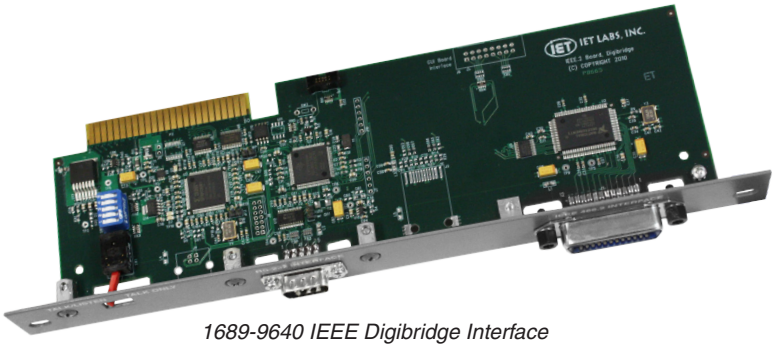
1689-9640 Digibridge Interfaces

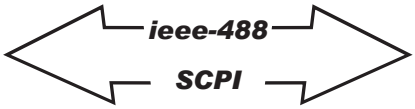
The IEEE.488.2 Interface board is a major upgrade to the legacy 488.1 interface. It supports both the legacy commands as well as the more current 488.2 and SCPI commands.

- Major upgrade to the legacy 1658-9620 IEEE 488.1 board.
- Supports the IEEE 488.2 and SCPI interface standards and communication protocols.
- Supports IEEE-488.1-1987, IEEE-488.2-1992 and SCPI-1999.
- Supports field upgrading of firmware via the RS232 Serial and the IEEE 488 interfaces using a downloadable, self-contained Windows application.
- The IEEE 488.2 interface utilizes the industry standard National Instruments TNT4882 for broadest compatibility.
- The RS232 Serial interface supports full duplex hardware handshake as well as 3-wire null modem cables.
- Works with most original GenRad and IET Digibridge models.

The board provides IEEE 488.2 (GPIB) and RS232 Serial interfaces to the Digibridge series instruments via a standard IEEE 488 and 9-pin male serial connectors. The interface can be used to connect directly to a controller or to an IEEE 488.2 bus.



1689-9640 IEEE Digibridge Interface



Specifications

IEEE 488 Functions Implemented

AH1 Acceptor Handshake (Listener)
SH1 Source Handshake (Talker)
T5 Talker with normal and Talk-Only modes
L4 Listener
SR1 Service Request
RL2 Remote/Local
PP0 No Parallel Poll
DC1 Device Clear
DT1 Device Trigger
C0 No controller functions
E2 Electrical Interface

IEEE 488 Addressing

The IEEE 488 Listener/Talker primary address within the range of 0 to 30 is selected via a 5-position DIP switch.

IEEE-488 Talk/Listen -- Talk Only Switch

The interface board can be set for Talk Only or Talk/Listen operation via a toggle switch on the rear panel. The **Talk Only** mode is useful in setups that do not contain an IEEE 488 controller, such as connecting the Digibridge to an input-only device. The **Talk Listen** mode requires the use of an IEEE 488 controller.

SRQ Generation

SRQs are generated if the device is not a talker, if SRQs are enabled and an Enabled Event Status Register bit asserts.

Supported Commands

The interface supports both IEEE 488.2 and SCPI commands as well as Digibridge Legacy short form commands for full Digibridge instrument configuration setup, control, and measurement data acquisition.

RS232 Serial Interface

The RS232 Serial interface supports full duplex hardware handshake as well as 3-wire null modem cables.

Baud Rate: 9600 to 115,200 baud
Data Bits: 8
Stop Bits: 1 or 2
Parity: Even, Odd, or None
Handshake: Hardware, XON/XOFF, or None

IEEE 488.2 Interface

The IEEE 488.2 interface utilizes the industry standard NI TNT4882 for broadest compatibility.

