

### ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

### INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 22 SUBPART H, PART 24 SUBPART E and PART 27 SUBPART B, C & SUBPART L AND PART 90S REQUIREMENT

	0F
Applicant:	Advantech Co., Ltd No. 1, Alley 20, Lane 26, Rueiguang Road, Neihu District, Taipei 11491, Taiwan, R.O.C.
Product Name:	Network Platform
Brand Name:	Advantech
Model No.:	FWA-AAL1010VC, FWA-AAL1010VCXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
Model Difference:	Market different
FCC ID:	M82-FWA-AAL1010
Report Number:	E2/2018/10154
FCC Rule Part:	2, 22H & 24E & 27B, C & L & 90S
Issue Date:	Mar. 02, 2018
Date of Test:	Jan. 17, 2018 ~ Feb. 21, 2018
Date of EUT Received:	Jan. 17, 2018
We hereby certify that:	

The above equipment was tested by SGS Taiwan Ltd. Electronics & Communication Laboratory The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.26-2015 and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits.

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

Vroletta -Iana

Prepared By:

Approved By:

Violetta Tang / Clerk

Jim Chang / Manager



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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# **Revision History**

Report Number	Revision	Description	Issue Date
E2/2018/10154	Rev.00	Initial creation of document	Mar. 02, 2018

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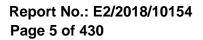
# 1. GENERAL PRODUCT INFORMATION

# **1.1. Product Description**

#### General:

Product Name:	Network Pla	atform				
Brand Name:	Advantech					
Model No.:		FWA-AAL1010VC, FWA-AAL1010VCXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX				
Model Difference:	Market different					
Product SW/HW version:	N/A / N/A					
	12V from AC/DC Adapter					
Power Supply:	Adapter: Model No.: FSP060-DIBAN2, Supplier: FSP GROUP INC.					
IMEI:	014582007221865					

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# 1.2. WCDMA / LTE: Cellular Phone Standards Frequency Range

Operating Frequency (MHz)									
WCDMA / HSPA+ Band II	1852.4	-	1907.6						
WCDMA//HSPA+ Band IV 1712.4 - 1752.6									
WCDMA / HSPA+ Band V	826.4	-	846.6						

LTE Band	BW (MHz)	Operation F (MH:		LTE Band	BW (MHz)	•	on Fr MHz	equency
	(ivi⊓z) 1.4	1850.7 -	<u>2)</u> 1909.3		(ivi⊓z) 1.4	1850.7		) 1914.3
	3	1851.5 -	1908.5		3	1851.5	-	1913.5
	5	1852.5 -	1907.5		5	1852.5	-	1912.5
2	10	1855.0 -	1905.0	25	10	1855.0	-	1910.0
	15	1857.5 -	1902.5		15	1857.5	-	1907.5
	20	1860.0 -	1900.0		20	1860.0	-	1905.0
	1.4	1710.7 -	1754.3		1.4	824.7	-	848.3
	3	1711.5 -	1753.5	1	3	825.5	-	847.5
	5	1712.5 -	1752.5	26	5	826.5	-	846.5
4	10	1715.0 -	1780.0		10	829.0	-	844.0
	15	1717.5 -	1747.5		15	831.5	-	841.5
	20	1720.0 -	1745.0		1.4	814.7	-	823.3
	1.4	824.7 -	848.3		3	815.5	-	822.5
5	3	825.5 -	847.5	26 Part90	5	816.5	-	821.5
Э	5	826.5 -	846.5		10	819.0		
	10	829.0 -	844.0	30	5	2307.5	-	2312.5
	5	2502.5 -	2567.5	30	10	2	310.	0
7	10	2505.0 -	2565.0		5	2498.5	-	2687.5
,	15	2507.5 -	2562.5	41	10	2501.0	-	2685.0
	20	2510.0 -	2560.0	41	15	2503.5	-	2682.5
	1.4	699.7 -	715.3		20	2506.0	-	2680.0
12	3	700.5 -	714.5					
12	5	701.5 -	713.5					
	10	704.0 -	711.0					
13	5	779.5 -	784.5					
13 -	10	782	) -					

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#### Type of Emission & Max ERP/EIRP Power Measurement Result:

	ERP / EIRP (	dBm)	(W)	Type of Emission
WCDMA Band II	22.66	EIRP	0.185	4M15F9W
HSDPA Band II	21.15	EIRP	0.130	4M14F9W
HSUPA Band II	17.71	EIRP	0.059	4M13F9W
WCDMA Band IV	24.67	EIRP	0.293	4M13F9W
HSDPA Band IV	22.72	EIRP	0.187	4M13F9W
HSUPA Band IV	21.74	EIRP	0.149	4M13F9W
WCDMA Band V	21.20	ERP	0.132	4M15F9W
HSDPA Band V	20.78	ERP	0.120	4M14F9W
HSUPA Band V	20.84	ERP	0.121	4M14F9W

LTE Band	BW (MHz)	Modulation	ERP / (dB		(W)	Type of Emission		LTE Band	BW (MHz)	Modulation		/ EIRP 3m)	(W)	Type of Emission	
	1.4	QPSK	22.79	EIRP	0.190	1M09G7D			1.4	QPSK	18.14	EIRP	0.065	1M09G7D	
	1.4	16QAM	22.69	EIRP	0.186	1M09D7W			1.4	16QAM	18.53	EIRP	0.071	1M10D7W	
	3	QPSK	21.01	EIRP	0.126	2M70G7D			3	QPSK	19.35	EIRP	0.086	2M70G7D	
	3	16QAM	20.98	EIRP	0.125	2M70D7W			3	16QAM	21.00	EIRP	0.126	2M70D7W	
	5	QPSK	22.30	EIRP	0.170	4M50G7D			5	QPSK	20.30	EIRP	0.107	4M50G7D	
2	5	16QAM	22.56	EIRP	0.180	4M50D7W		4	5	16QAM	21.67	EIRP	0.147	4M50D7W	
2	10	QPSK	22.27	EIRP	0.169	9M00G7D	3M97D7W 13M5G7D	)	4	10	QPSK	19.29	EIRP	0.085	8M99G7D
	10	16QAM	22.09	EIRP	0.162	8M97D7W			10	16QAM	20.72	EIRP	0.118	8M97D7W	
	15	QPSK	21.85	EIRP	0.153	13M5G7D			15	QPSK	19.05	EIRP	0.080	13M5G7D	
	15	16QAM	21.15	EIRP	0.130	13M5D7W			15	16QAM	20.08	EIRP	0.102	13M5D7W	
	20	QPSK	20.69	EIRP	0.117	18M0G7D			20	QPSK	18.03	EIRP	0.064	18M0G7D	
	20	16QAM	20.86	EIRP	0.122	18M0D7W			20	16QAM	18.84	EIRP	0.077	18M0D7W	

LTE Band	BW (MHz)	Modulation	ERP / EIRP (dBm)		(W)	Type of Emission
	1.4	QPSK	23.57	ERP	0.228	1M09G7D
	1.4	16QAM	23.50	ERP	0.224	1M09D7W
	3	QPSK	22.96	ERP	0.198	2M70G7D
5	3	16QAM	24.55	ERP	0.285	2M70D7W
5	5	QPSK	24.11	ERP	0.258	4M50G7D
	5	16QAM	24.17	ERP	0.261	4M50D7W
	10	QPSK	22.32	ERP	0.171	9M01G7D
	10	16QAM	22.26	ERP	0.168	8M97D7W

Band	(MHz)	Modulation	(dBm)		(W)	Emission
Janu	· ,			,		
	1.4	QPSK	18.14	EIRP	0.065	1M09G7D
	1.4	16QAM	18.53	EIRP	0.071	1M10D7W
	3	QPSK	19.35	EIRP	0.086	2M70G7D
	3	16QAM	21.00	EIRP	0.126	2M70D7W
	5	QPSK	20.30	EIRP	0.107	4M50G7D
4	5	16QAM	21.67	EIRP	0.147	4M50D7W
4	10	QPSK	19.29	EIRP	0.085	8M99G7D
	10	16QAM	20.72	EIRP	0.118	8M97D7W
	15	QPSK	19.05	EIRP	0.080	13M5G7D
	15	16QAM	20.08	EIRP	0.102	13M5D7W
	20	QPSK	18.03	EIRP	0.064	18M0G7D
	20	16QAM	18.84	EIRP	0.077	18M0D7W

LTE Band	BW (MHz)	Modulation	ERP / EIRP (dBm)		(W)	Type of Emission
	5	QPSK	24.01	ERP	0.252	4M50G7D
	5	16QAM	24.11	ERP	0.258	4M50D7W
	10	QPSK	23.59	ERP	0.229	9M01G7D
7	10	16QAM	23.74	ERP	0.237	8M96D7W
/	15	QPSK	23.87	ERP	0.244	13M5G7D
	15	16QAM	23.95	ERP	0.248	13M5D7W
	20	QPSK	23.81	ERP	0.240	18M0G7D
	20	16QAM	22.94	ERP	0.197	17M9D7W

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LTE Band	BW (MHz)	Modulation	ERP / EIRP (dBm)		(W)	Type of Emission
	1.4	QPSK	25.49	ERP	0.354	1M09G7D
	1.4	16QAM	25.48	ERP	0.353	1M09D7W
	3	QPSK	24.56	ERP	0.286	2M70G7D
12	3	16QAM	24.53	ERP	0.284	2M70D7W
IZ	5	QPSK	24.59	ERP	0.288	4M50G7D
	5	16QAM	24.60	ERP	0.288	4M51D7W
	10	QPSK	23.40	ERP	0.219	9M01G7D
	10	16QAM	24.32	ERP	0.270	8M98D7W
	5	QPSK	25.60	ERP	0.363	4M50G7D
13	5	16QAM	25.73	ERP	0.374	4M50D7W
13	10	QPSK	25.05	ERP	0.320	8M98G7D
	10	16QAM	25.36	ERP	0.344	8M95D7W

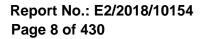
LTE Band	BW (MHz)	Modulation	ERP / EIRP (dBm)		(W)	Type of Emission
	1.4	QPSK	25.19	ERP	0.330	1M10G7D
	1.4	16QAM	25.17	ERP	0.329	1M09D7W
	3	QPSK	25.29	ERP	0.338	2M70G7D
	3	16QAM	25.33	ERP	0.341	2M70D7W
26	5	QPSK	24.55	ERP	0.285	4M50G7D
20	5	16QAM	24.63	ERP	0.290	4M50D7W
	10	QPSK	24.64	ERP	0.291	9M01G7D
	10	16QAM	24.63	ERP	0.290	8M96D7W
	15	QPSK	24.88	ERP	0.308	13M5G7D
	15	16QAM	24.87	ERP	0.307	13M5D7W

LTE Band	BW (MHz)	Modulation	ERP / EIRP (dBm)		(W)	Type of Emission
	5	QPSK	26.48	EIRP	0.445	4M49G7D
30	5	16QAM	27.34	EIRP	0.542	4M49D7W
30	10	QPSK	26.70	EIRP	0.468	8M95G7D
	10	16QAM	26.36	EIRP	0.433	8M95D7W

LTE Band	BW (MHz)	Modulation	ERP / EIRP (dBm)		(W)	Type of Emission
	1.4	QPSK	24.50	EIRP	0.282	1M10G7D
	1.4	16QAM	24.22	EIRP	0.264	1M10D7W
	3	QPSK	23.99	EIRP	0.251	2M70G7D
	3	16QAM	24.19	EIRP	0.262	2M70D7W
	5	QPSK	23.70	ERP	0.234	4M50G7D
25	5	16QAM	23.80	ERP	0.240	4M50D7W
20	10	QPSK	23.82	ERP	0.241	9M02G7D
	10	16QAM	23.87	ERP	0.244	9M00D7W
	15	QPSK	23.61	ERP	0.230	13M5G7D
	15	16QAM	23.94	ERP	0.248	13M5D7W
	20	QPSK	23.10	ERP	0.204	18M0G7D
	20	16QAM	24.04	ERP	0.254	18M0D7W

LTE Band	BW (MHz)	Modulation	ERP / EIRP (dBm)		(W)	Type of Emission
	1.4	QPSK	26.04	ERP	0.402	1M09G7D
	1.4	16QAM	26.01	ERP	0.399	1M09D7W
	3	QPSK	25.25	ERP	0.335	2M70G7D
26	3	16QAM	25.12	ERP	0.325	2M70D7W
Part90	5	QPSK	25.30	ERP	0.339	4M50G7D
	5	16QAM	25.19	ERP	0.330	4M50D7W
	10	QPSK	25.30	ERP	0.339	8M99G7D
	10	16QAM	25.29	ERP	0.338	8M96D7W

LTE Band	BW (MHz)	Modulation	ERP / EIRP (dBm)		(W)	Type of Emission
	5	QPSK	27.77	EIRP	0.598	4M52G7D
	5	16QAM	27.17	EIRP	0.521	4M50D7W
	10	QPSK	27.19	EIRP	0.524	8M98G7D
41	10	16QAM	27.29	EIRP	0.536	8M97D7W
41	15	QPSK	27.12	EIRP	0.515	13M5G7D
	15	16QAM	27.19	EIRP	0.524	13M5D7W
	20	QPSK	27.43	EIRP	0.553	18M0G7D
	20	16QAM	27.47	EIRP	0.558	18M0D7W





### **1.3. Test Methodology of Applied Standards**

CC 47 CFR Part 2, 22, 24, 27, Part 90S.

ANSI C63.26-2015

KDB971168 D01 Power Meas license Digital System v03

KDB941225 D01 SAR test for 3G devices v03r01 (SAR Measurement Procedures for 3G Devices, WCDMA / HSPA) was used for EUT and Base station setting.

TS 151 010-1 is used to set, and measure the output power.

Note: All test items have been performed and record as per the above standards.

### 1.4. Test Facility

SGS Taiwan Ltd. Electronics & Communication Laboratory No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan 333 code 0513)

FCC Registration Numbers are: 735305 / TW0002

### 1.5. Special Accessories

No special accessories were used during testing.

### **1.6. Equipment Modifications**

There were no modifications incorporated into the EUT.

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# 2. SYSTEM TEST CONFIGURATION

### 2.1. EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

### 2.2. EUT Exercise

The EUT (Transmitter) was operated in the continuous transmission mode employed with the simulator of the Base Station that fixates at test default channels to fix the Tx frequency which was for the purpose of the measurements.

### 2.3. Test Procedure

### 2.3.1 Conducted Measurement at Antenna Port

According to measurement procured ANSI C63.26-2015, the EUT is placed on a turn table which is 0.8 m above ground plane. A low loss of RF cable was used to connect the antenna port of EUT to measurement equipment.

### 2.3.2 Radiated Emissions (ERP/EIRP)

According to measurement procured ANSI C63.26-2015, The EUT is a placed on as turn table, for emission measurements below 1 GHz is 0.8 m above ground plane, for emission measurements above 1 GHz, the table height shall be 1.5 m. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both Horizontal and Vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter (EUT) was rotated through three orthogonal axes and measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the measurement antenna according to the requirements in Section 8 and 13.

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# 2.4. Measurement Results Explanation Example

### For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuation factor between EUT conducted port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly EUT RF output level.

### Note:

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Following shows an offset computation in physical test.

	RF cable loss (dB)	Attenuation factor(dB)	offset(dB)
Low Band (Below 1GHz)	3.6	20	23.6
High Band (Above 1 GHz)	3.9	20	23.9

## **2.5. Final Amplifier Voltage and Current Information:**

Test Mode	DC voltage (V)	DC current (mA)
HSUPA B2		0.746
WCDMA B4		0.729
WCDMA B5		0.761
LTE Band 2		1.451
LTE Band 4		1.586
LTE Band 5		1.424
LTE Band 7	12	1.562
LTE Band 12	12	1.394
LTE Band 13		1.447
LTE Band 25		1.600
LTE Band 26		1.409
LTE Band 26 (Part 90S)		1.421
LTE Band 30		1.552
LTE Band 41		1.558

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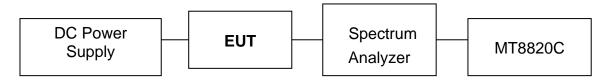
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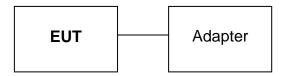


### 2.6. Configuration of Tested System

### Fig. 2-1 Configuration of Tested System (Fixed Channel-Conducted)



### Fig. 2-2 Configuration of Tested System (Fixed Channel-Radiated)



#### **Remote Side**



### Table 2-1 Equipment Used in

ltem	Equipment	Mfr/Brand	Model/ Type No.	Series No.	Data Cable	Power Cord
1.	Universal Radio Communication Tester	Anritsu	MT8820C	6200307563	shielded	Un-shielded



# 3. SUMMARY OF TEST RESULTS

FCC Rules	Description Of Test	Result
§2.1046(a)	RF Power Output	Compliant
§2.1046(a) §22.913(a)(5) §24.232(c) §27.50(c)(10) §27.50(d)(4) §27.50(h)(2) §90.635	ERP/ EIRP measurement	Compliant
§2.1049(h)	99% & 26dB Occuupied Bandwidth	Compliant
§2.1051 §22.917(a) §24.238(a) §27.53(g) §27.50(c)(5) §27.53(h) §27.53(m)(4)(6) §90.691	Out of Band Emissions at Antenna Terminals and Band Edge / Emission mask requirements	Compliant
§2.1053 §22.917(a) §24.238(a) §27.53(c)(2),(4) §27.50(c)(5) §27.53(f) §27.53(g) §27.53(h) §27.53(h) §27.53(m)(4) §90.691(a)(1)(2)	Field Strength of Spurious Radiation	Compliant
§24.232(d) §27.53(d) (5) §27.50(i) (B)	Peak to Average Ratio	Compliant
§27.53(f)	Spurious emission in 1559 -1610MHz Band	Compliant
§2.1055(a)(1) §22.355 §24.235 §27.54 §90.213	Frequency Stability	Compliant

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# 4. DESCRIPTION OF TEST MODES

### 4.1. The Worst Test Modes and Channel Details

- 1. The EUT has been tested under operating condition.
- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, X(E1)Y(E2)Z(H) axis and antenna ports. The worst case was found as listed below. Following channel(s) was (were) selected for the final test as listed below:

BAND	ERP/EIRP	RADIATED EMISSION
WCDMA/HSPA Band II	H-plan	H-plan
WCDMA/HSPA Band IV	H-plan	H-plan
WCDMA/HSPA Band V	H-plan	H-plan
LTE Band 2	H-plan	H-plan
LTE Band 4	H-plan	H-plan
LTE Band 5	H-plan	H-plan
LTE Band 7	H-plan	H-plan
LTE Band 12	H-plan	H-plan
LTE Band 13	H-plan	H-plan
LTE Band 25	H-plan	H-plan
LTE Band 26	H-plan	H-plan
LTE Band 26 (Part 90S)	H-plan	H-plan
LTE Band 30	H-plan	H-plan
LTE Band 41	H-plan	H-plan

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#### WCDMA/HSPA MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE
ERP	4132 to 4233	4132, 4183, 4233	WCDMA/HSPA Band V
EIRP	9262 to 9538 1312 to 1513	9262, 9400, 9583 1312, 1413, 1513	WCDMA/HSPA Band II WCDMA/HSPA Band IV
FREQUENCY STABILITY	4132 to 4233 1312 to 1513 9262 to 9538	4183 1413 9400	WCDMA Band II WCDMA Band IV WCDMA Band V
OCCUPIED BANDWIDTH	4132 to 4233 1312 to 1513 9262 to 9538	4132, 4183, 4233 1312, 1413, 1513 9262, 9400, 9583	WCDMA/HSPA Band II WCDMA/HSPA Band IV WCDMA/HSPA Band V
PEAK TO AVERAGE RATIO	4132 to 4233 1312 to 1513 9262 to 9538	4132, 4183, 4233 1312, 1413, 1513 9262, 9400, 9583	WCDMA/HSPA Band II WCDMA/HSPA Band IV WCDMA/HSPA Band V
BAND EDGE	4132 to 4233 1312 to 1513 9262 to 9538	4132, 4233 1312, 1513 9262, 9583	WCDMA Band II WCDMA Band IV WCDMA Band V
CONDCUDETED EMISSION	4132 to 4233 1312 to 1513 9262 to 9538	4132, 4183, 4233 1312, 1413, 1513 9262, 9400, 9583	WCDMA Band II WCDMA Band IV WCDMA Band V
RADIATED EMISSION	4132 to 4233 1312 to 1513 9262 to 9538	4132, 4183, 4233 1312, 1413, 1513 9262, 9400, 9583	WCDMA Band II WCDMA Band IV WCDMA Band V

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#### LTE Band 2 MODE

		тгетгр			
TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK, 16QAM	1 RB/ 0,14 RB Offest
רוסס	18625 to 19175	18625, 18900, 19175	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
EIRP	18650 to 19150	18650, 18900, 19150	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK, 16QAM	1 RB/ 0,74 RB Offest
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK, 16QAM	1 RB/ 0,99 RB Offest
FREQUENCY STABILITY	18650 to 19150	18900	10MHz	QPSK	Full RB
	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK, 16QAM	Full RB
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK, 16QAM	Full RB
OCCUPIED BAND-	18625 to 19175	18625, 18900, 19175	5MHz	QPSK, 16QAM	Full RB
WIDTH	18650 to 19150	18650, 18900, 19150	10MHz	QPSK, 16QAM	Full RB
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK, 16QAM	Full RB
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK, 16QAM	Full RB
	18607 to 19193	18607, 18900, 19193	1.4MHz	16QAM	Full RB
	18615 to 19185	18615, 18900, 19185	3MHz	16QAM	Full RB
PEAK TO AVERAGE	18625 to 19175	18625, 18900, 19175	5MHz	16QAM	Full RB
RATIO	18650 to 19150	18650, 18900, 19150	10MHz	16QAM	Full RB
	18675 to 19125	18675, 18900, 19125	15MHz	16QAM	Full RB
	18700 to 19100	18700, 18900, 19100	20MHz	16QAM	Full RB
	18607 to 19193	18607, 19193	1.4MHz	QPSK	1 RB/ 0,5 RB Offes Full RB
	18615 to 19185	18615, 19185	3MHz	QPSK	1 RB/ 0,14 RB Offest Full RB
BAND EDGE	18625 to 19175	18625, 19175	5MHz	QPSK	1 RB/ 0,24 RB Offest Full RB
	18650 to 19150	18650, 19150	10MHz	QPSK	1 RB/ 0,49 RB Offest Full RB
	18675 to 19125	18675, 19125	15MHz	QPSK	1 RB/ 0,74 RB Offest Full RB
	18700 to 19100	18700, 19100	20MHz	QPSK	1 RB/ 0,99 RB Offest Full RB
	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK	1 RB, 0 RB Offest
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK	1 RB, 0 RB Offest
CONDCUDETED	18625 to 19175	18625, 18900, 19175	5MHz	QPSK	1 RB, 0 RB Offest
EMISSION	18650 to 19150	18650, 18900, 19150	10MHz	QPSK	1 RB, 0 RB Offest
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK	1 RB, 0 RB Offest
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK	1 RB, 0 RB Offest
RADIATED EMISSION	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK	1 RB, 0 RB Offest



#### LTE Band 4 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
	19957 to 19393	19957, 20175, 19393	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	19965 to 22385	19957, 20175, 19395	3MHz	QPSK, 16QAM	1 RB/ 0,14 RB Offest
	19905 to 22385	19905, 20175, 22385	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
EIRP	20000 to 20350	20000, 20175, 20375	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
			15MHz		
	20025 to 20325 20050 to 20300	20025, 20175, 20325 20050, 20175, 20300	20MHz	QPSK, 16QAM QPSK, 16QAM	1 RB/ 0,74 RB Offest 1 RB/ 0,99 RB Offest
FREQUENCY STABILITY	20000 to 20350	20030, 20175, 20300	10MHz	QPSK, IBQAIM QPSK	Full RB
	19957 to 19393	19957, 20175, 19393	1.4MHz	QPSK, 16QAM	Full RB
	19965 to 22385	19965, 20175, 22385	3MHz	QPSK, 16QAM	Full RB
OCCUPIED BAND-	19975 to 20375	19975, 20175, 20375	5MHz	QPSK, 16QAM	Full RB
WIDTH	20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM	Full RB
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK, 16QAM	Full RB
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK, 16QAM	Full RB
	19957 to 19393	19957, 20175, 19393	1.4MHz	16QAM	Full RB
	19965 to 22385	19965, 20175, 22385	3MHz	16QAM	Full RB
PEAK TO AVERAGE	19975 to 20375	19975, 20175, 20375	5MHz	16QAM	Full RB
RATIO	20000 to 20350	20000, 20175, 20350	10MHz	16QAM	Full RB
	20025 to 20325	20025, 20175, 20325	15MHz	16QAM	Full RB
	20050 to 20300	20050, 20175, 20300	20MHz	16QAM	Full RB
	19957 to 19393	19957, 19393	1.4MHz	QPSK	1 RB/ 0,5 RB Offes Full RB
	19965 to 22385	19965, 22385	3MHz	QPSK	1 RB/ 0,14 RB Offest Full RB
	19975 to 20375	19975, 20375	5MHz	QPSK	1 RB/ 0,24 RB Offest Full RB
BAND EDGE	20000 to 20350	20000, 20350	10MHz	QPSK	1 RB/ 0,49 RB Offest Full RB
	20025 to 20325	20025, 20325	15MHz	QPSK	1 RB/ 0,74 RB Offest Full RB
	20050 to 20300	20050, 20300	20MHz	QPSK	1 RB/ 0,99 RB Offest Full RB
	19957 to 19393	19957, 20175, 19393	1.4MHz	QPSK	1 RB, 0 RB Offest
	19965 to 22385	19965, 20175, 22385	3MHz	QPSK	1 RB, 0 RB Offest
CONDCUDETED EMISSION	19975 to 20375	19975, 20175, 20375	5MHz	QPSK	1 RB, 0 RB Offest
	20000 to 20350	20000, 20175, 20350	10MHz	QPSK	1 RB, 0 RB Offest
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK	1 RB, 0 RB Offest
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK	1 RB, 0 RB Offest
RADIATED EMISSION	19975 to 20375	19975, 20175, 20375	5MHz	16QAM	1 RB, 0 RB Offest



#### LTE Band 5 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
	20470 to 20643	20470, 20525, 20643	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	20415 to 20635	20415, 20525, 20635	3MHz	QPSK, 16QAM	1 RB/ 0,14 RB Offest
ERP	20425 to 20625	20425, 20525, 20625	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
	20450 to 20600	20450, 20525, 20600	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
FREQUENCY STABILITY	20450 to 20600	20525	10MHz	QPSK	Full RB
	20470 to 20643	20470, 20525, 20643	1.4MHz	QPSK, 16QAM	Full RB
OCCUPIED BAND-	20415 to 20635	20415, 20525, 20635	3MHz	QPSK, 16QAM	Full RB
WIDTH	20425 to 20625	20425, 20525, 20625	5MHz	QPSK, 16QAM	Full RB
	20450 to 20600	20450, 20525, 20600	10MHz	QPSK, 16QAM	Full RB
	20470 to 20643	20470, 20525, 20643	1.4MHz	16QAM	Full RB
PEAK TO AVERAGE	20415 to 20635	20415, 20525, 20635	3MHz	16QAM	Full RB
RATIO	20425 to 20625	20425, 20525, 20625	5MHz	16QAM	Full RB
	20450 to 20600	20450, 20525, 20600	10MHz	16QAM	Full RB
	20470 to 20643	20470, 20643	1.4MHz	QPSK	1 RB/ 0,5 RB Offes Full RB
	20415 to 20635	20415, 20635	3MHz	QPSK	1 RB/ 0,14 RB Offest Full RB
BAND EDGE	20425 to 20625	20425, 20625	5MHz	QPSK	1 RB/ 0,24 RB Offest Full RB
	20450 to 20600	20450, 20600	10MHz	QPSK	1 RB/ 0,49 RB Offest Full RB
	20470 to 20643	20470, 20525, 20643	1.4MHz	QPSK	1 RB, 0 RB Offest
CONDCUDETED	20415 to 20635	20415, 20525, 20635	3MHz	QPSK	1 RB, 0 RB Offest
EMISSION	20425 to 20625	20425, 20525, 20625	5MHz	QPSK	1 RB, 0 RB Offest
	20450 to 20600	20450, 20525, 20600	10MHz	QPSK	1 RB, 0 RB Offest
RADIATED EMISSION	20415 to 20635	20415, 20525, 20635	3MHz	16QAM	1 RB, 0 RB Offest



#### LTE Band 7 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
	20775 to 21425	20775, 21100, 21425	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
EIRP	20800 to 21400	20800, 21100, 21400	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
EIRP	20850 to 21375	20850, 21100, 21375	15MHz	QPSK, 16QAM	1 RB/ 0,74 RB Offest
	20850 to 21350	20850, 21100, 21350	20MHz	QPSK, 16QAM	1 RB/ 0,99 RB Offest
FREQUENCY STABILITY	20800 to 21400	21100	10MHz	QPSK	Full RB
	20775 to 21425	20775, 21100, 21425	5MHz	QPSK, 16QAM	Full RB
OCCUPIED BAND-	20800 to 21400	20800, 21100, 21400	10MHz	QPSK, 16QAM	Full RB
WIDTH	20850 to 21375	20850, 21100, 21375	15MHz	QPSK, 16QAM	Full RB
	20850 to 21350	20850, 21100, 21350	20MHz	QPSK, 16QAM	Full RB
	20775 to 21425	20775, 21100, 21425	5MHz	16QAM	Full RB
PEAK TO AVERAGE	20800 to 21400	20800, 21100, 21400	10MHz	16QAM	Full RB
RATIO	20850 to 21375	20850, 21100, 21375	15MHz	16QAM	Full RB
	20850 to 21350	20850, 21100, 21350	20MHz	16QAM	Full RB
	20775 to 21425	20775, 21100, 21425	5MHz	QPSK	1 RB/ 0,24 RB Offest Full RB
BAND EDGE	20800 to 21400	20800, 21100, 21400	10MHz	QPSK	1 RB/ 0,49 RB Offest Full RB
BAND EDGE	20850 to 21375	20850, 21100, 21375	15MHz	QPSK	1 RB/ 0,74 RB Offest Full RB
	20850 to 21350	20850, 21100, 21350	20MHz	QPSK	1 RB/ 0,99 RB Offest Full RB
	20775 to 21425	20775, 21100, 21425	5MHz	QPSK	1 RB, 0 RB Offest
CONDCUDETED	20800 to 21400	20800, 21100, 21400	10MHz	QPSK	1 RB, 0 RB Offest
EMISSION	20850 to 21375	20850, 21100, 21375	15MHz	QPSK	1 RB, 0 RB Offest
	20850 to 21350	20850, 21100, 21350	20MHz	QPSK	1 RB, 0 RB Offest
RADIATED EMISSION	20775 to 21425	20775, 21100, 21425	5MHz	16QAM	1 RB, 24 RB Offest
	20775 to 21425	20775, 21100, 21425	5MHz	QPSK	1 RB/ 0,24 RB Offest 25 RB/ 0 Offset
	20800 to 21400	20800, 21100, 21400	10MHz	QPSK	1 RB/ 0,49 RB Offest 50 RB/ 0 Offset
EMISSION MASK	20850 to 21375	20850, 21100, 21375	15MHz	QPSK	1 RB/ 0,74 RB Offest 75 RB/ 0 Offset
	20850 to 21350	20850, 21100, 21350	20MHz	QPSK	1 RB/ 0,99 RB Offest 100 RB/ 0 Offset



#### LTE Band 12 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
ERP	23025 to 23165	23025, 23095, 23165	3MHz	QPSK, 16QAM	1 RB/ 0,14 RB Offest
LKF	23035 to 23155	23035, 23095, 23155	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
FREQUENCY STABILITY	23060 to 23130	23095	10MHz	QPSK	Full RB
	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK, 16QAM	Full RB
OCCUPIED	23025 to 23165	23025, 23095, 23165	3MHz	QPSK, 16QAM	Full RB
BANDWIDTH	23035 to 23155	23035, 23095, 23155	5MHz	QPSK, 16QAM	Full RB
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK, 16QAM	Full RB
	23017 to 23173	23017, 23095, 23173	1.4MHz	16QAM	Full RB
PEAK TO AVER-	23025 to 23165	23025, 23095, 23165	3MHz	16QAM	Full RB
AGE RATIO	23035 to 23155	23035, 23095, 23155	5MHz	16QAM	Full RB
	23060 to 23130	23060, 23095, 23130	10MHz	16QAM	Full RB
	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK	1 RB/ 0,5 RB Offes Full RB
	23025 to 23165	23025, 23095, 23165	3MHz	QPSK	1 RB/ 0,14 RB Offest Full RB
BAND EDGE	23035 to 23155	23035, 23095, 23155	5MHz	QPSK	1 RB/ 0,24 RB Offest Full RB
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK	1 RB/ 0,49 RB Offest Full RB
	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK	1 RB, 0 RB Offest
CONDCUDETED	23025 to 23165	23025, 23095, 23165	3MHz	QPSK	1 RB, 0 RB Offest
EMISSION	23035 to 23155	23035, 23095, 23155	5MHz	QPSK	1 RB, 0 RB Offest
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK	1 RB, 0 RB Offest
RADIATED EMISSION	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK	1 RB, 5 RB Offest

### LTE Band 13 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
ERP	23205 to 23255	23205, 23230, 23255	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
LKF	23230	23230	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
FREQUENCY STABILITY	23230	23230	10MHz	QPSK	Full RB
OCCUPIED	23205 to 23255	23205, 23230, 23255	5MHz	QPSK, 16QAM	Full RB
BANDWIDTH	23230	23230	10MHz	QPSK, 16QAM	Full RB
PEAK TO AVER-	23205 to 23255	23205, 23230, 23255	5MHz	16QAM	Full RB
AGE RATIO	23230	23230	10MHz	16QAM	Full RB
BAND EDGE	23205 to 23255	23205, 23255	5MHz	QPSK	1 RB/ 0,24 RB Offest Full RB
BAND EDGE	23230	23230	10MHz	QPSK	1 RB/ 0,49 RB Offest Full RB
CONDCUDETED	23205 to 23255	23205, 23230, 23255	5MHz	QPSK	1 RB, 0 RB Offest
EMISSION	23230	23230	10MHz	QPSK	1 RB, 0 RB Offest
RADIATED EMISSION	23205 to 23255	23205, 23230, 23255	5MHz	16QAM	1 RB/ 0 RB Offest

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#### LTE Band 25 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
	27047 to 26683	27047, 26365, 26683	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offset
	26055 to 26675	26055, 26365, 26675	3MHz	QPSK, 16QAM	1 RB/ 0,14 RB Offset
EIRP	26065 to 26665	26065, 26365, 26665	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offset
EIKP	26096 to 26640	26096, 26365, 26640	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offset
	26115 to 26615	26115, 26365, 26615	15MHz	QPSK, 16QAM	1 RB/ 0,74 RB Offset
	26140 to 26590	26140, 26365, 26590	20MHz	QPSK, 16QAM	1 RB/ 0,99 RB Offset
FREQUENCY STABILITY	26096 to 26640	26365	10MHz	QPSK	Full RB
	27047 to 26683	27047, 26365, 26683	1.4MHz	QPSK, 16QAM	Full RB
	26055 to 26675	26055, 26365, 26675	3MHz	QPSK, 16QAM	Full RB
OCCUPIED BAND-	26065 to 26665	26065, 26365, 26665	5MHz	QPSK, 16QAM	Full RB
WIDTH	26096 to 26640	26096, 26365, 26640	10MHz	QPSK, 16QAM	Full RB
	26115 to 26615	26115, 26365, 26615	15MHz	QPSK, 16QAM	Full RB
	26140 to 26590	26140, 26365, 26590	20MHz	QPSK, 16QAM	Full RB
	27047 to 26683	27047, 26365, 26683	1.4MHz	16QAM	Full RB
	26055 to 26675	26055, 26365, 26675	3MHz	16QAM	Full RB
PEAK TO AVERAGE	26065 to 26665	26065, 26365, 26665	5MHz	16QAM	Full RB
RATIO	26096 to 26640	26096, 26365, 26640	10MHz	16QAM	Full RB
	26115 to 26615	26115, 26365, 26615	15MHz	16QAM	Full RB
	26140 to 26590	26140, 26365, 26590	20MHz	16QAM	Full RB
	27047 to 26683	27047, 26683	1.4MHz	QPSK	1 RB/ 0,5 RB Offset Full RB
	26055 to 26675	26055, 26675	3MHz	QPSK	1 RB/ 0,14 RB Offset Full RB
BAND EDGE	26065 to 26665	26065, 26665	5MHz	QPSK	1 RB/ 0,24 RB Offset Full RB
DAND LUGL	26096 to 26640	26096, 26640	10MHz	QPSK	1 RB/ 0,49 RB Offset Full RB
	26115 to 26615	26115, 26615	15MHz	QPSK	1 RB/ 0,74 RB Offset Full RB
	26140 to 26590	26140, 26590	20MHz	QPSK	1 RB/ 0,99 RB Offset Full RB
	27047 to 26683	27047, 26365, 26683	1.4MHz	QPSK	1 RB, 0 RB Offset
	26055 to 26675	26055, 26365, 26675	3MHz	QPSK	1 RB, 0 RB Offset
CONDCUDETED	26065 to 26665	26065, 26365, 26665	5MHz	QPSK	1 RB, 0 RB Offset
EMISSION	26096 to 26640	26096, 26365, 26640	10MHz	QPSK	1 RB, 0 RB Offset
	26115 to 26615	26115, 26365, 26615	15MHz	QPSK	1 RB, 0 RB Offset
	26140 to 26590	26140, 26365, 26590	20MHz	QPSK	1 RB, 0 RB Offset
RADIATED EMISSION	27047 to 26683	27047, 26365, 26683	1.4MHz	QPSK	1 RB/ 5 RB Offset



#### LTE Band 26 MODE

TECTITEM	AVAILABLE	TESTED	CHANNEL		MODE
TEST ITEM	CHANNEL	CHANNEL	BANDWIDTH	MODULATION	MODE
	26797 to 27033	26797, 26915, 27033	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	26805 to 27025	26805, 26915, 27025	3MHz	QPSK, 16QAM	1 RB/ 0,14 RB Offest
ERP	26815 to 27015	26815, 26915, 27015	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
	26840 to 26990	26840, 26915, 26990	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
	26865 to 26965	26865, 26915, 26965	15MHz	QPSK, 16QAM	1 RB/ 0,74 RB Offest
FREQUENCY STABILITY	26865 to 26965	26915	15MHz	QPSK	Full RB
	26797 to 27033	26797, 26915, 27033	1.4MHz	QPSK, 16QAM	Full RB
	26805 to 27025	26805, 26915, 27025	3MHz	QPSK, 16QAM	Full RB
OCCUPIED BAND- WIDTH	26815 to 27015	26815, 26915, 27015	5MHz	QPSK, 16QAM	Full RB
WIDTH	26840 to 26990	26840, 26915, 26990	10MHz	QPSK, 16QAM	Full RB
	26865 to 26965	26865, 26915, 26965	15MHz	QPSK, 16QAM	Full RB
	26797 to 27033	26797, 26915, 27033	1.4MHz	16QAM	Full RB
PEAK TO AVERAGE	26805 to 27025	26805, 26915, 27025	3MHz	16QAM	Full RB
RATIO	26815 to 27015	26815, 26915, 27015	5MHz	16QAM	Full RB
KATIO	26840 to 26990	26840, 26915, 26990	10MHz	16QAM	Full RB
	26865 to 26965	26865, 26915, 26965	15MHz	16QAM	Full RB
	26797 to 27033	26797, 26915, 27033	1.4MHz	QPSK	1 RB/ 0,5 RB Offes Full RB
	26805 to 27025	26805, 26915, 27025	3MHz	QPSK	1 RB/ 0,14 RB Offest Full RB
BAND EDGE	26815 to 27015	26815, 26915, 27015	5MHz	QPSK	1 RB/ 0,24 RB Offest Full RB
	26840 to 26990	26840, 26915, 26990	10MHz	QPSK	1 RB/ 0,49 RB Offest Full RB
	26865 to 26965	26865, 26915, 26965	15MHz	QPSK	1 RB/ 0,74 RB Offest
	26797 to 27033	26797, 26915, 27033	1.4MHz	QPSK	1 RB, 0 RB Offest
	26805 to 27025	26805, 26915, 27025	3MHz	QPSK	1 RB, 0 RB Offest
CONDCUDETED EMISSION	26815 to 27015	26815, 26915, 27015	5MHz	QPSK	1 RB, 0 RB Offest
	26840 to 26990	26840, 26915, 26990	10MHz	QPSK	1 RB, 0 RB Offest
	26865 to 26965	26865, 26915, 26965	15MHz	QPSK	1 RB, 0 RB Offest
RADIATED EMISSION	26805 to 27025	26805, 26915, 27025	3MHz	16QAM	1 RB, 14 RB Offest

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### LTE Band 26 for 90S MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
	26697 to 26783	26697, 26740, 26783	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
ERP	26705 to 26775	26705, 26740, 26775	3MHz	QPSK, 16QAM	1 RB/ 0,14 RB Offest
EKP	26715 to 26765	26715, 26740, 26765	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
	26740	26740	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
FREQUENCY STABILITY	26697 to 26783	26740	1.4MHz	QPSK	Full RB
	26697 to 26783	26697, 26740, 26783	1.4MHz	QPSK, 16QAM	Full RB
OCCUPIED BAND-	26705 to 26775	26705, 26740, 26775	3MHz	QPSK, 16QAM	Full RB
WIDTH	26715 to 26765	26715, 26740, 26765	5MHz	QPSK, 16QAM	Full RB
	26740	26740	10MHz	QPSK, 16QAM	Full RB
	26697 to 26783	26697, 26740, 26783	1.4MHz	16QAM	Full RB
PEAK TO AVERAGE	26705 to 26775	26705, 26740, 26775	3MHz	16QAM	Full RB
RATIO	26715 to 26765	26715, 26740, 26765	5MHz	16QAM	Full RB
	26740	26740	10MHz	16QAM	Full RB
	26697 to 26783	26697, 26740, 26783	1.4MHz	QPSK	1 RB/ 0,5 RB Offes Full RB
	26705 to 26775	26705, 26740, 26775	3MHz	QPSK	1 RB/ 0,14 RB Offest Full RB
BAND EDGE	26715 to 26765	26715, 26740, 26765	5MHz	QPSK	1 RB/ 0,24 RB Offest Full RB
	26740	26740	10MHz	QPSK	1 RB/ 0,49 RB Offest Full RB
	26697 to 26783	26697, 26740, 26783	1.4MHz	QPSK	1 RB, 0 RB Offest
CONDCUDETED EMISSION	26705 to 26775	26705, 26740, 26775	3MHz	QPSK	1 RB, 0 RB Offest
	26715 to 26765	26715, 26740, 26765	5MHz	QPSK	1 RB, 0 RB Offest
	26740	26740	10MHz	QPSK	1 RB, 0 RB Offest
RADIATED EMISSION	26697 to 26783	26697, 26740, 26783	1.4MHz	QPSK	1 RB, 5 RB Offest

#### LTE Band 30 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
ERP	27685 to 27735	27685, 27710, 27735	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
EKP	27710	27710	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
FREQUENCY STABILITY	27710	27710	10MHz	QPSK	Full RB
OCCUPIED BAND-	27685 to 27735	27685, 27710, 27735	5MHz	QPSK, 16QAM	Full RB
WIDTH	27710	27710	10MHz	QPSK, 16QAM	Full RB
PEAK TO AVERAGE	27685 to 27735	27685, 27710, 27735	5MHz	16QAM	Full RB
RATIO	27710	27710	10MHz	16QAM	Full RB
	27685 to 27735	27685, 27710, 27735	5MHz	QPSK	1 RB/ 0,24 RB Offest Full RB
BAND EDGE	27710	27710	10MHz	QPSK	1 RB/ 0,49 RB Offest Full RB
CONDCUDETED	27685 to 27735	27685, 27710, 27735	5MHz	QPSK	1 RB, 0 RB Offest
EMISSION	27710	27710	10MHz	QPSK	1 RB, 0 RB Offest
RADIATED EMISSION	27685 to 27735	27685, 27710, 27735	5MHz	16QAM	1 RB/ 0 RB Offest

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#### LTE Band 41 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
	39675 to 41565	39675, 40620, 41565	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
EIRP	39700 to 41540	39700, 40620, 41540	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
EIRP	39725 to 41515	39725, 40620, 41515	15MHz	QPSK, 16QAM	1 RB/ 0,74 RB Offest
	39750 to 41490	39750, 40620, 41490	20MHz	QPSK, 16QAM	1 RB/ 0,99 RB Offest
FREQUENCY STABILITY	39700 to 41540	39700, 40620, 41540	10MHz	QPSK	Full RB
	39675 to 41565	39675, 40620, 41565	5MHz	QPSK, 16QAM	Full RB
OCCUPIED BAND-	39700 to 41540	39700, 40620, 41540	10MHz	QPSK, 16QAM	Full RB
WIDTH	39725 to 41515	39725, 40620, 41515	15MHz	QPSK, 16QAM	Full RB
	39750 to 41490	39750, 40620, 41490	20MHz	QPSK, 16QAM	Full RB
	39675 to 41565	39675, 40620, 41565	5MHz	16QAM	Full RB
PEAK TO AVERAGE	39700 to 41540	39700, 40620, 41540	10MHz	16QAM	Full RB
RATIO	39725 to 41515	39725, 40620, 41515	15MHz	16QAM	Full RB
	39750 to 41490	39750, 40620, 41490	20MHz	16QAM	Full RB
	39675 to 41565	39675, 41565	5MHz	QPSK	1 RB/ 0,24 RB Offest Full RB
BAND EDGE	39700 to 41540	39700, 41540	10MHz	QPSK	1 RB/ 0,49 RB Offest Full RB
DAND EDGE	39725 to 41515	39725, 41515	15MHz	QPSK	1 RB/ 0,74 RB Offest Full RB
	39750 to 41490	39750, 41490	20MHz	QPSK	1 RB/ 0,99 RB Offest Full RB
	39675 to 41565	39675, 40620, 41565	5MHz	QPSK	1 RB, 0 RB Offest
CONDCUDETED EMIS-	39700 to 41540	39700, 40620, 41540	10MHz	QPSK	1 RB, 0 RB Offest
SION	39725 to 41515	39725, 40620, 41515	15MHz	QPSK	1 RB, 0 RB Offest
	39750 to 41490	39750, 40620, 41490	20MHz	QPSK	1 RB, 0 RB Offest
	39675 to 41565	39675, 40620, 41565	5MHz	QPSK	1 RB/ 0,24 RB Offest 25 RB/ 0 Offset
EMISSION MASK	39700 to 41540	39700, 40620, 41540	10MHz	QPSK	1 RB/ 0,49 RB Offest 50 RB/ 0 Offset
	39725 to 41515	39725, 40620, 41515	15MHz	QPSK	1 RB/ 0,74 RB Offest 75 RB/ 0 Offset
	39750 to 41490	39750, 40620, 41490	20MHz	QPSK	1 RB/ 0,99 RB Offest 100 RB/ 0 Offset
RADIATED EMISSION	39675 to 41565	39675, 40620, 41565	5MHz	QPSK	1 RB, 24 RB Offest



## 5. MEASUREMENT UNCERTAINTY

Test Items	Uncertainty
RF Power Output	+/- 1.10 dB
ERP/ EIRP measurement	Vertical Polarization = +/- 4.74dB Horizontal Polarization =+/- 4.62dB
99% Occupied Bandwidth	+/- 5.19 Hz
Out of Band Emissions at Antenna Terminals and Band Edge	+/- 0.70 dB
Peak to Average Ratio	+/- 0.70 dB
Frequency Stability vs. Temperature	+/- 5.19 Hz
Frequency Stability vs. Voltage	+/- 5.19 Hz
Temperature	+/- 0.65 °C
Humidity	+/- 4.6 %
DC / AC Power Source	DC= +/- 0.13%, AC=+/- 0.2%

#### Radiated Spurious Emission:

Measurement uncertainty (Polarization : <b>Vertical</b> )	9kHz – 30MHz: +/- 2.87 dB
	30MHz - 180MHz: +/- 3.37dB
	180MHz -417MHz: +/- 3.19dB
	0.417GHz-1GHz: +/- 3.19dB
	1GHz - 18GHz: +/- 4.04dB
	18GHz - 40GHz: +/- 4.04dB

	9kHz – 30MHz: +/- 2.87 dB
	30MHz - 167MHz: +/- 4.22dB
Measurement uncertainty (Polarization : Horizontal)	167MHz -500MHz: +/- 3.44dB
(i bialization : holizolitai)	0.5GHz-1GHz: +/- 3.39dB
	1GHz - 18GHz: +/- 4.08dB
	18GHz - 40GHz: +/- 4.08dB

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

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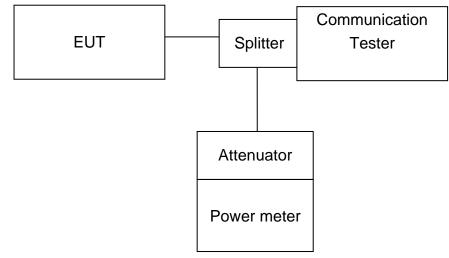


# 6. RF CONDUCTED OUTPUT POWER MEASUREMENT

### 6.1. Standard Applicable

A base station simulator was used to establish communication with the EUT. Its parameters were set to transmit the maximum power on the EUT. The measured power in the radio frequency on the transmitter output terminals.

