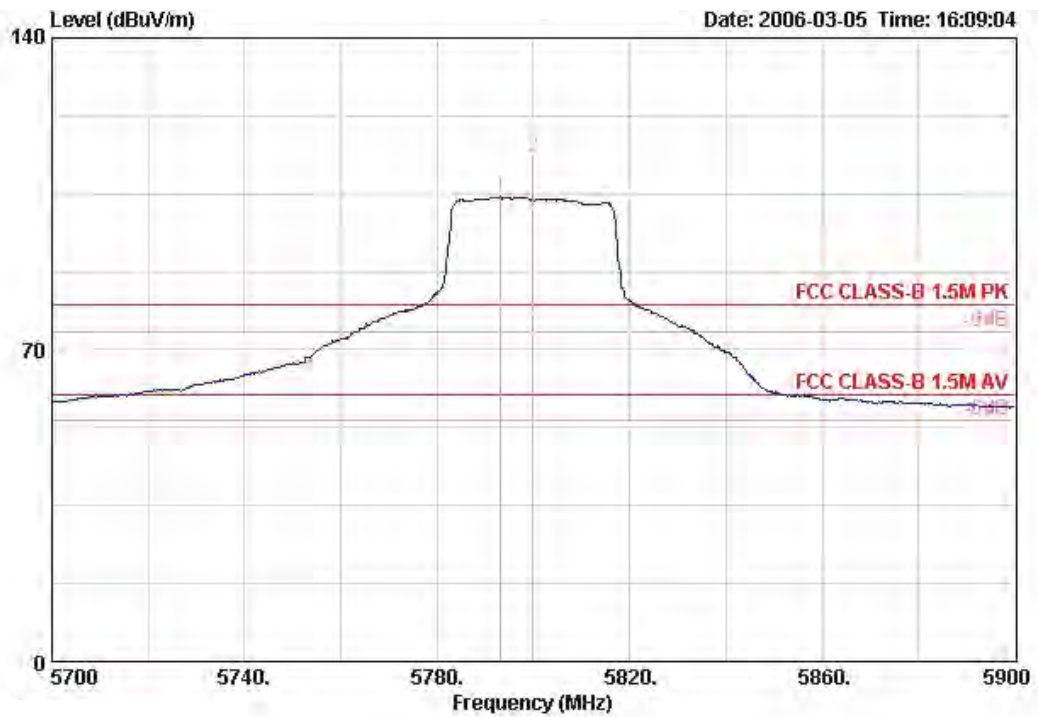


Temperature	24°C	Humidity	64%
Test Engineer	Rush Kao	Configurations	802.11a Turbo Channel 160/ Ant.10

Turbo Channel 160



	Over	Limit	Antenna	Cable	Preamp	Read	Ant	Table		
Freq	Level	Limit	Line Factor	Loss Factor	Factor	Level	Pos	Pos		
MHz	dBuV/m	dB	dBuV/m	dB/m	dB	dBuV	cm	deg		
1 @	5793.200	104.34		34.52	5.26	0.00	64.56	Average	---	---
2 @	5800.000	113.37		34.52	5.26	0.00	73.59	PEAK	117	28

Channel 160 is fundamental frequency at 5800 MHz.

Note:

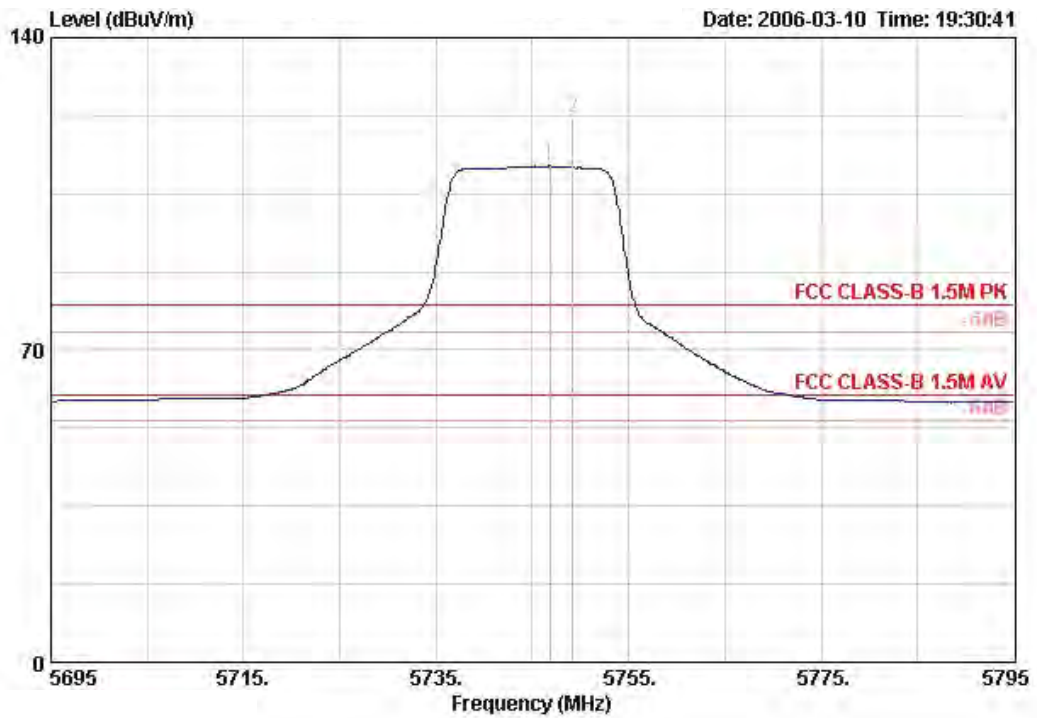
Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Receiving maximum band edge emissions are Vertical Polarization

Temperature	24°C	Humidity	64%
Test Engineer	Rush Kao	Configurations	802.11a Channel 149, 165/ Ant. 11

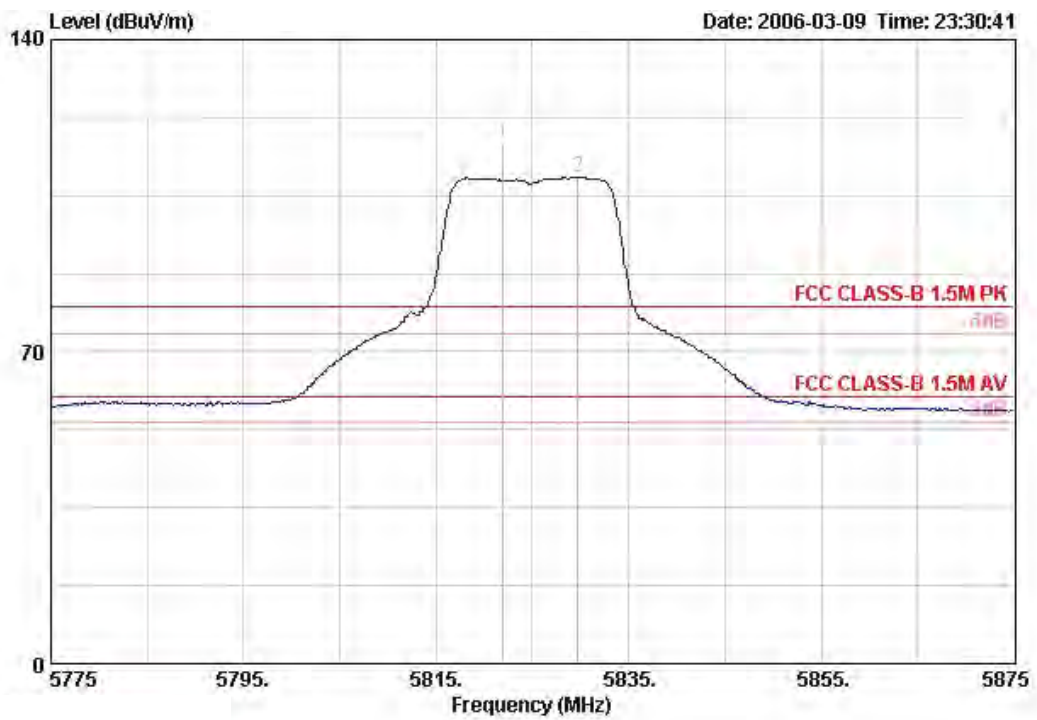
Channel 149



	Freq	Level	Over Limit	Antenna Line	Cable Loss	Preamp Factor	Read Level	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dB/m	dB	dB	dBuV		cm	deg
1 @	5746.800	111.21		34.50	5.26	0.00	71.46	Average	---	---
2	5749.200	122.25		34.50	5.26	0.00	82.50	PEAK	100	0

Channel 149 is fundamental frequency at 5745 MHz.

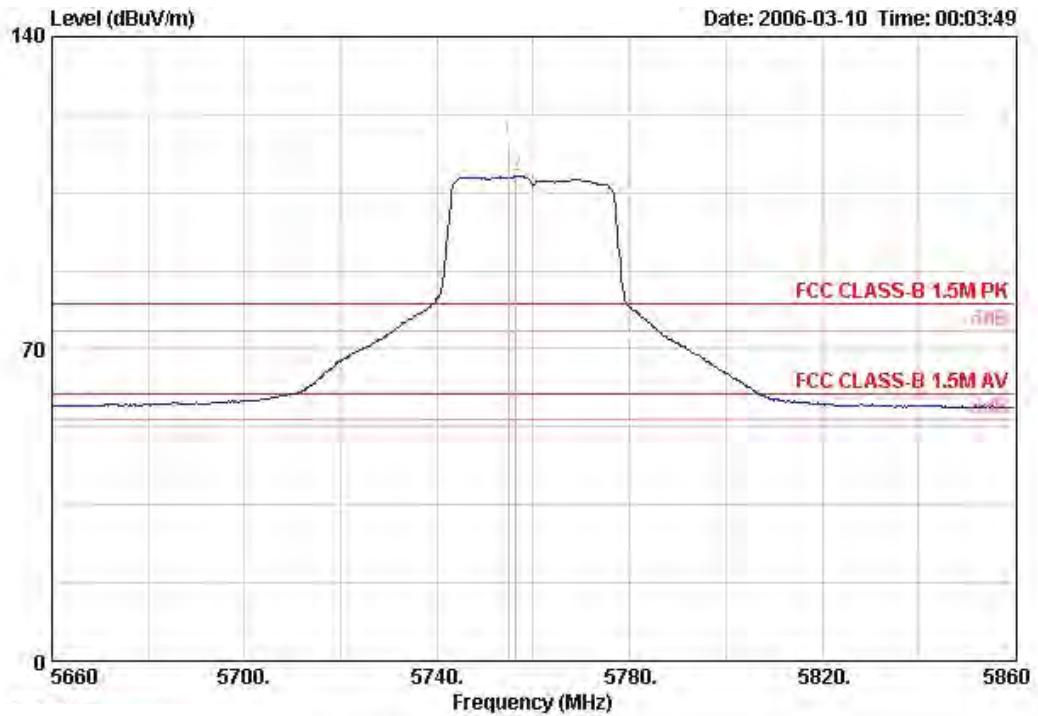
Channel 165



	Freq	Level	Over Limit	Limit	Antenna Line Factor	Cable Loss	Preamp Factor	Read Level	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dB/m	dB	dB	dBuV		cm	deg
1 @	5822.000	116.87			34.53	5.26	0.00	77.08	PEAK	100	1
2 @	5829.700	109.11			34.53	5.26	0.00	69.32	Average	---	---

Channel 165 is fundamental frequency at 5825 MHz.

