SAR TEST REPORT

for

TCL Communication Ltd.

Tablet PC

Model No.: 8188G

Brand: TCL

FCC ID: 2ACCJB224

The MAX SAR(1g)	
Body SAR	1.20W/Kg

Maximum SAR Test distance: 13mm

Prepared for : TCL Communication Ltd.
5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong

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TESTING
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Testing Laboratory
1418

Report Number : ACS-SF24005
Date of Test : Jul.08~25, 2024
Date of Report : Jul.26, 2024

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SAR TEST REPORT

Applicant	:	TCL Communication Ltd.
Manufacturer	:	TCL Communication Ltd.
Product	:	Tablet PC
Model No.	:	8188G
Brand	:	TCL
Test Voltage	:	DC 3.85V

Measurement Standard Used:

- FCC 47 CFR Part 2 (2.1093)
- IEEE C95.1-1999
- IEC/IEEE 62209-1528: 2020
- IEC62209-1:2016
- IEC62209-2:2010
- IEEE1528-2013
- FCC OET Bulletin 65 Supplement C (Edition 01-01)
- FCC KDB 447498 D04 v01
- FCC KDB 865664 D01/D02
- FCC KDB 248227 D01 v02r02
- KDB 648474 D04
- KDB 941225 D05
- KDB 616217 D04 v01r02
- KDB 941225 D06 v02r01

The device described above is tested by Audix Technology (Shenzhen) Co., Ltd. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The test results are contained in this test report and Audix Technology (Shenzhen) Co., Ltd. is assumed full responsibility for the accuracy and completeness of test. This report contains data that are not covered by the NVLAP accreditation. Also, this report shows that the EUT is technically compliant with the FCC test requirement.

This report applies to single evaluation of one sample of above mentioned product. And shall not be reproduced in part without written approval of Audix Technology (Shenzhen) Co., Ltd..

Date of Test : Jul.08~25, 2024 Report of date: Jul.26, 2024

Prepared by : Jasmine Ning

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AUDIX 信華科技(深圳)有限公司 Audix Technology (Shenzhen) Co., Ltd. EMC 部門報告專用章 Stamp only for EMC Dept. Report

Approved & Authorized Signer : Signature:

Sunny Liu / Manager

REPORT REVISION HISTORY

Edition No.	Revision	Issue Date	Report No.
Original	Initial issue of report	Jul.26, 2024	ACS-SF24005

1. GENERAL INFORMATION

1.1.Description of Equipment Under Test

Applicant	TCL Communication Ltd.	
Applicant Address	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong	
Manufacturer	TCL Communication Ltd.	
Manufacturer Address	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong	
Product	Tablet PC	
Model No.	8188G	
Brand	TCL	
FCC ID	2ACCJB224	
IMEI	354037970000976	
Sample Type	PIO	
Date of Receipt	May.21, 2024	
Date of Test	Jul.08~25, 2024	
Operating Mode	GSM, WCDMA, LTE, WLAN, Bluetooth	
Frequency Range	GSM 850	824MHz~849MHz
	PCS 1900	1850MHz~1910MHz
	WCDMA Band 2	1852.4MHz~1907.6MHz
	WCDMA Band 4	1712.4MHz~1752.6MHz
	WCDMA Band 5	826.4MHz~846.6MHz
	LTE Band 2	1850.7MHz~1909.3MHz
	LTE Band 4	1710.7MHz~1754.3MHz
	LTE Band 5	824.7MHz~848.3MHz
	LTE Band 7	2502.5MHz~2567.5MHz
	LTE Band 12	699.7MHz~715.3MHz
	LTE Band 13	779.5MHz~784.5MHz
	LTE Band 17	706.5MHz~713.5MHz
	LTE Band 38	2572.5MHz~2617.5MHz
	LTE Band 41	2498.5MHz~2687.5MHz
	LTE Band 66	1710.7MHz~1779.3MHz
	802.11 b/g/n(HT20/HT40)	2412MHz~2462MHz
	802.11 a	5150 MHz~5250 MHz
	802.11n(HT20/HT40)	5250 MHz~5350MHz
	802.11ac(VHT20/ VHT40/ VHT80)	5470 MHz~5725 MHz
		5725 MHz~5850 MHz
	Bluetooth	2402 MHz~2480 MHz

2. GENERAL DESCRIPTION

2.1.Product Description For EUT

Please refer to section 1.1

2.2.Applied Standards

The Specific Absorption Rate (SAR) testing specification, method and procedure for this device is in accordance with the following standards:

- FCC 47 CFR Part 2 (2.1093)
- IEEE C95.1-1999
- IEC/IEEE 62209-1528: 2020
- IEC62209-1:2016
- IEC62209-2:2010
- IEEE1528-2013
- FCC OET Bulletin 65 Supplement C (Edition 01-01)
- FCC KDB 447498 D01 v06
- FCC KDB 447498 D04 v01
- FCC KDB 865664 D01/D02
- FCC KDB 248227 D01 v02r02
- KDB 616217 D04 v01r02
- KDB 941225 D06 v02r01

2.3.Device Category and SAR Limits

This device belongs to portable device category because its radiating structure is allowed to be used within 20 centimeters of the body of the user. Limit for General Population/Uncontrolled exposure should be applied for this device, it is 1.6 W/kg as averaged over any 1 gram of tissue.

2.4.Test Conditions

2.4.1. Ambient Condition

Ambient Temperature	20 to 24 ℃
Humidity	< 60 %

2.4.2. Test Configuration

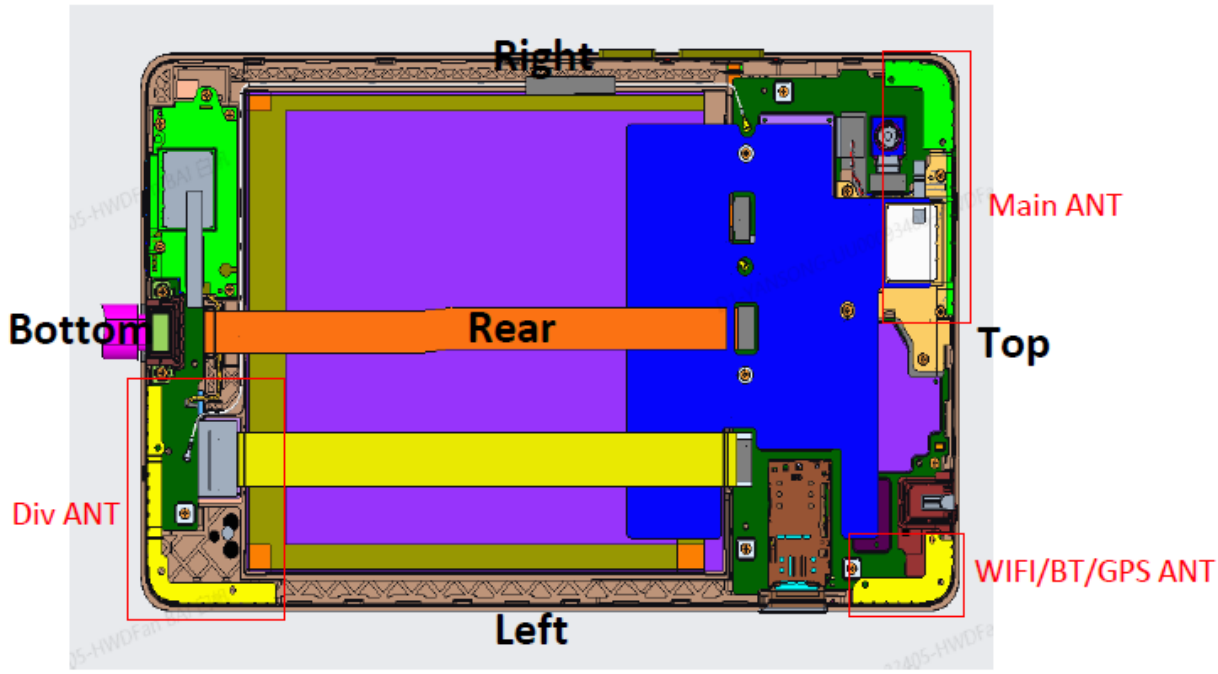
The distance between the EUT and the antenna of the emulator is larger than 50 cm and the output power radiated from the emulator antenna is at least 30dB smaller than the output power of EUT. The EUT was set from the emulator to radiate maximum output power during all tests.

2.4.3 Sensor Detect Distance of EUT

ANT	P-Sensor Detect	Near	Far
Main Antenna	Front	<=10mm	>10mm
	Right	<=14mm	>14mm
	Top	<=15mm	>15mm
	Rear	<=15mm	>15mm

ANT	P-Sensor Detect	Near	Far
WIFI ANT	Front	<=14mm	>14mm
	Left	<=14mm	>14mm
	Top	<=14mm	>14mm
	Rear	<=14mm	>14mm

2.5.Exposure Positions Consideration



Test Distance for SAR tests							
Band		Distance(mm)					
		Back	Front	Top	Bottom	Left	Right
BT	sensor off	0	X	0	X	0	X
WLAN	sensor on	0	X	0	X	0	X
	sensor off	13	X	13	X	13	X
WWAN	sensor on	0	X	0	X	X	0
	sensor off	14	X	14	X	X	13

Test Sides for SAR tests						
Band	Body					
	Back	Front	Top	Bottom	Left	Right
BT	✓	X	✓	X	✓	X
WLAN	✓	X	✓	X	✓	X
WWAN	✓	X	✓	X	X	✓

Note:

1. **The side which has a distance larger than 2.5cm from antenna can be excluded from SAR measurement.**

2.6.Standalone SAR Test Exclusion Considerations

Standalone 1-g head or body SAR evaluation by measurement or numerical simulation is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied. The 1-g SAR test exclusion threshold for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] ·[√f(GHz)] ≤ 3.0 for 1-g SAR, where

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

According to the KDB447498 appendix A, the SAR test exclusion threshold listed as below

Table B.2—Example Power Thresholds (mW)

Frequency (MHz)	Distance (mm)										
	5	10	15	20	25	30	35	40	45	50
300	39	65	88	110	129	148	166	184	201	217
450	22	44	67	89	112	135	158	180	203	226
835	9	25	44	66	90	116	145	175	207	240
1900	3	12	26	44	66	92	122	157	195	236
2450	3	10	22	38	59	83	111	143	179	219
3600	2	8	18	32	49	71	96	125	158	195
5800	1	6	14	25	40	58	80	106	136	169

2.7.Block Diagram of connection between EUT and simulators

EUT

(EUT: Tablet PC)

2.8.Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Due Date	Calibration Body
1.	DASY5 SAR Test System	Speag	TX60 L speag	F09/5B1H1/01	NCR	NCR	N/A
2.	ENA SERIES NETWORK ANALYZER	Agilent	E5071C	MY46316760	2023.09.15	2024.09.14	CCIC
3.	Power Meter	Anritsu	ML2487A	6K00003262	2024.06.19	2025.06.18	CCIC
4.	Power Sensor	Anritsu	MA2491A	032516	2024.06.19	2025.06.18	CCIC
5.	Signal Generator	Rohde&Schwarz	SMB100A	181375	2024.03.16	2025.03.15	CCIC
6.	Amplifier	Milmega	ZHL-42W	C620601316	NCR	NCR	N/A
7.	Dipole Validation Kits	Speag	D750V3	1159	2022.06.06	2025.06.05	CCTL
8.	Dipole Validation Kits	Speag	D900V2	1d088	2023.05.23	2026.05.22	CCTL
9.	Dipole Validation Kits	Speag	D1800V2	2d186	2023.05.23	2026.05.22	CCTL
10.	Dipole Validation Kits	Speag	D2000V2	1055	2023.05.24	2026.05.23	CCTL
11.	Dipole Validation Kits	Speag	D2300V2	1040	2023.02.01	2026.01.31	CCTL
12.	Dipole Validation Kits	Speag	D2450V2	862	2023.05.18	2026.05.17	CCTL
13.	Dipole Validation Kits	Speag	D2600V2	1123	2022.06.14	2025.06.13	CCTL
14.	Dipole Validation Kits	Speag	D5GHzV2	1102	2023.05.19	2026.05.18	CCTL
15.	Attenuator	N/A	1527	001	2023.09.15	2024.09.14	CCIC
16.	Date Acquisition Electronics	Speag	DAE4	899	2024.06.06	2025.06.05	CCTL
17.	E-Field Probe	Speag	EX3DV4	3809	2023.09.18	2024.09.17	CCTL
18.	Test Software	Schmid&Partner Englinnering AG	DASY5	52.8.7.1137	NCR	NCR	NCR
19.	Radio Communication Analyzer	Anritsu	MT8821C	6201547828	2024.03.16	2025.03.15	CCIC
20.	Radio Communication Analyzer	Rohde & Schwarz	CMW500	103249	2023.09.15	2024.09.14	CCIC

Note 1: Calibration Method

a): Calibration conducted by the National Institute of Information and Communications Technology～ NICT～ or a designated calibration agency under Article 102-18 paragraph (1)～ TELEC Engeneering Center, Intertek Japan K.K., Keysight Technologies, Inc～.

b): Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992)～Japan Calibration Service Syste～

c): Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1)～ TELEC Engeneering Center, Intertek Japan K.K., Keysight Technologies, Inc～.

d): Calibration conducted by using other equipment that listed above from a) to c)

Note 2: CCIC (Shenzhen) Metrology & Testing Service Co., Ltd

Addr : ShengHui Hongxing Chuangzhi Square, Tongren Road, Tianliao Community, Yutang Street, Guangming District, Shenzhen

2.9.Laboratory Environment

Temperature	Min:20℃,Max.25℃
Relative humidity	Min. = 45%, Max. = 70%
Note: Ambient noise is checked and found very low and in compliance with requirement of standards.	

