



RF TEST REPORT

Report No.: SET2021-09177

Product Name: Dash Cam

FCC ID: NCI-M360-D700-1

Model No. : Mobile360 D700

Dates of Testing: 08/01/2020 —06/21/2021

Applicant: VIA Technologies, Inc

Address: 8F, 535 Zhongzheng Rd. Xindian Dist. New Taipei City, Taiwan.

Issued by: CCIC Southern Testing Co., Ltd.

Lab Location: Electronic Testing Building, No. 43 Shahe Road, Xili Street,
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Test Report

Product Name.....: Dash Cam

Brand Name.....: VIA

Trade Name.....: VIA

Applicant.....: VIA Technologies, Inc

Applicant Address.....: 8F, 535 Zhongzheng Rd. Xindian Dist. New Taipei City,
Taiwan

Manufacturer.....: VIA Technologies, Inc

Manufacturer Address.....: 8F, 535 Zhongzheng Rd. Xindian Dist. New Taipei City,
Taiwan

Test Standards.....: 47 CFR Part 15 Subpart C
ANSI C63.10-2013

Test Result.....: PASS

Tested by.....: Vincent
2021.07.19
Vincent, Test Engineer

Reviewed by.....: Chris You
2021.07.19
Chris You, Senior Engineer

Approved by.....: Shuangwen Zhang
2021.07.19
Shuangwen Zhang, Manager

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Change History		
Issue	Date	Reason for change
1.0	2021.07.19	First edition

1. General Information

1.1. EUT Description

EUT Type	Dash Cam	
Hardware Version	RA	
Software Version	V2.1.0	
Frequency Range	Bluetooth EDR	2402MHz~2480MHz
Channel Number	Bluetooth EDR	79
Bit Rate of Transmitter	Bluetooth EDR	1/2/3Mbps
Modulation Type	Bluetooth EDR	GFSK,PI/4DQPSK,8DPSK
Antenna Type	Internal	
Antenna Gain	2.8dBi	

Note 1: The EUT is a Dash Cam, it contains Bluetooth Module operating at 2.4GHz ISM band; the frequencies allocated for the Bluetooth Module is $F(\text{MHz})=2402+1*n$ ($0 \leq n \leq 78$). The lowest, middle, highest channel numbers of the Bluetooth Module used and tested in this report are separately 0 (2402MHz), 39 (2441MHz) and 78 (2480MHz).

Note 2: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

Note 3: a. When power on, the EUT will scan the whole frequency until aConnection command from the other BT devices.

b. When receiving the signal from the other BT devices, The EUT transmit aresponse signal.

c. The other devices receive the response signal and recognize it, then send aconnection command to establish the connection.

d. After the connection establish successfully, the data transmission is beginning.At the same time, the both devices will shift frequencies in synchronization per asame pseudo randomly ordered list of hopping frequencies, the hopping rate is1600 times per second.

e. The bandwidth of the receiver, which is set to a fixed width by the software.

Note 4: Bluetooth signal has 9 packages 1DH1, 1DH3, 1DH5, 2DH1, 2DH3, 2DH5, 3DH1, 3DH3, 3DH5, DH5 package is largest, we are testing DH5 in the document.

1.2. Test Standards and Results

The objective of the report is to perform testing according to FCC Certification:

This C2PC Report was based on original FCC ID: NCI-M360-D700-1, The device was change the ANT, and open LTE Band 71 via the software. Below is the test item

No.	Section in CFR 47	Description	Result
1	15.209 15.205 15.247(c)	Radiated Band Edges and Spurious Emission	PASS

Note: The test were performed according to the method of measurements prescribed in ANSI C63.10-2013.

1.3. Frequency Hopping System Requirements

1.3.1. Standard Applicable

According to FCC Part 15.247(a)(1), The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

(g) Frequency hopping spread spectrum systems are not required to employ all available hopping channels during each transmission. However, the system, consisting of both the transmitter and the receiver, must be designed to comply with all of the regulations in this section should the transmitter be presented with a continuous data (or information) stream. In addition, a system employing short transmission bursts must comply with the definition of a frequency hopping system and must distribute its transmissions over the minimum number of hopping channels specified in this section.

(h) The incorporation of intelligence within a frequency hopping spread spectrum system that permits the system to recognize other users within the spectrum band so that it individually and independently chooses and adapts its hopsets to avoid hopping on occupied channels is permitted. The coordination of frequency hopping systems in any other manner for the express purpose of avoiding the simultaneous occupancy of individual hopping frequencies by multiple transmitters is not permitted.

1.3.2. Frequency Hopping System

This transmitter device is frequency hopping device, and complies with FCC part 15.247 rule.

This device uses Bluetooth radio which operates in 2400-2483.5 MHz band. Bluetooth uses a radio technology called frequency-hopping spread spectrum, which chops up the data being sent and transmits chunks of it on up to 79 bands (1 MHz each; centred from 2402 to 2480 MHz) in the range 2,400-2,483.5 MHz. The transmitters switches hop frequencies 1,600 times per second to assure a high degree of data security. All Bluetooth devices participating in a given piconet are synchronized to the frequency-hopping channel for the piconet. The frequency hopping sequence is determined by the master's device address and the phase of the hopping sequence (the frequency to hop at a specific time) is determined by the master's internal clock. Therefore, all slaves in a piconet must know the master's device address and must synchronize their clocks with the master's clock.

