



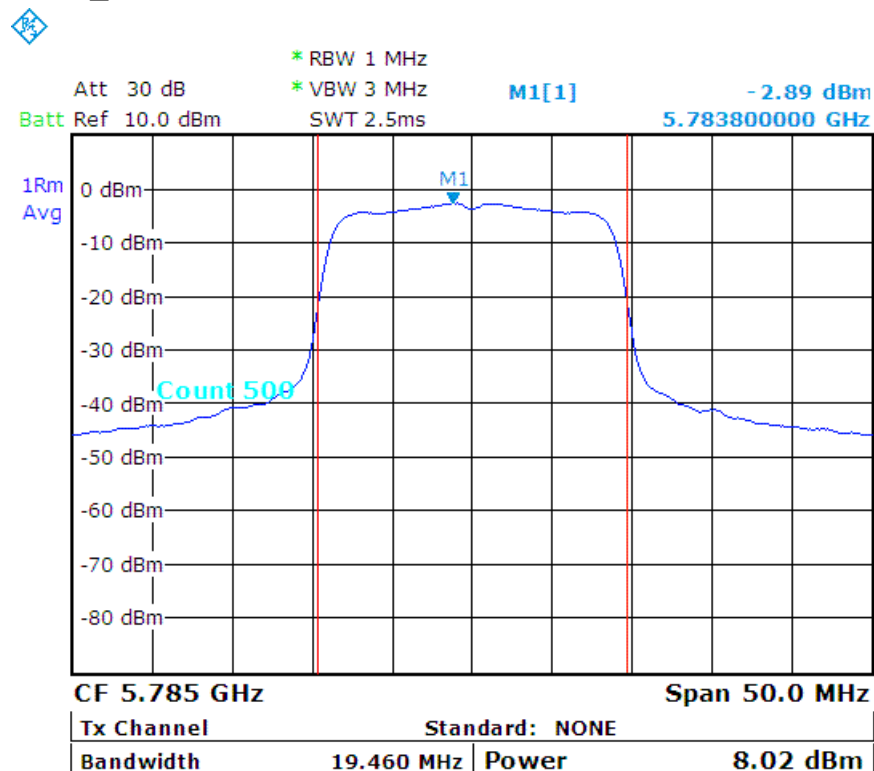
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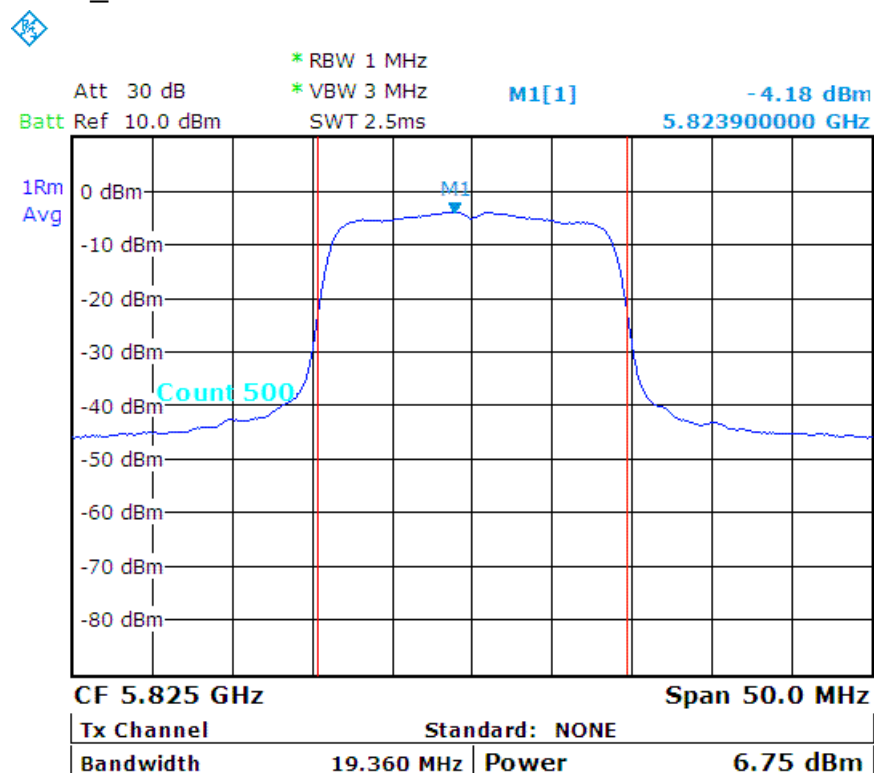
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 334 of 420
Date: Dec. 28, 2017

ac - HT20_CH157_ANT2 :



ac - HT20_CH165_ANT1 :





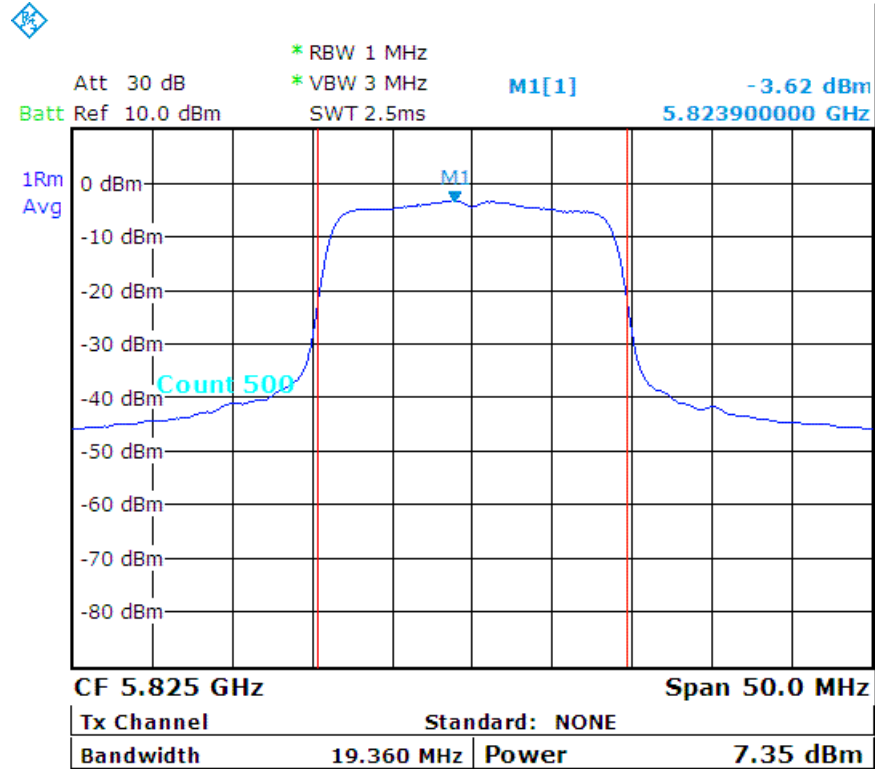
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TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 335 of 420
Date: Dec. 28, 2017

ac - HT20_CH165_ANT2 :



**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

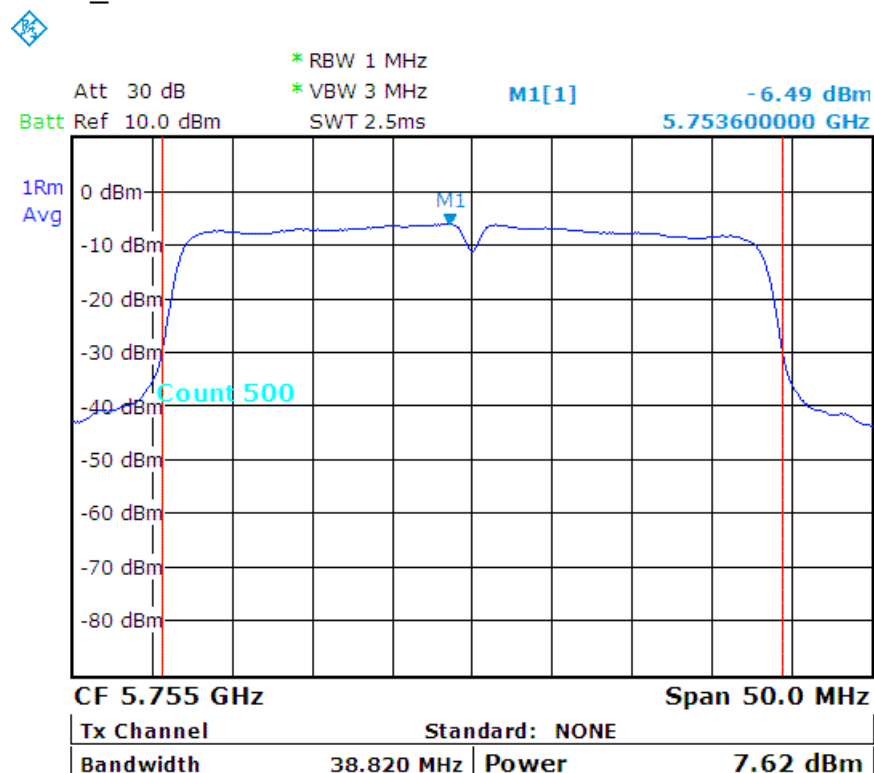
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 336 of 420
Date: Dec. 28, 2017

Temperature:	20 °C	Humidity:	54 %RH
Detector:	RMS	Test Mode:	5.8G_802.11ac - HT40
RBW:	1 MHz	VBW:	3 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 12, 2017

Channel Number	Channel Frequency (MHz)	Emission Bandwidth (MHz)	Peak Conducted Output Power			Limit (dBm)
			Measure (dBm)	Final (dBm)	Final (mW)	
CH151_ANT1	5755	38.82	7.62	11.09	12.84	30
CH151_ANT2			8.49			
CH159_ANT1	5795	38.82	7.10	10.56	11.38	30
CH159_ANT2			7.96			

ac - HT40_CH151_ANT1 :





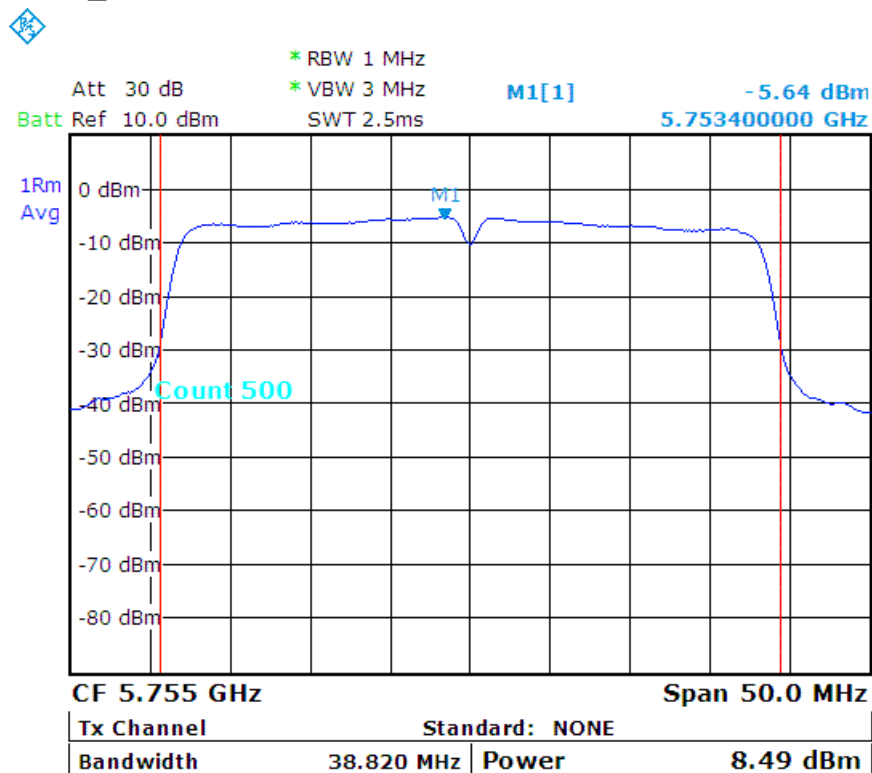
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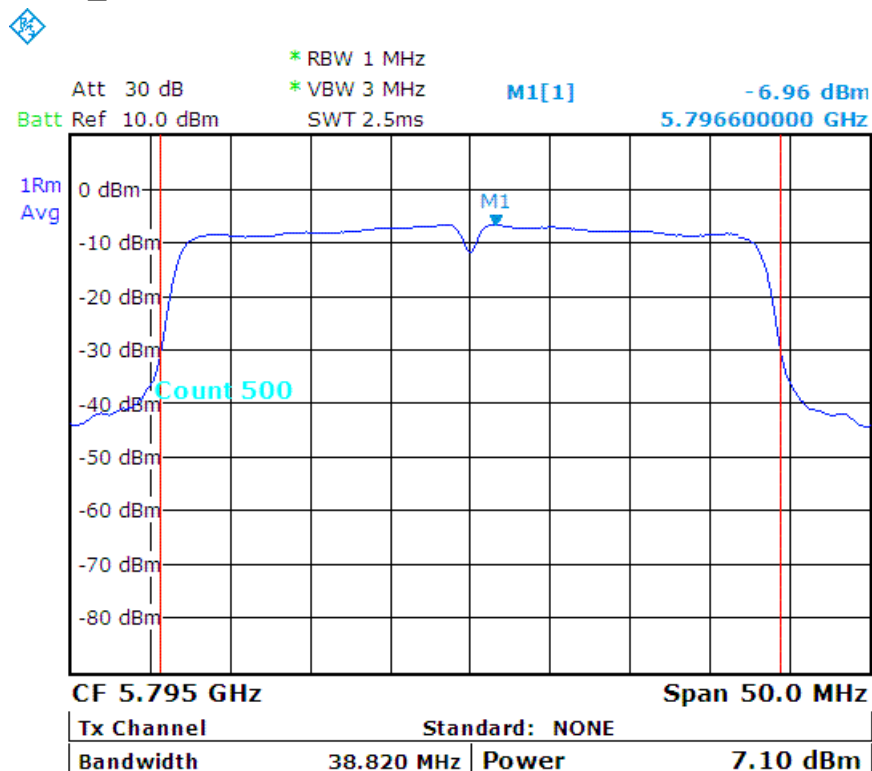
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 337 of 420
Date: Dec. 28, 2017

ac - HT40_CH151_ANT2 :



ac - HT40_CH159_ANT1 :





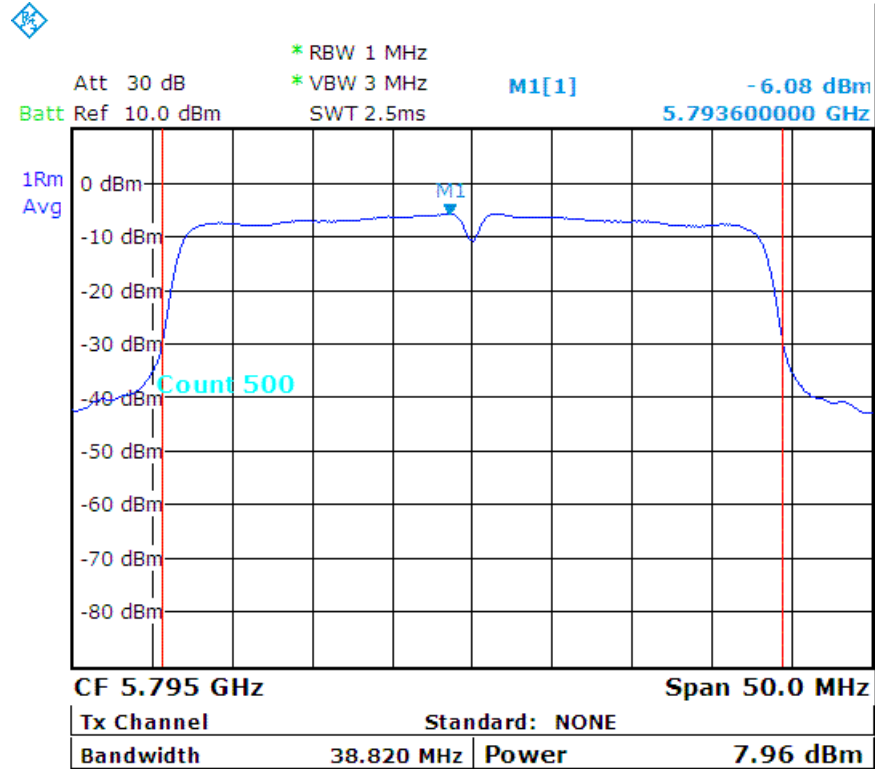
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No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 338 of 420
Date: Dec. 28, 2017

ac - HT40_CH159_ANT2 :



**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

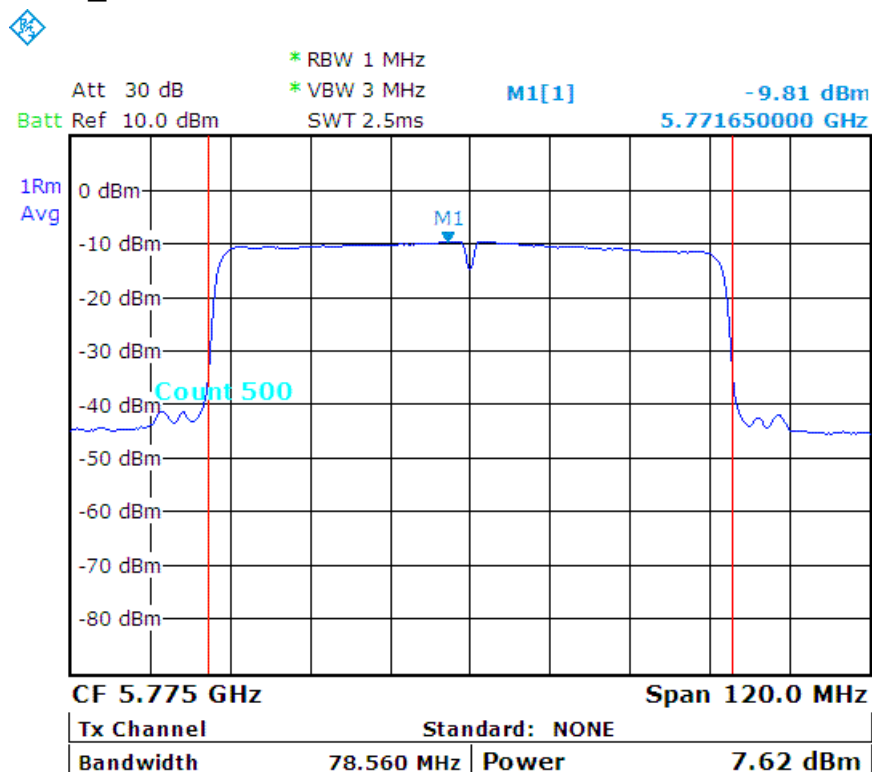
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 339 of 420
Date: Dec. 28, 2017

Temperature:	20 °C	Humidity:	54 %RH
Detector:	RMS	Test Mode:	5.8G_802.11ac - HT80
RBW:	1 MHz	VBW:	3 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 12, 2017

Channel Number	Channel Frequency (MHz)	Emission Bandwidth (MHz)	Peak Conducted Output Power			Limit (dBm)
			Measure (dBm)	Final (dBm)	Final (mW)	
CH155_ANT1	5775	78.56	7.62	11.16	13.08	30
CH155_ANT2			8.63			

ac - HT80_CH155_ANT1 :





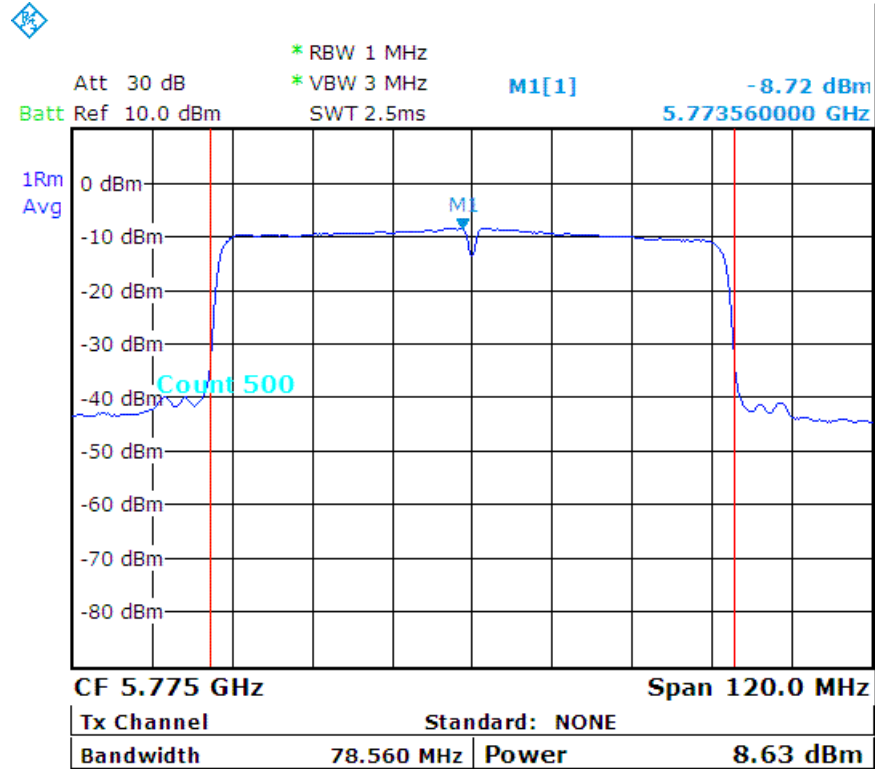
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No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 340 of 420
Date: Dec. 28, 2017

ac - HT80_CH155_ANT2 :





4.5 BAND EDGE TEST

4.5.1 LIMIT

FCC Part15, Subpart E Section 15.407(b)(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 e.i.r.p. of -27 dBm/MHz.

FCC Part15, Subpart E Section 15.407(b)(4).

For transmitters operating in the 5.725-5.85 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 e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.

NOTE:

1. e.i.r.p. -27 dBm/MHz = Field strength 68.3 dBuV/m@3m.
2. e.i.r.p. -17 dBm/MHz = Field strength 78.3 dBuV/m@3m.

4.5.2 TEST EQUIPMENT

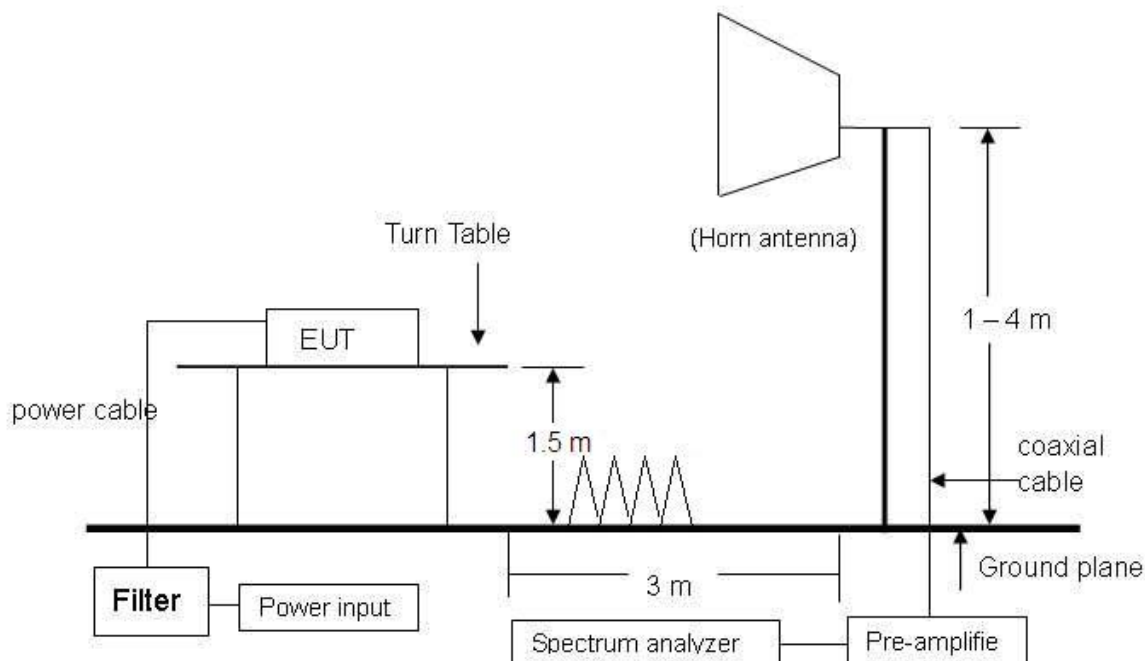
The following test equipment was used during the test:

EQUIPMENT/ FACILITIES	SPECIFICATIONS	MANUFACTURER	MODEL#/ SERIAL#	DUE DATE OF CAL. & CAL. CENTER
SPECTRUM ANALYZER	9 kHz ~ 40 GHz	ROHDE & SCHWARZ	FSP40 / 100093	JAN. 02, 2018 ETC
EMI TEST RECEIVER (INCLUDE SPECTRUM ANALYZER)	9 KHz ~ 6 GHz	ROHDE & SCHWARZ	ESL /100176	MAY 21, 2018 ETC
HORN ANTENNA	1 GHz ~ 18 GHz	EMCO	3115/ 9602-4681	NOV. 24, 2018 ETC
PRE-AMPLIFIER	1 GHz ~ 26.5 GHz	AGILENT	8449B/ 3008A01995	DEC. 29, 2018 ETC
OPEN AREA TEST SITE	3 – 10 M MEASUREMENT	SRT	A02 / SRT002	MAR. 09, 2018 SRT
ANECHOIC CHAMBER	3 M MEASUREMENT	SRT	A01 / SRT001	SEP. 13, 2018 SRT
K-TYPE CABLE	UP TO 40 GHz 3 m	HUBER+SUHNER	SF102-46/2*11SK 252 /MY2611/2	FEB. 23, 2018 ETC
K-TYPE CABLE	UP TO 40 GHz, 1 m	HUBER+SUHNER	SF102/2*11SK252 /MY3331/2	SEP. 28, 2018 ETC
FILTER	2 LINE, 30 A	FIL.COIL	FC-943/ 869	NCR

NOTE: The calibration interval of the above test equipment is one year and the calibrations are traceable to NML/ROC and NIST/USA.



4.5.3 TEST SETUP



NOTE: The EUT system was put on a wooden table with 1.5m heights above a ground plane. For the actual test configuration, please refer to the photos of testing.

4.5.4 TEST PROCEDURE

The EUT was tested according to the requirement of ANSI C63.10:2013 and CISPR 22:2003. When the frequency spectrum measured started from 30 MHz to 1 GHz, then use antenna is a BICONICAL ANTENNA & LOG PERIODIC ANTENNA. The measurements were made at an open area test site with 3 meter measurement distance under 1 GHz and with 3m distance above 1GHz. The frequency spectrum measured started from 30 MHz to 1 GHz, all readings were quasi-peak values with 120 kHz resolution bandwidth of the test receiver. Above 1 GHz, the measurements were made at an open area test site with 3 meter measurement distance and all readings were peak or average values with 1 MHz resolution bandwidth of the test receiver. The EUT system was operated in all typical methods by users. The cables connected to EUT and support units were moved to find the maximum emission levels for each frequency. First, find the margin or higher points at least 6 points by software, then use manual to find the maximum data. The procedure is referred on the test procedure of SRT LAB.

 Spectrum Research & Testing Lab., Inc. No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)	TEST REPORT	Reference No.: A17103001 Report No.: FCCA17103001-03 FCC ID : AHL-ALMOND3S Page: 343 of 420 Date: Dec. 28, 2017
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4.5.5 EUT OPERATING CONDITION

1. Set the EUT under continuous transmission condition.
2. The EUT was set to the highest available power level.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORTReference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 344 of 420
Date: Dec. 28, 2017**4.5.6 TEST RESULT**

Below 5150MHz (a_CH36)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.00 GHz – 5.195 GHz	Tested Mode:	5.1G 802.11a
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5143.18	-28.56	34.01	H	36.40	25.99	41.86	31.45	68.30	48.30	-26.44	-16.85
5146.03	-28.56	34.02	V	36.04	25.51	41.50	30.97	68.30	48.30	-26.80	-17.33
5150.00	-28.56	34.02	H	32.72	22.27	38.18	27.73	68.30	48.30	-30.12	-20.57
5150.00	-28.56	34.02	V	32.97	22.48	38.43	27.94	68.30	48.30	-29.87	-20.36

Above 5350MHz (a_CH48)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.23 GHz – 5.50 GHz	Tested Mode:	802.11a
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5350.00	-28.55	34.18	H	31.15	20.68	36.78	26.31	68.30	48.30	-31.52	-21.99
5350.00	-28.55	34.18	V	31.42	20.97	37.05	26.60	68.30	48.30	-31.25	-21.70
5381.24	-28.55	34.20	H	34.49	24.01	40.14	29.66	68.30	48.30	-28.16	-18.64
5389.48	-28.55	34.21	V	34.43	24.08	40.09	29.74	68.30	48.30	-28.21	-18.56



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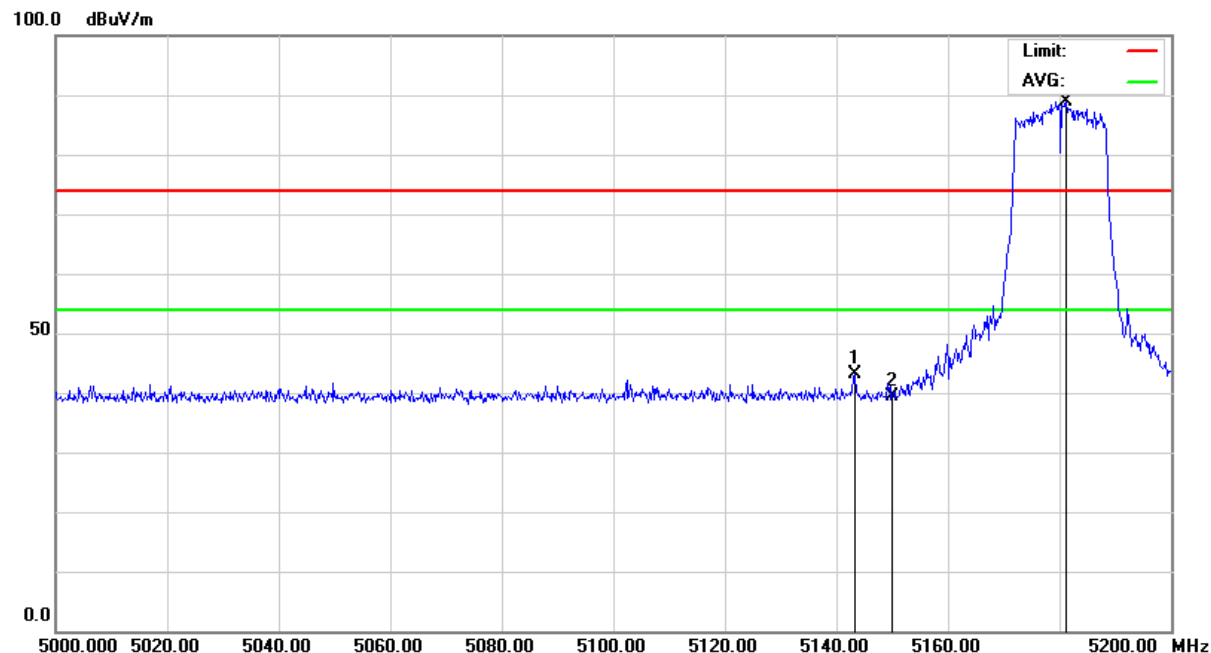
No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

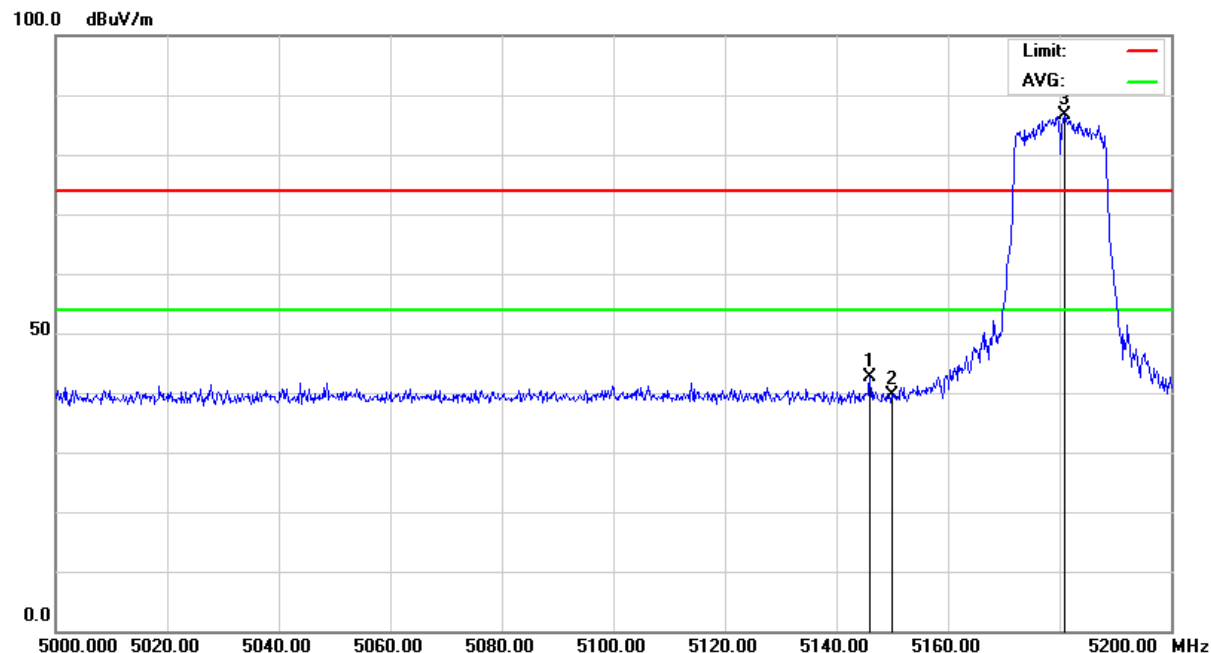
Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 345 of 420
Date: Dec. 28, 2017

Below 5150MHz (a_CH36)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical





Spectrum Research & Testing Lab., Inc.