Temperature	24°C	Humidity	64%
Test Engineer	Rush Kao	Configurations	802.11a Turbo Channel 152/ Ant. 11

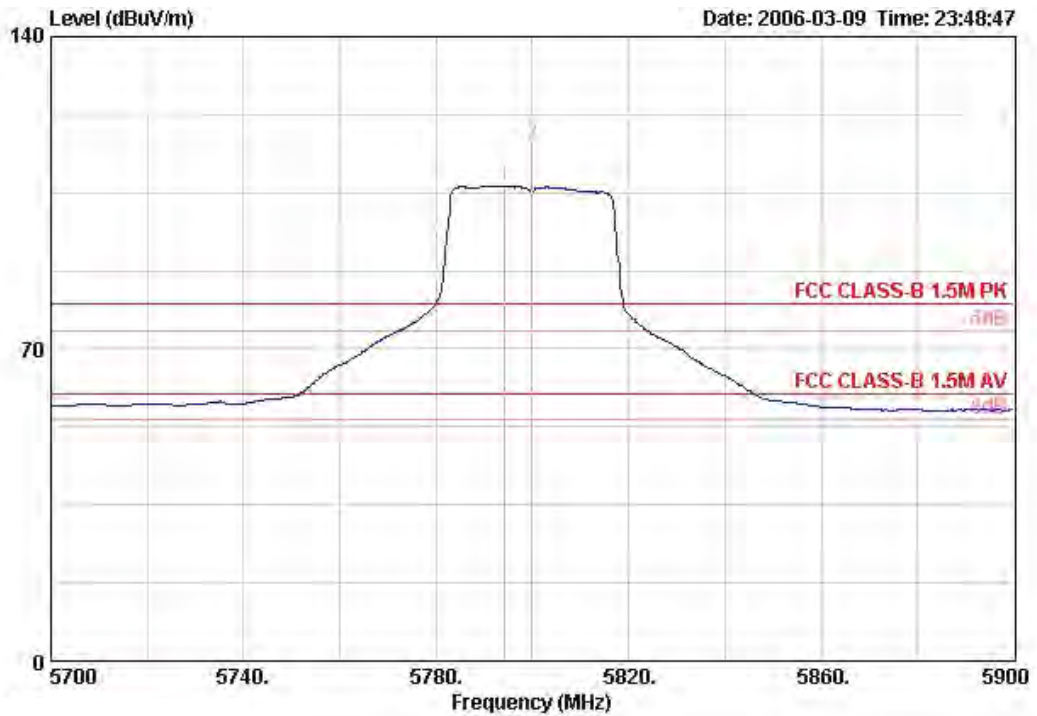
Turbo Channel 152


	Freq	Level	Over Limit	Limit	Antenna Line Factor	Cable Loss	Preamp Factor	Read Level	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dB/m	dB	dB	dBuV		cm	deg
1 @	5754.800	116.90			34.50	5.26	0.00	77.14	PEAK	100	360
2 @	5756.400	108.69			34.50	5.26	0.00	68.93	Average	---	---

Channel 152 is fundamental frequency at 5760 MHz.

Temperature	24°C	Humidity	64%
Test Engineer	Rush Kao	Configurations	802.11a Turbo Channel 160/ Ant.11

Turbo Channel 160



	Freq	Level	Over Limit	Antenna Line Factor	Cable Loss	Preamp Factor	Read Level	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dB/m	dB	dB	dBuV	cm	deg
1 @	5794.200	106.53		34.52	5.26	0.00	66.76	Average	---	---
2 @	5800.000	116.09		34.52	5.26	0.00	76.32	PEAK	100	360

Channel 160 is fundamental frequency at 5800 MHz.

Note:

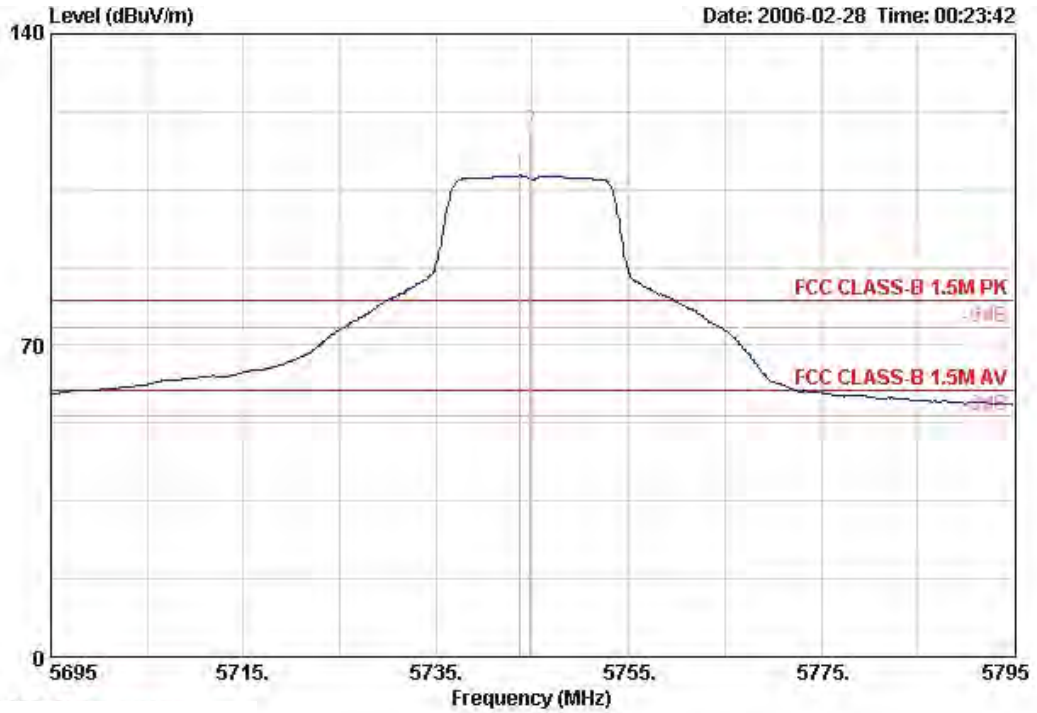
Emission level (dBUV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Receiving maximum band edge emissions are Vertical Polarization

Temperature	24°C	Humidity	64%
Test Engineer	Rush Kao	Configurations	802.11a Channel 149, 165/ Ant. 12

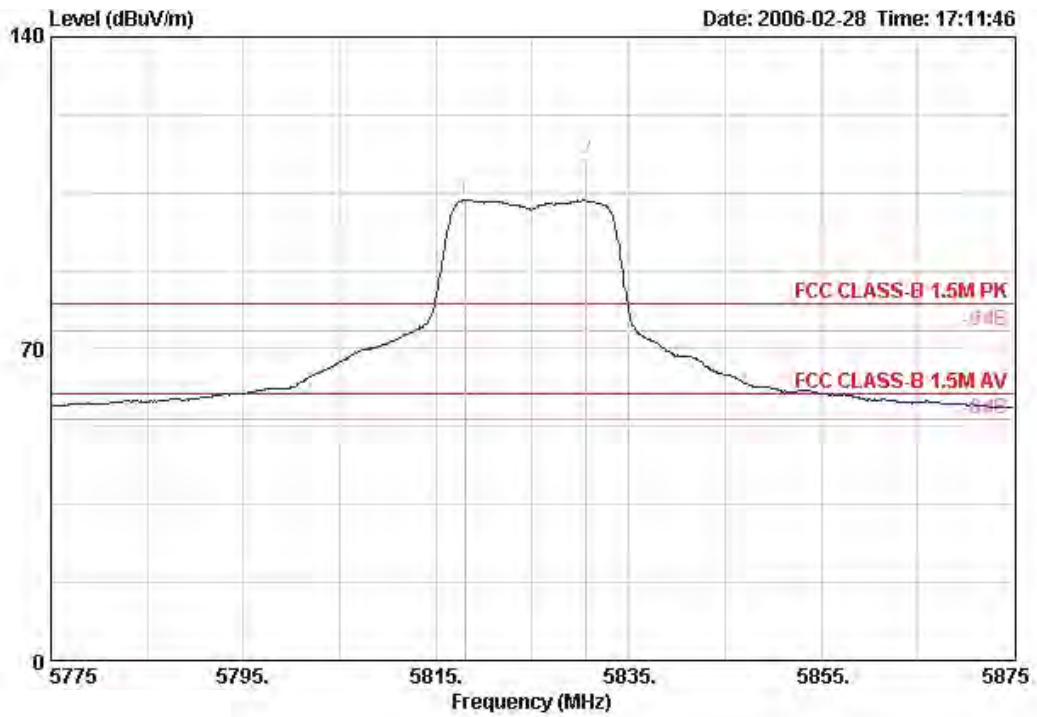
Channel 149



	Freq	Level	Over Limit	Antenna Line	Cable Loss	Preamp	Read Level	Remark	Ant Pos	Table Pos
	MHz	dBUV/m	dB	dB/m	dB	dB	dBUV		cm	deg
1 @	5743.700	108.21		34.50	5.26	0.00	68.45	Average	---	---
2 @	5744.800	118.10		34.50	5.26	0.00	78.35	PEAK	111	361

Channel 149 is fundamental frequency at 5745 MHz.

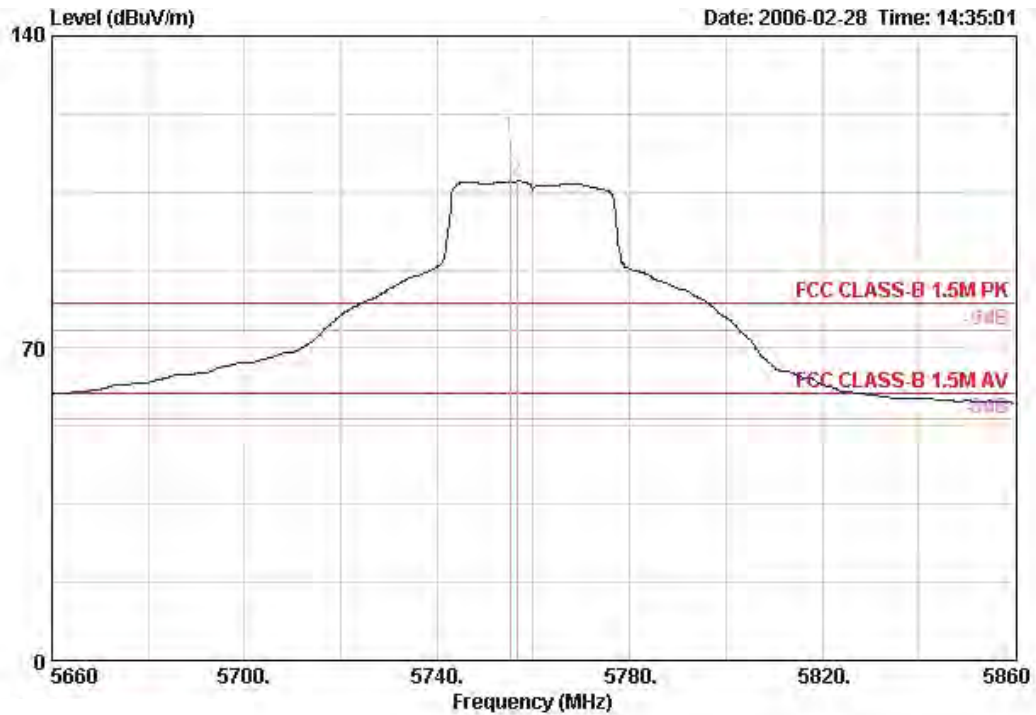
Channel 165



	Over	Limit	Antenna	Cable	Preamp	Read	Ant	Table		
Freq	Level	Limit	Line Factor	Loss	Factor	Level	Pos	Pos		
MHz	dBuV/m	dB	dBuV/m	dB/m	dB	dBuV	cm	deg		
1 @	5818.000	103.34		34.52	5.26	0.00	63.55	Average	---	---
2 @	5830.600	112.61		34.53	5.26	0.00	72.82	PEAK	109	360

Channel 165 is fundamental frequency at 5825 MHz.

Temperature	24°C	Humidity	64%
Test Engineer	Rush Kao	Configurations	802.11a Turbo Channel 152/ Ant. 12

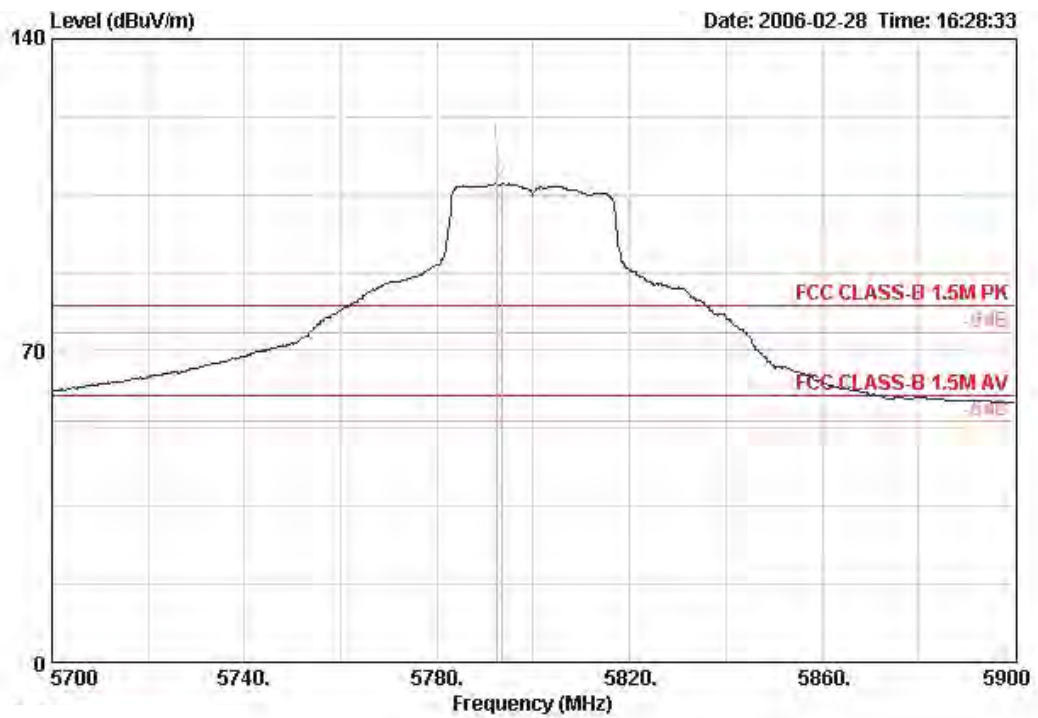
Turbo Channel 152


	Freq	Level	Over Limit	Antenna Line	Factor	Cable Loss	Preamp Factor	Read Level	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dB/m	dB	dB	dBuV		cm	deg
1 @	5755.200	117.07		34.50	5.26	0.00	77.31	PEAK		114	0
2 @	5756.600	107.42		34.50	5.26	0.00	67.66	Average		---	---

Channel 152 is fundamental frequency at 5760 MHz.