Adaptive Frequency Hopping (AFH) was introduced in the Bluetooth specification to provide an effective way for a Bluetooth radio to counteract normal interference. AFH identifies "bad" channels, where either other wireless devices are interfering with the Bluetooth signal or the Bluetooth signal is interfering with another device. The AFH-enabled Bluetooth device will then communicate with other devices within its piconet to share details of any identified bad channels. The devices will then switch to alternative available "good" channels, away from the areas of interference, thus having no impact on the bandwidth used.

This device was tested with a bluetooth system receiver to check that the device maintained hopping synchronization, and the device complied with these requirements for ANSI C63.10-2013 and FCC Part 15.247 rule.

Carrier Frequency and channel List:

Channel	Frequency(MHz)
0	2402
1	2403
...	...
39	2441
40	2442
...	...
77	2479
78	2480

Note: $F(\text{MHz}) = 2402 + 1 * n$ ($0 \leq n \leq 78$)

1.4. Facilities and Accreditations

1.4.1. Facilities

CNAS-Lab Code: L1659

CCIC-SET is a third party testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L1659.

FCC-Registration No.: CN1283

CCIC Southern Testing Co., Ltd EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Designation Number: CN1283, valid time is until April 19th, 2023.

ISED Registration: 11185A-1

CAB identifier: CN0064

CCIC Southern Testing Co., Ltd. EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 11185A-1 on Aug. 04, 2016, valid time is until April 19th, 2023.

A2LA Code: 5721.01

CCIC-SET is a third party testing organization accredited by A2LA according to ISO/IEC 17025. The accreditation certificate number is 5721.01.

1.4.2. Test Environment Conditions

During the measurement, the environmental conditions were within the listed ranges:

Temperature (°C):	15 - 35
Relative Humidity (%):	30 -60
Atmospheric Pressure (kPa):	86KPa-106KPa

2. Test Requirement

2.1. Radiated Band Edges and Spurious Emission

2.1.1. Limit of Radiated Band Edges and Spurious Emission

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. In addition, radiated emissions which fall in the restricted bands must also comply with the FCC section 15.209 limits as below.

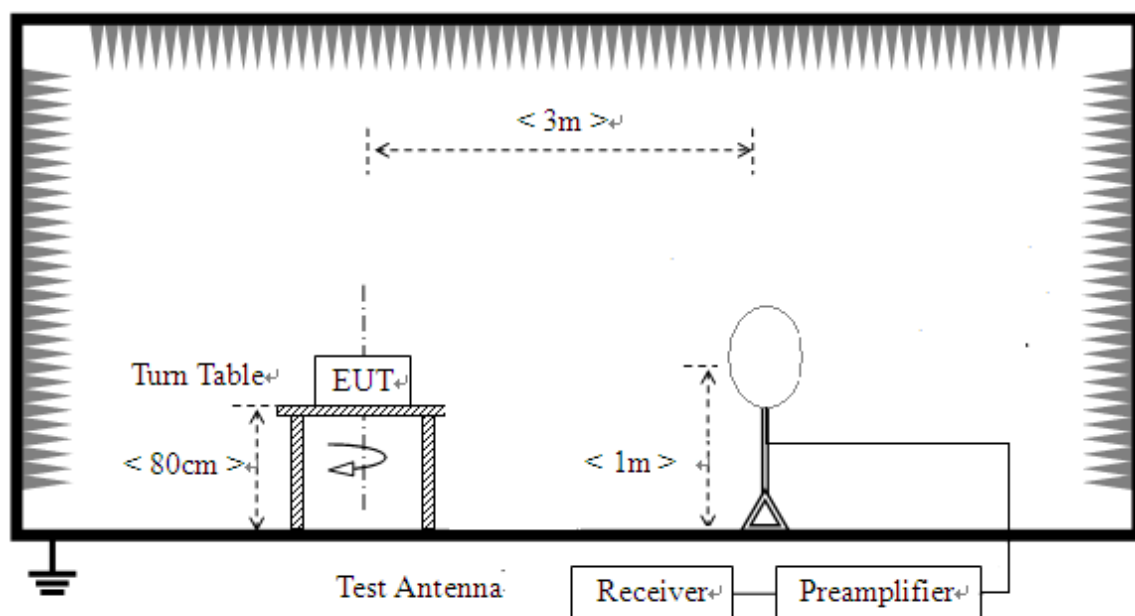
Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	Measurement Distance (m)
0.009 - 0.490	$2400/F(\text{kHz})$	300
0.490 - 1.705	$24000/F(\text{kHz})$	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

