

DOKE COMMUNICATION (HK) LIMITED

TEST REPORT

SCOPE OF WORK

FCC Testing - BV6200 Plus

REPORT NUMBER

250219088SZN-005

ISSUE DATE

21 April 2025

PAGES

53

DOCUMENT CONTROL NUMBER

FCC ID 22/24/27/90_a © 2017 INTERTEK





101, 201, Building B, No. 308 Wuhe Avenue, Zhangkengjing Community, GuanHu Subdistrict, LongHua District, Shenzhen.

Tel: (86 755) 8601 6288 Fax: (86 755) 8601 6751 <u>www.intertek.com</u>

Intertek Report No.: 250219088SZN-005

FCC RF Test Report

For

DOKE COMMUNICATION (HK) LIMITED

Smart phone

Model: BV6200 Plus

Brand Name: Blackview

FCC ID: 2A7DX-BV6200PLUS

Sample ID: Z250219088-001

Report No: 250219088SZN-005

Tested and Prepared by:

Approved by:

Tony Tang Engineer Johnny Wang Project Engineer Date: 21 April 2025

Johnny Ware

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

Intertek Testing Service Shenzhen Ltd. Longhua Branch

101, 201, Building B, No. 308 Wuhe Avenue, Zhangkengjing Community, GuanHu Subdistrict, LongHua District, ShenZhen.
Tel: (86 755) 8601 6288 Fax: (86 755) 8601 6751

Version: 01-November-2017 Page: 1 of 53 FCC ID 22/24/27/90_a



Table of Contents

1. Su	ımmary of Test Result	3
1.1	Band 2 PCS Band (1850-1910MHz paired with 1930-1990MHz)	4
1.2	AWS Band (1710-1755MHz paired with 2110-2155MHz)	4
1.3	Band 5 Cellular Band (824-849MHz paired with 869-894MHz)	5
1.4	BRS&EBS Band (2500-2570 MHz paired with 2620-2655 MHz)	6
1.5	Band 12 (699-716MHz paired with 729-746 MHz)	
1.6	Band 17 (704-716MHz paired with 734-746 MHz)	
1.7	Band 41 (2496-2690 MHz paired with 2496-2690 MHz)	
1.8	Band 66 (1710-1780MHz paired with 2110-2180MHz)	9
2. G	eneral Description	10
2.1	Product Description	
2.2	Test Facility	
2.3	Test Environment Condition	
2.4	Sub-Assembly	
2.5	Technical Specification	11
3. G	eneral Test Conditions/Configuration	14
3.1	Test Modes	14
3.2	Test Environment	
3.3	Test Frequency	
4. DI	ESCRIPTION OF TESTS	17
4.1	Radiated Power and Radiated Spurious Emissions	17
4.2	Peak-to-Average Ratio	
4.3	Occupied Bandwidth	
4.4	Band Edge Compliance	
4.5	Spurious and Harmonic Emissions at Antenna Terminal	
4.6	Frequency Stability / Temperature Variation	
5. Te	est Setups	22
	•	
5.1 5.2	Test Setup 1 Test Setup 2	
5.2 5.3	Test Setup 3	
5.4	Test Conditions	
_	est Results	
6.1	Field Strength of Spurious	
7. M	ain Test Instruments	52
8. M	leasurement Uncertainty	53
9. A _l	ppendixes	53

Page: 2 of 53



FCC ID:

Report number:

Date of Test

1. Summary of Test Result

2A7DX-BV6200PLUS

250219088SZN-005

19 February 2025 to 17 March 2025

Applicant: DOKE COMMUNICATION (HK) LIMITED			
Address:	19H MAXGRAND PLAZA NO 3 TAI YAU STREET SAN PO KONG KL		
Product name: Smart phone			
Model Number:	BV6200 Plus		

Intertek Report No.: 250219088SZN-005

The above equipment was tested by Intertek Testing Services Shenzhen Ltd. Longhua Branch. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI 63.26:2015, FCC KDB 971168 D01, FCC KDB 971168 D02 and FCC KDB 412172 D01. This device is in compliance with FCC rules as follows:

47 CFR FCC Part 02:2023 47 CFR FCC Part 22:2023 47 CFR FCC Part 24:2023 47 CFR FCC Part 27:2023 47 CFR FCC Part 90:2023

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

Version: 01-November-2017 Page: 3 of 53 FCC ID 22/24/27/90_a



1.1 Band 2 PCS Band (1850-1910MHz paired with 1930-1990MHz)

Intertek Report No.: 250219088SZN-005

Test Item	FCC Rule No.	Requirements	Test Result	Verdict (Note1)
Effective (Isotropic) Radiated	§2.1046,	EIRP≤2W	Appendix A	Pass
Power Output Data	§24.232			
Peak-to-Average Ratio	§2.1046,	Limit≤13 dB	Appendix B	Pass
Teak-to-Average Natio	§24.232	LIIII(215 GB	Арреник в	1 033
Modulation Characteristics	§2.1047	Digital modulation	Appendix C	Pass
Do and width	\$2.1040	OBW: No limit.	A managadiy D	Pass
Bandwidth	§ 2.1049	EBW: No limit.	Appendix D	
	S2 4054	≤ -13 dBm/1%*EBW, in 1 MHz bands		
Band Edges Compliance	§2.1051,	immediately outside and adjacent to the	Appendix E	Pass
	§24.238	frequency block.		
Considera Francisci en et	S2 4054	≤ -13 dBm/1 MHz, from 9 kHz to 10 th		
Spurious Emission at	§2.1051,	harmonics but outside authorized operating	Appendix F	Pass
Antenna Terminals	§24.238	frequency ranges.		
Field Strength of	§2.1053,	4. 42 dBm /4.04Um	Clarata a C	Davis
Spurious Radiation	§24.238	≤ -13 dBm/1 MHz.	Chapter 6	Pass
Francisco de Chalailite.	§2.1055,		A rama and in 11	Dana
Frequency Stability	§24.235	≤ ±2.5 ppm.	Appendix H	Pass
Note1: For the verdict, the "N/	A" denotes	"not applicable", the "N/T" denotes "not tested".		

1.2 AWS Band (1710-1755MHz paired with 2110-2155MHz)

		•			
Test Item	FCC Rule No.	Requirements	Test Result	Verdict (Note1)	
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(d)	EIRP≤1W	Appendix A	Pass	
Peak-to-Average Ratio	§2.1046, §27.50(d)	Limit≤13 dB	Appendix B	Pass	
Modulation Characteristics	§2.1047	Digital modulation	Appendix C	Pass	
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.	Appendix D	Pass	
Band Edges Compliance	§2.1051, §27.53(h)	≤-13 dBm/1%*EBW, in 1 MHz bands immediately outside and adjacent to the frequency block.	Appendix E	Pass	
Spurious Emission at Antenna Terminals	§2.1051, §27.53(h)	≤-13 dBm/1 MHz, from 9 kHz to 10 th harmonics but outside authorized operating frequency ranges.	Appendix F	Pass	
Field Strength of Spurious Radiation	§2.1053, §27.53(h)	≤ -13 dBm/1 MHz.	Chapter 6	Pass	
Frequency Stability	§2.1055, §27.54	≤ ±2.5 ppm.	Appendix G	Pass	
Note1: For the verdict, the "N/A" denotes "not applicable", the "N/T" denotes "not tested".					

Version: 01-November-2017 Page: 4 of 53 FCC ID 22/24/27/90_a



1.3 Band 5 Cellular Band (824-849MHz paired with 869-894MHz)

Intertek Report No.: 250219088SZN-005

FCC Rule No.	Requirements	Test Result	Verdict (Note1)
§2.1046, §22.913	FCC: ERP ≤ 7 W.	Appendix A	Pass
	ŀ	Appendix B	Pass
§ 2.1047	Digital modulation	Appendix C	Pass
§ 2.1049	OBW: No limit. EBW: No limit.	Appendix D	Pass
§2.1051, §22.917	≤ -13 dBm/1%*EBW, in 1 MHz bands immediately outside and adjacent to the frequency block.	Appendix E	Pass
§2.1051, §22.917	FCC: ≤ -13 dBm/100 kHz, from 9 kHz to 10 th harmonics but outside authorized operating frequency ranges.	Appendix F	Pass
§2.1053, §22.917	FCC: ≤ -13 dBm/100 kHz.	Chapter 6	Pass
§2.1055, §22.355	≤ ±2.5ppm.	Appendix G	Pass
	\$2.1046, \$2.913 \$2.1047 \$2.1049 \$2.1051, \$22.917 \$2.1051, \$22.917 \$2.1053, \$22.917 \$2.1055,	\$2.1046, \$22.913 \$2.1047 Digital modulation OBW: No limit. EBW: No limit. \$2.1051, \$2.917 S2.1051, \$2.917 S2.1051, \$2.917 S2.1051, \$2.917 S2.1051, \$2.1051, \$2.917 S2.1051, \$2.1051, \$2.1051, \$2.1051, \$2.1051, \$2.1051, \$2.1051, \$2.1051, \$2.1051, \$2.1051, \$2.1051, \$2.1051, \$2.1053, \$2.917 S2.1055, \$2.1055, \$2.1055, \$2.1055, \$2.1058	\$2.1046, \$22.913 FCC: ERP ≤ 7 W. Appendix A Appendix B \$2.1047 Digital modulation Appendix C \$2.1049 \$2.1049 S2.1051, \$22.917 S2.1051, \$22.917 S2.1051, \$22.917 S2.1051, \$22.917 FCC: ≤ -13 dBm/100 kHz, from 9 kHz to 10^{th} harmonics but outside authorized operating frequency ranges. \$2.1053, \$22.917 \$2.1055, \$4.25 npm Appendix A Appendix A Appendix B Appendix C Appendix C Appendix C Appendix F Chapter 6

