6. MAXIMUM CONDUCTED OUTPUT POWER

6.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E			
Test Item	Frequency Range (MHz)	Limit	Result
Conducted Output Power	5150 - 5250	not exceed the lesser of 50 mW (17dBm) or 4 dBm + 10log B,	PASS

Note: where "B" is the 26 dB emissions bandwidth in MHz.

6.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Nov. 09.2014

Remark: "N/A" denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

6.1.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

b.

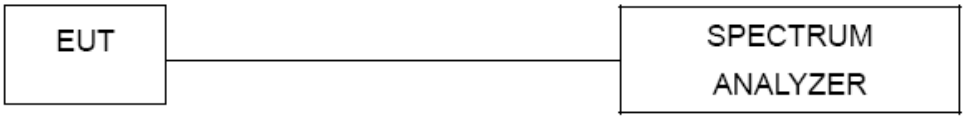
Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	= 1 MHz.
VBW	⩾ 3 MHz.
Detector	RMS
Trace	Max Hold
Sweep Time	auto

b. Test was performed in accordance with method of KDB 789033 D01.

6.1.3 DEVIATION FROM STANDARD

No deviation.

6.1.4 TEST SETUP



6.1.5 EUT OPERATION CONDITIONS

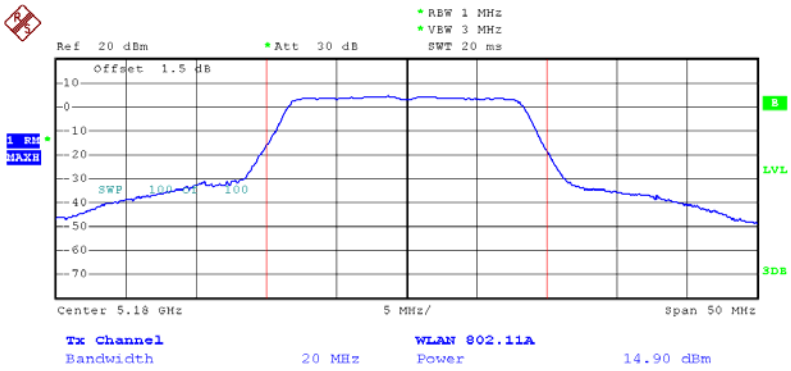
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

6.1.6 TEST RESULTS

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX A Mode/CH36, CH40, CH48		

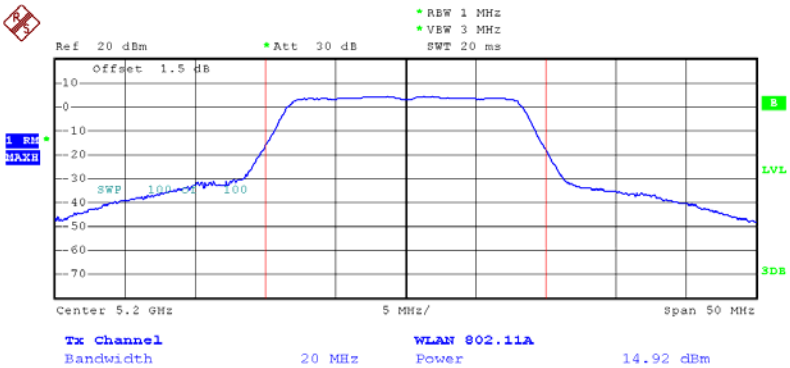
Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH36	5180	14.90	17.00	0.0501
CH40	5200	14.92	17.00	0.0501
CH48	5240	14.98	17.00	0.0501

CH36



Date: 17.OCT.2013 14:27:14

CH40



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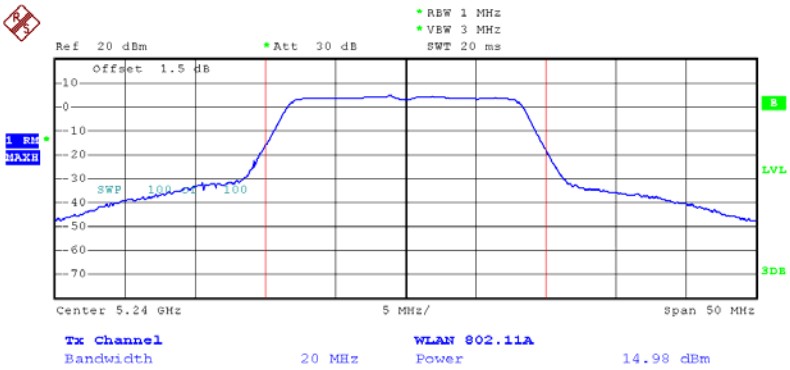
CH48

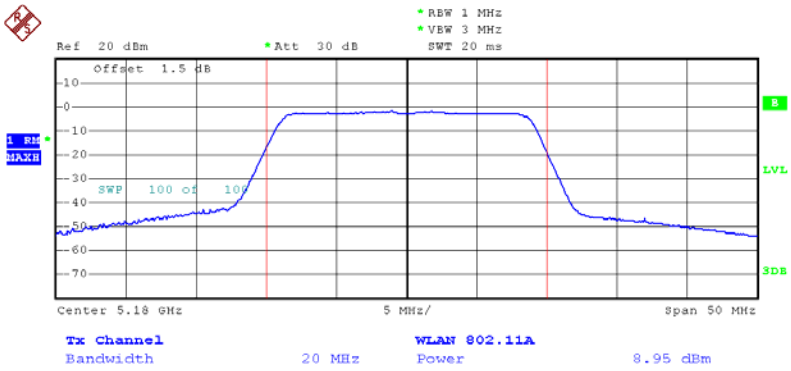


Date: 17.OCT.2013 14:28:58

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N20 Mode/CH36, CH40, CH48		

ANT 0				
Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH36	5180	8.95	17.00	0.0501
CH40	5200	8.99	17.00	0.0501
CH48	5240	9.01	17.00	0.0501

CH36



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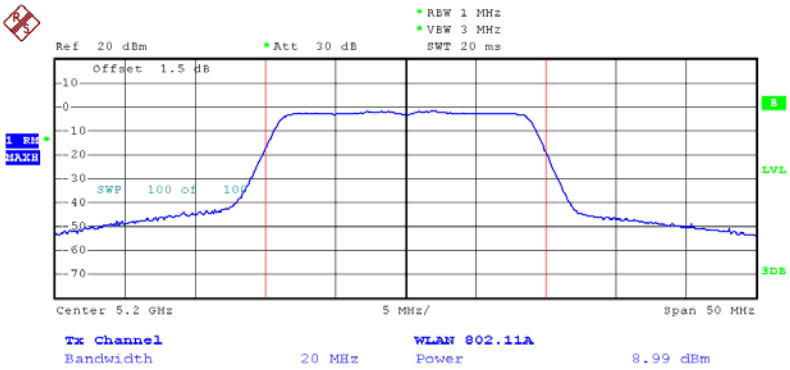
CH40



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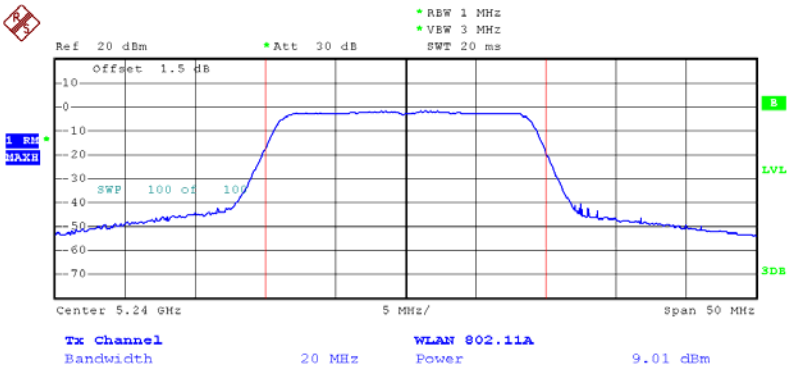
CH48

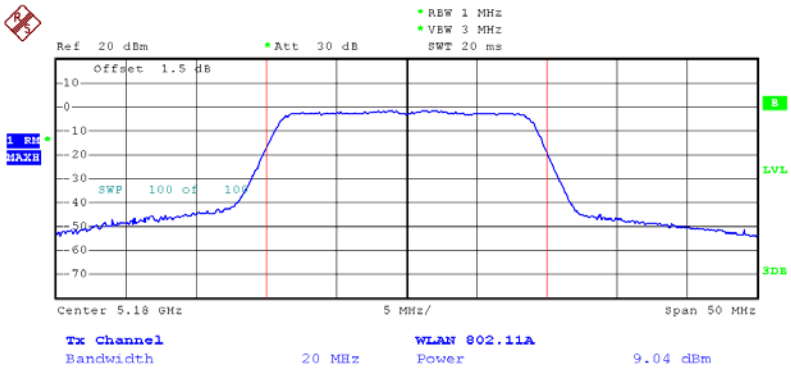


Date: 17.OCT.2013 14:35:03

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N20 Mode/CH36, CH40, CH48		

ANT 1				
Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH36	5180	9.04	17.00	0.0501
CH40	5200	8.98	17.00	0.0501
CH48	5240	9.14	17.00	0.0501

CH36



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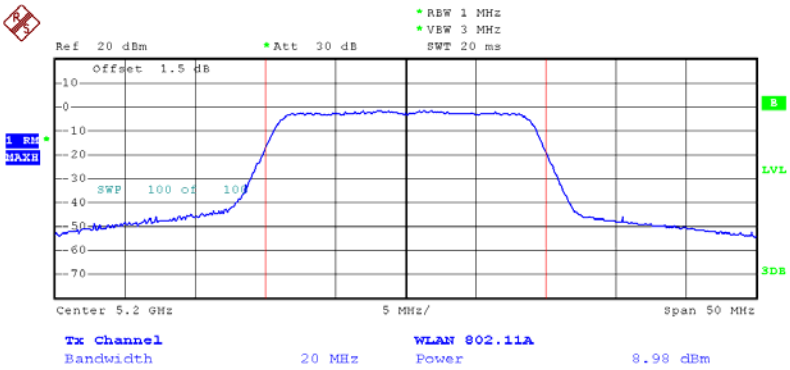
CH40



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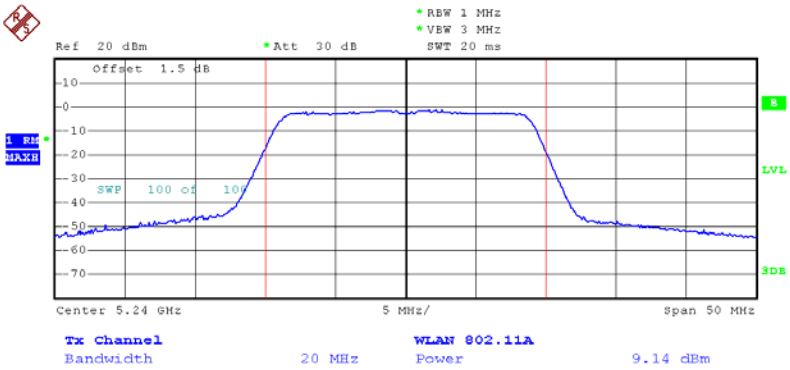
CH48

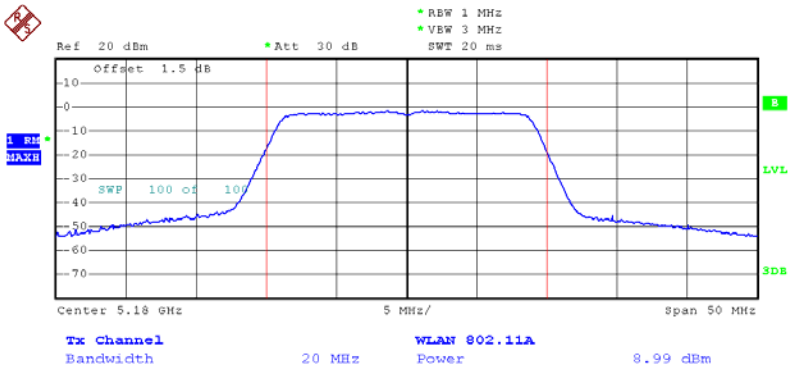


Date: 17.OCT.2013 14:38:43

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N20 Mode/CH36, CH40, CH48		

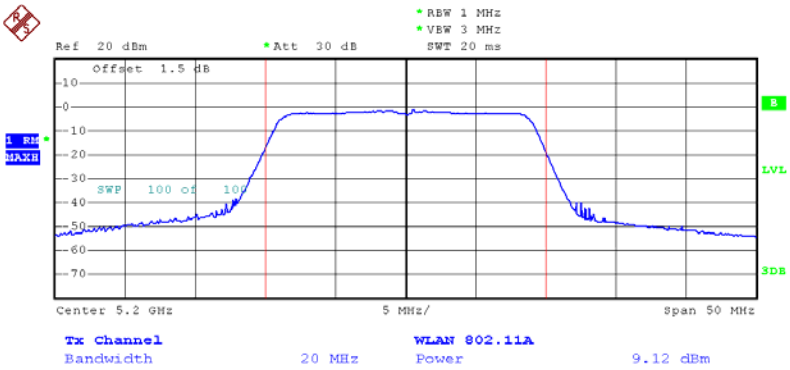
ANT 2				
Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH36	5180	8.99	17.00	0.0501
CH40	5200	9.12	17.00	0.0501
CH48	5240	9.14	17.00	0.0501

CH36



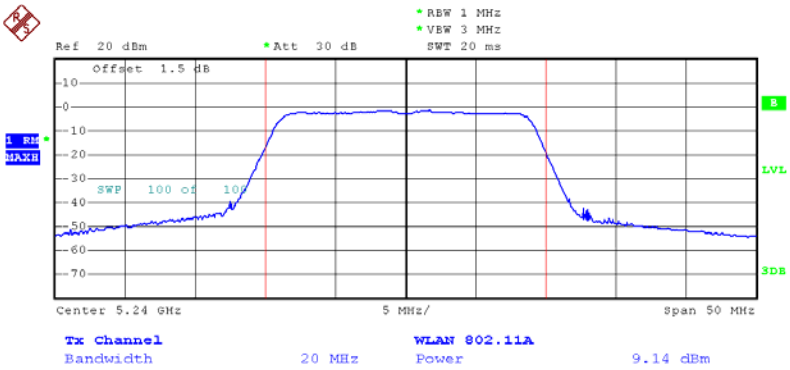
Date: 17.OCT.2013 14:41:34

CH40



Date: 17.OCT.2013 14:42:09

CH48



Date: 17.OCT.2013 14:42:29

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N20 Mode/CH36, CH40, CH48		

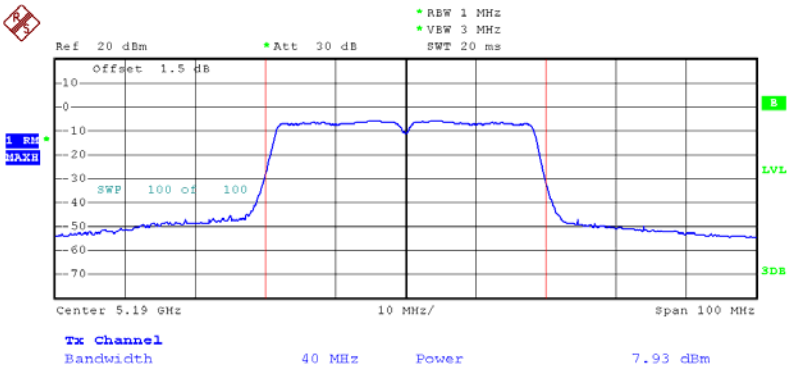
ANT 0+ANT 1+ANT 2				
Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH36	5180	13.76	17.00	0.0501
CH40	5200	13.80	17.00	0.0501
CH48	5240	13.87	17.00	0.0501

Note:The EUT incorporates a MIMO function. Physically, the EUT provides three completed transmitters and three receivers (3T3R). all transmit signals are completely uncorrelated, then, **Direction gain = G_{ANT}**, that is Directional gain=5.

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N40 Mode/CH38, CH46		

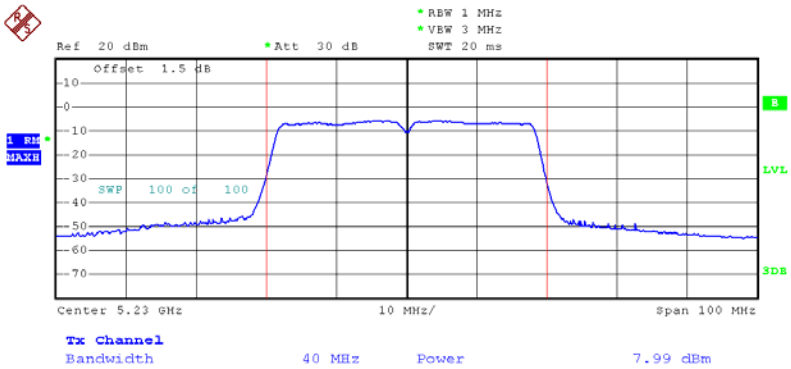
ANT 0				
Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH38	5190	7.93	17.00	0.0501
CH46	5230	7.99	17.00	0.0501

CH38



Date: 17.OCT.2013 14:46:37

CH46

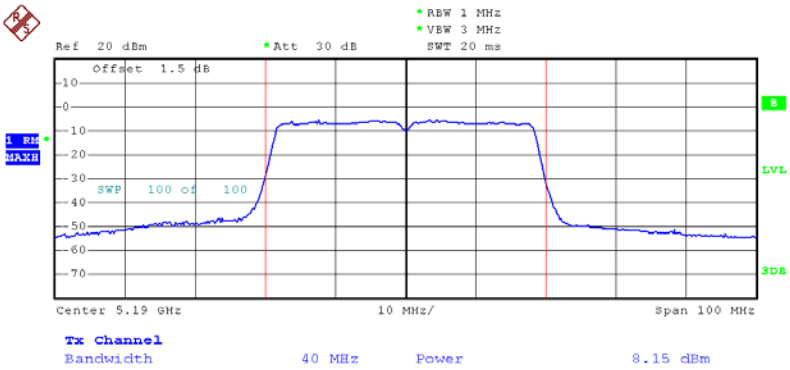


Date: 17.OCT.2013 14:47:31

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N40 Mode/CH38, CH46		

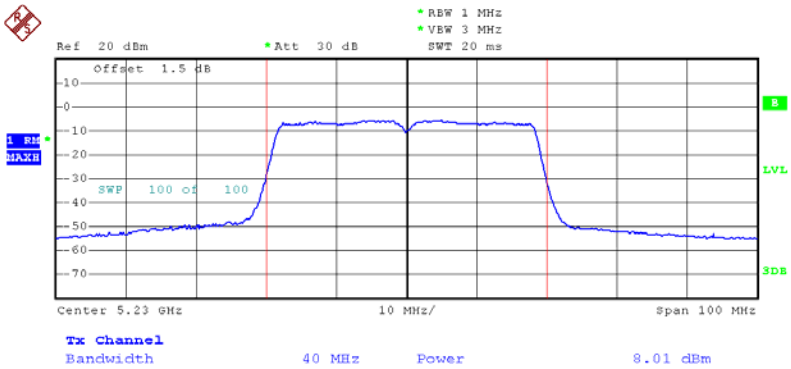
ANT 1				
Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH38	5190	8.15	17.00	0.0501
CH46	5230	8.01	17.00	0.0501

CH38



Date: 17.OCT.2013 14:49:29

CH46

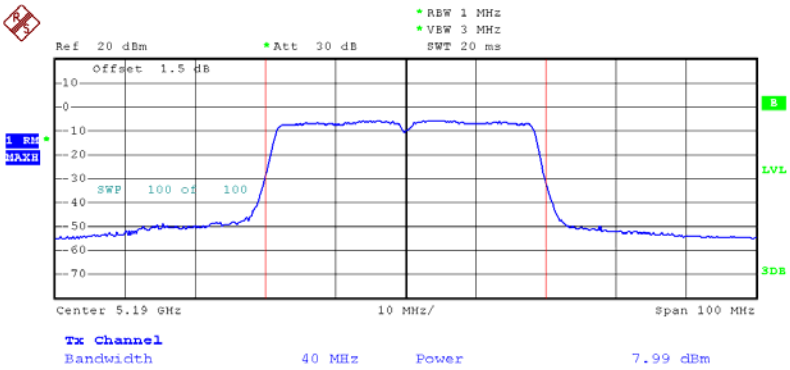


Date: 17.OCT.2013 14:49:44

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N40 Mode/CH38, CH46		

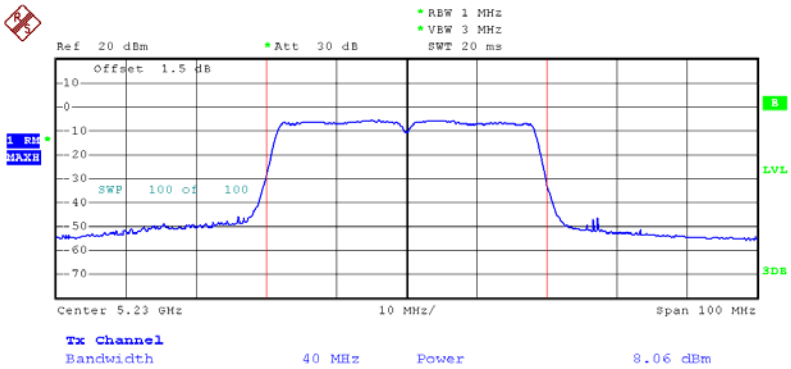
ANT 2				
Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH38	5190	7.99	17.00	0.0501
CH46	5230	8.06	17.00	0.0501

CH38



Date: 17.OCT.2013 14:51:43

CH46



Date: 17.OCT.2013 14:52:00

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N40 Mode/CH38, CH46/Integral Antenna		

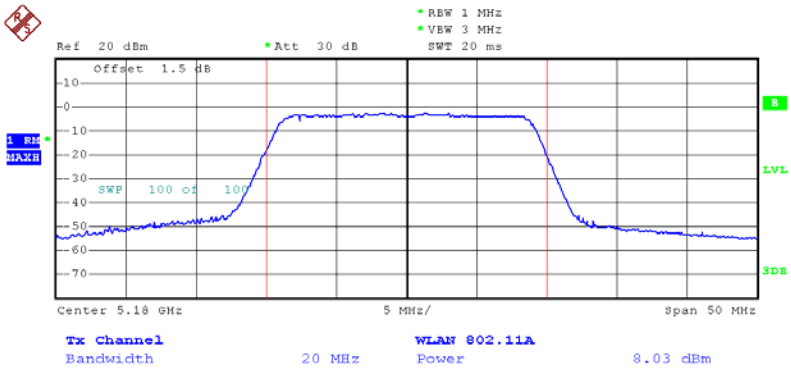
ANT 0+ANT 1+ANT 2				
Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH38	5190	12.80	17.00	0.0501
CH46	5230	12.79	17.00	0.0501

Note:The EUT incorporates a MIMO function. Physically, the EUT provides three completed transmitters and three receivers (3T3R). all transmit signals are completely uncorrelated, then, **Direction gain = G_{ANT}**, that is Directional gain=5.

