TEST REPORT

Application No.:	KSEM2108001478CR
Applicant:	Hytera Mobilfunk GmbH
Address of Applicant:	Fritz-Hahne-Str. 7, D-31848 Bad Muender, Germany
Manufacturer:	Hytera Mobilfunk GmbH
Address of Manufacturer:	Fritz-Hahne-Str. 7, D-31848 Bad Muender, Germany
Factory:	Hytera Communications Corporation Limited Baolong Branch
Address of Factory:	Plant No.3, Hytera Hi-Tech Park, Baolong Industrial Area, Longgang District, Shenzhen, People's Republic of China.
Equipment Under Test (EUT):	
EUT Name:	Digital Integrated Base Station DIB-R5 outdoor
Model No.:	DIB-R5OUTDOOR800
Trade mark:	Hytera
FCC ID:	ZW4R5OUTDOOR800
Standard(s) :	FCC 47 CFR Part 2 FCC 47 CFR Part 22 FCC 47 CFR Part 90
Date of Receipt:	2021-08-26
Date of Test:	2021-08-26 to 2021-09-29
Date of Issue:	2021-09-29
Test Result:	**Pass***

* In the configuration tested, the EUT complied with the standards specified above.

Eric Lin
Laboratory Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

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Revision Record			
Version	**Description**	**Date**	**Remark**
00	Original	2021-09-29	/

Authorized for issue by:				
		Damon zhou		
		Damon Zhou / Project Engineer		
		Eric Lin		
		Eric Lin / Reviewer		

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2 Test Summary

Item	Standard	Requirement	Result
RF Power Output	FCC 47 CFR Part 22 FCC 47 CFR Part 90	§2.1046, §22.913, §90.205(k) §90.635(b)	Pass
Frequency Stability	FCC 47 CFR Part 22 FCC 47 CFR Part 90	§2.1055, §22.355, §90.213	Pass
Occupied Bandwidth/ Emission Mask	FCC 47 CFR Part 22 FCC 47 CFR Part 90	§2.1049(c), §22.917, §90.210	Pass
Adjacent Channel Power	FCC 47 CFR Part 90	§90.221	Pass
Transient Frequency Behaviour	FCC 47 CFR Part 90	§90.214	N/A
Conducted Spurious Emissions	FCC 47 CFR Part 22 FCC 47 CFR Part 90	§2.1051, §22.917, §90.210	Pass
Field strength of spurious radiation	FCC 47 CFR Part 22 FCC 47 CFR Part 90	§2.1053, §22.917, §90.210	Pass

1.N/A: Not Applicable.

2.The test item of Transient Frequency Behaviour is only applied to transmitters designed to operate in the 150-174 MHz and 421-512 MHz frequency bands

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3 Contents

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4 General Information

4.1 Details of E.U.T.

Power supply:	DC 48V
Cable:	DC cable: less than 300cm unshielded
Internal source:	More than 108MHz
Sample Type:	Fixed device
Frequency Range:	854-869MHz, 869-870MHz
Modulation Type:	π/4-DQPSK
Channel Separation:	25KHz
Number of Channels:	The equipment is able to operate on any designated channel within the specified frequency range.
Antenna Type:	External
Antenna Gain:	12.1dBi

4.2 Test Environment

Environment Parameter	Selected Values During Tests	
Relative Humidity	48%	
Atmospheric Pressure:	1015Pa	
Temperature:	TN	25 °C
Voltage:	VL	DC 44.0 V
	VN	DC 48.0 V
	VH	DC 55.0 V

NOTE: VL= lower extreme test voltage
VN= nominal voltage
VH= upper extreme test voltage
TN= normal temperature

4.3 Description of Support Units

The EUT has been tested as an independent unit.

Description	Manufacturer	Model No.	Serial No.
Coaxial Attenuator	Provided by client	TS4	HYT168793
DC power supply	Provided by SGS	PAN60-20A	HH000269
Network cable	Provided by client	N/A	N/A
Load	Provided by SGS	N/A	N/A

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4.4 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	± 7.25 x 10^{-8}
2	Occupied Bandwidth	± 3%
3	Conduction emission	± 3.0dB (150kHz to 30MHz)
4	RF conducted power	± 0.75dB
5	RF power density	± 2.84dB
6	Conducted Spurious emissions	± 0.75dB
7	RF Radiated power	± 4.5dB (Below 1GHz)
		± 4.8dB (Above 1GHz)
8	Radiated Spurious emission test	± 4.5dB (Below 1GHz)
		± 4.8dB (Above 1GHz)
9	Temperature test	± 1°C
10	Humidity test	± 3%
11	Supply voltages	± 1.5%
12	Time	± 3%

Remark:

The U_{lab} (lab Uncertainty) is less than U_{cispr} (CISPR Uncertainty), so the test results

- compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

4.5 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

4.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **CNAS (No. CNAS L4354)**

CNAS has accredited Compliance Certification Services (Kunshan) Inc. to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

- **A2LA (Certificate No. 2541.01)**

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

- **FCC (Designation Number: CN1172)**

Compliance Certification Services Inc. has been recognized as an accredited testing laboratory.

Designation Number: CN1172.

