

# SRG3500 TETRA Gateway/Repeater

- 10 Watts RF Power (customisable in TMO or DMO)
- Voice and emergency calls from DMO to TMO
- Voice and emergency calls from TMO to DMO
- Support for 0, 1 or 2 control heads and 2 PEI data ports
- 6 remote soft keys via 2 wire interface
- Tamper proof or smart card E2E encryption options



## Fully featured and configurable Gateway/DMO Repeater radio

### SRG3500 TETRA Gateway/DMO Repeater radio

The SRG3500 Gateway/Repeater radio has all the features and functionality of the SRM3500, the most configurable mobile terminal in the market today. The Sepura Common User Interface gives dual advantages of easy integration into existing fleets whilst minimising user training.

The SRG3500 provides a solution to all operational requirements thanks to its two data ports, dual console and digital I/O capabilities. It can be configured for use in many vehicles including cars, motorcycles, trains, ambulances, marine craft and fire appliances.

For fixed and mobile control room environments a range of accessories allow the SRG3500 to be desk or rack mounted.

For specialist users the SRG3500 is available with optional covert installation and controls, a 10W transportable variant and an air approved product for helicopter and fixed wing installations.

The SRG3500 can be controlled from 1 or 2 DIN mounted consoles that may be mounted up to 10m away from the transceiver, or via 1 or 2 PEI ports or via the Virtual Console loaded on a PC that could be many thousands miles away across a WAN.

As a standalone transceiver, it can be used as a data modem, for telemetry or for remote alarms and all the transceiver interfaces are available for use by third parties.

Switching is easily achieved between trunked (TMO), direct (DMO), repeater (RMO) and gateway (GMO) modes via either a soft key, from the menu or from an external device.

The SRG3500 can be customised through the use of Short Data Applications (SDA), these allow system integrators to create and run complex form driven programmes that can interact with back office systems via SDS messaging.

With a market leading 10 Watts of RF power in both DMO and TMO modes, the SRG3500 ensures that communication between users can be maintained in areas of poor TETRA coverage.

The SRG3500 is based on the 3000 series architecture and provides the same security features. The SRG3500 has been built to address security by including tamper proof security processors or a smart card connector. E2E encryption can be implemented by a software upgrade.

The SRG3500 is designed with an integral GPS option. In addition to the standard position reporting, the gateway can send its current GPS location when the emergency call or lone worker alert is initiated. Ensuring that the position of a user is known will enable appropriate resources to be swiftly deployed when assistance is required.

**sepura**

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for more information visit [www.sepura.com](http://www.sepura.com)

# SRG3500 TETRA Gateway/Repeater

## Key Features

- Up to 12 I/O lines available – all can be activated by or activate status messages
- Support for AT command set
- Two physical data ports enable two data applications to be supported at the same time
- Remote soft key interface
- Transceiver only installation – for remote alarms, telemetry or as a TETRA modem
- Transceiver and console installation – with vehicle, motorcycle, marine, desk and rack mount kits
- Transceiver and Virtual console installation – for 3rd party integrators to control the transceiver direct from a Windows based mobile computer or desk based PC connected across a LAN/WAN
- Transceiver and 2 console installation – for ambulance and fire vehicle installations Transceiver and remote control installation – for covert and semi-covert use
- Transceiver and Applications Interface Unit – for 3<sup>rd</sup> party control of the transceiver and user interface
- Air approved transceiver variant

### Gateway mode (GMO) of operation

#### Improved coverage :

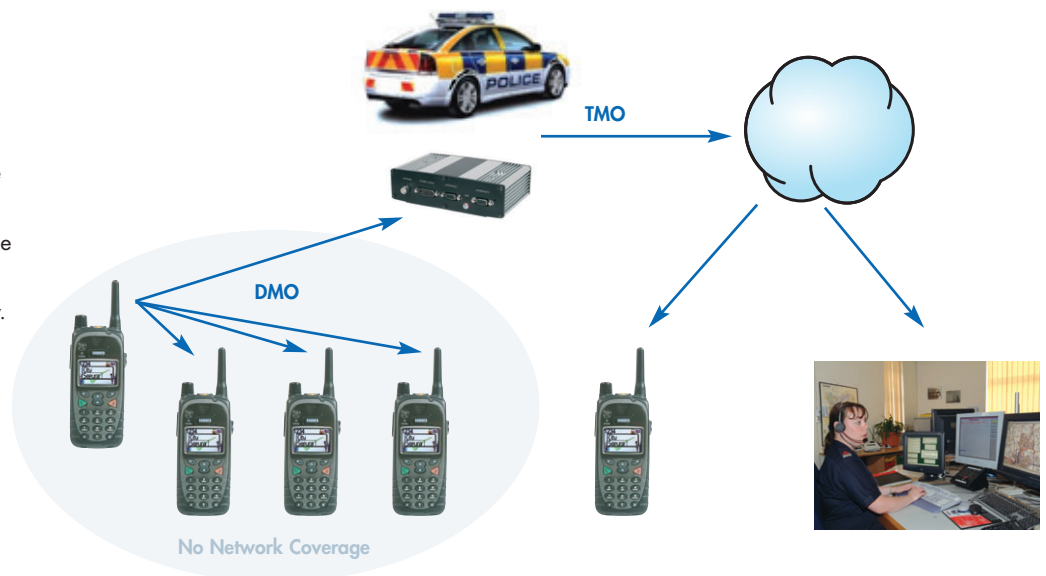
Extends user coverage into network dead spots such as buildings

#### Simplified communication:

With intelligent call conversion, the dispatcher only ever has to contact the SRG3500, if the crew is in the vehicle they will take the call or message, if the crew is on foot the call or message is routed to the DMO users automatically.