2.10.Measurement Uncertainty

Test Item	Uncertainty
Uncertainty for SAR test	1g: ±21.2
	10g: ±20.7
Uncertainty for test site temperature and humidity	±0.6℃

Source	Type	Uncertainly Value (%)	Probability Distribution	K	C1(1g)	C1(10g)	Standard uncertainty uI(%)1g	Standard uncertainty uI(%)10g	Degree of freedom Veff or Vi
Measurement system repetivity	A	0.5	N	1		1	0.5	0.5	9
Probe calibration	B	5.9	N	1	1	1	5.9	5.9	∞
Isotropy	B	4.7	R	√3	1	1	2.7	2.7	∞
Linearity	B	4.7	R	√3	1	1	2.7	2.7	∞
Probe modulation response	B	0	R	√3	1	1	0	0	∞
Detection limits	B	1.0	R	√3	1	1	0.6	0.6	∞
Boundary effect	B	1.9	R	√3	1	1	1.1	1.1	∞
Readout electronics	B	1.0	N	1	1	1	1.0	1.0	∞
Response time	B	0	R	√3	1	1	0	0	∞
Integration time	B	4.32	R	√3	1	1	2.5	2.5	∞
RF ambient conditions – noise	B	0	R	√3	1	1	0	0	∞
RF ambient conditions – reflections	B	3	R	√3	1	1	1.73	1.73	∞
Probe positioner mech. restrictions	B	0.4	R	√3	1	1	0.2	0.2	∞
Probe positioning with respect to phantom shell	B	2.9	R	√3	1	1	1.7	1.7	∞
Post-processing	B	0	R	√3	1	1	0	0	∞
Test sample related									
Device holder uncertainty	A	2.94	N	1	1	1	2.94	2.94	M-1
Test sample positioning	A	4.1	N	1	1	1	4.1	4.1	M-1
Power scaling	B	5.0	R	√3	1	1	2.9	2.9	∞
Drift of output power (measured SAR drift)	B	5.0	R	√3	1	1	2.9	2.9	∞
Phantom and set-up									
Phantom uncertainty (shape and thickness tolerances)	B	4.0	R	√3	1	1	2.3	2.1	∞
Algorithm for correcting SAR for deviations in permittivity and conductivity	B	1.9	N	1	1	0,84	1,9	1,6	∞
Liquid conductivity (meas.)	A	0.55	N	1	0.78	0.71	0.24	0.21	M-1
Liquid permittivity (meas.)	A	0.19	N	1	0.23	0.26	0.09	0.06	M
Liquid permittivity – temperature uncertainty	A	5.0	R	√3	0,78	0,71	1.4	1.1	∞
Liquid conductivity – temperature uncertainty	A	5.0	R	√3	0.23	0,26	1.2	0.8	∞
Combined standard uncertainty	$u_c' = \sqrt{\sum_{i=1}^{23} c_i^2 u_i^2}$						10.57	10.32	
Expanded uncertainty (95 % conf. interval)	$u_e = 2u_c$		N		K=2		21.14	20.64	

3. STATEMENT OF COMPLIANCE

The maximum results of Specific Absorption Rate (SAR) found during testing for TCL Communications Ltd. Tablet PC 8188G are as follows:

Highest Reported SAR (1g)

Band	1g SAR (W/kg)
	Body
GSM 850	1.12
PCS 1900	0.85
WCDMA Band 2	1.00
WCDMA Band 4	0.89
WCDMA Band 5	0.97
LTE Band 2	1.00
LTE Band 4	1.18
LTE Band 5	1.06
LTE Band 7	1.18
LTE Band 12	1.05
LTE Band 13	0.86
LTE Band 17	0.92
LTE Band 38	1.18
LTE Band 41	1.01
LTE Band 66	1.10
Bluetooth	0.40
WLAN 2.4GHz	0.80
WLAN 5GHz	**1.20**

The maximum SAR value of body value is 1.20W/kg (1g).

The SAR valves found for the EUT are below the maximum recommended levels as averaged over any 1g tissue according to the ANSl C95.1:1992

Maximum Simultaneous Transmission SAR

/	Position	SUM(W/Kg)
Highest reported SAR value for Body	Top Side 0mm (WLAN 5GHz+Bluetooth+WCDMA Band2)	1.58

Note: The test position of above tables are for the worse case that has been evaluated.

4. MEASURE PROCEDURES

4.1.General description of test procedures

For the 802.11b/g SAR body tests, a communication link is set up with the test mode software for WIFI mode test. During the test, at the each test frequency channel, the EUT is operated at the RF continuous emission mode. Each channel should be tested at the lowest data rate. Testing at higher data rates is not required when the maximum average output power is less than 0.25dB higher than those measured at the lowest data rate.SAR is not required for 802.11g channels when the maximum average output power is less than 0.25dB higher than that measured on the corresponding 802.11b channels. The same test procedure for 802.11a/n/ac mode

a communication link is establish and Low, Middle, High channel at the necessary position was tested for GSM,UMTS and E-UTRA mode.

5. SAR MEASUREMENTS SYSTEM

5.1.SAR Measurement Set-up

DASY5 system for performing compliance tests consists of the following items:

(1) A standard high precision 6-axis robot (Stäubli RX family) with controller and software. An arm extension for accommodating the data acquisition electronics (DAE).

(2) A dosimetric probe, i.e. an isotropic E-field probe optimized and calibrated for usage It issue simulating liquid. The probe is equipped with an optical surface detector system.

(3) A data acquisition electronic (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.

(4) A unit to operate the optical surface detector which is connected to the EOC.

(5) The Electro-Optical Coupler (EOC) performs the conversion from the optical into a digital electric signal of the DAE. The EOC is connected to the DASY5 measurement server.

(6) The DASY5 measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation. A computer operating Windows 2003.

(7) DASY5 software and SEMCAD data evaluation software.

(8) Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.

(9) The generic twin phantom enabling the testing of left-hand and right-hand usage.

(10) The device holder for handheld mobile phones.

(11) Tissue simulating liquid mixed according to the given recipes.

(12) System validation dipoles allowing to validate the proper functioning of the system.

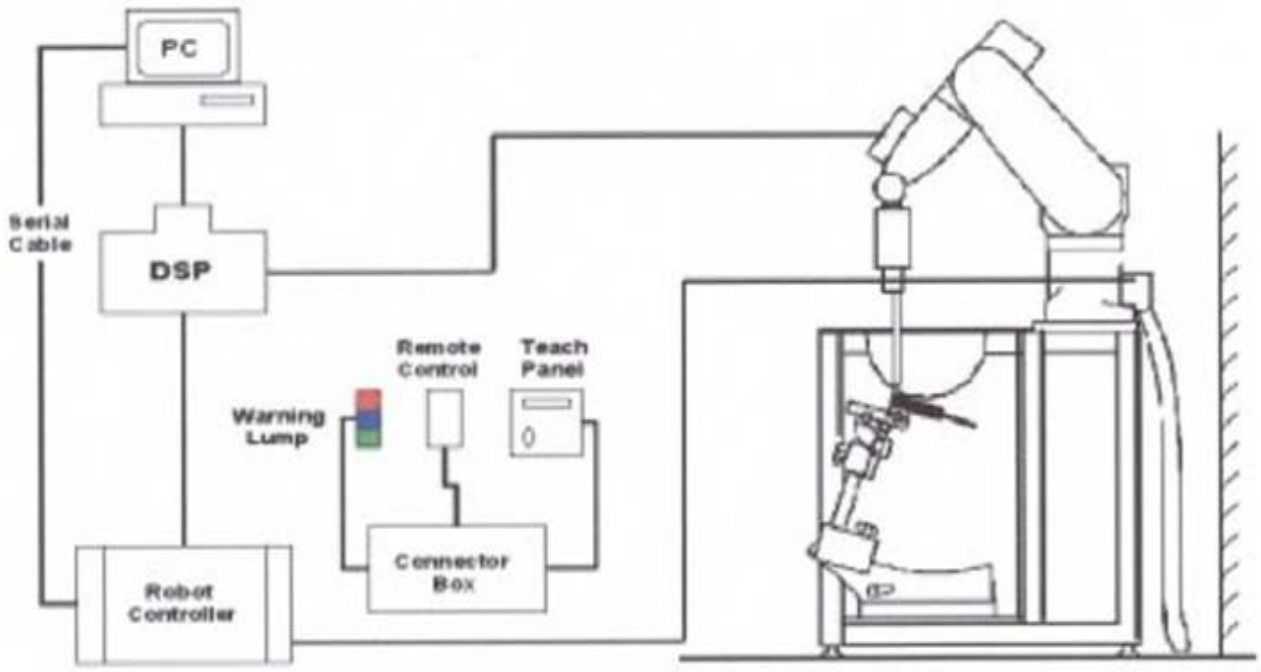


Figure 4.1 SAR Lab Test Measurement Set-up

5.2.ELI Phantom

Phantom for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI is fully compatible with the IEC 62209-2 standard and all known tissue simulating liquids. ELI has been optimized regarding its performance and can be integrated into our standard phantom tables. A cover prevents evaporation of the liquid. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points. The phantom is compatible with all SPEAG dosimetric probes and dipoles.

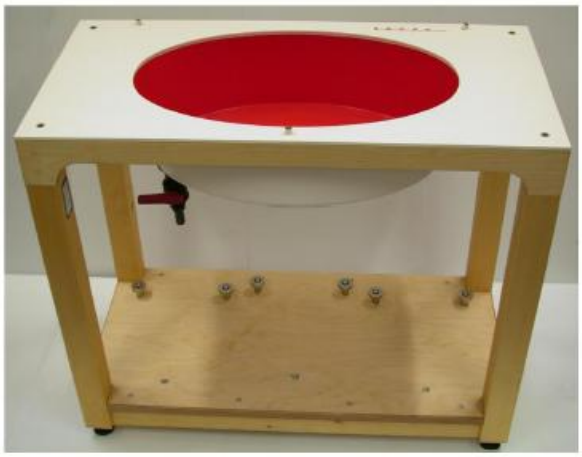


Figure 4.2 Top View of Twin Phantom

Material	Vinylester, glass fiber reinforced (VE-GF)
Liquid Compatibility	Compatible with all SPEAG tissue simulating liquids (incl. DGBE type)
Shell Thickness	2.0 ± 0.2 mm (bottom plate)
Dimensions	Major axis: 600 mm Minor axis: 400 mm
Filling Volume	approx. 30 liters
Wooden Support	SPEAG standard phantom table

The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters.
On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.
The phantom can be used with the following tissue simulating liquids:

*Water-sugar based liquid
*Glycol based liquids

5.3.Device Holder for SAM Twin Phantom

The SAR in the Phantom is approximately inversely proportional to the square of the distance between the source and the liquid surface. For a source in 5 mm distance, a positioning uncertainty of ±0.5mm would produce a SAR uncertainty of ± 20%. An accurate device position is therefore crucial for accurate and repeatable measurement. The position in which the devices must be measured, are defined by the standards.

The DASY5 device holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation centers for both scales is the ear reference point (EPR).

Thus the device needs no repositioning when changing the angles.

The DASY5 device holder has been made out of low-loss POM material having the following dielectric parameters: relative permittivity ε_r=3 and loss tangent□ □δ = 0.02. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.

Figure 4.3 Device Holder

5.4.DASY5 E-field Probe System

The SAR measurements were conducted with the dosimetric probe EX3DV4 (manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation.

Figure 4.4 EX3DV4 E-field Probe

5.4.1. EX3DV4 Probe Specification

Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibration service available
Frequency	10 MHz to > 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)
Dynamic Range	10 µW/g to > 100 mW/g Linearity: ± 0.2dB (noise: typically < 1 µW/g)
Dimensions	Overall length: PRS-T2 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%.

5.5.E-field Probe Calibration

Each probe is calibrated according to a dosimetric assessment procedure with accuracy better than ±10%. The spherical isotropy was evaluated and found to be better than ± 0.25dB. The sensitivity parameters (Norm X, Norm Y, Norm Z), the diode compression parameter (DCP) and the conversion factor (Conv F) of the probe are tested.

The free space E-field from amplified probe outputs is determined in a test chamber. This is performed in a TEM cell for frequencies bellow 1 GHz, and in a wave guide above 1 GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity and at the proper orientation with the field. The probe is then rotated 360 degrees.

E-field temperature correlation calibration is performed in a flat phantom filled with the appropriate simulated brain tissue. The measured free space E-field in the medium correlates to temperature rise in a dielectric medium. For temperature correlation calibration a RF transparent thermistor-based temperature probe is used in conjunction with the E-field probe.

$$SAR = C\frac{\Delta T}{\Delta t}$$

Where: Δt = Exposure time (30 seconds),
C = Heat capacity of tissue (brain or muscle),
ΔT = Temperature increase due to RF exposure.
Or

$$SAR = \frac{|E|^2 \sigma}{\rho}$$

Where:
σ = Simulated tissue conductivity,
ρ = Tissue density (kg/m3).

5.6.Scanning procedure

The DASY5 installation includes predefined files with recommended procedures for measurements and validation. They are read-only document files and destined as fully defined but unmeasured masks. All test positions (head or body-worn) are tested with the same configuration of test steps differing only in the grid definition for the different test positions.

The ”reference“ and ”drift“ measurements are located at the beginning and end of the batch process. They measure the field drift at one single point in the liquid over the complete procedure. The indicated drift is mainly the variation of the EUT’s output power and should vary max. ± 5 %.

The ”surface check“ measurement tests the optical surface detection system of the DASY5 system by repeatedly detecting the surface with the optical and mechanical surface detector and comparing the results. The output gives the detecting heights of both systems, the difference between the two systems and the standard deviation of the detection repeatability. Air bubbles or refraction in the liquid due to separation of the sugar-water mixture gives poor repeatability (above ± 0.1mm). To prevent wrong results tests are only executed when the liquid is free of air bubbles.

The difference between the optical surface detection and the actual surface depends on the Probe and is specified with each probe. (It does not depend on the surface reflectivity or the probe angle to the surface within ± 30°.)

Area Scan

The Area Scan is used as a fast scan in two dimensions to find the area of high field values before running a detailed measurement around the hot spot. Before starting the area scan a grid spacing of 15 mm x 15 mm is set. During the scan the distance of the probe to the phantom remains unchanged.

After finishing area scan, the field maxima within a range of 2 dB will be ascertained.

Zoom Scan

Zoom Scans are used to estimate the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g of simulated tissue. The default Zoom Scan is done by 7x7x7 points within a cube whose base is centered around the maxima found in the preceding area scan.

Spatial Peak Detection

The procedure for spatial peak SAR evaluation has been implemented and can determine values of masses of 1g and 10g, as well as for user-specific masses. The DASY5 system allows evaluations that combine measured data and robot positions, such as:

· maximum search

· extrapolation

· boundary correction

· peak search for averaged SAR

During a maximum search, global and local maxima searches are automatically performed in 2-D after each Area Scan measurement with at least 6 measurement points. It is based on the evaluation of the local SAR gradient calculated by the Quadratic Shepard's method. The algorithm will find the global maximum and all local maxima within -2 dB of the global maxima for all SAR distributions.

Extrapolation routines are used to obtain SAR values between the lowest measurement points and the inner phantom surface. The extrapolation distance is determined by the surface detection distance and the probe sensor offset. Several measurements at different distances are necessary for the extrapolation. Extrapolation routines require at least 10 measurement points in 3-D space. They are used in the Zoom Scan to obtain SAR values between the lowest measurement points and the inner phantom surface. The routine uses the modified Quadratic Sheppard's method for extrapolation. For a grid using 7x7x7 measurement points with 5mm resolution amounting to 343 measurement points, the uncertainty of the extrapolation routines is less than 1% for 1g and 10g cubes.

A Z-axis scan measures the total SAR value at the x-and y-position of the maximum SAR value found during the cube 7x7x7 scan. The probe is moved away in z-direction from the bottom of the SAM phantom in 5mm steps.

6. DATA STORAGE AND EVALUATION

6.1.Data Storage

The DASY5 software stores the acquired data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors), together with all necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files with the extension ".DA4". The software evaluates the desired unit and format for output each time the data is visualized or exported. This allows verification of the complete software setup even after the measurement and allows correction of incorrect parameter settings. For example, if a measurement has been performed with a wrong crest factor parameter in the device setup, the parameter can be corrected afterwards and the data can be re-evaluated.

