

TEST REPORT	
FCC Part 27	
Report Reference No.:	HK2506263445-8E
FCC ID :	2BFCX-C10
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Supervised by (position+printed name+signature)...	Technique principal Sliver Wan
Approved by (position+printed name+signature)...	Manager Jason Zhou
Date of issue.....	Aug. 26, 2025
Testing Laboratory Name	Shenzhen HUAKE Testing Technology Co., Ltd.
Address.....	1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Applicant's name	Shenzhen Shire Star Electronic Technology Co., Ltd.
Address.....	2nd Floor, Building F, Guanghao Industrial Park, Yunfeng Road, Longhua District, Shenzhen, China
Test specification	:
Standard	FCC Part 27
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Test item description	Smart Pet Collar
Trade Mark	N/A
Manufacturer.....	Shenzhen Shire Star Electronic Technology Co., Ltd.
Model/Type reference.....	C10
Listed Models	N/A
Ratings.....	DC5V From Adapter with AC100-240V, 50/60Hz, 0.5A Max or DC3.7V From Battery
Modulation	QPSK, 16QAM
Hardware version	V1.0
Software version	V1.0
Frequency.....	LTE Band 71: 663MHz - 698MHz
Result.....	PASS

TEST REPORT

Test Report No. :	HK2506263445-8E	Aug. 26, 2025
		Date of issue

Equipment under Test : Smart Pet Collar

Model /Type : C10

Series Models : N/A

Applicant : **Shenzhen Shire Star Electronic Technology Co., Ltd.**

Address : 2nd Floor, Building F, Guanghao Industrial Park, Yunfeng Road, Longhua District, Shenzhen, China

Manufacturer : **Shenzhen Shire Star Electronic Technology Co., Ltd.**

Address : 2nd Floor, Building F, Guanghao Industrial Park, Yunfeng Road, Longhua District, Shenzhen, China

Test result	Pass
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The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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1 SUMMARY

1.1 TEST STANDARDS

The tests were performed according to following standards:

FCC Part 27: MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES

TIA/EIA 603 D June 2010: Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.

47 CFR FCC Part 15 Subpart B: - Unintentional Radiators

FCC Part 2: FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

KDB971168 D01 v03r01: MEASUREMENT GUIDANCE FOR CERTIFICATION OF LICENSED DIGITAL TRANSMITTERS

1.2 Test Description

Test Item	FCC /IC Rule No.	Result
RF Output Power	Part 2.1046 Part 27.50(c)(10)	Pass
Peak-to-Average Ratio	Part 2.1046	Pass
99% & -26 dB Occupied Bandwidth	Part 2.1049	Pass
Spurious Emissions at Antenna Terminal	Part 2.1051 Part 27.53(g)	Pass
Field Strength of Spurious Radiation	Part 2.1053 Part 27.53(g)	Pass
Out of band emission, Band Edge	Part 2.1051 Part 27.53(g)	Pass
Frequency stability	Part 2.1055 Part 27.54	Pass

1.3 Information of the Test Laboratory

Shenzhen HUAKE Testing Technology Co., Ltd.

Add.: 1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

Testing Laboratory Authorization:

A2LA Accreditation Code is 4781.01.

FCC Designation Number is CN1229.

Canada IC CAB identifier is CN0045.

CNAS Registration Number is L9589.

1.4 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 „Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the Shenzhen HUAKE Testing Technology Co., Ltd.. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen HUAKE Testing Technology Co., Ltd.

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	30~1000MHz	4.10dB	(1)
Radiated Emission	Above 1GHz	4.32dB	(1)
Conducted Disturbance	0.15~30MHz	3.20dB	(1)

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

2 GENERAL INFORMATION

2.1 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Normal Temperature:	25°C
Relative Humidity:	55 %
Air Pressure:	101 kPa

2.2 Description of Test Modes

The EUT has been tested under typical operating condition. The CMW500 used to control the EUT staying in continuous transmitting and receiving mode for testing. Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.

Note:

1. For the ERP/EIRP and radiated emission test, every axis (X, Y, Z) was verified, and show the worst resulton this report.
2. Test method and refer to 3GPP TS136521.

2.3 Test frequency list

TX Channel Bandwidth	Frequency (MHz)	channel
5 MHz	665.5	133147
	680.5	133297
	695.5	133447
10 MHz	668	133172
	680.5	133297
	693	133422
15 MHz	670.5	133197
	680.5	133297
	690.5	133397
20 MHz	673	133222
	680.5	133297
	688	133372

2.4 Equipments Used during the Test

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Due Date
1	L.I.S.N.	R&S	ENV216	HKE-002	2025/02/19	2026/02/18
2	L.I.S.N.	R&S	ENV216	HKE-059	2025/02/19	2026/02/18
3	EMI Test Receiver	R&S	ESR	HKE-005	2025/02/19	2026/02/18
4	Spectrum analyzer	Agilent	N9020A	HKE-117	2025/02/19	2026/02/18
5	Spectrum analyzer	R&S	FSV3044	HKE-126	2025/02/19	2026/02/18
6	Preamplifier	EMCI	EMC051845S	HKE-006	2025/02/19	2026/02/18
7	Preamplifier	Schwarzbeck	BBV 9743	HKE-016	2025/02/19	2026/02/18
8	Preamplifier	A.H. Systems	SAS-574	HKE-182	2025/02/19	2026/02/18
9	6dB Attenuator	Pasternack	6db	HKE-184	2025/02/19	2026/02/18
10	EMI Test Receiver	Rohde & Schwarz	ESR-7	HKE-010	2024/02/20	2025/02/19
11	Broadband Antenna	Schwarzbeck	VULB9168	HKE-167	2024/02/21	2026/02/20
12	Loop Antenna	COM-POWER	AL-130R	HKE-014	2024/02/21	2026/02/20
13	Horn Antenna	Schwarzbeck	9120D	HKE-013	2024/02/21	2026/02/20
14	EMI Test Software	Tonscend	JS32-CE 2.5.0.6	HKE-081	/	/
15	EMI Test Software	Tonscend	JS32-RE 5.0.0	HKE-082	/	/
16	RF Automatic control unit	Tonscend	JS0806-1	HKE-096	2025/02/19	2026/02/18
17	High pass filter unit	Tonscend	JS0806-F	HKE-055	2025/02/19	2026/02/18
18	Wireless Communication Test Set	R&S	CMU200	HKE-026	2025/02/19	2026/02/18
19	Wireless Communication Test Set	R&S	CMW500	HKE-027	2025/02/19	2026/02/18
20	High-low temperature chamber	Guangke	HT-80L	HKE-118	2025/06/09	2026/06/08
21	Temperature and humidity meter	Boyang	HTC-1	HKE-075	2025/06/09	2026/06/08
22	RF Test Software	Tonscend	JS1120 Version 3.5.39	HKE-183	/	/
23	RSE Test Software	Tonscend	JS36-RSE 5.0.0	HKE-184	/	/

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2.5 Modifications

No modifications were implemented to meet testing criteria.

3 TEST CONDITIONS AND RESULTS

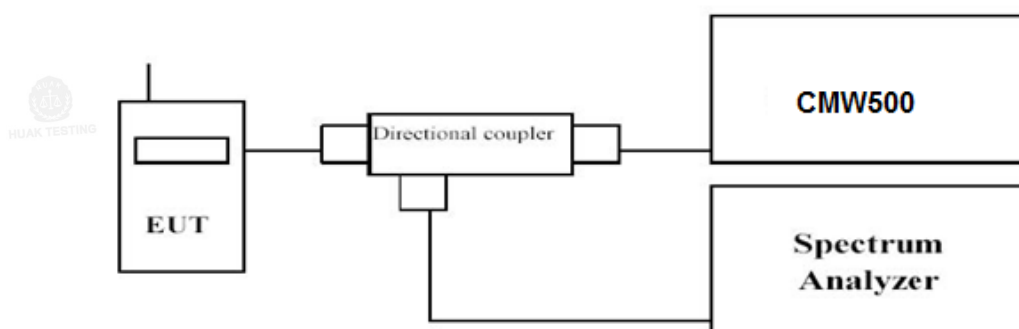
3.1 Output Power

LIMIT

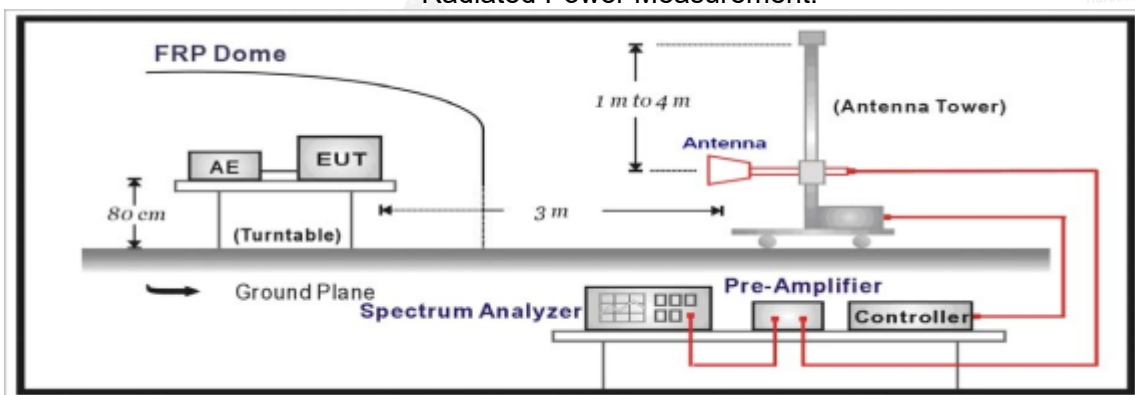
Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are FCC limited to 3 watts ERP."IC limited to 5 watts ERP."

