

SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 1 of 255

TEST REPORT

Application No.: SHCR2407001328AT

FCC ID: 2BHTA-B282E

Applicant: SYNLAN TECHNOLOGY PTE. LTD.

Address of Applicant: 7 TEMASEK BOULEVARD #29-01D SUNTEC TOWER ONE SINGAPORE

(038987)

Manufacturer: SYNLAN TECHNOLOGY PTE. LTD.

Address of Manufacturer: 7 TEMASEK BOULEVARD #29-01D SUNTEC TOWER ONE SINGAPORE

(038987)

Factory: Jixian Branch of Xi'an BYD Electronics Co., Ltd.

Address of Factory: No. 5, Jixian Avenue, Jixian Industrial Park, High-tech Zone, Xi'an

Equipment Under Test (EUT):

EUT Name: iFLYTEK AINOTE Air 2

Model No.: XF-DX-B282E Trade Mark: iFLYTEK

Standard(s): 47 CFR Part 15, Subpart E 15.407

Date of Receipt: 2024-07-08

Date of Test: 2024-07-10 to 2024-08-24

Date of Issue: 2024-08-27

Test Result: Pass*

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

^{*} In the configuration tested, the EUT complied with the standards specified above.



SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. SHEM-TRF-001 Rev. 02 Sep01, 2023 Report No.: SHCR240700132804 Page: 2 of 255

Revision Record					
Version	Description	Date	Remark		
00	Original	2024-08-27	/		

Authorized for issue by:		
Tested By	Bril Wu	
	Bill Wu/Project Engineer	_
Approved By	Parlam Zhan	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Parlam Zhan / Reviewer	_



SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. SHEM-TRF-001 Rev. 02 Sep01, 2023 Report No. SHCR24070

Report No.: SHCR240700132804 Page: 3 of 255

2 Test Summary

Radio Spectrum Technical Requirement						
Item	Standard	Method	Requirement	Result		
Antenna Requirement	47 CFR Part 15,	N/A	47 CFR Part 15, Subpart C 15.203	Pass		
Transmission in the Absence of Data	Subpart E 15.407	N/A	47 CFR Part 15, Subpart E 15.407 (c)	Pass		

Radio Spectrum Matter Part					
Item	Standard	Method	Requirement	Result	
Conducted Emissions at AC Power Line (150kHz-30MHz)		ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207 & Subpart E 15.407 b(9)	Pass	
Maximum Conducted output power		KDB 789033 D02 II E	47 CFR Part 15, Subpart E 15.407 (a)	Pass	
Radiated Emissions (Below 1GHz)		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass	
Radiated Emissions (Above 1GHz)		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass	
Radiated Emissions which fall in the restricted bands	47 CFR Part 15, Subpart E 15.407	KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass	
Duty Cycle		KDB 789033 II B 1	KDB 789033 D02 II B 1	Pass	
26dB Emission bandwidth		KDB 789033 D02 II C 1	47 CFR Part 15, Subpart E 15.407 (a)	Pass	
Minimum 6 dB bandwidth (5.725- 5.85 GHz band)		KDB 789033 D02 II C 2	47 CFR Part 15, Subpart E 15.407 (e)	Pass	
Peak Power spectrum density		KDB 789033 D02 II F	47 CFR Part 15, Subpart E 15.407 (a)	Pass	
Frequency Stability		ANSI C63.10 (2013) Section 6.8	47 CFR Part 15, Subpart E 15.407 (g)	Pass	



SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. SHEM-TRF-001 Rev. 02 Sep01, 2023 Report No.: SHCR24070

Report No.: SHCR240700132804 Page: 4 of 255

3 **Contents**

			Page
1	COVE	R PAGE	1
2	Test S	Summary	3
		nts	
3			
4		al Information	
		Details of E.U.T	
		Description of Support Units	
		Power level setting using in test	
		Measurement Uncertainty	
		est Location	
		est Facility	
		Deviation from Standards	
		Abnormalities from Standard Conditions	
5	Equip	ment List	9
_			
6		Spectrum Technical Requirement	
		Antenna Requirement	
	6.1.1	Test Requirement:	
	6.1.2	Conclusion	
		ransmission in the Absence of Data	
	6.2.1	Test Requirement:	
	6.2.2	Conclusion	
7	Radio	Spectrum Matter Test Results	12
	7.1	Conducted Emissions at AC Power Line (150kHz-30MHz)	12
	7.1.1	E.U.T. Operation	
	7.1.2	Test Mode Description	
	7.1.3	Test Setup Diagram	
	7.1.4	Measurement Procedure and Data	
		Maximum Conducted output power	
	7.2.1	E.U.T. Operation	
	7.2.1	Test Mode Description	
		Test Setup Diagram	
	7.2.3	Measurement Procedure and Data	
	7.3 F <i>7.3.1</i>	Radiated Emissions (Below 1GHz)	
	7.3.1 7.3.2	Test Mode Description	
	7.3.2	Test Setup Diagram	
	7.3.4	Measurement Procedure and Data	
		Radiated Emissions (Above 1GHz)	
	7.4.1	E.U.T. Operation	
	7.4.2	Test Mode Description	
	7.4.3	Test Setup Diagram	
	7.4.4	Measurement Procedure and Data	
		Radiated Emissions which fall in the restricted bands	
	7.5.1	E.U.T. Operation	
	7.5.2	Test Mode Description	
	7.5.3	Test Setup Diagram	
	7.5.4	Measurement Procedure and Data	86



SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. SHEM-TRF-001 Rev. 02 Sep01, 2023 Report No.: SHCR240700132804 Page: 5 of 255

7.6	-	y Cycle	
		E.U.T. Operation	
	7.6.2	Test Mode Description	139
	7.6.3	Test Setup Diagram	139
	7.6.4 I	Measurement Procedure and Data	139
7.7	7 260	B Emission bandwidth	140
	7.7.1 E	E.U.T. Operation	140
	7.7.2	Test Mode Description	140
		Fest Setup Diagram	
		Measurement Procedure and Data	
7.8		imum 6 dB bandwidth (5.725-5.85 GHz band)	
		E.U.T. Operation	
		Test Mode Description	
		Fest Setup Diagram	
		Measurement Procedure and Data	
7.9		ak Power spectrum density	
		E.U.T. Operation	
		Test Mode Description	
		Fest Setup Diagram	
		Measurement Procedure and Data	
7 ′		quency Stability	
٠.	7.10.1	E.U.T. Operation	
	7.10.1	Test Mode Description	
	7.10.2	Test Setup Diagram	
	7.10.4	Measurement Procedure and Data	
8	Test Set	up Photo	144
9	EUT Cor	nstructional Details (EUT Photos)	144
10	Appendi	x	145
10	.1 Apr	pendix A1: Emission Bandwidth	145
	10.1.1	Test Result	
	10.1.2	Test Graphs	
10	-	pendix A2: Occupied channel bandwidth	
	10.2.1	Test Result	
	10.2.2	Test Graphs	
10		pendix A3: Min emission bandwidth	
10	10.3.1	Test Result	
	10.3.1	Test Graphs	
10		pendix B: Maximum conducted output power	
10	.4 Apr	Test Result	
	10.4.1	Test Graphs	
10		pendix C: Maximum power spectral density	
10).5 App <i>10.5.1</i>	Test Result	
	10.5.1 10.5.2		
40		Test GraphsStability	
10		pendix D: Frequency Stability	
4.0	10.6.1	Test Result	
10	<u> </u>	pendix E: Duty Cycle	
	10.7.1	Test Result	
	10.7.2	Test Graphs	239



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 6 of 255

4 General Information

4.1 Details of E.U.T.

Power supply:	DC 3.8V 2600mAh Rechargeable battery	
Test Voltage:	AC 120V 60Hz	

Operation Frequency:	Band	Mode	Frequency	Number of		
			Range(MHz)	channels		
	UNII Band I	802.11a/n(HT20)/ac(VHT20) / ax(HEW20)	5180-5240	4		
		802.11n(HT40)/ac(VHT40)/ ax(HEW40)	5190-5230	2		
		802.11ac(VHT80)/ax(HEW8 0)	5210	1		
	UNII Band III	802.11a/n(HT20)/ac(VHT20) / ax(HEW20)	5745-5825	5		
		802.11n(HT40)/ac(VHT40)/ ax(HEW40)	5755-5795	2		
		802.11ac(VHT80)/ax(HEW8 0)	5775	1		
Modulation Type:	802.11a: OFDM	(64QAM, 16QAM, QPSK, BPSk	ζ)			
	802.11n: OFDM	(BPSK, QPSK, 16QAM, 64QAM	1)			
	802.11ac: OFDM	1 (BPSK, QPSK, 16QAM, 64QA	M, 256QAM)			
	802.11ax: OFDM	MA (BPSK, QPSK, 16QAM, 64Q	AM, 256QAM, 10)24-QAM)		
Date Rate:	802.11a:6/9/12/1	8/24/36/48/54Mbps				
	802.11n:MCS0-N	MCS7				
	802.11ac:VHT MCS0-MCS9					
	802.11ax: HEW MCS0-MCS11					
Channel Spacing:	802.11a/n(HT20)/ac(VHT20)/ax(HEW20): 20MH	z			
	802.11n(HT40)/ac(VHT40)/ax(HEW40): 40MHz					
	802.11ac(VHT80)/ax(HEW80): 80MHz					
Antenna Type:	PIFA Antenna					
Antenna Gain:	0.73 dBi (Provided by manufacturer)					
TPC Function:	Without TPC function					

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Laptop	LENOVO	L460	-



SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. SHEM-TRF-001 Rev. 02 Sep01, 2023 Report No.: SHCR24070

Report No.: SHCR240700132804

Page: 7 of 255

4.3 Power level setting using in test

Test Mode	802.11a	802.11n(HT20)	802.11ac(VHT20)	802.11ax(HEW20)
Channel	Ant 1	Ant 1	Ant 1	Ant 1
36	0x36	0x36	0x36	0x36
40	0x36	0x36	0x36	0x36
48	0x36	0x36	0x36	0x36
149	0x36	0x36	0x36	0x36
157	0x36	0x36	0x36	0x36
165	0x36	0x36	0x36	0x36
Test Mode	802.11n(HT40)	802.11ac(VHT40)	802.11ax(HEW40)	
Channel	Ant 1	Ant 1	Ant 1	
38	0x36	0x36	0x36	
46	0x36	0x36	0x36	
151	0x36	0x36	0x36	
159	0x36	0x36	0x36	
Test Mode	802.ac(VHT80)	802.ax(HEW80)		•
Channel	Ant1	Ant 1		
42	0x36	0x36		
155	0x36	0x36		

4.4 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	8.4 x 10 ⁻⁸
2	Timeout	2s
3	Duty cycle	0.4%
4	Occupied Bandwidth	3%
5	RF conducted power	0.6dB
6	RF power density	2.9dB
7	Conducted Spurious emissions	0.75dB
8	DE Redicted newer	5.2dB (Below 1GHz)
0	RF Radiated power	5.9dB (Above 1GHz)
		4.2dB (Below 30MHz)
9	Redicted Courieus emission test	4.5dB (30MHz-1GHz)
9	Radiated Spurious emission test	5.1dB (1GHz-6GHz)
		5.4dB (6GHz-18GHz)
10	Temperature test	1°C
11	Humidity test	3%
12	Supply voltages	1.5%
13	Time	3%

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 8 of 255

4.5 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. E&E Lab 588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China

Tel: +86 21 6191 5666 Fax: +86 21 6191 5678

No tests were sub-contracted.

Note:

- 1. SGS is not responsible for wrong test results due to incorrect information (e.g. max. clock frequency, highest internal frequency, antenna gain, cable loss, etc.) is provided by the applicant. (if applicable).
- 2. SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (if applicable).
- 3. Sample source: sent by customer.

4.6 Test Facility

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

A2LA (Certificate No. 6332.01)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the American Association for Laboratory Accreditation(A2LA).

• FCC (Designation Number: CN1301)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

• ISED (CAB Identifier: CN0020)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. EMC Laboratory has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 8617A

• VCCI (Member No.: 3061)

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-13868, C-14336, T-12221, G-10830 respectively.

4.7 Deviation from Standards

None

4.8 Abnormalities from Standard Conditions

None



SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. SHEM-TRF-001 Rev. 02 Sep01, 2023 Report No.: SHCR24070

Report No.: SHCR240700132804 Page: 9 of 255

Equipment List 5

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
RF Conducted Test					•
Spectrum Analyzer	R&S	FSP-30	SHEM002-1	2023-12-19	2024-12-18
Spectrum Analyzer	Keysight	N9020B	SHEM241-1	2023-12-19	2024-12-18
Spectrum Analyzer	Agilent	N9020A	SHEM181-1	2023-08-01	2024-07-31
Spectrum Analyzer	Agilent	N9020A	SHEM181-1	2024-07-31	2025-07-30
Signal Generator	R&S	SMR20	SHEM006-1	2023-08-01	2024-07-31
Signal Generator	R&S	SMR20	SHEM006-1	2024-07-31	2025-07-30
Signal Generator	Agilent	N5182A	SHEM182-1	2023-08-01	2024-07-31
Signal Generator	Agilent	N5182A	SHEM182-1	2024-07-31	2025-07-30
Communication Tester	R&S	CMW270	SHEM183-1	2024-05-23	2025-05-22
Communication Tester	R&S	CMW500	SHEM268-1	2024-05-23	2025-05-22
Power Sensor	Keysight	U2021XA * 4	SHEM184-1	2023-08-01	2024-07-31
Power Sensor	Keysight	U2021XA * 4	SHEM293-1	2024-07-31	2025-07-30
Splitter	Anritsu	MA1612A	SHEM185-1	/	/
Coupler	e-meca	803-S-1	SHEM186-1	/	/
High-low Temp Cabinet	Suzhou Zhihe	TL-40	SHEM087-1	2022-11-08	2024-11-07
AC Power Stabilizer	APC	KDF-31020T-V0-F0	SHEM216-1	2023-12-19	2024-12-18
DC Power Supply	HP	6010A	SHEM222-1	2023-12-19	2024-12-18
Conducted test Cable	/	RF01~RF04	/	2023-12-19	2024-12-18
Switcher	Tonscend	JS0806	SHEM184-1	2023-08-01	2024-07-31
Switcher	Tonscend	JS0806	SHEM293-1	2024-07-31	2025-07-30
Test software	Tonscend	JS Tonscend BT/WIFI System	Version: 2.6	/	/
Switcher+Power Sensor	TST	TSPS2023R	SHEM263-1	2023-08-01	2024-07-31
Switcher+Power Sensor	TST	TSPS2023R	SHEM263-1	2024-07-31	2025-07-30
Test software	TST	TST PASS	Version: 2.0	/	/
RF Radiated Test					
EMI test Receiver	R&S	ESU40	SHEM051-1	2023-12-19	2024-12-18
Spectrum Analyzer	R&S	FSP-30	SHEM002-1	2023-12-19	2024-12-18
Communication Tester	R&S	CMW500	SHEM268-1	2024-05-23	2025-05-22
Loop Antenna (9kHz-30MHz)	Schwarzbeck	FMZB1519	SHEM135-1	2023-12-19	2024-12-18
Antenna (25MHz-2GHz)	Schwarzbeck	VULB9168	SHEM048-1	2023-09-03	2025-09-02
Antenna (25MHz-2GHz)	Schwarzbeck	VULB9168	SHEM202-1	2023-04-17	2025-04-16
Horn Antenna (1-18GHz)	Schwarzbeck	HF906	SHEM009-1	2024-08-05	2026-08-04
Horn Antenna (1-18GHz)	Schwarzbeck	BBHA9120D	SHEM050-1	2023-09-03	2025-09-02
Horn Antenna (14-40GHz)	Schwarzbeck	BBHA 9170	SHEM049-1	2023-09-03	2025-09-02
Pre-Amplifier	HP	8447D	SHEM236-1	2023-12-19	2024-12-18
High-amplifier (14-40GHz)	Schwarzbeck	10001	SHEM049-2	2023-12-19	2024-12-18
Band Filter	LORCH	9BRX-875/X150	SHEM156-1	/	/
Band Filter	LORCH	13BRX-1950/X500	SHEM083-2	/	/
Band Filter	LORCH	5BRX-2400/X200	SHEM155-1	/	/
Band Filter	LORCH	5BRX-5500/X1000	SHEM157-2	/	/
High pass Filter	Wainwright	WHK3.0/18G	SHEM157-1	/	/
High pass Filter	Wainwright	WHKS1700	SHEM157-3	/	/
Semi/Fully Anechoic	ST	11*6*6M	SHEM078-2	2023-05-06	2026-05-05
RE test Cable	/	PT18-NMNM-10M	SHEM217-2	2023-12-19	2024-12-18
Test software	ESE	E3	Version: 6.111221a	1	/



SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. SHEM-TRF-001 Rev. 02 Sep01, 2023 Report No.: SHCR240700132804 Page: 10 of 255

Conducted Emissions at Mains Power Port (150kHz-30MHz)								
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date			
EMI test receiver	Rohde & Schwarz	ESR7	SHEM162-1	2023/12/19	2024/12/18			
Line impedance stabilization network	SCHWARZBECK	NSLK8127	SHEM061-1	2023/12/19	2024/12/18			
Line impedance stabilization network	EMCO	3816_2	SHEM019-1	2023/12/19	2024/12/18			
Pulse limiter	Rohde & Schwarz	ESH3-Z2	SHEM029-1	2023/12/19	2024/12/18			
Shielding Room	ZHONGYU	8*4*3M	SHEM079-2	2023/12/19	2024/12/18			
CE test Cable	/	/	SHEM172-1	2023/12/19	2024/12/18			
Test Software	ESE	e3	Version: 6.191211	N/A	N/A			



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 11 of 255

6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

6.1.2 Conclusion

Standard Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is PIFA antenna and no consideration of replacement. The best case gain of the antenna is 0.73 dBi

Antenna location: Refer to internal photo.

6.2 Transmission in the Absence of Data

6.2.1 Test Requirement:

47 CFR Part 15, Subpart E 15.407 (c)

6.2.2 Conclusion

Standard Requirement:

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signalling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals.

Applicants shall include in their application for equipment authorization a description of how this requirement is met.

EUT Details:

WIFI chip support automatically discontinue transmission in case of either absence of information to transmit or operational failure, if the chip detect absence of information to transmit or operational failure, it will be automatically shut off.



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 12 of 255

7 Radio Spectrum Matter Test Results

7.1 Conducted Emissions at AC Power Line (150kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.207 & Subpart E 15.407 b(9)

Test Method: ANSI C63.10 (2013) Section 6.2

Limit:

Eromination (MUT)	Conducted limit(dB μ V)					
Frequency of emission(MHz)	Quasi-peak	Average				
0.15-0.5	66 to 56*	56 to 46*				
0.5-5	56	46				
5-30	60	50				
*Decreases with the logarithm of the frequency.						

7.1.1 E.U.T. Operation

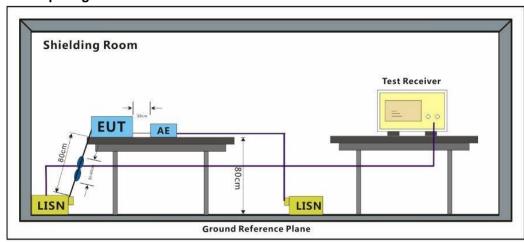
Operating Environment:

Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	Charge + TX mode (U-NII-1) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40/80, Only the data of worst case is recorded in the report.
Pre-scan	06	Charge + TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40/80, Only the data of worst case is recorded in the report.