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N20 Mode/CH36, CH40, CH48		

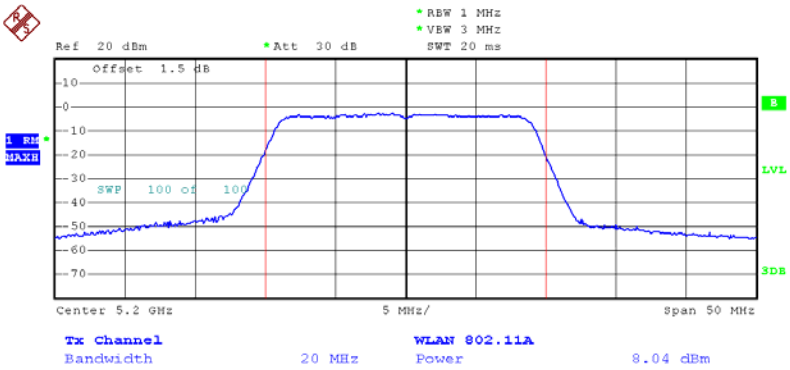
ANT 0				
Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH36	5180	8.03	17.00	0.0501
CH40	5200	8.04	17.00	0.0501
CH48	5240	8.10	17.00	0.0501

CH36



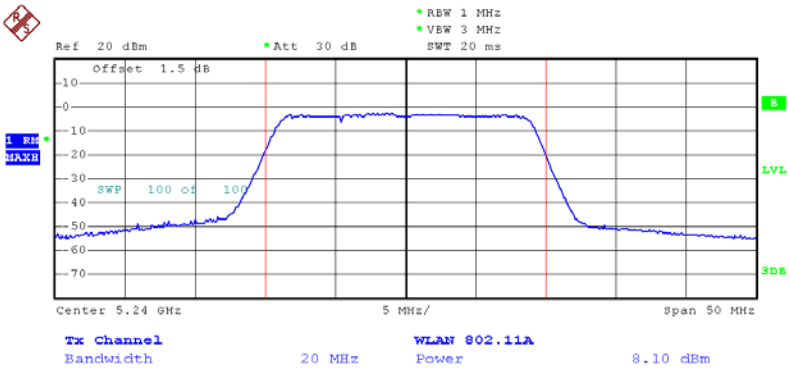
Date: 17.OCT.2013 15:09:09

CH40



Date: 17.OCT.2013 15:09:31

CH48

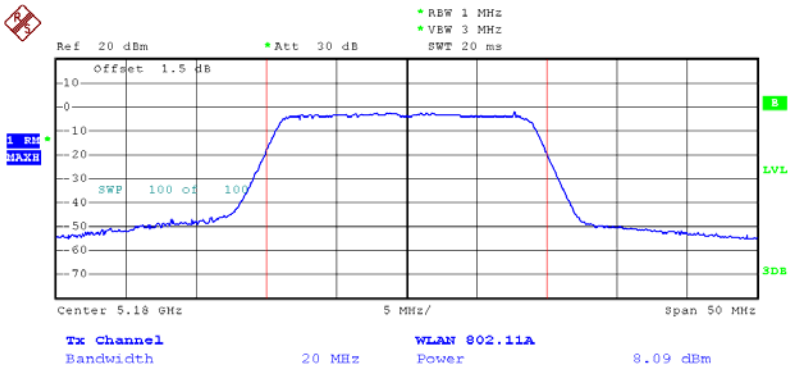


Date: 17.OCT.2013 15:09:51

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N20 Mode/CH36, CH40, CH48		

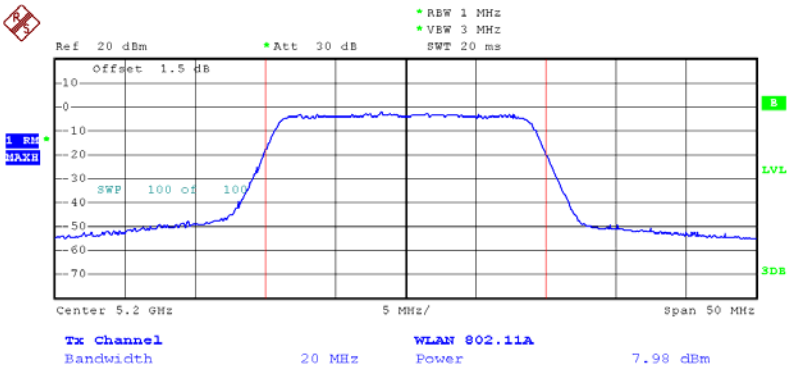
ANT 1				
Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH36	5180	8.09	17.00	0.0501
CH40	5200	7.98	17.00	0.0501
CH48	5240	8.04	17.00	0.0501

CH36



Date: 17.OCT.2013 15:12:20

CH40



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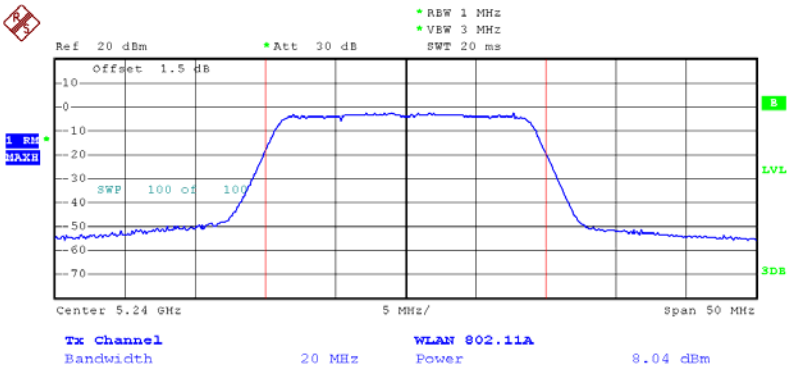
CH48

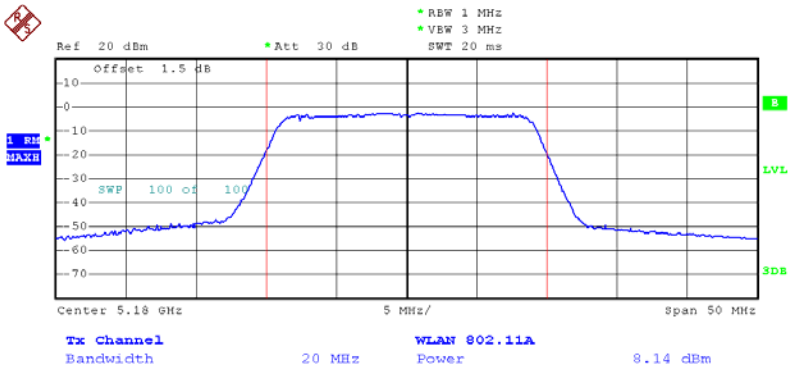


Date: 17.OCT.2013 15:13:00

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N20 Mode/CH36, CH40, CH48		

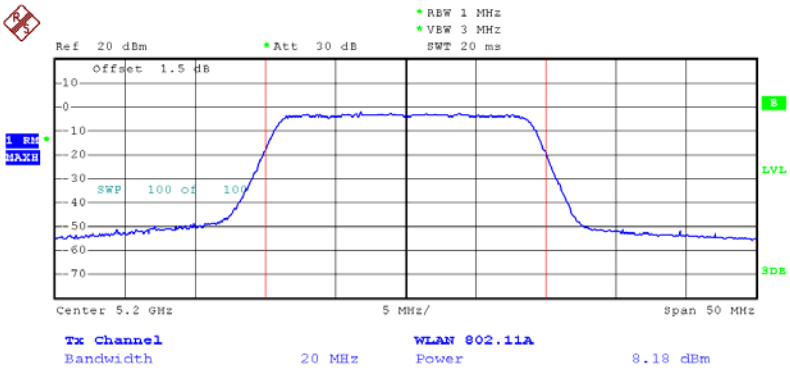
ANT 2				
Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH36	5180	8.14	17.00	0.0501
CH40	5200	8.18	17.00	0.0501
CH48	5240	7.96	17.00	0.0501

CH36



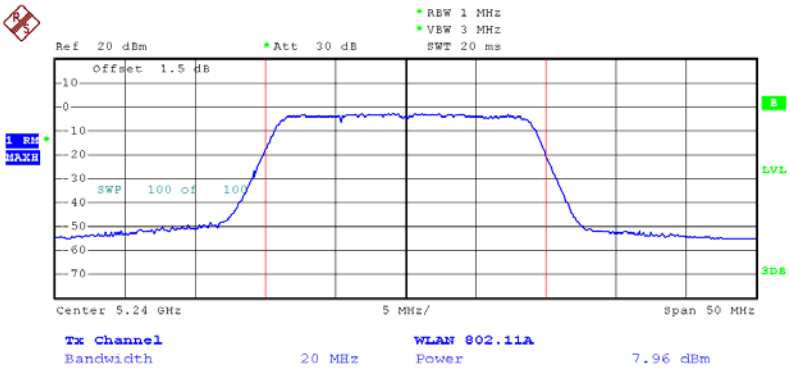
Date: 17.OCT.2013 15:15:17

CH40



Date: 17.OCT.2013 15:15:41

CH48



Date: 17.OCT.2013 15:16:03

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N20 Mode/CH36, CH40, CH48		

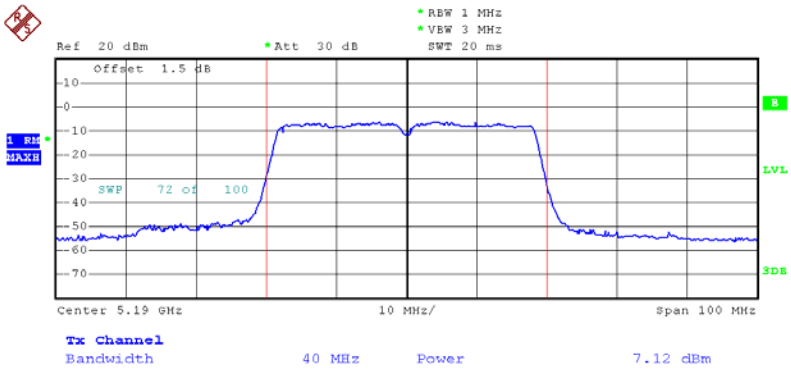
ANT 0+ ANT 1+ANT 2				
Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH36	5180	12.86	17.00	0.0501
CH40	5200	12.84	17.00	0.0501
CH48	5240	12.80	17.00	0.0501

Note:The EUT incorporates a MIMO function. Physically, the EUT provides three completed transmitters and three receivers (3T3R). all transmit signals are completely uncorrelated, then, **Direction gain = G_{ANT}**, that is Directional gain=5.

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N40 Mode/CH38, CH46		

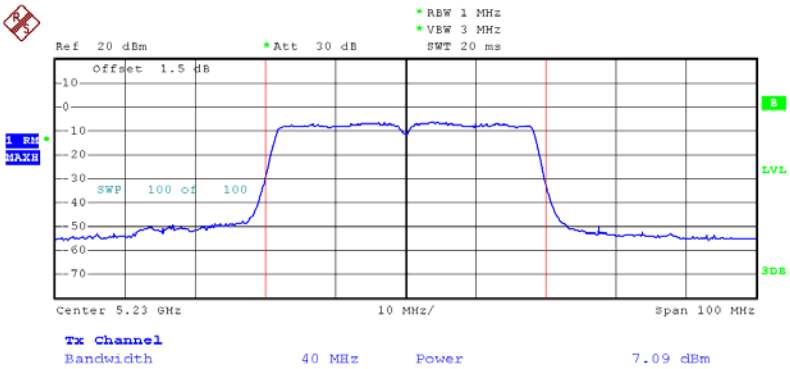
ANT 0				
Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH38	5190	7.12	17.00	0.0501
CH46	5230	7.09	17.00	0.0501

CH38



Date: 17.OCT.2013 14:57:40

CH46

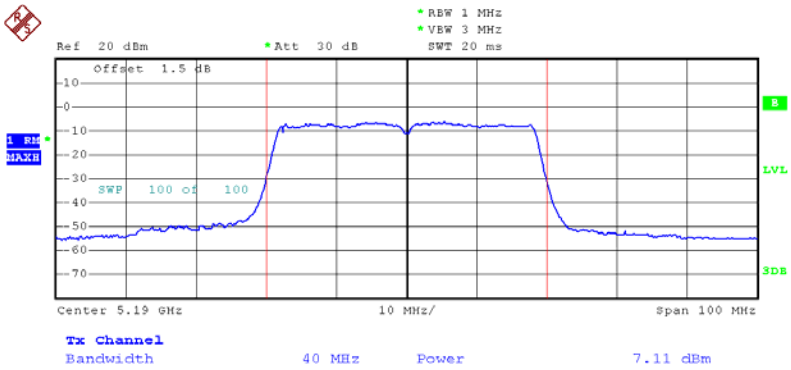


Date: 17.OCT.2013 14:58:15

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N40 Mode/CH38, CH46		

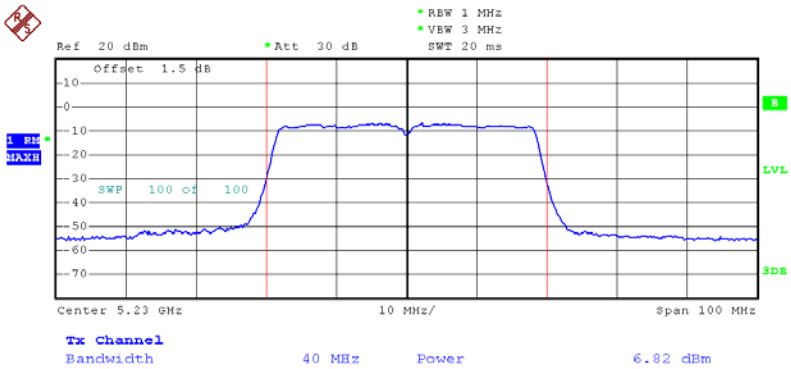
ANT 1				
Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH38	5190	7.11	17.00	0.0501
CH46	5230	6.82	17.00	0.0501

CH38



Date: 17.OCT.2013 15:00:33

CH46

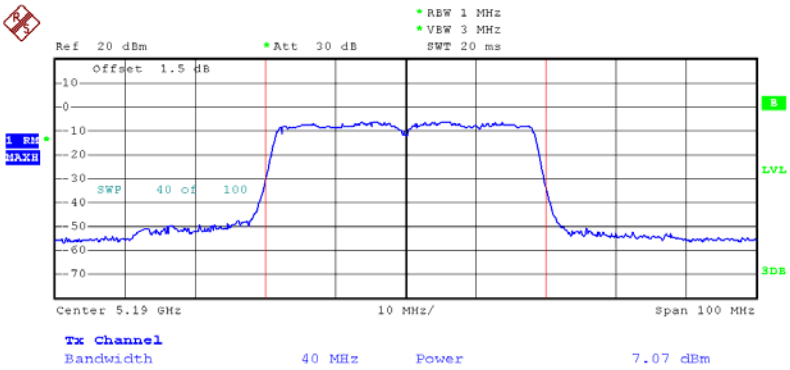


Date: 17.OCT.2013 15:01:09

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N40 Mode/CH38, CH46		

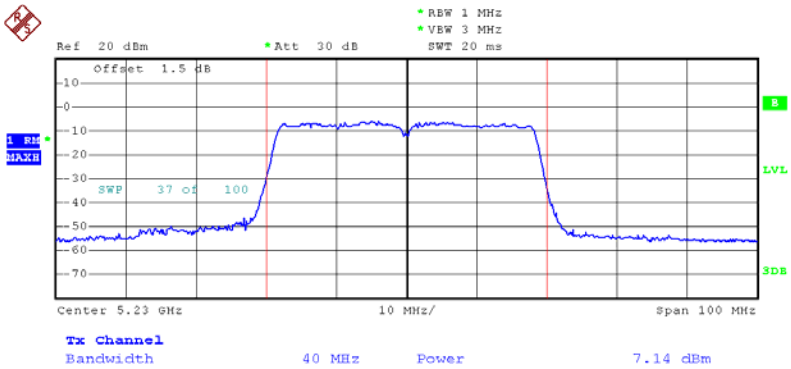
ANT 2				
Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH38	5190	7.07	17.00	0.0501
CH46	5230	7.14	17.00	0.0501

CH38



Date: 17.OCT.2013 15:02:47

CH46



Date: 17.OCT.2013 15:03:05

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N40 Mode/CH38, CH46/Dipole Antenna with external cable		

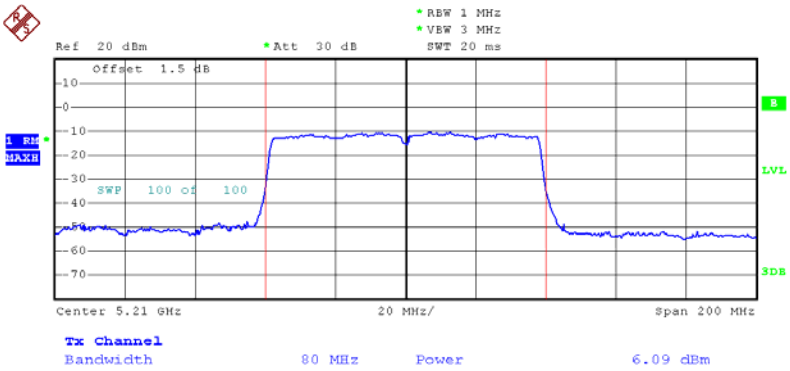
ANT 0+ANT 1+ANT 2				
Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH38	5190	11.87	17.00	0.0501
CH46	5230	11.79	17.00	0.0501

Note:The EUT incorporates a MIMO function. Physically, the EUT provides three completed transmitters and three receivers (3T3R). all transmit signals are completely uncorrelated, then, **Direction gain = G_{ANT}**, that is Directional gain=5.

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N80 Mode/CH42		

ANT 0				
Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH42	5210	6.09	17.00	0.0501

CH42

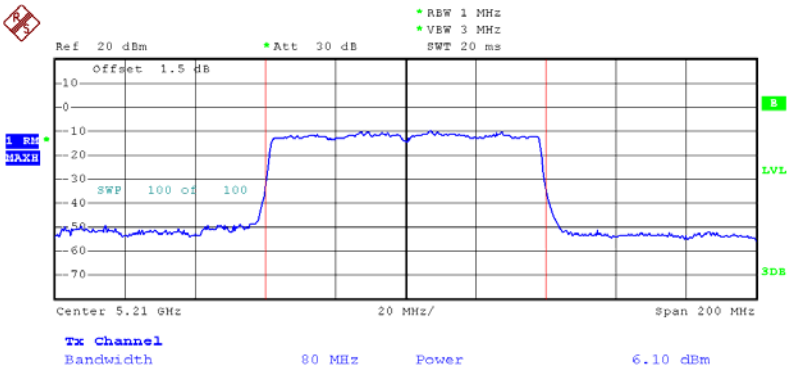


Date: 17.OCT.2013 15:22:19

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N80 Mode/CH42		

ANT 1				
Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH42	5210	6.10	17.00	0.0501

CH42

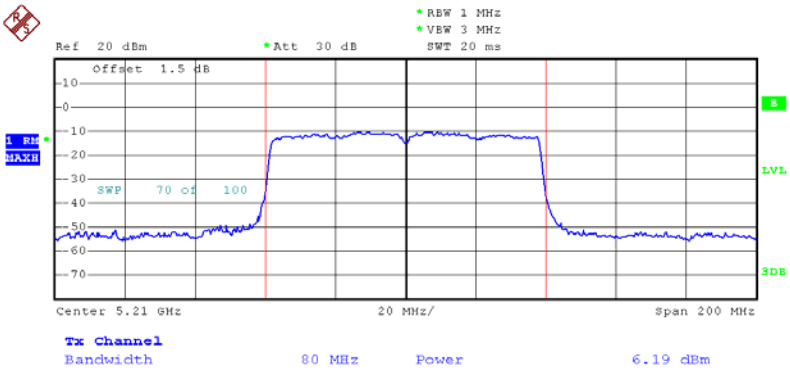


Date: 17.OCT.2013 15:23:20

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N80 Mode/CH42		

ANT 2				
Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH42	5210	6.19	17.00	0.0501

CH42



Date: 17.OCT.2013 15:24:09

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N80 Mode/CH42		

ANT 0+ANT 1+ANT 2				
Test Channel	Frequency (MHz)	Conducted Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH42	5210	10.90	17.00	0.0501

Note:The EUT incorporates a MIMO function. Physically, the EUT provides three completed transmitters and three receivers (3T3R). all transmit signals are completely uncorrelated, then, **Direction gain = G_{ANT}**, that is Directional gain=5.

7. ANTENNA CONDUCTED SPURIOUS EMISSION

7.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E			
Test Item	Limit	Frequency Range (MHz)	Result
Antenna conducted Spurious Emission	-27 dBm/1MHz	5150 – 5250	PASS

7.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Nov. 09.2014

Remark: “N/A” denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

7.1.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

b.

Spectrum Parameter	Setting
Attenuation	Auto
RB	1000 kHz
VB	1000 kHz
Trace	Max Hold
Sweep Time	Auto

7.1.3 DEVIATION FROM STANDARD

No deviation.

7.1.4 TEST SETUP

7.1.5 EUT OPERATION CONDITIONS

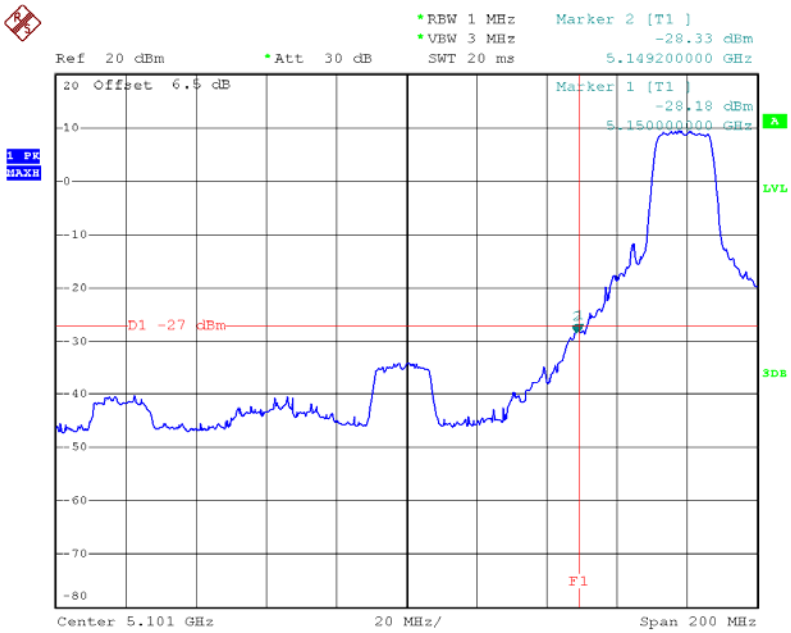
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

7.1.6 TEST RESULTS

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX A Mode/ CH36, CH40, CH48		

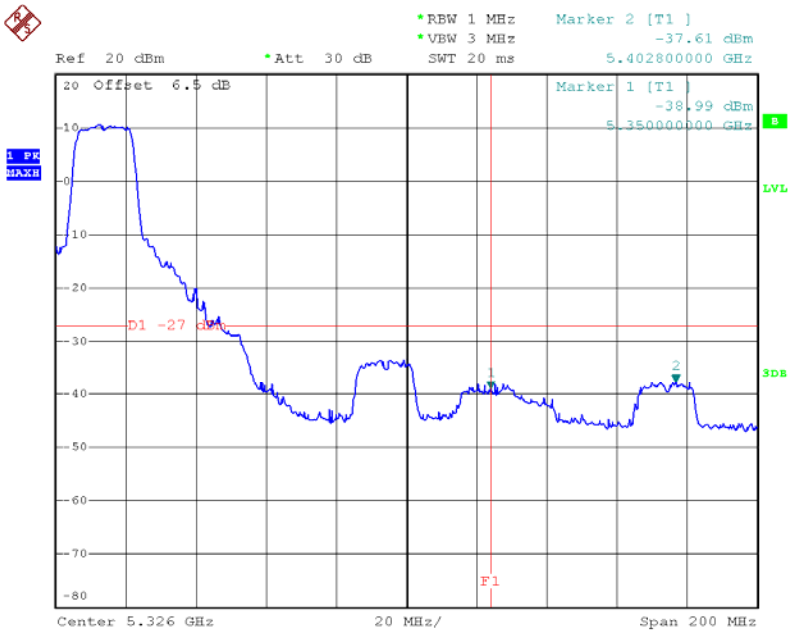
Channel of Worst Data: CH36			
The max. radio frequency power in any 1000kHz bandwidth outside the frequency band		The max. radio frequency power in any 1000kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
5149.20	-28.33	5402.80	-37.61
Limit: -27 dBm/1MHz Result:PASS			
Measurement method: S.A Read value+Ant gain+cable loss			

TX mode CH36



Date: 20.OCT.2013 17:06:26

TX mode CH48

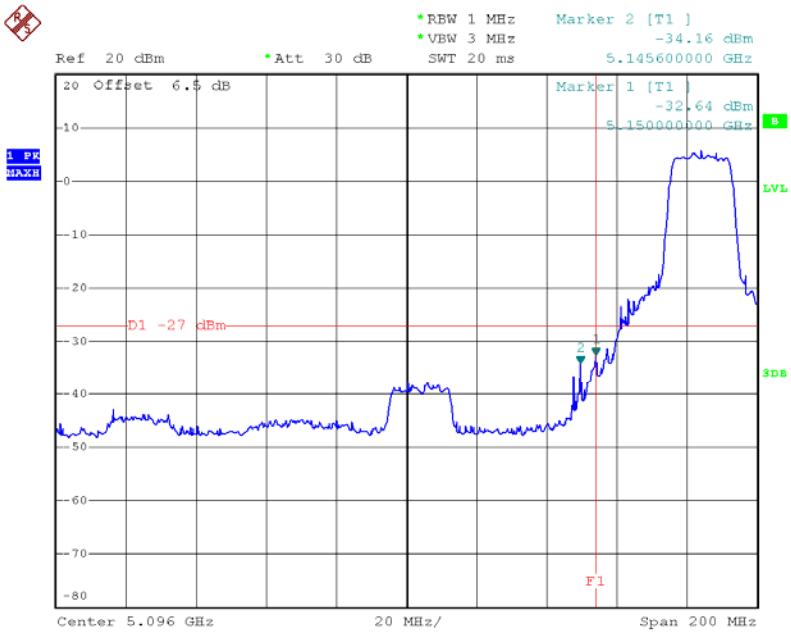


Date: 20.OCT.2013 17:36:11

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N20 Mode/ CH36, CH40 , CH48/ANT 0		

