

APPENDIX D - SAR TEST SETUP & DUT PHOTOGRAPHS

Figure	FACE			
1				
DUT	Antenna	Battery	Body Accessory	Audio Accessory
STP-9080	300-00498	300-00365	n/a	n/a
DUT	Separation Distance to Phantom			Antenna
25mm				35mm

Set-Up



DUT



Figure	FACE			
2				
DUT	Antenna	Battery	Body Accessory	Audio Accessory
STP-9180	300-00498	300-00365	n/a	n/a
DUT	Separation Distance to Phantom			Antenna
25mm				35mm

Set-Up



DUT



Figure	FACE			
3				
DUT	Antenna	Battery	Body Accessory	Audio Accessory
STP-9280	300-00498	300-00365	n/a	n/a
DUT	Separation Distance to Phantom			Antenna
25mm				35mm

Set-Up



DUT



Figure	FACE			
4				
DUT	Antenna	Battery	Body Accessory	Audio Accessory
STP-9280	300-00498	300-00365	n/a	300-00388
DUT	Separation Distance to Phantom			Antenna
25mm				35mm

Set-Up



DUT



Figure	BODY			
5				
DUT	Antenna	Battery	Body Accessory	Audio Accessory
STP-9080	300-00498	300-00364	300-00442	n/a
DUT	Separation Distance to Phantom			Antenna
15mm				35mm

Set-Up



DUT



Figure	BODY			
6				
DUT	Antenna	Battery	Body Accessory	Audio Accessory
STP-9080	300-00498	300-00365	300-00442	n/a
DUT	Separation Distance to Phantom			Antenna
15mm				35mm

Set-Up



DUT



Figure	BODY			
7				
DUT	Antenna	Battery	Body Accessory	Audio Accessory
STP-9080	300-00498	300-00364	300-00440	n/a
DUT	Separation Distance to Phantom			Antenna
15mm				35mm

Set-Up



DUT



Figure	BODY			
8				
DUT	Antenna	Battery	Body Accessory	Audio Accessory
STP-9080	300-00498	300-00365	300-00440	n/a
DUT	Separation Distance to Phantom			Antenna
20mm				40mm

Set-Up



DUT



Figure	BODY			
9				
DUT	Antenna	Battery	Body Accessory	Audio Accessory
STP-9080	300-00498	300-00364	300-00233	n/a
DUT	Separation Distance to Phantom			Antenna
15mm				35mm

