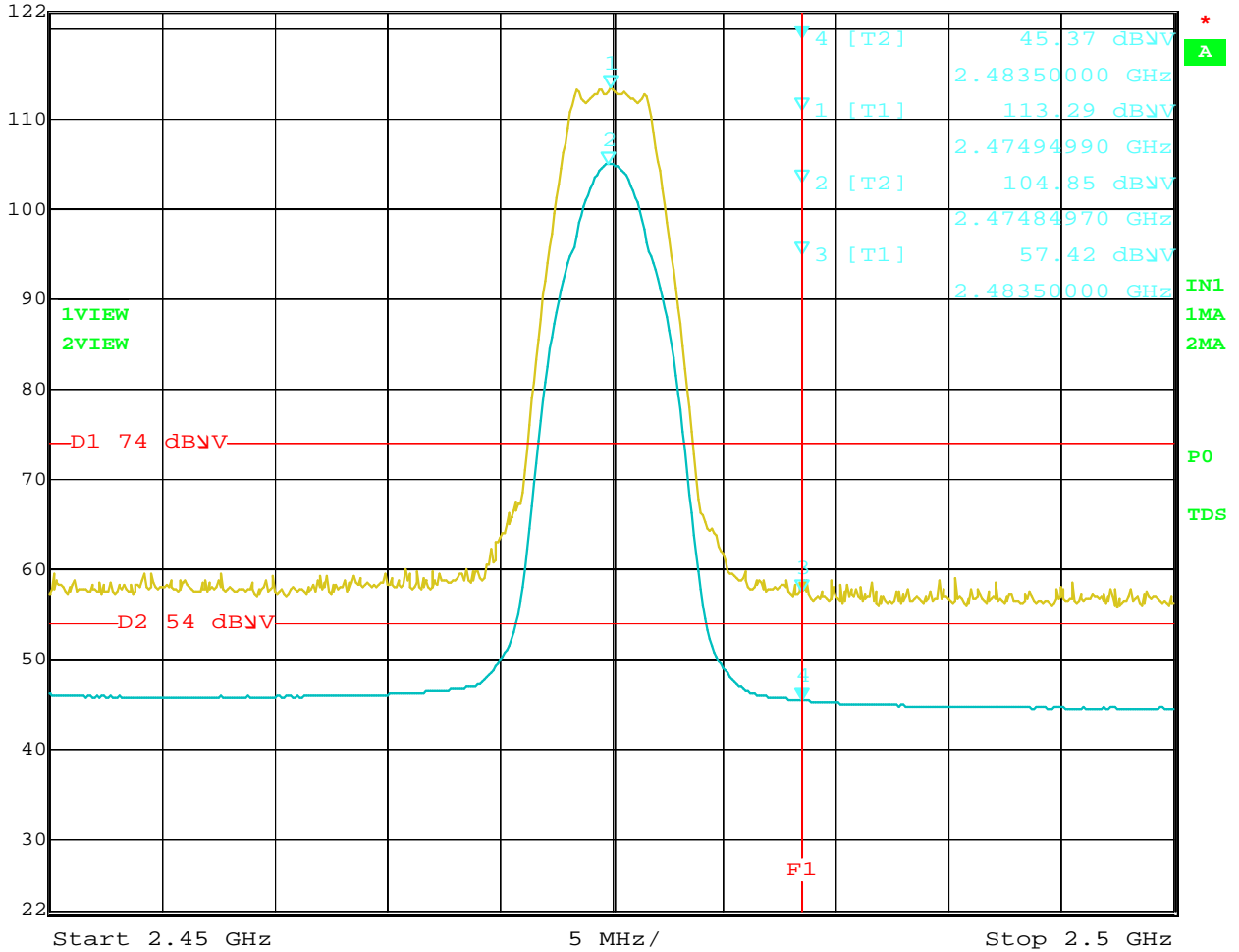


Date: 4.MAR.2013 08:30:48

Band Edge – Low Channel – Vertical Polarization – Monopole Antenna – Y-Axis (Worst Case)



Marker 4 [T2] RBW 1 MHz RF Att 30 dB  
 Ref Lvl 45.37 dBμV VBW 10 Hz  
 122 dBμV 2.48350000 GHz SWT 12.5 s Unit dBμV

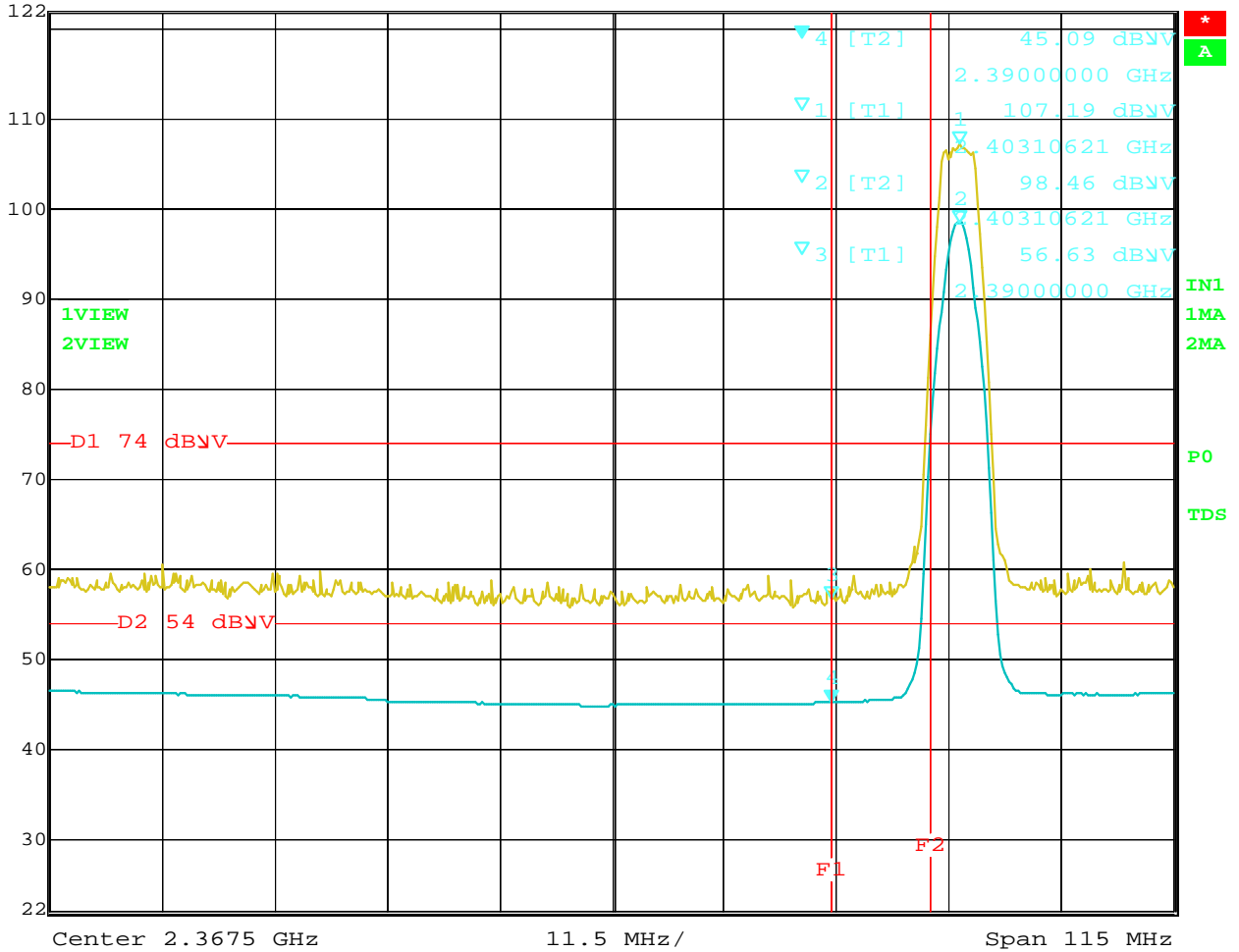


Date: 4.MAR.2013 08:59:45

Band Edge – High Channel – Vertical Polarization – Monopole Antenna – Y-Axis (Worst Case)



