

Prüfbericht-Nr.: <i>Test report no.:</i>	CN21JMKA(P15C-24GHz) 001	Auftrags-Nr.: <i>Order no.:</i>	238495716	Seite 1 von 21 Page 1 of 21
Kunden-Referenz-Nr.: <i>Client reference no.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	2020-12-28	
Auftraggeber: <i>Client:</i>	SZ DJI TECHNOLOGY CO.,LTD. 14th floor, West Wing, Skyworth Semiconductor Design Building NO.18 Gaoxin South 4th Ave, Nanshan, Shenzhen, Guangdong, China			
Prüfgegenstand: <i>Test item:</i>	Upward Radar			
Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i>	RD2414U			
Auftrags-Inhalt: <i>Order content:</i>	FCC Part 15C Test report			
Prüfgrundlage: <i>Test specification:</i>	FCC 47CFR Part 15: Subpart C Section 15.249			
Wareneingangsdatum: <i>Date of sample receipt:</i>	2020-12-11			
Prüfmuster-Nr.: <i>Test sample no.:</i>	A002967117-019			
Prüfzeitraum: <i>Testing period:</i>	2020-12-30 - 2021-03-05			
Ort der Prüfung: <i>Place of testing:</i>	EMC/RF Taipei Testing Site			
Prüflaboratorium: <i>Testing laboratory:</i>	Taipei Testing Laboratories			
Prüfergebnis*: <i>Test result*:</i>	Pass			
überprüft von: <i>reviewed by:</i>		genehmigt von: <i>authorized by:</i>		
Datum: <i>Date:</i>	2021-03-05	Ausstellungsdatum: <i>Issue date:</i>	2021-03-05	
Stellung / Position:	Senior Project Engineer	Stellung / Position:	Senior Project Manager	
Sonstiges / Other:				
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
* Legende:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend N/A = nicht anwendbar	4 = ausreichend N/T = nicht getestet
* Legend:	1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	3 = satisfactory N/A = not applicable	4 = sufficient N/T = not tested
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

TEST SUMMARY

Report Section	FCC Clause	Test Item	Result
5.1.1	15.203	Antenna Requirement	Pass
5.1.2	15.215	20 dB Bandwidth	Pass
5.1.2	2.1049	99% Occupied Bandwidth	Pass
5.1.3	15.249 (a)	Field Strength of Fundamental Emissions	Pass
5.1.4	15.249 (d)	Radiated Spurious Emissions	Pass
-	15.207	Mains Conducted Emission	Not Applicable

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

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Prüfbericht - Nr.: CN21JMKA(P15C-24GHz) 001
Test Report No.Seite 4 von 21
Page 4 of 21**HISTORY OF THIS TEST REPORT**

Report No.	Description	Date Issued
CN21JMKA(P15C-24GHz) 001	Original Release	2021-03-05

1. General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A - Test Result of Radiated Emissions

Appendix SP - Photographs of Test Setup

Appendix EP - Photographs of EUT

Applied Standard and Test Levels

Radio
FCC 47CFR Part 15: Subpart C Section 15.249
ANSI C63.10:2013

1.2 Decision Rule of Conformity

The decision rule of conformity of this test report is following the requirements of the requested standard in the quotation, and agreed among testing laboratory and manufacturer (applicant) to exclude the consideration of Measurement Uncertainty, unless it is required by the specific standard.

2. Test Sites

2.1 Test Laboratory

Taipei Testing Laboratories

11F. No.758, Sec. 4, Bade Rd., Songshan Dist.
Taipei City 105
Taiwan (R.O.C.)

2.2 Test Facility

Taipei Testing Laboratories

No.458-18, Sec. 2, Fenliao Rd., Linkou Dist.,
New Taipei City 244
Taiwan (R.O.C.)
FCC Registration No.: 226631
ISED Registration No.: 25563

2.3 Traceability

All measurement equipment calibrations are traceable to NML(Taiwan)/NIST(USA) or where calibration is performed outside Taiwan, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically in a suitably accredited Calibration Lab. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

All measurement uncertainty values are shown with a coverage factor of $k=2$ to indicate a 95% level of confidence.

Emission Measurement Uncertainty

Parameter	Uncertainty
Radiated Emission (9 kHz ~ 30 MHz)	± 1.15 dB
Radiated Emission (30 MHz ~ 200 MHz)	± 1.32 dB
Radiated Emission (200 MHz ~ 1 GHz)	± 1.31 dB
Radiated Emission (1 GHz ~ 18 GHz)	± 1.53 dB
Radiated Emission (18 GHz ~ 40 GHz)	± 2.50 dB
Radiated Emission (40 GHz ~ 100 GHz)	± 1.78 dB
Mains Conducted Emission	± 1.65 dB

3. General Product Information

3.1 Product Function and Intended Use

The EUT is an Upward Radar. It contains a 24GHz compatible module enabling the user to detect the object from the blindside through a radar detector.

For details refer to the User Guide, Data Sheet and Circuit Diagram.

3.2 System Details and Ratings

Basic Information of EUT

Item	EUT information
Kind of Equipment/Test Item	Upward Radar
Type Identification	RD2414U
FCC ID	SS3-RD2414U

Technical Specification of EUT

Item	EUT information
Operating Frequency	24.05-24.25GHz
Operation Voltage	15Vdc
Modulation	FMCW
Antenna Information	Refer to 5.1.1
Accessory Device	Refer to 4.3

3.3 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

3.4 Submitted Documents

- Circuit Diagram
- Instruction Manual
- Rating Label
- Technical Description

4. Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its maximum emission level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Setup for testing: The EUT is tested after the power is on.