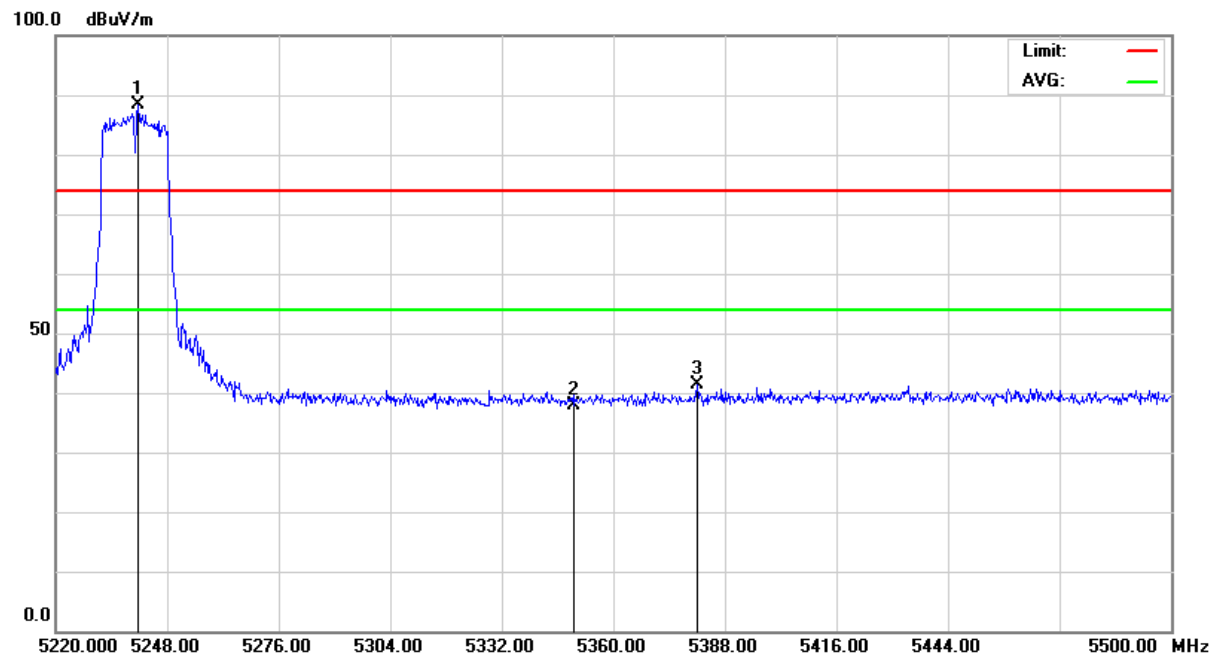
No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

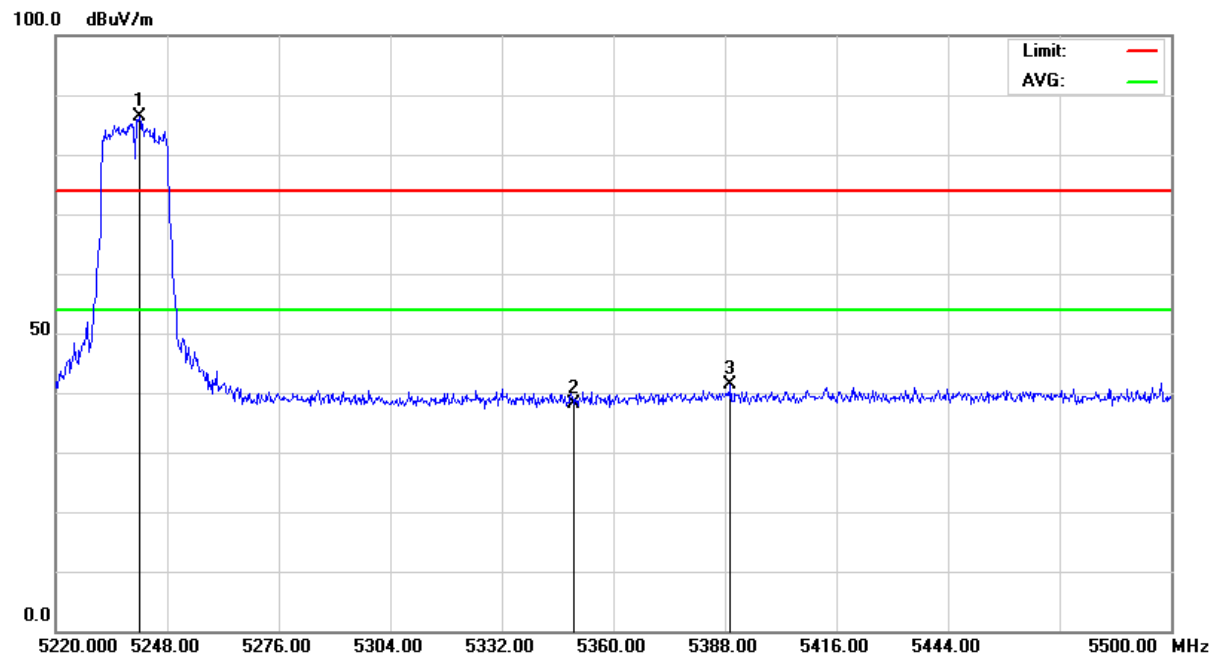
Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 346 of 420
Date: Dec. 28, 2017

Above 5350MHz (a_CH48)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical



**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 347 of 420
Date: Dec. 28, 2017

Below 5150MHz (n - HT20_CH36)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.00 GHz – 5.195 GHz	Tested Mode:	5.1G 802.11n - HT20
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5139.21	-28.56	34.01	H	34.12	23.68	39.57	29.13	68.30	48.30	-28.73	-19.17
5139.69	-28.56	34.01	V	34.34	23.81	39.79	29.26	68.30	48.30	-28.51	-19.04
5150.00	-28.56	34.02	H	31.62	21.19	37.08	26.65	68.30	48.30	-31.22	-21.65
5150.00	-28.56	34.02	V	32.34	21.84	37.80	27.30	68.30	48.30	-30.50	-21.00

Above 5350MHz (n - HT20_CH48)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.225 GHz – 5.50 GHz	Tested Mode:	5.1G 802.11n - HT20
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5350.00	-28.55	34.18	H	31.63	21.15	37.26	26.78	68.30	48.30	-31.04	-21.52
5350.00	-28.55	34.18	V	30.97	20.43	36.60	26.06	68.30	48.30	-31.70	-22.24
5363.05	-28.55	34.19	H	34.99	24.48	40.63	30.12	68.30	48.30	-27.67	-18.18
5377.62	-28.55	34.20	V	34.37	23.89	40.02	29.54	68.30	48.30	-28.28	-18.76



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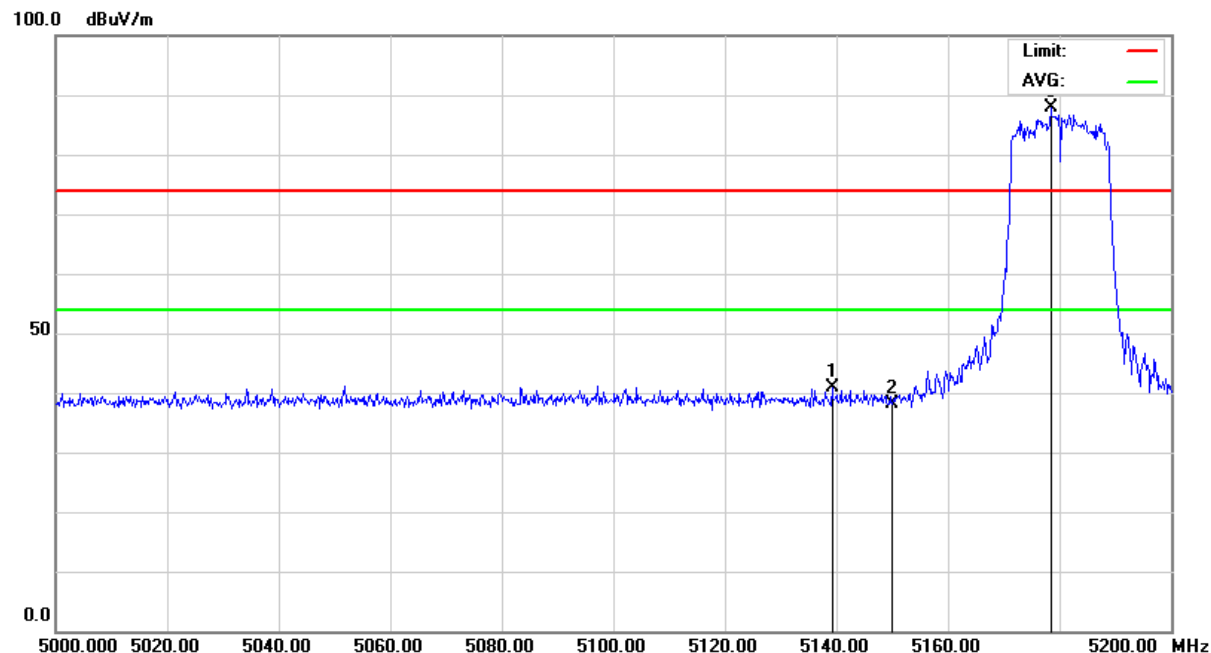
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TEST REPORT

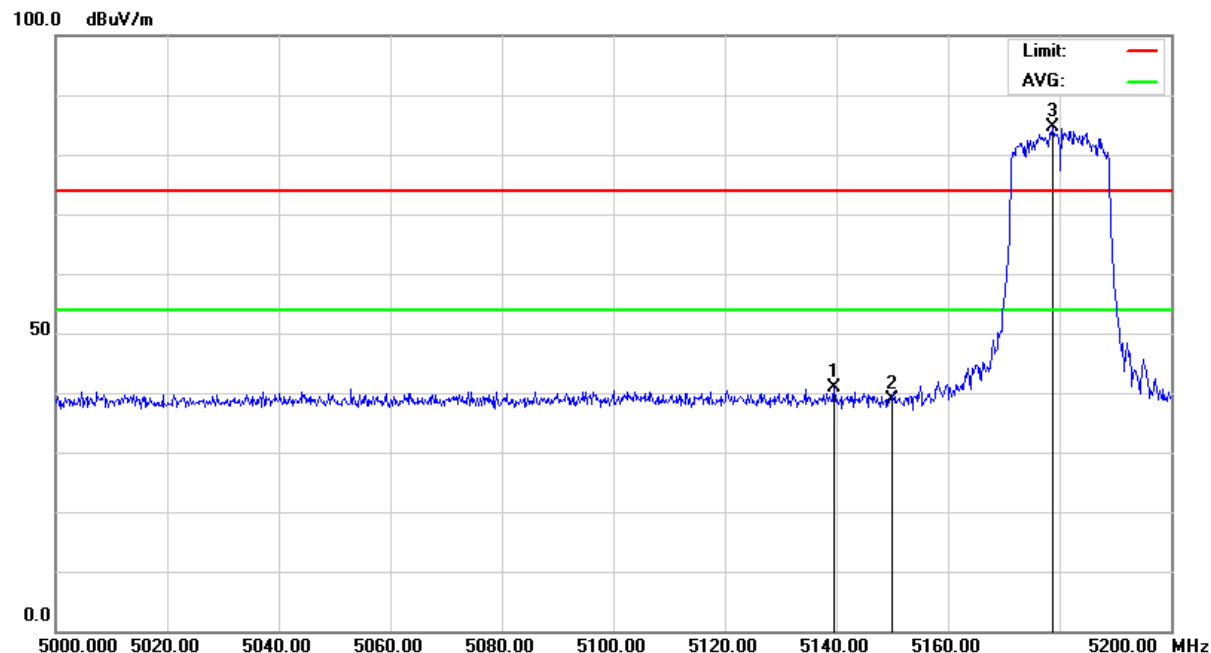
Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 348 of 420
Date: Dec. 28, 2017

Below 5150MHz (n - HT20_CH36)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical





Spectrum Research & Testing Lab., Inc.

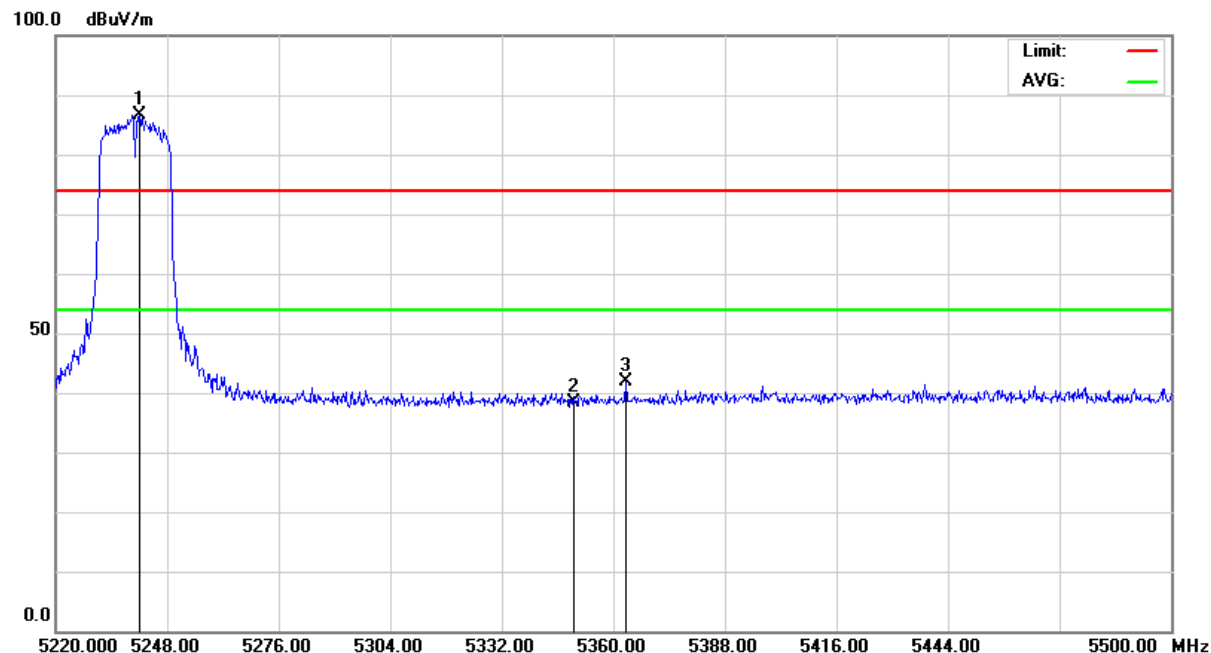
No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

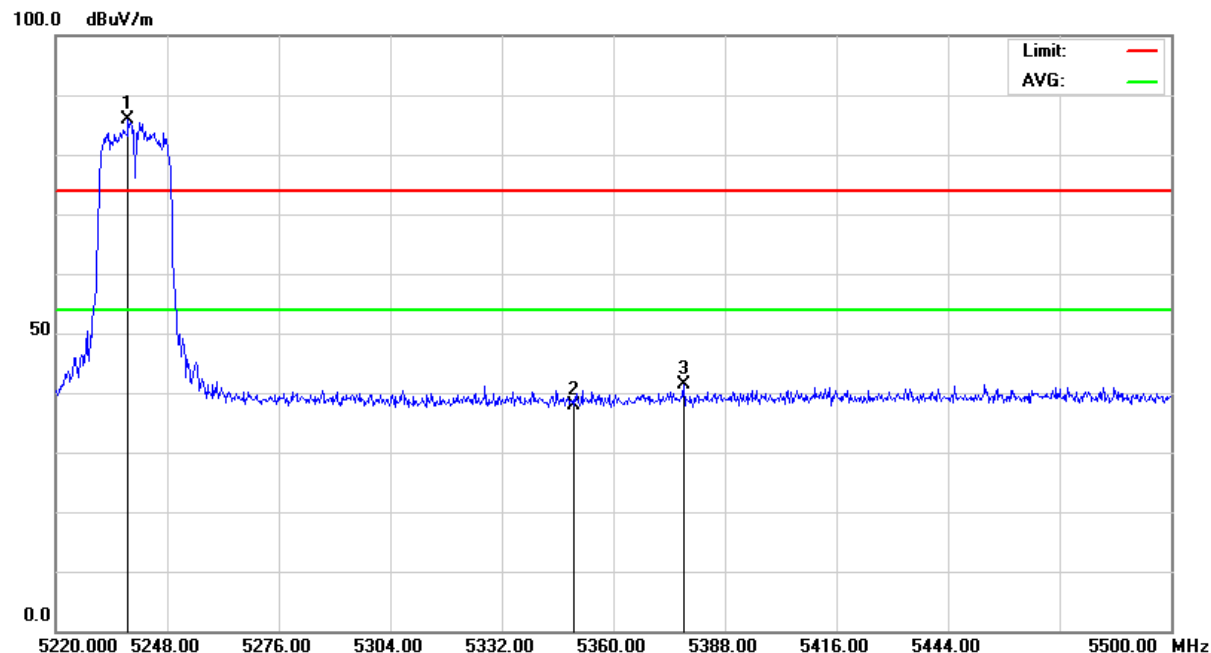
Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 349 of 420
Date: Dec. 28, 2017

Above 5350MHz (n - HT20_CH48)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical



**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORTReference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 350 of 420
Date: Dec. 28, 2017

Below 5150MHz (n - HT40_CH38)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.00 GHz – 5.215 GHz	Tested Mode:	5.1G 802.11n - HT40
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5141.96	-28.56	34.01	H	34.92	24.45	40.38	29.91	68.30	48.30	-27.92	-18.39
5116.18	-28.56	33.99	V	34.46	24.03	39.90	29.47	68.30	48.30	-28.40	-18.83
5150.00	-28.56	34.02	H	34.67	24.18	40.13	29.64	68.30	48.30	-28.17	-18.66
5150.00	-28.56	34.02	V	32.89	22.37	38.35	27.83	68.30	48.30	-29.95	-20.47

Above 5350MHz (n - HT40_CH46)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.205 GHz – 5.50 GHz	Tested Mode:	5.1G 802.11n - HT40
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5350.00	-28.55	34.18	H	31.46	21.06	37.09	26.69	68.30	48.30	-31.21	-21.61
5350.00	-28.55	34.18	V	32.49	21.98	38.12	27.61	68.30	48.30	-30.18	-20.69
5366.51	-28.55	34.19	H	35.12	24.72	40.76	30.36	68.30	48.30	-27.54	-17.94
5386.93	-28.55	34.21	V	34.44	23.99	40.10	29.65	68.30	48.30	-28.20	-18.65



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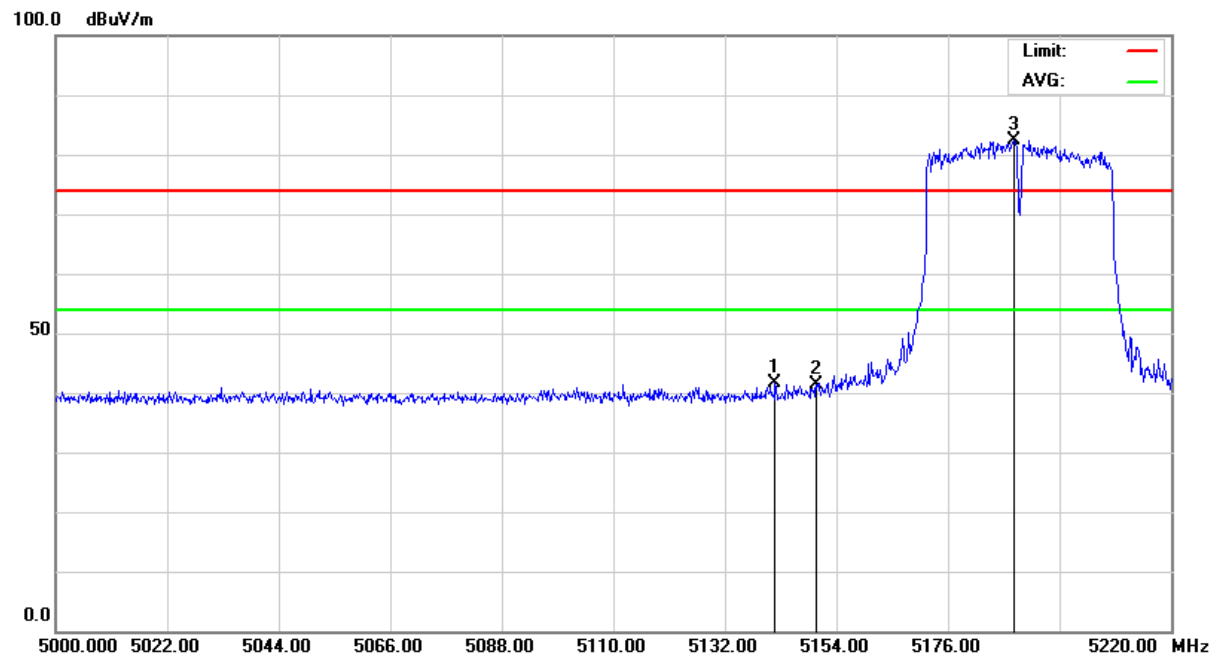
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TEST REPORT

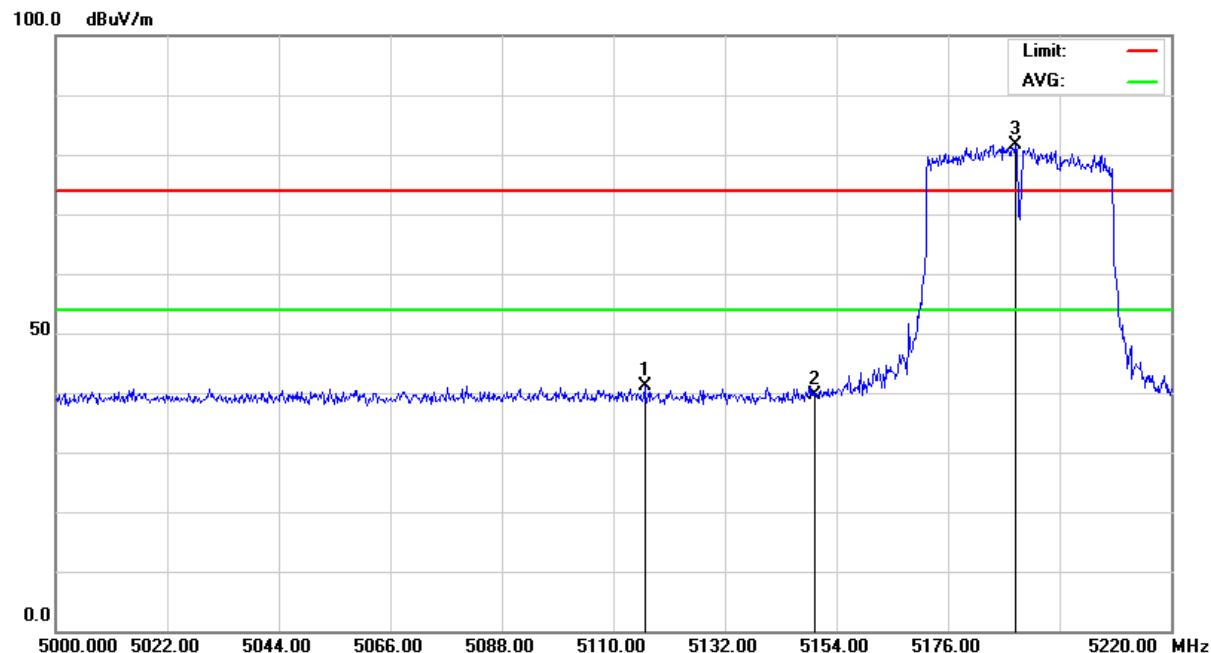
Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 351 of 420
Date: Dec. 28, 2017

Below 5150MHz (n - HT40_CH38)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical





Spectrum Research & Testing Lab., Inc.

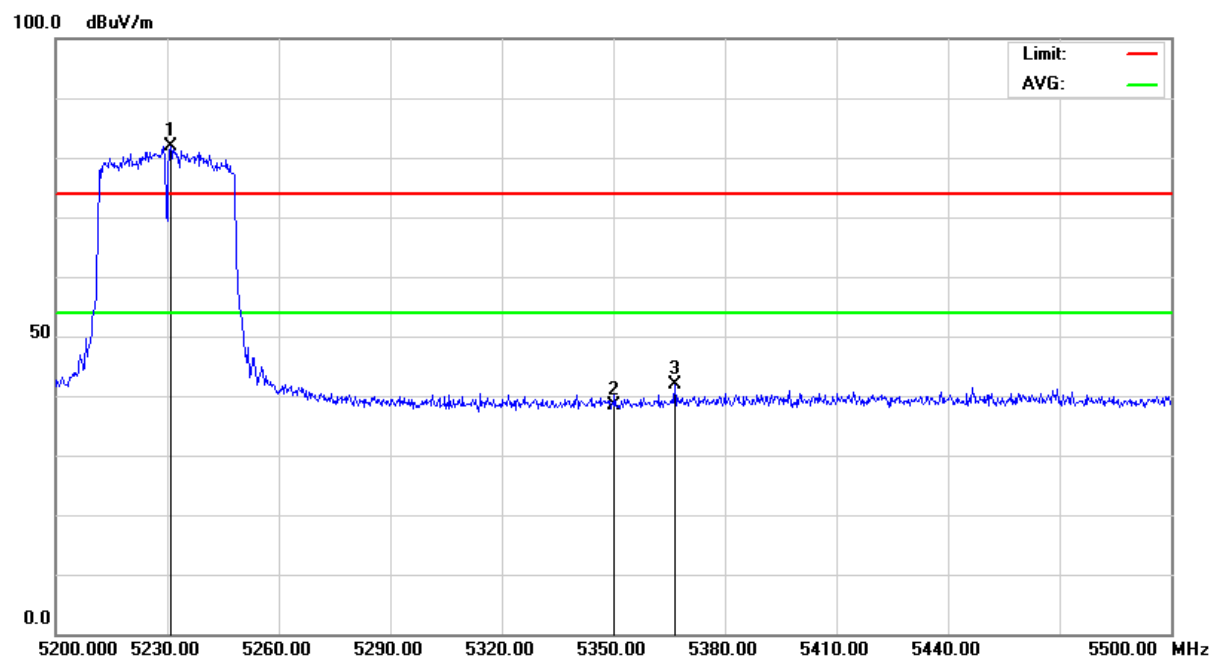
No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

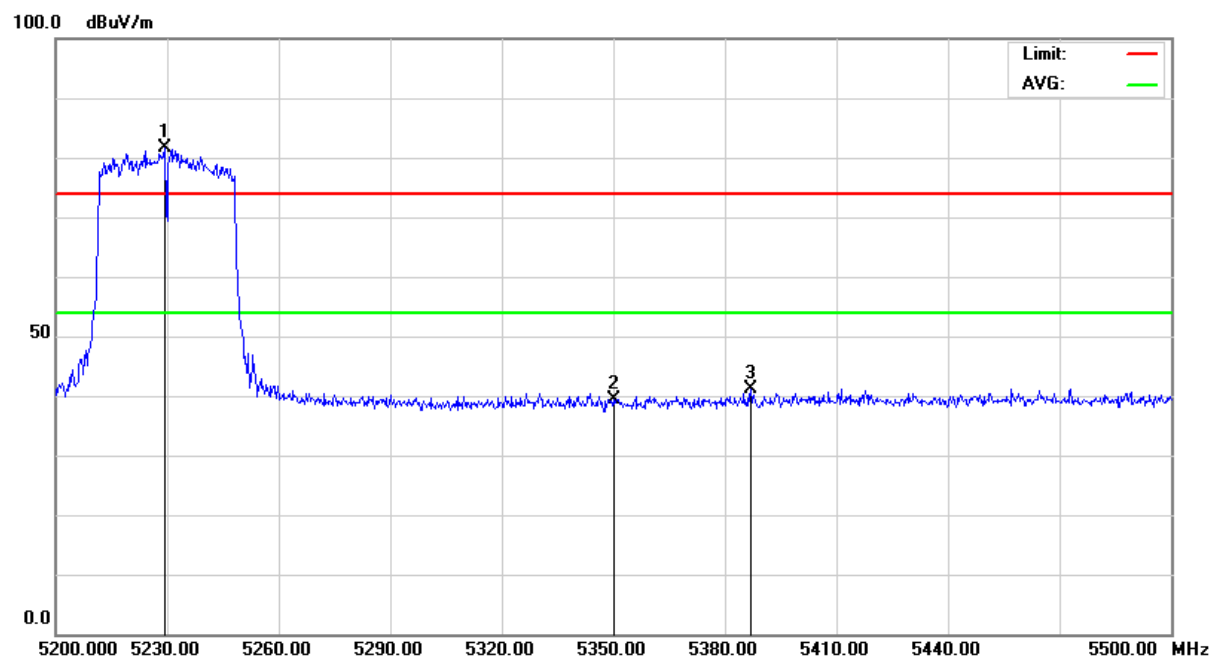
Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 352 of 420
Date: Dec. 28, 2017

Above 5350MHz (n - HT40_CH46)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical



**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 353 of 420
Date: Dec. 28, 2017

Below 5150MHz (ac - HT20_CH36)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.00 GHz – 5.195 GHz	Tested Mode:	5.1G 802.11ac - HT20
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5143.22	-28.56	34.01	H	34.69	24.18	40.15	29.64	68.30	48.30	-28.15	-18.66
5136.29	-28.56	34.01	V	35.61	25.13	41.06	30.58	68.30	48.30	-27.24	-17.72
5150.00	-28.56	34.02	H	32.56	22.01	38.02	27.47	68.30	48.30	-30.28	-20.83
5150.00	-28.56	34.02	V	33.47	22.97	38.93	28.43	68.30	48.30	-29.37	-19.87

Above 5350MHz (ac - HT20_CH48)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.225 GHz – 5.50 GHz	Tested Mode:	5.1G 802.11ac - HT20
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5350.00	-28.55	34.18	H	31.46	20.95	37.09	26.58	68.30	48.30	-31.21	-21.72
5350.00	-28.55	34.18	V	31.85	21.34	37.48	26.97	68.30	48.30	-30.82	-21.33
5400.17	-28.55	34.22	H	34.47	24.03	40.14	29.70	68.30	48.30	-28.16	-18.60
5365.65	-28.55	34.19	V	34.68	24.19	40.32	29.83	68.30	48.30	-27.98	-18.47



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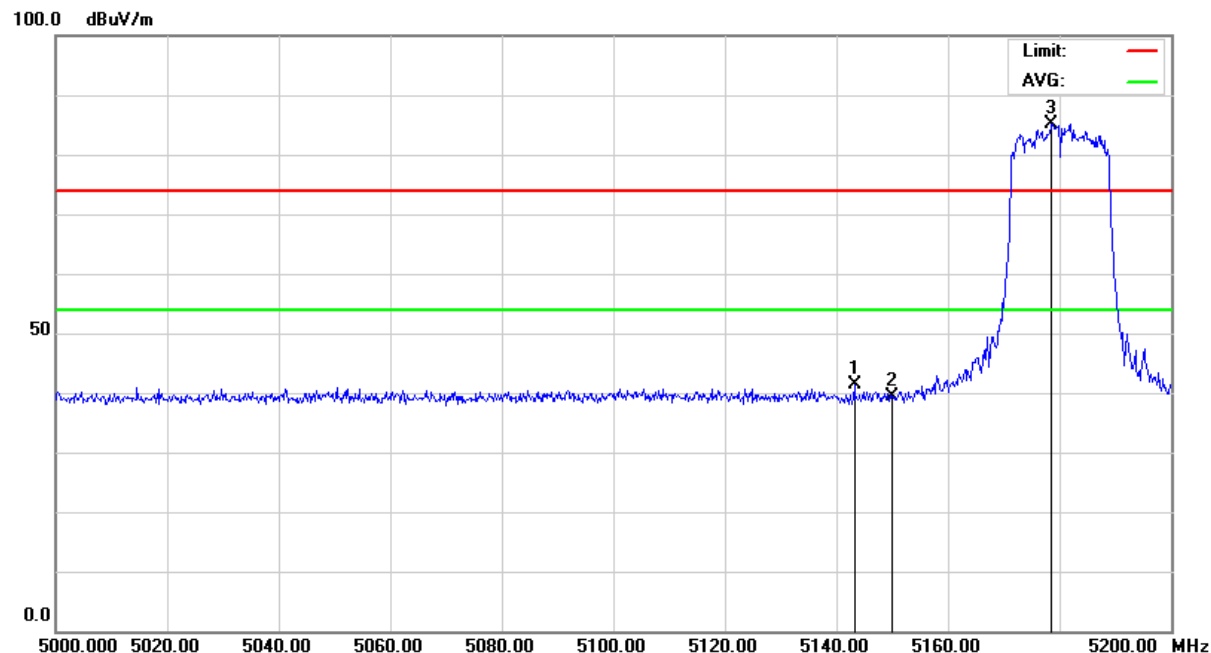
No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

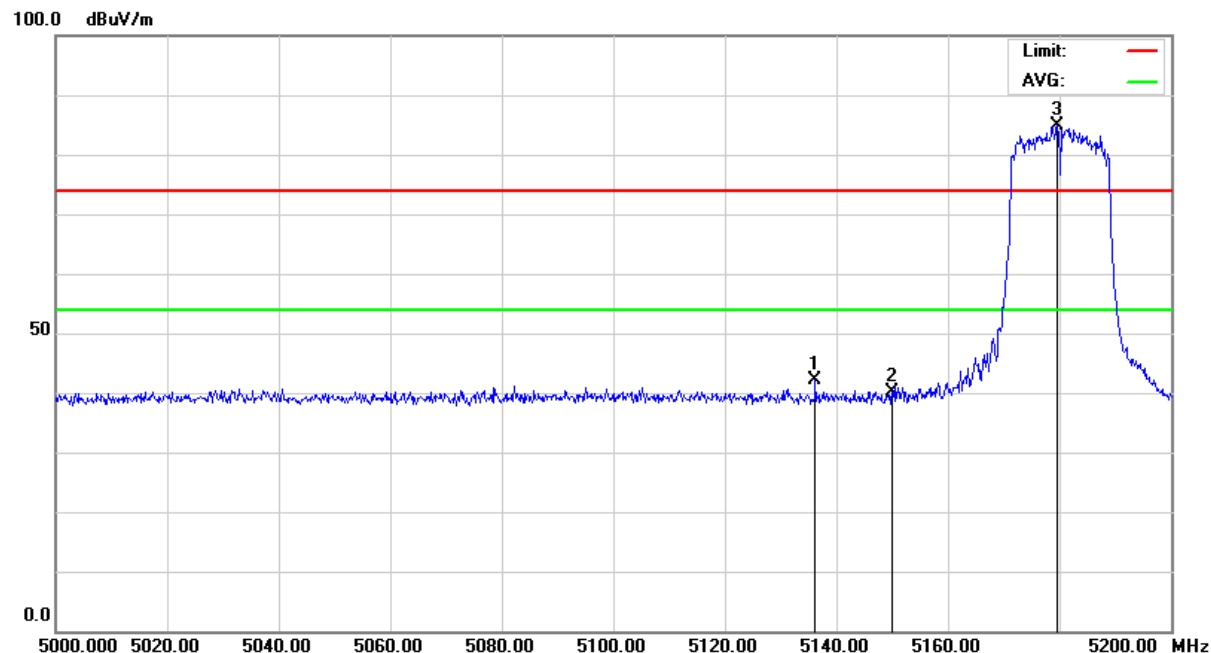
Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 354 of 420
Date: Dec. 28, 2017

Below 5150MHz (ac - HT20_CH36)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical





Spectrum Research & Testing Lab., Inc.

