

# Product Information

# G-SFP-S35/S53-20-W Series

## Gigabit SFP Modules



## Features

- ❖ Single + 3.3V power supply
- ❖ Differential Inputs and Outputs
- ❖ Small Form Factor Pluggable MSA Compliant
- ❖ Industrial Operation Temp.: -40°C to +75 °C
- ❖ RoHS Compliant



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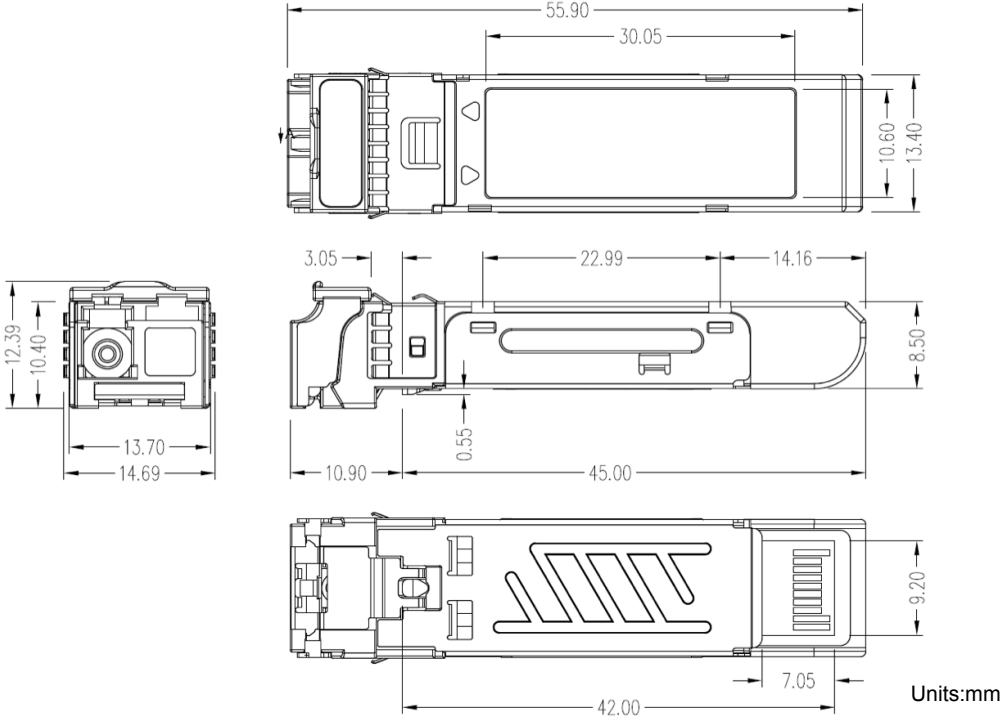
## Introduction

The transceiver from Henrich is small form factor pluggable module for serial optical data Communications applications specify of SONET OC-3 / SDH STM-1 / IEEE 802.3u. This module is designed for single-mode-fiber (SMF) with cost effective and high performance by using 1310 nm transmitter and 1490nm to 1550nm receiver, or 1550 / 1490nm transmitter and 1310nm receiver. It is with the SFP 20-pin connector to allow hot plug capability.

## Specifications

Absolute Maximum Ratings	
Supply Voltage	0~4V
Storage Temperature	-40 to +85°C
Operating Temperature	-40 to +75°C
Lead Soldering Limits	MAX: 260/10°C /sec
General Specifications	
Data Rate	0.8 to 1.5Gbps, type: 1.25Gbps
Supported Link Length on 9/125µm SMF	Min: 20Km
Supply Current	Max:300mA
Power Dissipation	1000mW
Transmitter Electrical Characteristics	
Supply Voltage	3.15 to 3.45V, type:3.3V
Data Differential Input Voltage	400 to 2000mV
Disable Input Voltage	-1.81 to -1.48V
Enable Input Voltage	-1.16 to -0.88V
TX Fault Voltage-High (Fault)	Min:2.0V
TX Fault Voltage-Low (Normal)	0-0.8V
POut@TX Disable Asserted	Max:-45dBm
Transmitter Optical Characteristics	
Output Optical Power on 9µm SMF :	-8 to -2dBm
Center Wavelength :	for 1312-20: 1280 to 1340nm (Typ: 1310) for 1520-20: 1510 to 1570nm(Typ: 1550) for 1912-20: 1470 to 1510nm(Typ:1490)
Side Mode Suppression Ratio	for 15/1912-20:(Min:30dB)
Spectral Width (-20dB)	for 15/1912-20:(Max:1nm)
Spectral Width (RMS)	for 1312-20(Max: 2nm)
Optical Rise Time (20%-80%)	Max: 0.26ns
Optical Fall Time (20%-80%)	Max: 0.26ns
Extinction Ratio	Min: 9dB
Receiver Electrical Characteristics	
Supply Voltage	3.15 to 3.45V, type:3.3V
Data Differential Output Voltage	500 to 1200mV
Receiver LOS/SD Output Voltage-High	Min:2.0V
Receiver LOS/SD Output Voltage-Low	0 to 0.8V
Data Output Rise Time (20%-80%)	Max: 0.35ns
Data Output Fall Time (20%-80%)	Max: 0.35ns
Receiver Optical Characteristics	
Maximum Receiver Power	Min: -3dBm
Receiver Sensitivity	Max: -22dBm
Operating Wavelength	for 1312-20: 1480 to 1600nm for 15/1912-20: 1250 to 1380nm
Receiver LOS/SD Output Voltage-Low	0 to 0.8V
Optical Return Loss	Max: 12dB
Signal Detect-Asserted	Max:- 22dBm avg.
Signal Detect-Deasserted	Min: -36dBm avg.
Signal Detect-Hysteresis	Min:0.5dB

Dimension drawings



## Ordering Information

### SFP-W Series

G-SFP-S35-20-W	Single Mode Fiber Port with LC Connector, 20KM, TX1310nm, Industrial Wide Temperature:-40°C to +75°C.
G-SFP-S53-20-W	Single Mode Fiber Port with LC Connector, 20KM, TX1550nm, Industrial Wide Temperature:-40°C to +75°C.