

Dat	e(s)	of Ev	alua	ation
Sep.	23 8	& Oct.	13,	2010

December 19, 2010

 Sep. 23 & Oct. 13, 2010
 092110Q2G-T1048a-S24M

 Test Report Issue Date
 Description of Test(s)

Test Report Serial No.

Specific Absorption Rate

<u>Test Report Revision No.</u> Rev. 1.0 (Initial Release)

RF Exposure Category
Gen. Pop. / Uncontrolled



1.6 W/kg

1g average

Gen. Pop. / Uncontrolled Exposure

DECLARATION OF COMPLIANCE - SAR RF EXPOSURE EVALUATION (FCC/IC) **Test Lab Information** Name **CELLTECH LABS INC.** Address 21-364 Lougheed Road, Kelowna B.C. V1X 7R8 Canada **Test Lab Accreditation** A2LA ISO/IEC 17025:2005 (A2LA Test Lab Certificate No. 2470.01) Name XPLORE TECHNOLOGIES CORP. **Address** 14000 Summit Drive, Suite 900, Austin, Texas, 78728 USA **Applicant Information** Standard(s) Applied **FCC** 47 CFR §2.1093 IC Health Canada Safety Code 6 **FCC** OET Bulletin 65, Supplement C (01-01) KDB 447498 D01v04 FCC KDB 941225 D01v02 Procedure(s) Applied IC IEEE RSS-102 Issue 4 1528-2003 **IEC** 62209-1:2005; 62209-2:2010 FCC PCS Licensed Transmitter (PCB) 47 CFR §24 Subpart E Device Classification(s) Cellular Telephones Employing New Technologies Operating in the 800 Band RSS-132 Issue 2 IC 2 GHz Personal Communications Services RSS-133 Issue 5 FCC/IC **Application Type** Class II Permissive Change - Add Xplore iX104C5 Tablet PC & Pump-Up Antenna (Limited Modular Approval) September 21, 2010 **Test Dates** September 23 & October 13, 2010 **Device-Under-Test Sample Rcpt Date** FCC ID: Q2GGOBI2K-XPL IC: Device Identifier(s) 4596A-GOBI2KXPL Model GOBI2000 **WWAN** GPRS/EDGE/CDMA/WCDMA/HSPA Module **Device Under Test (DUT)** Manuf. Qualcomm Inc. Serial No. IMEI 358504020003108 **Host PC** Model Rugged Tablet PC iX104C5 **DUT Host Configuration(s)** Manuf. Wistron Corporation Serial No. XPI 01 **WLAN** 802.11a/b/g/n WLAN Mini-PCI Card Model 622ANHMW **Co-located Transmitter 1** FCC ID: Q2GI6200-XPL IC: 4596A-I6200XPL Manuf Intel Corporation **Co-Transmit** Does not support co-transmission with WWAN Model Bluetooth Class 2 BCM92070MD REF FCC ID: QDS-BRCM1043 IC: 4324A-BRCM1043 **Co-located Transmitter 2** Manuf. **Broadcom Corporation** Co-Transmit Does support co-transmission with WWAN Tx Freq. 2402 - 2480 MHz Cond. Pwr. 4.27 dBm (Original TCB Cert.) = P(mW)<60/f Ant. Dist. 179 mm (Bluetooth-to-WWAN) User LCD Orientation(s) **Host PC** 0 Degrees Landscape 90 Degrees Portrait **Device Position(s) Tested Host PC Bottom Side Touch** 826.4-846.6 MHz (WCDMA/HSPA) **Cell Band** 824.2-848.8 MHz (GPRS/EDGE) 824.70-848.31 MHz (CDMA/EV-DO) Transmit Frequency Range(s) **PCS Band** 1852.4-1907.5 MHz (WCDMA/HSPA) 1850.2-1909.8 MHz (GPRS/EDGE) 1851.25-1908.75 MHz (CDMA/EV-DO) Max. Duty Cycle(s) Tested **GPRS** 25% (2 Uplink Slots) Class 10 **WCDMA** 100% **EV-DO** 100% **CDMA** 100% Antenna Type(s) Tested **WWAN** SkyCross "Pump-Up" High-Gain Antenna P/N: 25.90A14.001 Gain Specification: -3 dBi Antenna-to-User Distance(s) **WWAN** WWAN to Bottom Side = 1.6 cm WWAN to Right Side Edge (90° Portrait) = 18.8 cm Power Source(s) Tested **Host PC** Lithium-ion Battery 7.4V 10000mAh Model: 909T2021F

Celltech Labs Inc. declares under its sole responsibility that this wireless portable device is compliant with the Specific Absorption Rate (SAR) RF exposure requirements specified in FCC 47 CFR §2.1093 and Health Canada's Safety Code 6 for the General Population / Uncontrolled Exposure environment. The device was tested in accordance with the measurement standards and procedures specified in FCC OET Bulletin 65, Supplement C (Edition 01-01), Industry Canada RSS-102 Issue 4, IEEE 1528-2003, International Standard IEC 62209-1 (2005) and International Standard IEC 62209-2 (Edition 1.0 2010-03). All measurements were performed in accordance with the SAR system manufacturer recommendations.

850 Band

1900 Band

FCC/IC Spatial

Peak SAR Limit

1g average

1g average

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

The results and statements contained in this report pertain only to the device(s) evaluated.

BODY

(LAP)

Max. SAR Level(s) Evaluated

This test report shall not be reproduced partially, or in full, without the prior written approval of Celltech Labs Inc.

0.579 W/kg

0.485 W/ka

Test Report Approved By Sean Johnston Lab Manager Celltech Labs Inc.

Applicant:	Xploi	re Technologies Corp.	FCC ID:	Q2GGOBI2K-XPL	IC:	4596A-GOBI2KXPL	X xplore
DUT Type:	UT Type: Mini-PCI Express WWAN Card Model: GOBI2000 in iX104C5 Tablet PC with Pump-Up Antenna						TECHNOLOGIES.
2010 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.							Page 1 of 56



Date(s) of Evaluation

Test Report Serial No. Sep. 23 & Oct. 13, 2010 092110Q2G-T1048a-S24M

Test Report Revision No. Rev. 1.0 (Initial Release)





Test Report	Issi	ue Date
Docombor	10	2010

Description of Test(s) Specific Absorption Rate

RF Exposure Category Gen. Pop. / Uncontrolled

TABLE OF CONTENTS 1.0 INTRODUCTION 2.0 SAR MEASUREMENT SYSTEM 3.0 SAR PROBE CALIBRATION & MEASUREMENT FREQUENCIES 4.0 OUTPUT POWER MEASUREMENTS OUTPUT POWER MEASUREMENTS (Cont.) OUTPUT POWER MEASUREMENTS (Cont.) OUTPUT POWER MEASUREMENTS (Cont.) **OUTPUT POWER MEASUREMENTS (Cont.)** 5.0 FLUID DIELECTRIC PARAMETERS FLUID DIELECTRIC PARAMETERS (Cont.) 11 6.0 SAR MEASUREMENT SUMMARY _____ 13 7.0 DETAILS OF SAR EVALUATION ___ 8.0 SAR EVALUATION PROCEDURES ______ 13 9.0 CO-LOCATED TRANSMITTER(S) 10.0 SIMULTANEOUS TRANSMISSION ASSESSMENT_____ _ 14 11.0 SYSTEM PERFORMANCE CHECK 15 12.0 SIMULATED EQUIVALENT TISSUES 16 ____16 13.0 SAR LIMITS 14.0 ROBOT SYSTEM SPECIFICATIONS 17 15.0 PROBE SPECIFICATIONS 18 16.0 BARSKI PLANAR PHANTOM 18 17.0 DEVICE HOLDER 18 18.0 TEST EQUIPMENT LIST____ 19 MEASUREMENT UNCERTAINTIES (Cont.) 21 20.0 REFERENCES APPENDIX A - SAR MEASUREMENT PLOTS ______ 23 APPENDIX B - SYSTEM PERFORMANCE CHECK PLOTS 32 APPENDIX C - MEASURED FLUID DIELECTRIC PARAMETERS 37 APPENDIX D - SAR TEST SETUP PHOTOGRAPHS _______40 APPENDIX E - SAR DUT PHOTOGRAPHS 42 APPENDIX F - DIPOLE CALIBRATION 54 APPENDIX G - PROBE CALIBRATION 55

Applicant:	Xplor	re Technologies Corp.	FCC ID:	Q2GGOBI2K-XPL	IC:	4596A-GOBI2KXPL	X xplore
DUT Type:	Mini-	-PCI Express WWAN Card Model: GOBI2000 in iX104C5 Tablet PC with Pump-Up Antenna					rechnologies.
2010 Celltech La	Celltech Labs Inc. This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.						Page 2 of 56

APPENDIX H - BARSKI PLANAR PHANTOM CERTIFICATE OF CONFORMITY 56



Dat	e(s)	of Ev	alua	ation	
Sep.	23 8	& Oct.	13,	201	0

Test Report Issue Date December 19, 2010

Test Report Serial No. 092110Q2G-T1048a-S24M

Description of Test(s)

Specific Absorption Rate

Rev. 1.0 (Initial Release) RF Exposure Category Gen. Pop. / Uncontrolled

Test Report Revision No.



	REVISION	HISTORY	
REVISION NO.	DESCRIPTION	IMPLEMENTED BY	RELEASE DATE
1.0	Initial Release	Jon Hughes	December 19, 2010

	TEST REPORT SIGN-OFF							
DEVICE TESTED BY REPORT PREPARED BY QA REVIEW BY REPORT APPROVED BY								
Scott Kulifaj	Scott Kulifaj	Jon Hughes	Sean Johnston					

Page 3 of 56



<u>Test Report Issue Date</u> December 19, 2010 <u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

Description of Test(s)
Specific Absorption Rate

Test Report Revision No. Rev. 1.0 (Initial Release)

RF Exposure Category
Gen. Pop. / Uncontrolled



Test Lab Certificate No. 2470.01

1.0 INTRODUCTION

This measurement report demonstrates that the Xplore Technologies Corporation Model: iX104C5 Tablet PC, incorporating the GOBI2000 WWAN Mini-PCI Express Card FCC ID: Q2GGOBI2K-XPL (with Pump-Up Antenna), complies with the SAR (Specific Absorption Rate) RF exposure requirements of FCC 47 CFR §2.1093 (see reference [1]) and Health Canada's Safety Code 6 (see reference [2]) for the General Population / Uncontrolled Exposure environment. The test procedures described in FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]), Industry Canada RSS-102 Issue 4 (see reference [4]), IEEE Standard 1528-2003 (see reference [5]), IEC International Standard 62209-1 (see reference [6]) and IEC International Standard 62209-2 (see reference [7]) were employed. A description of the product, operating configuration, detailed summary of the test results, methodology and procedures used in the evaluation, equipment used, and the various provisions of the rules are included within this test report.

2.0 SAR MEASUREMENT SYSTEM

Celltech Labs Inc. SAR measurement facility utilizes the Dosimetric Assessment System (DASY™) manufactured by Schmid & Partner Engineering AG (SPEAG™) of Zurich, Switzerland. The DASY4 measurement system is comprised of the measurement server, robot controller, computer, near-field probe, probe alignment sensor, specific anthropomorphic mannequin (SAM) phantom, and various planar phantoms for head and/or body SAR evaluations. The robot is a six-axis industrial robot performing precise movements to position the probe to the location (points) of maximum electromagnetic field (EMF). A cell controller system contains the power supply, robot controller, teach pendant (Joystick), and remote control, is used to drive the robot motors. The Staubli robot is connected to the cell controller to allow software manipulation of the robot. A data acquisition electronic (DAE) circuit performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. is connected to the Electrooptical coupler (EOC). The EOC performs the conversion from the optical into digital electric signal of the DAE and transfers data to the DASY4 measurement server. The DAE4 utilizes 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 and control logic unit. Transmission to the DASY4 measurement server is accomplished through an optical downlink for data and status information and an optical uplink for commands and clock lines. The mechanical probe-mounting device includes two different sensor systems for frontal and sidewise probe contacts. The sensor systems are also used for mechanical surface detection and probe collision detection. The robot utilizes a controller with built in VME-bus computer.

3.0 SAR PROBE CALIBRATION & MEASUREMENT FREQUENCIES

The following procedures are recommended for measurements at 150 MHz - 3 GHz to minimize probe calibration and tissue dielectric parameter discrepancies. In general, SAR measurements below 300 MHz should be within ±50 MHz of the probe calibration frequency. At 300 MHz to 3 GHz, measurements should be within ±100 MHz of the probe calibration frequency. Measurements exceeding 50% of these intervals, ±25 MHz < 300 MHz and ±50 MHz ≥300 MHz, require additional steps (per FCC KDB 450824 D01 v01r01, SAR Probe Calibration and System Verification Considerations for Measurements at 150 MHz - 3 GHz - see reference [10]).

Probe Calibration Freq.	Device Measurement Freq.	Frequency Interval	±50 MHz ≥ 300 MHz	
	836.6 MHz	1.6 MHz	< 50 MHz	
835 MHz	836.4 MHz	1.4 MHz	< 50 MHz	
	836.52 MHz	1.52 MHz	< 50 MHz	
1900 MHz	1880.0 MHz	< 50 MHz		
The probe calibration and meas	urement frequency interval is < 50 l	MHz; therefore the additional	al steps were not required.	

Applicant: Xplore Technologies Corp. FCC ID: Q2GGOBI2K-XPL IC: 4596A-GOBI2KXPL

DUT Type: Mini-PCI Express WWAN Card Model: GOBI2000 in iX104C5 Tablet PC with Pump-Up Antenna





Test Report Issue Date

Description of Test(s)

December 19, 2010

Specific Absorption Rate

Test Report Revision No.
Rev. 1.0 (Initial Release)

RF Exposure Category
Gen. Pop. / Uncontrolled



4.0 OUTPUT POWER MEASUREMENTS

GPRS Mode

Procedure used to establish test signal

The following setting was used to configure the Agilent 8960 Series E5515C wireless communications test set.

