



FCC Test Report (Part 15 Subpart C)

FCC ID: 2AM8R-D450

Client Information:

Applicant: Netradyne Inc

Applicant add.: 9171 Towne Centre Drive Suite 110 San Diego, CA 92122 <u>Manufacturer:</u> Netradyne Inc

Manufacturer add.: 9171 Towne Centre Drive Suite 110 San Diego, CA 92122

Product Information:

Product Name: Driveri

<u>Model No.:</u> D-450

Derivative model No.: D-450A, D-455



Brand Name:

Applied Standard:

FCC PART 15 Subpart C:2013 section 15.247

Laboratory Details:

AA Electro Magnetic Test Laboratory Private Limited PlotNo174, Udyog Vihar-Phase4, Sector18, Gurgaon, Haryana, India

Date of Receipt: Aug 09, 2023

Date of Test: Aug 10, 2023 ~ Oct. 04, 2023

Date of Issue: Nov. 09, 2023

Test Result: In Compliance/Pass

Declaration of Conformity: Declaration of conformity of the results is based as per the standard limits

This device has been tested and found to comply with the stated standard(s), which is(are) required by the council directive of 2014/53/EU and indicated in the test report and are applicable only to the tested sample identified in the report. Note: This report shall not be reproduced except in full, without the written approval of AA Electro Magnetic Test Laboratory Private Limited, this document may be altered or revised by AA Electro Magnetic Test Laboratory Private Limited, this test report must not be used by the client to claim product endorsement.

Prepared By: (+ signature) Ankur Kumar_

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Dr. Lenin Raja (Authorized Representative) (/ lenin83/)



 Plot No.174, Udyog Vihar Phase 4, Sector -18, Gurgaon -122016, Haryana, India

 Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com

 Decision Rule: The result of conformity based on the mentioned standards actual test limits / levels

AAEMT/A2LA/TRF/FCC-15C/22_01_REV1





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AA Electro Magnetic Test Laboratory Private Limited



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2 Test Summary

2.1 Compliance with FCC Part 15 subpart C

Test	Test Requirement	Standard Paragraph	Result			
Antenna Requirement	enna Requirement FCC Part 15 C		PASS			
Conduction Emissions	FCC Part 15 C	Section 15.207(a)	PASS			
Radiated Emissions	FCC Part 15 C	Section 15.247(d)	PASS			
Bandwidth Test	FCC Part 15 C	Section 15.247(a)	PASS			
Carrier Frequencies Separated	FCC Part 15 C	Section 15.247(a)(1)	PASS			
Hopping Channel Number	FCC Part 15 C	Section 15.247(a)(1) (iii)	PASS			
Dwell Time	FCC Part 15 C	Section 15.247(a)(1) (iii)	PASS			
Maximum Peak Output Power	FCC Part 15 C	Section 15.247(b)	PASS			
Band edge	FCC Part 15 C	Section 15.247(d)	PASS			
Conducted Spurious Emissions	FCC Part 15 C	Section 15.247(d)	PASS			
Note: N/A is an abbreviation for N Model description: N/A	Not Applicable.					
(1) Reference to the FCC H	Reference to the FCC Public Notice DA 00-705					
(2) Reference to ANSI C63	Reference to ANSI C63.4:2013.					





2.2 Test Location

All tests were performed at:

AA Electro Magnetic Test Laboratory Private Limited

Plot No 174, Udyog Vihar - Phase 4, Sector 18, Gurgaon, Haryana, India

Tel.: +91-0124-4235350

2.3 Measurement Uncertainty

All measurements involve certain levels of uncertainties, The following measurements uncertainty Levels have estimated based on ANSI C63.4:2009, the maximum value of the uncertainty as below

No.	Item	Uncertainty
1	Conducted Emission Test	2.83dB
2	Radiated Emission Test	3.78dB





3 Test Facility

ILAC / NABL Accreditation No.: TC-8597

Three 3m Semi-Anechoic Chamber, 1 full-Anechoic chamber and 2 Shielding Rooms of AA Electro Magnetic Test Laboratory Private Limited have been registered by National Accreditation Board for Testing and Calibration Laboratories (NABL).

ILAC -A2LA Accreditation No.: 5593.01

Three 3m Semi-Anechoic Chamber, 1 full-Anechoic chamber and 2 Shielding Rooms of AA Electro Magnetic Test Laboratory Private Limited have been registered American Association of Laboratory Accreditation (A2LA.)

FCC- Recognition No.: 137777

Three 3m Semi-Anechoic Chamber, 1 full-Anechoic chamber and 2 Shielding Rooms of AA Electro Magnetic Test Laboratory Private Limited have been registered by Federal Communications Commission (FCC).

ISED Recognition No.: 26046

Three 3m Semi-Anechoic Chamber, 1 full-Anechoic chamber and 2 Shielding Rooms of AA Electro Magnetic Test Laboratory Private Limited have been registered by Institute for Social and Economic Development.(ISED)

VCCI- Registration No: 4053

Three 3m Semi-Anechoic Chamber, 1 full-Anechoic chamber and 2 Shielding Rooms of AA Electro Magnetic Test Laboratory Private Limited have been registered by Voluntary Control Council for Interference.(VCCI)

TEC Designation No.: IND063

Three 3m Semi-Anechoic Chamber, 1 full-Anechoic chamber and 2 Shielding Rooms of AA Electro Magnetic Test Laboratory Private Limited have been registered by Telecommunication Engineering (TEC) Center.

BIS Recognition No: 816586

BIS recognized as per CRS scheme for IT electronics, LED control gears, Lamp, Inverter / UPS are recognized as per LRS 2020.

3.1 Deviation from standard

None

3.2 Abnormalities from standard conditions

None





4 General Information

4.1 General Description of EUT

Manufacturer:	Netradyne Inc				
Manufacturer Address:	9171 Towne Centre Drive Suite 110 San Diego, CA 92122				
EUT Name:	Driveri				
Model No:	D-450				
Brand Name:	netradyne				
Derivative model No.:	D-450A, D-455				
Serial No:	103262300022				
Operation frequency:	2402 MHz to 2480 MHz				
Number Of Channel:	79				
Modulation Technology:	GFSK, π/4-DQPSK, 8DPSK (1/2/3Mbps)				
Antenna Gain:	-2.6dBi				
H/W No.:	103-00-00005				
S/W No.:	13.0.16				
Power Supply Range:	Input : 12VDC, 3A				
Condition of Sample on receipt:	Good				
Note:	1 .For a more detailed features description, please refer to the manufacturer's specifications or				
the User's Manual.					
	2. Antenna gain and antenna type provided by manufacturer.				
Opinions and Interpretations:	See the specific Note / Annexure if any in the whole /full report.				





		Description	of Channel:	Description of Channel:								
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)							
00	2402	27	2429	54	2456							
01	2403	28	2430	55	2457							
02	2404	29	2431	56	2458							
03	2405	30	2432	57	2459							
04	2406	31	2433	58	2460							
05	2407	32	2434	59	2461							
06	2408	33	2435	60	2462							
07	2409	34	2436	61	2463							
08	2410	35	2437	62	2464							
09	2411	36	2438	63	2465							
10	2412	37	2439	64	2466							
11	2413	38	2440	65	2467							
12	2414	39	2441	66	2468							
13	2415	40	2442	67	2469							
14	2416	41	2443	68	2470							
15	2417	42	2444	69	2471							
16	2418	43	2445	70	2472							
17	2419	44	2446	71	2473							
18	2420	45	2447	72	2474							
19	2421	46	2448	73	2475							
20	2422	47	2449	74	2476							
21	2423	48	2450	75	2477							
22	2424	49	2451	76	2478							
23	2425	50	2452	77	2479							
24	2426	51	2453	78	2480							
25	2427	52	2454									
26	2428	53	2455									





4.2 Description of Test conditions

(1) EUT was tested in normal configuration (Please See following Block diagram)

1. Block diagram of EUT configuration(TX Mode)	
AC Line EUT	Spectrum
Note: 1.The EUT was programmed to be in continuously transmitting mode and	the transmit duty cycle
is not less than 98%.	5 5

(2) E.U.T. test conditions:

15.31(e): For intentional radiators, measurements of the variation of the input power or the adiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage. For battery operated equipment, the equipment tests shall be performed using a new battery.

(3) Test frequencies:

According to the 15.31(m) Measurements on intentional radiators or receivers, other than TV broadcast receivers, shall be performed and. If required reported for each band in which

the device can be operated with the device operating at the number of frequencies in each band specified in the following table:

Frequency range over	Number of	Location in
which device operates	frequencies	the range of operation
1 MHz or less	1	Middle
1 to 10 MHz	2	1 near top and 1 near bottom
More than 10 MIIs	2	1 near top, 1 near middle and
More than 10 MHz	3	1 near bottom

- (4) Frequency range of radiated measurements:
- According to the 15.33, the test range will be up to the tenth harmonic of the highest fundamental frequency. (5) Pre-test the EUT in all transmitting mode at the lowest (2402 MHz), middle (2441 MHz) and highest (2480
- MHz) channel with different data packet and conducted to determine the worst-case mode, only the worst-case results(1Mbps/2Mbps/3Mbps) are recorded in this report.





4.3 Test Peripheral List

No.	Equipment	Manufacturer	EMC Compliance	Model No.	Serial No.	Power cord	signal cable
1	Laptop	DELL	N/A	Latitude 3490	5M2Z1W2	2m unshielded	N/A

4.4 EUT Peripheral List

No.	Equipment	Manufacturer	FCC ID	Model No.	Serial No.	Power cord	signal cable
1	Driveri/DCM LTE Module	Netradyne Inc.	2AM8R-DCM-N A1-200	DCM-NA1-200	N/A	N/A	N/A





5 Equipments List for All Test Items

No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal.Due Date
1	EMI- Test RECEIVER	Rohde and Schwarz	ESIB26	838786/010	2023/06/13	2025/06/13
2	Loop antenna	DA ZE Beijing	ZN30900C	18052	2021/09/15	2024/09/15
3	Horn antenna	DA ZE Beijing	ZN30701	18012	2021/09/15	2024/09/15
4	Horn antenna	DA ZE Beijing	ZN30702	18006	2021/09/15	2024/09/15
5	Horn antenna	DA ZE Beijing	ZN30703	18005	2021/09/15	2024/09/15
6	Pre-Amplifier	KELIANDA	LNA-0009295	-	2023/01/13	2024/01/13
7	Pre-Amplifier	HP	8447FOPTH64	-	2023/01/13	2024/01/13
8	Bi - Log Antenna	Schwarzbeck	VULB9161		2021/09/15	2024/09/15
9	EMI-RECEIVER	Rohde and Schwarz	ESHS 30	8260003/011	2023/07/27	2025/07/27
10	Spectrum Analyzer	ADVANTEST	R3132	191200845	2023/01/13	2024/01/13
11	LISN	Kyoritsu	KNW-407	8-1789-5	2023/01/13	2024/01/13
12	Network – LISN	Schwarzbeck	NNBM8125	81251314	2023/01/13	2024/01/13
13	Network – LISN	Schwarzbeck	NNBM8125	81251315	2023/01/13	2024/01/13
14	LISN	Rohde and Schwarz	ESH3-Z5	1.1.1	2023/07/27	2025/07/26
15	PULSE LIMITER	Rohde and Schwarz	ESH3-Z2	100681	2023/01/13	2024/01/13
16	50 Ω Coaxial Switch	DAIWA	1565157	-	2023/01/13	2024/01/13
17	50Ω Coaxial Switch	-	-	-	2023/01/13	2024/01/13

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	Kepoit No.: AAEM1/KF/250809-01-02								
18	Wireless signal power meter	DARE!!	RPR3006W	RFSW190220	2023/01/13	2024/01/13			
19	Signal Generator	KEYSIGHT	N5181A	512071	2023/01/13	2024/01/13			
20	MXA Signal Analyzer	Keysight	N9020A	6272323218	27/07/23	27/07/25			
21	RF Vector Signal Generator	Keysight	N5182B	512094	2023/01/13	2024/01/13			
22	Spectrum analyzer	R&S	FSV-40N	101385	2023/01/13	2024/01/13			
23	Radio Communication Tester	R&S	CMW 500	124589	2021/09/15	2024/09/15			
24	DC Regulated Power	Metravi	RPS-3005	669076	2022/12/13	2023/12/12			
25	Climatic Chamber	Sunrise Scientific Instruments		-	2022/11/22	2023/11/21			
26	Attenuators	AGILENT	8494B	-	-	-			
27	Attenuators	AGILENT	8495B	-	-	-			

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6 Test Result

6.1 Antenna Requirement

6.1.1 Standard requirement

15.203 requirements: For intentional device, according to 15.203: an intentional radiator shall Be designed to ensure that no antenna other than that furnished by the responsible party shall be Used with the device.