Version: 01-November-2017 Page: 5 of 53 FCC ID 22/24/27/90_a



1.4 BRS&EBS Band (2500-2570 MHz paired with 2620-2655 MHz)

Test Item	FCC Rule No.	Requirements	Test Result	Verdict (Note1)
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(h)	EIRP ≤ 2W	Appendix A	Pass
Peak-to-Average Ratio			Appendix B	Pass
Modulation Characteristics	§2.1047	Digital modulation	Appendix C	Pass
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.	Appendix D	Pass
Band Edges Compliance	§2.1051, §27.53(m4)	FCC/IC: 2% 'EBW Channel 2% 'EBW -10 dBm -13 d	Appendix E	Pass
Spurious Emission at Antenna Terminals	§2.1051, §27.53(m)	Channel Edge -25dBm/ 1 MHz 1 MHz 1 MHz 9 kHz 95 MHz XMHz 10 th harmonics X=Max{6MHz, EBW}	Appendix F	Pass
Field Strength of Spurious Radiation	§2.1053, §27.53(m)	Channel Edge -25dBm/ 1 MHz 1 MHz 1 MHz 9 kHz 95 MHz × MHz 10th harmonics X=Max {6MHz, EBW}	Chapter 6	Pass
Frequency Stability	§2.1055, §27.54	Within authorized bands of operation/frequency block.	Appendix G	Pass
Field Strength of Spurious Radiation Frequency Stability	\$2.1053, \$27.53(m) \$2.1055, \$27.54	9 kHz 95 MHz XMHz 10th harmonics X=Max {6MHz, EBW} Channel Edge -25dBm/ 1 MHz 1 MHz 1 MHz 1 MHz 9 kHz 95 MHz XMHz 10th harmonics X=Max {6MHz, EBW} Within authorized bands of	Chapter 6 Appendix G	Pass

Version: 01-November-2017 Page: 6 of 53 FCC ID 22/24/27/90_a



1.5 Band 12 (699-716MHz paired with 729-746 MHz)

Test Item	FCC Rule No	Requirements	Test Result	Verdict (Note1)
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(c)	FCC: ERP ≤ 3 W.	Appendix A	Pass
Peak-to-Average Ratio		1	Appendix B	Pass
Modulation Characteristics	§2.1047	Digital modulation	Appendix C	Pass
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.	Appendix D	Pass
Band Edges Compliance	§2.1051	≤ -13 dBm/1%*EBW, in 1 MHz bands immediately outside and adjacent to the frequency block.	Appendix E	Pass
Spurious Emission at Antenna Terminals	§2.1051, §27.53(g)	FCC: ≤ -13 dBm/100 kHz, from 9 kHz to 10th harmonics but outside authorized operating frequency ranges.	Appendix F	Pass
Field Strength of Spurious Radiation	§2.1053, §27.53(g)	FCC: ≤ -13 dBm/100 kHz.	Chapter 6	Pass
Frequency Stability	§2.1055, §27.54	≤ ±2.5ppm.	Appendix G	Pass
Note1: For the verdict, the "N/A" denotes "not applicable", the "N/T" denotes "not tested".				

1.6 Band 17 (704-716MHz paired with 734-746 MHz)

Test Item	FCC Rule No.	Requirements	Test Result	Verdict (Note1)
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(c)	FCC: ERP ≤ 3 W.	Appendix A	Pass
Peak-to-Average Ratio			Appendix B	Pass
Modulation Characteristics	§2.1047	Digital modulation	Appendix C	Pass
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.	Appendix D	Pass
Band Edges Compliance	§2.1051, §27.53(g)	≤ -13 dBm/1%*EBW, in 1 MHz bands immediately outside and adjacent to the frequency block.	Appendix E	Pass
Spurious Emission at Antenna Terminals	§2.1051, §27.53(g)	FCC: ≤ -13 dBm/100 kHz, from 9 kHz to 10th harmonics but outside authorized operating frequency ranges.	Appendix F	Pass
Field Strength of Spurious Radiation	§2.1053, §27.53(g)	FCC: ≤ -13 dBm/100 kHz.	Chapter 6	Pass
Frequency Stability	§2.1055, §27.54	≤ ±2.5ppm.	Appendix G	Pass
Note1: For the verdict, the "N	'A" denotes "not a	applicable", the "N/T" denotes "not tested"	<i>'</i> .	

Version: 01-November-2017 Page: 7 of 53 FCC ID 22/24/27/90_a



1.7 Band 41 (2496-2690 MHz paired with 2496-2690 MHz)

Test Item	FCC Rule No.	Requirements	Test Result	Verdict (Note1)
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(h)	EIRP ≤ 2W	Appendix A	Pass
Peak-to-Average Ratio			Appendix B	Pass
Modulation Characteristics	§2.1047	Digital modulation	Appendix C	Pass
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.	Appendix D	Pass
Band Edges Compliance	§2.1051, §27.53(m4)	FCC/IC: 2%*EBW Channel 2%*EBW -10 dBm -13 dBm 1m -13 dBm 1m 1m 1m 5.5MHz 4M JM	Appendix E	Pass
Spurious Emission at Antenna Terminals	§2.1051, §27.53(m)	Channel Edge -25 dBm/ 1 MHz 1 MHz 1 MHz 9 kHz 95 MHz X MHz 10 th harmonics X=Max {6MHz, EBW}	Appendix F	Pass
Field Strength of Spurious Radiation	§2.1053, §27.53(m)	Channel Edge -25dBm/ 1 MHz 1 MHz 1 MHz 9 kHz 95 MHz XMHz 10th harmonics X=Max{6MHz, EBW}	Chapter 6	Pass
Frequency Stability	§2.1055, §27.54	Within authorized bands of operation/frequency block.	Appendix G	Pass
Note1: For the verdict, the "N/A" denotes "not applicable", the "N/T" denotes "not tested".				

Version: 01-November-2017 Page: 8 of 53 FCC ID 22/24/27/90_a



1.8 Band 66 (1710-1780MHz paired with 2110-2180MHz)

Test Item	FCC Rule No.	Requirements	Test Result	Verdict (Note1)	
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(d)	EIRP≤1W	Appendix A	Pass	
Peak-to-Average Ratio	§2.1046, §27.50(d)	Limit≤13 dB	Appendix B	Pass	
Modulation Characteristics	§2.1047	Digital modulation	Appendix C	Pass	
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.	Appendix D	Pass	
Band Edges Compliance	§2.1051, §27.53(h)	≤-13 dBm/1%*EBW, in 1 MHz bands immediately outside and adjacent to the frequency block.	Appendix E	Pass	
Spurious Emission at Antenna Terminals	§2.1051, §27.53(h)	≤-13 dBm/1 MHz, from 9 kHz to 10 th harmonics but outside authorized operating frequency ranges.	Appendix F	Pass	
Field Strength of Spurious Radiation	§2.1053, §27.53(h)	≤ -13 dBm/1 MHz.	Chapter 6	Pass	
Frequency Stability	§2.1055, §27.54	≤ ±2.5 ppm.	Appendix G	Pass	
Note1: For the verdict, the "N/A" denotes "not applicable", the "N/T" denotes "not tested".					

Intertek Report No.: 250219088SZN-005

Version: 01-November-2017 Page: 9 of 53 FCC ID 22/24/27/90_a



2. General Description

2.1 Product Description

BV6200 Plus is subscriber equipment in the GSM/UMTS/LTE system. The GSM frequency band includes GSM850 and PCS1900. The UMTS frequency band is Band 2/4/5. The LTE frequency band is Band2/4/5/7/12/17/41/66. The device implements such functions as RF signal receiving/transmitting, LTE/UMTS and GSM/GPRS/EDGE protocol processing. Externally it provides USIM card interface. The EUT is powered by DC 3.85V from battery. For more detailed features description, please refer to the user's manual.

Intertek Report No.: 250219088SZN-005

2.2 Test Facility

Company Name:	Intertek Testing Service Shenzhen Ltd. Longhua Branch
Address:	101, 201, Building B, No. 308 Wuhe Avenue, Zhangkengjing
	Community, GuanHu Subdistrict, LongHua District, ShenZhen, P.R.
	China.
FCC Registration Number:	CN1188

2.3 Test Environment Condition

Ambient Temperature:	19.5 to 25 °C
Ambient Relative Humidity:	40 to 55 %
Atmospheric Pressure:	Not applicable

2.4 Sub-Assembly

Description	Manufacturer	Model No.
Adaptor (Provided by applicant)	N/A	Model: QZ-0180AAA00 Input: 100-240V~, 50/60Hz, 0.5A Output: 5.0V=3.0A, 9.0V=2.0A, 12.0V=1.5A
USB Cable (Provided by applicant)	N/A	Shielded, Length: 100cm

Version: 01-November-2017 Page: 10 of 53 FCC ID 22/24/27/90_a



2.5 Technical Specification

Characteristics	Description				
Radio System Type	GSM/UMTS/LTE				
		Transmission (TX):	824 to 849 MHz		
	GSM850/ WCDMA850	Receiving (RX):	869 to 894 MHz		
		Transmission (TX):	1850 to 1910 MHz		
	GSM1900/ WCDMA1900	Receiving (RX):	1930 to 1990 MHz		
		Transmission (TX):	1710 to 1755 MHz		
	WCDMA1700	Receiving (RX):	2110 to 2155 MHz		
		Transmission (TX):	1850 to 1910 MHz		
	LTE BAND2	Receiving (RX):	1930 to 1990 MHz		
		Transmission (TX):	1710 to 1755 MHz		
	LTE BAND4	Receiving (RX):	2110 to 2155 MHz		
		Transmission (TX):	824 to 849 MHz		
Supported Frequency Range	LTE BAND5		869 to 894 MHz		
		Receiving (RX):			
	LTE BAND7	Transmission (TX):	2500 to 2570 MHz		
		Receiving (RX):	2620 to 2655 MHz		
	LTE BAND12	Transmission (TX):	699 to 716 MHz		
		Receiving (RX):	729 to 746 MHz		
	LTE BAND17	Transmission (TX):	704 to 716 MHz		
		Receiving (RX):	734 to 746 MHz		
	LTE BAND41	Transmission (TX):	2496 to 2690 MHz		
		Receiving (RX):	2496 to 2690 MHz		
	LTE BAND66	Transmission (TX):	1710 to 1780 MHz		
	ETE BAIVEOU	Receiving (RX):	2110 to 2180 MHz		
	TX & RX port:	1			
TX and RX Antenna Ports	TX-only port:	0			
	RX-only port:	1			
	GSM850: 32.5dBm				
	GSM1900: 29.5dBm				
	UMTS850: 24dBm				
	UMTS1700: 23dBm				
	UMTS1900: 23dBm				
	LTE BAND2: 23dBm				
Target TX Output Power	LTE BAND4: 23dBm				
	LTE BAND5: 24dBm				
	LTE BAND7: 22dBm				
	LTE BAND12: 24.5dBm				
	LTE BAND17: 24.5dBm				
	LTE BAND41: 22.5dBm				
	LTE BAND66: 23dBm				
	GSM850: -4.23dBi				
	PCS1900: 1.24dBi				
	UMTS850: -3.88dBi				
	UMTS1700: 1.28dBi				
	UMTS1900: 1.45dBi				
	LTE BAND2: 1.47dBi				
Antenna Gain:	LTE BAND4: 1.19dBi				
	LTE BAND5: -3.73dBi				
	LTE BAND7: 1.45dBi				
	LTE BAND12: -5.47dBi				
	LTE BAND17: -5.86dBi				
	LTE BAND41: 1.58dBi				
	LTE BAND66: 1.28dBi				
	GSM system:	200 kHz			
Supported Channel Bandwidth					
Supported Channel Bandwidth	UMTS system:	5 MHz	<u> </u>		