### 6.2. Test Set-up



Note: Measurement setup for testing on Antenna connector

### 6.3. Measurement Procedure

The transmitter output was connected to a calibrated attenuator, the other end of which was connected to a power meter. Transmitter output was read off the power meter in dBm. The power output at the transmitter antenna port was determined by adding the value of the attenuator to the power meter reading. TS 151 010-1 is reference to conduct the test measurement of output power.

The Procedure of KDB941225 (SAR Measurement Procedures for 3G devices, (WCD-MA/HSPA) was used for EUT and Base station setting. RMC 12.2kps is used for this testing, and KDB 971168 D01 Power Meas License Digital System as the supplemental test methodology to adjust the proper setting obtaining the measurement results

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### 6.4. Measurement Equipment Used

Conduc	ted Emission (m	neasured at a	antenna port)	Test Site	
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Spectrum Analyzer	KEYSIGHT	N9010A	MY51440113	06/20/2017	06/19/2018
Communication Tester	Anritsu	MT8820C	6201107337	06/11/2017	06/10/2018
Coaxial Cable 30cm	WOKEN	00100A1F1A 195C	RF01	12/24/2017	12/23/2018
Temperature Chamber	TERCHY	MHK-120LK	1020582	06/13/2017	06/12/2018
DC Block	PASTERNACK	PE8210	RF29	12/24/2017	12/23/2018
Splitter	RF-LAMBAD	RFLT2W1G1 8G	RF35	12/24/2017	12/23/2018
Attenuator	WOKEN	218FS-10	RF23	12/24/2017	12/23/2018
DC Power Supply	Agilent	E3640A	MY53140006	05/02/2017	05/01/2018

# 6.5. Measurement Result **RF Conducted Output Power**

#### WCDMA MODE:

The following tests were completed according to the test requirements outlined in section 5.2 of the 3GPP TS34.121-1 V8.4.0 specification. The EUT supports power Class 3, which has a nominal maximum output power of 24 dBm (+1.7/-3.7). RMC 12.2kps is used for this testing. **Results:** 

BNAD II	Avg.	Avg. Power (dBm) Channel			Avg. Power (dBm) V Channel			BNAD V	°,	Power (o Channel	-
	9262	9400	9538		1312	1413	1513		4132	4183	4233
WCDMA	22.65	22.64	22.39	WCDMA	22.68	22.69	22.65	WCDMA	22.43	22.30	22.22
HSDPA	21.75	21.69	21.45	HSDPA	21.71	21.54	21.61	HSDPA	21.46	21.30	21.36
HSUPA	21.72	21.71	21.44	HSUPA	21.73	21.70	21.68	HSUPA	21.43	21.30	20.20

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#### LTE Result:

L	LTE Band 2_Uplink frequency band : 1850 to 1910 MHz											
				Con	iducted p	bower (d	Bm)					
BW	RB	RB		QPSK			16QAM					
(MHz)	Size	Offset	СН	СН	СН	СН	СН	СН				
(101112)	JIZC	Onset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)				
			18607	18900	19193	18607	18900	19193				
	1	0	22.63	22.98	22.99	21.88	22.12	22.17				
1.4	1	5	22.85	23.23	23.18	21.81	22.10	22.51				
	3	2	23.14	23.22	23.19	22.13	22.21	22.20				
	6	0	21.98	22.11	22.21	20.93	21.13	21.12				
	.TE Ba	nd 2 Ur	olink fre	auencv	band : 1	850 to 1	910 MH;	7				
				link frequency band : 1850 to 1910 MHz Conducted power (dBm)								
		DD		QPSK		, ,	, 16QAM					
BW	RB	RB Offect	СН	СН	СН	СН	СН	СН				
(MHz)	Size	Offset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)				
			18615	18900	19185	18615	18900	19185				
	1	0	23.13	23.26	23.08	22.50	22.36	22.30				
3	1	14	23.24	22.95	23.05	22.56	22.29	22.37				
3	8	4	22.29	22.22	22.18	21.14	21.18	21.12				
	15	0	22.16	22.11	22.17	21.22	21.17	21.08				
	TF Ba	nd 2 Ur	olink fre	aneuca	band · 1	850 to 1	910 MH:	7				
						bower (d						
				QPSK			16QAM					
BW	RB	RB	СН	СН	СН	СН	СН	СН				
(MHz)	Size	Offset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)				
			18625	18900	19175	18625	18900	19175				
	1	0	23.28	23.24	23.32	22.65	22.57	22.43				
5	1	24	23.13	23.15	23.19	22.74	22.43	22.51				
Э	12	6	22.30	22.16	22.08	21.20	21.15	21.17				
	25	0	22.18	22.12	22.07	21.17	21.11	21.18				



L	LTE Band 2_Uplink frequency band : 1850 to 1910 MHz											
				Cor	iducted p	bower (d	Bm)					
BW	RB	RB		QPSK			16QAM					
(MHz)	Size	Offset	СН	СН	СН	СН	СН	СН				
(11112)	JIZC	Unset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)				
			18650	18900	19150	18650	18900	19150				
	1	0	23.24	23.25	23.22	22.30	22.22	22.60				
10	1	49	23.05	23.14	23.17	22.15	22.51	22.65				
10	25	12	22.14	22.23	22.18	21.22	21.22	21.18				
	50	0	22.12	22.19	22.27	21.24	21.11	21.19				

#### LTE Band 2\_Uplink frequency band : 1850 to 1910 MHz

				Cor	nducted p	bower (d	Bm)	
BW	RB	RB		QPSK		16QAM		
(MHz)	Size	Offset	СН	СН	СН	СН	СН	СН
(11112)	JIZE	Unset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
			18675	18900	19125	18675	18900	19125
	1	0	23.37	23.28	23.66	22.92	22.77	23.02
15	1	74	23.19	23.18	23.21	22.75	22.84	22.86
15	36	19	22.42	22.46	22.49	21.33	21.46	21.38
	75	0	22.27	22.41	22.40	21.40	21.41	21.30

L	.TE Ba	nd 2_U	olink fre	quency	band : 1	850 to 1	910 MH	Z		
				Cor	nducted p	bower (d	Bm)			
			(dBm)							
BW	RB	RB	QPSK 16QAM							
(MHz)	Size	Offset	СН	СН	СН	СН	СН	СН		
			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)		
			18700	18900	19100	18700	18900	19100		
	1	0	23.42	23.56	23.38	23.04	23.15	22.94		
20	1	99	23.25	23.15	23.30	22.75	22.64	22.89		
20	50	25	22.37	22.49	22.64	21.38	21.47	21.59		
	100	0	22.49	22.52	22.65	21.48	21.48	21.50		

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L	TE Ba	nd 4_Up	olink fre	quency	band : 1	710 to 1	755 MH:	Z
				Con	iducted p	bower (d	Bm)	
BW	RB	RB	QPSK				16QAM	
(MHz)	Size	Offset	СН	СН	СН	СН	СН	СН
(11112)	JIZC	Unset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
			19957	20175	20393	19957	20175	20393
	1	0	23.37	23.29	23.15	22.67	22.24	22.44
1.4	1	5	23.23	22.96	23.41	22.41	22.08	21.79
1.4	3	2	23.43	23.07	23.09	22.40	22.04	22.06
	6	0	22.17	21.87	21.94	21.21	21.00	21.00

#### LTE Band 4\_Uplink frequency band : 1710 to 1755 MHz

I					Con	ducted p	ower (d	Bm)	
	BW	RB	RB		QPSK		16QAM		
	(MHz)	Size	Offset	СН	СН	СН	СН	СН	СН
		JIZE	Unset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
				19965	20175	20385	19965	20175	20385
I		1	0	23.32	23.15	23.18	22.78	22.38	22.21
	3	1	14	23.34	22.90	22.99	22.52	22.24	22.24
	J	8	4	22.33	22.00	22.08	21.37	20.95	21.02
l		15	0	22.30	21.99	22.06	21.22	21.14	21.01

#### LTE Band 4 Uplink frequency band : 1710 to 1755 MHz

				Con	iducted p	ower (d	Bm)		
BW	RB	RB		QPSK			16QAM		
(MHz)	Size	Offset	СН	СН	СН	СН	СН	СН	
(11112)	JIZC	Unset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	
			19975	20175	20375	19975	20175	20375	
	1	0	23.28	23.02	23.31	22.61	22.16	22.42	
5	1	24	23.15	22.85	23.10	22.48	22.24	22.18	
5	12	6	22.31	22.02	22.02	21.24	21.07	21.16	
	25	0	22.28	21.87	22.05	21.26	20.94	21.12	

L	.TE Ba	nd 4_Up	olink fre	quency	band : 1	710 to 1	755 MH:	Z
				Con	iducted p	bower (d	Bm)	
BW	RB	RB		QPSK			16QAM	
(MHz)	Size	Offset	СН	СН	СН	СН	СН	СН
(11112)	JIZC	Unset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
			20000	20175	20350	20000	20175	20350
	1	0	23.48	23.22	23.12	22.75	22.58	22.79
10	1	49	23.40	22.92	23.08	22.70	22.40	22.42
10	25	12	22.28	22.02	22.08	21.22	21.06	21.00
	50	0	22.27	22.06	22.03	21.20	21.06	21.01

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L	.TE Ba	nd 4_U	olink fre	quency	band : 1	710 to 1	755 MH	Z
				Con	iducted p	bower (d	Bm)	
BW	RB	RB		QPSK			16QAM	
(MHz)	Size	Offset	СН	СН	СН	СН	СН	СН
(11112)	JIZE	Unset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
			20025	20175	20325	20025	20175	20325
	1	0	23.41	23.44	23.04	23.04	22.58	22.37
15	1	74	23.27	22.83	22.95	22.81	22.05	22.10
10	36	19	22.46	22.23	22.16	21.32	21.10	21.12
	75	0	22.31	22.25	22.04	21.29	21.17	21.16

L	LTE Band 4_Uplink frequency band : 1710 to 1755 MHz											
			Conducted power (dBm) (dBm)									
BW	RB	RB	QPSK 16QAM									
(MHz)	Size	Offset	СН	СН	СН	СН	СН	СН				
			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)				
			20050	20175	20300	20050	20175	20300				
	1	0	23.56	23.41	23.26	22.38	22.39	22.32				
20	1	99	23.10	22.76	22.98	21.97	22.12	21.89				
20	50	25	22.41	22.19	22.20	21.34	21.25	21.09				
	100	0	22.23	22.14	22.08	21.23	21.15	21.07				

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	LTE Band 5_Uplink frequency band : 824 to 849 MHz										
		RB RB Size Offset	Conducted power (dBm)								
BW (MHz)	DR		QPSK			16QAM					
			СН	СН	СН	СН	СН	СН			
	JIZC		(Low)	(Mid)	(High)	(Low)	(Mid)	(High)			
			20407	20525	20643	20407	20525	20643			
	1	0	23.16	23.03	23.09	22.54	22.37	22.09			
1.4	1	5	23.05	22.53	22.57	22.52	22.35	21.77			
1.4	3	2	23.01	22.80	22.82	22.33	21.90	21.97			
	6	0	21.88	21.78	21.75	21.19	21.03	21.03			

	LTE Band 5_Uplink frequency band : 824 to 849 MHz											
		RB RB Size Offset		Conducted power (dBm)								
	DR			QPSK		16QAM						
			СН	СН	СН	СН	СН	СН				
	JIZC		(Low)	(Mid)	(High)	(Low)	(Mid)	(High)				
			20415	20525	20635	20415	20525	20635				
	1	0	23.20	22.93	22.95	22.17	21.95	22.08				
3	1	14	23.23	23.03	22.66	22.29	21.98	22.12				
J	8	4	22.19	22.04	22.07	21.48	21.08	21.16				
	15	0	22.24	21.93	21.96	21.30	21.01	20.93				

	LTE Band 5_Uplink frequency band : 824 to 849 MHz											
		RB RB Size Offset		Conducted power (dBm)								
BW (MHz)	DR		QPSK			16QAM						
	Size		СН	СН	СН	СН	СН	СН				
	SIZE	Oliset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)				
			20425	20525	20625	20425	20525	20625				
	1	0	23.31	23.22	22.88	22.31	22.00	21.99				
5	1	24	23.06	22.83	22.63	22.11	21.99	21.81				
	12	6	22.22	21.88	21.95	21.21	20.97	21.10				
	25	0	22.14	22.04	22.01	21.17	20.99	21.11				

	LTE	Band 5_	Uplink fr	requency	band : 8	324 to 849	9 MHz		
			Conducted power (dBm)						
BW (MHz)	RB	RB		QPSK			16QAM		
	Size	Offset	СН	СН	СН	СН	СН	СН	
(11112)	SIZE	e Oliset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	
			20450	20525	20600	20450	20525	20600	
	1	0	23.07	23.13	23.10	22.24	22.04	22.26	
10	1	49	22.77	22.93	22.87	21.80	21.96	22.01	
10	25	12	22.25	21.95	22.02	21.14	21.04	21.04	
	50	0	22.03	21.81	22.08	21.06	20.93	21.04	

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L	LTE Band 7_Uplink frequency band : 2500 to 2570 MHz										
		RB RB		Conducted power (dBm)							
BW (MHz)	RB			QPSK			16QAM				
	Size		СН	СН	СН	СН	СН	СН			
		Size Oliset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)			
			20775	21100	21425	20775	21100	21425			
	1	0	21.75	21.90	21.82	20.69	20.86	20.74			
5	1	24	21.85	21.91	21.71	20.89	20.86	21.03			
5	12	6	20.76	21.00	20.81	19.81	20.08	19.87			
	25	0	20.72	20.87	20.67	19.84	19.91	19.75			

#### LTE Band 7\_Uplink frequency band : 2500 to 2570 MHz

				Conducted power (dBm)							
BW (MHz)	RB Size	B RB		QPSK		16QAM					
		Offset	СН	СН	СН	СН	СН	СН			
	112)	JIZE	Unset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)		
				20800	21100	21400	20800	21100	21400		
		1	0	21.78	21.81	21.71	20.97	20.97	20.66		
1	0	1	49	21.71	21.96	21.86	20.98	21.07	20.90		
10	25	12	20.88	20.96	20.71	19.85	19.91	19.74			
	50	0	20.83	20.80	20.76	19.83	19.81	19.64			

### LTE Band 7\_Uplink frequency band : 2500 to 2570 MHz

		_								
		RB RB Size Offset	Conducted power (dBm)							
BW (MHz)	DR			QPSK		16QAM				
	Size		СН	СН	СН	СН	СН	СН		
	JIZC	Unset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)		
			20825	21100	21375	20825	21100	21375		
	1	0	21.79	22.04	21.78	21.27	21.35	20.99		
15	1	74	21.89	21.91	21.92	21.36	21.27	20.99		
	36	19	21.00	21.13	20.79	20.01	20.14	19.81		
	75	0	20.94	21.16	20.79	19.96	20.10	19.74		

L	LTE Band 7_Uplink frequency band : 2500 to 2570 MHz											
		B RB		Conducted power (dBm)								
BW (MHz)	RB		QPSK			16QAM						
	Size	Offset	СН	СН	СН	СН	СН	СН				
(11112)		Ze Ullsel	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)				
			20850	21100	21350	20850	21100	21350				
	1	0	21.90	22.12	21.68	21.12	21.50	20.98				
20	1	99	21.88	21.73	21.77	21.10	21.27	21.00				
	50	25	20.94	21.19	20.83	19.92	20.26	19.86				
	100	0	20.88	21.11	20.71	19.91	20.15	19.86				

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	LTE Ba	and 12_	Uplink fi	requenc	y band :	699 to	716 MHz	
				Cor	iducted p	bower (d	Bm)	
BW	RB	RB	QPSK			16QAM		
(MHz)	Size	Offset	СН	СН	СН	СН	СН	СН
(11112)	OILC	Onset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
			23017	23095	23173	23017	23095	23173
	1	0	23.78	23.30	23.43	23.12	22.89	22.74
1.4	1	5	23.73	23.28	23.25	23.25	23.39	22.93
1.7	3	2	23.70	23.49	23.57	22.53	22.44	22.50
	6	0	22.63	22.29	22.29	21.92	21.61	21.44
	LTE Ba	and 12_	Uplink fi	requenc	y band :	699 to	716 MHz	
		RB RB	-	Cor	ducted p	oower (d	Bm)	
BW	חח		QPSK				16QAM	
ылл (MHz)	кв Size		СН	СН	СН	СН	СН	СН
(101112)			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
			23025	23095	23165	23025	23095	23165
	1	0	23.63	23.30	23.13	22.54	22.61	22.52
3	1	14	23.32	23.51	23.14	22.50	22.53	22.74
5	8	4	22.34	22.21	22.32	21.50	21.32	21.25
	15	0	22.41	22.16	22.18	21.54	21.18	21.12
	LTE Ba	and 12	_Uplink frequency band : 699 to 716 MHz					
				-	_	ower (d		
	חח	RB		QPSK	•		16QAM	
BW (MHz)	RB Sizo	Offset	СН	СН	СН	СН	СН	СН
	Size	Unset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
			23035	23095	23155	23035	23095	23155
	1	0	23.43	23.29	23.14	22.66	22.71	22.64
5	1	24	23.38	23.18	23.06	22.67	22.64	22.66
5								

	LTE Band 12_Uplink frequency band : 699 to 716 MHz										
				Conducted power (dBm)							
BW	RB	RB	QPSK			16QAM					
ылл (MHz)	Size	Offset	СН	СН	СН	СН	СН	СН			
(11112)			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)			
			23060	23095	23130	23060	23095	23130			
	1	0	23.53	23.33	23.22	22.91	22.59	22.61			
10	1	49	23.34	23.22	23.31	22.53	22.59	22.38			
	25	12	22.45	22.17	22.18	21.36	21.17	21.22			
	50	0	22.30	22.30	22.14	21.35	21.35	21.19			

22.21

22.20

22.41 22.16 22.26 21.38 21.13 21.06

21.41

21.20

21.14

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12

25

6

0

22.42

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	LTE Ba	and 13_	Uplink fi	requenc	y band :	777 to 7	787 MHz		
				Cor	iducted p	ower (d	Bm)		
BW	RB	RB QPSK			16QAM				
(MHz)	Size		СН	СН	СН	СН	СН	СН	
(11112)	0.20	Onset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	
			23205	23230	23255	23205	23230	23255	
	1	0	22.83	23.03	22.60	22.39	21.96	22.21	
5	1	24	22.91	22.77	22.80	22.34	21.95	22.01	
Э	12	6	21.84	21.77	21.95	21.02	20.73	20.87	
	25	0	21.80	21.82	21.78	20.84	20.71	20.72	
	LTE Ba	and 13_	Uplink fr	Jplink frequency band : 777 to 787 MHz					
				Cor	ducted p	power (dBm)			
BW	RB	RB		QPSK		16QAM			
(MHz)	Size	Offset		СН		СН			
(11112)	JIZC	Oliset		(Mid)		(Mid)			
				23230			23230		
	1	0		22.89		22.55			
10	1	49		22.95		22.44			
10	25	12		21.83		20.92			

21.82

20.89

50

0

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LTE Band 25_Uplink frequency band : 1850 to 1915 MHz										
BW (MHz)			Conducted power (dBm)							
	RB	RB		QPSK		16QAM				
	Size	Offset	СН	СН	СН	СН	СН	СН		
(11112)	JIZC	Uliset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)		
			26047	26365	26683	26047	26365	26683		
	1	0	23.32	23.30	22.92	22.33	22.51	22.07		
1.4	1	5	23.23	22.81	23.33	22.27	22.09	22.30		
1.4	3	2	22.94	23.05	23.06	22.11	22.18	22.15		
	6	0	22.06	22.12	21.89	21.04	21.15	20.98		

#### LTE Band 25\_Uplink frequency band : 1850 to 1915 MHz

BW (MHz)	RB Size		Conducted power (dBm)							
			QPSK			16QAM				
			СН	СН	СН	СН	СН	СН		
			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)		
			26055	26365	26675	26055	26365	26675		
	1	0	23.29	23.44	23.03	22.21	22.21	22.11		
3	1	14	23.04	23.47	23.07	22.22	22.55	22.06		
J	8	4	22.21	22.24	22.08	21.16	21.31	21.22		
	15	0	22.09	22.20	22.06	21.02	21.15	21.04		

#### LTE Band 25\_Uplink frequency band : 1850 to 1915 MHz

BW (MHz)	RB Size		Conducted power (dBm)							
			QPSK			16QAM				
			СН	СН	СН	СН	СН	СН		
			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)		
			26065	26365	26665	26065	26365	26665		
5	1	0	23.37	23.27	22.99	22.63	22.28	22.44		
	1	24	23.06	23.06	23.18	22.33	22.33	22.17		
	12	6	22.07	22.41	22.07	21.23	21.33	21.10		
	25	0	22.05	22.21	22.19	21.06	21.25	21.25		

#### LTE Band 25\_Uplink frequency band : 1850 to 1915 MHz

BW (MHz)	RB Size		Conducted power (dBm)							
			QPSK			16QAM				
			СН	СН	СН	СН	СН	СН		
			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)		
			26090	26365	26640	26090	26365	26640		
	1	0	23.08	23.12	23.24	22.48	22.62	22.58		
10	1	49	22.96	23.22	23.36	22.40	22.51	22.89		
	25	12	22.06	22.16	22.14	21.17	21.16	21.21		
	50	0	22.10	22.16	22.22	21.14	21.03	21.17		

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LTE Band 25_Uplink frequency band : 1850 to 1915 MHz										
BW (MHz)			Conducted power (dBm)							
	RB	RB		QPSK			16QAM			
	Size		СН	СН	СН	СН	СН	СН		
(11112)	JIZC		(Low)	(Mid)	(High)	(Low)	(Mid)	(High)		
			26115	26365	26615	26115	26365	26615		
	1	0	23.15	23.24	23.36	22.61	22.69	22.80		
15	1	74	22.94	22.91	23.17	22.61	22.57	22.47		
15	36	19	22.31	22.18	22.32	21.34	21.11	21.27		
	75	0	22.15	22.18	22.26	21.18	21.20	21.24		

LTE Band 25_Uplink frequency band : 1850 to 1915 MHz										
			Conducted power (dBm)							
			(dBm)							
BW	RB	RB		QPSK			16QAM	QAM		
(MHz)	Size	Offset	СН	СН	СН	СН	СН	СН		
			(Low)	(Mid)	(High)	(Low)	(Mid)	(High)		
			26140	26365	26590	26140	26365	26590		
	1	0	23.11	23.02	23.19	22.34	22.41	22.57		
20	1	99	22.90	22.86	22.95	22.30	22.16	22.14		
20	50	25	22.19	22.32	22.34	21.31	21.33	21.36		
	100	0	22.16	22.12	22.34	21.25	21.22	21.34		

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BRB (MP2)RB SizeRB OffseiICICUICICUCHCHCHCHCHCHCH(Hig)1026697268652703266972686527032669726865270311023.3322.5923.1821.7121.7822.7222.8721.9221.9221.9211023.3322.7122.8722.3621.9221.9221.9220.9113022.2821.6121.8321.3720.9320.9120.9114022.8021.6121.8321.3720.9320.9115022.8121.6121.8321.3720.9120.9116022.8121.6121.9221.9221.9220.9117022.8121.6121.9321.9320.9120.9118A22.9421.9121.9121.9121.9121.9119023.3822.9221.9221.9121.9121.9110023.3921.9221.9221.9121.9121.91191022.9321.9221.9221.9121.9121.91101021.9121.9121.9121.9121.9121.91101123.9121.9221.9121.9121.9121.91101121.9121.9121.9121.9121.91 </th <th></th> <th>LTE Ba</th> <th>and 26_</th> <th>Uplink fi</th> <th>requenc</th> <th>y band :</th> <th>824 to 8</th> <th>849 MHz</th> <th></th>		LTE Ba	and 26_	Uplink fi	requenc	y band :	824 to 8	849 MHz		
BW (MHz)RB SizeRB OffsetCH (Low)CH (Mid)CH (High)CH (Low)CH (High)II2669726865270332669726865270331023.3322.5923.1822.1721.7822.881523.6322.7122.7622.3221.9222.073223.1122.7222.8722.3621.9221.866022.2821.6121.8321.3720.7320.81TETETETETETETETETETETETETETETETETETETE					Cor	iducted p	bower (d	Bm)		
(MHz)         Size         Offset         CH         22.32         21.33         22.33         22.33         22.33         22.33         22.33         22.33         22.33         22.33         22.33         22.33         22.33         22.33         22.33         22.33         22.33         22.33         22.33         22.34         22.34         22.34         22.34         22.34         22.34         22.34         22.34         22.34         22.34         22.34         22.34         22.34         22.34         22.34         22.34	R\//	DR	DR		QPSK			16QAM		
Image: Constraint of the image: Constraint of th				СН	СН	СН	СН	СН	СН	
1023.3322.5923.1822.1721.7822.281523.6322.7122.7622.3221.9222.073223.1122.7222.8722.3621.9221.866022.2821.6121.8321.3720.7320.81 <b>EVENTENTINE TELENTIC PUENT: EVENTIE STRUE STRUE</b>	(11112)	JIZC	Unset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	
1.4         5         23.63         22.71         22.76         22.32         21.92         22.07           3         2         23.11         22.72         22.87         22.36         21.92         21.86           6         0         22.28         21.61         21.83         21.37         20.73         20.81           TE BUT SET SET SET SET SET SET SET SET SET SE				26697	26865	27033	26697	26865	27033	
1.43223.1122.7222.8722.3621.9221.866022.2821.6121.8321.3720.7320.81Constant 26_Usink Using Colspan="4">Usink Using Colspan="4">Usink Using Colspan="4">Using Colspan="4">Using Colspan="4">Using Colspan="4">Using Colspan="4"BW (MHz)RB SizeRB OffsetCH CH (Low)CH (Mid)CH (Ling)CH (Low)CH (Mid)CH (Low)CH (Mid)CH (Low)CH (Mid)CH (High)CH (Low)CH (Mid)CH (Low)CH (Mid)CH (Low)CH (CHCH (CHCH (CH)CH (CH		1	0	23.33	22.59	23.18	22.17	21.78	22.28	
3223.1122.7222.8722.3621.9221.866022.2821.6121.8321.3720.7320.81 <b>CINTE SUBLY SUBLY SUBLY SUBLY SUBLY</b> BW (MHZ)RB SizeRB OffsetCH (LOW)CH (Mid)CH (LOW)CH (CH (LOW)CH (CHCH (CHCH (CH)CH <br< td=""><td>1 /</td><td>1</td><td>5</td><td>23.63</td><td>22.71</td><td>22.76</td><td>22.32</td><td>21.92</td><td>22.07</td></br<>	1 /	1	5	23.63	22.71	22.76	22.32	21.92	22.07	
Image: book of the term of term	1.4	3	2	23.11	22.72	22.87	22.36	21.92	21.86	
BW         RB         RB         RB         RB         RB         CH         CUPSK         CH         CH <thc< td=""><td></td><td>6</td><td>0</td><td>22.28</td><td>21.61</td><td>21.83</td><td>21.37</td><td>20.73</td><td>20.81</td></thc<>		6	0	22.28	21.61	21.83	21.37	20.73	20.81	
BW         RB         RB         RB         RB         RB         CH         CUPSK         CH         CH <thc< td=""><td></td><td>LTE Ba</td><td>and 26</td><td>Uplink fi</td><td>requenc</td><td>y band :</td><td>824 to 8</td><td>849 MHz</td><td></td></thc<>		LTE Ba	and 26	Uplink fi	requenc	y band :	824 to 8	849 MHz		
BW         RB         RB         CH         CH         CH         CH         CH         CH         CH         CH         CH         (Mid)         (Iuw)					•	5				
(MHz)SizeOffsetCHCHCHCHCHCHCH(Low)(Mid)(High)(Low)(Mid)(High)226705268652702526705268652702531023.3822.8323.0222.7822.3422.99311423.3022.9022.9422.6622.1122.993422.3021.9221.9221.3920.9220.9120.923422.3021.9221.9221.3920.9220.9120.914022.3521.8421.9121.1820.9720.915022.3521.8421.9121.9120.9720.91EVENENENENENENENENENENENENENENENENENENE		חח חח			QPSK					
Image: Constraint of the system         Constraint of the system <thc< td=""><td></td><td rowspan="2"></td><td></td><td>СН</td><td>СН</td><td>СН</td><td>СН</td><td>СН</td><td>СН</td></thc<>				СН	СН	СН	СН	СН	СН	
Image: space s	(IVIFIZ)		Size	Size Oliset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
1         14         23.30         22.90         22.94         22.66         22.11         22.19           8         4         22.30         21.92         21.92         21.39         20.88         20.92           15         0         22.35         21.84         21.91         21.18         20.87         20.71 <b>EXENTION OF COMMENTING           BW RB Size Offset         COM CH         CH         COM CH           Offset Offset         COM CH         CH         CH           Offset Offset         CH         CH         CH           MH2         Size         Offset         CH         CH         CH         CH         CH         CH           (MH2)         CH         CH</b>				26705	26865	27025	26705	26865	27025	
3         8         4         22.30         21.92         21.92         21.39         20.88         20.92           15         0         22.35         21.84         21.91         21.18         20.87         20.71 <b>EVENTION OF CONSTANTION OF CONSTANT           1         0   </b>		1	0	23.38	22.83	23.02	22.78	22.34	22.29	
8         4         22.30         21.92         21.92         21.39         20.88         20.92           15         0         22.35         21.84         21.91         21.18         20.87         20.71 <b>EVENTION</b> 21.91         21.18         20.87         20.71 <b>EVENTION</b> 21.91         21.18         20.87         20.71 <b>EVENTION</b> Size         Size         CH         CUPSK         Size         CH         CH <td>2</td> <td>1</td> <td>14</td> <td>23.30</td> <td>22.90</td> <td>22.94</td> <td>22.66</td> <td>22.11</td> <td>22.19</td>	2	1	14	23.30	22.90	22.94	22.66	22.11	22.19	
Iterational and the second sec	3	8	4	22.30	21.92	21.92	21.39	20.88	20.92	
BW (MHz)         RB Size         RB Offset         CH         CH <td></td> <td>15</td> <td>0</td> <td>22.35</td> <td>21.84</td> <td>21.91</td> <td>21.18</td> <td>20.87</td> <td>20.71</td>		15	0	22.35	21.84	21.91	21.18	20.87	20.71	
BW (MHz)         RB Size         RB Offset         CH         CH <td></td> <td>LTE Ba</td> <td>and 26</td> <td>Uplink fi</td> <td>reauenc</td> <td>v band :</td> <td>824 to 8</td> <td>849 MHz</td> <td></td>		LTE Ba	and 26	Uplink fi	reauenc	v band :	824 to 8	849 MHz		
BW         RB         RB         CH         CH<					•	5				
(MHz)         Size         Offset         CH			חח		QPSK		,	16QAM		
(Low)         (Mid)         (High)         (Low)         (Mid)         (High)           26715         26865         27015         26715         26865         27015           1         0         23.37         22.90         22.99         22.77         22.36         22.34           1         24         23.39         22.92         23.04         22.83         22.31         22.27				СН	СН	СН	СН	СН	СН	
26715         26865         27015         26715         26865         27015           1         0         23.37         22.90         22.99         22.77         22.36         22.34           1         24         23.39         22.92         23.04         22.83         22.31         22.27		Size	Unset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	
1 24 23 39 22 92 23 04 22 83 22 31 22 27				26715	26865		26715	26865		
5 <u>1</u> <u>24</u> <u>23.39</u> <u>22.92</u> <u>23.04</u> <u>22.83</u> <u>22.31</u> <u>22.27</u>		1	0	23.37	22.90	22.99	22.77	22.36	22.34	
	Б	1	24	23.39	22.92	23.04	22.83	22.31	22.27	

LTE Band 26\_Uplink frequency band : 824 to 849 MHz Conducted power (dBm) QPSK 16QAM BW RB RB CH CH CH CH CH CH (MHz) Size Offset (Low) (Mid) (High) (Low) (Mid) (High) 26750 26865 26990 26865 26990 26750 23.42 22.82 1 0 23.02 23.09 22.41 22.35 49 22.93 22.90 22.27 22.10 1 23.05 22.30 10 25 12 21.93 21.93 21.95 20.85 20.80 20.91 20.92 50 0 21.80 21.96 21.93 20.84 20.84

21.99

21.81

21.88

21.91

21.30

21.33

20.93

20.80

20.88

20.81

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12

25

5

6

0

22.29

22.15

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	LTE Band 26_Uplink frequency band : 824 to 849 MHz										
				Conducted power (dBm)							
BW	RB	RB		QPSK			16QAM				
(MHz)	Size	Offset	СН	СН	СН	СН	СН	СН			
(11112)	JIZE	Unset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)			
			26775	26865	26965	26775	26865	26965			
	1	0	23.22	23.23	22.97	22.35	22.33	22.53			
15	1	74	22.85	23.09	23.18	22.05	22.22	22.50			
10	36	19	21.99	21.93	22.08	21.08	21.02	21.15			
	75	0	21.95	21.97	22.03	20.97	21.00	21.19			

Part 9	Part 90S_LTE Band 26_Uplink frequency band : 814 to 824 MHz									
				Conducted power (dBm)						
BW	RB	RB		QPSK		16QAM				
(MHz)	Size	Offset	СН	СН	СН	СН	СН	СН		
(11112)	0120	Onset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)		
			26697	26740	26783	26697	26740	26783		
	1	0	23.51	22.82	23.23	22.47	22.40	22.67		
1.4	1	5	23.59	23.08	23.02	22.81	22.57	22.58		
1.4	3	2	23.60	22.80	22.87	22.33	21.84	22.01		
	6	0	22.34	21.64	21.75	21.46	20.71	20.81		
-										
Part 9	90S_L1	re Band	l 26_Upl	ink freq	uency b	and : 81	4 to 824	MHz		
Part 9	90S_L1	re Banc	l 26_Upl			and : 81 bower (d		MHz		
			l 26_Upl					MHz		
BW	RB	RB	<b>1 26_Upl</b> СН	Con			Bm)	MHz CH		
				Con QPSK	ducted p	oower (d	Bm) 16QAM			
BW	RB	RB	CH	Con QPSK CH	ducted p	oower (d CH	Bm) 16QAM CH	СН		
BW	RB	RB	CH (Low)	Con QPSK CH (Mid)	CH (High)	oower (d CH (Low)	Bm) 16QAM CH (Mid)	CH (High)		
BW (MHz)	RB Size	RB Offset	CH (Low) 26705	Con QPSK CH (Mid) 26740	CH (High) 26775	00wer (d CH (Low) 26705	Bm) 16QAM CH (Mid) 26740	CH (High) 26775		
BW	RB Size	RB Offset	CH (Low) 26705 23.41	Con QPSK CH (Mid) 26740 23.17	CH (High) 26775 22.91	00wer (d CH (Low) 26705 22.63	Bm) 16QAM CH (Mid) 26740 22.33	CH (High) 26775 21.97		

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Part 9	Part 90S_LTE Band 26_Uplink frequency band : 814 to 824 MHz										
				Conducted power (dBm)							
BW	RB	RB		QPSK			16QAM				
	Size	Offset	СН	СН	СН	СН	СН	СН			
(11112)	(MHz) Size Offset (Low) (Mid) (High) (Low) (Mid) (High)										
			26715	26740	26765	26715	26740	26765			
	1	0	23.37	22.92	22.89	22.42	22.56	22.55			
5	1	24	23.28	23.09	22.93	22.34	22.31	22.39			
5	<sup>5</sup> 12 6 22.39 21.99 21.88 21.34 20.97 21.03										
25 0 22.16 21.81 21.99 21.32 20.79 20.80											
Part 0		FE Band	26 Un	ink frog	uency h	and · 81	1 to 821	MHz			

### Part 905\_LTE Band 26\_Uplink frequency band : 814 to 824 MHz

			Conducted p	oower (dBm)
BW	RB	RB	QPSK	16QAM
(MHz)	Size	Offset	СН	СН
(11112)	JIZC	Unset	(Mid)	(Mid)
			26740	26740
	1	0	23.03	22.72
10	1	49	22.75	22.23
10	25	12	21.82	20.8
	50	0	21.96	20.96

### LTE Band 30 Uplink frequency band : 2305 to 2315 MHz

_												
			Conducted power (dBm)									
BW RB (MHz) Size	DR	RB	QPSK				16QAM					
	Size	Offset	СН	СН	СН	СН	СН	СН				
(11112)	JIZC	Unset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)				
			27685	27710	27735	27685	27710	27735				
	1	0	22.16	22.10	22.32	21.62	21.39	21.47				
5	1	24	22.01	21.98	21.93	21.66	21.43	21.14				
5	12	6	21.38	21.10	21.26	20.42	20.26	20.22				
	25	0	21.22	21.19	21.22	20.20	20.21	20.21				

LTE Band 30\_Uplink frequency band : 2305 to 2315 MHz Conducted power (dBm) QPSK 16QAM RB BW RB CH CH (MHz) Size Offset (Mid) (Mid) 27710 27710 22.30 21.59 0 1 49 22.30 21.36 1 10 25 12 21.20 20.25 50 0 21.18 20.12



Ľ	LTE Band 41_Uplink frequency band : 2496 to 2690 MHz										
			Conducted power (dBm)								
BW	RB	RB		QPSK			16QAM				
(MHz)	Size	Offset	СН	СН	СН	СН	СН	СН			
(11112)	JIZE	Unset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)			
			39675	40620	41565	39675	40620	41565			
	1	0	23.34	23.11	23.22	22.41	22.45	22.24			
5	1	24	23.26	22.98	22.98	22.43	22.23	22.15			
5	12	6	22.32	22.12	21.93	21.44	21.19	21.12			
	25	0	22.32	22.17	21.96	21.36	21.25	21.08			

### LTE Band 41\_Uplink frequency band : 2496 to 2690 MHz

BW RB			Conducted power (dBm)							
	DR	RB		QPSK			16QAM			
(MHz)	Size	Offset	СН	СН	СН	СН	СН	СН		
(11112)	JIZE	Unset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)		
			39700	40620	41540	39700	40620	41540		
	1	0	23.13	23.21	23.32	22.37	22.22	22.48		
10	1	49	22.9	22.69	23.04	22.15	22.04	22.29		
10	25	12	22.07	21.92	21.78	21.18	20.88	20.83		
	50	0	22.12	21.86	21.89	21.04	20.86	20.93		

### LTE Band 41\_Uplink frequency band : 2496 to 2690 MHz

		_								
	RB RB		Conducted power (dBm)							
BW		RB		QPSK			16QAM			
(MHz)	Size	Offset	СН	СН	СН	СН	СН	СН		
(11112)	JIZE	Unset	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)		
			39725	40620	41515	39725	40620	41515		
	1	0	23.33	23.06	23.03	22.1	22.49	21.86		
15	1	74	23.04	22.88	22.69	21.83	21.6	21.39		
10	36	19	22.13	21.95	21.91	21.12	21.01	20.84		
	75	0	22.2	21.92	21.95	21.18	21.02	20.97		

#### LTE Band 41\_Uplink frequency band : 2496 to 2690 MHz Conducted power (dBm) QPSK 16QAM BW RB RB CH CH CH CH CH CH (MHz) Size Offset (Low) (Mid) (High) (Low) (Mid) (High) 39750 41490 39750 41490 40620 40620 22.35 0 23.47 23.35 22.78 22.47 21.78 1 99 23.17 21.89 20.89 1 23.1 22.17 22.1 20 50 25 22.4 22.24 22.08 21.4 21.24 21.08 100 0 22.38 22.18 22.18 21.38 21.18 21.18

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### **HSDPA Release 6 MODE:**

The following 4 Sub-Tests were completed according to the test requirements outlined in section 5.2A of the 3GPP TS34.121-1 V8.4.0 specification. All TX RMS power requirements for Power Class 3 were met according to table 5.2AA.5 and 5.2B.5 All UE channels and power ratio's are set according to table C10.1.4 & C11.1.3 in the 3GPP TS34.121-1 V8.4.0. RMC 12.2kps is used for this testing.

