

Maximum Field strength

RF channel	Ch 11
VP: Measured value (dBμV/m)	118.45
HP: Measured value (dBμV/m)	113.89

Radiated Emissions with antenna, 1-25 GHz, peak

1-18 GHz measured at a distance of 3m, 18-25 GHz measured at 1m.

Measured with Peak Detector

Frequency	RF channel	Dist. corr. factor	Field strength, Peak	Duty cycle corr. factor	Limit	Margin
GHz	11-26	dB	dBμV/m	dB	dBμV/m	dB
4.811	11	0	54.50	-	74	19.5
4.881	18	0	-	-	74	-
4.960	26	0	-	-	74	-
7,215	11	0	60.98	-	74	13.02
7,32	18	0	-	-	74	-
7,44	26	0	-	-	74	-
12,025	11	*	51.20	-	74	22.8
12,2	18	*	-	-	74	-
12,4	26	*	-	-	74	-
14,43	11	*	52.88	-	74	21.12
14,64	18	*	-	-	74	-
14,88	26	*	-	-	74	-
18 - 25	11,18,26	0	None detected	-	-	-

* corrected on the plot , -9.5dB

Non-restricted band spurious emission , Radiated – Peak detector

Frequency	RF channel	Dist. corr. factor	Field strength, Peak	Field strength of desired frequency	Limit	Margin
GHz	11-26	dB	dBμV/m	dBμV/m	dB	dB
9.62	11	*	76.07	118.45	> 20	>20
9.76	18	*	-	-	> 20	-
9.92	26	*	-	-	> 20	-
16.835	11	*	51.09	118.45	> 20	>20
17.08	18	*	-	-	> 20	-
17.36	26	*	-	-	> 20	-

Radiated emissions with antenna, 1- 25 GHz, Average

Frequency	RF channel	Dist. corr. factor	Field strength, Peak	Duty cycle corr. factor	Limit	Margin
GHz	11-26	dB	dB μ V/m	dB	dB μ V/m	dB
4.811	11	0	54.50	11	54	10.5
4.881	18	0	-	11	54	-
4.960	26	0	-	11	54	-
7,215	11	0	60.98	11	54	4.02
7,32	18	0	-	11	54	-
7,44	26	0	-	11	54	-
12,025	11	*	51.20	11	54	13.8
12,2	18	*	-	11	54	-
12,4	26	*	-	11	54	-
14,43	11	*	52.88	11	54	12.12
14,64	18	*	-	11	54	-
14,88	26	*	-	11	54	-
18 - 25	11,18,26	0	None detected	11	-	-

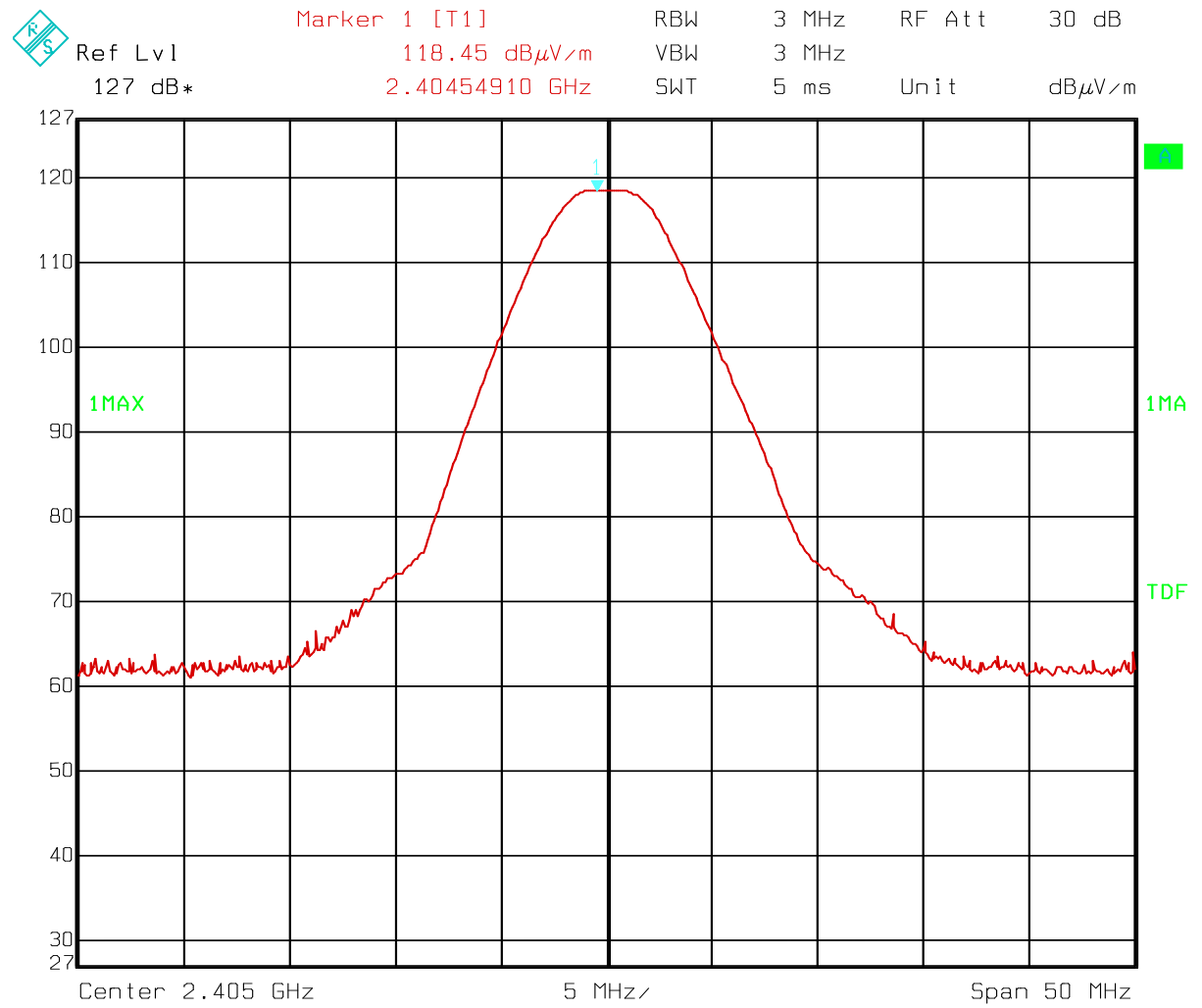
* corrected on the plot , -9.5dB The maximum is observed in horizontal polarization