Intertek Report No.: 250219088SZN-005

Version: 01-November-2017 Page: 11 of 53 FCC ID 22/24/27/90_a



Characteristics	Description	
	LTE band 4	1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz
	LTE band 5	1.4 MHz, 3 MHz, 5 MHz, 10 MHz
	LTE band 7	5MHz, 10MHz, 15MHz, 20MHz
	LTE band 12	1.4 MHz, 3 MHz, 5 MHz, 10 MHz
	LTE band 17	5 MHz, 10 MHz
	LTE band 41	5MHz, 10MHz, 15MHz, 20MHz
	LTE band 66	1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz
	GSM850:	246KGXW, 242KG7W
	GSM1900:	246KGXW, 243KG7W
	UMTS850:	4M22F9W
	UMTS1700:	4M20F9W
	UMTS1900:	4M21F9W
		1M09G7D (1.4 MHz QPSK modulation),
		1M09W7D (1.4 MHz 16QAM modulation)
		2M71G7D (3 MHz QPSK modulation),
		2M70W7D (3 MHz 16QAM modulation)
		4M50G7D (5 MHz QPSK modulation),
	LTE BAND2:	4M51W7D (5 MHz 16QAM modulation)
		8M99G7D (10 MHz QPSK modulation),
		8M99W7D (10 MHz 16QAM modulation)
		13M5G7D (15 MHz QPSK modulation),
		13M5W7D (15 MHz 16QAM modulation)
		18M0G7D (20 MHz QPSK modulation),
		18M0W7D (20 MHz 16QAM modulation)
		1M09G7D (1.4 MHz 160AM modulation),
		1M09W7D (1.4 MHz 16QAM modulation) 2M71G7D (3 MHz QPSK modulation),
		2M70W7D (3 MHz 16QAM modulation)
Designation of Emissions		4M50G7D (5 MHz QPSK modulation),
		4M51W7D (5 MHz 16QAM modulation)
(Note: the necessary	LTE BAND4:	8M99G7D (10 MHz QPSK modulation),
bandwidth of which is the		8M99W7D (10 MHz 16QAM modulation)
worst value from the		13M5G7D (15 MHz QPSK modulation),
measured occupied		13M5W7D (15 MHz 16QAM modulation)
bandwidths for each type of		18M0G7D (20 MHz QPSK modulation),
channel bandwidth		18M1W7D (20 MHz 16QAM modulation)
configuration.)		1M09G7D (1.4 MHz QPSK modulation),
		1M09W7D (1.4 MHz 16QAM modulation)
		2M70G7D (3 MHz QPSK modulation),
	LTE BAND5:	2M70W7D (3 MHz 16QAM modulation)
	LIE BAINDS.	4M50G7D (5 MHz QPSK modulation),
		4M50W7D (5 MHz 16QAM modulation)
		9M02G7D (10 MHz QPSK modulation),
		8M99W7D (10 MHz 16QAM modulation)
		4M51G7D (5 MHz QPSK modulation),
		4M51W7D (5 MHz 16QAM modulation)
		9M02G7D (10 MHz QPSK modulation),
	LTE BAND7:	8M99W7D (10 MHz 16QAM modulation)
		13M5G7D (15 MHz QPSK modulation),
		13M5W7D (15 MHz 16QAM modulation)
		18M0G7D (20 MHz QPSK modulation),
		18M0W7D (20 MHz 16QAM modulation)
		1M09G7D (1.4 MHz QPSK modulation),
	LTE DANIE 12	1M09W7D (1.4 MHz 16QAM modulation)
	LTE BAND12:	2M71G7D (3 MHz QPSK modulation),
		2M70W7D (3 MHz 16QAM modulation)
		4M50G7D (5 MHz QPSK modulation),

Version: 01-November-2017 Page: 12 of 53 FCC ID 22/24/27/90_a



Characteristics	Description	
		4M51W7D (5 MHz 16QAM modulation)
		8M99G7D (10 MHz QPSK modulation),
		8M99W7D (10 MHz 16QAM modulation)
		4M51G7D (5 MHz QPSK modulation),
	LTE BAND17:	4M50W7D (5 MHz 16QAM modulation)
	LIE BAND17:	8M95G7D (10 MHz QPSK modulation),
		8M95W7D (10 MHz 16QAM modulation)
		4M50G7D (5 MHz QPSK modulation),
		4M50W7D (5 MHz 16QAM modulation)
		8M99G7D (10 MHz QPSK modulation),
	LTE DANID 41.	8M99W7D (10 MHz 16QAM modulation)
	LTE BAND41:	13M5G7D (15 MHz QPSK modulation),
		13M5W7D (15 MHz 16QAM modulation)
		18M0G7D (20 MHz QPSK modulation),
		18M0W7D (20 MHz 16QAM modulation)
		1M09G7D (1.4 MHz QPSK modulation),
		1M09W7D (1.4 MHz 16QAM modulation)
		2M71G7D (3 MHz QPSK modulation),
		2M70W7D (3 MHz 16QAM modulation)
		4M50G7D (5 MHz QPSK modulation),
	LTE BAND66:	4M51W7D (5 MHz 16QAM modulation)
	LIE BANDOO.	8M99G7D (10 MHz QPSK modulation),
		8M99W7D (10 MHz 16QAM modulation)
		13M5G7D (15 MHz QPSK modulation),
		13M5W7D (15 MHz 16QAM modulation)
		18M0G7D (20 MHz QPSK modulation),
		18M1W7D (20 MHz 16QAM modulation)

Version: 01-November-2017 Page: 13 of 53 FCC ID 22/24/27/90_a



3. General Test Conditions/Configuration

3.1 Test Modes

Test Mode	Test Modes Description
GSM/TM1	GSM system, GPRS, GMSK modulation
GSM/TM2	GSM system, EDGE, 8PSK modulation
UMTS/TM1	WCDMA system, QPSK modulation
UMTS/TM2	HSDPA system, QPSK modulation
UMTS/TM3	HSUPA system, QPSK modulation
LTE/TM1	LTE system, QPSK modulation
LTE/TM2	LTE system, 16QAM modulation

Intertek Report No.: 250219088SZN-005

3.2 Test Environment

Environment Parameter	Selected Values During Tests	
Relative Humidity	Ambient	
Temperature	TN	Ambient
Voltage	VL	3.6V
-	VN	3.85V
	VH	4.4V

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

3.3 Test Frequency

Test Mode	TX / RX	RF Channel		
rest ivioue	IA/KA	Low (L)	Middle (M)	High (H)
GSM850	TX	Channel 128	Channel 190	Channel 251
GSIVIOSU	1^	824.2MHz	836.6MHz	848.8MHz
GSM1900	TX	Channel 512	Channel 661	Channel 810
G2IVI1900	1	1850.2MHz	1880.0MHz	1909.8MHz

Test Mode	Mode TX / RX RF Channel			
rest ivioue	IA / KA	Low (L)	Middle (M)	High (H)
WCDMA850	TX	Channel 4132	Channel 4182	Channel 4233
WCDIVIA650	1.7	826.4MHz	836.4MHz	846.6MHz
WCDMA1900	TX	Channel 9262	Channel 9400	Channel 9538
WCDIVIAT900	1.7	1852.4MHz	1880.0MHz	1907.6MHz
	TV	Channel1312	Channel1413	Channel1513
WCDMA1700	TX	1712.4MHz	1732.6MHz	1752.6MHz

Version: 01-November-2017 Page: 14 of 53 FCC ID 22/24/27/90_a



		RF Channel			
Test Mode	TX / RX	Low (B)	Middle (M)	High (T)	
	->//4 42.4\	Channel 18607	Channel 18900	Channel 19193	
	TX(1.4M)	1850.7 MHz	1880 MHz	1909.3 MHz	
		Channel 18615	Channel 18900	Channel 19185	
	TX(3M)	1851.5 MHz	1880 MHz	1908.5 MHz	
		Channel 18625	Channel 18900	Channel 19175	
	TX(5M)	1852.5 MHz	1880 MHz	1907.5 MHz	
LTE Band 2		Channel 18650	Channel 18900	Channel 19150	
	TX(10M)	1855 MHz	1880 MHz	1905 MHz	
		Channel 18675	Channel 18900	Channel 19125	
	TX(15M)	1857.5 MHz	1880 MHz	1902.5 MHz	
		Channel 18700	Channel 18900	Channel 19100	
	TX(20M)	1860 MHz	1880 MHz	1900 MHz	
		Channel 19957	Channel 20175	Channel 20393	
	TX(1.4M)	1710.7 MHz	1732.5 MHz	1754.3 MHz	
		Channel 19965	Channel 20175	Channel 20385	
	TX(3M)	1711.5 MHz	1732.5 MHz	1753.5 MHz	
		Channel 19975	Channel 20175	Channel 20375	
	TX(5M)	1712.5 MHz	1732.5 MHz	1752.5 MHz	
LTE Band 4		Channel 20000	Channel 20175	Channel 20350	
	TX(10M)	1715 MHz	1732.5 MHz	1750 MHz	
		Channel 20025	Channel 20175	Channel 20325	
	TX(15M)	1717.5 MHz	1732.5 MHz	1747.5 MHz	
		Channel 20050	Channel 20175	Channel 20300	
	TX(20M)	1720 MHz	1732.5 MHz	1745 MHz	
		Channel 20407	Channel 20525	Channel 20643	
	TX(1.4M)	824.7 MHz	836.5 MHz	848.3 MHz	
		Channel 20415	Channel 20525	Channel 20635	
	TX(3M)	825.5 MHz	836.5 MHz	847.5 MHz	
LTE Band 5		Channel 20425	Channel 20525	Channel 20625	
	TX(5M)	826.5 MHz	836.5 MHz	846.5 MHz	
		Channel 20450	Channel 20525	Channel 20600	
	TX(10M)				
		829 MHz	836.5 MHz	844 MHz	
	TX (5M)	Channel 20775	Channel 21100	Channel 21425	
		2502.5 MHz	2535 MHz	2567.5 MHz	
	TX (10M)	Channel 20800	Channel 21100	Channel 21400	
LTE Band 7		2505 MHz	2535 MHz	2565 MHz	
	TX (15M)	Channel 20825	Channel 21100	Channel 21375	
	, ,	2507.5 MHz	2535 MHz	2562.5 MHz	
	TX (20M)	Channel 20850	Channel 21100	Channel 21350	
	(==:)	2510 MHz	2535 MHz	2560 MHz	
	TX(1.4M)	Channel 23017	Channel 23095	Channel 23173	
LTE Band 12	. ,	699.7 MHz	707.5 MHz	715.3 MHz	
	TX(3M)	Channel 23025	Channel 23095	Channel 23165	
	()	700.5 MHz	707.5 MHz	714.5 MHz	

