



Report No.:

CE RF Test Report

Applicant: Nebra Ltd

Address of Applicant: Unit 4 Bells Yew Green Business Court, Bells Yew Green,

Tunbridge Wells, East Sussex, TN3 9BJ

Equipment Under Test (EUT)

Product Name: Nebra Indoor LoRa Gateway ROCK Pi 4 Version / Nebra

Indoor Helium Hotspot ROCK Pi 4 Version

Model No.: NEBHNT-HHRK4-868

Applicable standards: ETSI EN 300 328 V2.2.2 (2019-07)

Date of sample receipt: 11 May, 2022

Date of Test: 12 May, to 27 May, 2022

Date of report issue: 27 May, 2022

Test Result: PASS

Tested by: Date: 27 May, 2022
Test Engineer

Reviewed by: Date: 27 May, 2022

Project Engineer

Manager

Approved by: Date: 27 May, 2022

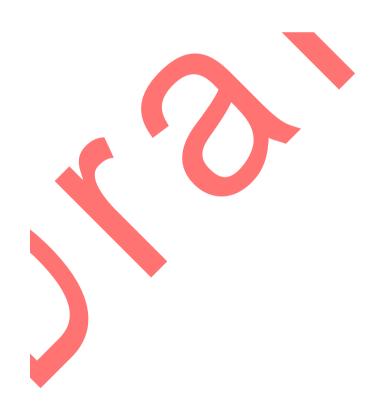
This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in above the application standard version. Test results reported herein relate only to the item(s) tested.

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2 Version

Version No.	Date	Description
00	27 May, 2022	Original







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Test Summary

Test Items	Test Requirement	Test method	Limit/Severity	Result
	Radio Spectrum	Matter (RSM) Part o	f Tx	
RF Output Power	put Power Clause 4.3.2.2 Clause 5.4.2.2		Clause 4.3.2.2.3	PASS
Power Spectral Density	Clause 4.3.2.3	Clause 5.4.3	Clause 4.3.2.3.3	PASS
Duty Cycle, Tx-sequence, Tx-gap	Clause 4.3.2.4	Clause 5.4.2.2.1.3	Clause 4.3.2.4.3	N/A
Medium Utilisation (MU) factor	Clause 4.3.2.5	Clause 5.4.2.2.1.4	Clause 4.3.4.5.3	N/A
Adaptivity (Adaptive Equipment using Modulations Other Than FHSS)	Clause 4.3.2.6	Clause 5.4.6.2	Clause 4.3.2.6	N/A
Occupied Channel Bandwidth	Clause 4.3.2.7	Clause 5.4.7.2	Clause 4.3.2.7.3	PASS
Transmitter unwanted emissions in the out-of-band domain	Clause 4.3.2.8	Clause 5.4.8.2	Clause 4.3.2.8.3	PASS
Transmitter unwanted emissions in the spurious domain	Clause 4.3.2.9	Clause 5.4.9.2	Clause 4.3.2.9.3	PASS
	Radio Spectrum	Matter (RSM) Part o	f Rx	
Receiver spurious emissions	Clause 4.3.2.10	Clause 5.4,10.2	Clause 4.3.2.10.3	PASS
Receiver Blocking	Clause 4.3.2.11	Clause 5.4.11.2	Clause 4.3.2.11.4	PASS
Geo-location capability	Clause 4.3.2.12	Clause 4.3.2.12.2	Clause 4.3.2.12.3	PASS

- Tx: In this whole report Tx (or tx) means Transmitter.
 Rx: In this whole report Rx (or rx) means Receiver.
 Pass: Meet the requirement.

- 4. N/A: Not Applicable for Non-adaptive equipment.

