



Report No: TW2105002-02E File reference No: 2021-06-22

Applicant: Aukey Technology Co., Ltd.

Product: wireless router

Model No: WR-AX01(see the page 4 for additional models)

Trademark: Aukey

Test Standards: FCC Part 15 Subpart E, Paragraph 15.407

Test result:

It is herewith confirmed and found to comply with the

requirements set up by ANSI C63.10, FCC Part 15 Subpart C,

Paragraph 15.247 regulations for the evaluation of

electromagnetic compatibility

Approved By

Jack Chung

Manager

Dated: June 22, 2021

Results appearing herein relate only to the sample tested The technical reports is issued errors and omissions exempt and is subject to withdrawal at

SHENZHEN TIMEWAY TESTING LABORATORIES

Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le Village, Nanshan District, Shenzhen, China

Tel (755) 83448688, Fax (755) 83442996, E-Mail:info@timeway-lab.com

Date: 2021-06-22



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Special Statement:

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19.

The testing quality system of our laboratory meet with ISO/IEC-17025 requirements, which is approved by CNAL. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

CNAS-LAB Code: L2292

The EMC Laboratory has been assessed and in compliance with CNAS-CL01 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of testing Laboratories.

FCC-Registration No.: 744189

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 744189.

Industry Canada (IC) — Registration No.:5205A

The EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 5205A.

A2LA (Certification Number:5013.01)

The EMC Laboratory has been accredited by the American Association for Laboratory Accreditation (A2LA). Certification Number:5013.01

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Test Report Conclusion

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1.0 General Details

1.1 Test Lab Details

Name: SHENZHEN TIMEWAY TESTING LABORATORIES.

Address: Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le

Village, Nanshan District, Shenzhen, China

Telephone: (755) 83448688 Fax: (755) 83442996

Site Listed with Federal Communications commission (FCC)

Registration Number: 744189 For 3m Anechoic Chamber

Site Listed with Industry Canada of Ottawa, Canada

Registration Number: IC: 5205A

For 3m Anechoic Chamber

1.2 Applicant Details

Applicant: Aukey Technology Co., Ltd.

Address: No.102, Building P09, Electronics Trade Center Huanan City, Pinghu Town, Longgang District

Shenzhen, Guangdong, 518111, CN

Telephone: 18024765897

Fax: --

1.3 Description of EUT

Product: wireless router

Manufacturer: Aukey Technology Co., Ltd.

Address: No.102, Building P09, Electronics Trade Center Huanan City, Pinghu Town,

Longgang District Shenzhen, Guangdong, 518111, CN

Brand Name: Aukey
Additional Brand Name: N/A
Model Number: WR-AX01

Additional Model Number: WR-AX02, WR-AX03, WR-AX04, WR-AX05, WR-AX06, WR-AX07,

WR-AX08, WR-AX09, WR-AX10, WR-AX11, WR-AX12, WR-AX13, WR-AX14, WR-AX15, WR-AX16

Hardware Version: X007 V01

Software Version: V1.0-202012261111

Type of Modulation IEEE 802.11a/n (HT20/HT40): OFDM (64QAM, 16QAM, QPSK, BPSK);

IEEE 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM

IEEE 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM

Frequency Band 1: 5180MHz-5240MHz;

Band 4: 5745MHz-5805MHz

Air Data Rate IEEE 802.11a: 54, 48,36, 24, 18, 12, 9, 6 Mbps

IEEE 802.11n/HT20: mcs0-mcs7 IEEE 802.11n/HT40: mcs0-mcs7

The report refers only to the sample tested and does not apply to the bulk.

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IEEE 802.11ac: NSS1 mcs0-mcs9 IEEE 802.11ac: NSS1 mcs0-mcs11

Antenna: Two Dipole Antennas used.

Antenna Gain: Maximum 8.54dBi for each one

Test Mode: During testing, EUT was set to 100% duty cycle. 6Mbps air data rate was the worst case

for 802.11a mode; mcs0 air data rate was the worst case for 802.11n mode; NSS1 mcs0 air data rate was the worst case for 802.11ac mode; NSS1 mcs0 air data rate was the worst

case for 802.11ax mode.

Frequency Selection By software Input Voltage: DC12V, 1A

Power Adapter Model: SS120100-US; Input: 100-240V~, 50/60Hz, 0.5A; Output: DC12V, 1A

Each Channel Operation Frequency

Lacii Chamiei Operation i requency							
	Band 1						
802.11a / 11n HT2	802.11a / 11n HT20 / 802.11ac VHT20		802.11n HT40 / 802.11acVHT40		ac VHT80		
802.11a	ax HEW20	802.1	1ax HEW40	802.11a	x HEW80		
Channel	Frequency	Channel	Frequency	Channel	Frequency		
36	5180MHz	38	5190 MHz	42	5210 MHz		
40	5200 MHz	46	5230 MHz				
44	5220 MHz						
48	5240 MHz						
		В	and 4				
802.11a / 11n HT2	20 / 802.11ac VHT20	802.11n HT40 / 802.11acVHT40		802.11ac VHT80			
802.11a	ax HEW20	802.11ax HEW40		802.11ax HEW80			
Channel	Frequency	Channel	Frequency	Channel	Frequency		
149	5745 MHz	151	5755 MHz	155	5775 MHz		
153	5765 MHz	159	5795 MHz				
157	5785 MHz						
161	5805 MHz						

The selected test channels as follows:

Band 1						
802.11a / 11n HT	802.11a / 11n HT20/11ax HEW20		802.11n HT40/11ax HEW40		Γ80/11ax HEW80	
Channel	Frequency	Channel	Channel Frequency (Frequency	
36	5180MHz	38	5190 MHz	42	5210 MHz	
40	5200 MHz	46	5230 MHz			
48	48 5240 MHz					
Band 4						
802.11a / 11n H7	C20/11ax HEW20	802.11n HT40	0/11ax HEW40	802.11ac VH	Γ80/11ax HEW80	

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Channel	Frequency	Channel	Frequency	Channel	Frequency
149	5745 MHz	151	5755 MHz	155	5775 MHz
153	5765 MHz	159	5795 MHz		
161	5805 MHz				

Note: 802.11ac VHT20/VHT40 is similar with 802.11n HT20/HT40.

1.4 Submitted Sample: 2 Samples

1.5 Test Duration

2021-05-06 to 2021-06-22

1.6 Test Uncertainty

Conducted Emissions Uncertainty =3.6dB

Radiated Emissions below 1GHz Uncertainty =4.7dB

Radiated Emissions above 1GHz Uncertainty =6.0dB

Conducted Power Uncertainty =6.0dB

Occupied Channel Bandwidth Uncertainty = 5%

Note: The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

1.7 Test Engineer

Terry Tang

The sample tested by

Print Name: Terry Tang

Date: 2021-06-22



2.0 Test Equipment	Manageria	M. 1.1	Carial NI	D-4- (CC)1	Dece Dat
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
ESPI Test Receiver	R&S	ESPI 3	100379	2020-06-23	2021-06-22
				2021-06-18	2022-06-17
LISN	R&S	EZH3-Z5	100294	2020-06-23	2021-06-22
				2021-06-18	2022-06-17
LISN	R&S	EZH3-Z5	100253	2020-06-23	2021-06-22
				2021-06-18	2022-06-17
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2020-06-23	2021-06-22
				2021-06-18	2022-06-17
Loop Antenna	EMCO	6507	00078608	2018-06-25	2021-06-24
Spectrum R&S FSIQ26	100292	2020-06-23	2021-06-22		
Spectrum	Res	1 51020	1002)2	2021-06-18	2022-06-17
Horn Antenna	A-INFO	LB-180400-KF	J211060660	2020-06-23	2021-06-22
Hom Antenia		LD-100400-KI	J211000000	2021-06-18	2022-06-17
Horn Antenna	R&S	BBHA 9120D	9120D-631	2018-07-09	2021-07-08
Dayyan maatan	Anritsu	MI 2407A	6K00003613	2020-06-23	2021-06-22
Power meter	Allitisu	ML2487A	0K00003013	2021-06-18	2022-06-17
Dayyan gangan	Anritsu	MA2401A	32263	2020-06-23	2021-06-22
Power sensor	Annsu	MA2491A	32203	2021-06-18	2022-06-17
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2018-07-04	2021-07-03
9*6*6 Anechoic			N/A	2020-07-06	2021-07-05
	D.C.	EGVID		2020-06-23	2021-06-22
EMI Test Receiver	RS	ESVB	826156/011	2021-06-18	2022-06-17
	D.C.	EGHA		2020-06-23	2021-06-22
EMI Test Receiver	RS	ESH3	860904/006	2021-06-18	2022-06-17
	IID/4 '1	FG 4 1 1 500 4		2020-06-23	2021-06-22
Spectrum	HP/Agilent	ESA-L1500A	US37451154	2021-06-18	2022-06-17
	TTD/4 11	E4405D		2020-06-23	2021-06-22
Spectrum	HP/Agilent	E4407B	MY50441392	2021-06-18	2022-06-17
Spectrum	RS	FSP	1164.4391.38	2021-01-15	2022-01-14
-		ZT26-NJ-NJ-8		2020-06-23	2021-06-22
RF Cable	Zhengdi	M/FA		2021-06-18	2022-06-17
D. G. 1.1				2020-06-23	2021-06-22
RF Cable	Zhengdi	7m		2021-06-18	2022-06-17
				2020-06-23	2021-06-22
RF Switch	EM	EMSW18	060391	2021-06-18	2022-06-17

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Pre-Amplifier	Schwarebeck	BBV9743	#218	2020-06-23 2021-06-18	2021-06-22 2022-06-17
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2020-06-23 2021-06-18	2021-06-22 2022-06-17
LISN	SCHAFFNER	NNB42	00012	2021-01-06	2022-01-05

2.2 Automation Test Software

For Conducted Emission Test

Name	Version	
EZ-EMC	Ver.EMC-CON 3A1.1	

For Radiated Emissions

Name	Version
EMI Test Software BL410-EV18.91	V18.905
EMI Test Software BL410-EV18.806 High Frequency	V18.06

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3.0 **Technical Details**

3.1 **Summary of test results**

The EUT has been tested according to the following specifications:					
Standard	Test Type	Result	Notes		
FCC Part 15, Paragraph 15.207 & 15.407	Conducted Emission Test	Pass	Complies		
FCC Part 15 Subpart E Paragraph 15.407 (b1/4/5/6/7), Part 15.205 and Part 15.209	Undesirable Emission and Restrict band	Pass	Complies		
FCC Part 15, Paragraph 15.407 (a1/2/3)	Peak Transmit Power	Pass	Complies		
FCC Part 15, Paragraph 15.407 (a)(6)	Peak Power Excursion	Pass	Complies		
FCC Part 15, Paragraph 15.407 (a/1/2/3)	Peak Power Spectral Density	Pass	Complies		
FCC Part 15, Paragraph 15.407(g)	Frequency Stability	Pass	Complies		

3.2 **Test Standards**

FCC Part 15 Subpart & Subpart C, Paragraph 15.247, ANSI C63.10:2013 and ANSI C63.4:2014 789033 D02 General UNII Test Procedures New Rules v01r04

4.0 **EUT Modification**

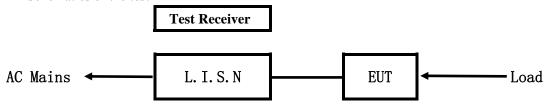
No modification by SHENZHEN TIMEWAY TESTING LABORATORIES.

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5. Power Line Conducted Emission Test

5.1 Schematics of the test

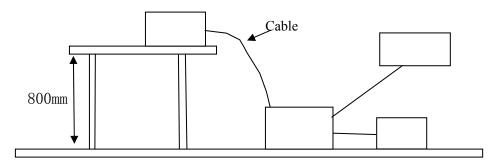


EUT: Equipment Under Test

5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.10-2009. The Frequency spectrum from 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.10-2013.

Test Voltage: 120V~, 60Hz Block diagram of Test setup



5.3 Configuration of The EUT

The EUT was configured according to ANSI C63.10-2013. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

Α.	EUT

Device	Manufacturer	Model	FCC ID
wireless router	Aukey Technology Co., Ltd.	WR-AX01(see the page 4 for additional models)	2ATIH-WR-AX01

The report refers only to the sample tested and does not apply to the bulk.

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B. Internal Device

Device	Manufacturer	Model	Rating

C. Peripherals

Device	Manufacturer	Model	Rating

5.4 EUT Operating Condition

Operating condition is according to ANSI C63.10 -2013.

- A Setup the EUT and simulators as shown on follow
- B Enable AF signal and confirm EUT active to normal condition

5.5 Power line conducted Emission Limit according to Paragraph 15.207

Frequency	Limits (dB μ V)				
(MHz)	Quasi-peak Level	Average Level			
$0.15 \sim 0.50$	66.0~56.0*	56.0~46.0*			
$0.50 \sim 5.00$	56.0	46.0			
5.00 ~ 30.00	60.0	50.0			

Notes:

- 1. *Decreasing linearly with logarithm of frequency.
- 2. The tighter limit shall apply at the transition frequencies

5.6 Test Results

The frequency spectrum from 0.15MHz to 30MHz was investigated. All reading are quasi-peak values with a resolution bandwidth of 9kHz.

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A: Conducted Emission on Live Terminal (150kHz to 30MHz)

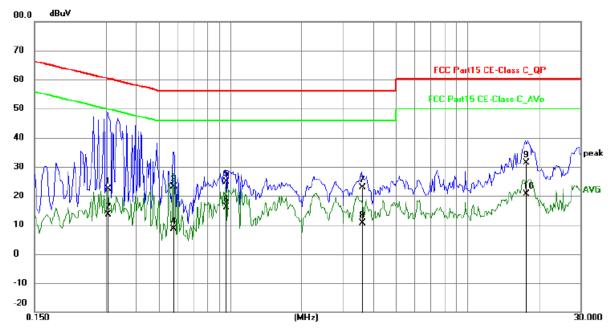
EUT Operating Environment

Temperature: 26°C Humidity: 65%RH Atmospheric Pressure: 101 kPa

EUT set Condition: Keeping WIFI Transmitting

Results: Pass

Please refer to following diagram for individual



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.3060	12.71	9.76	22.47	60.08	-37.61	QP	Р
2	0.3060	3.95	9.76	13.71	50.08	-36.37	AVG	Р
3	0.5790	13.39	9.77	23.16	56.00	-32.84	QP	Р
4	0.5790	-1.14	9.77	8.63	46.00	-37.37	AVG	Р
5	0.9612	14.97	9.79	24.76	56.00	-31.24	QP	Р
6	0.9612	6.43	9.79	16.22	46.00	-29.78	AVG	Р
7	3.5967	13.11	9.87	22.98	56.00	-33.02	QP	Р
8	3.5967	0.73	9.87	10.60	46.00	-35.40	AVG	Р
9	17.5860	20.94	10.54	31.48	60.00	-28.52	QP	Р
10	17.5860	10.04	10.54	20.58	50.00	-29.42	AVG	Р

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B: Conducted Emission on Neutral Terminal (150kHz to 30MHz)

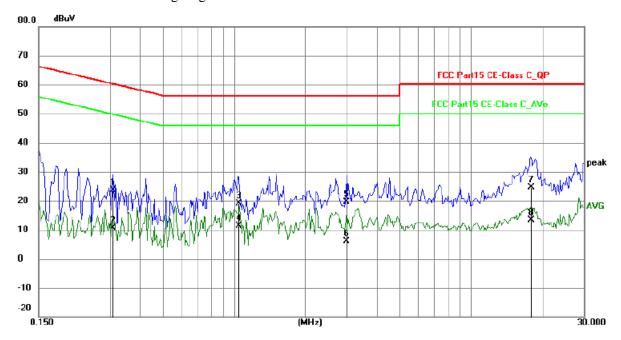
EUT Operating Environment

Temperature: 26°C Humidity: 65%RH Atmospheric Pressure: 101 kPa

EUT set Condition: Keeping WIFI Transmitting

Results: Pass

Please refer to following diagram for individual



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.3099	13.93	9.76	23.69	59.97	-36.28	QP	Р
2	0.3099	0.93	9.76	10.69	49.97	-39.28	AVG	Р
3	1.0470	9.31	9.79	19.10	56.00	-36.90	QP	Р
4	1.0470	1.53	9.79	11.32	46.00	-34.68	AVG	Р
5	2.9892	9.90	9.84	19.74	56.00	-36.26	QP	Р
6	2.9892	-3.77	9.84	6.07	46.00	-39.93	AVG	Р
7	17.9331	13.98	10.56	24.54	60.00	-35.46	QP	Р
8	17.9331	2.92	10.56	13.48	50.00	-36.52	AVG	Р

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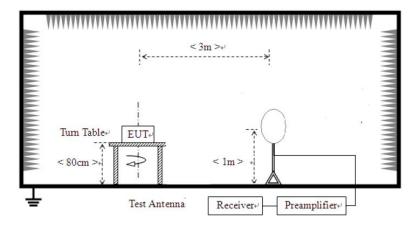
6 Undesirable Emission and Restrict band

- 6.1 Test Method and test Procedure:
- (1) The EUT was tested according to ANSI C63.10-2013. The radiated test was performed at Timeway Laboratory. This site is on file with the FCC laboratory division, Registration No.744189
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.10-2013.
- (3) The frequency spectrum from 30 MHz to 40 GHz was investigated. All readings from 30 MHz to 1 GHz are Quasi-peak values with a resolution bandwidth of 120 kHz. For measurement above 1GHz, peak values with RBW=1MHz, VBW=3MHz and PK detector.

 Measurements were made at 3 meters.
- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limit), and are distinguished with a "**QP**" in the data table.
- (6) The antenna polarization: Vertical polarization and Horizontal polarization.

Block diagram of Test setup

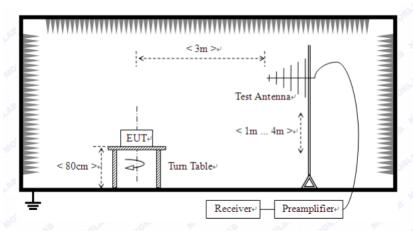
For radiated emissions from 9kHz to 30MHz



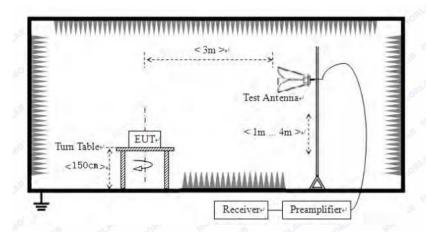
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For radiated emissions from 30MHz to1GHz



For radiated emissions above 1GHz



- 6.2 Configuration of the EUT

 Same as section 5.3 of this report
- 6.3 EUT Operating Condition
 Same as section 5.4 of this report.
- 6.4 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

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Frequencies in restricted band are complied to limit on Paragraph 15.209

Frequency Range (MHz)	Distance (m)	Field strength (dB μ V/m)
30-88	3	40.0
88-216	3	43.5
216-960	3	46.0
Above 960	3	54.0

- (1) For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27dBm/MHz
- (2) For transmitters operating in the 5.725-5.825 GHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an EIRP of -17dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an EIRP of -27dBm/MHz.

Note: 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)

- 2. In the Above Table, the higher limit applies at the band edges.
- 3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT

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Test result

General Radiated Emission Data and Harmonics Radiated Emission Data

Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Keeping WIFI Transmitting

Results: Pass

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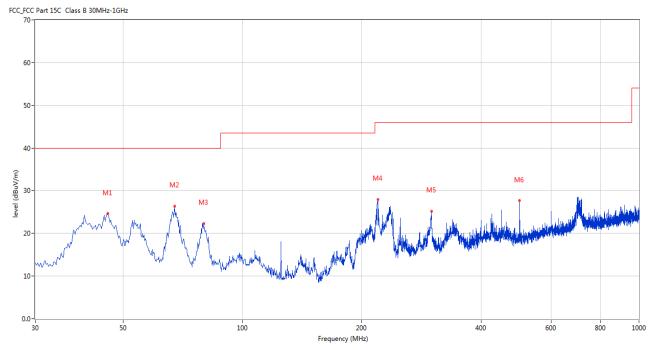
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Test Figure:

H



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	45.759	24.59	-11.40	40.0	-15.41	Peak	169.00	100	Horizontal	Pass
2	67.336	26.41	-14.40	40.0	-13.59	Peak	5.00	100	Horizontal	Pass
3	79.943	22.31	-17.44	40.0	-17.69	Peak	15.00	100	Horizontal	Pass
4	219.345	28.00	-13.32	46.0	-18.00	Peak	0.00	100	Horizontal	Pass
5	299.835	25.19	-11.03	46.0	-20.81	Peak	113.00	100	Horizontal	Pass
6	500.090	27.62	-6.91	46.0	-18.38	Peak	207.00	100	Horizontal	Pass

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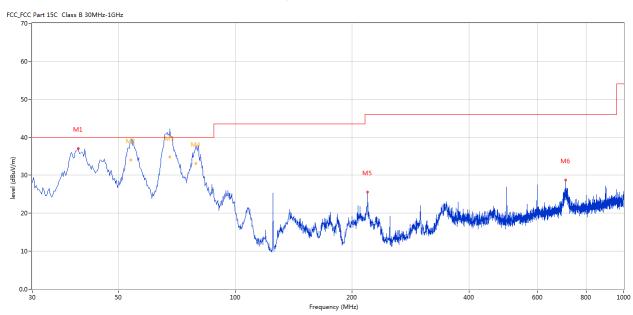
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Test Figure:

V



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table (o)	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)			(cm)		
1	39.455	37.01	-12.52	40.0	-2.99	Peak	360.00	100	Vertical	Pass
2	53.893	39.60	-11.54	40.0	-0.40	Peak	284.00	100	Vertical	Pass
2*	53.893	34.07	-11.54	40.0	-5.93	QP	284.00	100	Vertical	Pass
3	67.760	39.23	-14.55	40.0	-0.77	Peak	284.00	200	Vertical	Pass
3*	67.760	34.74	-14.55	40.0	-5.26	QP	284.00	200	Vertical	Pass
4	79.215	38.08	-17.46	40.0	-1.92	Peak	241.00	100	Vertical	Pass
4*	79.215	33.08	-17.46	40.0	-6.92	QP	241.00	100	Vertical	Pass
5	219.103	25.59	-13.33	46.0	-20.41	Peak	265.00	100	Vertical	Pass
6	709.558	28.76	-4.04	46.0	-17.24	Peak	288.00	100	Vertical	Pass

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Operation Mode: Keeping Transmitting under CH36 for 11g at 6Mbps

	1 0	U	
Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \u03b4 V/m)
5180.00	94.45 (PK)	Н	Eundomontal Eroguanov
5180.00	91.46 (PK)	V	Fundamental Frequency
10360	49.10 (PK)	Н	74(Peak)/ 54(AV)
10360		V	74(Peak)/ 54(AV)
15540		H/V	74(Peak)/ 54(AV)
20720		H/V	74(Peak)/ 54(AV)
25900		H/V	74(Peak)/ 54(AV)
31080		H/V	74(Peak)/ 54(AV
36260		H/V	74(Peak)/ 54(AV)

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11a mode 6Mbps

Operation Mode: Keeping Transmitting under CH40 for 11g at 6Mbps

Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \(\mu \)V/m)
5200.00	93.81 (PK)	Н	Eundamental Eraguenay
5200.00	91.69 (PK)	V	Fundamental Frequency
10400	49.80 (PK)	Н	74(Peak)/ 54(AV)
10400	49.23 (PK)	V	74(Peak)/ 54(AV)
15600	1	H/V	74(Peak)/ 54(AV)
20800	1	H/V	74(Peak)/ 54(AV)
26000	1	H/V	7 (Peak)/ 54(AV)
31200	-	H/V	74(Peak)/ 54(AV)
36400		H/V	74(Peak)/ 54(AV)

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11a mode 6Mbps

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Date: 2021-06-22



Operation Mode: Keeping Transmitting under CH48 for 11g at 6Mbps

	1 0		_
Frequency (MHz)	Level@3m (dB \u03b4 V/m)	Antenna Polarity	Limit@3m (dB \(\mu \)V/m)
5240.00	98.30 (PK)	Н	Even do montal Engavenov
5240.00	90.21 (PK)	V	Fundamental Frequency
10480	49.77 (PK)	Н	74(Peak)/ 54(AV)
10480	48.79 (PK)	V	74(Peak)/ 54(AV)
15720		V	74(Peak)/ 54(AV)
20960		H/V	74(Peak)/ 54(AV)
26200		H/V	74(eak)/ 54(AV)
31440		H/V	74(Peak)/ 54(AV)
36680		H/V	74(Peak)/ 54(AV)

Note: 1. Level = Reading + AF + Cable - Preamp + Filter - Dist, Margin = Level - Limit

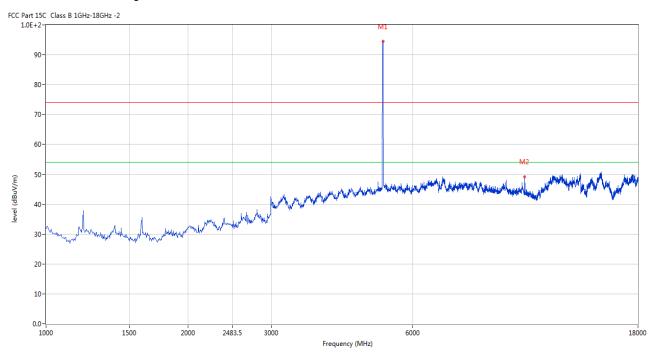
- 2. Remark "---" means that the emissions level is too low to be measured
- 3. For 802.11a mode 6Mbps

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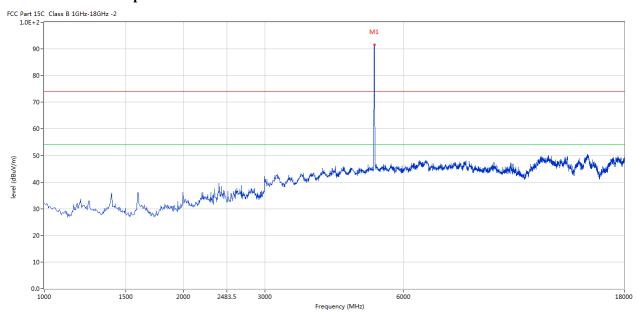


Please refer to the following test plots for details:

CH36 for 11a at 6Mbps: Horizontal



CH36 for 11a at 6Mbps: Vertical



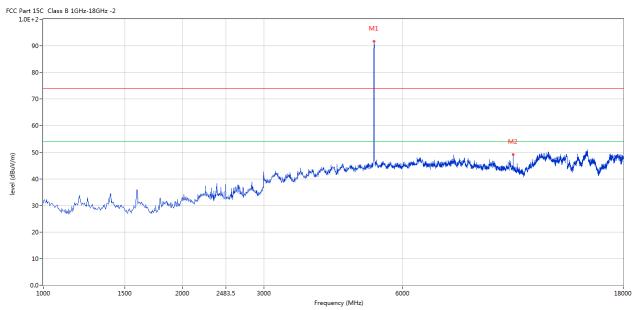
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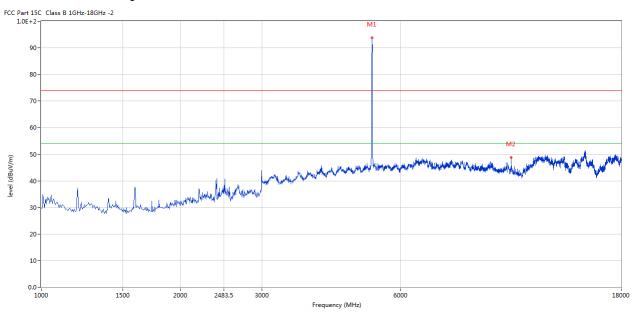
Date: 2021-06-22



CH40 for 11a at 6Mbps: Vertical



CH40 for 11a at 6Mbps: Horizontal



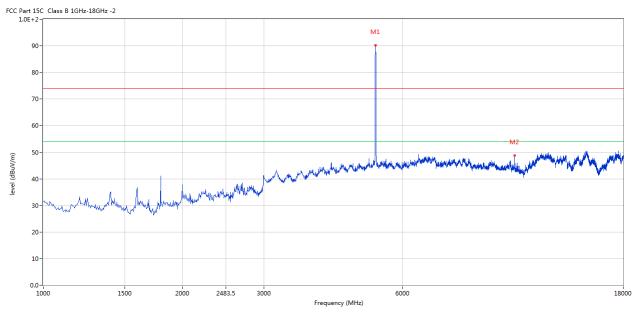
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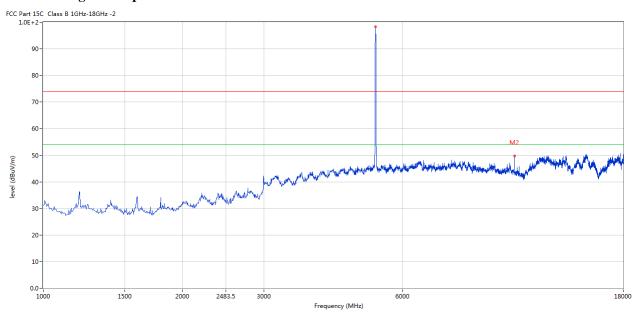
Date: 2021-06-22



CH48 for 11a at 6Mbps: Vertical



CH48 for 11g at 6Mbps: Horizontal



Note: 1. For radiated Emissions from 18-40GHz, it is only the floor noise.

2. 802.11a is the worst case.

