

EMC TEST REPORT

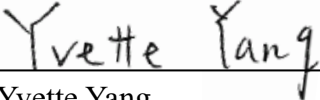
Report No. : EME-071141**Model No. : DSM-750****Issued Date : Dec. 17, 2007**

Applicant : D-Link Co.
No.289, Shinhu 3rd Rd., Neihu District, Taipei City 114,
Taiwan

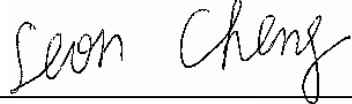
Test By : Intertek Testing Services Taiwan Ltd.
No. 11, Lane 275, Ko-Nan 1 Street, Chia-Tung Li,
Shiang-Shan District, Hsinchu City, Taiwan

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Report Engineer


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Project Engineer


Leon Cheng

Reviewed By



Jimmie Liu

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Summary of Tests

**Wireless Media Player
FCC ID: KA2-20070819**

802.11a (5180-5240MHz, 5260-5320MHz)

802.11n (5180-5240MHz, 5260-5320MHz and 5510-5670MHz)

Test	Reference	Results
Peak output power test	15.407 (a)(1)/(2)/(3) DA 02-2138	Pass
Power Spectrum Density test	15.407 (a)(1)/(2)/(3) DA 02-2138	Pass
Peak excursion to average ratio test	15.407(a)(6) DA 02-2138	Pass
Radiated spurious emission test	15.407(b)(1)/(2)/(3)/(6), 15.209	Pass
Dynamic Frequency Selection (DFS) test	15.407(h), FCC 06-96	Pass
AC line conducted emission test	15.407(b)(6) 15.207	Pass

1. General information

1.1 Identification of the EUT

Applicant : D-Link Co.
 Product : Wireless Media Player
 Model No. : DSM-750
 FCC ID. : KA2-20070819
 Type of Modulation : DSSS, OFDM, BPSK, QPSK, 16QAM, 64QAM
 Rated Power : 120Vac, 60Hz
 Power Cord : 2C×18AWG×2meter unshielded cable
 Sample Received : Nov. 02, 2007
 Test Date(s) : Nov. 06, 2007 ~ Nov. 16, 2007

Single Tx

Mode	Frequency Rang	Frequency of each channel					
		CH36	CH40	CH48	CH52	CH60	CH64
802.11a	5180~5320MHz	5180	5200	5240	5260	5300	5320

Dual Tx

Mode	Frequency Rang	Frequency of each channel					
		CH36	CH40	CH48	CH52	CH60	CH64
802.11n (20MHz)	5180~5320MHz	5180	5200	5240	5260	5300	5320

Dual Tx

Mode	Frequency Rang	Frequency of each channel			
		CH38	CH46	CH54	CH62
802.11n (40MHz)	(1) 5190~5310MHz	5190	5230	5270	5310
	(2) 5470-5725MHz	CH102		CH118	CH134
		5510	5590	5670	



1.2 Additional information about the EUT

The EUT is a Wireless Media Player, it supports two transmitted and three received MIMO functions, and was defined as information technology equipment.

For more detail features, please refer to User's manual as file name "Installation guide.pdf".

1.3 Antenna description

DACA&B

The antenna is affixed to the EUT using a unique connector, which allows for replacement of a broken antenna, but DOES NOT use a standard antenna jack or electrical connector.

Antenna Gain : 2.06dBi max for 2.4G band; 1.71dBi max for 5G band

Antenna Type : Dipole antenna

Connector Type : RP-SMA(M) reverse

1.4 Peripherals equipment

Peripherals	Manufacturer	Product No.	Serial No.	FCC ID
Notebook PC	DELL	Latitude D610	FXWZK1S	FCC DoC Approved

2. Test specifications

2.1 Test standard

The EUT was performed according to the procedures in FCC Part 15 Subpart C Section § 15.205、§15.207、§15.209、§15.247、Measurement of Digital Transmission Systems Operating under Section 15.247 and ANSI C63.4/2003.

The EUT was performed according to the procedures in FCC Part 15 Subpart E Section § 15.207、§15.209、§15.407、DA 02-2138 and ANSI C63.4/2003.

The test of radiated measurements according to FCC Part15 Section 15.33(a) had been conducted and the field strength of this frequency band were all meet limit requirement, thus we evaluate the EUT pass the specified test.

The AC power conducted emissions was invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz. (15.207 paragraph)

Radiated emissions were invested cover the frequency range from 30MHz to 1000MHz using a receiver RBW of 120kHz record QP reading, and the frequency over 1GHz using a spectrum analyzer RBW of 1MHz and 10Hz VBW record Average reading. (15.209 paragraph), the Peak reading recorded also on the report.

The EUT setup configurations please refer to the photo of test configuration in item.

2.2 Operation mode

Setting Notebook IP and then using the test program “DuaApiClient UDP” to perform the switch of 802.11a/b/g/n, power, channel, and data rates.

The EUT was transmitted continuously during the test.

With individual verifying, the maximum output power was found out 1Mbps data rate for 802.11b mode, 6Mbps data rate for 802.11g mode, 6Mbps data rate for 802.11a mode, 6.5Mbps data rate for 802.11n 20MHz, 13Mbps data rate for 802.11n 40MHz. The final tests were executed under these conditions and recorded in this report individually. Please refer to following table.



11a 5150-5250 band	
Data rate	PK (dBm)
6M	16.16
9M	16.01
12M	15.93
18M	15.85
24M	15.70
36M	15.55
48M	15.40
54M	15.31

11a 5250-5350 band	
Data rate	PK (dBm)
6M	16.14
9M	16.04
12M	15.91
18M	15.80
24M	15.74
36M	15.60
48M	15.50
54M	15.35

11n(20M) 5150-5250 band	
Data rate	PK (dBm)
6.5M	16.90
13M	16.85
19.5M	16.63
26M	16.51
39M	16.40
52M	16.10
58.5M	15.95
65M	15.90



11n(20M) 5250-5350 band	
Data rate	PK (dBm)
6.5M	19.73
13M	19.60
19.5M	19.52
26M	19.37
39M	19.20
52M	19.04
58.5M	18.97
65M	18.92

11n(40M) 5150-5250 band	
Data rate	PK (dBm)
13M	16.89
26M	16.80
39M	16.65
52M	16.54
78M	16.33
104M	16.11
117M	15.95
130M	15.78

11n(40M) 5250-5350 band	
Data rate	PK (dBm)
13M	17.74
26M	17.52
39M	17.35
52M	17.21
78M	17.08
104M	16.98
117M	16.80
130M	16.73

2.3 Test equipment

Equipment	Brand	Frequency range	Model No.	Intertek ID No.	Next Cal. Date
EMI Test Receiver	Rohde & Schwarz	9kHz~2.75GHz	ESCS 30	EC303	04/16/2008
Spectrum Analyzer	Rohde & Schwarz	9kHz~30GHz	FSP 30	EC353	07/22/2008
Spectrum Analyzer	Rohde & Schwarz	20Hz~40GHz	FSEK 30	EC365	10/30/2008
Horn Antenna	SCHWARZBECK	1GHz~18GHz	BBHA 9120 D	EC371	12/21/2008
Horn Antenna	SCHWARZBECK	14GHz~40GHz	BBHA 9170	EC351	07/07/2008
Bilog Antenna	SCHWARZBECK	25MHz~2GHz	VULB 9168	EC347	12/22/2008
Pre-Amplifier	MITEQ	100MHz~26.5GHz	AFS42-001026 50-42-10P-42	EC373	02/10/2008
Pre-Amplifier	MITEQ	26GHz-40GHz	JS4-26004000- -27-8A	EC374	01/15/2008
Wideband Peak Power Meter/ Sensor	Anritsu	100MHz~18GHz	ML2497A/ MA2491A	EC396	11/08/2008
Controller	HDGmbH	N/A	CM 100	EP346	N/A
Antenna Tower	HDGmbH	N/A	MA 240	EP347	N/A
LISN	Rohde & Schwarz	9KHz~30MHz	ESH3-Z5	EC344	01/12/2008

Note: The above equipments are within the valid calibration period.

3. Peak Output Power test (FCC 15.407)

3.1 Operating environment

Temperature: 25 °C
Relative Humidity: 50 %
Atmospheric Pressure: 1023 hPa

3.2 Test setup & procedure

The power output per FCC §15.407(a) was measured on the EUT using a 50 ohm SMA cable connected to power meter via power sensor. Power was read directly and cable loss correction (7.0dB) was added to the reading to obtain power at the EUT antenna terminals.

3.3 Limit

Operating Frequency (MHz)	Output power limit
5150~5250	< 50mW (17dBm) or 4dBm+10 log B
5250~5350, 5470~5725	< 250mW (24dBm) or 11dBm+10 log B
5725~5825	< 1W (30dBm) or 17dBm+10 log B

Remark: where B is the -26 dB emission bandwidth in MHz.

3.4 Measured data of Maximum Output Power test results

Single Tx

Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Output Power (dBm)		Limit (dBm)	Result
				DACA	DACB		
				CH PWR	CH PWR		
11a	36	5180	6	15.93	15.50	17	Pass
	40	5200		16.04	15.84	17	Pass
	48	5240		16.16	15.66	17	Pass
	52	5260		16.14	15.65	24	Pass
	60	5300		16.08	15.43	24	Pass
	64	5320		15.90	15.56	24	Pass

Dual Tx

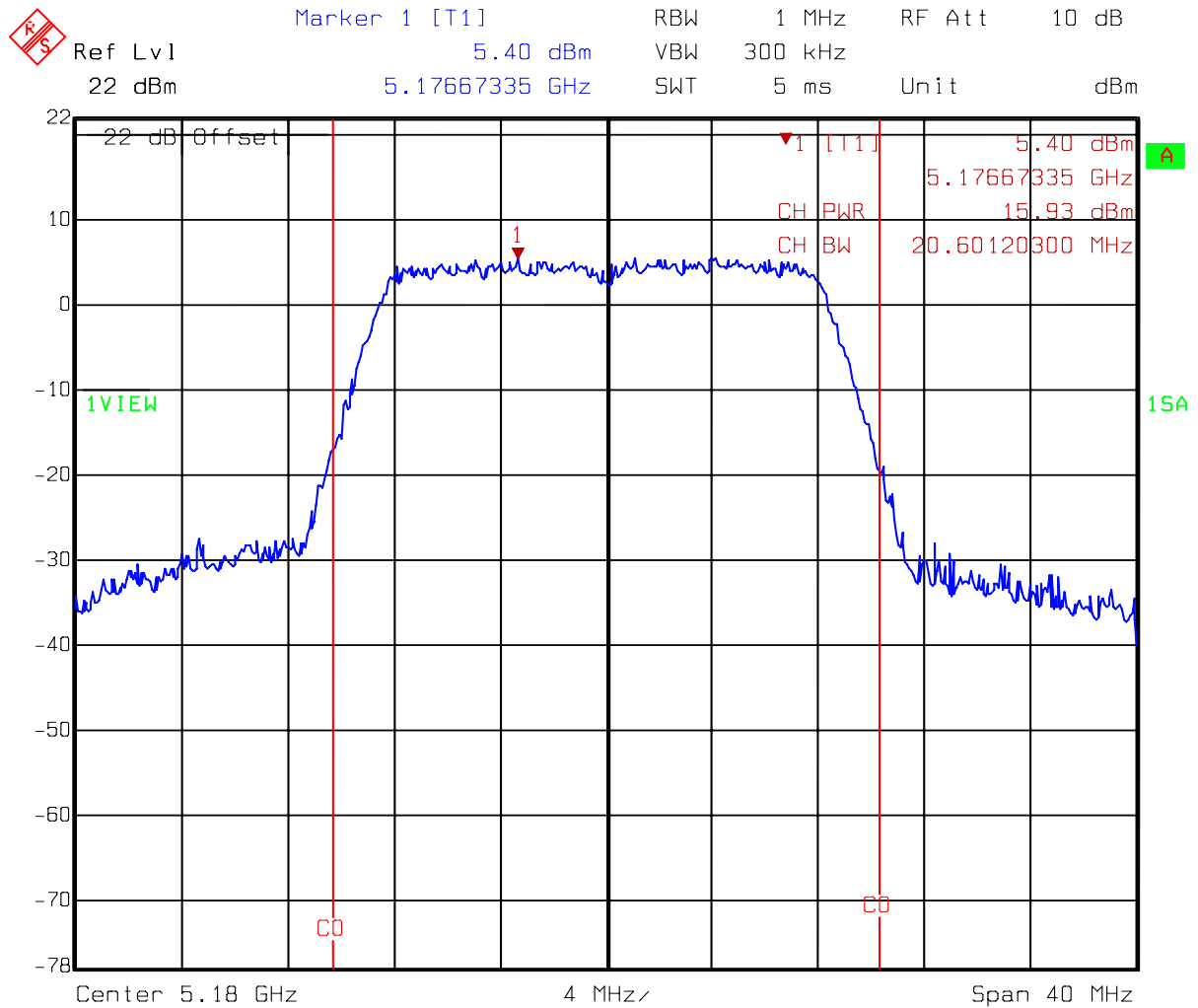
Mode	Channel	Frequency (MHz)	Data rate Mbps	CH Power (dBm)		Total OUTPUT		Limit (dBm)	Margin (dB)
				DACA	DACB	mW	dBm		
11n(20)	36	5180	6.5	13.23	14.25	47.65	16.78	17	-0.22
	40	5200		13.38	14.35	49.00	16.90	17	-0.10
	48	5240		13.31	14.23	47.91	16.80	17	-0.20
	52	5260		15.71	16.19	78.83	18.97	24	-5.03
	60	5300		14.80	18.04	93.88	19.73	24	-4.27
	64	5320		15.44	15.76	72.66	18.61	24	-5.39
11n(40)	38	5190	13	13.10	14.12	46.24	16.65	17	-0.35
	46	5230		13.38	14.32	48.82	16.89	17	-0.11
	54	5270		14.95	14.50	59.44	17.74	24	-6.26
	62	5310		14.78	14.52	58.37	17.66	24	-6.34
	102	5510		13.68	14.78	53.40	17.28	24	-6.72
	118	5590		13.62	13.81	47.06	16.73	24	-7.27
	134	5670		14.02	14.14	51.18	17.09	24	-6.91

Please see the plots as next page.

3.4.1 Channel Power measurement results

Single Tx


DACA: 802.11a CH36

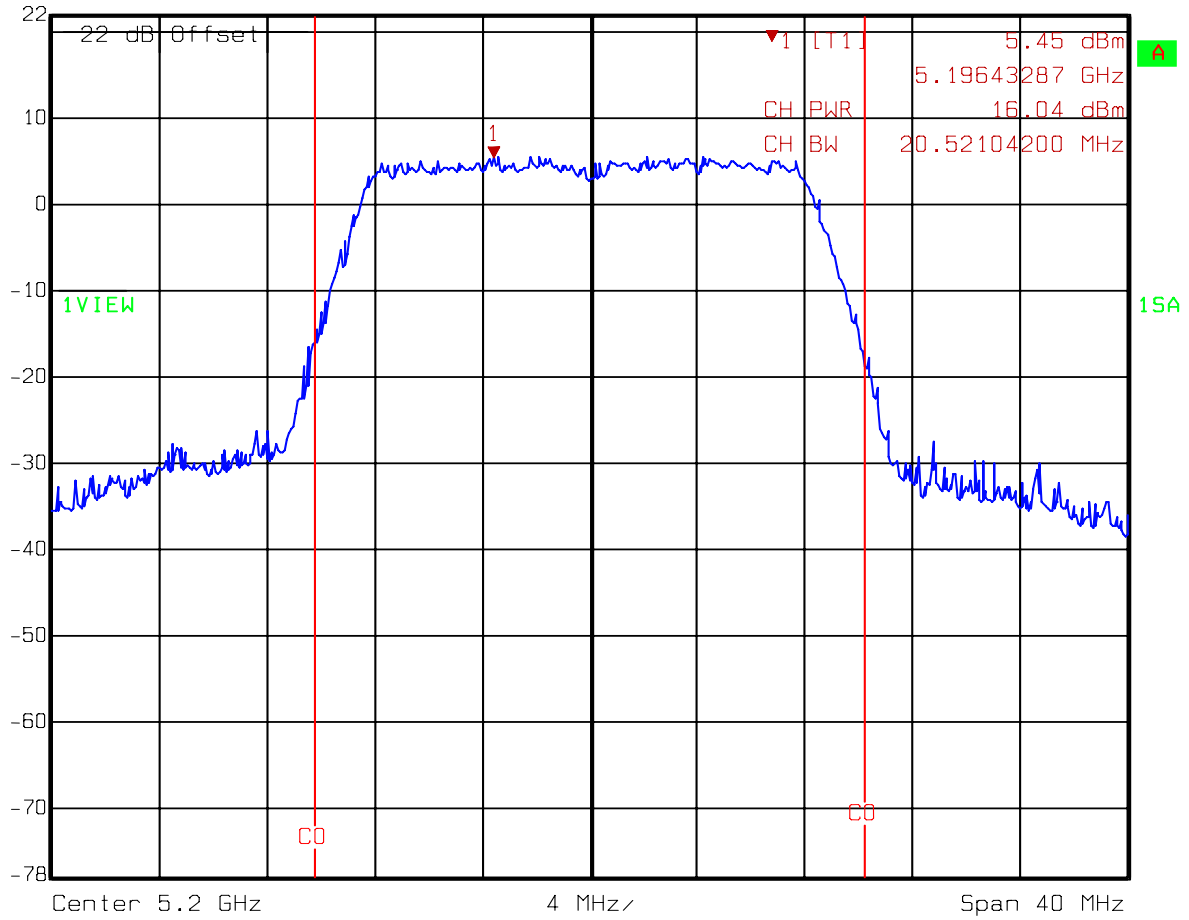


Title: Output Power
 Comment A: CH 36 at 802.11a mode (Limit 17.000 dBm)
 Date: 13.NOV.2007 15:07:58



Single Tx
DACA: 802.11a CH40

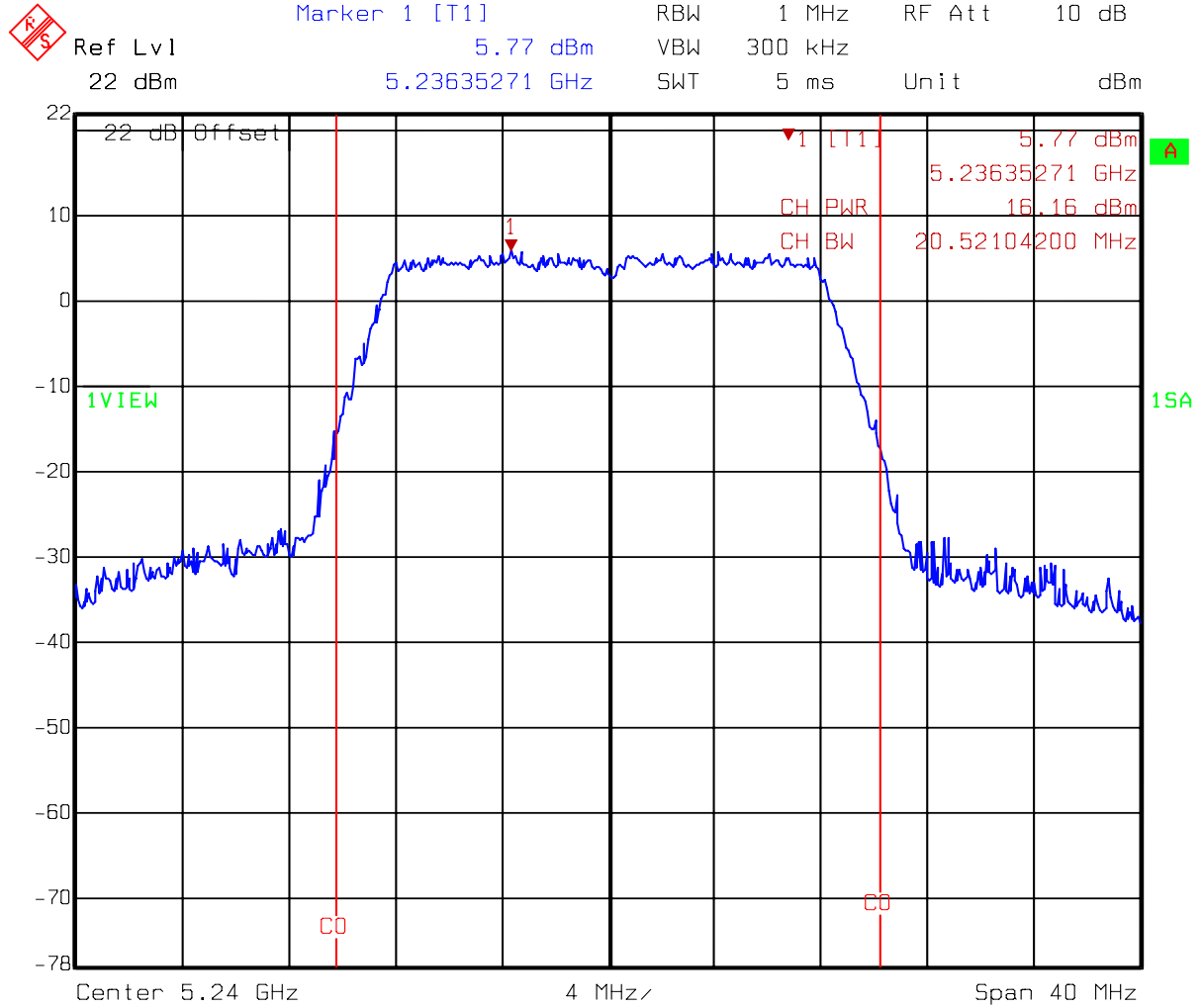
 Ref Lvl 22 dBm Marker 1 [T1] 5.45 dBm RBW 1 MHz RF Att 10 dB
5.19643287 GHz VBW 300 kHz
SWT 5 ms Unit dBm



Title: Output Power
Comment A: CH 40 at 802.11a mode (Limit 17.000 dBm)
Date: 13.NOV.2007 15:12:14

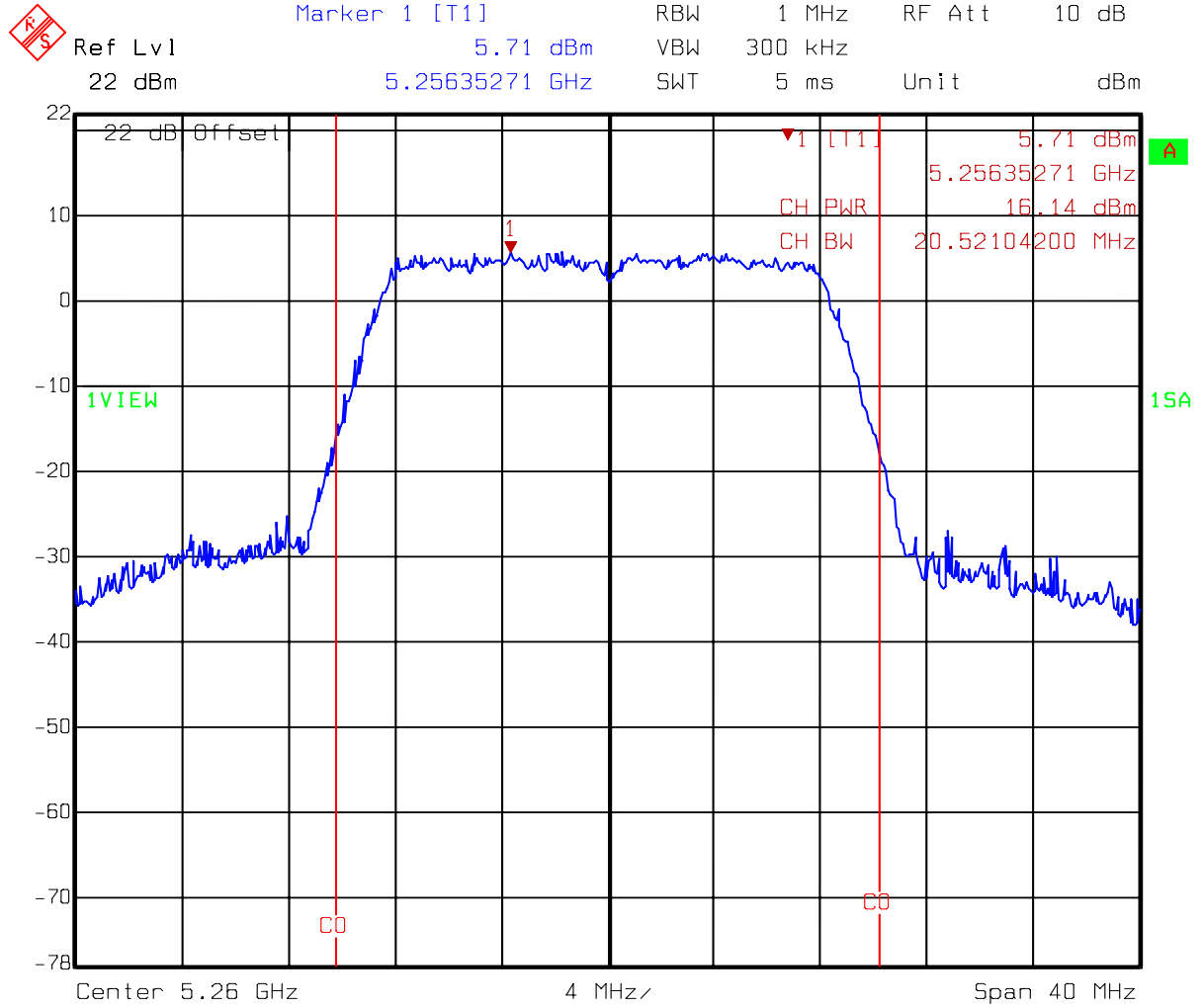


Single Tx
DACA: 802.11a CH48



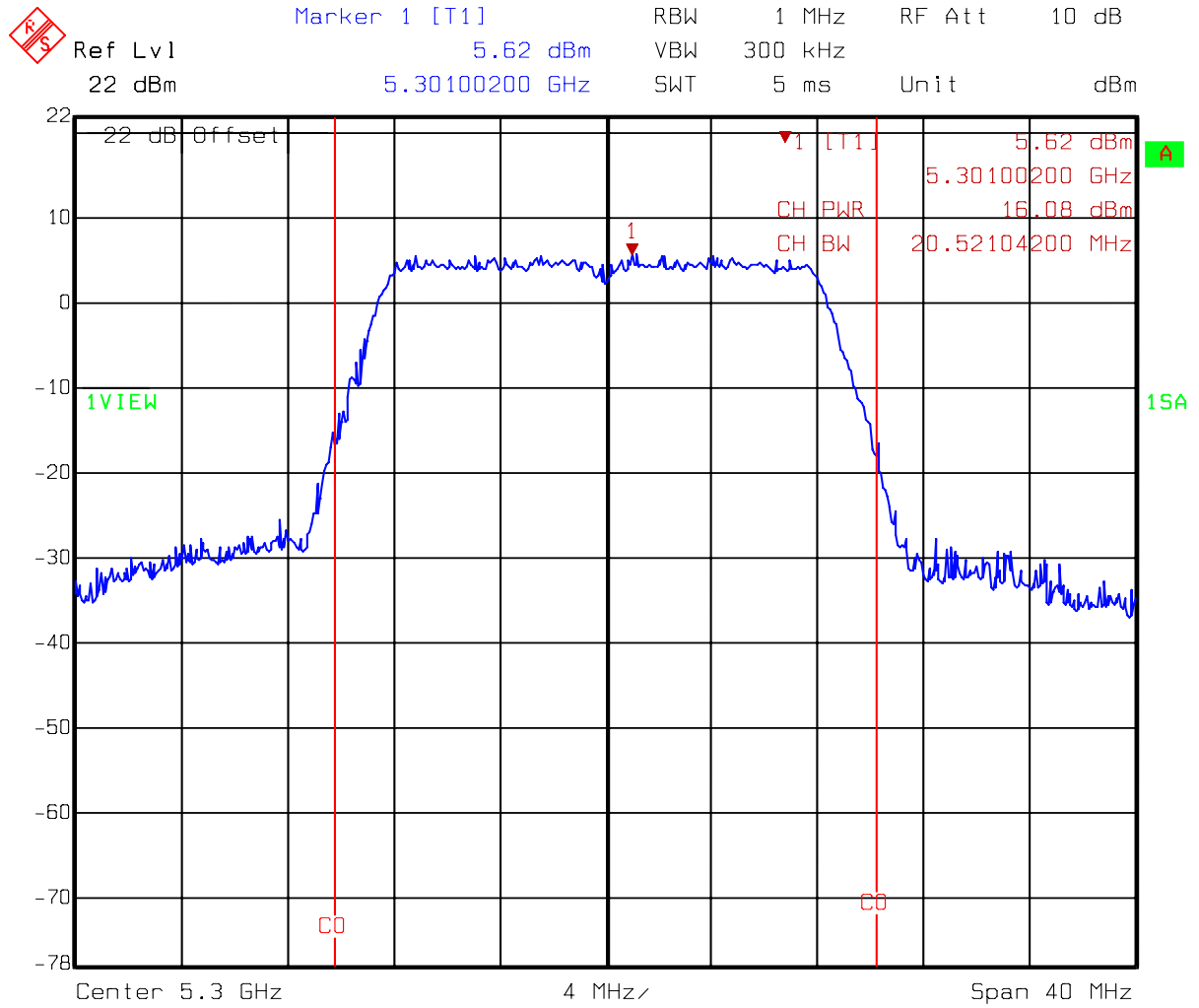
Title: Output Power
Comment A: CH 48 at 802.11a mode (Limit 17.000 dBm)
Date: 13.NOV.2007 15:15:46

Single Tx
DACA: 802.11a CH52



Title: Output Power
 Comment A: CH 52 at 802.11a mode (Limit 24.000 dBm)
 Date: 13.NOV.2007 15:20:51

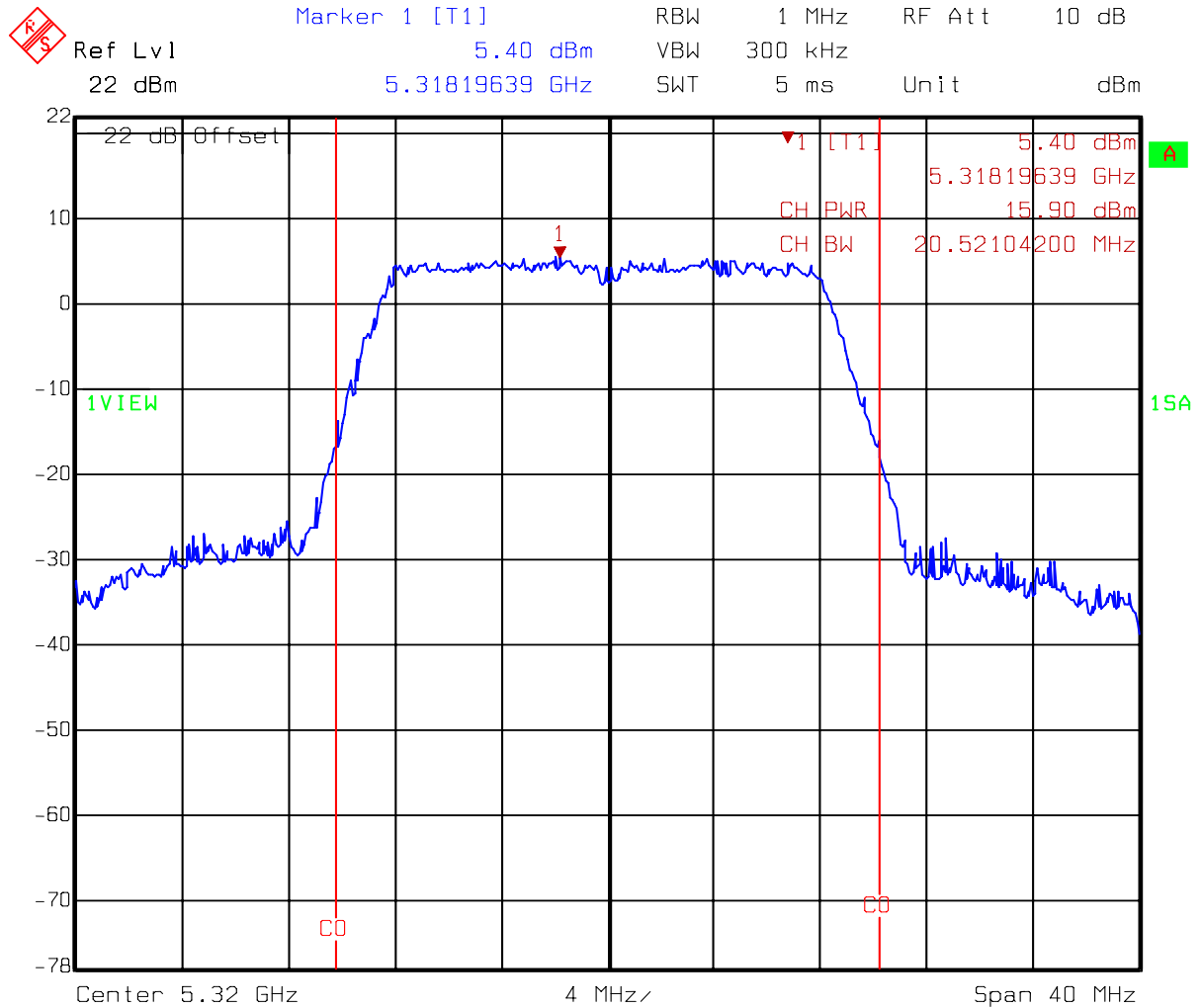
Single Tx
DACA: 802.11a CH60



Title: Output Power
 Comment A: CH 60 at 802.11a mode (Limit 24.000 dBm)
 Date: 13.NOV.2007 15:24:09

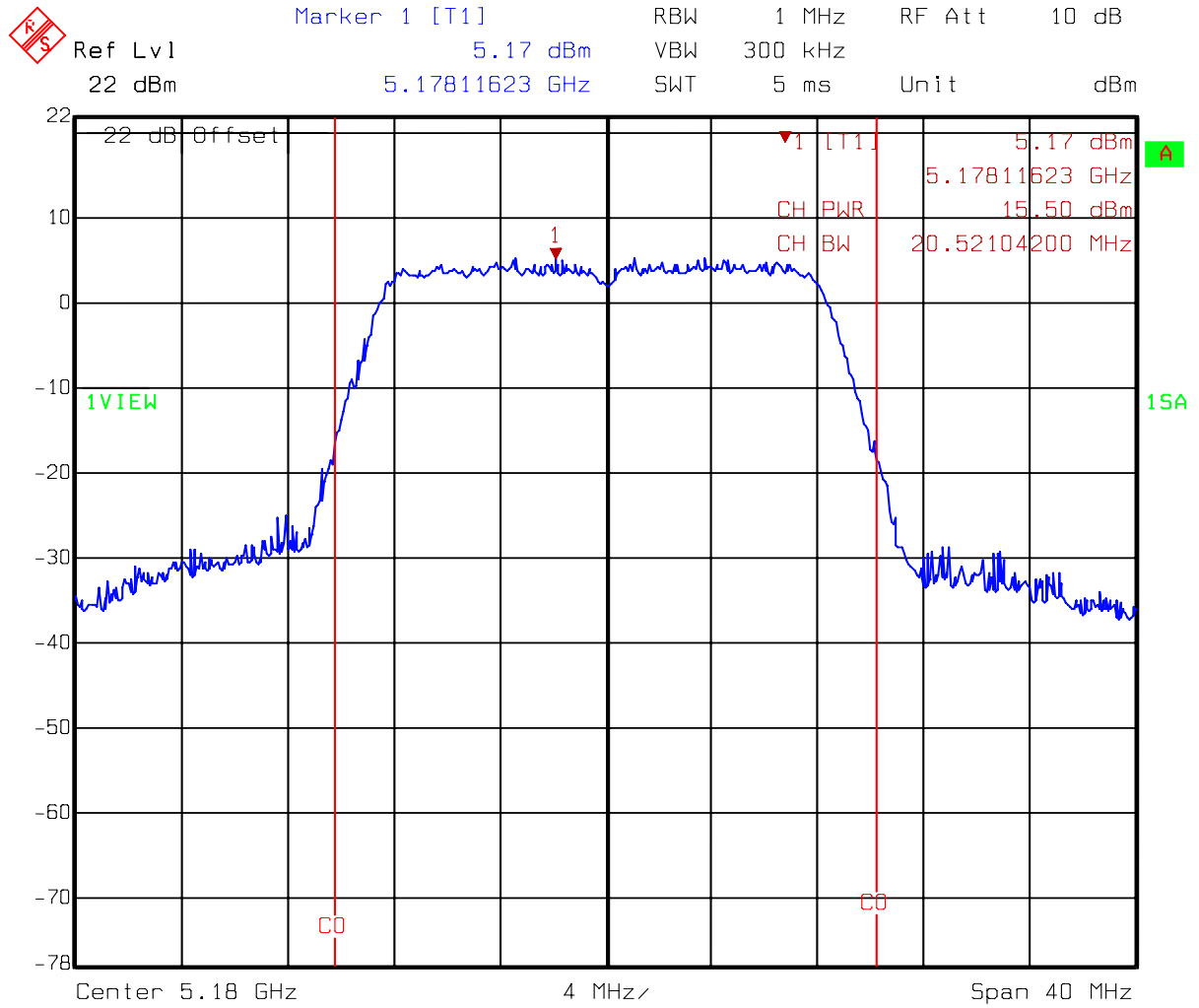


Single Tx
DACA: 802.11a CH64



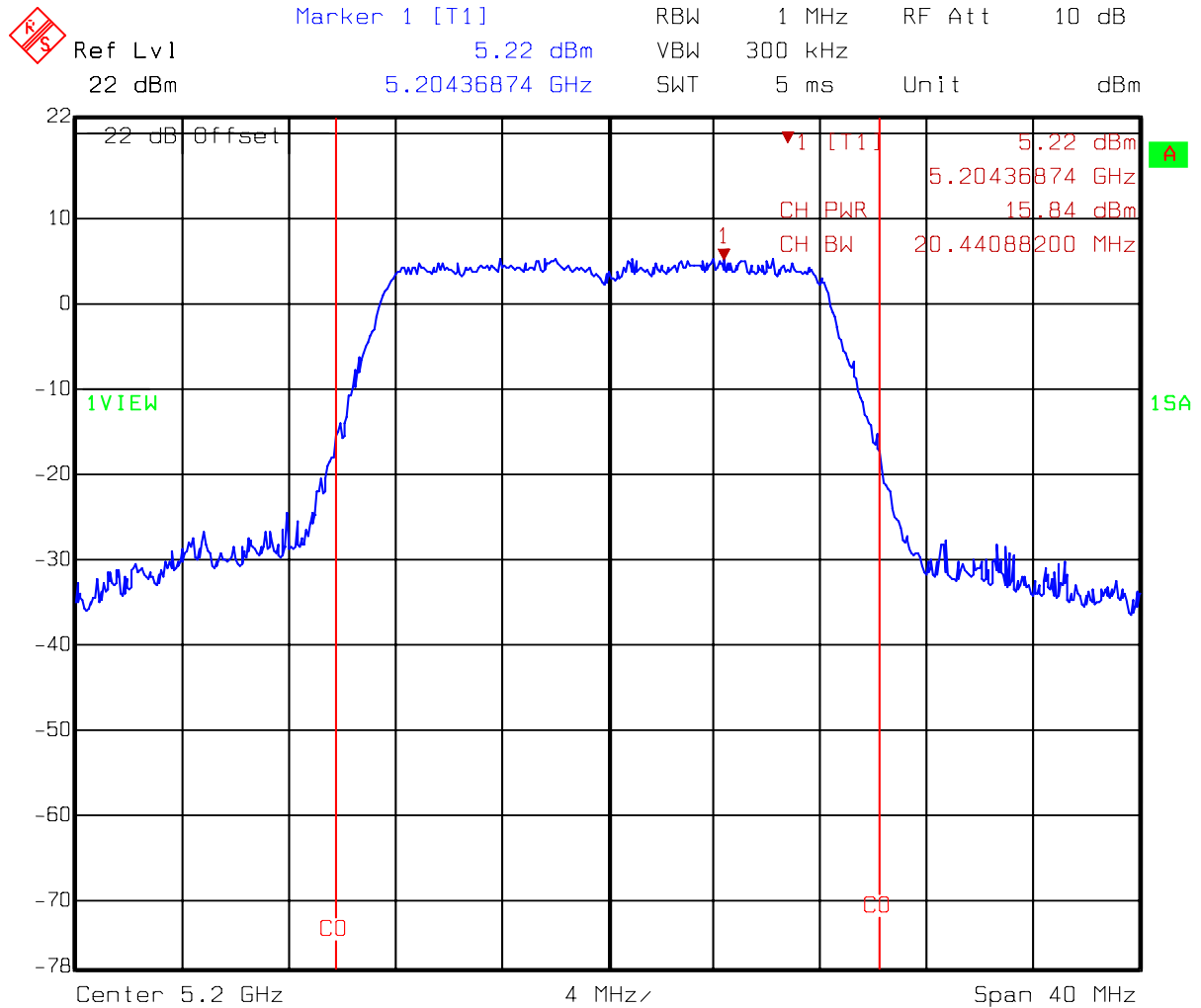
Title: Output Power
Comment A: CH 64 at 802.11a mode (Limit 24.000 dBm)
Date: 13.NOV.2007 15:28:43

Single Tx DACB: 802.11a CH36



Title: Output Power
 Comment A: CH 36 at 802.11a mode (Limit 17.000 dBm)
 Date: 13.NOV.2007 14:44:02