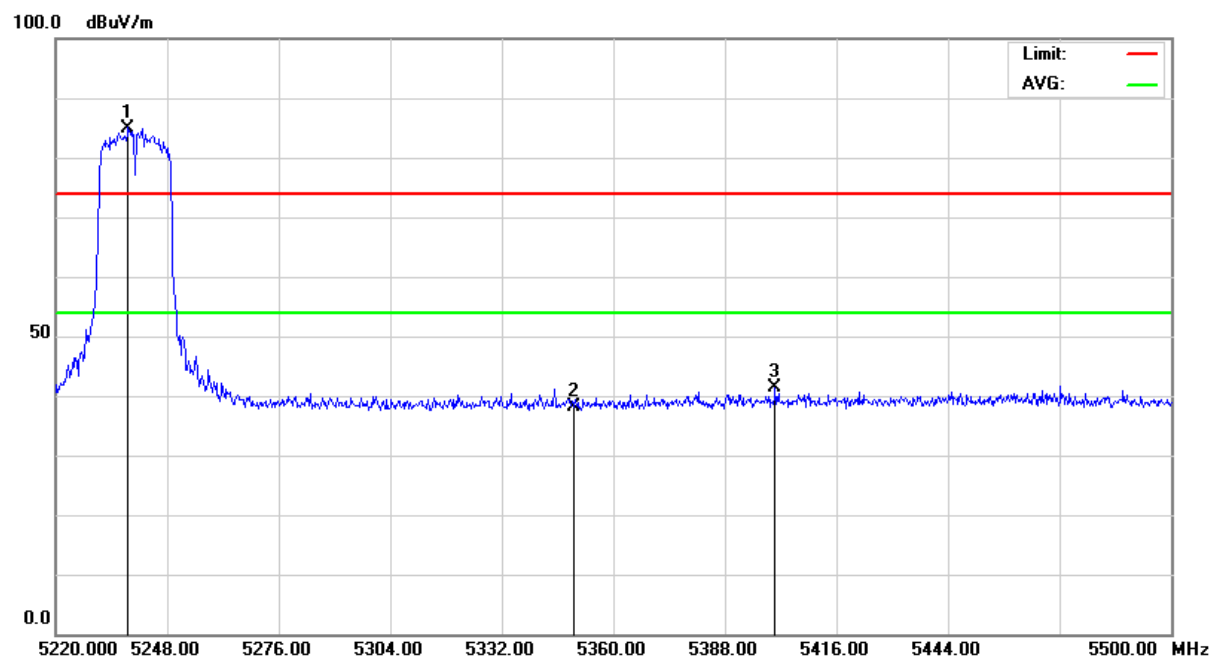
No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

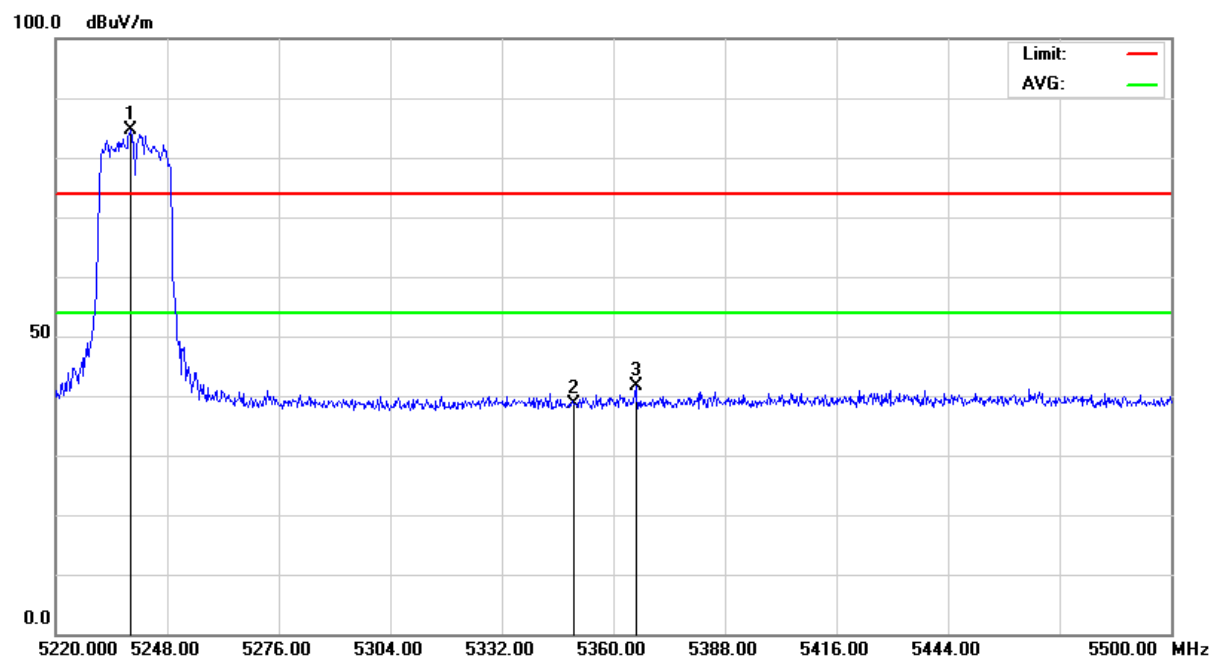
Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 355 of 420
Date: Dec. 28, 2017

Above 5350MHz (ac - HT20_CH48)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical



**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORTReference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 356 of 420
Date: Dec. 28, 2017

Below 5150MHz (ac - HT40_CH38)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.00 GHz – 5.215 GHz	Tested Mode:	5.1G 802.11ac - HT40
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5141.08	-28.56	34.01	H	34.78	24.29	40.24	29.75	68.30	48.30	-28.06	-18.55
5143.29	-28.56	34.01	V	35.50	25.03	40.96	30.49	68.30	48.30	-27.34	-17.81
5150.00	-28.56	34.02	H	32.98	22.47	38.44	27.93	68.30	48.30	-29.86	-20.37
5150.00	-28.56	34.02	V	33.62	23.18	39.08	28.64	68.30	48.30	-29.22	-19.66

Above 5350MHz (ac - HT40_CH46)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.205 GHz – 5.50 GHz	Tested Mode:	5.1G 802.11ac - HT40
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5350.00	-28.55	34.18	H	31.86	21.34	37.49	26.97	68.30	48.30	-30.81	-21.33
5350.00	-28.55	34.18	V	32.05	21.54	37.68	27.17	68.30	48.30	-30.62	-21.13
5377.04	-28.55	34.20	H	35.37	24.89	41.02	30.54	68.30	48.30	-27.28	-17.76
5362.67	-28.55	34.19	V	35.21	24.70	40.85	30.34	68.30	48.30	-27.45	-17.96



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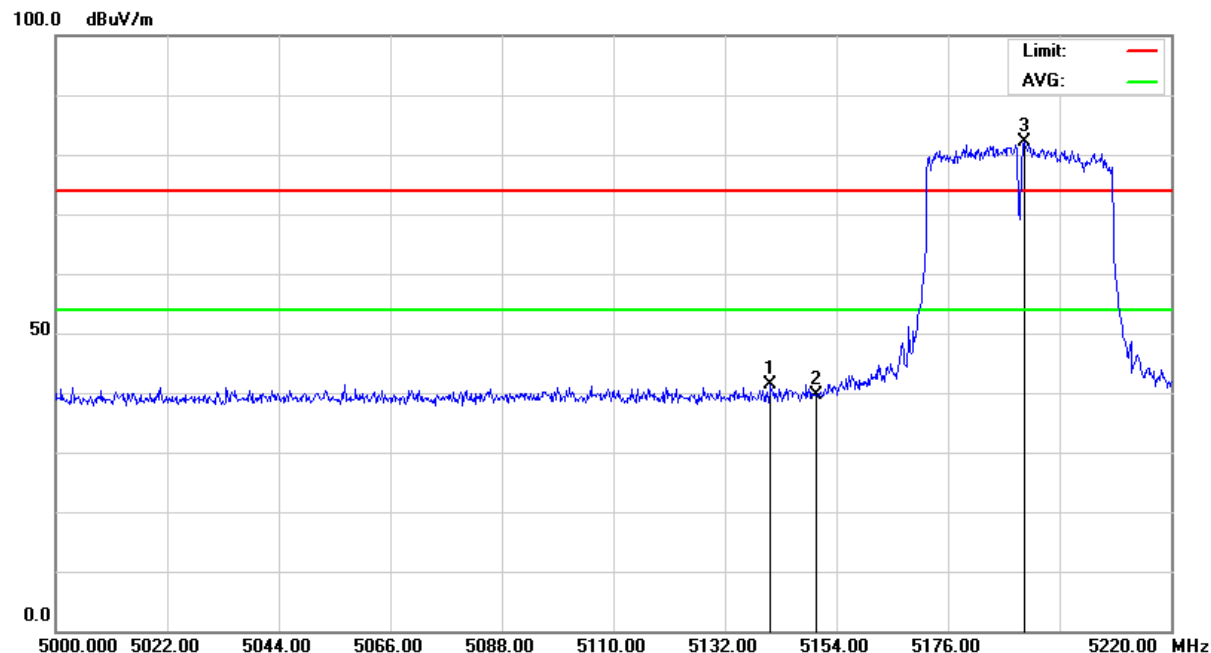
No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

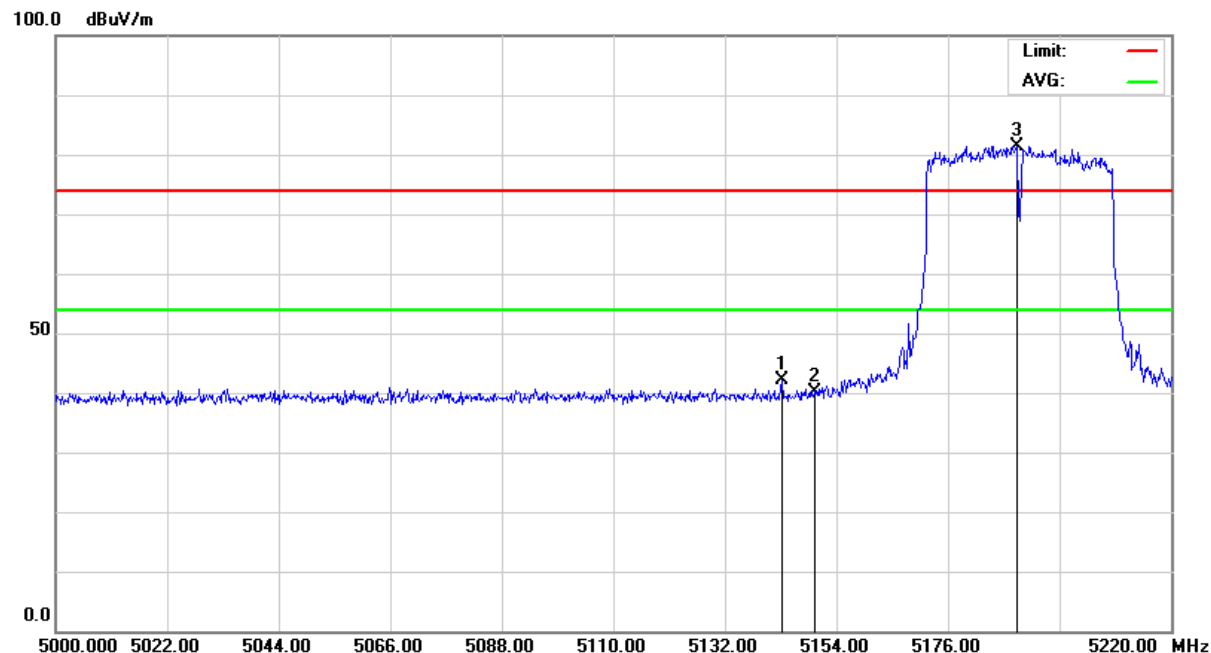
Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 357 of 420
Date: Dec. 28, 2017

Below 5150MHz (ac - HT40_CH38)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical





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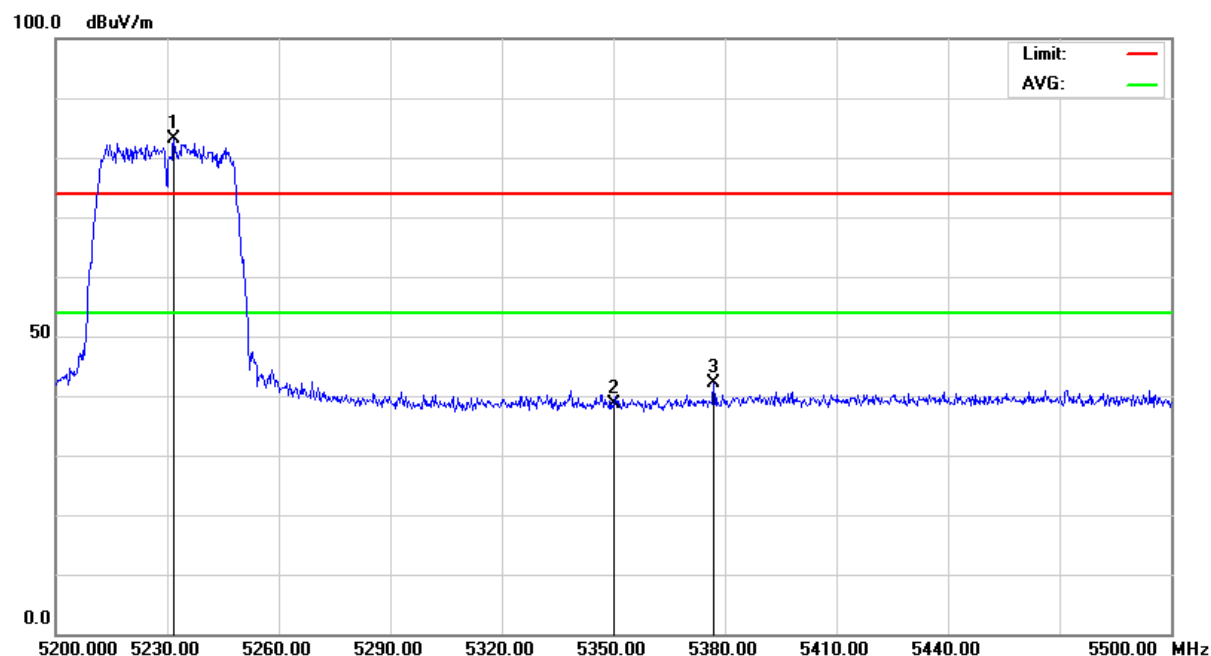
No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

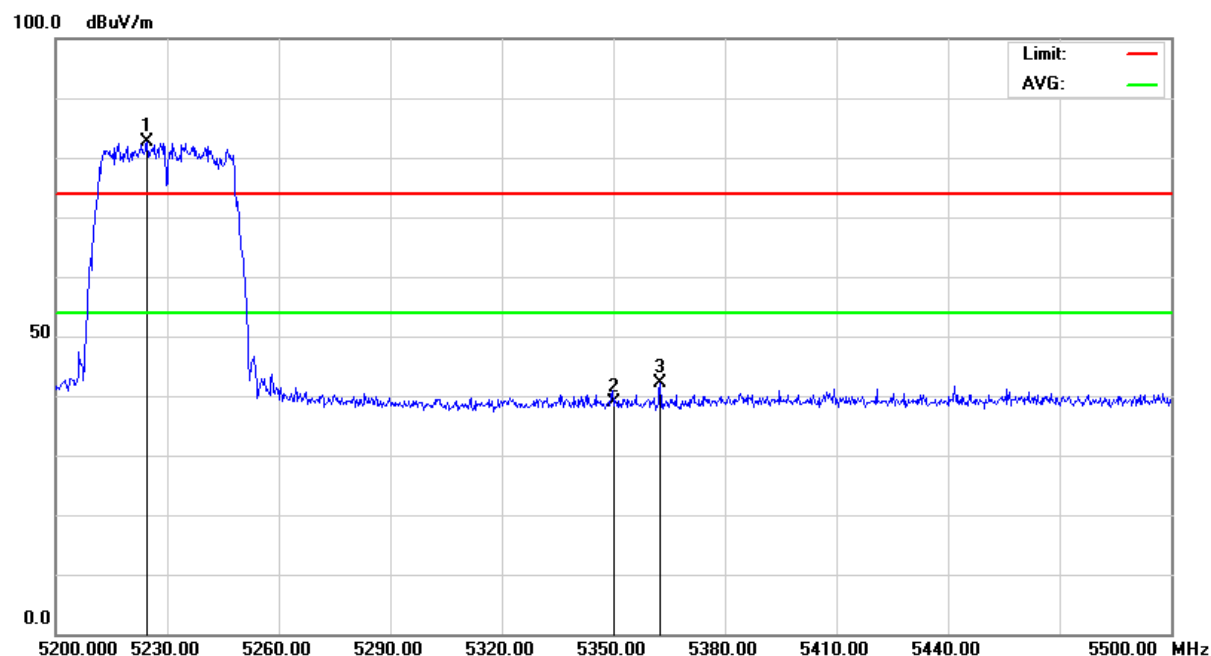
Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 358 of 420
Date: Dec. 28, 2017

Above 5350MHz (ac - HT40_CH46)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical



**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 359 of 420
Date: Dec. 28, 2017

Below 5150MHz (ac - HT80_CH42)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.00 GHz – 5.255 GHz	Tested Mode:	5.1G 802.11ac - HT80
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5138.24	-28.56	34.01	H	36.73	26.27	42.18	31.72	68.30	48.30	-26.12	-16.58
5144.36	-28.56	34.02	V	36.99	26.45	42.45	31.91	68.30	48.30	-25.85	-16.39
5150.00	-28.56	34.02	H	34.89	24.33	40.35	29.79	68.30	48.30	-27.95	-18.51
5150.00	-28.56	34.02	V	35.60	25.11	41.06	30.57	68.30	48.30	-27.24	-17.73

Above 5350MHz (ac - HT80_CH42)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.165 GHz – 5.50 GHz	Tested Mode:	5.1G 802.11ac - HT80
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5350.00	-28.55	34.18	H	32.35	21.84	37.98	27.47	68.30	48.30	-30.32	-20.83
5350.00	-28.55	34.18	V	31.56	21.03	37.19	26.66	68.30	48.30	-31.11	-21.64
5401.86	-28.55	34.22	H	34.11	23.69	39.78	29.36	68.30	48.30	-28.52	-18.94
5373.71	-28.55	34.20	V	34.50	24.02	40.15	29.67	68.30	48.30	-28.15	-18.63



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No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A17103001

Report No.: FCCA17103001-03

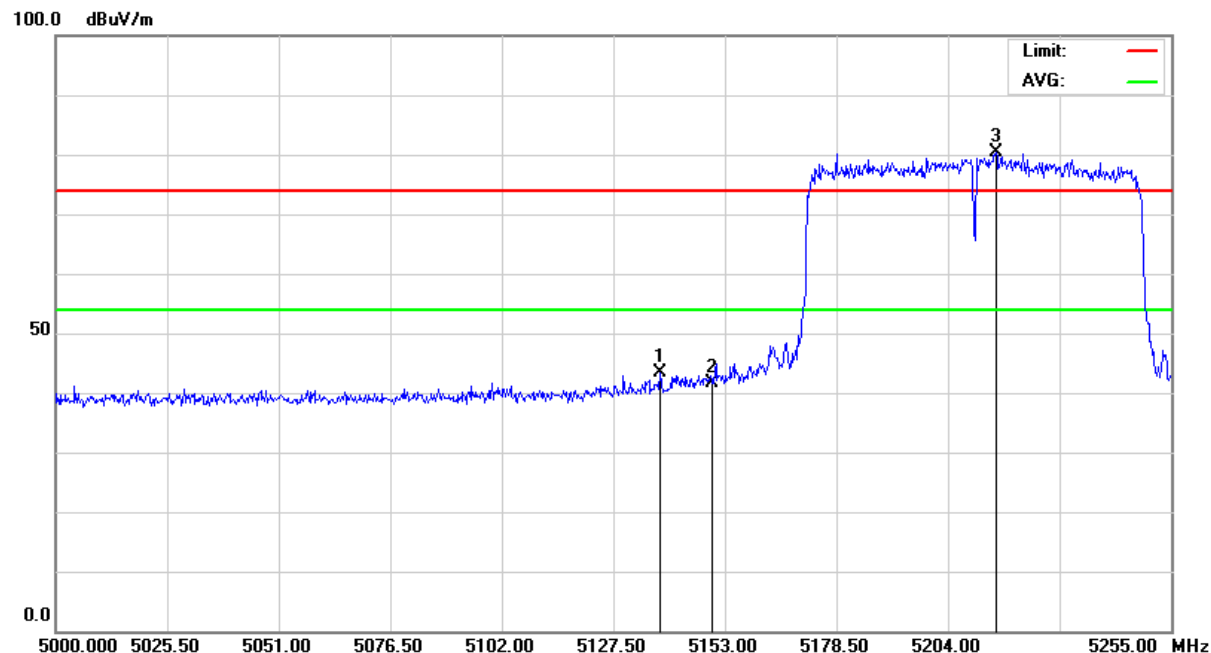
FCC ID : AHL-ALMOND3S

Page: 360 of 420

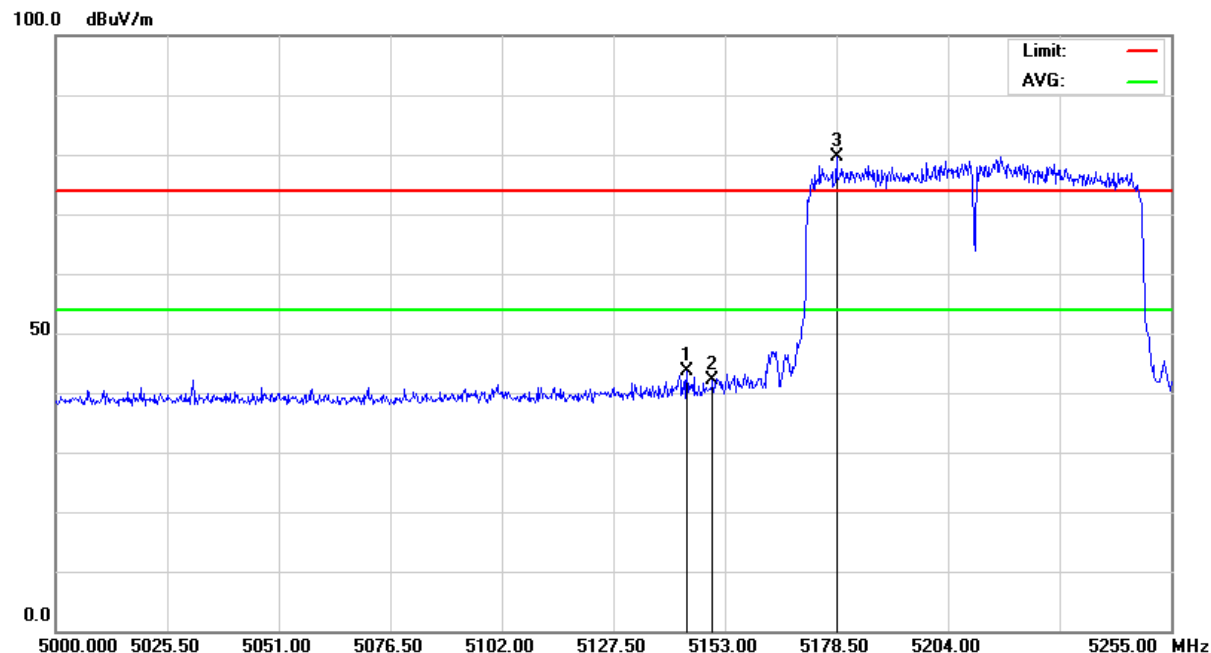
Date: Dec. 28, 2017

Below 5150MHz (ac - HT80_CH42)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical





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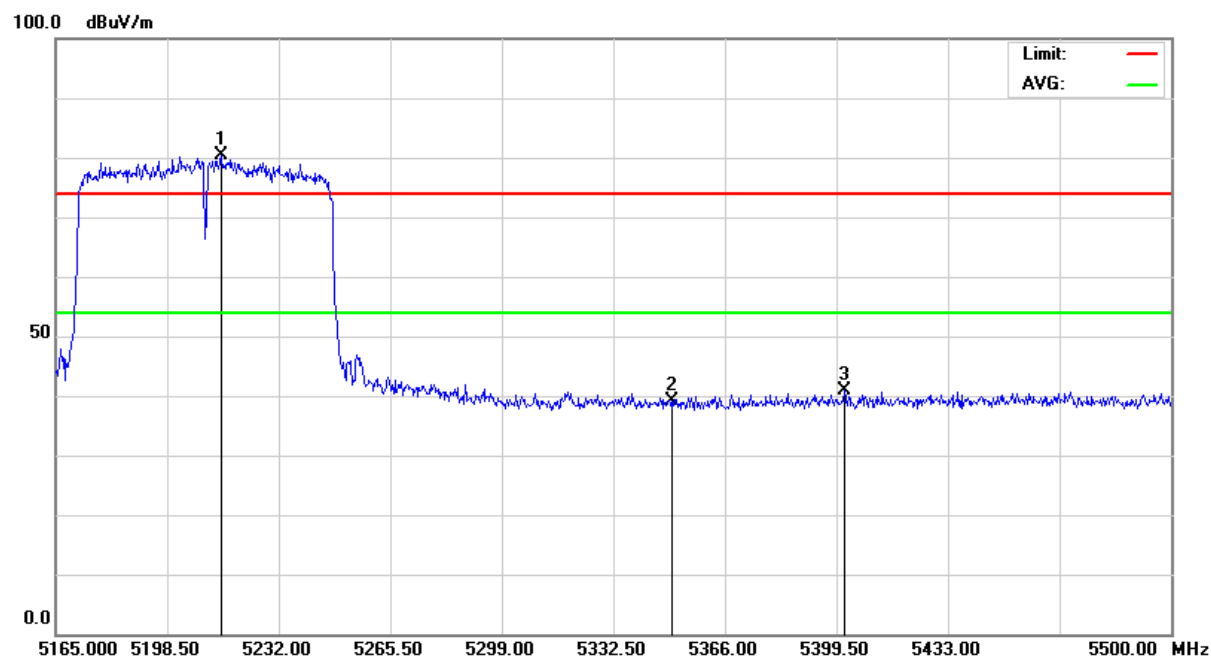
No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

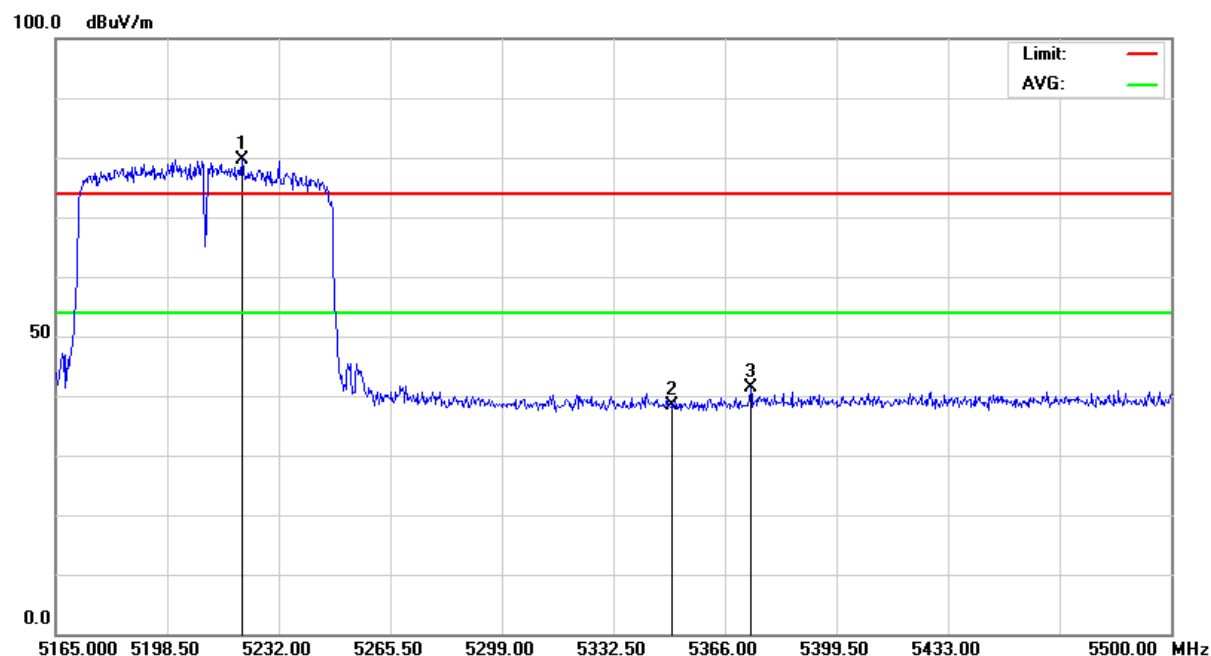
Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 361 of 420
Date: Dec. 28, 2017

Above 5350MHz (ac - HT80_CH42)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical



**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 362 of 420
Date: Dec. 28, 2017

Below 5725MHz (a_CH149)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.60 GHz – 5.76 GHz	Tested Mode:	5.8G 802.11a
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5722.59	-28.51	34.30	H	35.67	25.18	41.46	30.97	68.30	48.30	-26.84	-17.33
5723.24	-28.51	34.30	V	37.33	26.81	43.12	32.60	68.30	48.30	-25.18	-15.70
5725.00	-28.51	34.30	H	34.50	24.04	40.29	29.83	68.30	48.30	-28.01	-18.47
5725.00	-28.51	34.30	V	35.29	24.78	41.08	30.57	68.30	48.30	-27.22	-17.73

Above 5850MHz (a_CH165)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.81 GHz – 6.00 GHz	Tested Mode:	5.8G 802.11a
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5850.00	-28.49	34.30	H	32.82	22.35	38.63	28.16	68.30	48.30	-29.67	-20.14
5850.00	-28.49	34.30	V	32.39	21.84	38.20	27.65	68.30	48.30	-30.10	-20.65
5869.83	-28.48	34.30	H	33.92	23.47	39.74	29.29	68.30	48.30	-28.56	-19.01
5894.97	-28.48	34.30	V	34.06	23.51	39.88	29.33	68.30	48.30	-28.42	-18.97



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No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A17103001

Report No.: FCCA17103001-03

FCC ID : AHL-ALMOND3S

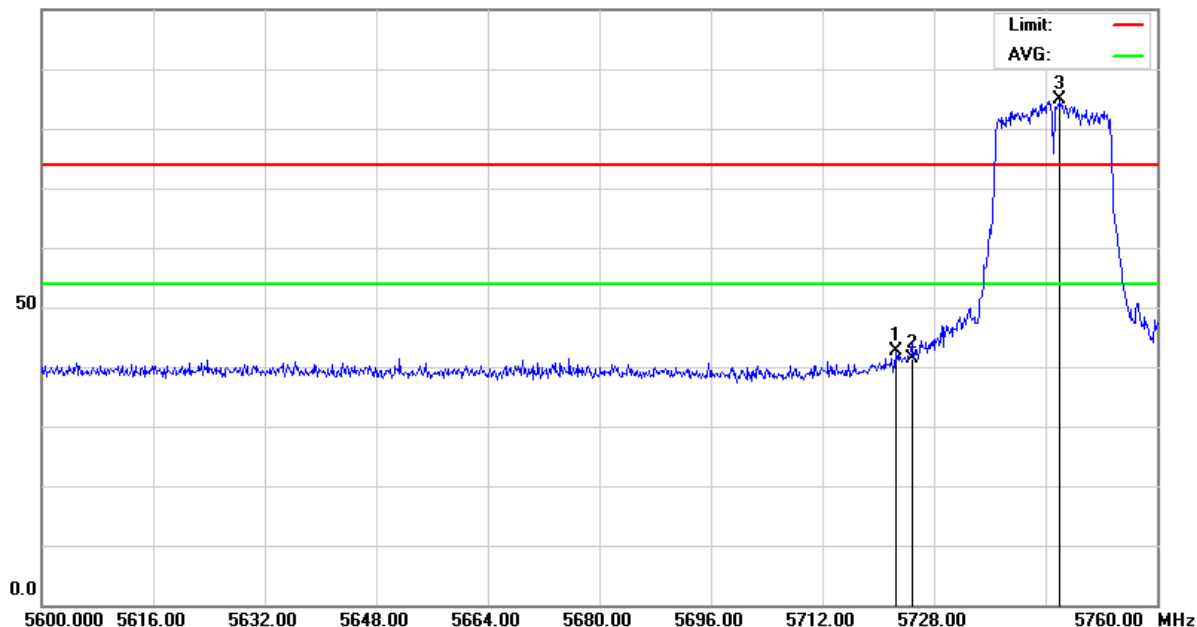
Page: 363 of 420

Date: Dec. 28, 2017

Below 5725MHz (a_CH149)

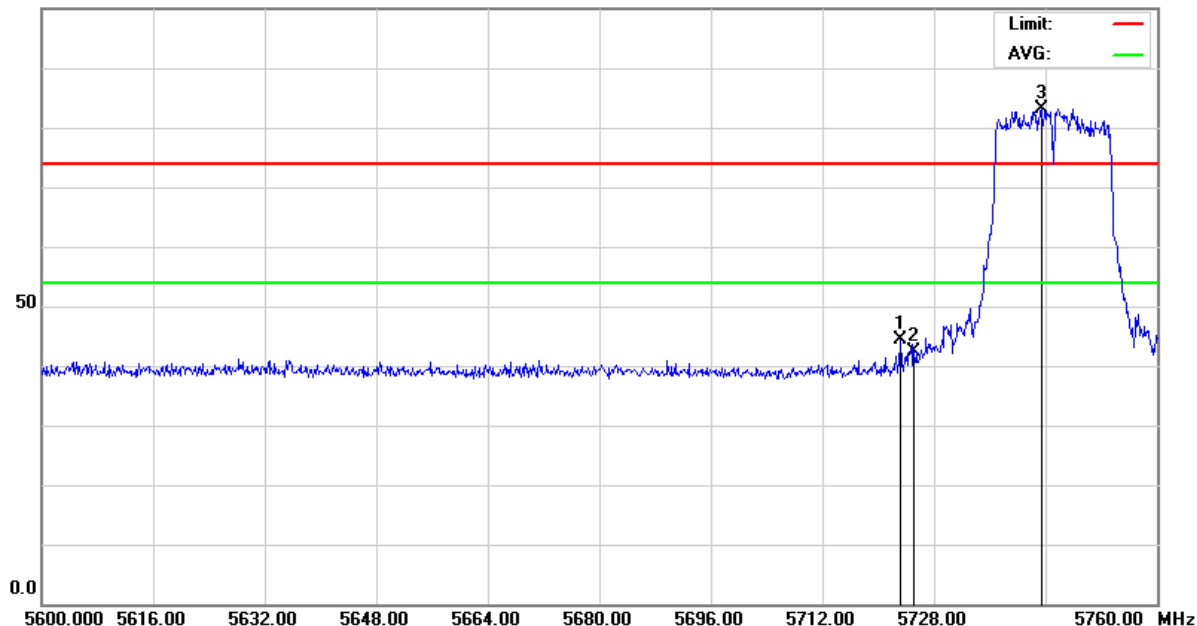
Antenna Polarization : Horizontal

100.0 dBuV/m



Antenna Polarization : Vertical

100.0 dBuV/m





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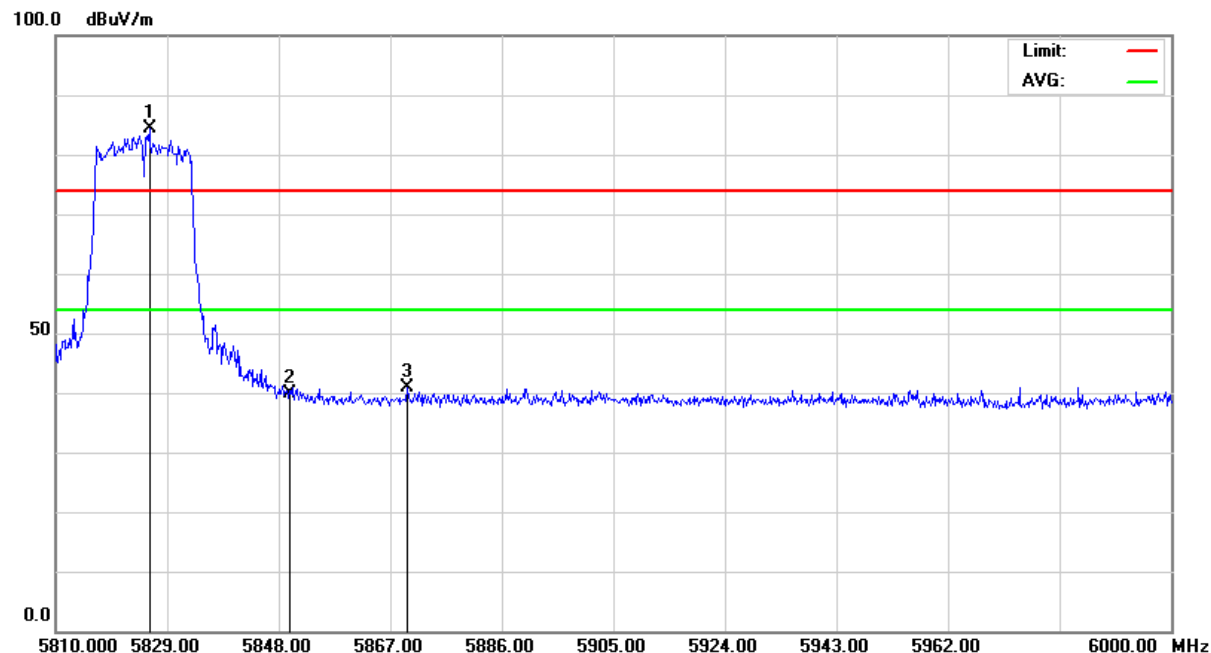
No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

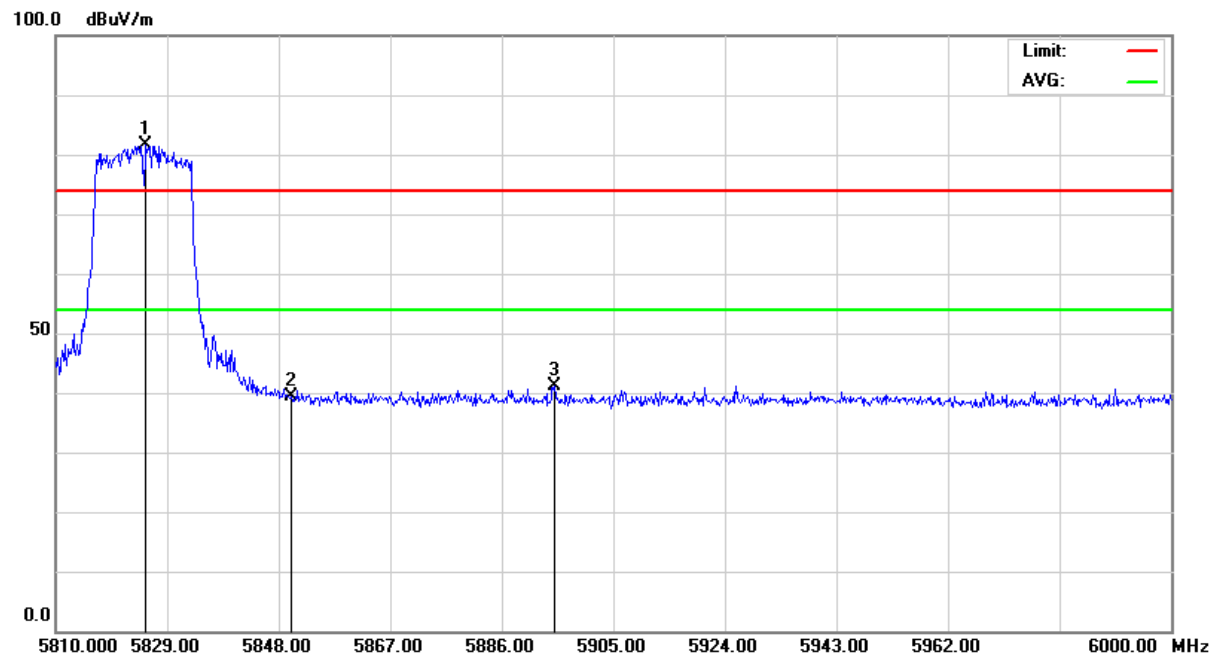
Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 364 of 420
Date: Dec. 28, 2017