Test Report Serial No.

092110Q2G-T1048a-S24M

Service Selection > Test Mode A - Auto Slot Config. > off Main Service > Packet Data
Network Support > GSM+GPRS
Slot Config > 33 dBm (GSM850) & 30 dBm (GSM1900)
BAP: Burst Average Power

Pavg: Average power over all time slots

R	RF CONDUCTED OUTPUT POWER MEASUREMENT RESULTS – GPRS Mode											
2 Uplink Slots (Multislot Class 10)												
Mode / Band	Channel	Freq. (MHz)		Average wer	Mode / Band Channel Freq. Po		Freq. P	Burst-A	verage wer			
		(IVI FIZ)	dBm	Watts			(IVITIZ)	dBm	Watts			
	128	824.2	32.6	1.82		512	1850.2	29.9	0.977			
GPRS 850	190	836.6	32.6	1.74	GPRS 1900	661	1880.0	29.9	0.977			
	251	848.8	32.5	1.78		810	1909.8	29.8	0.955			

Note: The EDGE mode conducted power levels specified by Sierra Wireless Inc. for the Gobi2000 WWAN module are ~ 5 dB lower than the conducted output power levels specified for GPRS mode and therefore EDGE mode was not evaluated.



Test Report Issue Date December 19, 2010

Test Report Serial No. 092110Q2G-T1048a-S24M Description of Test(s)

Specific Absorption Rate

RF Exposure Category Gen. Pop. / Uncontrolled

Test Report Revision No. Rev. 1.0 (Initial Release)



OUTPUT POWER MEASUREMENTS (Cont.)

WCDMA Mode

Procedure used to establish test signal

This procedure assumes the Agilent 8960 Series E5515C wireless communications test set has the following applications installed and with valid license.

Application: WCDMA Mobile Test

Rev, License: A.07.13, L

Call Setup > Shift & Preset

Cell Parameters: PS Domain Information > Present

ATT (IMSI Attach) Flag State > Set

Security Parameter - System Operations > None

Channel Type: RMC - 12.2k, 64k, 144k, 384k

> AMC - 12.2k UL / 64 DL AM RMC. 12.2k UL / 144 DL AM RMC, 12.2k UL / 384 DL AM RMC

Paging Service: RB Test Mode

Channel Parameters (UARFCN):

DL Channel: PCS: 9662 / 9800 / 9938

Cell: 4357 / 4407 / 4458

UL Channel: PCS: 9262 / 9400 / 9538 Cell: 4132 / 4182 / 4233

DL DTCH Data: All Ones RLC Reestablish: Off Call Limit State: Off Call Drop Timer: Off

SRB Config. 13.6k DCCH **UE Target Power:** 25 dBm UL CL Pwr Ctrl Mode: All Up Bits

RF CONDUCTED OUTPUT POWER MEASUREMENT RESULTS - WCDMA Mode Channel Type: 12.2k RMC **Channel Power Channel Power** Freq. Freq. Mode / Band Mode / Band Channel Channel (MHz) (MHz) dBm Watts dBm Watts 4132 826.4 24.0 0.251 9262 1852.4 23.9 0.254 WCDMA 850 4180 836.4 24.0 0.254 **WCDMA 1900** 9400 1880.0 24.0 0.251 4233 846.6 23.8 0.254 9538 1907.6 23.7 0.234

Note: The conducted output power levels for HSDPA/HSUPA modes specified by Sierra Wireless Inc. for the Gobi2000 WWAN module are lower than the conducted output power levels specified for WCDMA mode; therefore HSDPA/HSUPA modes were not evaluated.

Applicant:	Xplor	re Technologies Corp.	FCC ID:	Q2GGOBI2K-XPL	IC:	4596A-GOBI2KXPL	X xplore
DUT Type:	Mini-	PCI Express WWAN Car	ss WWAN Card Model: GOBI2000 in iX104C5 Tablet PC with Pump-Up Antenna				
2010 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.					Page 6 of 56		



Test Report Issue Date
December 19, 2010

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

Description of Test(s)

Specific Absorption Rate

RF Exposure Category
Gen. Pop. / Uncontrolled

<u>Test Report Revision No.</u> Rev. 1.0 (Initial Release)



OUTPUT POWER MEASUREMENTS (Cont.)

1xEv-Do Rel. 0 Mode

Procedure used to establish test signal

This procedure assumes the Agilent 8960 Series 10 E5515C Wireless Communications Test Set contains the following applications installed and with valid license.

Application Rev. License

1xEv-Do Terminal Test A.07.13, L

FTAP

- Call Setup → Shift & Preset
- Protocol Rev → 0 (1xEv-Do)
- $\bullet \quad \text{Application Config} \to \text{Enhanced Test Application Protocol} \to \text{FTAP}$
- FTAP Rate → 307.2 kbps (2 Slot, QPSK)
- Access Network Info → Cell Parameters → Sector ID → 00840AC0 → Subnet Mask → 0
- Generator Info → Termination Parameters → Max Forward Packet Duration → 16 Slots
- Rvs Power Ctrl → All Bits Up (to get the maximum power)

RTAP

- Call Setup → Shift & Preset
- Protocol Rev → 0 (1xEv-Do)
- Application Config → Enhanced Test Application Protocol → RTAP
- RTAP Rate → 153.6 kbps
- Access Network Info → Cell Parameters → Sector ID → 00840AC0 → Subnet Mask → 0
- Generator Info → Termination Parameters → Max Forward Packet Duration → 16 Slots
- Rvs Power Ctrl → All Bits Up (to get the maximum power)

RF C	ONDUCTE	D OUTPU	T POWE	R MEASU	REMENT RESU	JLTS - 1xE	v-Do Rev.	0 Mode		
FTAP Rate = 307 kbps (2 slot) / RTAP Rate = 76.8 kbps										
Mode / Band	Channel	Freq.	Channe	l Power	Mode / Band	Channel	Freq.	Channel Power		
Wiode / Barid		(MHz)	dBm	Watts	Wode / Bariu	Chamilei	(MHz)	dBm	Watts	
1xEv-Do	1013	824.70	24.5	0.282	1xEv-Do	25	1851.25	24.3	0.269	
Rel. 0	384	836.52	24.5	0.282	Rel. 0	600	1880.00	24.5	0.282	
(850)	777	848.31	24.3	0.269	(1900)	1175	1908.75	24.4	0.269	



Test Report Issue Date
December 19, 2010

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

Description of Test(s)

Specific Absorption Rate

RF Exposure Category

Gen. Pop. / Uncontrolled



xplore

OUTPUT POWER MEASUREMENTS (Cont.)

1xEv-Do Rev. A Mode

Procedure used to establish test signal

This procedure assumes the Agilent 8960 Series 10 E5515C Wireless Communications Test Set contains the following applications installed and with valid license.

Application

Rev. License

1xEv-Do Terminal Test

A.07.13, L

FETAP

- Call Setup → Shift & Preset
- Protocol Rev → A (1xEv-Do-A)
- $\bullet \quad \text{Application Config} \to \text{Enhanced Test Application Protocol} \to \text{FETAP}$
- FTAP Rate → 307.2 kbps (2 Slot, QPSK)
- Protocol Subtype Config \rightarrow Release A Physical Layer Subtype \rightarrow Subtype 0
- Access Network Info → Cell Parameters → Sector ID → 00840AC0 → Subnet Mask → 0
- Generator Info → Termination Parameters > Max Forward Packet Duration → 16 Slots
- Rvs Power Ctrl → All Bits Up (to get the maximum power)

RETAP

- Call Setup → Shift & Preset
- Protocol Rev → A (1xEv-Do-A)
- Application Config → Enhanced Test Application Protocol → RETAP
- F-Traffic Format → 4 (1024, 2,128) Canonical (307.2k, QPSK)
- R-Data Pkt Size → 4096
- Protocol Subtype Config → Release A Physical Layer Subtype → Subtype 2
 - → PL Subtype 2 Access Channel MAC Subtype → Default (Subtype 0)
- $\bullet \quad \text{Access Network Info} \to \text{Cell Parameters} \to \text{Sector ID} \to 00840 \text{ACO} \to \text{Subnet Mask} \to 0$
- Generator Info → Termination Parameters → Max Forward Packet Duration > 16 Slots
 - → ACK R-Data After > Subpacket 0 (All ACK)
- Rvs Power Ctrl → All Bits Up (to get the maximum power)

RF C	ONDUCTE	D OUTPU	T POWE	R MEASU	REMENT RESU	JLTS - 1xE	v-Do Rev.	A Mode		
FETAP Rate = 307 kbps (2 slot) / RETAP Rate = 2048 bps										
Mode / Band	Channel	Channel Freq. Ch	Channe	l Power	Mode / Band	Channel	Freq.	Channel Power		
Wiode / Ballu		(MHz)	dBm	Watts	Wiode / Barid		(MHz)	dBm	Watts	
1xEv-Do	1013	824.70	24.3	0.269	1xEv-Do	25	1851.25	24.3	0.269	
Rev. A	384	836.52	24.4	0.275	Rev. A	600	1880.00	24.4	0.275	
(850)	(850) 777 848.31 24.3 0.269 (1900)	(1900)	1175	1908.75	24.2	0.263				

	Applicant:	Xplor	re Technologies Corp.	FCC ID:	Q2GGOBI2K-XPL	IC:	4596A-GOBI2KXPL			
	DUT Type:	DUT Type: Mini-PCI Express WWAN Card Model: GOBI2000 in iX104C5 Tablet PC with Pump-Up Antenna								
ſ	2010 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.							Pa		



Test Report Issue Date
December 19, 2010

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

Description of Test(s)

Specific Absorption Rate

RF Exposure Category
Gen. Pop. / Uncontrolled

Test Report Revision No.

Rev. 1.0 (Initial Release)



OUTPUT POWER MEASUREMENTS (Cont.)

CDMA 1xRTT Mode

Procedure used to establish test signal

This procedure assumes the Agilent 8960 Series 10 E5515C Wireless Communications Test Set contains the following applications installed and with valid license.

Application

Rev. License

CDMA2000 Mobile Test

B.12.12, L

1xRTT

- Call Setup → Shift & Preset
- Protocol Rev → 6 (IS-2000-0)
- Radio Config (RC) → RC3 (Fwd3, Rvs3)
- FCH Service Option (SO) Setup → SO55
- Traffic Data Rate → Full
- Cell info → Cell Parameters → System ID (SID) → 2238 (for Cellular) and 4145 (for PCS)

 \rightarrow Network ID (NID) \rightarrow 65535

• Rvs Power Ctrl → All Bits Up (to get the maximum power)

	RF CONDUCTED OUTPUT POWER MEASUREMENT RESULTS - 1xRTT Mode									
RC3, SO55	RC3, SO55									
Mode / Band	Channel	Freq.	Channe	l Power	Mode / Band	Channel	Freq.	Channel Power		
Widde / Baild	Citatillei	(MHz)	dBm	Watts	Wode / Band	Onamie	(MHz)	dBm	Watts	
	1013	824.70	24.5	0.282	1xRTT 1900	25	1851.25	24.3	0.269	
1xRTT 850	384	836.52	24.5	0.282		600	1880.00	24.5	0.282	
-	777	848.31	24.3	0.269		1175	1908.75	24.4	0.275	



Test Report Issue Date
December 19, 2010

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

Description of Test(s)

Specific Absorption Rate

RF Exposure Category

Gen. Pop. / Uncontrolled





5.0 FLUID DIELECTRIC PARAMETERS

	FLUID DIELECTRIC PARAMETERS									
Date: 09/23/2	2010	Freq	uency: 835	MHz	Tissue: Body					
Freq (GHz)	Test_e	Test_s	Test_s 835MHz Target_e		Deviation Permitivity	Deviation Conductivity				
0.735	53.62	0.91	55.2	0.97	-2.86%	-6.19%				
0.745	53.30	0.91	55.2	0.97	-3.44%	-6.19%				
0.755	53.16	0.92	55.2	0.97	-3.70%	-5.15%				
0.765	53.20	0.94	55.2	0.97	-3.62%	-3.09%				
0.775	53.12	0.94	55.2	0.97	-3.77%	-3.09%				
0.785	52.97	0.97	55.2	0.97	-4.04%	0.00%				
0.795	52.72	0.98	55.2	0.97	-4.49%	1.03%				
0.805	53.29	0.98	55.2	0.97	-3.46%	1.03%				
0.815	52.73	0.99	55.2	0.97	-4.47%	2.06%				
0.825	52.49	1.00	55.2	0.97	-4.91%	3.09%				
0.835	52.51	1.01	55.2	0.97	-4.87%	4.12%				
0.8365*	52.50	1.01	55.2	0.97	-4.89%	4.12%				
0.845	52.48	1.00	55.2	0.97	-4.93%	3.09%				
0.855	52.50	1.01	55.2	0.97	-4.89%	4.12%				
0.865	52.25	1.03	55.2	0.97	-5.34%	6.19%				
0.875	52.42	1.05	55.2	0.97	-5.04%	8.25%				
0.885	52.50	1.07	55.2	0.97	-4.89%	10.31%				
0.895	52.43	1.07	55.2	0.97	-5.02%	10.31%				
0.905	52.39	1.07	55.2	0.97	-5.09%	10.31%				
0.915	52.30	1.09	55.2	0.97	-5.25%	12.37%				
0.925	51.80	1.10	55.2	0.97	-6.16%	13.40%				
0.935	51.66	1.12	55.2	0.97	-6.41%	15.46%				

^{*}Interpolated using DASY4 Software



Test Report Issue Date
Description of Test(s)
December 19, 2010
Specific Absorption Rate

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

RF Exposure Category
Gen. Pop. / Uncontrolled

Test Report Revision No.

