

# SC23 SERIES HAND-PORTABLES



## DIMENSIONS

Height: 139mm (excluding antenna and rotary)  
Width: 61mm (54mm)  
Depth – standard battery: 32.5mm  
Depth – high-capacity battery: 38mm

## WEIGHT

With standard battery: 241g (excluding antenna)  
With high-capacity battery: 266g (excluding antenna)

## TETRA FREQUENCY BANDS

136-174MHz – SC2321  
380-430MHz – SC2320  
403-470MHz – SC2324  
806-870MHz – SC2328

## POWER SUPPLY

7.4V (nominal) lithium polymer battery packs  
Intelligent reporting batteries  
1160mAh standard battery<sup>1</sup>  
1880mAh high-capacity battery<sup>1</sup>

## TETRA RF PERFORMANCE

RF power:  
• MS power Class 3<sup>1</sup>, Class 3L & Class 4<sup>1</sup>

RF power customisable for:

- TMO/DMO
- Adaptive power control
- Receiver class A & B
- Receiver static sensitivity -116dBm (-118dBm typical)
- Receiver dynamic sensitivity -107dBm (-109.5dBm typical)

## AUDIO PERFORMANCE

Speaker audio power: 2W  
Rugged accessory connector (sRAC)<sup>2</sup>  
Water porting technology continually clears water from mic/earpiece and speaker to allow use in constant rain

## ENVIRONMENTAL PERFORMANCE

Operational temperature (conformance tested) -20°C to +60°C  
Operational temperature (min./max.) -30°C to +65°C<sup>3</sup>  
Storage temperature -40°C to +85°C<sup>4</sup>  
Dust & water protection to IP65, IP66, IP67 & IP68  
• IPx5 (weatherproof)

- IP6x (dustproof)
- IPx6 (waterproof – heavy rain/spraying/water-jet)
- IPx7 (waterproof – submersible, 1m depth for 30mins)
- IPx8 (waterproof – submersible, 2m depth for 1hour)
- 'Fit for purpose' tested for complete 8hr shifts "in the pouring rain"

Shock, drop & vibration: ETSI EN 300 019 5M3  
Salt fog: MIL-STD-810G Method 509; duration 24hr salt<sup>5</sup>  
Salt water: submersion, rated at 2m depth for 1hour<sup>5</sup>

## RFID PERFORMANCE

Internal tag: HITAG S2048, short range, 125 KHz, ISO11784 & ISO11785 compliant  
Range: 1 cm from back of individual radio box pack  
User accessible storage: 2048 bits, passive technology pre-programmed (user editable):  
• 32-bit unique identifier  
• Serial number  
• TEI

## PRODUCT OPTIONS

GNSS support (GPS, BeiDou, GLONASS, Galileo)  
Man-Down alarm  
Air Interface encryption  
End-to-end encryption  
Wide range of languages supported  
User-changeable coloured bar for easy identification

## DISPLAY & USER INTERFACE

Screen:  
• 37 x 49mm active LCD area  
• High-resolution display QVGA (320 x 240 pixels)  
• Sunlight-visible Transflective TFT display, Grayscale

Menu:  
• Intuitively-enhanced user interface  
• Choice of three user interface presentation styles (compatibility, grid & list modes)  
• Customisable top-level screen content  
• Customisable SmartMenus supporting 100s of intuitively arranged soft keys  
• Quick change menu for rapid & intuitive selection of talkgroups, status & user profile  
• Custom zoom/normal, large & very large mode text  
• Night mode to reduce low-light glare in vehicles  
• Invert display for easy viewing whilst lapel- or belt-mounted  
• Customisable privacy screen image  
• Customisable user profiles e.g. 'covert', 'quiet', 'in a meeting' & 'loud'

Controls:  
• Four-way navigation keys  
• Three context keys for intuitive menu interaction  
• Three configurable feature-activation side keys: blind-find & glove-friendly  
• Manual & automatic keypad lock  
• Hard-capped keys  
• Large, easy reach, blind find, glove-friendly PTT  
• Blind-find emergency key  
• Single rotary

Haptics:  
• Vibrate on call/message  
• Haptic technology for enhanced key tactility when used with gloves

## TALKGROUP MANAGEMENT

- 25 talkgroups including TMO & DMO
- 1 folder

## NETWORK

Multiple home networks  
Up to 30 configurable networks  
Simple & mutual authentication  
Aliasing with Radio User Assignment (RUA)  
• Radio user-initiated log-on/log-off process  
• Dispatcher-initiated log-on/log-off process

Preferred location area  
Fixed location area

## DMO SERVICES

DMO individual & group call  
DMO emergency & intelligent emergency call  
DM-repeater inter-working call  
DM-gateway inter-working call  
Channel-only talkgroup

## DATA SERVICES & APPLICATIONS

PEI access  
USB 2.0 support:  
• Host support for interaction with body-worn accessories such as printers & scanners  
• PEI access  
• High-speed programming  
Messaging:  
• SDS messaging (in TMO & DMO)  
• Picture Messaging via SDS  
• Concatenated SDS messaging  
• Status messaging (in TMO & DMO)  
• 350 predefined status messages (up to 140 Unicode characters)  
• Up to 30 quick status messages

