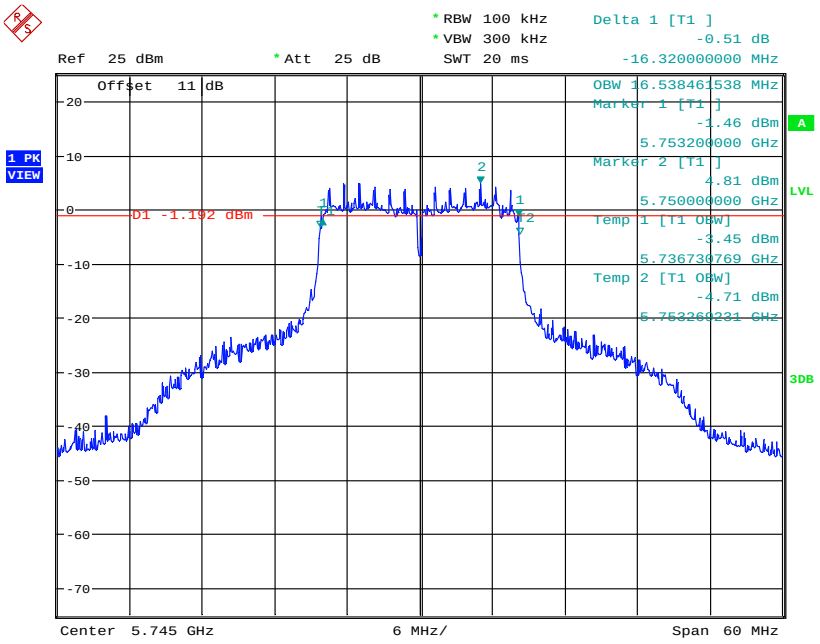
3.3 6dB emission bandwidth, 99% Occupied Bandwidth, FCC 15.407 (a)

According to §15.407(a). No Limit required.

Result:

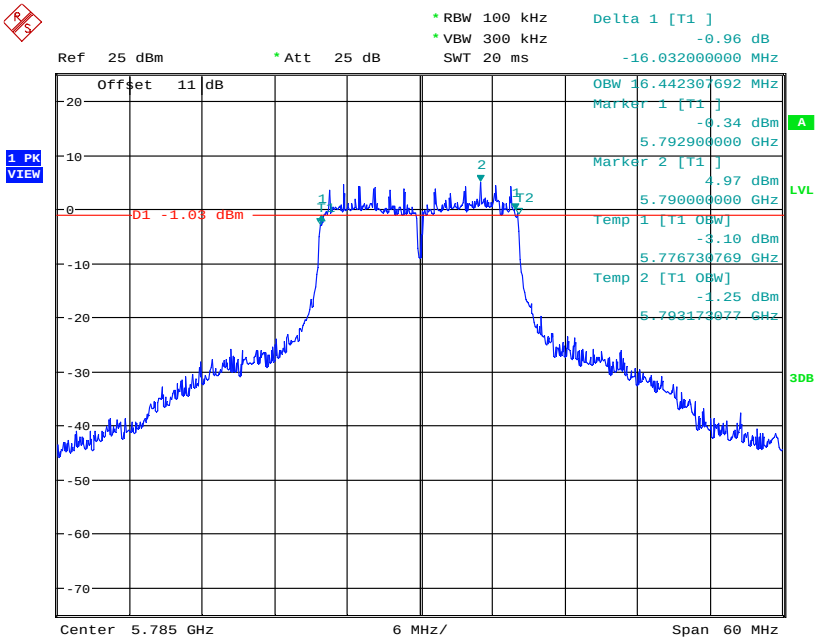
ANTA



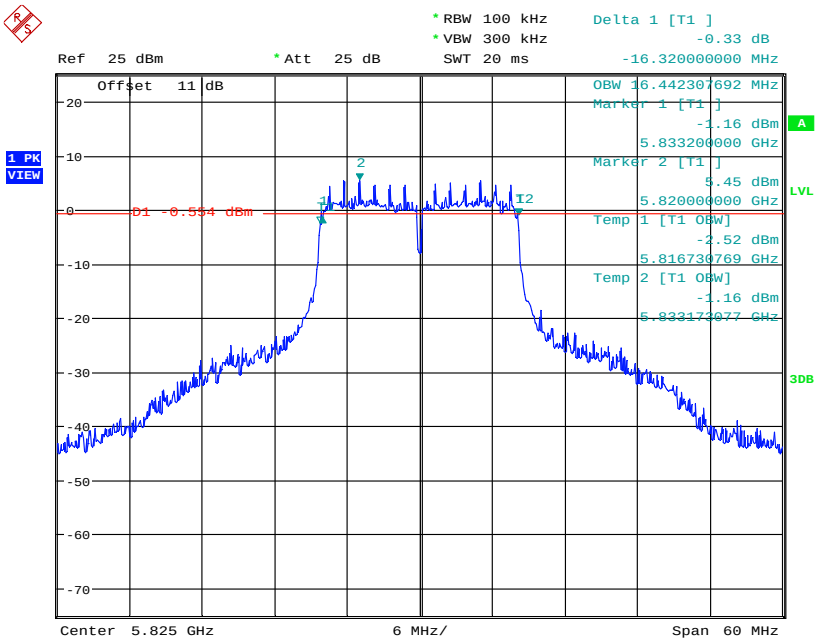
99% OBW & 6DB BANDWIDTH ANT1_11a_CH149

Date: 7.JUL.2017 16:37:36

Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF

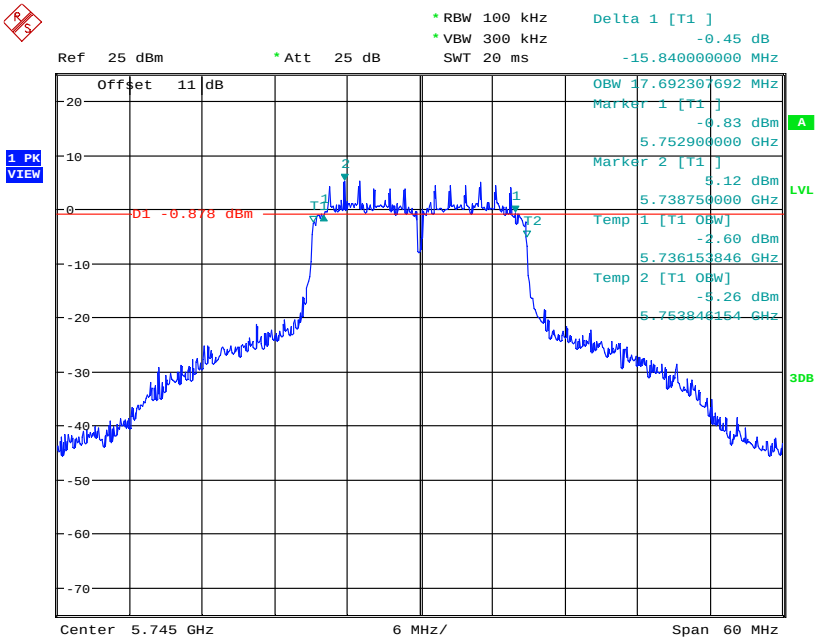


99% OBW & 6DB BANDWIDTH ANT1_11a_CH157
Date: 7.JUL.2017 16:40:43

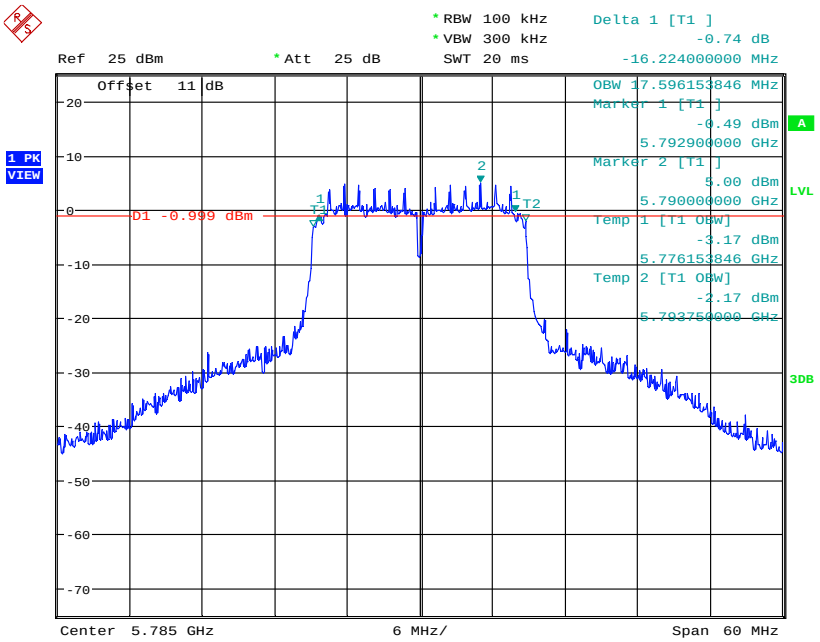


99% OBW & 6DB BANDWIDTH ANT1_11a_CH165
Date: 7.JUL.2017 16:46:08

Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF

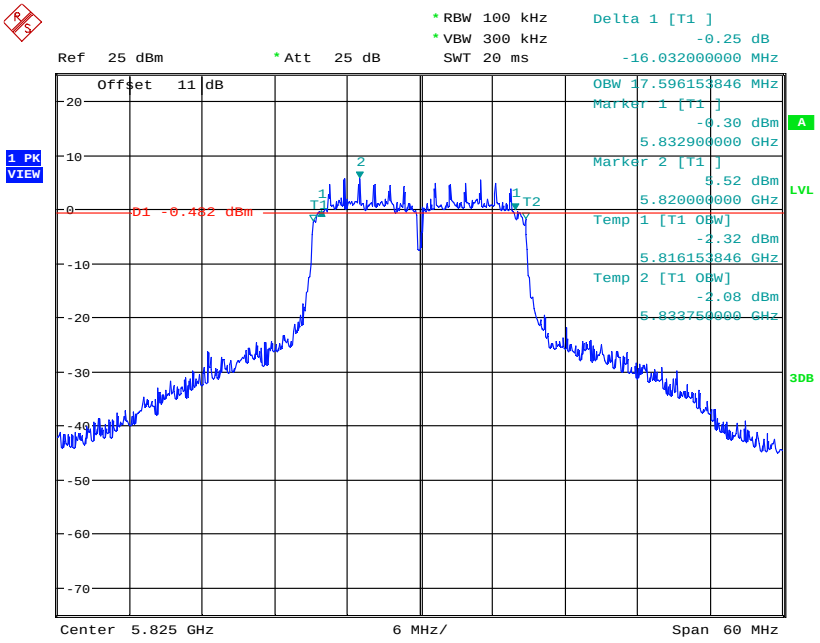


99% OBW & 6DB BANDWIDTH ANT1_11n20_CH149
Date: 7.JUL.2017 16:48:09

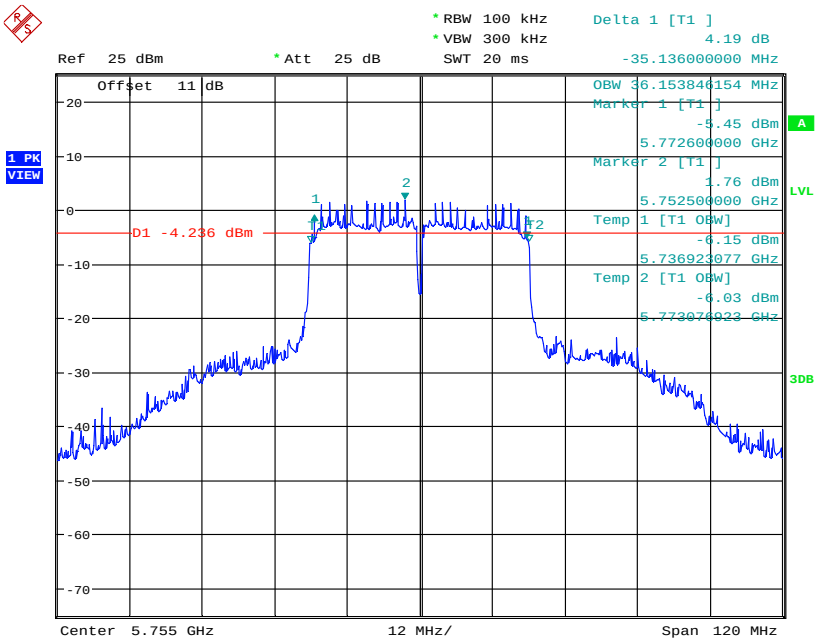


99% OBW & 6DB BANDWIDTH ANT1_11n20_CH157
Date: 7.JUL.2017 16:53:17

Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF

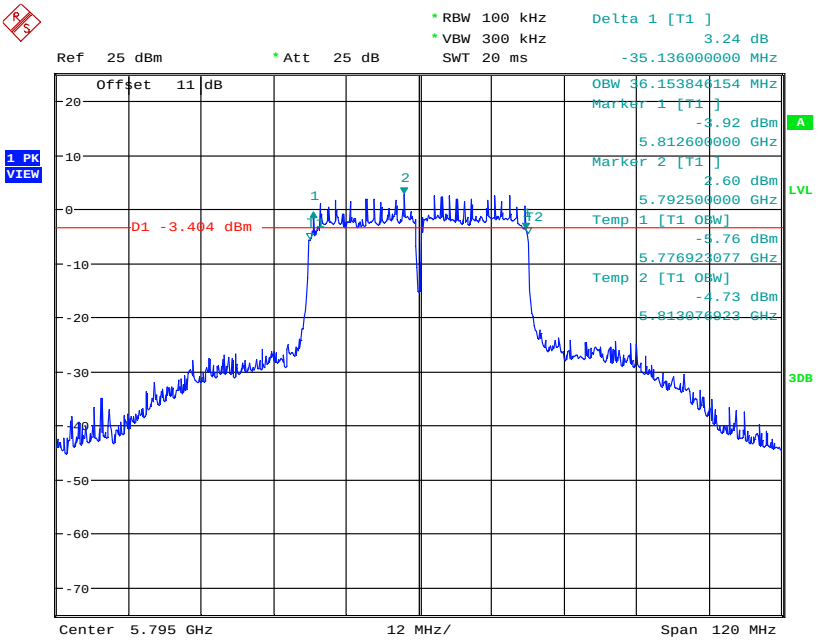


99% OBW & 6DB BANDWIDTH ANT1_11n20_CH165
Date: 7.JUL.2017 16:54:56

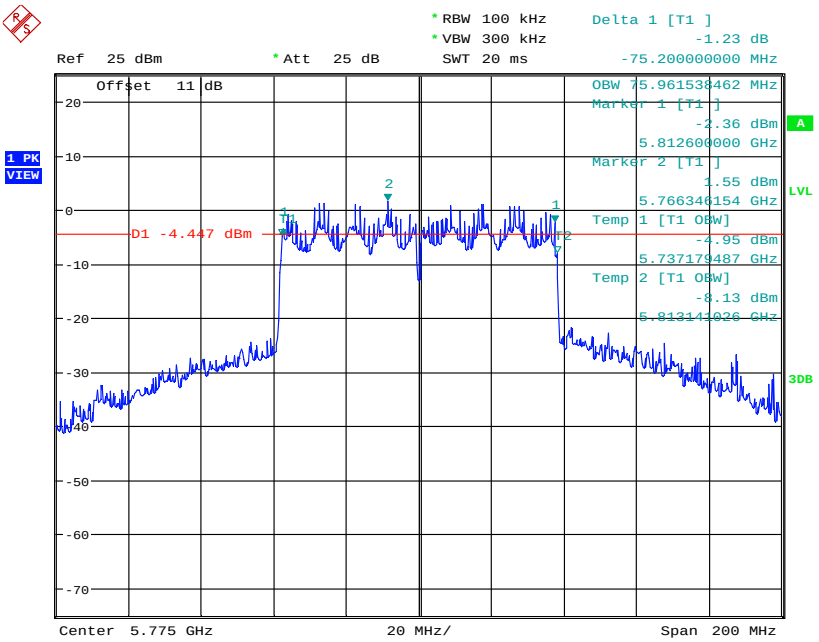


99% OBW & 6DB BANDWIDTH ANT1_11n40_CH151
Date: 7.JUL.2017 17:00:31

Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF



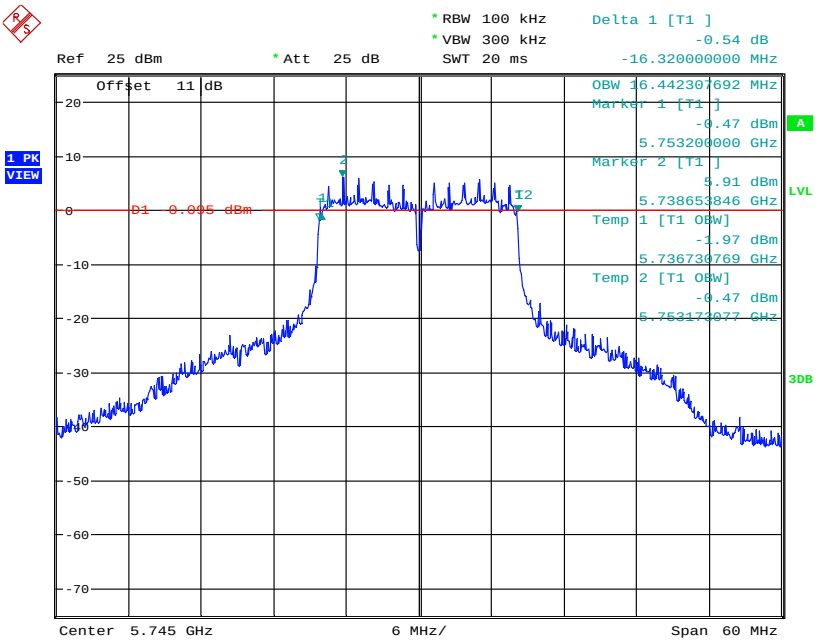
99% OBW & 6DB BANDWIDTH ANT1_11n40_CH159
Date: 7.JUL.2017 17:02:32



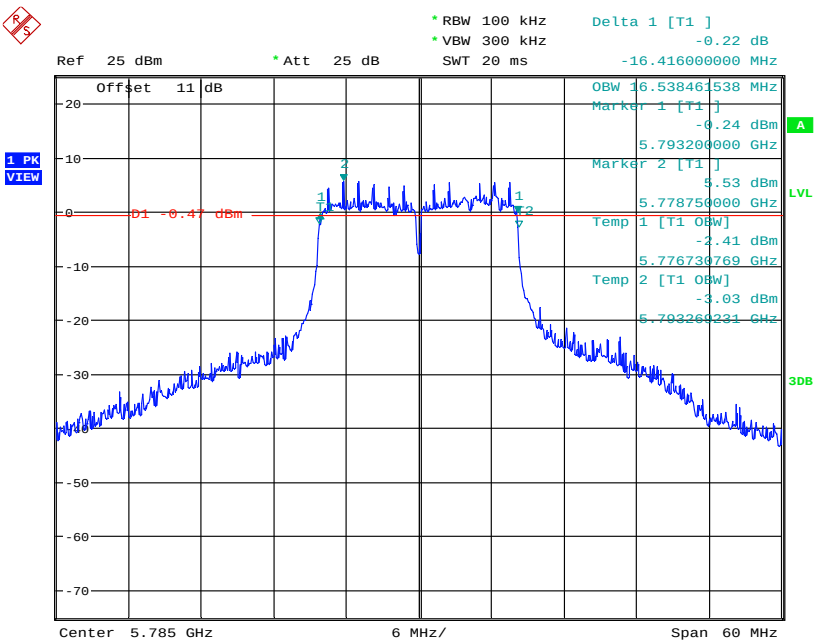
99% OBW & 6DB BANDWIDTH ANT1_11ac80_CH155
Date: 7.JUL.2017 17:10:31

Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF

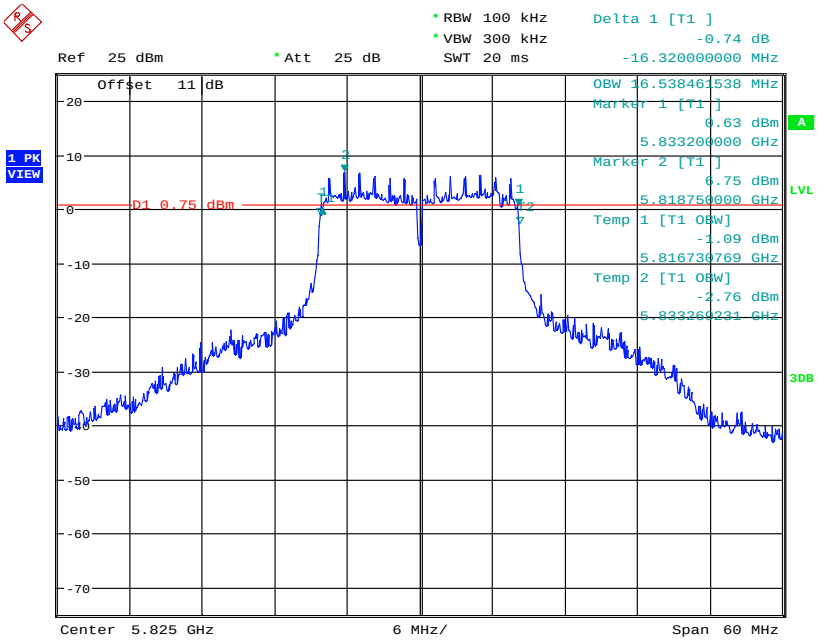
ANTB



99% OBW & 6DB BANDWIDTH ANT2_11a_CH149
Date: 7.JUL.2017 16:35:57

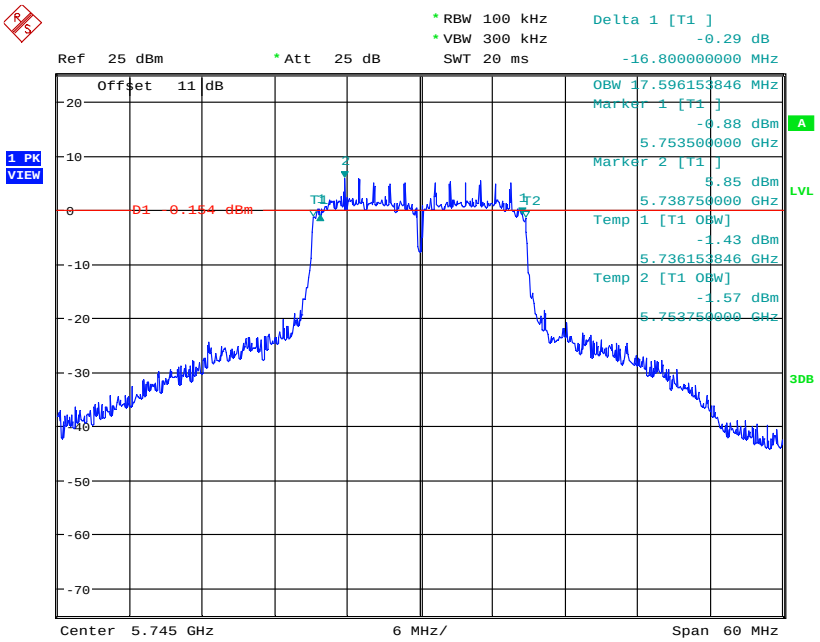


99% OBW & 6DB BANDWIDTH ANT2_11a_CH157
Date: 7.JUL.2017 16:42:33



99% OBW & 6DB BANDWIDTH ANT2_11a_CH165

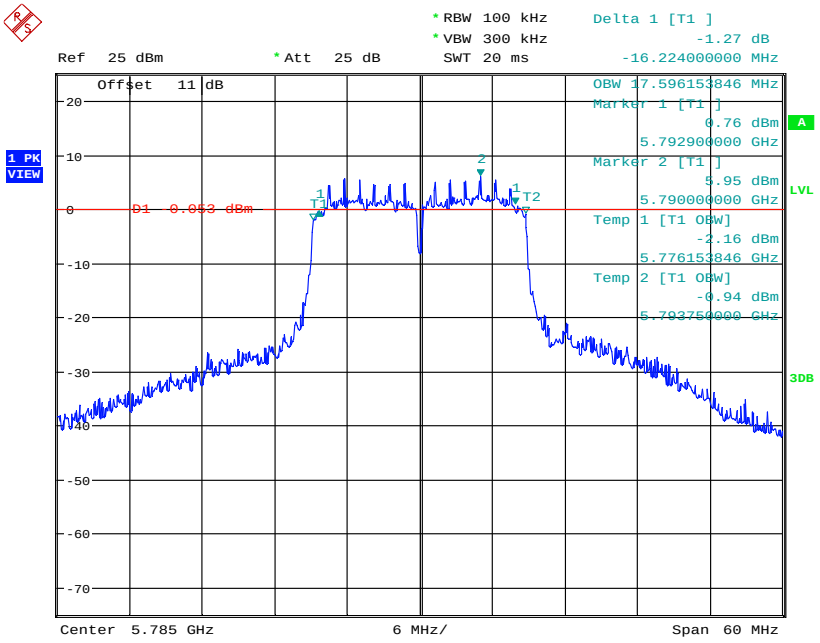
Date: 7.JUL.2017 16:44:29



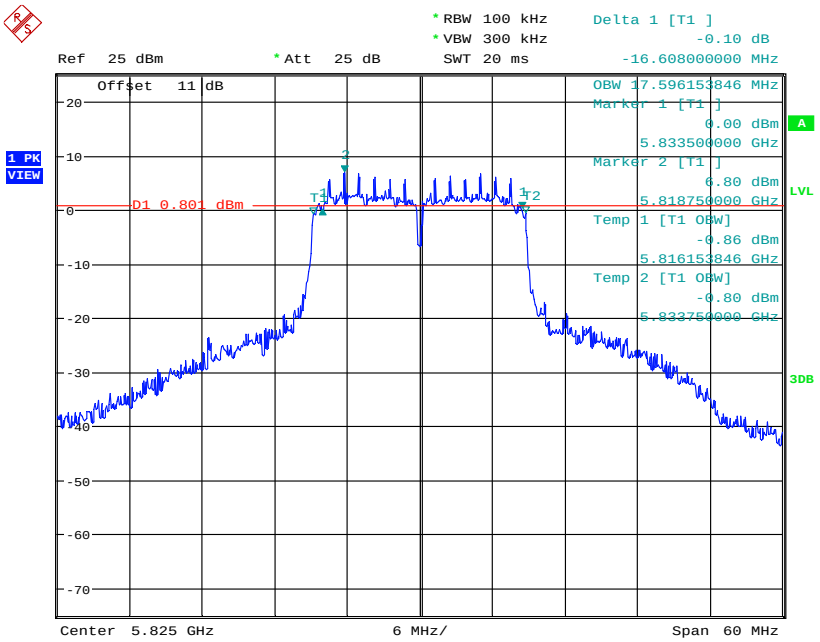
99% OBW & 6DB BANDWIDTH ANT2_11n20_CH149