Rev. 1.0 (Initial Release)



FLUID DIELECTRIC PARAMETERS (Cont.)

	FLUID DIELECTRIC PARAMETERS									
Date: 10/13	3/2010	Frequ	uency: 1900	0 MHz	Tissue: Body					
Freq (GHz)	Test_e	Test_s	1900MHz Target_e	1900MHz Target_s	Deviation Permitivity	Deviation Conductivity				
1.80	51.95	1.38	53.30	1.52	-2.53%	-9.21%				
1.81	52.02	1.4	53.30	1.52	-2.40%	-7.89%				
1.82	51.87	1.4	53.30	1.52	-2.68%	-7.89%				
1.83	51.64	1.4	53.30	1.52	-3.11%	-7.89%				
1.84	51.87	1.42	53.30	1.52	-2.68%	-6.58%				
1.85	51.82	1.44	53.30	1.52	-2.78%	-5.26%				
1.86	51.78	1.45	53.30	1.52	-2.85%	-4.61%				
1.87	51.77	1.47	53.30	1.52	-2.87%	-3.29%				
1.88	51.79	1.47	53.30	1.52	-2.83%	-3.29%				
1.89	51.79	1.48	53.30	1.52	-2.83%	-2.63%				
1.90	51.5	1.48	53.30	1.52	-3.38%	-2.63%				
1.91	51.45	1.51	53.30	1.52	-3.47%	-0.66%				
1.92	51.74	1.51	53.30	1.52	-2.93%	-0.66%				
1.93	51.71	1.53	53.30	1.52	-2.98%	0.66%				
1.94	51.55	1.55	53.30	1.52	-3.28%	1.97%				
1.95	51.77	1.54	53.30	1.52	-2.87%	1.32%				
1.96	51.45	1.55	53.30	1.52	-3.47%	1.97%				
1.97	51.63	1.59	53.30	1.52	-3.13%	4.61%				
1.98	51.58	1.6	53.30	1.52	-3.23%	5.26%				
1.99	51.6	1.61	53.30	1.52	-3.19%	5.92%				
2.00	51.78	1.63	53.30	1.52	-2.85%	7.24%				







Test Report Issue Date
December 19, 2010

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

Description of Test(s)

Specific Absorption Rate

RF Exposure Category
Gen. Pop. / Uncontrolled

Test Report Revision No.

Rev. 1.0 (Initial Release)



6.0 SAR MEASUREMENT SUMMARY

	BODY (LAP-HELD) SAR MEASUREMENT RESULTS													
Test Date	Freq. Band	Test Freq		Test N	Test Mode			Tablet PC Distance to Planar Phantom	Start	Power lucted)	SAR Drift During Test	Drift During Measure		I SAR
	MHz	MHz							dBm	Mode	dB	١	N/kg	1g/Pk
		836.6	3 190	GPRS Class 10	2 Uplink SI	ote Bottor	n Side	Touch	32.6	BAP	0.070	Р	0.441	1g
Sep 23		000.0	190	OI NO Class 10	2 Opinik Si	Ols Bolloi	ii Side	Touch	24.0	MAP	0.070	S	0.579	1g
0 op 20	850	836.4	4182	WCDMA Rel99	12.2k RM	C Bottor	n Side	Touch	24.5	MAP	-0.083	(0.456	1g
		836.5	2 384	EV-DO Rel. 0	FTAP 2 s 307 kbp	I Rottor	n Side	Touch	29.9	BAP	0.117	().257	1g
		1880.	0 661	GPRS Class 10	2 Uplink SI	ots Bottor	n Side	Touch	24.0	MAP	0.017	(0.221	1g
Oct 13	1900	1880.	0 9400	WCDMA Rel99	12.2k RM	C Bottor	n Side	Touch	24.5	MAP	0.007	(0.342	1g
		1880.	0 600	EV-DO Rel. 0	FTAP 2 s 307 kbps	I Rottor	n Side	Touch	32.6	BAP	0.099	().485	1g
		SAI	R LIMIT(S)			BODY		SPATIAL P	EAK	R	F EXPOSU	URE CATEGORY		
FCC 4	47 CFR 2.10	93	Health Ca	nada Safety Code	e 6 1.6 W/kg			1g avera	1g average Ge		General Population / Uncontr		rolled	
1	Test Date		ρ (Kg /m³) Ambient Te	mperature Fluid Temperature			re Flui	Fluid Depth		Relative Humidity		Atmospheric Pressure	
Septe	mber 23, 20	010	1000	22.0	°C	22.	7 °C	≥	15 cm	35	5 %		101.1 kl	⊃a
Octo	ober 13, 2010 1000		1000	21.0	21.0 °C		3 °C	≥	15 cm	35	5 %		101.1 kl	⊃a
Notes														
1.	Detailed m	easure	ement data	and plots showi	ng the maxi	mum SAR I	ocation	of the DUT	are repo	rted in A	ppendix A.			
	The SAR reference		tions (3G ı	modes) were per	formed in a	accordance	with the	e procedur	es specifi	ed in FC	C KDB 94	1122	5 D01v0)2 (see
			AR levels	were < 0.8 W/kg	(1g); there	fore SAR ev	aluatio	ns for the i	emaining	channel	s were not	t requ	uired (pe	er FCC
			, , ,,	sured within 2 dE	of the prim	nary are rep	orted (P	P = Primary	, S = Seco	ondary).				
				s for EDGE mod								e, are	e ~ 5 dE	3 lower
				s for HSDPA/HSI evels specified fo										e lower
				er levels measure I. A mode was no			ere not	> the cond	ucted out	out powe	er levels m	easu	red for	EV-DO
				er levels measure; therefore CDM					higher th	an the c	onducted	outpu	ıt power	levels
9.	The SAR o	drift of t	the DUT do	uring the SAR ev	aluations w	as measure	d by the	DASY4 s	/stem.					
10.	The intern	al batte	ery of the T	ablet PC was ful	y charged ¡	orior to the	SAR eva	aluations.						
	The fluid to SAR evalu			neasured prior to	and after t	he SAR eva	luations	s. The fluid	tempera	ture rem	ained with	in +/-	·2°C dur	ing the
				f the simulated ti T Network Analy			sured p	rior to the	SAR evalu	uations u	sing an HI	P 850	070C Di	electric

Applicant:	Applicant: Xplore Technologies Corp.			Q2GGOBI2K-XPL	IC:	4596A-GOBI2KXPL	X xplore	
DUT Type:	Type: Mini-PCI Express WWAN Card Model: GOBI2000 in iX104C5 Tablet PC with Pump-Up Antenna							
2010 Celltech La	abs Inc.	This document is not to be re	produced in wh	Page 12 of 56				



Test Report Issue Date
December 19, 2010

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

Description of Test(s)
Specific Absorption Rate

Test Report Revision No. Rev. 1.0 (Initial Release)

RF Exposure Category
Gen. Pop. / Uncontrolled



7.0 DETAILS OF SAR EVALUATION

Test Configuration(s)

- 1. The DUT was tested for body SAR (lap-held) with the bottom side of the Tablet PC parallel and touching the outer surface of the planar phantom.
- 2. The detailed test setup photographs are shown in Appendix D.

Test Mode(s)

- 3. The SAR evaluations for GPRS mode were performed with an air-link communication established with the Agilent 8960 Series 10 E5515C Wireless Communications Test Set with 2 uplink slots (Multi-slot Class 10).
- 4. The SAR evaluations in WCDMA mode were performed with an air-link communication established with the Agilent 8960 Series 10 E5515C Wireless Communications Test Set with 12.2 kbps RMC channel and the TPC bits configured to all "1s".
- The SAR evaluations in CDMA/EV-DO modes were performed with an air-link communication established with the Agilent 8960 Series 10 E5515C Wireless Communications Test Set at maximum power in "all bits up" power control mode.

Power Level(s)

6. The conducted output power levels of the DUT were measured prior to the SAR evaluations (see Section 4.0) with the Agilent 8960 Series 10 E5515C Wireless Communications Test Set and Gigatronics Universal Power Meter with Burst Average Power (GPRS mode) and Modulated Average Power (WCDMA, CDMA/EV-DO modes).

8.0 SAR EVALUATION PROCEDURES

- a. (i) The evaluation was performed in the applicable area of the phantom depending on the type of device being tested. For devices held to the ear during normal operation, both the left and right ear positions were evaluated using the SAM phantom.
 - (ii) For body-worn and face-held devices a planar phantom was used.
- b. The SAR was determined by a pre-defined procedure within the DASY4 software. Upon completion of a reference and optical surface check, the exposed region of the phantom was scanned near the inner surface with a grid spacing of 15mm x 15mm.
 - An area scan was determined as follows:
- c. Based on the defined area scan grid, a more detailed grid is created to increase the points by a factor of 10. The interpolation function then evaluates all field values between corresponding measurement points.
- d. A linear search is applied to find all the candidate maxima. Subsequently, all maxima are removed that are >2 dB from the global maximum. The remaining maxima are then used to position the cube scans.
 - A 1g and 10g spatial peak SAR was determined as follows:
- e. Extrapolation is used to determine the values between the dipole center of the probe and the surface of the phantom. For E-Field Probe EX3DV4 this data cannot be measured because the center of the dipole sensors is 1.0 mm away from the probe tip and the distance between the probe and the boundary must be larger than 25% of the probe diameter. The probe diameter is 2.4 mm (see probe calibration document in Appendix F). In the DASY4 software, the distance between the sensor center and phantom surface is set to 2.0 mm. This provides a distance of 1.0 mm between the probe tip and the surface. For E-Field Probe ET3DV6 this data cannot be measured, since the center of the dipoles is 2.7 mm away from the tip of the probe and the distance between the surface and the lowest measuring point is 1.4 mm (see probe calibration document in Appendix F). The extrapolation of the values between the dipole center and the surface of the phantom was based on trivariate quadratics computed from the previously calculated 3D interpolated points nearest the phantom surface.
- f. Interpolated data is used to calculate the average SAR over 1g and 10g cubes by spatially discretizing the entire measured cube. The volume used to determine the averaged SAR is a 1mm grid (42875 interpolated points).
- g. A zoom scan volume of 32 mm x 32 mm x 30 mm (5 x 5 x 7 points) centered at the peak SAR location determined from the area scan is used for all zoom scans for devices with a transmit frequency < 800 MHz. Zoom scans for frequencies ≥ 800 MHz are determined with a scan volume of 30 mm x 30 mm x 30 mm (7 x 7 x 7) to ensure complete capture of the peak spatial-average SAR.



December 19, 2010

 Sep. 23 & Oct. 13, 2010
 092110Q2G-T1048a-S24M

 Test Report Issue Date
 Description of Test(s)

Rev. 1.0 (Initial Release)

RF Exposure Category
Gen. Pop. / Uncontrolled

Test Report Revision No.



9.0 CO-LOCATED TRANSMITTER(S)

The iX104C5 Tablet PC incorporating the GOBI2000 WWAN Mini-PCI Express Card FCC ID: Q2GGOBI2K-XPL (with "Pump-Up" Antenna) can be co-located with the following transmitters:

Test Report Serial No.

Specific Absorption Rate

Transmitter Type	Manufacturer	FCC ID	IC ID	Model	Co-Transmit
WLAN	Intel	Q2GI6200-XPL	4596A-I6200XPL	622ANHMW	No
Class 2 Bluetooth	Broadcom	QDS-BRCM1043	4324A-BRCM1043	BCM92070MD_REF	Yes

10.0 SIMULTANEOUS TRANSMISSION ASSESSMENT

The provisions set forth in FCC KDB 447498 D01v04 Section 3)b)ii) were applied to determine simultaneous transmission SAR evaluations were not required based on the following:

WWAN Co-Transmission: WLAN can transmit simultaneously with Bluetooth Bluetooth Output Power = 4.27 dBm (< 60/f mW)

.

WWAN to Bluetooth = 17.9 cm

Summary

Antenna-to-Antenna Distance:

SAR evaluation for simultaneous transmission of the WWAN and Bluetooth is not required based on the maximum conducted output power of the Bluetooth (for which stand-alone SAR evaluation not required) is < 60/f mW and the antenna-to-antenna separation distance (WWAN to Bluetooth) is > 5 cm.



Test Report Issue Date
December 19, 2010

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

Description of Test(s)

Specific Absorption Rate

RF Exposure Category
Gen. Pop. / Uncontrolled

Test Report Revision No.

Rev. 1.0 (Initial Release)



11.0 SYSTEM PERFORMANCE CHECK

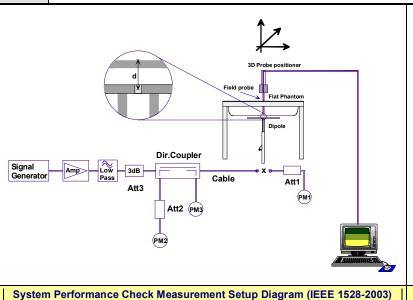
Prior to the SAR evaluations, daily system checks were performed using a planar phantom with 835 MHz and 1900 MHz SPEAG dipoles (see Appendix B for system performance check evaluation plots) in accordance with the procedures described in IEEE Standard 1528-2003 (see reference [5]) and IEC International Standard 62209-1:2005 (see reference [6]). The dielectric parameters of the simulated tissue mixtures were measured prior to the system performance checks using an HP 85070C Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C). A forward power of 250 mW was applied to the dipole and the system was verified to a tolerance of ±10% from the system manufacturer's dipole calibration target SAR values (see Appendix F for system manufacturer's dipole calibration procedures).