### **HSDPA SUB-TEST Setting**

Table C.10.1.4: β values for transmitter characteristics tests with HS-DPCCH(FOR HSDPA)

Sub-test	βc	βd	β₀ (SF)	βc/βd	βнs (Note1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)	RMC (Kbps)
1	2/15	15/15	64	2/15	4/15	0.0	0.0	12.2
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0	12.2
3	15/15	8/15	64	15/8	30/15	1.5	0.5	12.2
4	15/15	4/15	64	15/4	30/15	1.5	0.5	12.2

Note: The recommended HSDPA MPRs are implemented as per following sub-tests.

Mode Sub test		Avg	j. Power (dl Channel	Bm)	Power Class 3 Limitation (dBm)	Comments
	เยรเ	9262 9400 9538				
	1	21.67	21.73	21.46	20.3dBm – 25.7dBm	Pass
HSDPA II	2	21.75	21.81	21.49	20.3dBm – 25.7dBm	Pass
IISDEA II	3	21.2	21.23	21	19.8dBm – 25.7dBm	Pass
	4	21.18	21.22	20.98	19.8dBm – 25.7dBm	Pass

Mode Sub test		Avg	. Power (d Channel	Bm)	Power Class 3 Limitation (dBm)	Comments
	ເຮິ	1312	1413	1513		
	1	21.7	21.64	21.6	20.3dBm – 25.7dBm	Pass
HSDPA IV	2	21.72	21.64	21.62	20.3dBm – 25.7dBm	Pass
IISUFAIV	3	21.14	21.07	21.1	19.8dBm – 25.7dBm	Pass
	4	21.19	21.06	21.13	19.8dBm – 25.7dBm	Pass

Mode	Sub test	Avg	. Power (dl Channel	Bm)	Power Class 3 Limitation (dBm)	Comments
	เธรเ	4132	4183	4233		
1		21.45	21.23	21.28	20.3dBm – 25.7dBm	Pass
HSDPA V	2	21.46	21.32	21.36	20.3dBm – 25.7dBm	Pass
	3	20.92	20.81	20.84	19.8dBm – 25.7dBm	Pass
	4	20.89	20.78	20.85	19.8dBm – 25.7dBm	Pass

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### HSPA (HSDPA & HSUPA) Release 6 MODE

The following 5 Sub-Tests were completed according to the test requirements outlined in section 5.2A of the 3GPP TS34.121-1 V8.4.0 specification. All TX RMS power requirements for Power Class 3 were met according to table 5.2AA.5 and 5.2B.5 All UE channels and power ratio's are set according to table C11.1.3 in the 3GPP TS34.121-1 V8.4.0. RMC 12.2kps is used for this testing

### **HSPA SUB-TEST Setting**

Table C.11.1.3: β values for transmitter characteristics tests with HS-DPCCH and E-DCH(FOR HSUPA)

Sub- test	βc	βa	β <sub>d</sub> (SF)	βс∕βа	βнs	ßec	βed	β <sub>ed</sub> (SF)	β <sub>ed</sub> (Code s)	CM (dB)	MPR (dB)	AG Index	E-TFCI	RMC (Kbps )
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/22 5	1309/225	4	1	1.0	0.0	20	75	12.2
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67	12.2
3	15/15	9/15	64	15/9	30/15	30/15	β <sub>ed</sub> 1: 47/15 β <sub>ed</sub> 2: 47/15	4 4	2	2.0	1.0	15	92	12.2
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71	12.2
5	15/15 (Note 4)	15/15 (Note 4)	64	15/15 (Note 4)	30/15	24/15	134/15	4	1	1.0	0.0	21	81	12.2

Note: The recommended HSUPA MPRs are implemented as per following sub-tests.

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### **Results:**

Mode	Sub test	Avg	I. Power (d Channel	Bm)	Power Class 3 Limitation (dBm)	Comments
	lesi	9262	9400	9538		
	1	21.75	21.7	21.48	18.8dBm – 25.7dBm	Pass
	2	21.18	21.16	20.9	16.8dBm – 25.7dBm	Pass
HSUPA II	3	21.77	21.71	21.52	17.8dBm – 25.7dBm	Pass
	4	21.71	21.7	21.48	16.8dBm – 25.7dBm	Pass
	5	21.78	21.72	21.49	18.8dBm – 25.7dBm	Pass
Mode	Sub test	Avg. Power (dBm) Channel		Power Class 3	Comments	
	เยรเ	1312	1413	1513	Limitation (dBm)	
	1	21.69	21.61	21.65	20.3dBm – 25.7dBm	Pass
	2	21.15	21.12	21.06	20.3dBm – 25.7dBm	Pass
HSDPA IV	3	21.71	21.65	21.65	19.8dBm – 25.7dBm	Pass
	4	21.65	21.61	21.58	19.8dBm – 25.7dBm	Pass
	5	21.66	21.66	21.64	19.8dBm – 25.7dBm	Pass
Mode	Sub test	Avg	J. Power (d Channel	Bm)	Power Class 3 Limitation (dBm)	Comments
	เธรเ	4132	4183	4233		
	1	21.44	21.27	21.28	18.8dBm – 25.7dBm	Pass
	2	20.94	20.72	20.74	16.8dBm – 25.7dBm	Pass
HSUPA V	3	21.49	21.31	21.3	17.8dBm – 25.7dBm	Pass
	4	21.47	21.25	21.2	16.8dBm – 25.7dBm	Pass
	5	21.46	21.27	21.32	18.8dBm – 25.7dBm	Pass

# WCDMA/HSDPA/HSUPA band II, IV, V

The EUT output power was controlled by simulator. Set Communication Tester MT8820C function key "UE Power Control" and enter max rated power 24dBm. The EUT is going to be set to max output power to 24dBm. Then record the read (see page 15 for measurement data). The min. power was measures by a function key "minimum power" then record the read. It is -52.3dBm. The power variation can be 0.1dB step by setting.

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# 7. EFFECTIVE RADIATED POWER AND EQUIVALENT ISOTROPIC RADIATED POWER MEASUREMENT

### 7.1. Standard Applicable

According to FCC §2.1046

FCC 22.913(a) Mobile station is limited to 7W ERP.

FCC 24.232(b) Mobile and portable stations are limited to 2 W EIRP.

FCC 27.50(a)(3) Mobile and portable stations (hand-held devices) are limited to 250 mW/ 5MHz EIRP.

FCC 27.50(c)(10) Portable stations (hand-held devices) are limited to 3 watts ERP.

FCC 27.50(d)(4) Fixed, mobile, and portable (hand-held) stations are limited to 1W EIRP.

FCC 27, 50(h)(2) Mobile and other user stations. Mobile stations are limited to 2 W EIRP

FCC 90.635(b) Mobile station is limited to 100W ERP

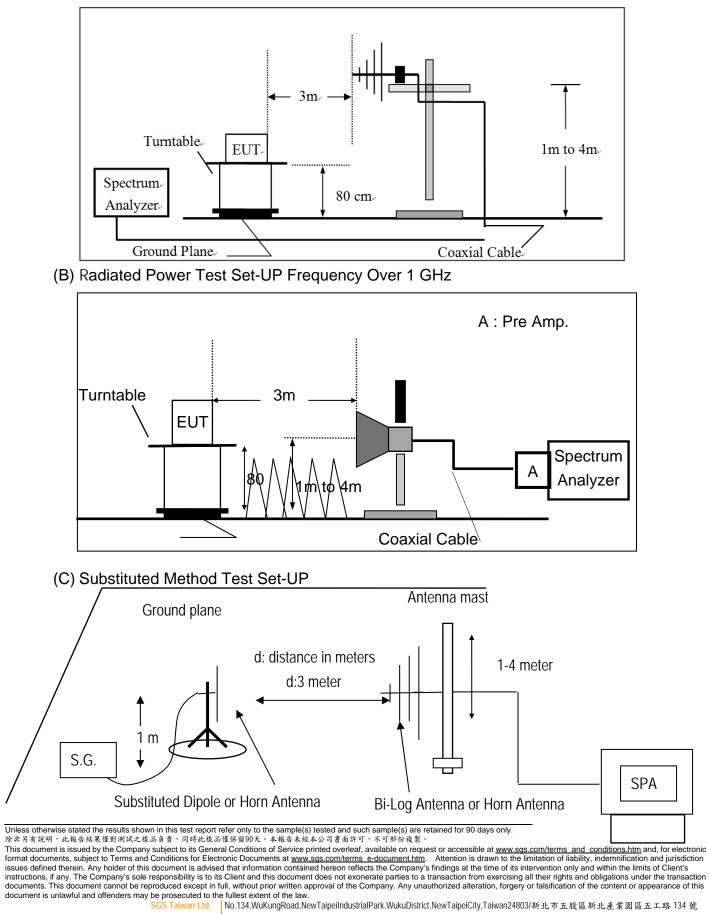
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# 7.2. Test SET-UP

(A) Radiated Power Test Set-Up, Frequency Below1000MHz





# 7.3. Measurement Procedure

- The testing follows the Measurement Procedure of FCC KDB 971168 D01
- 2. The EUT was placed on a non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.
- 3. During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated
- 4. The testing follows the Measurement Procedure of FCC KDB 971168 D01
- 5. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a tx cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value" of step b. Record the power level of S.G.
- 6. ERP = S.G. output (dBm) + Antenna Gain (dBd) Cable Loss (dB)
- 7. EIRP = S.G. output (dBm) + Antenna Gain (dBi) Cable Loss (dB)
- 8. Spectrum setting:

(1) Detector = Peak, marker the highest value of the detector by maximum hold, set RBW wide enough to capture the entire signal of emission, and VBW > =3xRBW.

(2) KDB 971168 D01 is adopted, and the procedure as lists under item 4, Measurement of the Average Power over the Fundamental Signal Bandwidth, is followed to set correspondingly for the acquisition of proper measurement data.

Set frequency = nominal signal center frequency;

Set span = 2 X occupied BW;

Set RBW ≈ 1~5% of the span, not to exceed 1 MHz

Set  $VBW = 3 \times RBW$ ;

Select average power (RMS) detector

Set sweep time and number of measurement points to achieve a minimum of 1 millisecond/pt integration time (ex. Point = 601 points, then sweet time =  $601*10^{-3}$  = 6s.

Activate trace averaging routine over a minimum of 10 sweeps;

Activate marker/span pair and set span = signal or channel bandwidth;

Activate the band/interval power marker function;

Record the band power level;

Record adjusted value as the average signal power level. Then activate the occupied bandwidth measurement function.

The proper adjustment due to limitation of spectrum capability is given compensated to spectrum with conversion factor of 10\*log (TBW/RBW), where TBW is the transmission of UE exceeding the maximum BW UE can extends, and RBW is the resolution BW in UE.

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### 7.4. Measurement Equipment Used

ERP,	EIRP MEASUREM		NT List 966 Ch	amber	
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
EMI Test Receiver	R&S	ESU 40	100363	04/18/2017	04/17/2018
Broadband Antenna	TESEQ	CBL 6112D	35240	11/03/2017	11/02/2018
Broadband Antenna	TESEQ	CBL 6112D	35243	11/09/2017	11/08/2018
Horn Antenna	ETS-Lindgren	3117	00143272	12/15/2017	12/16/2018
Horn Antenna	ETS-Lindgren	3117	143279	11/14/2017	11/13/2018
Horn Antenna	Schwarzbeck	BBHA9170	184	12/11/2017	12/10/2018
Horn Antenna	Schwarzbeck	BBHA9170	185	08/01/2017	07/31/2018
Pre Amplifier	EMC Instruments	EMC330	980096	12/24/2017	12/23/2018
Pre Amplifier	EMC Instruments	EMC0011830	980199	12/24/2017	12/23/2018
Pre Amplifier	R&S	SCU-18	10204	12/24/2017	12/23/2018
Pre Amplifier	R&S	SCU-26	100780	12/24/2017	12/23/2018
Pre Amplifier	EMC Instruments	EMC184045B	980135	12/24/2017	12/23/2018
Coaxial Cable	Huber+Suhner	RG 214/U	966Rx 9K-30M	12/24/2017	12/23/2018
Coaxial Cable	Huber+Suhner	RG 214/U SUCOFLEX 104	966Rx 30M-3G	12/24/2017	12/23/2018
Coaxial Cable	Huber+Suhner	SUCOFLEX 104	966Rx 1G-18G	12/24/2017	12/23/2018
Coaxial Cable	Huber+Suhner	mini 141-12 SUCOFLEX 104	966Rx 18G-40G	12/24/2017	12/23/2018
Coaxial Cable	Huber+Suhner	SUCOFLEX 104	966Tx 30M-18G	12/24/2017	12/23/2018
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	966Tx 18G-40G	12/24/2017	12/23/2018
Attenuator	WOKEN	218FS-10	RF27	12/24/2017	12/23/2018
Communication Tester	Anritsu	MT8820C	6201107337	06/11/2017	06/10/2018
Site NSA	SGS	966 Chamber C	SAC-C	03/02/2017	03/01/2018
Site VSWR	SGS	966 Chamber C	SAC-C	03/02/2017	03/01/2018
DC Power Supply	HOLA	DP-3003	D7070035	05/04/2017	05/03/2018
Controller	MF	MF-7802	N/A	N.C.R.	N.C.R.
Antenna Master	MF	N/A	N/A	N.C.R.	N.C.R.
Turn Table	MF	N/A	N/A	N.C.R.	N.C.R.
Test Software	World-Pallas	Dr. E	V 3.0 Lite	N.C.R.	N.C.R.



# 7.5. Measurement Result: (Peak) –using option of peak measurement

### **FCC EIRP Measurement**

			Pa	rt24				
	EUT				Measure	ement		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
	4050.4	0000	V	19.94	9.58	-6.86	22.66	33.01
	1852.4	9262	Н	9.42	9.58	-6.86	12.14	33.01
WCDMA	1000.0		V	19.42	9.69	-6.91	22.2	33.01
Band II	1880.0	9400	Н	5.36	9.69	-6.91	8.14	33.01
	4007.0	0500	V	19.33	9.81	-6.96	22.18	33.01
	1907.6	9538	Н	3.54	9.81	-6.96	6.39	33.01
	EUT		Pa	<u>rt24</u>	Measure	ement		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
Bana	MHz		V/H	dBm	dBi	dB	dBm	dBm
			V	17.74	9.58	-6.86	20.46	33.01
	1852.4	9262	H	7.68	9.58	-6.86	10.4	33.01
HSDPA			V	17.56	9.69	-6.91	20.34	33.01
Band II	1880.0	9400	Ĥ	6.53	9.69	-6.91	9.31	33.01
			V	18.3	9.81	-6.96	21.15	33.01
	1907.6	9538	H	3.67	9.82	-6.97	6.52	33.01
Remark: (1)	The RBW,VBW of EUT	of SPA f		y RBW= 5 Irt24	MHz , VBW			
Operation	Fundamental	СН	Antenna	S.G.	Antenna	Cable	EIRP	limit
	Frequency		Pol.	Output	Gain	Loss		Limit
Band		1	V/H	dBm	dBi	dB	dBm	dBm
Band	MHz			1 4 4 0 0	9.58	-6.86	17.71	33.01
Band		9262	V	14.99	9.00			
Band	MHz 1852.4	9262	V H	14.99 7.62	9.58 9.58	-6.86	10.34	33.01
HSUPA	1852.4					-6.86 -6.91	10.34 16.46	33.01
		9262 9400	Н	7.62	9.58			33.01 33.01
HSUPA	1852.4		H V	7.62 13.68	9.58 9.69	-6.91	16.46	

(1) The RBW, VBW of SPA for frequency RBW= 5MHz , VBW= 8MHz

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	Part27											
	EUT				Measur	ement						
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit				
	MHz		V/H	dBm	dBi	dB	dBm	dBm				
	1712.4	1312	V	22.26	8.99	-6.58	24.67	30.00				
			Н	13.66	8.99	-6.59	16.06	30.00				
WCDMA	1732.6	1413	V	20.73	9.07	-6.62	23.18	30.00				
Band IV	17.52.0	1413	H	12.29	9.07	-6.62	14.74	30.00				
	1752.6	1513	V	20.75	9.16	-6.67	23.24	30.00				
	1752.6	1313	Н	10.49	9.16	-6.67	12.98	30.00				

### Remark :

(1) The RBW, VBW of SPA for frequency RBW= 5MHz, VBW= 8MHz

			Pa	rt27						
	EUT		Measurement							
Operation	Fundamental	СН	Antenna	S.G.	Antenna	Cable	EIRP	Limit		
Band	Frequency		Pol.	Output	Gain	Loss				
	MHz		V/H	dBm	dBi	dB	dBm	dBm		
	1712.4	1312	V	19.8	8.99	-6.58	22.21	30.00		
			Н	11.45	8.99	-6.59	13.85	30.00		
HSDPA	1732.6	1413	V	19.77	9.07	-6.62	22.22	30.00		
Band IV	1752.0	1413	Н	10.93	9.07	-6.62	13.38	30.00		
	1752.6	1513	V	20.22	9.16	-6.66	22.72	30.00		
	17.52.0	1313	н	10.68	916	-6 66	13 18	30.00		

Remark :

(1) The RBW, VBW of SPA for frequency RBW= 5MHz , VBW= 8MHz

Part27 EUT Measurement											
EUT		weasurement									
Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit				
MHz		V/H	dBm	dBi	dB	dBm	dBm				
1710 /	1212	V	19.33	8.99	-6.58	21.74	30.00				
1712.4	1312	Н	12.95	8.99	-6.58	15.36	30.00				
1722.6	1/12	V	18.32	9.07	-6.62	20.77	30.00				
1752.0	1413	Н	10.63	9.07	-6.62	13.08	30.00				
1752.6	1512	V	19.09	9.16	-6.66	21.59	30.00				
1752.0	1515	Н	8.84	9.16	-6.66	11.34	30.00				
		Fundamental Frequency         CH           MHz	Fundamental Frequency         CH         Antenna Pol.           MHz         V/H           1712.4         1312         V           1732.6         1413         V           1752.6         1513         V	Fundamental Frequency         CH         Antenna Pol.         S.G. Output           MHz         V/H         dBm           1712.4         1312         V         19.33           1732.6         1413         V         18.32           1752.6         1513         V         19.09	Fundamental Frequency         CH         Antenna Pol.         S.G. Output         Antenna Gain           MHz         V/H         dBm         dBi           1712.4         1312         V         19.33         8.99           1732.6         1413         V         18.32         9.07           1752.6         1513         V         19.09         9.16	Fundamental Frequency         CH         Antenna Pol.         S.G. Output         Antenna Gain         Cable Loss           MHz         V/H         dBm         dBi         dB           1712.4         1312         V         19.33         8.99         -6.58           1732.6         1413         V         18.32         9.07         -6.62           1752.6         1513         V         19.09         9.16         -6.66	$\begin{array}{c c c c c c c c c c c c c c c c c c c $				

(1) The RBW, VBW of SPA for frequency RBW= 5MHz , VBW= 8MHz



	Part22											
	EUT			Measurement								
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit				
	MHz		V/H	dBm	dBd	dB	dBm	dBm				
	826.4	4132	V	20.26	5.13	-4.19	21.20	38.45				
			Н	18.63	5.13	-4.19	19.57	38.45				
WCDMA	926.6	4183	V	19.35	5.1	-4.22	20.23	38.45				
Band V 836.6 846.6	030.0	4105	Н	17.76	5.1	-4.23	18.63	38.45				
	4233	V	19.14	5.06	-4.26	19.94	38.45					
	040.0	4255	H	18.48	5.06	-4.26	19.28	38.45				

### Remark :

(1) The RBW, VBW of SPA for frequency RBW=300 KHz, VBW=1MHz

			Pa	rt22							
	EUT			Measurement							
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit			
	MHz		V/H	dBm	dBd	dB	dBm	dBm			
	826.4	4132	V	19.84	5.13	-4.19	20.78	38.45			
			Н	18.04	5.13	-4.19	18.98	38.45			
HSDPA	836.6	4183	V	19.35	5.1	-4.22	20.23	38.45			
Band V	030.0		Н	17.76	5.1	-4.22	18.64	38.45			
	846.6	4233	V	19.43	5.07	-4.26	20.24	38.45			
	040.0	4233	Н	18.5	5.06	-4.26	19.30	38.45			

#### Remark :

(1) T	he RBW,VB	V of SPA for fre	quency RBW=300 KH	lz, VBW=1MHz
-------	-----------	------------------	-------------------	--------------

	Part22										
	EUT			Measurement							
Operation	Fundamental	СН	Antenna	S.G.	Antenna	Cable	ERP	Limit			
Band	Frequency		Pol.	Output	Gain		مىر D	معالم			
	MHz		V/H	dBm	dBd	dB	dBm	dBm			
	826.4	4132	V	19.9	5.13	-4.19	20.84	38.45			
HSUPA Band V			Н	18	5.13	-4.19	18.94	38.45			
	836.6	4183	V	19.32	5.1	-4.22	20.20	38.45			
	050.0	4105	Н	17.81	5.1	-4.22	18.69	38.45			
	846.6	4233	V	19.45	5.07	-4.26	20.26	38.45			
	0.0+0.0	4200	H	18.5	5.07	-4.26	19.31	38.45			

Remark :

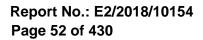
(1) The RBW, VBW of SPA for frequency RBW=300 KHz, VBW=1MHz

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	EUT				Measuren	nent		
Operation	Fundamental	СН	Antenna	S.G.	Antenna	Cable	EIRP	Limit
Band	Frequency	СП	Pol.	Output	Gain	Loss	LIKP	
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	1850.7	18607	V	17.78	9.57	-6.86	20.49	33.01
BAND 2	1050.7	10007	Н	9.96	9.57	-6.86	12.67	33.01
BW: 1.4M	1880.0	18900	V	20.01	9.69	-6.91	22.79	33.01
QPSK	1000.0	10900	Н	11.02	9.69	-6.91	13.80	33.01
RB: 1,0	1909.3	19193	V	17.13	9.82	-6.97	19.98	33.01
ND. 1,0	1909.3	17175	Н	9.08	9.82	-6.97	11.93	33.01
LTE	1850.7	18607	V	17.13	9.58	-6.86	19.85	33.01
BAND 2	1050.7	10007	Н	9.32	9.58	-6.86	12.04	33.01
BAND 2 BW: 1.4M QPSK RB: 1,5	1880.0	18900	V	19.65	9.70	-6.91	22.44	33.01
	1000.0	10900	Н	10.70	9.70	-6.91	13.49	33.01
	1909.3	19193	V	17.24	9.82	-6.97	20.09	33.01
ND. 1,0	1909.3	19193	Н	9.09	9.82	-6.97	11.94	33.01
LTE	1850.7	18607	V	18.56	9.57	-6.85	21.28	33.01
BAND 2	1050.7	10007	Н	10.72	9.58	-6.86	13.44	33.01
BW: 1.4M	1880.0	18900	V	19.91	9.69	-6.91	22.69	33.01
16QAM	1000.0	10700	Н	11.04	9.70	-6.91	13.83	33.01
RB: 1,0	1909.3	19193	V	17.25	9.82	-6.97	20.10	33.01
KD. 1,0	1909.3	19193	Н	9.05	9.82	-6.97	11.90	33.01
LTE	1850.7	18607	V	18.66	9.58	-6.86	21.38	33.01
BAND 2	1030.7	10007	Н	10.94	9.58	-6.86	13.66	33.01
	1880.0	18900	V	19.79	9.70	-6.91	22.58	33.01
BW: 1.4M 16QAM	1000.0	10700	Н	10.80	9.70	-6.91	13.59	33.01
	1909.3	19193	V	17.28	9.82	-6.97	20.13	33.01
RB: 1,5	1707.3	17173	Н	9.26	9.83	-6.97	12.12	33.01
Remark :	(1)The RBW,VB	W of SP	A for freque	RBW =	8MHz , VB	W = 8MH	Ζ	





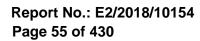
	EUT			1	Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	1851.5	18615	V	16.23	9.57	-6.86	18.94	33.01
BAND 2	1001.0	10010	Н	9.58	9.57	-6.86	12.29	33.01
BAND 2 BW: 3M	1880.0	18900	V	18.23	9.69	-6.91	21.01	33.01
QPSK	1000.0	10900	Н	10.77	9.69	-6.91	13.55	33.01
RB: 1,0	1908.5	19185	V	17.17	9.81	-6.96	20.02	33.01
KD. 1,0	1900.0	19100	Н	9.38	9.81	-6.96	12.23	33.01
LTE	1851.5	18615	V	15.70	9.58	-6.86	18.42	33.01
BAND 2	1001.0	10010	Н	8.82	9.58	-6.86	11.54	33.01
BW: 3M QPSK	1880.0	18900	V	18.01	9.70	-6.92	20.79	33.01
	1000.0	10900	Н	10.41	9.70	-6.92	13.19	33.01
RB: 1,14	1908.5	19185	V	17.09	9.82	-6.97	19.94	33.01         33.01         33.01         33.01         33.01         33.01         33.01         33.01
ND. 1,14	1700.5	17100	Н	9.26	9.82	-6.97	12.11	33.01
LTE	1851.5	18615	V	16.18	9.57	-6.86	18.89	33.01
BAND 2	1051.5	10015	Н	9.66	9.57	-6.86	12.37	33.01
BW: 3M	1880.0	18900	V	18.10	9.69	-6.91	20.88	33.01
16QAM	1000.0	10900	Н	10.56	9.69	-6.91	13.34	33.01
RB: 1,0	1908.5	19185	V	16.99	9.81	-6.96	19.84	33.01
KD. 1,0	1700.5	17105	Н	9.37	9.81	-6.96	12.22	33.01
LTE	1851.5	18615	V	17.28	9.58	-6.86	20.00	33.01
BAND 2	1031.3	10015	Н	10.15	9.58	-6.86	12.87	33.01
	1880.0	18900	V	18.19	9.70	-6.91	20.98	33.01
BW: 3M 16QAM RB: 1,14	1000.0	10700	Н	10.47	9.71	-6.92	13.26	33.01
	1908.5	19185	V	17.14	9.82	-6.97	19.99	33.01
ND. 1,14	1700.0	17103	Н	9.35	9.83	-6.97	12.21	33.01
Remark :	(1)The RBW,V	BW of S	PA for freq	uency RE	3W= 8MHz	z , VBW=	= 8MHz	



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	1852.5	18625	V	16.15	9.57	-6.86	18.86	33.01
BAND 2	1002.0	10020	Н	9.93	9.57	-6.86	12.64	33.01
BAND 2 BW: 5M	1880.0	18900	V	19.52	9.69	-6.91	22.30	33.01
QPSK	1000.0	10900	Н	10.81	9.69	-6.91	13.59	33.01
RB: 1,0	1907.5	19175	V	17.37	9.80	-6.96	20.21	33.01
КD. 1,0	1907.5	19175	Н	9.50	9.81	-6.96	12.35	33.01
LTE	1852.5	18625	V	17.13	9.59	-6.86	19.86	33.01
	1002.0	10020	Н	8.19	9.59	-6.86	10.92	33.01
BAND 2 BW: 5M QPSK	1880.0	18900	V	19.38	9.71	-6.92	22.17	33.01
	1000.0	10900	Н	10.44	9.71	-6.92	13.23	33.01
RB: 1,24	1007 5	19175	V	17.06	9.82	-6.97	19.91	33.01
KD. 1,24	1907.5	17175	Н	9.13	9.82	-6.97	11.98	33.01
LTE	1852.5	18625	V	17.55	9.57	-6.86	20.26	33.01
BAND 2	1002.0	10020	Н	9.61	9.57	-6.86	12.32	33.01
BAND 2 BW: 5M	1880.0	18900	V	19.78	9.69	-6.91	22.56	33.01
16QAM	1000.0	10900	Н	10.96	9.69	-6.91	13.74	33.01
RB: 1,0	1907.5	19175	V	17.40	9.81	-6.96	20.25	33.01
KD. 1,0	1907.5	19175	Н	9.49	9.80	-6.96	12.33	33.01
LTE	1852.5	18625	V	17.61	9.59	-6.86	20.34	33.01
BAND 2	1002.0	10020	Н	9.94	9.59	-6.86	12.67	33.01
	1880.0	18900	V	19.40	9.71	-6.92	22.19	33.01
BW: 5M 16QAM RB: 1,24	1000.0	10900	Н	10.50	9.71	-6.92	13.29	33.01
	1907.5	19175	V	17.13	9.82	-6.97	19.98	33.01
ΠD. 1,24	1707.3	17173	Н	9.21	9.82	-6.97	12.06	33.01
Remark :	(1)The RBW,V	/BW of S	PA for freq	uency RI	BW= 8MHz	z,VBW=	8MHz	



	EUT				Measure	nent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	1855.0	18650	V	16.16	9.57	-6.86	18.87	33.01
BAND 2	1055.0	10050	Н	9.53	9.57	-6.86	12.24	33.01
BW: 10M	1880.0	18900	V	19.49	9.68	-6.90	22.27	33.01
QPSK	1000.0	10700	Н	10.44	9.68	-6.90	13.22	33.01
RB: 1,0	1905.0	19150	V	17.78	9.78	-6.95	20.61	33.01
KD. 1,0	1703.0	17130	Н	9.29	9.78	-6.95	12.12	33.01
LTE	1855.0	18650	V	17.08	9.61	-6.87	19.82	33.01
BAND 2	1055.0	10030	Н	8.62	9.61	-6.87	11.36	33.01
BW: 10M QPSK	1880.0	18900	V	18.80	9.72	-6.92	21.60	33.01
	1000.0	10700	Н	9.93	9.71	-6.92	12.72	33.01
RB: 1,49	1905.0	10150	V	16.74	9.82	-6.97	19.59	33.01
	1703.0	19150	Н	9.42	9.82	-6.97	12.27	33.01
LTE	1855.0	18650	V	16.15	9.57	-6.86	18.86	33.01
BAND 2	1000.0	10000	Н	9.61	9.57	-6.86	12.32	33.01
BW: 10M	1880.0	18900	V	19.31	9.68	-6.90	22.09	33.01
16QAM	1000.0	10700	Н	10.26	9.68	-6.90	13.04	33.01
RB: 1,0	1905.0	19150	V	17.86	9.79	-6.95	20.70	33.01
KD. 1,0	1703.0	17100	Н	9.31	9.79	-6.95	12.15	33.01
LTE	1855.0	18650	V	17.90	9.61	-6.87	20.64	33.01
BAND 2	1033.0	10030	Н	9.35	9.61	-6.87	12.09	33.01
	1880.0	18900	V	18.80	9.72	-6.92	21.60	33.01
BW: 10M 16QAM RB: 1,49	1000.0	10700	Н	10.01	9.72	-6.92	12.81	33.01
	1905.0	19150	V	16.77	9.82	-6.97	19.62	33.01
ND, 1,47	1703.0	17150	Н	9.43	9.82	-6.97	12.28	33.01
Remark :	(1)The RBW,V	BW of SI	PA for frequ	uency RE	BW= 8MHz	, VBW=	8MHz	





	EUT				Measure	nent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	1857.5	18675	V	16.32	9.58	-6.86	19.04	33.01
BAND 2	1037.5	10075	Н	9.81	9.58	-6.86	12.53	33.01
BW: 15M	1880.0	18900	V	19.08	9.67	-6.90	21.85	33.01
QPSK	1000.0	10700	Н	9.16	9.67	-6.90	11.93	33.01
RB: 1,0	1902.5	19125	V	18.04	9.77	-6.94	20.87	33.01
KD. 1,0	1702.5	17125	Н	9.30	9.76	-6.94	12.12	33.01
LTE	1857.5	18675	V	16.81	9.63	-6.88	19.56	33.01
BAND 2	1037.5	10075	Н	7.68	9.63	-6.88	10.43	33.01
BW: 15M QPSK	1880.0	18000	V	18.38	9.73	-6.93	21.18	33.01
	1000.0	10700	Н	9.81	9.73	-6.93	12.61	33.01
RB: 1,74	1902.5	18675 18900 19125 18675	V	16.81	9.82	-6.97	19.66	33.01
ND. 1,74	1702.5	1712J	Н	9.43	9.82	-6.97	12.28	33.01
LTE	1857.5	18675	V	16.41	9.58	-6.86	19.13	33.01
BAND 2	1037.5	10075	Н	9.71	9.58	-6.86	12.43	33.01
BW: 15M	1880.0	18900	V	17.92	9.67	-6.90	20.69	33.01
16QAM	1000.0	10700	Н	9.19	9.67	-6.90	11.96	33.01
RB: 1,0	1902.5	19125	V	17.89	9.77	-6.94	20.72	33.01
KD. 1,0	1702.5	1712J	Н	8.94	9.76	-6.94	11.76	33.01
LTE	1857.5	18675	V	18.07	9.63	-6.88	20.82	33.01
BAND 2	1037.3	10075	Н	8.98	9.64	-6.88	11.74	33.01
	1880.0	18900	V	18.35	9.73	-6.93	21.15	33.01
BW: 15M 16QAM RB: 1,74	1000.0	10700	Н	9.79	9.73	-6.93	12.59	33.01
	1902.5	19125	V	16.80	9.82	-6.97	19.65	33.01
κυ. 1,74	1702.3	17120	Н	9.50	9.82	-6.97	12.35	33.01
Remark :	(1)The RBW,V	BW of S	PA for freq	uency RE	3W= 8MHz	, VBW=	8MHz	



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	1860.0	18700	V	16.17	9.58	-6.86	18.89	33.01
BAND 2	1000.0	10700	Н	9.58	9.58	-6.86	12.30	33.01
BW: 20M	1880.0	18900	V	17.93	9.66	-6.90	20.69	33.01
QPSK	1000.0	10700	Н	9.15	9.66	-6.89	11.92	33.01
RB: 1,0	1900.0	19100	V	17.79	9.74	-6.93	20.60	33.01
KD. 1,0	1700.0	17100	Н	9.41	9.75	-6.93	12.23	33.01
LTE	1860.0	18700	V	17.61	9.65	-6.89	20.37	33.01
BAND 2	1000.0	10700	Н	8.52	9.65	-6.89	11.28	33.01
BW: 20M QPSK	1880.0	18900	V	17.76	9.73	-6.93	20.56	33.01
	1000.0	10700	Н	9.42	9.73	-6.93	12.22	33.01
RB: 1,99	1900.0	19100	V	16.66	9.82	-6.97	19.51	33.01
ND, T, T, T	1700.0	17100	Н	9.51	9.82	-6.97	12.36	33.01
LTE	1860.0	18700	V	17.64	9.58	-6.86	20.36	33.01
BAND 2	1000.0	10700	Н	11.00	9.58	-6.86	13.72	33.01
BW: 20M	1880.0	18900	V	17.97	9.66	-6.90	20.73	33.01
16QAM	1000.0	10700	Н	8.77	9.66	-6.90	11.53	33.01
RB: 1,0	1900.0	19100	V	17.92	9.74	-6.93	20.73	33.01
KD. 1,0	1700.0	17100	Н	9.48	9.74	-6.93	12.29	33.01
LTE	1860.0	18700	V	17.68	9.65	-6.89	20.44	33.01
BAND 2	1000.0	10700	Н	8.58	9.65	-6.89	11.34	33.01
	1880.0	18900	V	18.05	9.74	-6.93	20.86	33.01
BW: 15M 16QAM RB: 1,99	1000.0	10700	Н	9.49	9.74	-6.93	12.30	33.01
	1900.0	19100	V	16.72	9.82	-6.97	19.57	33.01
ND. 1,77	1700.0	17100	Н	9.55	9.82	-6.97	12.40	33.01
Remark :	(1)The RBW,V	/BW of S	PA for free	quency R	BW= 8MH	z , VBW=	= 8MHz	



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	1710.7	19957	V	15.68	8.98	-6.58	18.08	30.00
BAND 4	1710.7	19937	Н	9.55	8.98	-6.58	11.95	30.00
BW: 1.4M	1732.5	20175	V	14.69	9.08	-6.62	17.15	30.00
QPSK	1752.5	20175	Н	9.66	9.08	-6.63	12.11	30.00
RB: 1,0	1754.3	20393	V	15.45	9.17	-6.67	17.95	30.00
KD. 1,0	1754.5	20393	Н	10.79	9.17	-6.67	13.29	30.00
LTE	1710.7	19957	V	15.73	8.99	-6.58	18.14	30.00
BAND 4	1710.7	17757	Н	9.70	8.99	-6.58	12.11	30.00
BW: 1.4M QPSK	1732.5	20175	V	14.81	9.08	-6.63	17.26	30.00
	1752.5	20175	Н	9.67	9.08	-6.63	12.12	30.00
RB: 1,5	1754.3	20393	V	15.31	9.17	-6.67	17.81	30.00
KD, 1,5	1754.5	20373	Η	10.56	9.17	-6.67	13.06	30.00
LTE	1710.7	19957	V	16.13	8.98	-6.58	18.53	30.00
BAND 4	1710.7	17757	Η	11.15	8.99	-6.58	13.56	30.00
BW: 1.4M	1732.5	20175	V	15.03	9.08	-6.62	17.49	30.00
16QAM	1752.5	20175	Н	9.93	9.08	-6.63	12.38	30.00
RB: 1,0	1754.3	20393	V	15.93	9.17	-6.67	18.43	30.00
KD. 1,0	1754.5	20373	Η	10.85	9.17	-6.67	13.35	30.00
LTE	1710 7	19957	V	14.66	8.98	-6.58	17.06	30.00
	1710.7	19907	Н	11.18	8.99	-6.58	13.59	30.00
BAND 4 BW: 1.4M 16QAM RB: 1,5	1722 5	20175	V	14.88	9.08	-6.63	17.33	30.00
	1732.5	20173	Н	9.72	9.08	-6.63	12.17	30.00
	1751 2	20393	V	15.54	9.17	-6.67	18.04	30.00
кd. 1,3	1754.3	20343	Н	10.59	9.17	-6.67	13.09	30.00
Remark :	(1)The RBW,	/BW of S	SPA for free	quency R	BW= 8MH	z , VBW	= 8MHz	



	EUT			1	Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	1711.5	19965	V	15.01	8.98	-6.58	17.41	30.00
BAND 4	1711.5	17705	Η	9.45	8.98	-6.58	11.85	30.00
BAND 4 BW: 3M	1732.5	20175	V	16.09	9.07	-6.62	18.54	30.00
QPSK	1752.5	20175	Η	10.37	9.07	-6.62	12.82	30.00
RB: 1,0	1753.5	20385	V	16.86	9.16	-6.67	19.35	30.00
KD. 1,0	1700.0	20303	Н	10.69	9.16	-6.66	13.19	30.00
LTE	1711.5	19965	V	15.20	9.00	-6.59	17.61	30.00
BAND 4	1711.5	19900	Н	9.98	9.00	-6.59	Die ss         EIRP         Lir           3         dBm         dE           3         dBm         dE           3         17.41         30.55           58         17.41         30.55           58         17.41         30.55           58         11.85         30.55           50         12.82         30.55           50         12.39         30.55           59         12.39         30.55           50         18.92         30.55           50         18.92         30.55           50         11.87         30.55           50         18.55         30.55           50         18.55         30.55           50         18.32         30.55           50         18.32         30.55           50         18.32         30.55           50         18.32         30.55           50         18.32         30.55           50         18.32         30.55           50         18.99         30.55           50         18.99         30.55           50         18.99         30.55	30.00
BAND 4 BW: 3M QPSK	1732.5	20175	V	15.83	9.08	-6.63	18.28	30.00
	1752.5	20175	Н	9.85	9.08	-6.63	12.30	30.00
RB: 1,14	1753.5	20205	V	16.42	9.17	-6.67	18.92	dBm         30.00
KD. 1,14	1700.0	20385	Н	10.39	9.17	-6.67	12.89	30.00
LTE	1711.5	19965	V	18.60	8.98	-6.58	21.00	30.00
BAND 4	1711.5	19900	Н	9.47	8.98	-6.58	11.87	30.00
BAND 4 BW: 3M	1732.5	20175	V	16.10	9.07	-6.62	18.55	30.00
16QAM	1752.5	20175	Н	11.58	9.08	-6.62	14.04	30.00
	1753.5	20385	V	16.91	9.16	-6.67	19.40	30.00
RB: 1,0	1705.0	20303	Н	10.70	9.16	-6.66	13.20	30.00
	1711 5	10045	V	17.43	8.99	-6.59	19.83	30.00
LTE DAND 4	1711.5	19965	Н	9.92	8.99	-6.58	12.33	30.00
BAND 4 BW: 3M 16QAM RB: 1,14	1722 5	20175	V	15.87	9.08	-6.63	18.32	30.00
	1732.5	20175	Н	11.25	9.08	-6.63	13.70	30.00
	1752 E	2020E	V	16.49	9.17	-6.67	18.99	30.00
	1753.5	20385	Н	10.44	9.17	-6.67	12.94	30.00
Remark :	(1)The RBW,	/BW of S	SPA for fre	quency R	RBW= 8MF	lz , VBW	′= 8MHz	



	EUT			1	Measure	ment	1	
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	1712.5	19975	V	14.97	8.98	-6.58	17.37	30.00
BAND 4	1712.5	17775	Н	9.03	8.98	-6.58	11.43	30.00
BW: 5M	1732.5	20175	V	16.32	9.07	-6.62	18.77	30.00
QPSK	1752.5	20175	Н	12.51	9.07	-6.62	14.96	30.00
RB: 1,0	1752.5	20375	V	17.81	9.15	-6.66	20.30	30.00
KD. 1,0	1752.5	20373	Н	10.25	9.15	-6.66	12.74	30.00
LTE	1712.5	19975	V	16.23	9.00	-6.59	18.64	30.00
BAND 4	1712.5	17775	Н	10.53	8.99	-6.59	12.93	30.00
BW: 5M QPSK	1732.5	20175	V	15.94	9.09	-6.63	18.40	30.00
	1752.5	20175	Н	12.29	9.09	-6.63	14.75	30.00
RB: 1,24	1752.5	20375	V	17.69	9.17	-6.67	20.19	30.00
	1752.5	20373	Н	10.30	9.17	-6.67	12.80	30.00
LTE	1712.5	19975	V	17.36	8.98	-6.58	19.76	30.00
BAND 4	1712.5	17775	Н	11.43	8.98	-6.58	13.83	30.00
BW: 5M	1732.5	20175	V	16.39	9.07	-6.62	18.84	30.00
16QAM	1752.5	20175	Н	12.87	9.07	-6.62	15.32	30.00
RB: 1,0	1752.5	20375	V	19.18	9.15	-6.66	21.67	30.00
KD. 1,0	1752.5	20373	Н	10.34	9.15	-6.66	12.83	30.00
LTE	1712.5	19975	V	17.16	9.00	-6.59	19.57	30.00
BAND 4	1712.5	17775	Н	11.75	9.00	-6.59	14.16	30.00
	1732.5	20175	V	18.38	9.09	-6.63	20.84	30.00
BW: 5M 16QAM RB: 1,24	1752.5	20173	Н	12.30	9.09	-6.63	14.76	30.00
	1752.5	20375	V	17.63	9.17	-6.67	20.13	30.00
ND. 1,24	1702.0	20373	Н	10.26	9.17	-6.67	12.76	30.00
Remark :	(1) The RBW, V	BW of S	PA for freq	uency RI	BW= 8MHz	z, VBW=	8MHz	