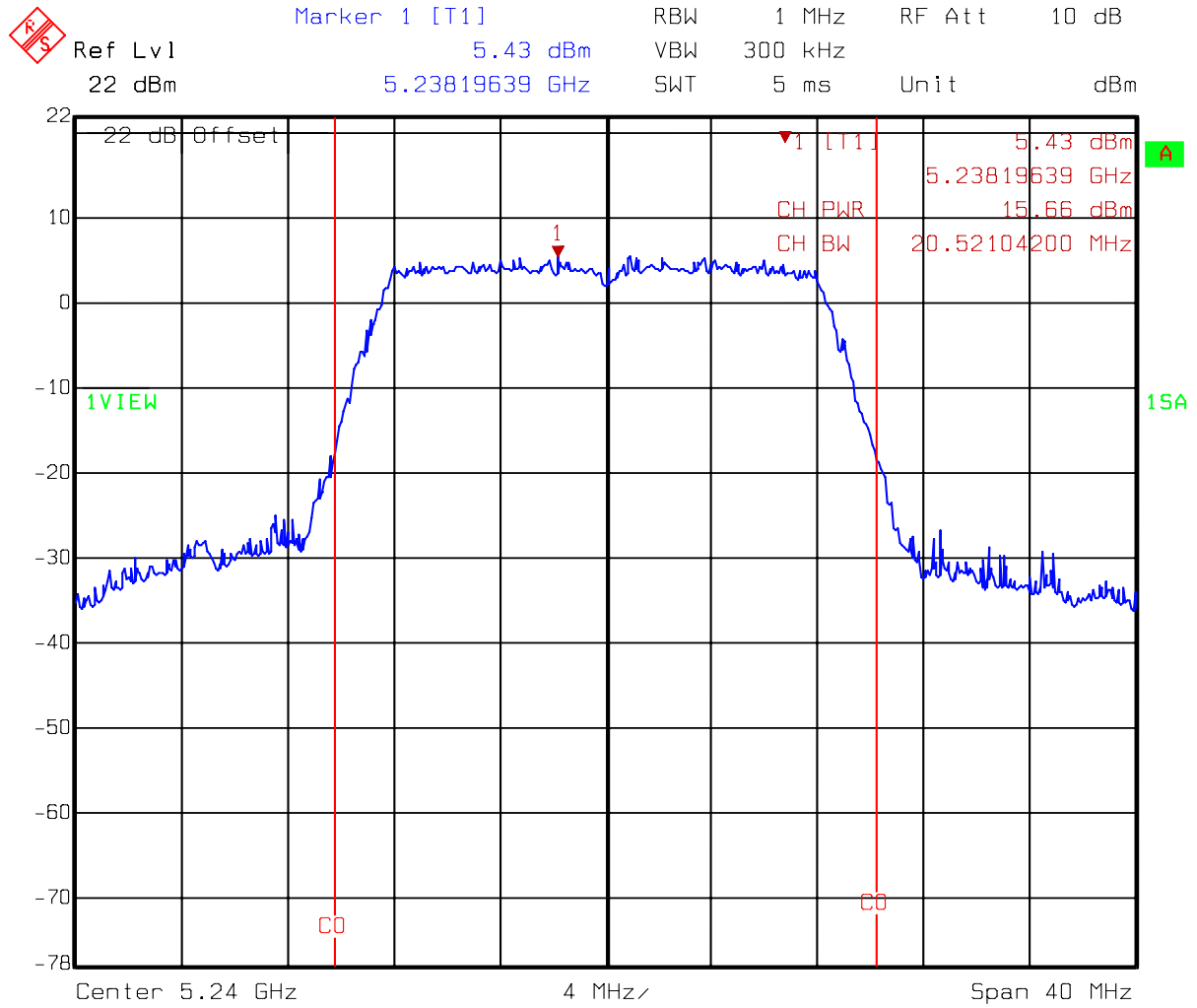
Single Tx
DACB: 802.11a CH40



Title: Output Power
 Comment A: CH 40 at 802.11a mode (Limit 17.000 dBm)
 Date: 13.NOV.2007 14:49:35



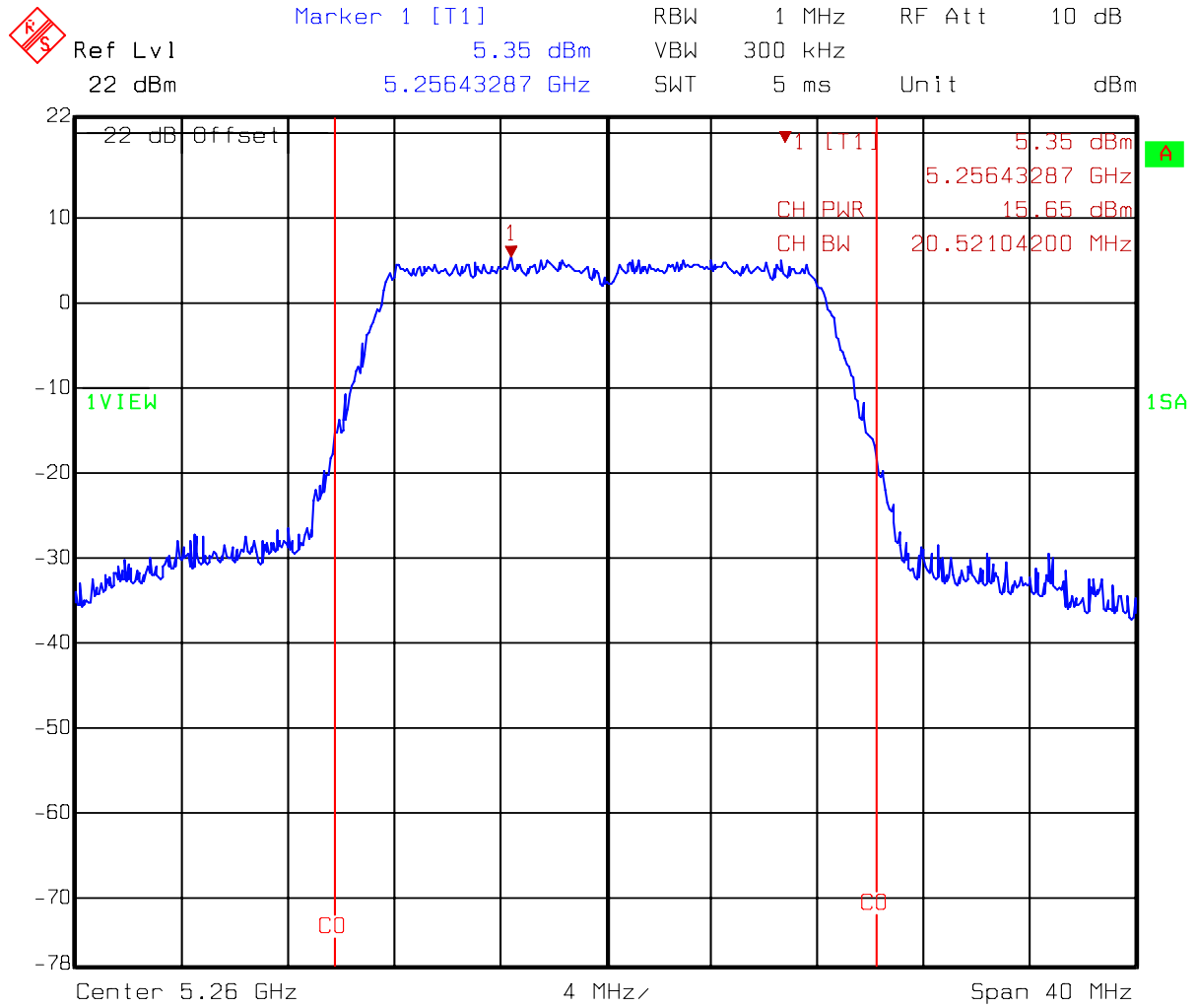
Single Tx
DACB: 802.11a CH48



Title: Output Power
Comment A: CH 48 at 802.11a mode (Limit 17.000 dBm)
Date: 13.NOV.2007 14:53:18



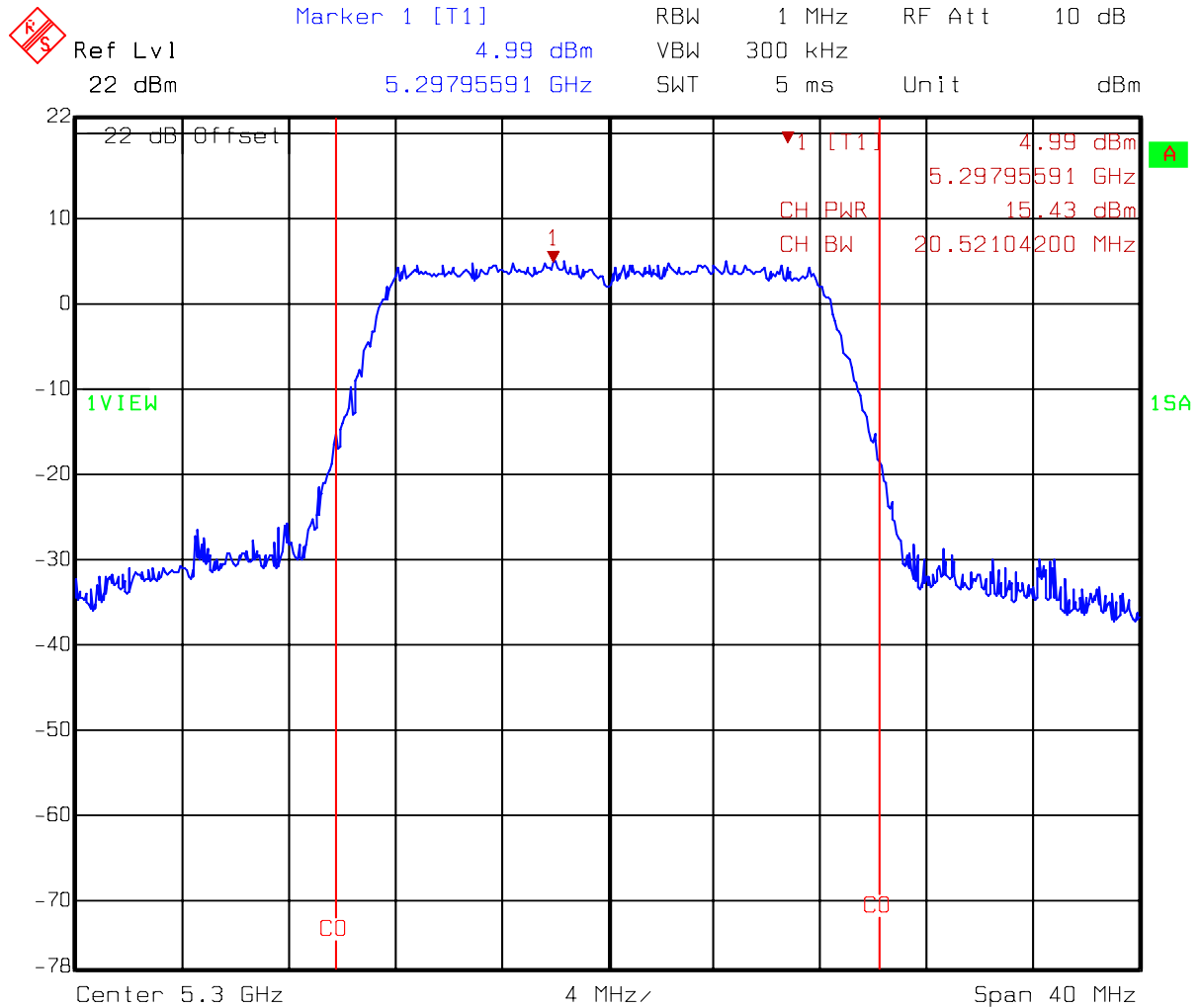
Single Tx
DACB: 802.11a CH52



Title: Output Power
Comment A: CH 52 at 802.11a mode (Limit 24.000 dBm)
Date: 13.NOV.2007 14:56:27



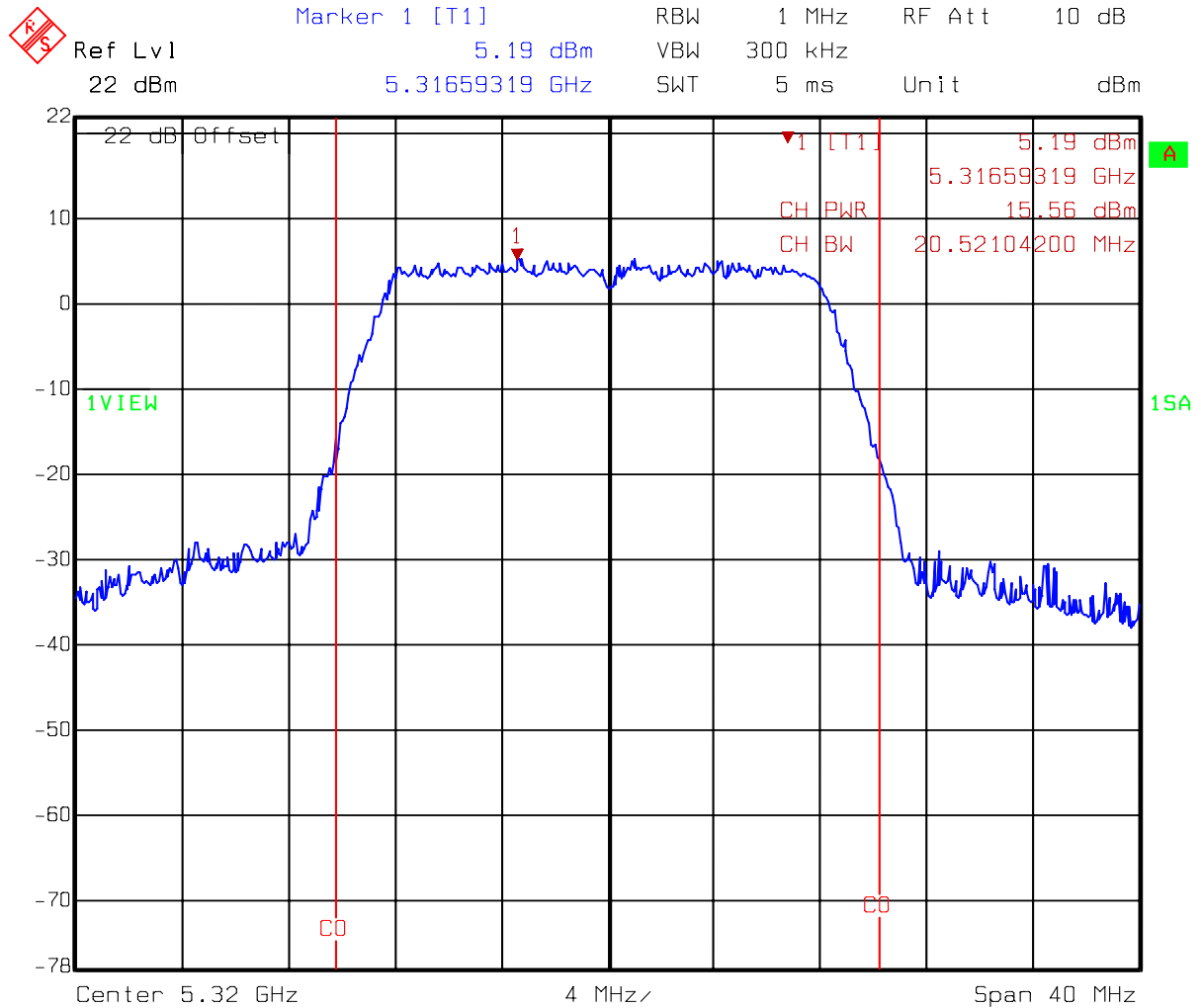
Single Tx
DACB: 802.11a CH60



Title: Output Power
Comment A: CH 60 at 802.11a mode (Limit 24.000 dBm)
Date: 13.NOV.2007 15:00:13



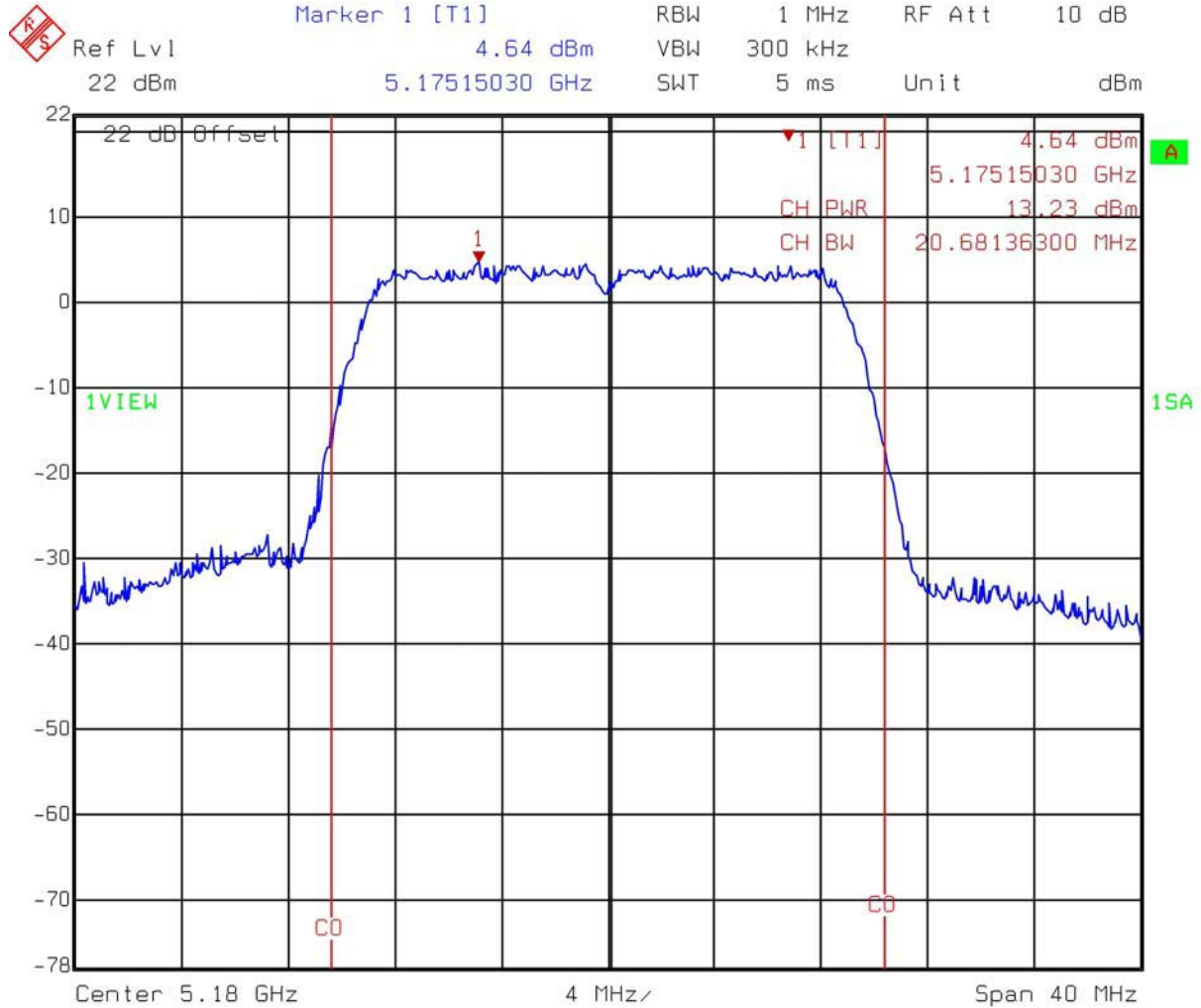
Single Tx
DACB: 802.11a CH64



Title: Output Power
Comment A: CH 64 at 802.11a mode (Limit 24.000 dBm)
Date: 13.NOV.2007 15:03:27

Dual Tx

DACA: 802.11n 20MHz CH36

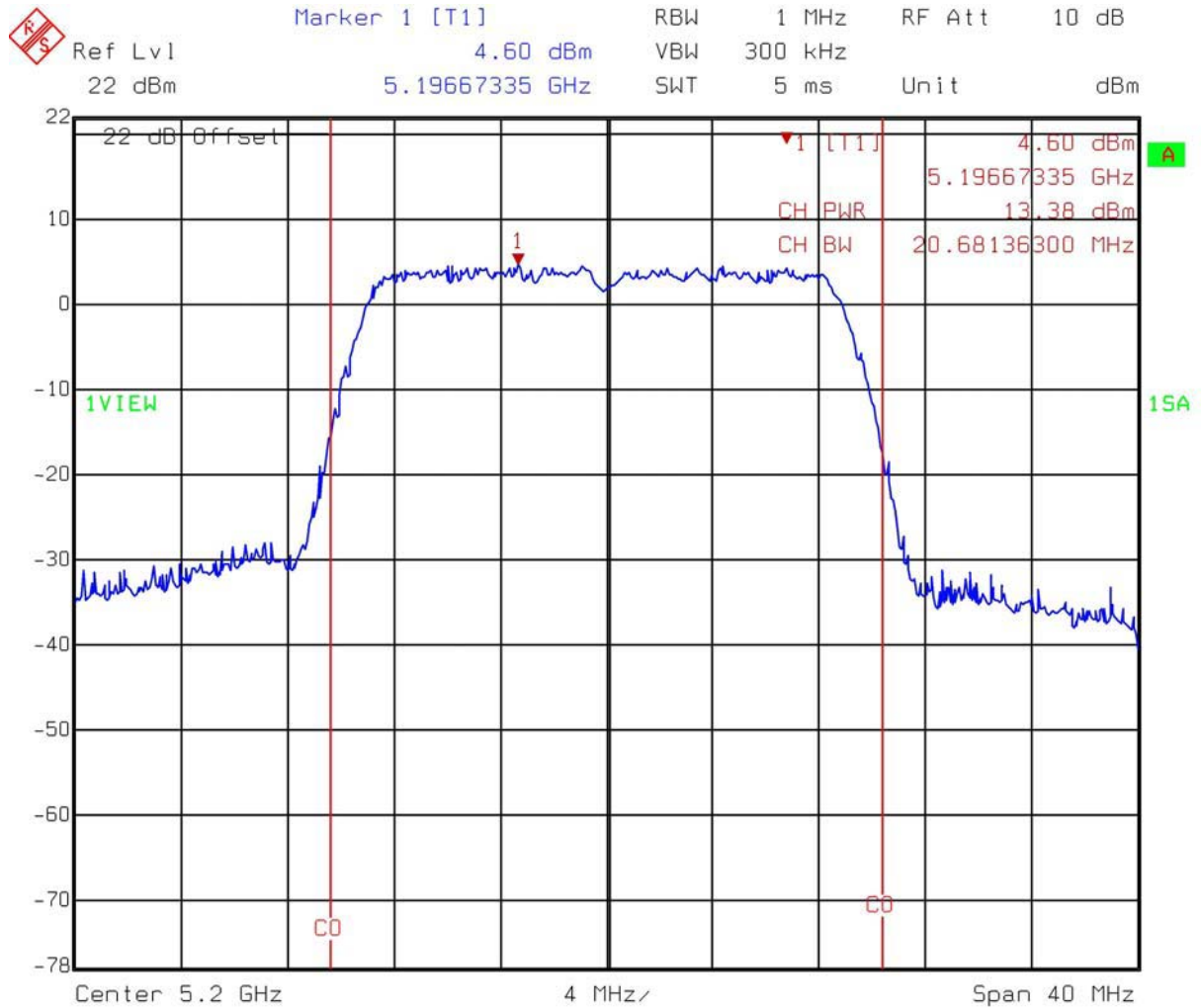


Title: Output Power

Comment A: CH 36 at 802.11a mode (Limit 17.000 dBm)

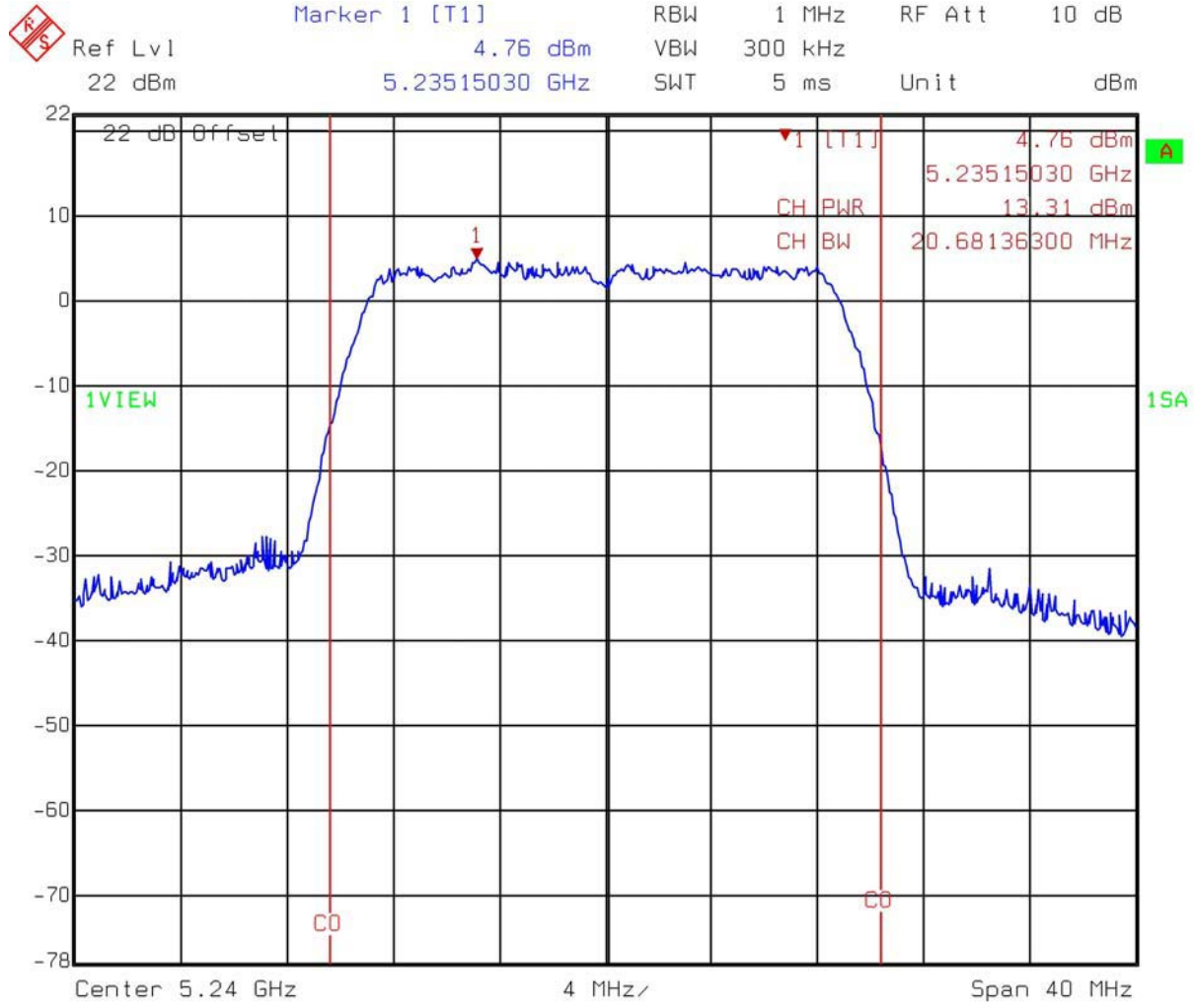
Date: 13.NOV.2007 13:37:19

Dual Tx
DACA: 802.11n 20MHz CH40



Title: Output Power
 Comment A: CH 40 at 802.11a mode (Limit 17.000 dBm)
 Date: 13.NOV.2007 13:48:36

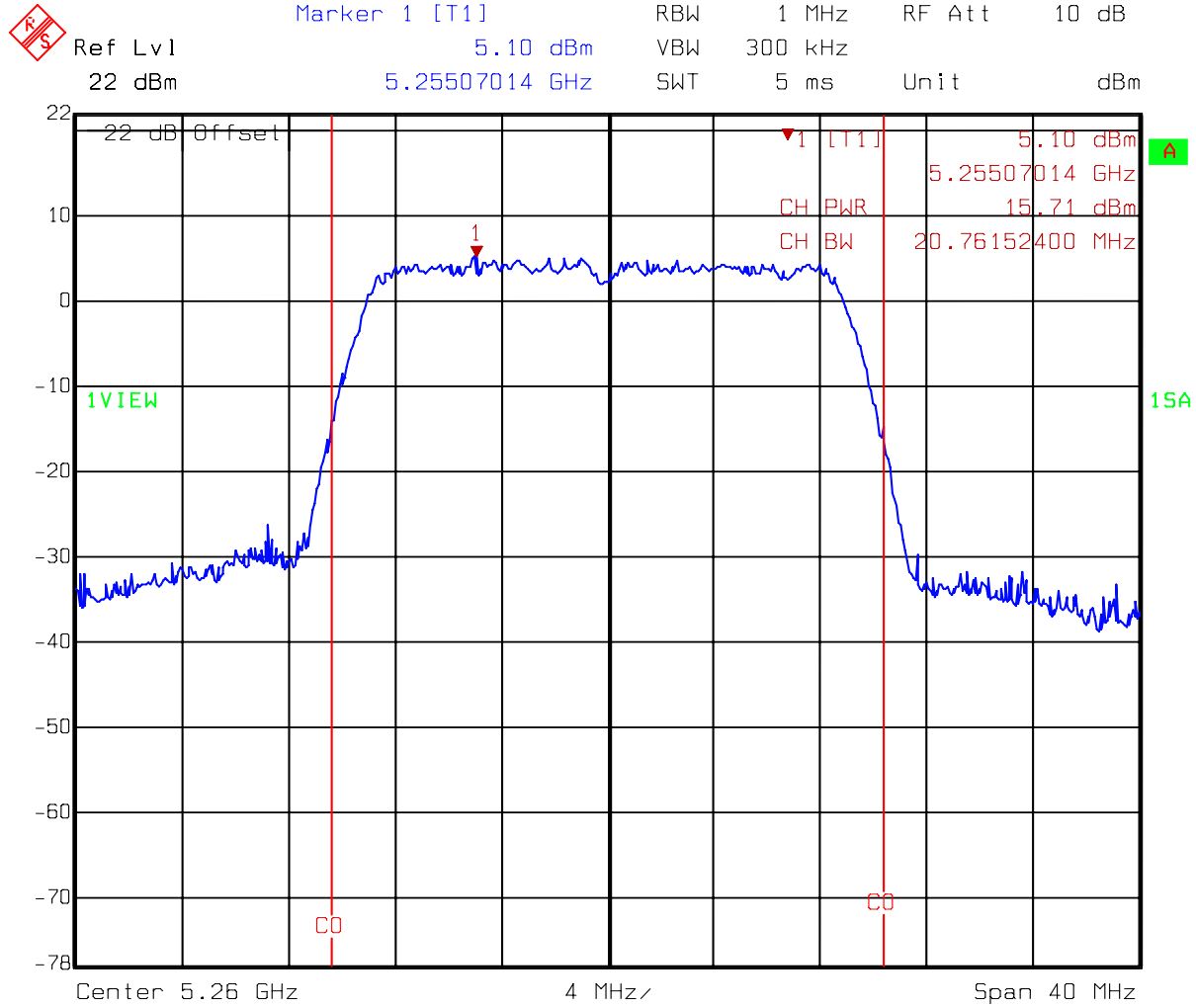
Dual Tx
DACA: 802.11n 20MHz CH48



Title: Output Power
 Comment A: CH 48 at 802.11a mode (Limit 17.000 dBm)
 Date: 13.NOV.2007 13:52:16




Dual Tx
DACA: 802.11n 20MHz CH52

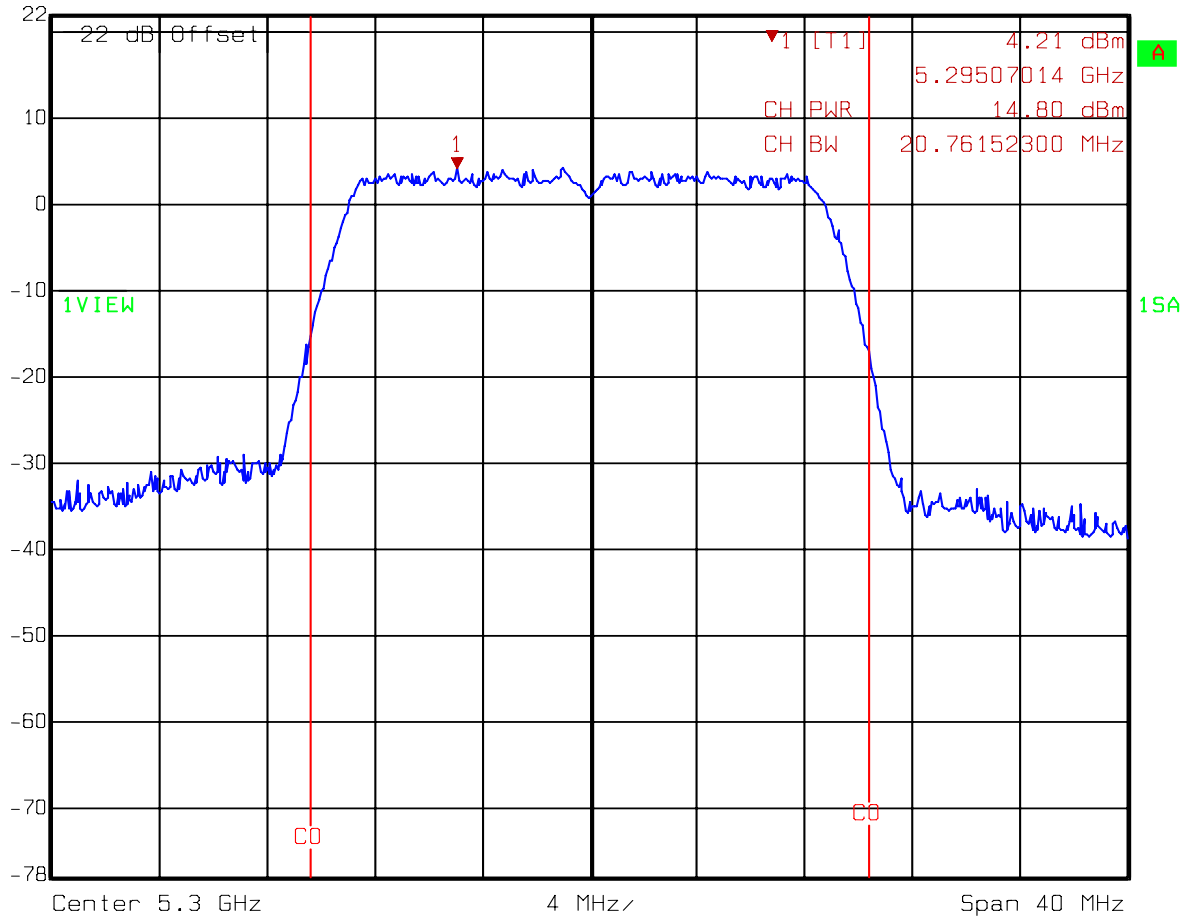


Title: Output Power
Comment A: CH 52 at 802.11a mode (Limit 24.000 dBm)
Date: 13.NOV.2007 14:03:06



Dual Tx
DACA: 802.11n 20MHz CH60

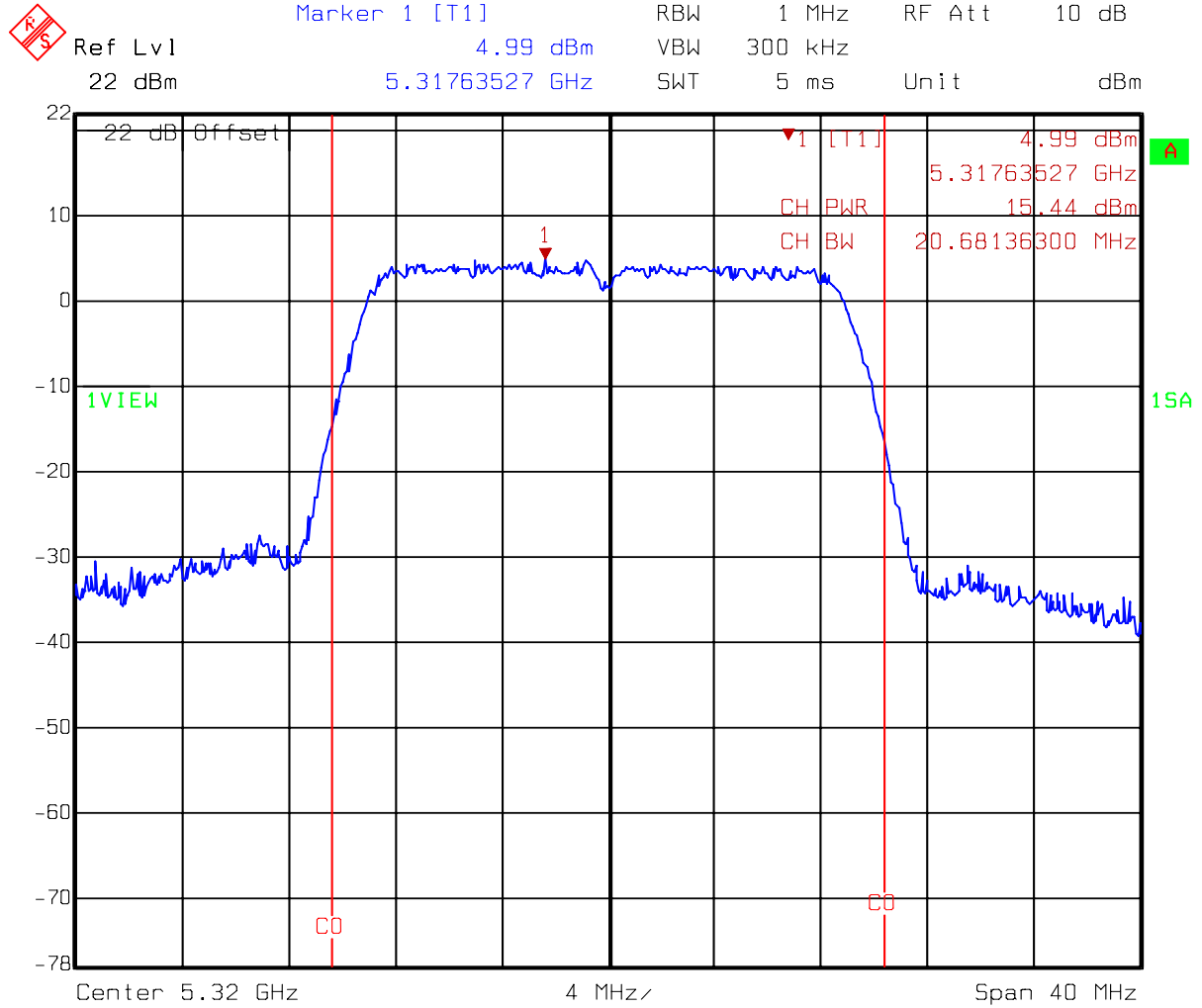
 Ref Lvl 22 dBm Marker 1 [T1] 4.21 dBm RBW 1 MHz RF Att 10 dB
5.29507014 GHz VBW 300 kHz
SWT 5 ms Unit dBm



Title: Output Power
Comment A: CH 60 at 802.11a mode (Limit 24.000 dBm)
Date: 13.NOV.2007 14:29:39

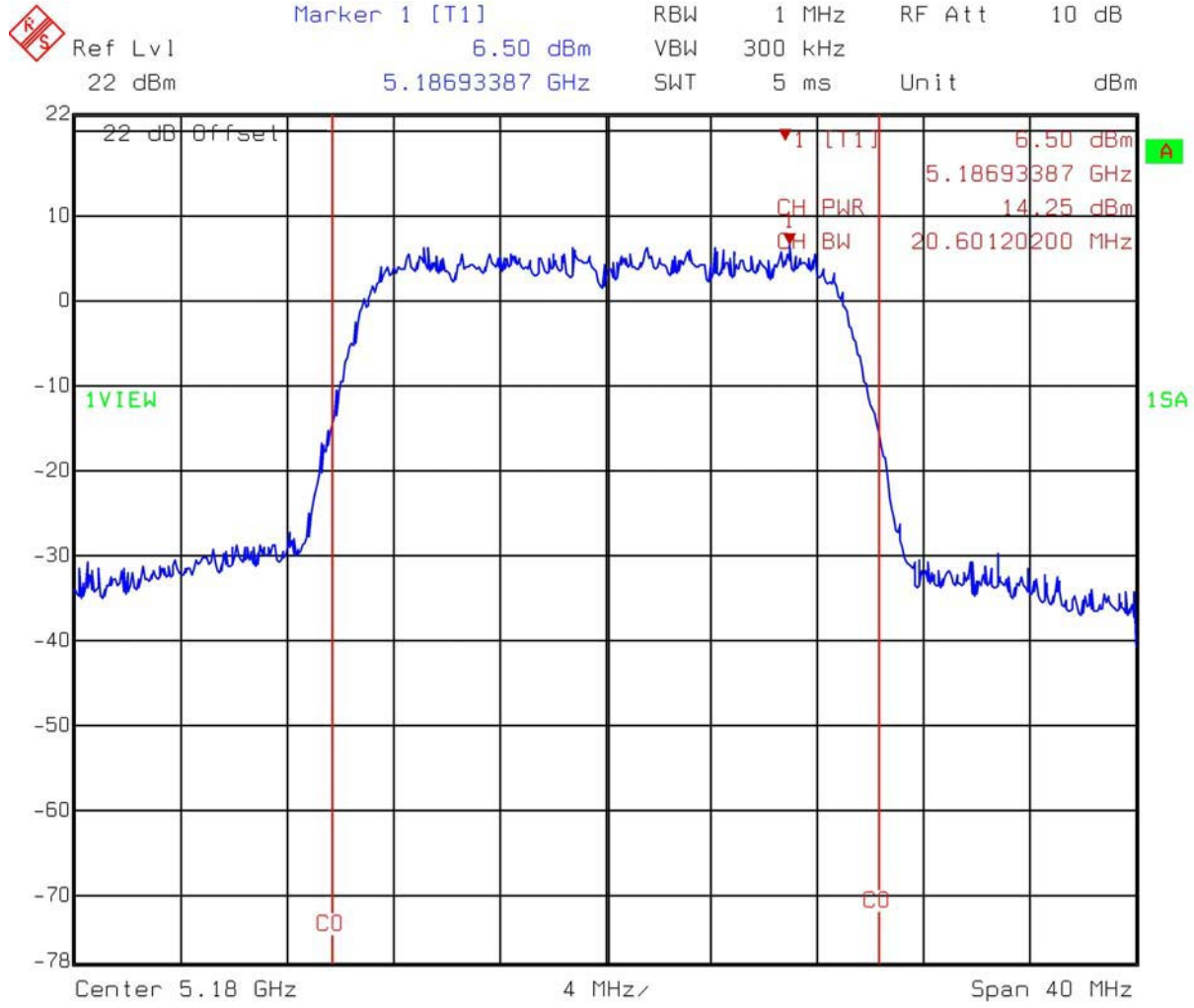


Dual Tx
DACA: 802.11n 20MHz CH64



Title: Output Power
Comment A: CH 64 at 802.11a mode (Limit 24.000 dBm)
Date: 13.NOV.2007 16:28:23

