



FCC ID: 2AKZA-QCA9377 Report No.: T180627D11-RP1 Page: 1 / 87 Rev.: 02

RADIO TEST REPORT FCC 47 CFR PART 15 SUBPART C

Test Standard	FCC Part 15.247
Product name	WiFi+Bluetooth 4.1(HS) System on Module
Brand Name	TechNexion
Model No.	PIXI-9377
Test Result	Pass

The test Result was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were given in ANSI C63.10: 2013 and compliance standards.

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

The test Report of full or partial shall not copy. Without written approval of Compliance Certification Services Inc. (Wugu Laboratory)

Approved by:

Reviewed by:

Sam Chuang

Sam Chuan Manager

my ching

Jerry Chuang Engineer

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部分複製。

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Revision History

Rev.	Issue Date	Revisions	Revised By
00	August 28, 2018	Initial Issue	May Lin
01	September 20, 2018	 Added information about the FHSS characteristics in P.5. Revised antenna information in P.6. Revised the test procedure in P.19, P.33. Added note in P.29-30, P.35, P.39. Revised the test result and test data in P.38-39. Update KDB 937606 to KDB 414788 in P.40. 	May Lin
02	September 27, 2018	1. Revised the worst mode of measurement in P.13.	May Lin



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-	RADIATION BANDEDGE AND SPURIOUS EMISSION	



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1. GENERAL INFORMATION

1.1 EUT INFORMATION

TechNexion Ltd. 16f-5, No.736, Zhongzheng Road, Zhonghe Dist., New Taipei City, 23511 Taiwan ROC
TechNexion Ltd. 16f-5, No.736, Zhongzheng Road, Zhonghe Dist., New Taipei City, 23511 Taiwan ROC
WiFi+Bluetooth 4.1(HS) System on Module
PIXI-9377
N/A
TechNexion
June 27, 2018
July 16 ~August 10, 2018
GFSK : 0.0111 8DPSK : 0.0097
Power by host system
A1
A1



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1.2 INFORMATION ABOUT THE FHSS CHARACTERISTICS

1.2.1 Pseudorandom Frequency Hopping Sequence

The channel is represented by a pseudo-random hopping sequence hopping through the 79 RF channels. The hopping sequence is unique for the piconet and is determined by the Bluetooth device address of the master; the phase in the hopping sequence is determined by the Bluetooth clock of the master. The channel is divided into time slots where each slot corresponds to an RF hop frequency. Consecutive hops correspond to different RF hop frequencies. The nominal hop rate is 1 600 hops/s.

1.2.2 Equal Hopping Frequency Use

The channels of this system will be used equally over the long-term distribution of the hopsets.

1.2.3 Example of a 79 hopping sequence in data mode:

02, 05, 31, 24, 20, 10, 43, 36, 30, 23, 40, 06, 21, 50, 44, 09, 71, 78, 01, 13, 73, 07, 70, 72, 35, 62, 42, 11, 41, 08, 16, 29, 60, 15, 34, 61, 58, 04, 67, 12, 22, 53, 57, 18, 27, 76, 39, 32, 17, 77, 52, 33, 56, 46, 37, 47, 64, 49, 45, 38, 69, 14, 51, 26, 79, 19, 28, 65, 75, 54, 48, 03, 25, 66, 05, 16, 68, 74, 59, 63, 55

1.2.4 System Receiver Input Bandwidth

Each channel bandwidth is 1MHz.

The system receivers have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shift frequencies in synchronization with the transmitted signals.

1.2.5 Equipment Description

15.247(a)(1) that the Rx input bandwidths shift frequencies in synchronization with the transmitted signals.

15.247(g): In accordance with the Bluetooth Industry Standard, the system is designed to comply with all of the regulations in Section 15.247 when the transmitter is presented with a continuous data (or information) system.

15.247(h): In accordance with the Bluetooth Industry Standard, the system does not coordinate it channels selection/ hopping sequence with other frequency hopping systems for the express purpose of avoiding the simultaneous occupancy of individual hopping frequencies by multiple transmitters.



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1.3 EUT CHANNEL INFORMATION

Frequency Range	2402MHz-2480MHz
Modulation Type	 GFSK for BR-1Mbps π/4-DQPSK for EDR-2Mbps 8DPSK for EDR-3Mbps
Number of channel	79 Channels

Remark:

Refer as ANSI 63.10:2013 clause 5.6.1 Table 4 for test channels

Number of frequencies to be tested						
Frequency range inNumber ofLocation in frequencywhich device operatesfrequenciesrange of operation						
1 MHz or less	1	Middle				
1 MHz to 10 MHz	2	1 near top and 1 near bottom				
More than 10 MHz	3	1 near top, 1 near middle, and 1 near bottom				

1.4 ANTENNA INFORMATION

Antenna Type	 ☑ Dipole ☑ PIFA □ PCB □ Coils 							
		Brand	P/N	Туре	Peak Gain	Worst Mode		
Antenna Gain	Antenna 1	TechNexion	VM2450-25523-OOX-180	PIFA	2.5dBi	Х		
	Antenna 2	TechNexion	VM2450-ASSY1005	Dipole	4dBi	0		



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1.5 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	+/- 1.2575
Emission bandwidth, 20dB bandwidth	+/- 1.4003
RF output power, conducted	+/- 1.1372
Power density, conducted	+/- 1.4003
3M Semi Anechoic Chamber / 30M~200M	+/- 4.0138
3M Semi Anechoic Chamber / 200M~1000M	+/- 3.9483
3M Semi Anechoic Chamber / 1G~8G	+/- 2.5975
3M Semi Anechoic Chamber / 8G~18G	+/- 2.6112
3M Semi Anechoic Chamber / 18G~26G	+/- 2.7389
3M Semi Anechoic Chamber / 26G~40G	+/- 2.9683

Remark:

1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of *k*=2

2. ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report.



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1.6 FACILITIES AND TEST LOCATION

All measurement facilities used to collect the measurement data are located at *No.11, Wugong 6th Rd., Wugu Dist., New Taipei City 24891, Taiwan. (R.O.C.)*

Test site	Test Engineer	Remark
AC Conduction Room	Dally Hong	-
Radiation	Jerry Chuang	-
RF Conducted	Jerry Chuang	-

Remark: The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.



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1.7 INSTRUMENT CALIBRATION

RF Conducted Test Site						
Name of Equipment Manufacturer Model Serial Number Calibration Date Calibration Du						
Cable	HUBER SUHNER	SUCOFLEX 104PEA	25157	06/29/2018	06/28/2019	
Power Meter	Anritsu	ML2495A	1012009	09/18/2017	09/17/2018	
Power Seneor	Anritsu	MA2411B	1126148	02/06/2018	02/05/2019	
Signal Analyzer	R&S	FSV 40	101073	10/02/2017	10/01/2018	

Wugu 966 Chamber A						
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due	
Band Reject Filters	MICRO TRONICS	BRM 50702	120	05/14/2018	05/13/2019	
Bilog Antenna	Sunol Sciences	JB3	A030105	07/13/2018	07/12/2019	
Cable	HUBER SUHNER	SUCOFLEX 104PEA	25157	07/31/2017	07/30/2018	
Cable	HUBER SUHNER	SUCOFLEX 104PEA	20995	07/31/2017	07/30/2018	
Digital Thermo-Hygro Meter	WISEWIND	1206	D07	02/08/2018	02/07/2019	
Double Ridged Guide Horn Antenna	ETC	MCTD 1209	DRH13M02003	08/25/2017	08/24/2018	
Loop Ant	COM-POWER	AL-130	121051	03/21/2018	03/20/2019	
Pre-Amplifier	EMEC	EM330	060609	06/29/2018	06/28/2019	
Pre-Amplifier	HP	8449B	3008A00965	06/29/2018	06/28/2019	
PSA Series Spectrum Analyzer	Agilent	E4446A	MY46180323	05/31/2018	05/30/2019	
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R	
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R	
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R	

Conducted Emission Room # B							
Name of Equipment Manufacturer Model Serial Number Calibration Date Calibration Due							
LISN	R&S	ENV216	101054	02/06/2018	02/05/2019		
LISN	SCHWARZBECK	NSLK 8127	8127-541	02/09/2018	02/08/2019		
EMI Test Receiver	R&S	ESCI	101203	11/02/2017	11/01/2018		
CABLE	EMCI	CFD300-NL	CERF	07/03/2018	07/02/2019		

Remark: Each piece of equipment is scheduled for calibration once a year.



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1.8 SUPPORT AND EUT ACCESSORIES EQUIPMENT

		EUT Acc	cessories Equipm	ent	
No.	Equipment	Brand	Model	Series No.	FCC ID
	N/A				

Support Equipment						
No.	Equipment	Brand	Model	Series No.	FCC ID	
1	NB(K)	Toshiba	voyager	ZD 154034s	N/A	
2	NB	Lenovo	TP00056A	R33B65	PD97260HU	

1.9 TEST METHODOLOGY AND APPLIED STANDARDS

The test methodology, setups and results comply with all requirements in accordance with ANSI C63.10:2013, FCC Part 2, FCC Part 15.247



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2. TEST SUMMERY

FCC Standard Section	Report Section	Test Item	Result
15.203	1.3	Antenna Requirement	Pass
15.207(a)	4.1	AC Conducted Emission	Pass
15.247(a)(1)	4.2	20 dB Bandwidth	Pass
-	4.2	Occupied Bandwidth (99%)	Pass
15.247(b)(1)	4.3	Output Power Measurement	Pass
15.247(a)(1)	4.4	Frequency Separation	Pass
15.247(a)(1)(iii)	4.5	Number of Hopping	Pass
15.247(d)	4.6	Conducted Band Edge	Pass
15.247(d)	4.6	Conducted Emission	Pass
15.247(a)(1)(iii)	4.7	Time of Occupancy	Pass
15.247(d)	4.8	Radiation Band Edge	Pass
15.247(d)	4.8	Radiation Spurious Emission	Pass



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3. DESCRIPTION OF TEST MODES

