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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

STP8080/STP8280

dated

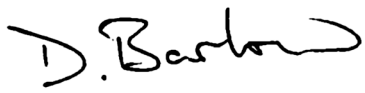
22nd June 2012

Document History

Issue	Date	Affected page(s)	Description of modifications	Revised by	Approved by
1	04/07/12		Initial release		

Based on report template:
v090319

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:	**22nd June 2012**

Written by:	**Dave Smith**	**Checked by:**	**Derek Barlow**
Signature:		**Signature:**	
Date:	**22nd June 2012**	**Date:**	**4th July 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.

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.

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

Manufacturer: **Sepura**

Product: **STP8080/STP8280** **Car Kit**

			Numeric Gain	
Antenna 1:	**300-00390**	**5dBi**	**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):	**0.283**		**0.283**	
FCC Limits: (mW/cm2)				
Controlled Environment:(f/300)	**2.72**	**PASS**	**2.90**	**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.

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

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

Conclusion:

At a distance of 20cm the maximum power density is 0.283 mW/cm2 which is comfortably below the controlled environment limit of 2.72 mW/cm2