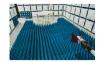


# **Element Materials Technology**

(formerly PCTEST) 18855 Adams Court, Morgan Hill, CA 95037 USA Tel. 408.538.5600 http://www.element.com



# **PART 24 MEASUREMENT REPORT**

### **Applicant Name:**

Apple Inc. One Apple Park Way Cupertino, CA 95014 United States

### Date of Testing:

10/01/2023 - 03/04/2024 **Test Report Issue Date:** 3/22/2024 **Test Site/Location:** Element Materials Technology **Test Report Serial No.:** 1C2311270064-08-R2.BCG

# FCC ID: Applicant Name:

## BCGA2903

Apple Inc.

Application Type: Model: EUT Type: FCC Classification: FCC Rule Part: Test Procedure(s):

Certification A2903, A2904 Tablet Device PCS Licensed Transmitter (PCB) 24 ANSI C63.26-2015, TIA-603-E-2016, KDB 971168 D01 v03r01

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in §2.947. Test results reported herein relate only to the item(s) tested.

This revised Test Report (S/N: 1C2311270064-08-R2.BCG) supersedes and replaces the previously issued test report on the same subject device for the same type of testing as indicated. Please discard or destroy the previously issued test report(s) and dispose accordingly.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

RJ Ortanez Executive Vice President

Prepared by: WKR000006193



Reviewed by: WKR0000005805

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**.** 





			Tx Frequency	PAR at 0.1%	EIRP		Emission	
Mode	Bandwidth	Modulation	Range [MHz]	OBW [MHz]	[dB]	Max. Power [W]	Max. Power [dBm]	Designator
WCDMA1900	5 MHz	Spread Spectrum	1852.4 - 1907.6	4.1725	2.83	0.562	27.50	4M17F9W
		QPSK	1850.7 - 1909.3	1.1136	4.90	0.532	27.26	1M11G7W
	4 4 1411-	16QAM	1850.7 - 1909.3	1.1191	5.74	0.441	26.44	1M12D7W
	1.4 MHz	64QAM	1850.7 - 1909.3	1.1091	6.38	0.340	25.31	1M11D7W
		256QAM	1850.7 - 1909.3	1.1069	6.59	0.175	22.42	1M11D7W
		QPSK	1851.5 - 1908.5	2.7203	4.61	0.513	27.10	2M72G7W
	0.0411-	16QAM	1851.5 - 1908.5	2.7270	5.63	0.448	26.51	2M73D7W
	3 MHz	64QAM	1851.5 - 1908.5	2.7232	6.40	0.351	25.45	2M72D7W
		256QAM	1851.5 - 1908.5	2.7260	6.63	0.171	22.33	2M73D7W
		QPSK	1852.5 - 1907.5	4.5336	4.83	0.526	27.21	4M53G7W
	<b>- N</b> (1)	16QAM	1852.5 - 1907.5	4.5431	5.79	0.465	26.67	4M54D7W
	5 MHz	64QAM	1852.5 - 1907.5	4.5415	6.40	0.352	25.46	4M54D7W
		256QAM	1852.5 - 1907.5	4.5382	6.65	0.167	22.23	4M54D7W
Band 2		QPSK	1855 - 1905	9.0767	4.96	0.520	27.16	9M08G7W
		16QAM	1856 - 1905	9.0483	5.84	0.442	26.45	9M05D7W
	10MHz	64QAM	1857 - 1905	9.0638	6.39	0.350	25.44	9M06D7W
		256QAM	1858 - 1905	9.0355	6.60	0.171	22.33	9M04D7W
		QPSK	1857.5 - 1902.5	13.5849	4.97	0.516	27.13	13M6G7W
	15 MHz	16QAM	1857.5 - 1902.5	13.6168	5.84	0.426	26.29	13M6D7W
		64QAM	1857.5 - 1902.5	13.5661	6.37	0.333	25.23	13M6D7W
		256QAM	1857.5 - 1902.5	13.5416	6.59	0.163	22.12	13M5D7W
		QPSK	1860 - 1900	18.0658	4.90	0.507	27.05	18M1G7W
		16QAM	1860 - 1900	18.0924	5.79	0.453	26.56	18M1D7W
	20 MHz	64QAM	1860 - 1900	18.0706	6.39	0.339	25.30	18M1D7W
		256QAM	1860 - 1900	18.0298	6.61	0.164	22.15	18M0D7W
		QPSK	1850.7 - 1914.3	1.1136	4.97	0.527	27.22	1M11G7W
	1.4 MHz	16QAM	1850.7 - 1914.3	1.1191	5.8	0.448	26.51	1M12D7W
		64QAM	1850.7 - 1914.3	1.1091	6.41	0.350	25.44	1M11D7W
		256QAM	1850.7 - 1914.3	1.1069	6.58	0.169	22.27	1M11D7W
	3 MHz	QPSK	1851.5 - 1913.5	2.7203	4.66	0.514	27.11	2M72G7W
		16QAM	1851.5 - 1913.5	2.7203	5.72	0.447	26.50	2M72G7W
		64QAM	1851.5 - 1913.5	2.7232	6.47	0.354	25.49	2M73D7W
		256QAM	1851.5 - 1913.5	2.7260	6.63	0.169	22.29	2M72D7W
		QPSK	1852.5 - 1912.5	4.5336	4.91	0.532	27.26	4M53G7W
		16QAM	1852.5 - 1912.5	4.5330	5.88	0.332	26.64	4M54D7W
	5 MHz	64QAM	1852.5 - 1912.5	4.5415	6.46	0.351	25.45	4M54D7W
		256QAM	1852.5 - 1912.5	4.5382	6.64	0.331	22.35	4M54D7W
Band 25		QPSK	1855 - 1910	9.0767	5.03	0.172	27.20	9M08G7W
	10 MHz	16QAM 64QAM	1855 - 1910	9.0483 9.0638	5.89 6.48	0.458	26.61 25.42	9M05D7W 9M06D7W
			1855 - 1910					
		256QAM	1855 - 1910	9.0355	6.63	0.169	22.28	9M04D7W
		QPSK 1604M	1857.5 - 1907.5	13.5849	5.02	0.512	27.09	13M6G7W
	15 MHz	16QAM	1857.5 - 1907.5	13.6168	5.91	0.429	26.32	13M6D7W
		64QAM	1857.5 - 1907.5	13.5661	6.46	0.338	25.29	13M6D7W
		256QAM	1857.5 - 1907.5	13.5416	6.61	0.165	22.17	13M5D7W
		QPSK	1860 - 1905	18.0658	4.97	0.504	27.02	18M1G7W
	20 MHz	16QAM	1860 - 1905	18.0924	5.85	0.459	26.62	18M1D7W
		64QAM	1860 - 1905	18.0706	6.43	0.343	25.35	18M1D7W
		256QAM	1860 - 1905	18.0298	6.63	0.167	22.23	18M0D7W

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					EI			
Mode	Bandwidth	Modulation	Tx Frequency Range [MHz]	OBW [MHz]	PAR at 0.1% [dB]	Max. Power [W]	Max. Power [dBm]	Emission Designator
		π/2 BPSK	1852.5 - 1907.5	4.4868	4.11	0.560	27.48	4M49G7W
	r i i i i i i i i i i i i i i i i i i i	QPSK	1852.5 - 1907.5	4.4749	5.45	0.562	27.50	4M47G7W
	5 MHz	16QAM	1852.5 - 1907.5	4.5082	6.31	0.468	26.71	4M51D7W
	•	64QAM	1852.5 - 1907.5	4.4714	6.76	0.323	25.09	4M47D7W
	-	256QAM	1852.5 - 1907.5	4.4626	6.60	0.196	22.93	4M46D7W
-		π/2 BPSK	1855 - 1905	8.9599	4.43	0.558	27.46	8M96G7W
	ľ	QPSK	1855 - 1905	9.3284	5.65	0.562	27.50	9M33G7W
	10 MHz	16QAM	1855 - 1905	9.2993	6.50	0.457	26.60	9M30D7W
		64QAM	1855 - 1905	9.3238	6.68	0.325	25.13	9M32D7W
		256QAM	1855 - 1905	9.2965	6.66	0.195	22.91	9M30D7W
NR Band n2		π/2 BPSK	1857.5 - 1902.5	13.4260	4.39	0.562	27.49	13M4G7W
		QPSK	1857.5 - 1902.5	14.1650	5.58	0.562	27.50	14M2G7W
	15 MHz	16QAM	1857.5 - 1902.5	14.1010	6.45	0.448	26.51	14M1D7W
		64QAM	1857.5 - 1902.5	14.1310	6.70	0.317	25.01	14M1D7W
		256QAM	1857.5 - 1902.5	14.1840	6.54	0.202	23.06	14M2D7W
		π/2 BPSK	1860 - 1900	17.8440	4.50	0.562	27.50	17M8G7W
	ľ	QPSK	1860 - 1900	18.9060	5.70	0.561	27.49	18M9G7W
	20 MHz	16QAM	1860 - 1900	18.9790	6.47	0.484	26.84	19M0D7W
	Ī	64QAM	1860 - 1900	18.9890	6.70	0.321	25.07	19M0D7W
		256QAM	1860 - 1900	18.9600	6.80	0.199	22.98	19M0D7W
		π/2 BPSK	1852.5 - 1912.5	4.4868	4.06	0.559	27.47	4M49G7W
	-	QPSK	1852.5 - 1912.5	4.4749	5.46	0.562	27.50	4M47G7W
	5 MHz	16QAM	1852.5 - 1912.5	4.5082	6.23	0.456	26.59	4M51D7W
		64QAM	1852.5 - 1912.5	4.4714	6.62	0.327	25.14	4M47D7W
		256QAM	1852.5 - 1912.5	4.4626	6.53	0.198	22.96	4M46D7W
-	10 MHz	π/2 BPSK	1855 - 1910	8.9599	4.38	0.559	27.48	8M96G7W
		QPSK	1855 - 1910	9.3284	5.61	0.562	27.50	9M33G7W
		16QAM	1855 - 1910	9.2993	6.45	0.445	26.49	9M30D7W
		64QAM	1855 - 1910	9.3238	6.57	0.326	25.13	9M32D7W
		256QAM	1855 - 1910	9.2965	6.69	0.193	22.85	9M30D7W
		π/2 BPSK	1857.5 - 1907.5	13.4260	4.26	0.560	27.48	13M4G7W
	15 MHz	QPSK	1857.5 - 1907.5	14.1650	5.59	0.562	27.50	14M2G7W
		16QAM	1857.5 - 1907.5	14.1010	6.40	0.458	26.61	14M1D7W
		64QAM	1857.5 - 1907.5	14.1310	6.67	0.325	25.12	14M1D7W
		256QAM	1857.5 - 1907.5	14.1840	6.51	0.202	23.06	14M2D7W
		π/2 BPSK	1860 - 1905	17.8440	4.40	0.562	27.50	17M8G7W
		QPSK	1860 - 1905	18.9060	5.69	0.557	27.46	18M9G7W
	20 MHz	16QAM	1860 - 1905	18.9790	6.41	0.458	26.61	19M0D7W
		64QAM	1860 - 1905	18.9890	6.66	0.324	25.10	19M0D7W
NR Band n25		256QAM	1860 - 1905	18.9600	6.58	0.202	23.06	19M0D7W
		π/2 BPSK	1862.5 - 1902.5	22.8810	4.16	0.562	27.50	22M9G7W
		QPSK	1862.5 - 1902.5	23.7190	5.52	0.562	27.50	23M7G7W
	25 MHz	16QAM	1862.5 - 1902.5	23.8850	6.32	0.447	26.51	23M9D7W
		64QAM	1862.5 - 1902.5	23.8020	6.64	0.327	25.14	23M8D7W
		256QAM	1862.5 - 1902.5	23.8370	6.80	0.203	23.08	23M8D7W
		π/2 BPSK	1865 - 1900	28.7610	4.42	0.562	27.50	28M8G7W
		QPSK	1865 - 1900	28.6700	5.73	0.561	27.49	28M7G7W
	30 MHz	16QAM	1865 - 1900	28.6220	6.48	0.466	26.69	28M6D7W
		64QAM	1865 - 1900	28.7320	6.70	0.324	25.11	28M7D7W
		256QAM	1865 - 1900	28.6670	6.69	0.205	23.12	28M7D7W
		π/2 BPSK	1867.5 - 1897.5	32.2240	4.20	0.558	27.47	32M2G7W
		QPSK	1867.5 - 1897.5	33.5880	5.53	0.562	27.50	33M6G7W
	35 MHz	16QAM	1867.5 - 1897.5	33.6120	6.44	0.453	26.56	33M6D7W
		64QAM	1867.5 - 1897.5	33.5540	6.40	0.329	25.17	33M6D7W
		256QAM	1867.5 - 1897.5	33.6890	6.61	0.218	23.38	33M7D7W
Ī		π/2 BPSK	1870 - 1895	38.6130	4.42	0.562	27.50	38M6G7W
		QPSK	1870 - 1895	38.5790	5.76	0.547	27.38	38M6G7W
	40 MHz	16QAM	1870 - 1895	38.7420	6.44	0.446	26.49	38M7D7W
		64QAM	1870 - 1895	38.8270	6.64	0.333	25.22	38M8D7W
		256QAM	1870 - 1895	38.5180	6.69	0.206	23.13	38M5D7W

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# **1.0 INTRODUCTION**

## 1.1 Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada.

## **1.2 Element Materials Technology Test Location**

These measurement tests were conducted at the Element Materials Technology facility located at 18855 Adams Court, Morgan Hill, CA 95037. The measurement facility is compliant with the test site requirements specified in ANSI C63.4-2014 and KDB 414788 D01 v01r01.

# **1.3 Test Facility / Accreditations**

Element Materials Technology.