TEST CONFIGURATION

Conducted Power Measurement



Radiated Power Measurement:



TEST PROCEDURE

The EUT was setup according to EIA/TIA 603D

Conducted Power Measurement:

- Place the EUT on a bench and set it in transmitting mode.
- Connect a low loss RF cable from the antenna port to a spectrum analyzer and CMW500 by a Directional Couple.
- EUT Communicate with CMW500, then select a channel for testing.
- Add a correction factor to the display of spectrum, and then test.

Radiated Power Measurement:

- The EUT shall be placed at the specified height on a support, and in the position closest to normal use as declared by provider.
- The test antenna shall be oriented initially for vertical polarization and shall be chosen to correspond to the frequency of the transmitter
- The output of the test antenna shall be connected to the measuring receiver.

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- d. The transmitter shall be switched on and the measuring receiver shall be tuned to the frequency of the transmitter under test.
- e. The test antenna shall be raised and lowered through the specified range of height until a maximum signal level is detected by the measuring receiver.
- f. The transmitter shall then be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
- g. The test antenna shall be raised and lowered again through the specified range of height until a maximum signal level is detected by the measuring receiver.
- h. The maximum signal level detected by the measuring receiver shall be noted.
- i. The transmitter shall be replaced by a substitution antenna.
- j. The substitution antenna shall be orientated for vertical polarization and the length of the substitution antenna shall be adjusted to correspond to the frequency of the transmitter.
- k. The substitution antenna shall be connected to a calibrated signal generator.
- l. If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
- m. The test antenna shall be raised and lowered through the specified range of height to ensure that the maximum signal is received.
- n. The input signal to the substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuator setting of the measuring receiver.
- o. The measurement shall be repeated with the test antenna and the substitution antenna orientated for horizontal polarization.
- p. The measure of the effective radiated power is the larger of the two levels recorded at the input to the substitution antenna, corrected for gain of the substitution antenna if necessary.
- q. Test site anechoic chamber refer to ANSI C63.4.

TEST RESULTS

Conducted Measurement:

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm)
Band71	5MHz	QPSK	133147	1RB#0	24.93
Band71	5MHz	QPSK	133147	1RB#12	23.95
Band71	5MHz	QPSK	133147	1RB#24	24.39
Band71	5MHz	QPSK	133147	12RB#0	23.37
Band71	5MHz	QPSK	133147	12RB#6	22.86
Band71	5MHz	QPSK	133147	12RB#13	22.86
Band71	5MHz	QPSK	133147	25RB#0	22.98
Band71	5MHz	16QAM	133147	1RB#0	23.70
Band71	5MHz	16QAM	133147	1RB#12	22.83
Band71	5MHz	16QAM	133147	1RB#24	23.23
Band71	5MHz	16QAM	133147	12RB#0	22.53
Band71	5MHz	16QAM	133147	12RB#6	21.96
Band71	5MHz	16QAM	133147	12RB#13	22.07
Band71	5MHz	16QAM	133147	25RB#0	22.15
Band71	5MHz	QPSK	133297	1RB#0	24.46
Band71	5MHz	QPSK	133297	1RB#12	23.70
Band71	5MHz	QPSK	133297	1RB#24	23.93
Band71	5MHz	QPSK	133297	12RB#0	22.89
Band71	5MHz	QPSK	133297	12RB#6	22.75
Band71	5MHz	QPSK	133297	12RB#13	22.65
Band71	5MHz	QPSK	133297	25RB#0	22.77
Band71	5MHz	16QAM	133297	1RB#0	23.07
Band71	5MHz	16QAM	133297	1RB#12	22.48
Band71	5MHz	16QAM	133297	1RB#24	22.58
Band71	5MHz	16QAM	133297	12RB#0	22.02
Band71	5MHz	16QAM	133297	12RB#6	21.72

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Band71	5MHz	16QAM	133297	12RB#13	21.83
Band71	5MHz	16QAM	133297	25RB#0	21.86
Band71	5MHz	QPSK	133447	1RB#0	25.08
Band71	5MHz	QPSK	133447	1RB#12	24.37
Band71	5MHz	QPSK	133447	1RB#24	24.75
Band71	5MHz	QPSK	133447	12RB#0	23.52
Band71	5MHz	QPSK	133447	12RB#6	23.24
Band71	5MHz	QPSK	133447	12RB#13	23.20
Band71	5MHz	QPSK	133447	25RB#0	23.40
Band71	5MHz	16QAM	133447	1RB#0	24.08
Band71	5MHz	16QAM	133447	1RB#12	23.32
Band71	5MHz	16QAM	133447	1RB#24	23.52
Band71	5MHz	16QAM	133447	12RB#0	22.40
Band71	5MHz	16QAM	133447	12RB#6	22.10
Band71	5MHz	16QAM	133447	12RB#13	22.02
Band71	5MHz	16QAM	133447	25RB#0	22.16
Band71	10MHz	QPSK	133172	1RB#0	23.87
Band71	10MHz	QPSK	133172	1RB#24	23.62
Band71	10MHz	QPSK	133172	1RB#49	24.65
Band71	10MHz	QPSK	133172	25RB#0	22.43
Band71	10MHz	QPSK	133172	25RB#12	22.49
Band71	10MHz	QPSK	133172	25RB#25	23.21
Band71	10MHz	QPSK	133172	50RB#0	23.25
Band71	10MHz	16QAM	133172	1RB#0	23.10
Band71	10MHz	16QAM	133172	1RB#24	22.80
Band71	10MHz	16QAM	133172	1RB#49	23.69
Band71	10MHz	16QAM	133172	25RB#0	21.60
Band71	10MHz	16QAM	133172	25RB#12	21.71
Band71	10MHz	16QAM	133172	25RB#25	22.30
Band71	10MHz	QPSK	133297	1RB#0	24.69
Band71	10MHz	QPSK	133297	1RB#24	23.78
Band71	10MHz	QPSK	133297	1RB#49	24.19
Band71	10MHz	QPSK	133297	25RB#0	23.07
Band71	10MHz	QPSK	133297	25RB#12	22.68
Band71	10MHz	QPSK	133297	25RB#25	22.69
Band71	10MHz	QPSK	133297	50RB#0	23.22
Band71	10MHz	16QAM	133297	1RB#0	23.61
Band71	10MHz	16QAM	133297	1RB#24	22.90
Band71	10MHz	16QAM	133297	1RB#49	23.05
Band71	10MHz	16QAM	133297	25RB#0	22.03
Band71	10MHz	16QAM	133297	25RB#12	21.77
Band71	10MHz	16QAM	133297	25RB#25	21.76
Band71	10MHz	QPSK	133422	1RB#0	24.43
Band71	10MHz	QPSK	133422	1RB#24	24.27
Band71	10MHz	QPSK	133422	1RB#49	24.28
Band71	10MHz	QPSK	133422	25RB#0	23.27
Band71	10MHz	QPSK	133422	25RB#12	23.25
Band71	10MHz	QPSK	133422	25RB#25	22.92
Band71	10MHz	QPSK	133422	50RB#0	23.04
Band71	10MHz	16QAM	133422	1RB#0	23.23
Band71	10MHz	16QAM	133422	1RB#24	23.56
Band71	10MHz	16QAM	133422	1RB#49	22.62
Band71	10MHz	16QAM	133422	25RB#0	22.01
Band71	10MHz	16QAM	133422	25RB#12	21.93
Band71	10MHz	16QAM	133422	25RB#25	21.46
Band71	15MHz	QPSK	133197	1RB#0	24.31

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Band71	15MHz	QPSK	133197	1RB#38	24.62
Band71	15MHz	QPSK	133197	1RB#74	24.71
Band71	15MHz	QPSK	133197	38RB#0	23.38
Band71	15MHz	QPSK	133197	38RB#18	23.37
Band71	15MHz	QPSK	133197	38RB#37	23.67
Band71	15MHz	QPSK	133197	75RB#0	23.42
Band71	15MHz	16QAM	133197	1RB#0	23.67
Band71	15MHz	16QAM	133197	1RB#38	23.59
Band71	15MHz	16QAM	133197	1RB#74	24.00
Band71	15MHz	16QAM	133197	38RB#0	22.68
Band71	15MHz	QPSK	133297	1RB#0	24.84
Band71	15MHz	QPSK	133297	1RB#38	23.76
Band71	15MHz	QPSK	133297	1RB#74	24.39
Band71	15MHz	QPSK	133297	38RB#0	23.84
Band71	15MHz	QPSK	133297	38RB#18	23.05
Band71	15MHz	QPSK	133297	38RB#37	23.51
Band71	15MHz	QPSK	133297	75RB#0	23.34
Band71	15MHz	16QAM	133297	1RB#0	23.96
Band71	15MHz	16QAM	133297	1RB#38	22.62
Band71	15MHz	16QAM	133297	1RB#74	23.46
Band71	15MHz	16QAM	133297	38RB#0	22.80
Band71	15MHz	QPSK	133397	1RB#0	23.27
Band71	15MHz	QPSK	133397	1RB#38	24.15
Band71	15MHz	QPSK	133397	1RB#74	23.79
Band71	15MHz	QPSK	133397	38RB#0	23.04
Band71	15MHz	QPSK	133397	38RB#18	23.23
Band71	15MHz	QPSK	133397	38RB#37	22.44
Band71	15MHz	QPSK	133397	75RB#0	23.07
Band71	15MHz	16QAM	133397	1RB#0	23.03
Band71	15MHz	16QAM	133397	1RB#38	23.06
Band71	15MHz	16QAM	133397	1RB#74	22.41
Band71	15MHz	16QAM	133397	38RB#0	22.06
Band71	20MHz	QPSK	133222	1RB#0	23.42
Band71	20MHz	QPSK	133222	1RB#49	24.26
Band71	20MHz	QPSK	133222	1RB#99	23.51
Band71	20MHz	QPSK	133222	50RB#0	22.72
Band71	20MHz	QPSK	133222	50RB#50	22.97
Band71	20MHz	QPSK	133222	100RB#0	22.86
Band71	20MHz	16QAM	133222	1RB#0	22.82
Band71	20MHz	16QAM	133222	1RB#49	23.16
Band71	20MHz	16QAM	133222	1RB#99	22.77
Band71	20MHz	QPSK	133322	1RB#0	24.88
Band71	20MHz	QPSK	133322	1RB#49	23.83
Band71	20MHz	QPSK	133322	1RB#99	24.59
Band71	20MHz	QPSK	133322	50RB#0	23.57
Band71	20MHz	QPSK	133322	50RB#50	23.82
Band71	20MHz	QPSK	133322	100RB#0	23.63
Band71	20MHz	16QAM	133322	1RB#0	24.10
Band71	20MHz	16QAM	133322	1RB#49	22.63
Band71	20MHz	16QAM	133322	1RB#99	23.95
Band71	20MHz	QPSK	133372	1RB#0	23.19
Band71	20MHz	QPSK	133372	1RB#49	23.95
Band71	20MHz	QPSK	133372	1RB#99	23.57
Band71	20MHz	QPSK	133372	50RB#0	22.21
Band71	20MHz	QPSK	133372	50RB#50	22.88
Band71	20MHz	QPSK	133372	100RB#0	22.59