Marker 4 [T2] RBW 1 MHz RF Att 30 dB  
 Ref Lvl 45.09 dBV VBW 10 Hz  
 122 dBV 2.39000000 GHz SWT 29 s Unit dBV

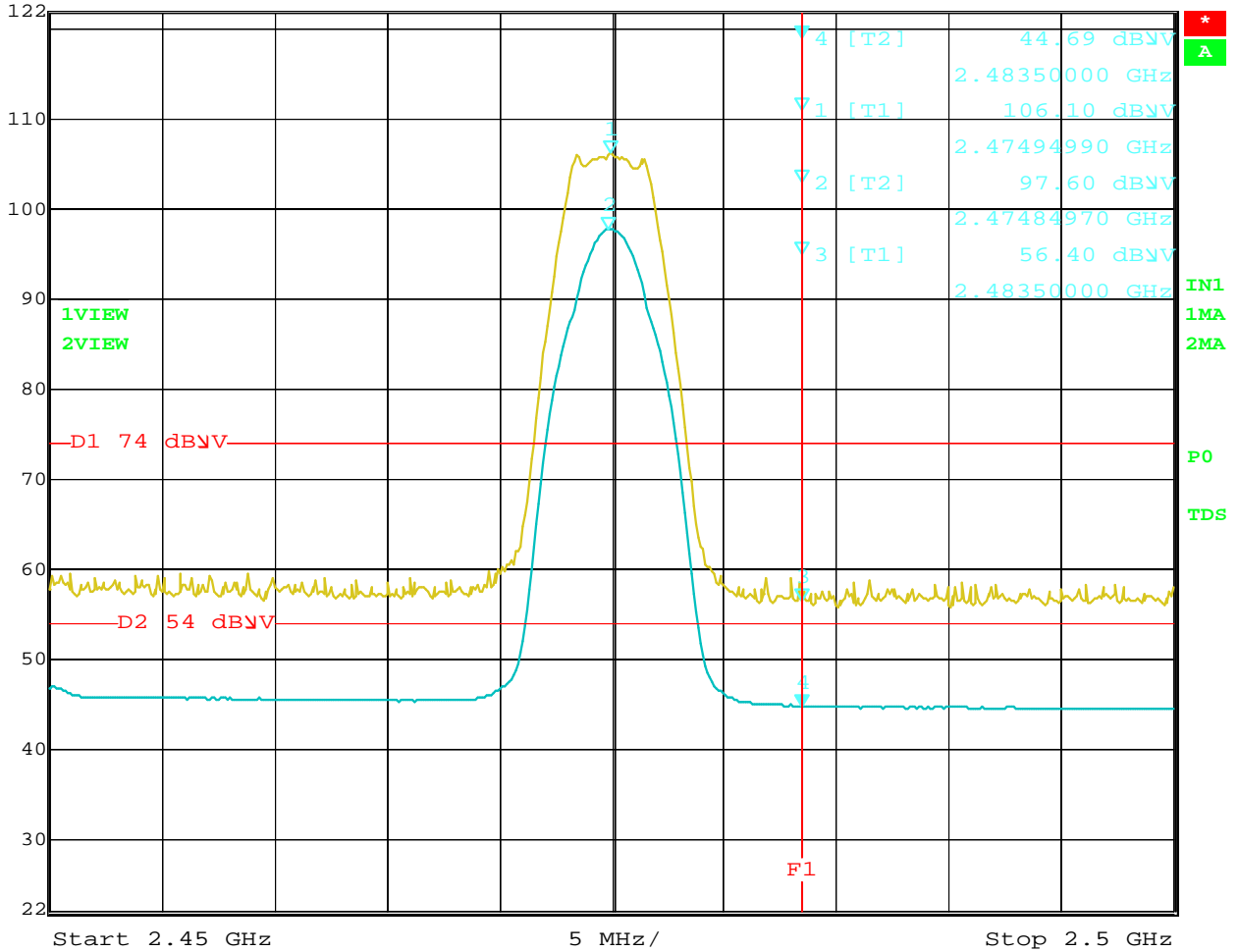


Date: 4.MAR.2013 08:37:47

Band Edge – Low Channel – Horizontal Polarization – Monopole Antenna – X-Axis (Worst Case)



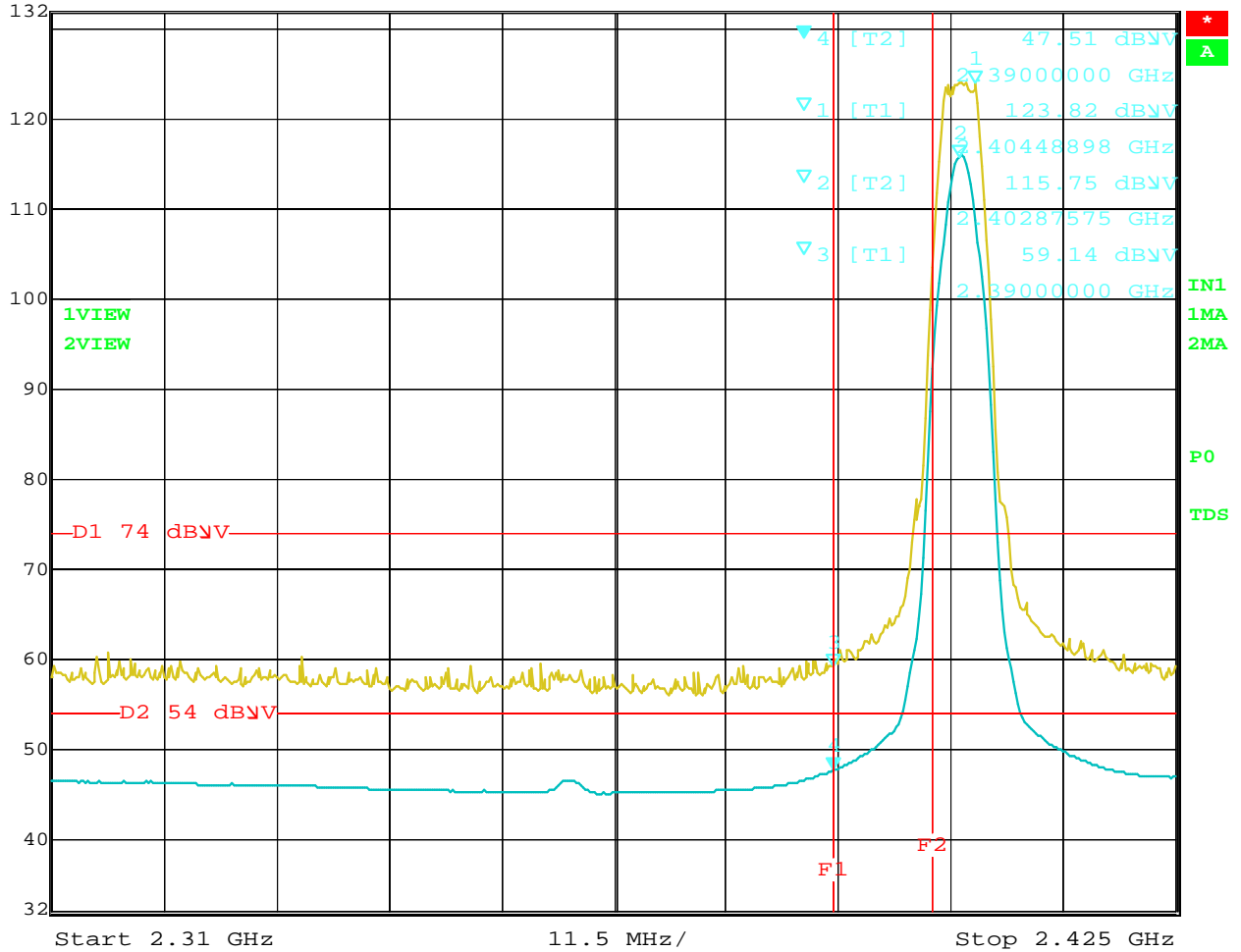
Marker 4 [T2] RBW 1 MHz RF Att 30 dB  
 Ref Lvl 44.69 dBμV VBW 10 Hz  
 122 dBμV 2.48350000 GHz SWT 12.5 s Unit dBμV