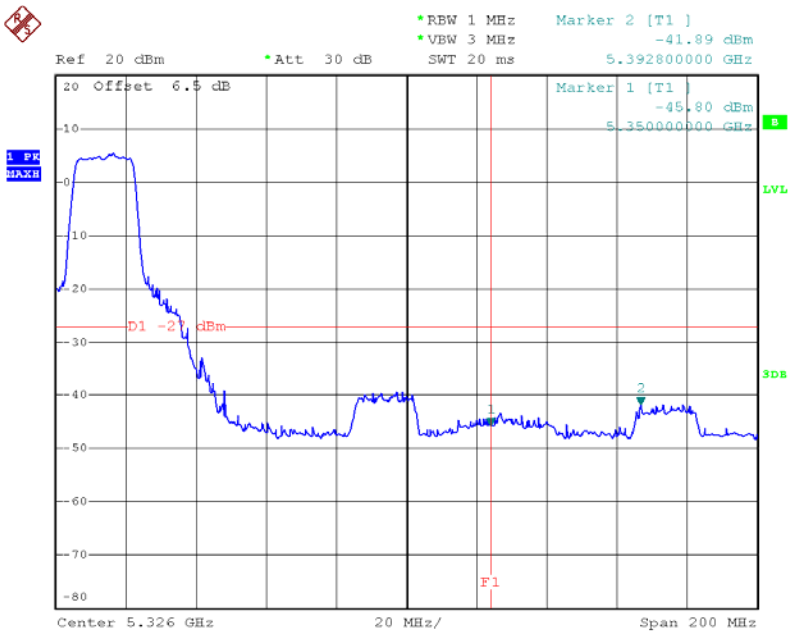
Channel of Worst Data: CH36			
The max. radio frequency power in any 1000kHz bandwidth outside the frequency band		The max. radio frequency power in any 1000kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
5350.00	-32.64	5392.80	-41.89
Limit: -27 dBm/1MHz		Result:PASS	
Measurement method: S.A Read value+Ant gain+cable loss			

TX mode CH36



Date: 20.OCT.2013 17:50:08

TX mode CH48

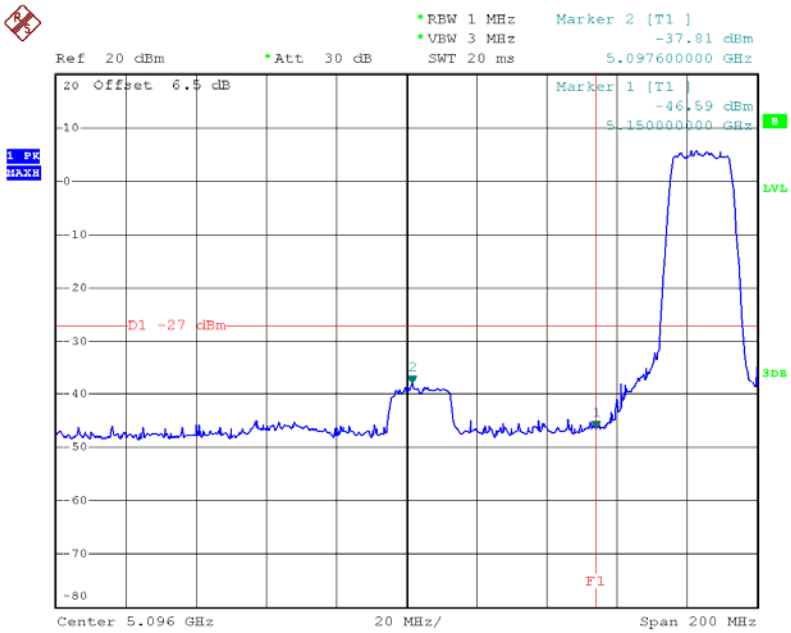


Date: 20.OCT.2013 17:51:36

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N20 Mode/ CH36, CH40 , CH48/ANT 1		

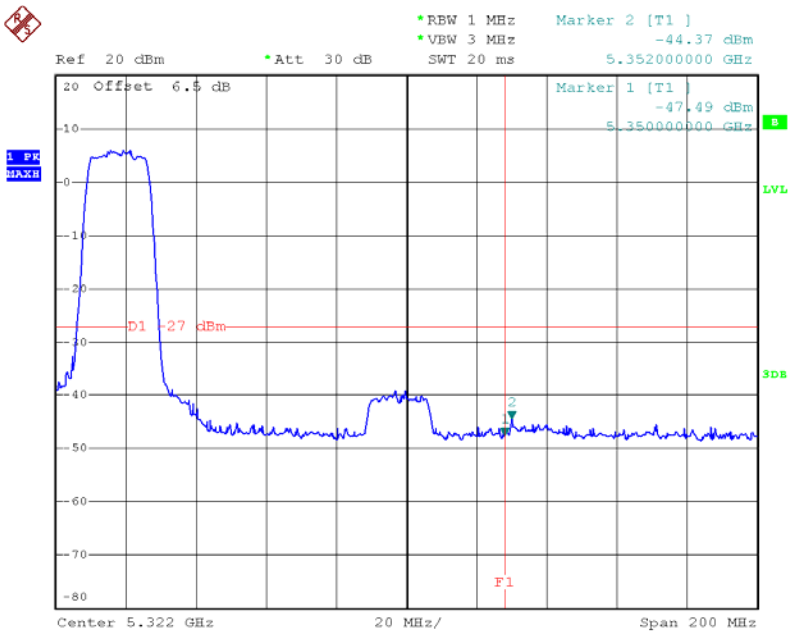
Channel of Worst Data: CH36			
The max. radio frequency power in any 1000kHz bandwidth outside the frequency band		The max. radio frequency power in any 1000kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
5097.60	-37.91	5352.00	-44.37
Limit: -27 dBm/1MHz Result:PASS			
Measurement method: S.A Read value+Ant gain+cable loss			

TX mode CH36



Date: 20.OCT.2013 17:52:19

TX mode CH48

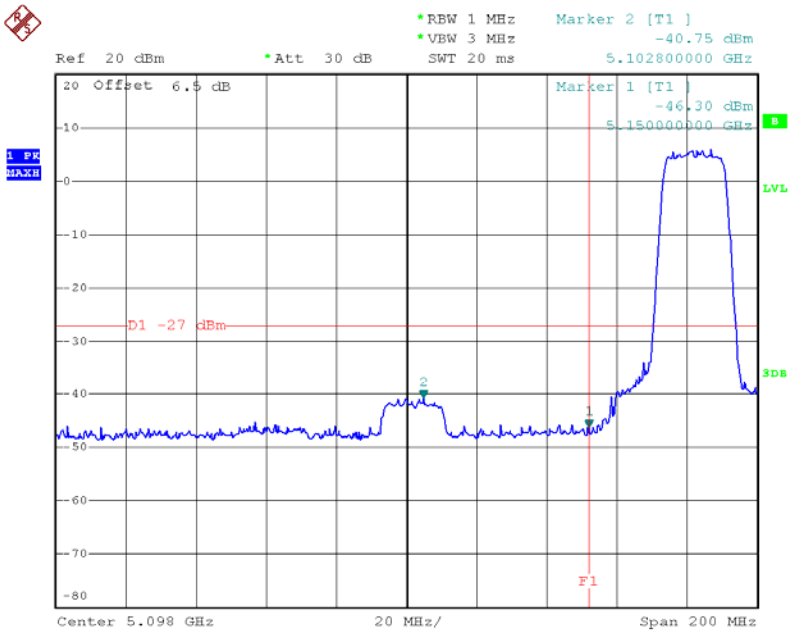


Date: 20.OCT.2013 17:53:36

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N20 Mode/ CH36, CH40 , CH48/ANT 2		

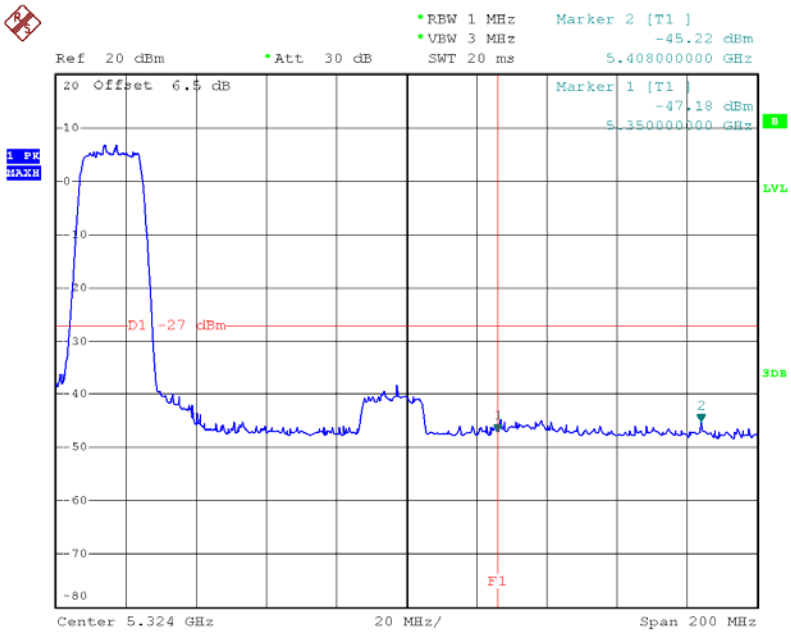
Channel of Worst Data: CH36			
The max. radio frequency power in any 1000kHz bandwidth outside the frequency band		The max. radio frequency power in any 1000kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
5102.80	-40.75	5408.00	-45.22
Limit: -27 dBm/1MHz Result:PASS			
Measurement method: S.A Read value+Ant gain+cable loss			

TX mode CH36



Date: 20.OCT.2013 17:54:16

TX mode CH48

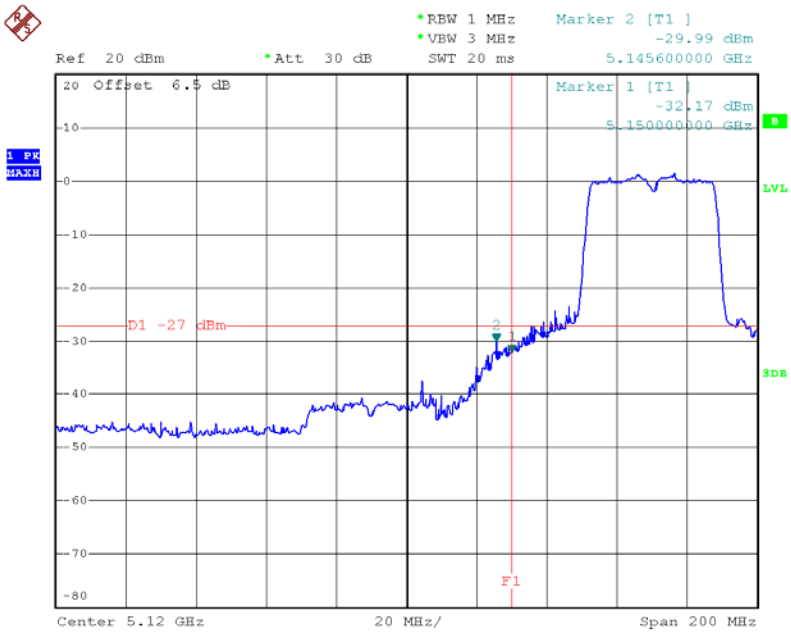


Date: 20.OCT.2013 17:55:35

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N40 Mode/ CH38, CH46/ANT 0		

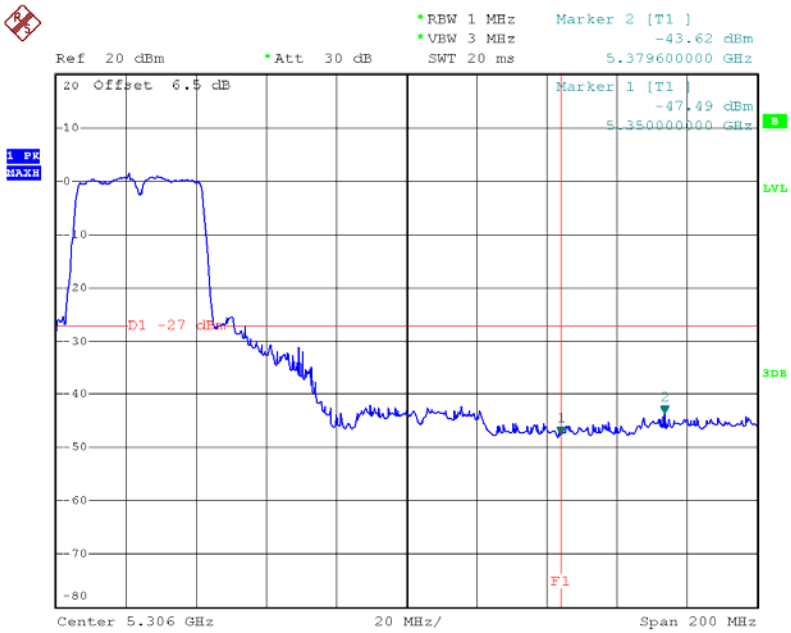
Channel of Worst Data: CH38			
The max. radio frequency power in any 1000kHz bandwidth outside the frequency band		The max. radio frequency power in any 1000kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
5145.60	-29.99	5379.60	-43.62
Limit: -27 dBm/1MHz		Result:PASS	
Measurement method: S.A Read value+Ant gain+cable loss			

TX mode CH38



Date: 20.OCT.2013 17:58:59

TX mode CH46

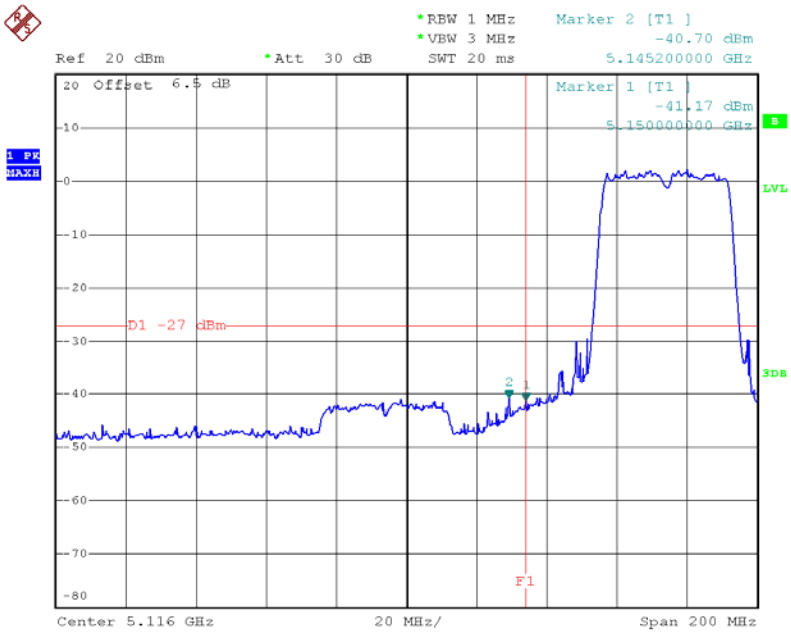


Date: 20.OCT.2013 18:02:49

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N40 Mode/ CH38, CH46/ANT 1		

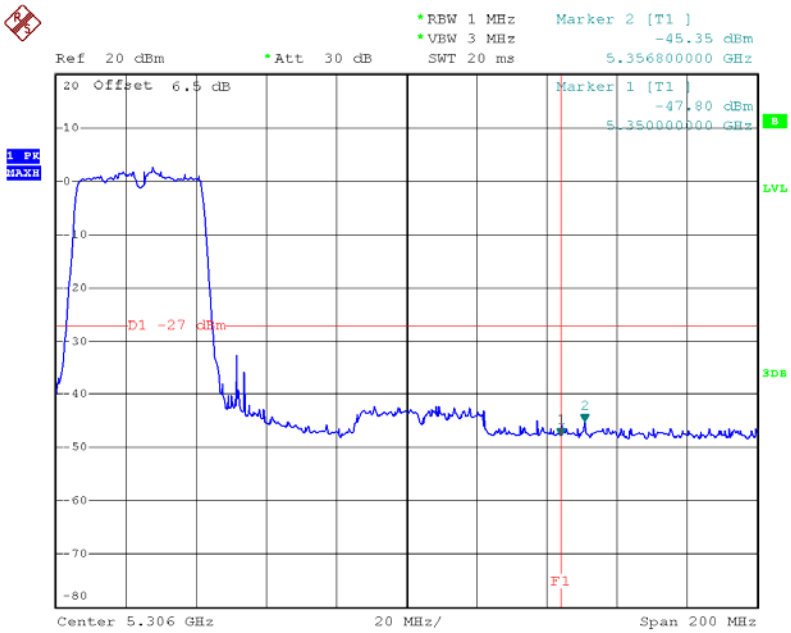
Channel of Worst Data: CH38			
The max. radio frequency power in any 1000kHz bandwidth outside the frequency band		The max. radio frequency power in any 1000kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
5150.00	-41.71	5356.80	-45.35
Limit: -27 dBm/1MHz		Result:PASS	
Measurement method: S.A Read value+Ant gain+cable loss			

TX mode CH38



Date: 20.OCT.2013 18:03:42

TX mode CH46

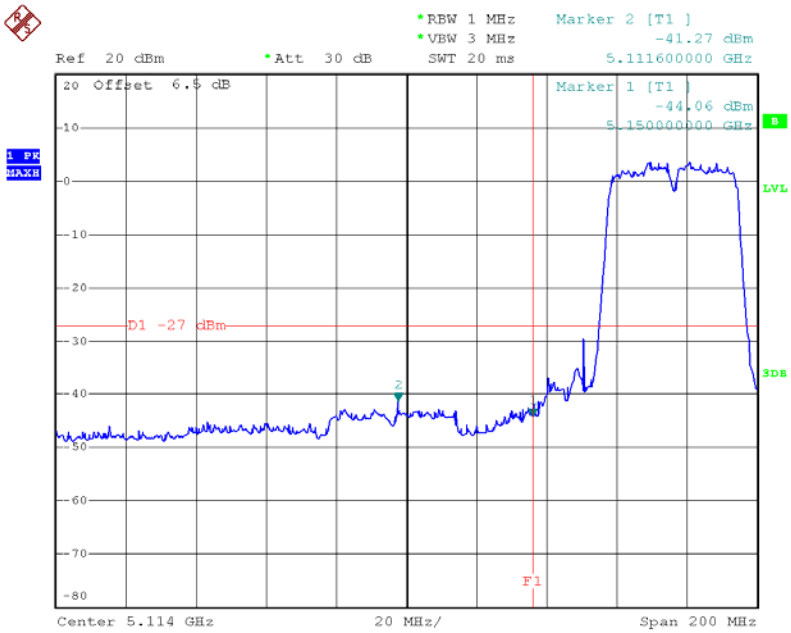


Date: 20.OCT.2013 18:04:40

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N40 Mode/ CH38, CH46/ANT 2		

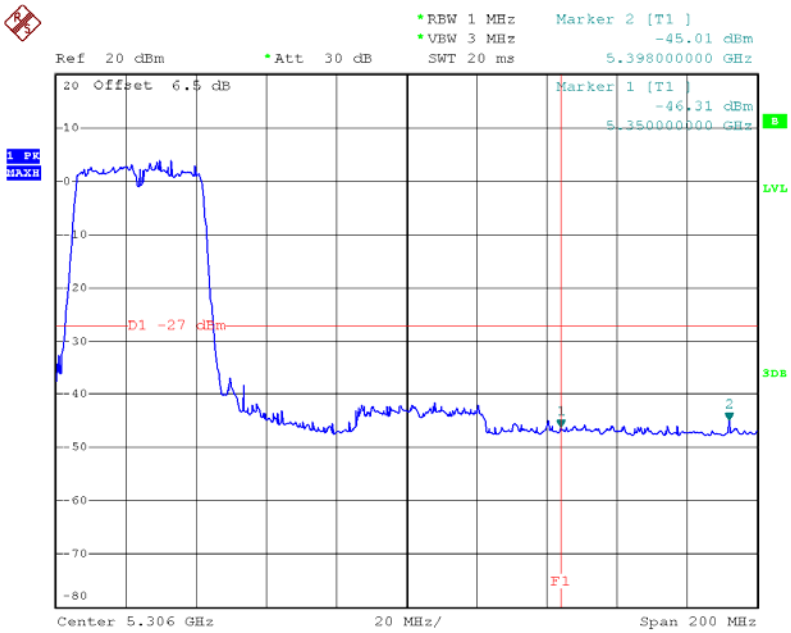
Channel of Worst Data: CH38			
The max. radio frequency power in any 1000kHz bandwidth outside the frequency band		The max. radio frequency power in any 1000kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
5111.60	-41.27	5398.00	-45.01
Limit: -27 dBm/1MHz Result:PASS			
Measurement method: S.A Read value+Ant gain+cable loss			

TX mode CH38



Date: 20.OCT.2013 18:05:16

TX mode CH46

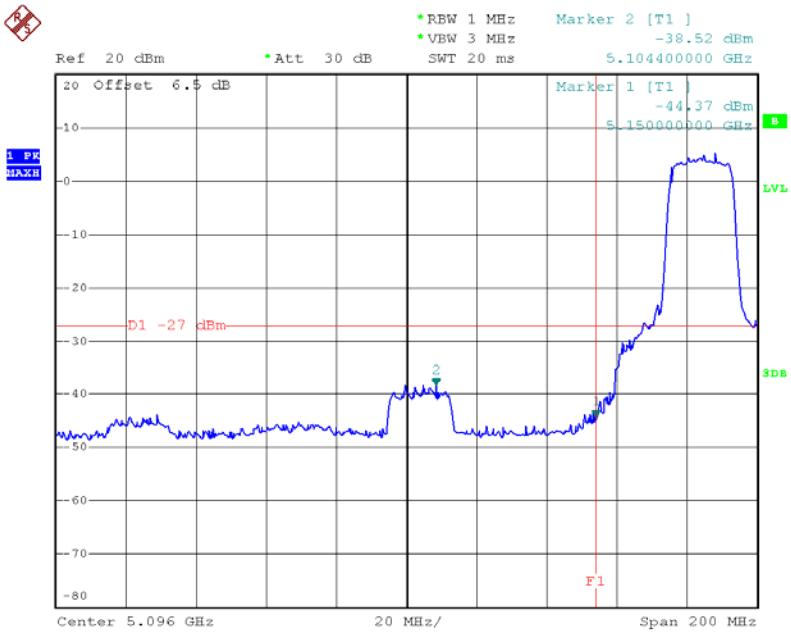


Date: 20.OCT.2013 18:06:16

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N20 Mode/ CH36, CH40 , CH48/ANT 0		

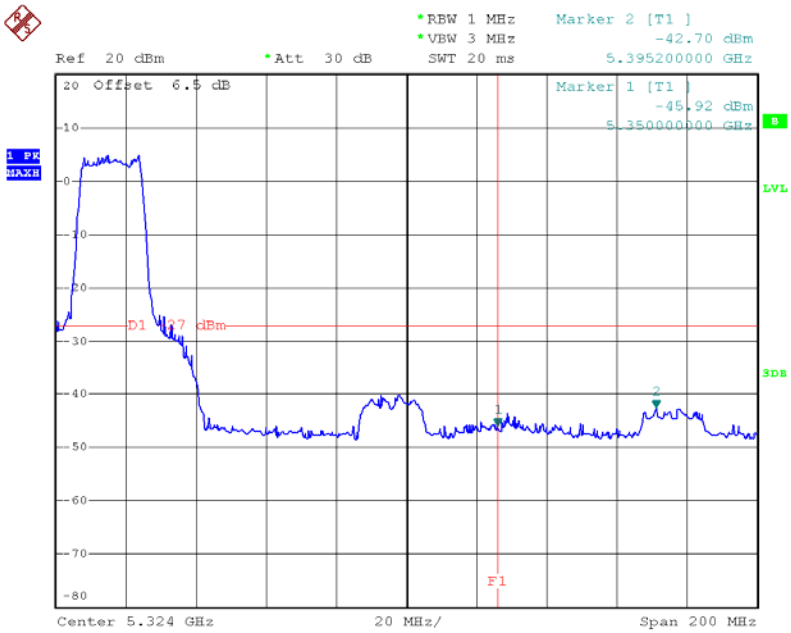
Channel of Worst Data: CH36			
The max. radio frequency power in any 1000kHz bandwidth outside the frequency band		The max. radio frequency power in any 1000kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
5104.40	-38.52	5395.20	-42.70
Limit: -27 dBm/1MHz		Result:PASS	
Measurement method: S.A Read value+Ant gain+cable loss			

TX mode CH36



Date: 20.OCT.2013 18:37:08

TX mode CH48

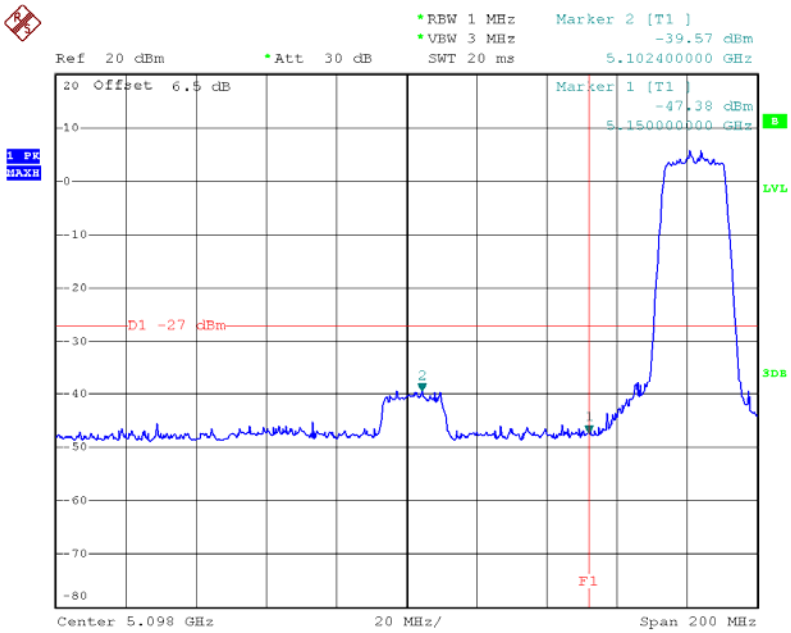


Date: 20.OCT.2013 18:38:41

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N20 Mode/ CH36, CH40 , CH48/ANT 1		

