



Installation Instructions

EtherNet/IP Daughtercard

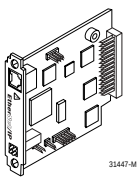
Catalog Number 1788-ENBT

Use this document as a guide to install the EtherNet/IP daughtercard. This document covers only the hardware installation; refer to the FlexLogix System User Manual, publication 1794-UM001, for information about configuring the daughtercard.

This table lists the contents of the document and where to find specific information.

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About the EtherNet/IP Daughtercard



The network daughtercard architecture defines a common hardware and software interface that several different network interface cards will support. This lets products that have been designed to support the network daughtercard option support several different Rockwell Automation networks.

You can install the 1788-ENBT EtherNet/IP daughtercard in any host device that supports the daughtercard.⁽¹⁾

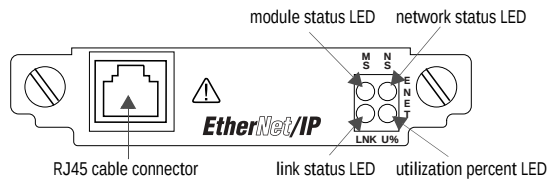
Required Software

Use RSLogix 5000 programming software V11 or later to configure a FlexLogix/DriveLogix system for use with the EtherNet/IP daughtercard.

Related Publications

Publication Title	Publication Number
EtherNet/IP System Overview	ENET-SO001
EtherNet/IP Media Planning and Installation Manual	ENET-IN001
EtherNet/IP Performance and Application Guide	ENET-AP001
FlexLogix System User Manual	1794-UM001
EtherNet/IP Daughtercard User Manual	1788-UM054

Identifying Daughtercard Components



⁽¹⁾ The host device must provide suitable power source per the restrictions in the specifications table on page 11.

Install the Daughtercard

Due to wide variation in available host devices, we cannot provide specific installation instructions in this document. For instructions on how to install the daughtercard in a host device, refer to the user manual for the particular host device.

IMPORTANT

Do not insert or remove the daughtercard while the host is under power. The daughtercard is **not** designed to be inserted or removed while the host is powered.

WARNING



Inserting or removing the module while host power is on may cause an electrical arc. This could cause an explosion in hazardous location installations.

Connect the Daughtercard to the Network

After you have installed the daughtercard, you can connect it to the network via the RJ45 connector.

WARNING



If you insert or remove the card while host power is on **OR** if you connect or disconnect the Ethernet cable with power applied to this module or any device on the network, an electrical arc can occur.

Either could cause an explosion in hazardous location installations.

Be sure that power is removed or the area is nonhazardous before proceeding.

Interpret the LED Status Indicators

The four status indicators on the daughtercard provide information about the network, the daughtercard, and its connections.

The following tables outline the possible states, explain what each state means, and indicate what action you should take, if any, to correct that state.

Module Status (MS) Indicator

This LED indicates whether or not the daughtercard has power and is operating properly.

Condition	Status	Indicates	Recommended Action
off	no power	The daughtercard does not have power.	Check the host power supply. Verify that the daughtercard is firmly seated in the host's slot. Replace daughtercard and/or host.
flashing green	standby	The daughtercard does not have an IP address and is operating in BOOTP mode.	Verify that the BOOTP server is running.
green	OK	The daughtercard is operating correctly.	Normal operation. No action required.
red	held in reset	The host is holding the daughtercard in reset or the host is faulted.	Verify that the daughtercard is firmly seated in the host's slot. Clear the host's fault. Replace daughtercard and/or host.
	self-test	The daughtercard is performing its power-up self-test.	Normal operation during powerup.
	major fault	An unrecoverable fault has occurred.	Cycle power to the host. Replace the daughtercard and/or host.
flashing red	updating firmware	The daughtercard firmware is being updated.	Normal operation during firmware update. No action required.

Specifications

Characteristic	Value
Power Requirements	5V dc @ 465mA ⁽¹⁾
Power Consumption Thermal Dissipation	5 V dc, 2.33W 8.0 BTU/hr
Isolation Voltage	Tested to withstand 500V ac for 60 seconds
Ethernet Conductors Wiring Category	802.3 compliant - twisted pair 2 ⁽²⁾
Ethernet Connector	RJ45 Category 5
Emissions	CISPR 11: Group 1, Class A (with appropriate enclosure)
ESD Immunity	IEC 61000-4-2: 6kV contact discharges 8kV air discharges
Radiated RF Immunity	IEC 61000-4-3: 10V/m with 1kHz sine-wave 80%AM from 30MHz to 2000MHz 10V/m with 200Hz 50% Pulse 100%AM at 900Mhz
EFT/B Immunity	IEC 61000-4-4: ±2kV at 5kHz on communications ports
Surge Transient Immunity	IEC 61000-4-5: ±2kV line-earth (CM) on communications ports
Conducted RF Immunity	IEC 61000-4-6: 10Vrms with 1kHz sine-wave 80%AM from 150kHz to 80MHz
Enclosure Type Rating	None (open-style)
Operating Temperature	IEC 60068-2-1 (Test Ad, Operating Cold), IEC 60068-2-2 (Test Bd, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock): This product is suitable for application in equipment that is rated 0 to 60°C (32 to 140°F) maximum. It is acceptable for the ambient slot temperature immediately surrounding this product to reach 85°C (185°F) maximum.
Storage Temperature	IEC 60068-2-1 (Test Ab, Un-packaged Non-operating Cold), IEC 60068-2-2 (Test Bb, Un-packaged Non-operating Dry Heat), IEC 60068-2-14 (Test Na, Un-packaged Non-operating Thermal Shock): -40 to 85°C (-40 to 185°F)
Relative Humidity	IEC 60068-2-30 (Test Db, Un-packaged Non-operating Damp Heat): 5 to 95% non-condensing
Shock	IEC60068-2-27 (Test Ea, Unpackaged Shock): Operating 30g Non-operating 50g

Vibration	IEC60068-2-6 (Test Fc, Operating): 5g @ 10-500Hz
Weight	0.1 kg (0.2 lb.)
Certifications: (when product is marked)	c-UR-us UL Recognized Component Industrial Control Equipment for Class I, Division 2 Group A,B,C,D Hazardous Locations, certified for US and Canada. CE⁽³⁾ European Union 89/336/EEC EMC Directive, compliant with: EN 61000-6-4; Industrial Emissions EN 50082-2; Industrial Immunity EN 61326; Meas./Control/Lab., Industrial Requirements EN 61000-6-2; Industrial Immunity C-Tick⁽³⁾ Australian Radiocommunications Act, compliant with: AS/NZS 2064; Industrial Emissions EtherNet/IP ODVA conformance tested to EtherNet/IP specifications.

- ⁽¹⁾ To comply with UL restrictions, this equipment must be powered from a source compliant with the following: Class 2 or Limited Voltage/Current, as defined in UL 508 Seventeenth Edition Section 32.
- ⁽²⁾ For information on conductor routing refer to publications 1770-4.1, Industrial Automation Wiring and Grounding Guidelines, and ENET-IN001, EtherNet/IP Media Planning and Installation Manual.
- ⁽³⁾ See the Product Certification link at www.ab.com for Declarations of Conformity, Certificates, and other certification details.

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