

KDB 178919 D01 RADIO TEST REPORT FCC ID: 2BBDI20003502MTCA05

Product: BYD Di5.0F

Trade Mark: 

Model No.: MTCA05

Family Model: N/A

Report No.: S23110303562003

Issue Date: Dec 20, 2023

Prepared for

Wuxi Auto-link World Information Technology Co., Ltd
No. 2, Gaokai Road, Economic Development Zone, Wuxi City,
Jiangsu Province, P .R. China


Prepared by

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1 TEST RESULT CERTIFICATION

Applicant's name.....:	Wuxi Auto-link World Information Technology Co., Ltd
Address.....:	No. 2, Gaokai Road, Economic Development Zone, Wuxi City, Jiangsu Province, P .R. China
Manufacturer's Name.....:	Wuxi Auto-link World Information Technology Co., Ltd
Address.....:	No. 2, Gaokai Road, Economic Development Zone, Wuxi City, Jiangsu Province, P .R. China
Product description	
Product name.....:	BYD Di5.0F
Trademark	
Model and/or type reference :	MTCA05
Family Model.....:	N/A
Test Sample number	S231103035052
Date of Test.....:	Nov 03, 2023 ~ Dec 20, 2023

Measurement Procedure Used:

APPLICABLE STANDARDS	
APPLICABLE STANDARD/ TEST PROCEDURE	TEST RESULT
FCC 47 CFR Part 2, Subpart J FCC 47 CFR Part 15, Subpart C FCC KDB 662911 D01 Multiple Transmitter Output v02r01 ANSI C63.10-2013 FCC KDB 558074 D01 15.247 Meas Guidance v05r02 KDB 178919 D01	Complied

This device described above has been tested by Shenzhen NTEK Testing Technology Co., Ltd., and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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The test results of this report relate only to the tested sample identified in this report.

Prepared By : Mukzi Lee
Mukzi Lee
(Project Engineer)

Reviewed By : Aaron Cheng
Aaron Cheng
(Supervisor)

Approved By : Alex Li
Alex Li
(Manager)

2 SUMMARY OF TEST RESULTS**FCC Part15 (15.247), Subpart C**

Standard Section	Test Item	Verdict	Remark
15.209 (a) 15.205 (a)	Radiated Spurious Emission	PASS	
15.209 (a) 15.205 (a)	Radiated Band Edge	PASS	
15.203	Antenna Requirement	PASS	

Remark:

1. "N/A" denotes test is not applicable in this Test Report.
2. All test items were verified and recorded according to the standards and without any deviation during the test.
3. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

3 FACILITIES AND ACCREDITATIONS

3.1 FACILITIES

All measurement facilities used to collect the measurement data are located at
1/F, Building E, Fenda Science Park Sanwei, Xixiang, Bao'an District
Shenzhen, Guangdong, China

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10 and CISPR Publication 22.

3.2 LABORATORY ACCREDITATIONS AND LISTINGS

Site Description

CNAS-Lab.

IC-Registration

FCC- Accredited

A2LA-Lab.

Name of Firm

Site Location

: The Certificate Registration Number is L5516.

The Certificate Registration Number is 9270A.

CAB identifier:CN0074

Test Firm Registration Number: 463705.

Designation Number: CN1184

The Certificate Registration Number is 4298.01

This laboratory is accredited in accordance with the recognized
International Standard ISO/IEC 17025:2005 General requirements for
the competence of testing and calibration laboratories.

This accreditation demonstrates technical competence for a defined
scope and the operation of a laboratory quality management system
(refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).

: Shenzhen NTEK Testing Technology Co., Ltd.

: 1/F, Building E, Fenda Science Park Sanwei, Xixiang, Bao'an District
Shenzhen, Guangdong, China

3.3 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	Conducted Emission Test	$\pm 2.80\text{dB}$
2	RF power, conducted	$\pm 0.16\text{dB}$
3	Spurious emissions, conducted	$\pm 0.21\text{dB}$
4	Occupied bandwidth	$\pm 3.7\text{dB}$
5	All emissions, radiated(9KHz~30MHz)	$\pm 6\text{dB}$
6	All emissions, radiated(30MHz~1GHz)	$\pm 2.64\text{dB}$
7	All emissions, radiated(1GHz~6GHz)	$\pm 2.40\text{dB}$
8	All emissions, radiated(>6GHz)	$\pm 2.52\text{dB}$
9	Temperature	$\pm 0.5^\circ\text{C}$
10	Humidity	$\pm 2\%$

