WTJMLM85-S30C

25G SFP28 Transceiver 850nm MMF 300m LC

Part Number **WTJMLM85-S30C**	**Data Rate 25.78125**	**Wavelength 850**
Temperature **0℃~+70℃**		



1. Product Overview

Features

- 25Gbps serial optical interface
- 850nm VCSEL transmitter and GaAs PIN PD receiver
- Up to 25.78 Gb/s bi-directional data links
- Supports adaptive 10.3125Gb/s with CDR bypass
- 850nm Vcsel Laser transmitter and PIN/TIA receiver
- Maximum link length of 300m on OM4
- Multimode Fiber (MMF)
- Hot-pluggable SFP28 footprint
- Duplex LC receptacles
- Single 3.3V power supply
- Maximum power dissipation
- RoHS-6 compliant and lead-free

Applications

- 25GBASE-SR 25G Ethernet

2. Ordering Information

Part No.	Bit Rate (Gbps)	Laser (nm)	Distance	Fiber Type	DDMI	Connector	Temp
WTJMLM85-S30C	25.78125	850	300m (OM4)	MMF	YES	LC	0℃~+70℃
WTJMLM85-S30E	25.78125	850	300m (OM4)	MMF	YES	LC	-25℃~+85℃

3. Absolute Maximum Ratings

Parameter	Symbol	Min.	Typ.	Max.	Unit	Ref.
Maximum Supply Voltage	Vcc	-0.5		3.6	V	
Storage Temperature	TS	-40		85	℃	

Parameter	Symbol	Min.	Typ.	Max.	Unit	Ref.
Relative Humidity	RH	0		85	%	

4. Optical Parameters

Parameter	Symbol	Min.	Typ.	Max.	Unit	Remark
Transmitter	Transmitter	Transmitter	Transmitter	Transmitter	Transmitter	Transmitter
Signaling rate(range)	Sr		25.7825±100ppm		GBd	
Center Wavelength	λc	840	850	860	nm	
Spectral Width RMS)				0.5	nm	
Average Output Power	Pavg	-4.3		3	dBm	
Extinction Ratio	ER	2			dB	
Transmitter OFF Output Power	POff			-30	dBm	
Transmitter eye mask definition {X1, X2, X3, Y1, Y2, Y3} Hit ratio 5×10-5 hits per sample.		{0.31, 0.4, 0.45, 0.34, 0.38, 0.4}	{0.31, 0.4, 0.45, 0.34, 0.38, 0.4}	{0.31, 0.4, 0.45, 0.34, 0.38, 0.4}		
Receiver	Receiver	Receiver	Receiver	Receiver	Receiver	Receiver
Signaling rate(range)	Sr		25.7825±100ppm		GBd	
Center Wavelength	λc	840	850	860	nm	
Stressed Receiver OMA Sensitivity	RxSENS			-4.1	dBm	1
Average Receiver Power	RxMAX	-11.9		3	dBm	
Receiver Reflectance	Rfl			-26	dB	
Loss of Signal Assert	PA	-30			dBm	
Loss of Signal De-assert	PD			-13	dBm	
LOS Hysteresis	PD- PA	0.5			dB	

5. Electrical Characteristics

Parameter	Symbol	Min	Type	Max	Unit	Ref.
Supply Voltage	Vcc	3.135	3.3	3.465	V	
Supply Current	Icc			350	mA	
Transmitter	Transmitter	Transmitter	Transmitter	Transmitter	Transmitter	Transmitter
Input differential impedance	Rin		100			1
Differential data input swing	Vin, pp	100		800	mV	
Transmit Disable Voltage	VD	2		VCC	V	

Parameter	Symbol	Min	Type	Max	Unit	Ref.
Transmit Enable Voltage	VEN	Vee		Vee+0.8	V	
Receiver	Receiver	Receiver	Receiver	Receiver	Receiver	Receiver
Differential data output swing	Vout, pp	100		800	mV	2
LOS Fault	VLOS_fault	2		VccHOST	V	3
LOS Normal	VLOS_norm	Vee		Vee+0.8	V	3

6. Digital Diagnostics

Parameter	Accuracy	Unit
Internally measured transceiver temperature	+/-3	deg.C
Internally measured transceiver supply voltage	+/-3	%
Measured Tx bias current	+/-10	%
Measured Tx output power	+/-3	dB
Measured Rx received average optical power	+/-3	dB