Tel: +86-755-23118282, Fax: +86-755-23116366



5 General Information

5.1 Client Information

Applicant:	Nebra Ltd
Address:	Unit 4 Bells Yew Green Business Court, Bells Yew Green, Tunbridge Wells, East Sussex, TN3 9BJ
Manufacturer/ Factory:	Nebra Ltd
Address:	Unit 4 Bells Yew Green Business Court, Bells Yew Green, Tunbridge Wells, East Sussex, TN3 9BJ

5.2 General Description of E.U.T.

Product Name:	Nebra Indoor LoRa Gateway ROCK Pi 4 Version / Nebra Indoor Helium Hotspot ROCK Pi 4 Version					
Model No.:	NEBHNT-HHRK4-915, NEBHNT-HHRK4-433, NEBHNT-HHRK4-470, NEBHNT-HHRK4-868, NEBHNT-HHRK4-433-2, NEBHNT-HHRK4-470-2, NEBHNT-HHRK4-868-2, NEBHNT-HHRK4-915-2, NEBHNT-HHRK4-433-3, NEBHNT-HHRK4-470-3, NEBHNT-HHRK4-868-3, NEBHNT-HHRK4-915-3					
Hardware version:	v1					
Software version:	781099d					
Operation Frequency:	2402MHz ~ 2480MHz					
Channel number:	40					
Channel separation:	2MHz					
Modulation type:	other forms of modulation					
Equipment Type:	Adaptive equipment					
Modulation Technology:	GFSK					
Max. E.I.R.P Power:	7.95 dBm					
Antenna Type:	External antenna					
Antenna gain:	1.0 dBi (declare by Applicant)					
Antenna transmit mode:	SISO (1TX, 1RX)					
AC adapter:	Model No.: R241-1202500I					
	Input: AC100-240V, 50/60Hz 1.5 A					
	Output: DC 12.0V, 2.5A					



5.3 Test environment and test mode

Operating Environment:							
Temperature:	Normal: 15° ~ 35° , Extreme: -20° ~ $+55^{\circ}$						
Humidity:	52 % RH						
Atmospheric Pressure:	1008 mbar						
Voltage: Nominal: 12.0Vdc, Extreme: Low 10.2Vdc, High 13.8Vdc							
Test mode:							
Transmitting mode:	Keep the EUT in continuously transmitting mode with modulation.						
Receiving mode:	Keep the EUT in receiving mode.						
We have verified the construction and function in typical operation. All the test items were carried out with							
the EUT in above test mo	odes.						

5.4 Description of Support Units

The EUT has been tested as an independent unit.

5.5 Measurement Uncertainty

Parameter	Expanded Uncertainty (Confidence of 95%(U = 2Uc(y)))			
Occupied Channel Bandwidth	±5 %			
RF output power, conducted	±1.5 dB			
Power Spectral Density, conducted	±3.0 dB			
Unwanted Emissions, conducted	±3.0 dB			
Temperature	±3 °C			
Supply voltages	±3 %			
Time	±5 %			
Radiated Emission (30MHz ~ 1000MHz) (3m SAC)	±4.45 dB			
Radiated Emission (1GHz ~ 18GHz) (3m SAC)	±5.34 dB			

Note: All the measurement uncertainty value were shown with a coverage k=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

5.6 Additions to, deviations, or exclusions from the method

Nο

5.7 Laboratory Facility

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

• FCC - Designation No.: CN1211

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

• ISED - CAB identifier.: CN0021

The 3m Semi-anechoic chamber and 10m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

• CNAS - Registration No.: CNAS L15527

JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527.

A2LA - Registration No.: 4346.01

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf

Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.



5.8 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.

Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.

