

TEST REPORT

ACCORDING TO: FCC 47CFR part 96

FOR:

Airspan Networks Inc.
AirStrand
Model: AirStrand 2200
FCC ID: PIDAT2200

This report is in conformity with ISO/ IEC 17025. The "A2LA Accredited" symbol endorsement applies only to the tests and calibrations that are listed in the scope of Hermon Laboratories accreditation. The test results relate only to the items tested.
This test report shall not be reproduced in any form except in full with the written approval of Hermon Laboratories Ltd.

Table of contents

1	Applicant information.....	3
2	Equipment under test attributes	3
3	Manufacturer information	3
4	Test details.....	3
5	Tests summary.....	4
6	EUT description.....	5
6.1	General information.....	5
6.2	Ports and lines	5
6.3	Support and test equipment	5
6.4	Changes made in the EUT	5
6.5	Test configuration.....	6
6.6	Transmitter characteristics	7
6.7	Table of calculations for the MAX EIRP at frequency range 3550 – 3700 MHz	8
7	Transmitter tests according to 47CFR part 96.....	9
7.1	Maximum EIRP and maximum power spectral density	9
7.2	Peak-to-average power ratio (PAPR) test	65
7.3	Occupied bandwidth test	87
7.4	Emission outside the fundamental test.....	115
7.5	Radiated spurious emission measurements.....	171
7.6	Spurious emissions at RF antenna connector test	183
7.7	Frequency stability test.....	294
8	APPENDIX A Test equipment and ancillaries used for tests	296
9	APPENDIX B Test equipment correction factors.....	298
10	APPENDIX C Measurement uncertainties	304
11	APPENDIX D Test laboratory description	305
12	APPENDIX E Specification references.....	305
13	APPENDIX F Abbreviations and acronyms.....	306

1 Applicant information

Client name: Airspan Networks Inc.
Address: 777 Yamato, Road Suite 310 Boca Raton, FL 33431, USA
Telephone: +1 561 893 8670
Fax: +1 561 893 8671
E-mail: zlevi@airspan.com
Contact name: Mr. Zion Levi

2 Equipment under test attributes

Product name: AirStrand
Product type: Transceiver
Model(s): AirStrand 2200
Serial number: EAB85800543B
Hardware version: 06
Software release: SR19.00
Receipt date 26-Jul-21

3 Manufacturer information

Manufacturer name: Airspan Networks Inc.
Address: 777 Yamato, Road Suite 310 Boca Raton, FL 33431, USA
Telephone: +1 561 893 8670
Fax: +1 561 893 8671
E-Mail: zlevi@airspan.com
Contact name: Mr. Zion Levi

4 Test details

Project ID: 42554
Location: Hermon Laboratories Ltd. P.O. Box 23, Binyamina 3055001, Israel
Test started: 25-Jul-21
Test completed: 24-Nov-21
Test specification(s): FCC 47CFR part 96

5 Tests summary

Test	Status
Transmitter characteristics	
Section 96.41(b), Maximum EIRP and maximum power spectral density	Pass*
Section 96.41(g), Peak-to- average power ratio	Pass*
Section 2.1049, Occupied bandwidth	Pass*
Section 96.41(e), Emission mask	Pass*
Section 96.41(e)(2), Radiated spurious emissions	Pass
Section 96.41(e)(3), Conducted spurious emissions	Pass*
Section 2.1055, Frequency stability	Pass

The product was approved by FCC under FCC ID: PIDAT2200.

The report was revised to reflect the following changes:

1. Additional channel spacing of 30 MHz operation via embedded software.

*The relevant tests were performed to support Application for Class II permissive changes certification.

Testing was completed against all relevant requirements of the test standard. The results obtained indicate that the product under test complies in full with the requirements tested.

The test results relate only to the items tested. Pass/ fail decision was based on nominal values.

	Name and Title	Date	Signature
Tested by:	Mr. A. Morozov, test engineer, EMC & Radio	25-Jul-21 – 24-Nov-21	
Reviewed by:	Mrs. S. Peysahov Sheynin, test engineer, EMC & Radio	03-Dec-21	
Approved by:	Mr. S. Samokha, technical manager, EMC & Radio	08-Dec-21	

6 EUT description

Note: The following data in this clause is provided by the customer and represents his sole responsibility

6.1 General information

The EUT is a Mobile Digital station, AirStrand 2200 3550-3700MHz (N48), is part of a 5G broadband fixed cellular wireless access system. The system provides a radio link between an end-user (a subscriber) and a network to give high-speed data access. The AirStrand 2200's transceiver/receiver (Up to 256 QAM modulation, data rate up to 190 Mbps) equipped with a 11.5dBi Internal antenna. Advanced Antenna Techniques 2x2 MIMO are supported. The maximum RF output power (not including antenna gain) is 33.29 dBm for 11.5dBi and it can be reduced by software. The AirStrand is installed outdoors. The Subscriber transmits and receives traffic to and from the base station respectively. The transceiver provides subscribers with "always-on" Internet, high speed data only, or data and voice (VoIP) services and is configured with a unique base station reference number, preventing the 5G UE from relocating to another subscriber premises without authorization.

Note: AirStrand 2200 equipment defined as Category B CBSD (Citizens Broadband Radio Service Device) per FCC part 96 section 96.3(2).

Antennas 1/2 arrange one sector while antenna 1 is cross polarized to antenna 2 and antennas 3/4 arrange another sector while antenna 3 is cross polarized to antenna 4. The transmitter output signals are completely uncorrelated.

The sectors are either non overlapping by operation on different frequency channels or by different sectors coverage without overlapping of antenna beams."

6.2 Ports and lines

Port type	Port description	Connected from	Connected to	Qty.	Cable type	Cable length, m
Power	AC power 63VAC*	EUT	AC power source	1	Shielded	>3m
Signal	ETH**	EUT	Laptop	1	Shielded	>3m
Signal	RS232***	EUT	Laptop	1	Shielded	>3m

* Coaxial cable for power and data

** Installed only for radio tests

*** For maintenance

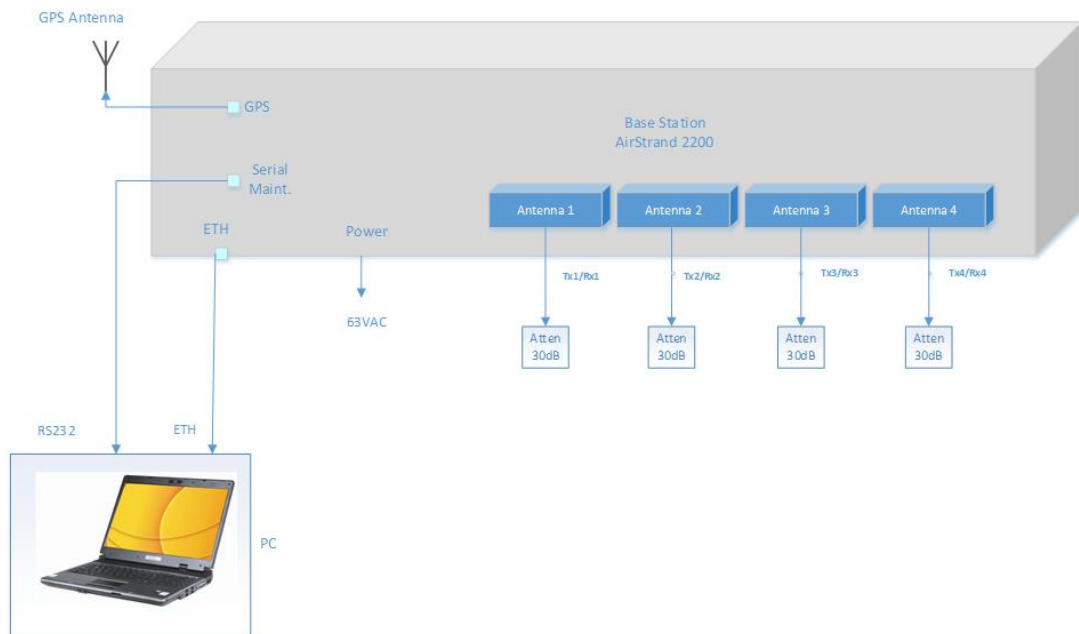
6.3 Support and test equipment

Description	Manufacturer	Model number	Serial number
PC	DELL	Latitude E7440	NA
RF attenuator 30db	A-comm	ASMA10-30dB-6G	NA

6.4 Changes made in the EUT

No changes were implemented in the EUT during testing.

6.5 Test configuration



6.6 Transmitter characteristics

Type of equipment					
V	Stand-alone (Equipment with or without its own control provisions)				
	Combined equipment (Equipment where the radio part is fully integrated within another type of equipment)				
	Plug-in card (Equipment intended for a variety of host systems)				
Intended use		Condition of use			
V	fixed	Always at a distance more than 2 m from all people			
	mobile	Always at a distance more than 20 cm from all people			
	portable	May operate at a distance closer than 20 cm to human body			
Assigned frequency range		3550.0 – 3700.0 MHz			
Operating frequency (full bands)		3560.0 – 3690.0 MHz			
RF channel spacing		10 MHz, 20 MHz, 30 MHz, 40 MHz			
Maximum rated output power		At transmitter 50 Ω RF output connector (per port)		33.29 dBm	
Is transmitter output power variable?		No			
		V	Yes	continuous variable	
				stepped variable with step size	0.25 dB
				minimum RF power	-30 dBm
		maximum RF power at antenna connector			dBm
Antenna connection					
unique coupling	V	standard connector	Integral	V with temporary RF connector without temporary RF connector	
Antenna/s technical characteristics					
Type	Manufacturer	Model number	Gain		
Internal	Airspan Networks	AW3861	11.5 dBi		
Transmitter aggregate data rate/s, Mbps					
Transmitter 26dBc power bandwidth		Type of modulation			
		QPSK	16QAM	64QAM	256QAM
10 MHz		10.7	22.7	47.3	71.5
20 MHz		23.4	45.4	95.0	143.0
30 MHz		32.0	68.0	142.0	215.0
40 MHz		46.8	90.8	190.0	285.0
Type of multiplexing		TDD			
Modulating test signal (baseband)		PRBS			
Maximum transmitter duty cycle in normal use		0.74			
Transmitter power source					
	Nominal rated voltage		Battery type		
	DC	Nominal rated voltage			
V	AC mains	Nominal rated voltage	48 VAC	Frequency	
Common power source for transmitter and receiver		V	yes	no	

6.7 Table of calculations for the MAX EIRP at frequency range 3550 – 3700 MHz

Antenna configuration	Antenna Vendor	Antenna Model Number	Antenna Peak Gain (dB)	Signal Bandwidth (MHz)	Maximum Conducted Power (dBm)	EIRP (dBm/10MHz)	EIRP per Bandwidth (dBm)	Operational Category
1	Airspan Networks	AW3861	11.5	10.0	32.49	43.99	43.99	B
				20.0	31.30	40.29	42.80	
				30.0	32.47	39.51	43.97	
				40.0	33.29	39.02	44.79	



Test specification: Section 96.41(b), Maximum EIRP and maximum power spectral density			
Test procedure: Section 96.41(e)(3)			
Test mode: Compliance		Verdict: PASS	
Date(s): 25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

7 Transmitter tests according to 47CFR part 96

7.1 Maximum EIRP and maximum power spectral density

7.1.1 General

This test was performed to measure the maximum EIRP and maximum spectral power density at the transmitter RF antenna connector. Specification test limits are given in Table 7.1.1, Table 7.1.2.

Table 7.1.1 Maximum EIRP limits

Assigned frequency range, MHz	EIRP
	dBm/10 MHz
3550 - 3700	47.0

Table 7.1.2 Peak spectral power density limits

Assigned frequency range, MHz	Measurement bandwidth, MHz	Peak spectral power density, dBm
3550 - 3700	1.0	37.0

7.1.2 Test procedure

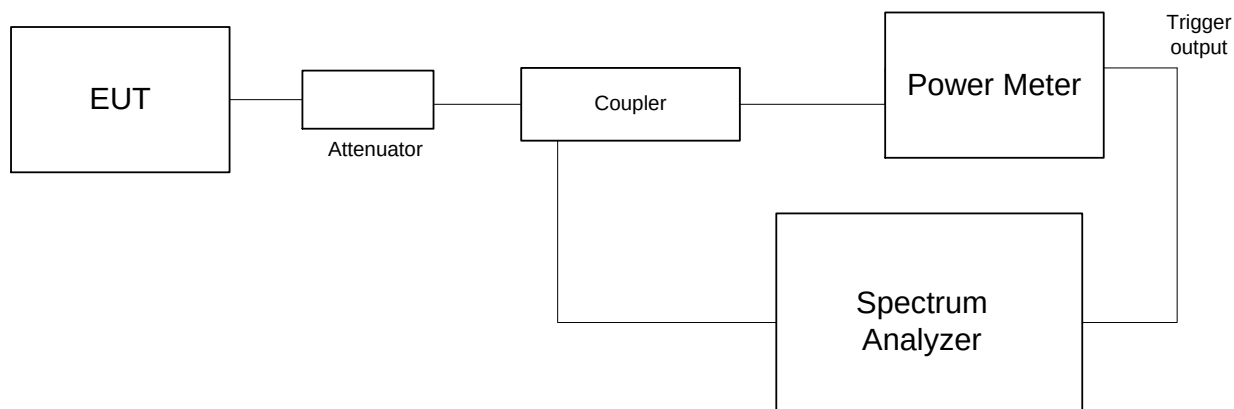
7.1.2.1 The EUT was set up as shown in Figure 7.1.1, energized and its proper operation was checked.

7.1.2.2 The EUT was adjusted to produce maximum available to end user RF output power.

7.1.2.3 The frequency span of spectrum analyzer was set to capture the entire 6 dB band of the transmitter, in average mode with resolution bandwidth set to 1.0 MHz, video bandwidth wider than resolution bandwidth, sweep time and sufficient number of sweeps was allowed for trace stabilization.

7.1.2.4 Spectrum analyzer was set in average mode, sufficient number of sweeps was allowed for trace stabilization and peak spectral power density was measured as provided in Table 7.1.3, Table 7.1.4 and the associated plots.

Figure 7.1.1 Maximum EIRP and power spectral density test setup





Test specification: Section 96.41(b), Maximum EIRP and maximum power spectral density			
Test procedure: Section 96.41(e)(3)			
Test mode: Compliance		Verdict: PASS	
Date(s): 25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Table 7.1.3 Maximum EIRP test results

ASSIGNED FREQUENCY RANGE:

3550.0 – 3700.0 MHz

DETECTOR USED:

Average (gated)

VIDEO BANDWIDTH:

≥ Resolution bandwidth

CHANNEL SPACING:

10 MHz

Frequency , MHz	RF Output power				Antenna gain, dBi	EIRP*, dBm/10 MHz	Limit, dBm/10 MHz	Margin, dB**	Verdict
	Chain RF#1, dBm	Chain RF#2, dBm	Chain RF#3, dBm	Chain RF#4, dBm					
Modulation QPSK									
3555	31.29	28.58	30.25	27.68	11.5	42.79	47.0	-4.21	Pass
3625	30.87	29.78	29.32	28.75	11.5	42.37	47.0	-4.63	Pass
3695	29.96	28.49	29.35	29.78	11.5	41.46	47.0	-5.54	Pass
Modulation 16QAM									
3555	32.49	28.50	30.20	27.34	11.5	43.99	47.0	-3.01	Pass
3625	30.40	29.65	29.26	28.72	11.5	41.90	47.0	-5.10	Pass
3695	29.66	30.01	29.78	29.72	11.5	41.51	47.0	-5.49	Pass
Modulation 64QAM									
3555	32.48	28.46	29.98	27.32	11.5	43.98	47.0	-3.02	Pass
3625	30.55	29.65	28.96	28.79	11.5	42.05	47.0	-4.95	Pass
3695	29.65	29.96	29.65	29.70	11.5	41.46	47.0	-5.54	Pass
Modulation 256QAM									
3555	32.00	28.23	29.48	27.46	11.5	43.50	47.0	-3.50	Pass
3625	30.39	29.46	28.84	28.68	11.5	41.89	47.0	-5.11	Pass
3695	29.56	30.23	29.38	29.59	11.5	41.73	47.0	-5.27	Pass

* - EIRP = Max SA reading (Chains #1&2 and #3&4) + Antenna gain: The transmitter output signal are completely uncorrelated, antennas 1/2 is one sector and antennas 3/4 is another sector.

** - Margin = EIRP, dBm – specification limit.



Test specification: Section 96.41(b), Maximum EIRP and maximum power spectral density			
Test procedure: Section 96.41(e)(3)			
Test mode: Compliance		Verdict: PASS	
Date(s): 25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Table 7.1.4 Maximum EIRP test results (continue)

ASSIGNED FREQUENCY RANGE:

3550.0 – 3700.0 MHz

DETECTOR USED:

Average (gated)

VIDEO BANDWIDTH:

≥ Resolution bandwidth

CHANNEL SPACING:

20 MHz

Frequency , MHz	RF Output power				Antenna gain, dBi	EIRP*, dBm/20 MHz	EIRP*, dBm/10 MHz	Limit, dBm/10 MHz	Margin, dB**	Verdict
	Chain RF#1, dBm	Chain RF#2, dBm	Chain RF#3, dBm	Chain RF#4, dBm						
Modulation QPSK										
3560	31.30	30.94	30.78	29.78	11.5	42.80	40.29	47.0	-6.71	Pass
3625	30.91	31.08	30.68	30.25	11.5	42.58	40.07	47.0	-6.93	Pass
3690	30.44	31.00	29.10	28.90	11.5	42.50	39.99	47.0	-7.01	Pass
Modulation 16QAM										
3560	31.19	30.91	30.72	29.58	11.5	42.69	40.18	47.0	-6.82	Pass
3625	30.84	30.70	30.52	30.25	11.5	42.34	39.83	47.0	-7.17	Pass
3690	30.35	30.22	28.99	29.14	11.5	41.85	39.34	47.0	-7.66	Pass
Modulation 64QAM										
3560	31.19	30.84	30.69	29.69	11.5	42.69	40.18	47.0	-4.31	Pass
3625	30.86	30.75	30.45	30.13	11.5	42.36	39.85	47.0	-4.64	Pass
3690	30.30	30.24	28.57	28.50	11.5	41.80	39.29	47.0	-5.20	Pass
Modulation 256QAM										
3560	31.10	30.88	30.63	30.26	11.5	42.60	40.09	47.0	-6.91	Pass
3625	30.74	30.79	30.44	30.09	11.5	42.29	39.78	47.0	-7.22	Pass
3690	30.25	30.14	28.59	28.40	11.5	41.75	39.24	47.0	-7.76	Pass

* - EIRP = Max SA reading (Chains #1&2 and #3&4) - 10*log[OBW(MHz) / 10 MHz] + Antenna gain =

Max SA reading – 2.51 dB + Antenna gain: The transmitter output signal are completely uncorrelated, antennas 1/2 is one sector and antennas 3/4 is another sector.