4 GENERAL DESCRIPTION OF EUT

Product Feature and Specification	
Equipment	BYD Di5.0F
Trade Mark	Relay2
FCC ID	2BBDI20003502MTCA05
Model No.	MTCA05
Family Model	N/A
Model Difference	N/A
Operating Frequency	2412-2462MHz for 802.11b/g/11n(HT20)/ax20; 2422-2452MHz for 802.11n(HT40)/ax40;
Modulation	DSSS with DBPSK/DQPSK/CCK for 802.11b; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n/; OFDMA with BPSK/QPSK/16QAM/64QAM/256QAM/1024QAM for 802.11ax;
Number of Channels	11 channels for 802.11b/g/11n(HT20)/ax20; 7 channels for 802.11n(HT40)/ax40;
Antenna Type	Ant 1: Ceramic Antenna; Ant 2 Ceramic Antenna
Smart system	<input checked="" type="checkbox"/> SISO for 802.11b/g/ n20/n40/ax20/ax40 <input checked="" type="checkbox"/> MIMO for 802.11n20/n40/ax20/ax40
Antenna Gain	Ant 1: 2.27 dBi; Ant 2: 2.27 dBi
Power Setting	802.11g:22
Adapter	N/A
Battery	N/A
Power supply	DC 12.0V, 2.88A (Max)
HW Version	0.0.6
SW Version	4.00.3

Note: 1. Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.

Revision History

Report No.	Version	Description	Issued Date
S23110303562003	Rev.01	Initial issue of report	Dec 20, 2023

5 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

Test of channel included the lowest and middle and highest frequency to perform the test, then record on this report.

Those data rates (802.11b: 1 Mbps; 802.11g: 6 Mbps; 802.11n/ax (HT20): MCS0; 802.11n/ax (HT40): MCS0) were used for all test.

The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement –X, Y, and Z-plane. The Y-plane results were found as the worst case and were shown in this report.

Frequency and Channel list for 802.11b/g/n/ax (HT20/HT40):

Channel	Frequency(MHz)
1	2412
2	2417
...	...
5	2432
6	2437
...	...
10	2457
11	2462

Note: $f_c = 2412\text{MHz} + (k-1) \times 5\text{MHz}$ $k=1$ to 11

Table for Filed Antenna

Antenna	Antenna Type	Gain (dBi)	NOTE
1(main)	Ceramic Antenna	2.27	Wifi Antenna
2(aux)	Ceramic Antenna	2.27	Wifi Antenna

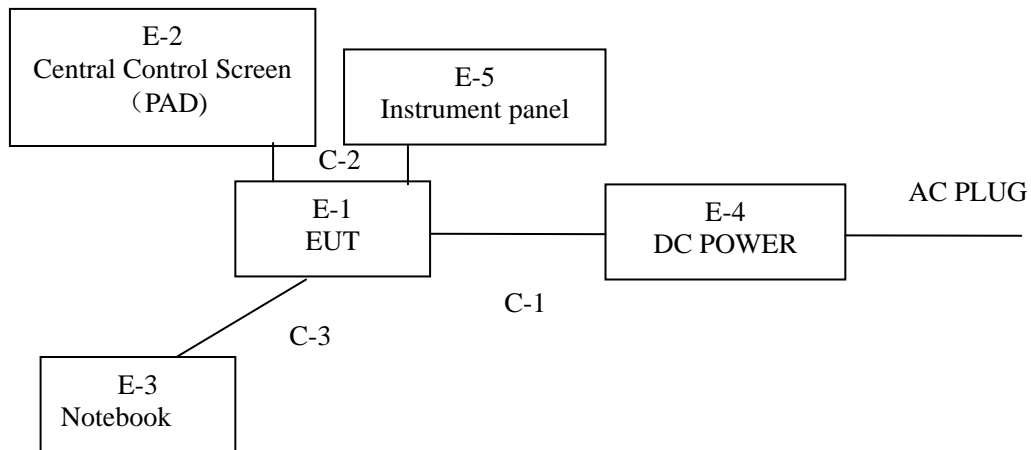
The module for 2.4G WIFI have two antenna, and different modes support different transmit mode what describe as Following form:

Mode	Tx/Rx
802.11b/g	1Tx, 1Rx
802.11n/ax	1Tx, 1Rx ,2Tx, 2Rx

The engineering test program was provided and the EUT was programmed to be in continuously transmitting mode(duty cycle =100% during the test)

6 SETUP OF EQUIPMENT UNDER TEST

6.1 BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM



6.2 SUPPORT EQUIPMENT

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Manufacturer	Model	Series No.	Note
E-1	BYD Di5.0F	Auto-link	MTCA05	N/A	EUT
E-2	Central Control Screen (PAD)	Xi'an BYD Electronics Co.,Ltd .Jixian Branch	D156	HCEEC-792410 0AA	Peripherals
E-3	Notebook	N/A	N/A	N/A	Peripherals
E-4	DC POWER	N/A	N/A	N/A	Peripherals
E-5	Instrument panel	FinDreams Technology Co., Ltd.	YBN403	UKEA-3820010	Peripherals

Item	Cable Type	Shielded Type	Ferrite Core	Note
C-1	Power Cable	N/A	NO	
C-2	Power Cable	N/A	NO	
C-3	Power Cable	N/A	NO	

Notes:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (3) “YES” is means “shielded” “with core”; “NO” is means “unshielded” “without core”.
- (4) During the battery power test, the battery is fully charged.