Tel: +86-755-23118282, Fax:+86-755-23116366

Email: info-JYTee@lets.com, Website: http://jyt.lets.com

5.9 Test Instruments list

Radiated Emission:					
Test Equipment	Manufacturer	Model No.	Manage No.	Cal.Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
3m SAC	ETS	9m*6m*6m	WXJ001-1	01-19-2021	01-18-2024
PiCanil og Antanna	Schwarzbeck	VULB9163	WXJ002	03-03-2021	03-02-2022
BiConiLog Antenna	Scriwarzbeck	VULD9103	VV AJUU2	02-17-2022	02-16-2023
Biconical Antenna	Schwarzbeck	VUBA9117	WXJ002-1	06-20-2021	06-19-2022
Horn Antenna	Schwarzbeck	BBHA9120D	WXJ002-2	03-03-2021	03-02-2022
Hom Antenna	Scriwarzbeck	DDNA9120D	VV AJUUZ-Z	02-17-2022	02-16-2023
Horn Antenna	Schwarzbeck	BBHA9120D	WXJ002-3	06-18-2021	06-17-2022
Loop Antonno	Schwarzbeck	FMZB 1519 B	WXJ002-4	03-07-2021	03-06-2022
Loop Antenna	Scriwarzbeck	FINIZE 1319 E	VV AJUUZ-4	02-17-2022	02-16-2023
Pre-amplifier	Schwarzbeck	BBV9743B	WXG001-7	03-07-2021	03-06-2022
(30MHz ~ 1GHz)	Scriwarzbeck	DDV9/43D	VV AG001-7	02-17-2022	02-16-2023
Pre-amplifier	SKET	LNDA 04400 50	WXG001-3	03-07-2021	03-06-2022
(1GHz ~ 18GHz)	SKET	LNPA_0118G-50		02-17-2022	02-16-2023
Pre-amplifier	DE Cyatam	stem TRLA-180400G45B	WXG001-9	03-07-2021	03-06-2022
(18GHz ~ 40GHz)	RF System	TRLA-160400G45B	WAG001-9	02-17-2022	02-16-2023
EMI Test Receiver	Rohde & Schwarz	ESRP7	WXJ003-1	03-03-2021	03-02-2022
Eivii Test Receivei	Runde & Schwarz	ESRF1	VV \ \ J \ U \ U \ S - 1	02-17-2022	02-16-2023
Spectrum Analyzer	KEYSIGHT	N9010B	WXJ004-2	11-27-2021	11-26-2022
Signal Congretor	Agilont	N5173B	WXJ006-7	03-25-2021	03-24-2022
Signal Generator	Agilent	NOTION	VV XJ006-7	03-30-2022	03-29-2023
Band Reject Filter Group	Tonscend	JS08 <mark>06-</mark> F	WXJ089	N	/A
Coaxial Cable	JYT	JYT3M-1G-NN-8M	WXG001-4	03-07-2021	03-06-2022
(30MHz ~ 1GHz)	311	JTTSW-TG-WY-OW	WAG001-4	02-17-2022	02-16-2023
Coaxial Cable	JYT	JYT3M-18G-NN-8M	WXG001-5	03-07-2021	03-06-2022
(1GHz ~ 18GHz)	JII	JI I JIVI- I OG-ININ-OIVI	VV \\GUU1-5	02-17-2022	02-16-2023
Coaxial Cable	JYT	JYT3M-1G-BB-5M	WXG001-6	03-07-2021	03-06-2022
(9kHz ~ 30MHz)	JII	J 1 131VI- 1G-DD-31VI	VV AGUU1-6	02-17-2022	02-16-2023
Coaxial Cable	JYT	JYT3M-40G-SS-8M	WXG001-7	03-07-2021	03-06-2022
(18GHz ~ 40GHz)	311	3113IVI-40G-33-8IVI	VV AGUU1-7	02-17-2022	02-16-2023
Test Software	Tonscend	TS+		Version: 3.0.0.1	

Conducted Method:	Conducted Method:								
Test Equipment	Manufacturer	Model No.	Manage No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)				
Spectrum Analyzer	Keysight	N9010B	WXJ004-3	10-27-2021	10-26-2022				
Vector Signal Generator	Keysight	N5182B	WXJ006-6	10-27-2021	10-26-2022				
Signal Generator	Keysight	N5173B	WXJ006-4	10-27-2021	10-26-2022				
Wireless Connectivity Tester	Rohde & Schwarz	CMW270	WXJ008-7	10-27-2021	10-26-2022				
DC Power Supply	Keysight	E3642A	WXJ025-2	11-27-2020	11-26-2023				
Temperature Humidity Chamber	ZHONG ZHI	CZ-A-80D	WXJ032-3	03-19-2021	03-18-2023				
Power Detector Box	MWRFTEST	MW100-PSB	WXJ007-4	11-19-2021	11-18-2022				
RF Control Unit	MWRFTEST	MW100-RFCB	WXG006	N/A					
Test Software	MWRFTEST	MTS 8310		Version: 2.0.0.0					

JianYan Testing Group Shenzhen Co., Ltd.

Report Template No.: JYTSZ4b-101-C

Project No.:

No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community,

Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.



6 Technical requirements specification

6.1 Justification

The EUT and test equipment were configured for testing according to ETSI EN 300 328 V2.2.2 (2019-07). The EUT was tested in the normal operating mode to represent worst-case results during the final qualification test.