- Element Materials Technology is an ISO 17025-2017 accredited test facility under the American Association for Laboratory Accreditation (A2LA) with Certificate number 2041.02 for Specific Absorption Rate (SAR), Hearing Aid Compatibility (HAC) testing, where applicable, and Electromagnetic Compatibility (EMC) testing for FCC and Innovation, Science, and Economic Development Canada rules.
- Element Materials Technology TCB is a Telecommunication Certification Body (TCB) accredited to ISO/IEC 17065-2012 by A2LA (Certificate number 2041.03) in all scopes of FCC Rules and ISED Standards (RSS).
- Element Materials Technology facility is a registered (22831) test laboratory with the site description on file with ISED.
- Element Washington DC LLC is a Recognized U.S. Certification Assessment Body (CAB # US0110) for ISED Canada as designated by NIST under the U.S. and Canada Mutual Agreements (MRAs).

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# 2.0 PRODUCT INFORMATION

## 2.1 Equipment Description

The Equipment Under Test (EUT) is the **Apple Tablet Device FCC ID:BCGA2903**. The test data contained in this report pertains only to the emissions due to the EUT's licensed transmitters that operate under the provisions of Part 24.

Test Device Serial No.: RH779H9653, W046C4WFF6, F1Y0XGN9Q3, DLXGYH0000A0000EVL, DLXGY90000D0000EVP

## 2.2 Device Capabilities

This device contains the following capabilities:

850/1700/1900 WCDMA/HSPA, Multi-band LTE, 5G NR (FR1), 802.11b/g/n/ax WLAN, 802.11a/n/ac/ax UNII, 802.11a/ax WIFI 6E, 802.15.4, Bluetooth (1x, EDR, LE1M, LE2M, HDR4, HDR8), NB UNII (1x, HDR4, HDR8), WPT

This device supports BT Beamforming

This device supports simultaneous transmission operations, which allows for multiple transmitters to transmit simultaneously on the same antenna. The table below shows all configurations possible.

		Wifi 2GHz	Bluetooth	Thread	Wifi 5GHz	Wifi 6GHz	NB UNII	LTE/FF	R1 NR
Antenna	Simultaneous Tx Config	802.11 b/g/n/ax	BDR, EDR, HDR4/8, LE1/2M	802.15.4	802.11 a/n/ac/ax	802.11 a/ax	BDR, HDR4/8	МВ/НВ	UHB
3a	Config 1	X	$\checkmark$	X	$\checkmark$	X	X	$\checkmark$	X
3a	Config 2	X	~	X	X	$\checkmark$	X	$\checkmark$	X
3a	Config 3	$\checkmark$	×	X	X	X	$\checkmark$	$\checkmark$	X
3a	Config 4	X	×	$\checkmark$	$\checkmark$	X	X	$\checkmark$	X
3a	Config 5	X	×	~	X	$\checkmark$	X	$\checkmark$	X
3a	Config 6	$\checkmark$	X	X	X	X	$\checkmark$	X	X
3a	Config 7	$\checkmark$	×	X	X	X	X	$\checkmark$	X
3a	Config 8	X	~	X	$\checkmark$	X	X	X	X
3a	Config 9	X	$\checkmark$	X	X	$\checkmark$	X	X	X
3a	Config 10	X	$\checkmark$	X	X	X	X	$\checkmark$	X
3a	Config 11	X	×	$\checkmark$	$\checkmark$	X	X	X	X
3a	Config 13	X	×	$\checkmark$	X	$\checkmark$	X	X	X
3a	Config 14	X	X	$\checkmark$	X	X	X	~	X
3a	Config 15	X	X	X	$\checkmark$	X	X	~	X
3a	Config 16	X	X	X	X	$\checkmark$	X	✓	X
3a	Config 17	X	X	X	X	X	$\checkmark$	~	X
1a	Config 18	$\checkmark$	X	X	X	X	X	X	$\checkmark$
1a	Config 15	X	$\checkmark$	X	X	X	X	X	✓
1a	Config 16	X	X	$\checkmark$	X	X	X	X	$\checkmark$
1b	Config 17	X	X	X	$\checkmark$	X	X	✓	X
1b	Config 18	X	X	X	X	$\checkmark$	X	✓	Х
1b	Config 19	X Table 2.1. S	X	X	X	X	$\checkmark$	$\checkmark$	X

#### Table 2-1. Simultaneous Transmission Configurations

### $\checkmark$ = Support; \* = Not Support

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### Note:

All the above simultaneous transmission configurations have been tested and the worst-case configuration was found to be Config 1 and reported in RF UNII OFDM, RF Bluetooth, RF FCC Part 27b test reports.

Specific 2.4GHz Wi-Fi antenna that can only transmit simultaneously with 2.4GHz Bluetooth antenna is listed in the SAR test report. For BT (2.4GHz) in connected mode and Wi-Fi (2.4GHz) - Wi-Fi max power will not exceed minimum of (13.5dBm, SAR max cap, Reg max cap) power. For BT (2.4GHz) in disconnected mode and Wi-Fi (2.4GHz) - BT will be using iPA only and Wi-Fi max power will not exceed minimum of (SAR max cap, Reg max cap) power. Bluetooth can simultaneously transmit with IEEE 802.11a/n/ac/ax 5/6 GHz on separate antenna.

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## 2.3 Antenna Description

Band	Antenna Gain [dBi]						
Danu	Antenna 4	Antenna 2b	Antenna 3a	Antenna 1b			
WCDMA 1900							
LTE Band 2/25	1.8	-3.2	-2.8	-1.0			
NR Band n2/n25							

The following antenna gains provided by the manufacturer were used for testing.

Table 2-2. Highest Antenna Gain

## 2.4 Test Support Equipment

1	Apple MacBook Pro	Model:	A2141	S/N:	C02H604EQ05D
	w/AC/DC Adapter	Model:	A2166	S/N:	C4H042705ZNPM0WA6
2	Apple USB-C Cable	Model:	Spartan	S/N:	GXK1336018XKTR024
3	USB-C Cable	Model:	A246C	S/N:	DWH80115BK826GV19
	w/ AC Adapter	Model:	A2305	S/N:	C4H95160004PF4F4V
4	Apple Pencil	Model:	A2538	S/N:	KJ26TCFXJW
5	DC Power Supply	Model:	KPS3010D	S/N:	N/A
		Table 2.2	Test Support	Equipmon	4

 Table 2-3. Test Support Equipment

## 2.5 Test Configuration

The EUT was tested per the guidance of ANSI C63.26-2015, TIA-603-E-2016 and KDB 971168 D01 v03r01. See Section 7.0 of this test report for a description of the radiated and antenna port conducted emissions tests.

For emissions from 1GHz – 18GHz, low, mid, and high channels were tested with highest power and worst case configuration. The emissions below 1GHz and above 18GHz were tested with the highest transmitting power and the worst case channel.

The EUT was manipulated through three orthogonal planes of X-orientation (flatbed), Y-orientation (landscape), and Z-orientation (portrait) during the testing. Only the worst case emissions were reported in this test report.

## 2.6 Software and Firmware

The test was conducted with firmware version 21E8197 installed on the EUT.

## 2.7 EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and no modifications were made during testing.

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# 3.0 DESCRIPTION OF TESTS

## 3.1 Evaluation Procedure

The measurement procedures described in the documents titled "American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services" (ANSI C63.26-2015 and TIA-603-E-2016) and "Procedures for Compliance Measurement of the Fundamental Emission Power of Licensed Wideband (> 1 MHz) Digital Transmission Systems" (KDB 971168 D01 v03r01) were used in the measurement of the EUT.

Deviation from Measurement Procedure......None

## 3.2 Radiated Spurious Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. The test site inside the chamber is a 6m x 5.2m elliptical, obstruction-free area in accordance with Figure 5.7 of Clause 5 in ANSI C63.4-2014. Absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections for measurements above 1GHz. For measurements below 1GHz, the absorbers are removed. A raised turntable is used for radiated measurement. The turn table is a continuously rotatable, remote-controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm tall test table made of Styrodur is placed on top of the turn table. A Styrodur pedestal is placed on top of the test table to bring the total table height to 1.5m.

The equipment under test was transmitting while connected to its integral antenna and is placed on a turntable 3 meters from the receive antenna. The receive antenna height is adjusted between 1 and 4 meter height, the turntable is rotated through 360 degrees, and the EUT is manipulated through all orthogonal planes representative of its typical use to achieve the highest reading on the receive spectrum analyzer.

For radiated spurious emissions measurements and calculations, conversion method is used per the formulas in KDB 971168 Section 5.8.4. Field Strength (EIRP) is calculated using the following formulas:

 $E_{[dB\mu V/m]} = Measured \ amplitude \ level_{[dBm]} + 107 + Cable \ Loss_{[dB]} + Antenna \ Factor_{[dB/m]} \ And$ 

 $EIRP_{[dBm]} = E_{[dB\mu V/m]} + 20logD - 104.8$ ; where D is the measurement distance in meters.

All radiated measurements are performed in a chamber that meets the site requirements per ANSI C63.4-2014.

Per KDB 414788 D01 v01r01, radiated emission test sites other than open-field test sites (e.g., shielded anechoic chambers), may be employed for emission measurements below 30MHz if characterized so that the measurements correspond to those obtained at an open-field test site. To determine test site equivalency, a reference sample transmitting at 149kHz was measured on an open field test site (asphalt with no ground plane) and then measured in the 3m semi-anechoic chamber. A calibrated 60cm loop antenna was used while the reference device was rotated through the X, Y and Z axis in order to capture the worst case level. A maximum deviation of 2.77dB at 149kHz was measured when comparing the 3 meter semi-anechoic chamber to the open field site.

Radiated spurious emission levels are investigated with the receive antenna horizontally and vertically polarized per ANSI C63.26-2015 and TIA-603-E-2016.

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# 4.0 MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.23-2012. All measurement uncertainty values are shown with a coverage factor of k = 2 to indicate a 95% level of confidence. The measurement uncertainty shown below meets or exceeds the  $U_{CISPR}$  measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Contribution	Expanded Uncertainty (±dB)
Conducted Bench Top Measurements	2.07
Radiated Disturbance (<30MHz)	4.12
Radiated Disturbance (30MHz-1GHz)	4.85
Radiated Disturbance (1-18GHz)	5.08
Radiated Disturbance (>18GHz)	4.59

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# 5.0 TEST EQUIPMENT CALIBRATION DATA

Test Equipment Calibration is traceable to the National Institute of Standards and Technology (NIST). Measurements antennas used during testing were calibrated in accordance to the requirements of ANSI C63.5-2017.

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
Agilent Technologies	N9030A	3Hz-44GHz PXA Signal Analyzer	6/21/2023	Annual	6/21/2024	MY49430244
ESPEC	SU-241	Tabletop Temperature Chamber	11/17/2023	Annual	11/17/2024	92009574
ETS-Lindgren	3117	Double Ridged Guide Antenna (1-18 GHz)	3/30/2023	Annual	3/30/2024	00218555
Keysight Technology	N9040B	UXA Signal Analyzer	11/5/2023	Annual	11/5/2024	MY57213068
Rohde & Schwarz	TS-PR18	Pre-Amplifier (1GHz - 18GHz)	8/31/2023	Annual	8/31/2024	100052
Rohde & Schwarz	FSV40	Signal Analyzer (10Hz-40GHz)	5/11/2023	Annual	5/11/2024	101619
Rohde & Schwarz	ESW44	EMI Test Receiver	6/6/2023	Annual	6/6/2024	101668
Rohde & Schwarz	TS-PR8	Pre-Amplifier (30MHz - 8GHz)	6/22/2023	Annual	6/22/2024	102356
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	11/30/2023	Annual	11/30/2024	161616
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	12/27/2023	Annual	12/27/2024	164715
Rohde & Schwarz	TS-PR1840	Pre-Amplifier (18GHz - 40GHz)	6/2/2023	Annual	6/2/2024	100050
Rohde & Schwarz	HFH2-Z2	Loop Antenna	5/1/2023	Annual	5/1/2024	100519
Rohde & Schwarz	FSW43	Signal Analyzer (2Hz-43.5GHz)	7/13/2023	Annual	7/13/2024	101261
Schwarzbeck	VULB 9162	Bilog Antenna (30MHz - 6GHz)	4/17/2023	Annual	4/17/2024	00304

### Table 5-1. Test Equipment

#### Notes:

1. For equipment listed above that has a calibration date or calibration due date that falls within the test date range, care was taken to ensure that this equipment was used after the calibration date and before the calibration due date.

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# 6.0 SAMPLE CALCULATIONS

### **Emission Designator**

### WCDMA Emission Designator

Emission Designator = 4M16F9W WCDMA BW = 4.16 MHz F = Frequency Modulation 9 = Composite Digital Info W = Combination (Audio/Data)

#### **π/2 BPSK / QPSK Modulation**

Emission Designator = 8M62G7W BW = 8.62 MHz G = Phase Modulation 7 = Quantized/Digital Info W = Combination of Any

### **QAM Modulation**

Emission Designator = 8M45D7W BW = 8.45 MHz D = Amplitude/Angle Modulated 7 = Quantized/Digital Info W = Combination of Any

### **Spurious Radiated Emission**

### Example: Spurious emission at 3700.40 MHz

The receive spectrum analyzer reading at 3 meters with the EUT on the turntable was -81.0 dBm. The gain of the substituted antenna is 8.1 dBi. The signal generator connected to the substituted antenna terminals is adjusted to produce a reading of -81.0 dBm on the spectrum analyzer. The loss of the cable between the signal generator and the terminals of the substituted antenna is 2.0 dB at 3700.40 MHz. So 6.1 dB is added to the signal generator reading of -30.9 dBm yielding -24.80 dBm. The fundamental EIRP was 25.50 dBm so this harmonic was 25.50 dBm -(-24.80) = 50.3 dBc.

