

# Be flexible with your connectivity

## NBase-T\* Copper Transceiver

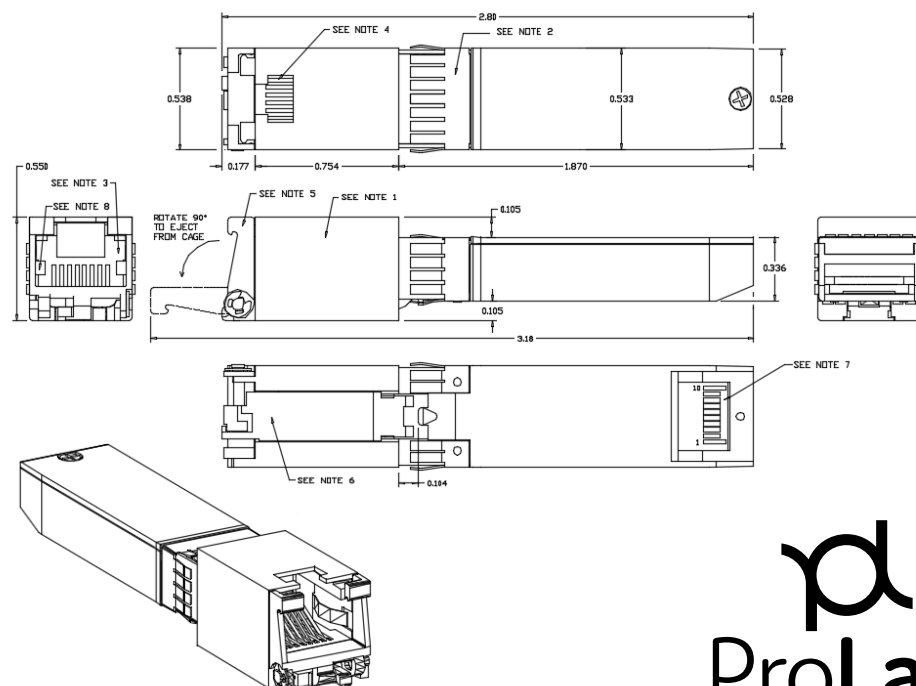
The NBase-T copper transceiver module is a high performance integrated duplex data link for bi-directional communication over copper cable. The NBase-T SFP+ module is compliant with the IEEE 802.3bz standard and is specifically designed for high speed communication links that require 5G over Cat6 cable or 2.5G over Cat 5e cable.

### Key Features

- Supports 2.5G at up to 100m Using Cat5e or better and 5G using Cat6 or better
- SFF-8431 and SFF-8432 MSA Compliant
- IEEE-802.3bz / NBase-T Compliant
- Low Power Consumption  
(2.0W MAX, 100m @ 5G)  
(1.6W MAX, 100m @ 2.5G)
- Fast Retrain EMI Cancellation Algorithm
- Low EMI Emissions
- I2C 2 Wire Serial Interface for Serial Id and Phy Registers
- Auto-negotiates with other 802.3bz/ NBase-T PHYs
- MDI/MDIX Crossover
- Multiple Loopback Modes for Testing and Troubleshooting
- Built-in Cable Monitoring and Link Diagnostic Features  
Cable Length Measurements  
Opens/Shorts
- Robust Die Cast Housing
- Bail Latch Style ejector mechanism
- Unshielded and Shielded cable support

### NOTES

1. Mainbody of housing material, Zinc die cast with Nickel plating.
2. Grounding Tabs, stamped Brass with Nickel plating.
3. RJ45 insulator material, Stanyl TE250F6 - Rated 94V-0, Colour Black.
4. RJ45 contacts, Phosphor Bronze plating 50µin Min. Hard Gold on contact area, Tin on solder area.
5. Bail Latch: MIM Steel with Gold flash over Nickel plating.
6. Ejector Actuator: Zinc die cast with Nickel plating.
7. PCB-.039" thick, 30µin Min. Gold plating over 50µin, Min Nickel on contact area.
8. Shielded Plug Grounding Tab: Beryllium Copper with Nickel plating.
9. Screw, Stainless Steel.



## Module Specifications

PARAMETER	SYMBOL	MIN	MAX	UNITS	NOTES
Storage Temperature	Ts	-40	85	°C	
Case Operating Temperature	Tc	-5	85	°C	
Relative Humidity	RH	5	95	%	
Supply Voltage (3.3V)	Vcc		3.6	VDC	
Dimensions (cm)	W=1.37 D=7.12 H=1.4		Maximum Values		
Power consumption (100m@25C ambient 5Gbps)	2.0W		Maximum Values, Using Cat6 Cable		
Power consumption (100m@25C ambient 2.5Gbps)	1.6W		Maximum Values, Using Cat5e Cable		

## Regulatory and Compliance

	STANDARD	NOTES
Radiated Emission (RE)	FCC Part 15	Class B radiated emission requirements by using shielded cables at least 4dB margin.
Electrostatic Discharge (ESD)	IEC 6100-4-2	Contact ESD only to the accessible portions of the module (i.e. front panel connector receptacle). 8 kV - Air Discharge and 4kV - Contact discharge.
Flammability	UL/CSA 60950 and IEC 60950	Class B radiated emission requirements by using shielded cables at least 4dB margin.
IEEE	802.3bz	2.5 over cat 5e/5G over cat6
MSA	SFF-8431 & SFF-8432	

## Typical Applications and Use Cases

- Data Centre Migration
- 802.11ac Wave-2 Access point connectivity
- HD CCTV Camera Connectivity
- High performance Computing connectivity

## Ordering Information

PART NUMBER	DESCRIPTION
SFP-NBase-T-T	2.5G/5G

Visit [www.prolabs.com](http://www.prolabs.com) for more connectivity solutions.

\* NBASE-T is a trade mark of NBASE-T Alliance  
<http://www.nbaset.org/technology/>

