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PART 0 SAR CHAR REPORT

Applicant Name: Apple, Inc.

One Apple Park Way Cupertino, CA 95014 **Date of Testing:** 10/31/2024 – 12/09/2024 **Test Report Issue Date:** 01/15/2025

Test Site/Location: Element, Morgan Hill, CA, USA Document Serial No.: 1C2410210075-01.BCG

FCC ID: BCGA3269

APPLICANT: APPLE, INC.

Report Type: Part 0 SAR Characterization

DUT Type: Tablet Device Model(s): A3269, A3271

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.

Test results reported herein relate only to the item(s) tested.

RJ Ortanez Executive Vice President





FCC ID: BCGA3269	PART 0 SAR CHAR REPORT	Approved by: Technical Manager
DUT Type: Tablet Device		Page 1 of 12

TABLE OF CONTENTS

1 [DEVICE UNDER TEST	3
1.1	Device Overview	3
1.2	Time-Averaging for SAR and Power Density	4
1.3	Nomenclature for Part 0 Report	4
1.4	Bibliography	4
2 5	SAR AND POWER DENSITY MEASUREMENTS	5
2.1	SAR Definition	5
2.2	SAR Measurement Procedure	6
3 5	SAR CHARACTERIZATION	7
3.1	DSI and SAR Determination	7
3.2	SAR Design Target	7
3.3	SAR Char	8
13 E	EQUIPMENT LIST	10
14 N	MEASUREMENT UNCERTAINTIES	11

FCC ID: BCGA3269	PART 0 SAR CHAR REPORT	Approved by: Technical Manager
DUT Type: Tablet Device		Page 2 of 12

1 DEVICE UNDER TEST

1.1 Device Overview

This device uses the Qualcomm[®] Gen2 Smart Transmit feature to control and manage transmitting power in real time and to ensure the time-averaged RF exposure is in compliance with the FCC requirement at all times for 3G/4G/5G WWAN operations. Additionally, this device supports WLAN/BT/802.15.4/NB-UNII technologies, but the output power of these modems is not controlled by the Smart Transmit algorithm.

Band & Mode	Operating Modes Tx Frequency		
UMTS 850	Data	826.4 - 846.6 MHz	
UMTS 1750	Data	1712.4 - 1752.6 MHz	
UMTS 1900	Data	1852.4 - 1907.6 MHz	
LTE Band 71	Data	665.5 - 695.5 MHz	
LTE Band 12	Data	699.7 - 715.3 MHz	
LTE Band 17	Data	706.5 - 713.5 MHz	
LTE Band 13	Data	779.5 - 784.5 MHz	
LTE Band 14	Data	790.5 - 795.5 MHz	
LTE Band 26 (Cell)	Data	814.7 - 848.3 MHz	
LTE Band 5 (Cell)	Data	824.7 - 848.3 MHz	
LTE Band 66 (AWS)	Data	1710.7 - 1779.3 MHz	
LTE Band 4 (AWS)	Data	1710.7 - 1754.3 MHz	
LTE Band 25 (PCS)	Data	1850.7 - 1914.3 MHz	
LTE Band 2 (PCS)	Data	1850.7 - 1909.3 MHz	
LTE Band 30	Data	2307.5 - 2312.5 MHz	
LTE Band 7	Data	2502.5 - 2567.5 MHz	
LTE Band 41	Data	2498.5 - 2687.5 MHz	
LTE Band 48	Data	3552.5 - 3697.5 MHz	
NR Band n71	Data	665.5 - 695.5 MHz	
NR Band n12	Data	701.5 - 713.5 MHz	
NR Band n14	Data	790.5 - 795.5 MHz	
NR Band n26 (Cell)	Data	816.5 - 846.5 MHz	
NR Band n5 (Cell)	Data	826.5 - 846.5 MHz	
NR Band n70	Data	1697.5 - 1707.5 MHz	
NR Band n66 (AWS)	Data	1712.5 - 1777.5 MHz	
NR Band n25 (PCS)	Data	1852.5 - 1912.5 MHz	
NR Band n2 (PCS)	Data	1852.5 - 1907.5 MHz	
NR Band n30	Data	2307.5 - 2312.5 MHz	
NR Band n7	Data	2502.5 - 2567.5 MHz	
NR Band n41	Data	2501.01 - 2685.0 MHz	
NR Band n48	Data	3555.0 - 3694.98 MHz	
NR Band n77 DoD	Data	3455.01 - 3544.98 MHz	
NR Band n77 C	Data	3705.0 - 3975.0 MHz	
2.4 GHz WLAN	Voice/Data	2412 - 2472 MHz	
		U-NII-1: 5180 - 5240 MHz	
5 011 14/151	15 .	U-NII-2A: 5260 - 5320 MHz	
5 GHz WIFI	Voice/Data	U-NII-2C: 5500 - 5720 MHz	
		U-NII-3: 5745 - 5825 MHz	
		U-NII-5: 5935 - 6415 MHz	
		U-NII-6: 6435 - 6515 MHz	
6 GHz WIFI	Voice/Data	U-NII-7: 6535 - 6875 MHz	
		U-NII-8: 6895 - 7115 MHz	
Bluetooth	Data	2402 - 2480 MHz	
802.15.4	Data	2405 - 2475 MHz	
NB UNII-1	Data	5162 - 5245 MHz	
NB UNII-3	Data	5733 - 5844 MHz	
WPT	N/A	13.56 MHz	

FCC ID: BCGA3269	PART 0 SAR CHAR REPORT	Approved by: Technical Manager
DUT Type: Tablet Device		Page 3 of 12

1.2 Time-Averaging for SAR and Power Density

This device is enabled with Qualcomm® Gen2 Smart Transmit algorithm to control and manage transmitting power in real time and to ensure that the time-averaged RF exposure from 3G/4G/5G Sub-6 NR WWAN is in compliance with FCC requirements. This Part 0 report shows SAR characterization of WWAN radios for 3G/4G/5G Sub-6 NR. Characterization is achieved by determining P_{Limit} for 3G/4G/5G Sub-6 NR that corresponds to the exposure design targets after accounting for all device design related uncertainties, i.e., SAR_design_target (< FCC SAR limit) for sub-6 radio. The SAR characterization is denoted as SAR Char in this report. Section 1.3 includes a nomenclature of the specific terms used in this report.

The compliance test under the static transmission scenario and simultaneous transmission analysis are reported in Part 1 report. The validation of the time-averaging algorithm and compliance under the dynamic (time- varying) transmission scenario for WWAN technologies are reported in Part 2 report (report SN could be found in Section 1.4 – Bibliography).

1.3 Nomenclature for Part 0 Report

Technology	Term	Description	
20/40/50	Plimit	Power level that corresponds to the exposure design target (SAR_design_target) after accounting for all device design related uncertainties	
3G/4G/5G Sub-6 NR	P _{max}	Maximum tune up output power	
SUD-0 INK	SAR_design_target	Target SAR level < FCC SAR limit after accounting for all device design related uncertainties	
	SAR Char	Table containing Plimit for all technologies and bands	

1.4 Bibliography

Report Type	Report Serial Number
RF Exposure Evaluation Report	1C2410210075-02.BCG
RF Exposure Part 2 Test Report	1C2410210075-03.BCG
RF Exposure Compliance Summary	1C2410210075-04.BCG

FCC ID: BCGA3269	PART 0 SAR CHAR REPORT	Approved by: Technical Manager
DUT Type: Tablet Device		Page 4 of 12

2 SAR MEASUREMENTS

2.1 SAR Definition

Specific Absorption Rate is defined as the time derivative (rate) of the incremental energy (dU) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dV) of a given density (ρ). It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body (see Equation 2-1).

Equation 2-1 SAR Mathematical Equation

$$SAR = \frac{d}{dt} \left(\frac{dU}{dm} \right) = \frac{d}{dt} \left(\frac{dU}{\rho dv} \right)$$

SAR is expressed in units of Watts per Kilogram (W/kg).

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

where:

 σ = conductivity of the tissue-simulating material (S/m) ρ = mass density of the tissue-simulating material (kg/m³) E = Total RMS electric field strength (V/m)

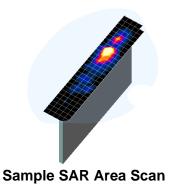
NOTE: The primary factors that control rate of energy absorption were found to be the wavelength of the incident field in relation to the dimensions and geometry of the irradiated organism, the orientation of the organism in relation to the polarity of field vectors, the presence of reflecting surfaces, and whether conductive contact is made by the organism with a ground plane.[6]

FCC ID: BCGA3269	PART 0 SAR CHAR REPORT	Approved by: Technical Manager
DUT Type: Tablet Device		Page 5 of 12

2.2 SAR Measurement Procedure

The evaluation was performed using the following procedure compliant to FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013:

- 1. The SAR distribution at the exposed side of the head or body was measured at a distance no greater than 5.0 mm from the inner surface of the shell. The area covered the entire dimension of the device-head and body interface and the horizontal grid resolution was determined per FCC KDB Publication 865664 D01v01r04 (See Table 2-1) and IEEE 1528-2013.
- 2. The point SAR measurement was taken at the maximum SAR region determined from Step 1 to enable the monitoring of SAR fluctuations/drifts during the 1g/10g cube evaluation. SAR at this fixed point was measured and used as a reference value.



- 3. Based on the area scan data, the peak of the region with maximum SAR was determined by spline interpolation. Around this point, a volume was assessed according to the measurement resolution and volume size requirements of FCC KDB Publication 865664 D01v01r04 (See Table 2-1) and IEEE 1528-2013. On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure (see references or the DASY manual online for more details):
 - a. SAR values at the inner surface of the phantom are extrapolated from the measured values along the line away from the surface with spacing no greater than that in Table . The extrapolation was based on a least-squares algorithm. A polynomial of the fourth order was calculated through the points in the z-axis (normal to the phantom shell).
 - b. After the maximum interpolated values were calculated between the points in the cube, the SAR was averaged over the spatial volume (1g or 10g) using a 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the "Not a knot" condition (in x, y, and z directions). The volume was then integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were obtained through interpolation, in order to calculate the averaged SAR.
 - c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.
- 4. The SAR reference value, at the same location as step 2, was re-measured after the zoom scan was complete to calculate the SAR drift. If the drift deviated by more than 5%, the SAR test and drift measurements were repeated.