Antenna factor, amplifier gain and cable loss are included in spectrum analyzer "Transducer factor".

Restricted bands according to part 15.205 : 2310 – 2390 MHz ,483.5 – 2500 MHz, 7.250 – 7.750 GHz , 10.6 - 12.7 GHz , 14.47 - 14.5GHz and 15.35 - 16.2 GHz

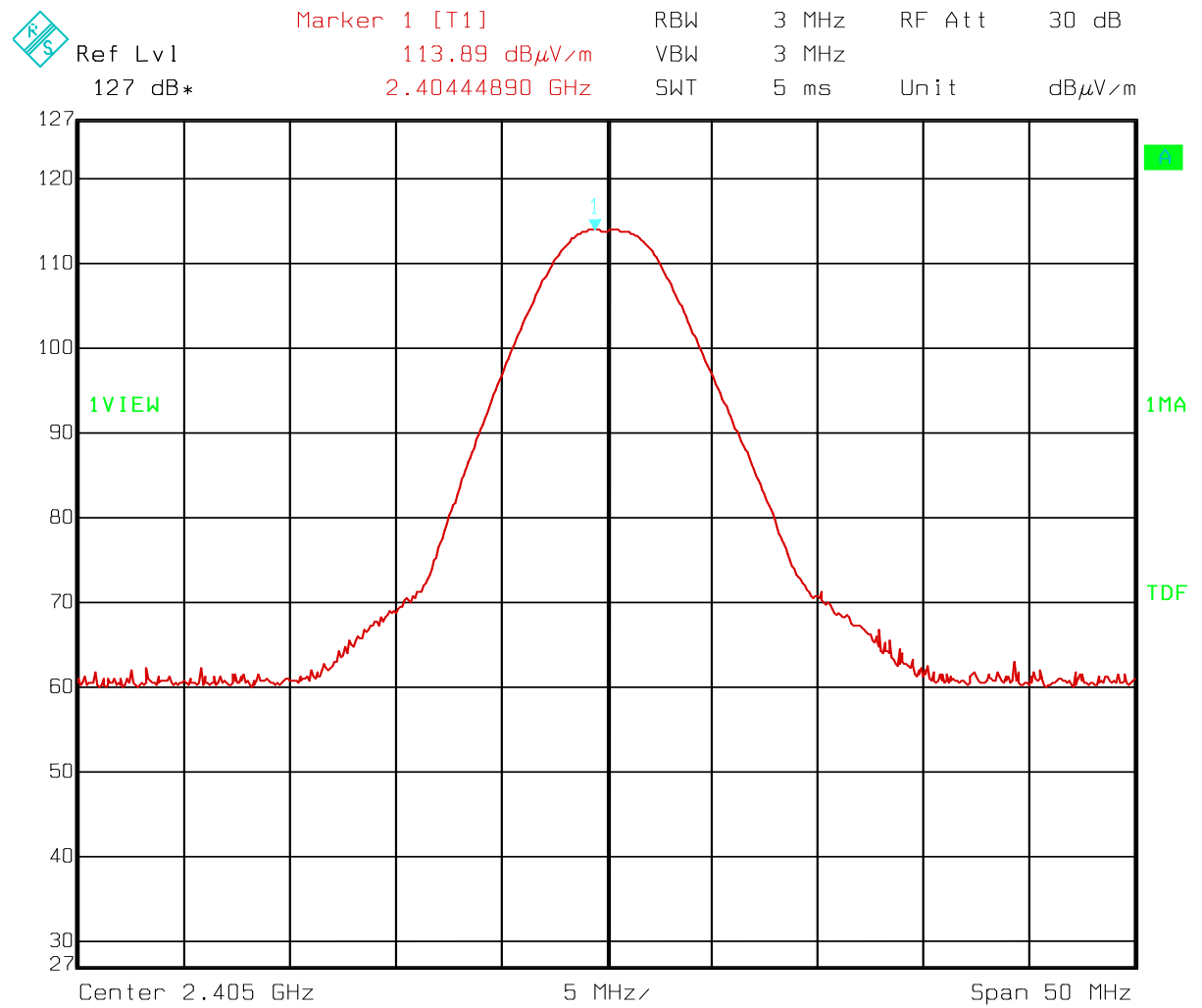
Requirement:

(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).



