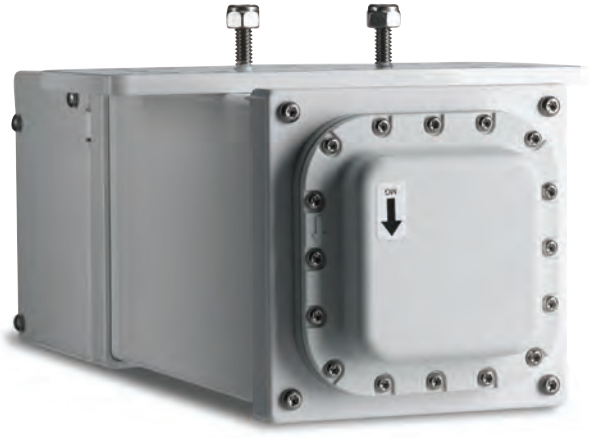
Dart UWB Vision Reader

SEE MORE. DO MORE.



Dart Vision Reader

The Dart Vision Reader provides robust presence detection for inventory and personnel access control. Utilizing patented short-pulse, Ultra-Wideband (UWB) technology, the Dart Vision Reader offers a detection level that exceeds the capabilities of other Radio Frequency Identification (RFID) technologies. It is offered with three standard integrated antenna models (High-Gain, Mid-Gain and Omni) to optimize the footprint of the presence detection region. Each Reader can simultaneously receive thousands of signals emitted by Zebra's active UWB DartTags with a read range upwards of 200 meters (650 ft) with the High-Gain model.

In addition, the Zebra Dart Vision Reader is the world's first UWB Reader that is compliant with the new International UWB Standard, IEEE 802.15.4.f, as well as the ISO-24730-61 Draft International standard. International open standards compliance secures your infrastructure investment by making it compatible not only with Zebra's, but also other standards-compliant UWB tags.

The Dart Vision Reader can be used either as a stand-alone solution or as the perfect complement to the Dart UWB Real Time Locating System (RTLS). The Dart Vision Reader is able to detect Zebra's DartTags in high multi-path, dense metallic environments, making it an ideal presence detector. The Reader is fully weatherproof (IP67 rated) with an operational temperature range of -40°C to +55°C, suitable for demanding indoor and outdoor industrial environments.

Product Features

- **Long Range Active RFID** — Up to 200 meters (650 feet)
- **High Tag Throughput** — Thousands of tags per second capacity
- **Adjustable Range** — 30 cm (1 ft) up to 200 m (650 ft)
- **Easy Installation** — Standard connectivity: 10/100 Ethernet, PoE, Wi-Fi (802.11 b/g); daisy-chain capability
- **Global Acceptability** — US (FCC) and EU (ETSI) certified. Compliant with International UWB standard, IEEE 802.15.4.f, and the ISO 24730-61 Draft International standard
- **Robust UWB RFID** — Excellent detection in high multi-path, difficult environments
- **Weatherproof Enclosure** — IP67 for indoor and outdoor applications

Dart Vision Reader

The Dart Vision Reader is powered by standard IEEE 802.3af Power-over-Ethernet (PoE). The reader supports the transport of the received DartTag messages via Ethernet or via its integral 802.11 b/g Wi-Fi client card (Wi-Fi antennas sold separately). This presence data is delivered in an easy to use format for further integration into RFID edgeware solutions available from Zebra and a variety of vendors.

The Dart Vision Reader offers unique features that allow you to deploy a implement a robust RFID solution. The Reader provides software controlled attenuation, allowing the creation of localized presence zones by dialing in the read range from centimeters to hundreds of meters.

A Dart Vision Reader can be daisy-chained to another Vision Reader (and up to another two Readers with additional PoE injection) providing data via one Ethernet or Wi-Fi connection. This is a great advantage for applications where multiple readers are used to improve reading robustness or extend the total coverage of presence detection regions without the need to expand the IT network.

The Dart Vision Reader is the proven choice for robust asset and personnel presence visibility in demanding industrial, manufacturing, supply chain and badging applications.

SPECIFICATIONS

Models

Dart Vision Reader w/High-Gain Antenna:
UWD-1000-A-01AA
Dart Vision Reader w/Mid-Gain Antenna:
UWD-1000-A-02AA
Dart Vision Reader w/Omni-Directional Antenna:
UWD-1000-A-03AA

Performance

Frequency Range (-10dB)

6.35 to 6.75 GHz

Antenna Gain

- UWD-1000-A-01AA (High-Gain): 13.8 dBi
- UWD-1000-A-02AA (Mid-Gain): 6.5 dBi
- UWD-1000-A-03AA (Omni): 5.0 dBi

Communications

Ethernet

10/100 BaseT, CAT5 Jack, IEEE 802.3af compliant

Wi-Fi

- IEEE 802.11 b/g, antenna ordered separately
- Transmit Frequency Band: 2400-2483.5 MHz
- Transmit Power: 20 dBm EIRP

Configuration & Diagnostics

- Direct connection via Serial Port, RS-232, with Zebra console adapter cable
- Secure Shell 2 and Telnet via TCP/IP Ethernet interface

Environmental/Physical/Power

Operating Temperature

-40°C to +55°C (-40°F to +131°F)

Environmental Sealing

IP67 (Dust & Direct Water Spray Protection)

Length (w/ Drip Shield)

- Mid & High-Gain: 27.9 cm (11.0 in)
- Omni: 38.1 cm (15.0 in)

Width (w/ Mounting Bracket)

17.1 cm (6.75 in)

Height (w/ Mounting Bracket)

10.8 cm (4.25 in)

Weight

2.6 kg (5.8 lbs)

Power Consumption

Standard 802.3af PoE (37 - 57 VDC)

Power Supply

- 802.11af PoE Injector, 100-240 VAC, Up to 100 m Ethernet cable
- Also commonly supplied by Customer 802.3af network switch, Up to 100 m Ethernet cable

Regulatory Approvals

- FCC Part 15 subpart B & C; ICES-003
- UL60950-1, UL60950-22; CAN/CSA-22.2 No. 60950-1-07, CAN/CSA-22.2 No. 60950-22
- CE, EN 300 328, EN 301 489 -17, EN 60950-1

Accessories

- Wi-Fi Antenna – Indoor/Outdoor Omni-Directional, 5.2 dBi: AK-151-00
- Wi-Fi Antenna – Indoor/Outdoor Directional, 13.5 dBi: AK-153-00
- Wi-Fi Antenna – Indoor Omni-Directional, 2.2 dBi: AK-170-00
- IEEE 802.3af Power over Ethernet (PoE) Injector: EP-025-00
- Mounting Arm Dart Vision Reader: UM-120-00
- Console Cable: CBL-440-00

Specifications are subject to change without notice.

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