V04



Prüfber Test rep	icht-Nr.: ort No.:	50084596	005	Auftrags-Nr.: Order No.:	164088664	Seite 1 von 29 Page 1 of 29	
	n-Referenz-Nr.: eference No.:	N/A		Auftragsdatum: Order date.:	22.03.2017		
Auftrag Client:	geber:	RM 1808 1	n Technology Co 8/F, FO TAN INDU FO TAN SHATIN N	., Ltd. JSTRIAL CENTRE, IEW TERRITORIES	NOS. 26-28 AU PL HONG KONG	JI WAN	
Prüfgeg Test iter	genstand:	Tablet PC					
	nung / Typ-Nr.: ation / Type No.:	be 0~9, A~	Z)	96A-L, DL7006-KB, [DL7006KB, DL70X	XXXXX (X can	
Auftrag	s-Inhalt:	(DIGILAND FCC appro	<u>, </u>				
Order co							
Prüfgru Test spe	ndlage: ecification:	CFR47 FC	C Part 2: Subpart 、	J Section 2.1093			
Warene Date of	ingangsdatum:	03.04.2017					
Prüfmus Test san	ster-Nr.: nple No.:	A00052068	3-004				
Prüfzeit Testing		27.04.2017	-03.05.2017				
Ort der l Place of	Prüfung: testing:	Centre Test Group Co.,	ting International Ltd.	Please	Please refer to photo documents		
	oratorium: laboratory:	TÜV Rheinl Co., Ltd.	and (Shenzhen)				
Prüferge Test res		Pass					
	von I tested by:			kontrolliert von	I reviewed by:		
		0/	<u></u>		1	s 7.42	
01.06.20)17 Aı	ndy Yan / Proje	ct Manager	01.06.2017	Owen Tian / Tech	nical Certifier	
Datu Date			Unterschrift Signature	Datum Date	Name/Stellung Name/Position	Unterschrift Signature	
Sonstig	es / Other:						
FCC ID: >	(MF-MID7006						
For mode	l difference informa	tion refer to cla	use 3.1				
	des Prüfgegens		Anlieferung:		ständig und unbesc lete and undamage	•	
	1 = sehr gut	2 = gut	3 = befriedigend		4 = ausreichend	5 = mangelhalt	
•	P(ass) = entspricht o.g. F	ū	F(ail) = entspricht nicht	o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getes	
_	1 = very good	2 = good	3 = satisfactory		4 = sufficient	5 = poor	
	P(ass) = passed a.m. tes		F(all) = failed a.m. test		N/A = not applicable	N/T = not tested	
				ster und darf ohne G			
				rechtigt nicht zur Ver	-		
ius test re				nission of the test cent		ot permitted to	
14	dunlic	STOR IN AVERACE	e iniciaet ronart da	no not antitle to corre	anic taat manic		



Products

 Prüfbericht - Nr.:
 50084596 005
 Seite 2 von 29

 Test Report No.
 Page 2 of 29

STATEMENT OF COMPLIANCE

TEST ITEM	SPECIFICATION	RESULT
Specific Absorption Rate - Wi-Fi 802.11 b/g/n - 2.4GHz Band	Exposure Rules 47 C.F.R 2.1093; KDB 447498 D01 General RF Exposure Guidance v06;	PASS
Specific Absorption Rate - Wi-Fi 802.11 a - 5GHz Band U-NII-1 and U-NII-3	KDB 248227 D01 802 11 Wi-Fi SAR v02r02; KDB 865664 D01 SAR Measurement 100 MHz to 6GHz v01r04; KDB 865664 D02 RF Exposure Reporting v01r02;	PASS
Specific Absorption Rate - Bluetooth BDR/EDR/LE	KDB 616217 D04 SAR for laptop and tablets v01r02_ KDB;	PASS

This device complies with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6W/kg) specified in CFR Title 47 Part 2 Subpart J Section 2.1093 and ANSI/IEEE C95.1-1992.

This device has been testd in accordance with the measurement methods and procedure specified in Published RF exposure KDB procedures

Refer to the maximum results of Specific Absorption Rate (SAR) durning testing as below.

FREQUENCY BAND	EXPOSURE POSITION	EQUIPMENT CLASS	HIGHEST REPORTED SAR VALUE (W/KG)
802.11 b/g/n - 2.4GHz Band	Body	DTS	1.487
802.11 a/n/ac - 5GHz Band U-NII-1	Body	NII	1.163
802.11 a/n/ac - 5GHz Band U-NII-3	Body	INII	1.422



Products

Prüfbericht - Nr.:
Test Report No.

50084596 005

Seite 3 von 29 Page 3 of 29

Contents

1.	GENERAL REMARKS	4
1.1	COMPLEMENTARY MATERIALS	4
2.	TEST SITES	4
2.1	TEST FACILITIES	
2.2	LIST OF TEST AND MEASUREMENT INSTRUMENTS	5
3.	GENERAL PRODUCT INFORMATION	
3.1	PRODUCT FUNCTION AND INTENDED USE	6
3.2	RATINGS AND SYSTEM DETAILS	6
3.3	INDEPENDENT OPERATION MODES	9
3.4	SUBMITTED DOCUMENTS	9
4.	SAR MEASUREMENTS SYSTEM CONFIGURATION	10
4.1	SAR MEASUREMENTS SET-UP	10
4.2	DASY5 E-FILD PROBE SYSTEM	11
4.3	E-FILED PROBE CALIBRATION	12
4.4	OTHER TEST EQUIPMENT	
4.4.1	1 Data Acquisition Electronics (DAE)	12
4.4.2	2 Robot	12
4.4.3	3 Measurement Server	13
4.4.4	4 Device Holder for Phantom	14
4.4.5	5 Phantom	14
4.5	SCANNING PROCEDURE	15
4.6	DATA STORAGE AND EVALUATION	17
4.6.1	1 Data Storage	17
4.6.2	2 Data Evaluation by SEMCAD	17
5.	TEST SET-UP AND OPERATION MODES	19
5.1	PRINCIPLE OF CONFIGURATION SELECTION	19
5.2	TISSUE SIMULATING LIQUID INGREDIENTS	.19
5.3	SPECIFIC ABSORPTION RATE (SAR) SYSTEM CHECK	20
5.4	EXPOSURE POSITIONS CONSIDERATION	
5.5	TEST OPERATION AND TEST SOFTWARE	.22
5.6	SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT	.22
5.7	EUT CONDUCTED OUTPUT POWER	23
6.	TEST RESULTS	
6.1	HUAMAN EXPOSURE TO RADIOFREQUENCY ELECTROMAGNETIC FIELDS	24
6.2	MEASUREMENT UNCERTAINTY	26
6.2.1	1 Measurement uncertainty evaluation	26
7.	PHOTOGRAPHS OF THE TEST SET-UP	
8.	LIST OF TABLES	



Products

 Prüfbericht - Nr.:
 50084596 005

 Test Report No.
 Seite 4 von 29

 Page 4 of 29

1. General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: System Performance Check Appendix B: Test Plots of SAR Measurement

Appendix C: Calibration Certificate

2. Test Sites

2.1 Test Facilities

Centre Testing International Group Co., Ltd.

Hongwei Industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, China

The tests at the test site have been conducted under the supervision of a TÜV engineer.



7 700000

 Prüfbericht - Nr.:
 50084596 005
 Seite 5 von 29

 Test Report No.
 Page 5 of 29

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal Date	Cal. Interval		
E-Field Probe	Speag	EX3DV4	7328	28, Feb., 2017	1 Year		
2450 MHz Dipole	Speag	D2450V2	959	05, Feb., 2015	3 Year		
5GHz Dipole	Speag	D5GHzV2	1208	03, Feb., 2015	3 Year		
DAKS probe	Speag	DAKS-3.5	1052	27, Jan., 2015	3 Year		
Planar R140 Vector Reflectometer	Speag	DAKS-VNA R140	0200514	27, Jan., 2015	3 Year		
Data Acquisition Electronics	Speag	DAE4	1458	22, Feb., 2017	1 Year		
Twin Phantom	Speag	SAM V5.0	1875	N/A	N/A		
Flat Phantom	Speag	ELI V6.0	2024	N/A	N/A		
Power Amplifier and directional coupler	BALUN	SU319W	BLSZ1550140	N/A	N/A		
Signal Generator	Aglient	E4438C	MY45095744	14, Mar., 2017	1 Year		
Power Meter	Aglient	E4418B	MY45104044	16, Dec., 2016	1 Year		
Power Meter Sensor	Aglient	E9300A	MY41496140	16, Dec., 2016	1 Year		
Test Software	Speag	DASY5	N/A	N/A	N/A		
NCR means no calibration required (calibrated with system).							



 Prüfbericht - Nr.:
 50084596 005
 Seite 6 von 29

 Test Report No.
 Page 6 of 29

3. General Product Information

3.1 Product Function and Intended Use

The EUT is a Tabet PC device. It supports Wi-Fi 802.11a/ b/g/n and Bluetooth 4.2 (Dual mode) technology.

Model difference description:

All the models in this reports are identical in the PCBA, Drivers, Enclosure etc. electronic aspects, the detail as below.

Model No.	Detail
MID7006A-L,	Excepting with Micro USB Port to connect the keyboard, with DC
DL7006-KB	jack. All other electronic aspects are identical with the models.
MID7006-L,	Excepting without Micro USB Port to connect the keyboard,
DL7006,	without DC jack. All other electronic aspects are identical with the
DL70XXXXXX	other models.

For details refer to the User Manual and Circuit Diagram.

3.2 Ratings and System Details

Table 2: Technical Specification

Technical Specification	Value
Kind of Equipment	Tablet PC
Type Designation	MID7006A-L, DL7006-KB, MID7006-L, DL7006, DL70XXXXXX
FCC ID	XMF-MID7006
Operating Frequency band	2412-2462MHz, 5150-5250MHz, 5745-5825MHz
Extreme Temperature Range	0 °C ~ +40 °C
Operating Voltage	DC 3.7V 2100mAh via internal rechargeable Li-Poly battery
	DC 5.0V 1.5A via AC/DC adapter for charging
Testing Voltage	Fully charged DC 3.7V internal rechargeable Li-Poly battery
Testing Voltage	DC 5.0V 1.5A via AC/DC adapter with 120V/60Hz input
Antenna Type	Integral Antenna
Antenna Gain	0.00 dBi

Table 3: Technical Specification of 2.4GHz, 802.11b/g/n

	Description						
Item	IEEE 802.11b	IEEE 802.11g	IEEE 802.11n (HT20)	IEEE 802.11n (HT40)			
Operating Frequency band (MHz)	2412 ~ 2462	2412 ~ 2462	2412 ~ 2462	2422 ~ 2452			
Channel Number	11	11	11	7			
Modulation	DSSS (DBPSK, DQPSK), CCK)	OFDM (DBPSK, DQPSK)	OFDM (BPSK, QPSK, 16-QAM, 64-QAM)	OFDM (BPSK, QPSK, 16-QAM, 64-QAM)			



 Prüfbericht - Nr.:
 50084596 005
 Seite 7 von 29

 Test Report No.
 Page 7 of 29

Data Rate (Mbps)	1, 2, 5, 11	6, 9, 12, 18, 24, 36, 48, 54	MCS0 ~ MCS7	MCS0 ~ MCS7
Maximum tune-up average output power (dBm):	15.0	12.5	12.5	12.5

Table 4: List of WLAN Channel of 802.11b/g/n

802	.11b	802	2.11g	802.11	n (HT20)	802.11	n (HT40)
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
1	2412	1	2412	1	2412	3	2422
2	2417	2	2417	2	2417	4	2427
3	2422	3	2422	3	2422	5	2432
4	2427	4	2427	4	2427	6	2437
5	2432	5	2432	5	2432	7	2442
6	2437	6	2437	6	2437	8	2447
7	2442	7	2442	7	2442	9	2452
8	2447	8	2447	8	2447		
9	2452	9	2452	9	2452		
10	2457	10	2457	10	2457		
11	2462	11	2462	11	2462		