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Band71	20MHz	16QAM	133372	1RB#0	23.04
Band71	20MHz	16QAM	133372	1RB#49	22.60
Band71	20MHz	16QAM	133372	1RB#99	22.16

Radiated Measurement:

Remark:

1. We were tested all RB Configuration refer 3GPP TS136 521 for each Channel Bandwidth of LTE FDD Band 71; recorded worst case for each Channel Bandwidth of LTE FDD Band 71.
2. $EIRP = P_{Mea}(dBm) - P_{cl}(dB) + P_{Ag}(dB) + G_a(dBi)$
3. $ERP = EIRP - 2.15dBi$ as EIRP by subtracting the gain of the dipole.

LTE FDD Band 71_Channel Bandwidth 5MHz_QPSK

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	G _a Antenna Gain(dB)	Correction (dB)	P _{Ag} (dB)	ERP (dBm)	Limit (dBm)	Polarization
665.5	-17.58	2.38	8.23	2.15	36.70	22.82	34.77	V
680.5	-15.35	2.40	8.29	2.15	36.70	25.09	34.77	V
695.5	-16.97	2.43	8.28	2.15	36.70	23.43	34.77	V
665.5	-17.32	2.38	8.23	2.15	36.70	23.08	34.77	H
680.5	-16.42	2.40	8.29	2.15	36.70	24.02	34.77	H
695.5	-17.53	2.43	8.28	2.15	36.70	22.87	34.77	H

LTE FDD Band 71_Channel Bandwidth 10MHz_QPSK

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	G _a Antenna Gain(dB)	Correction (dB)	P _{Ag} (dB)	ERP (dBm)	Limit (dBm)	Polarization
668	-15.66	2.38	8.23	2.15	36.70	24.74	34.77	V
680.5	-16.97	2.40	8.29	2.15	36.70	23.47	34.77	V
693	-17.05	2.43	8.28	2.15	36.70	23.35	34.77	V
668	-15.08	2.38	8.23	2.15	36.70	25.32	34.77	H
680.5	-16.58	2.40	8.29	2.15	36.70	23.86	34.77	H
693	-15.39	2.43	8.28	2.15	36.70	25.01	34.77	H

LTE FDD Band 71_Channel Bandwidth 15MHz_QPSK

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	G _a Antenna Gain(dB)	Correction (dB)	P _{Ag} (dB)	ERP (dBm)	Limit (dBm)	Polarization
670.5	-17.84	2.38	8.23	2.15	36.70	22.56	34.77	V
680.5	-15.66	2.40	8.29	2.15	36.70	24.78	34.77	V
690.5	-15.75	2.43	8.28	2.15	36.70	24.65	34.77	V
670.5	-15.04	2.38	8.23	2.15	36.70	25.36	34.77	H
680.5	-15.34	2.40	8.29	2.15	36.70	25.10	34.77	H
690.5	-16.66	2.43	8.28	2.15	36.70	23.74	34.77	H

LTE FDD Band 71_Channel Bandwidth 20MHz_QPSK

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	G _a Antenna Gain(dB)	Correction (dB)	P _{Ag} (dB)	ERP (dBm)	Limit (dBm)	Polarization
673	-15.33	2.38	8.23	2.15	36.70	25.07	34.77	V
680.5	-16.81	2.40	8.29	2.15	36.70	23.63	34.77	V
688	-17.24	2.43	8.28	2.15	36.70	23.16	34.77	V
673	-16.01	2.38	8.23	2.15	36.70	24.39	34.77	H
680.5	-14.37	2.40	8.29	2.15	36.70	26.07	34.77	H
688	-16.60	2.43	8.28	2.15	36.70	23.80	34.77	H

LTE FDD Band 71_Channel Bandwidth 5MHz_16QAM

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	G _a Antenna Gain(dB)	Correction (dB)	P _{Ag} (dB)	ERP (dBm)	Limit (dBm)	Polarization
665.5	-15.73	2.38	8.23	2.15	36.70	24.67	34.77	V
680.5	-16.08	2.40	8.29	2.15	36.70	24.36	34.77	V
695.5	-16.51	2.43	8.28	2.15	36.70	23.89	34.77	V
665.5	-17.07	2.38	8.23	2.15	36.70	23.33	34.77	H
680.5	-15.60	2.40	8.29	2.15	36.70	24.84	34.77	H
695.5	-17.12	2.43	8.28	2.15	36.70	23.28	34.77	H

LTE FDD Band 71_Channel Bandwidth 10MHz_16QAM

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	G _a Antenna Gain(dB)	Correction (dB)	P _{Ag} (dB)	ERP (dBm)	Limit (dBm)	Polarization
668	-17.38	2.38	8.23	2.15	36.70	23.02	34.77	V
680.5	-16.20	2.40	8.29	2.15	36.70	24.24	34.77	V
693	-16.76	2.43	8.28	2.15	36.70	23.64	34.77	V
668	-16.12	2.38	8.23	2.15	36.70	24.28	34.77	H
680.5	-16.44	2.40	8.29	2.15	36.70	24.00	34.77	H
693	-17.51	2.43	8.28	2.15	36.70	22.89	34.77	H

LTE FDD Band 71_Channel Bandwidth 15MHz_16QAM

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	G _a Antenna Gain(dB)	Correction (dB)	P _{Ag} (dB)	ERP (dBm)	Limit (dBm)	Polarization
670.5	-16.83	2.38	8.23	2.15	36.70	23.57	34.77	V
680.5	-16.02	2.40	8.29	2.15	36.70	24.42	34.77	V
690.5	-16.50	2.43	8.28	2.15	36.70	23.90	34.77	V
670.5	-17.38	2.38	8.23	2.15	36.70	23.02	34.77	H
680.5	-16.34	2.40	8.29	2.15	36.70	24.10	34.77	H
690.5	-17.58	2.43	8.28	2.15	36.70	22.82	34.77	H

LTE FDD Band 71_Channel Bandwidth 20MHz_16QAM

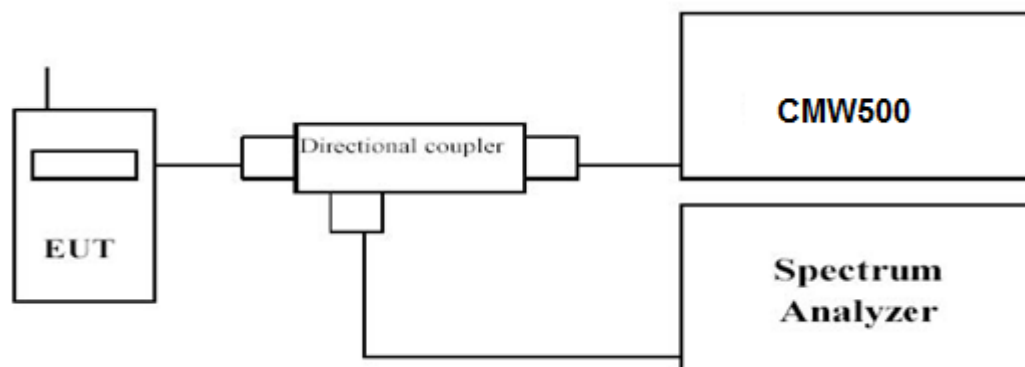
Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	G _a Antenna Gain(dB)	Correction (dB)	P _{Ag} (dB)	ERP (dBm)	Limit (dBm)	Polarization
673	-16.31	2.38	8.23	2.15	36.70	24.09	34.77	V
680.5	-15.25	2.40	8.29	2.15	36.70	25.19	34.77	V
688	-15.99	2.43	8.28	2.15	36.70	24.41	34.77	V
673	-16.38	2.38	8.23	2.15	36.70	24.02	34.77	H
680.5	-15.88	2.40	8.29	2.15	36.70	24.56	34.77	H
688	-14.82	2.43	8.28	2.15	36.70	25.58	34.77	H

3.2 Peak-to-Average Ratio (PAR)

LIMIT

The Peak-to-Average Ratio (PAR) of the transmission may not exceed 13 dB.

