



Highest level of security for mobile communications

Bittium Tough Mobile™ 2 C provides classified, governmental-grade secure communications for professionals with the highest security requirements.

The unique multilayered software and hardware based security is complemented with the latest commercial features and modern smartphone usability. With two separated operating systems (dual-OS), both professional and personal use is secure, isolated and easy.

Together with Bittium SafeMove® software, solution is approved for CONFIDENTIAL (NCSA-FI, TL III) and NATO RESTRICTED level communications.

For more information, please contact:
secure@bittium.com



Governmental-grade dual-OS

Two hardened operating systems:

- Bittium Secure OS
- Google Android™ 11



Certified security

Together with SafeMove software approved for NATO RESTRICTED-level communications



Trusted design & manufacturing

Made in Finland. Device and manufacturing audits possible for certification purposes.



Military-grade resilience

Designed to withstand extreme conditions - shock, vibration, water, dust and temperature.



Security built in layers

Preventing physical and software attacks for keeping data safe at all times.



Long device lifespan

Enabling the integration and certification of governmental services.

Two operating systems

- Bittium Secure OS for CONFIDENTIAL level use
- Android™ 11 for personal use
- Both operating systems support Multicontainer feature

Chipsets

- Qualcomm® Snapdragon™ 670
- Dedicated Secure Element

Memory

- 4GB LPDDR4 RAM
- 64GB eMMC
- MicroSD expansion slot up to 256 GB

Bittium Secure OS™

- Dual-boot: full data and secure element separation
- Secure data folder for classified documents and other data files
- Excellent usability with NFC token
- Hardened, configurable and restricted cellular network security (call, SMS/MMS, IMS, VoLTE, aGPS, SIM application toolkit)
- Hardened Linux kernel
- Secured local connectivity (Bluetooth, Wi-Fi, NFC, USB)
- Automatic system cleanup of secure data
- Option to use device only in Bittium Secure OS mode
- Secure shutdown after lost network connectivity based on configurable time

Bittium SafeMove® (included)

- SafeMove® EMM for device and application management
- Bittium SafeMove® Mobile VPN for quantum-safe, always-on connectivity
- Secure push service for private networks
- Log server for collecting audit trail
- Crossnote notifications between Secure and Personal modes

Bittium SafeMove® Comms

- Quantum-safe, end-to-end encrypted messages, voice, video, and group calls

Hardware-based security

- Trusted boot with HW and SW integrity validation
- Authentication and cryptographic services for applications based on the tamper-proof secure element
- Disk encryption protected by secure element's authentication and security design
- FIPS 140-2 compliant HW cryptography

- Hardware-based privacy mode: microphones, cameras and Bluetooth disabled; reduced sensor accuracy
- User credentials and encryption keys stored to hardware secure element
- Non-rootable device firmware
- Tamper-proofed to prevent data theft and hardware manipulation
- Always-on security monitoring, non-dependent on battery level

Always up to date

- Frequent updates throughout the device lifecycle

Professional communication

- 3GPP Rel12
- QCI classes
- LTE Broadcast (eMBMS)

LTE and bands

- 3GPP Rel12
- Dual SIM dual VOLTE (DSDV)
- FDD/TDD Cat13/5, DL 400Mbit/s, UL 75 Mbit/s
- IMS, VoLTE, CA
- FDD: 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 20, 25, 26, 28, 29, 30, 66
- TDD: 38, 39, 40 (34, 41 optional)
- 3GPP rel8, HSPA+, DL 42 Mbit/s, UL 5.76 Mbit/s
- Band configuration: B1, B2, B4, B5, B8
- 850/900/1800/1900 MHz

Complementary radios

- Wi-Fi 802.11 a/b/g/n/ac (2.4 Ghz and 5 Ghz)
- BT 5.0, NFC
- *U-NII-3 Wi-Fi channels are not supported

Physical buttons

- Privacy mode activation
- Emergency button (programmable)
- PTT/PTV (programmable)
- Power/wake-up
- Volume up and down

Positioning

- aGPS/Glonass/Galileo/iZat™

Sensors

- 3D gyroscope
- 3D accelerometer
- 3D magnetometer



- Proximity sensor
- Ambient light sensor
- Barometric sensor

Imaging and video

- 12MP autofocus rear-facing cameras
- 5MP front-facing camera
- Rear-facing LED flash
- 4K and Full HD video

Audio

- High-quality front-facing dual speakers (109dB@5cm SPL)
- Multi-microphone active noise cancellation

Interfaces

- 3.5 mm audio connector
- USB-C with Displayport, RNDIS and OTG
- Dual nano-SIM (DSDS) and MicroSD
- Wireless display (Miracast) compliant

Display

- 5.2" Full HD (1080 x 1920) sunlight readable display
- Glove and wet usable capacitive touchscreen

Battery

- Embedded 3000 mAh Li-Ion

Mechanical

- Size 148.3 x 77.5 x 9.65 mm
- Weight 194 g
- IP67 water and dust resistant
- MIL-STD-810G shock and drop resistant

Temperature range

- -20°C...+55°C (operational)

Certifications

- CE, FCC, ISED, GCF, NCSA-FI, NATO