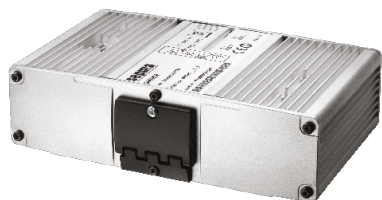# SRG**3900**
SERIES
MOBILE RADIO

SIZE AND WEIGHT

TRANSCEIVER
980g,177mm x 50mm x 110mm

SEPURA COLOUR CONSOLE (SCC1, SCC2, SCC3)[7]
220g, 185mm x 58mm x 33mm

HANDSET-BASED CONSOLE (HBC2, HBC3)[7]
225g, 69mm x 162mm x 28mm

FREQUENCY BANDS

344 - 400MHz	380 - 430MHz
407 - 473MHz	806 - 870MHz

POWER SUPPLY

10.8 to 15.6V DC, typical 13.8V DC

RF PERFORMANCE

10 watt RF power output (Class 2)
RF power adjustable in steps of 5dB, independently adjustable for TMO & DMO operations
Adaptive power control supported
Receiver static sensitivity -112dBm (-116dBm typical)
Receiver dynamic sensitivity -103dBm (-107dBm typical)
Receiver class A & B

AUDIO

Rated audio output - 8 W @1kHz into 4 Ohms
Dual speaker configuration capable of driving two 4 Ohm speakers (to be wired in parallel by installer)
Fixed level line-out audio option enabling broadcast & recording support
2x1W of additional audio drive via speaker mics or handsets attached to up to two SCC front-mounted accessory ports
Line-in audio for third-party console interface support
Five independent volume controls for loudspeaker & audio accessories [2, 4]

Up to three audio accessories per console

ENVIRONMENTAL

Dust & water protection to IEC60529 IP54
ETS 300 019 -2-5 drop, vibration & humidity
Operational temperature (conformance tested) -20℃ to +60℃
Operational temperature (min./max.) -30℃ to +70℃[6]
Storage temperature -40℃ to +85℃[5]
IP67 radio marine enclosure option
IP67 SCC console option
IP67 HCU handlebar control unit option

PRODUCT OPTIONS

GPS/Glonass location tracking
DMO repeater type 1A (licence enabled)
DMO gateway (licence enabled)
Air Interface encryption options[3]
End-to-end encryption options[3]
Wide range of languages supported including Cyrillic, Chinese, Korean & Arabic
Coloured bezels
Local & remote smart card support
Virtual console support (licence enabled)
Line in/out audio support (licence enabled)
Extensive console support: SCC[7], HBC[7], Virtual Console, AIU. Specialist solutions include HCU handlebar control unit, air-approved & marine consoles, embedded car console.

USER INTERFACE

Normal, large & very large mode text[4]
Night mode
262k colours plus monochrome support
Dual remote console support
Call history
Phone book (2000 entries)
9900 talkgroups in TMO/DMO
5000 multi-level talkgroup folders
Intelligent search facility
Up to 50 dynamic group number assignment (DGNA) with support for lifetime timers
Efficient management of talkgroups using up to 5000 folders in a multilevel folder structure with up to 75 talkgroups per folder
Talkgroup folder management via PEI & SDS
Priority group scanning with support for background groups
Fast talkgroup access supports up to five TMO and five DMO groups
Query selected talkgroup

Macro keys: a single key can perform a sequence of complex functions
Quick groups
Transmit inhibit with on/off status messaging
Fixed & definable scan lists
Missed call indicator
Intuitively-enhanced user interface
Choice of three user interface presentation styles
Auto-capitalisation during SDS text entry
Context key support[7]
User profiles
Sepura Picture Message
SmartMenus, allowing easy access to hundreds of pre-programmed features

CONSOLE: SCC

High resolution 320 x 240 pixels QVGA TFT display
Large 57.6mm x 43.2mm active area
Three accessories supported: one front-mounted & two rear-mounted audio accessories
Front-mounted connector for data & configuration via Radio Manager
AMPS, on-dash & single DIN mount options
Fully compatible with existing accessories, cables & legacy mounting options
Common enhanced Sepura user interface
Context key support[7]
Missed event LED & soft key
Tri-colour status LED
16 configurable soft keys
Dual remote console support, each up to 30m from the transceiver
IP54 certified; IP67 variant available[9]