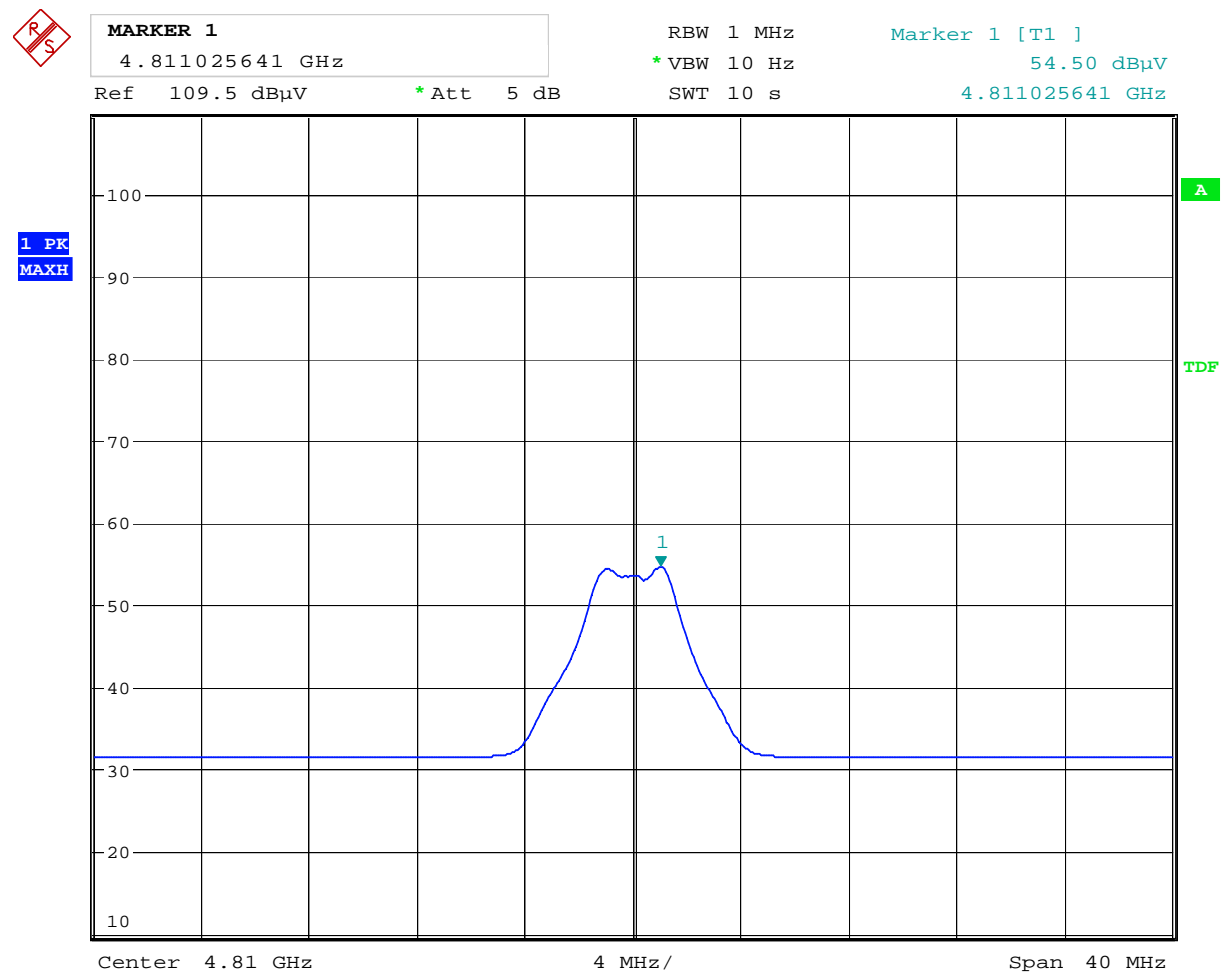
Date: 27.JAN.2011 12:11:27

Ch11: Field strength with ACARA antenna – VP



Date: 27.JAN.2011 12:14:17

Ch11: Field strength with ACARA antenna – HP

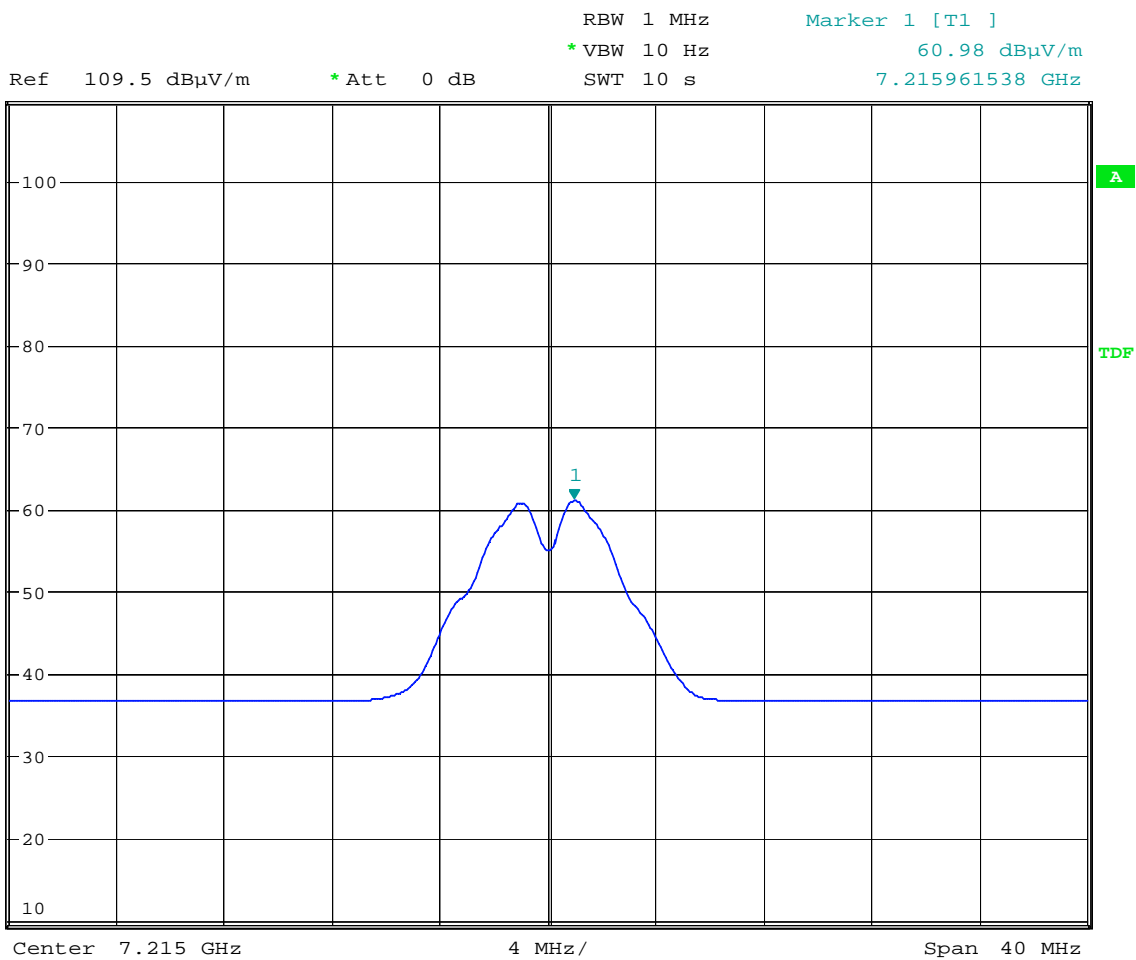


