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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

STP8040/STP8140 + Car Kit

dated

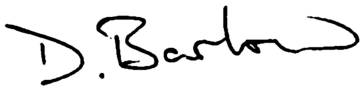
1st March 2012

Document History

Issue	Date	Affected page(s)	Description of modifications	Revised by	Approved by
1	14/03/12		Initial release		

Based on report template:
v090319

Equipment Under Test (EUT):	STP8040/STP8140 + Car Kit
Test Commissioned by:	Sepura PLC Radio House St Andrews Road Cambridge Cambridgeshire CB4 1GR
Representative:	Bob Allen
Test Started:	18th January 2012
Test Completed:	15th February 2012
Test Engineer:	Dave Smith
Date of Report:	1st March 2012

Written by:	Dave Smith	Checked by:	Derek Barlow
Signature:		Signature:	
Date:	5th March 2012	Date:	

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: STP8040 / STP8041

			Numeric Gain	
Antenna 1:	9525-800-41080	7dBi	5.01	Fitted to Car-Kit

Frequency (MHz)	450		470	
Output Power (mW):	1800		1800	
Numerical Antenna Gain:	5.01		5.01	
Duty cycle (%):	25		25	
Distance (cm):	20		20	
Power Density (mW/cm2):	**0.449**		**0.449**	
FCC Limits: (mW/cm2)				
Controlled Environment: (f/300)	**1.50**	**PASS**	**1.57**	**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 0.449 mW/cm2 which is comfortably below controlled environment limit of 1.5 mW/cm2