	SYSTEM PERFORMANCE CHECK EVALUATION RESULTS															
Test	Test Fluid SAR 1g (W/kg)			Dielectric Constant ε _r		Conductivity σ (mho/m)		ρ	Amb.	Fluid Temp.	Fluid	Humid.	Barom.			
Date	Body (MHz)	SPEAG Target	Meas.	Dev.	SPEAG Target	Meas.	Dev.	SPEAG Target	Meas.	Dev.	(Kg/m³) Temp.		(°C)	Depth (cm)	(%)	Press. (kPa)
Sep 23	835	2.49 ±10%	2.72	+9.2%	55.2 ±5%	52.5	-4.9%	0.97 ±5%	1.01	+4.1%	1000	22.0	22.7	≥ 15	35	101.1
Oct 13	1900	10.6 ±10%	10.2	-3.8%	53.3 ±5%	51.8	-2.8%	1.52 ±5%	1.47	-3.3%	1000	21.0	21.3	≥ 15	35	101.1

- 1. The target SAR values are the measured values from the dipole calibration performed by SPEAG (see Appendix F).
- 2. The target dielectric parameters are the nominal values from the dipole calibration performed by SPEAG (see Appendix F).

Notes

- 3. The fluid temperature was measured prior to and after the system performance check to ensure the temperature remained within +/-2°C of the fluid temperature reported during the dielectric parameter measurements.
- 4. The dielectric parameters of the simulated tissue mixture were measured prior to the system performance check using a Dielectric Probe Kit and a Network Analyzer (see Appendix C).







835 MHz Validation Dipole Setup

1900 MHz Validation Dipole Setup



Dat	te(s)	of Ev	alua	tion
Sep.	23 &	Oct.	13,	2010

Test Report Issue Date
December 19, 2010

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

Description of Test(s)

Specific Absorption Rate

RF Exposure Category
Gen. Pop. / Uncontrolled

Test Report Revision No.

Rev. 1.0 (Initial Release)



12.0 SIMULATED EQUIVALENT TISSUES

The simulated equivalent tissue recipes listed in the table below are derived from the SAR system manufacturer's suggested recipe in the DASY4 manual (see reference [11]) in accordance with the procedures and requirements specified in IEEE Standard 1528-2003 (see reference [5]) and IEC Standard 62209-1:2005 (see reference [6]). The ingredient percentage may have been adjusted marginally in order to achieve the appropriate target dielectric parameters within the specified tolerance.

1900 MHz TISSUE MIXTURE							
INGREDIENT	1900 MHz BODY						
Water	69.85 %						
Glycol Monobutyl	29.89 %						
Salt	0.26 %						

835 MHz TISSUE MIXTURE							
INGREDIENT	835 MHz BODY						
Water	53.79 %						
Sugar	45.13 %						
Salt	0.98 %						
Bactericide	0.10 %						

13.0 SAR LIMITS

2010 Celltech Labs Inc.

SAR RF EXPOSURE LIMITS									
FCC 47 CFR 2.1093	(General Population / Uncontrolled Exposure)	(Occupational / Controlled Exposure)							
Spatial Average (averaged over the whole body)	0.08 W/kg	0.4 W/kg							
Spatial Peak (averaged over any 1 g of tissue)	1.6 W/kg	8.0 W/kg							
Spatial Peak (hands/wrists/feet/ankles averaged over 10 g)	4.0 W/kg	20.0 W/kg							

The Spatial Average value of the SAR averaged over the whole body.

The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

Uncontrolled environments are defined as locations where there is potential exposure of individuals who have no knowledge or control of their potential exposure.

Controlled environments are defined as locations where there is potential exposure of individuals who have knowledge of their potential exposure and can exercise control over their exposure.

Applicant:	Xplore Technologies Corp.	FCC ID:	Q2GGOBI2K-XPL	IC:	4596A-GOBI2KXPL
DUT Type:	Mini-PCI Express WWAN Car	d Model: GC	OBI2000 in iX104C5 Tab	let PC w	vith Pump-Up Antenna



Page 16 of 56



Test Report Issue Date
December 19, 2010

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

Description of Test(s)

Specific Absorption Rate

RF Exposure Category

Gen. Pop. / Uncontrolled

Test Report Revision No.

Rev. 1.0 (Initial Release)



14.0 ROBOT SYSTEM SPECIFICATIONS

<u>Specifications</u>	
Positioner	Stäubli Unimation Corp. Robot Model: RX60L
Repeatability	0.02 mm
No. of axis	6
Data Acquisition Electronic	DAE) System
Cell Controller	
Processor	AMD Athlon XP 2400+
Clock Speed	2.0 GHz
Operating System	Windows XP Professional
Data Converter	
Features	Signal Amplifier, multiplexer, A/D converter, and control logic
Software	Measurement Software: DASY4, V4.7 Build 44
Continuit	Postprocessing Software: SEMCAD, V1.8 Build 171
Connecting Lines	Optical downlink for data and status info.; Optical uplink for commands and clock
DASY4 Measurement Server	
Function	Real-time data evaluation for field measurements and surface detection
Hardware	PC/104 166MHz Pentium CPU; 32 MB chipdisk; 64 MB RAM
Connections	COM1, COM2, DAE, Robot, Ethernet, Service Interface
E-Field Probe	
Probe (850 Band)	
Model	ET3DV6
Serial No.	1590
Construction	Triangular core fiber optic detection system
Frequency	10 MHz to 6 GHz
Linearity	±0.2 dB (30 MHz to 3 GHz)
<u>Probe (1900 Band)</u>	
Model	EX3DV4
Serial No.	3600
Construction	Symmetrical design with triangular core
Frequency	10 MHz to 6 GHz
Linearity	±0.2 dB (30 MHz to 3 GHz)
Phantom(s)	
Туре	Barski Planar Phantom
Shell Material	Fiberglass
Thickness	2.0 ±0.1 mm
Volume	Approx. 70 liters

Applicant:	Xplor	re Technologies Corp.	FCC ID:	Q2GGOBI2K-XPL	IC:	4596A-GOBI2KXPL		
DUT Type: Mini-PCI Express WWAN Card Model: GOBI2000 in iX104C5 Tablet PC with Pump-Up Antenna								
2010 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs In								





Test Report Serial No. 092110Q2G-T1048a-S24M

RF Exposure Category

Test Report Revision No.

Rev. 1.0 (Initial Release) IIac-MR/



Test Lab Certificate No. 2470.01

Test Report Issue Date Description of Test(s) December 19, 2010 Specific Absorption Rate Gen. Pop. / Uncontrolled

15.0 PROBE SPECIFICATIONS

ET3DV6 E-Field Probe

Symmetrical design with triangular core Construction:

Built-in shielding against static charges

PEEK enclosure material (resistant to organic solvents, glycol)

Calibration: In air from 10 MHz to 2.5 GHz

In brain simulating tissue at frequencies of 900 MHz

and 1.8 GHz (accuracy ± 8%)

10 MHz to > 6 GHz; Linearity: ± 0.2 dB Frequency:

(30 MHz to 3 GHz)

Directivity: \pm 0.2 dB in brain tissue (rotation around probe axis)

 \pm 0.4 dB in brain tissue (rotation normal to probe axis)

5 μ W/g to > 100 mW/g; Linearity: \pm 0.2 dB Dynamic Range: Surface Detect:

 \pm 0.2 mm repeatability in air and clear liquids over

diffuse reflecting surfaces Dimensions: Overall length: 330 mm

Tip length: 16 mm Body diameter: 12 mm Tip diameter: 6.8 mm

Distance from probe tip to dipole centers: 2.7 mm

General dosimetry up to 3 GHz Application:

Compliance tests of mobile phone



ET3DV6 E-Field Probe

EX3DV4 E-Field Probe

Symmetrical design with triangular core Construction:

Built-in shielding against static charges

PEEK enclosure material (resistant to organic solvents, e.g. DGBE)

Calibration: Basic Broadband Calibration in air: 10-3000 MHz

Conversion Factors (CF) for HSL 900 and HSL 1750

Frequency: 10 MHz to >6 GHz; Linearity: ± 0.2 dB (30 MHz to 3 GHz) Directivity: ±0.3 dB in HSL (rotation around probe axis)

 $\pm 0.5 \ dB$ in tissue material (rotation normal to probe axis)

Dynamic Range: 10 μ W/g to >100 mW/g; Linearity: \pm 0.2 dB

(noise: typically < 1 μ W/q)

Overall length: 330 mm (Tip: 20 mm) Dimensions:

Tip diameter: 2.5 mm (Body: 12 mm)

Typical distance from probe tip to dipole centers: 1.0 mm Application: High precision dosimetric measurements in any exposure

scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to

6 GHz with precision of better than 30%.



EX3DV4 E-Field Probe

16.0 BARSKI PLANAR PHANTOM

The Barski planar phantom is a fiberglass shell phantom with a 2.0 mm (+/-0.2mm) thick device measurement area at the center of the phantom for SAR evaluations of devices with a larger surface area than the planar section of the SAM phantom. The planar phantom is integrated in a wooden table. The Barski planar phantom was used for the DUT SAR evaluations and the system performance check evaluations. See Appendix H for dimensions and specifications of the Barski planar phantom.



Barski Planar Phantom

17.0 DEVICE HOLDER

2010 Celltech Labs Inc.

The DASY4 device holder has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of 65°. The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. For evaluations of larger devices a Plexiglas platform is attached to the device holder.



Device Holder

Applicant:	Xplore Technologies Corp.	FCC ID:	Q2GGOBI2K-XPL	IC:	4596A-GOBI2KXPL
DUT Type:	Mini-PCI Express WWAN Car	d Model: GC	OBI2000 in iX104C5 Tab	let PC w	vith Pump-Up Antenna



Page 18 of 56



Test Report Issue Date
December 19, 2010

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

Description of Test(s)

Specific Absorption Rate

Rev. 1.0 (Initial Release)

RF Exposure Category

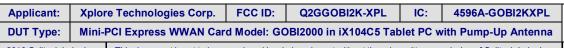
Gen. Pop. / Uncontrolled

Test Report Revision No.



18.0 TEST EQUIPMENT LIST

	TEST EQUIPMENT	ASSET NO. SERIAL NO		DATE	CALIBRATION
USED	DESCRIPTION	ACCET NO.	OLIMAL IIO.	CALIBRATED	INTERVAL
x	Schmid & Partner DASY4 System	-	-	-	-
х	-DASY4 Measurement Server	00158	1078	CNR	CNR
х	-Robot	00046	599396-01	CNR	CNR
х	-DAE4	00019	353	27Apr10	Annual
х	-ET3DV6 E-Field Probe	00017	1590	15Jul10	Annual
х	-EX3DV4 E-Field Probe	00213	3600	29Apr10	Annual
х	-D835V2 Validation Dipole	00217	4d075	20Apr09	Biennial
х	-D1900V2 Validation Dipole	00218	5d107	21Apr09	Biennial
х	-Barski Planar Phantom	00155	03-01	CNR	CNR
х	HP 85070C Dielectric Probe Kit	00033	none	CNR	CNR
х	Gigatronics 8652A Power Meter	00007	1835272	04May10	Biennial
х	Gigatronics 80701A Power Sensor	00014	1833699	04May10	Biennial
х	HP 8753ET Network Analyzer	00134	US39170292	04May10	Biennial
х	Agilent 8960 Series 10 Communication Test Set	N/A	GB46311315	24Sep09	Biennial
х	Rohde & Schwarz SMR20 Signal Generator	00006	100104	CNR	CNR
х	Amplifier Research 5S1G4 Power Amplifier	00106	26235	CNR	CNR
Abbr.	CNR = Calibration Not Required; N/A = Not Applica	ble	•	•	







December 19, 2010

Sep. 23 & Oct. 13, 2010

Test Report Issue Date

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

Description of Test(s)

Specific Absorption Rate

Rev. 1.0 (Initial Release)

RF Exposure Category

Gen. Pop. / Uncontrolled

Test Report Revision No.



19.0 MEASUREMENT UNCERTAINTIES

UNCERTAINTY BUDGET FOR DEVICE EVALUATION											
Uncertainty Component	IEEE 1528 Section	Uncertainty Value ±%	Probability Distribution	Divisor	ci 1g	ci 10g	Uncertainty Value ±% (1g)	Uncertainty Value ±% (10g)	V _i or V _{eff}		
Measurement System											
Probe Calibration (835 MHz)	E.2.1	5.5	Normal	1	1	1	5.5	5.5	œ		
Axial Isotropy	E.2.2	4.7	Rectangular	1.732050808	0.7	0.7	1.9	1.9	∞		
Hemispherical Isotropy	E.2.2	9.6	Rectangular	1.732050808	0.7	0.7	3.9	3.9	oc		
Boundary Effect	E.2.3	1	Rectangular	1.732050808	1	1	0.6	0.6	8		
Linearity	E.2.4	4.7	Rectangular	1.732050808	1	1	2.7	2.7	∞		
System Detection Limits	E.2.5	1	Rectangular	1.732050808	1	1	0.6	0.6	oc		
Readout Electronics	E.2.6	0.3	Normal	1	1	1	0.3	0.3	∞		
Response Time	E.2.7	0.8	Rectangular	1.732050808	1	1	0.5	0.5	∞		
Integration Time	E.2.8	2.6	Rectangular	1.732050808	1	1	1.5	1.5	∞		
RF Ambient Conditions	E.6.1	3	Rectangular	1.732050808	1	1	1.7	1.7	oc		
Probe Positioner Mechanical Tolerance	E.6.2	0.4	Rectangular	1.732050808	1	1	0.2	0.2	∞		
Probe Positioning wrt Phantom Shell	E.6.3	2.9	Rectangular	1.732050808	1	1	1.7	1.7	∞		
Extrapolation, interpolation & integration algorithms for max. SAR evaluation	E.5	1	Rectangular	1.732050808	1	1	0.6	0.6	œ		
Test Sample Related											
Test Sample Positioning	E.4.2	2.9	Normal	1	1	1	2.9	2.9	12		
Device Holder Uncertainty	E.4.1	3.6	Normal	1	1	1	3.6	3.6	8		
SAR Drift Measurement	6.6.2	5	Rectangular	1.732050808	1	1	2.9	2.9	8		
Phantom and Tissue Parameters											
Phantom Uncertainty	E.3.1	4	Rectangular	1.732050808	1	1	2.3	2.3	8		
Liquid Conductivity (target)	E.3.2	5	Rectangular	1.732050808	0.64	0.43	1.8	1.2	oc		
Liquid Conductivity (measured)	E.3.3	4.12	Normal	1	0.64	0.43	2.6	1.8	8		
Liquid Permittivity (target)	E.3.2	5	Rectangular	1.732050808	0.6	0.49	1.7	1.4	oo.		
Liquid Permittivity (measured)	E.3.3	4.89	Normal	1	0.6	0.49	2.9	2.4	∞		
Combined Standard Uncertainty			RSS				11.08	10.64			
Expanded Uncertainty (95% Confidence	e Interval)		k=2				22.15	21.27			
Measi	Measurement Uncertainty Table in accordance with IEEE Standard 1528-2003										

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





Test Report Issue Date
December 19, 2010

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

Description of Test(s)

Specific Absorption Rate

RF Exposure Category

Gen. Pop. / Uncontrolled

Test Report Revision No.