Table 5: Technical Specification of 5GHz, 802.11a

Operating mode(s) / WiFi:	IEEE 802.11a
Test modulation	OFDM (BPSK, QPSK, 16-QAM, 64-QAM)
Transmit Frequency Range (MHz):	5180 – 5240, 5745 - 5825
Channel Number	9
Data Rate (Mbps)	6, 9, 12, 18, 24, 36, 48, 54
Maximum tune-up average output power (dBm):	13.5

Table 6: List of WLAN Channel of 5GHz 802.11a

802.11a								
Channel	Frequency	Channel	Frequency	Channel	Frequency			
Number	(MHz)	Number	(MHz)	Number	(MHz)			
36	5180	48	5240	157	5785			
40	5200	149	5745	161	5805			
44	5220	153	5765	165	5825			

Table 7: Technical Specification of Bluetooth (BDR & EDR mode)

Technical Specification	Value
Operating Frequency band	2400 – 2483.5MHz
Channel separation	1MHz



 Prüfbericht - Nr.:
 50084596 005
 Seite 8 von 29

 Test Report No.
 Page 8 of 29

Extreme Temperature Range	0~+40°C
Modulation	GFSK, 8DPSK, π/4DQPSK
Bluetooth version	4.2, Dual Mode
Antenna Type	Integral antenna
Antenna Gain	0.0dBi

Table 8: RF channel and frequency of Bluetooth (BDR & EDR mode)

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)
0	2402.00	21	2423.00	42	2444.00	63	2465.00
1	2403.00	22	2424.00	43	2445.00	64	2466.00
2	2404.00	23	2425.00	44	2446.00	65	2467.00
3	2405.00	24	2426.00	45	2447.00	66	2468.00
4	2406.00	25	2427.00	46	2448.00	67	2469.00
5	2407.00	26	2428.00	47	2449.00	68	2470.00
6	2408.00	27	2429.00	48	2450.00	69	2471.00
7	2409.00	28	2430.00	49	2451.00	70	2472.00
8	2410.00	29	2431.00	50	2452.00	71	2473.00
9	2411.00	30	2432.00	51	2453.00	72	2474.00
10	2412.00	31	2433.00	52	2454.00	73	2475.00
11	2413.00	32	2434.00	53	2455.00	74	2476.00
12	2414.00	33	2435.00	54	2456.00	75	2477.00
13	2415.00	34	2436.00	55	2457.00	76	2478.00
14	2416.00	35	2437.00	56	2458.00	77	2479.00
15	2417.00	36	2438.00	57	2459.00	78	2480.00
16	2418.00	37	2439.00	58	2460.00		
17	2419.00	38	2440.00	59	2461.00		
18	2420.00	39	2441.00	60	2462.00		
19	2421.00	40	2442.00	61	2463.00		
20	2422.00	41	2443.00	62	2464.00		

Table 9: Technical Specification of Bluetooth (Low Energy mode)

Technical Specification	Value
Operating Frequency band	2400 – 2483.5MHz
Channel separation	2MHz
Extreme Temperature Range	0~+40°C
Modulation	GFSK
Bluetooth version	4.0, Dual Mode
Antenna Type	Integral antenna
Antenna Gain	0.0dBi

Table 10: RF channel and frequency of Bluetooth (Low Energy mode)

R	F	Frequency	RF	Frequency	RF	Frequency	RF	Frequency
---	---	-----------	----	-----------	----	-----------	----	-----------



Products

50084596 005 Prüfbericht - Nr.: Seite 9 von 29 Page 9 of 29 Test Report No.

Channel	(MHz)	Channel	(MHz)	Channel	(MHz)	Channel	(MHz)
0	2402.00	11	2424.00	22	2446.00	33	2468.00
1	2404.00	12	2426.00	23	2448.00	34	2470.00
2	2406.00	13	2428.00	24	2450.00	35	2472.00
3	2408.00	14	2430.00	25	2452.00	36	2474.00
4	2410.00	15	2432.00	26	2454.00	37	2476.00
5	2412.00	16	2434.00	27	2456.00	38	2478.00
6	2414.00	17	2436.00	28	2458.00	39	2480.00
7	2416.00	18	2438.00	29	2460.00		
8	2418.00	19	2440.00	30	2462.00		
9	2420.00	20	2442.00	31	2464.00		
10	2422.00	21	2444.00	32	2466.00		

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, transmitting
 - 1. 802.11b
 - 2. 802.11g

 - 3. 802.11n (HT20) 4. 802.11n (HT40) 5. 802.11a

 - 6. Bluetooth BDR
 - 7. Bluetooth EDR
 - 8. Bluetooth Low Energy
- B. Off

3.4 Submitted Documents

- Application Form
- Block Diagram
- Schematics
- Technical Description

- FCC/IC Label and Location Info
- Photo Document
- User Manual



 Prüfbericht - Nr.:
 50084596 005
 Seite 10 von 29

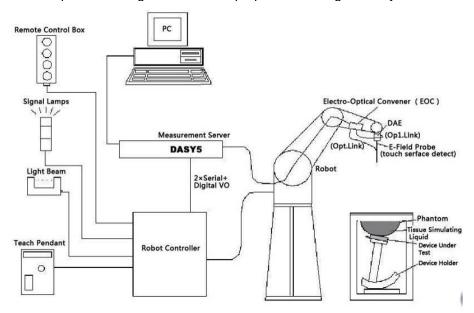
 Test Report No.
 Page 10 of 29

4. SAR Measurements System Configuration

4.1 SAR Measurements Set-up

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

- A standard high precision 6-axis robot (Stäubli TX=RX family) with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, ADconversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP and the DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The generic twin phantom enabling the testing of left-hand and right-hand usage.
- The device holder for handheld mobile phones.
- Tissue simulating liquid mixed according to the given recipes.
- System validation dipoles allowing to validate the proper functioning of the system.



Picture 1 SAR Lab Test Measurement Set-up



 Prüfbericht - Nr.:
 50084596 005

 Test Report No.
 Seite 11 von 29

 Page 11 of 29

4.2 DASY5 E-Fild Probe System

The SAR measurements were conducted with the dosimetric probe designed in the classical triangular configuration and optimized for dosimetric evaluation. The probe is constructed using the thick film technique; with printed resistive lines on ceramic substrates. The probe is equipped with an optical multifiber line ending at the front of the probe tip. It is connected to the EOC box on the robot arm and provides an automatic detection of the phantom surface. Half of the fibers are connected to a pulsed infrared transmitter, the other half to a synchronized receiver. As the probe approaches the surface, the reflection from the surface produces a coupling from the transmitting to the receiving fibers. This reflection increases first during the approach, reaches maximum and then decreases. If the probe is flatly touching the surface, the coupling is zero. The distance of the coupling maximum to the surface is independent of the surface reflectivity and largely independent of the surface to probe angle. The DASY5 software reads the reflection turning a software approach and looks for the maximum using 2nd ord curve fitting. The approach is stopped at reaching the maximum.

Probe Specifications: Model: EX3DV4

Linearity:

Frequency Range: 10MHz - 6.0GHz (EX3DV4)

Calibration: In head and body simulating tissue at

Frequencies from 835 up to 5800MHz ± 0.2 dB (10 MHz to 6 GHz) for EX3DV4

Dynamic Range: 5 mW/kg - 100W/kg

Probe Length: 337 mm
Probe Tip Length: 9 mm
Body Diameter: 10 mm
Tip Diameter: 2.5 mm
Tip-Center: 1 mm

Application: SAR Dosimetry Testing

Compliance tests of mobile phones Dosimetry in strong gradient fields



Picture 2 E-field Probe



 Prüfbericht - Nr.:
 50084596 005
 Seite 12 von 29

 Test Report No.
 Page 12 of 29

4.3 E-Filed Probe Calibration

Each E-Probe/Probe Amplifier combination has unique calibration parameters. A TEM cell calibration procedure is conducted to determine the proper amplifier settings to enter in the probe parameters. The amplifier settings are determined for a given frequency by subjecting the probe to a known E-field density (1 mW/cm²) using an RF Signal generator, TEM cell, and RF Power Meter.

The free space E-field from amplified probe outputs is determined in a test chamber. This calibration can be performed in a TEM cell if the frequency is below 1 GHz and inn a waveguide or other methodologies above 1 GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity and at the proper orientation with the field. The probe is then rotated 360 degrees until the three channels show the maximum reading. The power density readings equates to 1 mw/ cm².

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

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

Where:

 Δt = Exposure time (30 seconds),

C = Heat capacity of tissue (brain or muscle),

 ΔT = Temperature increase due to RF exposure.

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

Where:

 σ = Simulated tissue conductivity,

 ρ = Tissue density (kg/m³).

4.4 Other Test Equipment

4.4.1 Data Acquisition Electronics (DAE)

The data acquisition electronics consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information, as well as an optical uplink for commands and the clock. The mechanical probe mounting device includes two different sensor systems for frontal and sideways probe contacts. They are used for mechanical surface detection and probe collision detection. The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

4.4.2 Robot

The SPEAG DASY system uses the high precision robots (DASY5: TX60XL) type from Stäubli SA (France). For the 6-axis controller system, the robot controller version from Stäubli is used. The Stäubli robot series have many features that are important for our application:

High precision (repeatability 0.02mm)



Products

Prüfbericht - Nr.: 50084596 005

Seite 13 von 29Page 13 of 29

Test Report No.

High reliability (industrial design)

Low maintenance costs (virtually maintenance free due to direct drive gears; no belt drives)

Jerk-free straight movements (brushless synchron motors; no stepper motors)

Low ELF interference (motor control fields shielded via the closed metallic construction shields)



Picture 3 DASY 5

4.4.3 Measurement Server

The Measurement server is based on a PC/104 CPU broad with CPU (DASY5: 400 MHz, Intel Celeron), chip disk (DASY5: 128MB), RAM (DASY5: 128MB). The necessary circuits for communication with the DAE electronic box, as well as the 16 bit AD converter system for optical detection and digital I/O interface are contained on the DASY I/O broad, which is directly connected to the PC/104 bus of the CPU broad.



Picture 4 Server for DASY 5

The measurement server performs all real-time data evaluation of field measurements and surface detection, controls robot movements and handles safety operation. The PC operating system cannot interfere with these time critical processes. All connections are supervised by a watchdog, and disconnection of any of the cables to the measurement server will automatically disarm the robot and disable all program-controlled robot movements. Furthermore, the measurement server is equipped with an expansion port which is reserved for future applications. Please note that this expansion port does not have a standardized pinout, and therefore only devices provided by SPEAG can be connected. Devices from any other supplier could seriously damage the measurement server.



Prüfbericht - Nr.: 50084596 005

Seite 14 von 29Page 14 of 29

Test Report No.

4.4.4 Device Holder for Phantom

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

The DASY device holder is designed to cope with the different positions given in the standard. It has two scales for device rotation (with respect to the body axis) and device inclination (with respect to the line between the ear reference points). The rotation centers for both scales are the ear reference point (ERP). Thus the device needs no repositioning when changing the angles.

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

<Laptop Extension Kit>

The extension is lightweight and made of POM, acrylic glass and foam. It fits easily on the upper part of the Mounting Device in place of the phone positioner. The extension is fully compatible with the Twin-SAM and ELI phantoms.



