TEST REPORT

FCC ID: 2AJAN-SMH20017 Product:Hero 200 DAS Model No.: SMH200-17 Additional Model No.: SMH200-13,SMH200-10 Trade Mark: Signifi Mobile Report No.: TCT201207E045 Issued Date: December 15,2020

Issued for:

Signifi Mobile Inc 1001 Rue Lenoir Suite A-414, Montreal, Quebec, H4C2Z6 , Canada

Issued By:

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1. Test Certification

Product:	Hero 200 DAS
Model No.:	SMH200-17
Additional Model:	SMH200-13,SMH200-10
Frade Mark:	Signifi Mobile
Applicant:	Signifi Mobile Inc
Address:	1001 Rue Lenoir Suite A-414, Montreal, Quebec, H4C2Z6, Canada
Manufacturer:	
ddress:	
Date of Test:	November 16, 2020 ~ December 14,2020
Applicable Standards:	FCC CFR 47 PART 2/PART 27/PART 20.21; ANSI C63.26-2015; KDB 935210 D05 Indus Booster Basic Meas v01r04.
74	

The above equipment has been tested by Shenzhen Tongce Testing Lab. and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Tested By:

Reviewed By:

Beryl Zhao

oms

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Beryl Z

Approved By:

Tomsin

December 15,2020

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Date:

Date: December 15,2020

December 15,2020 Date:

Report No.: TCT201207E045

2. Test Result Summary

TCT 通测检测 TESTING CENTRE TECHNOLOGY

Applied St	tandard: FCC CFR 47 PART 2/PART 27/PART 2	0.21
FCC Rules	Description of Test	Result
§2.1047, §27.50(c), KDB 935210 D05 v01r04	Mean output power and amplifier gain	Compliant
KDB 935210 D05 v01r04	Out-of-band rejection	Compliant
§2.1049, KDB 935210 D05 v01r04	Occupied bandwidth and Input-versus-output signal comparison	Compliant
\$2.1051, \$27.53(g) KDB 935210 D05 v01r04	Out-of-band/block (including intermodulation) emissions	Compliant
\$2.1051&\$27.53(g) KDB 935210 D05 v01r04	Spurious emissions at antenna terminals	Compliant
§2.1053&§27.53(g) KDB 935210 D05 v01r04	Radiated spurious emissions	Compliant
\$2.1055&\$27.54 KDB 935210 D05 v01r04	Frequency tolerance	Not Applicable*
§ 2.1091	Maximum Permissible exposure (MPE)	See MPE Report

Note:

- 1. Compliant: Test item meets the requirement.
- 2. Fail: Test item does not meet the requirement.
- 3. N/A: Test case does not apply to the test object.
- 4. The test result judgment is decided by the limit of test standard.
- 5. the booster does not alter the input signal in any way.

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3. EUT Description

Product Name:	Hero 200 DAS	
Model :	SMH200-17	
Additional Model:	SMH200-13,SMH200-10	
Trade Mark:	Signifi Mobile	
Operation Frequency:	Band 12 Uplink: 698 MHz - 716MHz, Downlink: 728 MHz - 746MHz Band 14 Uplink: 788 MHz - 798MHz, Downlink: 758 MHz - 768MHz	(, O,)
Emission Designator:	G7D,W7D	
FCC Classification:	Industrial Signal Booster(B2I)	
Power Supply:	DC 7V 3.0A	
AC adapter:	Adapter Information: MODEL: KYL-00703000M INPUT: AC 100-240V,50/60Hz, 0.6A Max OUTPUT: DC 7V 3.0A	Č,
Remark:	PCB board, same design and work diagrams of these model(s) are the same, So no additional models were tested.	

Note: The antenna gain listed in this report is provided by applicant, and the test laboratory is not responsible for this parameter.

		_		Antenna Gai	n(dBi)
	Mode	Frequency (MHz)	Yagi antenna	Outdoor Panel	Cable loss
		(WITIZ)	i agi antenna	Antenna	7.0 0.8
	DOWN	698-716	9.5	7.0	0.8
	LINK	788-798	9.5	7.0	0.8
	Mada	Frequency	Indoor Omni	Indoor Panel	Cable loss
	Mode	(MHz)	Antenna	Antenna	(dB)
	UP	728-746	3.0	7.0	1.7
	LINK	758 -768	3.0	7.0	1.7
[





General Information



4.1. Test environment

4.

Operating Environment:		
Temperature:	25.4 °C	
Humidity:	52.6 % RH	
Atmospheric Pressure:	1010 mbar	

4.2. Description of Support Units

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

Equipment	M	odel No.	Serial No.	FC	CID	Trade Name	
/	9	/				/	
						Page 6 o	f 34

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5. Facilities and Accreditations

5.1. Facilities

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

• FCC - Registration No.: 645098

Shenzhen Tongce Testing Lab

The 3m Semi-anechoic chamber has been registered and fully described in a report with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

• IC - Registration No.: 10668A-1

The 3m Semi-anechoic chamber of Shenzhen TCT Testing Technology Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing

5.2. Location

Shenzhen Tongce Testing Lab

Address: 1B/F., Building 1, Yibaolai Industrial Park, Qiaotou, Fuyong, Baoan District, Shenzhen, Guangdong, China

TEL: +86-755-27673339

5.3. Measurement Uncertainty

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

No.	Item		MU
1	Conducted Emission		±2.56dB
2	RF power, conducted		±0.12dB
3	Spurious emissions, conducted		±0.11dB
4	All emissions, radiated(<1G)		±3.92dB
5	All emissions, radiated(>1G)		±4.28dB
6	Temperature	(\mathbf{c})	±0.1°C
7	Humidity		±1.0%

6. Test Results and Measurement Data

6.1. MEAN OUTPUT POWER AND AMPLIFIER GAIN

Applicable Standard

According to § 27.50(c)

1) Fixed and base stations transmitting a signal with an emission bandwidth of 1 MHz or less must not exceed an effective radiated power (ERP) of 1000 watts and an antenna height of 305 m height above average terrain (HAAT), except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts ERP in accordance with Table 1 of this section;

(2) Fixed and base stations located in a county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, and transmitting a signal with an emission bandwidth of 1 MHz or less must not exceed an ERP of 2000 watts and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 2000 watts ERP in accordance with Table 2 of this section; (3) Fixed and base stations transmitting a signal with an emission bandwidth greater than 1 MHz must not exceed an ERP of 1000 watts/MHz and an antenna height of 305 m HAAT, except that antenna height of 305 m HAAT are permitted if power levels are reduced below 2000 watts ERP in accordance with Table 2 of this section; (3) Fixed and base stations transmitting a signal with an emission bandwidth greater than 1 MHz must not exceed an ERP of 1000 watts/MHz and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts/MHz ERP in accordance with Table 3 of this section;

(4) Fixed and base stations located in a county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, and transmitting a signal with an emission bandwidth greater than 1 MHz must not exceed an ERP of 2000 watts/MHz and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 2000 watts/MHz ERP in accordance with Table 4 of this section.

Test Procedure

According to 935210 D05 Indus Booster Basic Meas v01r04

a) Connect a signal generator to the input of the EUT.

b) Configure to generate the AWGN (broadband) test signal.

c) The frequency of the signal generator shall be set to the frequency of (f0) as determined from 3.3.

d) Connect a spectrum analyzer or power meter to the output of the EUT using appropriate attenuation as necessary.

e) Set the signal generator output power to a level that produces an EUT output level that is just below the AGC threshold (see 3.2), but not more than 0.5 dB below.

f) Measure the output power of the EUT and record (see 3.5.3 or 3.5.4 for power measurement guidance).g) Remove the EUT from the measurement setup and using the same signal generator settings, repeat the power measurement on the input signal to the EUT and record as input power.

h) Repeat the procedure with the narrowband test signal.

i) Repeat the procedure for both test signals with input signal amplitude set to 3 dB above the AGC threshold level.

j) Repeat for all frequency bands authorized for use by the EUT.

Method 1: Power measurement with a spectrum or signal analyzer

Guidance for performing input/output power measurements using a spectrum or signal analyzer is provided in 5.2 of KDB Publication 971168.

Calculating the mean amplifier, booster, or repeater gain

NOTE-§§ 20.21 and 2.1033(c) do not require gain test data; inclusion of industrial booster gain test data in

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test reports submitted for FCC equipment authorization is optional.

After the mean input and output power levels have been measured as described above, the mean gain of the EUT can be determined from:

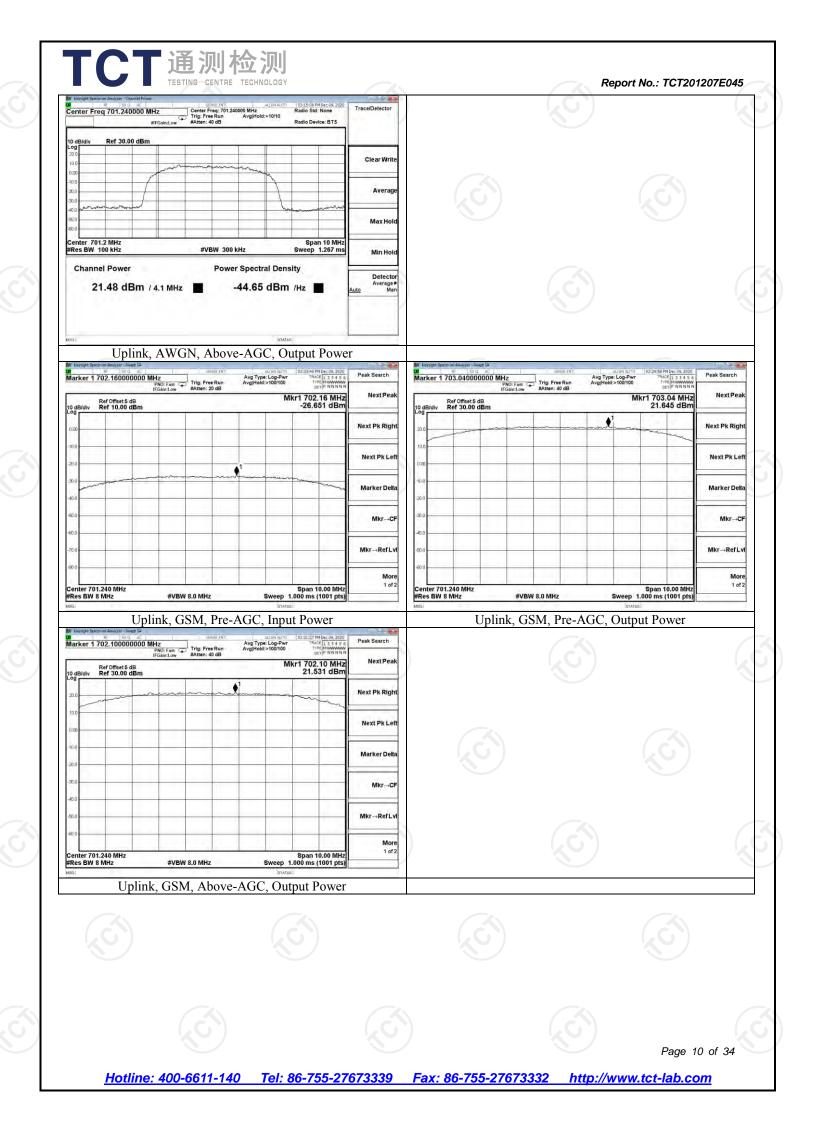
Gain (dB) = output power (dBm) - input power (dBm).

