Ikshu

155Mbps SM SFP Optical Transceiver, 20km Reach

Features

- Up to 155Mbps data links

- 1310nm FP laser and photo PIN detector for 20km transmission

- Compliant with SFP MSA and SFF-8472 with Duplex LC receptacle

- Digital Diagnostic Monitoring: Internal Calibration or

- External Calibration Compatible with SONET Compatible

- with RoHS +3.3V single power supply

- Operating case temperature:

- Standard :0 to +70°C

- Industrial : -40 to +85°C

Applications

- SDH and SONET system

- Fiber Channel

- Switch to Switch interface

- Switched backplane applications

- Router/Server interface

- Other optical transmission systems

Description

The SFP transceivers are high performance, cost effective modules supporting dual data-rate of 155Mbps and 20km transmission distance with SMF.

The transceiver consists of three sections: a FP laser transmitter, a PIN photodiode integrated with a trans-impedance preamplifier (TIA) and MCU control unit. All modules satisfy class I laser safety requirements.

The transceivers are compatible with SFP Multi-Source Agreement (MSA). For further information, please refer to SFP MSA.
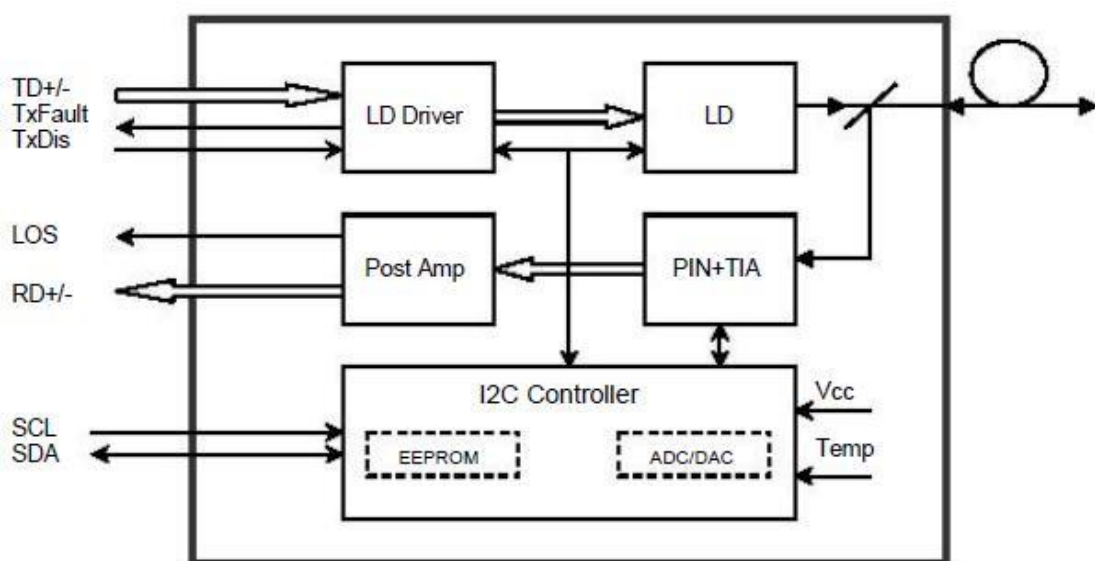
Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Supply Voltage	Vcc	0	4	V
Storage Temperature	Ts	-40	+85	°C
Operating Humidity	-	5	85	%

Recommended Operating Conditions

Parameter		Symbol	Min	Typical	Max	Unit
Operating Case Temperature	Standard	Tc	0		+70	°C
	Industrial		-40		+85	°C
Power Supply Voltage		Vcc	3.13	3.3	3.47	V
Power Supply Current		Icc			300	mA
Data Rate				155		Mbps

Diagnostics

Parameter	Range	Unit	Accuracy	Calibration
Temperature	0 to +70	°C	±3°C	Internal / External
	-40 to +85			
Voltage	3.0 to 3.6	V	±3%	Internal / External
Bias Current	0 to 100	mA	±10%	Internal / External
TX Power	-14 to -8	dBm	±3dB	Internal / External
RX Power	-24 to -3	dBm	±3dB	Internal / External

Mechanical Dimensions
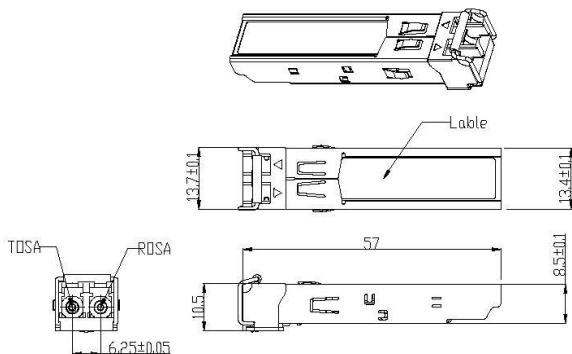
Ordering information

Part Number	Product Description
IKSHU 100SM-20K	155Mbps, 1310nm,LC, 20km, 0ºC ~ +70ºC, with DDM