6.2 Test Configuration of EUT

Operation F	requency each o	f channel								
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency			
0	2402MHz	10	2422MHz	20	2442MHz	30	2462MHz			
1	2404MHz	11	2424MHz	21	2444MHz	31	2464MHz			
2	2406MHz	12	2426MHz	22	2446MHz	32	2466MHz			
3	2408MHz	13	2428MHz	23	2448MHz	33	2468MHz			
4	2410MHz	14	2430MHz	24	2450MHz	34	2470MHz			
5	2412MHz	15	2432MHz	25	2452MHz	35	2472MHz			
6	2414MHz	16	2434MHz	26	2454MHz	36	2474MHz			
7	2416MHz	17	2436MHz	27	2456MHz	37	2476MHz			
8	2418MHz	18	2438MHz	28	2458MHz	38	2478MHz			
9	2420MHz	19	2440MHz	29	2460MHz	39	2480MHz			

Remark:

^{1.} Selected channel No.0(lowest channel), 20(middle channel) and 39(highest channel) to perform the test.

Clause No.	Clause No. Test Conditions		Te	Test Channel		Modulated Mode	•	Test mo	de	
Clause No.	NVNT	NVLT	NVHT	Lowest	Middle	Highest	GFSK	Tx	Rx	Normal
4.3.2.2	$\sqrt{}$	√	√	√	V	\checkmark	$\sqrt{}$	√		
4.3.2.3	$\sqrt{}$			$\sqrt{}$	V		V			
4.3.2.4										
4.3.2.5										
4.3.2.6										
4.3.2.7	$\sqrt{}$			V		√	V	√		
4.3.2.8	$\sqrt{}$			1		√	$\sqrt{}$	√		
4.3.2.9	$\sqrt{}$			\checkmark		7	$\sqrt{}$	√		
4.3.2.10	$\sqrt{}$			$\sqrt{}$		V	$\sqrt{}$		\checkmark	
4.3.2.11	$\sqrt{}$			V		$\sqrt{}$	$\sqrt{}$		$\sqrt{}$	

Note.

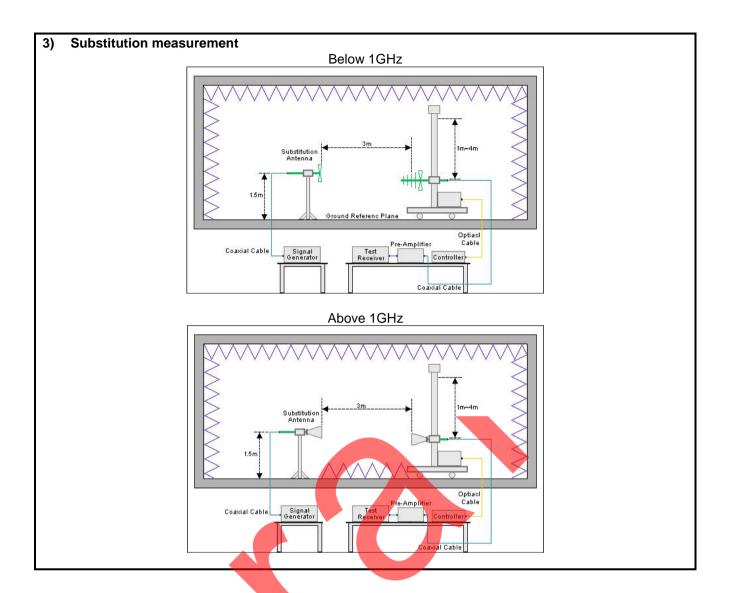
- 1. "√" means that this configuration is chosen for test.
- 2. "NVNT" means Normal Voltage Normal Temperature, "NVLT" means Normal Voltage Low Temperature, "NVHT" means Normal Voltage High Temperature.