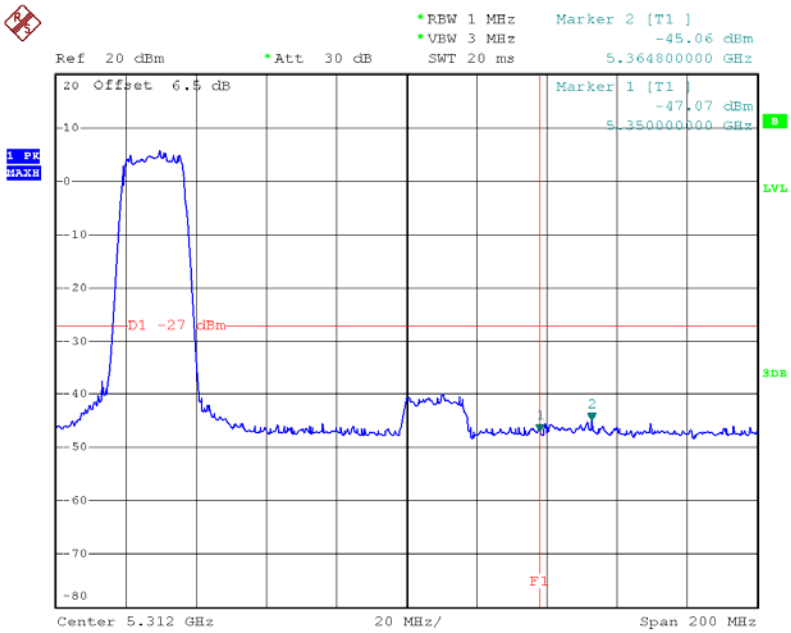
Channel of Worst Data: CH36			
The max. radio frequency power in any 1000kHz bandwidth outside the frequency band		The max. radio frequency power in any 1000kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
5102.40	-39.57	5364.80	-45.06
Limit: -27 dBm/1MHz Result:PASS			
Measurement method: S.A Read value+Ant gain+cable loss			

TX mode CH36



Date: 20.OCT.2013 18:39:12

TX mode CH48

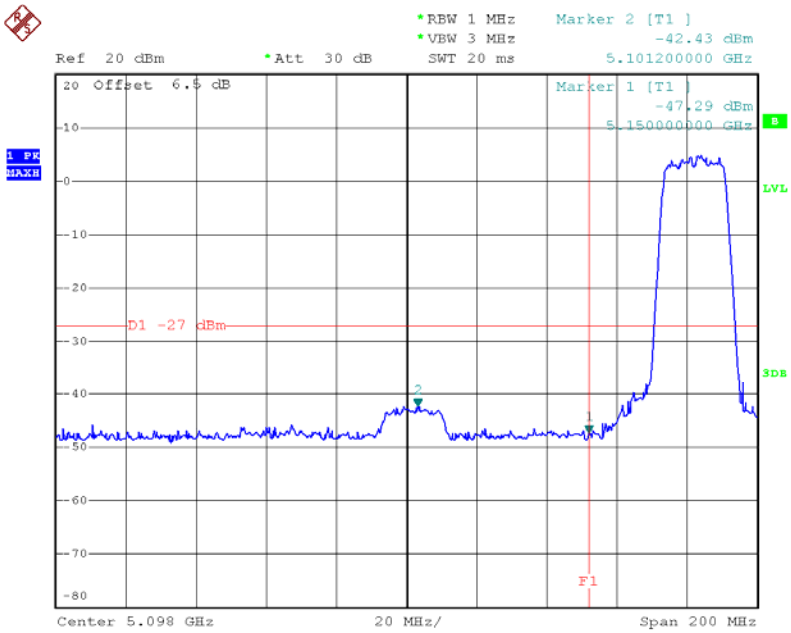


Date: 20.OCT.2013 18:40:33

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N20 Mode/ CH36, CH40 , CH48/ANT 2		

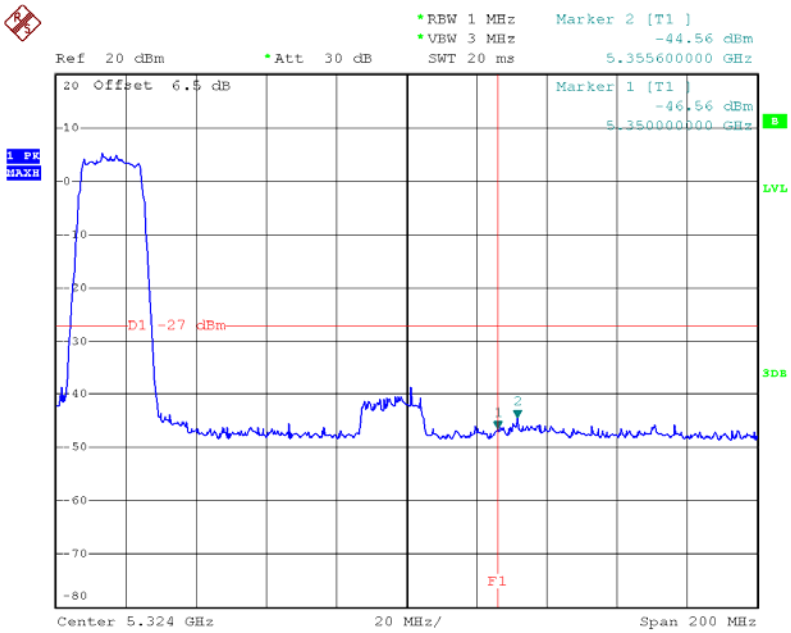
Channel of Worst Data: CH36			
The max. radio frequency power in any 1000kHz bandwidth outside the frequency band		The max. radio frequency power in any 1000kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
5101.20	-42.43	5355.60	-44.56
Limit: -27 dBm/1MHz Result:PASS			
Measurement method: S.A Read value+Ant gain+cable loss			

TX mode CH36



Date: 20.OCT.2013 18:41:41

TX mode CH48

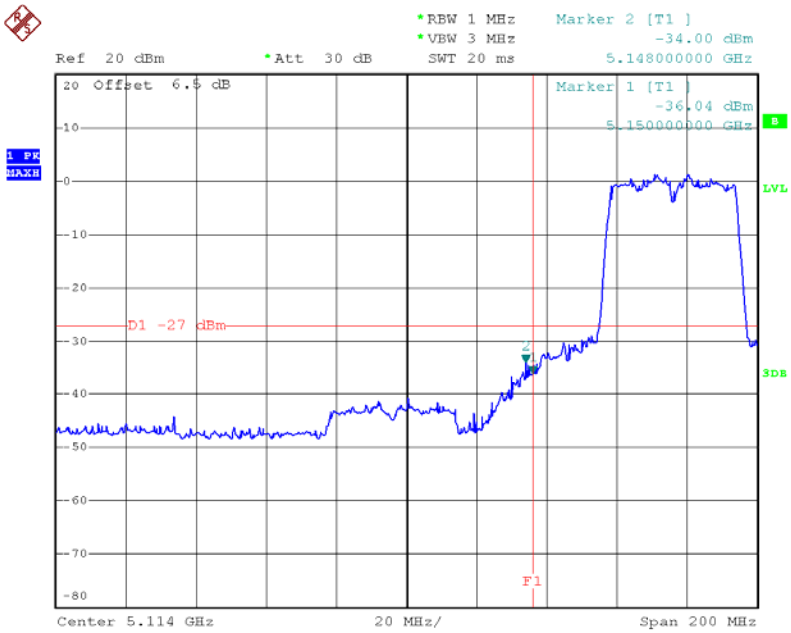


Date: 20.OCT.2013 18:43:02

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N40 Mode/ CH38, CH46/ANT 0		

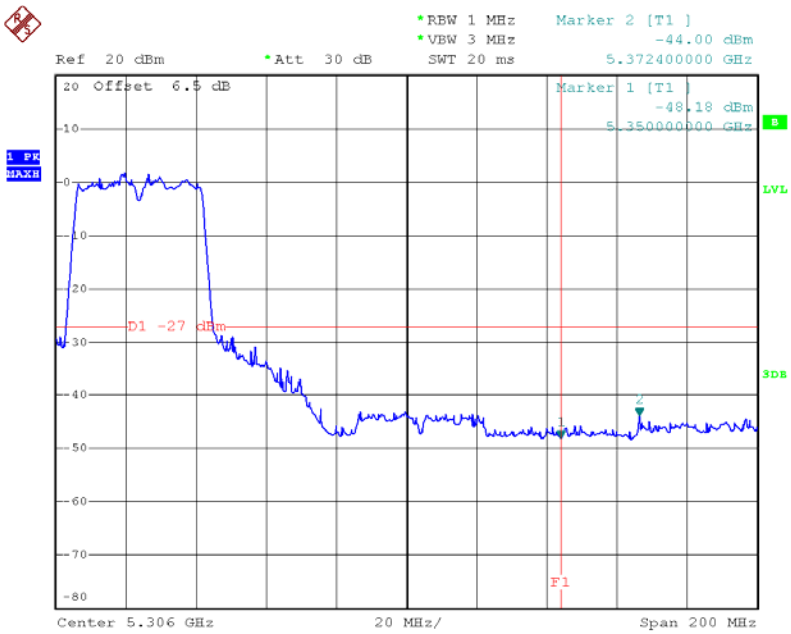
Channel of Worst Data: CH38			
The max. radio frequency power in any 1000kHz bandwidth outside the frequency band		The max. radio frequency power in any 1000kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
5148.00	-34.00	5372.40	-44.00
Limit: -27 dBm/1MHz Result:PASS			
Measurement method: S.A Read value+Ant gain+cable loss			

TX mode CH38



Date: 20.OCT.2013 18:45:47

TX mode CH46

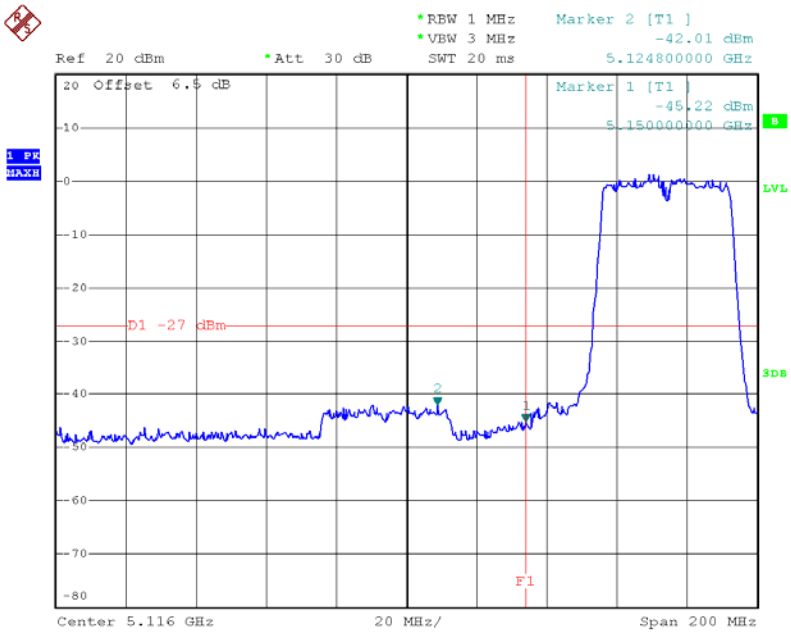


Date: 20.OCT.2013 18:46:49

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N40 Mode/ CH38, CH46/ANT 1		

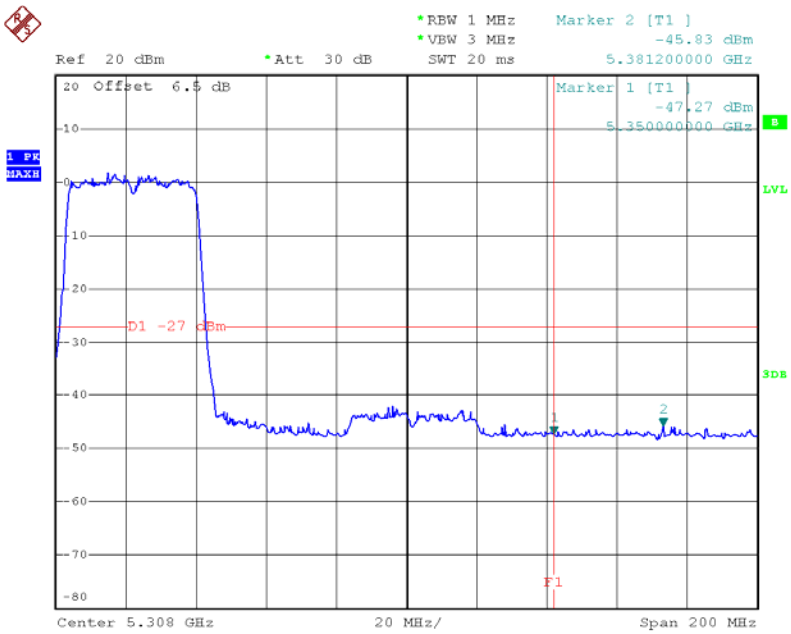
Channel of Worst Data: CH38			
The max. radio frequency power in any 1000kHz bandwidth outside the frequency band		The max. radio frequency power in any 1000kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
5124.80	-42.01	5381.20	-45.83
Limit: -27 dBm/1MHz		Result:PASS	
Measurement method: S.A Read value+Ant gain+cable loss			

TX mode CH38



Date: 20.OCT.2013 18:47:16

TX mode CH46

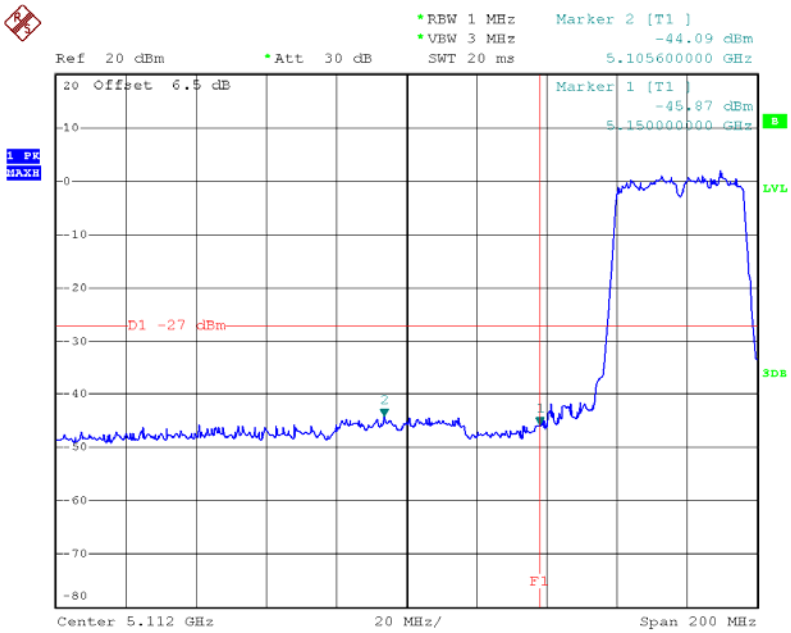


Date: 20.OCT.2013 18:48:36

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N40 Mode/ CH38, CH46/ANT 2		

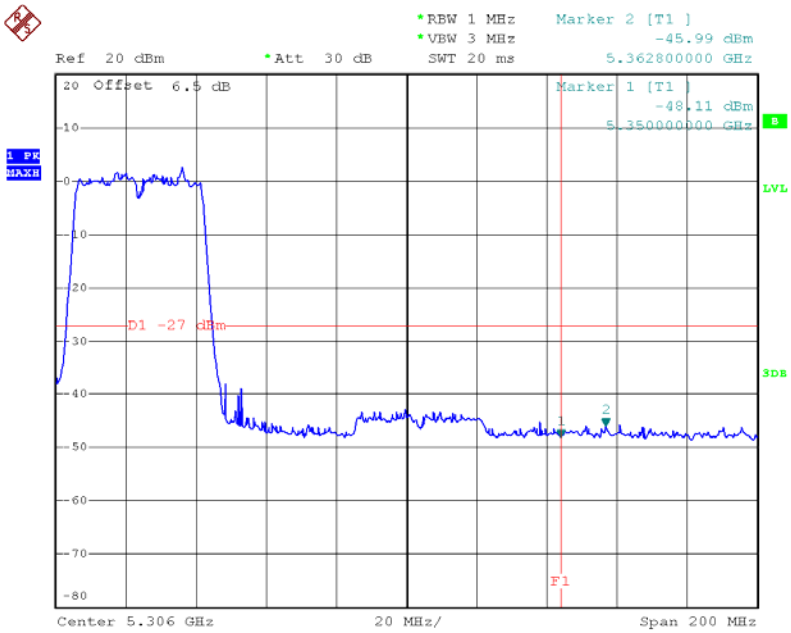
Channel of Worst Data: CH38			
The max. radio frequency power in any 1000kHz bandwidth outside the frequency band		The max. radio frequency power in any 1000kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
5105.60	-44.09	5362.80	-45.99
Limit: -27 dBm/1MHz Result:PASS			
Measurement method: S.A Read value+Ant gain+cable loss			

TX mode CH38



Date: 20.OCT.2013 18:50:27

TX mode CH46

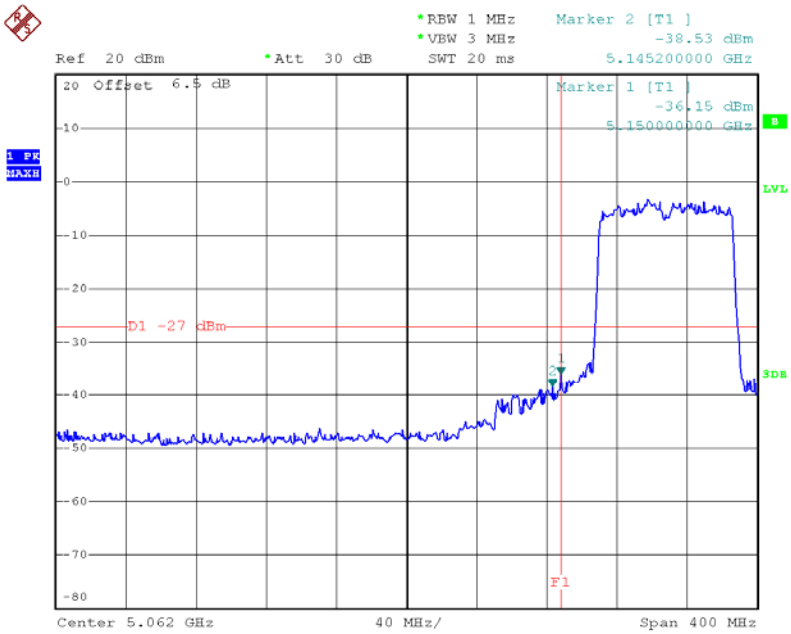


Date: 20.OCT.2013 18:51:23

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N80 Mode/ CH42/ANT 0		

Channel of Worst Data: CH42	
The max. radio frequency power in any 1000kHz bandwidth outside the frequency band	
FREQUENCY(MHz)	POWER(dBm)
5150.00	-36.15
Limit: -27 dBm/1MHz	Result:PASS
Measurement method: S.A Read value+Ant gain+cable loss	

TX mode CH42

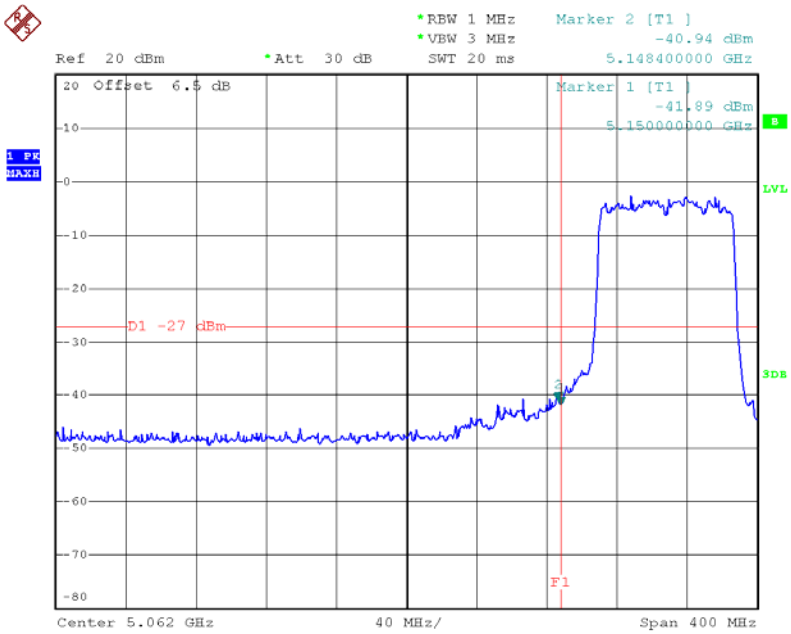


Date: 20.OCT.2013 18:53:55

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N80 Mode/ CH42/ANT 1		

Channel of Worst Data: CH42	
The max. radio frequency power in any 1000kHz bandwidth outside the frequency band	
FREQUENCY(MHz)	POWER(dBm)
5148.40	-40.94
Limit: -27 dBm/1MHz	Result:PASS
Measurement method: S.A Read value+Ant gain+cable loss	

TX mode CH42

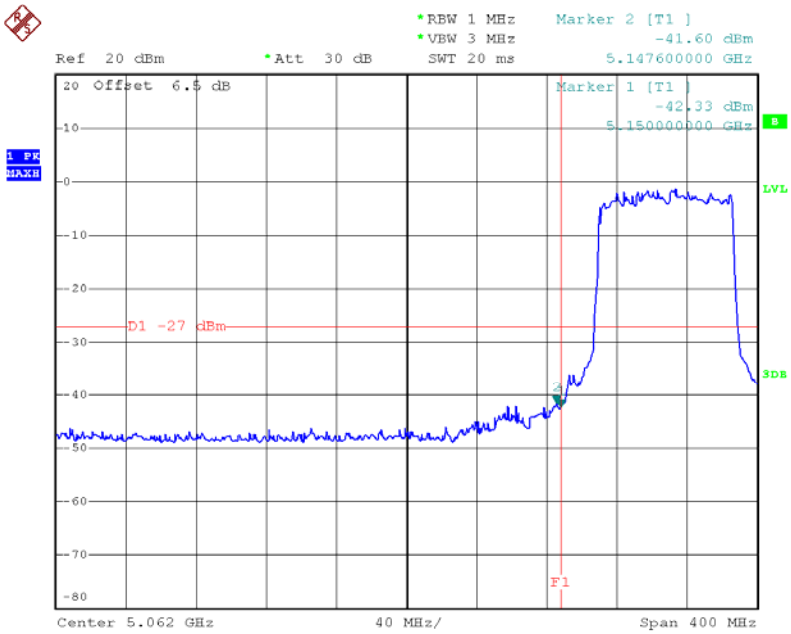


Date: 20.OCT.2013 18:53:39

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N80 Mode/ CH42/ANT 2		

Channel of Worst Data: CH42	
The max. radio frequency power in any 1000kHz bandwidth outside the frequency band	
FREQUENCY(MHz)	POWER(dBm)
5147.60	-41.60
Limit: -27 dBm/1MHz	Result:PASS
Measurement method: S.A Read value+Ant gain+cable loss	

TX mode CH42



Date: 20.OCT.2013 18:52:44

8. POWER SPECTRAL DENSITY TEST

8.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E			
Test Item	Limit	Frequency Range (MHz)	Result
Power Spectral Density	4 dBm	5150 - 5250	PASS

8.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Nov. 09.2014

Remark: “N/A” denotes no model name, serial no. or calibration specified.

8.1.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

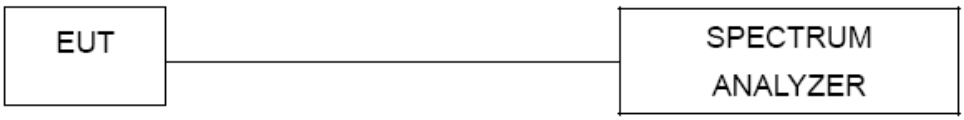
b.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RB	= 1 MHz.
VB	≥ 3 MHz.
Detector	RMS
Trace	Max Hold
Sweep Time	Auto

8.1.3 DEVIATION FROM STANDARD

No deviation.

