



EMC TEST REPORT

Report No.: TS08090052-EME

Model No.: NBG-460NH,X-550NH,

NBG-460N, X-550N

Issued Date: Sep. 19, 2008

Applicant: ZyXEL Communications Corporation.

6, Innovation Rd II, Science-Based Industrial Park,

Hsinchu, Taiwan

Test Method/

47 CFR FCC Part 15.247 & ANSI C63.4 2003

Standard:

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

Project

Sammi Liu

Rex Liao

Reviewed By

Jimmie Liu



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1. Summary of Test Data

Test/Requirement Description	Applicable Rule	Result
Minimum 6dB Bandwidth	15.247(a)(2)	Pass
Maximum Output Power	15.247(b)	Pass
Power Spectral Density	15.247(e)	Pass
RF Antenna Conducted Spurious	15.247(d)	Pass
Radiated Spurious Emission	15.247(d), 15.205, 15.209	Pass
Emission on the Band Edge	15.247(d)	Pass
AC Power Line Conducted Emission	15.207	Pass



2. General Information

Identification of the EUT

Applicant: ZyXEL Communications Corporation
Product: High-gain Wireless N Gigabit Router

Model No.: NBG-460NH FCC ID.: 188X550NHV2

Frequency Range: 2412 MHz to 2462 MHz for 802.11b/g/n HT20

2422 MHz to 2452 MHz for 802.11n HT40

Channel Number: 11 channels for 802.11b/g/n HT20

7 channels for 802.11n HT40

Rated Power: 100-240Vac, 50/60Hz with adapter (LEI, MU18-2180100-A1)

Power Cord: N/A

Sample Received: Aug. 29, 2008 Test Date(s): Aug. 29, 2008

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service is or has ever been under an Intertek certification

program.

Note 2: When determining the test conclusion, the Measurement

Uncertainty of test has been considered.



Description of EUT

48

54

28.87

28.66

The EUT is a High-gain Wireless N Gigabit Router; the device is a MIMO product, it's only triple transmitter.

The customer confirmed the models listed as below are series model to model NBG-460NH (EUT), the difference between main model and series model are listed as below.

Model Number <u>Different</u>

NBG-460NH Collocated with 6dBi antenna

X-550NH Same as NBG-460NH

NBG-460N Collocated with 1.8dBi antenna

X-550N Same as NBG-460N

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

802.11b ch6		802.11n(20) ch6		802.11n(40) ch6	
Data rate (Mbps)	PK(dBm)	Data rate (Mbps)	PK(dBm)	Data rate (Mbps)	PK(dBm)
1	24.58	6.5	29.86	13.5	25.85
2	23.96	13	29.62	27	24.95
5.5	23.79	19.5	29.45	40.5	24.71
11	23.66	26	29.39	54	24.51
802.11g ch6		39	29.39	81	24.35
Data rate (Mbps)	PK(dBm)	52	29.18	108	24.27
6	29.84	58.5	29.07	121.5	24.18
9	29.71	65	28.79	135	23.88
12	29.45				
18	29.21				
24	29.08				
36	28.99	1			



Antenna description

For NBG-460NH

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 : 6dBi max

Antenna Type : Omni-directional antenna

Connector Type: SMA Plug Reverse

For NBG-460N

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 : 1.8dBi max
Antenna Type : Dipole antenna

Connector Type: SMA Plug Reverse



3. Maximum 6 dB Bandwidth

Name of Test	Maximum 6dB Bandwidth
Base Standard	FCC 15.247 (a)(2)

Test Result: Complies

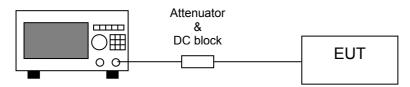
Measurement Data: See Table & plots below

Method of Measurement:

Reference FCC document: KDB558074

A portion of the transmitted signal is coupled to a Spectrum Analyzer with a resolution bandwidth of at least 1 % of the bandwidth of the transmitted signal. The resolution bandwidth is chosen so as not to reduce the peak level of the measured waveform. The appropriate bandwidth mask is applied to the output waveform to verify compliance.

Test Diagram:



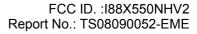
Spectrum Analyzer

Note: The EUT was tested while in a continuous transmit mode was tuned to a low, middle and high channel.



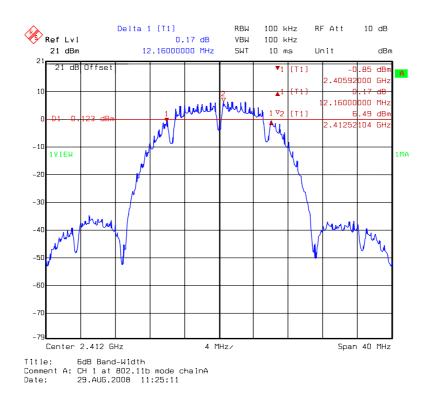
Table 1. Maximum 6dB Bandwidth

Mode	Channel	Frequency	6dB Bandwidth (MHz)			Min. Limit	Pass/Fail
Mode	Charmer	(MHz)	Chain A	Chain B	Chain C	(MHz)	rass/raii
802.11b	1	2412	12.16	12.72	13.04	0.5	Pass
	6	2437	12.56	12.64	12.64	0.5	Pass
	11	2462	12.24	12.64	12.64	0.5	Pass
802.11g	1	2412	16.72	16.56	16.72	0.5	Pass
	6	2437	16.56	16.64	16.72	0.5	Pass
	11	2462	16.88	16.72	16.56	0.5	Pass
802.11n HT20	1	2412	17.76	17.44	17.84	0.5	Pass
	6	2437	17.84	17.44	17.84	0.5	Pass
	11	2462	17.68	17.04	17.84	0.5	Pass
802.11n HT40	3	2422	36.66	36.30	36.66	0.5	Pass
	6	2437	36.78	36.66	36.78	0.5	Pass
	9	2452	36.78	37.02	36.78	0.5	Pass

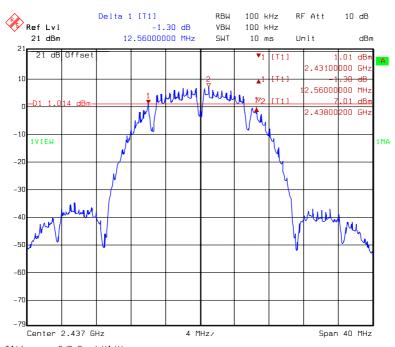




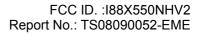
Chain A: 6dB Bandwidth @ 802.11b mode channel 1



Chain A: 6dB Bandwidth @ 802.11b mode channel 6

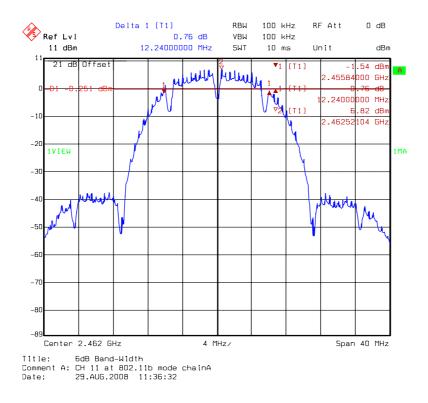


Title: 6dB Band-Width
Comment A: CH 6 at 802.11b mode chainA
Date: 29.AUG.2008 11:28:04

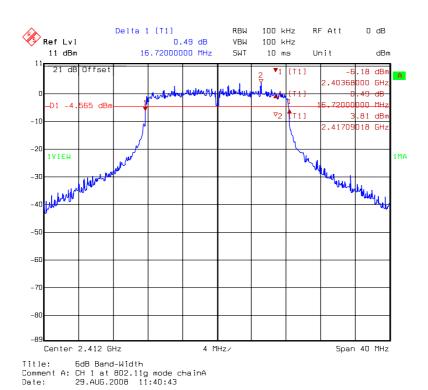


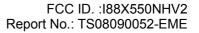


Chain A: 6dB Bandwidth @ 802.11b mode channel 11



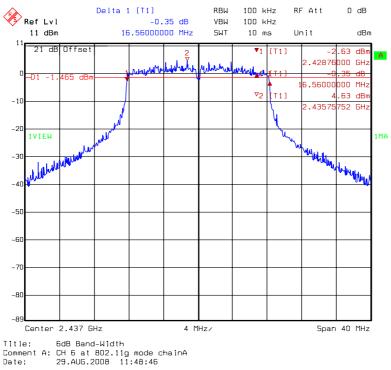
Chain A: 6dB Bandwidth @ 802.11g mode channel 1



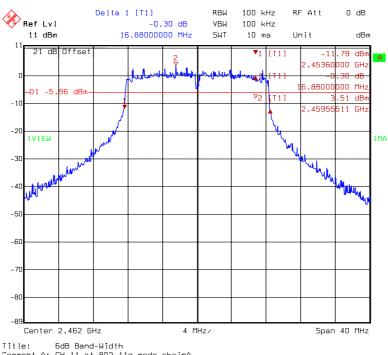




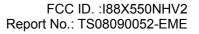
Chain A: 6dB Bandwidth @ 802.11g mode channel 6



Chain A: 6dB Bandwidth @ 802.11g mode channel 11

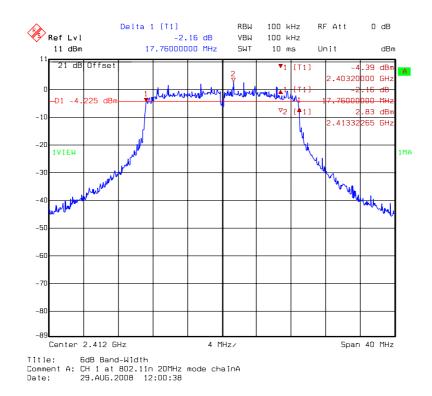


Comment A: CH 11 at 802.11g mode chainA Date: 29.AUG.2008 11:56:17

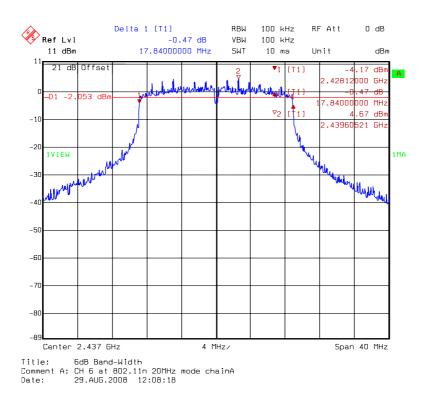


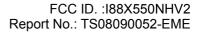


Chain A: 6dB Bandwidth @ 802.11n HT20 mode channel 1



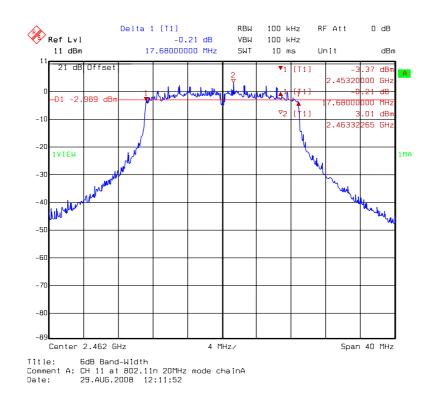
Chain A: 6dB Bandwidth @ 802.11n HT20 mode channel 6