	EUT			1	Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	1715.0	20000	V	14.66	8.99	-6.58	17.07	30.00
BAND 4	1713.0	20000	Н	8.99	8.99	-6.58	11.40	30.00
BW: 10M	1732.0	20175	V	16.00	9.06	-6.62	18.44	30.00
QPSK	1752.0	20175	Н	10.73	9.06	-6.62	13.17	30.00
RB: 1,0	1750.0	20350	V	16.81	9.13	-6.65	19.29	30.00
KD. 1,0	1750.0	20330	Н	10.54	9.13	-6.65	13.02	30.00
LTE	1715.0	20000	V	14.39	9.04	-6.61	16.82	30.00
BAND 4	1713.0	20000	Н	9.22	9.02	-6.60	11.64	30.00
BW: 10M QPSK	1732.0	20175	V	16.02	9.10	-6.63	18.49	30.00
	1752.0	20175	Н	10.33	9.10	-6.63	12.80	30.00
RB: 1,49	1750.0	20320	V	16.63	9.17	-6.67	19.13	30.00
	1750.0	20350	Н	10.25	9.17	-6.67	12.75	30.00
LTE	1715.0	20000	V	16.12	8.99	-6.58	18.53	30.00
BAND 4	1713.0	20000	Н	10.31	8.99	-6.58	12.72	30.00
BW: 10M	1732.0	20175	V	16.40	9.06	-6.62	18.84	30.00
16QAM	1752.0	20175	Н	10.80	9.06	-6.62	13.24	30.00
RB: 1,0	1750.0	20350	V	18.24	9.13	-6.65	20.72	30.00
KD. 1,0	1750.0	20330	Н	11.99	9.13	-6.65	14.47	30.00
LTE	1715.0	20000	V	16.00	9.02	-6.60	18.42	30.00
BAND 4	1715.0	20000	Н	11.12	9.02	-6.60	13.54	30.00
	1732.0	20175	V	17.85	9.10	-6.63	20.32	30.00
BW: 10M 16QAM RB: 1,49	1752.0	20175	Н	12.01	9.10	-6.64	14.47	30.00
	1750.0	20350	V	16.65	9.17	-6.67	19.15	30.00
ND. 1,47	1730.0	20000	Н	10.33	9.17	-6.67	12.83	30.00
Remark :	(1)The RBW,V	BW of S	SPA for free	uency R	BW= 8MHz	z , VBW=	= 8MHz	



	EUT				Measure	ment	-	
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	1717.5	20025	V	14.81	8.99	-6.58	17.22	30.00
BAND 4	1717.5	20023	Н	9.25	8.99	-6.58	11.66	30.00
BW: 15M	1732.5	20175	V	13.81	9.05	-6.61	16.25	30.00
QPSK	1752.5	20175	Н	8.58	9.05	-6.61	11.02	30.00
RB: 1,0	1747.5	20325	V	16.14	9.11	-6.64	18.61	30.00
KD. 1,0	1747.5	20323	Н	10.16	9.11	-6.64	12.63	30.00
LTE	1717.5	20025	V	13.94	9.04	-6.61	16.37	30.00
BAND 4	1717.5	20023	Н	8.96	9.04	-6.61	11.39	30.00
BAND 4 BW: 15M QPSK	1732.5	20175	V	16.35	9.11	-6.64	18.82	30.00
	1752.5	20175	Н	10.47	9.10	-6.64	12.93	30.00
RB: 1,74	1747.5	20325	V	16.56	9.16	-6.67	19.05	dBm         30.00
	1/4/.5	20323	Н	10.31	9.17	-6.67	12.81	30.00
LTE	1717.5	20025	V	16.49	8.99	-6.58	18.90	30.00
BAND 4	1717.5	20025	Н	9.33	8.99	-6.58	11.74	30.00
BW: 15M	1732.5	20175	V	15.69	9.05	-6.61	18.13	30.00
16QAM	1752.5	20175	Н	10.71	9.05	-6.61	13.15	30.00
RB: 1,0	1747.5	20325	V	17.41	9.11	-6.64	19.88	30.00
	1747.5	20323	Н	11.53	9.11	-6.64	14.00	30.00
LTE	1717.5	20025	V	15.45	9.04	-6.61	17.88	30.00
BAND 4	1717.5	20023	Н	10.29	9.04	-6.61	12.72	30.00
	1732.5	20175	V	17.62	9.10	-6.64	20.08	30.00
BW: 15M 16QAM RB: 1,74	1752.5	20173	Н	11.89	9.10	-6.64	14.35	30.00
	1747.5	203.22	V	16.83	9.17	-6.67	19.33	30.00
	1747.5	20325 -	Н	10.62	9.17	-6.67	13.12	30.00
Remark :	(1)The RBW,	/BW of S	SPA for free	quency R	BW= 8MH	z,VBW	= 8MHz	



	EUT				Measurer	nent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	1720.0	20050	V	14.67	8.99	-6.58	17.08	30.00
BAND 4	1720.0	20030	Н	9.34	8.99	-6.58	11.75	30.00
BW: 20M	1732 5	20175	V	13.63	9.04	-6.61	16.06	30.00
QPSK	1752.5	20175	Н	10.36	9.04	-6.61	12.79	30.00
RB: 1,0	1732.5 1745.0 1720.0 1732.5 1745.0	20300	V	15.30	9.09	-6.63	17.76	30.00
KD. 1,0	1743.0	20300	Н	10.57	9.09	-6.63	13.03	30.00
LTE	1720.0	20050	V	13.40	9.06	-6.62	15.84	30.00
BAND 4	1720.0	20030	Н	10.83	9.06	-6.62	13.27	30.00
BW: 20M QPSK	1732 5	20175	V	15.55	9.12	-6.64	18.03	30.00
	1752.5	20175	Н	10.15	9.11	-6.64	12.62	30.00
RB: 1,99	17/5 0	20300	V	15.45	9.16	-6.67	17.94	dBm 30.00 30.00 30.00 30.00 30.00 30.00 30.00 30.00
ND, T, T, T	1743.0	20300	Н	10.39	9.17	-6.67	12.89	30.00
LTE	1720.0	20050	V	14.81	8.99	-6.58	17.22	30.00
BAND 4	1720.0	20030	Н	9.61	8.99	-6.58	12.02	30.00
BW: 20M	1732.5	20175	V	15.17	9.04	-6.61	17.60	30.00
16QAM	1752.5	20175	Н	10.79	9.04	-6.61	13.22	30.00
RB: 1,0	1745.0	20300	V	16.39	9.08	-6.63	18.84	30.00
KD. 1,0	1745.0	20300	Н	10.64	9.09	-6.63	13.10	30.00
LTE	1720.0	20050	V	15.29	9.06	-6.62	17.73	30.00
BAND 4	1720.0	20030	Н	10.86	9.06	-6.62	13.30	30.00
	1732.5	20175	V	15.61	9.11	-6.64	18.08	30.00
BW: 20M 16QAM RB: 1,99	1752.0	20173	Н	10.20	9.11	-6.64	12.67	30.00
	1745.0	20200	V	15.93	9.16	-6.67	18.42	30.00
KD. 1,99	1743.0	20300 -	Н	10.92	9.17	-6.67	13.42	30.00
Remark :	(1)The RBW,V	BW of S	SPA for free	quency R	BW= 8MHz	, VBW=	8MHz	



	EUT				Measurer	nent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
LTE	824.7	20407	V	22.01	5.14	-4.18	22.97	38.45
BAND 5	024.7		Η	18.88	5.14	-4.18	19.84	38.45
BW: 1.4M QPSK	836.5	20525	V	21.58	5.10	-4.22	22.46	38.45
	030.5	20020	Н	17.72	5.10	-4.22	18.60	38.45
RB: 1,0	848.3	20643	V	20.27	5.06	-4.26	21.07	38.45
KD. 1,0	848.3	20043	Н	15.43	5.06	-4.26	16.23	38.45
LTE BAND 5 BW: 1.4M	824.7	20407	V	22.62	5.13	-4.18	23.57	38.45
	024.7	20407	Н	19.47	5.13	-4.18	20.42	38.45
	836.5	20525	V	21.32	5.09	-4.23	22.18	38.45
QPSK			Н	17.45	5.10	-4.23	18.32	38.45
RB: 1,5	848.3	20643	V	20.51	5.06	-4.26	21.31	38.45
KD. 1,5	010.0		H	15.57	5.06	-4.27	16.36	38.45
LTE	824.7	20407	V	22.00	5.14	-4.18	22.96	38.45
BAND 5			Н	18.89	5.14	-4.18	19.85	38.45
BW: 1.4M	836.5	20525	V	21.56	5.10	-4.22	22.44	38.45
16QAM	030.5	20323	Н	17.77	5.10	-4.22	18.65	38.45
RB: 1,0	848.3	20643	V	20.33	5.06	-4.26	21.13	38.45
KD. 1,0	040.5	20043	Н	15.50	5.06	-4.26	16.30	38.45
LTE	824.7	20407	V	22.55	5.13	-4.18	23.50	38.45
BAND 5	024.7	20407	Н	19.42	5.13	-4.18	20.37	38.45
BAND 5 BW: 1.4M	836.5	20525	V	21.35	5.10	-4.23	22.22	38.45
	000.0	ZUJZJ	H	17.50	5.09	-4.23	18.36	38.45
16QAM RB: 1,5	848.3	20643	V	20.43	5.06	-4.26	21.23	38.45
		20043	Н	15.54	5.06	-4.26	16.34	38.45
Remark :	(1)The RBW,	/BW of S	SPA for free	juency R	BW= 8MHz	, VBW=	8MHz	



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
LTE	825.5	20415	V	22.00	5.14	-4.18	22.96	38.45
BAND 5	023.5		Н	18.89	5.14	-4.18	19.85	38.45
BW: 3M QPSK	836.5	20525	V	21.81	5.10	-4.22	22.69	38.45
	030.0	20020	Н	18.10	5.10	-4.22	18.98	38.45
RB: 1,0	847.5	20635	V	21.52	5.06	-4.26	22.32	38.45
KD. 1,0	047.5	20033	Н	16.83	5.06	-4.26	17.63	38.45
LTE BAND 5 BW: 3M QPSK	825.5	20415	V	21.97	5.14	-4.18	22.93	38.45
	023.3	20415	Н	20.41	5.13	-4.19	21.35	38.45
	836.5	20525	V	21.80	5.10	-4.22	22.68	38.45
			Н	17.39	5.09	-4.23	18.25	38.45
RB: 1,14	847.5	20635	V	21.52	5.07	-4.26	22.33	38.45
ND. 1,14	017.5		Н	15.70	5.06	-4.27	16.49	38.45
LTE	825.5	20415	V	23.61	5.13	-4.19	24.55	38.45
BAND 5			Н	18.92	5.14	-4.18	19.88	38.45
BAND 5 BW: 3M	836.5	20525	V	21.83	5.10	-4.22	22.71	38.45
16QAM	030.5	20525	Н	18.14	5.10	-4.22	19.02	38.45
RB: 1,0	847.5	20635	V	21.63	5.07	-4.26	22.44	38.45
KD. 1,0	047.5	20033	Н	16.89	5.07	-4.26	17.70	38.45
LTE	825.5	20415	V	23.56	5.13	-4.19	24.50	38.45
BAND 5	020.0	20415	Н	20.38	5.13	-4.19	21.32	38.45
BAND 5 BW: 3M	836.5	20525	V	21.32	5.09	-4.23	22.18	38.45
16QAM	030.0	20323	Н	17.41	5.09	-4.23	18.27	38.45
	817 5	20635	V	20.46	5.06	-4.26	21.26	38.45
RB: 1,14	847.5	20635	Н	15.59	5.05	-4.27	16.37	38.45
Remark :	(1)The RBW,	/BW of S	SPA for fre	quency F	RBW= 8MH	z , VBW	= 8MHz	



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
LTE	826.5	20425	V	22.08	5.14	-4.18	23.04	38.45
BAND 5	020.5	20423	Н	20.82	5.14	-4.18	21.78	38.45
BW: 5M	836.5	20525	V	22.21	5.10	-4.22	23.09	38.45
QPSK	030.5	20020	Н	19.88	5.10	-4.22	20.76	38.45
RB: 1,0	846.5	20625	V	22.29	5.07	-4.25	23.11	38.45
KD. 1,0	846.5	20025	Н	18.94	5.07	-4.25	19.76	38.45
LTE BAND 5 BW: 5M QPSK	826.5	20425	V	23.18	5.12	-4.19	24.11	38.45
	020.0	20423	Н	21.28	5.12	-4.19	22.21	38.45
	836.5	20525	V	21.55	5.09	-4.23	22.41	38.45
			Н	21.28	5.12	-4.19	22.21	38.45
RB: 1,24	846.5	20625	V	20.44	5.06	-4.26	21.24	38.45
	010.0		Н	17.13	5.06	-4.26	17.93	38.45
LTE	826.5	20425	V	22.03	5.14	-4.18	22.99	38.45
BAND 5			Н	20.56	5.14	-4.18	21.52	38.45
BW: 5M	836.5	20525	V	22.29	5.10	-4.22	23.17	38.45
16QAM	030.5	20323	Н	19.94	5.10	-4.22	20.82	38.45
RB: 1,0	846.5	20625	V	22.39	5.07	-4.25	23.21	38.45
KD. 1,0	040.5	20025	Н	19.04	5.07	-4.25	19.86	38.45
LTE	826.5	20425	V	23.25	5.12	-4.20	24.17	38.45
BAND 5	020.5	20423	Н	21.36	5.12	-4.19	22.29	38.45
BAND 5 BW: 5M 16QAM	836.5	20525	V	21.53	5.09	-4.23	22.39	38.45
	<u> </u>	20020	Н	18.62	5.09	-4.23	19.48	38.45
RB: 1,24	816 5	20625	V	20.40	5.06	-4.26	21.20	38.45
KD. 1,24	846.5	20625 -	Н	17.10	5.05	-4.27	17.88	38.45
Remark :	(1)The RBW,V	'BW of S	PA for free	luency R	BW= 8MHz	z , VBW=	= 8MHz	



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
LTE	829.0	20450	V	19.34	5.13	-4.18	20.29	38.45
BAND 5	027.0	20430	Н	20.64	5.14	-4.18	21.60	38.45
BW: 10M	836.5	20525	V	20.37	5.11	-4.21	21.27	38.45
QPSK	030.0	20323	Н	21.42	5.11	-4.21	22.32	38.45
RB: 1,0	844.0	20600	V	18.46	5.09	-4.24	19.31	38.45
KD. 1,0	844.0	20000	Н	19.06	5.09	-4.24	19.91	38.45
LTE BAND 5 BW: 10M QPSK	829.0	20450	V	19.51	5.11	-4.21	20.41	38.45
	029.0	20450	Н	20.37	5.11	-4.21	21.27	38.45
	836.5	20525	V	19.02	5.08	-4.24	19.86	38.45
			Н	19.60	5.08	-4.24	20.44	38.45
RB: 1,49	844.0	20600	V	16.72	5.06	-4.26	17.52	38.45
ND. 1,47	044.0	20000	Н	17.02	5.06	-4.26	17.82	38.45
LTE	829.0	20450	V	19.32	5.13	-4.18	20.27	38.45
BAND 5			Н	20.68	5.13	-4.18	21.63	38.45
BW: 10M	836.5	20525	V	19.11	5.11	-4.21	20.01	38.45
16QAM	030.0	20020	Н	21.36	5.11	-4.21	22.26	38.45
RB: 1,0	844.0	20600	V	18.34	5.08	-4.24	19.18	38.45
KD. 1,0	044.0	20000	Н	18.96	5.09	-4.24	19.81	38.45
	020.0	20150	V	19.60	5.11	-4.21	20.50	38.45
LTE DAND F	829.0	20450	Н	20.42	5.11	-4.21	21.32	38.45
BAND 5	026 F	りしたした	V	18.98	5.08	-4.24	19.82	38.45
BW: 10M 16QAM RB: 1,49	836.5	20525	Н	19.57	5.08	-4.24	20.41	38.45
	844.0	20600	V	16.68	5.06	-4.26	17.48	38.45
			Н	16.95	5.06	-4.26	17.75	38.45
Remark :	(1)The RBW,V	BW of S	SPA for free	quency R	BW= 8MH	z, VBW	= 8MHz	



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	2502.5	20775	V	19.94	10.70	-7.83	22.81	33.01
BAND 7	2002.0	20775	Н	10.73	10.70	-7.83	13.60	33.01
BAND 7 BW: 5M	2535.0	21100	V	19.95	10.74	-7.87	22.82	33.01
QPSK	2333.0	21100	Н	11.87	10.74	-7.87	14.74	33.01
RB: 1,0	2567.5	21/25	V	20.60	10.78	-7.90	23.48	33.01
KD. 1,0		21425	Н	11.81	10.78	-7.90	14.69	33.01
LTE	2502.5	20775	V	20.52	10.71	-7.83	23.40	33.01
BAND 7	2302.5	20775	Н	11.31	10.71	-7.84	14.18	33.01
BAND 7 BW: 5M QPSK	2535.0	21100	V	20.70	10.74	-7.87	23.57	33.01
			Н	12.40	10.74	-7.87	15.27	33.01
RB: 1,24	2567.5	21425	V	21.14	10.78	-7.91	24.01	33.01
KD. 1,24	2007.0		Н	12.09	10.78	-7.91	14.96	33.01
LTE	2502.5	20775	V	19.79	10.70	-7.83	22.66	33.01
BAND 7			Н	10.80	10.70	-7.83	13.67	33.01
BAND 7 BW: 5M	2535.0	21100	V	20.03	10.74	-7.87	22.90	33.01
16QAM	2000.0	21100	Н	12.26	10.74	-7.87	15.13	33.01
RB: 1,0	2567.5	21425	V	20.65	10.78	-7.90	23.53	33.01
КD. 1,0	2007.0	Z14Z0	Н	12.18	10.78	-7.90	15.06	33.01
LTE	2502.5	20775	V	20.58	10.71	-7.83	23.46	33.01
BAND 7	2002.0	20775	Н	11.35	10.71	-7.84	14.22	33.01
BAND 7 BW: 5M	2525.0	21100	V	20.76	10.74	-7.87	23.63	33.01
16QAM	2535.0	21100	Н	12.39	10.75	-7.87	15.27	33.01
	2567.5	ິ ວ1∦⊃⊑	V	21.24	10.78	-7.91	24.11	33.01
RB: 1,24		21425	Н	12.15	10.78	-7.91	15.02	33.01
Remark :	(1)The RBW,V	BW of S	PA for frequ	uency RE	3W= 8MHz	, VBW=	8MHz	



	EUT			•	Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	2505.0	20800	V	20.64	10.70	-7.83	23.51	33.01
BAND 7	2303.0		Н	10.74	10.70	-7.83	13.61	33.01
BW: 10M	2535.0	21100	V	19.14	10.74	-7.86	22.02	33.01
QPSK	2000.0	21100	Н	12.18	10.74	-7.86	15.06	33.01
RB: 1,0	2565.0	21/100	V	19.70	10.77	-7.90	22.57	33.01
KD. 1,0		21400	Н	12.23	10.77	-7.90	15.10	33.01
LTE	2505.0	20800	V	20.69	10.71	-7.84	23.56	33.01
BAND 7 BW: 10M QPSK	2303.0	20800	Н	10.87	10.70	-7.83	13.74	33.01
	2535.0	21100	V	20.60	10.75	-7.87	23.48	33.01
			Н	12.66	10.75	-7.87	15.54	33.01
RB: 1,49	2565.0	21400	V	20.72	10.78	-7.91	23.59	33.01
ND. 1,47	2000.0	21400	Н	12.16	10.78	-7.91	15.03	33.01
LTE	2505.0	20800	V	20.86	10.70	-7.83	23.73	33.01
BAND 7			Н	11.73	10.70	-7.83	14.60	33.01
BW: 10M	2535.0	21100	V	19.29	10.74	-7.86	22.17	33.01
16QAM	2000.0	21100	Н	12.31	10.74	-7.86	15.19	33.01
RB: 1,0	2565.0	21400	V	19.87	10.77	-7.90	22.74	33.01
KD. 1,0	2303.0	21400	Н	12.23	10.77	-7.90	15.10	33.01
LTE	2505.0	20800	V	20.73	10.71	-7.84	23.60	33.01
BAND 7	2303.0	20000	Н	12.02	10.71	-7.84	14.89	33.01
BW: 10M	2535.0	21100	V	20.66	10.75	-7.87	23.54	33.01
	2000.0	21100	Н	12.76	10.75	-7.87	15.64	33.01
16QAM RB: 1,49		21/100	V	20.87	10.78	-7.91	23.74	33.01
	2565.0	21400	Н	12.24	10.78	-7.91	15.11	33.01
Remark :	(1)The RBW,V	'BW of S	PA for freq	uency RI	BW= 8MHz	z,VBW=	= 8MHz	



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	2507.5	20825	V	19.68	10.70	-7.83	22.55	33.01
BAND 7	2007.0		Н	10.77	10.70	-7.83	13.64	33.01
BW: 15M	2535.0	21100	V	19.73	10.74	-7.87	22.60	33.01
QPSK	2000.0	21100	Н	12.19	10.74	-7.87	15.06	33.01
RB: 1,0	2562.5	21275	V	20.50	10.78	-7.90	23.38	33.01
KD. 1,0		21375	Н	12.11	10.78	-7.90	14.99	33.01
LTE	2507.5	20825	V	20.50	10.71	-7.84	23.37	33.01
BAND 7 BW: 15M QPSK	2507.5	20825	Н	11.36	10.71	-7.84	14.23	33.01
	2535.0	21100	V	20.59	10.74	-7.87	23.46	33.01
			Н	12.44	10.74	-7.87	15.31	33.01
RB: 1,74	2562.5	21375	V	21.00	10.78	-7.91	23.87	33.01
ND. 1,74	2302.5	21070	Н	12.08	10.78	-7.91	14.95	33.01
LTE	2507.5	20825	V	19.80	10.70	-7.83	22.67	33.01
BAND 7			Н	10.79	10.70	-7.83	13.66	33.01
BW: 15M	2535.0	21100	V	19.91	10.74	-7.87	22.78	33.01
16QAM	2000.0	21100	Н	12.37	10.74	-7.87	15.24	33.01
RB: 1,0	2562.5	21375	V	20.53	10.78	-7.90	23.41	33.01
KD. 1,0	2302.3	21375	Н	12.19	10.78	-7.90	15.07	33.01
LTE	2507.5	20825	V	20.53	10.71	-7.84	23.40	33.01
BAND 7	2007.0	20020	Н	11.47	10.71	-7.84	14.34	33.01
BW: 15M	2535.0	21100	V	20.64	10.74	-7.87	23.51	33.01
	2000.0	21100	Н	12.51	10.74	-7.87	15.38	33.01
16QAM RB: 1,74	2562 5	21275	V	21.08	10.78	-7.91	23.95	33.01
	2562.5	21375	Н	12.19	10.78	-7.91	15.06	33.01
Remark :	(1)The RBW,V	/BW of S	SPA for free	luency R	BW= 8MHz	z , VBW=	= 8MHz	



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	2510.0	20850	V	19.78	10.70	-7.83	22.65	33.01
BAND 7	2010.0	20030	Н	11.36	10.70	-7.83	14.23	33.01
BW: 20M	2535.0	21100	V	19.48	10.73	-7.86	22.35	33.01
QPSK	2000.0	21100	Н	13.04	10.73	-7.86	15.91	33.01
RB: 1,0	2560.0	21350	V	19.93	10.76	-7.89	22.80	33.01
KD. 1,0	2560.0	21350	Н	12.03	10.76	-7.89	14.90	33.01
LTE BAND 7 BW: 20M QPSK	2510.0	20850	V	19.66	10.72	-7.85	22.53	33.01
	2310.0	20800	Н	12.17	10.72	-7.85	15.04	33.01
	2535.0	21100	V	20.01	10.75	-7.88	22.88	33.01
			Н	12.06	10.75	-7.88	14.93	33.01
RB: 1,99	2560.0	21350	V	20.94	10.78	-7.91	23.81	33.01
	2300.0		Н	12.46	10.78	-7.91	15.33	33.01
LTE	2510.0	20850	V	19.89	10.70	-7.83	22.76	33.01
BAND 7			Н	11.37	10.70	-7.83	14.24	33.01
BAND 7 BW: 20M	2535.0	21100	V	19.59	10.73	-7.86	22.46	33.01
16QAM	2000.0	21100	Н	13.07	10.73	-7.86	15.94	33.01
RB: 1,0	2560.0	21350	V	19.99	10.76	-7.89	22.86	33.01
KD. 1,0	2300.0	21550	Н	12.04	10.76	-7.89	14.91	33.01
LTE	2510.0	20850	V	19.70	10.72	-7.85	22.57	33.01
BAND 7	2310.0	20050	Н	12.19	10.72	-7.85	15.06	33.01
	2535.0	21100	V	20.07	10.75	-7.88	22.94	33.01
BW: 20M 16QAM RB: 1,99	2000.0	21100	Н	12.08	10.75	-7.88	14.95	33.01
	2560.0	21250	V	19.54	10.78	-7.91	22.41	33.01
		21350 -	Н	11.04	10.78	-7.91	13.91	33.01
Remark :	(1)The RBW,V	/BW of S	SPA for free	luency R	BW= 8MH	z, VBW	= 8MHz	



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
LTE	699.7	23017	V	23.79	5.05	-3.82	25.02	24.77
BAND 12	077.7		Н	16.61	5.05	-3.82	17.84	24.77
BW: 1.4M QPSK	707.5	23095	V	22.57	5.07	-3.84	23.80	24.77
	707.5	20070	Н	16.14	5.07	-3.84	17.37	24.77
RB: 1,0	715.3	23173	V	22.55	5.09	-3.86	23.78	24.77
KD. 1,0		23173	Н	15.08	5.09	-3.87	16.30	24.77
LTE	699.7	23017	V	24.25	5.06	-3.82	25.49	24.77
BAND 12 BW: 1.4M	077.7	23017	Н	17.27	5.06	-3.82	18.51	24.77
	707.5	23095	V	22.66	5.08	-3.84	23.90	24.77
QPSK			Н	16.20	5.08	-3.84	17.44	24.77
RB: 1,5	715.3	23173	V	21.76	5.09	-3.87	22.98	24.77
KD. 1,5	713.5	20170	Н	14.34	5.09	-3.87	15.56	24.77
LTE	699.7	23017	V	23.62	5.05	-3.82	24.85	24.77
BAND 12			Н	16.63	5.05	-3.82	17.86	24.77
BW: 1.4M	707.5	23095	V	22.48	5.07	-3.84	23.71	24.77
16QAM	101.5	23075	Н	16.14	5.07	-3.84	17.37	24.77
RB: 1,0	715.3	23173	V	22.63	5.09	-3.86	23.86	24.77
KD. 1,0	715.5	23173	Н	15.19	5.09	-3.87	16.41	24.77
LTE	699.7	23017	V	24.24	5.06	-3.82	25.48	24.77
BAND 12	077.7	23017	Н	17.30	5.06	-3.82	18.54	24.77
BAND 12 BW: 1.4M	707.5	23095	V	22.54	5.08	-3.84	23.78	24.77
16QAM	101.5	20070	Н	16.17	5.08	-3.84	17.41	24.77
	715.2	22172	V	21.87	5.09	-3.87	23.09	24.77
RB: 1,5	715.3	23173	Н	14.54	5.09	-3.87	15.76	24.77
Remark :	(1)The RBW,V	BW of S	SPA for free	quency R	BW= 8MH	z, VBW=	= 8MHz	



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
LTE	700.5	23025	V	23.33	5.05	-3.82	24.56	24.77
BAND 12	700.0	23023	Н	16.64	5.05	-3.82	17.87	24.77
BW: 3M	707.5	23095	V	21.81	5.07	-3.84	23.04	24.77
QPSK	707.5	23075	Н	16.29	5.07	-3.84	17.52	24.77
RB: 1,0	714.5	23165	V	22.48	5.09	-3.86	23.71	24.77
KD. 1,0	714.5	23103	Н	16.58	5.09	-3.86	17.81	24.77
LTE BAND 12 BW: 3M	700.5	23025	V	23.23	5.06	-3.82	24.47	24.77
	/00.0	23023	Н	16.94	5.06	-3.82	18.18	24.77
	707.5	23095	V	21.78	5.08	-3.85	23.01	24.77
QPSK	101.5		Н	16.29	5.08	-3.85	17.52	24.77
RB: 1,14	714.5	23165	V	20.17	5.09	-3.87	21.39	24.77
ND. 1,14	714.0	23103	Н	14.13	5.09	-3.87	15.35	24.77
LTE	700.5	23025	V	23.30	5.05	-3.82	24.53	24.77
BAND 12			Н	16.58	5.05	-3.82	17.81	24.77
BW: 3M	707.5	23095	V	21.79	5.07	-3.84	23.02	24.77
16QAM	707.5	23075	Н	16.24	5.07	-3.84	17.47	24.77
RB: 1,0	714.5	23165	V	22.47	5.09	-3.86	23.70	24.77
KD. 1,0	714.5	23103	Н	16.36	5.09	-3.86	17.59	24.77
LTE	700.5	23025	V	23.22	5.06	-3.82	24.46	24.77
BAND 12	700.5	23025	Н	16.85	5.06	-3.83	18.08	24.77
BAND 12 BW: 3M	707.5	23095	V	21.74	5.08	-3.85	22.97	24.77
	101.5	20070	Н	16.30	5.08	-3.85	17.53	24.77
16QAM RB: 1,14	71/ 5	JJ16E	V	20.41	5.09	-3.87	21.63	24.77
	714.5	23165	Н	14.46	5.09	-3.87	15.68	24.77
Remark :	(1)The RBW,V	/BW of S	SPA for free	quency R	BW= 8MH	z , VBW	= 8MHz	



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
LTE	701.5	23035	V	23.36	5.05	-3.82	24.59	24.77
BAND 12	701.5	23033	Н	16.68	5.05	-3.82	17.91	24.77
BW: 5M	707.5	23095	V	21.95	5.07	-3.84	23.18	24.77
QPSK	101.5	23075	Н	16.32	5.07	-3.84	17.55	24.77
RB: 1,0	713.5	23155	V	22.59	5.08	-3.86	23.81	24.77
KD. 1,0	715.5	23133	Н	16.93	5.08	-3.85	18.16	24.77
LTE	701.5	23035	V	22.30	5.07	-3.83	23.54	24.77
BAND 12	701.5	23033	Н	16.45	5.07	-3.83	17.69	24.77
BAND 12 BW: 5M QPSK	707.5	23095	V	22.07	5.08	-3.85	23.30	24.77
	101.5	23075	Н	16.55	5.08	-3.85	17.78	24.77
RB: 1,24	713.5	23155	V	20.30	5.09	-3.87	21.52	24.77
ND. 1,24	715.5	23133	Н	14.43	5.09	-3.87	15.65	24.77
LTE	701.5	23035	V	23.36	5.06	-3.82	24.60	24.77
BAND 12	701.5	23033	Н	16.62	5.05	-3.82	17.85	24.77
BW: 5M	707.5	23095	V	21.98	5.07	-3.84	23.21	24.77
16QAM	101.5	23075	Н	16.40	5.07	-3.84	17.63	24.77
RB: 1,0	713.5	23155	V	22.61	5.08	-3.85	23.84	24.77
KD. 1,0	715.5	23133	Н	16.80	5.08	-3.86	18.02	24.77
LTE	701.5	23035	V	22.33	5.07	-3.83	23.57	24.77
BAND 12	701.5	23035	Н	16.63	5.06	-3.82	17.87	24.77
	707.5	23095	V	22.02	5.08	-3.85	23.25	24.77
BW: 5M 16QAM RB: 1,24	101.5	20070	Н	16.40	5.07	-3.84	17.63	24.77
	713.5	23155	V	20.48	5.09	-3.87	21.70	24.77
ND. 1,24	715.5	23100	Н	16.82	5.08	-3.86	18.04	24.77
Remark :	(1)The RBW, V	/BW of S	SPA for free	quency R	BW= 8MH	z , VBW	= 8MHz	



	EUT			-	Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
LTE	704.0	23060	V	17.98	5.05	-3.82	19.21	24.77
BAND 12	704.0	23000	Н	16.74	5.06	-3.82	17.98	24.77
BW: 10M	707.5	23095	V	22.16	5.07	-3.83	23.40	24.77
QPSK	707.5	23075	Н	16.42	5.07	-3.83	17.66	24.77
RB: 1,0	711.0	23130	V	21.35	5.07	-3.84	22.58	24.77
KD. 1,0	711.0	23130	Н	16.12	5.07	-3.84	17.35	24.77
LTE	704.0	23060	V	21.34	5.08	-3.84	22.58	24.77
BAND 12 BW: 10M QPSK	704.0	23000	Н	16.17	5.08	-3.84	17.41	24.77
	707.5	23095	V	22.14	5.08	-3.86	23.36	24.77
	101.5	23075	Н	16.68	5.08	-3.86	17.90	24.77
RB: 1,49	711.0	23130	V	20.39	5.09	-3.87	21.61	24.77
ND. 1,47	711.0	23130	Н	14.58	5.09	-3.87	15.80	24.77
LTE	704.0	23060	V	23.09	5.05	-3.82	24.32	24.77
BAND 12	704.0	23000	Н	16.75	5.06	-3.82	17.99	24.77
BW: 10M	707.5	23095	V	22.32	5.07	-3.83	23.56	24.77
16QAM	101.5	23075	Н	16.57	5.07	-3.83	17.81	24.77
RB: 1,0	711.0	23130	V	21.40	5.07	-3.84	22.63	24.77
KD. 1,0	711.0	20100	Н	16.18	5.07	-3.84	17.41	24.77
LTE	704.0	23060	V	21.37	5.08	-3.85	22.60	24.77
BAND 12	704.0	23000	Н	16.17	5.08	-3.85	17.40	24.77
	707.5	23095	V	22.12	5.09	-3.86	23.35	24.77
BW: 10M 16QAM RB: 1,49	101.5	23073	Н	16.68	5.08	-3.85	17.91	24.77
	711.0	23130	V	20.44	5.09	-3.87	21.66	24.77
ND. 1,47	711.0	23130	Н	14.78	5.09	-3.87	16.00	24.77
Remark :	(1)The RBW,V	BW of S	SPA for free	luency R	BW= 8MH	z , VBW=	= 8MHz	



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenn a Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
LTE	779.5	23205	V	24.03	5.19	-4.04	25.18	34.77
BAND 13	117.5	23205	Н	21.23	5.19	-4.04	22.38	34.77
BW: 5M	782.0	23230	V	24.46	5.19	-4.05	25.60	34.77
QPSK	702.0	23230	Н	21.87	5.20	-4.05	23.02	34.77
RB: 1,0	784.5	23255	V	23.91	5.20	-4.05	25.06	34.77
ND. 1,0	704.5	23235	Н	21.35	5.20	-4.06	22.49	34.77
LTE	779.5	23205	V	24.12	5.20	-4.05	25.27	34.77
BAND 13	117.5	23203	Н	21.47	5.20	-4.06	22.61	34.77
BAND 13 BW: 5M QPSK	782.0	23230	V	23.87	5.20	-4.06	25.01	34.77
	702.0	23230	Н	20.16	5.20	-4.06	21.30	34.77
RB: 1,24	784.5	23255	V	23.38	5.20	-4.07	24.51	34.77
ND. 1,24	704.5	23233	Н	21.29	5.20	-4.08	22.41	34.77
LTE	779.5	23205	V	23.95	5.19	-4.04	25.10	34.77
BAND 13	117.5	23205	Н	21.17	5.19	-4.04	22.32	34.77
BAND 13 BW: 5M	782.0	23230	V	24.58	5.20	-4.05	25.73	34.77
16QAM	702.0	23230	Н	22.02	5.20	-4.05	23.17	34.77
RB: 1,0	784.5	23255	V	24.10	5.20	-4.06	25.24	34.77
ND. 1,0	704.5	23233	Н	21.59	5.20	-4.06	22.73	34.77
LTE	779.5	23205	V	24.35	5.20	-4.06	25.49	34.77
BAND 13	119.5	23205	Н	21.68	5.20	-4.06	22.82	34.77
	782.0	23230	V	24.09	5.20	-4.06	25.23	34.77
BW: 5M 16QAM RB: 1,24	702.0	23230	Н	21.75	5.20	-4.06	22.89	34.77
	784.5	23255	V	23.46	5.20	-4.07	24.59	34.77
ND. 1,24	704.0	Z3Z00	Н	21.34	5.20	-4.07	22.47	34.77
Remark :	(1)The RBW,V	BW of S	PA for freq	uency RE	3W= 8MH2	z , VBW=	= 8MHz	



	EUT			•	Measure	ment			
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit	
	MHz		V/H	dBm	dBd	dB	dBm	dBm	
LTE BAND 13 BW: 10M	782.0	23230	V	23.90	5.19	-4.04	25.05	34.77	
QPSK RB: 1,0	702.0	23230	Н	21.38	5.19	-4.04	22.53	34.77	
LTE BAND 13 BW: 10M	782.0	23230	V	23.48	5.20	-4.07	24.61	34.77	
QPSK RB: 1,49	702.0	23230	Н	21.22	5.20	-4.07	22.35	34.77	
LTÉ BAND 13 BW: 10M	782.0	23230	V	24.21	5.19	-4.04	25.36	34.77	
16QAM RB: 1,0	702.0	20200	Н	21.44	5.19	-4.04	22.59	34.77	
LTE BAND 13	702.0	22220	V	23.36	5.20	-4.07	24.49	34.77	
BW: 10M 16QAM RB: 1,49	782.0	23230	Н	21.11	5.20	-4.07	22.24	34.77	
Remark :									

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	EUT				Measurer	nent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	1850.7	26047	V	20.15	9.57	-6.86	22.86	33.01
BAND 25	1000.7	20047	Н	13.45	9.57	-6.86	16.16	33.01
BW: 1.4M	1882.5	26365	V	21.40	9.71	-6.92	24.19	33.01
QPSK	1002.0	20305	Н	9.42	9.71	-6.92	12.21	33.01
RB: 1,0	1914.3	26683	V	20.62	9.84	-6.98	23.48	33.01
KD. 1,0	1914.3	20003	Н	10.09	9.84	-6.98	12.95	33.01
LTE	1850.7	26047	V	21.78	9.58	-6.86	24.50	33.01
BAND 25	1000.7	20047	Н	13.50	9.57	-6.86	16.21	33.01
BAND 25 BW: 1.4M QPSK	1882.5	26365	V	21.28	9.71	-6.92	24.07	33.01
	1002.0	20300	Н	9.18	9.71	-6.92	11.97	33.01
RB: 1,5	1914.3	26602	V	19.71	9.84	-6.98	22.57	33.01
KD. 1,3	1714.3	26683	Н	9.13	9.84	-6.98	11.99	33.01
LTE	1850.7	26047	V	20.20	9.57	-6.86	22.91	33.01
BAND 25	1050.7	20047	Н	11.78	9.57	-6.86	14.49	33.01
BAND 25 BW: 1.4M	1882.5	26365	V	21.44	9.70	-6.92	24.22	33.01
16QAM	1002.0	20300	Н	9.45	9.71	-6.92	12.24	33.01
RB: 1,0	1914.3	26683	V	20.64	9.84	-6.98	23.50	33.01
KD. 1,0	1914.3	20003	Н	10.04	9.84	-6.98	12.90	33.01
LTE	1050 7	26047	V	20.00	9.58	-6.86	22.72	33.01
BAND 25	1850.7	26047	Н	13.28	9.58	-6.86	16.00	33.01
	1002 5	26265	V	21.34	9.71	-6.92	24.13	33.01
BW: 1.4M 16QAM RB: 1,5	1882.5	26365	Н	9.21	9.71	-6.92	12.00	33.01
	101/ 2	26683	V	20.00	9.84	-6.98	22.86	33.01
кd. I,Э	1914.3	20003	Н	9.52	9.84	-6.98	12.38	33.01
Remark :	(1)The RBW,V	BW of S	PA for freq	uency RE	3W= 8MHz	, VBW=	8MHz	



	EUT				Measure	ment				
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit		
	MHz		V/H	dBm	dBi	dB	dBm	dBm		
LTE	1851.5	26055	V	20.01	9.57	-6.86	22.72	33.01		
BAND 25	1051.5	20055	Н	12.28	9.57	-6.86	14.99	33.01		
BW: 3M	1882.5	26365	V	20.18	9.70	-6.91	22.97	33.01		
QPSK	1002.5	20303	Н	10.20	9.70	-6.91	12.99	33.01		
RB: 1,0	1913.5	26675	V	20.81	9.83	-6.97	23.67	33.01		
KD. 1,0	1713.3	20075	Н	10.20	9.83	-6.97	13.06	33.01		
LTE	1851.5	26055	V	21.27	9.58	-6.86	23.99	33.01		
BAND 25 BW: 3M QPSK	1051.5	20033	Н	13.06	9.58	-6.86	15.78	33.01		
	1882.5	26365	V	19.82	9.71	-6.92	22.61	33.01		
	1002.5	20305	Н	9.63	9.71	-6.92	12.42	33.01		
RB: 1,14	1913.5	26675	V	19.40	9.84	-6.98	22.26	dBm         33.01		
ND. 1,14	1713.3	20075	Н	9.46	9.84	-6.98	12.32	33.01		
LTE	1851.5	26055	V	20.09	9.57	-6.86	22.80	33.01		
BAND 25	1051.5	20033	Н	13.81	9.57	-6.86	16.52	33.01		
BW: 3M	1882.5	26365	V	20.24	9.70	-6.91	23.03	33.01		
16QAM	1002.5	20303	Н	10.23	9.70	-6.92	13.01	33.01		
RB: 1,0	1913.5	26675	V	20.68	9.83	-6.97	23.54	33.01		
KD. 1,0	1713.5	20075	Н	10.08	9.83	-6.97	12.94	33.01		
LTE	1851.5	26055	V	21.48	9.57	-6.86	24.19	33.01		
BAND 25	1051.5	20033	Н	13.11	9.58	-6.86	15.83	33.01		
	1882.5	26365	V	19.87	9.71	-6.92	22.66	33.01		
BW: 3M 16QAM RB: 1,14	1002.0	20000	Н	9.65	9.71	-6.92	12.44	33.01		
	1913.5	26675	V	19.70	9.84	-6.98	22.56	33.01		
	H 9.62 9.84 -6.98 12.48 33.01									
Remark :	(1)The RBW,	/BW of S	SPA for free	quency R	BW= 8MH	z,VBW	= 8MHz			



	EUT				Measuren	nent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	1852.5	26065	V	19.30	9.57	-6.86	22.01	33.01
BAND 25	1052.5	20005	H	12.48	9.57	-6.86	15.19	33.01
BW: 5M	1882.5	26365	V	20.91	9.70	-6.91	23.70	33.01
QPSK	1002.5	20303	Н	10.33	9.70	-6.91	13.12	33.01
RB: 1,0	1912.5	26665	V	20.21	9.82	-6.97	23.06	33.01
ND. 1,0	1712.5	20005	H	9.06	9.82	-6.97	11.91	33.01
LTE	1852.5	26065	V	19.38	9.59	-6.86	22.11	33.01
BAND 25	1052.5	20005	Н	12.91	9.59	-6.86	15.64	33.01
BAND 25 BW: 5M QPSK	1882.5	26365	V	20.53	9.72	-6.92	23.33	33.01
	1002.5	20303	Н	9.31	9.72	-6.92	12.11	33.01
RB: 1,24	1912.5	26665	V	19.64	9.84	-6.98	22.50	33.01
$ND, T_{1}ZH$	1712.5	20005	Н	9.04	9.84	-6.98	11.90	33.01
LTE	1852.5	26065	V	18.03	9.57	-6.86	20.74	33.01
BAND 25	1052.5	20005	Н	12.53	9.57	-6.86	15.24	33.01
BW: 5M	1882.5	26365	V	21.01	9.70	-6.91	23.80	33.01
16QAM	1002.5	20303	Н	10.37	9.70	-6.91	13.16	33.01
RB: 1,0	1912.5	26665	V	20.24	9.82	-6.97	23.09	33.01
$\mathbf{ND}$ , $1$ , $0$	1712.5	20005	Н	9.05	9.82	-6.97	11.90	33.01
LTE	1852.5	26065	V	19.53	9.59	-6.86	22.26	33.01
BAND 25	1052.5	20005	H	12.92	9.59	-6.86	15.65	33.01
	1882.5	26365	V	20.60	9.72	-6.92	23.40	33.01
BW: 5M 16QAM RB: 1,24	1002.3	20303	Н	9.38	9.72	-6.92	12.18	33.01
	1912.5	26665	V	19.87	9.84	-6.98	22.73	33.01
ND. 1,24	1712.0	20003	Н	9.07	9.84	-6.98	11.93	33.01
Remark :	(1)The RBW,V	BW of S	SPA for freq	uency RB	W= 8MHz	, VBW=	8MHz	