Table 2-1
Area and Zoom Scan Resolutions per FCC KDB Publication 865664 D01v01r04*

	Maximum Area Scan Resolution (mm)	Maximum Zoom Scan Resolution (mm)	Maximum Zoom Scan Spatial Resolution (mm)			Minimum Zoom Scan
Frequency	(Δx _{area} , Δy _{area})	(Δx _{200m} , Δy _{200m})	Uniform Grid	Gı	raded Grid	Volume (mm) (x,y,z)
			Δz _{zoom} (n)	Δz _{zoom} (1)*	Δz _{zoom} (n>1)*	
≤ 2 GHz	≤ 15	≤8	≤5	≤4	$\leq 1.5*\Delta z_{zoom}(n-1)$	≥ 30
2-3 GHz	≤12	≤5	≤5	≤4	$\leq 1.5*\Delta z_{zoom}(n-1)$	≥ 30
3-4 GHz	≤12	≤5	≤ 4	≤3	$\leq 1.5*\Delta z_{zoom}(n-1)$	≥ 28
4-5 GHz	≤ 10	≤4	≤3	≤2.5	$\leq 1.5*\Delta z_{zoom}(n-1)$	≥ 25
5-6 GHz	≤10	≤ 4	≤2	≤2	$\leq 1.5*\Delta z_{zoom}(n-1)$	≥ 22

^{*}Also compliant to IEEE 1528-2013 Table 6

FCC ID: BCGA3269	PART 0 SAR CHAR REPORT	Approved by: Technical Manager
DUT Type: Tablet Device		Page 6 of 12

3 SAR CHARACTERIZATION

3.1 DSI and SAR Determination

This device uses different Device State Index (DSI) to configure different time averaged power levels based on certain exposure scenarios. Depending on the detection scheme implemented in the tablet, the worst-case SAR was determined by measurements for the relevant exposure conditions for that DSI. Detailed descriptions of the detection mechanisms are included in the operational description.

The device state index (DSI) conditions used in Table 3-1 represent different exposure scenarios.

Table 3-1
DSI and Corresponding Exposure Scenarios

Scenario	Description	SAR Test Cases
(DSI = 1)	Device on body	Tablet SAR per KDB
(201 - 1)		Publication 616217 D04

3.2 SAR Design Target

SAR_design_target is determined by ensuring that it is less than FCC SAR limit after accounting for uncertainties specified by the manufacturer (see Table 3-2).

Table 3-2 SAR_design_target Calculations

1g SAR_design_target Calculations							
(W/kg)							
Mode/Band/Antenna	Sub 6GHz TXAGC Uncertainty	SAR design target					
LTE Band 71 Ant 2	0.8 dB	0.84 W/kg					
NR Band n71 Ant 2	0.8 dB	0.84 W/kg					
LTE Band 2 Ant 2	0.7 dB	0.86 W/kg					
LTE Band 25 Ant 2	0.7 dB	0.86 W/kg					
NR Band n2 Ant 2	0.7 dB	0.86 W/kg					
NR Band n25 Ant 2	0.7 dB	0.86 W/kg					
LTE Band 71 Ant 4	0.7 dB	0.86 W/kg					
LTE Band 12 Ant 4	0.7 dB	0.86 W/kg					
LTE Band 17 Ant 4	0.7 dB	0.86 W/kg					
LTE Band 13 Ant 4	0.7 dB	0.86 W/kg					
LTE Band 14 Ant 4	0.7 dB	0.86 W/kg					
NR Band n71 Ant 4	0.7 dB	0.86 W/kg					
NR Band n12 Ant 4	0.7 dB	0.86 W/kg					
NR Band n14 Ant 4	0.7 dB	0.86 W/kg					
LTE Band 26 Ant 2	0.9 dB	0.82 W/kg					
LTE Band 26 Ant 4	0.9 dB	0.82 W/kg					
NR Band n26 Ant 2	0.9 dB	0.82 W/kg					
NR Band n26 Ant 4	0.9 dB	0.82 W/kg					
All other modes/bands/antennas	1.0 dB	0.80 W/kg					

FCC ID: BCGA3269	PART 0 SAR CHAR REPORT	Approved by: Technical Manager	
DUT Type: Tablet Device		Page 7 of 12	

3.3 SAR Char

SAR test results corresponding to *Pmax* for each antenna/technology/band/DSI can be found in FCC SAR Part 1 Report.

Plimit is calculated by linearly scaling with the measured SAR at the Ppart0 to correspond to the SAR_design_target. When Plimit < Pmax, Ppart0 was used as Plimit in the Smart Transmit EFS. When Plimit > Pmax and Ppart0=Pmax, calculated Plimit was used in the Smart Transmit EFS. All reported SAR obtained from the Ppart0 SAR tests was less than SAR_Design_target + Uncertainty. The final Plimit determination for each exposure scenario corresponding to SAR_design_target are shown in Table 3-3.

Table 3-3 PLimit Determination

Device State Index (DSI)	PLimit Determination Scenarios
1	The worst-case SAR exposure is determined as maximum SAR normalized to the limit among: 1. Tablet SAR measured at 0 mm for Back, Top, Bottom, Right, Left surfaces

Note:

For DSI = 1, P_{limit} is calculated by:

 P_{limit} corresponding to 1g Tablet SAR evaluation at 0 mm for back, top, bottom, left and right surfaces

FCC ID: BCGA3269	PART 0 SAR CHAR REPORT	Approved by: Technical Manager	
DUT Type: Tablet Device		Page 8 of 12	

Table 3-4
SAR Characterizations

					Cilaiac		<u> </u>					
Exposure Scenario:	Ant 1a	Ant 1a	Ant 1b	Ant 1b	Ant 2	Ant 2	Ant 3a	Ant 3a	Ant 3b	Ant 3b	Ant 4	Ant 4
Averaging Volume:	1g	Maximum Tune up Output										
Spacing:	0 mm	Power*										
DSI:	1		1		1		1		1		1	
Technology/Band	Plimit corresponding to SAR design target	Pmax										
UMTS 850	N/A	N/A	N/A	N/A	18.90	24.00	N/A	N/A	N/A	N/A	19.00	25.00
UMTS 1750	N/A	N/A	11.50	22.00	14.50	23.00	N/A	N/A	11.90	24.00	14.30	25.00
UMTS 1900	N/A	N/A	11.30	22.00	14.60	23.00	N/A	N/A	11.90	24.00	13.40	25.00
LTE Band 71	N/A	N/A	N/A	N/A	20.50	24.00	N/A	N/A	N/A	N/A	20.30	25.00
LTE Band 12	N/A	N/A	N/A	N/A	18.90	24.00	N/A	N/A	N/A	N/A	18.80	25.00
LTE Band 17	N/A	N/A	N/A	N/A	18.90	24.00	N/A	N/A	N/A	N/A	18.80	25.00
LTE Band 13	N/A	N/A	N/A	N/A	19.40	24.00	N/A	N/A	N/A	N/A	20.60	25.00
LTE Band 14	N/A	N/A	N/A	N/A	19.40	24.00	N/A	N/A	N/A	N/A	21.10	25.00
LTE Band 26	N/A	N/A	N/A	N/A	18.80	24.00	N/A	N/A	N/A	N/A	19.10	25.00
LTE Band 5	N/A	N/A	N/A	N/A	18.90	24.00	N/A	N/A	N/A	N/A	19.00	25.00
LTE Band 5 ULCA	N/A	N/A	N/A	N/A	18.90	24.00	N/A	N/A	N/A	N/A	19.00	25.00
LTE Band 4	N/A	N/A	12.20	25.00	14.30	24.50	N/A	N/A	11.90	24.50	14.30	25.00
LTE Band 66	N/A	N/A	12.20	25.00	14.30	24.80	N/A	N/A	11.90	24.80	14.30	25.00
LTE Band 2	N/A	N/A	11.30	22.00	14.90	23.00	N/A	N/A	11.90	24.00	13.40	25.00
LTE Band 25	N/A	N/A	11.30	22.00	14.90	23.00	N/A	N/A	11.90	24.00	13.40	25.00
LTE Band 30	N/A	N/A	11.50	21.50	12.30	20.80	N/A	N/A	11.90	22.10	13.40	25.00
LTE Band 7	N/A	N/A	12.20	21.50	11.80	22.00	N/A	N/A	11.70	24.00	10.50	25.00
LTE Band 7 ULCA	N/A	N/A	12.20	21.50	11.80	22.00	N/A	N/A	11.70	24.00	10.50	25.00
LTE Band 41 (PC3)	N/A	N/A	11.3	23.0	12.1	23.0	N/A	N/A	11.9	23.0	10.2	23.0
LTE Band 41 (PC3) ULCA	N/A	N/A	11.3	23.0	12.1	23.0	N/A	N/A	11.9	23.0	10.2	23.0
LTE Band 41 (PC2)	N/A	N/A	11.3	24.4	12.1	23.9	N/A	N/A	11.9	22.4	10.2	23.4
LTE Band 41 (PC2) ULCA	N/A	N/A	11.3	24.4	12.1	23.9	N/A	N/A	11.9	22.4	10.2	23.4
LTE Band 48	9.5	20.2	N/A	N/A	9.3	16.5	9.0	17.6	N/A	N/A	10.3	18.1
LTE Band 48 ULCA	9.5	20.2	N/A	N/A	9.3	16.5	9.0	17.6	N/A	N/A	10.3	18.1
NR Band n71	N/A	N/A	N/A	N/A	20.50	24.00	N/A	N/A	N/A	N/A	20.30	25.00
NR Band n12	N/A	N/A	N/A	N/A	18.90	24.00	N/A	N/A	N/A	N/A	18.80	25.00
NR Band n14	N/A	N/A	N/A	N/A	19.40	24.00	N/A	N/A	N/A	N/A	20.60	25.00
NR Band n26	N/A	N/A	N/A	N/A	18.80	24.00	N/A	N/A	N/A	N/A	19.10	25.00
NR Band n5	N/A	N/A	N/A	N/A	18.90	24.00	N/A	N/A	N/A	N/A	19.00	25.00
NR Band n70	N/A	N/A	11.50	25.00	14.50	24.50	N/A	N/A	11.90	24.50	14.30	25.00
NR Band n66	N/A	N/A	11.70	25.00	14.30	24.80	N/A	N/A	11.90	24.80	14.30	25.00
NR Band n2	N/A	N/A	11.30	22.00	14.90	23.00	N/A	N/A	11.90	24.00	13.40	25.00
NR Band n25	N/A	N/A	11.30	22.00	14.90	23.00	N/A	N/A	11.90	24.00	13.40	25.00
NR Band n30	N/A	N/A	11.50	21.50	12.30	20.80	N/A	N/A	11.90	22.10	13.40	25.00
NR Band n7	N/A	N/A	12.20	21.50	11.80	22.00	N/A	N/A	11.70	24.00	10.50	25.00
NR Band n41 (PC3)	N/A	N/A	11.70	25.00	11.80	25.00	N/A	N/A	11.40	25.00	9.90	25.00
NR Band n41 (PC2)	N/A	N/A	11.70	28.00	11.80	27.50	N/A	N/A	11.40	26.00	9.90	27.00
NR Band n77 (PC3)	8.9	22.3	N/A	N/A	9.0	22.3	8.0	24.7	N/A	N/A	9.8	24.7
NR Band n77 (PC2)	8.9	22.5	N/A	N/A	9.0	22.5	8.0	26.5	N/A	N/A	9.8	26.0
NR Band n48	9.50	22.20	N/A	N/A	9.30	18.50	9.00	19.60	N/A	N/A	10.30	20.10