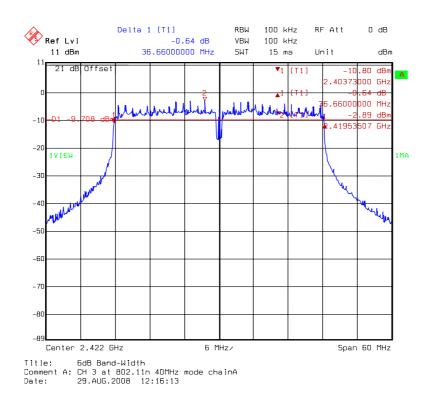


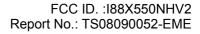


Chain A: 6dB Bandwidth @ 802.11n HT20 mode channel 11



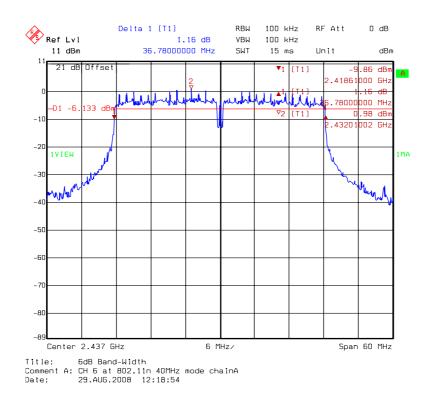
Chain A: 6dB Bandwidth @ 802.11n HT40 mode channel 3



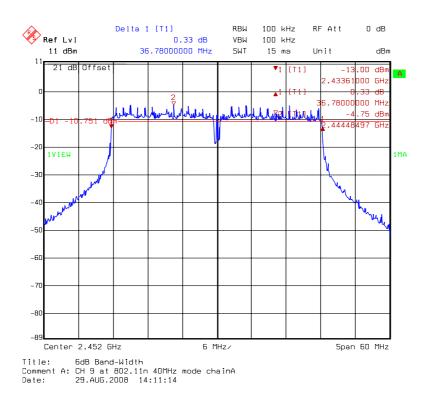


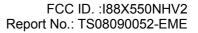


Chain A: 6dB Bandwidth @ 802.11n HT40 mode channel 6



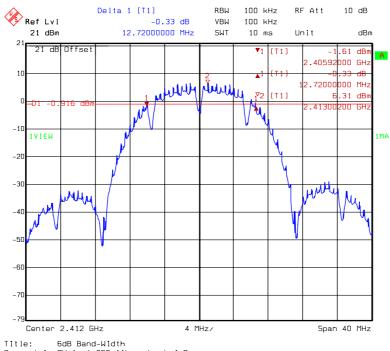
Chain A: 6dB Bandwidth @ 802.11n HT40 mode channel 9





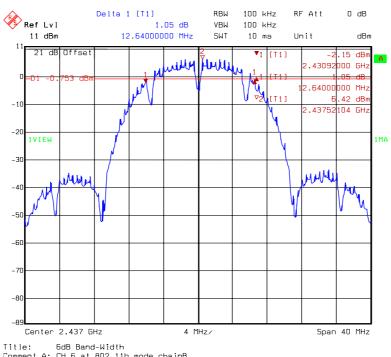


Chain B: 6dB Bandwidth @ 802.11b mode channel 1

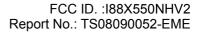


Title: 6dB Band-Width
Comment A: CH 1 at 802.11b mode chainB
Date: 29.AUG.2008 14:51:10

Chain B: 6dB Bandwidth @ 802.11b mode channel 6

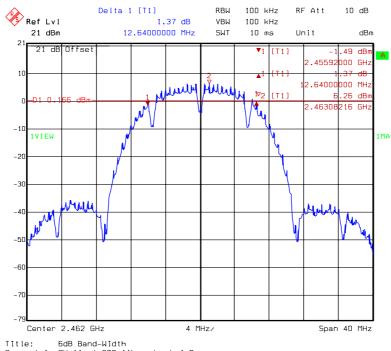


Comment A: CH 6 at 802.11b mode chainB Date: 29.AUG.2008 14:54:26



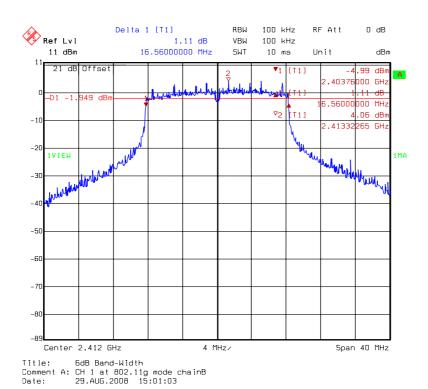


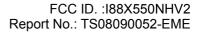
Chain B: 6dB Bandwidth @ 802.11b mode channel 11



Title: 6dB Band-Width
Comment A: CH 11 at 802.11b mode chainB
Date: 29.AUG.2008 14:57:19

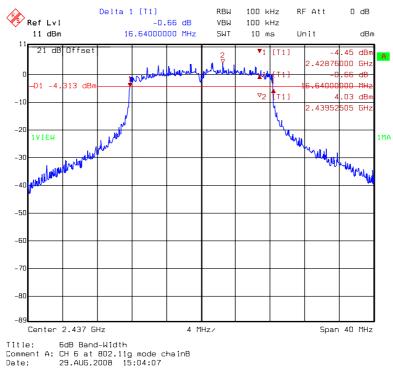
Chain B: 6dB Bandwidth @ 802.11g mode channel 1



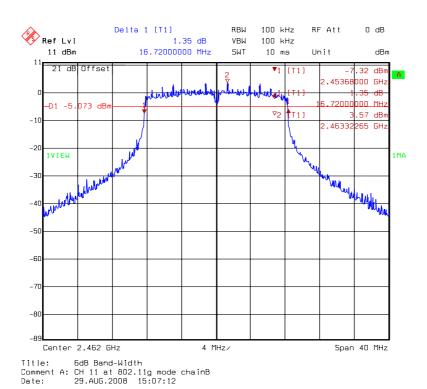




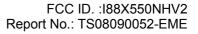
Chain B: 6dB Bandwidth @ 802.11g mode channel 6



Chain B: 6dB Bandwidth @ 802.11g mode channel 11

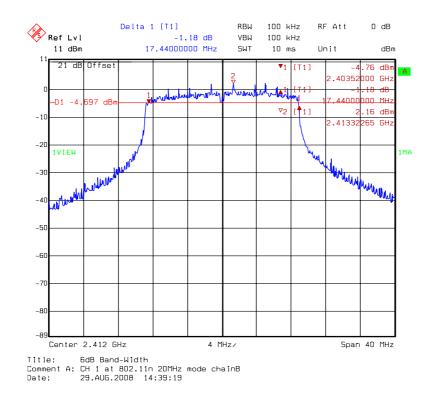


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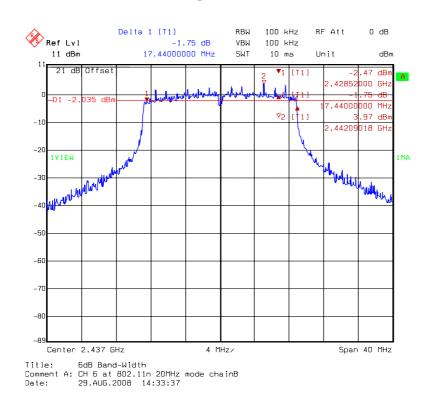


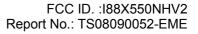


Chain B: 6dB Bandwidth @ 802.11n HT20 mode channel 1



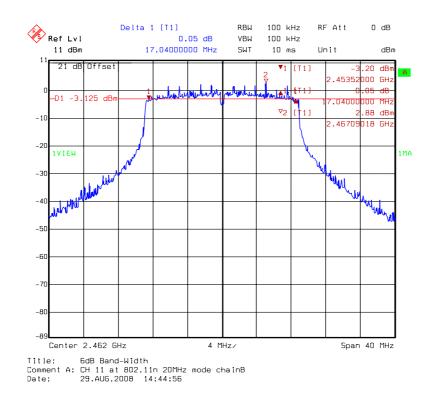
Chain B: 6dB Bandwidth @ 802.11n HT20 mode channel 6



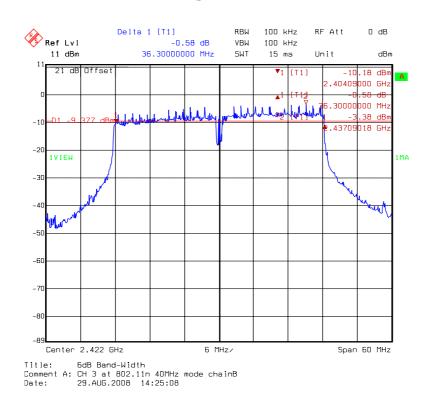


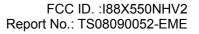


Chain B: 6dB Bandwidth @ 802.11n HT20 mode channel 11



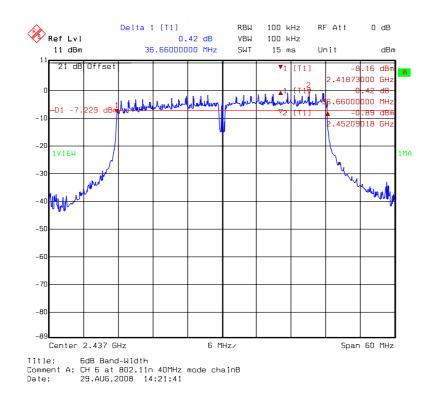
Chain B: 6dB Bandwidth @ 802.11n HT40 mode channel 3



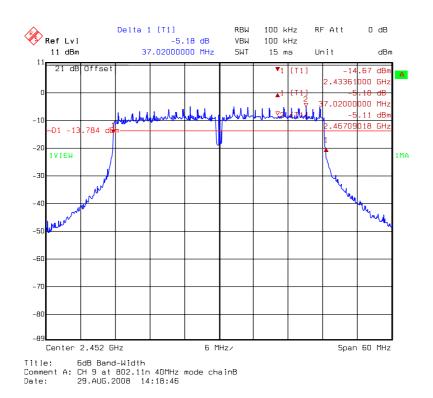


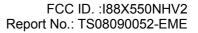


Chain B: 6dB Bandwidth @ 802.11n HT40 mode channel 6



Chain B: 6dB Bandwidth @ 802.11n HT40 mode channel 9



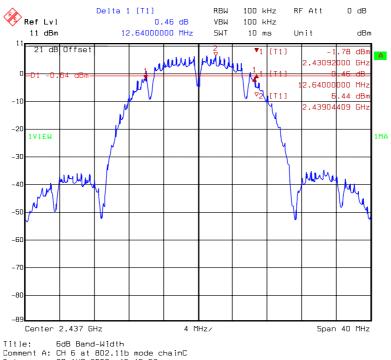


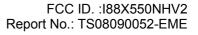


Chain C: 6dB Bandwidth @ 802.11b mode channel 1



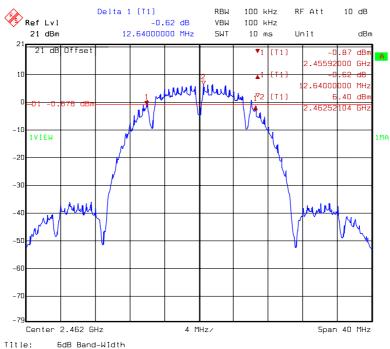
Chain C: 6dB Bandwidth @ 802.11b mode channel 6