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	1855.0	26090	V	19.04	9.57	-6.86	21.75	33.01
BAND 25	1055.0	20070	Н	13.65	9.57	-6.86	16.36	33.01
BW: 10M	1882.5	26365	V	21.04	9.69	-6.91	23.82	33.01
QPSK	1002.5	20303	Н	10.84	9.69	-6.91	13.62	33.01
RB: 1,0	1910.0	26640	V	17.51	9.80	-6.96	20.35	33.01
KD. 1,0	1710.0	20040	Н	8.76	9.80	-6.96	11.60	33.01
LTE	1855.0	26090	V	19.74	9.61	-6.87	22.48	33.01
BAND 25	1055.0	20070	Н	11.96	9.61	-6.87	14.70	33.01
BAND 25 BW: 10M QPSK	1882.5	26365	V	20.00	9.72	-6.92	22.80	33.01
	1002.5	20305	Н	9.14	9.72	-6.93	11.93	33.01
RB: 1,49	1910.0	26640	V	20.11	9.84	-6.98	22.97	33.01
ND. 1,47	1710.0	26640	Н	8.84	9.84	-6.98	11.70	33.01
LTE	1855.0	26090	V	17.75	9.57	-6.86	20.46	33.01
BAND 25	1055.0	20070	Н	12.41	9.57	-6.86	15.12	33.01
BW: 10M	1882.5	26365	V	21.09	9.69	-6.91	23.87	33.01
16QAM	1002.5	20305	Н	11.00	9.69	-6.91	13.78	33.01
RB: 1,0	1910.0	26640	V	20.05	9.81	-6.96	22.90	33.01
KD. 1,0	1710.0	20040	Н	8.43	9.80	-6.96	11.27	33.01
LTE	1855.0	26090	V	19.66	9.61	-6.88	22.39	33.01
BAND 25	1000.0	20090	Н	12.03	9.61	-6.87	14.77	33.01
	1882.5	26365	V	20.44	9.72	-6.92	23.24	33.01
BW: 10M 16QAM RB: 1,49	1002.3	20303	Н	9.16	9.73	-6.93	11.96	33.01
	1910.0	26640	V	20.09	9.84	-6.98	22.95	33.01
IXD. 1,47	1710.0	20040	Н	9.01	9.84	-6.98	11.87	33.01
Remark :	(1)The RBW,V	BW of S	SPA for free	quency R	RBW= 8MH	lz , VBW	= 8MHz	



	EUT				Measure	nent			
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit	
	MHz		V/H	dBm	dBi	dB	dBm	dBm	
LTE	1857.5	26115	V	17.61	9.57	-6.86	20.32	33.01	
BAND 25	1037.3	20113	Н	13.57	9.57	-6.86	16.28	33.01	
BW: 15M	1882.5	26365	V	16.47	9.68	-6.90	19.25	33.01	
QPSK	1002.5	20303	Н	11.02	9.68	-6.90	13.80	33.01	
RB: 1,0	1907.5	26615	V	20.11	9.78	-6.95	22.94	33.01	
KD. 1,0	1707.5	20013	Н	5.71	9.78	-6.95	8.54	33.01	
LTE	1857.5	26115	V	19.60	9.63	-6.88	22.35	33.01	
BAND 25 BW: 15M QPSK	1057.5	20115	Н	11.38	9.63	-6.88	14.13	33.01	
	1882.5	26365	V	20.80	9.74	-6.93	23.61	33.01	
	1002.0	20300	Н	9.24	9.74	-6.93	12.05	33.01	
RB: 1,74	1907.5	26615	V	20.04	9.84	-6.98	22.90	33.01	
ND. 1,74	1707.5	20013	Η	9.04	9.84	-6.98	11.90	33.01	
LTE	1857.5	26115	V	17.70	9.57	-6.86	20.41	33.01	
BAND 25	1007.0	20113	Н	12.34	9.57	-6.86	15.05	33.01	
BAND 25 BW: 15M	1882.5	26365	V	21.16	9.68	-6.90	23.94	33.01	
16QAM	1002.0	20300	Н	11.15	9.68	-6.90	13.93	33.01	
RB: 1,0	1907.5	26615	V	20.15	9.78	-6.95	22.98	33.01	
КD. 1,0	1907.5	20015	Н	8.34	9.78	-6.95	11.17	33.01	
LTE	1857.5	26115	V	19.63	9.63	-6.88	22.38	33.01	
BAND 25	1007.0	20113	Н	11.37	9.63	-6.88	14.12	33.01	
	1002 5	2626E	V	20.92	9.74	-6.93	23.73	33.01	
BW: 15M 16QAM RB: 1,74	1882.5	26365	Н	9.26	9.73	-6.93	12.06	33.01	
	1907.5	26615	V	20.17	9.84	-6.98	23.03	33.01	
H 9.10 9.84 -6.98 11.96 33.01									
Remark :	(1)The RBW,V	/BW of S	SPA for free	luency R	BW= 8MHz	z, VBW=	= 8MHz		



	EUT				Measure	ment			
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit	
	MHz		V/H	dBm	dBi	dB	dBm	dBm	
LTE	1860.0	26140	V	17.80	9.58	-6.86	20.52	33.01	
BAND 25	1000.0	20140	Н	12.12	9.58	-6.86	14.84	33.01	
BW: 20M	1882.5	26365	V	20.33	9.67	-6.90	23.10	33.01	
QPSK	1002.5	20305	Н	7.71	9.67	-6.90	10.48	33.01	
RB: 1,0	1905.0	26590	V	18.79	9.77	-6.94	21.62	33.01	
KD. 1,0	1703.0	20370	Н	9.66	9.76	-6.94	12.48	33.01	
LTE	1860.0	26140	V	20.31	9.65	-6.89	23.07	33.01	
	1000.0	20140	Н	11.08	9.65	-6.89	13.84	33.01	
BAND 25 BW: 20M QPSK	1882.5	26365	V	19.79	9.75	-6.93	22.61	33.01	
	1002.0	20303	Н	7.94	9.74	-6.93	10.75	33.01	
RB: 1,99	1905.0	26590	V	19.96	9.84	-6.98	22.82	33.01	
ND. 1,77	1703.0	20370	Н	8.91	9.84	-6.98	11.77	33.01	
LTE	1860.0	26140	V	17.89	9.58	-6.86	20.61	33.01	
BAND 25	1000.0	20140	Н	12.16	9.57	-6.86	14.87	33.01	
BAND 25 BW: 20M	1882.5	26365	V	20.41	9.67	-6.90	23.18	33.01	
16QAM	1002.0	20303	Н	10.71	9.67	-6.90	13.48	33.01	
RB: 1,0	1905.0	26590	V	21.07	9.76	-6.94	23.89	33.01	
KD. 1,0	1905.0	20090	Н	9.35	9.76	-6.94	12.17	33.01	
LTE	1860.0	26140	V	20.30	9.65	-6.89	23.06	33.01	
BAND 25	1000.0	20140	Н	11.18	9.65	-6.89	13.94	dBm 33.01	
	1007 5	26365	V	21.22	9.75	-6.93	24.04	33.01	
BW: 20M 16QAM RB: 1,99	1882.5	20303	Н	9.31	9.74	-6.93	12.12	33.01	
	1005.0	26500	V	19.95	9.84	-6.98	22.81	33.01	
RB: 1,99         1905.0         26590         4         17.73         7.04         -0.76         22.01         33.01           H         8.84         9.84         -6.97         11.71         33.01									
Remark :	(1)The RBW,	/BW of S	SPA for fre	quency R	BW= 8MH	z,VBW	= 8MHz		



	EUT			-	Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
LTE	824.7	26797	V	23.70	5.14	-4.18	24.66	38.45
BAND 26	024.7	20171	Н	22.42	5.14	-4.18	23.38	38.45
BW: 1.4M	836.5	26915	V	22.82	5.10	-4.22	23.70	38.45
QPSK	030.5	20713	Н	21.18	5.10	-4.22	22.06	38.45
RB: 1,0	848.3	27033	V	20.92	5.06	-4.26	21.72	38.45
KD. 1,0	040.5	27033	Н	19.21	5.06	-4.26	20.01	38.45
LTE	824.7	26797	V	24.24	5.13	-4.18	25.19	38.45
BAND 26 BW: 1.4M QPSK	024.7	20171	Н	22.92	5.13	-4.18	23.87	38.45
	836.5	26915	V	22.52	5.10	-4.23	23.39	38.45
	030.5	20713	Н	20.89	5.10	-4.23	21.76	38.45
RB: 1,5	848.3	27033	V	21.20	5.06	-4.27	21.99	dBm           38.45
KD. 1,5	040.5	27033	Н	19.18	5.06	-4.26	19.98	38.45
LTE	824.7	26797	V	23.65	5.14	-4.18	24.61	38.45
BAND 26	024.7	20171	Н	22.40	5.14	-4.18	23.36	38.45
BW: 1.4M	836.5	26915	V	22.85	5.10	-4.22	23.73	38.45
16QAM	030.5	20713	Н	21.25	5.10	-4.22	22.13	38.45
RB: 1,0	848.3	27033	V	20.93	5.06	-4.26	21.73	38.45
KD. 1,0	040.5	27033	Н	19.19	5.06	-4.26	19.99	38.45
LTE	824.7	26797	V	24.22	5.13	-4.18	25.17	38.45
BAND 26	024.7	20191	Н	22.87	5.13	-4.18	23.82	38.45
	836.5	26915	V	22.56	5.10	-4.23	23.43	38.45
BW: 1.4M 16QAM RB: 1,5	030.0	20713	Н	20.93	5.10	-4.23	21.80	38.45
	848.3	27033	V	21.14	5.05	-4.27	21.92	38.45
	040.3	21033	Н	19.50	5.06	-4.26	20.30	38.45
Remark :	(1)The RBW,	/BW of S	SPA for fre	quency F	RBW= 8MF	Iz , VBW	/= 8MHz	



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
LTE	825.5	26805	V	23.54	5.14	-4.18	24.50	38.45
BAND 26	020.0	20005	Н	22.42	5.14	-4.18	23.38	38.45
BAND 20 BW: 3M	836.5	26915	V	23.20	5.10	-4.22	24.08	38.45
QPSK	030.5	20713	Н	21.62	5.10	-4.22	22.50	38.45
RB: 1,0	847.5	27025	V	22.34	5.06	-4.26	23.14	38.45
KD. 1,0	047.5	27025	Н	20.56	5.06	-4.26	21.36	38.45
LTE	825.5	26805	V	24.35	5.13	-4.19	25.29	38.45
	020.0	20005	Н	22.98	5.13	-4.19	23.92	38.45
BAND 26 BW: 3M QPSK	836.5	26915	V	22.46	5.09	-4.23	23.32	38.45
	030.0	20913	Н	20.83	5.09	-4.23	21.69	38.45
RB: 1,14	847.5	27025	V	21.21	5.06	-4.26	22.01	38.45
ND. 1,14	047.5	27025	Н	19.47	5.05	-4.27	20.25	38.45
LTE	825.5	26805	V	23.55	5.14	-4.18	24.51	38.45
BAND 26	020.0	20003	Н	22.44	5.14	-4.18	23.40	38.45
BAND 20 BW: 3M	836.5	26915	V	23.28	5.10	-4.22	24.16	38.45
16QAM	030.5	20713	Н	21.63	5.10	-4.22	22.51	38.45
RB: 1,0	847.5	27025	V	22.45	5.06	-4.26	23.25	38.45
KD. 1,0	047.5	27025	Н	20.62	5.06	-4.26	21.42	38.45
LTE	825.5	26805	V	24.39	5.13	-4.19	25.33	38.45
	020.0	20005	Н	22.92	5.13	-4.19	23.86	dBm38.45
BAND 26 BW: 3M 16QAM RB: 1,14	836.5	26915	V	22.50	5.09	-4.23	23.36	38.45
	030.5	20713	Н	20.84	5.09	-4.23	21.70	38.45
	847.5	27025	V	21.18	5.06	-4.26	21.98	38.45
	047.0	21023	Н	19.40	5.06	-4.26	20.20	38.45
Remark :	(1)The RBW,	/BW of S	SPA for fre	quency F	RBW= 8MH	lz , VBW	= 8MHz	



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
LTE	826.5	26815	V	23.59	5.14	-4.18	24.55	38.45
BAND 26	020.5	20013	Н	22.49	5.14	-4.18	23.45	38.45
BW: 5M	836.5	26915	V	23.53	5.10	-4.22	24.41	38.45
QPSK	030.5	20713	Н	21.93	5.11	-4.21	22.83	38.45
RB: 1,0	846.5	27015	V	22.07	5.07	-4.25	22.89	38.45
KD. 1,0	040.5	27013	Н	20.28	5.07	-4.25	21.10	38.45
LTE	826.5	26815	V	23.52	5.12	-4.20	24.44	38.45
BAND 26	020.5	20013	Н	22.02	5.12	-4.20	22.94	38.45
BW: 5M QPSK	836.5	26915	V	22.57	5.09	-4.23	23.43	38.45
	030.5	20713	Н	20.89	5.09	-4.23	21.75	38.45
RB: 1,24	846.5	27015	V	21.22	5.06	-4.26	22.02	dBm38.45
	040.5	27013	Н	19.35	5.06	-4.27	20.14	38.45
LTE	826.5	26815	V	23.60	5.14	-4.18	24.56	38.45
BAND 26	020.5	20013	Н	22.46	5.14	-4.18	23.42	38.45
BW: 5M	836.5	26915	V	23.75	5.10	-4.22	24.63	38.45
16QAM	030.5	20713	Н	22.03	5.11	-4.22	22.92	38.45
RB: 1,0	846.5	27015	V	22.17	5.07	-4.25	22.99	38.45
KD. 1,0	040.5	27013	Н	20.37	5.07	-4.25	21.19	38.45
LTE	826.5	26815	V	23.54	5.12	-4.20	24.46	38.45
BAND 26	020.5	20015	Н	22.11	5.12	-4.19	23.04	38.45
	836.5	26915	V	22.59	5.09	-4.23	23.45	38.45
BW: 5M 16QAM RB: 1,24	030.3	2071J	Н	20.91	5.09	-4.23	21.77	38.45
	846.5	27015	V	21.13	5.06	-4.26	21.93	38.45
	040.0	27013	Н	19.28	5.06	-4.26	20.08	38.45
Remark :	(1)The RBW,	/BW of S	SPA for fre	quency F	RBW= 8MF	lz , VBW	/= 8MHz	



	EUT				Measure	ment	-	
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
LTE	829.0	26840	V	23.68	5.14	-4.18	24.64	38.45
BAND 26	027.0	20040	Н	16.51	5.14	-4.18	17.47	38.45
BW: 10M	836.5	26915	V	17.82	5.11	-4.20	18.73	38.45
QPSK	030.5	20713	Н	17.91	5.11	-4.21	18.81	38.45
RB: 1,0	844.0	26990	V	16.87	5.08	-4.24	17.71	38.45
KD. 1,0	044.0	20770	Н	15.27	5.09	-4.24	16.12	38.45
LTE	829.0	26840	V	23.51	5.11	-4.21	24.41	38.45
BAND 26	027.0	20040	Н	22.07	5.11	-4.21	22.97	38.45
BAND 20 BW: 10M QPSK	836.5	26915	V	19.30	5.08	-4.24	20.14	38.45
	030.5	20713	Н	15.14	5.08	-4.24	15.98	38.45
RB: 1,49	844.0	26990	V	21.08	5.06	-4.26	21.88	38.45       38.45       38.45       38.45       38.45       38.45
	844.0	20770	Н	16.61	5.06	-4.26	17.41	38.45
LTE	829.0	26840	V	23.67	5.14	-4.18	24.63	38.45
BAND 26	027.0	20040	Н	22.55	5.14	-4.18	23.51	38.45
BW: 10M	836.5	26915	V	18.90	5.11	-4.21	19.80	38.45
16QAM	030.5	20713	Н	17.26	5.11	-4.21	18.16	38.45
RB: 1,0	844.0	26990	V	18.64	5.08	-4.24	19.48	38.45
KD. 1,0	044.0	20770	Н	15.24	5.09	-4.24	16.09	38.45
LTE	829.0	26840	V	23.65	5.11	-4.21	24.55	38.45
BAND 26	027.0	20040	Н	22.15	5.11	-4.21	23.05	38.45
	836.5	26915	V	16.85	5.08	-4.24	17.69	38.45
BW: 10M 16QAM RB: 1,49	030.0	20713	Н	17.39	5.08	-4.24	18.23	38.45
	844.0	26990	V	16.77	5.06	-4.26	17.57	38.45
H 15.06 -4.26 15.86 38.45								
Remark :	(1)The RBW,	/BW of S	SPA for free	quency R	BW= 8MH	z,VBW	= 8MHz	



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
LTE	831.5	26865	V	19.76	5.13	-4.18	20.71	38.45
BAND 26	031.3	20003	Н	22.81	5.13	-4.18	23.76	38.45
BW: 15M	836.5	26915	V	20.40	5.12	-4.20	21.32	38.45
QPSK	030.3	20713	Н	18.90	5.12	-4.20	19.82	38.45
RB: 1,0	841.5	26965	V	20.25	5.10	-4.22	21.13	38.45
KD. 1,0	041.5	20703	Н	18.67	5.10	-4.22	19.55	38.45
LTE	831.5	26865	V	23.93	5.13	-4.18	24.88	38.45
BAND 26	031.5	20003	Н	20.88	5.09	-4.23	21.74	38.45
BAND 26 BW: 15M QPSK	836.5	26915	V	20.35	5.12	-4.20	21.27	38.45
	030.3	20713	Н	17.28	5.08	-4.25	18.11	38.45
RB: 1,74	841.5	26965	V	17.77	5.10	-4.22	18.65	38.45
	041.5	20703	Н	14.99	5.06	-4.26	15.79	38.45
LTE	831.5	26865	V	23.92	5.13	-4.18	24.87	38.45
BAND 26	001.0	20003	Н	22.79	5.13	-4.18	23.74	38.45
BW: 15M	836.5	26915	V	20.22	5.12	-4.20	21.14	38.45
16QAM	030.5	20713	Н	18.75	5.12	-4.20	19.67	38.45
RB: 1,0	841.5	26965	V	20.30	5.10	-4.22	21.18	38.45
KD. 1,0	041.5	20703	Н	15.38	5.10	-4.22	16.26	38.45
LTE	831.5	26865	V	19.98	5.09	-4.23	20.84	38.45
BAND 26	031.3	20005	Н	20.89	5.09	-4.23	21.75	38.45
	836.5	26915	V	21.22	5.08	-4.25	22.05	38.45
BW: 15M 16QAM RB: 1,74	030.0	20713	Н	17.30	5.07	-4.25	18.12	38.45
	841.5	26965	V	16.83	5.06	-4.26	17.63	38.45
	041.0	20700	Н	14.97	5.06	-4.26	15.77	38.45
Remark :	(1)The RBW,	/BW of S	SPA for fre	equency F	RBW= 8MH	łz , VBW	/= 8MHz	



	EUT				Measure	ment				
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenn a Gain	Cable Loss	ERP	Limit		
	MHz		V/H	dBm	dBd	dB	dBm	dBm		
LTE	814.7	26697	V	24.21	5.17	-4.14	25.24	50.00		
BAND 26	014.7	20077	Н	23.42	5.17	-4.14	24.45	50.00		
BW: 1.4M	819.0	26740	V	24.26	5.16	-4.16	25.26	50.00		
QPSK	017.0	20740	Н	23.33	5.16	-4.16	24.33	50.00		
RB: 1,0	823.3	26783	V	23.02	5.14	-4.17	23.99	50.00		
KD. 1,0	023.3	20703	Н	22.07	5.14	-4.17	23.04	50.00		
LTE	814.7	26697	V	25.02	5.17	-4.15	26.04	50.00		
BAND 26	014.7	20097	Н	24.17	5.17	-4.14	ERP         Lim           dBm         dBi           4         25.24         50.0           4         24.45         50.0           5         25.26         50.0           5         25.26         50.0           5         24.33         50.0           6         24.33         50.0           7         23.04         50.0           6         24.71         50.0           6         24.71         50.0           6         24.71         50.0           6         24.71         50.0           6         24.71         50.0           6         23.81         50.0           6         23.81         50.0           7         24.25         50.0           6         25.14         50.0           7         24.29         50.0           6         25.31         50.0           7         23.01         50.0           6         24.43         50.0           7         23.01         50.0           6         25.16         50.0           7         23.03         50.0	50.00		
BAND 20 BW: 1.4M QPSK	819.0	26740	V	23.72	5.15	-4.16	24.71	50.00		
	019.0	20740	Н	22.81	5.16	-4.16	23.81	50.00		
RB: 1,5	072.2	26783	V	23.28	5.14	-4.17	24.25	50.00		
KD. 1,0	823.3	20703	Н	22.24	5.14	-4.18	23.20	50.00		
LTE	814.7	26697	V	24.11	5.17	-4.14	25.14	50.00		
BAND 26	014.7	20097	Н	23.26	5.17	-4.14	24.29	50.00		
BAND 20 BW: 1.4M	819.0	26740	V	24.31	5.16	-4.16	25.31	50.00		
16QAM	019.0	20740	Н	23.43	5.16	-4.16	24.43	50.00		
RB: 1,0	823.3	26783	V	23.04	5.14	-4.17	24.01	50.00		
KD. 1,0	023.3	20703	Н	22.04	5.14	-4.17	23.01	50.00		
ITE	01/1 7	26607	V	24.99	5.17	-4.15	26.01	50.00		
	814.7	26697	Н	24.14	5.17	-4.15	25.16	50.00		
BAND 26	010.0	26710	V	23.83	5.15	-4.16	24.82	50.00		
BW: 1.4M 16QAM RB: 1,5	819.0	26740	Н	22.94	5.15	-4.16	23.93	50.00		
	012.2	<u> </u>	V	23.25	5.14	-4.18	24.21	50.00		
KD. 1,3	823.3	26783	Н	22.20	5.14	-4.17	23.17	50.00		
Remark :										



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
LTE	815.5	26705	V	24.22	5.17	-4.14	25.25	50.00
BAND 26	010.0	20705	Н	23.41	5.17	-4.14	24.44	50.00
BAND 20 BW: 3M	819.0	26740	V	23.98	5.16	-4.15	24.99	50.00
QPSK	017.0	20740	Н	23.22	5.16	-4.15	24.23	50.00
RB: 1,0	822.5	26775	V	23.16	5.15	-4.17	24.14	50.00
KD. 1,0	022.0	20775	Н	22.24	5.15	-4.17	23.22	50.00
LTE	815.5	26705	V	22.89	5.16	-4.15	23.90	50.00
BAND 26 BW: 3M QPSK	015.5	20705	Н	23.29	5.16	-4.15	24.30	50.00
	819.0	26740	V	23.41	5.15	-4.16	24.40	50.00
	019.0	20740	Н	22.50	5.15	-4.16	23.49	50.00
RB: 1,14	822.5	26775	V	23.29	5.14	-4.18	24.25	50.00
ND. 1,14	022.5	20775	Н	22.25	5.14	-4.18	23.21	50.00
LTE	815.5	26705	V	24.09	5.17	-4.14	25.12	50.00
BAND 26	015.5	20705	Н	23.27	5.17	-4.14	24.30	50.00
BAND 20 BW: 3M	819.0	26740	V	24.01	5.16	-4.15	25.02	50.00
16QAM	017.0	20740	Н	23.08	5.16	-4.15	24.09	50.00
RB: 1,0	822.5	26775	V	23.19	5.15	-4.17	24.17	50.00
$\mathbf{ND}$ . $\mathbf{I}_{i}\mathbf{U}$	022.5	20775	Н	22.25	5.15	-4.17	23.23	50.00
LTE	815.5	26705	V	23.71	5.17	-4.14	24.74	50.00
	010.0	20705	Н	23.48	5.16	-4.15	24.49	50.00
BAND 26 BW: 3M 16QAM RB: 1,14	010.0	26740	V	23.47	5.15	-4.16	24.46	50.00
	819.0	26740	Н	23.45	5.16	-4.15	24.46	50.00
	877 F	<u> </u>	V	23.26	5.14	-4.18	24.22	50.00
IXD. 1,14	822.5	26775	Н	22.53	5.15	-4.16	23.52	50.00
Remark :	(1)The RBW,	/BW of S	SPA for fre	quency R	BW= 8MH	z , VBW	= 8MHz	



	EUT				Measure	ment		Limit dBm 50.00 50.00 50.00 50.00 50.00 50.00 50.00 50.00					
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit					
	MHz		V/H	dBm	dBd	dB	dBm	dBm					
LTE	816.5	26715	V	24.27	5.17	-4.14	25.30	50.00					
BAND 26	010.0	20715	Н	23.42	5.17	-4.14	24.45	50.00					
BAND 20 BW: 5M	819.0	26740	V	24.23	5.16	-4.15	25.24	50.00					
QPSK	019.0	20740	Н	23.39	5.16	-4.15	24.40	50.00					
RB: 1,0	821.5	26765	V	23.80	5.15	-4.16	24.79	50.00					
KD. 1,0	021.0	20705	Н	22.90	5.15	-4.16	23.89	50.00					
LTE	816.5	26715	V	23.94	5.16	-4.16	24.94	50.00					
BAND 26	010.5	20715	Н	23.07	5.15	-4.16	24.06	50.00					
BAND 20 BW: 5M QPSK	819.0	26740	V	23.93	5.16	-4.16	24.93	50.00					
	019.0	20740	Н	22.25	5.15	-4.17	23.23	50.00					
RB: 1,24	821.5	26765	V	23.26	5.14	-4.18	24.22	50.00					
ND. 1,24	021.5	20705	Н	22.20	5.14	-4.17	23.17	50.00					
LTE	816.5	26715	V	24.16	5.17	-4.14	25.19	50.00					
BAND 26	010.5	20715	Н	23.32	5.17	-4.14	24.35	50.00					
BAND 20 BW: 5M	819.0	26740	V	22.89	5.16	-4.15	23.90	50.00					
16QAM	017.0	20740	Н	22.03	5.16	-4.15	23.04	50.00					
RB: 1,0	821.5	26765	V	23.82	5.15	-4.16	24.81	50.00					
KD. 1,0	021.5	20705	Н	22.91	5.15	-4.16	23.90	50.00					
LTE	816.5	26715	V	24.00	5.16	-4.16	25.00	50.00					
BAND 26	010.5	20715	Н	23.20	5.16	-4.16	24.20	50.00					
	819.0	26740	V	23.22	5.15	-4.17	24.20	50.00					
BW: 5M 16QAM RB: 1,24	017.0	20740	Н	22.29	5.15	-4.17	23.27	50.00					
	<u> </u>	26765	V	23.23	5.14	-4.18	24.19	50.00					
κυ. 1,24	821.5	20703	Н	22.21	5.14	-4.18	23.17	50.00					
Remark :	(1)The RBW,	/BW of S	SPA for fre	quency F	RBW= 8MF	łz , VBW	/= 8MHz						



	EUT				Measure	ment			
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit	
	MHz		V/H	dBm	dBd	dB	dBm	dBm	
LTE BAND 26 BW: 10M	819.0	26740	V	24.27	5.17	-4.14	25.30	50.00	
QPSK RB: 1,0	017.0	20740	Н	23.45	5.17	-4.14	24.48	50.00	
LTE BAND 26 BW: 10M	819.0	26740	V	23.15	5.14	-4.17	24.12	50.00	
QPSK RB: 1,49	017.0	20740	Н	22.10	5.14	-4.17	23.07	50.00	
LTE BAND 26 BW: 10M	819.0	26740	V	24.26	5.17	-4.14	25.29	50.00	
16QAM RB: 1,0	017.0	20740	Н	23.42	5.17	-4.14	24.45	50.00	
LTE BAND 26 BW: 10M	819.0	26740	V	23.14	5.14	-4.17	24.11	50.00	
16QAM RB: 1,49	017.0	26740 -	Н	22.08	5.14	-4.17	23.05	50.00	
Remark :									



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit
	MHz		V/H	dBm	dBd	dB	dBm	dBm
LTE	2307.5	27685	V	23.30	10.51	-7.59	26.22	34.77
BAND 30	2307.3	27005	Н	12.72	10.51	-7.59	15.64	34.77
BW: 5M	2310.0	27710	V	23.56	10.51	-7.59	26.48	34.77
QPSK	2310.0	27710	Н	13.23	10.51	-7.59	16.15	34.77
RB: 1,0	2312.5	27735	V	22.82	10.51	-7.59	25.74	34.77
KD. 1,0	2312.3	21155	Н	12.68	10.51	-7.59	15.60	34.77
LTE	2307.5	27685	V	22.85	10.51	-7.59	25.77	34.77
BAND 30	2307.5	27005	Н	12.66	10.51	-7.59	15.58	34.77
BW: 5M QPSK	2310.0	27710	V	23.24	10.51	-7.60	26.15	34.77
	2310.0	27710	Н	12.03	10.51	-7.60	14.94	34.77
RB: 1,24	2312.5	27735	V	22.83	10.51	-7.60	25.74	34.77
ND. 1,24	2312.3	21135	Н	12.65	10.51	-7.60	15.56	34.77
LTE	2307.5	27685	V	23.69	10.51	-7.59	26.61	34.77
BAND 30	2307.3	27005	Н	13.00	10.51	-7.59	15.92	34.77
BW: 5M	2310.0	27710	V	24.42	10.51	-7.59	27.34	34.77
16QAM	2310.0	27710	Н	13.62	10.51	-7.59	16.54	34.77
RB: 1,0	2312.5	27735	V	23.20	10.51	-7.59	26.12	34.77
KD. 1,0	2312.5	21155	Н	13.19	10.51	-7.59	16.11	34.77
LTE	2307.5	27685	V	23.74	10.51	-7.59	26.66	34.77
BAND 30	2307.5	27005	Н	13.87	10.51	-7.59	16.79	34.77
	2310.0	27710	V	23.96	10.51	-7.60	26.87	34.77
BW: 5M 16QAM RB: 1,24	2310.0	21110	Н	13.00	10.51	-7.60	15.91	34.77
	2312.5	27735	V	23.28	10.51	-7.60	26.19	34.77
IXD. 1,24	2012.0	21133	Н	12.66	10.51	-7.60	15.57	34.77
Remark :	(1)The RBW,V	'BW of S	PA for free	luency R	BW= 8MH	z , VBW=	= 8MHz	



	EUT			1	Measure	ment			
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	ERP	Limit	
	MHz		V/H	dBm	dBd	dB	dBm	dBm	
LTE BAND 30 BW: 10M	2310.0	27710	V	23.39	10.51	-7.59	26.31	34.77	
QPSK RB: 1,0	2310.0	27710 -	Н	13.41	10.51	-7.59	16.33	34.77	
LTE BAND 30 BW: 10M	2310.0	27710	V	23.79	10.51	-7.60	26.70	34.77	
QPSK RB: 1,49	2010.0	27710	Н	13.33	10.52	-7.60	16.25	34.77	
LTÉ BAND 30 BW: 10M	2310.0	27710	V	23.44	10.51	-7.59	26.36	34.77	
16QAM RB: 1,0	2010.0	27710	Н	13.39	10.51	-7.59	16.31	34.77	
LTE BAND 30 BW: 10M	2310.0	27710	V	22.75	10.51	-7.60	25.66	34.77	
16QAM RB: 1,49	2310.0	21110	Н	12.66	10.51	-7.60	15.57	34.77	
Remark :									



	EUT				Measuren	nent		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	2498.5	39675	V	24.04	10.70	-7.82	26.92	33.00
BAND 41	2470.3	37073	Η	15.43	10.70	-7.83	18.30	33.00
BW: 5M	2593.0	40620	V	23.82	10.81	-7.93	26.70	33.00
QPSK	2373.0	40020	Н	11.59	10.81	-7.93	14.47	33.00
RB: 1,0	2687.5	41565	V	23.08	10.92	-8.03	25.97	33.00
ND. 1,0	2007.5	41505	H	12.60	10.92	-8.03	15.49	33.00
LTE	2498.5	39675	V	24.47	10.70	-7.83	27.34	33.00
BAND 41	2470.5	37073	Н	15.34	10.70	-7.83	18.21	33.00
BAND 41 BW: 5M QPSK	2593.0	40620	V	24.89	10.81	-7.93	27.77	33.00
	2095.0	40020	Н	12.21	10.82	-7.94	15.09	33.00
RB: 1,24	2687 F	41565	V	22.95	10.93	-8.03	25.85	33.0033.00
ND: 1,24	2687.5	41303	Η	12.23	10.93	-8.03	15.13	33.00
LTE	2498.5	39675	V	23.96	10.70	-7.83	26.83	33.00
BAND 41	2470.3	37073	Н	15.02	10.70	-7.83	17.89	33.00
BAND 41 BW: 5M	2593.0	40620	V	23.56	10.81	-7.93	26.44	33.00
16QAM	2373.0	40020	H	11.68	10.81	-7.93	14.56	33.00
RB: 1,0	2687.5	41565	V	22.90	10.92	-8.03	25.79	33.00
ND. 1,0	2007.3	41505	Н	12.56	10.92	-8.03	15.45	33.00
LTE	2498.5	39675	V	24.30	10.70	-7.83	27.17	33.00
BAND 41	2490.0	39073	Н	15.24	10.70	-7.83	18.11	33.00
	2502.0	40620	V	23.74	10.81	-7.93	26.62	33.00
BW: 5M 16QAM RB: 1,24	2593.0	40020	Н	11.47	10.81	-7.94	14.34	33.00
	2687.5	11565	V	22.70	10.93	-8.03	25.60	33.00
KD. 1,24	2007.0	41565	Н	11.90	10.93	-8.03	14.80	33.00
Remark :	(1)The RBW,	/BW of S	SPA for freq	uency RB	W= 8MHz	, VBW=	8MHz	



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	2501.0	39700	V	23.79	10.70	-7.83	26.66	33.00
BAND 41	2301.0	37700	Н	14.75	10.70	-7.83	17.62	33.00
BW: 10M	2593.0	40620	V	23.27	10.80	-7.92	26.15	33.00
QPSK	2373.0	40020	Н	11.38	10.80	-7.93	14.25	33.00
RB: 1,0	2685.0	41540	V	22.99	10.92	-8.02	25.89	33.00
KD. 1,0	2003.0	41540	Н	12.42	10.92	-8.02	15.32	33.00
LTE	2501.0	39700	V	24.18	10.71	-7.84	27.05	33.00
BAND 41	2301.0	37700	Н	14.75	10.71	-7.84	17.62	33.00
BAND 41 BW: 10M QPSK	2593.0	40620	V	24.31	10.81	-7.93	27.19	33.00
	2095.0	40020	Н	11.37	10.81	-7.93	14.25	33.00
RB: 1,49	2685.0	41540	V	22.86	10.93	-8.03	25.76	33.00
ND. 1,47	2005.0	1010	Н	11.91	10.93	-8.03	14.81	33.00
LTE	2501.0	39700	V	23.68	10.70	-7.83	26.55	33.00
BAND 41	2301.0	37700	Н	14.60	10.70	-7.83	17.47	33.00
BAND 41 BW: 10M	2593.0	40620	V	23.23	10.80	-7.93	26.10	33.00
16QAM	2095.0	40020	Н	11.57	10.80	-7.93	14.44	33.00
RB: 1,0	2685.0	41540	V	22.82	10.92	-8.02	25.72	33.00
KD. 1,0	2005.0	41540	Н	12.22	10.92	-8.02	15.12	33.00
LTE	2501.0	39700	V	24.05	10.71	-7.83	26.93	33.00
BAND 41	2001.0	37700	Н	14.65	10.71	-7.84	17.52	33.00
	2593.0	40620	V	24.42	10.81	-7.94	27.29	33.00
BW: 10M 16QAM RB: 1,49	2070.0	40020	Н	11.93	10.82	-7.94	14.81	33.00
	2685.0	41540	V	22.57	10.93	-8.03	25.47	33.00
KD. 1,47	2003.0	41040	Н	11.74	10.93	-8.03	14.64	33.00
Remark :	(1)The RBW,	/BW of S	SPA for fre	quency R	BW= 8MH	z , VBW	= 8MHz	



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	2503.5	39725	V	23.82	10.70	-7.83	26.69	33.00
BAND 41	2003.0	37723	Н	14.91	10.70	-7.83	17.78	33.00
BW: 15M	2593.0	40620	V	22.97	10.80	-7.93	25.84	33.00
QPSK	2373.0	40020	Н	12.10	10.81	-7.93	14.98	33.00
RB: 1,0	2682.5	41515	V	23.04	10.91	-8.02	25.93	33.00
KD. 1,0	2002.0	41313	Н	14.70	10.91	-8.02	17.59	33.00
LTE	2503.5	39725	V	24.25	10.71	-7.84	27.12	33.00
BAND 41	2003.0	37723	Н	14.60	10.71	-7.84	17.47	33.00
BAND 41 BW: 15M QPSK	2593.0	40620	V	24.09	10.82	-7.94	26.97	33.00
	2373.0	40020	Н	13.41	10.82	-7.94	16.29	33.00
RB: 1,74	2682.5	11515	V	22.74	10.93	-8.03	25.64	33.00
	2002.5	41515	Н	14.55	10.93	-8.03	17.45	33.00
LTE	2503.5	39725	V	23.79	10.70	-7.83	26.66	33.00
BAND 41	2303.3	57725	Н	14.81	10.70	-7.83	17.68	33.00
BW: 15M	2593.0	40620	V	23.23	10.80	-7.92	26.11	33.00
16QAM	2373.0	40020	Н	12.62	10.80	-7.93	15.49	33.00
RB: 1,0	2682.5	41515	V	23.01	10.91	-8.02	25.90	33.00
KD. 1,0	2002.5	1010	Н	14.52	10.91	-8.02	17.41	33.00
LTE	2503.5	39725	V	23.34	10.71	-7.84	26.21	33.00
BAND 41	2000.0	37723	Н	13.74	10.71	-7.84	16.61	33.00
	2593.0	40620	V	24.31	10.82	-7.94	27.19	33.00
BW: 15M 16QAM RB: 1,74	2070.0	10020	Н	13.61	10.82	-7.94	16.49	33.00
	2682.5	41515	V	22.52	10.93	-8.03	25.42	33.00
	2002.0		Н	14.18	10.93	-8.03	17.08	33.00
Remark :	(1)The RBW,V	/BW of S	SPA for fre	quency R	<u>RBW= 8MH</u>	z , VBW	= 8MHz	



	EUT				Measure	ment		
Operation Band	Fundamental Frequency	СН	Antenna Pol.	S.G. Output	Antenna Gain	Cable Loss	EIRP	Limit
	MHz		V/H	dBm	dBi	dB	dBm	dBm
LTE	2506.0	39750	V	24.56	10.70	-7.83	27.43	33.00
BAND 41	2300.0	37730	Η	14.93	10.70	-7.83	17.80	33.00
BW: 20M	2593.0	40620	V	22.50	10.80	-7.92	25.38	33.00
QPSK	2373.0	40620	Н	10.69	10.80	-7.92	13.57	33.00
RB: 1,0	2680.0	41490	V	24.32	10.91	-8.01	27.22	33.00
KD. 1,0	2000.0	41470	Н	15.63	10.91	-8.01	18.53	33.00
LTE	2506.0	39750	V	23.63	10.72	-7.85	26.50	33.00
BAND 41	2300.0	37730	Н	13.03	10.72	-7.85	15.90	33.00
BAND 41 BW: 20M	2593.0	40620	V	24.24	10.82	-7.94	27.12	33.00
QPSK			Н	10.29	10.82	-7.94	13.17	33.00
RB: 1,99	2680.0 2506.0	41490 39750	V	22.98	10.93	-8.03	25.88	33.00
$\mathbf{ND}$ . $\mathbf{I}_{1}$ 77			Н	14.07	10.93	-8.03	16.97	33.00
LTE			V	24.60	10.70	-7.83	27.47	33.00
BAND 41			Н	14.76	10.70	-7.83	17.63	33.00
BW: 20M	2593.0	40620	V	22.75	10.80	-7.92	25.63	33.00
16QAM	2373.0	40020	Н	10.91	10.80	-7.92	13.79	33.00
RB: 1,0	2680.0	41490	V	23.99	10.91	-8.01	26.89	33.00
KD. 1,0	2000.0	41470	Н	15.50	10.91	-8.01	18.40	33.00
LTE	2506.0	39750	V	23.58	10.72	-7.85	26.45	33.00
BAND 41	2300.0	37730	Н	13.17	10.72	-7.85	16.04	33.00
BAND 41 BW: 20M	2593.0	40620	V	24.52	10.82	-7.94	27.40	33.00
16QAM	2070.0	+0020	Н	10.48	10.82	-7.94	13.36	33.00
RB: 1,99	2680.0	41490	V	22.88	10.93	-8.03	25.78	33.00
IND. 1,77	2000.0	+1470	Н	14.32	10.93	-8.03	17.22	33.00
Remark :	(1)The RBW,	/BW of S	SPA for fre	quency R	RBW= 8MH	z , VBW	= 8MHz	

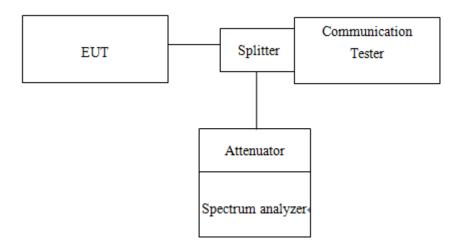


# 8. OCCUPIED BANDWIDTH MEASUREMENT

# 8.1. Standard Applicable

The occupied bandwidth 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.

# 8.2. Test Set-up



# 8.3. Measurement Procedure

# 99% &26dB Bandwidth with detector peak

The EUT's output RF connector was connected with a short cable to the spectrum analyzer, RBW was set to about 1% of emission BW, VBW= 3 times RBW, -26dBc display line was placed on the screen (or 26dB bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace. Then set RBW to 99% bandwidth, RBW= 1%, VBW= 3 RBW, with span > 2 \* Signal BW, set % Power = 99%.