7.1.3 Test Setup Diagram





SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 13 of 255

7.1.4 Measurement Procedure and Data

- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a $50 \text{ohm}/50 \mu\text{H} + 5 \text{ohm}$ linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
- 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,
- 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

Remark: Level=Read Level+ Cable Loss+ LISN Factor

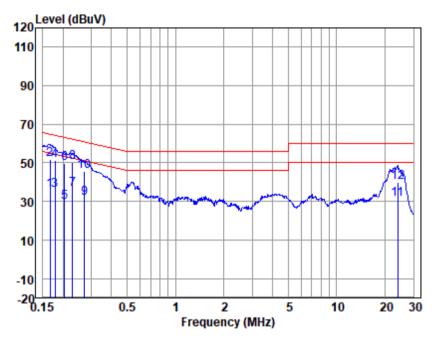


SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. SHEM-TRF-001 Rev. 02 Sep01, 2023 Report No.: SHCR24070

Report No.: SHCR240700132804

Page: 14 of 255

Test Mode: 05; Line: Live line



LISN : LINE EUT/Project No: 1328AT

Test Mode : 05

	Freq	Read	LISN	Cable	Emission		0ver	
		level	Factor	Loss	Level	Limit	Limit	Remark
	(MHz)	(dBuV)	(dB)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.17	25.61	0.50	9.90	36.01	55.16	-19.15	Average
2	0.17	41.25	0.50	9.90	51.65	65.16	-13.51	QP
3	0.18	25.54	0.50	9.90	35.94	54.55	-18.61	Average
4	0.18	40.65	0.50	9.90	51.05	64.55	-13.50	QP
5	0.20	19.41	0.49	9.90	29.80	53.45	-23.65	Average
6	0.20	39.21	0.49	9.90	49.60	63.45	-13.85	QP
7	0.23	26.20	0.45	9.90	36.55	52.48	-15.93	Average
8	0.23	39.99	0.45	9.90	50.34	62.48	-12.14	QP
9	0.27	21.22	0.40	9.90	31.52	51.07	-19.55	Average
10	0.27	35.28	0.40	9.90	45.58	61.07	-15.49	QP
11	23.89	19.86	0.68	10.70	31.24	50.00	-18.76	Average
12	23.89	28.65	0.68	10.70	40.03	60.00	-19.97	QP
				and the second	1		c-11-1-1	

Notes: Emission Level = Read Level +LISN Factor + Cable loss

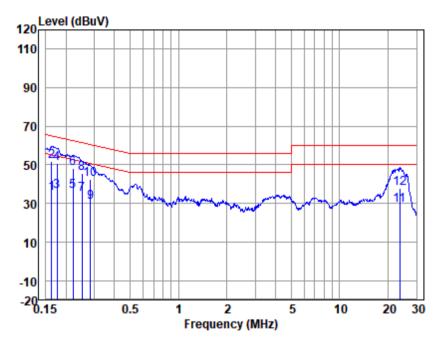


SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. SHEM-TRF-001 Rev. 02 Sep01, 2023 Report No.: SHCR24070

Report No.: SHCR240700132804

Page: 15 of 255

Test Mode: 05; Line: Neutral Line



: NEUTRAL LISN EUT/Project No: 1328AT

Test Mode : 05

	Freq	Read	LISN	Cable	Emission	1	Over	
		level	Factor	Loss	Level	Limit	Limit	Remark
	(MHz)	(dBuV)	(dB)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.16	25.30	0.33	9.90	35.53	55.30	-19.77	Average
2	0.16	41.71	0.33	9.90	51.94	65.30	-13.36	QP
3	0.18	26.04	0.32	9.90	36.26	54.68	-18.42	Average
4	0.18	40.69	0.32	9.90	50.91	64.68	-13.77	QP
5	0.22	26.09	0.30	9.90	36.29	52.74	-16.45	Average
6	0.22	38.19	0.30	9.90	48.39	62.74	-14.35	QP
7	0.25	24.59	0.30	9.90	34.79	51.69	-16.90	Average
8	0.25	35.35	0.30	9.90	45.55	61.69	-16.14	QP
9	0.28	20.57	0.30	9.90	30.77	50.68	-19.91	Average
10	0.28	32.26	0.30	9.90	42.46	60.68	-18.22	QP
11	23.64	17.41	1.20	10.70	29.31	50.00	-20.69	Average
12	23.64	26.04	1.20	10.70	37.94	60.00	-22.06	QP
No	tes: Emi	ssion Le	vel = Re	ead Leve	1 +LISN F	actor +	Cable los	S



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 16 of 255

7.2 Maximum Conducted output power

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)

Test Method: KDB 789033 D02 II E

Limit:

Frequency	band(MHz)	Limit				
E150	E2E0	≤1W(30dBm) for master device				
5150-	-5250	≤250mW(24dBm) for client device				
5250-	-5350	≤250mW(24dBm) for client device or 11dBm+10logB*				
5470-	-5725	≤250mW(24dBm) for client device or 11dBm+10logB*				
5725	-5850	≤1W(30dBm)				
Remark:	* Where B is the	26dB emission bandwidth in MHz.				
	The maximum conducted output power must be measured over any int continuous transmission using instrumentation calibrated in terms of equivalent voltage.					

7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 24.8 °C Humidity: 54.8 % RH Atmospheric Pressure: 1010 mbar

7.2.1 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	Charge + TX mode (U-NII-1) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40/80, Only the data of worst case is recorded in the report.
Charge + TX mode (U-NI all modulation types and been tested and found the data rate @ MCS0 is the		Charge + TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40/80, Only the data of worst case is recorded in the report.

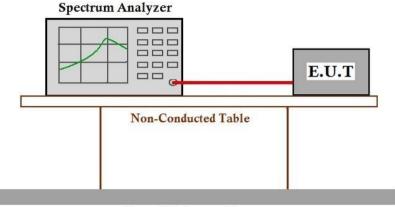


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 17 of 255

7.2.2 Test Setup Diagram



Ground Reference Plane

7.2.3 Measurement Procedure and Data

Note: Since the verify power the same operating range bandwidth and smaller power can be covered by the higher power.

Please Refer to Appendix for Details



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 18 of 255

7.3 Radiated Emissions (Below 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)

Test Method: KDB 789033 D02 II G

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
960-1000	500	3

7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

7.3.2 Test Mode Description

7.3.2 Test Mode Description						
Pre-scan / Final test	Mode Code	Description				
Final test	05	Charge + TX mode (U-NII-1) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40/80, Only the data of worst case is recorded in the report.				
Pre-scan	06	Charge + TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40/80, Only the data of worst case is recorded in the report.				

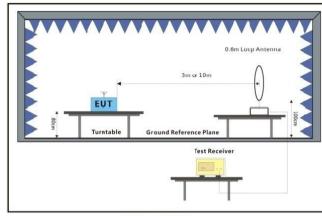


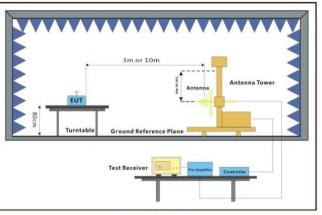
SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 19 of 255

7.3.3 Test Setup Diagram





Below 30MHz

30MHz-1GHz

7.3.4 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using quasi-peak method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

- 1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- 2. For emission below 1GHz, through the pre-scan found the worst case is the lowest channel of 802.11a. Only the worst case is recorded in the report.
- 3. Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 4. The disturbance below 1GHz was very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

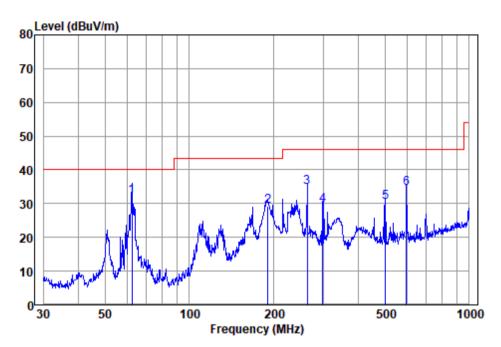


SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. SHEM-TRF-001 Rev. 02 Sep01, 2023 Report No.: SHCR24070

Report No.: SHCR240700132804

Page: 20 of 255

Test Mode: 05; Polarity: Horizontal



Antenna Polarity : HORIZONTAL EUT/Project :1328AT

Test mode :05

		Read	Antenna	Cable	Preamp	Emission	limit	0ver	
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	62.213	50.91	12.76	1.57	33.20	32.04	40.00	-7.96	QP
2	190.405	48.85	10.56	2.89	33.00	29.30	43.50	-14.20	QP
3	263.819	52.21	12.11	3.45	32.80	34.97	46.00	-11.03	QP
4	299.316	45.15	13.37	3.89	32.80	29.61	46.00	-16.39	QP
5	501.179	40.04	18.02	4.93	32.70	30.29	46.00	-15.71	QP
6	595.133	41.85	19.85	5.44	32.70	34.44	46.00	-11.56	QP
Note:E	mission L	evel=Re	ad Level	+Anteni	na Facto	or+Cable	loss-Pr	reamp Fac	ctor

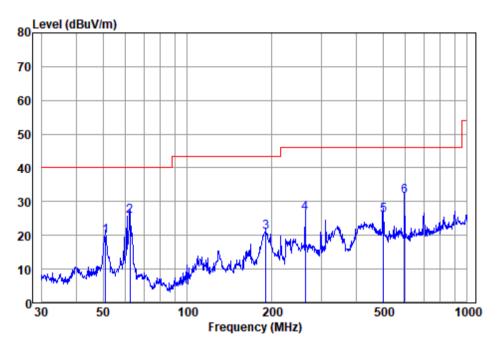


SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. SHEM-TRF-001 Rev. 02 Sep01, 2023 Report No.: SHCR24070

Report No.: SHCR240700132804

Page: 21 of 255

Test Mode: 05; Polarity: Vertical



Antenna Polarity : VERTICAL EUT/Project :1328AT

Test mode :05

		Read	Antenna	Cable	Preamp	Emission	ı Limit	0ver	
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	50.942	37.54	13.90	1.45	33.20	19.69	40.00	-20.31	QP
2	62.213	44.44	12.76	1.57	33.20	25.57	40.00	-14.43	QP
3	190.405	40.37	10.56	2.89	33.00	20.82	43.50	-22.68	QP
4	263.819	43.69	12.11	3.45	32.80	26.45	46.00	-19.55	QP
5	501.179	35.72	18.02	4.93	32.70	25.97	46.00	-20.03	QP
6	595.133	39.13	19.85	5.44	32.70	31.72	46.00	-14.28	QP
		1 -	1				1 -	_	



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 22 of 255

7.4 Radiated Emissions (Above 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)

Test Method: KDB 789033 D02 II G

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
Above 1GHz	500	3

- *(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.
- (2) For transmitters operating in the 5.25-5.35 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.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band:
- (i) All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 26.7 °C Humidity: 57.4 % RH Atmospheric Pressure: 1010 mbar

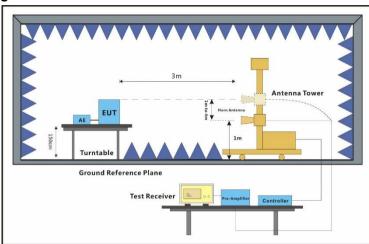
7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	Charge + TX mode (U-NII-1) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40/80, Only the data of worst case is recorded in the report.
Final test	06	Charge + TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40/80, Only the data of worst case is recorded in the report.



SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. SHEM-TRF-001 Rev. 02 Sep01, 2023 Report No.: SHCR240700132804 Page: 23 of 255

7.4.3 Test Setup Diagram





SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 24 of 255

7.4.4 Measurement Procedure and Data

a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete. Remark:
- 1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- 2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.
- 4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.
- 5. For devices with multiple operating modes, measurements on the middle channel is used to determine the worst-case mode(s). Only the worst case mode with the highest output power and the mode with the highest output power spectral density for each modulation family (e.g., OFDM and direct sequence spread spectrum) is recorded in the test report.

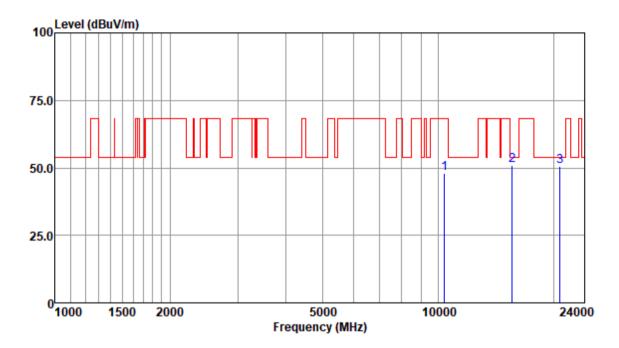


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 25 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10360.35	34.83	37.85	9.02	33.56	48.14	68.20	-20.06	Peak
15540.24	31.70	43.36	12.59	36.82	50.83	54.00	-3.17	Peak
20720.83	31.07	43.94	14.46	38.82	50.65	54.00	-3.35	Peak

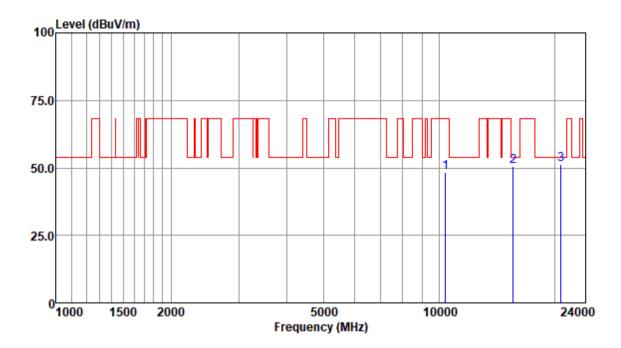


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 26 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10360.35	34.85	37.85	9.02	33.56	48.16	68.20	-20.04	Peak
15540.24	31.25	43.36	12.59	36.82	50.38	54.00	-3.62	Peak
20720.83	31.65	43.94	14.46	38.82	51.23	54.00	-2.77	Peak

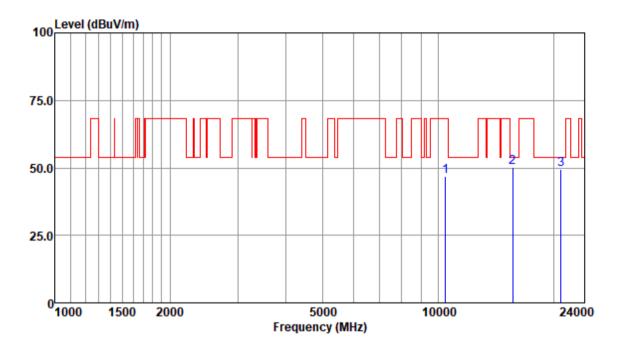


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 27 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10400.49	33.60	37.87	9.03	33.58	46.92	68.20	-21.28	Peak
15600.67	31.00	43.25	12.64	36.81	50.08	54.00	-3.92	Peak
20800.84	29.97	43.96	14.48	38.92	49.49	54.00	-4.51	Peak

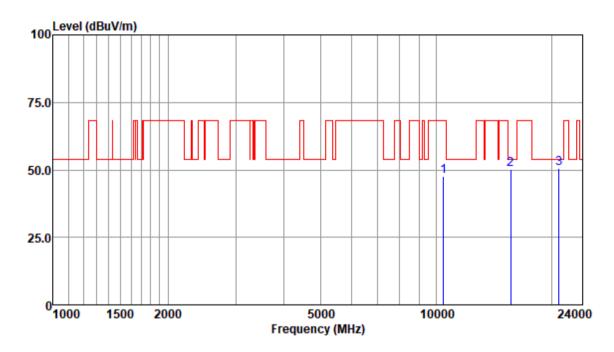


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 28 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10400.37	34.43	37.87	9.03	33.58	47.75	68.20	-20.45	Peak
15600.67	30.98	43.25	12.64	36.81	50.06	54.00	-3.94	Peak
20800.84	30.89	43.96	14.48	38.92	50.41	54.00	-3.59	Peak

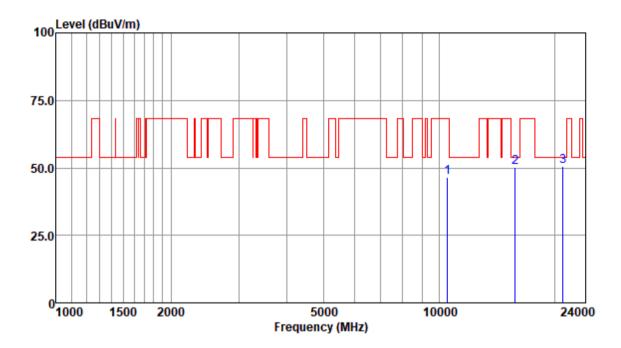


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 29 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10480.71	33.02	37.90	9.04	33.62	46.34	68.20	-21.86	Peak
15720.90	31.37	42.93	12.54	36.81	50.03	54.00	-3.97	Peak
20960.48	31.14	44.00	14.53	39.12	50.55	54.00	-3.45	Peak

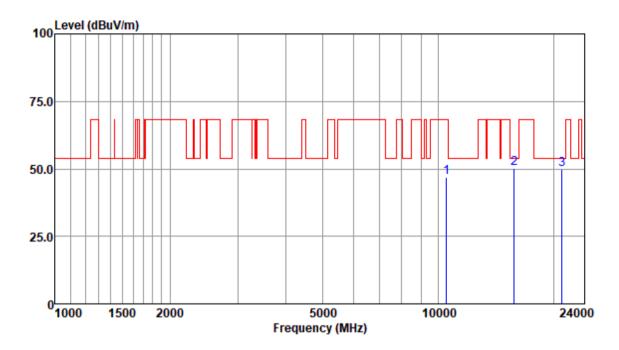


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 30 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10480.71	33.37	37.90	9.04	33.62	46.69	68.20	-21.51	Peak
15720.90	31.45	42.93	12.54	36.81	50.11	54.00	-3.89	Peak
20960.48	30.44	44.00	14.53	39.12	49.85	54.00	-4.15	Peak

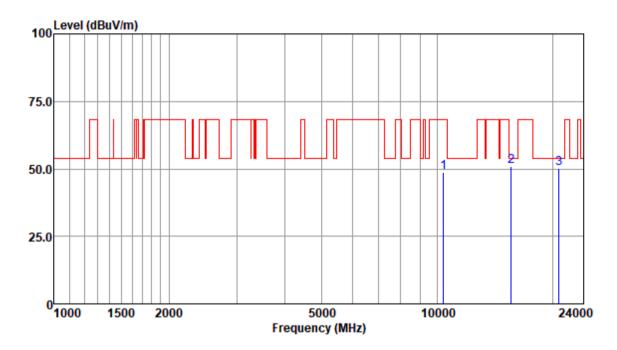


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 31 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10360.35	35.45	37.85	9.02	33.56	48.76	68.20	-19.44	Peak
15540.24	31.65	43.36	12.59	36.82	50.78	54.00	-3.22	Peak
20720.83	30.53	43.94	14.46	38.82	50.11	54.00	-3.89	Peak

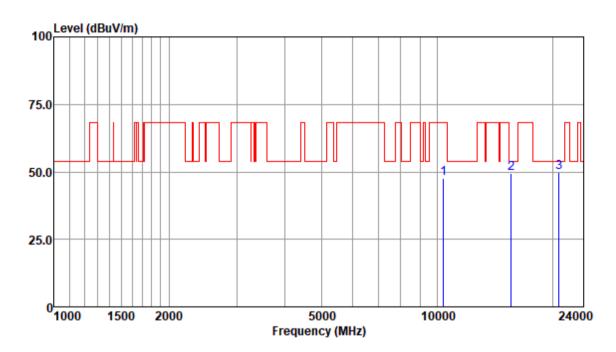


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 32 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10360.35	34.47	37.85	9.02	33.56	47.78	68.20	-20.42	Peak
15540.24	30.23	43.36	12.59	36.82	49.36	54.00	-4.64	Peak
20720.83	30.21	43.94	14.46	38.82	49.79	54.00	-4.21	Peak