- **ISED (CAB Identifier: CN0072)**

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development (ISED) Canada as an accredited testing laboratory.

CAB Identifier: CN0072.

- **VCCI (Member No.: 1938)**

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, C-11707, T-11499, G-10216 respectively.

4.7 Deviation from Standards

None

4.8 Abnormalities from Standard Conditions

None

5 Equipment List

RF Conducted Test						
1	Spectrum Analyzer	Agilent	E4446A	MY44020154	04/16/2021	04/15/2022
2	Spectrum Analyzer	Keysight	N9020A	MY55370209	12/02/2020	12/01/2021
3	Spectrum Analyzer	Keysight	N9010A	MY56480443	02/01/2021	01/31/2022
4	Signal Generator	Agilent	N5182A	MY50142015	08/27/2021	08/26/2022
5	Radio Communication Test Station	Anritsu	MT8000A	6262012849	N/A	N/A
6	Radio Communication Analyzer	Anritsu	MT8821C	6201692222	N/A	N/A
7	Universal Radio Communication Tester	R&S	CMW500	159275	10/19/2020	10/18/2021
8	Universal Radio Communication Tester	R&S	CMW500	167239	04/16/2021	04/15/2022
9	Power Meter	Anritsu	ML2495A	1445010	04/15/2021	04/14/2022
10	Switcher	CCSRF	FY562	KUS2001M001-3	10/19/2020	10/18/2021
11	AC Power Source	EXTECH	6605	1570106	N.C.R	N.C.R
12	DC Power Supply	Aglient	E3632A	MY50340053	N.C.R	N.C.R
13	6dB Attenuator	Mini-Circuits	NAT-6-2W	15542-1	N.C.R	N.C.R
14	Power Divider	AISI	IOWOPE2068	PE2068	N.C.R	N.C.R
15	Filter	MICRO-TRONICS	BRM50701	5	N.C.R	N.C.R
16	Conducted test cable	/	RF01-RF04	/	04/15/2021	04/14/2022
17	Software	BST	TST-PASS	N/A	N/A	N/A
18	Temp. / Humidity Chamber	TERCHY	MHK-120AK	X30109	04/15/2021	04/14/2022
19	Thermometer	Anymetre	TH603	CCS007	10/16/2020	10/15/2021
20	Spectrum Analyzer	R&S	FSV40	101493	10/19/2020	10/18/2021
RF Radiated Test						
1	Spectrum Analyzer	R&S	FSV40	101493	10/19/2020	10/18/2021
2	Signal Generator	Agilent	E8257C	MY43321570	10/19/2020	10/18/2021
3	Loop Antenna	Schwarzbeck	HXYZ9170	9170-108	02/22/2021	02/21/2022
4	Bilog Antenna	TESEQ	CBL 6112D	35403	06/22/2021	06/21/2023
5	Bilog Antenna	SCHWARZBECK	VULB9160	9160-3342	04/13/2021	04/12/2023
6	Horn-antenna(1-18GHz)	Schwarzbeck	BBHA9120D	267	10/26/2020	10/25/2022
7	Horn-antenna(1-18GHz)	ETS-LINDGREN	3117	00143290	02/22/2021	02/21/2023
8	Horn Antenna(18-40GHz)	Schwarzbeck	BBHA9170	BBHA9170171	02/22/2021	02/21/2022
9	Pre-Amplifier(30MHz~18GHz)	LNA	/	/	04/15/2021	04/14/2022
10	Amplifier(18~40GHz)	COM-POWER	PAM-840A	461332	10/23/2020	10/22/2021
11	Low Pass Filter	MICRO-TRONICS	VLFX-950	RV142900829	N.C.R	N.C.R
12	High Pass Filter	Mini-Circuits	VHF-1200	15542	N.C.R	N.C.R
13	RE test cable	/	RE01-RE04	/	04/15/2021	04/14/2022
14	Software	Farad	EZ-EMC	CCS-03A1	N/A	N/A

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6 Test Results

6.1 RF Power Output

Test Requirement FCC 47 CFR Part 2, §2.1046
FCC 47 CFR Part 22, §22.913
FCC 47 CFR Part 90, §90.205(k), §90.635(b)

Test Method: ANSI C63.26-2015

Limit:

FCC 47 CFR Part 22, §22.913

Licensees in the Cellular Radiotelephone Service are subject to the effective radiated power (ERP) limits and other requirements in this Section. See also §22.169.

(a) Maximum ERP. The ERP of transmitters in the Cellular Radiotelephone Service must not exceed the limits in this section.

(1) Except as described in paragraphs (a)(2), (3), and (4) of this section, the ERP of base stations and repeaters must not exceed— (i) 500 watts per emission; or (ii) 400 watts/MHz (PSD) per sector.

(d) Measurement of the ERP of Cellular base transmitters and repeaters must be made using an average power measurement technique. The peak-to-average ratio (PAR) of the transmission must not exceed 13 dB.

FCC 47 CFR Part 90, §90.205(k), §90.635(b)

(a) The effective radiated power and antenna height for base stations may not exceed 1 kilowatt (30 dBW) and 304 m. (1,000 ft.) above average terrain (AAT), respectively, or the equivalent thereof as determined from the Table. These are maximum values, and applicants will be required to justify power levels and antenna heights requested.