Set-Up

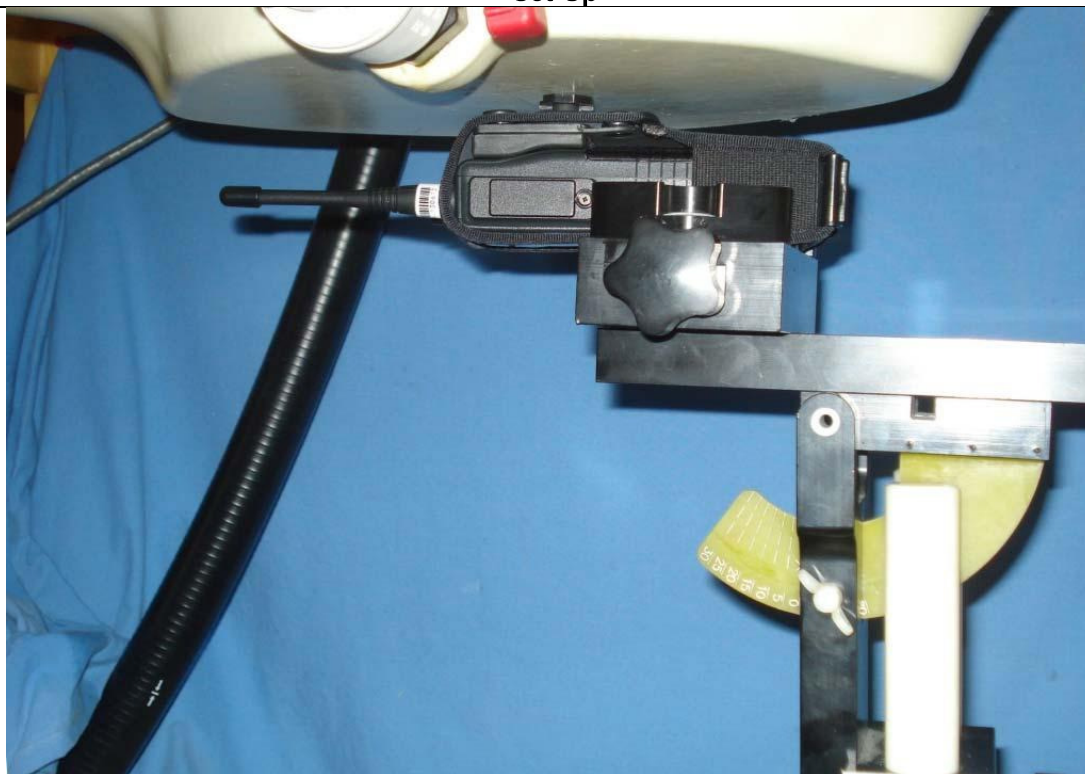


DUT



Figure	BODY			
10				
DUT	Antenna	Battery	Body Accessory	Audio Accessory
STP-9080	300-00498	300-00364	300-00439	n/a
DUT	Separation Distance to Phantom			Antenna
20mm				40mm

Set-Up



DUT



Figure	BODY			
11				
DUT	Antenna	Battery	Body Accessory	Audio Accessory
STP-9180	300-00498	300-00364	300-00233	n/a
DUT	Separation Distance to Phantom			Antenna
15mm				35mm

Set-Up



DUT



Figure	BODY			
12				
DUT	Antenna	Battery	Body Accessory	Audio Accessory
STP-9280	300-00498	300-00364	300-00233	n/a
DUT	Separation Distance to Phantom			Antenna
15mm				35mm

Set-Up



DUT



Figure	BODY			
13				
DUT	Antenna	Battery	Body Accessory	Audio Accessory
STP-9080	300-00498	300-00364	300-00233	300-00388
DUT	Separation Distance to Phantom			Antenna
15mm				35mm

