

# 1.25G 20km Single-Mode SFP Transceiver Module

Data Sheet | NS.SF-0001-ST



The NS.SF-0001-ST is a high-performance, hot-swappable SFP transceiver designed to seamlessly work with Altai access points and switches. Powered by a high-efficiency 1310 nm wavelength Fabry-Pérot laser diode, the transceiver supports data rates of up to 1.25 Gbps over a reach of up to 20 km on duplex single-mode fiber optic cables.

Featuring low power consumption, the NS.SF-0001-ST is ideal for a wide range of Gigabit communication applications, including Internet Service Provider networks, enterprise LANs, data centers, and other long-range optical communication links.



## Key Features and Benefits

- Data rate up to 1.25 Gbps
- Distance up to 20 km on 9/125  $\mu\text{m}$  Single-Mode Fiber
- Hot-Pluggable
- 1310nm FP laser diode transmitter
- Duplex LC connector interface
- Single +3.3 V power supply
- Low power dissipation < 1W typically
- Digital Diagnostic Monitoring (DDM) function
- MSA (Multiple Source Agreement) compliant
- Class 1 laser product, EN 60825-1 and EN 60825-2 compliant
- Operating temperature: 0  $^{\circ}\text{C}$  ~ 70  $^{\circ}\text{C}$

## Specifications

Standard	
Compliant Standard	IEEE802.3z 1000BASE-LX
MSA Compliant	Yes
Form Factor	SFP
Media Type	Single-Mode
Distance	Up to 20 km
Speed	1.25 Gbps
Interface	
Connector	Duplex LC
Wavelength	1310 nm
Tx Optical Power	Max: -3 dBm, Min.: -9 dBm
Rx Sensitivity	-24 dBm
Link Budget	15 dB
Cable Type	9/125 $\mu\text{m}$ Single-Mode Fiber
Power	
Input Voltage	3.3 V
Input Current	170 mA (Max.)

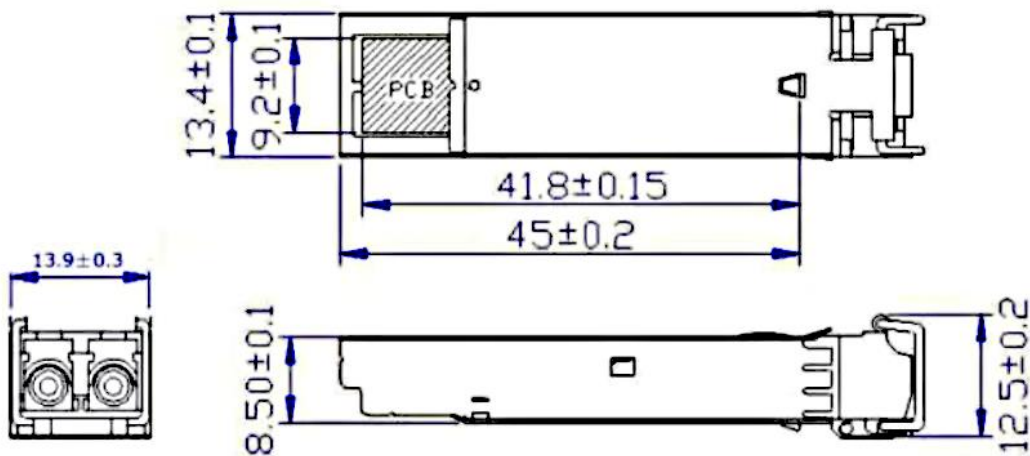
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<b>Power Consumption</b>	1 W (Max.)
<b>Environment Specifications</b>	
<b>Operating Temperature Range</b>	0 °C ~ +70 °C
<b>Storage Temperature Range</b>	-40 °C ~ +85 °C
<b>Humidity</b>	0 ~ 85% (Non-condensing)
<b>Certifications</b>	
<b>Electromagnetic Interference (EMI)</b>	FCC, CE, VCCI
<b>Safety</b>	FDA 21CFR 1040.10 and 1040.11, EN 60950, EN 60825-1, EN 60825-2

## Dimensions



<b>Product Ordering Information</b>	
<b>Standard Package</b>	
Part No.: NS.SF-0001-ST	• 1.25G 20km Single-Mode SFP Transceiver Module
<b>Contact Us</b>	
• Email: <a href="mailto:sales@altaitechnologies.com">sales@altaitechnologies.com</a> or <a href="mailto:info@altaitechnologies.com">info@altaitechnologies.com</a>	

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