Date: 7.JUL.2017 16:49:42

Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF

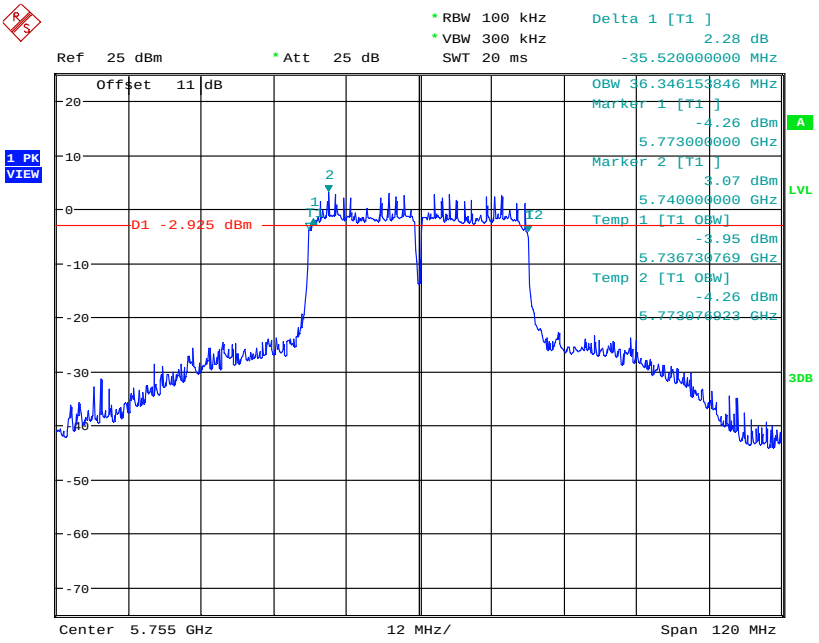


99% OBW & 6DB BANDWIDTH ANT2_11n20_CH157
Date: 7.JUL.2017 16:51:49

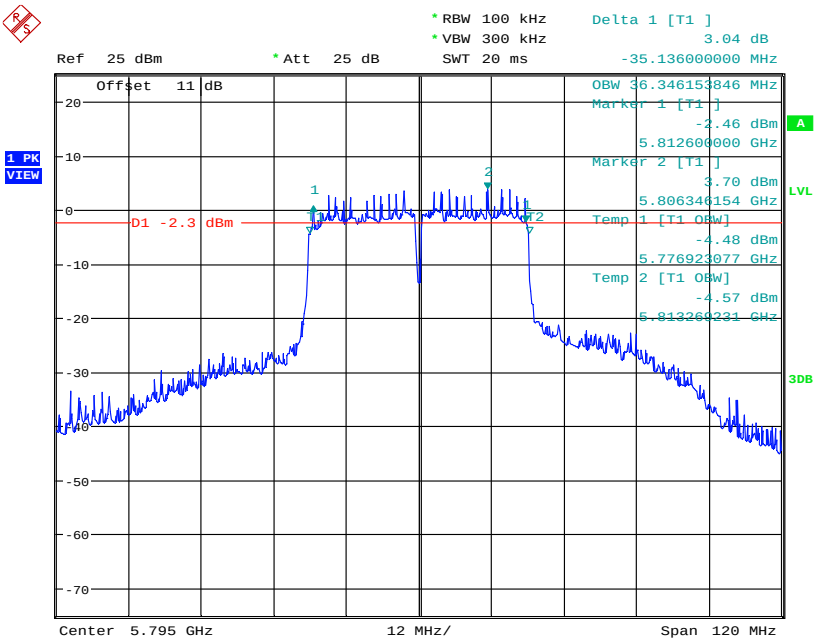


99% OBW & 6DB BANDWIDTH ANT2_11n20_CH165
Date: 7.JUL.2017 16:56:35

Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF

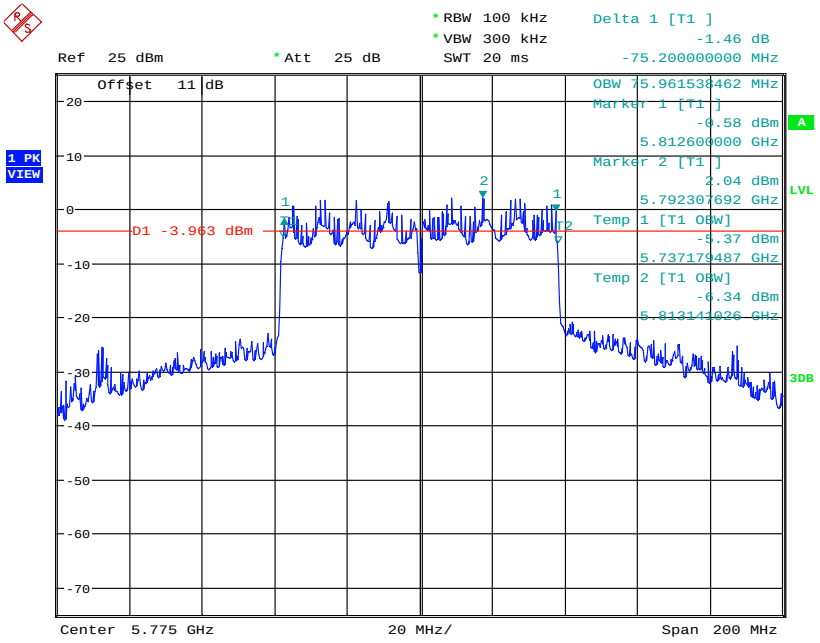


99% OBW & 6DB BANDWIDTH ANT2_11n40_CH151
Date: 7.JUL.2017 16:58:52



99% OBW & 6DB BANDWIDTH ANT2_11n40_CH159
Date: 7.JUL.2017 17:05:06

Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF



99% OBW & 6DB BANDWIDTH ANT2_11ac80_CH155
Date: 7.JUL.2017 17:07:57

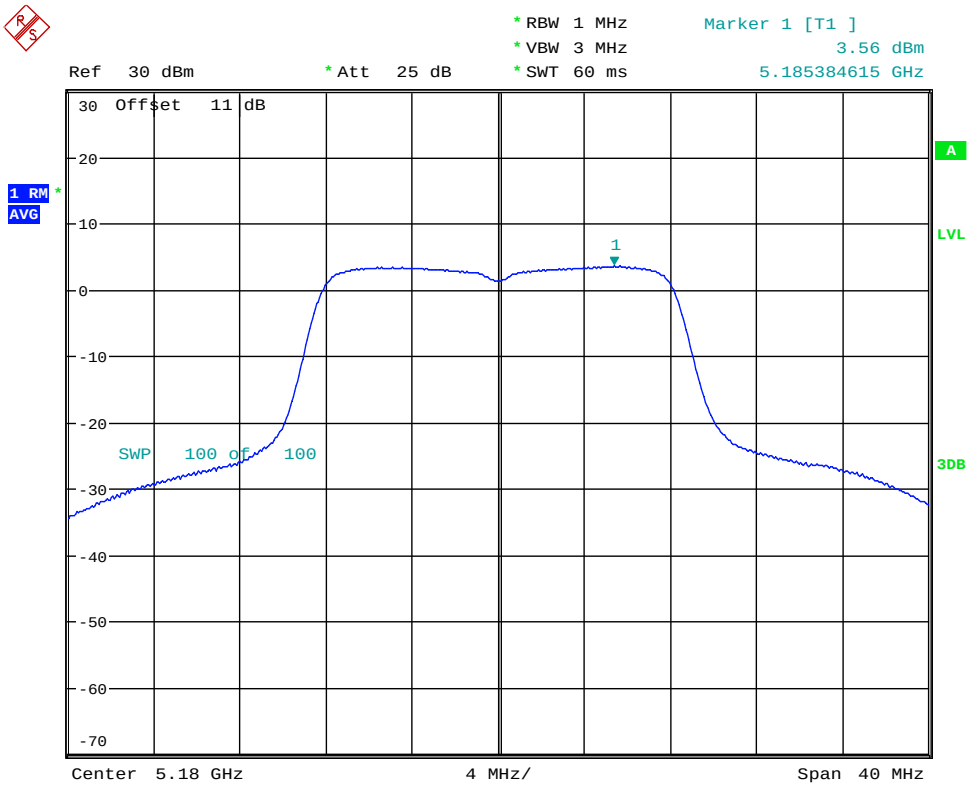
3.4 Peak Power Spectral Density, FCC 15.407 (a)

According to §15.407(a)

1. For the band 5.15-5.25 GHz, the peak power spectral density shall not exceed 17 dBm/MHz for master device and 11 dBm/MHz for mobile/portable client device.
2. For the band 5.25-5.35 GHz and 5.47-5.725 GHz, the peak power spectral density shall not exceed 11 dBm/MHz.
3. For the band 5.725-5.850 GHz, the peak power spectral density shall not exceed 30 dBm/500kHz.

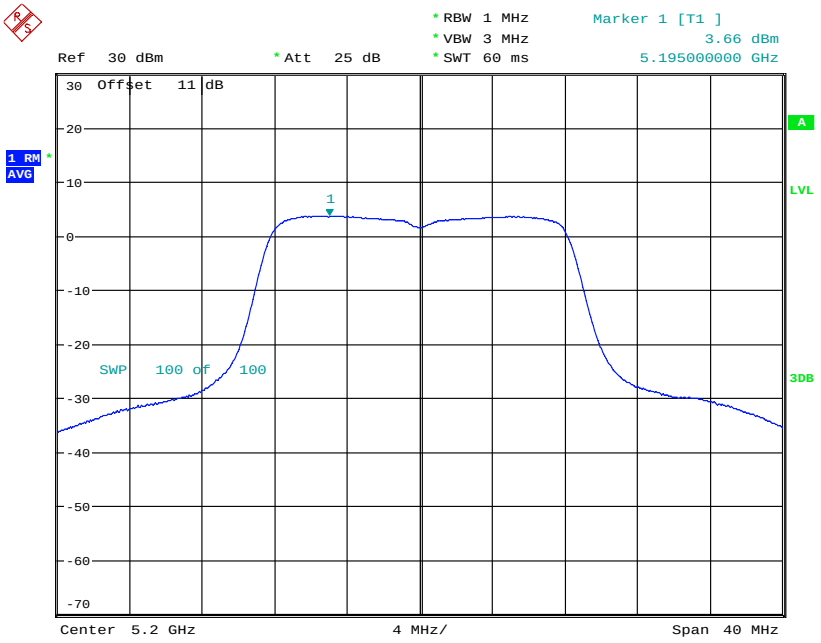
ANTA

5.15 GHz ~ 5.25 GHz

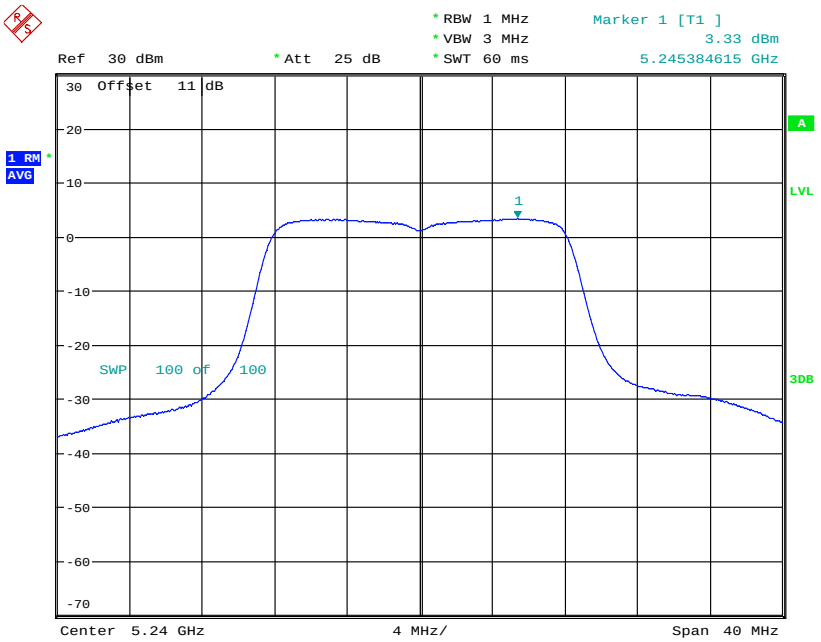


POWER DENSITY AV ANT111aCH36

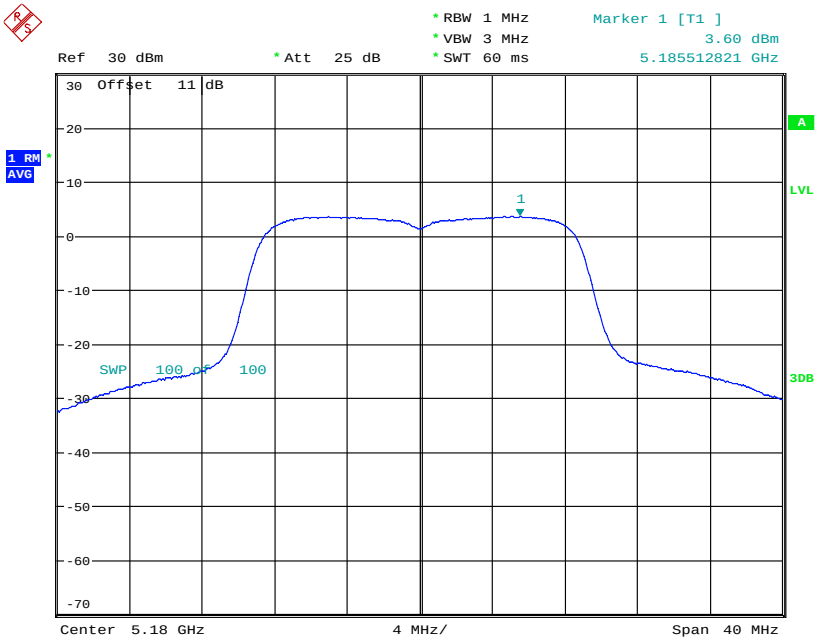
Date: 7.JUL.2017 13:17:43



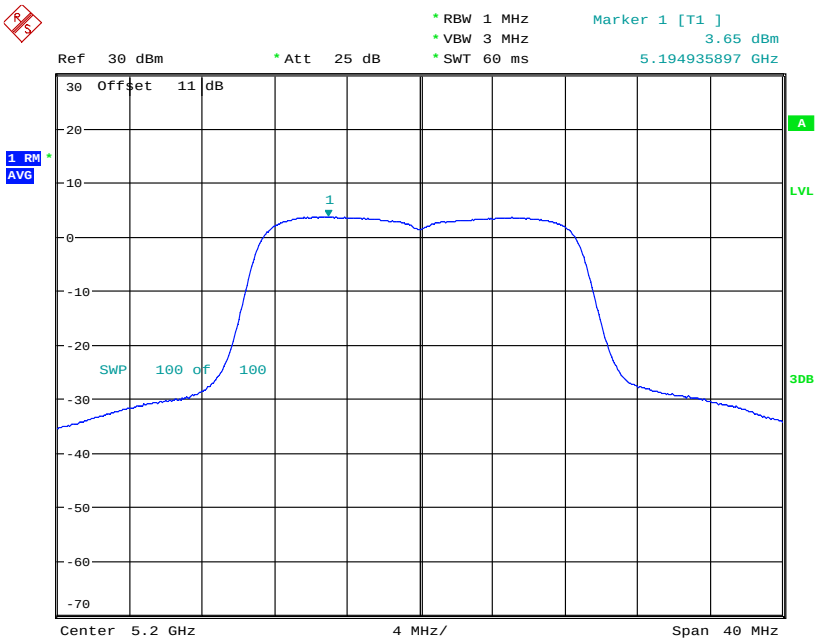
POWER DENSITY AV ANT111aCH40
Date: 7.JUL.2017 13:24:19



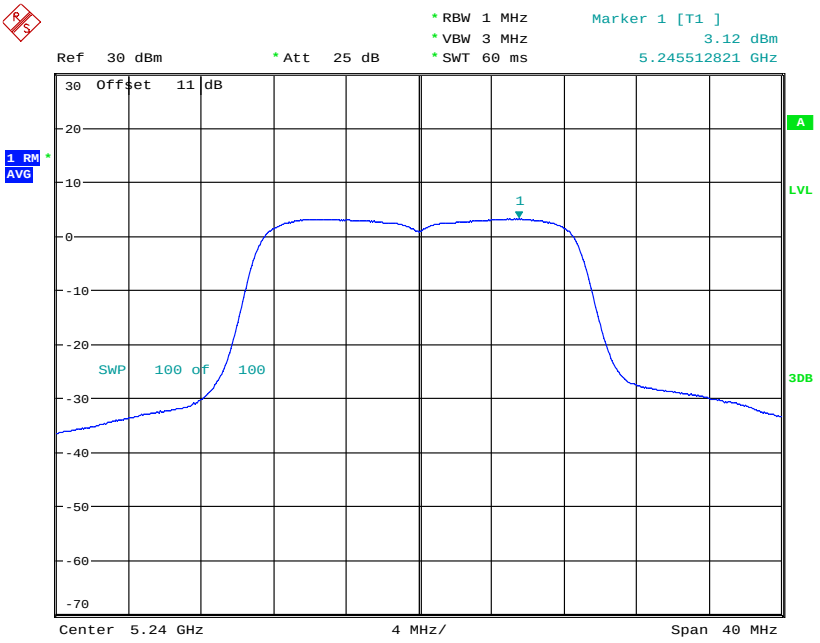
POWER DENSITY AV ANT111aCH48
Date: 7.JUL.2017 13:26:49



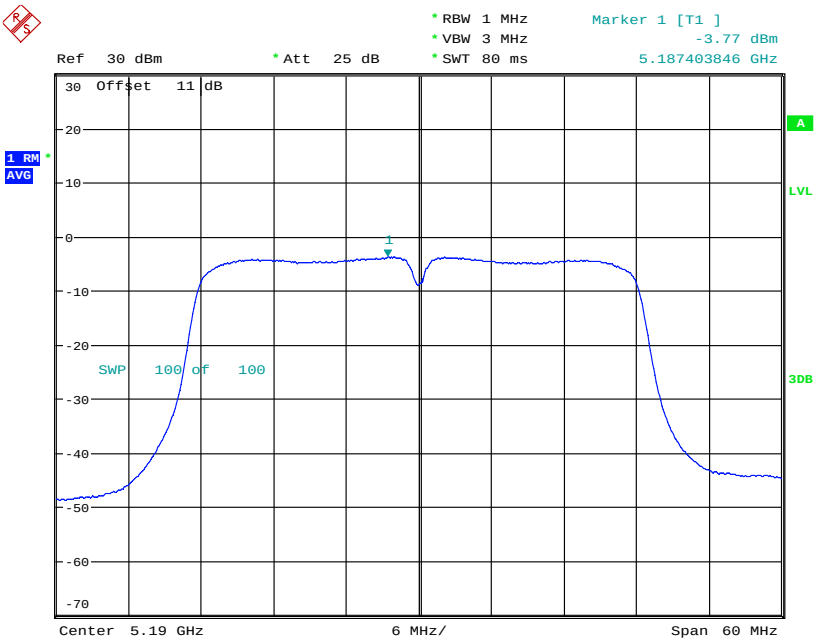
POWER DENSITY AV ANT111n20CH36
Date: 7.JUL.2017 13:35:16



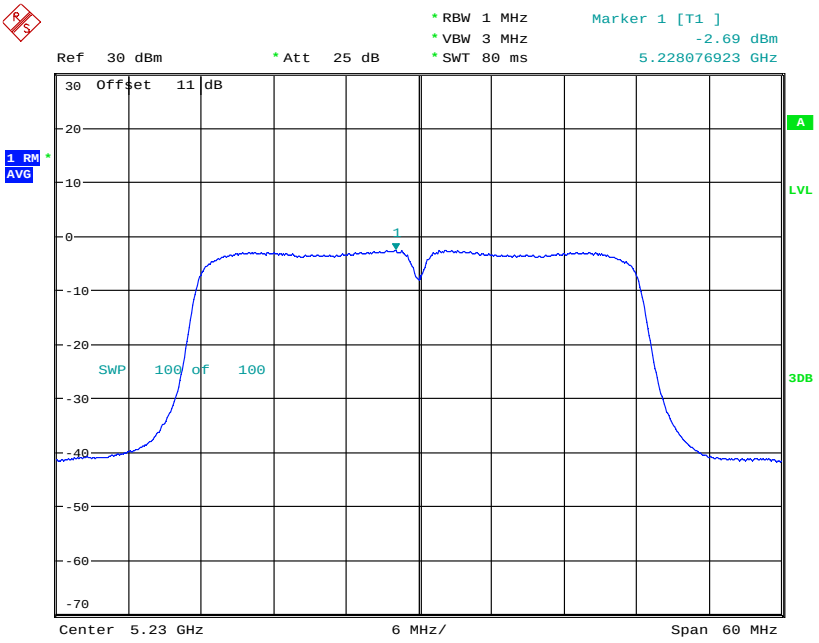
POWER DENSITY AV ANT111n20CH40
Date: 7.JUL.2017 13:40:15



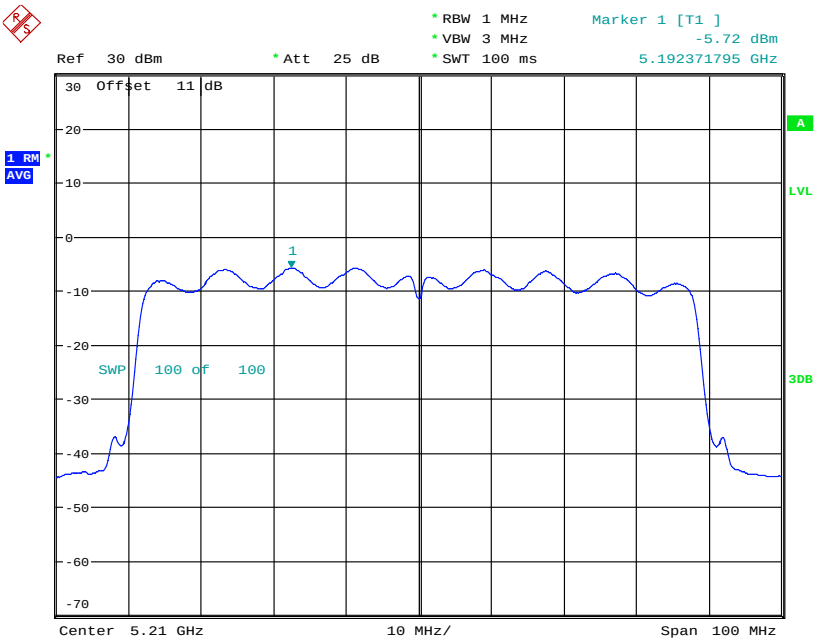
POWER DENSITY AV ANT111n20CH48
Date: 7.JUL.2017 13:46:25



POWER DENSITY AV ANT111n40CH38
Date: 7.JUL.2017 13:48:38



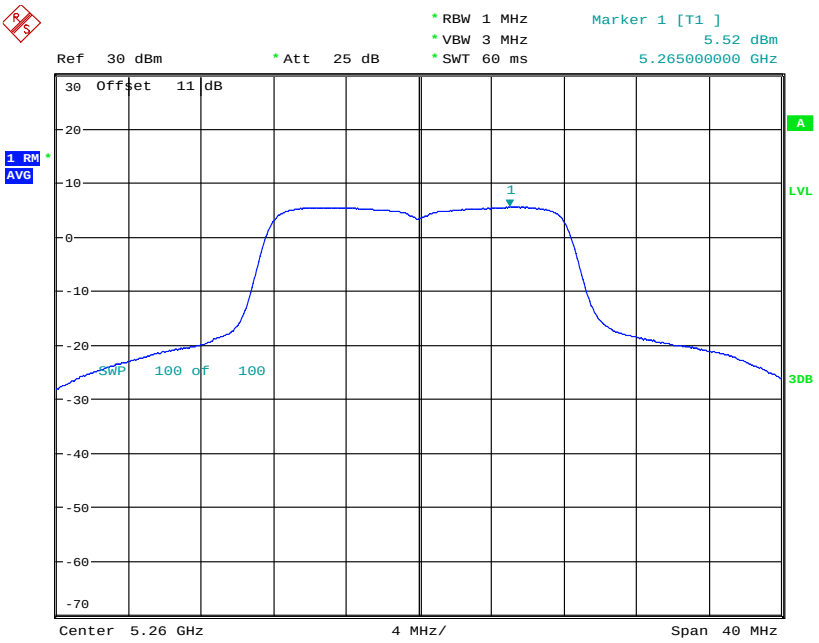
POWER DENSITY AV ANT111n40CH46
Date: 7.JUL.2017 13:55:22