The measured data can be visualized or exported in different units or formats, depending on the selected probe type ([V/m], [A/m], [°C], [mW/g], [mW/cm²], [dBrel], etc.). Some of these units are not available in certain situations or show meaningless results, e.g., a SAR output in a lossless media will always be zero. Raw data can also be exported to perform the evaluation with other software packages.

6.2.Data Evaluation by SEMCAD

The SEMCAD software automatically executes the following procedures to calculate the field units from the microvolt readings at the probe connector. The parameters used in the evaluation are stored in the configuration modules of the software:

Probe parameters: - Sensitivity Normi, ai0, ai1, ai2
- Conversion factor ConvFi
- Diode compression point Dcpi

Device parameters: - Frequency
- Crest factor cf

Media parameters: - Conductivity
- Density

These parameters must be set correctly in the software. They can be found in the component documents or they can be imported into the software from the configuration files issued for the DASY5 components. In the direct measuring mode of the millimeter option, the parameters of the actual system setup are used. In the scan visualization and export modes, the parameters stored in the corresponding document files are used. The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics.
If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power. The formula for each channel can be given as:

$$Vi = Ui + Ui2 \cdot c f / d c pi$$

With Vi = compensated signal of channel i (i = x, y, z)

Ui = input signal of channel i (i = x, y, z)

cf = crest factor of exciting field (DASY parameter)

dcpi = diode compression point (DASY parameter)

From the compensated input signals the primary field data for each channel can be evaluated:

E-field probes: Ei = (Vi / Normi · ConvF)1/2

H-field probes: Hi = (Vi)1/2 · (ai0 + ai1 f + ai2f2) / f

With Vi = compensated signal of channel i (i = x, y, z)

Normi = sensor sensitivity of channel i (i = x, y, z)

ConvF = sensitivity enhancement in solution

aij = sensor sensitivity factors for H-field probes

f = carrier frequency [GHz]

Ei = electric field strength of channel i in V/m

Hi = magnetic field strength of channel i in A/m

The RSS value of the field components gives the total field strength (Hermitian magnitude):

Etot = (Ex2+ EY2+ Ez2)1/2

The primary field data are used to calculate the derived field units.

$$SAR = E_{tot}^2 \cdot \frac{\sigma}{\rho \cdot 1000}$$

with

SAR = local specific absorption rate in mW/g

Etot = total field strength in V/m

= conductivity in [mho/m] or [Siemens/m]

= equivalent tissue density in g/cm3

Note that the density is normally set to 1 (or 1.06), to account for actual brain density rather than the density of the simulation liquid. The power flow density is calculated assuming the excitation field to be a free space field.

Ppwe = Etot2 / 3770 or Ppwe = Htot2 · 37.7

with Ppwe = equivalent power density of a plane wave in mW/cm2

Etot = total electric field strength in V/m

Htot = total magnetic field strength in A/m

7. SYSTEM CHECK

The manufacturer calibrates the probes annually. Dielectric parameters of the tissue simulates were measured every day using the dielectric probe kit and the network analyzer. A system check measurement was made following the determination of the dielectric parameters of the simulates, using the dipole validation kit. A power level of 250 mW was supplied to the dipole antenna, which was placed under the flat section of the twin SAM phantom. The system check results (dielectric parameters and SAR values) are given in the ANNEX A.

System check results have to be equal or near the values determined during dipole calibration with the relevant liquids and test system (±10 %).

System check is performed regularly on all frequency bands where tests are performed with the DASY5 system.

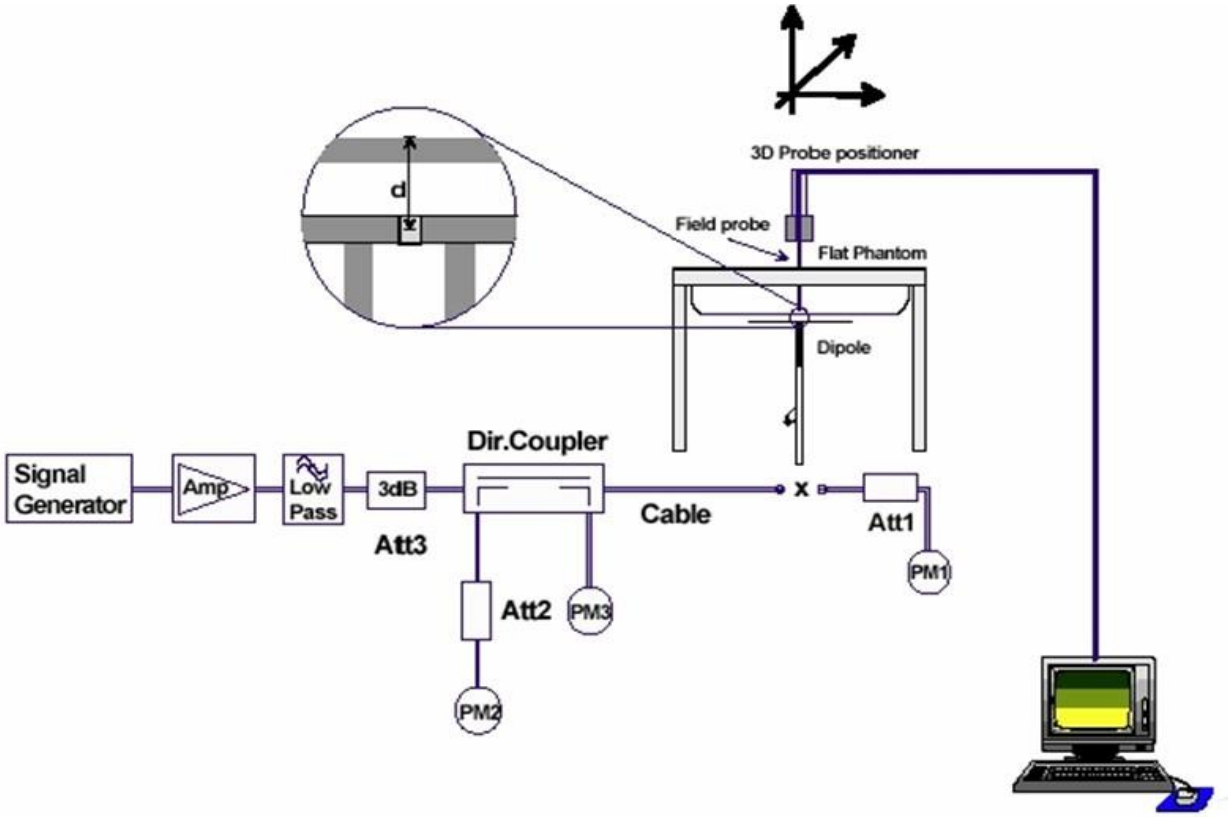


Figure 6.1: System Check Set-up

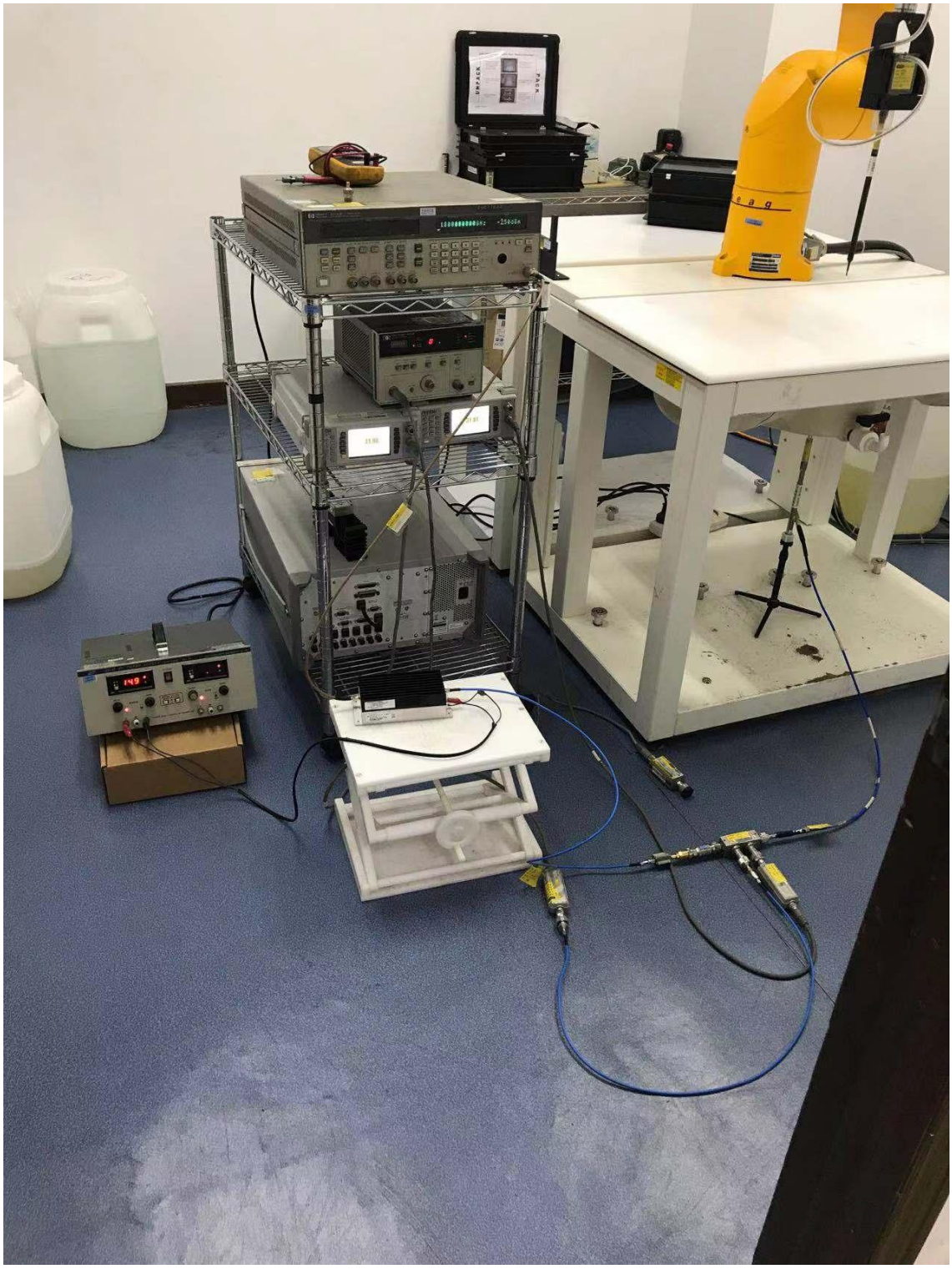


Figure 6.3: photos of system

8. TEST RESULTS

8.1.Output power

Sensor On Power Table

WIFI 2.4G Power Table					
Mode	Channel	power setting	Gain	power	Limit(dbm)
11b	CH1	14	1.92	11.69	20
	CH6		1.92	11.79	
	CH11		1.92	11.71	

WIFI Band1 Power Table					
Mode	Channel	power setting	Gain	power	Limit(dbm)
11a	CH36	11	0.58	7.92	23
	CH40		0.58	7.9	
	CH48		0.58	7.93	

WIFI Band2A Power Table					
Mode	Channel	power setting	Gain	power	Limit(dbm)
11a	CH52	11	0.58	7.69	20
	CH60		0.58	7.73	
	CH64		0.58	7.77	

WIFI Band2C Power Table					
Mode	Channel	power setting	Gain	power	Limit(dbm)
11a	CH100	11	0.58	7.91	20
	CH120		0.58	8.01	
	CH140		0.58	7.95	

WIFI Band3 Power Table					
Mode	Channel	power setting	Gain	power	Limit(dbm)
11a	CH149	11	0.58	8.12	20
	CH157		0.58	8.09	
	CH165		0.58	8.1	

BT3.0 Power Table(Sensor on)				
MODE	Channel	Power set	Peak output power(dbm)	Limit(dbm)
GFSK	CH0	9	5.244	21
	CH39	9	6.472	
	CH78	9	8.065	
8-DPSK	CH0	9	5.393	
	CH39	9	6.698	
	CH78	9	8.301	

FCC GPRS Power Table(Sensor on)							
GPRS850	Measured Power(dBm)			Calculation	Average Power（dBm）		
	128	190	251		128	190	251
2 Txslot	30.56	30.44	30.41	-6.02	24.54	24.42	24.39
GPRS1900	Measured Power(dBm)			Calculation	Average Power（dBm）		
	512	661	810		512	661	810
2 Txslot	16.11	16.08	16.09	-6.02	10.09	10.06	10.07

FCC WCDMA Power Table(Sensor on)						
Band	Simultaneous	Channel	Mode	Power (dBm)	CH	Power（dBm）
2	64	9538	RMC	15.12	9262	15.11
					9400	15.1
4	64	1312	RMC	13.06	1413	12.97
					1513	13.01
5	24	4132	RMC	18.14	4182	18.03
					4233	18.11

FCC LTE Power Table(Sensor on)						
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band2	20MHz	QPSK	18700	1RB#49	15.43	PASS
Band2	20MHz	QPSK	18900	1RB#49	15.6	PASS
Band2	20MHz	QPSK	19100	50RB mid	15.61	PASS
Band2	20MHz	QPSK	19100	1RB#49	15.66	PASS
Band2	20MHz	QPSK	19100	100RB	15.62	PASS
Band4	20MHz	QPSK	20050	1RB#49	13.66	PASS
Band4	20MHz	QPSK	20175	1RB#49	13.79	PASS
Band4	20MHz	QPSK	20300	50RB mid	13.61	PASS
Band4	20MHz	QPSK	20300	1RB#49	13.73	PASS
Band4	20MHz	QPSK	20300	100RB	13.64	PASS
Band5	10MHz	QPSK	20450	1RB#24	19.23	PASS
Band5	10MHz	QPSK	20525	1RB#24	19.25	PASS
Band5	10MHz	QPSK	20600	25RB mid	19.07	PASS
Band5	10MHz	QPSK	20600	1RB#24	19.33	PASS
Band5	10MHz	QPSK	20600	50RB	19.26	PASS
Band7	20MHz	QPSK	20850	1RB#49	13.03	PASS
Band7	20MHz	QPSK	21100	50RB mid	13.07	PASS
Band7	20MHz	QPSK	21100	1RB#49	13.11	PASS
Band7	20MHz	QPSK	21100	100RB	13.05	PASS
Band7	20MHz	QPSK	21350	1RB#49	13.01	PASS
Band12	10MHz	QPSK	23060	1RB#24	20.11	PASS
Band12	10MHz	QPSK	23095	25RB mid	20.12	PASS
Band12	10MHz	QPSK	23095	1RB#24	20.15	PASS
Band12	10MHz	QPSK	23095	50RB	20.07	PASS
Band12	10MHz	QPSK	23130	1RB#24	20.09	PASS
Band13	10MHz	QPSK	23230	25RB mid	19.11	PASS
Band13	10MHz	QPSK	23230	1RB#24	19.21	PASS
Band13	10MHz	QPSK	23230	50RB	18.98	PASS
Band17	10MHz	QPSK	23780	25RB mid	19.51	PASS
Band17	10MHz	QPSK	23780	1RB#24	19.56	PASS
Band17	10MHz	QPSK	23780	50RB	19.52	PASS
Band17	10MHz	QPSK	23790	1RB#24	19.49	PASS