(b) The maximum output power of the transmitter for mobile stations is 100 watts (20 dBW).

TABLE—EQUIVALENT POWER AND ANTENNA HEIGHTS FOR BASE STATIONS IN THE 851– 869 MHZ AND 935–940 MHZ BANDS WHICH HAVE A REQUIREMENT FOR A 32 KM (20 MI) SERVICE AREA RADIUS

Antenna height (ATT) meters (feet)	Effective radiated power (watts) [1 2 4]
Above 1,372 (4,500)	65
Above 1,220 (4,000) to 1,372 (4,500)	70
Above 1,067 (3,500) to 1,220 (4,000)	75
Above 915 (3,000) to 1,067 (3,500)	100
Above 763 (2,500) to 915 (3,000)	140
Above 610 (2,000) to 763 (2,500)	200
Above 458 (1,500) to 610 (2,000)	350
Above 305 (1,000) to 458 (1,500)	600
Up to 305 (1,000)	[3] 1000

[1] Power is given in terms of effective radiated power (ERP).

[2] Applicants in the Los Angeles, CA, area who demonstrate a need to serve both the downtown and fringe areas will be permitted to utilize an ERP of 1 kw at the following mountaintop sites: Santiago Park, Sierra Peak, Mount Lukens, and Mount Wilson.

[3] Stations with antennas below 305 m (1,000 ft) (AAT) will be restricted to a maximum power of 1 kw (ERP).

[4] Licensees in San Diego, CA, will be permitted to utilize an ERP of 500 watts at the following mountaintop sites: Palomar, Otay, Woodson and Miguel.

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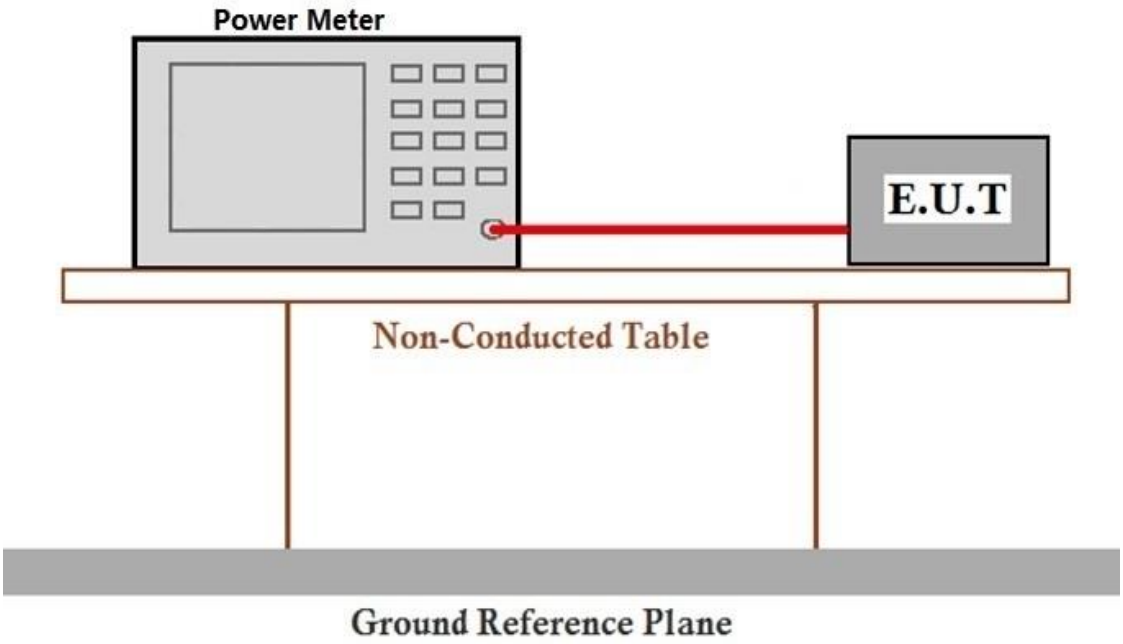
6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 23.4 °C Humidity: 49.7 % RH Atmospheric Pressure: 1000 mbar

Test mode: a: Tx mode, Keep the EUT in transmitting mode.

6.1.2 Test Setup Diagram



6.1.3 Measurement Procedure and Data

The detailed test data see: Appendix A - RF Power Output.

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6.2 Frequency Stability

Test Requirement FCC 47 CFR Part 2, §2.1055,
FCC 47 CFR Part 22, §22.355,
FCC 47 CFR Part 90, §90.213

Test Method: ANSI C63.26-2015

Limit:

FCC 47 CFR Part 22, §22.355

Except as otherwise provided in this part, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table C–1 of this section.

TABLE C–1—FREQUENCY TOLERANCE FOR TRANSMITTERS IN THE PUBLIC MOBILE SERVICES			
Frequency range (MHz)	Base, fixed (ppm)	Mobile >3 watts (ppm)	Mobile ≤3 watts (ppm)
25 to 50	20.0	20.0	50.0
50 to 450	5.0	5.0	50.0
450 to 512	2.5	5.0	5.0
821 to 896	1.5	2.5	2.5
928 to 929	5.0	n/a	n/a
929 to 960	1.5	n/a	n/a
2110 to 2220	10.0	n/a	n/a

FCC 47 CFR Part 90, §90.213

(a) Unless noted elsewhere, transmitters used in the services governed by this part must have a minimum frequency stability as specified in the following table.