Picture 5 Device Holder

4.4.5 Phantom

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



 Prüfbericht - Nr.:
 50084596 005
 Seite 15 von 29

 Test Report No.
 Page 15 of 29

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



Picture 8 ELI Phantom

4.5 Scanning Procedure

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

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

The "surface check" measurement tests the optical surface detection system of the DASY5 system by repeatedly detecting the surface with the optical and mechanical surface detector and comparing the results. The output gives the detecting heights of both systems, the difference between the two systems



Products

 Prüfbericht - Nr.:
 50084596 005
 Seite 16 von 29

 Test Report No.
 Page 16 of 29

and the standard deviation of the detection repeatability. Air bubbles or refraction in the liquid due to separation of the sugar-water mixture gives poor repeatability (above \pm 0.1mm). To prevent wrong results tests are only executed when the liquid is free of air bubbles. The difference between the optical surface detection and the actual surface depends on the probe and is specified with each probe. (It does not depend on the surface reflectivity or the probe angle to the surface within \pm 30°.)

Area Scan

The Area Scan is used as a fast scan in two dimensions to find the area of high field values before running a detailed measurement around the hot spot. Before starting the area scan a grid spacing is set according to FCC KDB Publication 865664. During scan the distance of the probe to the phantom remains unchanged. After finishing area scan, the field maxima within a range of 2 dB will be ascertained.

Zoom Scan

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.

Spatial Peak Detection

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

- maximum search
- extrapolation
- boundary correction
- peak search for averaged SAR

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

Extrapolation routines are used to obtain SAR values between the lowest measurement points and the inner phantom surface. The extrapolation distance is determined by the surface detection distance and the probe sensor offset. Several measurements at different distances are necessary for the extrapolation. Extrapolation routines require at least 10 measurement points in 3-D space.

They are used in the Zoom Scan to obtain SAR values between the lowest measurement points and the inner phantom surface. The routine uses the modified Quadratic Shepard's method for extrapolation.

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

Area and Zoom Scan Resolutions per FCC KDB Publication 865664 D01

Frequency	Maximum Area Scan Resolution (mm) (Δxarea, Δyarea)	Maximum Zoom Scan Resolution (mm) (Δxzoom, Δyzoom)	Maximum Zoom Scan Spatial Resolution (mm) Δzzoom(n)	Minimum Zoom Scan Volume (mm) (x,y,z)
≤2 GHz	≤15	≤8	≤5	≥ 30
2-3 GHz	≤12	≤5	≤5	≥30
3-4 GHz	≤12	≤5	≤4	≥28
4-5 GHz	≤10	≤4	≤3	≥25
5-6 GHz	≤10	≤4	≤2	≥22



 Prüfbericht - Nr.:
 50084596 005
 Seite 17 von 29

 Test Report No.
 Page 17 of 29

4.6 Data Storage and Evaluation

4.6.1 Data Storage

The DASY5 software stores the acquired data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors), together with all necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files with the extension ".DAE4". The software evaluates the desired unit and format for output each time the data is visualized or exported. This allows verification of the complete software setup even after the measurement and allows correction of incorrect parameter settings. For example, if a measurement has been performed with a wrong crest factor parameter in the device set up, the parameter can be corrected afterwards and the data can be re-evaluated.

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

4.6.2 Data Evaluation by SEMCAD

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

Probe parameters: - Sensitivity Normi, aio, ai1, ai2

Conversion factor ConvF_i

- Diode compression point Dcpi

Device parameters: - Frequency f

- Crest factor cf

Media parameters: - Conductivity

Density

These parameters must be set correctly in the software. They can be found in the component documents or they can be imported into the software from the configuration files issued for the DASY5 components. In the direct measuring mode of the multimeter option, the parameters of the actual system setup are used. In the scan visualization and export modes, the parameters stored in the corresponding document files are used.

The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics.

If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power. The formula for each channel can be given as:

 $V_i = U_i + U_i^2 \cdot c f / dcp_i$

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

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

cf = crest factor of exciting field (DASY parameter)



Products

Prüfbericht - Nr.: 50084596 005

Seite 18 von 29Page 18 of 29

Test Report No.

dcp_i = diode compression point (DASY parameter)

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

E-field probes: $E_i = (V_i / Norm_i \cdot ConvF)^{1/2}$

H-field probes: $H_i = (V_i)^{1/2} \cdot (a_{i0} + a_{i1} f + a_{i2} f^2) / f$

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

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

[mV/(V/m)2] for E-field Probes

ConvF = sensitivity enhancement in solution

a_{ij} = sensor sensitivity factors for H-field probes

f = carrier frequency [GHz]

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

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

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

$$E_{tot} = (E_x^2 + E_y^2 + E_z^2)^{1/2}$$

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

SAR =
$$(E_{tot}) 2 \cdot \sigma / (\rho \cdot 1000)$$

with SAR = local specific absorption rate in mW/g

Etot = total field strength in V/m

- = conductivity in [mho/m] or [Siemens/m]
- = equivalent tissue density in g/cm³

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

 $P_{pwe} = E_{tot}^2 / 3770 \text{ or } P_{pwe} = H_{tot}^2 \cdot 37.7$

with P_{pwe} = equivalent power density of a plane wave in mW/cm²

Etot = total electric field strength in V/m; Htot = total magnetic field strength in A/m



Products

 Prüfbericht - Nr.:
 50084596 005
 Seite 19 von 29

 Test Report No.
 Page 19 of 29

5. Test Set-up and Operation Modes

5.1 Principle of Configuration Selection

The EUT is commanded to operate at maximum transmitting power. The EUT shall use its internal transmitter. The antenna, battery and accessories shall be those specified by the manufacturer. The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power output.

Table 11: Configuration of EUT

	Frequency		Default 1	Test Chan	Power Control	
Operation mode	Range Modulation (MHz)		Low	Middle	High	Level
802.11b/g/n(HT20)	2412-2462	DSSS, OFDM	CH1	CH6	CH11	
802.11n(HT40)	2422-2452	OFDM	CH3	CH6	CH9	Test software
802.11a (Band U-NII-1)	5180-5240	OFDM	CH36	CH40	CH48	was used to configure the
802.11a (Band U-NII-3)	5745-5825	OFDM	CH149	CH157	CH165	EUT to transmit at maximum
Bluetooth (BDR & EDR)	2402-2480	FHSS	CH0	CH39	CH78	output power
Bluetooth (Low Energy)	2402-2480	GFSK	CH0	CH19	CH39	

5.2 Tissue Simulating Liquid Ingredients

The liquid is consisted of Water, Salt, Glycol and DGBE. The liquid has previously been proven to be suited for worst-case. The following table shows the detail solution.

Table 12: Composition of Tissue Simulating Liquid

MIXTURE%(Weight)	FREQUENCY (Body) 2450MHz
Water	73.2
DGBE	26.76
Salt	0.04
Dielectric Parameters Target Value	f=2450MHz ε=52.70 σ=1.95

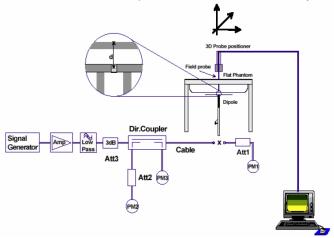
MIXTURE%(Weight)	FREQUENCY (Body) 5GHz
Water	76.3
DGBE	0.0
Triton X-100	10.2
Salt	0.0
Dielectric Parameters Target Value	f=5200MHz ε=49.00 σ=5.30
	f=5800MHz ϵ =48.20 σ =6.00

 Prüfbericht - Nr.:
 50084596 005
 Seite 20 von 29

 Test Report No.
 Page 20 of 29

5.3 Specific Absorption Rate (SAR) System Check

The manufacturer calibrates the probes annually. Dielectric parameters of the tissue simulants were measured every day using the dielectric probe kit and the network analyzer. A system check measurement was made following the determination of the dielectric parameters of the simulant, using the dipole validation kit. A power level of 100 mW was supplied to the dipole antenna, which was placed under the flat section of the twin SAM phantom. The system check results (dielectric parameters and SAR values) are given in Appendix A. System check results have to be equal or near the values determined during dipole calibration with the relevant liquids and test system (±10 %). System check is performed regularly on all frequency bands where tests are performed with the DASY5 system.



Picture 9 System Check Set-up

Table 13: System Check Results of Tissue Simulating Liquid

Frequency (MHz)	Tissue Type	Liquid Temp. (°C)	Conductivity (σ)	Permittivity (ε_r)	Conductivity Target (σ) (+/-5%)	Permittivity Target (ε _r) (+/-5%)	Date
2450	Body	21.2	1.963	51.89	1.95 (1.85 ~ 2.04)	52.70 (50.07 ~ 55.34)	2017-05-02
5200	Body	21.4	5.271	49.16	5.30 (5.03 ~ 5.56)	49.00 (46.55 ~ 51.45)	2017-04-27
5800	Body	21.8	6.161	48.04	6.00 (5.70 ~ 6.30)	48.20 (45.79 ~ 50.61)	2017-05-03

Table 14: System Validation

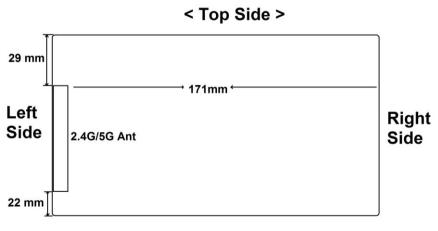
Frequency (MHz)	Tissue Type	Liquid Temp. (°C)	Targeted 1g SAR (W/kg) (+/-10%)	Normalized 1g SAR (W/kg)	Date			
2450	Body	21.2	51.20 (46.08~56.32)	52.50	2017-05-02			
5200	Body	21.4	74.50 (67.05~81.95)	72.70	2017-04-27			
5800	Body	21.8	76.70 (69.03~84.37)	74.80	2017-05-03			
	Note: All SAR values are normalized to 1W forward power							



 Prüfbericht - Nr.:
 50084596 005
 Seite 21 von 29

 Test Report No.
 Page 21 of 29

5.4 Exposure Positions Consideration



< Bottom Side >

Distance of the Antenna to the EUT surface/edge								
	Left	Тор	Bottom	Back	Right	Front Face		
Distance	<5mm	29mm	22mm	<5mm	171mm	Note 3		

Positions for SAR test								
	Left	Тор	Bottom	Back	Right			
802.11b	Yes	Yes	Yes	Yes	N/A			
802.11a U-NII-1 and U-NII-3	Yes	Yes	Yes	Yes	N/A			

Note: SAR testing exemption according to KDB 447498 D01 Clause 4.3.1 with the following formula.

1) For 100 MHz to 6 GHz and test separation distances \leq 50 mm, the 1-g SAR test exclusion thresholds are determined by the following:

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

*where f(GHz) is the RF channel transmit frequency in GHz

- *When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.
- 2) For 100 MHz to 6 GHz and test separation distances > 50 mm, the 1-g SAR test exclusion thresholds are determined by the following
- {[Power allowed at *numeric threshold* for 50 mm in step a)] + [(test separation distance 50 mm)·10]} mW, for > 1500 MHz and \leq 6 GHz
- 3) Not necessary test for this tablet per KDB 616217 D04 SAR for laptop and tablets v01r02 Clause 4.3.



Products

 Prüfbericht - Nr.:
 50084596 005
 Seite 22 von 29

 Test Report No.
 Page 22 of 29

5.5 Test Operation and Test Software

Test operation refers to test setup in chapter 5.

A communication link is set up with the test mode software for WiFi mode test. During the test, at the each test frequency channel, the EUT is operated at the RF continuous emission mode.

802.11 b/g/n operating modes are tested independently according to the service requirements in each frquency band.802.11b/g/n modes are tested on channel 1, 6, 11. However, if output power reduction is necessary for channels 1 and/or 11 to meet restricted band requirements the highest output channel closest to each of these channels must be tested instead.