6.3 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Spectrum Analyzer	Agilent	E4407B	MY45108040	2023.03.27	2024.03.26	1 year
2	Spectrum Analyzer	Agilent	N9020A	MY49100060	2023.05.29	2024.05.28	1 year
3	Spectrum Analyzer	R&S	FSV40	101417	2023.05.29	2024.05.28	1 year
4	Test Receiver	R&S	ESPI7	101318	2023.03.27	2024.04.26	1 year
5	Bilog Antenna	TESEQ	CBL6111D	31216	2023.03.16	2024.03.16	1 year
6	50Ω Coaxial Switch	Anritsu	MP59B	6200983705	2023.05.06	2026.05.05	3 year
7	Horn Antenna	SCHWARZBECK	BBHA 9120 D	2816	2023.01.12	2024.01.11	1 year
8	Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	803	2022.11.07	2025.11.06	3 year
9	Amplifier	EMC	EMC051835 SE	980246	2023.05.29	2024.05.28	1 year
10	Active Loop Antenna	SCHWARZBECK	FMZB 1519 B	055	2023.11.03	2026.11.02	3 year
11	Power Meter	DARE	RPR3006W	15I00041SN O84	2023.05.29	2024.05.28	1 year
12	Test Cable (9KHz-30MHz)	N/A	R-01	N/A	2022.06.17	2025.06.16	3 year
13	Test Cable (30MHz-1GHz)	N/A	R-02	N/A	2022.06.17	2025.06.16	3 year
14	High Test Cable(1G-40GHz)	N/A	R-03	N/A	2022.06.17	2025.06.16	3 year
15	Filter	TRILTHIC	2400MHz	29	2023.03.26	2026.03.25	3 year

Note: Each piece of equipment is scheduled for calibration once a year except the Test Cable which is scheduled for calibration every 3 years.

7 TEST REQUIREMENTS RADIATED SPURIOUS EMISSION

7.1.1 Applicable Standard

According to FCC Part 15.247(d) and 15.209 and ANSI C63.10-2013

7.1.2 Conformance Limit

According to FCC Part 15.247(d): radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).
According to FCC Part 15.205, Restricted bands

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(2)
13.36-13.41			

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Restricted Frequency(MHz)	Field Strength (μV/m)	Field Strength (dBμV/m)	Measurement Distance
0.009~0.490	2400/F(KHz)	20 log (uV/m)	300
0.490~1.705	24000/F(KHz)	20 log (uV/m)	30
1.705~30.0	30	29.5	30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

Limits of Radiated Emission Measurement(Above 1000MHz)

Frequency(MHz)	Class B (dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

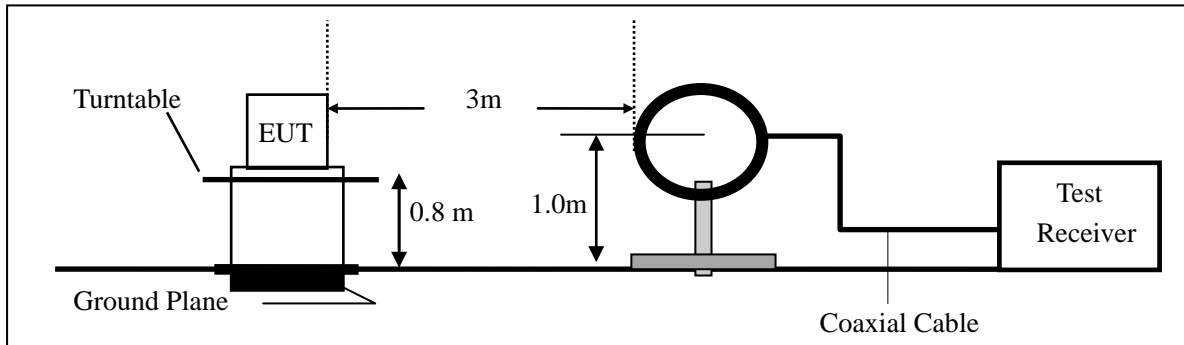
Remark : 1. Emission level in dBuV/m=20 log (uV/m)
2. Measurement was performed at an antenna to the closed point of EUT distance of meters.
3. For Frequency 9kHz~30MHz:
Distance extrapolation factor =40log(Specific distance/ test distance)(dB);
Limit line=Specific limits(dBuV) + distance extrapolation factor.
For Frequency above 30MHz:
Distance extrapolation factor =20log(Specific distance/ test distance)(dB);
Limit line=Specific limits(dBuV) + distance extrapolation factor.