Date: 2021-06-22



Restricted band Measurement								
EUT	wireless router		Test Mode:	Channel 36 (5180MHz)-11a				
Mode	Keeping Transmitting		Input Voltage	120V∼				
Temperature	24 deg. C,		Humidity	56% RH				
Test Result:		Pass	Detector	PK				
5150	PK (dBµV/m)	44.8 (PK)	T ''4	27 10/MII				
	EIRP (dBm)	-50.4	Limit	-27dBm/MHz				
Polarity	Horizontal							

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 44.8 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=44.8-95.2=-50.4dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement				
EUT	wireless router		Test Mode:	Channel 36 (5180MHz)-11a
Mode	Keeping Transmitting		Input Voltage	120V~
Temperature	24 deg. C,		Humidity	56% RH
Test Result:		Pass	Detector	PK
5150	PK (dBµV/m)	46.7 (PK)	T ::4	27 JD/MII_
	EIRP (dBm) -48.5		Limit	-27dBm/MHz
Polarity	V	/ertical		

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 46.7dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2 = 46.7 - 95.2 = -48.5 dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	wire	less router	Test Mode:	Channel 48 (5240MHz)-11a	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5250	PK (dBµV/m)	49.7 (PK)	T ::4	27 10 / 11	
	EIRP (dBm) -45.5		Limit	-27dBm/MHz	
Polarity	Но	orizontal			

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 49.7 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=49.7-95.2=-45.5dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	wireless router		Test Mode:	Channel 48 (5240MHz)-11a	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:	Pass		Detector	PK	
5250	PK (dBµV/m)	K (dBμV/m) 53.6 (PK)		27.10/МП-	
	EIRP (dBm) -41.6		Limit	-27dBm/MHz	
Polarity	V	/ertical			

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 53.6dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=53.6-95.2=-41.6 dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	wireless router		Test Mode:	Channel 149 (5745MHz)-11a	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5725	PK (dBµV/m)	41.3 (PK)	T 114	17.10 /4.411	
	EIRP (dBm) -53.9		Limit	-17dBm/MHz	
Polarity	Но	orizontal			

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 41.3 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=41.3-95.2=-53.9 dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	wireless router		Test Mode:	Channel 149 (5745MHz)-11a	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:	Pass		Detector	PK	
5725	PK (dBµV/m)	PK (dBμV/m) 42.0 (PK)		1715 AUI	
	EIRP (dBm) -53.2		Limit	-17dBm/MHz	
Polarity	V	/ertical			

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 42.0 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2 = 42.0 - 95.2 = -53.2dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	wireless router		Test Mode:	Channel 161 (5805MHz)-11a	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:	Pass		Detector	PK	
5850	PK (dBµV/m)	PK (dBμV/m) 49.5 (PK)		1715 0.01	
	EIRP (dBm) -45.7		Limit	-17dBm/MHz	
Polarity	Но	orizontal			

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 49.5 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=49.5-95.2=-45.7dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	wireless router		Test Mode:	Channel 161 (5805MHz)-11a	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5850	PK (dBμV/m) 50.8 (PK)		T : '/	1715 AUI	
	EIRP (dBm) -44.4		Limit	-17dBm/MHz	
Polarity	V	Vertical			

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 50.8 \ dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2 = 50.8 - 95.2 = -44.4 dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	wire	less router	Test Mode:	Channel 36	
				(5180MHz)-11n/HT20	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5150	PK (dBµV/m)	42.6 (PK)	T in it	27 ID /MII	
	EIRP (dBm) -52.6		Limit	-27dBm/MHz	
Polarity	Н	Horizontal			

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 42.6 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=42.6-95.2=-52.6dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	wire	less router	Test Mode:	Channel 36	
				(5180MHz)-11n/HT20	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5150	PK (dBµV/m)	45.5 (PK)	T in it	27 10/MII	
	EIRP (dBm) -49.7		Limit	-27dBm/MHz	
Polarity	7	Vertical			

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 45.5 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2 = 45.5 - 95.2 = -49.7 dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	wireless router		Test Mode:	Channel 48 (5240MHz)-	
				11n/HT20	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5250	PK (dBµV/m)	48.0 (PK)	T ::4	27 10/MII	
	EIRP (dBm) -47.2		Limit	-27dBm/MHz	
Polarity	Horizontal				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 48.0 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=48.0-95.2=-47.2dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	wireless router		Test Mode:	Channel 48 (5240MHz)-	
				11n/HT20	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5250	PK (dBµV/m)	52.3(PK)	T in it	27 10/MII	
	EIRP (dBm) -42.9		Limit	-27dBm/MHz	
Polarity	Vertical				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 52.3dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=52.3-95.2=-42.9 dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	wire	less router	Test Mode:	Channel 149 (5745MHz)-	
				11n/HT20	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5725	PK (dBµV/m)	41.2 (PK)	T ::4	17.10/МП	
	EIRP (dBm) -54.0		Limit	-17dBm/MHz	
Polarity	Н	Horizontal			

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 41.2 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=41.2-95.2=-54.0dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	wire	less router	Test Mode:	Channel 149 (5745MHz)-	
				11n/HT20	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5725	PK (dBµV/m)	43.7 (PK)	T ''4	17.10/MII	
	EIRP (dBm) -51.5		Limit	-17dBm/MHz	
Polarity	Vertical				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 43.7 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=43.7-95.2=-51.5 dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	wireless router		Test Mode:	Channel 161 (5805MHz)-	
				11n/HT20	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5850	PK (dBµV/m)	45.5 (PK)	T in it	17.10/МП	
	EIRP (dBm) -49.7		Limit	-17dBm/MHz	
Polarity	Horizontal				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 45.5 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=45.5-95.2=-49.7 dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	wireless router		Test Mode:	Channel 161 (5805MHz)-	
				11n/HT20	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5850	PK (dBµV/m)	50.1 (PK)	T :	1710 - A411	
	EIRP (dBm) -45.1		Limit	-17dBm/MHz	
Polarity	Vertical				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 50.1 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=50.1-95.2=-45.1 dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	wire	less router	Test Mode:	Channel 38	
				(5190MHz)-11n/HT40	
Mode	Keeping Transmitting		Input Voltage	120V∼	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5150	PK (dBµV/m)	43.3 (PK)	T :	27 10 /4/11	
	EIRP (dBm) -51.9		Limit	-27dBm/MHz	
Polarity	Horizontal				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 43.3 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=43.3-95.2=-51.9 dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	wire	less router	Test Mode:	Channel 38	
				(5190MHz)-11n/HT40	
Mode	Keeping Transmitting		Input Voltage	120V∼	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5150	PK (dBµV/m)	46.5 (PK)	T ''	27.10 /4.11.	
	EIRP (dBm) -48.7		Limit	-27dBm/MHz	
Polarity	Vertical				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 46.5 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2 = 46.5 - 95.2 = -48.7 dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	wire	less router	Test Mode:	Channel 46 (5230MHz)-	
				11n/HT40	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5250	PK (dBµV/m)	40.8(PK)	T ''4	27 10/MII	
	EIRP (dBm) -54.4		Limit	-27dBm/MHz	
Polarity	Horizontal				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 40.8 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=40.8-95.2=-54.4 dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	wire	less router	Test Mode:	Channel 46 (5230MHz)-	
				11n/HT40	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5250	PK (dBµV/m)	45.5(PK)	T in it	27 10/MII	
	EIRP (dBm)	-49.7	Limit	-27dBm/MHz	
Polarity	Vertical				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 45.5 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2 = 45.5 - 95.2 = -49.7 dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	wireless router		Test Mode:	Channel 151 (5755MHz)-	
				11n/HT40	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5725	PK (dBµV/m)	37.9 (PK)	T :	17.10/МП	
	EIRP (dBm) -57.3		Limit	-17dBm/MHz	
Polarity	Horizontal				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 37.9 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=37.9 - 95.2=-57.3dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	wire	less router	Test Mode:	Channel 151 (5755MHz)-	
				11n/HT40	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5725	PK (dBµV/m)	46.4 (PK)	T ''4	1710 - A411	
	EIRP (dBm) -48.8		Limit	-17dBm/MHz	
Polarity	Vertical				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 46.4 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2 = 46.4 - 95.2 = -48.8 dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	wire	less router	Test Mode:	Channel 159 (5795MHz)-	
				11n/HT40	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5850	PK (dBµV/m)	39.0 (PK)	T ''4	17.10/МП	
	EIRP (dBm) -56.2		Limit	-17dBm/MHz	
Polarity	Horizontal			-	

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 39.0 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=39.0-95.2=-56.2 dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	wire	less router	Test Mode:	Channel 159 (5795MHz)-	
				11n/HT40	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5850	PK (dBµV/m)	51.8 (PK)	T :	17.10/МП	
	EIRP (dBm) -43.4		Limit	-17dBm/MHz	
Polarity	Vertical				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 51.8 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2 = 51.8 - 95.2 = -43.4 dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	wire	less router	Test Mode:	Channel 42	
				(5210MHz)-11ac/VHT80	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5150	PK (dBμV/m) 39.6 (PK)		T in it	27 10/MII	
	EIRP (dBm) -55.6		Limit	-27dBm/MHz	
Polarity	Но	orizontal			

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 39.6 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=39.6-95.2=-55.6 dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	wire	less router	Test Mode:	Channel 42 (5210MHz)-	
				11ac/VHT80	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5150	PK (dBµV/m)	47.5 (PK)	T in it	27 10/MII	
	EIRP (dBm) -47.7		Limit	-27dBm/MHz	
Polarity	Vertical				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 47.5 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2 = 47.5 - 95.2 = -47.7 dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	wire	less router	Test Mode:	Channel 155 (5775MHz)-	
				11ac/VHT80	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5850	PK (dBµV/m)	51.2 (PK)	T :	17.10/МП	
	EIRP (dBm) -44.0		Limit	-17dBm/MHz	
Polarity	Horizontal				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 51.2 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=51.2-95.2=-44.0 dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	wire	less router	Test Mode:	Channel 157 (5775MHz)-	
				11ac/VHT80	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5850	PK (dBµV/m)	52.0 (PK)	T :	17.10/МП	
	EIRP (dBm) -43.2		Limit	-17dBm/MHz	
Polarity	Vertical				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 52.0 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2 = 52.0 - 95.2 = -43.2 dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	WI-FI 6 New	-Gen Super Router	Test Mode:	Channel 36	
				(5180MHz)-11ax/HEW20	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5150	PK (dBμV/m) 40.2 (PK)		T toota	27 ID/MII	
	EIRP (dBm) -55.0		Limit	-27dBm/MHz	
Polarity	Horizontal				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 40.2 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=40.2-95.2=-55.0dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	WI-FI 6 New	-Gen Super Router	Test Mode:	Channel 36 (5180MHz)-	
				11ax/HEW20	
Mode	Keeping Transmitting		Input Voltage	120V∼	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5150	PK (dBµV/m)	40.3 (PK)	T ''4	27 10/MII	
	EIRP (dBm) -54.9		Limit	-27dBm/MHz	
Polarity	7	Vertical		1	

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 40.3 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2 = 40.3 - 95.2 = -54.9 dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	WI-FI 6 New	-Gen Super Router	Test Mode:	Channel 48 (5240MHz)-	
				11ax/HEW20	
Mode	Keeping Transmitting		Input Voltage	120V∼	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5250	PK (dBµV/m)	43.1 (PK)	T ::4	27 10/MII	
	EIRP (dBm) -52.1		Limit	-27dBm/MHz	
Polarity	Horizontal				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 43.1 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=43.1-95.2=-52.1dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	WI-FI 6 New	-Gen Super Router	Test Mode:	Channel 48 (5240MHz)-	
				11ax/HEW20	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5250	PK (dBμV/m) 40.5(PK)		T :	27 10/MII	
	EIRP (dBm) -54.7		Limit	-27dBm/MHz	
Polarity	Vertical				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 40.5dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2 = 40.5 - 95.2 = -54.7 dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	WI-FI 6 New	-Gen Super Router	Test Mode:	Channel 149 (5745MHz)-	
				11ax/HEW20	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5725	PK (dBµV/m)	39.7 (PK)	Timil	17.10/МП	
	EIRP (dBm) -53.9		Limit	-17dBm/MHz	
Polarity	Horizontal				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 41.3 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=41.3-95.2=-53.9dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	WI-FI 6 New	-Gen Super Router	Test Mode:	Channel 149 (5745MHz)-	
	_			11ax/HEW20	
Mode	Keeping Transmitting		Input Voltage	120V∼	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5725	PK (dBµV/m)	40.8 (PK)	T ::4	17.10/\(\text{A}\)	
	EIRP (dBm) -54.4		Limit	-17dBm/MHz	
Polarity	1	Vertical			

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 40.8dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2 = 40.8 - 95.2 = -54.4 dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	WI-FI 6 New	-Gen Super Router	Test Mode:	Channel 161 (5805MHz)-	
				11ax/HEW20	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5850	PK (dBµV/m)	42.3 (PK)	T: '/	1715 AUI	
	EIRP (dBm) -52.9		Limit	-17dBm/MHz	
Polarity	Horizontal				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 42.3 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=42.3-95.2= -52.9 dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	WI-FI 6 New	-Gen Super Router	Test Mode:	Channel 161 (5805MHz)-	
				11ax/HEW20	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5850	PK (dBµV/m)	43.1 (PK)	T ::4	17.10/МП	
	EIRP (dBm) -52.1		Limit	-17dBm/MHz	
Polarity	7	Vertical			

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 43.1 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=43.1-95.2=-52.1 dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	WI-FI 6 New	-Gen Super Router	Test Mode:	Channel 38 (5190MHz)-	
				11ax/HEW40	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5150	PK (dBµV/m)	41.9 (PK)	T in it	27.10/MII	
	EIRP (dBm) -53.3		Limit	-27dBm/MHz	
Polarity	Но	Horizontal			

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 41.9 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=41.9-95.2=-53.3 dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	WI-FI 6 New	-Gen Super Router	Test Mode:	Channel 38 (5190MHz)-	
		•		11ax/HEW40	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5150	PK (dBµV/m)	43.3 (PK)	T :	27 10/MII	
	EIRP (dBm) -51.9		Limit	-27dBm/MHz	
Polarity	7	Vertical		1	

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 43.3 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2 = 43.3 - 95.2 = -51.9dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	WI-FI 6 New	-Gen Super Router	Test Mode:	Channel 46 (5230MHz)-	
		-		11ax/HEW40	
Mode	Keeping Transmitting		Input Voltage	120V∼	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5250	PK (dBµV/m)	50.6(PK)	T ''4	27 10/MII	
	EIRP (dBm) -44.6		Limit	-27dBm/MHz	
Polarity	Horizontal				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 50.6 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=50.6-95.2=-44.6 dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	WI-FI 6 New	-Gen Super Router	Test Mode:	Channel 46 (5230MHz)-	
				11ax/HEW40	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5250	PK (dBμV/m) 52.8(PK)		T :	27 10/MII	
	EIRP (dBm) -42.4		Limit	-27dBm/MHz	
Polarity	Vertical				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 52.8 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=52.8-95.2=-42.4dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	WI-FI 6 New	-Gen Super Router	Test Mode:	Channel 151 (5755MHz)-	
				11ax/HEW40	
Mode	Keeping Transmitting		Input Voltage	120V∼	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5725	PK (dBµV/m)	43.1 (PK)	T ''4	17.10/MII	
	EIRP (dBm) -52.1		Limit	-17dBm/MHz	
Polarity	Horizontal				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 43.1 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=43.1 - 95.2=-52.1dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	WI-FI 6 New	-Gen Super Router	Test Mode:	Channel 151 (5755MHz)-	
		•		11ax/HEW40	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5725	PK (dBµV/m)	44.6 (PK)	T :	17.10/МП	
	EIRP (dBm) -50.6		Limit	-17dBm/MHz	
Polarity	7	Vertical			

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 44.6 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2 = 44.6 - 95.2 = -50.6 dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	WI-FI 6 New	-Gen Super Router	Test Mode:	Channel 159 (5795MHz)-	
				11ax/HEW40	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5850	PK (dBµV/m)	44.9(PK)	Timil	17.10/MI	
	EIRP (dBm) -50.3		Limit	-17dBm/MHz	
Polarity	Horizontal				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 44.9 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=44.9-95.2=-50.3 dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	WI-FI 6 New	-Gen Super Router	Test Mode:	Channel 159 (5795MHz)-	
		-		11ax/HEW40	
Mode	Keeping Transmitting		Input Voltage	120V∼	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5850	PK (dBµV/m)	45.6 (PK)	T :	1710 - A411	
	EIRP (dBm) -49.6		Limit	-17dBm/MHz	
Polarity	Vertical				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 45.6 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2 = 45.6 - 95.2 = -49.6 dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	WI-FI 6 New	-Gen Super Router	Test Mode:	Channel 42 (5210MHz)-	
				11ax/HEW80	
Mode	Keeping Transmitting		Input Voltage	120V∼	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5150	PK (dBµV/m)	49.7 (PK)	T 114	27 10/MII	
	EIRP (dBm) -45.5		Limit	-27dBm/MHz	
Polarity	Horizontal				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 49.7 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=49.7-95.2=-45.5 dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	WI-FI 6 New	-Gen Super Router	Test Mode:	Channel 42 (5210MHz)-	
				11ax/HEW80	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5150	PK (dBμV/m) 51.6 (PK)		T in it	27 10/MII	
	EIRP (dBm) -43.6		Limit	-27dBm/MHz	
Polarity	Vertical				

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 51.6 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2 = 51.6 - 95.2 = -43.6 dBm$

Date: 2021-06-22



Restricted band Measurement					
EUT	WI-FI 6 New	-Gen Super Router	Test Mode:	Channel 155 (5775MHz)-	
		•		11ax/HEW80	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5850	PK (dBµV/m)	42.4 (PK)	T in it	17.10/МП	
	EIRP (dBm) -52.8		Limit	-17dBm/MHz	
Polarity	Н	Horizontal			

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 42.4 dB\mu V/m$,

 $EIRP[dBm] = E[dB\mu V/m] - 95.2=42.4-95.2= -52.8 dBm$

2. RBW=1MHz, VBW=3MHz

Restricted band Measurement					
EUT	WI-FI 6 New	-Gen Super Router	Test Mode:	Channel 157 (5775MHz)-	
		-		11ax/HEW80	
Mode	Keeping Transmitting		Input Voltage	120V~	
Temperature	24 deg. C,		Humidity	56% RH	
Test Result:		Pass	Detector	PK	
5850	PK (dBµV/m)	44.1 (PK)	T ::4	17.10/МП	
	EIRP (dBm) -51.1		Limit	-17dBm/MHz	
Polarity	7	Vertical			

Remark: 1. According to KDB 789033 D02 General UNII Test Procedures New Rules v01 section G) d) (ii), for measurement above 1000MHz@3m distance, the limit of EIRP is calculated as follows:

 $EIRP[dBm] = E[dB\mu V/m] - 95.2$

For Example, if $E[dB\mu V/m] = 44.1 dB\mu V/m$,

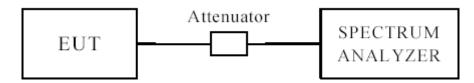
 $EIRP[dBm] = E[dB\mu V/m] - 95.2=44.1-95.2=-51.1 dBm$

Date: 2021-06-22



7.0 Emission Bandwidth

7.1 Test Setup



7.3 Test Procedure for Emission Bandwidth

- 1. Set RBW = approximately 1% of the emission bandwidth.
- 2. Set VBW> RBW
- 3 Detector = Peak
- 4. Trace mode = max hold.
- 5. Sweep = auto couple.
- 6. Allow the trace to stabilize.
- 7. Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

7.4 Test Procedure for Minimum Bandwidth for the Band 5725-5850MHz

- 1. Set RBW = 100 kHz.
- 2. Set $VBW \ge 3 \times RBW$.
- 3. Detector = Peak.
- 4. Trace mode = max hold.
- 5. Sweep = auto couple.
- 6. Allow the trace to stabilize.
- 7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

7.5 Test Procedure for 99% Bandwidth

- 1. Set center frequency to the nominal EUT channel center frequency
- 2. Set span = 1.5 times to 5.0 times OBW
- 3. Set RBW= 1% to 5% of the OBW
- 4. Set $VBW \ge 3 \times RBW$
- 5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Other, peak detection and max mode (until trace stabilizes) shall be used.
- 6. Use the 99% power bandwidth function of the instrument

The report refers only to the sample tested and does not apply to the bulk.

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7.6 Test Result

EUT		wireless router			Model		WR-AX01			
Mode		802.11a			Input Voltage		120V~			
Temperature		24 deg. C,			Humidity		56% RH			
Channel		Channel Frequency (MHz)		Bandwidth (MHz)		Minimum Limit (MHz)		Pass/ Fail		
26dB Bar	26dB Bandwidth									
36	5180		6	20.20				Pass		
40		5200	6	20	.20			Pass		
48		5240		20.08				Pass		
99% Bandwidth										
36		5180	6	16	.77			Pass		
40		5200	6	16	.83			Pass		
48		5240	6	16	.83			Pass		

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

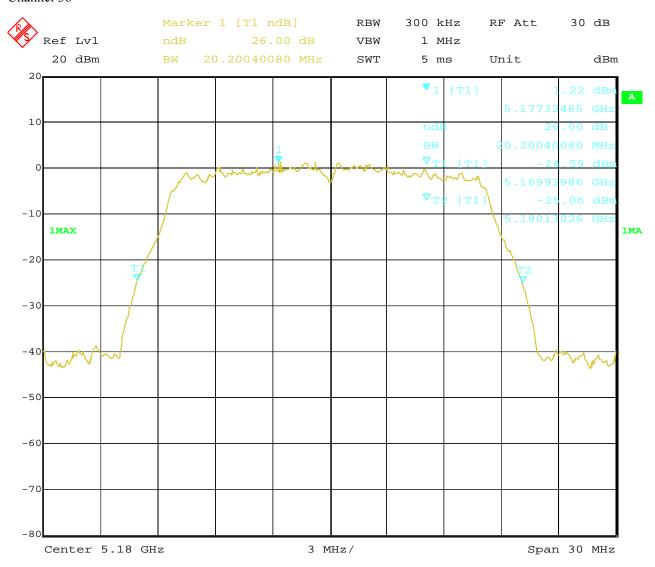
Date: 2021-06-22



Test Figure:

26dB Bandwidth

Channel 36



Date: 19.MAY.2021 17:05:30

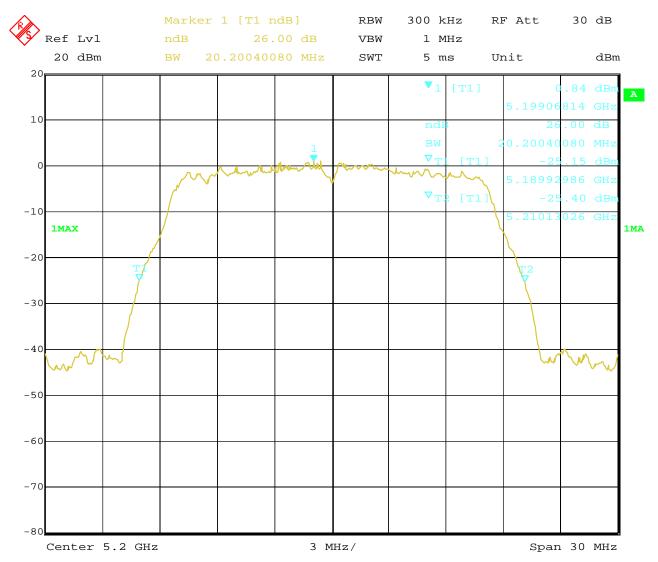
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Channel 40



19.MAY.2021 17:02:43 Date:

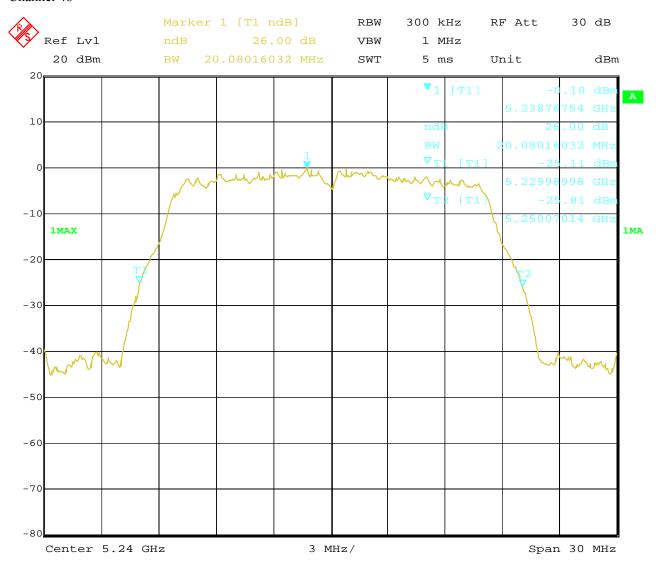
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Date: 2021-06-22



Channel 48



19.MAY.2021 16:57:16 Date:

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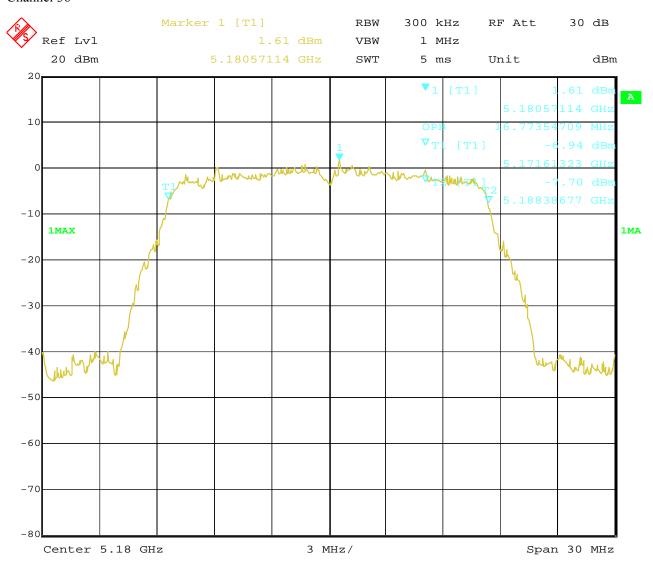
Date: 2021-06-22



Test Figure:

99% Bandwidth

Channel 36



Date: 19.MAY.2021 18:01:56

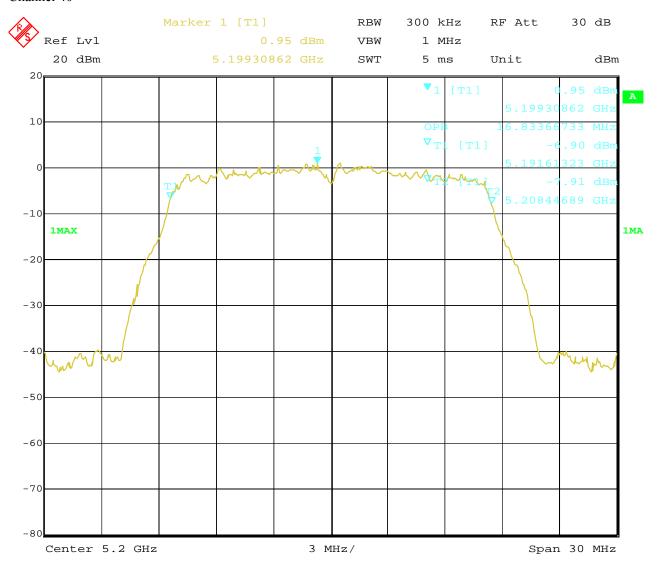
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Date: 2021-06-22



Channel 40



19.MAY.2021 18:01:15 Date:

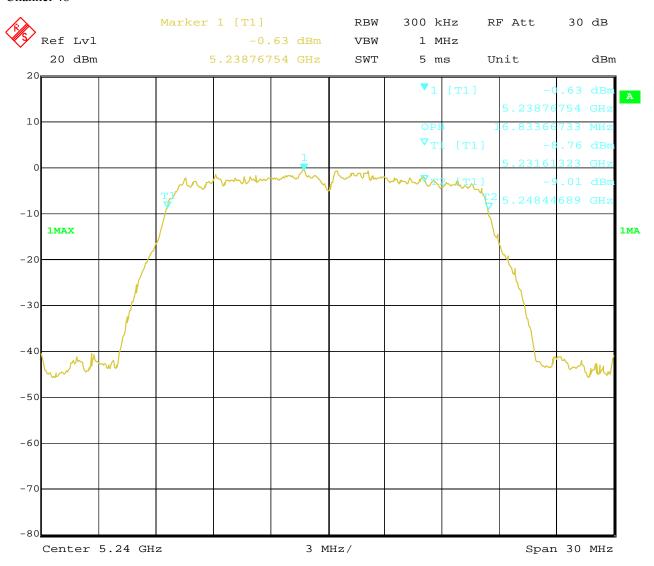
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Date: 2021-06-22



Channel 48



19.MAY.2021 17:56:31 Date:

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Report No.: TW2105002-02E

Date: 2021-06-22



EUT		wireless router			Model		WR-AX01		
Mode		802.11a			Input Voltage		120V~		
Temperature		24	24 deg. C,			Humidity		56% RH	
Channel	Channel Frequency (MHz)		Data Transfer Rate (Mbps)	Bandwidth (MHz)		Minimum Limit (MHz)		Pass/ Fail	
26dB Bar	ndwidth	I							
149	5745		6	20.08				Pass	
153		5765		20.08				Pass	
161	5805		6	20.08				Pass	
6dB Ban	dwidth								
149	5745		6	16.35		0.5		Pass	
153		5765		16.35		0.5		Pass	
161		5805		16.35		0.5		Pass	
99% Bandwidth									
149		5745	6	16	83			Pass	
153		5765	6	16	.83			Pass	
161	5805		6	16.83				Pass	

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

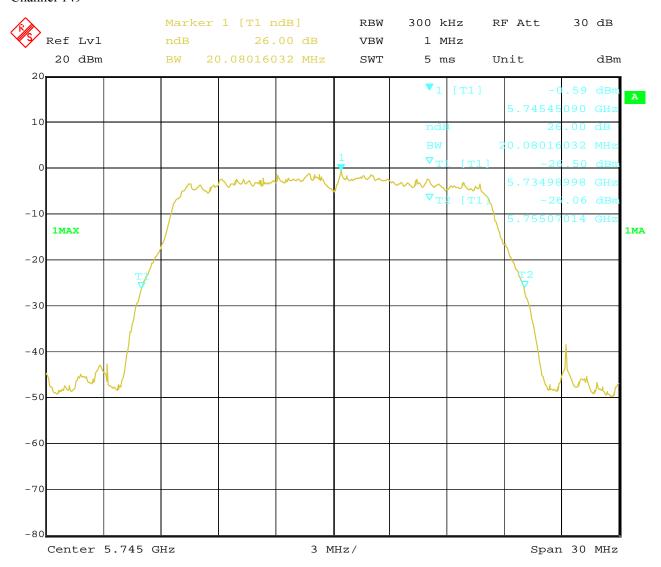
Date: 2021-06-22



Test Figure:

26dB Bandwidth

Channel 149



Date: 20.MAY.2021 14:00:05

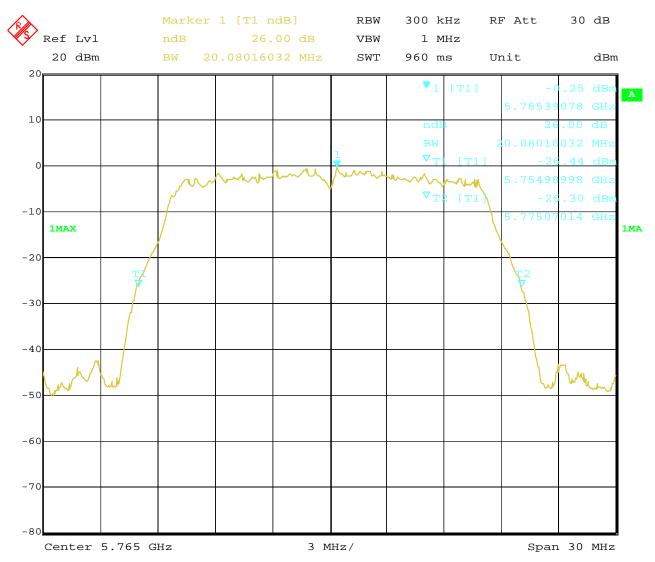
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Date: 2021-06-22



Channel 153



21.MAY.2021 13:37:45 Date:

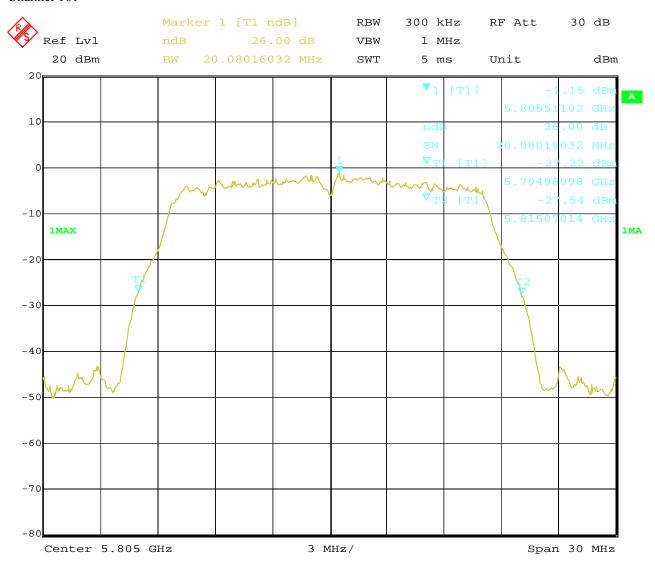
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Report No.: TW2105002-02E

Date: 2021-06-22



Channel 161



20.MAY.2021 16:19:04 Date:

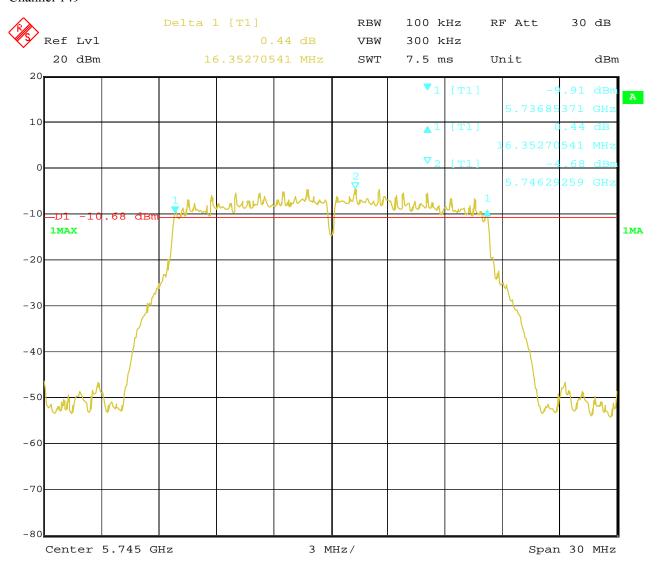
Date: 2021-06-22



Test Figure:

6dB Bandwidth

Channel 149



Date: 20.MAY.2021 14:20:27

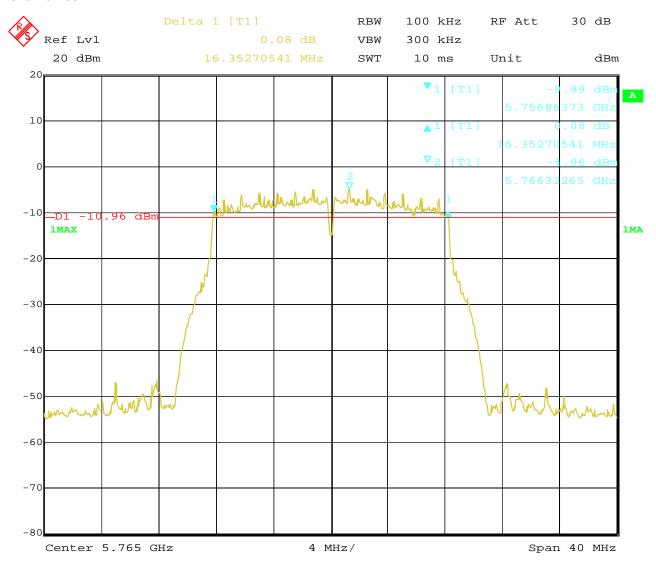
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Date: 2021-06-22



Channel 153



20.MAY.2021 Date: 15:50:14

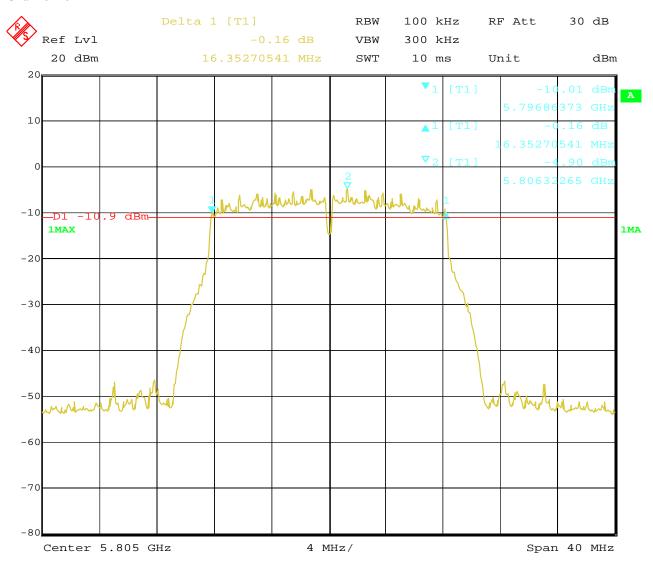
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Channel 161



20.MAY.2021 16:13:15 Date:

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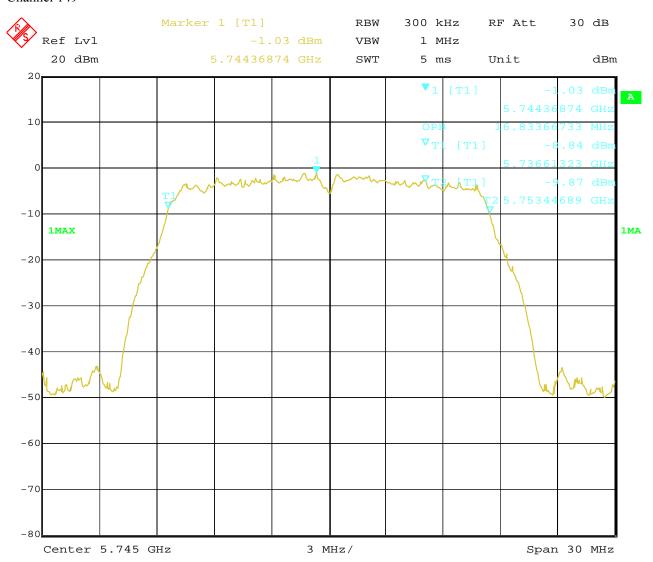
Date: 2021-06-22



Test Figure:

99% Bandwidth

Channel 149



Date: 20.MAY.2021 14:15:01

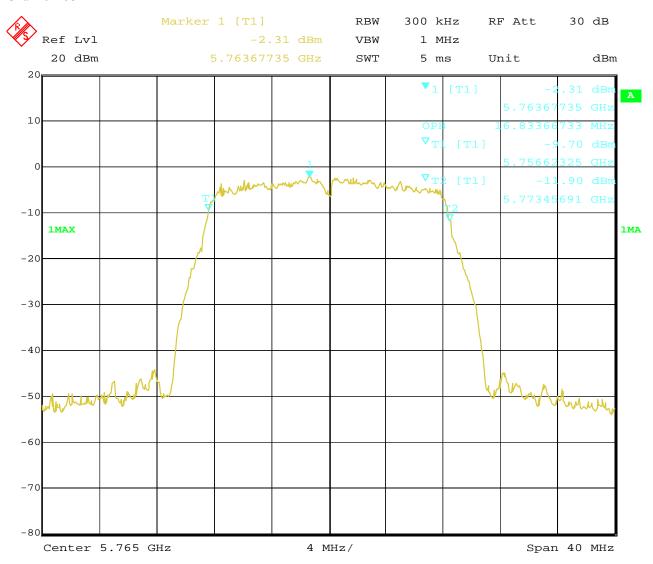
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Date: 2021-06-22



Channel 153



20.MAY.2021 15:23:05 Date:

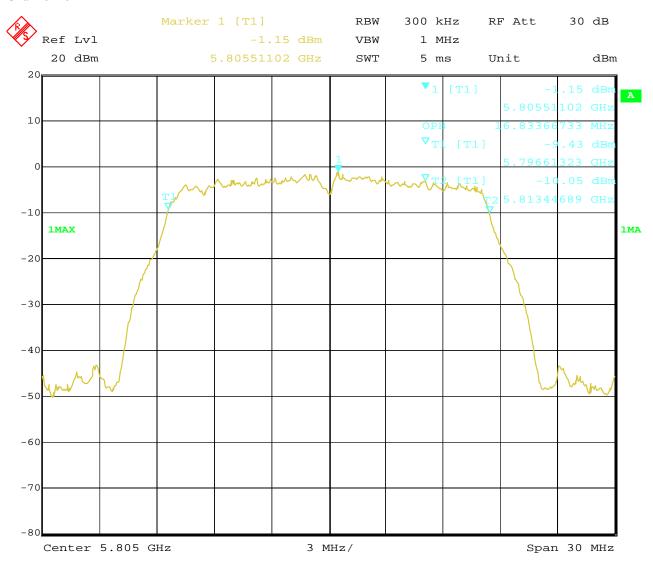
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Channel 161



20.MAY.2021 16:19:21 Date:

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Report No.: TW2105002-02E

Date: 2021-06-22



EUT		wireless router			Model		WR-AX01		
Mode		802.11n HT20			Input Voltage			120V~	
Temperature		24 deg. C,			Humidity		56% RH		
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)		width Hz)	Minimum Limit (MHz)		Pass/ Fail	
26dB Bandwidth									
36		5180	mcs0	20	.20			Pass	
40		5200	mcs0	20	.32			Pass	
48		5240	mcs0	20	.20			Pass	
99% Bandwidth									
36		5180	mcs0	16	5.89			Pass	
40		5200	mcs0	16	.89			Pass	
48		5240	mcs0	16	16.95			Pass	

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

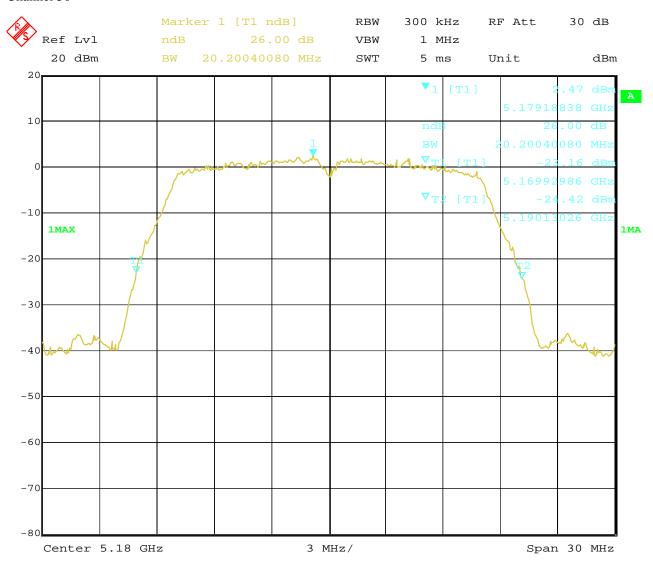
Date: 2021-06-22



Test Configure

26dB Bandwidth

Channel 36



Date: 19.MAY.2021 16:36:28

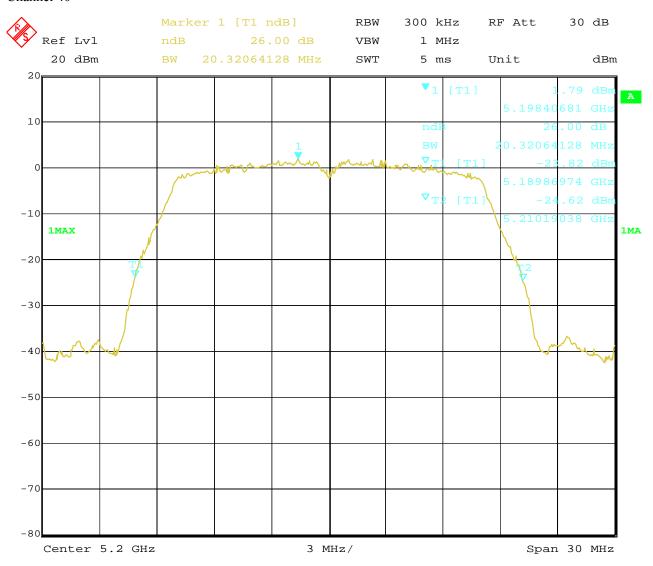
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Date: 2021-06-22



Channel 40



19.MAY.2021 16:44:53 Date:

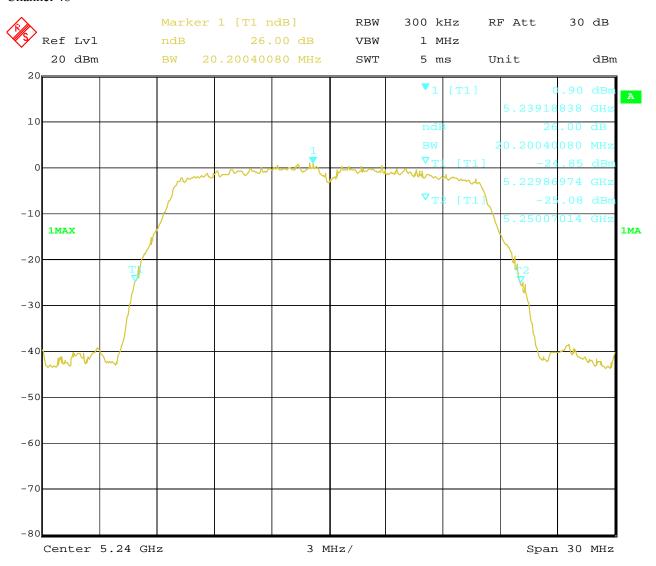
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Date: 2021-06-22



Channel 48



19.MAY.2021 16:50:36 Date:

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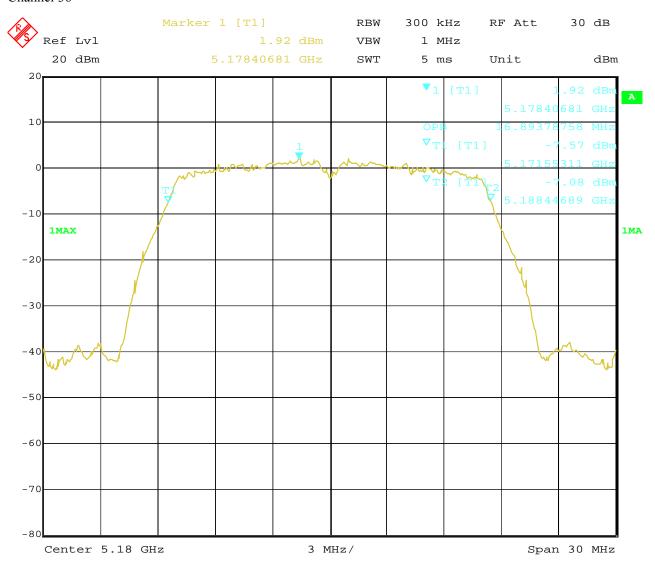
Date: 2021-06-22



Test Configure

99% Bandwidth

Channel 36



Date: 19.MAY.2021 17:41:47

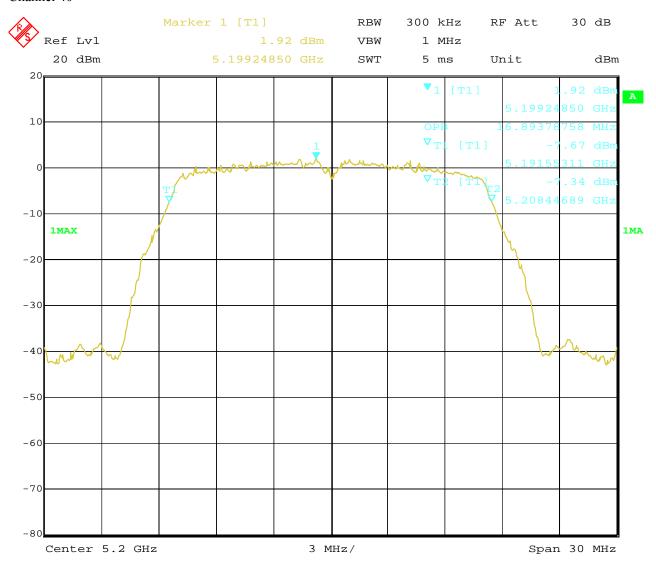
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Date: 2021-06-22



Channel 40



19.MAY.2021 17:52:13 Date:

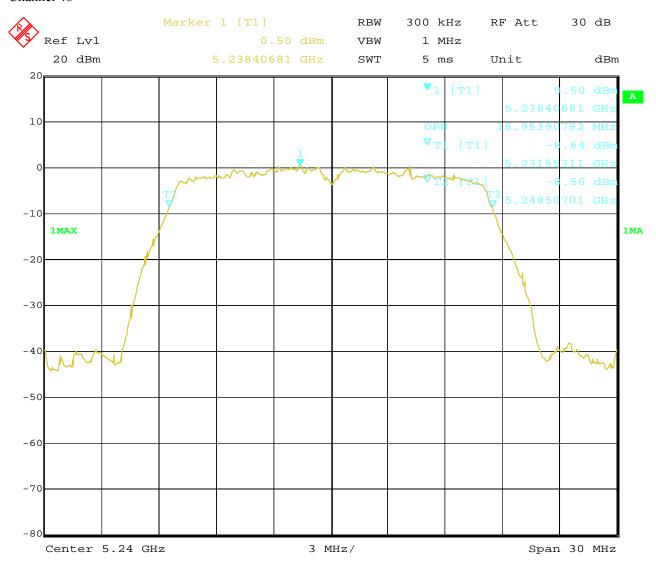
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Date: 2021-06-22



Channel 48



19.MAY.2021 17:54:55 Date:

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Date: 2021-06-22



EUT w		wire	eless router		Model		WR-AX01		
Mode		802.11n HT20			Input Voltage		120V~		
Temperature		24	4 deg. C,		Humidity	Humidity		56% RH	
Channel	Channel Frequency (MHz)		Data Transfer Rate (Mbps)	Bandwidth (MHz)		Minimum Limit (MHz)		Pass/ Fail	
26dB Bar	ndwidth								
149	149 5745		6	20.68				Pass	
153		5765	6	20.68				Pass	
161		5805		20.68				Pass	
6dB Band	dwidth								
149	5745		6	17.01			0.5	Pass	
153		5765	6	17	7.15	0.5		Pass	
161		5805		16.95		0.5		Pass	
99% Ban	dwidth								
149	5745		6	17.80				Pass	
153		5765	6	17	7.80			Pass	
161		5805	6	17	17.86			Pass	

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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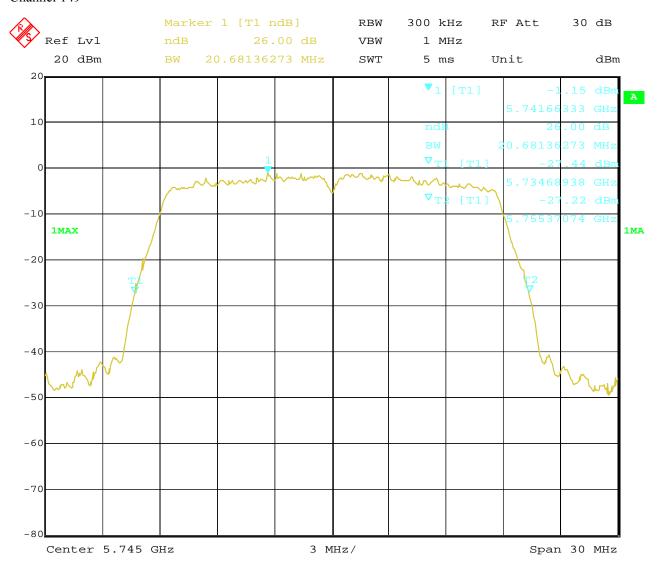
Date: 2021-06-22



Test Configure

26dB Bandwidth

Channel 149



Date: 20.MAY.2021 14:03:06

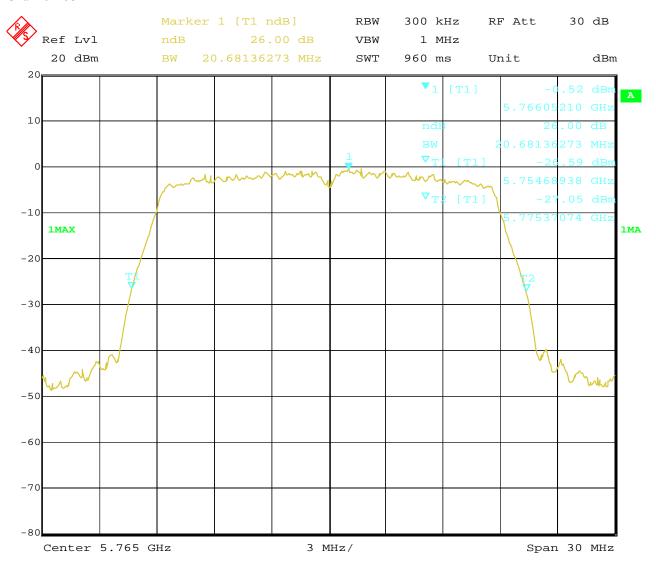
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Channel 153



21.MAY.2021 13:38:30 Date:

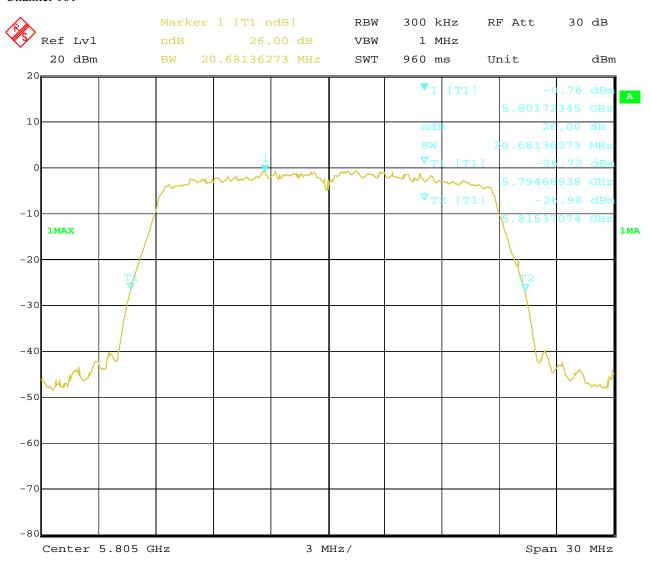
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Channel 161



21.MAY.2021 13:40:19 Date:

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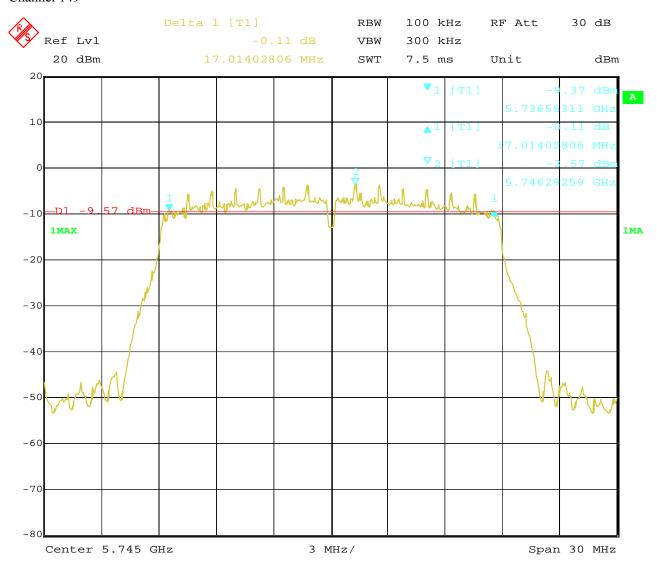
Date: 2021-06-22



Test Configure

6dB Bandwidth

Channel 149



Date: 20.MAY.2021 14:32:58

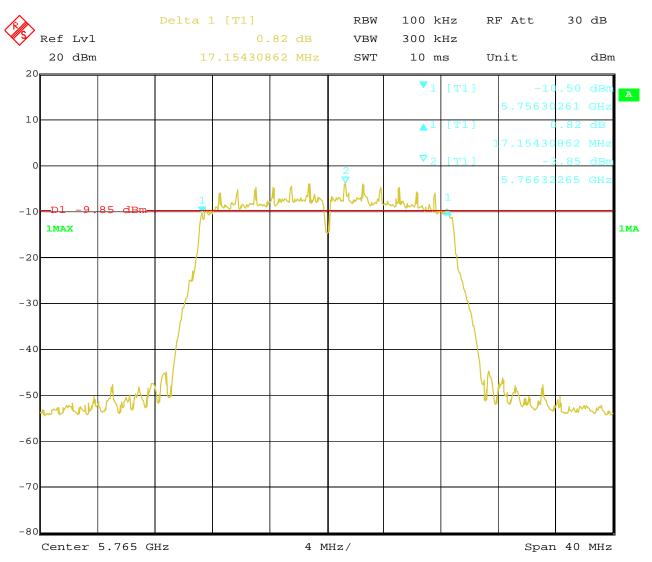
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Date: 2021-06-22



Channel 153



20.MAY.2021 15:46:42 Date:

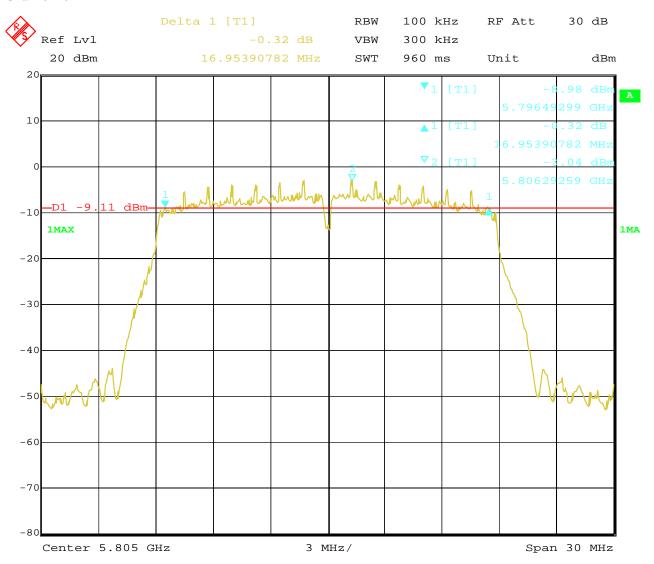
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Channel 161



21.MAY.2021 13:35:23 Date:

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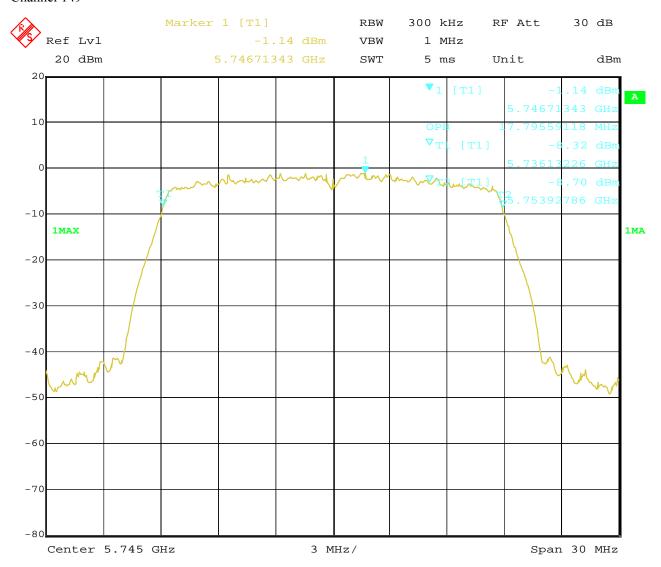
Date: 2021-06-22



Test Configure

99% Bandwidth

Channel 149



Date: 20.MAY.2021 14:10:46

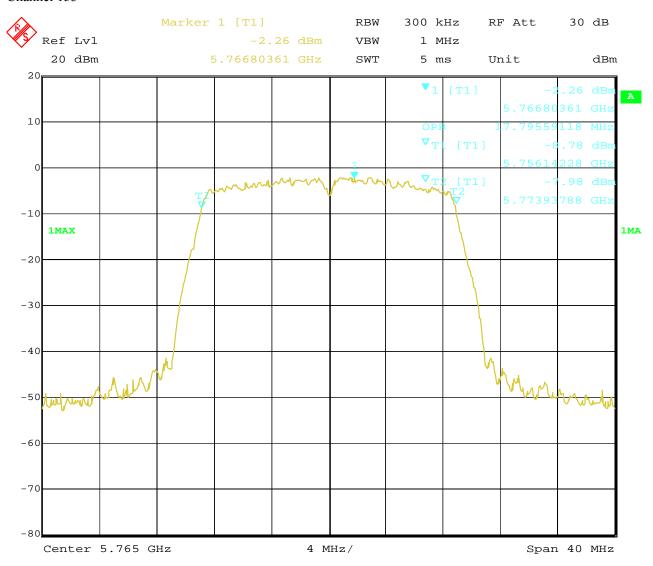
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Date: 2021-06-22



Channel 153



20.MAY.2021 15:28:21 Date:

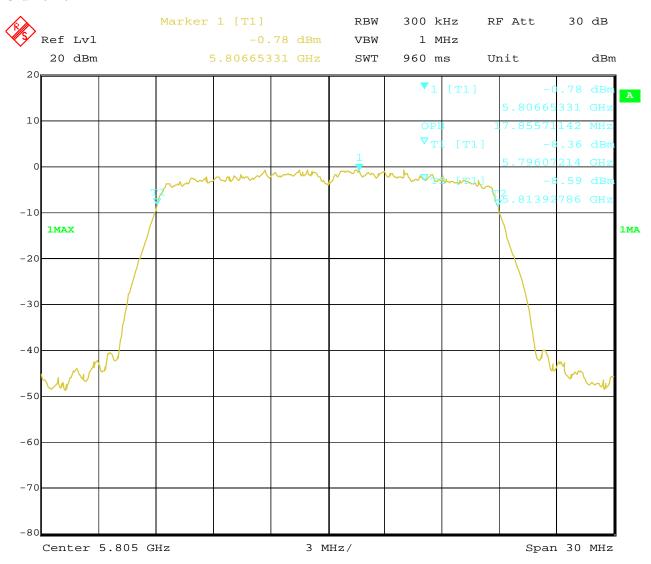
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21.MAY.2021 13:41:32 Date:

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EUT		wireless router			Model		WR-AX01		
Mode		802.11n HT40			Input Voltage		120V~		
Temperature		24 deg. C,			Humidity		56% RH		
Channel	Channel Frequency (MHz)		Data Transfer Rate (Mbps)	Bandwidth (MHz)		Minimum Limit (MHz)		Pass/ Fail	
26dB Bar	26dB Bandwidth								
38	5190		mcs0	41.24				Pass	
46		5230		40.88				Pass	
99% Bandwidth									
38		5190	mcs0	36.07		7		Pass	
46		5230	mcs0	36.07				Pass	

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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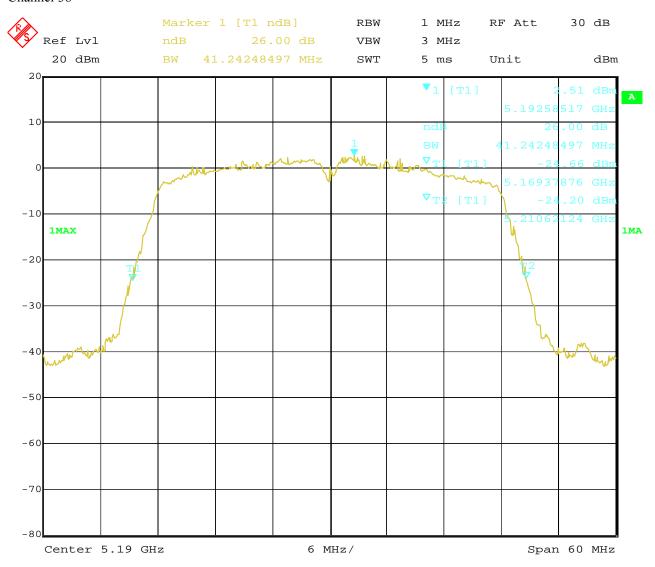
Date: 2021-06-22



Test Configure

26dB Bandwidth

Channel 38



Date: 22.MAY.2021 18:40:15

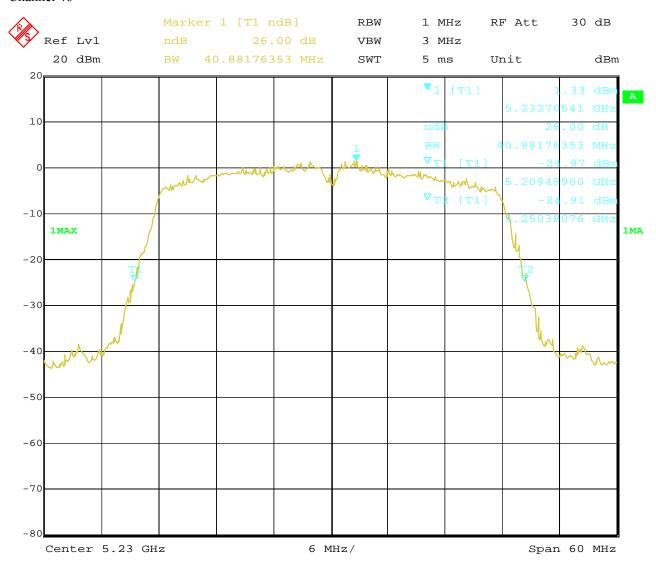
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Date: 2021-06-22



Channel 46



22.MAY.2021 18:42:26 Date:

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Report No.: TW2105002-02E

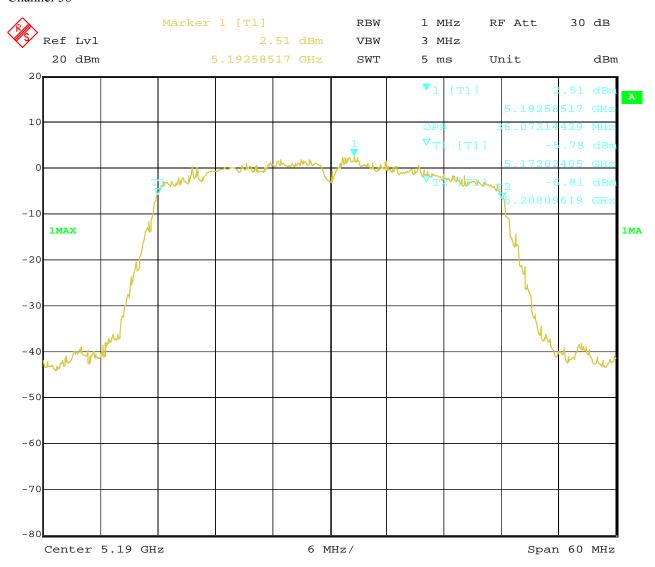
Date: 2021-06-22



Test Configure

99% Bandwidth

Channel 38



Date: 22.MAY.2021 18:39:45

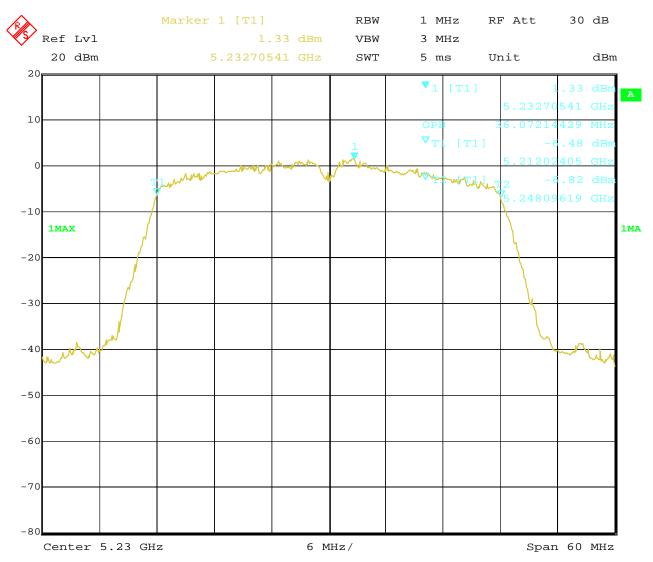
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Date: 2021-06-22



Channel 46



22.MAY.2021 18:42:45 Date:

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Report No.: TW2105002-02E

Date: 2021-06-22



EUT		wireless router			Model		WR-AX01		
Mode		802	.11n HT40		Input Voltage		120V~		
Temperature 24		4 deg. C,		Humidity		56% RH			
Channel	Channel Frequency (MHz)		Data Transfer Rate (Mbps)	Bandwidth (MHz)		Minimum Limit (MHz)		Pass/ Fail	
26dB Bar	ndwidth								
151	5755		mcs0	41	.36			Pass	
159		5795	mcs0	41.12				Pass	
6dB Band	dwidth								
151	5755		mcs0	35.11		0.5		Pass	
159		5795		35.11		0.5		Pass	
99% Ban	dwidth								
151	5755 mc		mcs0	36.19				Pass	
159		5795	mcs0	36	.07			Pass	

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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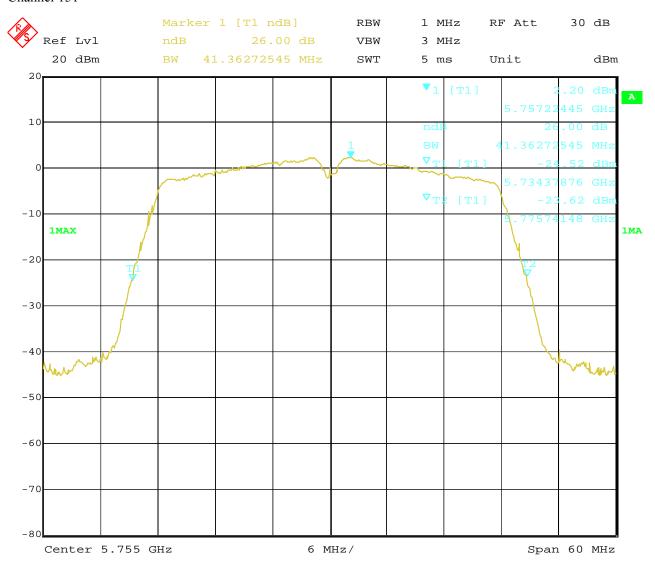
Date: 2021-06-22



Test Configure

26dB Bandwidth

Channel 151



Date: 20.MAY.2021 16:25:32

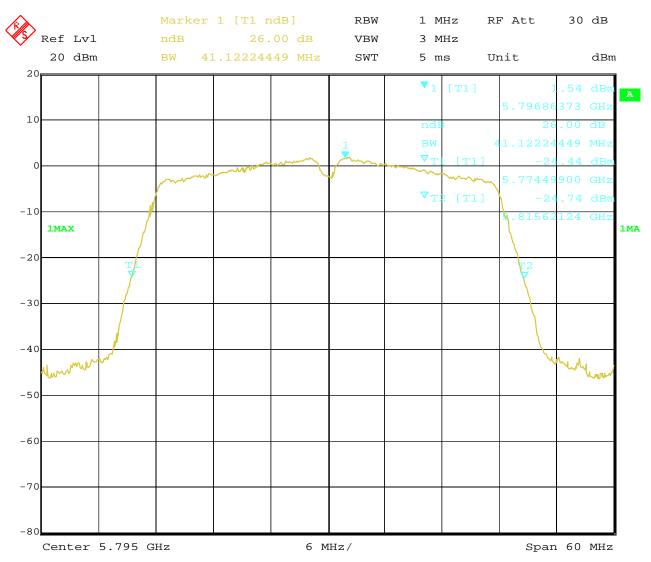
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Date: 2021-06-22



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20.MAY.2021 17:05:42 Date:

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Report No.: TW2105002-02E

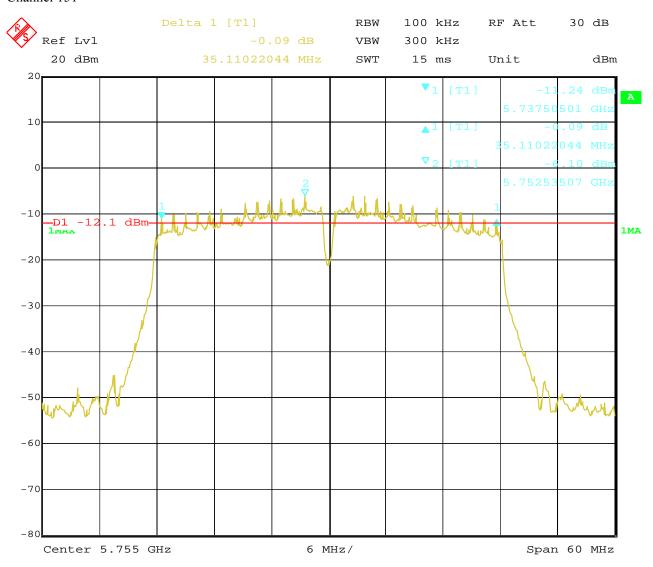
Date: 2021-06-22



Test Configure

6dB Bandwidth

Channel 151



Date: 20.MAY.2021 17:00:44

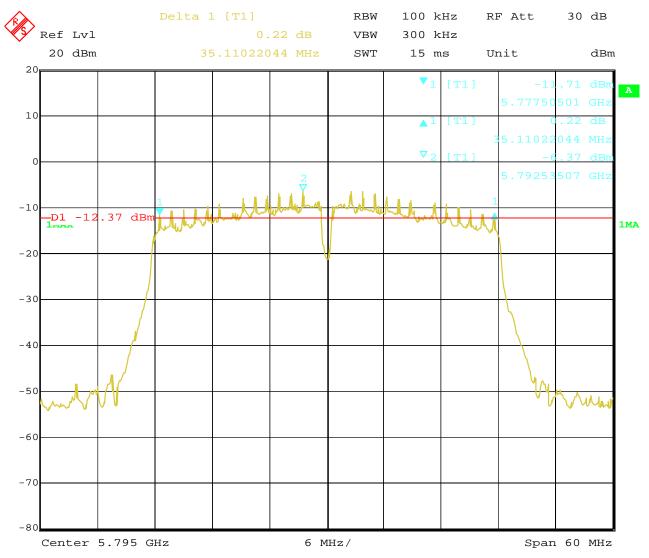
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Report No.: TW2105002-02E

Date: 2021-06-22



Channel 159



20.MAY.2021 Date: 17:12:26

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Report No.: TW2105002-02E

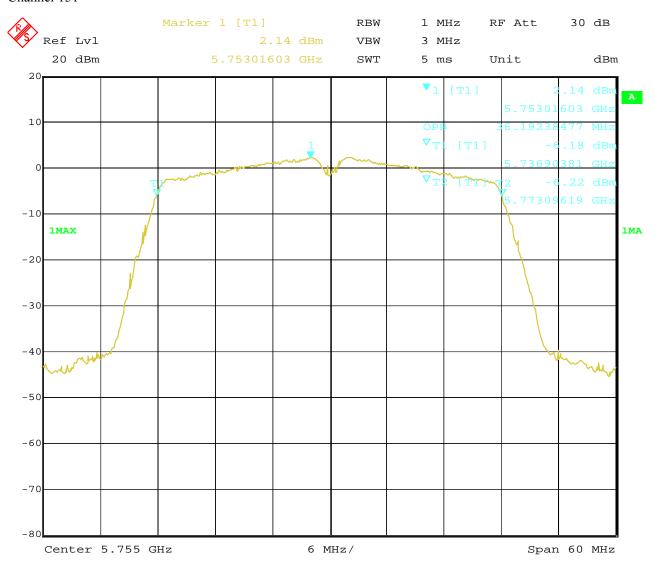
Date: 2021-06-22



Test Configure

99% Bandwidth

Channel 151



Date: 20.MAY.2021 16:27:32

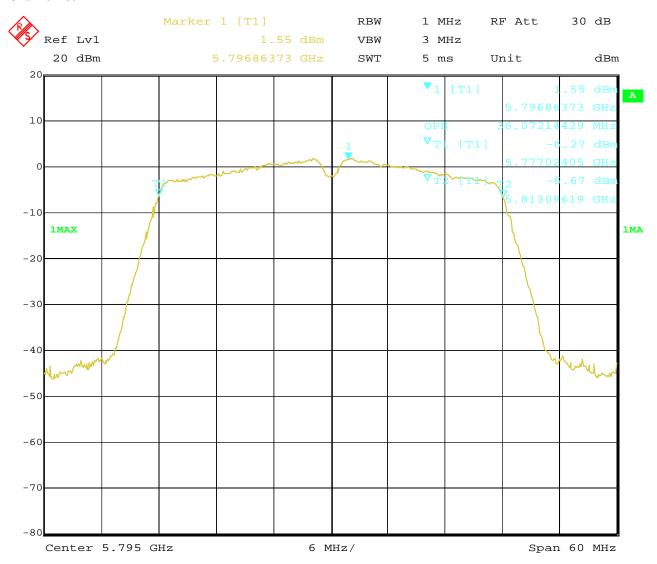
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Report No.: TW2105002-02E

Date: 2021-06-22



Channel 159



20.MAY.2021 17:05:53 Date:

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Report No.: TW2105002-02E

Date: 2021-06-22



EUT		wireless router			Model		7	WR-AX01	
Mode		802.11ac VHT20			Input Voltage		120V~		
Temperature		24 deg. C,			Humidity		56% RH		
Channel	Channel Frequency (MHz)		Data Transfer Rate (Mbps)	Bandwidth (MHz)		Minimum Limit (MHz)		Pass/ Fail	
26dB Bar	ndwidth								
36	5180		mcs0	20.62				Pass	
40		5200	mcs0	20.68				Pass	
48		5240	mcs0	20.62				Pass	
99% Ban	dwidth								
36	5180		mcs0	17.80				Pass	
40		5200	mcs0	17	.80)		Pass	
48		5240	mcs0	17	·.80			Pass	

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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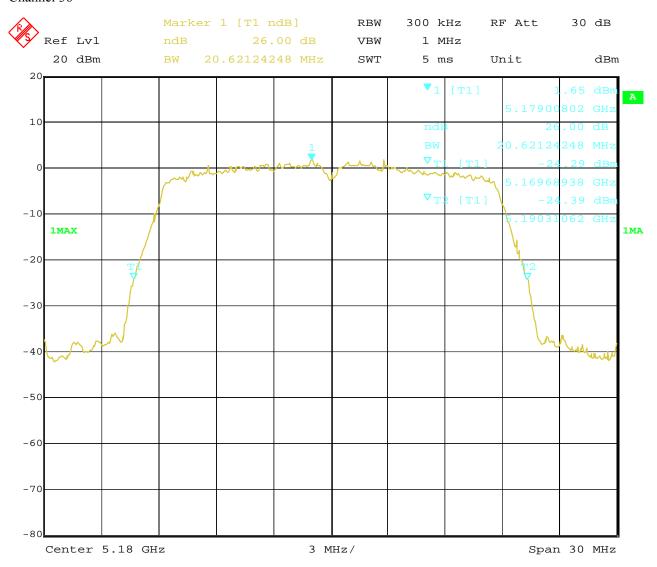
Date: 2021-06-22



Test Configure

26dB Bandwidth

Channel 36



Date: 19.MAY.2021 17:21:49

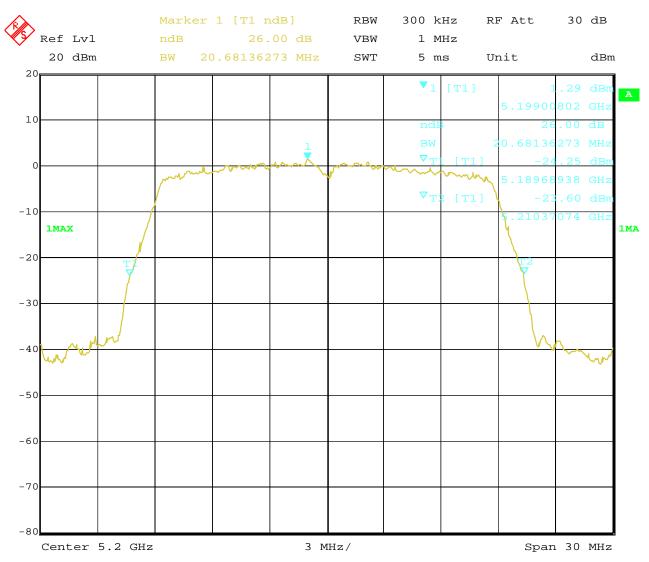
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Report No.: TW2105002-02E

Date: 2021-06-22



Channel 40



19.MAY.2021 17:28:49 Date:

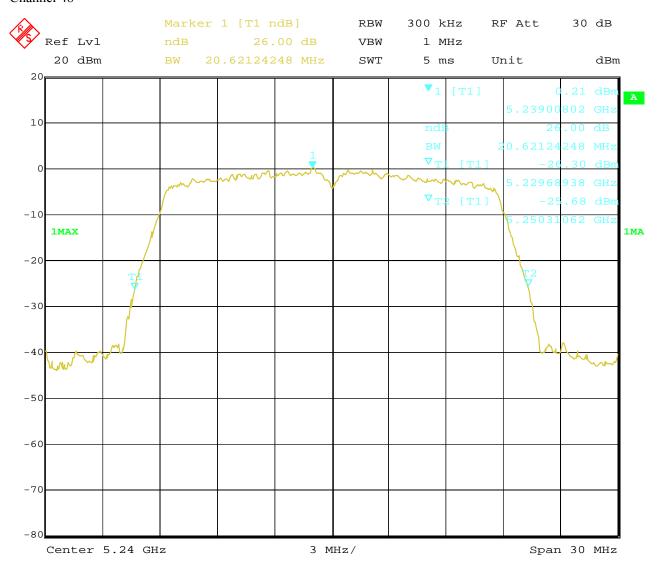
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Date: 2021-06-22



Channel 48



19.MAY.2021 17:32:00 Date:

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Report No.: TW2105002-02E

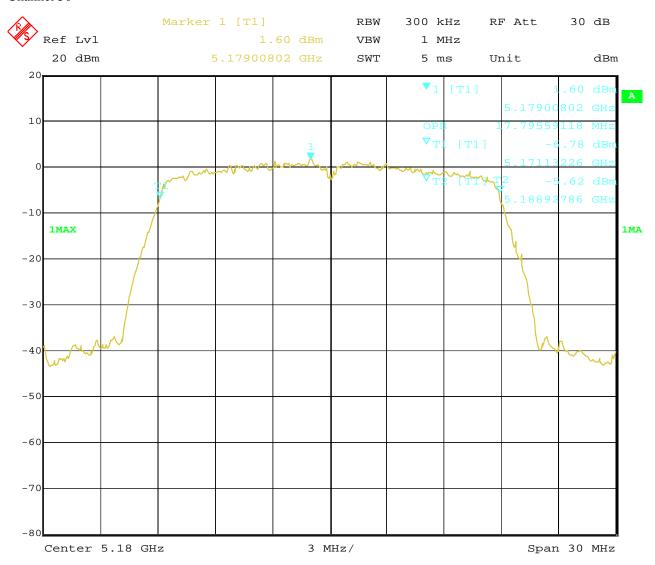
Date: 2021-06-22



Test Configure

99% Bandwidth

Channel 36



Date: 19.MAY.2021 17:39:02

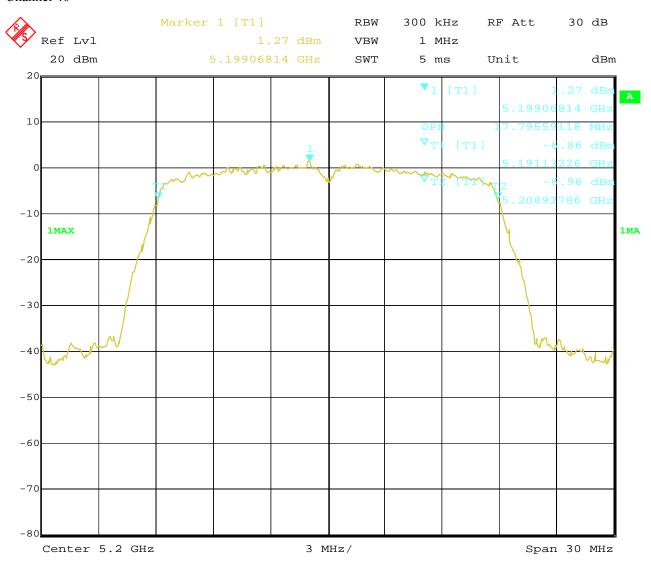
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Report No.: TW2105002-02E

Date: 2021-06-22



Channel 40



19.MAY.2021 17:35:39 Date:

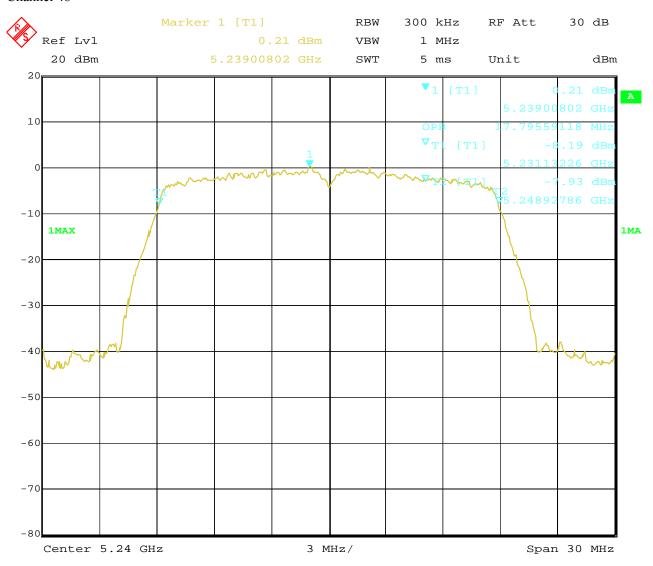
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Report No.: TW2105002-02E

Date: 2021-06-22



Channel 48



19.MAY.2021 17:32:15 Date:

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Report No.: TW2105002-02E

Date: 2021-06-22



EUT		wireless router			Model		WR-AX01	
Mode		802.11ac VHT20			Input Voltage		120V~	
Temperature		24	4 deg. C,	Humidity	lity		56% RH	
Channel	Channel Frequency (MHz)		Data Transfer Rate (Mbps)	Bandwidth (MHz)		Minimum Limit (MHz)		Pass/ Fail
26dB Bai	ndwidth							
149		5745	6	20	0.68			Pass
153		5765	6	20.68				Pass
161		5805		20.62				Pass
6dB Ban	dwidth							
149		5745	6	17	17.13		0.5	Pass
153		5765	6	16	5.91	0.5		Pass
161		5805		16.95		0.5		Pass
99% Ban	dwidth					_		
149		5745 6 17.80		.80			Pass	
153		5765	6	17	17.80			Pass
161		5805	6	17	7.86			Pass

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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adopt any other remedies which may be appropriate.

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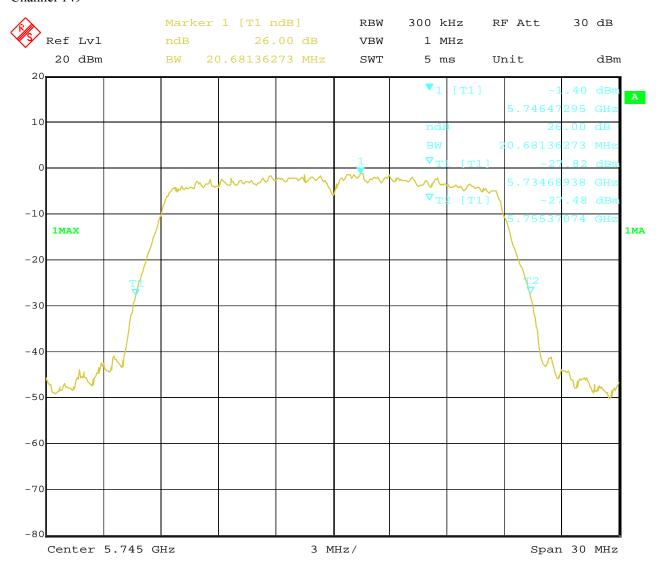
Date: 2021-06-22



Test Configure

26dB Bandwidth

Channel 149



Date: 20.MAY.2021 14:03:52

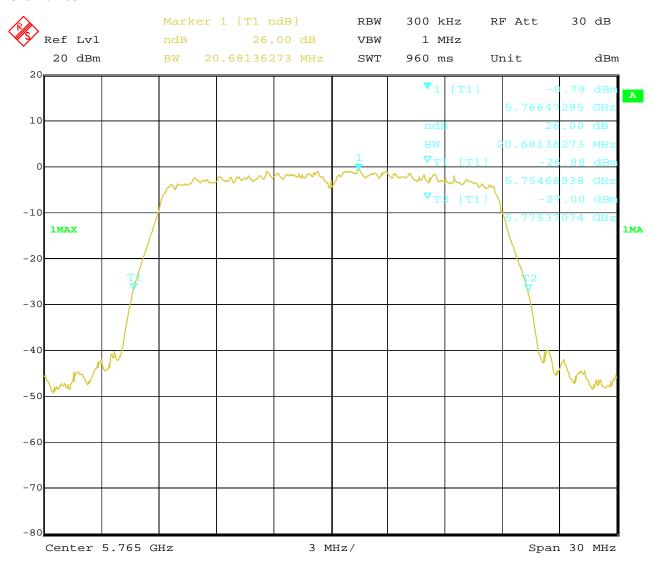
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Report No.: TW2105002-02E

Date: 2021-06-22



Channel 153



21.MAY.2021 13:39:07 Date:

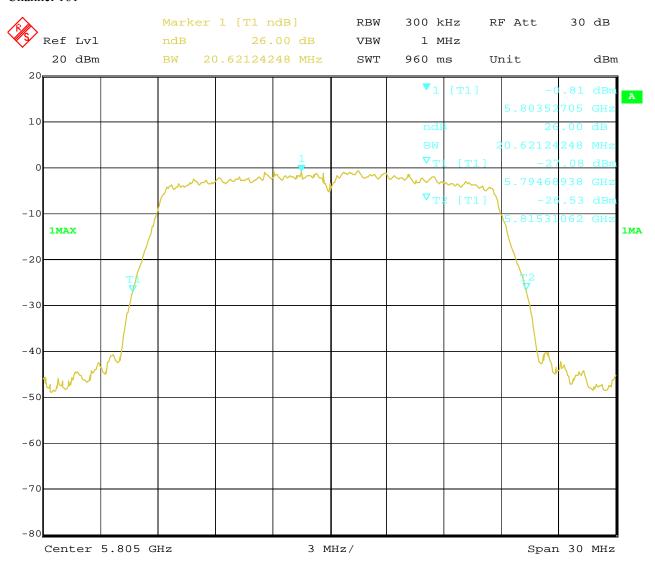
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Date: 2021-06-22



Channel 161



21.MAY.2021 13:39:48 Date:

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Report No.: TW2105002-02E

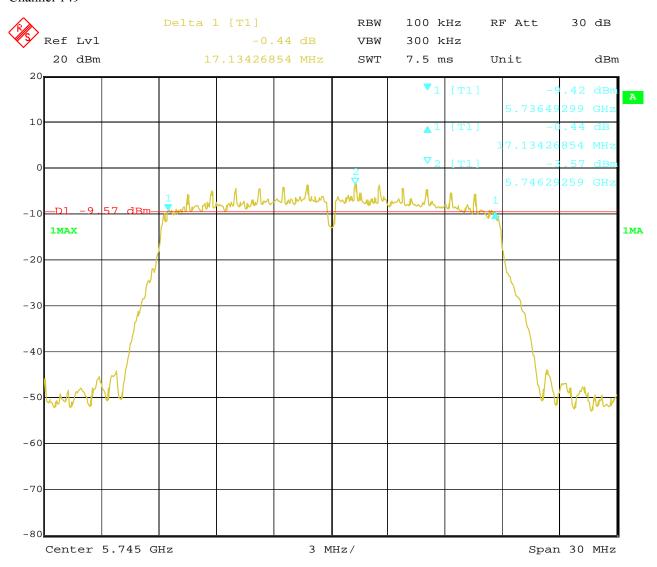
Date: 2021-06-22



Test Configure

6dB Bandwidth

Channel 149



Date: 20.MAY.2021 14:41:02

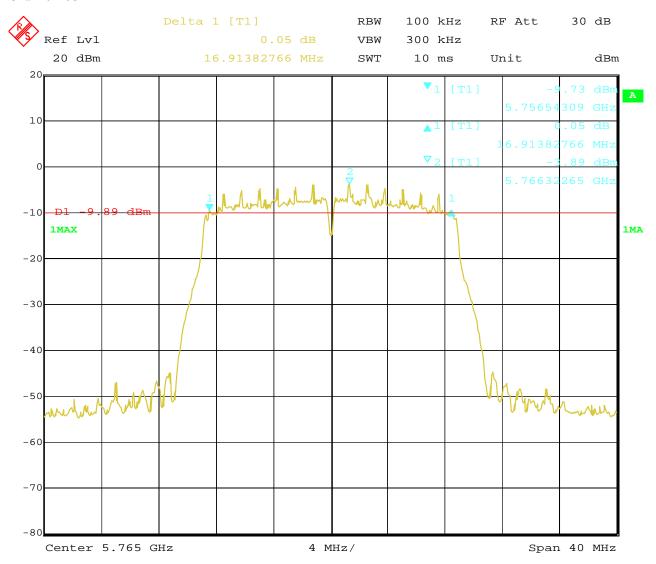
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Report No.: TW2105002-02E

Date: 2021-06-22



Channel 153



20.MAY.2021 Date: 15:44:39

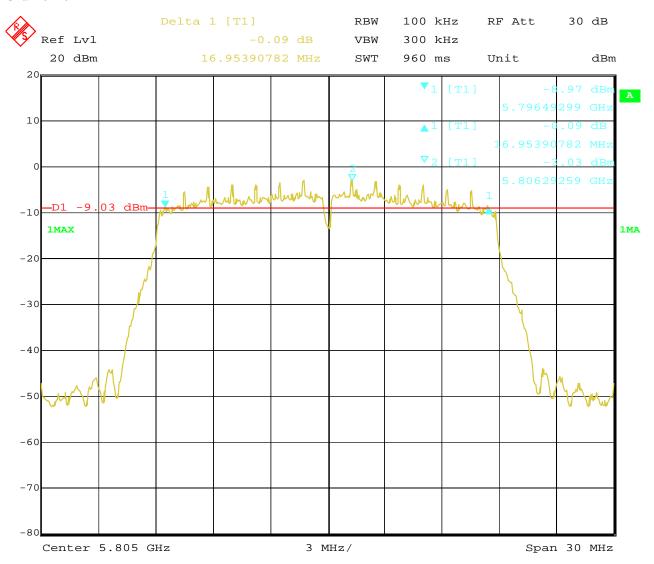
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Date: 2021-06-22



Channel 161



21.MAY.2021 13:34:09 Date:

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Report No.: TW2105002-02E

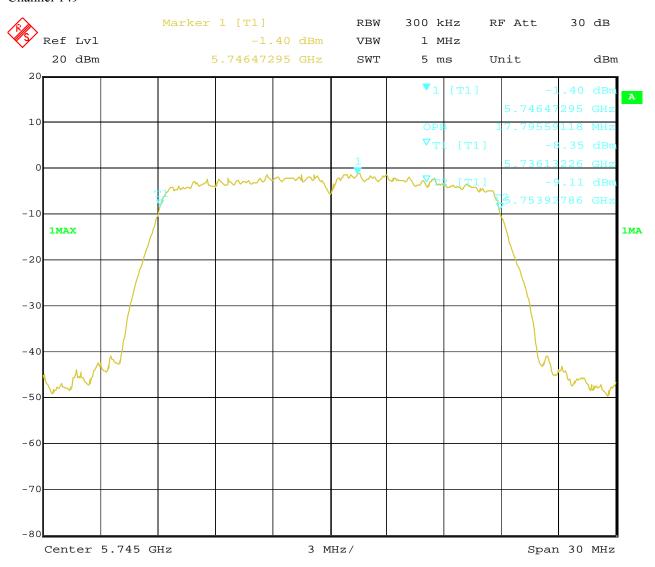
Date: 2021-06-22



Test Configure

99% Bandwidth

Channel 149



Date: 20.MAY.2021 14:04:19

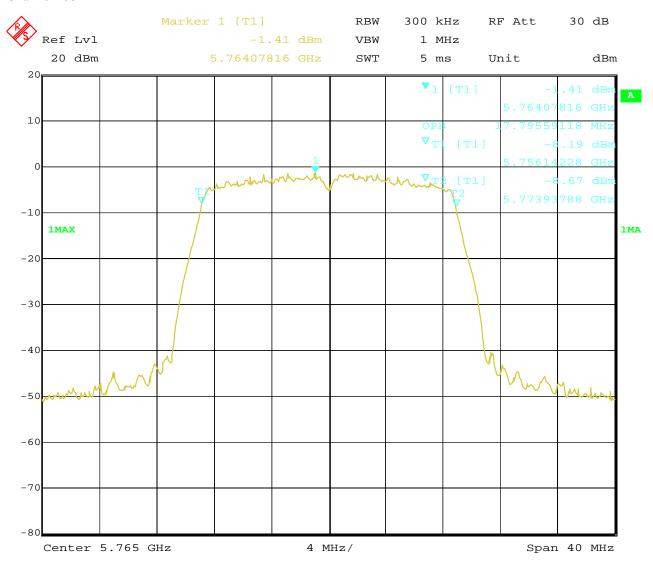
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Report No.: TW2105002-02E

Date: 2021-06-22



Channel 153



20.MAY.2021 15:27:46 Date:

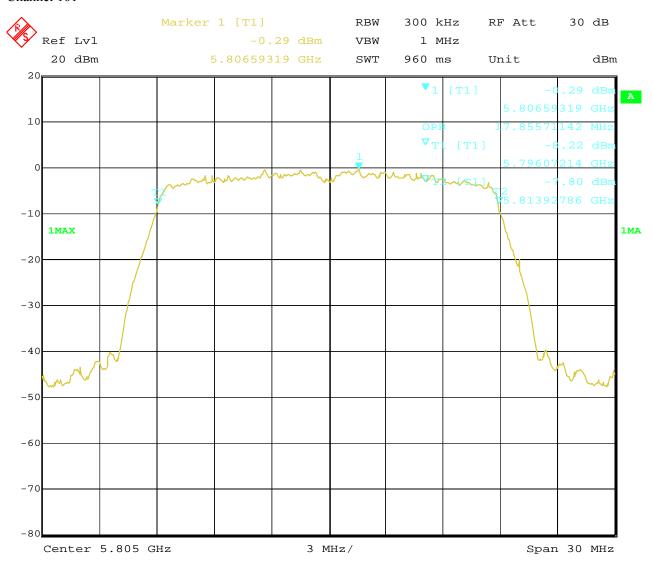
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Date: 2021-06-22



Channel 161



21.MAY.2021 13:40:53 Date:

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Report No.: TW2105002-02E

Date: 2021-06-22



EUT		wireless router			Model		WR-AX01			
Mode 802		802.1	1ac VHT40)	Input Voltage		120V~			
Temperature		24 deg. C,			Humidity			56% RH		
Channel		Channel Frequency (MHz) Data Transfer Rate (Mbps)		Bandwidth (MHz)		Minimum Limit (MHz)		Pass/ Fail		
26dB Bar	26dB Bandwidth									
38	5190		mcs0	41.24				Pass		
46		5230 mcs0 4		41	41.00			Pass		
99% Ban	99% Bandwidth									
38		5190	mcs0	36	36.19		19			Pass
46		5230	mcs0	36.07				Pass		

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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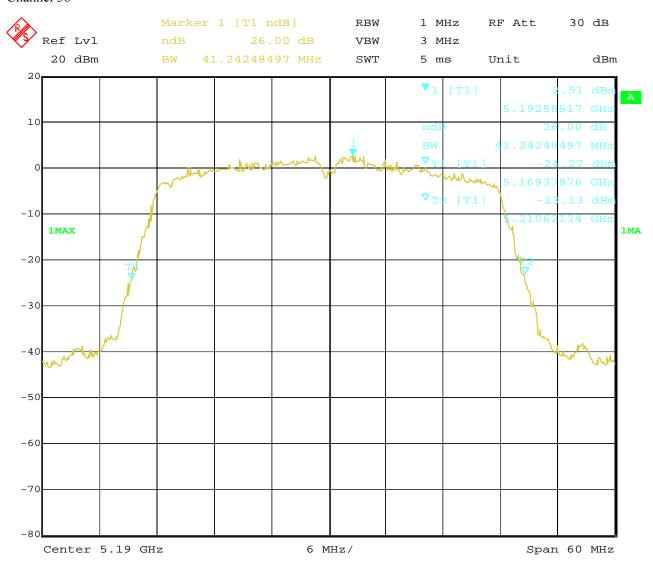
Date: 2021-06-22



Test Configure

26dB Bandwidth

Channel 38



Date: 22.MAY.2021 18:40:47

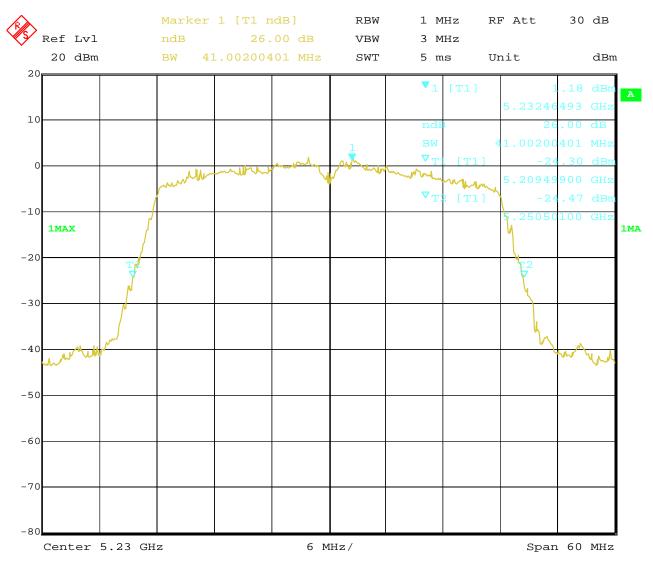
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Date: 2021-06-22



Channel 46



22.MAY.2021 18:42:01 Date:

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Report No.: TW2105002-02E

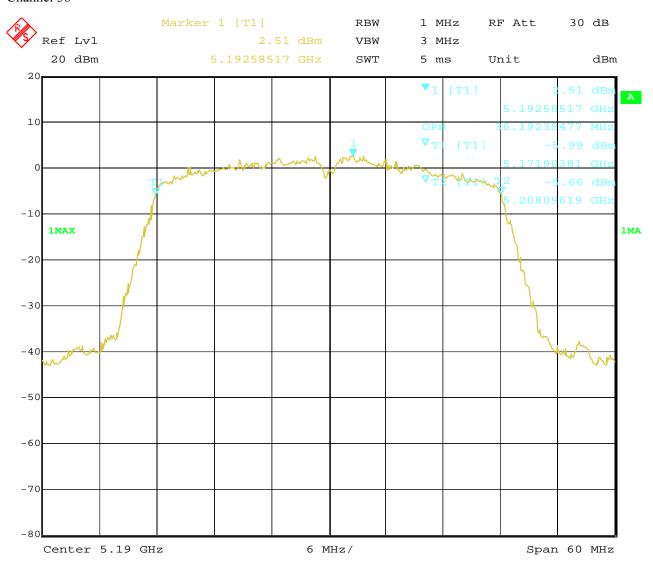
Date: 2021-06-22



Test Configure

99% Bandwidth

Channel 38



Date: 22.MAY.2021 18:41:01

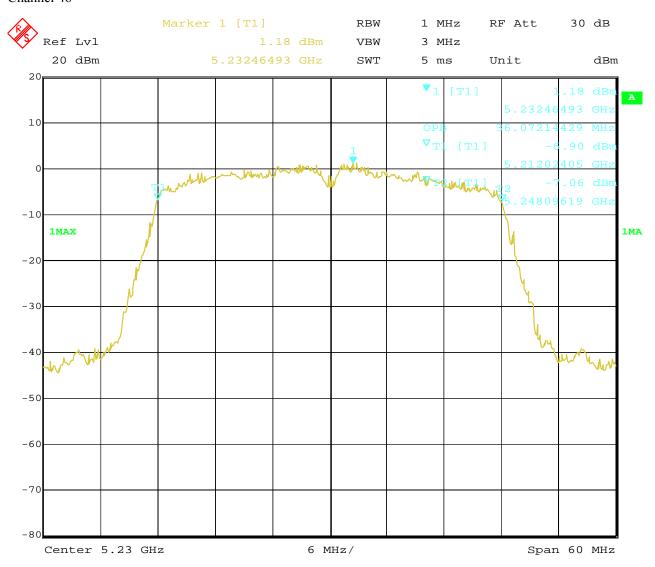
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Report No.: TW2105002-02E

Date: 2021-06-22



Channel 46



22.MAY.2021 18:41:51 Date:

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Report No.: TW2105002-02E

Date: 2021-06-22



EUT wirel		reless router		Model		WR-AX01			
Mode 802.1		1ac VHT40)	Input Vol	Input Voltage		120V~		
Temperature 24		deg. C,		Humidity	Humidity		56% RH		
Channel	Channel Frequency (MHz)		Data Transfer Rate (Mbps)	Bandwidth (MHz)		Minimum Limit (MHz)		Pass/ Fail	
26dB Bar	ndwidth								
151	151 5755		mcs0	41.24				Pass	
159		5795	mcs0	41.48				Pass	
6dB Band	dwidth								
151	1 5755		mcs0	35.11		0.5		Pass	
159		5795		35.11		0.5		Pass	
99% Bandwidth									
151		5755	55 mcs0 37		.95	95		Pass	
159		5795 mcs0 36		.07			Pass		

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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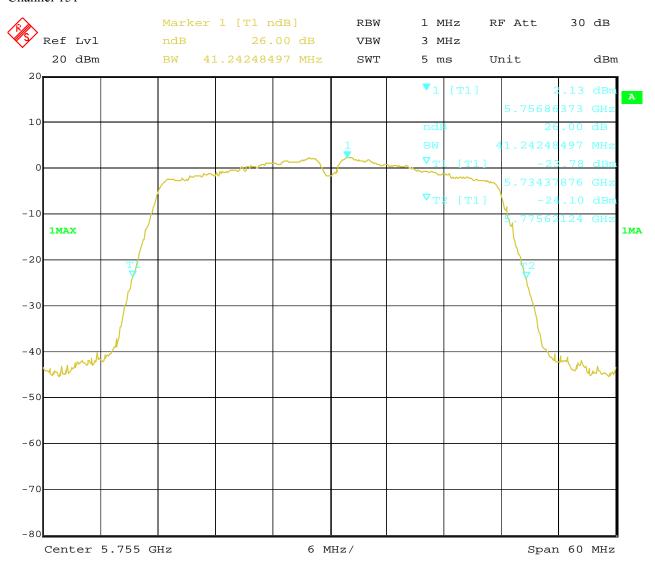
Date: 2021-06-22