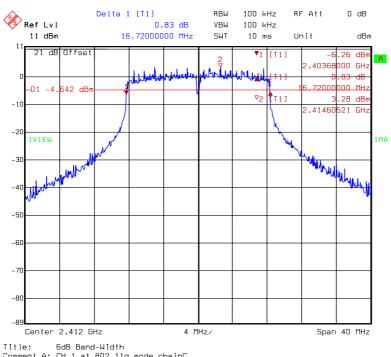


Chain C: 6dB Bandwidth @ 802.11b mode channel 11

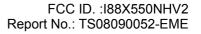


Title: 6dB Band-Width
Comment A: CH 11 at 802.11b mode chainC
Date: 29.AUG.2008 15:23:49

Chain C: 6dB Bandwidth @ 802.11g mode channel 1

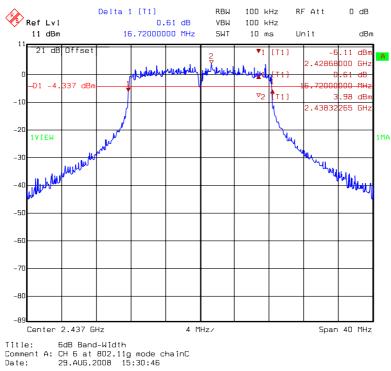


Comment A: CH 1 at 802.11g mode chainC Date: 29.AUG.2008 15:27:52

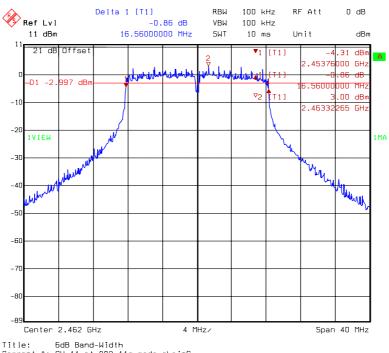




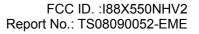
Chain C: 6dB Bandwidth @ 802.11g mode channel 6



Chain C: 6dB Bandwidth @ 802.11g mode channel 11

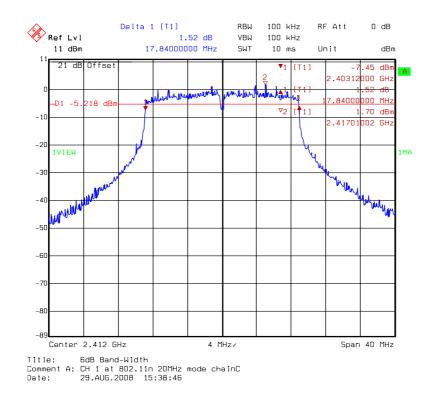


Comment A: CH 11 at 802.11g mode chainC Date: 29.AUG.2008 15:33:45

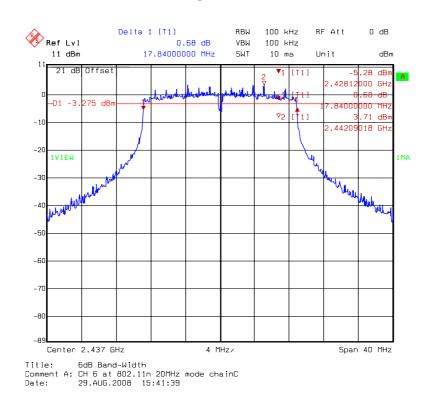


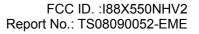


Chain C: 6dB Bandwidth @ 802.11n HT20 mode channel 1



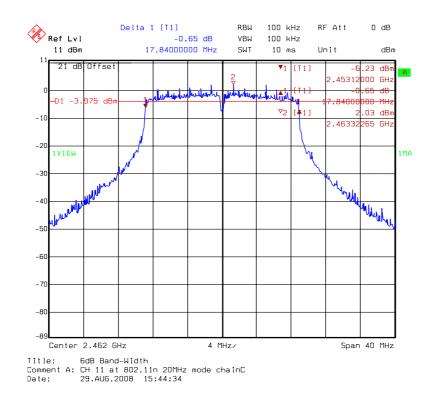
Chain C: 6dB Bandwidth @ 802.11n HT20 mode channel 6



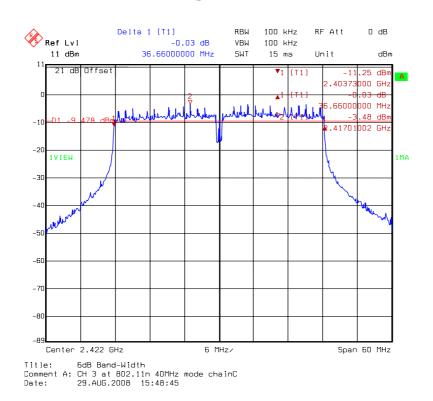


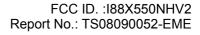


Chain C: 6dB Bandwidth @ 802.11n HT20 mode channel 11



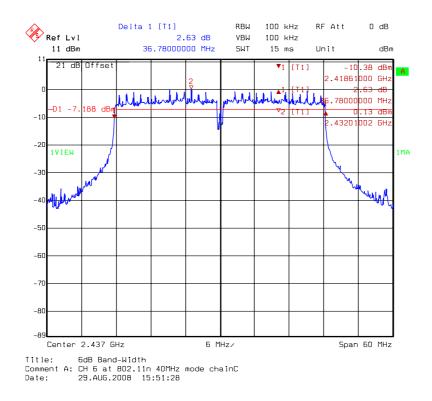
Chain C: 6dB Bandwidth @ 802.11n HT40 mode channel 3



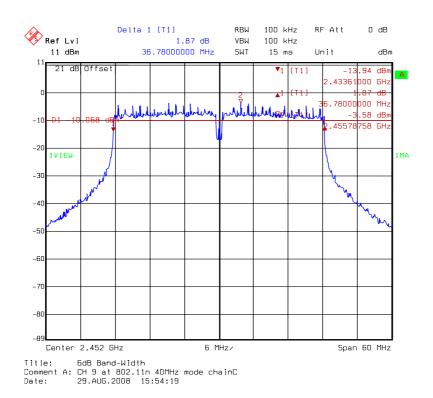


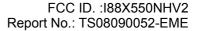


Chain C: 6dB Bandwidth @ 802.11n HT40 mode channel 6



Chain C: 6dB Bandwidth @ 802.11n HT40 mode channel 9







4. 99% Occupied Bandwidth

Name of Test	99% Occupied Bandwidth		
Base Standard	None; for reporting purposes only		

Test Result: Complies

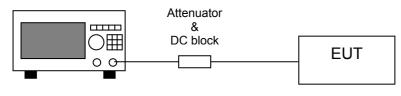
Measurement Data: See Table & plots below

Method of Measurement:

Reference FCC document: KDB558074

A portion of the transmitted signal is coupled to a Spectrum Analyzer with a resolution bandwidth of at least 1 % of the bandwidth of the transmitted signal. The resolution bandwidth is chosen so as not to reduce the peak level of the measured waveform. The appropriate bandwidth mask is applied to the output waveform to verify compliance.

Test Diagram:



Spectrum Analyzer

Note: The EUT was tested while in a continuous transmit mode and the worst case data rates are 1 Mbps for 802.11b, 6 Mbps for 802.11g and 6.5Mbps data rate for 802.11n HT20, 13.5Mbps data rate for 802.11n HT40. The EUT was tuned to a low, middle and high channel.

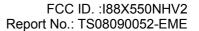
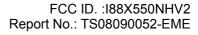




Table 2. 99% Occupied Bandwidth

Mode	Channel	Frequency	Occupied Bandwidth (MHz)			
Wode		(MHz)	Chain A	Chain B	Chain C	
802.11b	1	2412	15.07	15.31	15.15	
	6	2437	14.99	15.23	15.15	
	11	2462	15.07	15.07	15.23	
802.11g	1	2412	16.51	16.43	16.51	
	6	2437	16.51	16.43	16.43	
	11	2462	16.51	16.51	16.43	
802.11n HT20	1	2412	17.64	17.72	17.64	
	6	2437	17.64	17.64	17.64	
	11	2462	17.64	17.64	17.64	
802.11n HT40	3	2422	36.19	36.19	36.31	
	6	2437	36.19	36.31	36.31	
	9	2452	36.31	36.31	36.31	

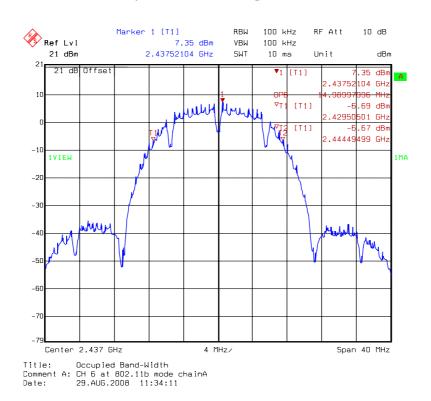


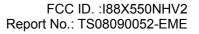


Chain A: 99% Occupied Bandwidth @ 802.11b mode channel 1



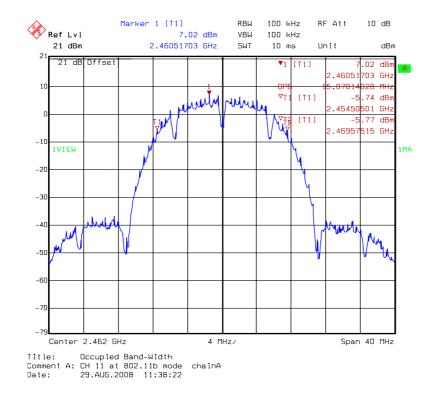
Chain A: 99% Occupied Bandwidth @ 802.11b mode channel 6



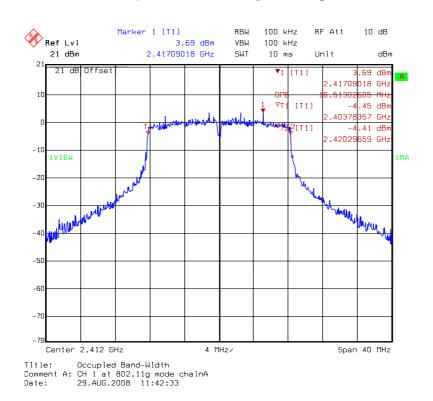


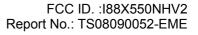


Chain A: 99% Occupied Bandwidth @ 802.11b mode channel 11



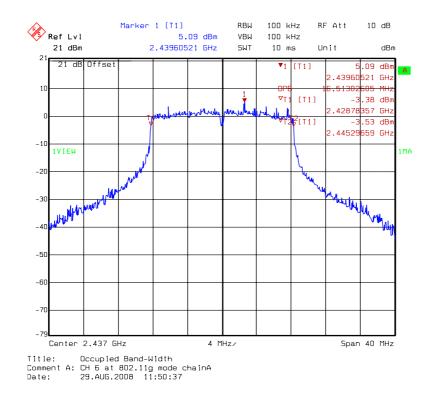
Chain A: 99% Occupied Bandwidth @ 802.11g mode channel 1