Set-Up

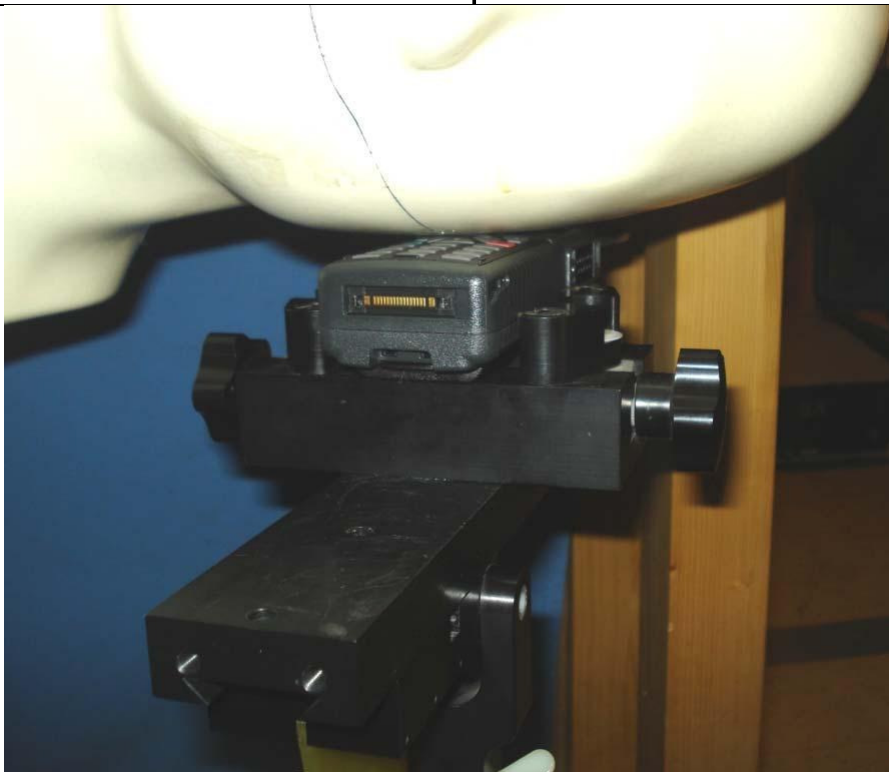


DUT



Figure	HEAD – Left Touch			
14				
DUT	Antenna	Battery	Body Accessory	Audio Accessory
STP-9080	300-00498	300-00364	n/a	n/a
DUT	Separation Distance to Phantom			Antenna
n/a				n/a

Set-Up



DUT



Figure	HEAD – Left Tilt			
15				
DUT	Antenna	Battery	Body Accessory	Audio Accessory
STP-9080	300-00498	300-00364	n/a	n/a
DUT	Separation Distance to Phantom			Antenna
n/a				n/a

Set-Up



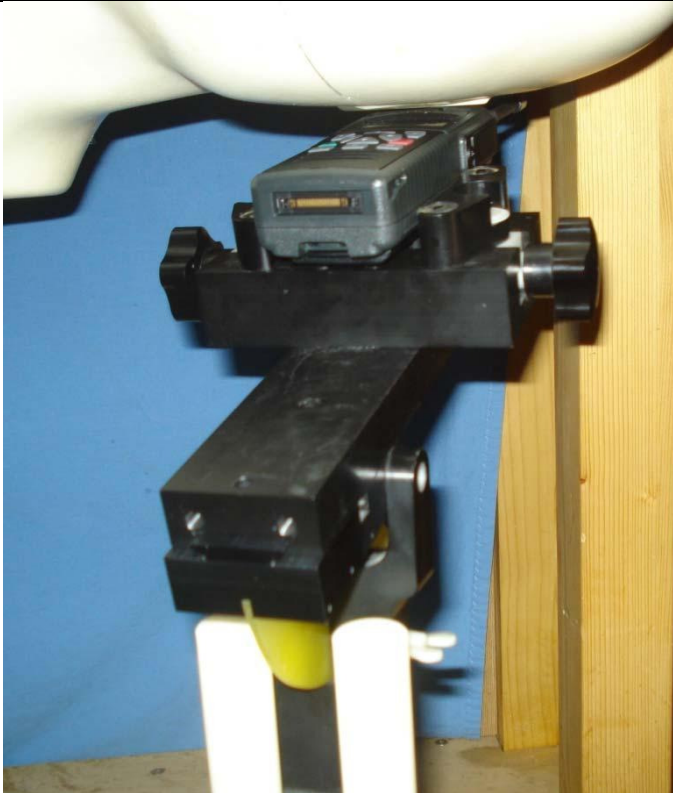
DUT



Figure	HEAD – Left Tilt			
16				
DUT	Antenna	Battery	Body Accessory	Audio Accessory
STP-9180	300-00498	300-00364	n/a	n/a
DUT	Separation Distance to Phantom			Antenna
n/a				n/a
Set-Up				
				
DUT				
				

Figure		HEAD – Left Tilt		
17				
DUT	Antenna	Battery	Body Accessory	Audio Accessory
STP-9280	300-00498	300-00364	n/a	n/a
DUT	Separation Distance to Phantom			Antenna
n/a				n/a

Set-Up



DUT



Figure	HEAD – Right Touch			
18				
DUT	Antenna	Battery	Body Accessory	Audio Accessory
STP-9080	300-00498	300-00364	n/a	n/a
DUT	Separation Distance to Phantom			Antenna
n/a				n/a