CONSOLE: HBC (HANDSET-BASED CONSOLE)

Large high resolution 320x240 pixels QVGA 2.2"TFT display
Hands-free mic & PTT option
Fist mic mode & handset installation modes
Magnetic cradle, AMPS mountable
Fully compatible with existing console cables
Common enhanced Sepura user interface
Context key support[7]
Missed event LED & soft key
Dedicated emergency key
Tri-colour status LED
16 configurable soft keys
Dual remote console support, up to 30m from the transceiver
IP55 certified

sepura
Going further in critical communications

VOICE SERVICES

Full-duplex calls (to MS & PABX/PSTN)
Half-duplex calls (individual & group)
Priority call
Emergency call (pre-emptive priority)
Intelligent alarm reporting
Talking party identity
Calling line identity presentation
DTMF dialling
MSISDN dialling
Abbreviated dialling
Dynamic group number assignment
Background (hidden) groups
Ambience listening
Privacy mode
Whisper mode
Group focus
DMO individual call
DMO group call
DMO emergency call
DMO intelligent emergency call
Independent volume control
Gateway pairing

DATA SERVICES

Status messaging (in TMO & DMO)
SDS messaging (in TMO & DMO)
SDS store & forward
SDS via DMO gateway
Auto-capitalisation on SDS text entry
Concatenated SDS messaging
Multi-slot packet data
Circuit mode data
TETRA paging & call out
WAP browsing
WAP shortcuts in SDS
Battery status advised immediately on start-up
Short data applications (SDAs)
Lone Worker feature
Missed event application
30 quick status messages

LOCATION-BASED SERVICES (OPTIONAL)

34-channel concurrent GPS/GLONASS receiver
SBAS differential GPS support
-191dBW (-161dBm) acquisition sensitivity
-191dBW (-161dBm) tracking sensitivity
Over-The-Air GPS reporting using the following protocols:
– ETSI location standard reporting (LIP)
– NMEA & Sepura compact messaging
Enhanced indoor start-up & acquire through 'predictive ephemeris'
Active anti-jamming of Continuous Wave (CW) jammers
Multipath mitigation
GPS-based compass

SECURITY SERVICES

Authentication: mutual and SwMI initiated
TMO & DMO Air Interface encryption support: TEA1, TEA2, TEA3 & TEA4[3]
Trunked mode class 1, 2, 3 & 3G TETRA security
Direct mode DM-2C support
PIN & PUK entry temporary enable and disable
Fully integrated E2E hardware with tamper protection
Public & private algorithm E2E support enabled via software upgrade[3]
Integral SIM connector for smart card-based
E2EE options[3]
Optional remote smart card reader
Dual E2EE algorithm support with dynamic switching
of active algorithm[3]
Software authenticity & protection employing digital signature

GATEWAY SERVICES (LICENCE REQUIRED)

Group voice call between DMO & TMO
Individual voice calls between DMO &TMO
Emergency group call from DMO to TMO & TMO to DMO
Pre-emption (in either direction) of existing call
SDS messaging in either direction
Configurable routing of SDS messages to console or PEI intelligent handling of point to point calls & SDS messages whilst operating as a gateway

REPEATER SERVICES (LICENCE REQUIRED)

DMO voice repeated
DMO tone signalling repeated
Group status & SDS repeated
Type 1A efficient operation over one RF channel
Presence signal support
Emergency call
Monitoring & participation in calls

CONNECTIVITY

TETRA voice & data
PEI data via RS232, or USB data cables direct to radio or via SCC
Accessory connections via consoles and AIU
SASI high speed interface for feature-rich audio accessories (on SCC1 & SCC2)
Digital I/O lines (3 in, 1 out), expandable via AIU
Line level audio connection
Remote control via status-triggered functions

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1 – Further information available on request
2 – Accessories connected at the rear of a console use the same volume level
3 – Functionality subject to export licence
4 – Display mode/audio support changes when the legacy console, HBC1 or Virtual Console is connected
5 – As defined in ETSI EN300 019-2-1 and EN300 019-2-2
6 – Operating at temperature extremes may limit operational performance
7 – SCC1/2: STP-style UI (two context keys); SCC3/SCC3 (IP67): SC20-style UI (three context keys)

Sepura's policy is to continually improve its products and services. The specifications, features and facilities described in this document were correct at publication, but are subject to change without notice.