Above 5850MHz (a_CH165)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical



**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORTReference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 365 of 420
Date: Dec. 28, 2017

Below 5725MHz (n - HT20_CH149)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.60 GHz – 5.76 GHz	Tested Mode:	5.8G 802.11n - HT20
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5719.30	-28.51	34.30	H	34.09	23.51	39.88	29.30	68.30	48.30	-28.42	-19.00
5716.82	-28.51	34.30	V	34.52	24.07	40.31	29.86	68.30	48.30	-27.99	-18.44
5725.00	-28.51	34.30	H	34.20	23.73	39.99	29.52	68.30	48.30	-28.31	-18.78
5725.00	-28.51	34.30	V	32.83	22.35	38.62	28.14	68.30	48.30	-29.68	-20.16

Above 5850MHz (n - HT20_CH165)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.81 GHz – 6.00 GHz	Tested Mode:	5.8G 802.11n - HT20
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5850.00	-28.49	34.30	H	31.57	21.08	37.38	26.89	68.30	48.30	-30.92	-21.41
5850.00	-28.49	34.30	V	32.48	21.98	38.29	27.79	68.30	48.30	-30.01	-20.51
5862.26	-28.48	34.30	H	34.84	24.36	40.66	30.18	68.30	48.30	-27.64	-18.12
5870.32	-28.48	34.30	V	34.53	24.02	40.35	29.84	68.30	48.30	-27.95	-18.46



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No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A17103001

Report No.: FCCA17103001-03

FCC ID : AHL-ALMOND3S

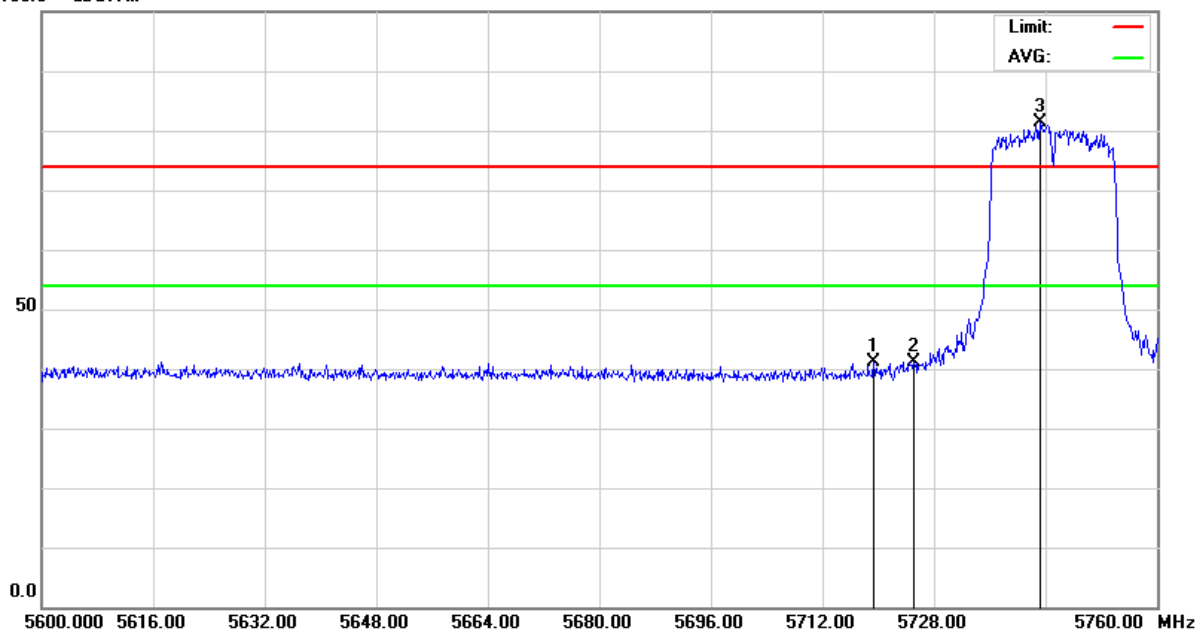
Page: 366 of 420

Date: Dec. 28, 2017

Below 5725MHz (n - HT20_CH149)

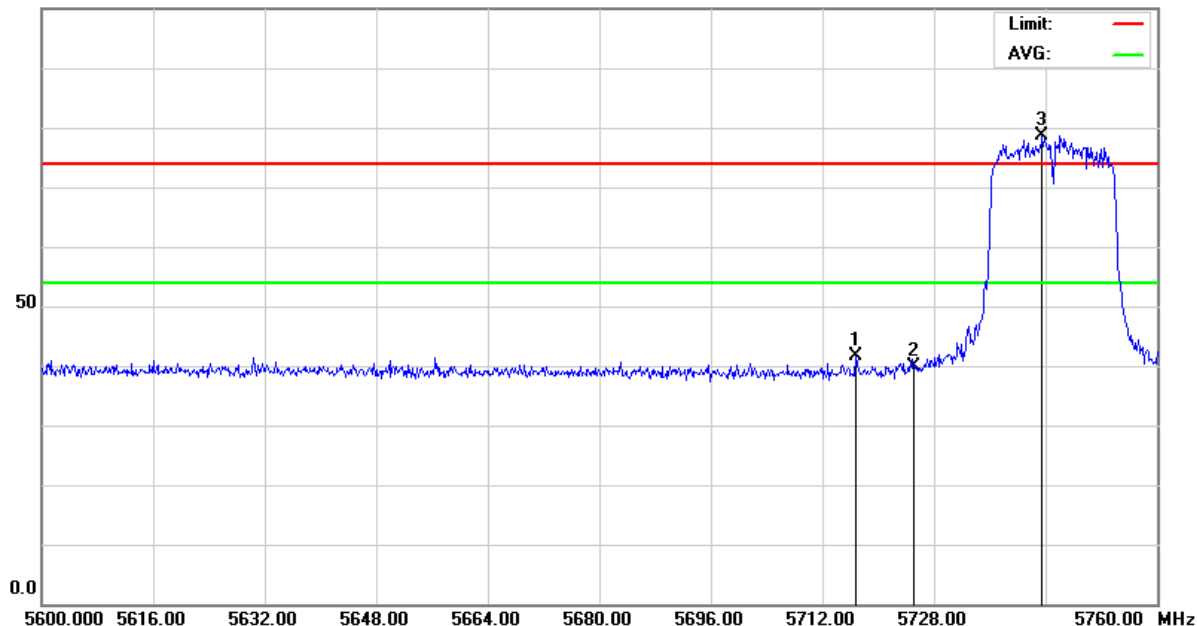
Antenna Polarization : Horizontal

100.0 dBuV/m



Antenna Polarization : Vertical

100.0 dBuV/m





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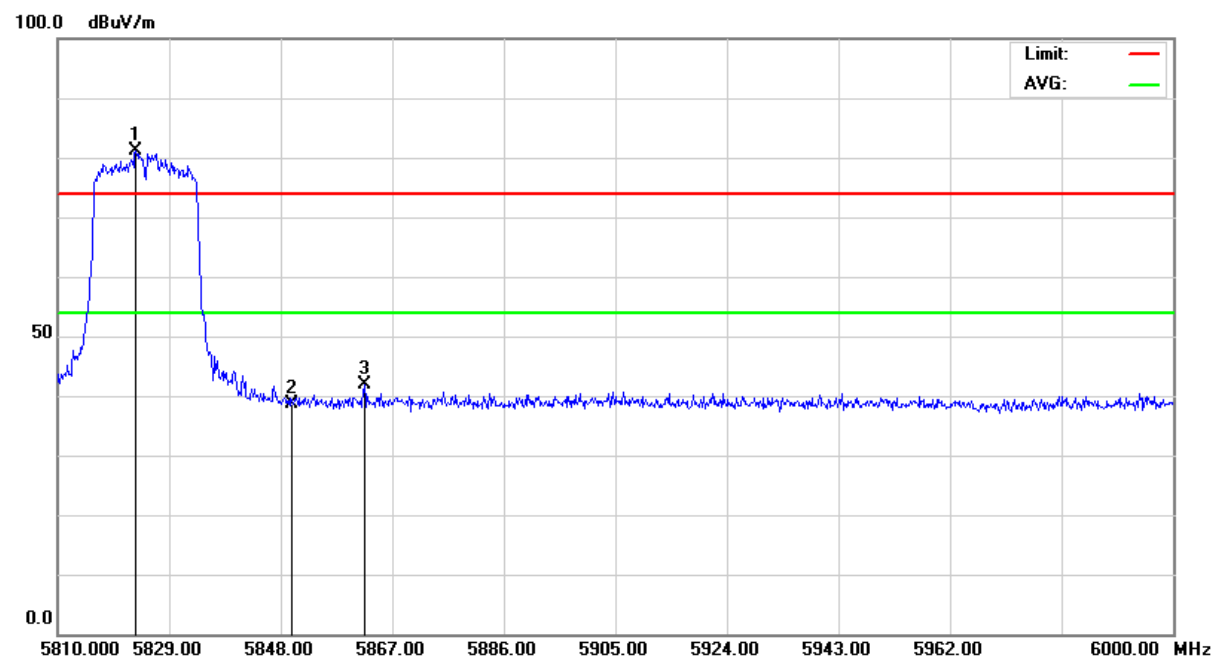
No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

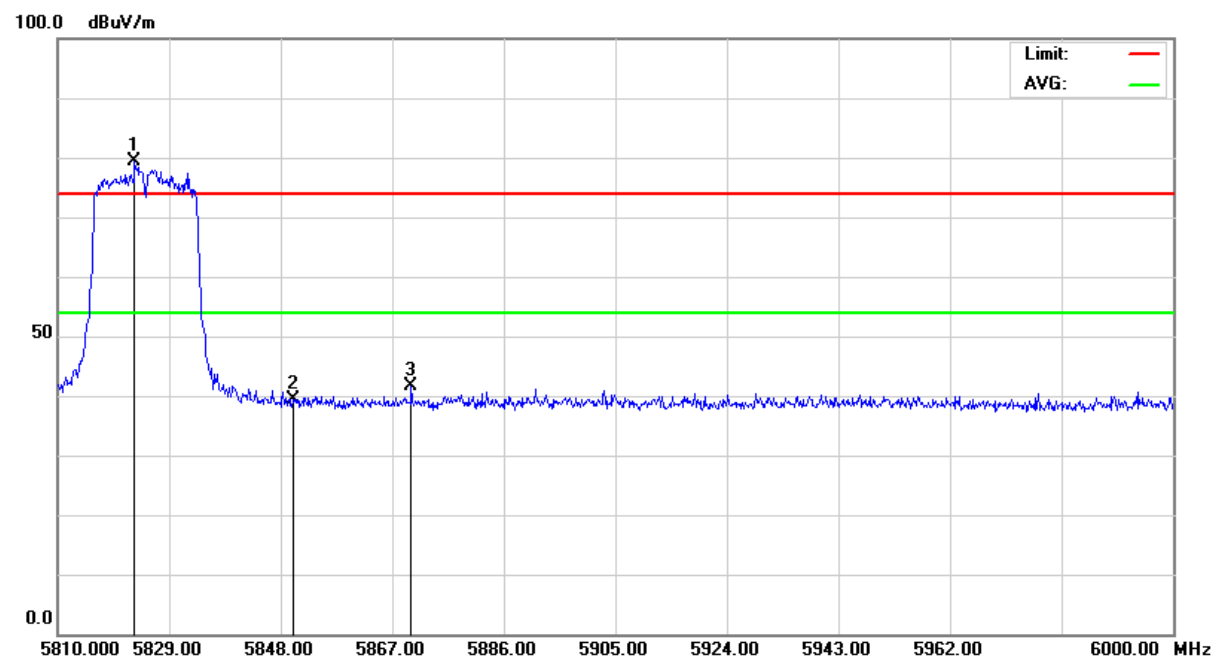
Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 367 of 420
Date: Dec. 28, 2017

Above 5850MHz (n - HT20_CH165)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical



**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 368 of 420
Date: Dec. 28, 2017

Below 5725MHz (n - HT40_CH151)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.60 GHz – 5.775 GHz	Tested Mode:	5.8G 802.11n - HT40
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5722.96	-28.51	34.30	H	36.38	25.81	42.17	31.60	68.30	48.30	-26.13	-16.70
5722.45	-28.51	34.30	V	34.63	24.17	40.42	29.96	68.30	48.30	-27.88	-18.34
5725.00	-28.51	34.30	H	34.51	24.03	40.30	29.82	68.30	48.30	-28.00	-18.48
5725.00	-28.51	34.30	V	34.00	25.55	39.79	31.34	68.30	48.30	-28.51	-16.96

Above 5850MHz (n - HT40_CH159)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.77 GHz – 6.00 GHz	Tested Mode:	5.8G 802.11n - HT40
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5850.00	-28.49	34.30	H	31.65	21.14	37.46	26.95	68.30	48.30	-30.84	-21.35
5850.00	-28.49	34.30	V	32.17	21.69	37.98	27.50	68.30	48.30	-30.32	-20.80
5868.28	-28.48	34.30	H	33.88	23.38	39.70	29.20	68.30	48.30	-28.60	-19.10
5905.91	-28.48	34.30	V	34.21	23.70	40.03	29.52	68.30	48.30	-28.27	-18.78



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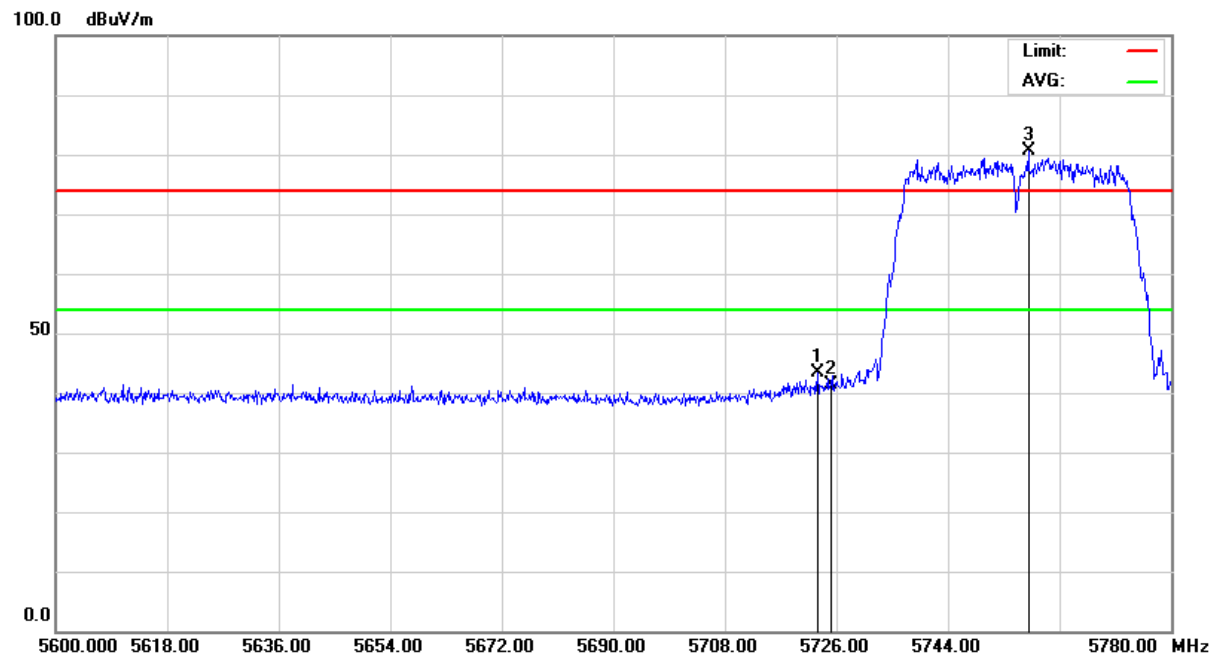
No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

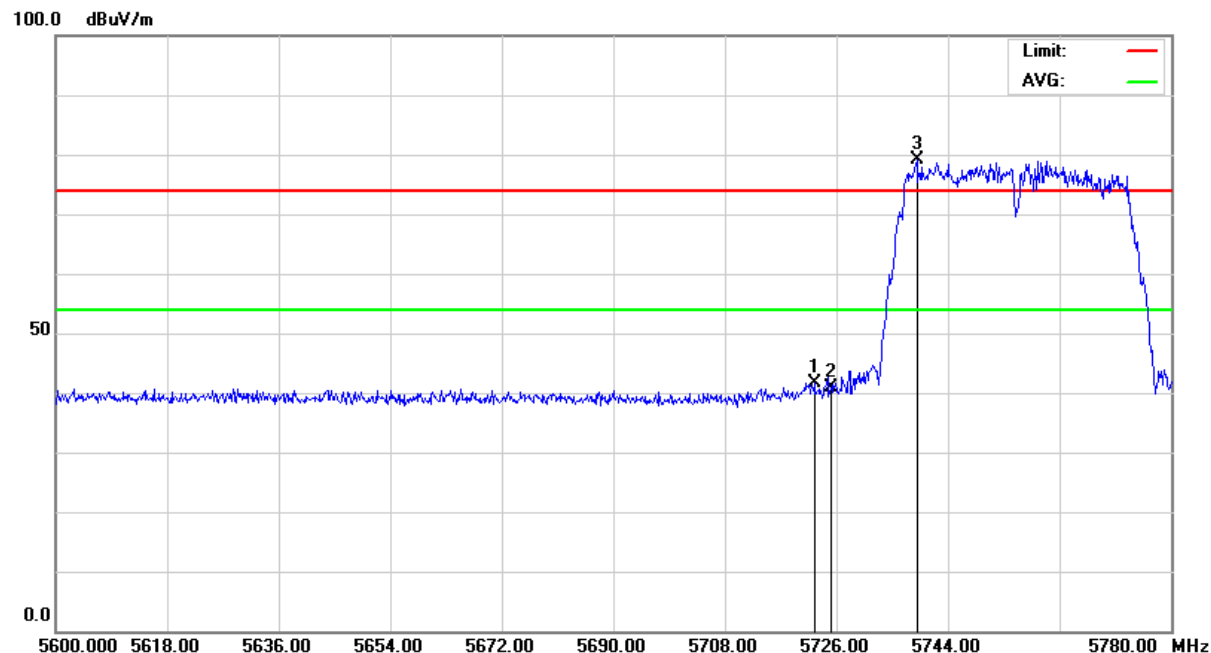
Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 369 of 420
Date: Dec. 28, 2017

Below 5725MHz (n - HT40_CH151)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical





Spectrum Research & Testing Lab., Inc.

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A17103001

Report No.: FCCA17103001-03

FCC ID : AHL-ALMOND3S

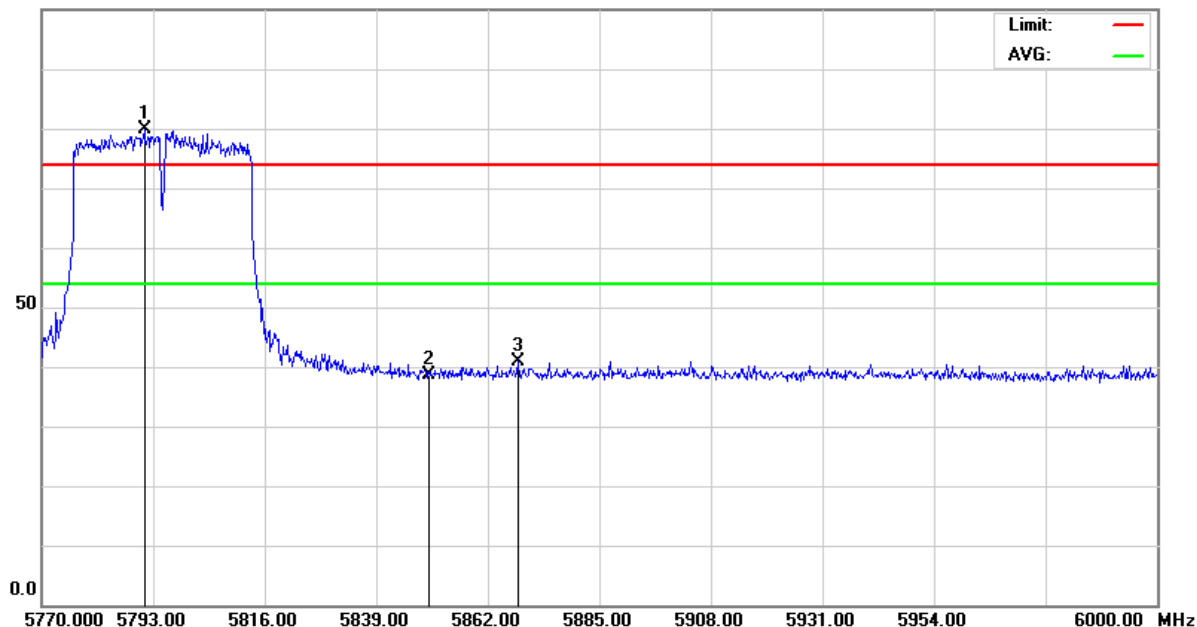
Page: 370 of 420

Date: Dec. 28, 2017

Above 5850MHz (n - HT40_CH159)

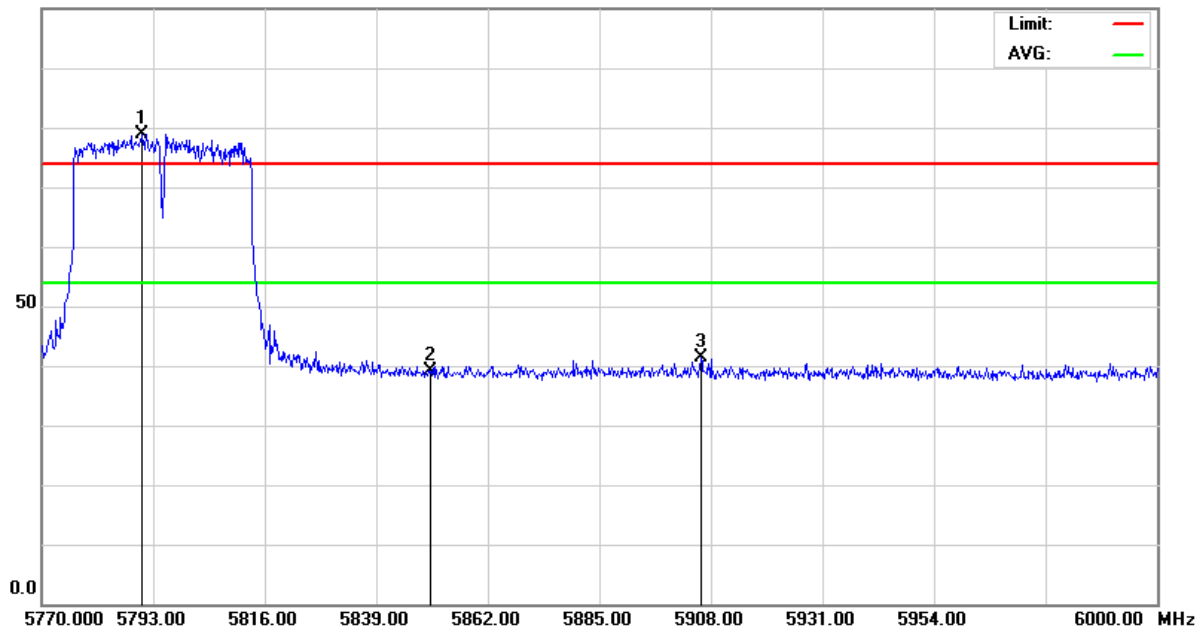
Antenna Polarization : Horizontal

100.0 dBuV/m



Antenna Polarization : Vertical

100.0 dBuV/m



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No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 371 of 420
Date: Dec. 28, 2017

Below 5725MHz (ac - HT20_CH149)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.60 GHz – 5.76 GHz	Tested Mode:	5.8G 802.11ac - HT20
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5693.13	-28.52	34.30	H	34.70	24.28	40.48	30.06	68.30	48.30	-27.82	-18.24
5715.86	-28.51	34.30	V	34.03	23.55	39.82	29.34	68.30	48.30	-28.48	-18.96
5725.00	-28.51	34.30	H	32.81	22.37	38.60	28.16	68.30	48.30	-29.70	-20.14
5725.00	-28.51	34.30	V	33.60	23.19	39.39	28.98	68.30	48.30	-28.91	-19.32

Above 5850MHz (ac - HT20_CH165)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.81 GHz – 6.00 GHz	Tested Mode:	5.8G 802.11ac - HT20
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5850.00	-28.49	34.30	H	33.52	23.03	39.33	28.84	68.30	48.30	-28.97	-19.46
5850.00	-28.49	34.30	V	32.57	22.08	38.38	27.89	68.30	48.30	-29.92	-20.41
5886.39	-28.48	34.30	H	34.21	23.77	40.03	29.59	68.30	48.30	-28.27	-18.71
5852.53	-28.49	34.30	V	34.17	23.60	39.98	29.41	68.30	48.30	-28.32	-18.89



Spectrum Research & Testing Lab., Inc.

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A17103001

Report No.: FCCA17103001-03

FCC ID : AHL-ALMOND3S

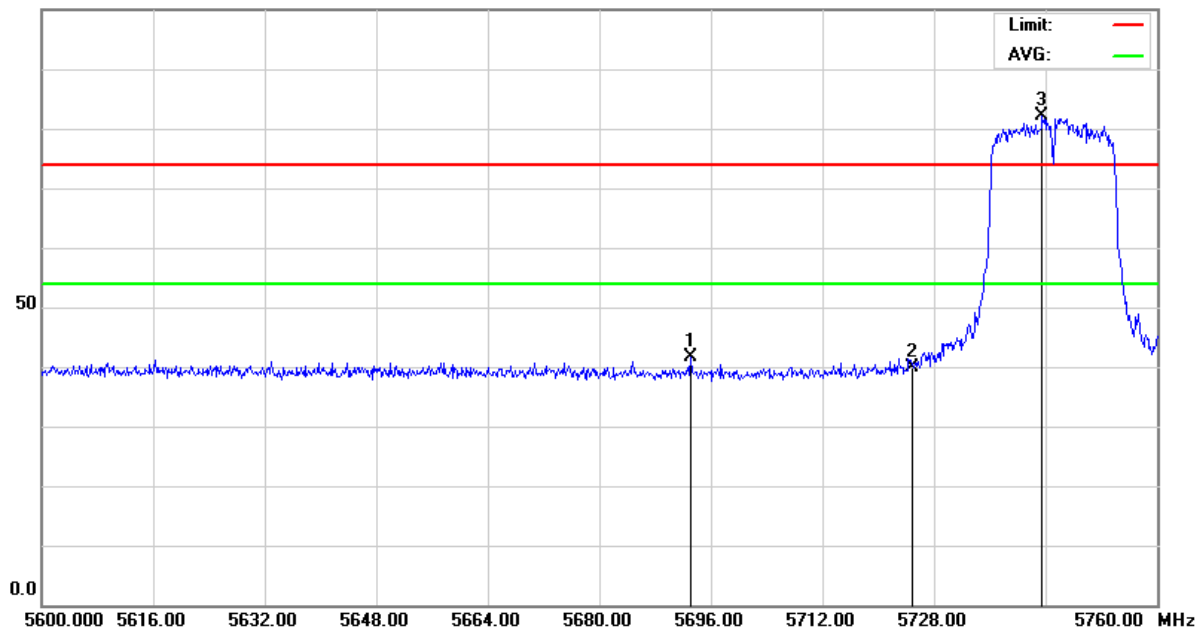
Page: 372 of 420

Date: Dec. 28, 2017

Below 5725MHz (ac - HT20_CH149)

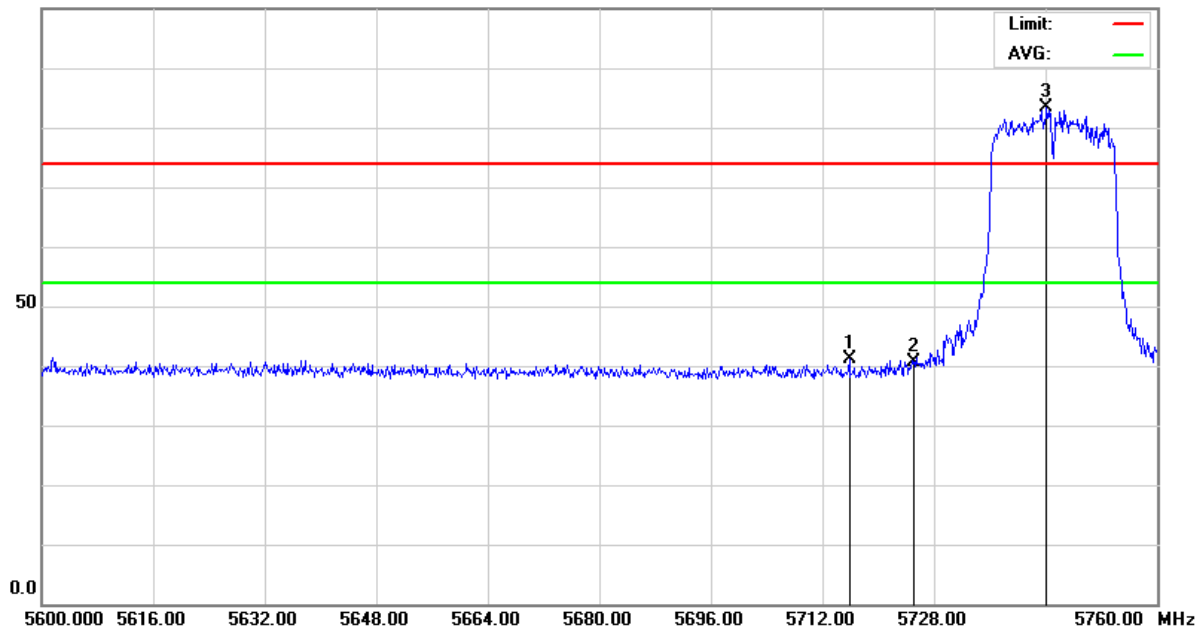
Antenna Polarization : Horizontal

100.0 dBuV/m



Antenna Polarization : Vertical

100.0 dBuV/m





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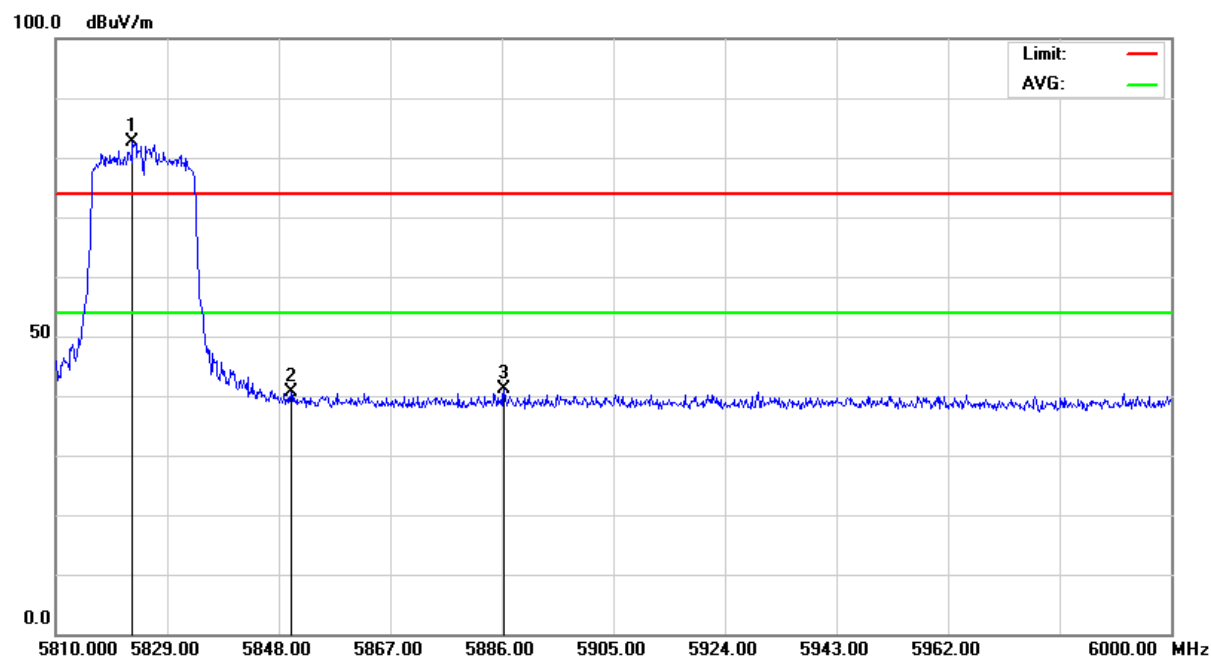
No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

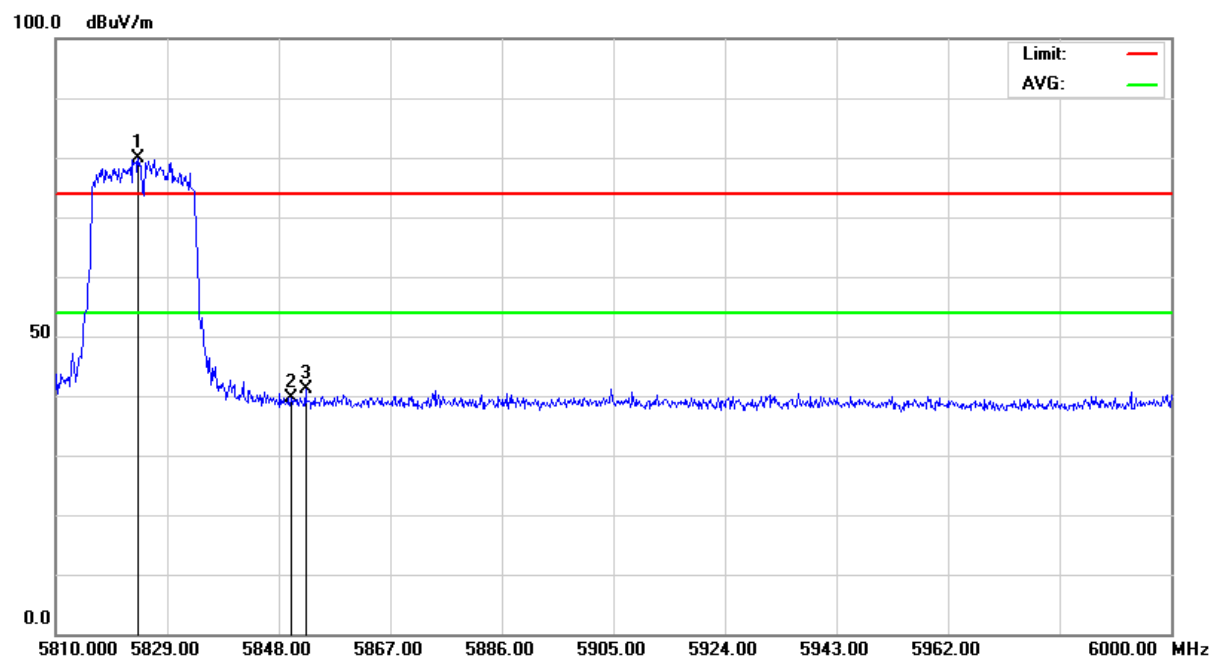
Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 373 of 420
Date: Dec. 28, 2017

Above 5850MHz (ac - HT20_CH165)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical



**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORTReference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 374 of 420
Date: Dec. 28, 2017

Below 5725MHz (ac - HT40_CH151)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.60 GHz – 5.775 GHz	Tested Mode:	5.8G 802.11ac - HT40
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5717.98	-28.51	34.30	H	35.44	24.97	41.23	30.76	68.30	48.30	-27.07	-17.54
5719.17	-28.51	34.30	V	35.67	25.15	41.46	30.94	68.30	48.30	-26.84	-17.36
5725.00	-28.51	34.30	H	34.61	24.19	40.40	29.98	68.30	48.30	-27.90	-18.32
5725.00	-28.51	34.30	V	32.53	22.01	38.32	27.80	68.30	48.30	-29.98	-20.50