** - Margin = EIRP, dBm – specification limit.



Test specification: Section 96.41(b), Maximum EIRP and maximum power spectral density			
Test procedure: Section 96.41(e)(3)			
Test mode: Compliance		Verdict: PASS	
Date(s): 25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Table 7.1.5 Peak output power test results

ASSIGNED FREQUENCY RANGE:

3550.0 – 3700.0 MHz

DETECTOR USED:

Average (gated)

VIDEO BANDWIDTH:

≥ Resolution bandwidth

CHANNEL SPACING:

30 MHz

CHANNEL SPACING:					50 MHz						
Frequency, MHz	RF Output power				Antenna gain, dBi	EIRP*, dBm/30 MHz	EIRP*, dBm/10 MHz	Limit, dBm/10 MHz	Margin, dB**	Verdict	
	Chain RF#1, dBm	Chain RF#2, dBm	Chain RF#3, dBm	Chain RF#4, dBm							
Modulation QPSK											
3565.0	31.90	32.03	32.15	32.16	11.5	43.66	39.20	47.0	-7.80	Pass	
3625.0	32.47	32.18	31.66	31.94	11.5	43.97	39.51	47.0	-7.49	Pass	
3685.0	31.94	32.46	30.80	31.92	11.5	44.10	39.64	47.0	-7.36	Pass	
Modulation 16QAM											
3565.0	32.04	32.01	31.85	32.13	11.5	43.63	39.17	47.0	-7.83	Pass	
3625.0	31.22	31.38	31.58	31.13	11.5	43.08	38.62	47.0	-8.38	Pass	
3685.0	31.97	32.43	30.81	31.87	11.5	43.93	39.47	47.0	-7.53	Pass	
Modulation 64QAM											
3565.0	32.10	32.11	31.83	32.06	11.5	43.61	39.15	47.0	-7.85	Pass	
3625.0	30.96	31.43	31.72	31.06	11.5	43.22	38.76	47.0	-8.24	Pass	
3685.0	31.95	32.42	30.74	31.85	11.5	43.92	39.46	47.0	-7.54	Pass	
Modulation 256QAM											
3565.0	31.99	32.33	31.81	32.13	11.5	43.83	39.37	47.0	-7.63	Pass	
3625.0	31.78	32.05	31.89	31.87	11.5	43.55	39.09	47.0	-7.91	Pass	
3685.0	31.95	32.42	30.70	31.85	11.5	43.92	39.46	47.0	-7.54	Pass	

*- EIRP = Max SA reading (Chains #1&2 and #3&4) - 10*log[OBW(MHz) / 10 MHz] + Antenna gain =

Max SA reading – 4.46 dB + Antenna gain: The transmitter output signal are completely uncorrelated, antennas 1/2 is one sector and antennas 3/4 is another sector.

**- Margin = EIRP, dBm – specification limit.



Test specification: Section 96.41(b), Maximum EIRP and maximum power spectral density			
Test procedure: Section 96.41(e)(3)			
Test mode: Compliance		Verdict: PASS	
Date(s): 25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Table 7.1.6 Maximum EIRP test results (continue)

ASSIGNED FREQUENCY RANGE:

3550.0 – 3700.0 MHz

DETECTOR USED:

Average (gated)

VIDEO BANDWIDTH:

≥ Resolution bandwidth

CHANNEL SPACING:

40 MHz

CHANNEL SPACING: 40 MHz

Frequency, MHz	RF Output power				Antenna gain, dBi	EIRP*, dBm/40 MHz	EIRP*, dBm/10 MHz	Limit, dBm/10 MHz	Margin, dB**	Verdict
	Chain RF#1, dBm	Chain RF#2, dBm	Chain RF#3, dBm	Chain RF#4, dBm						
Modulation QPSK										
3570.0	32.03	31.92	32.70	31.00	11.5	44.20	38.43	47.0	-8.57	Pass
3625.0	32.53	32.41	33.29	31.50	11.5	44.79	39.02	47.0	-7.98	Pass
3680.0	32.15	31.73	31.64	31.00	11.5	43.65	37.88	47.0	-9.12	Pass
Modulation 16QAM										
3570.0	32.64	31.88	32.21	31.17	11.5	44.50	38.37	47.0	-8.63	Pass
3625.0	32.19	32.13	32.45	31.33	11.5	43.95	38.18	47.0	-8.82	Pass
3680.0	32.01	31.86	31.46	30.87	11.5	43.51	37.74	47.0	-9.26	Pass
Modulation 64QAM										
3570.0	32.32	31.87	32.19	31.13	11.5	43.82	38.05	47.0	-8.95	Pass
3625.0	32.17	32.14	32.51	31.31	11.5	44.01	38.24	47.0	-8.76	Pass
3680.0	32.04	31.86	31.43	30.87	11.5	43.54	37.77	47.0	-9.23	Pass
Modulation 256QAM										
3570.0	31.99	31.90	32.84	31.22	11.5	44.34	38.57	47.0	-8.43	Pass
3625.0	32.19	32.15	32.50	31.33	11.5	44.00	38.23	47.0	-8.77	Pass
3680.0	32.01	31.87	31.41	30.88	11.5	43.51	37.74	47.0	-9.26	Pass

* - EIRP = Max SA reading (Chains #1&2 and #3&4) - 10*log[OBW(MHz) / 10 MHz] + Antenna gain =

Max SA reading – 5.77 dB + Antenna gain: The transmitter output signal are completely uncorrelated, antennas 1/2 is one sector and antennas 3/4 is another sector.

** - Margin = EIRP, dBm – specification limit.



Test specification: Section 96.41(b), Maximum EIRP and maximum power spectral density			
Test procedure: Section 96.41(e)(3)			
Test mode: Compliance		Verdict: PASS	
Date(s): 25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Table 7.1.7 Peak spectral power density test results

ASSIGNED FREQUENCY RANGE:

3550.0 – 3700.0 MHz

DETECTOR USED:

Average (gated)

VIDEO BANDWIDTH:

≥ Resolution bandwidth

NUMBER OF CHAINS:

4

Frequency, MHz	SA Reading, dBm/MHz				Antenna gain, dBi	Total PSD*, dBm/ MHz	Limit, dBm/MHz	Margin , dB	Verdict
	Chain RF#1,	Chain RF#2,	Chain RF#3,	Chain RF#4,					
Channel spacing 10 MHz									
Modulation QPSK									
3555	21.35	18.71	20.42	17.78	11.5	32.85	37.0	-4.15	Pass
3625	21.03	20.10	19.57	18.94	11.5	32.53	37.0	-4.47	Pass
3695	20.12	21.22	20.96	20.75	11.5	32.72	37.0	-4.28	Pass
Modulation 16QAM									
3555	21.27	18.57	20.37	17.50	11.5	32.77	37.0	-4.23	Pass
3625	20.45	20.00	19.54	19.00	11.5	31.95	37.0	-5.05	Pass
3695	19.87	21.47	20.69	18.42	11.5	32.97	37.0	-4.03	Pass
Modulation 64QAM									
3555	21.26	18.65	20.13	17.52	11.5	32.76	37.0	-4.24	Pass
3625	20.83	19.96	19.25	18.93	11.5	32.33	37.0	-4.67	Pass
3695	19.84	19.04	20.69	18.43	11.5	32.19	37.0	-4.81	Pass
Modulation 256QAM									
3555	20.70	18.37	19.63	17.17	11.5	32.20	37.0	-4.80	Pass
3625	20.41	18.93	19.15	18.94	11.5	31.91	37.0	-5.09	Pass
3695	19.79	18.99	20.66	20.77	11.5	32.27	37.0	-4.73	Pass



Test specification: Section 96.41(b), Maximum EIRP and maximum power spectral density			
Test procedure: Section 96.41(e)(3)			
Test mode: Compliance		Verdict: PASS	
Date(s): 25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Table 7.1.8 Peak spectral power density test results (continue)

ASSIGNED FREQUENCY RANGE:
DETECTOR USED:
VIDEO BANDWIDTH:
NUMBER OF CHAINS:

3550.0 – 3700.0 MHz
Average (gated)
≥ Resolution bandwidth
4

Frequency, MHz	SA Reading, dBm/MHz				Antenna gain, dBi	Total PSD*, dBm/ MHz	Limit, dBm/MHz	Margin , dB	Verdict
	Chain RF#1,	Chain RF#2,	Chain RF#3,	Chain RF#4,					
Channel spacing 20 MHz									
Modulation QPSK									
3560.0	18.92	18.74	18.47	17.78	11.5	30.42	37.0	-6.58	Pass
3625.0	18.44	18.22	18.21	17.61	11.5	29.94	37.0	-7.06	Pass
3690.0	18.20	18.27	17.00	16.37	11.5	29.77	37.0	-7.23	Pass
Modulation 16QAM									
3560.0	19.00	18.07	18.36	17.98	11.5	30.50	37.0	-6.50	Pass
3625.0	18.47	18.56	13.03	17.72	11.5	30.06	37.0	-6.94	Pass
3690.0	18.04	18.52	16.95	16.98	11.5	30.02	37.0	-6.98	Pass
Modulation 64QAM									
3560.0	18.99	18.92	18.52	17.97	11.5	30.49	37.0	-6.51	Pass
3625.0	18.48	17.85	18.25	17.38	11.5	29.98	37.0	-7.02	Pass
3690.0	18.32	18.55	16.97	16.30	11.5	30.05	37.0	-6.95	Pass
Modulation 256QAM									
3560.0	18.83	18.74	18.37	17.95	11.5	30.33	37.0	-6.67	Pass
3625.0	18.32	18.32	17.91	17.50	11.5	29.82	37.0	-7.18	Pass
3690.0	18.18	16.37	16.97	16.16	11.5	29.68	37.0	-7.32	Pass
Channel spacing 30 MHz									
Modulation QPSK									
3565.0	16.66	17.21	17.13	17.18	11.5	28.71	37.0	-8.29	Pass
3625.0	17.36	17.22	16.55	16.82	11.5	28.86	37.0	-8.14	Pass
3685.0	17.46	17.77	15.82	17.00	11.5	29.27	37.0	-7.73	Pass
Modulation 16QAM									
3565.0	17.02	17.18	16.86	17.24	11.5	28.74	37.0	-8.26	Pass
3625.0	16.30	16.53	16.71	16.05	11.5	28.21	37.0	-8.79	Pass
3685.0	17.48	17.73	15.84	17.07	11.5	29.23	37.0	-7.77	Pass
Modulation 64QAM									
3565.0	17.07	17.27	16.84	17.13	11.5	28.77	37.0	-8.23	Pass
3625.0	16.03	16.55	16.71	16.01	11.5	28.21	37.0	-8.79	Pass
3685.0	17.45	17.78	15.84	17.04	11.5	29.28	37.0	-7.72	Pass
Modulation 256QAM									
3565.0	16.96	17.27	16.88	17.20	11.5	28.77	37.0	-8.23	Pass
3625.0	16.69	17.16	16.77	16.82	11.5	28.66	37.0	-8.34	Pass
3685.0	17.39	16.23	15.78	16.99	11.5	28.89	37.0	-8.11	Pass



Test specification: Section 96.41(b), Maximum EIRP and maximum power spectral density			
Test procedure: Section 96.41(e)(3)			
Test mode: Compliance		Verdict: PASS	
Date(s): 25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Table 7.1.9 Peak spectral power density test results (continue)

ASSIGNED FREQUENCY RANGE:

3550.0 – 3700.0 MHz

DETECTOR USED:

Average (gated)

VIDEO BANDWIDTH:

≥ Resolution bandwidth

NUMBER OF CHAINS:

4

Channel spacing 40 MHz									
Modulation QPSK									
3570.0	16.50	15.90	16.73	15.91	11.5	28.23	37.0	-8.77	Pass
3625.0	16.72	16.42	17.10	16.27	11.5	28.60	37.0	-8.40	Pass
3680.0	16.55	15.92	15.96	16.10	11.5	28.05	37.0	-8.95	Pass
Modulation 16QAM									
3570.0	16.58	16.00	16.35	16.33	11.5	28.08	37.0	-8.92	Pass
3625.0	16.30	16.21	16.55	16.29	11.5	28.05	37.0	-8.95	Pass
3680.0	16.63	15.91	16.96	16.08	11.5	28.46	37.0	-8.54	Pass
Modulation 64QAM									
3570.0	16.63	16.02	16.37	16.29	11.5	28.13	37.0	-8.87	Pass
3625.0	16.27	16.23	16.57	16.30	11.5	28.07	37.0	-8.93	Pass
3680.0	16.59	16.18	15.92	16.11	11.5	28.09	37.0	-8.91	Pass
Modulation 256QAM									
3570.0	16.45	15.89	17.02	16.24	11.5	28.52	37.0	-8.48	Pass
3625.0	16.31	16.30	16.52	16.20	11.5	28.02	37.0	-8.98	Pass
3680.0	16.70	16.28	15.97	16.11	11.5	28.20	37.0	-8.80	Pass

* - Total PSD = Max SA reading (Chains #1&2 or chains #3&4) + Antenna Gain: The transmitter output signal are completely uncorrelated, antennas 1/2 is one sector and antennas 3/4 is another sector.

** - Margin = Total PSD, dBm – specification limit.

Reference numbers of test equipment used

HL 4355	HL 3901	HL 4366	HL 3301	HL 3302	HL 5409		
---------	---------	---------	---------	---------	---------	--	--

Full description is given in Appendix A.



HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

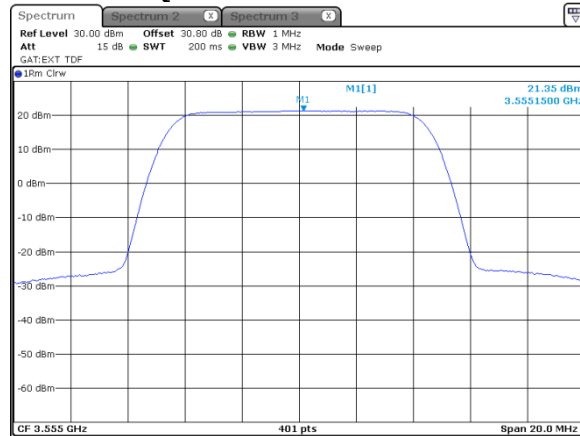
Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.1 Peak spectral power density at low frequency

CHANNEL SPACING:

ANTENNA CHAIN:

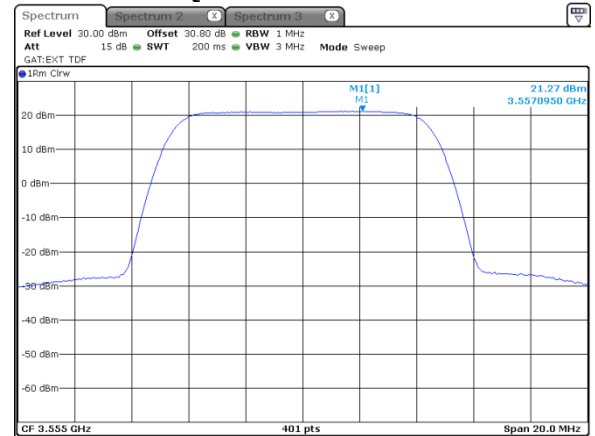
Modulation: QPSK



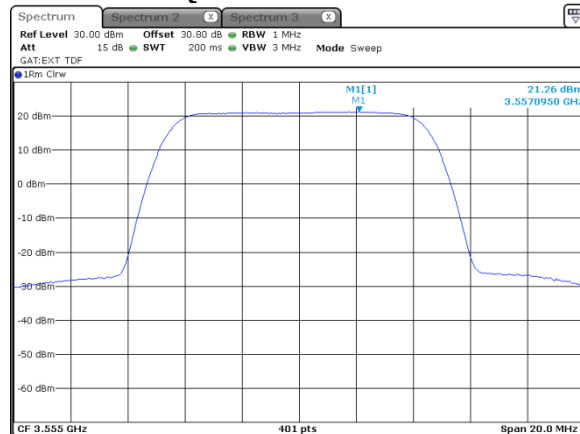
10 MHz

1

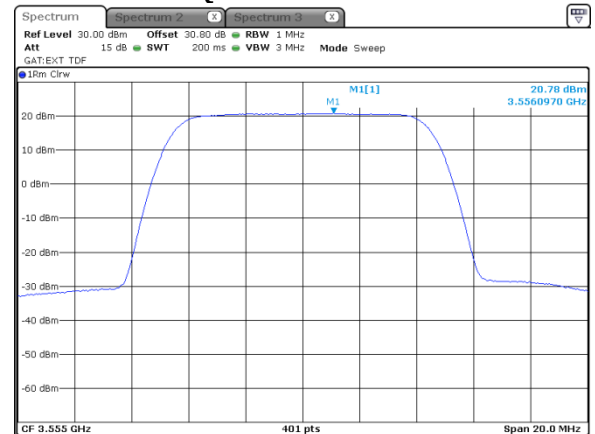
Modulation: 16QAM



Modulation: 64QAM



Modulation: 256QAM





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

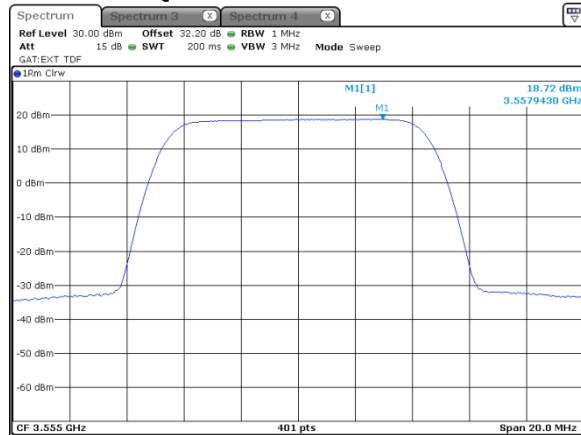
Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.2 Peak spectral power density at low frequency