Set-Up



DUT



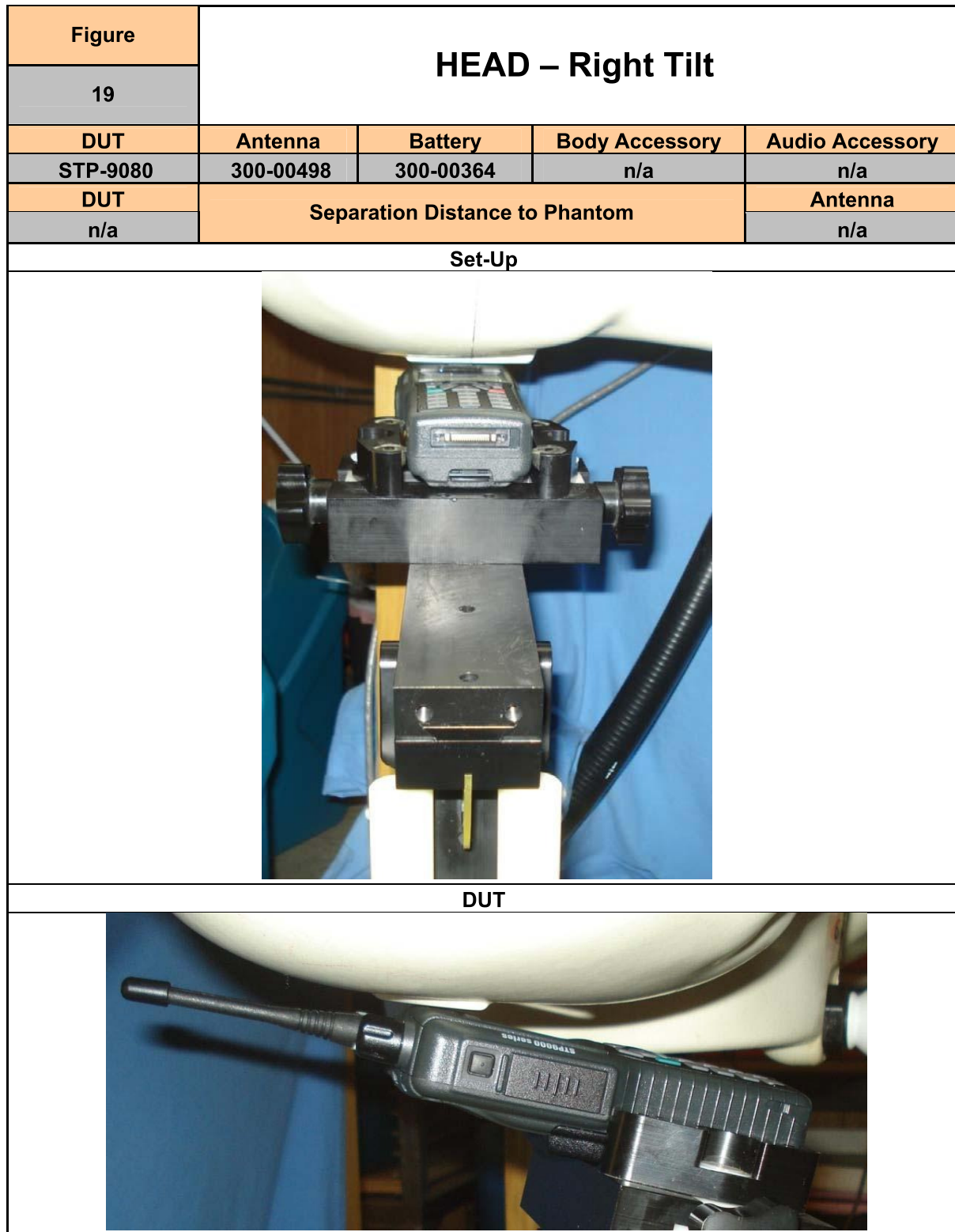


Figure	HEAD – Right Touch			
20				
DUT	Antenna	Battery	Body Accessory	Audio Accessory
STP-9180	300-00498	300-00364	n/a	n/a
DUT	Separation Distance to Phantom			Antenna
n/a				n/a