Above 5850MHz (ac - HT40_CH159)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.77 GHz – 6.00 GHz	Tested Mode:	5.8G 802.11ac - HT40
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5850.00	-28.49	34.30	H	31.68	21.23	37.49	27.04	68.30	48.30	-30.81	-21.26
5850.00	-28.49	34.30	V	32.27	21.78	38.08	27.59	68.30	48.30	-30.22	-20.71
5896.02	-28.48	34.30	H	34.10	23.60	39.92	29.42	68.30	48.30	-28.38	-18.88
5881.39	-28.48	34.30	V	34.44	23.99	40.26	29.81	68.30	48.30	-28.04	-18.49



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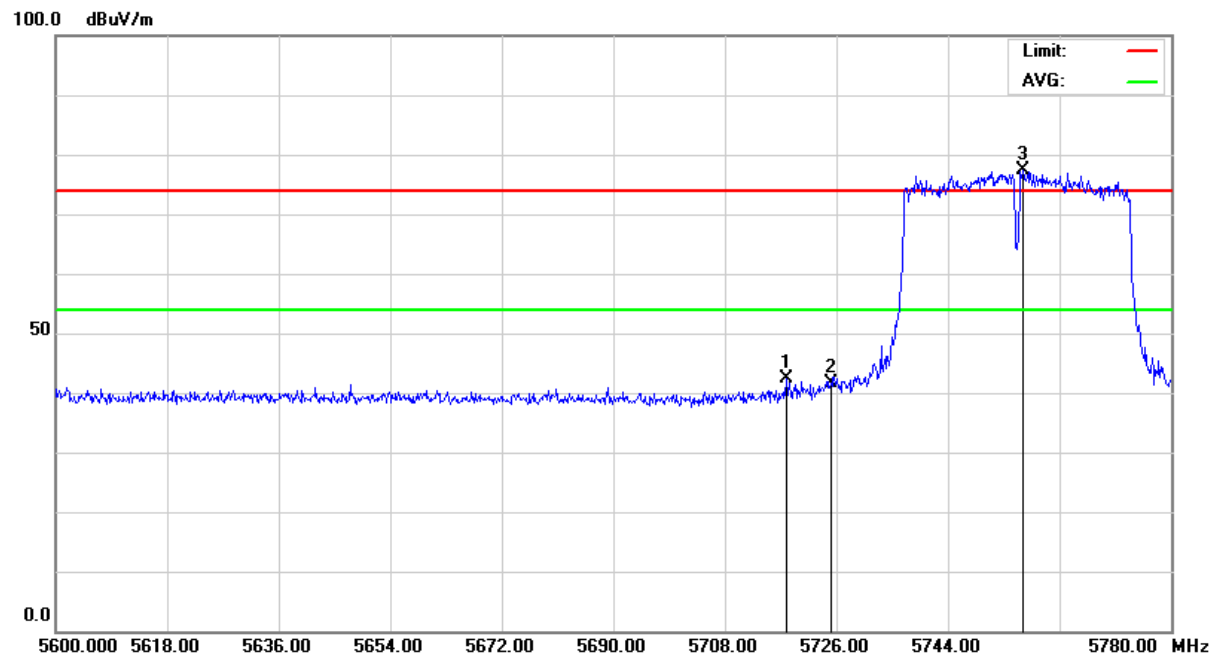
No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

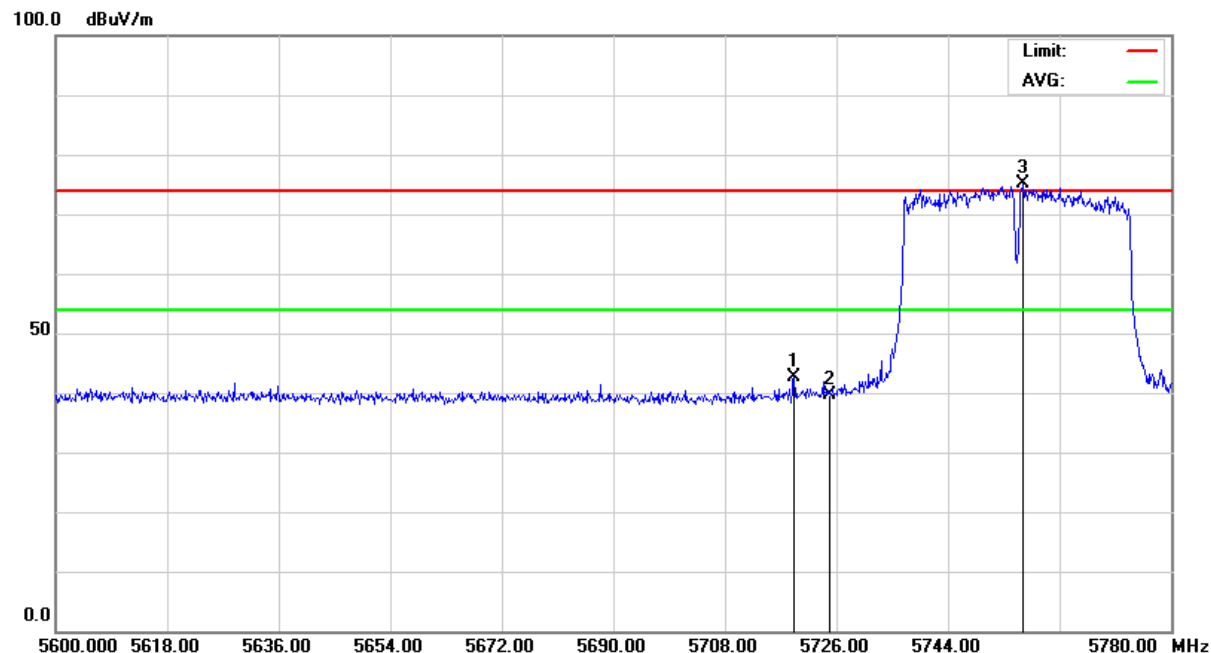
Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 375 of 420
Date: Dec. 28, 2017

Below 5725MHz (ac - HT40_CH151)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical





Spectrum Research & Testing Lab., Inc.

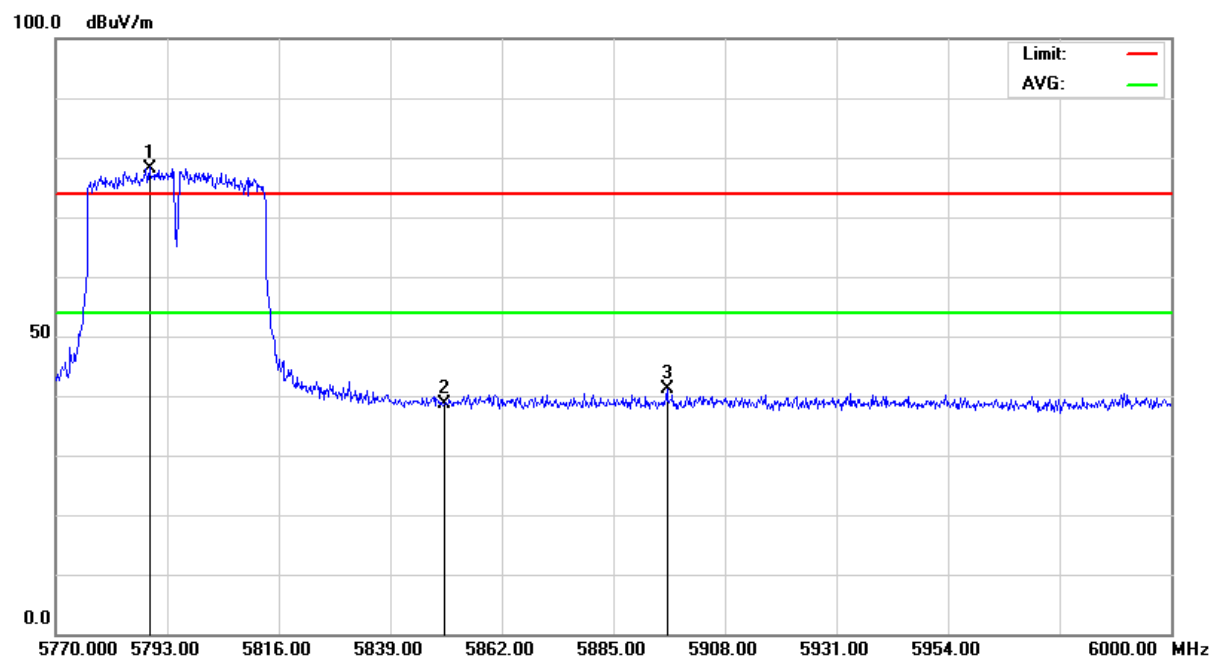
No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

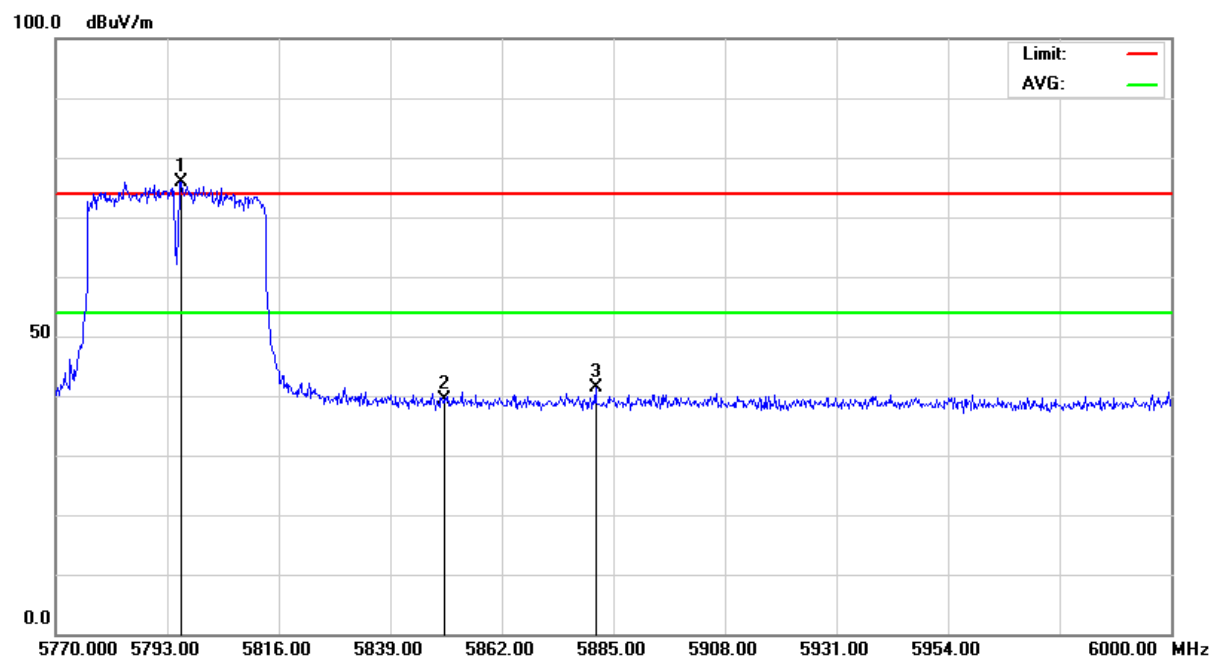
Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 376 of 420
Date: Dec. 28, 2017

Above 5850MHz (ac - HT40_CH159)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical



**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORTReference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 377 of 420
Date: Dec. 28, 2017

Below 5725MHz (ac - HT80_CH155)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.60 GHz – 5.82 GHz	Tested Mode:	5.8G 802.11ac - HT80
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5713.56	-28.51	34.30	H	35.97	25.47	41.76	31.26	68.30	48.30	-26.54	-17.04
5720.79	-28.51	34.30	V	34.54	24.13	40.33	29.92	68.30	48.30	-27.97	-18.38
5725.00	-28.51	34.30	H	35.05	24.55	40.84	30.34	68.30	48.30	-27.46	-17.96
5725.00	-28.51	34.30	V	33.42	23.01	39.21	28.80	68.30	48.30	-29.09	-19.50

Above 5850MHz (ac - HT80_CH155)

Temperature:	19 °C	Humidity:	72 %RH
Frequency Range:	5.73 GHz – 6.00 GHz	Tested Mode:	5.8G 802.11ac - HT80
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 14, 2017

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
5850.00	-28.49	34.30	H	31.79	21.28	37.60	27.09	68.30	48.30	-30.70	-21.21
5850.00	-28.49	34.30	V	32.48	22.07	38.29	27.88	68.30	48.30	-30.01	-20.42
5861.47	-28.49	34.30	H	33.94	23.45	39.75	29.26	68.30	48.30	-28.55	-19.04
5856.92	-28.49	34.30	V	33.69	23.22	39.50	29.03	68.30	48.30	-28.80	-19.27



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No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A17103001

Report No.: FCCA17103001-03

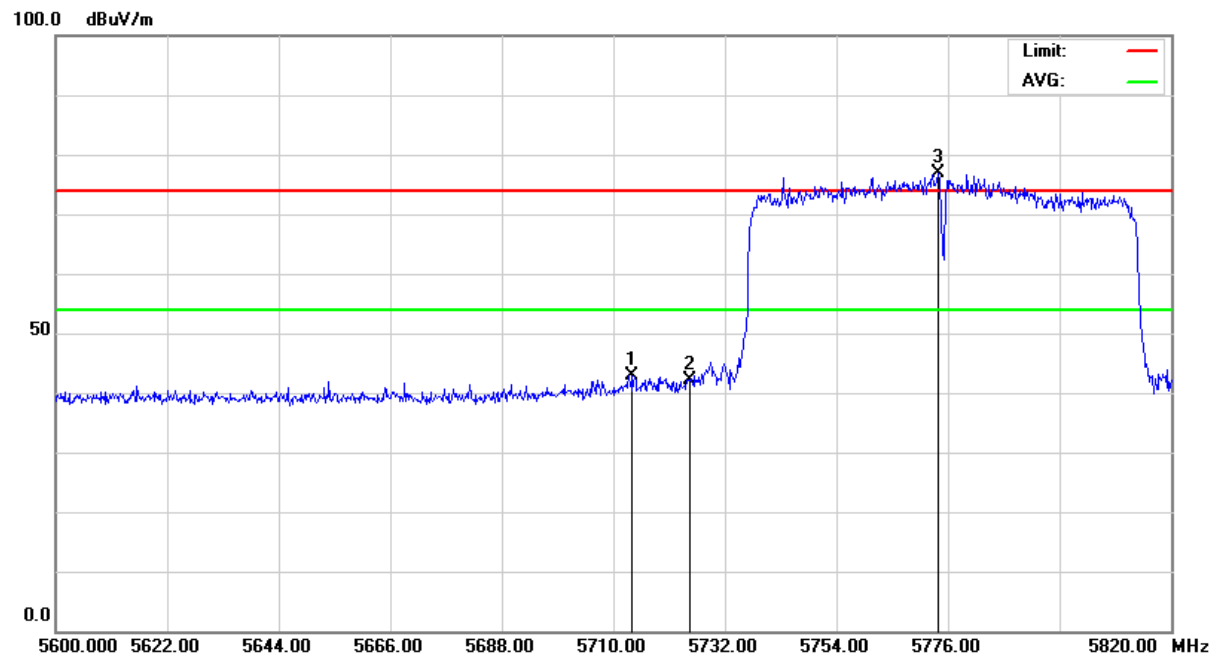
FCC ID : AHL-ALMOND3S

Page: 378 of 420

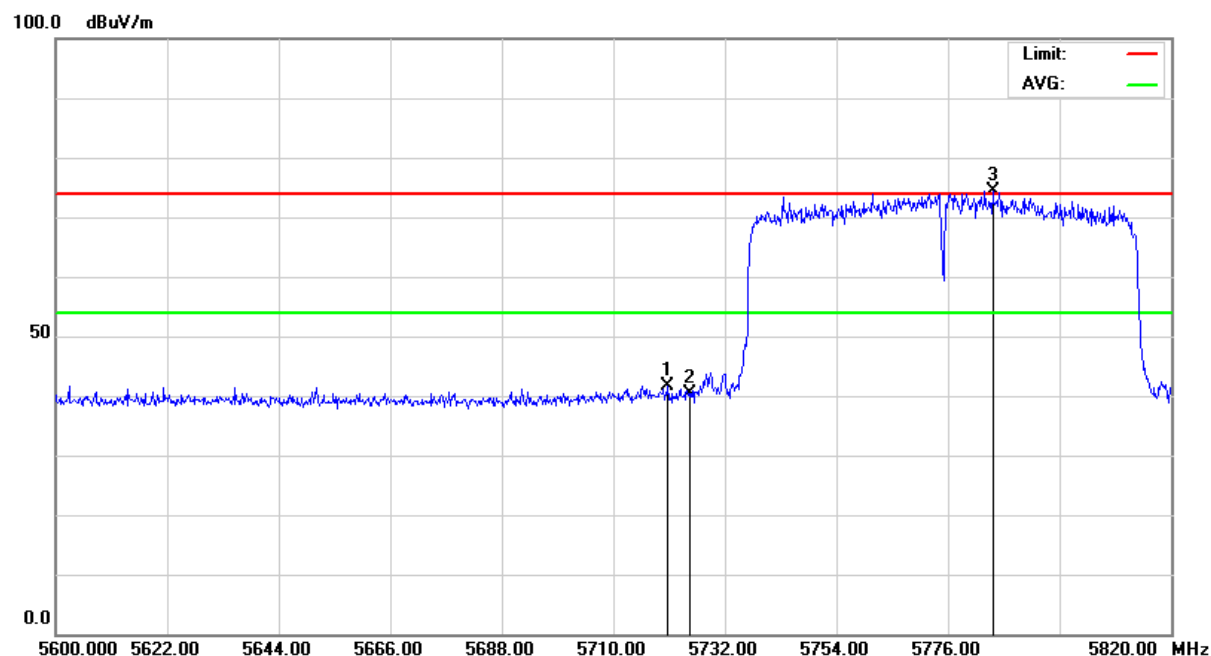
Date: Dec. 28, 2017

Below 5725MHz (ac - HT80_CH155)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical





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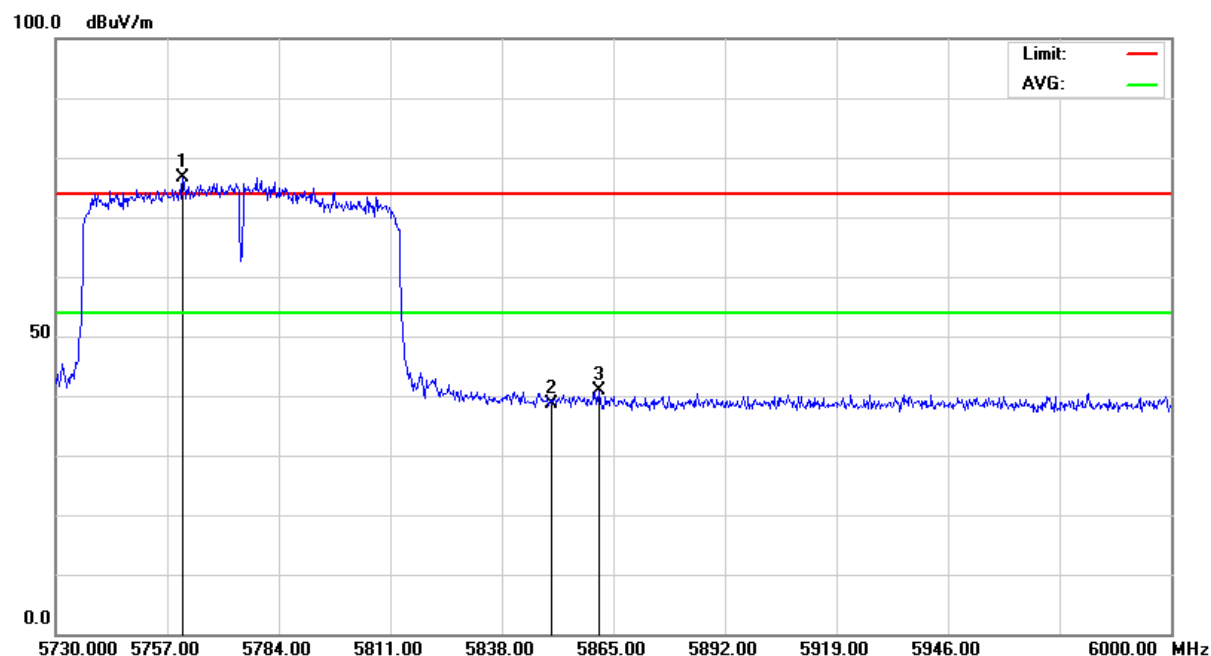
No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

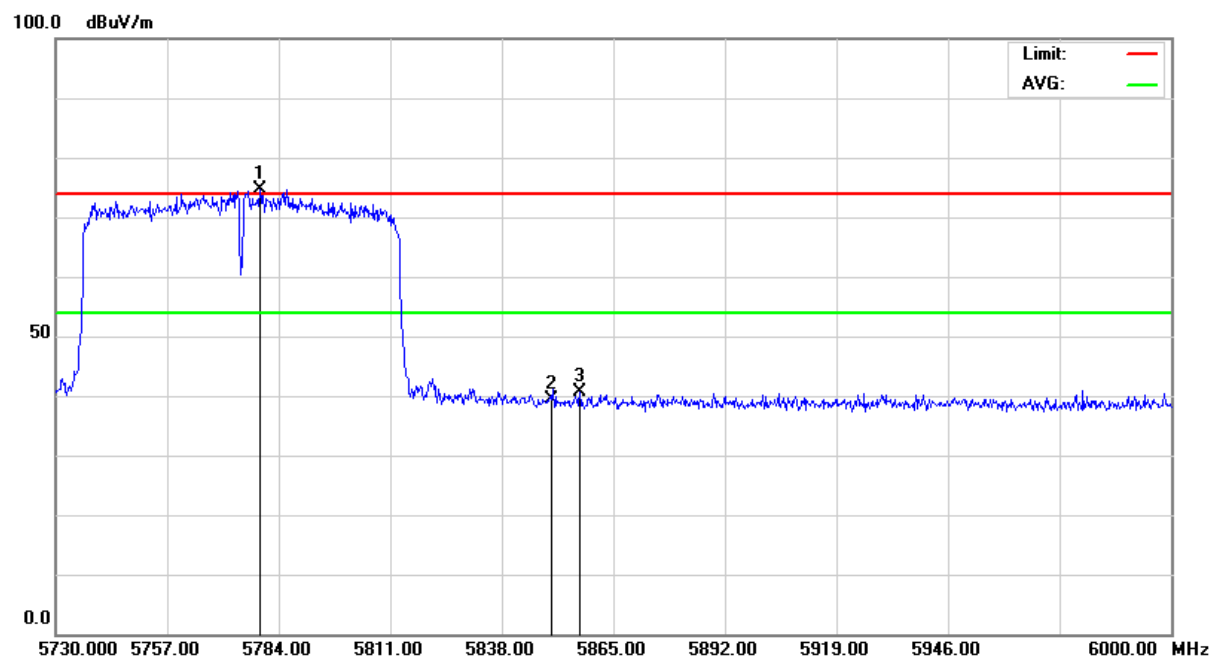
Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 379 of 420
Date: Dec. 28, 2017

Above 5850MHz (ac - HT80_CH155)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical



**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 380 of 420
Date: Dec. 28, 2017

4.6 POWER SPECTRAL DENSITY TEST**4.6.1 LIMIT**

FCC Part15, Subpart E Section 15.407(a)(1)(iii).

For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band.

FCC Part15, Subpart E Section 15.407(a)(3).

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500 kHz band

FREQUENCY RANGE	Limit
5.15 - 5.25 GHz	17 dBm / 1 MHz
5.725 - 5.85 GHz	30 dBm / 500 kHz

If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10\log(500\text{kHz}/\text{RBW})$ to the measured result, whereas RBW (< 500 KHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.

Note : $10\log(500\text{kHz}/300\text{kHz}) = 2.22$

 Spectrum Research & Testing Lab., Inc. No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)	TEST REPORT	Reference No.: A17103001 Report No.: FCCA17103001-03 FCC ID : AHL-ALMOND3S Page: 381 of 420 Date: Dec. 28, 2017
--	----------------------	---

The signals are correlated.

Per KDB 662911 D01 Multiple Transmitter Output Method of conducted output power measurement on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

Array Gain = $5 \log(N_{ANT}/N_{SS})$ dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

For power measurements on all other devices: Array Gain = $10 \log(N_{ANT}/N_{SS})$ dB.

NOTE:

1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}] = 5.01\text{dBi} < 6\text{dBi}$, so the power density limit shall not be reduced.

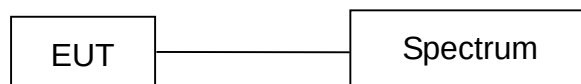
4.6.2 TEST EQUIPMENT

The following test equipment was used during the radiated emission test:

EQUIPMENT/ FACILITIES	SPECIFICATIONS	MANUFACTURER	MODEL#/ SERIAL#	DUE DATE OF CAL. & CAL. CENTER
EMI TEST RECEIVER (INCLUDE SPECTRUM ANALYZER)	9 KHz ~ 6 GHz	ROHDE & SCHWARZ	ESL /100176	MAY 21, 2018 ETC

NOTE: The calibration interval of the above test equipment is one year and the calibrations are traceable to NML/ROC and NIST/USA.

4.6.3 TEST SET-UP



The EUT was connected to a spectrum through a 50Ω RF cable.

 Spectrum Research & Testing Lab., Inc. No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)	TEST REPORT	Reference No.: A17103001 Report No.: FCCA17103001-03 FCC ID : AHL-ALMOND3S Page: 382 of 420 Date: Dec. 28, 2017
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4.6.4 TEST PROCEDURE

The EUT was operating in transmitter mode and could be controlled its channel.
 Printed out the test result from the spectrum by hard copy function.

4.6.5 EUT OPERATING CONDITION

1. Set the EUT under continuous transmission condition.
2. The EUT was set to the highest available power level.



Spectrum Research & Testing Lab., Inc.

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

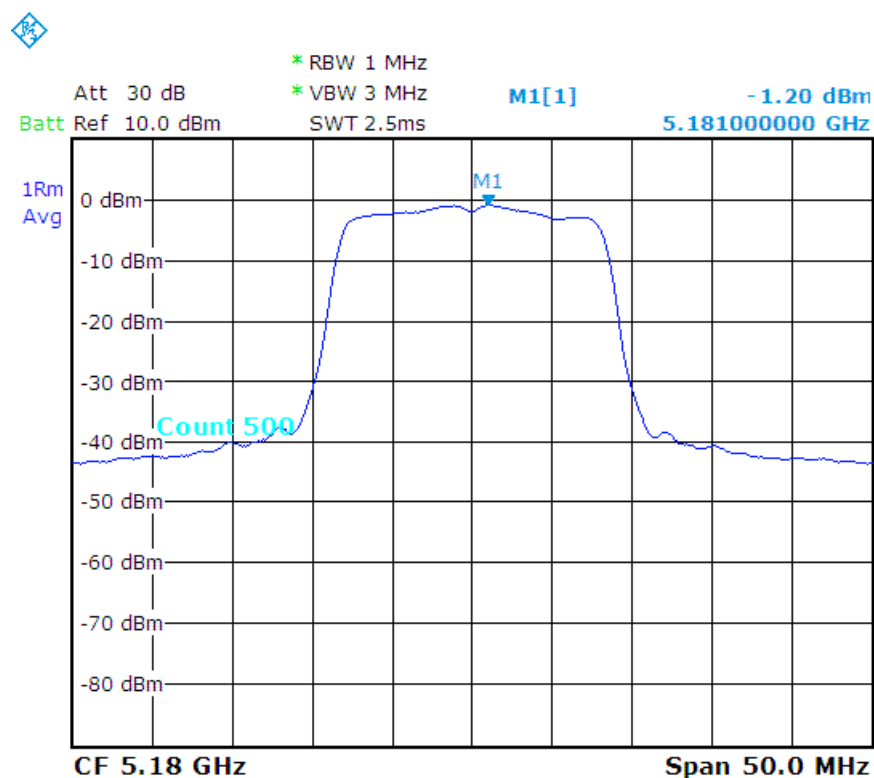
Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 383 of 420
Date: Dec. 28, 2017

4.6.6 TEST RESULT

Temperature:	20 °C	Humidity:	54 %RH
Detector:	RMS	Test Mode:	5.1G_802.11a
RBW:	1 MHz	VBW:	3 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 12, 2017

Channel Number	Channel Frequency (MHz)	Power Spectral Density (dBm/MHz)	Maximum Limit (dBm/MHz)
CH36	5180	-1.20	17
CH40	5200	-1.86	17
CH48	5240	-2.97	17

a_CH36 :





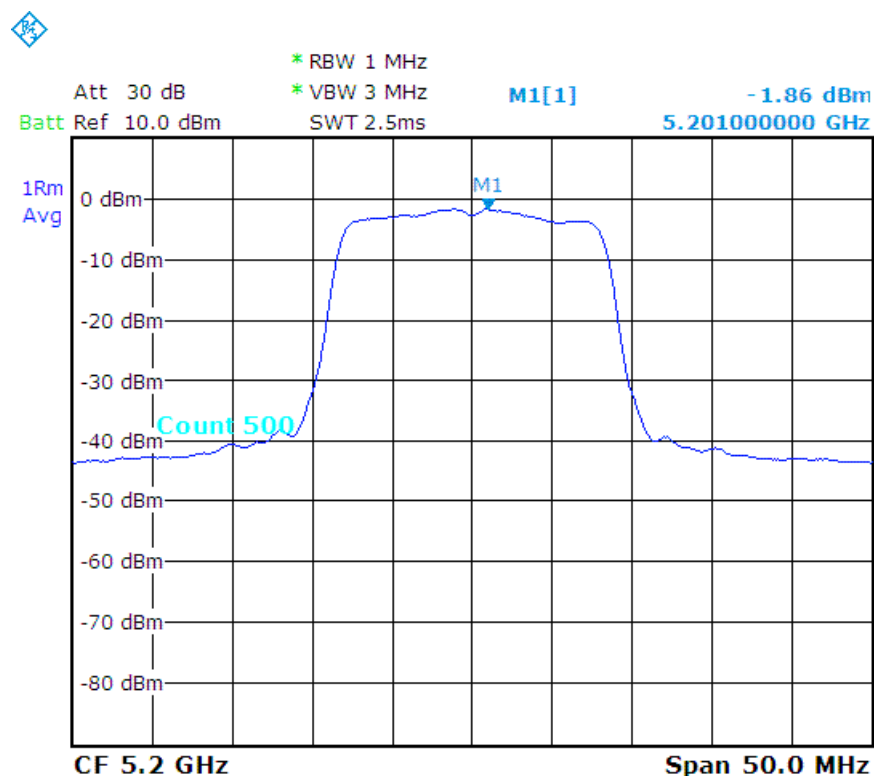
Spectrum Research & Testing Lab., Inc.

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

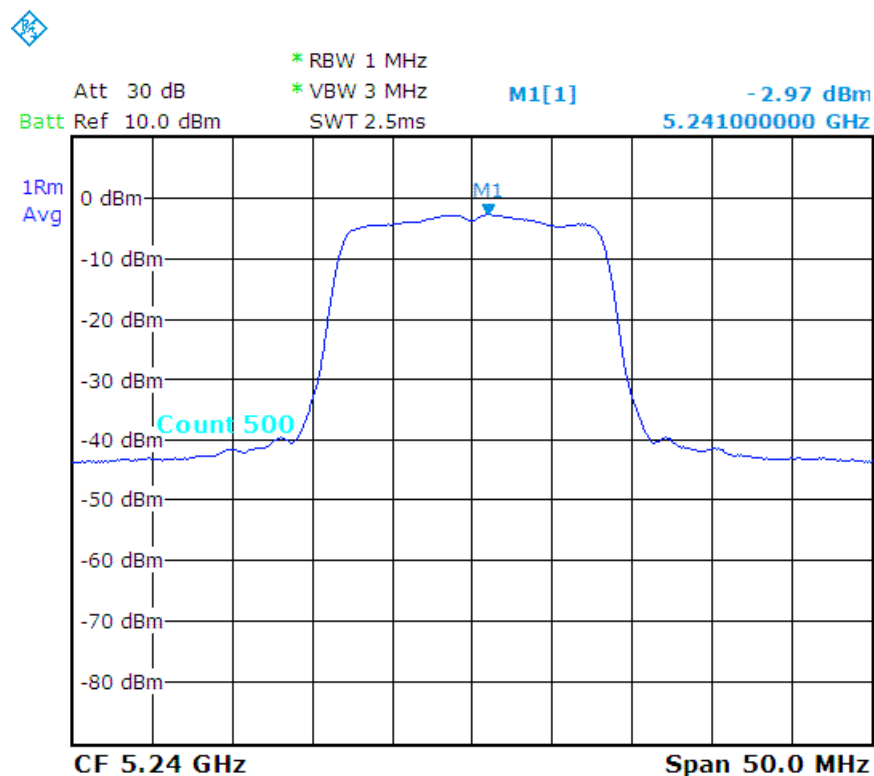
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 384 of 420
Date: Dec. 28, 2017

a_CH40 :



a_CH48 :



**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

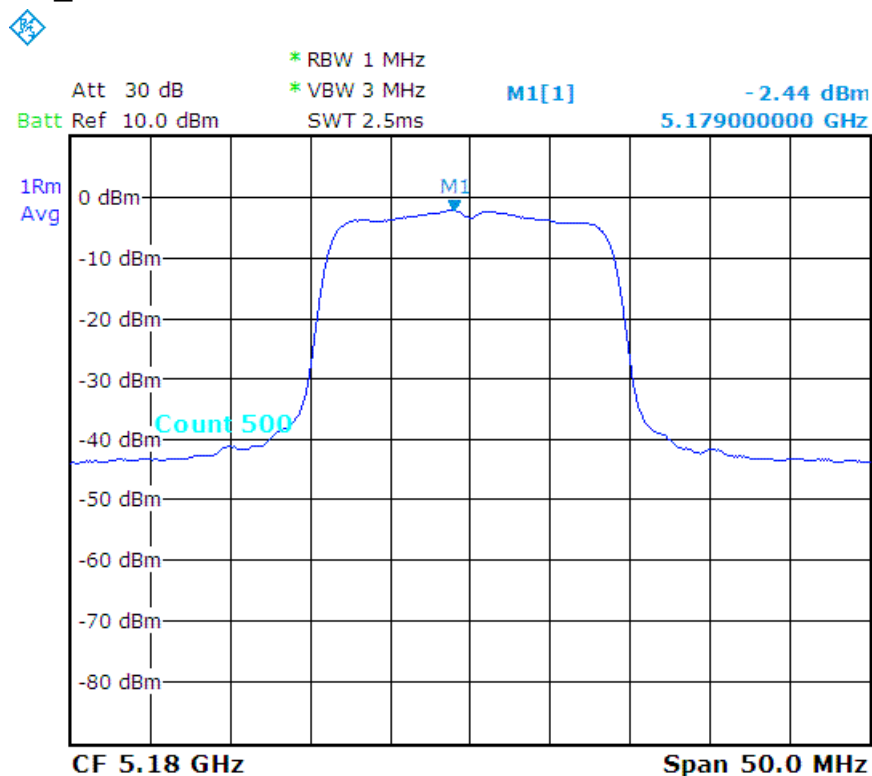
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 385 of 420
Date: Dec. 28, 2017

Temperature:	20 °C	Humidity:	54 %RH
Detector:	RMS	Test Mode:	5.1G_802.11n - HT20
RBW:	1 MHz	VBW:	3 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 12, 2017

Channel Number	Channel Frequency (MHz)	Power Spectral Density (dBm/MHz)		Maximum Limit (dBm/MHz)
		Measure	Final	
CH36_ANT1	5180	-2.44	1.52	17
CH36_ANT2	5180	-0.71		
CH40_ANT1	5200	-3.02	0.80	17
CH40_ANT2	5200	-1.52		
CH48_ANT1	5240	-2.63	-0.30	17
CH48_ANT2	5240	-4.12		

n - HT20_CH36_ANT1 :





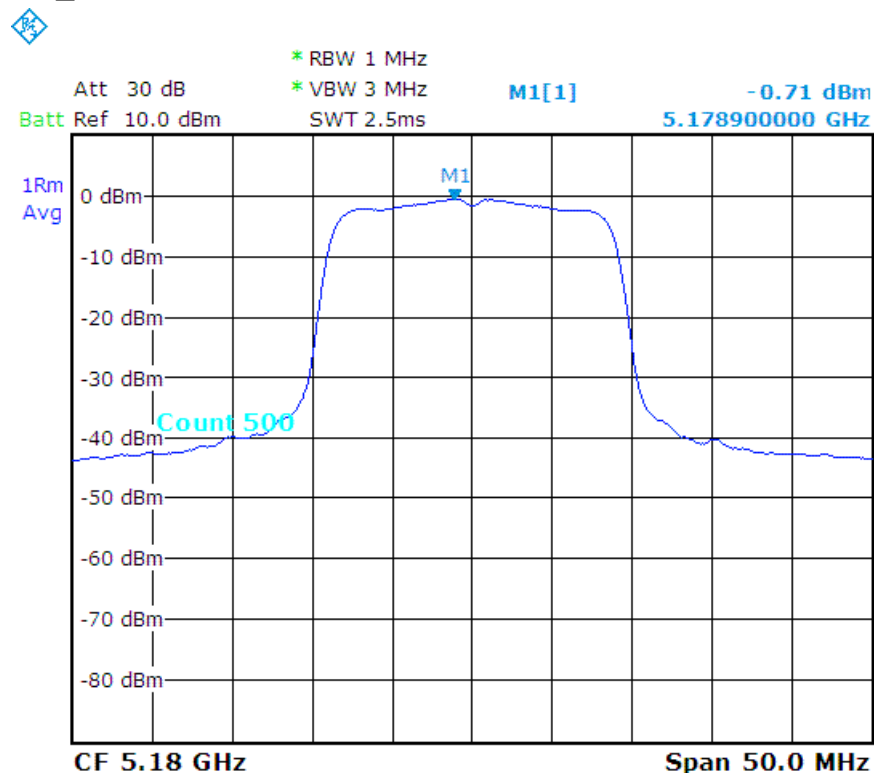
Spectrum Research & Testing Lab., Inc.

