SRG3900 SERIES MOBILE RADIO

SIZE AND WEIGHT
TRANSCEIVER
980g, 177mm x 50mm x 110mm
SEPURA COLOUR CONSOLE (SCC3)7
220g, 185mm x 58mm x 33mm
HANDSET-BASED CONSOLE (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
Receiver dynamic sensitivity -103dBm
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
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°C to +60°C
Operational temperature (min./max.) -30°C to +70°C
Storage temperature -40°C to +85°C
IP67 radio marine enclosure option
IP67 SCC console option
IP67 HCU handlebar control unit option

PRODUCT OPTIONS
GPS/Glonass location tracking
DMO gateway type 1A (licence enabled)
Air Interface encryption options5
End-to-end encryption options5
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: SCC37,
HBC37, Virtual Console, AIU. Specialist solutions include HCU handlebar control unit, air-approved & marine consoles, embedded car console.

USER INTERFACE
Normal, large & very large mode text4
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 support7
User profiles
Sepura Picture Message
SmartMenus, allowing easy access to hundreds of pre-programmed features

CONSOLE: SCC3 (SEPURA COLOUR CONSOLE)
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 support7
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

CONSOLE: HBC3 (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 support7
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
IP54 certified

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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
- 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
- Integral SIM connector for smart card-based
- E2EE options
- Optional remote smart card reader
- Dual E2EE algorithm support with dynamic switching of active algorithm
- 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 SCC variants)
- 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. SCC3/SCC3 (IP67): SC20-style UI (three context keys)

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