Notes:

- 1. *Maximum tune up output power Pmax is used to configure EUT during RF tune up procedure. The maximum allowed output power is equal to maximum Tune up output power +0.7/-1.0 dB conducted power tolerance and +1.0/-1.0 dB conducted power tolerance for UHB.
- 2. All P_{limit} EFS and maximum tune up output power P_{max} levels entered in above Table correspond to average power levels after accounting for duty cycle in the case of TDD modulation schemes (for e.g., LTE TDD).

FCC ID: BCGA3269	PART 0 SAR CHAR REPORT	Approved by: Technical Manager	
DUT Type: Tablet Device		Page 9 of 12	

13 EQUIPMENT LIST

For SAR measurements

Manufacturer Agilent Agilent Agilent	Model		Cal Date	Cal Interval	Cal Due	Serial Number
Agilent	E4404B	Description Spectrum Analyzer	N/A	N/A	N/A	MN45113242
	E4438C	ESG Vector Signal Generator	10/23/2024	Annual	10/23/2025	MY45093852
	E4438C	ESG Vector Signal Generator	3/25/2024	Arrusi	1/25/2025	MH47270002
Agilent	N5182A	MXG Vector Signal Generator	7/9/2024	Annual	7/9/2025	MY48180366
Agilent	N5182A	MXG Vector Signal Generator	3/7/2024	Annual	3/7/2025	Mf47420603
Agilent	875365	S-Parameter Vector Network Analyzer	1/10/2024	Annual	1/10/2025	M140000472
Aglent Aplent	8753ES ESSESC	S-Parameter Vector Network Analyzer Wireless Communications Test Set	9/25/2024 CBT	Annual N/A	9/25/2025 CBT	M140003841 G846310798
	15515C	Wineless Communications Test Set Wineless Communications Test Set	CBT	N/A N/A	CBT	US41140256
Aglent Aglent	N4030A	Wireless Connectivity Test Set	N/A	N/A N/A	N/A	G846170464
Amplifier Research	1551G6	Amplifier	CBT	N/A	CBT	433973
Amplifier Sessarch	1551G6	Amplifier	CRT	N/A	CRT	433934
Amplifier Research	150A100C	Amplifier	CBT	N/A	CBT	250132
Anritsu	MN81109	I/O Adapter	CRT	N/A	CBT	6261747881
Anritsu	ML2496A	Power Meter	7/15/2024	Annual	7/15/2025	1138001
Anritsu	Mt2496A	Power Meter	6/24/2024	Annual	6/24/2025	1540005
Anritsu	MA28118	Pulse Power Sensor	9/5/2024	Annual	9/5/2025	1726262
Anritsu	MA24118	Pulse Power Sensor	10/21/2024	Annual	10/21/2025	1027293
Anritsu	MTBB25C	Radio Communication Analyzer MT8821C	12/15/2023	Annual	12/15/2024	6200901190
Anritsu Anritsu	MT8825C MT8825C	Radio Communication Analyzer MT8822C	5/15/2024 5/30/2024	Annual Annual	5/15/2025	6262150047 6262064215
Anritsu	MTBI23C	Radio Communication Analyzer MT8820C Radio Communication Analyzer MT8820C	5/30/2024	Annual	5/30/2025 4/36/2035	6262064715
Anritsu	MAZKOSA	USB Power Sensor	7/10/2024	Arrousi	7/10/2025	1827530
Anritsu	MAZHOSA	USB Power Sensor	4/15/2024	Acqual	4/15/2025	1827528
Mni-Circuits	PWR-4GHS	USB Power Sensor	6/12/2024	Annual	6/12/2025	12000070013
Control Company	4052	Long Stem Thermometer	2/27/2024	Diennial	2/27/2006	240074346
Control Company	4052	Long Stem Thermometer	2/27/2024	Electrial	2/27/2025	240171096
Control Company	4052	Long Stem Thermometer	2/27/2024	Riemial	2/27/2025	240171059
Control Company	4040	Therm./ Clock/ Humidity Monitor	4/15/2024	Biennial	4/15/2026	240310280
Control Company	4040	Therm./ Clock/ Humidity Monitor	4/15/2024	Diennial	4/15/2005	240310292
Control Company	566279	Therm./ Clock/ Humidity Monitor	2/16/2024	Biennial	2/16/2026	240040051
Mitutoyo	500-196-30	CD-6"ASX Sinch Digital Caliper	2/16/2022	Triennial	2/16/2025	A20238413
Keysight Technologies	N9030A	MKA Signal Analyzer	7/8/2024	Annual	7/8/2025	MY48030233
Agilent	N9030A 8W-N9054	NOXA Signal Analyzer	6/14/2024	Annual	6/14/2025	MY56470202
MCL		6dB Attenuator	CBT	N/A	CET	1139
Mni-Greats Mni-Greats	VLF-6000+ VLF-6000+	Low Pass Filter DC to 6000 MHz Low Pass Filter DC to 6000 MHz	CBT 7/10/2024	N/A Annual	7/10/2025	N/A 31634
Mni-Circuits Mni-Circuits	BW-N20W5+ NLP-1200+	DC to 18 GHz Precision Fixed 20 dB Attenuator Low Pass Filter DC to 1000 MHz	CBT	N/A N/A	CBT	N/A N/A
Mini-Circuits Mini-Circuits	NLP-1200+ NLP-2950+	Low Pass Filter DC to 1000 MHz Low Pass Filter DC to 2700 MHz	CBT	N/A N/A	CBT	N/A N/A
Mni-Circuits	8W-N20W5	Power Attenuator	CBT	N/A N/A	CBT	1226
Mni-Creuits	ZUDC10-83-5+	Directional Coupler	CBT	N/A N/A	CBT	2050
Narda	4772-1	Attenuator (3d9)	CBT	N/A	CBT	9406
Narda	8W-S1W2	Attenuator (3d8)	CBT	N/A	CET	120
Seekonk	NC-100	Torque Wrench	CBT	N/A	CRT	22217
Seekonk	NC-100	Torque Wrench	4/2/2024	Riegojal	4/2/2026	1262
Rohde & Schwarz	CMWS00	Wideband Radio Communication Tester	4/22/2024	Acqual	4/22/2025	106578
Rohde & Schwarz	CMW500	Wildeband Radio Communication Tester	2/5/2024	Annual	2/5/2025	168527
Rohde & Schwarz	CMW500	Wildeband Radio Communication Tester	1/11/2024	Annual	1/11/2025	150117
						101699
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	4/19/2024	Annual	4/19/2025	
Rohde & Schwarz Rohde & Schwarz	CMW500	Wildeband Radio Communication Tester	6/10/2024	Annual	12/10/2025	168541
Rohde & Schwarz Rohde & Schwarz SPEAG	CMWS00 DAX-3.5	Wideband Radio Communication Tester Dielectric Assessment Kit	6/10/2024 5/14/2024	Annual Annual	12/10/2025 5/14/2025	1070
Rohde & Schwarz Rohde & Schwarz SPEAG SPEAG	DAX-3.5 DAXS-3.5	Wideband Radio Communication Tester Dielectric Assessment Kit Portable Dielectric Assessment Kit	6/10/2024 5/14/2024 8/7/2024	Annual Annual Annual	12/10/2025 5/14/2025 8/7/2025	168541 1070 1041
Rohde & Schwarz Rohde & Schwarz SPEAG SPEAG SPEAG	DAK-15 DAKS-15 MAIA	Wildeband Radio Communication Tester Dielectric Assessment Kit Portable Dielectric Assessment Kit Modulation and Audio Interference Analyzer	6/10/2024 5/14/2024 8/7/2024 N/A	Annual Annual Annual N/A	12/10/2025 5/14/2025 8/7/2025 N/A	168543 1070 1041 1237
Rohde & Schwarz Rohde & Schwarz SPEAG SPEAG SPEAG SPEAG SPEAG	DAK-3.5 DAKS-3.5 DAKS-3.5 MAIA MAIA	Wideband Radio Communication Tester Dielectric Assessment Rit Portable Dielectric Assessment Rit Modulation and Audio Interference Analyzer Modulation and Audio Interference Analyzer	6/10/2024 5/16/2024 8/7/2024 N/A N/A	Annual Annual Annual N/A N/A	12/10/2025 5/14/2025 8/7/2025 N/A N/A	168543 1070 1081 1297 1331
Rohde & Schwarz Rohde & Schwarz SPEAG SPEAG SPEAG SPEAG SPEAG SPEAG	DAK-15 DAK5-25 MAKA MAKA MAKA	Wideband Radio Communication Tester Dielectric Assessment RR Portable Dielectric Assessment RR Modulation and Audio Interference Analyzer Modulation and Audio Interference Analyzer Modulation and Audio Interference Analyzer	6/10/2024 5/14/2024 8/7/2024 N/A N/A N/A	Annual Annual Annual N/A N/A N/A	12/10/2025 5/14/2025 8/7/2025 N/A N/A N/A	168543 1670 1041 1237 1331 1390
Rohde & Schwarz Rohde & Schwarz SPEAG SPEAG SPEAG SPEAG SPEAG SPEAG SPEAG SPEAG SPEAG	CMMS00 DAX-15 DAXS-15 MMA MMA MMA DAX-12	Wideband Radio Convensionation Tester Distortic Assessment RE Portable Celectric Assessment RE Portable Celectric Assessment RI Noculation and Audio Interference Analyzer Modulation and Audio Interference Analyzer	6/10/2024 5/14/2024 8/7/2024 N/A N/A N/A 3/11/2024	Annual Annual Annual N/A N/A N/A Annual	12/10/2025 5/14/2025 8/7/2025 N/A N/A N/A 3/11/2025	168543 1070 1041 1237 1331 1390 1102
Rohde & Schwarz Rohde & Schwarz SPEAG	CMM/S00 DAX-1.5 DAXC-1.5 MM/A MM/A MM/A MM/A DAX-12 SG Verification Source 10GHz	Wideband Badio Communication Tester Dielectric Assessment Rit Pertablic Gelectric Assessment Rit Modulation and Audio Interference Analyzer Modulation and Audio Interference Analyzer Modulation and Audio Interference Analyzer Delectric Assessment Rit (MMz - 2Girl) 2004 System Verification Anterior	6/10/2024 5/14/2024 8/7/2024 N/A N/A N/A 3/11/2024 8/6/2024	Annual Annual Annual N/A N/A N/A	12/10/2025 5/14/2025 8/7/2025 N/A N/A N/A 3/11/2025 8/6/2025	1070 1041 1237 1331 1390 1102
Rohde & Schwarz Rohde & Schwarz SPEAG	CAM/S00 DAK-1.5 DAKS-1.5 MWA MWA MWA MWA SAK-12 SG Verification Source 10GHz	Widehard Radio Communication Teater Under Communication Teater Portable Delectric Assessment RI Portable Delectric Assessment RI Modulation and Audio Interference Analyses Delectric Assessment RI (Mellor - Sürle) 100415 system Verification Anteres Total Communication Audionation Analyses 100416 system Verification Anteres 100416 system Verification Anteres	6/10/2024 5/14/2024 8/7/2024 N/A N/A N/A N/A 2/11/2024 B/6/2024 11/11/2024	Arrual Arrual Arrual N/A N/A N/A Arrual Arrual Arrual Arrual	12/10/2025 5/14/2025 8/7/2025 N/A N/A N/A 3/11/2025 11/11/2025	168543 1070 1041 1227 1331 1390 1102 1004
Pichde & Schwarz Pichde & Schwarz Pichde & Schwarz SPRAG	CMM/SDD DAK-3.5 DAK5-3.5 MAVA MAVA MAVA DAK-12 SG Verification Source 10GHz CLA-13 D1750/2	Widehard Radio Communication Texter Dislective Assessment RS Pertable Detective Assessment RS Pertable Detective Assessment RI Roduktion and Audio Interference Analyzer Modulation and Audio Interference Analyzer Modulation and Audio Interference Analyzer Detective Assessment RI (14Mer. 2004) 2004 System Verification Anderso Continued Loop Asterness 1270 Met 546 Decrete	6/10/2024 5/14/2024 8/7/2024 N/A N/A N/A 3/11/2024 B/6/2024 11/13/2034 5/10/2022	Arexael Arexael Arexael N/A N/A N/A Arexael Arexael Arexael Arexael Trinopial	12/10/2025 \$/14/2025 8/7/2025 N/A N/A N/A 3/11/2025 11/11/2025 11/11/2025 5/10/2025	168543 1070 1041 1227 1331 1390 1102 1004 1004