TEST CONFIGURATION



TEST PROCEDURE

1. Refer to instrument's analyzer instruction manual for details on how to use the power statistics/CCDF function;
2. Set resolution/measurement bandwidth $\geq$ signal's occupied bandwidth;
3. Set the number of counts to a value that stabilizes the measured CCDF curve;
4. Set the measurement interval as follows:
 - 1). for continuous transmissions, set to 1 ms,
 - 2). for burst transmissions, employ an external trigger that is synchronized with the EUT burst timing sequence, or use the internal burst trigger with a trigger level that allows the burst to stabilize and set the measurement interval to a time that is less than or equal to the burst duration.
5. Record the maximum PAPR level associated with a probability of 0.1%.

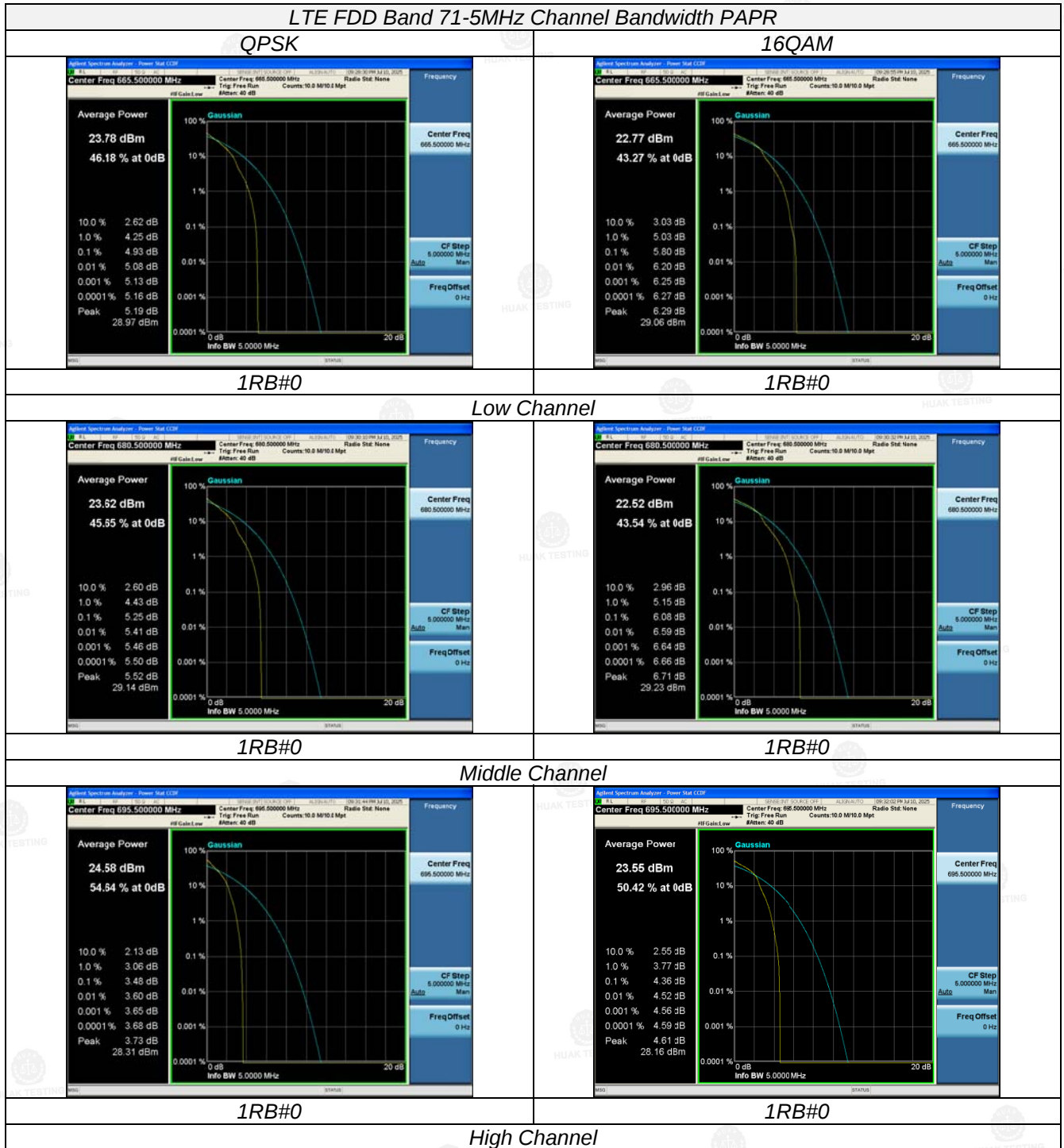
TEST RESULTS

Remark:

1. We were tested all RB Configuration refer 3GPP TS136 521 for each Channel Bandwidth of LTE FDD Band 71; recorded worst case for each Channel Bandwidth of LTE FDD Band 71.

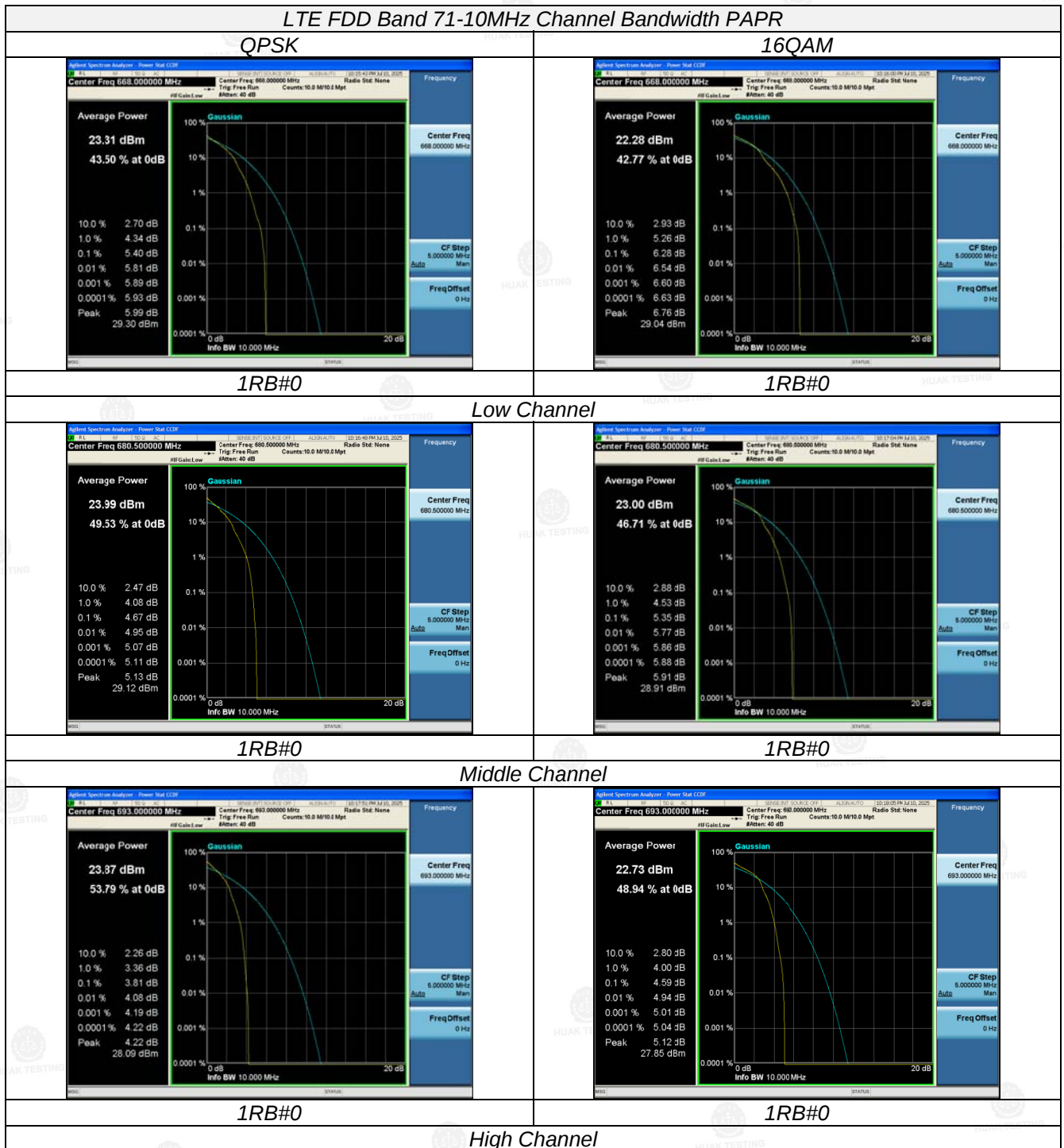
LTE FDD Band 71				
TX Channel Bandwidth	Frequency (MHz)	RB Size/Offset	PAPR (dB)	
			QPSK	16QAM
5MHz	665.5	1RB#0	4.93	5.80
	680.5		5.25	6.08
	695.5		3.48	4.36
10MHz	668	1RB#0	5.40	6.28
	680.5		4.67	5.35
	693		3.81	4.59
15MHz	670.5	1RB#0	5.47	6.31
	680.5		5.26	5.09
	690.5		6.63	6.63
20MHz	673	1RB#0	5.81	6.37
	680.5		4.44	5.09
	688		5.51	6.71