Test Configure

26dB Bandwidth

Channel 151



Date: 20.MAY.2021 16:26:13

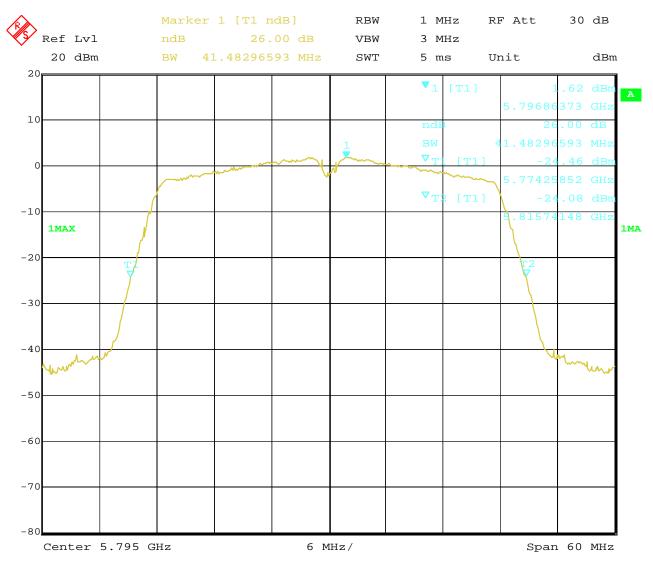
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Date: 2021-06-22



Channel 159



20.MAY.2021 17:05:13 Date:

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Report No.: TW2105002-02E

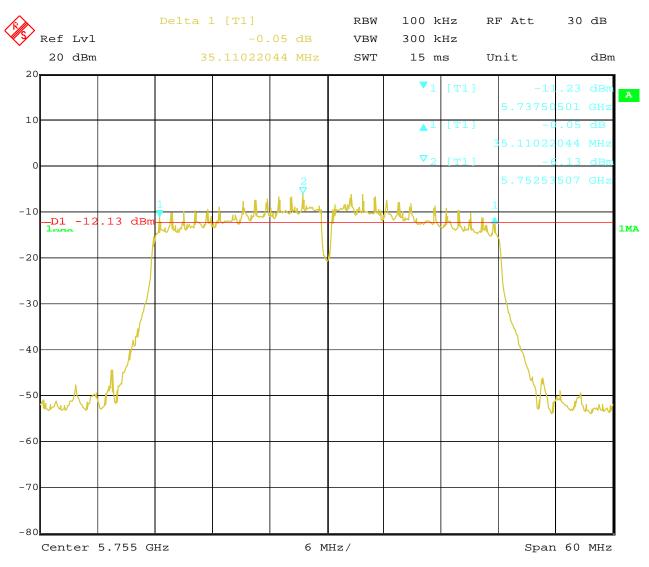
Date: 2021-06-22



Test Configure

6dB Bandwidth

Channel 151



Date: 20.MAY.2021 16:59:40

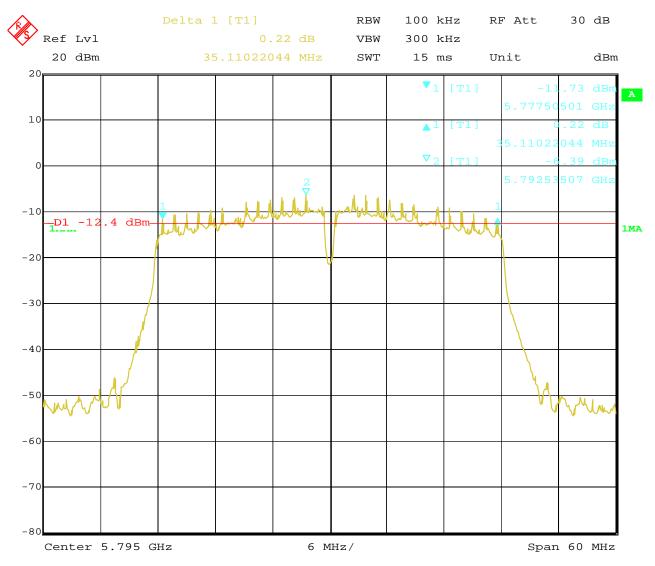
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Date: 2021-06-22



Channel 159



20.MAY.2021 17:10:59 Date:

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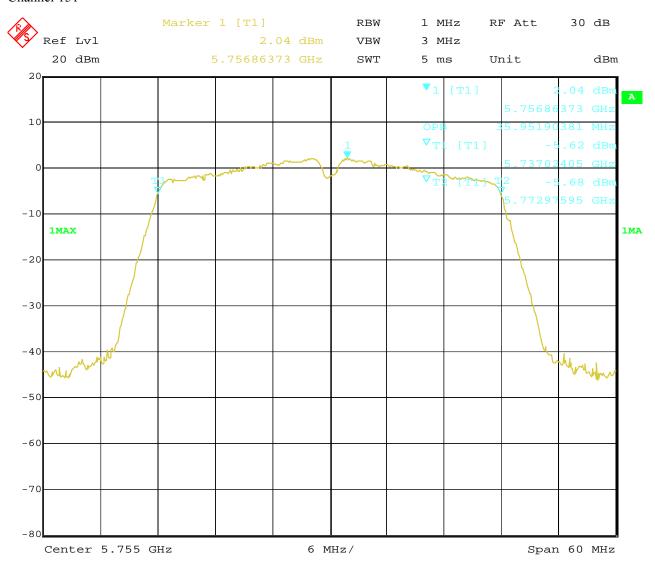
Date: 2021-06-22



Test Configure

99% Bandwidth

Channel 151



Date: 20.MAY.2021 16:28:04

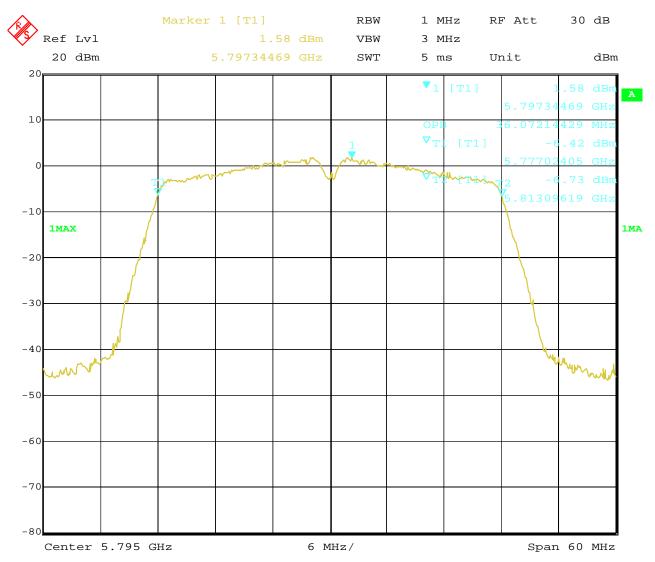
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Date: 2021-06-22



Channel 159



20.MAY.2021 17:06:20 Date:

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Date: 2021-06-22



EUT		wireless router			Model		WR-AX01			
Mode		802.11ac VHT80			Input Voltage		120V~			
Temperature		24 deg. C,			Humidity	7		56% RH		
Channel	Channel Frequency (MHz)		Data Transfer Rate (Mbps)	Bandwidth (MHz)		Minimum Limit (MHz)		Pass/ Fail		
26dB Bar	26dB Bandwidth									
42	5210		mcs0	80.56		56		Pass		
99% Ban	99% Bandwidth									
42		5210	mcs0	75	.27			Pass		

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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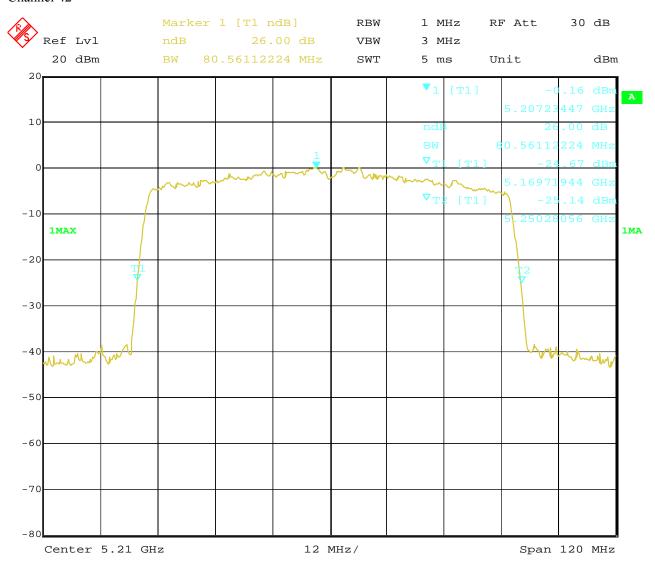
Date: 2021-06-22



Test Configure

26dB Bandwidth

Channel 42



Date: 22.MAY.2021 18:44:16

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Report No.: TW2105002-02E

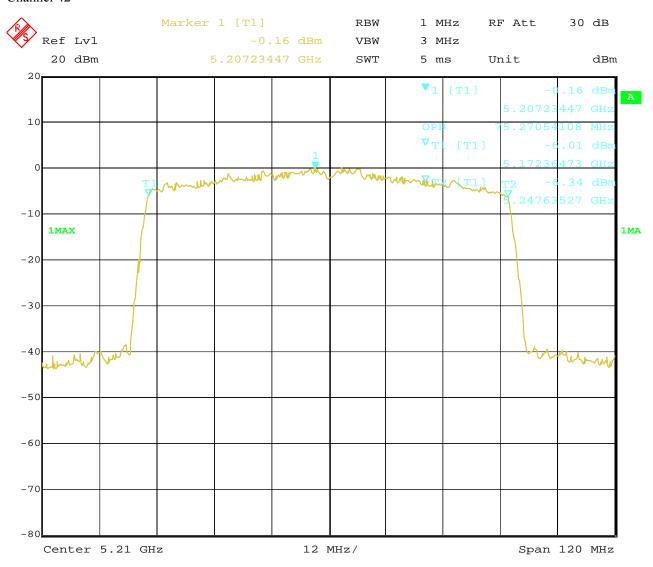
Date: 2021-06-22



Test Configure

99% Bandwidth

Channel 42



Date: 22.MAY.2021 18:43:59

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Report No.: TW2105002-02E

Date: 2021-06-22



EUT		wireless router			Model		WR-AX01			
Mode		802.1	802.11ac VHT80			Input Voltage		120V~		
Temperati	ure	24 deg. C,			Humidity	r		56% RH		
Channel	Channel Frequency (MHz)		Data Transfer Rate (Mbps)	Bandwidth (MHz)		Minimum Limit (MHz)		Pass/ Fail		
26dB Bar	ndwidth									
155	5775		mcs0	80.80				Pass		
6dB Band	dwidth									
155	5 5775		mcs0	75.35		0.5		Pass		
99% Ban	dwidth									
155	155 5775		mcs0	75.51				Pass		

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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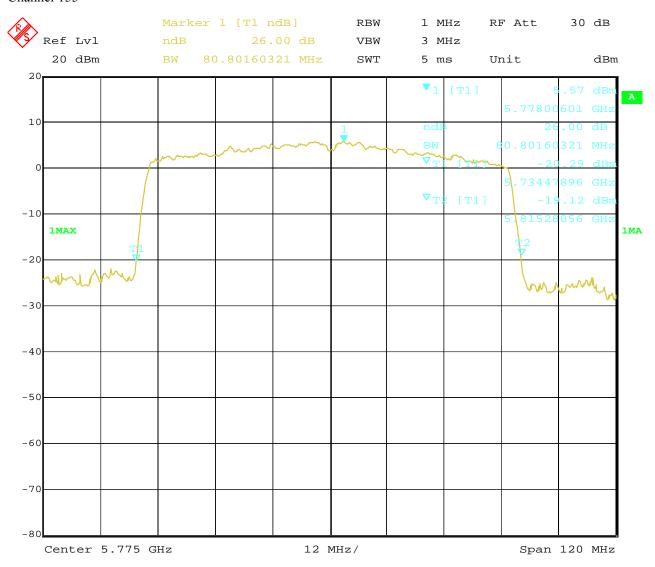
Date: 2021-06-22



Test Configure

26dB Bandwidth

Channel 155



Date: 20.MAY.2021 17:16:26

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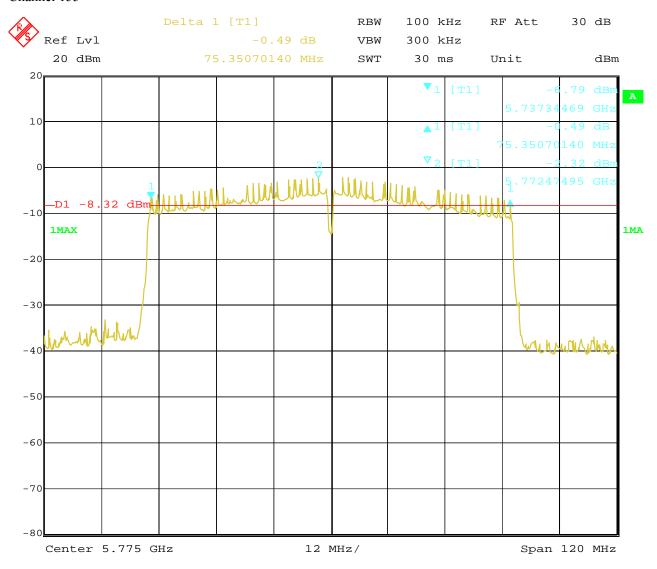
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Date: 2021-06-22



6dB Bandwidth

Channel 155



20.MAY.2021 17:14:32 Date:

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Report No.: TW2105002-02E

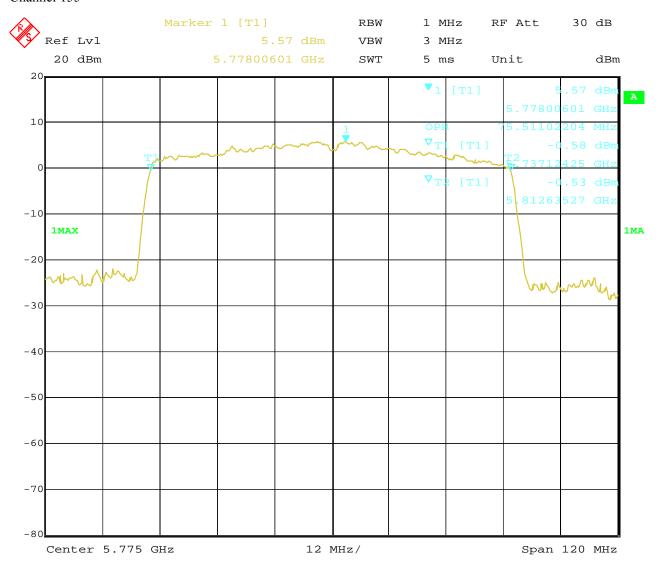
Date: 2021-06-22



Test Configure

99% Bandwidth

Channel 155



Date: 20.MAY.2021 17:16:42

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Date: 2021-06-22



EUT win		wire	eless router		Model		WR-AX01	
Mode	Mode 802.11		lax HEW20		Input Voltage		120V~	
Temperat	Temperature 24		deg. C,		Humidity		56% RH	
Channel	Channel Frequency (MHz)		Data Transfer Rate (Mbps)	Bandwidth (MHz)		Minimum Limit (MHz)		Pass/ Fail
26dB Bar	ndwidth							
36	5180 mcs0 2		22	2.79			Pass	
40		5200	mcs0	23.27				Pass
48		5240	mcs0 20.).14			Pass
99% Ban	dwidth							
36		5180	mcs0	19	.18			Pass
40		5200	mcs0	19	19.18			Pass
48		5240	mcs0	18.88				Pass

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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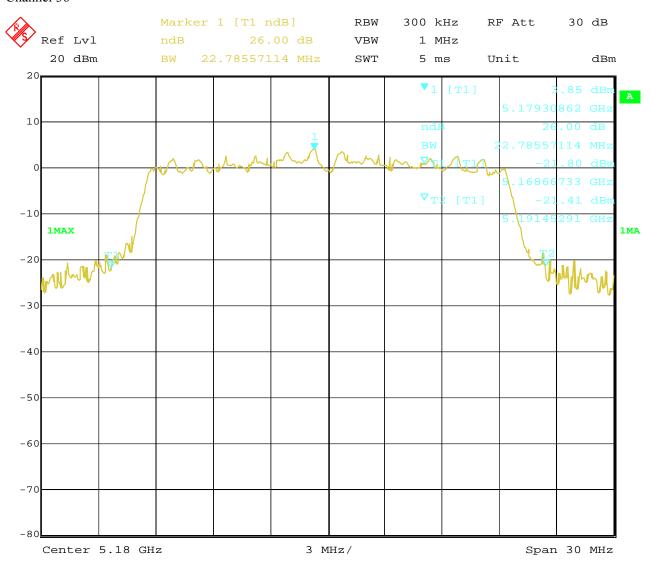
Date: 2021-06-22



Test Configure

26dB Bandwidth

Channel 36



22.JUN.2021 14:02:13 Date:

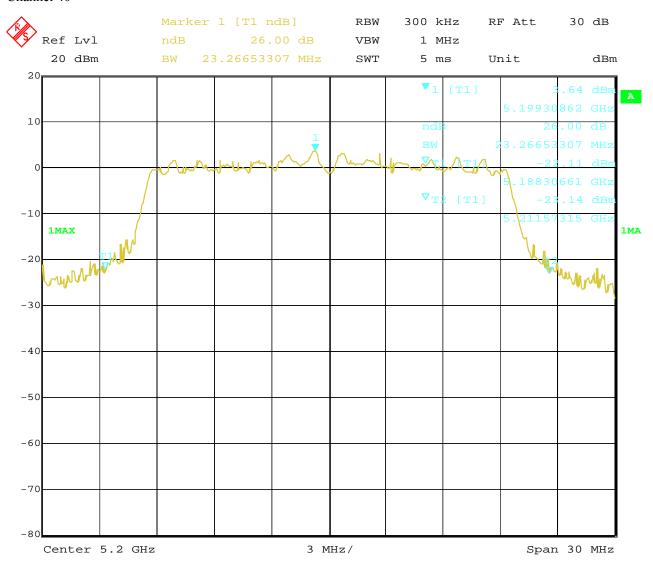
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Date: 2021-06-22



Channel 40



22.JUN.2021 14:20:19 Date:

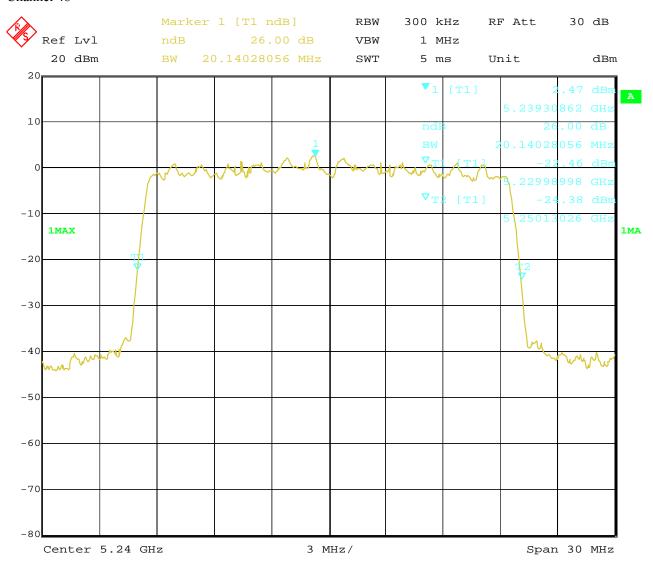
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Date: 2021-06-22



Channel 48



Date: 22.JUN.2021 14:29:52

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Report No.: TW2105002-02E

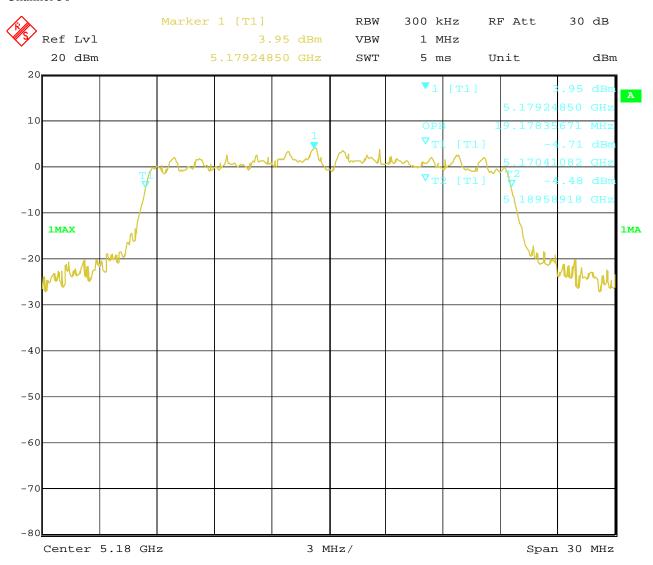
Date: 2021-06-22



Test Configure

99% Bandwidth

Channel 36



22.JUN.2021 14:02:50 Date:

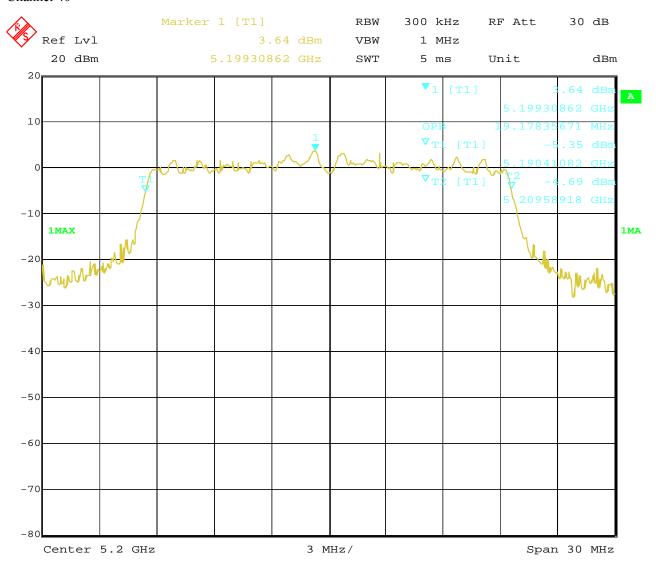
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Date: 2021-06-22



Channel 40



22.JUN.2021 14:20:05 Date:

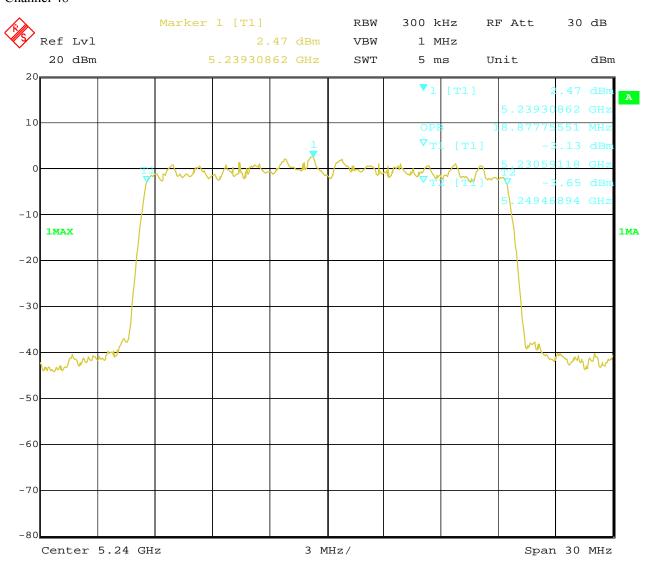
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Date: 2021-06-22



Channel 48



Date: 22.JUN.2021 14:30:06

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Report No.: TW2105002-02E

Date: 2021-06-22



EUT		wire	wireless router					WR-AX01	
Mode		802.1	802.11ax HEW20			Input Voltage		120V~	
Temperat	Temperature 24		4 deg. C, Humidity			7	56% RH		
Channel	Channel Frequency (MHz)		Data Transfer Rate (Mbps)	Bandwidth (MHz)		Minimum Limit (MHz)		Pass/ Fail	
26dB Bar	ndwidth								
149		5745	6	24	.29			Pass	
153		5765	6	23.39				Pass	
161		5805		23.75				Pass	
6dB Ban	dwidth								
149		5745	6	18	18.99		0.5	Pass	
153		5765	6	19	.08	0.5		Pass	
161		5805	6	18.71		0.5		Pass	
99% Ban	dwidth								
149		5745	6	19	.24			Pass	
153		5765	6	19.24				Pass	
161		5805	6	19.24				Pass	

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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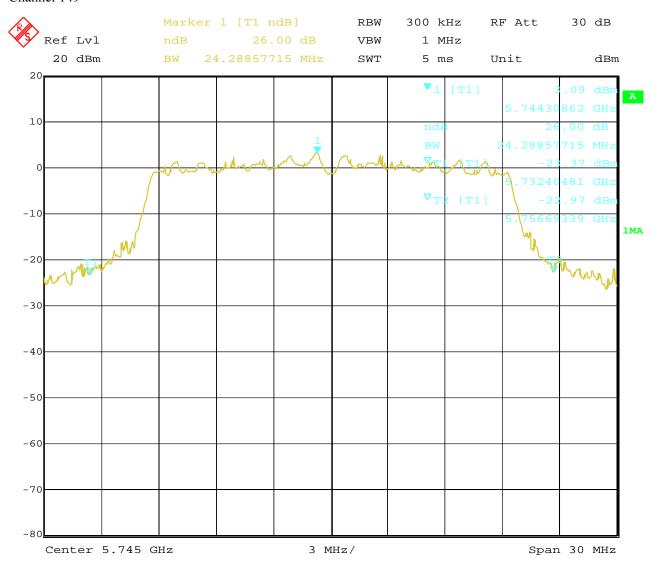
Date: 2021-06-22



Test Configure

26dB Bandwidth

Channel 149



23.JUN.2021 07:46:13 Date:

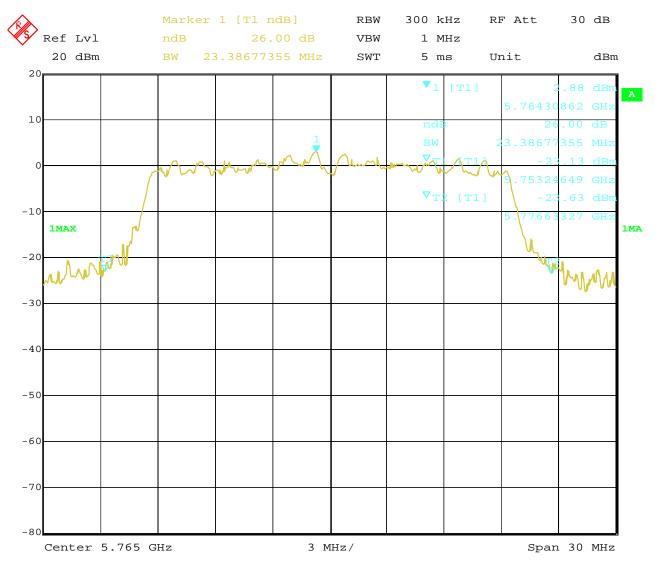
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Report No.: TW2105002-02E

Date: 2021-06-22



Channel 153



Date: 23.JUN.2021 08:04:52

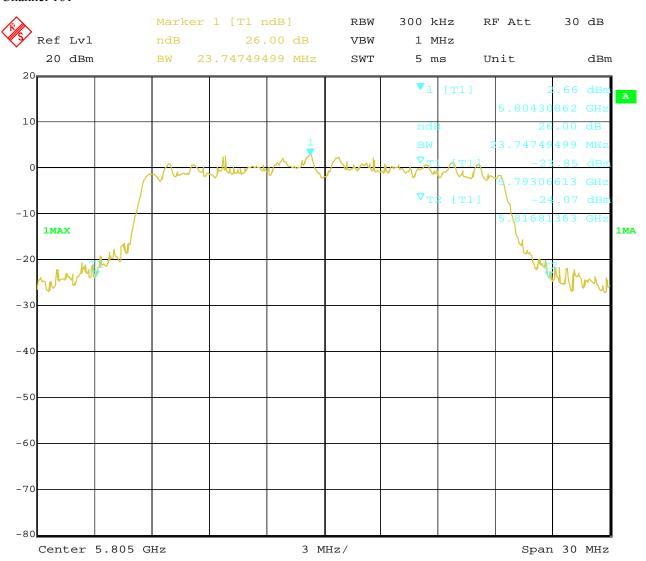
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Date: 2021-06-22



Channel 161



Date: 23.JUN.2021 08:22:09

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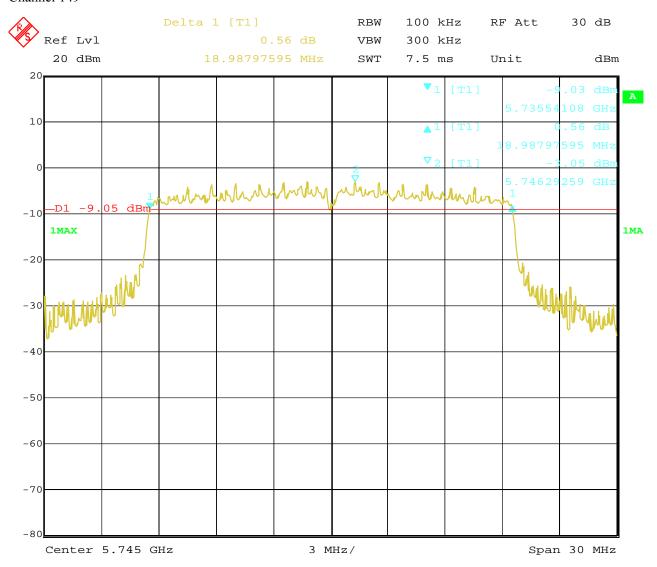
Date: 2021-06-22



Test Configure

6dB Bandwidth

Channel 149



23.JUN.2021 07:57:56 Date:

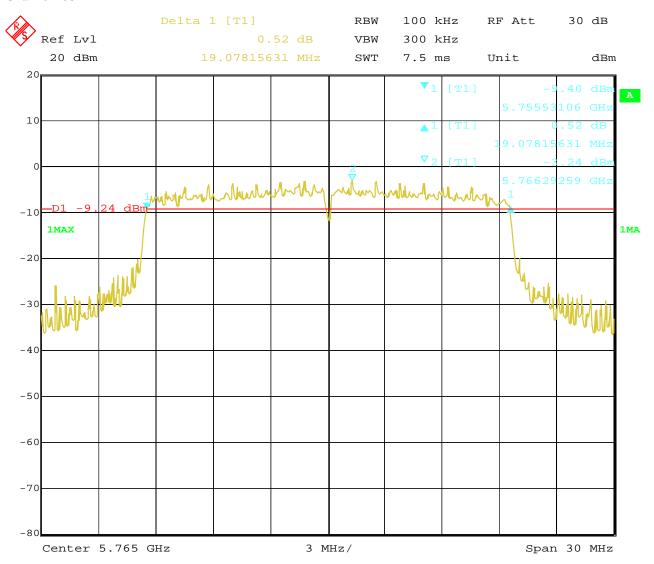
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Channel 153



Date: 23.JUN.2021 08:00:58

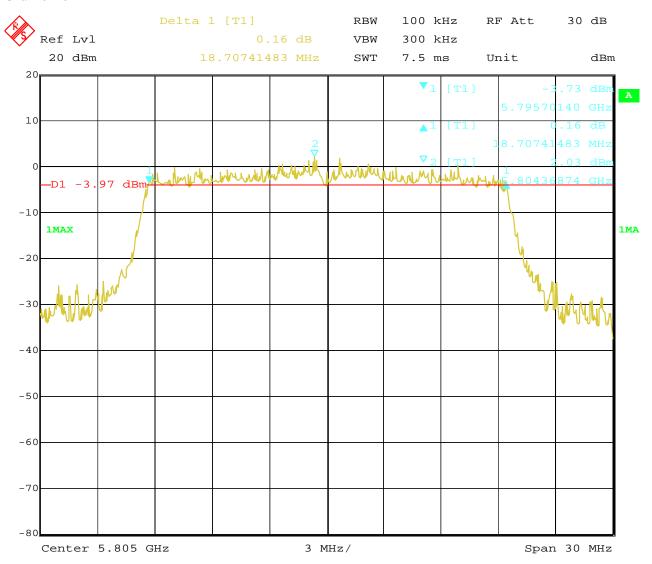
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Channel 161



Date: 23.JUN.2021 08:18:07

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Report No.: TW2105002-02E

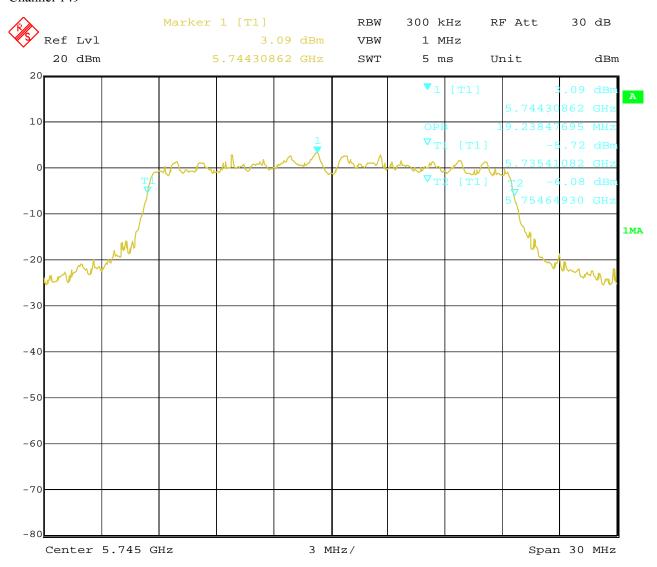
Date: 2021-06-22



Test Configure

99% Bandwidth

Channel 149



23.JUN.2021 07:47:19 Date:

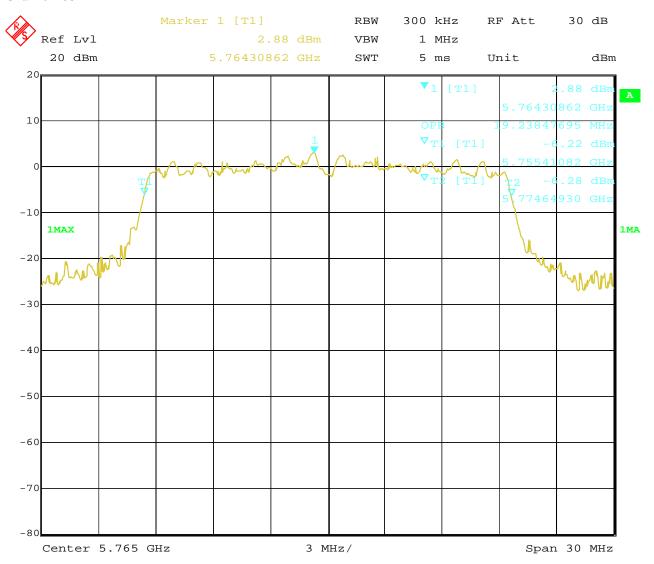
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Report No.: TW2105002-02E

Date: 2021-06-22



Channel 153



Date: 23.JUN.2021 08:05:11

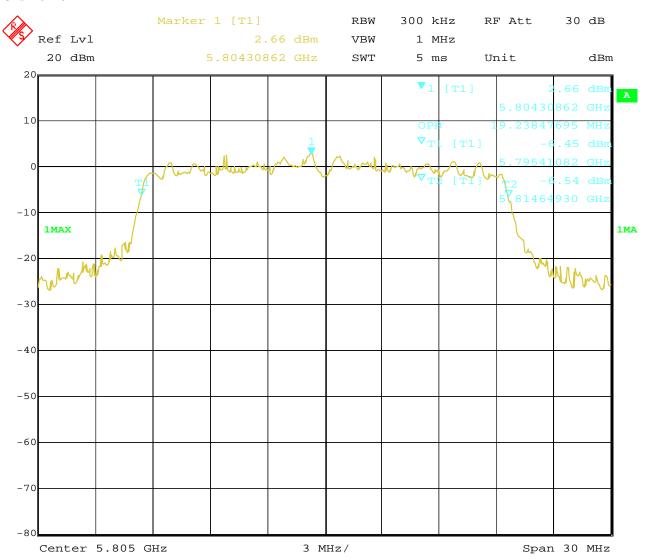
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Channel 161



Date: 23.JUN.2021 08:22:25

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Report No.: TW2105002-02E

Date: 2021-06-22



EUT		wire	eless router		Model		,	WR-AX01	
Mode		802.1	1ax HEW4	0	Input Vol	tage		120V~	
Temperati	Temperature				Humidity	ř	56% RH		
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)		width Hz)	Minimum Limit (MHz)		Pass/ Fail	
26dB Bar	ndwidth								
38		5190	mcs0	40	.76			Pass	
46		5230	mcs0 40		.76			Pass	
99% Ban	dwidth								
38		5190	mcs0	37.76				Pass	
46		5230	mcs0	37.64				Pass	

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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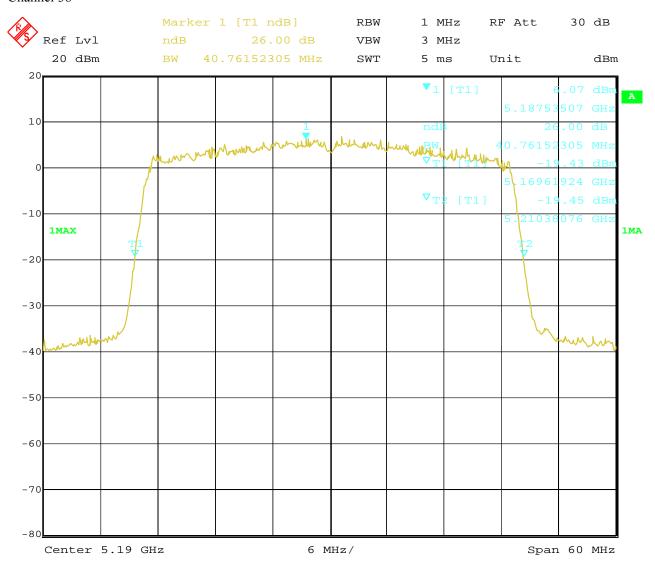
Date: 2021-06-22



Test Configure

26dB Bandwidth

Channel 38



22.JUN.2021 14:49:33 Date:

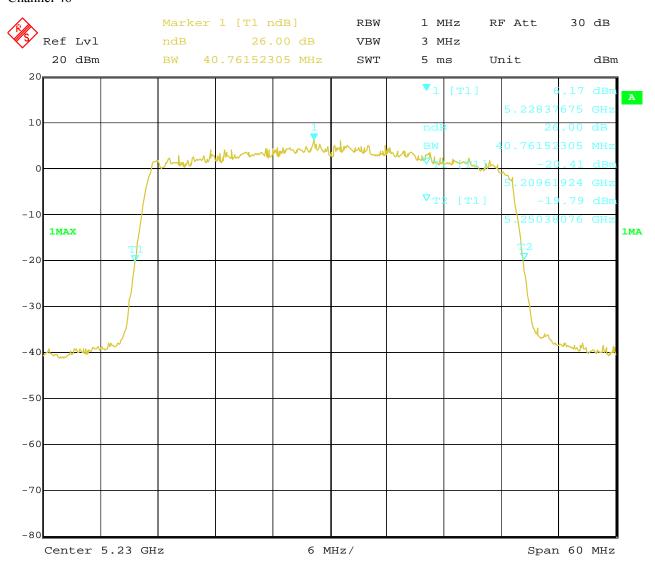
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Date: 2021-06-22



Channel 46



Date: 22.JUN.2021 14:57:18

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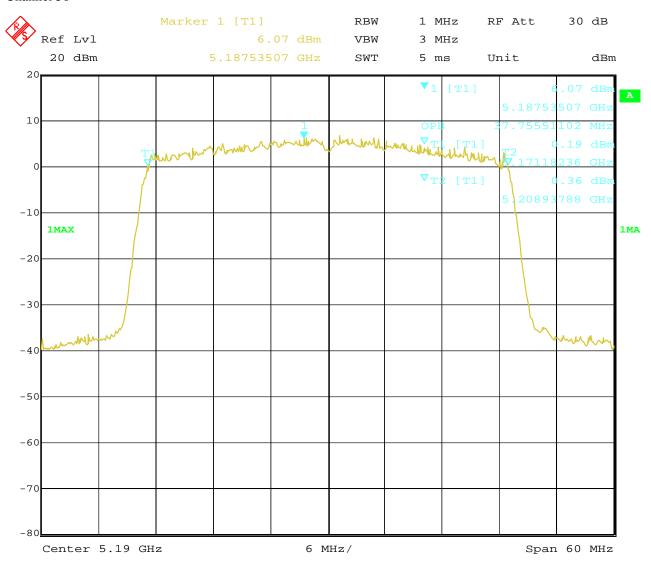
Date: 2021-06-22



Test Configure

99% Bandwidth

Channel 38



22.JUN.2021 14:49:49 Date:

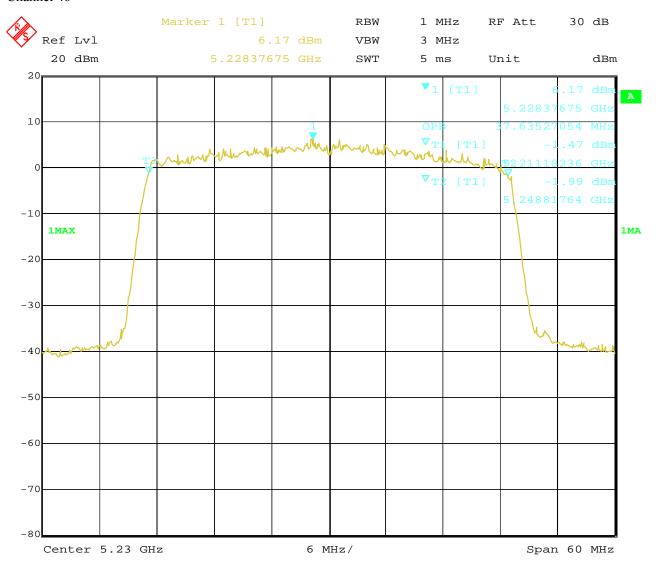
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Channel 46



Date: 22.JUN.2021 14:57:58

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Date: 2021-06-22



EUT		wire	eless router		Model			WR-AX01
Mode		802.1	1ax HEW4	0	Input Vol	tage		120V~
Temperati	ure	24	4 deg. C,	deg. C, Humidity				56% RH
Channel	Channel Frequency (MHz)		Data Transfer Rate (Mbps)	Bandwidth (MHz)		Minimum Limit (MHz)		Pass/ Fail
26dB Bar	ndwidth							
151		5755	mcs0	40	.64			Pass
159		5795	mcs0	40	.76			Pass
6dB Band	dwidth							
151		5755	mcs0	37	.36		0.5	Pass
159		5795	mcs0	37	.13	0.5		Pass
99% Ban	dwidth							
151		5755		37.76				Pass
159		5795	mcs0	37	.76			Pass

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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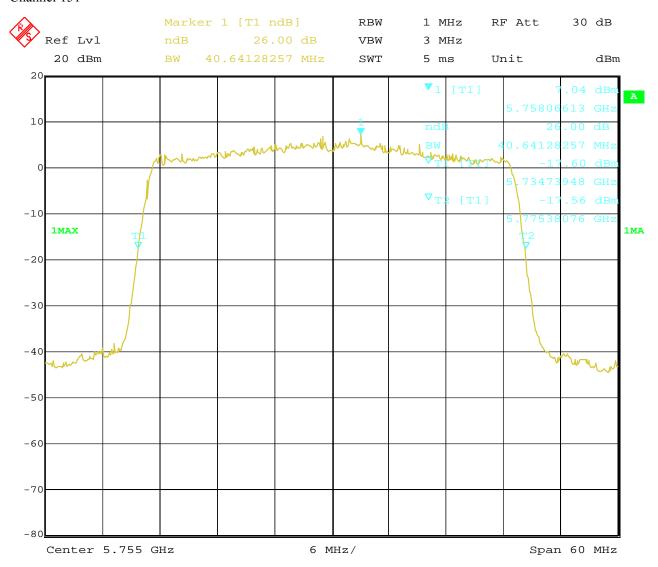
Date: 2021-06-22



Test Configure

26dB Bandwidth

Channel 151



23.JUN.2021 08:51:32 Date:

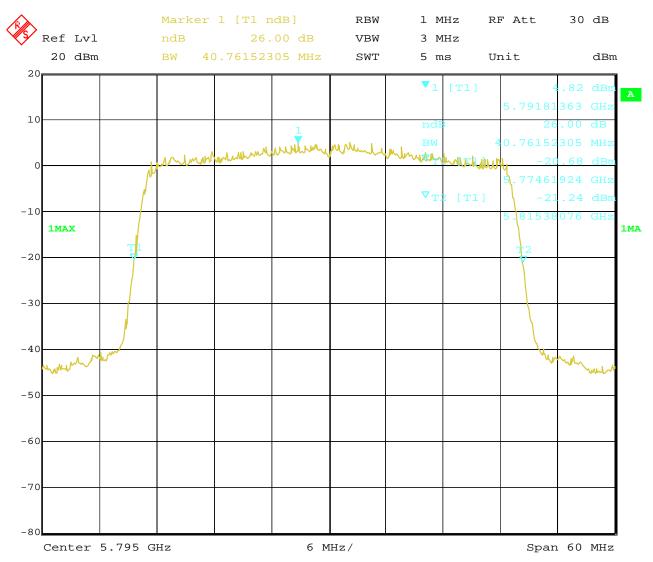
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Report No.: TW2105002-02E

Date: 2021-06-22



Channel 159



Date: 23.JUN.2021 11:00:29

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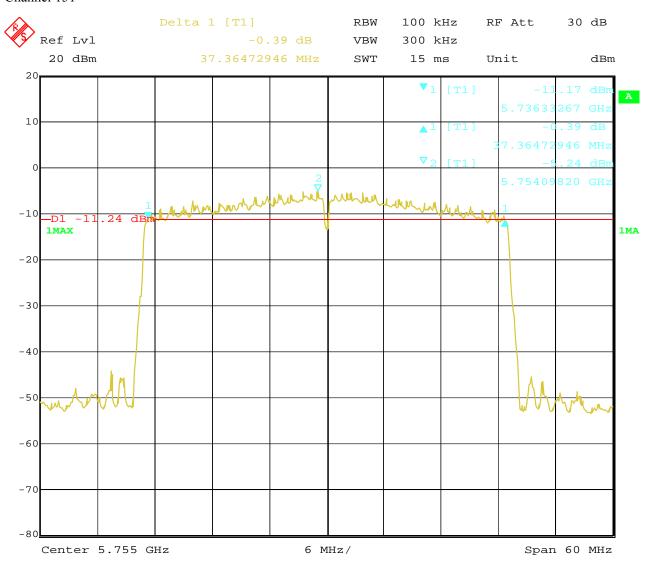
Date: 2021-06-22



Test Configure

6dB Bandwidth

Channel 151



23.JUN.2021 08:46:28 Date:

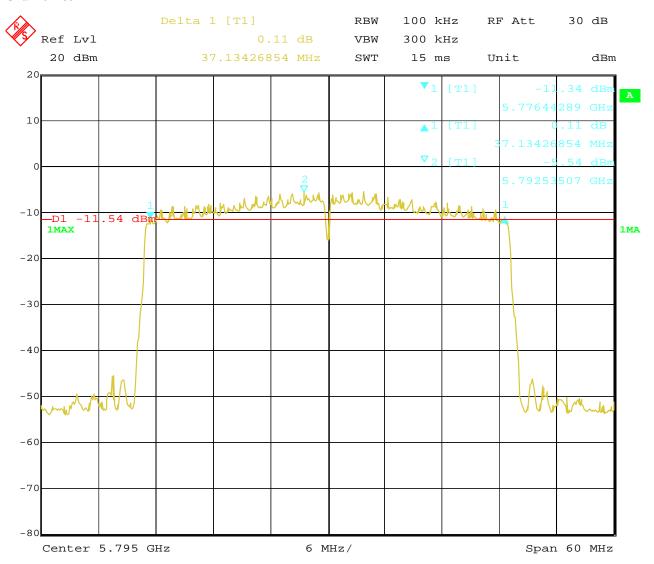
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Date: 2021-06-22



Channel 159



Date: 23.JUN.2021 10:59:34

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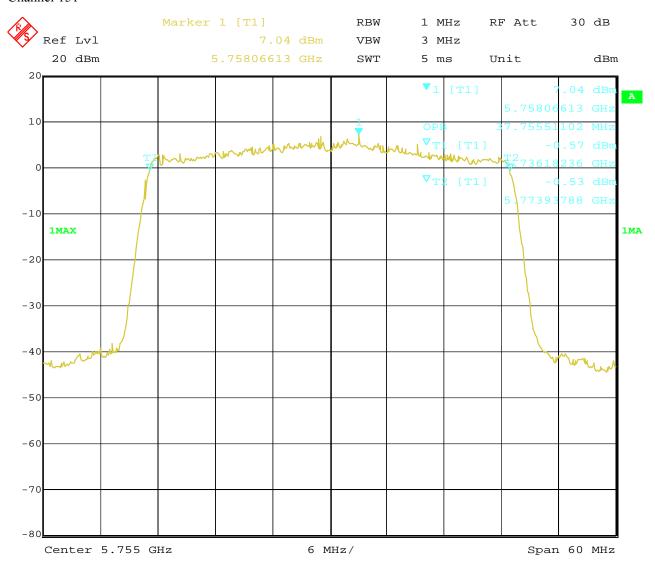
Date: 2021-06-22



Test Configure

99% Bandwidth

Channel 151



23.JUN.2021 08:51:45 Date:

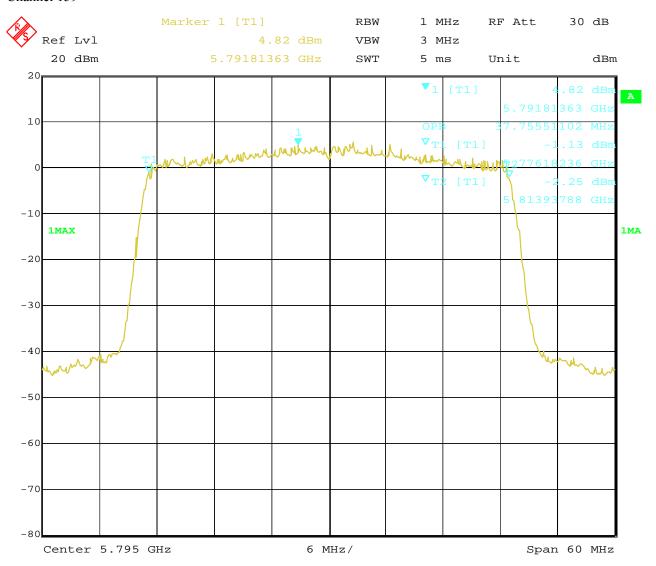
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Channel 159



Date: 23.JUN.2021 11:00:44

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Date: 2021-06-22



EUT		wire	eless router		Model		WR-AX01					
Mode		802.1	1ax HEW8	0	Input Vol	tage		120V~				
Temperati	ure	24	Humidity	r		56% RH						
Channel	Channel Frequency (MHz)		Data Transfer Rate (Mbps)		Bandwidth (MHz)		num Limit MHz)	Pass/ Fail				
26dB Bar	ndwidth											
42		5210	mcs0	81	.04			Pass				
99% Ban	99% Bandwidth											
42	5210		mcs0	76	.71			Pass				

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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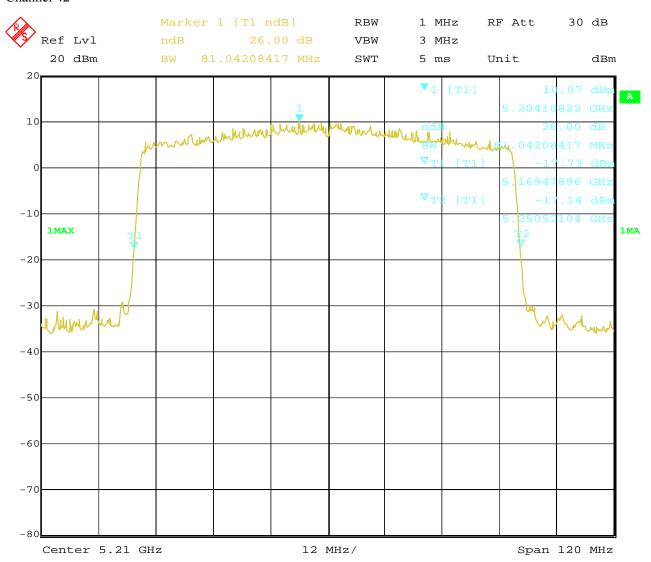
Date: 2021-06-22



Test Configure

26dB Bandwidth

Channel 42



22.JUN.2021 15:03:33 Date:

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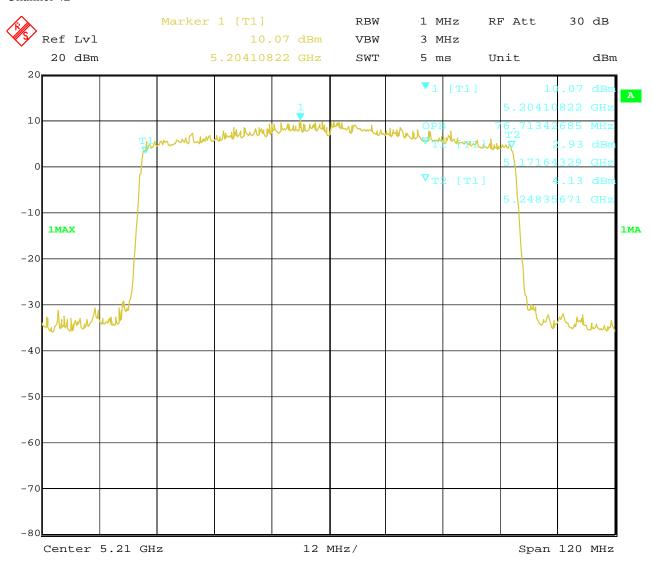
Date: 2021-06-22



Test Configure

99% Bandwidth

Channel 42



22.JUN.2021 15:03:46 Date:

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EUT		wire	eless router		Model		٦	WR-AX01
Mode		802.1	1ac VHT80)	Input Volt	tage		120V~
Temperati	ure	24	4 deg. C,		Humidity			56% RH
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)	Bandwidth (MHz)		Minimum Limit (MHz)		Pass/ Fail
26dB Bar	ndwidth							
155		5775	mcs0	81	.04			Pass
6dB Band	dwidth							
155		5775	mcs0	75	.99		0.5	Pass
99% Ban	dwidth							
155	155 5775			76.95				Pass

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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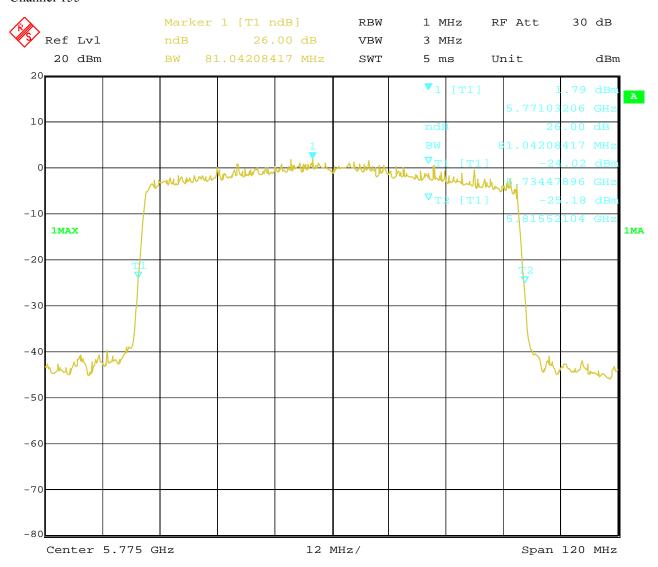
Date: 2021-06-22



Test Configure

26dB Bandwidth

Channel 155



23.JUN.2021 10:53:38 Date:

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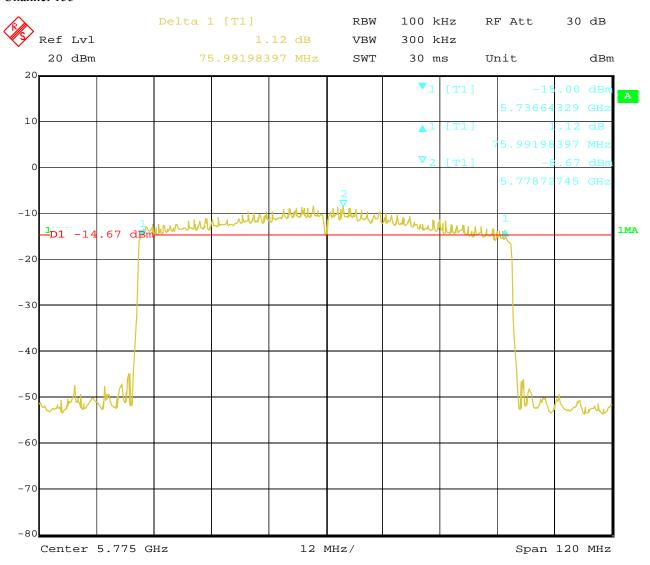
Report No.: TW2105002-02E

Date: 2021-06-22



6dB Bandwidth

Channel 155



Date: 23.JUN.2021 10:51:58

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Report No.: TW2105002-02E

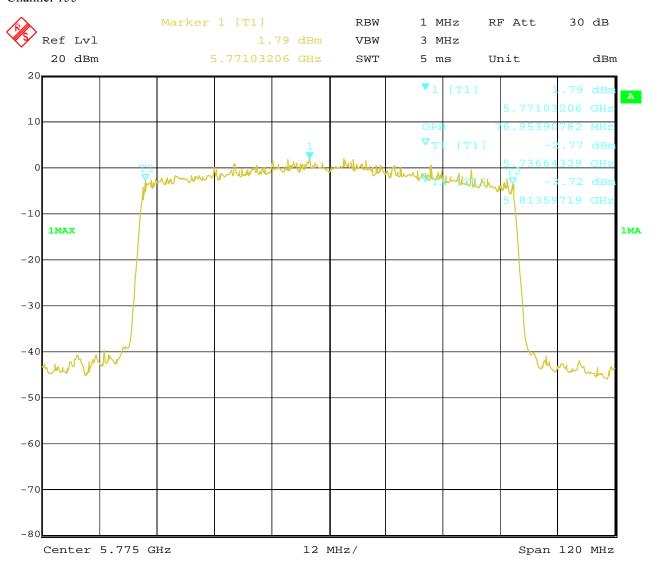
Date: 2021-06-22



Test Configure

99% Bandwidth

Channel 155



23.JUN.2021 10:53:55 Date:

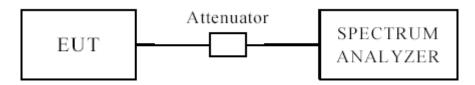
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Date: 2021-06-22



8.0 Peak Transmit Power Measurement

8.1 Test Setup



8.2 Limits of Peak Transmit Power Measurement

Operation Band		EUT Category	Limit
		Outdoor Access Point	1 Watt (30 dBm) ≤ (Max. e.i.r.p 125mW
			(21 dBm) at any elevation angle above 30
			degrees as measured from the horizon)
U-NII-1		Fixed point-to-point Access Point	1 Watt (30 dBm)
	√	Indoor Access Point	1 Watt (30 dBm)
		Mobile and Portable client device	250mW (24 dBm)
U-NII-2A			250mW (24 dBm) or 11 dBm+10 log B*
U-NII-2C			250mW (24 dBm) or 11 dBm+10 log B*
U-NII-3			1 Watt (30 dBm)

Note: Where B is the 26dB emission bandwidth in MHz.

8.3 Test Procedure

The RF power output was measured with a Spectrum analyzer connected to the RF Antenna connector (conducted measurement) while EUT was operating in transmit mode at the appropriate centre frequency.

Note: the average power was measured

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8.4Test Results

EU	T		wireless r	outer	Model			W	R-AX01		
Mod	de		802.1	la	Test Volta	ige		1	20V~		
Temper	rature	24 deg. C,			Humidit	у	56% RH				
Channel	Frequency (MHz)		Chain	2 Power	Chain 3 Power				Limit	Pass/ Fail	
			dBm	mW	V dBm mW Power (dBm)			(dBm)			
36	5180		6.65	4.62	6.31		4.28	9.49	27.46	Pass	
40	5200)	7.16	5.20	6.90		4.90	10.04	27.46	Pass	
48	5240)	7.92	6.19	7.68		5.86	10.81	27.46	Pass	
149	5745		6.33	4.30	6.25		4.22	9.30	27.46	Pass	
153	5765	5	8.85	7.67	7.76		5.97	11.35	27.46	Pass	
161	5805	5	7.75	5.96	7.66		5.83	10.72	27.46	Pass	

Note: 1. At finial test to get the worst-case emission at 6Mbps for CH36, CH40, CH48, CH149, CH153 and CH161

- 2. The result basic equation calculation as follow: Average Power Output = AV Power Reading + Cable loss + Attenuator
- 3. The worst case was recorded
- 4. The directional gain of the used dipole antenna is greater than 6 dBi, according to FCC part 15.203, the power limit is 30-(8.54-6) =27.46dBm

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EU	T		wireless r	outer	Model		WR-AX01					
Mod	de		802.11n I	HT20	Test Volta	ige		1	120V~			
Temper	ature		24 deg.	Humidit	y	56% RH						
Channel	Frequency (MHz)		Chain	2 Power	Chain	3 Po	wer	Total	Limit	Pass/ Fail		
			dBm	dBm mW dBm mW (dBm)			(dBm)					
36	5180		5180		6.32	4.29	6.08		4.06	9.21	27.46	Pass
40	5200)	6.87	4.86	6.53		4.50	9.71	27.46	Pass		
48	5240)	7.59	5.74	7.30		5.37	10.46	27.46	Pass		
149	5745		6.60	4.57	6.34	,	4.31	9.48	27.46	Pass		
153	5765	5	6.46	4.43	6.15		4.12	9.32	27.46	Pass		
161	5805	5	6.31	4.28	6.02	,	4.00	9.18	27.46	Pass		

Note: 1. At finial test to get the worst-case emission at mcs0 for CH36, CH40, CH48, CH149, CH153 and CH161

- 2. The result basic equation calculation as follow:

 Average Power Output = AV Power Reading + Cable loss + Attenuator
- 3. The worst case was recorded
- 4. The directional gain of the used dipole antenna is greater than 6 dBi, according to FCC part 15.203, the power limit is 30-(8.54-6) =27.46dBm

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EU	T		wireless r	outer	Model		WR-AX01				
Mod	de		802.11n I	HT40	Test Voltage			120V~			
Temper	rature		24 deg.	Humidit	У	56% RH					
Channel	Freque (MH:	-		Chain	3 Po	wer	Total Power	Limit	Pass/ Fail		
	(MIT	Z)	dBm	mW	dBm	1	mW	(dBm)	(dBm)		
38	5190)	4.52	2.83	4.27	2	2.67	7.41	27.46	Pass	
46	5230)	5.42	3.48	5.16		3.28	8.30	27.46	Pass	
151	575	5	5.43	3.49	5.20		3.31	8.33	27.46	Pass	
159	579:	5	5.21	3.32	4.98		3.15	8.11	27.46	Pass	

Note: 1. At finial test to get the worst-case emission at mcs0 for CH38, CH46, CH151, CH159 and CH161

- 2. The result basic equation calculation as follow: Average Power Output = AV Power Reading + Cable loss + Attenuator
- 3. The worst case was recorded
- 4. The directional gain of the used dipole antenna is greater than 6 dBi, according to FCC part 15.203, the power limit is 30-(8.54-6) =27.46dBm

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EU	T		wireless r	outer	Model			W	R-AX01	
Mod	de		802.11ac V	/HT20	Test Volta	ige		1	120V~	
Temper	rature		24 deg.	С,	Humidit	У		56% RH		
Channel	Frequency (MHz)				Chain 3 Power		ower Total Power		Limit	Pass/ Fail
			dBm	mW	dBm		mW	(dBm)	(dBm)	
36	5180		6.33	4.30	6.08		4.06	9.22	27.46	Pass
40	5200)	6.81	4.80	6.47		4.44	9.65	27.46	Pass
48	5240)	7.63	5.79	7.31		5.38	10.48	27.46	Pass
149	5745		6.52	4.49	6.20		4.17	9.37	27.46	Pass
153	5765	5	6.45	4.42	6.13	,	4.10	9.30	27.46	Pass
161	5805	5	6.32	4.29	6.01		3.99	9.18	27.46	Pass

Note: 1. At finial test to get the worst-case emission at mcs0 for CH36, CH40, CH48, CH149, CH153 and CH161

- 2. The result basic equation calculation as follow:

 Average Power Output = AV Power Reading + Cable loss + Attenuator
- 3. The worst case was recorded
- 4. The directional gain of the used dipole antenna is greater than 6 dBi, according to FCC part 15.203, the power limit is 30-(8.54-6) =27.46dBm

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EU	T		wireless r	outer	Model		WR-AX01				
Mod	de		802.11ac V	/HT40	Test Volta	ige	120V~				
Temper	ature		24 deg.	C,	Humidit	y		56	5% RH		
Channel	Freque (MH:	-	-		Chain	3 Po	wer Total Power		Limit	Pass/ Fail	
	(MIT	Z)	dBm	mW	dBm n	mW	(dBm)	(dBm)			
38	5190		4.53	2.84	4.40		2.75	7.48	27.46	Pass	
46	5230	0	5.40	3.47	5.17		3.29	8.30	27.46	Pass	
151	575	5	5.41	3.48	5.28		3.37	8.36	27.46	Pass	
159	579:	5	5.22	3.33	5.04	-	3.19	8.14	27.46	Pass	

Note: 1. At finial test to get the worst-case emission at mcs0 for CH38, CH46, CH151, CH159 and CH161

- 2. The result basic equation calculation as follow:

 Average Power Output = AV Power Reading + Cable loss + Attenuator
- 3. The worst case was recorded
- 4. The directional gain of the used dipole antenna is greater than 6 dBi, according to FCC part 15.203, the power limit is 30-(8.54-6) =27.46dBm

EU	T		wireless r	outer	Model		WR-AX01				
Mod	de		802.11ac V	/HT80	Test Volta	ige	120V~				
Temper	rature		24 deg.	C,	Humidit	У	56% RH				
Channel	Freque (MH	•	Chain	2 Power	Chain	3 Po	wer	Total Power	Limit	Pass/ Fail	
	(WIII)	<i>L)</i>	dBm	mW	dBm	1	mW	(dBm)	(dBm)		
42	5210)	11.25	13.34	11.19	1	3.15	14.23	27.46	Pass	
155	577:	5	11.01	12.62	10.76	1	1.91	13.90	27.46	Pass	

Note: 1. At finial test to get the worst-case emission at mcs0 s for CH42 and CH155

- 2. The result basic equation calculation as follow:

 Average Power Output = AV Power Reading + Cable loss + Attenuator
- 3. The worst case was recorded
- 4. The directional gain of the used dipole antenna is greater than 6 dBi, according to FCC part 15.203, the power limit is 30-(8.54-6) =27.46dBm

The report refers only to the sample tested and does not apply to the bulk.