CHANNEL SPACING:

ANTENNA CHAIN:

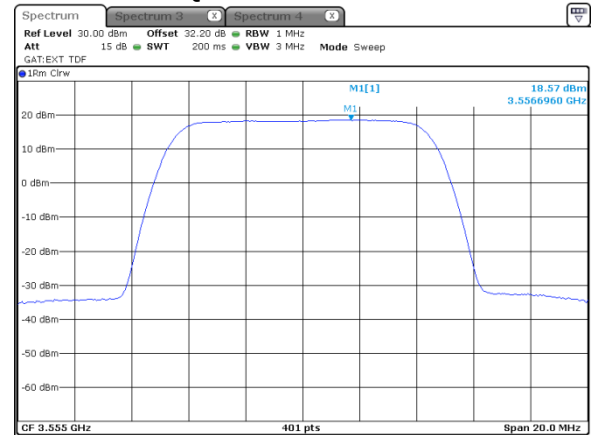
Modulation: QPSK



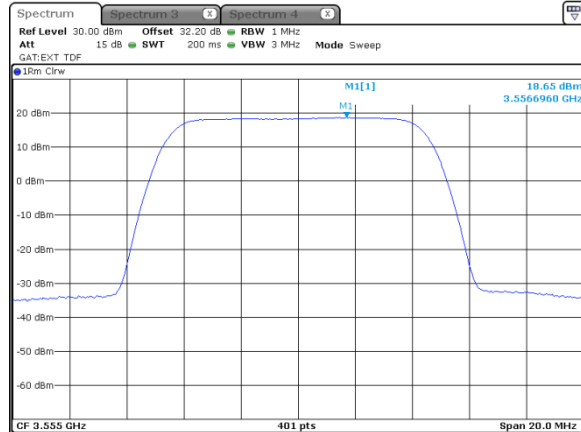
10 MHz

2

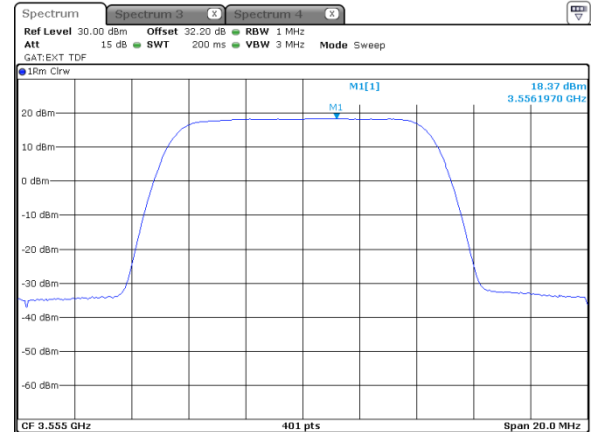
Modulation: 16QAM



Modulation: 64QAM



Modulation: 256QAM





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

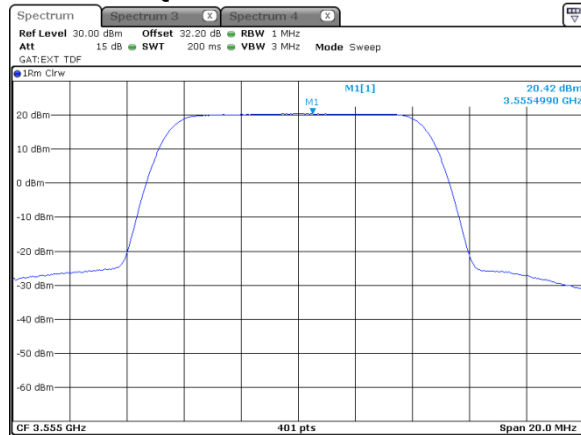
Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.3 Peak spectral power density at low frequency

CHANNEL SPACING:

ANTENNA CHAIN:

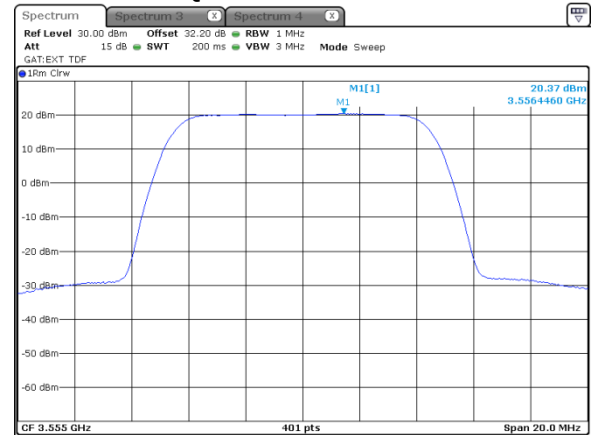
Modulation: QPSK



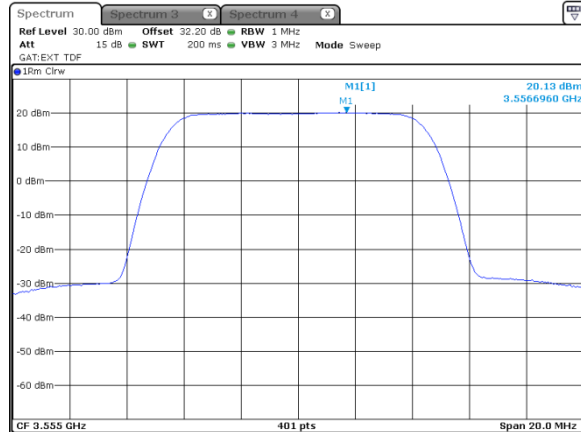
10 MHz

3

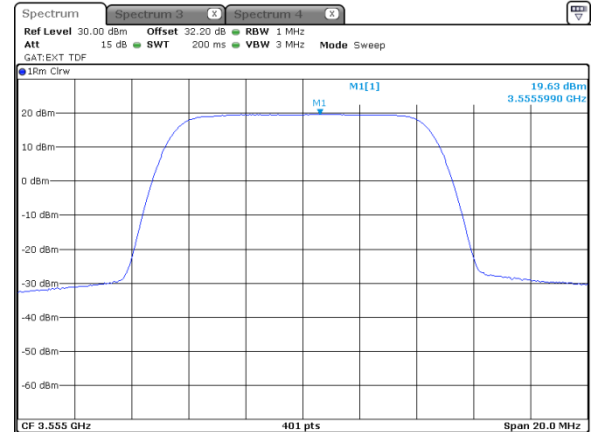
Modulation: 16QAM



Modulation: 64QAM



Modulation: 256QAM





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

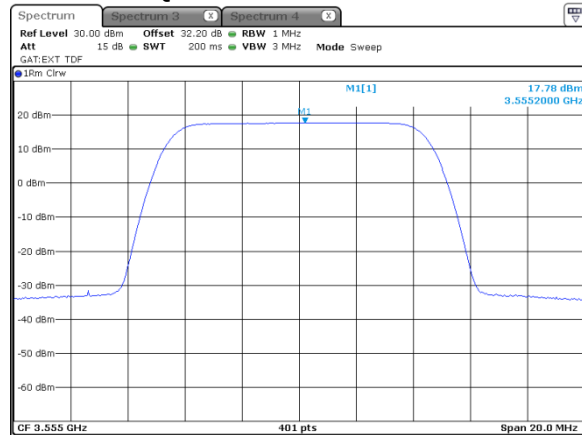
Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.4 Peak spectral power density at low frequency

CHANNEL SPACING:

ANTENNA CHAIN:

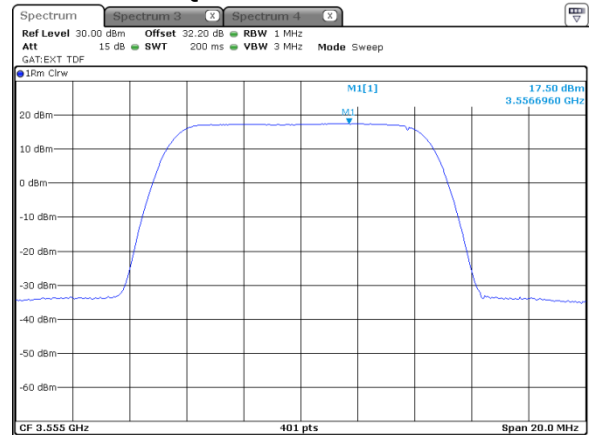
Modulation: QPSK



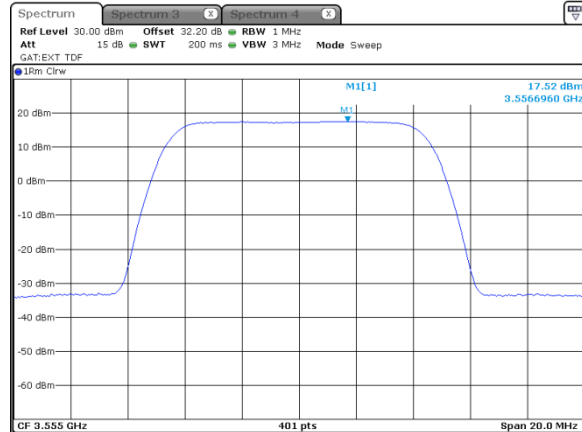
10 MHz

4

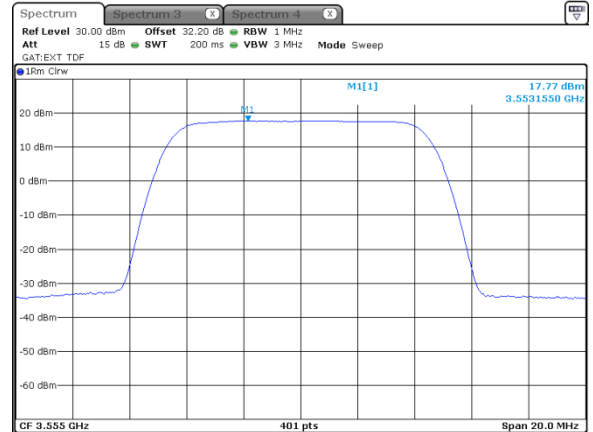
Modulation: 16QAM



Modulation: 64QAM



Modulation: 256QAM





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

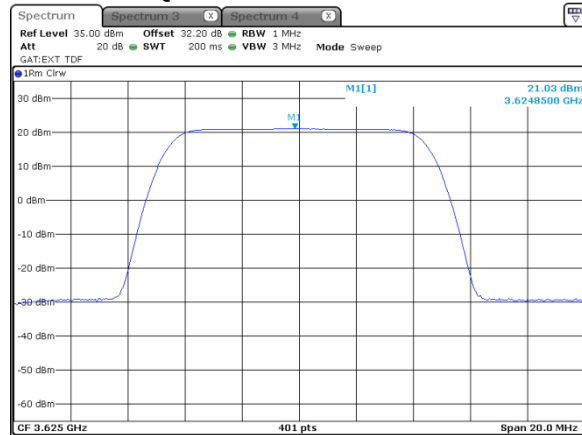
Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.5 Peak spectral power density at mid frequency

CHANNEL SPACING:

ANTENNA CHAIN:

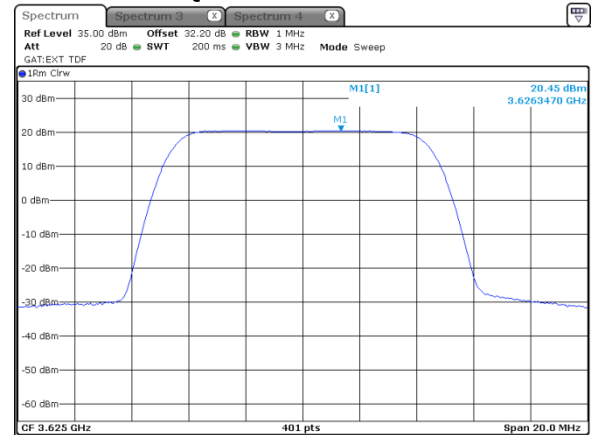
Modulation: QPSK



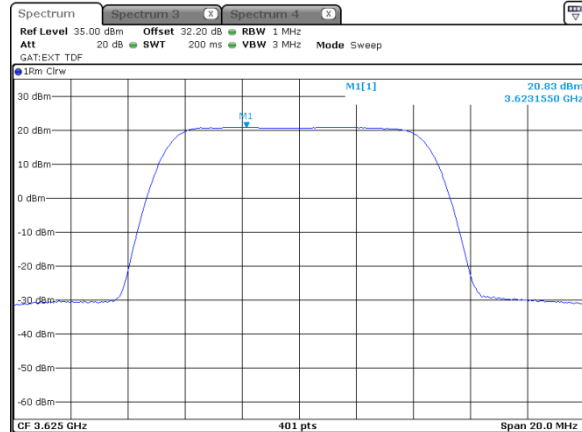
10 MHz

1

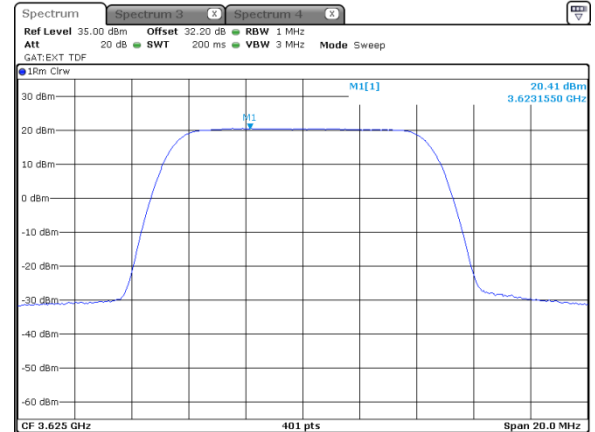
Modulation: 16QAM



Modulation: 64QAM



Modulation: 256QAM





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

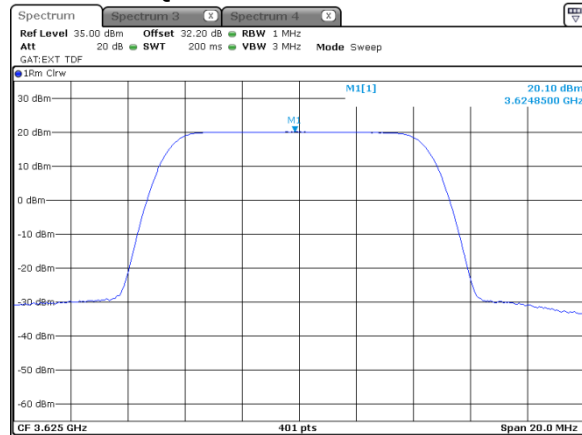
Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.6 Peak spectral power density at mid frequency

CHANNEL SPACING:

ANTENNA CHAIN:

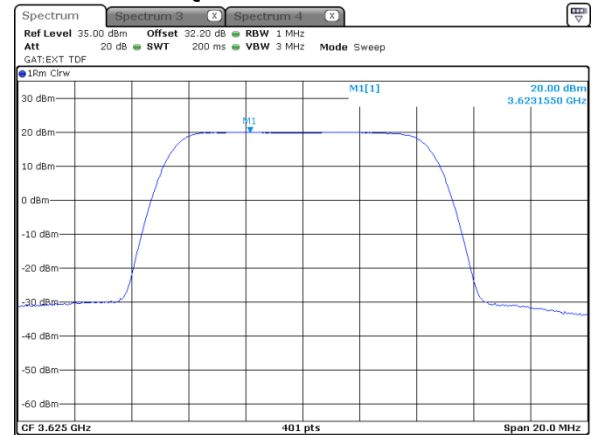
Modulation: QPSK



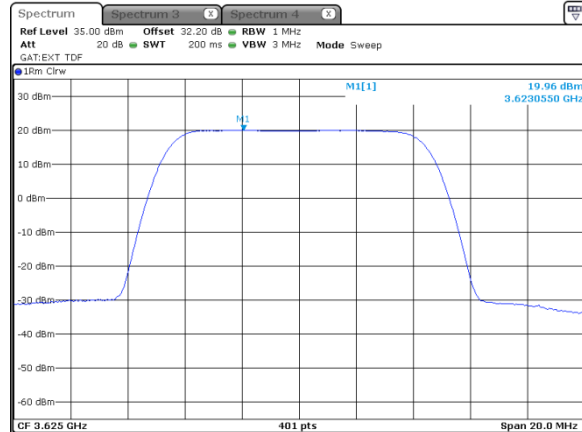
10 MHz

2

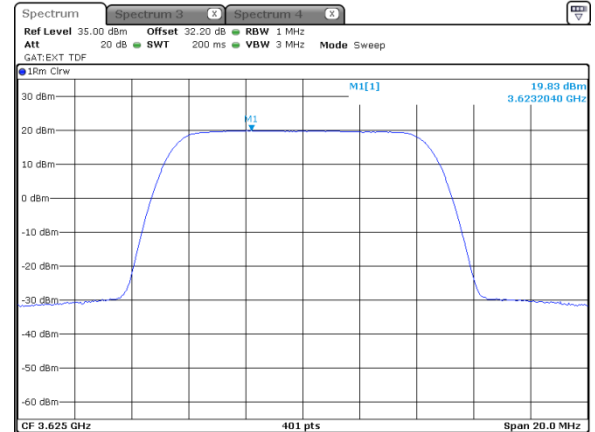
Modulation: 16QAM



Modulation: 64QAM



Modulation: 256QAM





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

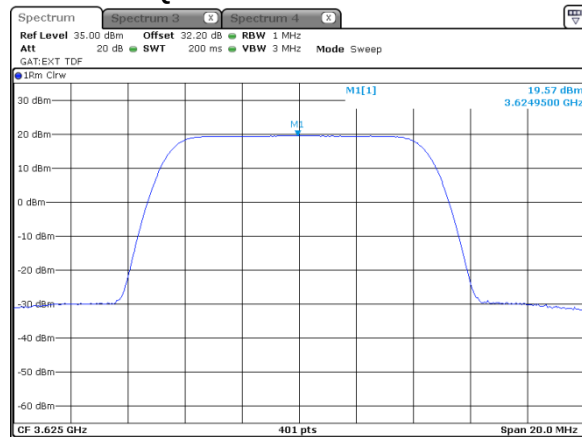
Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.7 Peak spectral power density at mid frequency