Band17	10MHz	QPSK	23800	1RB#24	19.47	PASS
Band38	20MHz	QPSK	37850	50RB mid	15.08	PASS
Band38	20MHz	QPSK	37850	1RB#49	15.12	PASS
Band38	20MHz	QPSK	37850	100RB	15.07	PASS
Band38	20MHz	QPSK	38000	1RB#49	15.1	PASS
Band38	20MHz	QPSK	38150	1RB#49	15.11	PASS
Band41	20MHz	QPSK	39750	50RB mid	13.65	PASS
Band41	20MHz	QPSK	39750	1RB#49	13.67	PASS
Band41	20MHz	QPSK	39750	100RB	13.63	PASS
Band41	20MHz	QPSK	40620	1RB#49	13.55	PASS
Band41	20MHz	QPSK	41490	1RB#49	13.61	PASS
Band66	20MHz	QPSK	132072	1RB#0	13.21	PASS
Band66	20MHz	QPSK	132072	50RB mid	13.18	PASS
Band66	20MHz	QPSK	132072	100RB	13.17	PASS
Band66	20MHz	QPSK	132322	1RB#0	13.18	PASS
Band66	20MHz	QPSK	132572	1RB#0	13.16	PASS

Sensor Off Power Table

WIFI 2.4G Power Table					
Mode	Channel	power setting	duty cycle factor	Antenna Power (dBm)	Limit(dbm)
11b	CH1	18.5	0.00	15.88	30
	CH6		0.00	15.97	
	CH11		0.00	15.51	
11g	CH1	19	0.11	15.98	
	CH6		0.11	16.07	
	CH11		0.11	15.62	
11n HT20	CH1	18	0.09	14.85	
	CH6		0.09	15.04	
	CH11		0.09	14.51	
11n HT40	CH3	16.5	0.23	14.15	
	CH6		0.23	14.06	
	CH9		0.23	13.58	

WIFI Band1 Power Table					
Mode	Channel	power setting	duty cycle factor	Antenna Power (dBm)	Limit (dbm)
11a	CH36	17	0.08	14.29	23.98
	CH40		0.08	14.44	
	CH48		0.08	14.73	
11n HT20	CH36	17	0.11	14.13	
	CH40		0.11	14.23	
	CH48		0.11	14.48	
11n HT40	CH38	15	0.23	11.81	
	CH46		0.23	11.85	
11ac VHT20	CH36	15	0.12	11.72	
	CH40		0.12	11.69	
	CH48		0.12	11.99	
11ac VHT40	CH38	17	0.22	13.34	
	CH46		0.22	13.57	
11ac VHT80	CH42	17	0.50	13.47	

WIFI Band2A Power Table					
Mode	Channel	power setting	duty cycle factor	Antenna Power (dBm)	Limit (dbm)
11a	CH52	17	0.12	14.71	23.98
	CH60		0.12	14.80	
	CH64		0.12	14.94	
11n HT20	CH52	17	0.11	14.51	
	CH60		0.11	14.59	
	CH64		0.11	14.70	
11n HT40	CH54	15	0.22	11.88	
	CH62		0.22	12.00	
11ac VHT20	CH52	15	0.10	11.94	
	CH60		0.10	11.97	
	CH64		0.10	12.02	
11ac VHT40	CH54	17	0.21	13.53	
	CH62		0.21	13.66	
11ac VHT80	CH58	17	0.46	13.56	

WIFI Band2C Power Table					
Mode	Channel	power setting	duty cycle factor	Antenna Power (dBm)	Limit (dbm)
11a	CH100	17	0.12	14.80	23.98
	CH120		0.12	15.06	
	CH144		0.12	14.86	
11n HT20	CH100	17	0.11	14.62	
	CH120		0.11	14.91	
	CH144		0.11	14.71	
11n HT40	CH102	15	0.23	11.86	
	CH118		0.23	12.09	
	CH142		0.23	11.94	
11ac VHT20	CH100	15	0.12	11.89	
	CH120		0.12	11.84	
	CH144		0.12	11.89	
11ac VHT40	CH102	17	0.21	14.61	
	CH118		0.21	14.54	
	CH142		0.21	14.39	
11ac VHT80	CH155	17	0.47	14.72	
	CH122		0.47	14.64	
	CH138		0.47	14.49	

WIFI Band3 Power Table					
Mode	Channel	power setting	duty cycle factor	Antenna Power (dBm)	Limit (dbm)
11a	CH149	17	0.10	14.84	30
	CH157		0.10	14.64	
	CH165		0.10	14.79	
11n HT20	CH149	17	0.11	14.75	
	CH157		0.11	14.50	
	CH165		0.11	14.60	
11n HT40	CH151	15	0.23	11.97	
	CH159		0.23	11.95	
11ac VHT20	CH149	15	0.11	11.87	
	CH157		0.11	11.84	
	CH165		0.11	11.78	
11ac VHT40	CH151	15	0.23	11.91	
	CH159		0.23	11.99	
11ac VHT80	CH155	15	0.44	11.99	

BT3.0 Power Table				
MODE	Channel	Power set	Peak output power(dbm)	Limit (dbm)
GFSK	CH0	9	5.244	21
	CH39	9	6.472	
	CH78	9	8.065	
8-DPSK	CH0	9	5.393	
	CH39	9	6.698	
	CH78	9	8.301	

BLE 1M				
Mode	Channel	Power set	Peak output power(dbm)	Limit (dbm)
BLE	CH0	7	1.248	30
	CH19	7	2.320	
	CH39	7	3.358	

BLE 2M				
Mode	Channel	Power set	Peak output power(dbm)	Limit (dbm)
BLE	CH1	7	1.606	30
	CH19	7	2.358	
	CH38	7	3.442	

Band	Channel	ERP/EIRP(dBm)	Limit(dBm)	Verdict
GSM1900	512	29.01	33	PASS
GSM1900	661	28.85	33	PASS
GSM1900	810	28.86	33	PASS
GSM850	128	32.58	38.45	PASS
GSM850	190	32.52	38.45	PASS
GSM850	251	32.43	38.45	PASS

Band	Channel	Up Slot Num	Power(dBm)	Limit(dBm)	Verdict
GPRS1900	512	1	29.01	33	PASS
GPRS1900	512	2	28.09	33	PASS
GPRS1900	512	3	25.83	33	PASS
GPRS1900	512	4	24.44	33	PASS
GPRS1900	661	1	28.78	33	PASS
GPRS1900	661	2	27.97	33	PASS
GPRS1900	661	3	25.83	33	PASS
GPRS1900	661	4	24.49	33	PASS
GPRS1900	810	1	28.78	33	PASS
GPRS1900	810	2	28.05	33	PASS
GPRS1900	810	3	26.01	33	PASS
GPRS1900	810	4	24.71	33	PASS
GPRS850	128	1	32.58	38.45	PASS
GPRS850	128	2	31.69	38.45	PASS
GPRS850	128	3	29.74	38.45	PASS
GPRS850	128	4	28.56	38.45	PASS
GPRS850	190	1	32.44	38.45	PASS
GPRS850	190	2	31.60	38.45	PASS
GPRS850	190	3	29.67	38.45	PASS
GPRS850	190	4	28.52	38.45	PASS
GPRS850	251	1	32.34	38.45	PASS
GPRS850	251	2	31.53	38.45	PASS
GPRS850	251	3	29.65	38.45	PASS
GPRS850	251	4	28.53	38.45	PASS

Band	Channel	Up Slot Num	Power(dBm)	Limit(dBm)	Verdict
EGPRS1900	512	1	24.48	33	PASS
EGPRS1900	512	2	23.08	33	PASS
EGPRS1900	512	3	20.71	33	PASS
EGPRS1900	512	4	19.10	33	PASS
EGPRS1900	661	1	24.63	33	PASS
EGPRS1900	661	2	23.33	33	PASS
EGPRS1900	661	3	21.03	33	PASS

EGPRS1900	661	4	19.58	33	PASS
EGPRS1900	810	1	25.37	33	PASS
EGPRS1900	810	2	24.27	33	PASS
EGPRS1900	810	3	21.94	33	PASS
EGPRS1900	810	4	20.46	33	PASS
EGPRS850	128	1	26.43	38.45	PASS
EGPRS850	128	2	25.13	38.45	PASS
EGPRS850	128	3	22.82	38.45	PASS
EGPRS850	128	4	21.45	38.45	PASS
EGPRS850	190	1	26.04	38.45	PASS
EGPRS850	190	2	24.95	38.45	PASS
EGPRS850	190	3	22.69	38.45	PASS
EGPRS850	190	4	21.28	38.45	PASS
EGPRS850	251	1	26.60	38.45	PASS
EGPRS850	251	2	25.44	38.45	PASS
EGPRS850	251	3	23.20	38.45	PASS
EGPRS850	251	4	21.77	38.45	PASS

Effective (Isotropic) Radiated Power (WCDMA)

Band	Channel	Power(dBm)	Limit(dBm)	Verdict
Band2	9262	21.39	33	PASS
Band2	9400	21.43	33	PASS
Band2	9538	21.47	33	PASS
Band4	1312	21.36	30	PASS
Band4	1413	21.11	30	PASS
Band4	1513	20.88	30	PASS
Band5	4132	22.34	38.45	PASS
Band5	4182	22.20	38.45	PASS
Band5	4233	22.29	38.45	PASS

Effective (Isotropic) Radiated Power (HSDPA)

Band	Channel	SubTest	Power(dBm)	Limit(dBm)	Verdict
Band2	9262	1	20.52	33	PASS
Band2	9400	1	20.55	33	PASS
Band2	9538	1	20.58	33	PASS
Band2	9262	2	20.06	33	PASS
Band2	9400	2	20.13	33	PASS
Band2	9538	2	20.07	33	PASS
Band2	9262	3	20.11	33	PASS
Band2	9400	3	20.18	33	PASS
Band2	9538	3	20.11	33	PASS
Band2	9262	4	20.08	33	PASS
Band2	9400	4	20.17	33	PASS
Band2	9538	4	20.26	33	PASS
Band4	1312	1	20.56	30	PASS
Band4	1413	1	20.12	30	PASS
Band4	1513	1	19.98	30	PASS
Band4	1312	2	20.15	30	PASS
Band4	1413	2	19.69	30	PASS
Band4	1513	2	19.48	30	PASS
Band4	1312	3	20.17	30	PASS
Band4	1413	3	19.71	30	PASS
Band4	1513	3	19.58	30	PASS
Band4	1312	4	20.23	30	PASS
Band4	1413	4	19.83	30	PASS
Band4	1513	4	19.58	30	PASS
Band5	4132	1	21.37	38.45	PASS
Band5	4182	1	21.20	38.45	PASS
Band5	4233	1	21.30	38.45	PASS

Band5	4132	2	20.80	38.45	PASS
Band5	4182	2	20.69	38.45	PASS
Band5	4233	2	20.74	38.45	PASS
Band5	4132	3	20.80	38.45	PASS
Band5	4182	3	20.65	38.45	PASS
Band5	4233	3	20.75	38.45	PASS
Band5	4132	4	20.77	38.45	PASS
Band5	4182	4	20.59	38.45	PASS
Band5	4233	4	20.70	38.45	PASS

Effective (Isotropic) Radiated Power (HSUPA)

Band	Channel	SubTest	Power(dBm)	Limit(dBm)	Verdict
Band2	9262	1	18.69	33	PASS
Band2	9400	1	18.80	33	PASS
Band2	9538	1	18.88	33	PASS
Band2	9262	2	18.65	33	PASS
Band2	9400	2	18.75	33	PASS
Band2	9538	2	18.85	33	PASS
Band2	9262	3	19.62	33	PASS
Band2	9400	3	19.74	33	PASS
Band2	9538	3	19.83	33	PASS
Band2	9262	4	18.21	33	PASS
Band2	9400	4	18.33	33	PASS
Band2	9538	4	18.41	33	PASS
Band2	9262	5	19.69	33	PASS
Band2	9400	5	19.77	33	PASS
Band2	9538	5	19.86	33	PASS
Band4	1312	1	18.68	30	PASS
Band4	1413	1	18.38	30	PASS
Band4	1513	1	18.25	30	PASS
Band4	1312	2	18.68	30	PASS
Band4	1413	2	18.36	30	PASS
Band4	1513	2	18.20	30	PASS
Band4	1312	3	19.69	30	PASS
Band4	1413	3	19.35	30	PASS
Band4	1513	3	19.17	30	PASS
Band4	1312	4	18.22	30	PASS
Band4	1413	4	17.94	30	PASS
Band4	1513	4	17.77	30	PASS

Band4	1312	5	19.73	30	PASS
Band4	1413	5	19.41	30	PASS
Band4	1513	5	19.20	30	PASS
Band5	4132	1	19.39	38.45	PASS
Band5	4182	1	19.25	38.45	PASS
Band5	4233	1	19.32	38.45	PASS
Band5	4132	2	19.40	38.45	PASS
Band5	4182	2	19.26	38.45	PASS
Band5	4233	2	19.35	38.45	PASS
Band5	4132	3	20.41	38.45	PASS
Band5	4182	3	20.25	38.45	PASS
Band5	4233	3	20.32	38.45	PASS
Band5	4132	4	18.91	38.45	PASS
Band5	4182	4	18.75	38.45	PASS
Band5	4233	4	18.83	38.45	PASS
Band5	4132	5	20.40	38.45	PASS
Band5	4182	5	20.26	38.45	PASS
Band5	4233	5	20.25	38.45	PASS