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# 7.0 TEST RESULTS

## 7.1 Summary

Company Name:	<u>Apple Inc.</u>
FCC ID:	BCGA2903
FCC Classification:	PCS Licensed Transmitter (PCB)
Mode(s):	WCDMA/LTE/NR

Test Condition	Test Description	FCC Part Section(s)	Test Limit	Test Result	Reference
	Occupied Bandwidth	2.1049	N/A	N/A	Section 7.2
	Conducted Band Edge / Spurious Emissions	2.1051, 24.238(a)	-13 dBm at Band Edge and for all out-of-band emissions	PASS	Sections 7.3, 7.4
	Peak-Average Ratio	24.232(d)	< 13 dB	PASS	Section 7.5
CONDUCTED	Transmitter Conducted Output Power	2.1046	N/A	N/A	See RF Exposure Report
	Frequency Stability		Fundamental emissions stay within authorized frequency block over the temperature and voltage range as tested	PASS	Section 7.8
	Effective Radiated Power / Equivalent lsotropic Radiated Power	24.232(c)	< 2 Watts max. EIRP	PASS	Section 7.6
RADIATED	Radiated Spurious Emissions	2.1053, 24.238(a)	-13 dBm for all out-of-band emissions	PASS	Section 7.7

Table 7-1. Summary of Test Results

### Notes:

- 1. All modes of operation and data rates were investigated. The test results shown in the following sections represent the worst case emissions.
- 2. The analyzer plots were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables, directional couplers, and attenuators used as part of the system to maintain a link between the call box and the EUT at all frequencies of interest.
- 3. All antenna port conducted emissions testing was performed on a test bench with the antenna port of the EUT connected to the spectrum analyzer through calibrated cables, attenuators, and couplers.
- All conducted emissions measurements are performed with automated test software to capture the corresponding plots necessary to show compliance. The measurement software utilized is Element EMC Software Tool EMC Software Tool v1.1.

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# 7.2 Occupied Bandwidth

# <u>§2.1049</u>

### **Test Overview**

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured. All modes of operation were investigated and the worst case configuration results are reported in this section. All ports were tested and only the worst case data were reported.

### Test Procedure Used

### KDB 971168 D01 v03r01 - Section 4.2

### Test Settings

- 1. The signal analyzer's automatic bandwidth measurement capability was used to perform the 99% occupied bandwidth and the 26dB bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
- 2. RBW = 1 5% of the expected OBW
- 3. VBW  $\geq$  3 x RBW
- 4. Detector = Peak
- 5. Trace mode = max hold
- 6. Sweep = auto couple
- 7. The trace was allowed to stabilize
- 8. If necessary, steps 2 7 were repeated after changing the RBW such that it would be within

1-5% of the 99% occupied bandwidth observed in Step 7

### Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

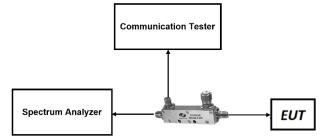


Figure 7-1. Test Instrument & Measurement Setup

### Test Notes

None.

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## LTE Band 25/2



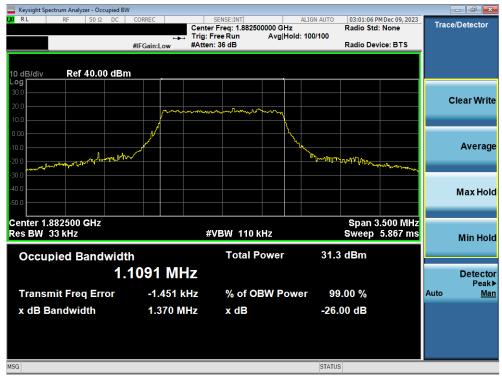
Plot 7-1. Occupied Bandwidth Plot (LTE Band 25/2 - 1.4MHz QPSK - Full RB Configuration)



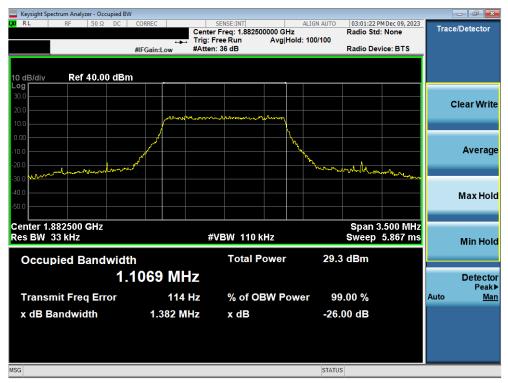
Plot 7-2. Occupied Bandwidth Plot (LTE Band 25/2 - 1.4MHz 16-QAM - Full RB Configuration)

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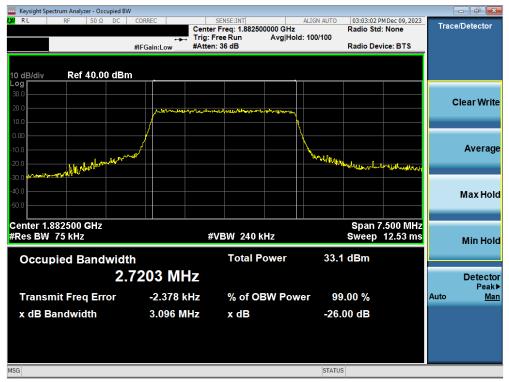
Plot 7-3. Occupied Bandwidth Plot (LTE Band 25/2 - 1.4MHz 64-QAM - Full RB Configuration)



P6.lot 7-4. Occupied Bandwidth Plot (LTE Band 25/2 - 1.4MHz 256-QAM - Full RB Configuration)

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Plot 7-5. Occupied Bandwidth Plot (LTE Band 25/2 - 3MHz QPSK - Full RB Configuration)



Plot 7-6. Occupied Bandwidth Plot (LTE Band 25/2 - 3MHz 16-QAM - Full RB Configuration)

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Keysight Spectrum Analyzer - Occu	pied BW						
<b>LX/</b> RL RF 50 Ω	DC CORREC	SENSE:INT	ALIGN AUTO		MDec 09, 2023	Trac	e/Detector
		Center Freq: 1.88250 Trig: Free Run	00000 GHz Avg Hold: 100/100	Radio Std	: None	mac	erbetector
	#IFGain:Low	#Atten: 36 dB	Avginoid. 100/100	Radio Dev	ice: BTS		
	#IF Galil.LOW	million oo ub		induite Det			
10 dB/div Ref 40.00	dBm						
Log							
30.0							Clear Write
20.0					<u> </u>		
10.0	hand	ellogramation to the Mater Carolin	and the second state of th				
	<u>ح</u>		I AI				
0.00							
-10.0	/		<u>├</u>				Average
-20.0 And the product of the start of the	uphyhad			MALANA	with hit white		
-30.0					A READ AND A LOWER		
-40.0							Max Hold
-50.0							
Center 1.882500 GHz				Span 7	'.500 MHz		
#Res BW 75 kHz		#VBW 240 k	Hz	Sweep	12.53 ms		Min Hold
							will Hold
Occupied Bandy	width	Total P	ower 31.	2 dBm			
	2.7232 MF	1Z					Detector
	0.0001						Peak▶
Transmit Freq Erro	or -2.066 k	Hz % of O	BW Power 9	9.00 %		Auto	<u>Man</u>
x dB Bandwidth	3.113 M	Hz x dB	-26	.00 dB			
	0.110 1		L	.00 08			
MSG			STAT	10			
MSG			STAT	15			

Plot 7-7. Occupied Bandwidth Plot (LTE Band 25/2 - 3MHz 64-QAM - Full RB Configuration)



Plot 7-8. Occupied Bandwidth Plot (LTE Band 25/2 - 3MHz 256-QAM - Full RB Configuration)

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Plot 7-9. Occupied Bandwidth Plot (LTE Band 25/2 - 5MHz QPSK - Full RB Configuration)



Plot 7-10. Occupied Bandwidth Plot (LTE Band 25/2 - 5MHz 16-QAM - Full RB Configuration)

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Keysight Spectrum Analyzer - Occupied	d BW					x
LX RL RF 50Ω DC		SENSE:INT		PMDec 09, 2023	Trace/Detector	
		ter Freq: 1.882500000 GH : Free Run Avg H	z Radio St old: 100/100	d: None	11400/20100101	
		en: 36 dB		evice: BTS		
	wir Gam. Edw					
10 dB/div Ref 40.00 dl	Bm					
Log						
30.0					Clear Wr	ite
20.0	and and the first states	~~~~~	a		Cical Mi	
10.0						
0.00	<u>/</u>					
	/		$\lambda$		Avera	-
-10.0	. /		L L		Avera	ge
-20.0	Murrel		monthearth	mar and a		
-30.0						
-40.0					<b></b>	
					Max Ho	ble
-50.0						
Center 1.882500 GHz			Cnon	12.50 MHz		
Res BW 120 kHz		#VBW 390 kHz		/eep 1 ms		
Res BW 120 KH2		#VDW J90 KHZ	54	reep This	Min Ho	bld
Occurried Dandwi	ماغام	Total Power	31.4 dBm			
Occupied Bandwi		TOtal Fower	51.4 UBIII			
	4.5415 MHz				Detect	tor
					Pea	
Transmit Freq Error	-7.856 kHz	% of OBW Po	wer 99.00 %		Auto <u>M</u>	lan
x dB Bandwidth	5.238 MHz	x dB	-26.00 dB			
	J.230 MITZ	X UD	-20.00 uB			
MSG			STATUS			
mod			STATUS			

Plot 7-11. Occupied Bandwidth Plot (LTE Band 25/2 - 5MHz 64-QAM - Full RB Configuration)



Plot 7-12. Occupied Bandwidth Plot (LTE Band 25/2 - 5MHz 256-QAM - Full RB Configuration)

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Keysight Spectrum Analyzer - Occ	upied BW									
LX/ RL RF 50 Ω	DC CORR	EC		ISE:INT		ALIGN AUTO		MDec 09, 2023	Trac	e/Detector
				eq: 1.88250 Run		: 100/100	Radio Std	: None		
	#IFGa	in:Low	#Atten: 3				Radio Dev	rice: BTS		
to apply	) dDm									
10 dB/div Ref 40.00	авт	·								
30.0										
20.0										Clear Write
		however	were hours and	hiter the stand	manprote					
10.0	/				1					
0.00										
-10.0	— A					<u>\</u>				Average
-20.0 marganethelippentulin	mally and the					"John Withow	menorementer	An enclose de se		
-30.0							1 4 4 V	APACIN SECT. AND		
-40.0										Max Hold
-50.0										
							0	C 00 8411-		
Center 1.88250 GHz Res BW 240 kHz			-41)/	W 750 k	Ll-			5.00 MHz ep 1 ms		
Res DW 240 KHZ			#VE	W 750 K	ΠZ		SWE	ep 1 ms		Min Hold
Occupied Band	width			Total P	ower	33	4 dBm			
				Total I			- ubiii			
	9.076	67 MH	Z							Detector
							0.00.0/			Peak▶
Transmit Freq Err	or	-7.119 k	HZ	% of O	3W Pow	er 9	9.00 %		Auto	<u>Man</u>
x dB Bandwidth		10.20 MI	Hz	x dB		-26	.00 dB			
MSG						STAT	JS			

Plot 7-13. Occupied Bandwidth Plot (LTE Band 25/2 - 10MHz QPSK - Full RB Configuration)



Plot 7-14. Occupied Bandwidth Plot (LTE Band 25/2 - 10MHz 16-QAM - Full RB Configuration)

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Keysight Spectrum Analyzer - Occupied BW	V						
X/RL RF 50Ω DC	CORREC	SENSE:INT			4 Dec 09, 2023	Trace	e/Detector
		Center Freq: 1.88250		Radio Std:	None	mac	Detector
		Trig: Free Run #Atten: 36 dB	Avg Hold:>100	Radio Devi	ice: BTS		
	#IFGalli.EOW			rtuaro Berr			
10 dB/div Ref 40.00 dBm	n						
Log							
30.0							
20.0						Ċ	Clear Write
10.0	manna	mennener	har we have			_	
	/						
0.00							
-10.0	200						Average
-20.0	****		Ym	mary for the state of the second of the			
Prophysical and a series of the				" " " " "	when have been aver		
-30.0							
-40.0							Max Hold
-50.0							
Center 1.88250 GHz				Span 2	5.00 MHz		
Res BW 240 kHz		#VBW 750 k	Hz		ep 1 ms		Min Hold
Occupied Bandwidt	h	Total P	ower	31.7 dBm			
9.	0638 MHz	Ζ					Detector
							Peak▶
Transmit Freq Error	-3.290 kH	z % of OE	3W Power	99.00 %		Auto	<u>Man</u>
x dB Bandwidth	10.07 MH	z xdB		-26.00 dB			
	10.07 1011			20.00 48			
MSC				CTATUC			
MSG				STATUS			

Plot 7-15. Occupied Bandwidth Plot (LTE Band 25/2 - 10MHz 64-QAM - Full RB Configuration)



Plot 7-16. Occupied Bandwidth Plot (LTE Band 25/2 - 10MHz 256-QAM - Full RB Configuration)

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Keysight Spectrum Analyzer - Occupied BV							7 <b>X</b>
XIRL RF 50Ω DC		SENSE:INT ter Freq: 1.8825000 I: Free Run	ALIGN AUT 000 GHz Avg Hold: 100/100	Radio Std:	None	Trace/Dete	ector
		ten: 36 dB		Radio Dev	ice: BTS		
10 dB/div Ref 40.00 dBn	n						
30.0						Clear	Write
20.0	from a straply of a	๛๛๚฿๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛	whenthe			Cicui	mile
0.00			ł				
10.0			<u>\</u>			Av	erage
20.0 phillipperson and a second	~~~		Yrungu	who have and	hand when the		-
30.0							
40.0						Max	(Hold
50.0							-
Center 1.88250 GHz Res BW 360 kHz		#VBW 1.1 MH	-		7.50 MHz ep 1 ms		
Kes BW 300 KHZ					ep mis	Mir	Hold
Occupied Bandwidt		Total Po	wer 33	3.7 dBm			
13	3.585 MHz						tector Peak▶
Transmit Freq Error	-31.339 kHz	% of OB	W Power	99.00 %		Auto	Man
x dB Bandwidth	15.14 MHz	x dB	-2	6.00 dB			
ISG			STA	ATUS			

Plot 7-17. Occupied Bandwidth Plot (LTE Band 25/2 - 15MHz QPSK - Full RB Configuration)



Plot 7-18. Occupied Bandwidth Plot (LTE Band 25/2 - 15MHz 16-QAM - Full RB Configuration)