Rev. 1.0 (Initial Release)



MEASUREMENT UNCERTAINTIES (Cont.)

UNCERTAINTY BUDGET FOR DEVICE EVALUATION										
Uncertainty Component	IEEE 1528 Section	Uncertainty Value ±%	Probability Distribution	Divisor	ci 1g	ci 10g	Uncertainty Value ±% (1g)	Uncertainty Value ±% (10g)	V _i or V _{eff}	
Measurement System										
Probe Calibration (1900 MHz)	E.2.1	5.5	Normal	1	1	1	5.5	5.5	∞	
Axial Isotropy	E.2.2	4.7	Rectangular	1.732050808	0.7	0.7	1.9	1.9	∞	
Hemispherical Isotropy	E.2.2	9.6	Rectangular	1.732050808	0.7	0.7	3.9	3.9	∞	
Boundary Effect	E.2.3	1	Rectangular	1.732050808	1	1	0.6	0.6	∞	
Linearity	E.2.4	4.7	Rectangular	1.732050808	1	1	2.7	2.7	∞	
System Detection Limits	E.2.5	1	Rectangular	1.732050808	1	1	0.6	0.6	∞	
Readout Electronics	E.2.6	0.3	Normal	1	1	1	0.3	0.3	∞	
Response Time	E.2.7	0.8	Rectangular	1.732050808	1	1	0.5	0.5	∞	
Integration Time	E.2.8	2.6	Rectangular	1.732050808	1	1	1.5	1.5	∞	
RF Ambient Conditions	E.6.1	3	Rectangular	1.732050808	1	1	1.7	1.7	∞	
Probe Positioner Mechanical Tolerance	E.6.2	0.4	Rectangular	1.732050808	1	1	0.2	0.2	∞	
Probe Positioning wrt Phantom Shell	E.6.3	2.9	Rectangular	1.732050808	1	1	1.7	1.7	∞	
Extrapolation, interpolation & integration algorithms for max. SAR evaluation	E.5	1	Rectangular	1.732050808	1	1	0.6	0.6	∞	
Test Sample Related										
Test Sample Positioning	E.4.2	2.9	Normal	1	1	1	2.9	2.9	12	
Device Holder Uncertainty	E.4.1	3.6	Normal	1	1	1	3.6	3.6	8	
SAR Drift Measurement	6.6.2	5	Rectangular	1.732050808	1	1	2.9	2.9	∞	
Phantom and Tissue Parameters										
Phantom Uncertainty	E.3.1	4	Rectangular	1.732050808	1	1	2.3	2.3	∞	
Liquid Conductivity (target)	E.3.2	5	Rectangular	1.732050808	0.64	0.43	1.8	1.2	∞	
Liquid Conductivity (measured)	E.3.3	3.29	Normal	1	0.64	0.43	2.1	1.4	∞	
Liquid Permittivity (target)	E.3.2	5	Rectangular	1.732050808	0.6	0.49	1.7	1.4	∞	
Liquid Permittivity (measured)	E.3.3	2.83	Normal	1	0.6	0.49	1.7	1.4	∞	
Combined Standard Uncertainty			RSS				10.70	10.40		
Expanded Uncertainty (95% Confidence		k=2				21.40	20.80			
	·	ertainty Table	in accordance	with IEEE Stan	dard 15	28-200	3			

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





Test Report Issue Date

Test Report Serial No. 092110Q2G-T1048a-S24M

> RF Exposure Category Gen. Pop. / Uncontrolled

Test Report Revision No.

Rev. 1.0 (Initial Release)



December 19, 2010

Description of Test(s) Specific Absorption Rate

20.0 REFERENCES

- [1] Federal Communications Commission "Radiofrequency radiation exposure evaluation: portable devices", Rule Part 47 CFR §2.1093.
- [2] Health Canada "Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range from 3 kHz to 300 GHz", Safety Code 6: 1999.
- [3] Federal Communications Commission "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields", OET Bulletin 65, Supplement C (Edition 01-01), FCC, Washington, D.C.: June 2001.
- [4] Industry Canada "Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)", Radio Standards Specification RSS-102 Issue 4: March 2010.
- [5] IEEE Standard 1528-2003 "Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques": December 2003.
- [6] International Standard IEC 62209-1:2005 "Human exposure to radio frequency fields from hand-held and bodymounted wireless communication devices - Human models, instrumentation, and procedures - Part 1: Procedure to determine the specific absorption rate (SAR) for handheld devices used in close proximity to the ear (300 MHz to 3 GHz)".
- [7] International Standard IEC 62209-2 Edition 1.0 2010-03 "Human exposure to radio frequency fields from hand-held & body-mounted wireless communication devices - Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)".
- [8] Federal Communications Commission, Office of Engineering and Technology "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies"; KDB 447498 D01v04: November 2009.
- [9] Federal Communications Commission "SAR Measurement Procedures for 3G Devices"; KDB 941225 D01v02: October 2007.
- [10] Federal Communications Commission, Office of Engineering and Technology "Application Note: SAR Probe Calibration and System Verification Considerations for Measurements at 150 MHz - 3 GHz"; KDB 450824 D01 v01r01: January 2007.
- [11] Schmid & Partner Engineering AG DASY4 Manual V4.6, Chapter 17 Application Note, Body Tissue Recipe: Sept. 2005.
- [12] ISO/IEC 17025 "General requirements for the competence of testing and calibration laboratories (ISO/IEC 17025:2005)."
- [13] Federal Communications Commission "Measurements Required: RF Power Output"; Rule Part 47 CFR §2.1046.
- [14] Industry Canada "General Requirements and Information for the Certification of Radiocommunication Equipment", Radio Standards Specification RSS-Gen Issue 2: June 2007.



Dat	te(s)	of Ev	alua	ation
Sep.	23 &	Oct.	13,	2010

Test Report Issue Date
December 19, 2010

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

<u>Description of Test(s)</u> Specific Absorption Rate <u>Test Report Revision No.</u> Rev. 1.0 (Initial Release)

RF Exposure Category
Gen. Pop. / Uncontrolled



APPENDIX A - SAR MEASUREMENT PLOTS



December 19, 2010

 Sep. 23 & Oct. 13, 2010
 092110Q2G-T1048a-S24M

 Test Report Issue Date
 Description of Test(s)

Test Report Serial No.

Specific Absorption Rate

Test Report Revision No.
Rev. 1.0 (Initial Release)

RF Exposure Category
Gen. Pop. / Uncontrolled



Date Tested: 09/23/2010

Body SAR - GPRS 850 - 2 Uplink Slots - 836.6 MHz - Ch. 190 - Bottom Side Touch

DUT: Xplore Technologies Corporation; Type: GOBI2000 WWAN in iX104C5 Tablet PC; Serial: XPL 01 WWAN Antenna P/N: 25.90A14.001 ("Pump-Up")

Ambient Temp: 22.0°C; Fluid Temp: 22.7°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: GPRS - 2 Uplink Frequency: 836.6 MHz; Duty Cycle: 1:4.16

Medium: M835 Medium parameters used: f = 836.6 MHz; $\sigma = 1.01$ mho/m; $\varepsilon_r = 52.5$; $\rho = 1000$ kg/m³

- Probe: ET3DV6 SN1590; ConvF(6.33, 6.33, 6.33); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - Bottom Side of Tablet PC Touching Planar Phantom

Area Scan (14x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.644 mW/g

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

Reference Value = 17.8 V/m; Power Drift = 0.070 dB

Peak SAR (extrapolated) = 1.37 W/kg

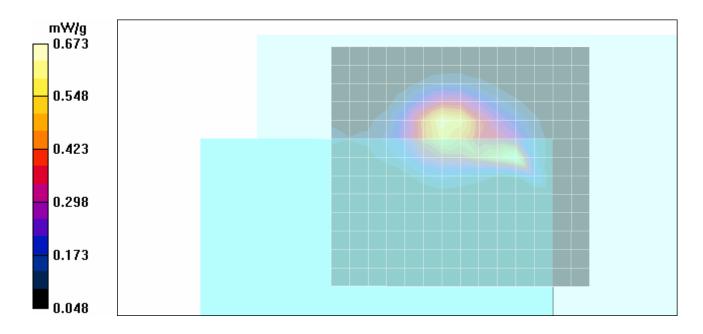
SAR(1 g) = 0.441 mW/g; SAR(10 g) = 0.245 mW/gMaximum value of SAR (measured) = 0.672 mW/g

Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.8 V/m; Power Drift = 0.070 dB

Peak SAR (extrapolated) = 0.939 W/kg

SAR(1 g) = 0.579 mW/g; SAR(10 g) = 0.379 mW/gMaximum value of SAR (measured) = 0.673 mW/g



Applicant:	Xplor	re Technologies Corp.	FCC ID:	Q2GGOBI2K-XPL	IC:	4596A-GOBI2KXPL	X xplore	
DUT Type: Mini-PCI Express WWAN Card Model: GOBI2000 in iX104C5 Tablet PC with Pump-Up Antenna								
2010 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.					Page 24 of 56			



December 19, 2010

 Sep. 23 & Oct. 13, 2010
 092110Q2G-T1048a-S24M

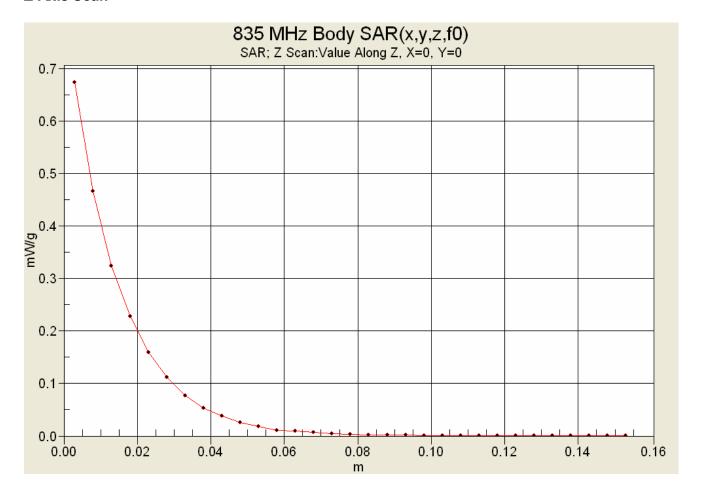
 Test Report Issue Date
 Description of Test(s)

Test Report Revision No.
Rev. 1.0 (Initial Release)

RF Exposure Category
Gen. Pop. / Uncontrolled



Z-Axis Scan



Test Report Serial No.

Specific Absorption Rate





Test Report Issue Date

Description of Test(s)

December 19, 2010

Specific Absorption Rate

<u>Test Report Revision No.</u> Rev. 1.0 (Initial Release)

RF Exposure Category
Gen. Pop. / Uncontrolled



Date Tested: 09/23/2010

Body SAR - WCDMA Rel99 (850) - 12.2kbps - 836.4 MHz - Ch. 4182 - Bottom Side Touch

Test Report Serial No.

092110Q2G-T1048a-S24M

DUT: Xplore Technologies Corporation; Type: GOBI2000 WWAN in iX104C5 Tablet PC; Serial: XPL 01 WWAN Antenna P/N: 25.90A14.001 ("Pump-Up")

Ambient Temp: 22.0°C; Fluid Temp: 22.7°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: WCDMA 850 Frequency: 836.4 MHz; Duty Cycle: 1:1

Medium: M835 Medium parameters used: f = 836.6 MHz; $\sigma = 1.01$ mho/m; $\varepsilon_r = 52.5$; $\rho = 1000$ kg/m³

- Probe: ET3DV6 SN1590; ConvF(6.33, 6.33, 6.33); Calibrated: 15/07/
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - Bottom Side of Tablet PC Touching Planar Phantom

Area Scan (14x15x1): Measurement grid: dx=15mm, dy=15mm

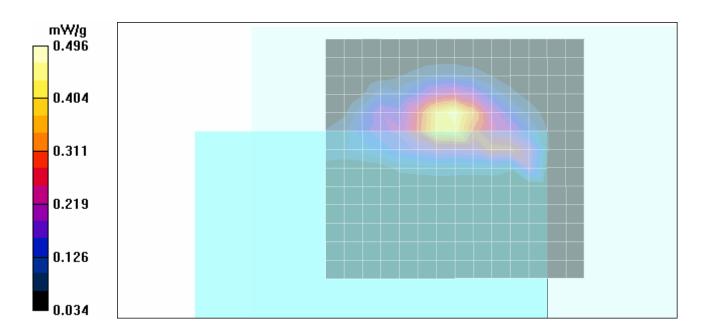
Maximum value of SAR (measured) = 0.455 mW/g

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

Reference Value = 21.9 V/m; Power Drift = -0.083 dB

Peak SAR (extrapolated) = 0.632 W/kg

SAR(1 g) = 0.456 mW/g; SAR(10 g) = 0.306 mW/g Maximum value of SAR (measured) = 0.496 mW/g





Test Report Issue Date

Description of Test(s)

December 19, 2010

Specific Absorption Rate

Test Report Revision No. Rev. 1.0 (Initial Release)

RF Exposure Category
Gen. Pop. / Uncontrolled



Date Tested: 09/23/2010

Body SAR - EV-DO Rel. 0 (850) - FTAP 307kbps - 836.52 MHz - Ch. 384 - Bottom Side Touch

Test Report Serial No.