Date: 9.DEC.2010 09:45:42

Ch11 – 2nd Harmonic



1 PK
MAXH



Date: 9.DEC.2010 09:38:19

Ch11 – 3rd Harmonic



MARKER 1

9.618076923 GHz

RBW 1 MHz

VBW 3 MHz

SWT 20 ms

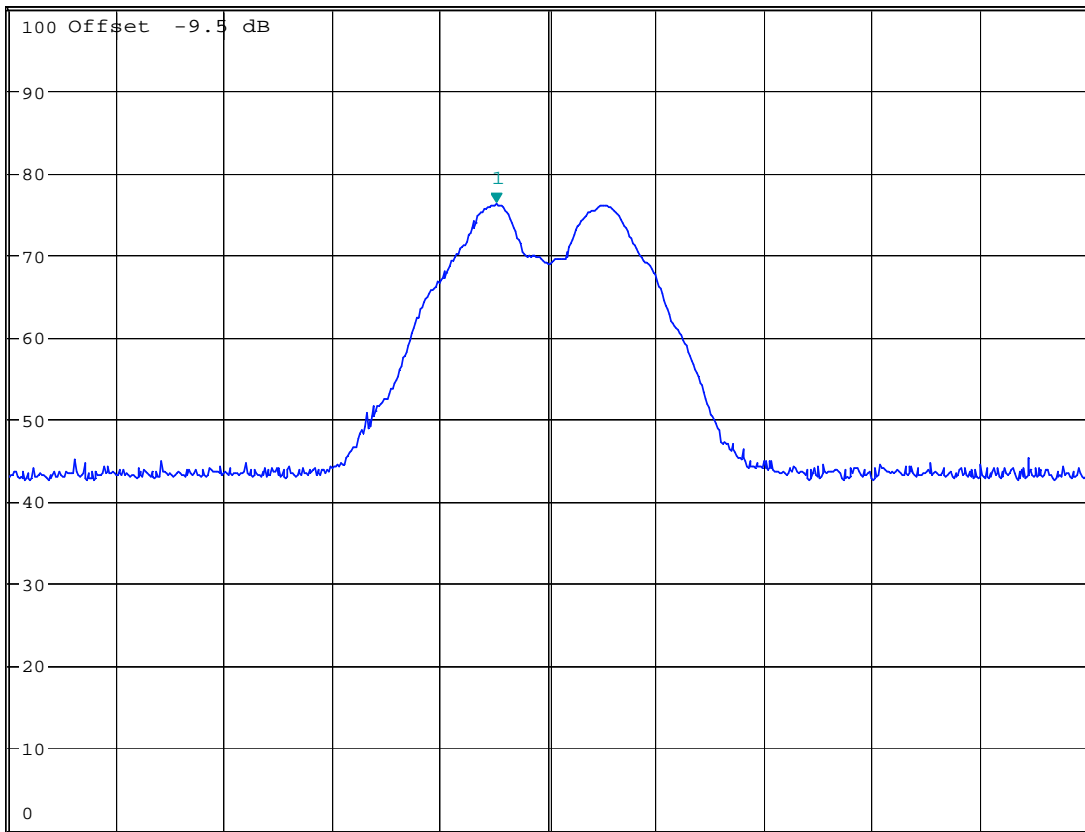
Marker 1 [T1]