MINIMUM FREQUENCY STABILITY			
Frequency range (MHz)	Base, fixed (ppm)	Mobile stations - Over 2 watts output power (ppm)	Mobile stations - 2 watts or less output power (ppm)
851–854	1.0	1.5	1.5
854–869	1.5	2.5	2.5

6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 23.3 °C Humidity: 49.5 % RH Atmospheric Pressure: 1000 mbar

Test mode: a: Tx mode, Keep the EUT in transmitting mode.

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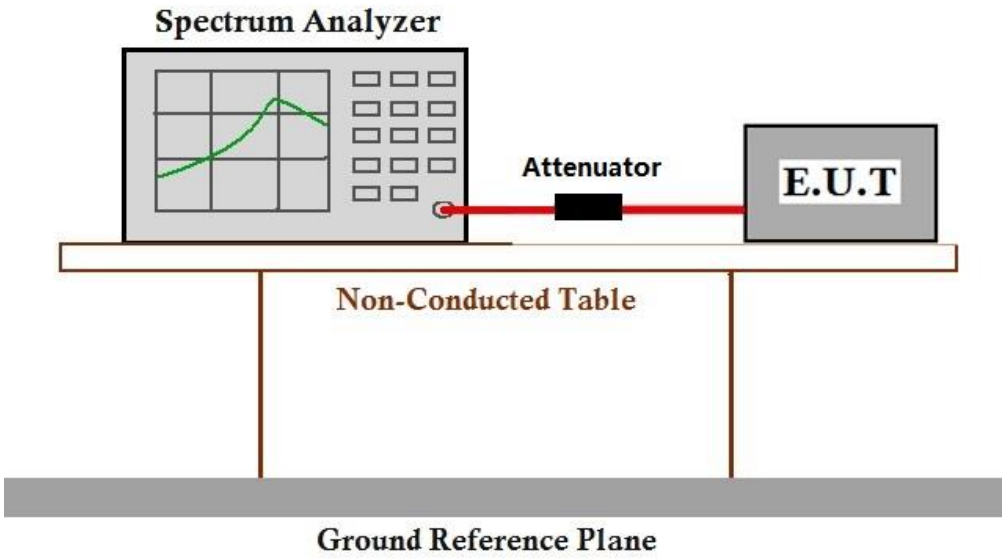
6.2.2 Test Setup Diagram



6.2.3 Measurement Procedure and Data

The detailed test data see: Appendix B - Frequency Stability.

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6.3 Occupied Bandwidth/Emission Mask

Test Requirement FCC 47 CFR Part 2, §2.1049(h)
FCC 47 CFR Part 22, §22.917
FCC 47 CFR Part 22, §90.210

Test Method: ANSI C63.26-2015

Limit:

FCC 47 CFR Part 22, §22.917
26dB Reference Bandwidth
The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

FCC 47 CFR Part 90, §90.210
Except as indicated elsewhere in this part, transmitters used in the radio services governed by this part must comply with the emission masks outlined in this section.

APPLICABLE EMISSION MASKS		
Frequency band (MHz)	Mask for equipment with audio low pass filter	Mask for equipment without audio low pass filter
Below 25 [1]	A or B	A or C
25–50	B	C
72–76	B	C
150–174 [2]	B, D, or E	B, D, or E
150 paging only	B	C
220-222	F	F
421–512 [2 5]	B, D, or E	B, D, or E
450 paging only	B	G
806–809/851–854 [6]	B	H
809–824/854–869 [3 5]	B or D	D, G
896–901/935–940	I	J
902-928	K	K
929-930	B	G
4940–4990 MHz	L or M	L or M
5850–5925 [4]		
All other bands	B	C

[1] Equipment using single sideband J3E emission must meet the requirements of Emission Mask A. Equipment using other emissions must meet the requirements of Emission Mask B or C, as applicable.
[2] Equipment designed to operate with a 25 kHz channel bandwidth must meet the requirements of Emission Mask B or C, as applicable. Equipment designed to operate with a 12.5 kHz channel bandwidth must meet the requirements of Emission Mask D, and equipment designed to operate with a 6.25 kHz channel bandwidth must meet the requirements of Emission Mask E.
[3] Equipment used in this licensed to EA or non-EA systems shall comply with the emission mask provisions of § 90.691 of this chapter.
[4] DSRCS Roadside Units equipment in the 5850–5925 MHz band is governed under subpart M of this part.
[5] Equipment designed to operate on 25 kilohertz bandwidth channels must meet the requirements of either Emission Mask B or G, whichever is applicable, while equipment designed to operate on 12.5 kilohertz bandwidth channels must meet the requirements of Emission Mask D. Equipment designed to operate on 25 kilohertz bandwidth channels may alternatively meet the Adjacent Channel Power limits of § 90.221.
[6] Transmitters utilizing analog emissions that are equipped with an audio low-pass filter must meet Emission Mask B. All transmitters utilizing digital emissions and those transmitters using analog emissions without an audio low-pass