CHANNEL SPACING:

ANTENNA CHAIN:

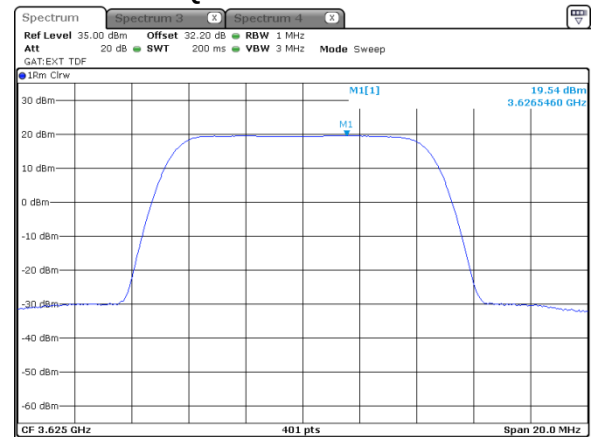
Modulation: QPSK



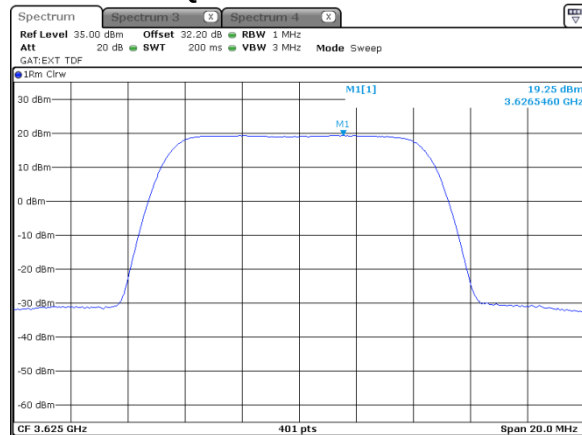
10 MHz

3

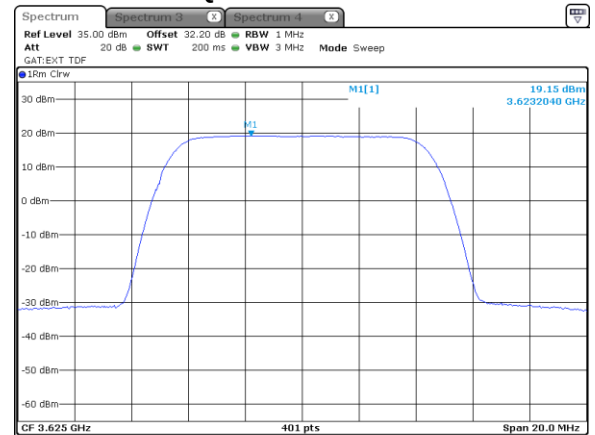
Modulation: 16QAM



Modulation: 64QAM



Modulation: 256QAM





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

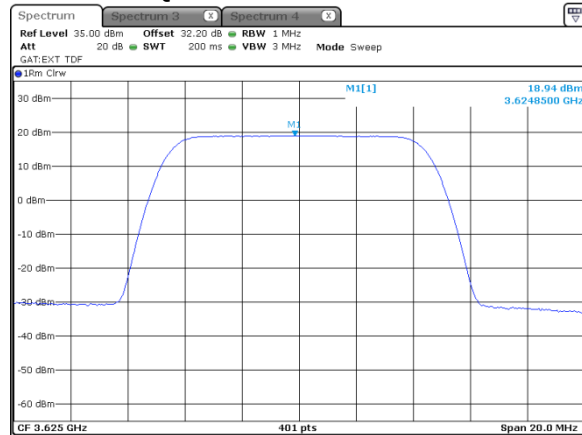
Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.8 Peak spectral power density at mid frequency

CHANNEL SPACING:

ANTENNA CHAIN:

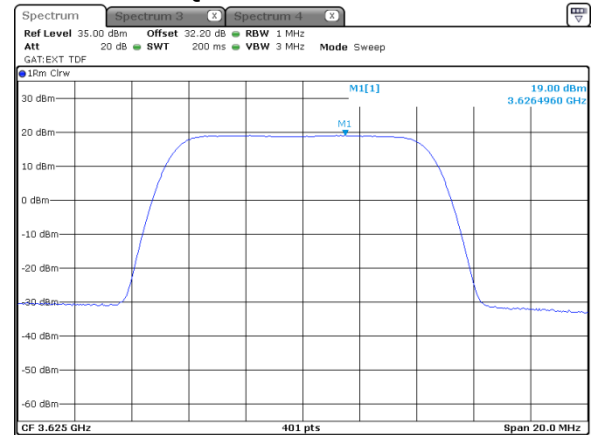
Modulation: QPSK



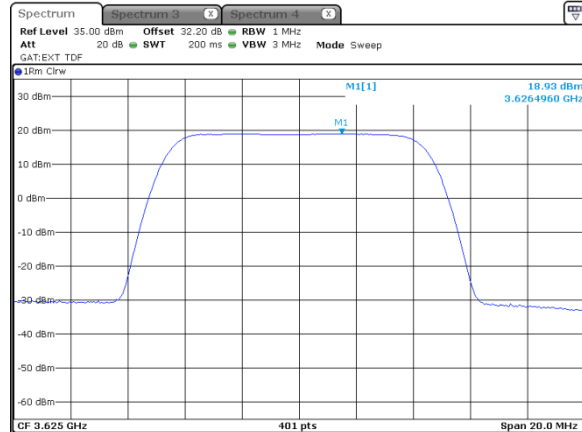
10 MHz

4

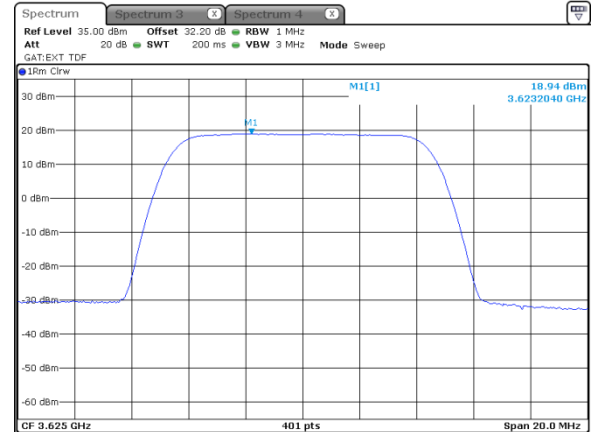
Modulation: 16QAM



Modulation: 64QAM



Modulation: 256QAM





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

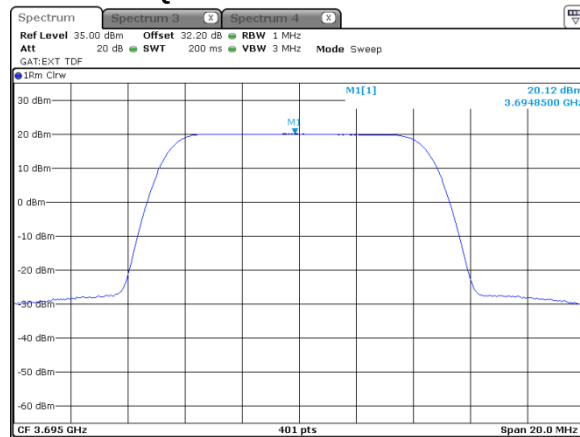
Test specification: Section 96.41(b), Maximum EIRP and maximum power spectral density			
Test procedure: Section 96.41(e)(3)			
Test mode: Compliance		Verdict: PASS	
Date(s): 25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.9 Peak spectral power density at high frequency

CHANNEL SPACING:

ANTENNA CHAIN:

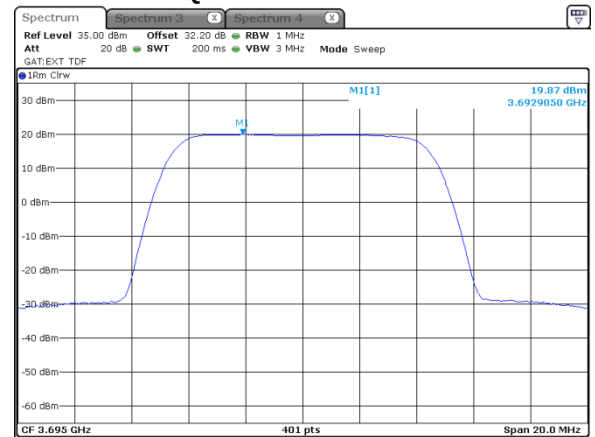
Modulation: QPSK



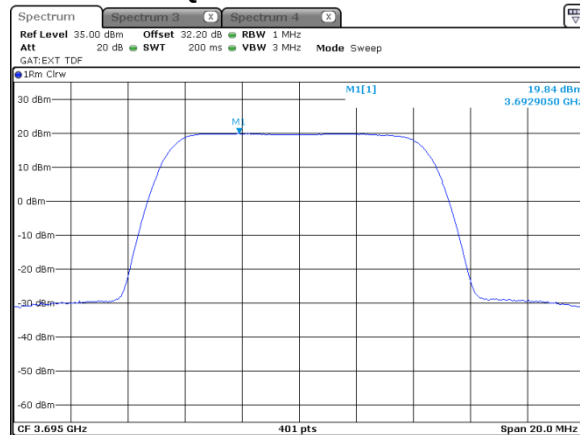
10 MHz

1

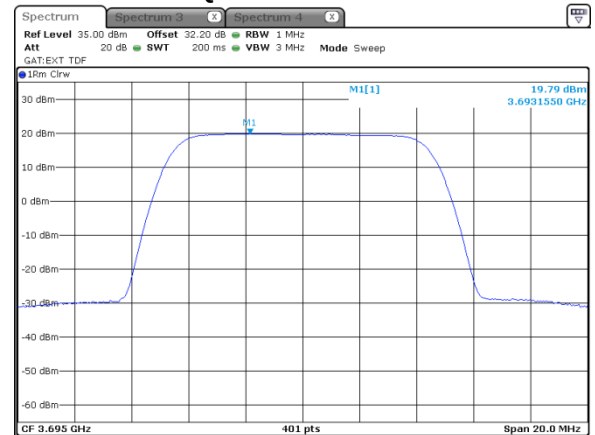
Modulation: 16QAM



Modulation: 64QAM



Modulation: 256QAM





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

Test specification: Section 96.41(b), Maximum EIRP and maximum power spectral density			
Test procedure: Section 96.41(e)(3)			
Test mode: Compliance		Verdict: PASS	
Date(s): 25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.10 Peak spectral power density at high frequency

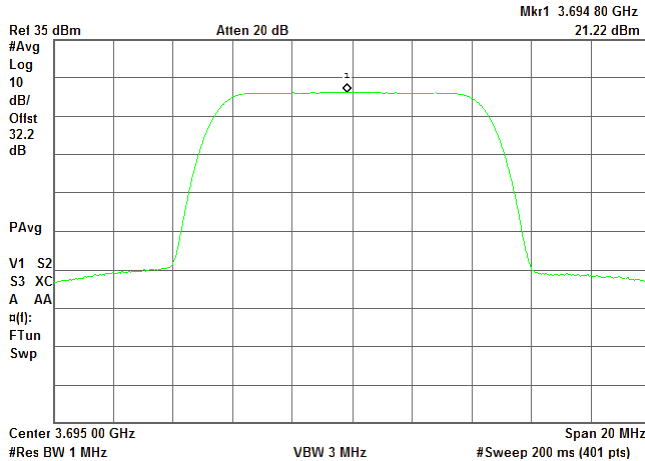
CHANNEL SPACING:

ANTENNA CHAIN:

Modulation: QPSK

Agilent

R T



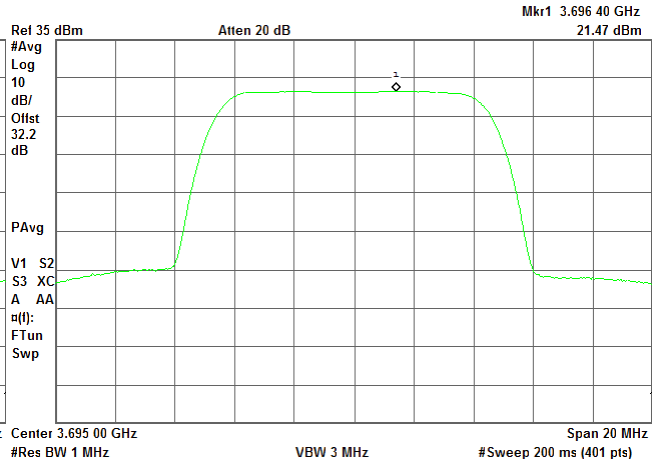
10 MHz

2

Modulation: 16QAM

Agilent

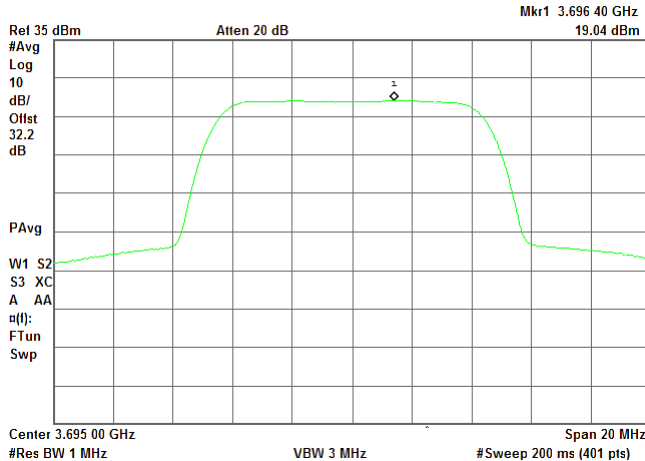
R T



Modulation: 64QAM

Agilent

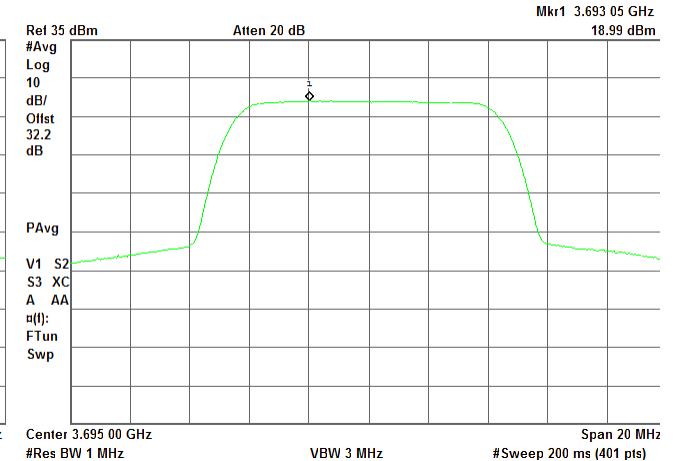
R T



Modulation: 256QAM

Agilent

R T





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.11 Peak spectral power density at high frequency

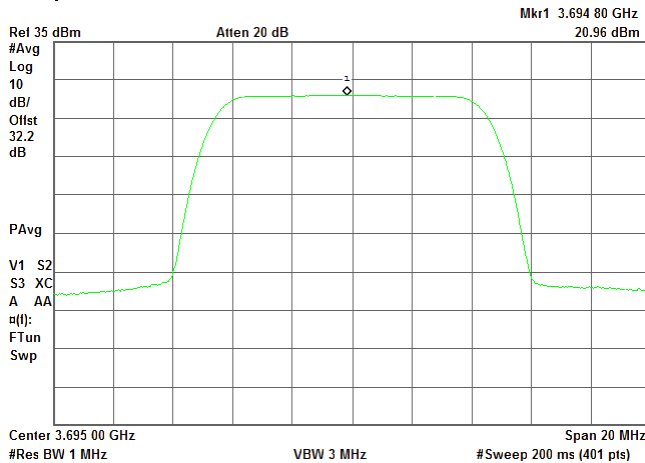
CHANNEL SPACING:

ANTENNA CHAIN:

Modulation: QPSK

Agilent

R T



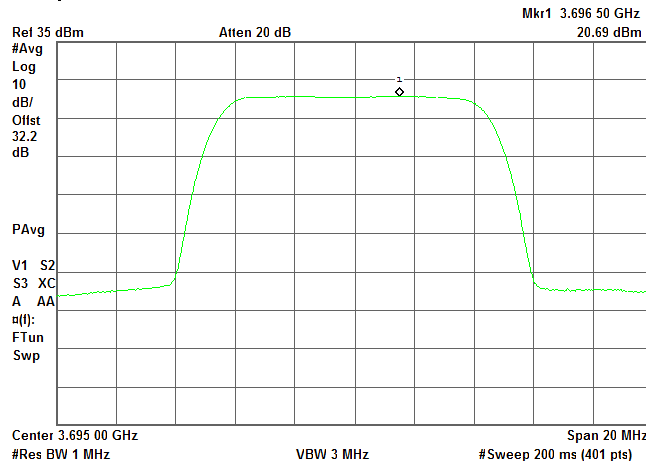
10 MHz

3

Modulation: 16QAM

Agilent

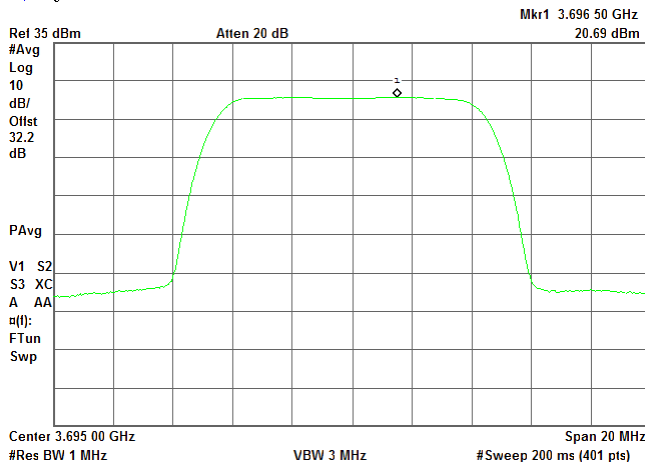
R T



Modulation: 64QAM

Agilent

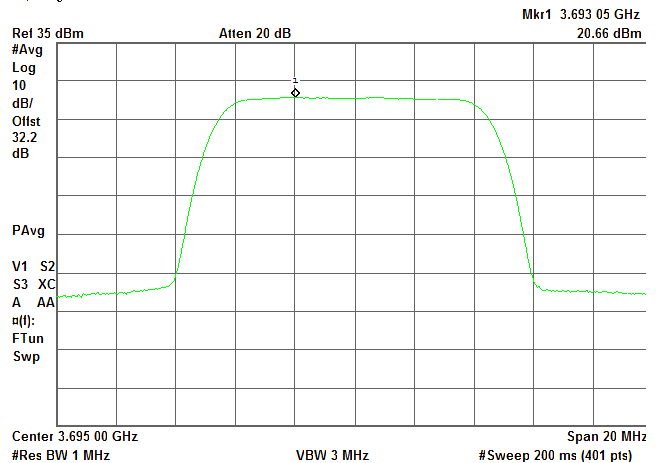
R T



Modulation: 256QAM

Agilent

R T





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.12 Peak spectral power density at high frequency

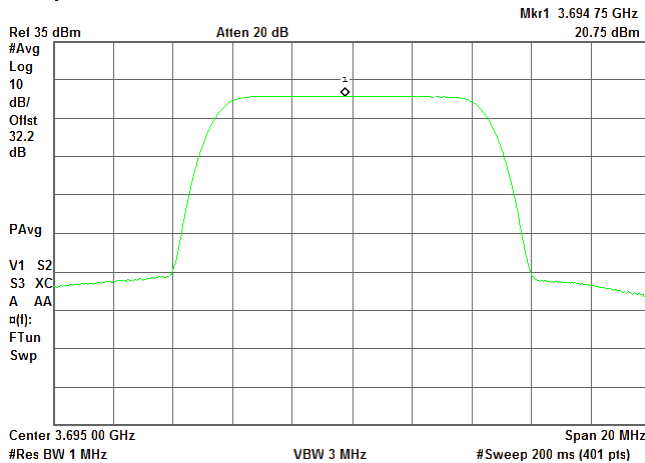
CHANNEL SPACING:

ANTENNA CHAIN:

Modulation: QPSK

Agilent

R T



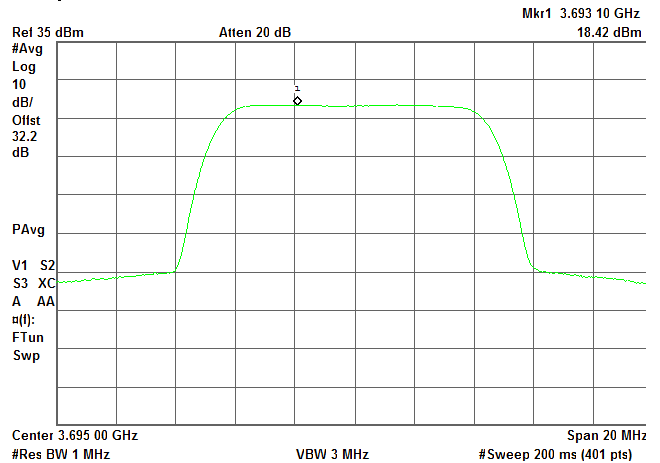
10 MHz

4

Modulation: 16QAM

Agilent

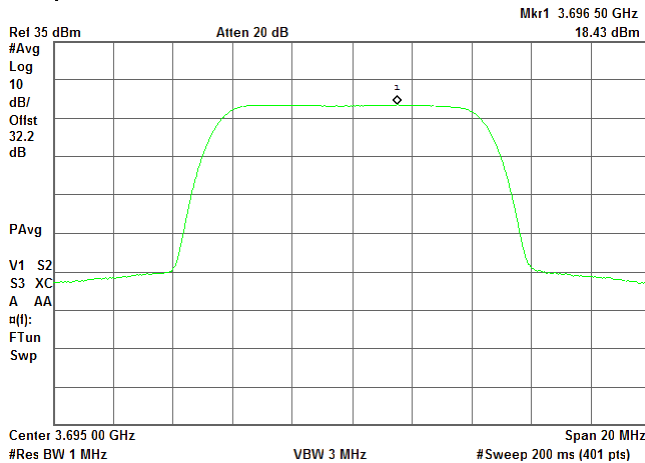
R T



Modulation: 64QAM

Agilent

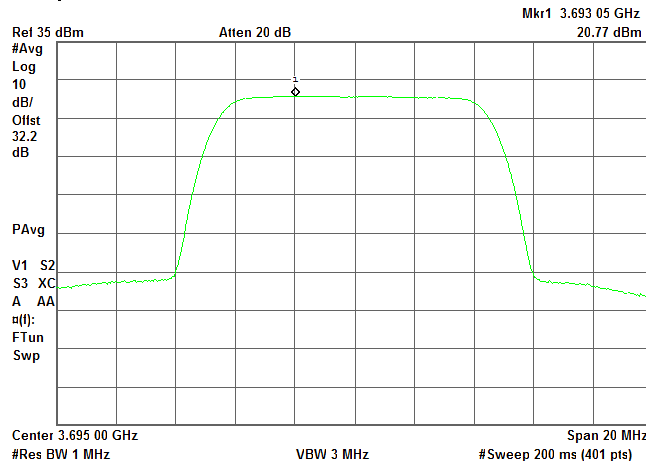
R T



Modulation: 256QAM

Agilent

R T





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.13 Peak spectral power density at low frequency

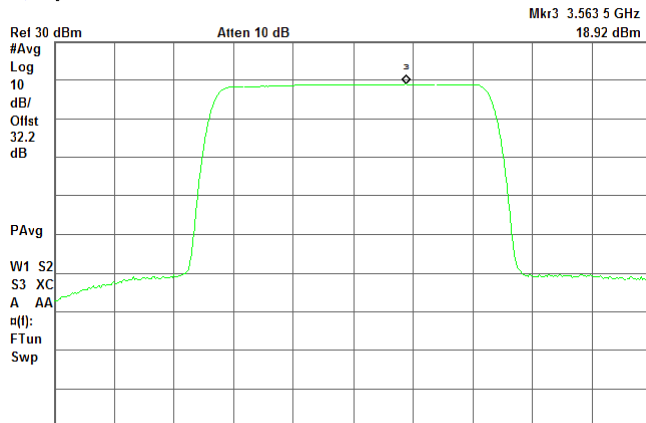
CHANNEL SPACING:

ANTENNA CHAIN:

Modulation: QPSK

Agilent

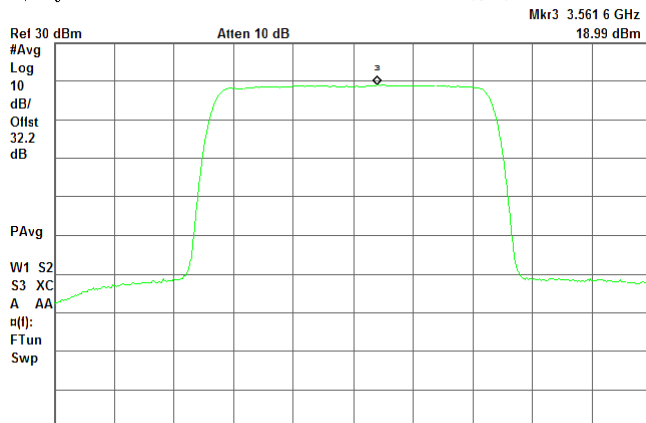
R T



Modulation: 64QAM

Agilent

R T



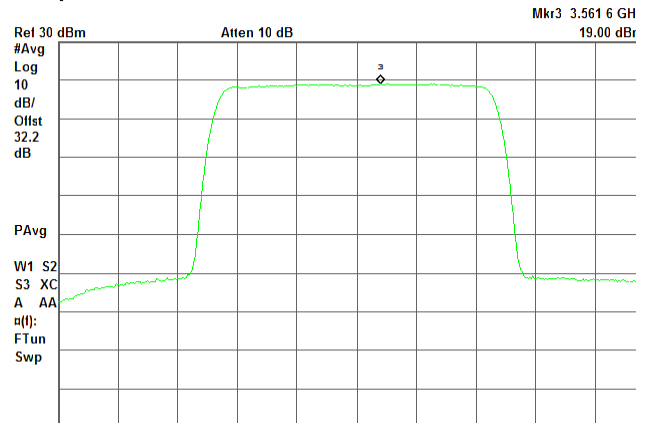
20 MHz

1

Modulation: 16QAM

Agilent

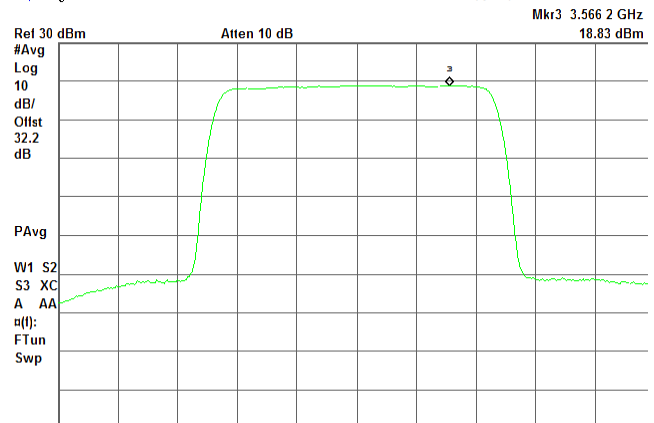
R T



Modulation: 256QAM

Agilent

R T





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

Test specification: Section 96.41(b), Maximum EIRP and maximum power spectral density			
Test procedure: Section 96.41(e)(3)			
Test mode: Compliance		Verdict: PASS	
Date(s): 25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

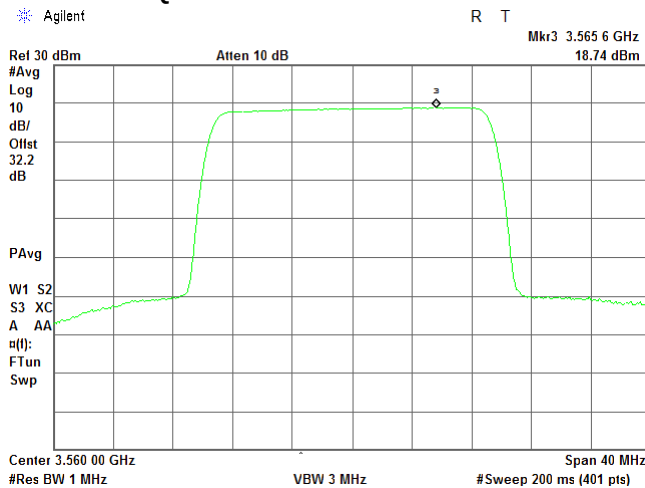
Plot 7.1.14 Peak spectral power density at low frequency

CHANNEL SPACING:

ANTENNA CHAIN:

Modulation: QPSK

Agilent

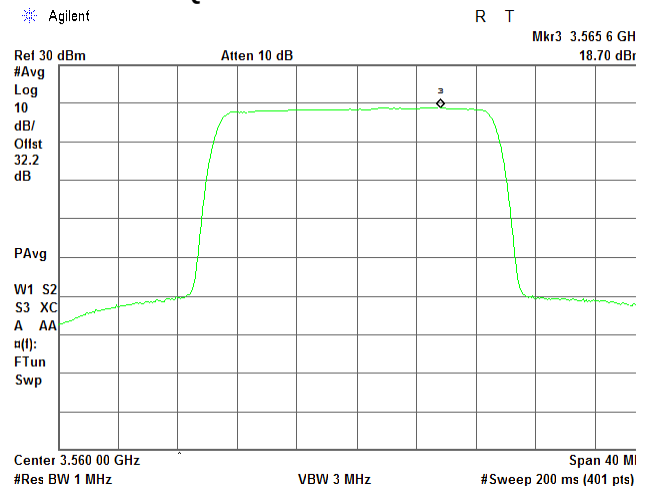


20 MHz

2

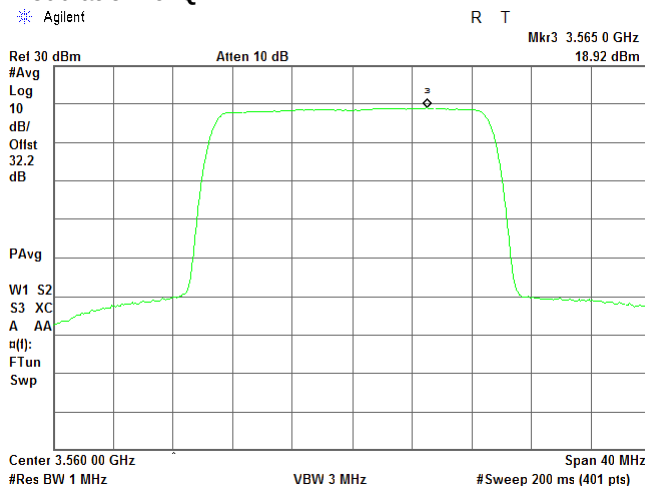
Modulation: 16QAM

Agilent



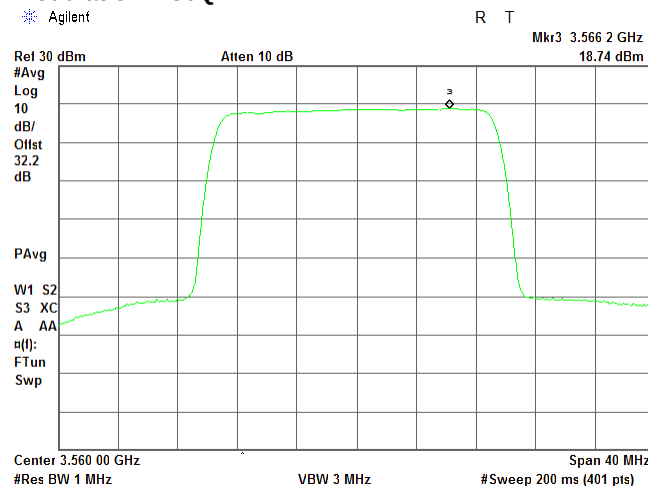
Modulation: 64QAM

Agilent



Modulation: 256QAM

Agilent





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.15 Peak spectral power density at low frequency

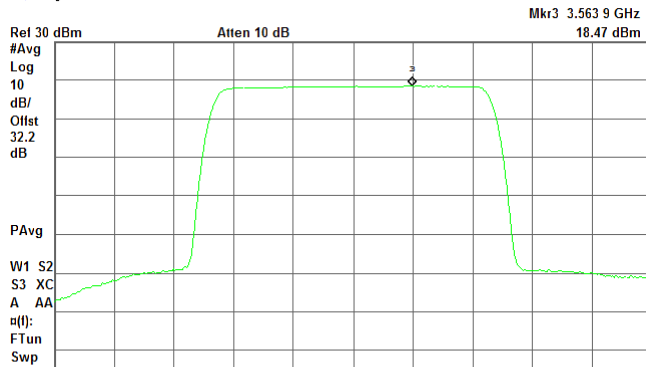
CHANNEL SPACING:

ANTENNA CHAIN:

Modulation: QPSK

Agilent

R T

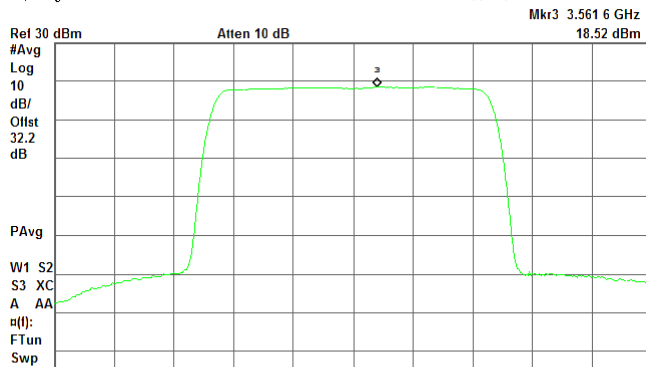


Center 3.560 00 GHz
#Res BW 1 MHz
VBW 3 MHz
#Sweep 200 ms (401 pts)

Modulation: 64QAM

Agilent

R T



Center 3.560 00 GHz
#Res BW 1 MHz
VBW 3 MHz
#Sweep 200 ms (401 pts)

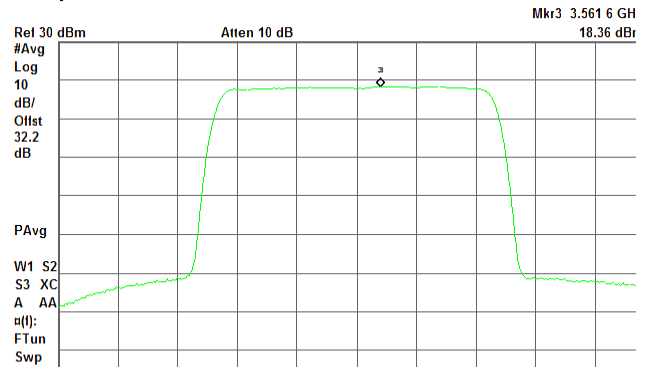
20 MHz

3

Modulation: 16QAM

Agilent

R T

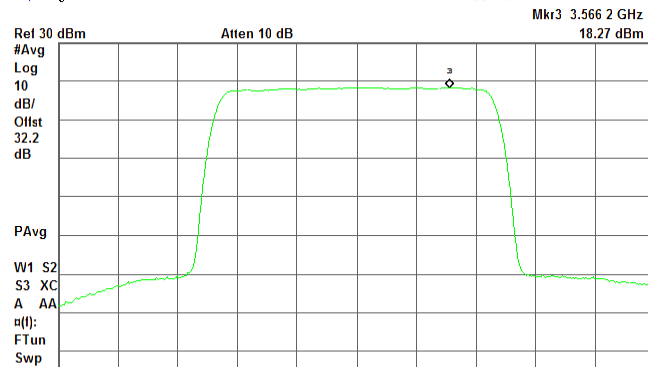


Center 3.560 00 GHz
#Res BW 1 MHz
VBW 3 MHz
#Sweep 200 ms (401 pts)