Set-Up



DUT



Figure	HEAD – Right Touch			
21				
DUT	Antenna	Battery	Body Accessory	Audio Accessory
STP-9280	300-00498	300-00364	n/a	n/a
DUT	Separation Distance to Phantom			Antenna
n/a				n/a

Set-Up



DUT



	Date(s) of Evaluation Aug 11-18, 2014	Test Report Serial No. 082114XX6-1306S	Test Report Revision No. Rev. 1.2	
	Test Report Issue Date September 4, 2014	Description of Test(s) Specific Absorption Rate	RF Exposure Category Occupational/Controlled	

Figure	STP-9080			
22				
Front		Back	Left	Right
w/ 300-00498 Antenna		w/ 300-00498 Antenna	w/ 300-00498 Antenna	w/ 300-00498 Antenna
				
Top			Bottom	
w/o Antenna				
				

Applicant:	Sepura plc	FCC ID:	XX6STP9080 XX6STP9280	IC:	8739A-STP9080 8739A-STP9280	 Design for life. Invest in communication.
DUT Type:	Portable TETRA Radio Transceiver		DUT:	STP-9080, STP-9280		
2014 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 90 of 105

	<u>Date(s) of Evaluation</u> Aug 11-18, 2014	<u>Test Report Serial No.</u> 082114XX6-1306S	<u>Test Report Revision No.</u> Rev. 1.2	
	<u>Test Report Issue Date</u> September 4, 2014	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational/Controlled	

Test Lab Certificate No. 2470.01

Figure	STP-9080						
23							
Back		Side		Back		Side	
w/ 300-00364 Battery		w/ 300-00364 Battery		w/ 300-00365 Battery		w/ 300-00365 Battery	
							

Applicant:	Sepura plc	FCC ID:	XX6STP9080 XX6STP9280	IC:	8739A-STP9080 8739A-STP9280	
DUT Type:	Portable TETRA Radio Transceiver		DUT:	STP-9080, STP-9280		
2014 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 91 of 105

	Date(s) of Evaluation Aug 11-18, 2014	Test Report Serial No. 082114XX6-1306S	Test Report Revision No. Rev. 1.2	
	Test Report Issue Date September 4, 2014	Description of Test(s) Specific Absorption Rate	RF Exposure Category Occupational/Controlled	

Test Lab Certificate No. 2470.01

Figure	STP-9180			
24				
Front	Back	Left	Right	
w/ 300-00498 Antenna	w/ 300-00498 Antenna	w/ 300-00498 Antenna	w/ 300-00498 Antenna	
				
Top		Bottom		
w/o Antenna				
				

Applicant:	Sepura plc	FCC ID:	XX6STP9080 XX6STP9280	IC:	8739A-STP9080 8739A-STP9280	 Building better workday communications
DUT Type:	Portable TETRA Radio Transceiver		DUT:	STP-9080, STP-9280		
2014 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 92 of 105

	<u>Date(s) of Evaluation</u> Aug 11-18, 2014	<u>Test Report Serial No.</u> 082114XX6-1306S	<u>Test Report Revision No.</u> Rev. 1.2	
	<u>Test Report Issue Date</u> September 4, 2014	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational/Controlled	

Test Lab Certificate No. 2470.01

Figure	STP-9280			
25				
Front	Back	Left	Right	
w/ 300-00498 Antenna	w/ 300-00498 Antenna	w/ 300-00498 Antenna	w/ 300-00498 Antenna	
				
Top		Bottom		
w/o Antenna				
				

Applicant:	Sepura plc	FCC ID:	XX6STP9080 XX6STP9280	IC:	8739A-STP9080 8739A-STP9280	 Enabling better mobile communications
DUT Type:	Portable TETRA Radio Transceiver		DUT:	STP-9080, STP-9280		
2014 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 93 of 105