Version: 01-November-2017 Page: 15 of 53 FCC ID 22/24/27/90_a



Test Report

Intertek Report No.: 250219088SZN-005

	TV/F N 4)	Channel 23035	Channel 23095	Channel 23155
	TX(5M)	701.5 MHz	707.5 MHz	713.5 MHz
	TV/10N4\	Channel 23060	Channel 23095	Channel 23130
	TX(10M)	704 MHz	707.5 MHz	711 MHz
	TV (ENA)	Channel 23755	Channel 23790	Channel 23825
LTE Band 17	TX (5M)	706.5 MHz	710 MHz	713.5 MHz
LIE Ballu 17	TV (10N4)	Channel 23780	Channel 23790	Channel 23800
	TX (10M)	709 MHz	710 MHz	711 MHz
	TX/RX (5M)	Channel 39675	Channel 40620	Channel 41565
	IN/KX (SIVI)	2498.5 MHz	2593 MHz	2687.5 MHz
	TX/RX (10M)	Channel 39700	Channel 40620	Channel 41540
LTE Band 41	IA/KA (IUIVI)	2501 MHz	2593 MHz	2685 MHz
LIE Ballu 41	TX/RX (15M)	Channel 39725	Channel 40620	Channel 41515
	IV/KV (TOIVI)	2503.5 MHz	2593 MHz	2682.5 MHz
	TX/RX (20M)	Channel 39750	Channel 40620	Channel 41490
	IA/KA (ZUIVI)	2506 MHz	2593 MHz	2680 MHz
	TX(1.4M)	Channel 131979	Channel 132322	Channel 132665
	17(1.4101)	1710.7 MHz	1745.0 MHz	1779.3 MHz
	TX(3M)	Channel 131987	Channel 132322	Channel 132657
	17(21/1)	1711.5 MHz	1745.0 MHz	1778.5 MHz
	TX(5M)	Channel 131997	Channel 132322	Channel 132647
LTE Band 66	TA(SIVI)	1712.5 MHz	1745.0 MHz	1777.5 MHz
LIE Ballu 00	TX(10M)	Channel 132022	Channel 132322	Channel 132622
	IX(IUIVI)	1715 MHz	1745.0 MHz	1775.0 MHz
	TX(15M)	Channel 132047	Channel 132322	Channel 132597
	IV(TOINI)	1717.5 MHz	1745.0 MHz	1772.5 MHz
	TX(20M)	Channel 132072	Channel 132322	Channel 132572
	I A(ZUIVI)	1720 MHz	1745.0 MHz	1770.0 MHz

Version: 01-November-2017 Page: 16 of 53 FCC ID 22/24/27/90_a



4. DESCRIPTION OF TESTS

4.1 Radiated Power and Radiated Spurious Emissions

Radiated spurious emissions are investigated indoors in a semi-anechoic chamber to determine the frequencies producing the worst case emissions. Final measurements for radiated power and radiated spurious emissions are performed on the 3 meter OATS per the guidelines of ANSI C63.26-2015. The equipment under test was transmitting while connected to its integral antenna and is placed on a wooden turntable 80cm above the ground plane and 3 meters from the receive antenna. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. The receive antenna height is adjusted between 1 and 4 meter height, the turntable is rotated through 360 degrees, and the EUT is manipulated through all orthogonal planes representative of its typical use to achieve the highest reading on the receive spectrum analyzer. Emissions are also investigated with the receive antenna horizontally and vertically polarized.

Intertek Report No.: 250219088SZN-005

A portable or small unlicensed wireless device shall be placed on a non-metallic test fixture or other non-metallic support during testing. The supporting fixture shall permit orientation of the EUT in each of three orthogonal (x, y, z) axis positions such that emissions from the EUT are maximized. Measure the EUT maximum RF power and record the result.

A half-wave dipole is then substituted in place of the EUT. For emissions above 3GHz, a horn antenna is substituted in place of the EUT. The substitute antenna is driven by a signal generator with the level of the signal generator being adjusted to obtain the same receive spectrum analyzer level previously recorded from the spurious emission from the EUT.

The power of the emission is calculated using the following formula:

 $P_{d [dBm]} = P_{g [dBm]} - cable loss [dB] + antenna gain [dBd/dBi]$

Where, Pd is the dipole equivalent power, Pg is the generator output into the substitution antenna, and the antenna gain is the gain of the substitute antenna used relative to either a half-wave dipole (dBd) or an isotropic source (dBi). The substitute level is equal to Pg [dBm] – cable loss [dB]. The calculated Pd levels are then compared to the absolute spurious emission limit of -13dBm which is equivalent to the required minimum attenuation of $43 + 10\log_{10}(Power_{[Watts]})$.

Test Procedures Used

971168 D01 v03r01 -Section 5.2 / 971168 D01 v03r01 -Section 5.8

ANSI C63.26 §5.2 / ANSI C63.26 §5.5/ ANSI C63.26 §6.4

Note: Reference test setup 3

Version: 01-November-2017 Page: 17 of 53 FCC ID 22/24/27/90_a



4.2 Peak-to-Average Ratio

A peak to average ratio measurement is performed at the conducted port of the EUT. For WCDMA signals, the spectrum analyzers Complementary Cumulative Distribution Function (CCDF) measurement profile is used to determine the largest deviation between the average and the peak power of the EUT in a given bandwidth. The CCDF curve shows how much time the peak waveform spends at or above a given average power level. The percent of time the signal spends at or above the level defines the probability for that particular power level. The traces are generated with the spectrum analyzer set to zero span mode.

Intertek Report No.: 250219088SZN-005

Test Procedures Used

971168 D01 v03r01 -Section 5.7 ANSI C63.26 §5.2

Test Settings

- 1. The signal analyzer's CCDF measurement profile enabled
- 2. Frequency = carrier center frequency
- 3. Measurement BW > EBW of signal
- 4. for continuous transmissions, set to 1ms
- 5. Record the maximum PAPR level associated with a probability of 0.1%. Note: Reference test setup 1

Version: 01-November-2017 Page: 18 of 53 FCC ID 22/24/27/90_a



4.3 Occupied Bandwidth

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured. The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts. The resolution bandwidth shall be set to as close to 1 percent of the selected span as is possible without being below 1 percent. The video bandwidth shall be set to 3 times the resolution bandwidth. Video averaging is not permitted. Where practical, a sampling detector shall be used since a peak or, peak hold, may produce a wider bandwidth than actual. The trace data points are recovered and are directly summed in linear terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 percent of the total is reached and that frequency recorded. The process is repeated for the highest frequency data points. This frequency is recorded. The span between the two recorded frequencies is the occupied bandwidth.

Intertek Report No.: 250219088SZN-005

Test Procedures Used

971168 D01 v03r01 -Section 4.3 ANSI C63.26 §5.4

Test Settings

- 1. SET RBW=1-5% of OBW
- 2. SET VBW ≥ 3*RBW
- 3. Detector: Peak
- 4. Trace mode= max hold.
- 5. Sweep= auto couple
- 6. Steps 1-5 were repeated after it is stable

Note: Reference test setup 1.

4.4 Band Edge Compliance

the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission power must be attenuated below the transmitting power (P) by a factor of at least $43+10\log_{10}P$ dB.

Test Procedures Used

971168 D01 v03r01 -Section 6 ANSI C63.26 §5.7/ ANSI C63.26 §6.4

Test Settings

- 1. SET RBW ≥ 1% of Emission BW.
- 2. SET VBW about three times of RBW
- 3. Detector: RMS
- Trace mode= max hold.
- 5. Span= 2MHz

Note: Reference test setup 1.

Version: 01-November-2017 Page: 19 of 53 FCC ID 22/24/27/90_a



4.5 Spurious and Harmonic Emissions at Antenna Terminal

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. On any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power (P) by at least

Intertek Report No.: 250219088SZN-005

43 + 10 log(P) dB. Compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. 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 emission is attenuated at least 26 dB below the transmitter power.

Test Procedures Used

KDB 971168 v03r01-Section 6.0

Test Settings

- 9kHz~150kHz, RBW = 1KHz, VBW ≥ 3×RBW, 150kHz~30MHz, RBW = 10KHz, VBW ≥ 3×RBW, 30MHz~1GHz, RBW = 100 kHz, VBW = 300 kHz. Above 1GHz, RBW = 1 MHz, VBW = 3 MHz.
- 2. Detector: Peak
- 3. Trace mode= max hold.

Note: Reference test setup 1.

Version: 01-November-2017 Page: 20 of 53 FCC ID 22/24/27/90_a



4.6 Frequency Stability / Temperature Variation

Frequency stability testing is performed in accordance with the guidelines of ANSI C63.26-2015. The frequency stability of the transmitter is measured by:

Intertek Report No.: 250219088SZN-005

- a.) **Temperature**: The temperature is varied from -30°C to +60°C in 10°C increments using an environmental chamber.
- b.) **Primary Supply Voltage**: The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

Specification – The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ (± 2.5 ppm) of the center frequency.

Time Period and Procedure:

- 1. The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference).
- 2. The equipment is turned on in a "standby" condition for fifteen minutes before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.
- 3. Frequency measurements are made at 10°C intervals ranging from -30°C to +60°C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

Test Procedures Used

971168 D01 v03r01 -Section 9 ANSI C63.26 §5.6

Note: Reference test setup 2.

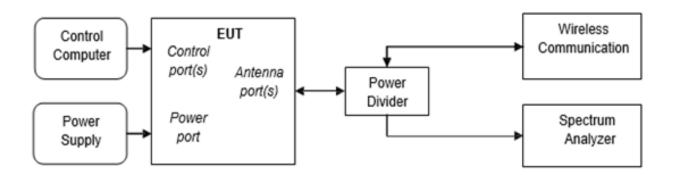
There is no transmission when the EUT operates at the test temperature condition: -30°C.