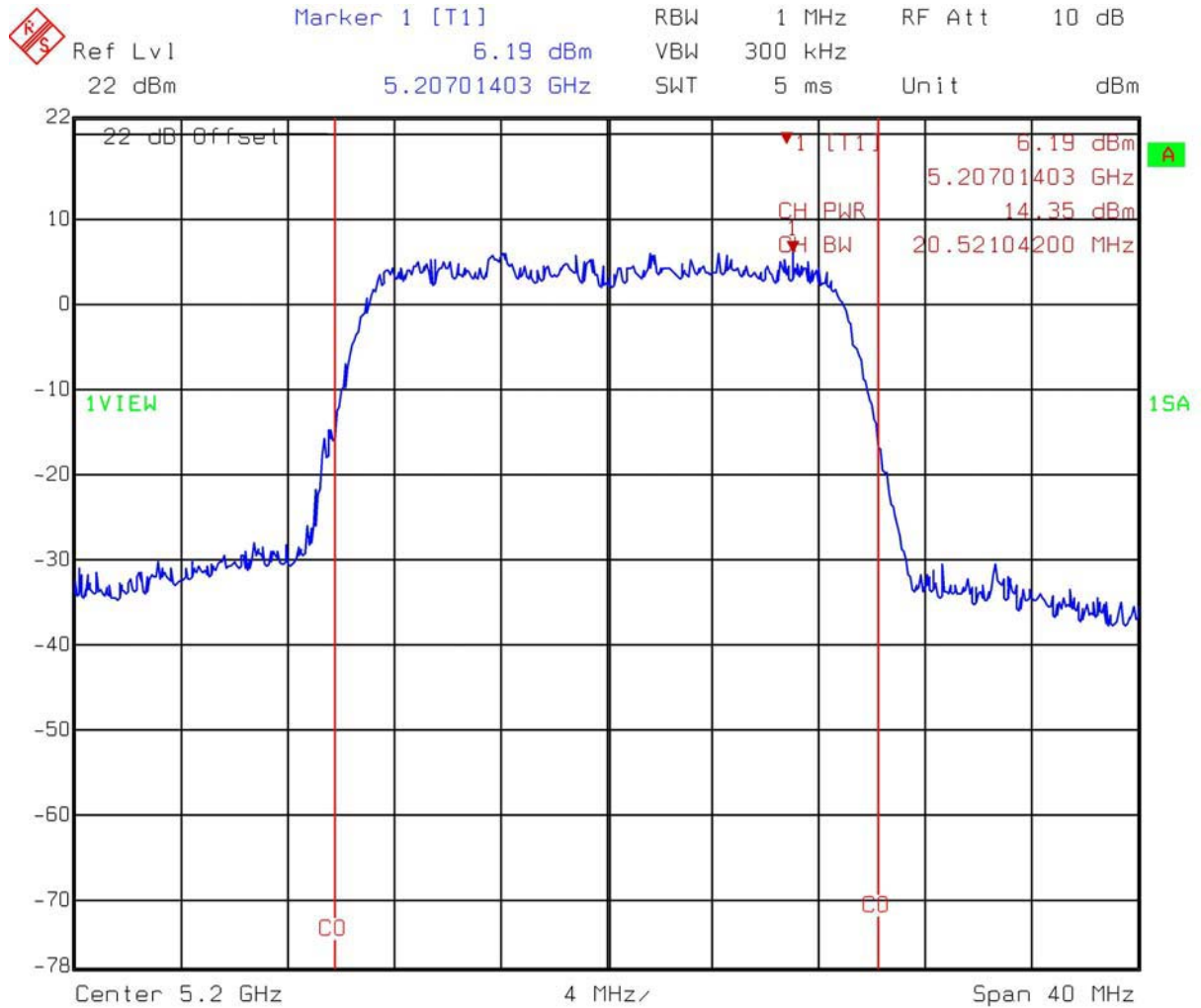
Dual Tx
DACB: 802.11n 20MHz CH36



Title: Output Power
 Comment A: CH 36 at 802.11a mode (Limit 17.000 dBm)
 Date: 13.NOV.2007 13:40:36

Dual Tx

DACB: 802.11n 20MHz CH40

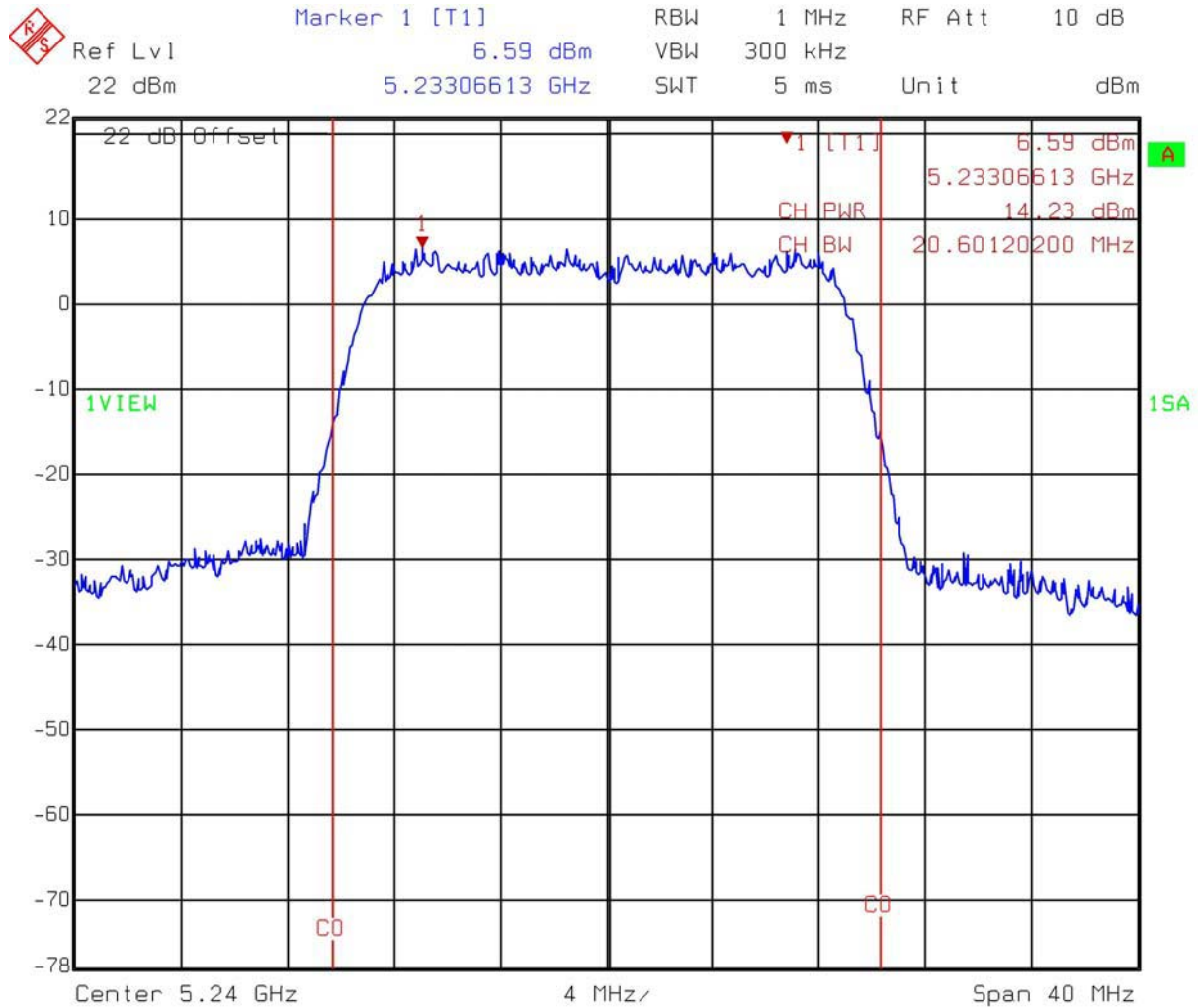


Title: Output Power

Comment A: CH 40 at 802.11a mode (Limit 17.000 dBm)

Date: 13.NOV.2007 13:43:41

Dual Tx
DACB: 802.11n 20MHz CH48

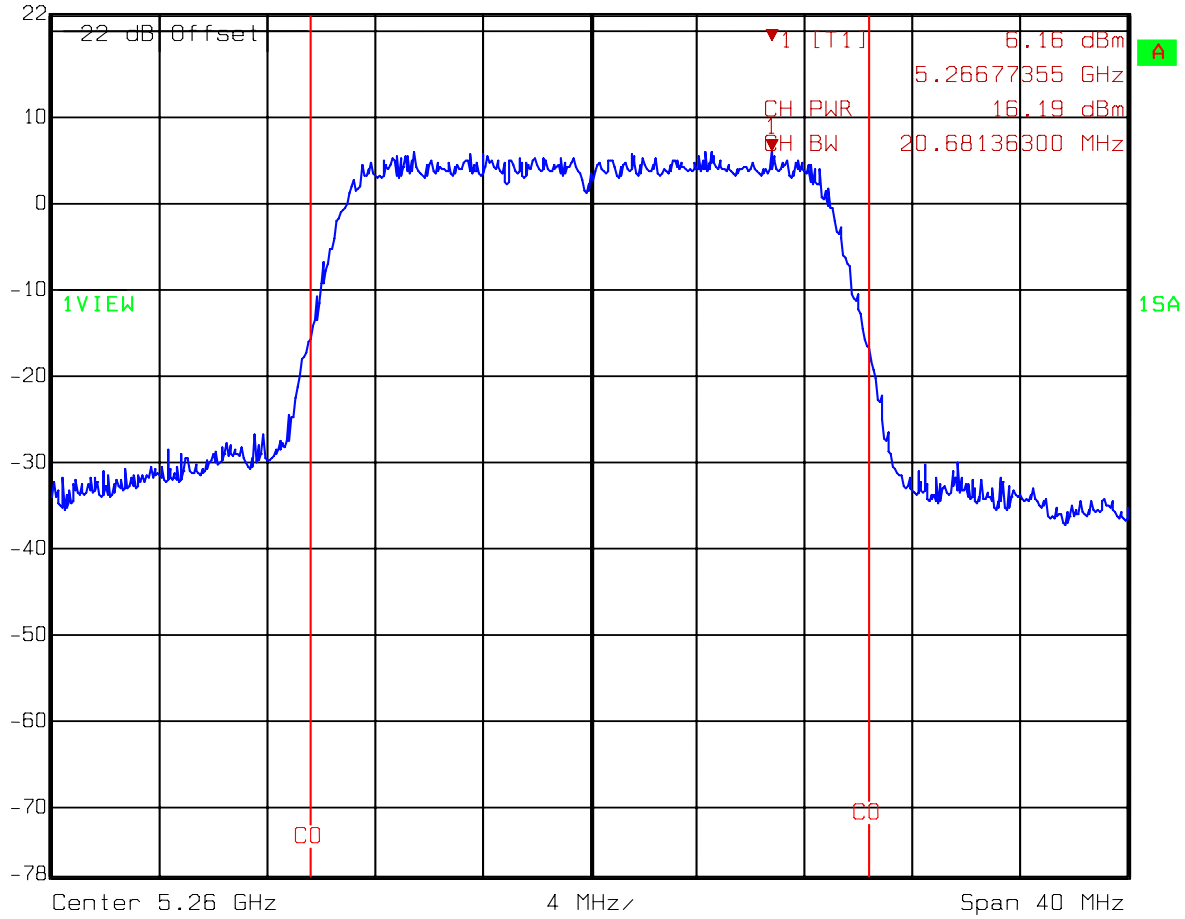


Title: Output Power
 Comment A: CH 48 at 802.11a mode (Limit 17.000 dBm)
 Date: 13.NOV.2007 13:56:01



Dual Tx
DACB: 802.11n 20MHz CH52


 Ref Lvl 22 dBm Marker 1 [T1] 5.26677355 GHz RBW 1 MHz RF Att 10 dB
6.16 dBm VBW 300 kHz
Unit dBm SWT 5 ms

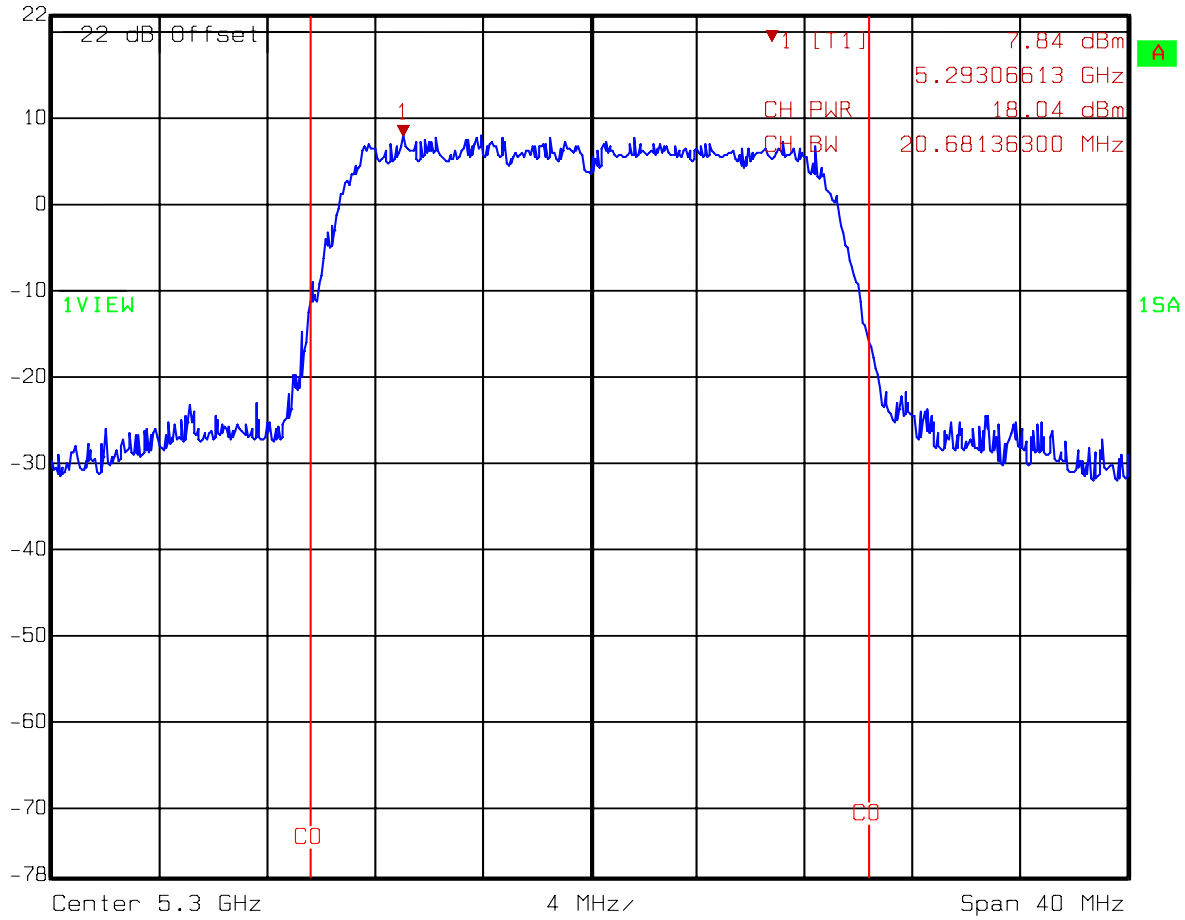


Title: Output Power
Comment A: CH 52 at 802.11a mode (Limit 24.000 dBm)
Date: 13.NOV.2007 13:59:53



Dual Tx
DACB: 802.11n 20MHz CH60

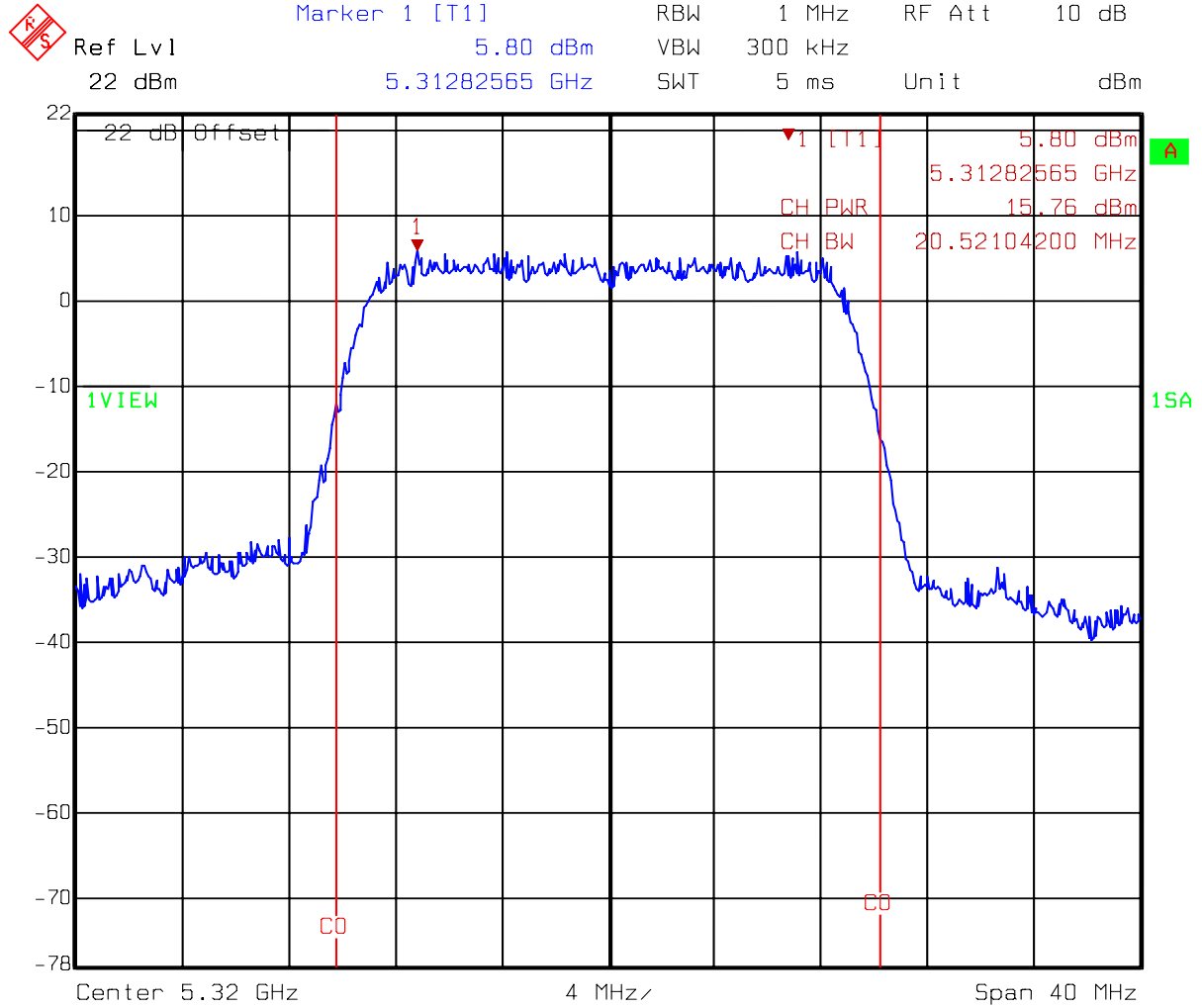
 Ref Lvl 22 dBm Marker 1 [T1] 7.84 dBm RBW 1 MHz RF Att 10 dB
5.29306613 GHz VBW 300 kHz
SWT 5 ms Unit dBm



Title: Output Power
Comment A: CH 60 at 802.11a mode (Limit 24.000 dBm)
Date: 13.NOV.2007 14:33:02

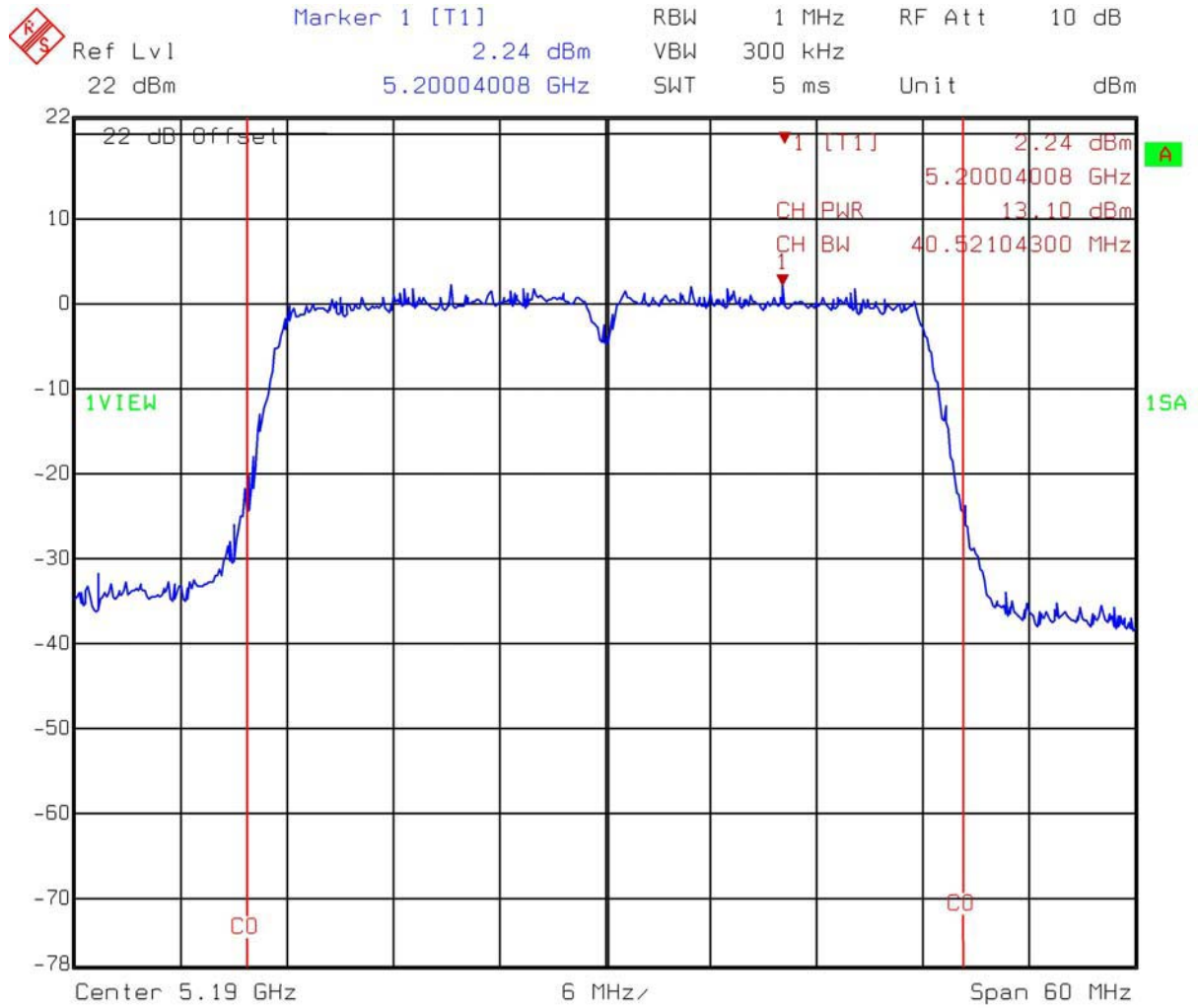


Dual Tx
DACB: 802.11n 20MHz CH64



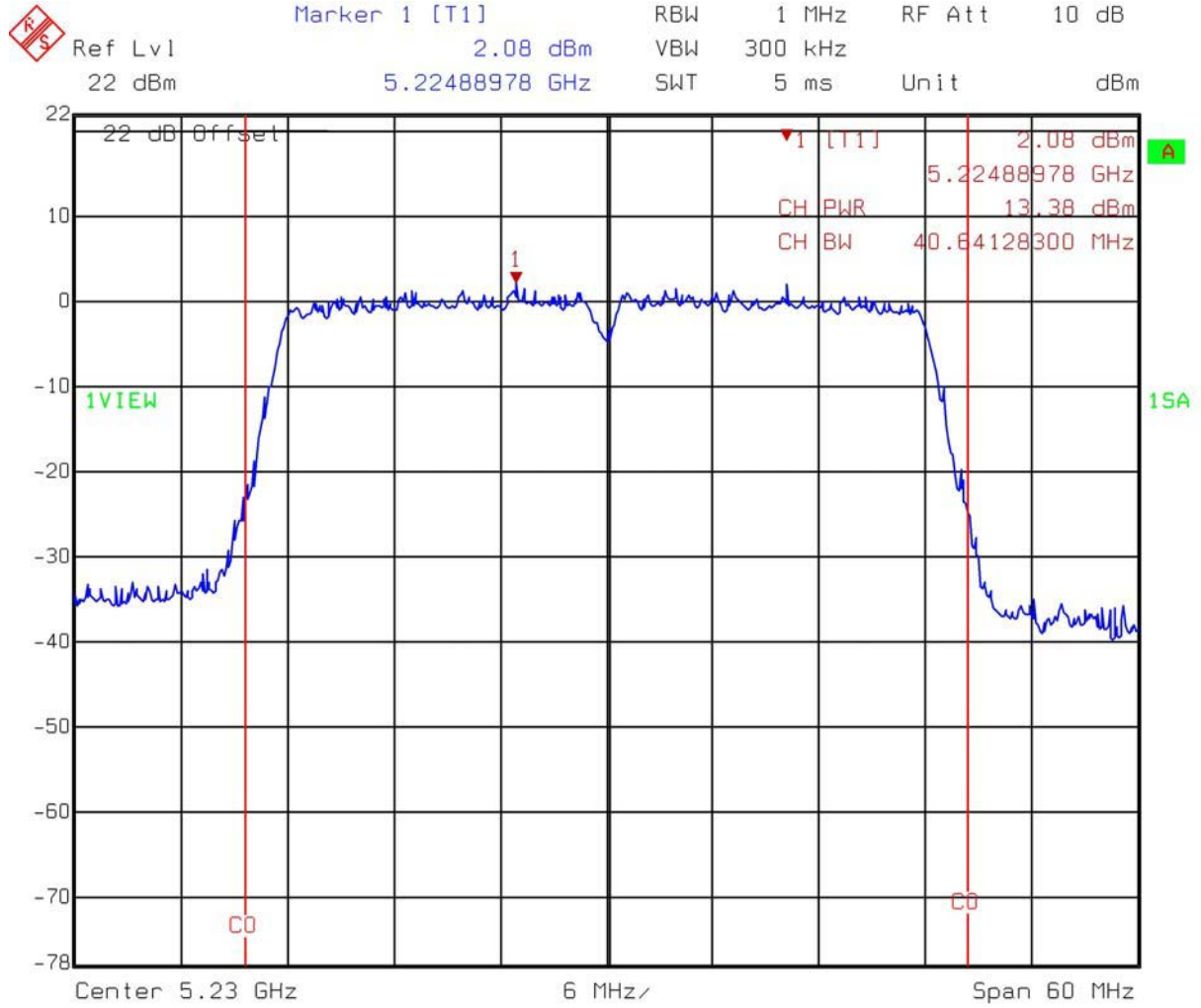
Title: Output Power
Comment A: CH 64 at 802.11a mode (Limit 24.000 dBm)
Date: 13.NOV.2007 14:36:04

Dual Tx
DACA: 802.11n 40MHz CH38



Title: Output Power
 Comment A: CH 38 at 802.11a mode (Limit 17.000 dBm)
 Date: 13.NOV.2007 11:45:44

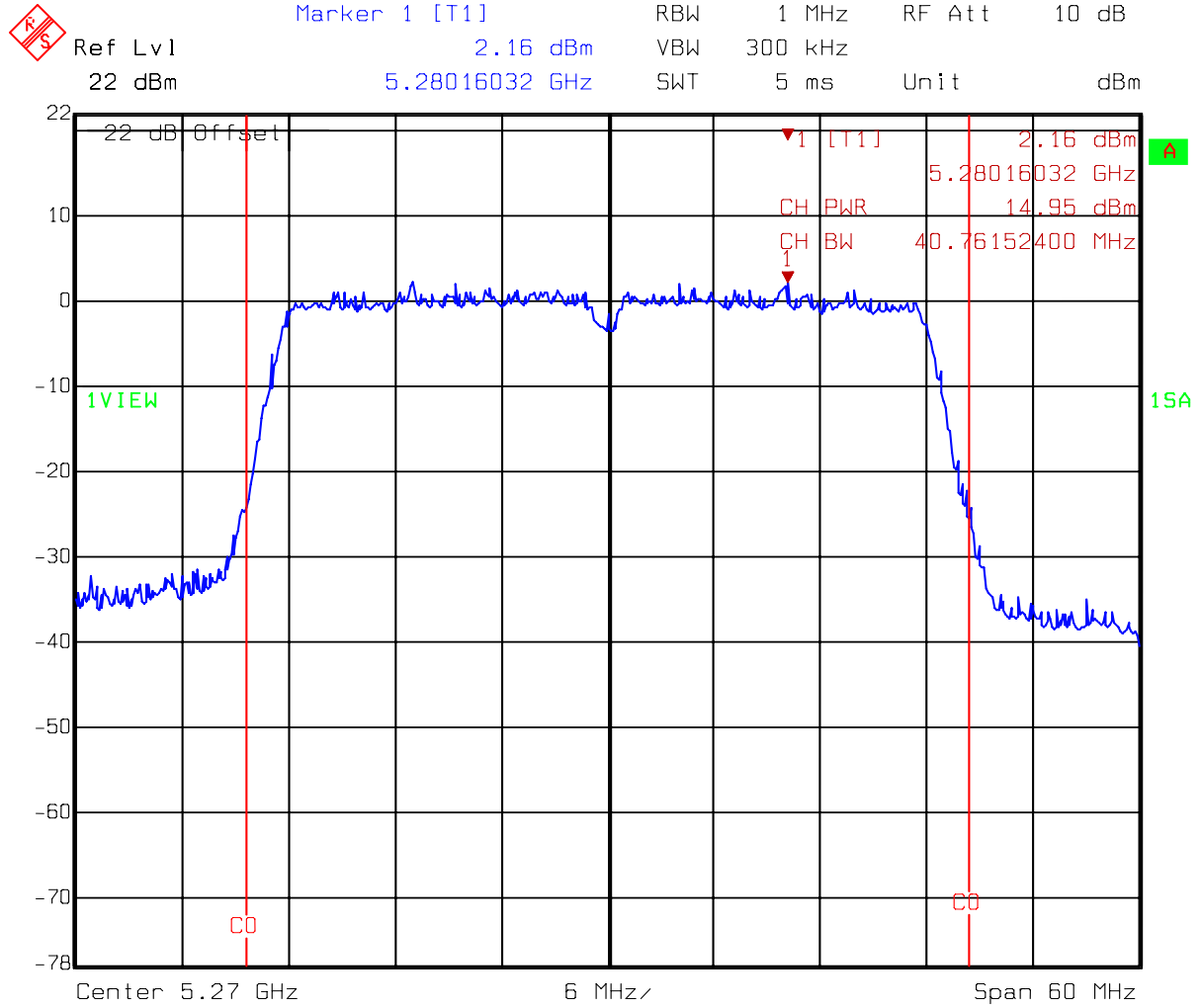
Dual Tx
DACA: 802.11n 40MHz CH46



Title: Output Power
 Comment A: CH 46 at 802.11a mode (Limit 17.000 dBm)
 Date: 13.NOV.2007 11:50:11



Dual Tx
DACA: 802.11n 40MHz CH54

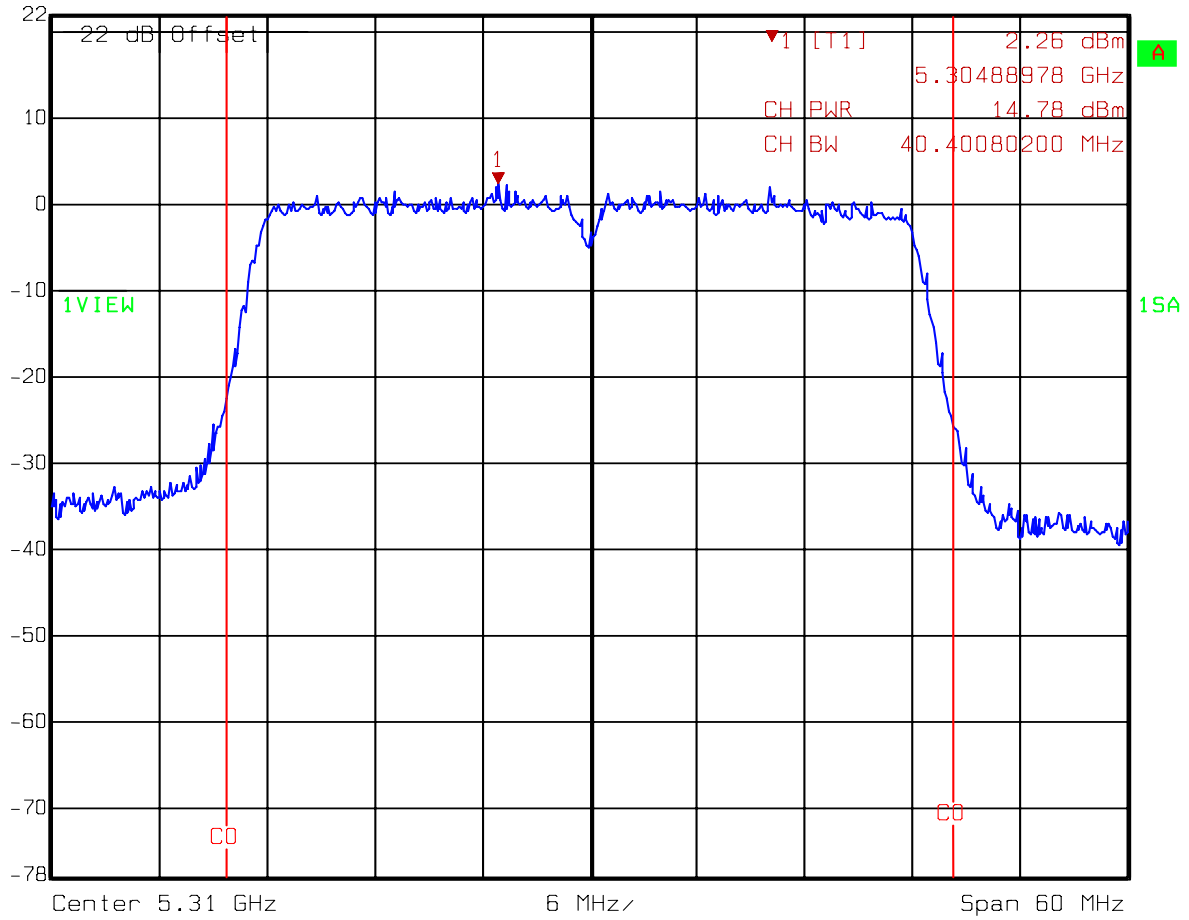


Title: Output Power
Comment A: CH 54 at 802.11a mode (Limit 24.000 dBm)
Date: 13.NOV.2007 12:02:03



Dual Tx
DACA: 802.11n 40MHz CH62

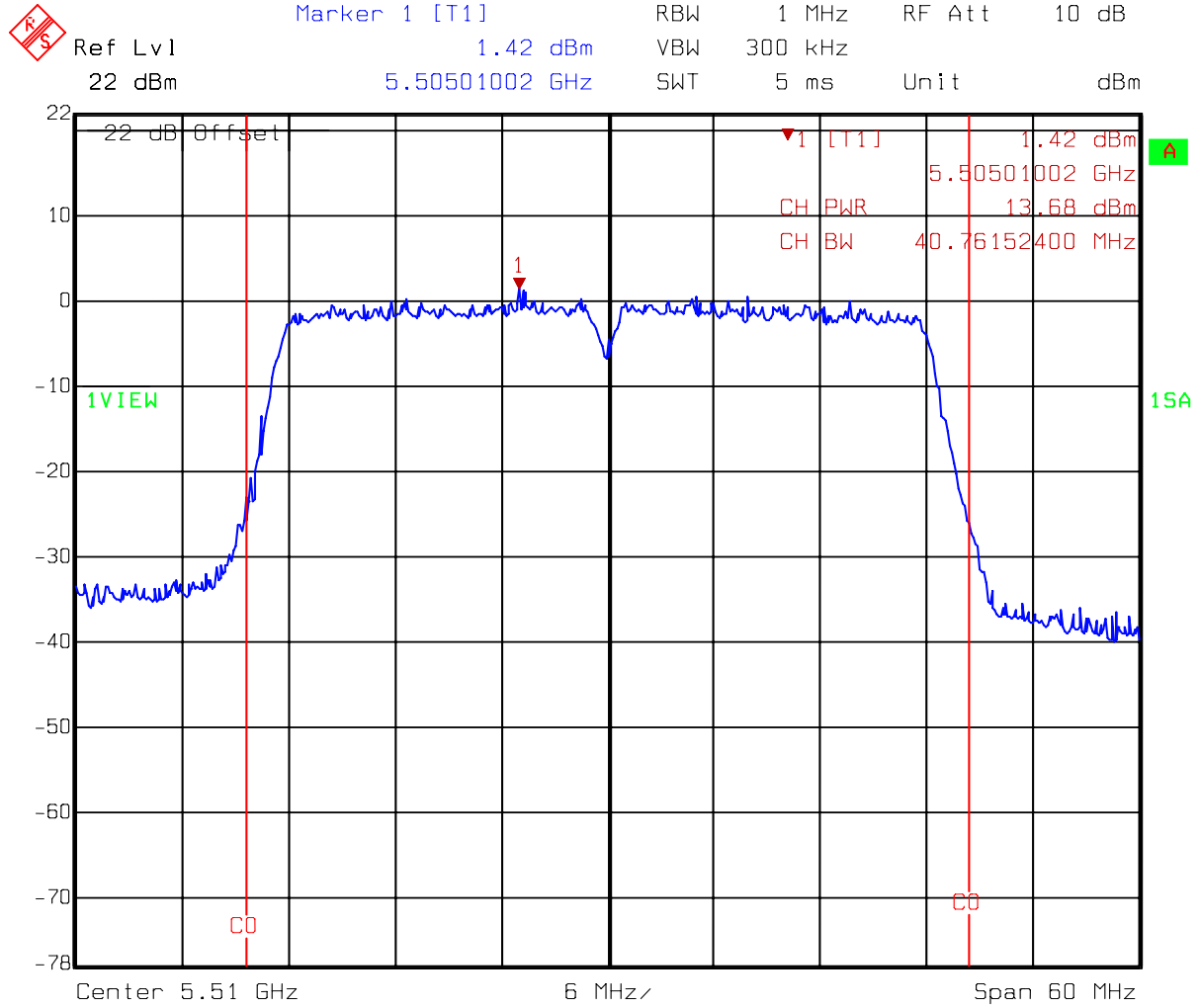
 Ref Lvl 22 dBm
Marker 1 [T1] 2.26 dBm
5.30488978 GHz
RBW 1 MHz RF Att 10 dB
VBW 300 kHz
SWT 5 ms Unit dBm



Title: Output Power
Comment A: CH 62 at 802.11a mode (Limit 24.000 dBm)
Date: 13.NOV.2007 12:05:53



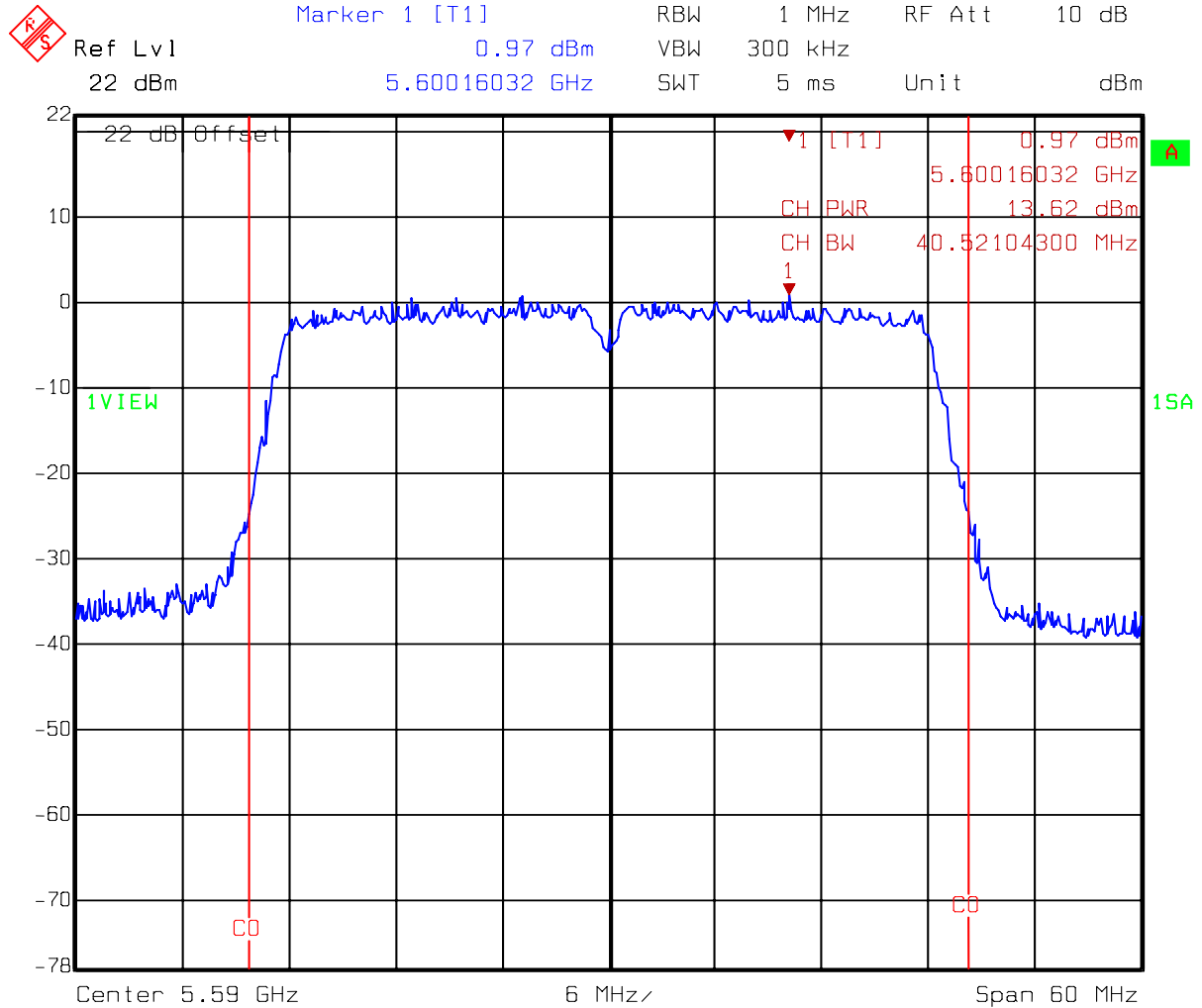
Dual Tx
DACA: 802.11n 40MHz CH102



Title: Output Power
Comment A: CH 102 at 802.11a mode (Limit 24.000 dBm)
Date: 13.NOV.2007 13:17:05