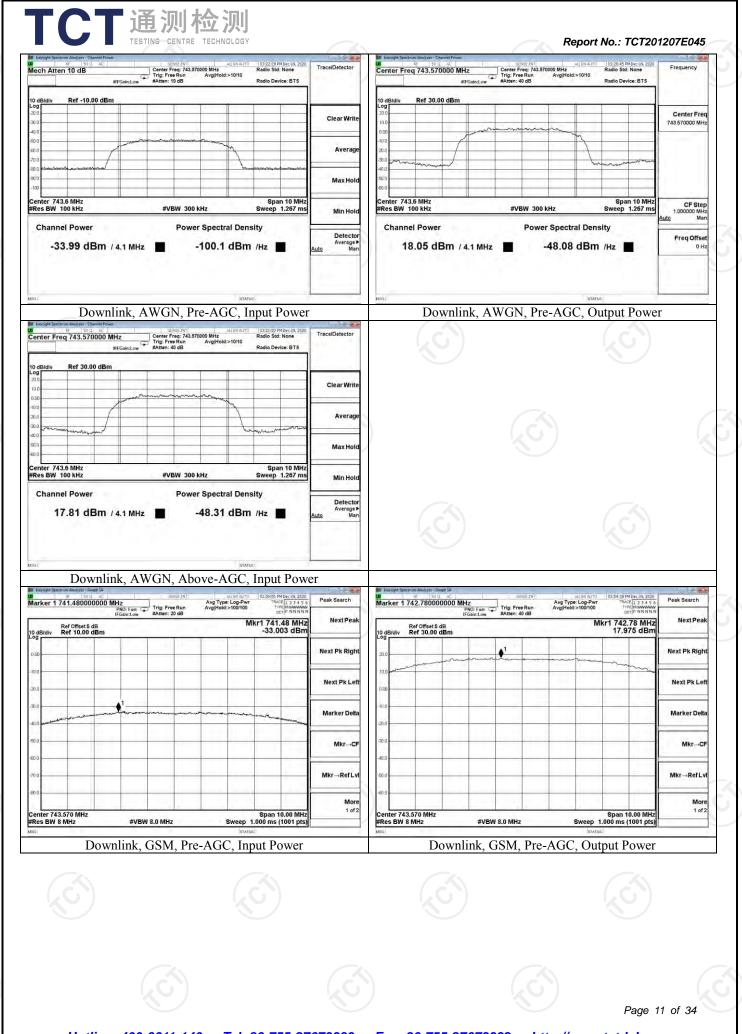
Report the mean gain for each authorized operating frequency band and each test signal stimulus.

Test Data

Mode	Frequency (MHz)	Signal Type	AGC threshold level (dBm)	Signal Level	Input Power (dBm)	Output Power (dBm)	Gain (dB)	K.S				
				Pre-AGC	-27.050	21.550	48.600					
		AWGN	-27.054	3dB above AGC	-24.050	21.480	45.530					
Uplink	701.24			Pre-AGC	-26.651	21.645	48.296	1				
		GSM	GSM	GSM	GSM	GSM	-26.215	3dB above AGC	-23.651	21.531	45.182	
				Pre-AGC	-33.990	18.050	52.040	1				
Doumlint	742 57	AWGN	-33.254	3dB above AGC	-30.990	17.810	48.800					
Downlink	743.57			Pre-AGC	-33.003	17.975	50.978					
		GSM	-33.515	3dB above AGC	-30.003	17.498	47.501					







10 JA 🗸			-				estrum Analyzer - 5	Keyagint Spi
Peak Search	TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P NNNNN	-Pwr	Avg Type Avg Hold	ig: Free Run	NO Fast INT	00000 MH	743.96000	arker 1
NextPeak	43.96 MHz 7.498 dBm			aten: 40 db	sam:Low #	dB	Ref Offset 5 Ref 30.00	dB/div
Next Pk Right			-		mmmm			
Next Pk Left)
Marker Delta								
Mkr→CF	-							
Mkr→RefLvi								
More 1 of 2								

6.2. OUT-OF-BAND REJECTION

Applicable Standard

According toKDB935210 D02 Signal Boosters Certification v04r02, Out-of-band rejection-testing for rejection of out-of-band signals may be appropriate. Alternatively, filter frequency response plots are acceptable.

Test Procedure

Adjust the internal gain control of the equipment under test to the maximum gain for which equipment certification is sought.

a) Connect a signal generator to the input of the EUT.

b) Configure a swept CW signal with the following parameters:

1) Frequency range = ± 250 % of the passband from the center of the passband.

2) Level = a sufficient level to affirm that the out-of-band rejection is > 20 dB above the noise floor and

will not engage the AGC during the entire sweep.

3) Dwell time = approx. 10 ms.

4) Number of points = SPAN/(RBW/2).

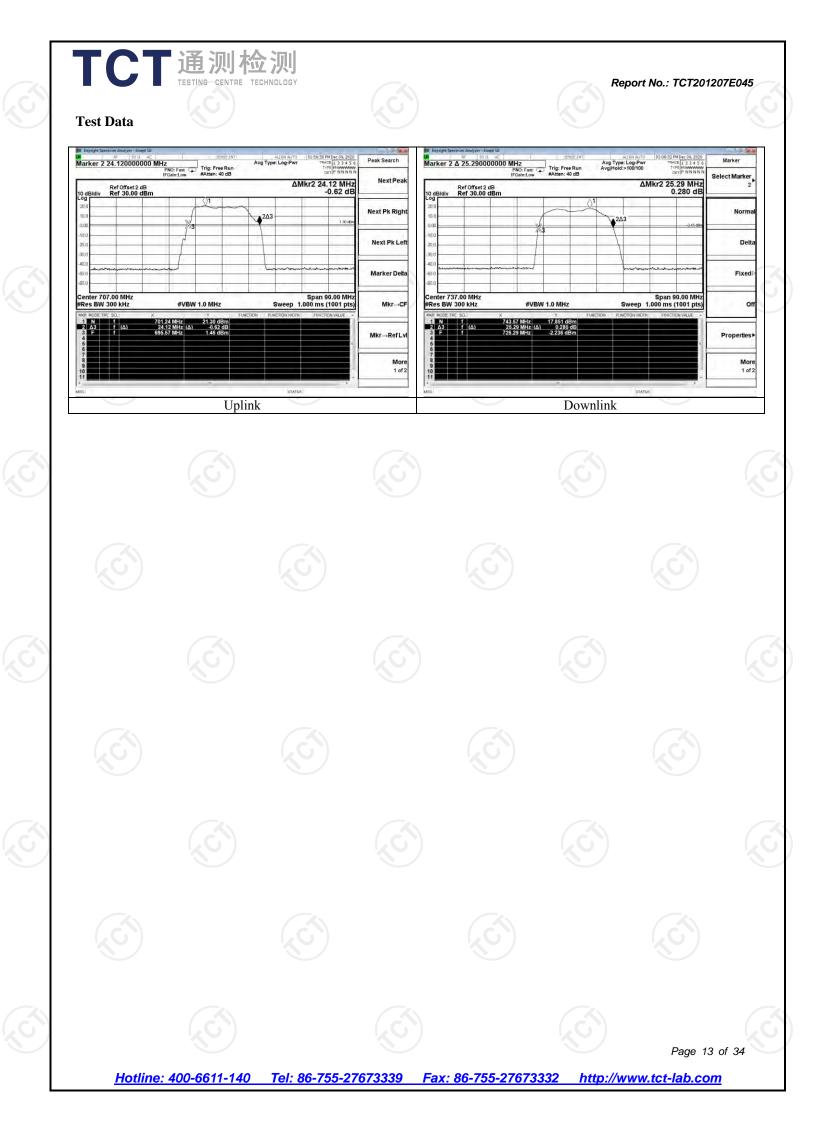
c) Connect a spectrum analyzer to the output of the EUT using appropriate attenuation.

d) Set the span of the spectrum analyzer to the same as the frequency range of the signal generator.

e) Set the resolution bandwidth of the spectrum analyzer to be 1 % to 5 % of the passband and the videobandwidth shall be set to $\ge 3 \times RBW$.

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6.3. OCCUPIED BANDWIDTH AND INPUT-VERSUS-OUTPUT SIGNAL

COMPARISON

Applicable Standard

According to § 2.1049 and KDB935210 D02 Signal Boosters Certification v04r02, Report worst case results for occupied bandwidth comparison and intermodulation tests done with and without any AGC circuitry activated, for devices so equipped.

Test Procedure

A 26 dB bandwidth measurement shall be performed on the input signal and the output signal (alternatively, the 99% OBW can be measured and used) to demonstrate compliance to the technical requirements specified in §90.219(e)(4)(i) and (ii). See KDB Publication 971168 for more information regarding measuring the OBW.

a) Connect a signal generator to the input of the EUT.

b) Configure the signal generator to transmit the AWGN signal.

c) Configure the signal amplitude to be just below the AGC threshold level (see 3.2), but not more than 0.5 dB below.

d) Connect a spectrum analyzer to the output of the EUT using appropriate attenuation.

e) Set the spectrum analyzer center frequency to the center frequency of the operational band under test. The span range of the spectrum analyzer shall be between 2 times to 5 times the EBW or alternatively, the OBW.

f) The nominal resolution bandwidth (RBW) shall be in the range of 1 % to 5 % of the anticipated OBW, and the VBW shall be \ge 3 × RBW.

g) Set the reference level of the instrument as required to preclude the signal from exceeding the maximum spectrum analyzer input mixer level for linear operation. In general, the peak of the spectral envelope must be more than [10 log (OBW / RBW)] below the reference level.