Version: 01-November-2017 Page: 21 of 53 FCC ID 22/24/27/90_a

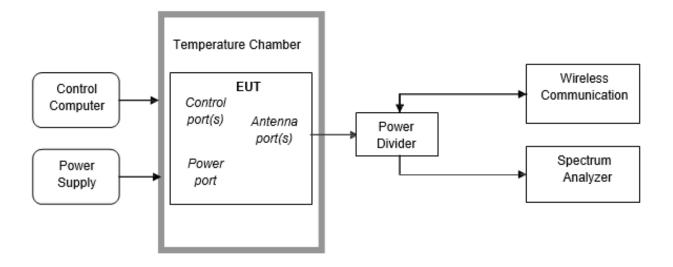


5. Test Setups

5.1 Test Setup 1



5.2 Test Setup 2



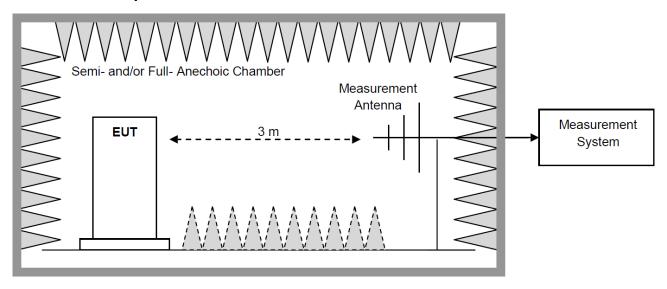
Version: 01-November-2017 Page: 22 of 53 FCC ID 22/24/27/90_a



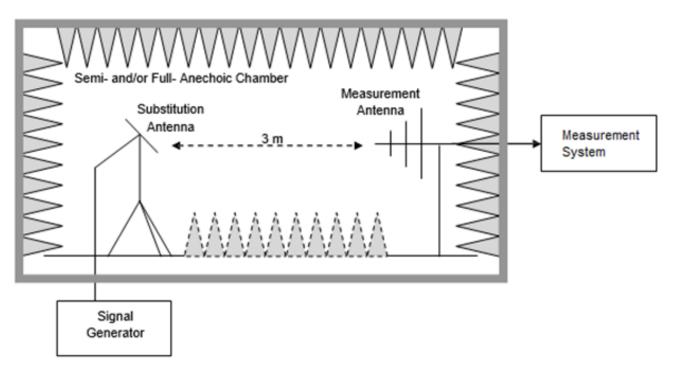
5.3 Test Setup 3

NOTE: Effective radiated power (ERP) and Equivalent Isotropic Radiated Power (EIRP) refers to the radiation power output of the EUT, assuming all emissions are radiated from half-wave dipole antennas.

5.3.1 Step 1: Pre-test



5.3.2 Step 2: Substitution method to verify the maximum ERP/EIRP



Version: 01-November-2017 Page: 23 of 53 FCC ID 22/24/27/90_a



5.4 Test Conditions

Test Case		Test Conditio	ns	
Transmit	Average	Test Env.	Ambient Climate & Rated Voltage	
Output	Power, Total	Test Setup	Test Setup 1	
Power		RF Channels	L, M, H	
Data		(TX)	(L= low channel, M= middle channel, H= high channel)	
		Test Mode	GSM/TM1, GSM/TM2, UMTS/TM1, LTE/TM1, LTE/TM2	
	Average	Test Env.	Ambient Climate & Rated Voltage	
	Power,	Test Setup	Test Setup 1	
	Spectral	RF Channels	L, M, H	
	Density (if	(TX)	(L= low channel, M= middle channel, H= high channel)	
	required)	Test Mode	GSM/TM1,GSM/TM2,UMTS/TM1,LTE/TM1,LTE/TM2	
Peak-to-Ave	erage Ratio	Test Env.	Ambient Climate & Rated Voltage	
(if required)	_	Test Setup	Test Setup 1	
		RF Channels	L, M, H	
		(TX)	(L= low channel, M= middle channel, H= high channel)	
		Test Mode	GSM/TM1, GSM/TM2, UMTS/TM1, LTE/TM1, LTE/TM2	
Modulation		Test Env.	Ambient Climate & Rated Voltage	
Characterist	Characteristics		Test Setup 1	
			L, M, H	
		(TX)	(L= low channel, M= middle channel, H= high channel)	
		Test Mode	GSM/TM1, GSM/TM2, UMTS/TM1, LTE/TM1, LTE/TM2	
Bandwidth	Occupied	Test Env.	Ambient Climate & Rated Voltage	
	Bandwidth	Test Setup	Test Setup 1	
		RF Channels	L, M, H	
		(TX)	(L= low channel, M= middle channel, H= high channel)	
		Test Mode	GSM/TM1, GSM/TM2, UMTS/TM1, LTE/TM1, LTE/TM2	
	Emission	Test Env.	Ambient Climate & Rated Voltage	
	Bandwidth	Test Setup	Test Setup 1	
	(if required)	RF Channels	L, M, H	
		(TX)	(L= low channel, M= middle channel, H= high channel)	
		Test Mode	GSM/TM1, GSM/TM2, UMTS/TM1, LTE/TM1, LTE/TM2	
Band Edges	Compliance	Test Env.	Ambient Climate & Rated Voltage	
		Test Setup	Test Setup 1	
		RF Channels	L, H	
			(L= low channel, M= middle channel, H= high channel)	
		Test Mode	GSM/TM1, GSM/TM2, UMTS/TM1, LTE/TM1, LTE/TM2	
Spurious Em	nission at	Test Env.	Ambient Climate & Rated Voltage	
Antenna Tei	rminals	Test Setup	Test Setup 1	
		RF Channels	L, M, H	
		(TX)	(L= low channel, M= middle channel, H= high channel)	
		Test Mode	GSM/TM1, GSM/TM2, UMTS/TM1, LTE/TM1, LTE/TM2	

Intertek Report No.: 250219088SZN-005

Version: 01-November-2017 Page: 24 of 53 FCC ID 22/24/27/90_a



Test Case	Test Conditions	
Field	Test Env.	Ambient Climate & Rated Voltage
Strength	Test Setup	Test Setup 3
of	Test Mode	GSM/TM1/TM2, UMTS/TM1/TM2/TM3,
Spurious		LTE/TM1/TM2
Radiation		NOTE: If applicable, the EUT conf. that has maximum
		power density (based on the equivalent power level)
1		is selected.
	RF Channels (TX)	L, M, H (L= low channel, M= middle channel, H= high
		channel)
Frequency	Test Env.	(1) -30 °C to +60 °C with step 10 °C at Rated Voltage;
Stability		(2) VL, VN and VH of Rated Voltage at Ambient
1		Climate.
	Test Setup	Test Setup 2
	RF Channels (TX)	L, M, H (L= low channel, M= middle channel, H= high
		channel)
	Test Mode	GSM/TM1, GSM/TM2, UMTS/TM1, LTE/TM1,
		LTE/TM2

Version: 01-November-2017 Page: 25 of 53 FCC ID 22/24/27/90_a



6. Test Results

6.1 Field Strength of Spurious

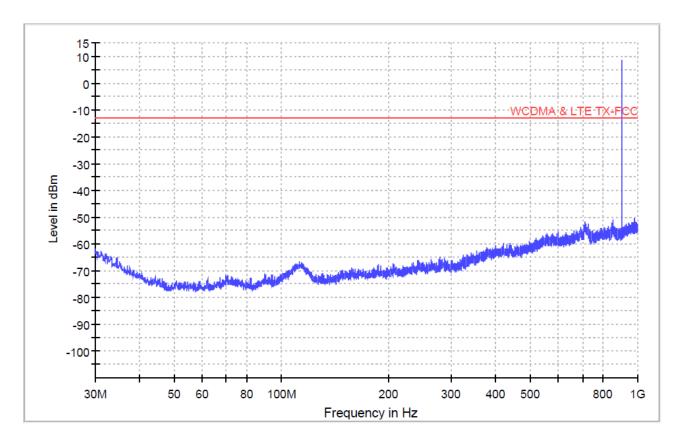
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (GSM/TM1 GSM850)

Worst Case ANT Polarity: Horizontal



Intertek Report No.: 250219088SZN-005

Remark: The emissions were very low against the limit in the frequency range 30 MHz ~ 1 GHz.

Version: 01-November-2017 Page: 26 of 53 FCC ID 22/24/27/90_a



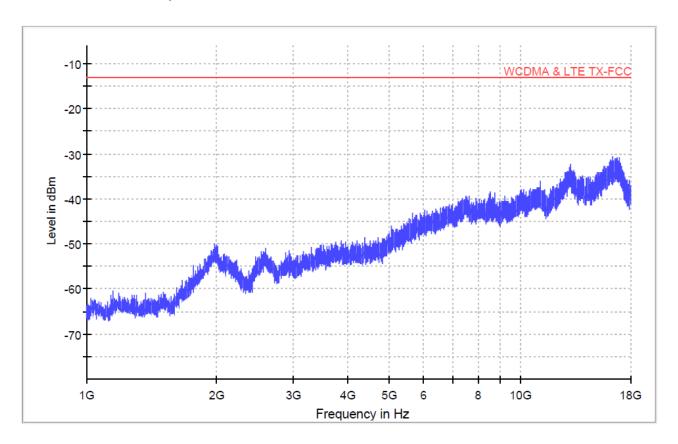
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (GSM/TM1 GSM850)

Worst Case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency above 1 GHz.

Version: 01-November-2017 Page: 27 of 53 FCC ID 22/24/27/90_a



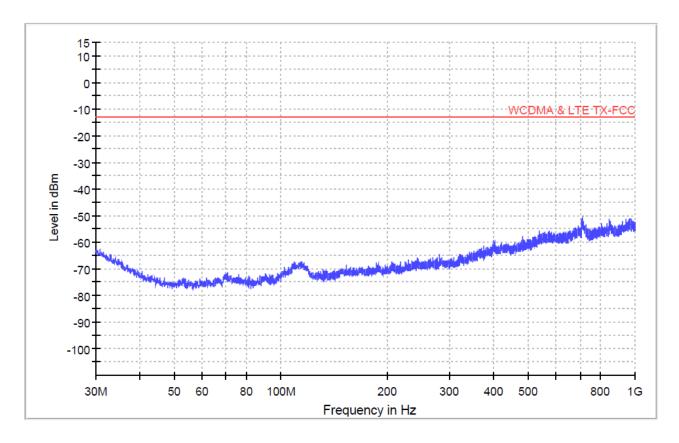
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (GSM/TM1 GSM1900)

Worst Case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency range 30 MHz ~ 1 GHz.