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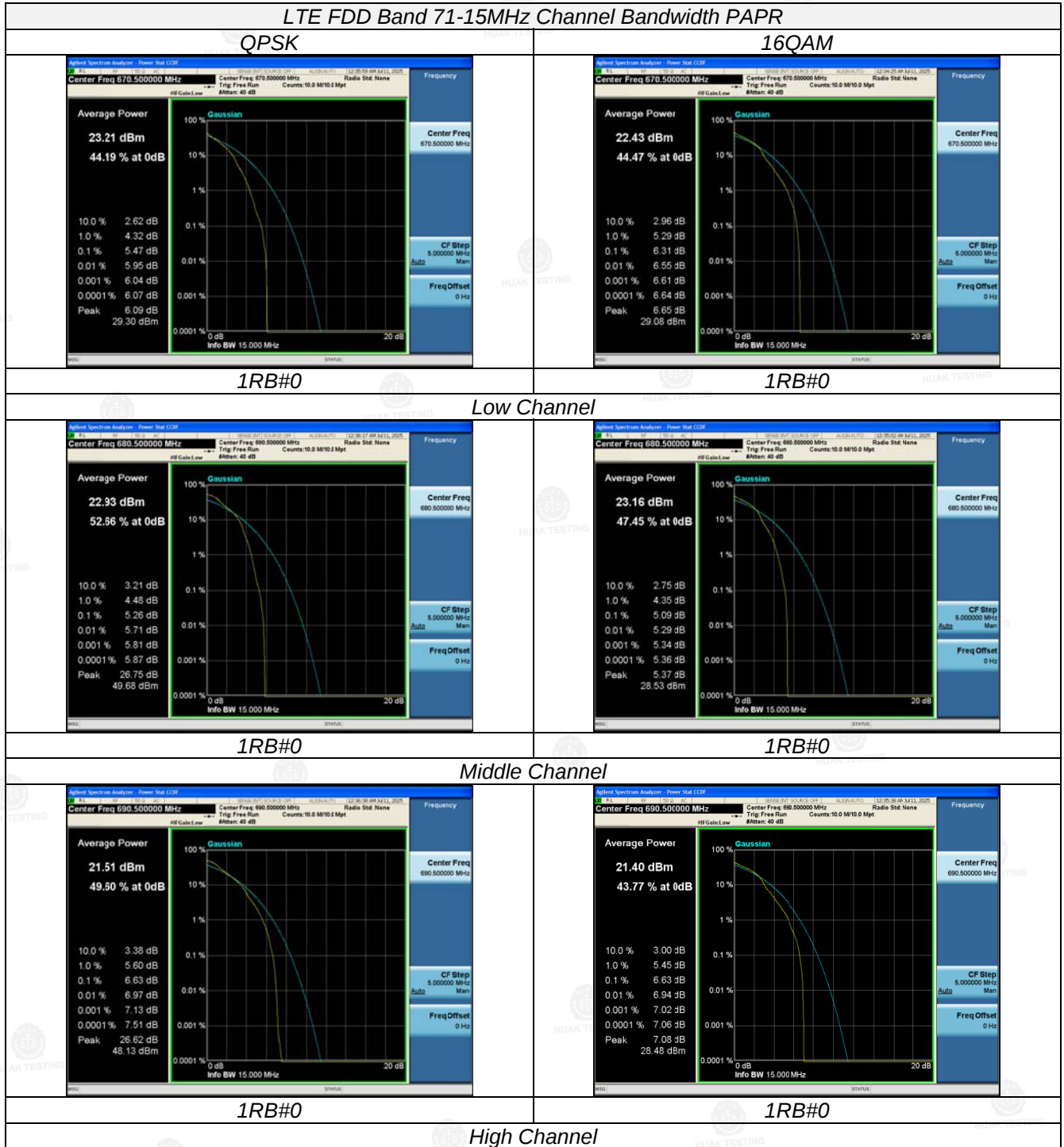
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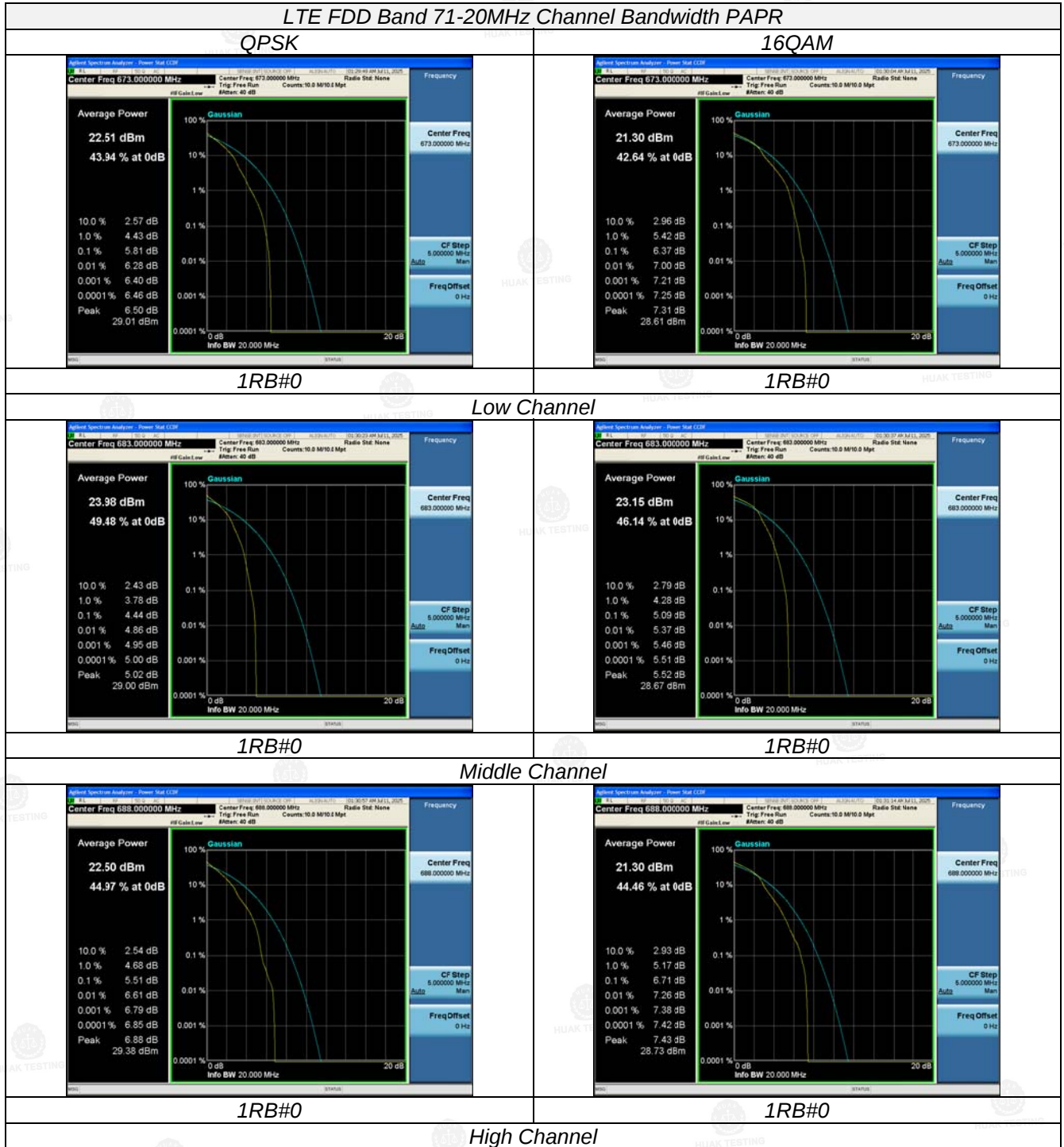


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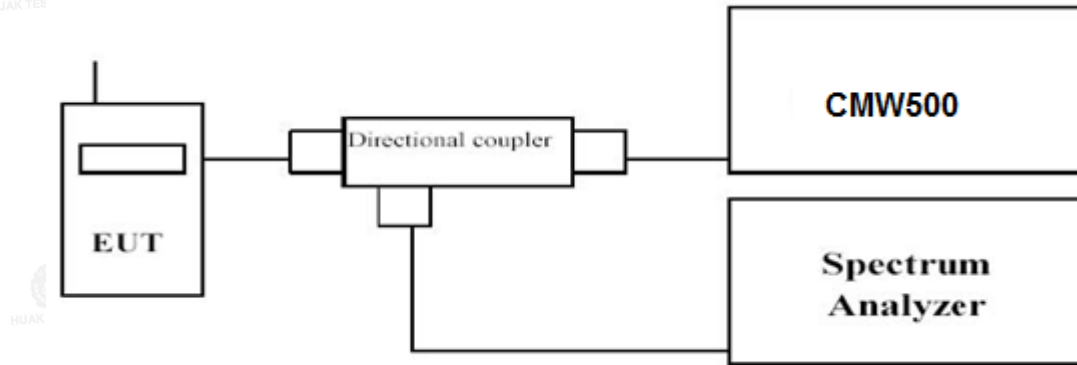
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3.3 Occupied Bandwidth and Emission Bandwidth

LIMIT

N/A

TEST CONFIGURATION



TEST PROCEDURE

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. The occupied bandwidth was measured with the spectrum analyzer at low, middle and high channel in each band. The -26dBc Emission bandwidth was also measured and recorded. Set RBW was set to about 1% of emission BW, VBW $\geq$ 3 times RBW. -26dBc display line was placed on the screen (or 99% bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace.