2.1.2. Measuring Instruments

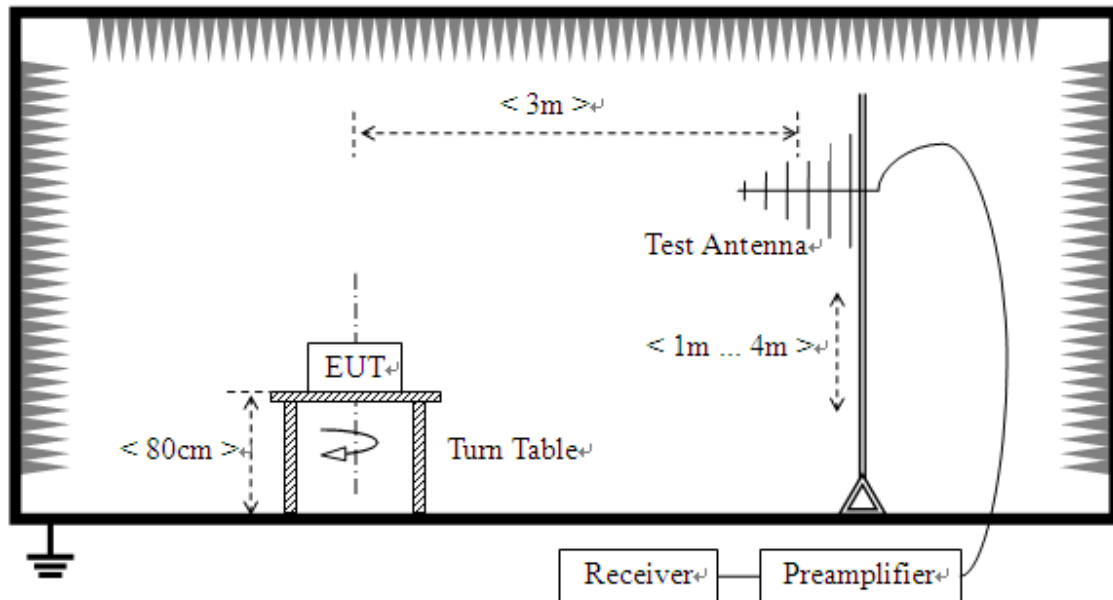
The measuring equipment is listed in the section 3 of this test report.

2.1.3. Test Setup

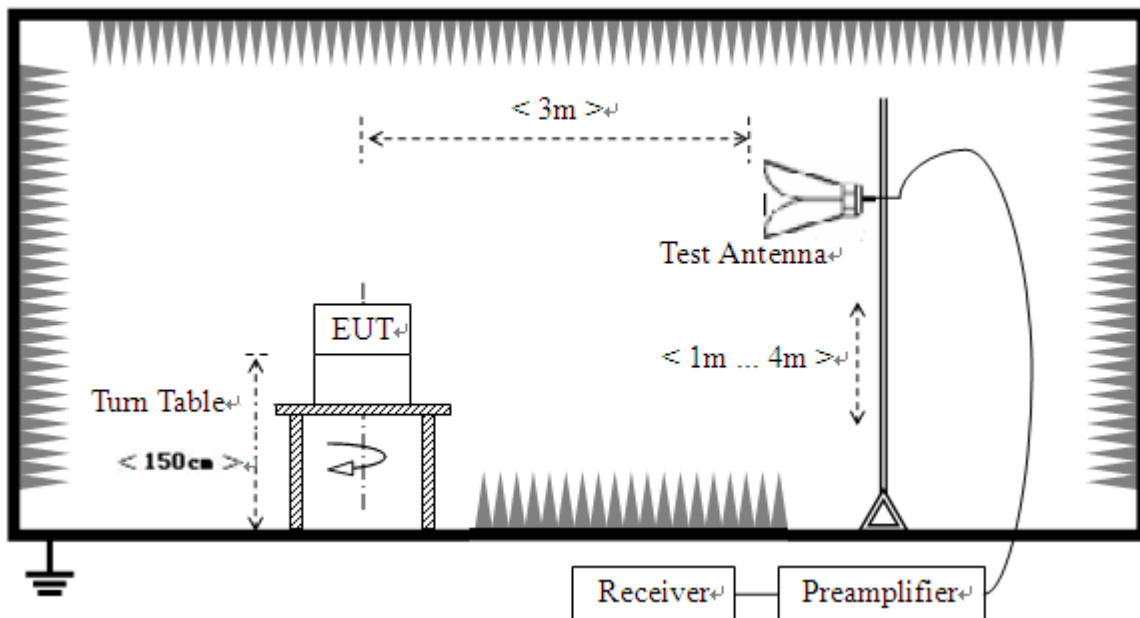
- 1) For radiated emissions from 9kHz to 30MHz