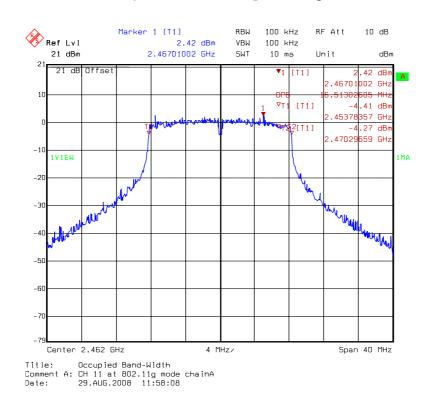


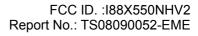


Chain A: 99% Occupied Bandwidth @ 802.11g mode channel 6



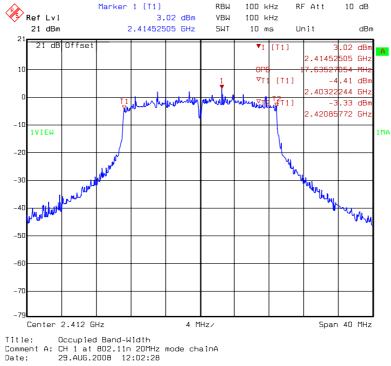
Chain A: 99% Occupied Bandwidth @ 802.11g mode channel 11



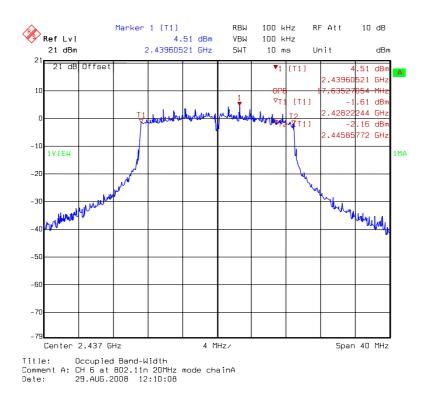




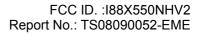
Chain A: 99% Occupied Bandwidth @ 802.11n HT20 mode channel 1



Chain A: 99% Occupied Bandwidth @ 802.11n HT20 mode channel 6

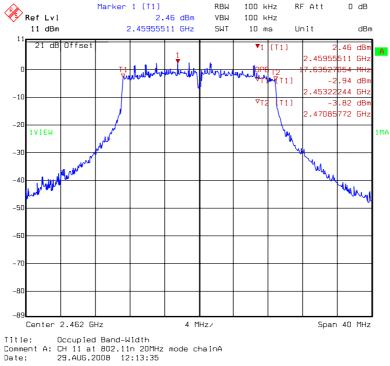


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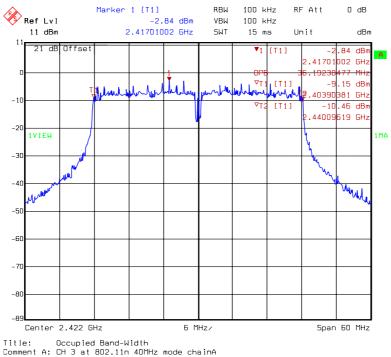




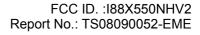
Chain A: 99% Occupied Bandwidth @ 802.11n HT20 mode channel 11



Chain A: 99% Occupied Bandwidth @ 802.11n HT40 mode channel 3

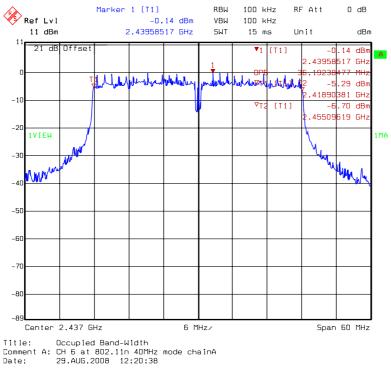


Comment A: CH 3 at 802.11n 40MHz mode chainA
Date: 29.AUG.2008 12:17:56

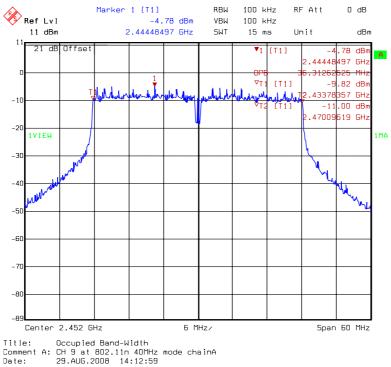


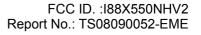


Chain A: 99% Occupied Bandwidth @ 802.11n HT40 mode channel 6



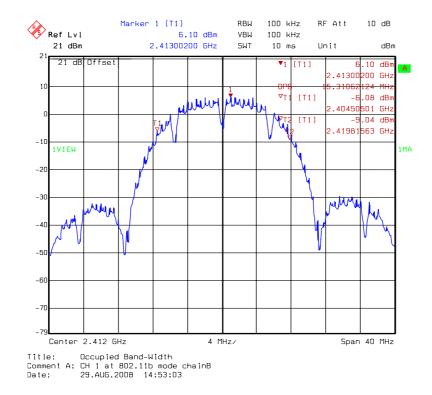
Chain A: 99% Occupied Bandwidth @ 802.11n HT40 mode channel 9





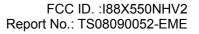


Chain B: 99% Occupied Bandwidth @ 802.11b mode channel 1



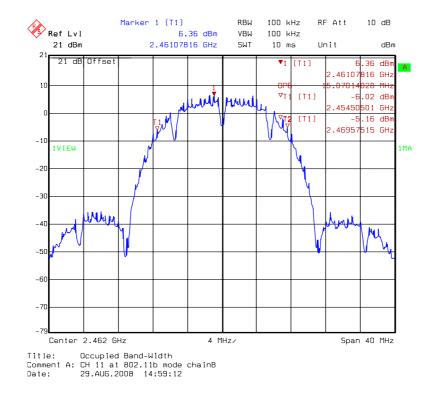
Chain B: 99% Occupied Bandwidth @ 802.11b mode channel 6



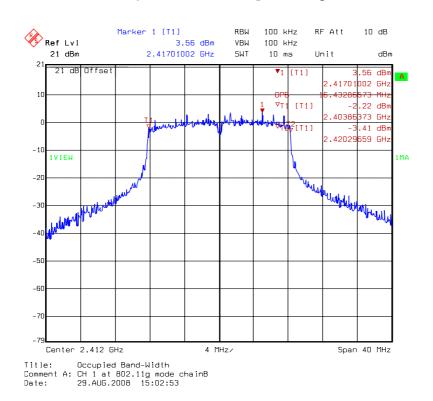


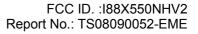


Chain B: 99% Occupied Bandwidth @ 802.11b mode channel 11



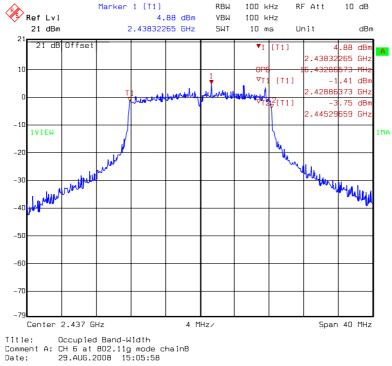
Chain B: 99% Occupied Bandwidth @ 802.11g mode channel 1



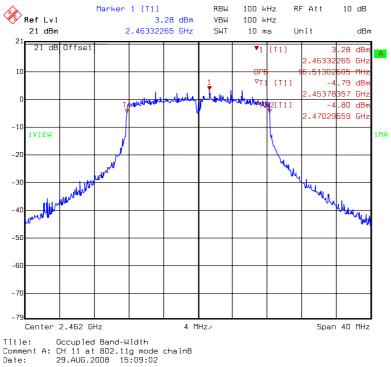


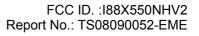


Chain B: 99% Occupied Bandwidth @ 802.11g mode channel 6



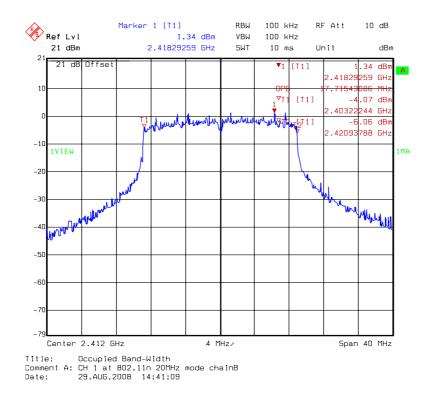
Chain B: 99% Occupied Bandwidth @ 802.11g mode channel 11



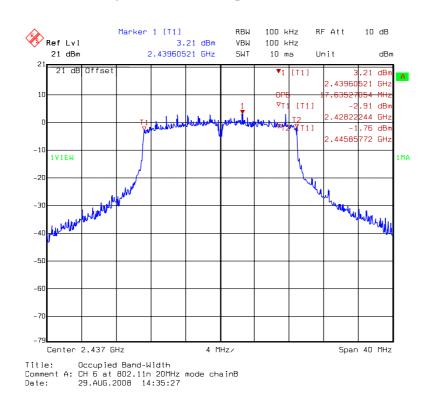


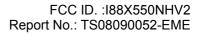


Chain B: 99% Occupied Bandwidth @ 802.11n HT20 mode channel 1



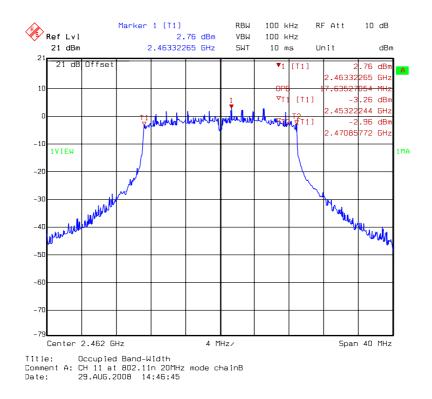
Chain B: 99% Occupied Bandwidth @ 802.11n HT20 mode channel 6