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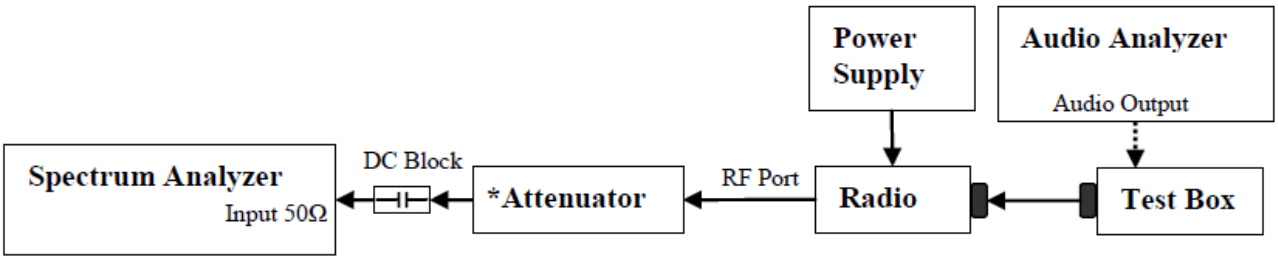
6.3.1 E.U.T. Operation

Operating Environment:

Temperature: 23.5 °C Humidity: 49.6 % RH Atmospheric Pressure: 1000 mbar

Test mode: a: Tx mode, Keep the EUT in transmitting mode.

6.3.2 Test Setup Diagram



6.3.3 Measurement Procedure and Data

The detailed test data see: Appendix C - Occupied Bandwidth & Emission Mask.

Note:

1. Equipment designed to operate on 25 kilohertz bandwidth channels must meet the requirements of either Emission Mask B or G, whichever is applicable, while equipment designed to operate on 12.5 kilohertz bandwidth channels must meet the requirements of Emission Mask D. Equipment designed to operate on 25 kilohertz bandwidth channels may alternatively meet the Adjacent Channel Power limits of § 90.221.
2. For Adjacent Channel Power test result please refer to Appendix E.

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6.4 Adjacent Channel Power

Test Requirement FCC 47 CFR Part 90, §90.210

Test Method: ANSI C63.26-2015

Limit:

(c)(1) Maximum adjacent power levels for frequencies in the 809–824/854–869 MHz band:

Frequency offset	Maximum ACP(dBc) for devices less than 15 watts	Maximum ACP(dBc) for devices 15 watts and above
25kHz	-55dBc	-55dBc
50kHz	-65dBc	-65dBc
75kHz	-65dBc	-70dBc

(c)(2) In any case, no requirement in excess of -36dBm shall apply.

(d)On any frequency removed for the assigned frequency by more than 75kHz, the attenuation of any emission must be at least 43 + 10log(P_{watts}) dB.

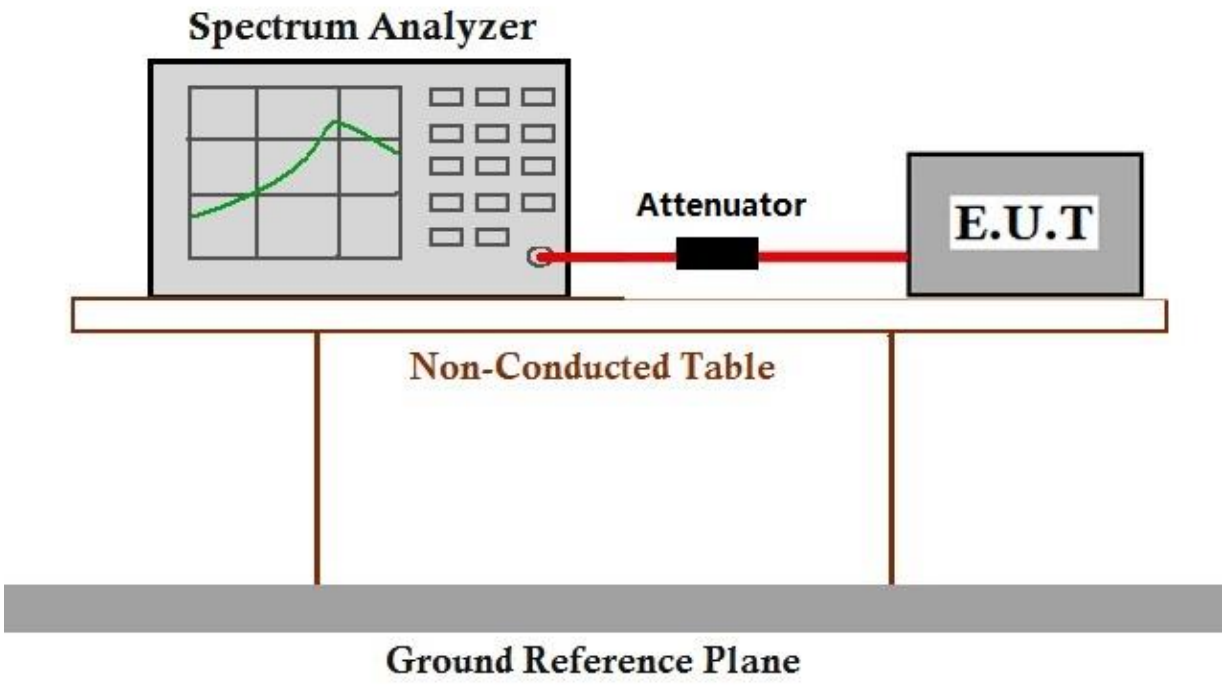
6.4.1 E.U.T. Operation

Operating Environment:

Temperature: 23 °C Humidity: 49.5 % RH Atmospheric Pressure: 1000 mbar

Test mode: a: Tx mode, Keep the EUT in transmitting mode.