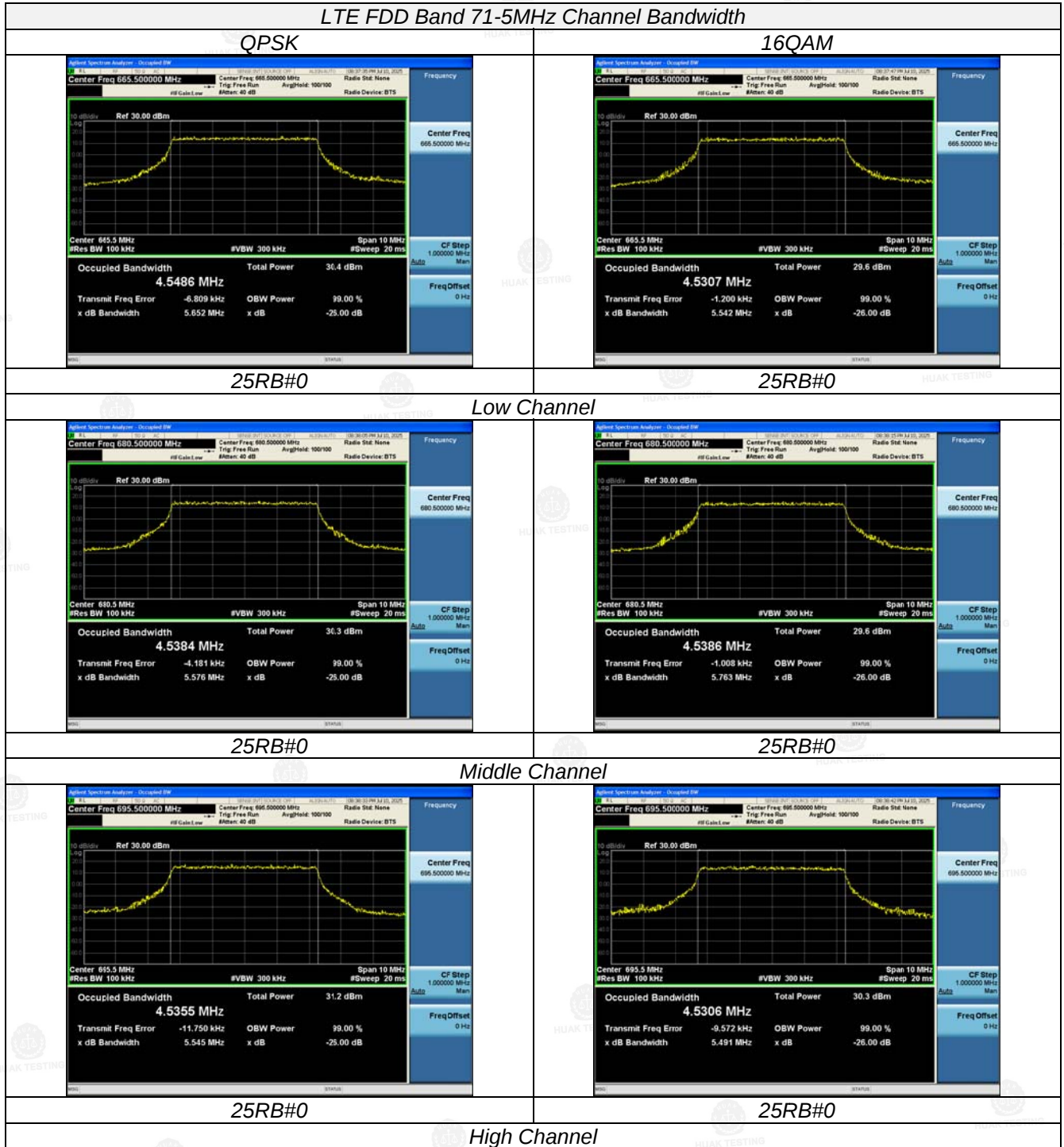
TEST RESULTS

Remark:

1. We were tested all RB Configuration refer 3GPP TS136 521 for each Channel Bandwidth of LTE FDD Band 71; recorded worst case for each Channel Bandwidth of LTE FDD Band 71.

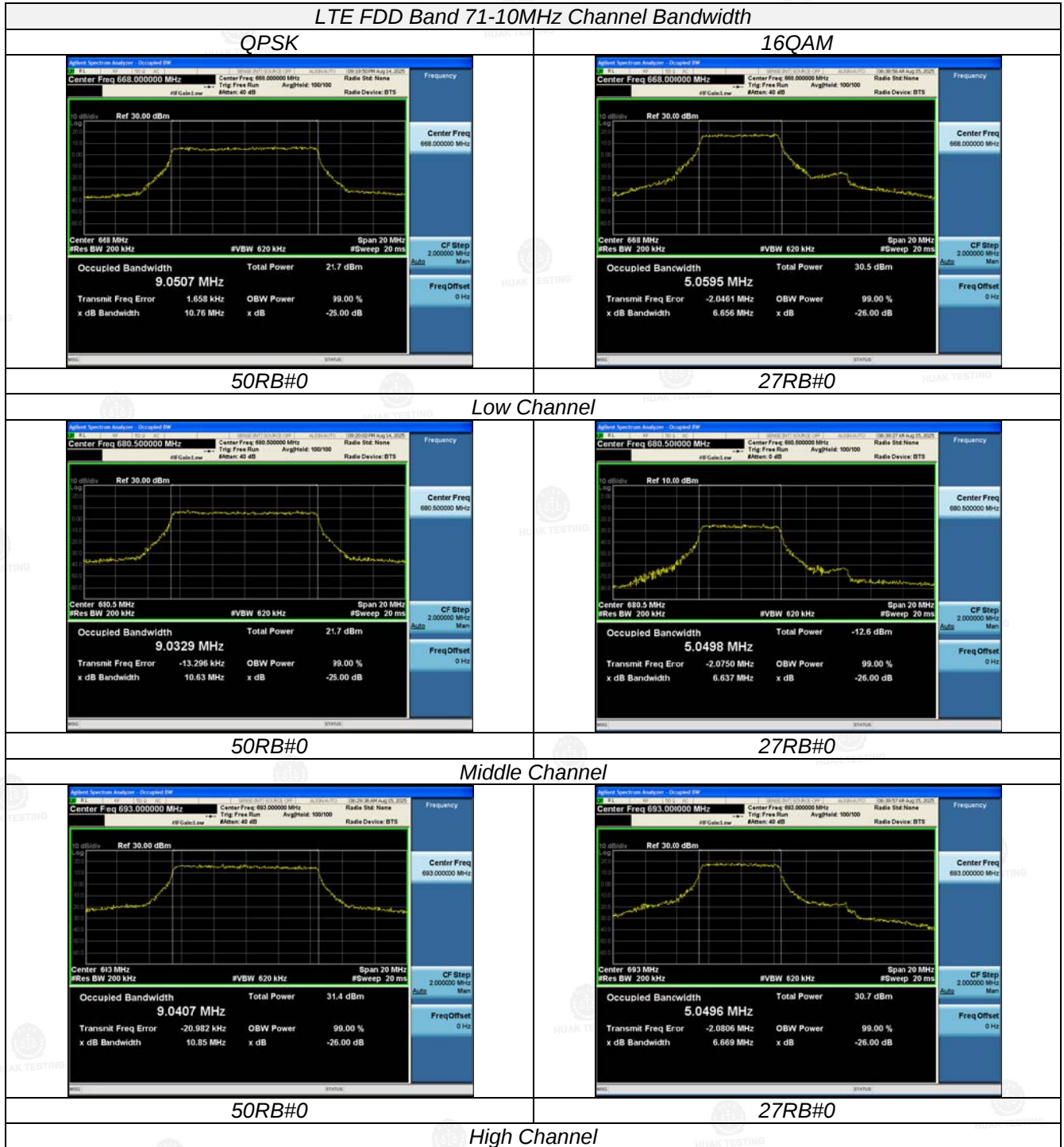
LTE FDD Band 71				
QPSK				
TX Channel Bandwidth	RB Size/Offset	Frequency (MHz)	-26dBc Emission bandwidth (MHz)	99% Occupied bandwidth (MHz)
			QPSK	QPSK
5MHz	25RB#0	665.5	5.652	4.5486
		680.5	5.576	4.5384
		695.5	5.545	4.5355
10MHz	50RB#0	668	10.76	9.0507
		680.5	10.63	9.0329
		693	10.85	9.0407
15MHz	75RB#0	670.5	15.93	13.532
		680.5	16.18	13.602
		690.5	16.10	13.508
20MHz	100RB#0	673	20.45	17.987
		680.5	20.82	18.018
		688	20.61	18.009

LTE FDD Band 71				
16QAM				
TX Channel Bandwidth	RB Size/Offset	Frequency (MHz)	-26dBc Emission bandwidth (MHz)	99% Occupied bandwidth (MHz)
			16QAM	16QAM
5MHz	25RB#0	665.5	5.542	4.5307
		680.5	5.763	4.5386
		695.5	5.491	4.5306
10MHz	27RB#0	668	6.656	5.0595
		680.5	6.637	5.0498
		693	6.669	5.0496
15MHz	27RB#0	670.5	8.060	5.3625
		680.5	8.041	5.3912
		690.5	7.644	5.3539
20MHz	27RB#0	673	7.729	5.4392
		680.5	8.058	5.5292
		688	8.258	5.5059