Robde & Schwarz SPEAG	CAM/SEO DAV-3.15 DAV-3.15 DAV-3.15 MAYA MAYA MAYA MAYA MAYA SAV-12 SS-Verification Source (DGHz CGA-13 D1750V2 D2000V2	Wideband Radio Communication Tester Delectric Assessment RE Protable Calestrate Assessment RE Protable Calestrate Assessment RE Modulistan and Audio Interferons Analyses Modulation and Audio Interferons Analyses Delectric Assessment Int (IMME - 2004) 300 October 10 (IMME - 2004)	6/10/2024 5/14/2024 11/7/2024 11/7/2024 N/A N/A N/A 11/2024 11/2024 11/21/2024 5/10/2022 9/7/2023	Armasi Armasi Armasi N/A N/A N/A Armasi Armasi Armasi Triescolal Biennial	12/10/2025 5/14/2025 8/7/2025 N/A N/A N/A 3/11/2025 8/6/2025 11/11/2025 5/10/2025 9/7/2025	168543 1070 1041 1227 1331 1390 1102 1004 1004 1003
Rohde & Schwarz Rohde & Schwarz SPRAG	CMM500 DAK-15 DAK-15 DAK-15 MMA AMMA AMMA AMMA DAK-12 S5 Verification Source 1009tc CAI-13 D1750V2 D2000V2 D2000V2	Wideland Basis Communication Tested Distriction Assessment EI Perturbit Celestrict Assessment EI Perturbit Celestrict Assessment EI Midulation and Audio Interference Analysis Medication and Audio Interference Analysis Midulation and Audio Interference Analysis Midulation and Audio Interference Analysis Celestrict Assessment EI (Malis - 1009) Districts Ass	6/10/2024 5/14/2024 8/7/2024 N/A N/A N/A N/A 3/11/2024 8/6/2024 11/11/2024 2/10/2022 9/7/2023 3/11/2024	Arnual Arnual Arnual N/A N/A N/A Arnual Arnual Arnual Arnual Arnual Elemial Annual	12/10/2025 5/14/2025 8/7/2025 N/A N/A N/A 2/11/2025 8/6/2025 11/11/2025 5/10/2025 3/11/2025	100543 1070 1041 1227 1331 1390 1102 1004 1004 1003 54183 1038
Robde & Schwarz Robde & Schwarz Robde & Schwarz Robde & Schwarz Robde & SPEAG	CMM500 DAV-15 DAVS-15 DAVS-15 MWA	Workshard Santa Communication Tested to Distriction Assessment 68 Percentage 68 Percen	6/10/2024 6/14/2024 8/7/2024 N/A N/A N/A N/A 3/11/2024 11/11/2024 11/11/2024 11/11/2024 11/11/2024 11/11/2024 11/11/2024 11/11/2024 11/11/2024 11/11/2024	Armasi Armasi N/A N/A N/A Armasi Armasi Armasi Trinonial Biennial Armasi Armasi Armasi Armasi Armasi Armasi Armasi	12/10/2025 \$/14/2025 8/7/2025 8/7/2025 N/A N/A N/A 3/11/2025 8/6/2025 11/11/2025 5/10/2025 1/11/2025 1/11/2025 1/11/2025	1070 1070 1041 1227 1331 1390 1102 1004 1004 1003 5d181 1038
Richde & Schwarz Richde & Schwarz SPRAG	CAMISSO DAY-1-5 DAY-1-5 DAY-1-5 DAY-1-5 MWA AMWA AWWA AWWA CAM-12 SEVERIFICATION Source DODR CAM-13 D1700V2 D19000V2 D19000V2 D19000V2 D1900V2 D1900V2 D1900V2	Workshard Earls Communication Teater Distriction Assessment DE Perfolio Certificia Assessment DE Perfolio Certificia Assessment DE Perfolio Certificia Assessment DE Notifician and Assist Interference Analyses SOUTH System Vision Certifician Assistant Description Assistant Description TOD Med SAM Opplie DESCRIPTION AND Opplie JOS Med SAM Opplie	6/10/2024 5/16/2024 8/7/2024 8/7/2024 8/6 8/6 8/6 8/6 8/12/2024 8/6/2024 11/11/2024 11/11/2024 11/11/2024 11/11/2024 11/11/2024 11/11/2024 11/11/2024 11/11/2024 11/11/2024 11/11/2024 11/12/2	Aresasi Aresasi N/A N/A N/A Aresasi Aresasi Aresasi Aresasi Aresasi Aresasi Aresasi Aresasi Aresasi Aresasi Aresasi Aresasi Aresasi Aresasi Aresasi	12/10/2025 5/14/2025 8/12/2025 N/A N/A N/A 1/11/2025 8/6/2025 11/11/2025 9/7/2025 3/11/2025 5/11/2025 5/11/2025	100543 1070 1041 1227 1331 1350 1102 1004 1008 1008 5d181 1038 921
Robrie & Schwarz Robrie & Schwarz Robrie & Schwarz STRAG	CAMMSSS SAME AND A SAME AND A SAME A	Michael Safe Communication Tealer Challed Assessment St. Shall Safe Safe Safe Safe Safe Safe Safe Safe	6/10/2024 5/84/2024 8/7/2024 N/A N/A N/A N/A 3/11/2024 8/6/2024 11/11/2024 5/10/2022 9/7/2023 3/11/2024 20/23/2024 5/11/2024 5/11/2024	Arnual Arnual Arnual N/A N/A N/A Arnual Arnual Arnual Triential Elemial Arnual	12/10/2025 5/14/2025 8/7/2025 N/A N/A 1/11/2025 8/6/2025 5/16/2025 5/16/2025 5/16/2025 5/16/2025 5/16/2025 5/16/2025 5/16/2025 5/16/2025 5/16/2025 5/16/2025 5/16/2025	100543 10070 10041 1227 1331 1390 1100 1004 1008 1008 55311 1038 921 750 1042
Rehde & Schwarz Flehfe & SPEAG Flehfe & Flehfe Flehfe & Fl	CMM500 DAVS-15 DAVS-15 DAVS-15 MWA MWA MONA MONA MONA DOWN DOWN DEPTION SQUEETING DEPTION DEPT	Without Part Communication Frame Debicition Learn and Edit State Communication Frame Debicition Learn and Edit State Communication Learn and Edit State Communication Learn Annual Communication and Audio State Communication and A	6/10/2024 5/M/2024 8/7/2024 8/7/2024 N/A N/A N/A N/A 11/11/2024 11/11/2024 11/11/2024 10/2022 11/12/2024 10/21/2024 10/21/2024 11/12/2024 11/12/2024 11/12/2024 11/12/2024 11/12/2024 11/12/2024 11/12/2024 11/12/2024	Aresasi Aresasi Aresasi N/A N/A N/A N/A Aresasi	12/10/2025 5/14/2025 8/7/2025 8/7/2025 N/A N/A N/A 1/11/2025 8/6/2025 11/11/2025 5/10/2025 3/11/2025 5/11/2025 5/11/2025 5/11/2025 5/11/2025	100543 10070 10041 1237 1331 1350 1102 1004 1008 1008 1003 5d181 1038 921 750
Robe & Schwarz Robe & Schwarz Robe & Schwarz Robe & Schwarz Robe & SPRAG ROBE & SPR	CAMMSSS SAME AND A SAME AND A SAME A	Without Part Communication Frame Debicition Learn and Edit State Communication Frame Debicition Learn and Edit State Communication Learn and Edit State Communication Learn Annual Communication and Audio State Communication and A	6/10/2024 5/84/2024 8/7/2024 N/A N/A N/A N/A 3/11/2024 8/6/2024 11/11/2024 5/10/2022 9/7/2023 3/11/2024 20/23/2024 5/11/2024 5/11/2024	Aresal Aresal Aresal N/A N/A N/A Aresal	12/10/2025 5/14/2025 8/7/2025 N/A N/A 1/11/2025 8/6/2025 5/16/2025 5/16/2025 5/16/2025 5/16/2025 5/16/2025 5/16/2025 5/16/2025 5/16/2025 5/16/2025 5/16/2025 5/16/2025	100543 10070 10041 1227 1331 1390 1100 1004 1008 1008 55311 1038 921 750 1042
Rebed & Schwarz Robed & Schwarz Robed & Schwarz Robed & Schwarz FFRAG	CAMPOS DAY	Windows Tester Communication Frame Communication Frame Communication Frame Communication Frame Communication Frame Industrian Communication Framework (Industriant Communication Framework (Industriant Framework Communication Framework Communicatio	6/10/2026 5/24/2024 8/7/2024 N/A N/A N/A N/A N/A 11/11/2026 5/20/2022 5/11/2026 5/20/2022 5/11/2026 5/20/2024 5/20/2024 5/20/2024 5/20/2024 5/20/2024 5/20/2024 5/20/2024 5/20/2024 5/20/2024	Aresasi Aresasi N/A N/A N/A N/A Aresasi Trisectal Aresasi	13/10/2025 5/14/2025 8/7/2025 N/A N/A N/A 3/11/2025 11/11/2025 5/15/2025 3/11/2025 11/11/2025 11/11/2025 11/12/2025 11/12/2025 5/11/2025 5/11/2025 5/11/2025 5/11/2025 5/11/2025 5/11/2025 5/11/2025 5/11/2025 5/11/2025 5/11/2025	250543 1070 1041 1227 1331 1350 11004 1004 1004 1003 55181 1038 55181 1038 759 1042 1056 1057
Robe & Schwarz Robe & Schwarz Robe & Schwarz Robe & Schwarz Robe & SPRAG ROBE & SPR	CAMPSIGN CAM	Withdead Earls Communication Frame Charles Communication Frame Charles Communication Frame Charles Communication C	6/10/2024 5/14/2024 8/7/2024 8/7/2024 8//A	Arexal Arexal Arexal N/A N/A N/A N/A Arexal Arexal Arexal Arexal Arexal Arexal Biennial Arexal	11/10/3035 \$/44/2025 8/7/2025 N/A N/A 3/11/2025 8/6/2025 11/11/2025 11/11/2025 11/12/2025 11/12/2025 5/11/2025 5/11/2025 5/11/2025 5/11/2025 5/11/2025 5/11/2025 5/11/2025 5/11/2025 5/11/2025 5/11/2025 5/11/2025 5/11/2025	200543 10070 10041 12337 1331 1390 1004 1004 1008 56181 1038 56181 1038 1042 1126 1042 1126 1056 1126 1126 1126 1126 1126 1126 1126 11
Rehde & Schwarz Fishe & Schwarz Fishe & Schwarz Fishe & Fisher Fis	CAMPOS DAY	Without Test Communication Trans The Communication Communication Trans The Communication Communication Communication The Communication Communication Communication Communication The Communication Communication Communication Communication Communication The Communication	6/10/2024 5/14/2024 8/7/2024 8/7/2024 8/6 8/6 8/6 8/6 8/6/2024 8/6/2024 11/11/2026 5/10/2022 9/7/2023 3/11/2024 5/11/2024	Aresasi Aresasi N/A N/A N/A N/A Aresasi Trisectal Aresasi	12/10/2025 \$/14/2025 \$/14/2025 N/A N/A N/A N/A 11/1/2025 \$/10/2025 \$/11/2025	305543 1070 1041 1227 1331 1390 1004 1004 1008 50181 1008 50181 1008 921 1008 1007 1055 105
Riche & Schwarz Riche & Schwarz SPRAG	CAMPOS CA	Without Test Communication Trans Charleston Assessment Communication Trans Charleston Assessment Communication Assessment Communication Communication Assessment Communication Com	6/10/0204 6/10/0204 8/7/2024 8/7/2024 8//A 8//A 8//A 8//A 8//A 8//A 8//A 8//	Arexail Arexail Arexail N/A N/A N/A N/A Arexail Arexail Arexail Arexail Biennial Arexail Arexail Arexail Arexail Arexail Arexail Biennial Biennial Biennial Biennial Biennial Biennial Biennial Biennial	12/10/XXSS \$/\$4/2025 \$/\$4/2025 \$\text{N}(\text{A}\) \$\text{N}(100541 1070 1091 1091 1091 1091 1091 1091 109
Rehde & Schwarz Rehde & Schwarz SPEAG SPE	CAMPOS DAY 15 DA	Without Test of Commonwheel Test of Commonwhee	6/10/2024 6/10/2024 8/7/2024 8/7/2024 8/A	Arexail Arexail Arexail Arexail N/A N/A N/A N/A Arexail Arexail Arexail Trinerial Elevenial Arexail Arexail Arexail Trinerial Elevenial Arexail Elevenial Arexail Elevenial Arexail	12/10/2025 5/14/2025 8/7/2025 8/7/2025 8/8/ N/A N/A N/A 9/11/2025 8/6/2025 11/11/2025 5/11/2025	508643 1070 1001 1027 1001 1227 1390 1004 1003