Temperature	24°C	Humidity	64%
Test Engineer	Rush Kao	Configurations	802.11a Turbo Channel 160/ Ant. 12

Turbo Channel 160



	Freq	Level	Over Limit	Limit	Antenna Line	Factor	Cable Loss	Preamp Factor	Read Level	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dB/m		dB	dB	dBuV		cm	deg
1 @	5792.400	116.51			34.52		5.26	0.00	76.73	PEAK	113	361
2 @	5793.400	107.52			34.52		5.26	0.00	67.75	Average	---	---

Channel 160 is fundamental frequency at 5800 MHz.

Note:

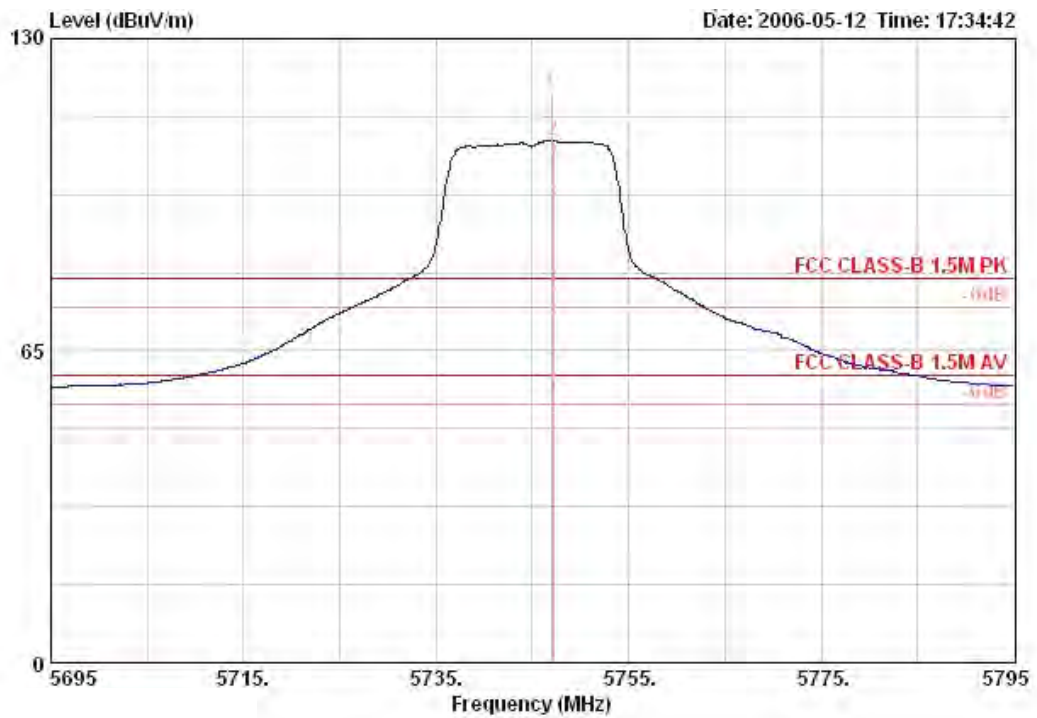
Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Receiving maximum band edge emissions are Vertical Polarization

Temperature	24°C	Humidity	64%
Test Engineer	Rush Kao	Configurations	802.11a Channel 149, 165/ Ant. 13

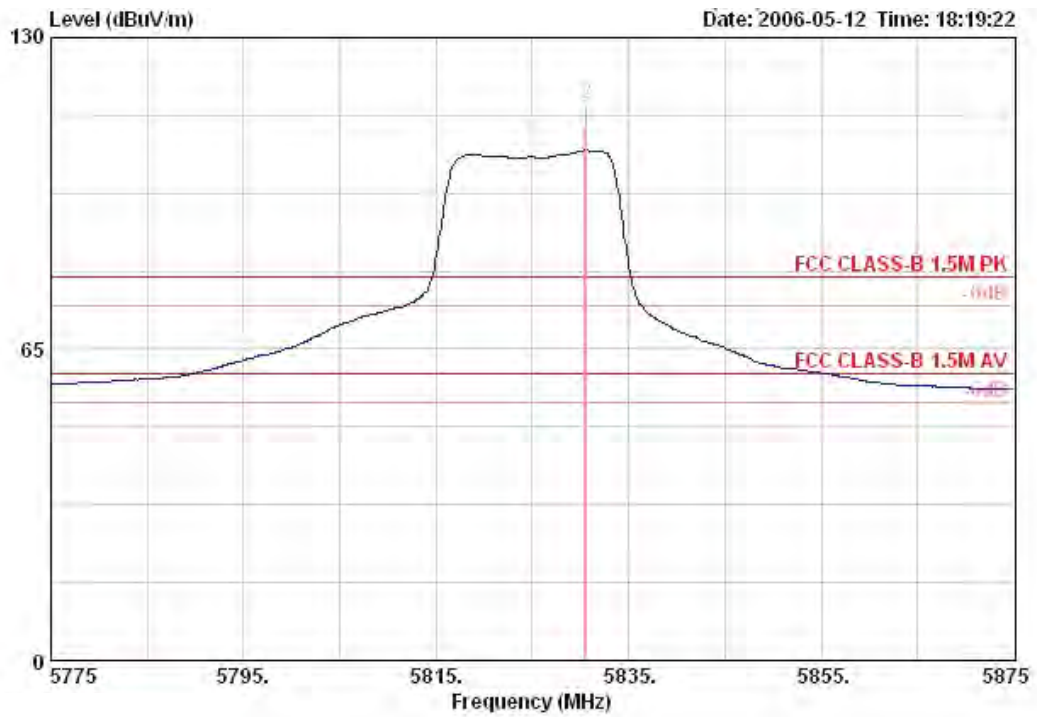
Channel 149



	Freq	Level	Over Limit	Limit	Antenna Line Factor	Cable Loss	Preamp Factor	Read Level	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dB/m	dB	dB	dBuV		cm	deg
1	5747.000	119.00			34.50	5.26	0.00	79.25	PEAK	108	36
2	5747.200	108.71			34.50	5.26	0.00	68.96	Average	---	---

Channel 149 is fundamental frequency at 5745 MHz.

Channel 165

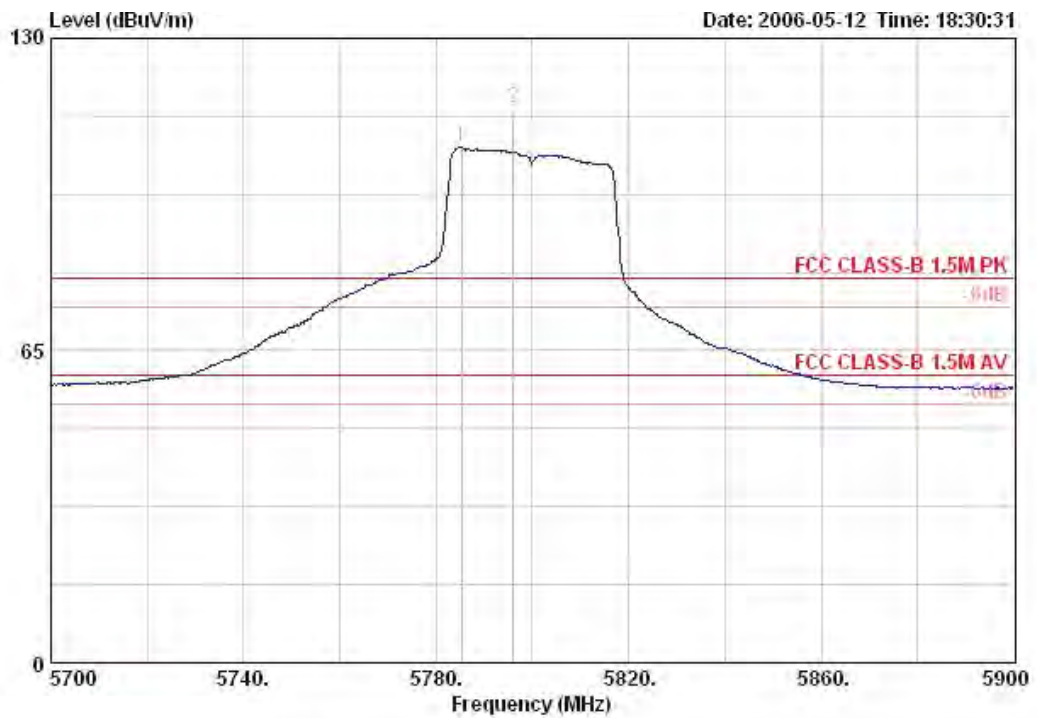


	Freq	Level	Over Limit	Limit	Antenna Line Factor	Cable Loss	Preamp Factor	Read Level	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dB/m	dB	dB	dBuV		cm	deg
1	5830.400	106.49			34.53	5.26	0.00	66.69	Average	---	---
2	5830.600	116.08			34.53	5.26	0.00	76.28	PEAK	100	29

Channel 165 is fundamental frequency at 5825 MHz.

Temperature	24°C	Humidity	64%
Test Engineer	Rush Kao	Configurations	802.11a Turbo Channel 160/ Ant. 13

Turbo Channel 160



	Over	Limit	Antenna	Cable	Preamp	Read		Ant	Table	
Freq	Level	Limit	Line Factor	Loss	Factor	Level	Remark	Pos	Pos	
MHz	dBuV/m	dB	dBuV/m	dB/m	dB	dB	dBuV	cm	deg	
1	5785.200	107.49		34.51	5.26	0.00	67.72	Average	---	---
2	5796.000	115.56		34.52	5.26	0.00	75.78	PEAK	102	32

Channel 160 is fundamental frequency at 5800 MHz.