SAR is not required for 802.11g/n when

- a) KDB Publication 447498 D01 SAR test exclusion applies to the OFDM configuration.
- b) The highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

Each channel should be tested at the lowest data rate, and repeated SAR measurement is required only when the measured SAR is \geq 0.8 W/kg.

When the reported SAR is > 0.8 W/kg, SAR is required for that exposure configuration using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

5.6 Special Accessories and Auxiliary Equipment

Attached detachable Keyboard

 Prüfbericht - Nr.:
 50084596 005

 Test Report No.
 Seite 23 von 29

 Page 23 of 29

5.7 EUT Conducted Output Power

Table 15: Conducted Power of Bluetooth (BDR & EDR)

Bluetooth	Conducted Power (dBm)					
Bidetootii	CH00 / 2402	CH39 / 2441	CH78 / 2480			
Basic Date Rate	3.7	4.2	4.3			
Enhanced Data Rate	2.9	3.4	3.5			
Rated Average Power		5.0				

No need to do SAR testing for Bluetooth with output power less than 10mW according to KDB 447498 D01 V06 $\,$

Table 16: Conducted Power of Bluetooth (Low Energy)

Bluetooth	Conducted Power (dBm)					
Biuetootii	CH00 / 2402	CH19 / 2440	CH39 / 2480			
Low Energy	-4.2	-3.7	-3.7			
Rated Average Power		-3.0				

No need to do SAR testing for Bluetooth with output power less than 10mW according to KDB 447498 D01 $\,\mathrm{V06}$

Table 17: Max. Conducted Power of 802.11a/b/g/n

			1	-	
Mode	Channel		Data Rate (Mbps)		Average
	_	\ /	\ \ \ \ \ \		Power(dBm
					14.62
802.11b	6	2437] 1 [13.5±1.5	14.22
	11	2462		13.5±1.5	14.21
	1	2412		11.0±1.5	11.93
802.11g	6	2437	6	11.0±1.5	12.12
	11	2462		11.0±1.5	11.63
	1	2412		11.0±1.5	11.90
802.11n (HT20)	6	2437	6.5	11.0±1.5	11.85
	11	2462	1	11.0±1.5	11.83
	3	2422		11.0±1.5	11.43
802.11n (HT40)	6	2437	13.5	11.0±1.5	11.65
	9	2452	1	11.0±1.5	11.26
Mode		Fraguenay	Data Rate	T	Average
	Channel				Power
		(IVIHZ)	(IVIDPS)	(dbm)	(dBm)
	36	5180		12.0±1.5	11.96
802.11a	40	5200	1 _ 1	12.0±1.5	12.16
	44	5220	1 6 1	12.0±1.5	12.05
	48	5240	1	12.0±1.5	12.81
		-	D-4- D-4-	T	Average
Mode	Channel				Power
		(MHz)	(Mbps)	(dbm)	(dBm)
	149	5745		9.5±1.5	9.79
	153	5765	1	9.5±1.5	9.54
802.11a	157	5785	6		10.06
		5805	1 1		9.58
	165	5825	1 1	9.5±1.5	9.60
	802.11b 802.11g 802.11n (HT20) 802.11n (HT40) Mode 802.11a Mode	802.11b	802.11b	Node Channel (MHz) Data Rate (Mbps)	Node



 Prüfbericht - Nr.:
 50084596 005
 Seite 24 von 29

 Test Report No.
 Page 24 of 29

6. Test Results

6.1 Huaman Exposure to Radiofrequency Electromagnetic Fields

RESULT: Passed

Date of testing : 2017-04-27 – 2017-05-03

Test standard : CFR Title 47 Part 2 Subpart J Section 2.1093

ANSI/IEEE C95.1-1992

FCC KDB Publication : KDB 447498 D01

KDB 248227 D01 KDB 616217 D04

KDB 865664 D01 / KDB 865664 D02

Limits : 1.6W/kg

Test setup

Table 18: Test result of SAR Values of WiFi 2.4GHz Band

Test Position	Test channel	Test		Value /kg)	Power Drift	Conducted	Tune-up	Scaled SAR ₁₋₀	Liquid	
of Body With 0mm	/Freq.(MHz)	Mode	1-g	10-g	(dB)	(dBm)	(dBm)	(W/kg)	Temp.	
Back Side	1/2412	802.11b	1.040	0.482	-0.120	14.62	15.00	1.135	21.20°C	
Left Side	1/2412	802.11b	0.967	0.386	-0.100	14.62	15.00	1.055	21.20°C	
Top Side	1/2412	802.11b	0.061	0.030	-0.070	14.62	15.00	0.067	21.20°C	
Bottom Side	1/2412	802.11b	0.093	0.049	0.190	14.62	15.00	0.102	21.20°C	
Back Side	11/2462	802.11b	1.230	0.569	0.000	14.21	15.00	1.475	21.20°C	
Back Side -Repeated	11/2462	802.11b	1.240	0.573	-0.030	14.21	15.00	1.487	21.20°C	
Back Side	6/2437	802.11b	1.190	0.550	-0.030	14.22	15.00	1.424	21.20°C	
Left Side	11/2462	802.11b	0.926	0.366	-0.150	14.21	15.00	1.111	21.20°C	
Left Side	6/2437	802.11b	0.956	0.380	-0.190	14.22	15.00	1.144	21.20°C	
	Tested DL7006-KB with keyboard at the worst position									
Back Side	11/2462	802.11b	0.612	0.303	-0.140	14.21	15.00	0.734	21.20°C	
	Tested DL7006 at the worst position									
Back Side	11/2462	802.11b	1.100	0.508	-0.130	14.21	15.00	1.319	21.20°C	



> Prüfbericht - Nr.: 50084596 005 Test Report No.

Seite 25 von 29 Page 25 of 29

Table 19: Test result of SAR Values of U-NII-1 Band

Test Position	Test channel	Test		Value /kg)	Power Drift	Conducted	Tune-up power	Scaled SAR ₁₋₀	Liquid
of Body With 0mm	/Freq.(MHz)	Mode	1-g	10-g	(dB)	(dBm)	(dBm)	(W/kg)	Temp.
Back Side	48/5240	802.11a	0.575	0.195	0.100	12.81	13.5	0.674	21.39°C
Left Side	48/5240	802.11a	0.885	0.211	0.190	12.81	13.5	1.037	21.39°C
Top Side	48/5240	802.11a	0.096	0.035	0.060	12.81	13.5	0.112	21.39°C
Bottom Side	48/5240	802.11a	0.299	0.098	0.070	12.81	13.5	0.350	21.39°C
Left Side	36/5180	802.11a	0.778	0.184	0.140	11.96	13.5	1.109	21.39°C
Left Side	40/5200	802.11a	0.854	0.205	-0.040	12.16	13.5	1.163	21.39°C
Left Side- Repeated	40/5200	802.11a	0.866	0.208	-0.100	12.81	13.5	1.015	21.39°C
	Tested DL7006-KB with keyboard at the worst position								
Left Side	40/5200	802.11a	0.320	0.101	-0.040	12.81	13.5	0.375	21.39°C
			Tested D	L7006 at	the worst	position			
Left Side	40/5200	802.11a	0.789	0.188	-0.170	12.81	13.5	0.925	21.39°C

Table 20: Test result of SAR Values of U-NII-3 Band

Test Position	Test channel	Test		Value 'kg)	Power Drift	Conducted	Tune-up power	Scaled SAR ₁₋₀	Liquid
of Body With 0mm	/Freq.(MHz)	Mode	1-g	10-g	(dB)	(dBm)	(dBm)	(W/kg)	Temp.
Back Side	157/5785	802.11a	0.507	0.167	-0.140	10.06	11.0	0.630	21.81°C
Left Side	157/5785	802.11a	0.890	0.208	0.060	10.06	11.0	1.105	21.81°C
Top Side	157/5785	802.11a	0.074	0.028	0.060	10.06	11.0	0.092	21.81°C
Bottom Side	157/5785	802.11a	0.187	0.070	-0.110	10.06	11.0	0.232	21.81°C
Left Side	149/5745	802.11a	0.767	0.179	-0.180	9.79	11.0	1.013	21.81°C
Left Side	165/5825	802.11a	1.030	0.241	-0.130	9.60	11.0	1.422	21.81°C
Left Side- Repeated	165/5825	802.11a	1.010	0.237	-0.010	9.60	11.0	1.394	21.81°C
	Tested DL7006-KB with keyboard at the worst position								
Left Side	165/5825	802.11a	0.675	0.175	-0.150	9.60	11.0	0.932	21.81°C
			Tested D	L7006 at	the worst	position			
Left Side	165/5825	802.11a	0.858	0.196	-0.070	9.60	11.0	1.184	21.81°C

Note: Wi-Fi antenna and Bluetooth cannot transmitter simultaneously.

Refer to attached Appendix B for details of test results.



Products

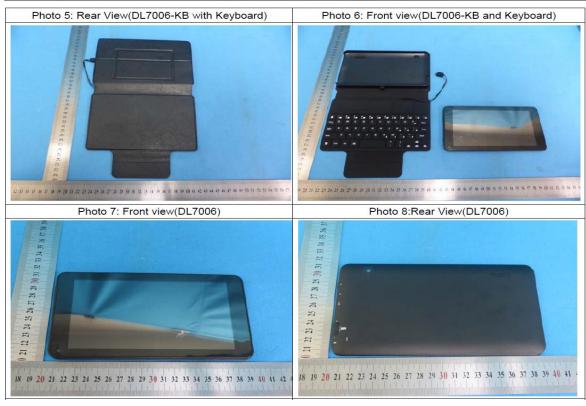
Prüfbericht - Nr.: Test Report No.	50084596 005	Seite 26 von 29 <i>Page 26 of 29</i>
6.2 Measurement U	ncertainty	
The measured SAR were <1.5 D01v01r04, the extensive SAR is not required in SAR reports	5 W/kg for all frequency bands, therefore per KDB R measurement uncertainty analysis described in	Publication 865664 IEEE Std 1528-2013



> Prüfbericht - Nr.: 50084596 005 Seite 27 von 29 Page 27 of 29 Test Report No.

7. Photographs of the Test Set-Up







Products

Prüfbericht - Nr.: 50084596 005

Seite 28 von 29 *Page 28 of 29*

Test Report No.





Photo 10:Left Side 0mm

Photo 11:Top Side 0mm

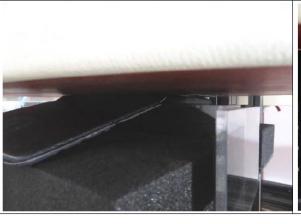






Photo 13:Back Side with Keyboard 0mm

Photo 14:Left Side with Keyboard 0mm







Products

Prüfbericht - Nr.: 50084596 005
Test Report No.

