

Agilent Technologies J6872A 10 Gigabit/Gigabit Ethernet Interface

Data Sheet



Technology to quickly identify and solve
problems in today's complex networks



Agilent Technologies

The J6872A 10 Gbps/Gbps Ethernet Interface

Introduction

The Agilent 10 Gbps/Gbps Ethernet Interface provides advanced Ethernet packet capture and processing for Agilent's diagnostic and protocol test solutions; Signaling Analyzer and Network Analyzer. It is also the high-speed Ethernet interface for the Agilent NgN Analysis System network monitoring and analysis solution.

Never miss a network problem, capture all the data all the time under any network load. The J6872A is a next-generation design utilizing advanced field programmable gate arrays and content addressable memory. Extensive packet filtering, slicing, tagging and indexing provide you the power to effectively solve more network problems more quickly and more efficiently.

Solution Summary

- PCI-Express interface card
- 5 - Ethernet access and test ports
 - 2 Ports support: 10 Gbps, 1 Gbps, 100 Mbps, or 10 Mbps Ethernet
 - 3 Ports support: 10 Mbps, 100 Mbps or 1 Gbps Ethernet
- Small Form Factor Pluggable (SFP) transceivers
 - Select copper or optical for 10 Mbps, 100 Mbps or 1 Gbps Ethernet
 - Select short or long reach 10 Gbps optical Ethernet
 - Each Ethernet port contains a single transmitter and a single receiver
- Full-line rate user plane and control (signaling) plane analysis
- On-board capture buffer: 3.5 GByte
- Time stamping with 10 nanoseconds resolution is applied to all packets received
- The interface provides packet acquisition, filtering, and analysis. Please view the Signaling Analyzer, Network Analyzer, or the NgN Analysis System data sheets for details regarding measurement and analysis capabilities at 10 Gbps.

Supported Configurations

- The Ethernet Blade interface can be configured with the following SFP types:
 - Copper 1000Base-T, 100Base-T, and 10Base-T RJ-45
 - Gigabit Ethernet Optical – Multi-mode SX SFP optical transceiver
 - Gigabit Ethernet Optical – Single-mode LX SFP optical transceiver
 - 10 Gigabit Ethernet Optical – Short Reach (SR) multi-mode SFP+
 - 10 Gigabit Ethernet Optical – Long Reach (LR) single-mode SFP+
 - Supports SFP+ Direct Attach twin-ax cable
- Status activity LED indicators for all ports

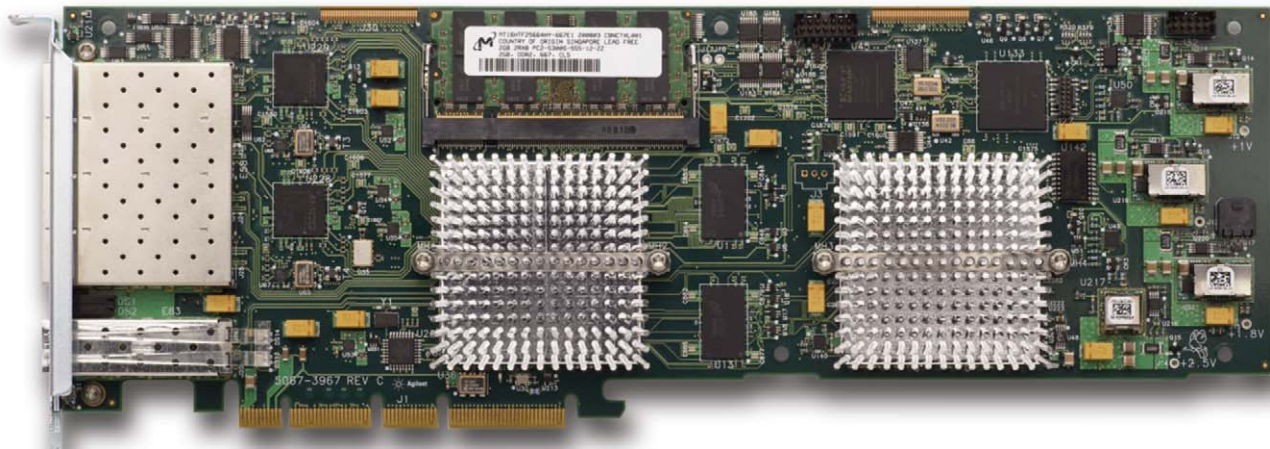


Figure 1. J6872A 10GigE/GigE Blade Interface

Physical Characteristics

J6872A 5 Port 10 Gigabit Ethernet/Gigabit Ethernet Blade Interface

PCI-Express version: 1.1

Bus Type: x8 Lane PCI Express, operable in x8 and x16 slots

Weight: 0.34 kg (0.75 lb)

Dimensions: 107 (h) x 18 (w) x 312 (d) mm (4.2 x 0.7 x 12.3 inches)
(Full height, Full length)

Power Consumption: 45 watts maximum

Power Requirements: 12 volts, 3.5 amps; 3.3 volts, 1.0 amps

Temperature:

Operating: +5° to +40° C (+41° to +104° F)

Non-operating -25° to +60° C (-13° to +140° F)

Humidity:

Operating: 20% to 80% non-condensing

Non-operating: 10% to 90% non-condensing

Altitude:

Operating: up to 4,570 m (15,000 ft)

Non-operating: up to 12,200 m (40,000 ft)

Regulatory Compliances

- EMC Qualification: IEC 61326-1
- ICES-001
- AS/NZS 2064.1
- CE

SFP Specifications:

10GBASE-SR SFP+ Optical Transceiver

- Multi-mode fiber, 850 nm
- Per IEEE 802.3ae 10GBASE-SR (Short Reach) specification
- LC Duplex optical connector, conforming to ANSI TIA/EA 604-10 standard
- RoHS compliant

10GBASE-LR SFP+ Optical Transceiver

- Single-mode fiber, 1310 nm
- Per IEEE 802.3ae 10GBASE-LR (Long Reach) specification
- LC Duplex optical connector, conforming to ANSI TIA/EA 604-10 standard
- RoHS compliant

Gigabit Ethernet 1000BASE-SX SFP Optical Transceiver

- Multi-mode fiber, 850 nm
- Per IEEE 802.3 1000BASE-SX specification
- LC Duplex optical connector
- RoHS compliant

Gigabit Ethernet 1000BASE-LX SFP Optical Transceiver

- Single-mode fiber, 1310 nm
- Per IEEE 802.3Z 1000BASE-LX specification
- LC Duplex optical connector
- RoHS compliant

10/100/1000 BASE-T Ethernet SFP Transceiver

- Auto-Negotiation support for automatic duplex, speed and flow control
- Per IEEE 802.3-2002 specification
- RJ-45 copper connector
- RoHS compliant

Product Configuration and Options

J6872A	10 Gigabit/Gigabit Ethernet Blade interface
J6872A-10G	10GigE/GigE Blade interface
J6872A-1GE	GigE Blade interface
J6872A-Upgrade	License to upgrade interface from GigE to 10 GigE

SFP options:

J6758A	SFP Transceivers:
J6758A-1SX	SX Multi-mode optical fiber SFP
J6758A-1LX	Single-mode optical fiber SFP
J6758A-1TX	10/100/1000 Mbps Base-T copper SFP
J6758A-10SR	10GBASE-SR Multi-mode optical fiber
J6758A-10LR	10GBASE-LR Single-mode optical fiber



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