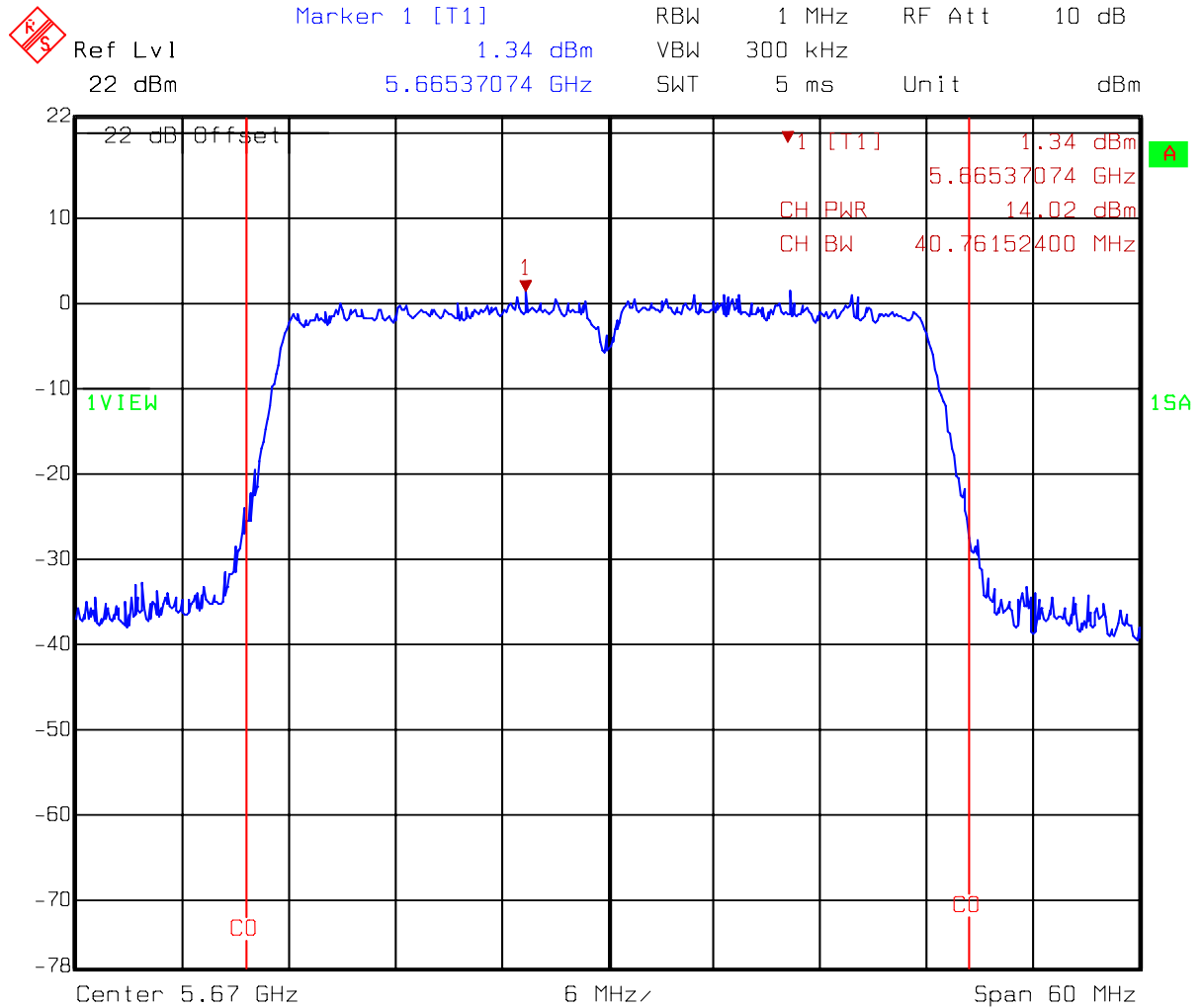
Dual Tx
DACA: 802.11n 40MHz CH118



Title: Output Power
Comment A: CH 118 at 802.11a mode (Limit 24.000 dBm)
Date: 13.NOV.2007 13:20:25

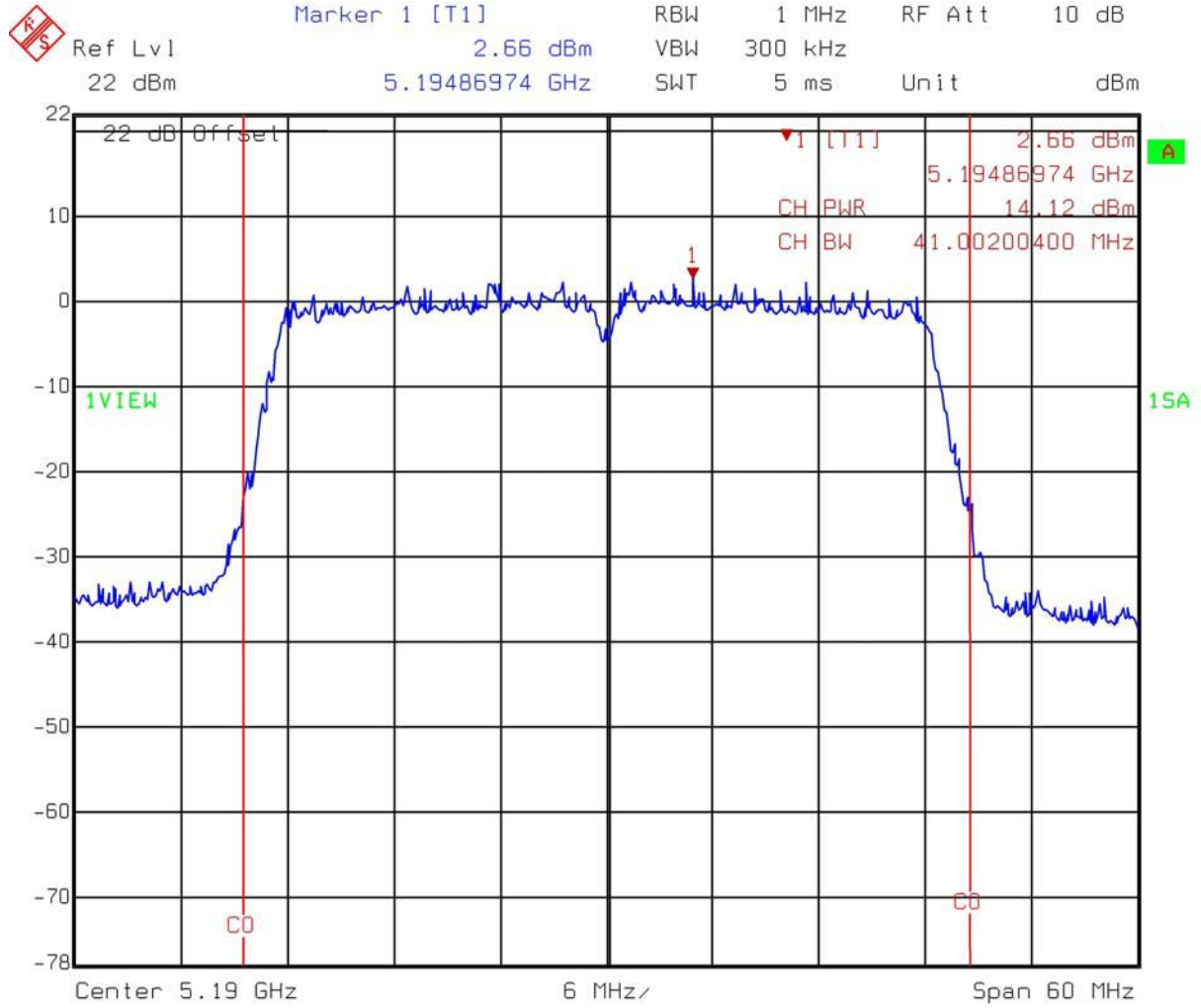


Dual Tx
DACA: 802.11n 40MHz CH134



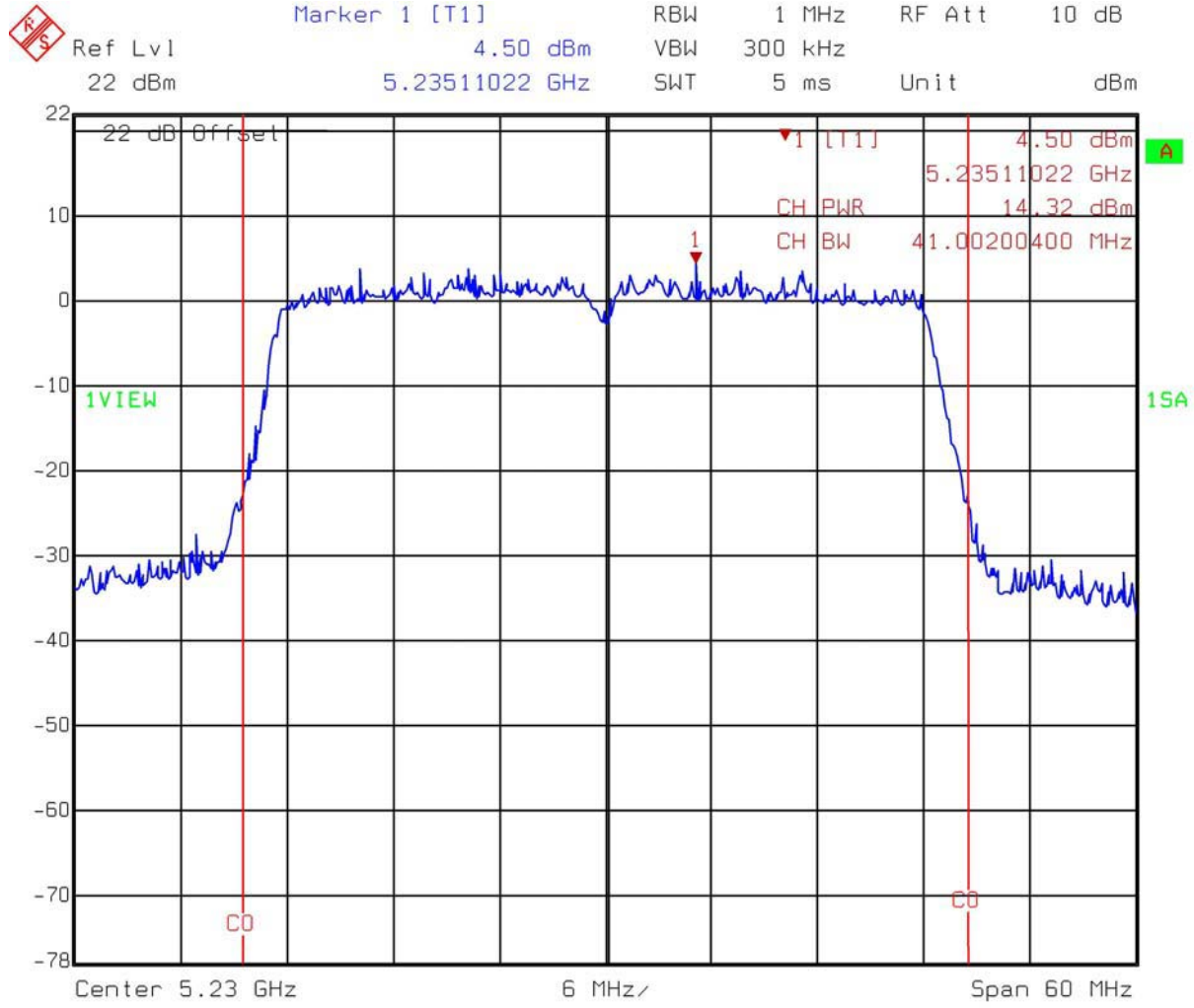
Title: Output Power
 Comment A: CH 134 at 802.11a mode (Limit 24.000 dBm)
 Date: 13.NOV.2007 13:30:36

Dual Tx
DACB: 802.11n 40MHz CH38



Title: Output Power
 Comment A: CH 38 at 802.11a mode (Limit 17.000 dBm)
 Date: 13.NOV.2007 11:42:29

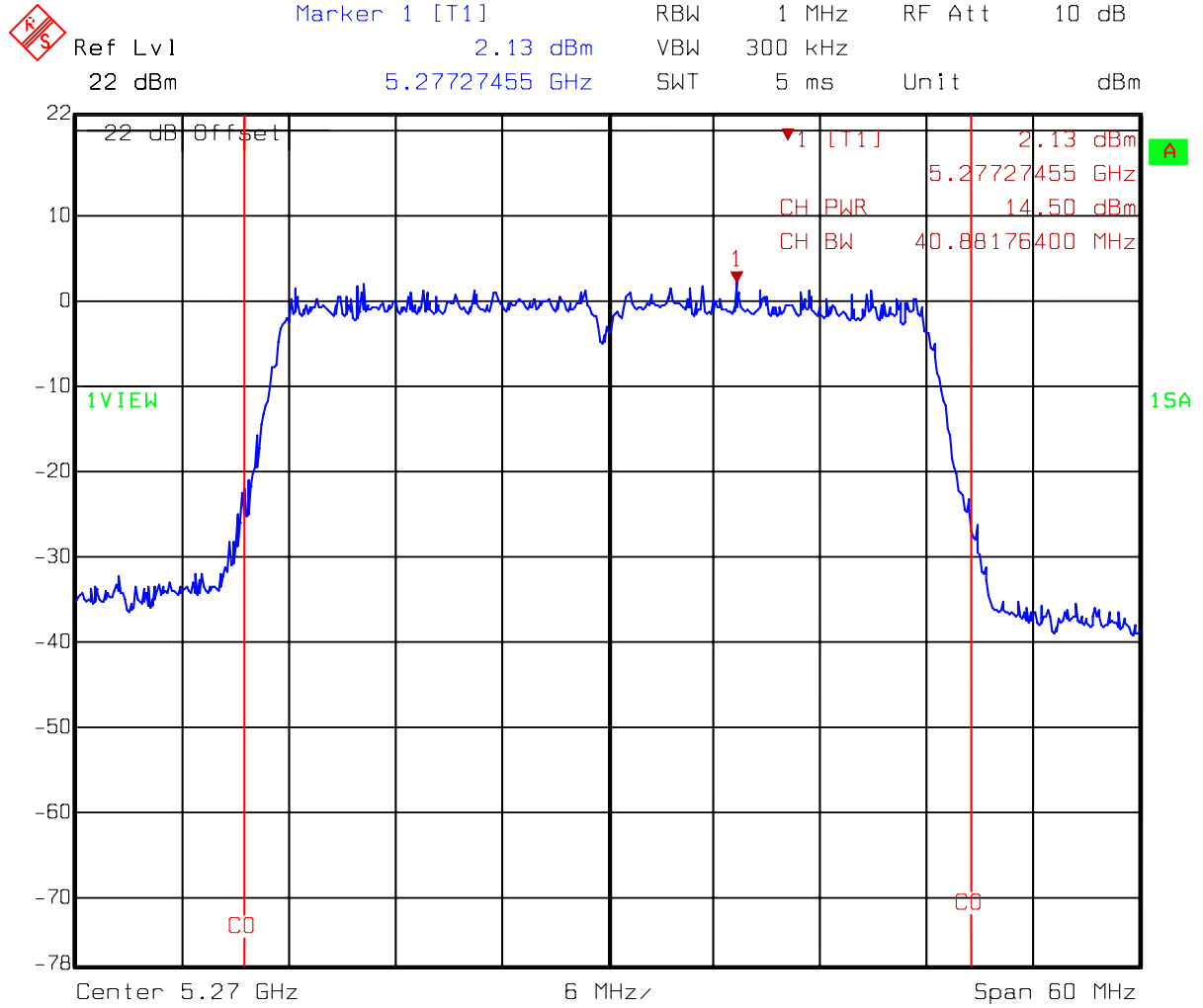
Dual Tx
DACB: 802.11n 40MHz CH46



Title: Output Power
 Comment A: CH 46 at 802.11a mode (Limit 17.000 dBm)
 Date: 13.NOV.2007 11:53:44



Dual Tx
DACB: 802.11n 40MHz CH54

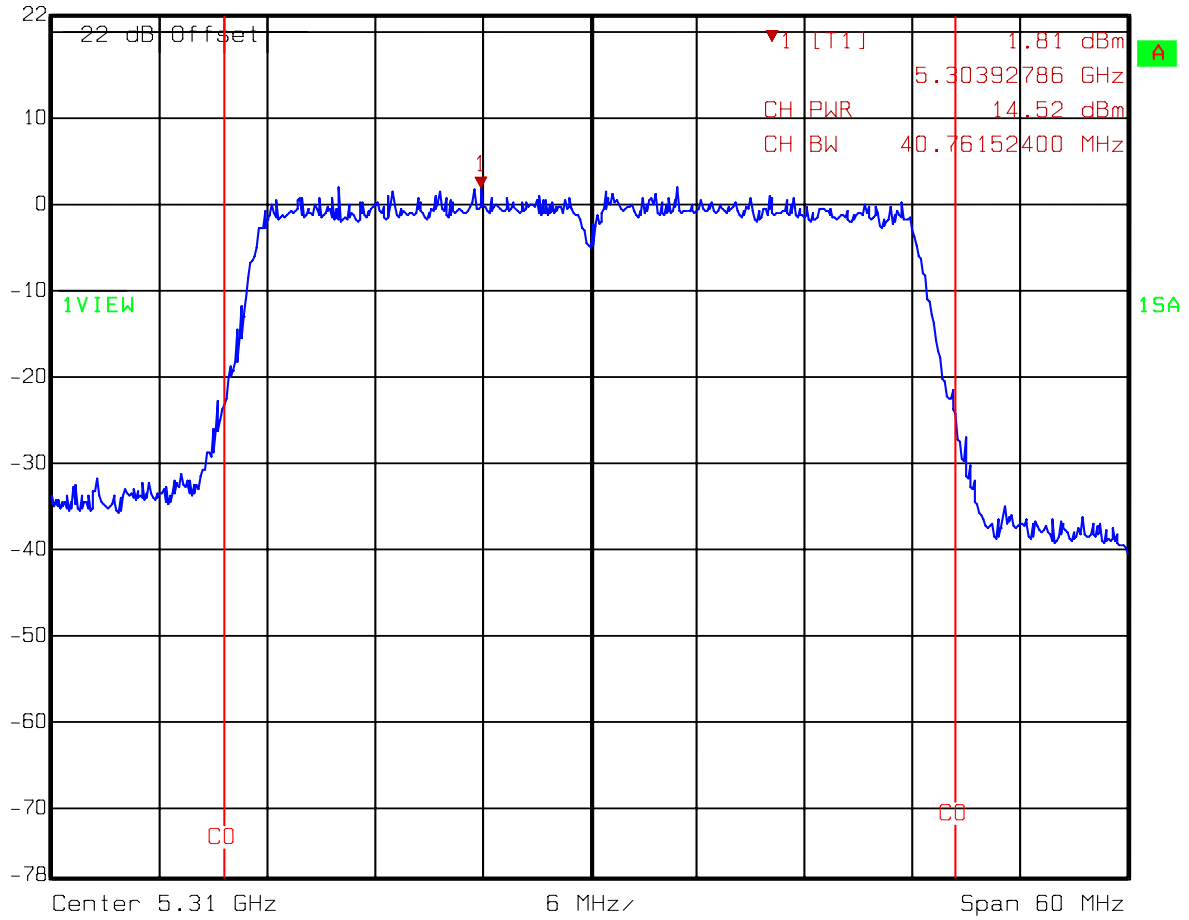


Title: Output Power
Comment A: CH 54 at 802.11a mode (Limit 24.000 dBm)
Date: 13.NOV.2007 11:58:36



Dual Tx
DACB: 802.11n 40MHz CH62

 Ref Lvl 22 dBm Marker 1 [T1] 5.30392786 GHz RBW 1 MHz RF Att 10 dB
1.81 dBm VBW 300 kHz
Unit dBm SWT 5 ms

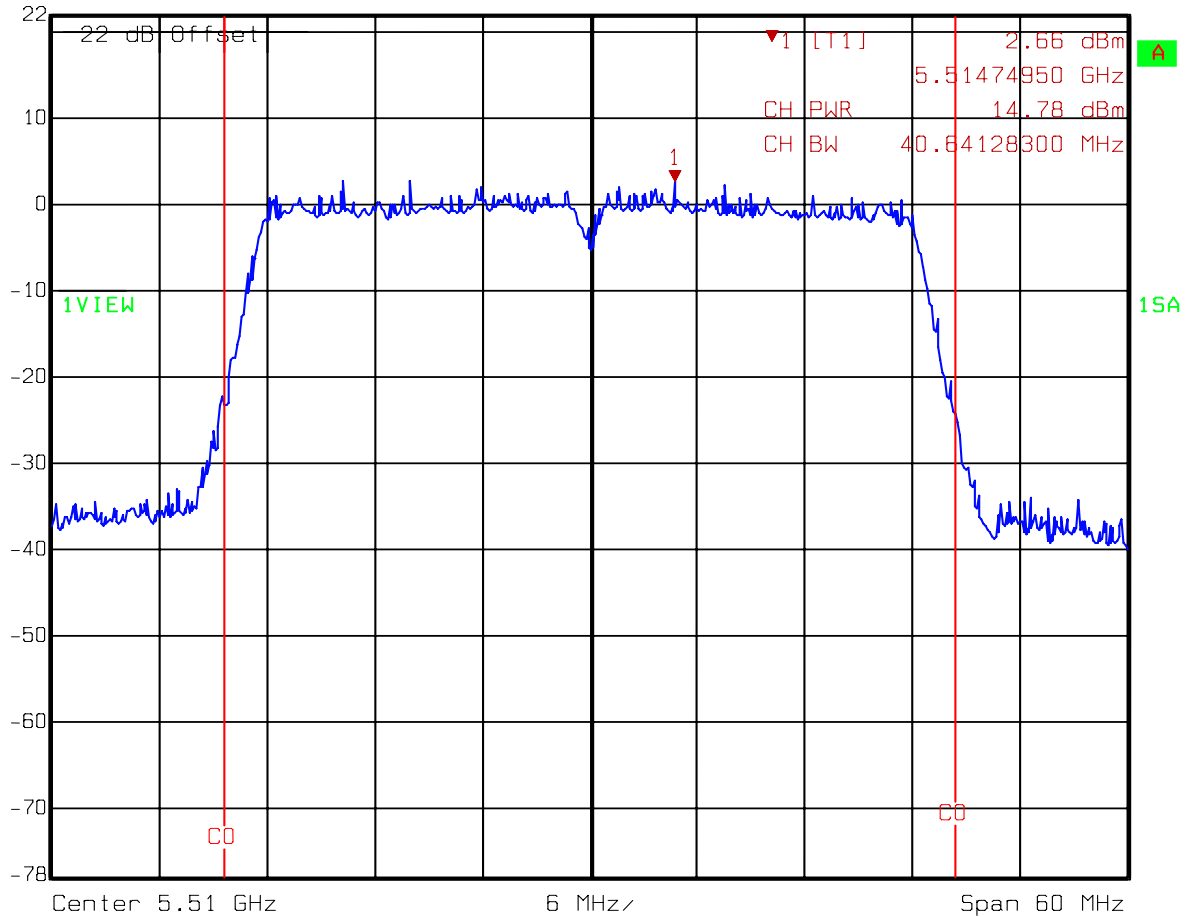


Title: Output Power
Comment A: CH 62 at 802.11a mode (Limit 24.000 dBm)
Date: 13.NOV.2007 12:09:23



Dual Tx
DACB: 802.11n 40MHz CH102

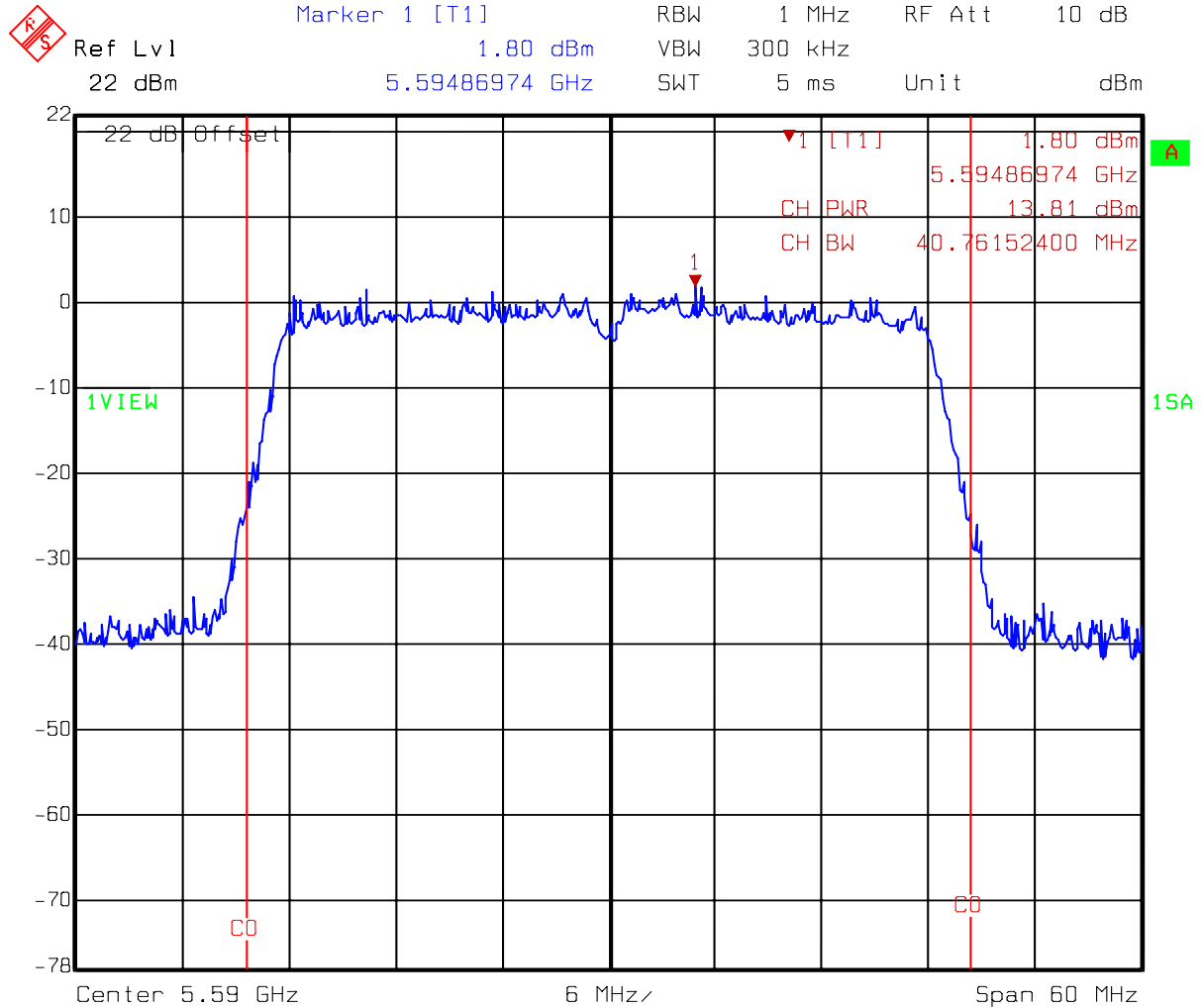
 Ref Lvl 22 dBm Marker 1 [T1] 2.66 dBm RBW 1 MHz RF Att 10 dB
5.51474950 GHz VBW 300 kHz
SWT 5 ms Unit dBm



Title: Output Power
Comment A: CH 102 at 802.11a mode (Limit 24.000 dBm)
Date: 13.NOV.2007 13:12:51



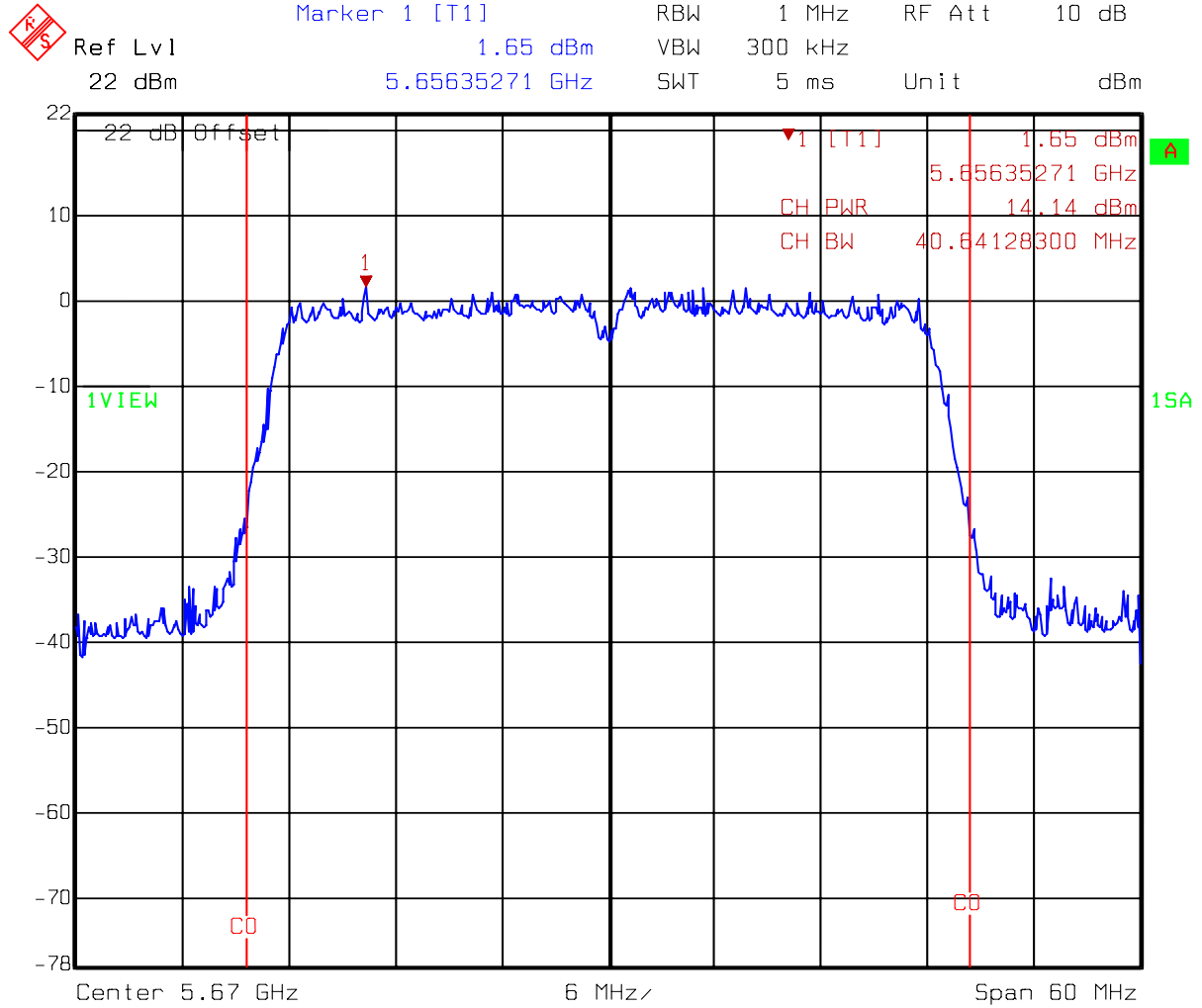
Dual Tx
DACB: 802.11n 40MHz CH118



Title: Output Power
Comment A: CH 118 at 802.11a mode (Limit 24.000 dBm)
Date: 13.NOV.2007 13:23:22



Dual Tx
DACB: 802.11n 40MHz CH134



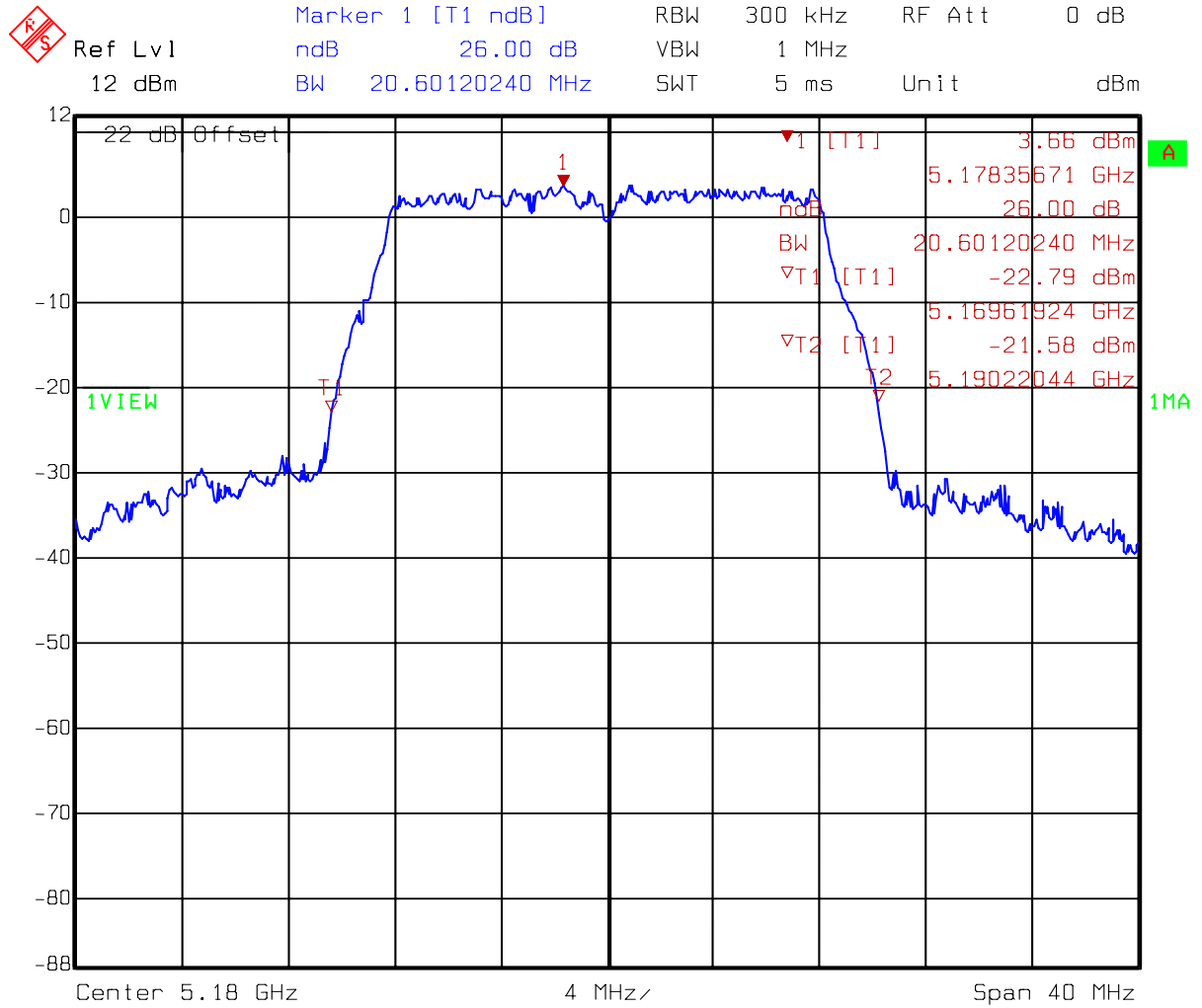
Title: Output Power
Comment A: CH 134 at 802.11a mode (Limit 24.000 dBm)
Date: 13.NOV.2007 13:27:13



3.4.2 26dB Bandwidth measurement results

Single Tx


DACA: 802.11a CH36

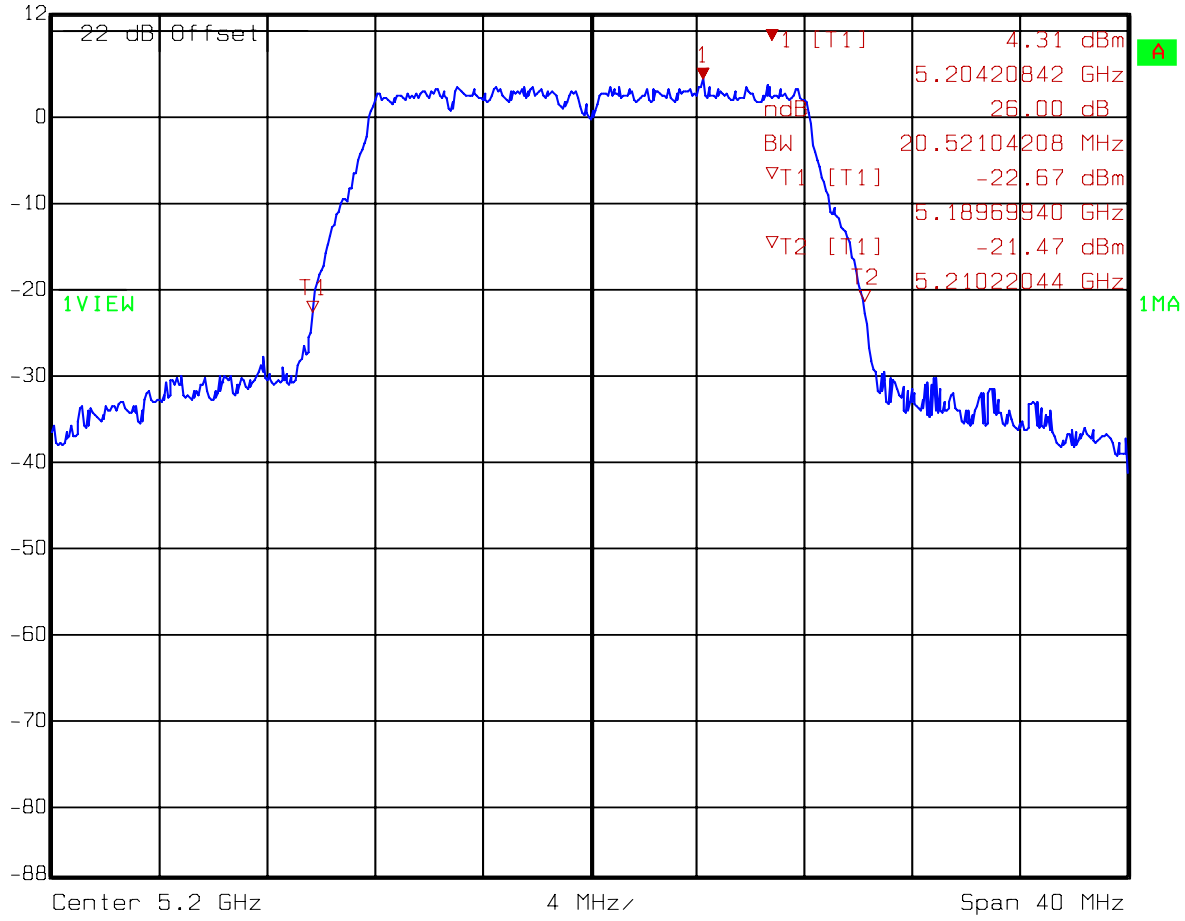


Title: 26dB Bandwidth
 Comment A: CH 36 at 802.11a mode
 Date: 13.NOV.2007 15:07:15



Single Tx
DACA: 802.11a CH40

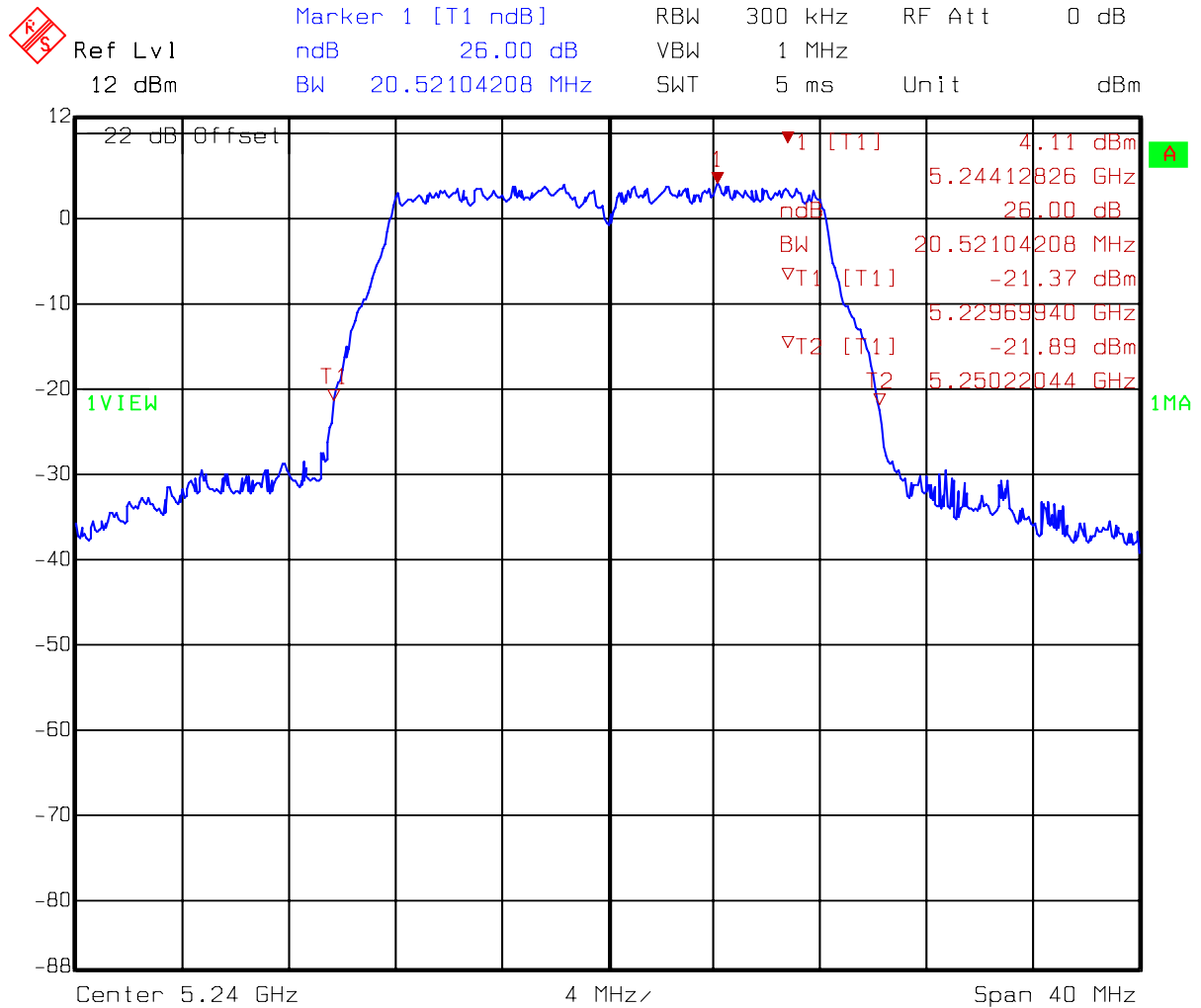

 Ref Lvl 12 dBm Marker 1 [T1 ndB] RBW 300 kHz RF Att 0 dB
 ndB 26.00 dB VBW 1 MHz
 BW 20.52104208 MHz SWT 5 ms Unit dBm



Title: 26dB Bandwidth
 Comment A: CH 40 at 802.11a mode
 Date: 13.NOV.2007 15:11:32