8.1.4 TEST SETUP



8.1.5 EUT OPERATION CONDITIONS

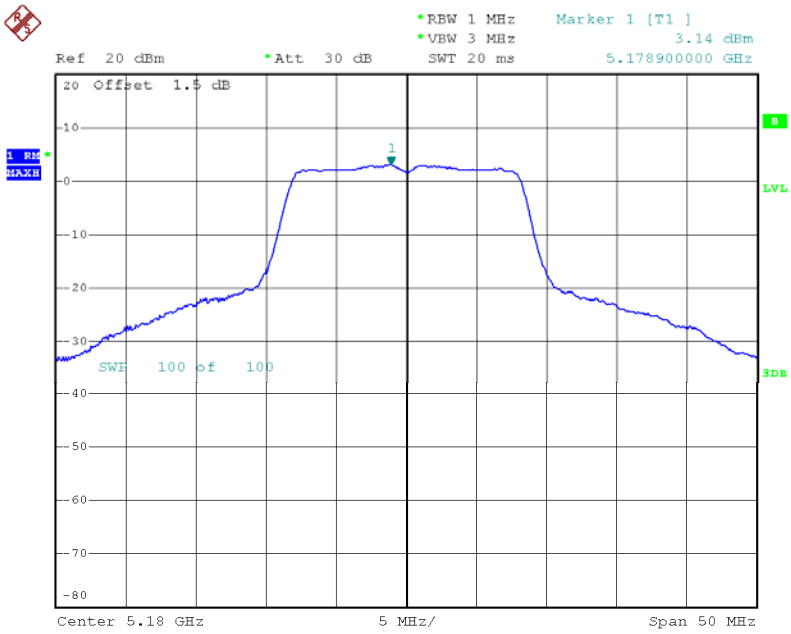
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

8.1.6 TEST RESULTS

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX A Mode/CH36, CH40, CH48		

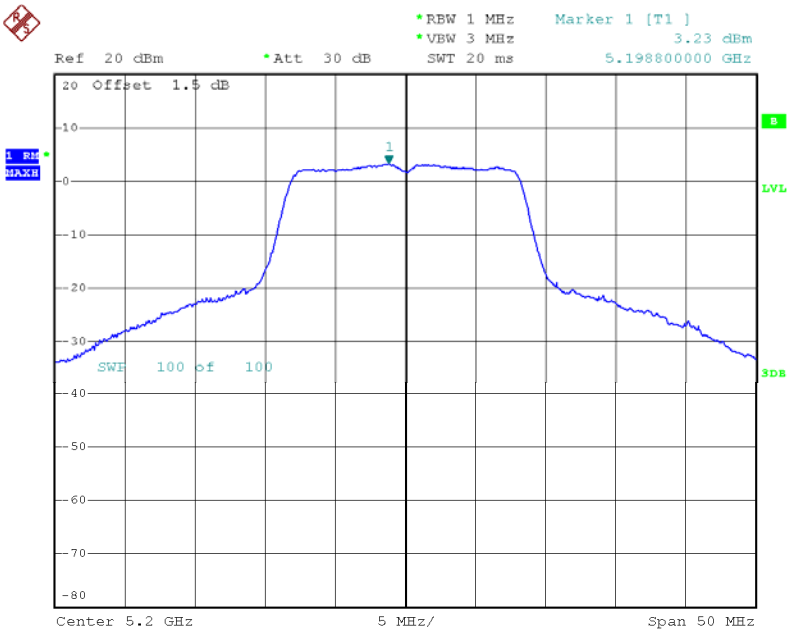
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH36	5180	3.14	4.00
CH40	5200	3.23	4.00
CH48	5240	3.76	4.00

CH36



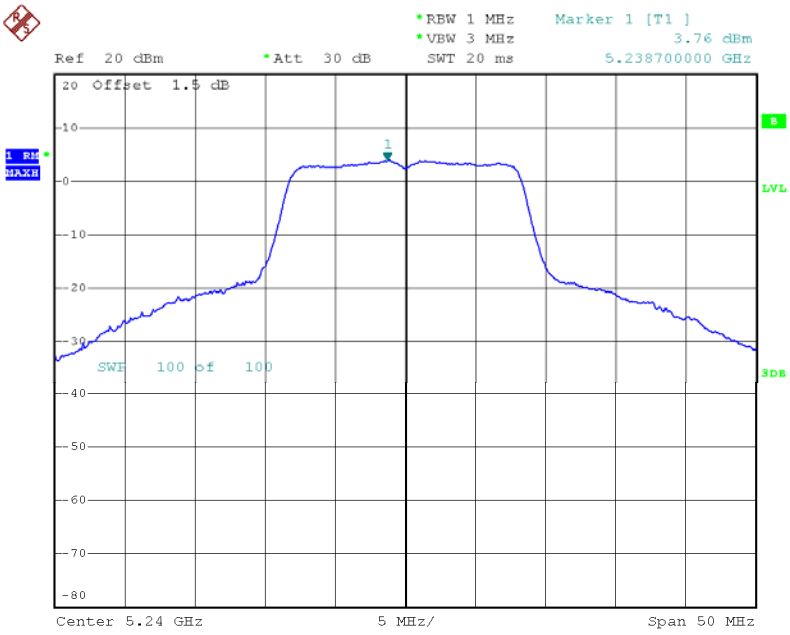
Date: 20.OCT.2013 14:49:18

CH40



Date: 20.OCT.2013 15:00:49

CH48

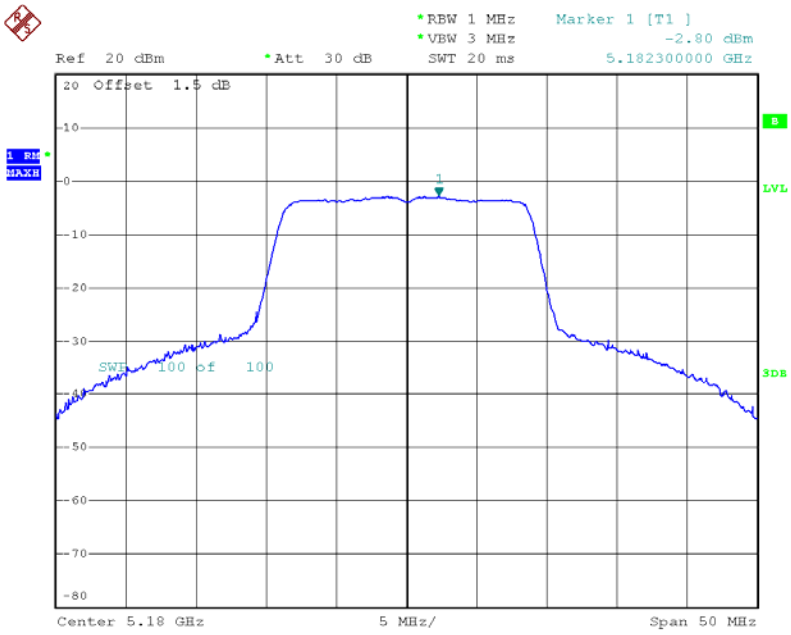


Date: 20.OCT.2013 15:02:47

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 ˚C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N20 Mode/CH36, CH40, CH48		

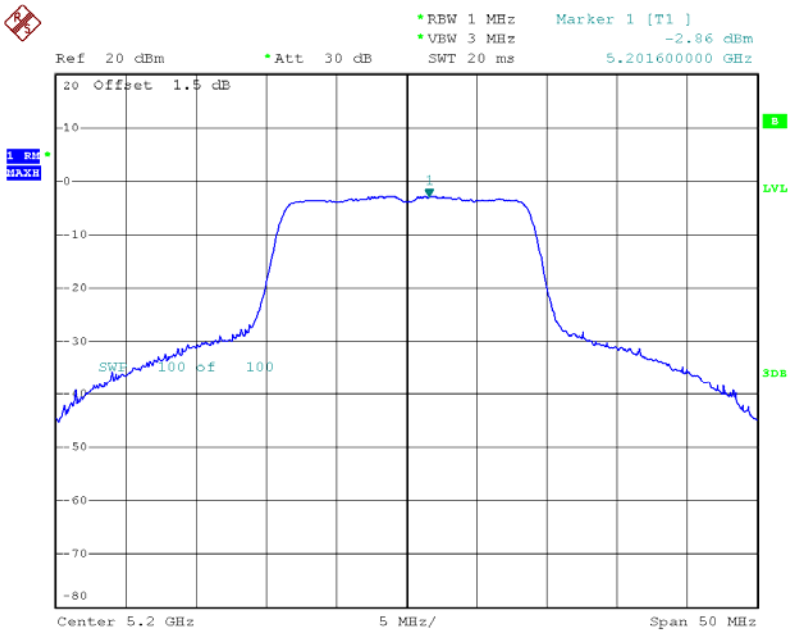
ANT 0			
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH36	5180	-2.80	4.00
CH40	5200	-2.86	4.00
CH48	5240	-2.34	4.00

CH36



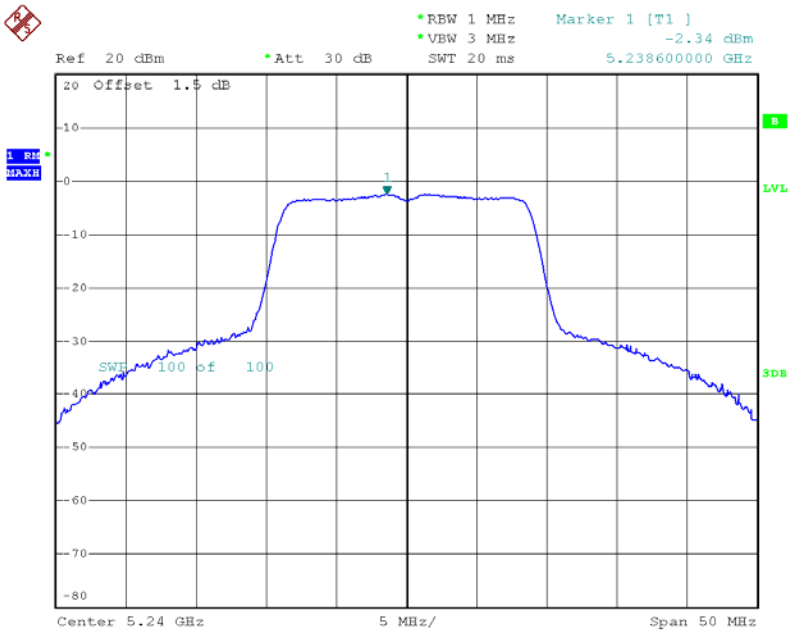
Date: 20.OCT.2013 15:18:08

CH40



Date: 20.OCT.2013 15:19:54

CH48

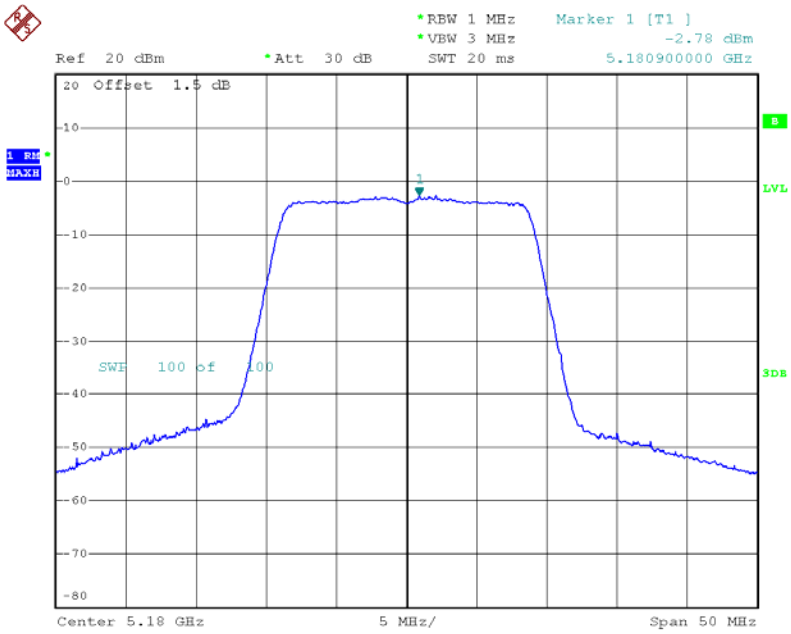


Date: 20.OCT.2013 15:20:07

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N20 Mode/CH36, CH40, CH48		

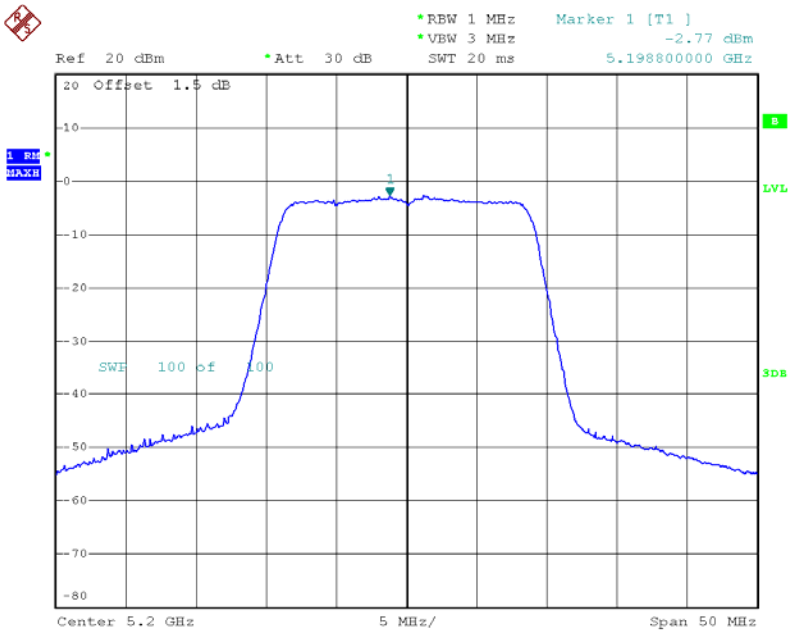
ANT 1			
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH36	5180	-2.78	4.00
CH40	5200	-2.77	4.00
CH48	5240	-2.95	4.00

CH36



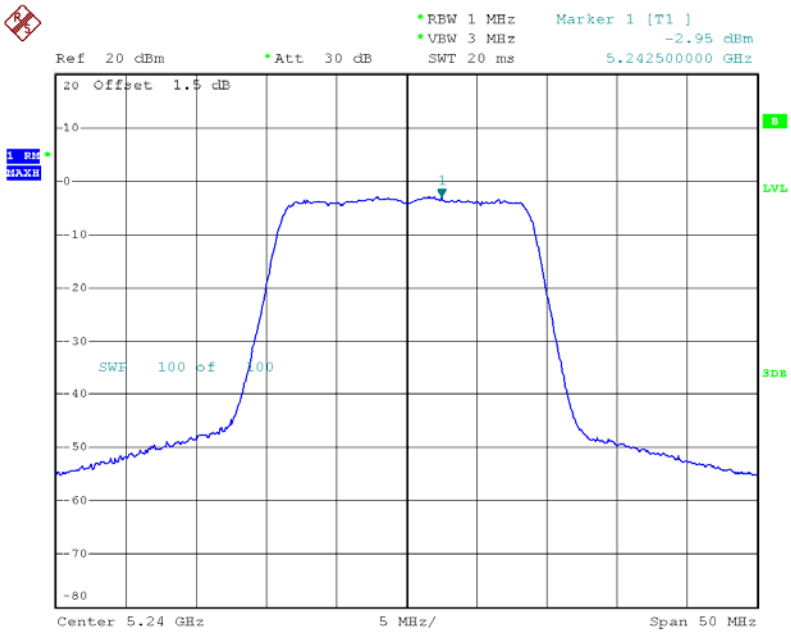
Date: 20.OCT.2013 15:29:07

CH40



Date: 20.OCT.2013 15:29:20

CH48

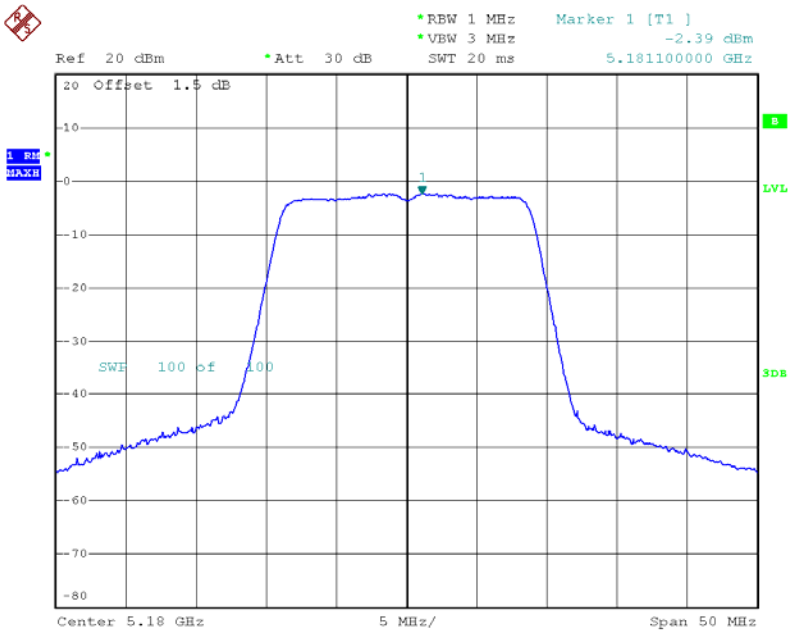


Date: 20.OCT.2013 15:29:32

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 ˚C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N20 Mode/CH36, CH40, CH48		

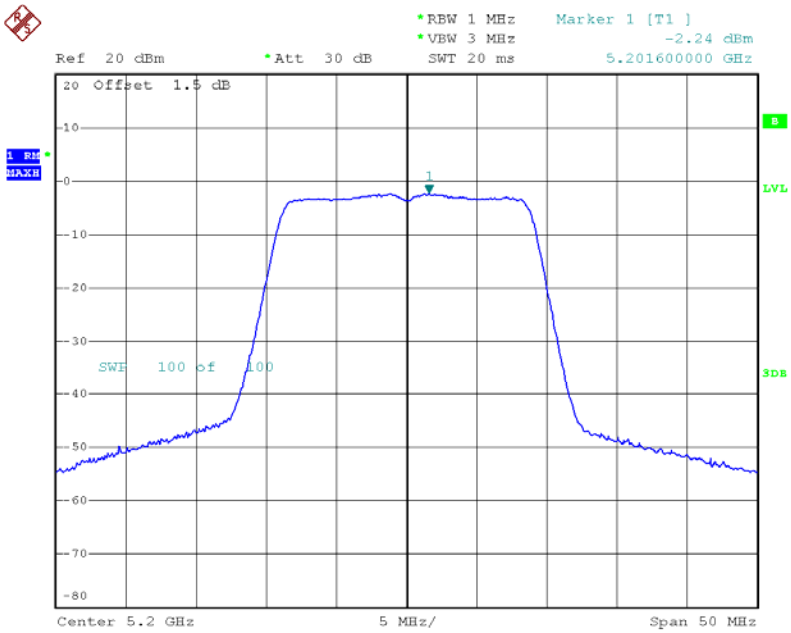
ANT 2			
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH36	5180	-2.39	4.00
CH40	5200	-2.24	4.00
CH48	5240	-2.65	4.00

CH36



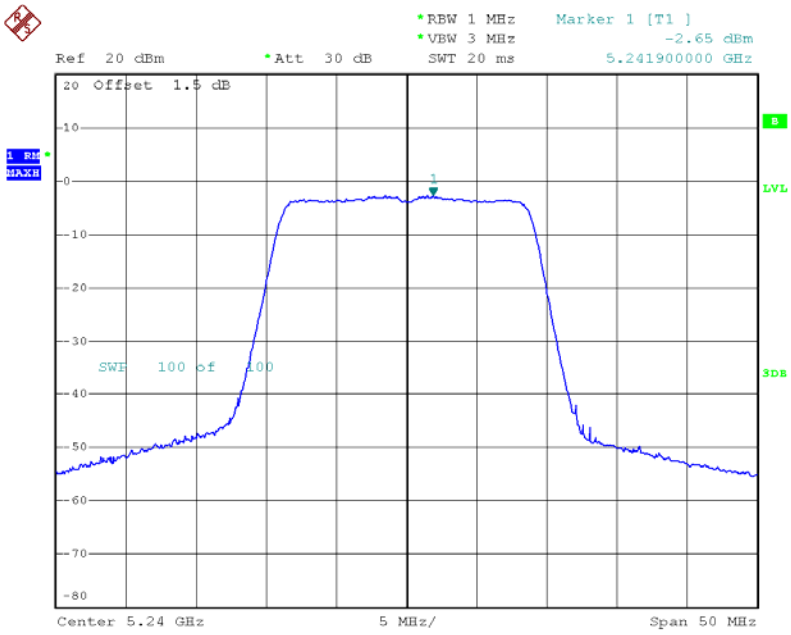
Date: 20.OCT.2013 15:30:10

CH40



Date: 20.OCT.2013 15:30:33

CH48



Date: 20.OCT.2013 15:30:52

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N20 Mode/CH36, CH40, CH48		

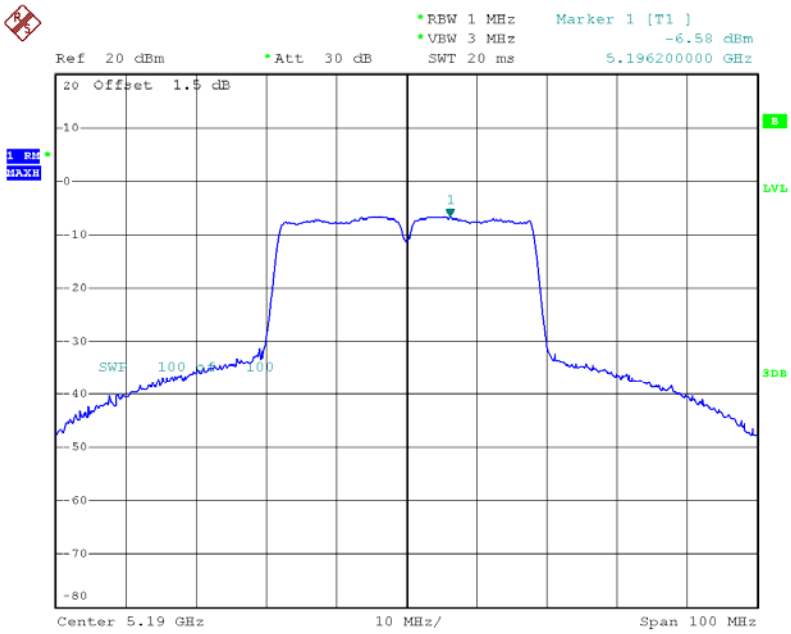
ANT 0+ANT 1+ANT 2			
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH36	5180	2.12	4.00
CH40	5200	2.16	4.00
CH48	5240	2.13	4.00

Note:The EUT incorporates a MIMO function. Physically, the EUT provides three completed transmitters and three receivers (3T3R). all transmit signals are completely uncorrelated, then, **Direction gain = G_{ANT}**, that is Directional gain=5.