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

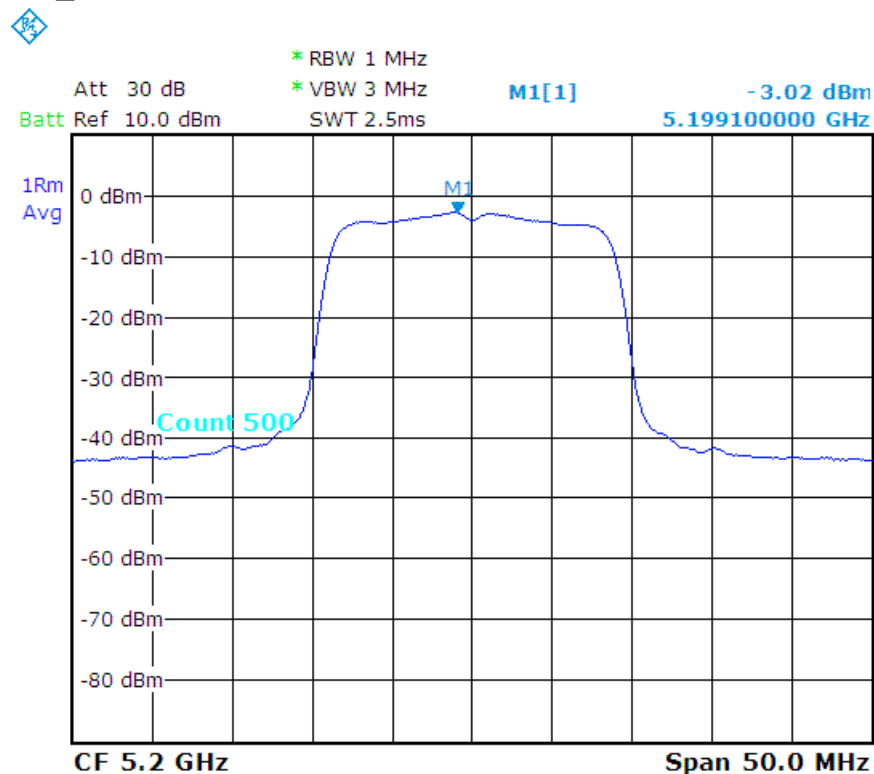
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 386 of 420
Date: Dec. 28, 2017

n - HT20_CH36_ANT2 :



n - HT20_CH40_ANT1 :





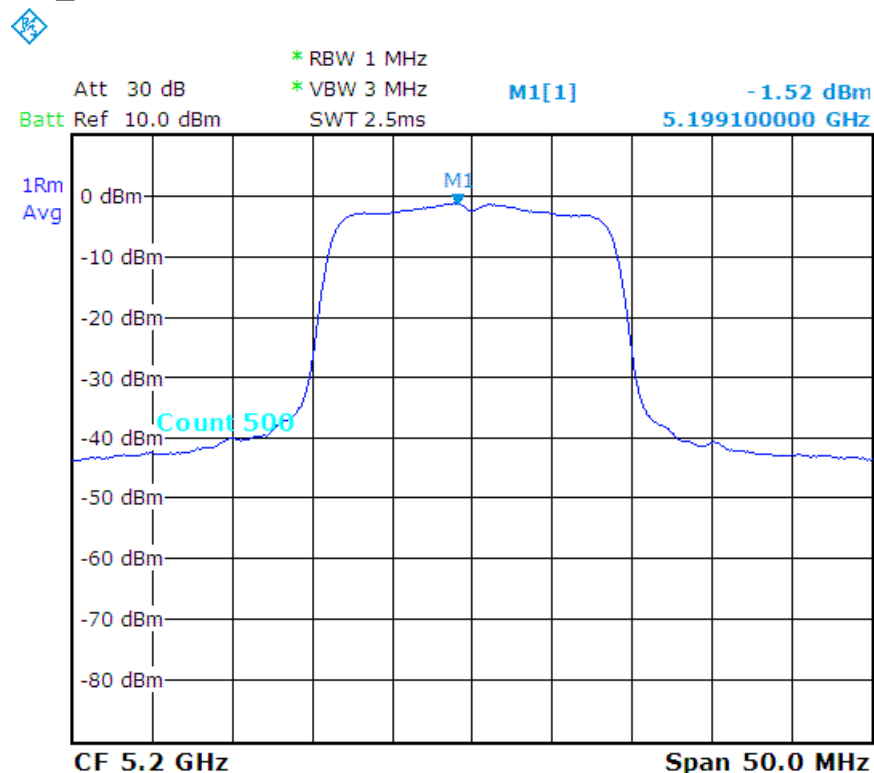
Spectrum Research & Testing Lab., Inc.

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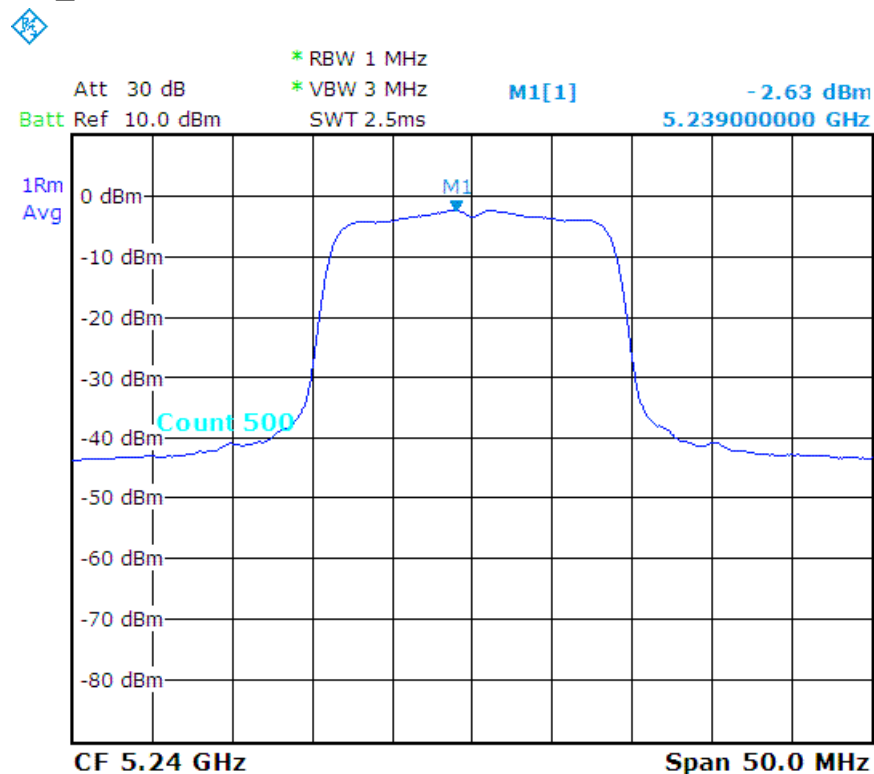
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 387 of 420
Date: Dec. 28, 2017

n - HT20_CH40_ANT2 :



n - HT20_CH48_ANT1 :





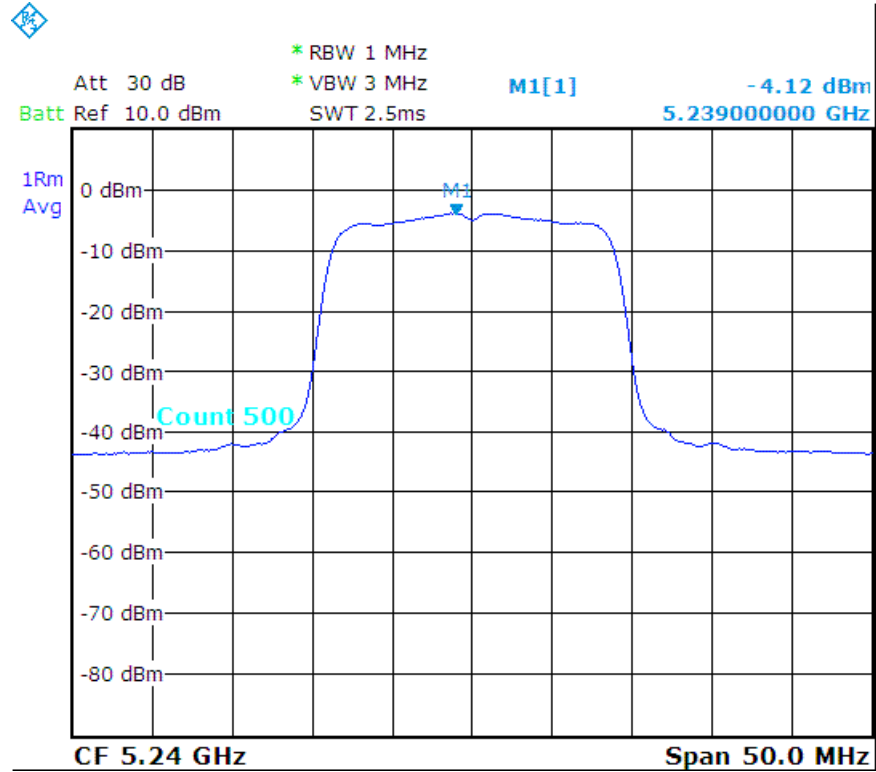
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TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 388 of 420
Date: Dec. 28, 2017

n - HT20_CH48_ANT2 :



**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

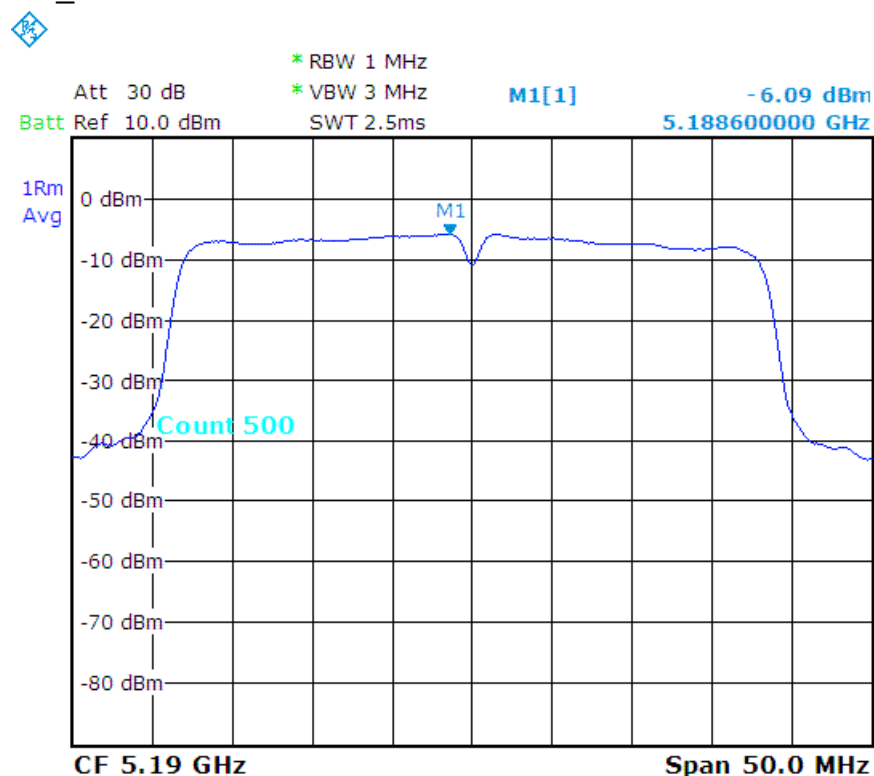
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 389 of 420
Date: Dec. 28, 2017

Temperature:	20 °C	Humidity:	54 %RH
Detector:	RMS	Test Mode:	5.1G_802.11n - HT40
RBW:	1 MHz	VBW:	3 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 12, 2017

Channel Number	Channel Frequency (MHz)	Power Spectral Density (dBm/MHz)		Maximum Limit (dBm/MHz)
		Measure	Final	
CH38_ANT1	5190	-6.09	-2.31	17
CH38_ANT2	5190	-4.67		
CH46_ANT1	5230	-7.45	-3.79	17
CH46_ANT2	5230	-6.23		

n - HT40_CH38_ANT1 :





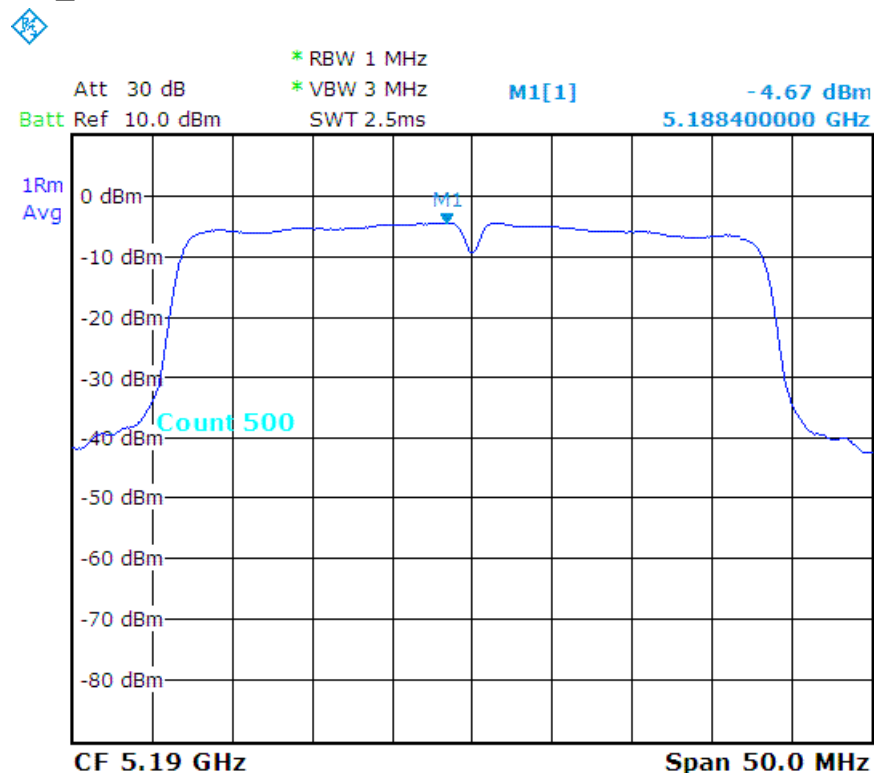
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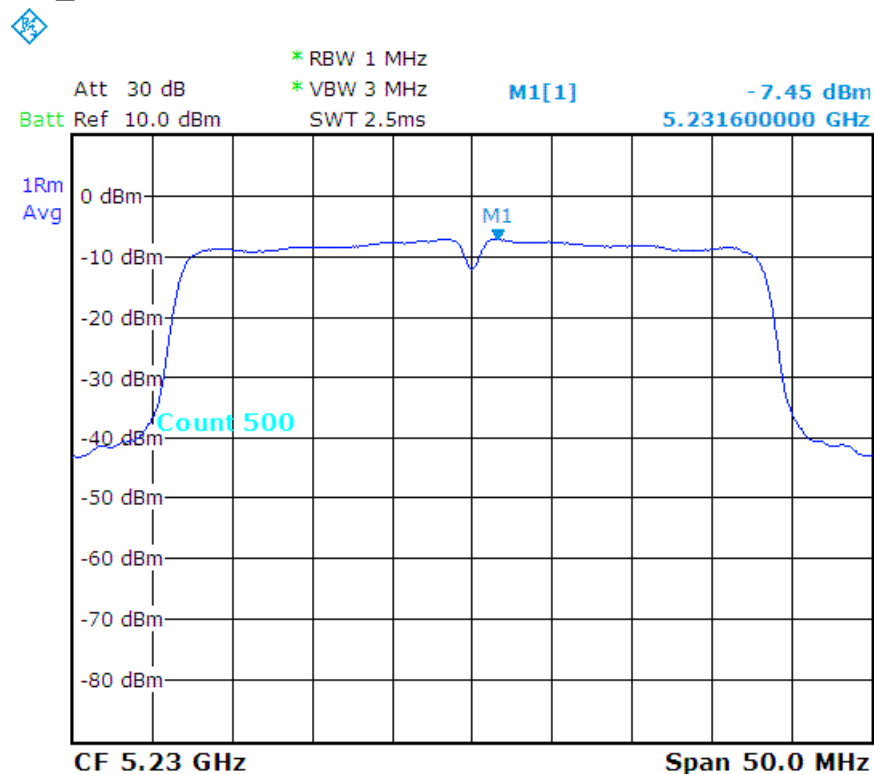
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 390 of 420
Date: Dec. 28, 2017

n - HT40_CH38_ANT2 :



n - HT40_CH46_ANT1 :





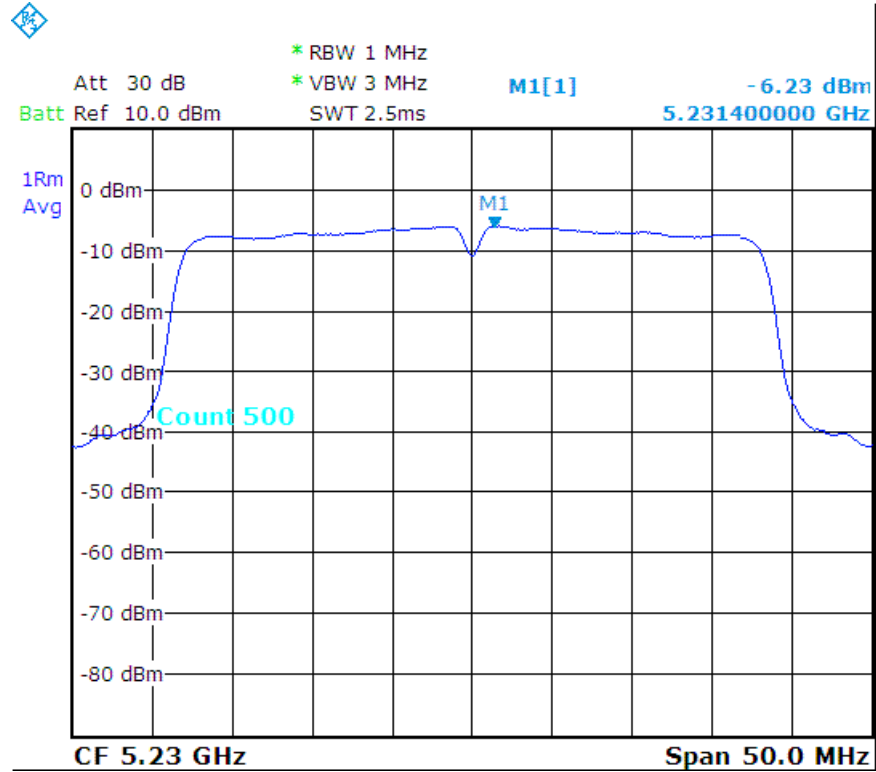
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TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 391 of 420
Date: Dec. 28, 2017

n - HT40_CH46_ANT2 :



**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

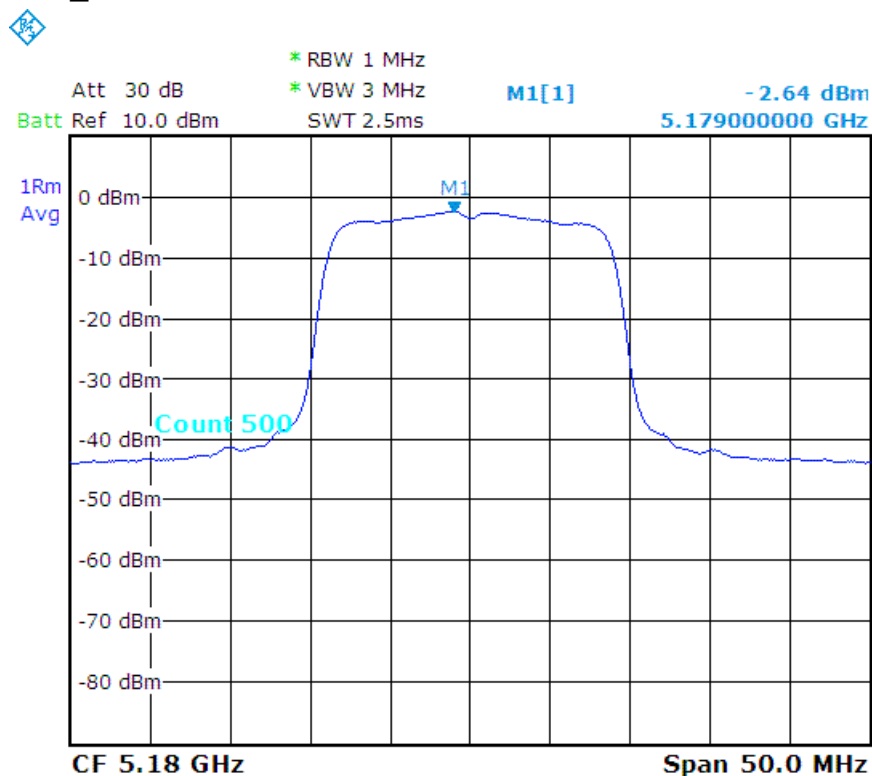
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 392 of 420
Date: Dec. 28, 2017

Temperature:	20 °C	Humidity:	54 %RH
Detector:	RMS	Test Mode:	5.1G_802.11ac - HT20
RBW:	1 MHz	VBW:	3 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 12, 2017

Channel Number	Channel Frequency (MHz)	Power Spectral Density (dBm/MHz)		Maximum Limit (dBm/MHz)
		Measure	Final	
CH36_ANT1	5180	-2.64	-0.68	17
CH36_ANT2	5180	-5.07		
CH40_ANT1	5200	-3.08	0.68	17
CH40_ANT2	5200	-1.69		
CH48_ANT1	5240	-4.27	-0.60	17
CH48_ANT2	5240	-3.03		

ac - HT20_CH36_ANT1 :





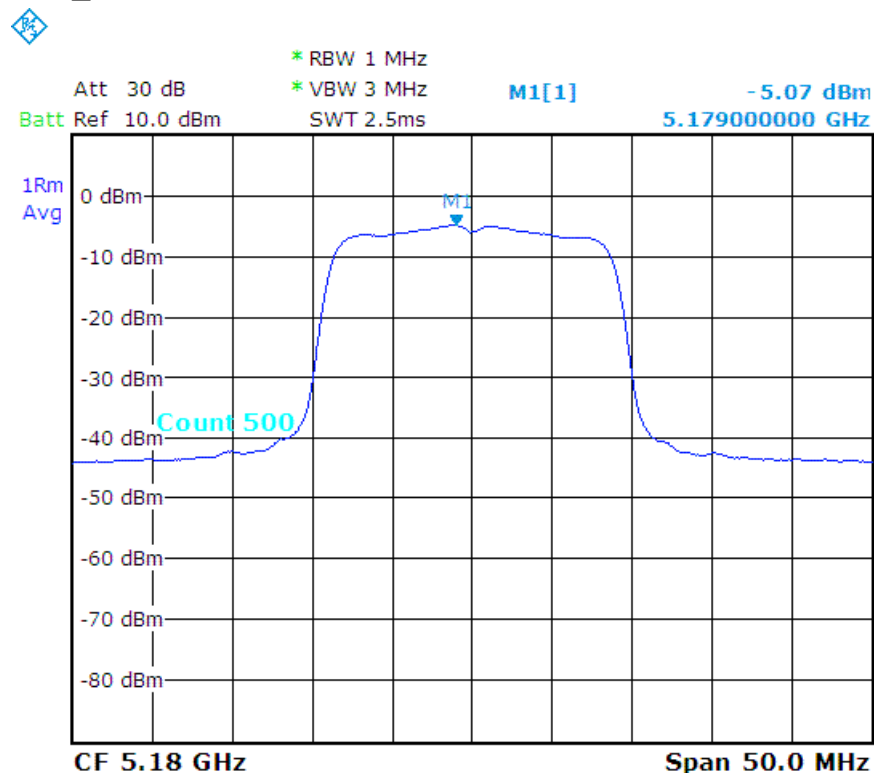
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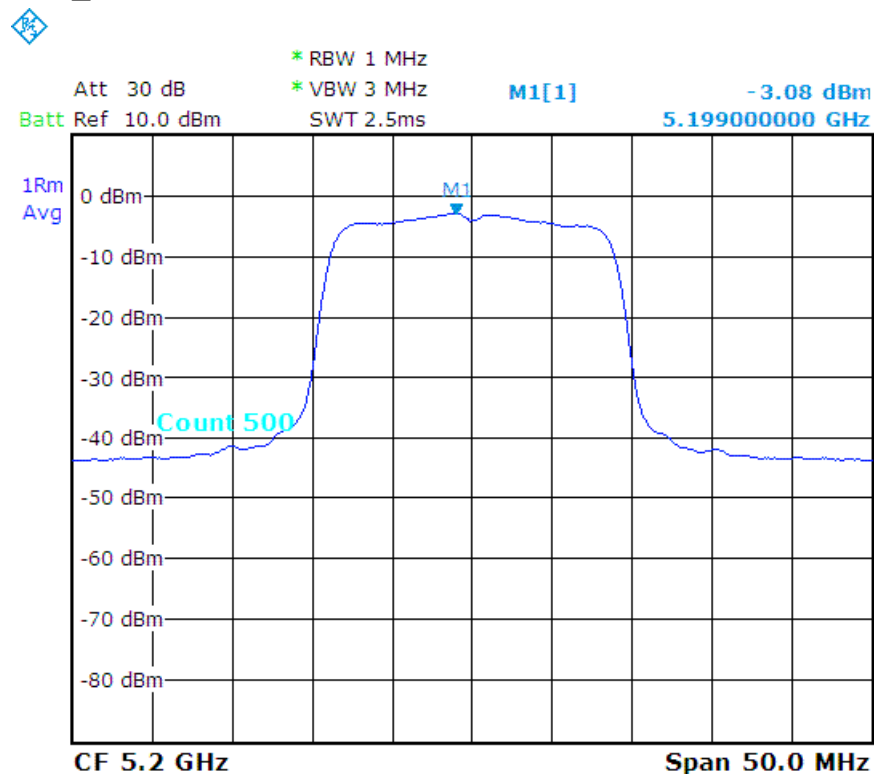
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 393 of 420
Date: Dec. 28, 2017

ac - HT20_CH36_ANT2 :



ac - HT20_CH40_ANT1 :





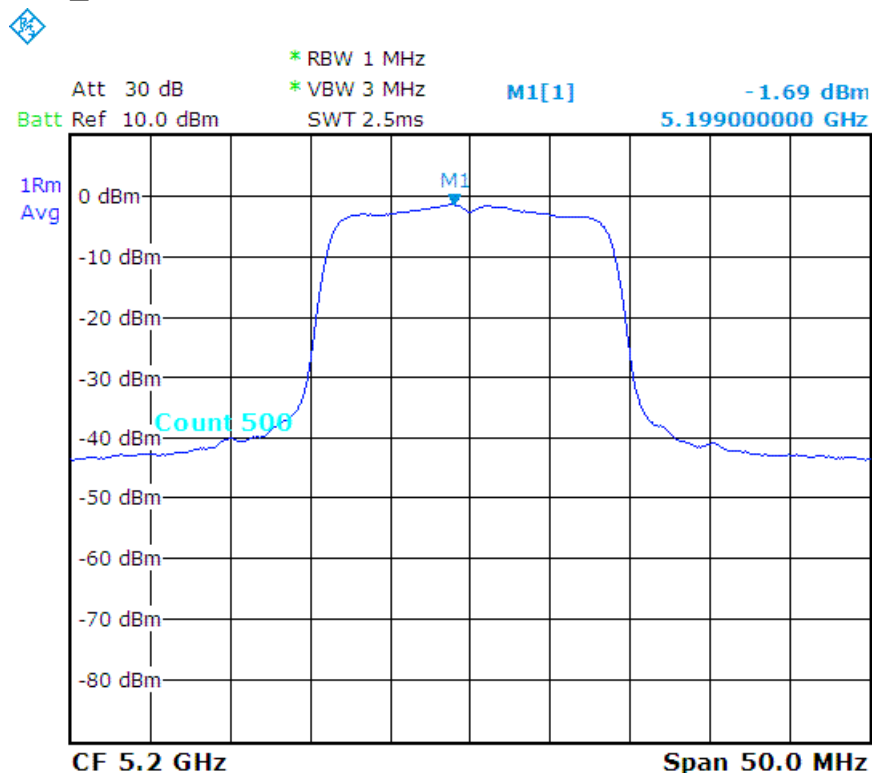
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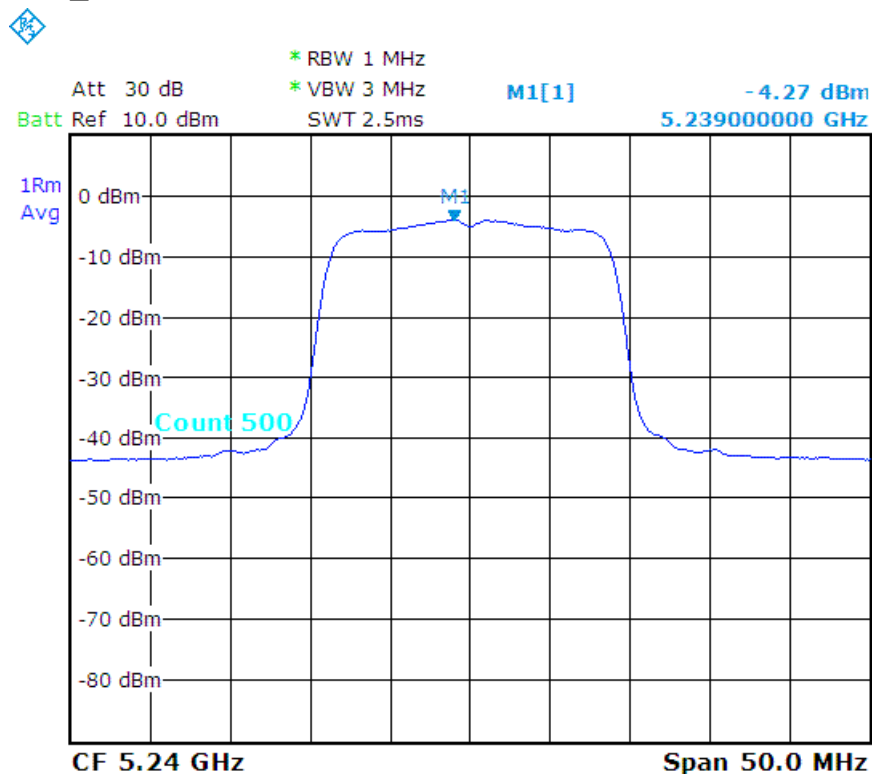
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 394 of 420
Date: Dec. 28, 2017

ac - HT20_CH40_ANT2 :



ac - HT20_CH48_ANT1 :





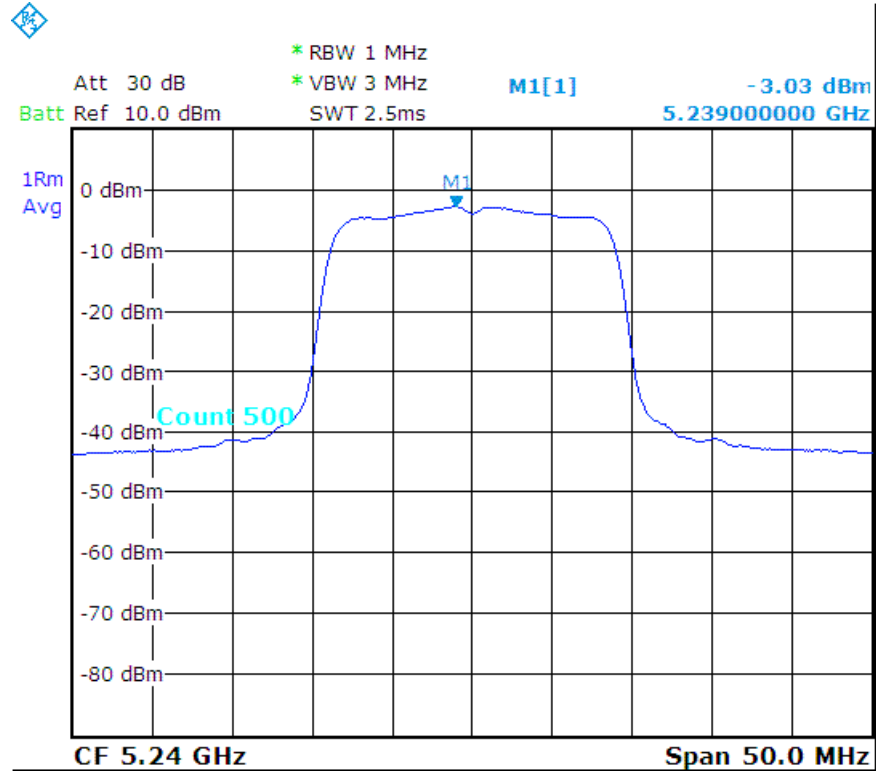
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TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 395 of 420
Date: Dec. 28, 2017

ac - HT20_CH48_ANT2 :



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No.167,Ln. 780, Shan-Tong Rd.,Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

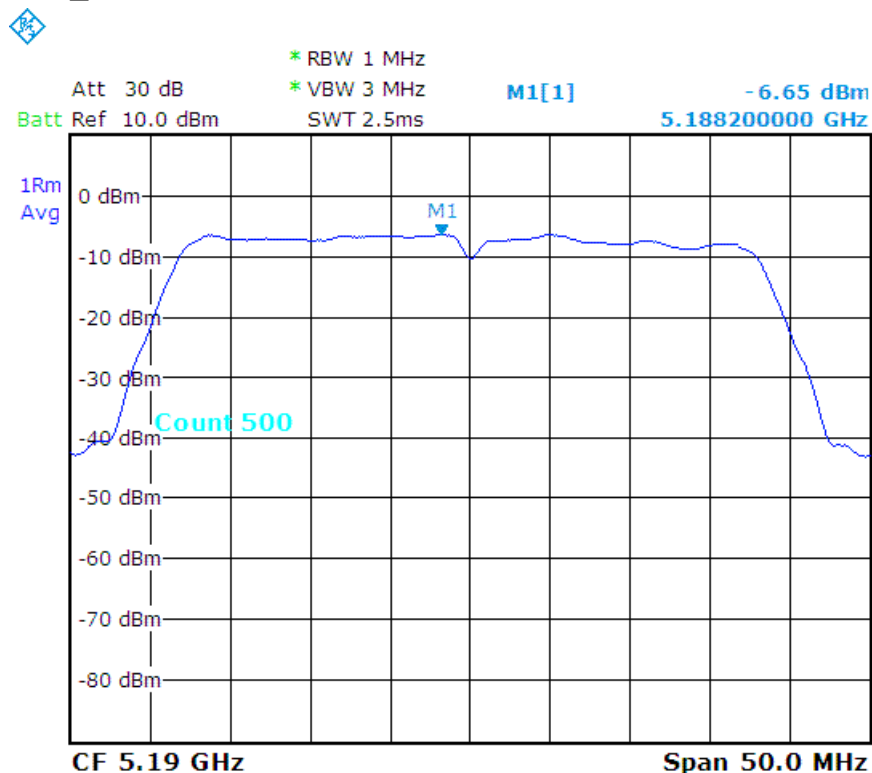
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 396 of 420
Date: Dec. 28, 2017

Temperature:	20 °C	Humidity:	54 %RH
Detector:	RMS	Test Mode:	5.1G_802.11ac - HT40
RBW:	1 MHz	VBW:	3 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 12, 2017

Channel Number	Channel Frequency (MHz)	Power Spectral Density (dBm/MHz)		Maximum Limit (dBm/MHz)
		Measure	Final	
CH38_ANT1	5190	-6.65	-4.04	17
CH38_ANT2	5190	-7.49		
CH46_ANT1	5230	-7.81	-4.52	17
CH46_ANT2	5230	-7.27		

ac - HT40_CH38_ANT1 :





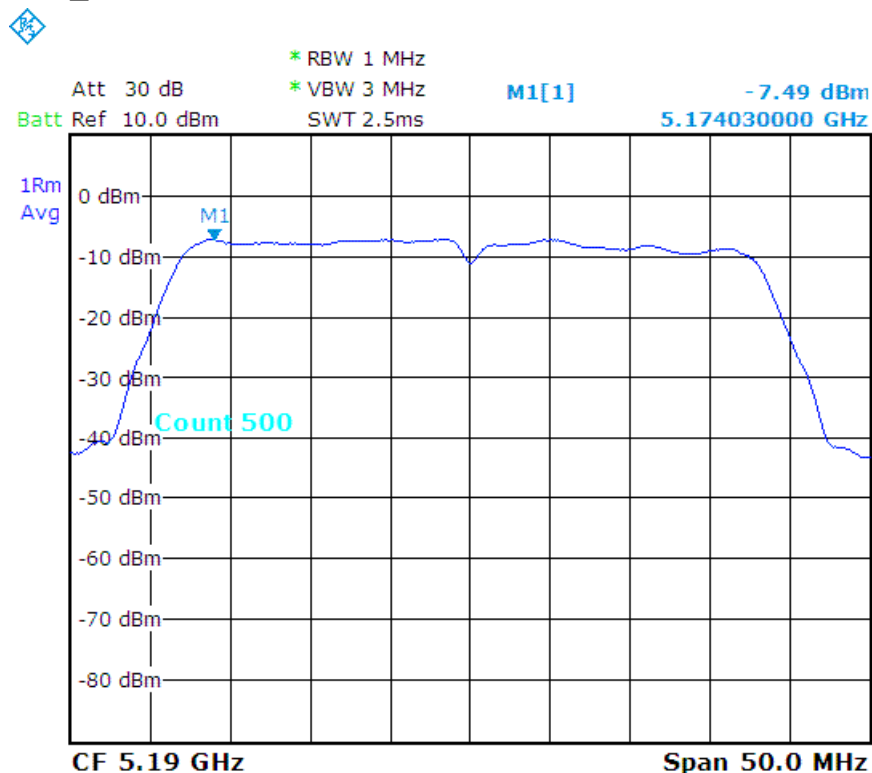
Spectrum Research & Testing Lab., Inc.