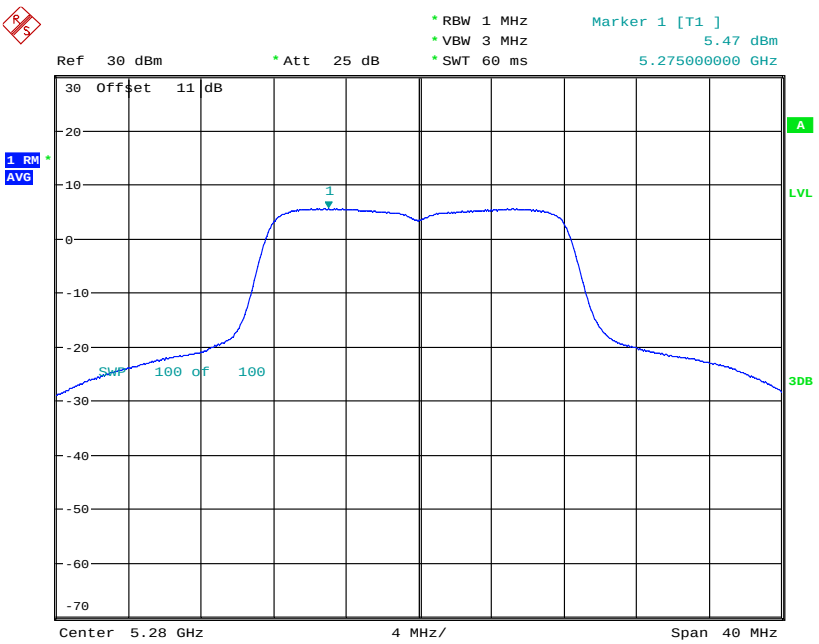
POWER DENSITY AV ANT111ac80CH42
Date: 7.JUL.2017 13:58:00

Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF

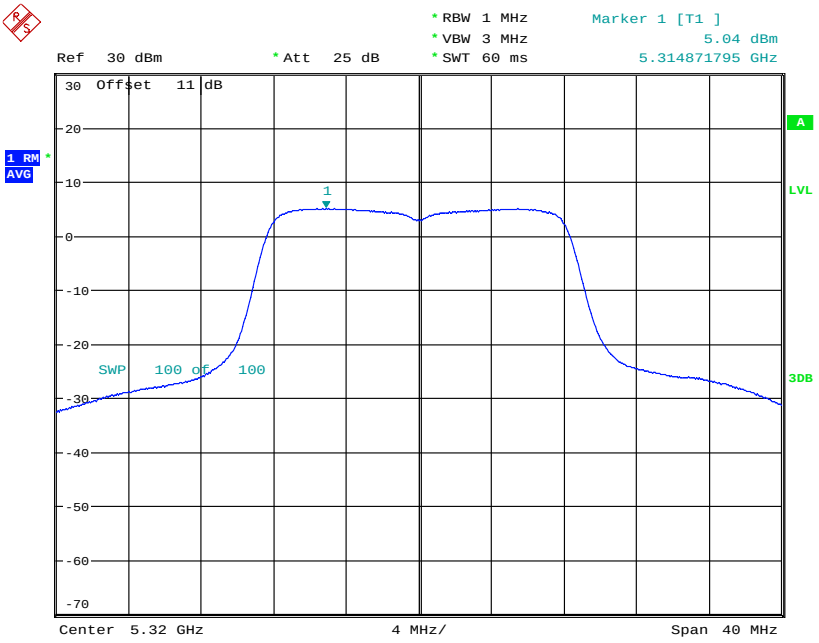
5.25 GHz ~ 5.35 GHz



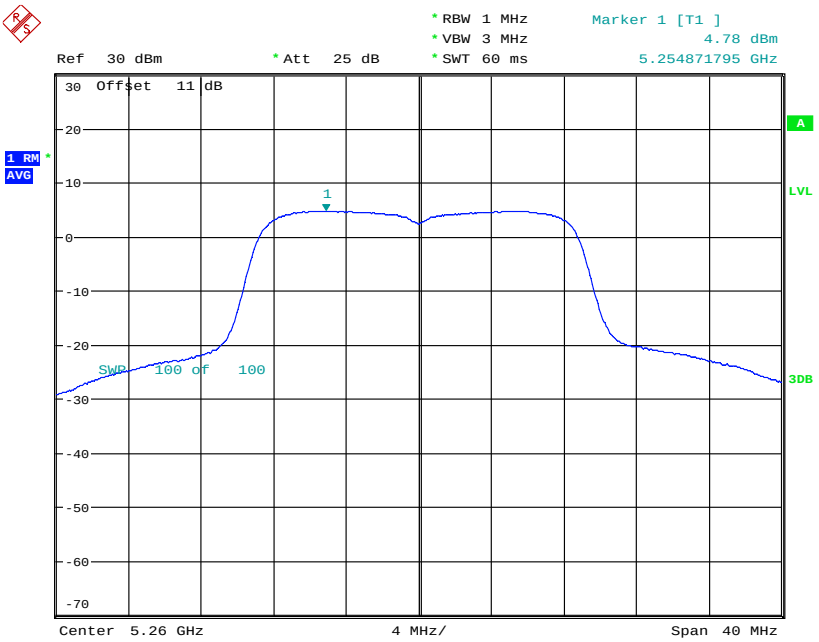
POWER DENSITY AV ANT111aCH52
Date: 7.JUL.2017 14:10:34



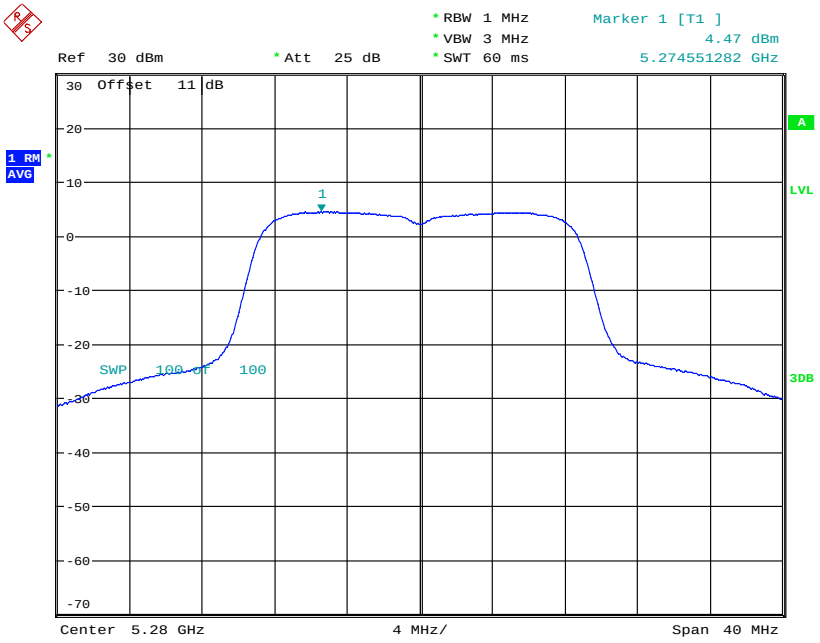
POWER DENSITY AV ANT111aCH56
Date: 7.JUL.2017 14:12:44



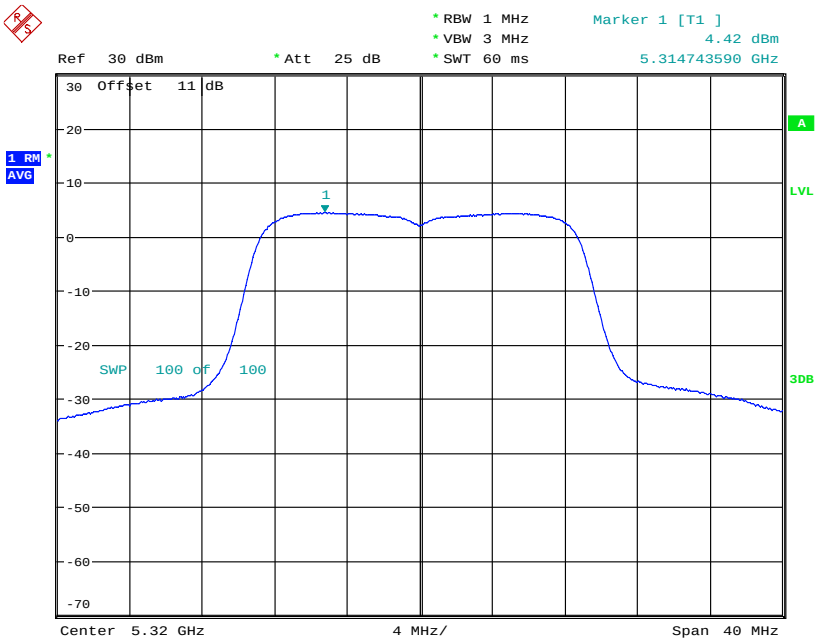
POWER DENSITY AV ANT111aCH64
Date: 7.JUL.2017 14:21:05



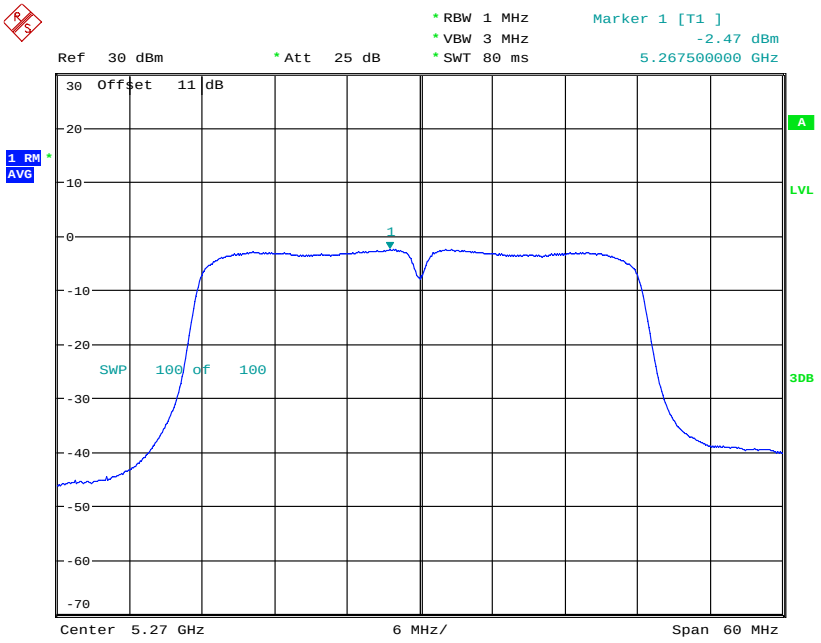
POWER DENSITY AV ANT111n20CH52
Date: 7.JUL.2017 14:25:31



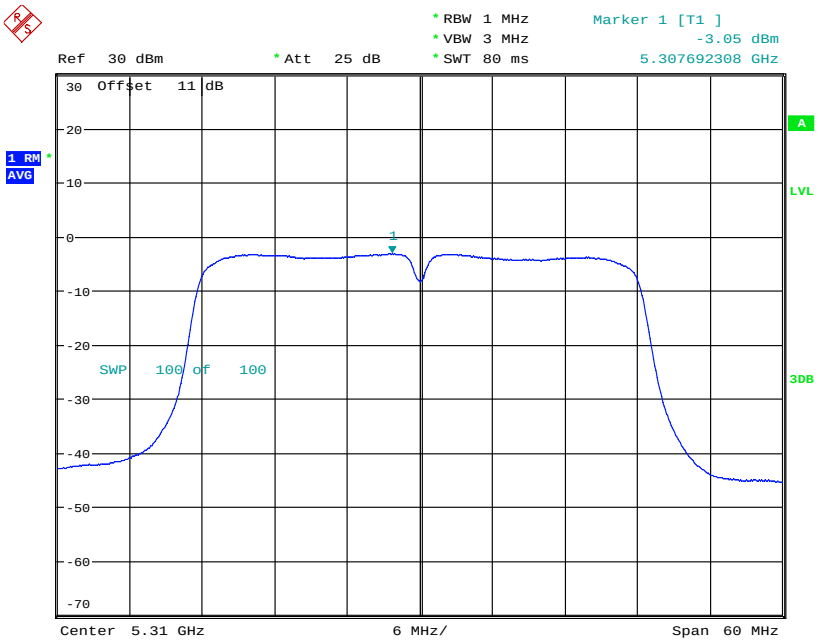
POWER DENSITY AV ANT111n20CH56
Date: 7.JUL.2017 14:31:55



POWER DENSITY AV ANT111n20CH64
Date: 7.JUL.2017 14:33:39

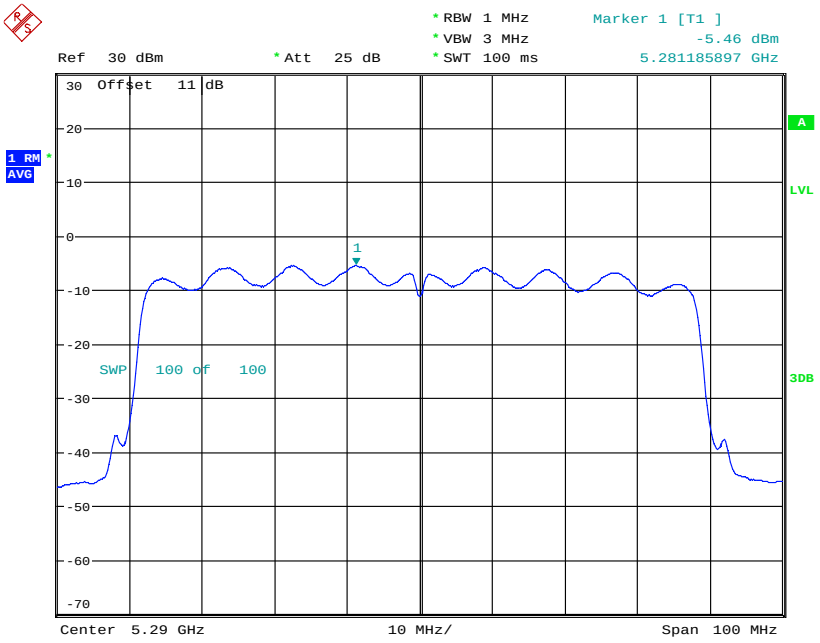


POWER DENSITY AV ANT111n40CH54
Date: 7.JUL.2017 14:39:45



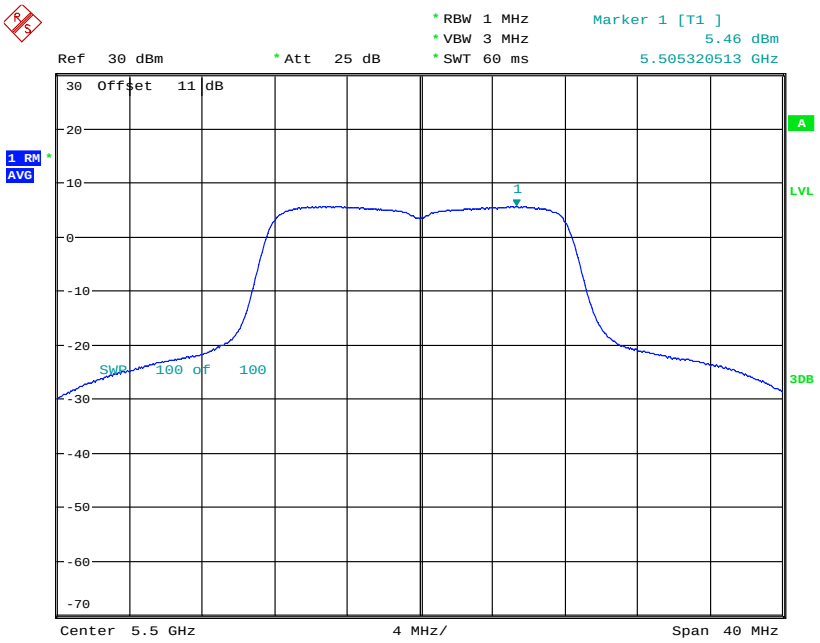
POWER DENSITY AV ANT111n40CH62
Date: 7.JUL.2017 14:41:37

Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF



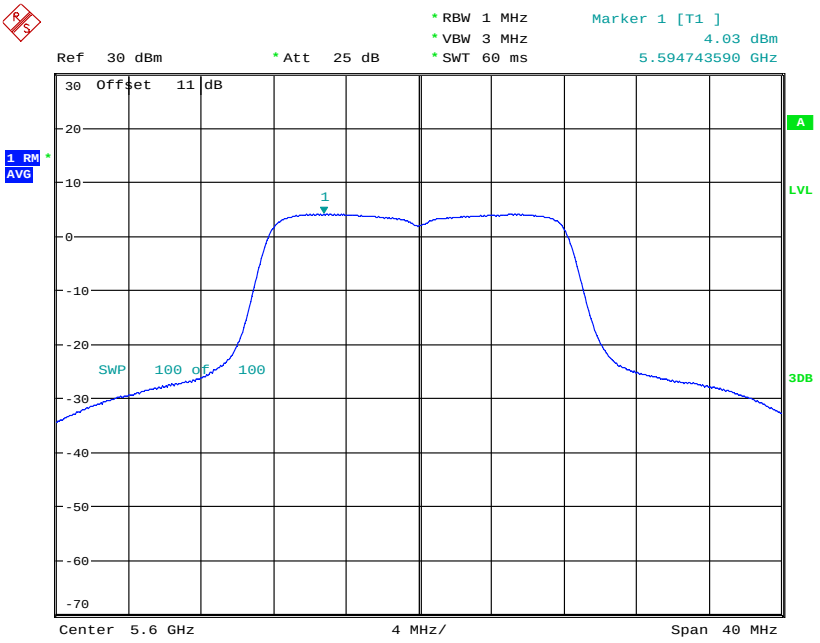
POWER DENSITY AV ANT111ac80CH58
Date: 7.JUL.2017 14:49:26

5.47 GHz ~ 5.725 GHz

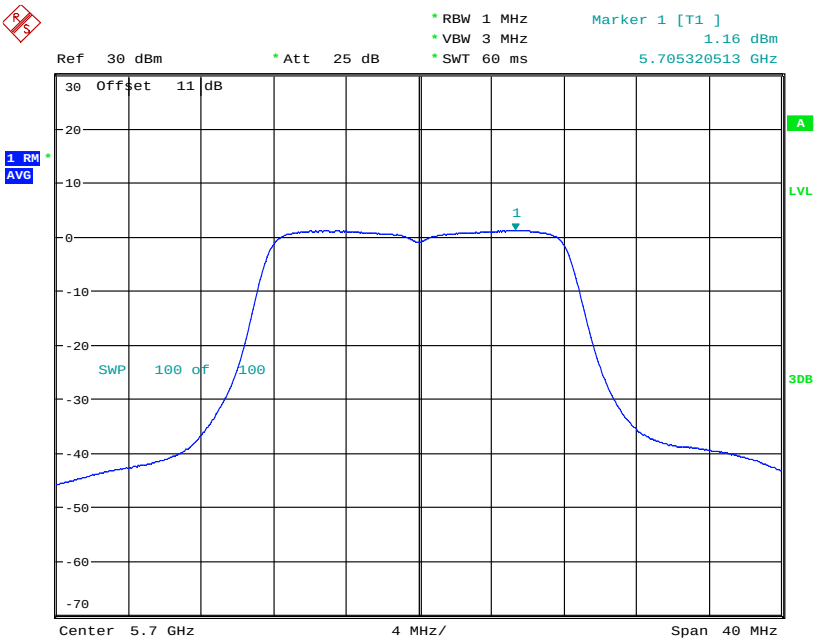


POWER DENSITY AV ANT111aCH100
Date: 7.JUL.2017 14:58:01

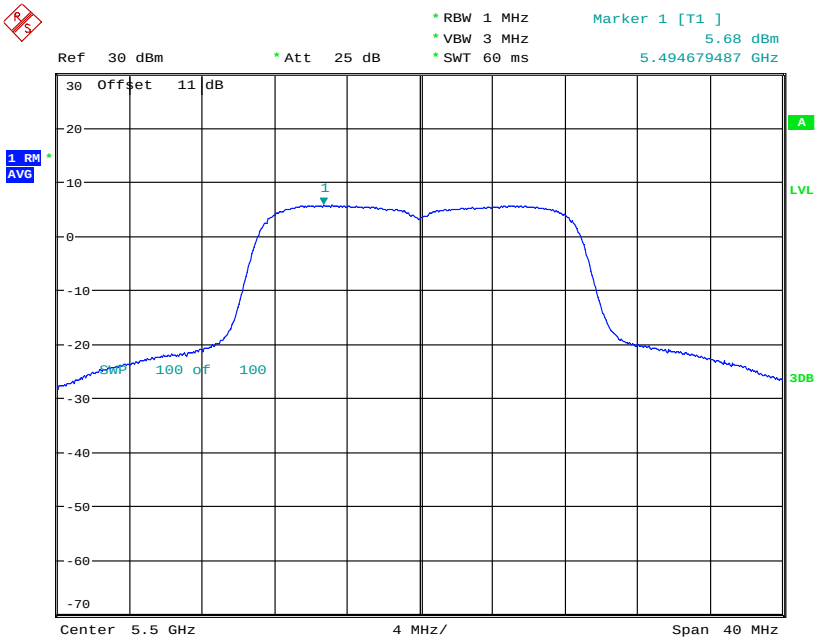
Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF



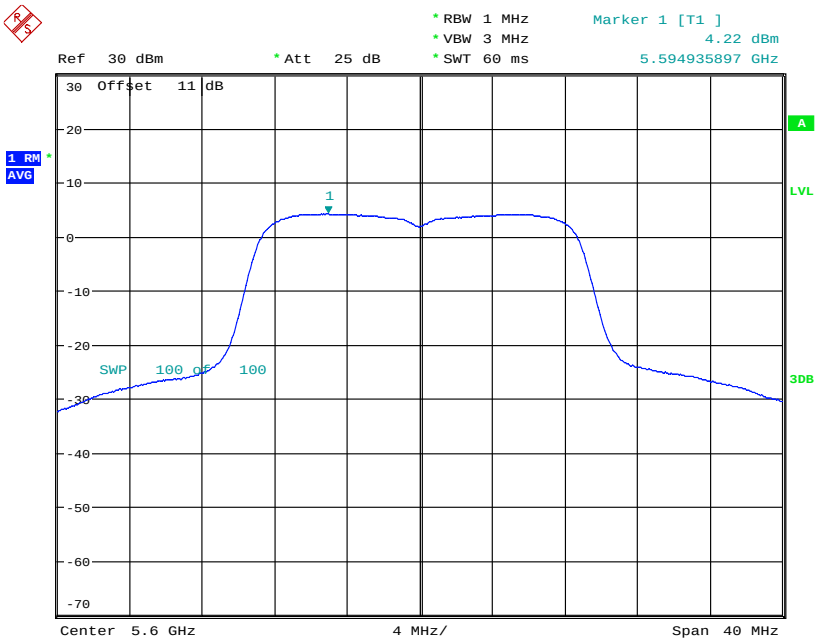
POWER DENSITY AV ANT111aCH120
Date: 7.JUL.2017 15:03:33



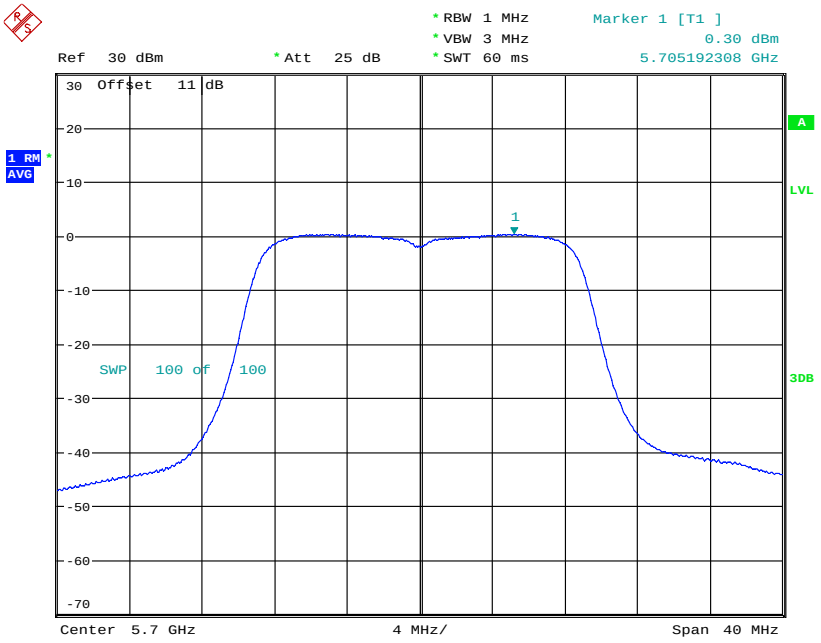
POWER DENSITY AV ANT111aCH140
Date: 7.JUL.2017 15:05:36



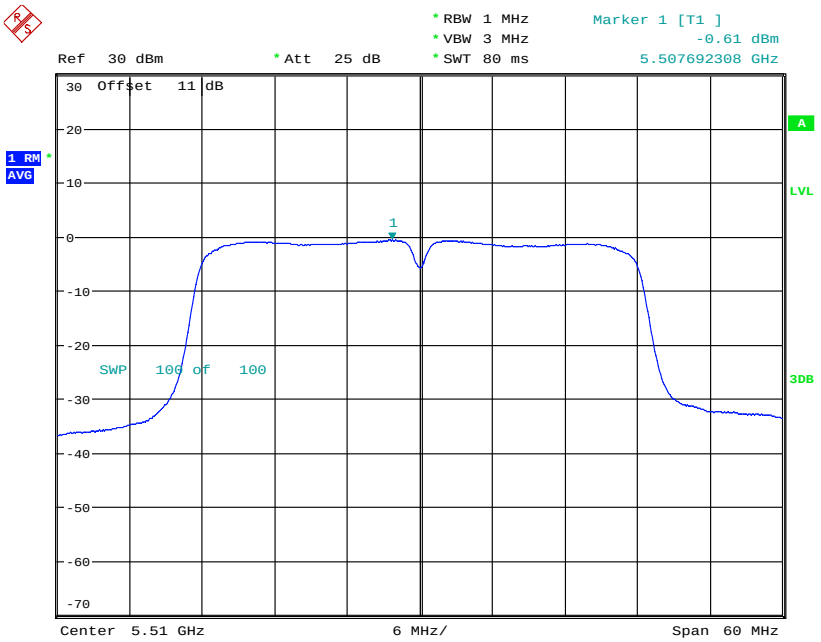
POWER DENSITY AV ANT111n20CH100
Date: 7.JUL.2017 15:37:33



