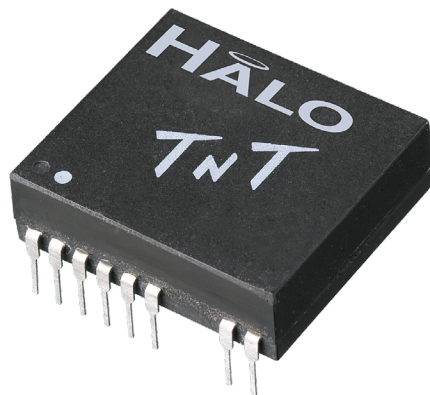


# "TnT" - Thinnest Transceiver

Complete "On-Board" Thinnest Solution



## Product Features:

- Compliant with ANSI/IEEE802.3 and ISO8802-3 Standards for Thin Net
- Low Power Transceiver Chip and High Efficiency DC/DC Converter.
- Contains all Thin Net Transceiver Functions in a Single 20-pin Package.
- Squelch Circuits on All Signal Inputs to Eliminate Noise
- Heartbeat Function Enable/Disable
- Wide Variety of Input Voltages

Part Number	Input Voltage	Vee Ripple (Max. @ 20MHz)	Input Current (max)	Operating Temp.	Storage Temp.	Enable Feature
MD-001HRL	5V $\pm$ 5%	100mVpp	225mA	0 to 70°C	-40 to +125°C	No
MD-002HRL	5V $\pm$ 5%	100mVpp	235mA	0 to 70°C	-40 to +125°C	Yes
MD-003HRL	3.3V $\pm$ 5%	100mVpp	340mA	0 to 70°C	-40 to +125°C	No
MD-004HRL	3.3V $\pm$ 5%	100mVpp	340mA	0 to 70°C	-40 to +125°C	Yes
MD-012HRL	12V $\pm$ 5%	100mVpp	110mA	0 to 70°C	-40 to +125°C	No
MD-013HRL	12V $\pm$ 5%	100mVpp	115mA	0 to 70°C	-40 to +125°C	Yes
MDQ-001HRL	5V $\pm$ 5%	40mVpp	225mA	0 to 70°C	-40 to +125°C	No

## Notes:

1. Please contact the factory or representative for individual datasheets or additional information.
2. Surface mount options also available.

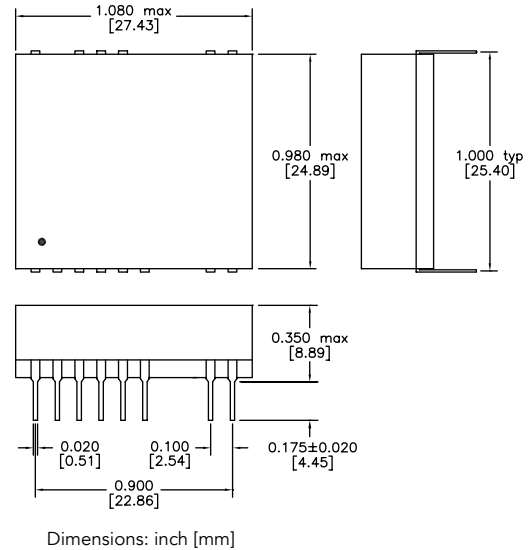
## HALO's Commitment to Long Term Availability

The transceiver chip inside of the HALO TnT module is the H83C92. Over the years, the IC industry has either discontinued or announced End of Life (EOL) of the 83C92 ICs traditionally used in Thinnest applications. The IEEE802.3 compliant H83C92 transceiver chip has been developed by HALO to provide long term availability of the TnT module family.

# HALO's "TnT" Thin Net Transceiver Modules

## Typical Applications:

- Backplane Applications
- Network Interface Cards
- 10BASE-T Hub with 10BASE2 Interface
- 10BASE2 Repeaters
- Thin Net Transceivers
- Print Servers
- Applications Requiring "Optional" 10BASE2 Ports



## Description of Pin Functions

**Pins 1 - 2 CD± Collision.** A balanced 10MHz differential output from the module to the station equipment when a collision is detected, when excessive data occurs (jabber) or during the SQE Test (Heartbeat Test).

**Pins 3 - 4 RX± Receive Data.** A balanced line driver output from the module to the station equipment providing received data detected on the network.

**Pins 5 - 6 TX± Transmit Data.** A balanced line receiver input to the module from the station equipment to drive transmit data onto the network.

**Pin 9 VCC ±5% Input Supply.** (Please refer to the Module Descriptions)

**Pin 10 GND Ground.** Ground is referenced to the VCC. (Do not connect this ground to CABLE SHIELD since the COAX SHIELD must be isolated from the station equipment).

**Pin 11 VEE Negative Supply.** Nominally -9 volts referenced to coax shield ground.

**Pin 12 NC No Connection.** (Optional Enable feature - Module is off when a "0" signal is supplied. Unit is on when floating or a "1" signal is supplied).

**Pin 16 HBE Heartbeat Enable.** This input enables the SQE (also called Heartbeat) Test when connected to (isolated) ground and disables the test when connected to VEE. This pin must be connected to VEE for repeater applications.

**Pin 17 TXO Network Signal Transmitter.** Connects to the network COAX center conductor through an internal 1N916 diode, and transmits all signals from the MCC to the network.

**Pin 18 RXI Network Signal Receiver.** Connects to the network COAX center conductor, and receives packet data and detects the collision voltage levels.

**Pin 20 CDS Collision Detect Sense.** Connects directly to the network shield and references the collision detection voltage level.

