

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 | | - |
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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.

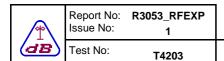
| | Report No: Issue No: | R3053_RFEXP 1 | FCC IDs: XX6SRG3900UW | | |
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1 EUT Details

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