3.1 THE WORST MODE OF OPERATING CONDITION

	BDPSK for EDR-3Mbps (3DH5)
Test Channel Frequencies 1. 1. 2. 3. 1. 2. 3. 1. 2. 2. 3. 1. 2. 2.	GFSK for BR-1Mbps: Lowest Channel : 2402MHz Middle Channel : 2441MHz Highest Channel : 2480MHz GDPSK for EDR-3Mbps: Lowest Channel : 2402MHz Middle Channel : 2441MHz Highest Channel : 2480MHz

Remark:

Г

1. EUT pre-scanned data rate of output power for each mode, the worst data rate were recorded in this report.



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3.2 THE WORST MODE OF MEASUREMENT

For PIFA Antenna

	Radiated Emission Measurement Below 1G
Test Condition	Radiated Emission Below 1G
Power supply Mode	Mode 1: EUT power by host system
Worst Mode	🔀 Mode 1 🗌 Mode 2 🗌 Mode 3 🗌 Mode 4

	Radiated Emission Measurement Above 1G
Test Condition	Band edge, Emission for Unwanted and Fundamental
Power supply Mode	Mode 1: EUT power by host system
Worst Mode	🖂 Mode 1 🗌 Mode 2 🗌 Mode 3 🗌 Mode 4
Worst Position	 Placed in fixed position. Placed in fixed position at X-Plane (E2-Plane) Placed in fixed position at Y-Plane (E1-Plane) Placed in fixed position at Z-Plane (H-Plane)
Worst Polarity	Horizontal 🗌 Vertical

Remark:

1. The worst mode was record in this test report.

2. EUT pre-scanned in three axis, X, Y, Z and two polarity, Horizontal and Vertical for radiated measurement. The worst case (X-Plane and Horizontal) were recorded in this report

3. AC power line conducted emission and for below 1G radiation emission were performed the EUT transmit at the highest output power channel as worse case.



For Dipole Antenna

	AC Power Line Conducted Emission
Test Condition	AC Power line conducted emission for line and neutral
Power supply Mode	Mode 1: EUT power by host system
Worst Mode	🖂 Mode 1 🗌 Mode 2 🗌 Mode 3 🗌 Mode 4

	Radiated Emission Measurement Below 1G
Test Condition	Radiated Emission Below 1G
Power supply Mode	Mode 1: EUT power by host system
Worst Mode	Mode 1 🗌 Mode 2 🗌 Mode 3 🗌 Mode 4

	Radiated Emission Measurement Above 1G
Test Condition	Band edge, Emission for Unwanted and Fundamental
Power supply Mode	Mode 1: EUT power by host system
Worst Mode	🖂 Mode 1 🗌 Mode 2 🗌 Mode 3 🗌 Mode 4
Worst Position	 Placed in fixed position. Placed in fixed position at X-Plane (E2-Plane) Placed in fixed position at Y-Plane (E1-Plane) Placed in fixed position at Z-Plane (H-Plane)
Worst Polarity	Horizontal 🛛 Vertical

Remark:

1. The worst mode was record in this test report.

2. EUT pre-scanned in three axis, X, Y, Z and two polarity, Horizontal and Vertical for radiated measurement. The worst case (Z-Plane and Vertical) were recorded in this report

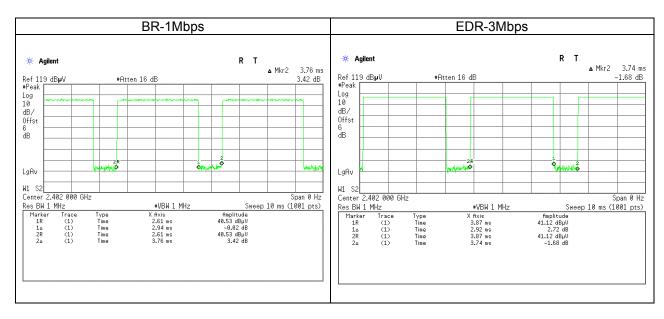
3. AC power line conducted emission and for below 1G radiation emission were performed the EUT transmit at the highest output power channel as worse case.



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3.3 EUT DUTY CYCLE

	Duty	Cycle	
Configuration	TX ON (ms)	TX ALL (ms)	Duty Cycle (%)
BR-1Mbps	2.9400	3.7600	78.19%
EDR-3Mbps	2.9200	3.7400	78.07%





4. TEST RESULT

4.1 AC POWER LINE CONDUCTED EMISSION

4.1.1 Test Limit

According to §15.207(a)

Frequency Range	Limits(dB	μV)
(MHz)	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

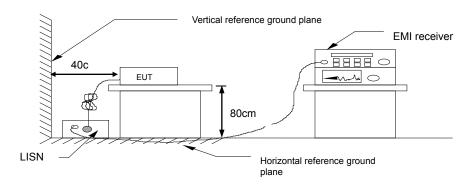
* Decreases with the logarithm of the frequency.

4.1.2 Test Procedure

Test method Refer as ANSI 63.10:2013 clause 6.2,

- 1. The EUT was placed on a non-conducted table, which is 0.8m above horizontal ground plane and 0.4m above vertical ground plane.
- 2. EUT connected to the line impedance stabilization network (LISN)
- 3. Receiver set RBW of 9kHz and Detector Peak, and note as quasi-peak and average.
- 4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 5. Recorded Line for Neutral and Line.

4.1.3 Test Setup



4.1.4 Test Result

PASS



<u>Test Data</u>

6RH	°C)/ 50%	24(°	ım	Temp/Hu			Mode		Node:	10001
	y 19, 20			Test Dat			Line			Pha
ng	ally Hon	D	neer	est Engir	Te	ac	120Va		oltage:	Test V
	1: —	Limit								80.0 d
1	30.000			5	MHz)	(1		0.5		-20 0.150
Remar	Average margin (dB)	Quasi Peak margin (dB)	Average limit (dBuV)	Quasi Peak limit (dBuV)	Average result (dBuV)	Quasi Peak result (dBuV)	Correctio n factor (dB)	Average reading (d uV)	Quasi Peak reading (dBuV)	Frequency (MHz)
	margin	Peak margin	limit	Peak limit	result	Peak result	n factor	reading	Peak reading	
Remar	margin (dB)	Peak margin (dB)	limit (dBuV)	Peak limit (dBuV)	result (dBuV)	Peak result (dBuV)	n factor (dB)	reading (d uV)	Peak reading (dBuV)	(MHz)
Remar Pass Pass	margin (dB) -35.64	Peak margin (dB) -21.99	limit (dBuV) 55.16	Peak limit (dBuV) 65.16	result (dBuV) 19.52	Peak result (dBuV) 43.17	n factor (dB) 0.11	reading (d uV) 19.41	Peak reading (dBuV) 43.06	(MHz) 0.1660
Remar Pass Pass Pass	margin (dB) -35.64 -28.80	Peak margin (dB) -21.99 -18.95	limit (dBuV) 55.16 54.39	Peak limit (dBuV) 65.16 64.39	result (dBuV) 19.52 25.59	Peak result (dBuV) 43.17 45.44	n factor (dB) 0.11 0.11	reading (d uV) 19.41 25.48	Peak reading (dBuV) 43.06 45.33	(MHz) 0.1660 0.1820
Remar	margin (dB) -35.64 -28.80 -21.21	Peak margin (dB) -21.99 -18.95 -15.47	limit (dBuV) 55.16 54.39 54.04	Peak limit (dBuV) 65.16 64.39 64.04	result (dBuV) 19.52 25.59 32.83	Peak result (dBuV) 43.17 45.44 48.57	n factor (dB) 0.11 0.11 0.11	reading (d uV) 19.41 25.48 32.72	Peak reading (dBuV) 43.06 45.33 48.46	(MHz) 0.1660 0.1820 0.1900



lest	Mode:		Mode	1	-	Temp/Hu	um	24(°C)/ 50%	RH
Pha	ase:		Neutr	al		Test Da	te	Ju	ly 19, 20	18
Test V	oltage:		120Va	ac	Te	est Engii	neer	D	ally Hon	g
				hy y have been a second and a se			5x	Limit	1: —	
20										
-20 0.150		0.5		(MHz)	5			30.000	
L	Quasi Peak reading dBuV)	0.5 Average reading (dBuV)	Correctio n factor (dB)	Quasi Peak result (dBuV)	MHz) Average result (dBuV)	Quasi Peak limit (dBuV)	Average limit (dBuV)	Quasi Peak margin (dB)	30.000 Average margin (dB)	Remar
0.150 Frequency	Peak reading	Average reading	n factor	Quasi Peak result	Average result	Quasi Peak limit	limit	Peak margin	Average margin	Remar
0.150 Frequency (MHz)	Peak reading dBuV)	Average reading (dBuV)	n factor (dB)	Quasi Peak result (dBuV)	Average result (dBuV)	Quasi Peak limit (dBuV)	limit (dBuV)	Peak margin (dB)	Average margin (dB)	
0.150 Frequency (MHz) 1.8940	Peak reading dBuV) 31.03	Average reading (dBuV) 22.97	n factor (dB) 0.16	Quasi Peak result (dBuV) 31.19	Average result (dBuV) 23.13	Quasi Peak limit (dBuV) 56.00	limit (dBuV) 46.00	Peak margin (dB) -24.81	Average margin (dB) -22.87	Pass Pass
0.150 Frequency (MHz) 1.8940 0.1825	Peak reading dBuV) 31.03 40.91	Average reading (dBuV) 22.97 28.44	n factor (dB) 0.16 0.13	Quasi Peak result (dBuV) 31.19 41.04	Average result (dBuV) 23.13 28.57	Quasi Peak limit (dBuV) 56.00 64.37	limit (dBuV) 46.00 54.37	Peak margin (dB) -24.81 -23.33	Average margin (dB) -22.87 -25.80	Pass Pass Pass
0.150 Frequency (MHz) 1.8940 0.1825 0.2007	Peak reading dBuV) 31.03 40.91 40.02	Average reading (dBuV) 22.97 28.44 26.02	n factor (dB) 0.16 0.13 0.13	Quasi Peak result (dBuV) 31.19 41.04 40.15	Average result (dBuV) 23.13 28.57 26.15	Quasi Peak limit (dBuV) 56.00 64.37 63.58	limit (dBuV) 46.00 54.37 53.58	Peak margin (dB) -24.81 -23.33 -23.43	Average margin (dB) -22.87 -25.80 -27.43	Pass



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4.2 20dB BANDWIDTH AND OCCUPIED BANDWIDTH (99%)

4.2.1 Test Limit

According to §15.247(a) (1)

20 dB Bandwidth : For reporting purposes only.

