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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:
v090319

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: D. A. Smith

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.

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: STP9080/STP9280 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)	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.

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

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

Conclusion:

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