Version: 01-November-2017 Page: 28 of 53 FCC ID 22/24/27/90_a



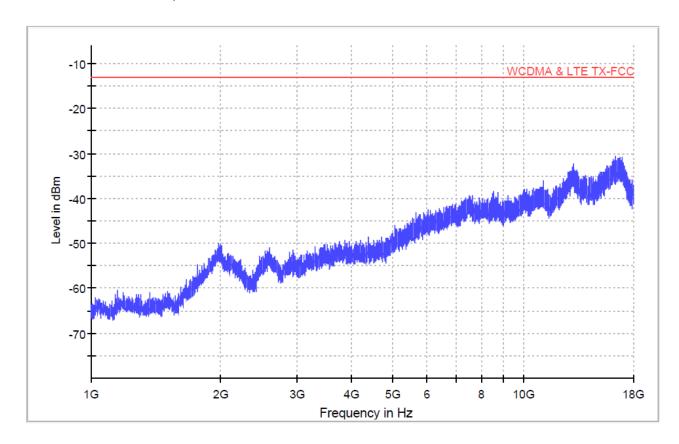
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (GSM/TM1 GSM1900)

Worst Case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency above 1 GHz.

Version: 01-November-2017 Page: 29 of 53 FCC ID 22/24/27/90_a



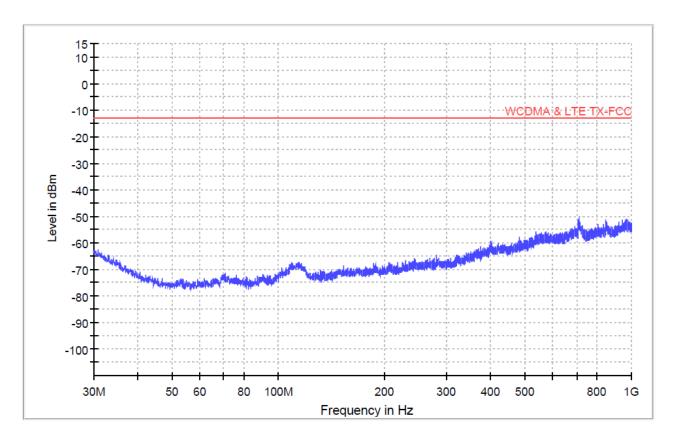
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (UMTS/TM1 WCDMA1900)

Worst Case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency range 30 MHz ~ 1 GHz.

Version: 01-November-2017 Page: 30 of 53 FCC ID 22/24/27/90_a



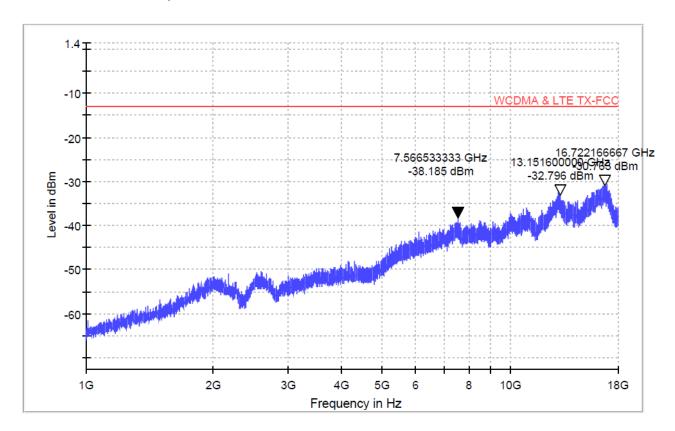
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (UMTS/TM1 WCDMA1900)

Worst Case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency above 1 GHz.

Version: 01-November-2017 Page: 31 of 53 FCC ID 22/24/27/90_a



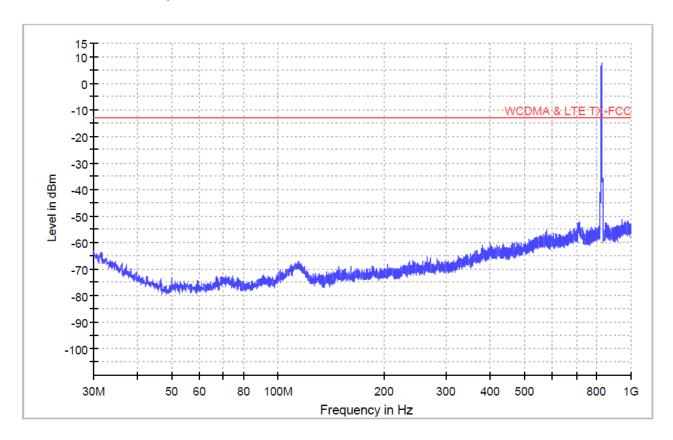
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (UMTS/TM1 WCDMA850)

Worst Case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency range 30 MHz ~ 1 GHz.

Version: 01-November-2017 Page: 32 of 53 FCC ID 22/24/27/90_a



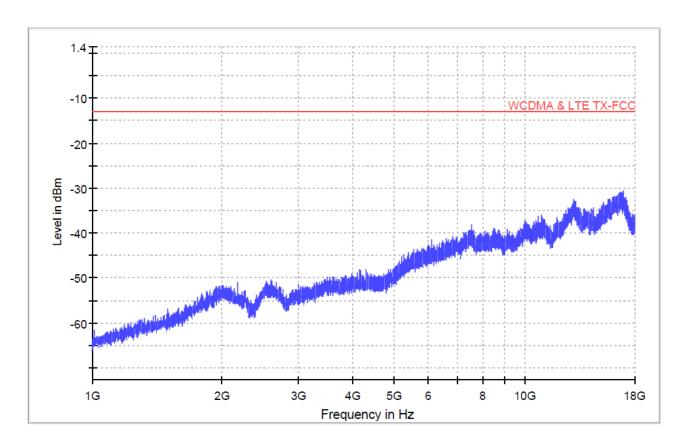
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (UMTS/TM1 WCDMA850)

Worst Case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency above 1 GHz.

Version: 01-November-2017 Page: 33 of 53 FCC ID 22/24/27/90_a



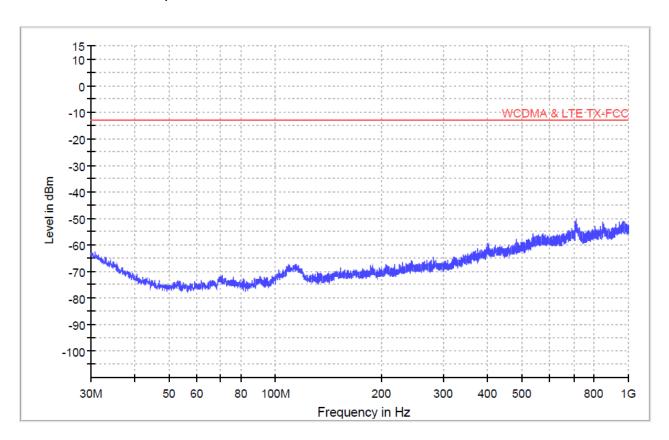
Test ReportApplicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (UMTS/TM1 WCDMA1700)

Worst Case ANT Polarity: Horizontal



Intertek Report No.: 250219088SZN-005

Remark: The emissions were very low against the limit in the frequency range 30 MHz $^{\sim}$ 1 GHz.

Version: 01-November-2017 Page: 34 of 53 FCC ID 22/24/27/90_a



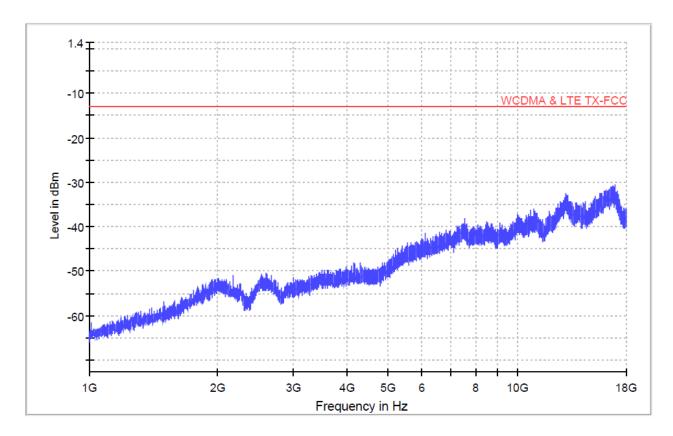
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (UMTS/TM1 WCDMA1700)

Worst Case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency above 1 GHz.

Version: 01-November-2017 Page: 35 of 53 FCC ID 22/24/27/90_a



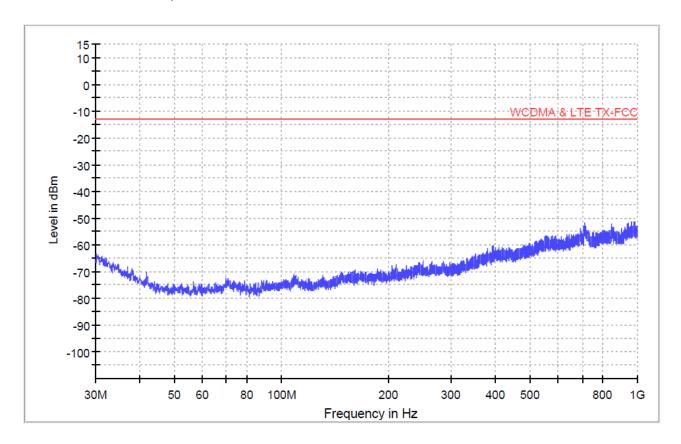
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (LTE/TM1 Band 2, 20MHz)

Worst Case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency range 30 MHz $^{\sim}$ 1 GHz.

Version: 01-November-2017 Page: 36 of 53 FCC ID 22/24/27/90_a



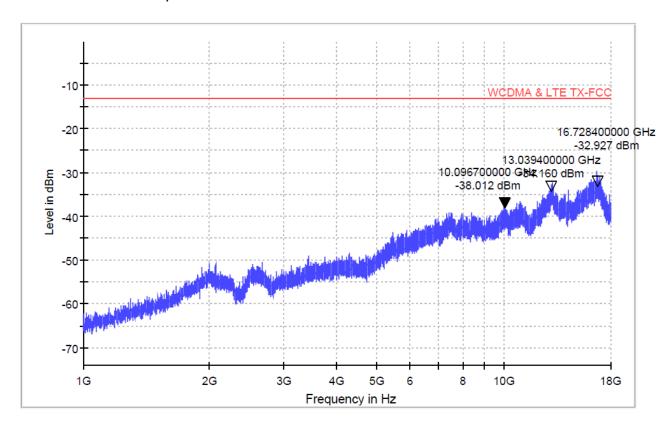
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (LTE/TM1 Band 2, 20MHz)

Worst Case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency above 1 GHz.