NOTE—Steps f) and g) may require iteration to enable adjustments within the specified tolerances. h) The noise floor of the spectrum analyzer at the selected RBW shall be at least 36 dB below the reference level.

i) Set spectrum analyzer detection function to positive peak.

j) Set the trace mode to max hold.

k) Determine the reference value: Allow the trace to stabilize. Set the spectrum analyzer marker to the highest amplitude level of the displayed trace (this is the reference value) and record the associated frequency as f0.

l) Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the -26 dB down amplitude. The 2 dB emission bandwidth is the positive frequency difference between the two markers.

NOTE—The spectral envelope may cross the -26 dB down amplitude at multiple points. If so, the lowest or highest frequency shall be selected as the frequencies the furthest removed from the center frequency at which the spectral envelope crosses the -26 dB down amplitude point.

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m) Repeat steps e) to l) with the input signal connected directly to the spectrum analyzer (i.e.,

input signal measurement).

n) Compare the spectral plot of the input signal (determined from step m) to the output signal (determined

from step 1) to affirm that they are similar (in passband and rolloff characteristic features and relative

spectral locations), and include plot(s) and descriptions in test report.

o) Repeat steps a) to n) with the signal generator set to the narrowband signal.

p) Repeat the procedure for both test signals with the input signal amplitude set 3 dB above the AGC threshold.

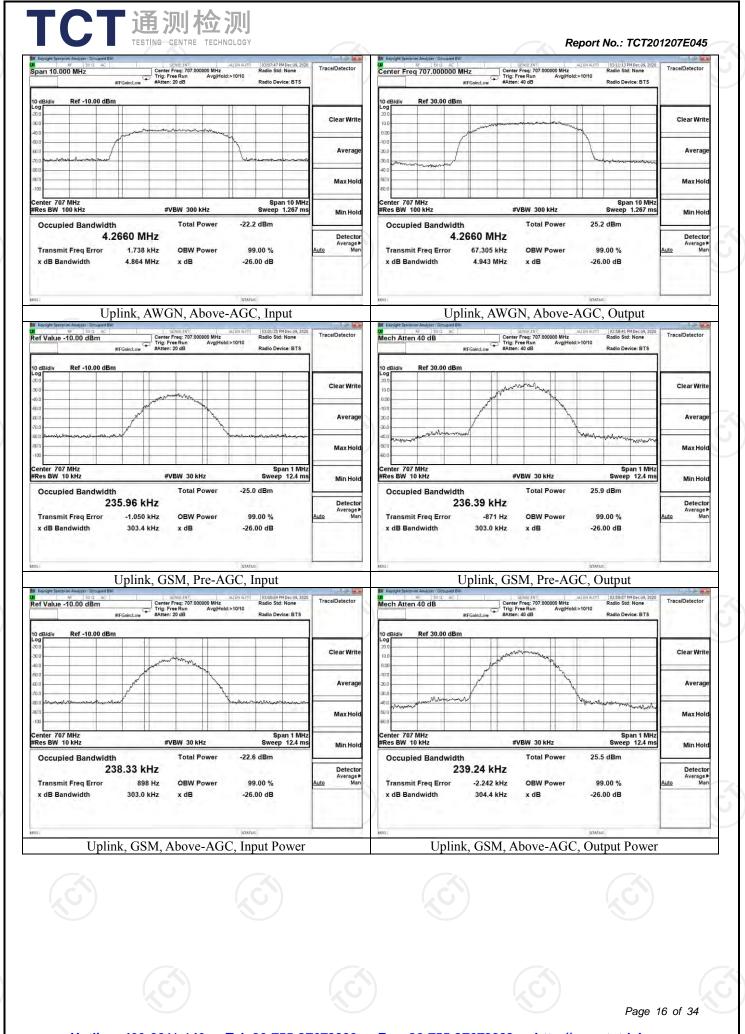
q) Repeat for all frequency bands authorized for use by the EUT.

「通测检测 TESTING CENTRE TECHNOLOGY

Test Data

Mode	Signal Type Signal Level		99% Occupie (MI	26 dB Bandwidth (MHz)		
	51		Input	Output	Input	Output
	(.ĉ.	Pre-AGC	4.283	4.244	4.895	4.931
	AWGN	3dB above AGC	4.266	4.266	4.864	4.943
TT 1' 1		Pre-AGC	0.236	0.236	0.303	0.303
Uplink	GSM	3dB above AGC	0.238	0.239	0.303	0.304
		Pre-AGC	4.280	4.272	4.895	4.847
	AWGN	3dB above AGC	4.264	4.277	4.862	4.853
		Pre-AGC	0.224	0.228	0.289	0.291
Downlink	GSM	3dB above AGC	0.223	0.226	0.282	0.295

pan 10.000 MHz	FGain:Low #Atte	t PMDec 09, 2020 td: None evice: BTS	Trace/Detector	Center Freq 7	07.000000 M	Trig.	SENSE INT er Freq: 707.00 Free Run en: 40 dB		align aliyo >10/10	Radio Std Radio Dev		Trace/	Detector		
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10 10 10			hormon	anner	Average	-100 -200 -300	m				1	wp options	and south the start of	1.0	Average
60 00 100					Max Hold	-40 D -50 0 -60 0									Max Hold
enter 707 MHz Res BW 100 kHz	#	VBW 300 kHz	Sweep	an 10 MHz 0 1.267 ms	Min Hold	Center 707 Mi #Res BW 100	kHz		#VBW 300			Sweep	n 10 MHz 1.267 ms	1	Min Hold
Occupied Bandwidth 4.2 Transmit Freq Error x dB Bandwidth	830 MHz 5.975 kHz 4.895 MHz	Total Power OBW Power x dB	-25.1 dBm 99.00 % -26.00 dB		Detector Average≯ <u>Auto</u> Man	Occupied Transmit F x dB Bandy	req Error	442 MHz 65.757 kHz 4.931 MHz	Total F OBW F x dB		99	l dBm 9.00 % 00 dB		Auto	Detecto Average Mar
	plink, AV	VGN, Pre-A	GC, Inpu	ıt		ansg	U	plink, AW	/GN, P	Pre-A	status GC, (ıt		-



