FTLF1436W4BTV-SKY

Finisar® FTLF1436W4BTV Compatible 10/25GBase-LR SFP28 Transceiver Low Power Rate Selectable (SMF, 1310nm, 10km, LC, DOM, -40 to 85C)

Product Description

This Finisar® FTLF1436W4BTV compatible rate selectable SFP28 transceiver provides 10/25GBase-LR throughput up to 10km over single-mode fiber (SMF) using a wavelength of 1310nm via an LC connector. It is capable of withstanding rugged environments and can operate at temperatures between -40 and 85C. Our transceiver is built to meet or exceed OEM specifications and is guaranteed to be 100% compatible with Finisar®. It has been programmed, uniquely serialized, and tested for data-traffic and application to ensure that it will initialize and perform identically. All of our transceivers comply with Multi-Source Agreement (MSA) standards to provide seamless network integration. Additional product features include Digital Optical Monitoring (DOM) support which allows access to real-time operating parameters. We stand behind the quality of our products and proudly offer a limited lifetime warranty.

Skylane's transceivers are RoHS compliant and lead-free.

Features:

- Up to 10km Transmission Distance
- Low Power Consumption: 1.2W
- Duplex LC Connector
- Digital Monitoring SFF-8472 Compliant
- Operating Temperature: -40 to 85 Celsius
- Single 3.3V, 5% Power Supply
- RoHS Compliant and Lead-Free

Applications:

- 25GBase Ethernet
- Access and Enterprise

For your product safety, please read the following information carefully before any manipulation of the transceiver:

ESD

This transceiver is specified as ESD threshold 1kV for SFI pins and 2kV for all others electrical input pins, tested per MIL-STD-883G, Method 3015.4 /JESD22-A114-A (HBM). However, normal ESD precautions are still required during the handling of this module.

LASER SAFETY

This is a Class1 Laser Product according to IEC 60825-1:2007. This product complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated (June 24, 2007).

The optical ports of the module need to be terminated with an optical connector or with a dust plug in order to avoid contamination.

Absolute Maximum Ratings

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Storage Temperature	Tstg	-40		85	℃	
Operating Case Temperature	Tc	-40		85	℃	
Power Supply Voltage	Vcc	-0.3		4.0	V	
Relative Humidity	RH	0		95	%	
Bit Rate	BR		25.78		Gbps	
Maximum Supported Link Length	L			10	km	

Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Supply Voltage	Vcc	3.14	3.3	3.46	V	
Supply Current	Icc		300		mA	
Transmitter						
Input Differential Impedance	RIN	80	100	120	Ω	
Single-Ended Data Input Swing	VIN	90		500	mVp-p	
Transmit Disable Voltage	VDIS	2		Host_Vcc	V	
Transmit Enable Voltage	VEN	Vee		Vee+0.8	V	
Transmit Fault Assert Voltage	VFA	2.2		Host_Vcc	V	
Transmit Fault De-Assert Voltage	VFDA	Vee		Vee+0.4	V	
Receiver						
Single-Ended Data Output Swing	VOD	200		500	mVp-p	
LOS Fault	VLOSFT	2.2		Host_Vcc	V	
LOS Normal	VLOSNR	Vee		Vee+0.4	V	

Optical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Transmitter						
Nominal Wavelength	λ	1295	1310	1325	nm	
Side-Mode Suppression Ratio	SMSR	30			dB	
Optical Modulation Amplitude	POMA	-4			dBm	
Optical Output Power	Pavg	-4.5		2	dBm	
Extinction Ratio	ER	3.5			dB	
Transmitter and Dispersion Penalty	TDP			2.7	dB	
Average Launch Power of Off Transmitter	Poff			-30	dBm	
Receiver						
Center Wavelength	λ	1260	1310	1360	nm	
Overload				2	dBm	
Receiver Sensitivity (Average)	RSENSE1			-11.4	dBm	1
LOS Assert	LOSA	-30			dBm	
LOS De-Assert	LOSD			-17	dBm	
LOS Hysteresis		0.5			dB	