Seite 29 von 29Page 29 of 29

8. List of Tables

Table 1: List of Test and Measurement Equipment	5
Table 2: Technical Specification	
Table 3: Technical Specification of 2.4GHz, 802.11b/g/n	
Table 4: List of WLAN Channel of 802.11b/g/n	7
Table 5: Technical Specification of 5GHz, 802.11a	7
Table 6: List of WLAN Channel of 5GHz 802.11a	7
Table 7: Technical Specification of Bluetooth (BDR & EDR mode)	7
Table 8: RF channel and frequency of Bluetooth (BDR & EDR mode)	8
Table 9: Technical Specification of Bluetooth (Low Energy mode)	8
Table 10: RF channel and frequency of Bluetooth (Low Energy mode)	8
Table 11: Configuration of EUT	19
Table 12: Composition of Tissue Simulating Liquid	19
Table 13: System Check Results of Tissue Simulating Liquid	
Table 14: System Validation	
Table 15: Conducted Power of Bluetooth (BDR & EDR)	23
Table 16: Conducted Power of Bluetooth (Low Energy)	23
Table 17: Max. Conducted Power of 802.11a/b/g/n	23
Table 18: Test result of SAR Values of WiFi 2.4GHz Band	24
Table 19: Test result of SAR Values of U-NII-1 Band	25
Table 20: Test result of SAR Values of U-NII-3 Band	25



Produkte Products

Page 1 of 34

Appendix A

System Performance Check



Produkte

Page 2 of 34 **Products**

Date/Time: 5/2/2017 11:21:46 AM

Test Laboratory: CTI SAR Lab

Systemcheck 2450-Body

DUT: Dipole 2450 MHz D2450V2; Type: D2450V2; Serial: D2450V2 - SN:959

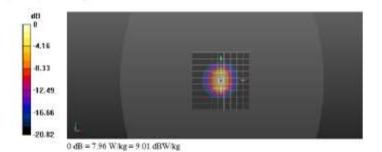
Communication System: UID 0, CW (0), Communication System Band: D2450 (2450.0 MHz), Frequency: 2450 MHz;Duty Cycle: 1-1 Medium parameters used: f = 2450 MHz; $\sigma = 1.963 \text{ S/m}$; $v_e = 51.889$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section

DASY Configuration:

- Probe: EX3DV4 SN7328; ComF(7.61, 7.61, 7.61); Calibrated: 2/28/2017;
- Sensor-Surface; 2mm (Mechanical Surface Detection), z = 1.0, 31.0
 Electronics: DAE4 8nl458; Calibrated 2/22/2017
 Phonton: ELI v6.0, Type: QDOVA003AA, Serial: 2024
 DASY52 52 8.8(1222); SEMCAD X 14.6 10(7331)

Configuration/d=10mm,Pin=100mW/Area Scan (10x10x1): Measurement grid: dx=12mm, dy=12mm Maximum value of SAR (measured) = 5.82 W/kg

Configuration/d=10mm,Pin=100mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 54.77 V/m; Power Drift = 0.05 dB Peak SAR (entropolated) = 10.6 W/kg SAR(1 g) = 5.25 W/kg; SAR(10 g) = 2.47 W/kg Maximum value of SAR (measured) = 7.96 W/kg





Produkte Products

Page 3 of 34

Date/Time: 4/27/2017 8:44:54 AM

Test Laboratory: CTI SAR Lab

Systemcheck 5200-Body

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1268

Communication System: UID 0, CW (0); Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5200 MHz; Daty Cycle: 1:1 Medium parameters used: f = 5200 MHz, $\sigma = 5.271$ S/m; $\epsilon_p = 49.163$; $\rho = 1000$ kg/m³ Phantom section: Flat Section

DASY Configuration:

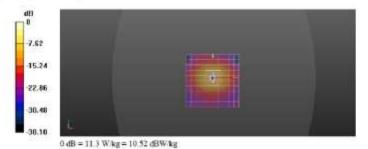
- Probe EX3DV4 SN7328, Comrf (4.78, 4.78, 4.78); Calibrated 2/28/2017,
 Sensor-Sorface: 2mm (Mochanical Surface Detection), z = 1.0, 31.0
 Electronics: DAE4 Sol.458, Calibrated: 2/22/2017

- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/d=10mm,Pin=100mW/Area Scan (11x11x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 11.3 W/kg

Configuration/d=10mm,Pin=100mW/Zoom Scan (8x8x16)/Cube 0: Measurement grid: dn=4mm, dy=4mm, dz=2mm

Reference Value = 39.64 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 29.7 W/kg SAR(1 g) = 7.27 W/kg; SAR(10 g) = 2.06 W/kg Maximum value of SAR (measured) = 14.5 W/kg





Produkte

Page 4 of 34 **Products**

Date/Time: 5/3/2017 9:05:00 AM

Test Laboratory: CTI SAR Lab

Systemcheck 5800-Body

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1268

Communication System: UID 0, CW (0); Communication System Band: D5GHz (5000.0 - 6000.0 MHz); Frequency: 5800 MHz; Daty Cycle: 1:1 Medium parameters used: f = 5800 MHz, $\sigma = 6.161 \text{ S/m}$; $v_p = 48.042$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section

DASY Configuration:

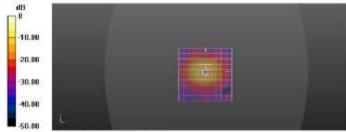
- Probe EX3DV4 SN7328; Com/F(4.11, 4.11, 4.11); Calibrated 2/28/2017;
 Sensor-Surface; 2mm (Mechanical Surface Detection), z = 1.0, 31.0
 Electronics: DAE4 Sul458; Calibrated: 2/22/2017
 Phontoen Twin SAM V5.0; Type: QD000P40CD, Serial 1875

- DASY32 52 8.8(1222); SEMCAD X 14.6 (0(7331)

Configuration/d=10mm,Pin=100mW/Area Scan (11x11x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 12.8 W/kg

Configuration/d=10mm,Pin=100mW/Zoom Scan (8x8x16)/Cube 0: Measurement grid: dn=4mm, dy=4mm, dz=2mm Reference Value = 37.54 V/m; Power Drift = -0.08 dB Peak SAR (extrapolated) = 32.1 W/kg

SAR(1 g) = 7.48 W/kg; SAR(10 g) = 2.1 W/kg Maximum value of SAR (measured) = 15.8 W/kg



0 dB = 12.8 W/kg = 11.08 dBW/kg



Produkte Products

Page 5 of 34

Appendix A

Test Plots of SAR Measurement



Produkte

Page 6 of 34 **Products**

Date/Time: 5/2/2017 2:30:53 PM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11b 1CH Back Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

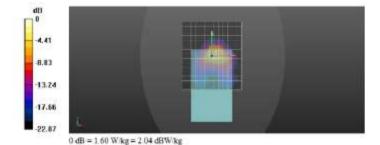
Communication System: UID 0, WiFi 802.31 a/b/g/a/ac (0); Communication System Band: WiFi, Frequency. 2412 MHz;Duty Cycle: 1:1 Medium parameters used: f = 2412 MHz; $\sigma = 1.922$ S/m; $v_e = 52.218$; $\rho = 1000$ kg/m³ Phantom section: Flat Section

DASY Configuration:

- Probe EX3DV4 SN7328; ComF(7.61, 7.61, 7.61); Calibrated 2/28/2017;
 Sensor-Surface: 2mm (Mechanical Surface Detection); z = 1.0, 31.0
 Electronics: DAE4 Sul 458; Colibrated: 2/22/2017
 Phonton: ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14 6 10(7331)

Configuration/Body/Area Scan (14x16x1): Measurement grid: dx=12mm, dy=12mm Maximum value of SAR (measured) = 1.35 W/kg

Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 17.56 V/m; Power Draft = -0.12 dB Peak SAR (extrapolated) = 2.22 W/kg SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.482 W/kg Maximum value of SAR (measured) = 1.60 W/kg





Produkte

Page 7 of 34 **Products**

Date/Time: 5/2/2017 5:47:30 PM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11b 1CH Left Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.11 a-b-gm/ac (0); Communication System Band: WiFi; Frequency: 2412 MHz;Duty Cycle: 1-1 Medium parameters used: f = 2412 MHz, σ = 1.922 S/m, $v_{\rm p}$ = 52.218, ρ = 1000 kg/m³ Phantom section: Flat Section

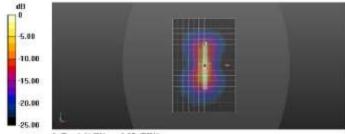
DASY Configuration:

- Probe EX3DV4 SN7328, ComrF(7.61, 7.61, 7.61); Calibrated 2/28/2017;
 Sensor-Surface, 2mm (Mechanical Surface Detection), z = 1.0, 31.0
 Electronics DAE4 Sul458, Calibrated, 2/22/2017

- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (13x19x1): Measurement grid: dx=12mm, dy=12mm Maximum value of SAR (measured) = 1.52 Wiley

 $\label{eq:configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm, dz=$



0 dB = 1.61 W/kg = 2.07 dBW/kg



Produkte Products

Page 8 of 34

Date/Time: 5/2/2017 6:28:35 PM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11b 1CH Top Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.11 a-b-gm/ac (0); Communication System Band: WiFi; Frequency: 2412 MHz;Duty Cycle: 1-1 Medium parameters used: f = 2412 MHz, σ = 1.922 S/m, $v_{\rm p}$ = 52.218, ρ = 1000 kg/m³ Phantom section: Flat Section

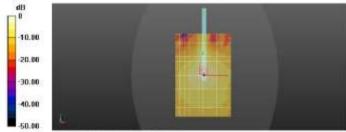
DASY Configuration:

- Probe EX3DV4 SN7328, ComrF(7.61, 7.61, 7.61); Calibrated 2/28/2017;
 Sensor-Surface, 2mm (Mechanical Surface Detection), z = 1.0, 31.0
 Electronics DAE4 Sul458, Calibrated, 2/22/2017

- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (13x19x1): Measurement grid: dx=12mm, dy=12mm Maximum value of SAR (measured) = 0.0872 W/kg

 $\label{eq:configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm, dx=5mm, dx=$



0 dB = 0.0887 W/kg = -10.52 dBW/kg



Produkte Products

Page 9 of 34

Date/Time: 5/2/2017 7:07:38 PM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11b 1CH Bottom Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.31 a/b/g/a/ac (0); Communication System Band: WiFi, Frequency. 2412 MHz;Duty Cycle: 1:1 Medium parameters used: f=2412 MHz, $\sigma=1.922$ S/m, $v_p=52.218$; $\rho=1000$ kg/m 3 Phantom section: Flat Section

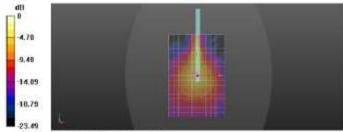
DASY Configuration:

- Probe EX3DV4 SN7328, ComrF(7.61, 7.61, 7.61); Calibrated 2/28/2017;
 Sensor-Surface, 2mm (Mechanical Surface Detection), z = 1.0, 31.0
 Electronics DAE4 Sul458, Calibrated, 2/22/2017

- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (13x19x1): Measurement grid: dx=12mm, dy=12mm Maximum value of SAR (measured) = 0.137 W/kg

Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 6.985 V/m; Power Drift = 0.19 dB Peak SAR (extrapolated) = 0.188 W/kg SAR(1 g) = 0.093 W/kg; SAR(10 g) = 0.049 W/kg Maximum value of SAR (measured) = 0.141 W/kg



0 dB = 0.141 W/kg = -8.51 dBW/kg



Produkte

Page 10 of 34 **Products**

Date/Time: 5/2/2017 3:07:15 PM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11b 11CH Back Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.31 a/b/g/n/ac (0); Communication System Band: WiFi, Frequency. 2462 MHz;Duty Cycle: 1:1 Medium parameters used: f=2462 MHz, $\sigma=1.995$ S/m, $v_p=51.894$; $\rho=1000$ kg/m 3 Phantom section: Flat Section

DASY Configuration:

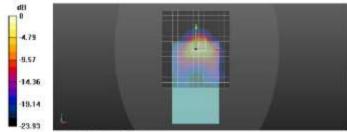
- Probe EX3DV4 SN7328, ComrF(7.61, 7.61, 7.61); Calibrated 2/28/2017;
 Sensor-Surface, 2mm (Mechanical Surface Detection), z = 1.0, 31.0
 Electronics DAE4 Sul458, Calibrated, 2/22/2017

- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (14x16x1): Measurement grid: dx=12mm, dy=12mm Maximum value of SAR (measured) = 1.69 W/kg

Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.52 V/m; Power Drift = -0.00 dB Peak SAR (extrapolated) = 2.70 W/kg SAR(1 g) = 1.23 W/kg; SAR(10 g) = 0.569 W/kg Maximum value of SAR (measured) = 1.94 W/kg