6.3 Test Setup Block Conducted test method:]=**o**===]8**0**888 0000 **EUT** 00-PSB Temperature Humidity Chamber 2 Radiated test method: Below 1GHz AE EUT Controller Coaxial Cable Above 1GHz EUT AE Turntable Controller

Coaxial Cable







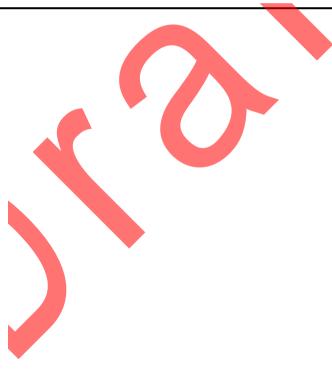
6.4 Test Results

6.4.1 Test Result Summary

Clause No.	Modulation	Test Condition	Test Data	Verdict
		NVNT		
4.3.2.2	GFSK	NVLT	Appendix A – BLE	Pass
		NVHT		
4.3.2.3	GFSK	NVNT	Appendix A – BLE	Pass
4.3.2.4	N/A	N/A	N/A	N/A
4.3.2.5	N/A	N/A	N/A	N/A
4.3.2.6	N/A	N/A	N/A	N/A
4.3.2.7	GFSK	NVNT	Appendix A – BLE	Pass
4.3.2.8	GFSK	NVNT	Appendix A – BLE	Pass
4.3.2.9	GFSK	NVNT	See Section 6.4.2	Pass
4.3.2.10	GFSK	NVNT	See Section 6.4.3	Pass
4.3.2.11	GFSK	NVNT	Appendix A – BLE	Pass
4.3.2.12	/	/	See Section 6.4.4	Pass

Remark:

^{1.} The cable insertion loss used by "RF Output Power" and other conduction measurement items is 0.5dB (provided by the customer).





6.4.2 Transmitter unwanted emissions in the spurious domain

		The lowest channel			
F(8411-)	Spurious	Emission			
Frequency (MHz) Polarization Level (dBm)		Limit (dBm)	Test Result		
105.42	Vertical	-85.20			
201.81	V	-81.48	-54.00		
381.38	V	-80.90			
944.71	V	-72.22	-36.00		
4804.00	V	-53.65	-30.00		
50.13	Horizontal	-81.59	54.00	Pass	
221.21	Н	-82.42	-54.00		
345.74	Н	-82.86	00.00		
807.46	Н	-72.68	-36.00		
4804.00	H -55.87		-30.00		
·		The highest channel			
F(8411-)	Spurious	Emission		Tool Books	
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Test Result	
105.42	Vertical	-84.77	54.00		
201.81	V	-81.93	-54.00		
381.38	V	-81.36	20.00		
944.71	V	-71.83	-36.00		
4960.00	V	-53.88	-30.00	D	
50.13	Horizontal	-81.79	54.00	Pass	
221.21	Н	-82.89	-54.00		
345.74	Н	-82.69	20.00		
807.46	н	-72.39	-36.00		
4960.00	Н	-55.51	-30.00		

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6.4.3 Receiver spurious emissions

	urious etilissions			
	7	The lowest channel		
Frequency (MHz)	Spurious	Emission	Limit (dDm)	Test Result
	Polarization	Level(dBm)	Limit (dBm)	rest Result
344.64	Vertical	-81.18	F7.00	
675.29	V	-75.98	-57.00	
4804.00	V	-81.56	-47.00]
310.57	Horizontal	-83.88		Pass
656.14	Н	-76.61	-57.00	
4804.00	Н	-83.68	-47.00	
	Т	he highest channel		
Spurious Emission				Took Doorell
Frequency (MHz)	Polarization	Level(dBm)	Limit (dBm)	Test Result
344.64	Vertical	-80.98		
675.29	V	-76.41	-57.00	
4960.00	V	-81.75	-47.00]
310.57	Horizontal	-83.48	57.00	- Pass
656.14	Н	-76.21	-57.00	
4960.00	Н	-83.88	-47.00	1