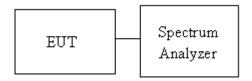
Occupied Bandwidth(99%) : For reporting purposes only.

4.2.2 Test Procedure

Test method Refer as ANSI 63.10:2013 clause 11.8.1,

- 1. The EUT RF output connected to the spectrum analyzer by RF cable.
- 2. Setting maximum power transmit of EUT
- 3. SA set RBW = 30kHz, VBW = 100kHz and Detector = Peak, to measurement 20 dB Bandwidth.
- 4. SA set RBW = 1% ~ 5% OBW, VBW = three times the RBW and Detector = Peak, to measurement 99% Bandwidth.
- 5. Measure and record the result of 20 dB Bandwidth and 99% Bandwidth. in the test report.

4.2.3 Test Setup





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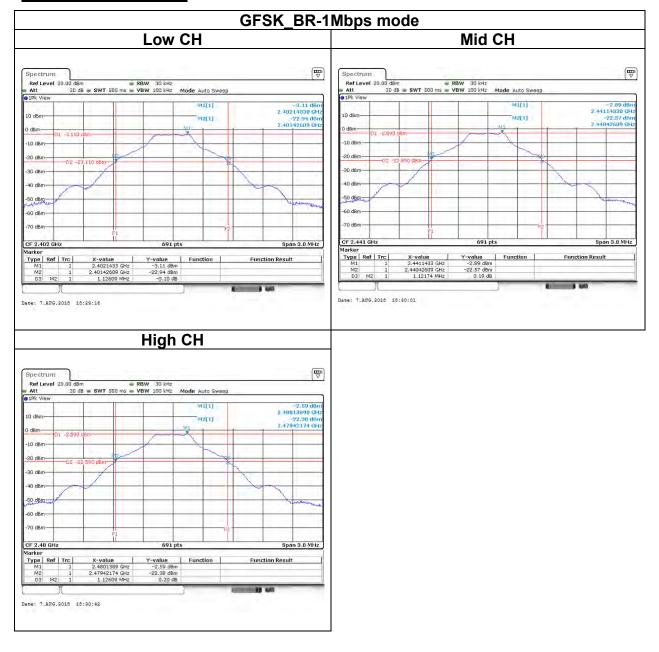
4.2.4 Test Result

Test mode: GFSK_BR-1Mbps mode / 2402-2480 MHz					
Channel	Frequency (MHz)	OBW (99%) (MHz)	20dB BW (MHz)		
Low	2402	0.9073	1.1260		
Mid	2441	0.8986	1.1217		
High	2480	0.8986	1.1260		

Test mode: 8DPSK_EDR-3Mbps mode / 2402-2480 MHz						
Channel	Frequency (MHz)	OBW (99%) (MHz)	20dB BW (MHz)			
Low	2402	1.1852	1.3869			
Mid	2441	1.1765	1.3826			
High	2480	1.1722	1.3739			



<u>Test Data</u> 20dB BANDWIDTH



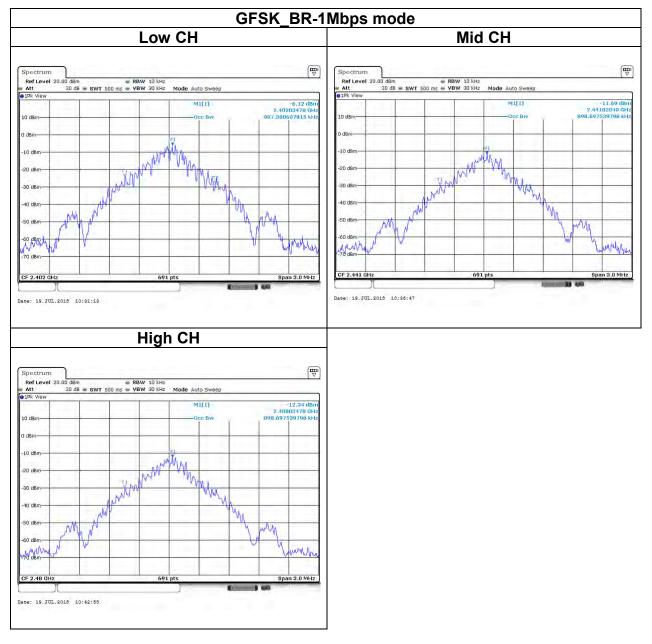


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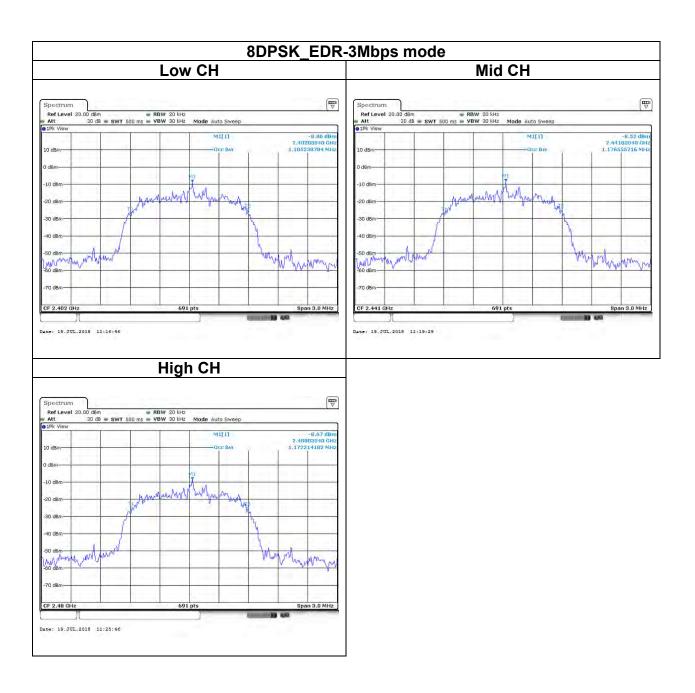


BANDWIDTH (99%)





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4.3 OUTPUT POWER MEASUREMENT

4.3.1 Test Limit

According to §15.247(a)(1)

Peak output power :

<u>FCC</u>

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.

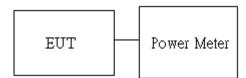
	Antenna not exceed 6 dBi : 21dBm
Limit	Antenna with DG greater than 6 dBi : 21dBm
	[Limit = 30 – (DG – 6)]

Average output power : For reporting purposes only.

4.3.2 Test Procedure

- 1. The EUT RF output connected to the power meter by RF cable.
- 2. Setting maximum power transmit of EUT.
- 3. The path loss was compensated to the results for each measurement.
- 4. Measure and record the result of Peak output power and Average output power. in the test report.

4.3.3 Test Setup





4.3.4 Test Result

Peak output power :

BT						
Config.	СН	Freq. (MHz)	PK Power (dBm)	PK Power (W)	FCC Limit (dBm)	
GFSK BR-1Mbps (DH5)	0	2402	10.13	0.0103		
	39	2441	10.46	0.0111		
	78	2480	10.41	0.0110	21	
8DPSK EDR- 3Mbps	0	2402	9.23	0.0084	21	
	39	2441	9.87	0.0097		
(DH5)	78	2480	9.83	0.0096		

Average output power :

BT					
Config.	СН	Freq. (MHz)	AV Power (dBm)		
GFSK BR-1Mbps	0	2402	10.00		
	39	2441	10.37		
(DH5)	78	78 2480	10.29		
8DPSK	0	2402	6.73		
EDR- 3Mbps	39	2441	7.03		
(DH5)	78	2480	6.99		

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4.4 FREQUENCY SEPARATION

4.4.1 Test Limit

According to §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.

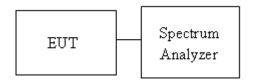
Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than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

	Limit	> two-thirds of the 20 dB bandwidth	
--	-------	-------------------------------------	--

4.4.2 Test Procedure

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. EUT RF output port connected to the SA by RF cable.
- 3. Set the spectrum analyzer as RBW = 100kHz, VBW = 300kHz, Sweep = auto. Max hold, mark 3 peaks of hopping channel and record the 3 peaks frequency

4.4.3 Test Setup





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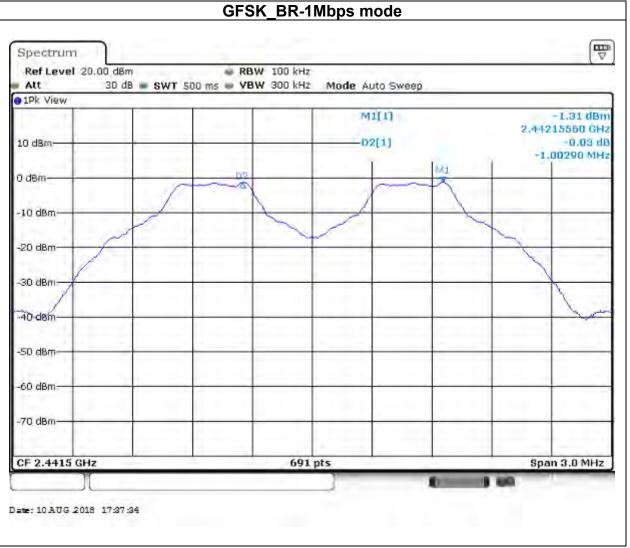
4.4.4 Test Result

	Test mode: GFSK_BR-1Mbps mode / 2402-2480 MHz						
Channel	Frequency (MHz)	Channel Separation (MHz)	Channel Separation Limits (MHz)	Result			
Low	2402	1.0029	>0.7507	PASS			
Mid	2441	1.0029	>0.7478	PASS			
High	2480	1.0029	>0.7507	PASS			