Modulation: 256QAM

Agilent

R T



Center 3.560 00 GHz
#Res BW 1 MHz
VBW 3 MHz
#Sweep 200 ms (401 pts)



HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

Test specification: Section 96.41(b), Maximum EIRP and maximum power spectral density			
Test procedure: Section 96.41(e)(3)			
Test mode: Compliance		Verdict: PASS	
Date(s): 25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

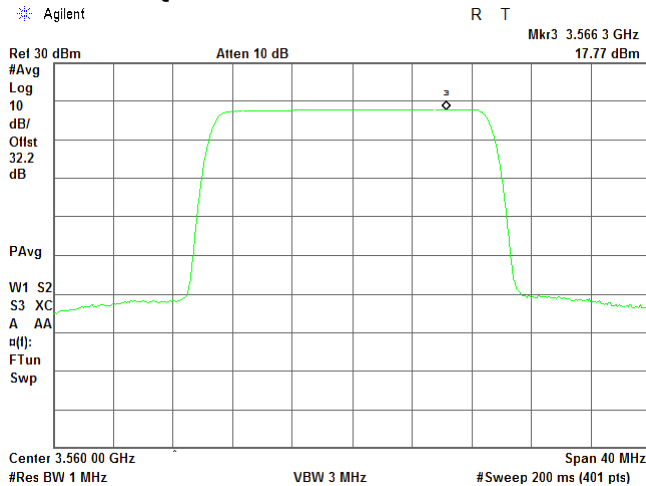
Plot 7.1.16 Peak spectral power density at low frequency

CHANNEL SPACING:

ANTENNA CHAIN:

Modulation: QPSK

Agilent

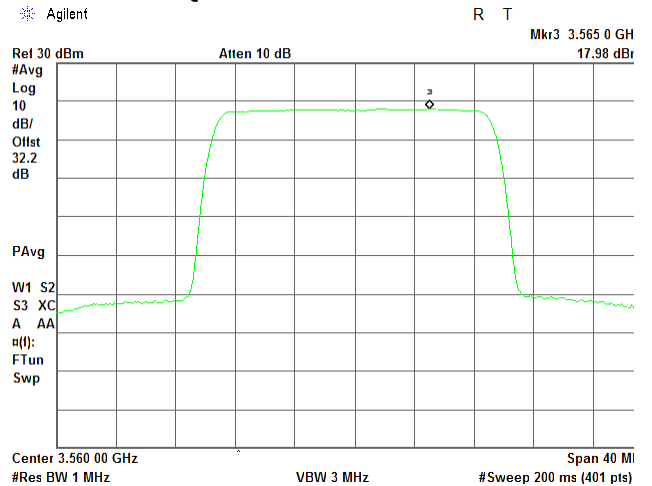


20 MHz

4

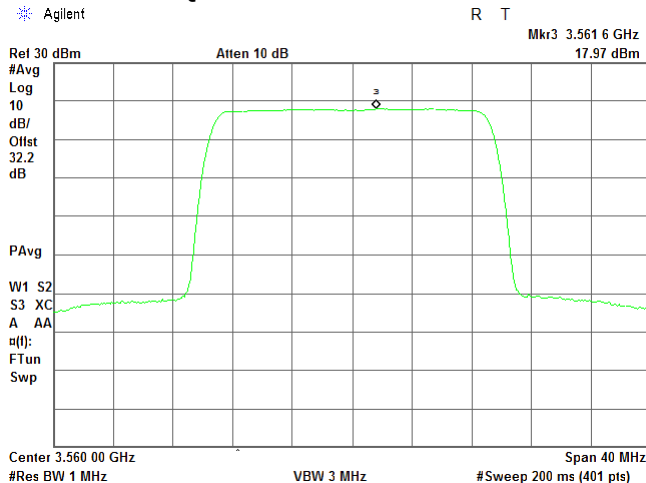
Modulation: 16QAM

Agilent



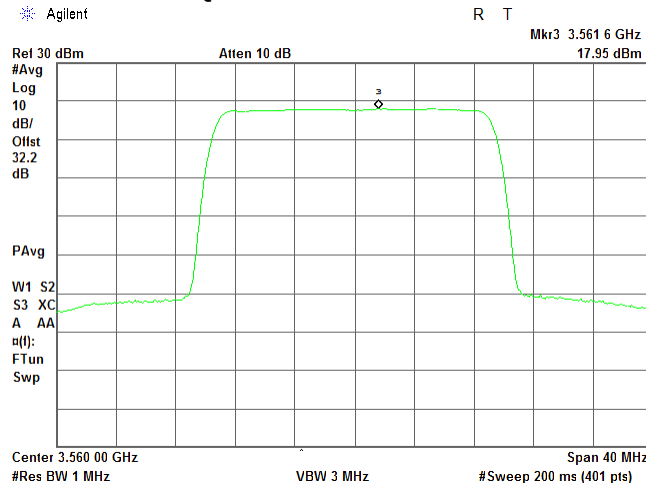
Modulation: 64QAM

Agilent



Modulation: 256QAM

Agilent





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.17 Peak spectral power density at mid frequency

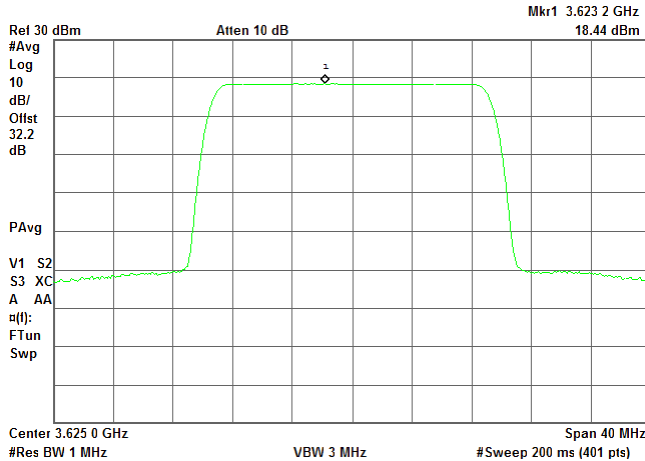
CHANNEL SPACING:

ANTENNA CHAIN:

Modulation: QPSK

Agilent

R T



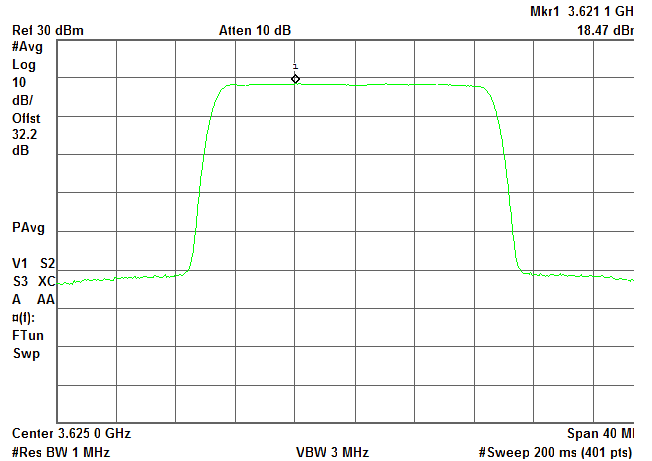
20 MHz

1

Modulation: 16QAM

Agilent

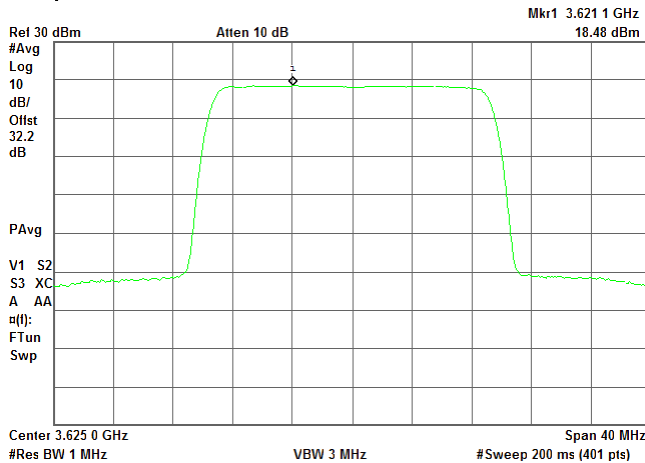
R T



Modulation: 64QAM

Agilent

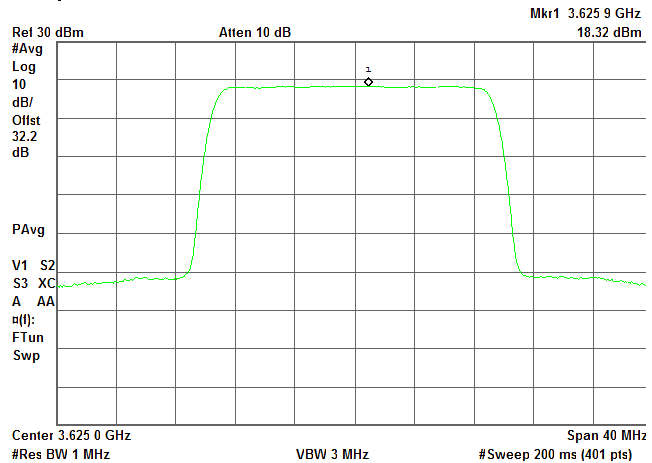
R T



Modulation: 256QAM

Agilent

R T





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.18 Peak spectral power density at mid frequency

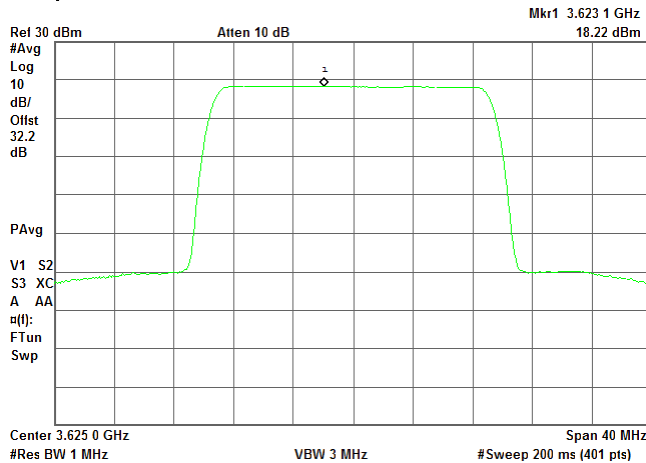
CHANNEL SPACING:

ANTENNA CHAIN:

Modulation: QPSK

Agilent

R T



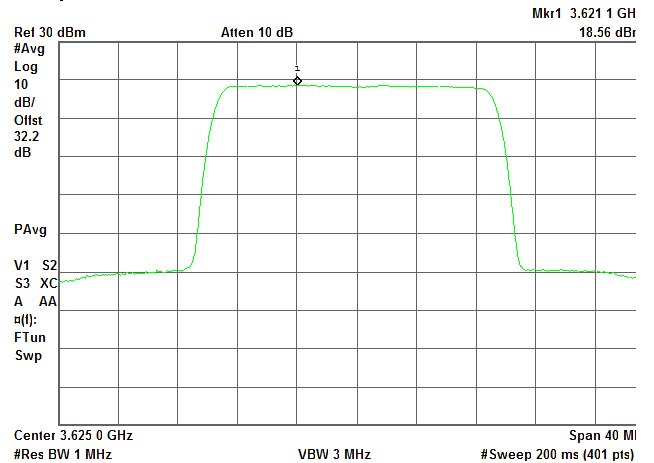
20 MHz

2

Modulation: 16QAM

Agilent

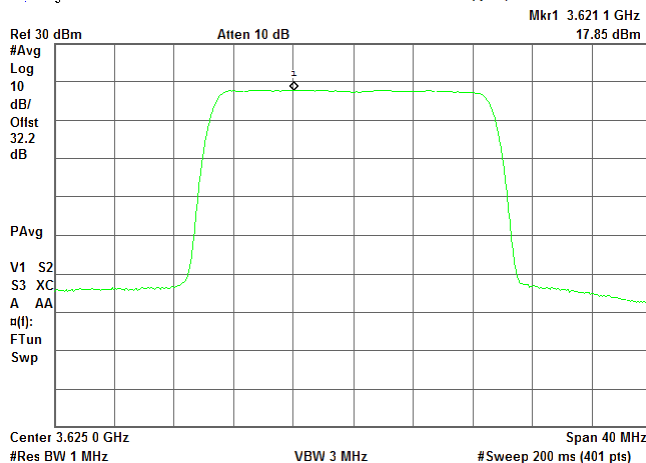
R T



Modulation: 64QAM

Agilent

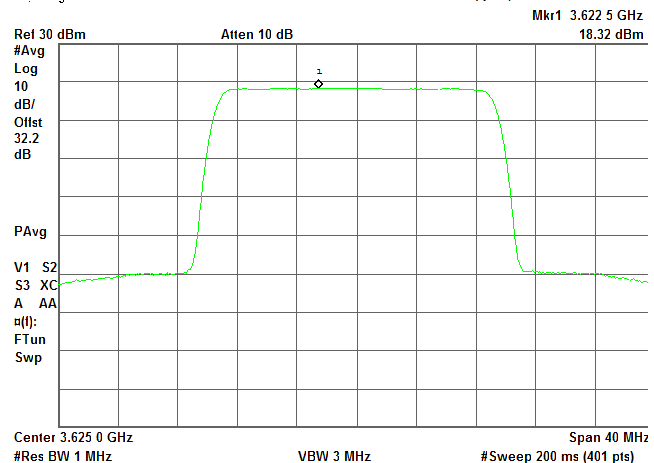
R T



Modulation: 256QAM

Agilent

R T





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.19 Peak spectral power density at mid frequency

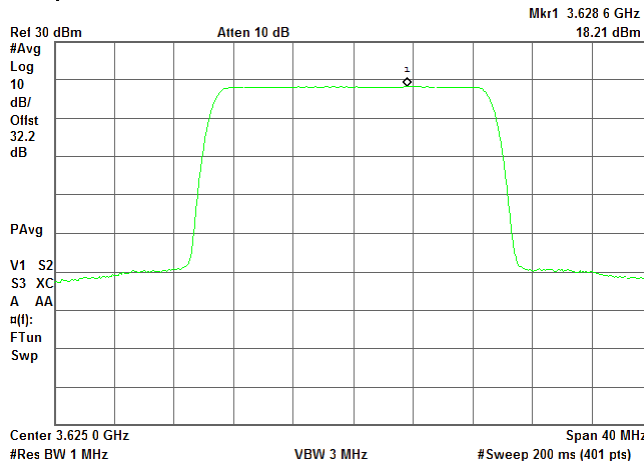
CHANNEL SPACING:

ANTENNA CHAIN:

Modulation: QPSK

Agilent

R T



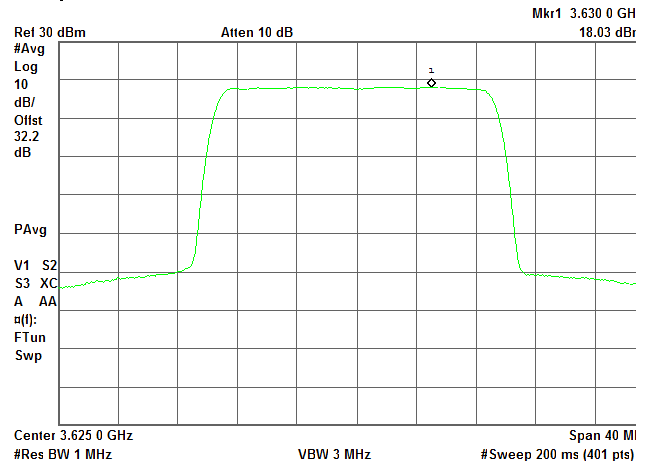
20 MHz

3

Modulation: 16QAM

Agilent

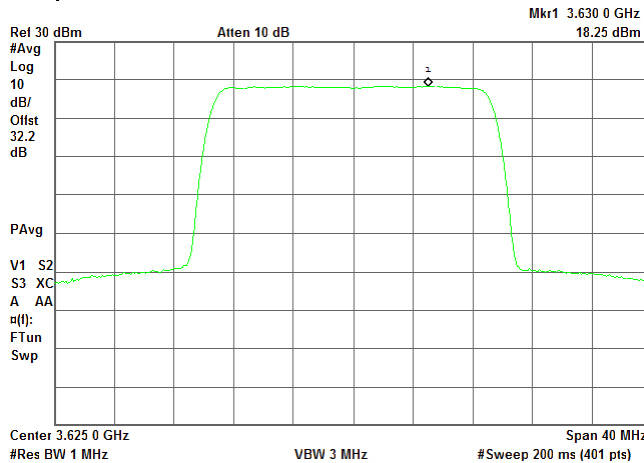
R T



Modulation: 64QAM

Agilent

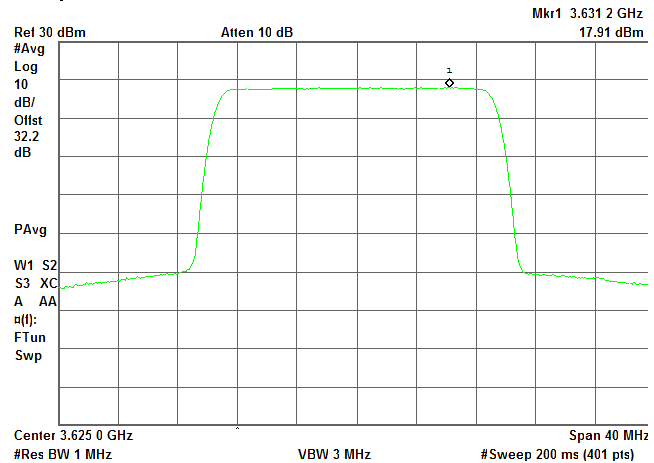
R T



Modulation: 256QAM

Agilent

R T





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.20 Peak spectral power density at mid frequency