Note:

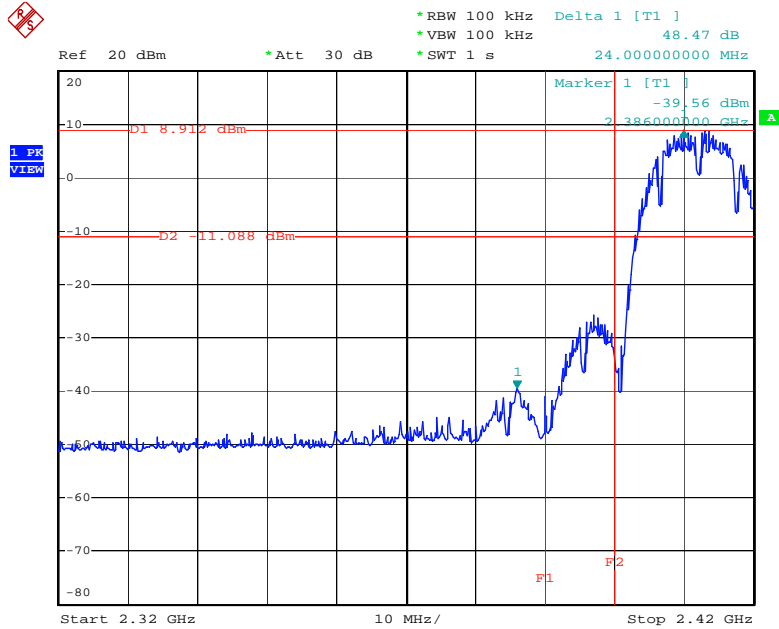
Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Receiving maximum band edge emissions are Vertical Polarization

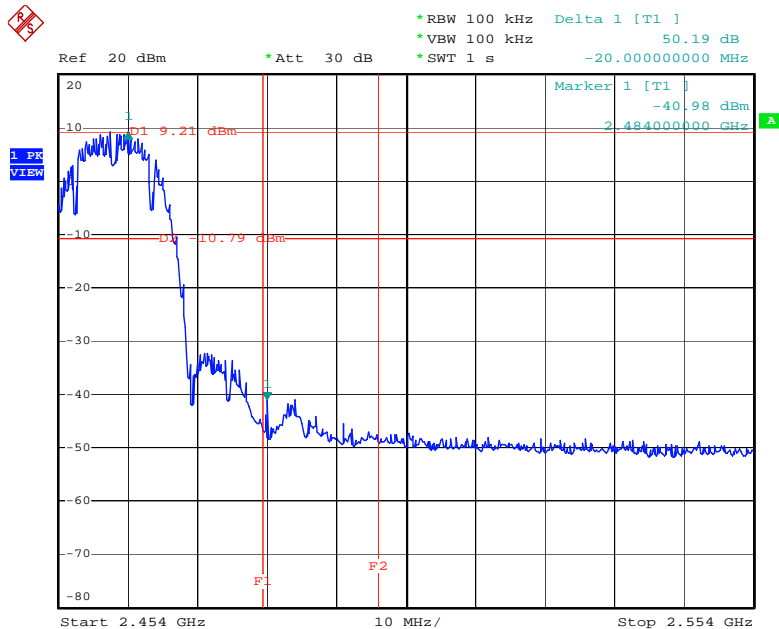
For Emission not in Restricted Band / Ant. 1/2/3/4

Low Band Edge Plot on Configuration IEEE 802.11b / 2412 MHz



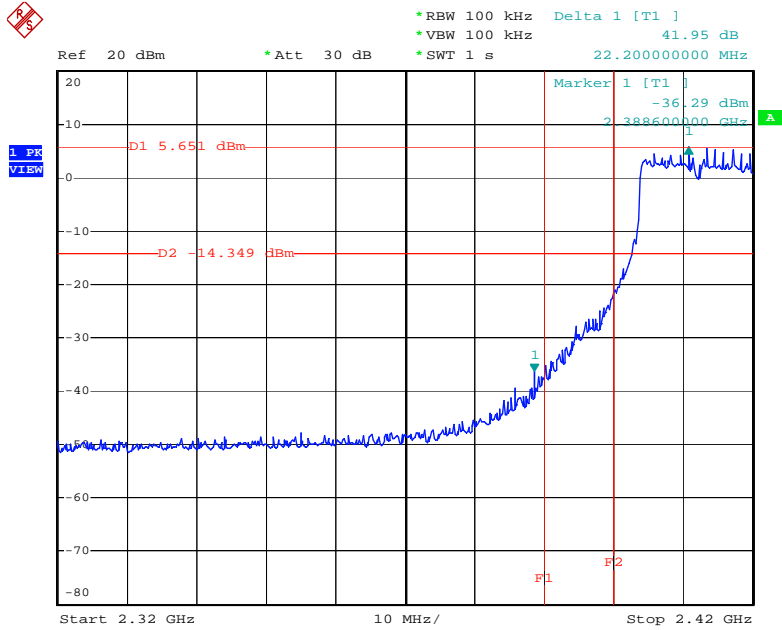
Date: 14.MAR.2006 10:47:25

High Band Edge Plot on Configuration IEEE 802.11b / 2462 MHz



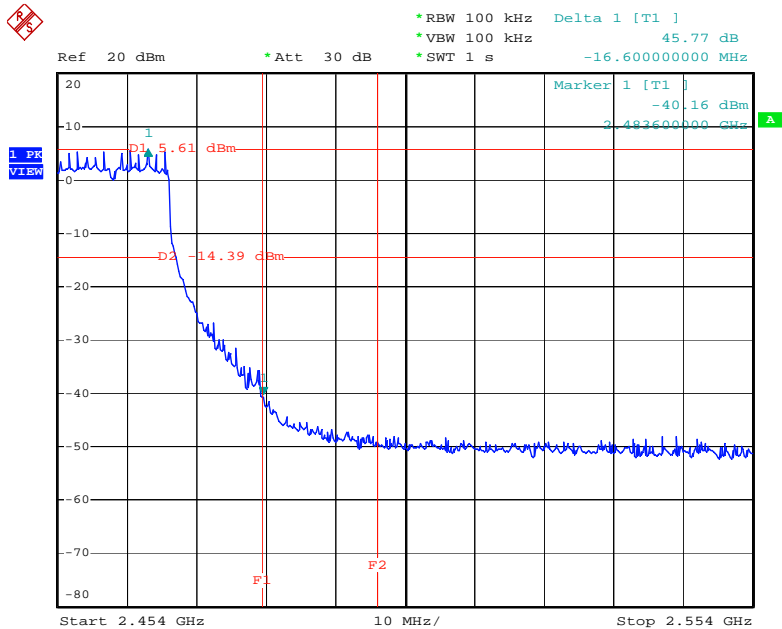
Date: 14.MAR.2006 10:50:28

Low Band Edge Plot on Configuration IEEE 802.11g / 2412 MHz



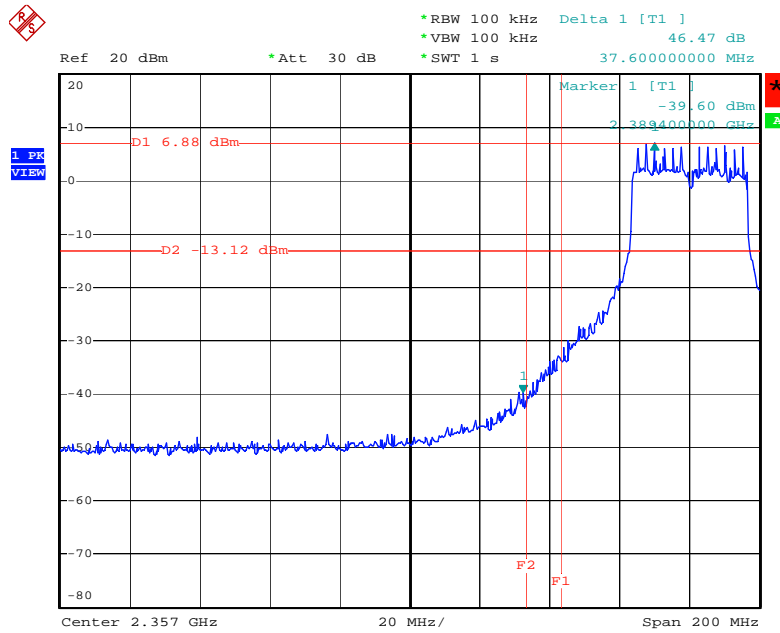
Date: 14.MAR.2006 10:31:59

High Band Edge Plot on Configuration IEEE 802.11g / 2462 MHz



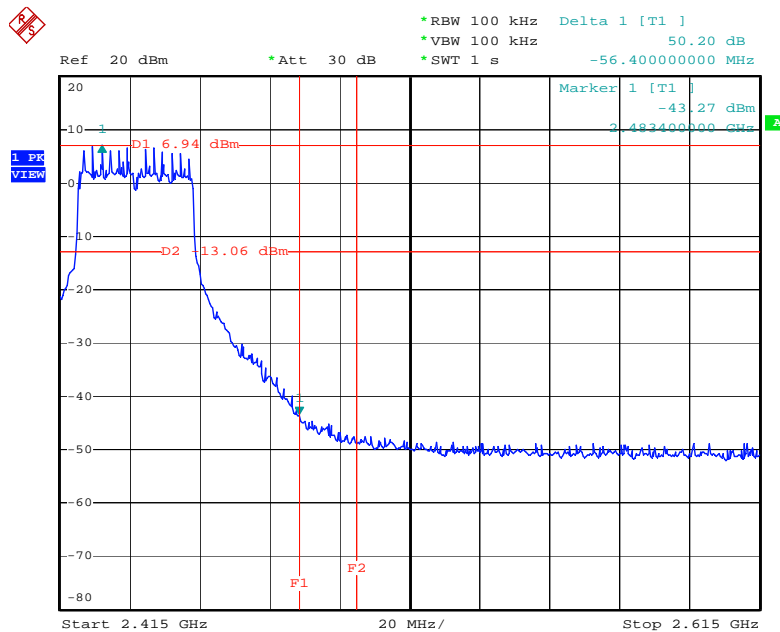
Date: 14.MAR.2006 10:35:48

Low Band Edge Plot on Configuration IEEE 802.11g Turbo / 2437 MHz



Date: 14.MAR.2006 10:43:16

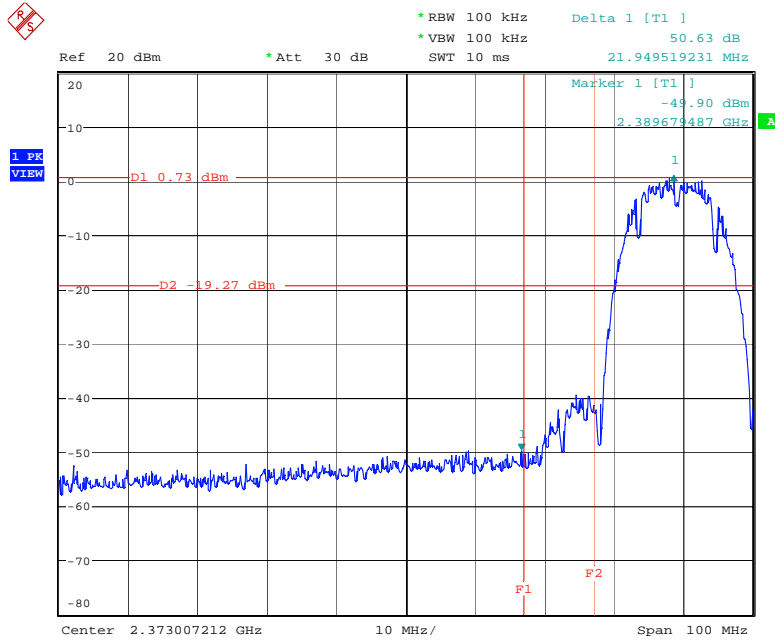
High Band Edge Plot on Configuration IEEE 802.11g Turbo/ 2437 MHz



Date: 14.MAR.2006 10:44:32

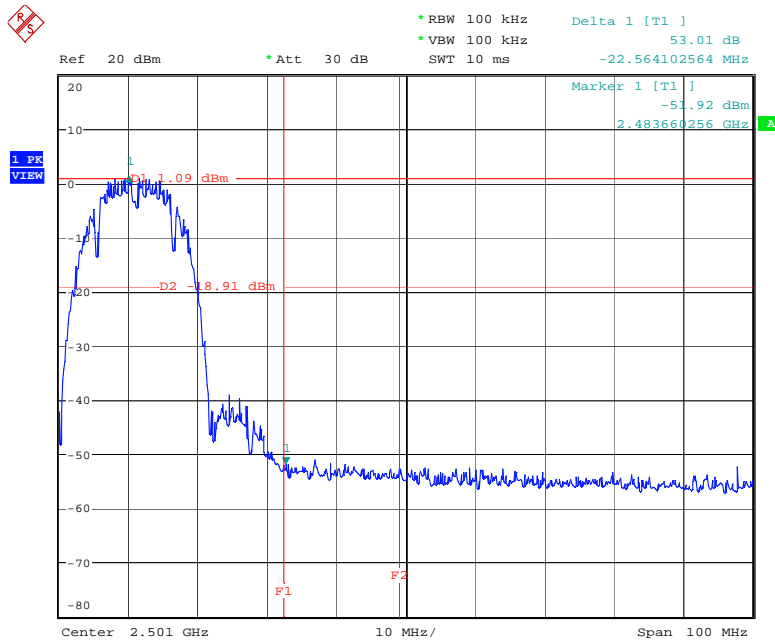
For Emission not in Restricted Band / Ant. 5