- 2) For radiated emissions from 30MHz to 1GHz



- 3) For radiated emissions above 1GHz



2.1.1. Test Procedure

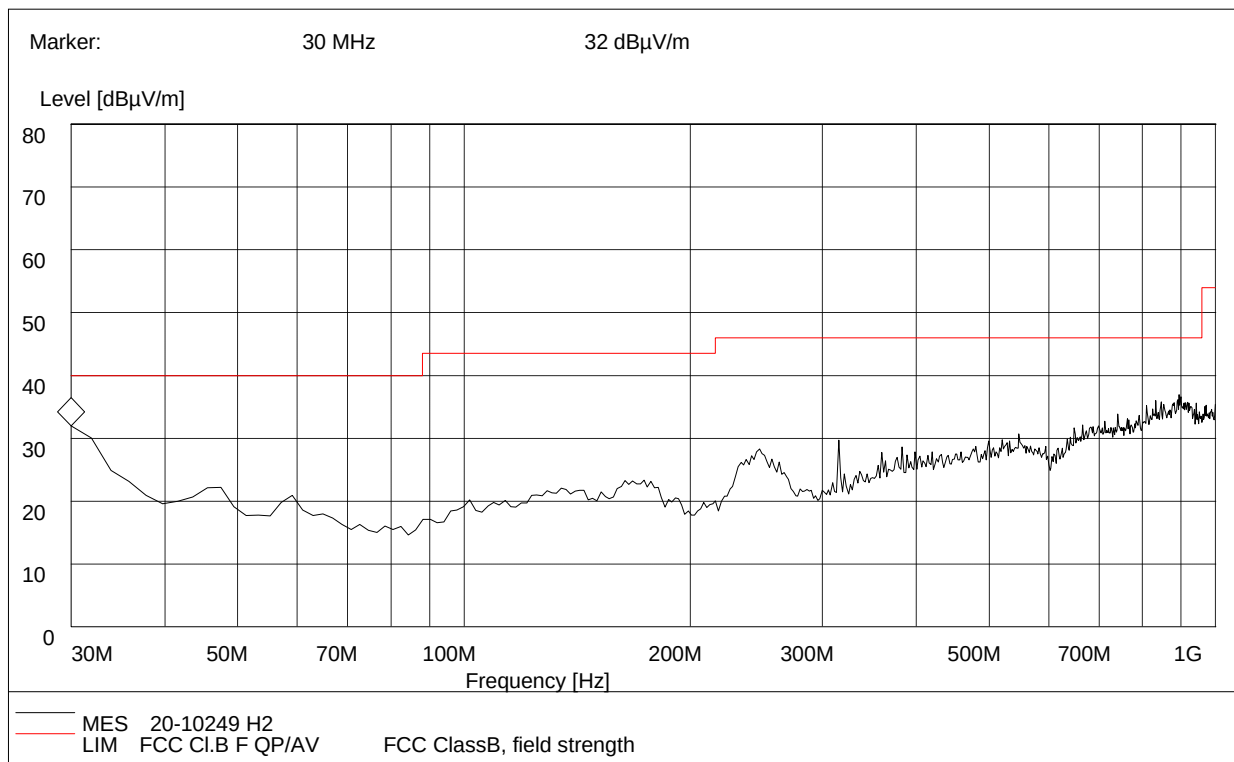
1. The EUT was placed on a turntable 0.8m below 1GHz and 1.5m above 1GHz above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.
4. Set to the maximum power setting and enable the EUT transmit continuously.
5. Use the following spectrum analyzer settings:
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Set RBW=100 kHz for $f < 1$ GHz, RBW=1MHz for $f > 1$ GHz ; VBW $\geq$ RBW; Sweep = auto; Detector function = peak; Trace = max hold for peak
 - (3) For average measurement: use duty cycle correction factor method per 15.35(c).
Duty cycle = On time/100 milliseconds
On time = $N_1 * L_1 + N_2 * L_2 + \dots + N_{n-1} * L_{n-1} + N_n * L_n$
Where N_1 is number of type 1 pulses, L_1 is length of type 1 pulses, etc.
Average Emission Level = Peak Emission Level + $20 * \log(\text{Duty cycle})$
6. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

2.1.2. Test Results of Radiated Band Edge and Spurious Emission

For 9 KHz to 30MHz

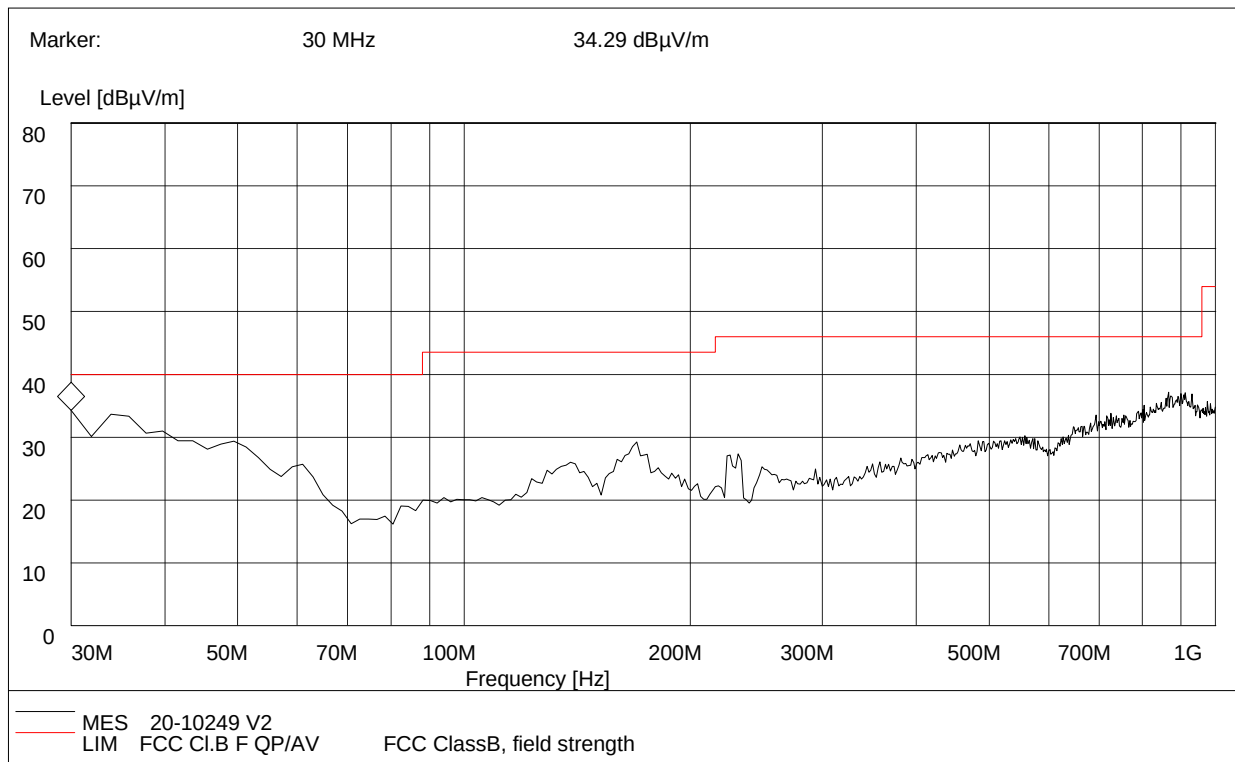
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