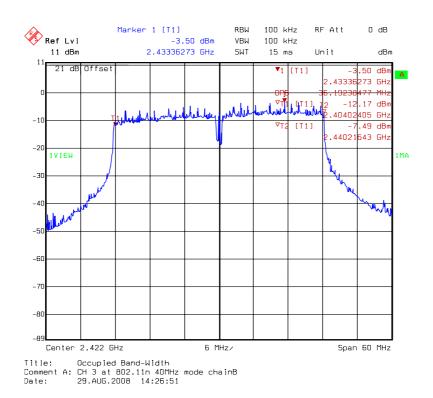


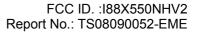


Chain B: 99% Occupied Bandwidth @ 802.11n HT20 mode channel 11



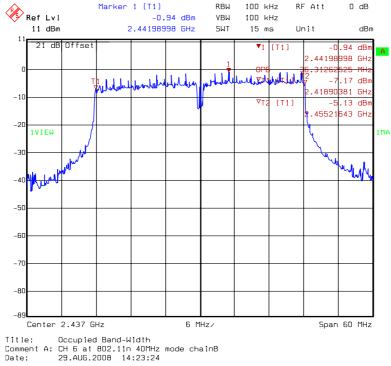
Chain B: 99% Occupied Bandwidth @ 802.11n HT40 mode channel 3



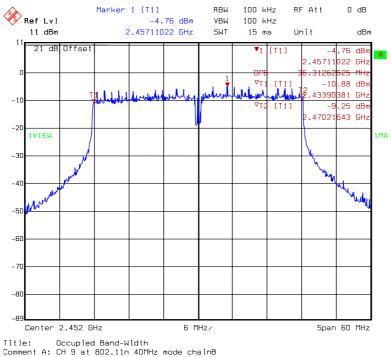




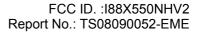
Chain B: 99% Occupied Bandwidth @ 802.11n HT40 mode channel 6



Chain B: 99% Occupied Bandwidth @ 802.11n HT40 mode channel 9

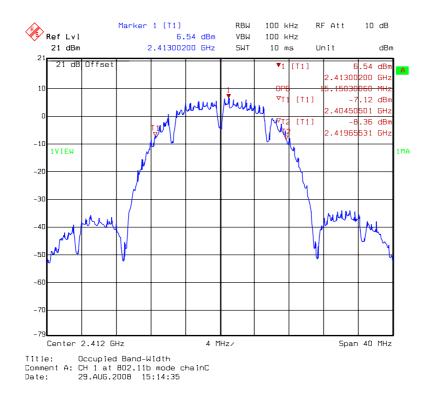


Comment A: CH 9 at 802.11n 40MHz mode chainB Date: 29.AUG.2008 14:20:30

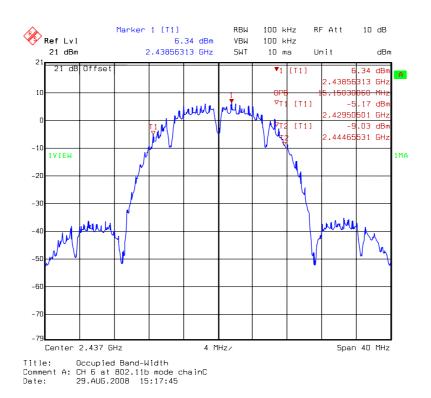


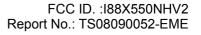


Chain C: 99% Occupied Bandwidth @ 802.11b mode channel 1



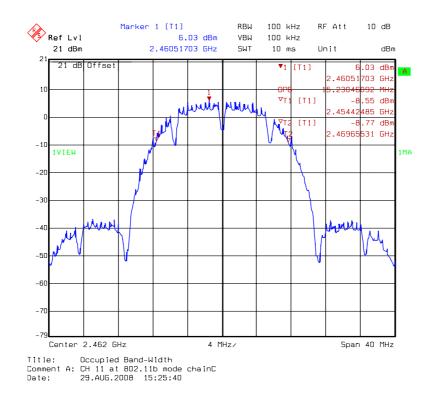
Chain C: 99% Occupied Bandwidth @ 802.11b mode channel 6



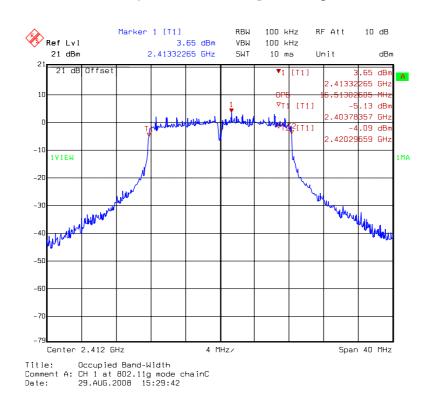


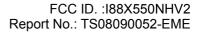


Chain C: 99% Occupied Bandwidth @ 802.11b mode channel 11



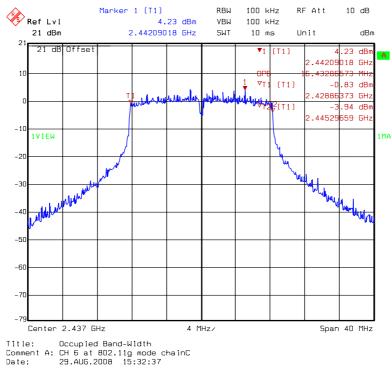
Chain C: 99% Occupied Bandwidth @ 802.11g mode channel 1



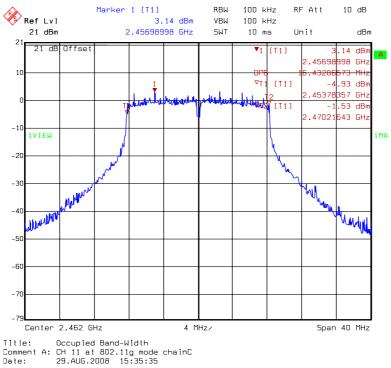


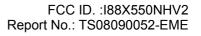


Chain C: 99% Occupied Bandwidth @ 802.11g mode channel 6



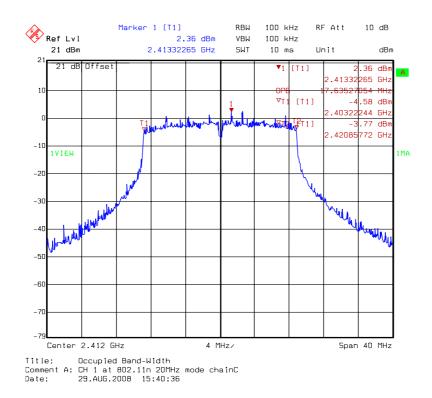
Chain C: 99% Occupied Bandwidth @ 802.11g mode channel 11



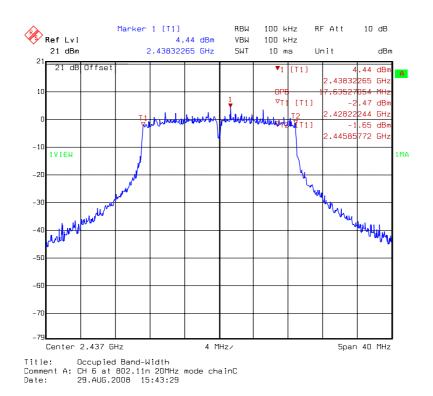


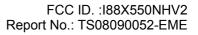


Chain C: 99% Occupied Bandwidth @ 802.11n HT20 mode channel 1



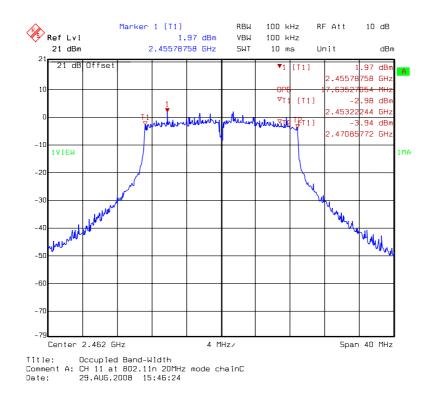
Chain C: 99% Occupied Bandwidth @ 802.11n HT20 mode channel 6



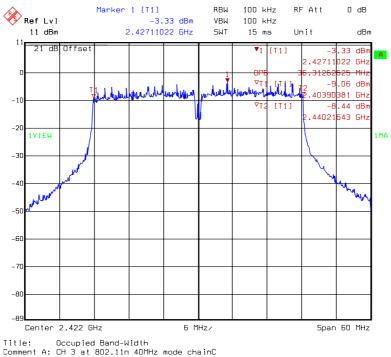




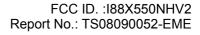
Chain C: 99% Occupied Bandwidth @ 802.11n HT20 mode channel 11



Chain C: 99% Occupied Bandwidth @ 802.11n HT40 mode channel 3

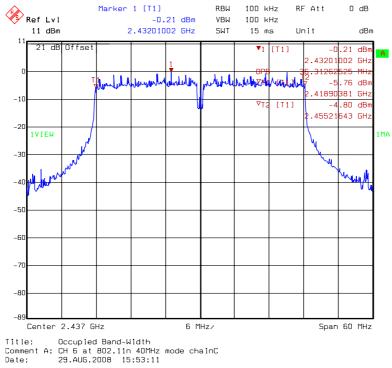


Comment A: CH 3 at 802.11n 40MHz mode chainC Date: 29.AUG.2008 15:50:29

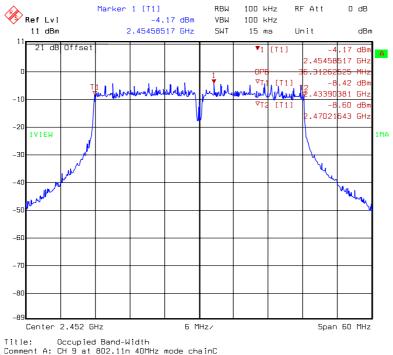




Chain C: 99% Occupied Bandwidth @ 802.11n HT40 mode channel 6



Chain C: 99% Occupied Bandwidth @ 802.11n HT40 mode channel 9



Comment A: CH 9 at 802.11n 40MHz mode chainC Date: 29.AUG.2008 15:56:02





5. Maximum Output Power

Name of Test	Maximum output power
Base Standard	FCC 15.247(b)

Measurement Uncertainty: ±2dB (k=2)
Test Result: Complies

Measurement Data: See Table below

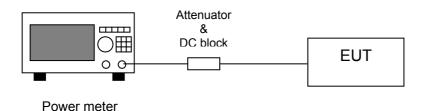
Method of Measurement:

Reference FCC document: KDB558074

The power output was measured on the EUT using a 50 ohm SMA Cable connected to peak power meter via power sensor or spectrum Analyzer for below 20MHz bandwidth. For 40MHz bandwidth (HT40 mode), the spectrum analyzer was used.

Power output was measured with the maximum rated input level.

Test Diagram:



Note: The EUT was tested while in a continuous transmit mode and the worst case data rates are 1 Mbps data rate for 802.11b mode, 6 Mbps data rate for 802.11g mode, 6.5 Mbps data rate for 802.11n HT20 mode and 13.5 Mbps data rate for 802.11n HT40 mode. The EUT was tuned to a low, middle and high channel.