enter Freq 737.000000 MHz #IFGain:Low	Center Freq: 737.000000 MHz Trig: Free Run Avg Hold:> #Atten: 20 dB	10/10 D2:09:19 PM Dec 09, 2020 Radio Std: None 10/10 Radio Device: BTS	Trace/Detector	Ref Value 30.00 dBm	Center Freq: 737.000000 MHz Trig: Free Run Avg Hol #Atten: 40 dB	ALIGN AUTO 02:06:16 PM Dec 09, 3 Radio Std: None d:>10/10 Radio Device: BTS	Trace/Detector
#FGain:Low	#Atten: 20 0D	Radio Device. D 15		10 dB/div Ref 30.00 dBm	W #Atten: 40 0D	Radio Device. B 13	
			Clear Write	20.0			Clear Write
10 10 10				0.00		~	
			Average	-100			Average
0		and the stand of the		40.0			
00			Max Hold	60.0			Max Hold
enter 737 MHz Res BW 100 kHz	#VBW 300 kHz	Span 10 MHz Sweep 1.267 ms	Min Hold	Center 737 MHz #Res BW 100 kHz	#VBW 300 kHz	Span 10 M Sweep 1.267	1Hz ms Min Hold
Occupied Bandwidth 4.2795 M	Total Power	-26.0 dBm	Detector	Occupied Bandwidth 4.2718	Total Power	23.1 dBm	Detector
Transmit Freq Error 2.293 x dB Bandwidth 4.895	kHz OBW Power	99.00 % -26.00 dB	Average > Auto Man	Transmit Freq Error -7.74 x dB Bandwidth 4.84	80 kHz OBW Power 7 MHz x dB	99.00 % -26.00 dB	Average≯ <u>Auto</u> Man
Downlink. A	AWGN, Pre-AG	C. Input Power		Downlink, A	AWGN, Pre-AG	C. Output Pov	wer
Keysight Spectrum Analyzer - Occupied BW RF [50:02] AC Image: Spectrum Sp		UGN AUTO 02:09:36 PM Dec 09, 2020 Radio Std: None	Trace/Detector	Keysight Spectrum Analyzer - Occupied BW RF SU 2 AC Center Freq 737.000000 MHz	SENSEUNT Center Freq: 737.000000 MHz	ALIGN AUTO [02:06:47 PM Dec 09;] Radio Std: None	6.15
	Trig: Free Run Avg Hold:> #Atten: 20 dB	10/10 Radio Device: BTS		#FGain:Low	Trig: Free Run Avg Hol	d:>10/10 Radio Device: BTS	
dB/div Ref -10.00 dBm	T T T			10 dB/div Ref 30.00 dBm	1 1 1	1	_
0			Clear Write	20.0	- Muran marine marine		Center Freq 737.000000 MHz
			Average	-10.0		N	
0 perminent and the second second				30.0			~
u u			Max Hold	40 D 80 0 460 0			
enter 737 MHz		Span 10 MHz Sweep 1.267 ms		Center 737 MHz #Res BW 100 kHz	#VBW 300 kHz	Span 10 M Sweep 1.267	ur step
	#VPM 200 HU-	oweep 1.20/ ms	Min Hold	THES DE TOURNZ	#VEW 300 KHZ	Sweep 1.267	1.000000 MHz
	#VBW 300 kHz Total Power	-23.4 dBm	200 A.L	Occupied Bandwidth	Total Power	22.9 dBm	Auto Man
Occupied Bandwidth 4.2643 M Transmit Freq Error -1.549	Total Power IHZ kHz OBW Power	A	Detector Average► Auto Man	4.2772 Transmit Freq Error -10.54		22.9 dBm 99.00 % -26.00 dB	Auto Man Freq Offset 0 Hz
Occupied Bandwidth 4.2643 M Transmit Freq Error -1.549 x dB Bandwidth 4.862 Downlink, AV	Total Power IHz IkHz OBW Power MHz x dB WGN, Above-A(-23.4 dBm 99.00 % -26.00 dB atratus GC, Input Powe Radio Std: None 1010	Detector Average* Auto Man	4.2772 Transmit Freq Error -10.54 x dB Bandwidth 4.85 Downlink, A' Except Exercise Research Ever Ref Value 30.00 dBm	MHZ 48 kHz OBW Power 3 MHz x dB WGN, Above-A Center Frig. 737000000 MHz Trig. Freg. Trig. T	99.00 % -26.00 dB aranas GC, Output Pc Consure (2013)PHORe(0), Radio Std: None da-1010	FreqOffset 0 Hz 0 Hz 0 Hz 0 Hz 0 Hz 0 Hz 0 Hz 0 Hz
Occupied Bandwidth 4.2643 M Transmit Freq Error 1.549 x dB Bandwidth 4.862 Downlink, AV	Total Power IHZ IkHZ OBW Power MHZ x dB WGN, Above-AC	-23.4 dBm 99.00 % -26.00 dB status GC, Input Powe Reids Str. None Reids Str. None	Detector Average* Auto Man	4.2772 I Transmit Freq Error -10.54 x dB Bandwidth 4.85 Note: Section Mayor Occupied With A State Regist Section Mayor Occupied With A State Register Section Mayor O	MHZ 48 kHz OBW Power 3 MHz x dB WGN, Above-A Center Frig. 737000000 MHz Trig. Freg. Trig. T	99.00 % -26.00 dB	FreqOffset 0 Hz 0 Hz 0 Hz 0 Hz 0 Hz 0 Hz 0 Hz 0 Hz
Occupied Bandwidth 4.2643 M Transmit Freq Error 4.549 x dB Bandwidth 4.862 DOwnlink, AV Tropper Sector Bandwidth Ban 1.0000 MHz Ban 1.0000 MHz Bandwidth Ban	Total Power IHz IkHz OBW Power MHz x dB WGN, Above-A(-23.4 dBm 99.00 % -26.00 dB atratus GC, Input Powe Radio Std: None 1010	Detector Average* Auto Man Man Man Man Man Man Man Man Man Man	4.2772 I Transmit Freq Error -10.54 x dB Bandwidth 4.85 Downlink, A' Kef Value 30.00 dBm #FGainclor 10 dB/div Ref 30.00 dBm	MHZ 48 kHz OBW Power 3 MHz x dB WGN, Above-A Center Frig. 737000000 MHz Trig. Freg. Trig. T	99.00 % -26.00 dB aranas GC, Output Pc Consure (2013)PHORe(0), Radio Std: None da-1010	DWCI Trace/Detector
Occupied Bandwidth 4.2643 M Transmit Freq Error 1.549 x dB Bandwidth 4.862 DOwnlink, AV Troget Sentement Augrer - Occupie Net Downlink, AV Troget Sentement Augrer - Occupie Net Troget	Total Power IHz IkHz OBW Power MHz x dB WGN, Above-A(-23.4 dBm 99.00 % -26.00 dB atratus GC, Input Powe Radio Std: None 1010	Detector Average* Auto Man	4.27721 Transmit Freq Error x dB Bandwidth 4.85 Model 4.85 Boomlink, A ¹ 4.85 Regist Sectoria days 4.85 Model 4.85 Model<	MHZ 48 kHz OBW Power 3 MHz x dB WGN, Above-A Center Frig. 737000000 MHz Trig. Freg. Trig. T	99.00 % -26.00 dB aranas GC, Output Pc Consure (2013)PHORe(0), Radio Std: None da-1010	FreqOffset 0 Hz 0 Hz 0 Hz 0 Hz 0 Hz 0 Hz 0 Hz 0 Hz
Occupied Bandwidth 4.2643 M Transmit Freq Error 4.549 x dB Bandwidth 4.862 DOwnlink, AV Comparison Bandwidth Compa	Total Power IHz IkHz OBW Power MHz x dB WGN, Above-A(-23.4 dBm 99.00 % -26.00 dB atratus GC, Input Powe Radio Std: None 1010	Detector Average* Auto Man Man Man Man Man Man Man Man Man Man	4.2772 I Transmit Freq Error -10.54 x dB Bandwidth 4.85	MHZ 48 kHz OBW Power 3 MHz x dB WGN, Above-A Center Frig. 737000000 MHz Trig. Freg. Trig. T	99.00 % -26.00 dB aranas GC, Output Pc Consure (2013)PHORe(0), Radio Std: None da-1010	DWCI Trace/Detector
Occupied Bandwidth 4.2643 M Transmit Freq Error .1.549 x dB Bandwidth 4.862 Downlink, AV Downlink, AV Transmit Freq Error Bandwidth Band	Total Power IHz IkHz OBW Power MHz x dB WGN, Above-A(-23.4 dBm 99.00 % -26.00 dB atratus GC, Input Powe Radio Std: None 1010	Clear Write	4.2772 I Transmit Freq Error -10.54 x dB Bandwidth 4.85 x bB Bandwidth 4.85 Downlink, A' Booget Section Registry December 200 Market Source 200 Booget Section Registry December 200 Market Source 200 Bread Control Cont	MHZ 48 kHz OBW Power 3 MHz x dB WGN, Above-A Center Frig. 737000000 MHz Trig. Freg. Trig. T	99.00 % -26.00 dB aranas GC, Output Pc Consure (2013)PHORe(0), Radio Std: None da-1010	DWEI
Occupied Bandwidth 4.2643 M Transmit Freq Error 1.549 x dB Bandwidth 4.862 DOwnlink, AV Tropper to the second sec	Total Power IHz IkHz OBW Power MHz x dB WGN, Above-A(-23.4 dBm 99.00 % -26.00 dB Stratus GC, Input Powe Radio Std: None Radio Device: BTS	Clear Write	4.2772 I Transmit Freq Error 10.54 x dB Bandwidth 4.85	MHZ 48 kHz OBW Power 3 MHz x dB WGN, Above-A Center Frig. 737000000 MHz Trig. Freg. Trig. T	99.00 % -26.00 dB	DWCI Clear Write Average Max Hold
Occupied Bandwidth 4.2643 M Transmit Freq Error 1.549 x dB Bandwidth 4.862 DOwnlink, AV Transmit Freq Error TOWNLink, AV Transmit Fr	Total Power IHZ IkHZ OBW Power MHZ X dB WGN, Above-AC Stock Infl Competing Frag. 737 000000 NHZ Competing Frag. 737 000000 NHZ Competing Frag. 737 00000 NHZ	-23.4 dBm 99.00 % -26.00 dB 000 / 200	Clear Write	4.2772 I Transmit Freq Error 10.54 x dB Bandwidth 4.85	MHz 48 kHz OBW Power 3 MHz x dB WGN, Above-A WGN, Above-A Correct 700 Correct	99.00 % -26.00 dB	DWEI
Occupied Bandwidth 4.2643 M Transmit Freq Error -1.549 x dB Bandwidth 4.862 Downlink, AV	Total Power IHZ kHZ OBW Power MHZ X dB WGN, Above-AC Centre Freq: 737 000000 MHZ Control Freq: 737 000000 MHZ Control Freq: 737 00000 MHZ WGN, Above-AC Control Freq: 737 00000 MHZ WGN, Above-AC WGN, Above-AC Control Freq: 737 00000 MHZ WGN, Above-AC WGN, Above-AC WGN, Above-AC Control Freq: 737 00000 MHZ WGN, Above-AC WGN, Above-AC	-23.4 dBm 99.00 % -26.00 dB 000 /// GC, Input Power Radio Stat: None Radio Stat: None Radio Stat: None Radio Device: BTS	Clear Write Average Max Hold Min Hold Detector	4.2772 I Transmit Freq Error 10.54 x dB Bandwidth 4.85 Boownlink, A ¹ Regul Section 2000 dBm PFGainton 10 dB/div Ref 30.00 dBm 10 dB/div Ref 30.00 dBm 0 dB/div Ref 30.00 dBm Conter 737 MHz	MHZ 18 kHz OBW Power 3 MHz x dB WGN, Above-A WGN, Above-A Commer Frag. 737 00000 MHz Commer Frag. 737 00000 MHz Mathema 40 dB #WBW 30 kHz Total Power	99.00 % -26.00 dB	Clear Write Average Min Hold Detector
Occupied Bandwidth 4.2643 M Transmit Freq Error .1.549 x dB Bandwidth 4.862 DOwnlink, AV Transmit Freq Error	Total Power HZ kHZ OBW Power MHZ X dB WGN, Above-AC Center Freq: 727 00000 MHZ Center Freq: 727 00000 MHZ Center Freq: 727 00000 MHZ Trig: Freq: 727 00000 MHZ ************************************	-23.4 dBm 99.00 % -26.00 dB 000 C, Input Powe Radio Std: None Radio Std: None Std: None Radio	Clear Write Average Max Hold Min Hold	4.2772 I Transmit Freq Error 10.54 x dB Bandwidth 4.85	MHz 18 kHz OBW Power 3 MHz x dB WGN, Above-At WGN, Above-At Cather Frag. 737 00000 MHz Trig: Frag. 737 00000 MHz #WBW 30 kHz Total Power KHz 518 Hz OBW Power	99.00 % -26.00 dB	Clear Write Average MAL Max Hold
Occupied Bandwidth 4.2643 M Transmit Freq Error .1.549 x dB Bandwidth 4.862 DOwnlink, AV Transmit Freq Error	Total Power HZ kHZ OBW Power MHZ X dB WGN, Above-AC Center Freq: 727 00000 MHZ Center Freq: 727 00000 MHZ Center Freq: 727 00000 MHZ Trig: Freq: 727 00000 MHZ ************************************	-23.4 dBm 99.00 % -26.00 dB bratus DCC, Input Power Radio Stat None Radio Stat None Radio Device: BTS	Clear Write Average Max Hold Min Hold Detector Average	4.2772 I Transmit Freq Error 10.54 x dB Bandwidth 4.85	MHz 18 kHz OBW Power 3 MHz x dB WGN, Above-A WGN, Above-A WGN, above-A Correct 170 0000 MHz Trig: Free Run Avgilion #Atten: 60 dB #VBW 30 kHz Total Power KHz	99.00 % -26.00 dB	Clear Write Average Min Hold Detector Min Hold Detector
Transmit Freq Error 1.549 x dB Bandwidth 4.862	Total Power HZ kHZ OBW Power MHZ X dB WGN, Above-AC Center Freq: 727 00000 MHZ Center Freq: 727 00000 MHZ Center Freq: 727 00000 MHZ Trig: Freq: 727 00000 MHZ ************************************	-23.4 dBm 99.00 % -26.00 dB 000 C, Input Powe Radio Std: None Radio Std: None Std: None Radio	Clear Write Average Max Hold Min Hold Detector Average	4.2772 I Transmit Freq Error 10.54 x dB Bandwidth 4.85	MHz 18 kHz OBW Power 3 MHz x dB WGN, Above-At WGN, Above-At Cather Frag. 737 00000 MHz Trig: Frag. 737 00000 MHz #WBW 30 kHz Total Power KHz 518 Hz OBW Power	99.00 % -26.00 dB	Clear Write Average Min Hold Detector Min Hold Detector
Occupied Bandwidth 4.2643 M Transmit Freq Error .1.549 x dB Bandwidth 4.862 DOwnlink, AV Tropper Sector Bandwidth agadav agadav Ref -10.00 dBm agadav Bit Gant.com agadav Ref -10.00 dBm agadav Bit Gant.com	Total Power HZ kHZ OBW Power MHZ X dB WGN, Above-AC Center Freq: 727 00000 MHZ Center Freq: 727 00000 MHZ Center Freq: 727 00000 MHZ Trig: Freq: 727 00000 MHZ ************************************	-23.4 dBm 99.00 % -26.00 dB 004105 GC, Input Power Radio Device: BTS Radio Device: BTS -26.1 dBm 99.00 % -26.00 dB	Clear Write Average Max Hold Min Hold Detector Average	4.2772 I Transmit Freq Error 10.54 x dB Bandwidth 4.85	MHz 18 kHz OBW Power 3 MHz x dB WGN, Above-At WGN, Above-At Cather Frag. 737 00000 MHz Trig: Frag. 737 00000 MHz #WBW 30 kHz Total Power KHz 518 Hz OBW Power	99.00 % -26.00 dB	Clear Write Clear Write Average Max Hold Htz Min Hold Detector Auto Man
Occupied Bandwidth 4.2643 M Transmit Freq Error .1.549 x dB Bandwidth 4.862 DOwnlink, AV Transmit Freq Error .28 x dB Bandwidth 228.9	Total Power HZ kHZ OBW Power MHZ X dB WGN, Above-AC WGN, Above-AC Comer Free Run Avgitold> #VBW 30 kHZ #VBW 30 kHZ Total Power KHZ 18 HZ OBW Power kHZ X dB	-23.4 dBm 99.00 % -26.00 dB 004105 GC, Input Power Radio Device: BTS Radio Device: BTS -26.1 dBm 99.00 % -26.00 dB	Clear Write Average Max Hold Min Hold Detector Average	4.2772 I Transmit Freq Error 10.54 x dB Bandwidth 4.85	MHz 48 kHz OBW Power 3 MHz x dB WGN, Above-A WGN, Above-A Concer Free Tay Concer Free Tay Concer Free Tay Concer Free Tay Augusta #VBW 30 kHz Total Power KHz 518 Hz OBW Power 6 kHz x dB	99.00 % -26.00 dB	Clear Write Clear Write Average Max Hold Htz Min Hold Detector Auto Man
Occupied Bandwidth 4.2643 M Transmit Freq Error .1.549 x dB Bandwidth 4.862 DOwnlink, AV Tropper Sector Bandwidth agadav agadav Ref -10.00 dBm agadav Bit Gant.com agadav Ref -10.00 dBm agadav Bit Gant.com	Total Power HZ kHZ OBW Power MHZ X dB WGN, Above-AC WGN, Above-AC Comer Free Run Avgitold> #VBW 30 kHZ #VBW 30 kHZ Total Power KHZ 18 HZ OBW Power kHZ X dB	-23.4 dBm 99.00 % -26.00 dB 004105 GC, Input Power Radio Device: BTS Radio Device: BTS -26.1 dBm 99.00 % -26.00 dB	Clear Write Average Max Hold Min Hold Detector Average	4.2772 I Transmit Freq Error 10.54 x dB Bandwidth 4.85	MHz 48 kHz OBW Power 3 MHz x dB WGN, Above-A WGN, Above-A Concer Free Tay Concer Free Tay Concer Free Tay Concer Free Tay Augusta #VBW 30 kHz Total Power KHz 518 Hz OBW Power 6 kHz x dB	99.00 % -26.00 dB	Clear Write Clear Write Average Max Hold Htz Min Hold Detector Auto Man