Date: 4.MAR.2013 08:43:27

Band Edge – High Channel – Horizontal Polarization – Monopole Antenna – X-Axis (Worst Case)

 Max/Ref Lvl    Marker 4 [T2]    RBW    1 MHz    RF Att    30 dB  
 132 dBV    47.51 dBV    VBW    10 Hz  
 122 dBV    2.39000000 GHz    SWT    29 s    Unit    dBV

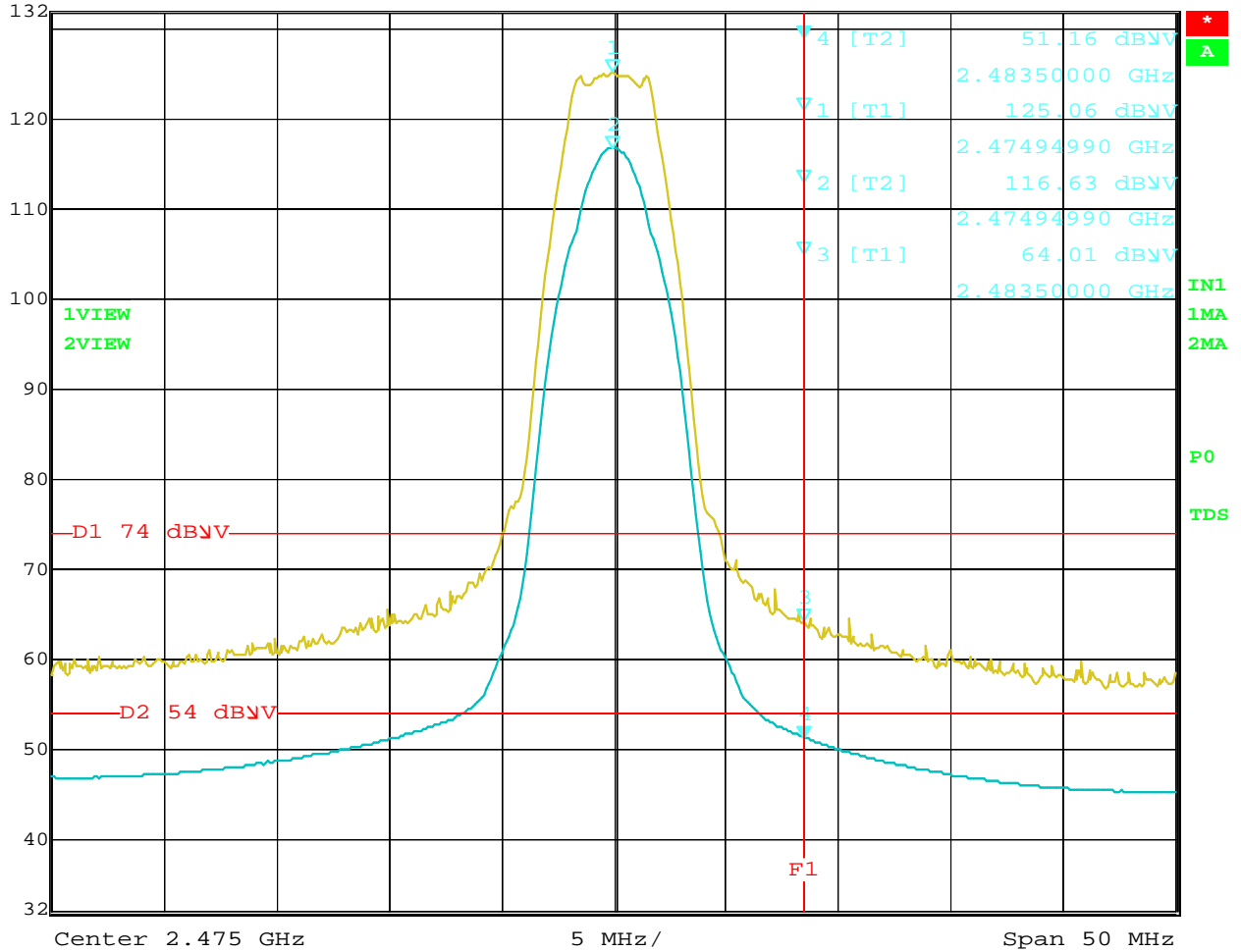


Date: 4.MAR.2013 09:49:22

Band Edge – Low Channel – Vertical Polarization – Twin Patch Antenna – Y-Axis (Worst Case)