# 99% Bandwidth with detector sample

The EUT's output RF connector was connected with a short cable to the spectrum analyzer, RBW was set to about  $1\% \sim 5\%$  of emission BW, VBW= 3 times RBW, -20dBc display line was placed on the screen (or 20dB bandwidth). Set RBW to 99% bandwidth, RBW=  $1\% \sim 5\%$ , VBW= 3 RBW, with span > 2 \* Signal BW, set % Power = 99%.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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## 8.4. Measurement Equipment Used

Conduc	ted Emission	(measured at a	antenna port)	Test Site	
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Spectrum Analyzer	KEYSIGHT	N9010A	MY51440113	06/20/2017	06/19/2018
Communication Tester	Anritsu	MT8820C	6201107337	06/11/2017	06/10/2018
Coaxial Cable 30cm	WOKEN	00100A1F1A19 5C	RF01	12/24/2017	12/23/2018
Temperature Chamber	TERCHY	MHK-120LK	1020582	06/13/2017	06/12/2018
DC Block	PASTERNACK	PE8210	RF29	12/24/2017	12/23/2018
Splitter	RF-LAMBAD	RFLT2W1G18 G	RF35	12/24/2017	12/23/2018
Attenuator	WOKEN	218FS-10	RF23	12/24/2017	12/23/2018
DC Power Supply	Agilent	E3640A	MY53140006	05/02/2017	05/01/2018



# 8.5. Measurement Result

Freq.		99	% BW (MHz	<u>z)</u>	26 dB BW (MHz)			
(MHz)	СН	WCDMA	HSDPA	HSUPA	WCDMA	HSDPA	HSUPA	
(10112)		II		II		I		
1852.40	9262	4.1360	4.1432	4.1290	4.6940	4.6950	4.7160	
1880.00	9400	4.1275	4.1388	4.1319	4.6900	4.6970	4.6910	
1907.60	9538	4.1492	4.1408	4.1276	4.6980	4.7140	4.6620	

Freq.		99	% BW (MHz	<u>z)</u>	26 dB BW (MHz)			
(MHz)	СН	WCDMA	HSDPA	HSUPA	WCDMA	HSDPA	HSUPA	
(10112)		IV	IV	IV	IV	IV	IV	
1712.40	1312	4.1306	4.1295	4.1230	4.6760	4.6720	4.6770	
1732.60	1413	4.1348	4.1259	4.1316	4.6900	4.6560	4.6760	
1752.60	1513	4.1312	4.1183	4.1202	4.6870	4.6720	4.6810	

Freq.		99	% BW (MHz	<u>z)</u>	26 dB BW (MHz)			
(MHz)	СН	WCDMA	HSDPA	HSUPA	WCDMA	HSDPA	HSUPA	
		V	V	V	V	V	V	
826.40	4132	4.1463	4.1418	4.1448	4.6900	4.6710	4.6790	
836.60	4183	4.1511	4.1392	4.1384	4.6820	4.6860	4.6740	
846.60	4233	4.1220	4.1339	4.1162	4.6840	4.6890	4.6830	



L	IE BANI		nel bandwi				LTE BAN		inel bandw		
Freq.	СН	99% B\	N (MHz)	26 dB B	SW (MHz)	Freq.	СН	99% B\	N (MHz)	26 dB B	W (MHz)
(MHz)	CIT	QPSK	16QAM	QPSK	16QAM	(MHz)	CIT	QPSK	16QAM	QPSK	16QAM
1850.7	18607	1.0935	1.0942	1.2427	1.2422	1851.5	18615	2.6971	2.6979	2.9942	2.9951
1880.0	18900	1.0928	1.0917	1.2407	1.2456	1880.0	18900	2.6993	2.6985	2.9950	3.0204
1909.3	19193	1.0928	1.0930	1.2434	1.2359	1908.5	19185	2.6927	2.6962	2.9810	2.9975
	LTE BAN	ID 2 Char	nel bandw	idth: 5MF	lz		TE BAN	D 2 Chan	nel bandw	idth: 10Mł	Ηz
Freq.	011	99% B\	N (MHz)	26 dB B	SW (MHz)	Freq.	011	99% B\	N (MHz)	26 dB B	W (MHz)
(MHz)	СН	QPSK	16QAM	QPSK	16QAM	(MHz)	СН	QPSK	16QAM	QPSK	16QAM
1852.5	18625	4.4962	4.4999	5.0193	4.9760	1855.0	18650	8.9896	8.9572	9.794	9.782
1880.0	18900	4.4971	4.4931	4.9814	4.9755	1880.0	18900	8.9977	8.9677	9.831	9.733
1907.5	19175	4.4895	4.4838	4.9946	4.9790	1905.0	19150	8.9919	8.9481	9.785	9.720
								_			
	TE BAN	D 2 Chan	nel bandw	idth: 15M	Hz		TE BAN	D 2 Chan	nel bandw	idth: 20Mł	Ηz
Freq.			N (MHz)		SW (MHz)	Freq.			N (MHz)		W (MHz)
(MHz)	СН	QPSK	16QAM	QPSK	16QAM	(MHz)	СН	QPSK	16QAM	QPSK	16QAM
1857.5	18675	13.474	13.454	14.649	14.721	1860.0	18700	17.940	17.976	19.472	19.437
1880.0	18900	13.485	13.472	14.704	14.616	1880.0	18900	17.960	17.946	19.457	19.460
1902.5	19125	13.453	13.444	14.541	14.625	1900.0	19100	17.928	17.950	19.541	19.484
		101100	101111	1 110 11	111020			171720	171700		
L	TE BANI	D 4 Chanr	nel bandwi	dth: 1.4M	Hz		LTE BAN	ID 4 Char	nnel bandv	vidth: 3MH	Z
Freq.	СН	99% B\	N (MHz)	26 dB E	SW (MHz)	Freq.	СН	99% B\	N (MHz)	26 dB B	W (MHz)
(MHz)	СН	QPSK	16QAM	QPSK	16QAM	(MHz)	Сн	QPSK	16QAM	QPSK	16QAM
1710.7	19957	1.0939	1.0909	1.2473	1.2337	1711.5	19965	2.6997	2.6965	2.9930	3.0106
1732.5	20175	1.0954	1.0936	1.2397	1.2347	1732.5	20175	2.6999	2.6946	2.9662	3.0022
1754.3	20393	1.0939	1.0957	1.2394	1.2379	1753.5	20385	2.6977	2.7000	2.9781	3.0057
	LTE BAN	ID 4 Char	nel bandw	idth: 5MH	łz	L	TE BAN	D 4 Chan	nel bandw	idth: 10Mł	Ηz
Freq.	0.11	99% B\	N (MHz)	26 dB E	SW (MHz)	Freq.	011	99% B\	N (MHz)	26 dB B	W (MHz)
(MHz)	СН	QPSK	16QAM	QPSK	16QAM	(MHz)	СН	QPSK	16QAM	QPSK	16QAM
, <i>,</i> 1712.5	19957	4.4945	4.4920	4.9877	4.9754	1715.0	20000	8.9892	8.9681	9.834	9.750
1732.5	20175	4.4945	4.4962	5.0001	4.9574	1732.5	20175	8.9780	8.9504	9.800	9.787
1752.5	20375	4.4982	4.4956	4.9555	4.9358	1750.0	20350	8.9837	8.9654	9.827	9.745
								017007	017001	,	
1	TF BAN	D 4 Chan	nel bandw	idth: 15M	Hz		TF BAN	D 4 Chan	nel bandw	idth: 20MI	-17
Freq.			N (MHz)		SW (MHz)	Freq.			N (MHz)		W (MHz)
(MHz)	СН	QPSK	16QAM	QPSK	16QAM	(MHz)	СН	QPSK	16QAM	QPSK	16QAM
717.5	20025	13.498	13.490	14.744	14.685	1720.0	20050	17.943	17.925	19.525	19.520
1717.5	20025	13.449	13.459	14.744	14.674	1720.0	20030	17.943	17.925	19.325	19.320
1732.5 1747.5	20175					1732.5	20175				19.353 <b>19.520</b>
11415	20325	13.488	13.478	14.694	14.770	1/45.0	20300	17.949	17.979	19.514	19.520

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L	LTE BAND 5 Channel bandwidth: 1.4MHz						LTE BAND 5 Channel bandwidth: 3MHz					
Freq.	011	99% B\	N (MHz)	26 dB B	W (MHz)		Freq.	011	99% B\	N (MHz)	26 dB B	W (MHz)
(MHz)	СН	QPSK	16QAM	QPSK	16QAM		(MHz)	СН	QPSK	16QAM	QPSK	16QAM
824.7	20407	1.0904	1.0938	1.2380	1.2333		825.5	20415	2.6961	2.6979	2.9805	2.9898
836.5	20525	1.0908	1.0930	1.2357	1.2368		836.5	20525	2.6969	2.6974	2.9731	3.0116
848.3	20643	1.0918	1.0921	1.2332	1.2388		847.5	20635	2.6946	2.6992	2.9831	3.0002
	LTE BAN	ID 5 Char	nnel bandw	/idth: 5M⊦	z		L	TE BAN		nel bandw	idth: 10MI	Ηz
Freq.	СН	99% B\	N (MHz)	26 dB B	W (MHz)		Freq.	СН		N (MHz)	26 dB B	W (MHz)
(MHz)	CIT	QPSK	16QAM	QPSK	16QAM		(MHz)	CH	QPSK	16QAM	QPSK	16QAM
826.5	20425	4.4919	4.4900	4.9681	4.9438		829.0	20450	9.0144	8.9658	9.834	9.785
836.5	20525	4.4958	4.4912	4.9614	4.9519		836.5	20525	8.9666	8.9601	9.831	9.739
846.5	20625	4.4950	4.4982	5.0071	4.9377		844.0	20600	8.9687	8.9596	9.814	9.765
	I TE RAN	ID 7 Char	nel bandw	/idth: 5ML	7	-		ΤΕ ΒΔΝ	D 7 Chan	nel bandw	idth 1∩M	-17
Freq.			N (MHz)		W (MHz)		Freq.			N (MHz)		W (MHz)
(MHz)	СН	QPSK	16QAM	QPSK	16QAM		(MHz)	СН	QPSK	16QAM	QPSK	16QAM
2502.5	20775	4.4952	4.5008	5.0110	4.9595		2505.0	20800	9.0128	8.9598	9.857	9.810
2535.0	21100	4.4947	4.4961	4.9748	4.9296		2535.0	21100	8.9713	8.9599	9.810	9.790
2567.5	21425	4.4875	4.4925	4.9922	4.9749		2565.0	21400	8.9918	8.9522	9.815	9.728
L	TE BAN	D 7 Chan	nel bandw	idth: 15MI	Ηz	•	L	TE BAN	D 7 Chan	nel bandw	idth: 20MI	Ηz
Freq.		99% B\	N (MHz)	26 dB B	W (MHz)		Freq.		99% B\	N (MHz)	26 dB B	W (MHz)
(MHz)	СН	QPSK	16QAM	QPSK	16QAM		(MHz)	СН	QPSK	16QAM	QPSK	16QAM
2507.5	20825	13.484	13.492	14.666	14.769		2510.0	20850	17.931	17.942	19.642	19.506
2535.0	21100	13.482	13.473	14.672	14.823		2535.0	21100	17.954	17.930	19.501	19.575
2562.5	21375	13.492	13.476	14.696	14.681		2560.0	21350	17.944	17.949	19.417	19.401
· · · ·		) 10 Chan	nalhandu	idth, 1 AN	11.1-7				D 12 Cha	nnalhand	uidth, 2NA	1-
	I E BAINL		nel bandw					LIE BAN		nnel band		
Freq.	СН		N (MHz) 16QAM		W (MHz) 16QAM		Freq. (MHz)	СН	QPSK	N (MHz)		W (MHz)
(MHz) 699.7	23017	QPSK 1.0934	1.0949	QPSK	1.2355		· /	23025		16QAM 2.6979	QPSK 2.9890	16QAM 3.0119
707.5				1.2453			700.5 707.5	23025	2.6963			
707.5	23095 23173	1.0918 1.0920	1.0945 1.0932	1.2426 1.2419	1.2254 1.2331		707.5	23095	2.6995 <b>2.7000</b>	2.6977 2.6962	3.0035 <b>3.0141</b>	3.0042 3.0141
710.5	23173	1.0920	1.0932	1.2419	1.2331		714.0	23103	2.7000	2.0902	3.0141	3.0141
	TE BAN	D 12 Cha	nnel band	width: 5MI	Ηz	ı	L	TE BANI	) 12 Char	nel bandw	/idth: 10M	Hz
Freq.			N (MHz)		W (MHz)		Freq.			N (MHz)		W (MHz)
(MHz)	СН	QPSK	16QAM	QPSK	16QAM		(MHz)	СН	QPSK	16QAM	QPSK	16QAM
701.5	23035	4.4948	4.5007	4.9786	4.9970		704.0	23060	9.0072	8.9643	9.792	9.752
707.5	23095	4.5007	4.5098	4.9512	4.9221		707.5	23095	8.9957	8.9835	9.850	9.745
713.5	23155	4.4945	4.4963	4.9548	4.9199		711.0	23130	9.0044	8.9758	9.878	9.721
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LTE BAND 13 Channel bandwidth: 5MHz									
Freq.	СН	99% B\	N (MHz)	26 dB BW (MHz)					
(MHz)	CIT	QPSK	16QAM	QPSK	16QAM				
779.5	23205	4.4877	4.4876	4.9159	4.9220				
782.0	23230	4.4972	4.5005	4.9919	4.9895				
784.5	23255	4.4913	4.4996	4.9966	4.9946				

Ľ	LTE BAND 13 Channel bandwidth: 10MHz								
Freq.	СН	99% BW (MHz) 26 dB BW (MHz			W (MHz)				
(MHz)	MHz)	QPSK	16QAM	QPSK	16QAM				
782.0	23230	8.979	8.949	9.739	9.696				

L	LTE BAND 25 Channel bandwidth: 1.4MHz									
Freq.	СН	99% BV	V (MHz)	26 dB BW (MHz)						
(MHz)	CIT	QPSK	16QAM	QPSK	16QAM					
1850.7	26047	1.0954	1.0951	1.248	1.249					
1882.5	26365	1.0953	1.0963	1.255	1.251					
1914.3	26683	1.0918	1.0941	1.247	1.233					

	LTE BAND 25 Channel bandwidth: 3MHz									
Freq.	СН	99% BV	V (MHz)	26 dB BW (MHz)						
(MHz)	CIT	QPSK	16QAM	QPSK	16QAM					
1851.5	26055	2.6983	2.7001	3.010	3.018					
1882.5	26365	2.7013	2.7000	3.002	3.006					
1913.5	26675	2.6956	2.6970	2.987	3.018					

L	LTE BAND 25 Channel bandwidth: 5MHz									
Freq.	СН	99% BV	V (MHz)	26 dB BW (MHz)						
(MHz)	CIT	QPSK	16QAM	QPSK	16QAM					
1852.5	26065	4.4990	4.5043	5.025	4.991					
1882.5	26365	4.5037	4.4965	4.996	4.989					
1912.5	26665	4.4967	4.4956	5.002	4.956					

1907.5

26615

13.4980

1912.5	26665	4.4967	4.4956	5.002	4.956	1910.0
Ľ	te bane	D 25 Chan	nel bandw	idth: 15MI	Hz	
Freq. (MHz)	СН	99% BV	V (MHz)	26 dB BW (MHz)		Freq.
(MHz)	СП	QPSK	16QAM	QPSK	16QAM	(MHz)
1857.5	26115	13.4710	13.4820	14.780	14.850	1860.0
1882.5	26365	13.4880	13.4810	14.750	14.890	1882.5

14.690

13.4650

LTE BAND 25 Channel bandwidth: 10MHz							
Freq.	СН	99% BV	V (MHz)	26 dB B	W (MHz)		
(MHz)	СП	QPSK	16QAM	QPSK	16QAM		
1855.0	26090	9.0038	9.0004	9.857	9.818		
1882.5	26365	9.0217	8.9627	9.884	9.720		
1910.0	26640	8.9935	8.9622	9.799	9.727		

LTE BAND 25 Channel bandwidth: 20MHz								
Freq. (MHz)	СН	99% BV	V (MHz)	26 dB B	W (MHz)			
(MHz)	CIT	QPSK	16QAM	QPSK	16QAM			
1860.0	26140	17.9550	17.9800	19.710	19.550			
1882.5	26365	17.9700	17.9720	19.520	19.480			
1905.0	26590	17.9130	17.8980	19.380	19.380			

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14.790



LTE BAND 26 Channel bandwidth: 1.4MHz							
Freq.	СН	99% B\	N (MHz)	26 dB B	W (MHz)		
(MHz)	CII	QPSK	16QAM	QPSK	16QAM		
814.7	26697	1.0960	1.0932	1.2400	1.2390		
831.5	26865	1.0930	1.0938	1.2400	1.2370		
848.3	27033	1.0921	1.0944	1.2377	1.2271		

LTE BAND 26 Channel bandwidth: 5MHz								
Freq.	СН	99% B\	N (MHz)	26 dB B	W (MHz)			
(MHz)	СП	QPSK	16QAM	QPSK	16QAM			
816.5	26715	4.4985	4.4983	4.9950	4.9920			
831.5	26865	4.4990	4.5022	5.0130	4.9650			
846.5	27015	4.4947	4.4967	5.0104	5.0071			

LTE BAND 26 Channel bandwidth: 3MHz								
Freq.	СН	99% B\	N (MHz)	26 dB B	W (MHz)			
(MHz)	CH	QPSK	16QAM	QPSK	16QAM			
815.5	26705	2.6974	2.6978	2.9910	3.0160			
831.5	26865	2.6962	2.6968	3.0060	2.9970			
847.5	27025	2.6999	2.6986	2.9987	2.9959			

LTE BAND 26 Channel bandwidth: 10MHz								
Freq.	СН	99% B\	N (MHz)	26 dB B	W (MHz)			
(MHz)	CH	QPSK	16QAM	QPSK	16QAM			
820.0	26750	9.0123	8.9587	9.820	9.771			
831.5	26865	9.0090	8.9515	9.833	9.794			
844.0	26990	8.9757	8.9615	9.767	9.771			

LTE BAND 26 Channel bandwidth: 15MHz								
Freq.	СН	99% B\	N (MHz)	26 dB B	W (MHz)			
(MHz)	CIT	QPSK	16QAM	QPSK	16QAM			
822.5	26775	13.491	13.474	14.760	14.720			
831.5	26865	13.481	13.472	14.750	14.790			
841.5	26965	13.498	13.455	14.679	14.634			

LTE BAND 26 for part 90S Channel bandwidth: 1.4MHz								
Freq.	СН	99% B\	N (MHz)	26 dB B	W (MHz)			
(MHz)	CIT	QPSK	16QAM	QPSK	16QAM			
814.7	26697	1.0935	1.0900	1.2380	1.2250			
819.0	26740	1.0932	1.0940	1.2400	1.2380			
823.3	26783	1.0924	1.0908	1.2310	1.2330			

LTE BAND 26 for part 90S Channel bandwidth: 5MHz								
Freq.	СН	99% B\	N (MHz)	26 dB B	W (MHz)			
(MHz)	CIT	QPSK	16QAM	QPSK	16QAM			
816.5	26715	4.4990	4.4964	4.9840	4.9570			
819.0	26740	4.4986	4.4924	4.9870	4.9590			
821.5	26765	4.4920	4.4958	4.9550	5.0000			

LTE BAND 26 for part 90S Channel bandwidth: 3MHz							
Freq.	СН	99% B\	N (MHz)	26 dB B	W (MHz)		
(MHz)	CIT	QPSK	16QAM	QPSK	16QAM		
815.5	26705	2.6982	2.6929	3.0010	2.9920		
819.0	26740	2.6945	2.6975	2.9820	3.0080		
822.5	26775	2.6974	2.6954	2.9950	3.0060		

LTE BAND 26 for part 90S Channel bandwidth: 10MHz							
Freq.	СН	99% B\	N (MHz)	26 dB B	W (MHz)		
(MHz)	CIT	QPSK	16QAM	QPSK	16QAM		
819.0	26740	8.9934	8.9554	9.819	9.714		



LTE BAND 30 Channel bandwidth: 5MHz							
Freq.	СН	99% BW (MHz)		26 dB BW (MHz)			
(MHz)		QPSK	16QAM	QPSK	16QAM		
2307.5	27685	4.4924	4.4898	4.9800	4.4898		
2310.0	27710	4.4836	4.4902	4.9420	4.9760		
2312.5	27735	4.4913	4.4915	4.9860	4.9700		

LTE BAND 30 Channel bandwidth: 10MHz						
Freq.	Freq. MHz) CH	· · · /		26 dB BW (MHz)		
(MHz)		QPSK	16QAM	QPSK	16QAM	
2310.0	27710	8.9468	8.9468	9.696	9.767	

LTE BAND 41 Channel bandwidth: 5MHz							
Freq.	СН	99% BW (MHz)		26 dB BW (MHz)			
(MHz)		QPSK	16QAM	QPSK	16QAM		
2498.5	39675	4.5024	4.5000	5.1140	4.9570		
2593.0	40620	4.5007	4.4984	4.9930	5.0360		
2687.5	41565	4.5160	4.5031	5.4450	5.1330		

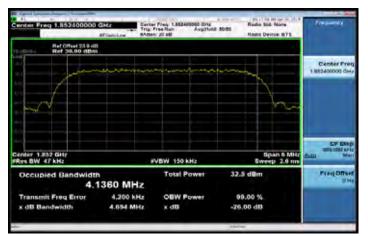
LTE BAND 41 Channel bandwidth: 15MHz						
Freq.	СН	99% BW (MHz)		26 dB BW (MHz)		
(MHz)		QPSK	16QAM	QPSK	16QAM	
2503.5	39725	13.465	13.480	14.620	14.830	
2593.0	40620	13.484	13.471	14.700	14.810	
2682.5	41515	13.478	13.511	14.800	14.840	

LTE BAND 41 Channel bandwidth: 10MHz						
Freq.	СН	99% BW (MHz)		26 dB BW (MHz)		
(MHz)		QPSK	16QAM	QPSK	16QAM	
2501.0	39700	8.9598	8.9670	9.859	10.090	
2593.0	40620	8.9737	8.9701	9.883	10.250	
2685.0	41540	8.9807	8.9491	10.120	10.040	

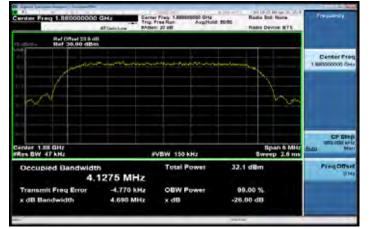
LTE BAND 41 Channel bandwidth: 20MHz						
Freq.	СН	99% BW (MHz)		26 dB BW (MHz)		
(MHz)		QPSK	16QAM	QPSK	16QAM	
2506.0	39750	17.927	17.918	19.760	19.970	
2593.0	40620	17.947	17.967	19.700	19.300	
2680.0	41490	17.981	17.960	20.480	19.390	



#### WCDMA B2 LowCH9262-1852.4



#### WCDMA B2 MidCH9400-1880



# WCDMA\_B2\_HighCH9538-1907.6



#### HSDPA B2 LowCH9262-1852.4







#### HSDPA\_B2\_HighCH9538-1907.6



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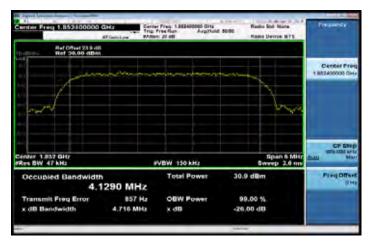
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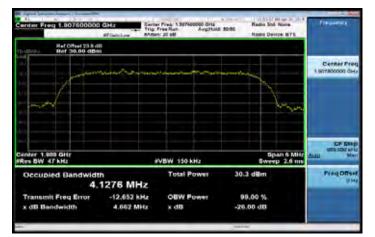
#### HSUPA B2 LowCH9262-1852.4



#### HSUPA B2 MidCH9400-1880



# HSUPA\_B2\_HighCH9538-1907.6



# Ref Offset 2 Def. 35.00 Center Fre

WCDMA B4 LowCH1312-1712.4







# WCDMA\_B4\_HighCH1513-1752.6



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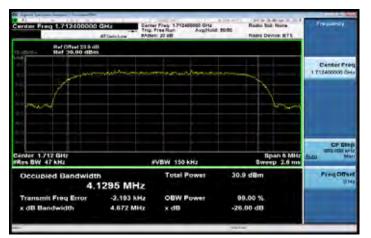
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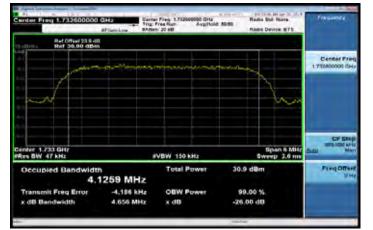
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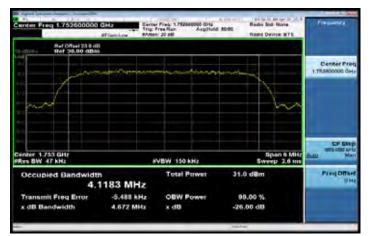
## HSDPA B4 LowCH1312-1712.4



#### HSDPA B4 MidCH1413-1732.6



# HSDPA\_B4\_HighCH1513-1752.6



#### HSUPA B4 LowCH1312-1712.4







# HSUPA\_B4\_HighCH1513-1752.6



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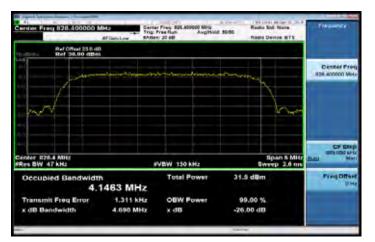
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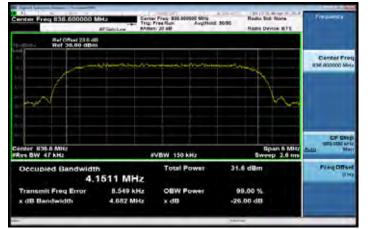
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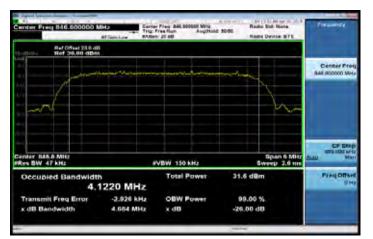
# WCDMA B5 LowCH4132-826.4



# WCDMA B5 MidCH4183-836.6



# WCDMA\_B5\_HighCH4233-846.6





HSDPA B5 LowCH4132-826.4





# HSDPA\_B5\_HighCH4233-846.6



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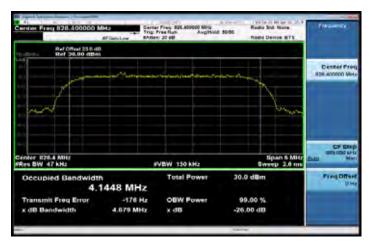
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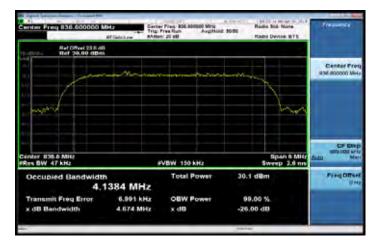
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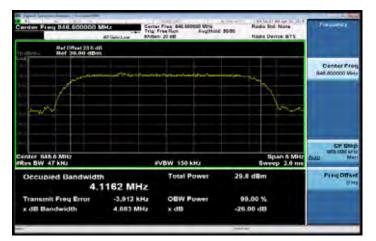
# HSUPA B5 LowCH4132-826.4



# HSUPA\_B5\_MidCH4183-836.6



# HSUPA\_B5\_HighCH4233-846.6

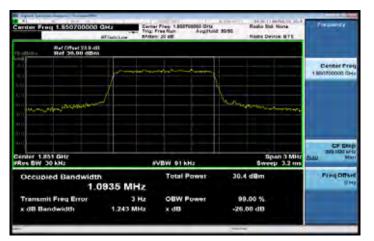


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## Band2\_1\_4MHz\_QPSK\_6\_0\_LowCH18607-1850.7

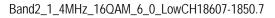


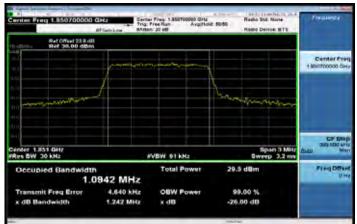
Band2\_1\_4MHz\_QPSK\_6\_0\_MidCH18900-1880

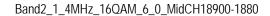


Band2\_1\_4MHz\_QPSK\_6\_0\_HighCH19193-1909.3











# Band2\_1\_4MHz\_16QAM\_6\_0\_HighCH19193-1909.3



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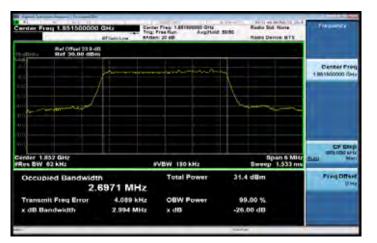
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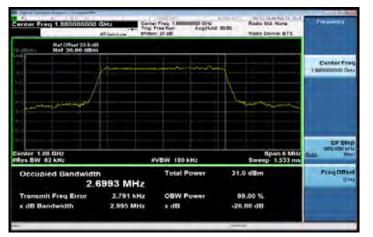
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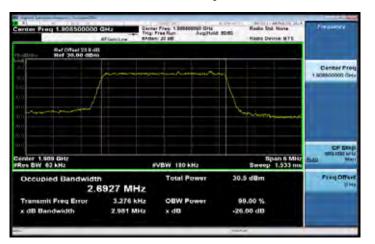
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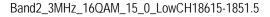


Band2\_3MHz\_QPSK\_15\_0\_MidCH18900-1880



Band2\_3MHz\_QPSK\_15\_0\_HighCH19185-1908.5











# Band2\_3MHz\_16QAM\_15\_0\_HighCH19185-1908.5



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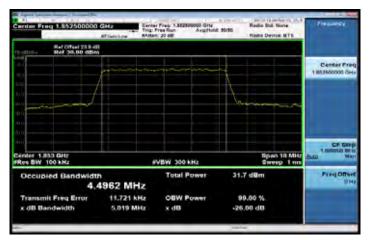
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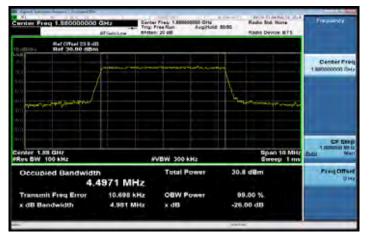
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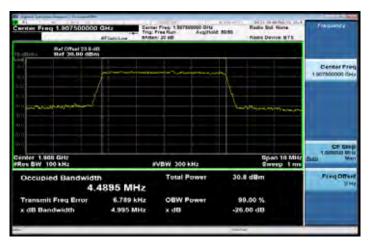
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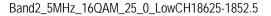


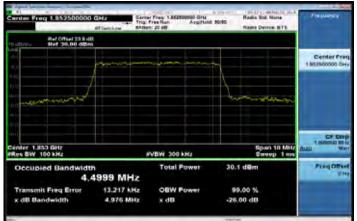
Band2\_5MHz\_QPSK\_25\_0\_MidCH18900-1880

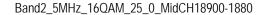


Band2\_5MHz\_QPSK\_25\_0\_HighCH19175-1907.5











# Band2\_5MHz\_16QAM\_25\_0\_HighCH19175-1907.5



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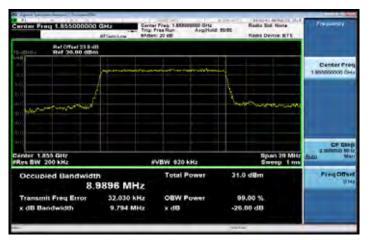
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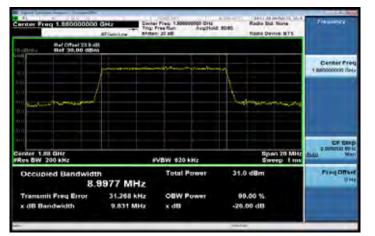
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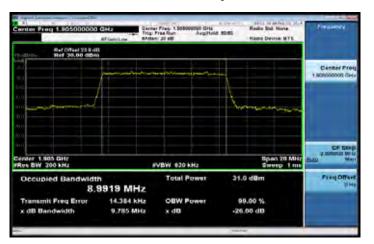
### Band2\_10MHz\_QPSK\_50\_0\_LowCH18650-1855



Band2 10MHz QPSK 50 0 MidCH18900-1880



Band2\_10MHz\_QPSK\_50\_0\_HighCH19150-1905



### Band2\_10MHz\_16QAM\_50\_0\_LowCH18650-1855



Band2\_10MHz\_16QAM\_50\_0\_MidCH18900-1880



# Band2\_10MHz\_16QAM\_50\_0\_HighCH19150-1905



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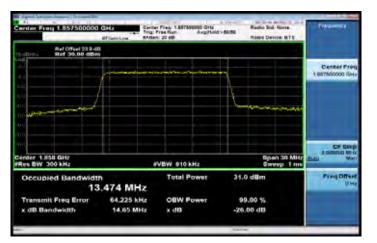
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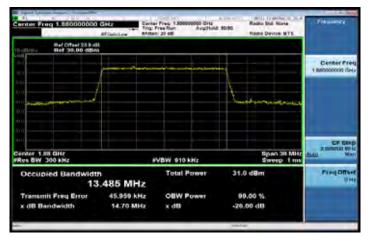
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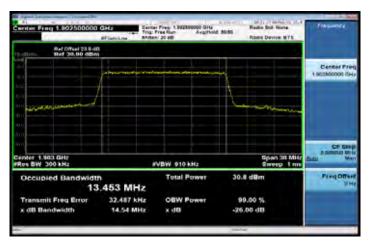
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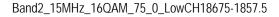


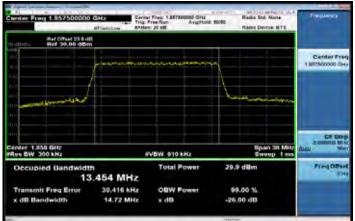
Band2\_15MHz\_QPSK\_75\_0\_MidCH18900-1880

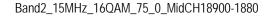


Band2\_15MHz\_QPSK\_75\_0\_HighCH19125-1902.5











# Band2\_15MHz\_16QAM\_75\_0\_HighCH19125-1902.5



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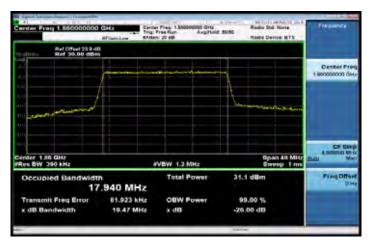
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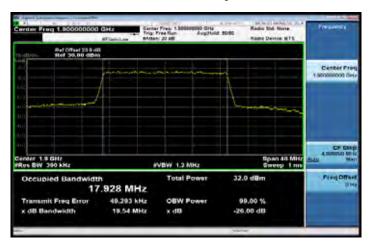
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Band2\_20MHz\_QPSK\_100\_0\_MidCH18900-1880

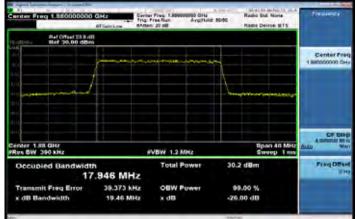


Band2\_20MHz\_QPSK\_100\_0\_HighCH19100-1900



### Band2\_20MHz\_16QAM\_100\_0\_LowCH18700-1860





#### Band2 20MHz 16QAM 100 0 MidCH18900-1880

## Band2\_20MHz\_16QAM\_100\_0\_HighCH19100-1900



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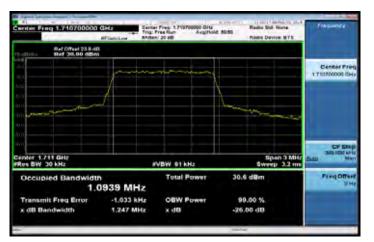
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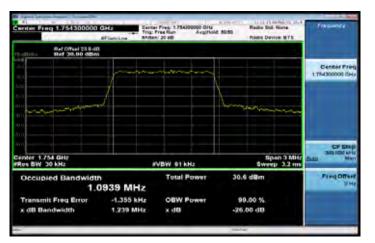
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Band4\_1\_4MHz\_QPSK\_6\_0\_MidCH20175-1732.5

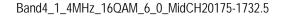


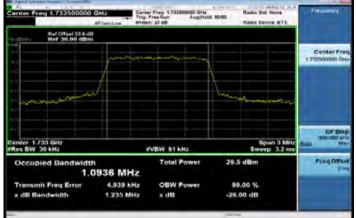
Band4\_1\_4MHz\_QPSK\_6\_0\_HighCH20393-1754.3



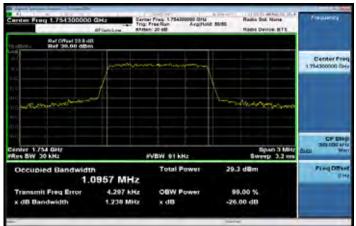
### Band4\_1\_4MHz\_16QAM\_6\_0\_LowCH19957-1710.7







# Band4\_1\_4MHz\_16QAM\_6\_0\_HighCH20393-1754.3



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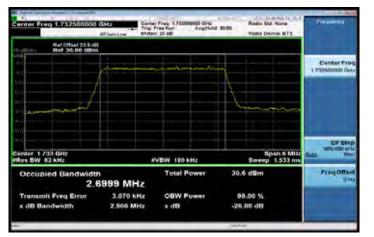
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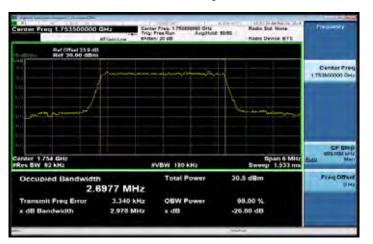
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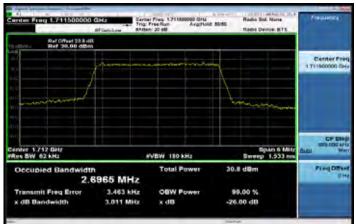
Band4\_3MHz\_QPSK\_15\_0\_MidCH20175-1732.5



Band4\_3MHz\_QPSK\_15\_0\_HighCH20385-1753.5



# Band4\_3MHz\_16QAM\_15\_0\_LowCH19965-1711.5







# Band4\_3MHz\_16QAM\_15\_0\_HighCH20385-1753.5



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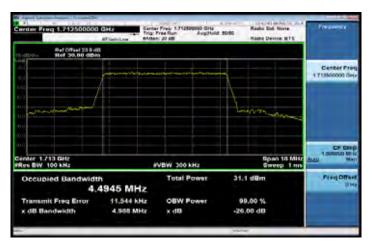
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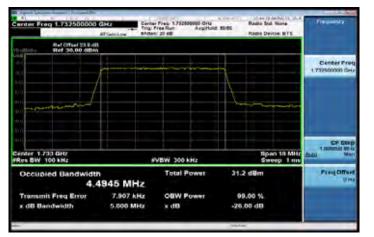
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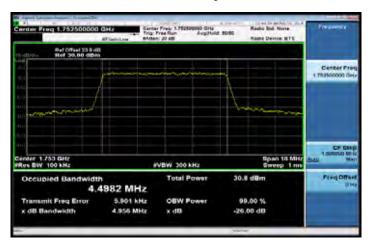
### Band4\_5MHz\_QPSK\_25\_0\_LowCH19975-1712.5



Band4\_5MHz\_QPSK\_25\_0\_MidCH20175-1732.5



Band4\_5MHz\_QPSK\_25\_0\_HighCH20375-1752.5



## Band4\_5MHz\_16QAM\_25\_0\_LowCH19975-1712.5



Band4\_5MHz\_16QAM\_25\_0\_MidCH20175-1732.5



# Band4\_5MHz\_16QAM\_25\_0\_HighCH20375-1752.5



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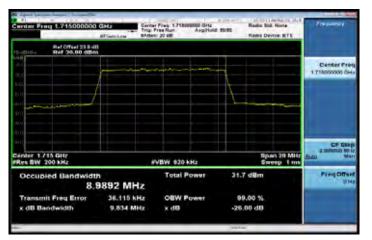
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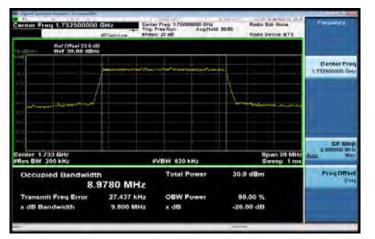
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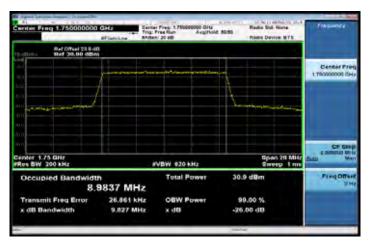
### Band4\_10MHz\_QPSK\_50\_0\_LowCH20000-1715



Band4 10MHz QPSK 50 0 MidCH20175-1732.5



Band4\_10MHz\_QPSK\_50\_0\_HighCH20350-1750



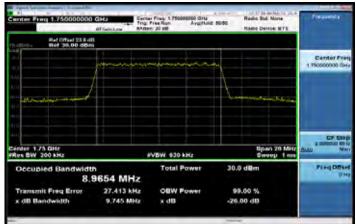
### Band4\_10MHz\_16QAM\_50\_0\_LowCH20000-1715



Band4\_10MHz\_16QAM\_50\_0\_MidCH20175-1732.5



# Band4\_10MHz\_16QAM\_50\_0\_HighCH20350-1750



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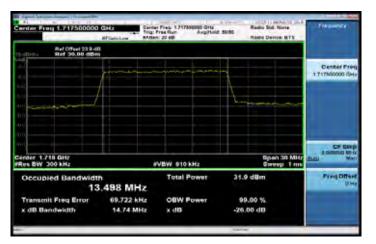
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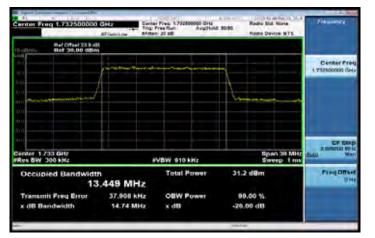
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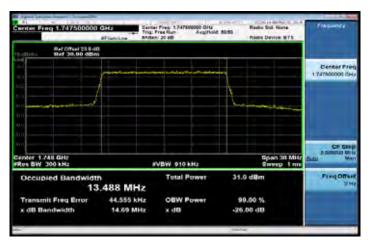
# Band4\_15MHz\_QPSK\_75\_0\_LowCH20025-1717.5



Band4\_15MHz\_QPSK\_75\_0\_MidCH20175-1732.5



Band4\_15MHz\_QPSK\_75\_0\_HighCH20325-1747.5



## Band4\_15MHz\_16QAM\_75\_0\_LowCH20025-1717.5



Band4\_15MHz\_16QAM\_75\_0\_MidCH20175-1732.5



# Band4\_15MHz\_16QAM\_75\_0\_HighCH20325-1747.5



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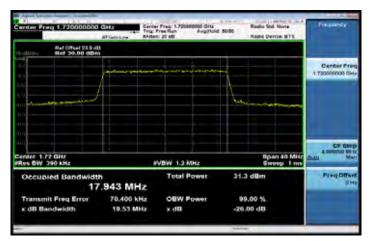
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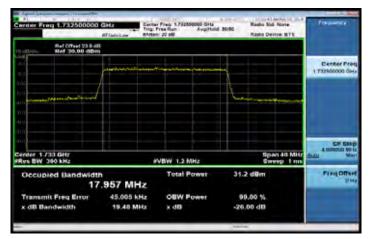


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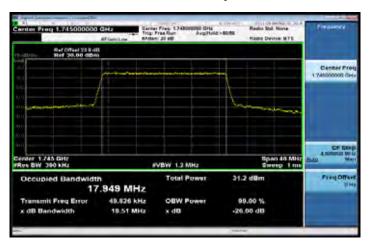
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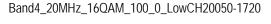


Band4\_20MHz\_QPSK\_100\_0\_MidCH20175-1732.5



Band4\_20MHz\_QPSK\_100\_0\_HighCH20300-1745







Band4\_20MHz\_16QAM\_100\_0\_MidCH20175-1732.5



# Band4\_20MHz\_16QAM\_100\_0\_HighCH20300-1745



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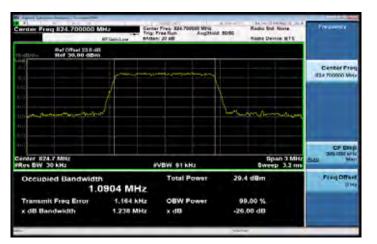
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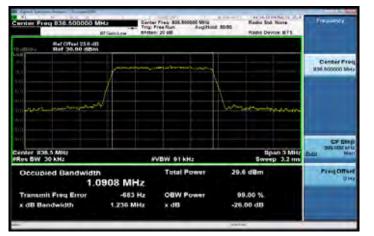
台灣檢驗科技股份有限公司 t (886-2) 2299-3279



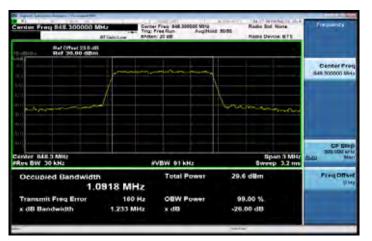
### Band5\_1\_4MHz\_QPSK\_6\_0\_LowCH20407-824.7