Version: 01-November-2017 Page: 37 of 53 FCC ID 22/24/27/90_a



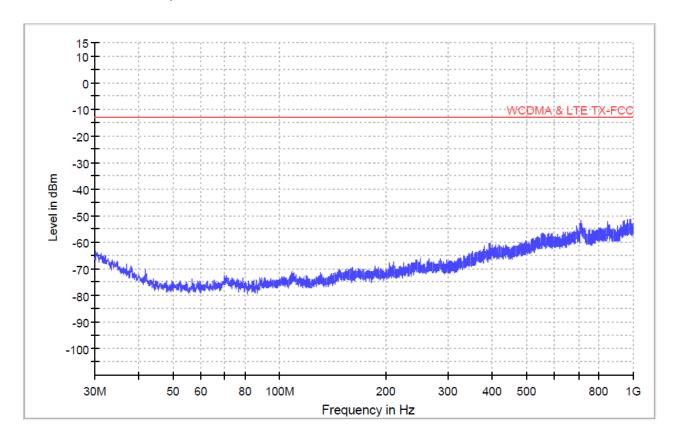
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (LTE/TM1 Band 4, 20MHz)

Worst Case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency range 30 MHz ~ 1 GHz.

Version: 01-November-2017 Page: 38 of 53 FCC ID 22/24/27/90_a



t Report Intertek Report No.: 250219088SZN-005

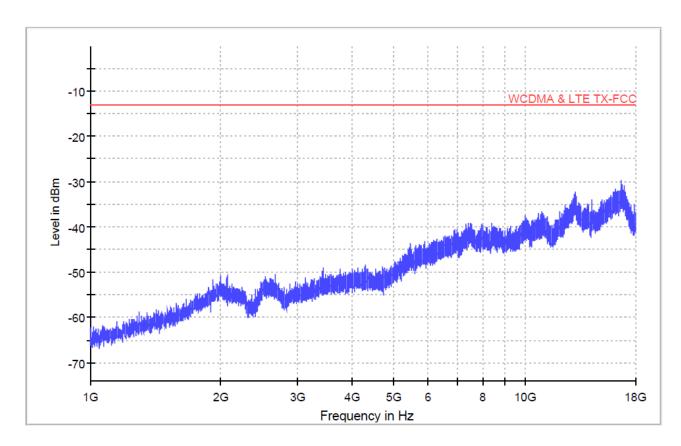
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (LTE/TM1 Band 4, 20MHz)

Worst Case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency above 1 GHz.

Version: 01-November-2017 Page: 39 of 53 FCC ID 22/24/27/90_a



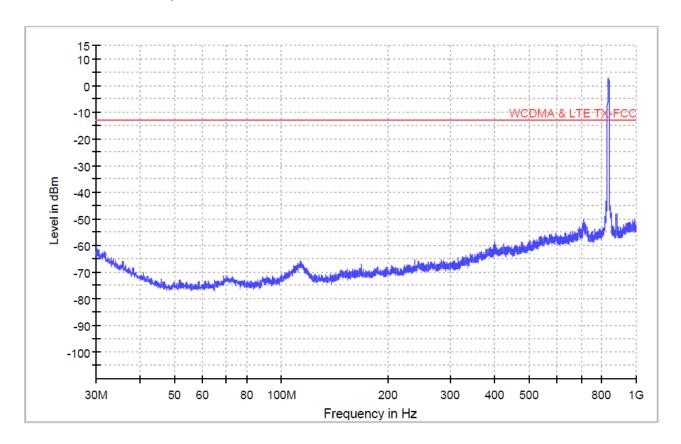
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (LTE/TM1 Band 5, 10MHz)

Worst Case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency range 30 MHz ~ 1 GHz.

Version: 01-November-2017 Page: 40 of 53 FCC ID 22/24/27/90_a



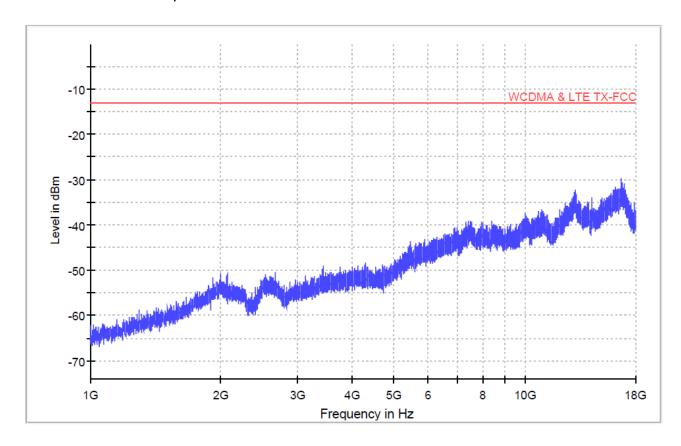
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (LTE/TM1 Band 5, 10MHz)

Worst-case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency above 1 GHz.

Version: 01-November-2017 Page: 41 of 53 FCC ID 22/24/27/90_a



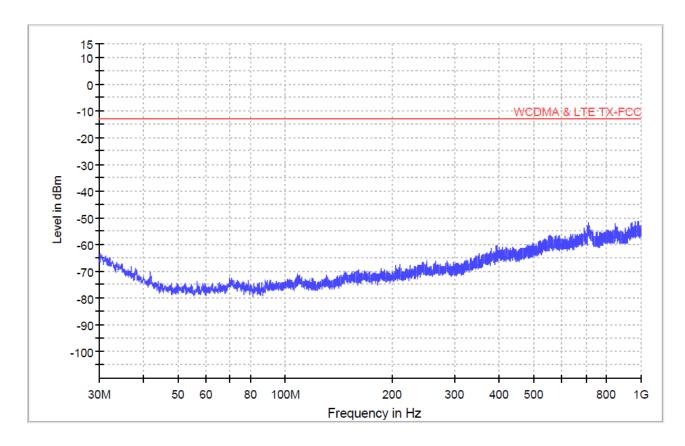
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (LTE/TM1 Band 7, 10MHz)

Worst Case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency range 30 MHz $^{\sim}$ 1 GHz.

Version: 01-November-2017 Page: 42 of 53 FCC ID 22/24/27/90_a



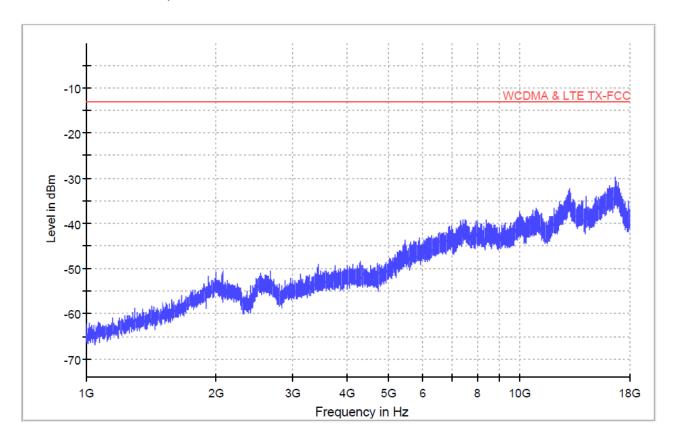
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (LTE/TM1 Band 7, 10MHz)

Worst-case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency above 1 GHz.

Version: 01-November-2017 Page: 43 of 53 FCC ID 22/24/27/90_a



Test Report Intertek Report No.: 250219088SZN-005

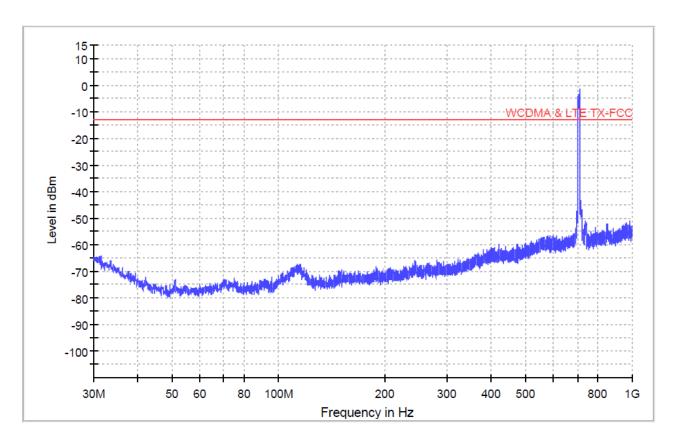
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (LTE/TM1 Band 12, 10MHz)

Worst Case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency range 30 MHz $^{\sim}$ 1 GHz.

Version: 01-November-2017 Page: 44 of 53 FCC ID 22/24/27/90_a



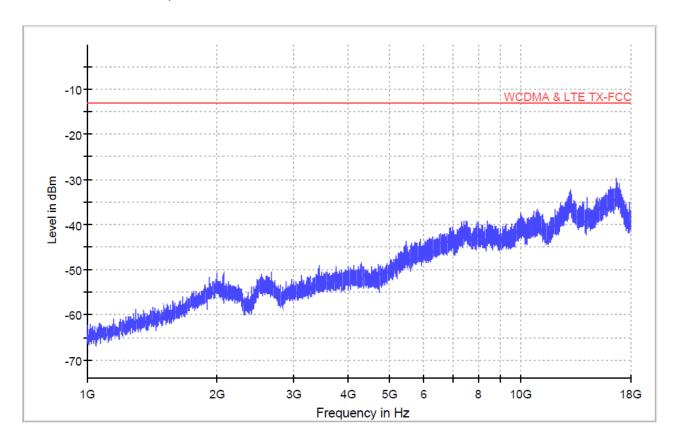
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (LTE/TM1 Band 12, 10MHz)

Worst-case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency above 1 GHz.