092110Q2G-T1048a-S24M

DUT: Xplore Technologies Corporation; Type: GOBI2000 WWAN in iX104C5 Tablet PC; Serial: XPL 01 WWAN Antenna P/N: 25.90A14.001 ("Pump-Up")

Ambient Temp: 22.0 °C; Fluid Temp: 22.7 °C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: EV-DO Rel. 0 Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: M835 Medium parameters used: f = 836.52 MHz; $\sigma = 1.01$ mho/m; $\varepsilon_r = 52.5$; $\rho = 1000$ kg/m³

- Probe: ET3DV6 SN1590; ConvF(6.33, 6.33, 6.33); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - Bottom Side of Tablet PC Touching Planar Phantom

Area Scan (14x15x1): Measurement grid: dx=15mm, dy=15mm

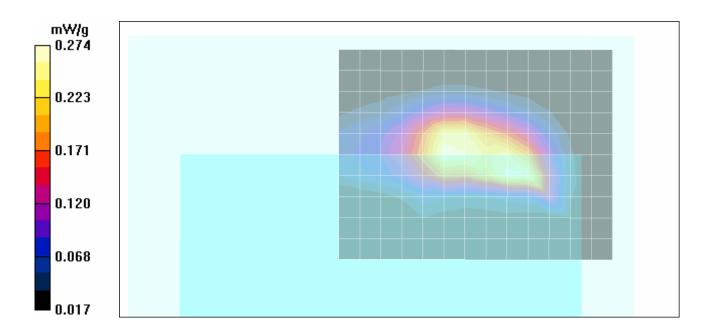
Maximum value of SAR (measured) = 0.271 mW/g

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

Reference Value = 16.6 V/m; Power Drift = 0.117 dB

Peak SAR (extrapolated) = 0.512 W/kg

SAR(1 g) = 0.257 mW/g; SAR(10 g) = 0.175 mW/gMaximum value of SAR (measured) = 0.274 mW/g





December 19, 2010

 Sep. 23 & Oct. 13, 2010
 092110Q2G-T1048a-S24M

 Test Report Issue Date
 Description of Test(s)

Test Report Revision No.
Rev. 1.0 (Initial Release)

RF Exposure Category
Gen. Pop. / Uncontrolled



Date Tested: 10/13/2010

Body SAR - GPRS 1900 - 2 Uplink Slots - 1880.0 MHz - Ch. 661 - Bottom Side Touch

Test Report Serial No.

Specific Absorption Rate

DUT: Xplore Technologies Corporation; Type: GOBI2000 WWAN in iX104C5 Tablet PC; Serial: XPL 01 WWAN Antenna P/N: 25.90A14.001 ("Pump-Up")

Ambient Temp: 21.0°C; Fluid Temp: 21.3°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: GPRS - 2 Uplink Frequency: 1880 MHz; Duty Cycle: 1:4.16

Medium: M1880 Medium parameters used: f = 1880 MHz; σ = 1.47 mho/m; ϵ_r = 51.8; ρ = 1000 kg/m³

- Probe: EX3DV4 SN3600; ConvF(6.47, 6.47, 6.47); Calibrated: 29/04/2010
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - Bottom Side of Tablet PC Touching Planar Phantom

Area Scan (14x15x1): Measurement grid: dx=15mm, dy=15mm

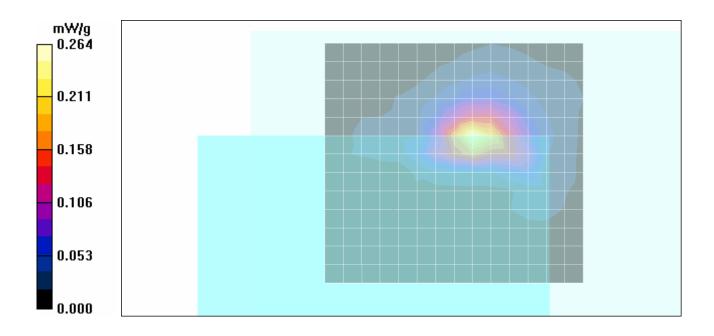
Maximum value of SAR (measured) = 0.256 mW/g

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

Reference Value = 13.1 V/m; Power Drift = 0.017 dB

Peak SAR (extrapolated) = 0.382 W/kg

SAR(1 g) = 0.221 mW/g; SAR(10 g) = 0.120 mW/gMaximum value of SAR (measured) = 0.264 mW/g





December 19, 2010

 Sep. 23 & Oct. 13, 2010
 092110Q2G-T1048a-S24M

 Test Report Issue Date
 Description of Test(s)

Test Report Revision No.
Rev. 1.0 (Initial Release)

RF Exposure Category
Gen. Pop. / Uncontrolled



Date Tested: 10/13/2010

Body SAR - WCDMA Rel99 (1900) - 12.2kbps - 1880.0 MHz - Ch. 9400 - Bottom Side Touch

Test Report Serial No.

Specific Absorption Rate

DUT: Xplore Technologies Corporation; Type: GOBI2000 WWAN in iX104C5 Tablet PC; Serial: XPL 01 WWAN Antenna P/N: 25.90A14.001 ("Pump-Up")

Ambient Temp: 21.0°C; Fluid Temp: 21.3°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: WCDMA 1900 Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: M1880 Medium parameters used: f = 1880 MHz; σ = 1.47 mho/m; ϵ_r = 51.8; ρ = 1000 kg/m³

- Probe: EX3DV4 SN3600; ConvF(6.47, 6.47, 6.47); Calibrated: 29/04/2010
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - Bottom Side of Tablet PC Touching Planar Phantom

Area Scan (14x15x1): Measurement grid: dx=15mm, dy=15mm

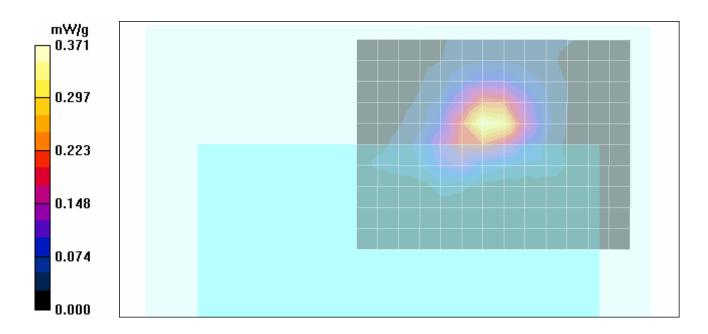
Maximum value of SAR (measured) = 0.350 mW/g

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

Reference Value = 15.7 V/m; Power Drift = 0.007 dB

Peak SAR (extrapolated) = 0.554 W/kg

SAR(1 g) = 0.342 mW/g; SAR(10 g) = 0.205 mW/g Maximum value of SAR (measured) = 0.371 mW/g





Test Report Issue Date

Description of Test(s)

December 19, 2010

Specific Absorption Rate

Test Report Revision No.
Rev. 1.0 (Initial Release)

RF Exposure Category
Gen. Pop. / Uncontrolled



Date Tested: 10/13/2010

Body SAR - EV-DO Rel. 0 (1900) - FTAP 307kbps - 1880.0 MHz - Ch. 600 - Bottom Side Touch

Test Report Serial No.

092110Q2G-T1048a-S24M

DUT: Xplore Technologies Corporation; Type: GOBI2000 WWAN in iX104C5 Tablet PC; Serial: XPL 01 WWAN Antenna P/N: 25.90A14.001 ("Pump-Up")

Ambient Temp: 21.0°C; Fluid Temp: 21.3°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: EV-DO Rel. 0 Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: M1880 Medium parameters used: f = 1880 MHz; σ = 1.47 mho/m; ϵ_r = 51.8; ρ = 1000 kg/m³

- Probe: EX3DV4 SN3600; ConvF(6.47, 6.47, 6.47); Calibrated: 29/04/2010
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - Bottom Side of Tablet PC Touching Planar Phantom

Area Scan (11x15x1): Measurement grid: dx=15mm, dy=15mm

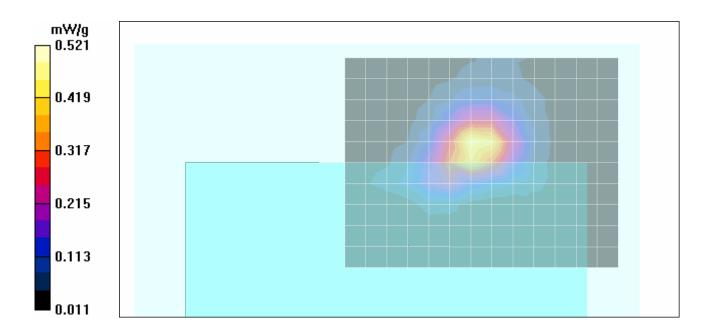
Maximum value of SAR (measured) = 0.471 mW/g

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

Reference Value = 18.0 V/m; Power Drift = 0.099 dB

Peak SAR (extrapolated) = 0.812 W/kg

SAR(1 g) = 0.485 mW/g; SAR(10 g) = 0.289 mW/gMaximum value of SAR (measured) = 0.521 mW/g





December 19, 2010

 Sep. 23 & Oct. 13, 2010
 092110Q2G-T1048a-S24M

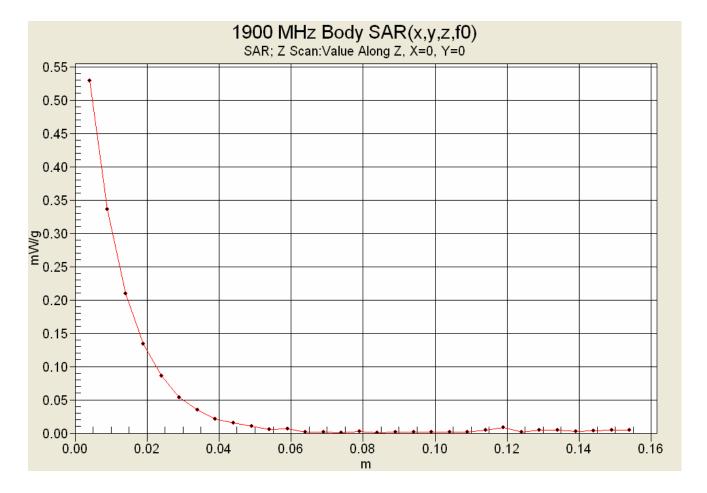
 Test Report Issue Date
 Description of Test(s)

Test Report Revision No.
Rev. 1.0 (Initial Release)

RF Exposure Category
Gen. Pop. / Uncontrolled



Z-Axis Scan



Test Report Serial No.

Specific Absorption Rate





Test Report Issue Date December 19, 2010

Test Report Serial No. 092110Q2G-T1048a-S24M

Description of Test(s)

RF Exposure Category Specific Absorption Rate Gen. Pop. / Uncontrolled

Test Report Revision No.

Rev. 1.0 (Initial Release)



APPENDIX B - SYSTEM PERFORMANCE CHECK PLOTS

Applicant:	Xploi	re Technologies Corp.	FCC ID:	Q2GGOBI2K-XPL	IC:	4596A-GOBI2KXPL		
DUT Type: Mini-PCI Express WWAN Card Model: GOBI2000 in iX104C5 Tablet PC with Pump-Up Antenna								
2010 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.								



December 19, 2010

 Sep. 23 & Oct. 13, 2010
 092110Q2G-T1048a-S24M

 Test Report Issue Date
 Description of Test(s)

Test Report Serial No.