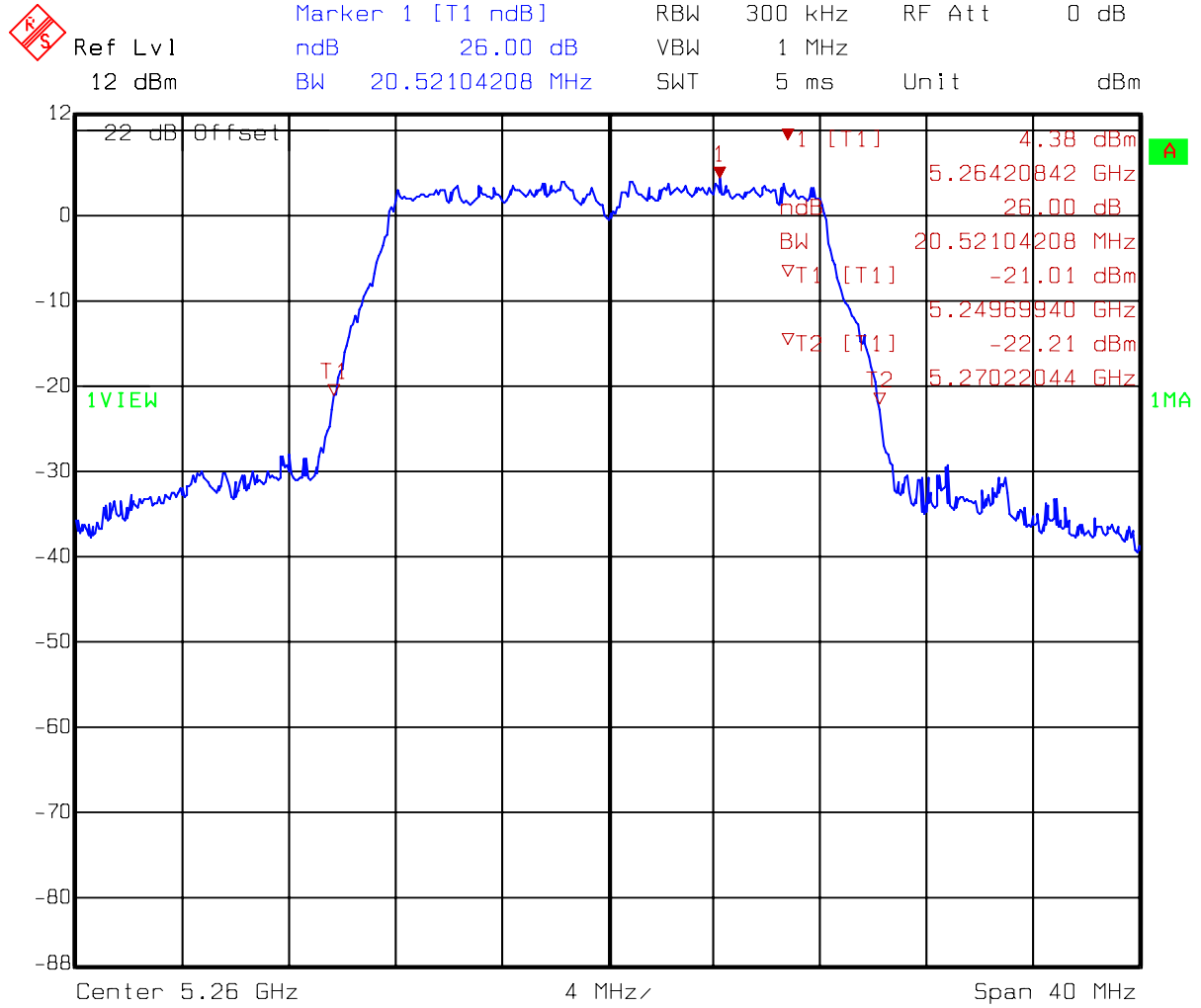
Single Tx

DACA: 802.11a CH48



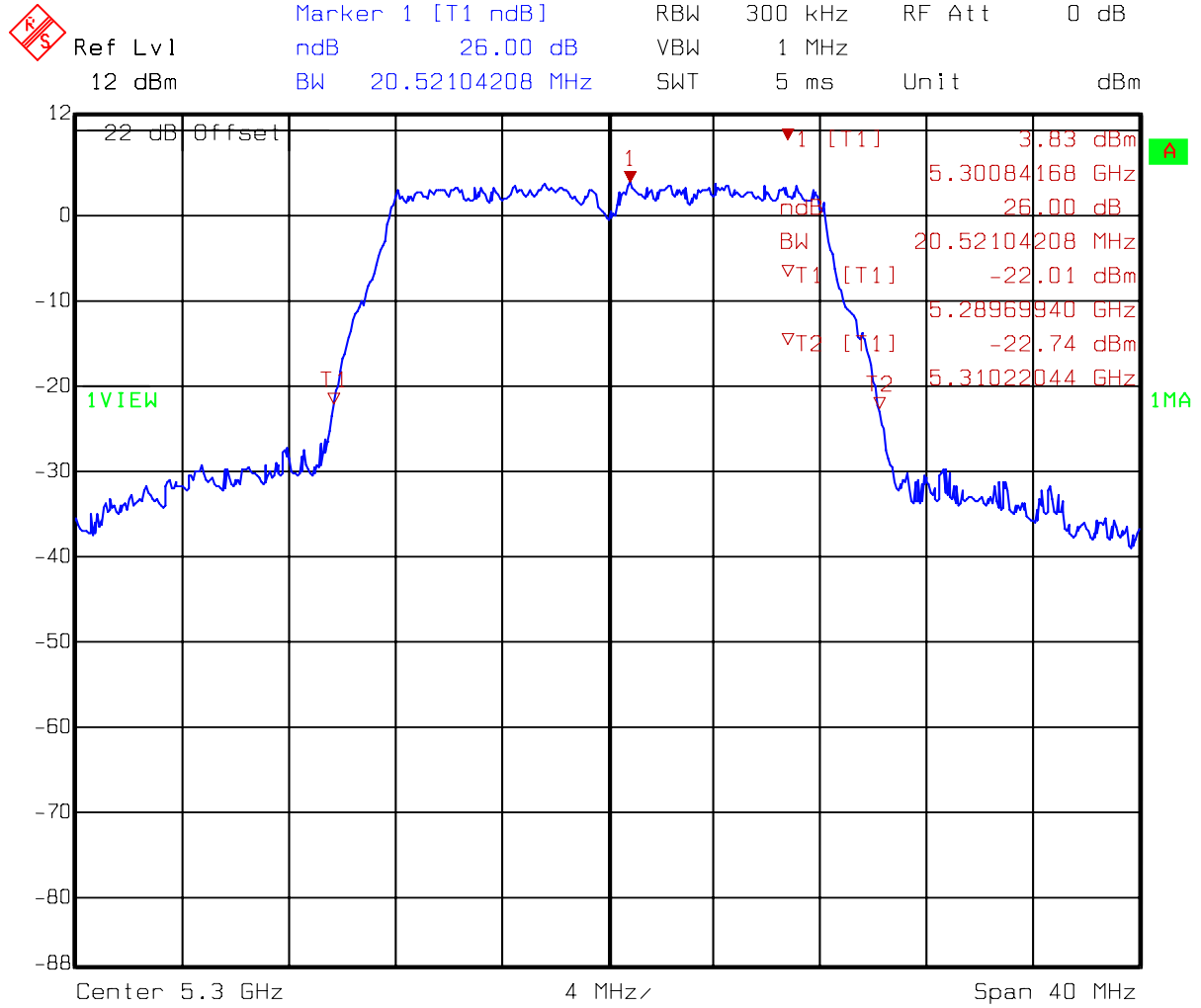
Title: 26dB Bandwidth
 Comment A: CH 48 at 802.11a mode
 Date: 13.NOV.2007 15:15:04

Single Tx
DACA: 802.11a CH52



Title: 26dB Bandwidth
 Comment A: CH 52 at 802.11a mode
 Date: 13.NOV.2007 15:20:09


Single Tx
DACA: 802.11a CH60

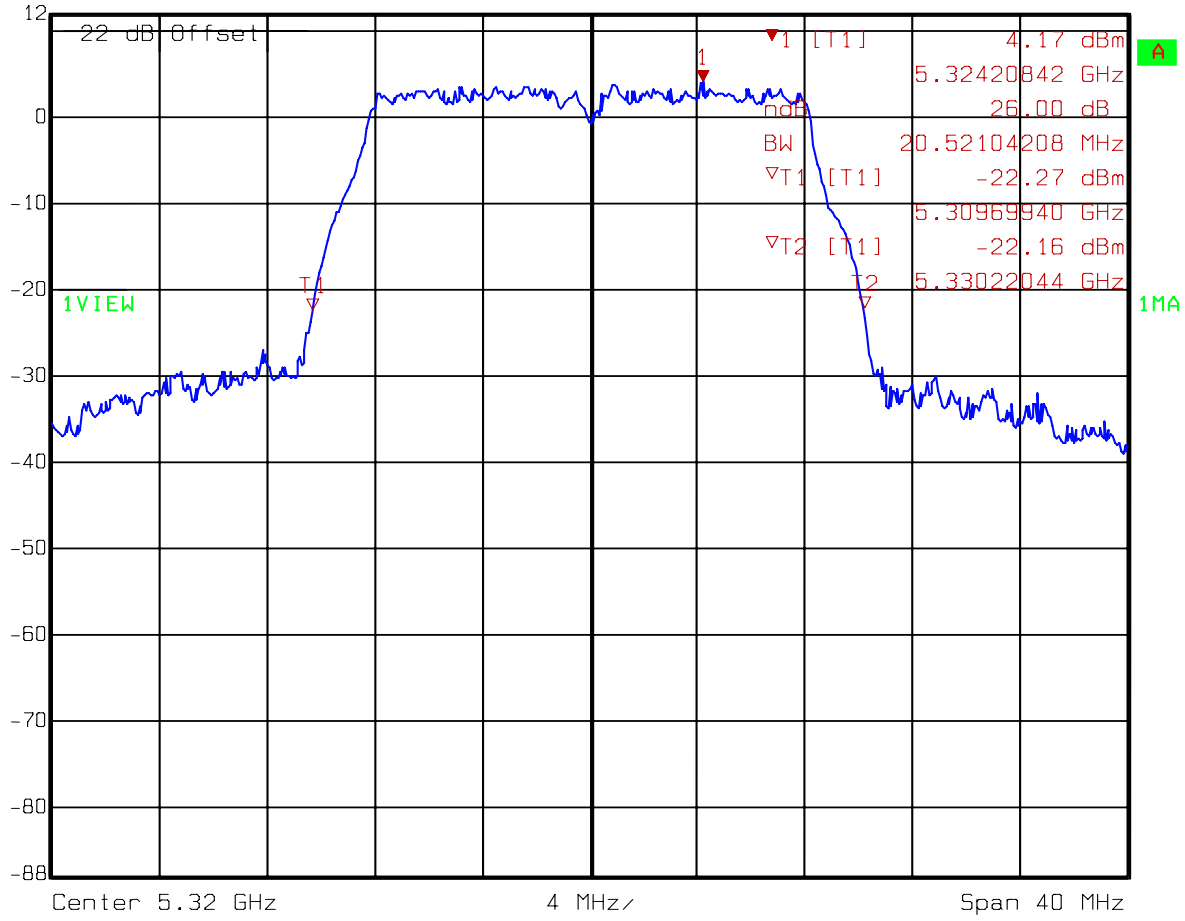


Title: 26dB Bandwidth
 Comment A: CH 60 at 802.11a mode
 Date: 13.NOV.2007 15:23:26




Single Tx
DACA: 802.11a CH64

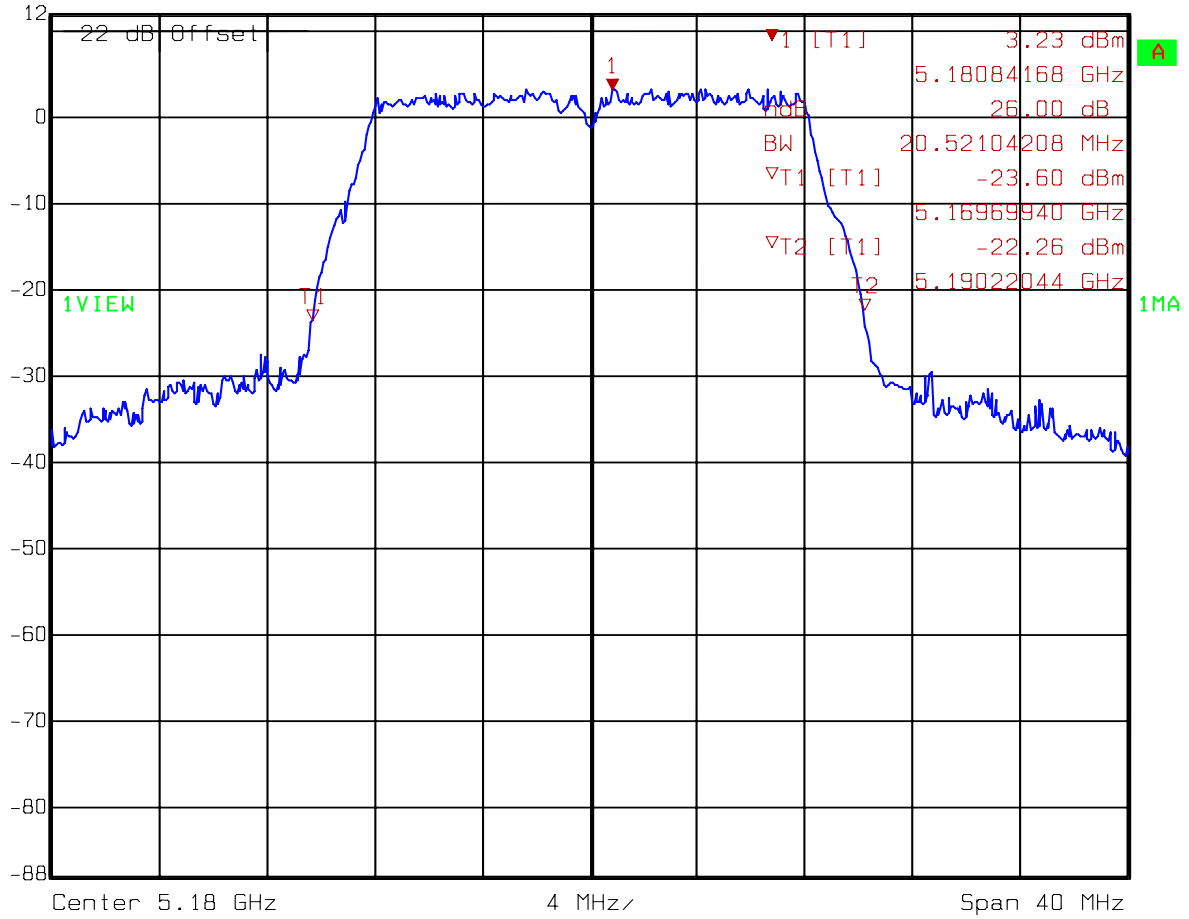

 Ref Lvl 12 dBm Marker 1 [T1 ndB] 26.00 dB RBW 300 kHz RF Att 0 dB
 BW 20.52104208 MHz VBW 1 MHz
 SWT 5 ms Unit dBm



Title: 26dB Bandwidth
 Comment A: CH 64 at 802.11a mode
 Date: 13.NOV.2007 15:28:01

Single Tx
DACB: 802.11a CH36



 Ref Lvl 12 dBm Marker 1 [T1 ndB] 26.00 dB RBW 300 kHz RF Att 0 dB
 ndB 26.00 dB VBW 1 MHz
 BW 20.52104208 MHz SWT 5 ms Unit dBm

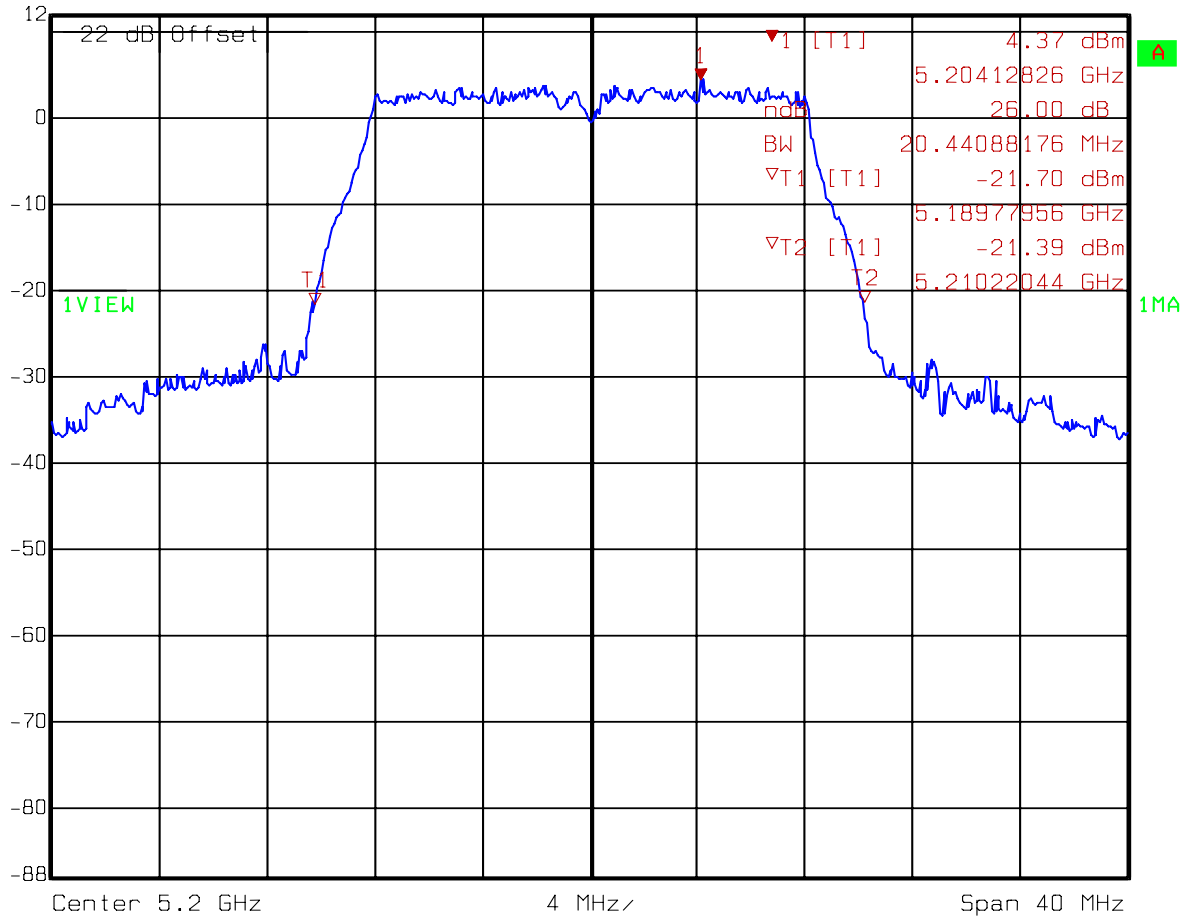


Title: 26dB Bandwidth
 Comment A: CH 36 at 802.11a mode
 Date: 13.NOV.2007 14:43:20




Single Tx
DACB: 802.11a CH40

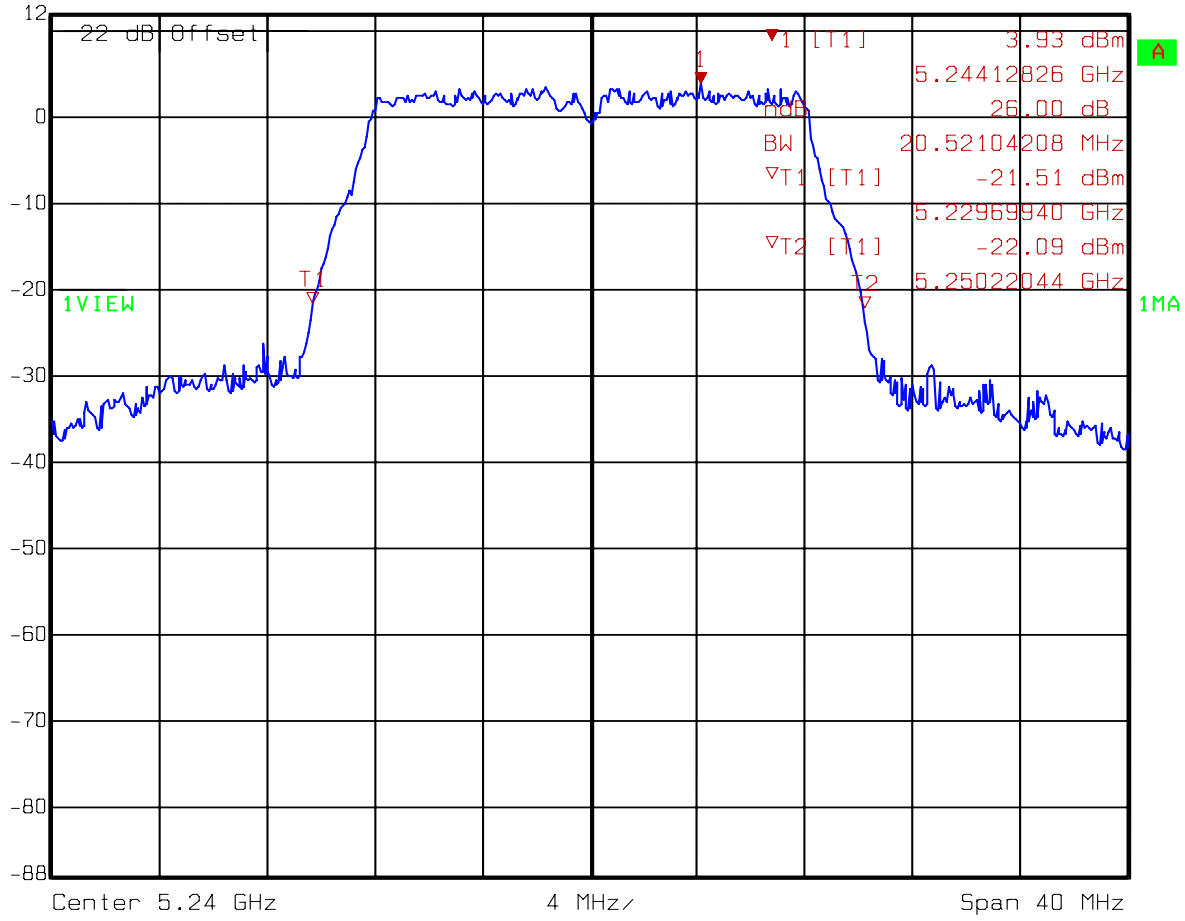

 Ref Lvl 12 dBm
 Marker 1 [T1 ndB] 26.00 dB
 RBW 300 kHz
 VBW 1 MHz
 RF Att 0 dB
 BW 20.44088176 MHz
 SWT 5 ms
 Unit dBm



Title: 26dB Bandwidth
 Comment A: CH 40 at 802.11a mode
 Date: 13.NOV.2007 14:48:53

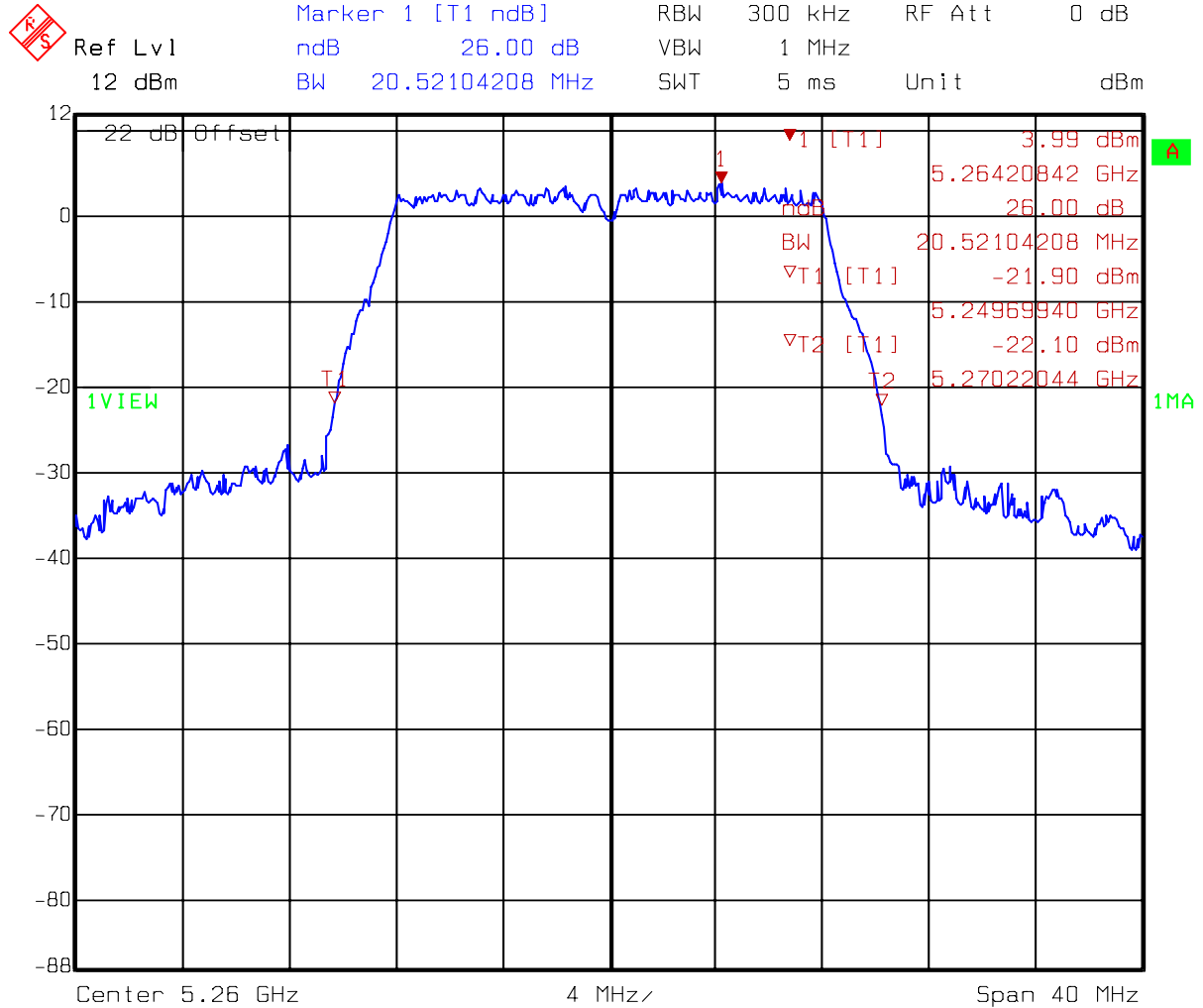
Single Tx
DACB: 802.11a CH48


 Ref Lvl 12 dBm Marker 1 [T1 ndB] RBW 300 kHz RF Att 0 dB
 ndB 26.00 dB VBW 1 MHz
 BW 20.52104208 MHz SWT 5 ms Unit dBm



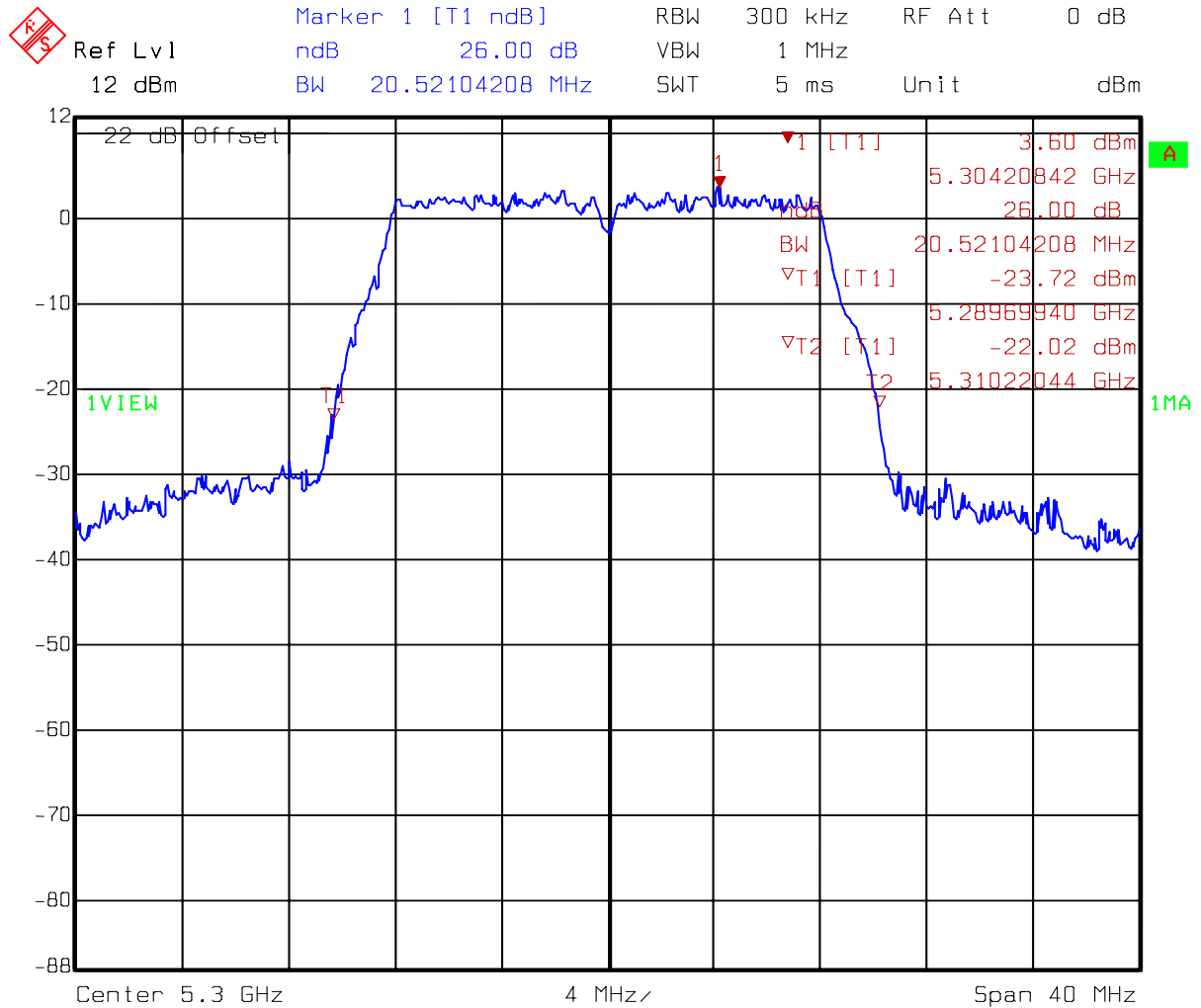
Title: 26dB Bandwidth
 Comment A: CH 48 at 802.11a mode
 Date: 13.NOV.2007 14:52:33

Single Tx
DACB: 802.11a CH52



Title: 26dB Bandwidth
 Comment A: CH 52 at 802.11a mode
 Date: 13.NOV.2007 14:55:44


Single Tx
DACB: 802.11a CH60

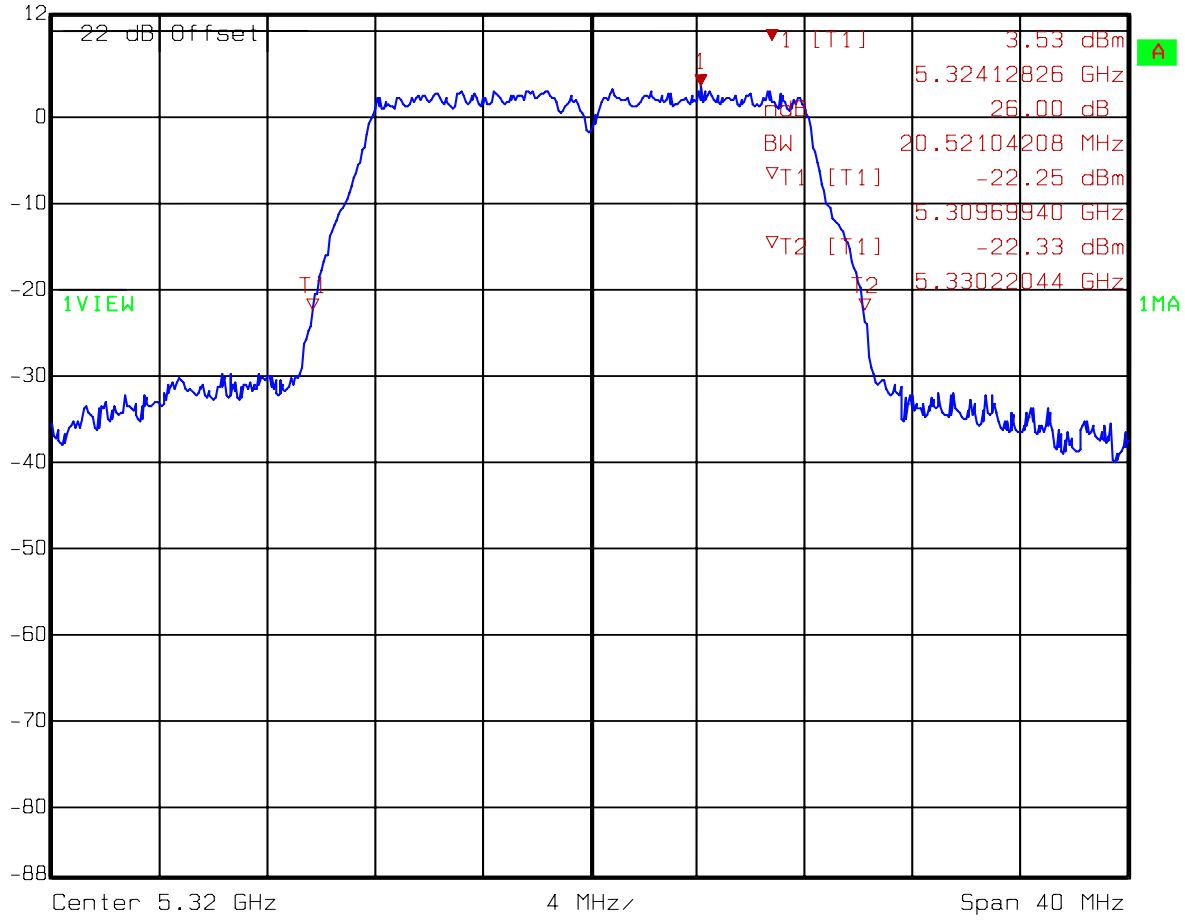


Title: 26dB Bandwidth
 Comment A: CH 60 at 802.11a mode
 Date: 13.NOV.2007 14:59:30



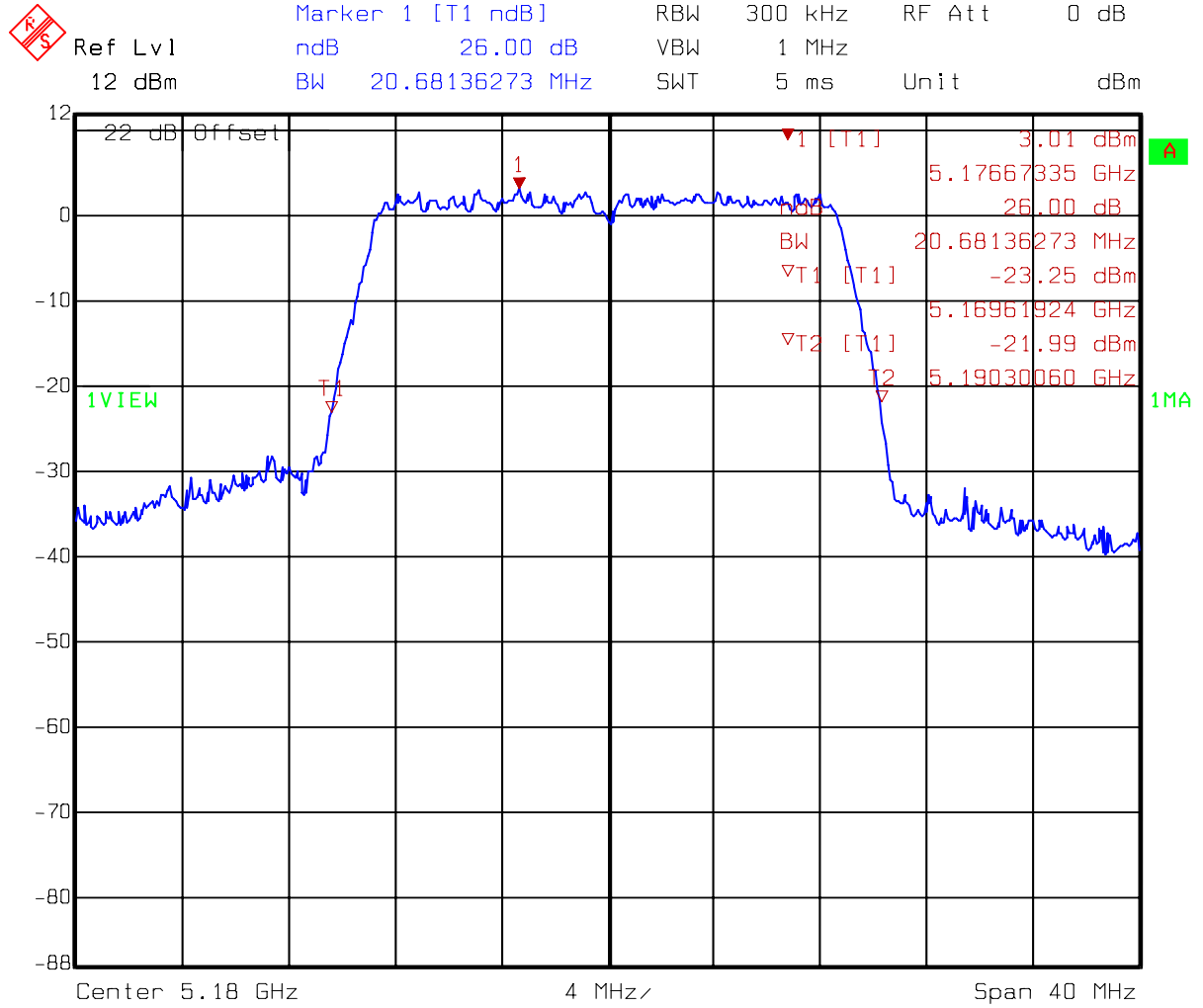
Single Tx
DACB: 802.11a CH64


 Ref Lvl 12 dBm Marker 1 [T1 ndB] 26.00 dB RBW 300 kHz RF Att 0 dB
 BW 20.52104208 MHz VBW 1 MHz
 SWT 5 ms Unit dBm



Title: 26dB Bandwidth
 Comment A: CH 64 at 802.11a mode
 Date: 13.NOV.2007 15:02:44


Dual Tx
DACA: 802.11n 20MHz CH36

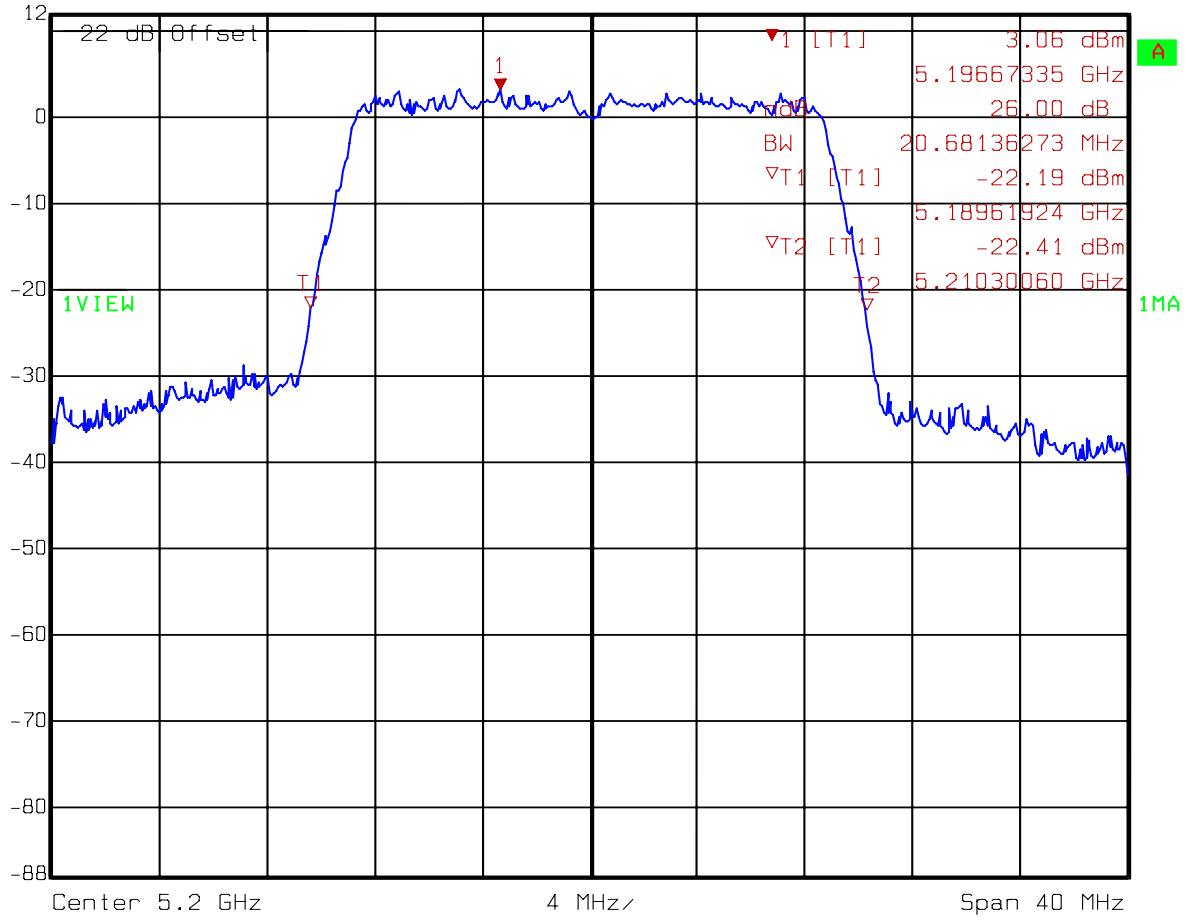


Title: 26dB Bandwidth
 Comment A: CH 36 at 802.11a mode
 Date: 13.NOV.2007 13:36:37



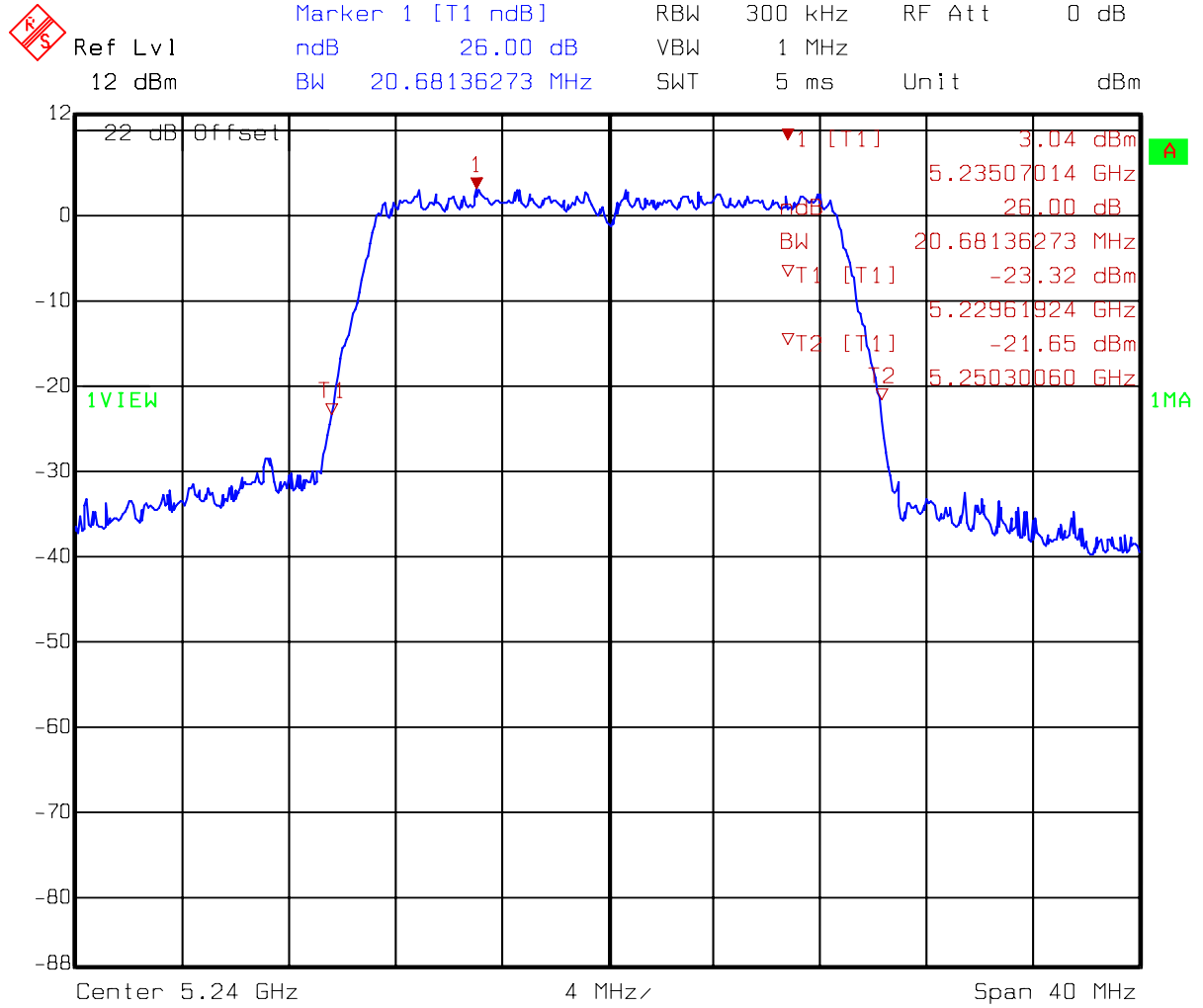
Dual Tx
DACA: 802.11n 20MHz CH40


 Ref Lvl 12 dBM
 Marker 1 [T1 ndB] 26.00 dB
 BW 20.68136273 MHz
 RBW 300 kHz
 VBW 1 MHz
 SWT 5 ms
 RF Att 0 dB
 Unit dBm