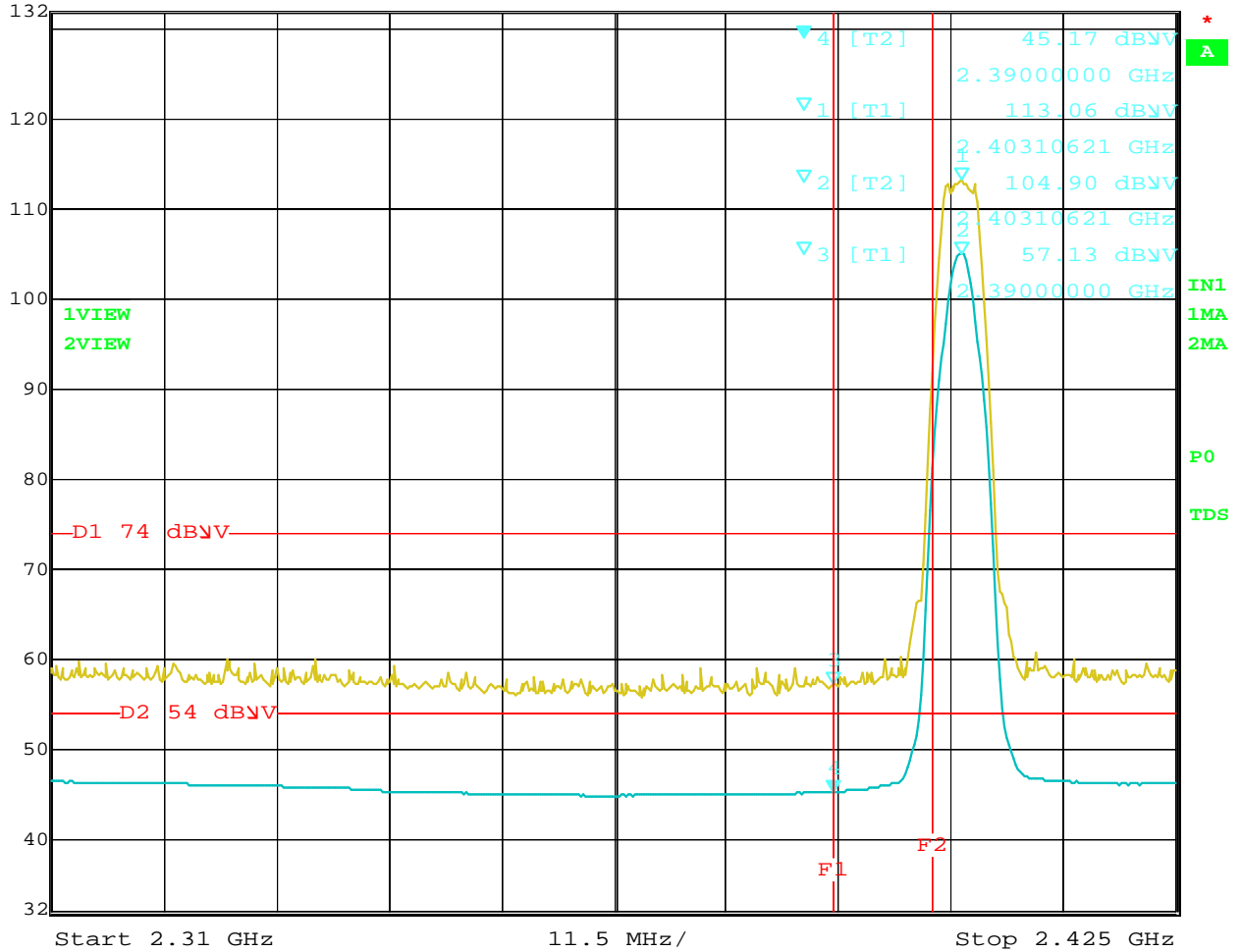
 Max/Ref Lvl    Marker 4 [T2]    RBW    1 MHz    RF Att    30 dB  
 132 dBμV    51.16 dBμV    VBW    10 Hz  
 122 dBμV    2.48350000 GHz    SWT    12.5 s    Unit    dBμV



Date: 4.MAR.2013 09:23:28

Band Edge – High Channel – Vertical Polarization – Twin Patch Antenna – Y-Axis (Worst Case)

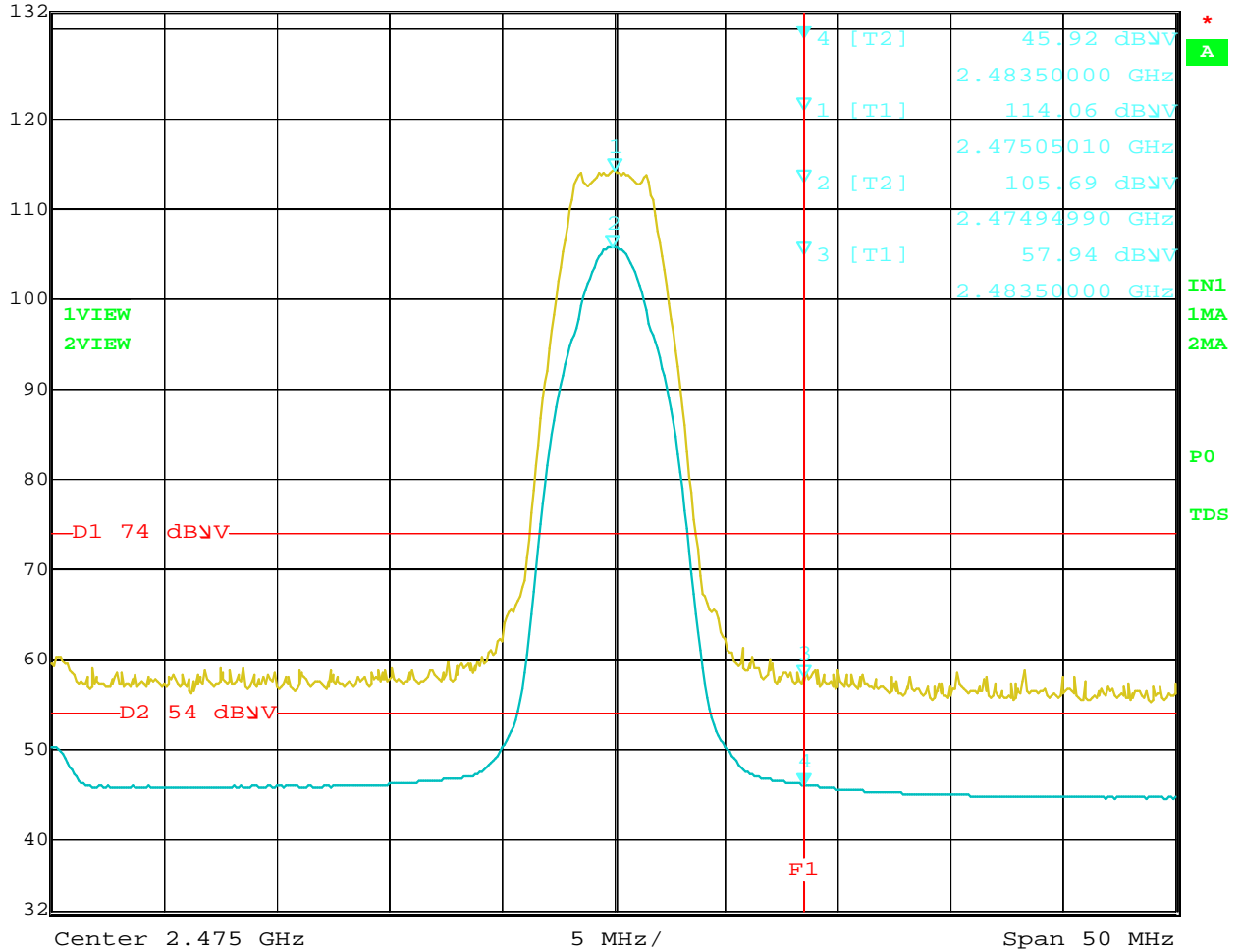
 Max/Ref Lvl    Marker 4 [T2]    RBW    1 MHz    RF Att    30 dB  
 132 dBV    45.17 dBV    VBW    10 Hz  
 122 dBV    2.39000000 GHz    SWT    29 s    Unit    dBV



Date: 4.MAR.2013 09:43:06


Band Edge – Low Channel – Horizontal Polarization – Twin Patch Antenna – Y-Axis (Worst Case)