15.247(c) (1)(i) requirement: (i) Systems operating in the 2400-2483.5 MHz band that is used Exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional Gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

6.1.2 EUT Antenna

The antenna is a Flexible PCB Antenna with Cable which is connected to the board using a N-type to U.FL cable which is connected to the board via U.FL connector. Antenna gain is maximum -2.6dBi from 2.4GHz to 2.5 GHz.







6.2 Conduction Emissions Measurement

6.2.1 Applied procedures / Limit

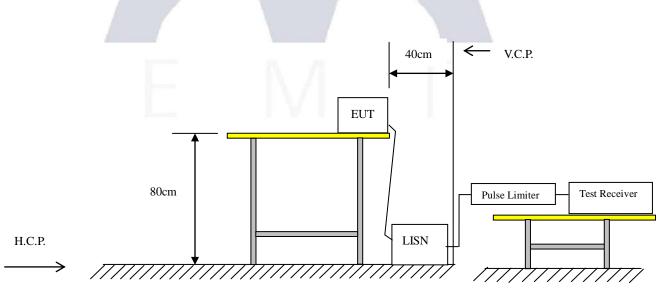
Frequency of Emission (MHz)	Conducted Limit (dBµV)			
	Quasi-peak	Average		
0.15-0.5	66 to 56 *	56 to 46 *		
0.5-5	56	46		
5-30	60	50		

Note: Decreases with the logarithm of the frequency.

6.2.2 Test procedure

EUT was placed upon a wooden test table 0.8m above the horizontal metal reference plane and 0.4m from the Vertical ground plane, and it was connected to an AMN. The closest distance between the boundary of the EUT and the surface of the AMN is 0.8m. All peripherals were connected to another AMN, and placed at a distance of 10cm from each other. A spectrum and receiver was connected to the RF output port of the AMN. Both average and quasi-peak value were detected.

6.2.3 Test setup



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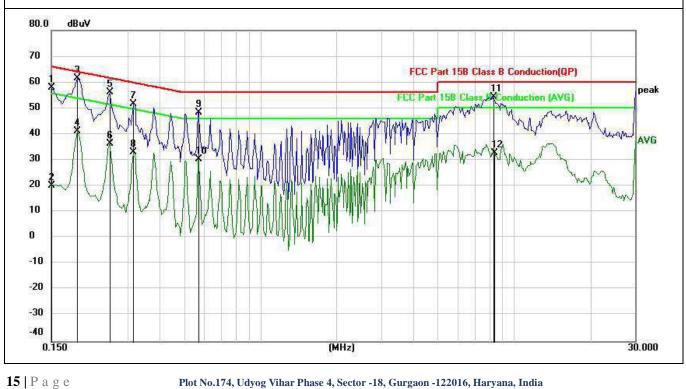


6.2.4 Test results

EUT:	Driveri	Model Name. :	D-450
Temperature:	25.8 °C	Relative Humidity:	52%
Pressure:	1010hPa	Test Date :	2023-08-11
Test Mode:	TX CH00 (1Mbps worst case)	Phase :	Line
Test Voltage :	110VAC,60Hz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1499	46.34	11.75	58.09	66.00	-7.91	QP
2		0.1499	8.42	11.75	20.17	56.00	-35.83	AVG
3	*	0.1900	49.45	11.97	61.42	64.03	-2.61	QP
4		0.1901	29.23	11.97	41.20	54.03	-12.83	AVG
5		0.2550	45.97	10.19	56.16	61.59	-5.43	QP
6		0.2550	26.24	10.19	36.43	51.59	-15.16	AVG
7		0.3150	41.22	10.56	51.78	59.84	-8.06	QP
8		0.3165	22.35	10.58	32.93	49.80	-16.87	AVG
9		0.5695	37.63	10.81	48.44	56.00	-7.56	QP
10		0.5695	19.58	10.81	30.39	46.00	-15.61	AVG
11		8.3000	43.32	10.99	54.31	60.00	-5.69	QP
12		8.3670	21.70	10.99	32.69	50.00	-17.31	AVG

Remark: Factor = LISN factor + Cable Loss + Pulse limiter factor.



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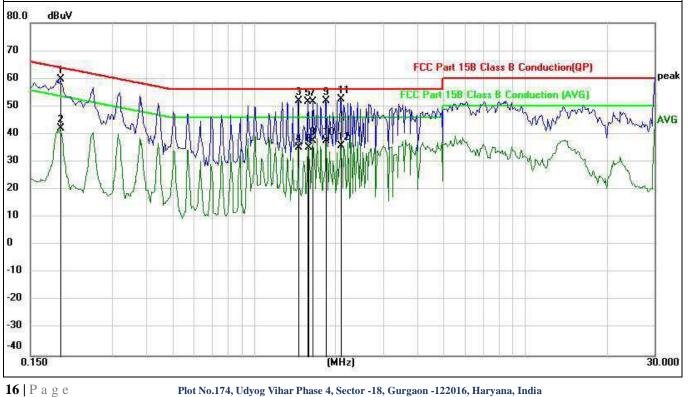




EUT:	Driveri	Model Name. :	D-450
Temperature:	25.8 °C	Relative Humidity:	52%
Pressure:	1010hPa	Test Date :	2023-08-11
Test Mode:	TX CH00 (worst case)	Phase :	Neutral
Test Voltage :	110VAC,60Hz		

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	0.1932	47.80	11.86	59.66	63.89	-4.23	QP
2	0.1932	30.27	11.86	42.13	53.89	-11.76	AVG
3	1.4596	40.96	10.90	51.86	56.00	-4.14	QP
4	1.4596	24.30	10.90	35.20	46.00	-10.80	AVG
5	1.5800	40.81	10.90	51.71	56.00	-4.29	QP
6	1.5900	24.24	10.90	35.14	46.00	-10.86	AVG
7	1.6493	40.83	10.90	51.73	56.00	-4.27	QP
8	1.6532	26.73	10.90	37.63	46.00	-8.37	AVG
9	1.8400	40.94	10.90	51.84	56.00	-4.16	QP
10	1.8400	26.51	10.90	37.41	46.00	-8.59	AVG
11 *	2.0899	41.69	10.90	52.59	56.00	-3.41	QP
12	2.0899	24.88	10.90	35.78	46.00	-10.22	AVG

Remark: Factor = LISN factor + Cable Loss + Pulse limiter factor.



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6.3 Radiated Emissions Measurement

6.3.1 Applied procedures / Limit

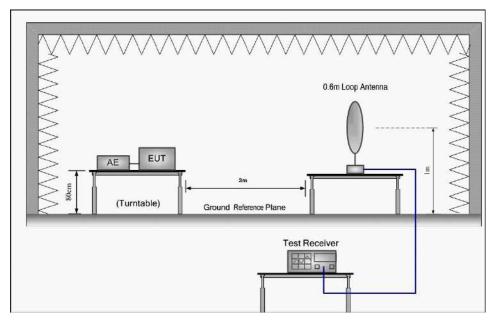
15.247(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

	Field Stree	Field Strength		
Frequency of Emission (MHz)	μV/m	dBµV/m	(meters)	
0.009-0.49	2400/F(kHz)		300	
0.49-1.705	24000/F(kHz)		30	
1.705-30	30		30	
30-88	100	40	3	
88-216	150	43.5	3	
216-960	200	46	3	
Above 960	500	54	3	

6.3.2 Test setup

Test Configuration:

1) 9 kHz to 30 MHz emissions:

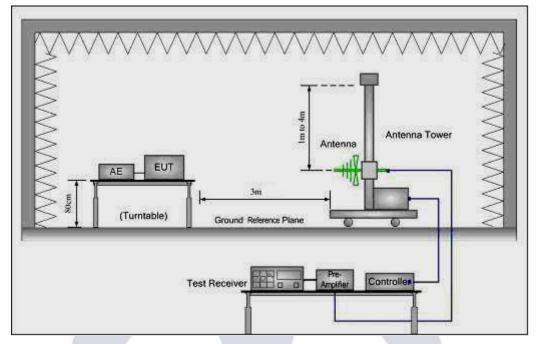


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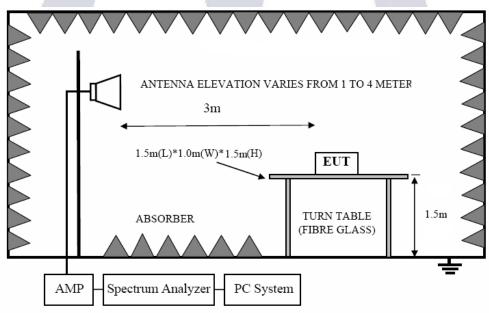




2) 30 MHz to 1 GHz emissions:



3) 1 GHz to 25 GHz emissions:





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6.3.3 Test procedure

EUT was placed upon a wooden test table which was placed on the turn table 0.8m above the horizontal metal ground plane, and operating in the mode as mentioned above. A receiving antenna was placed 3m away from the EUT. During testing, turn around the turn table and move the antenna from 1m to 4m to find the maximum field-strength reading. All peripherals were placed at a distance of 10cm between each other. Both horizontal and Vertical antenna polarities were tested. The worst case emissions were reported.

For measurement at frequency above 1GHz

Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.







6.3.4 Test Result

Radiated Emissions Test Data Below 30MHz

EUT:	Driveri	Model Name. :	D-450		
Temperature:	25.4 °C	Relative Humidity:	53%		
Pressure:	1010hPa	Test Date :	2023-08-11		
Test Mode :	ТХ	Test Voltage :	110V AC, 60Hz		
Measurement Distance	3 m	Frequency Range	9KHz to 30MHz		
RBW/VBW	9KHz~150KHz/RB 200Hz for QP, 150KHz~30MHz/RB 9KHz for QP				

No emission found between lowest internal used/generated frequencies to 30MHz.

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Radiated Emissions Test Data Below 1GHz

EUT:	Driveri	Model Name. :	D-450		
Temperature:	25.4 °C	Relative Humidity:	53%		
Pressure:	1010hPa	Test Date :	2023-08-11		
Test Mode :	TX (1Mbps) CH00 (2402MHz)	Test Voltage :	110V AC, 60Hz		
Measurement Distance	3 m	Frequency Range	30MHz to 1GHz		
RBW/VBW	100KHz / 300KHz for spectrum, RBW=120KHz for receiver.				





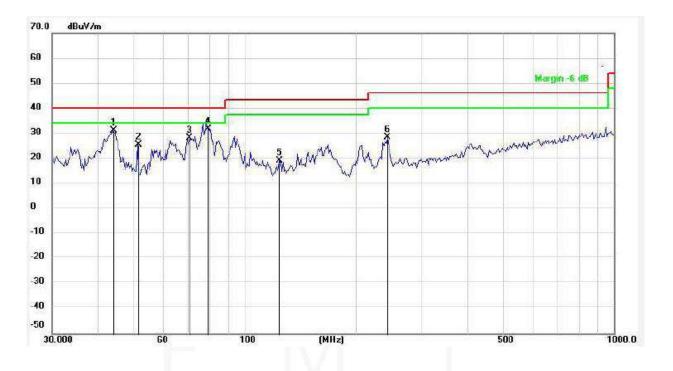


Test at Channel 00 (2.402 GHz) in transmitting status

30 MHz~1 GHz Spurious Emissions. Quasi-Peak Measurement

- Vertical:
- Peak scan

Level (dBµV/m)



Quasi-peak measurement

No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	43.8452	-11.74	42.99	31.25	40.00	-8.75	QP
2	51.1756	-11.79	37.35	25.56	40.00	-14.44	QP
3	70.7047	-16.19	44.24	28.05	40.00	-11.95	QP
4	79.6764	-16.16	48.01	31.85	40.00	-8.15	QP
5	124.0501	-14.53	33.72	19.19	43.50	-24.31	QP
6	243.5431	-10.62	38.95	28.33	46.00	-17.67	QP

Measurement Level = Reading Level + Factor Factor= Ant Factor + Cable Loss - Pre-amplifier





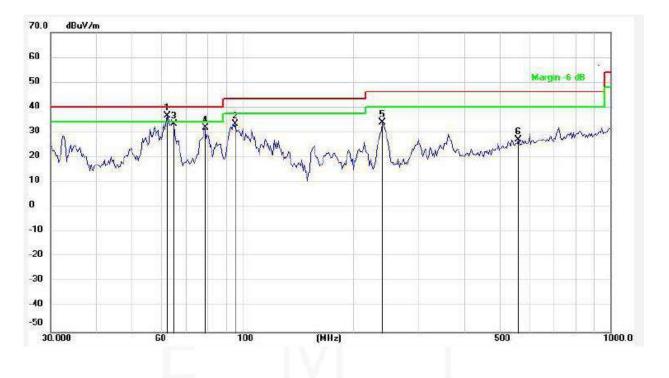
Test at Channel 00 (2.402 GHz) in transmitting status