Rehde & Schwarz Rehde & Schwarz SPRAG SPR	CAMPSES DAY-15 D	Without Pales Commonstrate Team Services and Commonstrate Team Services Com	6'10/2024 6'7/2024 8/7/2024 8/7/2024 8/7/2024 8/6'8 8/	Armail Armail Armail Armail N/A N/A N/A N/A Armail	12/10/2025 \$/1/2025	100543 1070 1041 1222 1231 1331 1350 1004 1008 1008 1008 1008 1018 1018 101
Rehde & Schwarz SPEAG	CAMSON CA	Without Parties Commonwhise Teach Commonwhise Teach Commonwhise Co	6730,0224 6710,0224 877,2224 877,2224 877,2224 877,2224 877,2224 877,2224 877,2224 877,2222 877,222 877,22	Armail Armail Armail Armail N/A N/A N/A N/A Armail	12/10/2025 5/14/2025 8/7/2025 8/7/2025 8/8/ N/A N/A N/A 9/11/2025 8/6/2025 11/12/2025 5/11/2025	505643 1070 1081 1272 1231 1231 1350 1004 1005 1006 1006 1006 1006 1006 1006 1006
Rehde & Schwarz Rehde & Schwarz SPRAG SPRA	CAMEGO CA	offence of the Commonwhite Team of the Commonwhite Tea	6'20/2024 6'7/2024 8/7/2024 8/7/2024 8/7/2024 8/6'8 8/6'8 8/6'8 8/6'8 8/7/2024	Armail Armail Armail Armail N/A N/A N/A N/A Armail Armail Armail Armail Armail Trisonial Trisonial Trisonial Trisonial Trisonial Trisonial Trisonial Trisonial Armail Trisonial Trisonial Trisonial Trisonial Armail	12/10/2025 \$47/2025 \$47/2025 \$47/2025 \$47/2025 \$44/2025 \$44/2025 \$44/2025 \$41/2025	1005-01 1070 1041 1277 1331 1330 1102 1103 1104 1004 1004 1004 1004 1004 1003 1010 1010
Rinde & Schwarz Rinde & Schwarz SPRAG SPRA	OMESSE OF THE PROPERTY OF THE	Without Pales Commontain Vision Service Control of Commontain Vision Service Control of Commontain Vision Service Commontain Vision Service Commontain Vision Visio	6730/2024 671/2024 87/72024 87/72024 86/7 86/8 86/8 86/8 86/8 86/8 86/8 86/8	Armail Armail Armail Armail N/A N/A N/A N/A N/A Armail Armail Armail Armail Bremid Armail Bremid Armail Bremid Armail Bremid Armail Bremid Armail	12/10/2025 81/12/205	200643 2070 1041 1272 1331 1380 1390 1100 1100 1100 1100 1000 1000 100
Bible & Schwarz SPAG S	CAMERO CA	Without Parties Commontain house. So don't have considered and so commontain the same and so common	6'10/02024 817/2024 817/2024 81/A	Armail Armail Armail Armail N/A N/A N/A N/A Armail	12/10/3025 87/2025 87/2025 8/A N/A N/A N/A 10/12/2035 11/11/2035 97/12/2035	1000-01 1001-01 1001-01 1001-01 11001 1100-01 1100-01 1001-01
Rinde & Schwarz Rinde & Schwarz SPRAG SPRA	OMESSE OF THE PROPERTY OF THE	Without Pales Commontain Vision Service Control of Commontain Vision Service Control of Commontain Vision Service Commontain Vision Service Commontain Vision Visio	6'10/02024 87/2024 80/A 80/	Arrasil Arrasil Arrasil N/A N/A N/A N/A N/A N/A Arrasil Arrasil Arrasil Arrasil Arrasil Berorial Arrasil Berorial Arrasil Berorial Arrasil Trisorial Trisorial Trisorial Arrasil Berorial Arrasil	12/10/2025 81/12/205	1000-01 1001-01 1001-01 1001-01 11001 11001 11000-01 10000-01 1001
Robe & Schwar Minds Mind	CAMPED COMPANY	official white Commonthin has been considered in the Commonthin has been considered by the Common Marian of Marian Common Marian which common Marian Marian and Authoritism Annual Common Marian and Authoritism Annual Common Marian Common Mar	6 (10)(2024 6) (10)(2024 8) (7)(2024 8) (7)(2024 8) (7)(2024 8) (8) (8) (8) (8) (8) (8) (8) (8) (8) (Armail Armail Armail Armail N/A N/A N/A N/A Armail	12/10/2025 81/12/205	505643 1070 1081 1277 1331 1300 1100 1100 1100 1004 1004 1008 921 1004 1008 921 1004 1008
Stoke Schwert	CAMERO CA	offence of the Commonwell was a commonwell to the Commonwell of th	6 201,02034 67 120,02034 87 72034 87 72034 87 72034 87 72034 87 72034 87 72034 87 72034 87 72034 87 72033 87 72033	Arrisal Arrisal Arrisal Arrisal Arrisal N/A N/A N/A N/A N/A Arrisal Arrisal Arrisal Arrisal Beneda Arrisal	12/10/2025 \$1/2025	505643 10570 10413 11237 11237 11231 11300 11002 11003
Stoke Schwert	October 1 (1997) October 1 (19	Without Pales Commonther have been dear the commonther have been been been been been been been be	6/10/02034 6/17/2204	Arrasal Arrasal Arrasal Arrasal Arrasal N/A N/A N/A N/A N/A N/A Arrasal Triencial Arrasal	12/10/2025 \$17/2025	505643 1070 1070 1081 11727 11331 1330 1350 1050 1050 1050 1050 105
Stoke Chinese	CAMERO CA	Without Parties Commonstrate Trans. Without Parties Commonstrate Trans. Without Parties Commonstrate Trans. Mindated and Arial Transfers on Graph and Arial Tr	6/10/20204 6/10/20204	Arrisal Arrisal Arrisal Arrisal N/A N/A N/A N/A N/A N/A Arrisal Arrisal Arrisal Biseroid Arrisal Arrisal Biseroid Arrisal	12/10/2025 \$1/2025	505643 1070 1041 1277 1287 1281 1281 1281 1281 1380 1084 1083 1088 1088 1088 1088 1088 1088 1088
Stoke Schwert	OMEGO 1	others and season common teams to the common team of the common team o	6/20/20204 6/2/20204 6/2/20204 6/2/20204 6/2/20204 6/2/20204 6/2/20204 6/2/20204 6/2/20204 6/2/20204 6/2/20204 6/2/20204 6/2/20204 6/2/20204 6/2/20204 6/2/20204 6/2/20204 6/2/20204 6/2/20204 6/202	Arrestal Arrestal Arrestal Arrestal Arrestal Arrestal N/A N/A N/A N/A Arrestal Biservoid Arrestal	12/10/2025 5/14/2025 6/7/2025	5056-54 10070 10010 10010 10011 1327 1331 1330 1300 1003 1003 1003 1003 100
Stoke Schwert Stoke Schwer	OMERGE 13 - 1	emband who commonths have been considered to the commonth of t	6730/0304 67/2324	Arresial	12/10/2025 \$1/10/2025	505643 1070 1041 1277 1281 1282 1283 1283 1383 1384 1384 1384 1385 1386 1388 1388 1388 1388 1388 1388 1388
Stoke Chinese	October 1	Without Parties Commonstrate Trans. Without Parties Commonstrate Trans. Without Parties Commonstrate Trans. Mindated and Arial Transfers on English Commonstrate Design Annual Commonstrate Trans. Design Annual Commonstrate Trans. Parties Commo	6750/00046 677/2024	Arrestal	12/10/2025 #7/2025 #7/2025 #7/2025 #7/2025 #7/2025 #7/2025 #7/2025 #7/2025 #8/2025	505643 1070 1081 1227 1227 1237 1237 1237 1237 1237 123
Stoke Schwert Stoke Schwer	OMERGE 13 - 1	others and season common teams to the common team of the common team o	6730/0304 67/2324	Arrasel	12/10/2025 \$1/10/2025	505643 1070 1041 1277 1281 1282 1283 1283 1283 1383 1384 1384 1385 1385 1385 1385 1385 1385 1385 1385
Stock Chicago Stock Chicag	OMERGE 13 - 1	Without Parts Commonwhise Team Commonwhi	6750/CRSSA 677/CRSSA 877/CRSSA	Arrosal	12/16/2025 #7/10/2025	500643 1070 1070 1071 1171 1171 1170 1170 117
Stoke Chieses	Oxford Ox	Without Parties Commonstrate Transaction Commonstrate Commonstrate Transaction Commonstrate Commo	6 YEA/CREAS # YEA	Arrosal	12/10/2025 12/10/2025 12/10/2025 12/10/2025 12/10/2025 12/10/2025 13/10/2025	500643 1079
Rends Chinese Rends Chines	CAMERO CA	ordinate has commontate here. Whether and ordinate has been been been been been been been bee	6 YEA/CREAS #7 / PA/CREAS #7 / PA/	Annual An	12/10/2025 877/2025	50643 1070 1041 1070 1041 1107 1041 1107 1107
Rends Calvary Rends Calvary Rends Calvary Rends Rend	OMERGE 13 - 1	official and incident control	## 200,0354 ## 214,03554 ## 214,03554 ## 214,03554 ## 214,03554 ## 214,03554 ## 214,03554 ## 214,03554 ## 214,03554 ## 214,03554 ## 214,03554 ## 214,03554 ## 214,03554 ## 214,035554 ## 214,035554 ## 214,035554 ## 214,035554 ## 214,035554 ## 214,035555 ## 214,03555 ## 214,	Annual Annual Annual Annual Annual Annual Annual Annual Bennial Annual A	12/10/2015 17/10/2015	50643 1070 1070 1070 1070 1070 1070 1070 107
Retail of Science Reta	Oxford Ox	Without Parties Commonstrate Transcription Commo	## 200,0354 ## 201	Annual An	12/10/2025 12/10/2025	506643 1070 1070 1070 1070 1070 1070 1070 107
Binds & Change	CAMPORT	Without Paris Commontain hear	6 YEA/CREAT W 16 A/CREAT W 16 A	Annual An	12/10/2015 17/10/2015 18/7	505643 1009 1009 10011 11011 1100 11011 1100 11001 110
Retail of Science Reta	OMERGE 13 - 1 MAR	Without Parties Commonstrate Transcription Commo	## 200,0354 ## 201	Annual An	12/10/2025 12/10/2025	506643 1070 1070 1070 1070 1070 1070 1070 107
Retail & Chicago Retail & Chicago Retail & Chicago Retail & Chicago Retail & Retail	CAMPORT	offense of the Commonwell of t	## 150,03584 ## 151,03584	Annual Annual Annual Annual Annual Annual Annual Bigani Annual Bigani Annual Bigani Annual Bigani Annual An	12/16/2005 477-0205 477-	50643 1070 1071 1071 1071 1071 1071 1071 107
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Binds & Chourt Bind	OMERGE OME	Without Paris Commonwhise Team Commonwhi	## (1970) 1970	Annual An	30100000000000000000000000000000000000	BORGES
Binds & Charact Binds & Charact Binds & Charact Binds	CAMPORT - CAMPOR	Without Parties Commonstrate Transaction Commonstrate Transaction Commonstrate Comm	### (WARDER WARDER	Annual An	301/2006 100 1	BODG-12
Bittle & Charact Inches & Ch	OMERGE 13 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ordinated white Commonwelland Transport Profession State Commonwelland Transport Wilderland and Architecture Medical Confession Wilderland and Architecture Medical Confession Wilderland and Architecture Confession Wilderland and Confession Wilderland a	9 (1975) 1 (Annual An	301/3/2015 \$1/3/2015	1995 1995
Binds & Charact Binds & Charact Binds & Charact Binds	CAMPORT - CAMPOR	Without Parties Commonstrate Transaction Commonstrate Transaction Commonstrate Comm	## (WASHER) ## (WA	Annual An	301/2006 100 1	BODG-12