	Test mode: 8DPSK_EDR-3Mbps mode / 2402-2480 MHz						
Channel	Frequency (MHz)	Channel Separation (MHz)	Channel Separation Limits (MHz)	Result			
Low	2402	1.0029	>0.9246	PASS			
Mid	2441	1.0029	>0.9217	PASS			
High	2480	1.0029	>0.9159	PASS			



<u>Test Data</u>

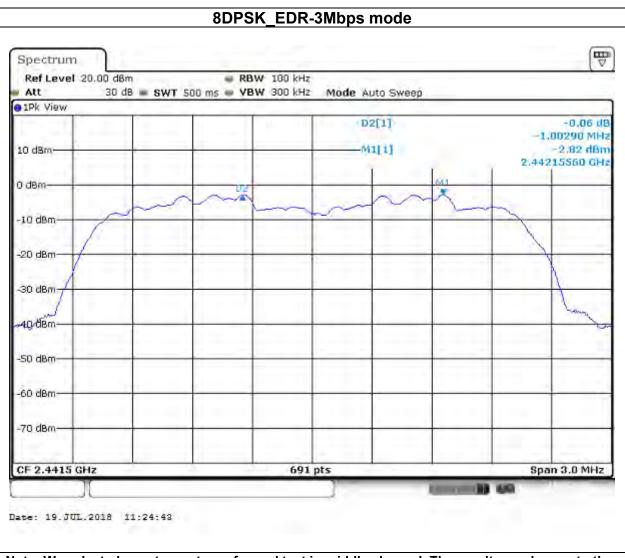


Note: We selected worst case to performed test in middle channel, The results can be meet other channel.

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Note: We selected worst case to performed test in middle channel, The results can be meet other channel.



4.5 NUMBER OF HOPPING

4.5.1 Test Limit

According to §15.247(a)(1)(iii)

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

4.5.2 Test Procedure

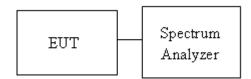
Test method Refer as ANSI 63.10:2013 clause 7.8.3

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. EUT RF output port connected to the SA by RF cable.

3. Set spectrum analyzer Start Freq. = 2400 MHz, Stop Freq. = 2483.5 MHz, RBW

- =100KHz, VBW = 300KHz.
- 4. Max hold, view and count how many channel in the band.

4.5.3 Test Setup



4.5.4 Test Result

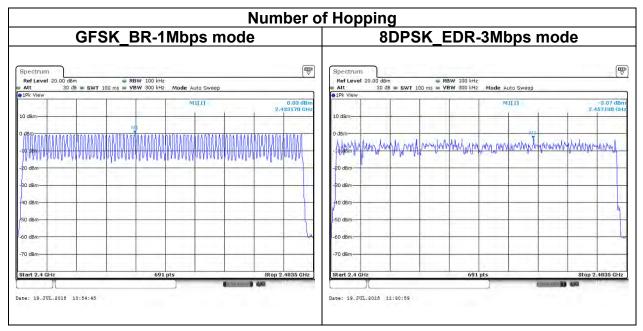
Number of Hopping						
Mode	Frequency (MHz)	Hopping Channel Number	Hopping Channel Number Limits	Result		
BR-1Mbps	2402-2480	79	15	Deee		
EDR-3Mbps	2402-2480	79	15	Pass		

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<u>Test Data</u>





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4.6 CONDUCTED BANDEDGE AND SPURIOUS EMISSION

4.6.1 Test Limit

According to §15.247(d)

Limit -20 dBc

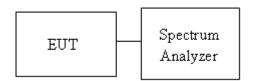
4.6.2 Test Procedure

1. EUT RF output port connected to the SA by RF cable, and the path loss was compensated to result.

2. SA setting, RBW=100kHz, VBW=300kHz, Detector=Peak, Trace mode = max hold, SWT = Auto.

3. The Band Edge at 2.4GHz and 2.4835GHz are investigated with both hopping "ON" and "OFF" modes ".

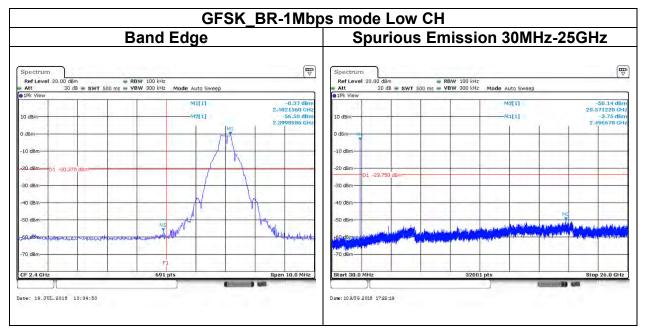
4.6.3 Test Setup

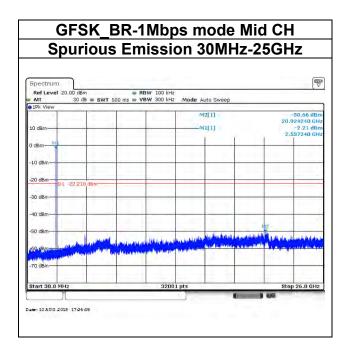




4.6.4 Test Result

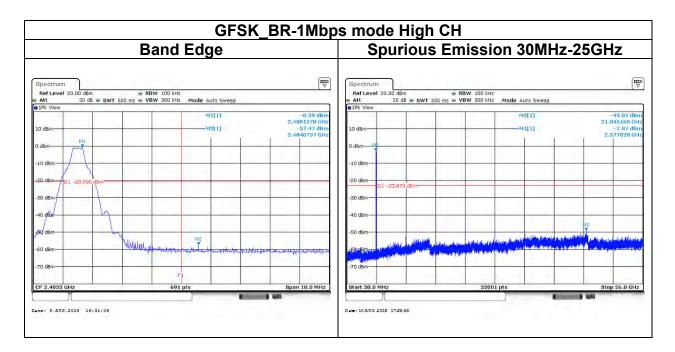
Test Data

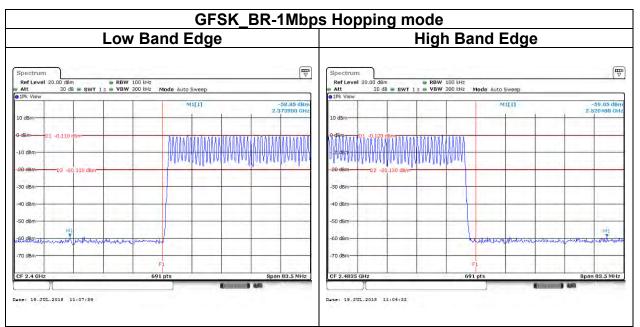


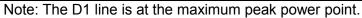


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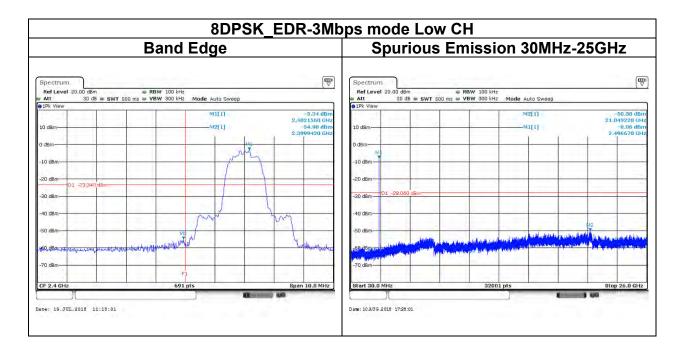


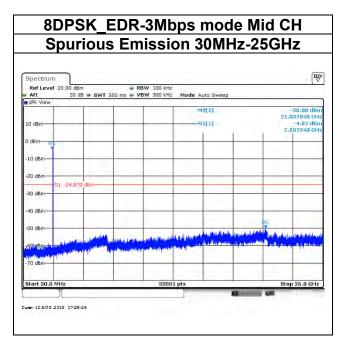






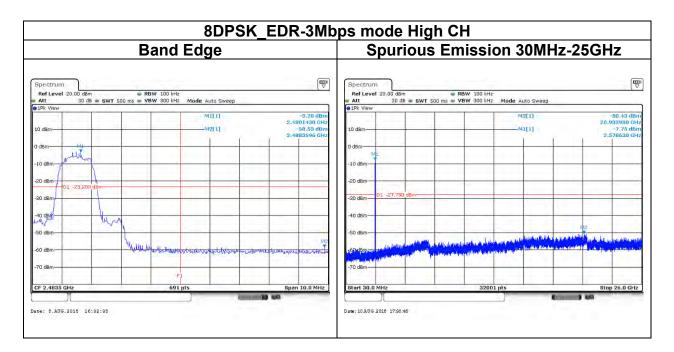
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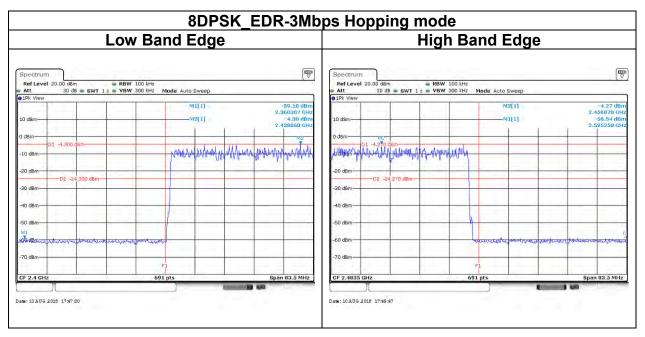






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4.7 TIME OF OCCUPANCY (DWELL TIME)

4.7.1 Test Limit

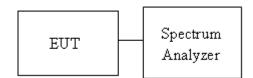
According to §15.247(a)(1)(iii)

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.