30 MHz~1 GHz Spurious Emissions. Quasi-Peak Measurement Horizontal:

110112011141

Peak scan

Level (dB $\mu V/m)$



Quasi-peak measurement

No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	62.3038	-11.21	47.75	36.54	40.00	-3.46	QP
2	95.6485	-9.93	43.28	33.35	43.50	-10.15	QP
3	64.9869	-12.25	45.36	33.11	40.00	-6.89	QP
4	78.5645	-14.17	45.94	31.77	40.00	-8.23	QP
5	240.1442	-8.80	42.79	33.99	46.00	-12.01	QP
6	562.0143	0.85	26.14	26.99	46.00	-19.01	QP

Measurement Level = Reading Level + Factor Factor= Ant Factor + Cable Loss - Pre-amplifier

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Radiated Emissions Test Data Above 1GHz

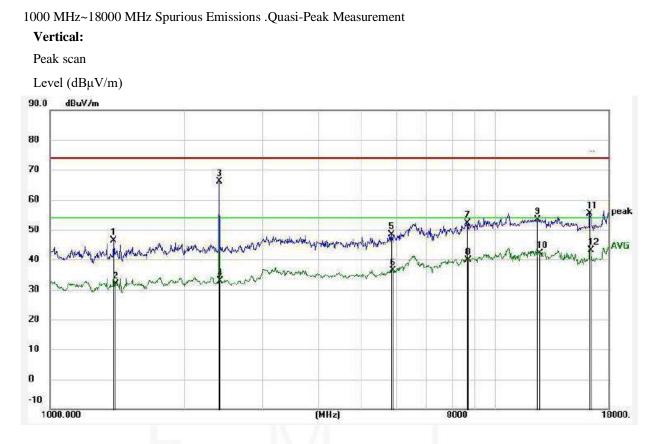
EUT:	Driveri	Model Name. :	D-450		
Temperature:	25.4 °C	Relative Humidity:	53%		
Pressure:	1010hPa	Test Date :	2023-08-11		
Test Mode :	TX (1Mbps) CH00 (2402MHz)	Test Voltage :	110V AC, 60Hz		
Measurement Distance	3 m	Frequency Range	1GHz to 25GHz		
RBW/VBW	Spurious emission: 1MHz/1MHz for Peak, 1MHz/10Hz for Average.				

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Test at Channel 00 (2.402 GHz) in transmitting status (Worst Case)



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1390.276	-5.19	51.55	46.36	74.00	-27.64	peak
2	1402.384	-5.15	36.92	31.77	54.00	-22.23	AVG
3	2400.753	-1.44	67.46	66.02	74.00	-7.98	peak
4	2407.703	-1.43	34.34	32.91	54.00	-21.09	AVG
5	5847.517	5.09	43.38	48.47	74.00	-25.53	peak
6	5881.418	5.18	31.32	36.50	54.00	-17.50	AVG
7	8638.400	13.05	39.06	52.11	74.00	-21.89	peak
8	8688.481	13.13	26.85	39.98	54.00	-14.02	AVG
9	12433.621	15.91	37.35	53.26	74.00	-20.74	peak
10	12578.206	16.12	25.92	42.04	54.00	-11.96	AVG
11	16315.231	18.75	36.63	55.38	74.00	-18.62	peak
12	16362.457	19.05	24.16	43.21	54.00	-10.79	AVG

Measurement Level = Reading Level + Factor

Factor= Ant Factor + Cable Loss - Pre-amplifier

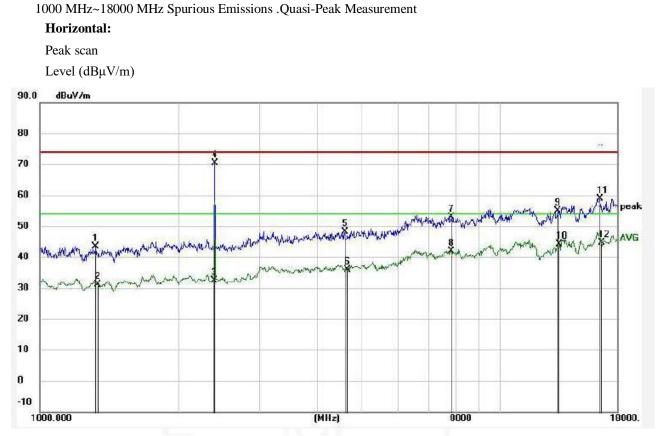
Note: Marker 3 is the intentional frequency from EUT, Hence considered as pass.

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Test at Channel 00 (2.402 GHz) in transmitting status



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1323.614	-5.42	48.86	43.44	74.00	-30.56	peak
2	1331.288	-5.39	36.58	31.19	54.00	-22.81	AVG
3	2393.824	-1.45	33.74	32.29	54.00	-21.71	AVG
4	2400.753	-1.44	71.88	70.44	74.00	-3.56	peak
5	4600.276	2.66	45.40	48.06	74.00	-25.94	peak
6	4640.339	2.76	33.12	35.88	54.00	-18.12	AVG
7	7829.860	12.69	40.20	52.89	74.00	-21.11	peak
8	7852.524	12.62	29.33	41.95	54.00	-12.05	AVG
9	13365.322	18.81	36.11	54.92	74.00	-19.08	peak
10	13404.009	18.99	25.23	44.22	54.00	-9.78	AVG
11	16457.318	19.65	39.13	58.78	74.00	-15.22	peak
12	16600.642	20.12	24.61	44.73	54.00	-9.27	AVG

 $Measurement \ Level = Reading \ Level + Factor$

Factor= Ant Factor + Cable Loss - Pre-amplifier

Note: Marker 3 is the intentional frequency from EUT, Hence considered as pass.





Radiated Emissions Test Data Below 1GHz

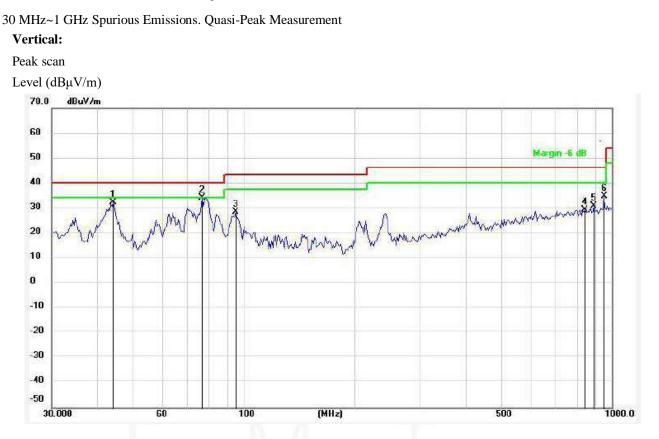
EUT:	Driveri	Model Name. :	D-450			
Temperature:	25.4 °C	Relative Humidity:	53%			
Pressure:	1010hPa	Test Date :	2023-08-11			
Test Mode :	TX (1Mbps) CH39 (2441MHz)	Test Voltage :	110V AC, 60Hz			
Measurement Distance	3 m Frequency Range 30MHz to 1GHz					
RBW/VBW	100KHz / 300KHz for spectrum, RBW=120KHz for receiver.					







Test at Channel 39 (2.441 GHz) in transmitting status



Quasi-peak measurement

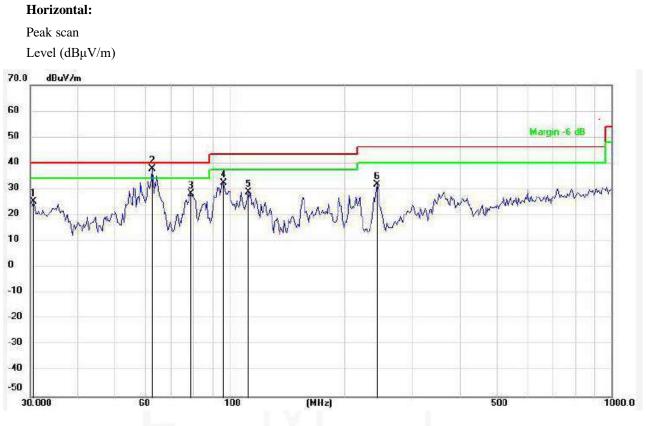
No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	44.1543	-11.73	44.16	32.43	40.00	-7.57	QP
2	76.9255	-16.17	50.47	34.30	40.00	-5.70	QP
3	94.9787	-12.02	40.57	28.55	43.50	-14.95	QP
4	844.8027	2.44	26.85	29.29	46.00	-16.71	QP
5	893.6556	3.17	27.78	30.95	46.00	-15.05	QP
6	952.0000	3.84	30.88	34.72	46.00	-11.28	QP

Measurement Level = Reading Level + Factor Factor= Ant Factor + Cable Loss - Pre-amplifier





Test at Channel 39 (2.441 GHz) in transmitting status



30 MHz~1 GHz Spurious Emissions. Quasi-Peak Measurement

Quasi-peak measurement

No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.6391	-11.20	36.28	25.08	40.00	-14.92	QP
2	62.7432	-11.38	49.11	37.73	40.00	-2.27	QP
3	79.1185	-14.16	42.39	28.23	40.00	-11.77	QP
4	96.3230	-9.83	42.11	32.28	43.50	-11.22	QP
5	111.6398	-10.50	39.37	28.87	43.50	-14.63	QP
6	243.5431	-8.62	40.30	31.68	46.00	-14.32	QP

Measurement Level = Reading Level + Factor Factor= Ant Factor + Cable Loss - Pre-amplifier

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Plot No.174, Udyog Vihar Phase 4, Sector -18, Gurgaon -122016, Haryana, India Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com Decision Rule: The result of conformity based on the mentioned standards actual test limits / levels

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Radiated Emissions Test Data Above 1GHz

EUT:	Driveri	Model Name. :	D-450			
Temperature:	25.4 °C	Relative Humidity:	53%			
Pressure:	1010hPa	Test Date :	2023-08-11			
Test Mode :	TX (1Mbps) CH39 (2441MHz)	Test Voltage :	110V AC, 60Hz			
Measurement Distance	3 m	Frequency Range	1GHz to 25GHz			
RBW/VBW	Spurious emission: 1MHz/1MHz for Peak, 1MHz/10Hz for Average.					
	Non-restricted band: 100KHz/300KHz for Peak.					

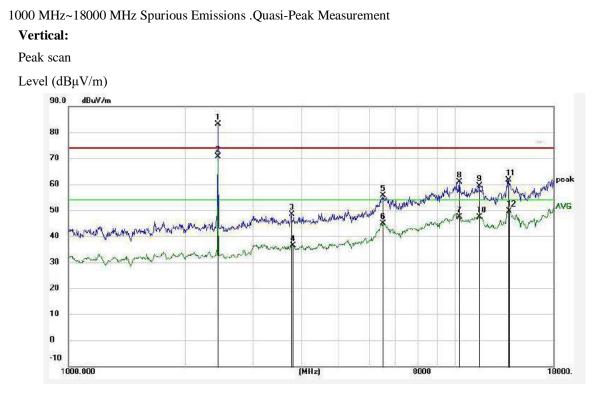


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Test at Channel 39 (2.441 GHz) in transmitting status



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2435.701	-1.40	84.43	83.03	74.00	9.03	peak
2	2435.701	-1.40	72.00	70.60	54.00	16.60	AVG
3	3779.422	1.27	47.09	48.36	74.00	-25.64	peak
4	3801.333	1.32	35.01	36.33	54.00	-17.67	AVG
5	6507.536	12.12	43.46	55.58	74.00	-18.42	peak
6	6507.536	12.12	32.79	44.91	54.00	-9.09	AVG
7	10244.585	15.21	32.05	47.26	54.00	-6.74	AVG
8	10274.238	15.26	45.52	60.78	74.00	-13.22	peak
9	11533.485	16.28	43.21	59.49	74.00	-14.51	peak
10	11533.485	16.28	31.12	47.40	54.00	-6.60	AVG
11	13717.561	19.66	42.09	61.75	74.00	-12.25	peak
12	13837.024	19.78	29.88	49.66	54.00	-4.34	AVG

Measurement Level = Reading Level + Factor

Factor= Ant Factor + Cable Loss - Pre-amplifier

Note: Marker 3 is the intentional frequency from EUT, Hence considered as pass.

