



ORBITER SPARKY™ SPECIFICATION

SCHOOL WALK-RUN RFID LAP COUNTER COMPETITIVE WITH BARCODE

Teach your students to run freely. Unlike barcode systems that create lines. No monthly fees making SPARKY less expensive.

- * SPARKY read range 6 feet v. 40 ft for the Orbiter SPIRE.
- * For High Schools, the SPARKY Icon may be removed as it is affixed with Velcro and may be re-attached at anytime.
- * Kids run single file past Sparky without stopping v. running past in mass with the SPIRE.
- * Easy for teachers set up and use, 15 lbs.
- * Works well in direct sunlight unlike Bar-codes.
- * Easy tag management with trading of tags between classes.
- * Handles an entire school. All Teachers. All Students. All Classes.
- * Rich reports.
- * Times the mile run, split times, and more.

Tags may be traded between students.

Teachers may carry their own tags and issue them at the beginning of each class, and retrieve them at the end of each class.

Optionally, each student may have their own tag too.



SLING PHYSICAL CHARACTERISTICS

Dimensions: 22" (H) x 15" (L) x 6" (W).
 55.8 cm (L) x 38.1 cm (L) x 12.24 (W)
Weight: 13.4 lbs (6.08 kg) including batteries.
Housing Material: Anti Static Foam in a Rugged sling bag, plastics.
Visual Status Indicators: Multi Color LED's for power condition and application status.
Mounting: Mobile placement with high quality in-line skate wheels with bearings for smooth roll on surface.

CONNECTIVITY

Communications: Proprietary RF communications to application layer. 10/100 Base T Ethernet (RJ45) w POE support, USB Client (USB Type B), USB Hoist Port (Type A).
General Purpose I/O 2 input, 32 outputs, optically isolated (Terminal Block).
Power Supply: POE, POE+ or + 24V DC (UL Approved), 120 and 220 AC Marine Plug.
Antenna Ports: Standard Multi Ports connected to Orbiter Phased Detect antenna. Optional 4 and 8 port models available for connecting customer selected antennas.

ENVIRONMENTAL

Operating Temp – Min -23 degrees F (-30.5) Vancouver, BC, Canada, Nov 30, 2015.
 High 131 degrees F, 55 degrees C, Death Valley, CA, July 2015.
Humidity 5-95% non-condensing
Shock and Vibration: MIL-STD-810G

REGULATORY COMPLIANCE

Safety UL 60950-01, UL 2043, IEC 60950-1, EN 90950-1
RF/EMI/EMC FCC Part 15, RSS 210, EN 302 208, ICES-003 Class B, EN 301 489-1/3, MIC school broadcast, regional pre-approval.
SAR/MPE FCC 47CFR2: OET Bulletin 65; EN 50364
Other: ROHS, WEEE

HARDWARE, OS AND FIRMWARE MANAGEMENT

Memory Flash 512 MP, DRAM 256 MP
Operating System Linux
Application Code: Java
Firmware Upgrade Web-based and remote firmware upgrade capabilities
Management Protocols RM 1.0.1 (with XML over HTTP/HTTPS and SNMP and NTP
Network Stack IPv4 and Ipv6
Security Transport Layer Security Ver 1.2 FIPS 140
Air Protocols EPCglobal UHF Class 1 Gen2 ISO 18000 BC
Frequency Band Global Reader 902 MHz – 928 MHz (Maximum, supports countries that use a part of this band) 865 MHz – 869 MHz., 2.4 GHz International Accepted WI-FI band, and Country specific accepted data cellular band.
Transmit Power Output 10 dBm to +31.5 dB, (POE+ 24 volt External DC) +10dBm to +30.0 dBm (POE).
Max Receive Sensitivity -82 dBm
IP Addressing Static and Dynamic
HOST Interface Protocol ORP and LLRP
API Supported Host Applications – Java EDK and Net C, Embedded Applications Java SDK
Warranty 1 year all parts and labor

RECOMMENDED SERVICES

Annual Service and Support includes all parts and labor warranty extension plus automatic software upgrades for 18% of sale price annually.

Advanced Services

RFID design and world wide deployment including IC tag & antenna design, reader build (LF, HF, NFC, UHF, Microwave, IR), application software for local and cloud scaled for super computers. Global reach with in country technicians to service your needs.