0 dB = 1.94 W/kg = 2.88 dBW/kg



Produkte

Page 11 of 34 **Products**

Date/Time: 5/2/2017 10:48:56 PM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11b 11CH Back Side-Repeated 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.31 a/b/g/n/ac (0); Communication System Band: WiFi, Frequency. 2462 MHz;Duty Cycle: 1:1 Medium parameters used: f=2462 MHz, $\sigma=1.995$ S/m, $v_{\rm p}=51.894$, $\rho=1000$ kg/m 3 Phantom section: Flat Section

DASY Configuration:

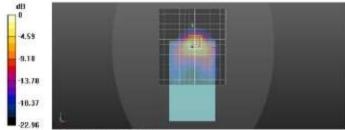
- Probe EX3DV4 SN7328, ComrF(7.61, 7.61, 7.61); Calibrated 2/28/2017;
 Sensor-Surface, 2mm (Mechanical Surface Detection), z = 1.0, 31.0
 Electronics DAE4 Sul458, Calibrated, 2/22/2017

- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (14x16x1): Measurement grid: dx=12mm, dy=12mm Maximum value of SAR (measured) = 1.71 W/kg

Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.53 V/m; Power Drift = -0.03 dB Peak SAR (entropolated) = 2.71 W/kg SAR(1 g) = 1.24 W/kg; SAR(10 g) = 0.573 W/kg Maximum value of SAR (measured) = 1.96 W/kg



0 dB = 1.96 W/kg = 2.92 dBW/kg



Produkte

Page 12 of 34 **Products**

Date/Time: 5/2/2017 3:42:57 PM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11b 6CH Back Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.31 a/b/g/n/ac (0); Communication System Band: WiFi, Frequency. 2437 MHz;Duty Cycle: 1:1 Medium parameters used: f = 2437 MHz; $\sigma = 1.95$ S/m; $\sigma_r = 52.004$; $\rho = 1000$ kg/m³ Phantom section: Flat Section

DASY Configuration:

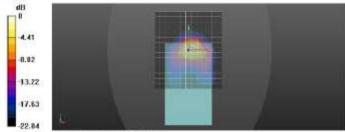
- Probe EX3DV4 SN7328, ComrF(7.61, 7.61, 7.61); Calibrated 2/28/2017;
 Sensor-Surface, 2mm (Mechanical Surface Detection), z = 1.0, 31.0
 Electronics DAE4 Sul458, Calibrated, 2/22/2017

- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (14x16x1): Measurement grid: dx=12mm, dy=12mm Maximum value of SAR (measured) = 1.70 W/kg

Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.24 V/m; Power Draft = -0.03 dB Peak SAR (extrapolated) = 2.59 W/kg SAR(1 g) = 1.19 W/kg; SAR(10 g) = 0.550 W/kg Maximum value of SAR (measured) = 1.79 W/kg



0 dB = 1.79 W/kg = 2.53 dBW/kg



Produkte

Page 13 of 34 **Products**

Date/Time: 5/2/2017 7:47:21 PM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11b 11CH Left Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.31 a/b/g/n/ac (0); Communication System Band: WiFi, Frequency. 2462 MHz;Duty Cycle: 1:1 Medium parameters used: f=2462 MHz, $\sigma=1.995$ S/m, $v_p=51.894$; $\rho=1000$ kg/m 3 Phantom section: Flat Section

DASY Configuration:

- Probe EX3DV4 SN7328, ComrF(7.61, 7.61, 7.61); Calibrated 2/28/2017;
 Sensor-Surface, 2mm (Mechanical Surface Detection), z = 1.0, 31.0
 Electronics DAE4 Sul458, Calibrated, 2/22/2017

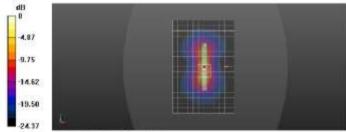
- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (13x19x1): Measurement grid: dx=12mm, dy=12mm Maximum value of SAR (measured) = 1.40 W/kg

Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 21.51 V/m; Power Drift = -0.15 dB Peak SAR (extrapolated) = 2.25 W/kg

SAR(1~g) = 0.926~W/kg; SAR(10~g) = 0.366~W/kg Maximum value of SAR (measured) = 1.58~W/kg



0 dB = 1.58 W/kg = 1.99 dBW/kg



Produkte

Page 14 of 34 **Products**

Date/Time: 5/2/2017 8:24:18 PM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11b 6CH Left Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.31 a/b/g/n/ac (0); Communication System Band: WiFi, Frequency. 2437 MHz;Duty Cycle: 1:1 Medium parameters used: f = 2437 MHz; $\sigma = 1.95$ S/m; $\sigma_r = 52.004$; $\rho = 1000$ kg/m³ Phantom section: Flat Section

DASY Configuration:

- Probe EX3DV4 SN7328, ComrF(7.61, 7.61, 7.61); Calibrated 2/28/2017;
 Sensor-Surface, 2mm (Mechanical Surface Detection), z = 1.0, 31.0
 Electronics DAE4 Sul458, Calibrated, 2/22/2017

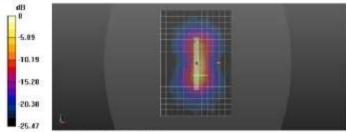
- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (13x19x1): Measurement grid: dx=12mm, dy=12mm Maximum value of SAR (measured) = 1.27 W/kg

Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.11 V/m; Power Drift = -0.19 dB Peak SAR (extrapolated) = 2.31 W/kg

SAR(1 g) = 0.956 W/kg; SAR(10 g) = 0.380 W/kgMaximum value of SAR (measured) = 1.62 W/kg



0 dB = 1.62 W/kg = 2.10 dBW/kg



Produkte

Page 15 of 34 **Products**

Date/Time: 5/2/2017 4:21:31 PM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11b 11CH Back Side with Keyboard 9mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.31 a/b/g/a/ac (0); Communication System Band: WiFi, Frequency. 2462 MHz;Daty Cycle: 1:1 Medium parameters used: f=2462 MHz, $\sigma=1.995$ S/m, $v_{\rm p}=51.894$, $\rho=1000$ kg/m 3 Phantom section: Flat Section

DASY Configuration:

- Probe EX3DV4 SN7328, ComrF(7.61, 7.61, 7.61); Calibrated 2/28/2017;
 Sensor-Surface, 2mm (Mechanical Surface Detection), z = 1.0, 31.0
 Electronics DAE4 Sul458, Calibrated, 2/22/2017

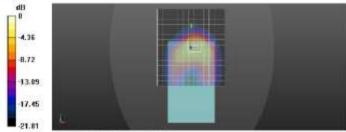
- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (14x16x1): Measurement grid: dx=12mm, dy=12mm Maximum value of SAR (measured) = 0.872 W/kg

Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.02 V/m; Power Drift = -0.14 dB Peak SAR (extrapolated) = 1.22 W/kg

SAR(1~g) = 0.612~W/kg; SAR(10~g) = 0.303~W/kg Maximum value of SAR (measured) = 0.902~W/kg



0 dB = 0.902 W/kg = -0.45 dBW/kg



Produkte

Page 16 of 34 **Products**

Date/Time: 5/2/2017 4:58:01 PM

Test Laboratory: CTI SAR Lab

DL7006 WiFi 802.11b 11CH Back Side 9mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.31 a/b/g/a/ac (0); Communication System Band: WiFi, Frequency. 2462 MHz;Daty Cycle: 1:1 Medium parameters used: f=2462 MHz, $\sigma=1.995$ S/m, $v_{\rm p}=51.894$, $\rho=1000$ kg/m 3 Phantom section: Flat Section

DASY Configuration:

- Probe EX3DV4 SN7328, ComrF(7.61, 7.61, 7.61); Calibrated 2/28/2017;
 Sensor-Surface, 2mm (Mechanical Surface Detection), z = 1.0, 31.0
 Electronics DAE4 Sul458, Calibrated, 2/22/2017

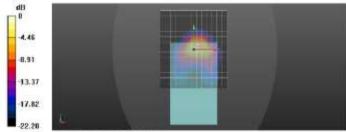
- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (14x16x1): Measurement grid: dx=12mm, dy=12mm Maximum value of SAR (measured) = 1.37 W/kg

Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.49 V/m; Power Drift = -0.13 dB Peak SAR (extrapolated) = 2.39 W/kg

SAR(1 g) = 1.1 W/log; SAR(10 g) = 0.508 W/logMaximum value of SAR (measured) = 1.73 W/log



0 dB = 1.73 W/kg = 2.38 dBW/kg



Produkte

Page 17 of 34 **Products**

Date/Time: 4/27/2017 9:56:04 AM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11a 48CH Back Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.11 a/b/g/n/ac (0); Communication System Band: WiFi 5.2G; Frequency: 5240 MHz; Duty Cycle: 1:1 Medium parameters used: f = 5240 MHz; $\sigma = 5.18$ S/m; $\sigma_{\rm f} = 49.344$; $\rho = 1000~{\rm kg/m}^3$ Phantom section: Flat Section

DASY Configuration:

- Probe EX3DV4 SN7328, Comrf (4.78, 4.78, 4.78); Calibrated 2/28/2017,
 Sensor-Sorface: 2mm (Mochanical Surface Detection), z = 1.0, 31.0
 Electronics: DAE4 Sol.458, Calibrated: 2/22/2017

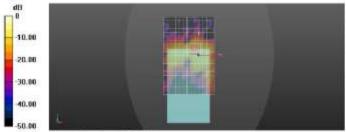
- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (14x21x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 1.21 W/kg

Configuration/Body/Zoom Scan (8x8x16)/Cube 0: Measurement grid: dx=4mm, dx=4mm, dz=2mm

Reference Value = 6.185 V/m; Power Drift = 0.10 dB Peak SAR (extrapolated) = 2.72 W/kg

SAR(1 g) = 0.575 W/kg; SAR(10 g) = 0.195 W/kg Maximum value of SAR (measured) = 1.20 W/kg



0 dB = 1.20 W/kg = 0.79 dBW/kg



Produkte

Page 18 of 34 **Products**

Date/Time: 4/27/2017 10:49:28 AM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11a 48CH Left Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.11 a/b/g/n/ac (0); Communication System Band: WiFi 5.2G; Frequency: 5240 MHz; Duty Cycle: 1:1 Medium parameters used: f = 5240 MHz; $\sigma = 5.18$ S/m; $\sigma_{\rm f} = 49.344$; $\rho = 1000~{\rm kg/m}^3$ Phantom section: Flat Section

DASY Configuration:

- Probe EX3DV4 SN7328, Comrf (4.78, 4.78, 4.78); Calibrated 2/28/2017,
 Sensor-Sorface: 2mm (Mochanical Surface Detection), z = 1.0, 31.0
 Electronics: DAE4 Sol.458, Calibrated: 2/22/2017

- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

-50.00

Configuration/Body/Area Scan (16x17x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 1.31 Wiley

Configuration/Body/Zoom Scan (8x8x16)/Cube 0: Measurement grid: dx=4mm, dx=4mm, dz=2mm

Reference Value = 11.15 V/m; Power Drift = 0.19 dB Peak SAR (extrapolated) = 4.47 W/kg SAR(1 g) = 0.885 W/kg; SAR(10 g) = 0.211 W/kgMaximum value of SAR (measured) = 2.14 W/kg

> -10.00 20.00 30.00 40.00

0 dB = 2.14 W/kg = 3.30 dBW/kg



Produkte

Page 19 of 34 **Products**

Date/Time: 4/27/2017 11:40:31 AM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11a 48CH Top Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.11 a/b/g/n/ac (0); Communication System Band: WiFi 5.2G; Frequency: 5240 MHz; Duty Cycle: 1:1 Medium parameters used: f = 5240 MHz; $\sigma = 5.18$ S/m; $\sigma_{\rm f} = 49.344$; $\rho = 1000~{\rm kg/m}^3$ Phantom section: Flat Section