an 1.0000 MHz Center Freq. 727 00000 MHz Radio Std: None #IFGatinLow #Atten: 20 dB Radio Device: BTS	Trace/Detector	Ref Value 30.00 dBm #FG	Center Freq: 737.00000 MHz Trig: Free Run Avg Hold ain:Low #Atten: 40 dB	Radio Std: None Radio Device: BTS	Trace/Detector
	Clear Write		- Marine Marine		Clear Write
	Average	-100 -200 -300			Average
non a second and a s	Max Hold	-40 0 80 0 -60 0		men mark and the way	Max Hold
nter 737 MHz Span 1 MHz es BW 10 kHz #VBW 30 kHz Sweep 12.4 ms	Min Hold	Center 737 MHz #Res BW 10 kHz	#VBW 30 kHz	Span 1 MHz Sweep 12.4 ms	Min Hold
Occupied Bandwidth Total Power -23.7 dBm 223.04 kHz Transmit Freq Error 367 Hz OBW Power 99.00 % x dB Bandwidth 282.3 kHz x dB -26.00 dB	Detector Average⊁ Auto Man	Occupied Bandwidth 225. Transmit Freq Error x dB Bandwidth	Total Power 50 KHz 688 Hz OBW Power 295.3 kHz x dB	21.9 dBm 99.00 % -26.00 dB	Detector Average ► Auto Man
Downlink, GSM, Above-AGC, Input Power	r	Downlink	x, GSM, Above-AG	C Output Powe	r
	-				-

Applicable Standards

According to §27.53(g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed. KDB935210 D02 Signal Boosters Certification v04r02: Report worst case results for occupied bandwidth comparison and intermodulation tests done with and without any AGC circuitry activated, for devices so

Test Procedure

Out-of-band/block emissions (including intermodulation products) shall be measured under each of the following two stimulus conditions:

a) two adjacent test signals sequentially tuned to the lower and upper frequency band/block edges;

b) a single test signal, sequentially tuned to the lowest and highest frequencies or channels within the frequency band/block under examination.

NOTE—Single channel boosters that cannot accommodate two simultaneous signals within the passband, can be excluded from the test stipulated in step a).

EUT out-of-band/block emissions conducted measurement

a) Connect a signal generator to the input of the EUT.

NOTE—If the signal generator is not capable of generating two modulated carriers simultaneously, then two discrete signal generators can be connected with an appropriate combining network to support the two-tone test.

b) Set the signal generator to produce two AWGN signals as previously described (e.g., 4.1 MHz OBW).

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c) Set the center frequencies such that the AWGN signals occupy adjacent channels, as defined by industry standards such as 3GPP or 3GPP2, at the upper edge of the frequency band or block of interest.d) Set the composite power levels such that the input signal is just below the AGC threshold (see 3.2), but not more than 0.5 dB below. The composite power can be measured using the procedures provided in KDB Publication 971168, but it will be necessary to expand the power integration bandwidth so as to include both of the transmit channels. Alternatively, the composite power can be measured using an average power meter as described in KDB Publication 971168.

e) Connect a spectrum analyzer to the output of the EUT using appropriate attenuation as necessary.

f) Set the RBW = reference bandwidth in the applicable rule section for the supported frequency band

(typically 1 % of the emission bandwidth, 100 kHz, or 1 MHz)

g) Set the VBW = $3 \times RBW$.

h) Set the detector to power averaging (rms) detector.

i) Set the Sweep time = auto-couple.

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j) Set the analyzer start frequency to the upper block edge frequency and the stop frequency to the upper block edge frequency plus 300 kHz or 3 MHz for frequencies below and above 1 GHz, respectively.

k) Trace average at least 100 traces in power averaging (i.e., rms) mode.

l) Use the marker function to find the maximum power level.

m) Capture the spectrum analyzer trace of the power level for inclusion in the test report.

n) Repeat the procedure with the composite input power level set to 3 dB above the AGC threshold.

o) Reset the input signals frequencies to the lower edge of the frequency block or band under examination.

p) Reset the spectrum analyzer start frequency to the lower block edge frequency minus 300 kHz, or 3

MHz (for frequencies below and above 1 GHz, respectively), and the stop frequency to the lower band or block edge frequency.

q) Repeat steps k) to n).

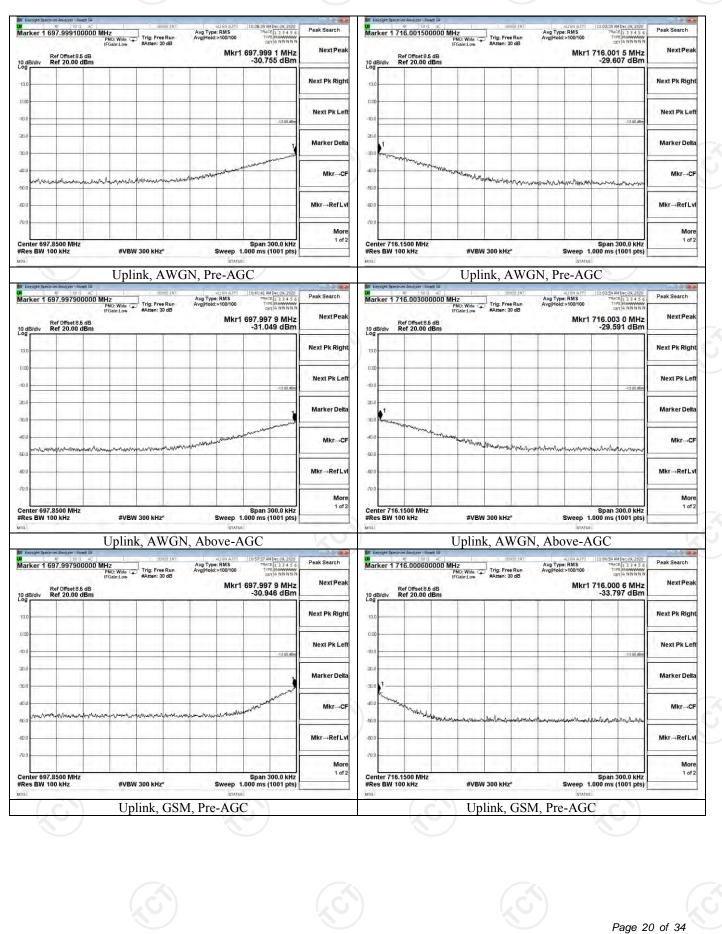
r) Repeat steps a) to q) with the signal generator configured for a single test signal tuned as close as possible to the block edges.

s) Repeat steps a) to r) with the narrowband test signal.