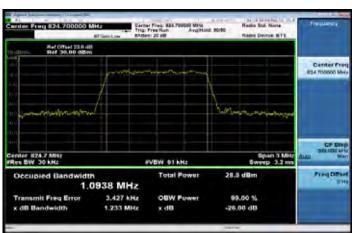


Band5\_1\_4MHz\_QPSK\_6\_0\_MidCH20525-836.5



Band5\_1\_4MHz\_QPSK\_6\_0\_HighCH20643-848.3





Band5\_1\_4MHz\_16QAM\_6\_0\_LowCH20407-824.7





# Band5\_1\_4MHz\_16QAM\_6\_0\_HighCH20643-848.3



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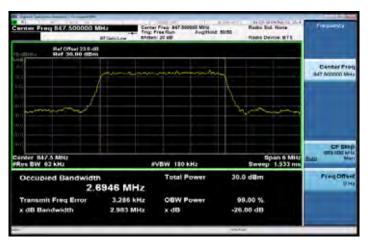
## Band5\_3MHz\_QPSK\_15\_0\_LowCH20415-825.5



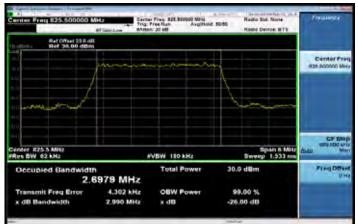
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Band5\_3MHz\_QPSK\_15\_0\_HighCH20635-847.5



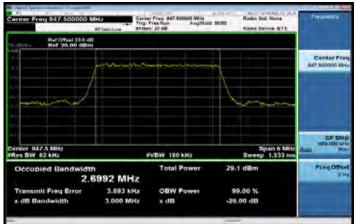
# Band5\_3MHz\_16QAM\_15\_0\_LowCH20415-825.5







# Band5\_3MHz\_16QAM\_15\_0\_HighCH20635-847.5



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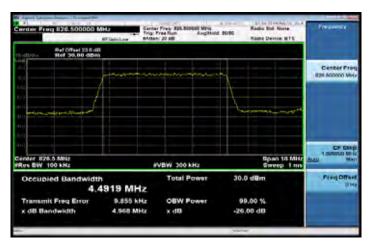
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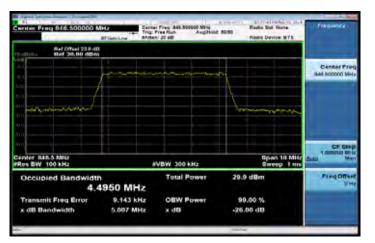
### Band5\_5MHz\_QPSK\_25\_0\_LowCH20425-826.5

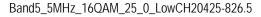


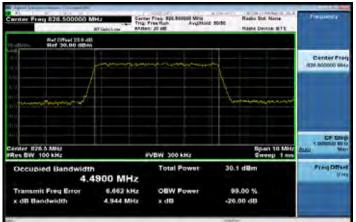
Band5\_5MHz\_QPSK\_25\_0\_MidCH20525-836.5



Band5\_5MHz\_QPSK\_25\_0\_HighCH20625-846.5



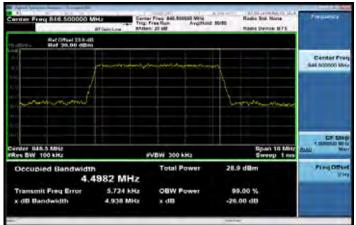




Band5\_5MHz\_16QAM\_25\_0\_MidCH20525-836.5



### Band5\_5MHz\_16QAM\_25\_0\_HighCH20625-846.5



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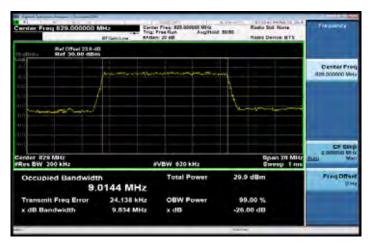
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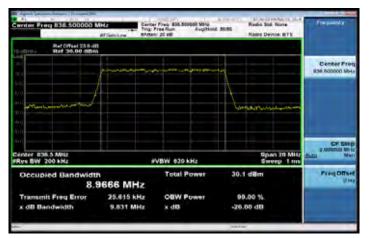
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### Band5\_10MHz\_QPSK\_50\_0\_LowCH20450-829



Band5\_10MHz\_QPSK\_50\_0\_MidCH20525-836.5

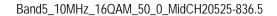


Band5\_10MHz\_QPSK\_50\_0\_HighCH20600-844











### Band5\_10MHz\_16QAM\_50\_0\_HighCH20600-844



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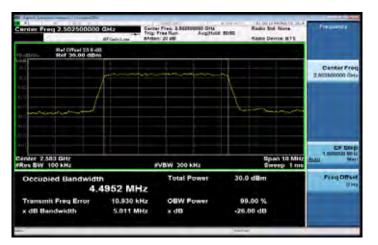
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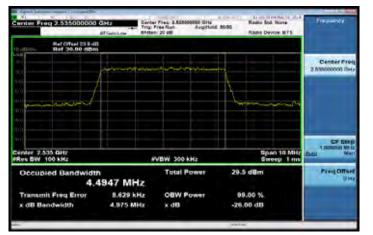


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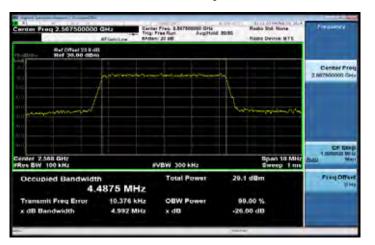
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Band7\_5MHz\_QPSK\_25\_0\_MidCH21100-2535

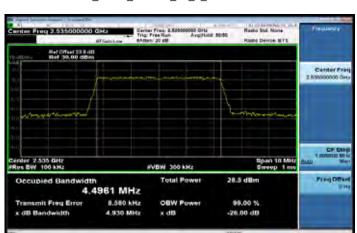


Band7\_5MHz\_QPSK\_25\_0\_HighCH21425-2567.5





Band7\_5MHz\_16QAM\_25\_0\_LowCH20775-2502.5



# Band7\_5MHz\_16QAM\_25\_0\_MidCH21100-2535

# Band7\_5MHz\_16QAM\_25\_0\_HighCH21425-2567.5



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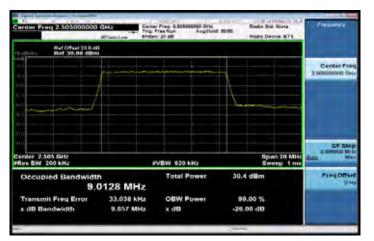
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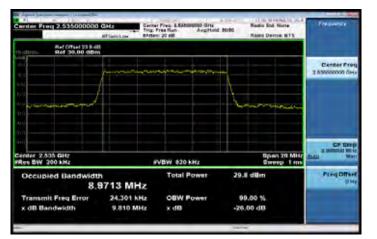
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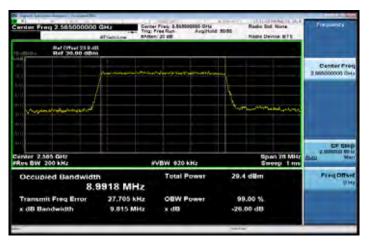
### Band7\_10MHz\_QPSK\_50\_0\_LowCH20800-2505



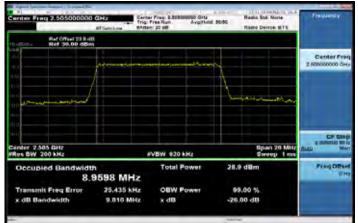
Band7\_10MHz\_QPSK\_50\_0\_MidCH21100-2535

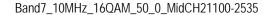


Band7\_10MHz\_QPSK\_50\_0\_HighCH21400-2565



### Band7\_10MHz\_16QAM\_50\_0\_LowCH20800-2505







# Band7\_10MHz\_16QAM\_50\_0\_HighCH21400-2565



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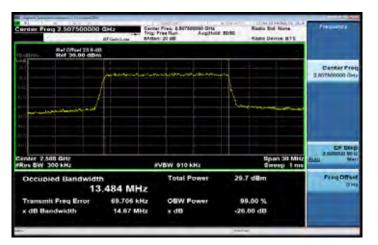
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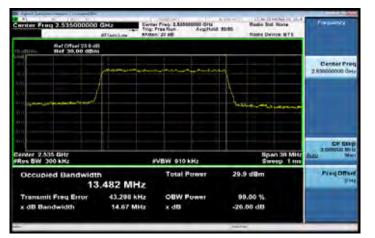
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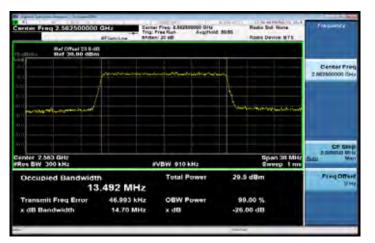
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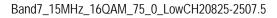


Band7\_15MHz\_QPSK\_75\_0\_MidCH21100-2535

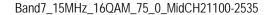


Band7\_15MHz\_QPSK\_75\_0\_HighCH21375-2562.5











# Band7\_15MHz\_16QAM\_75\_0\_HighCH21375-2562.5



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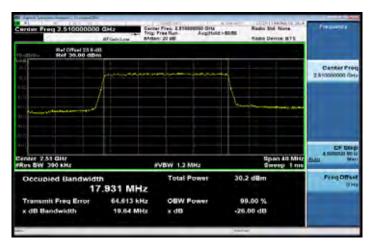
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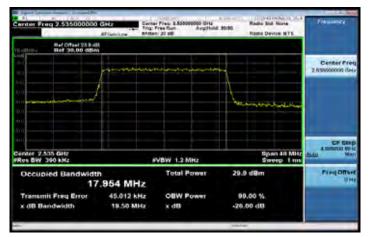
台灣檢驗科技股份有限公司 t (886-2) 2299-3279



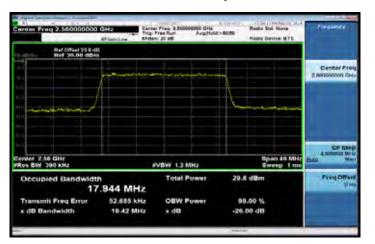
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Band7\_20MHz\_QPSK\_100\_0\_MidCH21100-2535

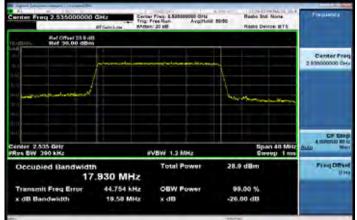


Band7\_20MHz\_QPSK\_100\_0\_HighCH21350-2560



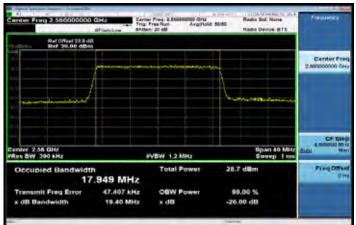






#### Band7 20MHz 16QAM 100 0 MidCH21100-2535

## Band7\_20MHz\_16QAM\_100\_0\_HighCH21350-2560



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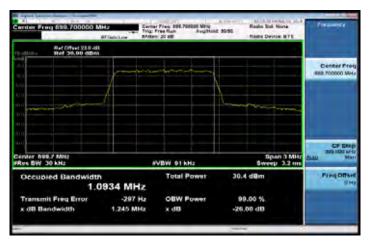
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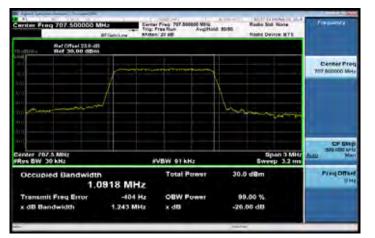
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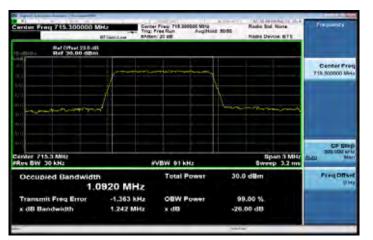
# Band12\_1\_4MHz\_QPSK\_6\_0\_LowCH23017-699.7



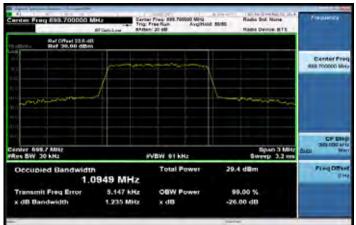
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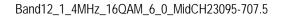


Band12\_1\_4MHz\_QPSK\_6\_0\_HighCH23173-715.3



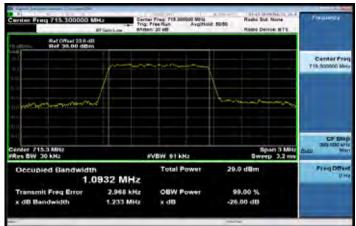
## Band12\_1\_4MHz\_16QAM\_6\_0\_LowCH23017-699.7







# Band12\_1\_4MHz\_16QAM\_6\_0\_HighCH23173-715.3



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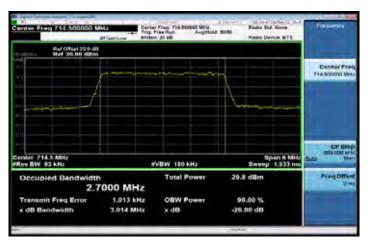
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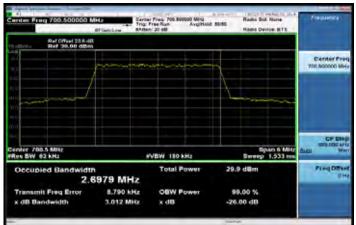
Band12\_3MHz\_QPSK\_15\_0\_MidCH23095-707.5



Band12\_3MHz\_QPSK\_15\_0\_HighCH23165-714.5



# Band12\_3MHz\_16QAM\_15\_0\_LowCH23025-700.5



Band12\_3MHz\_16QAM\_15\_0\_MidCH23095-707.5



# Band12\_3MHz\_16QAM\_15\_0\_HighCH23165-714.5



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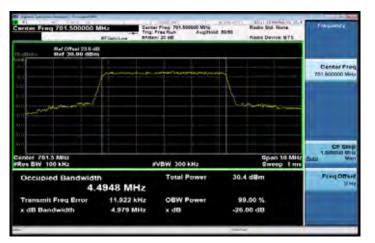
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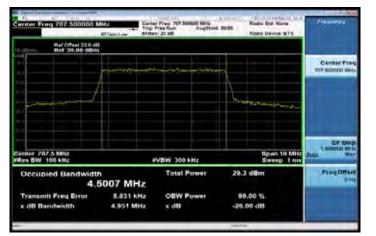


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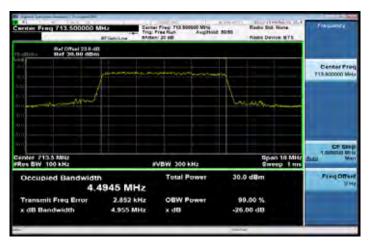
### Band12\_5MHz\_QPSK\_25\_0\_LowCH23035-701.5



Band12\_5MHz\_QPSK\_25\_0\_MidCH23095-707.5



Band12\_5MHz\_QPSK\_25\_0\_HighCH23155-713.5



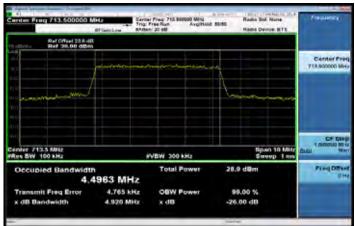
### Band12\_5MHz\_16QAM\_25\_0\_LowCH23035-701.5



Band12\_5MHz\_16QAM\_25\_0\_MidCH23095-707.5



# Band12\_5MHz\_16QAM\_25\_0\_HighCH23155-713.5



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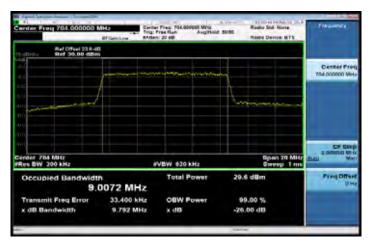
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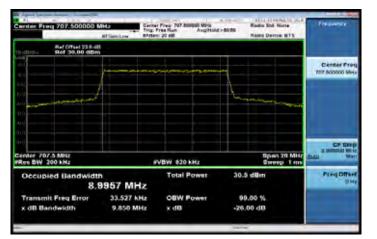
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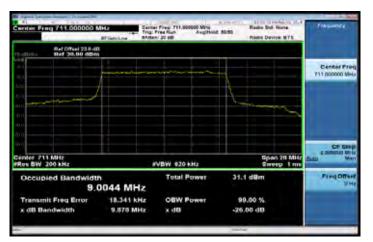
### Band12\_10MHz\_QPSK\_50\_0\_LowCH23060-704



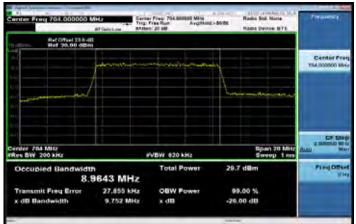
Band12 10MHz QPSK 50 0 MidCH23095-707.5

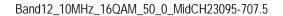


# Band12\_10MHz\_QPSK\_50\_0\_HighCH23130-711



### Band12\_10MHz\_16QAM\_50\_0\_LowCH23060-704







### Band12\_10MHz\_16QAM\_50\_0\_HighCH23130-711



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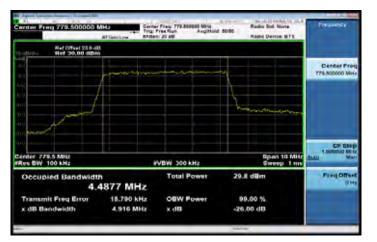
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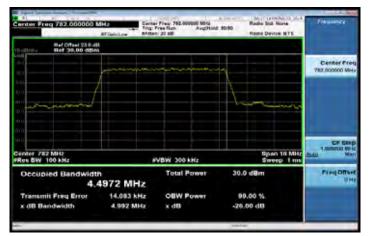


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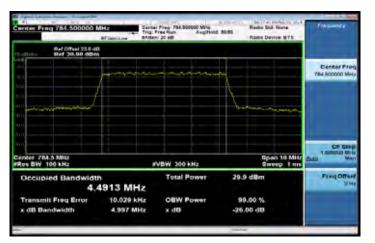
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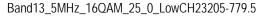


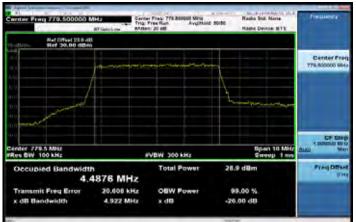
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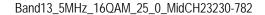


Band13\_5MHz\_QPSK\_25\_0\_HighCH23255-784.5











### Band13\_5MHz\_16QAM\_25\_0\_HighCH23255-784.5



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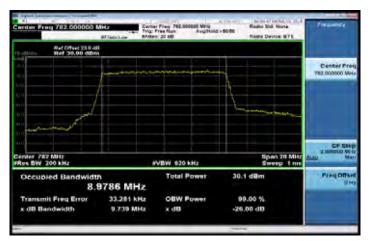
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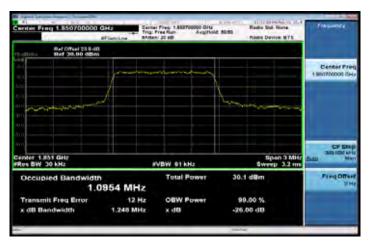
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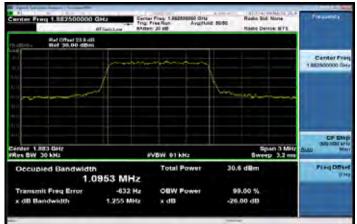
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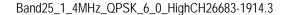


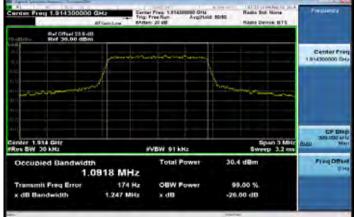
Band25\_1\_4MHz\_QPSK\_6\_0\_LowCH26047-1850.7



#### Band25\_1\_4MHz\_QPSK\_6\_0\_MidCH26365-1882.5







### Band25\_1\_4MHz\_16QAM\_6\_0\_LowCH26047-1850.7



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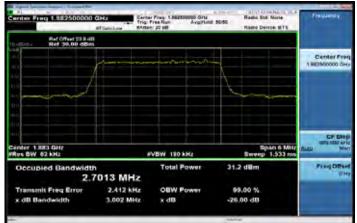
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Band25\_3MHz\_QPSK\_15\_0\_LowCH26055-1851.5



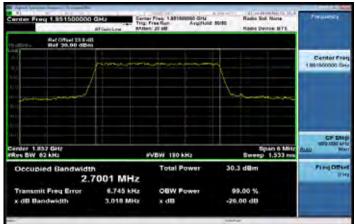
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Band25\_3MHz\_QPSK\_15\_0\_HighCH26675-1913.5



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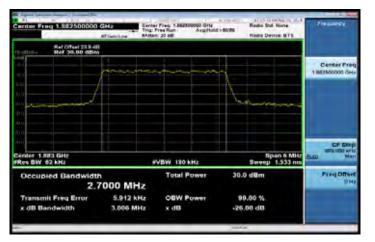
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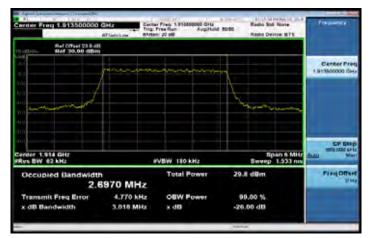
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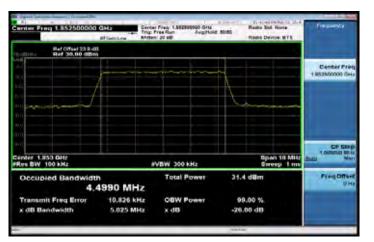
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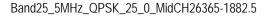


Band25\_3MHz\_16QAM\_15\_0\_HighCH26675-1913.5



Band25\_5MHz\_QPSK\_25\_0\_LowCH26065-1852.5







Band25\_5MHz\_QPSK\_25\_0\_HighCH26665-1912.5



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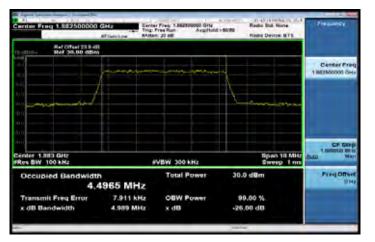
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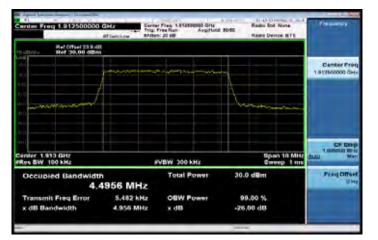
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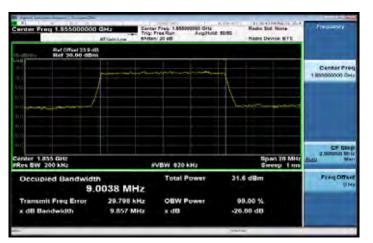
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Band25\_5MHz\_16QAM\_25\_0\_HighCH26665-1912.5



Band25\_10MHz\_QPSK\_50\_0\_LowCH26090-1855



#### Band25\_10MHz\_QPSK\_50\_0\_MidCH26365-1882.5







#### Band25\_10MHz\_16QAM\_50\_0\_LowCH26090-1855



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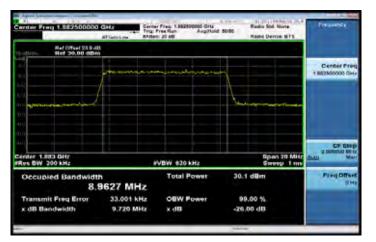
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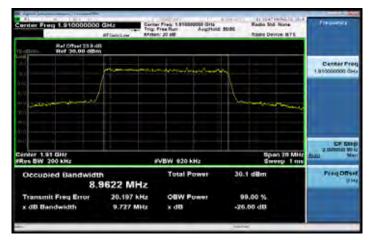
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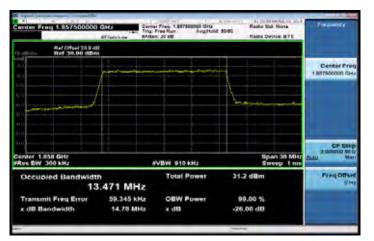
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Band25\_10MHz\_16QAM\_50\_0\_HighCH26640-1910



Band25\_15MHz\_QPSK\_75\_0\_LowCH26115-1857.5



#### Band25\_15MHz\_QPSK\_75\_0\_MidCH26365-1882.5



Band25\_15MHz\_QPSK\_75\_0\_HighCH26615-1907.5



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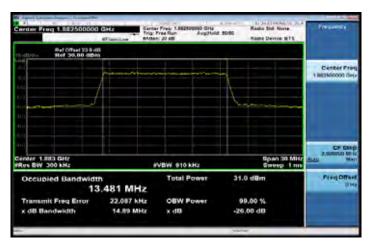
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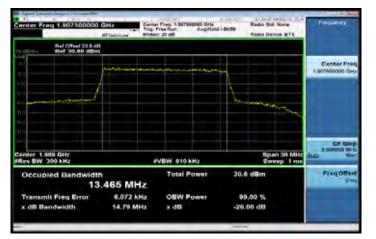
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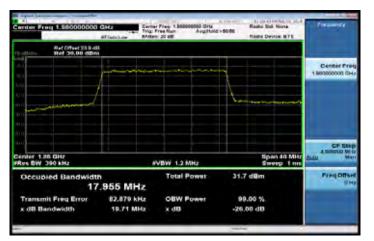
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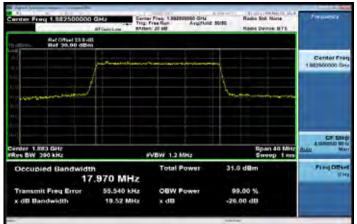
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Band25\_20MHz\_QPSK\_100\_0\_LowCH26140-1860



#### Band25\_20MHz\_QPSK\_100\_0\_MidCH26365-1882.5



Band25\_20MHz\_QPSK\_100\_0\_HighCH26590-1905



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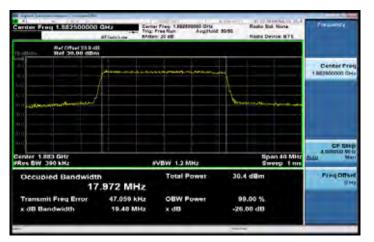
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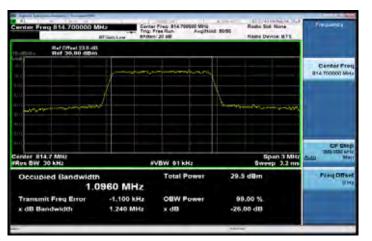
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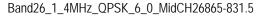


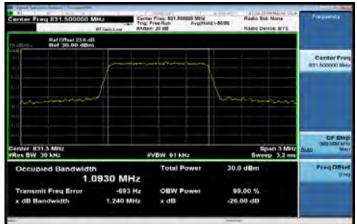
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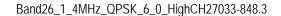


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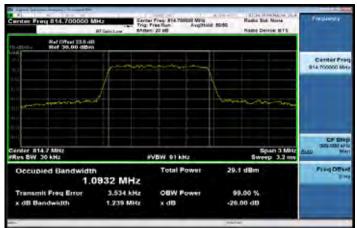








# Band26\_1\_4MHz\_16QAM\_6\_0\_LowCH26697-814.7



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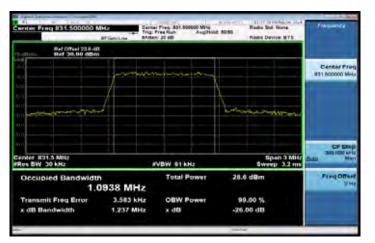
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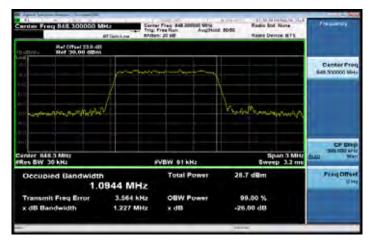
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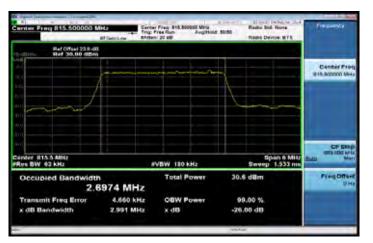
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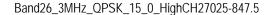


Band26\_3MHz\_QPSK\_15\_0\_LowCH26705-815.5



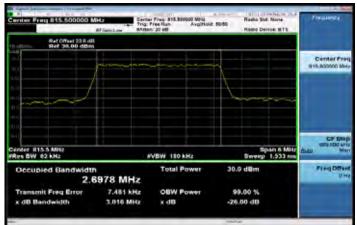
# Band26\_3MHz\_QPSK\_15\_0\_MidCH26865-831.5







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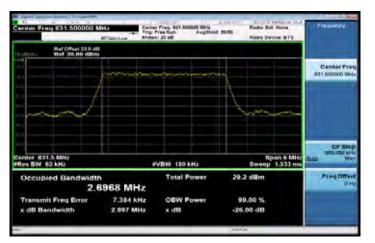
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## Band26\_3MHz\_16QAM\_15\_0\_MidCH26865-831.5



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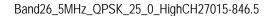


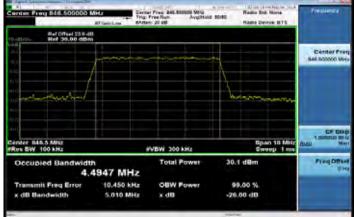
Band26\_5MHz\_QPSK\_25\_0\_LowCH26715-816.5



## Band26\_5MHz\_QPSK\_25\_0\_MidCH26865-831.5







# Band26\_5MHz\_16QAM\_25\_0\_LowCH26715-816.5



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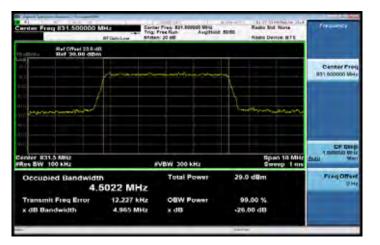
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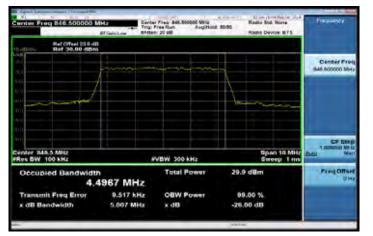


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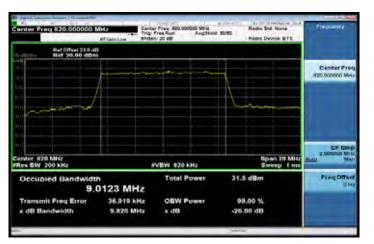
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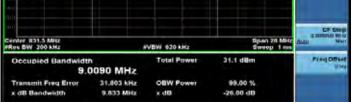


Band26\_10MHz\_QPSK\_50\_0\_LowCH26750-820





Band26\_10MHz\_QPSK\_50\_0\_MidCH26865-831.5





#### Band26\_10MHz\_QPSK\_50\_0\_HighCH26990-844

#### Band26\_10MHz\_16QAM\_50\_0\_LowCH26750-820



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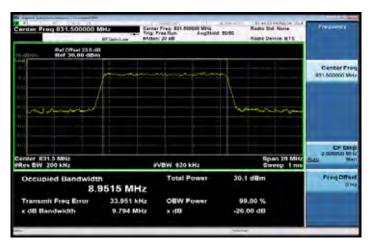
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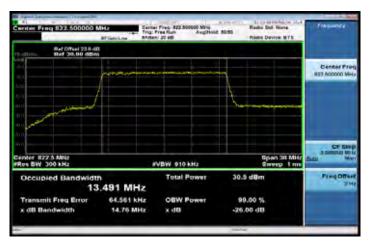
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Band26\_10MHz\_16QAM\_50\_0\_HighCH26990-844



Band26\_15MHz\_QPSK\_75\_0\_LowCH26775



Band26\_15MHz\_QPSK\_75\_0\_MidCH26865-831.5



Band26\_15MHz\_QPSK\_75\_0\_HighCH26965-841.5



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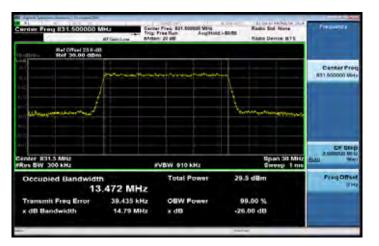
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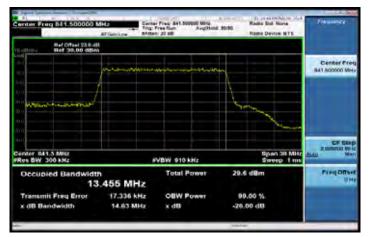
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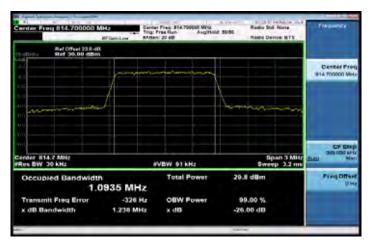
#### Band26\_15MHz\_16QAM\_75\_0\_MidCH26865-831.5

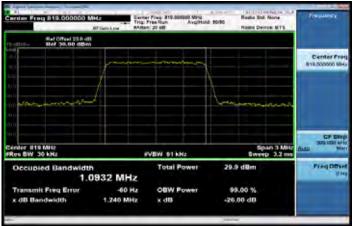


Band26\_15MHz\_16QAM\_75\_0\_HighCH26965-841.5



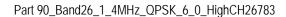
Part 90\_Band26\_1\_4MHz\_QPSK\_6\_0\_LowCH26697



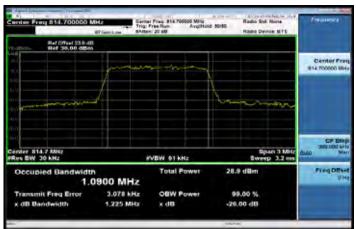


Part 90\_Band26\_1\_4MHz\_QPSK\_6\_0\_MidCH26740





#### Part 90\_Band26\_1\_4MHz\_16QAM\_6\_0\_LowCH26697



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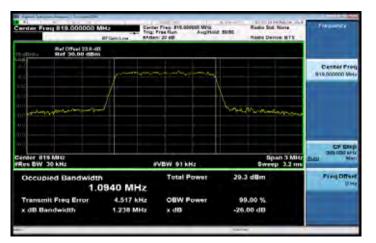
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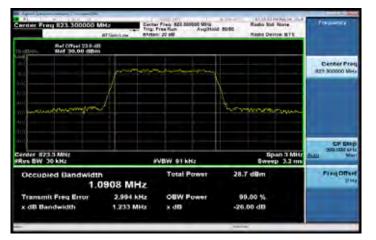
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#### Part 90\_Band26\_1\_4MHz\_16QAM\_6\_0\_MidCH26740

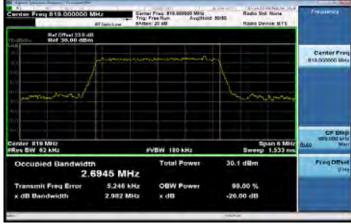


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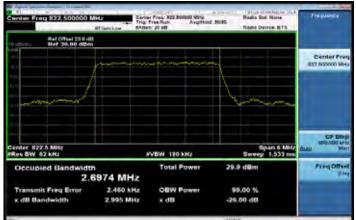


Part 90\_Band26\_3MHz\_QPSK\_15\_0\_LowCH26705



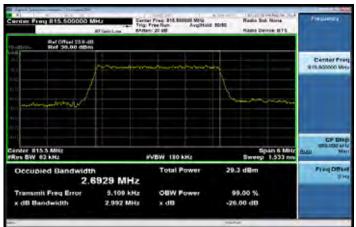


Part 90\_Band26\_3MHz\_QPSK\_15\_0\_MidCH26740



Part 90\_Band26\_3MHz\_QPSK\_15\_0\_HighCH26775

#### Part 90\_Band26\_3MHz\_16QAM\_15\_0\_LowCH26705



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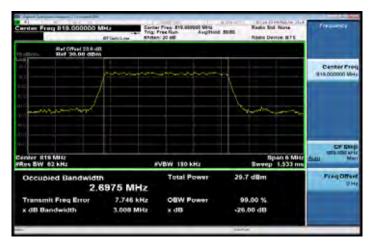
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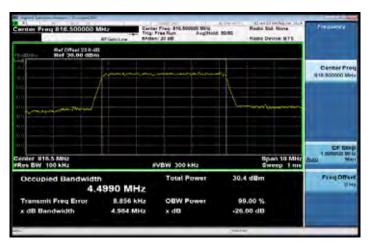
#### Part 90\_Band26\_3MHz\_16QAM\_15\_0\_MidCH26740



Part 90\_Band26\_3MHz\_16QAM\_15\_0\_HighCH26775



Part 90\_Band26\_5MHz\_QPSK\_25\_0\_LowCH26715-816.5



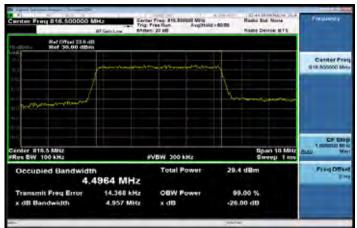
Part 90\_Band26\_5MHz\_QPSK\_25\_0\_MidCH26740



Center Freq: 821.500000 Mina Trig: Free Run Avgitted: 50/80 Basho Shit M 08 M T1 Ref Offset 23.6 Center Fre Span 10 M BW 100 KH BW 300 KH 30.3 dBr Find Off Total P 4,4920 MHz 12.903 kHz 4.955 MHz 99.00 % it Freg Em OBW P x dB Bandwidth x dB



#### Part 90\_Band26\_5MHz\_16QAM\_25\_0\_LowCH26715-816.5



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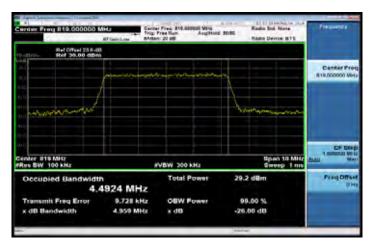


#### Report No.: E2/2018/10154 Page 150 of 430

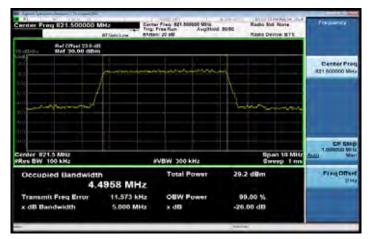
99.00 %

-26.00 dB

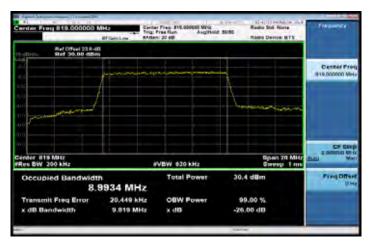
#### Part 90\_Band26\_5MHz\_16QAM\_25\_0\_MidCH26740



Part 90\_Band26\_5MHz\_16QAM\_25\_0\_HighCH26765



Part 90\_Band26\_10MHz\_QPSK\_50\_0\_MidCH26740





OBW Power

Band30\_5MHz\_QPSK\_25\_0\_LowCH27685

dB

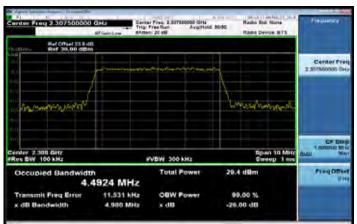
mit Freg Error

IR Ra

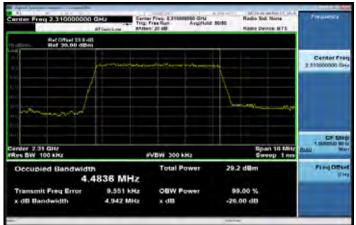
38.750 kHz

9.714 MHz

Part 90\_Band26\_10MHz\_16QAM\_50\_0\_MidCH26740



#### Band30\_5MHz\_QPSK\_25\_0\_MidCH27710



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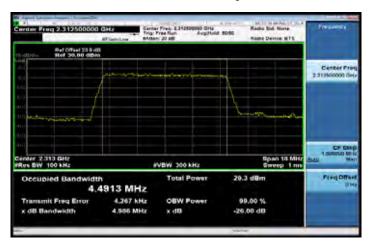
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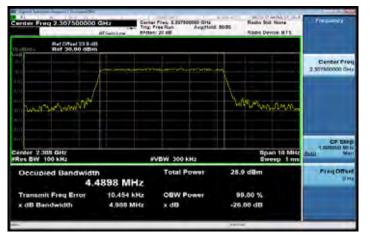


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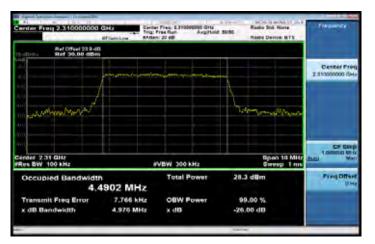
#### Band30\_5MHz\_QPSK\_25\_0\_HighCH27735



Band30\_5MHz\_16QAM\_25\_0\_LowCH27685



#### Band30\_5MHz\_16QAM\_25\_0\_MidCH27710



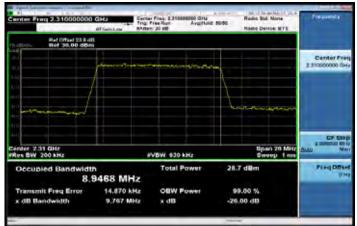


Band30\_5MHz\_16QAM\_25\_0\_HighCH27735



#### Band30\_10MHz\_QPSK\_50\_0\_Mid27710

#### Band30\_10MHz\_16QAM\_50\_0\_Mid27710



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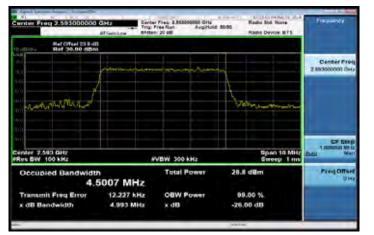
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#### Band41\_5MHz\_QPSK\_25\_0\_LowCH39675

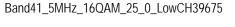


Band41 5MHz QPSK 25 0 MidCH40620



Band41\_5MHz\_QPSK\_25\_0\_HighCH41565











#### Band41\_5MHz\_16QAM\_25\_0\_HighCH41565



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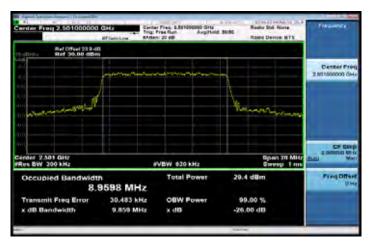
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#### Band41\_10MHz\_QPSK\_50\_0\_LowCH39700

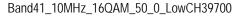


Band41\_10MHz\_QPSK\_50\_0\_MidCH40620



Band41\_10MHz\_QPSK\_50\_0\_HighCH41540











### Band41\_10MHz\_16QAM\_50\_0\_HighCH41540



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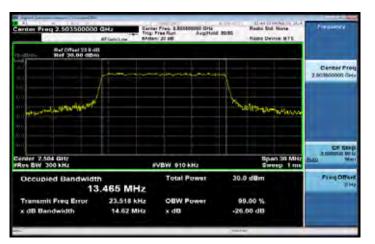
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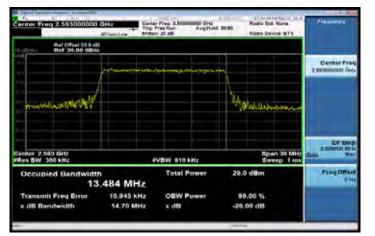
f (886-2) 2298-0488



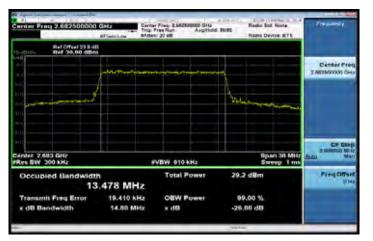
#### Band41\_15MHz\_QPSK\_75\_0\_LowCH39725



Band41\_15MHz\_QPSK\_75\_0\_MidCH40620



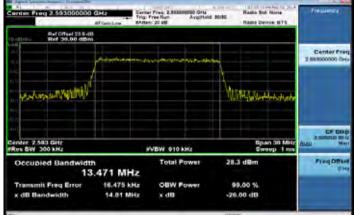
Band41\_15MHz\_QPSK\_75\_0\_HighCH41515



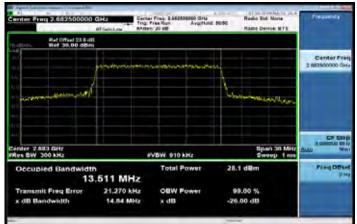








#### Band41\_15MHz\_16QAM\_75\_0\_HighCH41515



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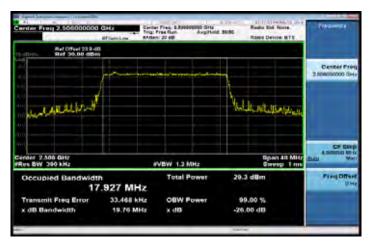
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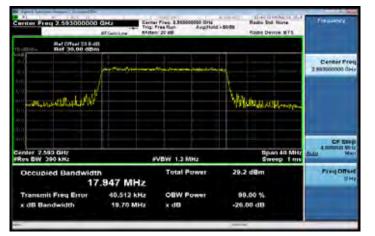
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#### Band41\_20MHz\_QPSK\_100\_0\_LowCH39750



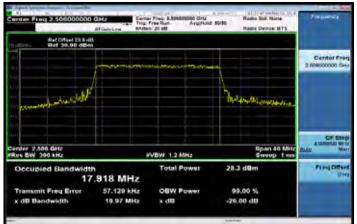
Band41\_20MHz\_QPSK\_100\_0\_MidCH40620



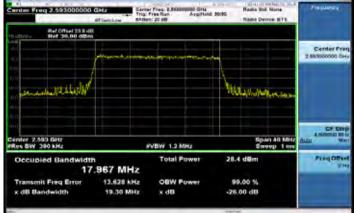
Band41\_20MHz\_QPSK\_100\_0\_HighCH41490



#### Band41\_20MHz\_16QAM\_100\_0\_LowCH39750







#### Band41\_20MHz\_16QAM\_100\_0\_HighCH41490



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# 9. OUT OF BAND EMISSION AT ANTENNA TERMINALS

# 9.1. Standard Applicable

FCC §22.917(a), §24.238(a), §27.53(h),Out of band emissions.The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

# FCC §27.53(c)

(c) For operations in the 746–758 MHz band and the 776–788 MHz band, the power of any emission outside the 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, in accordance with the following:

(2) On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB (-13dBm)

(4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations;

§27.53 (f) For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

FCC §27.53(c) (5) & FCC §27.53(g)

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.