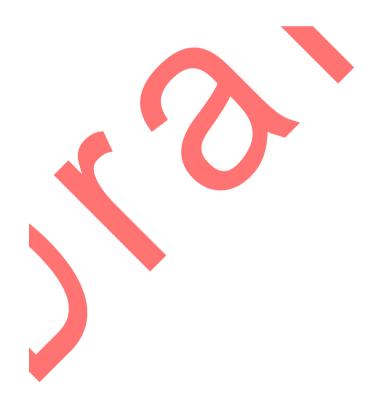






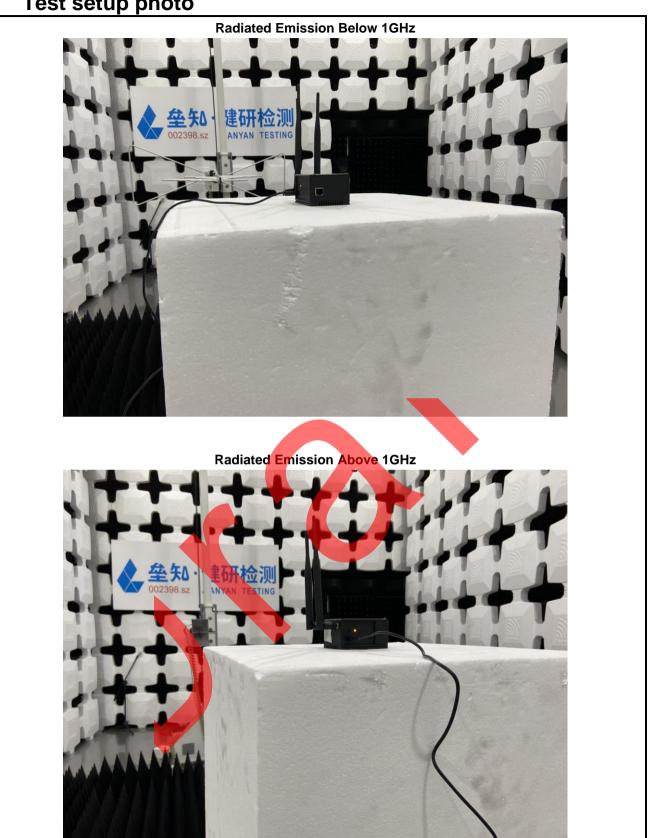
6.4.4 Geo-location capability

The equipment configure of according to the regulatory requirements applicable at the geographical location where operates, and shall not be accessible to the user in a way that would allow the user to alter it.

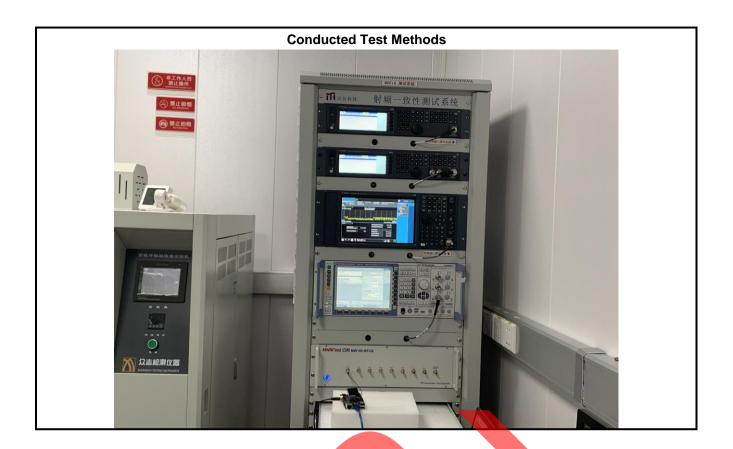




Test setup photo







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8 EUT Constructional Details

Reference to the test report No.:





ANNEX Application form for testing

In accordance with EN 300 328 V2.2.2, clause 5.4.1, the following information is provided by the supplier.