Low Band Edge Plot on Configuration IEEE 802.11b / 2412 MHz



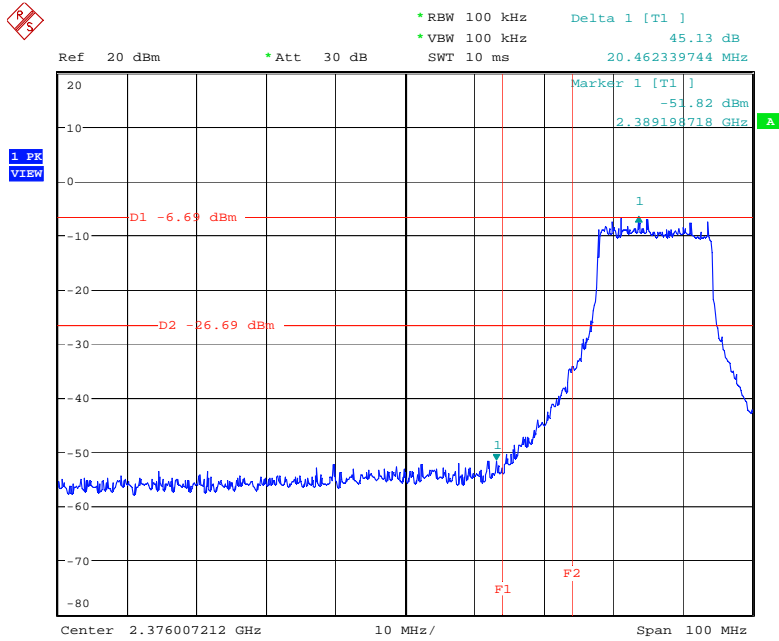
Date: 30.MAY.2006 19:44:57

High Band Edge Plot on Configuration IEEE 802.11b / 2462 MHz



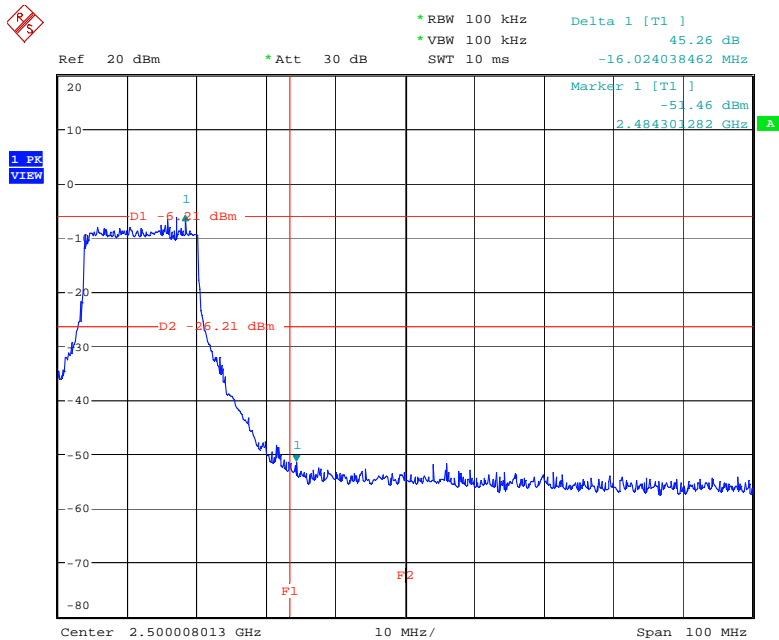
Date: 30.MAY.2006 19:49:07

Low Band Edge Plot on Configuration IEEE 802.11g / 2412 MHz



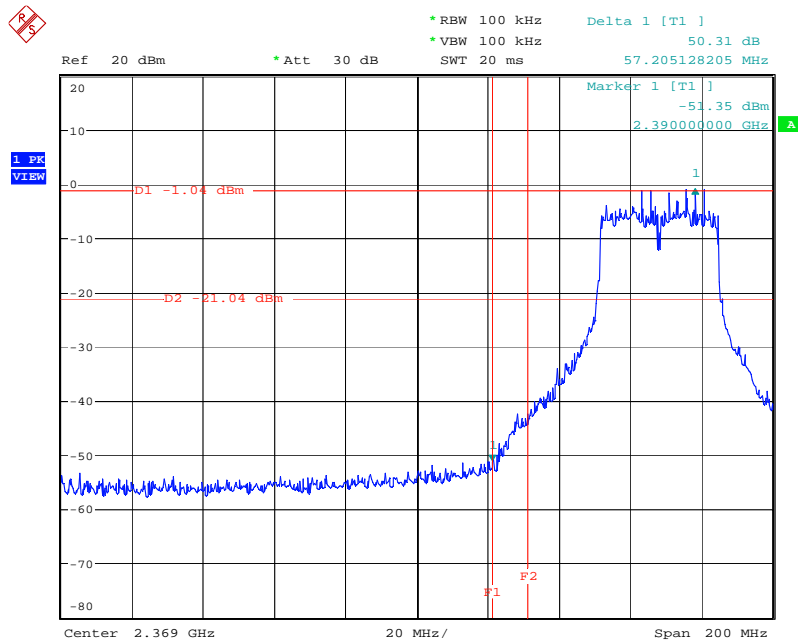
Date: 30.MAY.2006 19:36:41

High Band Edge Plot on Configuration IEEE 802.11g / 2462 MHz



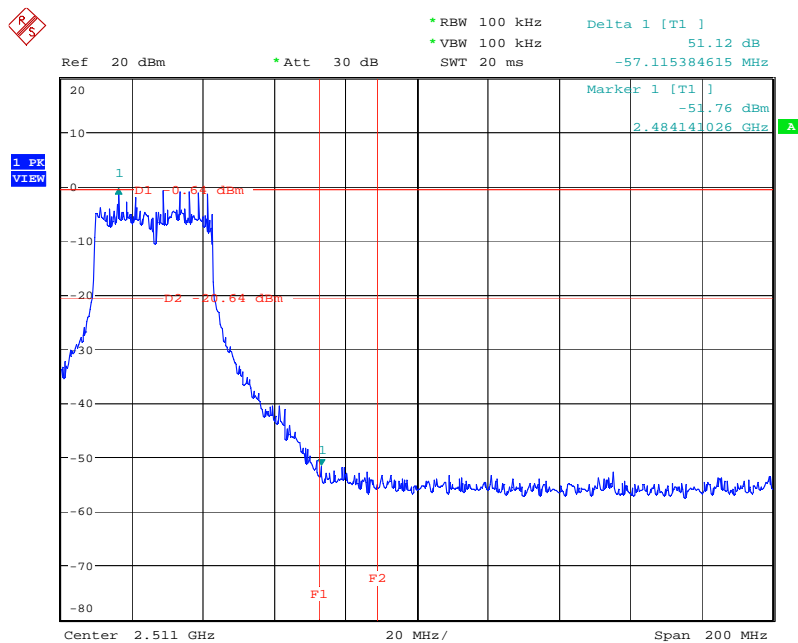
Date: 30.MAY.2006 19:30:40

Low Band Edge Plot on Configuration IEEE 802.11g Turbo / 2437 MHz



Date: 30.MAY.2006 19:40:35

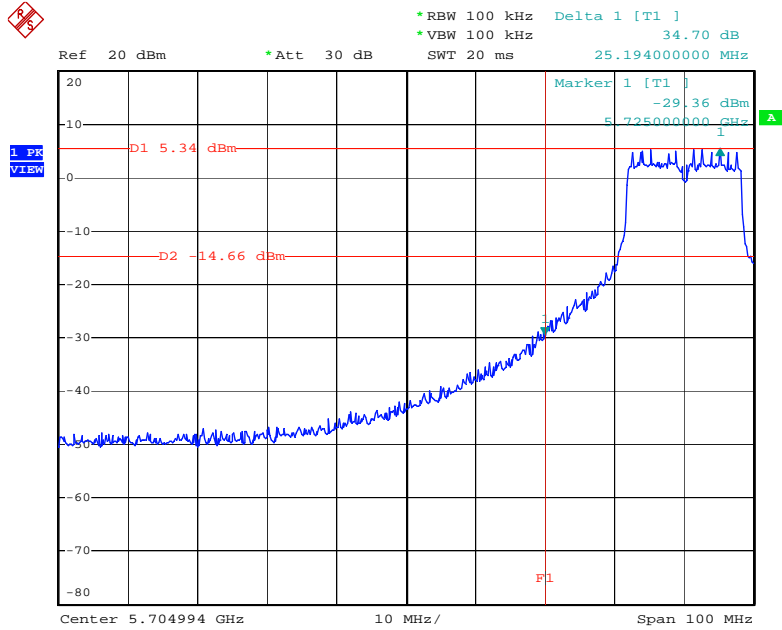
High Band Edge Plot on Configuration IEEE 802.11g Turbo/ 2437 MHz



Date: 30.MAY.2006 19:41:16

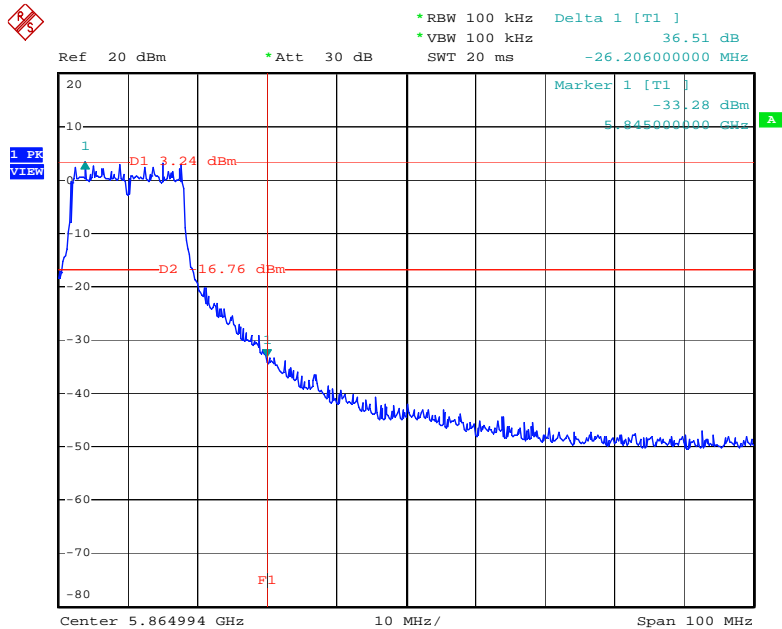
For Emission not in Restricted Band / Ant. 8/9