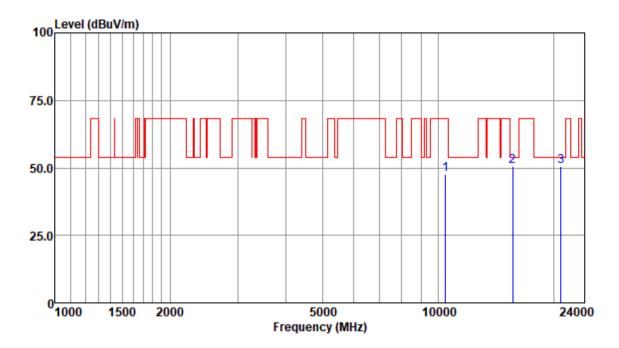


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 33 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10400.37	34.44	37.87	9.03	33.58	47.76	68.20	-20.44	Peak
15600.67	31.65	43.25	12.64	36.81	50.73	54.00	-3.27	Peak
20800.84	31.02	43.96	14.48	38.92	50.54	54.00	-3.46	Peak

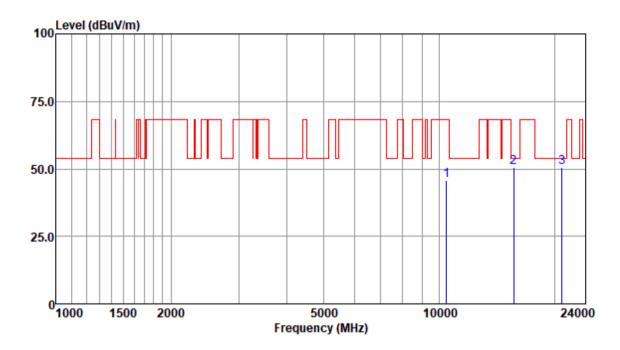


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 34 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10400.37	32.57	37.87	9.03	33.58	45.89	68.20	-22.31	Peak
15600.67	31.38	43.25	12.64	36.81	50.46	54.00	-3.54	Peak
20800.84	31.00	43.96	14.48	38.92	50.52	54.00	-3.48	Peak

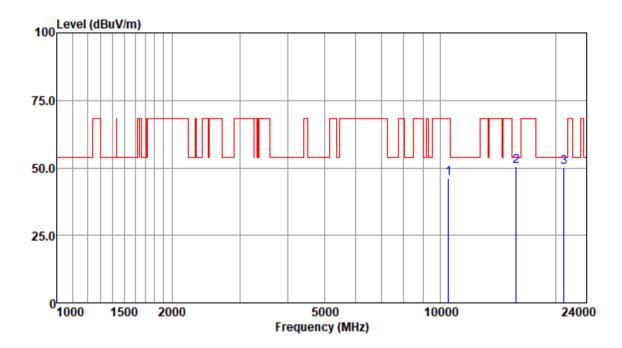


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 35 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10480.71	32.90	37.90	9.04	33.62	46.22	68.20	-21.98	Peak
15720.90	32.05	42.93	12.54	36.81	50.71	54.00	-3.29	Peak
20960.48	30.93	44.00	14.53	39.12	50.34	54.00	-3.66	Peak

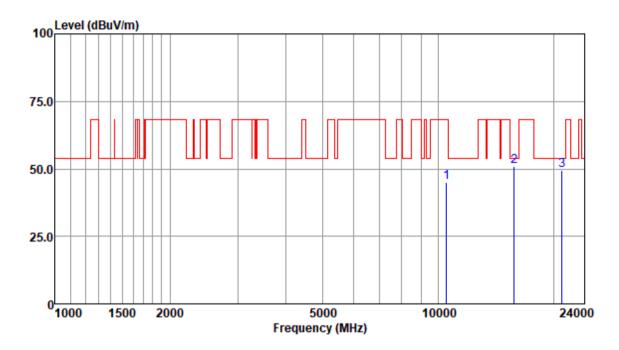


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 36 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10480.71	31.55	37.90	9.04	33.62	44.87	68.20	-23.33	Peak
15720.90	32.13	42.93	12.54	36.81	50.79	54.00	-3.21	Peak
20960.48	30.19	44.00	14.53	39.12	49.60	54.00	-4.40	Peak

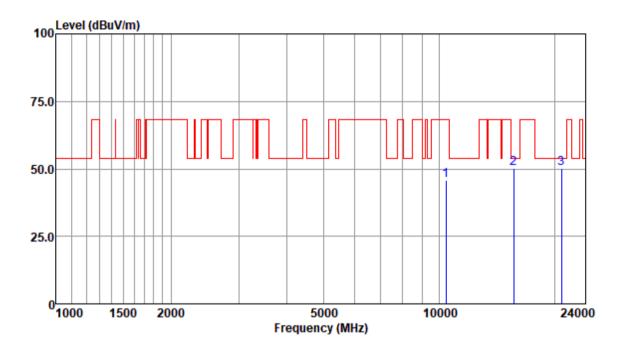


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 37 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10380.35	32.54	37.85	9.02	33.56	45.85	68.20	-22.35	Peak
15570.67	31.10	43.25	12.64	36.81	50.18	54.00	-3.82	Peak
20760.83	30.60	43.94	14.46	38.82	50.18	54.00	-3.82	Peak

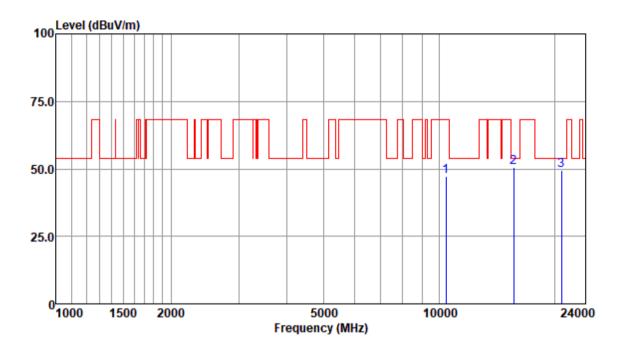


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 38 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10380.35	33.86	37.85	9.02	33.56	47.17	68.20	-21.03	Peak
15570.67	31.55	43.25	12.64	36.81	50.63	54.00	-3.37	Peak
20760.83	29.71	43.94	14.46	38.82	49.29	54.00	-4.71	Peak

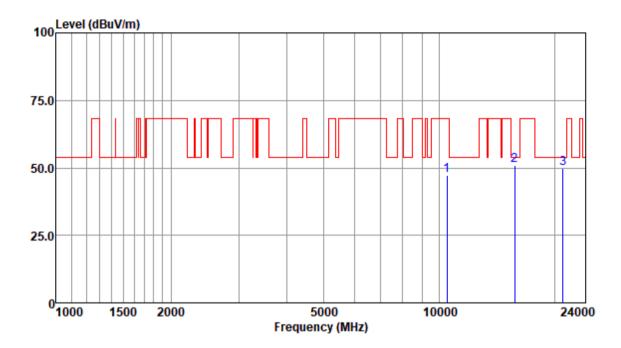


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 39 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10460.71	33.80	37.90	9.04	33.62	47.12	68.20	-21.08	Peak
15690.00	32.11	43.04	12.63	36.81	50.97	54.00	-3.03	Peak
20920.48	30.44	44.00	14.53	39.12	49.85	54.00	-4.15	Peak

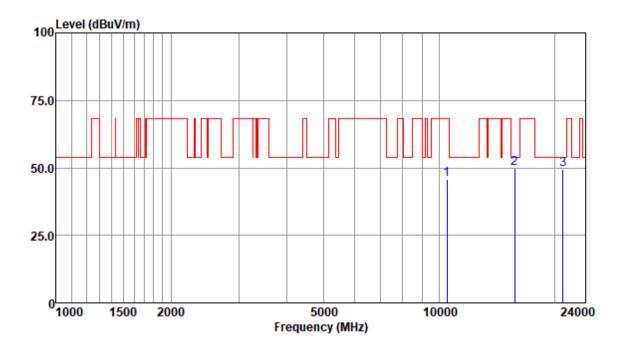


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 40 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10460.71	32.31	37.90	9.04	33.62	45.63	68.20	-22.57	Peak
15690.00	31.05	43.04	12.63	36.81	49.91	54.00	-4.09	Peak
20920.48	29.95	44.00	14.53	39.12	49.36	54.00	-4.64	Peak

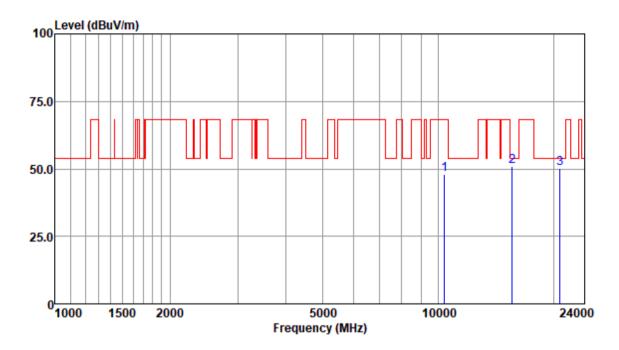


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 41 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

	Read	Antenna	Cable	Preamp	Emission	Limit	0ver	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10360.35	34.63	37.85	9.02	33.56	47.94	68.20	-20.26	Peak
15540.24	31.87	43.36	12.59	36.82	51.00	54.00	-3.00	Peak
20720.83	30.45	43.94	14.46	38.82	50.03	54.00	-3.97	Peak

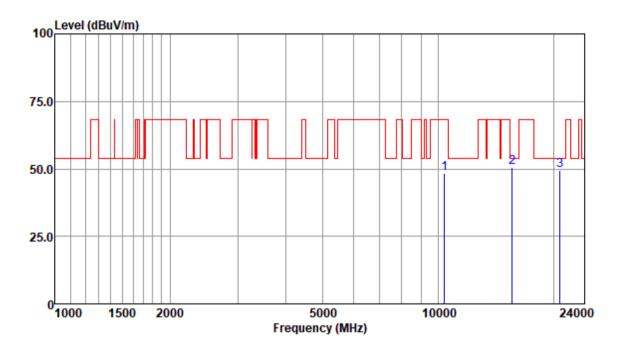


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 42 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10360.35	34.87	37.85	9.02	33.56	48.18	68.20	-20.02	Peak
15540.24	31.43	43.36	12.59	36.82	50.56	54.00	-3.44	Peak
20720.83	29.97	43.94	14.46	38.82	49.55	54.00	-4.45	Peak

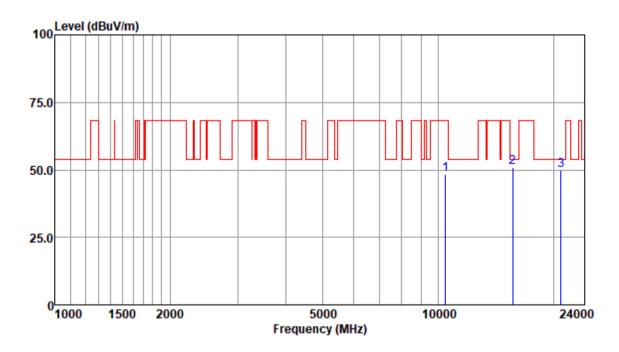


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 43 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:middle



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10400.37	35.15	37.87	9.03	33.58	48.47	68.20	-19.73	Peak
15600.67	31.69	43.25	12.64	36.81	50.77	54.00	-3.23	Peak
20800.84	30.38	43.96	14.48	38.92	49.90	54.00	-4.10	Peak

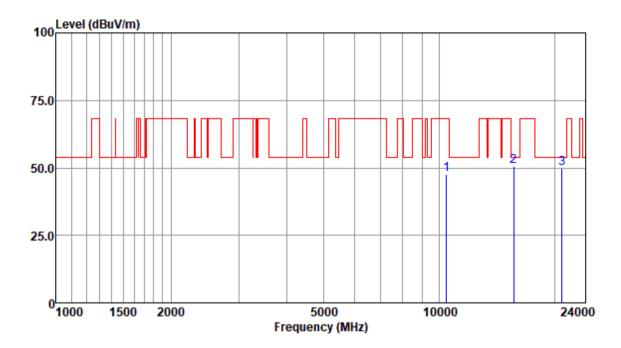


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 44 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:middle



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10400.37	34.36	37.87	9.03	33.58	47.68	68.20	-20.52	Peak
15600.67	31.63	43.25	12.64	36.81	50.71	54.00	-3.29	Peak
20800.84	30.14	43.96	14.48	38.92	49.66	54.00	-4.34	Peak

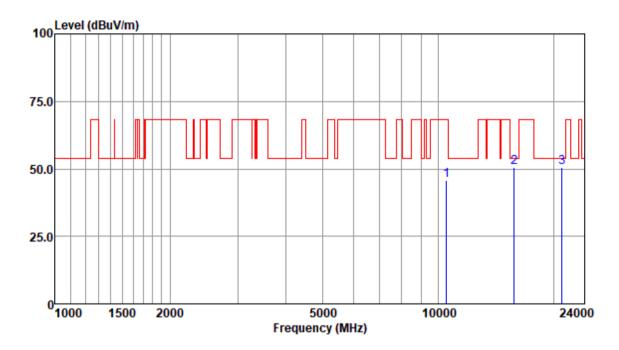


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 45 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10480.71								Peak
15720.90	31.92	42.93	12.54	36.81	50.58	54.00	-3.42	Peak
20960.48	31.24	44.00	14.53	39.12	50.65	54.00	-3.35	Peak

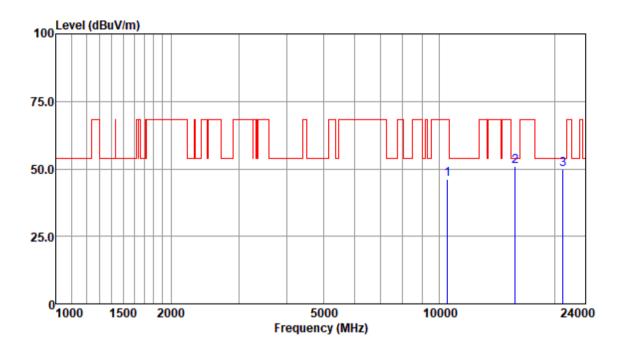


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 46 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MU-	dBung	dP /m			dPun/m	dBun/m		
					dBuv/m			ъ .
10480.71	32./2	37.90	9.04	33.62	46.04	68.20	-22.16	Peak
15720.90	32.25	42.93	12.54	36.81	50.91	54.00	-3.09	Peak
20960.48	30.51	44.00	14.53	39.12	49.92	54.00	-4.08	Peak

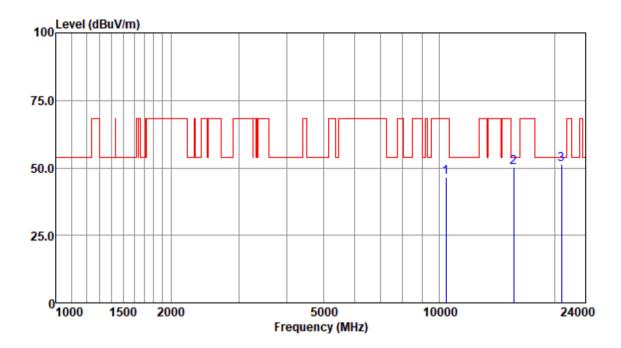


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 47 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10380.35								Peak
15570.67	31.20	43.25	12.64	36.81	50.28	54.00	-3.72	Peak
20760.83	31.63	43.94	14.46	38.82	51.21	54.00	-2.79	Peak

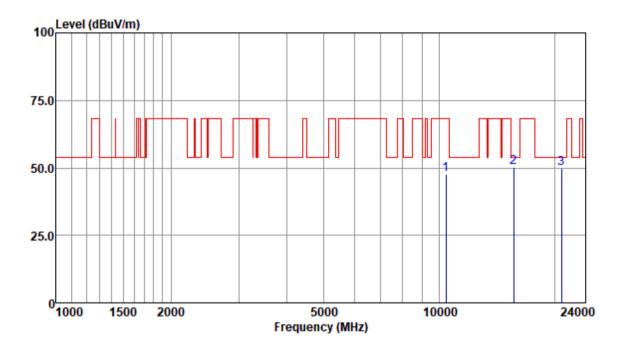


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 48 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10380.35	34.20	37.85	9.02	33.56	47.51	68.20	-20.69	Peak
15570.67	31.00	43.25	12.64	36.81	50.08	54.00	-3.92	Peak
20760.83	30.33	43.94	14.46	38.82	49.91	54.00	-4.09	Peak

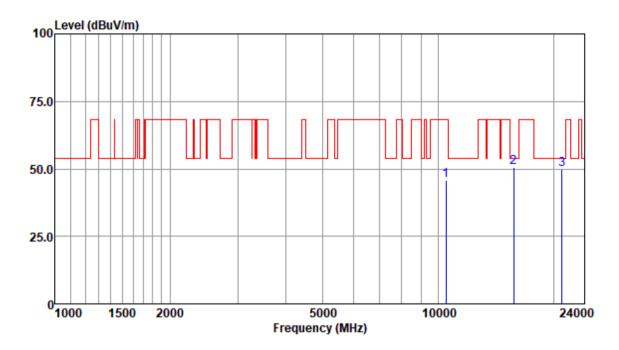


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 49 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10460.71	32.57	37.90	9.04	33.62	45.89	68.20	-22.31	Peak
15690.00	31.84	43.04	12.63	36.81	50.70	54.00	-3.30	Peak
20920.48	30.36	44.00	14.53	39.12	49.77	54.00	-4.23	Peak

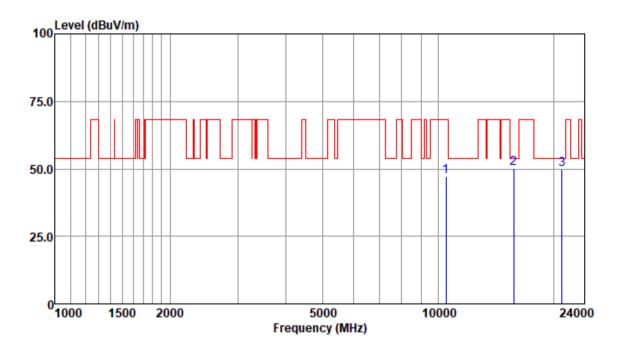


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 50 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10460.71	33.87	37.90	9.04	33.62	47.19	68.20	-21.01	Peak
15690.00	31.45	43.04	12.63	36.81	50.31	54.00	-3.69	Peak
20920.48	30.58	44.00	14.53	39.12	49.99	54.00	-4.01	Peak

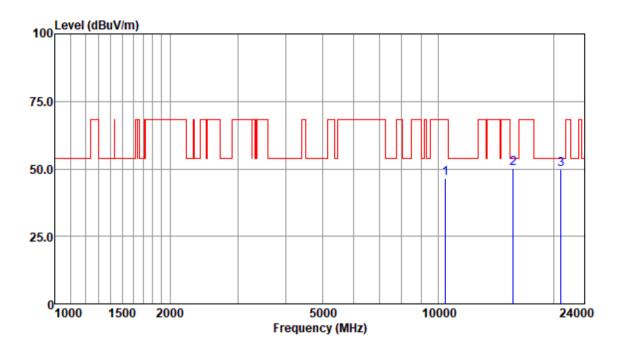


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 51 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:80MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

	Read	Antenna	Cable	Preamp	Emission	Limit	0ver	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10420.37	33.05	37.87	9.03	33.58	46.37	68.20	-21.83	Peak
15630.26	31.01	43.14	12.70	36.81	50.04	54.00	-3.96	Peak
20840.05	30.46	43.98	14.50	39.02	49.92	54.00	-4.08	Peak

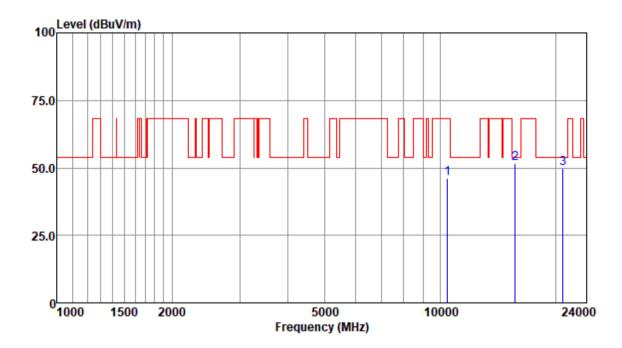


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 52 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:80MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10420.37	32.93	37.87	9.03	33.58	46.25	68.20	-21.95	Peak
15630.26	32.45	43.14	12.70	36.81	51.48	54.00	-2.52	Peak
20840.05	30.45	43.98	14.50	39.02	49.91	54.00	-4.09	Peak