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EU	T		wireless r	outer	Model			W	R-AX01			
Mod	de		802.11ax H	IEW20	Test Volta	ige		1	120V~			
Temper	rature		24 deg.	С,	Humidit	У	56% RH					
Channel	Frequency (MHz)		Chain	2 Power	Chain	3 Po	wer	Total	Limit	Pass/ Fail		
			dBm mW dBm mW (dBm)		(dBm)	(dBm)						
36	5180		5180		7.70	5.89	7.59		5.74	10.66	27.46	Pass
40	5200)	7.37	5.46	7.22	;	5.27	10.31	27.46	Pass		
48	5240)	6.28	4.25	6.13	4	4.10	9.22	27.46	Pass		
149	5745		6.82	4.81	6.70	4	4.68	9.77	27.46	Pass		
153	5765	5	6.66	4.63	6.53	4	4.50	9.61	27.46	Pass		
161	5805	5	6.40	4.37	6.31	4	4.28	9.37	27.46	Pass		

Note: 1. At finial test to get the worst-case emission at mcs0 for CH36, CH40, CH48, CH149, CH153 and CH161

- 2. The result basic equation calculation as follow:

 Average Power Output = AV Power Reading + Cable loss + Attenuator
- 3. The worst case was recorded
- 4. The directional gain of the used dipole antenna is greater than 6 dBi, according to FCC part 15.203, the power limit is 30-(8.54-6) =27.46dBm

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EUT		wireless router			Model		WR-AX01				
Mode		802.11ax HEW40			Test Volta	est Voltage 120V~					
Temperature		24 deg. C,			Humidity			56% RH			
Channel	1		Chain	Chain 2 Power		Chain 3 Power		Total Power	Limit	Pass/ Fail	
	(MH:	Z)	dBm	mW	dBm	1	mW	(dBm)	(dBm)		
38	5190	0	6.39	4.36	6.28	2	4.25	9.35	27.46	Pass	
46	5230		5.25	3.35	5.15	3	3.27	8.21	27.46	Pass	
151	575	5	4.44	2.78	4.35	2	2.72	7.41	27.46	Pass	
159	579:	5	4.14	2.59	4.06	2	2.55	7.11	27.46	Pass	

Note: 1. At finial test to get the worst-case emission at mcs0 for CH38, CH46, CH151, CH159 and CH161

- 2. The result basic equation calculation as follow:

 Average Power Output = AV Power Reading + Cable loss + Attenuator
- 3. The worst case was recorded
- 4. The directional gain of the used dipole antenna is greater than 6 dBi, according to FCC part 15.203, the power limit is 30-(8.54-6) =27.46dBm

EUT		wireless router			Model		WR-AX01				
Mode		802.11ax VHEW80			Test Voltage			120V~			
Temperature		24 deg. C,		Humidity		56% RH					
Channel	Frequency (MHz)		Chain	2 Power	Chain	3 Powe	er	Total Power	Limit	Pass/ Fail	
			dBm	mW	dBm	m	W	(dBm)	(dBm)		
42	5210)	11.68	14.72	11.58	14.	.39	14.64	27.46	Pass	
155	577:	5	3.55	2.26	3.43	2.2	20	6.50	27.46	Pass	

Note: 1. At finial test to get the worst-case emission at mcs0 s for CH42 and CH155

- 2. The result basic equation calculation as follow:

 Average Power Output = AV Power Reading + Cable loss + Attenuator
- 3. The worst case was recorded
- 4. The directional gain of the used dipole antenna is greater than 6 dBi, according to FCC part 15.203, the power limit is 30-(8.54-6) =27.46dBm

The report refers only to the sample tested and does not apply to the bulk.

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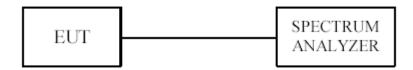
Report No.: TW2105002-02E

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9. Power Spectral Density Measurement

9.1 Test Setup



9.2 Limits of Power Spectral Density Measurement

Operation Band	EUT Category	Limit		
	Outdoor Access Point	17dBm/MHz		
	Fixed point-to-point Access Point			
U-NII-1	√ Indoor Access Point			
	Mobile and Portable client device	11dBm/MHz		
U-NII-2A		11dBm/MHz		
U-NII-2C		11dBm/MHz		
U-NII-3		30dBm/500kHz		

9.3 Test Procedure

- 1. The EUT was directly connected to the spectrum analyzer
- 2. Set the RBW = 1MHz or 500kHz
- 3. Set the VBW =3MHz or 2MHz
- 4. Set the span to encompass the entire emissions bandwidth (EBW) of the signal
- 5. Detector = RMS
- 6. Sweep time = auto couple.
- 7. Trace mode = max hold.
- 8. Allow trace to fully stabilize.
- 9. Use the peak marker function to determine the maximum amplitude level.

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9.4Test Result

EUT		wireless router		Mod	lel	WR-AX01		
Mode	:	802.11a 6Mbps			ltage	120V~		
Temperat	ture	24 deg. C,			dity	56% RH		
Channel	Frequency (MHz)		Power Spectral Density(dBm/MHz)	Factor	Total Spectral Density (dBm/MHz)		Limit (dBm)	Pass/ Fail
36	5180		-1.75	3.01	1.26		17	Pass
40	5200		-2.71	3.01	0.30		17	Pass
48	5240		-3.69	3.01	-0.68		17	Pass
Channel	Frequency (MHz)		Power Spectral Density(dBm/500kHz)	Factor	Total Spectral Density (dBm/500kHz)		Limit (dBm)	Pass/ Fail
149	5745		-3.72	3.01	-0.71		30	Pass
153	5765		-3.76	3.01	-0.75		30	Pass
161	5805		-3.89	3.01	-0.88		30	Pass

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

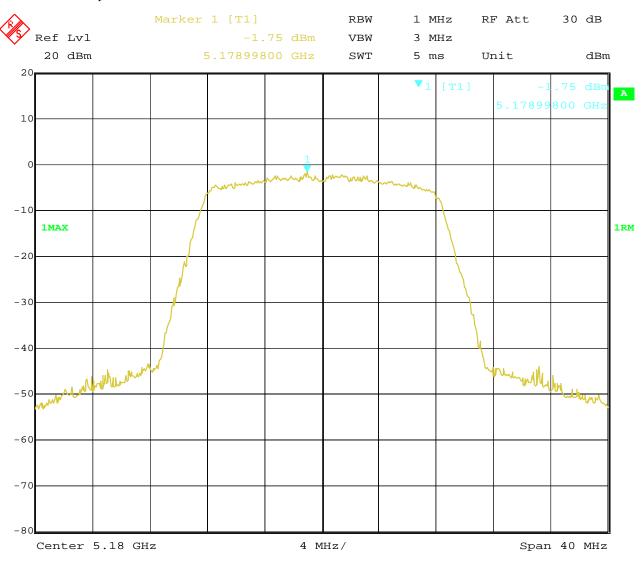
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9.5 Plots of Power Spectral Density Measurement

1.802.11a at 6Mbps of CH36



Date: 29.MAY.2021 10:21:59

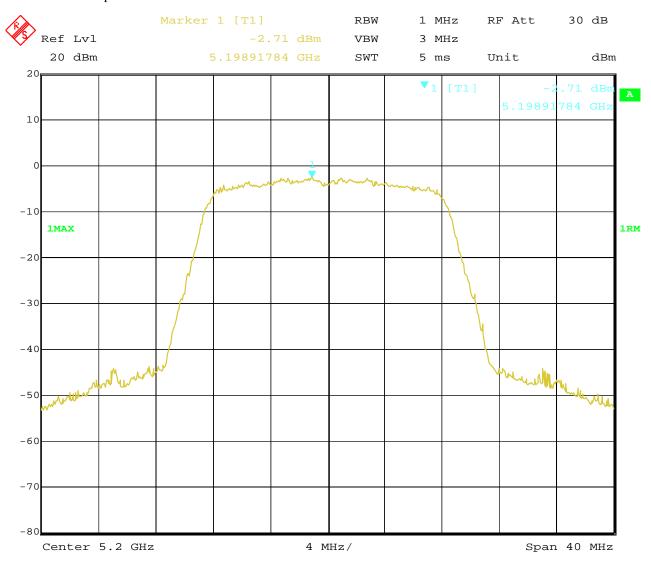
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2.802.11a at 6Mbps of CH40



29.MAY.2021 10:23:56 Date:

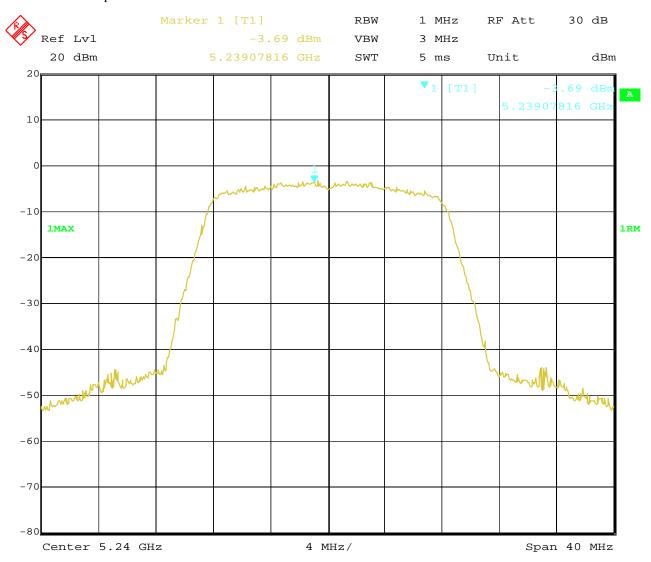
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3.802.11a at 6Mbps of CH48



29.MAY.2021 10:24:29 Date:

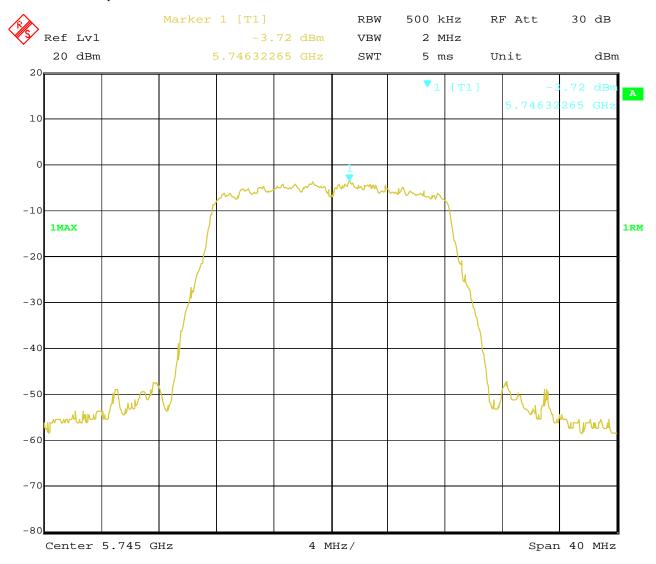
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4.802.11a at 6Mbps of CH149



29.MAY.2021 18:22:52 Date:

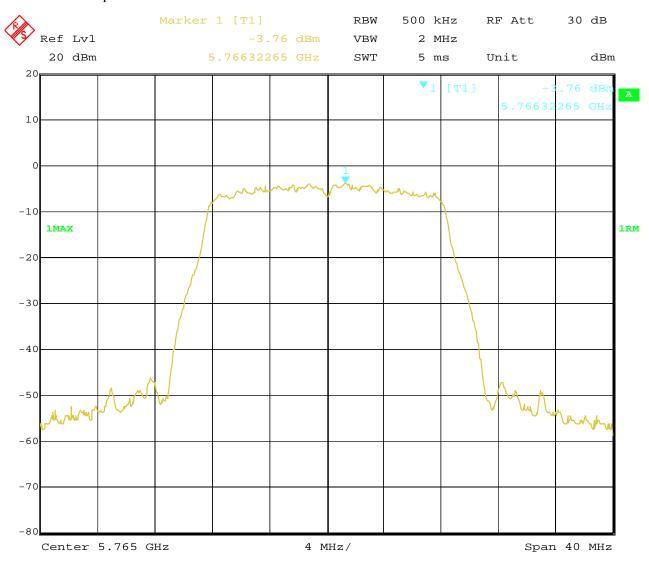
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5.802.11a at 6Mbps of CH153



29.MAY.2021 18:28:36 Date:

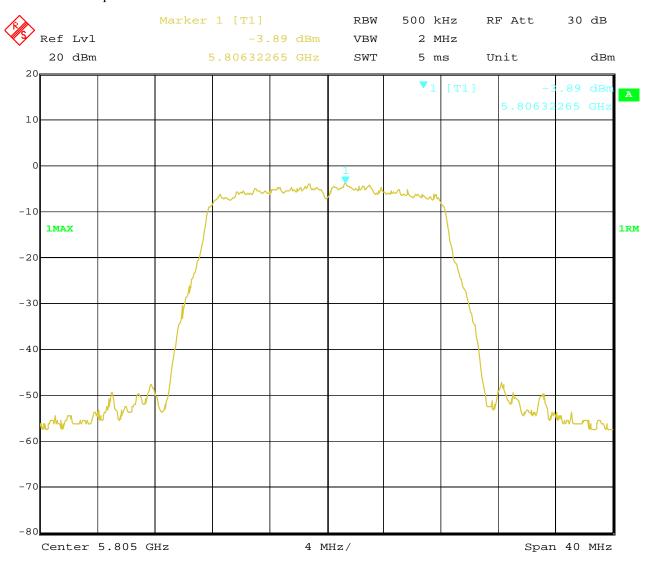
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6.802.11a at 6Mbps of CH161



29.MAY.2021 18:32:12 Date:

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Date: 2021-06-22



EUT		wireless router			del	WR-AX01			
Mode	;	802.11n HT20 mcs0			Test Voltage		120V~		
Tempera	ture	24 deg. C,			Humidity		56% RH		
Channel	Frequency (MHz)		Power Spectral Density(dBm/MHz)	Factor	Total Spectral Density (dBm/MHz)		Limit (dBm/MHz)	Pass/ Fail	
36	5180		-1.95	3.01		1.06	17	Pass	
40	5200		-1.98	3.01		1.03	17	Pass	
48	5240		-3.50	3.01		-0.49	17	Pass	
Channel	Frequence (MHz)	-	Power Spectral Density(dBm/500kHz)	Factor	Ι	nl Spectral Density n/500kHz)	Limit (dBm/500kHz)	Pass/ Fail	
149	5745		-3.05	3.01	-0.04		30	Pass	
153	5765		-3.16	3.01	-0.15		30	Pass	
161	5805		-3.12	3.01		-0.11	30	Pass	

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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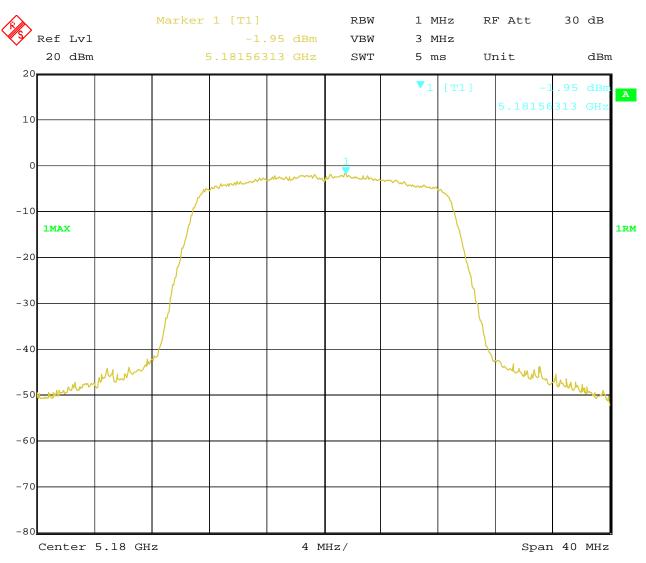
Report No.: TW2105002-02E

Date: 2021-06-22



Test Plots

1.802.11n at mcs0 of CH36



Date: 29.MAY.2021 10:22:28

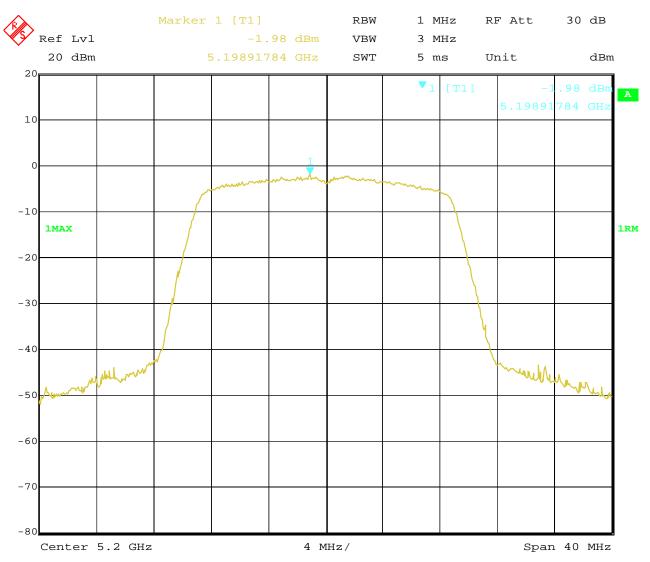
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Date: 2021-06-22



2.802.11n at mcs0 of CH40



29.MAY.2021 10:23:29 Date:

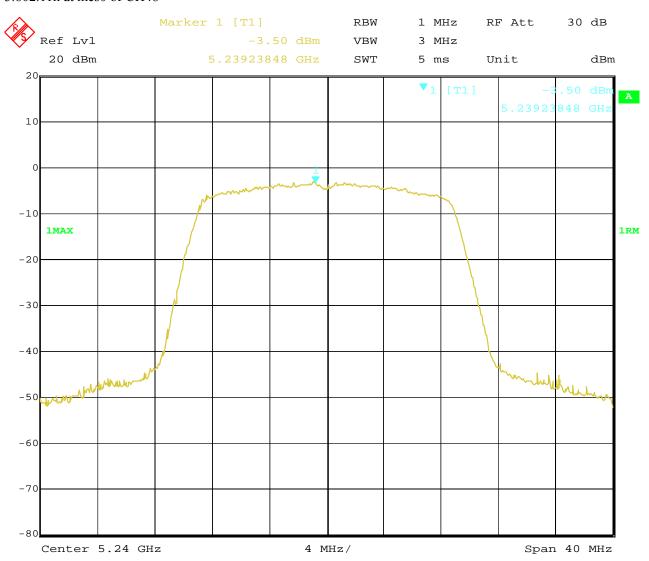
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Date: 2021-06-22



3.802.11n at mcs0 of CH48



29.MAY.2021 10:24:52 Date:

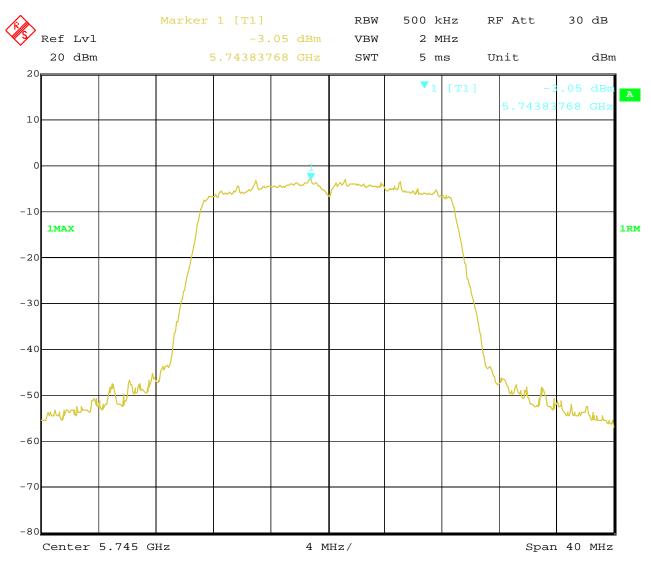
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4.802.11n at mcs0 of CH149



29.MAY.2021 18:24:05 Date:

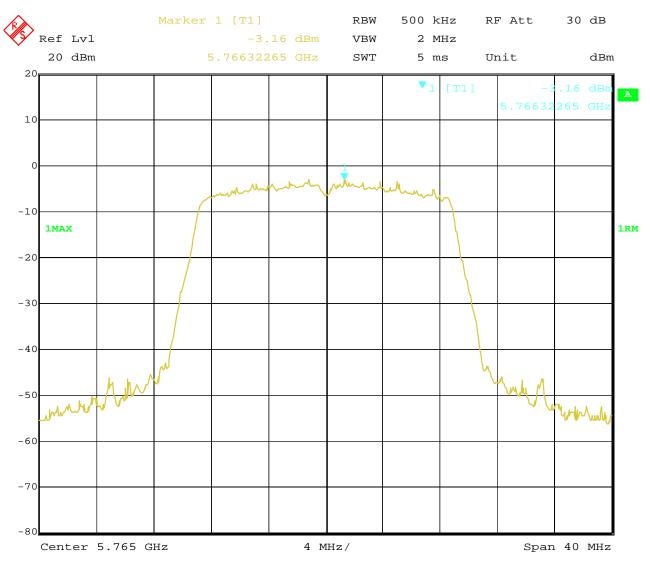
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5.802.11n at mcs0 of CH153



29.MAY.2021 18:27:15 Date:

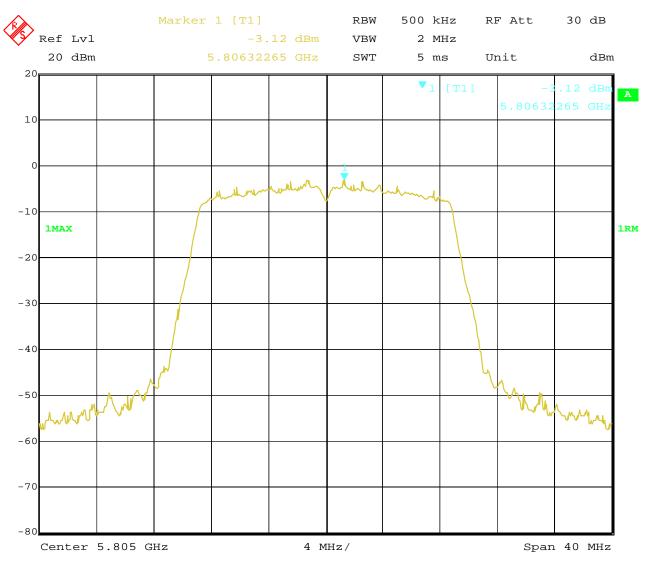
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6.802.11n at mcs0 of CH161



29.MAY.2021 18:31:21 Date:

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Date: 2021-06-22



EUT		wireless router		Mod	Model		WR-AX01			
Mode		8	02.11n HT40 mcs0	Test Vo	Test Voltage		120V~			
Temperat	ture		24 deg. C,	Humi	dity	56% RH				
Channel	Freq	luency	Power Spectral	Factor	Total Spectral		Limit	Pass/		
	(MHz)		Density(dBm/MHz)		Density		(dBm/MHz)	Fail		
					(dI	Bm/MHz)				
38	5	190	-4.65	3.01	-1.64		17	Pass		
46	52	230	-5.82	3.01		-2.81	17	Pass		
Channel	Freq	luency	Power Spectral	Factor	Tota	al Spectral	Limit	Pass/		
	(MHz)		Density(dBm/500kHz)		Density		(dBm/500kHz)	Fail		
					(dBm/500kHz)					
151	5'	755	-5.43	3.01	-2.42		30	Pass		
159	5'	795	-5.44	3.01		-2.43	30	Pass		

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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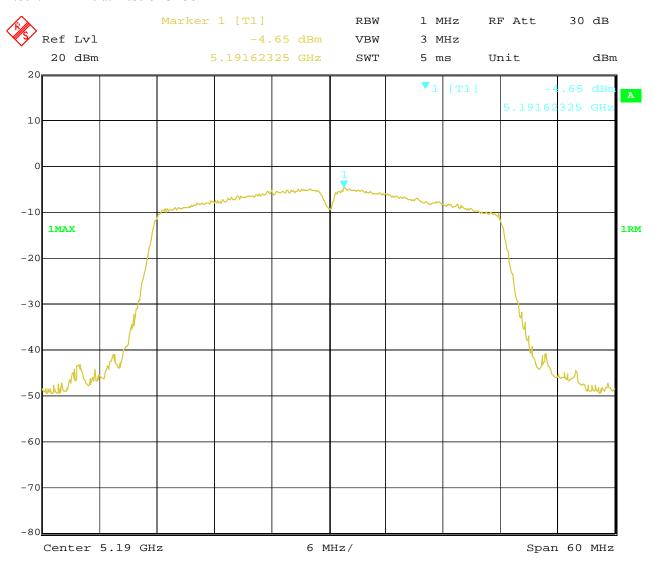
Report No.: TW2105002-02E

Date: 2021-06-22



Test Plots

1.802.11n HT40 at mcs0 of CH38



29.MAY.2021 10:20:22 Date:

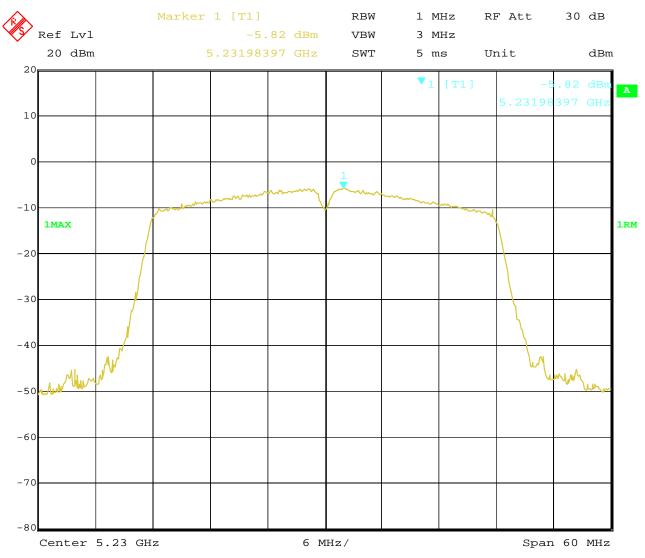
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2.802.11n HT40 at mcs0 of CH46



29.MAY.2021 10:20:53 Date:

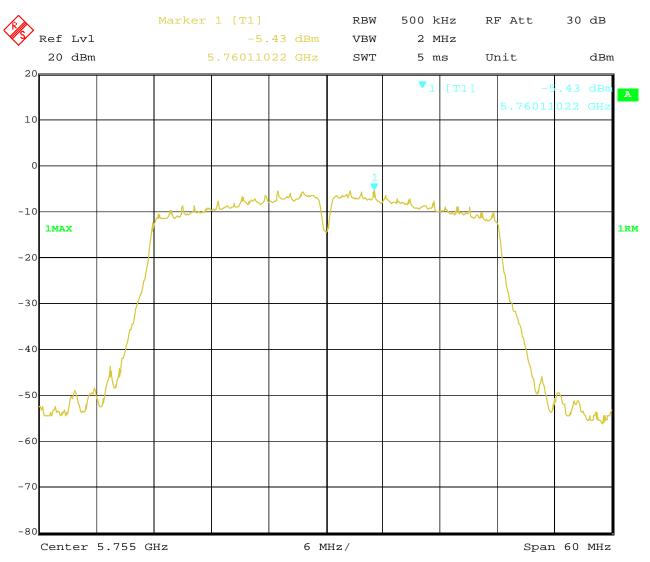
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3.802.11n HT40 at mcs0 of CH151



29.MAY.2021 18:42:48 Date:

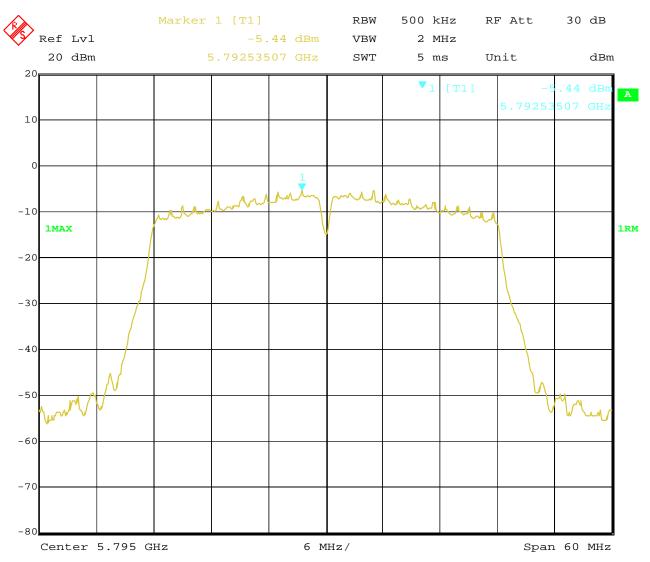
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4.802.11n HT40 at mcs0 of CH159



29.MAY.2021 18:41:20 Date:

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Date: 2021-06-22



EUT		wireless router		Mod	Model		WR-AX01		
Mode	;	802.11ac VHT20		Test Vo	Test Voltage		120V~		
Temperat	ture	24 deg. C,		Humi	Humidity		56% RH		
Channel	Frequency (MHz)		Power Spectral Density(dBm/MHz)	Factor	Total Spectral Density (dBm/MHz)		Limit (dBm/MHz)	Pass/ Fail	
36	5180		-1.93	3.01	1.08		17	Pass	
40	5200		-2.63	3.01	0.38		17	Pass	
48	5240		-3.12	3.01	-0.11		17	Pass	
Channel	Frequency (MHz)		Power Spectral Density(dBm/500kHz)	Factor	De	Spectral nsity 500kHz)	Limit (dBm/500kHz)	Pass/ Fail	
149	5745		-2.64	3.01	0.37		30	Pass	
153	5'	765	-2.60	3.01	0.41		30	Pass	
161	5	805	-2.99	3.01	0	.02	30	Pass	

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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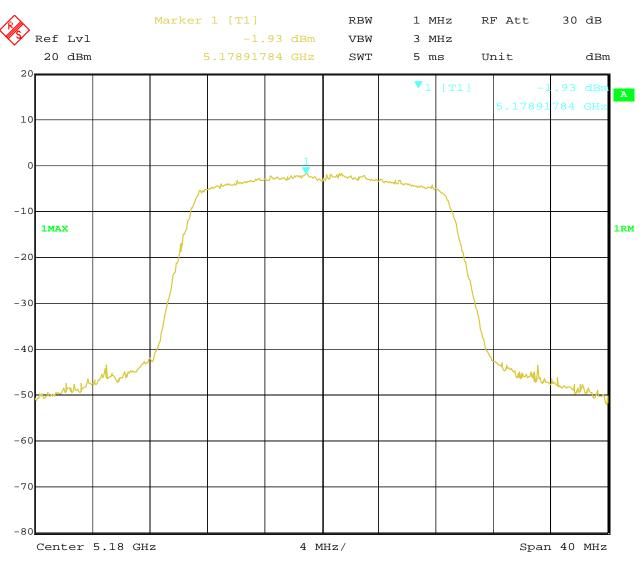
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Date: 2021-06-22



Test Plots

1.802.11ac at mcs0 of CH36



Date: 29.MAY.2021 10:22:42

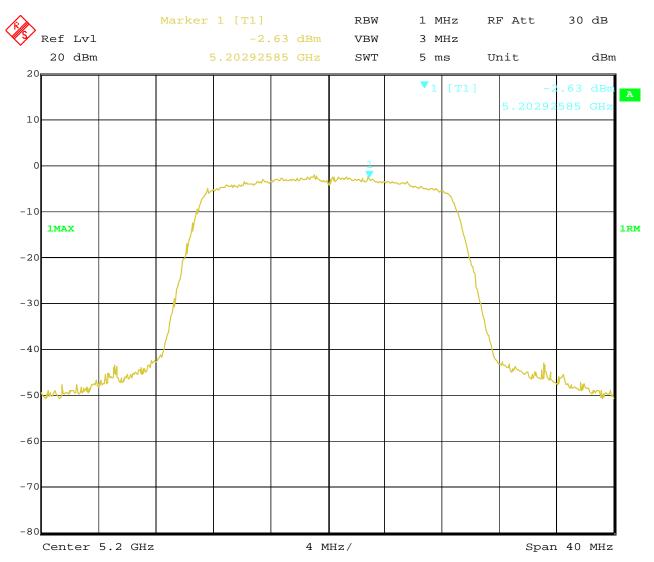
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2.802.11ac at mcs0 of CH40



29.MAY.2021 10:23:13 Date:

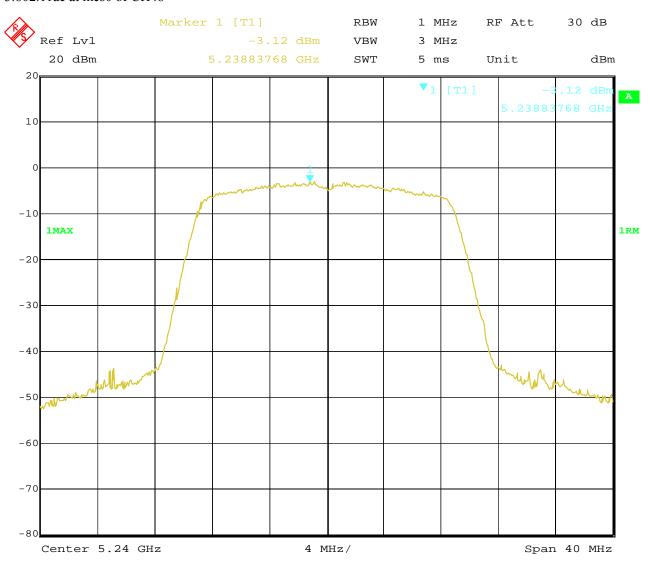
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3.802.11ac at mcs0 of CH48



29.MAY.2021 10:25:05 Date:

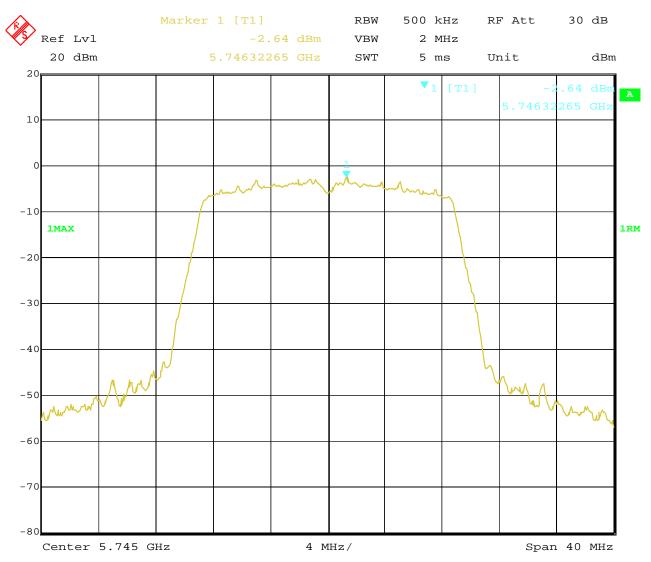
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4.802.11ac at mcs0 of CH149