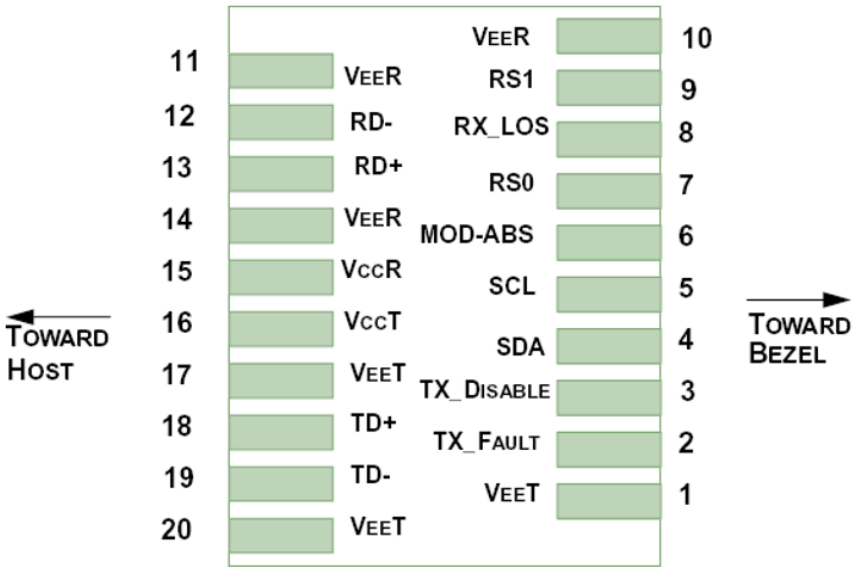
Notes:

