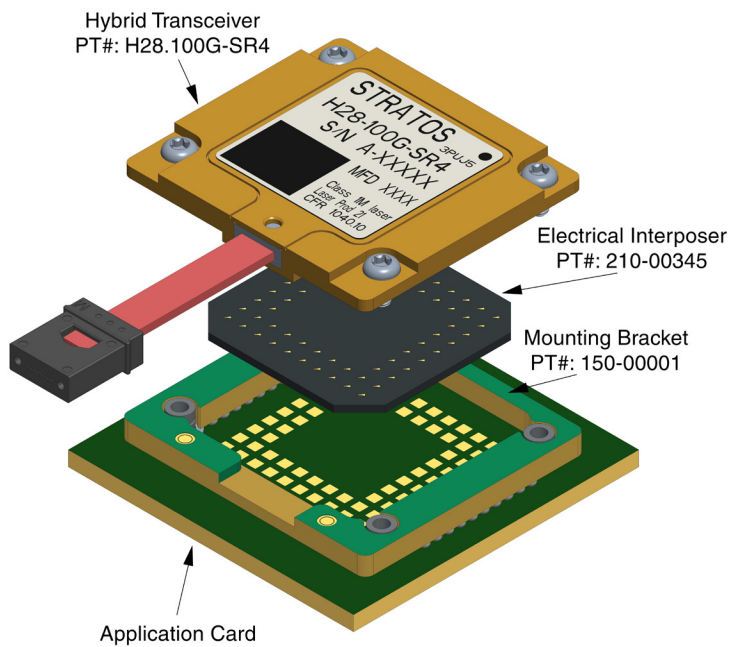


## H28-100G-SR4

### SR4 Quad Hybrid Optical Transceiver



The H28-100G-SR4 Stratos brand transceiver by Cinch Connectivity Solutions is a highly ruggedized and cost-effective solution for 25.78125 Gbps multimode optical data links.

The transceiver uses a temperature compensating VCSEL driver array GaAs PIN array to transmit and receive four channels of optical data at 25.78Gbps per channel, providing an aggregate of 100Gbps. The device is monitored and controlled through a high speed SPI port.

The transceiver utilizes a BGA mounting bracket and electrical interposer to allow the transceiver to be easily removed, yet still remain in spec in presence of high vibration and thermal environments. The optical signals (4 RX and 4 TX) are routed through a custom route fiber ribbon, offering a great deal of design customization for optical pin-out, fiber route, fiber shuffle, and breakout termini.

The wide operating temperature and environmentally proven durable design makes this transceiver a perfect fit for military and aerospace environments, as well as other environmentally taxing applications.

### Features & Benefits

- 850 nm VCSEL with OM3 or OM4 Multimode Fiber
- four transmit (TX) and four receive (RX) channels
- IData Rate 25.78125 Gbps per channel (100G aggregate)
- Internal CDR per channel
- Removable, solder-less, pin-less design, no bent pins
- Diagnostic interfacing via the SPI standard
- Low Profile < 0.20 in mated height
- Small PCB footprint < 1 in<sup>2</sup> board space
- Vibration compliant solution
- Wide operating temperature: -40°C to 85°C

# H28-100G-SR4

## SR4 Quad Hybrid Optical Transceiver



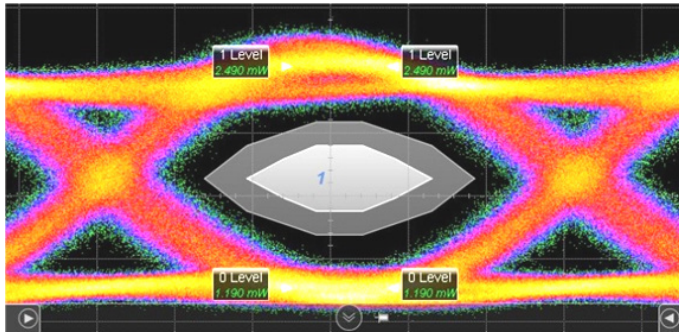
### Operational Ratings

| Parameter                               | Symbol         | Min  | Typical | Max | Unit |
|---|----------------|------|---------|-----|------|
| Operating Temperature (case)            | T <sub>c</sub> | -40  |         | 85  | °C   |
| Optical Output Power                    | P <sub>o</sub> | -2.0 |         | 1.0 | dBm  |
| Extinction Ratio                        | ER             | 3    | 5       |     | dB   |
| Receiver Input Sensitivity <sup>1</sup> | P <sub>i</sub> | -9.0 |         |     | dBm  |
| Link Distance OM3                       | D              |      |         |     | m    |