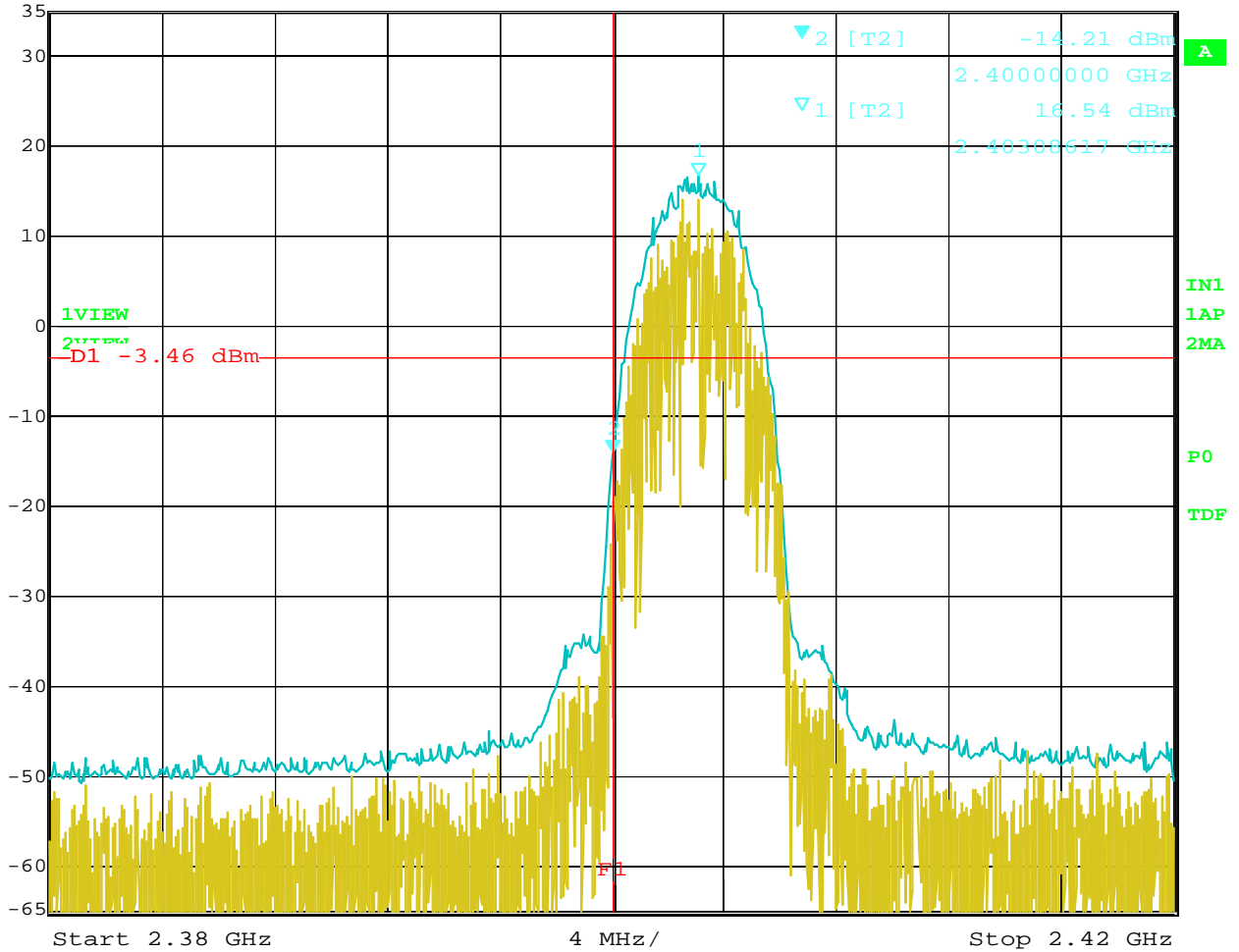
 Max/Ref Lvl    Marker 4 [T2]    RBW    1 MHz    RF Att    30 dB  
 132 dBV    45.92 dBV    VBW    10 Hz  
 122 dBV    2.48350000 GHz    SWT    12.5 s    Unit    dBV



Date: 4.MAR.2013 09:36:44

Band Edge – High Channel – Horizontal Polarization – Twin Patch Antenna – Y-Axis (Worst Case)

	Max/Ref Lvl	Marker 2 [T2]	RBW	100 kHz	RF Att	40 dB
	35 dBm	-14.21 dBm	VBW	300 kHz		
	25 dBm	2.40000000 GHz	SWT	10 ms	Unit	dBm




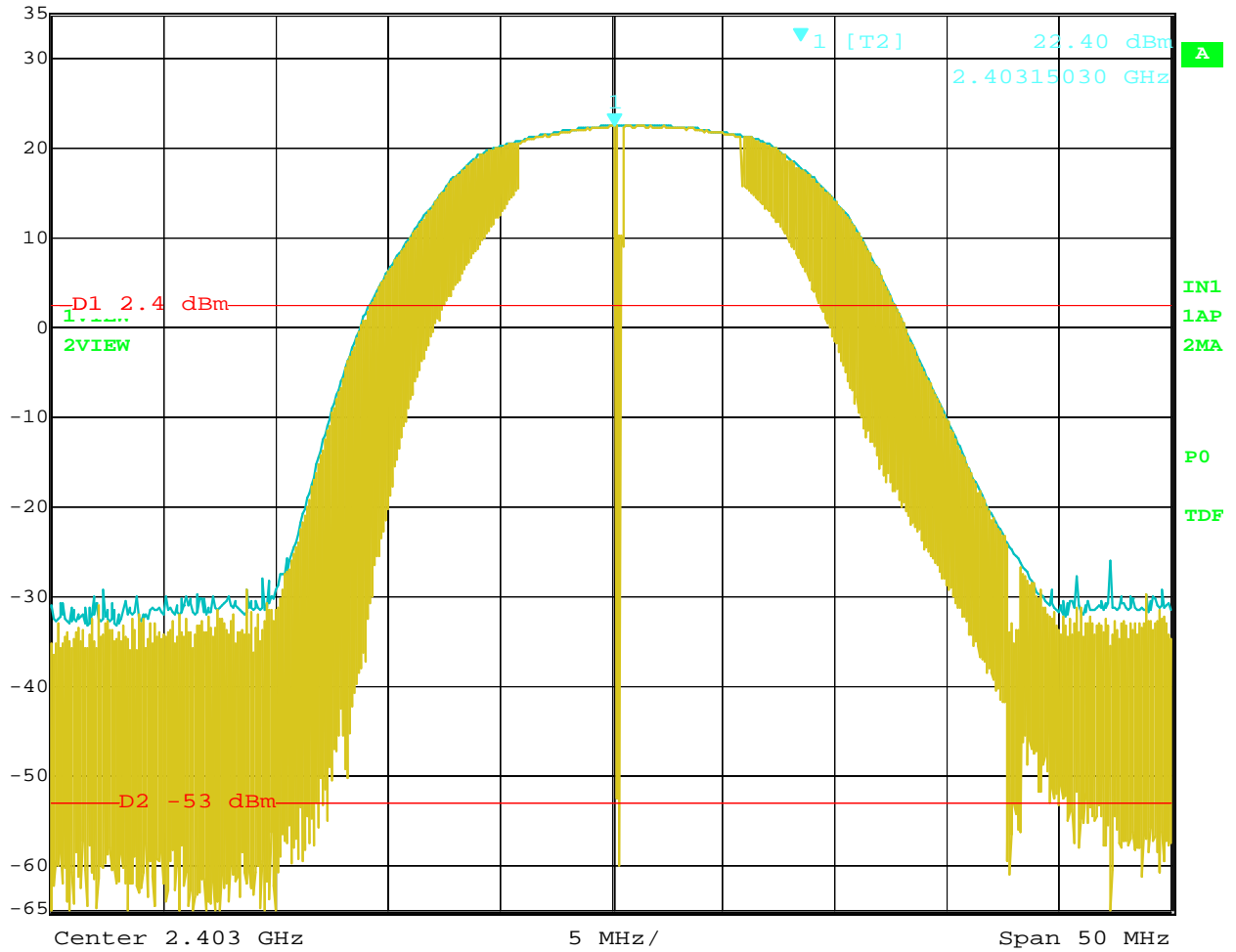
Date: 5.FEB.2013 16:11:08

Band Edge at 2400 MHz using Conducted Measurements – 2400 MHz is a non-restricted frequency




