

**Introduction:**

Fiberdyne Lab’s SFP Transceivers are standard complaint modules, which are used in a variety of Ethernet equipment, such as our FTX-250 series of media converters and our Ethernet switches. As the name implies, the SFP modules simply plug into the available equipment ports. If your requirements change, you simply unplug your existing SFP module, and plug-in your new module. Fiberdyne Labs offers a wide variety of SFP modules (i.e. T, SX, LX, ZX, CWDM, DWDM and BiDi) to meet your Gigabit Ethernet requirements.

**Product Features:**

- Complies with IEEE Standard 802.3 (1000Base or “Gigabit Ethernet”)
- INF 8074i – SFP MSA (Multi-Source Agreement) compliant modules
- Connectors: RJ-45 for unshielded twisted pair (UTP); LC for fiber
- Standard telecommunications wavelengths for fiber applications (SX and LX)
- Enhanced formats for long-haul or multiplexing applications
- 1550-nm (ZX)
- CWDM (Coarse Wavelength Division Multiplexing)
- DWDM (Dense Wavelength Division Multiplexing)
- BiDi (bi-directional – transmit and receive multiplexed on a single fiber)
- Hot-pluggable -- uses single 3.3 VDC power

**Options: multiple formats**

Standard and “Enhanced”	Connector Type	Cable Type
1000Base-T	RJ-45	UTP (Cat 5)
1000Base-SX	Duplex LC	MMF (62.5/125) MMF (50/125)
1000Base-LX	Duplex LC	MMF (both) SMF (9/125)
1000Base “ZX”	Duplex LC	SMF (9/125)
1000Base “CWDM”	Duplex LC	SMF (9/125)
1000Base “DWDM”	Duplex LC	SMF (9/125)
1000Base “BiDi”	Simplex LC	SMF (9/125)

**Special Note about compatibility:**

While our SFP transceivers are fully-compliant with IEEE 802.3 and the “SFP” MSA, they may not be compatible with some network switch equipment. Some switch manufacturers program their equipment, to accept only their brand of SFPs. Our experience has shown, that Cisco and HP are two such manufacturers. Therefore, if you have switch equipment from such a manufacturer, our SFPs may not be supported by your equipment.

**Product Specification:**

Item Description	Unit	Value
Standard Compliance		IEEE 802.3z MSA
SFP Module Properties		Hot-swappable Wire-speed Transfer
Available SFP Configurations * - 1000Base (Gigabit Ethernet) - "Enhanced" (Gigabit Ethernet)		T, SX, LX, ZX, CWDM, DWDM, BiDi
Center Wavelength (fiber-optic SFPs) - SX - LX - "ZX" - CWDM - DWDM - BiDi (bi-direction, single-fiber)	nm	850 1310 1550 Per ITU-T G.694.2 Per ITU G.694.1 1310 (Alpha)/1490 (Omega)
Temperature – Operating	°C	0 to +70
Temperature – Storage	°C	-40 to +85
Overall Dimensions (L x W x H)	mm	57 x 14 x 13

**SFP Configurations**

Standard and "Enhanced"	Output Power (dBm)	Input Power (dBm)	Rated Distance (Meters)	Min. Power Budget (dB)
1000Base-T	-	-	100	-
1000Base-SX**	-9 to -3	-17 to -3	275 500	8
1000Base-LX	-9 to -3	-21 to -3	550 1000	12
"ZX" (1550-nm)	0 to +2	-24 to -3	80000	24
"CWDM"	-5 to 0	-23 to -3	50000	18
"DWDM"	0 to +2	-28 to -6	80000	28
"BiDi" Alpha/Omega	-9 to -3	-20 to -3	10000	11

**\*\*Note:** Longer 1000Base-SX distances are possible, when using Fiberdyne "10-Gigabit" fiber-optic, cable and jumper assemblies.

**Ordering Information:** Reference Part-Number Build Matrix, document #QA174.