6.4.2 Test Setup Diagram



6.4.3 Measurement Procedure and Data

The detailed test data see: Appendix E - Adjacent Channel Power.

6.5 Conducted Spurious Emissions

Test Requirement FCC 47 CFR Part 2, §2.1051
FCC 47 CFR Part 22, §22.917
FCC 47 CFR Part 90, §90.210

Test Method: ANSI C63.26-2015

Limit:

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

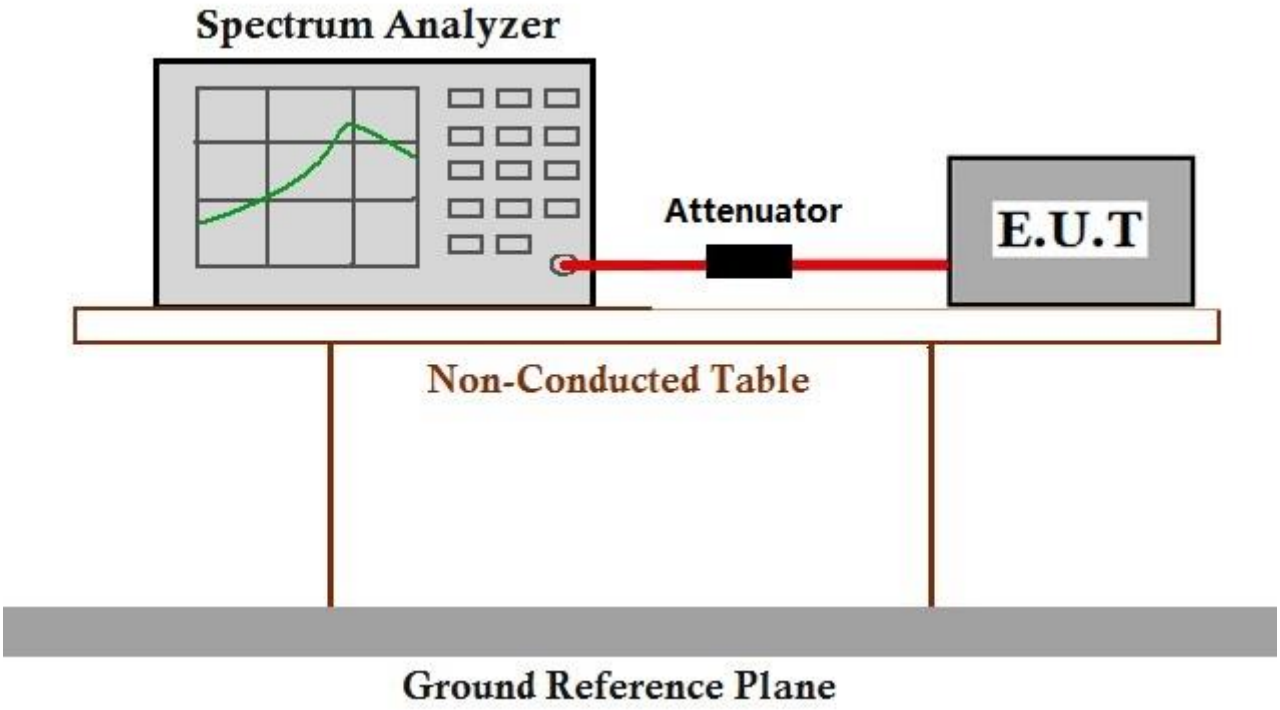
6.5.1 E.U.T. Operation

Operating Environment:

Temperature: 23 °C Humidity: 49.5 % RH Atmospheric Pressure: 1000 mbar

Test mode: a: Tx mode, Keep the EUT in transmitting mode.

6.5.2 Test Setup Diagram



6.5.3 Measurement Procedure and Data

The detailed test data see: Appendix D - Conducted Spurious Emissions.