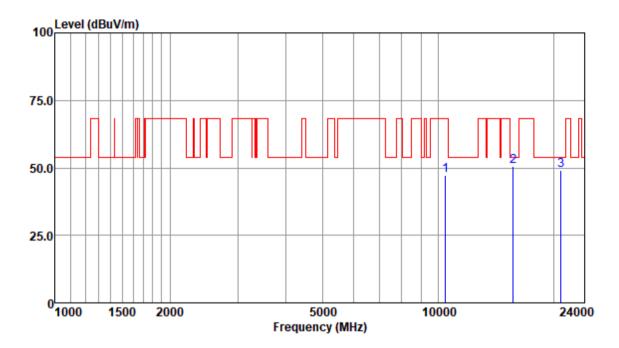


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 53 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10420.37	33.96	37.87	9.03	33.58	47.28	68.20	-20.92	Peak
15630.26	31.35	43.14	12.70	36.81	50.38	54.00	-3.62	Peak
20840.05	29.53	43.98	14.50	39.02	48.99	54.00	-5.01	Peak

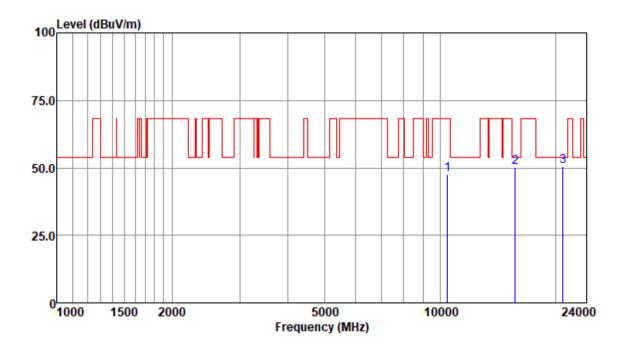


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 54 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
10420.37	34.34	37.87	9.03	33.58	47.66	68.20	-20.54	Peak
15630.26	31.15	43.14	12.70	36.81	50.18	54.00	-3.82	Peak
20840.05	31.19	43.98	14.50	39.02	50.65	54.00	-3.35	Peak

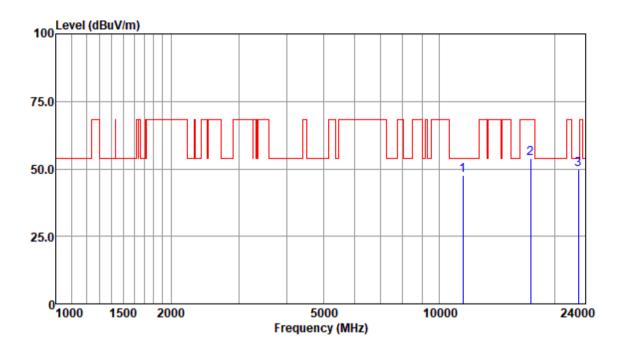


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 55 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11490.60	35.21	38.28	9.88	35.68	47.69	54.00	-6.31	Peak
17235.24	34.19	42.00	13.15	35.39	53.95	68.20	-14.25	Peak
22980.58	31.83	44.64	15.17	41.99	49.65	54.00	-4.35	Peak

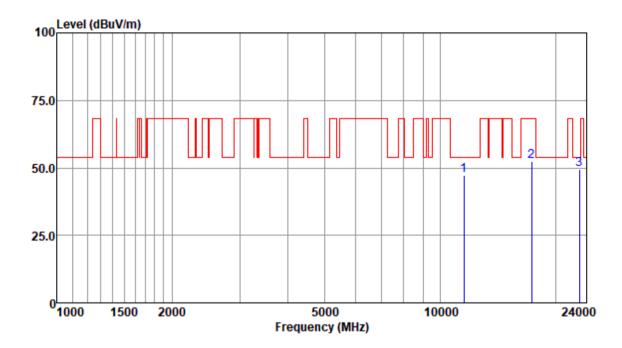


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 56 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11490.60	34.90	38.28	9.88	35.68	47.38	54.00	-6.62	Peak
17235.24	32.47	42.00	13.15	35.39	52.23	68.20	-15.97	Peak
22980.58	31.64	44.64	15.17	41.99	49.46	54.00	-4.54	Peak

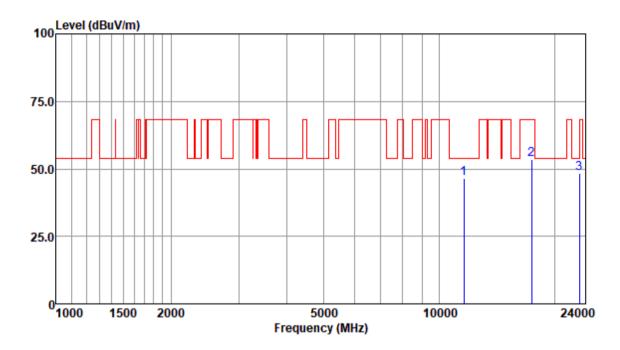


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 57 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MU-	dD					dD/		
MHZ	abuv	ab/m	ав	ав	dBuv/m	abuv/m	ав	
11570.81	34.11	38.29	9.90	35.96	46.34	54.00	-7.66	Peak
17355.20	33.32	42.22	13.19	35.24	53.49	68.20	-14.71	Peak
23140.49	30.73	44.71	15.24	42.28	48.40	68.20	-19.80	Peak

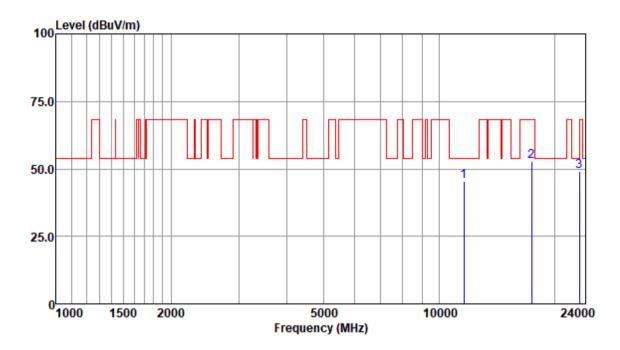


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 58 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11570.81	33.16	38.29	9.90	35.96	45.39	54.00	-8.61	Peak
17355.20	32.52	42.22	13.19	35.24	52.69	68.20	-15.51	Peak
23140.49	31.30	44.71	15.24	42.28	48.97	68.20	-19.23	Peak

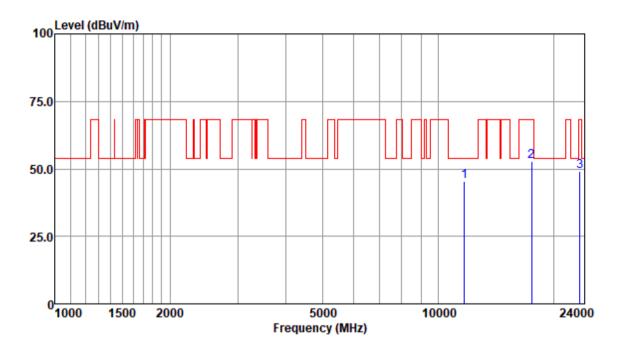


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 59 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11660.50	33.69	38.30	9.91	36.41	45.49	54.00	-8.51	Peak
17475.87	32.38	42.26	13.23	35.08	52.79	68.20	-15.41	Peak
23300.27	31.49	44.75	15.28	42.48	49.04	68.20	-19.16	Peak

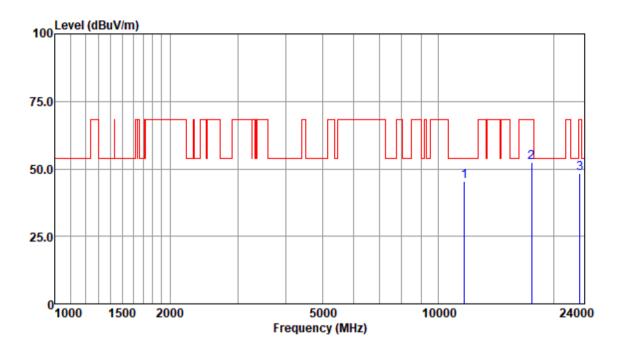


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 60 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11650.50	33.64	38.30	9.91	36.41	45.44	54.00	-8.56	Peak
17475.87	32.14	42.26	13.23	35.08	52.55	68.20	-15.65	Peak
23300.27	30.87	44.75	15.28	42.48	48.42	68.20	-19.78	Peak

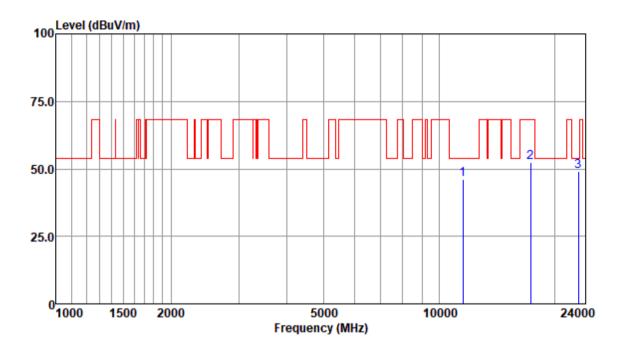


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 61 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11490.60	33.65	38.28	9.88	35.68	46.13	54.00	-7.87	Peak
17235.24	32.58	42.00	13.15	35.39	52.34	68.20	-15.86	Peak
22980.58	31.35	44.64	15.17	41.99	49.17	54.00	-4.83	Peak

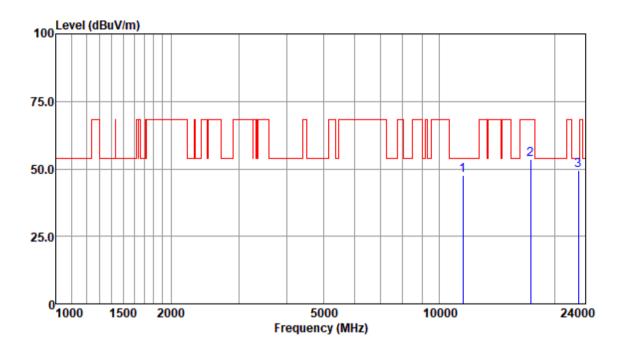


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 62 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11490.60		-						Peak
17235.24	33.60	42.00	13.15	35.39	53.36	68.20	-14.84	Peak
22980.58	31.78	44.64	15.17	41.99	49.60	54.00	-4.40	Peak

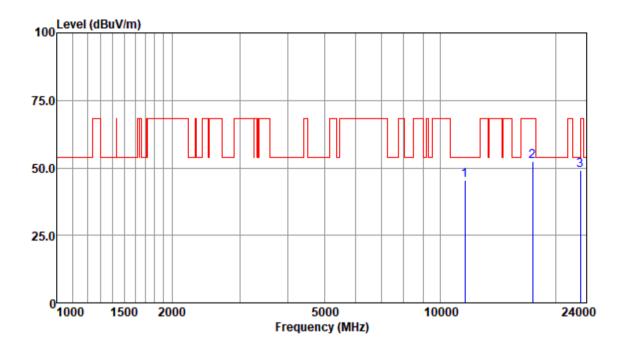


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 63 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11570.81	33.23	38.29	9.90	35.96	45.46	54.00	-8.54	Peak
17355.20	32.13	42.22	13.19	35.24	52.30	68.20	-15.90	Peak
23140.49	31.29	44.71	15.24	42.28	48.96	68.20	-19.24	Peak

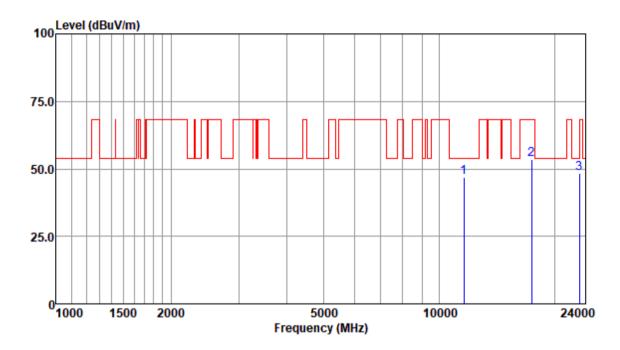


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 64 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11570.81	34.65	38.29	9.90	35.96	46.88	54.00	-7.12	Peak
17355.20	33.33	42.22	13.19	35.24	53.50	68.20	-14.70	Peak
23140.49	30.55	44.71	15.24	42.28	48.22	68.20	-19.98	Peak

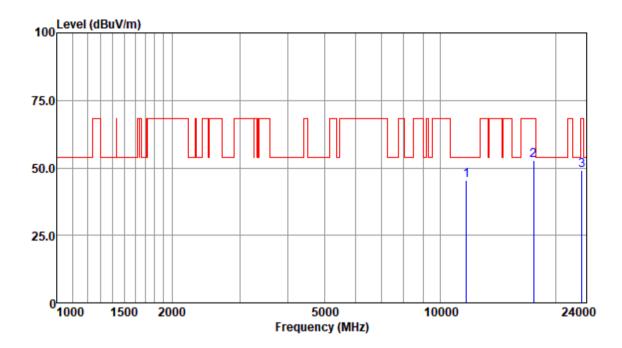


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 65 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11650.50	33.43	38.30	9.91	36.41	45.23	54.00	-8.77	Peak
17475.87	32.26	42.26	13.23	35.08	52.67	68.20	-15.53	Peak
23300.27	31.50	44.75	15.28	42.48	49.05	68.20	-19.15	Peak

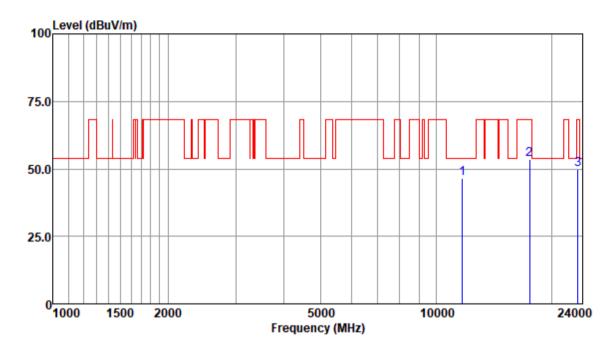


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 66 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11650.50	34.56	38.30	9.91	36.41	46.36	54.00	-7.64	Peak
17475.87	33.07	42.26	13.23	35.08	53.48	68.20	-14.72	Peak
23300.27	32.35	44.75	15.28	42.48	49.90	68.20	-18.30	Peak

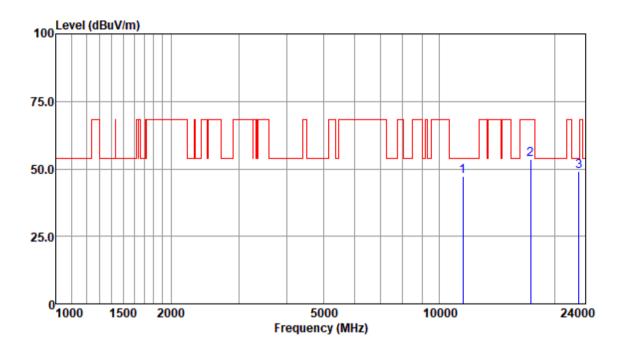


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 67 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11510.14	34.71	38.29	9.89	35.80	47.09	54.00	-6.91	Peak
17265.24	33.62	42.00	13.15	35.39	53.38	68.20	-14.82	Peak
23020.65	31.25	44.66	15.19	42.08	49.02	54.00	-4.98	Peak

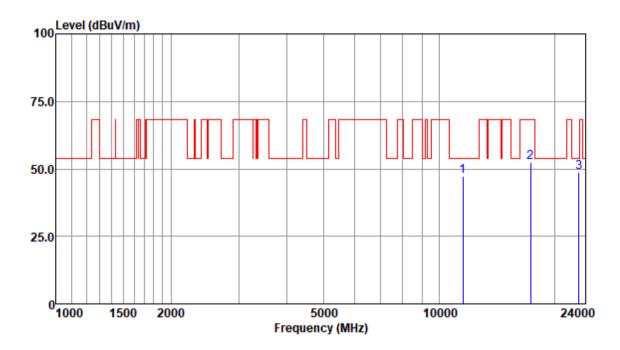


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 68 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11510.14	34.81	38.29	9.89	35.80	47.19	54.00	-6.81	Peak
17265.24	32.46	42.00	13.15	35.39	52.22	68.20	-15.98	Peak
23020.65	30.93	44.66	15.19	42.08	48.70	54.00	-5.30	Peak

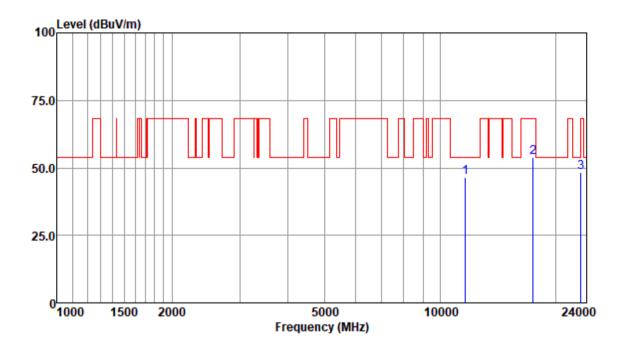


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 69 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11590.59	34.23	38.29	9.92	36.11	46.33	54.00	-7.67	Peak
17385.45	33.55	42.24	13.21	35.16	53.84	68.20	-14.36	Peak
23180.49	30.69	44.71	15.24	42.28	48.36	68.20	-19.84	Peak

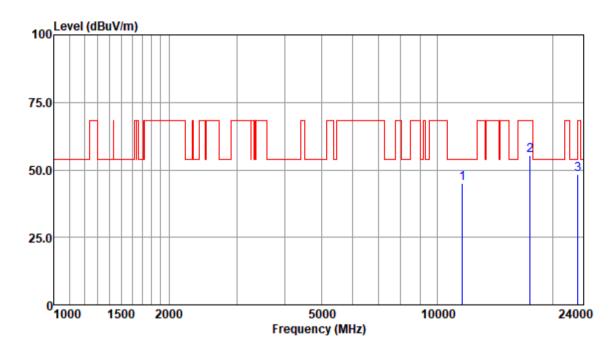


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 70 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark	
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB		
11590.59	33.07	38.29	9.92	36.11	45.17	54.00	-8.83	Peak	
17385.45	34.95	42.24	13.21	35.16	55.24	68.20	-12.96	Peak	
23180.49	30.81	44.71	15.24	42.28	48.48	68.20	-19.72	Peak	

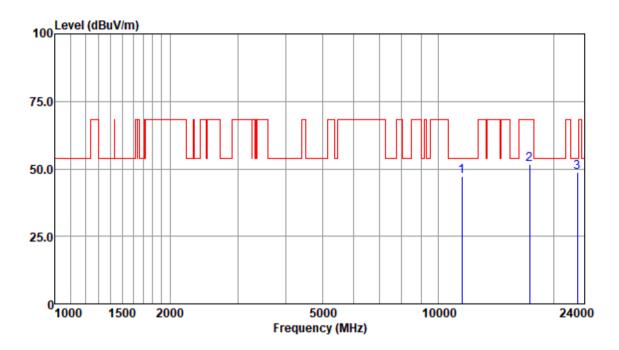


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 71 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11490.60	34.63	38.28	9.88	35.68	47.11	54.00	-6.89	Peak
17235.24	31.93	42.00	13.15	35.39	51.69	68.20	-16.51	Peak
22980.58	30.84	44.64	15.17	41.99	48.66	54.00	-5.34	Peak