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Keysight Spectrum Analyzer - Occup	ied BW						- 0 -
<b>LX/</b> RL RF 50 Ω	DC CORREC	SENSE:INT	ALIGN AU		MDec 09, 2023	Trac	e/Detector
		Center Freq: 1.88250 Trig: Free Run	0000 GHz Avg Hold: 100/100	Radio Std:	None	IIac	e/Detector
		#Atten: 36 dB	Avginoid. 100/100	, Radio Dev	ice: BTS		
	#IFGalli.Low	withern oo up		Tradio Der			
10 dB/div Ref 40.00	dBm						
Log							
30.0							Clear Write
20.0	0.000044.04/20	mannalla	Mantun				
10.0							
0.00	/		<u> </u>				
			<b> </b>				Average
-10.0			h				Average
-20.0 and Mar Martin Artin Lan	Marya Peri		u v v v v v v v v v v v v v v v v v v v	And me annowith	- Annal -		
-30.0					and the second free		
-40.0							
							Max Hold
-50.0							
Center 1.88250 GHz				Snan 3	7.50 MHz		
Res BW 360 kHz		#VBW 1.1 M	H7		ep 1 ms		
Res DW 300 KHZ		#8098 1.1 IV	112	0440	ep ma		Min Hold
Occupied Bandw	ridth	Total P	ower 3	1.6 dBm			
Occupied Ballow			01101 0				
	13.566 MH	Z					Detector
							Peak▶
Transmit Freq Erro	r -2.720 kl	z % of O	BW Power	99.00 %		Auto	<u>Man</u>
x dB Bandwidth	14.98 MI	lz xdB	-	26.00 dB			
X dB Bandwidth	14.50 Mi		-	20.00 UB			
MSG			TP	ATUS			
mod			31				

Plot 7-19. Occupied Bandwidth Plot (LTE Band 25/2 - 15MHz 64-QAM - Full RB Configuration)



Plot 7-20. Occupied Bandwidth Plot (LTE Band 25/2 - 15MHz 256-QAM - Full RB Configuration)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
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🔤 Keysight Spectrum Analyzer - Occupied BW							d ×
LXI RL RF 50Ω DC		SENSE:INT Center Freq: 1.88250 Frig: Free Run Atten: 36 dB		Radio Std:		Trace/E	etector
10 dB/div Ref 40.00 dBm							
20.0						Cle	ear Write
10.0 0.00 	***		Lean.	Massim	ht with we		Average
-30.0						N	lax Hold
Center 1.88250 GHz Res BW 470 kHz		#VBW 1.5 N		Swe	0.00 MHz ep 1 ms		Min Hold
Occupied Bandwidth 18	ո .066 MHz	Total P	ower	33.6 dBm			Detector Peak
Transmit Freq Error x dB Bandwidth	2.573 kHz 20.05 MHz		BW Power	99.00 % -26.00 dB		Auto	Man
MSG				STATUS			

Plot 7-21. Occupied Bandwidth Plot (LTE Band 25/2 - 20MHz QPSK - Full RB Configuration)



Plot 7-22. Occupied Bandwidth Plot (LTE Band 25/2 - 20MHz 16-QAM - Full RB Configuration)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
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Keysight Spectrum Analyzer - Occupied BW								- • •
IXI RL RF 50Ω DC	CORREC	SENSE:INT		ALIGN AUTO		M Dec 09, 2023	Trac	e/Detector
		enter Freq: 1.88250 rig: Free Run	Avg Hold:	>100/100	Radio Std:	None		0.20100101
		Atten: 36 dB			Radio Dev	ice: BTS		
10 dB/div Ref 40.00 dBm								
30.0								
20.0								Clear Write
10.0	promoundation	mound	many					
0.00								
-20.0	head the second s			hour				Average
-20.0				Welling and	W1 Hamle Allo	adut .		
-30.0						an a line when we		
-40.0								
								Max Hold
-50.0								
Center 1.88250 GHz					Snan 5	0.00 MHz	_	
Res BW 470 kHz		#VBW 1.5 N	IHz			ep 1 ms		
								Min Hold
Occupied Bandwidth		Total P	ower	31.8	dBm			
18.	.071 MHz							Detector
Transmit Freq Error	-8.347 kHz	% of O	BW Powe	er <u>99</u> .	00 %		Auto	Peak▶ <u>Man</u>
· · · · ·	20.40 MU			20.0				
x dB Bandwidth	20.16 MHz	x dB		-26.0	0 dB			
MSG				STATUS				

Plot 7-23. Occupied Bandwidth Plot (LTE Band 25/2 - 20MHz 64-QAM - Full RB Configuration)



Plot 7-24. Occupied Bandwidth Plot (LTE Band 25/2 - 20MHz 256-QAM - Full RB Configuration)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 26 of 217
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## NR Band n25/n2



Plot 7-25. Occupied Bandwidth Plot (NR Band n25/n2 - 5MHz DFT-s-OFDM π/2 BPSK - Full RB)



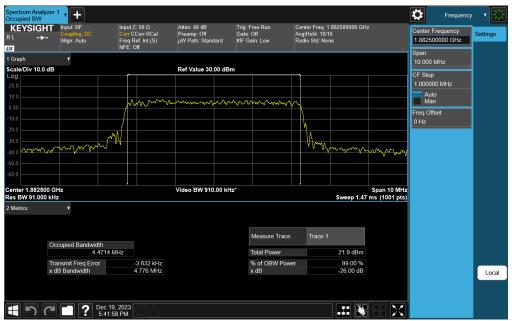
Plot 7-26. Occupied Bandwidth Plot (NR Band n25/n2 - 5MHz CP-OFDM QPSK - Full RB)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dega 07 of 017
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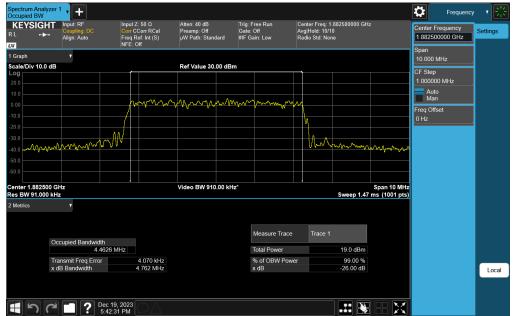
Plot 7-27. Occupied Bandwidth Plot (NR Band n25/n2 - 5MHz CP-OFDM 16QAM - Full RB)



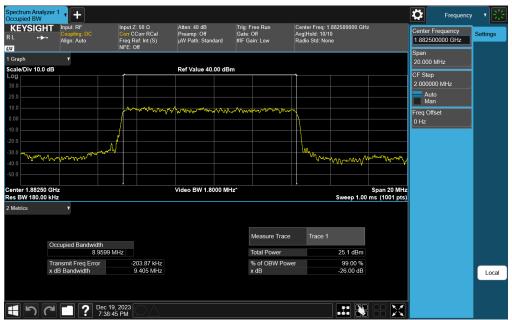
Plot 7-28. Occupied Bandwidth Plot (NR Band n25/n2 - 5MHz CP-OFDM 64QAM - Full RB)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
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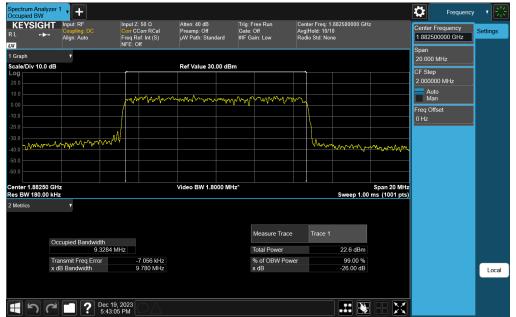
Plot 7-29. Occupied Bandwidth Plot (NR Band n25/n2 - 5MHz CP-OFDM 256QAM - Full RB)



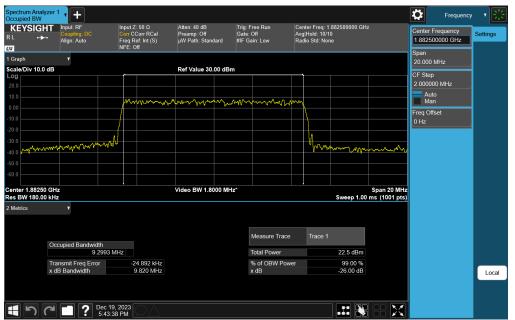
Plot 7-30. Occupied Bandwidth Plot (NR Band n25/n2 - 10MHz DFT-s-OFDM π/2 BPSK - Full RB)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
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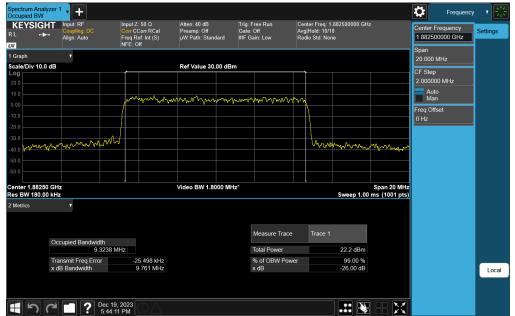
Plot 7-31. Occupied Bandwidth Plot (NR Band n25/n2 - 10MHz CP-OFDM QPSK - Full RB)



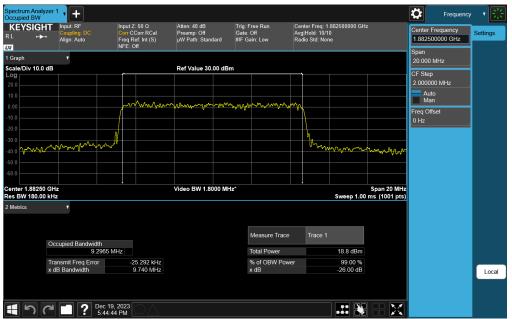
Plot 7-32. Occupied Bandwidth Plot (NR Band n25/n2 - 10MHz CP-OFDM 16QAM - Full RB)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
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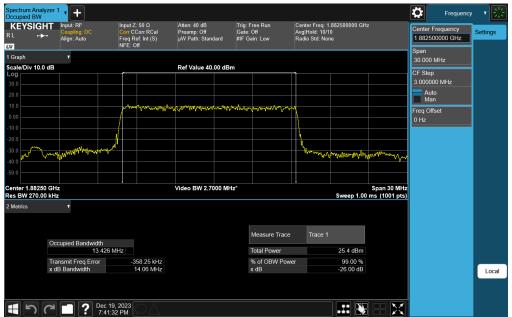
Plot 7-33. Occupied Bandwidth Plot (NR Band n25/n2 - 10MHz CP-OFDM 64QAM - Full RB)



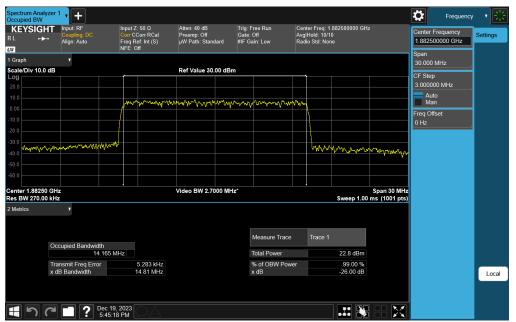
Plot 7-34. Occupied Bandwidth Plot (NR Band n25/n2 - 10MHz CP-OFDM 256QAM - Full RB)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
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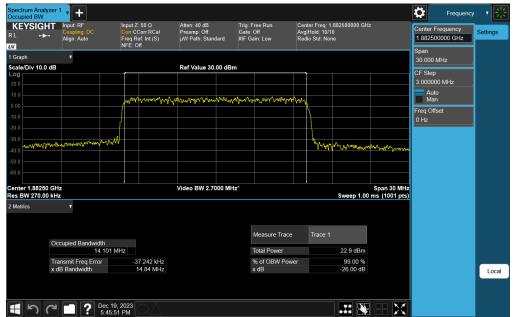
Plot 7-35. Occupied Bandwidth Plot (NR Band n25/n2 - 15MHz DFT-s-OFDM π/2 BPSK - Full RB)



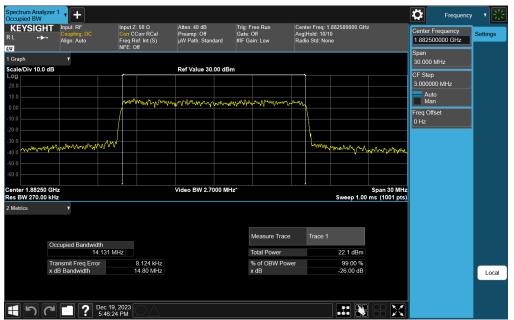
Plot 7-36. Occupied Bandwidth Plot (NR Band n25/n2 - 15MHz CP-OFDM QPSK - Full RB)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
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Plot 7-37. Occupied Bandwidth Plot (NR Band n25/n2 - 15MHz CP-OFDM 16QAM - Full RB)



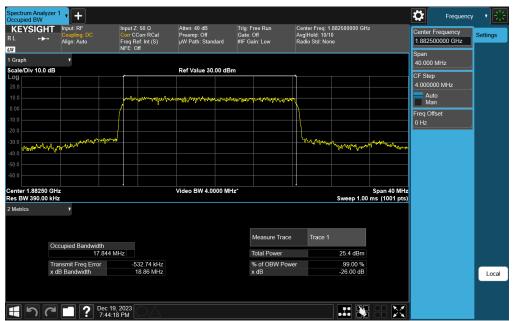
Plot 7-38. Occupied Bandwidth Plot (NR Band n25/n2 - 15MHz CP-OFDM 64QAM - Full RB)

FCC ID: BCGA2903	element	element PART 24 MEASUREMENT REPORT	
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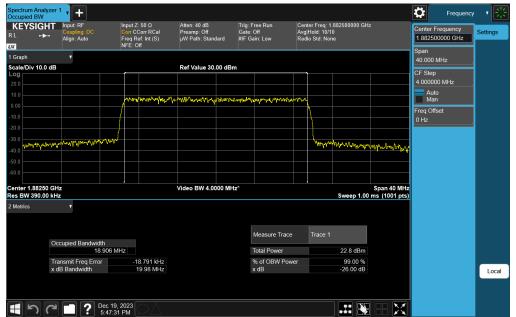
Plot 7-39. Occupied Bandwidth Plot (NR Band n25/n2 - 15MHz CP-OFDM 256QAM - Full RB)



