Intercard Readers

Technical Specifications and Operating Manual

Prepared By Intercard
July 2020

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Version Control Statement and History

Version Control Statement

Use the current version of this document from the document repository. The current version supersedes any other versions of this document, electronic, or printed.

Version History

Version	Approval Date	Owner	Description of Change
v1.1.01	July 2020	Technical Services	Created

iReader Specifications

Scope

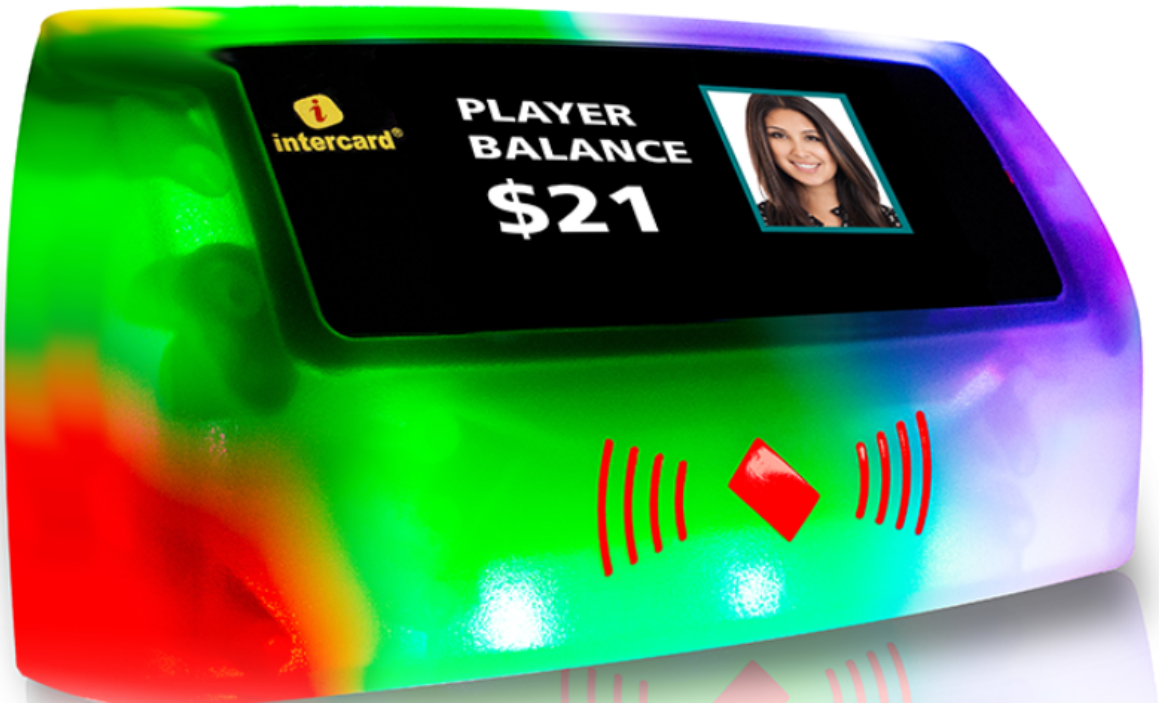
This document pertains to the following families of part numbers:

iReader

- 1918 Series of Part Numbers
- Magnetic Stripe Card Interface
- Customizable Oversized Color Display
- WiFi Network Interface Standard, 100Mb Ethernet Optional
- Self-Contained, All-in-One Unit

iWave

- 1919 Series of Part Numbers
- RFID Card Interface
- Near Field Communication (NFC) Compatible
- Color Display Customizable to Match FEC Theme
- Programmable LED Lighting
- WiFi Network Interface Standard, 100Mb Ethernet Optional
- Self-Contained, All-in-One Unit



i3 Reader

- 1920 Series of Part Numbers
- RFID Card Interface
- Magnetic Stripe
- Near Field Communication (NFC) Compatible
- Programmable LED Lighting
- WiFi Network Interface Standard, 100Mb Ethernet Optional
- Self-Contained, All-in-One Unit

iImpulse

- 1920 Series of Part Numbers
- Magnetic Stripe Card Interface
- WiFi Network Interface Standard, 100Mb Ethernet Optional
- Takes both play cards and credit cards
- Self Contained, All-in-One Unit

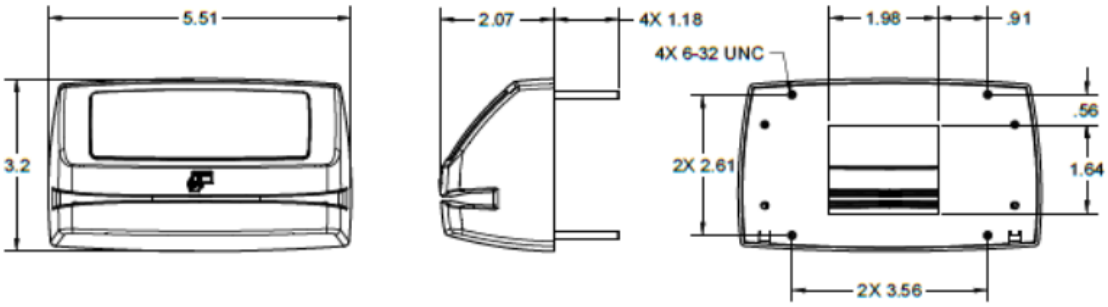
Nano

- 1921 Series of Parts
- Wireless WiFi Technology
- Display: Monochrome L 2.2” by H .6”
- Type: LCD - Negative - Transmissive
- Backlight: LED yellow green, 8-bit serial interface
- Self-Contained, All-in-One Unit