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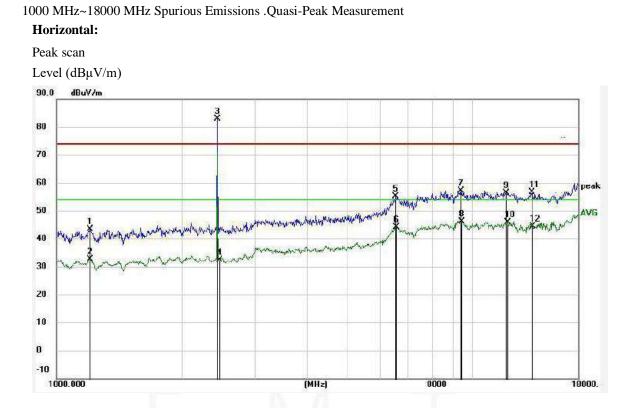
Plot No.174, Udyog Vihar Phase 4, Sector -18, Gurgaon -122016, Haryana, India Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com Decision Rule: The result of conformity based on the mentioned standards actual test limits / levels

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Test at Channel 39 (2.441 GHz) in transmitting status



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1203.199	-5.82	49.17	43.35	74.00	-30.65	peak
2	1203.199	-5.82	38.45	32.63	54.00	-21.37	AVG
3	2435.701	-1.40	84.36	82.96	74.00	8.96	peak
4	2456.913	-1.38	33.66	32.28	54.00	-21.72	AVG
5	6545.263	12.22	42.99	55.21	74.00	-18.79	peak
6	6564.209	12.27	31.82	44.09	54.00	-9.91	AVG
7	9393.689	14.15	42.96	57.11	74.00	-16.89	peak
8	9448.149	14.23	31.97	46.20	54.00	-7.80	AVG
9	12079.387	15.84	40.63	56.47	74.00	-17.53	peak
10	12149.417	15.85	30.09	45.94	54.00	-8.06	AVG
11	13917.244	19.86	36.66	56.52	74.00	-17.48	peak
12	13957.529	19.90	24.50	44.40	54.00	-9.60	AVG

Measurement Level = Reading Level + Factor

Factor= Ant Factor + Cable Loss - Pre-amplifier

Note: Marker 3 is the intentional frequency from EUT, Hence considered as pass.

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Radiated Emissions Test Data Below 1GHz

EUT:	Driveri	Model Name. :	D-450			
Temperature:	25.4 °C	Relative Humidity:	53%			
Pressure:	1010hPa	Test Date :	2023-08-11			
Test Mode :	TX (1Mbps) CH78 (2480MHz)	Test Voltage :	110V AC, 60Hz			
Measurement Distance	3 m Frequency Range 30MHz to 1GHz					
RBW/VBW	100KHz / 300KHz for spectrum, RBW=120KHz for receiver.					







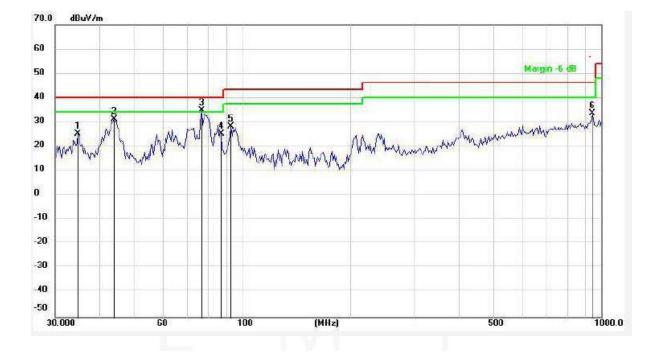
Test at Channel 78 (2.480 GHz) in transmitting status

30 MHz~1 GHz Spurious Emissions. Quasi-Peak Measurement

Vertical:

Peak scan

Level (dBµV/m)



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	34.7704	-13.09	38.15	25.06	40.00	-14.94	QP
2	43.8451	-11.74	42.93	31.19	40.00	-8.81	QP
3	76.9255	-16.17	50.89	34.72	40.00	-5.28	QP
4	87.2979	-13.66	38.96	25.30	40.00	-14.70	QP
5	92.9974	-12.30	40.49	28.19	43.50	-15.31	QP
6	945.3336	3.78	29.79	33.57	46.00	-12.43	QP

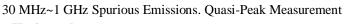
Quasi-peak measurement

Measurement Level = Reading Level + Factor Factor= Ant Factor + Cable Loss - Pre-amplifier



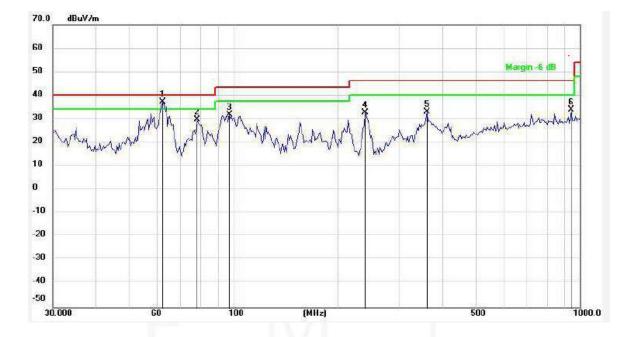


Test at Channel 78 (2.480 GHz) in transmitting status



Horizontal:

Peak scan Level (dBµV/m)



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level	Limit (dBuV/m)	Margin (dB)	Detector
		(ubu v/m)	(ubuv)	(ubu v/iii)	(ubuv/iii)	(ub)	
1	62.3038	-11.21	48.25	37.04	40.00	-2.96	QP
2	78.5644	-14.17	43.96	29.79	40.00	-10.21	QP
3	97.0023	-9.73	41.63	31.90	43.50	-11.60	QP
4	240.1442	-8.80	41.41	32.61	46.00	-13.39	QP
5	360.9774	-4.71	37.75	33.04	46.00	-12.96	QP
6	945.3336	5.78	28.07	33.85	46.00	-12.15	QP

Quasi-peak measurement

Measurement Level = Reading Level + Factor Factor= Ant Factor + Cable Loss - Pre-amplifier

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Radiated Emissions Test Data Above 1GHz

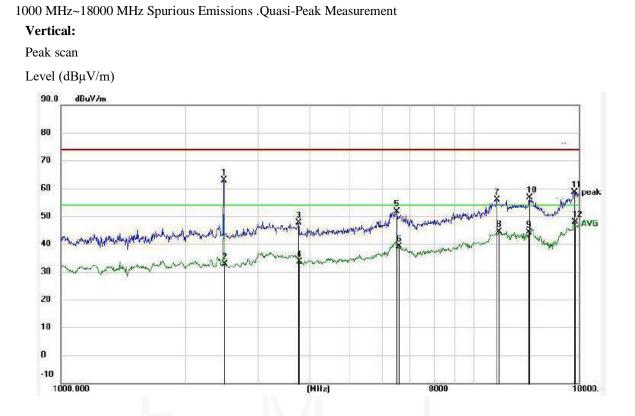
EUT:	Driveri	Model Name. :	D-450				
Temperature:	25.4 °C	Relative Humidity:	53%				
Pressure:	1010hPa	Test Date :	2023-08-11				
Test Mode :	TX (1Mbps) CH78 (2480MHz)	Test Voltage :	110V AC, 60Hz				
Measurement Distance	3 m	Frequency Range	1GHz to 25GHz				
RBW/VBW	Spurious emission: 1MHz/1MHz for Peak, 1MHz/10Hz for Average. Non-restricted band: 100KHz/300KHz for Peak.						

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Test at Channel 78 (2.480 GHz) in transmitting status



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2478.310	-1.37	64.35	62.98	74.00	-11.02	peak
2	2492.678	-1.36	34.07	32.71	54.00	-21.29	AVG
3	3757.637	1.23	46.43	47.66	74.00	-26.34	peak
4	3790.361	1.30	32.26	33.56	54.00	-20.44	AVG
5	6507.536	12.12	39.58	51.70	74.00	-22.30	peak
6	6583.209	12.32	26.82	39.14	54.00	-14.86	AVG
7	11368.003	16.20	39.64	55.84	74.00	-18.16	peak
8	11500.197	16.31	28.13	44.44	54.00	-9.56	AVG
9	13599.128	19.54	24.60	44.14	54.00	-9.86	AVG
10	13638.492	19.58	37.02	56.60	74.00	-17.40	peak
11	17487.180	21.93	36.63	58.56	74.00	-15.44	peak
12	17537.798	21.94	25.84	47.78	54.00	-6.22	AVG

Measurement Level = Reading Level + Factor

Factor= Ant Factor + Cable Loss - Pre-amplifier

Note: Marker 3 is the intentional frequency from EUT, Hence considered as pass.

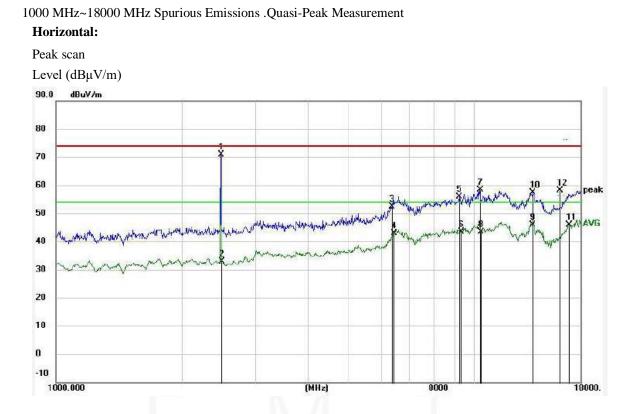
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Plot No.174, Udyog Vihar Phase 4, Sector -18, Gurgaon -122016, Haryana, India Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com Decision Rule: The result of conformity based on the mentioned standards actual test limits / levels





Test at Channel 78 (2.480 GHz) in transmitting status



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2478.310	-1.37	72.33	70.96	74.00	-3.04	peak
2	2492.678	-1.36	34.19	32.83	54.00	-21.17	AVG
3	6358.789	10.21	42.20	52.41	74.00	-21.59	peak
4	6432.733	11.21	31.70	42.91	54.00	-11.09	AVG
5	9205.540	13.89	41.98	55.87	74.00	-18.13	peak
6	9285.710	13.99	29.47	43.46	54.00	-10.54	AVG
7	10303.978	15.31	43.12	58.43	74.00	-15.57	peak
8	10393.713	15.45	27.92	43.37	54.00	-10.63	AVG
9	13757.267	19.70	26.12	45.82	54.00	-8.18	AVG
10	13837.024	19.78	37.65	57.43	74.00	-16.57	peak
11	16842.294	20.61	25.15	45.76	54.00	-8.24	AVG
12	18000.000	21.68	36.33	58.01	74.00	-15.99	peak

Measurement Level = Reading Level + Factor Factor= Ant Factor + Cable Loss - Pre-amplifier

Note: Marker 3 is the intentional frequency from EUT, Hence considered as pass.

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Remark:

- For this intentional radiator operates below 25 GHz. The spectrum shall be investigated to the tenth Harmonics of the highest fundamental frequency. And above the third harmonic of this intentional radiator, the disturbance is very low. So the test result only displays to 3rd harmonic.
- 2). As shown in Section, for frequencies above 1000 MHz. the above 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.
- 3). The test only perform the EUT in transmitting status since the test frequencies were over 1GHz only required transmitting status.

Test result: The unit does meet the FCC requirements.





6.3.5 TEST RESULTS (Restricted Bands Requirements)

EUT:	Driveri	Model Name. :	D-450
Temperature:	25.4 °C	Relative Humidity:	53%
Pressure:	1010hPa	Test Date :	2023-08-11
Test Mode :	TX (1Mbps,2Mbps)	Test Voltage :	110V AC, 60Hz
Note:	 The transmitter was setup to tran measured at 2310-2390 MHz. The transmitter was setup to tra was measured at 2483.5-2500 M The data of 2390MHz and 2483.3 	nsmit at the highest cha Hz.	C

Test	Ant Dol	Errog	Rea	ding	Amt/CE	А	ct	Liı	nit
Test Mode	Ant.Pol. H/V	Freq. (MHz)	Peak (dBuv)	AV (dBuv)	Ant/CF CF(dB)	Peak (dBuv/m)	AV (dBuv/m)	Peak (dBuv/m)	AV (dBuv/m)
	v	2390	43.64	32.69	-5.79	37.85	26.90	74	54
Data rate	Н	2390	42.81	34.49	-5.79	37.02	28.70	74	54
1Mbps	v	2483.5	44.09	33.04	-4.98	39.11	28.06	74	54
	Н	2483.5	43.67	34.18	-4.98	38.69	29.20	74	54
	V	2390	46.79	32.68	-5.79	41.00	26.89	74	54
Data rate 2Mbps	Н	2390	45.00	34.96	-5.79	39.21	29.17	74	54
	V	2483.5	45.72	33.85	-4.98	40.74	28.87	74	54
	Н	2483.5	45.14	33.22	-4.98	40.16	28.24	74	54

Remark:

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode.
- (2) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna
- (3) Corr.Factor = Antenna Factor + Cable Loss Pre-amplifier.





6.4 BANDWIDTH TEST

6.4.1 Applied procedures / Limit

For frequency hopping system operating in the 2400-2483.5MHz, If the 20dB bandwidth of hopping channel is greater than 25kHz, two-thirds 20dBbandwidth of hopping channel shell be a minimum limit for the hopping channel separation.