Test Software	None.
---------------	-------

The samples were used as follows:

A002967117-019

Full test was applied on all test modes, but only worst case was shown.

EUT Configure Mode	Applicable To				Description
	20 dB Bandwidth and Occupied Bandwidth	Field Strength of Fundamental Emissions	Radiated Spurious Emissions	Mains Conducted Emission	
-	√	√	√	-	-

Note:

1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when position on Y-plane.
2. "-" means no effect.

20 dB Bandwidth and Occupied Bandwidth

- Pre-Scan full test was applied on all test modes, but only worst case was shown.
- Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Available Frequency (GHz)	Tested Frequency (GHz)
-	24.05 to 24.25	24.05-24.25

Field Strength of Fundamental Emissions

- Pre-Scan full test was applied on all test modes, but only worst case was shown.
- Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Available Frequency (GHz)	Tested Frequency (GHz)
-	24.05 to 24.25	24.05-24.25

Radiated Spurious Emission

- Pre-Scan full test was applied on all test modes, but only worst case was shown.
- Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Available Frequency (GHz)	Tested Frequency (GHz)
-	24.05 to 24.25	24.05-24.25

Test Condition

Test Item	Ambient Temperature	Relative Humidity	Tested by
20 dB Bandwidth & 99% Occupied Bandwidth	19.1~21.1 °C	67~69 %	Eagle Tsai
Radiated Spurious Emissions	19.1~21.1 °C	67~69 %	Eagle Tsai
Field Strength of Fundamental Emissions	19.1~21.1 °C	67~69 %	Eagle Tsai

4.3 Special Accessories and Auxiliary Equipment

The product has been tested together with the following additional accessories:

Accessory of EUT

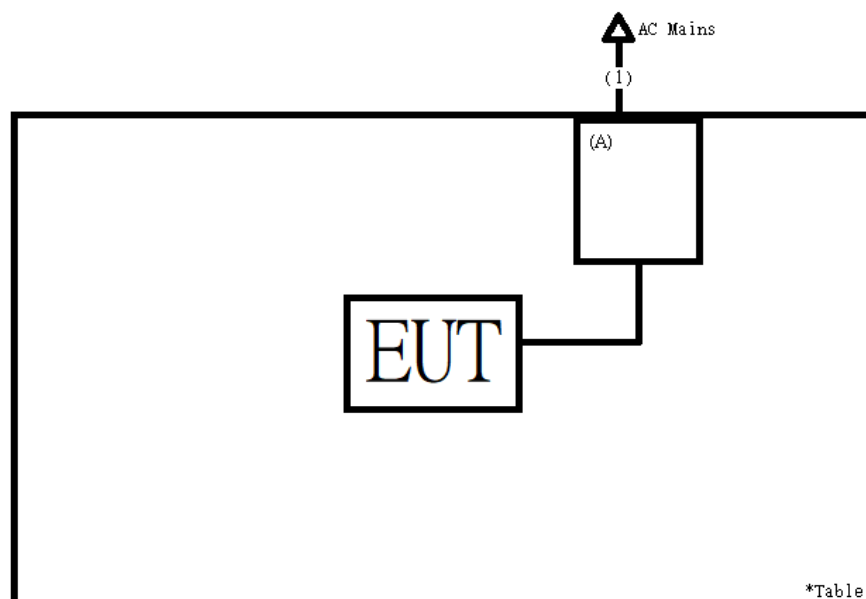
None.

Support Unit

No.	Description	Brand	Model	S/N	Remark
Radiated Test					
A	Fixture	DJI	PP002212.01	-	-
1	Power Cable	TUV	006	-	160 cm non-shielded cable w/o core

4.4 Test Setup Diagram

<Radiated Spurious Emissions mode>



5. Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

Requirement Use of approved antennas only

According to the manufacturer declaration, the EUT has an antenna with a directional gain of 13 dBi. The antenna is a linear antenna with no possibility of replacement with a non-approved antenna by the end-user. Therefore, the EUT is considered to comply with this provision.

Refer to EUT photo for details.

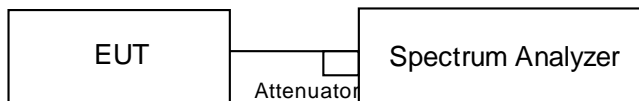
5.1.2 20 dB Bandwidth and 99% Occupied Bandwidth

Limit

The occupied bandwidth shall be specified in operating frequency band.

