

EBS-50

Smart Base Station

The EBS-50 is a Smart base station that is designed to not only communicate with Electronic Shelf Labels, but also functions as an access point/Wi-Fi router. The EBS-50 is actually a computer that runs the ESL software.



Highlights

- Integrated Linux computer (no separate PC or server required)
- Web based ESL server application (works on any device with a browser)
- Easy installation, configuration and software updates
- Perfect for small retail and multi-store installations
- Upload to the cloud for remote multi-store monitoring
- Customizable dashboard (based on roles and user privileges)
- 2-port Ethernet switch (daisy chain EBS-40s for more radio coverage)
- Power-over-Ethernet (PoE) support
- Basic and advanced network settings (including VPN support)
- Dual band Wi-Fi support (by USB-dongle; configurable as Wi-Fi access point and client)
- Integration with 3rd party software possible using a secured REST-API
- Supports almost all major database formats (CSV, MySQL, MS-SQL, Oracle, ODBC, etc.)
- Support of secure (external) database connections
- Secure communication (SSL, HTTPs, VPN, AES)
- Bi-directional 802.15.4 based radio communication

EBS-50

Product Specifications



Operation

CPU: Dual core ARM Cortex A7, single core ARM Cortex M4
Clock frequency: 1.2GHz, 200 MHz

Memory

Storage: 64GByte eMMC
RAM: 512 Mbyte

Operating indicators

Ethernet: 2x, 10/100/1000 Gigabit, port 1 supports PoE Class 3
USB host: USB-A type dongles supported
USB OTG: Micro USB
Modulation: DSSS
Band: 2.4 GHz, 16 channels (2400-2495 MHz)
Transfer speed: 250 Kbits/sec (>10.000 complete image updates per hour with 2" black/white ESL)
Radio: 2 independent
Max. load: up to 2,500 ESLs per base station (with 2" ESLs and default ESL settings)
Range: typical 25 meter indoor; 100 meter open-field
Protocol: IEEE 802.15.4 based
Encryption: none (default): 256-bit AES encryption (on request)

Power

Voltage requirement: min. 9V, max 16V
Current consumption: 200 mA

Durability

Temperature in operation: 0 to 70 °C / 32 to 158 °F
Temperature in storage: -20 to 70 °C / -4 to 158 °F
Humidity in operation: 20 - 85% (non-condensing)
Humidity in storage: 20 - 85% (non-condensing)

Physical

Dimensions without antennas (WxHxD): 145 x 110 x 27.1 mm / 5.71 x 4.33 x 1.07 in
Weight: Ca. 250 g / 8.8 oz (incl antennas)

Mounting options: wall or ceiling via the supplied mounting plate

Regulatory & safety

Product compliance: FCC, RoHS, EN60950-1, IEC60950-1, EN55022, EN55024, CE, REACH, Anatel