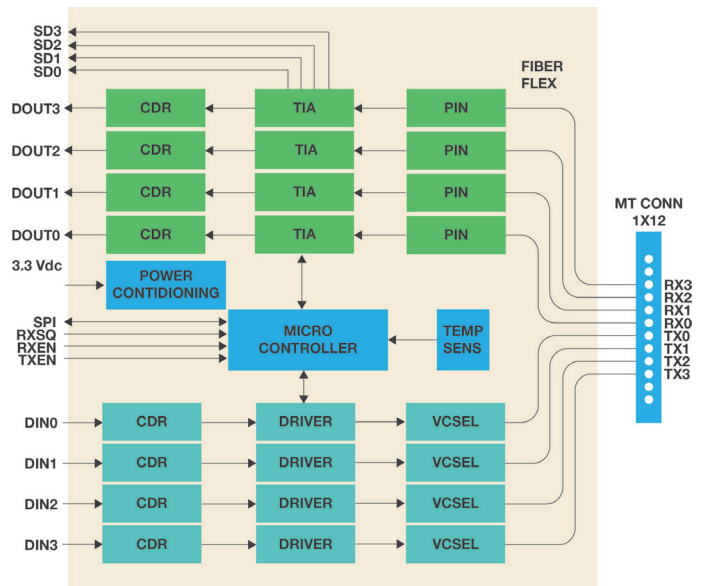
<sup>1</sup> BER= 1E-12, PRBS7, NRZ, with optical signal ER > 4dB, all channels active, over full operating temperature range.

### 25.78G Tx Optical Eye, -40

The Stratos brand H28 transceiver demonstrates excellent TX optical performance even at cold temperatures. Generally, cold temperature extremes tend to limit optical performance for VCSEL technologies.



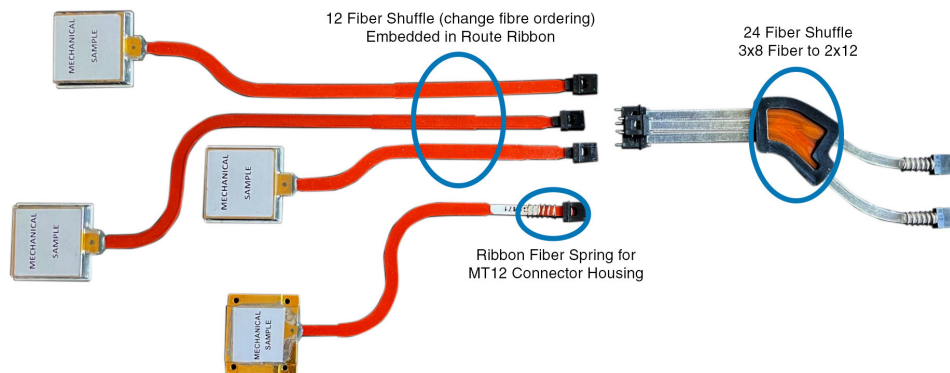
### Block Diagram



### Custom Fiber Flex Optical Pigtail

Stratos brand Fiber Flex technology enables the H28 transceiver to support custom pigtail routing, optical pin out, fiber shuffling, controls the fiber bend radius, and provides an efficient fiber management solution without use of cable trays and tie downs.

### Examples of H28 Pigtail Routed Ribbon Fiber



Asia Pacific  
+86 21 5442 7668  
ccs.asia.sales@as.cinch.com

Europe, Middle East & Africa  
+44 (0) 1245 342060  
CinchConnectivity@eu.cinch.com

North America  
+1 507 833 8822  
ccsorders@us.cinch.com

[belfuse.com/cinch](http://belfuse.com/cinch)