Kind of Test Site Shielded room

Test Setup

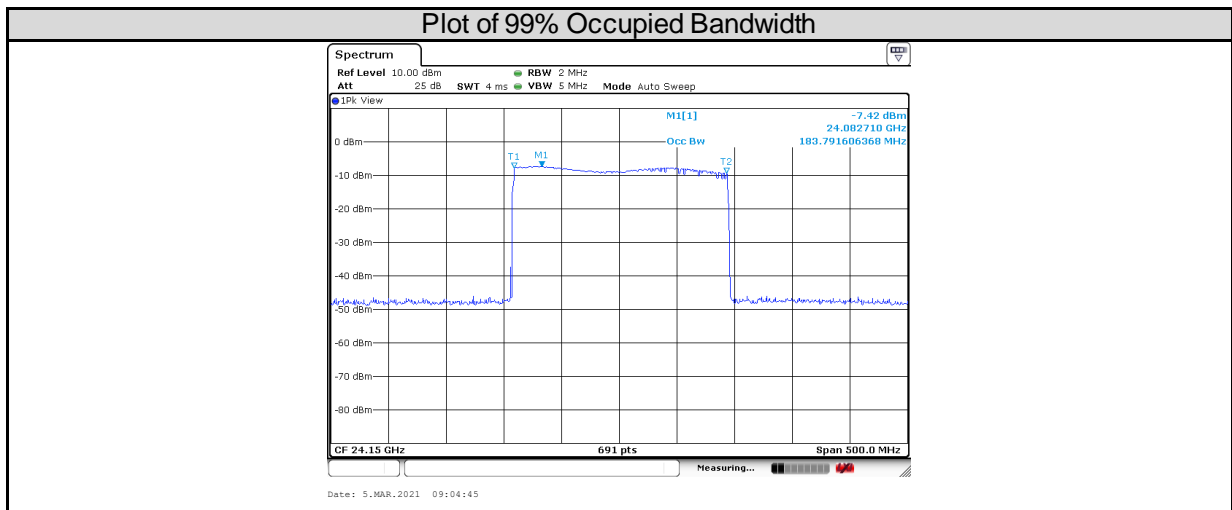
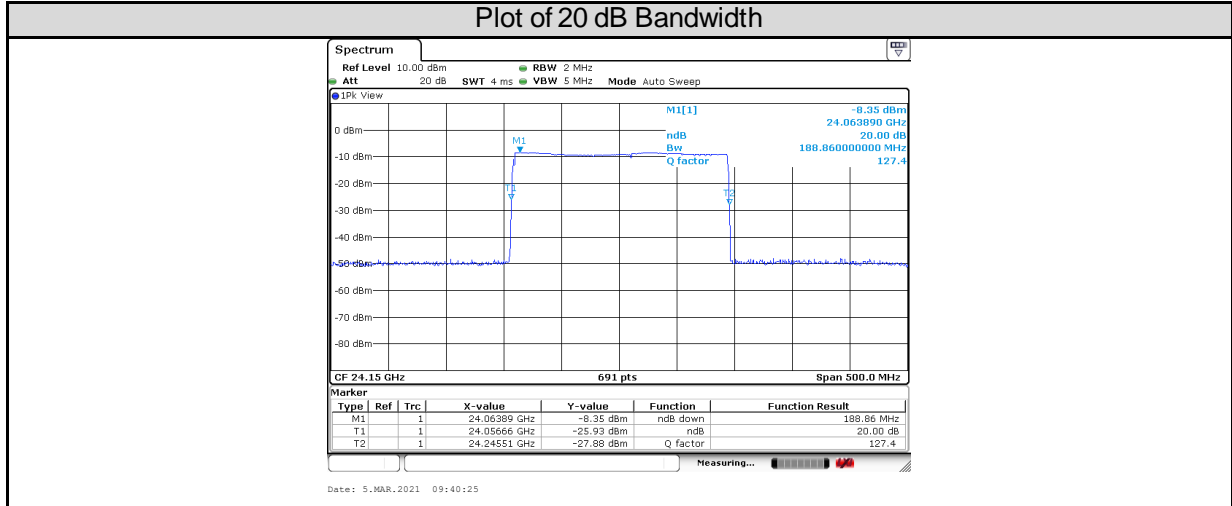


Test Instruments

Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date	Test Date	
						From	Until
Spectrum Analyzer	Agilent	N9010A	MY53470241	2020/6/2	2021/6/1	2021/3/5	2021/3/5

Test Procedure

- Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
- Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.
- Repeat above procedures until all frequencies measured were complete.
- The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1 % to 5 % of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to Sampling. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

Test Results


Frequency (GHz)	20dB BW		Limit (GHz)
	FL(GHz)	FH(GHz)	
24.05-24.25	24.057	24.246	24.05-24.25

Frequency (GHz)	99% OBW
	(MHz)
24.05-24.25	183.79

5.1.3 Field Strength of Fundamental Emissions

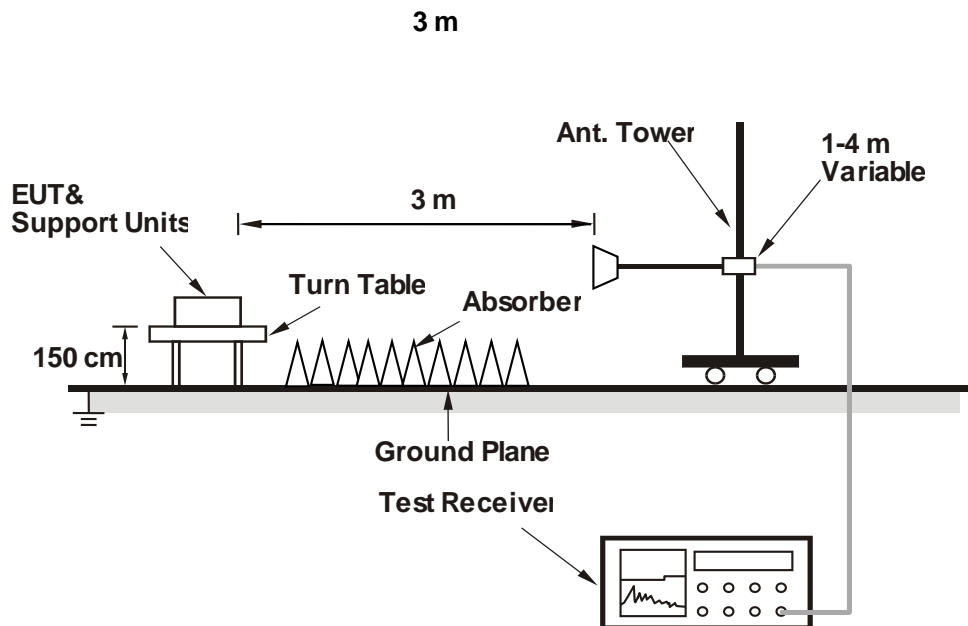
Limit

The field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental Frequency	Field Strength of Fundamental (microvolts/meter)	Field Strength of Harmonics (microvolts/meters)
902 ~ 928 MHz	50	500
2400 ~ 2483.5 MHz	50	500
5725 ~ 5875 MHz	50	500
24 ~ 24.25 GHz	250	2500

Kind of Test Site 3m Semi-Anechoic Chamber

Test Setup



For the actual test configuration, please refer to the attached file (Test Setup Photo).