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band2	1.4MHz	QPSK	18607	1RB#0	22.11	PASS
Band2	1.4MHz	16QAM	18607	1RB#0	20.97	PASS
Band2	1.4MHz	QPSK	18607	1RB#2	22.27	PASS
Band2	1.4MHz	16QAM	18607	1RB#2	21.13	PASS
Band2	1.4MHz	QPSK	18607	1RB#5	22.12	PASS
Band2	1.4MHz	16QAM	18607	1RB#5	20.99	PASS
Band2	1.4MHz	QPSK	18607	3RB#0	22.18	PASS
Band2	1.4MHz	16QAM	18607	3RB#0	20.92	PASS
Band2	1.4MHz	QPSK	18607	3RB#1	22.20	PASS
Band2	1.4MHz	16QAM	18607	3RB#1	20.96	PASS
Band2	1.4MHz	QPSK	18607	3RB#3	22.19	PASS
Band2	1.4MHz	16QAM	18607	3RB#3	20.94	PASS
Band2	1.4MHz	QPSK	18607	6RB#0	21.20	PASS
Band2	1.4MHz	16QAM	18607	6RB#0	20.15	PASS
Band2	1.4MHz	QPSK	18900	1RB#0	22.34	PASS
Band2	1.4MHz	16QAM	18900	1RB#0	21.22	PASS
Band2	1.4MHz	QPSK	18900	1RB#2	22.37	PASS
Band2	1.4MHz	16QAM	18900	1RB#2	21.33	PASS
Band2	1.4MHz	QPSK	18900	1RB#5	22.30	PASS
Band2	1.4MHz	16QAM	18900	1RB#5	21.25	PASS
Band2	1.4MHz	QPSK	18900	3RB#0	22.42	PASS
Band2	1.4MHz	16QAM	18900	3RB#0	21.24	PASS
Band2	1.4MHz	QPSK	18900	3RB#1	22.41	PASS
Band2	1.4MHz	16QAM	18900	3RB#1	21.24	PASS
Band2	1.4MHz	QPSK	18900	3RB#3	22.40	PASS
Band2	1.4MHz	16QAM	18900	3RB#3	21.21	PASS
Band2	1.4MHz	QPSK	18900	6RB#0	21.33	PASS
Band2	1.4MHz	16QAM	18900	6RB#0	20.39	PASS
Band2	1.4MHz	QPSK	19193	1RB#0	22.40	PASS
Band2	1.4MHz	16QAM	19193	1RB#0	21.18	PASS
Band2	1.4MHz	QPSK	19193	1RB#2	22.55	PASS
Band2	1.4MHz	16QAM	19193	1RB#2	21.35	PASS
Band2	1.4MHz	QPSK	19193	1RB#5	22.43	PASS
Band2	1.4MHz	16QAM	19193	1RB#5	21.18	PASS
Band2	1.4MHz	QPSK	19193	3RB#0	22.38	PASS
Band2	1.4MHz	16QAM	19193	3RB#0	21.18	PASS
Band2	1.4MHz	QPSK	19193	3RB#1	22.41	PASS
Band2	1.4MHz	16QAM	19193	3RB#1	21.17	PASS
Band2	1.4MHz	QPSK	19193	3RB#3	22.36	PASS
Band2	1.4MHz	16QAM	19193	3RB#3	21.15	PASS
Band2	1.4MHz	QPSK	19193	6RB#0	21.47	PASS
Band2	1.4MHz	16QAM	19193	6RB#0	20.39	PASS

Band2	5MHz	QPSK	18625	1RB#0	22.06	PASS
Band2	5MHz	16QAM	18625	1RB#0	21.02	PASS
Band2	5MHz	QPSK	18625	1RB#12	22.35	PASS
Band2	5MHz	16QAM	18625	1RB#12	21.20	PASS
Band2	5MHz	QPSK	18625	1RB#24	22.17	PASS
Band2	5MHz	16QAM	18625	1RB#24	21.07	PASS
Band2	5MHz	QPSK	18625	12RB#0	21.16	PASS
Band2	5MHz	16QAM	18625	12RB#0	20.12	PASS
Band2	5MHz	QPSK	18625	12RB#6	21.15	PASS
Band2	5MHz	16QAM	18625	12RB#6	20.10	PASS
Band2	5MHz	QPSK	18625	12RB#13	21.17	PASS
Band2	5MHz	16QAM	18625	12RB#13	20.10	PASS
Band2	5MHz	QPSK	18625	25RB#0	21.18	PASS
Band2	5MHz	16QAM	18625	25RB#0	20.21	PASS
Band2	5MHz	QPSK	18900	1RB#0	22.25	PASS
Band2	5MHz	16QAM	18900	1RB#0	21.23	PASS
Band2	5MHz	QPSK	18900	1RB#12	22.47	PASS
Band2	5MHz	16QAM	18900	1RB#12	21.39	PASS
Band2	5MHz	QPSK	18900	1RB#24	22.36	PASS
Band2	5MHz	16QAM	18900	1RB#24	21.25	PASS
Band2	5MHz	QPSK	18900	12RB#0	21.28	PASS
Band2	5MHz	16QAM	18900	12RB#0	20.29	PASS
Band2	5MHz	QPSK	18900	12RB#6	21.34	PASS
Band2	5MHz	16QAM	18900	12RB#6	20.25	PASS
Band2	5MHz	QPSK	18900	12RB#13	21.38	PASS
Band2	5MHz	16QAM	18900	12RB#13	20.35	PASS
Band2	5MHz	QPSK	18900	25RB#0	21.35	PASS
Band2	5MHz	16QAM	18900	25RB#0	20.43	PASS
Band2	5MHz	QPSK	19175	1RB#0	22.43	PASS
Band2	5MHz	16QAM	19175	1RB#0	21.29	PASS
Band2	5MHz	QPSK	19175	1RB#12	22.47	PASS
Band2	5MHz	16QAM	19175	1RB#12	21.39	PASS
Band2	5MHz	QPSK	19175	1RB#24	22.38	PASS
Band2	5MHz	16QAM	19175	1RB#24	21.26	PASS
Band2	5MHz	QPSK	19175	12RB#0	21.34	PASS
Band2	5MHz	16QAM	19175	12RB#0	20.32	PASS
Band2	5MHz	QPSK	19175	12RB#6	21.38	PASS
Band2	5MHz	16QAM	19175	12RB#6	20.39	PASS
Band2	5MHz	QPSK	19175	12RB#13	21.40	PASS
Band2	5MHz	16QAM	19175	12RB#13	20.33	PASS
Band2	5MHz	QPSK	19175	25RB#0	21.41	PASS
Band2	5MHz	16QAM	19175	25RB#0	20.39	PASS
Band2	3MHz	QPSK	18615	1RB#0	22.15	PASS
Band2	3MHz	16QAM	18615	1RB#0	21.14	PASS
Band2	3MHz	QPSK	18615	1RB#8	22.17	PASS

Band2	3MHz	16QAM	18615	1RB#8	21.13	PASS
Band2	3MHz	QPSK	18615	1RB#14	22.15	PASS
Band2	3MHz	16QAM	18615	1RB#14	21.13	PASS
Band2	3MHz	QPSK	18615	8RB#0	21.14	PASS
Band2	3MHz	16QAM	18615	8RB#0	20.17	PASS
Band2	3MHz	QPSK	18615	8RB#4	21.16	PASS
Band2	3MHz	16QAM	18615	8RB#4	20.20	PASS
Band2	3MHz	QPSK	18615	8RB#7	21.18	PASS
Band2	3MHz	16QAM	18615	8RB#7	20.18	PASS
Band2	3MHz	QPSK	18615	15RB#0	21.11	PASS
Band2	3MHz	16QAM	18615	15RB#0	20.12	PASS
Band2	3MHz	QPSK	18900	1RB#0	22.31	PASS
Band2	3MHz	16QAM	18900	1RB#0	21.36	PASS
Band2	3MHz	QPSK	18900	1RB#8	22.36	PASS
Band2	3MHz	16QAM	18900	1RB#8	21.39	PASS
Band2	3MHz	QPSK	18900	1RB#14	22.35	PASS
Band2	3MHz	16QAM	18900	1RB#14	21.35	PASS
Band2	3MHz	QPSK	18900	8RB#0	21.32	PASS
Band2	3MHz	16QAM	18900	8RB#0	20.34	PASS
Band2	3MHz	QPSK	18900	8RB#4	21.32	PASS
Band2	3MHz	16QAM	18900	8RB#4	20.40	PASS
Band2	3MHz	QPSK	18900	8RB#7	21.38	PASS
Band2	3MHz	16QAM	18900	8RB#7	20.42	PASS
Band2	3MHz	QPSK	18900	15RB#0	21.35	PASS
Band2	3MHz	16QAM	18900	15RB#0	20.39	PASS
Band2	3MHz	QPSK	19185	1RB#0	22.46	PASS
Band2	3MHz	16QAM	19185	1RB#0	21.43	PASS
Band2	3MHz	QPSK	19185	1RB#8	22.43	PASS
Band2	3MHz	16QAM	19185	1RB#8	21.39	PASS
Band2	3MHz	QPSK	19185	1RB#14	22.39	PASS
Band2	3MHz	16QAM	19185	1RB#14	21.28	PASS
Band2	3MHz	QPSK	19185	8RB#0	21.47	PASS
Band2	3MHz	16QAM	19185	8RB#0	20.46	PASS
Band2	3MHz	QPSK	19185	8RB#4	21.46	PASS
Band2	3MHz	16QAM	19185	8RB#4	20.47	PASS
Band2	3MHz	QPSK	19185	8RB#7	21.38	PASS
Band2	3MHz	16QAM	19185	8RB#7	20.40	PASS
Band2	3MHz	QPSK	19185	15RB#0	21.41	PASS
Band2	3MHz	16QAM	19185	15RB#0	20.41	PASS
Band2	10MHz	QPSK	18650	1RB#0	22.16	PASS
Band2	10MHz	16QAM	18650	1RB#0	21.11	PASS
Band2	10MHz	QPSK	18650	1RB#24	22.42	PASS
Band2	10MHz	16QAM	18650	1RB#24	21.32	PASS
Band2	10MHz	QPSK	18650	1RB#49	22.18	PASS
Band2	10MHz	16QAM	18650	1RB#49	21.25	PASS

Band2	10MHz	QPSK	18650	25RB#0	21.25	PASS
Band2	10MHz	16QAM	18650	25RB#0	20.26	PASS
Band2	10MHz	QPSK	18650	25RB#12	21.23	PASS
Band2	10MHz	16QAM	18650	25RB#12	20.22	PASS
Band2	10MHz	QPSK	18650	25RB#25	21.27	PASS
Band2	10MHz	16QAM	18650	25RB#25	20.24	PASS
Band2	10MHz	QPSK	18650	50RB#0	21.19	PASS
Band2	10MHz	16QAM	18650	50RB#0	20.23	PASS
Band2	10MHz	QPSK	18900	1RB#0	22.20	PASS
Band2	10MHz	16QAM	18900	1RB#0	21.27	PASS
Band2	10MHz	QPSK	18900	1RB#24	22.40	PASS
Band2	10MHz	16QAM	18900	1RB#24	21.47	PASS
Band2	10MHz	QPSK	18900	1RB#49	22.33	PASS
Band2	10MHz	16QAM	18900	1RB#49	21.33	PASS
Band2	10MHz	QPSK	18900	25RB#0	21.30	PASS
Band2	10MHz	16QAM	18900	25RB#0	20.32	PASS
Band2	10MHz	QPSK	18900	25RB#12	21.31	PASS
Band2	10MHz	16QAM	18900	25RB#12	20.30	PASS
Band2	10MHz	QPSK	18900	25RB#25	21.45	PASS
Band2	10MHz	16QAM	18900	25RB#25	20.47	PASS
Band2	10MHz	QPSK	18900	50RB#0	21.33	PASS
Band2	10MHz	16QAM	18900	50RB#0	20.40	PASS
Band2	10MHz	QPSK	19150	1RB#0	22.28	PASS
Band2	10MHz	16QAM	19150	1RB#0	21.36	PASS
Band2	10MHz	QPSK	19150	1RB#24	22.53	PASS
Band2	10MHz	16QAM	19150	1RB#24	21.49	PASS
Band2	10MHz	QPSK	19150	1RB#49	22.36	PASS
Band2	10MHz	16QAM	19150	1RB#49	21.32	PASS
Band2	10MHz	QPSK	19150	25RB#0	21.42	PASS
Band2	10MHz	16QAM	19150	25RB#0	20.45	PASS
Band2	10MHz	QPSK	19150	25RB#12	21.42	PASS
Band2	10MHz	16QAM	19150	25RB#12	20.42	PASS
Band2	10MHz	QPSK	19150	25RB#25	21.48	PASS
Band2	10MHz	16QAM	19150	25RB#25	20.48	PASS
Band2	10MHz	QPSK	19150	50RB#0	21.40	PASS
Band2	10MHz	16QAM	19150	50RB#0	20.42	PASS
Band2	15MHz	QPSK	18675	1RB#0	22.09	PASS
Band2	15MHz	16QAM	18675	1RB#0	21.11	PASS
Band2	15MHz	QPSK	18675	1RB#38	22.27	PASS
Band2	15MHz	16QAM	18675	1RB#38	21.28	PASS
Band2	15MHz	QPSK	18675	1RB#74	22.05	PASS
Band2	15MHz	16QAM	18675	1RB#74	21.13	PASS
Band2	15MHz	QPSK	18675	38RB#0	21.29	PASS
Band2	15MHz	16QAM	18675	38RB#0	21.30	PASS
Band2	15MHz	QPSK	18675	38RB#18	21.32	PASS

Band2	15MHz	16QAM	18675	38RB#18	21.28	PASS
Band2	15MHz	QPSK	18675	38RB#37	21.27	PASS
Band2	15MHz	16QAM	18675	38RB#37	21.33	PASS
Band2	15MHz	QPSK	18675	75RB#0	21.33	PASS
Band2	15MHz	16QAM	18675	75RB#0	20.28	PASS
Band2	15MHz	QPSK	18900	1RB#0	22.12	PASS
Band2	15MHz	16QAM	18900	1RB#0	21.19	PASS
Band2	15MHz	QPSK	18900	1RB#38	22.38	PASS
Band2	15MHz	16QAM	18900	1RB#38	21.44	PASS
Band2	15MHz	QPSK	18900	1RB#74	22.23	PASS
Band2	15MHz	16QAM	18900	1RB#74	21.26	PASS
Band2	15MHz	QPSK	18900	38RB#0	21.37	PASS
Band2	15MHz	16QAM	18900	38RB#0	21.38	PASS
Band2	15MHz	QPSK	18900	38RB#18	21.39	PASS
Band2	15MHz	16QAM	18900	38RB#18	21.42	PASS
Band2	15MHz	QPSK	18900	38RB#37	21.42	PASS
Band2	15MHz	16QAM	18900	38RB#37	21.33	PASS
Band2	15MHz	QPSK	18900	75RB#0	21.41	PASS
Band2	15MHz	16QAM	18900	75RB#0	20.24	PASS
Band2	15MHz	QPSK	19125	1RB#0	22.33	PASS
Band2	15MHz	16QAM	19125	1RB#0	21.33	PASS
Band2	15MHz	QPSK	19125	1RB#38	22.35	PASS
Band2	15MHz	16QAM	19125	1RB#38	21.39	PASS
Band2	15MHz	QPSK	19125	1RB#74	22.28	PASS
Band2	15MHz	16QAM	19125	1RB#74	21.22	PASS
Band2	15MHz	QPSK	19125	38RB#0	21.50	PASS
Band2	15MHz	16QAM	19125	38RB#0	21.51	PASS
Band2	15MHz	QPSK	19125	38RB#18	21.40	PASS
Band2	15MHz	16QAM	19125	38RB#18	21.47	PASS
Band2	15MHz	QPSK	19125	38RB#37	21.48	PASS
Band2	15MHz	16QAM	19125	38RB#37	21.48	PASS
Band2	15MHz	QPSK	19125	75RB#0	21.49	PASS
Band2	15MHz	16QAM	19125	75RB#0	20.49	PASS
Band2	20MHz	QPSK	18700	1RB#0	22.11	PASS
Band2	20MHz	16QAM	18700	1RB#0	20.93	PASS
Band2	20MHz	QPSK	18700	1RB#49	22.35	PASS
Band2	20MHz	16QAM	18700	1RB#49	21.34	PASS
Band2	20MHz	QPSK	18700	1RB#99	22.03	PASS
Band2	20MHz	16QAM	18700	1RB#99	20.92	PASS
Band2	20MHz	QPSK	18700	50RB#0	21.25	PASS
Band2	20MHz	16QAM	18700	50RB#0	20.22	PASS
Band2	20MHz	QPSK	18700	50RB#25	21.22	PASS
Band2	20MHz	16QAM	18700	50RB#25	20.31	PASS
Band2	20MHz	QPSK	18700	50RB#50	21.21	PASS
Band2	20MHz	16QAM	18700	50RB#50	20.19	PASS