	<u>Date(s) of Evaluation</u> Aug 11-18, 2014	<u>Test Report Serial No.</u> 082114XX6-1306S	<u>Test Report Revision No.</u> Rev. 1.2	
	<u>Test Report Issue Date</u> September 4, 2014	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational/Controlled	
Test Lab Certificate No. 2470.01				



Applicant:	Sepura plc	FCC ID:	XX6STP9080 XX6STP9280	IC:	8739A-STP9080 8739A-STP9280	
DUT Type:	Portable TETRA Radio Transceiver		DUT:	STP-9080, STP-9280		
2014 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 94 of 105

	Date(s) of Evaluation Aug 11-18, 2014	Test Report Serial No. 082114XX6-1306S	Test Report Revision No. Rev. 1.2	
	Test Report Issue Date September 4, 2014	Description of Test(s) Specific Absorption Rate	RF Exposure Category Occupational/Controlled	

Test Lab Certificate No. 2470.01



Applicant:	Sepura plc	FCC ID:	XX6STP9080 XX6STP9280	IC:	8739A-STP9080 8739A-STP9280	
DUT Type:	Portable TETRA Radio Transceiver		DUT:	STP-9080, STP-9280		
2014 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 95 of 105

	<u>Date(s) of Evaluation</u> Aug 11-18, 2014	<u>Test Report Serial No.</u> 082114XX6-1306S	<u>Test Report Revision No.</u> Rev. 1.2	
	<u>Test Report Issue Date</u> September 4, 2014	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational/Controlled	

Test Lab Certificate No. 2470.01



Applicant:	Sepura plc	FCC ID:	XX6STP9080 XX6STP9280	IC:	8739A-STP9080 8739A-STP9280	 doing better mobile communications
DUT Type:	Portable TETRA Radio Transceiver		DUT:	STP-9080, STP-9280		
2014 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 96 of 105

	<u>Date(s) of Evaluation</u> Aug 11-18, 2014	<u>Test Report Serial No.</u> 082114XX6-1306S	<u>Test Report Revision No.</u> Rev. 1.2	
	<u>Test Report Issue Date</u> September 4, 2014	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational/Controlled	

Test Lab Certificate No. 2470.01

Figure	300-00440 Soft Leather Case	
29		
Front		
		
Back		
		
Side		
		

Applicant:	Sepura plc	FCC ID:	XX6STP9080 XX6STP9280	IC:	8739A-STP9080 8739A-STP9280	 doing better mobile communications
DUT Type:	Portable TETRA Radio Transceiver		DUT:	STP-9080, STP-9280		
2014 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 97 of 105

	<u>Date(s) of Evaluation</u> Aug 11-18, 2014	<u>Test Report Serial No.</u> 082114XX6-1306S	<u>Test Report Revision No.</u> Rev. 1.2	
	<u>Test Report Issue Date</u> September 4, 2014	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational/Controlled	

Test Lab Certificate No. 2470.01

Figure	300-00440 Soft Leather Case	
30		
Front		
		
Back		
		
Side		
		

Applicant:	Sepura plc	FCC ID:	XX6STP9080 XX6STP9280	IC:	8739A-STP9080 8739A-STP9280	
DUT Type:	Portable TETRA Radio Transceiver		DUT:	STP-9080, STP-9280		
2014 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 98 of 105