6.4.2 Test procedure

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel RBW ≥ 1% of the 20 dB bandwidth, VBW ≥ RBW, Sweep = auto, Detector function = peak Trace = max hold

6.4.3 Deviation from standard

No deviation.

6.4.4 Test setup







6.4.5 Test results

EUT:	Driveri	Model Name. :	D-450
Temperature:	25.3 °C	Relative Humidity:	56%
Pressure:	1010 hPa	Test Power :	110V AC, 60Hz
Test Mode :	TX 1Mbps/ 2Mbps		

Chai	nnel	Channel frequency (MHz)	20dB bandwidth (KHz)	Limit (MHz)	Conclusion
	Low	2402	1042	N/A	Pass
1Mbps	Middle	2441	1040	N/A	Pass
	High	2480	1040	N/A	Pass
	Low	2402	1324	N/A	Pass
2Mbps	Middle	2441	1332	N/A	Pass
	High	2480	1320	N/A	Pass
	Low	2402	1268	N/A	Pass
3Mbps	Middle	2441	1268	N/A	Pass
	High	2480	1262	N/A	Pass

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CH00-1Mbps



CH 39-1Mbps



43 | P a g e





CH 78-1Mbps



CH 00-2Mbps







CH 39-2Mbps



CH 78-2Mbps



45 | P a g e

Plot No.174, Udyog Vihar Phase 4, Sector -18, Gurgaon -122016, Haryana, India Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com Decision Rule: The result of conformity based on the mentioned standards actual test limits / levels AAEMT/A2LA/TRF/FCC-15C/22_01_REV1









CH 39-3Mbps







CH 78-3Mbps



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6.5 Carrier Frequencies Separated

6.5.1 Applied procedures / Limit

15.247(a) (1) Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

6.5.2 Test procedure

- (1) Connected the antenna port to the Spectrum Analyzer, set the Spectrum Analyzer as Span = wide enough to capture the peaks of two adjacent channels, Resolution (or IF) Bandwidth (RBW) ≥ 1% of the span, Video (or Average) Bandwidth (VBW) ≥ RBW Sweep = auto, Detector function = peak, Trace = max hold
- (2) The EUT should be transmitting at its maximum data rate. Use the marker-delta function to determine the separation between the peaks of the adjacent channels.
- (3) The above procedure shall be repeated at the lowest, the middle, and the highest frequency of the stated frequency range with modulated mode. also shall be performed at different modes of operation.

6.5.3 Deviation from standard

No deviation.

6.5.4 Test setup







6.5.5 Test results

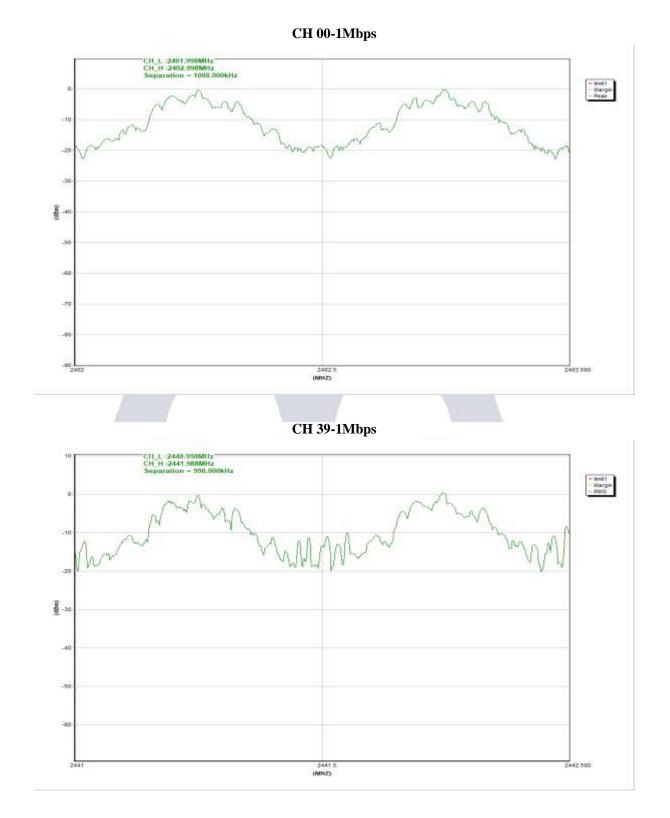
EUT:	Driveri	Model Name. :	D-450
Temperature:	25.6 °C	Relative Humidity:	56%
Pressure:	1010 hPa	Test Power :	110V AC, 60Hz
Test Mode :	TX 1Mbps/ 2Mbps/ 3Mbps		

Chai	nnel	Channel frequency (MHz)	Channel Separation (MHz)	Conclusion
	Low	2402	1.000	Pass
1Mbps	Middle	2441	0.990	Pass
	Highest	2480	1.004	Pass
	Low	2402	1.002	Pass
2Mbps	Middle	2441	1.000	Pass
	Highest	2480	0.998	Pass
	Low	2402	1.002	Pass
3Mbps	Middle	2441	0.994	Pass
	Highest	2480	0.840	Pass

Ch. Separation >2/3(20dB bandwidth)

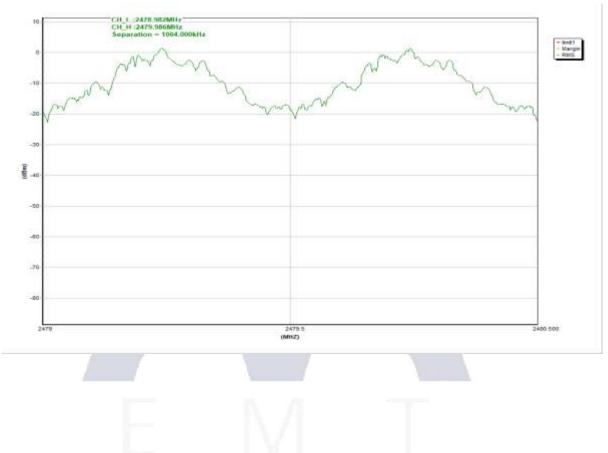








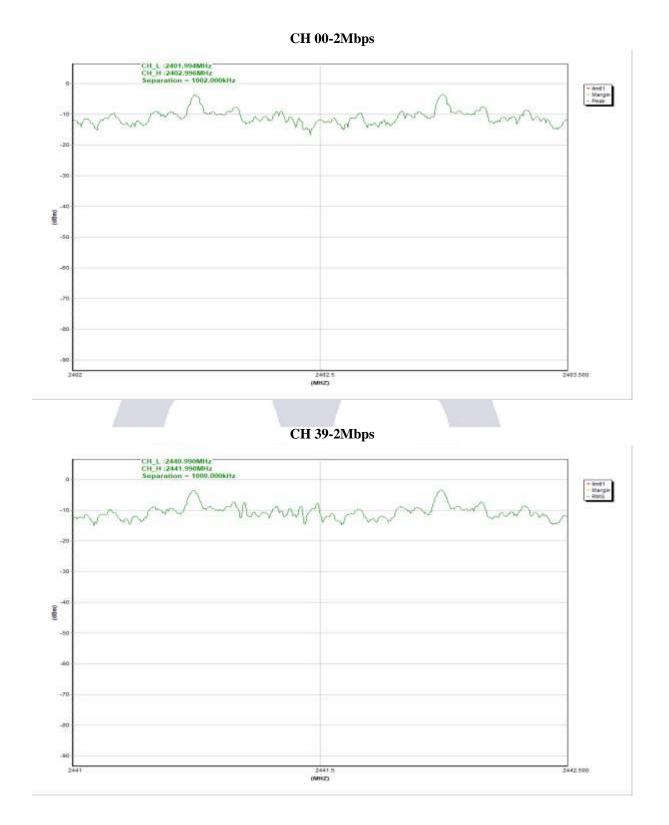




CH 78-1Mbps



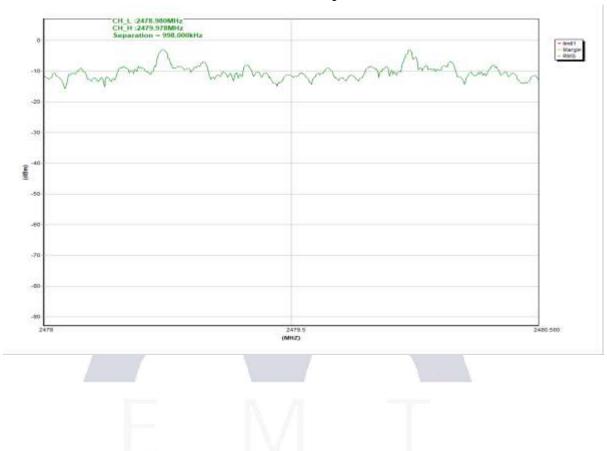




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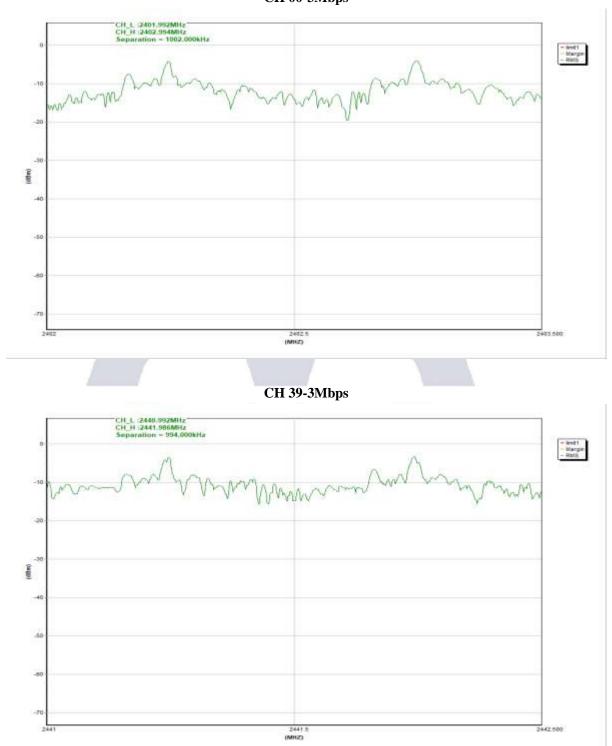




CH 78-2Mbps



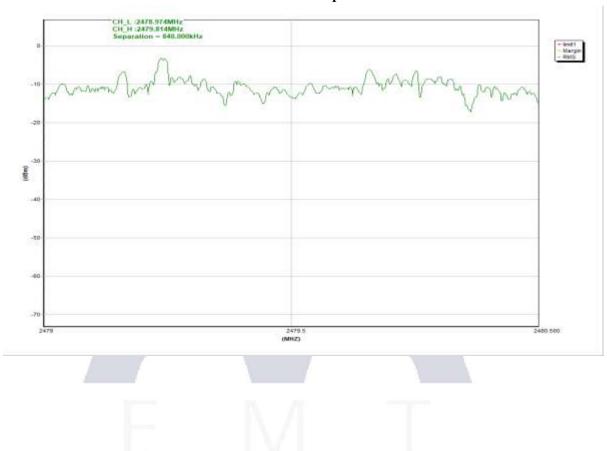




CH 00-3Mbps







CH 78-3Mbps





6.6 Hopping Channel Number

6.6.1 Applied procedures / Limit

15.247(a) (1) (iii) Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

6.6.2 Test procedure

- Connected the antenna port to the Spectrum Analyzer, set the Spectrum Analyzer as Span = the frequency band of operation, RBW ≥ 1% of the span, VBW ≥ RBW Sweep = auto Detector function = peak, Trace = max hold
- (2) The EUT should be have its hopping function enabled. Maxhold and record hopping channels It may prove necessary to break the span up to sections, in order to clearly show all of the hopping frequencies.

6.6.3 Deviation from standard

No deviation.