7. Digital Diagnostics

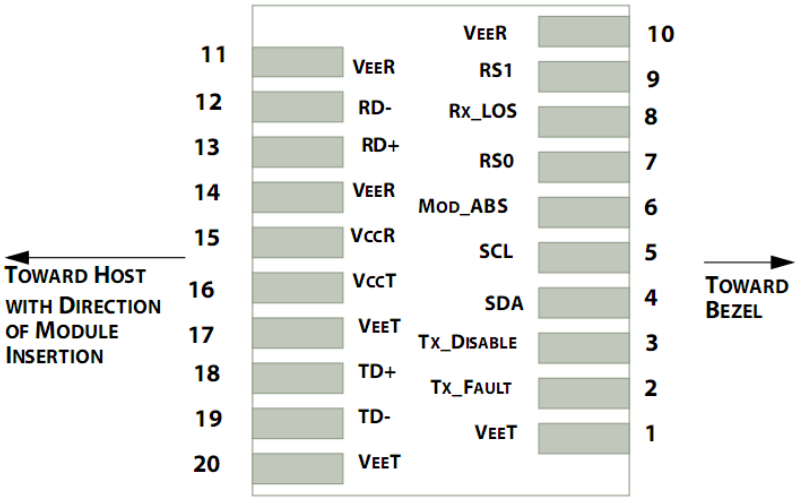
Parameter	Unit	Accuracy
Case Temperature	℃	±3
Supply Voltage	V	±3%
Tx Bias Current	mA	±10%
Tx Optical Power	dB	±3
Rx Optical Power	dB	±3

8. Pin Descriptions

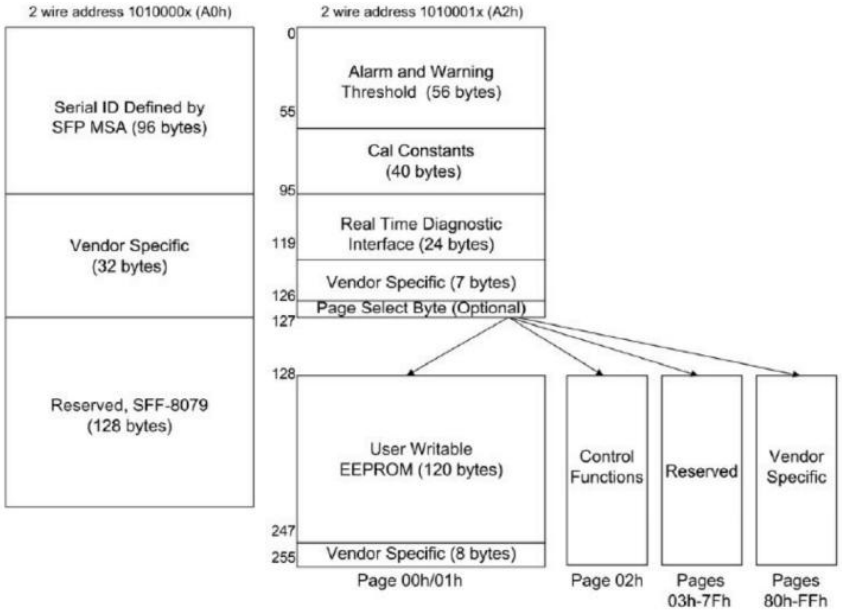
Pin	Symbol	Name/Description	Ref.
1	VEET	Transmitter Ground (Common with Receiver Ground)	1
2	TFAULT	Transmitter Fault.	2
3	TDIS	Transmitter Disable. Laser output disabled on high or open.	3
4	SDA	2-wire Serial Interface Data Line	4
5	SCL	2-wire Serial Interface Clock Line	4
6	MOD_ABS	Module Absent. Grounded within the module	4
7	RS0	No connection required	
8	LOS	Loss of Signal indication. Logic “0” indicates normal operation.	5
9	RS1	No connection required	

Pin	Symbol	Name/Description	Ref.
10	VEER	Receiver Ground (Common with Transmitter Ground)	1
11	VEER	Receiver Ground (Common with Transmitter Ground)	1
12	RD-	Receiver Inverted DATA out. AC Coupled	
13	RD+	Receiver Non-inverted DATA out. AC Coupled	
14	VEER	Receiver Ground (Common with Transmitter Ground)	1
15	VCCR	Receiver Power Supply	
16	VCCT	Transmitter Power Supply	
17	VEET	Transmitter Ground (Common with Receiver Ground)	1
18	TD+	Transmitter Non-Inverted DATA in. AC Coupled.	
19	TD-	Transmitter Inverted DATA in. AC Coupled.	
20	VEET	Transmitter Ground (Common with Receiver Ground)	1