FCC ID. :188X550NHV2 Report No.: TS08090052-EME

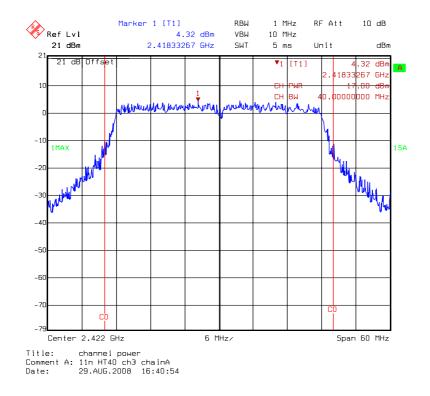
Table 3. Maximum output power

Single Tx

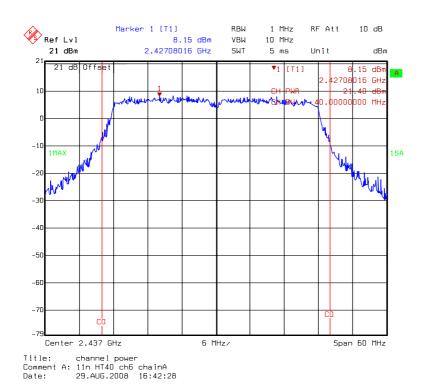
Mode	Channel	Frequency (MHz)	Data	Outpu	ıt Power	(dBm)	Total Power (PK) mW dBm		Limit	Margin
			Rate	Chain A	Chain B	Chain C			Limit (dBm)	Margin (dB)
			(Mbps)	PK	PK	PK				
802.11b	1	2412		19.88	20.08	19.99	298.90	24.76	30	-5.24
	6	2437	1	20.03	19.82	19.56	287.00	24.58	30	-5.42
	11	2462		19.84	20.03	19.64	289.12	24.61	30	-5.39
802.11g	1	2412	6	24.35	24.25	24.96	851.67	29.30	30	-0.70
	6	2437		25.11	25.00	25.09	963.42	29.84	30	-0.16
	11	2462		24.90	25.13	25.11	959.21	29.82	30	-0.18
802.11n HT20	1	2412	6.5	23.40	23.38	23.96	685.43	28.36	30	-1.64
	6	2437		25.21	24.86	25.19	968.46	29.86	30	-0.14
	11	2462		24.23	24.39	24.23	804.49	29.06	30	-0.94
802.11n HT40	3	2422		17.00	18.04	18.21	180.02	22.55	30	-7.45
	6	2437	13.5	21.40	21.22	20.57	384.50	25.85	30	-4.15
	9	2452		18.00	17.16	17.77	174.94	22.43	30	-7.57



Chain A: Channel power @ 802.11n HT40 mode channel 3

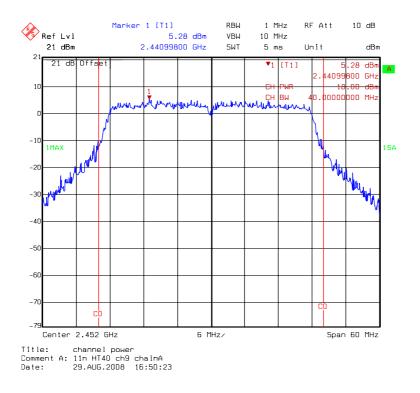


Chain A: Channel power @ 802.11n HT40 mode channel 6

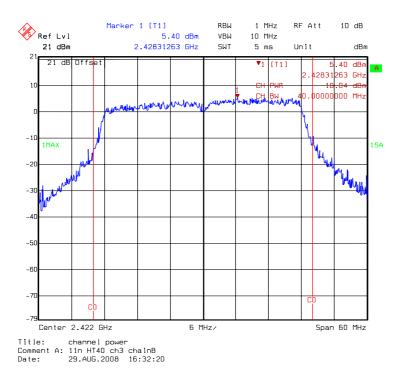




Chain A: Channel power @ 802.11n HT40 mode channel 9

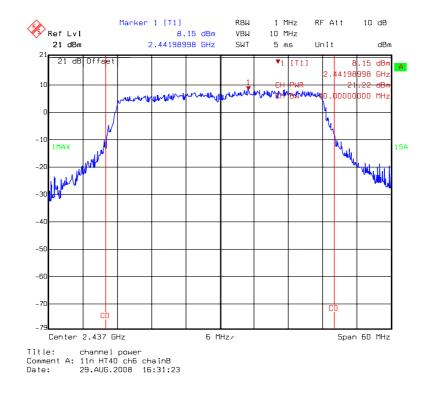


Chain B: Channel power @ 802.11n HT40 mode channel 3

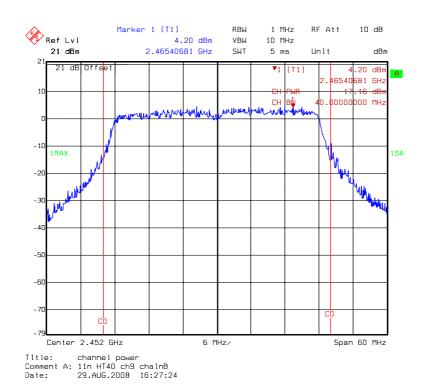




Chain B: Channel power @ 802.11n HT40 mode channel 6

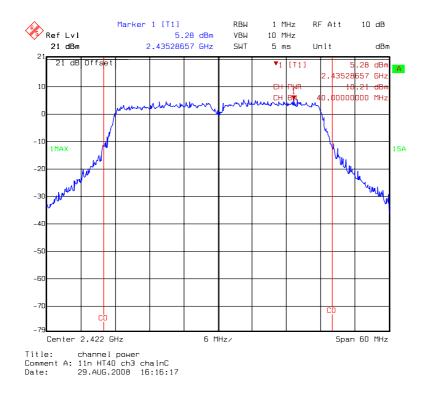


Chain B: Channel power @ 802.11n HT40 mode channel 9

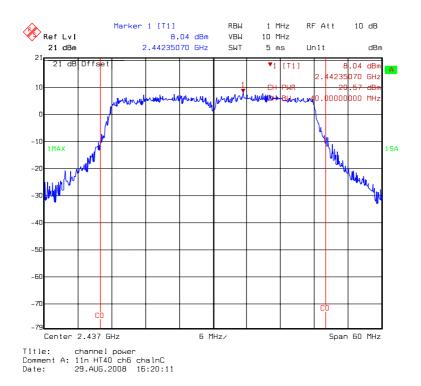




Chain C: Channel power @ 802.11n HT40 mode channel 3

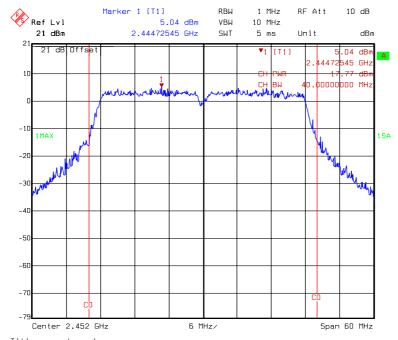


Chain C: Channel power @ 802.11n HT40 mode channel 6





Chain C: Channel power @ 802.11n HT40 mode channel 9



Title: channel power
Comment A: 11n HT40 ch9 chainC
Date: 29.AUG.2008 16:24:25





6. Power Spectral Density

Name of Test	Power Spectral Density
Base Standard	FCC 15.247(e)

Test Result: Complies

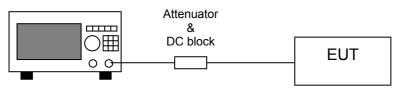
Measurement Data: See Table & plots below

Method of Measurement:

Reference FCC document: KDB558074

A portion of the transmitted signal is coupled to a Spectrum Analyzer with a resolution bandwidth of at least 1 % of the bandwidth of the transmitted signal. The resolution bandwidth is chosen so as not to reduce the peak level of the measured waveform. The appropriate bandwidth mask is applied to the output waveform to verify compliance.

Test Diagram:



Spectrum Analyzer

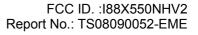
Note: The EUT was tested while in a continuous transmit mode and the worst case data rates are 1 Mbps data rate for 802.11b mode, 6 Mbps data rate for 802.11g mode, 6.5 Mbps data rate for 802.11n HT20 mode and 13.5 Mbps data rate for 802.11n HT40 mode. The EUT was tuned to a low, middle and high channel.



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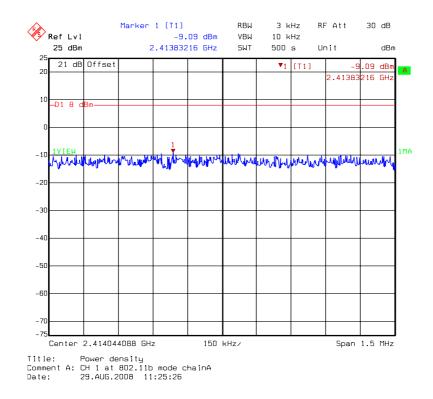
Table 4. Power Spectral Density

Mode	Channel	Frequency (MHz)	F	SD (dBn	n)	Total	otal Total PSD		Margin
			Chain A	Chain B	Chain C	PSD (mW)	(dBm)	Limit (dBm)	(dB)
802.11b	1	2412	-9.09	-8.85	-7.83	0.42	-3.78	8	-11.78
	6	2437	-6.54	-8.89	-8.97	0.48	-3.21	8	-11.21
	11	2462	-7.51	-8.83	-8.97	0.44	-3.61	8	-11.61
802.11g	1	2412	-12.38	-9.98	-11.43	0.23	-6.38	8	-14.38
	6	2437	-9.41	-10.75	-9.72	0.31	-5.15	8	-13.15
	11	2462	-11.65	-10.35	-11.41	0.23	-6.33	8	-14.33
802.11n HT20	1	2412	-14.27	-12.38	-12.71	0.15	-8.27	8	-16.27
	6	2437	-9.55	-10.54	-10.73	0.28	-5.47	8	-13.47
	11	2462	-12.41	-11.77	-14.01	0.16	-7.86	8	-15.86
802.11n HT40	3	2422	-18	-18.12	-19.36	0.04	-13.68	8	-21.68
	6	2437	-14.48	-15.5	-16.16	0.09	-10.55	8	-18.55
	9	2452	-19.29	-16.34	-18.66	0.05	-13.13	8	-21.13

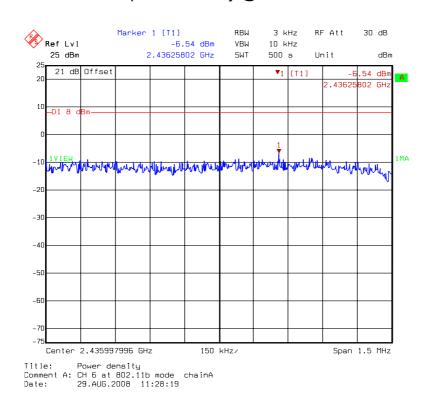


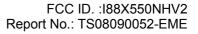


Chain A: Power Spectral Density @ 802.11b mode channel 1



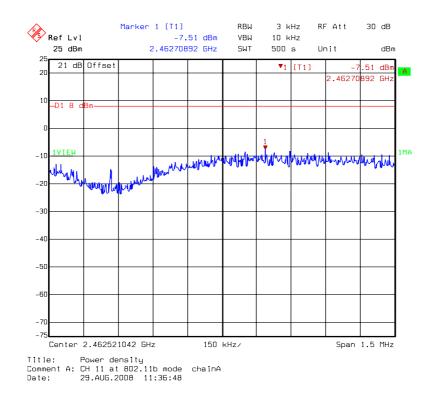
Chain A: Power Spectral Density @ 802.11b mode channel 6



