

# STP9000

## SERIES

### HAND-PORTABLES



#### DIMENSIONS

Height: 133mm (excluding antenna and rotary)  
 Width: 61mm (54mm)  
 Depth – standard battery: 32mm  
 Depth – high-capacity battery: 37.5mm

#### WEIGHT

With standard battery: 250g (excluding antenna)  
 With high-capacity battery: 275g (excluding antenna)

#### TETRA FREQUENCY BANDS

344-400MHz – STP9035  
 380-430MHz – STP9038  
 407-473MHz – STP9040  
 806-870MHz – STP9080

#### POWER SUPPLY

7.4V (nominal) lithium polymer battery packs  
 Intelligent reporting batteries  
 1160mAh standard battery  
 1880mAh high-capacity battery

#### TETRA RF PERFORMANCE

RF power:  
 MS power Class 3L (1.8W)  
 MSPD power Class 3L (1.8W)  
 DMO repeater power Class 3L (1.8W)  
 RF power customisable for:

- TMO/DMO/DM-repeater
- Adaptive power control
- Receiver class A & B
- Receiver static sensitivity -112dBm (-115dBm typical)
- Receiver dynamic sensitivity -103dBm (-106dBm typical)

#### AUDIO PERFORMANCE

Speaker audio power: >1W  
 Rugged accessory connector (RAC)<sup>1</sup>

#### ENVIRONMENTAL PERFORMANCE

Operational temperature (conformance tested) -20°C to +60°C

Operational temperature (min./max.) -30°C to +65°C<sup>2</sup>  
 Storage temperature -40°C to +85°C<sup>3</sup>  
 Dust & water protection to IP65 & IP67

- IPx5 (weatherproof)
- IP6x (dustproof)
- IPx7 (waterproof – submersible, 1m depth for 30mins)

Shock, drop & vibration: ETS 300 019 5M3  
 Salt fog: MIL810E 509.4(l); duration 24hr salt<sup>4</sup>  
 Salt water: submersion, rated at 1m depth for 30 mins<sup>4</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
- Hardware code
- TEI

#### PRODUCT OPTIONS

##### GPS

Man-Down alarm<sup>5</sup>  
 DM-Repeater Type-1A  
 Air Interface encryption  
 End-to-end encryption  
 End-to-end encryption smart card support  
 Wide range of languages supported  
 Micro SDHC card up to 32GB  
 User-changeable coloured bezels for easy identification

#### DISPLAY & USER INTERFACE

Screen:

- 30 x 38mm active LCD area
- High-resolution display (176 x 220 pixels)
- Sunlight-visible Transflective TFT display, 262K colours

Menu:

- Intuitively-enhanced user interface
- 'Favourite feature' shortcut & event notification bar, with missed call indicator LED
- 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
- 'Twist & zoom' portrait image viewer
- Night mode to reduce low-light glare in vehicles
- Invert display for easy viewing whilst lapel- or belt-mounted
- Customisable lock screen image
- Customisable user profiles e.g. 'covert', 'quiet', 'in a meeting' & 'loud'

Controls:

- Dual-language alpha-numeric keypad option
- Four-way navigation keys
- Three context keys for intuitive menu interaction
- Three configurable feature-activation side keys: blind-find & glove-friendly
- 12 configurable keypad feature activation keys
- 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

- 9900 talkgroups including TMO & DMO
  - 50 DGNA
  - 5000 folders
  - Five multi-level structure
  - Quick groups/quick folder
  - Home group
  - Group toggle
  - Talkgroup stack toggle
- Talkgroup selection:
- Single or user-defined scan list (UDSL)
  - 20 UDSL each with 10 talkgroups
- Folder selection:
- 4987 folder scan list of 22 scanned talkgroups each
  - Each folder scan list with 75 talkgroups
  - 10 editable folder scan lists
  - Background talkgroups in folder scan list

#### 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

#### PHONEBOOK

- 2000 contact names
- Up to six numbers per contact (to a max. of 6000 stored numbers)
- 64 contact folders including favourite folder