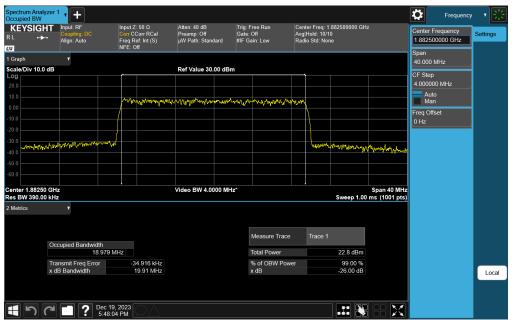
Plot 7-40. Occupied Bandwidth Plot (NR Band n25/n2 - 20MHz DFT-s-OFDM π/2 BPSK - Full RB)

FCC ID: BCGA2903	element	element PART 24 MEASUREMENT REPORT	
Test Report S/N:	Test Dates:	EUT Type:	Daga 24 of 217
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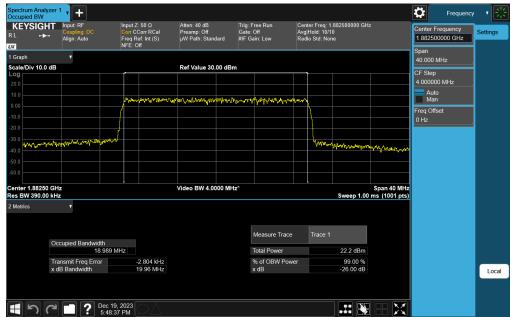
Plot 7-41. Occupied Bandwidth Plot (NR Band n25/n2 - 20MHz CP-OFDM QPSK - Full RB)



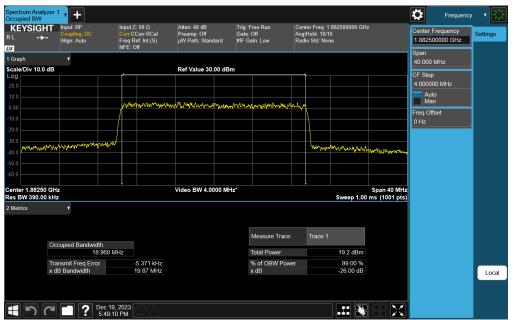
Plot 7-42. Occupied Bandwidth Plot (NR Band n25/n2 - 20MHz CP-OFDM 16QAM - Full RB)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
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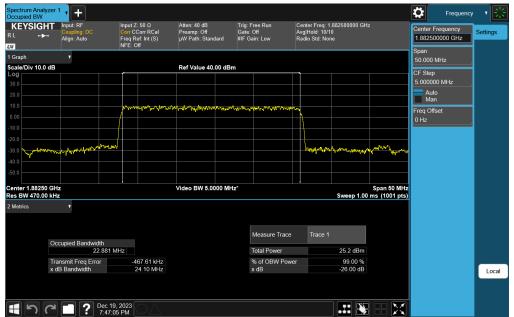
Plot 7-43. Occupied Bandwidth Plot (NR Band n25/n2 - 20MHz CP-OFDM 64QAM - Full RB)



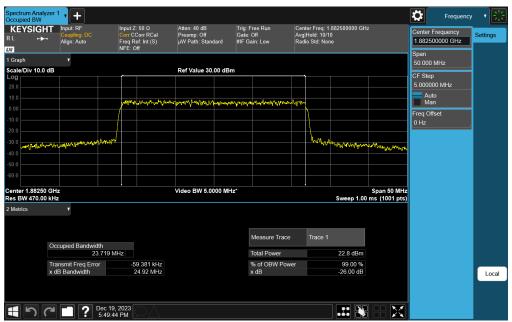
Plot 7-44. Occupied Bandwidth Plot (NR Band n25/n2 - 20MHz CP-OFDM 256QAM - Full RB)

FCC ID: BCGA2903	element	element PART 24 MEASUREMENT REPORT	
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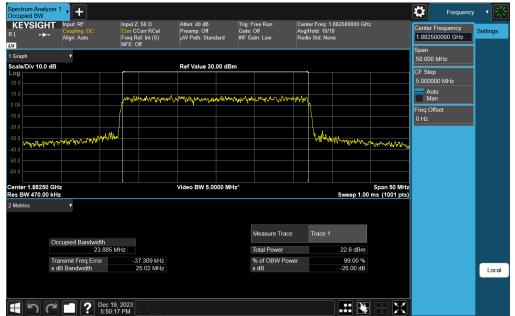
Plot 7-45. Occupied Bandwidth Plot (NR Band n25 - 25MHz DFT-s-OFDM π/2 BPSK - Full RB)



Plot 7-46. Occupied Bandwidth Plot (NR Band n25 - 25MHz CP-OFDM QPSK - Full RB)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
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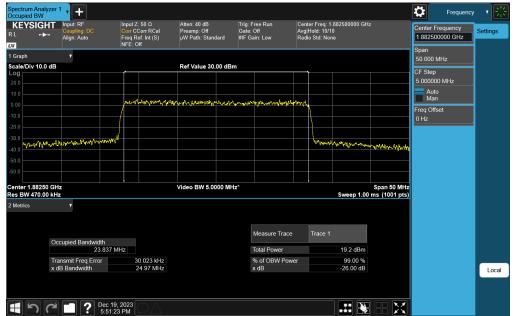
Plot 7-47. Occupied Bandwidth Plot (NR Band n25 - 25MHz CP-OFDM 16QAM - Full RB)



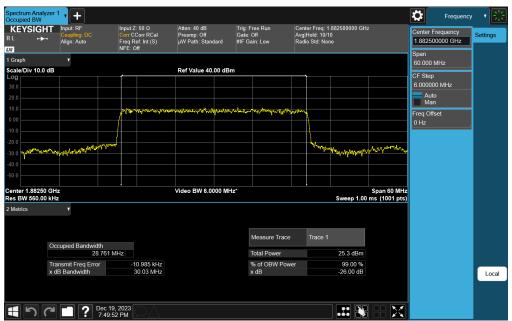
Plot 7-48. Occupied Bandwidth Plot (NR Band n25 - 25MHz CP-OFDM 64QAM - Full RB)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
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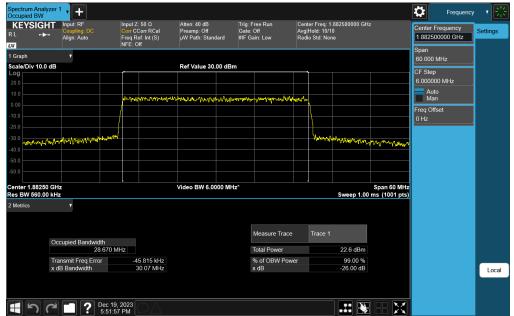
Plot 7-49. Occupied Bandwidth Plot (NR Band n25 - 25MHz CP-OFDM 256QAM - Full RB)



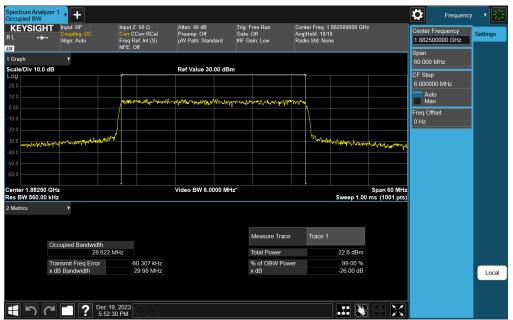
Plot 7-50. Occupied Bandwidth Plot (NR Band n25 - 30MHz DFT-s-OFDM π/2 BPSK - Full RB)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
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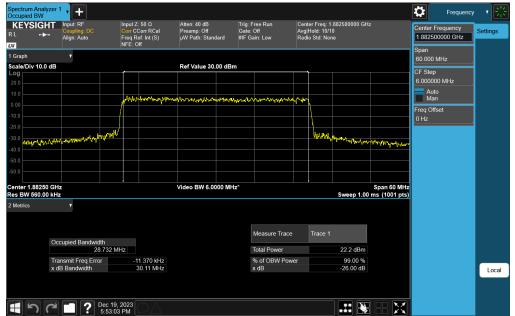
Plot 7-51. Occupied Bandwidth Plot (NR Band n25 - 30MHz CP-OFDM QPSK - Full RB)



Plot 7-52. Occupied Bandwidth Plot (NR Band n25 - 30MHz CP-OFDM 16QAM - Full RB)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
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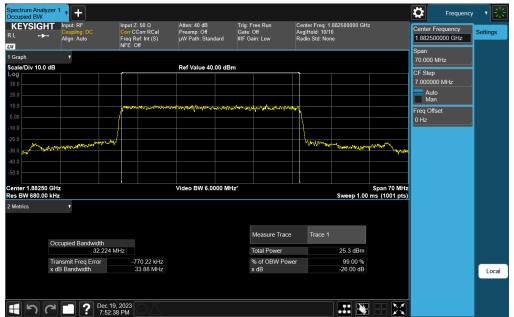
Plot 7-53. Occupied Bandwidth Plot (NR Band n25 - 30MHz CP-OFDM 64QAM - Full RB)



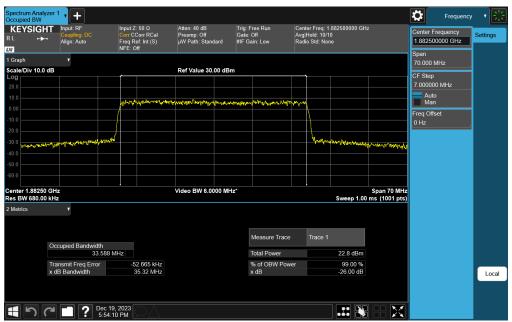
Plot 7-54. Occupied Bandwidth Plot (NR Band n25 - 30MHz CP-OFDM 256QAM - Full RB)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
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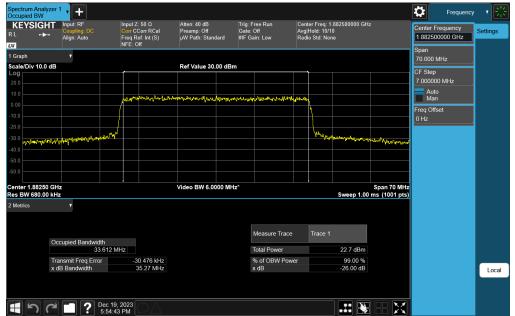
Plot 7-55. Occupied Bandwidth Plot (NR Band n25 - 35MHz DFT-s-OFDM π/2 BPSK - Full RB)



Plot 7-56. Occupied Bandwidth Plot (NR Band n25 - 35MHz CP-OFDM QPSK - Full RB)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
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Plot 7-57. Occupied Bandwidth Plot (NR Band n25 - 35MHz CP-OFDM 16QAM - Full RB)



Plot 7-58. Occupied Bandwidth Plot (NR Band n25 - 35MHz CP-OFDM 64QAM - Full RB)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
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KEYSIGH RL +►	Coupling: DC	Input Ζ: 50 Ω Corr CCorr RCal Freq Ref: Int (S) NFE: Off	Atten: 40 dB Preamp: Off µW Path: Stand	Gate	Free Run :: Off Gain: Low	Avg	er Freq: 1 Hold: 10/1 o Std: Nor			Center Frequency 1.882500000 GHz	Settings
Graph	•									Span 70.000 MHz	
cale/Div 10.0	dB		Ref Value 30.0	00 dBm						CF Step	
20.0										7.000000 MHz	
										Auto	
		wayaannogen	<u>~</u> ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	hand any sparse	man and the	and a	Ļ			Man	
							\			Freq Offset 0 Hz	
										0112	
	www.perty to group out and with the provident of the	J					Westerne	Well-Anter av	You Hater		
10.0	March March and a s							a managera de la compansióne	ALCONTRACTOR AND A CONTRACTOR		
enter 1.88250		_ <b>.</b>	Video BW 6.00	00 MH+*					Span 70 MHz		
es BW 680.00			VIGEO BAY 8.00					Sweep 1.00	ms (1001 pts)		
Metrics	۲										
					Measure Trace		Trace 1				
	Occupied Bandwidth										
	33.689				Total Power			19.2 dBm			
	Transmit Freq Error x dB Bandwidth	-22.655 kHz 35.28 MHz			% of OBW Pow x dB	ver		99.00 % -26.00 dB			Local
											Local

Plot 7-59. Occupied Bandwidth Plot (NR Band n25 - 35MHz CP-OFDM 256QAM - Full RB)

KEYSIGHT 	Input: RF Coupling: DC Align: Auto			Corr RCal ef: Int (S)	Atten: 40 dB Preamp: Off µW Path: Stand	G	ig: Free Run ate: Off F Gain: Low	Avg	er Freq: 1 Hold: 10/1 o Std: Nor			Center Frequency 1.882500000 GHz	Settings
iraph ale/Div 10.0 dE	v				Ref Value 40.	00 dBm						Span 80.000 MHz	,
g			ſ									CF Step 8.000000 MHz	
												Auto	
			proven a	ngi pangangan ng sing sing sing sing sing sing sing	┶╾╍┩╘┠┚╘╞╼╲┧	lander an annadala	anger an	wywar wy	\			Freq Offset 0 Hz	
	In Addition	www							l	Montana			
	prosperior									WWW Collipson of the second	ANT MENTING		
nter 1.88250 G BW 750.00 kl			Ļ		Video BW 8.00	000 MHz*				Sweep 1.00	Span 80 MHz ms (1001 pts)		
etrics	v												
_							Measure Tra	се	Trace 1				
C	ccupied Bandwic 38	ith 3.613 M⊦	łz				Total Power			25.4 dBm			
	ansmit Freq Erro dB Bandwidth	or		8.257 kHz 10.53 MHz			% of OBW Pe x dB	ower		99.00 % -26.00 dB			Loca
×													