Test Instruments

Kind of Equipment	Manufacturer	Type	S/N	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV40	101509	2020/5/5	2021/5/4
Receiver	R&S	ESR7	102109	2020/3/30	2021/3/29
Bilog Antenna	SCHWARZBECK	VULB-9168	00950	2020/1/20	2021/1/18
Horn Antenna	ETS-Lindgren	3117	00218929	2020/11/6	2021/11/5
LF-AMP	Agilent	8447D	2727A05146	2020/2/17	2021/2/15
HF-AMP + AC source	EMCI	EMC051845SE	980635	2020/2/11	2021/2/9
HF-AMP + AC source	EMCI	EMC184045SE	980656	2020/2/11	2021/2/9
Horn Antenna	SCHWARZBECK	BBHA 9170	00890	2020/4/13	2021/4/12
Microwave Cable	HUBER+SUHNER	SUCOFLEX 104EA	800057/4EA	2020/4/22	2021/4/21
Microwave Cable	HUBER+SUHNER	SUCOFLEX 104	802244/4	2020/4/22	2021/4/21
Microwave Cable	HUBER+SUHNER	SUCOFLEX 104	MY37203/4	2020/4/22	2021/4/21
Microwave Cable	HUBER+SUHNER	SUCOFLEX 102EA	800897/2EA	2020/3/25	2021/3/24
Microwave Cable	HUBER+SUHNER	SUCOFLEX 102EA	800902/2EA	2020/3/25	2021/3/24
Microwave Cable	HUBER+SUHNER	SUCOFLEX 102EA	801026/2EA	2020/3/25	2021/3/24
Loop Antenna	Chance Most	EMCILPA600 +calibration	287	2020/1/9	2021/1/7
Mixer SA	VDI	N9029AV15	SAX039	2019/7/1	2021/6/30
Mixer SA	VDI	N9029AV10	SAX047	2019/7/1	2021/6/30
Harmonic Mixer	Keysight	M19HWDX	160118-1	2019/7/1	2021/6/30

Test Procedures

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30 MHz ~ 1 GHz) or 1.5 meters (for above 1 GHz) above the ground at 3 meter chamber room for test. 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 height of antenna 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 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 quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detected function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) or Peak detection (PK) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1 GHz.
3. All modes of operation were investigated and the worst-case emissions are reported.
4. The Radiated Emissions testing was performed in the X, Y and Z axis orientation. The worst-case Axis orientation is recorded in this test report.

Test Results

Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

Level (dBuV/m) = Reading (dBuV) + Factor (dB/m)

Please refer to Appendix A.

5.1.4 Radiated Spurious Emissions

Limit

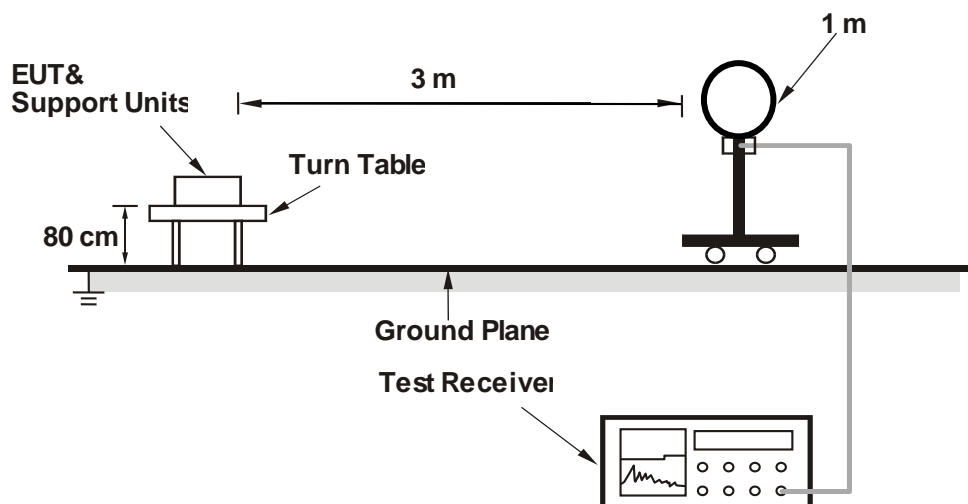
Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits as below table, whichever is the lesser attenuation.