Version: 01-November-2017 Page: 45 of 53 FCC ID 22/24/27/90_a



Test Report Intertek Report No.: 250219088SZN-005

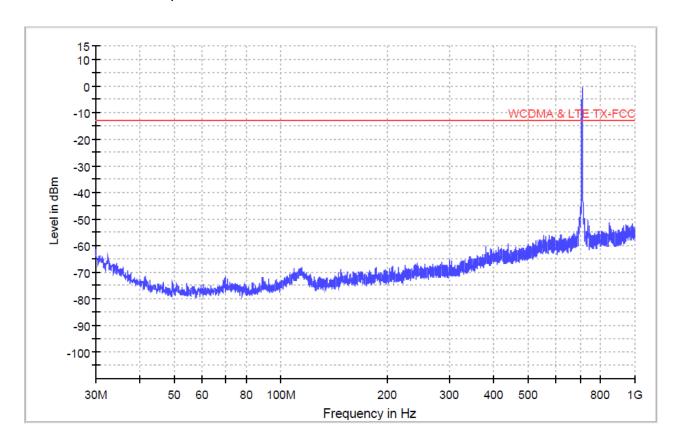
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (LTE/TM1 Band 17, 10MHz)

Worst Case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency range 30 MHz $^{\sim}$ 1 GHz.

Version: 01-November-2017 Page: 46 of 53 FCC ID 22/24/27/90_a



est Report Intertek Report No.: 250219088SZN-005

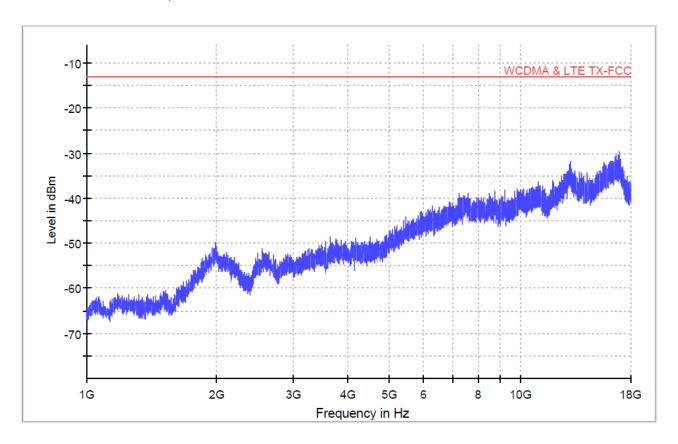
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (LTE/TM1 Band 17, 10MHz)

Worst-case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency above 1 GHz.

Version: 01-November-2017 Page: 47 of 53 FCC ID 22/24/27/90_a



Test Report No.: 250219088SZN-005

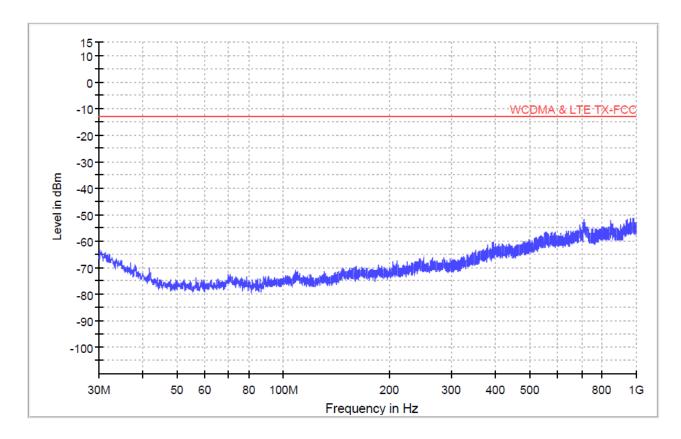
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (LTE/TM1 Band 41, 10MHz)

Worst Case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency range 30 MHz ~ 1 GHz.

Version: 01-November-2017 Page: 48 of 53 FCC ID 22/24/27/90_a



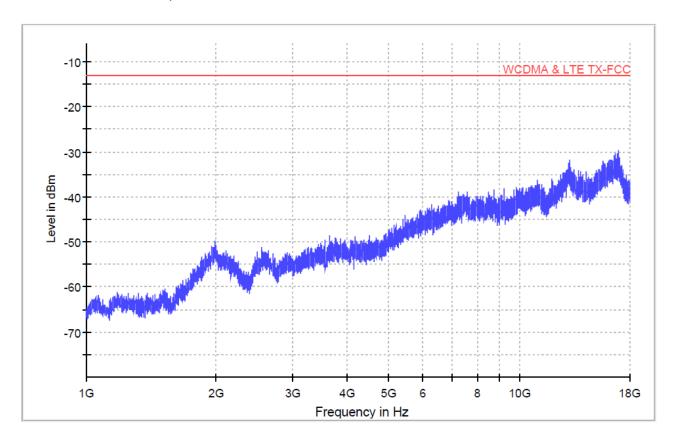
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (LTE/TM1 Band 41, 10MHz)

Worst-case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency above 1 GHz.

Version: 01-November-2017 Page: 49 of 53 FCC ID 22/24/27/90_a



Test Report No.: 250219088SZN-005

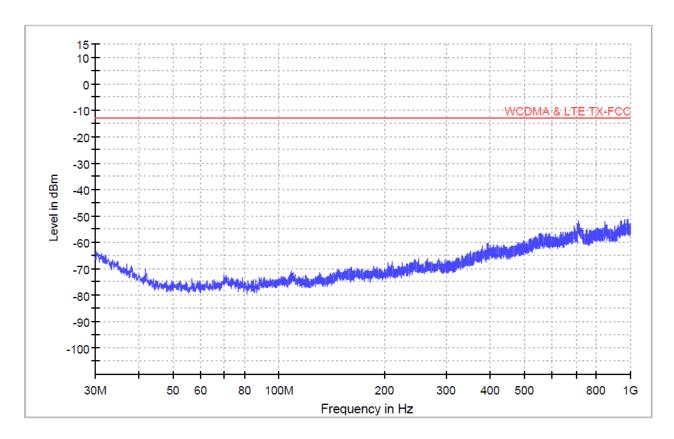
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (LTE/TM1 Band 66, 20MHz)

Worst Case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency range 30 MHz $^{\sim}$ 1 GHz.

Version: 01-November-2017 Page: 50 of 53 FCC ID 22/24/27/90_a



Test Report No.: 250219088SZN-005

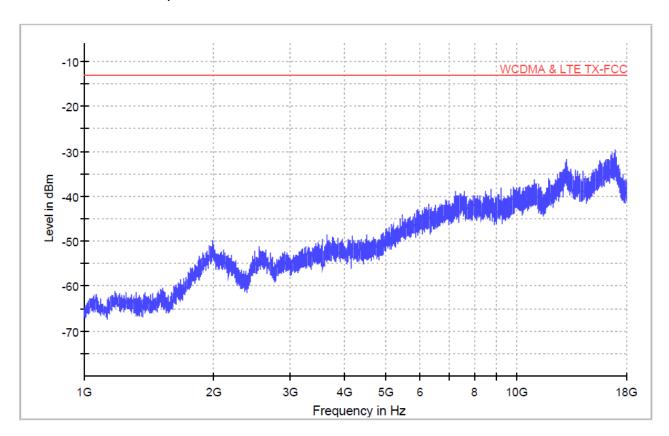
Applicant: DOKE COMMUNICATION (HK) LIMITED

Model: BV6200 Plus

Date of Test: 05 March 2025

Worst Case Operating Mode: Transmitting (LTE/TM1 Band 66, 20MHz)

Worst-case ANT Polarity: Horizontal



Remark: The emissions were very low against the limit in the frequency above 1 GHz.

Version: 01-November-2017 Page: 51 of 53 FCC ID 22/24/27/90_a



7. Main Test Instruments

Intertek Report No.: 250219	9088SZN-005
-----------------------------	-------------

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
SZ006-27	DC Power Supply	Keysight	E3648A	MY56096119	2024-12-03	2025-12-03
SZ047-35	Digital Temperature- Humidity Recorder	YiJie	RS210	0045340A15	2024-08-08	2025-08-08
SZ065-08	Wideband Radio Communication Tester	R&S	CMW500	144665	2024-09-29	2025-09-29
SZ056-07	Signal Analyzer	R&S	FSV 40	101214	2024-12-05	2025-12-05
SZ061-13	BiConiLog Antenna	ETS	3142E	00217919	2022-07-13	2025-07-13
SZ061-06	Active Loop Antenna	Electro-Metrics	EM-6876	217	2024-05-05	2027-05-05
SZ185-03	EMI Receiver	R&S	ESR7	101975	2024-04-23	2025-04-23
SZ061-08	Double - Ridged Waveguide Horn Antenna	ETS	3115	00092346	2024-09-13	2027-09-13
SZ056-06	Signal Analyzer	R&S	FSV 40	101101	2024-12-06	2025-12-06
SZ181-08	Microwave System Amplifier	keysight	83017A	MY57280108	2024-07-29	2025-07-29
SZ188-05	Anechoic Chamber	ETS	FACT 3-2.0	CT001880- Q13914102	2021-05-25	2026-05-25
SZ062-02	RF Cable	RADIALL	RG 213U		2024-11-01	2025-05-01
SZ062-05	RF Cable	RADIALL	0.04- 26.5GHz	0833254	2024-11-01	2025-05-01
SZ062-12	RF Cable	RADIALL	0.04- 26.5GHz	083387	2024-11-01	2025-05-01
SZ016-12	Programmable Temperature & Humidity Chamber	Taili	MHK-120NK	AB0105	2024-12-04	2025-12-04

Software Information				
Test Item Software Name Manufacturer Version		Version		
RSE	EMC32	R&S	V8.40.0	
Conducted RF	JS1120 RF Test System	Shenzhen JS tonscend co., Ltd	2.6.9.0518	

Version: 01-November-2017 Page: 52 of 53 FCC ID 22/24/27/90_a



8. Measurement Uncertainty

For a 95% confidence level (k = 2), the measurement expanded uncertainties for defined systems, in accordance with

Intertek Report No.: 250219088SZN-005

the recommendations of ISO 17025 as following:

Test Item		Extended Uncertainty		
Transmit Output Power Data	Power [dBm]	U = 0.42 dB		
Bandwidth	Magnitude [%]	U = 0.2%		
Band Edge Compliance	Disturbance Power [dBm]	U = 1.24 dB		
Spurious Emissions, Conducted	Disturbance Power [dBm]	U = 1.62 dB		
Field Strength of Spurious Radiation	ERP [dBm]	For 3 m Chamber:		
		U = 4.9 dB (30 MHz to 26.5GHz)		
Frequency Stability	Frequency Accuracy [ppm]	U = 0.017 ppm		

9. Appendixes

Appendix No.	Description
250219088SZN-005-Appendix A	Appendix for GSM
250219088SZN-005-Appendix B	Appendix for WCDMA
250219088SZN-005-Appendix C	Appendix for LTE

Version: 01-November-2017 Page: 53 of 53 FCC ID 22/24/27/90_a