a)	The type of modulation used by the equipment:
	☐ FHSS
	Other forms of modulation ■ Control of the control of
b)	In case of FHSS modulation:
•	In case of non-Adaptive Frequency Hopping equipment:
	The number of Hopping Frequencies:
	In case of Adaptive Frequency Hopping Equipment:
	The maximum number of Hopping Frequencies:
	The minimum number of Hopping Frequencies:
	• The Dwell Time:
	The Minimum Channel Occupation Time:
c)	Adaptive / non-adaptive equipment:
-	Non-adaptive Equipment
	Adaptive Equipment without the possibility to switch to a non-adaptive mode
	Adaptive Equipment which can also operate in a non-adaptive mode
d)	In case of adaptive equipment:
	The Channel Occupancy Time implemented by the equipment: ms
	☐ The equipment has implemented an LBT based DAA mechanism
	 In case of equipment using modulation different from FHSS:
	☐ The equipment is Frame Based equipment
	☐ The equipment is Load Based equipment
	☐ The equipment can switch dynamically between Frame Based and Load Based equipment
	The CCA time implemented by the equipment:µs
	The value q as referred to in clause 4.3.2.5.2.2.2:
	The equipment has implemented an non-LBT based DAA mechanism
	The equipment can operate in more than one adaptive mode
e)	In case of non-adaptive Equipment:
	The maximum RF Output Power (e.i.r.p.):dBm
	The maximum (corresponding) Duty Cycle: %
	Equipment with dynamic behaviour, that behaviour is described here. (e.g. the different combinations of
f۱	duty cycle and corresponding power levels to be declared): The worst case operational mode for each of the following tests:
f)	RF Output Power GFSK
	Power Spectral Density GFSK
	Duty cycle, Tx-Sequence, Tx-gap
	 Dwell time, Minimum Frequency Occupation & Hopping Sequence (only for FHSS equipment)
	Hopping Frequency Separation (only for FHSS equipment)
	Medium Utilisation
	Adaptivity & Receiver Blocking GFSK
	Occupied Channel Bandwidth <u>GFSK</u>
	Transmitter unwanted emissions in the OOB domain <u>GFSK</u>
	Transmitter unwanted emissions in the spurious domain GFSK
	Receiver spurious emissions <u>GFSK</u>
g)	The different transmit operating modes (tick all that apply):
\boxtimes	Operating mode 1: Single Antenna Equipment
\boxtimes	Equipment with only 1 antenna
	Equipment with 2 diversity antennas but only 1 antenna active at any moment in time



ant	Smart Antenna Systems with 2 or more antennas, but operating in a (legacy) mode where only 1 enna is used. (e.g. IEEE 802.11™ [i.3] legacy mode in smart antenna systems)
anii	
\vdash	Operating mode 2: Smart Antenna Systems - Multiple Antennas without beam forming
Н	Single spatial stream / Standard throughput / (e.g. IEEE 802.11™ [i.3] legacy mode)
\sqcup	High Throughput (> 1 spatial stream) using Occupied Channel Bandwidth 1
	High Throughput (> 1 spatial stream) using Occupied Channel Bandwidth 2
_	NOTE: Add more lines if more channel bandwidths are supported.
	Operating mode 3: Smart Antenna Systems - Multiple Antennas with beam forming
	Single spatial stream / Standard throughput (e.g. IEEE 802.11™ [i.3] legacy mode)
	High Throughput (> 1 spatial stream) using Occupied Channel Bandwidth 1
	High Throughput (> 1 spatial stream) using Occupied Channel Bandwidth 2
	NOTE: Add more lines if more channel bandwidths are supported.
h)	In case of Smart Antenna Systems:
	The number of Receive chains:
	The number of Transmit chains:
	☐ Symmetrical power distribution
	asymmetrical power distribution
	In case of beam forming, the maximum beam forming gain:
	NOTE: Beam forming gain does not include the basic gain of a single antenna.
i)	Operating Frequency Range(s) of the equipment:
	Operating Frequency Range 1: 2402 MHz to 2480 MHz
	Operating Frequency Range 2: MHz to MHz
	NOTE: Add more lines if more Frequency Ranges are supported.
j)	Occupied Channel Bandwidth(s):
	Occupied Channel Bandwidth 1: 1.058 MHz
	Occupied Channel Bandwidth 2:, MHz
	NOTE: Add more lines if more channel bandwidths are supported.
k)	Type of Equipment (stand-alone, combined, plug-in radio device, etc.):
\boxtimes	Stand-alone
	Combined Equipment (Equipment where the radio part is fully integrated within another type of equipment)
	Plug-in radio device (Equipment intended for a variety of host systems)
	Other
I)	The extreme operating conditions that apply to the equipment:
	Operating temperature range: -20 °C to +55°C
	Operating voltage range: 10.2 V to 13.8 V AC 🖂 DC
	Details provided are for the: 🛛 stand-alone equipment
	combined (or host) equipment
	test jig
m)	The intended combination(s) of the radio equipment power settings and one or more antenna
	assemblies and their corresp <mark>on</mark> ding e.i.r.p levels:
_	Antenna Type:
\boxtimes	Integral Antenna
\bowtie	Antenna Gain: 1.0 dBi
If a	pplicable, additional beamforming gain (excluding basic antenna gain):dB
Ц	Temporary RF connector provided
Ш	No temporary RF connector provided
Ш	Dedicated Antennas (equipment with antenna connector)
Ш	Single power level with corresponding antenna(s)
Ш	Multiple power settings and corresponding antenna(s) Number of different
	wer Levels:
	wer Level 1:dBm
Pov	wer Level 2:dBm

JianYan Testing Group Shenzhen Co., Ltd.

