IP-X Dual Frequency Short Range Read-Only Reader

Description

IPICO's Dual Frequency products offer the same ability as low frequency RF systems for operating tags in lossy mediums, and the same high data rates as those offered by UHF systems. The Dual Frequency operating frequencies are such that tags are not screened by human bodies, conducting liquids, etc. Compared with other low frequency technologies, much longer reading ranges can be achieved, mainly because the return link (Tag to Reader) operates at 6.8MHz, which is much higher than the forward link (for powering the Tag), which operates at 125 kHz. These products employ the robust IP-X ™ anti-collision algorithm, allowing up to 120 tags to be read simultaneously, at a rate of up to 30 tags/s. It handles dynamic tag populations extremely well; the Reader does not have to complete reading a group before new tags are added.

The technology is ideal for tracking people, animals, documents and paper rolls.

The Short Range Dual Frequency Reader has a dual integrated loop antenna system, and can operate as a single unit (linked to a PC, DIMI, or other control device), or in conjunction with a second unit to span a portal, turnstile, or other fairly narrow aperture (<0.8m). For wider coverage, the Medium or Long Range Readers are available. When two Readers are operated together, the Reader connected to the PC is the "Master" unit, while the second Reader is the "Slave". The Master controls the Slave Reader, receives its tag data, which it sends to the PC or DIMI together with its own received tag data.

Key Features

- § Compliant with USA, European, Australian, and RSA spectrum allocations.
- § Robust anti-collision protocol (up to 120 tags simultaneously)
- § Range (using credit card tag): 0.4m Master alone; 0.8m portal spacing using Master & Slave
- § High tag bit rate (128 kbit/s)
- § High speed data link between Master and Slave units
- § Data & control: Binary or ASCII RS232 & Ethernet, with programmable data rate and flow control.
- § Top panel status LEDS: Master Reader indicates Power ON by Red colour, flashing Green rhythmically to indicate Decoder OK, and also with every valid code received. Slave Reader only indicates Power ON by Red LED.
- § Valid tag code buzzer (Master only)

Specifications

Item	Specification
Power Supply	Mains: 110 VAC ± 10%, or 230 ± 10% VAC, 50 – 60 Hz, 1A Fuse
Operating Frequency	Transmit: 125 kHz (Master), 126 kHz (Slave); Receive: 6.8 MHz (Master & Slave)
Antenna type	Integrated 125 kHz and 6.8 MHz loop antennas for forward and return links
RF Output @ 125 kHz (Master), 126 kHz (Slave)	41.5 dBμA/m @ 10m (complies with ETSI EN 300 330-1 v1.3.2 (2002-12) for Europe
Read Range (using "Linear" tag)	0.35 - 0.40m (Master only), 0.8m (Master & Slave spanning a portal)
Data Handling	Data is transmitted to the PC or DIMI immediately.
Communication	Standard: Non-isolated RS232 between Master & Host controller, Ethernet optional
Environmental	Temperature range: Operating -10°C to +70°C, Storage -20°C to +85°C Humidity: 5% to 90% non-condensing IP rating: IP65
Mounting	Removable stainless steel bracket
Physical	Dimensions: 300 (L) x 280 (W) x 110 (H) Weight: 5 kg unpacked

Ordering Information

Product Name	Product Code	Description
DF Short Range Reader, Master RO	IP3378	IP-X DFRDR-SR-M-xxxV-R-RO
DF Short Range Reader, Master, Ethernet, RO	IP3462	IP-X DFRDR-SR-M-xxxV-E-RO
DF Short Range Reader, Slave RO	IP3379	IP-X DFRDR-SR-S-xxxV-RO

To be specified with order: xxxV = Mains voltage, either 110 VAC or 220 VAC, 50 – 60 Hz

Group

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