10/100 LAN Interface Module for PC Card Applications

## EPF8185S

- Meets or exceeds IEC 950 safety requirements -
- Guaranteed to operate with 8 mA DC bias at $70^{\circ} \mathrm{C}$ -
- Low profile, fully integrated with two channels -
- Complies with or exceeds IEEE 802.3, 10 BT/100 BX Standards •

Electrical Parameters @ $\mathbf{2 5}^{\circ} \mathrm{C}$

| $\begin{gathered} \text { OCL } \\ @ 70^{\circ} \mathrm{C} \end{gathered}$ | Insertion Loss (dB Max.) |  |  |  |  |  | Return Loss (dB Min.) |  |  |  |  |  | Common Mode Rejection (dB Min.) |  |  |  |  |  | Crosstalk (dB Min.) [Between Channels] |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 100 KHz , 0.1 Vrms 8 mADC Bias | $\begin{aligned} & 1-80 \\ & \mathrm{MHz} \end{aligned}$ |  | $\begin{aligned} & 100 \\ & \mathrm{MHz} \end{aligned}$ |  | $\begin{aligned} & 150 \\ & \mathrm{MHz} \end{aligned}$ |  | $\begin{gathered} 30 \\ \mathrm{MHz} \end{gathered}$ |  | $\begin{gathered} 60 \\ \mathrm{MHz} \end{gathered}$ |  | $\begin{aligned} & 100 \\ & \mathrm{MHz} \end{aligned}$ |  | $\begin{aligned} & 1-30 \\ & \mathrm{MHz} \end{aligned}$ |  | $\begin{gathered} 100 \\ \mathrm{MH7} \end{gathered}$ |  | $\begin{aligned} & 500 \\ & \mathrm{MHz} \end{aligned}$ |  | $\begin{aligned} & 5-10 \\ & \mathrm{MHz} \end{aligned}$ | $\begin{aligned} & 100 \\ & \mathrm{MHz} \end{aligned}$ |
| Cable Side | Xmit | Rcv | Xmit | Rcv | Xmit | Rcv | Xmit | Rcv | Xmit | Rcv | Xmit | Rcv | Xmit | Rcv | Xmit | Rcv | Xmit | Rcv |  |  |
| $350 \mu \mathrm{H}$ | -1 | -1 | -1 | -1 | -3.5 | -3.5 | -18 | -18 | -12 | -12 | -10 | -10 | -30 | -30 | -25 | -25 | -10 | -10 | -40 | -40 |

- Isolation : 1500 Vrms • Impedance : $100 \Omega$ • Rise Time : 3.0 nS Max. •


## Schematic



Package




Dimensions

| Dim. | (Inches) |  |  | (Millimeters) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Min. | Max. | Nom. | Min. | Max. | Nom. |
| A | . 550 | . 570 | . 560 | 13.97 | 14.48 | 14.22 |
| B | . 550 | . 570 | . 560 | 13.97 | 14.48 | 14.22 |
| C | . 074 | . 080 | . 077 | 1.88 | 2.03 | 1.96 |
| D | . 395 | . 405 | . 400 | 10.03 | 10.29 | 10.16 |
| E | . 003 | . 005 | . 004 | . 076 | . 127 | . 102 |
| $\mathrm{F}^{*}$ | . 048 | . 052 | . 050 | 1.22 | 1.32 | 1.27 |
| G | . 675 | . 695 | . 685 | 17.15 | 17.65 | 17.40 |
| H | . 017 | . 022 | . 020 | . 432 | . 559 | . 508 |
| I | . 008 | . 013 | . 011 | . 203 | . 330 | . 279 |
| J | . 100 | . 110 | . 105 | 2.54 | 2.79 | 2.67 |
| K | $0^{\circ}$ | $6^{\circ}$ | $3^{\circ}$ | $0^{\circ}$ | $6^{\circ}$ | $3^{\circ}$ |
| L | . 025 | . 045 | . 035 | . 635 | 1.14 | . 889 |
| M | --- | --- | . 030 | --- | --- | . 762 |
| N | --- | --- | . 050 | --- | --- | 1.27 |
| P | --- | --- | . 090 | --- | --- | 2.29 |
| Q | --- | --- | . 750 | --- | --- | 19.05 |
| R | --- | --- | . 100 | --- | --- | 2.54 |
| S | --- | --- | . 200 | --- | --- | 5.08 |

- *Non-Cumulative • Coplanarity within . 003 Max. •