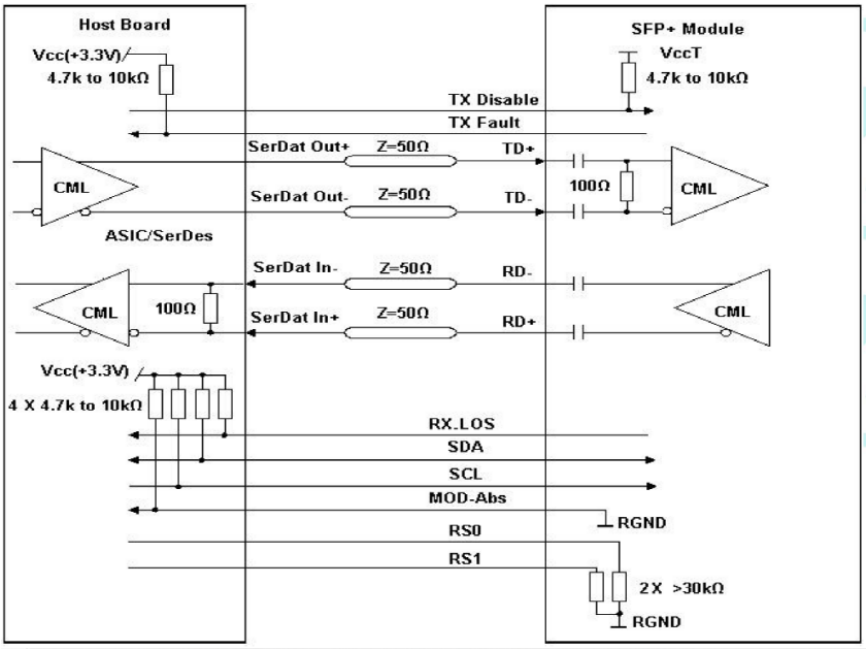
9. Pin Assignment



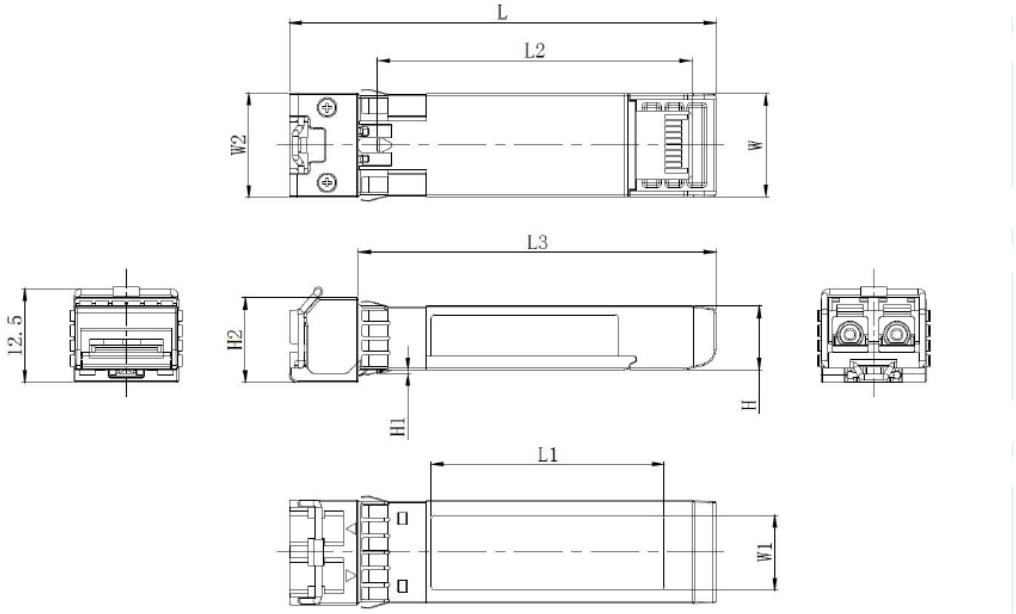
10. Digital Diagnostics Memory Map



11. Electrical Interface



12. Mechanical Specifications



Unit: mm

	L	L1	L2	L3	W	W1	W2	H	H1	H2
MAX	56.9	31.2	41.95	47.7	13.8	10.2	14.0	8.6	0.6	11.5
Typical	56.7	31.0	41.80	47.5	13.7	10.0	-	8.5	0.5	11.3
MIN	56.5	30.8	41.65	47.3	13.5	9.8	-	8.4	0.4	11.1

13. Revision History

Version	Date	Description	Prepared by
V6	2025	Unified WincoTek datasheet format	WincoTek
V6.1	2026-10-23	Engineering and format review	WincoTek