Title: 26dB Bandwidth
 Comment A: CH 40 at 802.11a mode
 Date: 13.NOV.2007 13:47:53

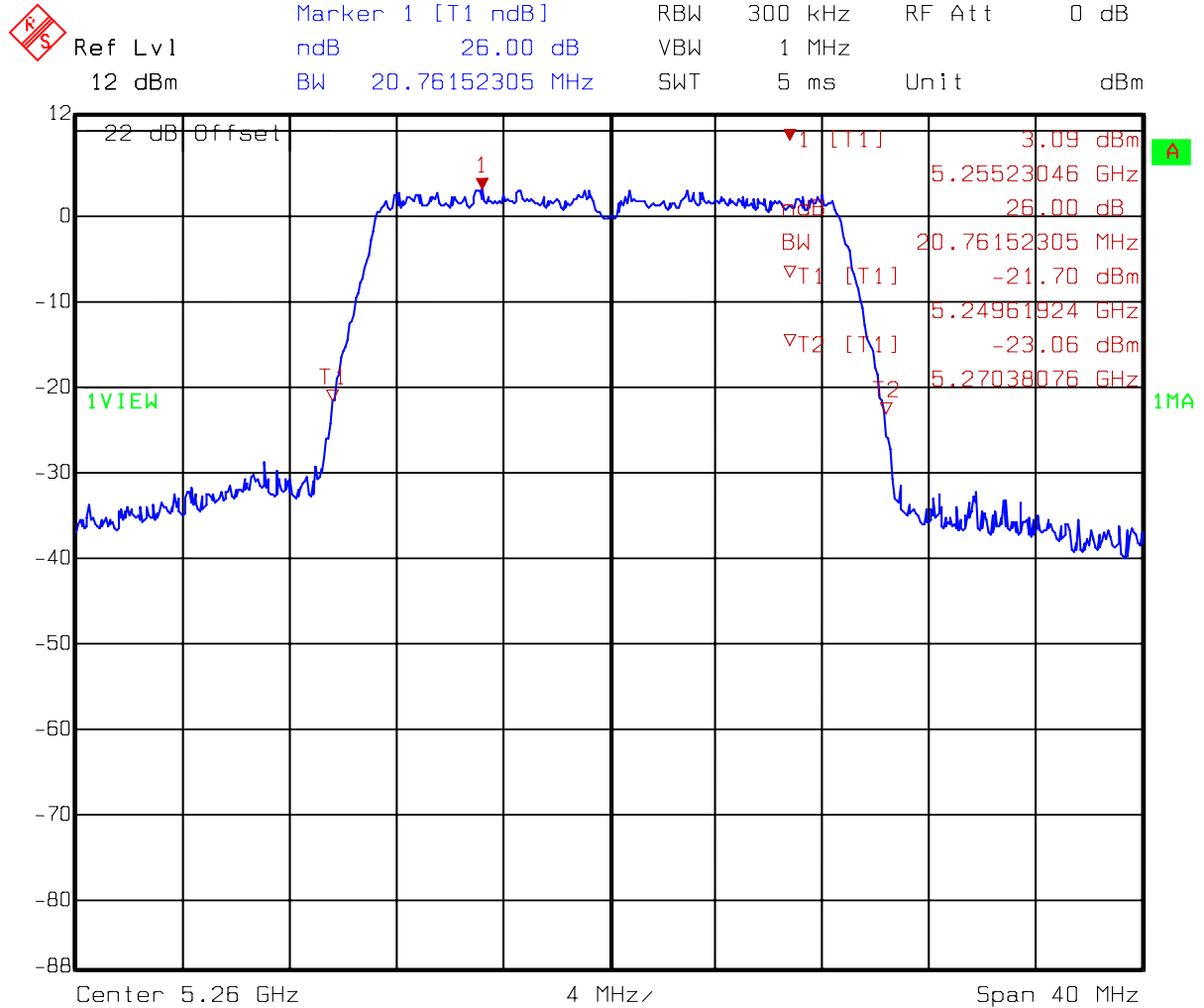
Dual Tx
DACA: 802.11n 20MHz CH48



Title: 26dB Bandwidth
 Comment A: CH 48 at 802.11a mode
 Date: 13.NOV.2007 13:51:33

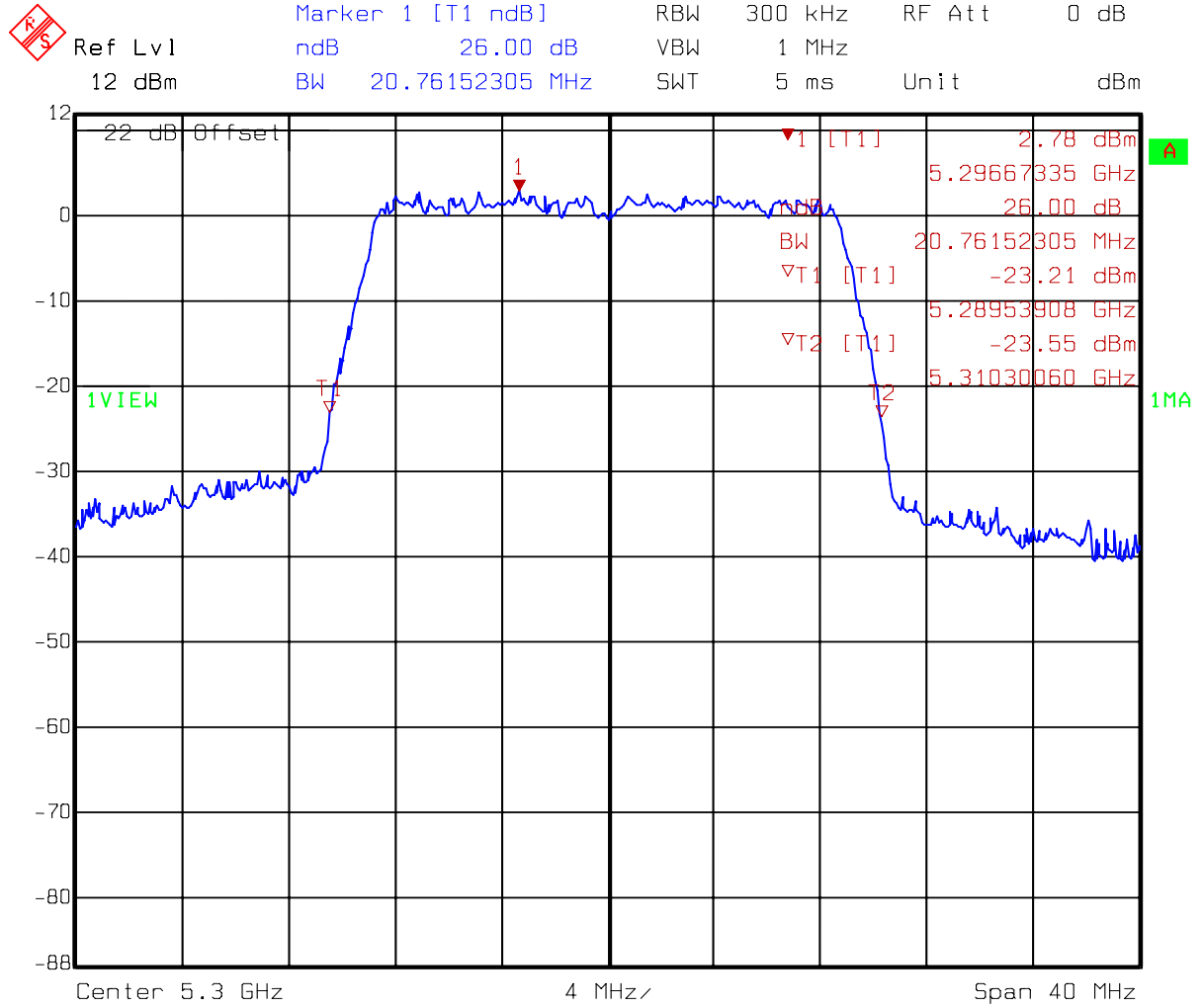
Dual Tx

DACA: 802.11n 20MHz CH52



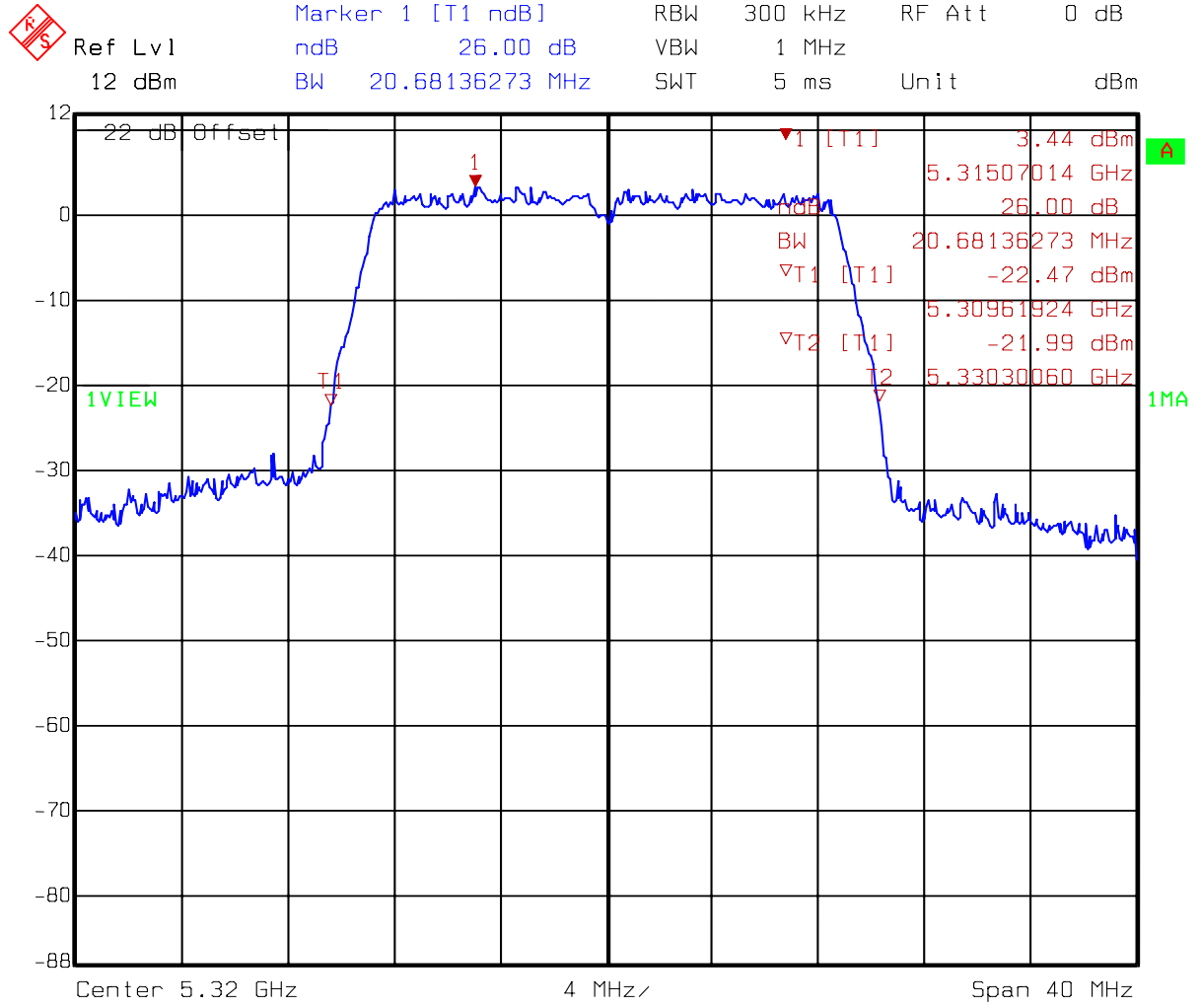
Title: 26dB Bandwidth
 Comment A: CH 52 at 802.11a mode
 Date: 13.NOV.2007 14:02:23

Dual Tx
DACA: 802.11n 20MHz CH60



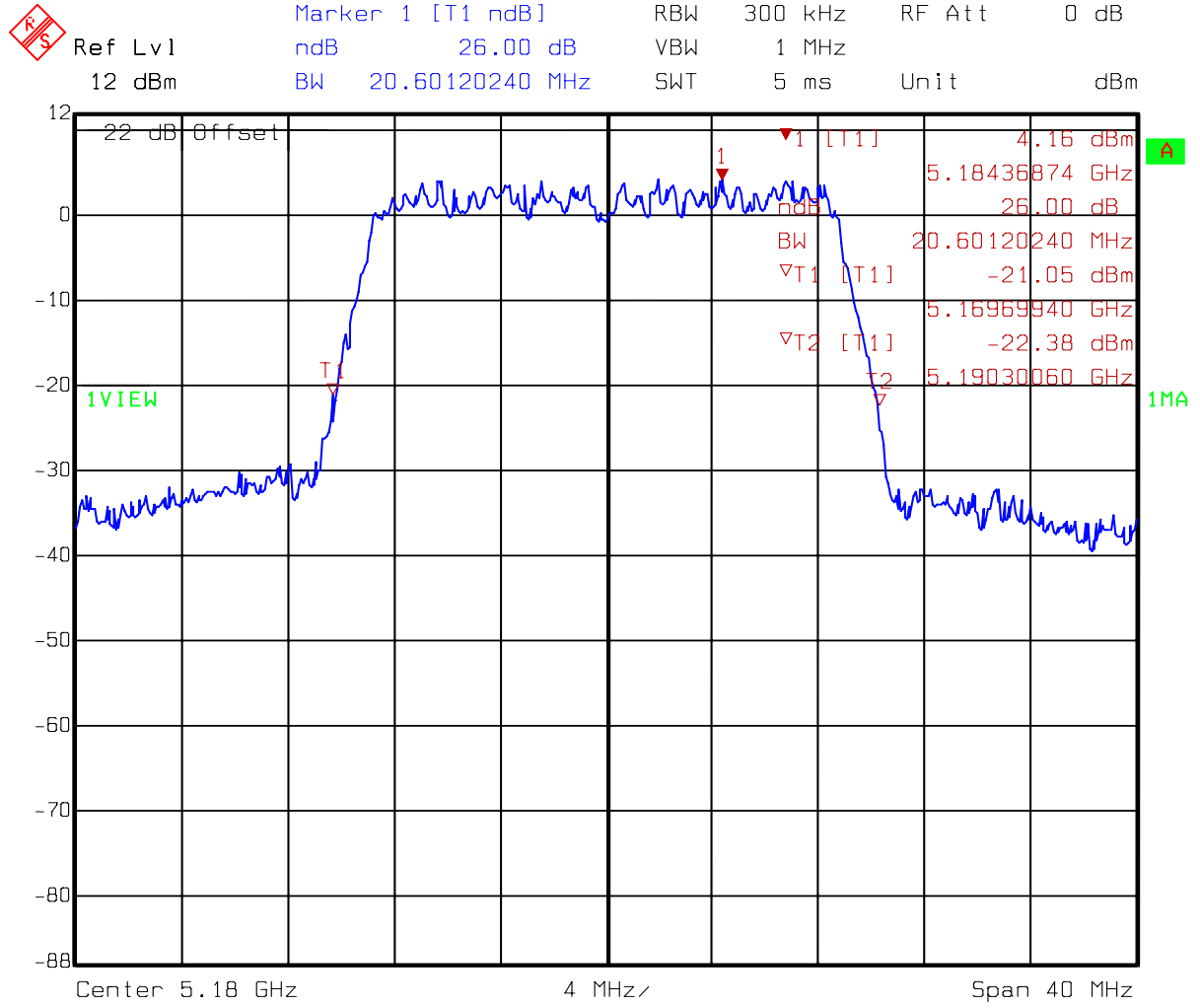
Title: 26dB Bandwidth
 Comment A: CH 60 at 802.11a mode
 Date: 13.NOV.2007 14:28:55

Dual Tx
DACA: 802.11n 20MHz CH64



Title: 26dB Bandwidth
 Comment A: CH 64 at 802.11a mode
 Date: 13.NOV.2007 16:27:41

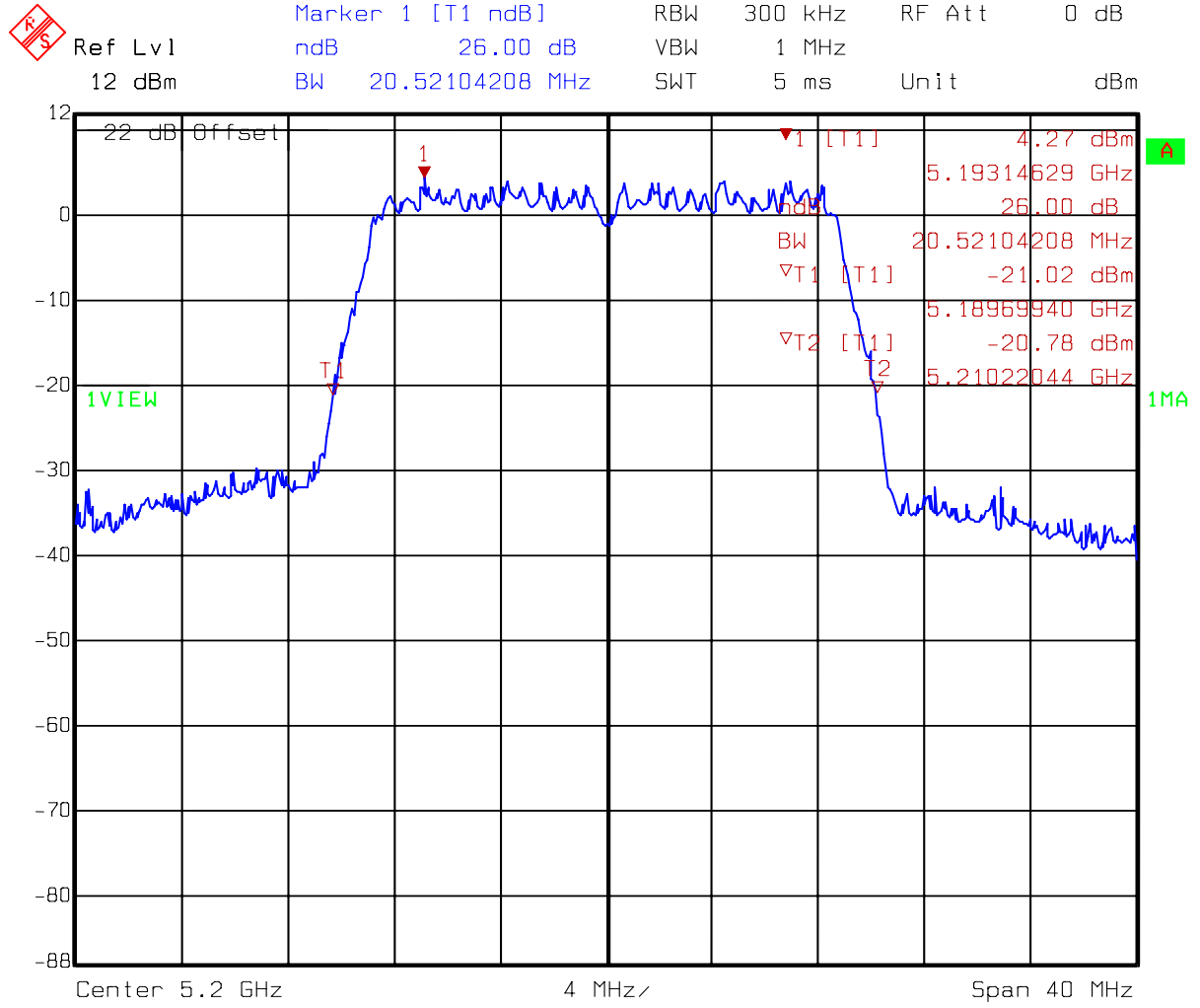
Dual Tx
DACB: 802.11n 20MHz CH36



Title: 26dB Bandwidth
 Comment A: CH 36 at 802.11a mode
 Date: 13.NOV.2007 13:39:54

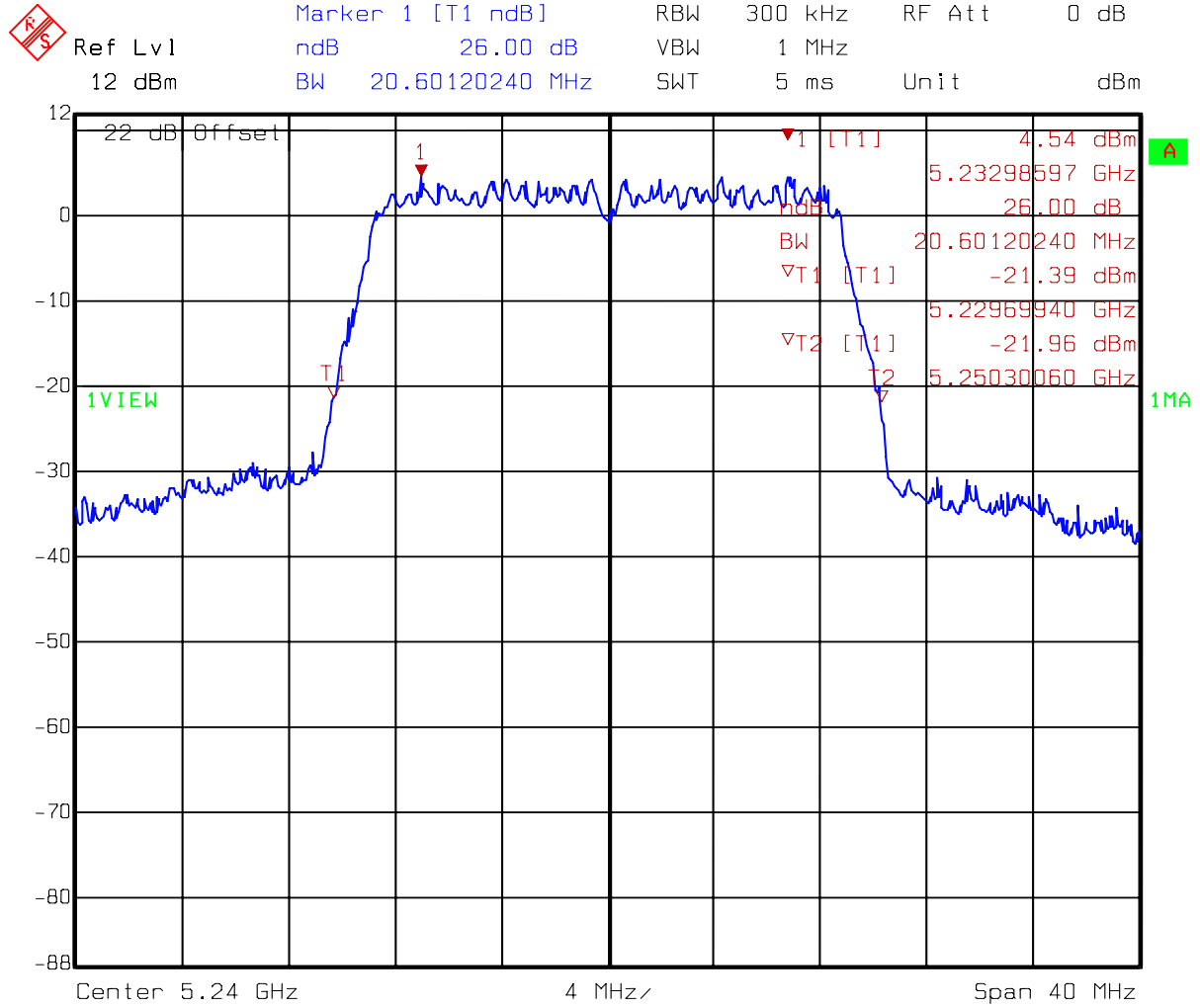


Dual Tx
DACB: 802.11n 20MHz CH40



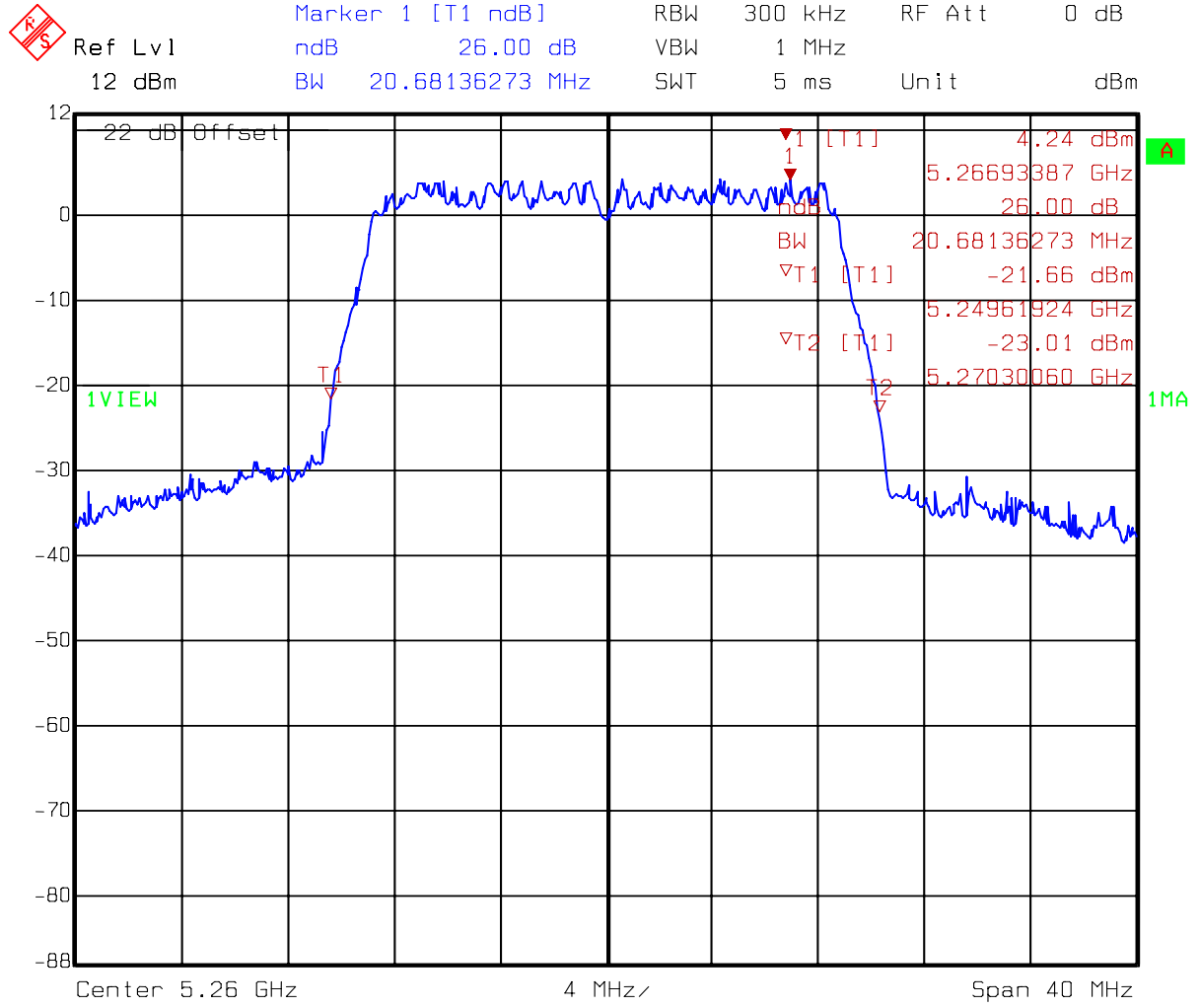
Title: 26dB Bandwidth
 Comment A: CH 40 at 802.11a mode
 Date: 13.NOV.2007 13:42:59

Dual Tx
DACB: 802.11n 20MHz CH48



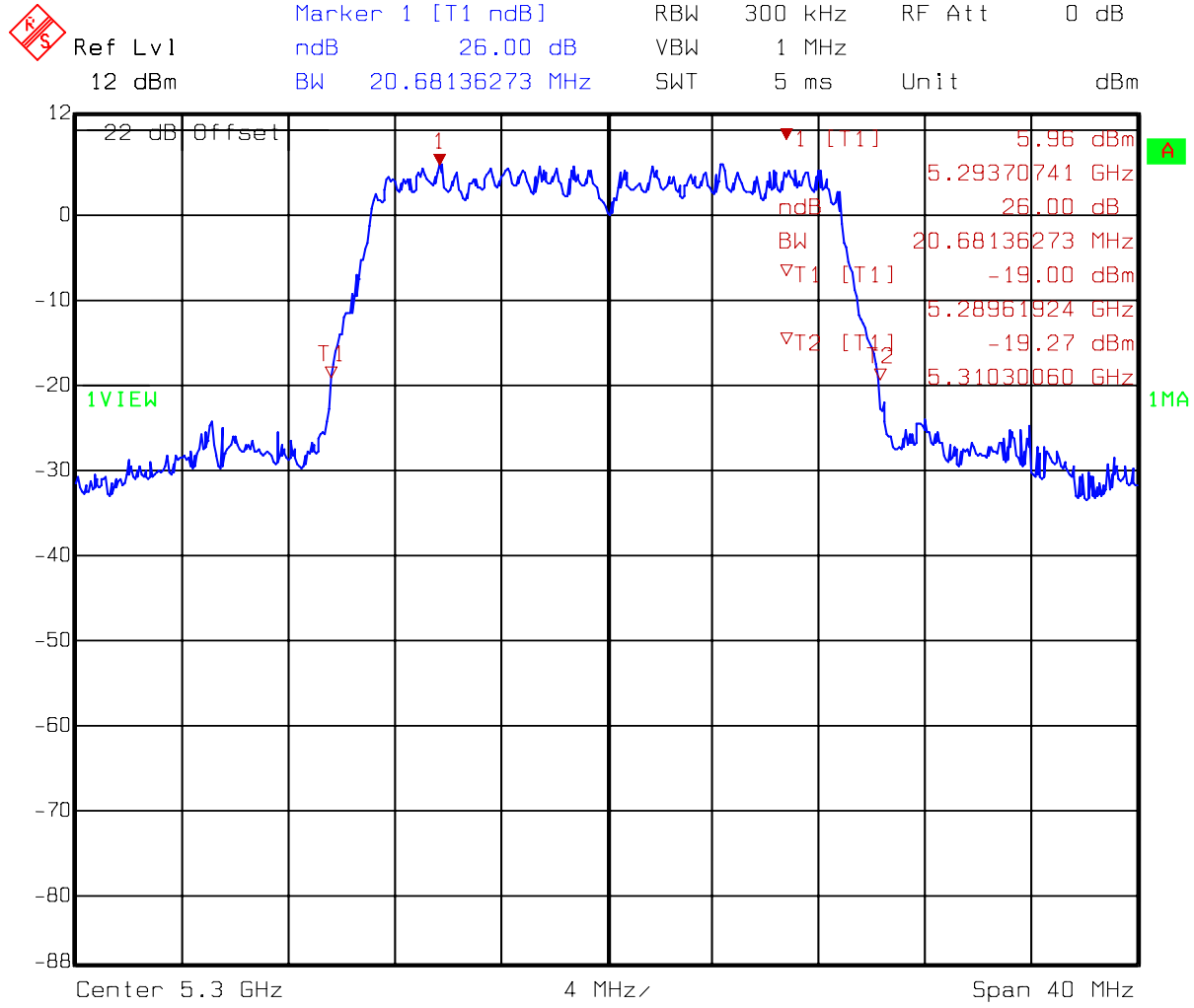
Title: 26dB Bandwidth
 Comment A: CH 48 at 802.11a mode
 Date: 13.NOV.2007 13:55:18

Dual Tx
DACB: 802.11n 20MHz CH52



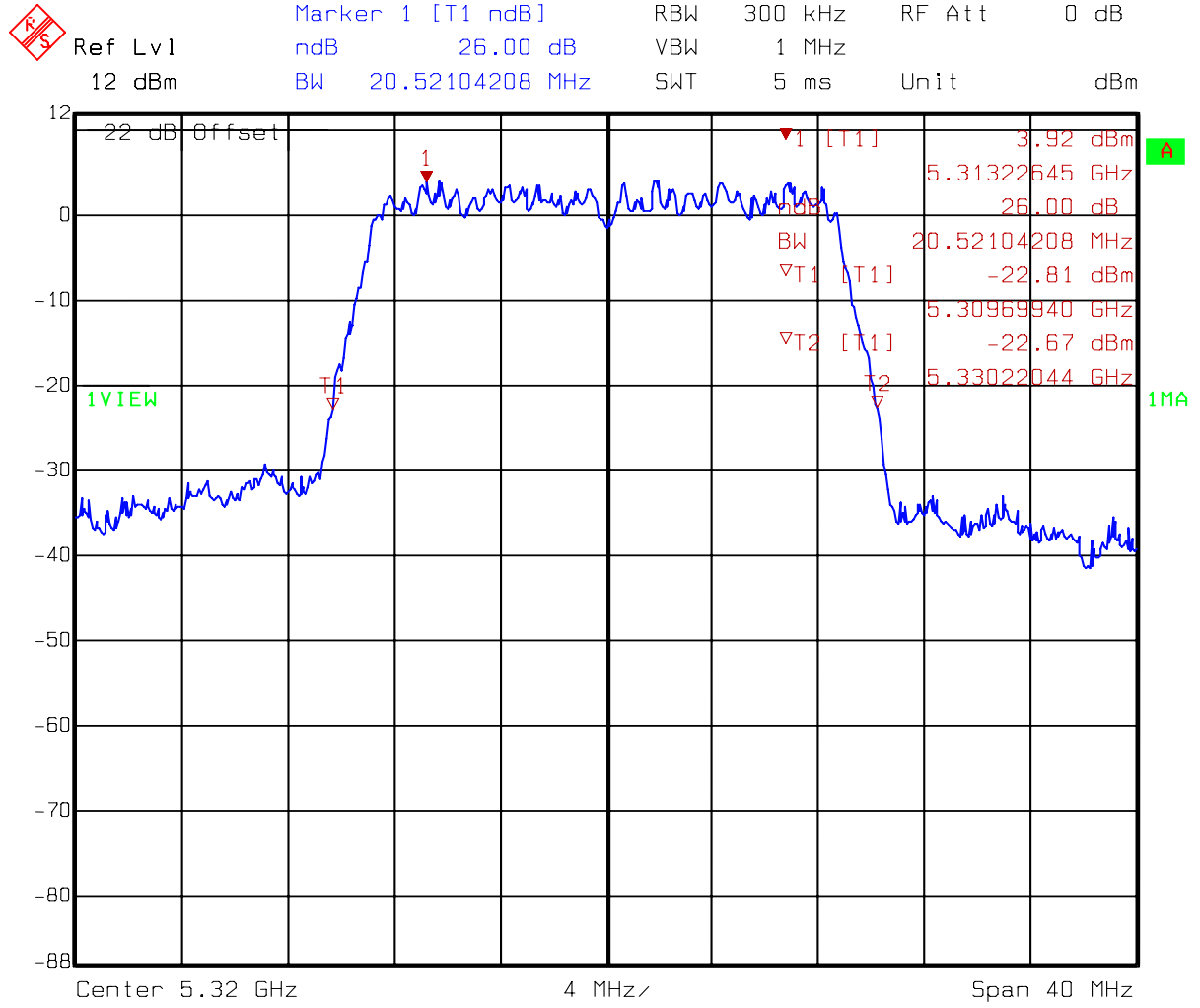
Title: 26dB Bandwidth
 Comment A: CH 52 at 802.11a mode
 Date: 13.NOV.2007 13:59:11

Dual Tx
DACB: 802.11n 20MHz CH60



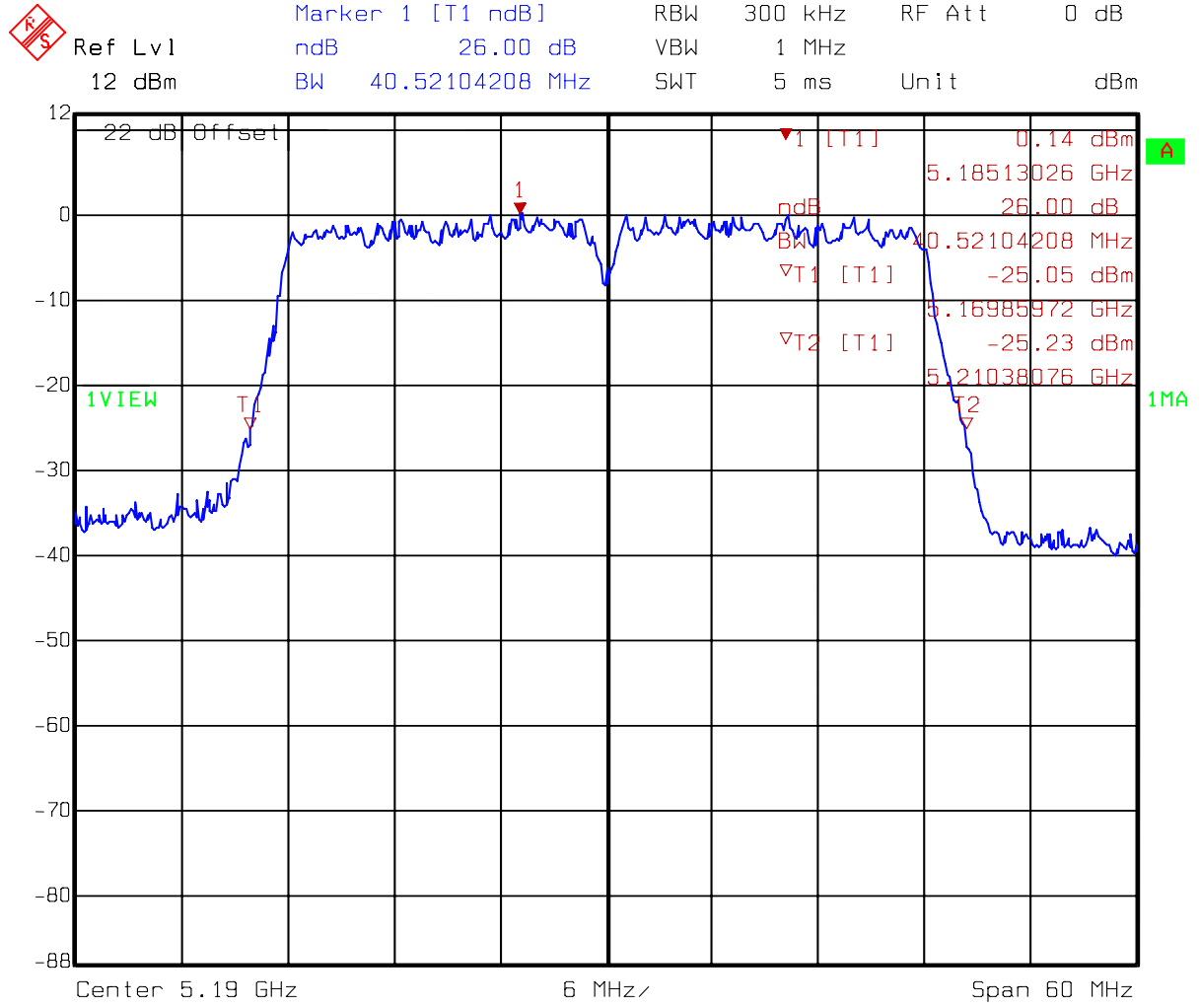
Title: 26dB Bandwidth
 Comment A: CH 60 at 802.11a mode
 Date: 13.NOV.2007 14:32:21

Dual Tx
DACB: 802.11n 20MHz CH64



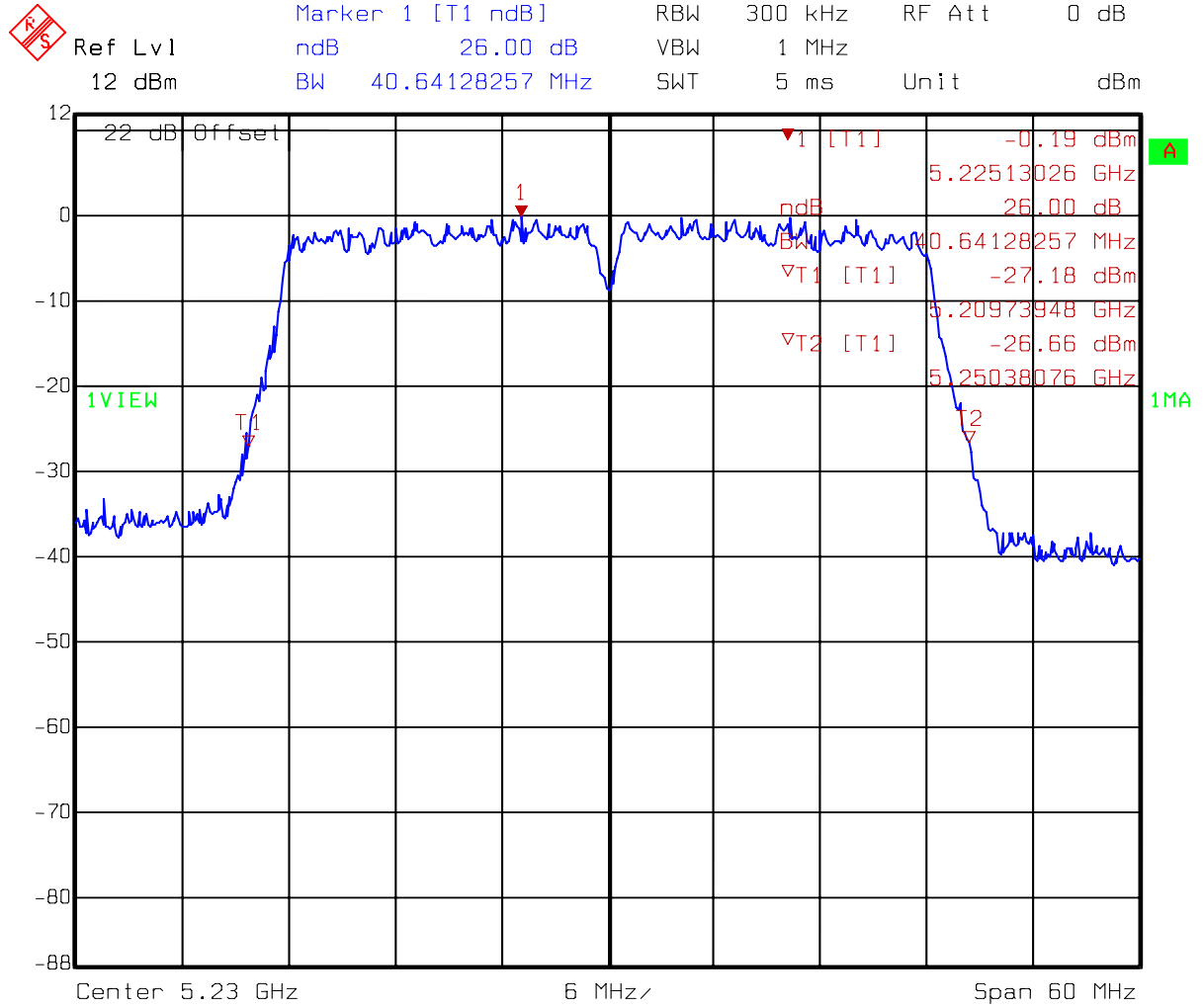
Title: 26dB Bandwidth
 Comment A: CH 64 at 802.11a mode
 Date: 13.NOV.2007 14:35:22