DASY Configuration:

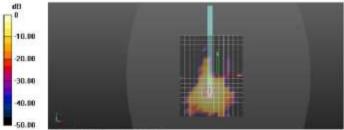
- Probe EX3DV4 SN7328, Comrf (4.78, 4.78, 4.78); Calibrated 2/28/2017,
 Sensor-Sorface: 2mm (Mochanical Surface Detection), z = 1.0, 31.0
 Electronics: DAE4 Sol.458, Calibrated: 2/22/2017

- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (14x18x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 0.167 W/kg

Configuration/Body/Zoom Scan (8x8x16)/Cube 0: Measurement grid: dx=4mm, dx=4mm, dz=2mm

Reference Value = 1.400 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 0.369 W/kg SAR(1 g) = 0.096 W/kg; SAR(10 g) = 0.035 W/kg Maximum value of SAR (measured) = 0.198 W/kg



0 dB = 0.198 W/kg = -7.03 dBW/kg



Produkte

Page 20 of 34 **Products**

Date/Time: 4/27/2017 1:07:31 PM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11a 48CH Bottom Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.11 a/b/g/n/ac (0); Communication System Band: WiFi 5.2G; Frequency: 5240 MHz; Duty Cycle: 1:1 Medium parameters used: f = 5240 MHz; $\sigma = 5.18$ S/m; $\sigma_{\rm f} = 49.344$; $\rho = 1000~{\rm kg/m}^3$ Phantom section: Flat Section

DASY Configuration:

- Probe EX3DV4 SN7328, Comrf (4.78, 4.78, 4.78); Calibrated 2/28/2017,
 Sensor-Sorface: 2mm (Mochanical Surface Detection), z = 1.0, 31.0
 Electronics: DAE4 Sol.458, Calibrated: 2/22/2017

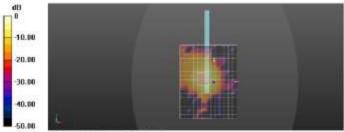
- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (14x18x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 0.498 W/kg

Configuration/Body/Zoom Scan (8x8x16)/Cube 0: Measurement grid: dx=4mm, dx=4mm, dz=2mm

Reference Value = 6.284 V/m; Power Drift = 0.07 dB Peak SAR (extrapolated) = 1.20 W/kg

SAR(1 g) = 0.299 W/kg; SAR(10 g) = 0.098 W/kg Maximum value of SAR (measured) = 0.583 W/kg



0 dB = 0.583 W/kg = -2.34 dBW/kg



Produkte

Page 21 of 34 **Products**

Date/Time: 4/27/2017 2:13:31 PM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11a 36CH Left Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.11 a/b/g/s/ac (0); Communication System Band: WiFi 5.2G; Frequency: 5180 MHz; Duty Cycle: 1:1 Medium parameters used: f = 5180 MHz, σ = 5.185 S/m, $v_{\rm p}$ = 49.397; ρ = 1000 kg/m³ Phantom section: Flat Section

DASY Configuration:

- Probe EX3DV4 SN7328, ComrF(4.78, 4.78, 4.78); Calibrated 2/28/2017;
 Sensor-Surface, 2mm (Mechanical Surface Detection), z = 1.0, 31.0
 Electronics DAE4 Sul458, Calibrated, 2/22/2017

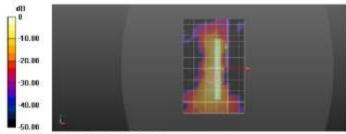
- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 0.915 W/kg

Configuration/Body/Zoom Scan (8x8x16)/Cube 0: Measurement grid: dx=4mm, dx=4mm, dz=2mm

Reference Value = 9.043 V/m; Power Drift = 0.14 dB Peak SAR (extrapolated) = 3.91 W/kg

SAR(1 g) = 0.778 W/kg; SAR(10 g) = 0.184 W/kgMaximum value of SAR (measured) = 1.87 W/kg



0 dB = 1.87 W/kg = 2.72 dBW/kg



Produkte

Page 22 of 34 **Products**

Date/Time: 4/27/2017 3:12:31 PM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11a 40CH Left Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.11 a/b/g/s/ac (0); Communication System Band: WiFi 5.2G; Frequency: 5200 MHz; Duty Cycle: 1:1 Medium parameters used: f=5200 MHz, $\sigma=5.271$ S/m, $v_{\rm p}=49.163$, $\rho=1000$ kg/m 3 Phantom section: Flat Section

DASY Configuration:

- Probe EX3DV4 SN7328, ComrF(4.78, 4.78, 4.78); Calibrated 2/28/2017;
 Sensor-Surface, 2mm (Mechanical Surface Detection), z = 1.0, 31.0
 Electronics DAE4 Sul458, Calibrated, 2/22/2017

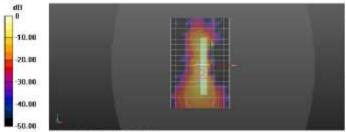
- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (12x18x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 1.52 W/kg

Configuration/Body/Zoom Scan (8x8x16)/Cube 0: Measurement grid: dx=4mm, dx=4mm, dz=2mm

Reference Value = 8.842 V/m; Power Drift = -0.04 dB Peak SAR (extrapolated) = 4.32 W/kg

SAR(1 g) = 0.854 W/kg; SAR(10 g) = 0.205 W/kg Maximum value of SAR (measured) = 2.01 W/kg



0 dB = 2.01 W/kg = 3.03 dBW/kg



Produkte

Page 23 of 34 **Products**

Date/Time: 4/27/2017 6:54:05 PM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11a 40CH Left Side-Repeated 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.11 a/b/g/s/ac (0); Communication System Band: WiFi 5.2G; Frequency: 5200 MHz; Duty Cycle: 1:1 Medium parameters used: f=5200 MHz, $\sigma=5.271$ S/m, $v_{\rm g}=49.163$, $\rho=1000$ kg/m 3 Phantom section: Flat Section

DASY Configuration:

- Probe EX3DV4 SN7328, Comrf (4.78, 4.78, 4.78); Calibrated 2/28/2017,
 Sensor-Sorface: 2mm (Mochanical Surface Detection), z = 1.0, 31.0
 Electronics: DAE4 Sol.458, Calibrated: 2/22/2017

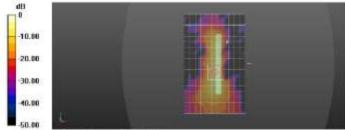
- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (12x19x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 0.854 W/kg

Configuration/Body/Zoom Scan (8x8x16)/Cube 0: Measurement grid: dx=4mm, dx=4mm, dz=2mm

Reference Value = 7.853 V/m; Power Drift = -0.10 dB Peak SAR (extrapolated) = 4.43 W/kg

SAR(1 g) = 0.866 W/kg; SAR(10 g) = 0.208 W/kgMaximum value of SAR (measured) = 1.99 W/kg



0 dB = 1.99 W/kg = 2.99 dBW/kg



Produkte

Page 24 of 34 **Products**

Date/Time: 4/27/2017 4:18:24 PM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11a 40CH Left Side with Keyboard 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.11 a/b/g/s/ac (0); Communication System Band: WiFi 5.2G; Frequency: 5200 MHz; Duty Cycle: 1:1 Medium parameters used: f=5200 MHz, $\sigma=5.271$ S/m, $v_{\rm g}=49.163$, $\rho=1000$ kg/m 3 Phantom section: Flat Section

DASY Configuration:

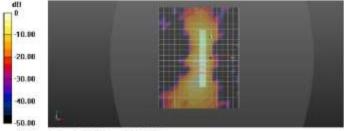
- Probe EX3DV4 SN7328, Comrf (4.78, 4.78, 4.78); Calibrated 2/28/2017,
 Sensor-Sorface: 2mm (Mochanical Surface Detection), z = 1.0, 31.0
 Electronics: DAE4 Sol.458, Calibrated: 2/22/2017

- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (16x20x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 0.609 W/kg

Configuration/Body/Zoom Scan (8x8x16)/Cube 0: Measurement grid: dx=4mm, dx=4mm, dz=2mm

Reference Value = 6,422 V/m; Power Drift = -0.04 dB Peak SAR (extrapolated) = 1.37 W/kg SAR(1~g) = 0.320~W/kg; SAR(10~g) = 0.101~W/kg Maximum value of SAR (measured) = 0.628~W/kg



0 dB = 0.628 W/kg = -2.02 dBW/kg



Produkte

Page 25 of 34 **Products**

Date/Time: 4/27/2017 5:28:24 PM

Test Laboratory: CTI SAR Lab

DL7006 WiFi 802.11a 40CH Left Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006; Serial: 0123456789ABCDEF

Communication System UID 0, WiFi 902.11 a/b/g/n/ac (0); Communication System Band: WiFi 5.2G; Frequency: 5200 MHz;Duty Cycle: 1:1 Medium parameters used: f=5200 MHz, $\sigma=5.271$ S/m, $v_{\rm g}=49.163$, $\rho=1000$ kg/m 3 Phantom section: Flat Section

DASY Configuration:

- Probe EX3DV4 SN7328, Comrf (4.78, 4.78, 4.78); Calibrated 2/28/2017,
 Sensor-Sorface: 2mm (Mochanical Surface Detection), z = 1.0, 31.0
 Electronics: DAE4 Sol.458, Calibrated: 2/22/2017

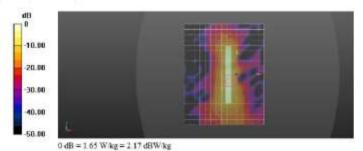
- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (16x20x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 1.09 Wiles

Configuration/Body/Zoom Scan (8x8x16)/Cube 0: Measurement grid: dx=4mm, dx=4mm, dz=2mm

Reference Value = 9.336 V/m; Power Drift = -0.17 dB Peak SAR (extrapolated) = 3.87 W/kg

SAR(1 g) = 0.789 W/kg; SAR(10 g) = 0.188 W/kgMaximum value of SAR (measured) = 1.65 W/kg





Produkte

Page 26 of 34 **Products**

Date/Time: 5/3/2017 22:16:39 PM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11a 157CH Back Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.11 a/b/g/n/ac (0); Communication System Band: WiFi 5.8G; Frequency: 5785 MHz;Duty Cycle: 1:1 Medium parameters used: f=5785 MHz; $\sigma=6.12$ S/m; $e_{\rm g}=48.693$; $\rho=1000$ kg/m 3 Phantom section: Flat Section

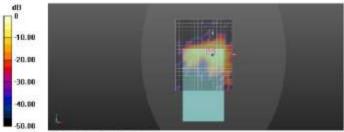
DASY Configuration:

- Probe EX3DV4 SN7328; ComrF(4.11, 4.11, 4.11); Calibrated 2/28/2017;
 Sensor-Surface; 2mm (Mechanical Surface Detection), z = 1.0, 31.0
 Electronics: DAE4 Su1458; Calibrated: 2/22/2017

- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (16x20x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 1.16 W/kg

Configuration/Body/Zoom Scan (8x8x16)/Cube 0: Measurement grid: dc=4mm, dy=4mm, dz=2mm Reference Value = 4.587 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 2.50 W/kg
SAR(1 g) = 0.507 W/kg; SAR(10 g) = 0.167 W/kg
Maximum value of SAR (measured) = 1.14 W/kg