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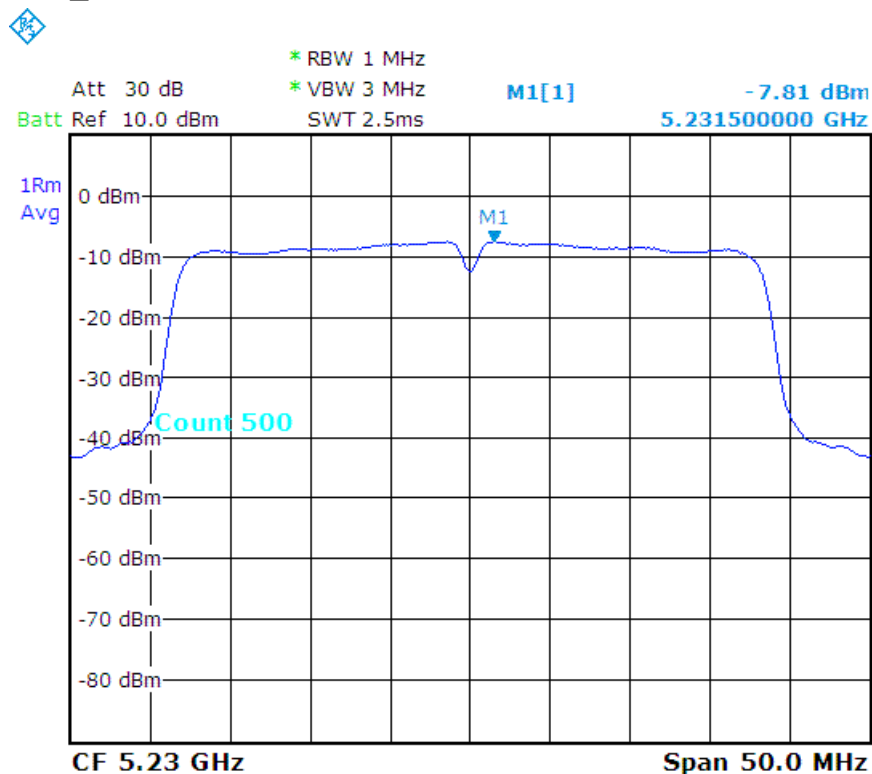
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 397 of 420
Date: Dec. 28, 2017

ac - HT40_CH38_ANT2 :



ac - HT40_CH46_ANT1 :





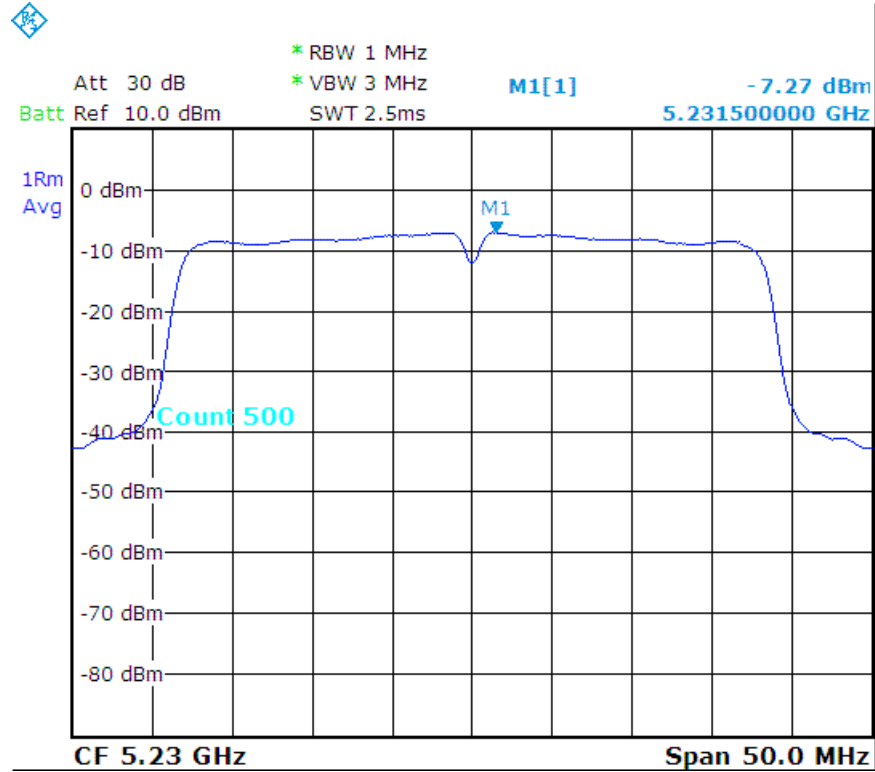
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TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 398 of 420
Date: Dec. 28, 2017

ac - HT40_CH46_ANT2 :



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No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

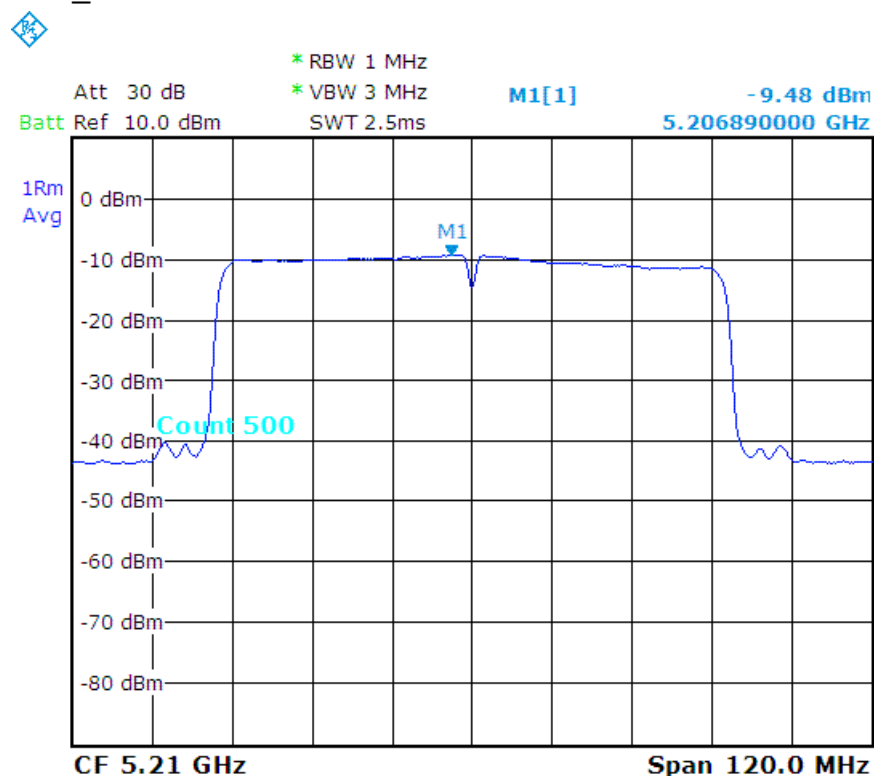
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 399 of 420
Date: Dec. 28, 2017

Temperature:	20 °C	Humidity:	54 %RH
Detector:	RMS	Test Mode:	5.1G_802.11ac - HT80
RBW:	1 MHz	VBW:	3 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 12, 2017

Channel Number	Channel Frequency (MHz)	Power Spectral Density (dBm/MHz)		Maximum Limit (dBm/MHz)
		Measure	Final	
CH42_ANT1	5210	-9.48	-5.69	17
CH42_ANT2	5210	-8.04		

ac - HT80_CH42_ANT1 :





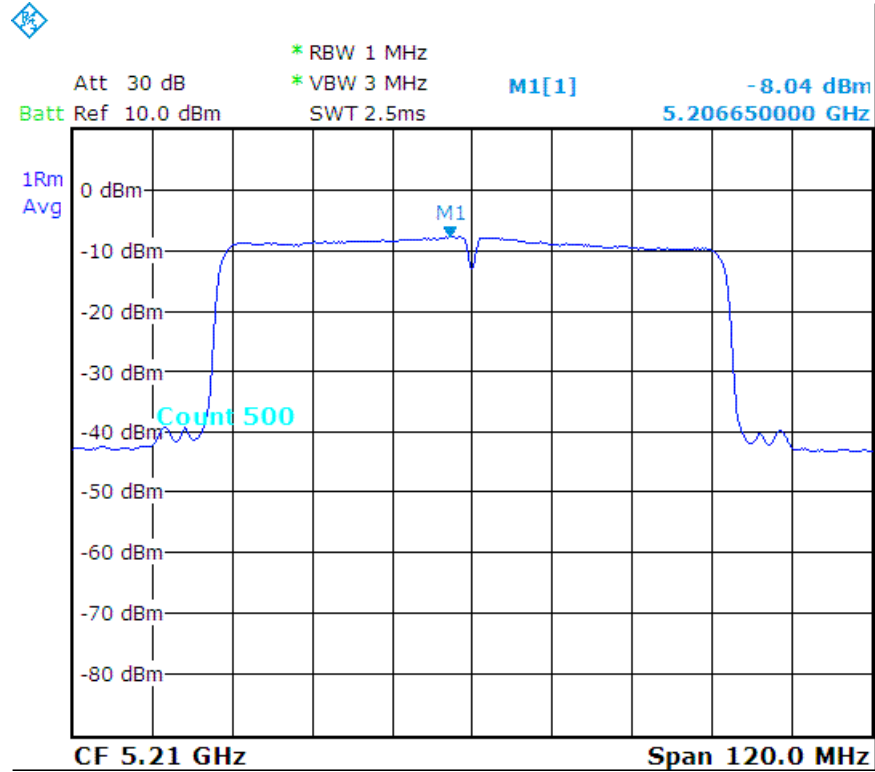
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TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 400 of 420
Date: Dec. 28, 2017

ac - HT80_CH42_ANT2 :



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No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

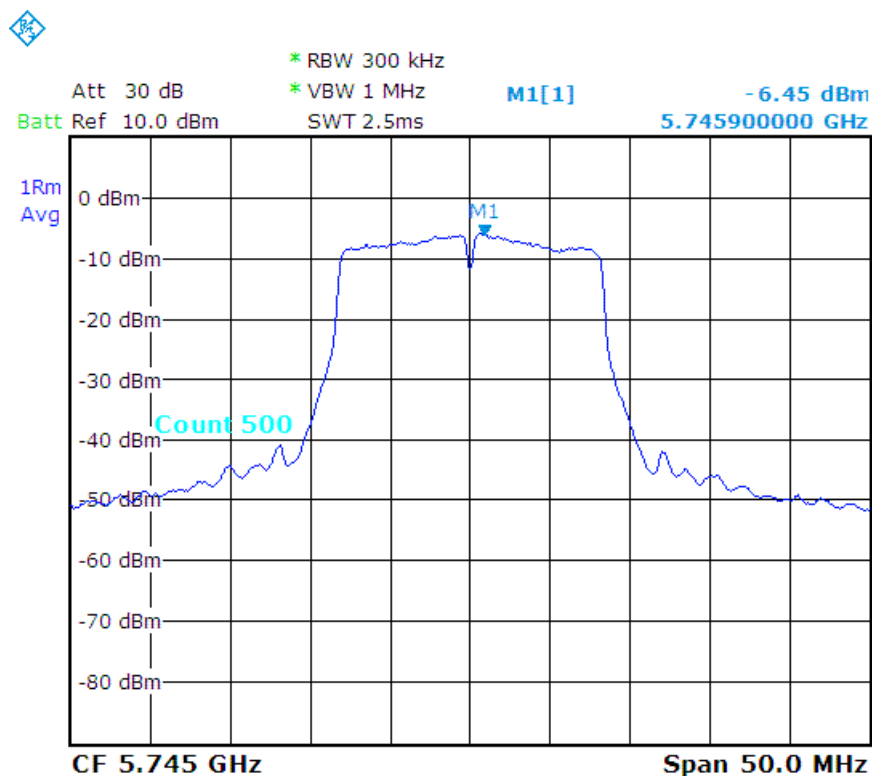
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 401 of 420
Date: Dec. 28, 2017

Temperature:	20 °C	Humidity:	54 %RH
Detector:	RMS	Test Mode:	5.8G_802.11a
RBW:	300 kHz	VBW:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 12, 2017

Channel Number	Channel Frequency (MHz)	Power Spectral Density (dBm/500kHz)		Maximum Limit (dBm/500kHz)
		Measurement	Final	
CH149	5745	-6.45	-4.23	30
CH157	5785	-7.07	-4.85	30
CH165	5825	-7.65	-5.43	30

a_CH149 :





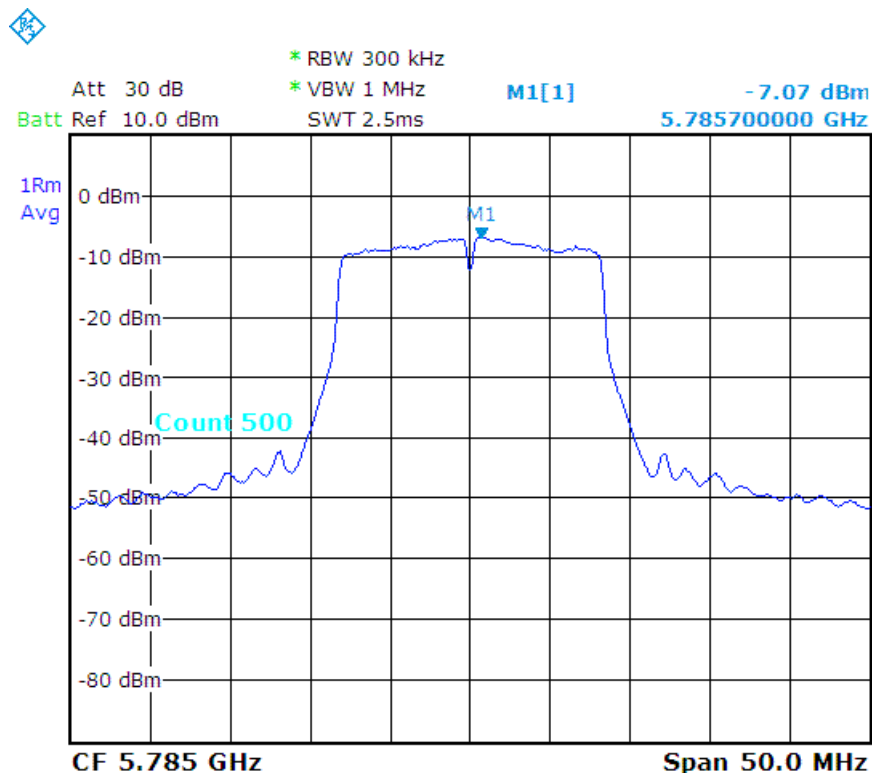
Spectrum Research & Testing Lab., Inc.

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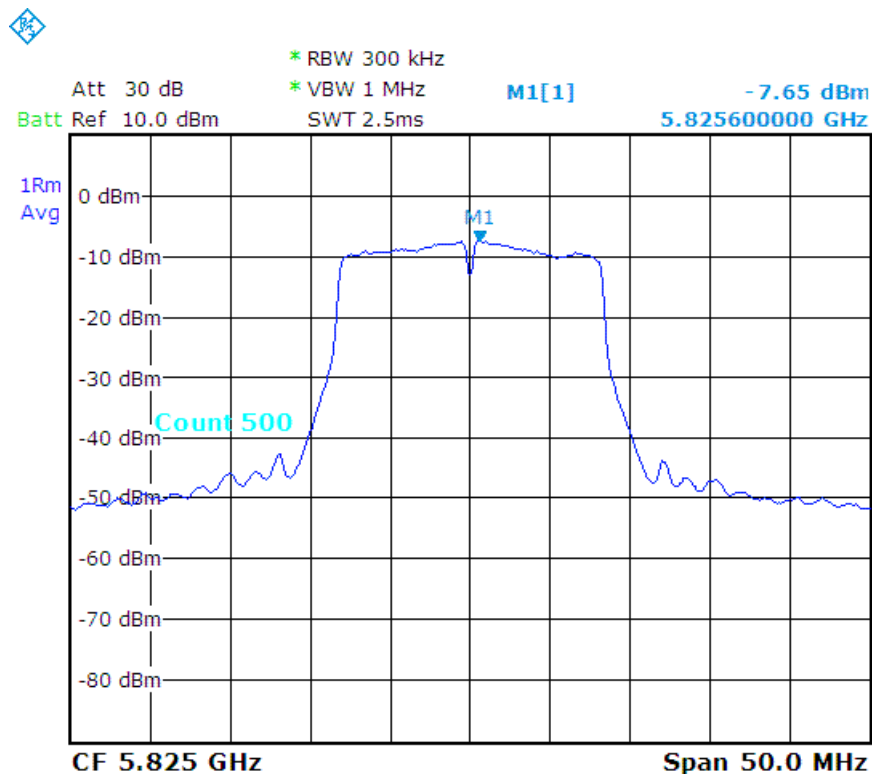
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 402 of 420
Date: Dec. 28, 2017

a_CH157 :



a_CH165 :



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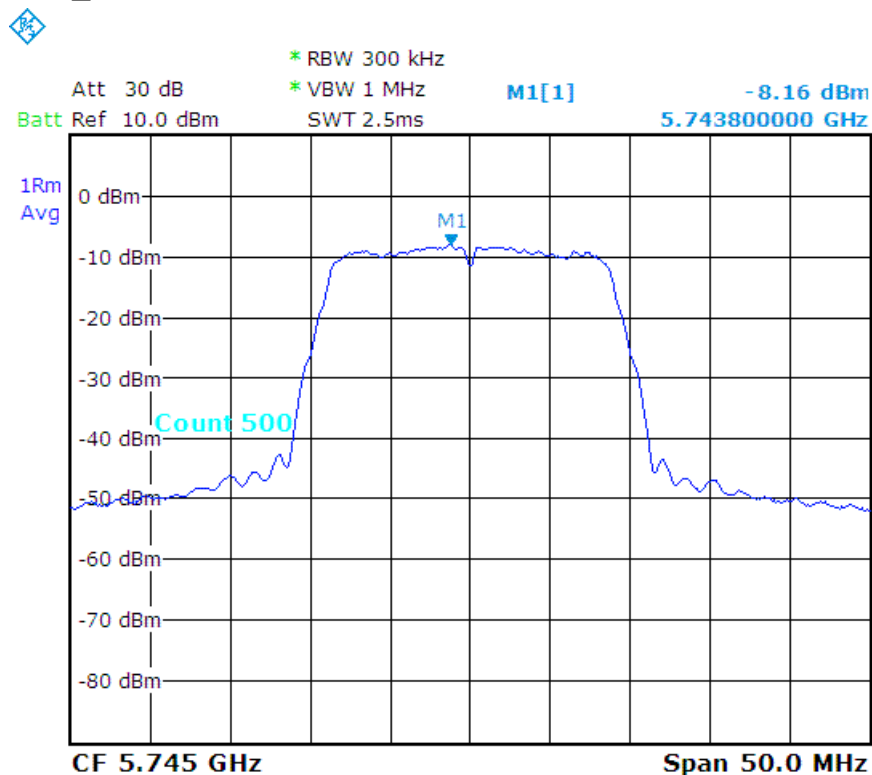
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 403 of 420
Date: Dec. 28, 2017

Temperature:	20 °C	Humidity:	54 %RH
Detector:	RMS	Test Mode:	5.8G_802.11n - HT20
RBW:	300 kHz	VBW:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 12, 2017

Channel Number	Channel Frequency (MHz)	Power Spectral Density (dBm/500kHz)		Maximum Limit (dBm/500kHz)
		Measure	Final	
CH149_ANT1	5745	-8.16	-2.53	30
CH149_ANT2		-7.40		
CH157_ANT1	5785	-9.47	-3.71	30
CH157_ANT2		-8.47		
CH165_ANT1	5825	-9.15	-3.64	30
CH165_ANT2		-8.61		

n - HT20_CH149_ANT1 :





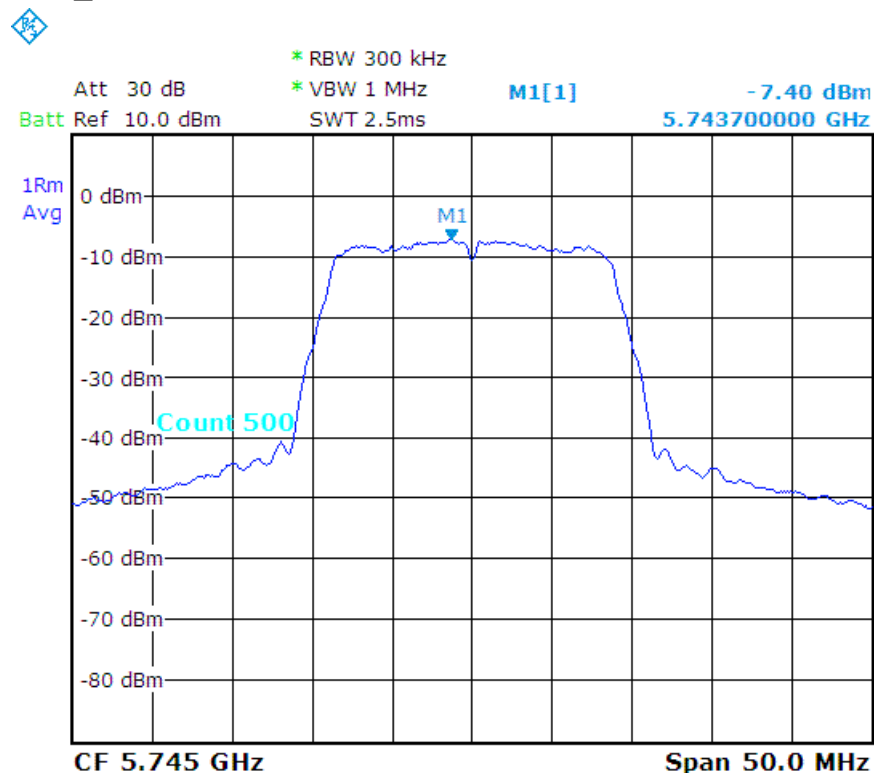
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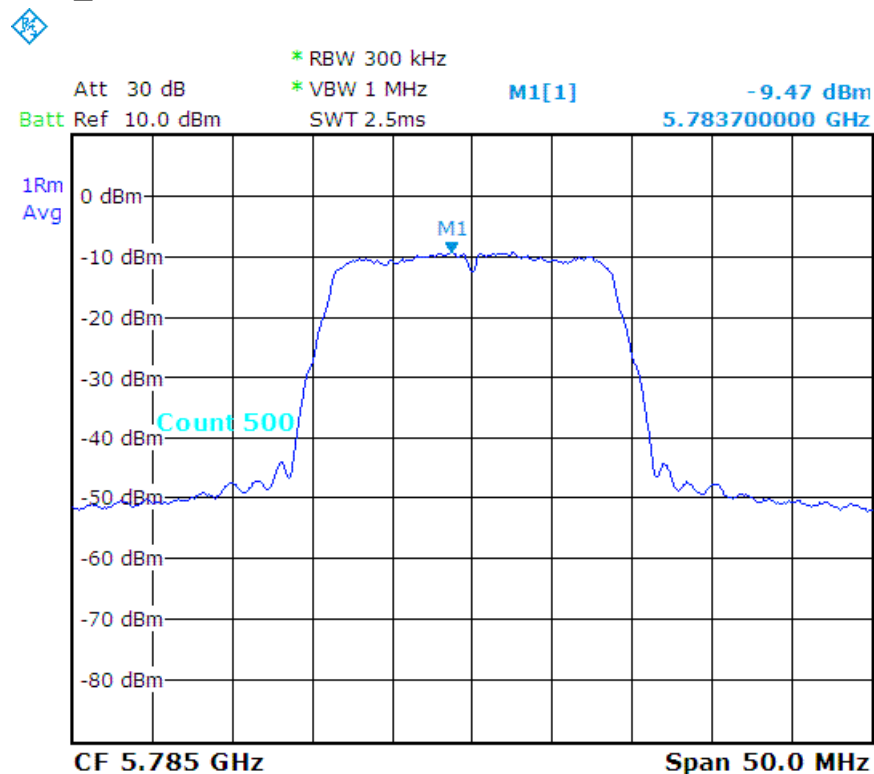
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 404 of 420
Date: Dec. 28, 2017

n - HT20_CH149_ANT2 :



n - HT20_CH157_ANT1 :





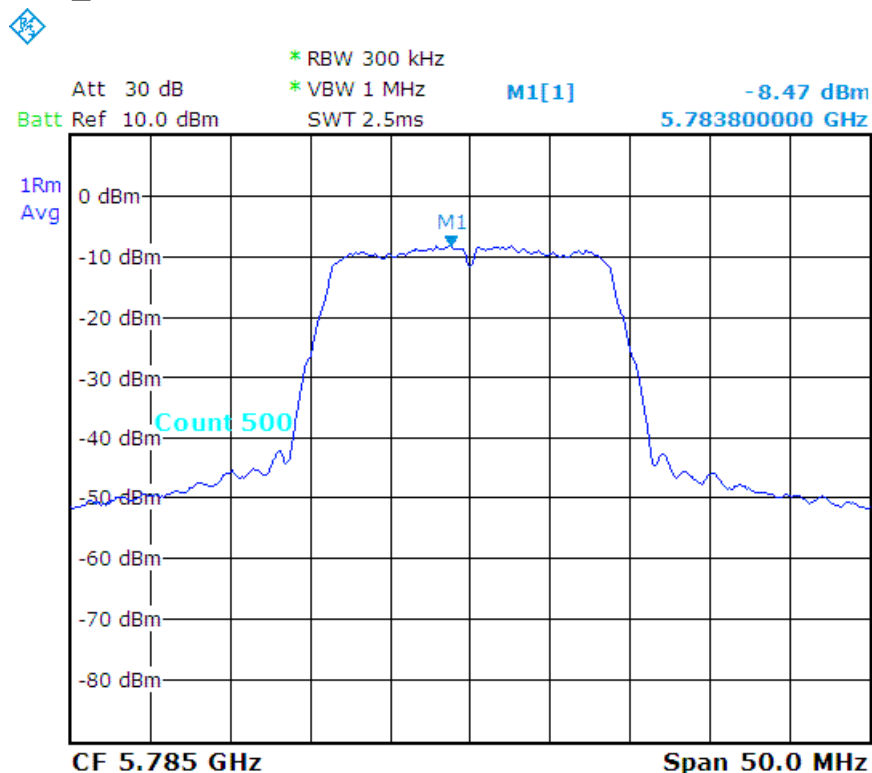
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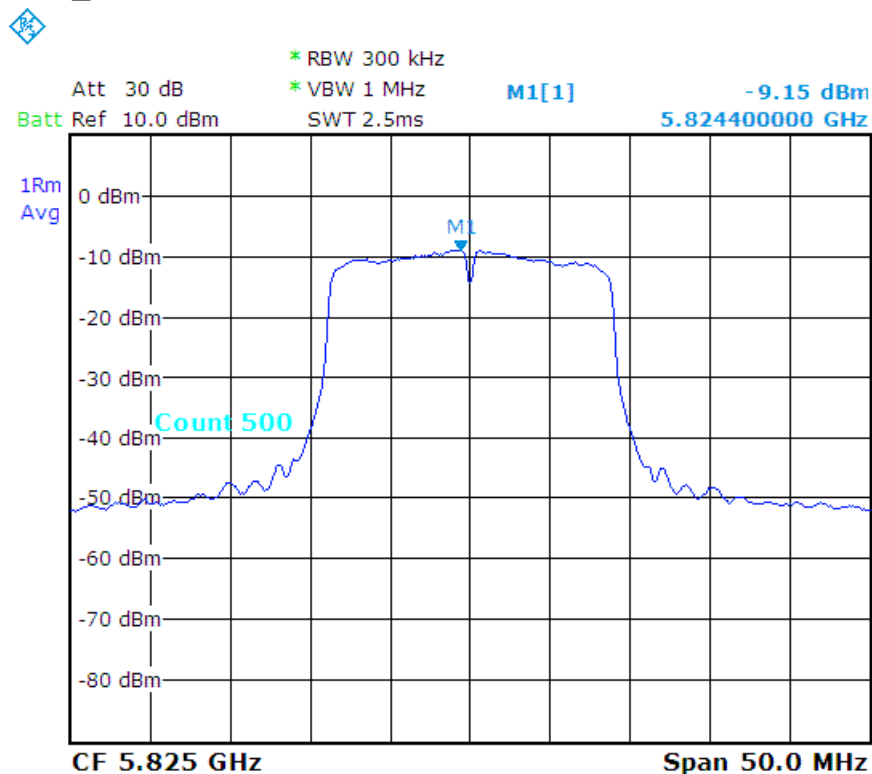
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 405 of 420
Date: Dec. 28, 2017

n - HT20_CH157_ANT2 :



n - HT20_CH165_ANT1 :





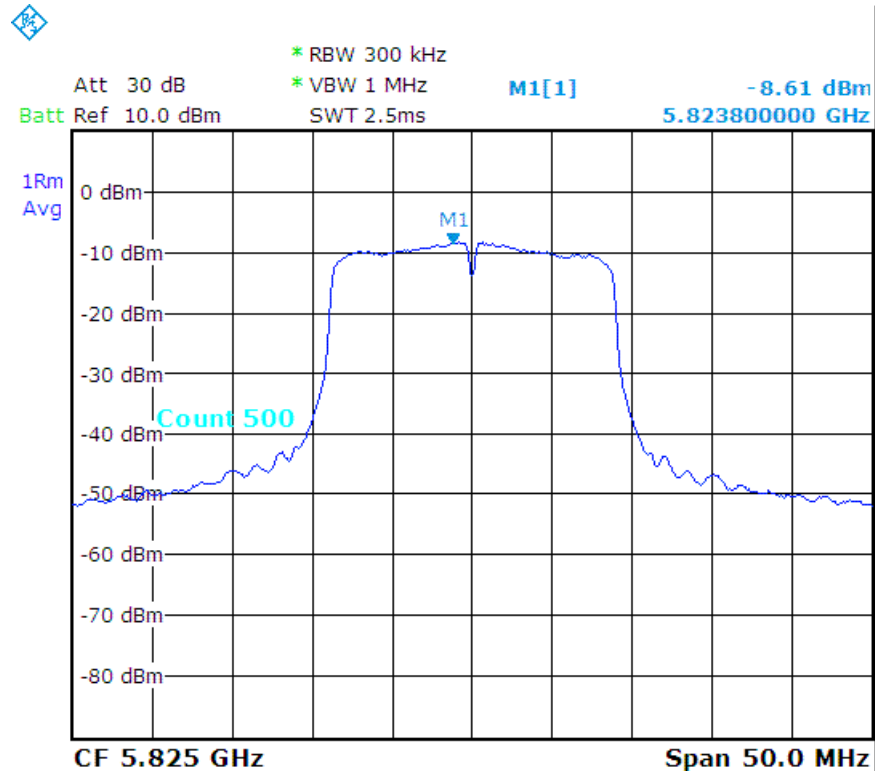
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TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 406 of 420
Date: Dec. 28, 2017

n - HT20_CH165_ANT2 :



**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

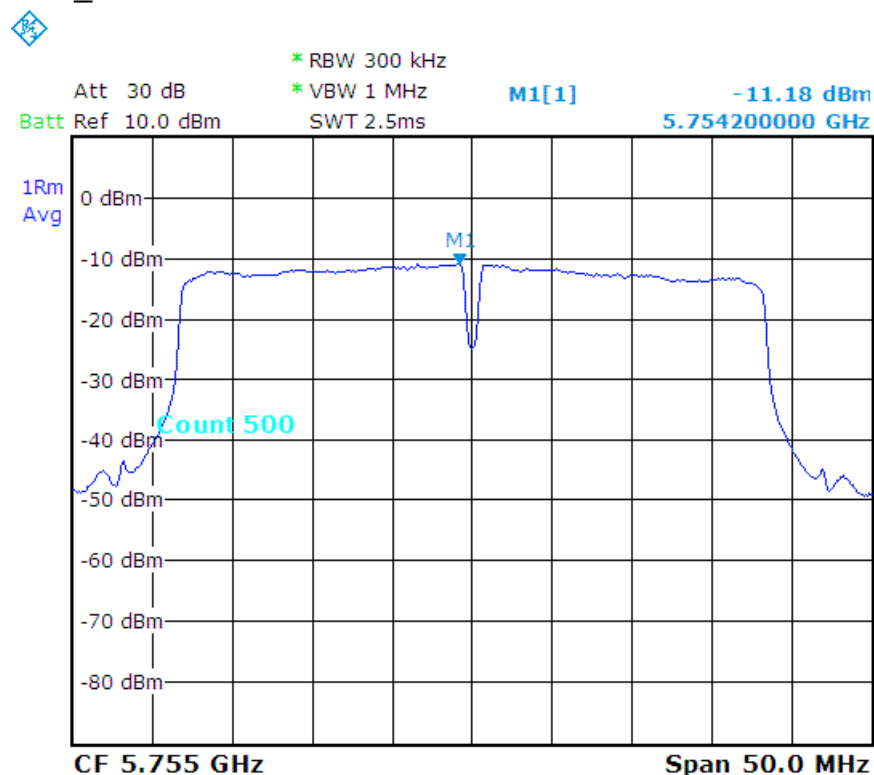
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 407 of 420
Date: Dec. 28, 2017

Temperature:	20 °C	Humidity:	54 %RH
Detector:	RMS	Test Mode:	5.8G_802.11n - HT40
RBW:	300 kHz	VBW:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 12, 2017

Channel Number	Channel Frequency (MHz)	Power Spectral Density (dBm/500kHz)		Maximum Limit (dBm/500kHz)
		Measure	Final	
CH151_ANT1	5755	-11.18	-5.65	30
CH151_ANT2		-10.60		
CH159_ANT1	5795	-11.49	-6.36	30
CH159_ANT2		-11.69		

n - HT40_CH151_ANT1 :