For 30MHz to 1000MHz



Frequency (MHz)	QuasiPeak (dBμV/m)	Bandwidth (kHz)	Correction Factor (dB/m)	Antenna height (cm)	Limit (dBμV/m)	Margin	Antenna	Verdict
30.000000	28.88	120.000	17.9	100.0	40.0	11.72	Horizontal	Pass
33.440000	26.71	120.000	13.7	100.0	43.5	13.22	Horizontal	Pass
41.220000	23.76	120.000	12.3	100.0	43.5	12.76	Horizontal	Pass
135.460000	25.42	120.000	17.5	100.0	46.0	7.15	Horizontal	Pass
883.540000	33.46	120.000	17.5	100.0	46.0	12.54	Horizontal	Pass
900.850000	34.42	120.000	23.9	100.0	46.0	11.58	Horizontal	Pass

(Plot A: 30MHz to 1GHz, Antenna Horizontal)



Frequency (MHz)	QuasiPeak (dB μ V/m)	Bandwidth (kHz)	Correction Factor (dB/m)	Antenna height (cm)	Limit (dB μ V/m)	Margin	Antenna	Verdict
30.000000	32.25	120.000	17.90	100.0	40.0	7.75	Vertical	Pass
33.440000	32.41	120.000	10.60	100.0	40.0	7.59	Vertical	Pass
41.220000	28.78	120.000	10.30	100.0	40.0	11.22	Vertical	Pass
168.850000	28.35	120.000	12.50	100.0	43.5	15.15	Vertical	Pass
889.020000	34.66	120.000	17.50	100.0	46.0	11.34	Vertical	Pass
901.450000	35.74	120.000	17.50	100.0	46.0	10.26	Vertical	Pass

(Plot B: 30MHz to 1GHz, Antenna Vertical)

For 1GHz to 25GHz

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (GFSK_2402MHz)												
No.	Fre. (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Cab. Loss (dB)	Ant. Factor (dB)	Pre. Amp. (dB)	Cor. Factor (dB/m)
1	2390.00	48.95	PK	74.00	-25.05	1.70	260.00	47.65	5.20	28.60	32.50	1.30
2	2390.00	37.58	AV	54.00	-16.42	1.70	260.00	36.28	5.20	28.60	32.50	1.30
3	4804.00	51.62	PK	74.00	-22.38	1.70	260.00	45.22	7.40	30.40	31.40	6.40
4	4804.00	39.75	AV	54.00	-14.25	1.70	260.00	33.35	7.40	30.40	31.40	6.40
5	7206.00	52.00	PK	74.00	-22.00	1.70	260.00	42.70	9.90	31.50	32.10	9.30
6	7206.00	39.88	AV	54.00	-14.12	1.70	260.00	30.58	9.90	31.50	32.10	9.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (GFSK_2402MHz)												
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Cab. Loss (dB)	Ant. Factor (dB)	Pre. Amp. (dB)	Cor. Factor (dB/m)
1	2390.00	47.68	PK	74.00	-26.32	1.60	300.00	46.38	5.20	28.60	32.50	1.30
2	2390.00	36.39	AV	54.00	-17.61	1.60	300.00	35.09	5.20	28.60	32.50	1.30
3	4804.00	51.36	PK	74.00	-22.64	1.60	300.00	44.96	7.40	30.40	31.40	6.40
4	4804.00	39.36	AV	54.00	-14.64	1.60	300.00	32.96	7.40	30.40	31.40	6.40
5	7206.00	52.36	PK	74.00	-21.64	1.60	300.00	43.06	9.90	31.50	32.10	9.30
6	7206.00	40.39	AV	54.00	-13.61	1.60	300.00	31.09	9.90	31.50	32.10	9.30

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (GFSK_2441MHz)

