

Report No: R3275_RFEXP Issue No: 2

T5115

FCC ID: XX6STP9040/XX6STP9240

Test Report

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Testing



EMC Consultancy

EMC Training

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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

STP9040 + Car Kit

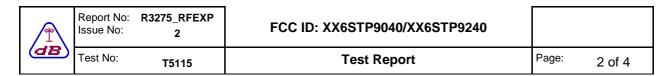
dated

15th December 2013

Document History

Issue	Date	Affected page(s)	Description of modifications	Revised by	Approved by
1	15/12/13		Initial release		
2	02/01/14	4	Corrected model No: for antenna	DB	DS

Based on report template: v090319



Equipment Under	Test (EUT):	STP9040 + Ca	r Kit
Test Commissione	ed by:	Sepura PLC Radio House St Andrews Roa Cambridge Cambridgeshire CB4 1GR	
Representative:		Steve Wood	
Test Engineer:		Dave Smith	
Date of Report:		15th December	2013
Written by:	Dave Smith	Checked by:	Derek Barlow
Signature:	D. A. Snitt	Signature:	D. Barbon
Date:	15th December 2013	Date:	19th December 2013

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

7dBi

CFR 47 1.1310

Manufacturer: Sepura

Product:

STP9040

Numeric Gain

Antenna 1: 9525-800-41080 5.01

Fitted to Car-Kit

450		470	
1800		1800	
5.01		5.01	
25		25	
25		25	
0.287		0.287	
0.30	PASS	0.31	PASS
	1800 5.01 25 25 0.287	1800 5.01 25 25 0.287	1800 1800 5.01 5.01 25 25 25 25 0.287 0.287

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.

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

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

Conclusion:

At a distance of 25cm the maximum power density is 0.287 mW/cm2 which is just below the general environment limit of 0.3 mW/cm2