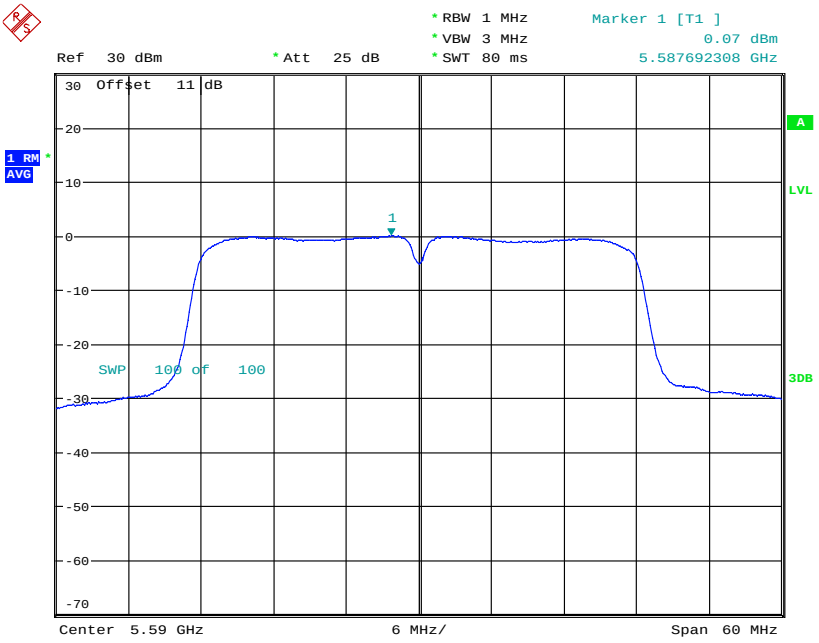
POWER DENSITY AV ANT111n20CH120
Date: 7.JUL.2017 15:39:24



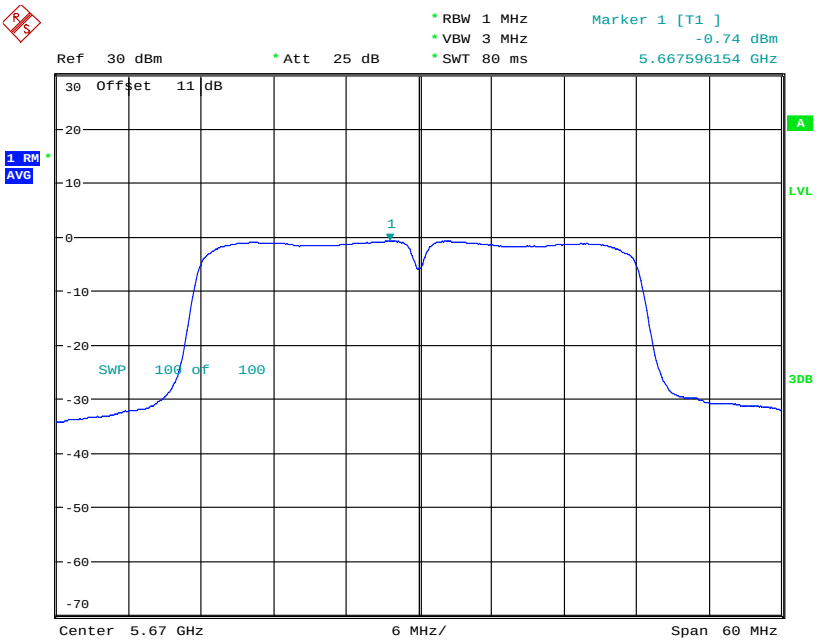
POWER DENSITY AV ANT111n20CH140
Date: 7.JUL.2017 15:48:49



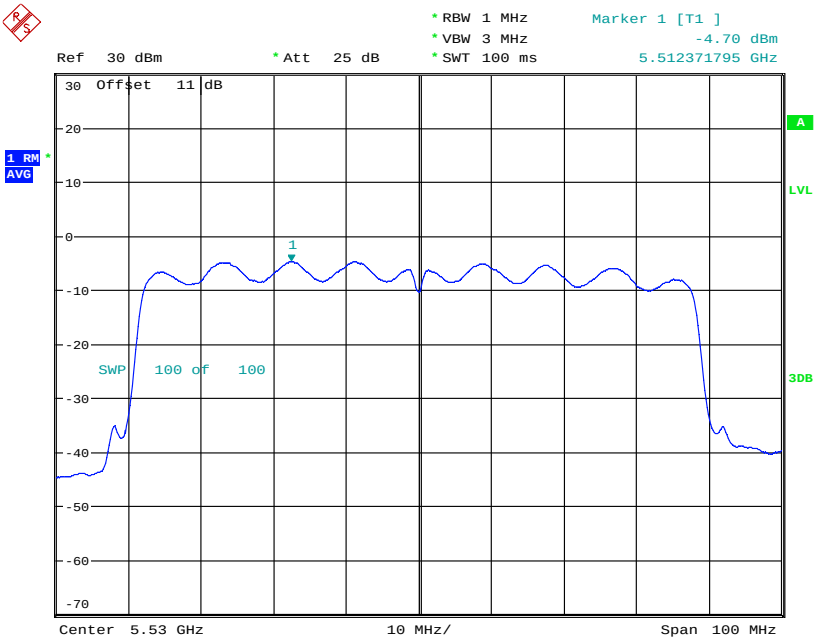
POWER DENSITY AV ANT111n40CH102
Date: 7.JUL.2017 15:50:59



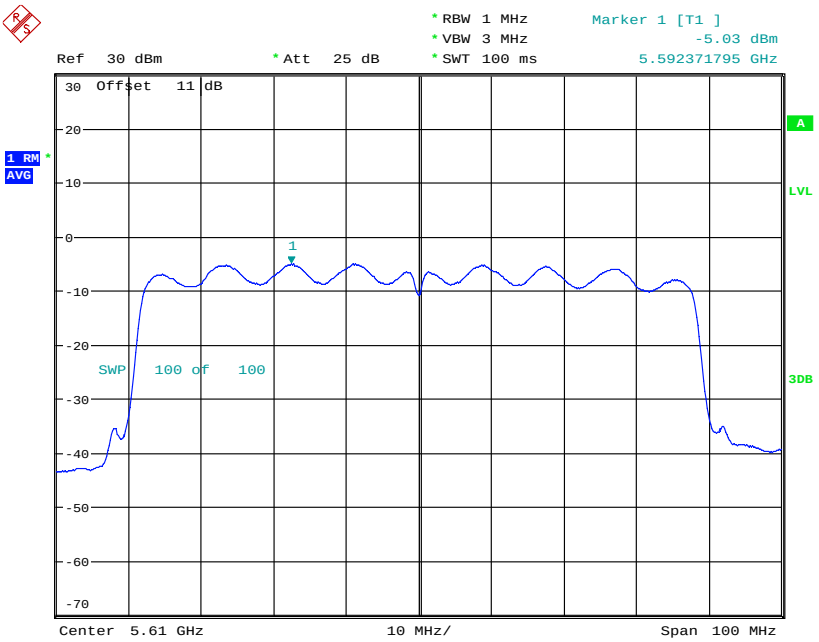
POWER DENSITY AV ANT111n40CH118
Date: 7.JUL.2017 15:58:07



POWER DENSITY AV ANT111n40CH134
Date: 7.JUL.2017 16:00:14



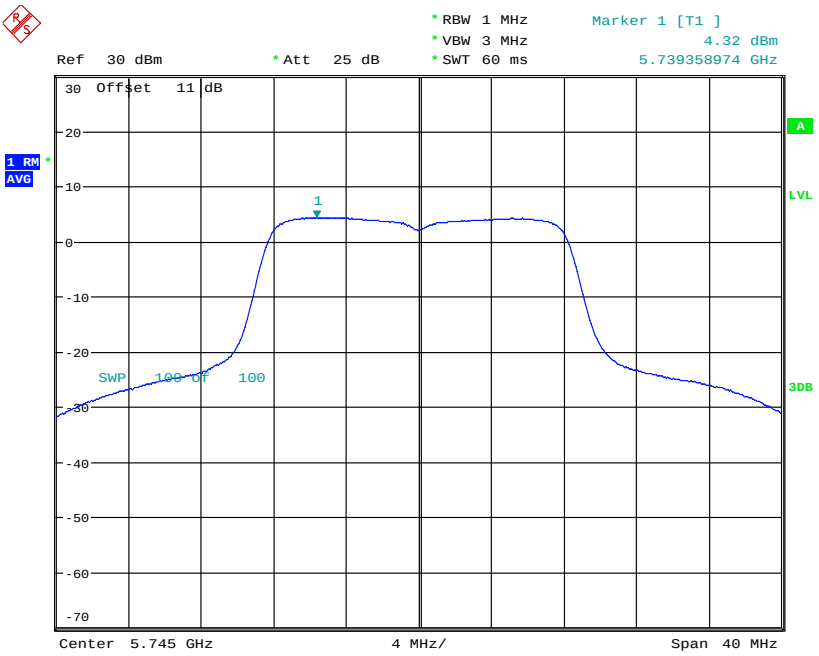
POWER DENSITY AV ANT111ac80CH106
Date: 7.JUL.2017 16:18:23



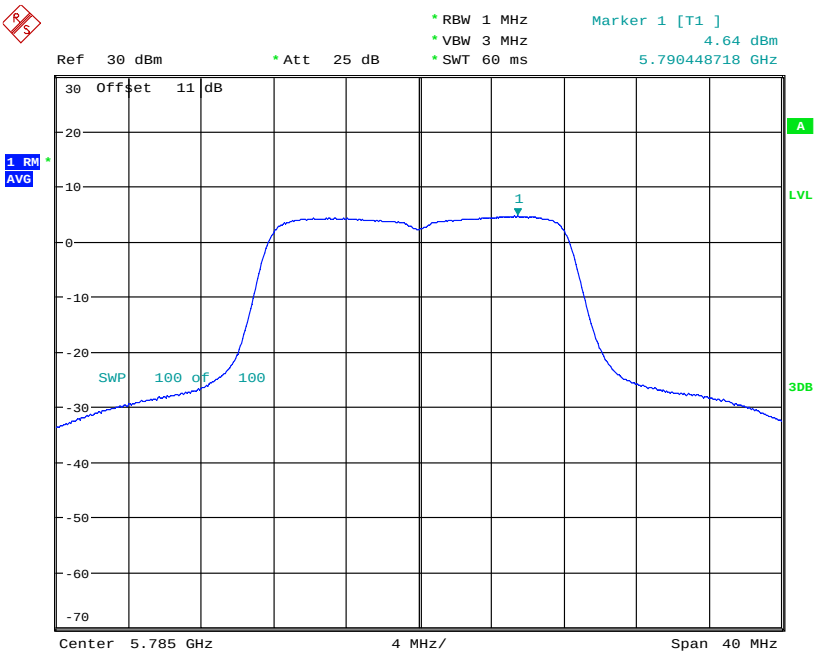
POWER DENSITY AV ANT111ac80CH122
Date: 7.JUL.2017 16:23:29

Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF

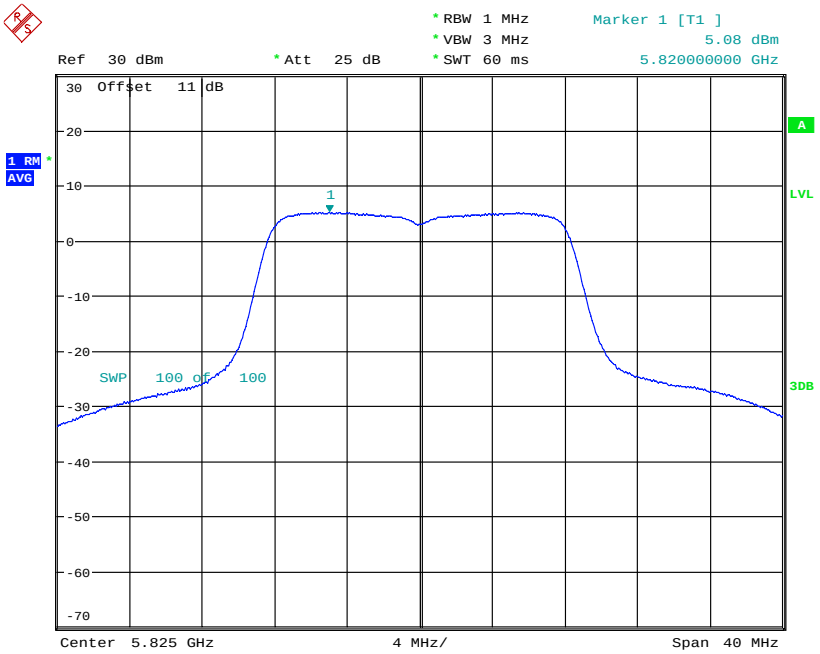
5.725 GHz ~ 5.85 GHz



POWER DENSITY AV ANT111aCH149
Date: 7.JUL.2017 16:37:21

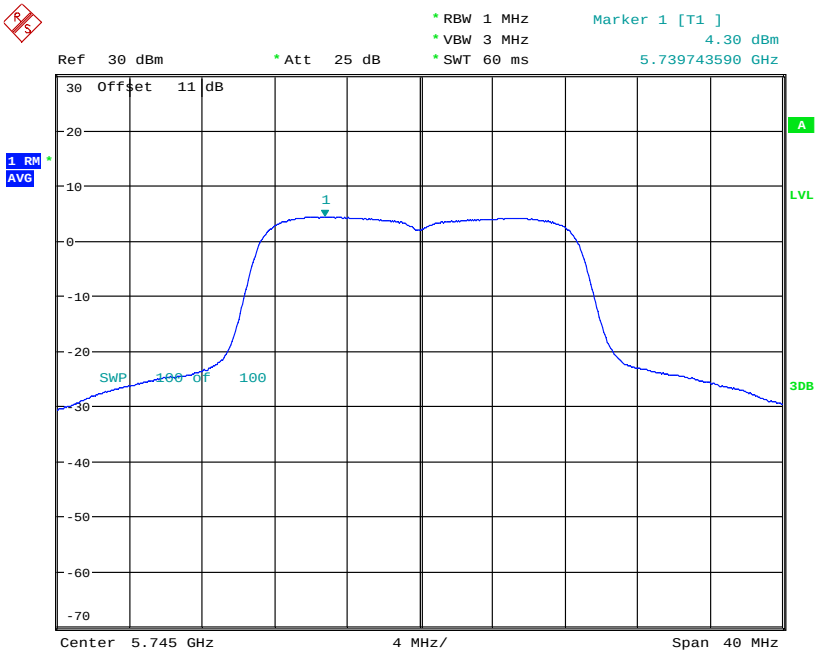


POWER DENSITY AV ANT111aCH157
Date: 7.JUL.2017 16:40:29



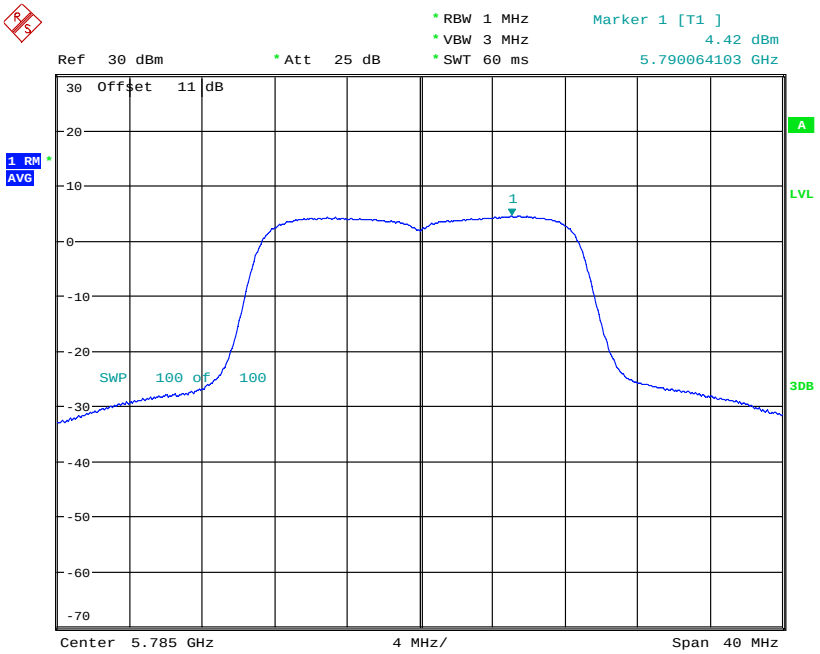
POWER DENSITY AV ANT111aCH165

Date: 7.JUL.2017 16:45:54



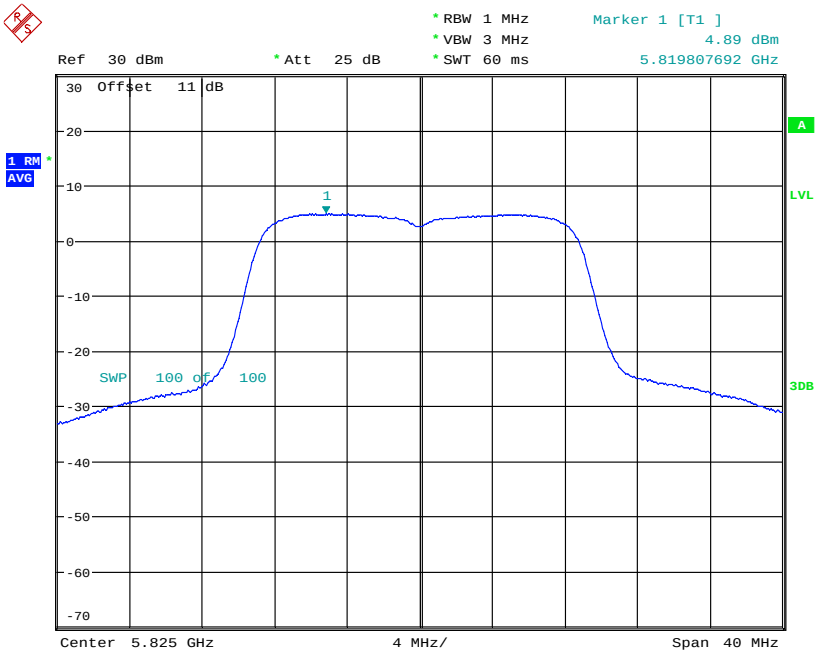
POWER DENSITY AV ANT111n20CH149

Date: 7.JUL.2017 16:47:51



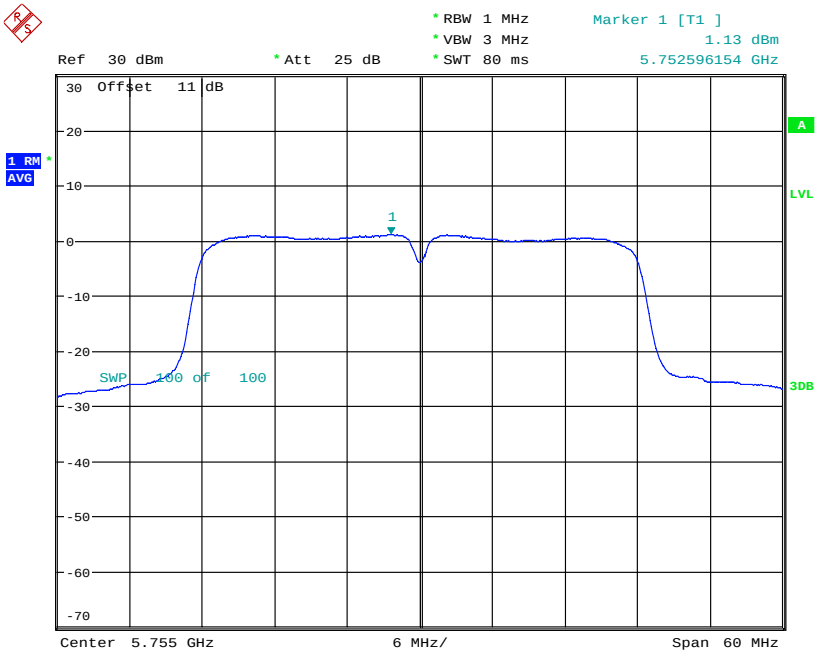
POWER DENSITY AV ANT111n20CH157

Date: 7.JUL.2017 16:53:03



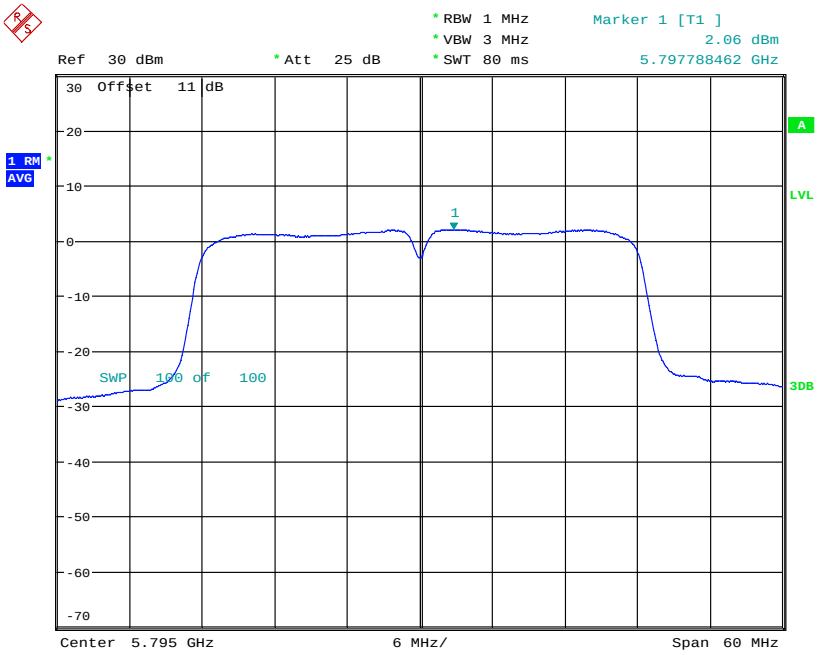
POWER DENSITY AV ANT111n20CH165

Date: 7.JUL.2017 16:54:41



POWER DENSITY AV ANT111n40CH151

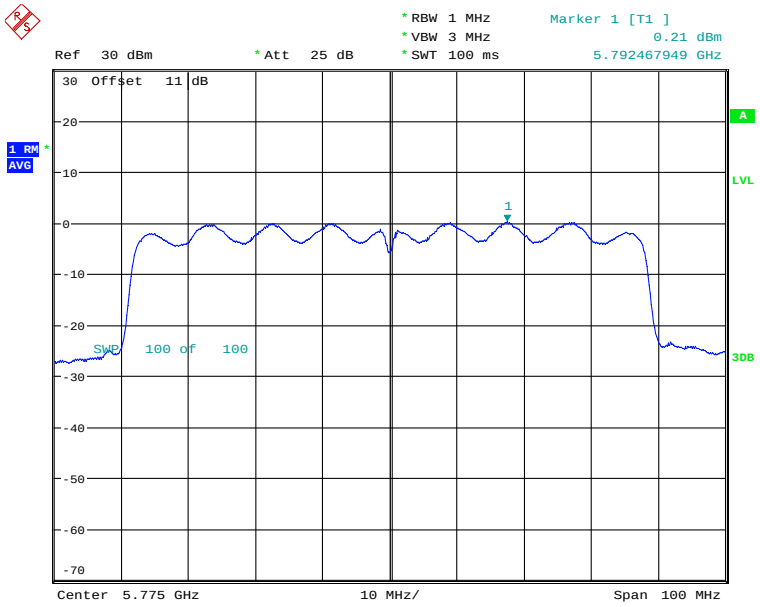
Date: 7.JUL.2017 17:00:14



POWER DENSITY AV ANT111n40CH159

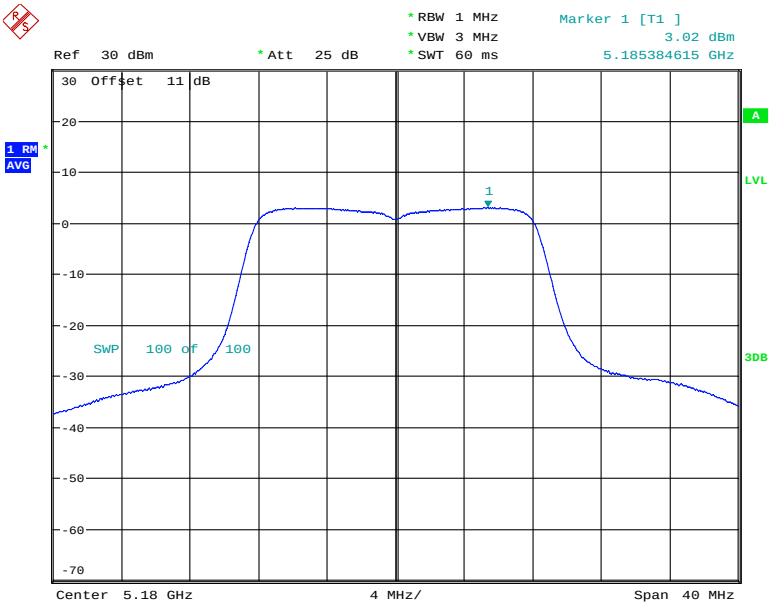
Date: 7.JUL.2017 17:02:14

Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF

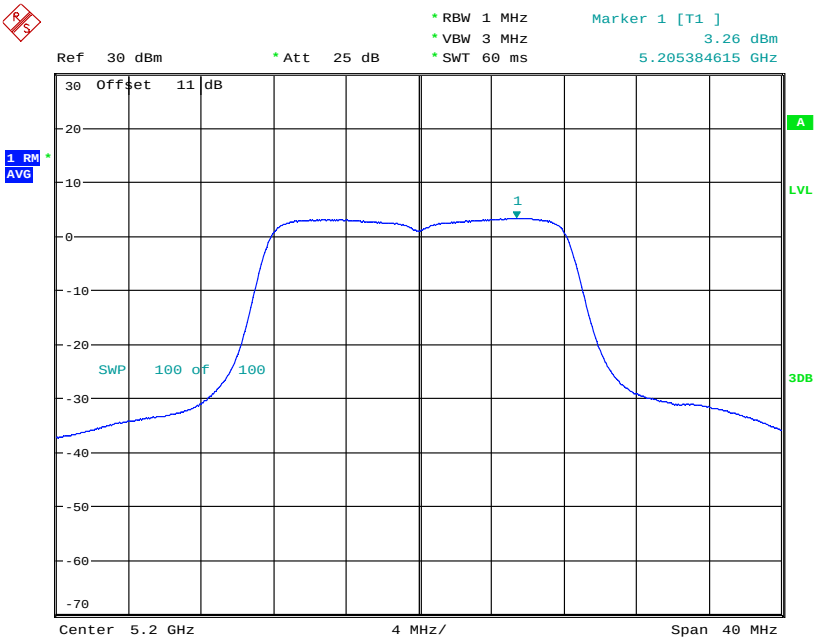


POWER DENSITY AV ANT111ac80CH155
Date: 7.JUL.2017 17:10:14

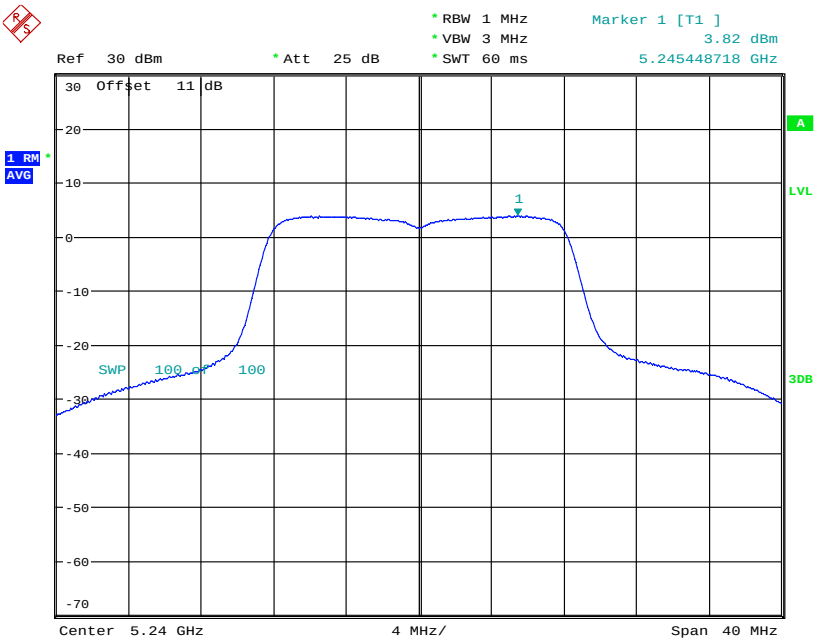
ANTB
5.15 GHz ~ 5.25 GHz



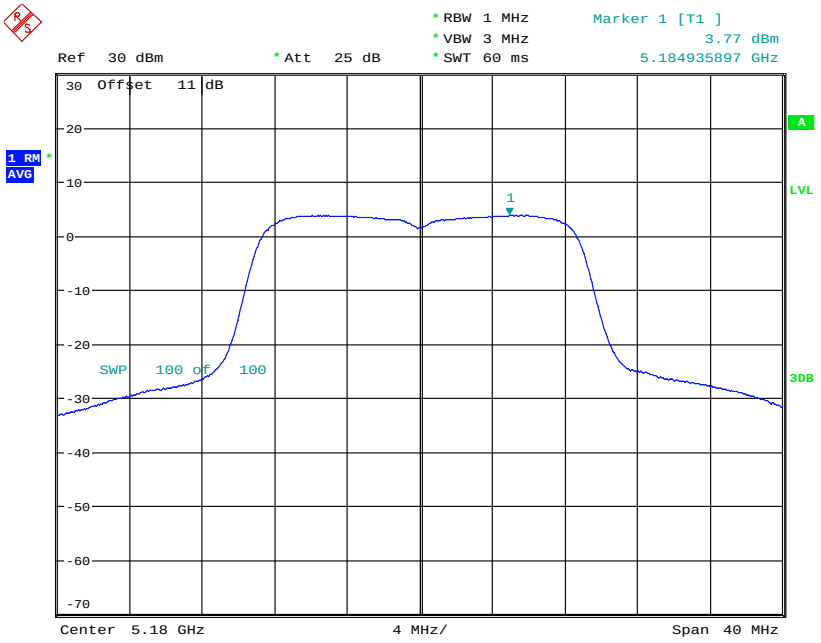
POWER DENSITY AV ANT211aCH36
Date: 7.JUL.2017 13:19:40