29.MAY.2021 18:25:22 Date:

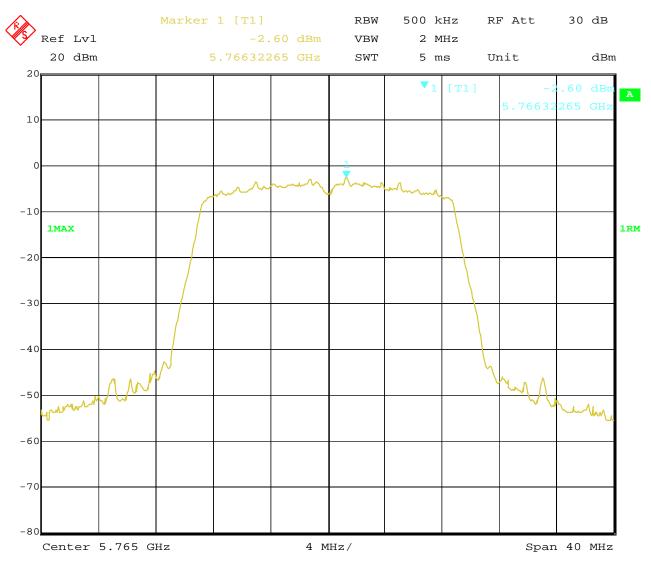
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5.802.11ac at mcs0 of CH153



29.MAY.2021 18:26:54 Date:

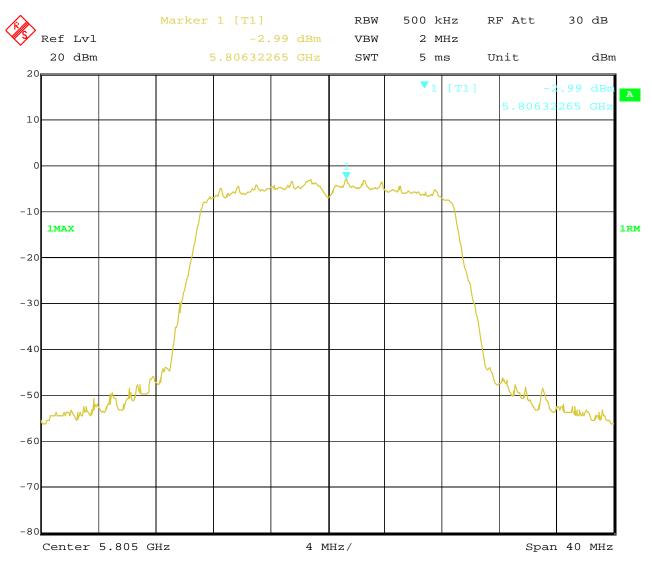
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6.802.11ac at mcs0 of CH161



29.MAY.2021 18:30:52 Date:

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Date: 2021-06-22



EUT		wireless router		Mod	Model		WR-AX01		
Mode		802.11ac VHT40		Test Vo	Test Voltage		120V~		
Temperat	ure	24 deg. C,		Humi	Humidity		56% RH		
Channel	Freq	luency	Power Spectral	Factor	Total Spectral		Limit	Pass/ Fail	
	(N	IHz)	Density(dBm/MHz)		Density		(dBm/MHz)		
					(dBn	n/MHz)			
38	5	190	-4.54	3.01	-1.53		17	Pass	
46	5	230	-5.65	3.01	-2.64		17	Pass	
Channel	Free	luency	Power Spectral	Factor	Total	Spectral	Limit	Pass/ Fail	
	(MHz)		Density(dBm/500kHz)		Density		(dBm/500kHz)		
					(dBm/	500kHz)			
151	5	755	-5.48	3.01	-2.47		30	Pass	
159	5	795	-5.70	3.01	-2	2.69	30	Pass	

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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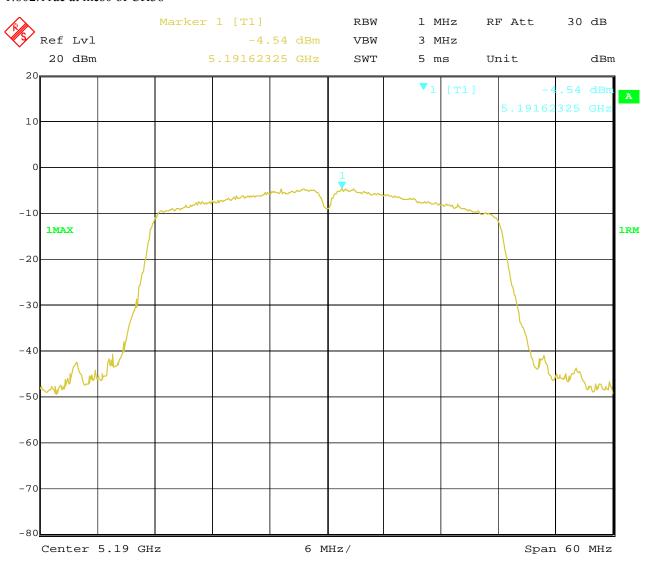
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Test Plots

1.802.11ac at mcs0 of CH38



29.MAY.2021 10:20:08 Date:

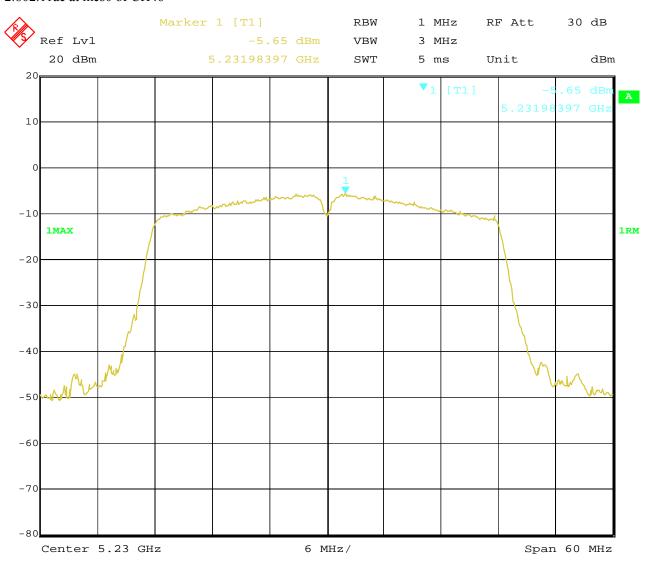
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2.802.11ac at mcs0 of CH46



29.MAY.2021 10:21:07 Date:

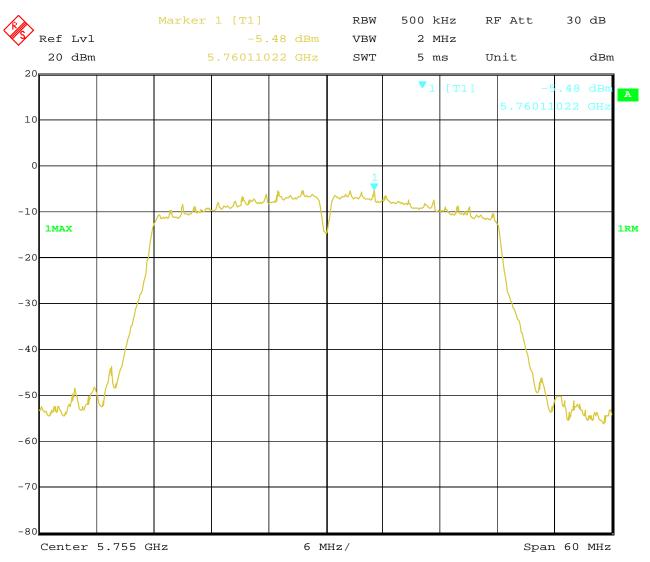
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3.802.11ac at mcs0 of CH151



29.MAY.2021 18:44:08 Date:

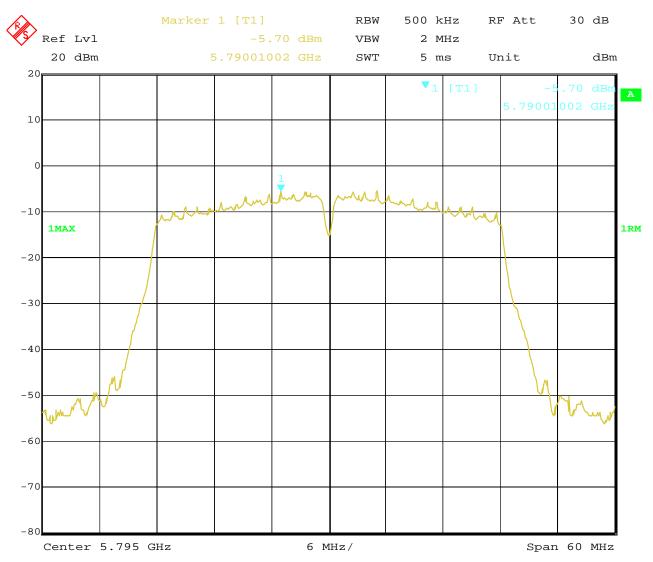
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4.802.11ac at mcs0 of CH159



29.MAY.2021 18:40:00 Date:

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Date: 2021-06-22



EUT		wireless router		Model		WR-AX01		
Mode	:	802.11ac VHT80 mcs0		Test Voltage		120V~		
Temperat	ture	24 deg. C,		Humidity		56% RH		
Channel	Frequency	Power Spectral	Factor	Total Spectral		Limit	Pass/ Fail	
	(MHz)	Density(dBm/MHz)		Density		(dBm/MHz)		
				(dE	Bm/MHz)			
42	5210	-8.87	3.01		-5.86	17	Pass	
Channel	Frequency	Power Spectral	Factor	Total Spectral		Limit	Pass/ Fail	
	(MHz)	Density(dBm/500kHz)		Density		(dBm/500kHz)		
				(dBr	m/500kHz)			
155	5775	-9.36	3.01		-6.35	30	Pass	

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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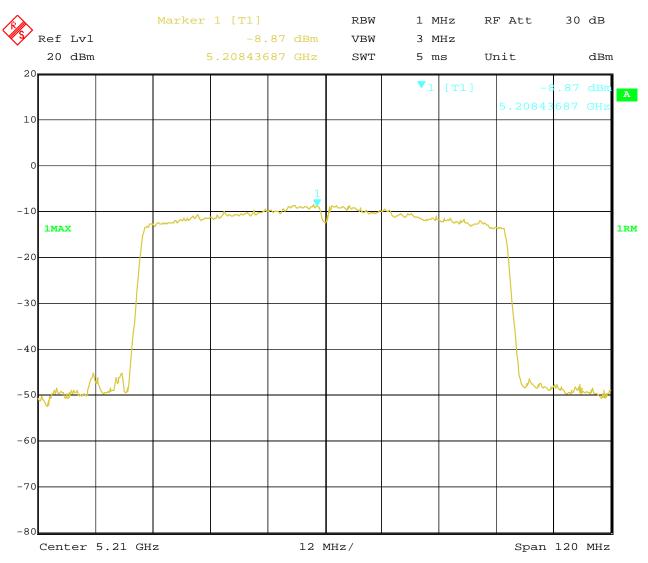
Report No.: TW2105002-02E

Date: 2021-06-22



Test Plots

1.802.11ac at mcs0 of CH42



Date: 29.MAY.2021 10:08:30

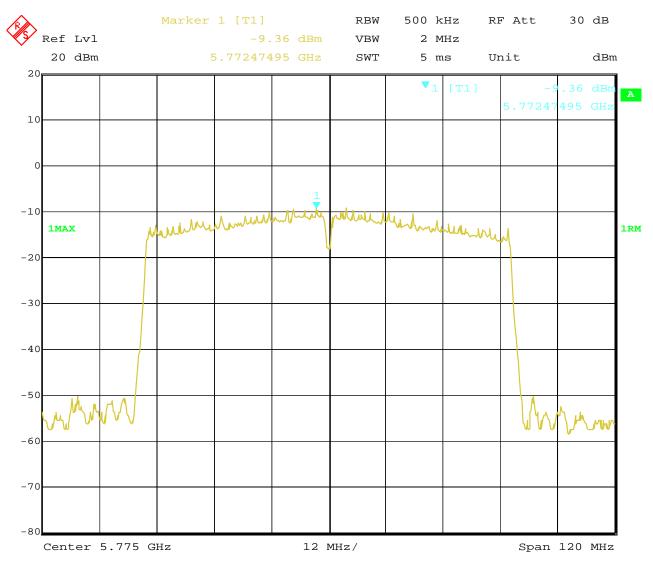
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2.802.11ac at mcs0 of CH155



29.MAY.2021 18:38:41 Date:

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Date: 2021-06-22



EUT			wireless router	Mod	del	WR-AX01			
Mode		802	2.11ax HEW20 mcs0	Test Vo	Test Voltage		120V~		
Tempera	ture		24 deg. C,	Humi	Humidity		56% RH		
Channel	Frequency (MHz)		Power Spectral Density(dBm/MHz)	Factor	Total Spectral Density (dBm/MHz)		Limit (dBm/MHz)	Pass/ Fail	
36	51	80	0.62	3.01		3.63	17	Pass	
40	52	200	0.14	3.01		3.15	17	Pass	
48	52	240	-1.49	3.01		1.52	17	Pass	
Channel	_	uency Hz)	Power Spectral Density(dBm/500kHz)	Factor Total Spectra Density (dBm/500kHz		Density	Limit (dBm/500kHz)	Pass/ Fail	
149	57	745	-2.23	3.01	0.78		30	Pass	
153	57	765	-2.54	3.01	0.47		30	Pass	
161	58	305	-2.62	3.01		0.39	30	Pass	

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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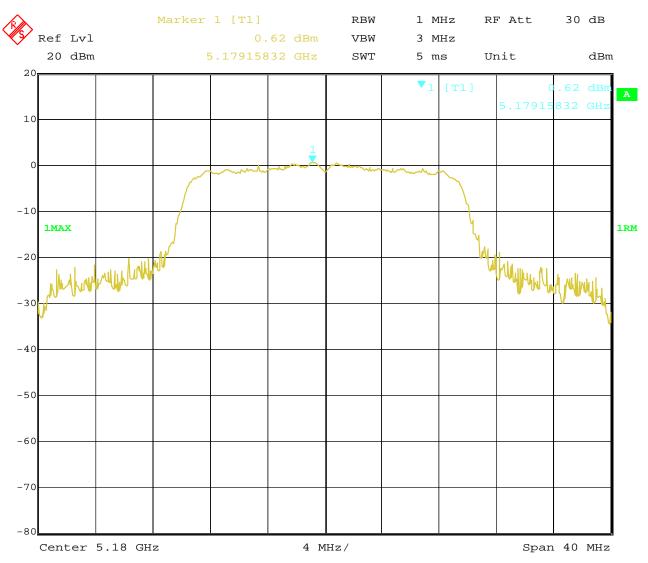
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Test Plots

1. 802.11ax HEW20 at mcs0 of CH36



22.JUN.2021 14:43:37 Date:

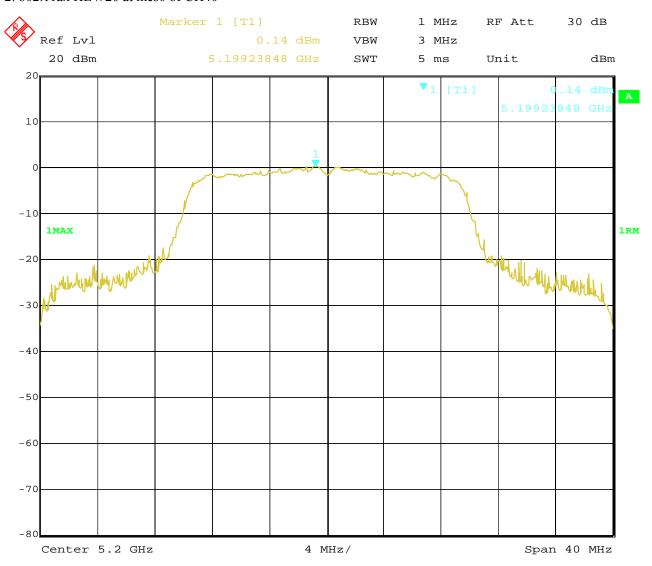
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2. 802.11ax HEW20 at mcs0 of CH40



22.JUN.2021 14:40:29 Date:

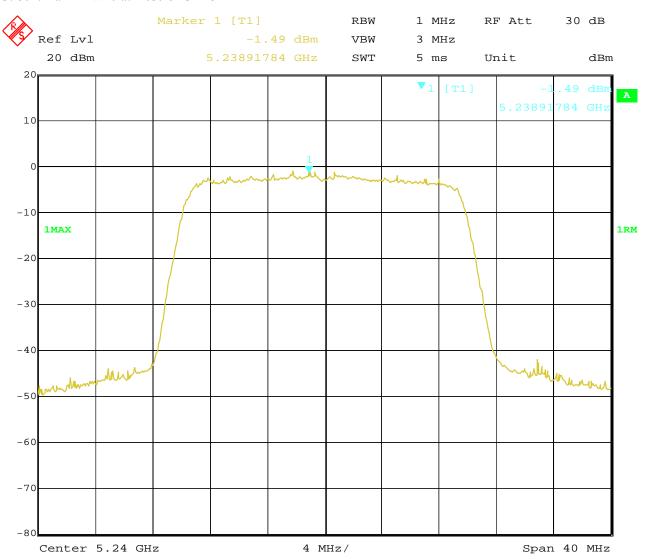
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3. 802.11ax HEW20 at mcs0 of CH48



Date: 22.JUN.2021 14:34:53

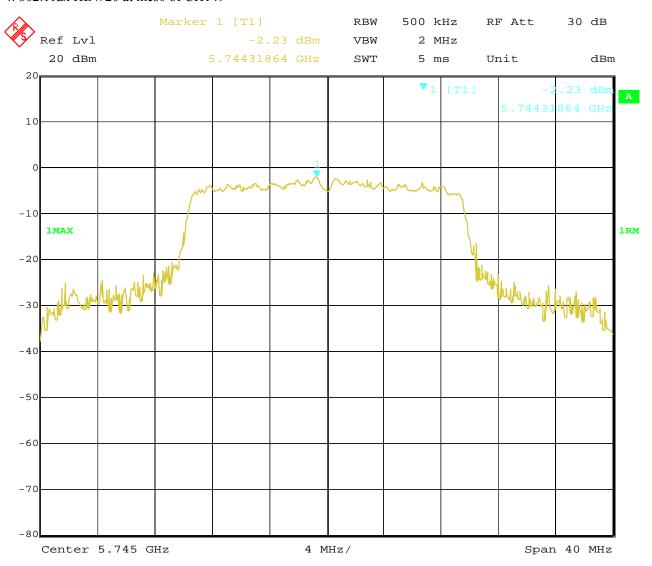
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4. 802.11ax HEW20 at mcs0 of CH149



Date: 23.JUN.2021 07:55:50

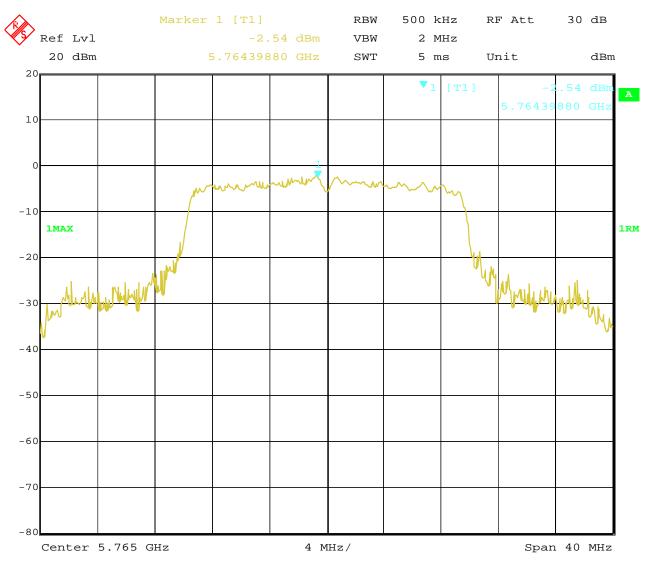
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5. 802.11ax HEW20 at mcs0 of CH153



Date: 23.JUN.2021 08:10:26

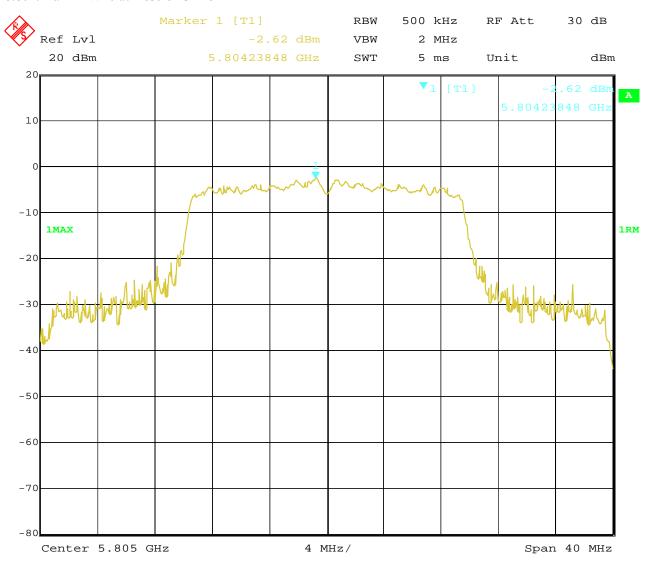
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6.802.11ax HEW20 at mcs0 of CH161



Date: 23.JUN.2021 08:12:26

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Report No.: TW2105002-02E

Date: 2021-06-22



EUT		wireless router		Mod	lel	WR-AX01		
Mode		802.11ax HEW40 mcs0		Test Vo	ltage	120V~		
Temperature		24 deg. C,		Humi	Humidity		56% RH	
Channel	Frequency		Power Spectral	Factor	Total Spectral		Limit	Pass/
	(MHz)		Density(dBm/MHz)		Density		(dBm/MHz)	Fail
					(dBm/MHz)			
38	5190		-2.54	3.01	0.47		17	Pass
46	5230		-3.86	3.01	-0.85		17	Pass
Channel	Frequency		Power Spectral	Factor	Tota	al Spectral	Limit	Pass/
	(MHz)		Density(dBm/500kHz)		Density		(dBm/500kHz)	Fail
					(dBı	m/500kHz)		
151	57	755	-4.80	3.01		-1.79	30	Pass
159	159 5795		-5.27	3.01		-2.26	30	Pass

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

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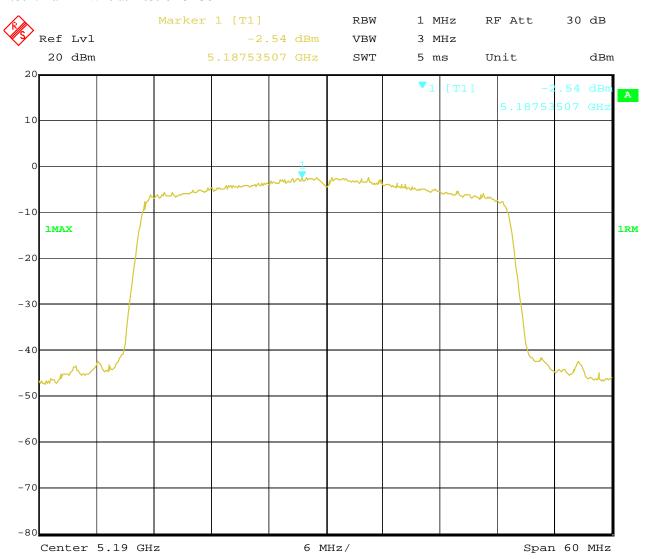
Report No.: TW2105002-02E

Date: 2021-06-22



Test Plots

1.802.11ax HEW40 at mcs0 of CH38



Date: 22.JUN.2021 14:47:28

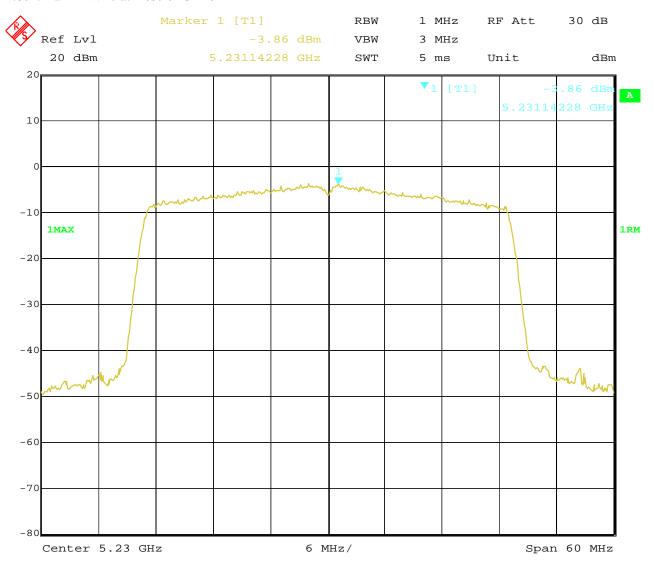
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2.802.11ax HEW40 at mcs0 of CH46



22.JUN.2021 15:00:40 Date:

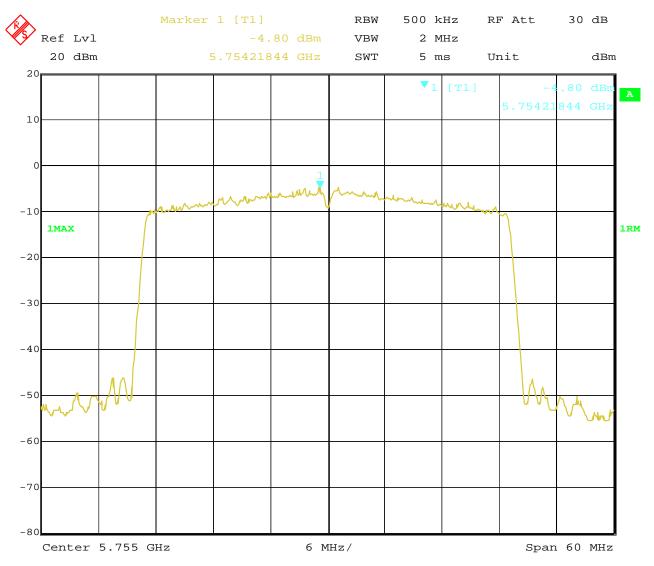
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Date: 2021-06-22



3.802.11ax HEW40 at mcs0 of CH151



Date: 23.JUN.2021 08:57:11

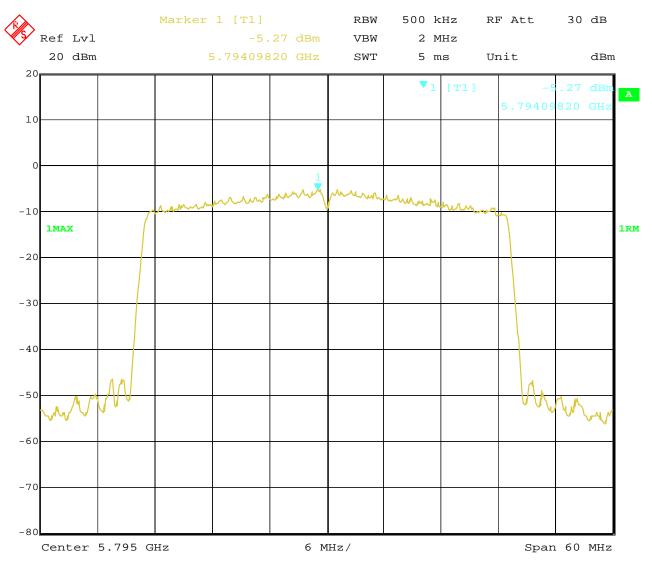
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4.802.11ax HEW40 at mcs0 of CH159



Date: 23.JUN.2021 09:01:19

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EUT		wireless router		Model		WR-AX01		
Mode	;	802.11ac HEW80 mcs0		Test Voltage		120V~		
Temperat	ture	24 deg. C,		Humi	Humidity		56% RH	
Channel	Frequency		Power Spectral	Factor	Tota	al Spectral	Limit	Pass/ Fail
	(MHz)		Density(dBm/MHz)		Density		(dBm/MHz)	
					(dBm/MHz)			
42	5210		1.12	3.01	4.13		17	Pass
Channel	Frequency		Power Spectral	Factor	Tota	al Spectral	Limit	Pass/ Fail
	(MHz)		Density(dBm/500kHz)		Density		(dBm/500kHz)	
					(dBr	n/500kHz)		
155	5775	'5	-9.05	3.01		-6.04	30	Pass

Note: Chain 2 and Chain 3 were tested and only the worst cased was recorded in the test report. Chain 2 was the worst case.

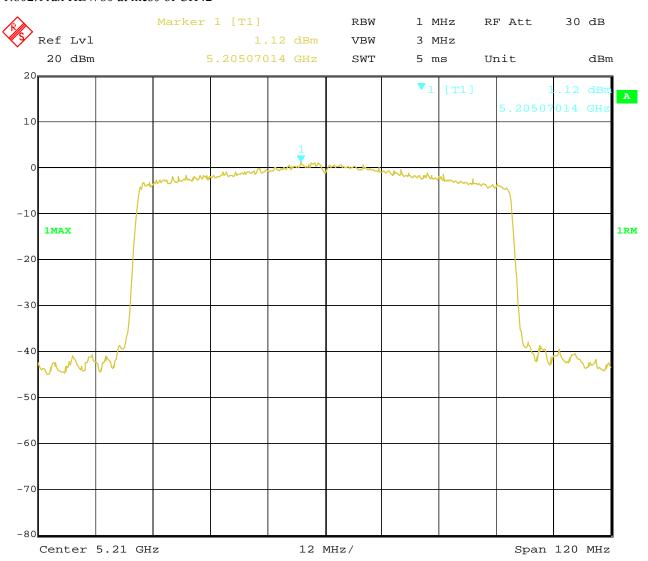
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1.802.11ax HEW80 at mcs0 of CH42



22.JUN.2021 15:01:55 Date:

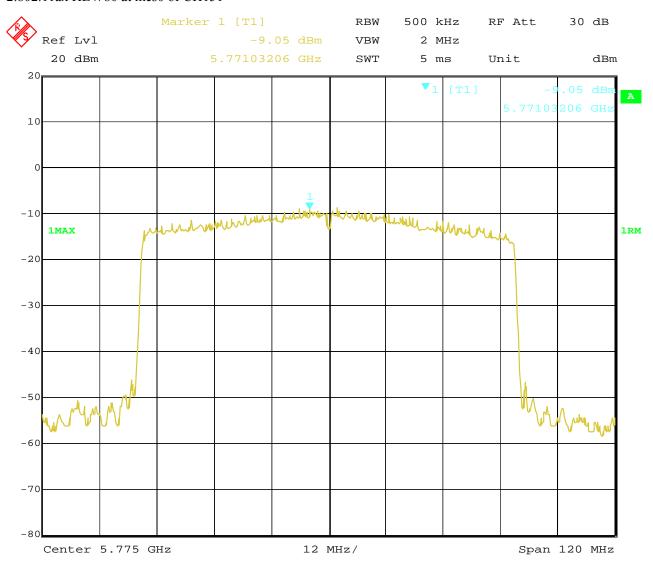
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2.802.11ax HEW80 at mcs0 of CH151



Date: 23.JUN.2021 10:56:25 Report No.: TW2105002-02E

Date: 2021-06-22



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10.0 Frequency Stability

10.1 Limits of Frequency Stability Measurement

The frequency tolerance of the carrier signal shall be maintained within \pm 0.02% of the operating frequency over a temperature variation of \pm 30 degrees to 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees

10.2 Test Procedure

- 1. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
- 2. Turn the EUT on and couple its output to a spectrum analyzer.
- 3. Turn the EUT off and set the chamber to the highest temperature specified.
- 4. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
- 5. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
- 6. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

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11.3 Test Result

Channel 36 (5180MHz)

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
138V	5180.0549
120V	5180.0536
102V	5180.0552
Max. Deviation (MHz)	0.0552
Max. Deviation (ppm)	10.7

Rated working voltage: 120V~

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)			
-30	5180.0536			
-20	5180.0543			
-10	5180.0551			
0	5180.0543			
10	5180.0548			
20	5180.0539			
30	5180.0550			
40	5180.0543			
50	5180.0538			
Max. Deviation (MHz)	0.0550			
Max. Deviation (ppm)	10.6			

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Channel 149 (5745MHz)

Voltage vs. Frequency Stability

Voltage	Measurement Frequency (MHz)
138V	5745.0612
120V	5745.0609
102V	5745.0608
Max. Deviation (MHz)	0.0204
Max. Deviation (ppm)	3.6

Rated working voltage: 120V~

Temperature vs. Frequency Stability

Temperature (°C)	Measurement Frequency (MHz)
-30	5745.0615
-20	5745.0610
-10	5745.0619
0	5745.0621
10	5745.0607
20	5745.0619
30	5745.0614
40	5745.0615
50	5745.0618
Max. Deviation (MHz)	0.0621
Max. Deviation (ppm)	10.8

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11.0 Antenna Requirement

11.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if transmitter antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the mount in dB that the directional gain of the antenna exceeds 6 dBi.

11.2 Antenna Connected construction

Two Dipole antennas used. The maximum Gain of each antenna is 8.54 dBi for each one.

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12.0 FCC ID Label

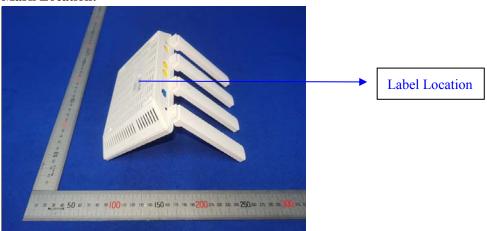
FCC ID: 2AITH-WR-AX01

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation

The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

Mark Location:



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13.0 Photo of testing

Conducted Emission Test Setup:



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Radiated Emission Test Setup:





Photos of EUT

Please see test report TW2105002-01E

End of the report

The report refers only to the sample tested and does not apply to the bulk.

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