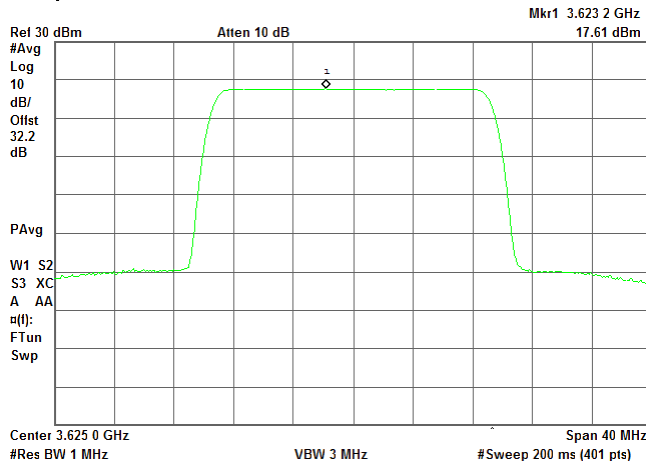
CHANNEL SPACING:

ANTENNA CHAIN:

Modulation: QPSK

Agilent

R T



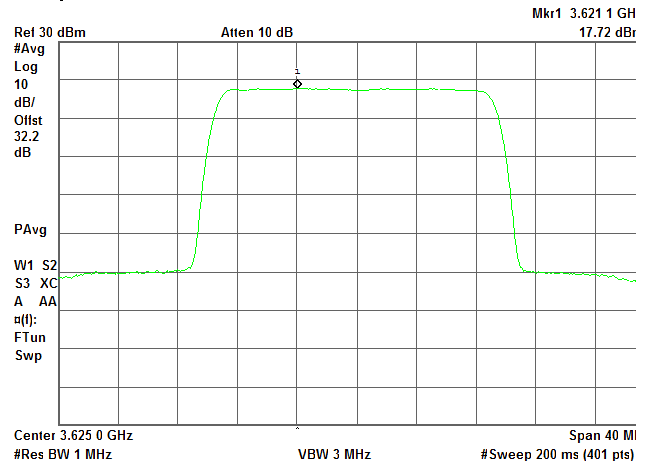
20 MHz

4

Modulation: 16QAM

Agilent

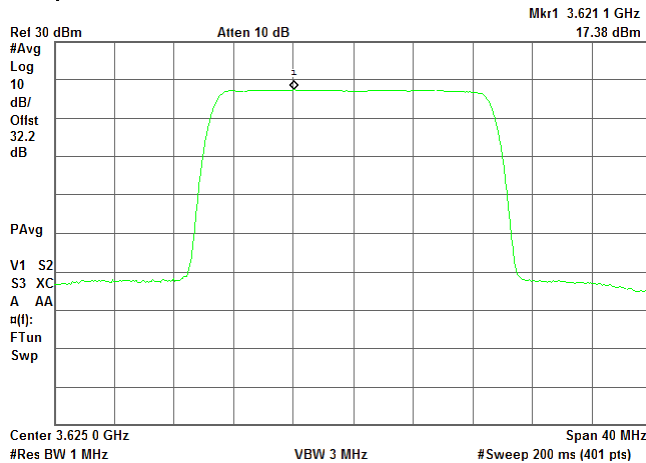
R T



Modulation: 64QAM

Agilent

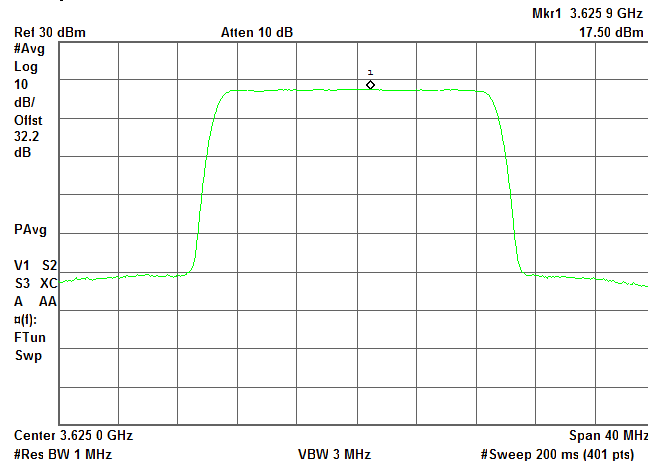
R T



Modulation: 256QAM

Agilent

R T





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.21 Peak spectral power density at high frequency

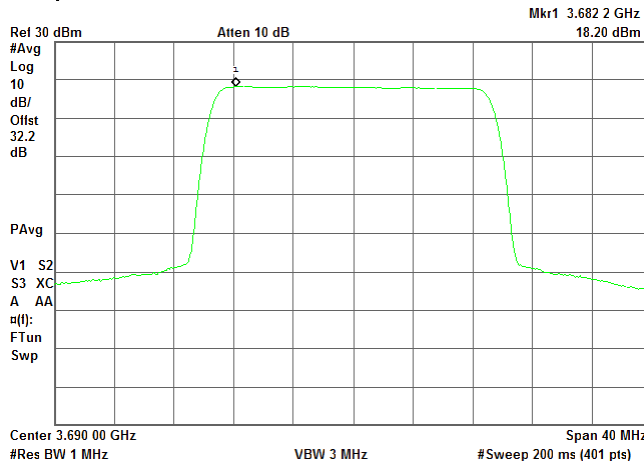
CHANNEL SPACING:

ANTENNA CHAIN:

Modulation: QPSK

Agilent

R T



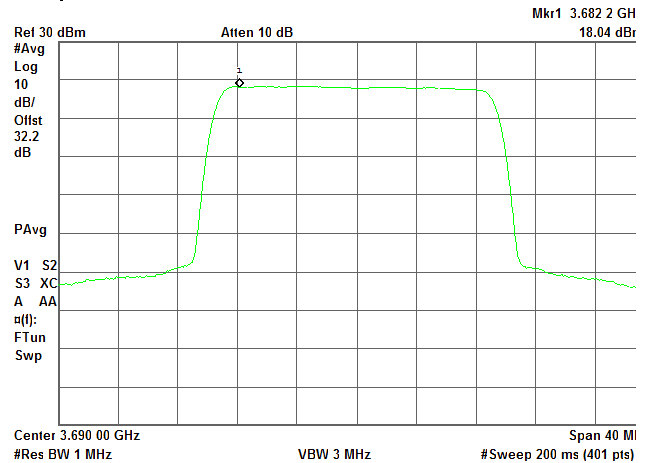
20 MHz

1

Modulation: 16QAM

Agilent

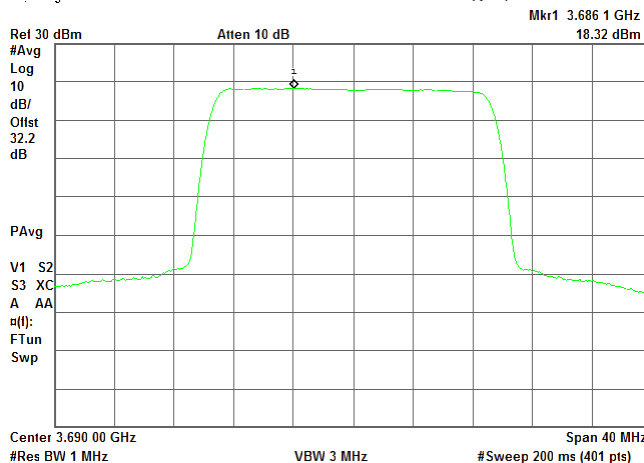
R T



Modulation: 64QAM

Agilent

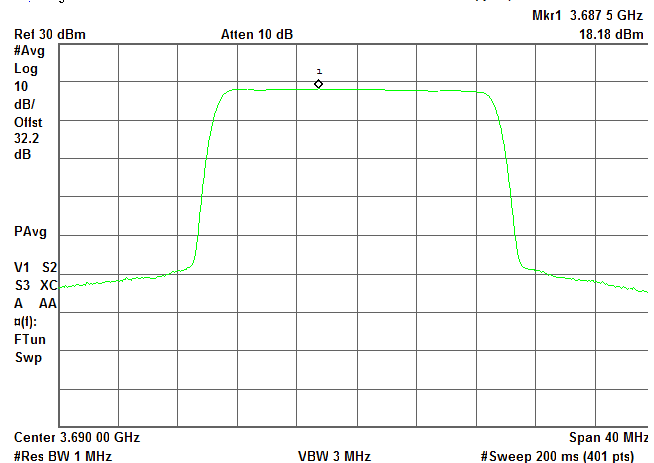
R T



Modulation: 256QAM

Agilent

R T





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.22 Peak spectral power density at high frequency

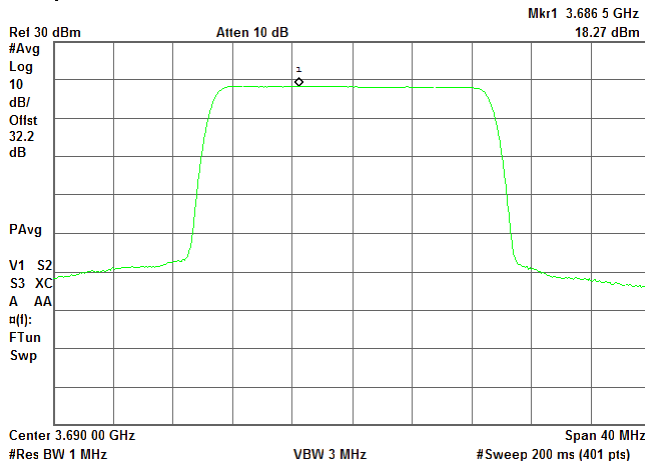
CHANNEL SPACING:

ANTENNA CHAIN:

Modulation: QPSK

Agilent

R T



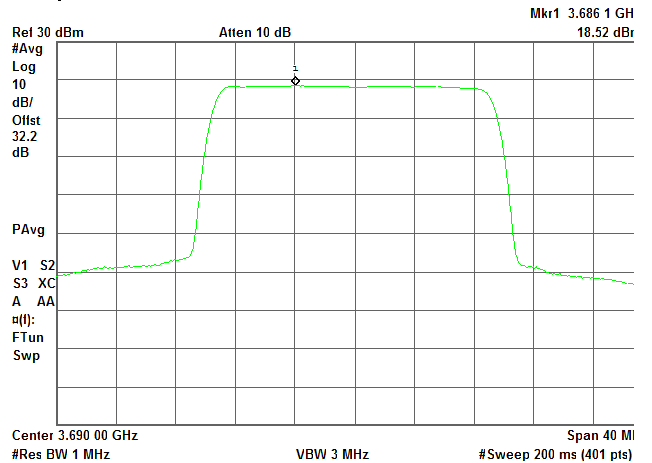
20 MHz

2

Modulation: 16QAM

Agilent

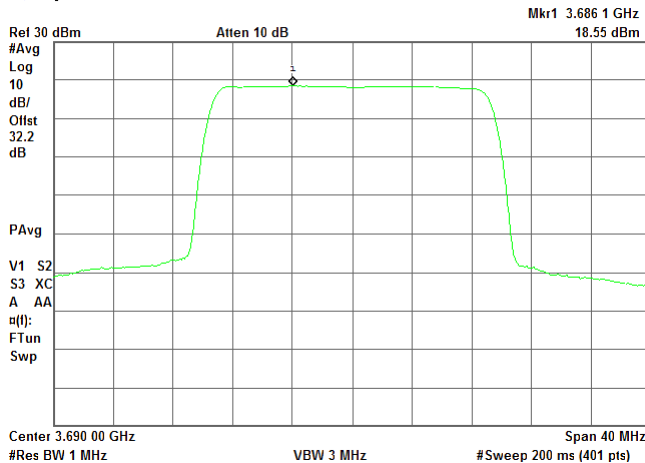
R T



Modulation: 64QAM

Agilent

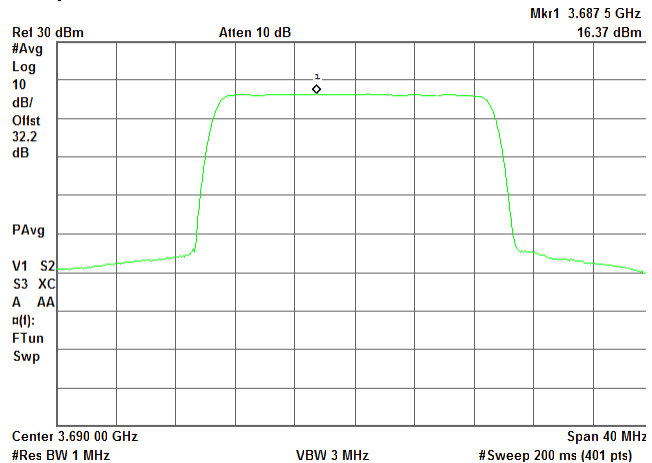
R T



Modulation: 256QAM

Agilent

R T





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.23 Peak spectral power density at high frequency

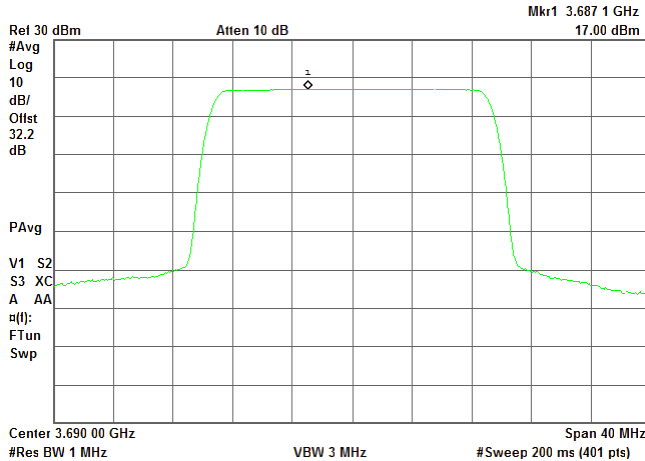
CHANNEL SPACING:

ANTENNA CHAIN:

Modulation: QPSK

Agilent

R T



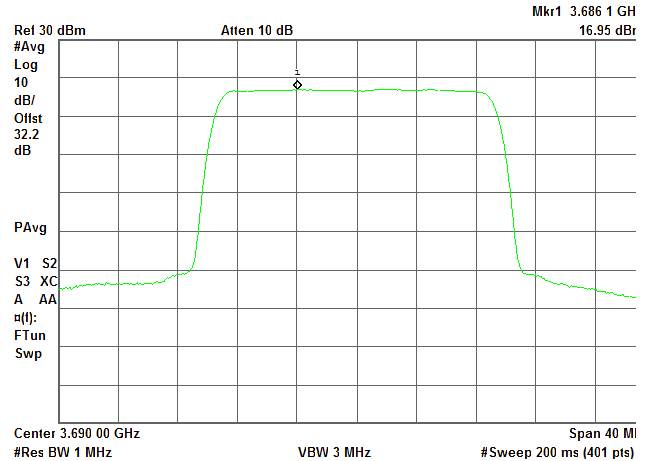
20 MHz

3

Modulation: 16QAM

Agilent

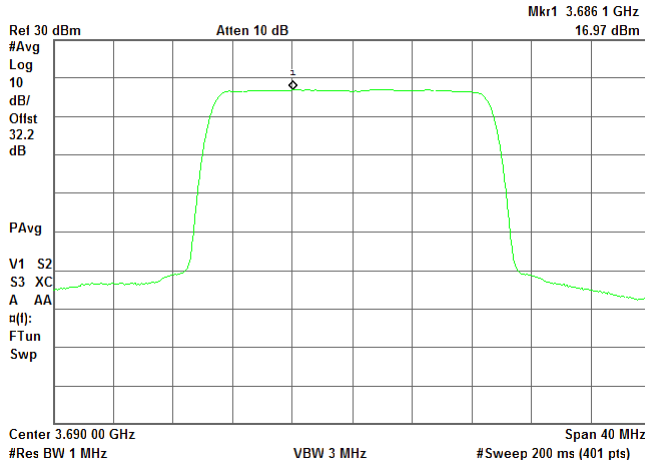
R T



Modulation: 64QAM

Agilent

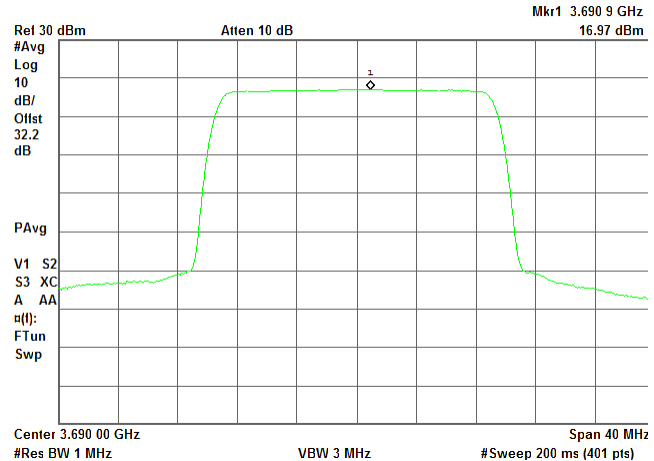
R T



Modulation: 256QAM

Agilent

R T





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.24 Peak spectral power density at high frequency