#### VOICE SERVICES

Individual/group/broadcast call  
 Half-duplex (individual & group)  
 Route pre-emptive half-duplex call to internal loudspeaker  
 Half-duplex audio toggle  
 Full-duplex calls (to MS & PABX/PSTN)  
 Full-duplex auto-answer  
 Independent volume control  
 Speed, one-touch & direct dialling  
 Call priority  
 Calling/talking party identification  
 DTMF/MSISDN/abbreviated dialling  
 Ambience listening  
 Privacy & whisper modes  
 Group focus  
 Transmit inhibit with on/off status messaging  
 Call history  
 Multiple alert tones

#### DMO SERVICES

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

#### DATA SERVICES & APPLICATIONS

Single- & multi-slot packet data  
 WAP support:

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- WAP 2.0
  - WAP browsing via TETRA
  - WAP shortcuts embedded in SDS for instant data access
  - WAP access OTA via TETRA or second data bearer
- WAP onboard:
- Micro SDHC-based WAP sites for instant access to intelligence, images, maps & text
  - Data maintained by Radio Manager2
- PEI access
- High-speed programming

#### Messaging:

- SDS messaging (in TMO & DMO)
- Picture Messaging via SDS or packet data
- Concatenated SDS messaging
- Auto-capitalisation in SDS text entry
- 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 with USB
- Voice call control supported

#### Over the air control & programming:

- Status-triggered functions
- Group management via Sepura Public Profile (SPP)
- Reprogramming over Wi-Fi with Radio Manager2

#### Battery status at start-up

#### Missed event application

#### Major radio status change notification application

#### User-expandable up to 32GB via Micro SDHC card

### 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<sup>6</sup> option
- Automatic TMO/DMO selection
- Emergency through DM-repeater/DM-gateway
- Loud, distinct audio & visual indication
- Silent alarm call

#### Man-Down<sup>6</sup>:

- 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

### LOCATION-BASED SERVICES

GPS integrated option -192dBw (-162dBm) tracking sensitivity

#### Over-The-Air GPS reporting:

- ETSI location standard reporting (LIP)
  - NMEA & Sepura compact messaging
- Integral antenna plus active external antenna input option for use in sky obscured vehicles

#### GPS-based compass

#### On-board mapping capable<sup>5</sup>

#### Enhanced start-up & acquire through 'predictive ephemeris'

#### RFID tag equipped

- Glonass and BeiDou2 support<sup>6</sup>

### SECURITY SERVICES

#### TETRA:

- Authentication
- Class 1, 2, 3 & 3G TETRA security
- Air Interface encryption TEA 1/2/3/4<sup>8</sup>
- Smart card E2E encryption<sup>8</sup>
- Embedded E2E encryption<sup>8</sup>
- Enhanced security module (ESM)
- In-country E2E Encryption algorithm<sup>8</sup>
- Multiple E2E algorithm<sup>8</sup>
- Temporary disable (stun)
- Permanent disable (kill)
- 600KEK crypto groups

### DM-REPEATER SERVICES (LICENCE REQUIRED)

#### DMO voice repeated

#### Status & SDS 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

#### USB support for data

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

#### Audio & data connection via bottom connector (sDAC)

#### MicroSDHC card slot (32GB max.)

#### Passive 125KHz RFID tag

#### RAC – rugged side connector<sup>1</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

#### Radio Manager2 compatible

#### Micro SDHC contents manageable via Radio Manager2 On-screen programming progress bar

### ACCESSORIES

#### Chargers:

- Personal rapid charger
- Vehicle rapid charger
- 1+1 charger
- 6+6 desktop charger
- 12 way battery only charger
- 24 way battery only charger
- Two way in-vehicle charger

#### Batteries:

- Standard capacity battery
- High capacity battery

#### Carrying accessories:

- Stud & belt attachments<sup>10</sup>
- Carry cases & holsters

#### Car kits:

- Basic car kit
- Complete car kit
- STP/SC Series Basic Car Kit

#### Programming Leads:

- Serial + USB

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

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

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

4 – 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

5 – Future; please contact Sepura Product Management to discuss your requirements

6 – The Man-Down alarm should in no way be regarded as a substitute for compliance with appropriate risk assessment & other safety procedures & practices. To enable Man-Down a software licence is required

7 – SDAs must be reformatted for use with an SC20

8 – Availability is subject to export licence

9 – STP 1+1 chargers shipped since mid-2013 are compatible

10 – Existing STP belt clips may adversely affect broadband performance. SC20 belt clips are recommended

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## 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.



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