4.7.2 Test Procedure

- 1. EUT RF output port connected to the SA by RF cable.
- 2. Set center frequency of spectrum analyzer = operating frequency.
- 3. Set the spectrum analyzer as RBW, VBW=1MHz, Sweep = 1 ms

4.7.3 Test Setup



4.7.4 Test Result

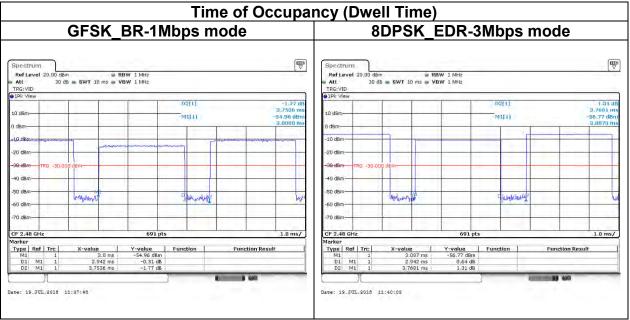
Time of O	ccupancy	(Dwell Time)					
Mode	Frequency (MHz)	Pulse Time Per Hopping	Minimum Number of	Number of pulse in	Dwell Time IN	Time	Result
	((ms)	Hopping Freq.	(0.4 * N sec)	(0.4 * N sec)	Limits (s)	
BR-1Mbps	2441	2.942	79	106.67	0.3138	0.4	Deee
EDR-3Mbps	2441	2.942	79	106.67	0.3138	0.4	Pass
			600/ 79 / 6 = 3.37 is the time duration				



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<u>Test Data</u>



Note: We selected worst case to performed test in middle channel, The results can be meet other channel.



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4.8 RADIATION BANDEDGE AND SPURIOUS EMISSION

4.8.1 Test Limit

FCC according to §15.247(d), §15.209 and §15.205,

In any 100 kHz bandwidth outside the authorized frequency band, all harmonic and spurious must be least 20 dB below the highest emission level with the authorized frequency band. Radiation emission which fall in the restricted bands must also follow the FCC section 15.209 as below limit in table.

Below 30 MHz

Frequency	Field Strength (microvolts/m)	Magnetic H-Field (microamperes/m)	Measurement Distance (metres)
9-490 kHz	2,400/F (F in kHz)	2,400/F (F in kHz)	300
490-1,705 kHz	24,000/F (F in kHz)	24,000/F (F in kHz)	30
1.705-30 MHz	30	N/A	30

Above 30 MHz

Frequency	Field Strei microvolts/m at 3 metr	-
(MHz)	Transmitters	Receivers
30-88	100 (3 nW)	100 (3 nW)
88-216	150 (6.8 nW)	150 (6.8 nW)
216-960	200 (12 nW)	200 (12 nW)
Above 960	500 (75 nW)	500 (75 nW)

Remark:

Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open are test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.



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4.8.2 Test Procedure

1. The EUT is placed on a turntable, Above 1 GHz is 1.5m and below 1 GHz is 0.8m above ground plane. The EUT Configured un accordance with ANSI C63.10, and the EUT set in a continuous mode.

2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level. And EUT is set 3m away from the receiving antenna, which is scanned from 1m to 4m above the ground plane to find out the highest emissions. Measurement are made polarized in both the vertical and the horizontal positions with antenna.

3. Span shall wide enough to full capture the emission measured. The SA from 9kHz to 26.5GHz set to the low, Mid and High channels with the EUT transmit.

Note: No emission found between lowest internal used/generated frequency to 30MHz(9KHz~30MHz)

4. For harmonic, the worst case of output power was BR-1Mbps. Therefore only BR-1Mbps record in the report.

- 5. The SA setting following :
 - (1) Below 1G : RBW = 100kHz, VBW ≥ 3 RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.
 - (2) Above 1G:
 - (2.1) For Peak measurement : RBW = 1MHz, VBW ≥ 3 RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.
 - (2.2) For Average measurement : RBW = 1MHz, VBW

If Duty Cycle \geq 98%, VBW=10Hz.

If Duty Cycle < 98%, VBW≥1/T.

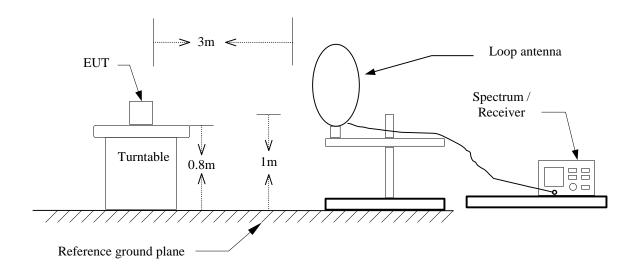
Configuration	Duty Cycle (%)	T(ms)	1/T (Hz)	VBW setting
GFSK_BR-1Mbps	78.19%	2.9400	0.340	360Hz
8DPSK_EDR-3Mbps	78.07%	2.9200	0.342	360Hz



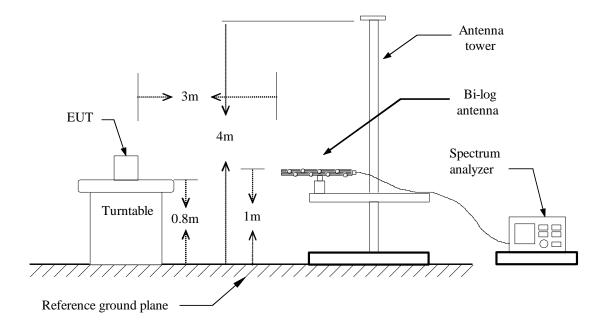
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Report No.: T180627D11-RP1 4.8.3 Test Setup

<u>9kHz ~ 30MHz</u>



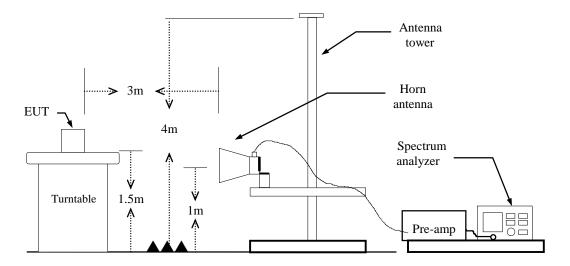
<u>30MHz ~ 1GHz</u>





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Above 1 GHz





4.8.4 Test Result

Band Edge Test Data

For PIFA Antenna

Te	est M	lode:	L	CBR-1Mbps Low CH	Ter	np/Hum	22(°C	C)/ 34%RH
Т	ēst l	tem	Ba	and Edge	Те	st Date	July	16, 2018
F	Pola	rize	``	Vertical	Test	Engineer	Jerr	y Chuang
	Dete	ctor		Peak				
120.0) dBu	V/m						
							Limit1: Limit2:	_
		2320.20 2330		adm.a.m.ah.haja.a.m.hokaja 2350.80 2361			2	2412.00 MHz
N	0.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	0.		-					Remark
		(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
	1	2390.000	54.77	-2.98	51.79	74.00	-22.21	peak
	2	2402.004	108.64	-2.95	105.69	-	-	peak

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	Mode:	L	CBR-1Mbps Low CH		mp/Hum		c)/ 34%RH
	t Item	Band Edge			st Date		16, 2018
	arize		Vertical	lest	Engineer	Jerr	y Chuang
Dei	ector	F F	Average				
110.0 c	lBuV/m						
						Limit1: Limit2:	
70							
					Ĵ		A
30.0	~~~~~				¥		
	00 2320.20 2330).40 2340.60	2350.80 2361	00 2371.20	2381.40 239	1.60	2412.00 MHz
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2389.152	38.57	-2.98	35.59	54.00	-18.41	AVG
2	2402.004	108.25	-2.95	105.30	-	-	AVG



Test Pol Det	Mode: t Item arize ector		K_BR-1Mbp High CH and Edge Vertical Peak	Te	mp/Hum est Date t Engineer	July	C)/ 34%RH / 16, 2018 ry Chuang
80 		Munu 1					
40.0	0 2478.20 2486		2502.80 2511			1444.1444.1444.1444.1444.1444.1444.144	2552.00 MHz
No.	Fre uency	R ading	Correct	Result	Limit	Margin	Remark
				(dBuV/m)			
1	(MHz) 2479.840	(dBuV) 104.14	Factor(dB/m) -2.70	(dBuV/m) 101.44	(dBuV/m)	(dB)	peak



Test	Mode:		K_BR-1Mbp High CH	s Te	mp/Hum	22(°(C)/ 34%RH
	t Item	E	and Edge		est Date		/ 16, 2018
	arize		Vertical	Test	t Engineer	Jerr	y Chuang
Det	ector		Average				
110.0 dB	uV/m						
	1					Limit1: Limit2:	-
70							
30.0			·····				
2470.00	0 2478.20 2486	.40 2494.60	2502.80 2511	.00 2519.20	2527.40 253	5.60	2552.00 MHz
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
		103.50	-2.70	100.80	_	_	AVG
1	2480.086	105.50	2.70				



Pola Dete	t Item arize ector uV/m		Band Edge Vertical Peak		est Date t Engineer		<u>/ 16, 2018</u>
	ector					Limit1:	
120.0 dB							
	u¥/m						
80							
80						2	
			Anne Maria Maria Maria Maria		W. Martin Baller and American Special		
40.0	roldelpertaillerrederAturnerran	whenternetworkhow	muntur March Ma	NHHH-L-WARNAN NH-WARN	Aller In		
	0 2320.20 2330.		2350.80 2361		2381.40 239	1.60	2412.00 MHz
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2389.662	57.17	-2.98	54.19	74.00	-19.81	peak
2	2402.004	107.92	-2.95	104.97	-	-	peak



Test	Mode:		K_EDR-3Mbj Low CH	os Ter	mp/Hum	22(°C	c)/ 34%Rł
Tes	st Item	B	Band Edge		st Date		16, 2018
	larize		Vertical	Test	Engineer	Jerr	y Chuang
De	tector		Average				
110.0 dl	BuV/m						
						Limit1: Limit2:	_
70							
30.0					1		
2310.00	00 2320.20 2330	.40 2340.60	2350.80 2361.	00 2371.20	2381.40 2391	I.6U	2412.00 MHz
No.	Freque cy	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2389.662	38.90	-2.98	35.92	54.00	-18.08	AVG
2	2402.106	103.96	-2.95	101.01	-	-	AVG