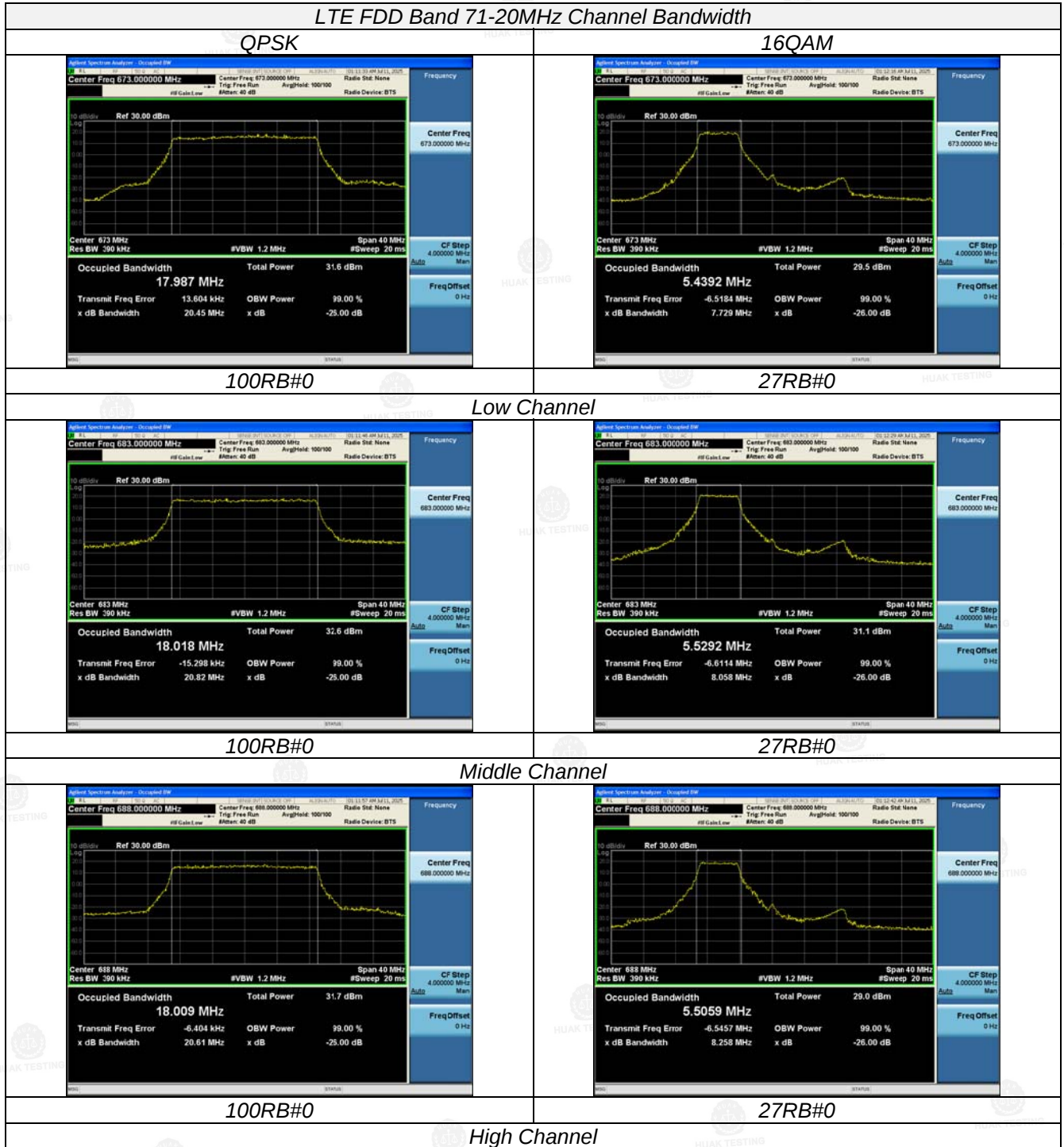
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LTE FDD Band 71-15MHz Channel Bandwidth	
QPSK 	16QAM 
75RB#0	27RB#0
Low Channel	
	
75RB#0	27RB#0
Middle Channel	
	
75RB#0	27RB#0
High Channel	



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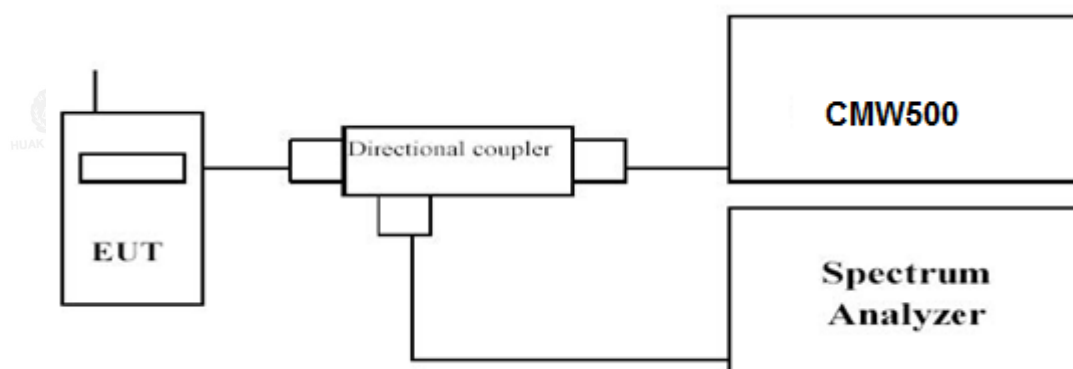
3.4 Band Edge compliance

LIMIT

that 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.

The specification that emissions shall be attenuated below the transmitter power (P) by at least $43 + 10 \log (P)$ dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm. At 1 W the specified minimum attenuation becomes 43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out.