1. Sensitivity for 25.78Gbps PRBS 2^{31}-1 and BER better than or equal to $10E^{-12}$ and ER=4.8dB.

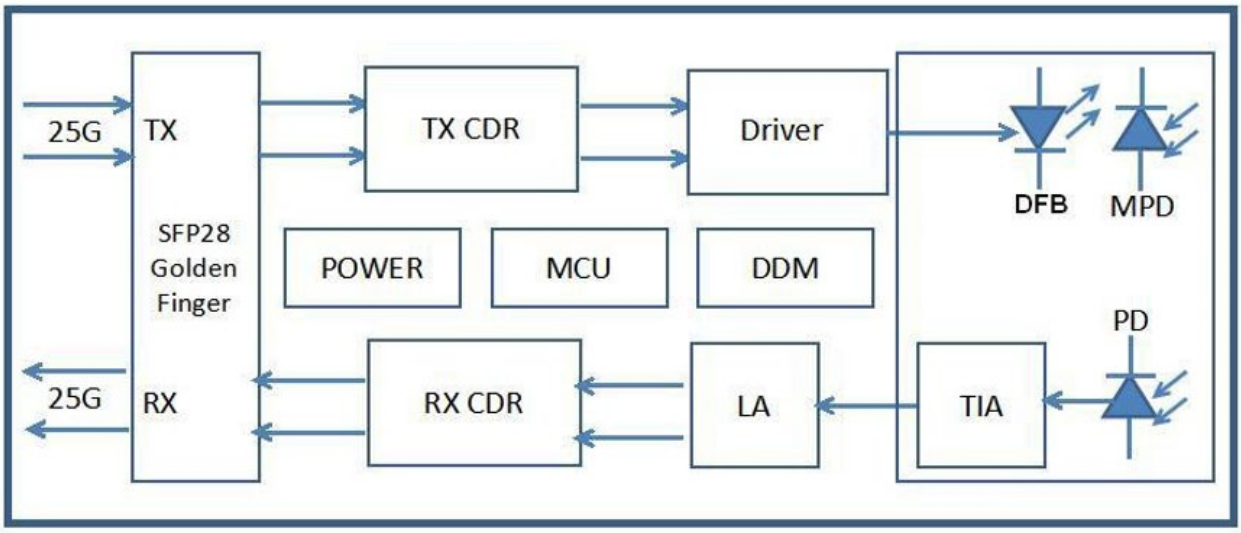
Pin Descriptions

Pin	Logic	Symbol	Name/Description	Notes
1		VeeT	Connected to the signal ground on the host board.	
2	LVTTL Output	Tx_Fault	Module transmitter fault output.	
3	LVTTL Input	Tx_Disable	Module transmitter disable control.	
4	LVTTL Input/Output	SDA	2-wire serial interface data.	
5	LVTTL Input/Output	SCL	2-wire serial interface clock.	
6		MOD_ABS	Module absent (connected to the module ground).	
7	LVTTL Input	RS0	Rate select 0 (rx): low=cdr bypass, high=cdr select.	
8	LVTTL Output	LOS	Receiver loss of signal.	
9	LVTTL Input	RS1	Rate select 1 (tx): low=cdr bypass, high=cdr select.	
10		VeeR	Connected to the signal ground on the host board.	
11		VeeR	Connected to the signal ground on the host board.	
12	CML Output	RD-	Receiver inverted data output, internally AC coupled and terminated.	
13	CML Output	RD+	Receiver non-inverted data output, internally AC coupled and terminated.	
14		VeeR	Connected to the signal ground on the host board.	
15		VccR	Receiver power 3.3V supply.	
16		VccT	Transmitter power 3.3V supply.	
17		VeeT	Connected to the signal ground on the host board.	
18	CML Input	TD+	Transmitter non-inverted data input, internally AC coupled and terminated.	
19	CML Input	TD-	Transmitter inverted data input, internally AC coupled and terminated.	
20		VeeT	Connected to the signal ground on the host board.	