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6.6 Radiated Spurious Emissions

Test Requirement FCC 47 CFR Part 2, §2.1053
FCC 47 CFR Part 22, §22.917
FCC 47 CFR Part 90, §90.210

Test Method: ANSI C63.26-2015

Measurement Distance: 3m

Limit:

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

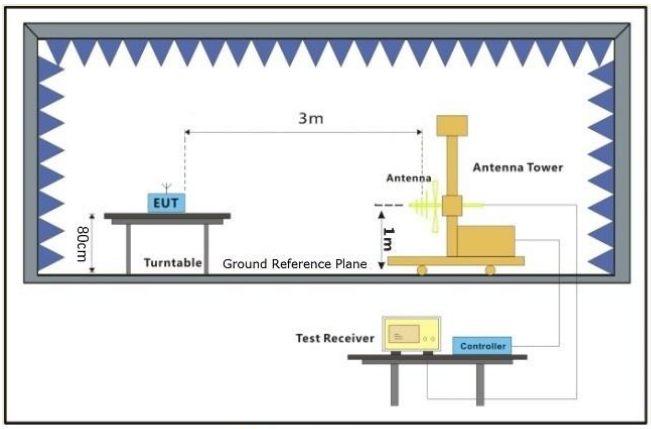
6.6.1 E.U.T. Operation

Operating Environment:

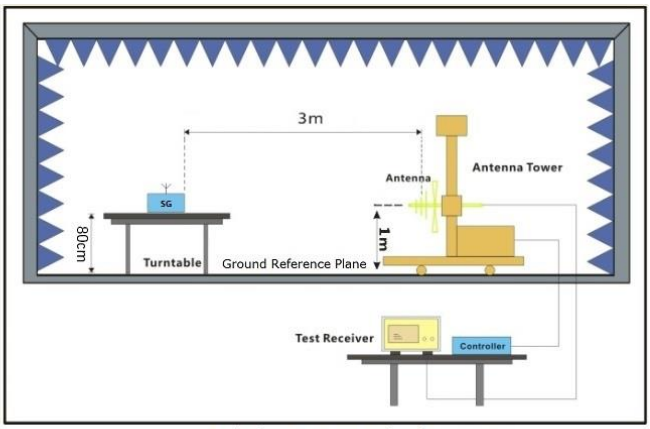
Temperature: 23 °C Humidity: 49.5 % RH Atmospheric Pressure: 1000 mbar

Test mode: a: Tx mode, Keep the EUT in transmitting mode.

6.6.2 Test Setup Diagram



EUT



Substiute Antenna+Signal Generator

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6.6.3 Measurement Procedure and Data

Test Procedure:

(1)On a test site, the EUT shall be placed on a turntable and in the position closest to the normal use as declared by the user.
(2)The test antenna shall be oriented initially for vertical polarization located 3m from the EUT to correspond to the transmitter.
(3)The output of the antenna shall be connected to the measuring receiver and either a peak or quasi-peak detector was used for the measurement as indicated on the report. The detector selection is based on how close the emission level was approaching the limit.
(4)The transmitter shall be switched on; if possible, without the modulation and the measurement receiver shall be tuned to the frequency of the transmitter under test.
(5)The test antenna shall be raised and lowered through the specified range of height until the measuring receiver detects a maximum signal level.
(6)The transmitter shall than be rotated through 360°in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
(7)The test antenna shall be raised and lowered again through the specified range of height until the measuring receiver detects a maximum signal level.
(8)The maximum signal level detected by the measuring receiver shall be noted.
(9)The measurement shall be repeated with the test antenna set to horizontal polarization.
(10) Replace the antenna with a proper Antenna (substitution antenna).
(11)The substitution antenna shall be oriented for vertical polarization and, if necessary, the length of the substitution antenna shall be adjusted to correspond to the frequency of transmitting.
(12)The substitution antenna shall be connected to a calibrated signal generator.
(13)If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
(14)The test antenna shall be raised and lowered through the specified range of the height to ensure that the maximum signal is received.
(15)The input signal to substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuation setting of the measuring receiver.
(16)The input level to the substitution antenna shall be recorded as power level in dBm, corrected for any change of input attenuator setting of the measuring receiver.
(17)The measurement shall be repeated with the test antenna and the substitution antenna oriented for horizontal polarization.

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25KHz, Π/4-DQPSK modulation, Assigned Frequency: 854.125MHz, High Power				
Frequency MHz	Polarity H/V	Emission Level dBm	Limit dBm	Over Limit dBm
1706.7	H	-31.04	-13.0	-18.04
2564.713	H	-32.61	-13.0	-19.61
3419.491	H	-33.27	-13.0	-20.27
4267.178	H	-46.67	-13.0	-33.67
5125.515	H	-31.15	-13.0	-18.15
6833.768	H	-38.60	-13.0	-25.60
1706.7	V	-33.65	-13.0	-20.65
2564.713	V	-35.85	-13.0	-22.85
3419.491	V	-35.01	-13.0	-22.01
4267.178	V	-44.58	-13.0	-31.58
5125.515	V	-35.30	-13.0	-22.30
6833.768	V	-44.51	-13.0	-31.51

25KHz, Π/4-DQPSK modulation, Assigned Frequency: 859.025MHz, High Power				
Frequency MHz	Polarity H/V	Emission Level dBm	Limit dBm	Over Limit dBm
1719.783	H	-34.49	-13.0	-21.49
2577.803	H	-33.80	-13.0	-20.80
3436.944	H	-38.56	-13.0	-25.56
4014.288	V	-50.34	-13.0	-37.34
5151.676	V	-34.58	-13.0	-21.58
6868.647	V	-46.33	-13.0	-33.33
1719.783	H	-33.19	-13.0	-20.19
2577.803	H	-35.86	-13.0	-22.86
3436.944	H	-36.58	-13.0	-23.58
4086.459	V	-50.71	-13.0	-37.71
5151.676	V	-33.22	-13.0	-20.22
6868.647	V	-43.26	-13.0	-30.26