Callout & paging:  
• TETRA simple callout  
• Full callout  
• Paging alert

AT commands:  
• ETSI & enhanced commands  
• Via PEI serial port profile over USB  
• Voice call control supported

Over the air control & programming:  
• Status-triggered functions  
• Group management via Sepura Public Profile (SPP)

Battery status at start-up  
Missed event application  
Major radio status change notification application

## SAFETY FEATURES & APPLICATIONS

Emergency call:  
• Pre-emptive priority  
• Hands-free live mic operation  
• Emergency voice call & alerting to current or defined talkgroup  
• Emergency status/SDS/location report to defined control user/group  
• Full-duplex or half-duplex emergency calls  
• Manual activation via red emergency key  
• Automatic activation via Man-Down™ option  
• Automatic TMO/DMO selection  
• Loud, distinct audio & visual indication  
• Silent alarm call

Man-Down™:  
• Immobility detection  
• Unusual inclination detection  
• Customisable alerting (see Emergency Call Capability)

Lone-Worker feature  
Blind-find emergency button  
Wake-on-Alarm allows user to switch on radio & signal an emergency in one action

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Going further in critical communications

## LOCATION-BASED SERVICES

GNSS integrated option -194dBw (-164dBm) tracking sensitivity

Over-The-Air GNSS reporting:

- ETSI location standard reporting (LIP)
- NMEA & Sepura compact messaging

Max. simultaneous satellite track = 24

GNSS-based compass

Integral antenna plus active external antenna input option for use in sky-obscured vehicles

Enhanced start-up & acquire through 'predictive ephemeris'

## SECURITY SERVICES

TETRA:

- Authentication
- Class 1, 2, 3 & 3G TETRA security
- Air Interface encryption TEA1/3<sup>6</sup>
- Embedded E2E encryption<sup>6</sup>
- Temporary disable (stun)
- Permanent disable (kill)

## CONNECTIVITY

TETRA voice & data

USB support for data

PEI data via USB

Accessory connections via rugged accessory connector (sRAC)<sup>2</sup>

Audio & data connection via bottom connector (sDAC)

Passive 125KHz RFID tag

sRAC – rugged side connector<sup>2</sup>:

- Rapid tool-less fitting & removal
- Unique anti-overtighten design
- Salt-resistant seal

sDAC – bottom connector:

- Rapid tool-less quarter-turn twist-lock fitting & removal
- Connector Protector salt protection

## PROGRAMMING CAPABILITY

High-speed programming via USB slave cable

Six-way USB gang programming supported in 6+6 programmer/charger

On-screen programming progress bar

## COMPATIBLE STP ACCESSORIES

Chargers:

- 1+1 desktop charger
- 12- & 24-way battery-only chargers
- Two-way, battery-only, charger for vehicles

Batteries:

- Standard capacity battery<sup>1</sup>
- High capacity battery<sup>1</sup>

Carrying accessories

- Stud & belt attachments

STP RAC-mount accessory compatibility

- All overt range
- All covert range
- All semi-covert range
- All public order range

## SC23 ACCESSORIES

Chargers:

- Personal rapid charger
- Vehicle rapid charger
- 6+6 desktop charger/programmer (USB connection)

Batteries:

- Standard capacity battery<sup>1</sup>
- High capacity battery<sup>1</sup>

Carrying accessories:

- Stud & belt attachments
- Carry cases & holsters

Car kits:

- Basic car cradle

Data leads:

- USB host adapter for wired body worn accessories
- USB slave data lead for programming & control of SC23 from a third-party device

1 – New standard (300-01852) & high-capacity (300-01853) batteries, along with the high power Class 3 feature licence, are required to operate the SC23 in high power RF Class 3 mode. Use of older STP batteries will limit SC23 operation to RF Class 3L

2 – Compatible with Sepura STP9000 & STP8000 RAC-based accessories

3 – Operating at temperature extremes may limit some aspects of operational performance

4 – As defined in ETSI EN300 019-2-1 & EN300 019-2-2

5 – Connector Protector must be enabled in customisation.

An antenna, a battery & a Sepura accessory or sRAC cover must be fitted. Rinse in fresh water to prevent salt crystal build-up

6 – Availability is subject to export licence



## Going further in critical communications

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

\*\*Whilst every effort is made to ensure the reliability of the Man Down Alarm ("MDA"), the nature of the technology and the circumstances of use are such that Sepura cannot warrant that it will operate effectively in all circumstances and users should not entrust their safety to the MDA. The MDA should in no way be regarded as a substitute for compliance with appropriate risk assessment and other safety procedures. As such, and specifically in respect of the MDA, all warranties, conditions or other terms implied by statute or common law are excluded. For the avoidance of doubt, no term is to be implied as to the fitness for purpose or satisfactory quality of the MDA.