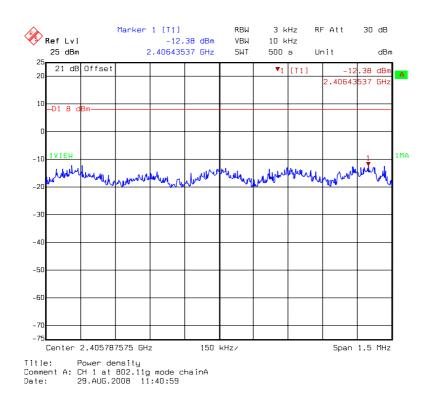


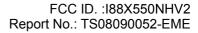


Chain A: Power Spectral Density @ 802.11b mode channel 11



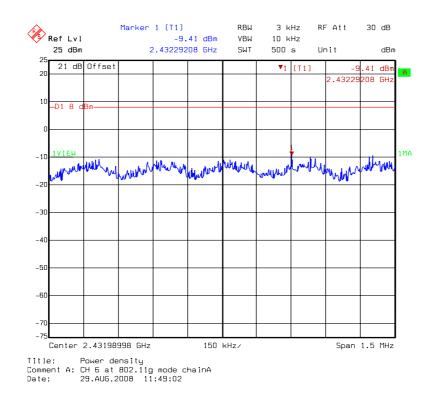
Chain A: Power Spectral Density @ 802.11g mode channel 1



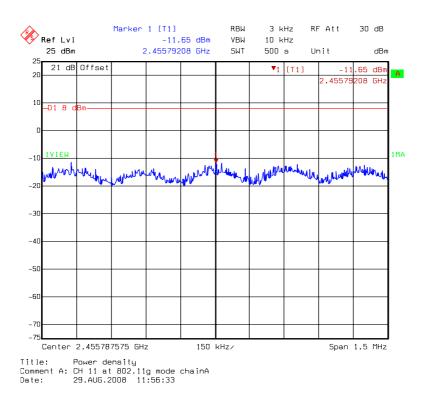


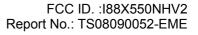


Chain A: Power Spectral Density @ 802.11g mode channel 6



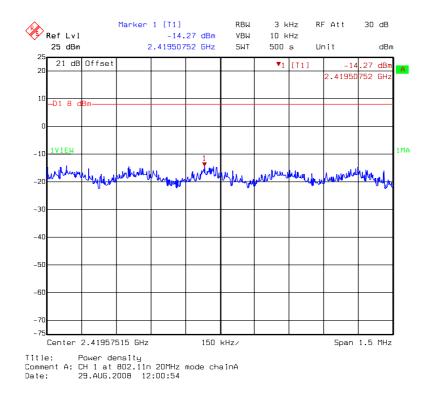
Chain A: Power Spectral Density @ 802.11g mode channel 11



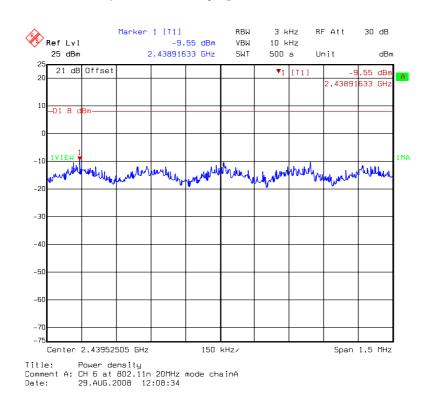


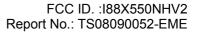


Chain A: Power Spectral Density @ 802.11n HT20 mode channel 1



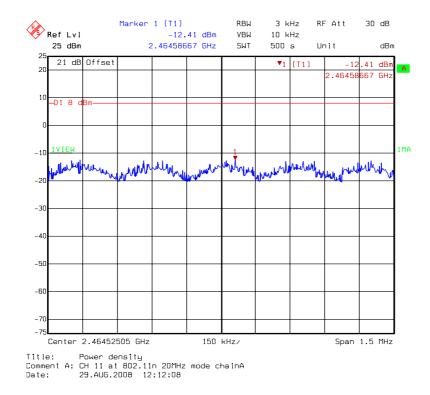
Chain A: Power Spectral Density @ 802.11n HT20 mode channel 6



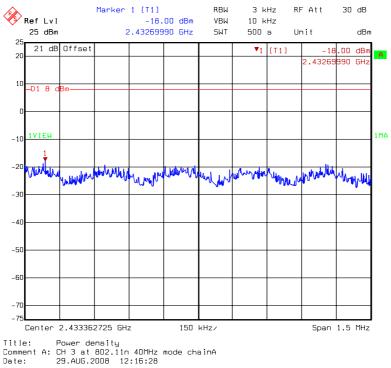




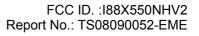
Chain A: Power Spectral Density @ 802.11n HT20 mode channel 11



Chain A: Power Spectral Density @ 802.11n HT40 mode channel 3

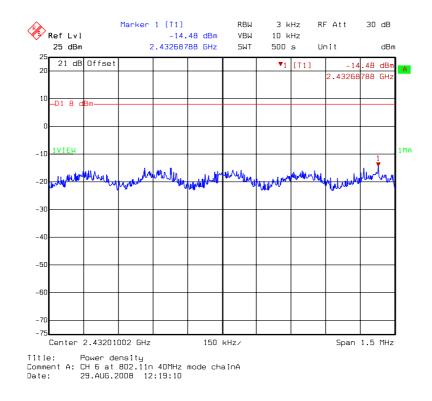


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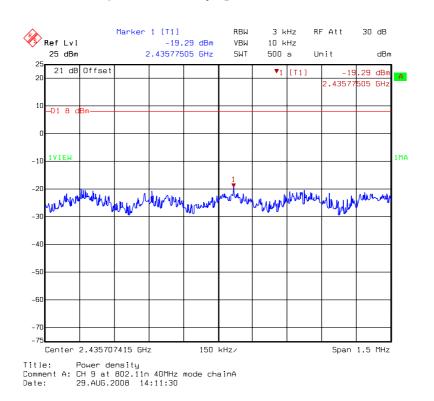


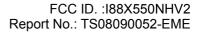


Chain A: Power Spectral Density @ 802.11n HT40 mode channel 6



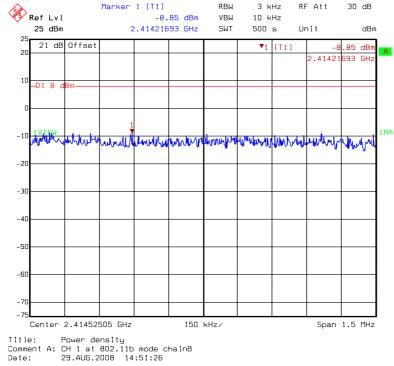
Chain A: Power Spectral Density @ 802.11n HT40 mode channel 9



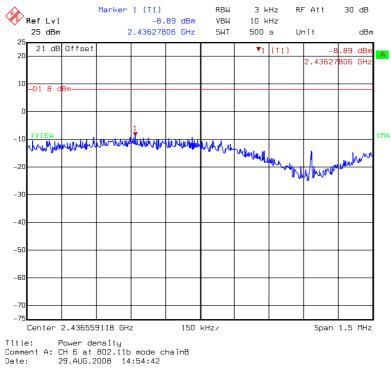


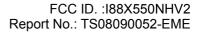


Chain B: Power Spectral Density @ 802.11b mode channel 1



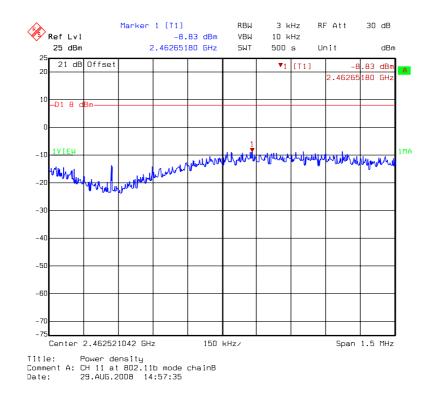
Chain B: Power Spectral Density @ 802.11b mode channel 6



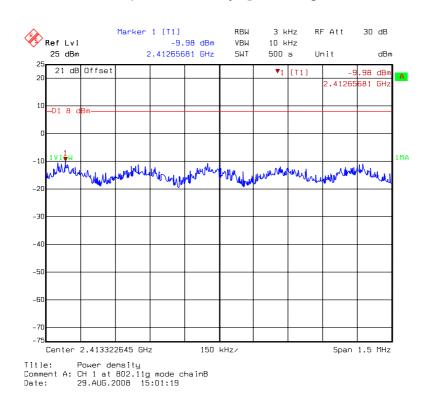


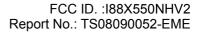


Chain B: Power Spectral Density @ 802.11b mode channel 11



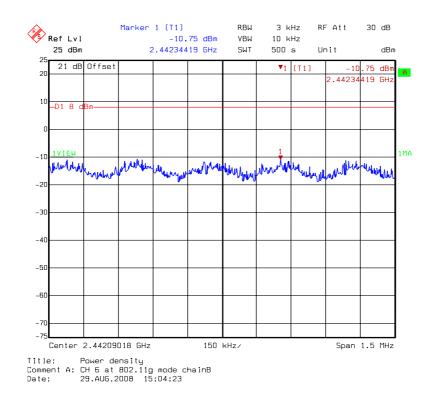
Chain B: Power Spectral Density @ 802.11g mode channel 1



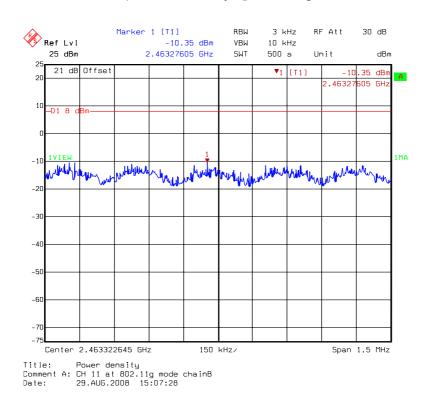


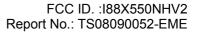


Chain B: Power Spectral Density @ 802.11g mode channel 6



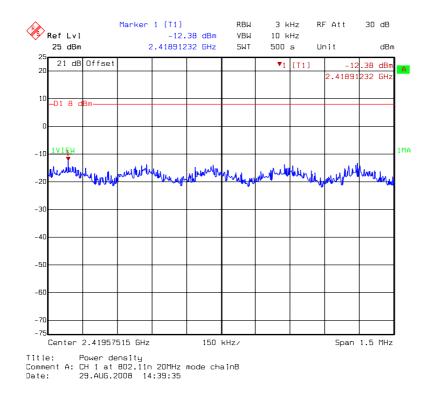
Chain B: Power Spectral Density @ 802.11g mode channel 11