Field Upgradable Firmware

Field upgrading of firmware is supported via the RS 232 Serial and the IEEE 488 interfaces using a downloadable, self contained Windows application. For upgrading via the RS232 Serial interface, a 9 pin null modem cable is required. Upgrading via the IEEE 488 interface requires a supported NI IEEE 488 interface adapter and a GPIB cable.

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TEL: (516) 334-5959 • (800) 899-8438 • FAX: (516) 334-5988

1689-9640 Digibridge Interfaces

Specifications (continued)

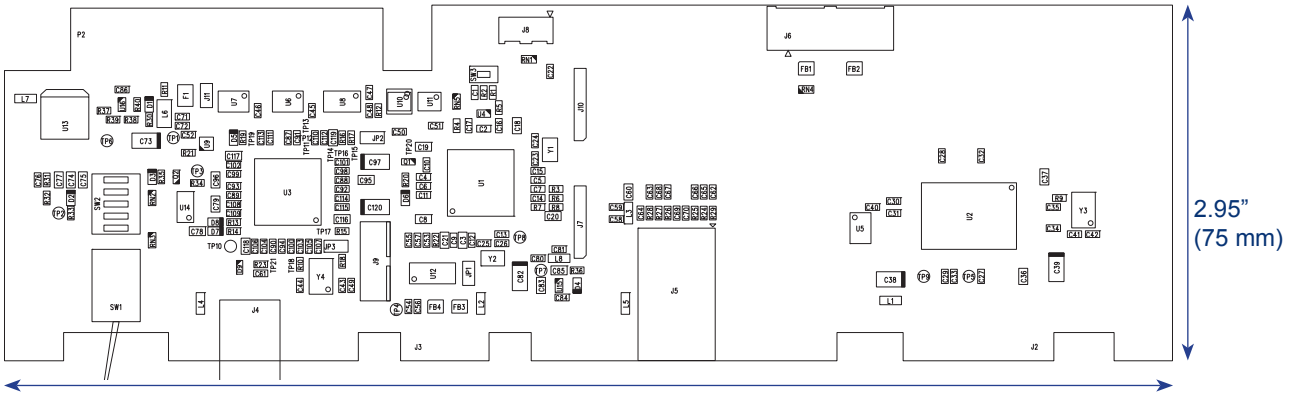
Weight:
0.31lb (140g)

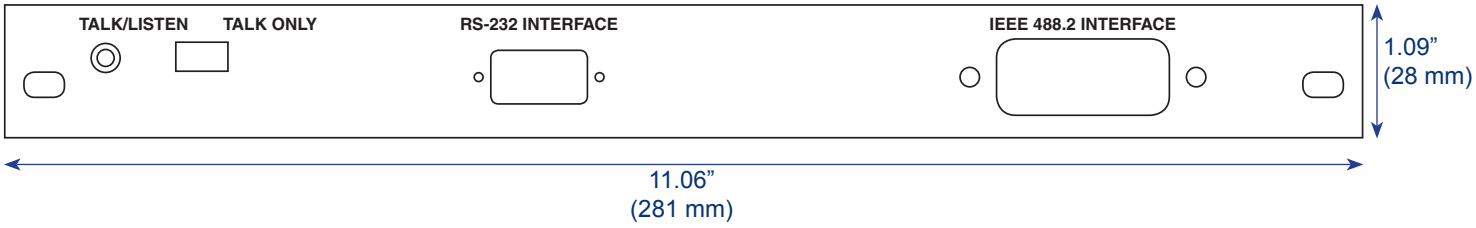
Environmental Conditions:
Operating Temperature: 0°C to +50°C
Storage Temperature: -40°C to +90°C
Humidity: 0 to 90% RH without condensation

Construction:
Six-layer FR4 PCB with aluminum mounting bracket

Connectors:
IEEE 488 Bus standard 24-contact metal shell with metric studs (IEEE 488 cable shield is connected to Digibridge instrument chassis ground).
RS232 standard 9-pin DE shell male connector DTE serial (a standard 9-pin Female-to-Female Null Modem cable is required for connection to a PC).

Power:
+5 Vdc @ 500 mA (max) from internal instrument card edge connection





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