No.	Fre. (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Cab. Loss (dB)	Ant. Factor (dB)	Pre. Amp. (dB)	Cor. Factor (dB/m)
1	4882.00	47.85	PK	74.00	-26.15	1.80	120.00	41.45	6.70	31.20	31.50	6.40
2	4882.00	36.11	AV	54.00	-17.89	1.80	120.00	29.71	6.70	31.20	31.50	6.40
3	7323.00	51.69	PK	74.00	-22.31	1.80	120.00	42.29	10.10	31.50	32.30	9.40
4	7323.00	40.15	AV	54.00	-13.85	1.80	120.00	30.75	10.10	31.50	32.30	9.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (GFSK_2441MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Cab. Loss (dB)	Ant. Factor (dB)	Pre. Amp. (dB)	Cor. Factor (dB/m)
1	4882.00	48.65	PK	74.00	-25.35	1.60	300.00	42.25	6.70	31.20	31.50	6.40
2	4882.00	36.78	AV	54.00	-17.22	1.60	300.00	30.38	6.70	31.20	31.50	6.40
3	7323.00	51.84	PK	74.00	-22.16	1.60	300.00	42.44	10.10	31.50	32.30	9.40
4	7323.00	39.19	AV	54.00	-14.81	1.60	300.00	29.79	10.10	31.50	32.30	9.40

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (GFSK_2480MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Cab. Loss (dB)	Ant. Factor (dB)	Pre. Amp. (dB)	Cor. Factor (dB/m)
1	2483.50	48.95	PK	74.00	-25.05	1.70	120.00	46.35	5.70	28.70	31.80	2.60
2	2483.50	38.84	AV	54.00	-15.16	1.70	120.00	36.24	5.70	28.70	31.80	2.60
3	4960.00	52.36	PK	74.00	-21.64	1.70	120.00	45.66	7.00	31.20	31.50	6.70
4	4960.00	41.23	AV	54.00	-12.77	1.70	120.00	34.53	7.00	31.20	31.50	6.70
5	7440.00	51.74	PK	74.00	-22.26	1.70	120.00	42.24	10.20	31.60	32.40	9.50
6	7440.00	39.76	AV	54.00	-14.24	1.70	120.00	30.26	10.20	31.60	32.40	9.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (GFSK_2480MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Cab. Loss (dB)	Ant. Factor (dB)	Pre. Amp. (dB)	Cor. Factor (dB/m)
1	2483.50	46.95	PK	74.00	-27.05	1.60	300.00	44.35	5.70	28.70	31.80	2.60
2	2483.50	35.93	AV	54.00	-18.07	1.60	300.00	33.33	5.70	28.70	31.80	2.60
3	4960.00	50.38	PK	74.00	-23.62	1.60	300.00	43.68	7.00	31.20	31.50	6.70
4	4960.00	40.28	AV	54.00	-13.72	1.60	300.00	33.58	7.00	31.20	31.50	6.70
5	7440.00	52.77	PK	74.00	-21.23	1.60	300.00	43.27	10.20	31.60	32.40	9.50
6	7440.00	41.71	AV	54.00	-12.29	1.60	300.00	32.21	10.20	31.60	32.40	9.50

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (pi/4DQPSK_2402MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Cab. Loss (dB)	Ant. Factor (dB)	Pre. Amp. (dB)	Cor. Factor (dB/m)
1	2390.00	46.52	PK	74.00	-27.48	1.70	120.00	45.22	5.20	28.60	32.50	1.30
2	2390.00	33.55	AV	54.00	-20.45	1.70	120.00	32.25	5.20	28.60	32.50	1.30
3	4804.00	50.69	PK	74.00	-23.31	1.70	120.00	44.29	6.70	31.20	31.50	6.40
4	4804.00	38.71	AV	54.00	-15.29	1.70	120.00	32.31	6.70	31.20	31.50	6.40
5	7206.00	51.25	PK	74.00	-22.75	1.70	120.00	36.35	16.00	30.90	32.00	14.90
6	7206.00	39.41	AV	54.00	-14.59	1.70	120.00	24.51	16.00	30.90	32.00	14.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (pi/4DQPSK_2402MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Cab. Loss (dB)	Ant. Factor (dB)	Pre. Amp. (dB)	Cor. Factor (dB/m)
1	2390.00	46.54	PK	74.00	-27.46	1.60	300.00	45.24	5.20	28.60	32.50	1.30
2	2390.00	33.40	AV	54.00	-20.60	1.60	300.00	32.10	5.20	28.60	32.50	1.30
3	4804.00	51.62	PK	74.00	-22.38	1.60	300.00	45.22	6.70	31.20	31.50	6.40
4	4804.00	39.64	AV	54.00	-14.36	1.60	300.00	33.24	6.70	31.20	31.50	6.40
5	7206.00	52.36	PK	74.00	-21.64	1.60	300.00	37.46	16.00	30.90	32.00	14.90
6	7206.00	41.31	AV	54.00	-12.69	1.60	300.00	26.41	16.00	30.90	32.00	14.90