Band2	20MHz	QPSK	18700	100RB#0	21.20	PASS
Band2	20MHz	16QAM	18700	100RB#0	20.28	PASS
Band2	20MHz	QPSK	18900	1RB#0	22.08	PASS
Band2	20MHz	16QAM	18900	1RB#0	21.01	PASS
Band2	20MHz	QPSK	18900	1RB#49	22.48	PASS
Band2	20MHz	16QAM	18900	1RB#49	21.45	PASS
Band2	20MHz	QPSK	18900	1RB#99	22.34	PASS
Band2	20MHz	16QAM	18900	1RB#99	21.10	PASS
Band2	20MHz	QPSK	18900	50RB#0	21.18	PASS
Band2	20MHz	16QAM	18900	50RB#0	20.22	PASS
Band2	20MHz	QPSK	18900	50RB#25	21.18	PASS
Band2	20MHz	16QAM	18900	50RB#25	20.18	PASS
Band2	20MHz	QPSK	18900	50RB#50	21.38	PASS
Band2	20MHz	16QAM	18900	50RB#50	20.44	PASS
Band2	20MHz	QPSK	18900	100RB#0	21.26	PASS
Band2	20MHz	16QAM	18900	100RB#0	20.31	PASS
Band2	20MHz	QPSK	19100	1RB#0	22.38	PASS
Band2	20MHz	16QAM	19100	1RB#0	21.25	PASS
Band2	20MHz	QPSK	19100	1RB#49	22.66	PASS
Band2	20MHz	16QAM	19100	1RB#49	21.43	PASS
Band2	20MHz	QPSK	19100	1RB#99	22.38	PASS
Band2	20MHz	16QAM	19100	1RB#99	21.20	PASS
Band2	20MHz	QPSK	19100	50RB#0	21.44	PASS
Band2	20MHz	16QAM	19100	50RB#0	20.55	PASS
Band2	20MHz	QPSK	19100	50RB#25	21.50	PASS
Band2	20MHz	16QAM	19100	50RB#25	20.56	PASS
Band2	20MHz	QPSK	19100	50RB#50	21.44	PASS
Band2	20MHz	16QAM	19100	50RB#50	20.47	PASS
Band2	20MHz	QPSK	19100	100RB#0	21.52	PASS
Band2	20MHz	16QAM	19100	100RB#0	20.51	PASS
Band4	10MHz	QPSK	20000	1RB#0	22.69	PASS
Band4	10MHz	16QAM	20000	1RB#0	21.51	PASS
Band4	10MHz	QPSK	20000	1RB#24	22.61	PASS
Band4	10MHz	16QAM	20000	1RB#24	21.49	PASS
Band4	10MHz	QPSK	20000	1RB#49	22.50	PASS
Band4	10MHz	16QAM	20000	1RB#49	21.39	PASS
Band4	10MHz	QPSK	20000	25RB#0	21.66	PASS
Band4	10MHz	16QAM	20000	25RB#0	20.64	PASS
Band4	10MHz	QPSK	20000	25RB#12	21.68	PASS
Band4	10MHz	16QAM	20000	25RB#12	20.66	PASS
Band4	10MHz	QPSK	20000	25RB#25	21.60	PASS
Band4	10MHz	16QAM	20000	25RB#25	20.64	PASS
Band4	10MHz	QPSK	20000	50RB#0	21.61	PASS
Band4	10MHz	16QAM	20000	50RB#0	20.70	PASS
Band4	10MHz	QPSK	20175	1RB#0	22.49	PASS

Band4	10MHz	16QAM	20175	1RB#0	21.54	PASS
Band4	10MHz	QPSK	20175	1RB#24	22.67	PASS
Band4	10MHz	16QAM	20175	1RB#24	21.76	PASS
Band4	10MHz	QPSK	20175	1RB#49	22.52	PASS
Band4	10MHz	16QAM	20175	1RB#49	21.60	PASS
Band4	10MHz	QPSK	20175	25RB#0	21.64	PASS
Band4	10MHz	16QAM	20175	25RB#0	20.61	PASS
Band4	10MHz	QPSK	20175	25RB#12	21.61	PASS
Band4	10MHz	16QAM	20175	25RB#12	20.61	PASS
Band4	10MHz	QPSK	20175	25RB#25	21.69	PASS
Band4	10MHz	16QAM	20175	25RB#25	20.65	PASS
Band4	10MHz	QPSK	20175	50RB#0	21.67	PASS
Band4	10MHz	16QAM	20175	50RB#0	20.62	PASS
Band4	10MHz	QPSK	20350	1RB#0	22.44	PASS
Band4	10MHz	16QAM	20350	1RB#0	21.52	PASS
Band4	10MHz	QPSK	20350	1RB#24	22.44	PASS
Band4	10MHz	16QAM	20350	1RB#24	21.55	PASS
Band4	10MHz	QPSK	20350	1RB#49	22.26	PASS
Band4	10MHz	16QAM	20350	1RB#49	21.25	PASS
Band4	10MHz	QPSK	20350	25RB#0	21.52	PASS
Band4	10MHz	16QAM	20350	25RB#0	20.46	PASS
Band4	10MHz	QPSK	20350	25RB#12	21.55	PASS
Band4	10MHz	16QAM	20350	25RB#12	20.50	PASS
Band4	10MHz	QPSK	20350	25RB#25	21.33	PASS
Band4	10MHz	16QAM	20350	25RB#25	20.34	PASS
Band4	10MHz	QPSK	20350	50RB#0	21.42	PASS
Band4	10MHz	16QAM	20350	50RB#0	20.38	PASS
Band4	15MHz	QPSK	20025	1RB#0	22.59	PASS
Band4	15MHz	16QAM	20025	1RB#0	21.63	PASS
Band4	15MHz	QPSK	20025	1RB#38	22.50	PASS
Band4	15MHz	16QAM	20025	1RB#38	21.54	PASS
Band4	15MHz	QPSK	20025	1RB#74	22.32	PASS
Band4	15MHz	16QAM	20025	1RB#74	21.34	PASS
Band4	15MHz	QPSK	20025	38RB#0	21.58	PASS
Band4	15MHz	16QAM	20025	38RB#0	21.55	PASS
Band4	15MHz	QPSK	20025	38RB#18	21.53	PASS
Band4	15MHz	16QAM	20025	38RB#18	21.56	PASS
Band4	15MHz	QPSK	20025	38RB#37	21.54	PASS
Band4	15MHz	16QAM	20025	38RB#37	21.58	PASS
Band4	15MHz	QPSK	20025	75RB#0	21.59	PASS
Band4	15MHz	16QAM	20025	75RB#0	20.50	PASS
Band4	15MHz	QPSK	20175	1RB#0	22.43	PASS
Band4	15MHz	16QAM	20175	1RB#0	21.45	PASS
Band4	15MHz	QPSK	20175	1RB#38	22.65	PASS
Band4	15MHz	16QAM	20175	1RB#38	21.66	PASS

Band4	15MHz	QPSK	20175	1RB#74	22.37	PASS
Band4	15MHz	16QAM	20175	1RB#74	21.44	PASS
Band4	15MHz	QPSK	20175	38RB#0	21.63	PASS
Band4	15MHz	16QAM	20175	38RB#0	21.64	PASS
Band4	15MHz	QPSK	20175	38RB#18	21.61	PASS
Band4	15MHz	16QAM	20175	38RB#18	21.62	PASS
Band4	15MHz	QPSK	20175	38RB#37	21.60	PASS
Band4	15MHz	16QAM	20175	38RB#37	21.62	PASS
Band4	15MHz	QPSK	20175	75RB#0	21.68	PASS
Band4	15MHz	16QAM	20175	75RB#0	20.53	PASS
Band4	15MHz	QPSK	20325	1RB#0	22.46	PASS
Band4	15MHz	16QAM	20325	1RB#0	21.53	PASS
Band4	15MHz	QPSK	20325	1RB#38	22.48	PASS
Band4	15MHz	16QAM	20325	1RB#38	21.45	PASS
Band4	15MHz	QPSK	20325	1RB#74	22.16	PASS
Band4	15MHz	16QAM	20325	1RB#74	21.18	PASS
Band4	15MHz	QPSK	20325	38RB#0	21.48	PASS
Band4	15MHz	16QAM	20325	38RB#0	21.53	PASS
Band4	15MHz	QPSK	20325	38RB#18	21.50	PASS
Band4	15MHz	16QAM	20325	38RB#18	21.54	PASS
Band4	15MHz	QPSK	20325	38RB#37	21.51	PASS
Band4	15MHz	16QAM	20325	38RB#37	21.54	PASS
Band4	15MHz	QPSK	20325	75RB#0	21.50	PASS
Band4	15MHz	16QAM	20325	75RB#0	20.43	PASS
Band4	5MHz	QPSK	19975	1RB#0	22.66	PASS
Band4	5MHz	16QAM	19975	1RB#0	21.64	PASS
Band4	5MHz	QPSK	19975	1RB#12	22.73	PASS
Band4	5MHz	16QAM	19975	1RB#12	21.61	PASS
Band4	5MHz	QPSK	19975	1RB#24	22.51	PASS
Band4	5MHz	16QAM	19975	1RB#24	21.46	PASS
Band4	5MHz	QPSK	19975	12RB#0	21.65	PASS
Band4	5MHz	16QAM	19975	12RB#0	20.58	PASS
Band4	5MHz	QPSK	19975	12RB#6	21.63	PASS
Band4	5MHz	16QAM	19975	12RB#6	20.54	PASS
Band4	5MHz	QPSK	19975	12RB#13	21.59	PASS
Band4	5MHz	16QAM	19975	12RB#13	20.53	PASS
Band4	5MHz	QPSK	19975	25RB#0	21.65	PASS
Band4	5MHz	16QAM	19975	25RB#0	20.63	PASS
Band4	5MHz	QPSK	20175	1RB#0	22.47	PASS
Band4	5MHz	16QAM	20175	1RB#0	21.56	PASS
Band4	5MHz	QPSK	20175	1RB#12	22.62	PASS
Band4	5MHz	16QAM	20175	1RB#12	21.67	PASS
Band4	5MHz	QPSK	20175	1RB#24	22.48	PASS
Band4	5MHz	16QAM	20175	1RB#24	21.62	PASS
Band4	5MHz	QPSK	20175	12RB#0	21.62	PASS

Band4	5MHz	16QAM	20175	12RB#0	20.62	PASS
Band4	5MHz	QPSK	20175	12RB#6	21.58	PASS
Band4	5MHz	16QAM	20175	12RB#6	20.65	PASS
Band4	5MHz	QPSK	20175	12RB#13	21.58	PASS
Band4	5MHz	16QAM	20175	12RB#13	20.68	PASS
Band4	5MHz	QPSK	20175	25RB#0	21.61	PASS
Band4	5MHz	16QAM	20175	25RB#0	20.58	PASS
Band4	5MHz	QPSK	20375	1RB#0	22.24	PASS
Band4	5MHz	16QAM	20375	1RB#0	21.18	PASS
Band4	5MHz	QPSK	20375	1RB#12	22.22	PASS
Band4	5MHz	16QAM	20375	1RB#12	21.25	PASS
Band4	5MHz	QPSK	20375	1RB#24	22.10	PASS
Band4	5MHz	16QAM	20375	1RB#24	20.99	PASS
Band4	5MHz	QPSK	20375	12RB#0	21.20	PASS
Band4	5MHz	16QAM	20375	12RB#0	20.14	PASS
Band4	5MHz	QPSK	20375	12RB#6	21.23	PASS
Band4	5MHz	16QAM	20375	12RB#6	20.19	PASS
Band4	5MHz	QPSK	20375	12RB#13	21.06	PASS
Band4	5MHz	16QAM	20375	12RB#13	20.07	PASS
Band4	5MHz	QPSK	20375	25RB#0	21.22	PASS
Band4	5MHz	16QAM	20375	25RB#0	20.18	PASS
Band4	20MHz	QPSK	20050	1RB#0	22.56	PASS
Band4	20MHz	16QAM	20050	1RB#0	21.52	PASS
Band4	20MHz	QPSK	20050	1RB#49	22.57	PASS
Band4	20MHz	16QAM	20050	1RB#49	21.60	PASS
Band4	20MHz	QPSK	20050	1RB#99	22.40	PASS
Band4	20MHz	16QAM	20050	1RB#99	21.14	PASS
Band4	20MHz	QPSK	20050	50RB#0	21.50	PASS
Band4	20MHz	16QAM	20050	50RB#0	20.52	PASS
Band4	20MHz	QPSK	20050	50RB#25	21.56	PASS
Band4	20MHz	16QAM	20050	50RB#25	20.21	PASS
Band4	20MHz	QPSK	20050	50RB#50	21.42	PASS
Band4	20MHz	16QAM	20050	50RB#50	20.37	PASS
Band4	20MHz	QPSK	20050	100RB#0	21.51	PASS
Band4	20MHz	16QAM	20050	100RB#0	20.50	PASS
Band4	20MHz	QPSK	20175	1RB#0	22.40	PASS
Band4	20MHz	16QAM	20175	1RB#0	21.32	PASS
Band4	20MHz	QPSK	20175	1RB#49	22.68	PASS
Band4	20MHz	16QAM	20175	1RB#49	21.58	PASS
Band4	20MHz	QPSK	20175	1RB#99	22.44	PASS
Band4	20MHz	16QAM	20175	1RB#99	21.30	PASS
Band4	20MHz	QPSK	20175	50RB#0	21.48	PASS
Band4	20MHz	16QAM	20175	50RB#0	20.53	PASS
Band4	20MHz	QPSK	20175	50RB#25	21.50	PASS
Band4	20MHz	16QAM	20175	50RB#25	20.52	PASS