6.6.4 Test setup

EUT	SPECTRUM
	ANALYZER

6.6.5 Test result

Hopping Channel Number result							
Operating Mode: 1Mbps/ 2Mbps/3Mbps Mode Test date:2023-09-15							
Result	Limit		Conclusion				
79	>15		Pass				

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EUT:	Driveri	Model Name. :	D-450
Temperature:	25.4 °C	Relative Humidity:	55%
Pressure:	1010 hPa	Test Power :	110V AC, 60Hz
Test Mode :	TX 1Mbps/ 2Mbps/ 3Mbps		

1Mbps

Avg Type: Log-Pwr ep 15, 2 enter Freq 2.441750000 GHz Trig: Free Run #Atten: 30 dB PNO: Fast IFGain:Low DET P P P P P 9 Mkr2 2.480 160 0 GHz Ref Offset 0.5 dB Ref 12.27 dBm 2.27 dBn dB/div Start 2.40000 GHz #Res BW 100 kHz Stop 2.48350 GHz Sweep 8.000 ms (1001 pts) #VBW 300 kHz FUNCTION MKR MODE TRC SCL FUNCTION WIDTH 2.402 004 0 GHz 2.480 160 0 GHz 0.33 dBm 2.27 dBm ZZ ş 3456789011 STATUS

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2Mbps



3Mbps

enter F	Freq 2.	.44175000	PNC		PULGE Trig: Free Ru VAtten: 30 dB		Avg Type:	Log-Pwr	7	DPM Sep 14, 202 NACE 1 2 3 4 5 TYPE M MANAGE DET P P P P P
dB/div		7.94 dBm						Mkr2	2.479 9	93 0 GH 2.22 dBr
	MANA	nnann	ANNAN AN	mann	NAMANAA		www.	and a manual	www.	WWWW
1										Y
art 2.4	0000 G / 100 k			#VBW	300 kHz			Sweep	Stop 2. 8.000 ms	48350 GH
E MORE			2 004 0 GHz 993 0 GHz	-3.24 dB -2.22 dB		N RINC	TIDN WIDTH		NCTION VALUE	-
3										
1							STATUS			11.00





6.7 Dwell time

6.7.1 Applied procedures / Limit

15.247(a) (1) (iii) Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

6.7.2 Test procedure

- (1) Place the EUT on the table in the chamber or connect the antenna port of the EUT to spectrum analyzer and set it in transmitting mode.
- (2) Set RBW of spectrum analyzer to 1MHz, VBW \geq RBW
- (3) Use a video trigger with the trigger level set to enable triggering only on full pulses.
- (4) Sweep Time is more than once pulse time.
- (5) Set the center frequency on any frequency would be measure and set the frequency span to zero span.
- (6) Measure the maximum time duration of one single pulse.
- (7) Set the EUT for DH5, DH3 and DH1 packet transmitting.
- (8) Measure the maximum time duration of one single pulse.
- (9) A Period Time = 79*0.4=31.6 S
 - DH1 Time Slot: Reading * (1600/2)*31.6/79
 - DH3 Time Slot: Reading * (1600/4)*31.6/79
 - DH5 Time Slot: Reading * (1600/6)*31.6/79

6.7.3 Deviation from standard

No deviation.

6.7.4 Test setup







6.7.5 Test result

EUT:	Driveri	Model Name. :	D-450	
Temperature:	25.4 °C	Relative Humidity:	55%	
Pressure:	1010 hPa	Test Power :	110V AC, 60Hz	
Test Mode :	CH00-DH1/DH3/DH5 (1Mbps Mode)			

Data Packet	Frequency	Pulse Duration (ms)	Dwell Time (ms)	Limits (s)
DH1	2402 MHz	0.387	118.269	0.4000
DH3	2402 MHz	1.648	240.637	0.4000
DH5	2402 MHz	2.896	292.496	0.4000

CH 00- DH1

IL PF 50.9 AC CORREC enter Freq 2.402000000 GHz PN0; Fast IFGaint.ew	Trig: Video #Atten: 30 dB	Avg Type: Log-Pwr	05:49:15 PM Sep 15, 2023 TRACE 2 3 4 5 6 TYPE 000000000000000000000000000000000000	Frequency
Ref Offset 0.5 dB			Mkr2 761.6 µs -36.76 dBm	Auto Tune
22				Center Free 2.402000000 GH
12 52 52		2	TREAM	Start Free 2.402000000 GH
25 25 25 25		parter and a second	par jur gali shanga mari n	Stop Fre 2.402000000 GH
	1.0 MHz		Span 0 Hz 133 ms (1001 pts)	CF Ste 1.000000 MH Auto Ma
22 MORTHER Set 375.1 µs 1 N 1 t 375.1 µs 2 N 1 t 761.6 µs 3 4 5 6 7	-36.82 dBm -36.76 dBm	RUNCTION FUNCTION WIDTH	FUNCTION VALUE	Freq Offse 0 H
6 9 0 1		STATUS		

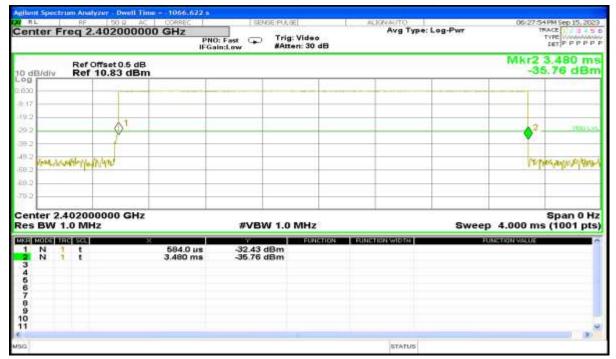




CH 00- DH3



CH 00- DH5



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EUT:	Driveri	Model Name. :	D-450	
Temperature:	25.4 °C	Relative Humidity:	55%	
Pressure:	1010 hPa	Test Power :	110V AC, 60Hz	
Test Mode :	CH00-2DH1/2DH3/2DH5 (2Mbps Mode)			

Data Packet	Frequency	Pulse Duration (ms)	Dwell Time (ms)	Limits (s)
2DH1	2402 MHz	0.392	120.0131	0.4000
2DH3	2402 MHz	1.648	238.989	0.4000
2DH5	2402 MHz	2.896	289.600	0.4000

CH 00- 2DH1

enter Freq 2.402000000 GHz	PNO: Fast Trig: Video IFGain:Low MAtten: 30 dl	Avg Type: Log-Pwr	03:36:04 PM Sep 15, 2023 TRACE 12:3 4 5 6 TYPE WWWWWWW DET P P P P P P
Bidly Ref Offset 0.5 dB			Mkr2 767.3 µs -26.87 dBm
94		The second second second second	
10		2	
19		· · · · · · · · · · · · · · · · · · ·	THEFT
3.9	N. N		
" new hour man man man man	he t t	LILLA ATTAL MOTOR	In Autor and big and the
	c nc	wied Adib.	of Marcas Andreastic unsu a fel
19			
enter 2.402000000 GHz	#VBW 1.0 MHz	Swee	Span 0 Hz p 1.133 ms (1001 pts
R MODE TRO SOL			FUNKTION WALLE
	1 us -36.08 dBm 3 us -26.87 dBm		





CH 00- 2DH3



CH 00- 2DH5

				g:Video tten:30 dB	AUGNAUTO Avg Type:	Log-Pwr	79	PM Sep 21, 202 ACE 2 3 4 5 TYPE P P P P P
dB/div R	ef Offset 0.0 ef 9.37 di							3.740 mi 12 dBn
163								
0.6			V 10 C 10 C 10	1 113	11	- North And	Alexa Alexa	
0.6		61						¢2
0.0		1						
	Contraction of	London .						WAR AN
BE	and Monter M	54 stale						and be
0.6	-							
0.6								
enter 2.402 es BW 1.0		GHz	#VBW 1.0	MHz		Sweep	4.000 ms	Span 0 H (1001 pt
	61 M	844.0 µs	-31,70 dBm	FUNCTION	FUNCTION WIDTH	FI)	NCTION VALUE	
1 N 1 1 2 N 1 1		3.740 ms	-29.12 dBm					
4								
5								
9								
0								
								11.170

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EUT:	Driveri	Model Name. :	D-450	
Temperature:	25.4 °C	Relative Humidity:	55%	
Pressure:	1010 hPa	Test Power :	110V AC, 60Hz	
Test Mode :	CH00-3DH1/3DH3/3DH5 (3Mbps Mode)			

Data Packet	Frequency	Pulse Duration (ms)	Dwell Time (ms)	Limits (s)
3DH1	2402 MHz	0.392	120.013	0.4000
3DH3	2402 MHz	1.645	240.170	0.4000
3DH5	2402 MHz	2.900	292.900	0.4000

CH 00- 3DH1

Center Freq 2.402000000 GHz	PNO: Fast PNG: Video IFGain:Low #Atten: 30	Avg Type: Log-Pwr dB	03:51:01 PM Sep 14, 2023 TRACE 12:3:4:5:6 TYPE DOT P P P P P
0 dB/div Ref 9.20 dBm			Mkr2 767.3 µs -25.11 dBm
0.80			
-10.0		2	
20.0	1	1	THE
40.8	V.V.		
SUB	N	to all a start of the	LAN THE SUCCESSION OF
203 White has had been been been and had the	. 	J. Martin	AND MALE AND A MARKEN BILL BAL
70.9			
80.0			
Center 2.402000000 GHz Res BW 1.0 MHz	#VBW 1.0 MHz	Sw	Span 0 Hz eep 1.133 ms (1001 pts
1 N 1 t 375.1		CTION FUNCTION WIDTH	FUNCTION VALUE
1 N 1 t 375.1 2 N 1 t 767.3 4 5 6 7 9 9 10 11	us -25,11 dBm		

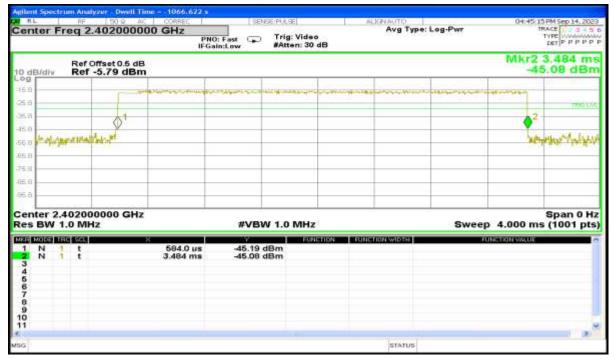




CH 00- 3DH3



CH 00- 3DH5



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6.8 Maximum Peak Output Power

6.8.1 Applied procedures / Limit

15.247(a) (1) Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400–2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

15.247(b) (1) For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

6.8.2 Test procedure

- Connected the antenna port to the Spectrum Analyzer, set the Spectrum Analyzer as Span = approximately 5 times the 20 dB bandwidth, centered on a hopping channel RBW > the 20 dB bandwidth of the emission being measured, VBW ≥ RBW, Sweep = auto Detector function = peak, Trace = max hold
- (2) The EUT should be transmitting at its maximum data rate. Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. The indicated level is the peak output power.
- (3) The above procedure shall be repeated at the lowest, the middle, and the highest frequency of the stated frequency range with modulated mode. Also shall be performed at different modes of operation.

6.8.3 Deviation from standard

No deviation.

6.8.4 Test setup







6.8.5 Test results

EUT:	Driveri	Model Name. :	D-450		
Temperature:	25.4 °C	Relative Humidity:	55%		
Pressure:	1010 hPa	Test Power :	110V AC, 60Hz		
Test Mode :	Test Mode : TX 1Mbps/ 2Mbps/3Mbps				
Note: All the data rat	tes have be tested and the worst-case as	s the table below.			

Test Mode	Frequency	Peak Output Power (dBm)	Limit (dBm)	Result
	2402 MHz	0.77	21	Pass
Data rate 1Mbps	2441 MHz	1.31	21	Pass
	2480 MHz	2.13	21	Pass
	2402 MHz	-0.63	21	Pass
Data rate 2Mbps	2441 MHz	0.11	21	Pass
	2480 MHz	0.60	21	Pass
	2402 MHz	-0.49	21	Pass
Data rate 3Mbps	2441 MHz	0.23	21	Pass
	2480 MHz	0.86	21	Pass
Cable loss = 1.0 dBm				

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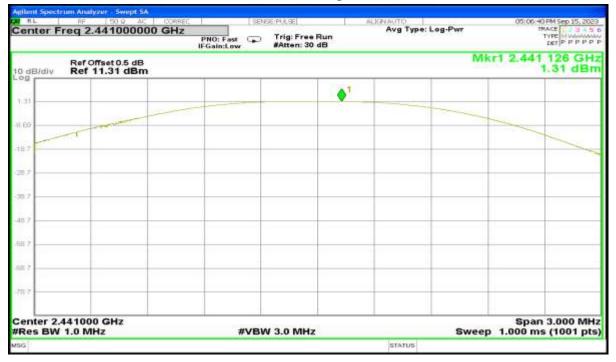




CH 00-1Mbps

ter Freq 2.40200000	GHz	Trig: Free Run #Atten: 30 dB		Avg Type: Log-Pwr	04:53:23 PM Sep 15, 2023 TRACE 2:3:4:5 TYPE Mindowards DET P P P P P	
Ref Offset 0.5 dB B/div Ref 10.77 dBm				M	0.77 dBr	
			0 1			
PIT TOTOM						
ter 2.402000 GHz s BW 1.0 MHz	#\	/BW 3.0 MHz	4	Sweer	Span 3.000 MH 0 1.000 ms (1001 pts	
	STATUS					