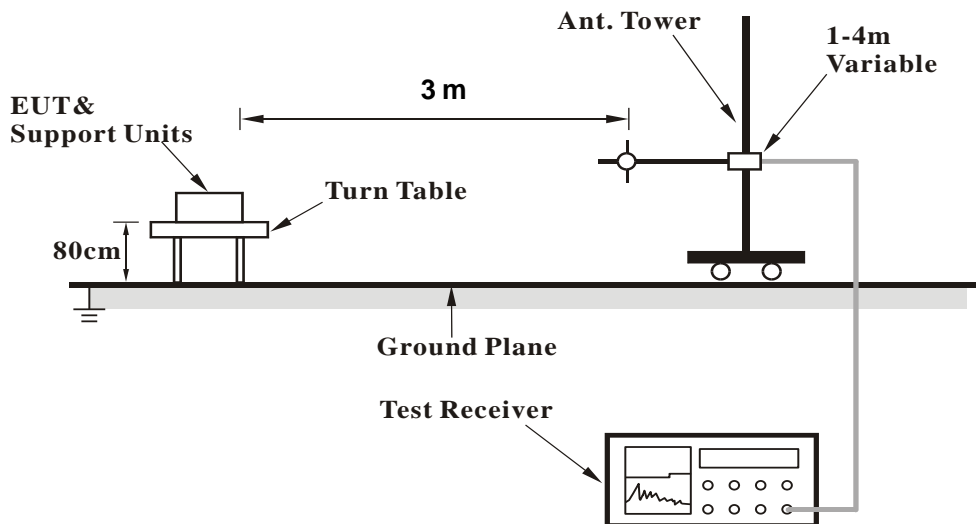
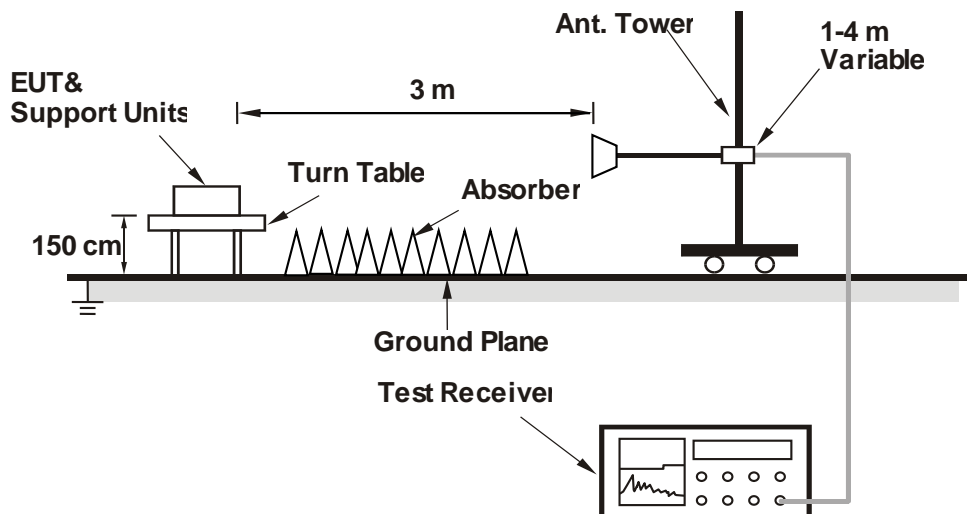
Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F (kHz)	300
0.490 ~ 1.705	24000/F (kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Kind of Test Site 3m Semi-Anechoic Chamber

Test Setup

<Radiated Emissions below 30 MHz>



<Radiated Emissions 30 MHz to 1 GHz>

<Radiated Emission above 1 GHz>


For the actual test configuration, please refer to the attached file (Test Setup Photo).

Test Instruments

Please refer to 5.1.3 Instruments

Test Procedures**For Radiated Emissions below 30 MHz**

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. 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. Parallel (OPEN), perpendicular (CLOSE), and ground-parallel (GROUND) orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case 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 Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz at frequency below 30 MHz.
2. All modes of operation were investigated and the worst-case emissions are reported.

For Radiated Emissions above 30 MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30 MHz ~ 1 GHz) / 1.5 meters (for above 1 GHz) above the ground at 3 meter chamber room for test. 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 height of antenna 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 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 quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detected function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) or Peak detection (PK) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1 GHz.
3. All modes of operation were investigated and the worst-case emissions are reported.
4. The Radiated Emissions testing was performed in the X, Y and Z axis orientation. The worst-case Axis orientation is recorded in this test report.

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Test Results


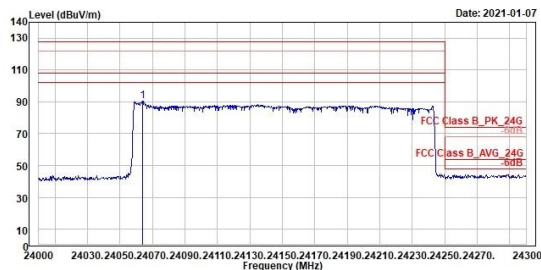

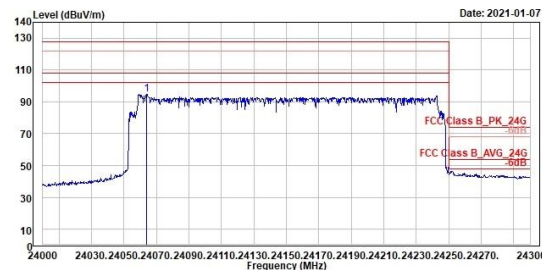
Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

Level (dBuV/m) = Reading (dBuV) + Factor (dB/m)

Please refer to Appendix A.