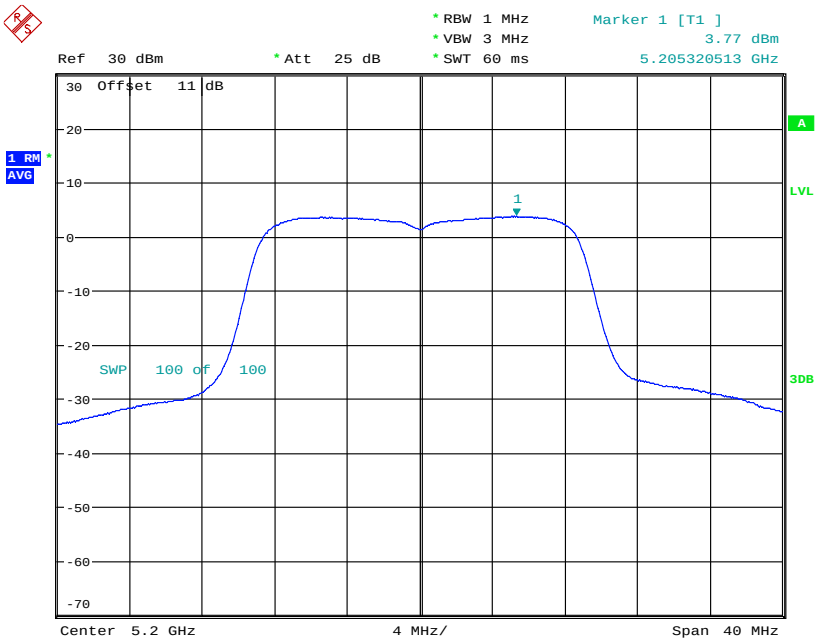
POWER DENSITY AV ANT211aCH40
Date: 7.JUL.2017 13:22:42



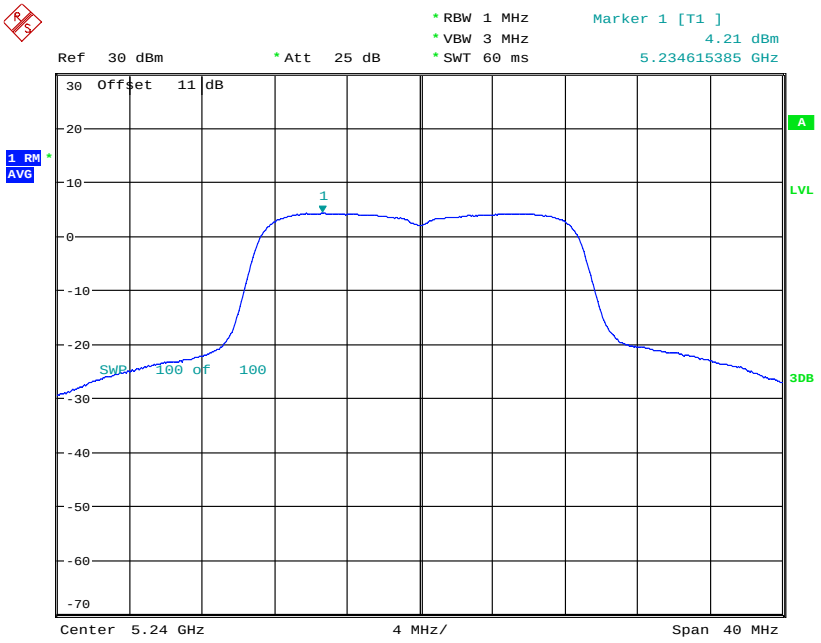
POWER DENSITY AV ANT211aCH48
Date: 7.JUL.2017 13:28:33



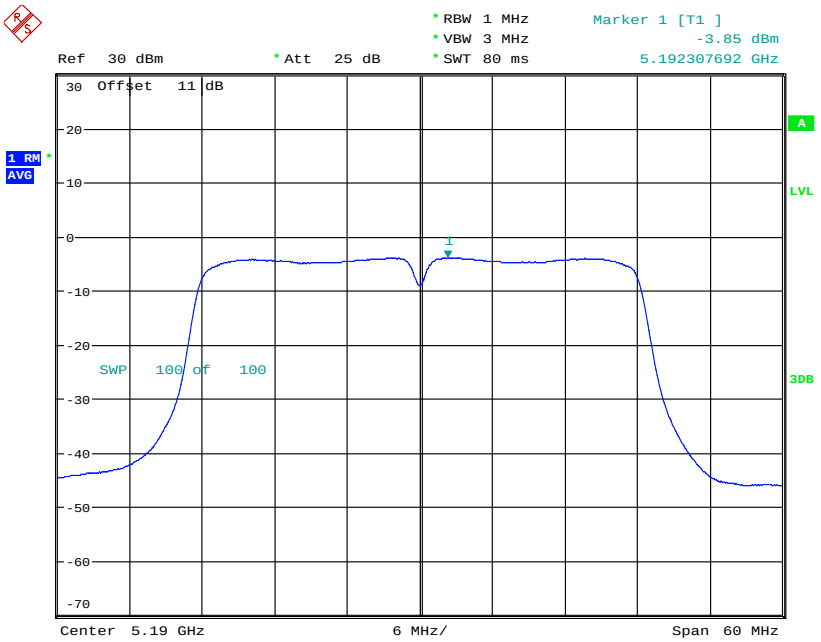
POWER DENSITY AV ANT211n20CH36
Date: 7.JUL.2017 13:33:06



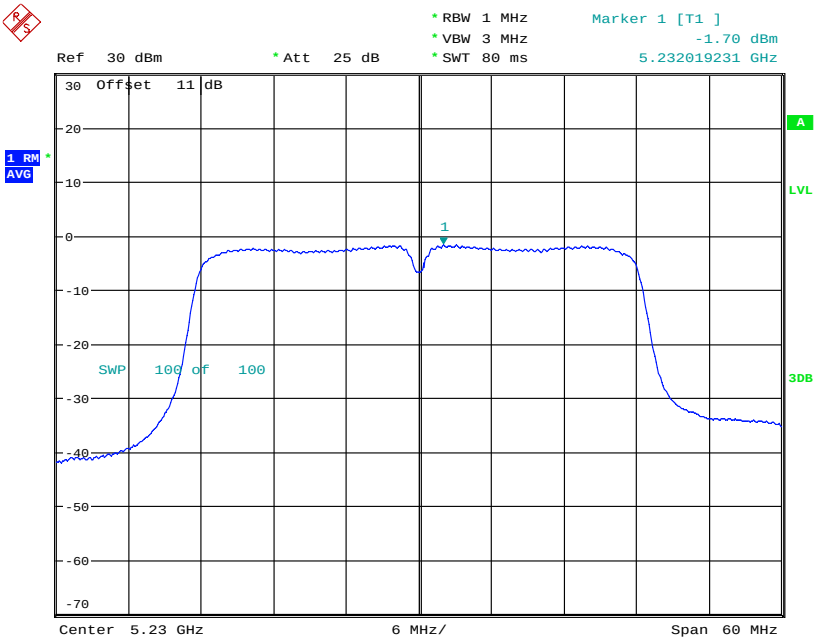
POWER DENSITY AV ANT211n20CH40
Date: 7.JUL.2017 13:41:52



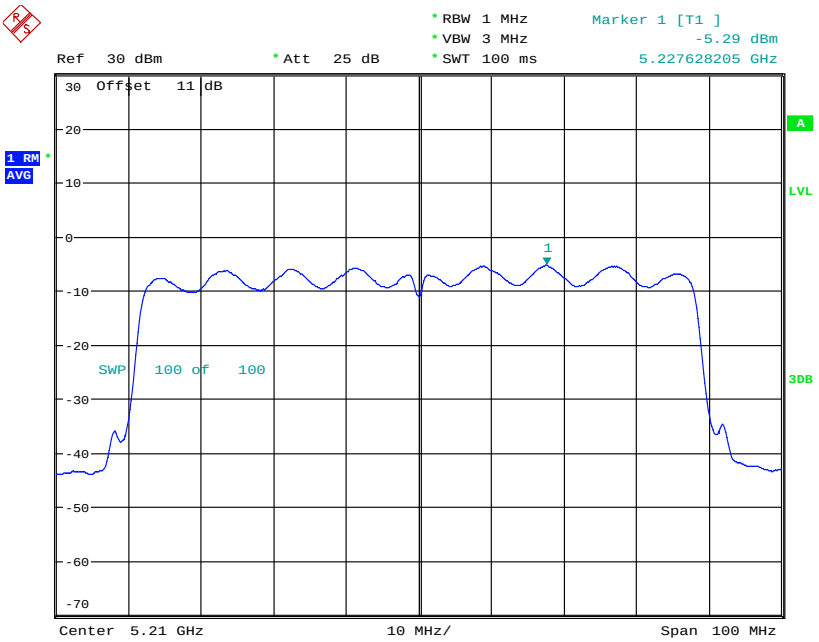
POWER DENSITY AV ANT211n20CH48
Date: 7.JUL.2017 13:44:35



POWER DENSITY AV ANT211n40CH38
Date: 7.JUL.2017 13:50:15



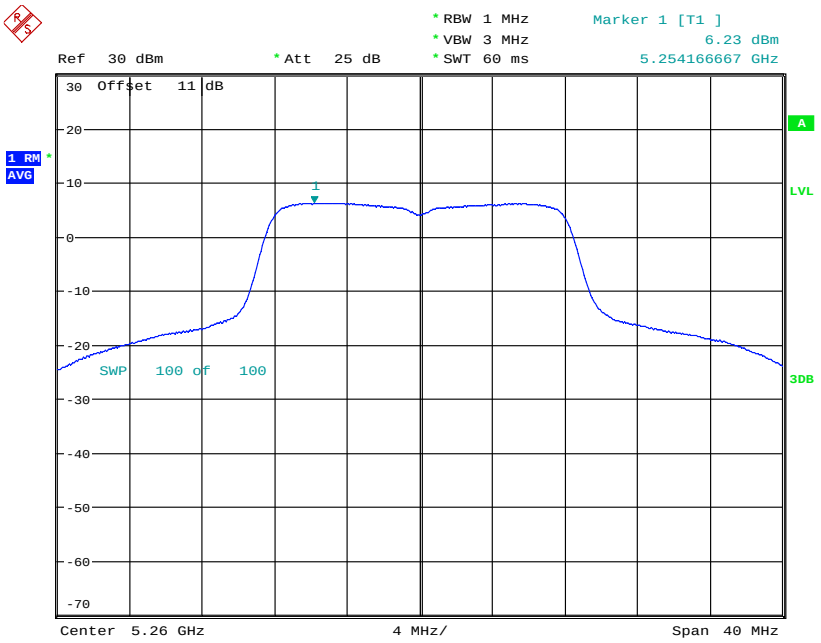
POWER DENSITY AV ANT211n40CH46
Date: 7.JUL.2017 13:52:15



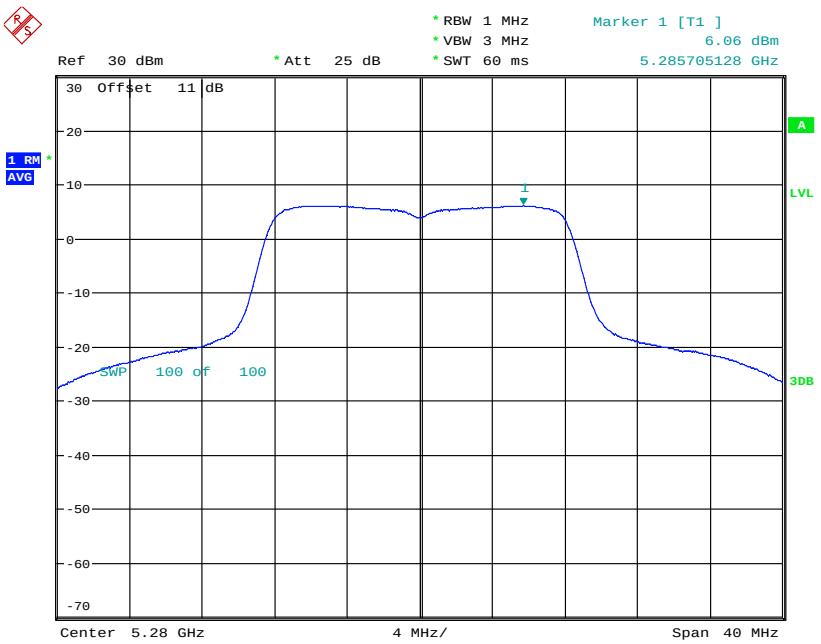
POWER DENSITY AV ANT211ac80CH42
Date: 7.JUL.2017 14:03:32

Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF

5.25 GHz ~ 5.35 GHz

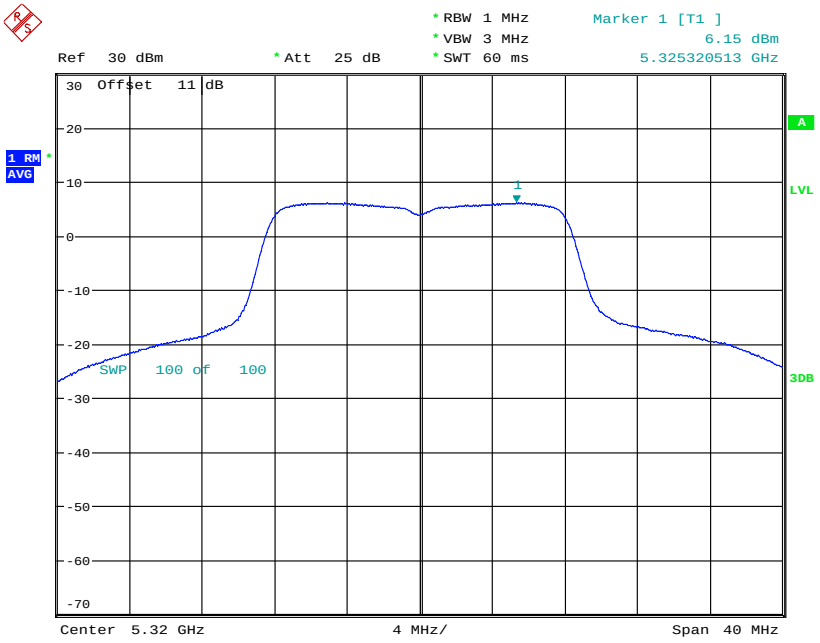


POWER DENSITY AV ANT211aCH52
Date: 7.JUL.2017 14:08:05

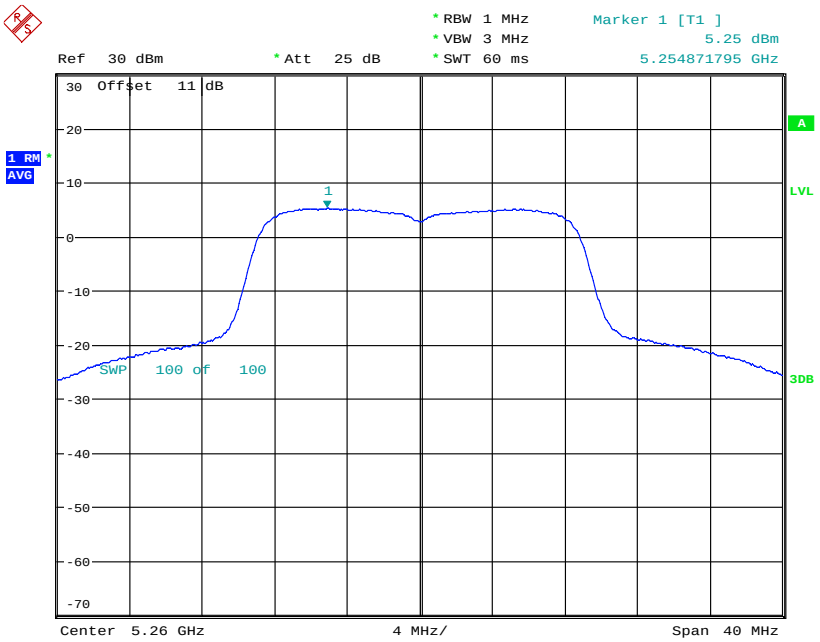


POWER DENSITY AV ANT211aCH56
Date: 7.JUL.2017 14:14:35

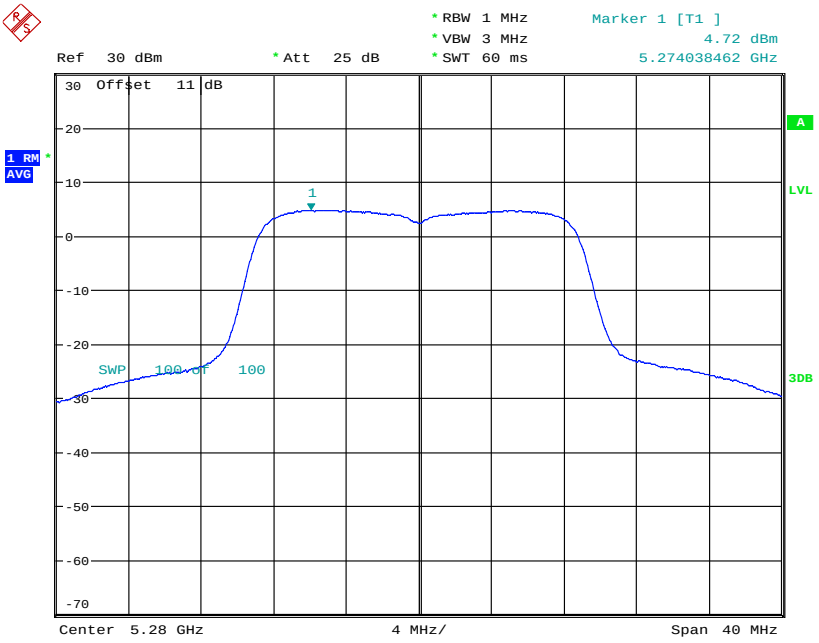
Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF



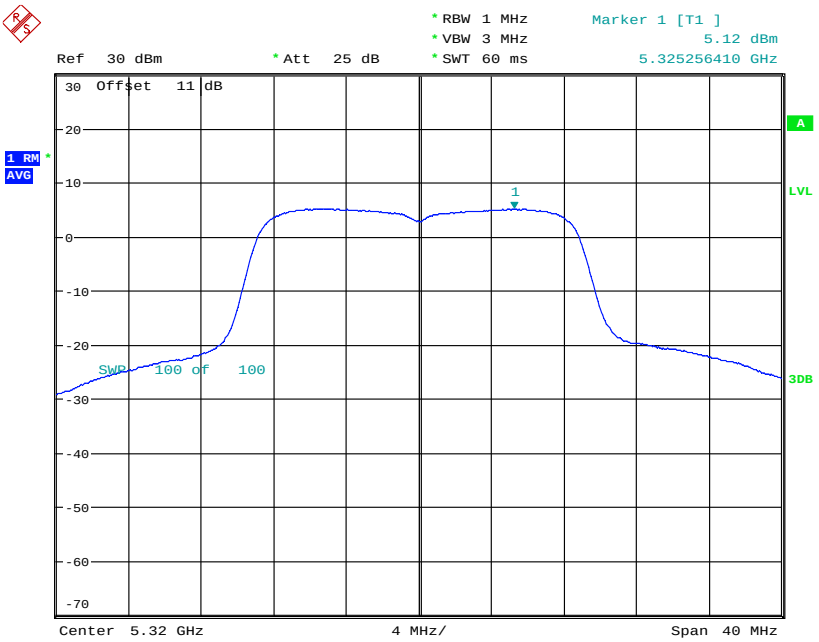
POWER DENSITY AV ANT211aCH64
Date: 7.JUL.2017 14:18:48



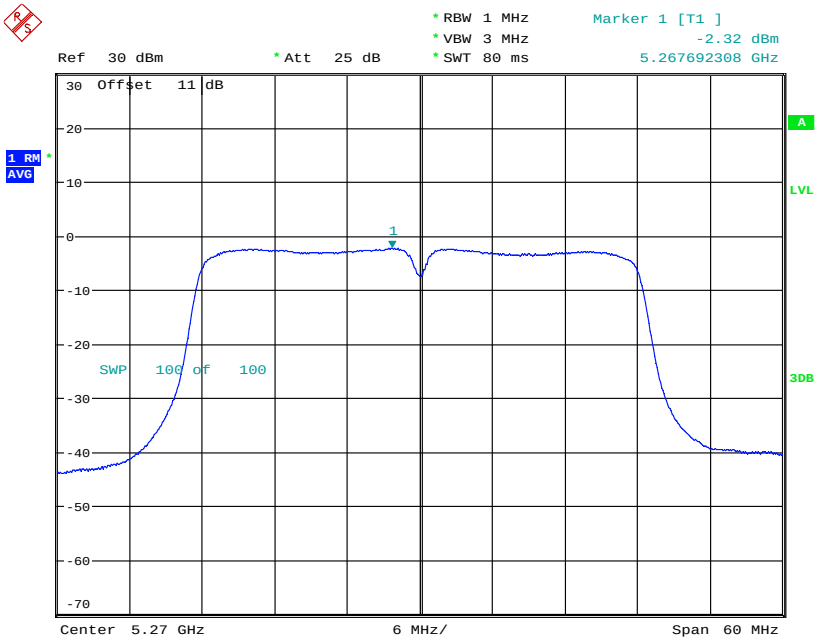
POWER DENSITY AV ANT211n20CH52
Date: 7.JUL.2017 14:27:15



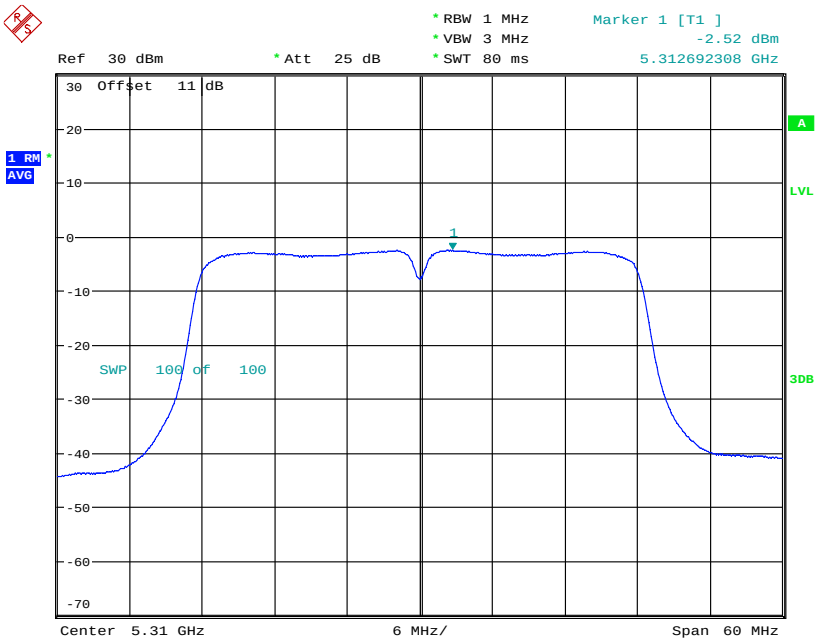
POWER DENSITY AV ANT211n20CH56
Date: 7.JUL.2017 14:29:25