***DATA SHEETS***

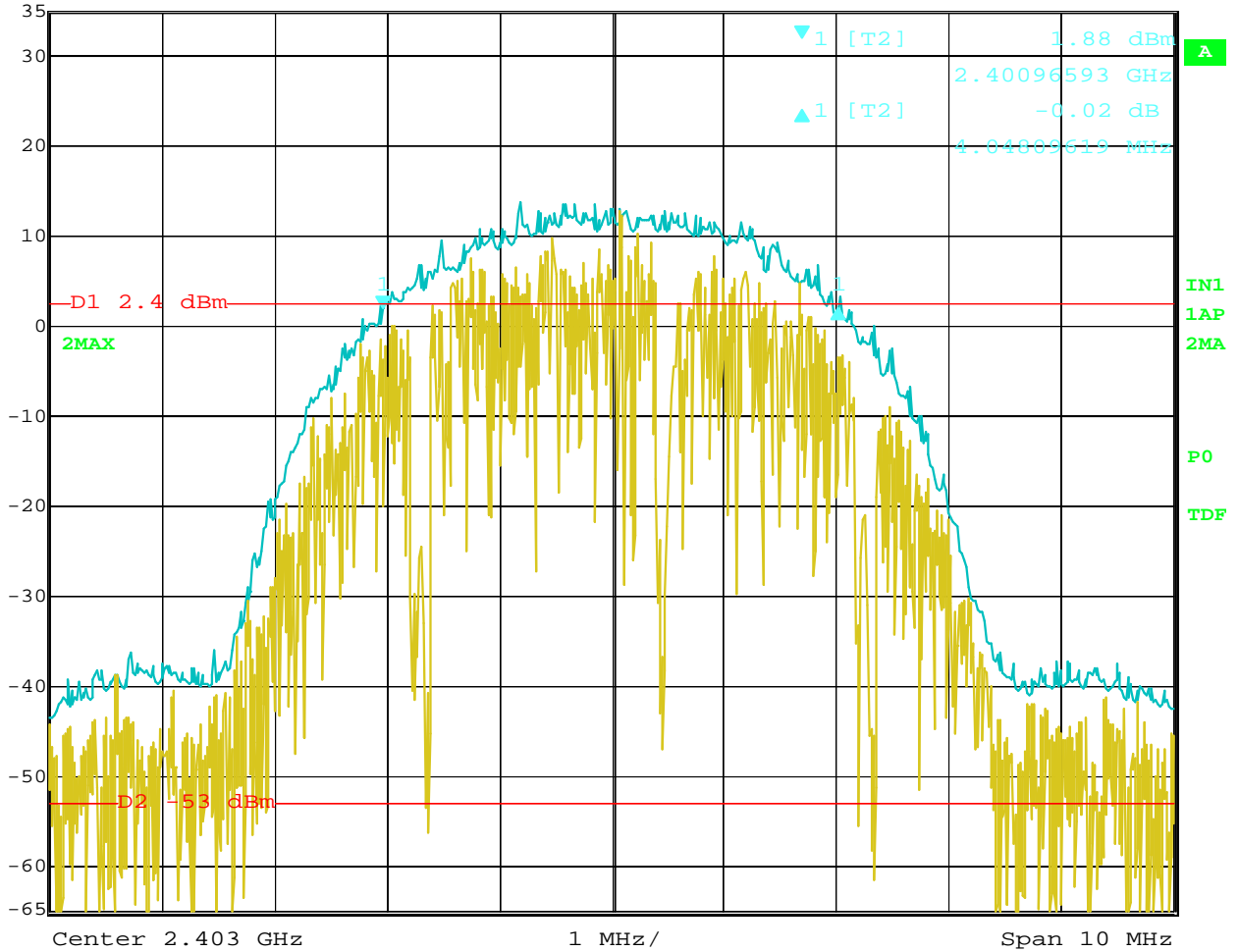
	Max/Ref Lvl	Marker 1 [T2]	RBW	10 MHz	RF Att	40 dB
	35 dBm	22.40 dBm	VBW	10 MHz		
	25 dBm	2.40315030 GHz	SWT	5 ms	Unit	dBm



Date: 4.MAR.2013 12:47:05

 Reference level being established by using a resolution bandwidth that exceeds the signal bandwidth  
 Low Channel

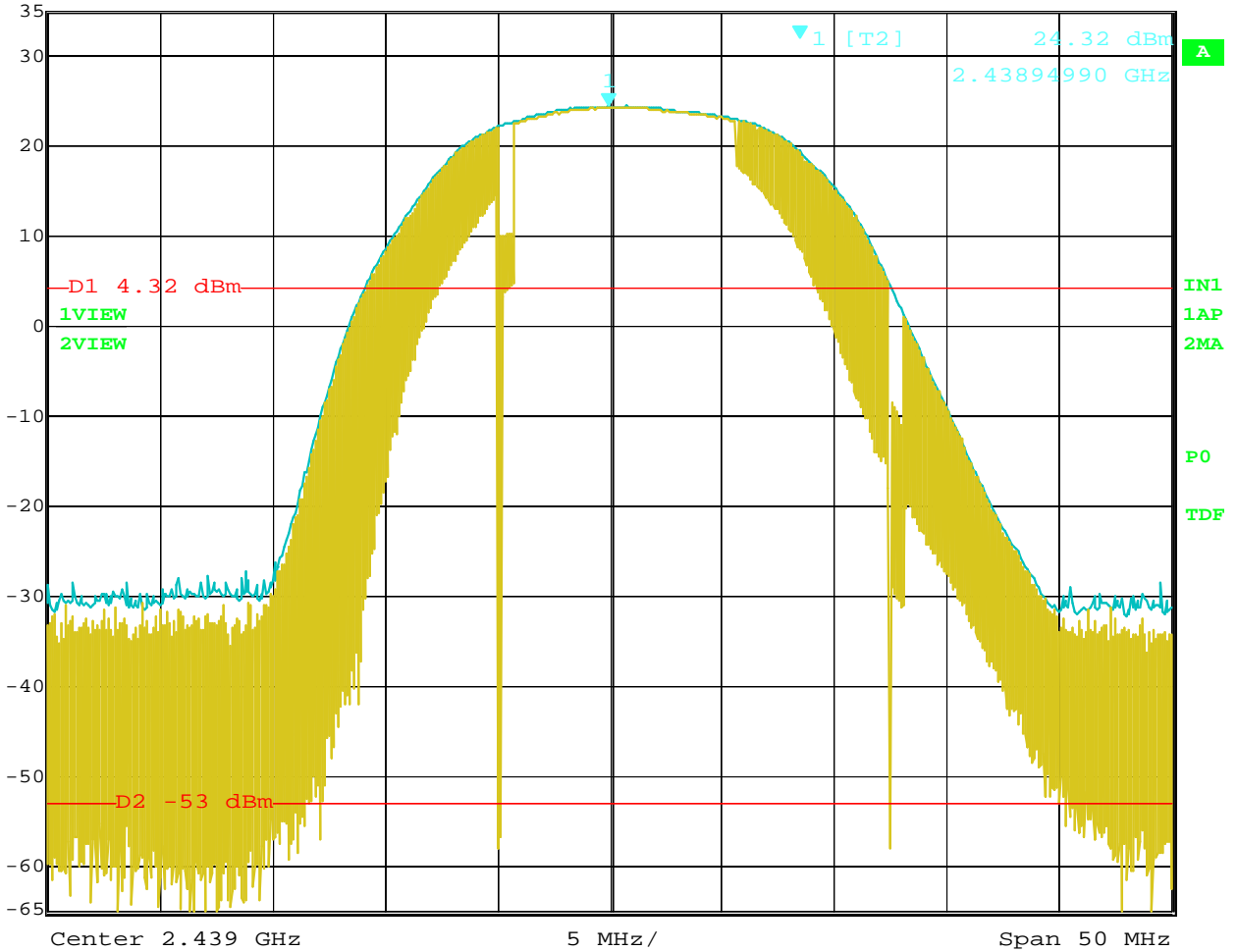
	Max/Ref Lvl	Delta 1 [T2]	RBW	50 kHz	RF Att	40 dB
	35 dBm	-0.02 dB	VBW	200 kHz		
	25 dBm	4.04809619 MHz	SWT	10 ms	Unit	dBm