7.1.3 Measuring Instruments

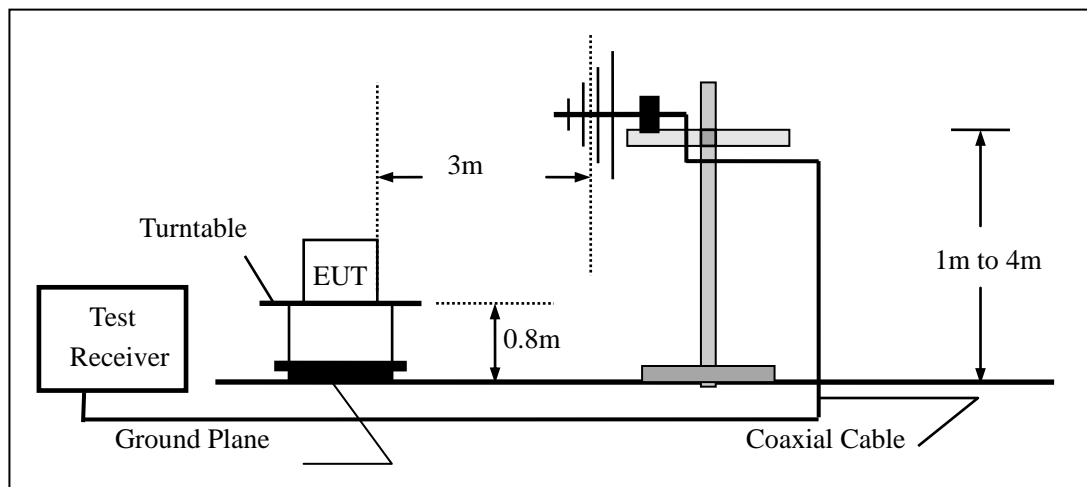
The Measuring equipment is listed in the section 6.3 of this test report.

7.1.4 Test Configuration

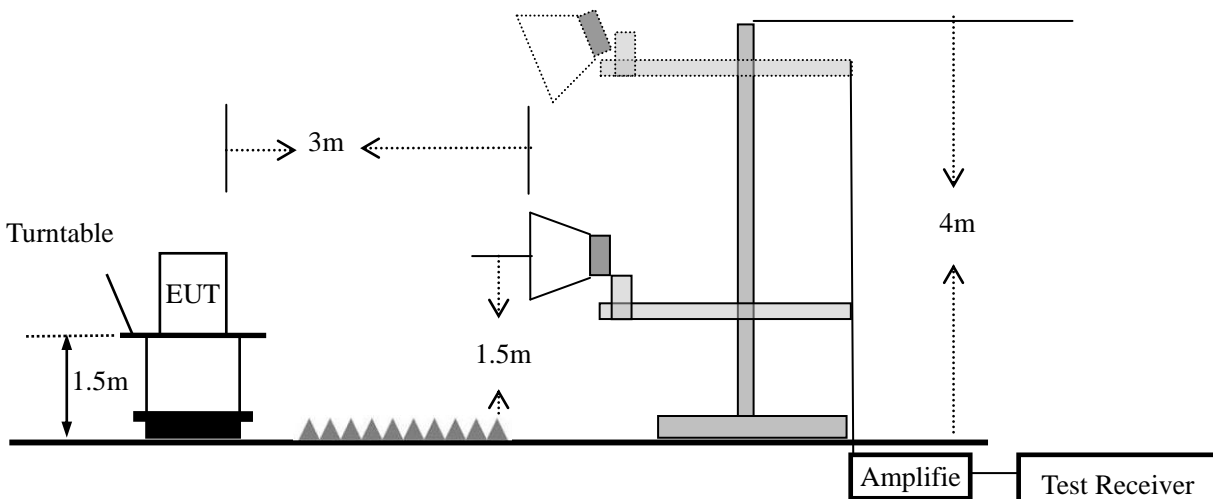
(a) For radiated emissions below 30MHz



(b) For radiated emissions from 30MHz to 1000MHz



(c) For radiated emissions above 1000MHz



7.1.5 Test Procedure

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.10-2013. The test distance is 3m. The setup is according to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 and CAN/CSA-CEI/IEC CISPR 22.

This test is required for any spurious emission that falls in a Restricted Band, as defined in Section 15.205. It must be performed with the highest gain of each type of antenna proposed for use with the EUT.

Use the following spectrum analyzer settings:

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

- The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz and frequencies above 1GHz,
- The EUT was placed on the top of a rotating table 0.8 m for below 1GHz and 1.5m for above 1GHz the ground at a 3 meter. The table was rotated 360 degrees to determine the position of the highest radiation.
- The height of the equipment or of the substitution antenna shall be 0.8 m for below 1GHz and 1.5m for above 1GHz; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For the radiated emission test 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.
- The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

During the radiated emission test, the Spectrum Analyzer was set with the following configurations:

For peak measurement:

Set RBW=100 kHz for $f < 1$ GHz; VBW=120KHz; Sweep = auto; Detector function = peak; Trace = max hold; Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz

For average measurement:

VBW = 10 Hz, when duty cycle is no less than 98 percent.