CH 39-1Mbps







CH 78-1Mbps







CH 00-2Mbps

nter Freq 2.402000000 G	Hz PNO: Fast	Fig: Free Run Atten: 30 dB	Avg Type: Log-Pwr	05:58:03 PM Sep 14, 2023 TRACE 1 2 3 4 5 TYPE M MANAGE DET P P P P P
dB/div Ref 9.37 dBm			М	41 2.402 081 GH -0.63 dBr
3		0 1		
-				
nter 2.402000 GHz				Span 3.000 MH
es BW 1.0 MHz	#VBW 3	3.0 MHz	Swee	p 1.000 ms (1001 pt

CH 39-2Mbps







CH 78-2Mbps

Spectrum Analyzer - Swept SA		2.500 - 5550 - 500			1272/70/270 10578-20
Spectrum Analyzer - Swept SA RF (150 0) AC er Freq 2.480000000	CORREC	SENSE PLAGE	tin l	Avg Type: Log-Pwr	06;31:12 PM Sep 14, 2023 TRACE
er Freq 2.48000000	PNO: Fast	Trig: Free R	un	HAR INE FOR ME	DET P P P P P
	IFGain:Low	#Atten: 30 d	в		
Ref Offset 0.5 dB				M	kr1 2.480 102 GHz
div Ref 10.60 dBm					0.60 dBm
			A1		
			•		
121					
er 2.480000 GHz BW 1.0 MHz		VBW 3.0 MHz		Suga	Span 3.000 MHz p 1.000 ms (1001 pts)
BW 1.0 MINZ		VEW 5.0 WHZ		and a start of the	p 1.000 ms (1001 pts)
				STATUS	

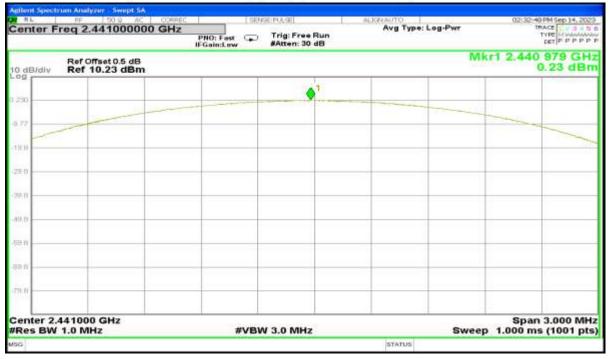




CH 00-3Mbps



CH 39-3Mbps







CH 78-3Mbps







6.9 Band edge

6.9.1 Applied procedures / Limit

15.247(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.205(c)).

6.9.2 Test procedure

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Span = wide enough to capture the peak level of the emission operating on the channel closest to the bandedge, as well as any modulation products which fall outside of the authorized band of operation, RBW ≥ 1% of the span, VBW ≥ RBW, Sweep = auto, Detector function = peak, Trace = max hold

6.9.3 Deviation from standard

No deviation.

6.9.4 Test setup

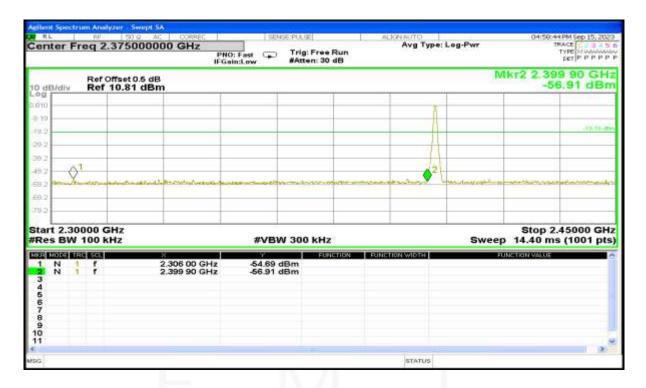






6.9.5 Test results

CH00 (Lower) Data rate 1Mbps



CH 78 (Upper) Data rate 1Mbps

enter Freq 2.5050	00000 GHz	SENSE PUX	: Free Run	Avg Type:	Log-Pwr	190	PM Sep 15, 2025 ACE 2 3 4 5 YPE M Internet
	IFGa	in:Low #At	ten: 30 dB				DETPPPP
Bidiv Ref Offset 0					M	lkr2 2.576 -53	70 GHz
00			1				2 - 11 - 12 - 13 - 13 - 13 - 13 - 13 - 1
.92		4					
8.0							17.05.00
0.0		A					
8.0		1					
1.0		0'					•
D Harden eine Parroy Hoter alle Philip		"Madages and good	Curto-salartic land handlings	water in the other statute	- million and an and	4 Self (Barthadadath)	for utilities fine
50							
tart 2.43000 GHz Res BW 100 kHz		#VBW 30	0 kHz		Sweep	Stop 2.5 14.40 ms	8000 GH (1001 pts
	2.483 55 GHz	-57.38 dBm	FUNCTION	FUNCTION WIDTH	FL	UNCTION VALUE	
1 N 1 F 2 N 1 F 3	2.576 70 GHz	-53.71 dBm					
4							
5 8 7							
8							
0							
1							1.00
				STATUS			

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Plot No.174, Udyog Vihar Phase 4, Sector -18, Gurgaon -122016, Haryana, India Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: <u>www.aaemtlabs.com</u> Decision Rule: The result of conformity based on the mentioned standards actual test limits / levels

AAEMT/A2LA/TRF/FCC-15C/22_01_REV1

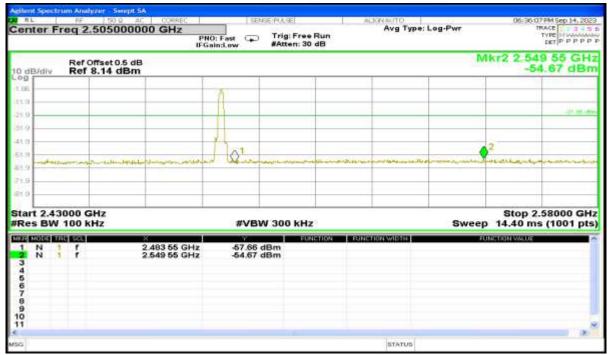






CH00 (Lower) Data rate 2Mbps

CH 78 (Upper) Data rate 2Mbps



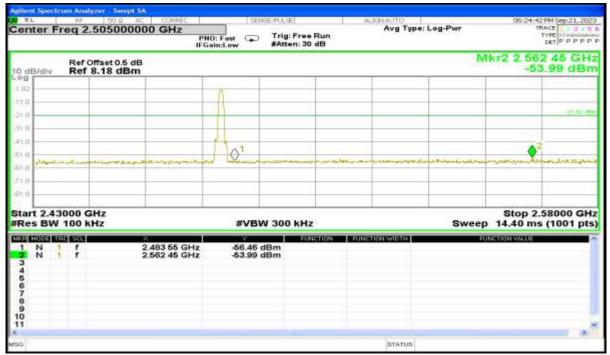






CH00 (Lower) Data rate 3Mbps

CH 78 (Upper) Data rate 3Mbps







6.10 Conducted Spurious Emissions

6.10.1 Applied procedures / Limit

15.247(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.205(c)).

6.10.2 Test procedure

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10th harmonic. Typically, several plots are required to cover this entire span. RBW = 100 kHz VBW ≥ RBW, Sweep = auto, Detector function = peak, Trace = max hold Sweep points ≥ investigated frequency range/RBW.

6.10.3 Deviation from standard

No deviation.

6.10.4 Test setup







6.10.5 Test results

CH00 Data rate 1Mbps

₩ Spectrum Ref Level 30.00 dBm 🐵 RBW 100 kHz Att 50 dB SWT 9.7 ms 🖷 VBW 300 kHz Mode Auto Sweep 🛛 1Pk Max PASS Limit Check M1[1] 37.62 dBm Line -22.93dbm 748.00 MHz PASS 20 dBm 10 dBm 0 dBm--10 dBm 22.93dbm -30 dBm-MI 40 dB07 -50 dBm--60 dBm Stop 1.0 GHz 691 pts Start 30.0 MHz Marker Type | Ref | Trc X-value Y-value Function Function Result 748.0 MHz M1 -37.62 dBm 1

CH00 Data rate 1Mbps

Ref Lev	/el 30.00 d			₩ 100 kHz			
Att		dB SWT 2	20 ms 🖷 VB	W 300 kHz - Ma	de Auto Sweep	1	
●1Pk Ma							
Lim Line 20 dBm-	it Check e -22.93db	m		ALL ALL	M1[1]		-2.93 dBn 2.40230 GH
10 ID							
10 dBm-							
0 dBm—						M1	(2
-10 dBm							
22.93db	m		_			_	
-30 dBm							
	ىمىلىدىنى مەر ىيەر	1.4 Your March 10	<u>- manananan</u>	a hole much and a decoder	mounder	hunderendered	approximation
-50 dBm	-						
-60 dBm							-
Start 1.	0 GHz			691 pt	s		Stop 3.0 GHz
Marker	n. (m.			1107 000-001 0000	1		
Type M1	Ref Trc	X-va	4023 GHz	-2.93 dBm	Function	Func	tion Result

Note: Marker 1 is the intentional frequency from EUT, Hence considered as pass.





u ∀ Spectrum Ref Level 30.00 dBm RBW 100 kHz 🖷 VBW 300 kHz Att 50 dB **SWT** 100 ms Mode Auto Sweep ⊖1Pk Max -33.13 dBm 6.9580 GHz Limit Check PASS M1[1] 2.93dbm Line 20 dBm 10 dBm 0 dBm -10 dBm 22.93dbm -30 dBm horidation has under the w 14 Million ald no but here 4hra 40 DETAIL -50 dBm -60 dBm Start 3.0 GHz Stop 13.0 GHz 691 pts Marker Ref | Trc Function **Function Result** Type X-value Y-value 6.958 GHz M1 1 -33.13 dBm

CH00 Data rate 1Mbps

CH00 Data rate 1Mbps

Spectru	el 30.00 dBm	a Di	3W 100 kHz			
Att	50 dB			ode Auto Sweep		
1Pk Ma						
	Check -22.93dbm		PASS PASS	M1[1]	1 1	-32.36 dBr 15.8740 GH
10 dBm—						
0 dBm—	_					
-10 dBm-						
22.93dbn	i					
-30 dBm-		MI and A Maldle & America	de M. Jan Ja Anna	usinh in al		Hours un consulture of lance
-40 dBm-	hand a determined	and A construction	and the same as	and the second	man and the character of the	hip de martin
-50 dBm-						
-60 dBm-					_	
Start 13	.0 GHz		691 pt	s		Stop 25.0 GHz
Marker Type 1	Ref Trc	X-value	Y-value	Function	Functio	n Result
M1	1	15.874 GHz	-32,36 dBm			

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CH39 Data rate 1Mbps





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Report No.: AAEMT/RF/230809-01-02

CH78 Data rate 1Mbps

Spectrum						T T
Ref Level Att	30.00 dBm 50 dB	● Ri SWT 9.7 ms ● V	BW 100 kHz BW 300 kHz M	ode Auto Swee	n	
1Pk Max	00 00	GINT STERIS V		Due Auto Siles	8	
Limit C Line -2 20 dBm	heck 1.50dbm		PASS PASS	M1[1]	1	-37.40 dBi 916.50 Mi-
10 dBm						
0 dBm						
-10 dBm				4		21
21.50dbm-						
-30 dBm						M1
HQ.dpa-u	h to you wanted and	and president and my and strange		in state and in the second state of the	and the production of the second standing of the second second second second second second second second second	
-50 dBm						
-60 dBm						
Start 30.0	MHz		691 p	ts		Stop 1.0 GHz
1arker Type Ref	Trc	X-value	Y-value	Function	Function Re	sult
M1	1	916.5 MHz	-37.40 dBm			

CH78 Data rate 1Mbps

Spectrum Ref Level 30.00 dE	- DD	W 100 kHz			[\(\neg \)
Att 50		1992 - 1797 - Martin 1997	de Auto Sweep		
P1Pk Max		TH SOURCE INC	de Adto Sweep		
Limit Check Line -21.50dbr 20 dBm		FAIL	M1[1]		-1.50 dBm 2.48050 GHz
10 dBm					
0 dBm				Ml	
-10 dBm					
-21.50dbm					
-30 dBm					
14016Barrowwww	me ball worth and the south and	win show on the	landatter marine and marine	ashapmorehenserenses	aurunkan wallenenkie
-50 dBm				/· /·	
-60 dBm					
Start 1.0 GHz		691 pt	S		Stop 3.0 GHz
Marker Type Ref Trc	X-value	Y-value	Function	Functio	in Result
M1 1	2.4805 GHz	-1.50 dBm	. and the second	T uncero	

Note: Marker 1 is the intentional frequency from EUT, Hence considered as pass.