POWER DENSITY AV ANT211n20CH64
Date: 7.JUL.2017 14:35:10

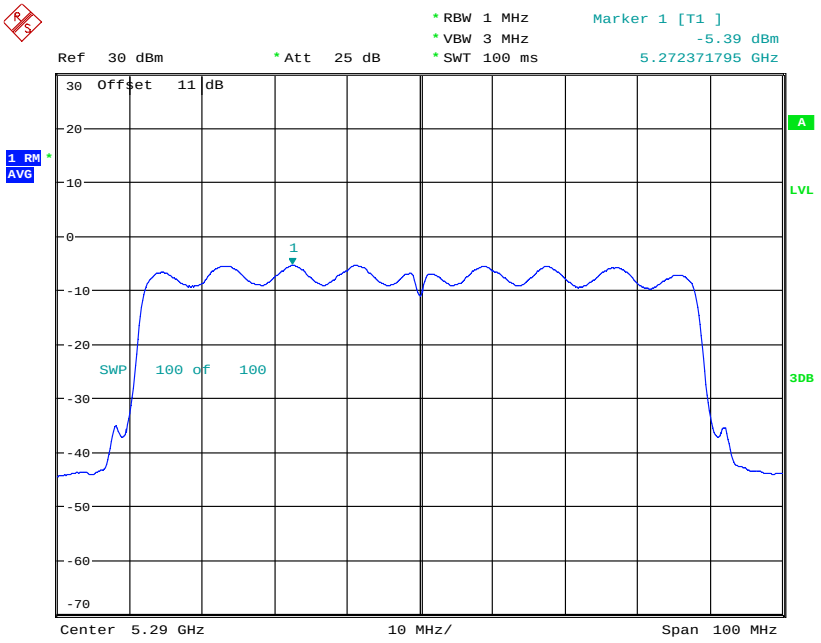


POWER DENSITY AV ANT211n40CH54
Date: 7.JUL.2017 14:38:00



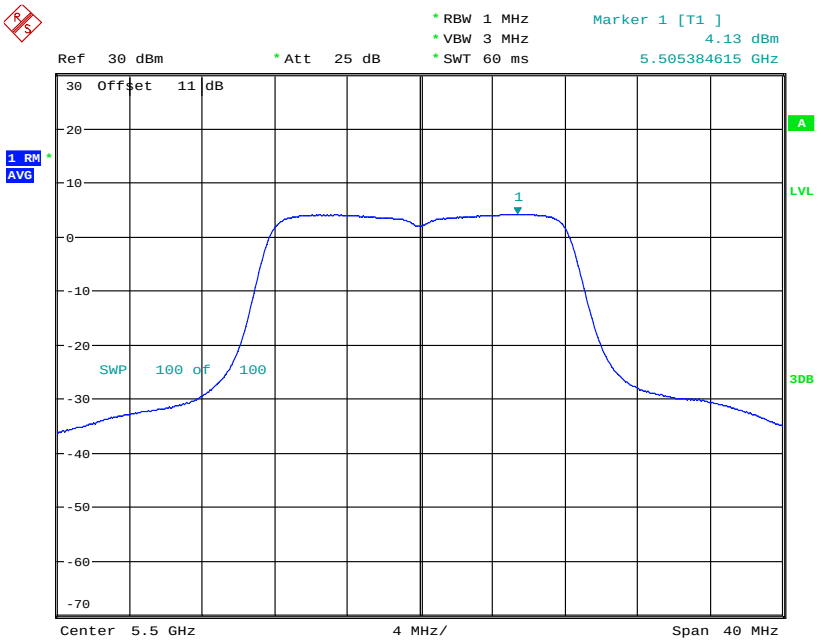
POWER DENSITY AV ANT211n40CH62
Date: 7.JUL.2017 14:43:22

Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF

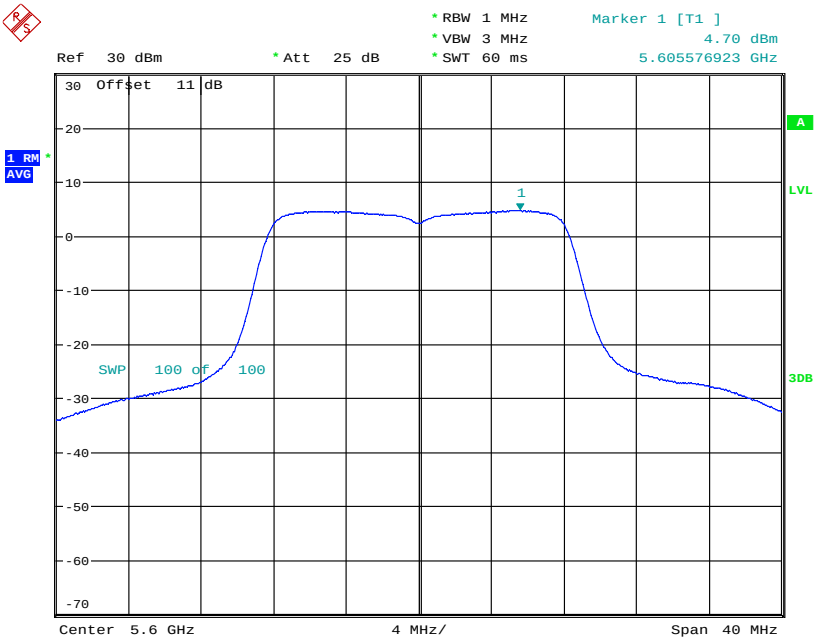


POWER DENSITY AV ANT211ac80CH58
Date: 7.JUL.2017 14:46:36

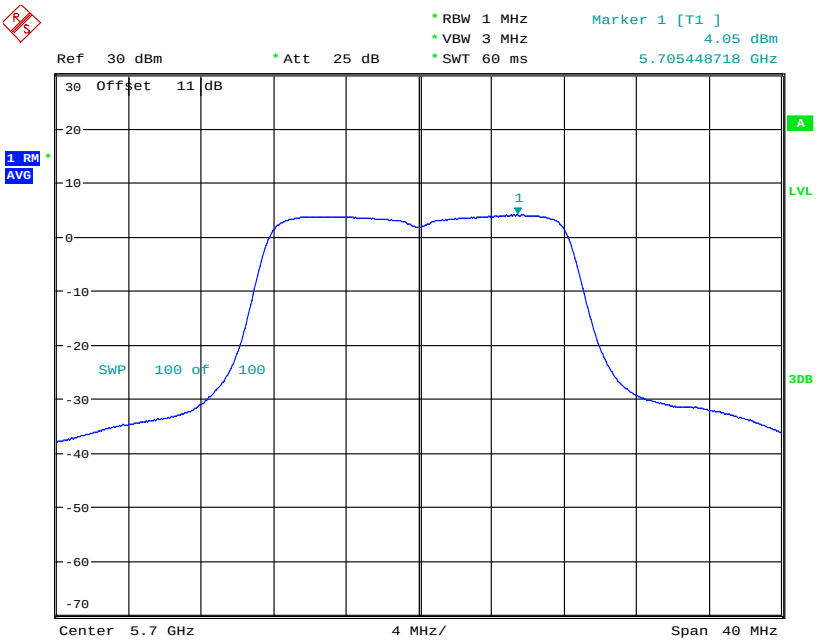
5.47 GHz ~ 5.725 GHz



POWER DENSITY AV ANT211aCH100
Date: 7.JUL.2017 14:59:39

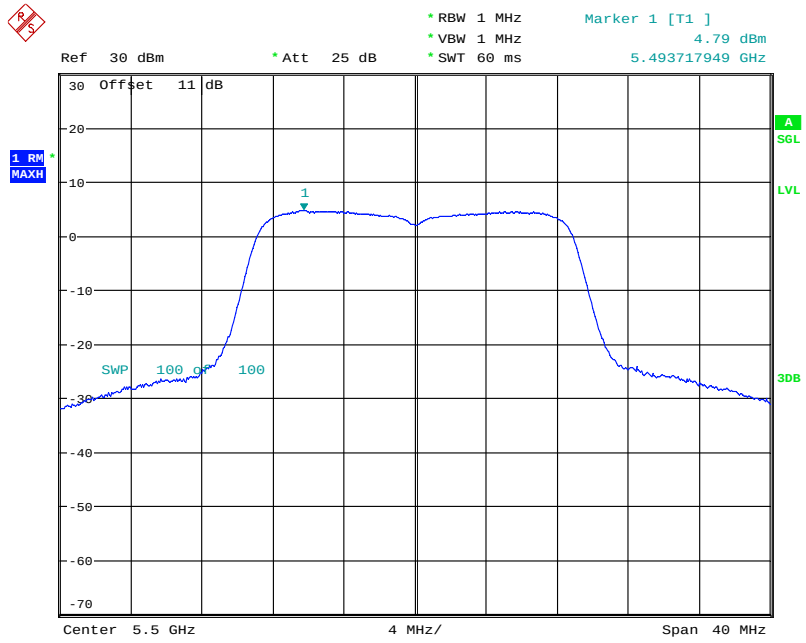


POWER DENSITY AV ANT211aCH120
Date: 7.JUL.2017 15:01:49

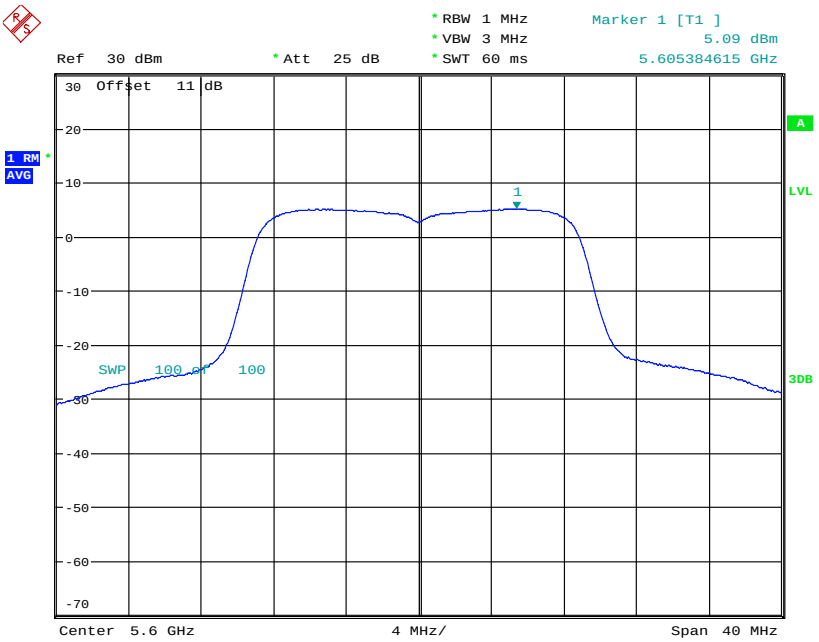


POWER DENSITY AV ANT211aCH140
Date: 7.JUL.2017 15:34:18

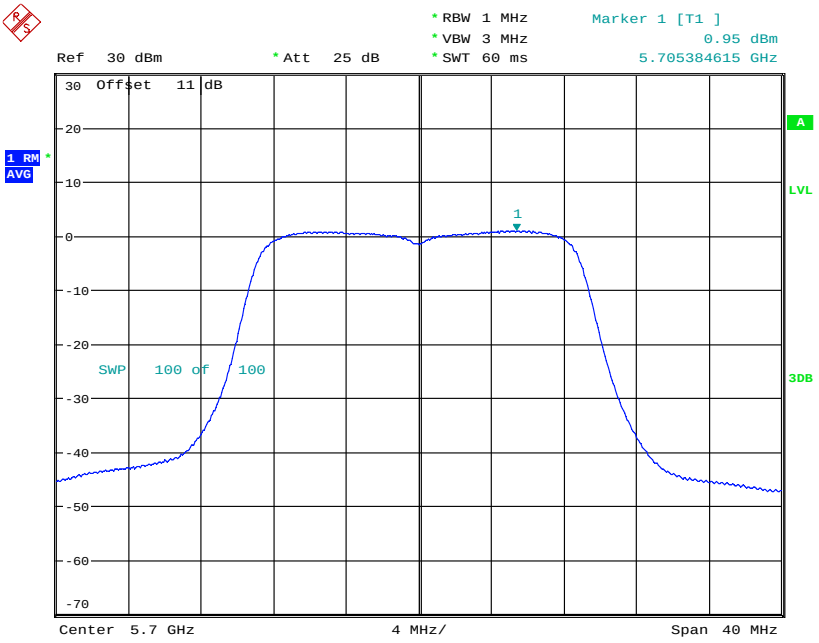
Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF



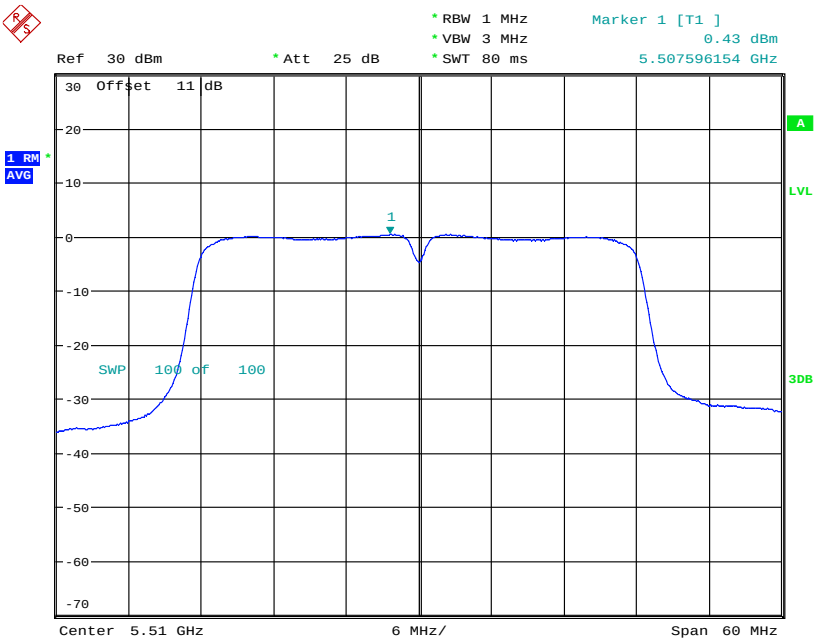
POWER DENSITY AV ANT211n20CH100
Date: 24.JUL.2017 10:33:09



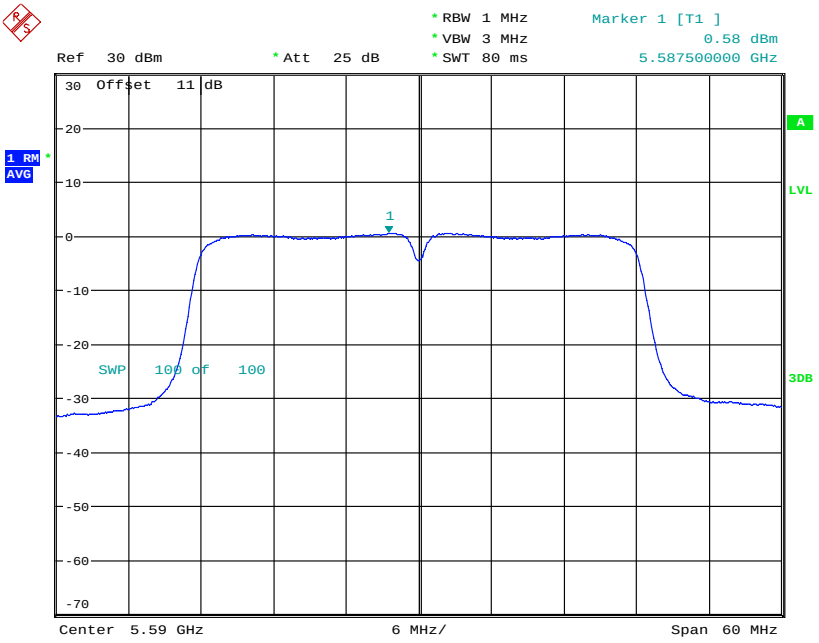
POWER DENSITY AV ANT211n20CH120
Date: 7.JUL.2017 15:45:02



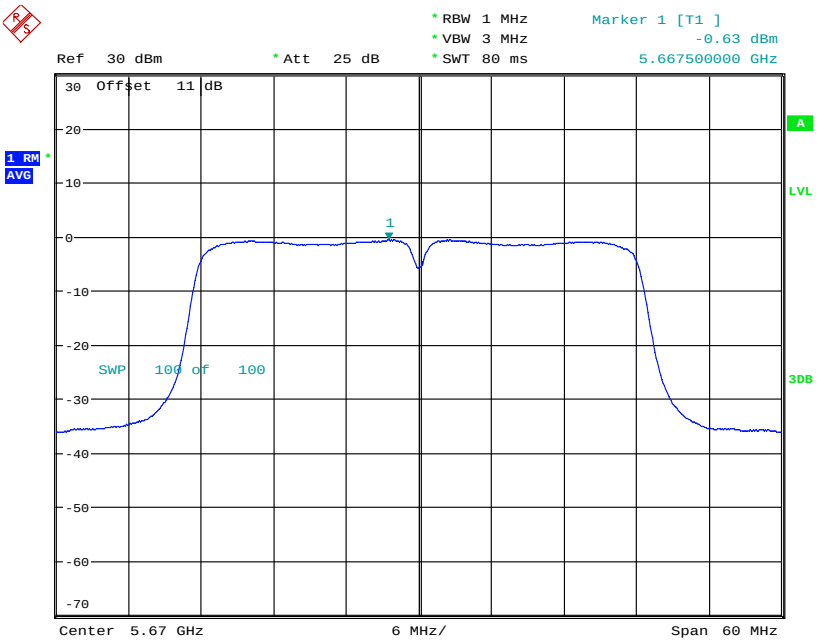
POWER DENSITY AV ANT211n20CH140
Date: 7.JUL.2017 15:46:52



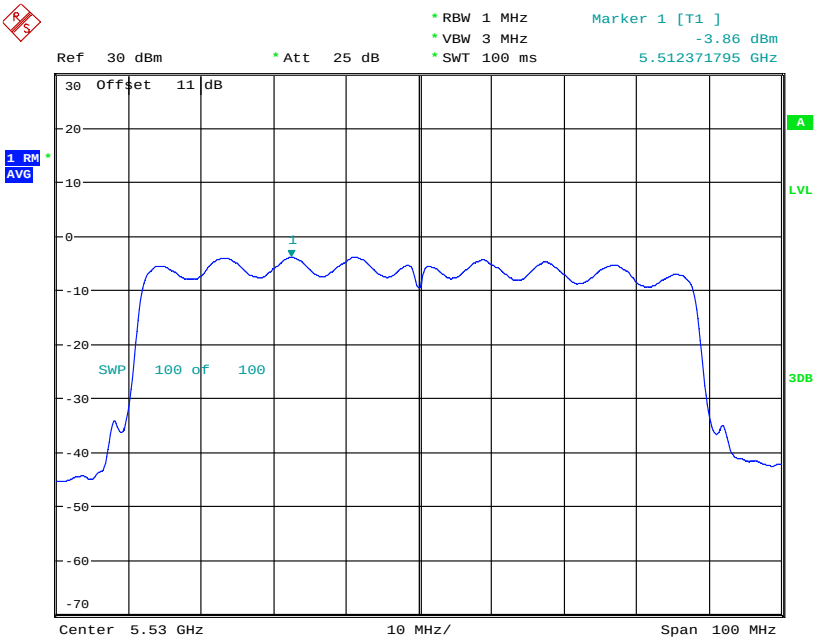
POWER DENSITY AV ANT211n40CH102
Date: 7.JUL.2017 15:54:14



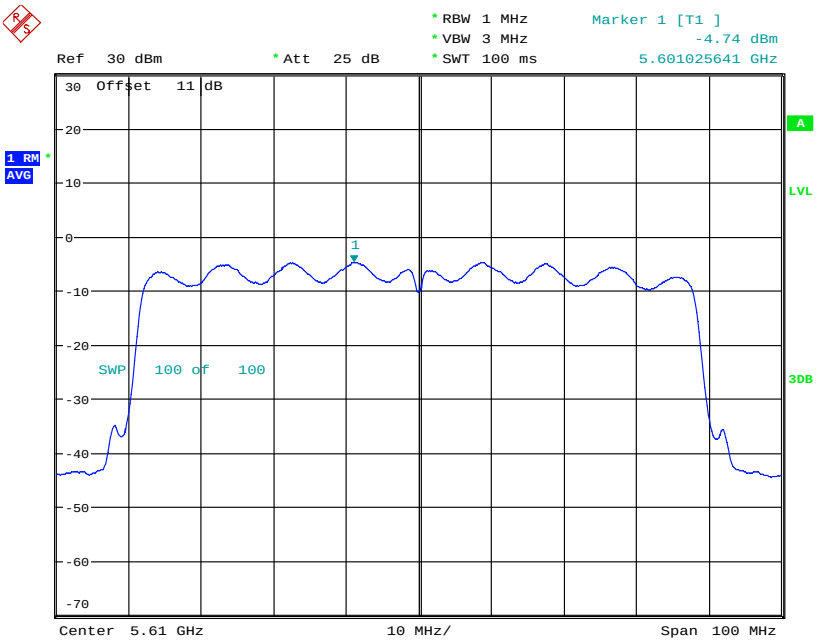
POWER DENSITY AV ANT211n40CH118
Date: 7.JUL.2017 15:56:07



POWER DENSITY AV ANT211n40CH134
Date: 7.JUL.2017 16:01:52



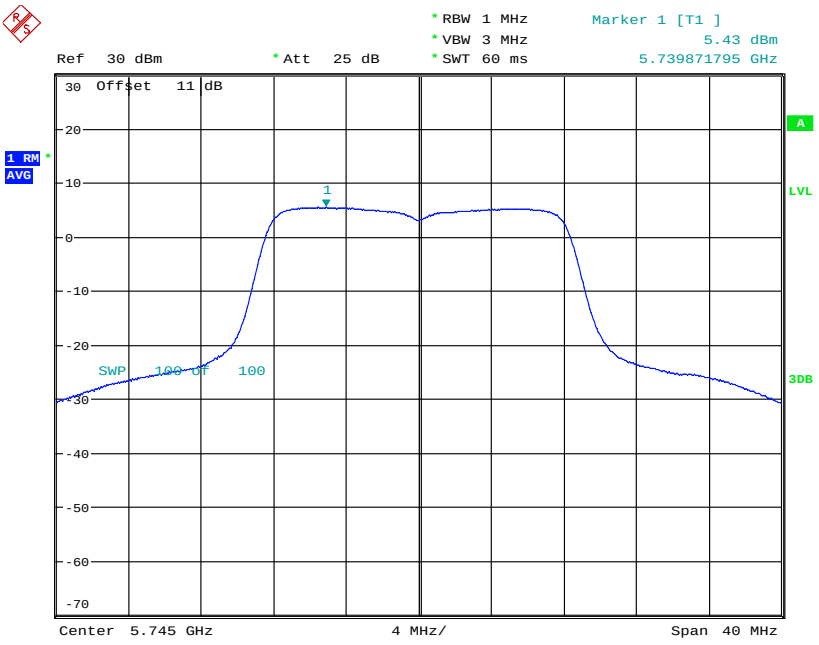
POWER DENSITY AV ANT211ac80CH106
Date: 7.JUL.2017 16:06:38



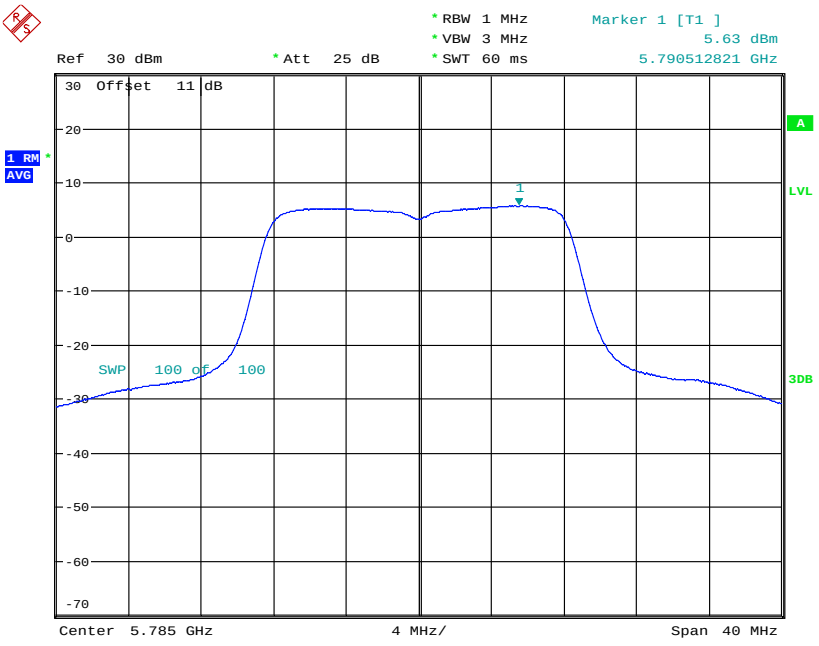
POWER DENSITY AV ANT211ac80CH122
Date: 7.JUL.2017 16:27:02

Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF

5.725 GHz ~ 5.85 GHz

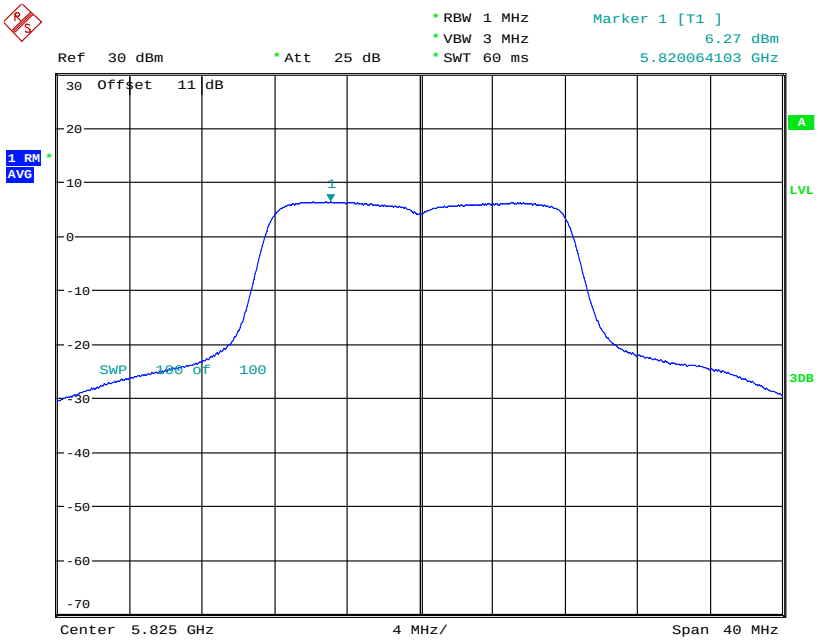


POWER DENSITY AV ANT211aCH149
Date: 7.JUL.2017 16:35:43

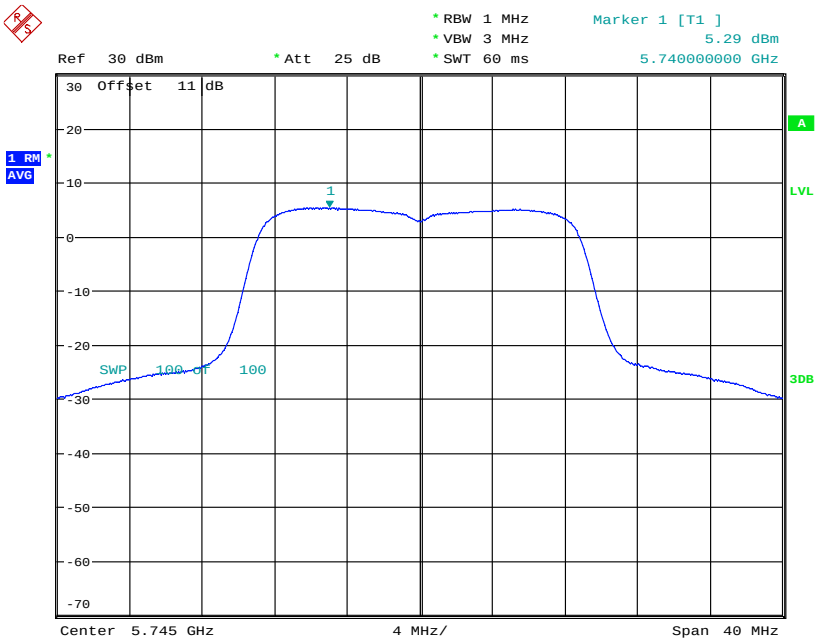


POWER DENSITY AV ANT211aCH157
Date: 7.JUL.2017 16:42:20

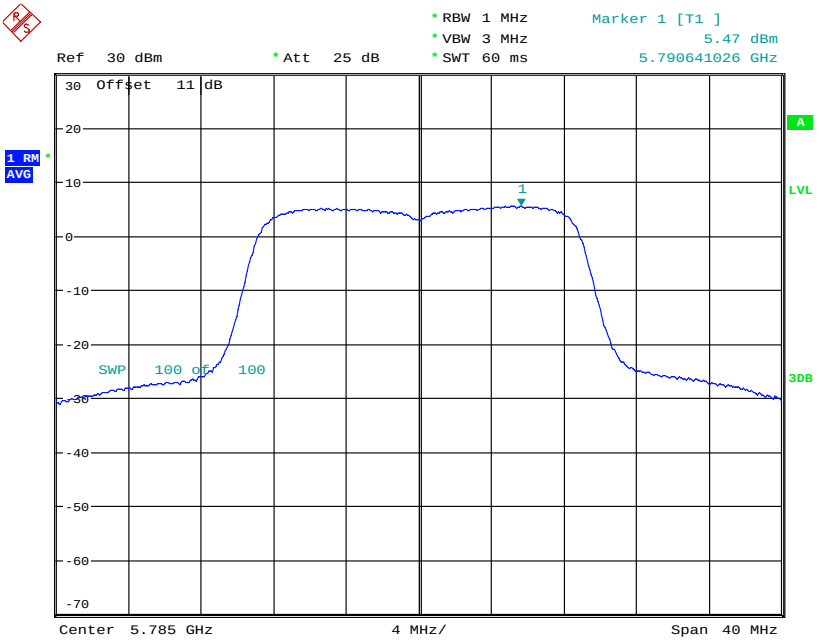
Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF



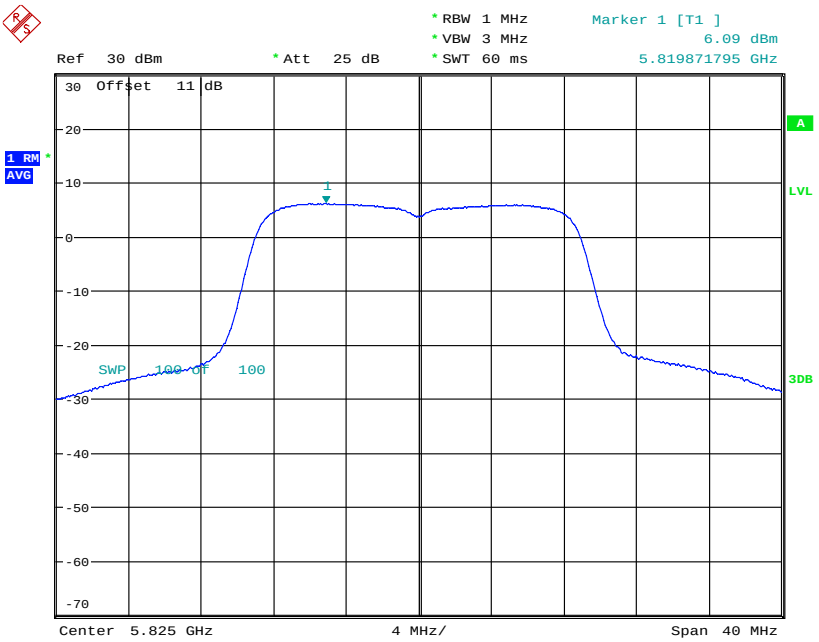
POWER DENSITY AV ANT211aCH165
Date: 7.JUL.2017 16:44:10



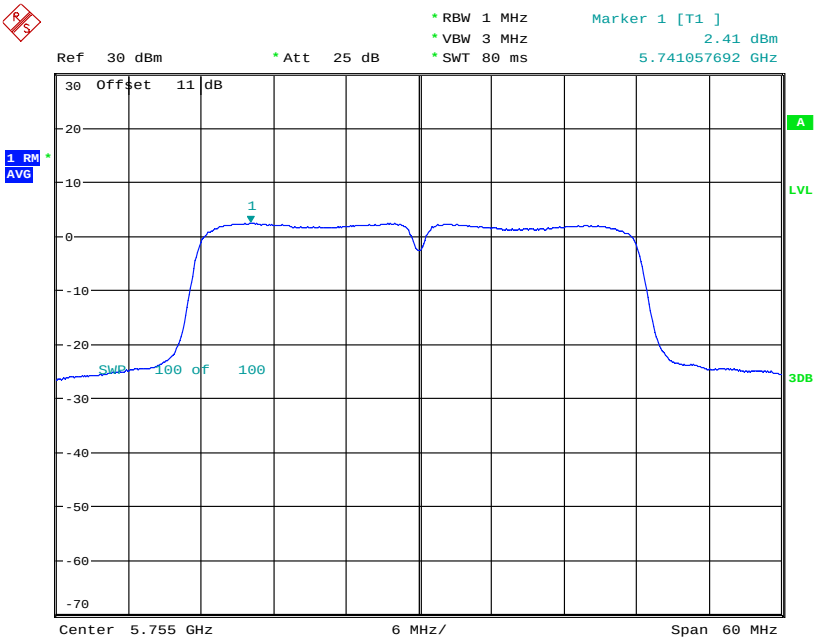
POWER DENSITY AV ANT211n20CH149
Date: 7.JUL.2017 16:49:29



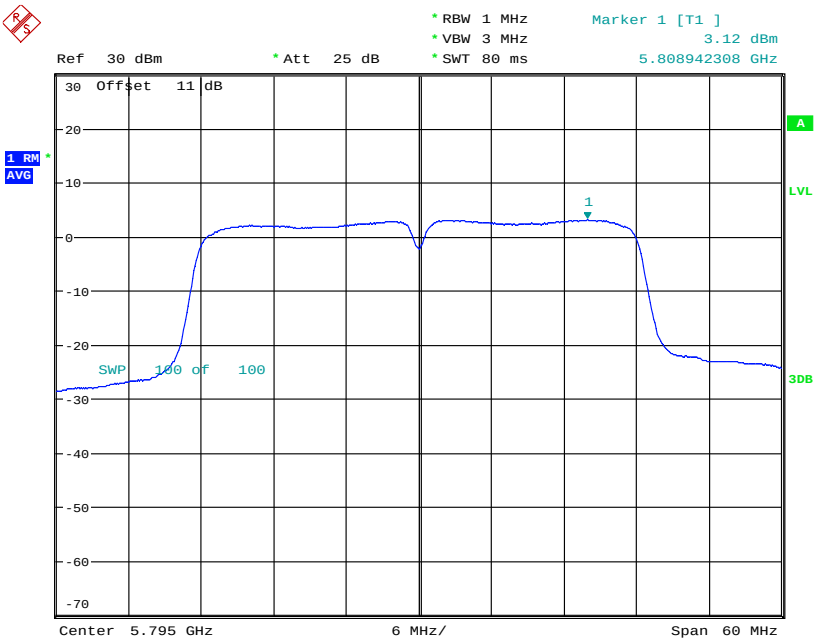
POWER DENSITY AV ANT211n20CH157
Date: 7.JUL.2017 16:51:32



POWER DENSITY AV ANT211n20CH165
Date: 7.JUL.2017 16:56:18

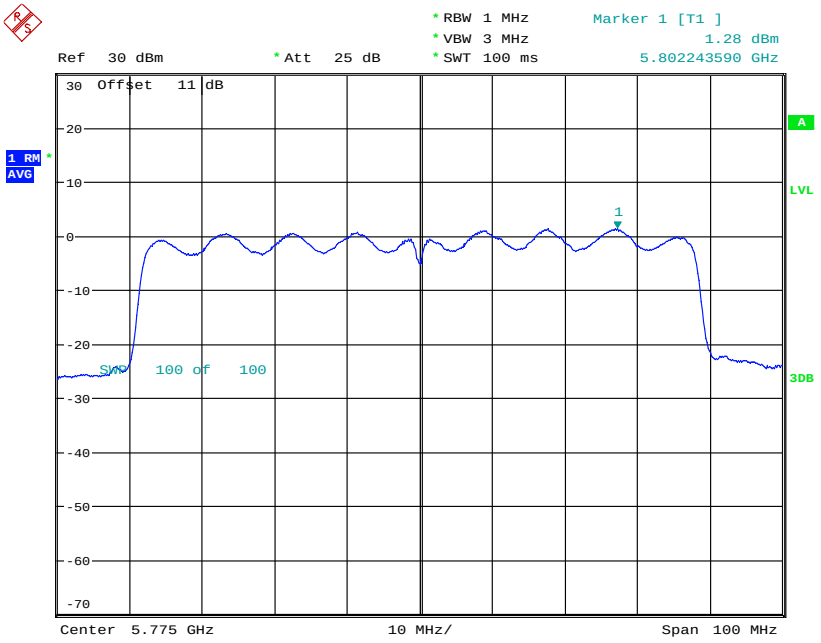


POWER DENSITY AV ANT211n40CH151
Date: 7.JUL.2017 16:58:36



POWER DENSITY AV ANT211n40CH159
Date: 7.JUL.2017 17:04:51

Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF



POWER DENSITY AV ANT211ac80CH155
Date: 7.JUL.2017 17:07:41

5.15GHz~5.25GHz

Antenna A	mW			dBm		
	Ch Low	Ch Mid	Ch High	Ch Low	Ch Mid	Ch High
802.11n 20MHz	2.291	2.317	2.051	3.6	3.65	3.12
802.11n 40MHz	0.420	--	0.538	-3.77	--	-2.69
802.11ac	0.268	--	--	-5.72	--	--
Antenna B	mW			dBm		
	Ch Low	Ch Mid	Ch High	Ch Low	Ch Mid	Ch High
802.11n 20MHz	2.382	2.382	2.636	3.77	3.77	4.21
802.11n 40MHz	0.412	--	0.676	-3.85	--	-1.7
802.11ac	0.296	--	--	-5.29	--	--
Combine	mW			dBm		
	Ch Low	Ch Mid	Ch High	Ch Low	Ch Mid	Ch High
802.11n 20MHz	4.673	4.699	4.687	6.696	6.72	6.709
802.11n 40MHz	0.832	--	1.214	-0.799	--	0.842
802.11ac	0.564	--	--	-2.487	--	--

5.25GHz~5.35GHz

Antenna A	mW			dBm		
	Ch Low	Ch Mid	Ch High	Ch Low	Ch Mid	Ch High
802.11n 20MHz	3.006	2.799	2.767	4.78	4.47	4.42
802.11n 40MHz	0.566	--	0.495	-2.47	--	-3.05
802.11ac	0.284	--	--	-5.46	--	--
Antenna B	mW			dBm		
	Ch Low	Ch Mid	Ch High	Ch Low	Ch Mid	Ch High
802.11n 20MHz	3.350	2.965	3.251	5.25	4.72	5.12
802.11n 40MHz	0.586	--	0.560	-2.32	--	-2.52
802.11ac	0.289	--	--	-5.39	--	--
Combine	mW			dBm		
	Ch Low	Ch Mid	Ch High	Ch Low	Ch Mid	Ch High
802.11n 20MHz	6.356	5.764	6.018	8.032	7.607	7.795
802.11n 40MHz	1.152	--	1.055	0.615	--	0.233
802.11ac	0.573	--	--	-2.418	--	--

5.47GHz~5.725GHz

Antenna A	mW			dBm		
	Ch Low	Ch Mid	Ch High	Ch Low	Ch Mid	Ch High
802.11n 20MHz	3.698	2.642	1.072	5.68	4.22	0.3
802.11n 40MHz	0.869	1.016	0.843	-0.61	0.07	-0.74
802.11ac	0.339	--	0.314	-4.7	--	-5.03
Antenna B	mW			dBm		
	Ch Low	Ch Mid	Ch High	Ch Low	Ch Mid	Ch High
802.11n 20MHz	4.742	3.228	1.245	4.79	5.09	0.95
802.11n 40MHz	1.104	1.143	0.865	0.43	0.58	-0.63
802.11ac	0.411	--	0.336	-3.86	--	-4.74
Combine	mW			dBm		
	Ch Low	Ch Mid	Ch High	Ch Low	Ch Mid	Ch High
802.11n 20MHz	8.440	5.870	2.317	8.268	7.686	3.649
802.11n 40MHz	1.973	2.159	1.708	2.951	3.343	2.325
802.11ac	0.750	--	0.650	-1.249	--	-1.871

Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF

5.725GHz~5.85GHz

Antenna A	mW			dBm		
	Ch Low	Ch Mid	Ch High	Ch Low	Ch Mid	Ch High
802.11n 20MHz	2.692	2.767	3.083	4.3	4.42	4.89
802.11n 40MHz	1.297	--	1.607	1.13	--	2.06
802.11ac	1.050	--	--	0.21	--	--
Antenna B	mW			dBm		
	Ch Low	Ch Mid	Ch High	Ch Low	Ch Mid	Ch High
802.11n 20MHz	3.381	3.524	4.064	5.29	5.47	6.09
802.11n 40MHz	1.742	--	2.051	2.41	--	3.12
802.11ac	1.343	--	--	1.28	--	--
Combine	mW			dBm		
	Ch Low	Ch Mid	Ch High	Ch Low	Ch Mid	Ch High
802.11n 20MHz	6.073	6.291	7.147	7.834	7.987	8.541
802.11n 40MHz	3.039	--	3.658	4.827	--	5.632
802.11ac	2.393	--	--	3.789	--	--

Test equipment used: ETSTW-RE 055, ETSTW-RE 050

3.5 Undesirable emission limits, FCC 15.407 (b)

1. For transmitters operating in the 5.15–5.25 GHz band: all emissions out-side of the 5.15–5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz.
2. For transmitters operating in the 5.25–5.35 GHz band: all emissions out-side of the 5.15–5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz. De-vices operating in the 5.25–5.35 GHz band that generate emissions in the 5.15–5.25 GHz band must meet all appli-cable technical requirements for operation in the 5.15–5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15–5.25 GHz band.
3. For transmitters operating in the 5.47–5.725 GHz band: all emissions out-side of the 5.47–5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.
4. For transmitters operating in the 5.725–5.850 GHz band: All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
5. The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
6. Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209.
7. According to According to KDB 789033 D02 General UNII Test Procedures v01, as specified in 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in 15.407(b)(4)). However, an out-of-band emission that complies with both the average and peak limits of 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz peak emission limit.
8. If radiated measurements are performed, field strength is then converted to EIRP as follows:
   (i) EIRP = ((E*d)^2) / 30, where: E is the field strength in V/m; d is the measurement distance in meters. EIRP is the equivalent isotropically radiated power in watts.
   (ii) Working in dB units, the above equation is equivalent to: EIRP[dBm] = E[dBμV/m] + 20 log(d[meters]) - 104.77.
   (iii) Or, if d is 3 meters: EIRP[dBm] = E[dBμV/m] - 95.2.

Applicable to	Limit	
☒	FIELD STRENGTH at 3m (dBμV/m)	
	PK	AV
	74	54
☐	EIRP LIMIT (dBm)	EQUIVALENT FIELD STRENGTH at 3m (dBμV/m)
	PK	PK
	-27	68.3

Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF

Model:	AW-CM308NF	Date:	--		
Mode:	--	Temperature:	--	°C	Engineer: --
Polarization:	Horizontal	Humidity:	--	%	

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--

Frequency (MHz)	Reading (dBuV) Peak	Reading (dBuV) Ave.	Factor (dB) Corr.	Result (dBuV/m) Peak	Result (dBuV/m) Ave.	Limit (dBuV/m) Peak	Limit (dBuV/m) Ave.	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--

Frequency (MHz)	Reading (dBuV) Peak	Reading (dBuV) Ave.	Factor (dB) Corr.	Result (dBuV/m) Peak	Result (dBuV/m) Ave.	Limit (dBuV/m) Peak	Limit (dBuV/m) Ave.	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--

Test equipment used: ETSTW-RE 004, ETSTW-RE 030, ETSTW-RE 147, ETSTW-RE 088, ETSTW-RE 018

Explanation: See attached diagrams in appendix.

3.6 Automatic Discontinuation of transmission, FCC 15.407 (c)

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure.
This function will be declared by manufacturer.

3.7 Reserved, FCC 15.407 (d)

3.8 Indoor Operation Restriction, FCC 15.407 (e)

Within the 5.15–5.25 GHz band, U- NII devices will be restricted to indoor operations to reduce any potential for harmful interference to co-channel MSS operations. This equipment has to be declared by manufacturer of the final product as content of the user manual.

3.9 Equivalent isotropic radiated power, FCC 15.407 (f)

FCC Rule: 15.407(b)(3)
Band 1
Test exclusion = max. conducted output power + adjusted for tune-up tolerance
Test exclusion = 17.97dBm

Band 2
Test exclusion = max. conducted output power + adjusted for tune-up tolerance
Test exclusion = 19.22 dBm

Band 3
Test exclusion = max. conducted output power + adjusted for tune-up tolerance
Test exclusion = 20.4 dBm

Band 4
Test exclusion = max. conducted output power + adjusted for tune-up tolerance
Test exclusion = 19.77 dBm

Test equipment used: ETSTW-RE 055

3.10 RF Exposure Compliance Requirements

ystems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.25 m normally can be maintained between the user and the device.
FCC OET Bulletin 65 Edition 97.01 determines the equations for predicting RF fields and applicable limits.
The prediction for power density in the far-field but will over-predict power density in the near field, where it could be used for walking a “worst case” or conservative prediction.

$$S = \frac{PG}{4\pi R^2}$$

S – Power Density
P – Output power ERP
R – Distance
D – Cable Loss
AG – Antenna Gain

Band 1

Item	Unit	Value	**Remarks**
P	mW	62.6614	Peak value
D	dB	- -	- -
AG	dBi	8.17	- -
G	- -	6.56	Calculated Value
R	cm	20	Assumed value
S	mW/cm2	0.0818	Calculated value

Band 2

Item	Unit	Value	**Remarks**
P	mW	83.5603	Peak value
D	dB	- -	- -
AG	dBi	8.17	- -
G	- -	6.56	Calculated Value
R	cm	20	Assumed value
S	mW/cm2	0.1091	Calculated value

Band 3

Item	Unit	Value	**Remarks**
P	mW	109.6478	Peak value
D	dB	- -	- -
AG	dBi	8.17	- -
G	- -	6.56	Calculated Value
R	cm	20	Assumed value
S	mW/cm2	0.1431	Calculated value

Band 4

Item	Unit	Value	**Remarks**
P	mW	94.8418	Peak value
D	dB	- -	- -
AG	dBi	8.17	- -
G	- -	6.56	Calculated Value
R	cm	20	Assumed value
S	mW/cm2	0.1238	Calculated value

Limits:

Limit for General Population / Uncontrolled Exposure	
Frequency (MHz)	Power Density (mW/cm^2)
1500 – 100.000	1.0

3.11 Transmit Power Control (TPC)

Transmit power control (TPC). U-NII devices operating in the 5.25-5.35 GHz band and the 5.47-5.725 GHz band shall employ a TPC mechanism. The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm. A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

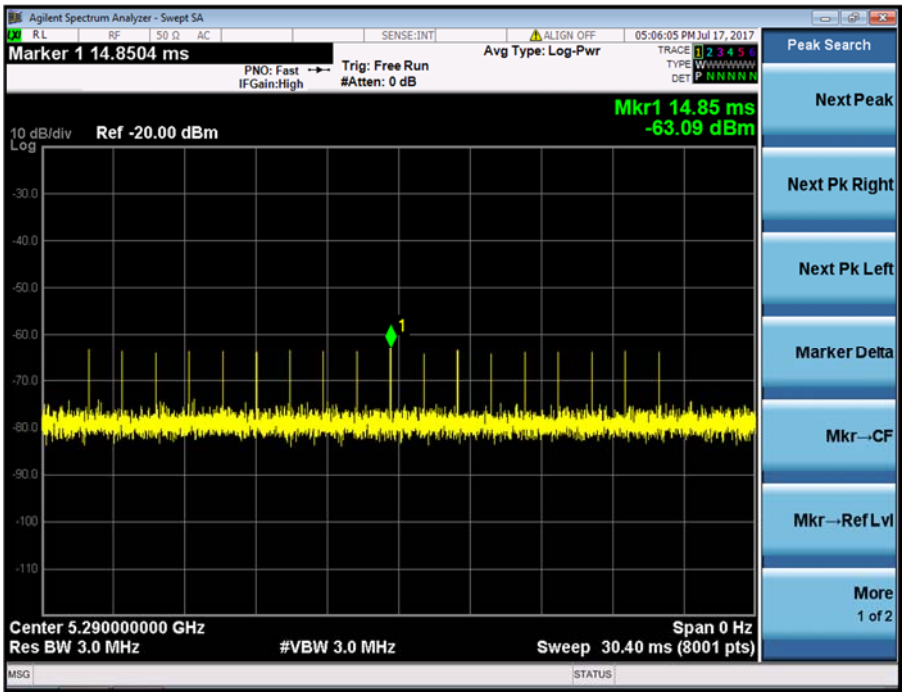
Explanation: Max put power of the EUT is less than 500 mW (27dBm) so this test item is not required.

