

Powerful and compact – for mission-critical IoT applications



Swissphone's mioty® base station is designed for mission-critical IoT applications that require an optimal bidirectional communication with end-points and sensors. The compact form factor and the high performance RF frontend contribute to its versatility; its redundant power supply architecture with Power over Ethernet (PoE) and two DC inlets make it stand out. The base station offers various hardware variants to meet your requirements.

Mioty® is the most robust and reliable LPWAN (low-power wide area network) radio technology on the market. It uses a standardized telegram splitting approach to achieve high interference resilience against radio transmissions of other radio sources within a dense and license-free frequency band (ISM/SRD). With its large area coverage, minimal energy consumption and high scalability, mioty® is also suitable for mobile applications. From the user's point of view this means: Future-proof solution and long-term investment protection. Thanks to the software-based solution, existing sensors, actuators and other devices can be easily retrofitted with mioty® technology.

Key Performance Features

- Powerful and compact bidirectional mioty® base station
- High performance RF front end for all narrow-band profiles
- Optimized for license free SRD 868 MHz band in Europe
- Up to +25 dBm output power / -137 dBm sensitivity
- Redundant power supply solution with PoE and two DC inlets
- Redundant network connectivity with LAN and optional mobile connectivity
- Compact and versatile housings for wall- / DIN rail- / 19" rack-mount available / outdoor kit: available on request
- Mioty® alliance compliant interface

mioty[®] Base Station m.BASE

| Model m.BASE | Performance features | B60 | B15 | B10 |
|---------------------------------|--------------------------------------|---|-----|-----|
| Housing | | Box | Box | Box |
| Power supply | +9-30 V DC (redundant) | • | | |
| | PoE input | • | • | • |
| Interfaces | 2x2 Digital I/O | • | | |
| | LTE | • | • | |
| | Performance features | Technical data | | |
| Computing | System on module | Cortex-A53 (ARMv8) <ul style="list-style-type: none"> • 4 core, 1.2 GHz and 1 GB RAM • 8 GB internal eMMC flash memory | | |
| | Operating system | Linux-based | | |
| Profiles | ETSI TS 103 357 compliant | EU0, EU1, (Classes: A, Z) | | |
| mioty[®] Radio | Communication protocol | mioty [®] (ETSI TS 103 357) Base Station – Service Center-Interface (BSSCI) | | |
| | RF connectors | 1x TX /RX 50 Ohm SMA | | |
| | Frequency band | 868 MHz SRD-band | | |
| | RF power output | +25 dBm max. (SRD limit 0.5W e.r.p) | | |
| | RF sensitivity | -137 dBm (typical EU1) | | |
| Mobile radio (optional) | Frequency bands | E-UTRA band 20/8/3/1/7 | | |
| | Connection | LTE Cat 4 (SISO) | | |
| | SIM type | Micro SIM (built-in, not accessible without disassembly) | | |
| | Antenna connector | B60: MCX / B15: SMA | | |
| Power supply | Multi redundant power path | Prio 1: Power over ethernet RJ-45 Prio 2: +9 to 30 VDC main DC-input barrel plug (optional) Prio 3: +9 to 30 VDC fallback DC-input plug terminal (optional) | | |
| | Power over Ethernet (PoE) | Up to 15W (IEEE 802.3at PoE+) over ethernet cable (>Cat-5) | | |
| | Power consumption | Approx. 7W (typical, EU1) over DC-input | | |
| Interfaces external | Ethernet | 10/100 MBit ethernet interface | | |
| | USB | USB 2.0, type A, switchable, with up to 0.5 A supply current | | |
| | Digital I/O (optional) | 2x digital input with 3-30 V, 0.2 mA - 2.9 mA, isolated 2x digital output with max. 30 V, max. 100 mA, isolated | | |
| | Supply for digital I/O optional | 5V, 0.1A max. to power buttons or LEDs at digital I/Os | | |
| Housing | Dimensions | Width: 110 mm, height: 35 mm, depth: ca.190 mm | | |
| | Weight | Approx. 500 g | | |
| | Enclosure | Black aluminium housing | | |
| | Mounting | Wall-/DIN rail-/19" rack-mount | | |
| Environmental conditions | Cooling | Passive, over convection | | |
| | Operating temperature range | -20° C to +55 °C | | |
| | Humidity range | 10 to 95% rel. (non-condensing) | | |
| Standards, approvals | Conformity, guidelines and standards | See declaration of conformity | | |
| | Compliance with EU regulations | Radio Equipment Directive (RED) 2014/53/EU RoHS Recast Directive 2011/65/EU WEEE Directive 2012/19/EU | | |
| Accessories | Outdoor Kit | Outdoor housing | | |

Specifications are subject to change without notice.



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