# Stratos
## S2R-25-C-1-E-R6 Dual Receiver

*Connectivity for Business Critical Continuity™*

**850nm SFF – 2.5 GBaud**
**+3.3V RoHS Compliant**


### *Product Overview*

The **Emerson Network Power Connectivity Solutions** S2R-25-C-1-E-R6 Small Form Factor (SFF) optical dual receiver modules are high performance integrated duplex data links for uni-directional communication over multimode optical fiber. The S2R-25-C-1-E-R6 module is specifically designed to be used in 2.5Gbps applications. The S2R dual receiver modules are provided with the LC receptacle that is compatible with the industry standard LC connector. The Stratos Lightwave SFF dual receiver modules measure 0.532 inches in width. These modules provide double port densities by fitting twice the number of dual receiver modules onto the same board as compared to a 1x9 transceiver. This saves on system costs and can reduce overall design time. This optoelectronic transceiver module is a Class 1 Laser product compliant with FDA Radiation Performance Standards, 21 CFR Subchapter J. This component is also Class 1 Laser compliant according to the International Safety Standard IEC-825-1.

### *Ordering Information*

**S2R - 25 - C - 1 - E - R6**

### *Key Features & Benefits*

- 2.5/2.125/1.25/1.0625 GBaud
- Die Cast Metal Package
- 100Ω Differential AC Coupled CML Outputs
- Low Profile Fits Mezzanine Card Applications
- Single +3.3V Power Supply
- Wave Solderable / Aqueous Washable
- Class 1 Laser Safety Compliant
- UL 1950 Approved
- RoHS Compliant

**Module Specifications – Electrical:** -5°C<Tc<+80°C;+3.0V<Vcc<+3.6V

| Parameter | Sym | MIN | Typ | MAX | Unit | Notes |
|---|---|---|---|---|---|---|
| Supply Current | Icc | | 180 | 250<br>300 | mA | Tc = 25°C, Vcc = +3.3V<br>-5°C<Tc<+80°C; +3.15V<Vcc<+3.45V |
| Surge Current | Isurge | | | 30 | mA | Surge above steady state value |
| **Receiver** | | | | | | |
| CML Outputs (Differential) | | 400 | 800 | 1200 | mVpp | AC Coupled Outputs |
| Output Impedance (Differential) | Zout | 90 | 100 | 110 | Ω | |
| TTL Signal Detect Output – Low | | | | 0.8 | V | $I_{OL}$ = -1.6mA, TTL unit load |
| TTL Signal Detect Output – High | | 2.4 | 3 | | | $I_{OH}$ = 40µA, TTL unit load |
| Total Jitter [pk-pk] | Tj | | | 68 | pS | Measured with $2^7$-1 PRBS |

## Module Specifications – Optical: -5°C<Tc<+80°C;+3.0V<Vcc<+3.6V

| Parameter | Sym | MIN | Typ | MAX | Unit | Notes |
|---|---|---|---|---|---|---|
| **Receiver** | | | | | | |
| Optical Input Wavelength | λ | 770 | | 860 | nm | |
| Optical Input Power | Pr | -15 | | -1.5 | dBm | BER<1.0E-12 @ 2.5GBaud |
| Optical Modulation Amplitude | OMA | 50 | | | μW | pk-pk |
| Optical Return Loss | ORL | 12 | | | dB | |
| Signal Detect – Asserted | Pa | | | -15 | dBm | Measured on transition – Low to High |
| Signal Detect – Deasserted | Pd | -29 | | | dBm | Measured on transition – High to Low |
| RX_LOS – Hysteresis | Pa-Pd | | 1.5 | 5.0 | dB | |

*For more information on this product consult the S2R-25-C-1-E-R6 product data sheet.*

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