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25˚C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N40 Mode/CH38, CH46		

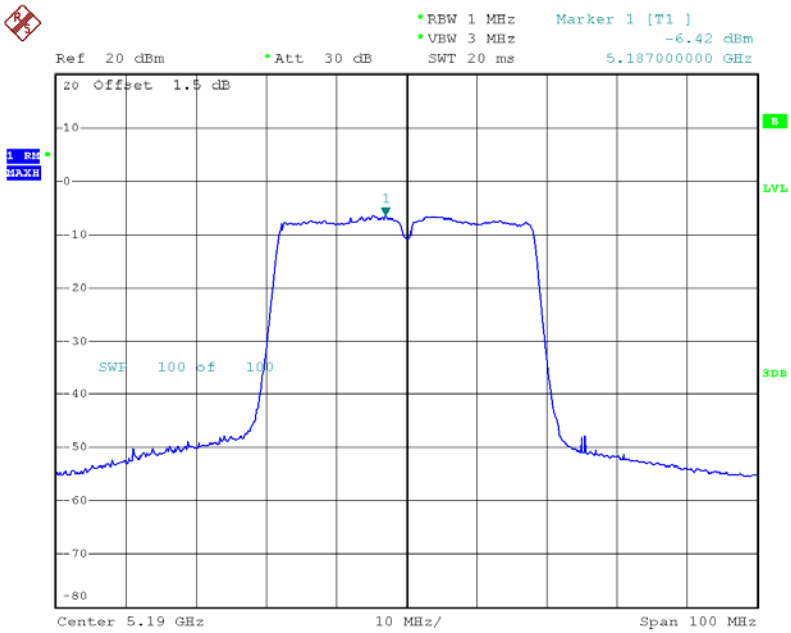
ANT 0			
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH38	5190	-6.58	4.00
CH46	5230	-6.42	4.00

CH38



Date: 20.OCT.2013 15:46:54

CH46

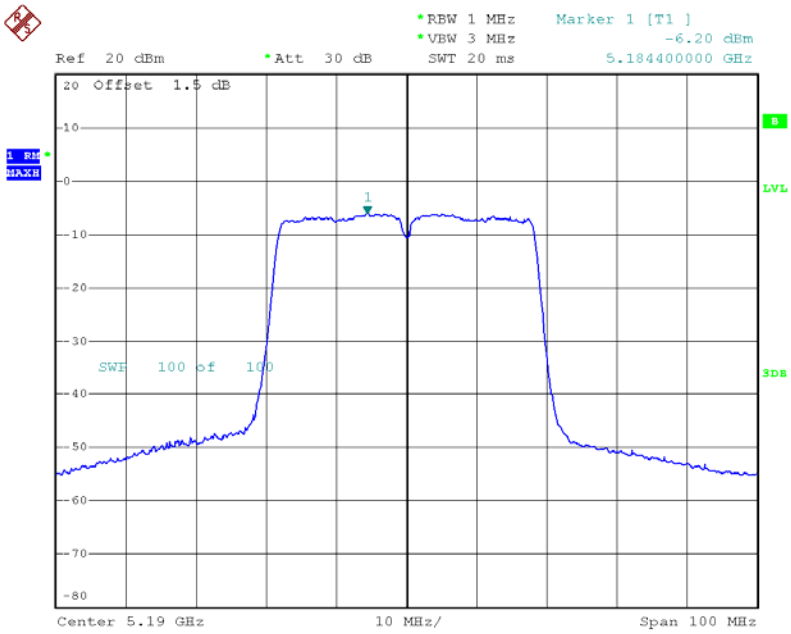


Date: 20.OCT.2013 15:49:19

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N40 Mode/CH38, CH46		

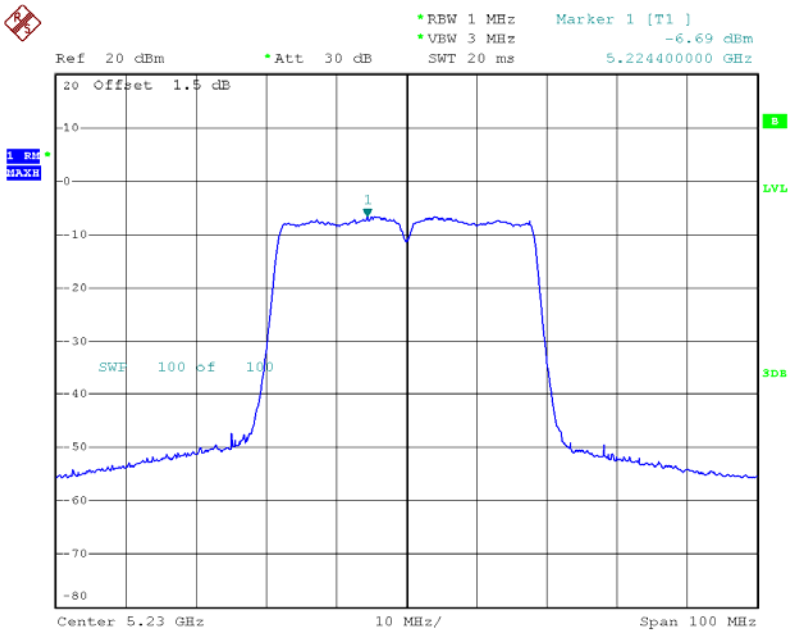
ANT 1			
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH38	5190	-6.20	4.00
CH46	5230	-6.69	4.00

CH38



Date: 20.OCT.2013 15:51:59

CH46

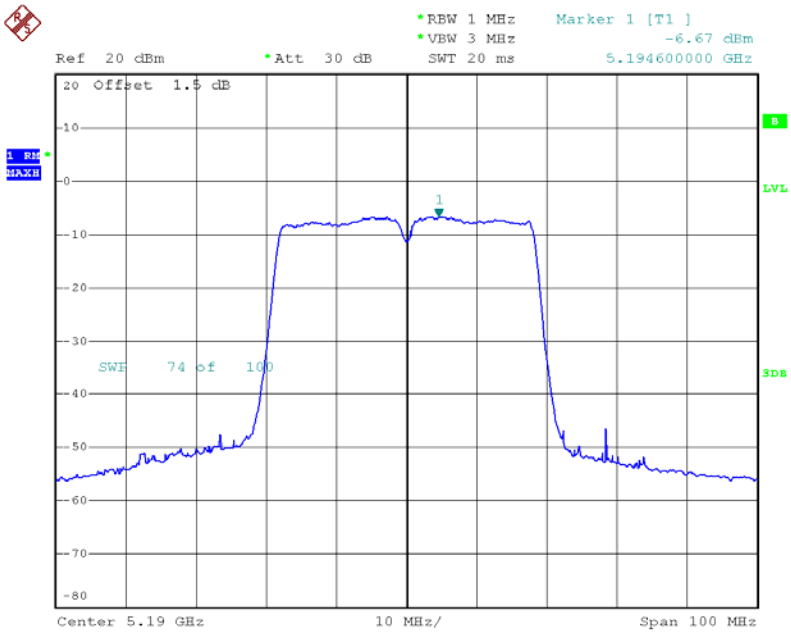


Date: 20.OCT.2013 15:49:34

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N40 Mode/CH38, CH46		

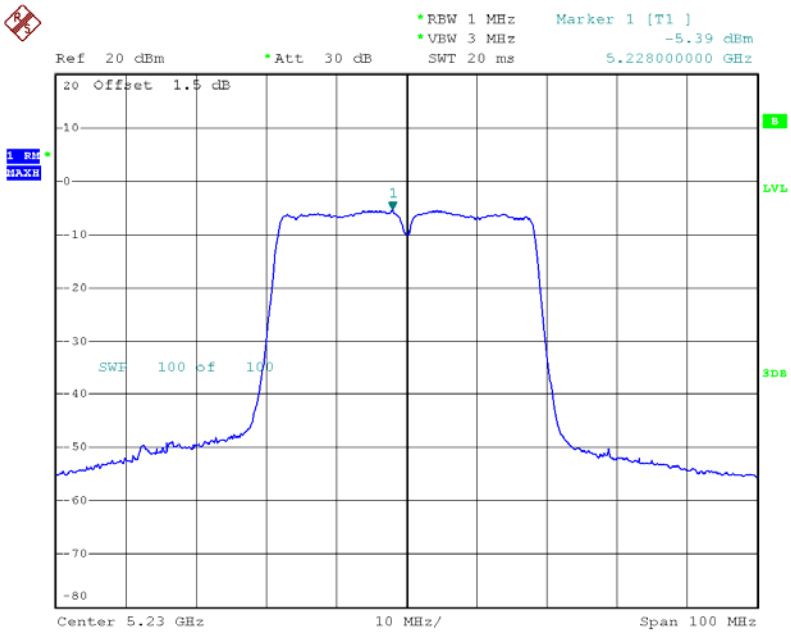
ANT 2			
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH38	5190	-6.67	4.00
CH46	5230	-5.39	4.00

CH38



Date: 20.OCT.2013 15:49:54

CH46



Date: 20.OCT.2013 15:50:09

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N40 Mode/CH38, CH46		

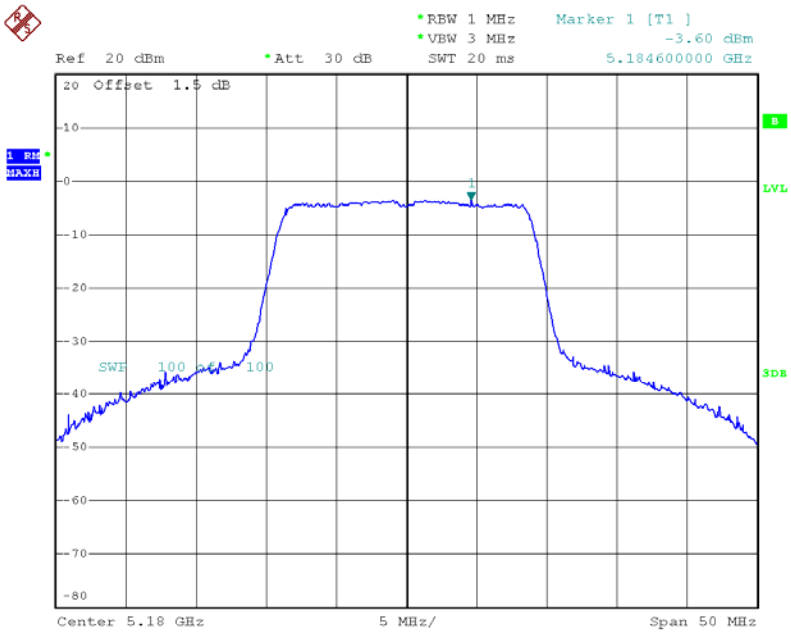
ANT 0+ANT 1+ANT 2			
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH38	5190	-1.71	4.00
CH46	5230	-1.36	4.00

Note:The EUT incorporates a MIMO function. Physically, the EUT provides three completed transmitters and three receivers (3T3R). all transmit signals are completely uncorrelated, then, **Direction gain = G_{ANT}**, that is Directional gain=5.

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 ˚C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N20 Mode/CH36, CH40, CH48		

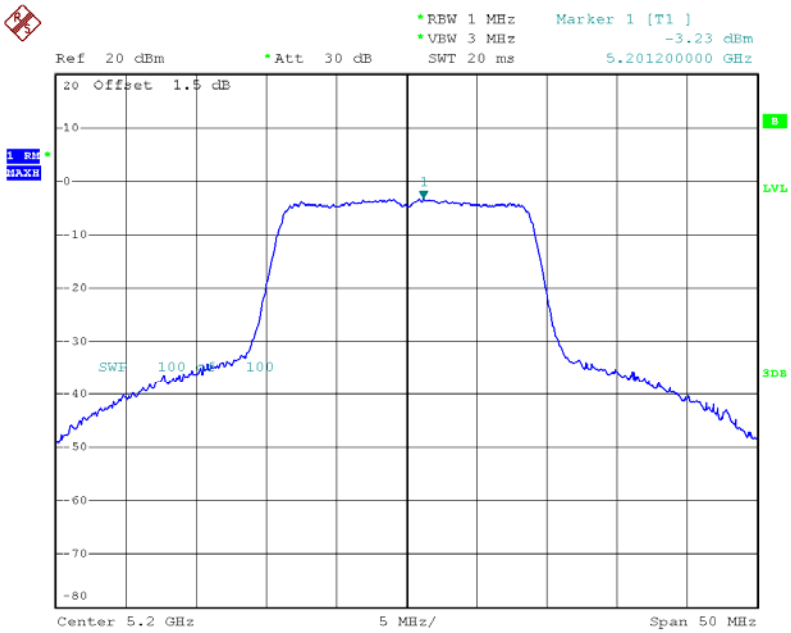
ANT 0			
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH36	5180	-3.60	4.00
CH40	5200	-3.23	4.00
CH48	5240	-3.27	4.00

CH36



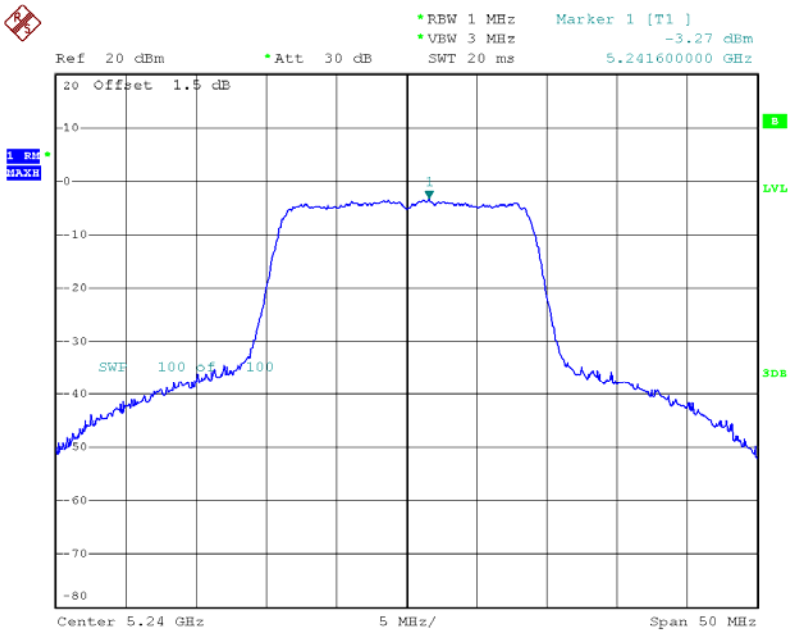
Date: 20.OCT.2013 16:46:43

CH40



Date: 20.OCT.2013 16:46:57

CH48

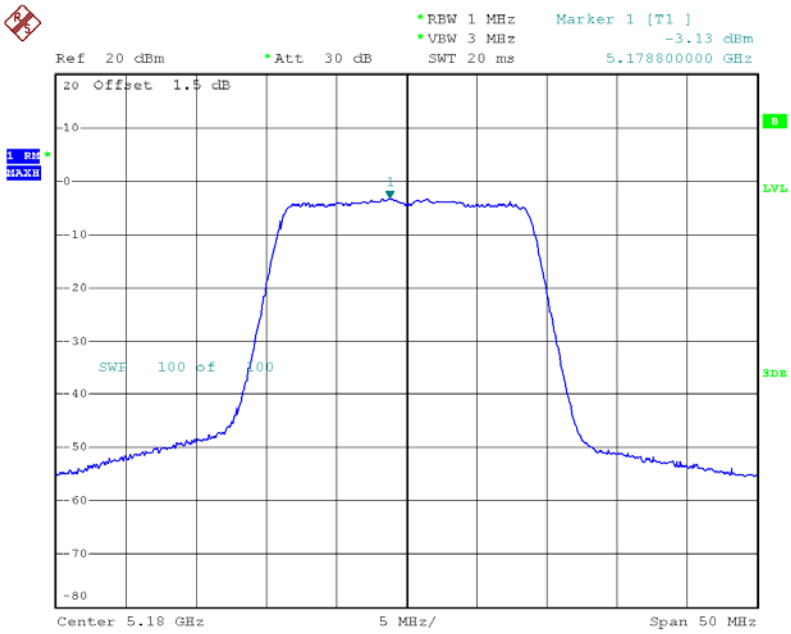


Date: 20.OCT.2013 16:48:17

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N20 Mode/CH36, CH40, CH48		

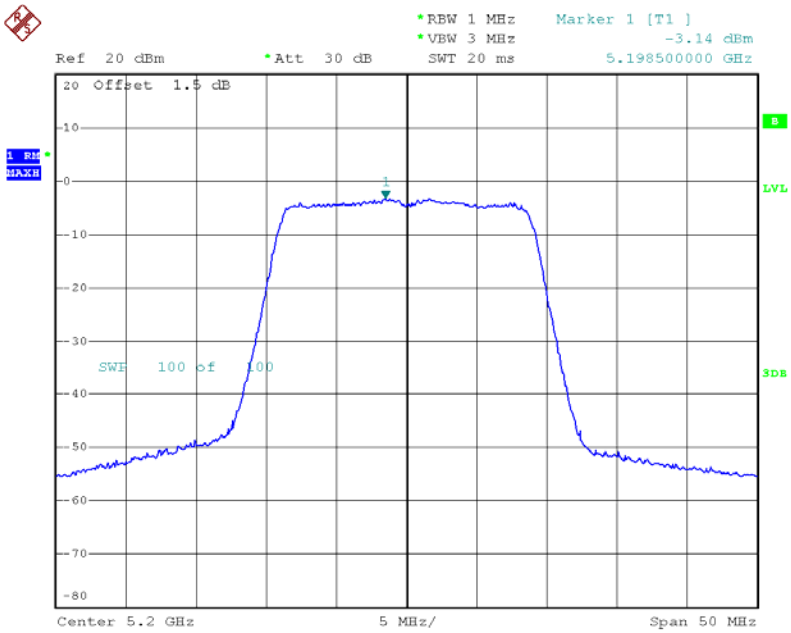
ANT 1			
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH36	5180	-3.13	4.00
CH40	5200	-3.14	4.00
CH48	5240	-3.18	4.00

CH36



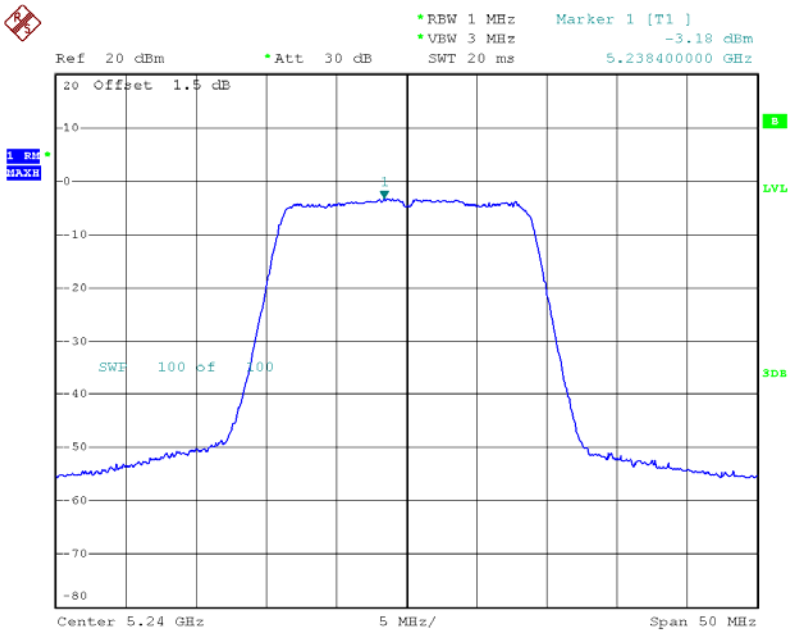
Date: 20.OCT.2013 16:49:34

CH40



Date: 20.OCT.2013 16:49:46

CH48

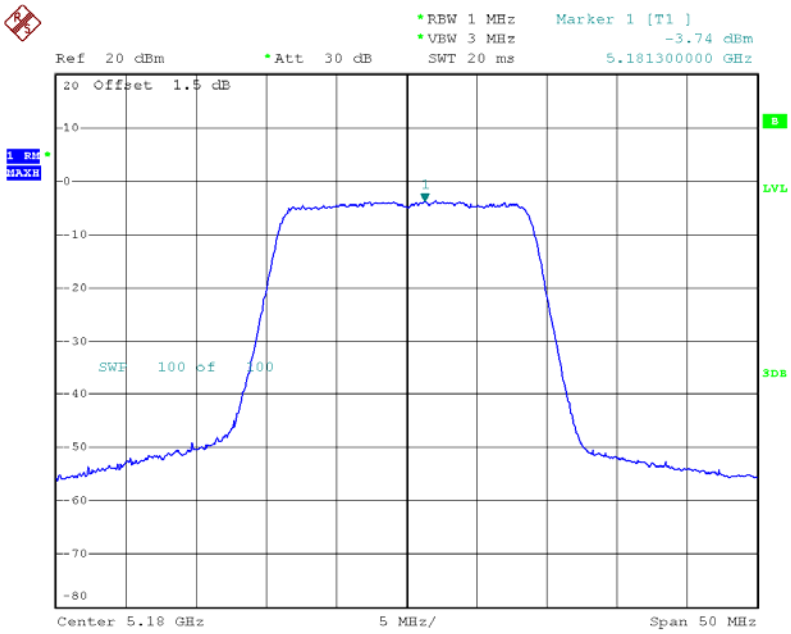


Date: 20.OCT.2013 16:50:00

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N20 Mode/CH36, CH40, CH48		

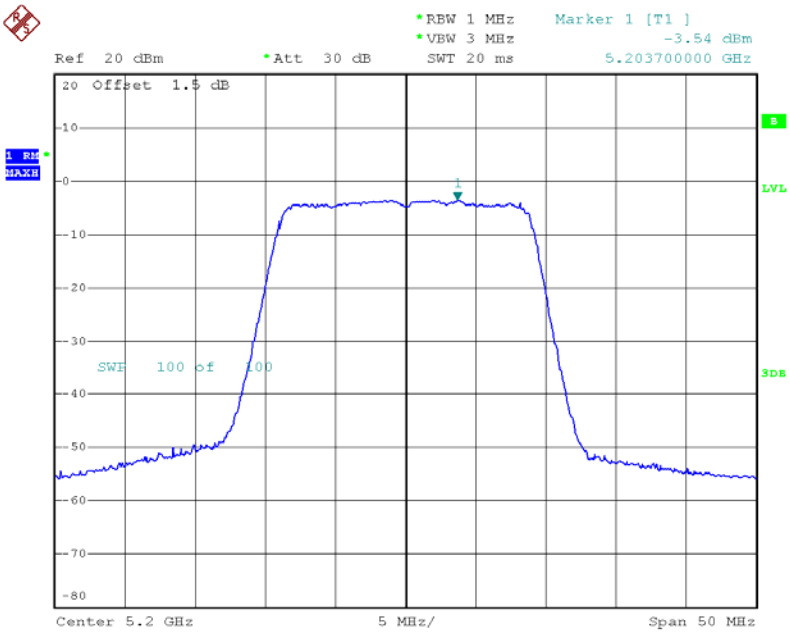
ANT 2			
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH36	5180	-3.74	4.00
CH40	5200	-3.54	4.00
CH48	5240	-3.23	4.00

CH36



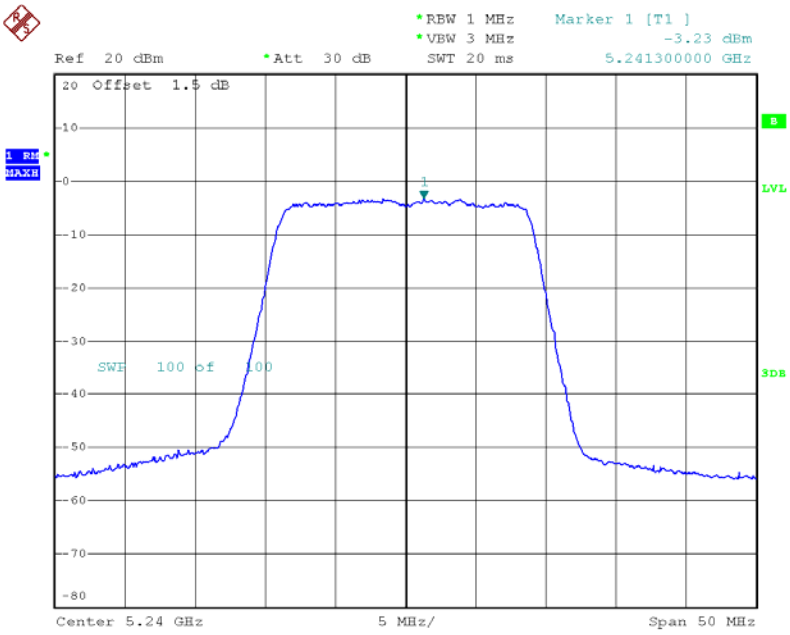
Date: 20.OCT.2013 16:50:21

CH40



Date: 20.OCT.2013 16:50:35

CH48



Date: 20.OCT.2013 16:50:46

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N20 Mode/CH36, CH40, CH48		

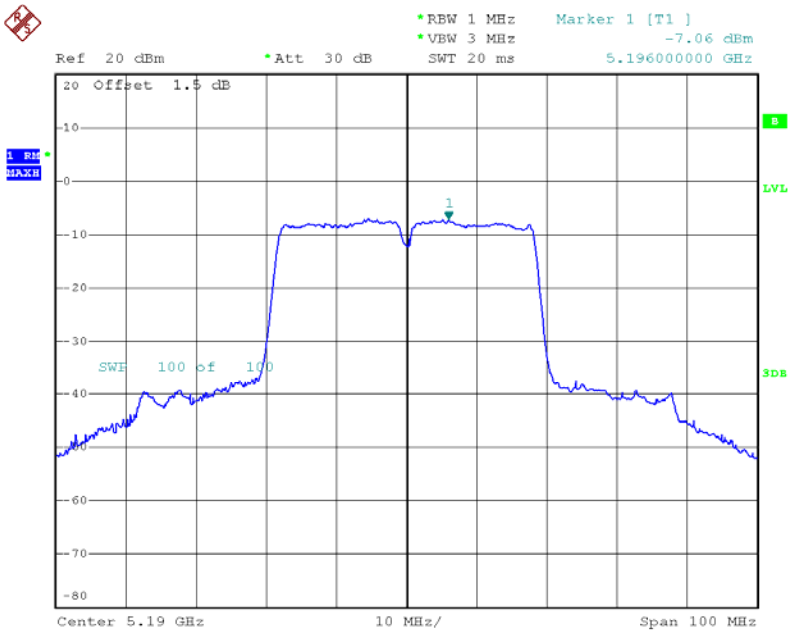
ANT 0+ANT 1+ANT 2			
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH36	5180	1.29	4.00
CH40	5200	1.47	4.00
CH48	5240	1.54	4.00

Note:The EUT incorporates a MIMO function. Physically, the EUT provides three completed transmitters and three receivers (3T3R). all transmit signals are completely uncorrelated, then, **Direction gain = G_{ANT}**, that is Directional gain=5.