Band4	20MHz	QPSK	20175	50RB#50	21.54	PASS
Band4	20MHz	16QAM	20175	50RB#50	20.57	PASS
Band4	20MHz	QPSK	20175	100RB#0	21.51	PASS
Band4	20MHz	16QAM	20175	100RB#0	20.52	PASS
Band4	20MHz	QPSK	20300	1RB#0	22.53	PASS
Band4	20MHz	16QAM	20300	1RB#0	21.45	PASS
Band4	20MHz	QPSK	20300	1RB#49	22.70	PASS
Band4	20MHz	16QAM	20300	1RB#49	21.46	PASS
Band4	20MHz	QPSK	20300	1RB#99	22.12	PASS
Band4	20MHz	16QAM	20300	1RB#99	21.04	PASS
Band4	20MHz	QPSK	20300	50RB#0	21.47	PASS
Band4	20MHz	16QAM	20300	50RB#0	20.48	PASS
Band4	20MHz	QPSK	20300	50RB#25	21.50	PASS
Band4	20MHz	16QAM	20300	50RB#25	20.50	PASS
Band4	20MHz	QPSK	20300	50RB#50	21.33	PASS
Band4	20MHz	16QAM	20300	50RB#50	20.36	PASS
Band4	20MHz	QPSK	20300	100RB#0	21.40	PASS
Band4	20MHz	16QAM	20300	100RB#0	20.43	PASS
Band4	1.4MHz	QPSK	19957	1RB#0	22.61	PASS
Band4	1.4MHz	16QAM	19957	1RB#0	21.56	PASS
Band4	1.4MHz	QPSK	19957	1RB#2	22.71	PASS
Band4	1.4MHz	16QAM	19957	1RB#2	21.66	PASS
Band4	1.4MHz	QPSK	19957	1RB#5	22.54	PASS
Band4	1.4MHz	16QAM	19957	1RB#5	21.49	PASS
Band4	1.4MHz	QPSK	19957	3RB#0	22.69	PASS
Band4	1.4MHz	16QAM	19957	3RB#0	21.49	PASS
Band4	1.4MHz	QPSK	19957	3RB#1	22.71	PASS
Band4	1.4MHz	16QAM	19957	3RB#1	21.50	PASS
Band4	1.4MHz	QPSK	19957	3RB#3	22.58	PASS
Band4	1.4MHz	16QAM	19957	3RB#3	21.29	PASS
Band4	1.4MHz	QPSK	19957	6RB#0	21.67	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	20.56	PASS
Band4	1.4MHz	QPSK	20175	1RB#0	22.57	PASS
Band4	1.4MHz	16QAM	20175	1RB#0	21.47	PASS
Band4	1.4MHz	QPSK	20175	1RB#2	22.74	PASS
Band4	1.4MHz	16QAM	20175	1RB#2	21.65	PASS
Band4	1.4MHz	QPSK	20175	1RB#5	22.53	PASS
Band4	1.4MHz	16QAM	20175	1RB#5	21.49	PASS
Band4	1.4MHz	QPSK	20175	3RB#0	22.64	PASS
Band4	1.4MHz	16QAM	20175	3RB#0	21.34	PASS
Band4	1.4MHz	QPSK	20175	3RB#1	22.55	PASS
Band4	1.4MHz	16QAM	20175	3RB#1	21.43	PASS
Band4	1.4MHz	QPSK	20175	3RB#3	22.63	PASS
Band4	1.4MHz	16QAM	20175	3RB#3	21.18	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	21.45	PASS

Band4	1.4MHz	16QAM	20175	6RB#0	20.65	PASS
Band4	1.4MHz	QPSK	20393	1RB#0	22.06	PASS
Band4	1.4MHz	16QAM	20393	1RB#0	20.99	PASS
Band4	1.4MHz	QPSK	20393	1RB#2	22.18	PASS
Band4	1.4MHz	16QAM	20393	1RB#2	21.16	PASS
Band4	1.4MHz	QPSK	20393	1RB#5	22.04	PASS
Band4	1.4MHz	16QAM	20393	1RB#5	20.98	PASS
Band4	1.4MHz	QPSK	20393	3RB#0	22.07	PASS
Band4	1.4MHz	16QAM	20393	3RB#0	20.79	PASS
Band4	1.4MHz	QPSK	20393	3RB#1	22.19	PASS
Band4	1.4MHz	16QAM	20393	3RB#1	20.89	PASS
Band4	1.4MHz	QPSK	20393	3RB#3	21.88	PASS
Band4	1.4MHz	16QAM	20393	3RB#3	20.74	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	21.07	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	20.06	PASS
Band4	3MHz	QPSK	19965	1RB#0	22.68	PASS
Band4	3MHz	16QAM	19965	1RB#0	21.72	PASS
Band4	3MHz	QPSK	19965	1RB#8	22.62	PASS
Band4	3MHz	16QAM	19965	1RB#8	21.62	PASS
Band4	3MHz	QPSK	19965	1RB#14	22.57	PASS
Band4	3MHz	16QAM	19965	1RB#14	21.33	PASS
Band4	3MHz	QPSK	19965	8RB#0	21.54	PASS
Band4	3MHz	16QAM	19965	8RB#0	20.65	PASS
Band4	3MHz	QPSK	19965	8RB#4	21.69	PASS
Band4	3MHz	16QAM	19965	8RB#4	20.57	PASS
Band4	3MHz	QPSK	19965	8RB#7	21.63	PASS
Band4	3MHz	16QAM	19965	8RB#7	20.51	PASS
Band4	3MHz	QPSK	19965	15RB#0	21.49	PASS
Band4	3MHz	16QAM	19965	15RB#0	20.63	PASS
Band4	3MHz	QPSK	20175	1RB#0	22.61	PASS
Band4	3MHz	16QAM	20175	1RB#0	21.63	PASS
Band4	3MHz	QPSK	20175	1RB#8	22.59	PASS
Band4	3MHz	16QAM	20175	1RB#8	21.56	PASS
Band4	3MHz	QPSK	20175	1RB#14	22.63	PASS
Band4	3MHz	16QAM	20175	1RB#14	21.65	PASS
Band4	3MHz	QPSK	20175	8RB#0	21.61	PASS
Band4	3MHz	16QAM	20175	8RB#0	20.61	PASS
Band4	3MHz	QPSK	20175	8RB#4	21.59	PASS
Band4	3MHz	16QAM	20175	8RB#4	20.63	PASS
Band4	3MHz	QPSK	20175	8RB#7	21.62	PASS
Band4	3MHz	16QAM	20175	8RB#7	20.65	PASS
Band4	3MHz	QPSK	20175	15RB#0	21.57	PASS
Band4	3MHz	16QAM	20175	15RB#0	20.58	PASS
Band4	3MHz	QPSK	20385	1RB#0	22.22	PASS
Band4	3MHz	16QAM	20385	1RB#0	21.26	PASS

Band4	3MHz	QPSK	20385	1RB#8	22.11	PASS
Band4	3MHz	16QAM	20385	1RB#8	21.15	PASS
Band4	3MHz	QPSK	20385	1RB#14	22.09	PASS
Band4	3MHz	16QAM	20385	1RB#14	21.14	PASS
Band4	3MHz	QPSK	20385	8RB#0	21.21	PASS
Band4	3MHz	16QAM	20385	8RB#0	20.20	PASS
Band4	3MHz	QPSK	20385	8RB#4	21.22	PASS
Band4	3MHz	16QAM	20385	8RB#4	20.19	PASS
Band4	3MHz	QPSK	20385	8RB#7	21.16	PASS
Band4	3MHz	16QAM	20385	8RB#7	20.14	PASS
Band4	3MHz	QPSK	20385	15RB#0	21.17	PASS
Band4	3MHz	16QAM	20385	15RB#0	20.13	PASS
Band5	10MHz	QPSK	20450	1RB#0	23.13	PASS
Band5	10MHz	16QAM	20450	1RB#0	22.01	PASS
Band5	10MHz	QPSK	20450	1RB#24	23.02	PASS
Band5	10MHz	16QAM	20450	1RB#24	21.89	PASS
Band5	10MHz	QPSK	20450	1RB#49	22.57	PASS
Band5	10MHz	16QAM	20450	1RB#49	21.46	PASS
Band5	10MHz	QPSK	20450	25RB#0	22.14	PASS
Band5	10MHz	16QAM	20450	25RB#0	21.17	PASS
Band5	10MHz	QPSK	20450	25RB#12	22.13	PASS
Band5	10MHz	16QAM	20450	25RB#12	21.16	PASS
Band5	10MHz	QPSK	20450	25RB#25	21.79	PASS
Band5	10MHz	16QAM	20450	25RB#25	20.81	PASS
Band5	10MHz	QPSK	20450	50RB#0	21.92	PASS
Band5	10MHz	16QAM	20450	50RB#0	20.98	PASS
Band5	10MHz	QPSK	20525	1RB#0	22.58	PASS
Band5	10MHz	16QAM	20525	1RB#0	21.64	PASS
Band5	10MHz	QPSK	20525	1RB#24	23.12	PASS
Band5	10MHz	16QAM	20525	1RB#24	22.09	PASS
Band5	10MHz	QPSK	20525	1RB#49	22.96	PASS
Band5	10MHz	16QAM	20525	1RB#49	21.98	PASS
Band5	10MHz	QPSK	20525	25RB#0	21.62	PASS
Band5	10MHz	16QAM	20525	25RB#0	20.69	PASS
Band5	10MHz	QPSK	20525	25RB#12	21.64	PASS
Band5	10MHz	16QAM	20525	25RB#12	20.66	PASS
Band5	10MHz	QPSK	20525	25RB#25	22.05	PASS
Band5	10MHz	16QAM	20525	25RB#25	21.06	PASS
Band5	10MHz	QPSK	20525	50RB#0	21.89	PASS
Band5	10MHz	16QAM	20525	50RB#0	20.89	PASS
Band5	10MHz	QPSK	20600	1RB#0	23.02	PASS
Band5	10MHz	16QAM	20600	1RB#0	21.85	PASS
Band5	10MHz	QPSK	20600	1RB#24	23.27	PASS
Band5	10MHz	16QAM	20600	1RB#24	22.00	PASS
Band5	10MHz	QPSK	20600	1RB#49	22.28	PASS

Band5	10MHz	16QAM	20600	1RB#49	21.19	PASS
Band5	10MHz	QPSK	20600	25RB#0	22.17	PASS
Band5	10MHz	16QAM	20600	25RB#0	21.18	PASS
Band5	10MHz	QPSK	20600	25RB#12	22.19	PASS
Band5	10MHz	16QAM	20600	25RB#12	21.17	PASS
Band5	10MHz	QPSK	20600	25RB#25	21.64	PASS
Band5	10MHz	16QAM	20600	25RB#25	20.68	PASS
Band5	10MHz	QPSK	20600	50RB#0	21.93	PASS
Band5	10MHz	16QAM	20600	50RB#0	20.93	PASS
Band5	1.4MHz	QPSK	20407	1RB#0	23.06	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	22.05	PASS
Band5	1.4MHz	QPSK	20407	1RB#2	23.15	PASS
Band5	1.4MHz	16QAM	20407	1RB#2	22.10	PASS
Band5	1.4MHz	QPSK	20407	1RB#5	23.03	PASS
Band5	1.4MHz	16QAM	20407	1RB#5	21.95	PASS
Band5	1.4MHz	QPSK	20407	3RB#0	23.19	PASS
Band5	1.4MHz	16QAM	20407	3RB#0	22.01	PASS
Band5	1.4MHz	QPSK	20407	3RB#1	23.21	PASS
Band5	1.4MHz	16QAM	20407	3RB#1	21.99	PASS
Band5	1.4MHz	QPSK	20407	3RB#3	23.15	PASS
Band5	1.4MHz	16QAM	20407	3RB#3	21.97	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	22.18	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	21.15	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	22.75	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	21.78	PASS
Band5	1.4MHz	QPSK	20525	1RB#2	23.04	PASS
Band5	1.4MHz	16QAM	20525	1RB#2	22.06	PASS
Band5	1.4MHz	QPSK	20525	1RB#5	22.86	PASS
Band5	1.4MHz	16QAM	20525	1RB#5	21.85	PASS
Band5	1.4MHz	QPSK	20525	3RB#0	22.98	PASS
Band5	1.4MHz	16QAM	20525	3RB#0	21.79	PASS
Band5	1.4MHz	QPSK	20525	3RB#1	22.96	PASS
Band5	1.4MHz	16QAM	20525	3RB#1	21.78	PASS
Band5	1.4MHz	QPSK	20525	3RB#3	23.02	PASS
Band5	1.4MHz	16QAM	20525	3RB#3	21.80	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	21.95	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	20.99	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	22.19	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	21.16	PASS
Band5	1.4MHz	QPSK	20643	1RB#2	22.40	PASS
Band5	1.4MHz	16QAM	20643	1RB#2	21.29	PASS
Band5	1.4MHz	QPSK	20643	1RB#5	22.25	PASS
Band5	1.4MHz	16QAM	20643	1RB#5	21.18	PASS
Band5	1.4MHz	QPSK	20643	3RB#0	22.31	PASS
Band5	1.4MHz	16QAM	20643	3RB#0	21.13	PASS

Band5	1.4MHz	QPSK	20643	3RB#1	22.34	PASS
Band5	1.4MHz	16QAM	20643	3RB#1	21.16	PASS
Band5	1.4MHz	QPSK	20643	3RB#3	22.30	PASS
Band5	1.4MHz	16QAM	20643	3RB#3	21.15	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	21.31	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	20.31	PASS
Band5	5MHz	QPSK	20425	1RB#0	23.12	PASS
Band5	5MHz	16QAM	20425	1RB#0	22.08	PASS
Band5	5MHz	QPSK	20425	1RB#12	23.16	PASS
Band5	5MHz	16QAM	20425	1RB#12	22.11	PASS
Band5	5MHz	QPSK	20425	1RB#24	22.83	PASS
Band5	5MHz	16QAM	20425	1RB#24	21.80	PASS
Band5	5MHz	QPSK	20425	12RB#0	22.12	PASS
Band5	5MHz	16QAM	20425	12RB#0	21.07	PASS
Band5	5MHz	QPSK	20425	12RB#6	22.15	PASS
Band5	5MHz	16QAM	20425	12RB#6	21.09	PASS
Band5	5MHz	QPSK	20425	12RB#13	21.96	PASS
Band5	5MHz	16QAM	20425	12RB#13	20.98	PASS
Band5	5MHz	QPSK	20425	25RB#0	22.09	PASS
Band5	5MHz	16QAM	20425	25RB#0	21.09	PASS
Band5	5MHz	QPSK	20525	1RB#0	22.46	PASS
Band5	5MHz	16QAM	20525	1RB#0	21.44	PASS
Band5	5MHz	QPSK	20525	1RB#12	23.01	PASS
Band5	5MHz	16QAM	20525	1RB#12	22.00	PASS
Band5	5MHz	QPSK	20525	1RB#24	22.97	PASS
Band5	5MHz	16QAM	20525	1RB#24	21.95	PASS
Band5	5MHz	QPSK	20525	12RB#0	21.77	PASS
Band5	5MHz	16QAM	20525	12RB#0	20.75	PASS
Band5	5MHz	QPSK	20525	12RB#6	21.66	PASS
Band5	5MHz	16QAM	20525	12RB#6	20.71	PASS
Band5	5MHz	QPSK	20525	12RB#13	21.94	PASS
Band5	5MHz	16QAM	20525	12RB#13	20.95	PASS
Band5	5MHz	QPSK	20525	25RB#0	21.90	PASS
Band5	5MHz	16QAM	20525	25RB#0	20.90	PASS
Band5	5MHz	QPSK	20625	1RB#0	23.07	PASS
Band5	5MHz	16QAM	20625	1RB#0	22.07	PASS
Band5	5MHz	QPSK	20625	1RB#12	22.53	PASS
Band5	5MHz	16QAM	20625	1RB#12	21.51	PASS
Band5	5MHz	QPSK	20625	1RB#24	22.29	PASS
Band5	5MHz	16QAM	20625	1RB#24	21.26	PASS
Band5	5MHz	QPSK	20625	12RB#0	22.00	PASS
Band5	5MHz	16QAM	20625	12RB#0	21.02	PASS
Band5	5MHz	QPSK	20625	12RB#6	22.05	PASS
Band5	5MHz	16QAM	20625	12RB#6	21.01	PASS
Band5	5MHz	QPSK	20625	12RB#13	21.28	PASS

