ORBITZ BY INNOTRACTOR – ORBITZ 51 PRODUCT SHEET

Orbitz

Type 51

Orbitz Type 51 is an IoT device from the Orbitz Housed range. It makes use of a large battery which gives it up to a year battery life, depending on settings. It's multi-mode communication possibilities support usage in many and difficult environments. By default the Type 51 has sensors for temperature, movement and location which can easily be expanded.

Orbitz Housed

PRODUCT HIGHLIGHTS

- ✓ small formfactor
- ✓ most versatile device
- ✓ long battery life
- ✓ secure
- ✓ fast business integration
- ✓ low cost
- ✓ device management
- ✓ firmware update over the air

USE CASES

- ✓ asset / goods location tracking
- ✓ cold chain temperature monitoring
- ✓ fragile goods shock monitoring

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Product Specifications Type 51

Chipset
- ARM®Cortex®-M4 32-bit processor with FPU, 64 MHz

Modem
- Quectel BG-95 / BG-96 Series

Memory
- 1 MB flash and 256 kB RAM

Battery / power supply
- Capacity LiPo 4000mAh (from range 700 – 7000mAh)
- Battery lifetime 300 days at standard profile 6 messages per day
- USB-C connector for direct power and/or battery recharging (continuous operations supported)

Housing
- Ingress Protection rating IP54
- Impact Protection rating IK04

Operations and storage
- Operating temperature -10˚C - +40˚C (battery charging from 0 ˚C)
- Operating environment at 20% to 95% relative humidity
- Storage max 3 months at 10°C to +30°C (recommended)

Weight and dimensions
- Dimensions including housing: 90x60x33mm
- Weight: 130gram

User physical interaction
- Bi-Color LED
- Tactile Switchbutton for on/off/long press actions configurable

Standards and certifications
- Radio regulatory certification: CE, RED

Firmware
- FOTA – firmware over the air support
- LWM2M device management

Protocols
- LWM2M
- MQTT

Sensors
- Temperature sensor ± 0,5 °C (default)
- 3D Accelerometer (±2/±4/±8/±16 g selectable full scales(default))
- 3D Magnetometer (±50 gauss magnetic dynamic range(default))
- GNSS localization (GPS/GLONASS/BeiDou/Galileo/QZSS)
- Expandable by sensor board and/or digital / analog I/O ports

Connectivity
- LTE CatM1 (FDD)
  - 807 - 869 MHz: B27 (p); 824 - 960 MHz: B5/B8/B13/B18/B19/B20/B26/B1/B2/B3/B4/B25/B66; 1710 - 2180 MHz: B1/B2/B3/B4/B25/B66
  - Power Class 3-5
- LTE NB2 (FDD)
  - 824 - 960 MHz: B5/B8/B13/B18/B19/B20; 1710 - 2180 MHz: B1/B2/B3/B4/B25/B66
  - Power Class 3-5
- 2G
  - GSM/EDGE 850/900/1800/1900 MHz
  - RF output Class 4 (850/900MHz)
  - RF output Class 2 (1800/1900MHz)
- Bluetooth Low Energy v5.1
  - RF output power +8 dBm max
  - Sensitivity -103 dBm max

Security - Rich set of security features
- ARM®TrustZone® Cryptocell 310 security subsystem
- NIST SP800-90A and SP800-90B compliant random number generator
- AES-128 – ECB, CBC, CMAC/CBC-MAC, CTR, CCM/CCM*
- Chacha20/Poly1305 AEAD supporting 128- and 256-bit key size
- SHA-1, SHA-2 up to 256 bits
- Keyed-hash message authentication code (HMAC)
- RSA up to 2048-bit key size
- SRP up to 3072-bit key size
- ECC support for most used curves, including P-256 (secp256r1) and
- Ed25519/Curve25519
- Application key management using derived key model
- Secure boot ready
- Flash access control list (ACL)
- Root-of-trust (RoT)
- Debug control and configuration
- Access port protection (CTRL-AP)
- Secure erase

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