HOTLink™ Evaluation Board

Features

- **160 to 330 Mbps point-to-point serial data link**
- **Parallel-to-serial and serial-to-parallel I/O**
- **10-bit-wide 8B/10B encode, decode or unencoded**
- **Full system diagnostics with Built-In-Self-Test (BIST)**
- **Compliant with ESCON®, Fiber Channel and ATM standards**
- **Compatible with Fiber Channel FC−0 specification (CY9266−C/T):**
  - **— 25−TV−EL−S**
  - **— 25−MI−EL−S**
  - **— 25−TP−EL−S**

- **Compatible with Fiber Channel FC−0 specification (CY9266−F):**
  - **— 25−M6−LE−I**
- **Development tool for proprietary networks**
- **Two-digit error display for BER analysis**
- **Multiple host interface:**
  - **— 48-pin connector (IBM OLC-266™ compatible)**
  - **— 60-pin edge connector**
  - **— 58-pin two-row right-angle connector**
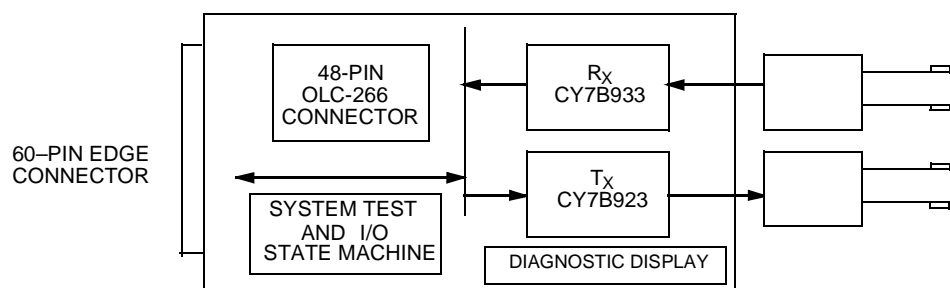- **Easy to use for applications development**

Figure 1. Copper Media Interface Evaluation Board CY9266-C 9266-1
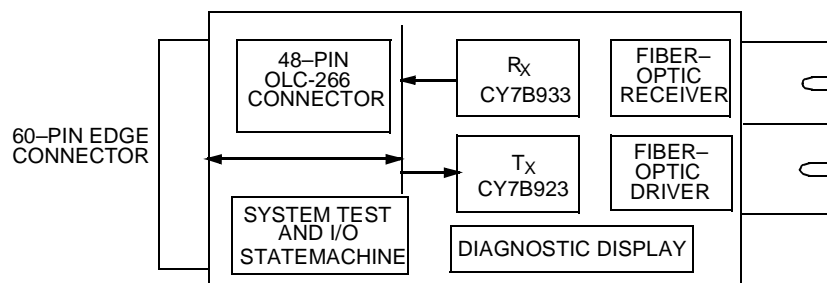

Figure 2. Fiber-Optic Interface Evaluation Board CY9266- F 9266-2
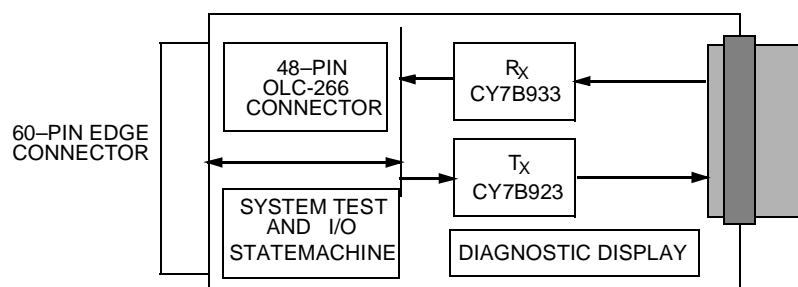

Figure 3. Twisted-Pair Interface Evaluation Board CY9266-T 9266-3

Functional Description

The HOTLink™ Evaluation Board (CY9266) is a system development tool that facilitates the design and evaluation of the Cypress HOTLink transmitter (CY7B923) and receiver (CY7B933) devices. The CY9266 Evaluation Board is offered with three serial media interface options: CY9266−C (copper), CY9266−F (fiber), and CY9266−T (twisted pair). The CY9266−C offers a low cost 1/4" coaxial connection, the CY9266−F interfaces with a longwave (1300 nm) LED optical transceiver and SC fiberoptics connector, and the CY9266−T is configured to support shielded twisted pair or twin axial cable that attaches through a 9-pin D-sub connector.

The CY9266 accepts data and control commands from the host via the parallel interface ports (available in three connectors). The 48-pin header connector allows interoperability with the IBM OLC−266 interface. The two 60-pin connectors are functionally equivalent. The vertical pin connector is used for probing and monitoring the appropriate signals, while the edge connector can be connected to a flat ribbon cable as a direct host communication interface.

In a typical point-to-point link, the host downloads parallel data to the CY9266 Evaluation Board. Parallel data can be formatted as pre-encoded 10-bit patterns or 8-bit data/special characters to be encoded by the HOTLink transmitter. The data is then encoded (optionally) and serialized by CY7B923 HOTLink Transmitter. Serial data is then transmitted via coax, twisted pair, or fiber.

In the receive operation, serial data is sent from a remote source (via copper/fiber/twisted pair) and transferred to the CY7B933 HOTLink receiver. The serialized data is converted to parallel and then optionally decoded. Parallel data is transferred to the host system along with various status and synchronizing signals. All I/O operations are performed between the host and the Evaluation Board using simple handshakes.

The CY9266 Evaluation Board can also operate in self-diagnostic mode and indicate errors in the serial transmission stream using a built-in two-digit, seven-segment LED display.

Typical Applications for the Evaluation Board include:

- HOTLink system development
- Telecommunication
- Remote data acquisition
- Processor-to-disk/peripheral communication
- Backplane extender
- Point-to-point video/image communications
- Point-to-point CPU/server communications
- High-speed data switching (TI Multiplier, etc.)
- Similar in function to IBM OLC-266 (single channel) and HP HOLC-0266™

Specification

Board Dimensions 3.0" x 4.0" (approx., plus media connector)
Two media types:

CY9266−C	Coax connectors BNC for transmit, TNC for receive
CY9266−F	Fiber optic module, single row or 4 row modules
CY9266−T	Twisted pair connector, 9-pin D-sub

Power Supply +5V±5%
Maximum Clock Rate 33 MHz
Maximum Data Rate 330 Mbps
Parallel I/O TTL
Serial I/O Coax or twisted pair (CY9266−C/T) or Fiber optic with SC connector (CY9266−F)

Ordering Information

Ordering Code	Media Type
CY9266−C	Copper
CY9266−F	Fiber
CY9266−T	Twisted Pair
CY9266−FX	Fiber w/o optic module

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