VBW $\geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

Note: for the frequency ranges below 30 MHz, a narrower RBW is used for these ranges but the measured value should add a RBW correction factor (RBWCF) where $RBWCF [dB] = 10 \cdot \lg(100 [kHz] / \text{narrower RBW} [kHz])$. , the narrower RBW is 1 kHz and RBWCF is 20 dB for the frequency 9 kHz to 150 kHz, and the narrower RBW is 10 kHz and RBWCF is 10 dB for the frequency 150 kHz to 30 MHz.

7.1.6 Test Results

■ Spurious Emission below 30MHz (9KHz to 30MHz)

EUT:	BYD Di5.0F	Model Name :	MTCA05
Temperature:	26 °C	Relative Humidity:	54%
Test Mode:	Mode2/Mode3/Mode4/Mode5	Test By:	Mukzi Lee

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV/m)		Limit 3m(dBuV/m)		Over(dB)	
		PK	AV	PK	AV	PK	AV
--	--	--	--	--	--	--	--

Note: the amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.

Spurious Emission below 1GHz (30MHz to 1GHz)

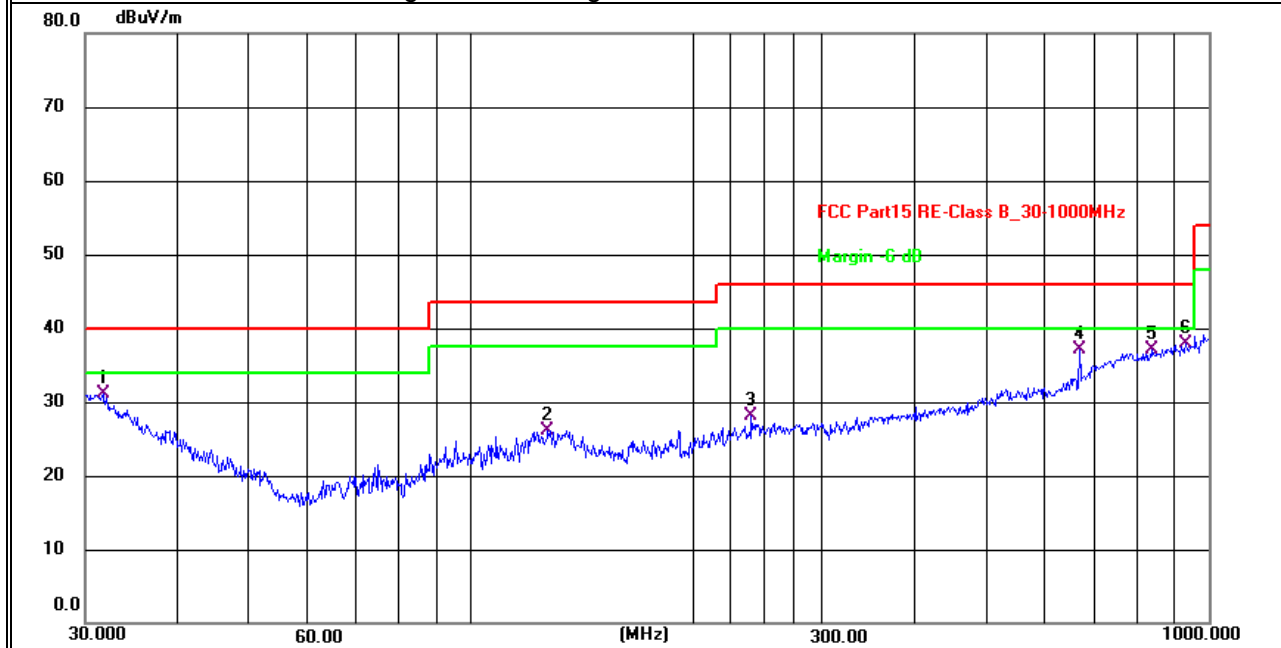
All the modulation modes have been tested, and the worst result was report as below:

EUT:	BYD Di5.0F	Model Name :	MTCA05
Temperature:	22 °C	Relative Humidity:	54%
Pressure:	1010hPa	Test Mode:	Normal Link
Test Voltage :	DC 12V		

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
V	31.7312	5.61	25.46	31.07	40.00	-8.93	QP
V	127.2176	7.50	18.69	26.19	43.50	-17.31	QP
V	239.9873	10.21	17.88	28.09	46.00	-17.91	QP
V	668.1422	9.70	27.35	37.05	46.00	-8.95	QP
V	836.2441	7.11	29.91	37.02	46.00	-8.98	QP
V	932.2712	6.86	30.97	37.83	46.00	-8.17	QP

Remark:

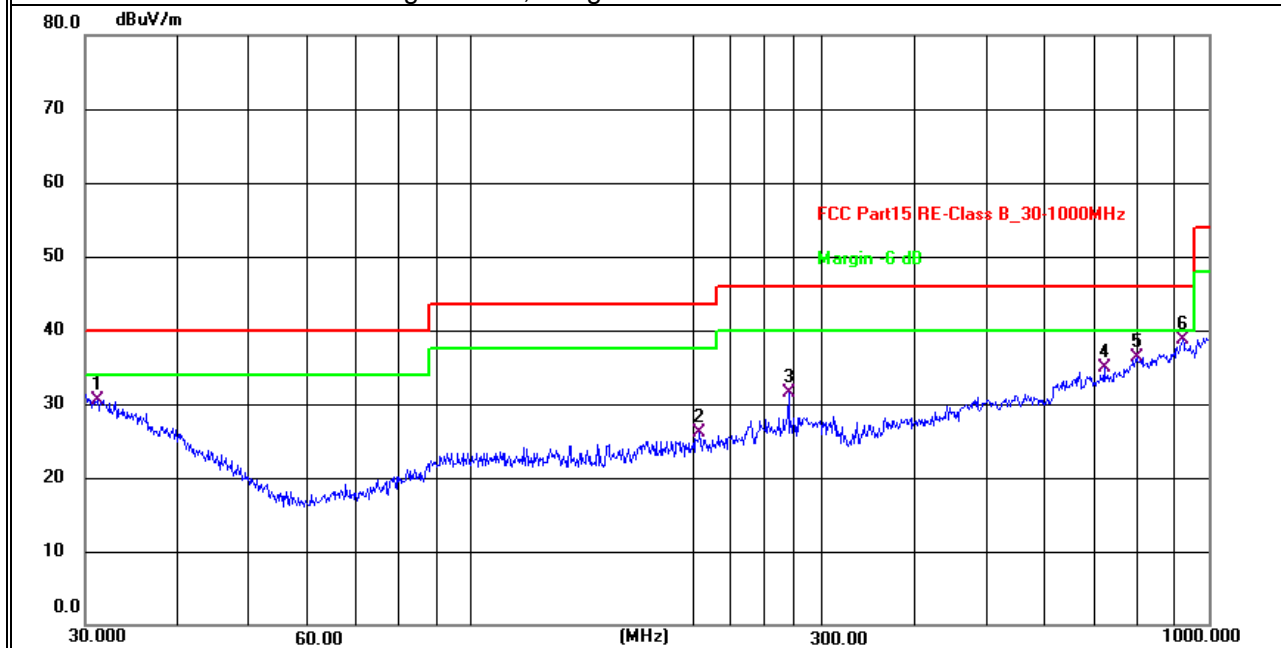
Emission Level= Meter Reading+ Factor, Margin= Emission Level- Limit



Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
H	31.1797	4.67	25.76	30.43	40.00	-9.57	QP
H	204.2375	9.87	16.31	26.18	43.50	-17.32	QP
H	269.4282	11.95	19.60	31.55	46.00	-14.45	QP
H	721.7258	6.71	28.15	34.86	46.00	-11.14	QP
H	798.9796	6.84	29.40	36.24	46.00	-9.76	QP
H	922.5157	7.79	30.85	38.64	46.00	-7.36	QP

Remark:

Emission Level= Meter Reading+ Factor, Margin= Emission Level- Limit



Spurious Emission Above 1GHz (1GHz to 25GHz)

EUT:	BYD Di5.0F	Model Name :	MTCA05
Temperature:	26 °C	Relative Humidity:	54%
Test Mode:	802.11g	Test By:	Mukzi Lee

Frequency	Read Level	Cable loss	Antenna Factor	Preamplifier Factor	Emission Level	Limits	Margin	Remark	Comment
(MHz)	(dBμV)	(dB)	dB/m	(dB)	(dBμV/m)	(dBμV/m)	(dB)		
Low Channel (2412 MHz)(802.11g)									
4824	55.47	5.21	35.59	44.30	51.97	74.00	-22.03	Pk	Vertical
4824	33.38	5.21	35.59	44.30	29.88	54.00	-24.12	AV	Vertical
7236	51.56	6.48	36.27	44.60	49.71	74.00	-24.29	Pk	Vertical
7236	39.69	6.48	36.27	44.60	37.84	54.00	-16.16	AV	Vertical
4824	57.77	5.21	35.55	44.30	54.23	74.00	-19.77	Pk	Horizontal
4824	35.93	5.21	35.55	44.30	32.39	54.00	-21.61	AV	Horizontal
7236	52.95	6.48	36.27	44.52	51.18	74.00	-22.82	Pk	Horizontal
7236	33.30	6.48	36.27	44.52	31.53	54.00	-22.47	AV	Horizontal
Mid Channel (2437 MHz)(802.11g)									
4874	52.53	5.21	35.66	44.20	49.20	74.00	-24.80	Pk	Vertical
4874	35.10	5.21	35.66	44.20	31.77	54.00	-22.23	AV	Vertical
7311	52.69	7.10	36.50	44.43	51.86	74.00	-22.14	Pk	Vertical
7311	34.47	7.10	36.50	44.43	33.64	54.00	-20.36	AV	Vertical
4874	53.54	5.21	35.66	44.20	50.21	74.00	-23.79	Pk	Horizontal
4874	38.58	5.21	35.66	44.20	35.25	54.00	-18.75	AV	Horizontal
7311	52.97	7.10	36.50	44.43	52.14	74.00	-21.86	Pk	Horizontal
7311	34.41	7.10	36.50	44.43	33.58	54.00	-20.42	AV	Horizontal
High Channel (2462 MHz)(802.11g)									
4924	51.64	5.21	35.52	44.21	48.16	74.00	-25.84	Pk	Vertical
4924	35.90	5.21	35.52	44.21	32.42	54.00	-21.58	AV	Vertical
7386	53.60	7.10	36.53	44.60	52.63	74.00	-21.37	Pk	Vertical
7386	35.51	7.10	36.53	44.60	34.54	54.00	-19.46	AV	Vertical
4924	52.47	5.21	35.52	44.21	48.99	74.00	-25.01	Pk	Horizontal
4924	32.07	5.21	35.52	44.21	28.59	54.00	-25.41	AV	Horizontal
7386	54.59	7.10	36.53	44.60	53.62	74.00	-20.38	Pk	Horizontal
7386	37.06	7.10	36.53	44.60	36.09	54.00	-17.91	AV	Horizontal