Appendix A: Test Results of Radiated Emissions

Fundamental Emissions

24 GHz Radar																																																																					
Horizontal_Peak	Vertical_Peak																																																																				
<div style="text-align: center;">  <p style="font-size: 8px;">TUVRheinland Taiwan Ltd. No. 458-18, Sec. 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.) Tel: +886-2172-1000 Fax: +886-2172-1322</p> </div> <div style="text-align: right; font-size: 8px;">Date: 2021-01-07</div>  <table border="1" style="width: 100%; border-collapse: collapse; font-size: 8px;"> <thead> <tr> <th>Read</th> <th>Limit</th> <th>Over</th> <th>APos</th> <th>TPos</th> <th>Remark</th> <th>Pol/Phase</th> <th>Note</th> </tr> <tr> <th>Level</th> <th>Line</th> <th>Limit</th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> <tr> <th>MHz</th> <th>dBuV/m</th> <th>dBuV</th> <th>dB/m</th> <th>dBuV/m</th> <th>dB</th> <th>cm</th> <th>deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>24864.00</td> <td>90.75</td> <td>86.78</td> <td>3.97</td> <td>127.96</td> <td>-37.21</td> <td>175</td> <td>53 Peak</td> <td>Horizontal</td> </tr> </tbody> </table>	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note	Level	Line	Limit						MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg	1	24864.00	90.75	86.78	3.97	127.96	-37.21	175	53 Peak	Horizontal	<div style="text-align: center;">  <p style="font-size: 8px;">TUVRheinland Taiwan Ltd. No. 458-18, Sec. 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.) Tel: +886-2172-1000 Fax: +886-2172-1322</p> </div> <div style="text-align: right; font-size: 8px;">Date: 2021-01-07</div>  <table border="1" style="width: 100%; border-collapse: collapse; font-size: 8px;"> <thead> <tr> <th>Read</th> <th>Limit</th> <th>Over</th> <th>APos</th> <th>TPos</th> <th>Remark</th> <th>Pol/Phase</th> <th>Note</th> </tr> <tr> <th>Level</th> <th>Line</th> <th>Limit</th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> <tr> <th>MHz</th> <th>dBuV/m</th> <th>dBuV</th> <th>dB/m</th> <th>dBuV/m</th> <th>dB</th> <th>cm</th> <th>deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>24864.00</td> <td>94.93</td> <td>90.96</td> <td>3.97</td> <td>127.96</td> <td>-33.03</td> <td>175</td> <td>360 Peak</td> <td>Vertical</td> </tr> </tbody> </table>	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note	Level	Line	Limit						MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg	1	24864.00	94.93	90.96	3.97	127.96	-33.03	175	360 Peak	Vertical
Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note																																																														
Level	Line	Limit																																																																			
MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg																																																														
1	24864.00	90.75	86.78	3.97	127.96	-37.21	175	53 Peak	Horizontal																																																												
Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note																																																														
Level	Line	Limit																																																																			
MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg																																																														
1	24864.00	94.93	90.96	3.97	127.96	-33.03	175	360 Peak	Vertical																																																												

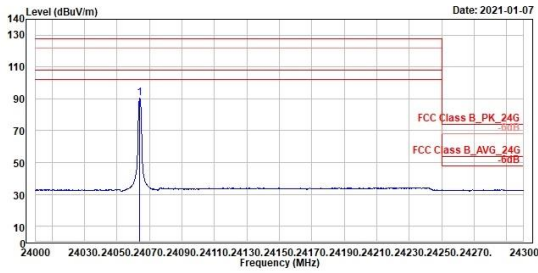
24 GHz Radar

Horizontal_Average

Vertical_Average



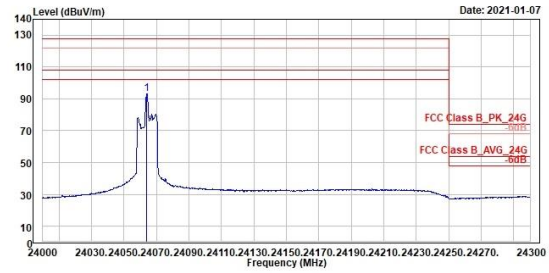
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Read Level	Level Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg	
1 24064.00	90.28	86.31	3.97	107.96	-17.68	175	53	Average Horizontal



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Read Level	Level Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg	
1 24064.00	93.21	89.24	3.97	107.96	-14.75	175	360	Average Vertical

Spurious Emissions, Tx Mode, 9kHz ~ 30MHz

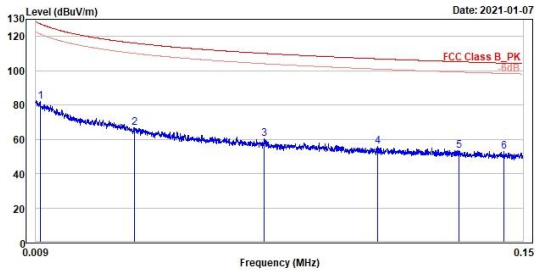
24 GHz Radar

OPEN_9kHz~150kHz

OPEN_150kHz~30MHz



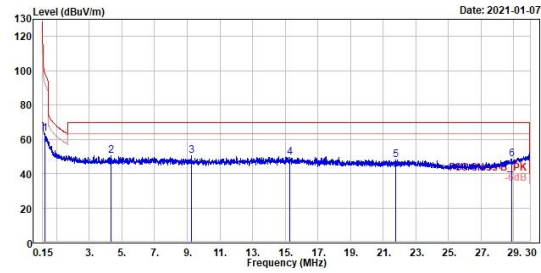
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Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	0.01027	82.16	3.49	78.67	127.35	-45.19	100	171 QP	Open
2	0.03748	66.87	-1.49	68.36	116.12	-49.25	100	349 QP	Open
3	0.07519	60.09	-1.69	61.78	110.07	-49.98	100	63 QP	Open
4	0.10804	55.63	-3.15	58.78	106.93	-51.30	100	237 QP	Open
5	0.13142	53.60	-3.83	57.43	105.22	-51.62	100	333 QP	Open
6	0.14450	52.72	-3.95	56.67	104.40	-51.60	100	111 QP	Open