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25˚C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N40 Mode/CH38, CH46		

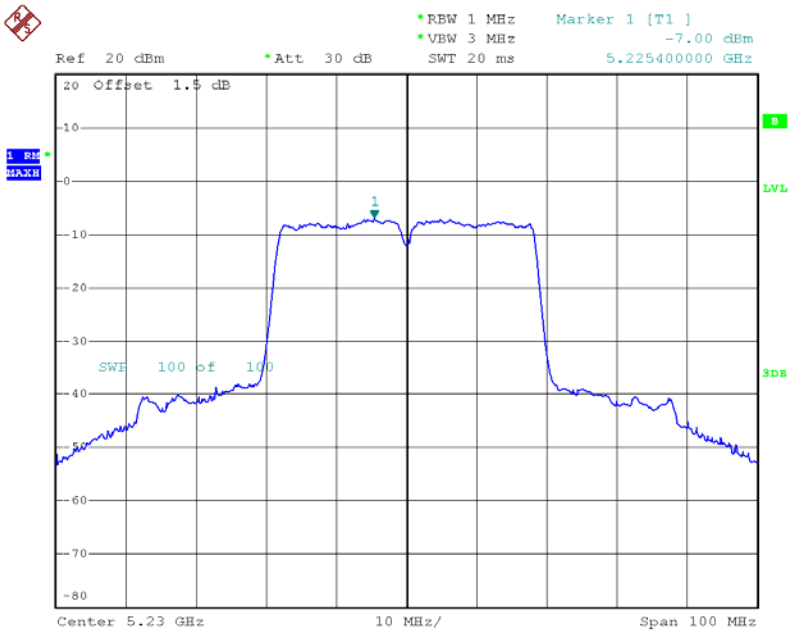
ANT 0			
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH38	5190	-7.06	4.00
CH46	5230	-7.00	4.00

CH38



Date: 20.OCT.2013 16:54:04

CH46

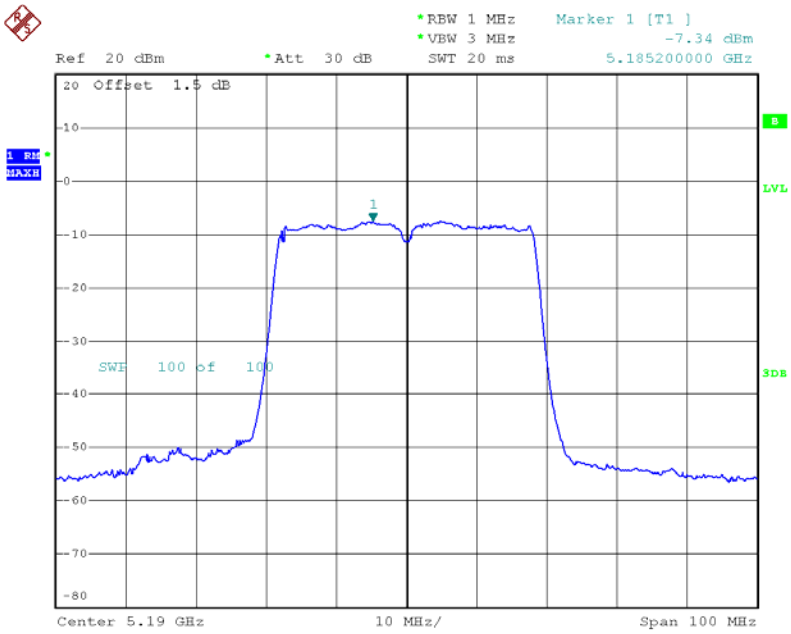


Date: 20.OCT.2013 16:54:19

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N40 Mode/CH38, CH46		

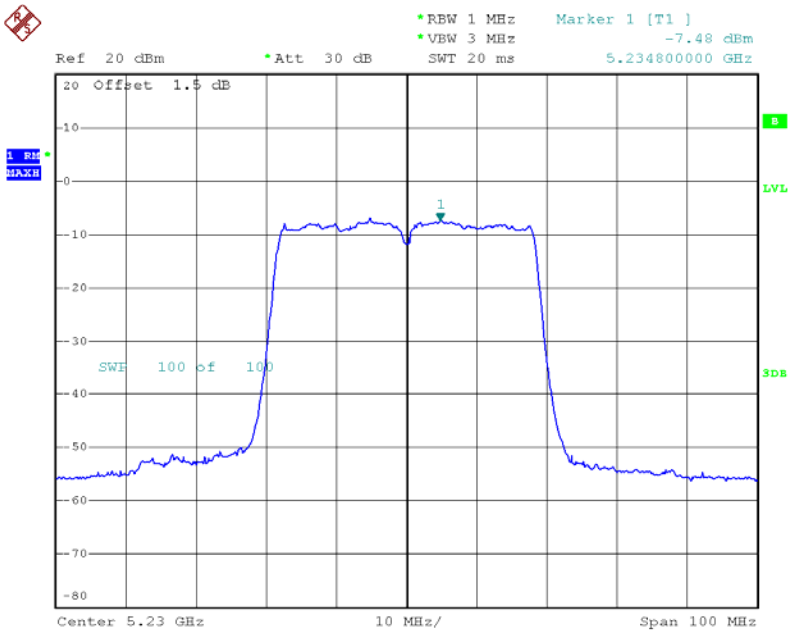
ANT 1			
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH38	5190	-7.34	4.00
CH46	5230	-7.48	4.00

CH38



Date: 20.OCT.2013 16:55:28

CH46

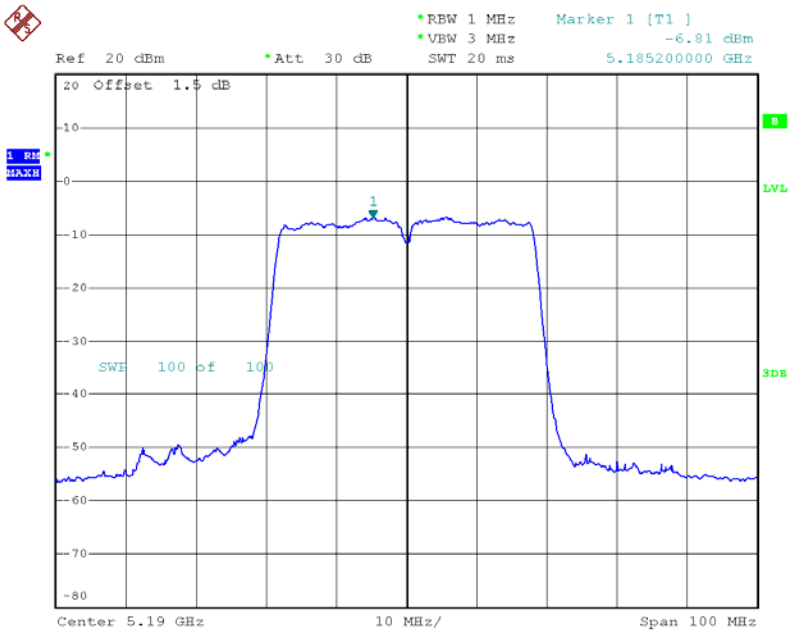


Date: 20.OCT.2013 16:55:41

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N40 Mode/CH38, CH46		

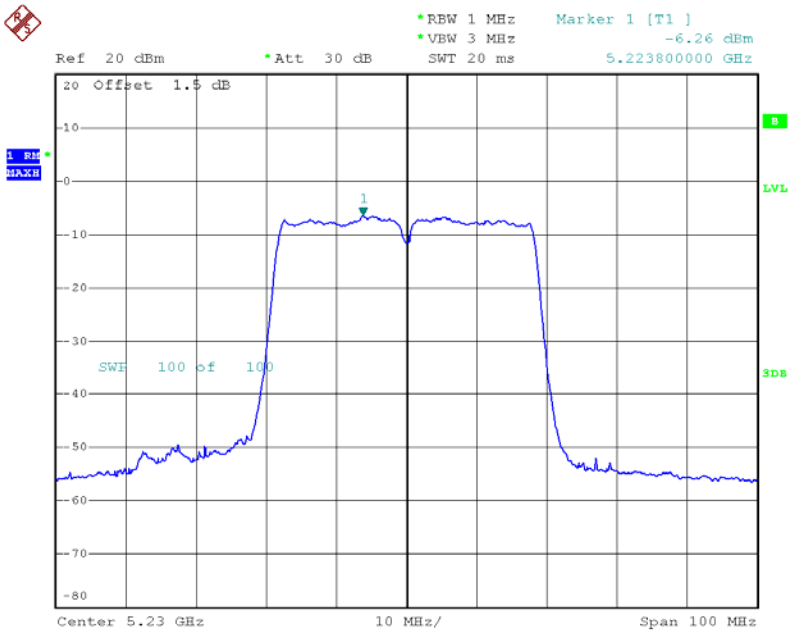
ANT 2			
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH38	5190	-6.81	4.00
CH46	5230	-6.26	4.00

CH38



Date: 20.OCT.2013 16:56:02

CH46



Date: 20.OCT.2013 16:56:14

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N40 Mode/CH38, CH46		

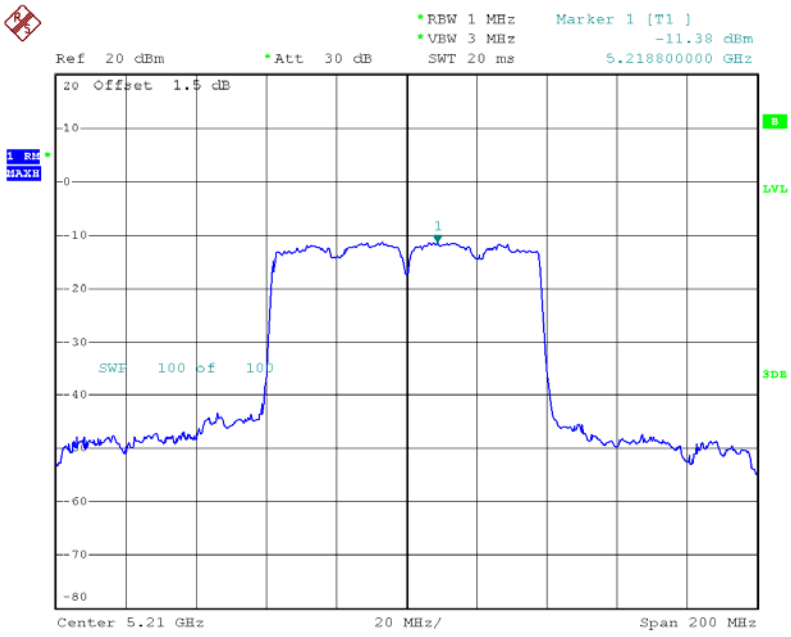
ANT 0+ANT 1+ANT 2			
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH38	5190	-2.29	4.00
CH46	5230	-2.11	4.00

Note:The EUT incorporates a MIMO function. Physically, the EUT provides three completed transmitters and three receivers (3T3R). all transmit signals are completely uncorrelated, then, **Direction gain = G_{ANT}**, that is Directional gain=5.

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 ˚C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N80 Mode/CH42		

ANT 0			
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH42	5210	-11.38	4.00

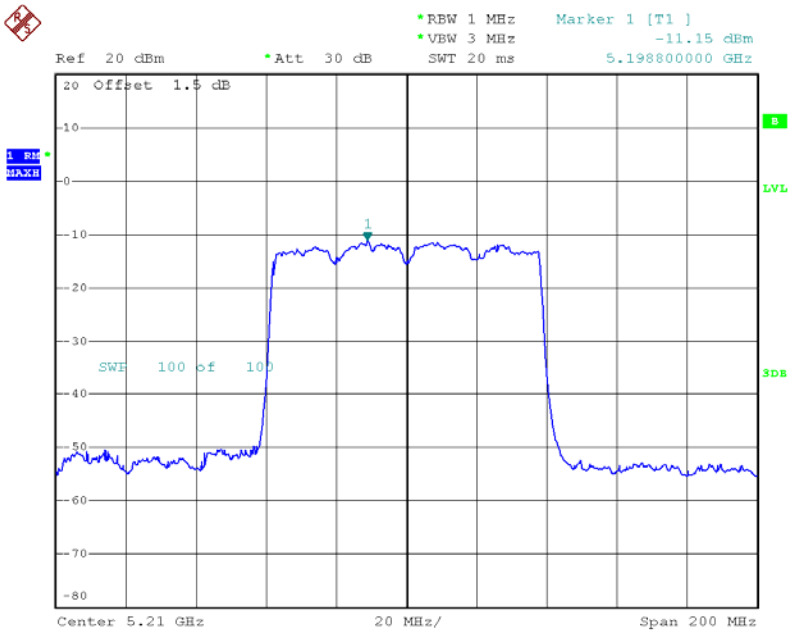
CH42



EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 ˚C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N80 Mode/CH42		

ANT 1			
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH42	5210	-11.15	4.00

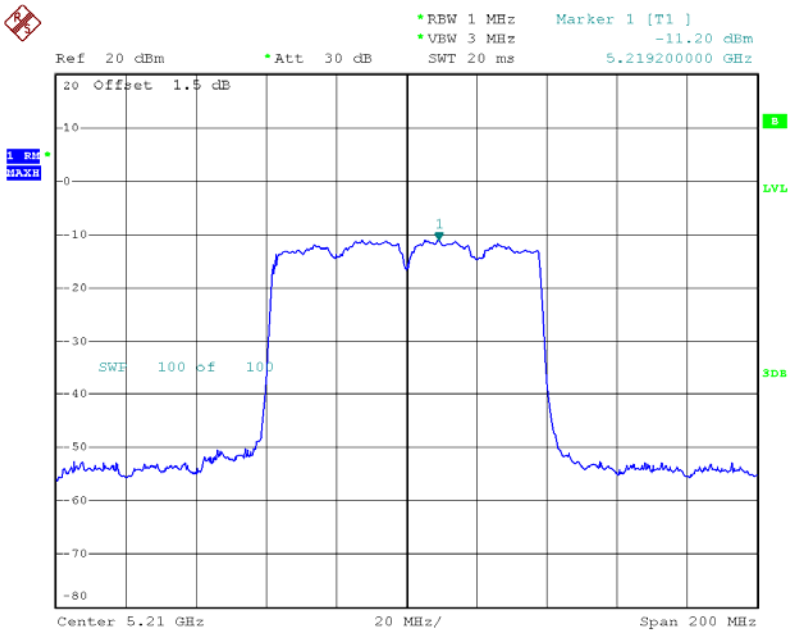
CH42



EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N80 Mode/CH42		

ANT 2			
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH42	5210	-11.20	4.00

CH42



Date: 20.OCT.2013 16:59:19

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N80 Mode/CH42		

ANT 0+ANT 1+ANT 2			
Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH42	5210	-6.47	4.00

Note:The EUT incorporates a MIMO function. Physically, the EUT provides three completed transmitters and three receivers (3T3R). all transmit signals are completely uncorrelated, then, **Direction gain = G_{ANT}**, that is Directional gain=5.

9. PEAK EXCURSION MEASUREMENT

9.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E			
Test Item	Limit	Frequency Range (MHz)	Result
Peak Excursion Measurement	13 dB	5150 - 5250	PASS

9.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Nov. 09.2014

Remark: "N/A" denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

9.1.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

b.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RB	1000 kHz (Peak Trace) / 1000 kHz (Average Trace)
VB	3000 kHz (Peak Trace) / 3000 kHz (Average Trace)
Detector	Peak (Peak Trace) / RMS (Average Trace)
Trace	Max Hold
Sweep Time	60s

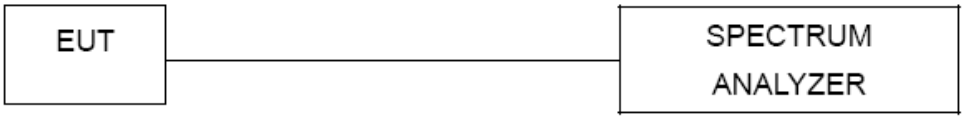
c. Peak Trace: Set RBW = 1 MHz, VBW ≥ 3 MHz with peak detector and maxhold settings.

d. Average Trace: set RBW = 1 MHz, VBW = 3 MHz with RMS detector and trace average across 100 traces in power averaging mode.

9.1.3 DEVIATION FROM STANDARD

No deviation.

9.1.4 TEST SETUP



9.1.5 EUT OPERATION CONDITIONS

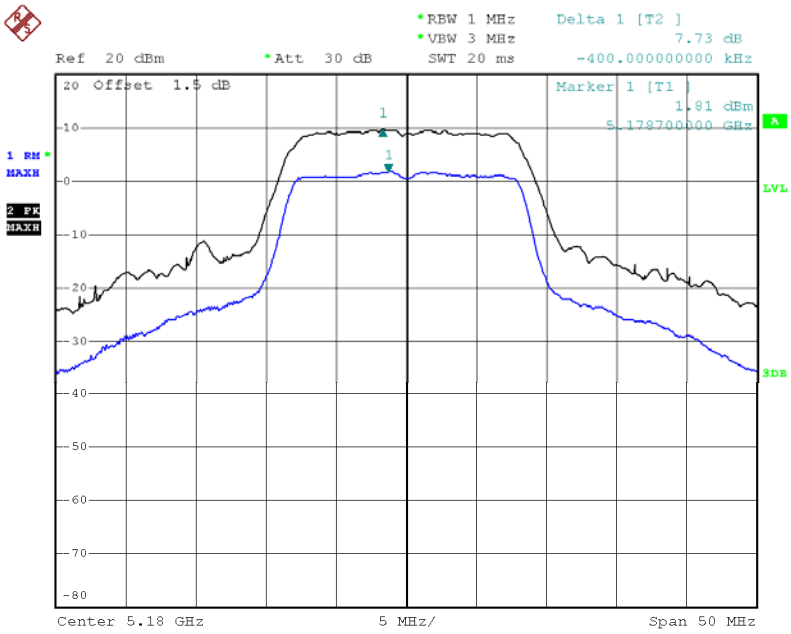
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

9.1.6 TEST RESULTS

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX A Mode/CH36, CH40, CH48		

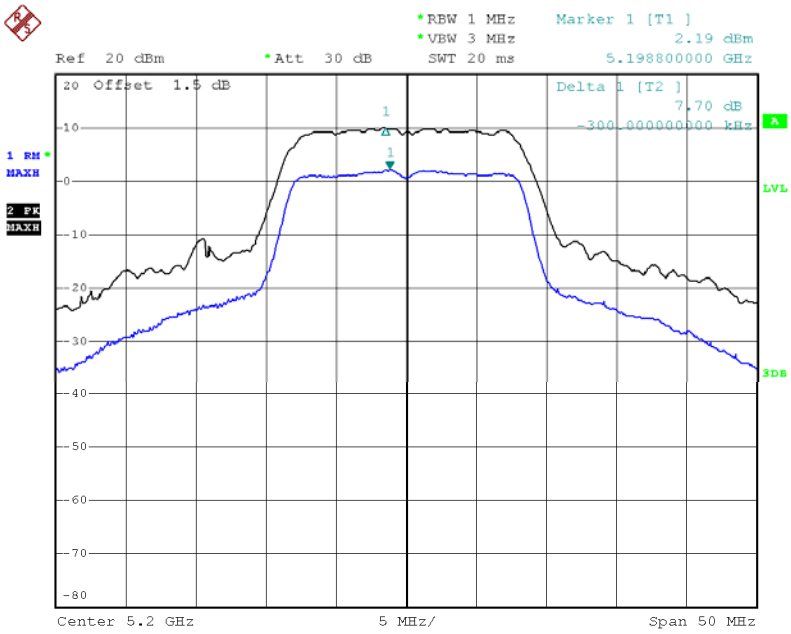
Test Channel	Frequency (MHz)	Peak Excursion (dB)	LIMIT (dB)
CH36	5180	7.73	13
CH40	5200	7.70	13
CH48	5240	7.96	13

CH36



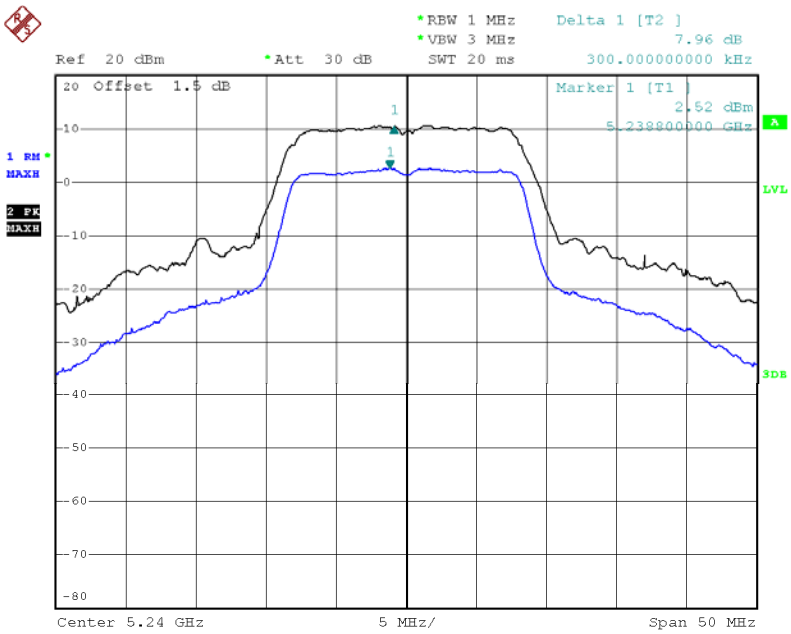
Date: 20.OCT.2013 17:33:56

CH40



Date: 20.OCT.2013 17:34:47

CH48

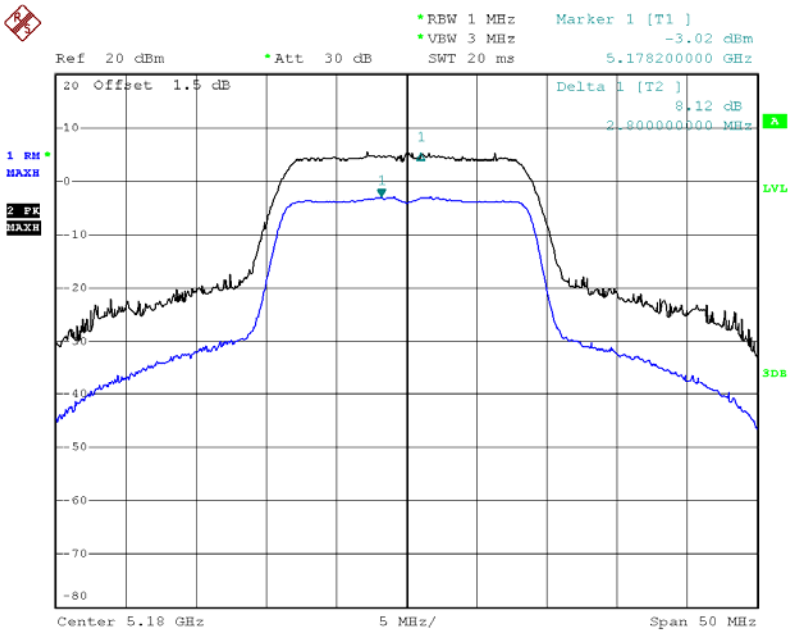


Date: 20.OCT.2013 17:35:10

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N20 Mode/CH36, CH40, CH48		

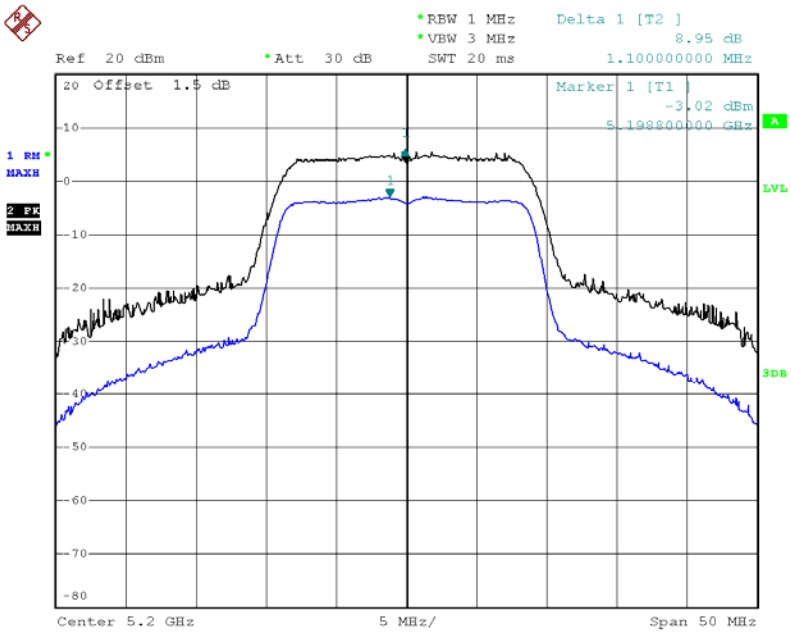
Test Channel	Frequency (MHz)	Peak Excursion (dB)	LIMIT (dB)
CH36	5180	8.12	13
CH40	5200	8.95	13
CH48	5240	8.63	13