Nano Eclipse

- 1921 Series of Parts
- RFID Card Interface
- Magnetic Strip
- Near Field Communication (NFC) Compatible
- Programmable LED Lighting
- WiFi Network Interface Standard, 100 Mb Ethernet Optional
- Self-Contained, All-in-One Unit

3 Dimensions and Mounting Interface



Note: All figure dimensions in inches.

Debit Interfaces

- Mag Stripe and
- NFC / ISO14443 RFID

Display

- 3.0 inch, 240x400, TFT LCD
- LED Backlight

Communications

WiFi

A WiFi network interface is available on all iReader products described herein.

- 802.11b
- 802.11g
- 802.11n

Ethernet

An optional Ethernet interface is available.

- 10/100 Mb

Connectors

Power and I/O

The recommended power and I/O cable is Intercard Part Number 95-22205.

Ethernet

- RJ-45

RS-232

Intercard offers adapter harnesses to connect the reader to RS-422 / RS-485 networks through the RS-232 connector.

Power Requirements

- 12 Vdc +/- 15%
- 1.0A

Operating Environment

Temperature

- 25 ~ 140°F [-10 ~ 60°C]
- Operating ambient temperature range

Humidity

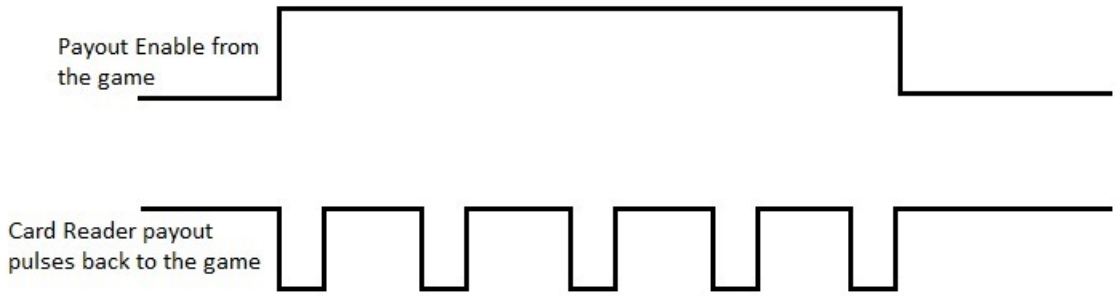
- Non-condensing at all operating temperatures
- 9.3 Ingress Protection
- IP50
- Waterproof versions available

Card Reader Interface Connector

Pin	Description	
1	E-Ticket Notch (or Paper Ticket Monitor)	Redemption, E-Tickets payout interface
2	E-Ticket Motor Enable	
3	Coin (Token) Drop Monitor	
4	Relay Common	Machine Coin Up Interface
5	Relay N/O	
6	Relay N/C	
7	Paper Ticket Motor Enable	Ticket Dispenser bridge Interface
8	Paper Ticket Notch	
9	Coin UP Cash Coin Monitor	
10	Test Button	
11	GND	
12	Power +12 VDC	

All Inputs/Outputs (excluding relay contacts) have internal pull-up @ 5V and can be overridden up to 26V, but not to exceed 90mA by an external pull-up.

Pin 1 - E-Ticket payout pulses back to the redemption game.
Pin 2 - Motor (Ticket Payout) enable from the redemption game (start generating payout pulses).



The Card Reader and redemption game must have a common signal ground for proper E-Ticket payout. Ensure the external power supply and game signal grounds are common.

Pin 3 - Recording Coins (Tokens) dropped into the arcade machine.

Pins 4, 5 and 6 - The Card Reader uses solid-state relay dry contacts to coin up the arcade game.

There is no power on relay contacts or any internal pull-up or pull-down resistors. External pull-up or pulldown must be added if required by the game specifications.

A standard Card Reader is populated with C (common) and N/O (normally open) solid state relay chip (connector Pins 4 and 5).

In case N/C (normally closed) contact is required (Pin 6), a different card reader part number must be ordered.

Pin 7 - Motor Enable signal to ticket dispenser (start dispensing paper tickets).
Pin 8 - Paid out paper tickets pulses to the card reader.
Pin 9 - Monitoring cash coins that are used to actuate arcade game.
Pin 10 - Test Push button (optional)
Pin 11 - Power and Signal ground
Pin 12 - Power +12VDC