

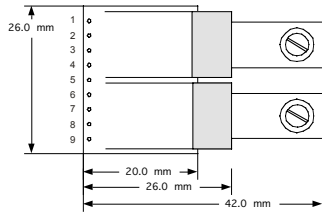
# Fast Ethernet POF 1x9 Transceiver Module

## Datasheet: 2.2POF470HPS5.0 preliminary

### Description:

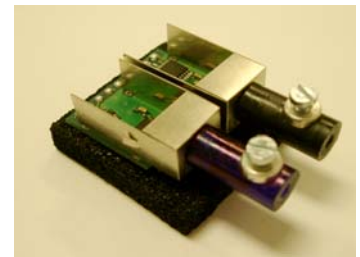
The transceiver module comprises a standard 1x9 electrical interface suitable for many Fast Ethernet network components like media converters and switches. Standard POF (NA = 0.5) duplex cable is plugged in without cable connector. All POF cables with a cable outside diameter of 2.2mm fit to the adapter.

As the standard POF attenuation at 470nm wavelength is significantly lower than at 650nm wavelength, the blue transmitter allows higher transmission distances. The transceiver module is available as 5V power supply version only. The receiver unit comprises a novel high pass receiver electronics that compensates the high dispersion of standard POF. The use of low NA POF (NA = 0.3) is possible, too.



### Pinout:

- |                   |               |
|-------------------|---------------|
| 1 = Gnd           | 6 = TX Vcc    |
| 2 = Data Out      | 7 = !Data In! |
| 3 = !Data Out!    | 8 = Data In   |
| 4 = Signal-Detect | 9 = Gnd       |
| 5 = RX Vcc        |               |



### Applications:

The transceiver module is applied in Fast Ethernet over POF systems applications like:

- Industrial communication systems
- LAN-networks
- Inhouse networks

### Technical Data:

typ. Average output power	typ.center wavelent	datarate	typ. Link distance	typ. receiver sensitivity	system application	input optical power maximum
+0.5dBm	470nm	125Mbit/s	1...100m	-17dBm	100BaseFX	+3dBm

power supply voltage	supply current TX (pin 6)	supply current RX (pin 5)	diff. data input (pins 2+3)	diff. data output (pins 7+8)	operating temperature
5V ± 5%	150mA	75mA	PECL	PECL	-20...70°C

### Notes:

- Power supply lines require external filter components.
- Typical values are typical data @ 25°C with standard POF, usually also available over operating temperature range.
- Differential data input and differential data output (PECL) require external components for line termination and level adjustment.
- Signal-detect output level (PECL) is generated inside the module.
- Receiver sensitivity depends on signal quality with respect to dispersion and signal optical power. The given sensitivity applies for a signal attenuated and dispersed by full length POF only.
- For additional information on required external components, e.g. level translation to LVPECL, custom POF-connectors or other feasible modifications please contact DieMount GmbH.

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