TEST CONFIGURATION



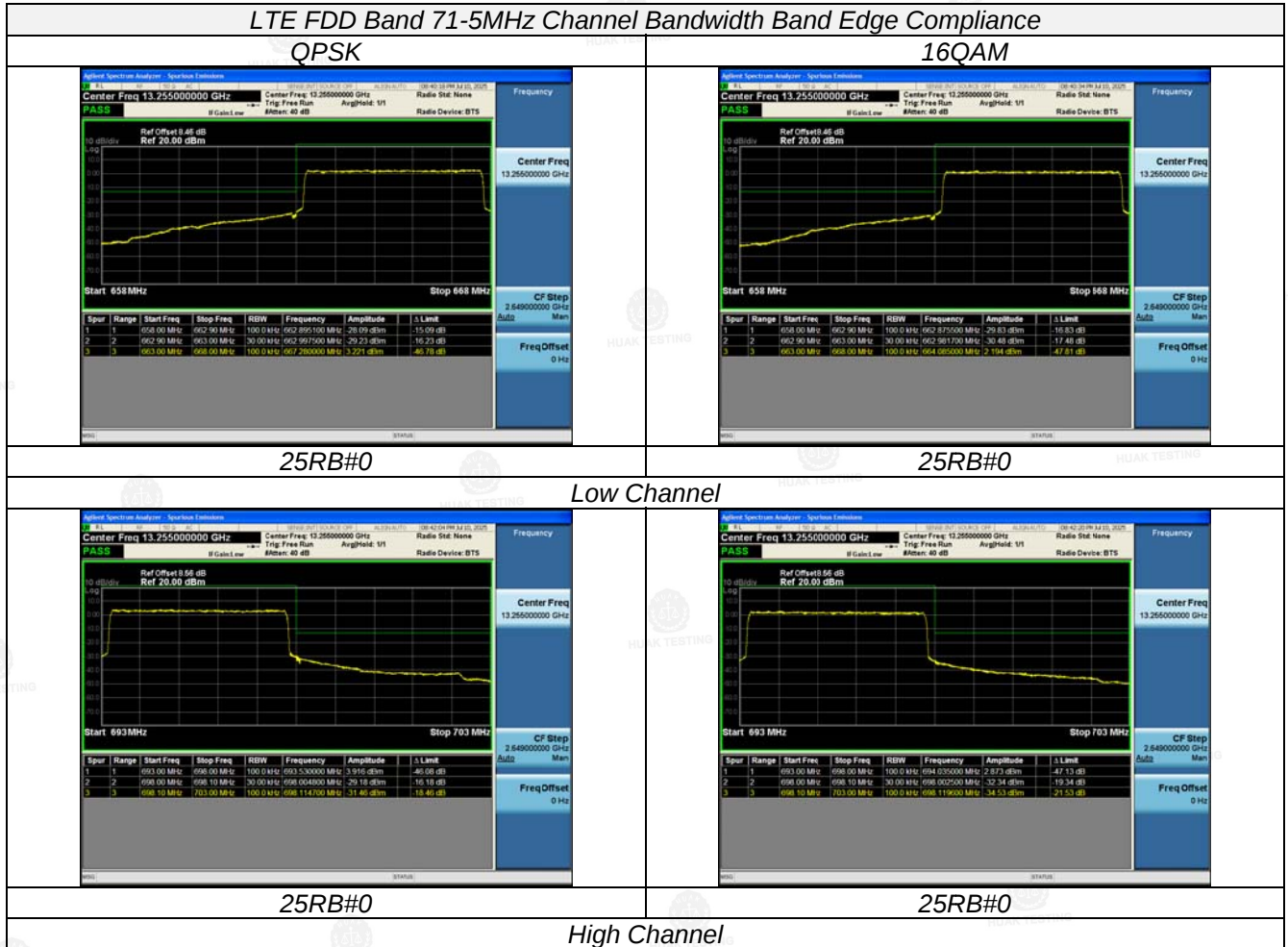
TEST PROCEDURE

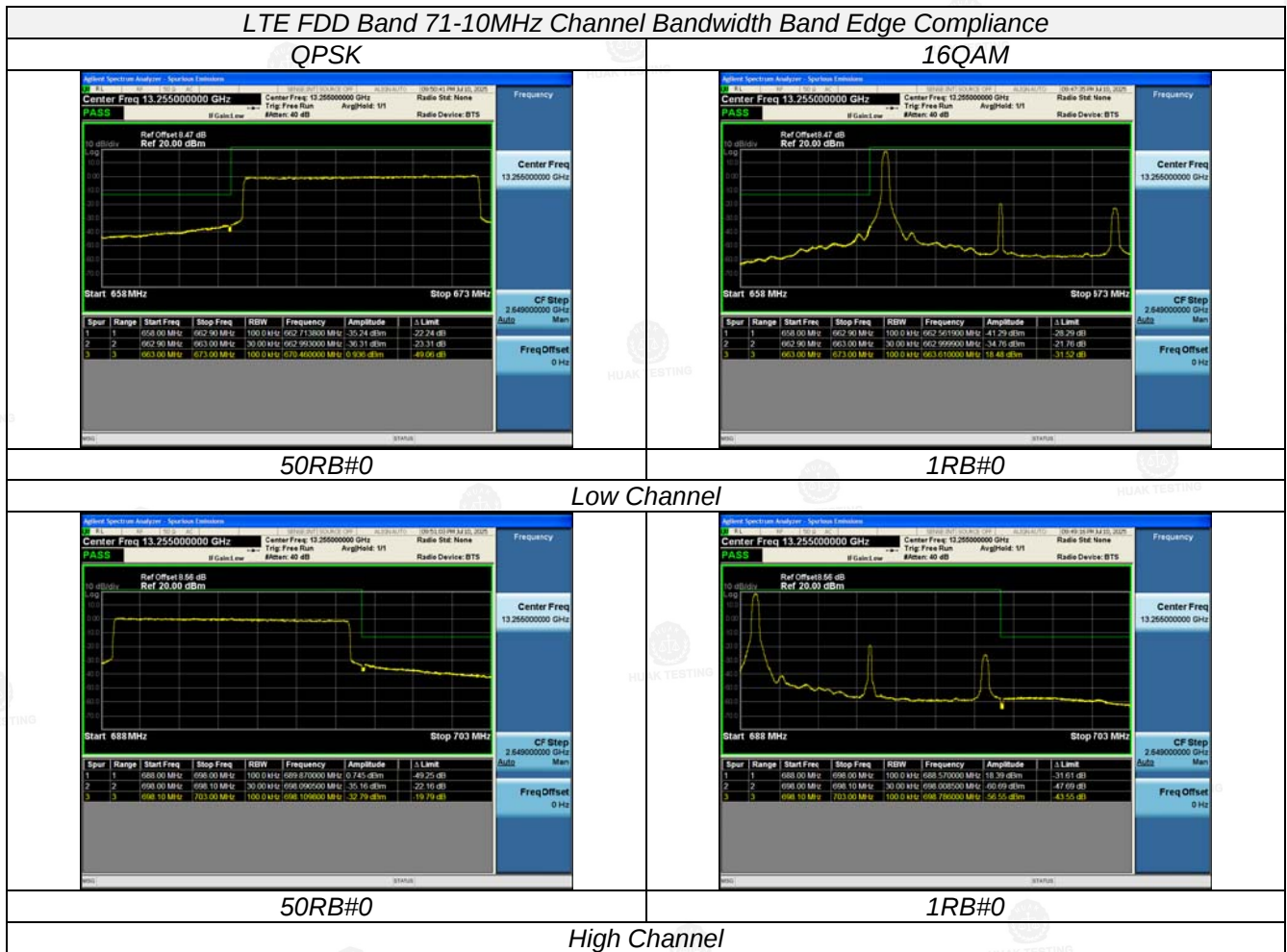
1. The transmitter output port was connected to base station.
2. The RF output of EUT was connected to the power meter by RF cable and attenuator, the path loss was compensated to the results for each measurement.
3. Set EUT at maximum power through base station.
4. Select lowest and highest channels for each band and different modulation.
5. Measure Band edge using RMS (Average) detector by spectrum

TEST RESULTS

Remark:

1. We were tested all RB Configuration refer 3GPP TS136 521 for each Channel Bandwidth of LTE FDD Band 71; recorded worst case for each Channel Bandwidth of LTE FDD Band 71.





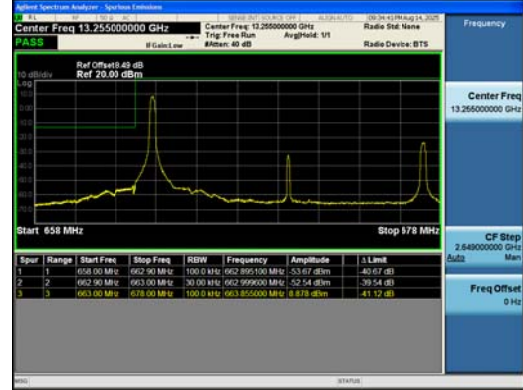
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LTE FDD Band 71-15MHz Channel Bandwidth Band Edge Compliance

QPSK

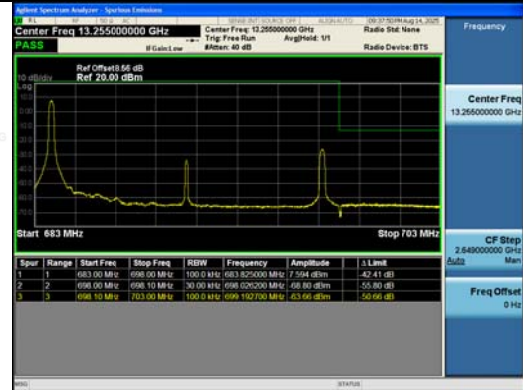
16QAM



75RB#0

1RB#0

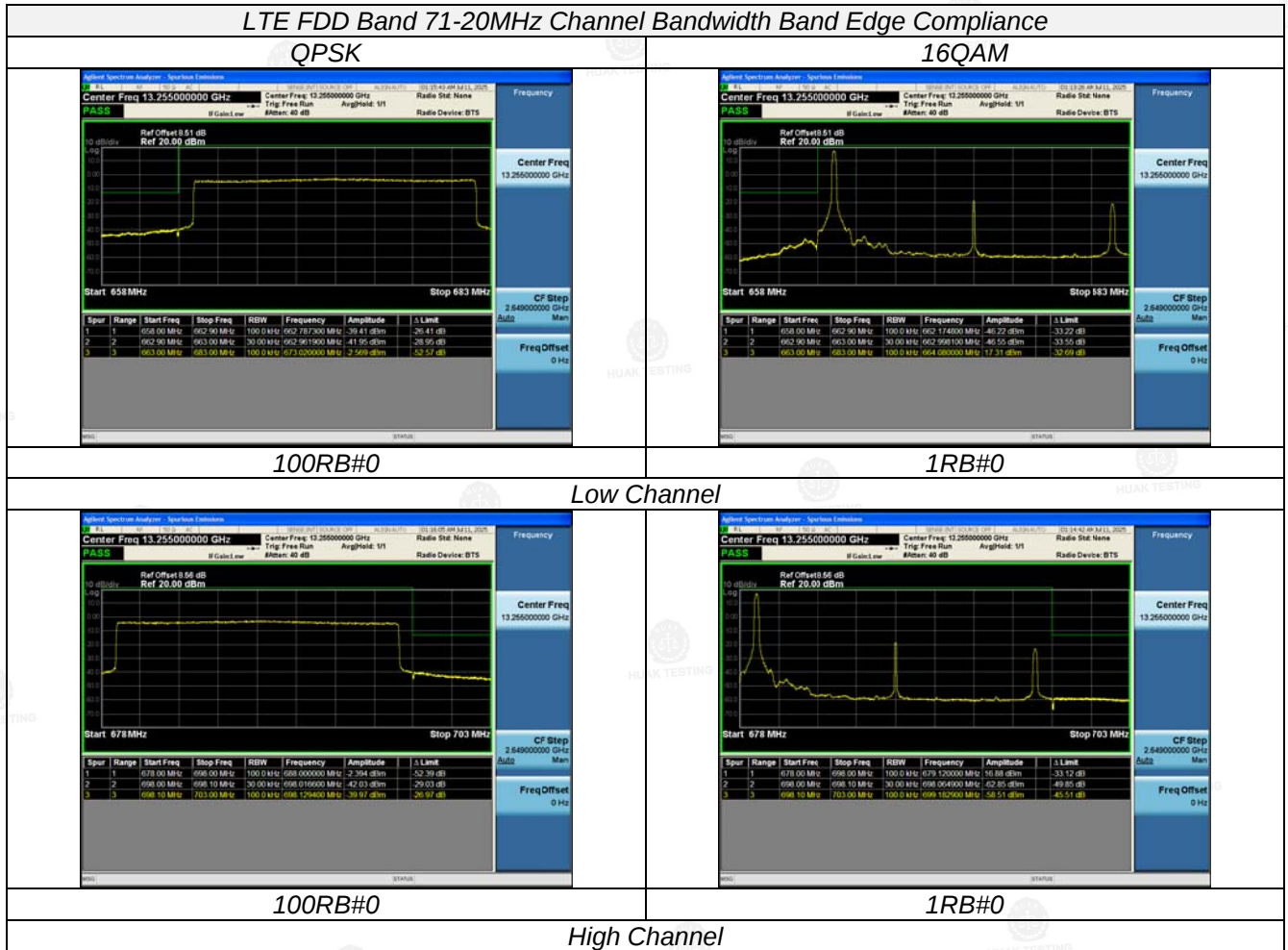
Low Channel



75RB#0

1RB#0

High Channel



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