Dual Tx
DACA: 802.11n 40MHz CH38



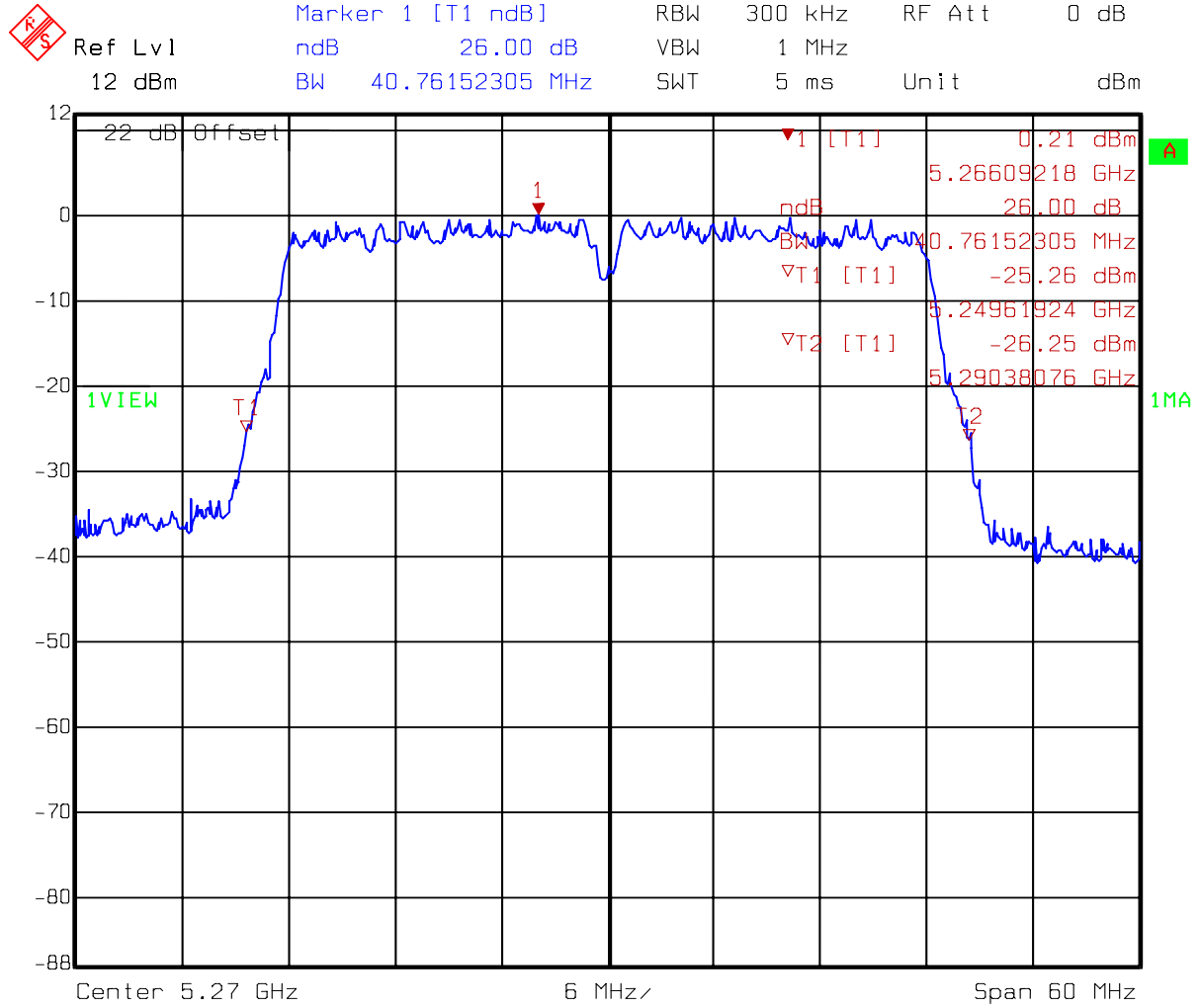
Title: 26dB Bandwidth
 Comment A: CH 38 at 802.11a mode
 Date: 13.NOV.2007 11:45:01

Dual Tx
DACA: 802.11n 40MHz CH46



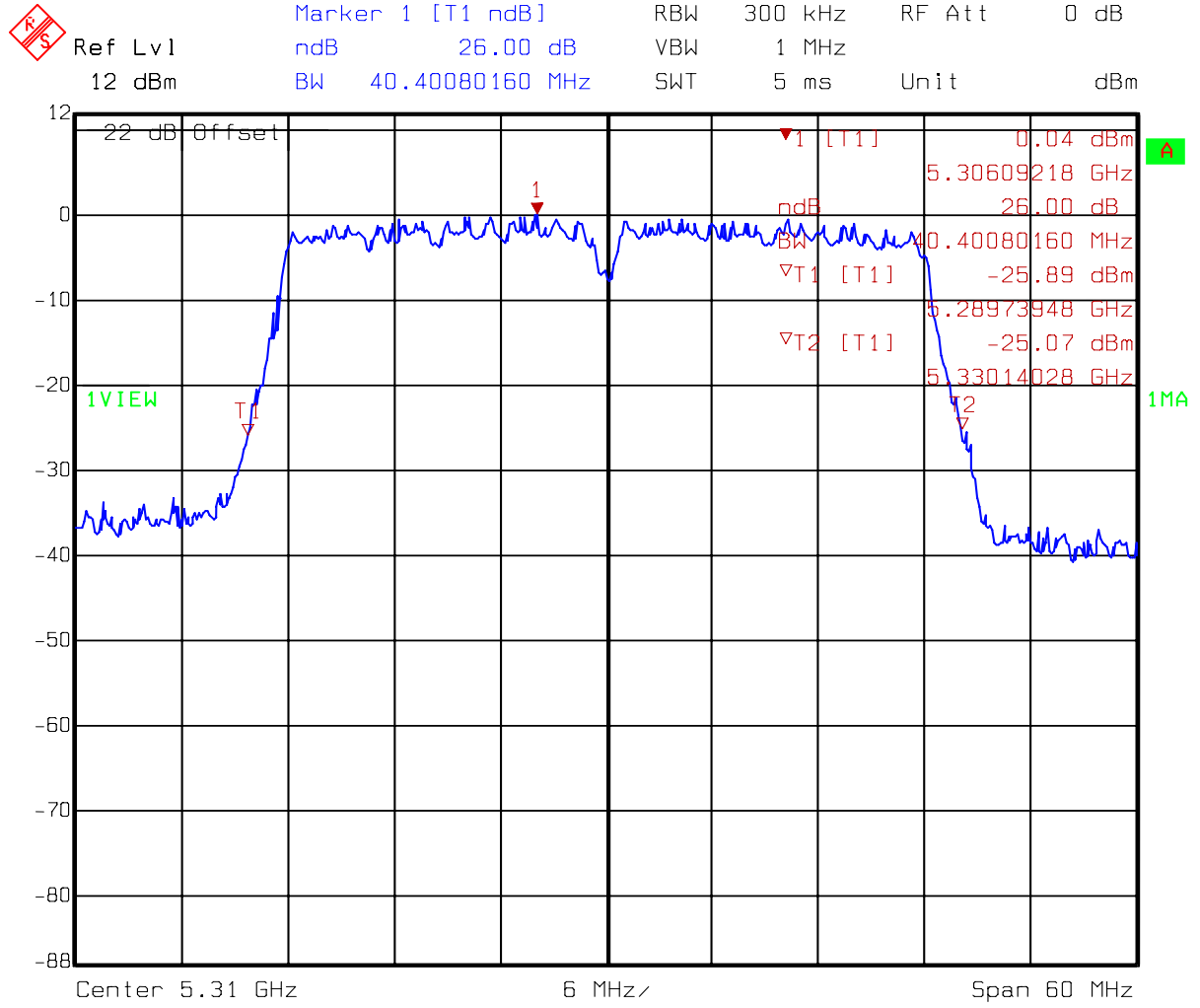
Title: 26dB Bandwidth
 Comment A: CH 46 at 802.11a mode
 Date: 13.NOV.2007 11:49:28

Dual Tx
DACA: 802.11n 40MHz CH54



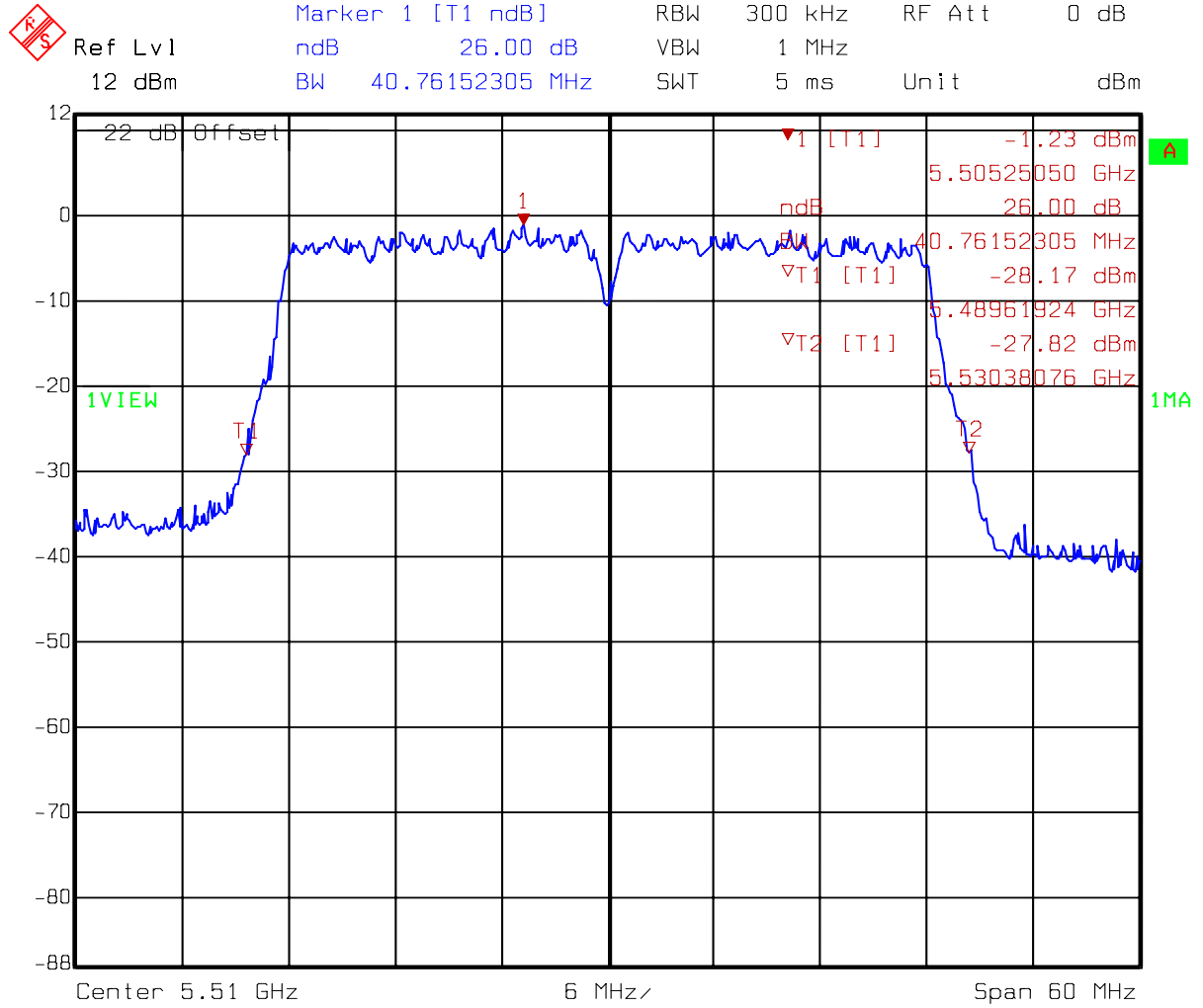
Title: 26dB Bandwidth
 Comment A: CH 54 at 802.11a mode
 Date: 13.NOV.2007 12:01:21

Dual Tx
DACA: 802.11n 40MHz CH62



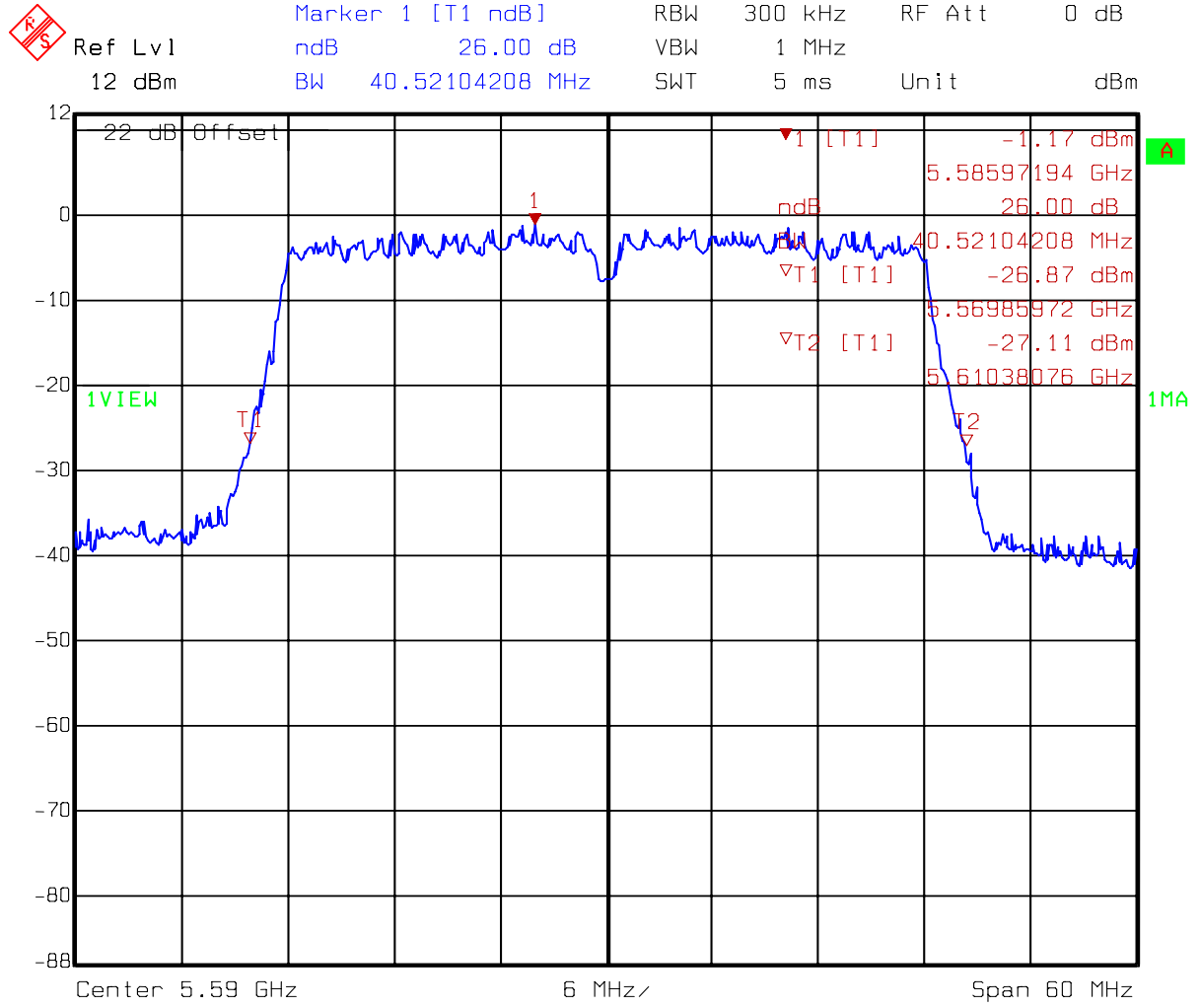
Title: 26dB Bandwidth
 Comment A: CH 62 at 802.11a mode
 Date: 13.NOV.2007 12:05:11

Dual Tx
DACA: 802.11n 40MHz CH102



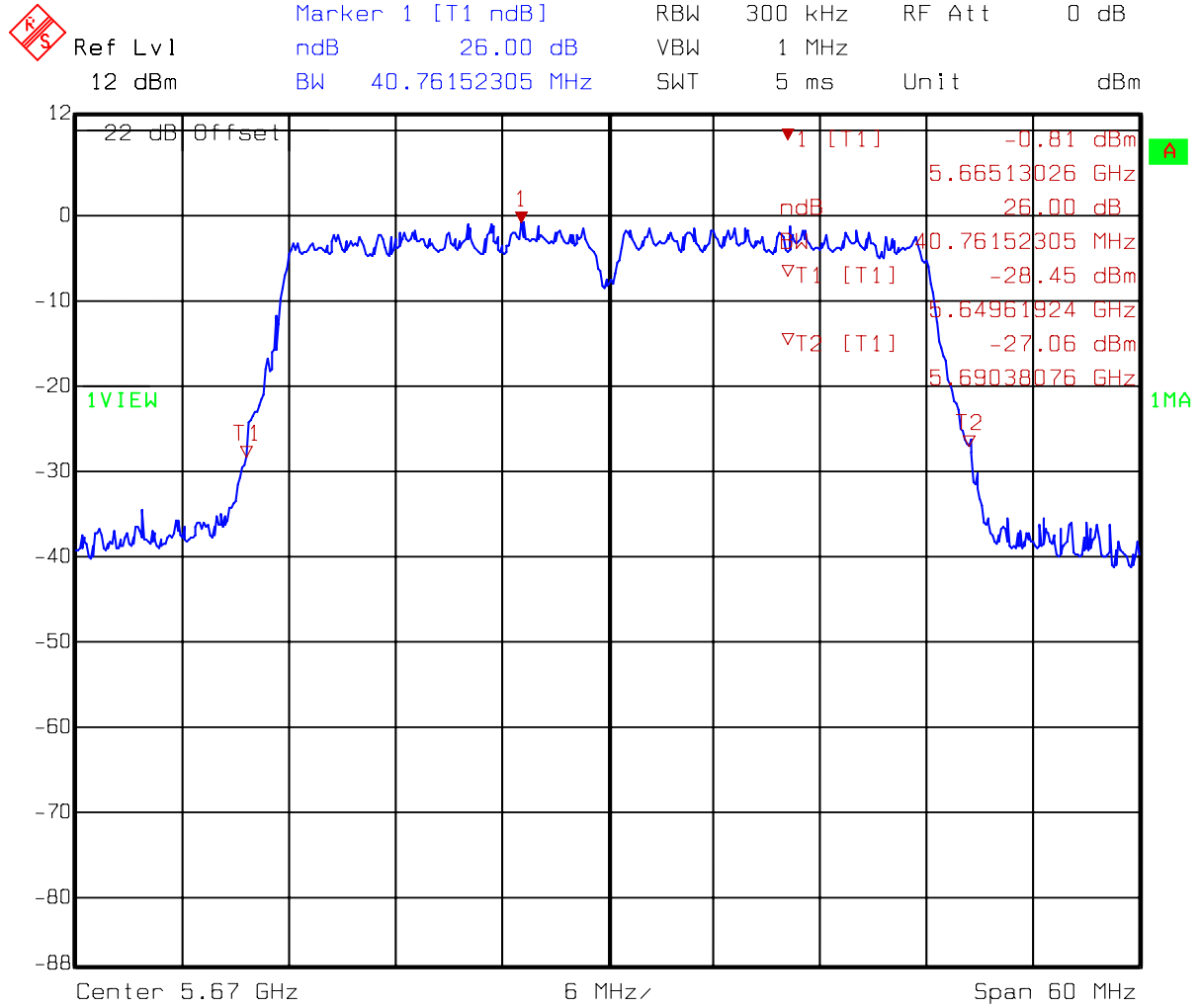
Title: 26dB Bandwidth
 Comment A: CH 102 at 802.11a mode
 Date: 13.NOV.2007 13:16:23

Dual Tx
DACA: 802.11n 40MHz CH118



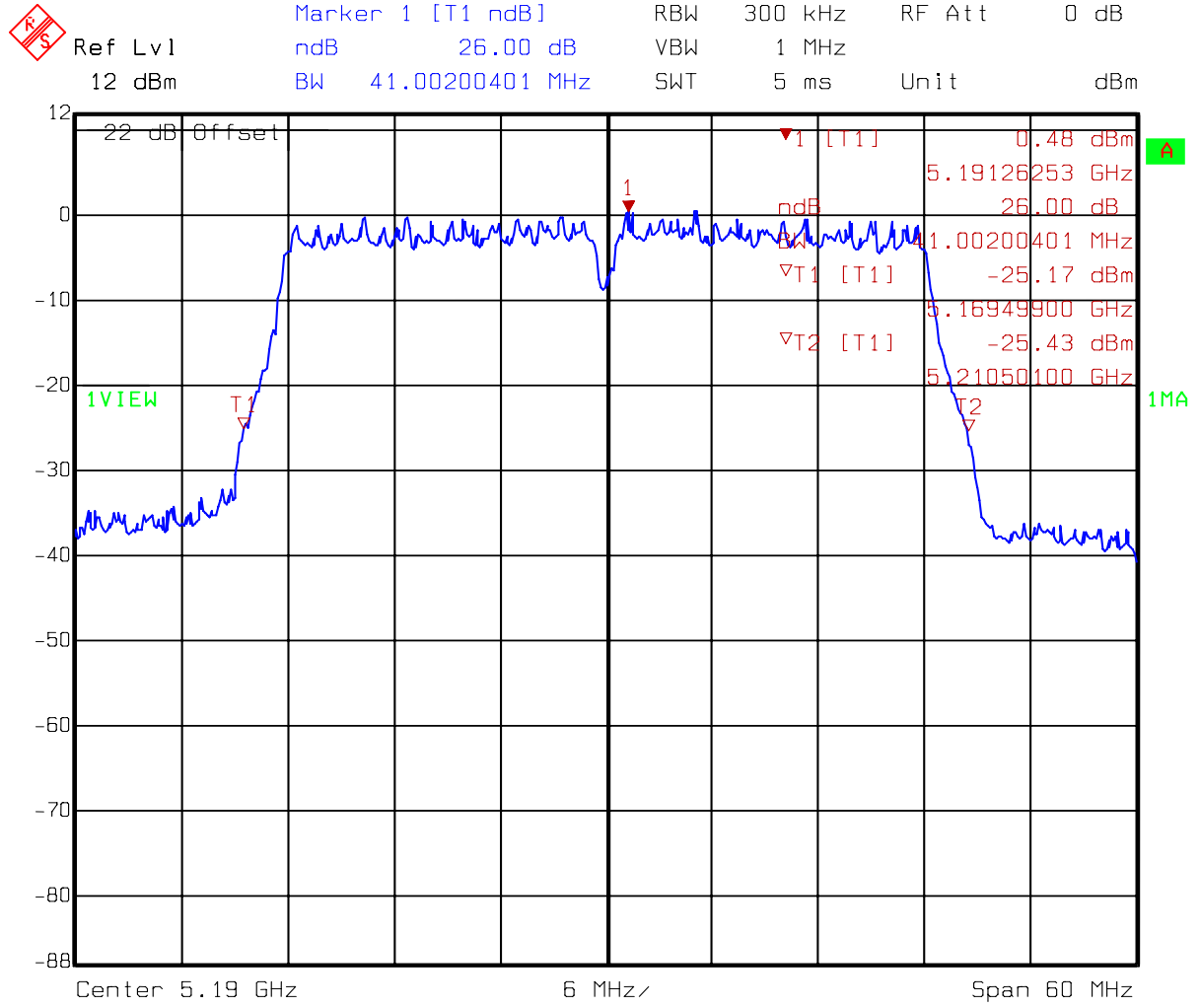
Title: 26dB Bandwidth
 Comment A: CH 118 at 802.11a mode
 Date: 13.NOV.2007 13:19:43

Dual Tx DACA: 802.11n 40MHz CH134



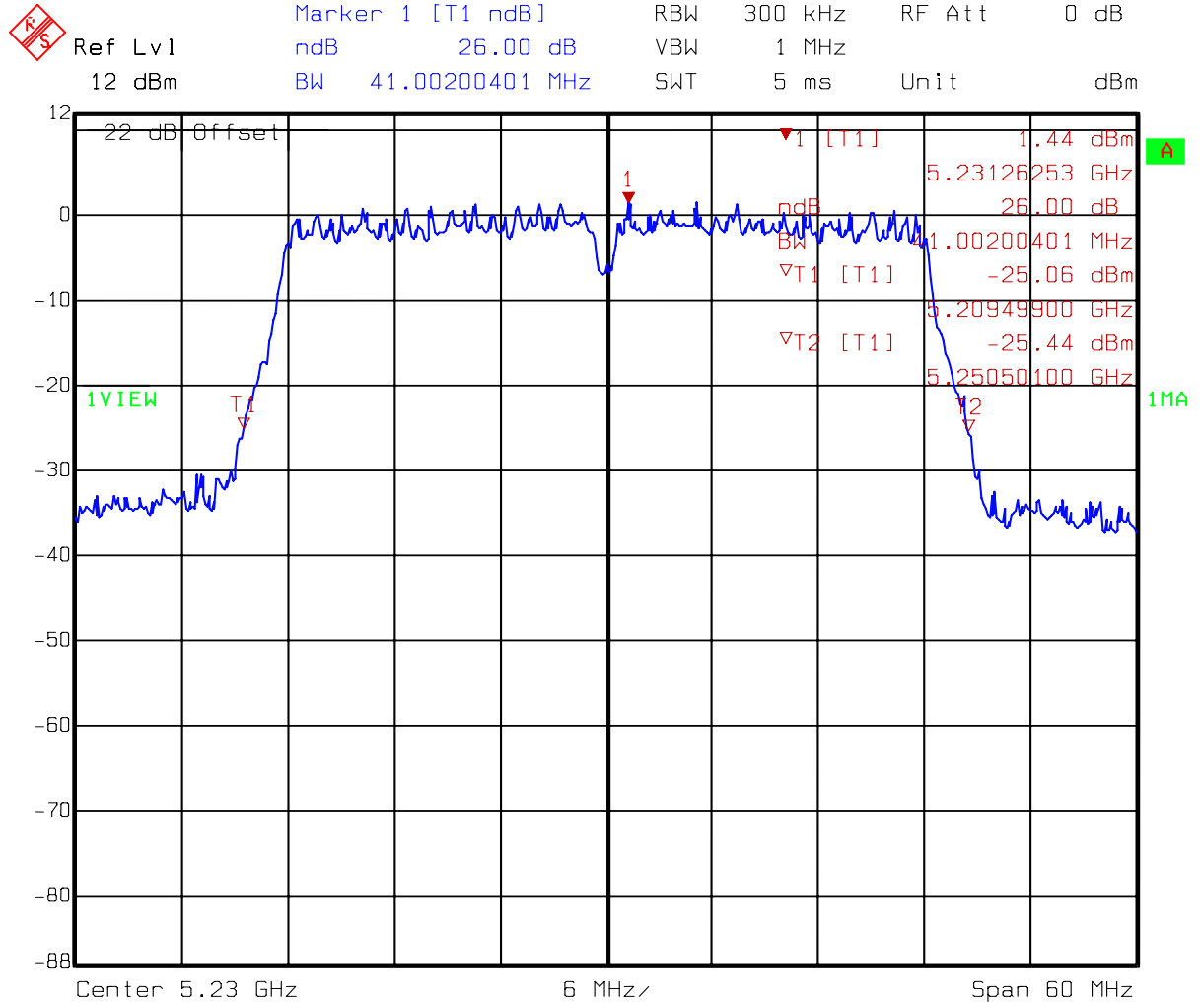
Title: 26dB Bandwidth
 Comment A: CH 134 at 802.11a mode
 Date: 13.NOV.2007 13:29:54

Dual Tx
DACB: 802.11n 40MHz CH38



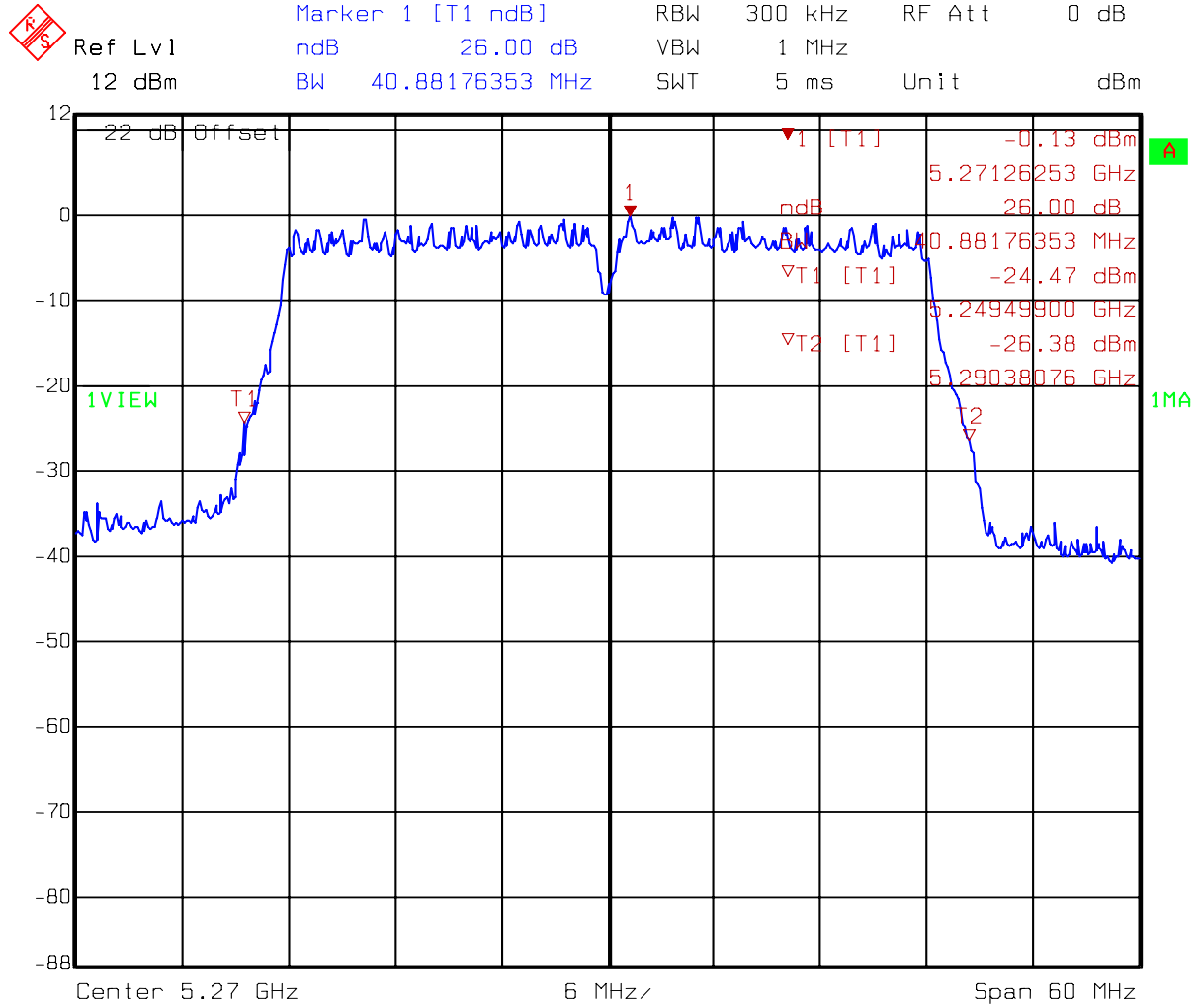
Title: 26dB Bandwidth
 Comment A: CH 38 at 802.11a mode
 Date: 13.NOV.2007 11:41:45

Dual Tx
DACB: 802.11n 40MHz CH46



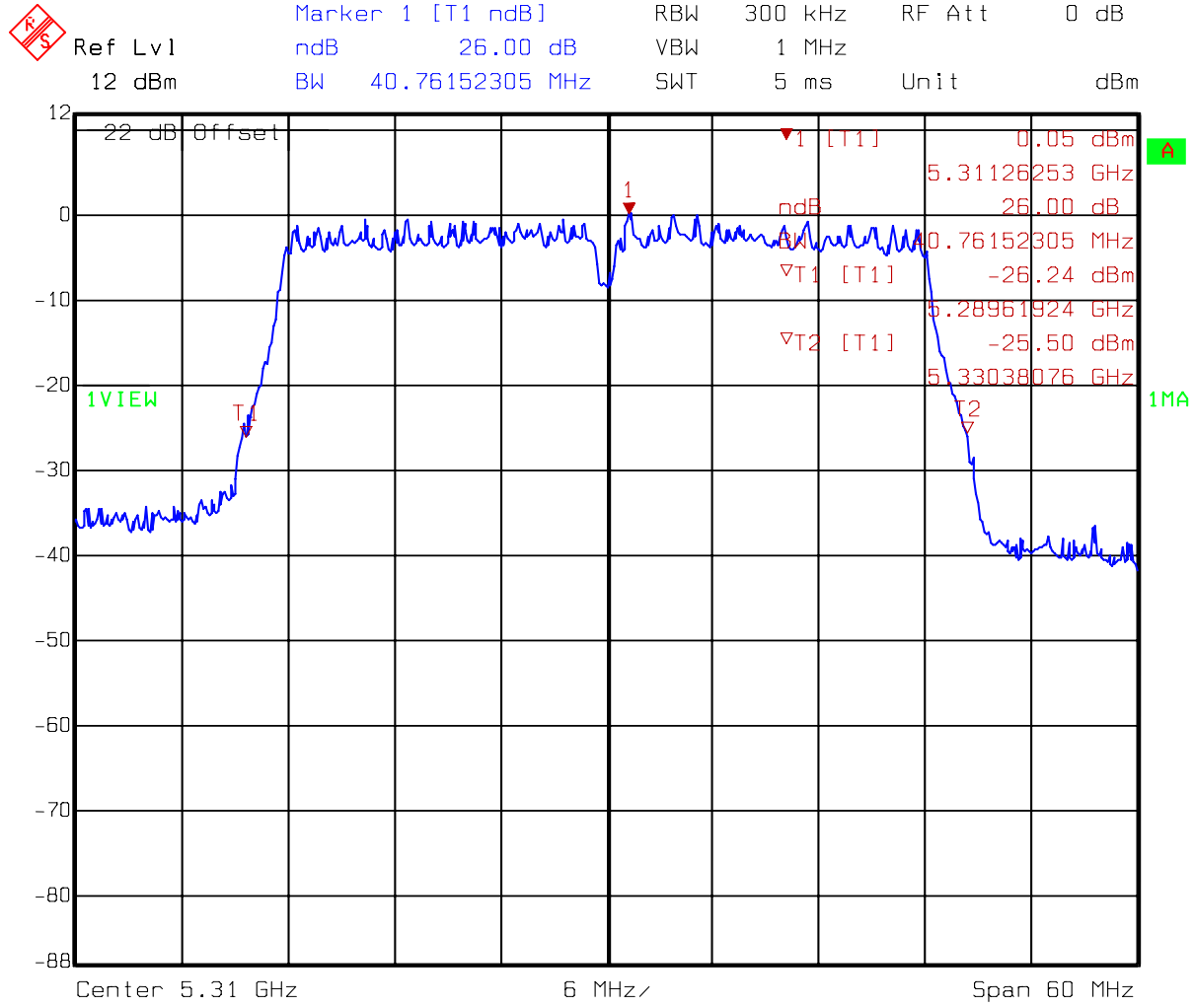
Title: 26dB Bandwidth
 Comment A: CH 46 at 802.11a mode
 Date: 13.NOV.2007 11:53:02

Dual Tx DACB: 802.11n 40MHz CH54



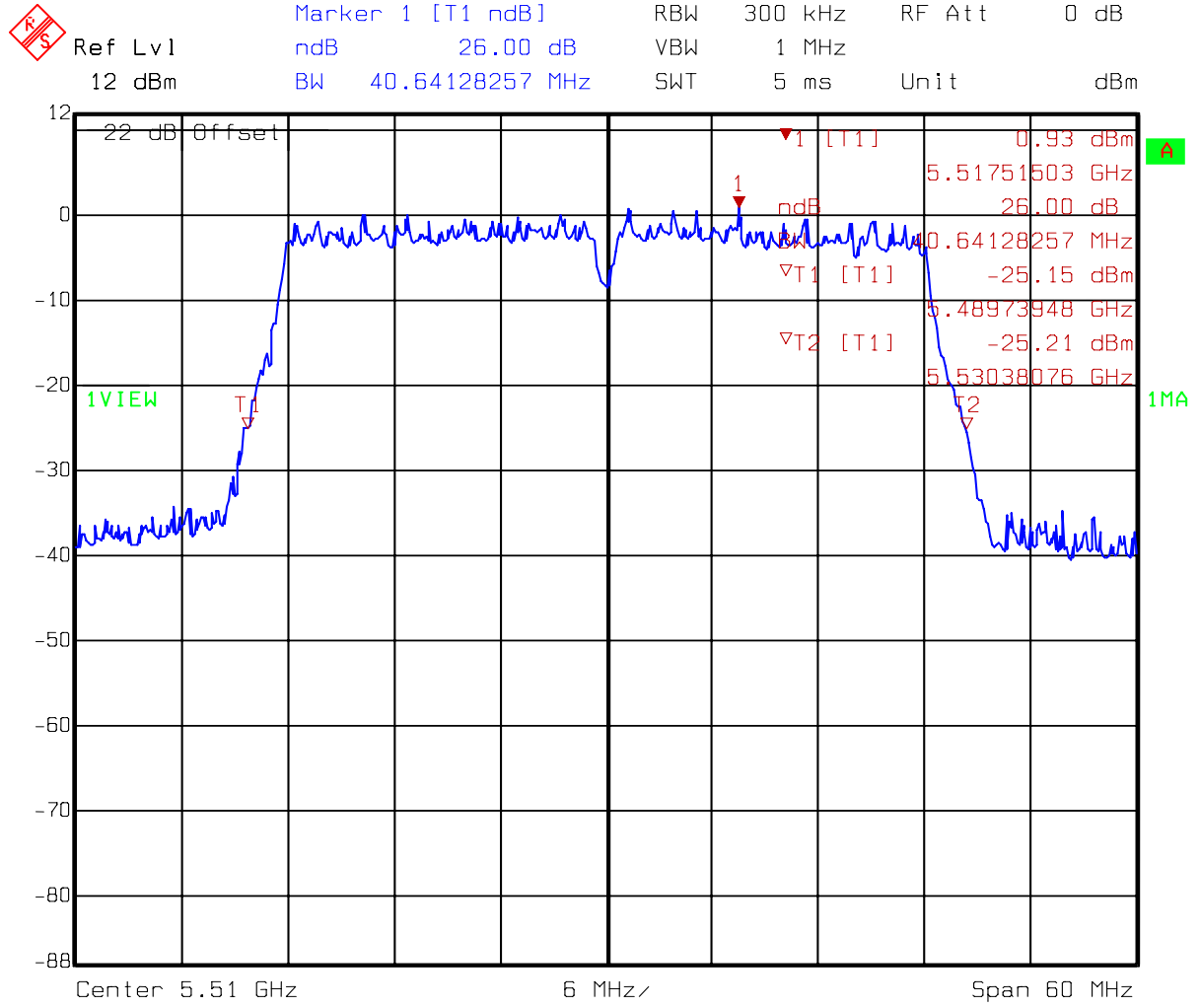
Title: 26dB Bandwidth
 Comment A: CH 54 at 802.11a mode
 Date: 13.NOV.2007 11:57:54

Dual Tx
DACB: 802.11n 40MHz CH62



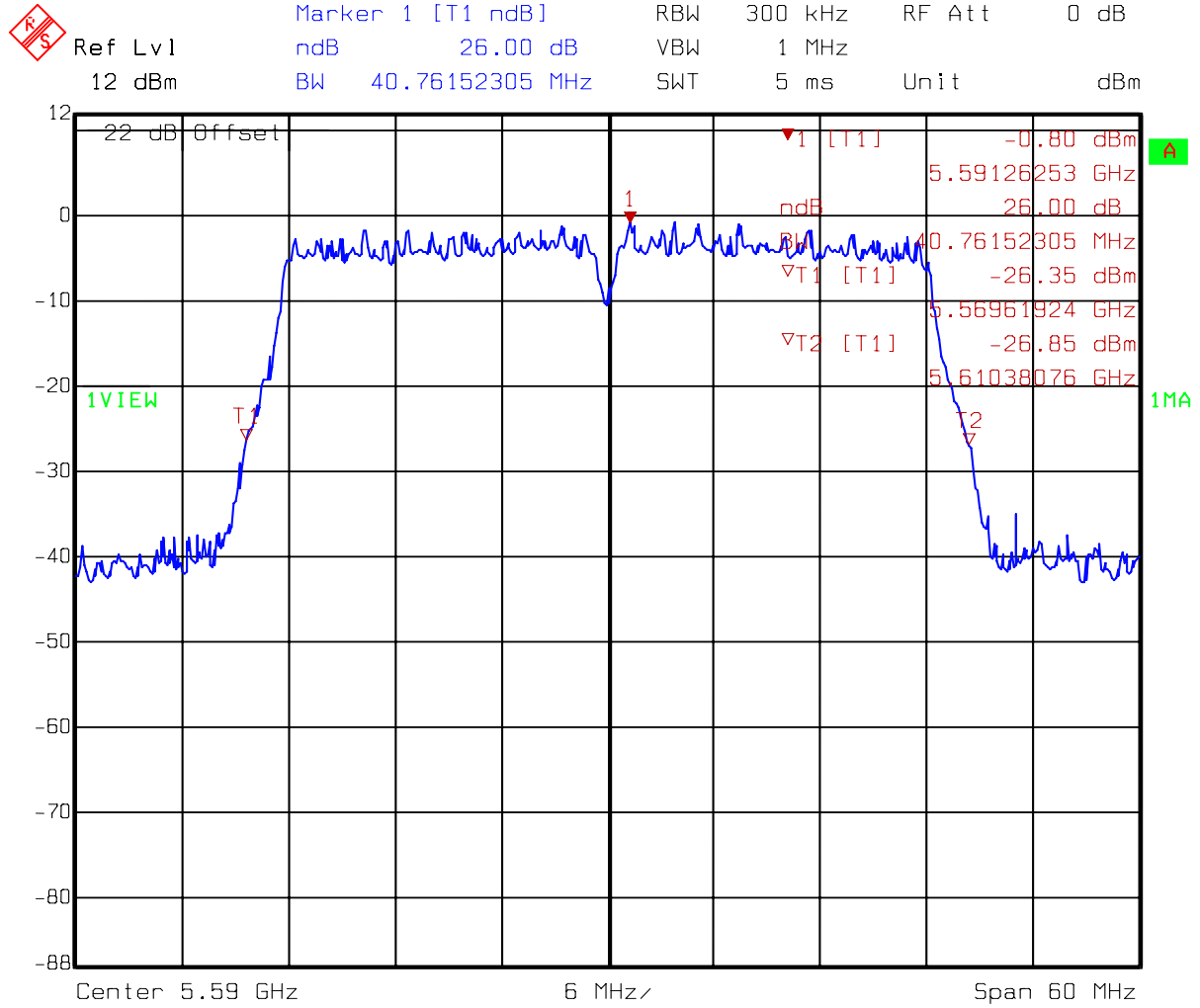
Title: 26dB Bandwidth
 Comment A: CH 62 at 802.11a mode
 Date: 13.NOV.2007 12:08:41

Dual Tx
DACB: 802.11n 40MHz CH102



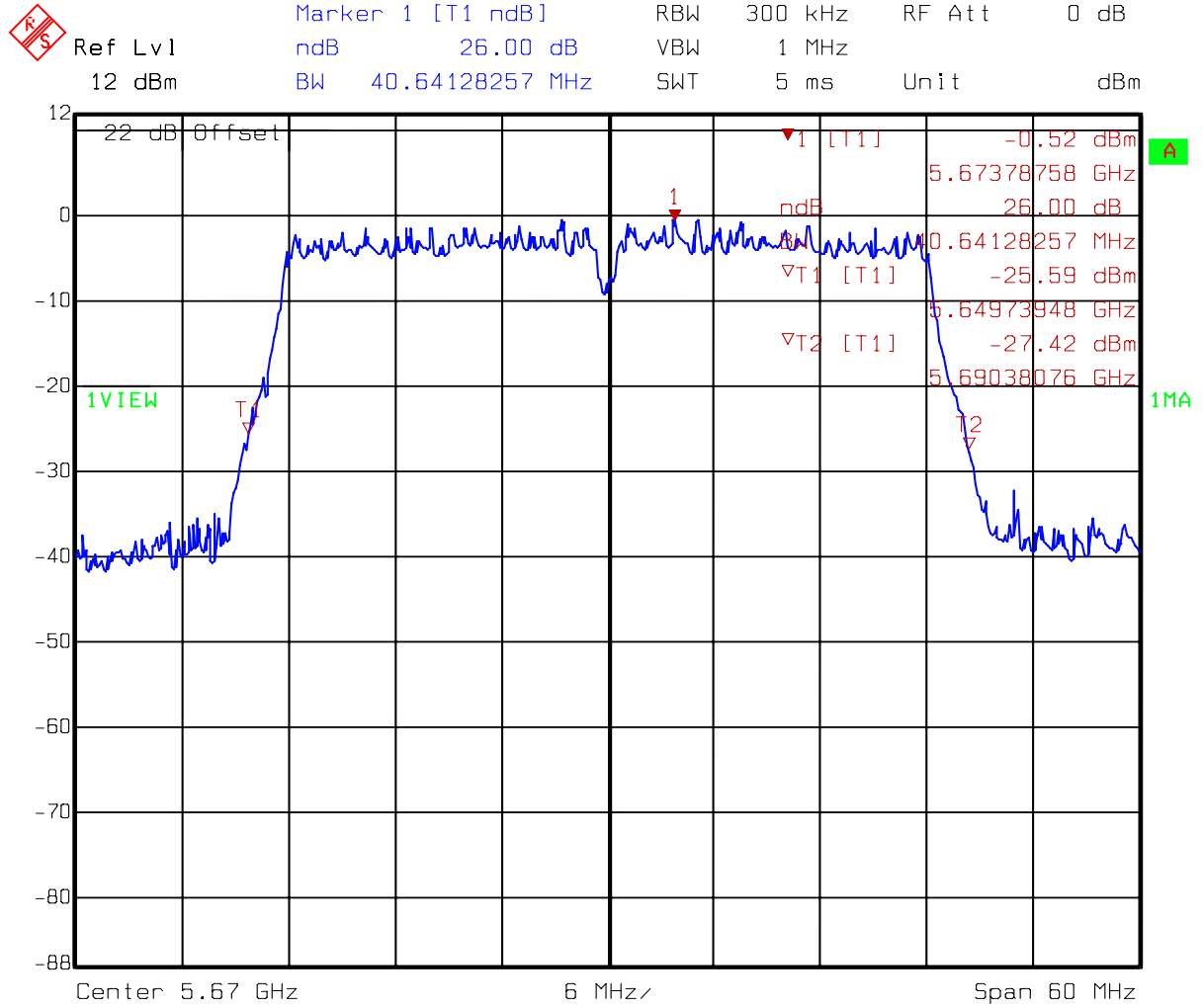
Title: 26dB Bandwidth
 Comment A: CH 102 at 802.11a mode
 Date: 13.NOV.2007 13:12:08

Dual Tx
DACB: 802.11n 40MHz CH118



Title: 26dB Bandwidth
 Comment A: CH 118 at 802.11a mode
 Date: 13.NOV.2007 13:22:39

Dual Tx
DACB: 802.11n 40MHz CH134



Title: 26dB Bandwidth
 Comment A: CH 134 at 802.11a mode
 Date: 13.NOV.2007 13:26:31

4. Power Spectrum Density test (FCC 15.407)

4.1 Operating environment

Temperature: 25 °C
Relative Humidity: 50 %
Atmospheric Pressure: 1023 hPa

4.2 Test setup & procedure

The power spectrum density per FCC §15.407(a) was measured from the antenna port of the EUT using a 50ohm spectrum analyzer with the resolution bandwidth set at 1MHz, the video bandwidth set at 3MHz. Power spectrum density was read directly and cable loss (7.0dB)/external attenuator (20dB) correction was added to the reading to obtain power at the EUT antenna terminals.