0 dB = 1.14 W/kg = 0.57 dBW/kg



Produkte

Page 27 of 34 **Products**

Date/Time: 5/3/2017 11:26:38 AM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11a 157CH Left Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.11 a/b/g/n/ac (0); Communication System Band: WiFi 5.8G; Frequency: 5785 MHz;Duty Cycle: 1:1 Medium parameters used: f=5785 MHz; $\sigma=6.12$ S/m; $e_{\rm g}=48.693$; $\rho=1000$ kg/m 3 Phantom section: Flat Section

DASY Configuration:

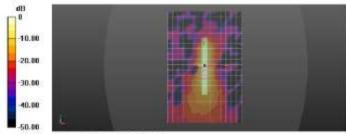
- Probe EX3DV4 SN7328; ComrF(4.11, 4.11, 4.11); Calibrated: 2/28/2017;
 Sensor-Sorface: 2mm (Mochanical Surface Detection), z = 1.0, 31.0
 Electronics: DAE4 Sol.458; Calibrated: 2/22/2017

- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (15x22x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 1.52 W/kg

Configuration/Body/Zoom Scan (8x8x16)/Cube 0: Measurement grid: dx=4mm, dx=4mm, dz=2mm

Reference Value = 7.310 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 4.87 W/kg SAR(1 g) = 0.890 W/kg; SAR(10 g) = 0.208 W/kg Maximum value of SAR (measured) = 1.90 W/kg



0 dB = 1.90 W/kg = 2.79 dBW/kg



Produkte

Page 28 of 34 **Products**

Date/Time: 5/3/2017 4:05:01 PM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11a 157CH Top Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.11 a/b/g/n/ac (0); Communication System Band: WiFi 5.8G; Frequency: 5785 MHz;Duty Cycle: 1:1 Medium parameters used: f=5785 MHz; $\sigma=6.12$ S/m; $e_{\rm g}=48.693$; $\rho=1000$ kg/m 3 Phantom section: Flat Section

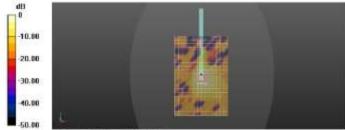
DASY Configuration:

- Probe EX3DV4 SN7328; ComrF(4.11, 4.11, 4.11); Calibrated: 2/28/2017;
 Sensor-Sorface: 2mm (Mochanical Surface Detection), z = 1.0, 31.0
 Electronics: DAE4 Sol.458; Calibrated: 2/22/2017

- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (15x22x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 0.156 Wikg

Configuration/Body/Zoom Scan (8x8x16)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm Reference Value = 1.817 V/m; Power Drift = 0.06 dB Peak SAR (extrapolated) = 0.622 W/kg SAR(1 g) = 0.074 W/kg; SAR(10 g) = 0.028 W/kg Maximum value of SAR (measured) = 0.164 W/kg



0 dB = 0.164 W/kg = -7.85 dBW/kg



Produkte

Page 29 of 34 **Products**

Date/Time: 5/3/2017 5:07:38 PM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11a 157CH Bottom Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.11 a/b/g/n/ac (0); Communication System Band: WiFi 5.8G; Frequency: 5785 MHz;Duty Cycle: 1:1 Medium parameters used: f=5785 MHz; $\sigma=6.12$ S/m; $e_{\rm g}=48.693$; $\rho=1000$ kg/m 3 Phantom section: Flat Section

DASY Configuration:

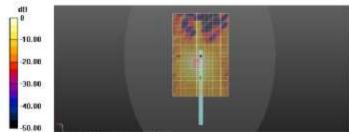
- Probe EX3DV4 SN7328; ComrF(4.11, 4.11, 4.11); Calibrated 2/28/2017;
 Sensor-Surface; 2mm (Mechanical Surface Detection), z = 1.0, 31.0
 Electronics: DAE4 Su1458; Calibrated: 2/22/2017

- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (15x22x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 0.335 W/kg

Configuration/Body/Zoom Scan (8x8x16)/Cube 0: Measurement grid: dx=4mm, dx=4mm, dz=2mm

Reference Value = 3.854 V/m; Power Drift = -0.11 dB Peak SAR (entrapolated) = 0.803 W/kg SAR(1 g) = 0.187 W/kg; SAR(10 g) = 0.070 W/kg Maximum value of SAR (measured) = 0.350 W/kg



0 dB = 0.350 W/kg = -4.56 dBW/kg



Produkte

Page 30 of 34 **Products**

Date/Time: 5/3/2017 12:28:34 PM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11a 149CH Left Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.11 a/b/g/s/sc (0); Communication System Band: WiFi 5.8G; Frequency: 5745 MHz;Duty Cycle: 1:1 Medium parameters used: f=5745 MHz, $\sigma=6.054$ S/m, $v_{\rm g}=47.662$, $\rho=1000$ kg/m 3 Phantom section: Flat Section

DASY Configuration:

- Probe EX3DV4 SN7328; ComrF(4.11, 4.11, 4.11); Calibrated: 2/28/2017;
 Sensor-Sorface: 2mm (Mochanical Surface Detection), z = 1.0, 31.0
 Electronics: DAE4 Sol.458; Calibrated: 2/22/2017

- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

-50.00

Configuration/Body/Area Scan (15x22x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 1.13 Wiley

Configuration/Body/Zoom Scan (8x8x16)/Cube 0: Measurement grid: dx=4mm, dx=4mm, dz=2mm

Reference Value = 6.305 V/m; Power Drift = -0.18 dB Peak SAR (extrapolated) = 4.09 W/kg SAR(1 g) = 0.767 W/kg; SAR(10 g) = 0.179 W/kg Maximum value of SAR (measured) = 1.80 W/kg

-10.00 20.00 30.00 40.00

0 dB = 1.80 W/kg = 2.55 dBW/kg



Produkte

Page 31 of 34 **Products**

Date/Time: 5/3/2017 10:10:02 AM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11a 165CH Left Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.11 a/b/g/s/sc (0); Communication System Band: WiFi 5.8G; Frequency: 5825 MHz; Duty Cycle: 1:1 Medium parameters used: f = 5825 MHz; $\sigma = 6.17 \text{ S/m}$; $e_{\rm p} = 47.857$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section

DASY Configuration:

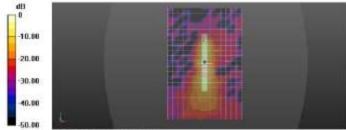
- Probe EX3DV4 SN7328; ComrF(4.11, 4.11, 4.11); Calibrated: 2/28/2017;
 Sensor-Sorface: 2mm (Mochanical Surface Detection), z = 1.0, 31.0
 Electronics: DAE4 Sol.458; Calibrated: 2/22/2017

- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (15x22x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 2.11 W/kg

Configuration/Body/Zoom Scan (8x8x16)/Cube 0: Measurement grid: dx=4mm, dx=4mm, dz=2mm

Reference Value = 8.912 V/m; Power Drift = -0.13 dB Peak SAR (extrapolated) = 5.51 W/kg SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.241 W/kg Maximum value of SAR (measured) = 2.34 W/kg



0 dB = 2.34 W/kg = 3.69 dBW/kg



Produkte

Page 32 of 34 **Products**

Date/Time: 5/3/2017 2:55:08 PM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11a 165CH Left Side 0mm-Repeated

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.11 a/b/g/s/sc (0); Communication System Band: WiFi 5.8G; Frequency: 5825 MHz; Duty Cycle: 1:1 Medium parameters used: f = 5825 MHz; $\sigma = 6.17 \text{ S/m}$; $e_{\rm p} = 47.857$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section

DASY Configuration:

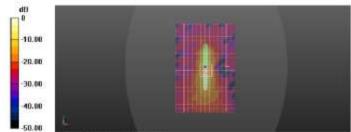
- Probe EX3DV4 SN7328; ComrF(4.11, 4.11, 4.11); Calibrated: 2/28/2017;
 Sensor-Sorface: 2mm (Mochanical Surface Detection), z = 1.0, 31.0
 Electronics: DAE4 Sol.458; Calibrated: 2/22/2017

- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (15x22x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 1.85 Wiley

Configuration/Body/Zoom Scan (8x8x16)/Cube 0: Measurement grid: dx=4mm, dx=4mm, dz=2mm

Reference Value = 7.796 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 5.45 W/kg SAR(1 g) = 1.01 W/kg; SAR(10 g) = 0.237 W/kg Maximum value of SAR (measured) = 2.27 W/kg



0 dB = 2.27 W/kg = 3.56 dBW/kg



Produkte

Page 33 of 34 **Products**

Date/Time: 5/3/2017 6:12:49 PM

Test Laboratory: CTI SAR Lab

DL7006-KB WiFi 802.11a 165CH Left Side with Keyboard 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006-KB; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 802.11 a/b/g/s/sc (0); Communication System Band: WiFi 5.8G; Frequency: 5825 MHz; Duty Cycle: 1:1 Medium parameters used: f = 5825 MHz; $\sigma = 6.17 \text{ S/m}$; $e_{\rm p} = 47.857$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section

DASY Configuration:

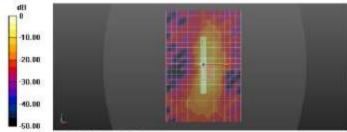
- Probe EX3DV4 SN7328; ComrF(4.11, 4.11, 4.11); Calibrated: 2/28/2017;
 Sensor-Sorface: 2mm (Mochanical Surface Detection), z = 1.0, 31.0
 Electronics: DAE4 Sol.458; Calibrated: 2/22/2017

- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (15x22x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 0.657 W/kg

Configuration/Body/Zoom Scan (8x8x16)/Cube 0: Measurement grid: dx=4mm, dx=4mm, dz=2mm Reference Value = 6.187 V/m; Power Drift = -0.15 dB Peak SAR (extrapolated) = 3.51 W/kg

SAR(1 g) = 0.675 W/kg; SAR(10 g) = 0.175 W/kg Maximum value of SAR (measured) = 1.52 W/kg



0 dB = 1.52 W/kg = 1.82 dBW/kg



Produkte

Page 34 of 34 **Products**

Date/Time: 5/3/2017 7:18:55 PM

Test Laboratory: CTI SAR Lab

DL7006 WiFi 802.11a 165CH Left Side 0mm

DUT: Insignia Flex Android 10" Tablet; Type: DL7006; Serial: 0123456789ABCDEF

Communication System: UID 0, WiFi 902.11 a/b/g/n/ac (0); Communication System Band: WiFi 5.8G; Frequency: 5825 MHz; Duty Cycle: 1:1 Medium parameters used: f = 5825 MHz; $\sigma = 6.17 \text{ S/m}$; $e_{\rm p} = 47.857$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Flat Section

DASY Configuration:

- Probe EX3DV4 SN7328; ComrF(4.11, 4.11, 4.11); Calibrated: 2/28/2017;
 Sensor-Sorface: 2mm (Mochanical Surface Detection), z = 1.0, 31.0
 Electronics: DAE4 Sol.458; Calibrated: 2/22/2017

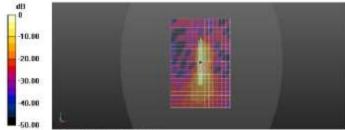
- Phontoex ELI v6.9; Type: QDOVA003AA; Serial: 2024
 DASY32 52 8.8(1222); SEMCAD X 14.6.10(7331)

Configuration/Body/Area Scan (15x22x1): Measurement grid: dx=10mm, dy=10mm Maximum value of SAR (measured) = 1.41 W/kg

Configuration/Body/Zoom Scan (8x8x16)/Cube 0: Measurement grid: dx=4mm, dx=4mm, dz=2mm

Reference Value = 5.212 V/m; Power Drift = -0.07 dB Peak SAR (extrapolated) = 4.75 W/kg

SAR(1 g) = 0.858 W/kg; SAR(10 g) = 0.196 W/kgMaximum value of SAR (measured) = 1.91 W/kg



0 dB = 1.91 W/kg = 2.81 dBW/kg