Polarize Vertical Test Engineer Jerry Chua 120. d8w/m Imit: Imit: <th>Test</th> <th>Mode:</th> <th>8DPS</th> <th>K_EDR-3Mb High CH</th> <th>os Te</th> <th>mp/Hum</th> <th>22(°(</th> <th>C)/ 34%R⊦</th>	Test	Mode:	8DPS	K_EDR-3Mb High CH	os Te	mp/Hum	22(°(C)/ 34%R⊦
Detector Peak 120.0 d8w//n Image: state	Tes	t Item	E		Te	est Date	July 16, 2018	
120.0 dBuV/m 120.0 dBuV/m 12	Po	larize		Vertical Te		Engineer	Jerry Chuang	
80 1	Det	tector		Peak				
80 40.0 2470.000 2478.20 2486.40 2494.60 2502.80 2511.00 2519.20 2527.40 2535.60 2552.00 MH	120.0 de	3uV/m					Limit1:	
40.0 2470.000 2478.20 2486.40 2494.60 2502.80 2511.00 2519.20 2527.40 2535.60 2552.00 MH								
40.0 2470.000 2478.20 2486.40 2494.60 2502.80 2511.00 2519.20 2527.40 2535.60 2552.00 MH	80							
	40.0		MM Baldon Astronom	ullupharmeterspicepearderstute	uters another when when	sollmaby. Aven myslipion	Wallanadayarinadinan	hdwyrdyddyn
No Frequency Reading Correct Result Limit Margin Pemar	2470.00	00 2478.20 2486	6.40 2494.60	2502.80 2511.	00 2519.20	2527.40 2535	5.60	2552.00 MHz
No. Trequency Reading Correct Result Limit Margin Remai	No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
(MHz) (dBuV) Factor(dB/m) (dBuV/m) (dBuV/m) (dB)		(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1 2480.004 103.30 -2.70 100.60 peak	1	2480.004	103.30	-2.70	100.60	-	-	peak
2 2484.104 58.37 -2.69 55.68 74.00 -18.32 peak	2	2484.104	58.37	-2.69	55.68	74.00	-18.32	peak



Test	Mode:		K_EDR-3N High CH	-	Те	mp/Hum	22(°	C)/ 34%RH
Tes	t Item	E	Band Edge		Te	est Date	Jul	y 16, 2018
Po	larize		Vertical		Test	Engineer	Jer	ry Chuang
Det	tector		Average					
110.0 dB	3uV/m							
							Limit1: Limit2:	
70								
30.0 2470.00	2 2478.20 2480	.40 2494.60	2502.80 2	511.00	2519.20	2527.40 253	35.60	2552.00 MHz
No.	Frequency	Reading	Correct	R	esult	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/r	n) (dE	BuV/m)	(dBuV/m)	(dB)	
1	2480.086	99.21	-2.70		, 6.51	-	-	AVG
2	2483.500	38.95	-2.69		6.26	54.00	-17.74	AVG



For Dipole Antenna

Test N	/lode:		_BR-1Mbps .ow CH	Ter	mp/Hum	22(°(C)/ 34%R⊦
Test	Item	Ba	ind Edge	Те	st Date	July	/ 16, 2018
Pola	irize	١	/ertical	Test	Engineer		ry Chuang
Dete	ector		Peak				
120.0 dBu	uV/m						
						Limit1: Limit2:	_
80							
40.0			2350.80 2361.			1.60	2412.00 MHz
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2389.866	56.60	-2.98	53.62	74.00	-20.38	peak
	2402.208	111.38	-2.95	108.43			peak



	Mode:	L	C_BR-1Mbps Low CH		mp/Hum	-	C)/ 34%RH
	Item	Ba	and Edge		st Date		16, 2018
	arize		Vertical	lest	Engineer	Jerr	y Chuang
Dete	ector	F	Average				
110.0 dl	3uV/m					2	
						Limiti: Limiti:	
70							
1				<u>л</u>			
30.0 2310.00	00 2320.20 2330	.40 2340.60	2350.80 2361	.00 2371.20	2381.40 239	11.60	2412.00 MHz
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2313.978	46.23	-3.22	43.01	54.00	-10.99	AVG
2	2402.106	111.01	-2.95	108.06	-	-	AVG



	Mode:		GFSK_BR-1Mbps High CH		mp/Hum	· ·	C)/ 34%RH
	t Item	E	and Edge		est Date	July 16, 201	
	arize		Vertical	Test	t Engineer	Jerr	y Chuang
Det	ector		Peak				
120.0 dB	uV/m						
	1					Limit1: Limit2:	
	Å						
80							
	2	N					
with	"	1 Mary Mary					
40.0			Muhlimaanaan				
2470.00	0 2478.20 2486	.40 2494.60	2502.80 2511	.00 2519.20	2527.40 253	5.60	2552.00 MHz
No.	Fre uency	R ading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2480.168	110.76	-2.70	108.06	-	-	peak
2	2483.500	65.05	-2.69	62.36	74.00	-11.64	peak



Test	Mode:	GFS	K_BR-1Mbp High CH	s Te	mp/Hum	22(°(C)/ 34%RI
Tes	t Item	E	and Edge	Te	est Date	July	/ 16, 2018
Pol	larize		Vertical	Test	t Engineer	Jeri	y Chuang
Det	tector		Average				
110.0 dB	BuV/m						
						Limit1: Limit2:	
70							
	3						
30.0		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			A		
	0 2478.20 2486	.40 2494.60	2502.80 2511	.00 2519.20	2527.40 253	5.60	2552.00 MHz
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2480.004	110.38	-2.70	107.68	-	-	AVG



	Mode: t Item		K_EDR-3Mb Low CH Band Edge	· ie	mp/Hum est Date		C)/ 34%R⊦ / 16, 2018
	larize		Vertical		Test Engineer		y Chuang
	tector		Peak	100		001	y ondang
	Bu¥/m				,		
						Limit1: Limit2:	_
80 40.0 2310.0	00 2320.20 2330		2350.80 2361		2381.40 239		2412.00 MHz
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
1	(MHz) 2389.560	(dBuV) 56.54	Factor(dB/m) -2.98	(dBuV/m) 53.56	(dBuV/m) 74.00	(dB)	nock
1 2	2389.560	56.54 110.22	-2.98 -2.95	107.27	-	-20.44 -	peak peak
	·						



Test	Mode:	8DPS	K_EDR-3Mbp Low CH	os Tei	mp/Hum	22(°C)/ 34%Rł
Test	t Item	E	and Edge	Te	est Date	July 16, 2018	
Pol	arize		Vertical	Test	Engineer	Jerr	y Chuang
Det	ector		Average				
110.0 dB	uV/m						
						Limit1: Limit2:	_
70							
30.0	· · · · · · · · · · · · · · · · · · ·			^		\sim	- man
	0 2320.20 2330	.40 2340.60	2350.80 2361.	00 2371.20	2381.40 2391	1.60	2412.00 MHz
No.	Freque cy	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2314.080	43.91	-3.22	40.69	54.00	-13.31	AVG
2	2402.004	106.16	-2.95	103.21	-		AVG



Test	Mode:		8DPSK_EDR-3Mb High CH		mp/Hum	22(°C)/ 34%F	
Tes	st Item	E	Band Edge	Te	est Date		/ 16, 2018
Po	larize		Vertical	Test	Engineer	Jerr	y Chuang
De	tector		Peak				
120.0 d	Bu¥/m						
						Limit1: Limit2:	_
80							
	2						
1940-194	r ~	www.www.	2502 80 2511				
40.0			1114 Hall Hall Harrison of the Second	whomas subgroup to a start with	Hurring harring harry harry	nalustananduman	hardwallown
2470.0	00 2478.20 2480	6.40 2494.60	2502.80 2511.	00 2519.20	2527.40 2535	5.60	2552.00 MHz
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2480.004	109.81	-2.70	107.11	-	-	peak
2	2483.500	65.68	-2.69	62.99	74.00	-11.01	peak
L			1		1		1



Test	Mode:		8DPSK_EDR-3Mbps High CH		ps	Temp/Hum		22(°C)/ 34%R		
	t Item	E	and E				est Da			y 16, 2018
	arize		Vertic			Test	Engir	neer	Jer	ry Chuang
Det	ector		Avera	ge						
110.0 dB	uV/m									
									Limit1: Limit2:	
70										
\sim	2						~			
30.0										
2470.00	0 2478.20 2486	.40 2494.60	2502.8	30 2511.	00 251	9.20	2527.40	253	5.60	2552.00 MHz
No.	Frequency	Reading	Co	rrect	Res	ult	Lin	nit	Margin	Remark
	(MHz)	(dBuV)	Factor	r(dB/m)	(dBu∖	//m)	(dBu	V/m)	(dB)	
1	2480.086	105.75	-2	.70	103.	05	-		-	AVG
2	2483.500	42.22	-2	.69	39.5	53	54.	00	-14.47	AVG
			_	_	_		_			_



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Below 1G Test Data

For PIFA Antenna

	Mode:		BT Mode		mp/Hum		C) / 34% F
	Item	3	0MHz-1GHz		est Date		y 30, 201
	arize		Vertical	Tes	t Engineer	Jer	ry Chuan
Det	ector		Peak				
80.0 dB	u¥/m					Limit1:	_
						Margin	: <u> </u>
		2	3 X	4 X	5 6 X X		
30		Ť	Î				
-20							
30.000	127.00	224.00 321.00	418.00 51	612.00	709.00 806	.00	1000.00 MHz
No.	requen	cy Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	174.530	0 43.35	-10.78	32.57	43.52	-10.95	peak
2	324.880	0 37.32	-7.38	29.94	46.02	-16.08	peak
3	399.570	00 36.19	-5.30	30.89	46.02	-15.13	peak
4	565.440	00 34.14	-1.56	32.58	46.02	-13.44	peak
4			0.00	32.11	46.02	-13.91	peak
4 5	675.050	00 31.43	0.68	52.11	10.02		•