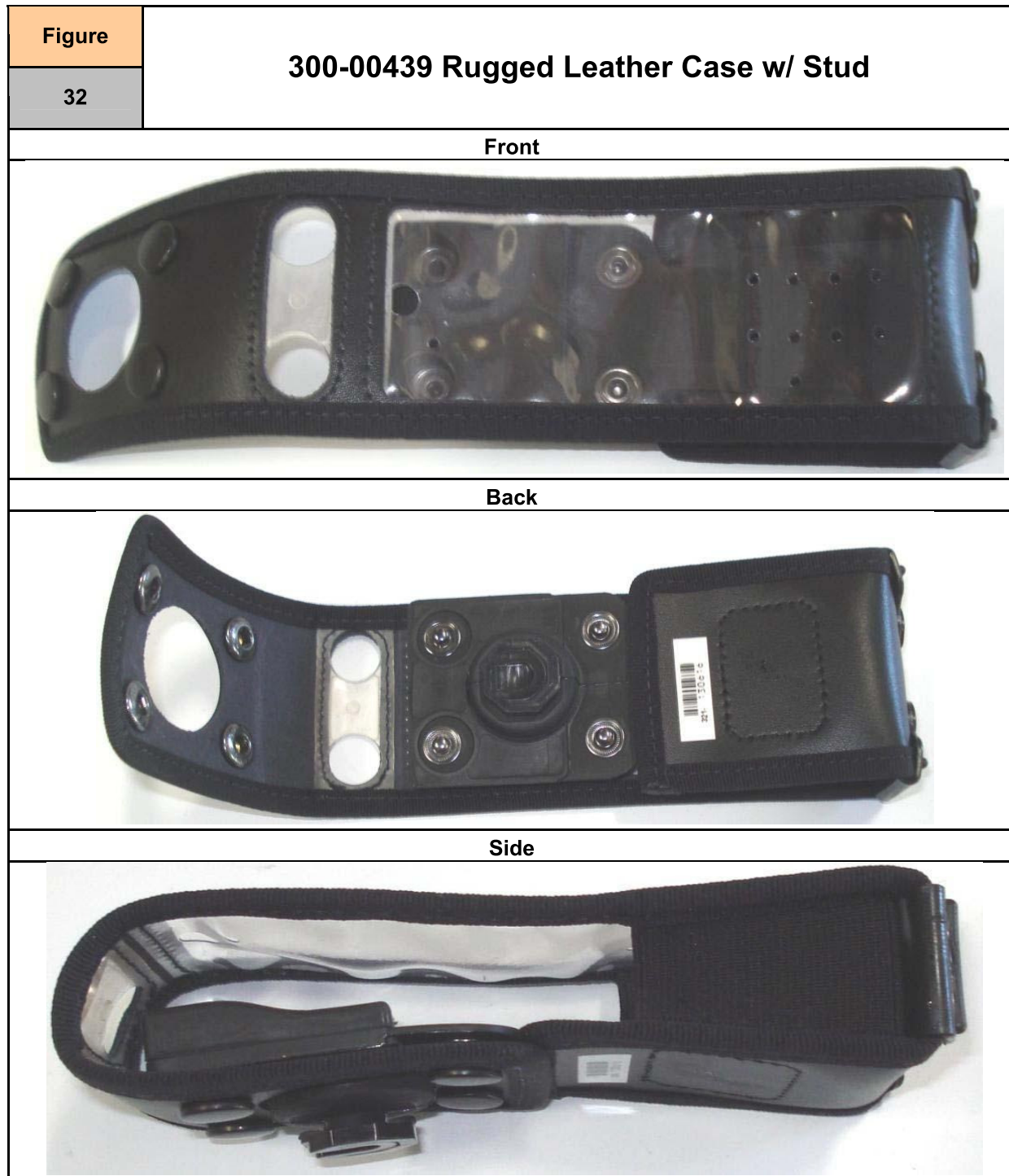
 Celltech Testing and Engineering Services Lab	<u>Date(s) of Evaluation</u> Aug 11-18, 2014	<u>Test Report Serial No.</u> 082114XX6-1306S	<u>Test Report Revision No.</u> Rev. 1.2	 Test Lab Certificate No. 2470.01
	<u>Test Report Issue Date</u> September 4, 2014	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational/Controlled	



Applicant:	Seapura plc	FCC ID:	XX6STP9080 XX6STP9280	IC:	8739A-STP9080 8739A-STP9280	 Being serious in critical communication
DUT Type:	Portable TETRA Radio Transceiver		DUT:	STP-9080, STP-9280		
2014 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 99 of 105