Plot 7-60. Occupied Bandwidth Plot (NR Band n25 - 40MHz DFT-s-OFDM π/2 BPSK - Full RB)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
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Center 1 88250 GHz Span 80 MHz Seater 1 88250 GHz Span 80 MHz Sweep 1.00 ms (1001 pts) 2 Metrics V Measure Trace Trace 1 Occupied Bandwidth 38 579 MHz Transmit Freq Error -34 381 kHz % of OBW Power 99.00 %	Scale/Div 10.0 dB Log 20.0 10.0 0.00			Ref Value 30.	00 dBm						
OC       OC <td< th=""><th>-og 20.0 10.0 0.00</th><th></th><th></th><th>Ref Value 30.</th><th>00 dBm</th><th></th><th></th><th></th><th></th><th></th><th></th></td<>	-og 20.0 10.0 0.00			Ref Value 30.	00 dBm						
Auto Auto							_			CF Step	
Measure Trace Trace 1 Occupied Bandwidth 38 579 MHz Transmit Freq Error 341 381 MHz % of OBW Power 990.00 %							_			8.000000 MHz	
000     000 <td></td> <td></td> <td>Marth Martin Dulowand</td> <td>allocation the market and</td> <td>water all on</td> <td>an and the second</td> <td>-</td> <td></td> <td></td> <td></td> <td></td>			Marth Martin Dulowand	allocation the market and	water all on	an and the second	-				
000         000 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td>Freq Offset</td> <td></td>							1			Freq Offset	
Maximum de protection     Maximum de protection       400     Maximum de protection       500     Maximum de protection       5										0 Hz	
40 0 50 0		an martinger and and and					have	adian, he in an all the in	waln Hallware a		
60 0 Video BW 8.0000 MHz* Span 80 MHz ters 1.88250 GHz Video BW 8.0000 MHz* Span 80 MHz ters BW 750.00 kHz Sweep 1.00 ms (1001 pts) Metrics V Measure Trace Trace 1 Occupied Bandwidth 38 579 MHz A1 81 kHz % of OBW Power 99.00 %									كالحد المراجع		
Coccupied Bandwidth 38 579 MHz     Measure Trace     Trace 1       Transmit Freq Error     -34 381 kHz     % of OBW Power     99 00 %							_				
Res BW 750.00 kHz     Sweep 1.00 ms (1001 pts)       2 Metrics     *											
2 Metrics Measure Trace Trace 1 Occupied Bandwidth 38 579 MHz Total Power 22 6 dBm Transmit Freq Error -34 381 kHz % of OBW Power 99.00 %				Video BW 8.00	000 MHz*			S			
Occupied Bandwidth 38.579 MHz Total Power 22.6 dBm Transmit Freq Error -34.381 kHz % of OBW Power 990.00 %								3weep 1.00	115 (1001 pts)		
38 579 MHz         Total Power         22 6 dBm           Transmit Freq Error         -34 391 kHz         % of OBW Power         99 00 %	0	i-d Ddi-d4L				Measure Trace	Trace 1				
	0		1Hz			Total Power		22.6 dBm			
x dB Bandwidth 40.53 MHz x dB -26.00 dB Loca											
	x	dB Bandwidth	40.53 MHz			x dB		-26.00 dB			Loca

Plot 7-61. Occupied Bandwidth Plot (NR Band n25 - 40MHz CP-OFDM QPSK - Full RB)

EYSIG →	Coupling: DC		Input Ζ: 50 Ω <mark>Corr</mark> CCorr RCal Freq Ref: Int (S) NFE: Off	Atten: 40 dB Preamp: Off µW Path: Stan		Frig: Free Run Gate: Off ∦F Gain: Low	Avgi	er Freq: 1 Hold: 10/1 o Std: Noi			Center Frequency 1.882500000 GHz Span	Settings
raph ale/Div 10.0	▼ ) dB			Ref Value 30	00 dBm						80.000 MHz	,
g 0											CF Step 8.000000 MHz	
			an a	athathathatha an an	Din these se	eeyllishtrowear-ops	to mention of				Auto Man	1
				- Contract of Marida	a fasta e das	a dhadha da na sea sa la lha	لوالمعتهد				Freq Offset 0 Hz	
0 0	why and the way on the second	were						hower	Martaltanation	rtmarka gerandre		2
nter 1.8825 BW 750.0				Video BW 8.00	000 MHz*				Sweep 1.00	Span 80 MHz ms (1001 pts)		
etrics	۲											
	0	44				Measure Tra	ce	Trace 1				
	Occupied Bandwid	aun 8.742 MH	Iz			Total Power			22.8 dBm			
	Transmit Freq Erro x dB Bandwidth	or	-5.431 kHz 40.51 MHz			% of OBW P x dB	ower		99.00 % -26.00 dB			Loca

Plot 7-62. Occupied Bandwidth Plot (NR Band n25 - 40MHz CP-OFDM 16QAM - Full RB)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
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KEYSIGI RL +►		Input Z: 50 Ω Corr CCorr RCal Freq Ref: Int (S) NFE: Off	Atten: 40 dB Preamp: Off µW Path: Stan		irig: Free Run Sate: Off IF Gain: Low	Avg	er Freq: 1 Hold: 10/1 o Std: Noi		z	Center Frequency 1.882500000 GHz	Settings
Graph	v									Span 80.000 MHz	
cale/Div 10.0			Ref Value 30	.00 dBm						CF Step 8.000000 MHz	1
		Alder on a state	ha boland at the se		1 f					Auto Man	
0.0		สถานหายาวิทางการการการการการการการการการการการการการก	- and solar index and the fire	nd stand	1440 KON KANANA MANANA	┉╄┉╱┉┉╼╲				Freq Offset 0 Hz	
10.0	www.werterenterenterenterenterenterenterente						manut	horangeonalite	When we want		
0.0											
enter 1.88250 es BW 750.00			Video BW 8.0	000 MHz*				Sweep 1.00	Span 80 MHz ms (1001 pts)		
Metrics	۲										
	Occupied Bandwidth				Measure Tra	ice	Trace 1				
	38.827 N	1Hz			Total Power			22.2 dBm			
	Transmit Freq Error x dB Bandwidth	-18.743 kHz 40.46 MHz			% of OBW P x dB	ower		99.00 % -26.00 dB			Loca

Plot 7-63. Occupied Bandwidth Plot (NR Band n25 - 40MHz CP-OFDM 64QAM - Full RB)



Plot 7-64. Occupied Bandwidth Plot (NR Band n25 - 40MHz CP-OFDM 256QAM - Full RB)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	
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# WCDMA PCS

🔤 Keysight Spectrum Analyzer - Occupied BW						7 ×
LX RLT RF 50Ω AC	CORREC Cente	SENSE:INT r Freg: 1.880000000 GHz		41 PM Nov 20, 2023 Std: None	Trace/Dete	ctor
	🛶 Trig: I	Free Run Avg Hold: n: 36 dB		Device: BTS		
	#IFGain:Low #Atter	n: 36 dB	Radio	Device: B15		
10 dB/div Ref 40.00 dBm						
30.0					Clear	141-14-
20.0		many			Clear	write
10.0						
0.00		\				
-10.0		\			Av	erage
-20.0	~~~	\/	- Martin			
-30.0				Same and the		
-40.0					Max	Hold
-50.0						
Center 1.88 GHz				pan 15 MHz		
Res BW 150 kHz	v	/BW 1.5 MHz		weep 1 ms	Mir	n Hold
				_		molu
Occupied Bandwidt		Total Power	35.2 dBm			
4.1	1725 MHz					tector
Transmit Freq Error	1.584 kHz	% of OBW Powe	er 99.00 %		Auto	Peak▶ Man
					, luto	man
x dB Bandwidth	4.778 MHz	x dB	-26.00 dB			
MSG			STATUS			

Plot 7-65. Occupied Bandwidth Plot (WCDMA, Ch. 9400)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 47 of 217
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# 7.3 Spurious and Harmonic Emissions at Antenna Terminal §2.1051, §24.238(a)

### Test Overview

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section. All ports were tested and only the worst case data were reported.

# The minimum permissible attenuation level of any spurious emission is $43 + 10 \log_{10}(P_{[Watts]})$ , where P is the transmitter power in Watts.

## Test Procedure Used

KDB 971168 D01 v03r01 - Section 6.0

#### **Test Settings**

- 1. Start frequency was set to 30MHz and stop frequency was set to 20GHz (separated into at least two plots per channel)
- 2. Detector = RMS
- 3. Trace mode = trace average for continuous emissions, max hold for pulse emissions
- 4. Sweep time = auto couple
- 5. The trace was allowed to stabilize
- 6. Please see test notes below for RBW and VBW settings

#### Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

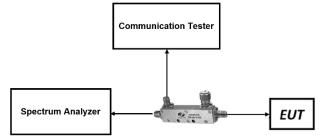


Figure 7-2. Test Instrument & Measurement Setup

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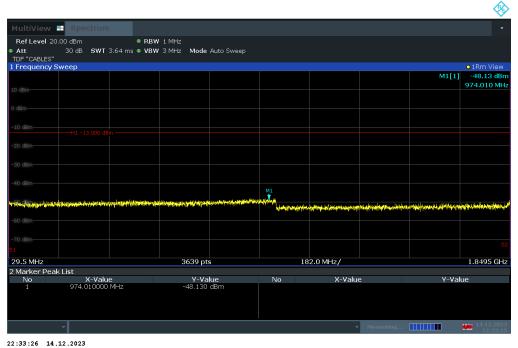
## Test Notes

- Per Part 24, compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth 100 kHz or greater for measurements below 1GHz. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emission are attenuated at least 26 dB below the transmitter power.
- 2. For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.
- 3. NR band n25 overlaps the entire frequency range of NR band 2. Therefore, the conducted emissions data of NR band n25 provided in this report covers NR band n2.

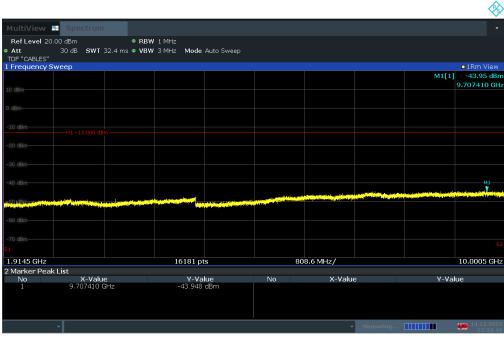
FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager	
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## LTE Band 25/2



Plot 7-66. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



22:33:43 14.12.2023

Plot 7-67. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

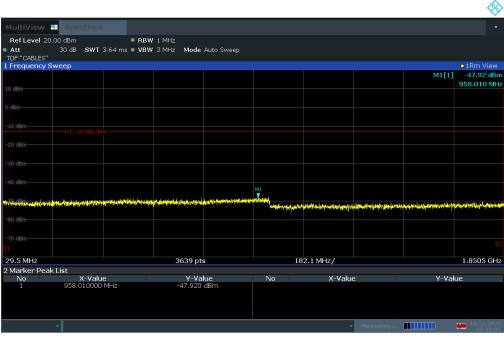
FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dege 50 of 217	
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								<b>\$</b>
MultiView	Spectrum							
Ref Level 0.00	0 dBm	• RBW 1 MHz						
<ul> <li>Att TDF "CABLES"</li> </ul>	30 dB <b>SWT</b> 40.1 ms	• VBW 3 MHz	Mode Auto Sweep					
1 Frequency Sv	weep							●1Rm View
							M1[1]	-40.14 dBm
-10 dBm-								18.054150 GHz
-20 dBm								
-30 dBm								
-40 dBm							M1 ¥	
and a stable for the distribution of the	and the state of the		National states and the second					
-50 dBm-								
-60 dBm-								
-70 dBm								
-80 dBm								
oo ubiii								
-90 dBm								
51								52
9.9995 GHz			20001 pts		1.0 GHz/			20.0005 GHz
2 Marker Peak								
No	X-Value		Y-Value	No	X-Valu	8	Y-Va	lue
	18.054150 GHz		-40.141 dBm					
	•				*	Measuring		4.12.2023 22:34:01
								22:34:01

22:34:01 14.12.2023

Plot 7-68. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



22:35:05 14.12.2023

Plot 7-69. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

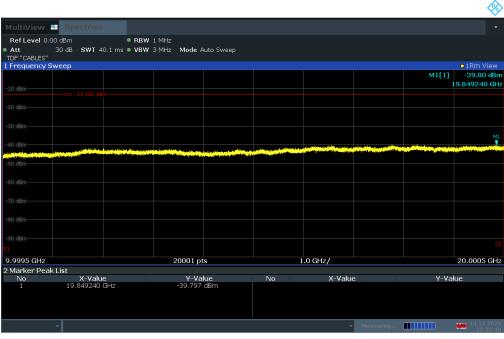
FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
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									<b>\$</b>
MultiView	Spectrum								
Ref Level 20.	00 dBm	• RBW	1 MHz						
Att	30 dB SWT :	32.4 ms 💿 VBW	3 MHz Mode	Auto Sweep					
TDF "CABLES"									
1 Frequency S	weep								●1Rm View
								M1[1]	-44.06 dBm 9.728400 GHz
10 dBm									9.728400 GHZ
0 dBm									
-10 dBm		m							
-20 dBm									
-30 dBm									
-40 dBm									M1
-40 aBm-									T I
- FO dBm	a contract in a second second		and all and a state of the state		and the second				and the second
-50 dBm			ALC: NOT THE OWNER OF THE OWNER OF		Contraction of the local division of the loc				
-60 dBm									
oo abiii									
-70 dBm									
51									52
1.9145 GHz			16181 pi			08.6 MHz/			10.0005 GHz
2 Marker Peak	1		16181 p	15	8	08.6 MHZ/			10.0005 GHZ
Z Marker Peak	X-Value	e	Y-Va	lue	No	X-Valu	e	Y-Va	ue
1	9.728400 0	GHz	-44.058	dBm	2	4.888590 0		-47.592	
									14.12.2023 22·35·23
									ZZ:35:23