Note:

- 1. CBT (Calibrated Before Testing). Prior to testing, the measurement paths containing a cable, amplifier, attenuator, coupler or filter were connected to a calibrated source (i.e. a signal generator) to determine the losses of the measurement path. The power meter offset was then adjusted to compensate for the measurement system losses. This level offset is stored within the power meter before measurements are made. This calibration verification procedure applies to the system verification and output power measurements. The calibrated reading is then taken directly from the power meter after compensation of the losses for all final power measurements.
- 2. Each equipment item was used solely within its respective calibration period.

FCC ID: BCGA3269	PART 0 SAR CHAR REPORT	Approved by: Technical Manager	
DUT Type: Tablet Device		Page 10 of 12	

14 MEASUREMENT UNCERTAINTIES

Applicable for SAR measurements < 6 GHz:

	а	b	С	d	e=	f	g	h =	i =	k
	<u> </u>		Ü	_		•	9			"
Measurement System Fize Sec. California Sec. Sec.					f(d,k)					
Measurement System			Tol.	Prob.		Ci	C _i	1gm	10gms	
Measurement System E2.1 7 N 1 1 1 7.0 7.0 ∞ Axial Isotropy E2.2 0.25 N 1 0.7 0.7 0.2 0.2 ∞ Hemishperical Isotropy E2.2 1.3 N 1 0.7 0.7 0.9 0.9 ∞ Boundary Effect E2.3 2 R 1.732 1 1 1.2 1.2 0.9 ∞ Boundary Effect E2.4 0.3 N 1 1 1 1.2 0.9 ∞ Boundary Effect E2.4 0.3 N 1 1 1 0.1 0.1 0.1 0.0 <td< td=""><td>Uncertainty Component</td><td></td><td>(± %)</td><td>Dist.</td><td>Div.</td><td>1gm</td><td>10 gms</td><td>u_i</td><td>u_i</td><td>v_i</td></td<>	Uncertainty Component		(± %)	Dist.	Div.	1gm	10 gms	u _i	u _i	v _i
Probe Calibration								(± %)	(± %)	<u> </u>
Axial Isotropy	Measurement System									
Hemishperical Isotropy E2.2 1.3 N 1 0.7 0.7 0.9 0.9 0.9 0.9	Probe Calibration	E.2.1	7	N	1	1	1	7.0	7.0	∞
Boundary Effect E.3 2 R 1.732 1 1 1.2 1.2	Axial Isotropy	E.2.2	0.25	N	1	0.7	0.7	0.2	0.2	∞
E1-4 0.3 N 1 1 1 0.3 0.3 ∞	Hemishperical Isotropy	E.2.2	1.3	N	1	0.7	0.7	0.9	0.9	∞
System Detection Limits	Boundary Effect	E.2.3	2	R	1.732	1	1	1.2	1.2	∞
Modulation Response	Linearity	E.2.4	0.3	N	1	1	1	0.3	0.3	∞
Readout Bectronics E.2.6 0.3 N 1 1 1 0.3 0.3 ∞ Response Time E2.7 0.8 R 1.732 1 1 0.5 0.5 ∞ Integration Time E2.8 2.6 R 1.732 1 1 1.5 1.5 ∞ RF Ambient Conditions - Noise E6.1 3 R 1.732 1 1 1.7 1.7 ∞ RF Ambient Conditions - Reflections E6.1 3 R 1.732 1 1 1.7 1.7 ∞ Probe Positioning Mode Conditions - Reflections E6.2 0.8 R 1.732 1 1 0.5 0.5 ∞ Probe Positioning W/respect to Phantom E6.2 0.8 R 1.732 1 1 0.5 0.5 ∞ Extrapolation, Interpolation & Integration algorithms E5 4 R 1.732 1 1 3.3 3.9 ∞ Test Sample Rela	System Detection Limits	E.2.4	0.25	R	1.732	1	1	0.1	0.1	∞
Response Time	Modulation Response	E.2.5	4.8	R	1.732	1	1	2.8	2.8	∞
Integration Time	Readout Electronics	E.2.6	0.3	Ν	1	1	1	0.3	0.3	∞
RF Ambient Conditions - Noise E6.1 3 R 1.732 1 1 1.7 1.7 ∞ RF Ambient Conditions - Reflections E6.1 3 R 1.732 1 1 1.7 1.7 ∞ Probe Positioner Mechanical Tolerance E6.2 0.8 R 1.732 1 1 0.5 0.5 ∞ Probe Positioning W/ respect to Phantom E6.3 6.7 R 1.732 1 1 0.5 0.5 ∞ Extrapolation, Interpolation & Integration algorithms for Max. SAR Evaluation E5 4 R 1.732 1 1 3.9 3.9 ∞ Extrapolation, Interpolation & Integration algorithms for Max. SAR Evaluation E5 4 R 1.732 1 1 3.9 3.9 ∞ Extrapolation, Interpolation & Integration algorithms for Max. SAR Evaluation E6.3 0.7 R 1.732 1 1 3.3 3.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 <td>Response Time</td> <td>E.2.7</td> <td>0.8</td> <td>R</td> <td>1.732</td> <td>1</td> <td>1</td> <td>0.5</td> <td>0.5</td> <td>8</td>	Response Time	E.2.7	0.8	R	1.732	1	1	0.5	0.5	8
RF Ambient Conditions - Reflections E6.1 3 R 1.732 1 1 1.7 1.7 ∞ Probe Positioner Mechanical Tolerance E6.2 0.8 R 1.732 1 1 0.5 0.5 ∞ Probe Positioning W/ respect to Phantom E6.3 6.7 R 1.732 1 1 3.9 3.9 ∞ Extrapolation, Interpolation & Integration algorithms for Max. SAR Evaluation E5 4 R 1.732 1 1 3.9 3.9 ∞ Extrapolation, Interpolation & Integration algorithms for Max. SAR Evaluation E5 4 R 1.732 1 1 3.9 3.9 ∞ Extrapolation, Interpolation & Integration algorithms for Max. SAR Evaluation E5 4 R 1.732 1 1 2.3 2.3 ∞ Test Sample Related	Integration Time	E.2.8	2.6	R	1.732	1	1	1.5	1.5	8
Probe Positioner Mechanical Tolerance E6.2 0.8 R 1.732 1 1 0.5 0.5 ∞	RF Ambient Conditions - Noise	E.6.1	3	R	1.732	1	1	1.7	1.7	8
Probe Positioning W/ respect to Phantom E6.3 6.7 R 1.732 1 1 3.9 3.9 ∞	RF Ambient Conditions - Reflections	E.6.1	3	R	1.732	1	1	1.7	1.7	8
Extrapolation, Interpolation & Integration algorithms for Max. SAR Evaluation E5	Probe Positioner Mechanical Tolerance	E.6.2	0.8	R	1.732	1	1	0.5	0.5	8
for Max. SAR Evaluation E5 4 R 1.732 1 1 2.3 2.3 ∞ Test Sample Related Test Sample Positioning E4.2 3.12 N 1 1 1 3.1 3.5 Device Holder Uncertainty E4.1 1.67 N 1 1 1 1.7 1.7 5 Output Power Variation - SAR drift measurement E2.9 5 R 1.732 1 1 2.9 2.9 ∞ SAR Scaling E6.5 0 R 1.732 1 1 0.0 0.0 ∞ Phantom Uncertainty (Shape & Thickness tolerances) E3.1 7.6 R 1.73 1.0 1.0 4.4 4.4 ∞ Liquid Conductivity - measurement uncertainty E3.3 4.3 N 1 0.78 0.71 3.3 3.0 76 Liquid Conductivity - Temperature Uncertainty E3.4 3.4 R 1.732 0.26 1.0 1.1	Probe Positioning w/ respect to Phantom	E.6.3	6.7	R	1.732	1	1	3.9	3.9	∞
Test Sample Positioning		E5	4	R	1.732	1	1	2.3	2.3	8
Device Holder Uncertainty E4.1 1.67 N 1 1 1.7 1.7 5 Output Power Variation - SAR drift measurement E2.9 5 R 1.732 1 1 2.9 2.9 ∞ SAR Scaling E6.5 0 R 1.732 1 1 0.0 0.0 ∞ Phantom & Tissue Parameters Phantom Uncertainty (Shape & Thickness tolerances) E3.1 7.6 R 1.73 1.0 1.0 4.4 4.4 ∞ Liquid Conductivity - measurement uncertainty E3.3 4.3 N 1 0.78 0.71 3.3 3.0 76 Liquid Permittivity - measurement uncertainty E3.3 4.2 N 1 0.23 0.26 1.0 1.1 75 Liquid Conductivity - Temperature Uncertainty E3.4 3.4 R 1.732 0.78 0.71 1.5 1.4 ∞ Liquid Permittivity - Temperature Uncertainty E3.4 0.6 R 1.732 0.23 0.26 0.1 0.1 ∞ <td< td=""><td>Test Sample Related</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	Test Sample Related									