Note:

- (1) Emission Level= Antenna Factor + Cable Loss + Read Level - Preamplifier Factor
- (2) Data of measurement within this frequency range shown “ -- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

■ Radiated Band Edge

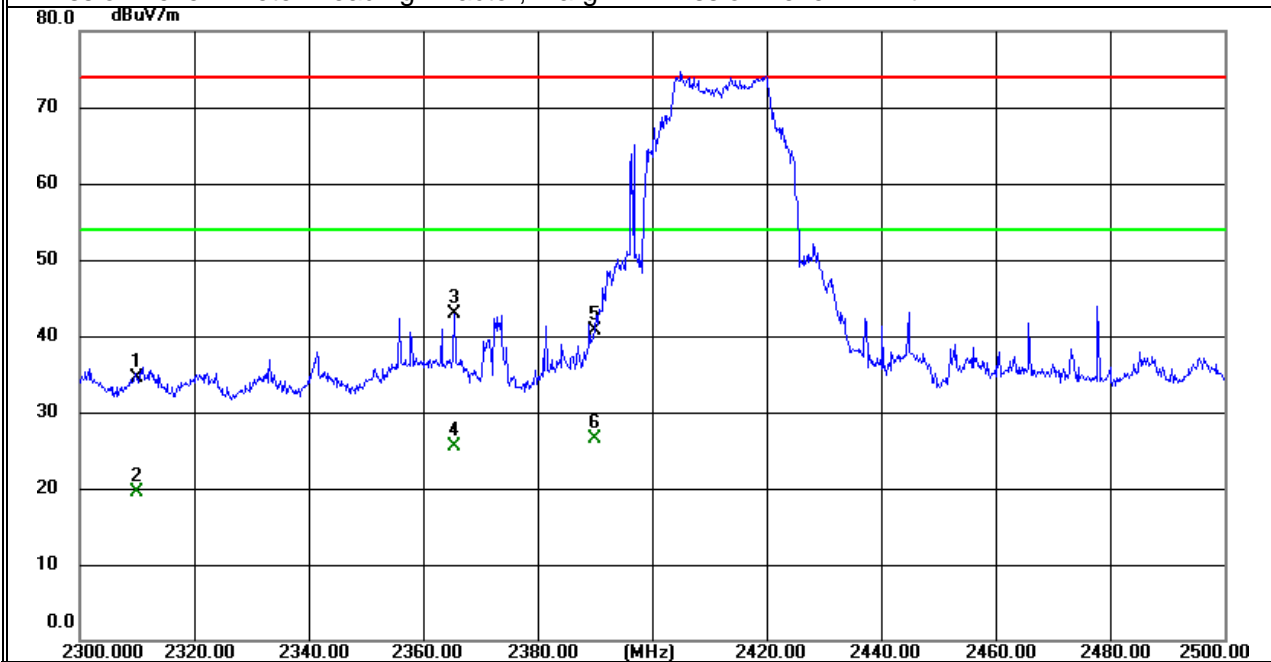
■

EUT:	BYD Di5.0F	Model No.:	MTCA05
Temperature:	20 °C	Relative Humidity:	48%
Test Mode:	802.11g CH1	Test By:	Mukzi Lee

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
V	2310.000	53.66	-19.18	34.48	74.00	-39.52	peak
V	2310.000	38.69	-19.18	19.51	54.00	-34.49	AVG
V	2365.400	61.90	-18.99	42.91	74.00	-31.09	peak
V	2365.400	44.53	-18.99	25.54	54.00	-28.46	AVG
V	2390.000	59.54	-18.91	40.63	74.00	-33.37	peak
V	2390.000	45.34	-18.91	26.43	54.00	-27.57	AVG

Remark:

Emission Level= Meter Reading+ Factor, Margin= Emission Level - Limit



Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
H	2310.000	54.50	-19.18	35.32	74.00	-38.68	peak
H	2310.000	41.35	-19.18	22.17	54.00	-31.83	AVG
H	2383.000	73.37	-18.93	54.44	74.00	-19.56	peak
H	2383.000	58.33	-18.93	39.40	54.00	-14.60	AVG
H	2390.000	73.81	-18.91	54.90	74.00	-19.10	peak
H	2390.000	56.57	-18.91	37.66	54.00	-16.34	AVG

Remark:

Emission Level= Meter Reading+ Factor, Margin= Emission Level - Limit



EUT:	BYD Di5.0F	Model No.:	MTCA05
Temperature:	20 °C	Relative Humidity:	48%
Test Mode:	802.11g CH11	Test By:	Mukzi Lee

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
V	2483.500	65.98	-18.47	47.51	74.00	-26.49	peak
V	2483.500	51.24	-18.47	32.77	54.00	-21.23	AVG
V	2486.200	65.54	-18.47	47.07	74.00	-26.93	peak
V	2486.200	50.39	-18.47	31.92	54.00	-22.08	AVG
V	2500.000	54.08	-18.43	35.65	74.00	-38.35	peak
V	2500.000	45.39	-18.43	26.96	54.00	-27.04	AVG

Remark:

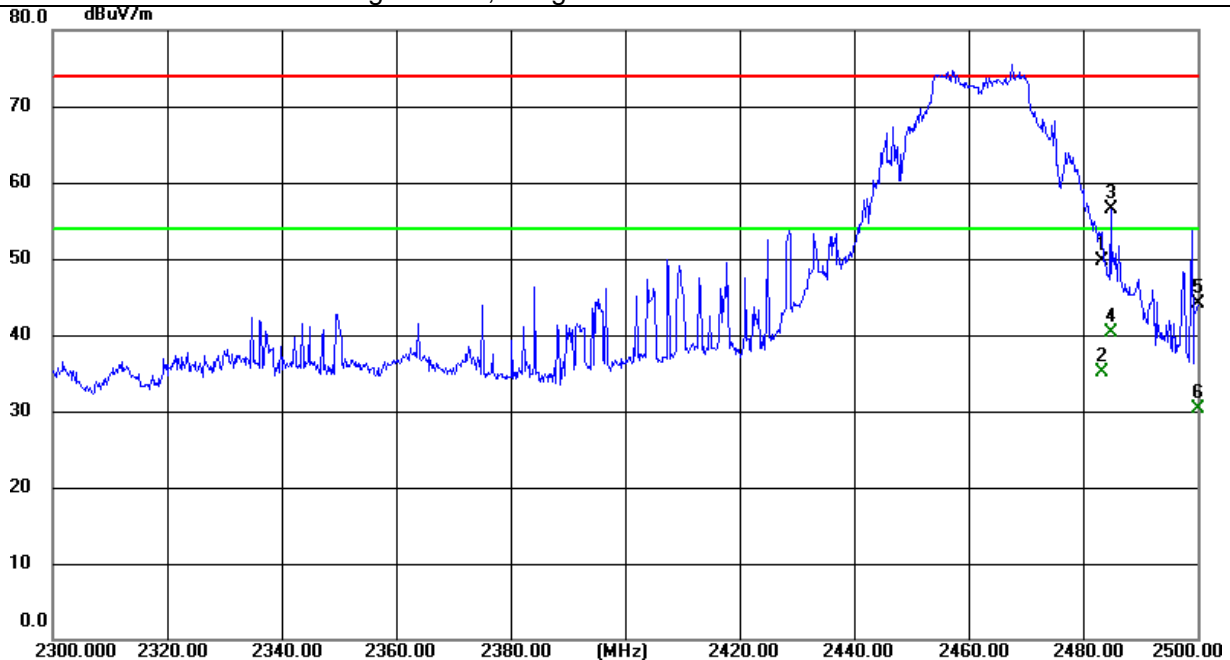
Emission Level= Meter Reading+ Factor, Margin= Emission Level - Limit



Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
H	2483.500	68.10	-18.47	49.63	74.00	-24.37	peak
H	2483.500	53.57	-18.47	35.10	54.00	-18.90	AVG
H	2484.800	74.97	-18.47	56.50	74.00	-17.50	peak
H	2484.800	58.79	-18.47	40.32	54.00	-13.68	AVG
H	2500.000	62.55	-18.43	44.12	74.00	-29.88	peak
H	2500.000	48.69	-18.43	30.26	54.00	-23.74	AVG

Remark:

Emission Level= Meter Reading+ Factor, Margin= Emission Level - Limit



7.2 ANTENNA APPLICATION

7.2.1 Antenna Requirement

15.203 requirement: 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.

7.2.2 Result

The EUT antenna is permanent attached Ceramic antenna (Gain:2.27 dBi). It comply with the standard requirement.

END OF REPORT