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25KHz, Π/4-DQPSK modulation, Assigned Frequency: 868.975MHz, High Power				
Frequency MHz	Polarity H/V	Emission Level dBm	Limit dBm	Over Limit dBm
1728.561	H	-35.02	-13.0	-22.02
2590.961	H	-32.38	-13.0	-19.38
3454.486	H	-37.70	-13.0	-24.70
4321.837	H	-49.13	-13.0	-36.13
5177.971	H	-31.64	-13.0	-18.64
6047.776	H	-44.83	-13.0	-31.83
1728.561	V	-32.79	-13.0	-19.79
2590.961	V	-38.03	-13.0	-25.03
3454.486	V	-42.93	-13.0	-29.93
4299.89	V	-50.62	-13.0	-37.62
5177.971	V	-38.77	-13.0	-25.77
8334.7	V	-43.00	-13.0	-30.00

25KHz, Π/4-DQPSK modulation, Assigned Frequency: 869.875MHz, High Power				
Frequency MHz	Polarity H/V	Emission Level dBm	Limit dBm	Over Limit dBm
1741.812	H	-35.00	-13.0	-22.00
2610.823	H	-34.29	-13.0	-21.29
3480.968	H	-34.44	-13.0	-21.44
4354.967	H	-45.68	-13.0	-32.68
5217.664	H	-33.08	-13.0	-20.08
6956.627	H	-40.23	-13.0	-27.23
1741.812	V	-34.74	-13.0	-21.74
2610.823	V	-35.96	-13.0	-22.96
3480.968	V	-37.04	-13.0	-24.04
4343.896	V	-44.71	-13.0	-31.71
5217.664	V	-25.29	-13.0	-12.29
6956.627	V	-40.03	-13.0	-27.03

Note: the low power and high power mode have been tested and we found the high power mode has the worst test result. Only record the worst test result.

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6.7 Transient Frequency Behavior

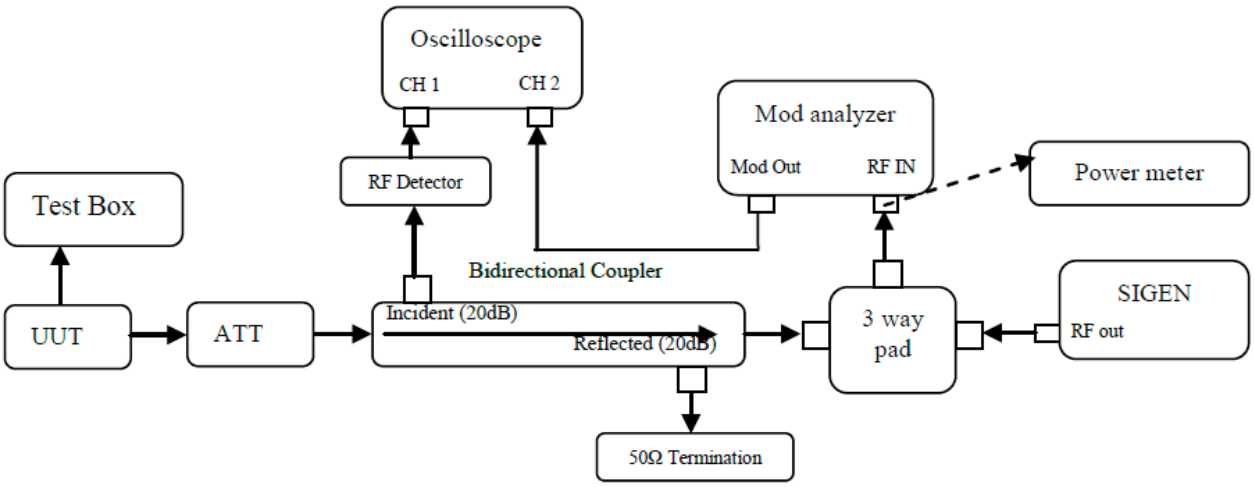
Test Requirement FCC 47 CFR Part 90, §90.214
Test Method: ANSI C63.26-2015
Limit:

Channel Bandwidth (kHz)	Time Intervals (Notes 1, 2)	Maximum Frequency Difference(kHz)	Transient Duration Limit (ms)	
			150-174 MHz	421-512 MHz
25	t1	±25	5	10
	t2	±12.5	20	25
	t3	±25	5	10
12.5	t1	±12.5	5	10
	t2	±6.25	20	25
	t3	±12.5	5	10
6.25	t1	±6.25	5	10
	t2	±3.125	20	25
	t3	±6.25	5	10

6.7.1 E.U.T. Operation

Operating Environment:
Temperature: 23 °C Humidity: 49.5 % RH Atmospheric Pressure: 1000 mbar
Test mode: a: Tx mode, Keep the EUT in transmitting mode.

6.7.2 Test Setup Diagram



6.7.3 Measurement Procedure and Data

Not Applicable.

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7 Test Setup Photographs

Refer to the < Test Setup photos>.

8 EUT Constructional Details

Refer to the < External Photos > & < Internal Photos >.

- End of the Report -

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