Date: 4.MAR.2013 12:47:47

Bandwidth using RBW > 1% of the estimated emission bandwidth, VBW set to > 3 times RBW.  
 Markers moved to the -20 dB point of the reference level shown on the previous page.  
 Low Channel


RSS
 Max/Ref Lvl    Marker 1 [T2]    RBW    10 MHz    RF Att    40 dB  
 35 dBm                            24.32 dBm    VBW    10 MHz  
 25 dBm                            2.43894990 GHz    SWT    5 ms    Unit    dBm

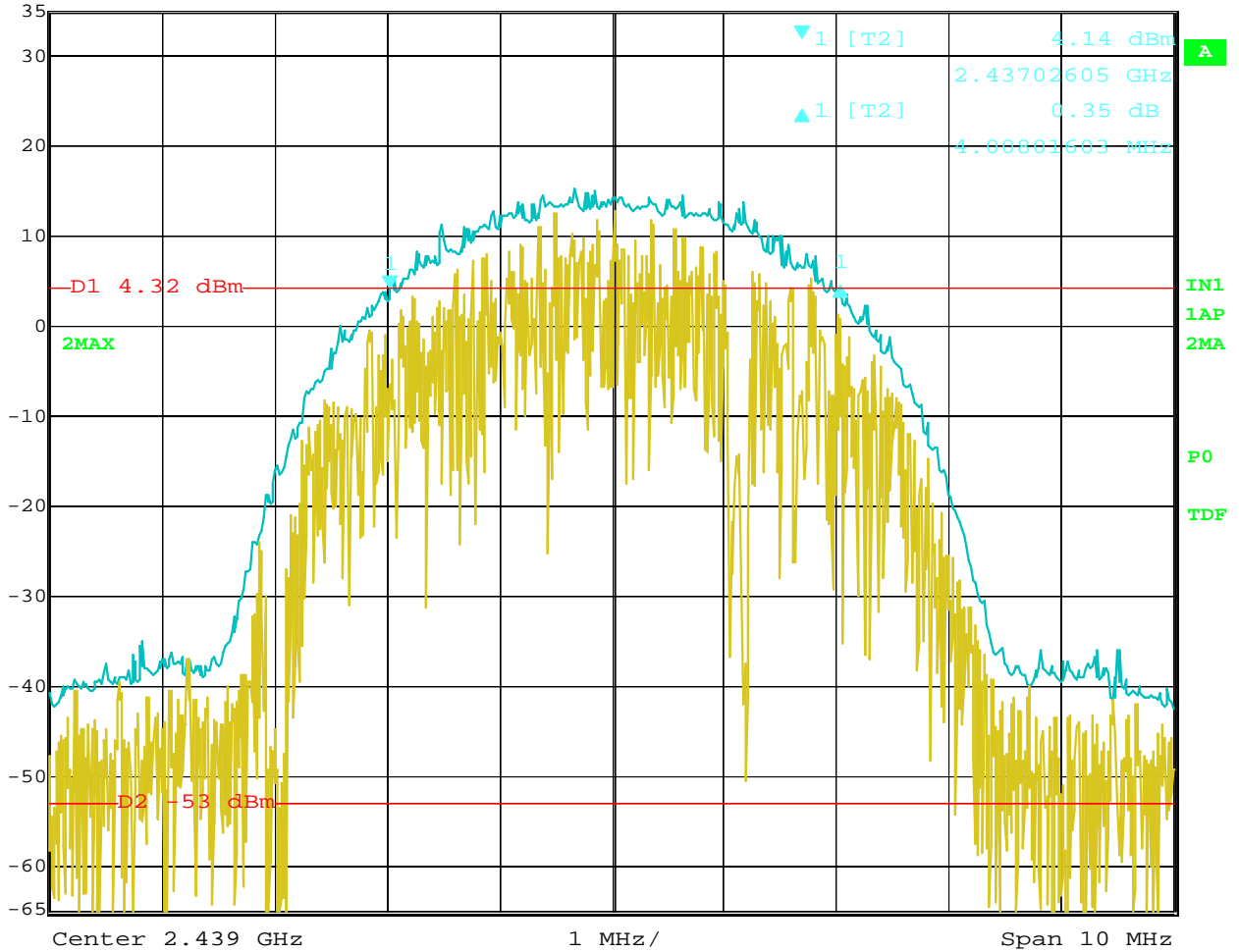


Date: 4.MAR.2013 12:43:22

Reference level being established by using a resolution bandwidth that exceeds the signal bandwidth  
 Middle Channel




