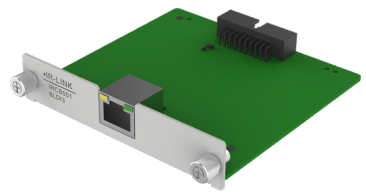
INOVANCE



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IRCB501 Series

IR-LINK Expansion Card User Guide

Preface

Thank you for purchasing the Inovance IRCB501 series expansion card.

The IRCB501 series expansion cards are developed specifically to expand resources for robot control systems. This series includes encoder expansion cards and I/O expansion cards.

This guide describes how to correctly use your card. Before use (installation, wiring, operation, maintenance, and inspection), please read this guide carefully and make sure to understand the safety precautions. If you are an equipment manufacturer, make sure to send this guide along with your equipment to end users for future reference.

During the use of this product, you may need to consult the following guides:

Doc Name	Data Code
IRCB501 Series Robot Control Cabinet User Guide	PS00010914
IRTP80 Series Teach Pendant User Guide	19012261

User guides may be updated without prior notice. You may download the latest version at www.inovance.com.

1. Product Information

Expansion Card

Name	Model	Function
IR-LINK expansion card	IRCB501-6LDI3	IR-LINK expansion

Installation Dimensions

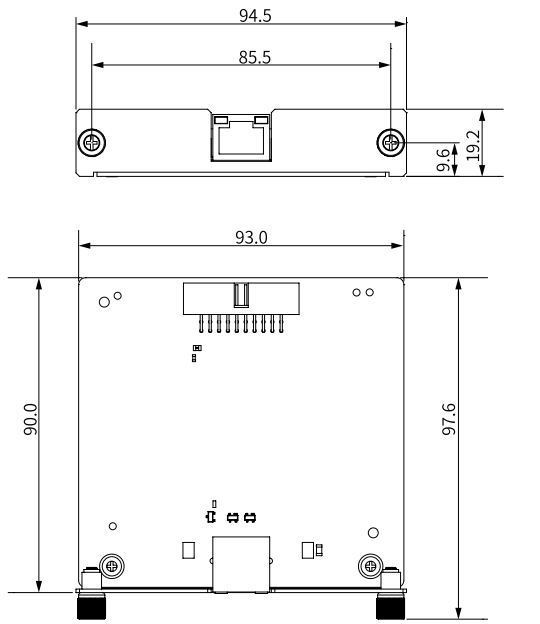
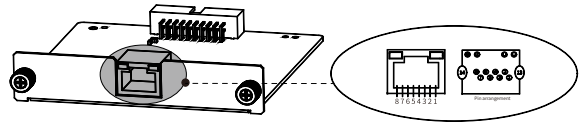


Figure 1 Dimensions of the IR-LINK expansion card (unit: mm)

Terminal Assignment



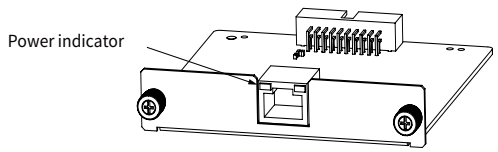
Pin	Name	Description
1	IR-LINK_TX–	Differential data output–
2	IR-LINK_TX+	Differential data output+
3	IR-LINK_RX–	Differential data input–
4	GND	GND
5	GND	GND
6	IR-LINK_RX+	Differential data input+
7	GND	GND
8	GND	GND
9	Light emitting diode anode	5 V pull-up power supply
10	GND	GND
11	N/A	Not connected
12	N/A	Not connected
13	PE	Shielding ground
14	PE	Shielding ground

Product Specifications

Item	Specifications
Number of channels	1
Connection mode	Differential input and output
Speed	10 Mbps
Differential input signal	IR-LINK_RX+/IR-LINK_RX–
Differential output signal	IR-LINK_TX+/IR-LINK_TX–
Differential voltage	0 V to 5.5 V
Ambient temperature and humidity	Temperature: 0° C to 45° C; humidity: 20% to 95% RH (30° C), non-condensing
Storage temperature and humidity	Temperature: –10° C to +60° C; humidity: < 95% RH (30° C), non-condensing

Note: The ambient temperature and humidity range of the expansion card matches all robot control cabinets.

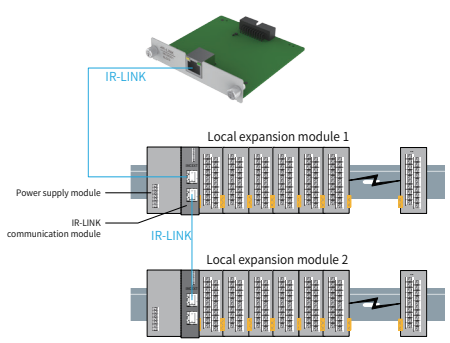
Indicators



After the control cabinet is powered on, the yellow indicator in the upper left corner indicates the status of the 5 V power supply: on for normal, and off for abnormal. The green indicator in the upper right corner has no meaning and can be ignored.

2. IR-LINK Expansion Card Networking

The IR-LINK expansion card can be networked and communicate with various expansion modules of the IMC100 series controllers through the IR-LINK communication module, as illustrated in the diagram below. This setup supports unlimited number of stations, enabling the creation of an infinite communication network for multi-point control systems. Within this network, power modules are interchangeable with other 24 V power supplies, with the use of shielded network cables recommended.



Product Code	Model	Description
01650001	IMC100-RTU-ICT	IR-LINK communication module
Local Expansion Modules		
Product Code	Model	Description
01650002	IMC100-8AD	8-channel voltage or current AD module
01650003	IMC100-4DA	4-channel voltage or current DA module
01650004	IMC100-0808-ETND	8-in 8-out digital I/O module
01650005	IMC100-2ENID	2-channel incremental encoder input module
01650006	IMC100-1600-END	16-channel digital I/O input module
01650007	IMC100-0016-ETPD	16-channel digital I/O output PNP module
01650008	IMC100-0016-ETND	16-channel digital I/O output NPN module

INOVANCE Warranty Agreement

- Inovance provides a 12-month free warranty service to the product from the date of factory shipment. The free warranty service covers free repairs and replacements in the case of product failure or damage caused by defects of the product under normal use conditions.
- Paid warranty service will be provided in the following scenarios:
  a) The warranty period for the product on site has expired.
  b) Damage is caused by improper operations violating the user guide of the product.
  c) Damage is caused by inadequate protection measures in harsh environments, such as severe dust, humidity, and high temperatures.
  d) Damage is caused by natural disasters, such as lightning, fire, floods, and earthquakes.
  e) Damage is caused by peripheral equipment faults, such as poor wiring, water ingress, and abnormal voltages.
  f) Additional support is required for equipment commissioning and installation.
  g) New features, modifications, program changes, application issues, and selection errors.
- If the equipment is faulty or damaged, fill in the Warranty Card correctly and in detail.
- The maintenance fee will be charged according to the latest Maintenance Price List of Inovance.
- The Warranty Card is not re-issuable. Keep the card well and present it to the maintenance personnel during maintenance.
- If there is any problem during the service, contact Inovance's agent or Inovance directly.
- Inovance reserves the rights for explanation of this agreement.

INOVANCE Robot Warranty Card

Customer info.	Company add.:	
	Company name: Post code:	Contact: Tel.:
Product info.	Product model:	
	Barcode (paste the barcode here):	
	Agent:	
Fault	Fault description: Recorded by:	

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Technical Service Center
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