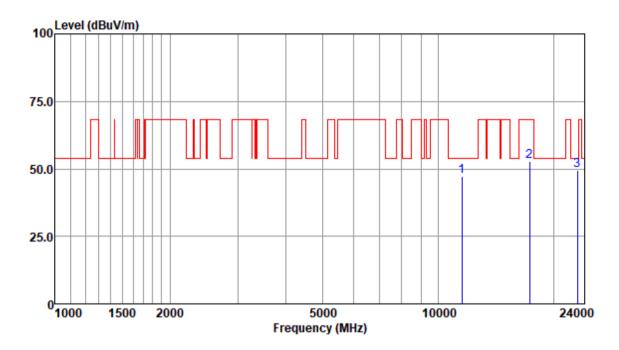


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 72 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11490.60								Peak
17235.24	32.89	42.00	13.15	35.39	52.65	68.20	-15.55	Peak
22980.58	31.66	44.64	15.17	41.99	49.48	54.00	-4.52	Peak

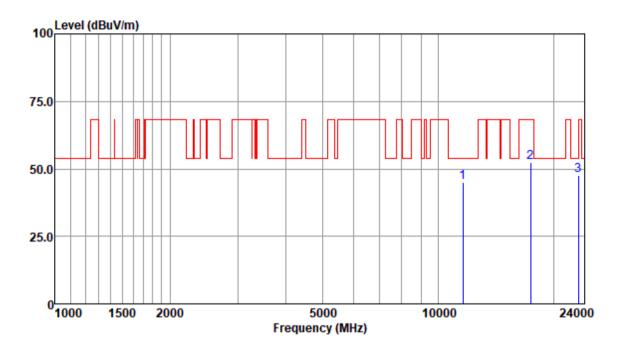


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 73 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:middle



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11570.81	32.88	38.29	9.90	35.96	45.11	54.00	-8.89	Peak
17355.20	32.41	42.22	13.19	35.24	52.58	68.20	-15.62	Peak
23140.49	30.10	44.71	15.24	42.28	47.77	68.20	-20.43	Peak

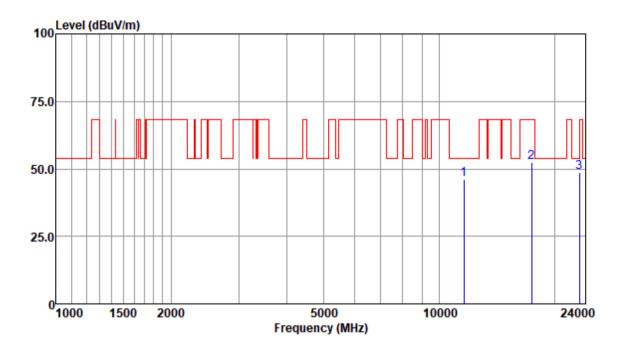


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 74 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:middle



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11570.81	33.94	38.29	9.90	35.96	46.17	54.00	-7.83	Peak
17355.20	32.25	42.22	13.19	35.24	52.42	68.20	-15.78	Peak
23140.49	31.11	44.71	15.24	42.28	48.78	68.20	-19.42	Peak

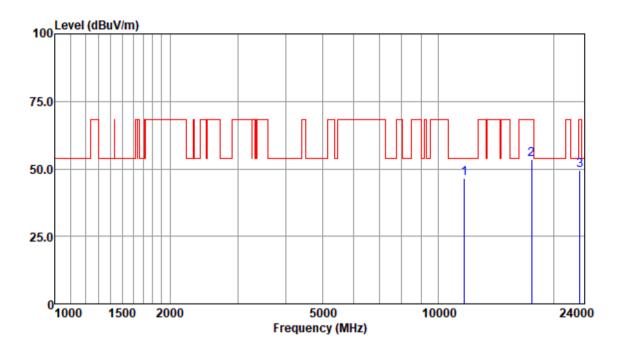


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 75 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11650.50	34.80	38.30	9.91	36.41	46.60	54.00	-7.40	Peak
17475.87	32.98	42.26	13.23	35.08	53.39	68.20	-14.81	Peak
23300.27	31.72	44.75	15.28	42.48	49.27	68.20	-18.93	Peak

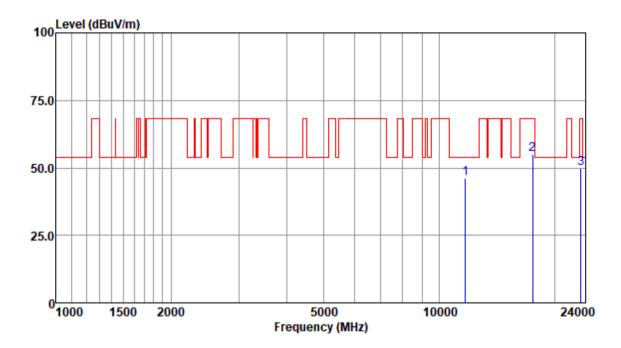


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 76 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11650.50	34.44	38.30	9.91	36.41	46.24	54.00	-7.76	Peak
17475.87	34.64	42.26	13.23	35.08	55.05	68.20	-13.15	Peak
23300.27	32.41	44.75	15.28	42.48	49.96	68.20	-18.24	Peak

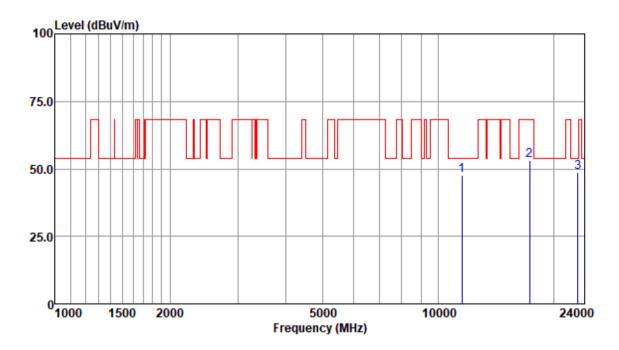


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 77 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11510.14	35.14	38.29	9.89	35.80	47.52	54.00	-6.48	Peak
17265.24	33.39	42.00	13.15	35.39	53.15	68.20	-15.05	Peak
23020.65	31.03	44.66	15.19	42.08	48.80	54.00	-5.20	Peak

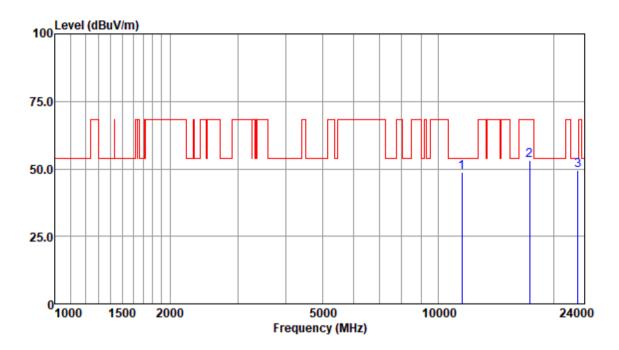


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 78 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11510.14								Peak
17265.24	33.45	42.00	13.15	35.39	53.21	68.20	-14.99	Peak
23020.65	31.64	44.66	15.19	42.08	49.41	54.00	-4.59	Peak

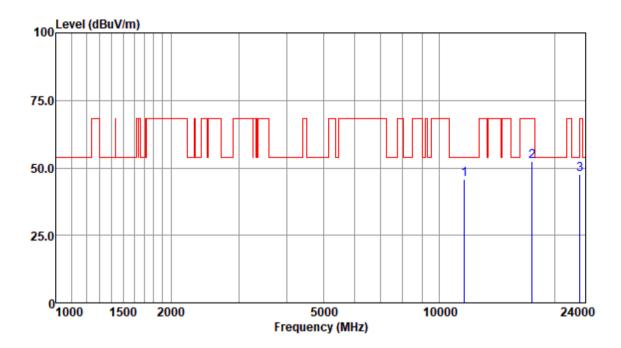


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 79 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11590.59	33.72	38.29	9.92	36.11	45.82	54.00	-8.18	Peak
17385.45	32.08	42.24	13.21	35.16	52.37	68.20	-15.83	Peak
23180.49	29.76	44.71	15.24	42.28	47.43	68.20	-20.77	Peak

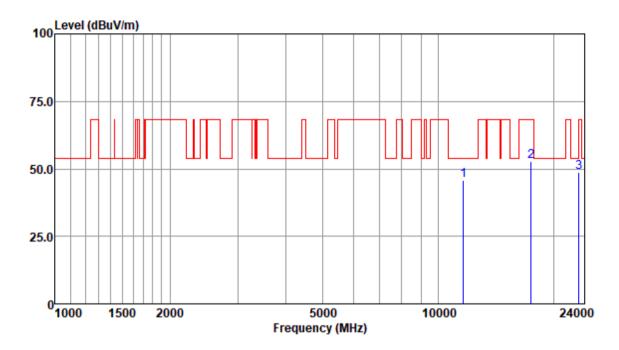


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 80 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11590.59	33.63	38.29	9.92	36.11	45.73	54.00	-8.27	Peak
17385.45	32.37	42.24	13.21	35.16	52.66	68.20	-15.54	Peak
23180.49	30.99	44.71	15.24	42.28	48.66	68.20	-19.54	Peak

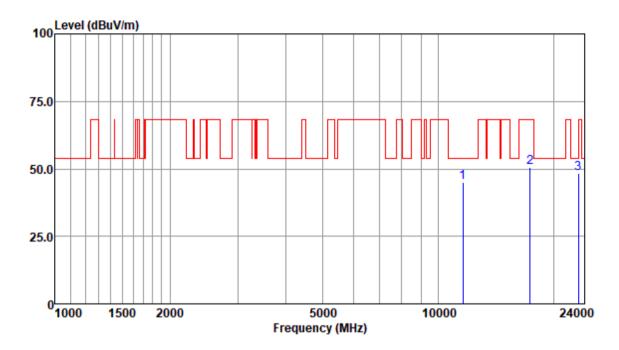


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 81 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:80MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11550.81	32.66	38.29	9.90	35.96	44.89	54.00	-9.11	Peak
17325.13	30.52	42.11	13.17	35.32	50.48	68.20	-17.72	Peak
23100.95	30.50	44.69	15.21	42.18	48.22	54.00	-5.78	Peak

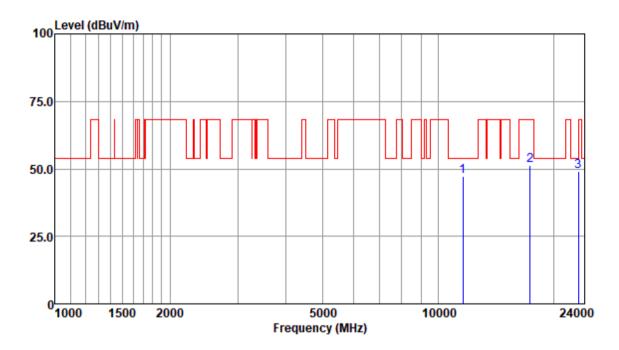


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 82 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:80MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11550.81	35.06	38.29	9.90	35.96	47.29	54.00	-6.71	Peak
17325.13	31.32	42.11	13.17	35.32	51.28	68.20	-16.92	Peak
23100.95	31.22	44.69	15.21	42.18	48.94	54.00	-5.06	Peak

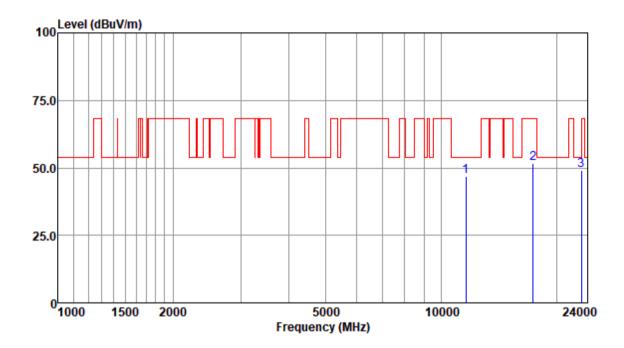


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 83 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11550.81	34.51	38.29	9.90	35.96	46.74	54.00	-7.26	Peak
17325.13	31.78	42.11	13.17	35.32	51.74	68.20	-16.46	Peak
23100.95	31.26	44.69	15.21	42.18	48.98	54.00	-5.02	Peak

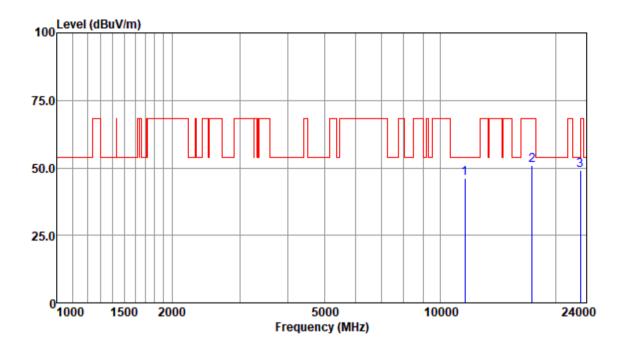


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 84 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
11550.81	33.74	38.29	9.90	35.96	45.97	54.00	-8.03	Peak
17325.13	30.85	42.11	13.17	35.32	50.81	68.20	-17.39	Peak
23100.95	31.24	44.69	15.21	42.18	48.96	54.00	-5.04	Peak



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 85 of 255

7.5 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)

Test Method: KDB 789033 D02 II G

I imit

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

^{*(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.

- (2) For transmitters operating in the 5.25-5.35 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.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band:
- (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 26.7 °C Humidity: 57.3 % RH Atmospheric Pressure: 1010 mbar

7.5.2 Test Mode Description

1.3.2 TEST IV	ioue De	scription
Pre-scan / Final test	Mode Code	Description
Final test	05	Charge + TX mode (U-NII-1) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40/80, Only the data of worst case is recorded in the report.
Final test	06	Charge + TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with



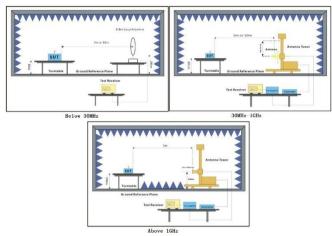
SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 86 of 255

all modulation types and being charged. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40/80, Only the data of worst case is recorded in the report.

7.5.3 Test Setup Diagram



7.5.4 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.

Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

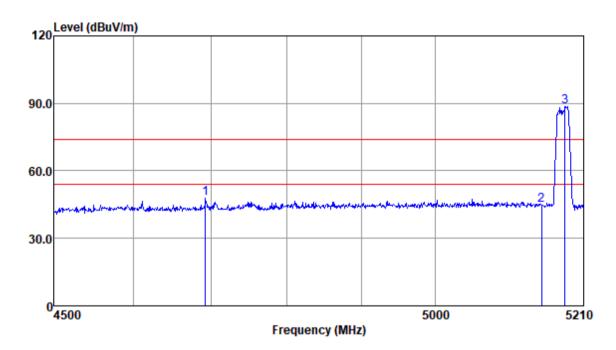


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 87 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
4692.56	46.54	33.05	5.07	36.76	47.90	74.00	-26.10	Peak
5150.00	42.45	33.78	5.54	36.88	44.89	74.00	-29.11	Peak
5183.35	86.08	33.87	5.65	36.89	88.71	74.00	14.71	Peak

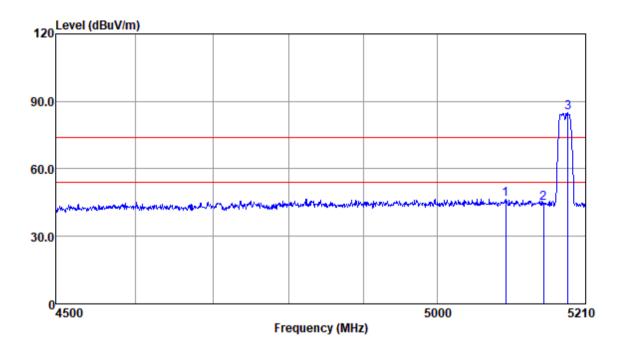


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 88 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MU-	dDung	dD /m	4D	4D	dD.n./m	dD.n./m	4D	
MULZ	abuv	ab/m	ab	ab	dBuv/m	abuv/m	ab	
5096.01	44.37	33.67	5.51	36.87	46.68	74.00	-27.32	Peak
5150.00	42.13	33.78	5.54	36.88	44.57	74.00	-29.43	Peak
5184.87	82.41	33.87	5.65	36.89	85.04	74.00	11.04	Peak

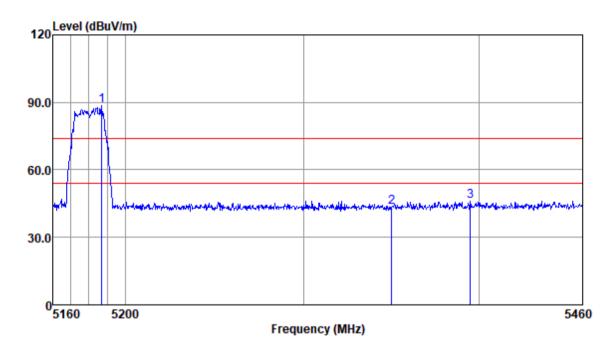


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 89 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5187.19	85.90	33.91	5.65	36.89	88.57	74.00	14.57	Peak
5350.00	40.72	34.19	5.60	36.94	43.57	74.00	-30.43	Peak
5394.98	43.11	34.34	5.70	36.95	46.20	74.00	-27.80	Peak

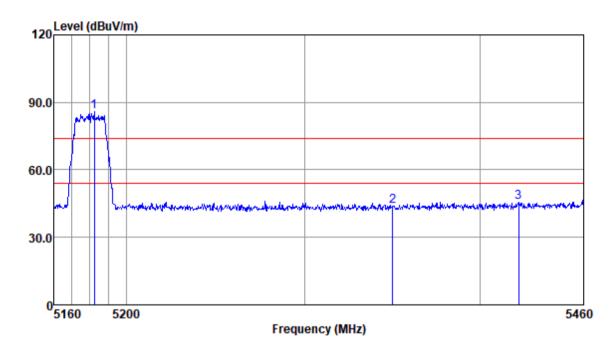


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 90 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5182.50	83.07	33.87	5.65	36.89	85.70	74.00	11.70	Peak
5350.00	41.08	34.19	5.60	36.94	43.93	74.00	-30.07	Peak
5422.18	42.49	34.39	5.64	36.96	45.56	74.00	-28.44	Peak

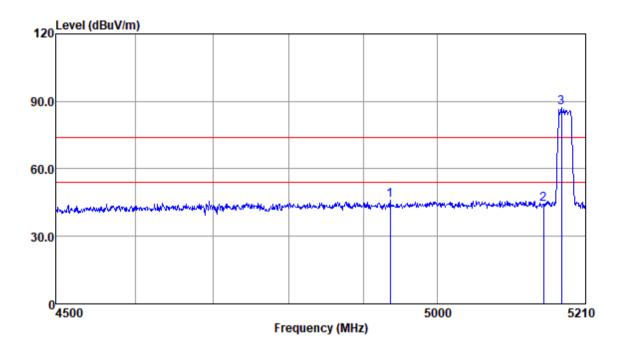


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 91 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
4935.83	43.89	33.64	5.37	36.82	46.08	74.00	-27.92	Peak
5150.00	41.92	33.78	5.54	36.88	44.36	74.00	-29.64	Peak
5175.01	84.49	33.87	5.65	36.89	87.12	74.00	13.12	Peak

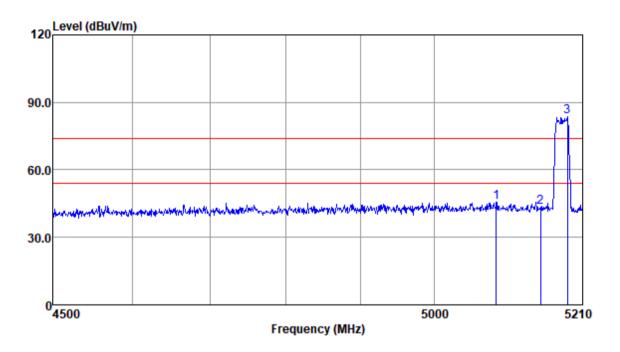


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 92 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5087.06	43.33	33.67	5.51	36.87	45.64	74.00	-28.36	Peak
5150.00	40.79	33.78	5.54	36.88	43.23	74.00	-30.77	Peak
5187.91	80.95	33.91	5.65	36.89	83.62	74.00	9.62	Peak