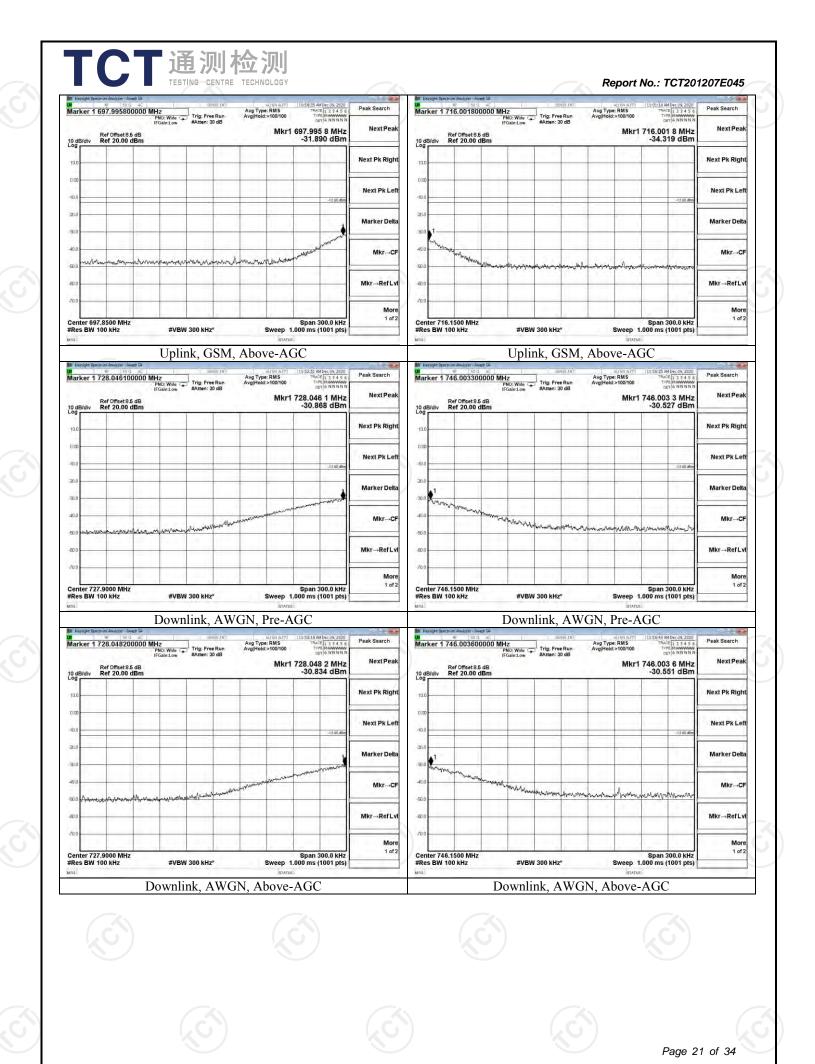
t) Repeat steps a) to s) for all authorized frequency bands or blocks used by the EUT.

Test Data

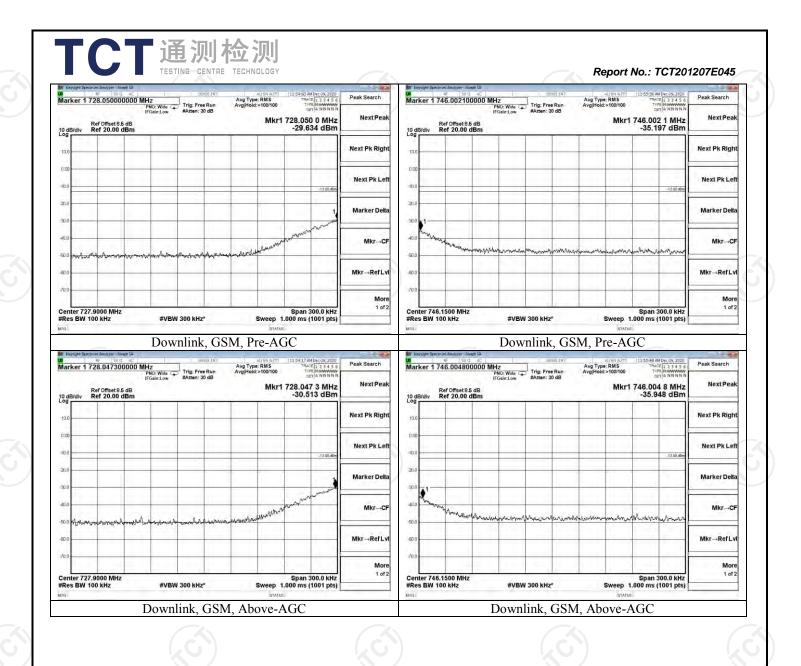
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6.5. Spurious emissions at antenna terminal

Applicable Standards

According to §2.1051 Measurements required: Spurious emissions at antenna terminals. According to §27.53(g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

Test Procedure

KDB 935210 D05 Indus Booster Basic Meas v01r04, Clause 3.6.3:

a) Connect a signal generator to the input of the EUT.

b) Set the signal generator to produce the broadband test signal as previously described (e.g., 4.1 MHz OBW AWGN).

c) Set the center frequency of the test signal to the lowest available channel within the frequency band or block.

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d) Set the EUT input power to a level that is just below the AGC threshold (see 3.2), but not more than 0.5 dB below.

e) Connect a spectrum analyzer to the output of the EUT using appropriate attenuation as necessary. f) Set the RBW = reference bandwidth in the applicable rule section for the supported frequency band of operation (e.g., reference bandwidth is typically 100 kHz or 1 MHz).

g) Set the VBW \geq 3 × RBW.

h) Set the Sweep time = auto-couple.

i) Set the analyzer start frequency to the lowest radio frequency signal generated in the equipment, without going below 9 kHz, and the stop frequency to the lower band/block edge frequency minus 100 kHz or 1 MHz, as specified in the applicable rule part.

NOTE—The number of measurement points in each sweep must be $\geq (2 \times \text{span/RBW})$ which may require that the measurement range defined by the start and stop frequencies be subdivided, depending on the available number of measurement points provided by the spectrum analyzer.

j) Select the power averaging (rms) detector function.

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k) Trace average at least 10 traces in power averaging (i.e., rms) mode.

l) Use the peak marker function to identify the highest amplitude level over each measured frequency range. Record the frequency and amplitude and capture a plot for inclusion in the test report.

m) Reset the analyzer start frequency to the upper band/block edge frequency plus 100 kHz or 1 MHz, as specified in the applicable rule part, and the analyzer stop frequency to 10 times the highest frequency of the fundamental emission (see §2.1057). Note that the number of measurement points in each sweep must $be \ge (2 \times \text{span/RBW})$ which may require that the measurement range defined by the start and stop frequencies be subdivided, depending on the available number of measurement points provided by the spectrum analyzer.

n) Trace average at least 10 traces in power averaging (i.e., rms) mode.

o) Use the peak marker function to identify the highest amplitude level over each of the measured frequency ranges. Record the frequency and amplitude and capture a plot for inclusion in the test report and provide tabular data, if required.

p) Repeat the procedure with the input test signals tuned to a middle band/block frequency/channel and then a high band/block frequency/channel.

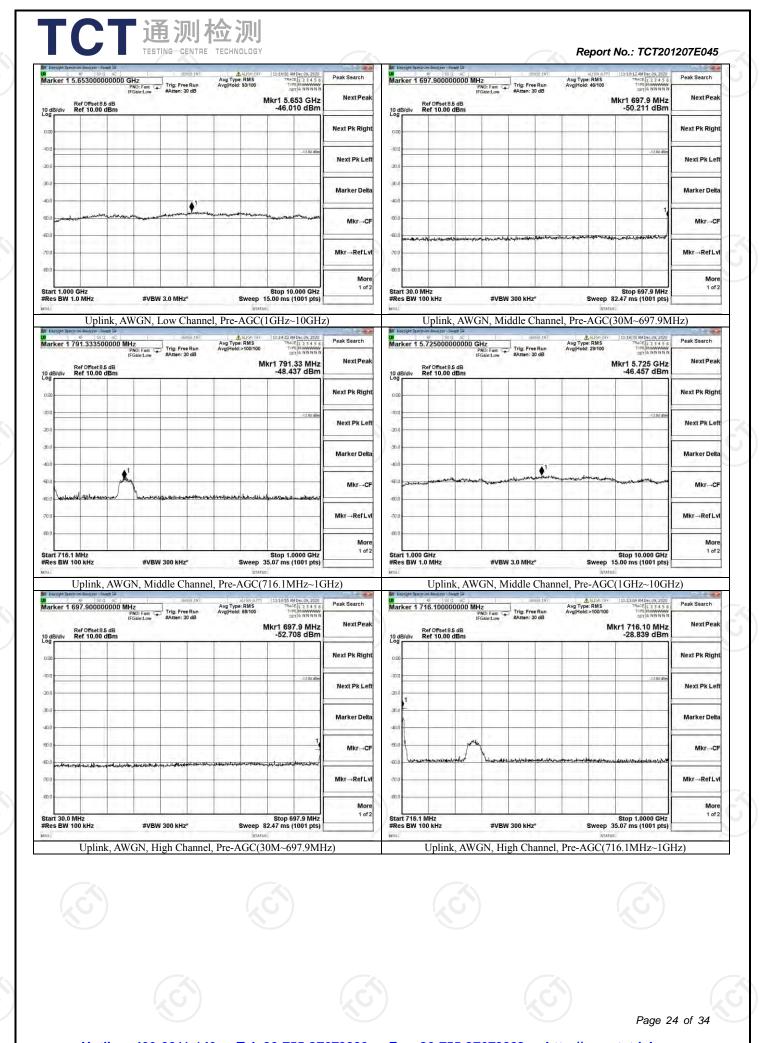
q) Repeat entire procedure with the narrowband test signal.

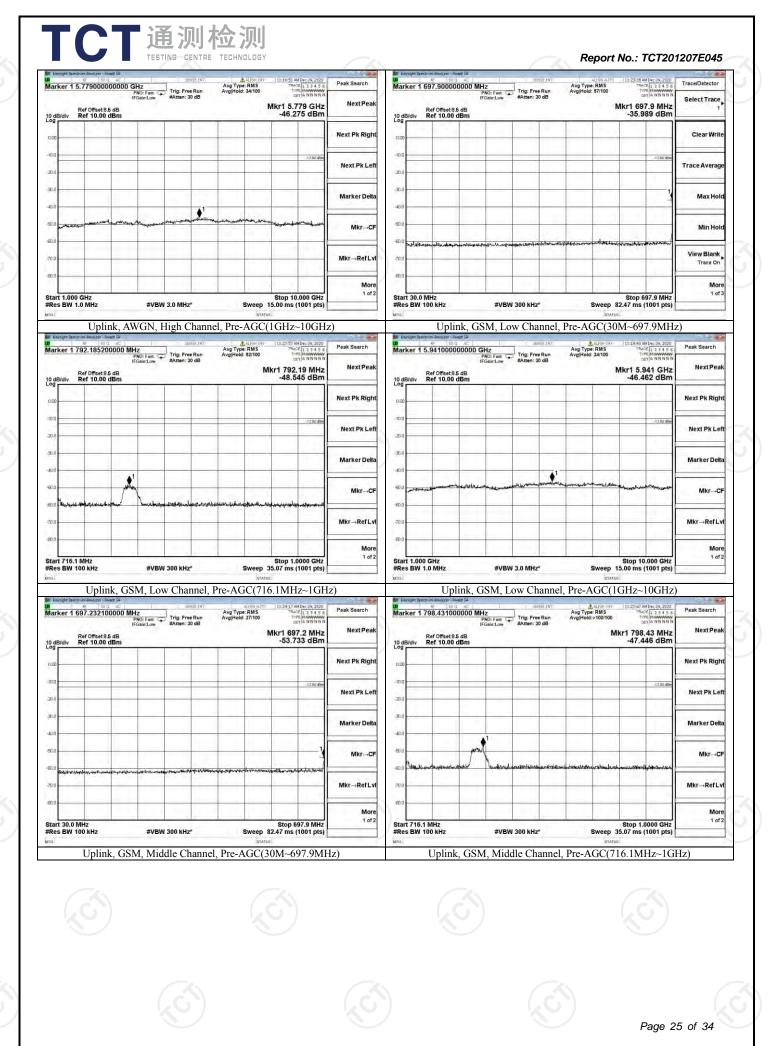
r) Repeat for all authorized frequency bands/blocks used by the EUT.

