



IP-X Dual Frequency Medium Range Reader Conference Version



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Description

IP7034

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 same anti-collision algorithm as the popular UHF products, allowing up to 120 tags to be read simultaneously, at a rate of up to 30 tags/s. The technology is ideal for tracking people, animals, documents and paper rolls, as well as for underground and mining applications, including marking buried objects (e.g pipes). The IP-X™ protocol handles dynamic tag populations extremely well; the Reader does not have to complete reading a group before new tags are added.

The Medium 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, door way, or passage. 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): 1m Master alone; 1.8m portal spacing using Master & Slave
- § High tag bit rate (128 kbit/s)
- § Optical Master-Slave link (optional; otherwise cable)
- § 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.

Specifications

Item	Specification
Power Supply	Mains: 110 VAC or 220 VAC, 50-60Hz, 1.A @ 220VAC
Operating Frequency	Transmit: 125kHz (Master), 126 kHz (Slave); Receive: 6.8MHz
Antenna type	Integrated 125 kHz and 6.8MHz loop antennas for forward and return links
RF Output @ 125 kHz (Master), 126 kHz (Slave)	62 dBμA-m @ 10m (complies with ETSI EN 300 330-1 v1.3.2 (2002-12) for Europe, and with ICASA, Gov Gaz No. 23491 20020607 in RSA.)
Read Range (using ISO tag)	1m (Master only), 1.8m (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
Environmental	Temperature range: Operating -10°C to +70°C, Storage -20°C to +85°C Humidity: 5% to 90% non-condensing IP rating: IP40
Mounting	Free-standing metal frame
Physical	Dimensions: 1.4m (H) x 0.4m (L) x 0.2m (W) Weight: 12.5 kg unpacked

Ordering Information

Part number: IP-X DFRDR-MR-C-type-psu-E-RO
type: M = Master, S = Slave
psu: 110VAC or 220VAC

Please consult your local dealer regarding protocol/media converters and DIMI controllers