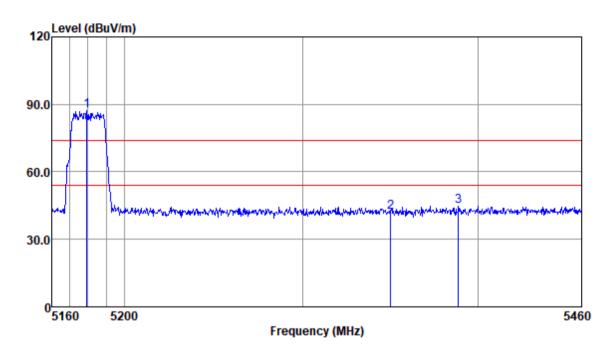


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 93 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

	Freq					Emission Level			Remark
	MHz	dBuy	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
						87.13	-		Peak
	5350.00	39.22	34.19	5.60	36.94	42.07	74.00	-31.93	Peak
9	5388.58	41.68	34.34	5.70	36.95	44.77	74.00	-29.23	Peak

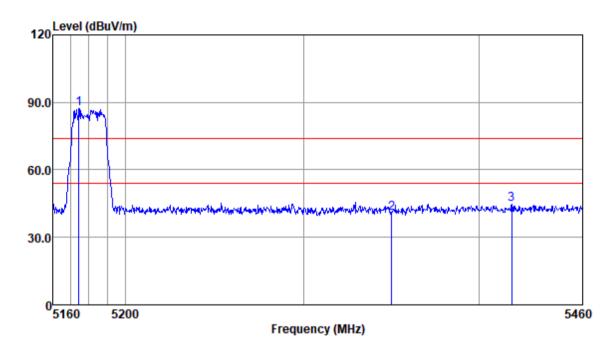


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 94 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

F	req					Emission Level			Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
						87.39			Peak
535	0.00	37.67	34.19	5.60	36.94	40.52	74.00	-33.48	Peak
541	8.81	41.84	34.39	5.64	36.96	44.91	74.00	-29.09	Peak

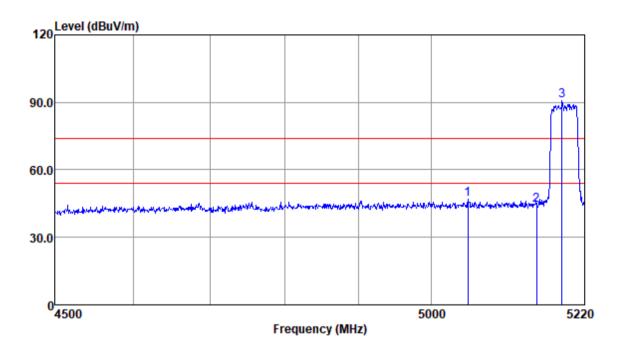


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 95 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuy	dR/m	dR.	dB	dBuv/m	dBuy/m	dB	
					47.04			Dook
					44.09			
					90.86			

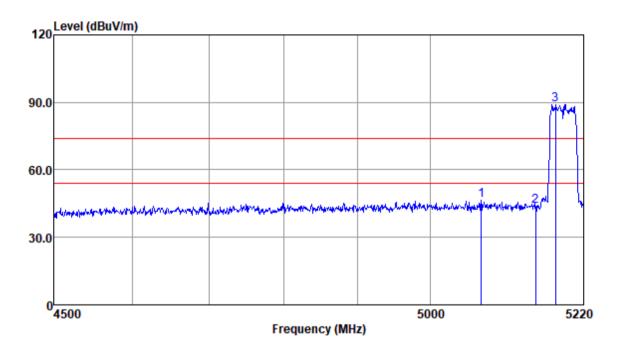


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 96 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5072.59	43.97	33.68	5.64	36.86	46.43	74.00	-27.57	Peak
5150.00	41.47	33.78	5.54	36.88	43.91	74.00	-30.09	Peak
5179.10	86.46	33.87	5.65	36.89	89.09	74.00	15.09	Peak

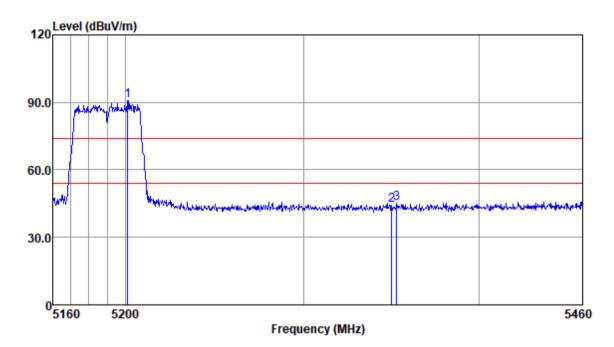


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 97 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5201.28	88.24	33.91	5.65	36.89	90.91	74.00	16.91	Peak
5350.00	41.63	34.19	5.60	36.94	44.48	74.00	-29.52	Peak
5352.76	42.43	34.19	5.60	36.94	45.28	74.00	-28.72	Peak

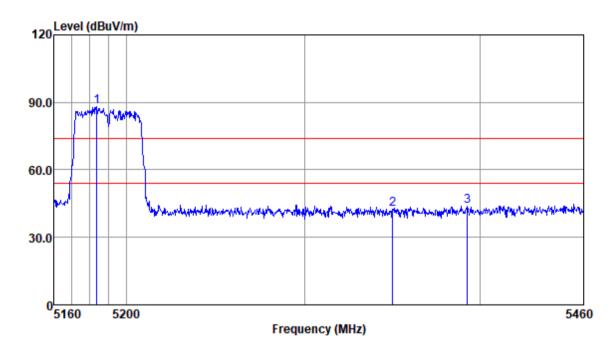


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 98 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5183.67	85.57	33.87	5.65	36.89	88.20	74.00	14.20	Peak
5350.00	39.54	34.19	5.60	36.94	42.39	74.00	-31.61	Peak
5392.84	40.75	34.34	5.70	36.95	43.84	74.00	-30.16	Peak

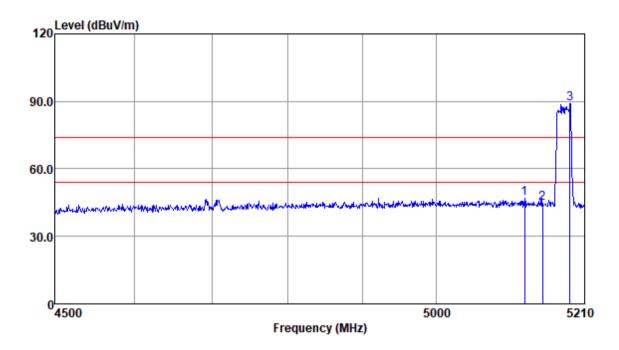


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 99 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5124.46	44.49	33.71	5.55	36.87	46.88	74.00	-27.12	Peak
5150.00	42.11	33.78	5.54	36.88	44.55	74.00	-29.45	Peak
5188.67	86.53	33.91	5.65	36.89	89.20	74.00	15.20	Peak

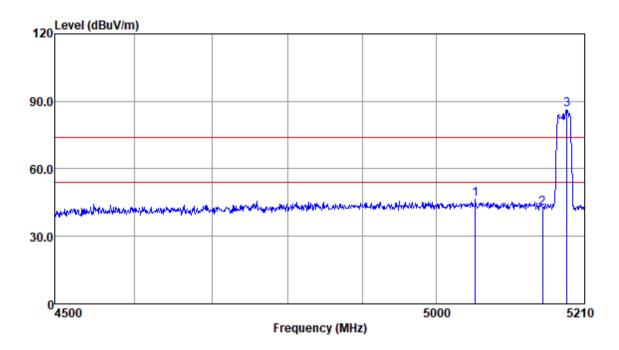


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 100 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MH-	dBuy	dP/m	dB.	4B	dBuv/m	dBuy/m	4B	
5055.11	43.81	33.68	5.72	36.86	46.35	74.00	-27.65	Peak
5150.00	40.19	33.78	5.54	36.88	42.63	74.00	-31.37	Peak
5184.87	83.77	33.87	5.65	36.89	86.40	74.00	12.40	Peak

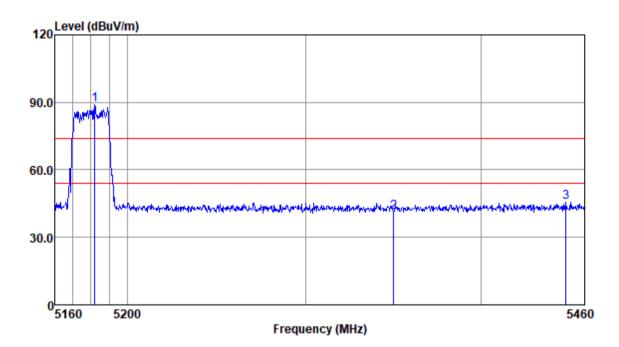


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 101 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHZ	dBuv	dB/m	dВ	dВ	dBuv/m	dBuv/m	dВ	
5182.21	86.30	33.87	5.65	36.89	88.93	74.00	14.93	Peak
5350.00	38.48	34.19	5.60	36.94	41.33	74.00	-32.67	Peak
5449.21	42.49	34.44	5.75	36.97	45.71	74.00	-28.29	Peak

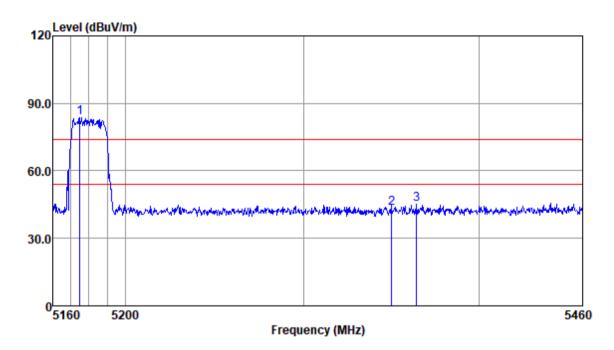


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 102 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5174.89	80.97	33.87	5.65	36.89	83.60	74.00	9.60	Peak
5350.00	40.34	34.19	5.60	36.94	43.19	74.00	-30.81	Peak
5364.27	42.10	34.24	5.56	36.94	44.96	74.00	-29.04	Peak

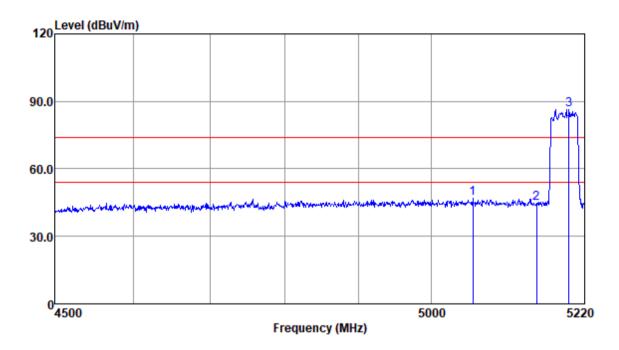


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 103 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5059.06	44.43	33.68	5.72	36.86	46.97	74.00	-27.03	Peak
5150.00	42.27	33.78	5.54	36.88	44.71	74.00	-29.29	Peak
5196.81	83.72	33.91	5.65	36.89	86.39	74.00	12.39	Peak

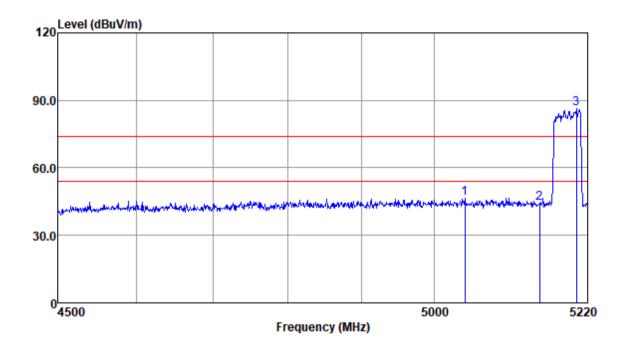


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 104 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5043.32	44.17	33.69	5.59	36.85	46.60	74.00	-27.40	Peak
5150.00	41.77	33.78	5.54	36.88	44.21	74.00	-29.79	Peak
5203.76	83.74	33.94	5.78	36.90	86.56	74.00	12.56	Peak

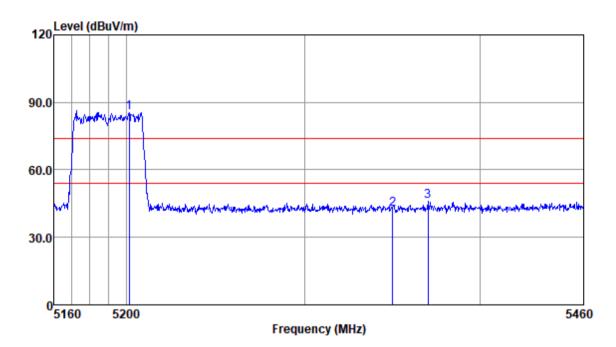


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 105 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5201.57	82.76	33.94	5.78	36.90	85.58	74.00	11.58	Peak
5350.00	39.53	34.19	5.60	36.94	42.38	74.00	-31.62	Peak
5370.03	43.13	34.29	5.63	36.95	46.10	74.00	-27.90	Peak

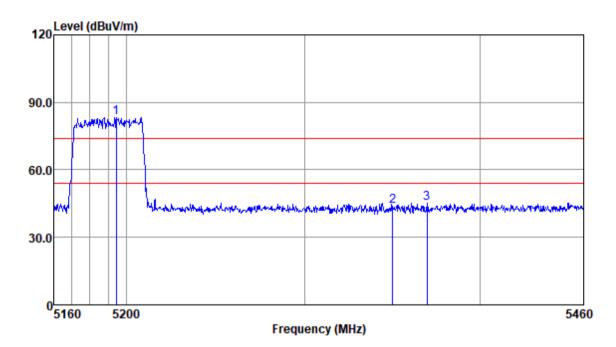


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 106 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5194.52	80.64	33.91	5.65	36.89	83.31	74.00	9.31	Peak
5350.00	40.90	34.19	5.60	36.94	43.75	74.00	-30.25	Peak
5369.43	42.48	34.24	5.56	36.94	45.34	74.00	-28.66	Peak

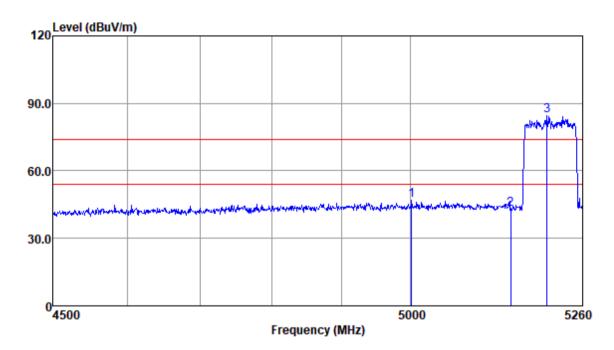


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 107 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:80MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5001.44	44.39	33.69	5.64	36.84	46.88	74.00	-27.12	Peak
5150.00	40.55	33.78	5.54	36.88	42.99	74.00	-31.01	Peak
5205.29	81.67	33.94	5.78	36.90	84.49	74.00	10.49	Peak

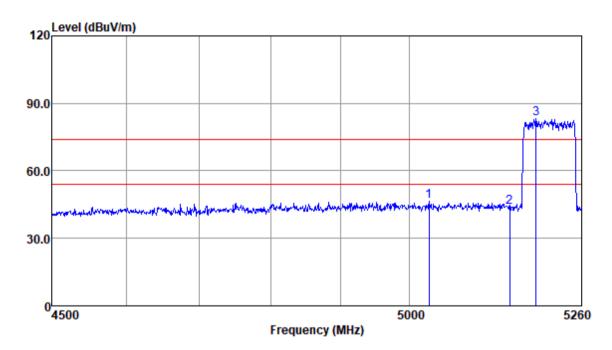


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 108 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:80MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5028.83	43.94	33.69	5.61	36.85	46.39	74.00	-27.61	Peak
5150.00	41.33	33.78	5.54	36.88	43.77	74.00	-30.23	Peak
5189.88	80.37	33.91	5.65	36.89	83.04	74.00	9.04	Peak

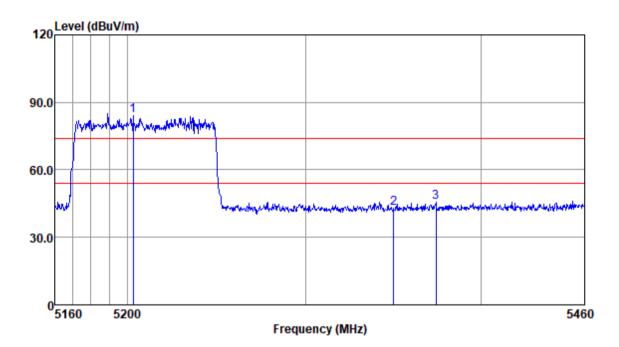


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 109 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:80MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5203.34	81.18	33.94	5.78	36.90	84.00	74.00	10.00	Peak
5350.00	40.32	34.19	5.60	36.94	43.17	74.00	-30.83	Peak
5373.98	42.85	34.29	5.63	36.95	45.82	74.00	-28.18	Peak

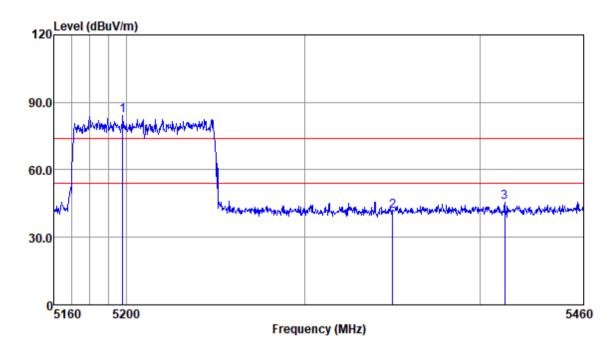


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 110 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:80MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5198.05	81.47	33.91	5.65	36.89	84.14	74.00	10.14	Peak
5350.00	38.90	34.19	5.60	36.94	41.75	74.00	-32.25	Peak
5414.22	42.52	34.36	5.75	36.95	45.68	74.00	-28.32	Peak

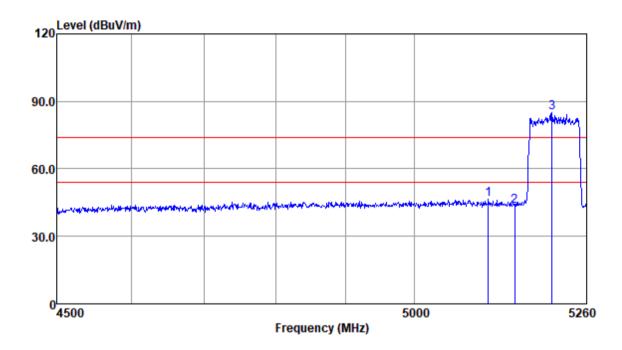


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 111 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5109.52	44.28	33.67	5.53	36.87	46.61	74.00	-27.39	Peak
5150.00	40.87	33.78	5.54	36.88	43.31	74.00	-30.69	Peak
5206.92	82.03	33.94	5.78	36.90	84.85	74.00	10.85	Peak

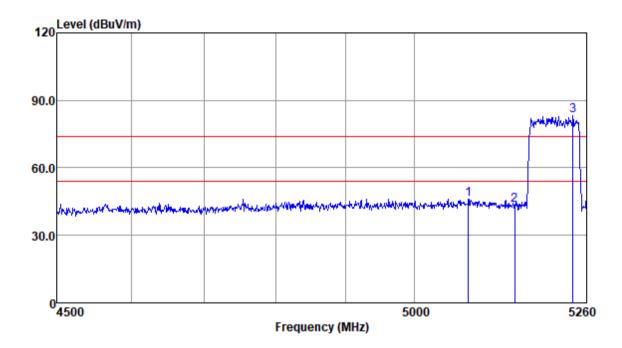


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 112 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