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# FCC §27.53(h) (3)

Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's 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 emissions are attenuated at least 26 dB below the transmitter power.

# FCC §27.53(m) (4) (6)

For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

Measurement procedure. Compliance with these rules is based on the use of measurement nstrumentation employing a resolution bandwidth of 1 megahertz 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; for mobile digital stations, in the 1 megahertz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least two percent may be employed, except when the 1 megahertz band is 2495-2496 MHz, in which case a resolution bandwidth of at least one percent may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 megahertz or 1 percent of emission bandwidth, as specified; or 1 megahertz or 2 percent for mobile digital stations, except in the band 2495-2496 MHz). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. With respect to television operations, measurements must be made of the separate visual and aural operating powers at sufficiently frequent intervals to ensure compliance with the rules.

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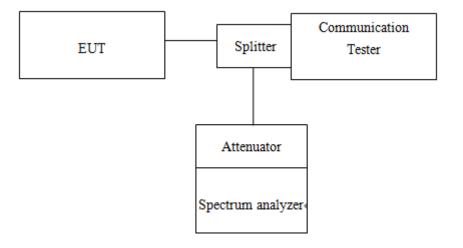
§90.691 Emission mask requirements for EA-based systems.

(a) Out-of-band emission requirement shall apply only to the "outer" channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:

(1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 Log10(f/6.1) decibels or 50 + 10 Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

(2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + 10Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

# 9.2. Test SET-UP



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# 9.3. Measurement Procedure

# **Conducted Emission**

The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation The resolution bandwidth of the spectrum analyzer was set at 1MHz, sufficient scans were taken to show the out of band Emissions if any up to 10th harmonic.

- 1. To connect Antenna Port of EUT to Spectrum.
- 2. Set RBW = 1MHz & VBW = 1MHz on Spectrum.
- 3. Allow trace to fully stabilize
- 4. Repeat above procedures until all default test channel measured were complete.

# Band Edge

- 1. To connect Antenna Port of EUT to Spectrum.
- 2. The band edge of low and high channels for the highest RF powers was measured. Setting RBW  $\geq$  1% EBW.
- 3. Allow trace to fully stabilize
- 4. Repeat above procedures until all default test channel measured were complete.

# 9.4. Measurement Equipment Used

Conducted Emission (measured at antenna port) Test Site								
EQUIPMENT	MFR	MODEL	SERIAL	LAST	CAL DUE.			
TYPE		NUMBER	NUMBER	CAL.				
Spectrum Analyzer	KEYSIGHT	N9010A	MY51440113	06/20/2017	06/19/2018			
Communication Tester	Anritsu	MT8820C	6201107337	06/11/2017	06/10/2018			
Coaxial Cable 30cm	WOKEN	00100A1F1A 195C	RF01	12/24/2017	12/23/2018			
Temperature Chamber	TERCHY	MHK-120LK	1020582	06/13/2017	06/12/2018			
DC Block	PASTERNACK	PE8210	RF29	12/24/2017	12/23/2018			
Splitter	RF-LAMBAD	RFLT2W1G1 8G	RF35	12/24/2017	12/23/2018			
Attenuator	WOKEN	218FS-10	RF23	12/24/2017	12/23/2018			
DC Power Supply	Agilent	E3640A	MY53140006	05/02/2017	05/01/2018			

# 9.5. Measurement Result:

Refer to next pages.

NOTE: The occurrence of the spike on the conducted emission is the signal of the fundamental emission.

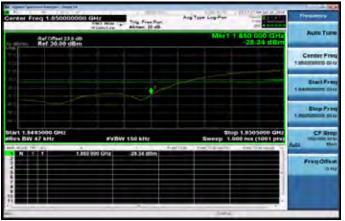
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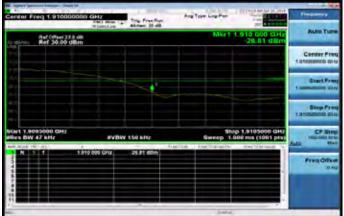


## Report No.: E2/2018/10154 Page 160 of 430

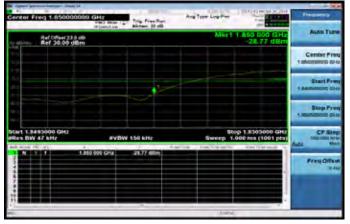
## Band Edge WCDMA\_B2\_LowCH9262-1852.4



WCDMA B2 HighCH9538-1907.6



HSDPA\_B2\_LowCH9262-1852.4



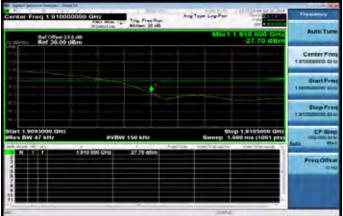
# HSDPA\_B2\_HighCH9538-1907.6



HSUPA\_B2\_LowCH9262-1852.4



# HSUPA\_B2\_HighCH9538-1907.6



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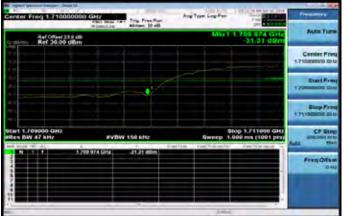
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# WCDMA\_B4\_LowCH1312-1712.4



WCDMA\_B4\_HighCH1513-1752.6



# HSDPA\_B4\_LowCH1312-1712.4

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Center Freq 1.71000000	The Free fue	Ang Tope Log Per	Propaga
Ref Offset 23.8 dB		Mir1 1.709 974	Auto Ture
			Center Fred 17 taxanto Gro
			Start Free
			Step Fred 171100000 Sto
ICH1 1,709000 GH2 Res DW 47 kHz	#VBW 150 kHz	5000 1.711000 Sweep 1.000 ms (1001	pta) water and
	49 974 (244 - 32.64 Million		Pres Officer Day
<i>R</i> <sup>1</sup>		1-46-d	-

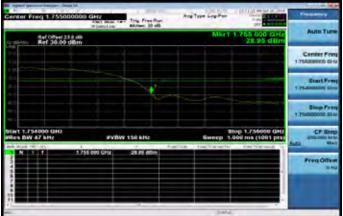
# HSDPA\_B4\_HighCH1513-1752.6



HSUPA\_B4\_LowCH1312-1712.4



# HSUPA\_B4\_HighCH1513-1752.6



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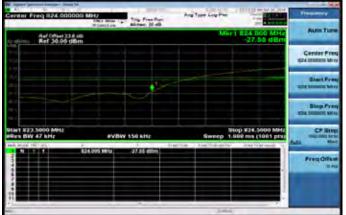
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# WCDMA\_B5\_LowCH4132-826.4



WCDMA\_B5\_HighCH4233-846.6



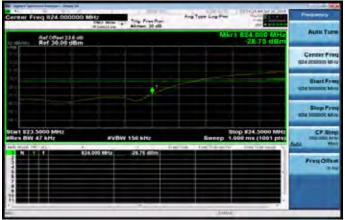
# HSDPA\_B5\_LowCH4132-826.4

a spectarous damas date to		The second se	1000
Genter Freq 824.000000	The Prestor	Ana Toor Log Per	Preservy
Ref Offset 23.0 itb	- Destroy	Mir's 824 000 MHz -27.68 dBm	Auto Ture
			Center Free gla instantion M-o
	- De		Chart Free
			Step Fre
Res DW 47 hHz	#VBW 150 KHz	Stop #24.5000 MMz Sweep 1.000 ms (1001 pts)	CF Stor
	34.000 Mese 37.00 million		Freq Offse
		THE	-

## HSDPA\_B5\_HighCH4233-846.6



HSUPA\_B5\_LowCH4132-826.4



# HSUPA\_B5\_HighCH4233-846.6

Protector	Ang Tope Log Par	The Provide Line Provider
Aura Tura	Mir 1 849 868 MHz -28 29 d8m	Plantin Alman (1) 40 Ref Const 23.6 kills
Center Fred		
Clart Free stat Moode Mer		
Stop Pres		
CF Stop	Stop #49.5000 MHz Sweep 1.000 ms (1001 pts)	900 MHZ 7 hHz #VDW 150 kHz
Freq Office		7 840,090 MHz 28.29 attiny
_	Tuna	

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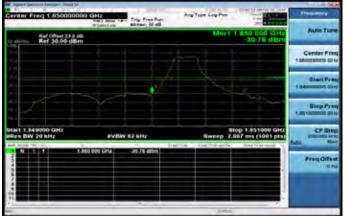
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# Band2\_1\_4MHz\_QPSK\_1\_0\_LowCH18607-1850.7



# Band2\_1\_4MHz\_QPSK\_1\_5\_HighCH19193-1909.3



### Band2\_1\_4MHz\_QPSK\_6\_0\_LowCH18607-1850.7

Management Spectrum Assessment Strengt Sal					
Senter Freq 1.85000000	B GHZ	True Freedow	Ana Toon Loa Per	THE NAME OF CASE	Pressence
Ref Offset 23.0 eB	- participa		Mirt	-660 000 GHz -28.56 dBm	Auto Turn
					Center Fre
					Chart Fre
					Step Fre 1.85100000 St
Res BW 29 kHz	avov.	182 hHz	Sweep 2.0	op 1.851000 GH2 67 ms (1001 pts)	CF Sta
	60 000 GH2	,23.04 other,			Freq Office D H
		A	Lune		-

# Band2\_1\_4MHz\_QPSK\_6\_0\_HighCH19193-1909.3



# Band2\_3MHz\_QPSK\_1\_0\_LowCH18615-1851.5



#### Band2\_3MHz\_QPSK\_1\_14\_HighCH19185-1908.5

enter Freq 1.910000000 GH	ACT PALLAR FIRM	Trip Free flue	AreTse	e LegPer	12	Pressence
Ref Offset 23.0 elb.				Mig1 1	-19.80 dBm	Aura Ture
						Center Frei 1.antaconco con
		X				Chart Free 1.000000000 Chr
					~	Step Fre
CHI 1.509200 GH2 Res BW 39 kHz	PYDW	120 kHz	Restless No.	Sweep 1.99	9 1,911000 GHz 8 ms (1001 pts)	CF Str.
N 1 1 1.910 00	9 GHSK	-11.60 Allina				Freq Offse

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# Band2\_3MHz\_QPSK\_15\_0\_LowCH18615-1851.5



Band2\_3MHz\_QPSK\_15\_0\_HighCH19185-1908.5



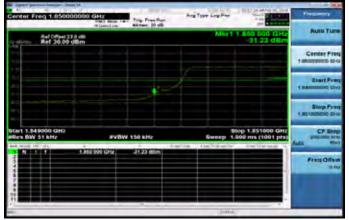
Band2\_5MHz\_QPSK\_1\_0\_LowCH18625-1852.5

Center Freq 1.850000000	CHIZ Data for Tris Free flan	Ang Type Log Per	Training
Ref Offset 23.0 dBm		Mkr1 1.660 000 GHa -24.96 dBm	Auto Ture
			Center Fred 1 addressed con
	y		Start Pres 1 Addresson Star
			Biop Free
Res BW 51 hHz	#VBW 150 kHz	510p 1.851000 GH Sweep 1.000 ms (1001 pts	
	2 000 GPW 24.04 estim		FreqOffse
86-		Tura	-

# Band2\_5MHz\_QPSK\_1\_24\_HighCH19175-1907.5



# Band2\_5MHz\_QPSK\_25\_0\_LowCH18625-1852.5



### Band2\_5MHz\_QPSK\_25\_0\_HighCH19175-1907.5

riter Freq 1 910000000 GH	Parat tar Tris Free Sun	Ana Tope Grapher	The strengt
Ref Offset 23.0 elb.		Misr1 1.910 00 -30.54	CIERT ANTE THE
			Center Fre 1.atomatic Gr
	-		Start Free
			Diap Fre 1.51100000 dia
NT 1.909000 GH2 es BW 51 kH2	#VBW 150 kHz	Stop 1.4110 Sweep 1.000 ms (10	iús pta)
N 5 7 5390 000	Gris 30.01 miles		Freq Office

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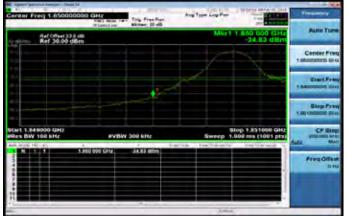
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# Band2\_10MHz\_QPSK\_1\_0\_LowCH18650-1855



# Band2\_10MHz\_QPSK\_1\_49\_HighCH19150-1905



### Band2\_10MHz\_QPSK\_50\_0\_LowCH18650-1855

enter Freq 1.8500000	Time Free for	Analise Leafer	Property
Ref Offset 23.0 cm	- participation - provide	Misr1 1.660 000 GHz -34.45 dBm	Auru Turv
			Conter Fre
			Clark Free
			Step Fre
n c			1.8510404010-014
0. Ew1 1 349000 GH2 Res BW 100 kHz	SVBW 300 EHr	51op 1.551000 GHz Sweep 1.009 ms (1001 pts)	CF Street
Res BW 100 kHz		Biog 1,851680 GH2 Sweep 1,069 ms (1001 pts) Narita 1 an Naralli Methodowa	CF Sta

#### Band2\_10MHz\_QPSK\_50\_0\_HighCH19150-1905



### Band2\_15MHz\_QPSK\_1\_0\_LowCH18675-1857.5



#### Band2\_15MHz\_QPSK\_1\_74\_HighCH19125-1902.5



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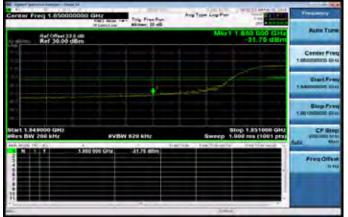
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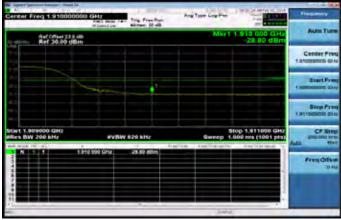


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# Band2\_15MHz\_QPSK\_75\_0\_LowCH18675-1857.5



# Band2\_15MHz\_QPSK\_75\_0\_HighCH19125-1902.5



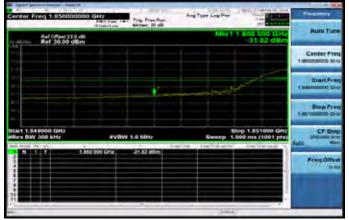
# Band2\_20MHz\_QPSK\_1\_0\_LowCH18700-1860



# Band2\_20MHz\_QPSK\_1\_99\_HighCH19100-1900



# Band2\_20MHz\_QPSK\_100\_0\_LowCH18700-1860



### Band2\_20MHz\_QPSK\_100\_0\_HighCH19100-1900

Aller 1.010 CON CHAR	AUTIL TUR
28.81 d8m	_
	Center Fr
	diart.Fr
	Glop Pr
BIOD 1,811000 GH2	CF Str
20.91 (29.92 - 20.91 (20.94	Freq Offe

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Band4\_1\_4MHz\_QPSK\_1\_0\_LowCH19957-1710.7



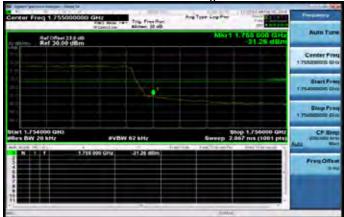




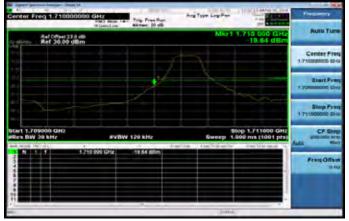
# Band4\_1\_4MHz\_QPSK\_6\_0\_LowCH19957-1710.7

a superior in the second se				Installation of and	1000
Center Freq 1.71000000	Band Penal	True Freedom	Ana Tope Log Per		Prophetty
Ref Offset 23.0 dBm	* parsitive		Marth	29.03 dBm	Auto Tur
	1				Conter Fre
					Start Fre
					Step Fre 171100000 St
ICM1 1.709000 GH2 IRes BW 20 kH2	avaw	62 hHz	Sweep 2.0	op 1.711000 GHz 67 ms (1001 pts)	CF Ster
	10 999 GHU	23 53 60m			Pres Office
			1462		_

# Band4\_1\_4MHz\_QPSK\_6\_0\_HighCH20393-1754.3



# Band4\_3MHz\_QPSK\_1\_0\_LowCH19965-1711.5



# Band4\_3MHz\_QPSK\_1\_14\_HighCH20385-1753.5

Senser Freq 1.755000000 GHz	in the Inte Freedom	Ang Type LogPur		Treparenty
Ref Offset 23.8 ells		Mort 17	65 000 t3Hz -18.45 dBm	AURI TURN
	-			Center Fred
				Start Freq
				Step Pyre
Res DW 39 hHz	AVBW 120 KHz		1.756000 GH2 ms (1001 pts)	CF Street
N 1 T 1736 000 GH	52 -18.46 diller)			Freq Offser D for
X-	· · · · ·	Dahar		_

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## Band4\_3MHz\_QPSK\_15\_0\_LowCH19965-1711.5



Band4\_3MHz\_QPSK\_15\_0\_HighCH20385-1753.5



Band4\_5MHz\_QPSK\_1\_0\_LowCH19975-1712.5

Genter Freq 1 710000000 c	The free fun	And Tope Log Per	Treasure a
Ref Offset 23.0 dB		Mir1 1.710 000 23.10	AUTO AUTO TUPO
			Center Free 1.7 Material Gro
	y y		Etart Pres
			Ellop Pre- 1 711000000 Ello
Res DW 51 kHz	WBW 150 km	Stop 1,711000 Sweep 1,000 ms (100	pta) manufact
N 5 7 1270	999 Ginz		Preq Office Dig
		1.wu	

# Band4\_5MHz\_QPSK\_1\_24\_HighCH20375-1752.5



# Band4\_5MHz\_QPSK\_25\_0\_LowCH19975-1712.5



### Band4\_5MHz\_QPSK\_25\_0\_HighCH20375-1752.5

Genter Freq 1 755000000	UNCO PRIME F.M. TITLE FIRST PLANT	And Tope Long Top	frequency
Ref 00%et 23.0 dBm	Planston Alman () 48	Mkr1 1.765 000 GH 28.27 dBn	Auto Ture
			Center Free 175Apprend die
	1		Start Pres
			Step Pres 1 Thinkson Sta
Res BW 51 kHz	BYBW 150 KHz	5100 1.756000 GH Sweep 1.000 ms (1001 pt	CF Stor
N 5 7 1.755	999 Gina - 28 27 ettim		Freq Office D H
		Tube	-

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# Band4\_10MHz\_QPSK\_1\_0\_LowCH20000-1715



Band4\_10MHz\_QPSK\_1\_49\_HighCH20350-1750



# Band4\_10MHz\_QPSK\_50\_0\_LowCH20000-1715

Street and street and	Carl Street and Street Street		States and the state	
Senter Freq 1.71000000	The Para ter	Ang Type Log Pan	Contraction of Cont	Frequency
Ref Offset 23.0 dBm	- Delitie		1.710 000 CHz 31.21 dBm	Auto Ture
				Center Fre
		e d		Clart Fre
				Step Fre
ENT 1.709000 GH2 Res BW 100 kHz	WINW 300 KH	sweep 1	Hop 1_711000 GHz .000 ms (1001 pts)	CF Sta
N 5 1 12	10 000 GH2			Freq Office
		1.00.0		

# Band4\_10MHz\_QPSK\_50\_0\_HighCH20350-1750



# Band4\_15MHz\_QPSK\_1\_0\_LowCH20025-1717.5



### Band4\_15MHz\_QPSK\_1\_74\_HighCH20325-1747.5

Senter Freq 1 75500000	The Free fun	And Tope Log For	Transmiss
Ref 30.00 dBm		Mkr1 1.765 000 GH 27.82 dBr	Auto Ture
			Center Free 175500000 GH
	may and		Etart.Free 175-000000 chr
400 Maria			Step Fym 1 Thillippoor Sta
Res BW 200 kHz	AVOW 529 kHz	Stop 1.756000 GH Sweep 1.000 ms (1001 pt	COLUMN ACT
	56 999 GHz - 47 82 65m)		Preq Office
		1462	-

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# Band4\_15MHz\_QPSK\_75\_0\_LowCH20025-1717.5



# Band4\_15MHz\_QPSK\_75\_0\_HighCH20325-1747.5



# Band4\_20MHz\_QPSK\_1\_0\_LowCH20050-1720

enter Freq 1.71000000	Fish East new Trip Free-Burt	Ana Toon Log Par	Tree Contractor
Ref Offset 23.0 dBm	Contra Alder Dab	Mirt 1.	10 100 13H2 Auto 1 20.35 dBm
			Center 1 1.7 timeseut
	ويايد بالمرسا مست	MANDAMANA	Start)
	and the second sec		
			Step /
IGNT 1.709000 GH2 IRes BW 300 kHz	avDw 1.0 Minz	Silop Sweep 1.991	1711000 GH2 Tros (1001 pts)
Kat 1.709000 GH2 Res BW 300 kHz	#VDW 1/8 NDsz	Silop Sweep 1.991	1711000 GH2 Tros (1001 pts)

# Band4\_20MHz\_QPSK\_1\_99\_HighCH20300-1745



# Band4\_20MHz\_QPSK\_100\_0\_LowCH20050-1720



# Band4\_20MHz\_QPSK\_100\_0\_HighCH20300-1745

Auro Tu			Alter Doll	(Epamitaw)	
NOIS TO	1.765 000 GHz 27.46 dBm	Mirt		13.0-48 106m	Ref 30.00
Center Fr					
Etart Pr 175-000000			-	-	
Biop Pr					
CF St	top 1.756000 GHz 900 ms (1001 pts)		W 1.0 MHz	#¥0	11.754000 GH2
Freq Offe		The Function of the	97.41 CE	1.756 000 GHX	

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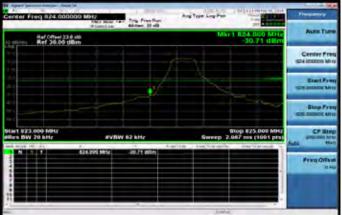
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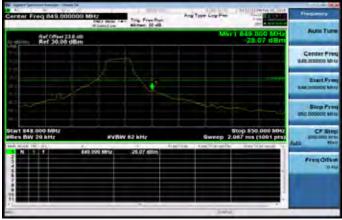


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Band5\_1\_4MHz\_QPSK\_1\_0\_LowCH20407-824.7







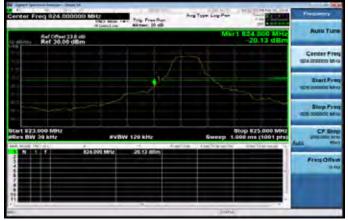
# Band5\_1\_4MHz\_QPSK\_6\_0\_LowCH20407-824.7

A Appent Systematic Associate States Select Sale				and the second se	
Center Freq 824,000000	Charles Banas	Trea Frenchair	Ana Tare Loa Per	Han a reter of out	Prophersy
Ref Offset 23.6 ett. Ref 30.05 dBm			Micri	824.000 MHz 40.34 dBm	Auto Ture
					Center Free Stateston M-c
					Chart Pres
	~~~~	-			Step Free
Start \$23,000 MHz Res DW 20 kHz	evow	62 hHz		top 825.000 MHz 67 ms (1001 pts)	CF Sing
	34.000 MP12	40.34 miles		and the first states	Freq Offser
			jund.		

# Band5\_1\_4MHz\_QPSK\_6\_0\_HighCH20643-848.3



# Band5\_3MHz\_QPSK\_1\_0\_LowCH20415-825.5



# Band5\_3MHz\_QPSK\_1\_14\_HighCH20635-847.5

enter Freq 849 000000 Metz	The fraging	And Topp Long Page	Presservy
Ref 0/her 23.8 xm		Micr3 848 000 MHz 17.79 dBm	Auto Ture
			Center Freq bis assess M-o
			Clart Free
			Glop Fred and cococit Min
Res BW 39 kHz	WBW 120 KHz	5000 850,000 MHJ Sweep 1,000 ms (1001 pts)	
N 5 7 640,000 MH	ie (17,79 milim)		Freq Offset
		Tube	-

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# Band5\_3MHz\_QPSK\_15\_0\_LowCH20415-825.5



Band5\_3MHz\_QPSK\_15\_0\_HighCH20635-847.5



Band5\_5MHz\_QPSK\_1\_0\_LowCH20425-826.5

Center Freq 824,000000	Barr man ra- True Free flar	Ang Type Log Per	Treparery
Ref Offset 23.6 48		Mkr1 824.000 MHz -23.44 dBm	Auto Ture
			Center Fred
	y		Chart Free
			Step Free
KW1 823.000 MH2 Res BW 51 kH2	#VBW 150 kHz	5100 825.000 MHz Sweep 1.000 ms (1001 pts)	CF Street
	24.000 MHZ 22.44 (60m)		Freq Offser Dis
		1442	

# Band5\_5MHz\_QPSK\_1\_24\_HighCH20625-846.5



# Band5\_5MHz\_QPSK\_25\_0\_LowCH20425-826.5



### Band5\_5MHz\_QPSK\_25\_0\_HighCH20625-846.5

enter Freq 849.000000	The sea of the free from	Ang Tour Log Par	Preparency
Ref Offset 23.6 x0 Ref 30.05 dBm		Mir 1 849 000 MHz -32 24 dBm	Auto Ture
			Center Free
			Clart Free
			Step Fre all: Societ un
CAT 843,000 MHz Res DW 51 hHz	#VBW 159 kHz	8top 850.000 MHz Sweep 1.000 ms (1001 pts)	CF Sta
	69,009 MHz) 32.24 dillim		Freq Office D H
		Trans.	-

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# Band5\_10MHz\_QPSK\_1\_0\_LowCH20450-829



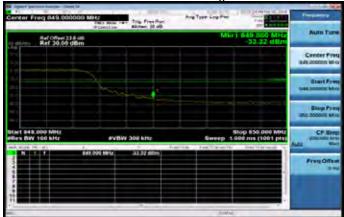
Band5\_10MHz\_QPSK\_1\_49\_HighCH20600-844



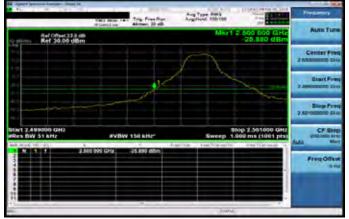
### Band5\_10MHz\_QPSK\_50\_0\_LowCH20450-829

A spect because descent laws		and the second s	
Center Freq 824.000000 M	Date Main rate Tree Free flast	Ang Tope Log Per	Propagation
Ref Offset 23.6 alls	* Canada and a second	Mir1 824 000 MHz -24.80 dBm	Auto Ture
			Center Freq
			Chart Freq 108 20000 Minu
			Stop Pres
9641 823.000 MHz #Res BW 100 kHz	AVEN 300 KH2	5100 825.000 MHz Sweep 1.000 ms (1001 pts)	CF Sing
N 5 T 62	A.000 MHTZ - 34.00 MIDH		Freq Offser Dity
		102	-

## Band5\_10MHz\_QPSK\_50\_0\_HighCH20600-844



# Band7\_5MHz\_QPSK\_1\_0\_LowCH20775-2502.5



# Band7\_5MHz\_QPSK\_1\_24\_HighCH21425-2567.5



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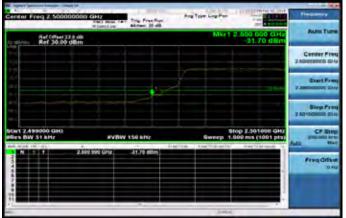
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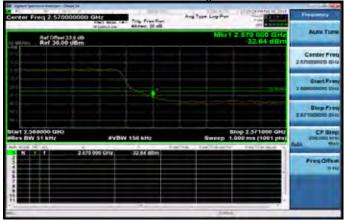


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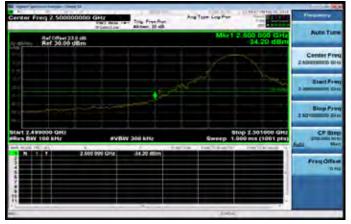
## Band7\_5MHz\_QPSK\_25\_0\_LowCH20775-2502.5



Band7\_5MHz\_QPSK\_25\_0\_HighCH21425-2567.5



Band7\_10MHz\_QPSK\_1\_0\_LowCH20800-2505



# Band7\_10MHz\_QPSK\_1\_49\_HighCH21400-2565



# Band7\_10MHz\_QPSK\_50\_0\_LowCH20800-2505



# Band7\_10MHz\_QPSK\_50\_0\_HighCH21400-2565

ervicer Freq 2.5700000000 GHz	Ang Type Log Page - 1 (1995) Line of the state	Treasury
Ref Offsei 23.8 48. Ref 30.00 dBm	Mir1 2 510 000 GHz -33.34 dBm	Auro Ture
		Center Freq 2 Artesento Gro
		Chart Pres
		Diap Pyres 2.571000000 Dia
KM1 2.569000 GH2 Res BW 100 MH2 #VBW 300 MH2	510p 2.571000 GHz Sweep 1.000 ms (1001 pts)	CF Step returns are
N 5 1 2.170.000 GH2 -33.34 dtlm		Freq Offser D for
	Tuba	-

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# Band7\_15MHz\_QPSK\_1\_0\_LowCH20825-2507.5



# Band7\_15MHz\_QPSK\_1\_74\_HighCH21375-2562.5



### Band7\_15MHz\_QPSK\_75\_0\_LowCH20825-2507.5

a spectaround and the			
Center Freq 2.50000000	The Part of Street from	And Total Log Per	Prophersy
Ref Offset 23.0 ett. Ref 30.00 dBm	a canat the	Mig1 2.600 000 GHz -30.76 dBm	Auto Ture
			Center Freq 2 Advances of the
			Clart Freq 7.49600000 City
			5100 Freq 2.521000000 Skill
Start 2.499000 GH2 Res BW 200 kHz	AVBW 520 KHz	Blop 2.501000 GH2 Sweep 1.009 ms (1001 ph)	CF Step
N 1 1 25	00 000 GHZ - 30,75 milling		Freq Offset D fo
		1946-E	-

# Band7\_15MHz\_QPSK\_75\_0\_HighCH21375-2562.5



# Band7\_20MHz\_QPSK\_1\_0\_LowCH20850-2510



### Band7\_20MHz\_QPSK\_1\_99\_HighCH21350-2560

	Part Fast for Trig Free Run Promition allman (0 elb.	21	Auto Turs
Ref Offset 23.0 dBm		Mir1 2.610 000 CH -28.70 dBr	
			Center Fre 2 Afterement Gr
E Martin Contraction	Warman Mangalana	-	BlackPre 7 Automotic Circ
		1. and	Disp Fre 2 X7100000 St
NYT 2 509000 GH2 Res BW 300 kHr	evbw 1.4 Ninz	Blop 2.571000 GH Sweep 1.000 ms (1001 ph	
N 5 1 247	0 000 GHX , 211 19 milin		FreqOffice

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# Band7\_20MHz\_QPSK\_100\_0\_LowCH20850-2510



Band7\_20MHz\_QPSK\_100\_0\_HighCH21350-2560



Band12\_1\_4MHz\_QPSK\_1\_0\_LowCH23017-699.7

Ref Offset 23.8 ets. Ref 30.00 dBm		Micr3 699 000 MHz -24.94 dBm	Auto Ture
			Center Free tals accors M-
	j j		Chart.Free
			Glop Fre 736 SOBBOL MI
Ewt 693,000 MHz Res BW 20 kHz	AVEW 52 kHz	5weep 2.067 ms (1001 pts)	CF Ster

# Band12\_1\_4MHz\_QPSK\_1\_5\_HighCH23173-715.3



# Band12\_1\_4MHz\_QPSK\_6\_0\_LowCH23017-699.7



# Band12\_1\_4MHz\_QPSK\_6\_0\_HighCH23173-715.3

and the second se	and the second	AND AND A DESCRIPTION OF	
Center Freq 716.000000 M	The Para ter True Free flan	Ana Torn Log Par	Presidently
Ref 30.00 dBm	* Desition	Mir1 716 000 MHz 32 80 dBm	Auto Ture
			Center Fren 718.00000 Mile
			Clart Free 716 200000 Min
			Bitop Pres 717.000000. Mil
		Sweep 2.067 ms (1001 pm)	CF Stor
N 5. 7 718	000 MHz -33 80 dillini		Freq Offer Dis
1		1402	

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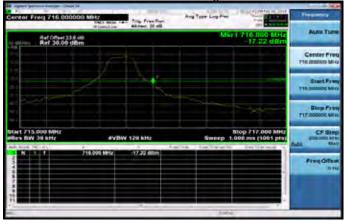


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# Band12\_3MHz\_QPSK\_1\_0\_LowCH23025-700.5



Band12\_3MHz\_QPSK\_1\_14\_HighCH23165-714.5



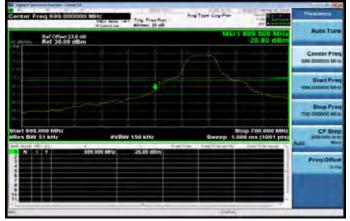
### Band12\_3MHz\_QPSK\_15\_0\_LowCH23025-700.5

A spectare second second			
Center Freq 599.000000	This said for True Free fair	Ang Topy Log Per	Frequency
Ref Offset 23.6 im	the second se	Mikr 3 609 000 MHz 26.65 dBm	Auto Ture
			Center Freq
			Chart Free
			Stop Fred 736 Socool Min
SENT 693.000 MHz Res BW 39 kHz	#VBW 120 kHz	5000 700,000 MHz Sweep 1,000 ms (1001 pts)	CF Step
N S T B	09.000 Mitiz		Freq Office Dity

# Band12\_3MHz\_QPSK\_15\_0\_HighCH23165-714.5



# Band12\_5MHz\_QPSK\_1\_0\_LowCH23035-701.5



### Band12\_5MHz\_QPSK\_1\_24\_HighCH23155-713.5

riter Freq 716.000000 Met	All Main Far True Free fran	Ana Tana Log Paul	Contraction of the local division of the loc
Ref 30.09 dBm		Mkr1 716.000 M	Auto Ture
			Center Fren 718 distant Me
	- Ac		Class Free 716 (20000) Min
			Bitop Fys 717 000000 AM
NT 715,009 MHz	#VBW 150 kHz	Stop 717.000 1 Sweep 1.000 ms (1001	pta) and an
	10 MPU 22.00 dillen		Freq Office

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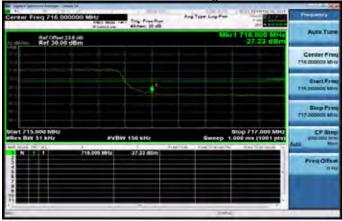


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Band12\_5MHz\_QPSK\_25\_0\_LowCH23035-701.5



Band12\_5MHz\_QPSK\_25\_0\_HighCH23155-713.5



Band12\_10MHz\_QPSK\_1\_0\_LowCH23060-704

	Plantine alines 10 all	ar Contract	Aure Ture
Ref 30.09 dBm		Micr3 899 800 MHz -32.86 dBm	MUIS TOP
			Center Free tas 200000 Mile
	1		Etart Free
mun			Step Fre 710,000000, Mil
1 C			
NT 693.000 MH2 Res BW 100 kHr	#VEW 300 kHz	5000 700.000 MHz Sweep 1.000 ms (1001 pts)	CF Stor

# Band12\_10MHz\_QPSK\_1\_49\_HighCH23130-711



Band12\_10MHz\_QPSK\_50\_0\_LowCH23060-704



# Band12\_10MHz\_QPSK\_50\_0\_HighCH23130-711

-		Trip Free Sur.	 1 - 16 000 MHz	AUTO THE
Ref 30.00 dB	n		 28.08 (88m)	
				Center Fri 718.000000 M
	Anna			Etart Fr
				Stop Fr 717.000000 W
NT 715,000 MHz es DW 100 kHz	2		000 717.000 MHz 000 ms (1001 pts)	CF St
	718.000 MP12	,23.04 miles		Freq Offe

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# Band13\_5MHz\_QPSK\_1\_0\_LowCH23205-779.5



Band13\_5MHz\_QPSK\_1\_24\_HighCH23255-784.5



Band13\_5MHz\_QPSK\_25\_0\_LowCH23205-779.5

	Plantine Alter Die		
Ref 30.00 dBm		Mkr3 272 000 MHz 33.64 dBm	Auru Turr
			Center Fre
	100		Chart Free 774 (20000) Min
			Stop Fre 778 Societ Mil
Res DW 51 kHz	SVEW 150 km	5000 778,000 MHz Sweep 1,000 ms (1001 pts)	CF Sta
N 5 1 7/	-33.64 diller		Freq Office

# Band13\_5MHz\_QPSK\_25\_0\_HighCH23255-784.5



# Band13\_10MHz\_QPSK\_1\_0\_LowCH23230-782



# Band13\_10MHz\_QPSK\_1\_49\_HighCH23230-782

enter Freq 787.000000	Data Manager Tong Free Ray (Constitue) Milman, 20 40			a Turs
Ref 30.00 dBm		Micri	217 100 MHz	
			Centil ritit asso	er Frei son Mie
	The second		Gia 785,000	art Porm
		menne	Statement Pressoon	a Pre
	200 WBVR	Sweep 1.0	00 ms (1001 pts)	7 Str.
			first first	Official

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Band13\_10MHz\_QPSK\_50\_0\_LowCH23230-782



Band13\_10MHz\_QPSK\_50\_0\_HighCH23230-782



# Band25\_1\_4MHz\_QPSK\_1\_0\_LowCH26047-1850.7

Center Freq 1.8500000	moreau -	Tra fresher	Ana Toon Loa Pon		Auto Ture
Ref 30.00 dBr			Mirt 1	20.47 dBm	Pione Torn
					Center Fre
					Clart Fre
					Step Fre
IEN1 1.849000 GH2 Res BW 20 kHz	aviti	N 82 hHz	Sweep 2.0	p 1,851000 GHz 57 ms (1001 pts)	CF Str
	860,000 GH2	25.47 dtbm			Freq Offer
		19. A	Lube		-

# Band25\_1\_4MHz\_QPSK\_1\_5\_HighCH26683-1914.3



# Band25\_1\_4MHz\_QPSK\_6\_0\_LowCH26047-1850.7



# Band25\_1\_4MHz\_QPSK\_6\_0\_HighCH26683-1914.3

	monitive aller D			AUTO TUP
Ref 30.00 dB	ann.	Misri	1.915 000 GH2 28.49 dBm	Auto Tues
				Center Fre
				Clart Fre
				Biop Pro
ANT 1,914000 GH2 Res BW 20 kH2		Sweep 2	Stop 1,916000 GHz	CF Sta Protocol Los
	1.916.000 GPG28L89.400			Freq Office

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# Band25\_3MHz\_QPSK\_1\_0\_LowCH26055-1851.5



# Band25\_3MHz\_QPSK\_1\_14\_HighCH26675-1913.5



### Band25\_3MHz\_QPSK\_15\_0\_LowCH26055-1851.5

A spectareners and the				and the second second	
Center Freq 1.85000000	Carl Charles	Trip Freedor	Ana Toon Log Per	ALL LINES OF LAS	Frequency
Ref 30.00 dBm			Mich	24.04 dBm	Auto Ture
					Center Fred
		Jel 1			Clart Free
					Stop Fred
SENT 1.84 9000 GH2 Res BW 39 kHz	avbw	120 KHz		op 1.851000 GHz 100 ms (1001 pts)	CF Step
	160 000 CHU	21.04 miles			Freq Offser
			Tana		-

# Band25\_3MHz\_QPSK\_15\_0\_HighCH26675-1913.5



# Band25\_5MHz\_QPSK\_1\_0\_LowCH26065-1852.5



### Band25\_5MHz\_QPSK\_1\_24\_HighCH26665-1912.5

	miline allman 20 mB	M621 1.915 000 GH	Auto Tue
Ref 30.00 dBm		-22,15 dBn	_
ſ			Center Fro 1 attacement co
	X		Blart.Fre 1.014/00000.00
			Blog Pro
1 1.914000 GH2 5 BW 51 hHz	#VDW 150 kHz	Stop 1,916000 GH Sweep 1,900 ms (1001 pt	
N 5 1 1916 000	GH¥ -22.11 600m		Freq Offs

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## Band25\_5MHz\_QPSK\_25\_0\_LowCH26065-1852.5



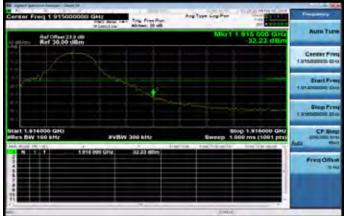
Band25\_5MHz\_QPSK\_25\_0\_HighCH26665-1912.5



# Band25\_10MHz\_QPSK\_1\_0\_LowCH26090-1855

Center Freq 1.850000000 GHz	Ang Type Log Per	The second second
Ref Offset 23.9 cm		11.650 000 C3Hz Auto Ture -30.91 dBm
		Center Free
	Stand -	Start Pres 1 Manual Co
mariting		Step Free
		1.001000000.014
KWT 1.849000 GH2 Res BW 100 bHz #VBW 3	DO LHIZ SWEEP	810p 1.851000 GHz 1.000 ms (1001 pts)
Ewt 1.840000 GHz Res BW 100 kHz #VBW 3	DO LHIZ SWEEP	810p 1.851000 GH2 1.000 ms (1001 pts)

# Band25\_10MHz\_QPSK\_1\_49\_HighCH26640-1910



# Band25\_10MHz\_QPSK\_50\_0\_LowCH26090-1855



### Band25\_10MHz\_QPSK\_50\_0\_HighCH26640-1910

enter Freq 1.015000000 GHz	Ang Tope Log Por	Frequency
Ref Officer 23.8 cm. Ref 30.00 dBm	Mig1 1.915 000 GHz 28.33 dBm	Auto Ture
		Center Freq 1 attacement circo
		Diart.Free
		Diep Frei 1 3100000 Die
Ren 1.914000 GH2 Ren BW 100 HHz #VBW 300 HHz	Stop 1,416000 GHz Sweep 1,000 ms (1001 pts)	CF Sing results to b
N 7 7 . 1915 000 (Jrls		Freq Office
	THE	_

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