Test	Mode:		BT Mode		mp/Hum	-	C)/ 34%R
	ttem		MHz-1GHz		est Date		y 30, 2018
	arize	ŀ	Iorizontal	Tes	t Engineer	Jer	ry Chuang
Det	ector		Peak				
80.0 dB	uV/m						
						Limit1: Margir	
	ſ		2		5 6		
30	¥		X 3 X		4 X		
-20	127.00 224.	00 321.00	418.00 51	5.00 612.00	709.00 806	.00	1000.00 MHz
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	224.9700	48.22	-10.97	37.25	46.02	-8.77	peak
2	375.3200	44.05	-6.02	38.03	46.02	-7.99	peak
	424.7900	40.51	-4.51	36.00	46.02	-10.02	peak
3			1	1	40.00	-11.42	naak
	675.0500	33.92	0.68	34.60	46.02	-11.42	peak
3		33.92 38.15	0.68 1.37	34.60 39.52	46.02	-6.50	peak



For Dipole Antenna

Test	Mode:		BT Mode		Те	mp/Hum		°C)/ 34%F
Test	t Item	30	MHz-1GHz		Te	est Date		ly 30, 201
Pol	arize		Vertical		Tes	t Enginee	er Jei	rry Chuan
Det	ector		Peak					
80.0 dB	uV/m							
							Limit1 Margi	
				3 4 X X	5		6	
30			2		5		6	
-20								
30.000	127.00 224.	.00 321.00	418.00 51	5.00	612.00	709.00	806.00	1000.00 MHz
No.	requency	Reading	Correct	R	esult	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m) (dE	uV/m)	(dBuV/m) (dB)	
1	174.5300	48.13	-10.78	3	7.35	43.52	-6.17	peak
2	424.7900	34.10	-4.51	2	9.59	46.02	-16.43	peak
		20.05	-2.18	3	3.87	46.02	-12.15	peak
3	524.7000	36.05	2.10					
3	524.7000 565.4400	36.05	-1.56	3	3.15	46.02	-12.87	peak
			-	-	3.15 1.48	46.02 46.02	-12.87 -14.54	peak peak



	Mode:		BT Mode			mp/Hum		C)/ 34%R
	t Item	:	30MHz-1G			est Date		y 30, 2018
	arize		Horizonta		Tes	t Engineer	Jer	ry Chuang
Det	ector		Peak					
80.0 dB	u¥/m							
							Limit1:	
							Margir	r
						-		
						Ř.	Б Х	
30	-	2 X		3 X	4 X			
-20								
30.000	127.00	224.00 321.0	0 418.00	515.00	612.00	709.00 800	6.00	1000.00 MHz
No.	Frequen	cy Reading	g Correc	t R	esult	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB	/m) (dE	BuV/m)	(dBuV/m)	(dB)	
1	174.530	0 48.10	-10.78	3	7.32	43.52	-6.20	peak
2	275.410	0 39.57	-8.49	3	1.08	46.02	-14.94	peak
3	475.230	0 33.46	-3.14	3	0.32	46.02	-15.70	peak
4	624.610	0 30.76	-0.40	3	0.36	46.02	-15.66	peak
5	675.050	0 37.05	0.68	3	7.73	46.02	-8.29	peak



Above 1G Test Data

For PIFA Antenna

Test	Mode:	GFS	K_BR-1Mb Low CH	ps	Ten	np/Hum	22(°(C)/ 34%RH
Tes	t Item		Harmonic		Tes	st Date	July 30, 2018	
Pol	Polarize		Vertical		Test	Engineer		ry Chuang
Det	ector	Pea	k and Avera	age				
110.0 dB	uV/m							
							Limit1:	
							Limit2:	
70								
	1							
	1 X							
30.0								
1000.00	0 3550.00 61	00.00 8650.00	11200.00 13	3750.00	16300.00	18850.00 2140	D.00	26500.00 MHz
No.	Frequency	Reading	Correct		Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/I	m) (d	lBuV/m)	(dBuV/m)	(dB)	

Remark:

1

4806.000

44.58

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

4.35

2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

48.93

-25.07

peak

74.00



Test	Mode:	GF	SK_BR-1- Low CH		Tem	np/Hum	22(℃)/ 34%R	
Tes	t Item		Harmoni		Tes	Test Date		y 30, 2018
Po	larize		Horizonta		Test	Engineer		ry Chuang
De	tector	Pe	ak and Av	erage				
110.0 dE	3uV/m							
							Limit1: Limit2:	
70								
30.0								
1000.00	0 3550.00	6100.00 8650	.00 11200.00	13750.00	16300.00	18850.00 21400).00	26500.00 MHz
No.	Frequen	cy Readin	g Corre	ect	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(c	lB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4806.00	0 47.82	4.3	-	52.17	74.00	-21.83	peak

Remark:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Item arize ector		larmonic		-		22(°C)/ 34%Rŀ	
				Test Date		/ 30, 2018	
octor		Vertical	Test F	Engineer	Jerr	y Chuang	
,0101	Peak	and Average					
V/m							
					Limit1: Limit2:	_	
1	00 8650.00	11200.00 13750.	00 16300.00	18850.00 21400	.00	26500.00 MHz	
Frequency	Reading	Correct	Result	Limit	Margin	Remark	
	-				-	Kennark	
4883.000	45.40	4.49	49.89	74.00	-24.11	peak	
	3550.00 6100. Frequency (MHz)	3550.00 6100.00 8650.00 Frequency Reading (MHz) (dBuV)	3550.00 6100.00 8650.00 11200.00 13750. Frequency Reading Correct (MHz) (dBuV) Factor(dB/m)	3550.00 6100.00 8650.00 11200.00 13750.00 16300.00 Frequency Reading Correct Result (MHz) (dBuV) Factor(dB/m) (dBuV/m)	3550.00 6100.00 8650.00 11200.00 13750.00 16300.00 18850.00 21400 Frequency Reading Correct Result Limit (MHz) (dBuV) Factor(dB/m) (dBuV/m) (dBuV/m)	Image:	

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Test	Mode:	GFS	K_BR-1Mbps Mid CH	Tem	np/Hum	22(°∁)/ 34%R	
	t Item		Harmonic		Test Date		/ 30, 2018
	arize		lorizontal	Test	Engineer	Jerr	y Chuang
Det	ector	Peak	and Average				
110.0 dB	uV/m						
						Limit1: Limit2:	_
70							
	1						
30.0							
1000.00	0 3550.00 6100	.00 8650.00	11200.00 13750.	00 16300.00	18850.00 21400	J. UU	26500.00 MHz
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Test	Mode:	GFS	K_BR-1Mbps High CH	Tem	np/Hum	22(°∁)/ 34%R		
Test	t Item		Harmonic				July 30, 2018	
	arize		Vertical	Test	Engineer	Jerr	y Chuang	
Det	ector	Peak	and Average					
110.0 dB	uV/m							
						Limit1: Limit2:		
70								
	ł							
30.0								
1000.00	0 3550.00 6100	.00 8650.00	11200.00 13750.	00 16300.00	18850.00 21400).00	26500.00 MHz	
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark	
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)		
	4960.000	46.09	4.61	50.70	74.00	-23.30	peak	

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



1		(MH)		(dBuV 48.89		actor(4.6	dB/m)		BuV/m) 53.50	(dBu)		(dB) -20.50	peak
No		Freque	ency	Readir	g	Corr	ect		Result	Lim	it	Margin	Remark
			0.00				10100.				2		
30.0	.000	3550.00	6100	.00 865	0.00 1 [.]	200.00	13750.	.00	16300.00	18850.00	21400	.00	26500.00 MHz
20.0													
_													
			Ĭ										
			1										
70													
_													
												Limit2:	
Γ												Limit1:	_
110.0	dBuV	7m											
De	etec	tor		Pea	ak and					0			
	olari				Horiz					Enginee	er		ry Chuang
Te	st It	em			High Harm				Tes	t Date		July 30, 201	

Remark:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



	Mode		K_EDR-3Mbp <u>Low CH</u>	Ten	np/Hum	-	C)/ 34%RI
	t Item	ŀ	Harmonic		Test Date		/ 30, 2018
	larize		Vertical		Engineer	Jeri	y Chuang
Det	tector	Peak	and Average	9			
110.0 dE	}u∀/m						
						Limit1: Limit2:	_
70							
	1 X						
30.0							
1000.00	00 3550.00 6100	.00 8650.00	11200.00 13750	.00 16300.00	18850.00 21400).00	26500.00 MHz
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4804.000	40.85	4.34	45.19	74.00	-28.81	peak

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Test	Mode	8DPS	K_EDR-3Mbp Low CH	s Ten	np/Hum	22(°(C)/ 34%RI
Test	t Item	ŀ	Harmonic	Tes	st Date	July 30, 201	
Pol	arize		lorizontal	Test	Engineer	Jerr	y Chuang
Det	ector	Peak	and Average				
110.0 dB	uV/m						
						Limit1: Limit2:	_
70							
30.0							
1000.00	0 3550.00 6100	.00 8650.00	11200.00 13750.	00 16300.00	18850.00 21400).00	26500.00 MHz
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
	4806.000	43.36	4.35	47.71	74.00	-26.29	peak

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Test Pola	ltem					22(°C)/ 34%R		
Pole			Harmonic	st Date		<u>/ 30, 2018</u>		
	arize		Vertical		Engineer	Jerr	y Chuang	
Dete	ector	Peak	and Average	•				
110.0 dBu	JV/m							
						Limit1: Limit2:	_	
70								
30.0		00 0050 00	11000 00 10750	00 10000 00	10050.00 01400		20500.00 444	
1000.000) 3550.00 6100	.00 8650.00	11200.00 13750	.00 16300.00	18850.00 21400	J.UU	26500.00 MHz	
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark	
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)		
1	4883.000	41.45	4.49	45.94	74.00	-28.06	peak	

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Test	Mode	8DPSI	<_EDR-3Mbp Mid CH	s Terr	np/Hum	22(°(C)/ 34%RI
	t Item	ł	Harmonic		st Date		y 30, 2018
Pol	arize	ŀ	lorizontal	Test	Engineer	Jer	ry Chuang
Det	ector	Peak	and Average				
110.0 dB	uV/m						
						Limit1: Limit2:	_
70							
30.0	0.2550.00.0100	00 0050 00	11000.00 10750	00 10200 00	10050.00 21100	1.00	20500.00 444
1000.00	0 3550.00 6100	.00 8650.00	11200.00 13750.	00 16300.00	18850.00 21400	1.00	26500.00 MHz
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4883.000	45.82	4.49	50.31	74.00	-23.69	peak