22:35:23 14.12.2023

Plot 7-70. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



22:35:41 14.12.2023

Plot 7-71. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

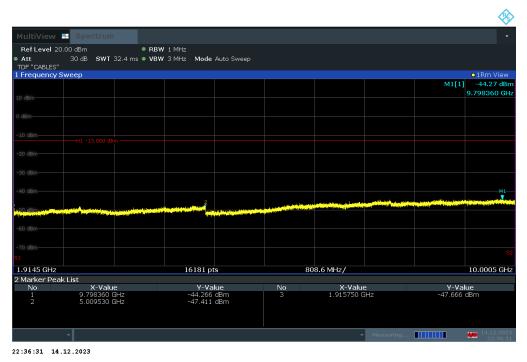
FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager	
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									<b>\$</b>
MultiView	Spectrum	1							
Ref Level 20.0	00 dBm	RBW	1 MHz						
<ul> <li>Att</li> </ul>	30 dB <b>SWT</b>	3.64 ms 🗢 VBW	3 MHz Mode	Auto Sweep					
TDF "CABLES"									
1 Frequency Sw	veep								o1Rm View
								M1[1]	
10 dBm									829.910 MHz
0 dBm									
-10 dBm									
	——H1 -13.000 dB								
-20 dBm									
-30 dBm-									
-40 dBm-									
				M1					
NUTRINO AND DESCRIPTION	فالإلام أسترج كالمقادية	where where the states	and an	الماروحية فيتجاج والمتحاد المروحية	A ANAL AND A STATE OF	adentia trens an otana	- and must have be counted as	a	وروفنا وفلغاط فراد ارقر وفروته
					(nulle) nike en en en	ernetral de carintela artémiste		al and sol (see al , so farmer so	al de la faire
-60 dBm-									
-70 dBm-									
S1									
29.5 MHz			3639 pt	\$	1:	82.1 MHz/			1.8505 GHz
2 Marker Peak	List		0000 pt						
No	X-Valu		Y-Va		No	X-Valu	e	Y-Va	lue
1	829.910000	) MHz	-48.227	dBm					
	-						Measuring		<b>#</b> 14.12.2023 22:36:13
									22:36:13

22:36:13 14.12.2023

Plot 7-72. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-73. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager	
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MultiView	Spectrum								•
Ref Level 0.0	00 dBm	● RBW	1 MHz						
• Att	30 dB <b>SWT</b> 4	0.1 ms 🗢 VBW	3 MHz Mode A	Auto Sweep					
TDF "CABLES"									
1 Frequency S	Sweep								<ul> <li>1Rm View</li> </ul>
								M1[1]	-39.87 dBm 19.792740 GHz
-10 dBm									19.792740 GHz
-20 dBm									
-30 dBm									
									M1
-40 dBm-		line of the second second	and the second sec						
		No. of Concession, Name			Contraction of the local division of the loc	من الموري والله التخر منتها الالاليون	a de la desta de la dela de la dela dela dela dela d	and the second	
-50 dBm-									
-60 dBm-									
-70 dBm-									
-80 dBm-									
-90 dBm									52
S1									
9.9995 GHz			20001 p	ts		1.0 GHz/			20.0005 GHz
2 Marker Peal									
No	X-Valu		Y-Va		No	X-Value	:	Y-Va	ilue
1	19.792740	GHz	-39.873	dBm					
	_								14 10 0000
									14.12.2023 22:36:49

22:36:49 14.12.2023

Plot 7-74. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

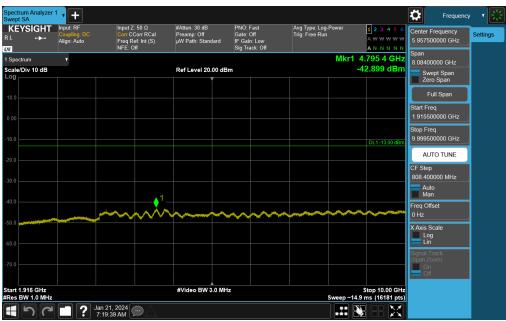
FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
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## NR Band n25/n2



Plot 7-75. Conducted Spurious Plot (NR Band n25/n2 - 40.0MHz - RB Size 1, RB Offset 0 - Low Channel)



Plot 7-76. Conducted Spurious Plot (NR Band n25/n2 - 40.0MHz - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:		
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Plot 7-77. Conducted Spurious Plot (NR Band n25/n2 - 40.0MHz - RB Size 1, RB Offset 0 - Low Channel)



Plot 7-78. Conducted Spurious Plot (NR Band n25/n2 - 40.0MHz - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage EC of 247
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Plot 7-79. Conducted Spurious Plot (NR Band n25/n2 - 40.0MHz - RB Size 1, RB Offset 0 - Mid Channel)

Spectrum Analyzer Swept SA	1 <b>• +</b>						Frequency 🔻	212 215
KEYSIGHT RL ↔	Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corr CCorr RCal Freq Ref: Int (S) NFE: Off	#Atten: 10 dB Preamp: Off μW Path: Standard	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Po Trig: Free Run	A <del>w w w w w</del> A n n n n n	Center Frequency 15.00000000 GHz Span	ngs
1 Spectrum	•				1	Akr1 19.880 0 GHz	9.99900000 GHz	
Scale/Div 10 dB			Ref Level 16.50 dE	im		-59.981 dBm	Swept Span Zero Span	
6.50							Full Span	
-3.50							Start Freq 10.000500000 GHz	
-13.5						DL1-13.00 dBm	Stop Freq 19.999500000 GHz	
-23.5							AUTO TUNE	
-33.5							CF Step 999.900000 MHz	
-43.5							Auto Man Freq Offset	
							0 Hz	
-53.5							X Axis Scale	
							Signal Track (Span Zoom)	
-73.5							On Off	
Start 10.001 GHz #Res BW 1.0 MHz			#Video BW 3.0 MH	z	Sv	Stop 20.000 GHz veep ~18.9 ms (20001 pts)		
<b>1 1</b>	<b>1 ?</b> Jar 7:	1 21, 2024 💬 🛆				🎞 🔛 🔣 🔀		

Plot 7-80. Conducted Spurious Plot (NR Band n25/n2 - 40.0MHz - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
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Plot 7-81. Conducted Spurious Plot (NR Band n25/n2 - 40.0MHz - RB Size 1, RB Offset 0 - High Channel)



Plot 7-82. Conducted Spurious Plot (NR Band n25/n2 - 40.0MHz - RB Size 1, RB Offset 0 - High Channel)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 59 of 217
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wept SA	Input: RF	Input Z: 50 Ω	#Atten: 10 dB	PNO: Fast	Avg Type: Log-Power		Frequency	
KEYSIGHT	Coupling: DC	Corr CCorr RCal	Preamp: Off	Gate: Off	Trig: Free Run	1 2 3 4 5 6	Center Frequency	Settings
:L + <b>→</b> +	Align: Auto	Freq Ref: Int (S)	µW Path: Standard	IF Gain: Low		$\land w w w w w$	15.000000000 GHz	, and the second s
g		NFE: Off		Sig Track: Off		ANNNN	Span	1
Spectrum	•				Mkr1	19.863 5 GHz	9.99900000 GHz	
cale/Div 10 dB			Ref Level 16.50 c	:Bm		-59.803 dBm	Swept Span	
09			Ť				Zero Span	
6.50							Full Span	
.50							Start Freq	
.50							10.000500000 GHz	
1.50							·	
						DL1-13.00 dBm	Stop Freq 19.999500000 GHz	
3.5							19.99900000 GHZ	
23.5							AUTO TUNE	
23.5							CF Step	
33.5							999.900000 MHz	
13.5							- Auto	
43.5							Man	
							Freq Offset	
							0 Hz	
3.5							X Axis Scale	1
		_		Man		Security of Constraints of Constraints	Log Lin	
3.5	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~						Signal Track	
							(Span Zoom)	
							On Off	
tart 10.001 GHz			#Video BW 3.0 N	MHz		Stop 20.000 GHz		_
Res BW 1.0 MHz		21, 2024			Sweep ~	l8.9 ms (20001 pts)		

Plot 7-83. Conducted Spurious Plot (NR Band n25/n2 - 40.0MHz - RB Size 1, RB Offset 0 - High Channel)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Daga 50 of 217
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			\/2 2 09/07/2023



## WCDMA PCS

	pectrum Analyzer - S						
L <mark>XI</mark> RLT	RF 50	Ω AC	CORREC	SENSE:INT	#Avg Type: RMS	02:48:57 PM Nov 20, 2023 TRACE 1 2 3 4 5 6	Frequency
PASS			PNO: Fast +++ IFGain:Low	Trig: Free Run Atten: 30 dB			
10 dB/div	Ref 20.00	dBm			Μ	lkr1 1.845 0 GHz -29.35 dBm	Auto Tune
Log 10.0	e 1 Pass						Center Freq 937.500000 MHz
0.00							Start Freq 30.000000 MHz
-10.0							Stop Freq
-30.0							1.845000000 GHz CF Step
-50.0	- State			ىرى ئەرىلىرىنە بەر بەر بەر بەر بەر بەر بەر بەر بەر بە	ay-aday,100004/0.000.699.007160.000.0000		181.500000 MHz <u>Auto</u> Man
-60.0							Freq Offset 0 Hz
Start 0.0	300 CH7					Stop 1.8450 GHz	Scale Type
	1.0 MHz		#VBW	3.0 MHz	Sweep	2.427 ms (3641 pts)	
MSG					STAT	US	

Plot 7-84. Conducted Spurious Plot (WCDMA Ch. 9262)



Plot 7-85. Conducted Spurious Plot (WCDMA Ch. 9262)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 60 of 217
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🔤 Keysight Spectrum Analyzer - Swept SA 👘				
MARLT RF 50Ω AC	PNO: Fast Trig: Free Run	#Avg Type: RMS	02:49:37 PM Nov 20, 2023 TRACE 1 2 3 4 5 6 TYPE A WWWW DET A N N N N	Frequency
10 dB/div Ref 0.00 dBm	IFGain:Low Atten: 10 dB	N	lkr1 18.324 0 GHz -57.940 dBm	Auto Tune
-10.0				Center Fred 15.000000000 GHz
-20.0				Start Fred 10.000000000 GHz
-40.0				<b>Stop Fred</b> 20.000000000 GH2
-60.0		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		CF Step 1.00000000 GH: <u>Auto</u> Mar
-80.0				Freq Offse 0 H
-90.0 Start 10.000 GHz #Res BW 1.0 MHz	#VBW 3.0 MHz	Swaan	Stop 20.000 GHz 25.33 ms (20001 pts)	Scale Type
MSG	# 8 BY 3.0 MI12		23.35 ms (2000 r pts)	

Plot 7-86. Conducted Spurious Plot (WCDMA Ch. 9262)



Plot 7-87. Conducted Spurious Plot (WCDMA Ch. 9400)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dogo 61 of 217	
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	ectrum Analyze												- 6 🔀
LXI RLT	RF	50 Ω A		ORREC				#Avg Typ	e: RMS	TRAC	M Nov 20, 2023	Freq	uency
PASS				PNO: Fa IFGain:L	st ⊶⊶ ow	Atten:				D			
10 dB/div Log	Ref 20.0	00 dBi	m						Μ	kr1 6.93 -45.	5 5 GHz 60 dBm	A	uto Tune
10.0 Trace	e 1 Pass												n <b>ter Freq</b> 00000 GHz
-10.0													<b>tart Freq</b> 00000 GHz
-20.0													t <b>op Freq</b> 00000 GHz
-40.0			_		~			1				809.00 <u>Auto</u>	<b>CF Step</b> 00000 MHz Man
-60.0												Fre	e <b>q Offset</b> 0 Hz
-70.0													ale Type
Start 1.91 #Res BW				#	VBW	3.0 MH	z	s	weep 1	Stop 10 4.02 ms (1	.000 GHz 6181 pts)	Log	Lin
MSG									STATU				

Plot 7-88. Conducted Spurious Plot (WCDMA Ch. 9400)



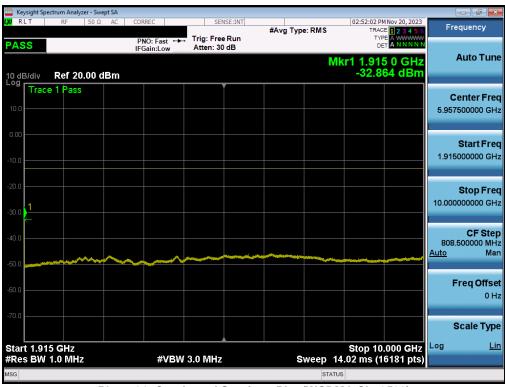
Plot 7-89. Conducted Spurious Plot (WCDMA Ch. 9400)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:		
1C2311270064-08-R2.BCG	10/01/2023 - 03/04/2024	Tablet Device	Page 62 of 217	
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	ectrum Analyz												
LXU RLT	RF	50 Ω	AC	CORREC			NSE:INT	#Avg Typ	e: RMS	TRA	PM Nov 20, 2023 ACE 1 2 3 4 5 6	Fre	quency
PASS				PNO: Fa	ast ↔ .ow	Trig: Fre Atten: 3				1			
10 dB/div Log	Ref 20.	.00 dB	sm						Μ	kr1 1.73 -49	88 5 GHz .72 dBm		Auto Tune
Trace	e 1 Pass						Ĭ					с	enter Freq
10.0												940.	000000 MHz
0.00													Start Freq
-10.0													000000 MHz
-20.0													Stop Freq
-30.0													000000 GHz
-40.0													CF Step
											<b>♦</b> <sup>1</sup>	182. <u>Auto</u>	000000 MHz Man
-50.0	وهديدور مارو	magnaphing	مەللىزىرىدى		ابوليس ومعمد ومدينهم	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		energy and a second second	arani dagan ya ali luklari		14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
-60.0												F	req Offset 0 Hz
-70.0												_	
													Scale Type
Start 0.03 #Res BW				#	¢VB₩	3.0 MHz			Sweep	Stop 1 2.427 ms	.8500 GHz (3641 pts)	Log	Lin
MSG									STAT				

Plot 7-90. Conducted Spurious Plot (WCDMA Ch. 9538)





FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dage 62 of 217	
1C2311270064-08-R2.BCG	10/01/2023 - 03/04/2024	Tablet Device	Page 63 of 217	
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	ectrum Analyz													
K RLT	RF	50 Ω	AC	CORREC		SEI	ISE:INT	#Avg Ty	e: RMS	02:5	TRACE	Nov 20, 2023	Fre	quency
PASS				PNO: F IFGain:	ast ⊶⊷ Low	Trig: Free Atten: 10					TYPE	A WWWWW A N N N N N		_
I0 dB/div	Ref 0.0	00 dB	m						Μ	kr1 18 -5	.303 8.04	5 GHz 6 dBm		Auto Tun
-og Trace	e 1 Pass													<b>enter Fre</b> 000000 GH
30.0													10.000	Start Fre 000000 G⊦
40.0													20.000	<b>Stop Fre</b> 000000 G⊦
60.0					~~~~~	an the state of the		and a support of					1.000 <u>Auto</u>	<b>CF Ste</b> 000000 G⊦ Ma
80.0													F	F <b>req Offs</b> 0 H
90.0														Scale Typ
Start 10.0 ≇Res BW					#VBW	3.0 MHz			Sweep	Sto 25.33 m	p 20.0 1s (20	000 GHz 001 pts)	Log	Li
sg										ATUS				

Plot 7-92. Conducted Spurious Plot (WCDMA Ch. 9538)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dage 64 of 217	
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## 7.4 Band Edge Emissions at Antenna Terminal

<u>§2.1051, §24.238(a)</u>

## **Test Overview**

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section. All ports were tested and only the worst case data was reported.