Report Template No.: JYTSZ4b-101-C

Project No.:

No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.





Power Level 3: dBm

NOTE 1: Add more lines in case the equipment has more power levels.

NOTE 2: These power levels are conducted power levels (at antenna connector).

• For each of the Power Levels, provide the intended antenna assemblies, their corresponding gains (G) and the resulting e.i.r.p. levels also taking into account the beamforming gain (Y) if applicable

Power Level 1: dBm

Number of antenna assemblies provided for this power level:

Assembly#	Gain (dBi)	e.i.r.p. (dBm)	Part number or model name
1			
2			
3			
4			

Power Level 2: ____dBm

Number of antenna assemblies provided for this power level:

Assembly #	Gain (dBi)	e.i.r.p. (dBm)	Part number or model name
1			
2			
3			
4			

Power Level 3: dBm

Number of antenna assemblies provided for this power level:

Assembly#	Gain (dBi)	e.i.r.p. (dBm)	Part number or model name
1			
2			
3			
4			

n)	The nominal voltages of th	e stand	l-alone radio ed	quipment	or the nominal voltages of the co	ombined
	(host) equipment or test jig	j in <mark>cas</mark>	e of plug-in de	vices:		

Details provided are for the: 🕻	⊴ st	and-alo	ne equip	oment	
	C	ombined	d (or hos	t) equipme	nt
[] te	st jig			
Supply Voltage		C main	s State	AC voltage	!

Supply Voltage AC mains State AC voltage ______\

DC State DC voltage 12.0 V

se of DC indicate the type of nower source

se o	i DC, indicate t	ne type o	power source
	Internal Power	r Supp <mark>ly</mark>	
\boxtimes	External Power	r Supply	or AC/DC adapter
	Battery		
	Other:		

o) Describe the test modes available which can facilitate testing:

Continuous transmitting mode control in engineer mode.

p) The equipment type (e.g. Bluetooth®, IEEE 802.11™ [i.3], proprietary, etc.): Bluetooth



Configuration for testing

From all combinations of conducted power settings and intended antenna assembly(ies) specified in clause 5.4.1 m), specify the combination resulting in the highest e.i.r.p. for the radio equipment.

Unless otherwise specified in EN 300 328, this power setting is to be used for testing against the requirements of EN 300 328. In case there is more than one such conducted power setting resulting in the same (highest) e.i.r.p. level, the highest power setting is to be used for testing. See also EN 300 328, clause 5.3.2.3.

Highest overall e.i.r.p. value: 7.95 dBm Corresponding Antenna assembly gain: 1.0 dBi Antenna Assembly #: 1 Corresponding conducted power setting: 6.95 dBm Listed as Power Setting #: 7 (also the power level to be used for testing) Additional information provided by the applicant Modulation: ITU Class(es) of emission: DSSS Can the transmitter operate unmodulated? yes
 no **Duty Cycle** Continuous duty The transmitter is intended for: ☐ Intermittent duty Continuous operation possible for testing purposes About the UUT ☐ The equipment submitted are representative production models If not, the equipment submitted are pre-production models? If pre-production equipment are submitted, the final production equipment will be identical in all respects with the equipment tested If not, supply full details ☐ The equipment submitted is CE marked In addition to the CE mark, the Class-II identifier (Alert Sign) is affixed. Additional items and/or supporting equipment provided ☐ Spare batteries (e.g. for portable equipment) ☐ Battery charging device ☐ Test Jig or interface box RF test fixture (for equipment with integrated antennas) ☐ Host System Manufacturer: Model #: Model name: Combined equipment Manufacturer: Model #: Model name: □ User Manual ☐ Technical documentation (Handbook and circuit diagrams)

-----End of report-----