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Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	0.20731	63.00	12.25	50.83	90.43	-35.35	100	73 QP	Open
2	4.32903	50.31	11.97	38.34	69.50	-19.19	100	153 QP	Open
3	9.26619	50.19	12.46	37.73	69.50	-19.31	100	238 QP	Open
4	15.30186	49.60	11.93	37.67	69.50	-19.90	100	159 QP	Open
5	21.75543	48.17	12.25	35.92	69.50	-21.33	100	288 QP	Open
6	28.00361	48.48	11.50	36.98	69.50	-21.02	100	7 QP	Open

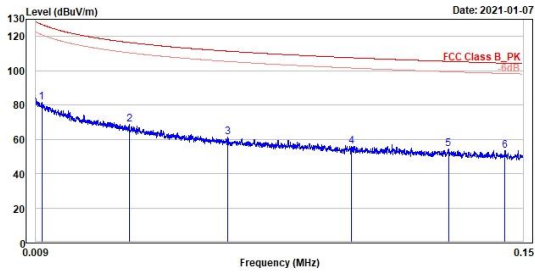
24 GHz Radar

CLOSE_9kHz~150kHz

CLOSE_150kHz~30MHz



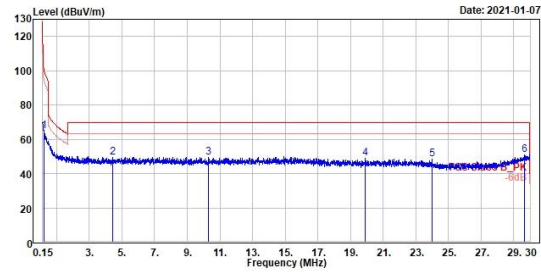
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1	2	3	4	5	6
0.01072	0.03604	0.06458	0.10026	0.12843	0.14404
81.44	68.53	61.50	55.91	54.18	53.62
3.05	-0.29	-1.55	-3.33	-3.42	-3.03
78.39	68.82	63.05	59.24	57.60	56.65
126.98	116.45	111.39	107.57	105.42	104.38
-45.54	-47.92	-49.89	-51.66	-51.24	-50.76
100	100	100	100	100	100
164	63	41	149	194	226
QP	QP	QP	QP	QP	QP
Close	Close	Close	Close	Close	Close



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1	2	3	4	5	6
0.23955	4.42452	10.29303	19.91667	23.98821	29.66560
64.63	49.65	49.62	49.15	48.57	51.02
12.37	11.31	12.15	12.87	13.68	12.07
52.26	38.24	37.47	36.28	34.89	38.95
100.01	-19.85	-19.88	-20.35	-20.93	-18.48
-35.38	100	100	100	100	100
124	227	192	17	17	60
QP	QP	QP	QP	QP	QP
Close	Close	Close	Close	Close	Close

Spurious Emissions, Tx Mode, 30MHz ~ 1GHz

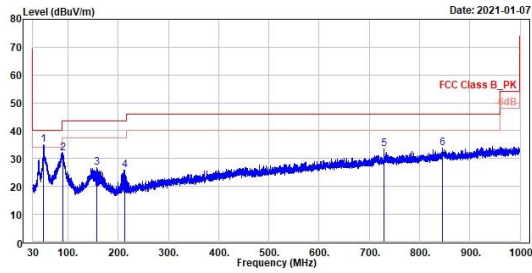
24 GHz Radar

Horizontal

Vertical



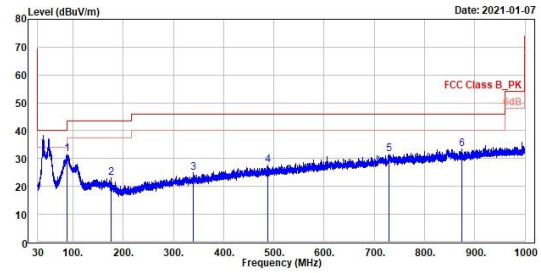
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Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	51.82500	35.05	41.09	-6.04	40.00	-4.95	400	307 QP	horizontal
2	90.04300	32.09	44.23	-12.14	43.50	-11.41	200	97 QP	horizontal
3	157.74900	26.84	32.95	-6.11	43.50	-16.66	200	225 QP	horizontal
4	212.45700	25.96	34.27	-8.31	43.50	-17.54	132	360 QP	horizontal
5	729.85500	33.39	31.60	1.79	46.00	-12.61	200	259 QP	horizontal
6	845.86700	33.91	30.66	3.25	46.00	-12.09	400	264 QP	horizontal



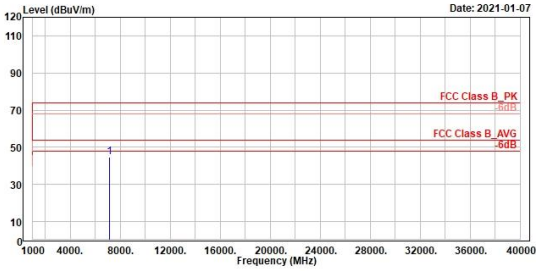
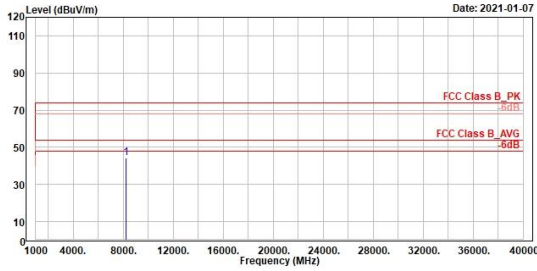