#### Operational Effectiveness:

Status messaging, SDS messaging and GPS location data seamlessly pass through the gateway. The dispatcher is able to see the locations of the foot crew and the vehicle on their mapping system.



### Repeater mode (RMO) of operation

#### Improved coverage :

Extends user coverage into network dead spots such as buildings.



- Transportable transceiver variant
- Large text mode – designed for easy readability in vehicles
- Common Sepura User Interface on the real and Virtual Console
- Optional GPS module – integral within the transceiver
- Emergency Key – separate from other keys
- Colour backlights in emergency calls
- Fully configurable emergency call behaviour including live microphone and status messaging options
- Customisable 'Press and Action' soft keys giving access to 12 different functions with optional help file
- Multi-lingual user interface: Eastern and Western European languages plus Cyrillic, Chinese and Korean and Arabic
- Full set of programming and configuration software tools – Radio Manager, E2E Key management tools (CMC and CDT) and SKMS



## TECHNICAL DATA

All specifications are relative to +25°C unless otherwise stated.

### Size and Weight

- Transceiver 980g – 180mm W x 54mm H x 110mm D
- Console 200g – 187mm W x 64mm H x 30mm D

### GPS Receiver - optional

- 12 channel GPS receiver
- - 163 dBW acquisition sensitivity

### Security

- Fully integrated E2EE hardware solution, enabled by software upgrade only
- Multi-Algorithm support for AES, iDEA and UK specific algorithms
- Additional Tamper Protection option
- Optional integral SIM connector for Smart Card solution

### Frequency Bands

- 300 - 344MHz<sup>1</sup>
- 350 - 372MHz<sup>1</sup>
- 380 - 430MHz
- 440 - 473MHz
- 806/825 paired with 851/870MHz

The Transceiver supports the full 30MHz bandwidth - 50MHz for the 380-430MHz product - and allows Trunked (TMO) and Direct (DMO) mode frequency pairs to be allocated anywhere in the frequency band.

### Power

- 10 watt RF Power output (Class 2)
- RF power adjustable in steps of 5dB
- Adaptive Power Control supported

### Audio

- Rated Audio Output - 8 W @ 1kHz into 4 Ohms

### Environmental

- Dust & Water protection to IEC529 IP54
- ETS 300 019 -2.5 drop, vibration and humidity
- Storage Temp -40°C to +85°C
- Operating Temp -30°C to +70°C

### Power Supply

- 10.8 to 15.6V DC, typical 13.8V DC

### Console Display

- 128 x 64 pixels LCD display with coloured backlights
- Up to 6 lines of 24 characters displayed
- Dual remote console support
- Virtual console support

### Gateway Services

- Group voice calls from DMO to TMO
- Group voice calls from TMO to DMO
- Emergency group call from DMO to TMO
- Emergency group call from TMO to DMO
- Transmission of Gateway Presence signal
- Monitoring for other Gateways
- Pre-emption (in either direction) of existing call
- SDS messaging in either direction<sup>1</sup>
- Configurable routing of SDS messages to console or PEI
- Intelligent handling of point to point calls and SDS messages whilst operating as a Gateway
- Gateway services are an option enabled by a feature license code

### Repeater Services

- Repeats DMO voice and tone signalling on selected talk group
- Repeats SDS and Status messaging on selected talk group
- ETSI Type 1A DMO Repeater for channel efficient operation
- Transmission of Repeater Presence signal
- Priority Call
- Emergency Call (Pre-emptive Priority Call)
- Supports E2E Encrypted DMO traffic
- Monitoring of and participation in calls whilst in Repeater mode
- Configurable Repeater power levels
- Repeater services are an option enabled by a feature license code

### Voice Services

- Full Duplex Calls (to MS and PABX/PSTN)
- Half Duplex Calls (Individual and Group)
- Priority Call
- Emergency Call (Pre-emptive Priority Call)
- Talking Party Identity
- Calling Line Identity Presentation
- DTMF Dialling

continued overleaf

<sup>1</sup> Further information available on request

# SRG3500 TETRA Gateway/Repeater



## TECHNICAL DATA continued

### Data Services

- Status Messaging
- Short Data Service Messaging (SDS Type 4, 140 characters)
- SDA – Short Data Applications allow third parties to create and deploy customised applications to the terminal that can interact with a back end system via SDS
- Circuit Switched Data Calls
- Packet Data
- Network performance monitoring
- Optional time stamping of Status and SDS messages
- Text Message Data Store

### Other Functions and Features

- Support for 2000 Talkgroups, with any combination of TMO or DMO groups
- Easily managed via Talkgroup folders, 200 folders with up to 75 groups per folder
- Priority group scanning with support for Background groups
- Fast group Access supports up to 5 TMO and 5 DMO groups
- Fixed and User Definable Talkgroup Scan Lists
- Dynamic Group Number Assignment including lifetime timers, up to 50 Dynamic groups
- Telephone and Radio user Address Book.
- Call History
- Late Entry
- Authentication – Mutual and SwMI initiated
- Air Interface Encryption TEA1, TEA2, TEA3, TEA4 supported
- Support for TETRA Security Class 1 (Clear), Class 2 - SCK and Class 3 DCK with OTAR of CCK
- Temporary Enable and Disable
- Integrated and SMART Card based E2EE options
- Transmit Inhibit (TXI) with on/off Status messaging
- ETSI compliant PEI port. AT-command interface for applications
- Macro keys – operation of a single key will perform several complex functions
- Real Time Clock
- Missed call indication
- Configurable Call Out feature
- Covert mode
- Ambience listening

<sup>1</sup> Further information available on request