Band5	5MHz	16QAM	20625	12RB#13	20.21	PASS
Band5	5MHz	QPSK	20625	25RB#0	21.66	PASS
Band5	5MHz	16QAM	20625	25RB#0	20.68	PASS
Band5	3MHz	QPSK	20415	1RB#0	23.09	PASS
Band5	3MHz	16QAM	20415	1RB#0	22.18	PASS
Band5	3MHz	QPSK	20415	1RB#8	23.02	PASS
Band5	3MHz	16QAM	20415	1RB#8	22.07	PASS
Band5	3MHz	QPSK	20415	1RB#14	23.08	PASS
Band5	3MHz	16QAM	20415	1RB#14	22.09	PASS
Band5	3MHz	QPSK	20415	8RB#0	22.16	PASS
Band5	3MHz	16QAM	20415	8RB#0	21.12	PASS
Band5	3MHz	QPSK	20415	8RB#4	22.16	PASS
Band5	3MHz	16QAM	20415	8RB#4	21.13	PASS
Band5	3MHz	QPSK	20415	8RB#7	22.10	PASS
Band5	3MHz	16QAM	20415	8RB#7	21.10	PASS
Band5	3MHz	QPSK	20415	15RB#0	22.08	PASS
Band5	3MHz	16QAM	20415	15RB#0	21.08	PASS
Band5	3MHz	QPSK	20525	1RB#0	22.65	PASS
Band5	3MHz	16QAM	20525	1RB#0	21.74	PASS
Band5	3MHz	QPSK	20525	1RB#8	22.92	PASS
Band5	3MHz	16QAM	20525	1RB#8	21.96	PASS
Band5	3MHz	QPSK	20525	1RB#14	22.96	PASS
Band5	3MHz	16QAM	20525	1RB#14	22.01	PASS
Band5	3MHz	QPSK	20525	8RB#0	21.86	PASS
Band5	3MHz	16QAM	20525	8RB#0	20.89	PASS
Band5	3MHz	QPSK	20525	8RB#4	21.84	PASS
Band5	3MHz	16QAM	20525	8RB#4	20.87	PASS
Band5	3MHz	QPSK	20525	8RB#7	22.01	PASS
Band5	3MHz	16QAM	20525	8RB#7	21.02	PASS
Band5	3MHz	QPSK	20525	15RB#0	21.91	PASS
Band5	3MHz	16QAM	20525	15RB#0	20.90	PASS
Band5	3MHz	QPSK	20635	1RB#0	22.61	PASS
Band5	3MHz	16QAM	20635	1RB#0	21.67	PASS
Band5	3MHz	QPSK	20635	1RB#8	22.22	PASS
Band5	3MHz	16QAM	20635	1RB#8	21.27	PASS
Band5	3MHz	QPSK	20635	1RB#14	22.30	PASS
Band5	3MHz	16QAM	20635	1RB#14	21.35	PASS
Band5	3MHz	QPSK	20635	8RB#0	21.39	PASS
Band5	3MHz	16QAM	20635	8RB#0	20.40	PASS
Band5	3MHz	QPSK	20635	8RB#4	21.33	PASS
Band5	3MHz	16QAM	20635	8RB#4	20.38	PASS
Band5	3MHz	QPSK	20635	8RB#7	21.31	PASS
Band5	3MHz	16QAM	20635	8RB#7	20.33	PASS
Band5	3MHz	QPSK	20635	15RB#0	21.30	PASS
Band5	3MHz	16QAM	20635	15RB#0	20.36	PASS

Band7	20MHz	QPSK	20850	1RB#0	22.73	PASS
Band7	20MHz	16QAM	20850	1RB#0	21.61	PASS
Band7	20MHz	QPSK	20850	1RB#49	22.87	PASS
Band7	20MHz	16QAM	20850	1RB#49	21.76	PASS
Band7	20MHz	QPSK	20850	1RB#99	22.66	PASS
Band7	20MHz	16QAM	20850	1RB#99	21.60	PASS
Band7	20MHz	QPSK	20850	50RB#0	21.65	PASS
Band7	20MHz	16QAM	20850	50RB#0	20.57	PASS
Band7	20MHz	QPSK	20850	50RB#25	21.61	PASS
Band7	20MHz	16QAM	20850	50RB#25	20.56	PASS
Band7	20MHz	QPSK	20850	50RB#50	21.65	PASS
Band7	20MHz	16QAM	20850	50RB#50	20.62	PASS
Band7	20MHz	QPSK	20850	100RB#0	21.70	PASS
Band7	20MHz	16QAM	20850	100RB#0	20.64	PASS
Band7	20MHz	QPSK	21100	1RB#0	22.83	PASS
Band7	20MHz	16QAM	21100	1RB#0	21.94	PASS
Band7	20MHz	QPSK	21100	1RB#49	23.05	PASS
Band7	20MHz	16QAM	21100	1RB#49	21.66	PASS
Band7	20MHz	QPSK	21100	1RB#99	22.41	PASS
Band7	20MHz	16QAM	21100	1RB#99	21.28	PASS
Band7	20MHz	QPSK	21100	50RB#0	21.37	PASS
Band7	20MHz	16QAM	21100	50RB#0	20.67	PASS
Band7	20MHz	QPSK	21100	50RB#25	21.39	PASS
Band7	20MHz	16QAM	21100	50RB#25	20.46	PASS
Band7	20MHz	QPSK	21100	50RB#50	21.47	PASS
Band7	20MHz	16QAM	21100	50RB#50	20.73	PASS
Band7	20MHz	QPSK	21100	100RB#0	21.56	PASS
Band7	20MHz	16QAM	21100	100RB#0	20.35	PASS
Band7	20MHz	QPSK	21350	1RB#0	22.66	PASS
Band7	20MHz	16QAM	21350	1RB#0	21.21	PASS
Band7	20MHz	QPSK	21350	1RB#49	22.67	PASS
Band7	20MHz	16QAM	21350	1RB#49	21.39	PASS
Band7	20MHz	QPSK	21350	1RB#99	22.05	PASS
Band7	20MHz	16QAM	21350	1RB#99	20.82	PASS
Band7	20MHz	QPSK	21350	50RB#0	21.55	PASS
Band7	20MHz	16QAM	21350	50RB#0	20.71	PASS
Band7	20MHz	QPSK	21350	50RB#25	21.75	PASS
Band7	20MHz	16QAM	21350	50RB#25	20.71	PASS
Band7	20MHz	QPSK	21350	50RB#50	21.67	PASS
Band7	20MHz	16QAM	21350	50RB#50	20.68	PASS
Band7	20MHz	QPSK	21350	100RB#0	21.71	PASS
Band7	20MHz	16QAM	21350	100RB#0	20.70	PASS
Band7	15MHz	QPSK	20825	1RB#0	22.73	PASS
Band7	15MHz	16QAM	20825	1RB#0	21.23	PASS
Band7	15MHz	QPSK	20825	1RB#38	22.27	PASS

Band7	15MHz	16QAM	20825	1RB#38	21.26	PASS
Band7	15MHz	QPSK	20825	1RB#74	22.18	PASS
Band7	15MHz	16QAM	20825	1RB#74	21.21	PASS
Band7	15MHz	QPSK	20825	38RB#0	21.31	PASS
Band7	15MHz	16QAM	20825	38RB#0	21.30	PASS
Band7	15MHz	QPSK	20825	38RB#18	21.31	PASS
Band7	15MHz	16QAM	20825	38RB#18	21.45	PASS
Band7	15MHz	QPSK	20825	38RB#37	21.47	PASS
Band7	15MHz	16QAM	20825	38RB#37	21.32	PASS
Band7	15MHz	QPSK	20825	75RB#0	21.33	PASS
Band7	15MHz	16QAM	20825	75RB#0	20.24	PASS
Band7	15MHz	QPSK	21100	1RB#0	22.79	PASS
Band7	15MHz	16QAM	21100	1RB#0	21.48	PASS
Band7	15MHz	QPSK	21100	1RB#38	22.43	PASS
Band7	15MHz	16QAM	21100	1RB#38	21.53	PASS
Band7	15MHz	QPSK	21100	1RB#74	22.23	PASS
Band7	15MHz	16QAM	21100	1RB#74	21.31	PASS
Band7	15MHz	QPSK	21100	38RB#0	21.51	PASS
Band7	15MHz	16QAM	21100	38RB#0	21.52	PASS
Band7	15MHz	QPSK	21100	38RB#18	21.56	PASS
Band7	15MHz	16QAM	21100	38RB#18	21.53	PASS
Band7	15MHz	QPSK	21100	38RB#37	21.54	PASS
Band7	15MHz	16QAM	21100	38RB#37	21.55	PASS
Band7	15MHz	QPSK	21100	75RB#0	21.54	PASS
Band7	15MHz	16QAM	21100	75RB#0	20.46	PASS
Band7	15MHz	QPSK	21375	1RB#0	22.27	PASS
Band7	15MHz	16QAM	21375	1RB#0	20.98	PASS
Band7	15MHz	QPSK	21375	1RB#38	22.28	PASS
Band7	15MHz	16QAM	21375	1RB#38	21.06	PASS
Band7	15MHz	QPSK	21375	1RB#74	22.08	PASS
Band7	15MHz	16QAM	21375	1RB#74	20.78	PASS
Band7	15MHz	QPSK	21375	38RB#0	21.36	PASS
Band7	15MHz	16QAM	21375	38RB#0	21.45	PASS
Band7	15MHz	QPSK	21375	38RB#18	21.37	PASS
Band7	15MHz	16QAM	21375	38RB#18	21.38	PASS
Band7	15MHz	QPSK	21375	38RB#37	21.38	PASS
Band7	15MHz	16QAM	21375	38RB#37	21.37	PASS
Band7	15MHz	QPSK	21375	75RB#0	21.38	PASS
Band7	15MHz	16QAM	21375	75RB#0	20.27	PASS
Band7	5MHz	QPSK	20775	1RB#0	22.29	PASS
Band7	5MHz	16QAM	20775	1RB#0	21.22	PASS
Band7	5MHz	QPSK	20775	1RB#12	22.41	PASS
Band7	5MHz	16QAM	20775	1RB#12	21.27	PASS
Band7	5MHz	QPSK	20775	1RB#24	22.21	PASS
Band7	5MHz	16QAM	20775	1RB#24	21.14	PASS

Band7	5MHz	QPSK	20775	12RB#0	21.29	PASS
Band7	5MHz	16QAM	20775	12RB#0	20.18	PASS
Band7	5MHz	QPSK	20775	12RB#6	21.23	PASS
Band7	5MHz	16QAM	20775	12RB#6	20.12	PASS
Band7	5MHz	QPSK	20775	12RB#13	21.28	PASS
Band7	5MHz	16QAM	20775	12RB#13	20.17	PASS
Band7	5MHz	QPSK	20775	25RB#0	21.24	PASS
Band7	5MHz	16QAM	20775	25RB#0	20.24	PASS
Band7	5MHz	QPSK	21100	1RB#0	22.38	PASS
Band7	5MHz	16QAM	21100	1RB#0	21.42	PASS
Band7	5MHz	QPSK	21100	1RB#12	22.51	PASS
Band7	5MHz	16QAM	21100	1RB#12	21.53	PASS
Band7	5MHz	QPSK	21100	1RB#24	22.35	PASS
Band7	5MHz	16QAM	21100	1RB#24	21.34	PASS
Band7	5MHz	QPSK	21100	12RB#0	21.45	PASS
Band7	5MHz	16QAM	21100	12RB#0	20.35	PASS
Band7	5MHz	QPSK	21100	12RB#6	21.43	PASS
Band7	5MHz	16QAM	21100	12RB#6	20.41	PASS
Band7	5MHz	QPSK	21100	12RB#13	21.45	PASS
Band7	5MHz	16QAM	21100	12RB#13	20.37	PASS
Band7	5MHz	QPSK	21100	25RB#0	21.39	PASS
Band7	5MHz	16QAM	21100	25RB#0	20.34	PASS
Band7	5MHz	QPSK	21425	1RB#0	22.34	PASS
Band7	5MHz	16QAM	21425	1RB#0	21.17	PASS
Band7	5MHz	QPSK	21425	1RB#12	22.35	PASS
Band7	5MHz	16QAM	21425	1RB#12	21.18	PASS
Band7	5MHz	QPSK	21425	1RB#24	22.15	PASS
Band7	5MHz	16QAM	21425	1RB#24	21.00	PASS
Band7	5MHz	QPSK	21425	12RB#0	21.23	PASS
Band7	5MHz	16QAM	21425	12RB#0	20.17	PASS
Band7	5MHz	QPSK	21425	12RB#6	21.24	PASS
Band7	5MHz	16QAM	21425	12RB#6	20.16	PASS
Band7	5MHz	QPSK	21425	12RB#13	21.17	PASS
Band7	5MHz	16QAM	21425	12RB#13	20.14	PASS
Band7	5MHz	QPSK	21425	25RB#0	21.34	PASS
Band7	5MHz	16QAM	21425	25RB#0	20.27	PASS
Band7	10MHz	QPSK	20800	1RB#0	22.30	PASS
Band7	10MHz	16QAM	20800	1RB#0	21.32	PASS
Band7	10MHz	QPSK	20800	1RB#24	22.28	PASS
Band7	10MHz	16QAM	20800	1RB#24	21.30	PASS
Band7	10MHz	QPSK	20800	1RB#49	22.19	PASS
Band7	10MHz	16QAM	20800	1RB#49	21.22	PASS
Band7	10MHz	QPSK	20800	25RB#0	21.23	PASS
Band7	10MHz	16QAM	20800	25RB#0	20.16	PASS
Band7	10MHz	QPSK	20800	25RB#12	21.22	PASS