Limit

Operating Frequency (MHz)	Power density limit
5150~5250	< 4dBm/MHz
5250~5350, 5470~5725	< 11dBm/MHz
5725~5825	< 17dBm/MHz

4.3 Measured data of Power Spectrum Density test results

Single Tx

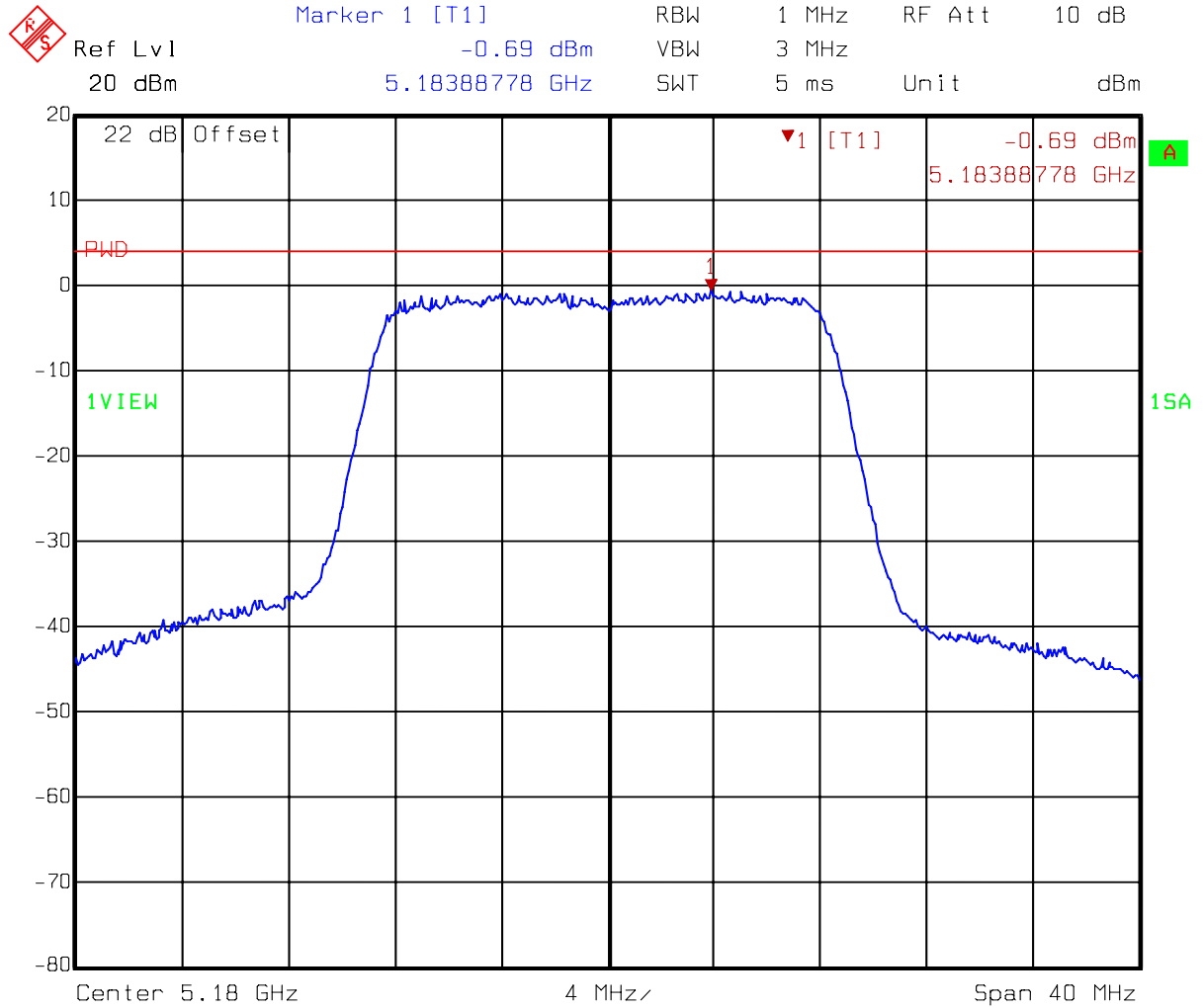
Mode	Channel	Frequency (MHz)	Data rate Mbps	PPSD (dBm)		Limit (dBm)	Result
				DACA	DACB		
11a	36	5180	6	-0.69	-1.36	4	PASS
	40	5200		-0.48	-0.98	4	PASS
	48	5240		-0.33	-0.98	4	PASS
	52	5260		-0.41	-0.83	11	PASS
	60	5300		-0.66	-1.01	11	PASS
	64	5320		-0.70	-1.22	11	PASS

Dual Tx

Mode	Channel	Frequency (MHz)	Data rate Mbps	PPSD (dBm)		Total PPSD		Limit (dBm)	Margin (dB)
				DACA	DACB	mW	dBm		
11n(20)	36	5180	6.5	-1.95	-1.48	1.35	1.30	4	-2.70
	40	5200		-1.67	-2.09	1.30	1.14	4	-2.86
	48	5240		-1.82	-1.20	1.42	1.51	4	-2.49
	52	5260		-0.92	-1.85	1.46	1.65	11	-9.35
	60	5300		-2.73	-0.16	1.50	1.75	11	-9.25
	64	5320		-1.42	-2.30	1.31	1.17	11	-9.83
11n(40)	38	5190	13	-4.75	-5.45	0.62	-2.08	4	-6.08
	46	5230		-5.07	-4.19	0.69	-1.60	4	-5.60
	54	5270		-4.62	-5.67	0.62	-2.10	11	-13.10
	62	5310		-5.03	-5.14	0.62	-2.07	11	-13.07
	102	5510		-5.96	-5.79	0.52	-2.86	11	-13.86
	118	5590		-6.37	-6.27	0.47	-3.31	11	-14.31
	134	5670		-5.51	-5.99	0.53	-2.73	11	-13.73

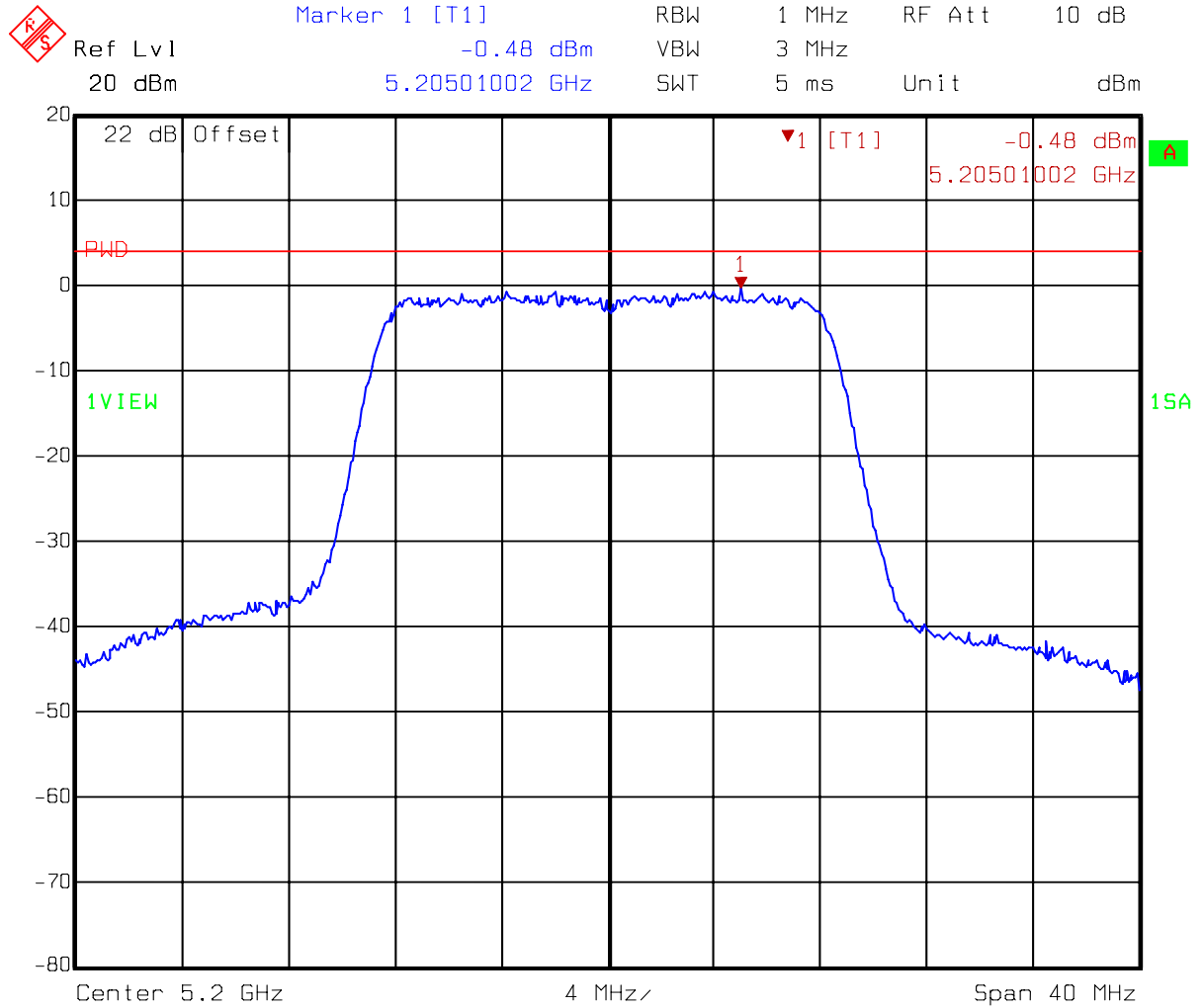
Please see the plot below.

Single Tx
DACA: 802.11a CH36



Title: Power Density
 Comment A: CH 36 at 802.11a mode
 Date: 13.NOV.2007 15:09:03

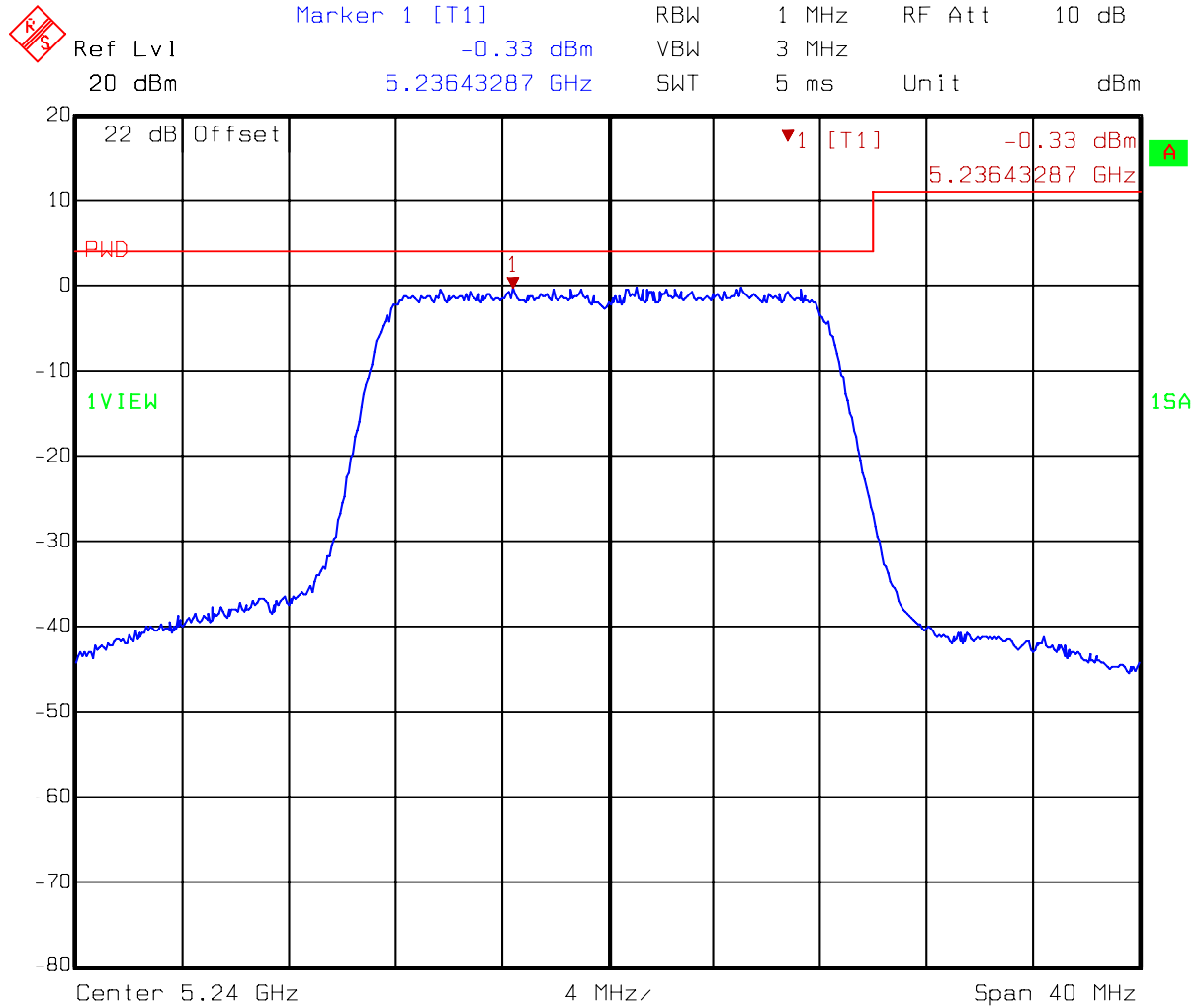
Single Tx DACA: 802.11a CH40



Title: Power Density
Comment A: CH 40 at 802.11a mode
Date: 13.NOV.2007 15:13:19



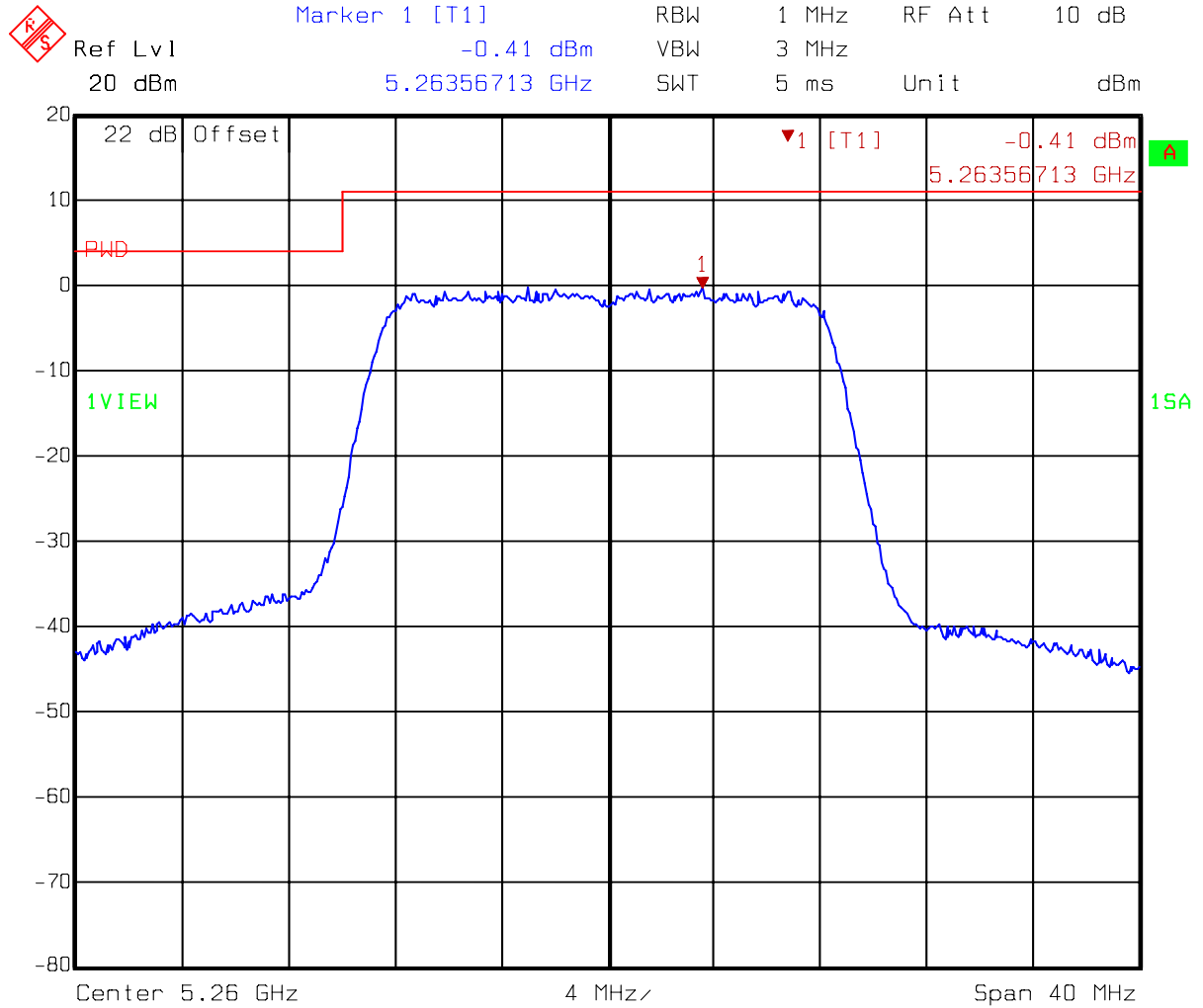
Single Tx
DACA: 802.11a CH48



Title: Power Density
Comment A: CH 48 at 802.11a mode
Date: 13.NOV.2007 15:16:52



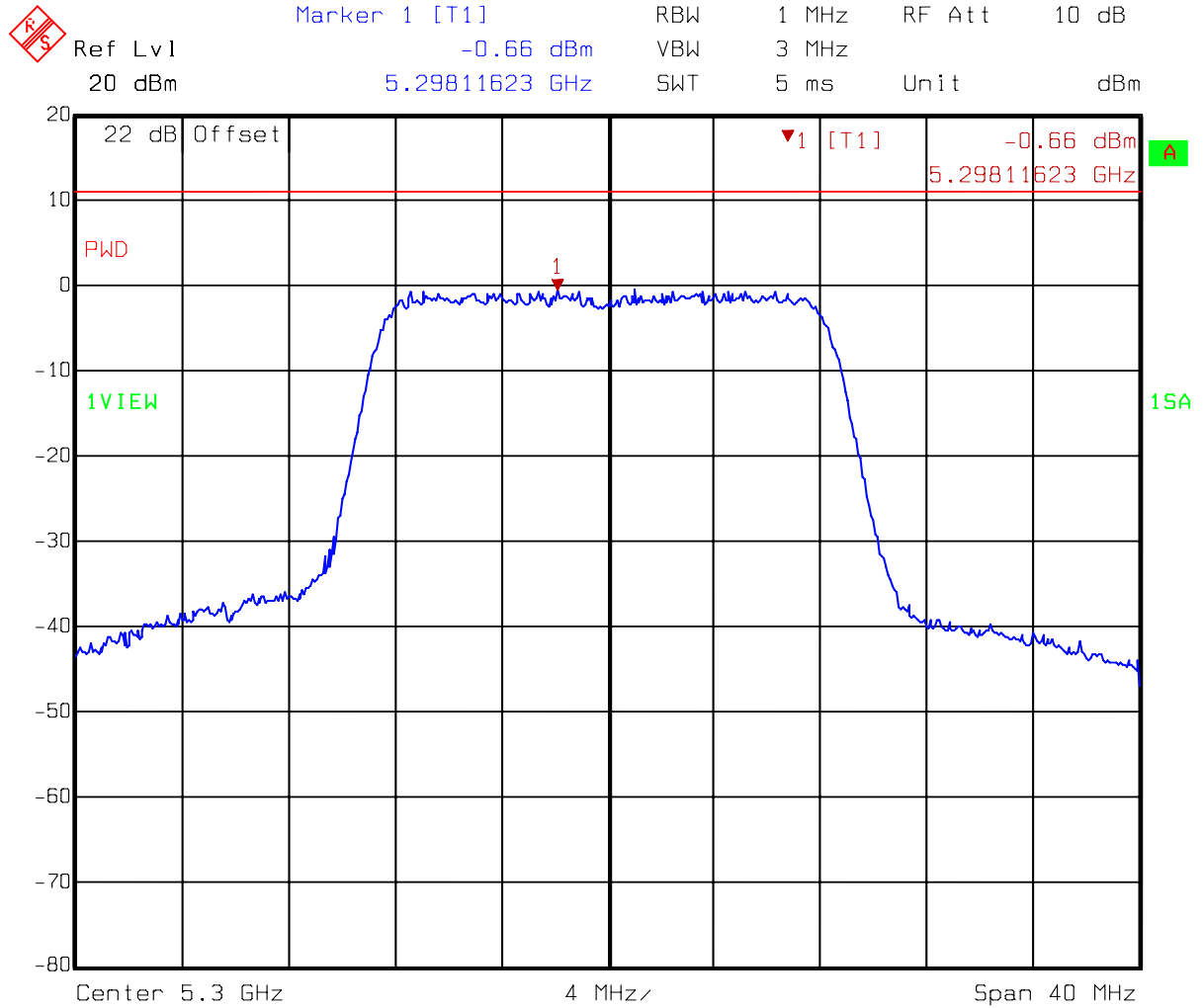
Single Tx
DACA: 802.11a CH52



Title: Power Density
Comment A: CH 52 at 802.11a mode
Date: 13.NOV.2007 15:21:56



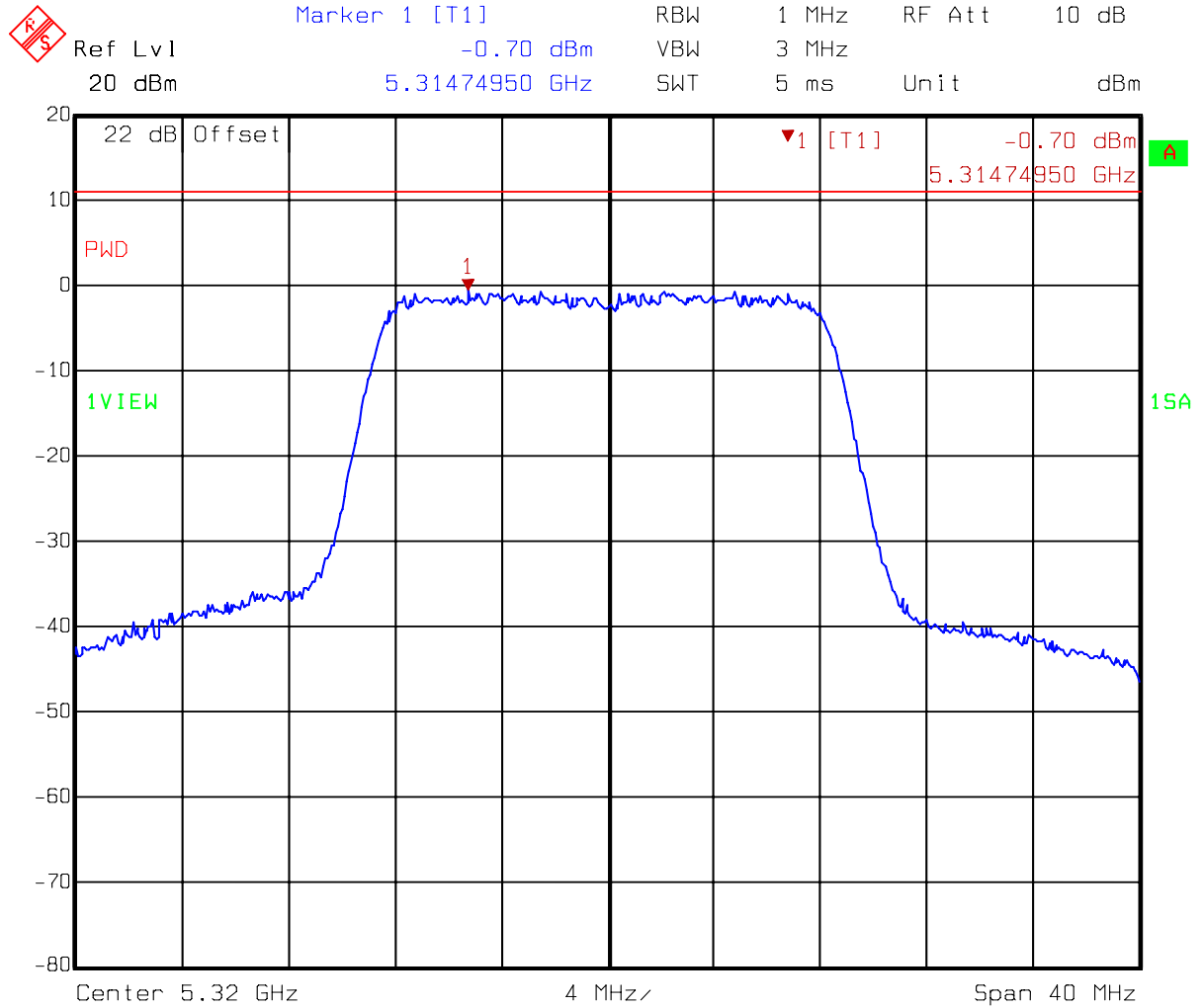
Single Tx
DACA: 802.11a CH60



Title: Power Density
Comment A: CH 60 at 802.11a mode
Date: 13.NOV.2007 15:25:14



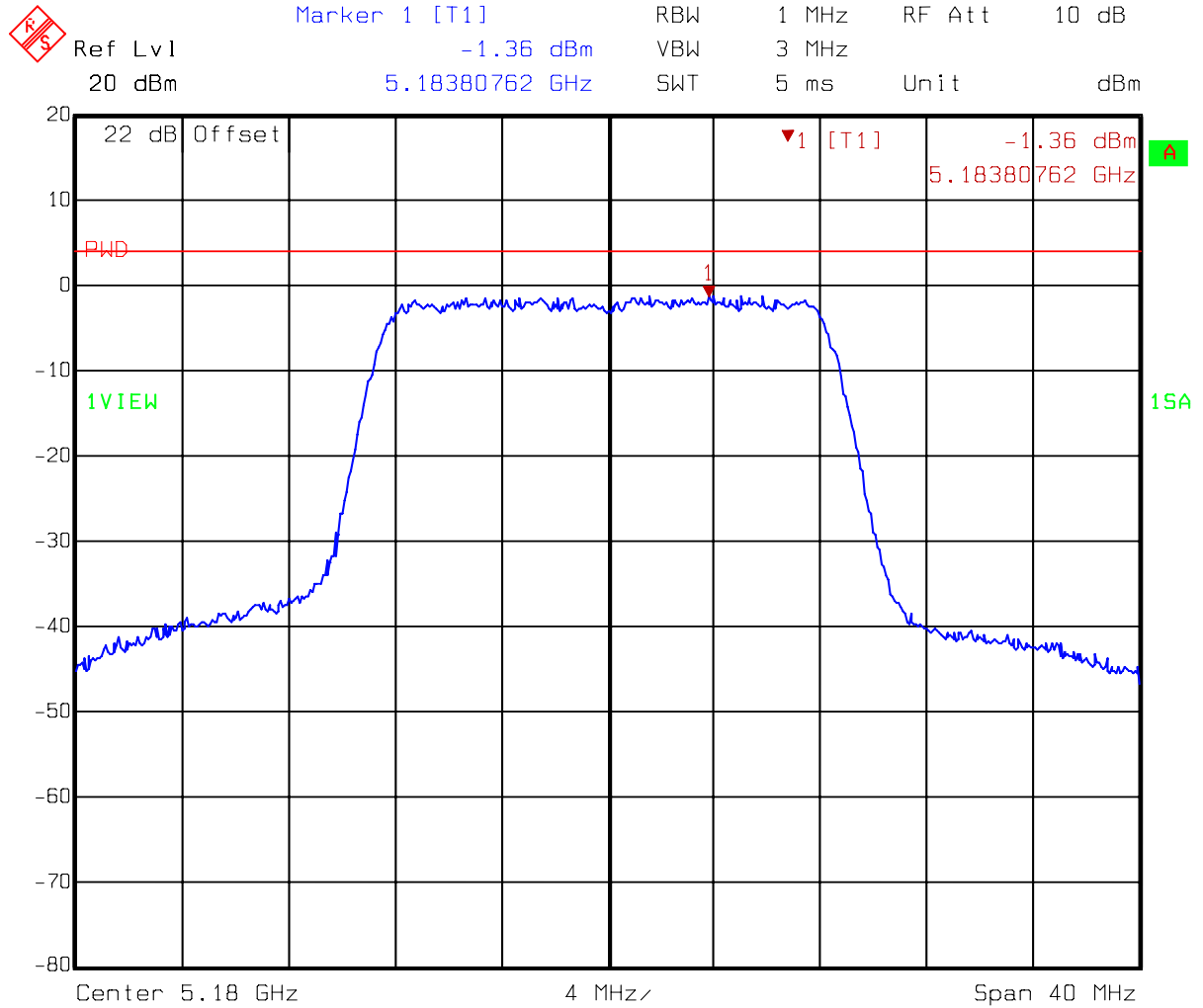
Single Tx
DACA: 802.11a CH64



Title: Power Density
Comment A: CH 64 at 802.11a mode
Date: 13.NOV.2007 15:29:48



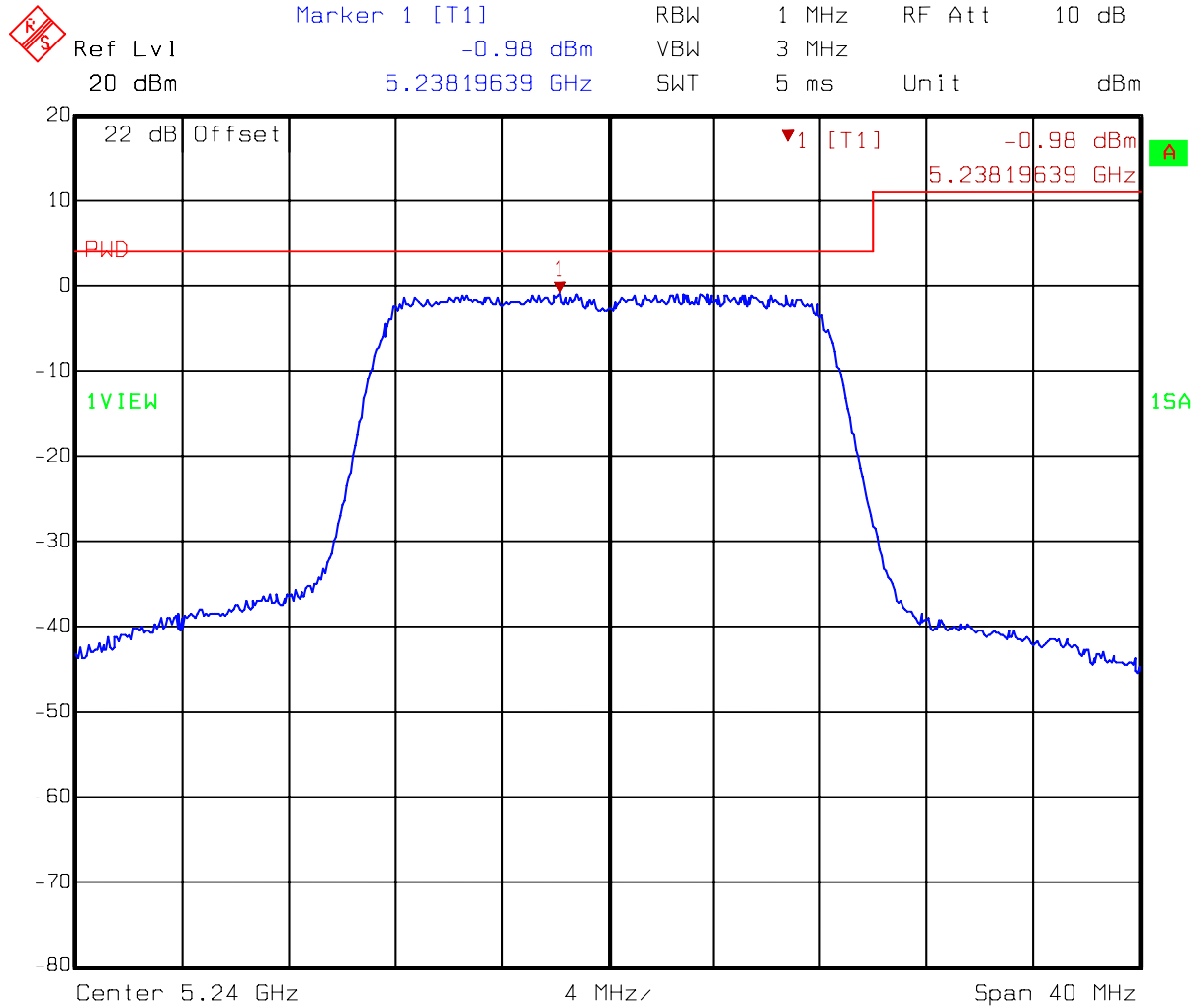
Single Tx
DACB: 802.11a CH36



Title: Power Density
Comment A: CH 36 at 802.11a mode
Date: 13.NOV.2007 14:45:07



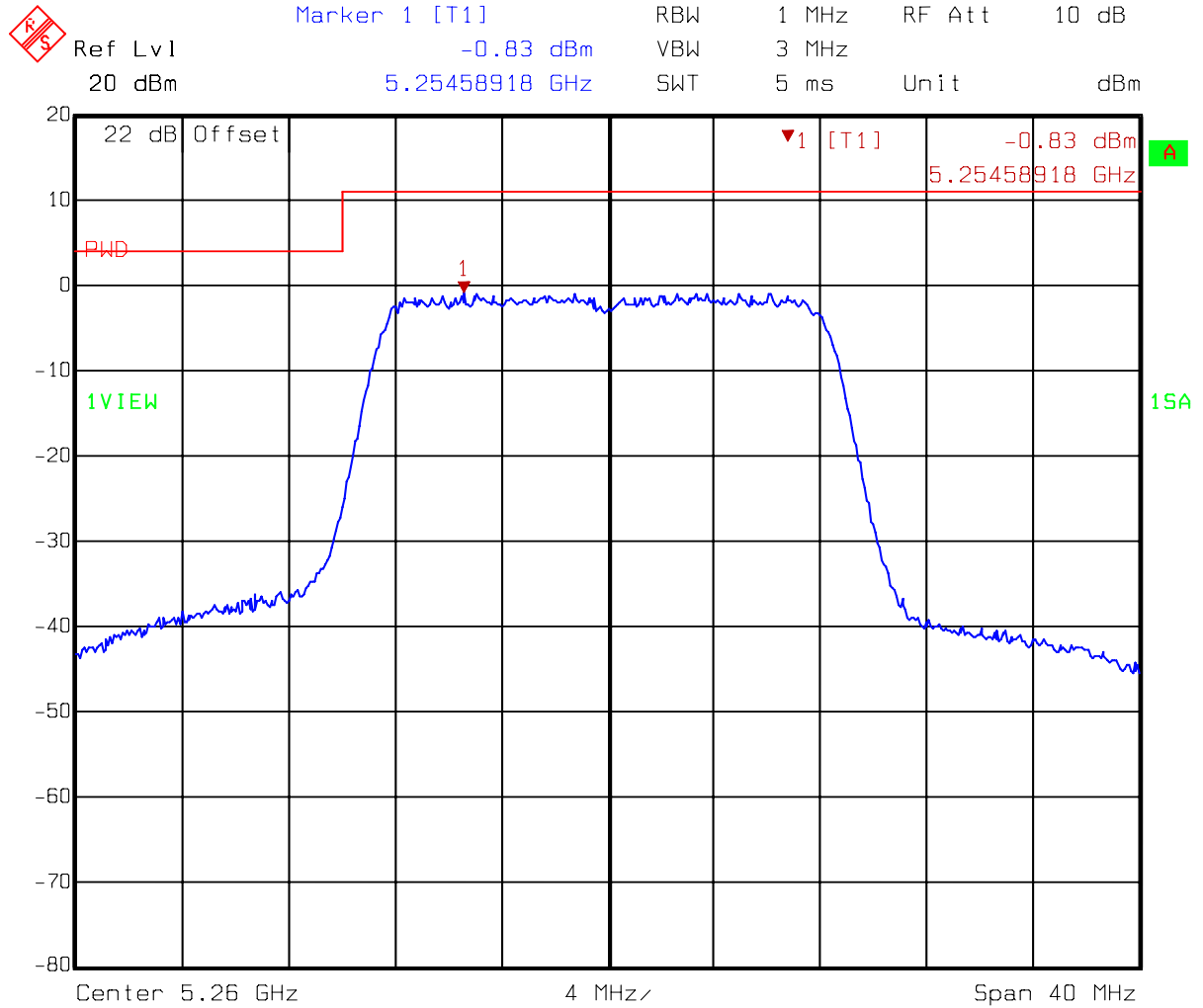
Single Tx
DACB: 802.11a CH48



Title: Power Density
Comment A: CH 48 at 802.11a mode
Date: 13.NOV.2007 14:54:24



Single Tx
DACB: 802.11a CH52



Title: Power Density
Comment A: CH 52 at 802.11a mode
Date: 13.NOV.2007 14:57:38