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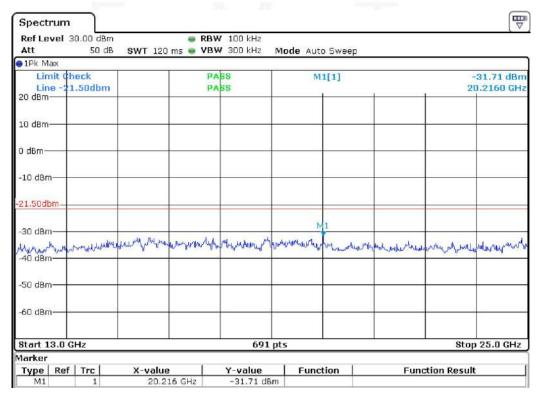




CH78 Data rate 1Mbps

₩ Spectrum Ref Level 30.00 dBm RBW 100 kHz SWT 100 ms 👄 VBW 300 kHz Att 50 dB Mode Auto Sweep > 1Pk Max Limit Check M1[1] -33.09 dBm PASS 1.50dbm PASS 6.5530 GHz Line 20 dBm 10 dBm 0 dBm -10 dBm 21.50db -30 dBm MI a line 11 haven 40 dBm--50 dBm -60 dBm Stop 13.0 GHz 691 pts Start 3.0 GHz Marker Type | Ref | Trc | X-value Y-value Function **Function Result** 6.553 GHz M1 33.09 dBm

CH78 Data rate 1Mbps



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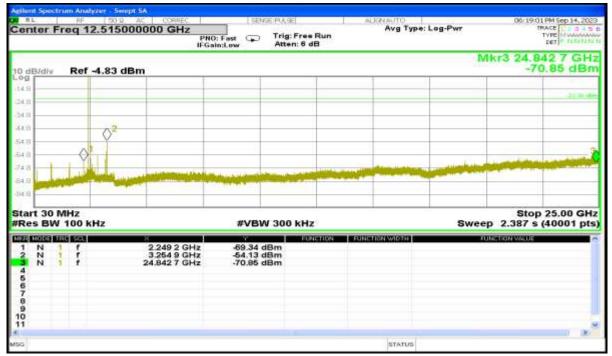






CH00 Data rate 2Mbps

CH39 Data rate 2Mbps

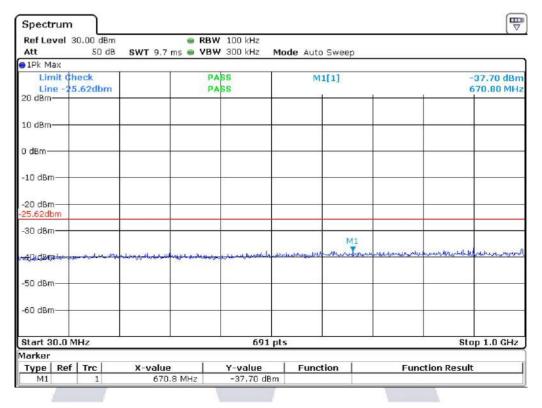


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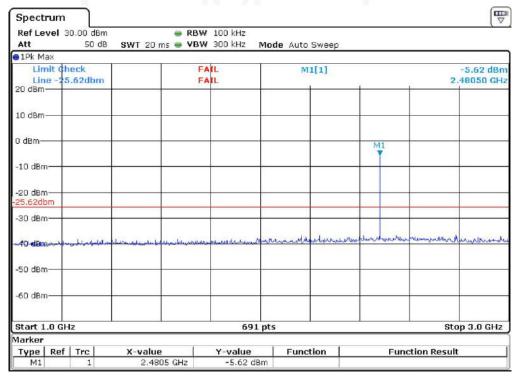




CH78 Data rate 2Mbps



CH78 Data rate 2Mbps



Note: Marker 1 is the intentional frequency from EUT, Hence considered as pass.

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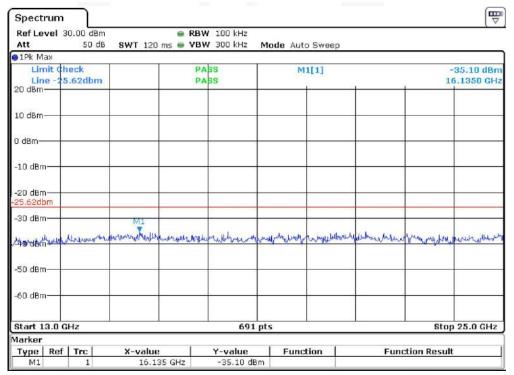




CH78 Data rate 2Mbps

Spectrun	30.00 dBm		nu too hu-			(\
			BW 100 kHz			
Att 1Pk Max	50 dB	SWT 100 ms 🖷 ۷	BW 300 KHZ M	ode Auto Sweep)	
			a ha			
Limit (sneck 25.62dbm		PASS	M1[1]		-32.47 dBn 6.9730 GH
20 dBm	co.ozuom		PAD			6.9730 GH.
10 dBm						
0 dBm						
-10 dBm			_			
-20 dBm						
-30 dBm			MI			
40 dBm	endeaveller	annun auchartentanti	Harring Harring and	ny see m. nontrolly	abberennentry	had and the hast of the stand
-50 dBm—						
-60 dBm—	1					01-
Start 3.0 (GHz		691 pt	s		Stop 13.0 GHz
Aarker	6 Tran 1	V.uslug I	v	E-matter 1	Fur at a	n Da suit
Type Re M1	f Trc	X-value 6.973 GHz	-32.47 dBm	Function	Functio	n Result

CH78 Data rate 2Mbps









CH00 Data rate 3Mbps





CH39 Data rate 3Mbps

	1 00									
	vel 30	.00 dBm		RBW 100						
Att		50 dB	SWT 9.7 ms	• VBW 300	ikHz Mu	ode Auto	i Sweep			
1Pk M	7.54									
	nit Che			PASS		M	1[1]			-37.41 dBr
20 dBm	e 26.3	2dbm		PASS			1			923.50 MH
20 abm										
10 dBm										
0 dBm-										
n anu-									с. 	
-10 dBn										
-10 UBI										
-20 dBn										
-20 aBn 26.32db										
	-						1			
-30 dBn									2	M1
-40 dBa		I ald store	al all and a second	Cal Januard In April	at a shi a she	ka hahra	aliter the pite	Lu-1440 months	montryment	maland
- SAME CLEAN	Tableco	No Change	A PARACE OF LEGA	Angement A.		Area				
-50 dBn										
-50-061										
-60 dBn										
-ou ubn										
Start 3	0.0 MH	IZ			691 pt	5			Sto	pp 1.0 GHz
Aarker										
Type	Ref	Trc	X-value	Y-1	value	Fund	tion	Func	tion Result	į

CH39 Data rate 3Mbps

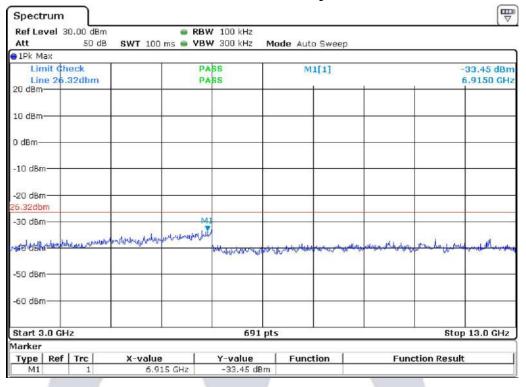
Spectru						[₩
10000	el 30.00 dBm		₩ 100 kHz			
Att	50 dB	SWT 20 ms 🖷 VB	W 300 kHz Mo	de Auto Sweep		
€1Pk Max						
	Check		ALL	M1[1]		-6.32 dBn
20 dBm-	26.32dbm	1	ALL	1	r 7	2.43990 GH
20 UBIII-						
10 dBm—	-		-		_	
0 dBm						
					M1	
-10 dBm—	<u>.</u>					
-20 dBm—	_		_			-1
26.32dbm						
-30 dBm—						
w40_d8ha~	<mark>م</mark> حالية فيتط <mark>ارح بالأس</mark> يا <mark>ب</mark>		in the second second second	when the worker	monthemand	al municipal and the second
-50 dBm-					_	
-60 dBm—						
-00 UBIII-						
Start 1.0	GHz		691 pts	5		Stop 3.0 GHz
Marker						
	tef Trc	X-value	Y-value	Function	Function	Result
M1	1	2.4399 GHz	-6.32 dBm			

Note: Marker 1 is the intentional frequency from EUT, Hence considered as pass.

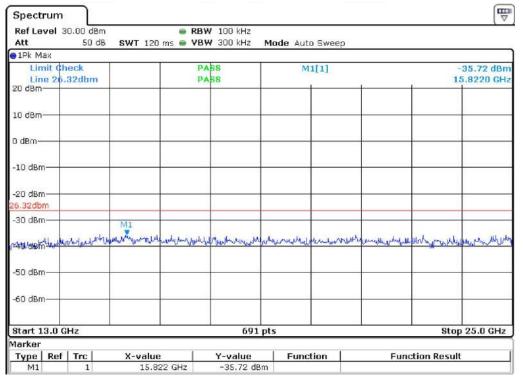




CH39 Data rate 3Mbps



CH39 Data rate 3Mbps



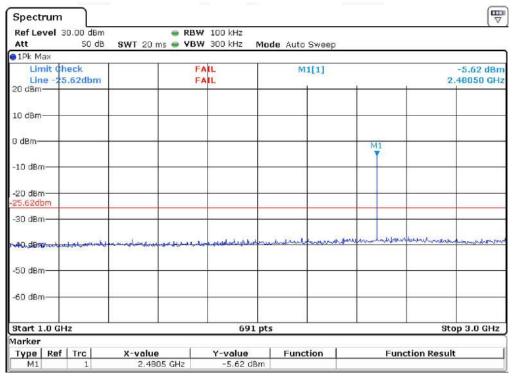




CH78 Data rate 3Mbps

Ref Level 3 Att	0.00 dBm 50 dB		3W 100 kHz 3W 300 kHz Mi	ode Auto Sweep	1	
1Pk Max						
Limit Ch Line -25 20 dBm			PABS PABS	M1[1]	1 1	-38.39 dBr 189.30 MH
10 dBm			-		_	
0 dBm			_			
-10 dBm			_			
-20 dBm						
-30 dBm	M1					
-50 dBm	weather the second	announted so and	and a second second	divine miles - game	ىرىيە <mark>تىرىكى بىرىكى بىرىكى بىرىكى بىرىكى بىلىرىكى بىلىرىكى بىلىرىكى بىلىرىكى بىلىرىكى بىلىرىكى بىلىرىكى بىلىرىك</mark>	anger den fred man wer after so
-60 dBm						
Start 30.0 M			601-1			Stop 1.0 Cili-
Start 30.0 M Marker	HZ		691 pt	5		Stop 1.0 GHz
	Trc 1	X-value 189.3 MHz	Y-value -38.39 dBm	Function	Functio	on Result

CH78 Data rate 3Mbps



Note: Marker 1 is the intentional frequency from EUT, Hence considered as pass.





CH78 Data rate 3Mbps

Type Ref Trc	X-value 6.987 GHz	Y-value -34.00 dBm	Function	Function	n Result
Marker			••••••••••••••••••••••••••••••••••••••		500p 15.0 GHz
-60 dBm		691 pt	E		Stop 13.0 GHz
-50 dBm		-			
Mag B M and M M M M M M M M M M M M M M M M M M M	warmanherwended	www.	when we	Warmy mary the	All day all all a base a ball a lot
-30 dBm		ME			
-20 dBm					
-10 dBm					
0 dBm					
10 dBm					
Limit Check Line -25.62dbm 20 dBm		PASS	M1[1]	1	-34.00 dBr 6.9870 GH
1Pk Max	r				
Ref Level 30.00 dBm Att 50 dB	● RI SWT 100 ms ● V	BW 100 kHz BW 300 kHz M	ode Auto Sweep		
Spectrum					

CH78 Data rate 3Mbps

Spectrum					(
Ref Level 30.00 dBm		BW 100 kHz	126		
Att 50 dB	SWT 120 ms 🖷 V	'BW 300 kHz M	lode Auto Sweep	1	
1Pk Max					
Limit Check		PASS	M1[1]		-34.38 dBr
Line -25.62dbm 20 dBm		PASS			15.8390 GH
0.8.032.567					
10 dBm-				_	
5/20/215/210					
0 dBm					
-10 dBm		-		_	
-20 dBm					
25.62dbm					
-30 dBm	M1				2
-30 dBm	muchinterrende	hour he worth a port at	whentermen	on for all many	May mon the
-40 dBm					
and and a second se					
-50 dBm					
22.2					
-60 dBm					
Start 13.0 GHz		691 pt	<u>د</u>		Stop 25.0 GHz
Jarker		091 pc			000p 20.0 GHz
Type Ref Trc	X-value	Y-value	Function	Function	Result
M1 1	15.839 GHz	-34,38 dBm		1 underen	



End of Report

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