	Freq					Emission Level			Remark
	MHz	dBuy	dB/m	dB	dB	dBuv/m	dBuy/m	dB	
						46.22	-		Peak
1	5150.00	41.12	33.78	5.54	36.88	43.56	74.00	-30.44	Peak
9	5238.70	80.51	34.01	5.62	36.91	83.23	74.00	9.23	Peak

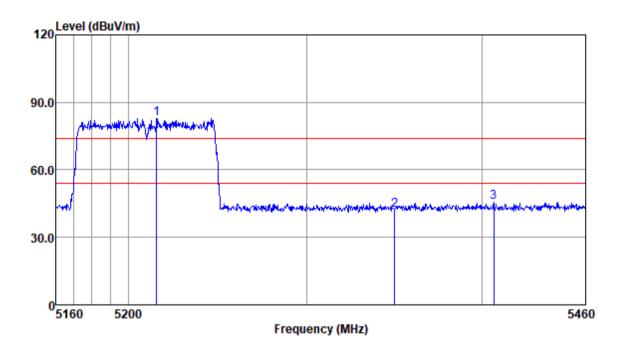


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 113 of 255

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5215.70	80.12	33.94	5.78	36.90	82.94	74.00	8.94	Peak
5350.00	39.09	34.19	5.60	36.94	41.94	74.00	-32.06	Peak
5406.88	42.27	34.36	5.75	36.95	45.43	74.00	-28.57	Peak

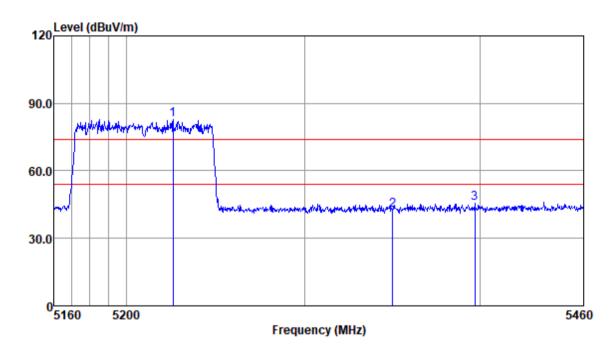


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 114 of 255

Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5226.03	80.00	33.97	5.70	36.90	82.77	74.00	8.77	Peak
5350.00	39.57	34.19	5.60	36.94	42.42	74.00	-31.58	Peak
5397.11	42.40	34.34	5.70	36.95	45.49	74.00	-28.51	Peak

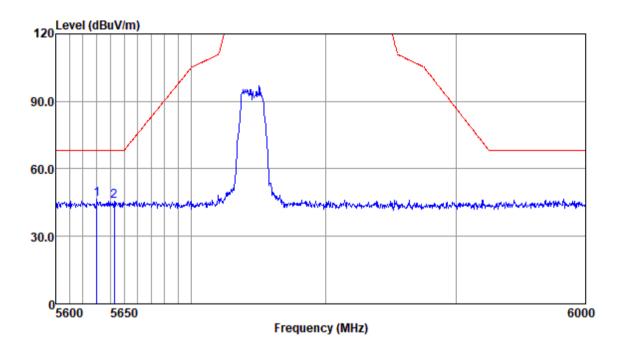


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 115 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MII-	JD	JD /			JD/	JD/		
MHZ	abuv	ab/m	ав	ав	dBuv/m	abuv/m	ав	
5630.22	43.08	34.53	5.83	37.00	46.44	68.20	-21.76	Peak
5642.66	42.12	34.53	5.87	37.00	45.52	68.20	-22.68	Peak

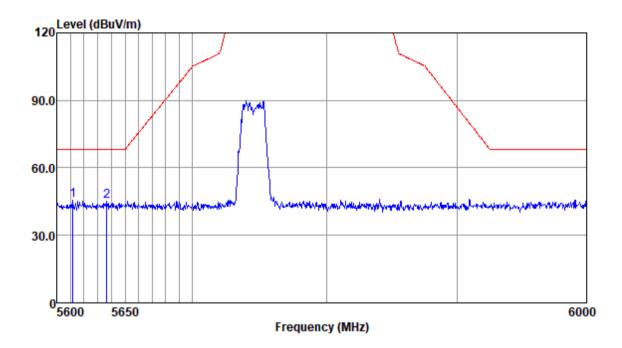


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 116 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5611.99	42.11	34.52	5.79	37.00	45.42	68.20	-22.78	Peak
5636.44	41.98	34.53	5.83	37.00	45.34	68.20	-22.86	Peak

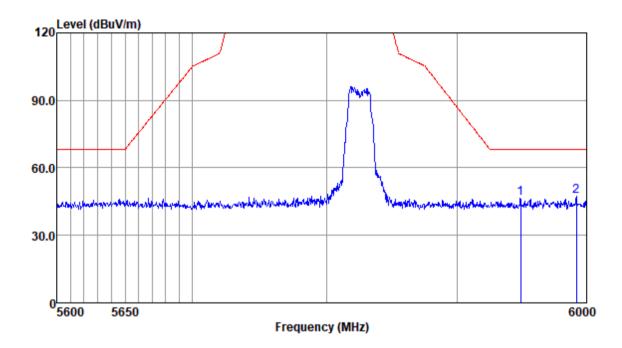


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 117 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5948.48	42.90	34.85	5.71	37.05	46.41	68.20	-21.79	Peak
5992.14	43.46	34.94	5.88	37.06	47.22	68.20	-20.98	Peak

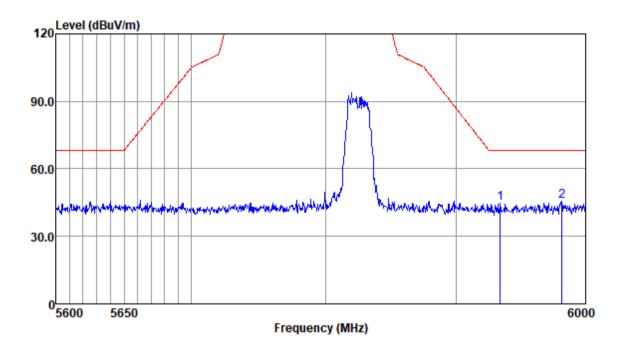


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 118 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuy	dB/m	dB	dR	dBuv/m	dBuy/m	dR	
					44.55			Peak
5981.40	41.77	34.94	5.88	37.06	45.53	68.20	-22.67	Peak

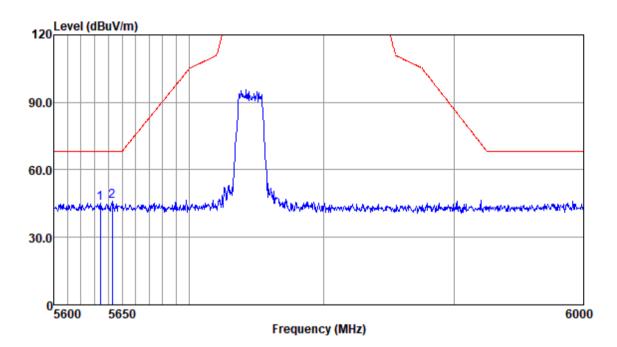


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 119 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5634.10	41.70	34.53	5.83	37.00	45.06	68.20	-23.14	Peak
5642.66	42.85	34.53	5.87	37.00	46.25	68.20	-21.95	Peak

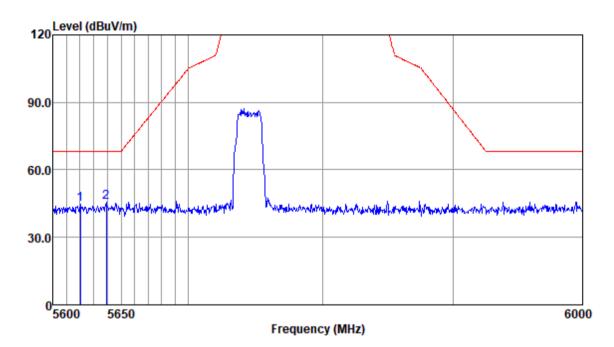


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 120 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHZ	dBuv	dB/m	dВ	dВ	dBuv/m	dBuv/m	dВ	
5620.13	41.30	34.52	5.79	37.00	44.61	68.20	-23.59	Peak
5639.16	42.28	34.53	5.83	37.00	45.64	68.20	-22.56	Peak

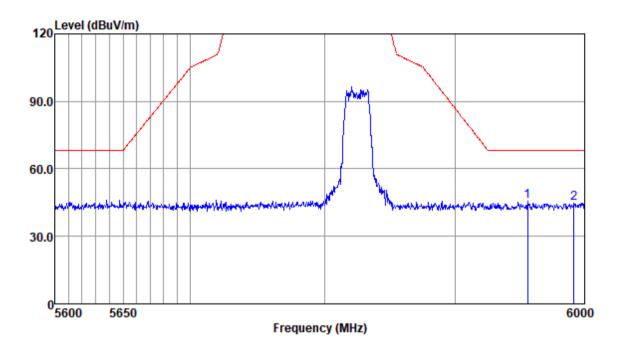


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 121 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5955.46	42.09	34.85	5.71	37.05	45.60	68.20	-22.60	Peak
5991.73	40.76	34.94	5.88	37.06	44.52	68.20	-23.68	Peak

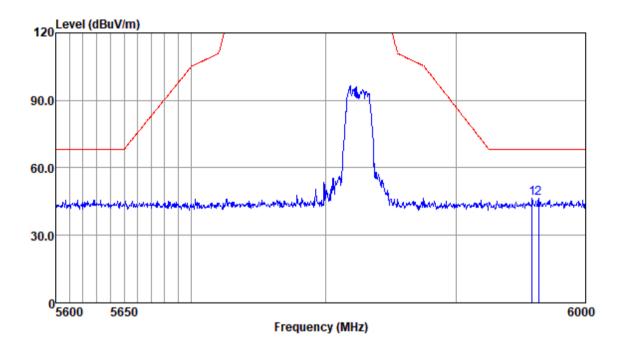


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 122 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5958.34	42.99	34.85	5.71	37.05	46.50	68.20	-21.70	Peak
5963.27	42.83	34.90	5.97	37.05	46.65	68.20	-21.55	Peak

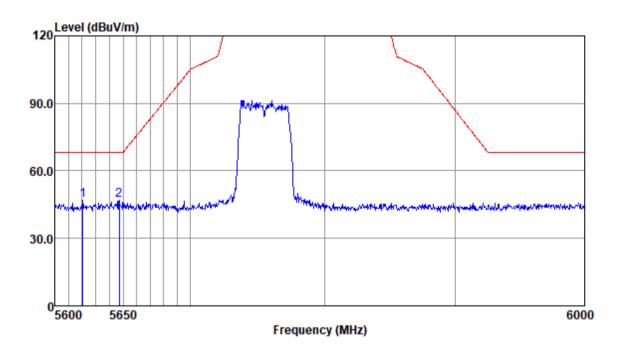


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 123 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5620.52	43.83	34.52	5.79	37.00	47.14	68.20	-21.06	Peak
5647.34	43.70	34.53	5.87	37.00	47.10	68.20	-21.10	Peak

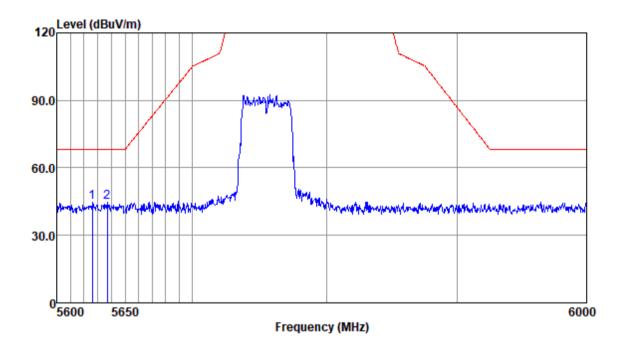


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 124 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5625.95	41.17	34.53	5.83	37.00	44.53	68.20	-23.67	Peak
5636.83	41.45	34.53	5.83	37.00	44.81	68.20	-23.39	Peak

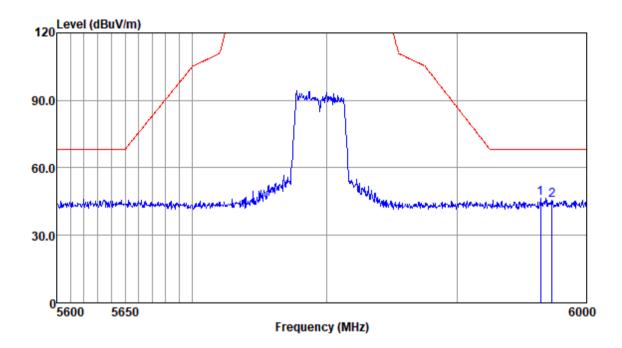


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 125 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5964.09	42.59	34.90	5.97	37.05	46.41	68.20	-21.79	Peak
5973.15	41.87	34.90	5.97	37.05	45.69	68.20	-22.51	Peak

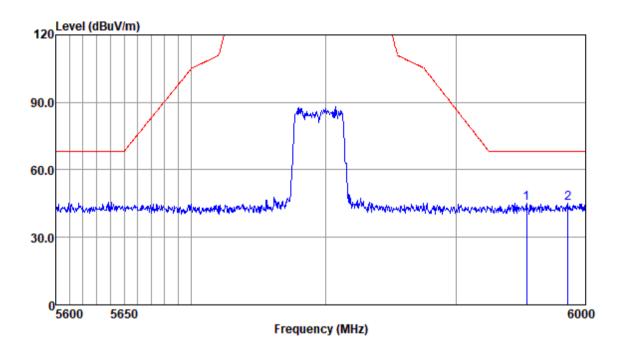


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 126 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5954.23	41.59	34.85	5.71	37.05	45.10	68.20	-23.10	Peak
5986.36	41.36	34.94	5.88	37.06	45.12	68.20	-23.08	Peak

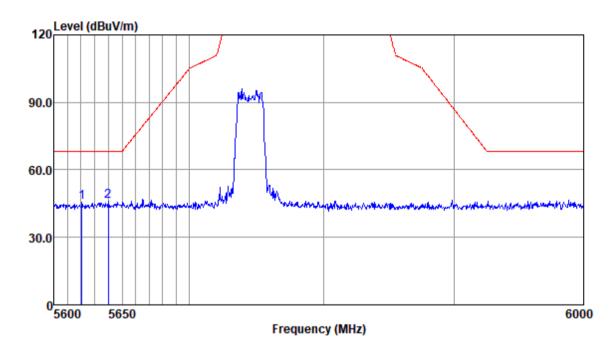


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 127 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5620.52	42.21	34.52	5.79	37.00	45.52	68.20	-22.68	Peak
5639.94	42.62	34.53	5.83	37.00	45.98	68.20	-22.22	Peak

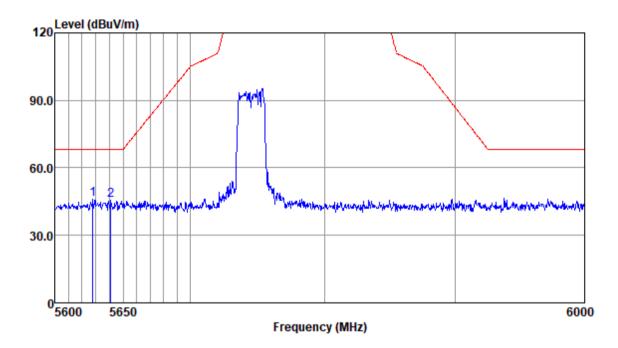


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 128 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuy	dR/m		dR	dBuv/m	dBuy/m	dR	
					45.88			Peak
5641.10	42.14	34.53	5.87	37.00	45.54	68.20	-22.66	Peak

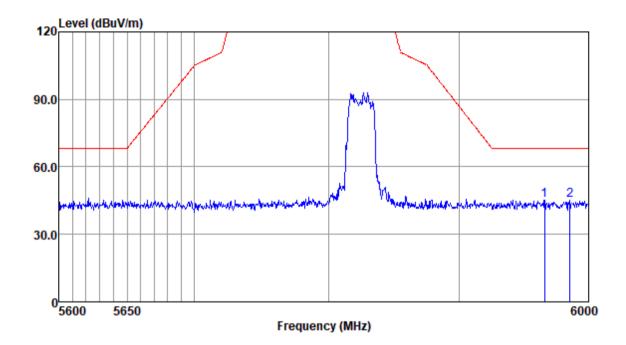


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 129 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5965.74	41.41	34.90	5.97	37.05	45.23	68.20	-22.97	Peak
5985.53	41.40	34.94	5.88	37.06	45.16	68.20	-23.04	Peak

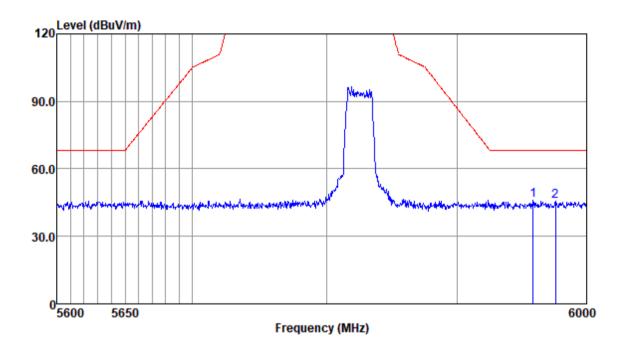


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 130 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5958.34	42.57	34.85	5.71	37.05	46.08	68.20	-22.12	Peak
5975.63	41.81	34.90	5.97	37.05	45.63	68.20	-22.57	Peak

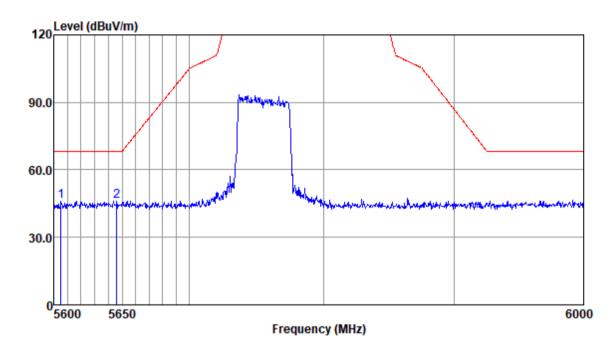


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 131 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5605.41	42.72	34.52	5.74	37.00	45.98	68.20	-22.22	Peak
5646.17	42.71	34.53	5.87	37.00	46.11	68.20	-22.09	Peak

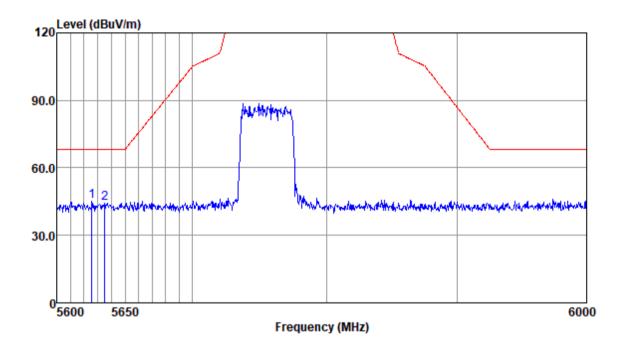


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 132 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5625.56	41.90	34.53	5.83	37.00	45.26	68.20	-22.94	Peak
5635.27	41.13	34.53	5.83	37.00	44.49	68.20	-23.71	Peak

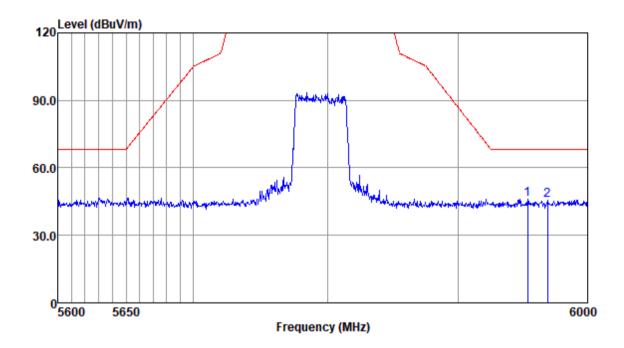


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 133 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:High