Specific Absorption Rate

<u>Test Report Revision No.</u> Rev. 1.0 (Initial Release)

RF Exposure Category
Gen. Pop. / Uncontrolled



Date Tested: 09/23/2010

System Performance Check - 835 MHz Dipole - Body

DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d075; Calibrated: 20/04/2009

Ambient Temp: 22.0°C; Fluid Temp: 22.7°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW Forward Conducted Power: 250 mW Frequency: 835 MHz; Duty Cycle: 1:1

Medium: M835 Medium parameters used: f = 835 MHz; σ = 1.01 mho/m; ε_r = 52.5; ρ = 1000 kg/m³

- Probe: ET3DV6 SN1590; ConvF(6.33, 6.33, 6.33); Calibrated: 15/07/2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

835 MHz System Performance Check

Area Scan (6x10x1): Measurement grid: dx=10mm, dy=10mm

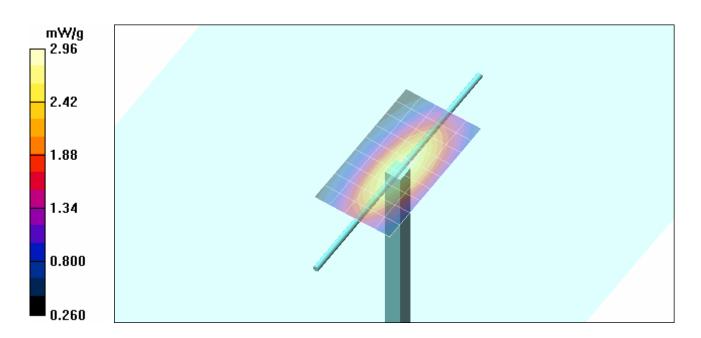
Maximum value of SAR (measured) = 2.90 mW/g

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

Reference Value = 54.5 V/m; Power Drift = -0.084 dB

Peak SAR (extrapolated) = 3.95 W/kg

SAR(1 g) = 2.72 mW/g; SAR(10 g) = 1.77 mW/g Maximum value of SAR (measured) = 2.96 mW/g





<u>Test Report Serial No.</u> 2010 092110Q2G-T1048a-S24M Test Report Revision No.
Rev. 1.0 (Initial Release)

RF Exposure Category

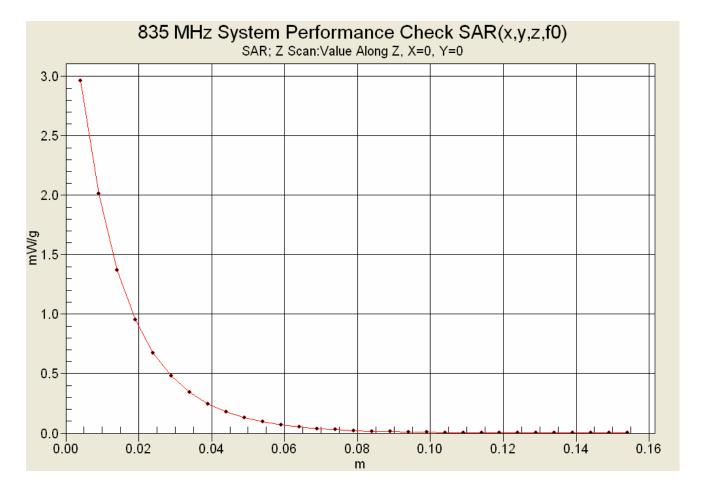
Gen. Pop. / Uncontrolled



Test Report Issue Date
December 19, 2010

<u>Description of Test(s)</u> Specific Absorption Rate

Z-Axis Scan







Sep. 23 & Oct. 13, 2010 092110Q2G-T1048a-S24M

Test Report Issue Date Description of Test(s)

December 19, 2010 Specific Absorption Rate

Test Report Serial No.

<u>Test Report Revision No.</u> Rev. 1.0 (Initial Release)

RF Exposure Category
Gen. Pop. / Uncontrolled



Date Tested: 10/13/2010

System Performance Check - 1900 MHz Dipole - Body

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d107; Calibrated: 21/04/2009

Ambient Temp: 21.0°C; Fluid Temp: 21.3°C; Barometric Pressure: 101.1 kPa; Humidity: 35%

Communication System: CW Forward Conducted Power: 250 mW Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: M1900 Medium parameters used: f = 1900 MHz; σ = 1.47 mho/m; ϵ_r = 51.8; ρ = 1000 kg/m³

- Probe: EX3DV4 SN3600; ConvF(6.53, 6.53, 6.53); Calibrated: 29/04/2010
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 27/04/2010
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

1900 MHz System Performance Check

Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

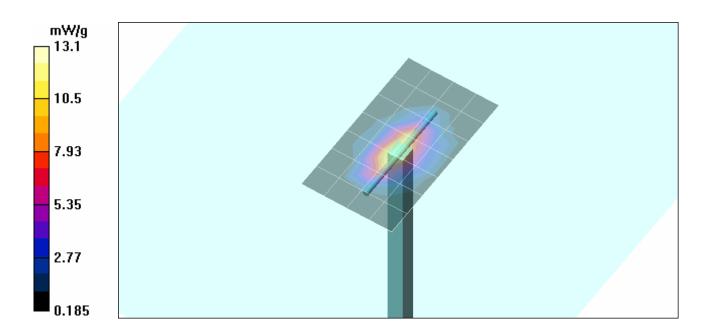
Maximum value of SAR (measured) = 12.2 mW/g

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

Reference Value = 84.9 V/m; Power Drift = -0.082 dB

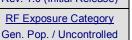
Peak SAR (extrapolated) = 19.6 W/kg

SAR(1 g) = 10.2 mW/g; SAR(10 g) = 5.16 mW/gMaximum value of SAR (measured) = 13.1 mW/g





Test Report Serial No. 092110Q2G-T1048a-S24M Test Report Revision No. Rev. 1.0 (Initial Release)

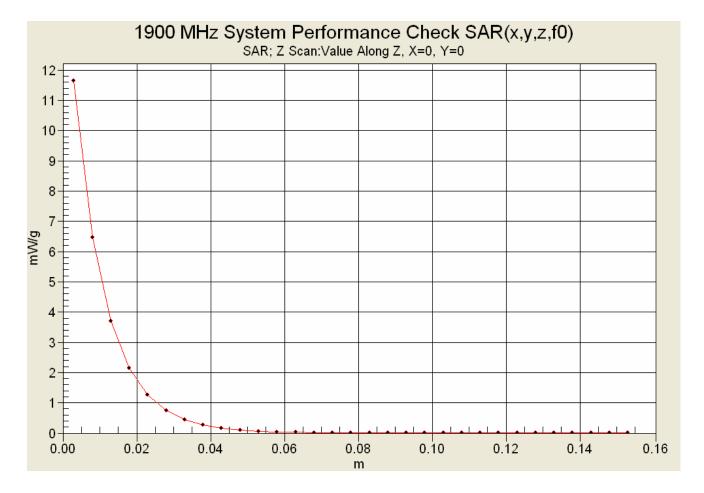


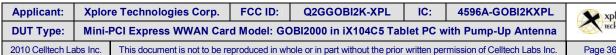


Test Report Issue Date December 19, 2010

Description of Test(s) Specific Absorption Rate

Z-Axis Scan









Test Report Issue Date December 19, 2010

Test Report Serial No. 092110Q2G-T1048a-S24M

Description of Test(s)

RF Exposure Category Specific Absorption Rate Gen. Pop. / Uncontrolled

Test Report Revision No.

Rev. 1.0 (Initial Release)



APPENDIX C - MEASURED FLUID DIELECTRIC PARAMETERS

Applicant:	Xplor	re Technologies Corp.	FCC ID:	Q2GGOBI2K-XPL	IC:	4596A-GOBI2KXPL		
DUT Type:	Mini-	Mini-PCI Express WWAN Card Model: GOBI2000 in iX104C5 Tablet PC with Pump-Up Antenna						
2010 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.								



<u>Test Report Issue Date</u> December 19, 2010 092110Q2G-T1048a-S24M

Description of Test(s)

Specific Absorption Rate

Test Report Serial No.

<u>Test Report Revision No.</u> Rev. 1.0 (Initial Release)

RF Exposure Category
Gen. Pop. / Uncontrolled



835 MHz (Body)

Celltech Labs Inc.
Test Result for UIM Dielectric Parameter
23/Sept/2010

Frequency (GHz)
FCC_eB FCC Limits for Body Epsilon
FCC_sB FCC Limits for Body Sigma

Test_e Epsilon of UIM
Test_s Sigma of UIM

*********	**********	******	******	******
Freq	FCC_eB	FCC_sE	3 Test_e	Test_s
0.7350	55.59	0.96	53.62	0.91
0.7450	55.55	0.96	53.30	0.91
0.7550	55.51	0.96	53.16	0.92
0.7650	55.47	0.96	53.20	0.94
0.7750	55.43	0.97	53.12	0.94
0.7850	55.39	0.97	52.97	0.97
0.7950	55.36	0.97	52.72	0.98
0.8050	55.32	0.97	53.29	0.98
0.8150	55.28	0.97	52.73	0.99
0.8250	55.24	0.97	52.49	1.00
0.8350	55.20	0.97	52.51	1.01
0.8450	55.17	0.98	52.48	1.00
0.8550	55.14	0.99	52.50	1.01
0.8650	55.11	1.01	52.25	1.03
0.8750	55.08	1.02	52.42	1.05
0.8850	55.05	1.03	52.50	1.07
0.8950	55.02	1.04	52.43	1.07
0.9050	55.00	1.05	52.39	1.07
0.9150	55.00	1.06	52.30	1.09
0.9250	54.98	1.06	51.80	1.10
0.9350	54.96	1.07	51.66	1.12







<u>Test Report Issue Date</u> December 19, 2010 <u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

Description of Test(s)

Specific Absorption Rate

RF Exposure Category
Gen. Pop. / Uncontrolled

Test Report Revision No.

Rev. 1.0 (Initial Release)



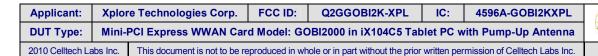
1900 MHz (Body)

Celltech Labs Inc.
Test Result for UIM Dielectric Parameter
13/Oct/2010
Frequency (GHz)

FCC_eB FCC Limits for Body Epsilon FCC_sB FCC Limits for Body Sigma Test e Epsilon of UIM

Test_e Epsilon of UIM Test_s Sigma of UIM

*******	*****	******	******	******
Freq	FCC_eB	FCC_sE	3 Test_e	Test_s
1.8000	53.30	1.52	51.95	1.38
1.8100	53.30	1.52	52.02	1.40
1.8200	53.30	1.52	51.87	1.40
1.8300	53.30	1.52	51.64	1.40
1.8400	53.30	1.52	51.87	1.42
1.8500	53.30	1.52	51.82	1.44
1.8600	53.30	1.52	51.78	1.45
1.8700	53.30	1.52	51.77	1.47
1.8800	53.30	1.52	51.79	1.47
1.8900	53.30	1.52	51.79	1.48
1.9000	53.30	1.52	51.50	1.48
1.9100	53.30	1.52	51.45	1.51
1.9200	53.30	1.52	51.74	1.51
1.9300	53.30	1.52	51.71	1.53
1.9400	53.30	1.52	51.55	1.55
1.9500	53.30	1.52	51.77	1.54
1.9600	53.30	1.52	51.45	1.55
1.9700	53.30	1.52	51.63	1.59
1.9800	53.30	1.52	51.58	1.60
1.9900	53.30	1.52	51.60	1.61
2.0000	53.30	1.52	51.78	1.63







Dat	te(s)	of Ev	alua	ation
Sep.	23 &	Oct.	13,	2010

Test Report Issue Date
December 19, 2010

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

<u>Description of Test(s)</u> Specific Absorption Rate

<u>Test Report Revision No.</u> Rev. 1.0 (Initial Release)

RF Exposure Category
Gen. Pop. / Uncontrolled



xplore rechnologies.

Page 40 of 56

APPENDIX D - SAR TEST SETUP PHOTOGRAPHS

Applicant:	Xploi	re Technologies Corp.	FCC ID:	Q2GGOBI2K-XPL	IC:	4596A-GOBI2KXPL		
DUT Type:	Mini-PCI Express WWAN Card Model: GOBI2000 in iX104C5 Tablet PC with Pump-Up Antenna							
2010 Calltach Labe Inc. This document is not to be reproduced in whole or in part without the prior written permission of Calltach Labe Inc.								



Test Report Issue Date
December 19, 2010

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

Description of Test(s)

Specific Absorption Rate

RF Exposure Category
Gen. Pop. / Uncontrolled

Test Report Revision No.

Rev. 1.0 (Initial Release)



BODY (LAP-HELD) SAR TEST SETUP PHOTOGRAPHS

Bottom Side of Tablet PC Touching Planar Phantom









Test Report Issue Date
December 19, 2010

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

<u>Description of Test(s)</u> Specific Absorption Rate

<u>Test Report Revision No.</u> Rev. 1.0 (Initial Release)

RF Exposure Category
Gen. Pop. / Uncontrolled



APPENDIX E - SAR DUT PHOTOGRAPHS



Test Report Issue Date
December 19, 2010

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

Description of Test(s)

Specific Absorption Rate

RF Exposure Category
Gen. Pop. / Uncontrolled

Test Report Revision No.

Rev. 1.0 (Initial Release)



WWAN Transmit Antenna Housing (Pumped-Up)



Applicant:	Xplor	plore Technologies Corp. FCC ID: Q2GGOBI2K-XPL IC:				4596A-GOBI2KXPL	xplore rechnologies.
DUT Type:	ype: Mini-PCI Express WWAN Card Model: GOBI2000 in iX104C5 Tablet PC with Pump-Up Antenna						
2010 Celltech La	10 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.						



Test Report Issue Date
December 19, 2010

092110Q2G-T1048a-S24M

Description of Test(s)

Specific Absorption Rate

Test Report Serial No.