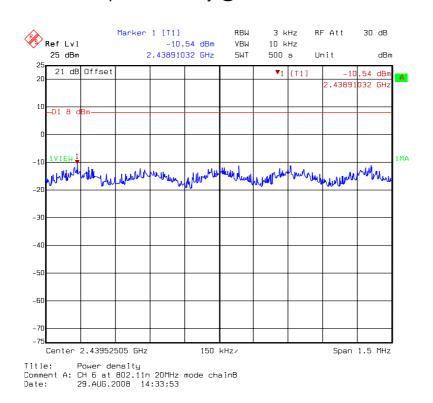


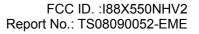


Chain B: Power Spectral Density @ 802.11n HT20 mode channel 1



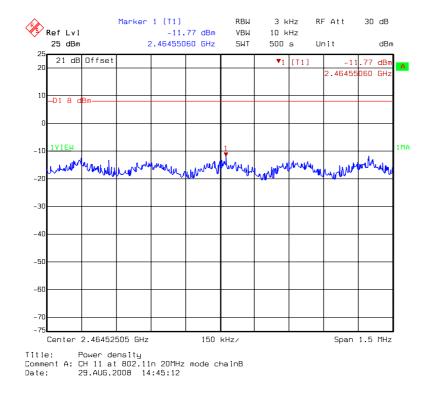
Chain B: Power Spectral Density @ 802.11n HT20 mode channel 6



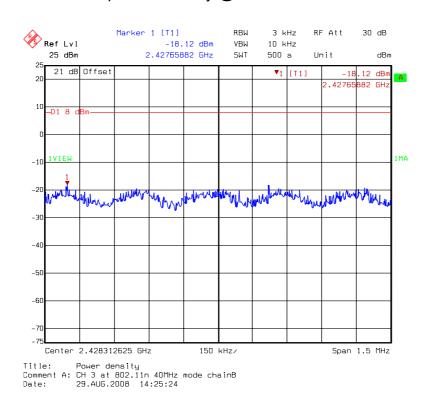


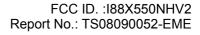


Chain B: Power Spectral Density @ 802.11n HT20 mode channel 11



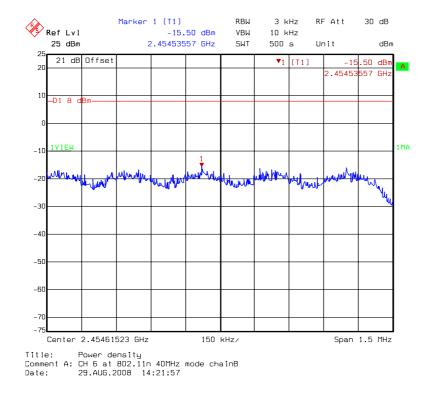
Chain B: Power Spectral Density @ 802.11n HT40 mode channel 3



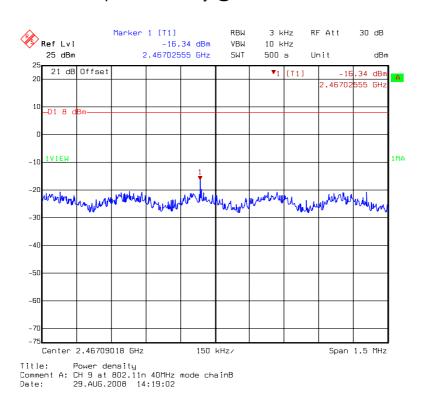


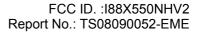


Chain B: Power Spectral Density @ 802.11n HT40 mode channel 6



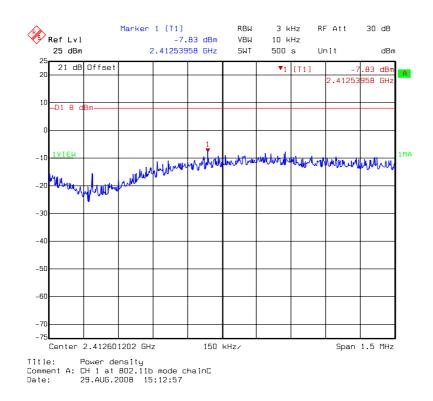
Chain B: Power Spectral Density @ 802.11n HT40 mode channel 9



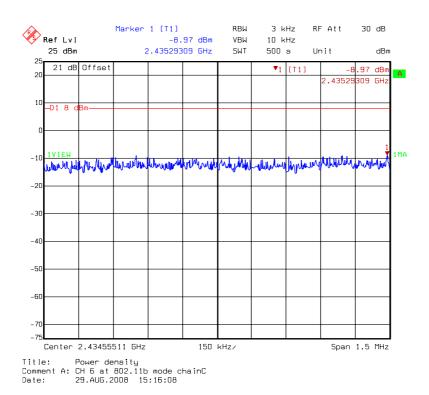


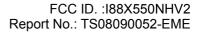


Chain C: Power Spectral Density @ 802.11b mode channel 1



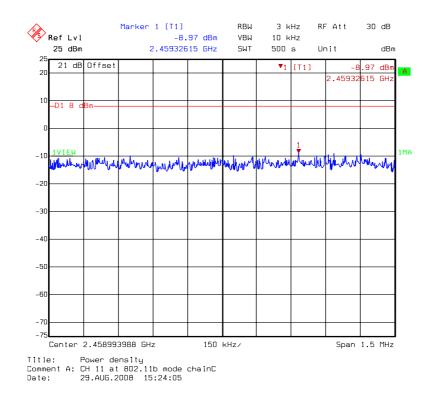
Chain C: Power Spectral Density @ 802.11b mode channel 6



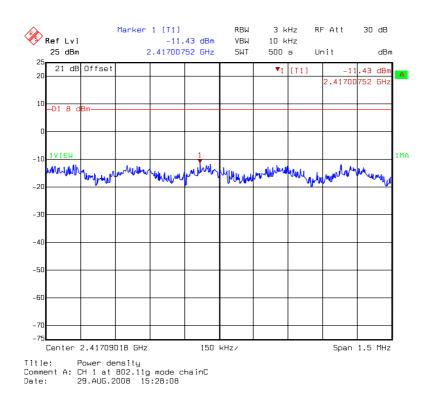


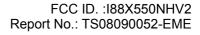


Chain C: Power Spectral Density @ 802.11b mode channel 11



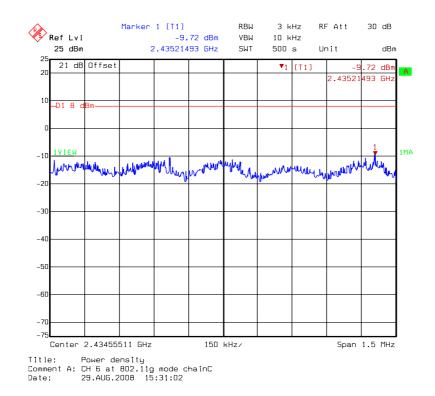
Chain C: Power Spectral Density @ 802.11g mode channel 1



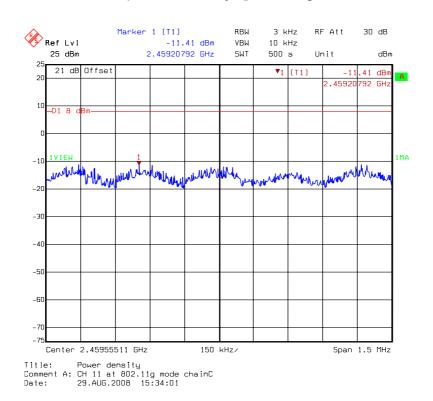


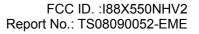


Chain C: Power Spectral Density @ 802.11g mode channel 6



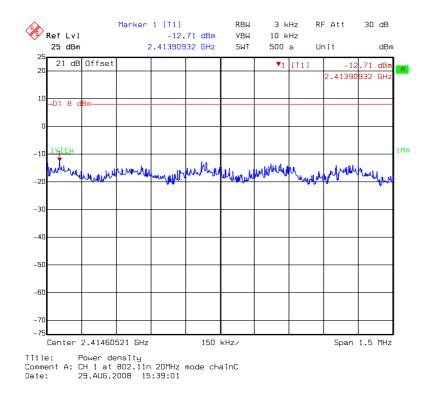
Chain C: Power Spectral Density @ 802.11g mode channel 11



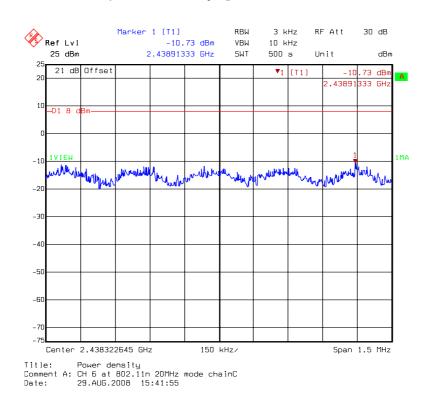


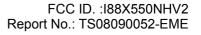


Chain C: Power Spectral Density @ 802.11n HT20 mode channel 1



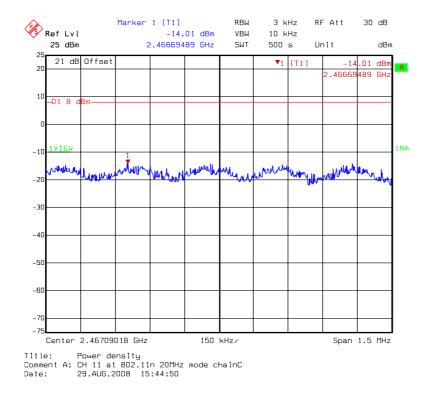
Chain C: Power Spectral Density @ 802.11n HT20 mode channel 6



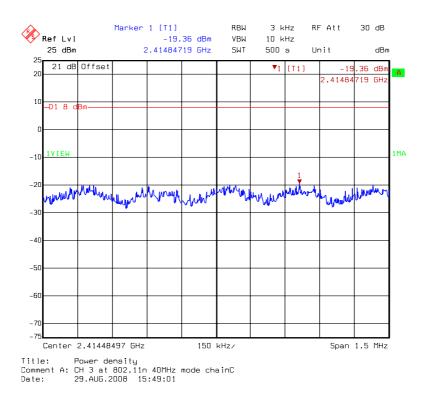




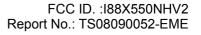
Chain C: Power Spectral Density @ 802.11n HT20 mode channel 11



Chain C: Power Spectral Density @ 802.11n HT40 mode channel 3

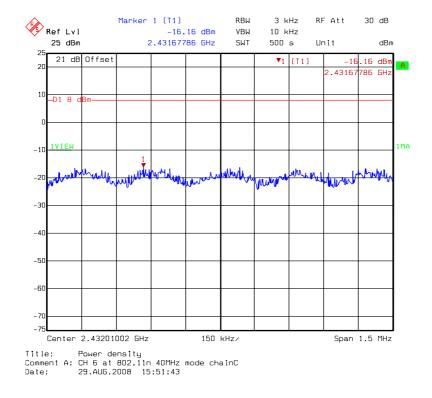


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Chain C: Power Spectral Density @ 802.11n HT40 mode channel 6



Chain C: Power Spectral Density @ 802.11n HT40 mode channel 9