CH36



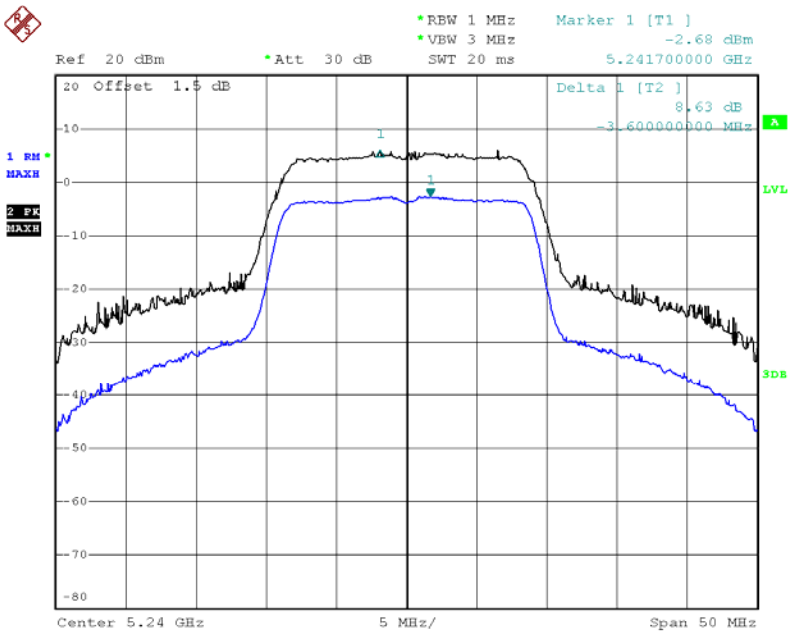
Date: 20.OCT.2013 17:50:31

CH40



Date: 20.OCT.2013 17:50:54

CH48

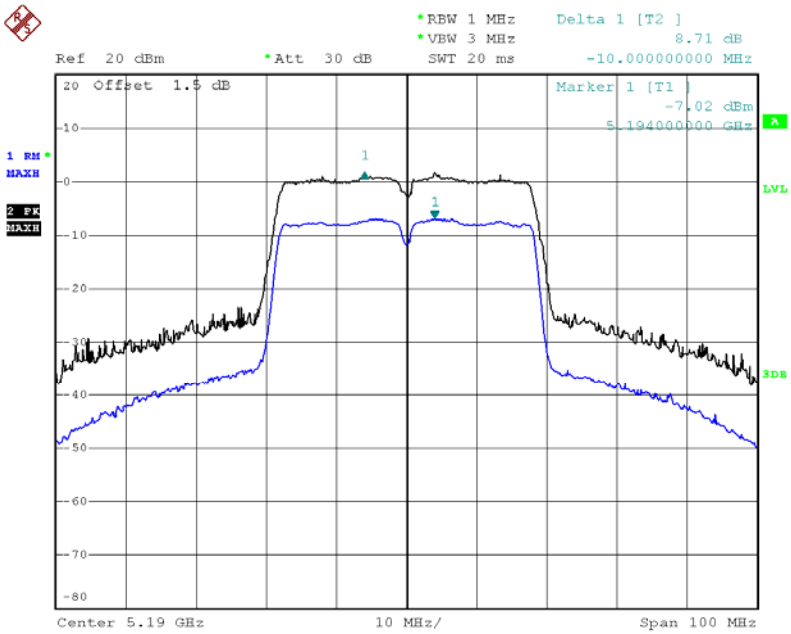


Date: 20.OCT.2013 17:51:11

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N40 Mode/CH38, CH46		

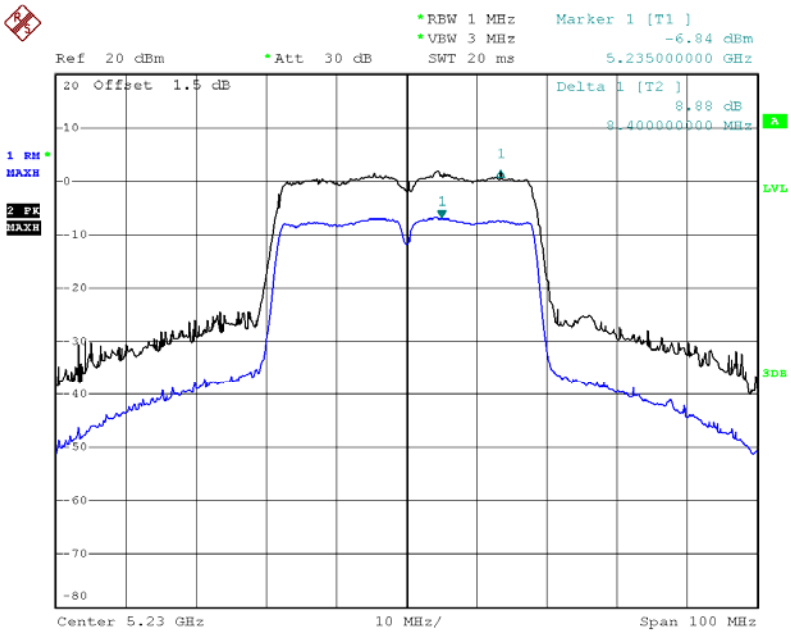
Test Channel	Frequency (MHz)	Peak Excursion (dB)	LIMIT (dB)
CH38	5190	8.71	13
CH46	5230	8.88	13

CH38



Date: 20.OCT.2013 17:59:37

CH46

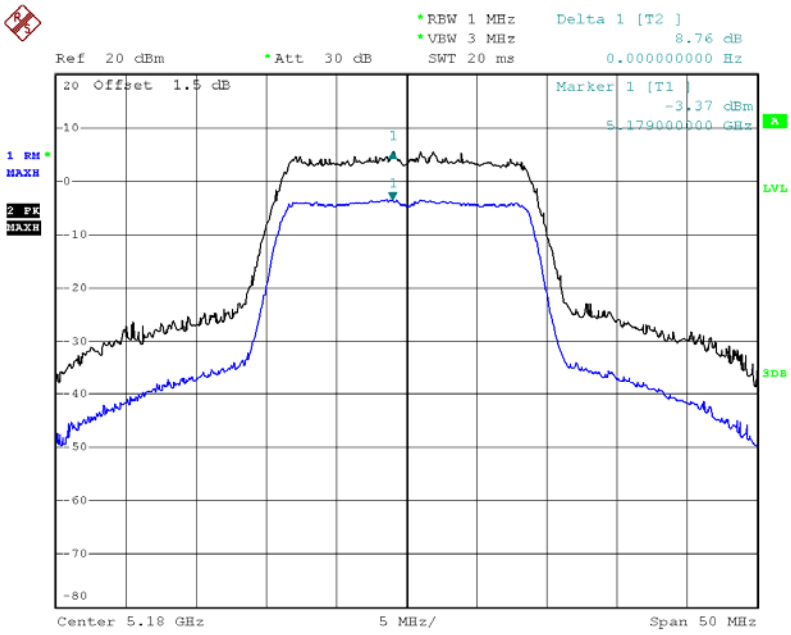


Date: 20.OCT.2013 18:02:25

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N20 Mode/CH36, CH40, CH48		

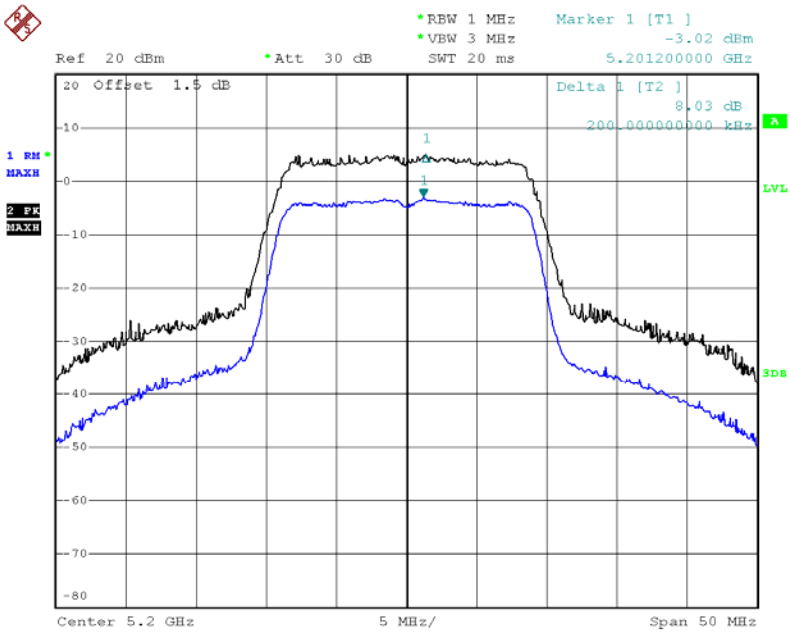
Test Channel	Frequency (MHz)	Peak Excursion (dB)	LIMIT (dB)
CH36	5180	8.76	13
CH40	5200	8.03	13
CH48	5240	8.92	13

CH36



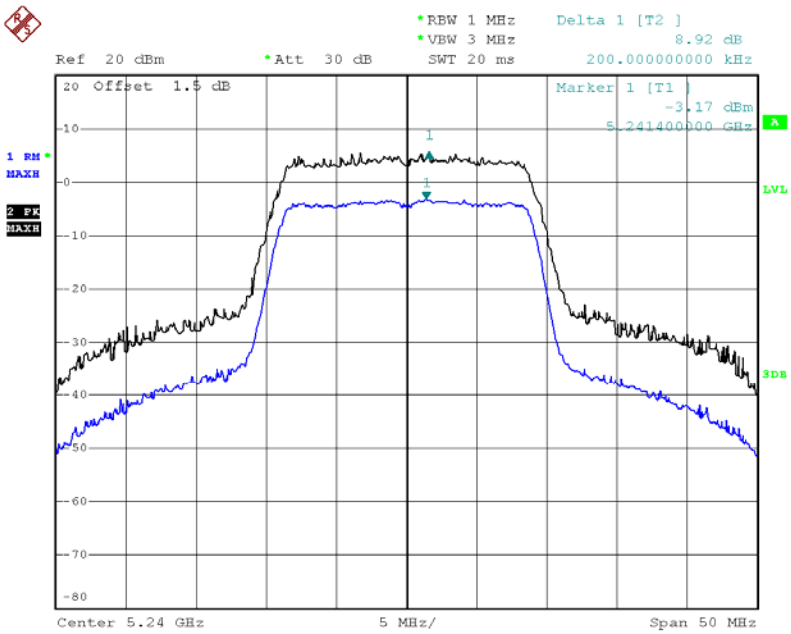
Date: 20.OCT.2013 18:37:34

CH40



Date: 20.OCT.2013 18:37:55

CH48

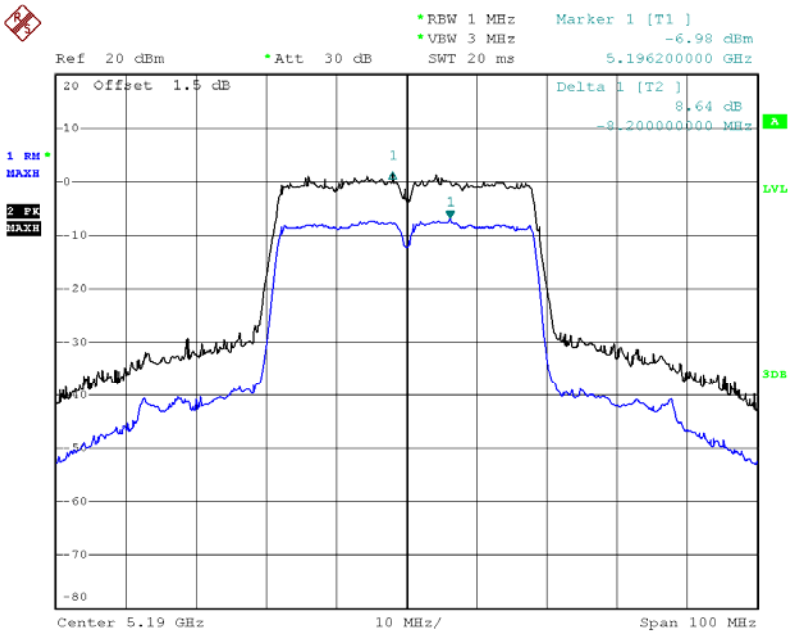


Date: 20.OCT.2013 18:38:14

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N40 Mode/CH38, CH46		

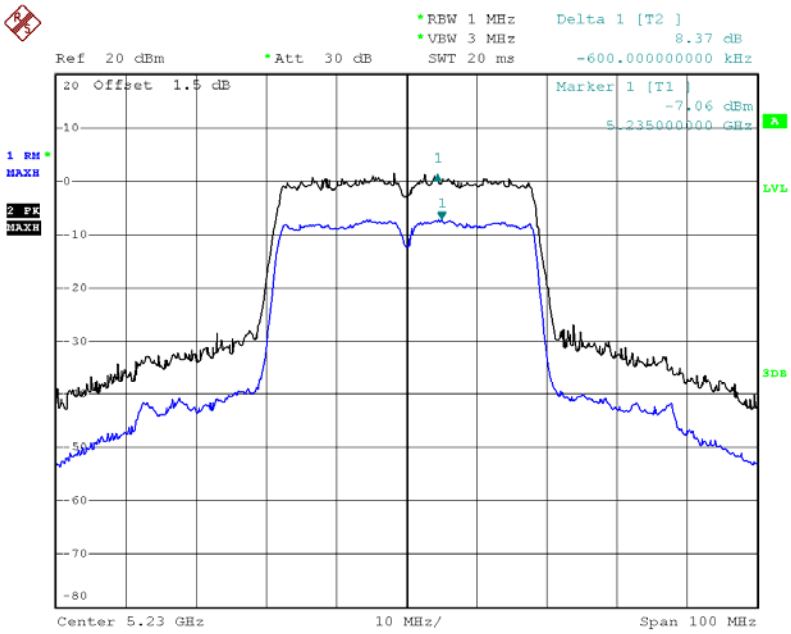
Test Channel	Frequency (MHz)	Peak Excursion (dB)	LIMIT (dB)
CH38	5190	8.64	13
CH46	5230	8.37	13

CH38



Date: 20.OCT.2013 18:46:06

CH46

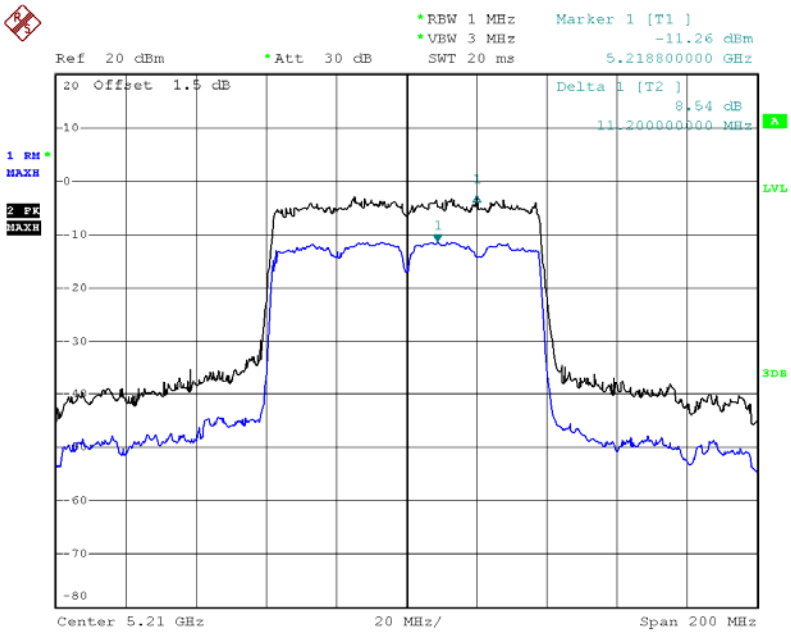


Date: 20.OCT.2013 18:46:26

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N80 Mode/CH38, CH46		

Test Channel	Frequency (MHz)	Peak Excursion (dB)	LIMIT (dB)
CH42	5210	8.54	13

CH42



Date: 20.OCT.2013 18:54:22

10. FREQUENCY STABILITY MEASUREMENT

10.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart E 15.407(g)			
Test Item	Limit	Frequency Range (MHz)	Result
Frequency Stability	specified in the user's manual	5150 – 5250	PASS

10.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP_40	100129	Nov. 09.2014
2	Precision Oven Tester	HOLINK	H-T-1F-D	BA03101701	May.25.2014

Remark: "N/A" denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

10.1.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

b.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Entire absence of modulation emissions bandwidth
RB	10 kHz
VB	10 kHz
Sweep Time	Auto

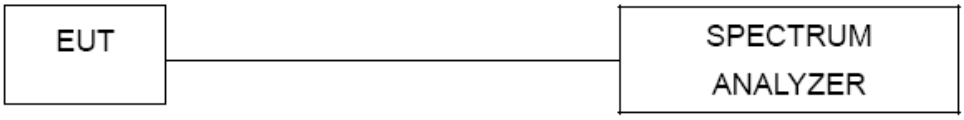
c. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.

d. user manual temperature is 0°C~45°C.

10.1.3 DEVIATION FROM STANDARD

No deviation.

10.1.4 TEST SETUP



10.1.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

10.1.6 TEST RESULTS

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX A Mode		

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
(V)	5180
138	5179.980000
120	5179.987000
102	5179.985000
Max. Deviation (MHz)	0.020000
Max. Deviation (ppm)	3.86

Temperature vs. Frequency Stability

Temperature	Measurement Frequency (MHz)
(℃)	5180
0	5179.986000
10	5179.990000
20	5179.985000
30	5179.984000
40	5179.982000
Max. Deviation (MHz)	0.018000
Max. Deviation (ppm)	3.47

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX AC N20 Mode		

Voltage vs. Frequency Stability

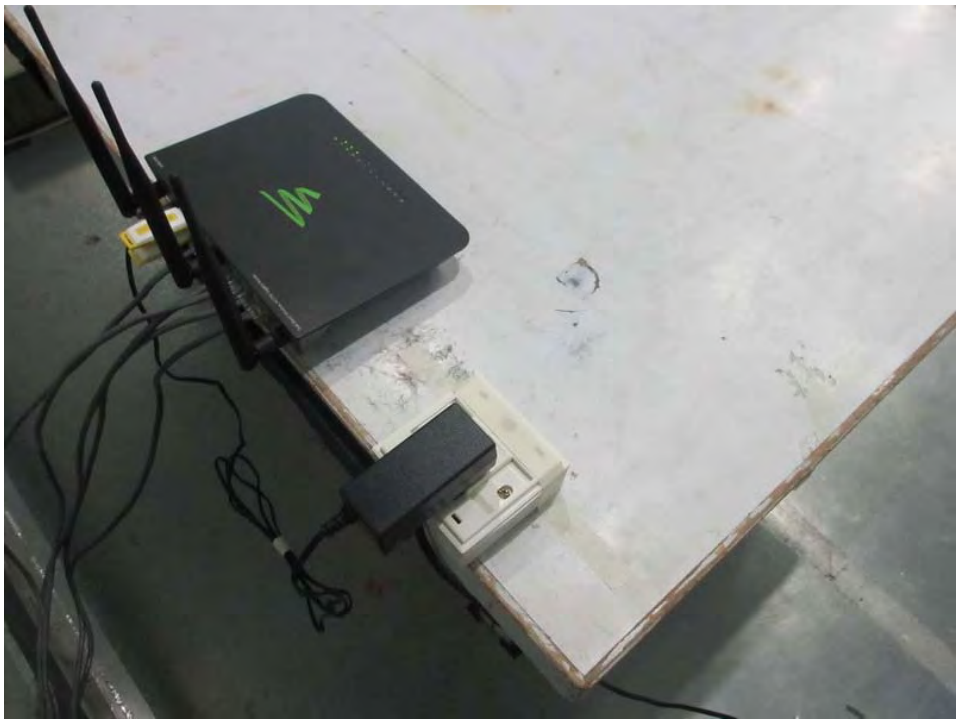
Voltage	Measurement Frequency (MHz)
(V)	5180
138	5179.986000
120	5179.982000
102	5179.984000
Max. Deviation (MHz)	0.018000
Max. Deviation (ppm)	3.47

Temperature vs. Frequency Stability

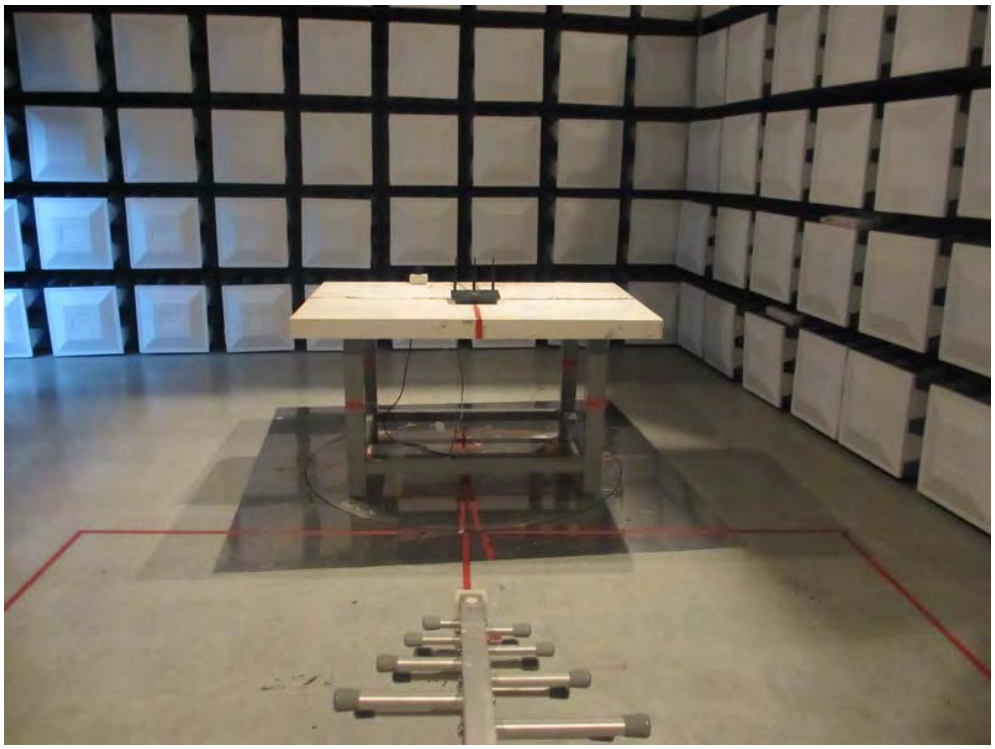
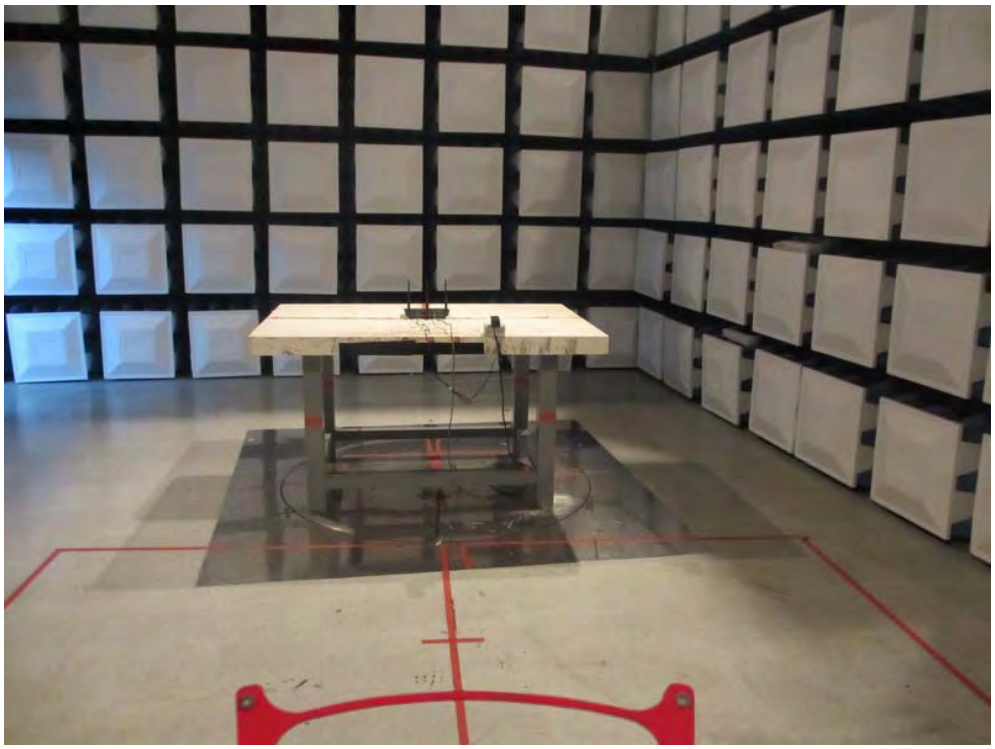
Temperature	Measurement Frequency (MHz)
(℃)	5180
0	5179.985000
10	5179.987000
20	5179.986000
30	5179.980000
40	5179.988000
Max. Deviation (MHz)	0.020000
Max. Deviation (ppm)	3.86

11. EUT TEST PHOTO

Conducted Measurement Photos



Radiated Measurement Photos
30~1000MHz



Radiated Measurement Photos
Above 1000MHz