76.07 dBμV/m

9.618076923 GHz

Ref 100 dBμV/m * Att 0 dB

1 PK
MAXH



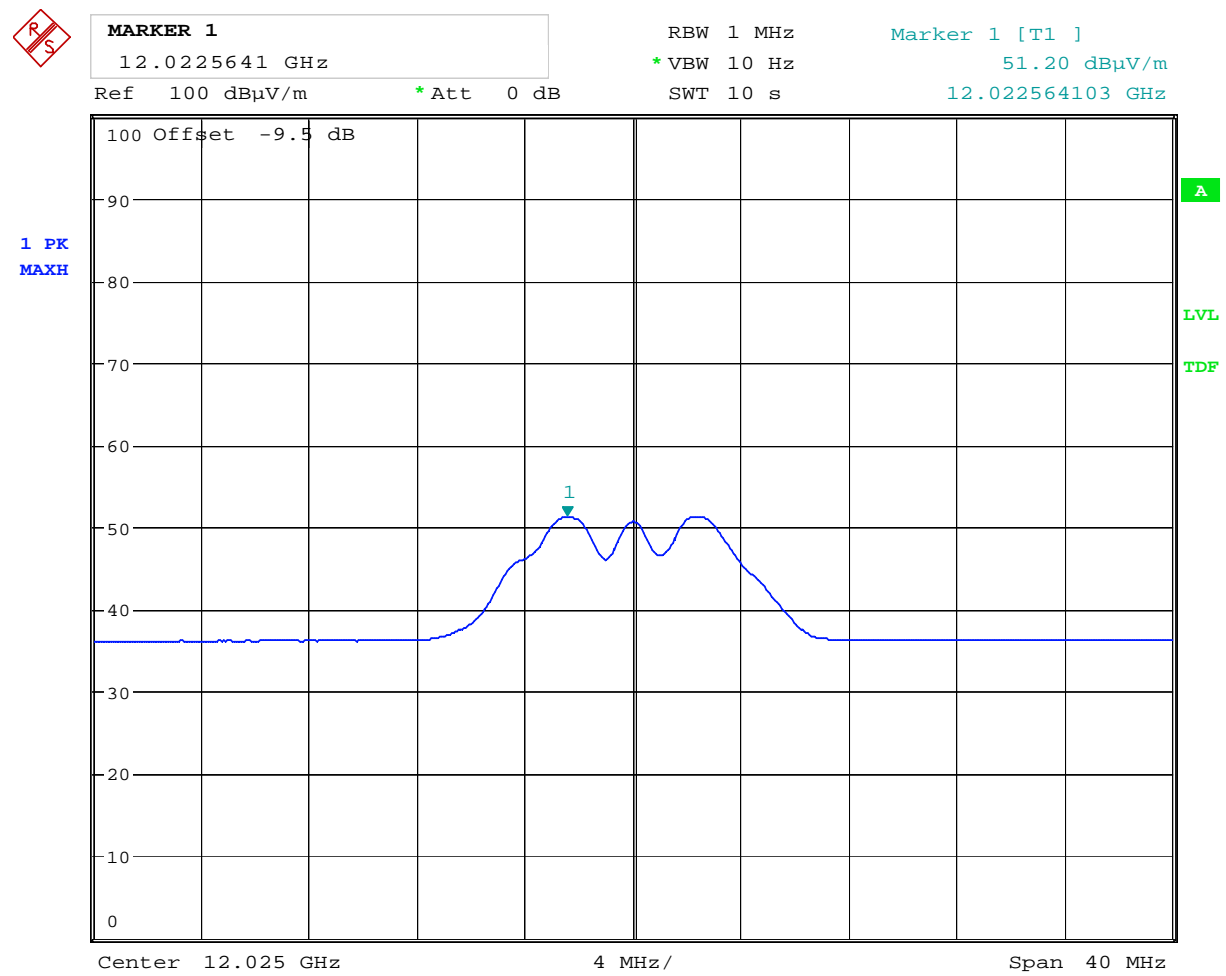
A

LVL

TDF

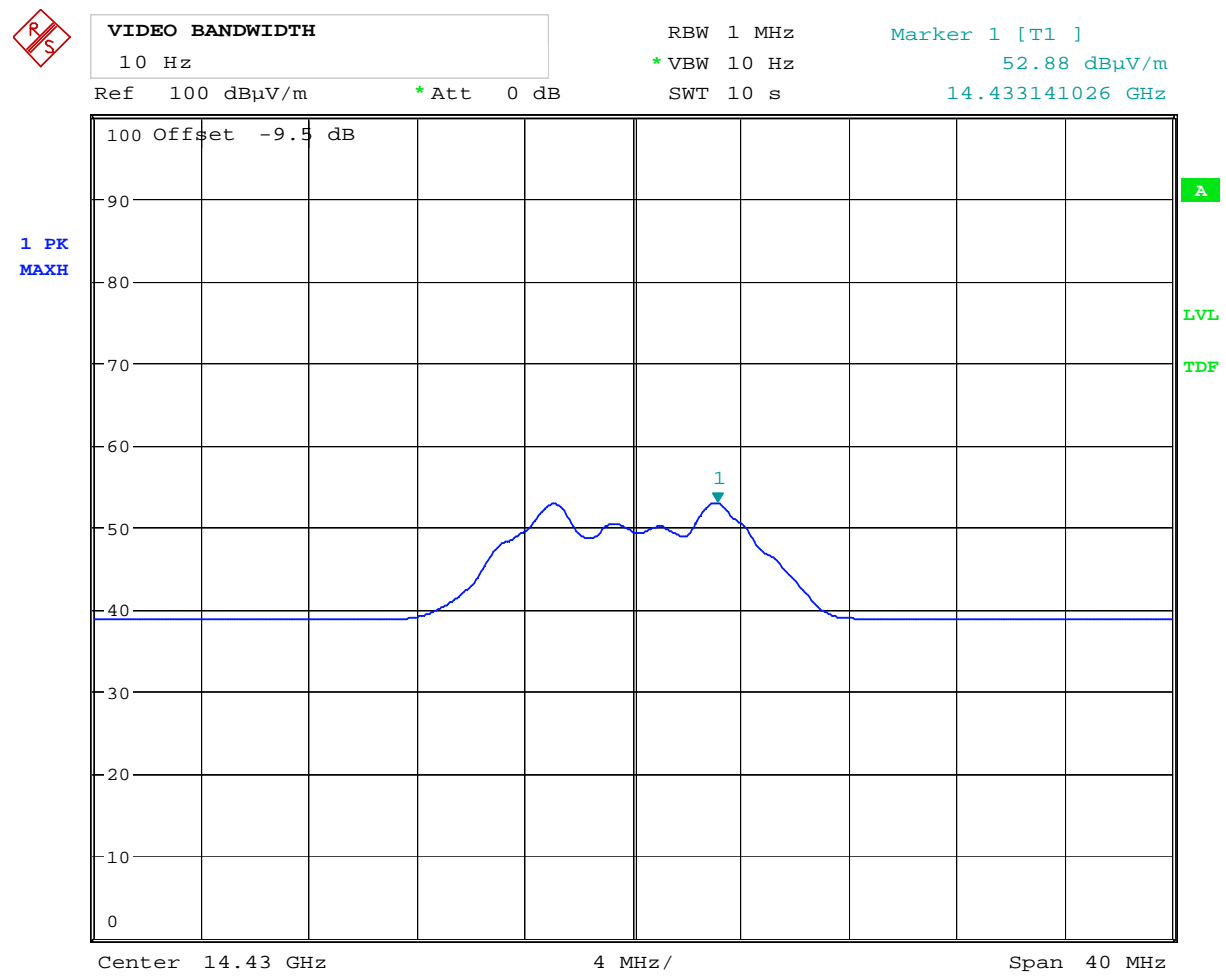
Date: 9.DEC.2010 09:30:41

Ch11 – 4th Harmonic



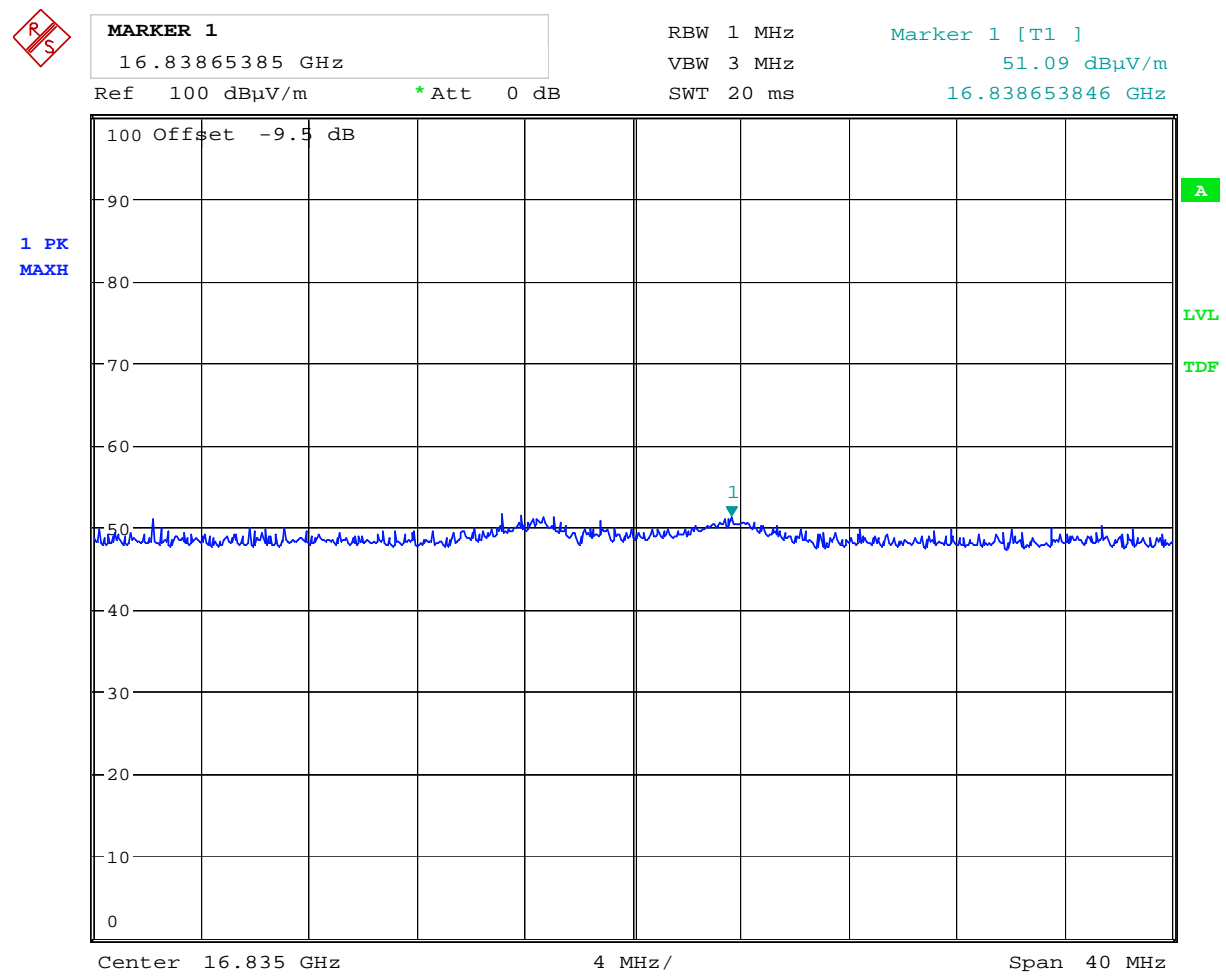
Date: 9.DEC.2010 09:26:49

Ch11 – 5th Harmonic



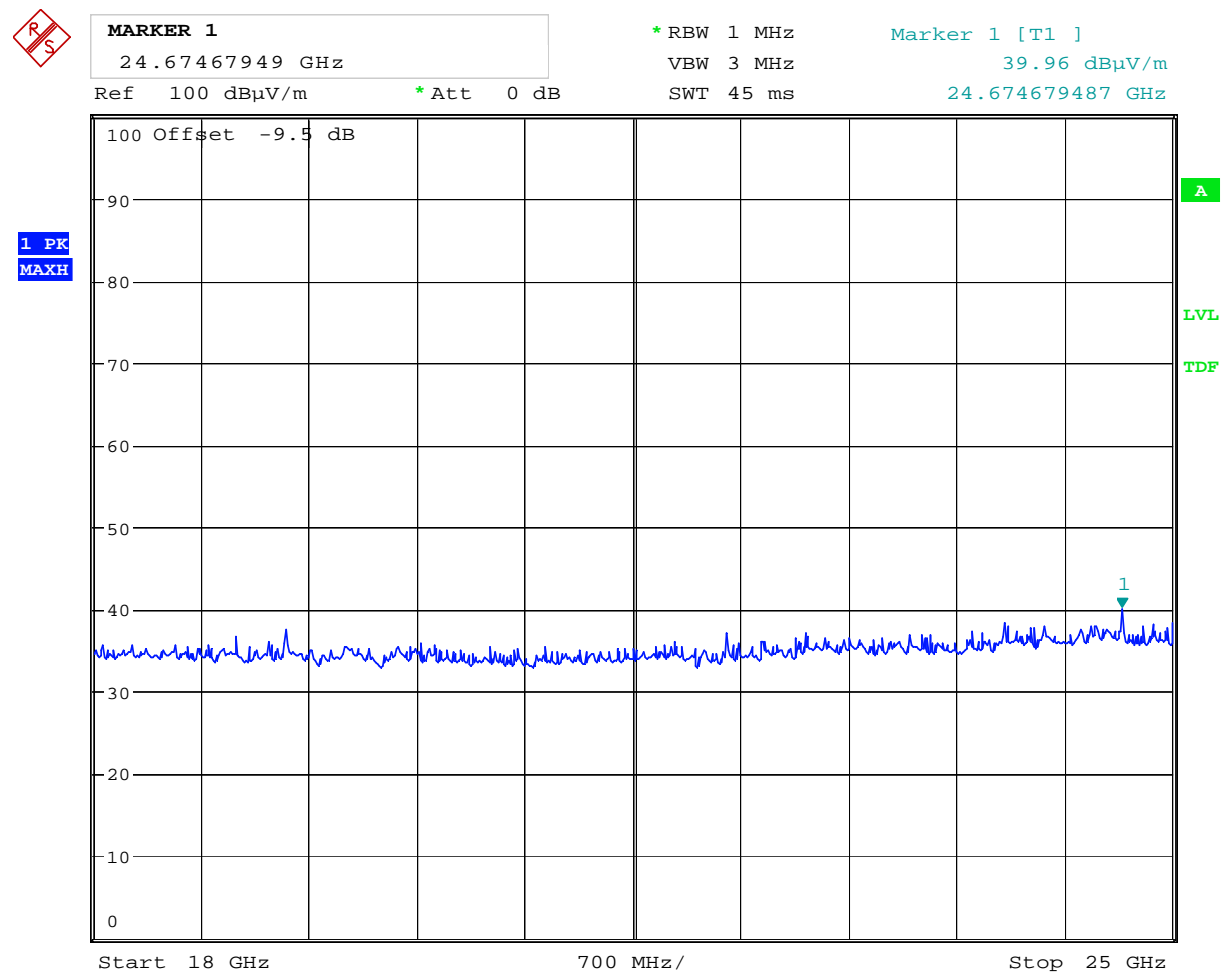
Date: 9.DEC.2010 09:24:12

Ch11 – 6th Harmonic



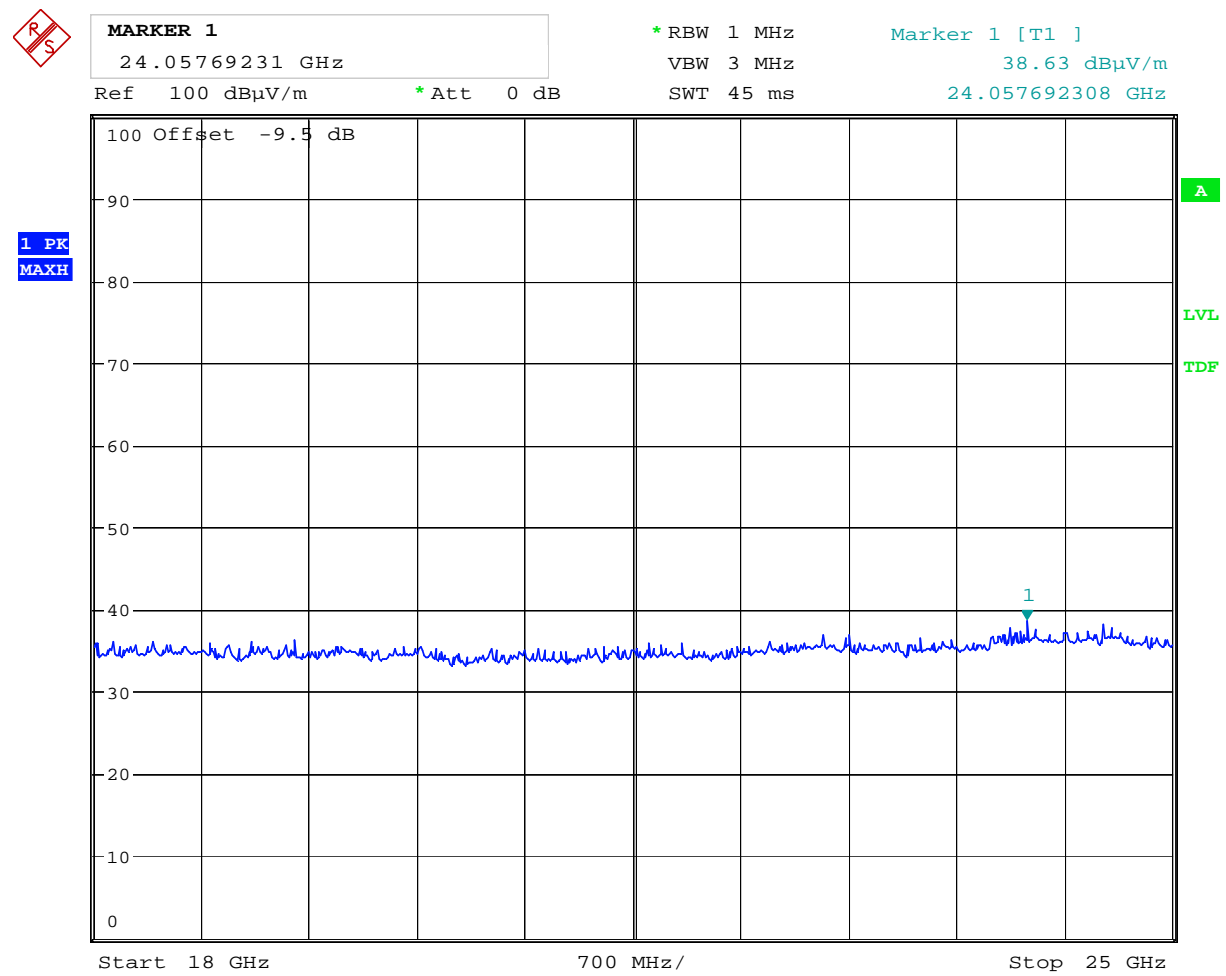
Date: 9.DEC.2010 09:25:04

Ch11 – 7th Harmonic



Date: 9.DEC.2010 09:52:09