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (pi/4DQPSK_2441MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Cab. Loss (dB)	Ant. Factor (dB)	Pre. Amp. (dB)	Cor. Factor (dB/m)
1	4882.00	50.69	PK	74.00	-23.31	1.80	120.00	44.29	6.70	31.20	31.50	6.40
2	4882.00	38.95	AV	54.00	-15.05	1.80	120.00	32.55	6.70	31.20	31.50	6.40
3	7323.00	51.87	PK	74.00	-22.13	1.80	120.00	42.47	10.10	31.50	32.30	9.40
4	7323.00	40.72	AV	54.00	-13.28	1.80	120.00	31.32	10.10	31.50	32.30	9.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (pi/4DQPSK_2441MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Cab. Loss (dB)	Ant. Factor (dB)	Pre. Amp. (dB)	Cor. Factor (dB/m)
1	4882.00	49.85	PK	74.00	-24.15	1.60	300.00	43.45	6.70	31.20	31.50	6.40
2	4882.00	38.79	AV	54.00	-15.21	1.60	300.00	32.39	6.70	31.20	31.50	6.40
3	7323.00	51.48	PK	74.00	-22.52	1.60	300.00	42.08	10.10	31.50	32.30	9.40
4	7323.00	40.44	AV	54.00	-13.56	1.60	300.00	31.04	10.10	31.50	32.30	9.40

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (pi/4DQPSK_2480MHz)												
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Cab. Loss (dB)	Ant. Factor (dB)	Pre. Amp. (dB)	Cor. Factor (dB/m)
1	2483.50	48.52	PK	74.00	-25.48	1.80	120.00	45.92	5.70	28.70	31.80	2.60
2	2483.50	38.05	AV	54.00	-15.95	1.80	120.00	35.45	5.70	28.70	31.80	2.60
3	4960.00	51.62	PK	74.00	-22.38	1.80	120.00	44.92	7.00	31.20	31.50	6.70
4	4960.00	40.26	AV	54.00	-13.74	1.80	120.00	33.56	7.00	31.20	31.50	6.70
5	7440.00	52.48	PK	74.00	-21.52	1.80	120.00	42.98	10.20	31.60	32.40	9.50
6	7440.00	41.33	AV	54.00	-12.67	1.80	120.00	31.83	10.20	31.60	32.40	9.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (pi/4DQPSK_2480MHz)												
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Cab. Loss (dB)	Ant. Factor (dB)	Pre. Amp. (dB)	Cor. Factor (dB/m)
1	2483.50	48.65	PK	74.00	-25.35	1.60	300.00	46.05	5.70	28.70	31.80	2.60
2	2483.50	38.32	AV	54.00	-15.68	1.60	300.00	35.72	5.70	28.70	31.80	2.60
3	4960.00	50.57	PK	74.00	-23.43	1.60	300.00	43.87	7.00	31.20	31.50	6.70
4	4960.00	40.61	AV	54.00	-13.39	1.60	300.00	33.91	7.00	31.20	31.50	6.70
5	7440.00	51.88	PK	74.00	-22.12	1.60	300.00	42.38	10.20	31.60	32.40	9.50
6	7440.00	40.72	AV	54.00	-13.28	1.60	300.00	31.22	10.20	31.60	32.40	9.50

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (8DPSK_2402MHz)												
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Cab. Loss (dB)	Ant. Factor (dB)	Pre. Amp. (dB)	Cor. Factor (dB/m)
1	2390.00	49.65	PK	74.00	-24.35	1.70	120.00	48.35	5.20	28.60	32.50	1.30
2	2390.00	36.46	AV	54.00	-17.54	1.70	120.00	35.16	5.20	28.60	32.50	1.30
3	4804.00	50.87	PK	74.00	-23.13	1.70	120.00	44.47	7.40	30.40	31.40	6.40
4	4804.00	38.12	AV	54.00	-15.88	1.70	120.00	31.72	7.40	30.40	31.40	6.40
5	7206.00	51.77	PK	74.00	-22.23	1.70	120.00	42.47	9.90	31.50	32.10	9.30
6	7206.00	39.78	AV	54.00	-14.22	1.70	120.00	30.48	9.90	31.50	32.10	9.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (8DPSK_2402MHz)												
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Cab. Loss (dB)	Ant. Factor (dB)	Pre. Amp. (dB)	Cor. Factor (dB/m)
1	2390.00	48.95	PK	74.00	-25.05	1.60	300.00	47.65	5.20	28.60	32.50	1.30
2	2390.00	35.61	AV	54.00	-18.39	1.60	300.00	34.31	5.20	28.60	32.50	1.30
3	4804.00	50.97	PK	74.00	-23.03	1.60	300.00	44.57	7.40	30.40	31.40	6.40
4	4804.00	39.32	AV	54.00	-14.68	1.60	300.00	32.92	7.40	30.40	31.40	6.40
5	7206.00	51.44	PK	74.00	-22.56	1.60	300.00	42.14	9.90	31.50	32.10	9.30
6	7206.00	39.65	AV	54.00	-14.35	1.60	300.00	30.35	9.90	31.50	32.10	9.30

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (8DPSK_2441MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Cab. Loss (dB)	Ant. Factor (dB)	Pre. Amp. (dB)	Cor. Factor (dB/m)
1	4882.00	49.65	PK	74.00	-24.35	1.70	120.00	43.25	6.70	31.20	31.50	6.40
2	4882.00	38.40	AV	54.00	-15.60	1.70	120.00	32.00	6.70	31.20	31.50	6.40
3	7323.00	51.28	PK	74.00	-22.72	1.70	120.00	41.88	10.10	31.50	32.30	9.40
4	7323.00	40.02	AV	54.00	-13.98	1.70	120.00	30.62	10.10	31.50	32.30	9.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (8DPSK_2441MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Cab. Loss (dB)	Ant. Factor (dB)	Pre. Amp. (dB)	Cor. Factor (dB/m)
1	4882.00	47.87	PK	74.00	-26.13	1.60	300.00	41.47	6.70	31.20	31.50	6.40
2	4882.00	36.52	AV	54.00	-17.48	1.60	300.00	30.12	6.70	31.20	31.50	6.40
3	7323.00	50.98	PK	74.00	-23.02	1.60	300.00	41.58	10.10	31.50	32.30	9.40
4	7323.00	39.57	AV	54.00	-14.43	1.60	300.00	30.17	10.10	31.50	32.30	9.40