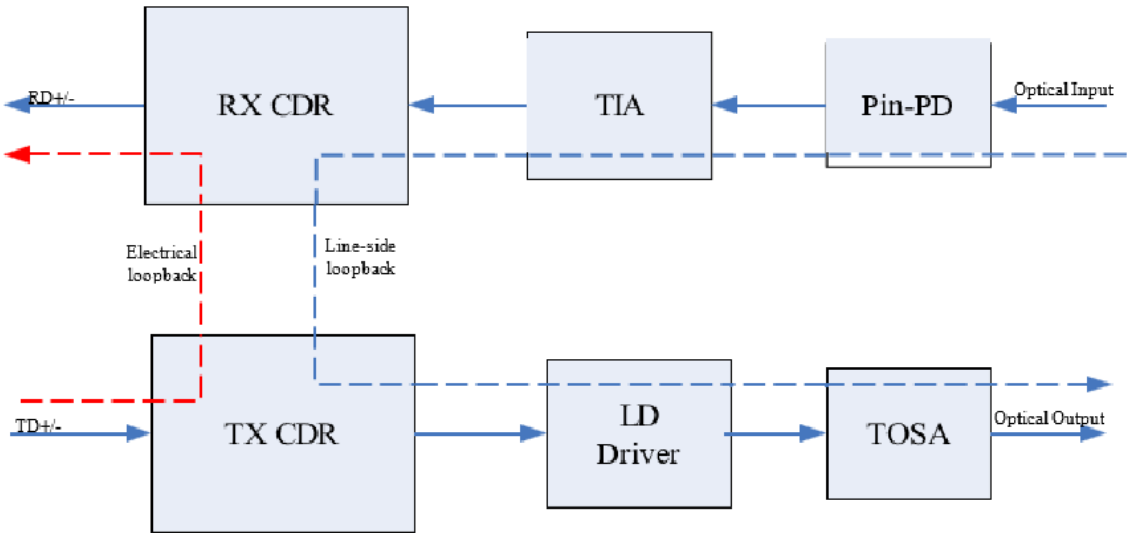
Pin-Out Details



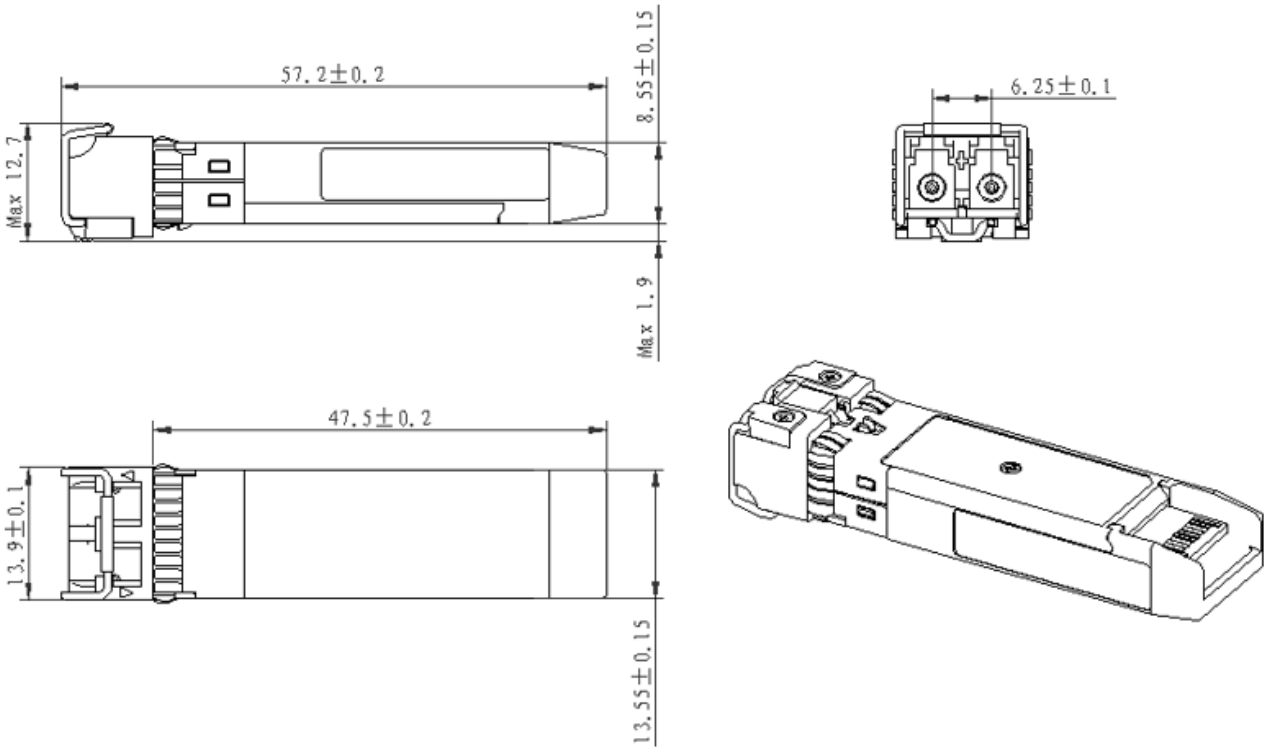
Block Diagram



Loopback Control



Mechanical Specifications



About Skylane Optics

Skylane is a leading provider of transceivers for optical communication.

We offer an extensive portfolio for the enterprise, access, datacenter and metropolitan fiber optical market as well as for smart home applications and home networks.

We cover the European, South American and North American market with a strong partner network and have offices in Belgium, Brazil, Sweden and USA.

Our offerings are characterized by high quality and performance. In combination with our strong technical support, we enable our customers to build cost optimized network solutions.

We offer an extensive range of high-quality products including transceivers (Optical and copper), Active Optical Cable (AOC), Direct Attach Cable (DAC), Mux/Demux, Coding Box.