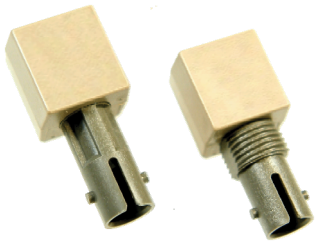
Fiber Optic Receiver

OPF2412, OPF2412T



Features:

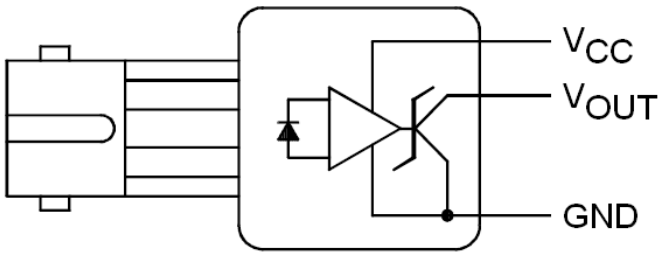
- Up to 5Mbps operation
- 850nm wavelength
- ST® style port
- CMOS and TTL compatible
- Wave solderable
- Wide temperature range

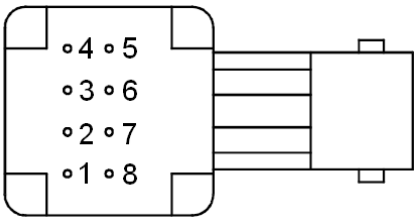
Description:

The OPF2412 family is a low cost digital output fiber optic receiver. The lensed optical system keeps the receiver response consistent for all fiber sizes which makes it idea for use on fibers as small as 50/125µm. The design incorporates a monolithic photo-IC comprised of a photodetector and DC amplifier driving an open collector output Schottky transistor. The output makes the OPF2412 compatible with TTL and CMOS logic. The receiver is designed to operate from a single +5 V supply. A bypass capacitor (0.1µF ceramic) should be connected from V_{CC} to GND of the receiver.

Applications:

- Industrial Ethernet equipment
- Copper-to-fiber media conversion
- Intra-system fiber optic links
- Video surveillance systems





"T" suffix = Threaded ST® package

PIN	FUNCTION
1	Not Connected
2	V_{CC}
3	GND
4	Not Connected
5	Not Connected
6	V_{OUT}
7	GND
8	Not Connected

Pins 3 & 7 are electrically connected to the header.
Pins 1,4,5 & 8 are mechanically connected together.

RoHS

ESD Class 2

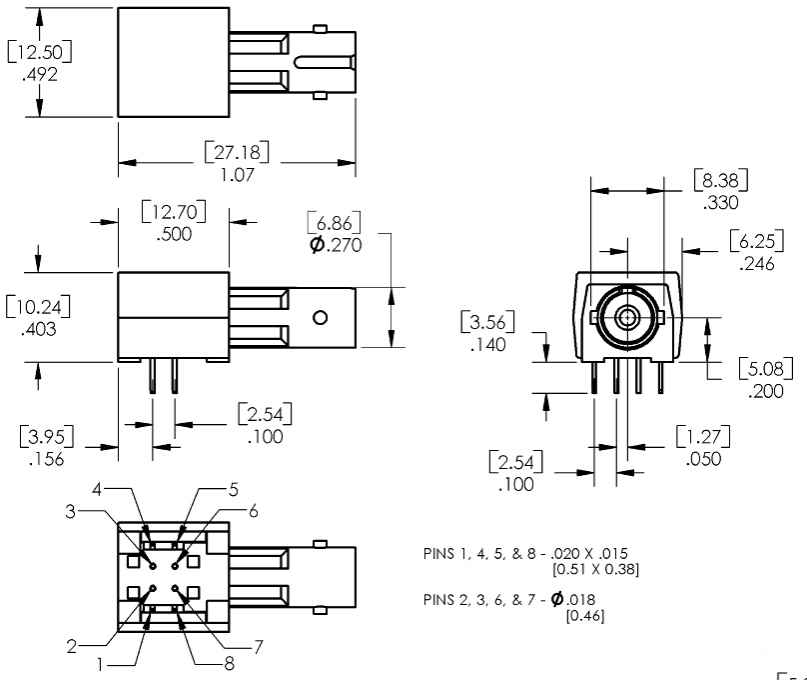
ST® is a registered trademark of AT&T.