Low Band Edge Plot on Configuration IEEE 802.11a / 5745 MHz



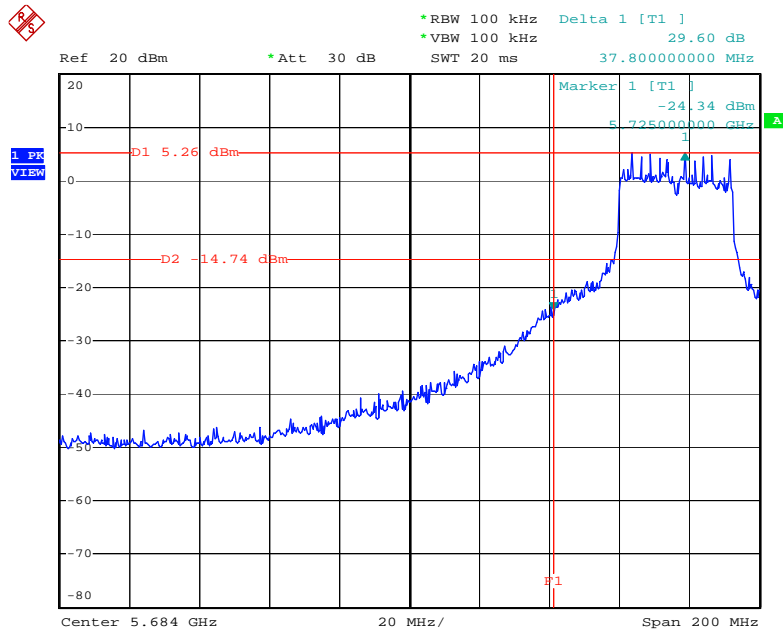
Date: 25.MAR.2006 19:39:24

High Band Edge Plot on Configuration IEEE 802.11a / 5825 MHz



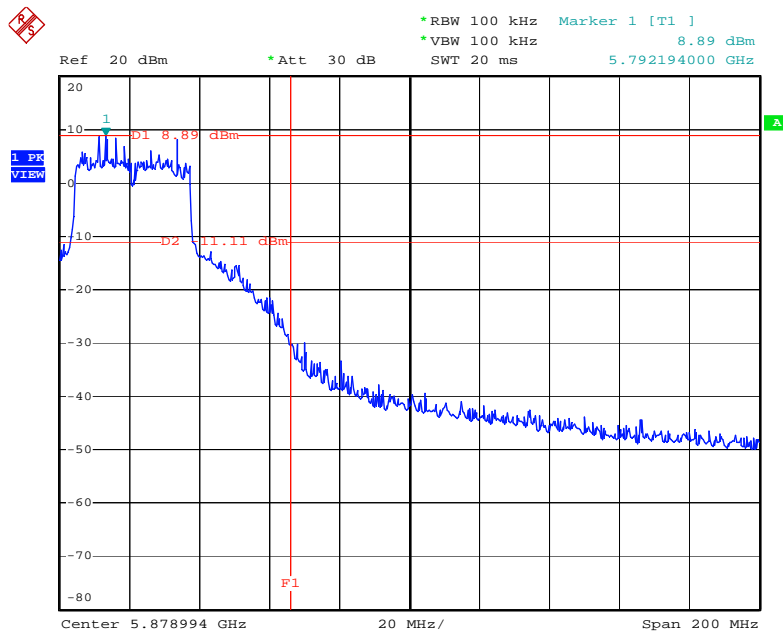
Date: 25.MAR.2006 19:44:50

Low Band Edge Plot on Configuration IEEE 802.11a Turbo / 5760 MHz



Date: 27.MAY.2006 10:32:30

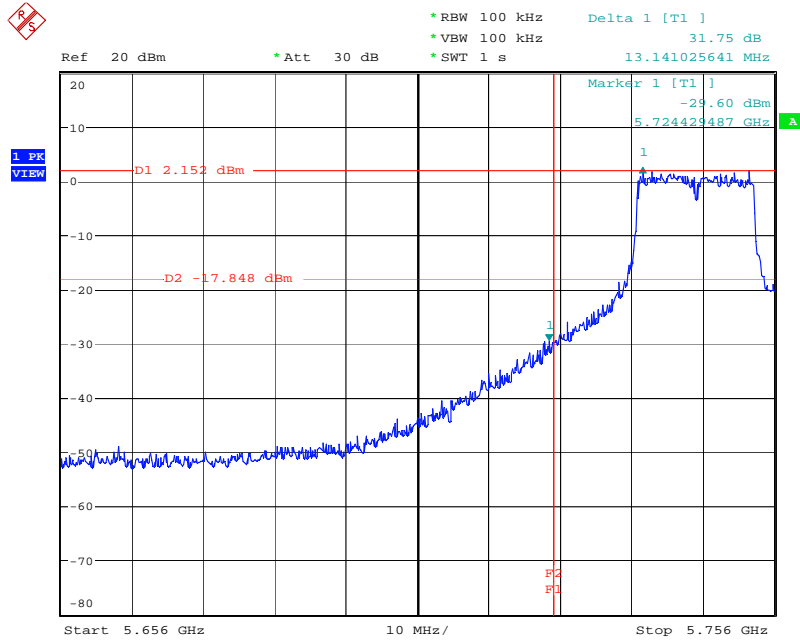
High Band Edge Plot on Configuration IEEE 802.11a Turbo / 5800 MHz



Date: 25.MAR.2006 19:45:39

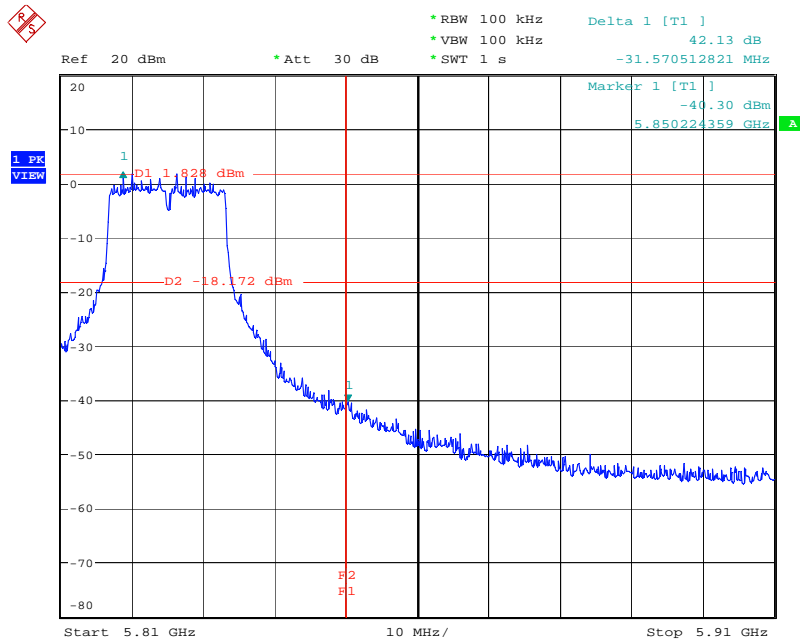
For Emission not in Restricted Band / Ant. 10

Low Band Edge Plot on Configuration IEEE 802.11a / 5745 MHz



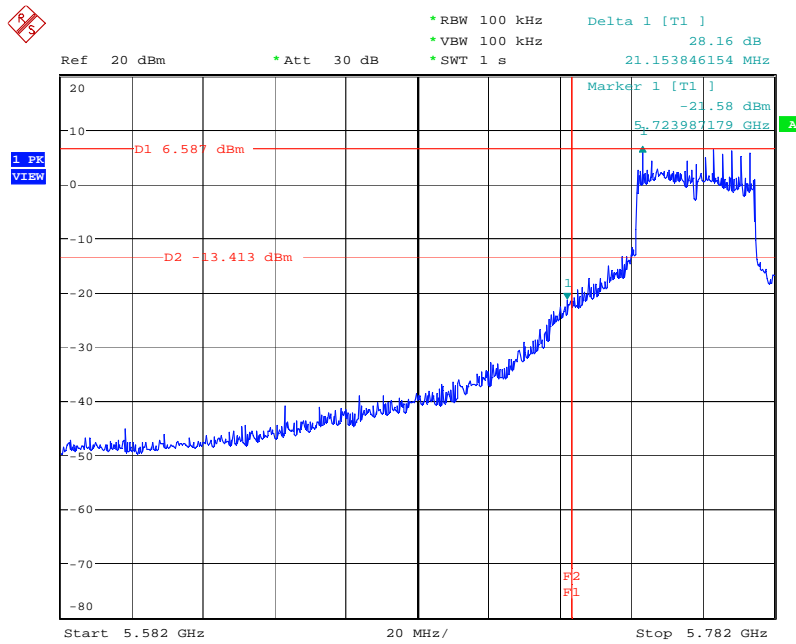
Date: 9.MAY.2006 19:22:19

High Band Edge Plot on Configuration IEEE 802.11a / 5825 MHz



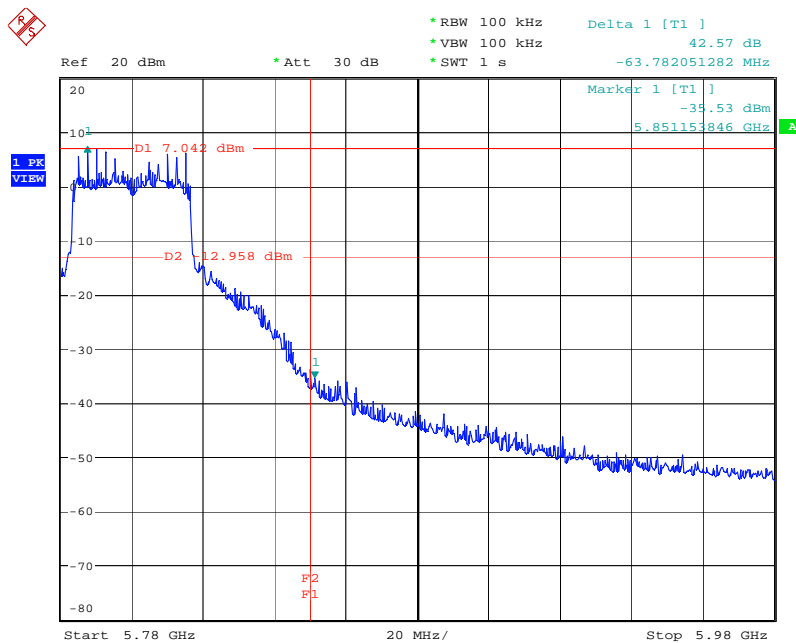
Date: 9.MAY.2006 19:20:15

Low Band Edge Plot on Configuration IEEE 802.11a Turbo / 5760 MHz



Date: 9.MAY.2006 19:17:51

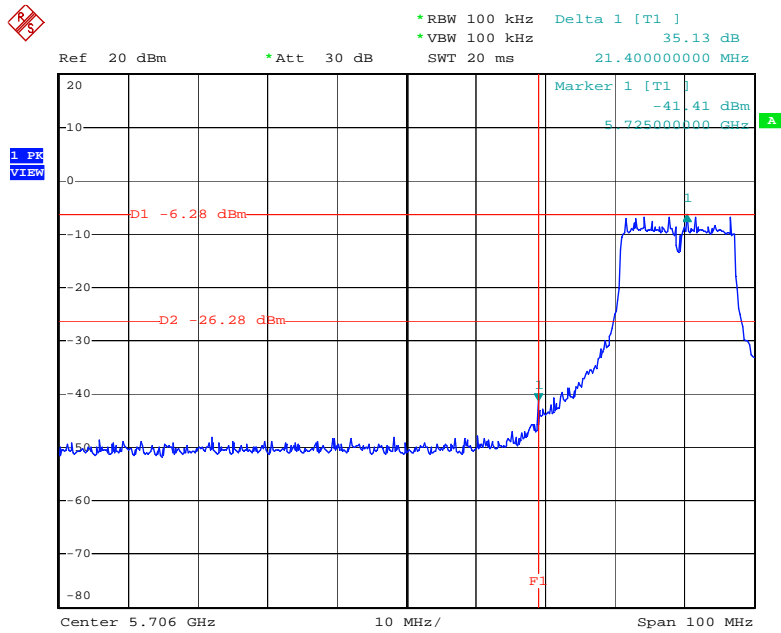
High Band Edge Plot on Configuration IEEE 802.11a Turbo / 5800 MHz



Date: 9.MAY.2006 19:18:57

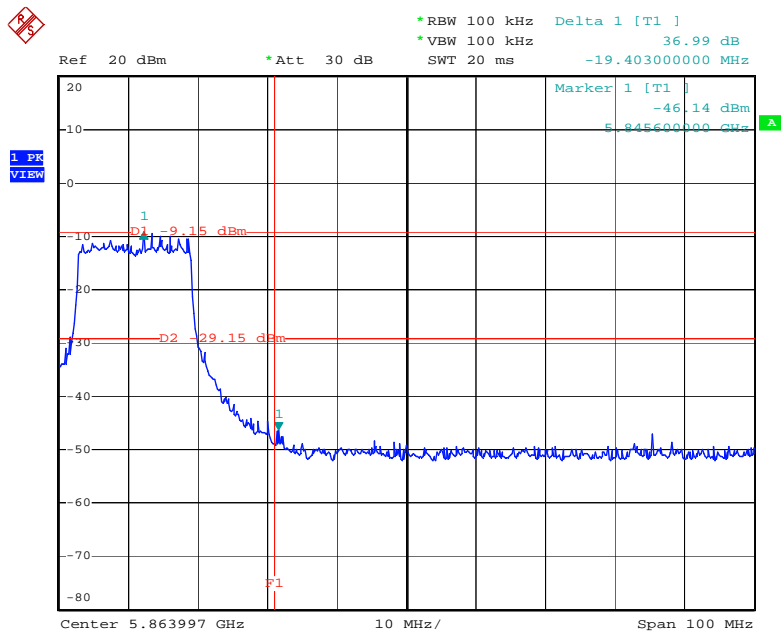
For Emission not in Restricted Band / Ant. 11