<u>Test Report Revision No.</u> Rev. 1.0 (Initial Release)

RF Exposure Category
Gen. Pop. / Uncontrolled







WWAN Transmit Antenna Housing (Pumped-Up)

Applicant:	Xploi	re Technologies Corp.	FCC ID:	Q2GGOBI2K-XPL	IC:	4596A-GOBI2KXPL	xplore rechnologies.	
DUT Type:	Mini-	Mini-PCI Express WWAN Card Model: GOBI2000 in iX104C5 Tablet PC with Pump-Up Antenna						
2010 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.					Page 44 of 56			

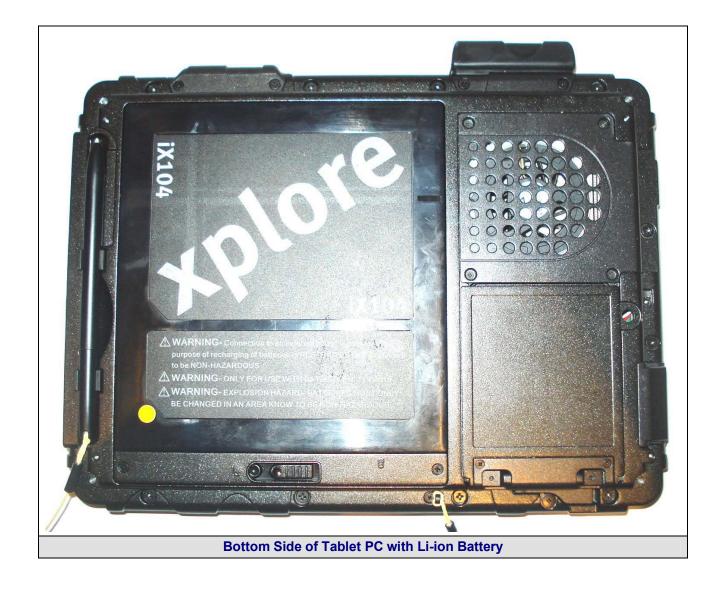


Test Report Issue Date
December 19, 2010

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

<u>Description of Test(s)</u> Specific Absorption Rate <u>Test Report Revision No.</u> Rev. 1.0 (Initial Release)





Applicant:	Xploi	Xplore Technologies Corp. FCC ID: Q2GGOBI2K-XPL IC: 4596A-GOBI2KXP					xplore	
DUT Type:	Mini-	Mini-PCI Express WWAN Card Model: GOBI2000 in iX104C5 Tablet PC with Pump-Up Antenna						
2010 Celltech La	tech Labs Inc. This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.						Page 45 of 56	



Test Report Issue Date

Test Report Serial No. 092110Q2G-T1048a-S24M

RF Exposure Category

Test Report Revision No.

Rev. 1.0 (Initial Release)



Description of Test(s) December 19, 2010 Specific Absorption Rate

Gen. Pop. / Uncontrolled



Bottom Side of Tablet PC with Li-ion Battery Removed



Test Report Issue Date

Test Report Serial No. 092110Q2G-T1048a-S24M

Rev. 1.0 (Initial Release) RF Exposure Category Gen. Pop. / Uncontrolled

Test Report Revision No.



Description of Test(s) December 19, 2010 Specific Absorption Rate



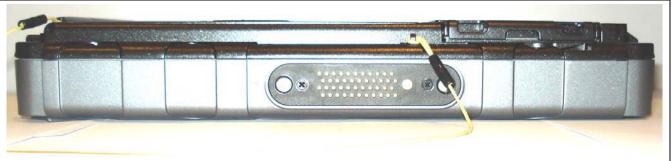
Right Edge of Tablet PC



Left Edge of Tablet PC



Top Edge of Tablet PC



Bottom Edge of Tablet PC



Test Report Issue Date
December 19, 2010

<u>Description of Test(s)</u> Specific Absorption Rate

Test Report Serial No.

092110Q2G-T1048a-S24M

<u>Test Report Revision No.</u> Rev. 1.0 (Initial Release)







Front Side of Li-ion Battery

Back Side of Li-ion Battery



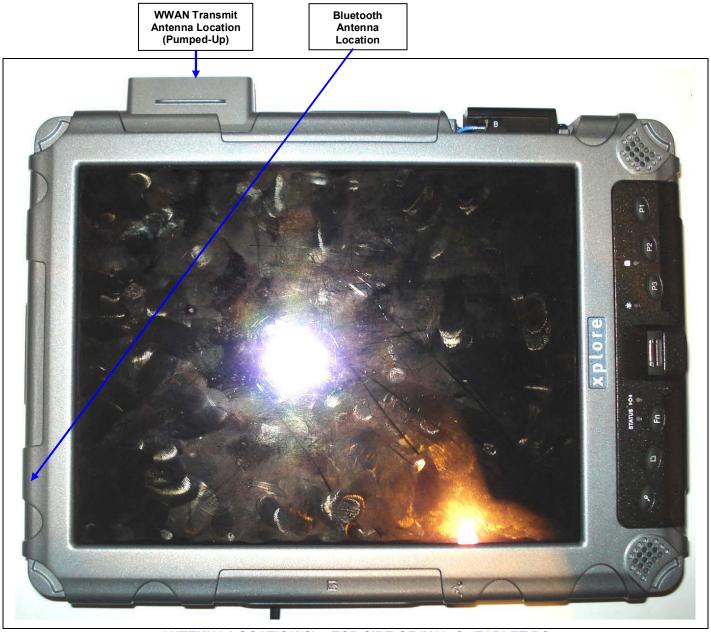
Sep. 23 & Oct. 13, 201

Test Report Issue Date
December 19, 2010

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

<u>Description of Test(s)</u> Specific Absorption Rate <u>Test Report Revision No.</u> Rev. 1.0 (Initial Release)





ANTENNA LOCATION(S) - TOP SIDE OF iX104C5 TABLET PC



Test Report Issue Date
December 19, 2010

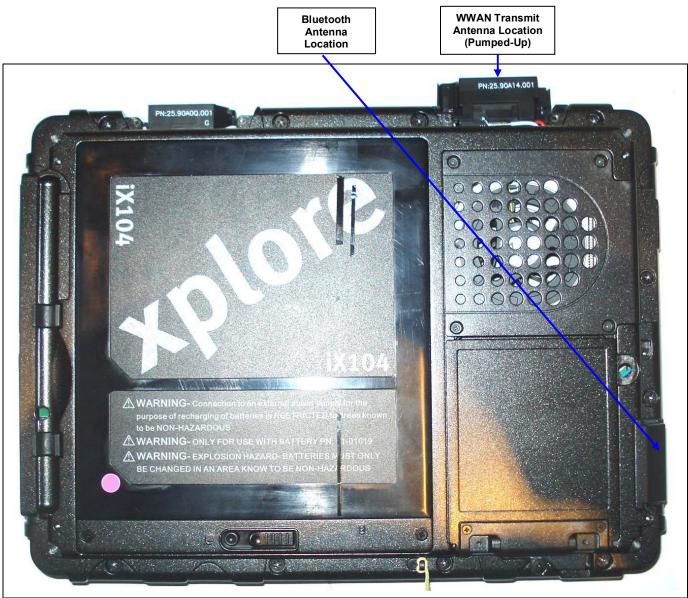
<u>Description of Test(s)</u> Specific Absorption Rate

Test Report Serial No.

092110Q2G-T1048a-S24M

<u>Test Report Revision No.</u> Rev. 1.0 (Initial Release)





ANTENNA LOCATION(S) - BOTTOM SIDE OF iX104C5 TABLET PC

Applicant:	Xplor	re Technologies Corp.	FCC ID:	Q2GGOBI2K-XPL	IC:	4596A-GOBI2KXPL	X xplore		
DUT Type:	Mini-l	Mini-PCI Express WWAN Card Model: GOBI2000 in iX104C5 Tablet PC with Pump-Up Antenna							
2010 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.							Page 50 of 56		



Test Report Issue Date
December 19, 2010

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

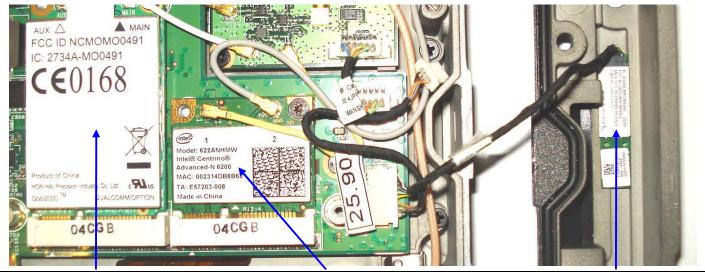
<u>Description of Test(s)</u> Specific Absorption Rate <u>Test Report Revision No.</u> Rev. 1.0 (Initial Release)

RF Exposure Category
Gen. Pop. / Uncontrolled



Bottom Side view inside Tablet PC





GOBI2000 WWAN Module

622ANHMW WLAN Mini-PCI Express Module

Broadcom BCM92070MD_REF Bluetooth Module

Applicant:	Xplore Technologies Corp.		FCC ID:	Q2GGOBI2K-XPL	IC:	4596A-GOBI2KXPL	X xplore	
DUT Type:	Mini-	Mini-PCI Express WWAN Card Model: GOBI2000 in iX104C5 Tablet PC with Pump-Up Antenna						
2010 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.						Page 51 of 56		



Test Report Issue Date
December 19, 2010

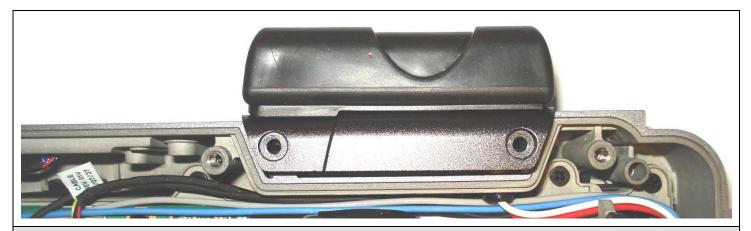
<u>Description of Test(s)</u> Specific Absorption Rate

Test Report Serial No.

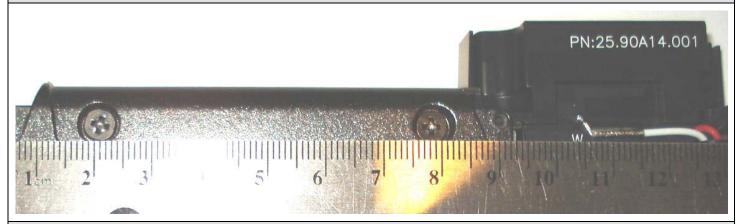
092110Q2G-T1048a-S24M

<u>Test Report Revision No.</u> Rev. 1.0 (Initial Release)









WWAN TRANSMIT ANTENNA ("PUMP-UP")



BROADCOM BCM92070MD_REF BLUETOOTH MODULE

Applicant:	Xploi	plore Technologies Corp. FCC ID: Q2GGOBI2K-XPL IC: 4596A-GOBI2KXPL					X xplore	
DUT Type:	Mini-	ini-PCI Express WWAN Card Model: GOBI2000 in iX104C5 Tablet PC with Pump-Up Antenna						
2010 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc.							Page 52 of 56	



Test Report Serial No. 092110Q2G-T1048a-S24M

RF Exposure Category



Test Report Issue Date December 19, 2010

Description of Test(s) Specific Absorption Rate

Gen. Pop. / Uncontrolled

Test Report Revision No.

Rev. 1.0 (Initial Release)





GOBI2000 WWAN Mini-PCI Express Card



Dat	te(s)	of Ev	alua	tion
Sep.	23 &	Oct.	13,	2010

Test Report Issue Date
December 19, 2010

<u>Test Report Serial No.</u> 092110Q2G-T1048a-S24M

<u>Description of Test(s)</u> Specific Absorption Rate <u>Test Report Revision No.</u> Rev. 1.0 (Initial Release)





Gen. Pop. / Uncontrolled Test Lab Certificate No. 2470.01

APPENDIX H - BARSKI PLANAR PHANTOM CERTIFICATE OF CONFORMITY

2378 Westlake Road Kelowna, B.C. Canada V1Z-2V2



Ph. # 250-769-6848 Fax # 250-769-6334

E-mail: <u>barskiind@shaw.ca</u>
Web: www.bcfiberglass.com

FIBERGLASS FABRICATORS

Certificate of Conformity

Item: Flat Planar Phantom Unit # 03-01

Date: June 16, 2003

Manufacturer: Barski Industries (1985 Ltd)

Test	Requirement	Details
Shape	Compliance to geometry according to drawing	Supplied CAD drawing
Material Thickness	Compliant with the requirements	2mm +/- 0.2mm in measurement area
Material Parameters	Dielectric parameters for required frequencies Based on Dow Chemical technical data	100 MHz-5 GHz Relative permittivity<5 Loss Tangent<0.05

Conformity

Based on the above information, we certify this product to be compliant to the requirements specified.

Signature:

Daniel Chailler





Fiberglass Planar Phantom - Top View



Fiberglass Planar Phantom - Front View



Fiberglass Planar Phantom - Back View

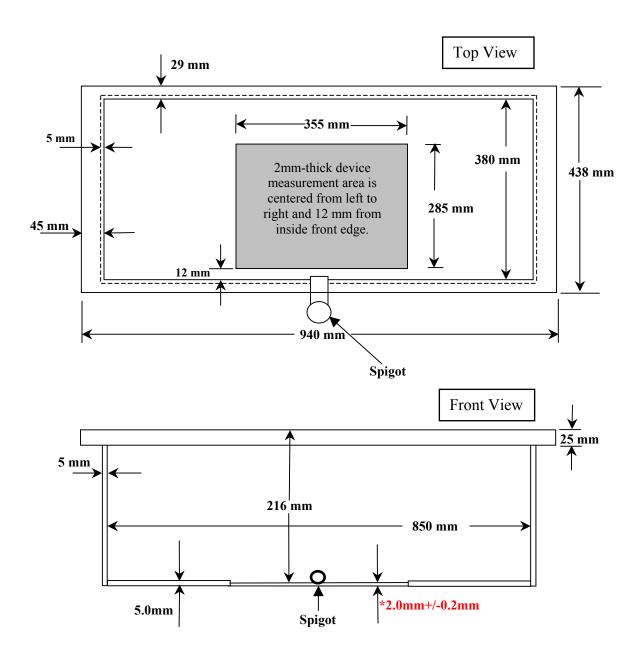


Fiberglass Planar Phantom - Bottom View



Dimensions of Fiberglass Planar Phantom

(Manufactured by Barski Industries Ltd. - Unit# 03-01)



Note: Measurements that aren't repeated for the opposite sides are the same as the side measured.

This drawing is not to scale.