	<u>Date(s) of Evaluation</u> Aug 11-18, 2014	<u>Test Report Serial No.</u> 082114XX6-1306S	<u>Test Report Revision No.</u> Rev. 1.2	
	<u>Test Report Issue Date</u> September 4, 2014	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational/Controlled	

Test Lab Certificate No. 2470.01



Applicant:	Sepura plc	FCC ID:	XX6STP9080 XX6STP9280	IC:	8739A-STP9080 8739A-STP9280	 Doing better local communications
DUT Type:	Portable TETRA Radio Transceiver		DUT:	STP-9080, STP-9280		
2014 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 100 of 105





	<u>Date(s) of Evaluation</u> Aug 11-18, 2014	<u>Test Report Serial No.</u> 082114XX6-1306S	<u>Test Report Revision No.</u> Rev. 1.2	
	<u>Test Report Issue Date</u> September 4, 2014	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> Occupational/Controlled	

Test Lab Certificate No. 2470.01

APPENDIX E - DIPOLE CALIBRATION

Applicant:	Sepura plc	FCC ID:	XX6STP9080 XX6STP9280	IC:	8739A-STP9080 8739A-STP9280	
DUT Type:	Portable TETRA Radio Transceiver		DUT:	STP-9080, STP-9280		
2014 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 103 of 105

	<u>Date:</u> Aug 19, 2013	<u>Revision No.</u> Rev. 1.1	 Test Lab Certificate No. 2470.01
	835 MHz Dipole Extended Calibration		

Dipole: D835V2
Serial Number: 4d075
Last Calibrated: Apr. 20, 2012

Antenna Parameters with Head TSL						
	Impedance Real (ohms)	Deviation from cal	Impedance Imaginary (ohms)	Deviation from cal	Return Loss (dB)	Deviation from Cal
Last Calibration	51.4	-	-4.6	-	-26.5	-
Extended Cal Aug 14, 2013	50.9	0.5	-3.6	1.0	-28.4	7.2%

Antenna Parameters with Body TSL						
	Impedance Real (ohms)	Deviation from cal (ohms)	Impedance Imaginary (ohms)	Deviation from cal (ohms)	Return Loss (dB)	Deviation from Cal (%)
Last Calibration	46.8	-	-6.2	-	-22.8	-
Extended Cal Aug. 19, 2013	45.9	0.9	-6.3	0.1	-22.2	2.6%



Accredited by the Swiss Accreditation Service (SAS)
 The Swiss Accreditation Service is one of the signatories to the EA
 Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client **Celltech**

Certificate No: **D835V2-4d075_Apr12**

CALIBRATION CERTIFICATE

Object **D835V2 - SN: 4d075**

Calibration procedure(s) **QA CAL-05.v8**
Calibration procedure for dipole validation kits above 700 MHz

Calibration date: **April 20, 2012**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
 The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	05-Oct-11 (No. 217-01451)	Oct-12
Power sensor HP 8481A	US37292783	05-Oct-11 (No. 217-01451)	Oct-12
Reference 20 dB Attenuator	SN: 5058 (20k)	27-Mar-12 (No. 217-01530)	Apr-13
Type-N mismatch combination	SN: 5047.2 / 06327	27-Mar-12 (No. 217-01533)	Apr-13
Reference Probe ES3DV3	SN: 3205	30-Dec-11 (No. ES3-3205_Dec11)	Dec-12
DAE4	SN: 601	04-Jul-11 (No. DAE4-601_Jul11)	Jul-12
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-11)	In house check: Oct-13
RF generator R&S SMT-06	100005	04-Aug-99 (in house check Oct-11)	In house check: Oct-13
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-11)	In house check: Oct-12

	Name	Function	Signature
Calibrated by:	Israa El-Naouq	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: April 20, 2012

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

