	Report No: R3406_RFEXP Issue No: 1	FCC ID: XX6-STP9080 / XX6-STP9280	
	Test No: T5484		Test Report



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REPORT ON RF EXPOSURE CALCULATIONS

Performed at:
TWENTY PENCE TEST SITE

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

on

Sepura PLC

STP9080/STP9280

dated


3rd November 2014

Document History

Issue	Date	Affected page(s)	Description of modifications	Revised by	Approved by
1	03/11/14		Initial release		

Based on report template:
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Equipment Under Test (EUT): STP9080/STP9280


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

Representative: Steve Wood

Test Engineer: Dave Smith


Date of Report: 3rd November 2014

Written by: Dave Smith

Signature: 

Date: 3rd Novemebr 2014

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.


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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.

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

Manufacturer: Sepura

Product: STP9080/STP9280 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)	809	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):	0.283	0.283
FCC Limits: (mW/cm2)		
General:(f/1500)	0.54 PASS	0.58 PASS

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