	Report No: <b>R3110_RFEXP</b> Issue No: <b>2</b>	<b>FCC ID: XX6-STP8080 / XX6-STP8280</b>	
	Test No: <b>T4353</b>		<b>Test Report</b>



**dB Technology**  
|----- ( Cambridge Ltd. ) -----|

EMC  
Testing

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EMC  
Training

23, Headington Drive,  
Cambridge.  
CB1 9HE  
Tel : 01954 251974 (test site)  
or : 01223 241140 (accounts)  
Fax : 01954 251907  
web : www.dbtechnology.co.uk  
email: mail@dbtechnology.co.uk

## REPORT ON RF EXPOSURE CALCULATIONS

Performed at:  
**TWENTY PENCE TEST SITE**

**Twenty Pence Road,  
Cottenham,  
Cambridge  
U.K.  
CB24 8PS**

on

**Sepura PLC**

**STP8080/STP8280**

dated


**29th August 2012**

### Document History

Issue	Date	Affected page(s)	Description of modifications	Revised by	Approved by
1	04/07/12		Initial release		
2	29/08/12	4	Changed to General Limits	DS	DB

Based on report template:  
v090319

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dB Technology (Cambridge) Ltd.*

	Report No: <b>R3110_RFEXP</b>	<b>FCC ID: XX6-STP8080 / XX6-STP8280</b>	
	Issue No: <b>2</b>		
Test No: <b>T4353</b>	<b>Test Report</b>		Page: 2 of 4

Equipment Under Test (EUT): STP8080/STP8280

Test Commissioned by: Sepura PLC  
Radio House  
St Andrews Road  
Cambridge  
Cambridgeshire  
CB4 1GR

Representative: Bob Allen

Test Engineer: Dave Smith


Date of Report: 29th August 2012

Written by: Dave Smith Checked by: Derek Barlow

Signature:  Signature: 

Date: 29th August 2012 Date: 29th August 2012

**dB Technology can only report on the specific unit(s) tested at its site. The responsibility for extrapolating this data to a product line lies solely with the manufacturer.**


	Report No: <b>R3110_RFEXP</b> Issue No: <b>2</b>	<b>FCC ID: XX6-STP8080 / XX6-STP8280</b>	
	Test No: <b>T4353</b>	<b>Test Report</b>	Page: <b>3 of 4</b>

## 1 EUT Details

### 1.1 General

The EUT was a TETRA Voice + Data Hand Portable .

This report covers RF Exposure Calculations when used in a Car Kit configuration.

	Report No: R3110_RFEXP Issue No: 2	FCC ID: XX6-STP8080 / XX6-STP8280	
	Test No: T4353		Test Report

**RF Exposure Evaluation:** OET Bulletin 65 97-01 CFR 47 1.1310

Manufacturer: Sepura

Product: STP8080/STP8280 Car Kit

Antenna 1: 300-00390 5dBi Numeric Gain 3.16 Fitted to Car-Kit  
(note: alternative version without bnc connector - 9525-800-41021)

Frequency (MHz)	817	869
Output Power (mW):	1800	1800
Numerical Antenna Gain:	3.16	3.16
Duty cycle (%):	25	25
Distance (cm):	20	20
Power Density (mW/cm2):	<b>0.283</b>	<b>0.283</b>
<b>FCC Limits: (mW/cm2)</b>		
General:(f/1500)	<b>0.54 PASS</b>	<b>0.58 PASS</b>

Antenna gain is taken from the supplied data sheets.

Duty Cycle is based on Tetra System in which each channel is divided into 4 slots - with equal time allocation.

$$\text{Total Power, } P(\text{Watts}) = \text{Output Power} \times \text{Antenna Gain} \times \frac{\text{Duty Cycle}}{100}$$

$$\text{Power at a Distance, } d(\text{metres}) = \frac{P}{4 \pi d^2}$$

**Conclusion:**

**At a distance of 20cm the maximum power density is 0.283 mW/cm2 which is below the general limit of 0.54 mW/cm2**