Output Power Variation - SAR drift measurement E2.9 5 R 1.732 1 1 2.9 2.9 ∞ SAR Scaling E6.5 0 R 1.732 1 1 0.0 0.0 ∞ Phantom & Tissue Parameters Phantom Uncertainty (Shape & Thickness tolerances) E3.1 7.6 R 1.73 1.0 1.0 4.4 4.4 ∞ Liquid Conductivity - measurement uncertainty E3.3 4.3 N 1 0.78 0.71 3.3 3.0 76 Liquid Permittivity - measurement uncertainty E3.3 4.2 N 1 0.23 0.26 1.0 1.1 75 Liquid Conductivity - Temperature Uncertainty E3.4 3.4 R 1.732 0.78 0.71 1.5 1.4 ∞ Liquid Permittivity - Temperature Uncertainty E3.4 0.6 R 1.732 0.23 0.26 0.1 0.1 ∞ Liquid Permittivity - deviation from target values E3.2 5.0 </td <td>Test Sample Positioning</td> <td>E.4.2</td> <td>3.12</td> <td>N</td> <td>1</td> <td>1</td> <td>1</td> <td>3.1</td> <td>3.1</td> <td>35</td>	Test Sample Positioning	E.4.2	3.12	N	1	1	1	3.1	3.1	35
SAR Scaling E6.5 0 R 1.732 1 1 0.0 0.0 ∞ Phantom & Tissue Parameters Phantom Uncertainty (Shape & Thickness tolerances) E3.1 7.6 R 1.73 1.0 1.0 4.4 4.4 ∞ Liquid Conductivity - measurement uncertainty E3.3 4.3 N 1 0.78 0.71 3.3 3.0 76 Liquid Permittivity - measurement uncertainty E3.3 4.2 N 1 0.28 0.26 1.0 1.1 75 Liquid Conductivity - Temperature Uncertainty E3.4 3.4 R 1.732 0.78 0.71 1.5 1.4 ∞ Liquid Permittivity - Temperature Uncertainty E3.4 0.6 R 1.732 0.23 0.26 0.1 0.1 ∞ Liquid Conductivity - deviation from target values E3.2 5.0 R 1.73 0.64 0.43 1.8 1.2 ∞ Liquid Permittivity - deviation from target values E3.2 5.0 R 1.73 0.60 0.49	Device Holder Uncertainty	E.4.1	1.67	N	1	1	1	1.7	1.7	5
Phantom & Tissue Parameters Phantom Uncertainty (Shape & Thickness tolerances) E3.1 7.6 R 1.73 1.0 1.0 4.4 4.4 ∞ Liquid Conductivity - measurement uncertainty E3.3 4.3 N 1 0.78 0.71 3.3 3.0 76 Liquid Permittivity - measurement uncertainty E3.3 4.2 N 1 0.23 0.26 1.0 1.1 75 Liquid Conductivity - Temperature Uncertainty E3.4 3.4 R 1.732 0.78 0.71 1.5 1.4 ∞ Liquid Permittivity - Temperature Uncertainty E3.4 0.6 R 1.732 0.23 0.26 0.1 0.1 ∞ Liquid Conductivity - deviation from target values E3.2 5.0 R 1.73 0.64 0.43 1.8 1.2 ∞ Liquid Permittivity - deviation from target values E3.2 5.0 R 1.73 0.60 0.49 1.7 1.4 ∞ Combined Standard Uncertainty (k=1) RSS 12.2 12.0 191 <tr< td=""><td>Output Power Variation - SAR drift measurement</td><td>E.2.9</td><td>5</td><td>R</td><td>1.732</td><td>1</td><td>1</td><td>2.9</td><td>2.9</td><td>∞</td></tr<>	Output Power Variation - SAR drift measurement	E.2.9	5	R	1.732	1	1	2.9	2.9	∞
Phantom Uncertainty (Shape & Thickness tolerances)	SAR Scaling	E.6.5	0	R	1.732	1	1	0.0	0.0	∞
Liquid Conductivity - measurement uncertainty E3.3 4.3 N 1 0.78 0.71 3.3 3.0 76 Liquid Permittivity - measurement uncertainty E3.3 4.2 N 1 0.23 0.26 1.0 1.1 75 Liquid Conductivity - Temperature Uncertainty E3.4 3.4 R 1.732 0.78 0.71 1.5 1.4 ∞ Liquid Permittivity - Temperature Uncertainty E3.4 0.6 R 1.732 0.23 0.26 0.1 0.1 ∞ Liquid Conductivity - deviation from target values E3.2 5.0 R 1.73 0.64 0.43 1.8 1.2 ∞ Liquid Permittivity - deviation from target values E3.2 5.0 R 1.73 0.60 0.49 1.7 1.4 ∞ Combined Standard Uncertainty (k=1) RSS 12.2 12.0 191 Expanded Uncertainty k=2 24.4 24.0	Phantom & Tissue Parameters									
Liquid Permittivity - measurement uncertainty E3.3 4.2 N 1 0.23 0.26 1.0 1.1 75 Liquid Conductivity - Temperature Uncertainty E3.4 3.4 R 1.732 0.78 0.71 1.5 1.4 ∞ Liquid Permittivity - Temperature Uncertainty E3.4 0.6 R 1.732 0.23 0.26 0.1 0.1 ∞ Liquid Conductivity - deviation from target values E3.2 5.0 R 1.73 0.64 0.43 1.8 1.2 ∞ Liquid Permittivity - deviation from target values E3.2 5.0 R 1.73 0.60 0.49 1.7 1.4 ∞ Combined Standard Uncertainty (k=1) RSS 12.2 12.0 191 Expanded Uncertainty	Phantom Uncertainty (Shape & Thickness tolerances)	E3.1	7.6	R	1.73	1.0	1.0	4.4	4.4	8
Liquid Conductivity - Temperature Uncertainty E3.4 3.4 R 1.732 0.78 0.71 1.5 1.4 ∞ Liquid Permittivity - Temperature Unceritainty E3.4 0.6 R 1.732 0.23 0.26 0.1 0.1 ∞ Liquid Conductivity - deviation from target values E3.2 5.0 R 1.73 0.64 0.43 1.8 1.2 ∞ Liquid Permittivity - deviation from target values E3.2 5.0 R 1.73 0.60 0.49 1.7 1.4 ∞ Combined Standard Uncertainty (k=1) RSS 12.2 12.0 191 Expanded Uncertainty k=2 24.4 24.0	Liquid Conductivity - measurement uncertainty	E3.3	4.3	N	1	0.78	0.71	3.3	3.0	76
Liquid Permittivity - Temperature Unceritainty E3.4 0.6 R 1.732 0.23 0.26 0.1 0.1 ∞ Liquid Conductivity - deviation from target values E3.2 5.0 R 1.73 0.64 0.43 1.8 1.2 ∞ Liquid Permittivity - deviation from target values E3.2 5.0 R 1.73 0.60 0.49 1.7 1.4 ∞ Combined Standard Uncertainty (k=1) RSS 12.2 12.0 191 Expanded Uncertainty k=2 24.4 24.0	Liquid Permittivity - measurement uncertainty	E3.3	4.2	N	1	0.23	0.26	1.0	1.1	75
Liquid Conductivity - deviation from target values E3.2 5.0 R 1.73 0.64 0.43 1.8 1.2 ∞ Liquid Permittivity - deviation from target values E3.2 5.0 R 1.73 0.60 0.49 1.7 1.4 ∞ Combined Standard Uncertainty (k=1) RSS 12.2 12.0 191 Expanded Uncertainty k=2 24.4 24.0	Liquid Conductivity - Temperature Uncertainty	E.3.4	3.4	R	1.732	0.78	0.71	1.5	1.4	-
Liquid Conductivity - deviation from target values E3.2 5.0 R 1.73 0.64 0.43 1.8 1.2 ∞ Liquid Permittivity - deviation from target values E3.2 5.0 R 1.73 0.60 0.49 1.7 1.4 ∞ Combined Standard Uncertainty (k=1) RSS 12.2 12.0 191 Expanded Uncertainty k=2 24.4 24.0	Liquid Permittivity - Temperature Unceritainty	E.3.4	0.6	R	1.732	0.23	0.26	0.1	0.1	∞
Liquid Permittivity - deviation from target values E3.2 5.0 R 1.73 0.60 0.49 1.7 1.4 ∞ Combined Standard Uncertainty (k=1) RSS 12.2 12.0 191 Expanded Uncertainty k=2 24.4 24.0		E.3.2	5.0	R		0.64	0.43	1.8	1.2	∞
Combined Standard Uncertainty (k=1) RSS 12.2 12.0 191 Expanded Uncertainty k=2 24.4 24.0	, ,									-
Expanded Uncertainty k=2 24.4 24.0	· · · · · · · · · · · · · · · · · · ·	1	<u> </u>		1		ı			191
	* , ,									
	(95% CONFIDENCE LEVEL)									