Low Band Edge Plot on Configuration IEEE 802.11a / 5745 MHz



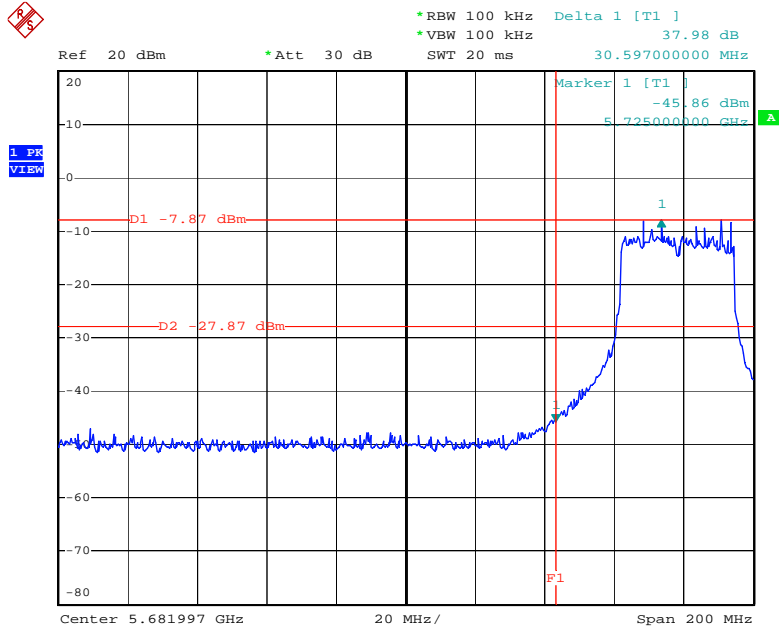
Date: 27.MAR.2006 19:27:30

High Band Edge Plot on Configuration IEEE 802.11a / 5825 MHz



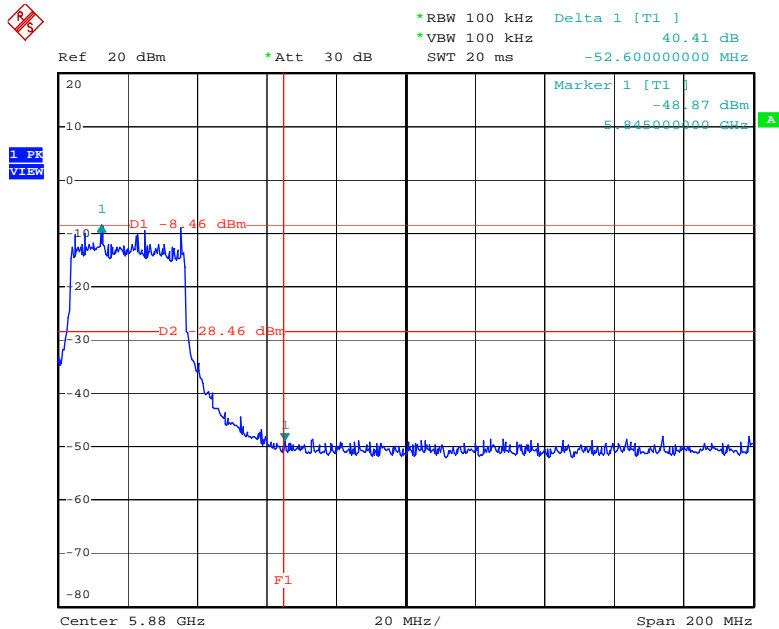
Date: 27.MAR.2006 19:31:18

Low Band Edge Plot on Configuration IEEE 802.11a Turbo / 5760 MHz



Date: 27.MAR.2006 19:36:53

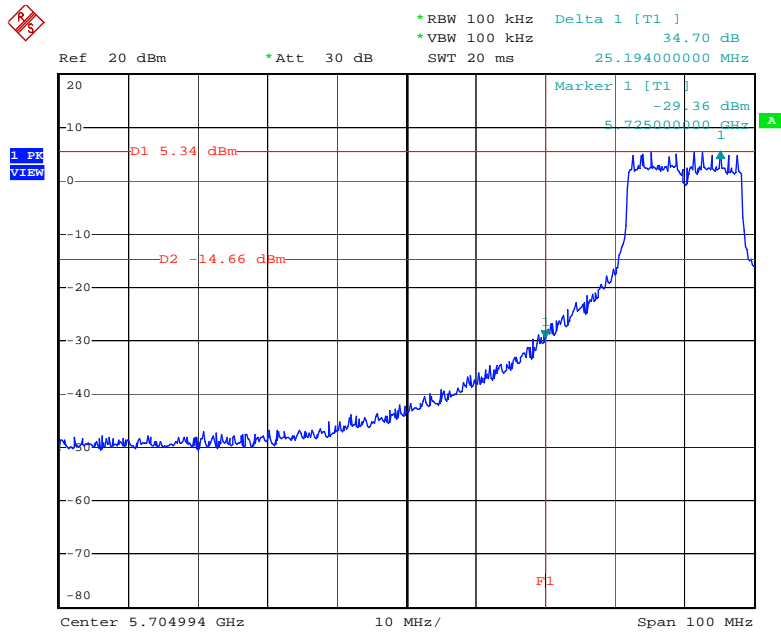
High Band Edge Plot on Configuration IEEE 802.11a Turbo / 5800 MHz



Date: 27.MAR.2006 19:32:38

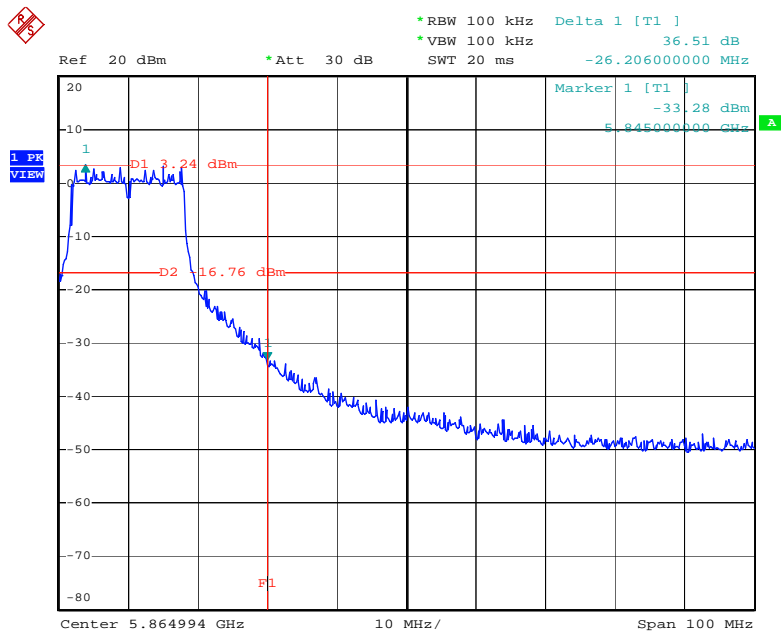
For Emission not in Restricted Band / Ant. 12

Low Band Edge Plot on Configuration IEEE 802.11a / 5745 MHz



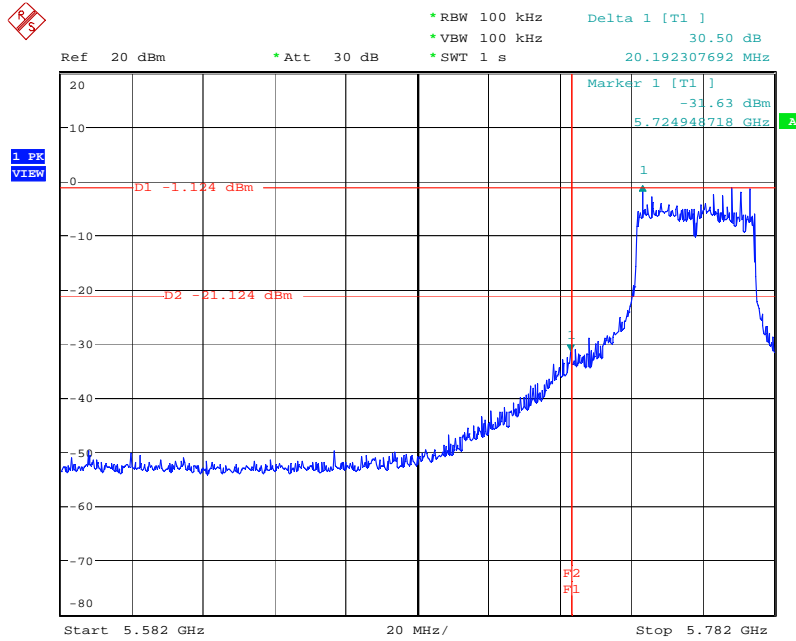
Date: 25.MAR.2006 19:39:24

High Band Edge Plot on Configuration IEEE 802.11a / 5825 MHz



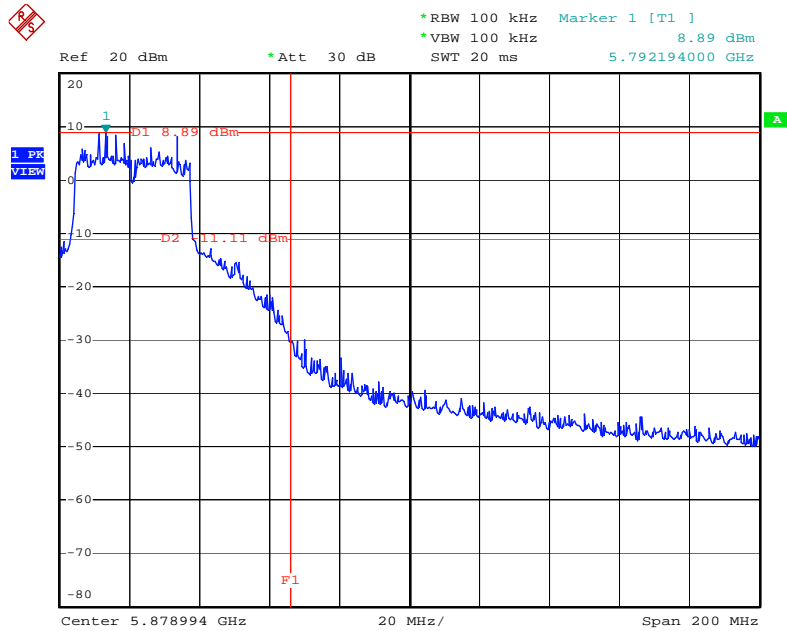
Date: 25.MAR.2006 19:44:50

Low Band Edge Plot on Configuration IEEE 802.11a Turbo / 5760 MHz



Date: 9.MAY.2006 20:36:01

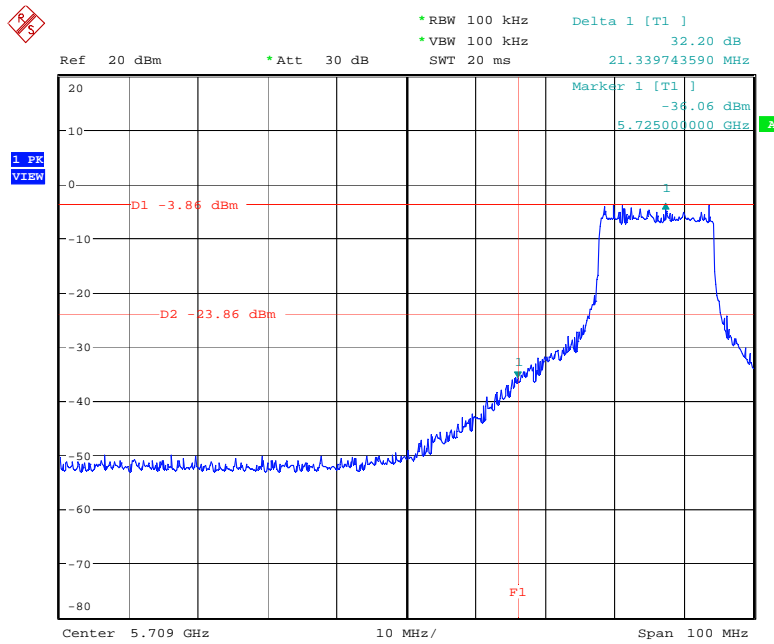
High Band Edge Plot on Configuration IEEE 802.11a Turbo / 5800 MHz



Date: 25.MAR.2006 19:45:39

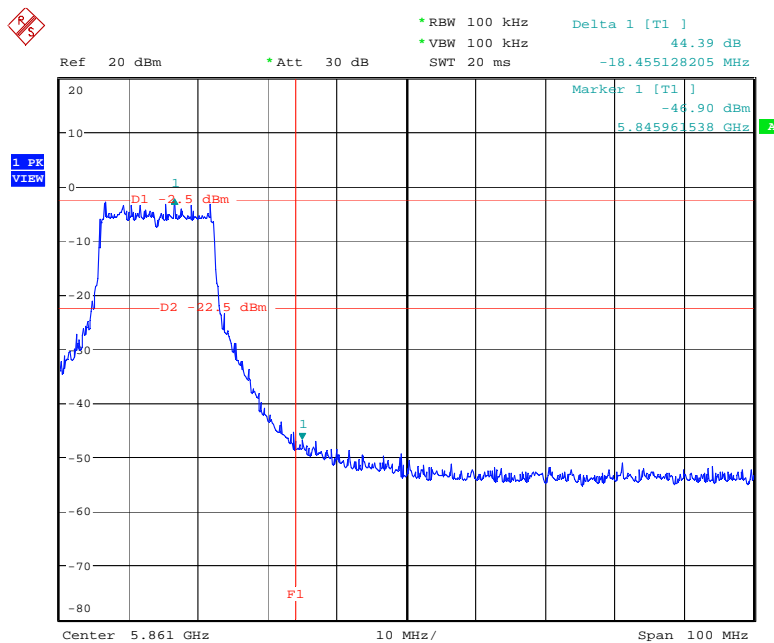
For Emission not in Restricted Band / Ant. 13