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (8DPSK_2480MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Cab. Loss (dB)	Ant. Factor (dB)	Pre. Amp. (dB)	Cor. Factor (dB/m)
1	2483.50	49.35	PK	74.00	-24.65	1.60	120.00	46.75	5.70	28.70	31.80	2.60
2	2483.50	37.03	AV	54.00	-16.97	1.60	120.00	34.43	5.70	28.70	31.80	2.60
3	4960.00	51.28	PK	74.00	-22.72	1.60	120.00	44.88	6.70	31.20	31.50	6.40
4	4960.00	39.29	AV	54.00	-14.71	1.60	120.00	32.89	6.70	31.20	31.50	6.40
5	7440.00	52.00	PK	74.00	-22.00	1.60	120.00	37.10	16.00	30.90	32.00	14.90
6	7440.00	40.85	AV	54.00	-13.15	1.60	120.00	25.95	16.00	30.90	32.00	14.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (8DPSK_2480MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Cab. Loss (dB)	Ant. Factor (dB)	Pre. Amp. (dB)	Cor. Factor (dB/m)
1	2483.50	48.57	PK	74.00	-25.43	1.50	300.00	45.97	5.70	28.70	31.80	2.60
2	2483.50	37.43	AV	54.00	-16.57	1.50	300.00	34.83	5.70	28.70	31.80	2.60
3	4960.00	51.64	PK	74.00	-22.36	1.50	300.00	45.24	6.70	31.20	31.50	6.40
4	4960.00	40.22	AV	54.00	-13.78	1.50	300.00	33.82	6.70	31.20	31.50	6.40
5	7440.00	52.26	PK	74.00	-21.74	1.50	300.00	37.36	16.00	30.90	32.00	14.90
6	7440.00	40.40	AV	54.00	-13.60	1.50	300.00	25.50	16.00	30.90	32.00	14.90

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
- Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level - Limit value

3. List of measuring equipment

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	EMI TEST RECEIVER	KEYSIGHT	N9038A	A141202036	2020.09.21	2021.09.20
2	Power Meter	R&S	NRP-Z31	102872	2021.04.26	2022.04.25
3	TURNTABLE	ETS	2088	2149	N/A	N/A
4	ANTENNA MAST	ETS	2075	2346	N/A	N/A
5	EMI TEST Software	R&S	ESK1	N/A	N/A	N/A
6	Horn antenna (18GHz~26.5GHz)	AR	AT4003A	325306	2020.09.16	2022.09.15
7	Amplifier 30M~1GHz	MILMEGA	80RF1000-10004	A140101634	2021.01.26	2022.01.25
8	Amplifier 1G~18GHz	MILMEGA	AS0104R-800/40 0	A160302517	2021.01.26	2022.01.25
9	High pass filter	Compliance Direction systems	BSU-6	34202	2020.11.10	2021.11.09
10	Horn Antenna	R&S	HF906	A0304225	2019.04.17	2022.04.16
11	Horn Antenna	R&S	ESIB7	A0501375	2020.06.24	2022.06.22
12	ULTRA-BROADBAND ANTENNA	SCHWARZBEC K	VULB9160	A0805560	2019.05.24	2022.05.23
13	Passive Loop Antenna	R&S	HFH2-Z2	100047	2019.04.26	2022.04.25
14	Temperature chamber	TABAI	PS-232	A8708054	2020.10.30	2021.10.29
15	Spectrum Analyzer	KEYSIGHT	N9030A	A160702554	2021.04.26	2022.04.25
16	Power Supply	R&S	ESIB26	A0304218	2021.01.04	2022.01.03
17	LISN	ROHDE&SCH WARZ	ENV216	A140701847	2020.09.22	2021.09.21
18	Test software	ECIT	Eagle	V2.0	N/A	N/A

4. Uncertainty of Evaluation

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.10-2013. All the measurement uncertainty value were shown with a coverage $K=2$ to indicate 95% level of confidence . The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Uncertainty of Conducted Emission Measurement (150KHz~30MHz)

Measuring Uncertainty for a level of confidence of 95%($U=2U_c(y)$)	2.8dB
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Uncertainty of Radiated Emission Measurement (30MHz~1GHz)

Measuring Uncertainty for a level of confidence of 95%($U=2U_c(y)$)	3.91dB
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Uncertainty of Radiated Emission Measurement (1GHz~18GHz)

Measuring Uncertainty for a level of confidence of 95%($U=2U_c(y)$)	4.5dB
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Uncertainty of Radiated Emission Measurement (18GHz~40GHz)

Measuring Uncertainty for a level of confidence of 95%($U=2U_c(y)$)	4.9dB
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**** END OF REPORT ****