

FCC IDs: XX6SRG3900UW

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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

SRG3900UW + DMU

dated

19th March 2012

Document History

Issue	Date	Affected page(s)	Description of modifications	Revised by	Approved by
1	19/03/12		Initial release		-

Based on report template: v090319

	Report No: Issue No:	R3053_RFEXP 1	FCC IDs: XX6SRG3900UW		
dB	Test No:	T4203	Test Report	Page:	2 of 4

Equipment Under	Test (EUT):	SRG3900UW +	DMU
Test Commission	ned by:	Sepura PLC Radio House St Andrews Road Cambridge Cambridgeshire CB4 1GR	d
Representative:		Bob Allen	
Test Engineer:		Dave Smith	
Date of Report:		19th March 201	2
Written by:	Dave Smith	Checked by:	Derek Barlow
Signature:	D. A. Smitt	Signature:	D. Barbon
Date:	5th March 2011	Date:	19th March 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.

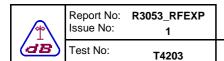
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1 EUT Details

1.1 General

The EUT was a TETRA Voice + Data Mobile Station.

This report covers RF Exposure Calculations when used in a Desk Mount Unit configuration.



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

Manufacturer: Sepura

Product: SRG3900UW

Numeric Gain

Antenna 1: 300 00976 0dBd 1.64 Fitted to DMU

F (MIL)	450		470	
Frequency (MHz)	450		470	
Output Pow er (mW):	10000		10000	
Numerical Antenna Gain:	1.64		1.64	
Duty cycle (%):	25		25	
Distance (cm):	20		20	
Pow er Density (mW/cm2):	0.816		0.816	
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 w hich each channel is divided into 4 slots - w ith equal time allocation.

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

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

Conclusion:

At a distance of 20cm the maximum power density is 0.816 mW/cm2 which is comfortably below controlled environment limit of 1.5 mW/cm2