# The minimum permissible attenuation level of any spurious emission is $43 + 10 \log_{10}(P_{[Watts]})$ , where P is the transmitter power in Watts.

## Test Procedure Used

KDB 971168 D01 v03r01 - Section 6.0

## Test Settings

- 1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
- 2. Span was set large enough so as to capture all out of band emissions near the band edge
- 3. RBW  $\geq$  1% of the emission bandwidth
- 4. VBW  $\geq$  3 x RBW
- 5. Detector = RMS
- 6. Number of sweep points  $\geq 2 \times \text{Span/RBW}$
- 7. Trace mode = trace average for continuous emissions, max hold for pulse emissions
- 8. Sweep time = auto couple
- 9. The trace was allowed to stabilize

## Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

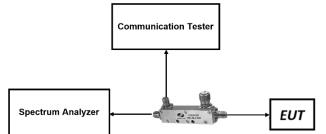


Figure 7-3. Test Instrument & Measurement Setup

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dage CE of 217	
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## Test Notes

- Per 24.238(a), in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to demonstrate compliance with the out-of-band emissions limit. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emission are attenuated at least 26 dB below the transmitter power.
- 2. For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

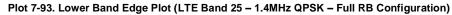
FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dega CC of 017	
1C2311270064-08-R2.BCG	10/01/2023 - 03/04/2024	Tablet Device	Page 66 of 217	
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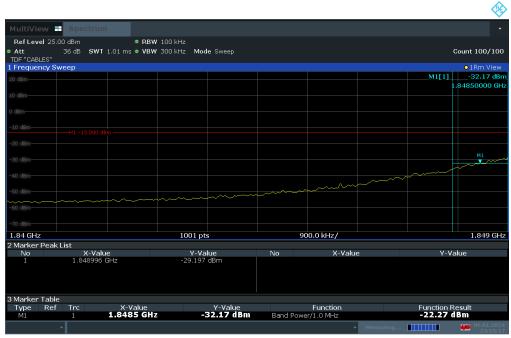


## LTE Band 25

MultiViour	Spectrum					<b>*</b>
Ref Level 25.		RBW 20 kHz				
Att	36 dB SWT 1.01 ms	■ KBW 20 KHZ Mode Sweep				Count 100/100
TDF "CABLES" I Frequency Sy						•1Rm View
	weep				M1[	
						1.84998930 GH
-10 dBm						
- TO UBIN-						
-20 dBm			м			
-30 dBm						
-40 dBm						
1.849 GHz		1001 pts		170.0 kHz/		1.8507 GH
2 Marker Peak	List					
No	X-Value	Y-Value	No	X-Value	<u> </u>	/-Value
	1.849989 GHz	-23.810 dBm				
					Measuring	06.01.202

23:55:34 06.01.2024





23:55:17 06.01.2024

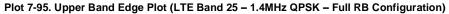
Plot 7-94. Extended Lower Band Edge Plot (LTE Band 25 – 1.4MHz QPSK – Full RB Configuration)

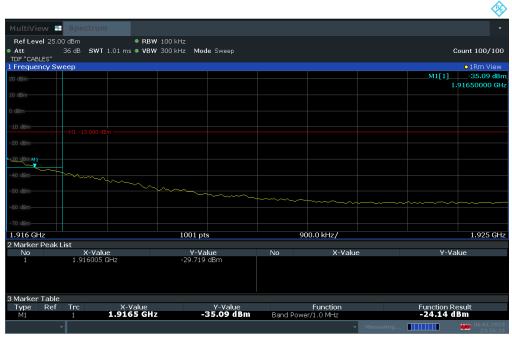
FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dage 67 of 217	
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	Spectrum					
Ref Level 25.0		RBW 20 kHz				o
Att DF "CABLES"	36 dB SWT 1.01 ms 4	VBW 100 KHZ MOC	e sweep			Count 100/100
Frequency Sv	veep					o1Rm View
					M1[1]	-23.84 dB 1.91501070 G
						1.91501070 Gr
) dBm		~ _				
		<u> </u>				
			M1			
30 dBm						
50 dBm						
			-si			
.9143 GHz		1001 pt	s		170.0 kHz/	1.916 GH
Marker Peak No	List X-Value	Y-Va	lue	No	X-Value	Y-Value
1	1.915011 GHz	-23.839	dBm			

23:56:06 06.01.2024





23:56:24 06.01.2024

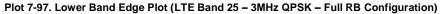
Plot 7-96. Extended Upper Band Edge Plot (LTE Band 25 – 1.4MHz QPSK – Full RB Configuration)

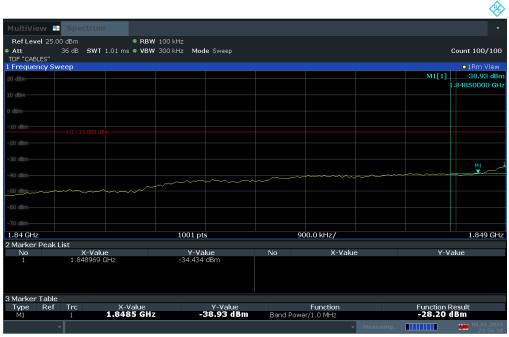
FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:		
1C2311270064-08-R2.BCG	10/01/2023 - 03/04/2024	Tablet Device	Page 68 of 217	
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Ref Level 25.0		RBW 30 kHz			0 100/10
Att DF "CABLES"	36 dB SWI 1.06 ms ♥	VBW 100 kHz Mode Swee	P		Count 100/10
Frequency Sv	weep				●1Rm View
					M1[1] -24.71 dB 1.84998530 G
					1.84998530 G
l0 dBm			/		
0 dBm					
	~~~~				
e dBm					
0 dBm					
.849 GHz Marker Peak	1 1-4	1001 pts		250.0 kHz/	1.8515 G
No No	X-Value	Y-Value	No	X-Value	Y-Value
1	1.849985 GHz	-24.707 dBm	110	n raido	1 1 41140

23:57:16 06.01.2024





23:56:58 06.01.2024

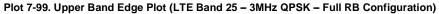
Plot 7-98. Extended Lower Band Edge Plot (LTE Band 25 – 3MHz QPSK – Full RB Configuration)

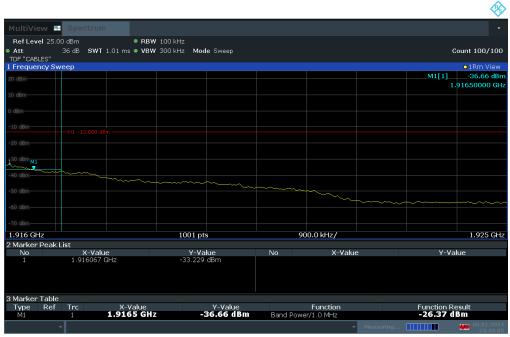
FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 69 of 217
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MultiView 📒								
Ref Level 25.0		RBW 30 kH:						
Att TDF "CABLES"	36 dB <b>SWT</b> 1.06 m	IS • VBW 100 KH:	z Mode Sweep				C	ount 100/100
l Frequency Sw	еер							o1Rm View
							M1[1]	-24.26 dBi
							1.	91501470 GH
10 dBm								
				$\rightarrow$	м1			
					4			
40 dBm								
1.9135 GHz		1	001 pts		250.0 kHz/			1.916 GH
Marker Peak L No	_ist X-Value		Y-Value	No	X-Valu	0	Y-Val	
1	1.915015 GHz	-	24.264 dBm	NU	X-vaiu	5	Y-Val	ue

23:57:48 06.01.2024





23:58:05 06.01.2024

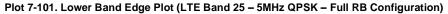
Plot 7-100. Extended Upper Band Edge Plot (LTE Band 25 – 3MHz QPSK – Full RB Configuration)

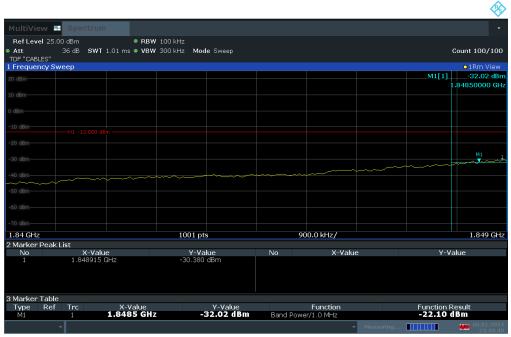
FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dega 70 of 017	
1C2311270064-08-R2.BCG	10/01/2023 - 03/04/2024	Tablet Device	Page 70 of 217	
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Ref Level 25.0 Att	0 dBm 36 dB <b>SWT</b> 1.04	• RBW 5		le Curen					Count 100/10
TDF "CABLES"	50 UB 5441 1.04	IIIS - VDYY 20		ie sweep					Jount 100/10
Frequency Sw	/eep								•1Rm View
								M1[1]	-25.56 dB
									.84994380 0
			$\frown$						
		M1							
30 dBm									
	~~~~~								
+0 dBm									
70 dBm									
.849 GHz			1001 pt			50.0 kHz/			1.8525 G
.849 GHZ Marker Peak I	liet		1001 pt	5	3	50.0 KHZ/			1.8525 G
No	X-Value		Y-Va	lue	No	X-Valu	e	Y-Va	alue
	1.849946 GHz		-25.557	dBm					

23:58:57 06.01.2024





23:58:40 06.01.2024

Plot 7-102. Extended Lower Band Edge Plot (LTE Band 25 – 5MHz QPSK – Full RB Configuration)

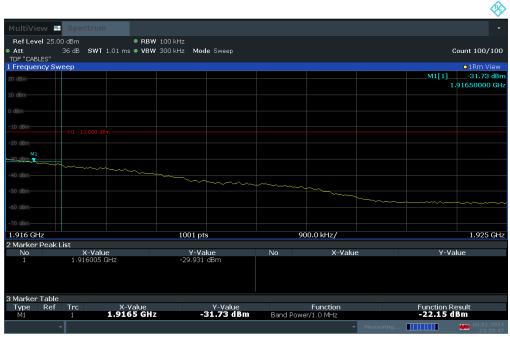
FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 71 of 217
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MultiView	Spectrum								•
Ref Level 25.0	00 dBm	• RBW	50 kHz						
• Att	36 dB <b>SWT</b> 1.	04 ms 🗢 VBW	200 kHz Mod	le Sweep					Count 100/100
TDF "CABLES" 1 Frequency Sv	veen								●1Rm View
	YCCP							M1[1]	-25.29 dBm
20 dBm									.91502620 GHz
10 dBm									
		~							
0 dBm-									
-10 dBm									
-20 dBm-						~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	M1		
-30 dBm-									
- 50 GBIT									
-40 dBm-									
-50 dBm									
-60 dBm-									
-70 dBm-									52
1.9125 GHz 2 Marker Peak	1		1001 pt	s		350.0 kHz/			1.916 GHz
2 Marker Peak No	List X-Value		Y-Va	alue	No	X-Value		Y-Va	alue
1	1.915026 G⊦	łz	-25.287	dBm					
									06.01.2024
	×					~	Measuring		06.01.2024 23:59:30

23:59:30 06.01.2024





23:59:47 06.01.2024

Plot 7-104. Extended Upper Band Edge Plot (LTE Band 25 – 5MHz QPSK – Full RB Configuration)

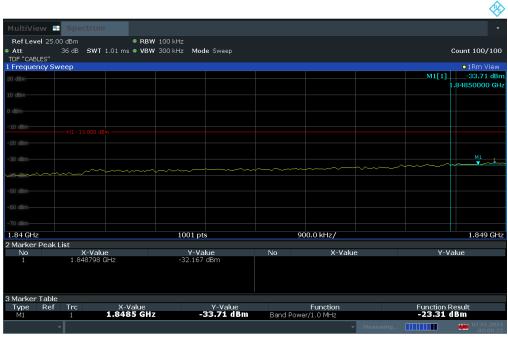
FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dega 72 of 217	
1C2311270064-08-R2.BCG	10/01/2023 - 03/04/2024	Tablet Device	Page 72 of 217	
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NultiView		BW 100 kHz			
Att		BW 300 kHz Mode Sweep			Count 100/10
TDF "CABLES"					
Frequency Sv	veep				01Rm View
					M1[1] -27.18 dB 1.84995000 G
					1.84995000 0
				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
10 dBm					
	¥ . // · ·				
30 dBm					
i0 dBm					
.849 GHz		1001 pts		600.0 kHz/	1.855 G
Marker Peak	l ist	1001 563			1000 8
No	X-Value	Y-Value	No	X-Value	Y-Value
	1.849950 GHz	-27.182 dBm			

00:00:40 07.01.2024





00:00:23 07.01.2024

Plot 7-106. Extended Lower Band Edge Plot (LTE Band 25 – 10MHz QPSK – Full RB Configuration)

FCC ID: BCGA2903	element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 73 of 217
1C2311270064-08-R2.BCG	10/01/2023 - 03/04/2024	Tablet Device	
			V2.2 09/07/2023