The above measurement uncertainties are according to IEEE Std. 1528-2013

FCC ID: BCGA3269	PART 0 SAR CHAR REPORT	Approved by: Technical Manager
DUT Type: Tablet Device		Page 11 of 12

Applicable for SAR measurements > 6 GHz:

cable for SAR measurements > 6 GHz:									
а	b	С	d	e=	f	g	h =	i =	k
				f(d,k)			c x f/e	c x g/e	
	IEEE	Tol.	Prob.		C _i	c _i	1gm	10gms	
Uncertainty Component	1528 Sec.	(± %)	Dist.	Div.	1gm	10 gms	u _i	u _i	v _i
	060.	, ,			J		(± %)	(± %)	'
Measurement System									
Probe Calibration	E.2.1	9.3	N	1	1	1	9.3	9.3	∞
Axial Isotropy	E.2.2	0.25	N	1	0.7	0.7	0.2	0.2	∞
Hemishperical Isotropy	E.2.2	1.3	N	1	0.7	0.7	0.9	0.9	∞
Boundary Effect	E.2.3	2	R	1.732	1	1	1.2	1.2	∞
Linearity	E.2.4	0.3	N	1	1	1	0.3	0.3	∞
System Detection Limits	E.2.4	0.25	R	1.732	1	1	0.1	0.1	∞
Modulation Response	E.2.5	4.8	R	1.732	1	1	2.8	2.8	∞
Readout Electronics	E.2.6	0.3	N	1	1	1	0.3	0.3	∞
Response Time	E.2.7	0.8	R	1.732	1	1	0.5	0.5	∞
Integration Time	E.2.8	2.6	R	1.732	1	1	1.5	1.5	∞
RF Ambient Conditions - Noise	E.6.1	3	R	1.732	1	1	1.7	1.7	∞
RF Ambient Conditions - Reflections	E.6.1	3	R	1.732	1	1	1.7	1.7	∞
Probe Positioner Mechanical Tolerance	E.6.2	0.8	R	1.732	1	1	0.5	0.5	∞
Probe Positioning w/ respect to Phantom	E.6.3	6.7	R	1.732	1	1	3.9	3.9	∞
Extrapolation, Interpolation & Integration algorithms for Max. SAR Evaluation	E5	4	R	1.732	1	1	2.3	2.3	8
Test Sample Related									
Test Sample Positioning	E.4.2	3.12	N	1	1	1	3.1	3.1	35
Device Holder Uncertainty	E.4.1	1.67	N	1	1	1	1.7	1.7	5
Output Power Variation - SAR drift measurement	E.2.9	5	R	1.732	1	1	2.9	2.9	∞
SAR Scaling	E.6.5	0	R	1.732	1	1	0.0	0.0	∞
Phantom & Tissue Parameters									
Phantom Uncertainty (Shape & Thickness tolerances)	E3.1	7.6	R	1.73	1.0	1.0	4.4	4.4	80
Liquid Conductivity - measurement uncertainty	E3.3	4.3	N	1	0.78	0.71	3.3	3.0	76
Liquid Permittivity - measurement uncertainty	E3.3	4.2	N	1	0.23	0.26	1.0	1.1	75
Liquid Conductivity - Temperature Uncertainty	E3.4	3.4	R	1.732	0.78	0.71	1.5	1.4	∞
Liquid Permittivity - Temperature Unceritainty	E.3.4	0.6	R	1.732	0.23	0.26	0.1	0.1	8
Liquid Conductivity - deviation from target values	E.3.2	5.0	R	1.73	0.64	0.43	1.8	1.2	∞
Liquid Permittivity - deviation from target values	E3.2	5.0	R	1.73	0.60	0.49	1.7	1.4	∞
Combined Standard Uncertainty (k=1)			RSS				13.8	13.6	191
Expanded Uncertainty			k=2				27.6	27.1	
(95% CONFIDENCE LEVEL)									

The above measurement uncertainties are according to IEEE Std. 1528-2013

FCC ID: BCGA3269	PART 0 SAR CHAR REPORT	Approved by: Technical Manager	
DUT Type: Tablet Device		Page 12 of 12	