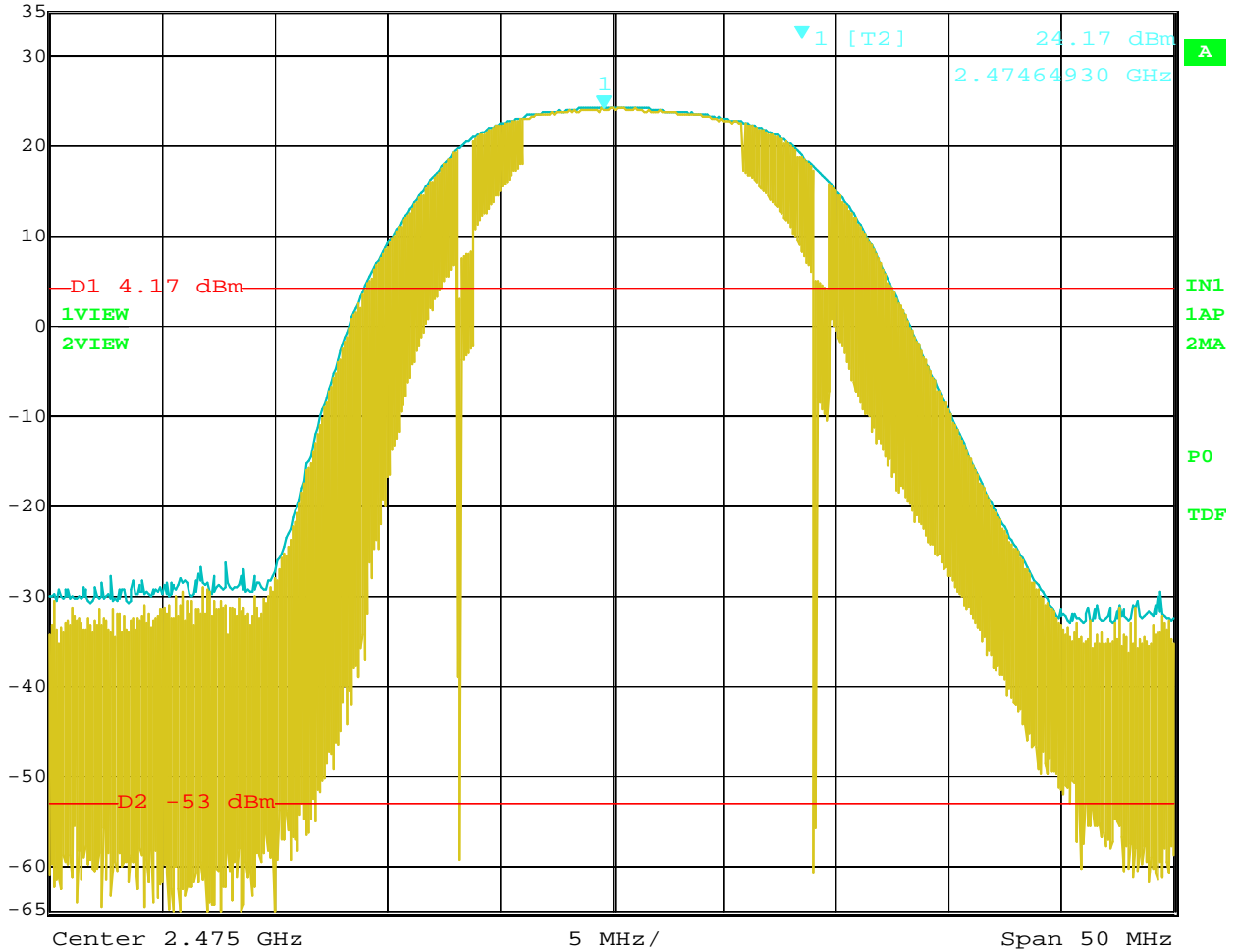
	Max/Ref Lvl	Delta 1 [T2]	RBW	50 kHz	RF Att	40 dB
	35 dBm	0.35 dB	VBW	200 kHz		
	25 dBm	4.00801603 MHz	SWT	10 ms	Unit	dBm



Date: 4.MAR.2013 12:44:21


Bandwidth using RBW > 1% of the estimated emission bandwidth, VBW set to > 3 times RBW.  
 Markers moved to the -20 dB point of the reference level shown on the previous page.  
 Middle Channel

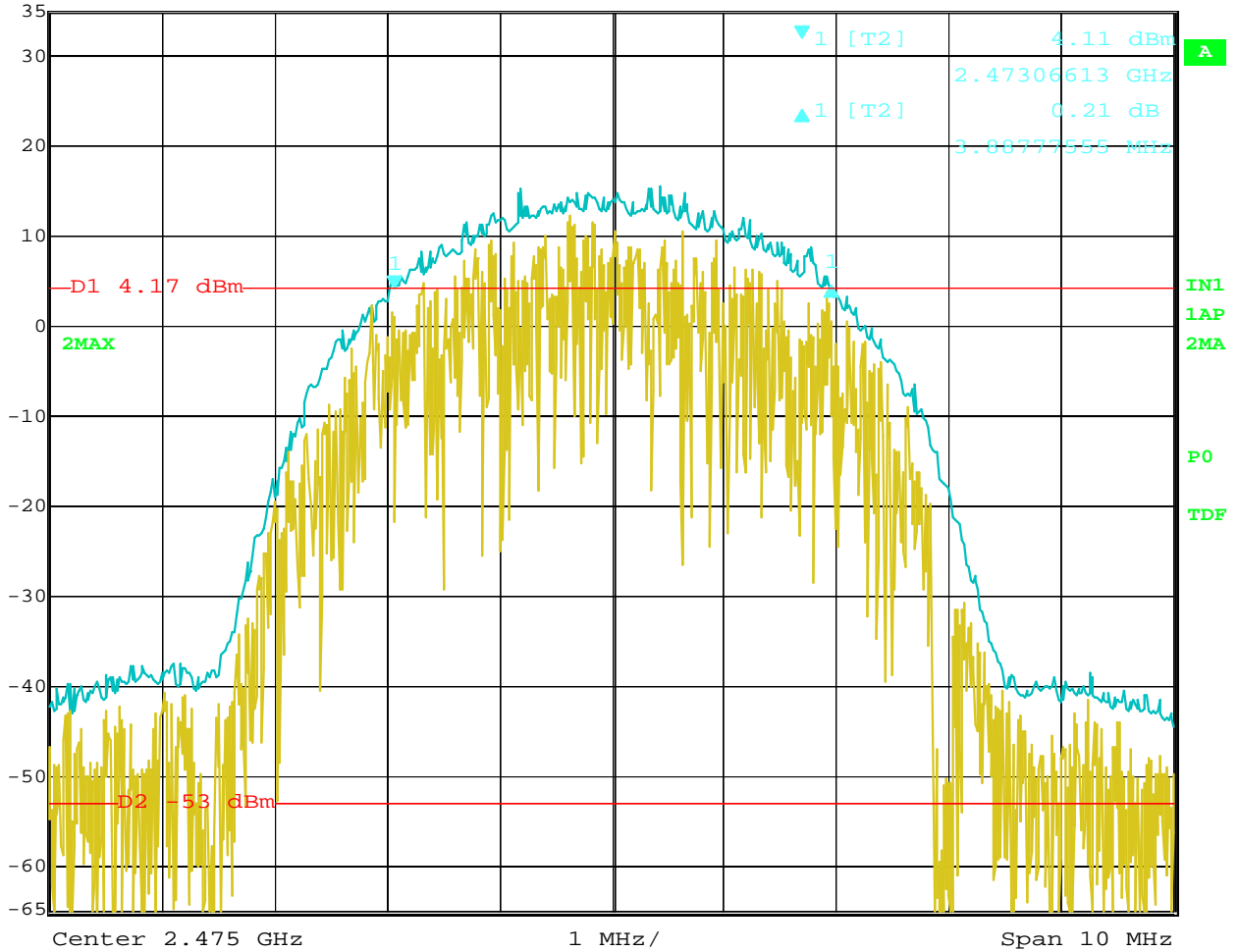
	Max/Ref Lvl	Marker 1 [T2]	RBW	10 MHz	RF Att	40 dB
	35 dBm	24.17 dBm	VBW	10 MHz		
	25 dBm	2.47464930 GHz	SWT	5 ms	Unit	dBm



Date: 4.MAR.2013 12:54:02

Reference level being established using a resolution bandwidth that exceeds the signal bandwidth.  
High Channel

	Max/Ref Lvl	Delta 1 [T2]	RBW	50 kHz	RF Att	40 dB
	35 dBm	0.21 dB	VBW	200 kHz		
	25 dBm	3.88777555 MHz	SWT	10 ms	Unit	dBm



Date: 4.MAR.2013 12:54:48

Bandwidth using RBW > 1% of the estimated emission bandwidth, VBW set to > 3 times RBW.  
 Markers moved to the -20 dB point of the reference level shown on the previous page.  
 High Channel