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



	Mode		K_EDR-3Mbp High CH	Ten	np/Hum		C)/ 34%RI
	t Item	I	Harmonic		st Date		/ 30, 2018
	arize		Vertical		Engineer	Jeri	y Chuang
Det	ector	Peak	and Average				
110.0 dB	u¥/m						
						Limit1: Limit2:	_
70							
	×						
30.0							
1000.00	0 3550.00 61	00.00 8650.00	11200.00 13750.	00 16300.00	18850.00 21400).00	26500.00 MHz
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4960.000	42.25	4.61	46.86	74.00	-27.14	peak

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



	Mode		K_EDR-3Mbp High CH	Ten	np/Hum		C)/ 34%RH
	t Item		Harmonic		st Date		/ 30, 2018
	arize		Iorizontal	5		Jerr	y Chuang
Det	tector	Peak	and Average				
110.0 dB	3uV/m						
						Limit1: Limit2:	
70							
	×						
30.0							
1000.00	10 3550.00 6100	.00 8650.00	11200.00 13750.	00 16300.00	18850.00 21400).00	26500.00 MHz
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
	4960.000	46.20	4.61	50.81	74.00	-23.19	peak

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



For Dipole Antenna

Test N	/lode:		G	FSK_E Lov	3R-1I v CH			Ten	np/Hum	1	22(°∁)/ 34%F		₹⊢
Test					noni	C			st Date		Jul	y 30, 201	8
Pola					tical			Test	Engine	er	Jer	ry Chuan	ıg
Dete	ector		Pe	ak an	d Ave	erage							
110.0 dBu	V/m												
											Limit1: Limit2:		
70					_								
30.0 1000.000	3550.00	6100.	00 8650).00 11	200.00	13750.0)0 163	00.00	18850.00	21400.	00	26500.00 MHz	1
No.	Freque	ncy	Readin	a	Corre	ct	Res	sult	Limi	t I	Margin	Remark	
	(MHz	-	(dBuV	-	ctor(d		(dBu		(dBuV		(dB)		
1	4806.0	-	46.35		4.35		50		74.0	-	-23.30	peak	

Remark:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



	Mode:		K_BR-1Mbps Low CH		np/Hum		C)/ 34%RI
	ttem		Harmonic		st Date		/ 30, 2018
	arize		lorizontal	Test I	Engineer	Jeri	y Chuang
Det	ector	Peak	and Average				
110.0 dB	uV/m						
						Limit1: Limit2:	_
70							
	1						
30.0							
1000.00	0 3550.00 6100	.00 8650.00	11200.00 13750.	00 16300.00	18850.00 21400).00	26500.00 MHz
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4804.000	38.15	4.34	42.49	74.00	-31.51	peak

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Test	Mode:	GFS	K_BR-1Mbps Mid CH	Tem	np/Hum	22(°(C)/ 34%R⊦
Tes	t Item	ŀ	Harmonic	Tes	st Date	July	/ 30, 2018
Pol	arize		Vertical	Test	Engineer	Jeri	ry Chuang
Det	ector	Peak	and Average				
110.0 dB	uV/m						
						Limit1: Limit2:	
70		0.00 8650.00	11200.00 13750.0	0 16300.00	18850.00 2140	.00	26500.00 MHz
	Frequency	Reading	Correct	Result	Limit	Margin	Remark
No.		(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
No.	(MHz)	(ubuv)					

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Test	Mode:	GFS	K_BR-1Mbps Mid CH	Tem	np/Hum	22(°(C)/ 34%Rł
Test	t Item	ł	Harmonic		st Date	July	/ 30, 2018
	arize		lorizontal	Test I	Test Engineer Je		
Det	ector	Peak	and Average				
110.0 dB	uV/m						
						Limit1: Limit2:	_
70							
	1 X						
30.0							
1000.00	0 3550.00 6100	.00 8650.00	11200.00 13750.	00 16300.00	18850.00 21400).00	26500.00 MHz
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
	4882.000	37.49	4.49	41.98	74.00	-32.02	peak

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Test	Mode:		K_BR-1Mbps High CH	Terr	np/Hum	_	C)/ 34%RI
	ttem		Harmonic		st Date		/ 30, 2018
	arize		Vertical		Engineer		ry Chuang
Det	ector	Peak	and Average				
110.0 dB	uV/m						
						Limit1: Limit2:	_
70							
	1 ×						
30.0 1000.000	0 3550.00 610).00 8650.00	11200.00 13750.	00 16300.00	18850.00 21400).00	26500.00 MHz
	_		-				
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4960.000	48.17	4.61	52.78	74.00	-21.22	peak

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Test	Node:		GFS	SK_BR High (-1Mbps CH	;	Tem	p/Hum	22(°(C)/ 34%R
Test	Item			Harmo			Tes	t Date	July	/ 30, 2018
Pola	arize			Horizo	ntal		Test E	Ingineer	Jerr	y Chuang
Dete	ector		Pea	k and A	Average	;				
110.0 de	luV/m									
									Limit1: Limit2:	
70										
		1 X								
30.0										
1000.00	10 3550.00	6100	.00 8650.	00 112	00.00 137	50.00	16300.00	18850.00 21400).00	26500.00 MHz
No.	Freque	ncy	Reading	g (Correct		Result	Limit	Margin	Remark
	(MH	z)	(dBuV)	Fac	tor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4960.0	000	38.55		4.61		43.16	74.00	-30.84	peak

Remark:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



	t Mode	8DPS	Low CH	1			ip/Hum	-)/ 34%R
	<u>st Item</u> Iarize	1	Harmon Vertica		Т		t Date Engineer		<u>/ 30, 2018</u> y Chuan <u>c</u>
	tector	Peak	and Av			551 0	Ingineer	Jen	y Chuang
		T Car		ciage					
110.0 d	Bu¥/m								
								Limit1: Limit2:	_
70									
70									
	-								
	×								
30.0	00 3550.00 610	0.00 8650.00	11200.00	13750.0	00 16300.	00	18850.00 21400	2.00	26500.00 MHz
1000.0	00 3000.00 610	0.00 8600.00	11200.00	13730.0	JU 163UU.	00		J.UU	26000.00 MHZ
No.	Frequency	Reading	Corr	ect	Resu	lt	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/	/m)	(dBuV/m)	(dB)	
1	4806.000	47.69	4.3	5	52.0	4	74.00	-21.96	peak

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Test	Mode	8DPS	K_EDR-3Mbp Low CH	s Ten	np/Hum	22(°(C)/ 34%RI
Test	t Item	ŀ	Harmonic		st Date	July 30, 201	
Pol	arize		lorizontal	orizontal Test Engineer			y Chuang
Det	ector	Peak	and Average				
110.0 dB	uV/m						
						Limit1: Limit2:	_
70							
	1 X						
30.0	0 3550.00 6100	.00 8650.00	11200.00 13750.	00 16300.00	18850.00 21400	D.00	26500.00 MHz
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4804.000	38.33	4.34	42.67	74.00	-31.33	peak

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



	Mode		K_EDR-3Mbp Mid CH	Ten	np/Hum	22(℃)/ 34%R	
	t Item	ŀ	Harmonic		st Date		/ 30, 2018
	larize		Vertical		Engineer	Jerr	y Chuang
Det	tector	Peak	and Average				
110.0 dB	3uV/m						
						Limit1: Limit2:	_
70							
30.0		22 2050 20					
1000.00	0 3550.00 6100	.00 8650.00	11200.00 13750.	00 16300.00	18850.00 21400).00	26500.00 MHz
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4883.000	51.20	4.49	55.69	74.00	-18.31	peak
2	4883.000	46.36	4.49	50.85	54.00	-3.15	AVG
mark:							

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



1	4	883.000	39.96		4.49	44.4	-5	74.00	-29.55	peak	
		(MHz)	(dBuV)	Fact	tor(dB/m)	(dBuV	//m)	(dBuV/m)	(dB)		
No	Fr	requency	Reading	C	orrect	Resu	ılt	Limit	Margin	Remark	
1000	.000 355	610	0.00 8650.00	1120	13750.	00 16300).00 1	8850.00 21400	0.00	26500.00 MHz	
30.0											
_											
		1 X									
_											
70											
									Limit1: Limit2:		
110.0	dBuV/m										
D	etecto	or	Pea	k and	Average						
Polarize				Horizontal			Test Engineer		Jerry Chuang		
Test Item				Mid CH Harmonic				Temp/Hum Test Date		22(°C)/ 34%R July 30, 2018	

- Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
 For above 1015, the EUT pack value was under everyonal limit, therefore
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



	Mode		K_EDR-3Mbp High CH	IEII	Temp/Hum		22(℃)/ 34%RI	
	t Item	I	Harmonic		Test Date		/ 30, 2018	
	arize		Vertical		Test Engineer		y Chuang	
Det	ector	Peak	and Average					
110.0 dB	uV/m							
						Limit1: Limit2:	_	
70								
10								
	1							
30.0								
	0 3550.00 6	100.00 8650.00	11200.00 13750.	00 16300.00	18850.00 21400).00	26500.00 MHz	
No.	Frequenc	y Reading	Correct	Result	Limit	Margin	Remark	
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)		
1	4960.000) 45.69	4.61	50.30	74.00	-23.70	peak	

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit



Test Mode			K_EDR-3Mbp High CH	Ten	Temp/Hum		22(℃)/ 34%R	
	t Item	ŀ	Harmonic		Test Date		July 30, 2018	
Pol	arize	F	Iorizontal	Test	Test Engineer		y Chuang	
Det	ector	Peak	and Average	;				
110.0 dB	uV/m							
						Limit1: Limit2:	_	
70								
	X							
30.0								
1000.00	0 3550.00 6100	.00 8650.00	11200.00 13750.	.00 16300.00	18850.00 21400).00	26500.00 MHz	
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark	
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)		
	4960.000	37.75	4.61	42.36	74.00	-31.64	peak	

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

--End of Report--