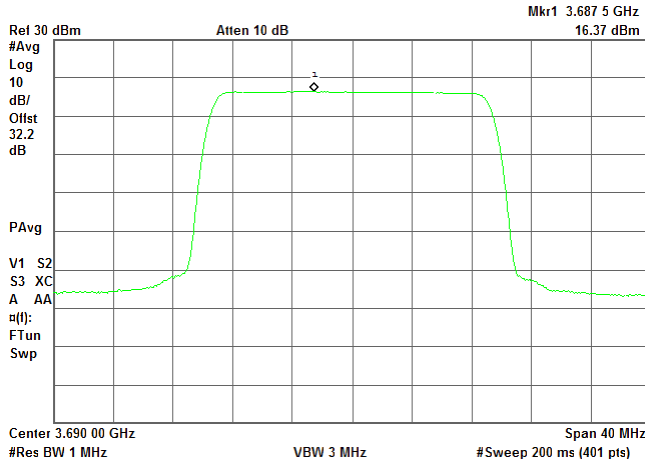
CHANNEL SPACING:

ANTENNA CHAIN:

Modulation: QPSK

Agilent

R T



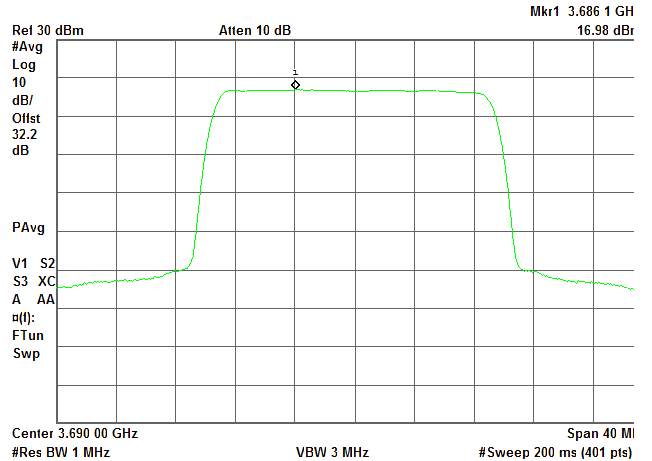
20 MHz

4

Modulation: 16QAM

Agilent

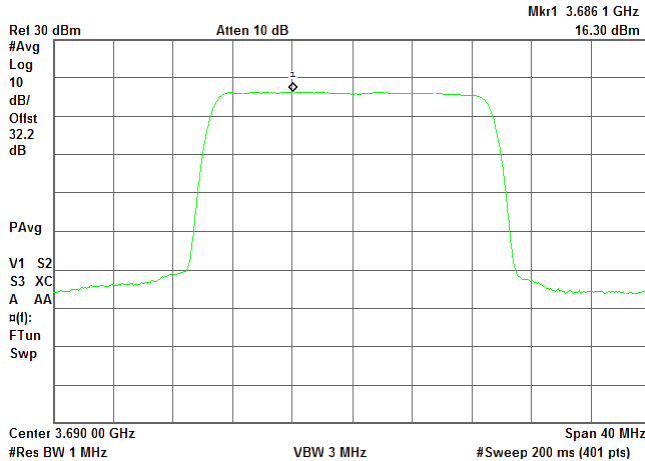
R T



Modulation: 64QAM

Agilent

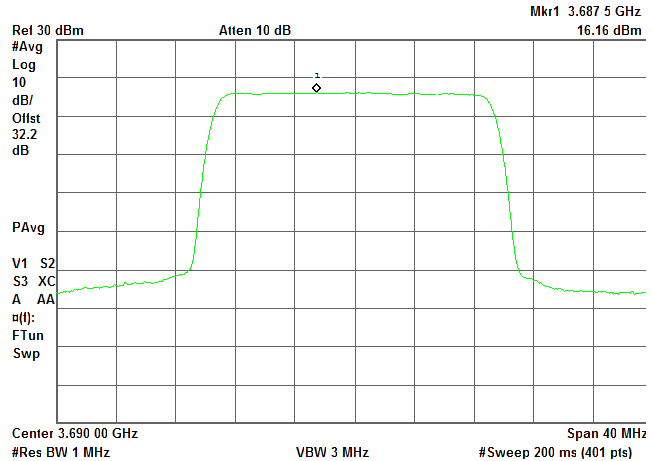
R T



Modulation: 256QAM

Agilent

R T



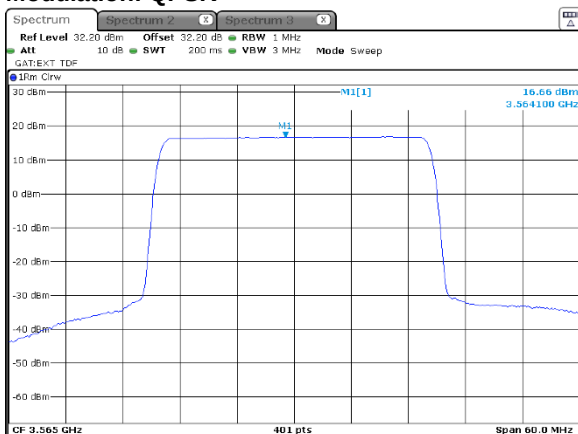


HERMON LABORATORIES

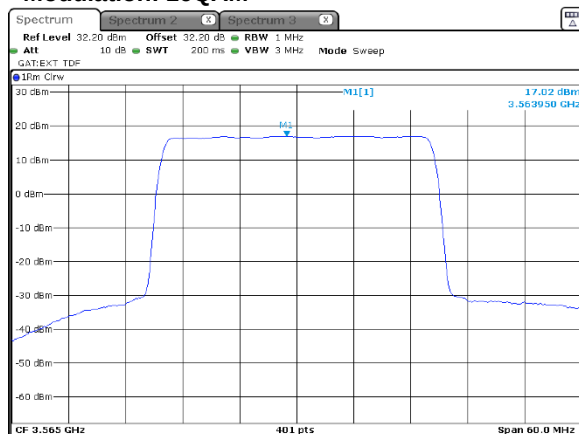
Test specification: Section 96.41(b), Maximum EIRP and maximum power spectral density			
Test procedure: Section 96.41(e)(3)			
Test mode: Compliance		Verdict: PASS	
Date(s): 25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.25 Peak spectral power density at low frequency

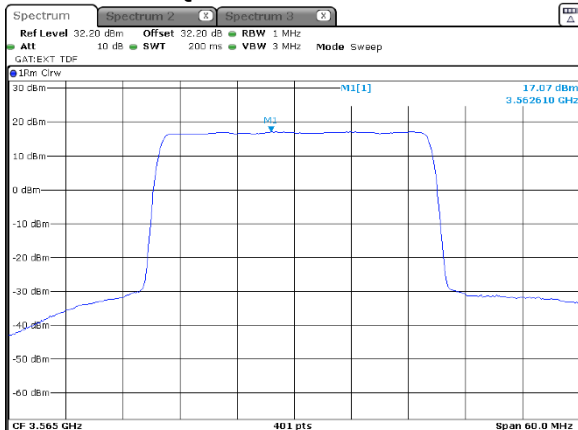
CHANNEL SPACING:
ANTENNA CHAIN:
Modulation: QPSK



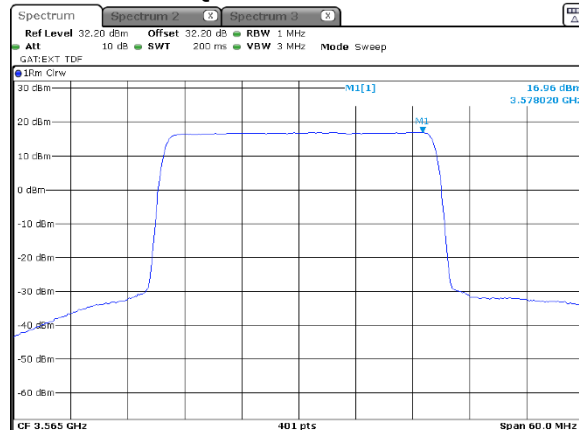
30 MHz
1
Modulation: 16QAM



Modulation: 64QAM



Modulation: 256QAM





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

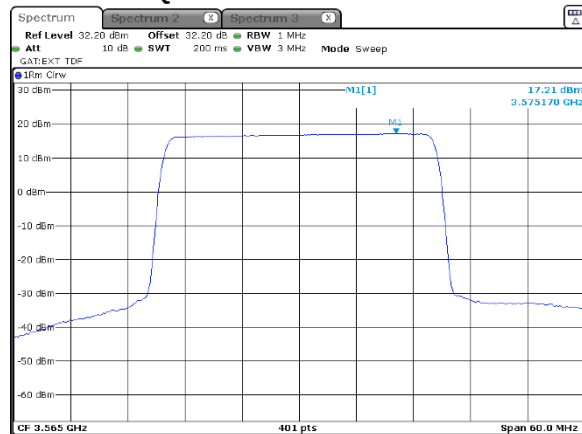
Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.26 Peak spectral power density at low frequency

CHANNEL SPACING:

ANTENNA CHAIN:

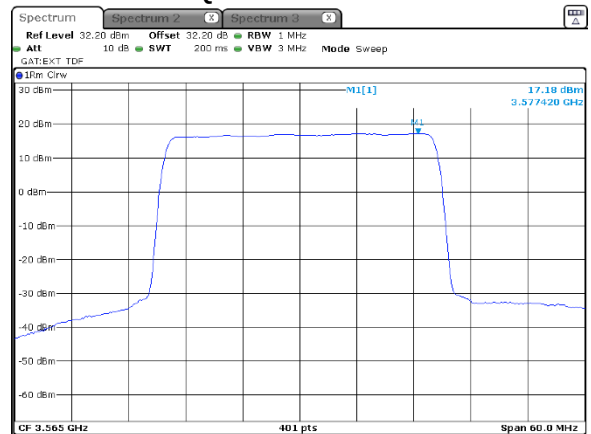
Modulation: QPSK



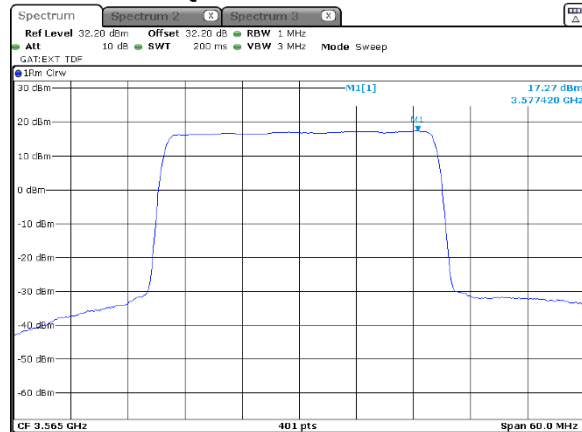
30 MHz

2

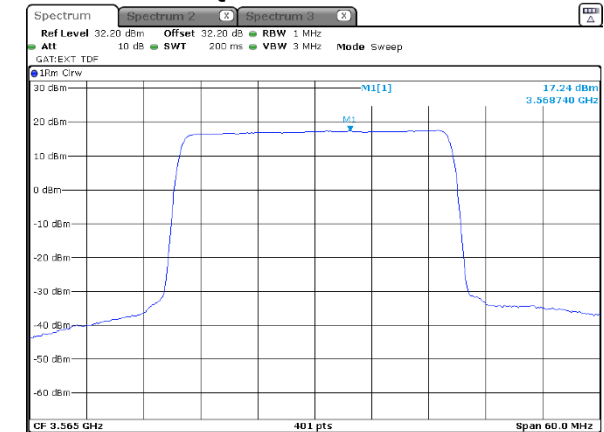
Modulation: 16QAM



Modulation: 64QAM



Modulation: 256QAM





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

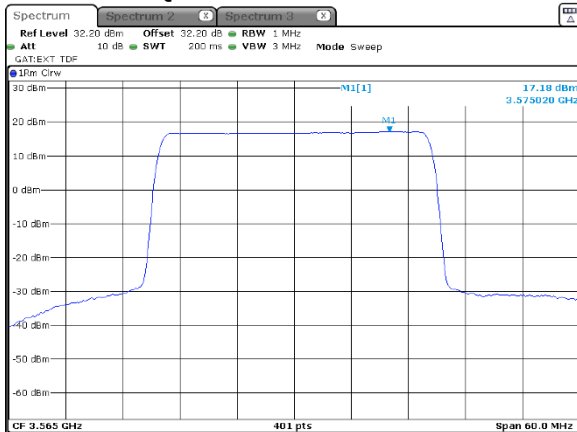
Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.28 Peak spectral power density at low frequency

CHANNEL SPACING:

ANTENNA CHAIN:

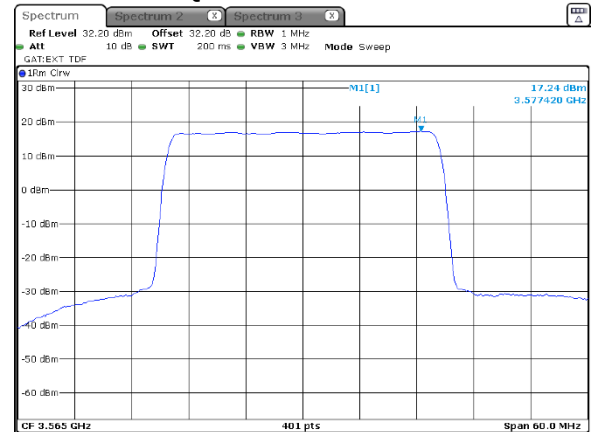
Modulation: QPSK



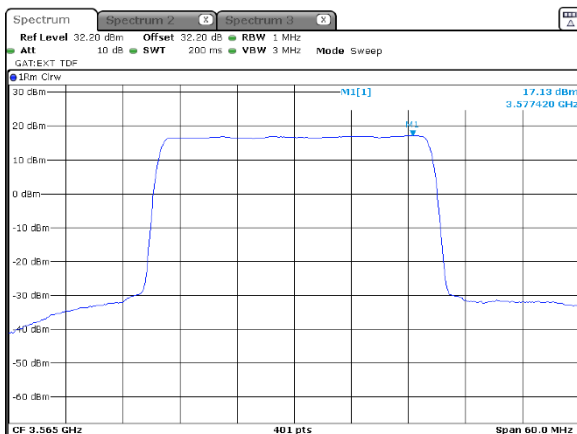
30 MHz

4

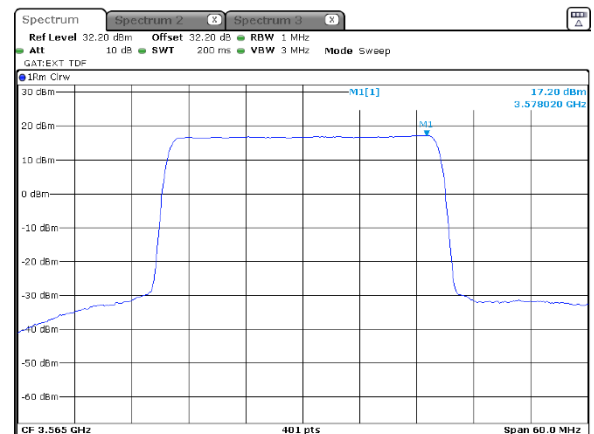
Modulation: 16QAM



Modulation: 64QAM



Modulation: 256QAM





HERMON LABORATORIES

Report ID: AIRRAD_FCC.42554_CL2C_30MHz

Date of Issue: 8-Dec-21

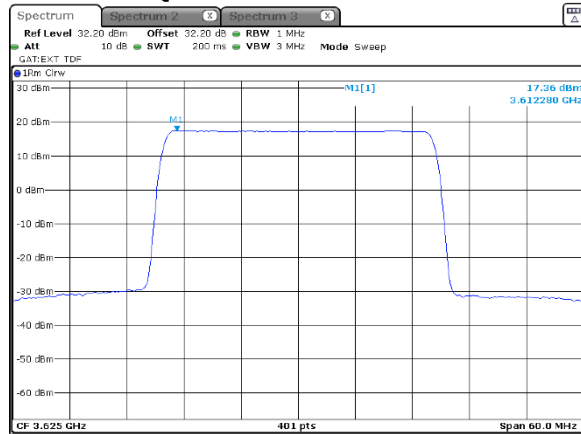
Test specification:		Section 96.41(b), Maximum EIRP and maximum power spectral density	
Test procedure:		Section 96.41(e)(3)	
Test mode:		Verdict: PASS	
Date(s):			
25-Jul-21 – 24-Nov-21			
Temperature: 24 °C	Relative Humidity: 55 %	Air Pressure: 1011 hPa	Power: 48 VAC
Remarks:			

Plot 7.1.29 Peak spectral power density at mid frequency

CHANNEL SPACING:

ANTENNA CHAIN:

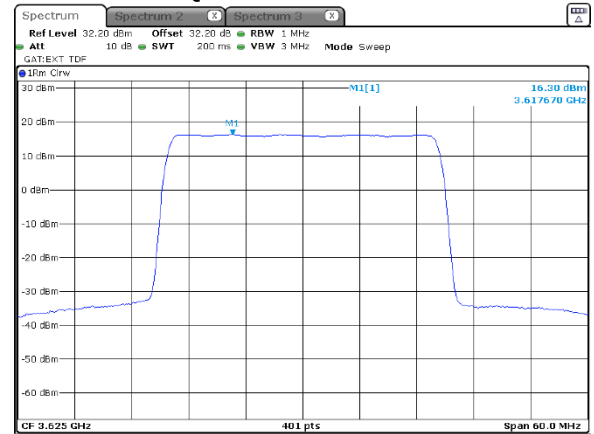
Modulation: QPSK



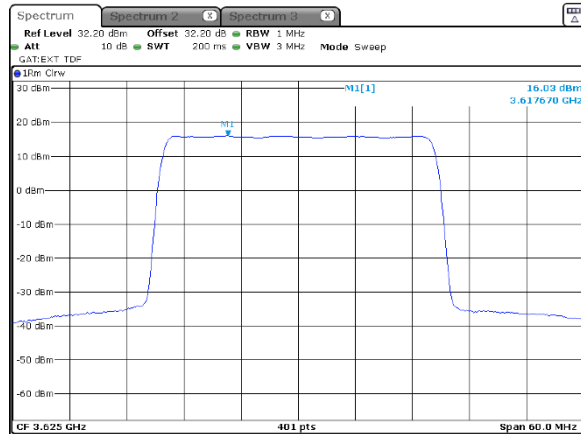
30 MHz

1

Modulation: 16QAM



Modulation: 64QAM



Modulation: 256QAM