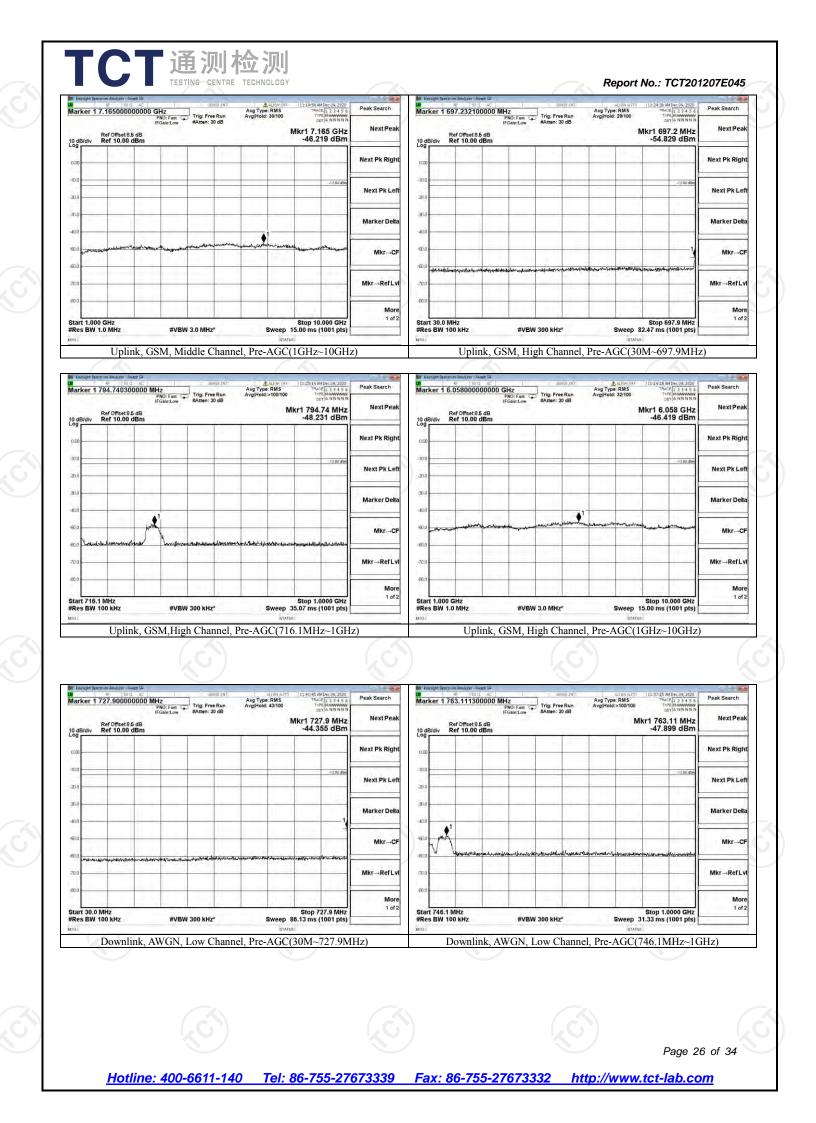
Test Data

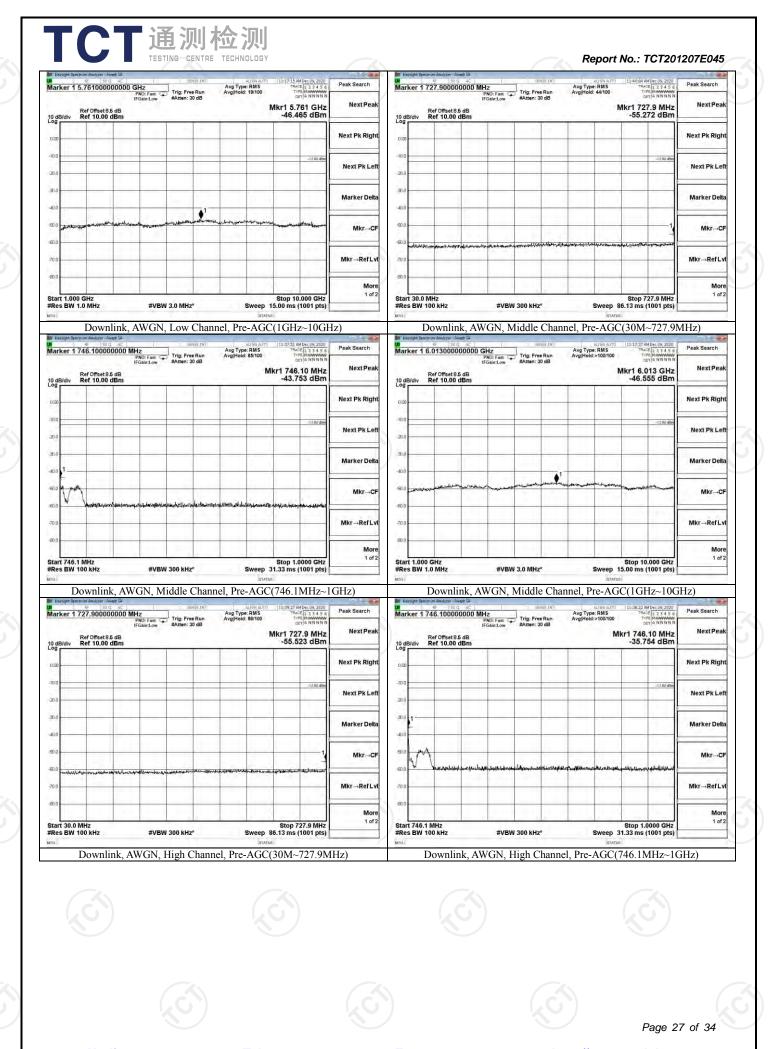
Peak Search	11:14:55 AM Dec 09, 2020 TRACE 1 2 3 4 5 6	ALIGN OFF ype: RMS old: 89/100	Avg Typ	SENSE.INT	-	0000 MHz	794.74030	Marker 1	Peak Search	MDec 09, 2020 CE 1 2 3 4 5 6	TRAC	ALIGN ALITO	Ava T	SENSE.1	-Iz	000000 MH		ker '
NextPea	kr1 794.74 MHz -48.657 dBm		Avg Hold	rig: Free Run Atten: 30 dB	Low	dB	Ref Offset 8. Ref 10.00	10 dB/div	Next Peak	7.9 MHz 96 dBm	Mkr1 69	bid:>100/100		Trig: Free Ru #Atten: 30 dE	PNO: Fast 😱 FGain:Low	8.5 dB	Ref Offset8 Ref 10.00	3/div
Next Pk Rig			1					0.00	Next Pk Right			1	-					
Next Pk Le	-1.5.00 dBm		-					-10.0	Next Pk Left	-1.5.00 d5m								
Marker De								-30.0	Marker Delta	1								
Mkr→C	Lungerman ageneration		معجوم	atosiena ni na benika		the	المتعاديد والمراجع	-500	Mkr→CF			re-served between some						
Mkr→RefL								-70.0	Mkr→RefLvl								The light of the cost	
Mo 1 o	Stop 1.0000 GHz							80.0 Start 716.	More 1 of 2	597.9 MHz							MHz	
	35.07 ms (1001 pts)	Sweep 3		00 kHz*	#VBW 3		100 kHz	#Res BW		(1001 pts)	82.47 ms	Sweep		300 kHz*	#VBW		100 kHz	BW