CH 11-VP, pre-view scan 18 - 25GHz



Date: 9.DEC.2010 09:59:23

Ch11 – HP, pre-view scan 18 - 25GHz

1 LIST OF TEST EQUIPMENT

To facilitate inclusion on each page of the test equipment used for related tests, each item of test equipment and ancillaries are identified (numbered) by the Test Laboratory.

No.	Model number	Description	Manufacturer	Ref. no.	Cal. date	Cal. Due
1.	FSU26	Spectrum Analyzer	Rohde & Schwarz	LR 1504	28.09.2010	28.09.2011
2.	ESCI	EMI Receiver	Rohde & Schwarz	N 4259	09.09.2010	09.09.2011
3.	FSEK 1088,3494,30	Spectrum Analyzer	R&S	1337	15.12.2010	15.12.2011
4.	U2000A	USB power meter	Agilent Technology	LR 1523	15.01.2010	15.01.2011
5.	3115	Antenna horn	EMCO	LR 1330	05.08.2010	05.08.2013
6.	643	Antenna horn	Narda	LR 093	26.01.2009	26.01.2012
7.	642	Antenna horn	Narda	LR 220	26.01.2009	26.01.2012
8.	PM7320X	Antenna horn	Sivers lab	LR 103	26.01.2009	26.01.2012
9.	DBF-520-20	Antenna horn	Systron Donner	LR 101	26.01.2009	26.01.2012
10.	638	Antenna horn	Narda	LR 098	26.01.2009	26.01.2012
11.	Sucoflex 102E	Cable microwave	Suhner	LR 1370	-	-
12.	6032A	Power supply	HP	LR 1062	-	-
13.	77	Multimeter, Digital	Fluke	LR155	03.11.2010	03.11.2011
14.	8449B	Amplifier	Hewlett Packard	LR 1322	04.08.2009	04.08.2011
15.	HFH2-Z2	Antenna loop	Rohde and Schwarz	LR 285	08.10.2010	08.10.2013
16.	10855A	Amplifier	Hewlett Packard	LR 1445	04.08.2010	04.08.2011
17.	HL223	Antenna log.per	Rohde & Schwarz	LR 1261	19.05.2010	09.05.2013
18.	HK116	Antenna biconic	Rohde & Schwarz	LR 1260	19.05.2010	09.05.2013

1.1 Test Site Radiated Emission