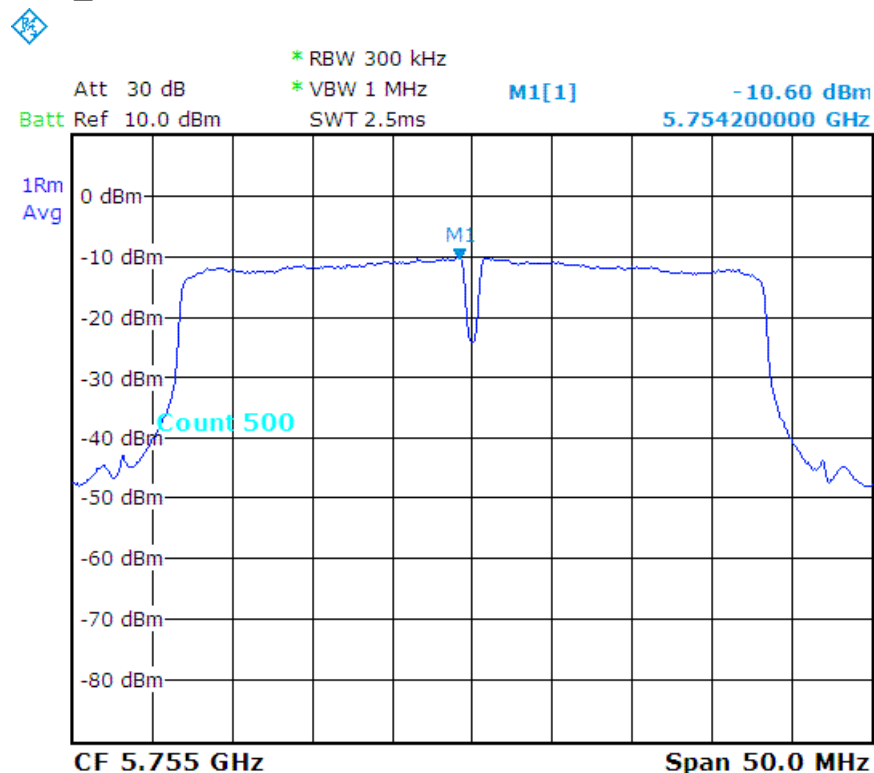
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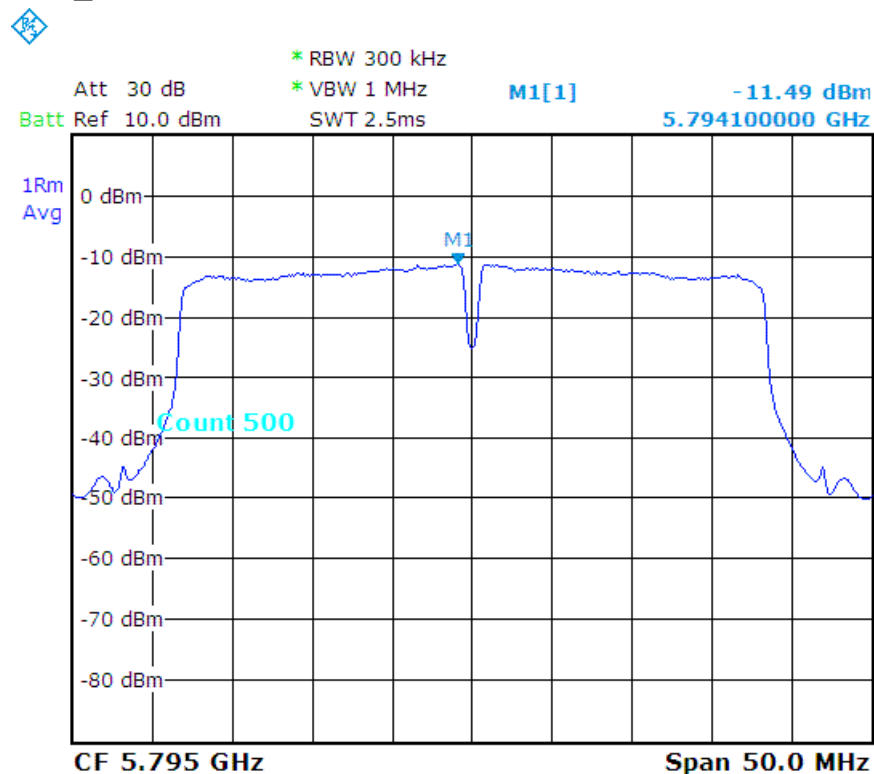
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 408 of 420
Date: Dec. 28, 2017

n - HT40_CH151_ANT2 :



n - HT40_CH159_ANT1 :





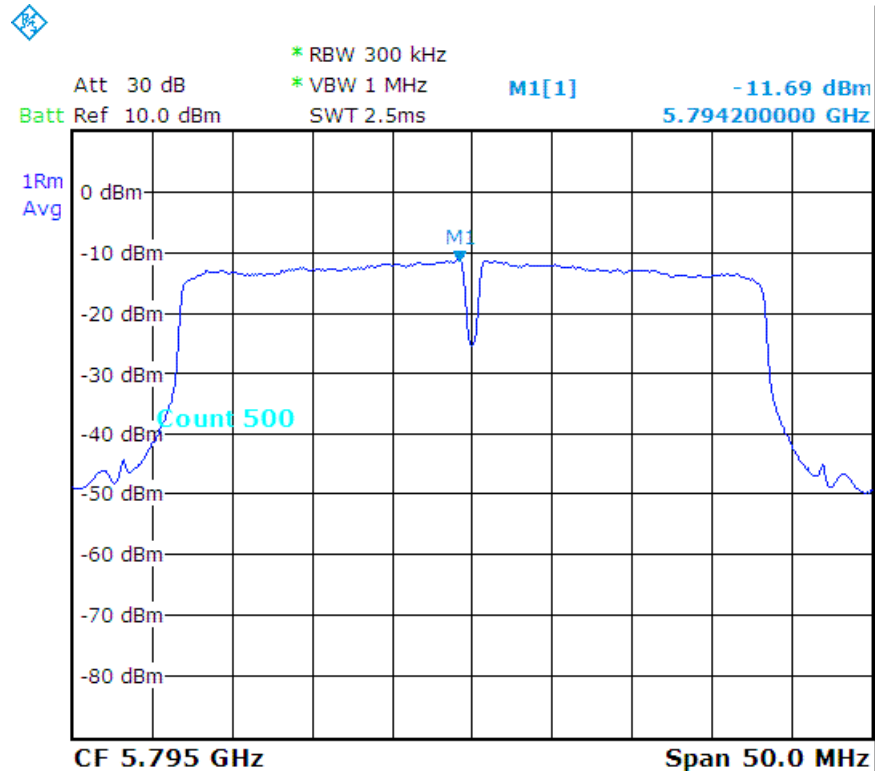
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TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 409 of 420
Date: Dec. 28, 2017

n - HT40_CH159_ANT2 :



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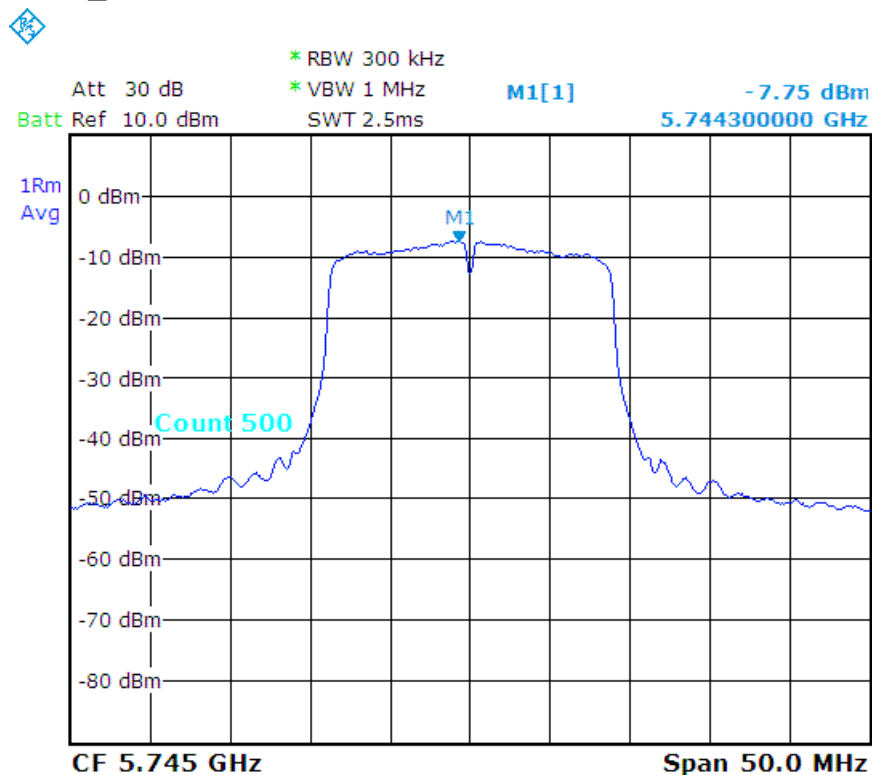
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 410 of 420
Date: Dec. 28, 2017

Temperature:	20 °C	Humidity:	54 %RH
Detector:	RMS	Test Mode:	5.8G_802.11ac - HT20
RBW:	300 kHz	VBW:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 12, 2017

Channel Number	Channel Frequency (MHz)	Power Spectral Density (dBm/500kHz)		Maximum Limit (dBm/500kHz)
		Measure	Final	
CH149_ANT1	5745	-7.75	-2.12	30
CH149_ANT2		-6.99		
CH157_ANT1	5785	-8.77	-2.98	30
CH157_ANT2		-7.72		
CH165_ANT1	5825	-9.03	-3.63	30
CH165_ANT2		-8.70		

ac - HT20_CH149_ANT1 :





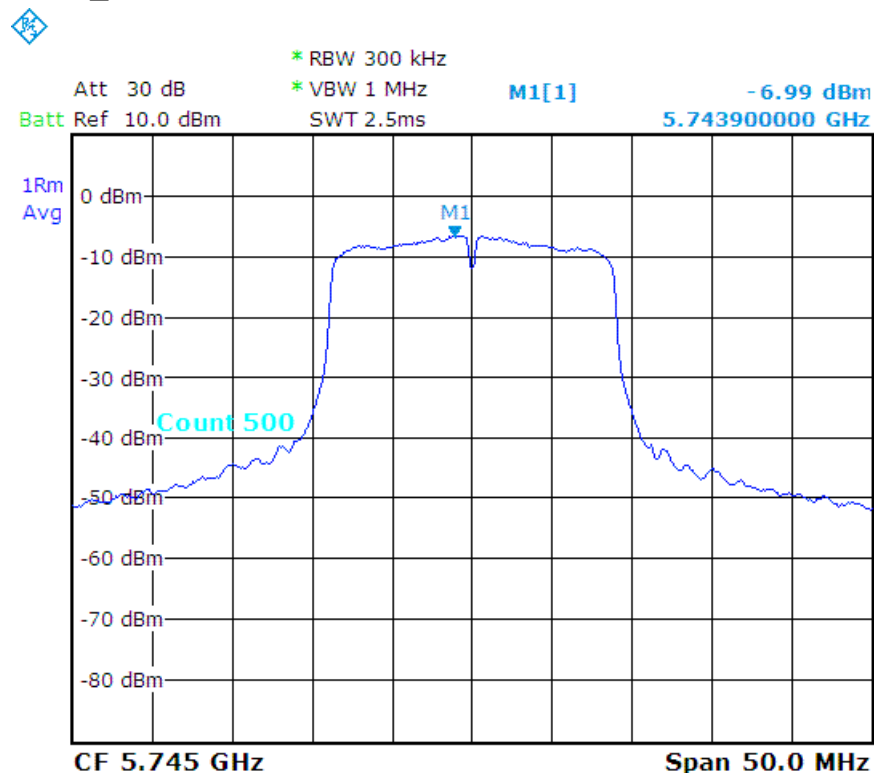
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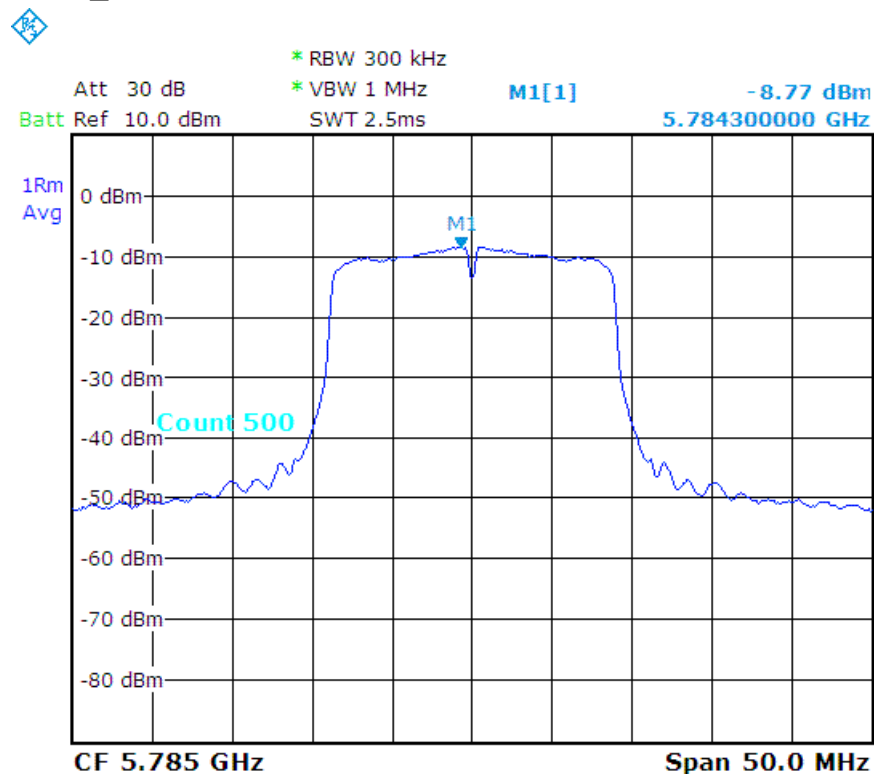
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 411 of 420
Date: Dec. 28, 2017

ac - HT20_CH149_ANT2 :



ac - HT20_CH157_ANT1 :





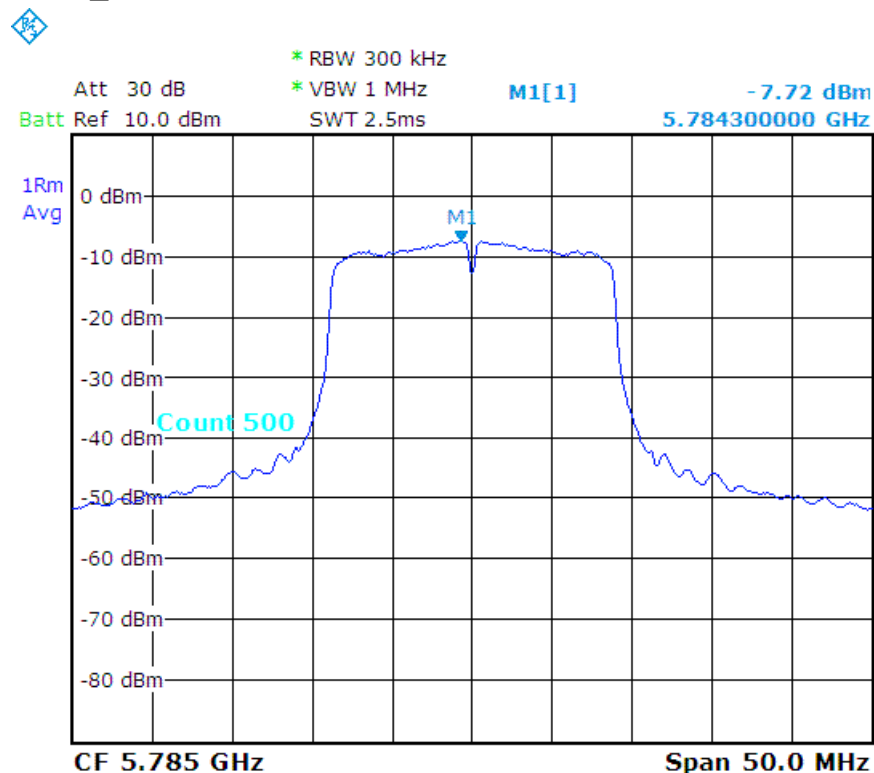
Spectrum Research & Testing Lab., Inc.

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

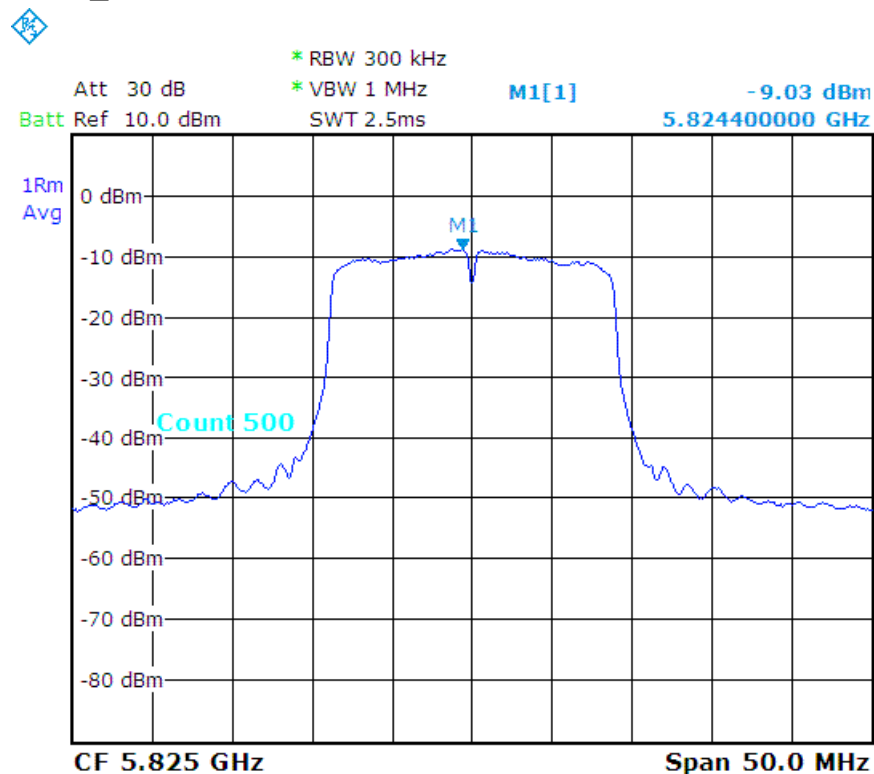
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 412 of 420
Date: Dec. 28, 2017

ac - HT20_CH157_ANT2 :



ac - HT20_CH165_ANT1 :





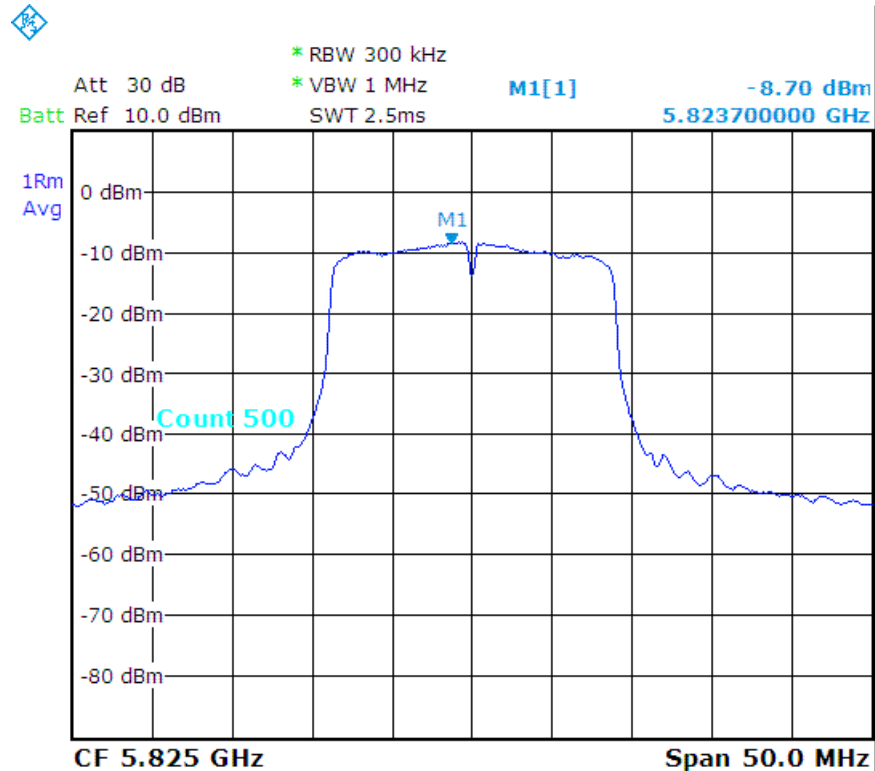
Spectrum Research & Testing Lab., Inc.

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 413 of 420
Date: Dec. 28, 2017

ac - HT20_CH165_ANT2 :



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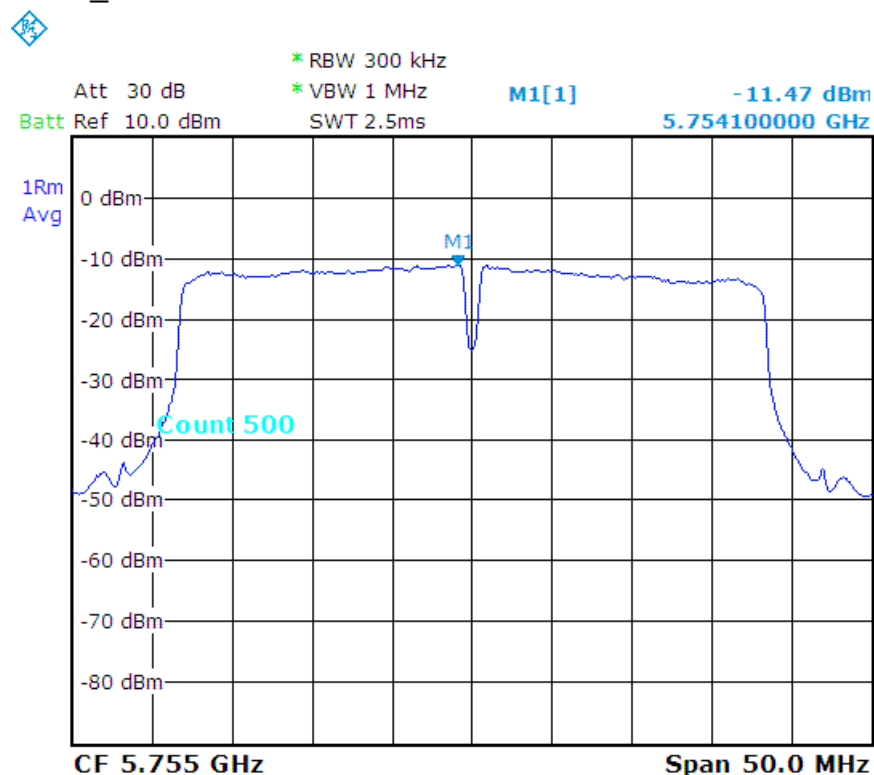
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 414 of 420
Date: Dec. 28, 2017

Temperature:	20 °C	Humidity:	54 %RH
Detector:	RMS	Test Mode:	5.8G_802.11ac - HT40
RBW:	300 kHz	VBW:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 12, 2017

Channel Number	Channel Frequency (MHz)	Power Spectral Density (dBm/500kHz)		Maximum Limit (dBm/500kHz)
		Measure	Final	
CH151_ANT1	5755	-11.47	-5.65	30
CH151_ANT2		-10.37		
CH159_ANT1	5795	-11.82	-6.14	30
CH159_ANT2		-10.96		

ac - HT40_CH151_ANT1 :





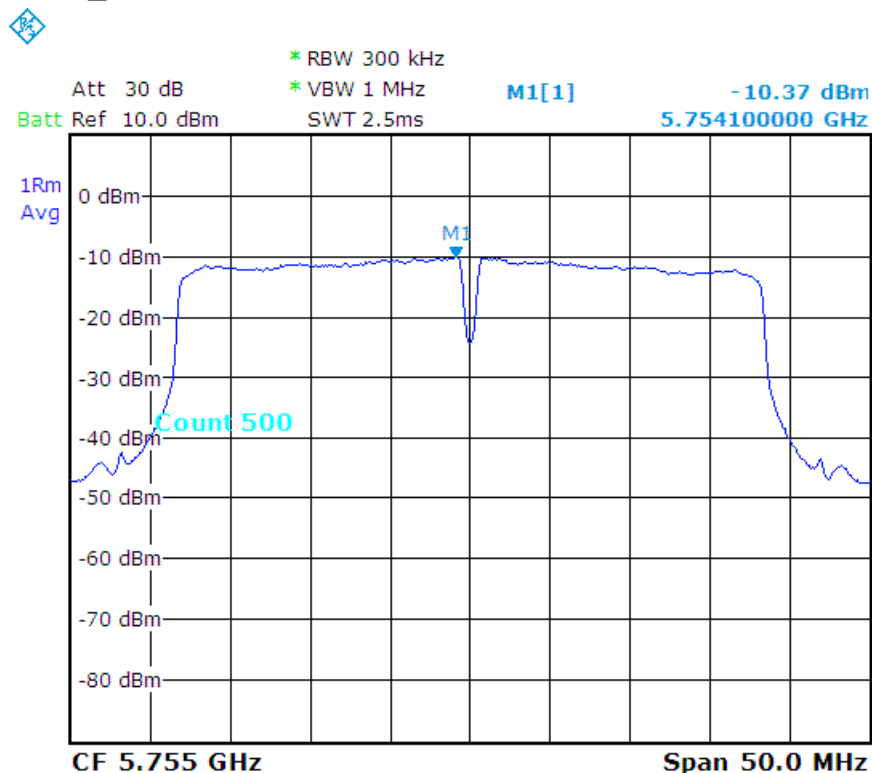
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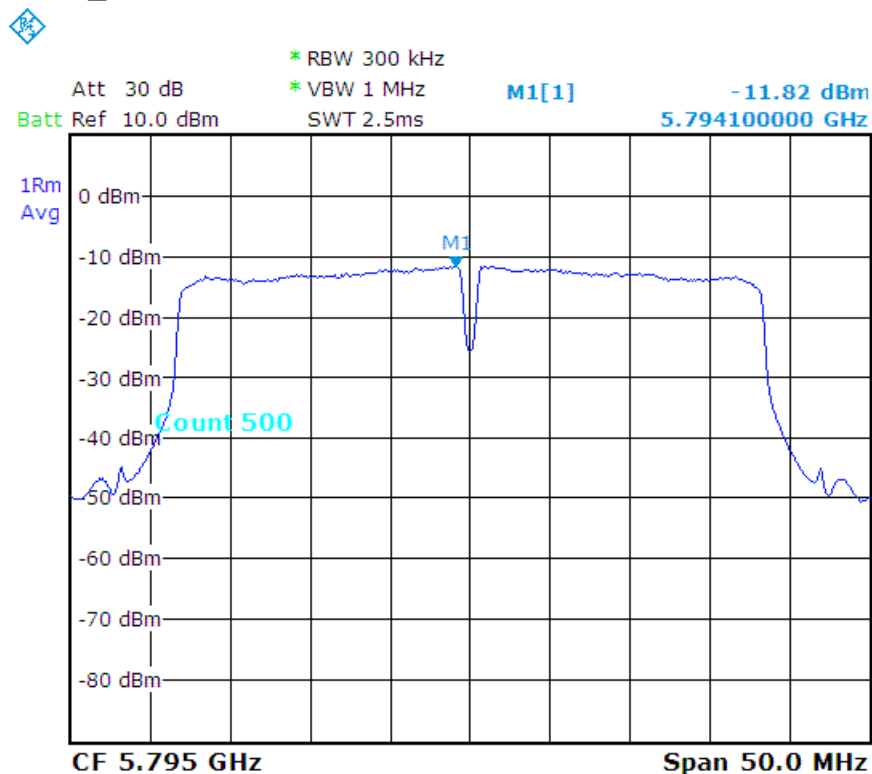
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 415 of 420
Date: Dec. 28, 2017

ac - HT40_CH151_ANT2 :



ac - HT40_CH159_ANT1 :





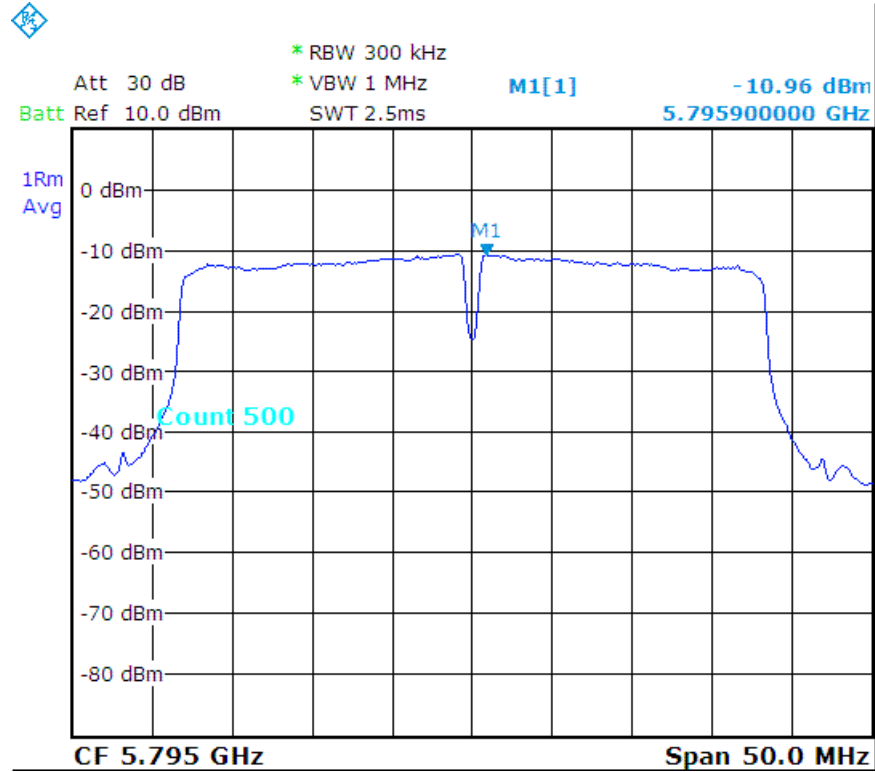
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TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 416 of 420
Date: Dec. 28, 2017

ac - HT40_CH159_ANT2 :



**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

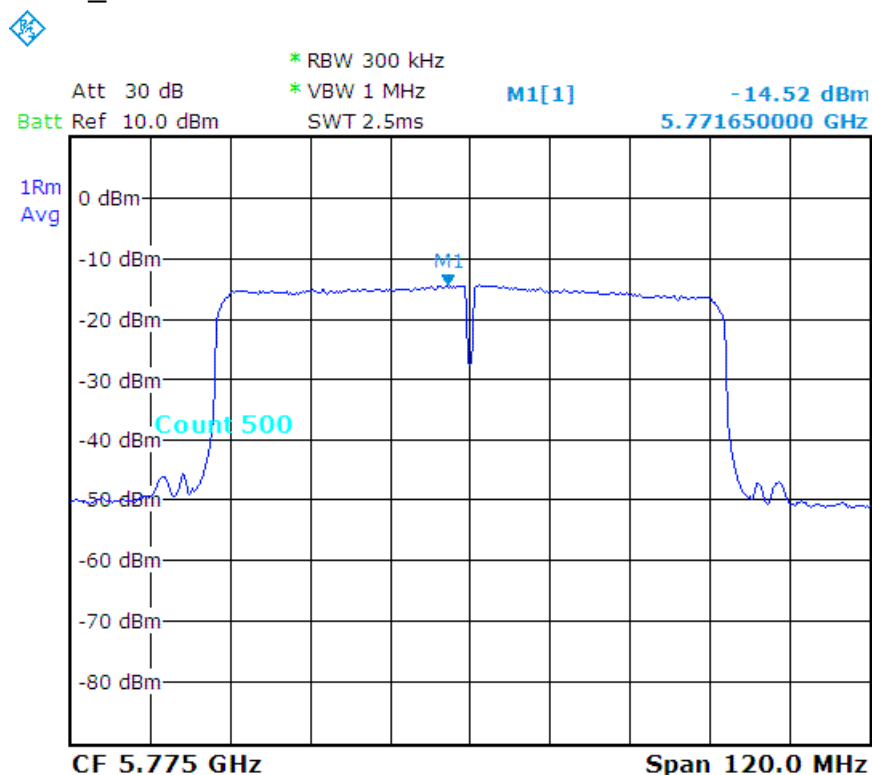
TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 417 of 420
Date: Dec. 28, 2017

Temperature:	20 °C	Humidity:	54 %RH
Detector:	RMS	Test Mode:	5.8G_802.11ac - HT80
RBW:	300 kHz	VBW:	1 MHz
Tested By:	Richard Lin	Tested Date:	Dec. 12, 2017

Channel Number	Channel Frequency (MHz)	Power Spectral Density (dBm/500kHz)		Maximum Limit (dBm/500kHz)
		Measure	Final	
CH155_ANT1	5775	-14.52	-8.80	30
CH155_ANT2		-13.59		

ac - HT80_CH155_ANT1 :





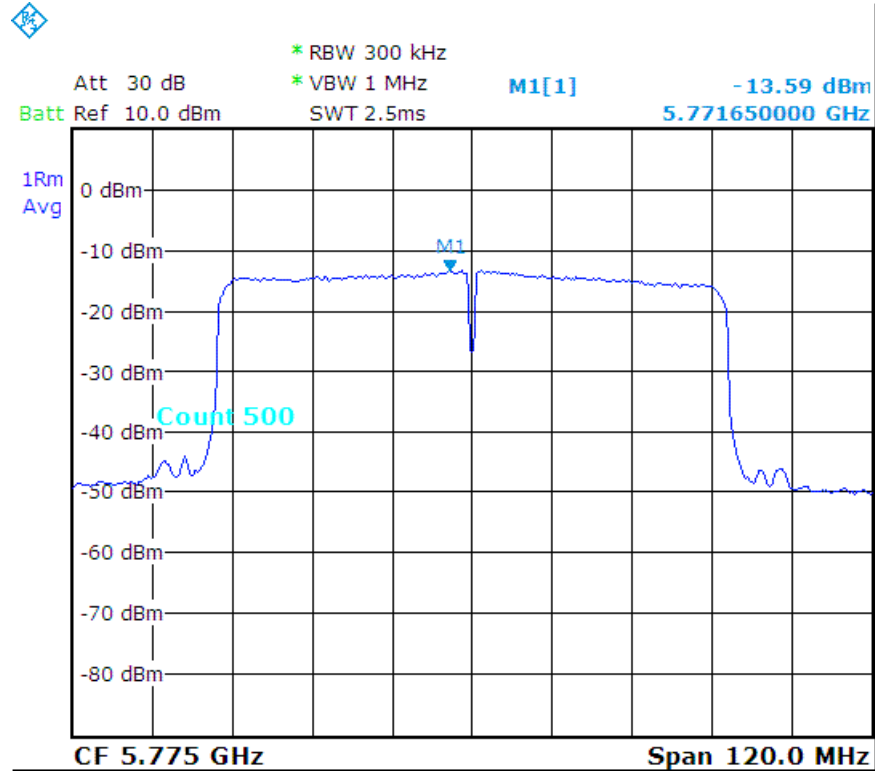
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TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 418 of 420
Date: Dec. 28, 2017

ac - HT80_CH155_ANT2 :





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TEST REPORT

Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 419 of 420
Date: Dec. 28, 2017

5. Antenna application

5.1 Antenna requirement

FCC Part 15E section 15.407 requirement:

For the band 5.725-5.85 GHz, If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

5.2 Result

The EUT's antenna used a Printed Antenna. Gain of 2.0 dBi (ANT#1), 2.0 dBi (ANT#2), that meet the requirement.

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Reference No.: A17103001
Report No.: FCCA17103001-03
FCC ID : AHL-ALMOND3S
Page: 420 of 420
Date: Dec. 28, 2017

6. TERMS OF ABBREVIATION

AV.	Average detection
AZ(°)	Turn table azimuth
Correct.	Correction
EL(m)	Antenna height (meter)
EUT	Equipment Under Test
Horiz.	Horizontal direction
LISN	Line Impedance Stabilization Network
NSA	Normalized Site Attenuation
Q.P.	Quasi-peak detection
SRT Lab	Spectrum Research & Testing Laboratory, Inc.
Vert.	Vertical direction