General Note
TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

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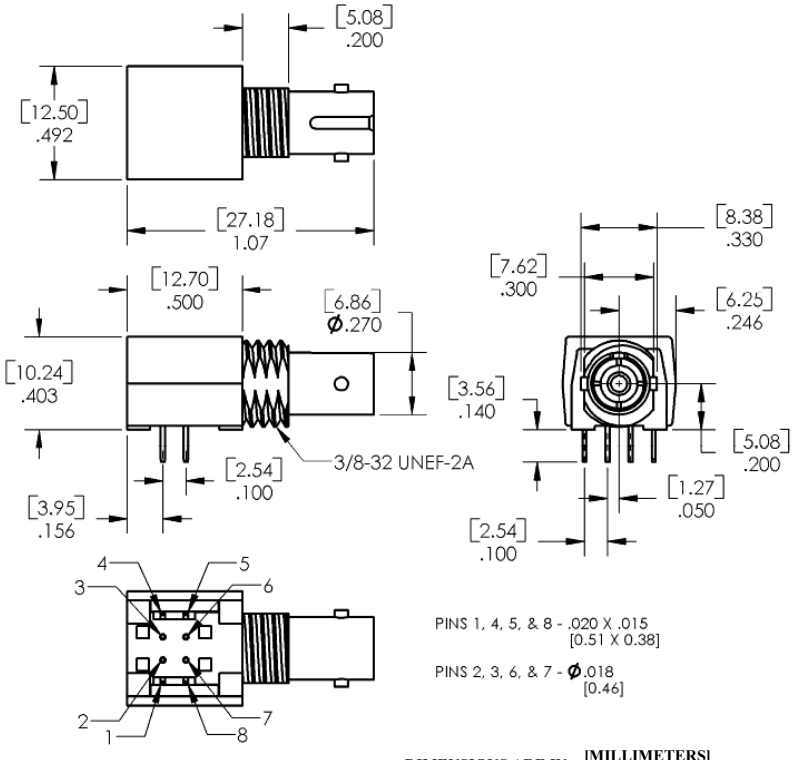
Mechanical Data



OPF2412

PINS 1, 4, 5, & 8 - .020 X .015
[0.51 X 0.38]

PINS 2, 3, 6, & 7 - Ø.018
[0.46]



OPF2412T

PINS 1, 4, 5, & 8 - .020 X .015
[0.51 X 0.38]

PINS 2, 3, 6, & 7 - Ø.018
[0.46]

DIMENSIONS ARE IN: **[MILLIMETERS]**
INCHES

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Electrical Specifications

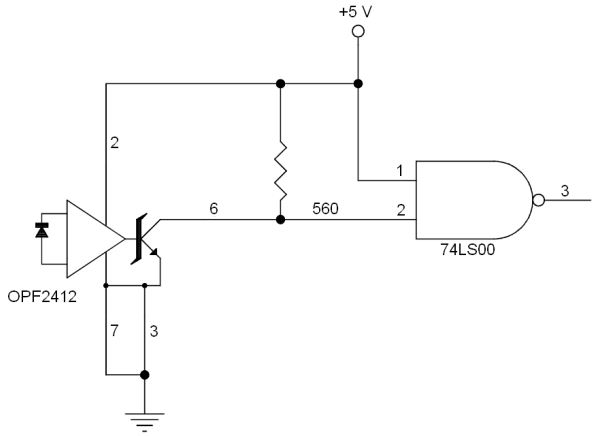
Absolute Maximum Ratings (T_A = 25° C unless otherwise noted)	
Storage Temperature Range	-55° C to +85° C
Operating Temperature Range	-40° C to +85° C
Lead Soldering Temperature[1]	260° C
Supply Voltage	-0.5 V to 7.0 V
Output Current	25 mA
Output Voltage	-0.5 V to 18.0 V
Open Collector Power Dissipation	40 mW
Fan Out (TTL)	5[2]

Electrical Characteristics (T_A = 25° C unless otherwise noted)

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
I_{OH}	High Level Output Current		5	250	µA	V_O = 18 V, P_R < -40 dBm
V_{OL}	Low Level Output Voltage		0.4	0.5	V	I_O = 8 mA, P_R > -24 dBm
I_{CCH}	High Level Supply Current		3.5	6.3	mA	V_{CC} = 5.25 V, P_R < -40 dBm
I_{CCL}	Low Level Supply Current		6.2	10	mA	V_{CC} = 5.25 V, P_R > -24 dBm
P_{RH}	Peak Input Power Level, Logic HIGH			0.1	µW	λ_p = 850 nm
P_{RL}	Peak Input Power Level, Logic LOW	2.9		120	µW	λ_p = 850 nm, I_{OL} = 8 mA
P_{RL}	Peak Input Power Level, Logic LOW	4.0		100	µW	-40 °C ≤ T_A ≤ +85 °C
t_{PLHR}	Propagation Delay LOW to HIGH		65		ns	P_R = -21 dBm, Data Rate = 5 MBd
t_{PHLR}	Propagation Delay HIGH to LOW		49		ns	P_R = -21 dBm, Data Rate = 5 MBd

Notes:
1. Maximum of 5 seconds with soldering iron. Duration can be extended to 10 seconds when flow soldering. RMA flux is recommended.
2. 8 mA load (5 x 1.6 mA), R_L = 560 Ω.

Application Circuit



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