3.12 Dynamic Frequency Selection (DFS)

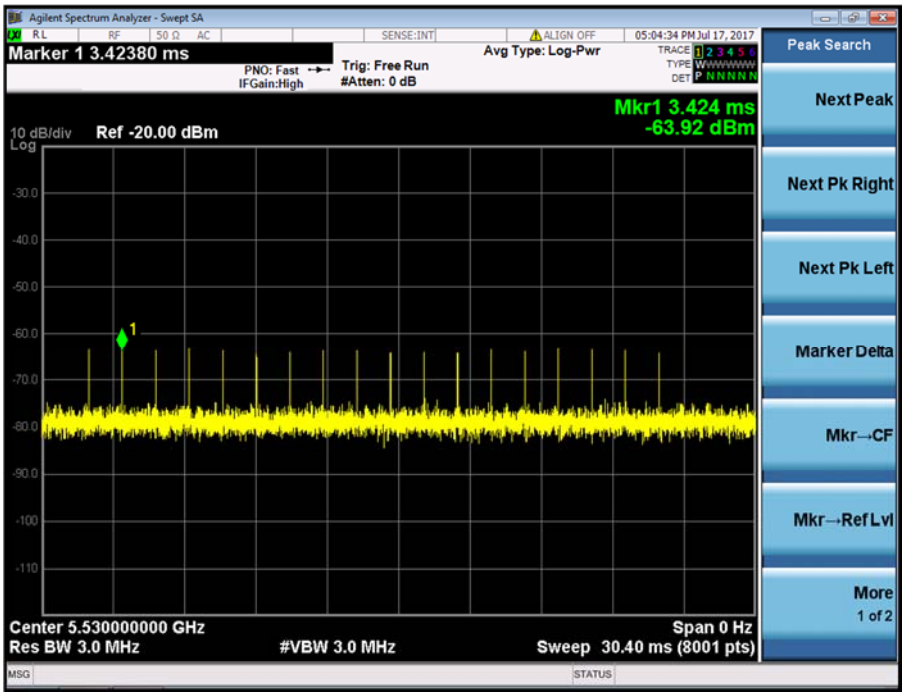
3.12.1 DFS Detection Threshold

Radar Type

Type0 Radar Signal at 5290MHz



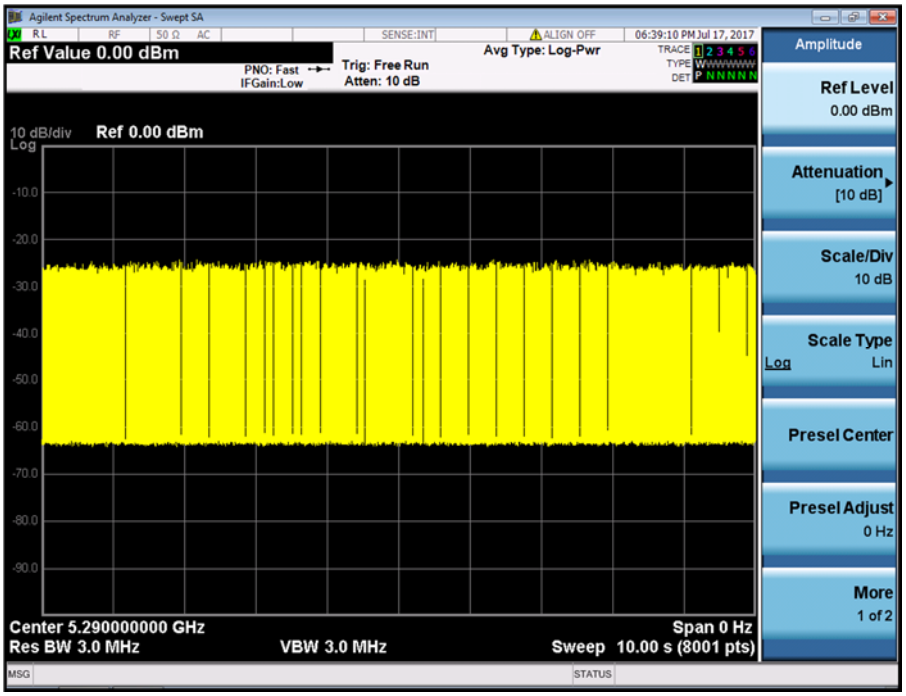
Type0 Radar Signal at 5530MHz



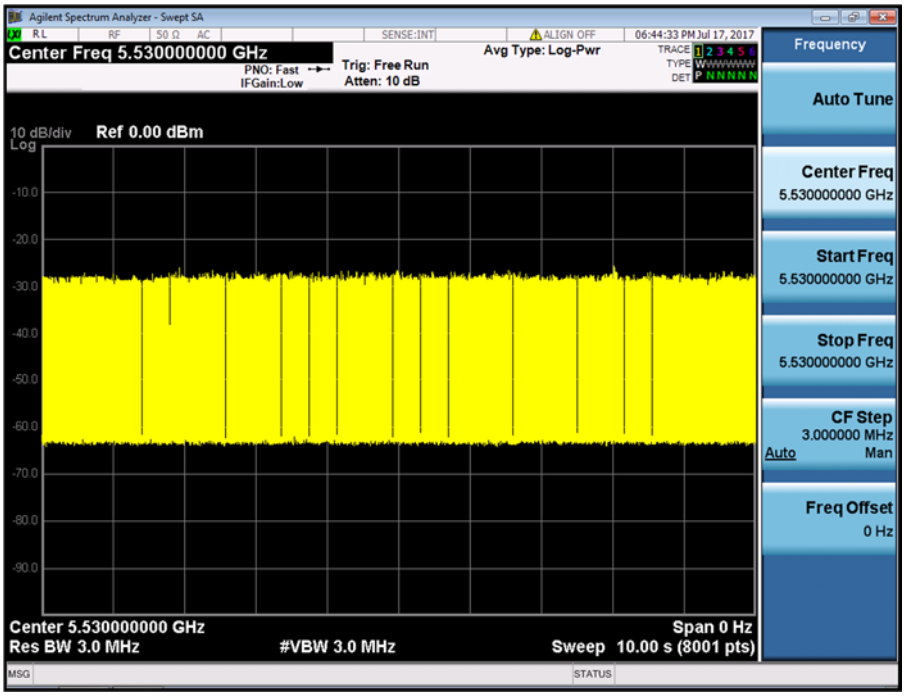
Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF

Traffic plot

Traffic Plot at 5290MHz



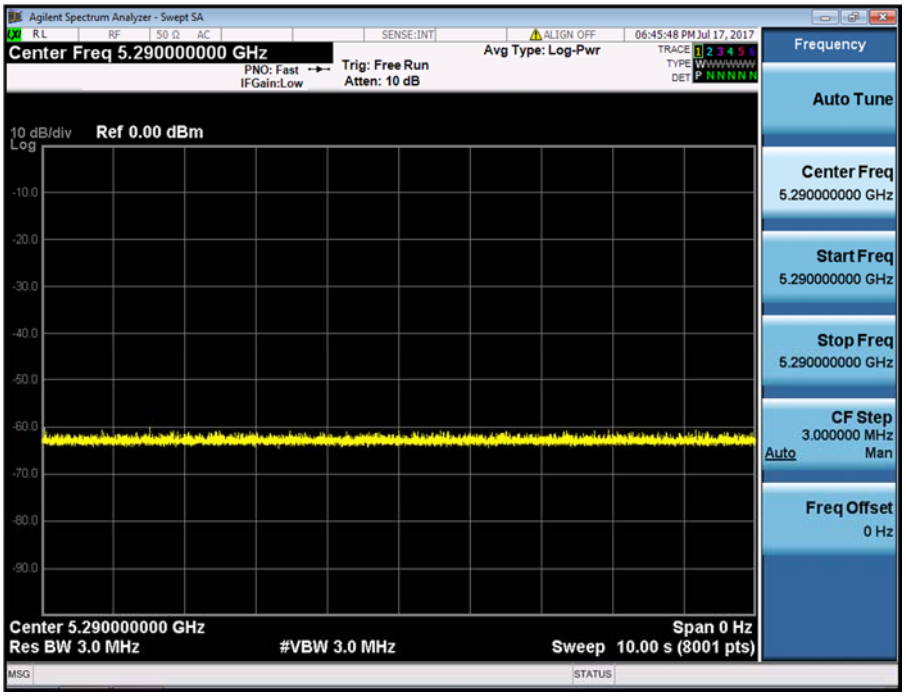
Traffic Plot at 5530MHz



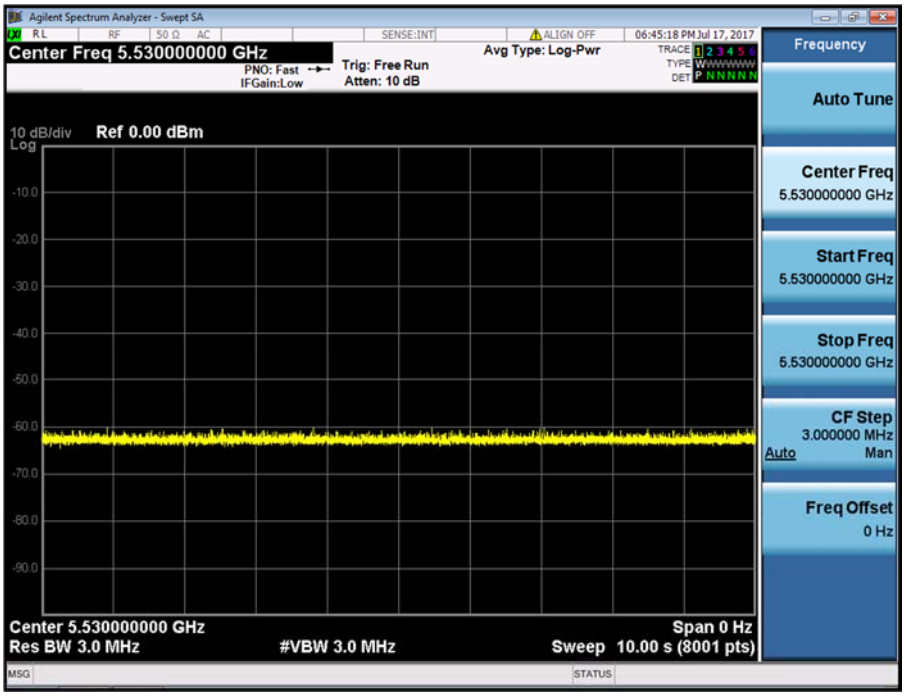
Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF

Non Traffic Plot

Non-Traffic Plot at 5290MHz

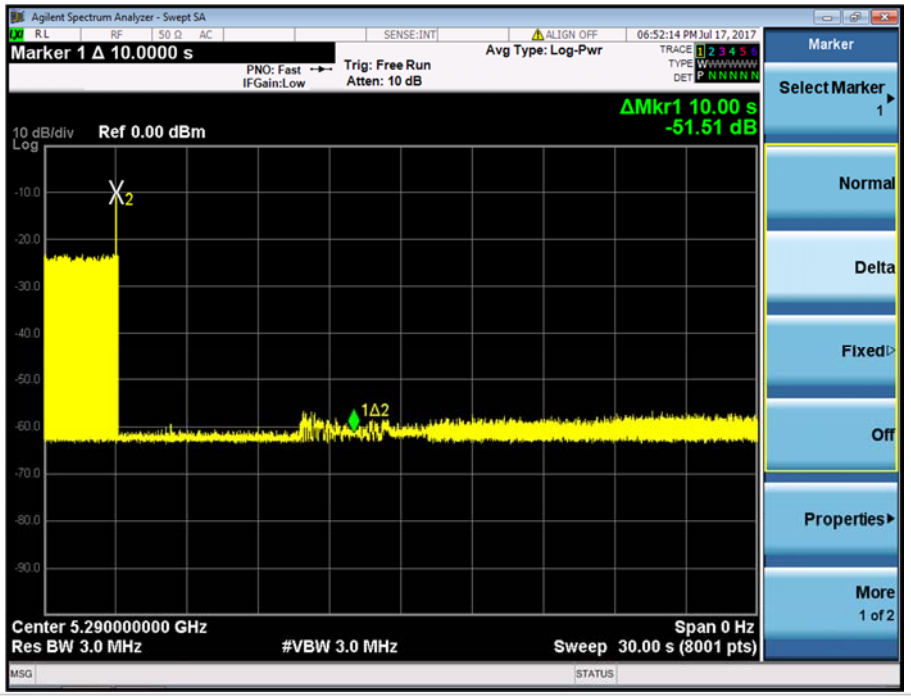


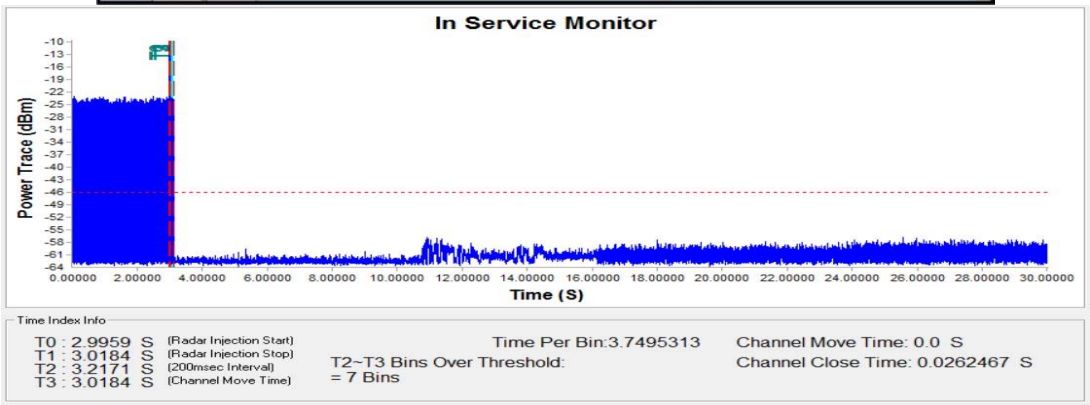
Non-Traffic Plot at 5530MHz



3.12.2 Channel move time plot of Type1 radar waveform on 5270MHz

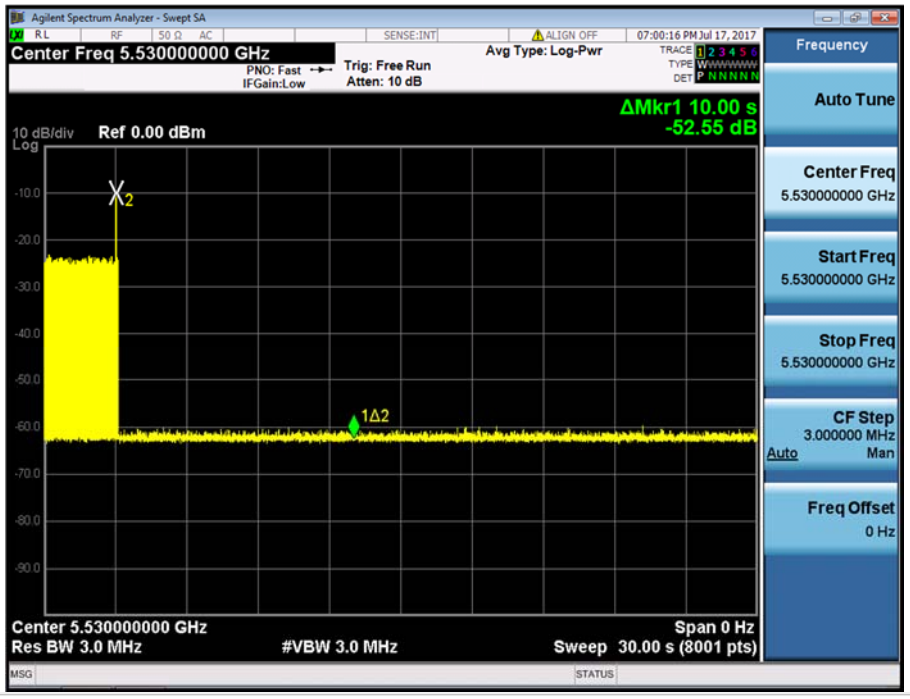
Type0 radar signal at 5290MHz

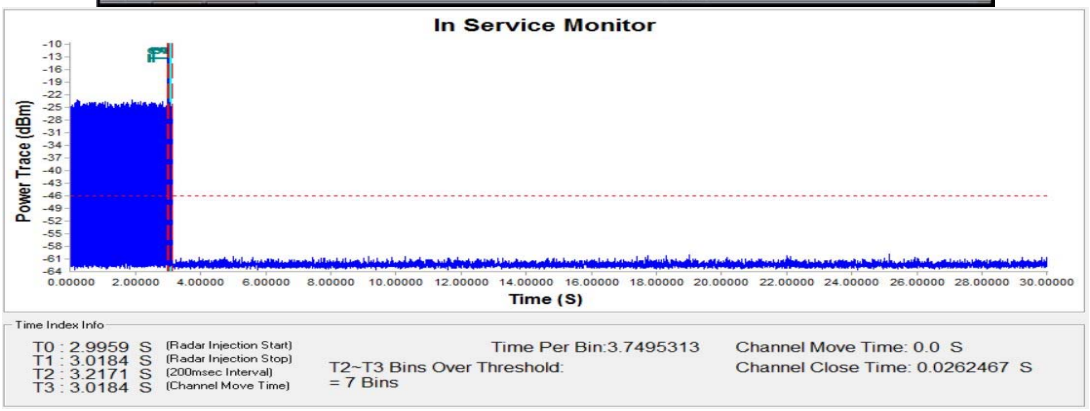




Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF

Type0 radar signal at 5530MHz

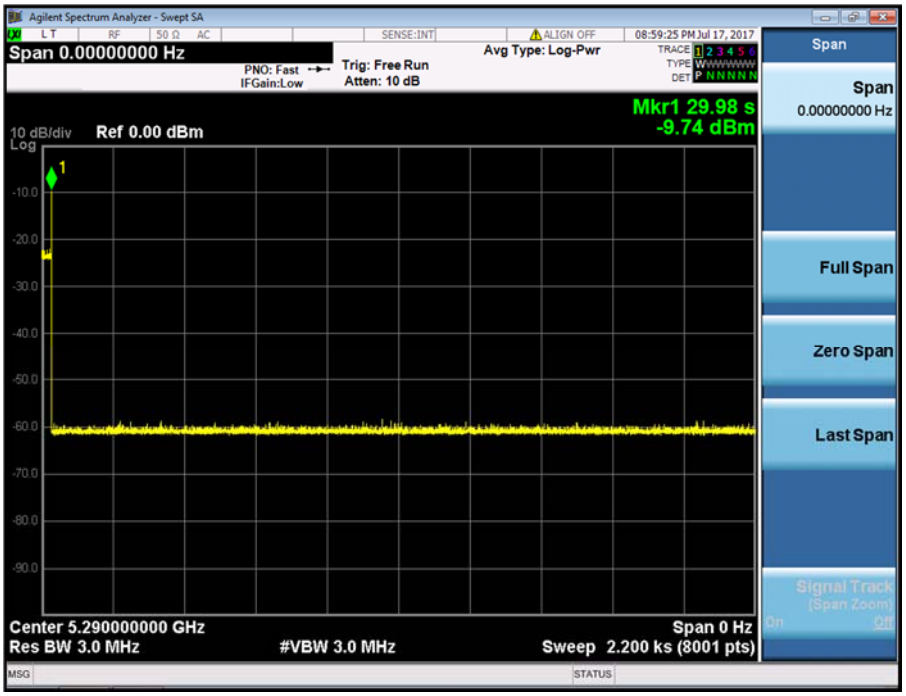




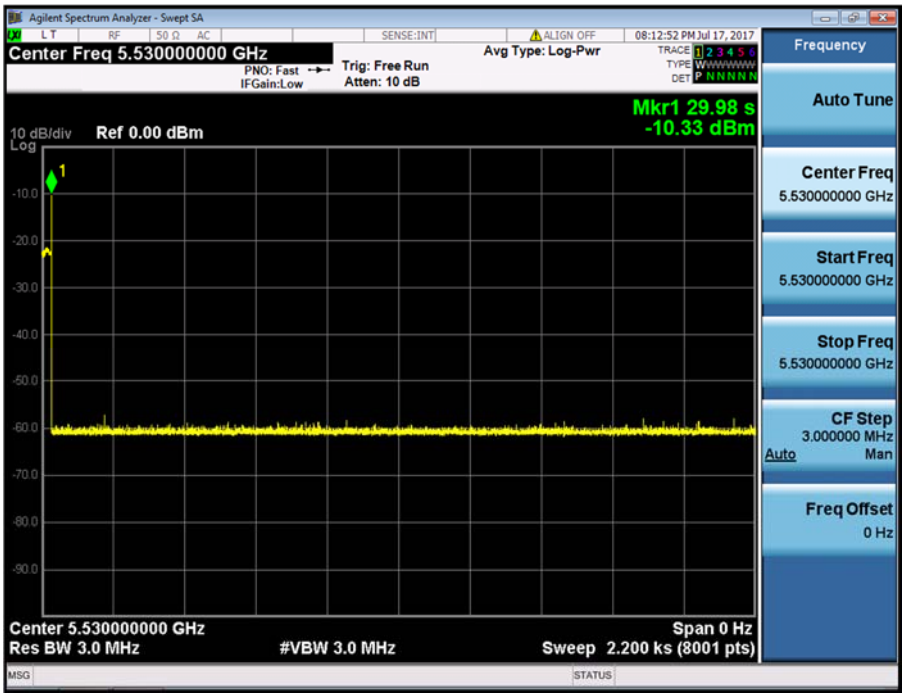
Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF

3.12.3 30Minutes Non-Occupancy Time

Type0 radar signal at 5290MHz



Type0 radar signal at 5530MHz



Test equipment used: ETSTW-RE 133, ETSTW-RE 134

3.13 Channel Move Time, Channel Closing Transmission Time

FCC Rule: 15.407(i)

Result :

Parameter (at 5290MHz)	Test Result	Limit
	Type0	
Channel Move Time (ms)	0ms	<10s
Channel Close Transmission Time (ms)	26ms	< 60ms
Parameter (at 5530MHz)	Test Result	Limit
	Type0	
Channel Move Time (ms)	0ms	<10s
Channel Close Transmission Time (ms)	26ms	< 60ms

Note: The Channel Close Transmission Time is compromised 200 milliseconds starting at the beginning of the Channel Move Time plus the additional intermittent control signal required to facilitate channel-move operation (an aggregate of 60milliseconds) during the remainder of the 10seconds period.

Test equipment used: ETSTW-RE 133, ETSTW-RE 134

3.14 Radiated Emissions from Receiver Part

FCC Rule: 15.109

Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency of Emission (MHz)	Field Strength (microvolts/meter)	Field Strength (dBmicrovolts/meter)
30 – 88	100	40.0
88 – 216	150	43.5
216 – 960	200	46.0
Above 960	500	54.0

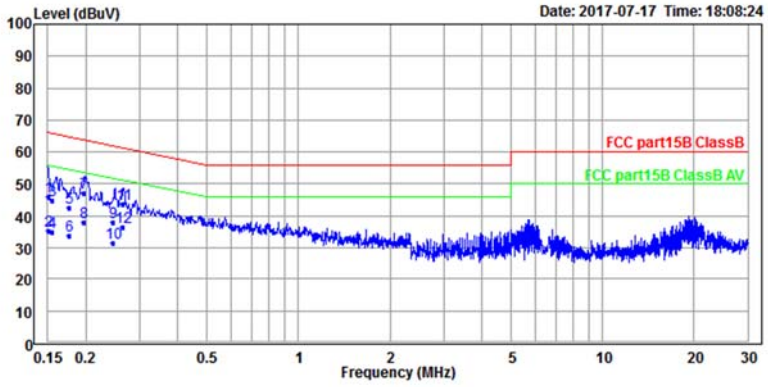
Test equipment used: ETSTW-RE 004, ETSTW-RE 030, ETSTW-RE 147, ETSTW-RE 088, ETSTW-RE 018

Explanation: The test results are listed in the separated test report no.: W6M21706-17141-P-15B.

3.15 Power Line Conducted Emission

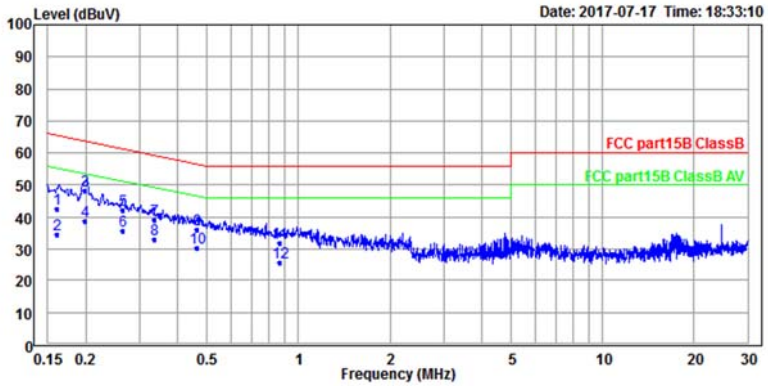
For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the table bellows with this provision shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminals.

This measurement was transact first with instrumentation using an average and peak detector and a 10 kHz bandwidth. If the peak detector achieves a calculated level, the measurement is repeated by an instrumentation using a quasi-peak detector.



Condition: FCC part15B ClassB ENV216 neutral
EUT : W6M21706-17141
Mode :
Power : 120 Va.c.
Operator : Kiki
Note :

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB		
1	0.151	45.86	36.06	9.80	65.96	-20.10	neutral	QP
2	0.151	35.18	25.38	9.80	55.96	-20.78	neutral	Average
3	0.155	44.85	35.05	9.80	65.73	-20.88	neutral	QP
4	0.155	34.93	25.13	9.80	55.73	-20.80	neutral	Average
5	0.176	42.44	32.66	9.78	64.66	-22.22	neutral	QP
6	0.176	33.87	24.09	9.78	54.66	-20.79	neutral	Average
7	0.197	47.16	37.40	9.76	63.73	-16.57	neutral	QP
8	0.197	37.98	28.22	9.76	53.73	-15.75	neutral	Average
9	0.246	37.94	28.17	9.77	61.90	-23.96	neutral	QP
10	0.246	31.66	21.89	9.77	51.90	-20.24	neutral	Average
11	0.265	43.56	33.79	9.77	61.27	-17.71	neutral	QP
12 *	0.265	36.33	26.56	9.77	51.27	-14.94	neutral	Average



Condition: FCC part15B ClassB ENV216 line
EUT : W6M21706-17141
Mode :
Power : 120 Va.c.
Operator : Kiki
Note :

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB		
1	0.160	42.70	32.87	9.83	65.46	-22.76	line	QP
2	0.160	34.57	24.74	9.83	55.46	-20.89	line	Average
3	0.199	48.15	38.34	9.81	63.67	-15.52	line	QP
4 *	0.199	38.60	28.79	9.81	53.67	-15.07	line	Average
5	0.265	42.35	32.54	9.81	61.27	-18.92	line	QP
6	0.265	35.76	25.95	9.81	51.27	-15.51	line	Average
7	0.336	39.04	29.24	9.80	59.31	-20.27	line	QP
8	0.336	32.93	23.13	9.80	49.31	-16.38	line	Average
9	0.464	36.04	26.26	9.78	56.61	-20.57	line	QP
10	0.464	30.28	20.50	9.78	46.61	-16.33	line	Average
11	0.865	31.86	22.09	9.77	56.00	-24.14	line	QP
12	0.865	25.98	16.21	9.77	46.00	-20.02	line	Average

Note: 1. The formula of measured value as: Test Result = Reading + Correction Factor
2. The Correction Factor = Cable Loss + LISN Insertion Loss + Pulse Limit Loss
3. Detector function in the form : PK = Peak, QP = Quasi Peak, AV = Average
4. All not in the table noted test results are more than 20 dB below the relevant limits.
5. Measurement uncertainty = ±0.74 dB; Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.
6. Up Line: QP Limit Line, Down Line: Ave Limit Line.

Registration number: W6M21706-17141-C-54
FCC ID: TLZ-CM308NF

Limits:

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi Peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

Test equipment used: ETSTW-CE 016, ETSTW-CE 028