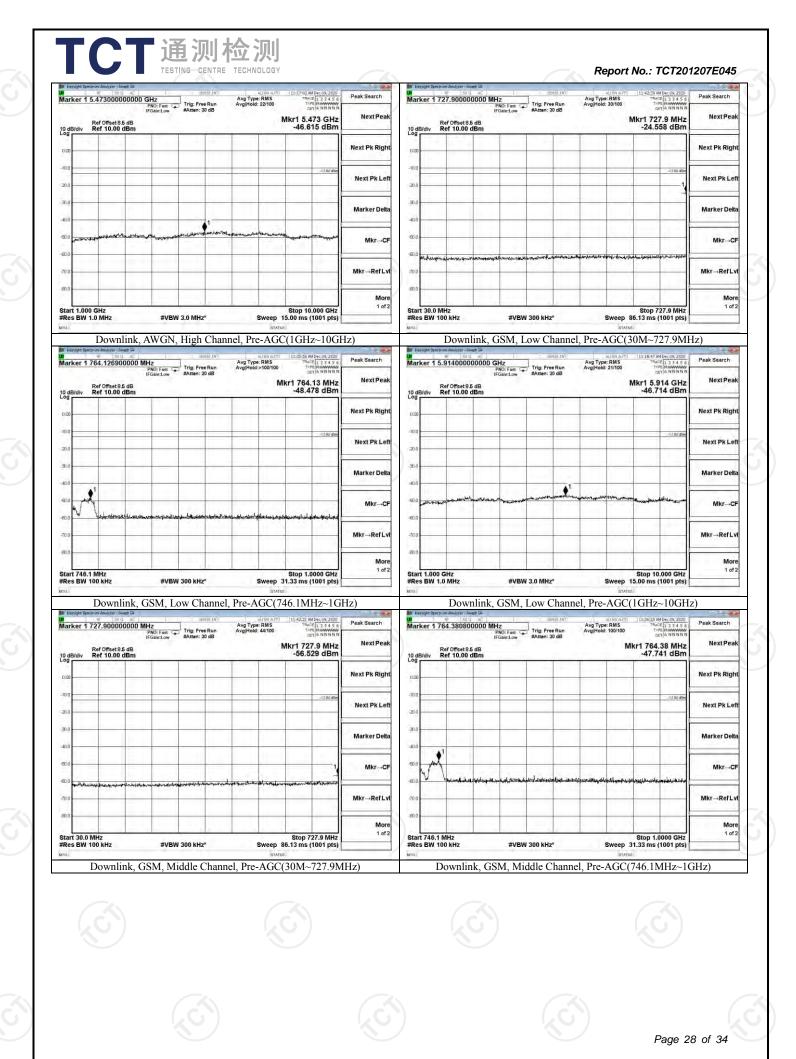
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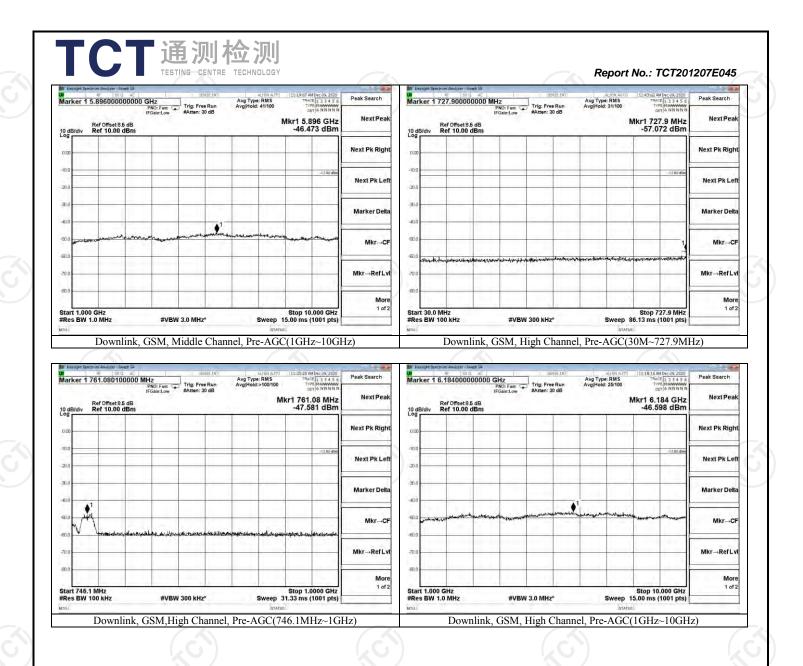












6.6 RADIATED SPURIOUS EMISSIONS

Applicable Standards

According to §2.1053 Measurements required: Field strength of spurious radiation. According to §27.53(g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

Test Procedure

1.EUT was placed on a 1.50 meter high non-conductive stand at a 3 meter test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUT for emission measurements. The height of receiving antenna is 1.50m. Detected emissions were maximized at each frequency by rotating the EUT through 360° and

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adjusting the receiving antenna polarization. The radiated emission measurements of all transmit frequencies in three channels (High, Middle, Low) were measured with peak detector.

2.A log-periodic antenna or double-ridged waveguide horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver. 3. The EUT is then put into continuously transmitting mode at its maximum power level during the test.Set Test Receiver RBW=1MHz,VBW=3MHz for above 1GHz,RBW=120KHz,VBW=300KHz for below 1GHz,, And the maximum value of the receiver should be recorded as (Pr).

4. The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization. 5.A amplifier should be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna. The cable loss (Pcl) and the Substitution Antenna Gain (Ga) should be recorded after test.

The measurement results are obtained as described below:

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Power(EIRP)=PMea-Pcl+Ga

6. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power.

7.ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP = EIRP -2.15dBi.

8.In order to make sure test results more clearly, we set frequency range as follows table:

Frequency	Channel	Frequency Range	Verdict
	Low	9KHz -8GHz	PASS
LTE FDD Band 12	Middle	9KHz -8GHz	PASS
	High	9KHz -8GHz	PASS

Test Data





Uplink, Test Frequency 701.5MHz

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Convert Factor	Peak ERP (dBm)	Limit (dBm)	Polarization
114.6	-42.23	3.52	3.00	3.25	2.15	-44.65	-13.00	Н
1406.1	-40.52	5.36	3.00	9.71	2.15	-38.32	-13.00	Н
2104.6	-55.83	6.11	3.00	11.36	2.15	-52.73	-13.00	Н
148.3	-40.32	4.36	3.00	3.62	2.15	-43.21	-13.00	V
1404.5	-45.52	5.43	3.00	9.88	2.15	-43.22	-13.00	V
2104.6	-56.35	6.11	3.00	11.36	2.15	-53.25	-13.00	V

Uplink, Test Frequency 707.5MHz

			(\mathbf{C},\mathbf{C})			(1)		
Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Convert Factor	Peak ERP (dBm)	Limit (dBm)	Polarization
129.32	-44.63	4.63	3.00	3.57	2.15	-47.84	-13.00	Н
1418.32	-46.31	5.85	3.00	10.03	2.15	-44.28	-13.00	Н

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I	TC		测检; CENTRE TECHNO	页J DLOGY				F	Report No.: TCT2	01207E045
	2122.8	-54.70	6.19	3.00	11.41	2.15	-51.63	-13.00	Н	
	135.2	-42.32	4.43	3.00	3.36	2.15	-45.54	-13.00	V	
	1416.9	-41.22	5.23	3.00	10.09	2.15	-38.51	-13.00	V	
	2122.8	-50.36	6.19	3.00	11.41	2.15	-47.29	-13.00	V	

Uplink, Test Frequency 713.5MHz

	Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Convert Factor	Peak ERP (dBm)	Limit (dBm)	Polarization
ſ	154.2	-43.62	4.23	3.00	3.67	2.15	-46.33	-13.00	Н
ſ	1428.3	-42.32	5.43	3.00	9.62	2.15	-40.28	-13.00	Н
ſ	2140.8	-54.65	6.24	3.00	11.46	2.15	-51.58	-13.00	Н
ſ	168.3	-43.36	4.23	3.00	3.52	2.15	-46.22	-13.00	V
I	1429.2	-46.23	5.76	3.00	9.62	2.15	-44.52	-13.00	V
	2140.8	-51.85	6.24	3.00	11.46	2.15	-48.78	-13.00	V

Downlink, Test Frequency 731.5MHz

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	Ga Antenna Gain(dB)	Convert Factor	Peak ERP (dBm)	Limit (dBm)	Polarization
236.8	-41.63	4.75	3.00	3.83	2.15	-44.7	-13.00	Н
1464.2	-45.52	4.23	3.00	9.81	2.15	-42.09	-13.00	Н
2194.7	-49.46	5.94	3.00	10.86	2.15	-46.69	-13.00	Н
163.2	-43.23	4.63	3.00	3.53	2.15	-46.48	-13.00	V
1464.3	-43.62	4.76	3.00	9.81	2.15	-40.72	-13.00	V
2194.7	-54.23	5.94	3.00	10.86	2.15	-51.46	-13.00	V

Downlink, Test Frequency737.5MHz

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	Ga Antenna Gain(dB)	Convert Factor	Peak ERP (dBm)	Limit (dBm)	Polarization
166.3	-41.63	4.45	3.00	3.73	2.15	-44.5	-13.00	Н
1475.8	-45.53	4.63	3.00	9.84	2.15	-42.47	-13.00	Н
2212.6	-53.74	5.94	3.00	10.86	2.15	-50.97	-13.00	Н
187.2	-46.31	4.76	3.00	3.55	2.15	-49.67	-13.00	V
1474.3	-47.53	4.73	3.00	9.84	2.15	-44.57	-13.00	V
2212.6	-55.31	5.94	3.00	10.86	2.15	-52.54	-13.00	VG

Downlink, Test Frequency 743.5MHz

Frequency (MHz)	(dBm)	P _{cl} (dB)	Diatance	Antenna Gain(dB)	Convert Factor	Peak ERP (dBm)	Limit (dBm)	Polarization
131.2 -	-43.56	4.43	3.00	3.54	2.15	-46.6	-13.00	Н
1486.5 -	-44.53	4.74	3.00	9.9	2.15	-41.52	-13.00	Ĥ
2230.8 -	-47.52	5.95	3.00	10.91	2.15	-44.71	-13.00	Н
154.8 -	-46.35	4.53	3.00	3.66	2.15	-49.37	-13.00	V
1486.3 -	-47.23	4.73	3.00	9.9	2.15	-44.21	-13.00	V
2230.8 -	-53.86	5.95	3.00	10.91	2.15	-51.05	-13.00	V

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7. Test Instruments

TCT 通测检测 TESTING CENTRE TECHNOLOGY

Name	Model No.	Manufacturer	Date of Cal.	Due Date
EMI Test Receiver	ESIB7	R&S	Jul. 28, 2020	Jul. 27, 2021
Spectrum Analyzer	N9020A	Agilent	Sep. 11, 2020	Sep. 10, 2021
Amplifier	8447D	HP	Sep. 08, 2020	Sep. 07, 2021
Amplifier	EM30265	EM Electronics Corporation CO.,LTD	Sep. 08, 2020	Sep. 07, 2021
Broadband Antenna	VULB9163	Schwarzbeck	Sep. 06, 2020	Sep. 05, 2021
Horn Antenna	BBHA 9120D	Schwarzbeck	Sep. 06, 2020	Sep. 05, 2021
Coax cable (9KHz-40GHz)	RE-high-02	ТСТ	Sep. 08, 2020	Sep. 07, 2021
Coax cable (9KHz-40GHz)	RE-high-04	ТСТ	Sep. 08, 2020	Sep. 07, 2021
Loop antenna	ZN30900A	ZHINAN	Sep. 11, 2020	Sep. 10, 2021
Signal Generator	N5182A	Agilent	Sep. 11, 2020	Sep. 10, 2021
Signal Generator	Agilent	E4421B	Jul. 27, 2020	Jul. 26, 2021
RF Combiner	SUNVNDN	SUD-CS0800	Sep. 11, 2020	Sep. 10, 2021
Attenuator	50FP-006-H3	JFW	Sep. 11, 2020	Sep. 10, 2021
Band Pass Filter	4CS10- 781.5/E12.2- O/O	N/A	Sep. 11, 2020	Sep. 10, 2021
Band Pass Filter	4CS10- 751.5/E12-O/O	N/A	Sep. 11, 2020	Sep. 10, 2021
1 dB step Attenuator	8494B	N/A	Sep. 11, 2020	Sep. 10, 2021
10dB step Attenuator	8496B	N/A	Sep. 11, 2020	Sep. 10, 2021
RF Coupler	722-10-1.500V	N/A	Sep. 11, 2020	Sep. 10, 2021
Band Pass Filter	4CS10- 781.5/E12.2- O/O	N/A	Sep. 11, 2020	Sep. 10, 2021