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5953.41	42.53	34.85	5.71	37.05	46.04	68.20	-22.16	Peak
5968.62	41.93	34.90	5.97	37.05	45.75	68.20	-22.45	Peak

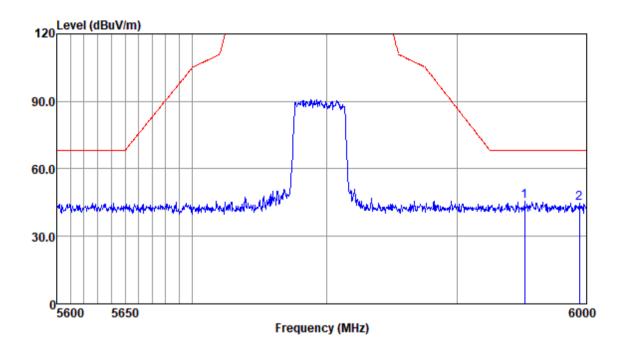


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 134 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:High



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5951.76	42.16	34.85	5.71	37.05	45.67	68.20	-22.53	Peak
5994.21	40.96	34.99	5.85	37.06	44.74	68.20	-23.46	Peak

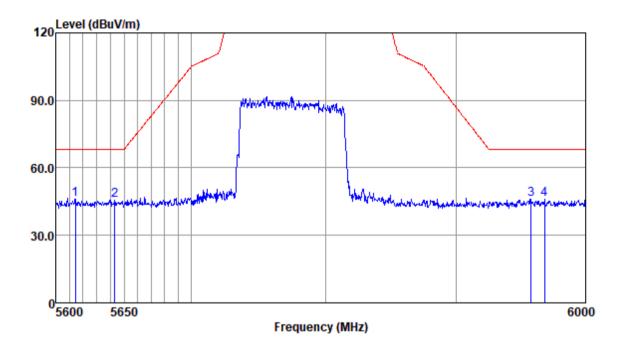


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 135 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:80MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5614.31	42.57	34.52	5.79	37.00	45.88	68.20	-22.32	Peak
5643.05	42.33	34.53	5.87	37.00	45.73	68.20	-22.47	Peak
5957.51	42.70	34.85	5.71	37.05	46.21	68.20	-21.99	Peak
5967.80	42.37	34.90	5.97	37.05	46.19	68.20	-22.01	Peak

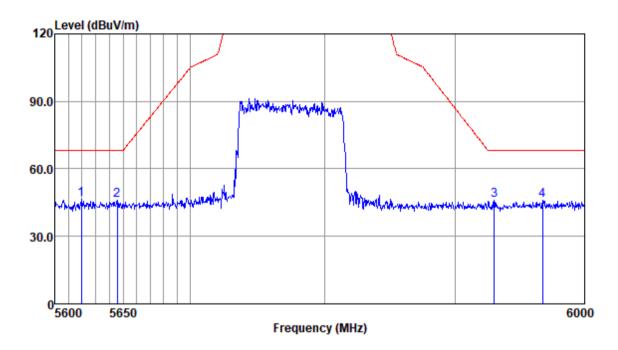


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 136 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:80MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5619.35	43.19	34.52	5.79	37.00	46.50	68.20	-21.70	Peak
5645.78	42.45	34.53	5.87	37.00	45.85	68.20	-22.35	Peak
5929.63	42.18	34.81	5.91	37.05	45.85	68.20	-22.35	Peak
5967.39	42.23	34.90	5.97	37.05	46.05	68.20	-22.15	Peak

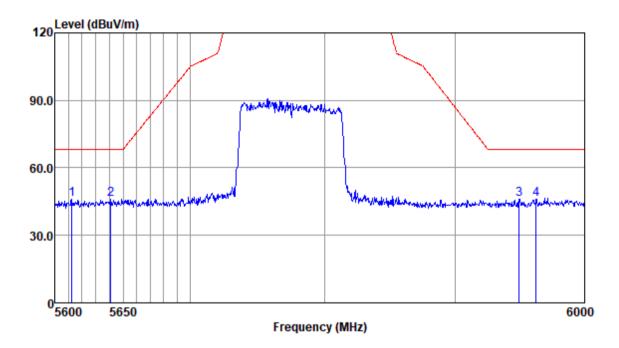


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 137 of 255

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



Antenna Polarity :HORIZONTAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5612.38	42.69	34.52	5.79	37.00	46.00	68.20	-22.20	Peak
5641.10	42.67	34.53	5.87	37.00	46.07	68.20	-22.13	Peak
5948.89	42.66	34.85	5.71	37.05	46.17	68.20	-22.03	Peak
5962.04	42.45	34.90	5.97	37.05	46.27	68.20	-21.93	Peak

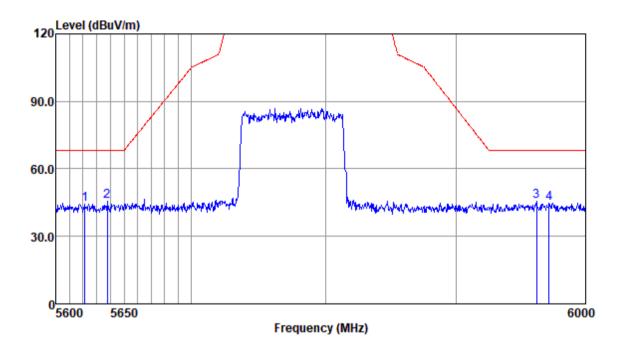


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 138 of 255

Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



Antenna Polarity :VERTICAL EUT/Project :1328AT

Freq					Emission Level			Remark
MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
5621.29	41.07	34.52	5.79	37.00	44.38	68.20	-23.82	Peak
5637.60	42.17	34.53	5.83	37.00	45.53	68.20	-22.67	Peak
5961.63	41.70	34.90	5.97	37.05	45.52	68.20	-22.68	Peak
5971.51	41.00	34.90	5.97	37.05	44.82	68.20	-23.38	Peak



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 139 of 255

7.6 Duty Cycle

Test Requirement KDB 789033 D02 II B 1
Test Method: KDB 789033 II B 1

7.6.1 E.U.T. Operation

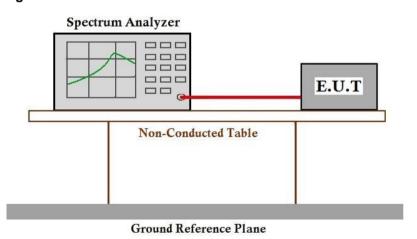
Operating Environment:

Temperature: 26.7 °C Humidity: 57.3 % RH Atmospheric Pressure: 1010 mbar

7.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	Charge + TX mode (U-NII-1) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40/80, Only the data of worst case is recorded in the report.
Final test	06	Charge + TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40/80, Only the data of worst case is recorded in the report.

7.6.3 Test Setup Diagram



7.6.4 Measurement Procedure and Data



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 140 of 255

7.7 26dB Emission bandwidth

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)

Test Method: KDB 789033 D02 II C 1

7.7.1 E.U.T. Operation

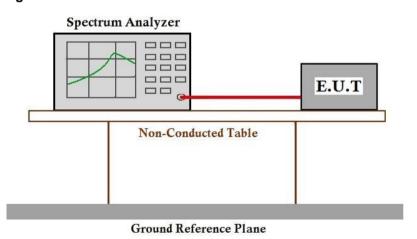
Operating Environment:

Temperature: 26.7 °C Humidity: 57.3 % RH Atmospheric Pressure: 1010 mbar

7.7.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	Charge + TX mode (U-NII-1) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40/80, Only the data of worst case is recorded in the report.
Final test	06	Charge + TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40/80, Only the data of worst case is recorded in the report.

7.7.3 Test Setup Diagram



7.7.4 Measurement Procedure and Data



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 141 of 255

7.8 Minimum 6 dB bandwidth (5.725-5.85 GHz band)

Test Requirement 47 CFR Part 15, Subpart E 15.407 (e)

Test Method: KDB 789033 D02 II C 2

Limit:

Frequency band(MHz)	Limit
5725-5850	≥500 kHz

7.8.1 E.U.T. Operation

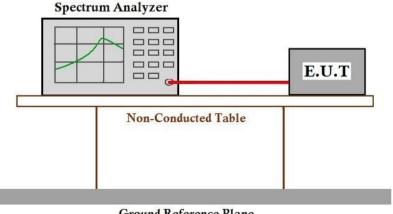
Operating Environment:

Temperature: 26.7 °C Humidity: 57.3 % RH Atmospheric Pressure: 1010 mbar

7.8.2 Test Mode Description

	ion for more possible.				
Pre-scan / Final test	Mode Code	Description			
Final test	05	Charge + TX mode (U-NII-1) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40/80, Only the data of worst case is recorded in the report.			
Final test	06	Charge + TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40/80, Only the data of worst case is recorded in the report.			

7.8.3 Test Setup Diagram



Ground Reference Plane

7.8.4 Measurement Procedure and Data



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 142 of 255

7.9 Peak Power spectrum density

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)

Test Method: KDB 789033 D02 II F

Limit:

Frequency band(MHz)		Limit		
5450 5050		≤17dBm in 1MHz for master device		
5150-5	250	≤11dBm in 1MHz for client device		
5250-5	350	≤11dBm in 1MHz for client device		
5470-5	725	≤11dBm in 1MHz for client device		
5725-5850		≤30dBm in 500 kHz		
Remark:		power spectral density is measured as a conducted emission by on of a calibrated test instrument to the equipment under test.		

7.9.1 E.U.T. Operation

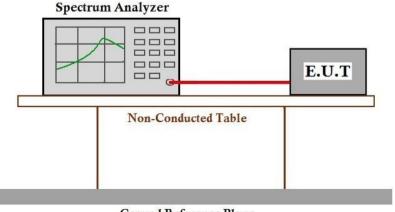
Operating Environment:

Temperature: 26.8 °C Humidity: 57.4 % RH Atmospheric Pressure: 1010 mbar

7.9.2 Test Mode Description

7.3.2 TC3t IV	7.9.2 Test Mode Description						
Pre-scan / Final test	Mode Code	Description					
Final test	05	Charge + TX mode (U-NII-1) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40/80, Only the data of worst case is recorded in the report.					
Final test	06	Charge + TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40/80, Only the data of worst case is recorded in the report.					

7.9.3 Test Setup Diagram



Ground Reference Plane

7.9.4 Measurement Procedure and Data



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 143 of 255

7.10 Frequency Stability

Test Requirement 47 CFR Part 15, Subpart E 15.407 (g) Test Method: ANSI C63.10 (2013) Section 6.8

7.10.1 E.U.T. Operation

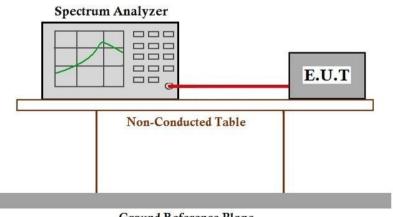
Operating Environment:

Temperature: 26.7 °C Humidity: 57.3 % RH Atmospheric Pressure: 1010 mbar

7.10.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	Charge + TX mode (U-NII-1) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40/80, Only the data of worst case is recorded in the report.
Final test	06	Charge + TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax 20/40/80, Only the data of worst case is recorded in the report.

7.10.3 Test Setup Diagram



Ground Reference Plane

7.10.4 Measurement Procedure and Data



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 144 of 255

8 Test Setup Photo

Refer to Appendix - Test Setup Photo for SHCR2407001328AT

9 EUT Constructional Details (EUT Photos)

Refer to Appendix - Photographs of EUT Constructional Details for SHCR2407001328AT



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 145 of 255

10 Appendix

10.1 Appendix A1: Emission Bandwidth

10.1.1 Test Result

Test Mode	Antenna	Channel	26dB EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	21.480	5169.120	5190.600		
		5220	21.480	5209.240	5230.720		
		5240	21.640	5229.160	5250.800		
		5745	21.480	5734.200	5755.680		
		5785	21.320	5774.360	5795.680		
		5825	21.720	5814.120	5835.840		
11N20SISO	Ant1	5180	21.920	5169.040	5190.960		
		5220	22.040	5209.000	5231.040		
		5240	21.920	5229.000	5250.920		
		5745	21.840	5734.000	5755.840		
		5785	22.040	5773.960	5796.000		
		5825	22.080	5813.880	5835.960		
11N40SISO	Ant1	5190	40.560	5169.600	5210.160		
		5230	40.560	5209.600	5250.160		
		5755	40.880	5734.600	5775.480		
		5795	40.880	5774.680	5815.560		
11AC20SISO	Ant1	5180	21.840	5169.040	5190.880		
		5220	21.640	5209.200	5230.840		
		5240	22.080	5228.840	5250.920		
		5745	21.960	5734.000	5755.960		
		5785	21.920	5774.080	5796.000		
		5825	21.920	5814.200	5836.120		
11AC40SISO	Ant1	5190	40.880	5169.520	5210.400		
		5230	40.720	5209.600	5250.320		
		5755	40.720	5734.520	5775.240		
		5795	40.880	5774.520	5815.400		
11AC80SISO	Ant1	5210	80.800	5169.680	5250.480		
		5775	80.640	5734.680	5815.320		
11AX20SISO	Ant1	5180	22.360	5168.720	5191.080		
		5220	22.320	5208.760	5231.080		
		5240	22.320	5228.720	5251.040		
		5745	22.240	5733.920	5756.160		
		5785	22.560	5773.600	5796.160		
		5825	22.560	5813.680	5836.240		
11AX40SISO	Ant1	5190	41.120	5169.360	5210.480		
		5230	40.720	5209.680	5250.400		
		5755	41.120	5734.360	5775.480		
		5795	41.040	5774.440	5815.480		
11AX80SISO	Ant1	5210	82.240	5168.880	5251.120		
		5775	82.240	5733.880	5816.120		



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 146 of 255



11A_Ant1_5240



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 147 of 255



11A_Ant1_5745



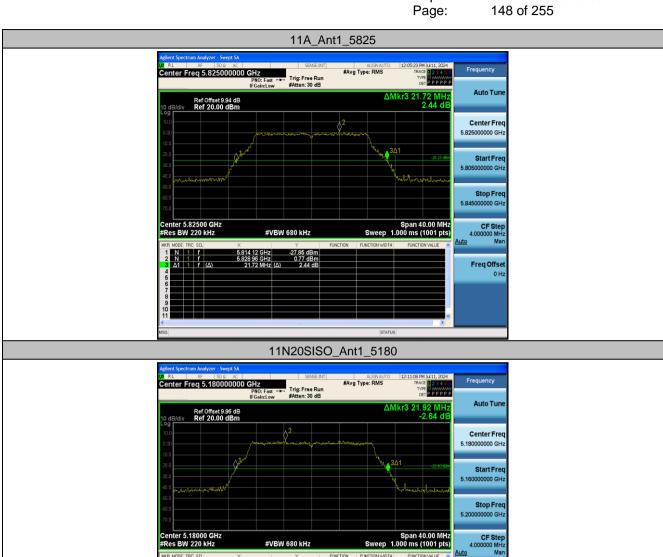
11A_Ant1_5785





SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804



11N20SISO_Ant1_5220



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 149 of 255



11N20SISO_Ant1_5240



11N20SISO_Ant1_5745





SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

150 of 255



11N40SISO_Ant1_5190



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 151 of 255



11N40SISO_Ant1_5230



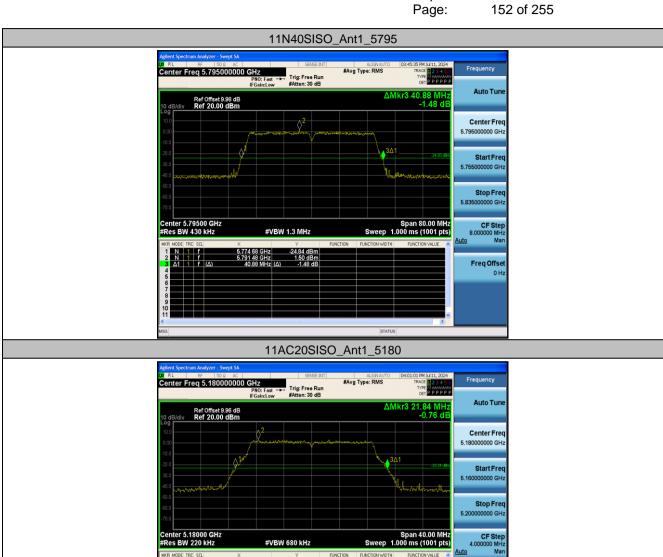
11N40SISO_Ant1_5755





SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804



11AC20SISO_Ant1_5220



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

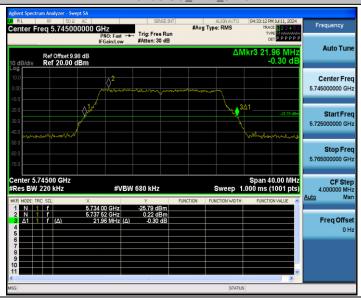
Page: 153 of 255



11AC20SISO_Ant1_5240



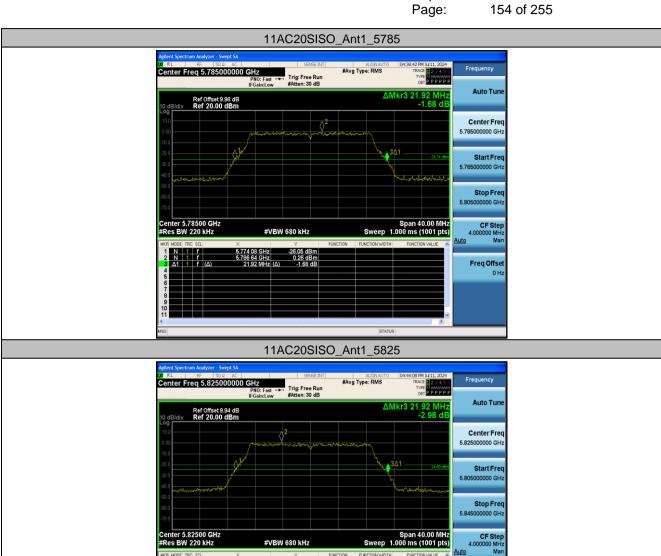
11AC20SISO_Ant1_5745





SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804



11AC40SISO_Ant1_5190



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 155 of 255



11AC40SISO_Ant1_5230



11AC40SISO_Ant1_5755

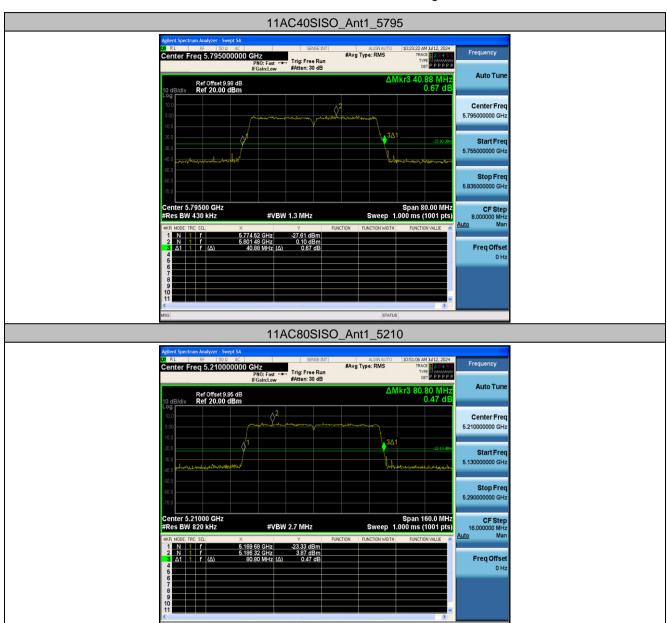




SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240700132804

Page: 156 of 255



11AC80SISO_Ant1_5775