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Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	87.81200	31.54	43.46	-11.92	40.00	-8.46	200	248 QP	vertical
2	175.96500	23.26	29.73	-6.47	43.50	-20.24	300	317 QP	vertical
3	348.18900	24.83	29.89	-4.26	46.00	-21.17	400	132 QP	vertical
4	488.42200	27.68	29.77	-2.09	46.00	-18.32	100	142 QP	vertical
5	728.78800	31.77	30.00	1.77	46.00	-14.23	400	239 QP	vertical
6	874.57900	33.39	29.76	3.63	46.00	-12.61	100	153 QP	vertical

Spurious Emissions, Tx Mode, 1GHz ~ 40GHz

Horizontal		Vertical																																																													
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 <p style="font-size: x-small;">Date: 2021-01-07</p>		 <p style="font-size: x-small;">Date: 2021-01-07</p>																																																													
<table border="1" style="width:100%; border-collapse: collapse; font-size: x-small;"> <thead> <tr> <th>Freq</th> <th>Level</th> <th>Read</th> <th>Limit</th> <th>Over</th> <th>Apos</th> <th>TPos</th> <th>Remark</th> <th>Pol/Phase</th> <th>Note</th> </tr> <tr> <th>MHz</th> <th>dBuV/m</th> <th>dBuV</th> <th>dB/m</th> <th>dBuV/m</th> <th>dB</th> <th>cm</th> <th>deg</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>1 7166.8750</td> <td>44.66</td> <td>534.10</td> <td>-489.44</td> <td>74.00</td> <td>-29.34</td> <td>300</td> <td>17 Peak</td> <td>horizontal</td> <td></td> </tr> </tbody> </table>		Freq	Level	Read	Limit	Over	Apos	TPos	Remark	Pol/Phase	Note	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			1 7166.8750	44.66	534.10	-489.44	74.00	-29.34	300	17 Peak	horizontal		<table border="1" style="width:100%; border-collapse: collapse; font-size: x-small;"> <thead> <tr> <th>Freq</th> <th>Level</th> <th>Read</th> <th>Limit</th> <th>Over</th> <th>Apos</th> <th>TPos</th> <th>Remark</th> <th>Pol/Phase</th> <th>Note</th> </tr> <tr> <th>MHz</th> <th>dBuV/m</th> <th>dBuV</th> <th>dB/m</th> <th>dBuV/m</th> <th>dB</th> <th>cm</th> <th>deg</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>1 8234.5000</td> <td>44.31</td> <td>50.49</td> <td>-6.18</td> <td>74.00</td> <td>-29.69</td> <td>300</td> <td>1 Peak</td> <td>vertical</td> <td></td> </tr> </tbody> </table>		Freq	Level	Read	Limit	Over	Apos	TPos	Remark	Pol/Phase	Note	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			1 8234.5000	44.31	50.49	-6.18	74.00	-29.69	300	1 Peak	vertical	
Freq	Level	Read	Limit	Over	Apos	TPos	Remark	Pol/Phase	Note																																																						
MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg																																																								
1 7166.8750	44.66	534.10	-489.44	74.00	-29.34	300	17 Peak	horizontal																																																							
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MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg																																																								
1 8234.5000	44.31	50.49	-6.18	74.00	-29.69	300	1 Peak	vertical																																																							

Spurious Emissions, Tx Mode, 40GHz ~ 100GHz

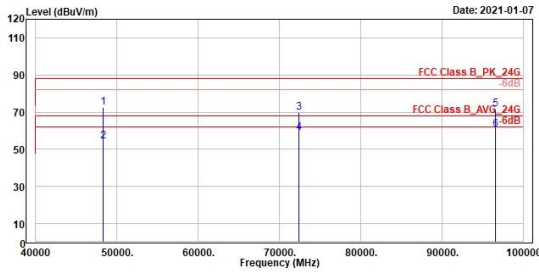
24 GHz Radar

Horizontal

Vertical



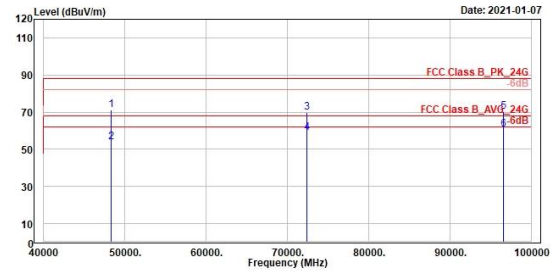
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Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1 48300.000	72.64	20.38	52.26	87.96	-15.32	150	360 Peak	Horizontal	
2 48300.000	54.19	1.93	52.26	67.96	-13.77	150	360 Average	Horizontal	
3 72450.000	69.66	12.11	57.55	87.96	-18.30	150	360 Peak	Horizontal	
4 72450.000	58.88	1.33	57.55	67.96	-9.08	150	360 Average	Horizontal	
5 96600.000	71.81	12.53	59.28	87.96	-16.15	150	360 Peak	Horizontal	
6 96600.000	60.80	1.52	59.28	67.96	-7.16	150	360 Average	Horizontal	



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Freq	Level	Read	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1 48300.000	71.25	19.50	51.75	87.96	-16.71	150	0 Peak	Vertical	
2 48300.000	53.68	1.93	51.75	67.96	-14.28	150	0 Average	Vertical	
3 72450.000	69.75	12.20	57.55	87.96	-18.21	150	0 Peak	Vertical	
4 72450.000	58.87	1.32	57.55	67.96	-9.09	150	0 Average	Vertical	
5 96600.000	70.34	11.06	59.28	87.96	-17.62	150	0 Peak	Vertical	
6 96600.000	60.76	1.48	59.28	67.96	-7.20	150	0 Average	Vertical	