Low Band Edge Plot on Configuration IEEE 802.11a / 5745 MHz



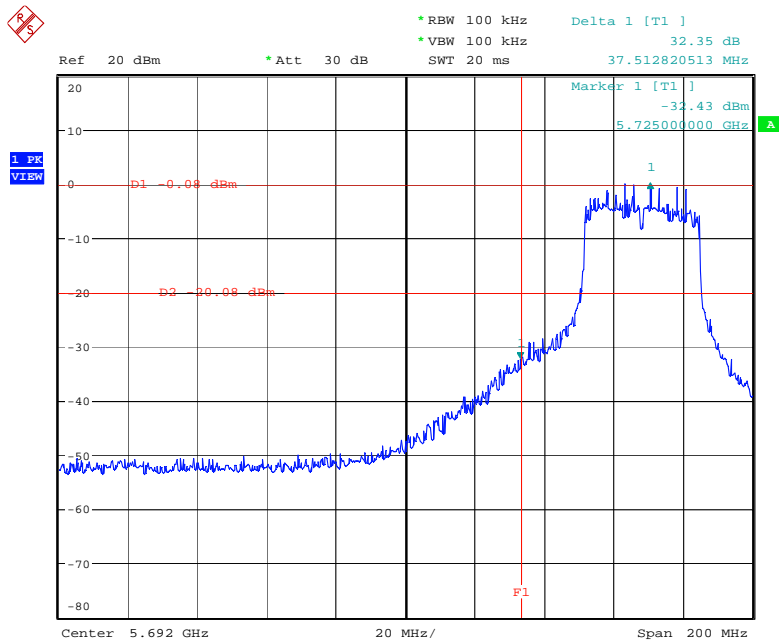
Date: 17.MAY.2006 09:53:47

High Band Edge Plot on Configuration IEEE 802.11a / 5825 MHz



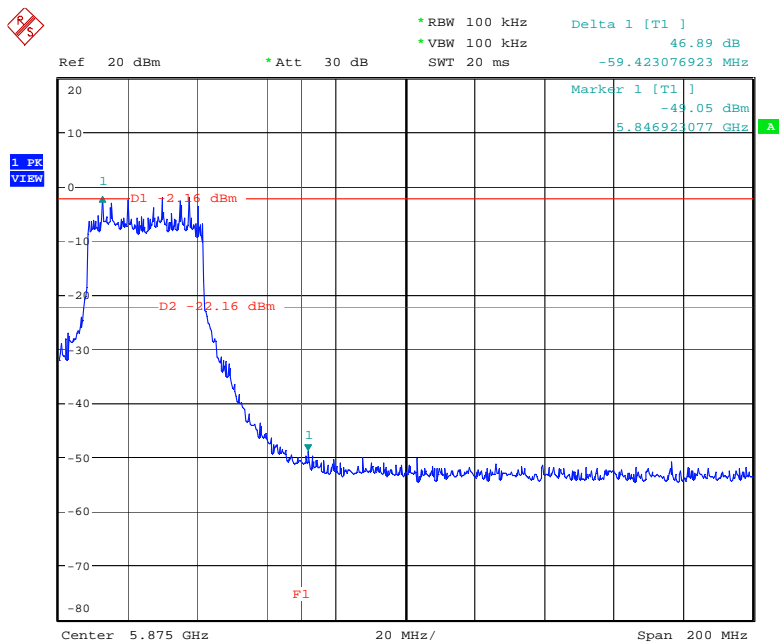
Date: 16.MAY.2006 14:34:43

Low Band Edge Plot on Configuration IEEE 802.11a Turbo / 5760 MHz



Date: 16.MAY.2006 14:40:47

High Band Edge Plot on Configuration IEEE 802.11a Turbo / 5800 MHz



Date: 16.MAY.2006 14:35:53

4.7. Antenna Requirements

4.7.1. Limit

Except for special regulations, the Low-power Radio-frequency Devices must not be equipped with any jacket for installing an antenna with extension cable. An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

4.7.2. Antenna Connector Construction

Please refer to section 3.3 in this test report, all antenna connectors comply with the requirements.

5. LIST OF MEASURING EQUIPMENTS

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMC Receiver	R&S	ESCS 30	100174	9kHz – 2.75GHz	Feb. 22, 2006	Conduction (CO04-HY)
LISN	MessTec	NNB-2/16Z	99079	9kHz – 30MHz	Dec. 19, 2005	Conduction (CO04-HY)
LISN (Support Unit)	EMCO	3810/2NM	9708-1839	9kHz – 30MHz	Mar. 18, 2006	Conduction (CO04-HY)
RF Cable-CON	Suhner Switzerland	RG223/U	CB029	9kHz – 30MHz	Dec. 22, 2005	Conduction (CO04-HY)
EMI Filter	LINDGREN	LRE-2030	2651	< 450 Hz	N/A	Conduction (CO04-HY)
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30 MHz - 1 GHz 3m	Jun. 16, 2005	Radiation (03CH03-HY)
Amplifier	SCHAFFNER	CPA9231A	3565	9 kHz - 2 GHz	Jan. 18, 2006	Radiation (03CH03-HY)
Amplifier	Agilent	8449B	3008A02120	1 GHz - 26.5 GHz	May 31, 2005	Radiation (03CH03-HY)
Amplifier	MITEQ	AMF-6F-260400	923364	26.5 GHz - 40 GHz	Jan. 24, 2006*	Radiation (03CH03-HY)
Spectrum Analyzer	R&S	FSP40	100004/040	9 kHz - 40 GHz	Sep. 30, 2005	Radiation (03CH03-HY)
Loop Antenna	R&S	HFH2-Z2	860004/001	9 kHz - 30 MHz	May 24, 2004*	Radiation (03CH03-HY)
Biconical Antenna	SCHWARZBECK	VHBB 9124	301	30 MHz - 200 MHz	Jul. 22, 2005	Radiation (03CH03-HY)
Log Antenna	SCHWARZBECK	VUSLP 9111	221	200 MHz - 1 GHz	Jul. 22, 2005	Radiation (03CH03-HY)
Horn Antenna	EMCO	3115	6903	1GHz ~ 18GHz	Mar. 15, 2006	Radiation (03CH03-HY)
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170154	15 GHz - 40 GHz	Jun. 09, 2004*	Radiation (03CH03-HY)
RF Cable-R03m	Jye Bao	RG142	CB021	30 MHz - 1 GHz	Dec.02, 2005	Radiation (03CH03-HY)
RF Cable-HIGH	SUHNER	SUCOFLEX 106	03CH03-HY	1 GHz - 40 GHz	Dec.02, 2005	Radiation (03CH03-HY)
Turn Table	HD	DS 420	420/650/00	0 - 360 degree	N/A	Radiation (03CH03-HY)
Antenna Mast	HD	MA 240	240/560/00	1 m - 4 m	N/A	Radiation (03CH03-HY)
Spectrum analyzer	R&S	FSP30	100023	9kHz ~ 30GHz	Nov. 26, 2005	Conducted (TH01-HY)
Power meter	R&S	NRVS	100444	DC ~ 40GHz	Jul. 06, 2005	Conducted (TH01-HY)
Power sensor	R&S	NRV-Z55	100049	DC ~ 40GHz	Jul. 06, 2005	Conducted (TH01-HY)
Power Sensor	R&S	NRV-Z32	100057	30MHz ~ 6GHz	Apr. 27, 2006	Conducted (TH01-HY)
AC power source	HPC	HPA-500W	HPA-9100024	AC 0 ~ 300V	Apr. 21, 2005*	Conducted (TH01-HY)
DC power source	G.W.	GPC-6030D	C671845	DC 1V ~ 60V	Dec. 28, 2005	Conducted (TH01-HY)
Temp. and Humidity Chamber	KSON	THS-C3L	612	N/A	Oct. 01, 2005	Conducted (TH01-HY)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
RF CABLE-1m	Jye Bao	RG142	CB034-1m	20MHz ~ 7GHz	Dec. 30, 2005	Conducted (TH01-HY)
RF CABLE-2m	Jye Bao	RG142	CB035-2m	20MHz ~ 1GHz	Dec. 30, 2005	Conducted (TH01-HY)
Oscilloscope	Tektronix	TDS1012	CO38515	100MHz / 1GS/s	Apr. 15, 2005*	Conducted (TH01-HY)
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	Dec. 30, 2005	Conducted (TH01-HY)
Data Generator	Tektronix	DG2030	063-2920-50	0.1Hz~400MHz	Jun. 02, 2005	Conducted (TH01-HY)

Note: Calibration Interval of instruments listed above is one year.

* Calibration Interval of instruments listed above is two year.

6. SPORTON COMPANY PROFILE

SPORTON Lab. was established in 1986 with one shielded room: the first private EMI test facility, offering local manufacturers an alternative EMI test facility apart from ERSO. In 1988, one 3M and 10M/3M open area test site were setup and also obtained official accreditation from FCC, VCCI and NEMKO. In 1993, a Safety laboratory was founded and obtained accreditation from UL of USA, CSA of Canada and TUV (Rhineland & PS) of Germany. In 1995, one EMC lab, including EMI and EMS test facilities was setup. In 1997, SPORTON Group has provided financial expense to relocate the headquarter to Orient Scientific Park in Taipei Hsien to offer more comprehensive, more qualified and better service to local suppliers and manufactures. In 1999, Safety Group and Component Group were setup. In 2001, SPORTON has established 3M/10M chamber in Hwa Ya Technology Park.

6.1. Test Location

SHIJR	ADD : 6Fl., No. 106, Sec. 1, Shintai 5th Rd., Shijr City, Taipei, Taiwan 221, R.O.C. TEL : 02-2696-2468 FAX : 02-2696-2255
HWA YA	ADD : No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL : 03-327-3456 FAX : 03-318-0055
LINKOU	ADD : No. 30-2, Dingfu Tsuen, Linkou Shiang, Taipei, Taiwan 244, R.O.C TEL : 02-2601-1640 FAX : 02-2601-1695
DUNGHU	ADD : No. 3, Lane 238, Kangle St., Neihu Chiu, Taipei, Taiwan 114, R.O.C. TEL : 02-2631-4739 FAX : 02-2631-9740
JUNGHE	ADD : 7Fl., No. 758, Jungjeng Rd., Junghe City, Taipei, Taiwan 235, R.O.C. TEL : 02-8227-2020 FAX : 02-8227-2626
NEIHU	ADD : 4Fl., No. 339, Hsin Hu 2 nd Rd., Taipei 114, Taiwan, R.O.C. TEL : 02-2794-8886 FAX : 02-2794-9777
JHUBEI	ADD : No.8, Lane 724, Bo-ai St., Jhubei City, Hsinchu County 302, Taiwan, R.O.C. TEL : 03-656-9065 FAX : 03-656-9085

7. TAF CERTIFICATE OF ACCREDITATION



Certificate No. : L1190-070110

財團法人全國認證基金會
Taiwan Accreditation Foundation

Certificate of Accreditation

This is to certify that

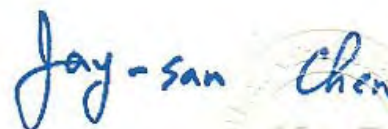
Sporton International Inc.

EMC & Wireless Communications Laboratory

No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien,
Taiwan, R.O.C.

is accredited in respect of laboratory

Accreditation Criteria	: ISO/IEC 17025:2005
Accreditation Number	: 1190
Originally Accredited	: December 15, 2003
Effective Period	: January 10, 2007 to January 09, 2010
Accredited Scope	: Testing Field, see described in the Appendix
Specific Accreditation Program	: Accreditation Program for Designated Testing Laboratory for Commodities Inspection Accreditation Program for Telecommunication Equipment Testing Laboratory



Jay-San Chen
President, Taiwan Accreditation Foundation
Date : January 10, 2007

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The Appendix forms an integral part of this Certificate, which shall be invalid when used without the Appendix.