34061246-C

Huawei® 34061246 Compatible TAA Compliant GPON OLT SFP C++ Transceiver (1490nmTx/1310nmRx, 2.5Gbps/1.25Gbps, 34.5dBm, SC)

Features:

- INF-8074 and SFF-8472 Compliance
- Simplex SC Connector
- Single-mode Fiber
- Commercial Temperature 0 to 70 Celsius
- Hot Pluggable
- Metal with Lower EMI
- Excellent ESD Protection
- RoHS Compliant and Lead Free

Applications:

- GPON
- Access and Enterprise

Product Description

This Huawei® 34061246 compatible SFP transceiver provides 2.4Gbs/1.2Gbs-C++ throughput up to 60km over single-mode fiber (SMF) using a wavelength of 1490nmTx/1310nmRx via a SC connector. It is guaranteed to be 100% compatible with the equivalent Huawei® transceiver. This easy to install, hot swappable transceiver has been programmed, uniquely serialized and data-traffic and application tested to ensure that it will initialize and perform identically. Digital optical monitoring (DOM) support is also present to allow access to real-time operating parameters. This transceiver is Trade Agreements Act (TAA) compliant. We stand behind the quality of our products and proudly offer a limited lifetime warranty.

ProLabs' transceivers are RoHS compliant and lead-free.

TAA refers to the Trade Agreements Act (19 U.S.C. & 2501-2581), which is intended to foster fair and open international trade. TAA requires that the U.S. Government may acquire only "U.S. – made or designated country end products."

Rev. 050323

Recommended Operating Conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit
Operating Case Temperature	Tc	0		70	°C
Storage Temperature	TSTG	-40		85	°C
Power Supply Voltage	Vcc	3.13	3.3	3.47	V
Power Supply Current	Icc			450	mA

Transmitter Characteristics

Parameter		Symbol	Min.	Typ.	Max.	Unit	Notes
Optical Transmitter Power		PO	4.5		10	dBm	
Optical Transmitter Power off		POFF			-39	dBm	
Output Center Wavelength		λ	1480		1500	nm	
Output Spectrum Width		Δλ			1.0	nm	
Side Mode Suppression Ratio		SMSR	30			dB	
Extinction Ratio		ER	8.2			dB	
Optical Rise Time					160	ps	
Optical Fall Time					160	ps	
Optical Eye Diagram		Compliant with ITU-T G.984.2 Mask					
Tolerance to TX Back Reflection			-15			dB	
Data Rate				2.488		Gb/s	
Differential Input Voltage		VPP	300		1200	mV	
Differential Input Impedance		ZIN	80	100	120	ohm	
TX Disable	High		2.0			V	
	Low		0		0.8	V	
TX Fault	High		2.4			V	
	Low		0		0.4	V	

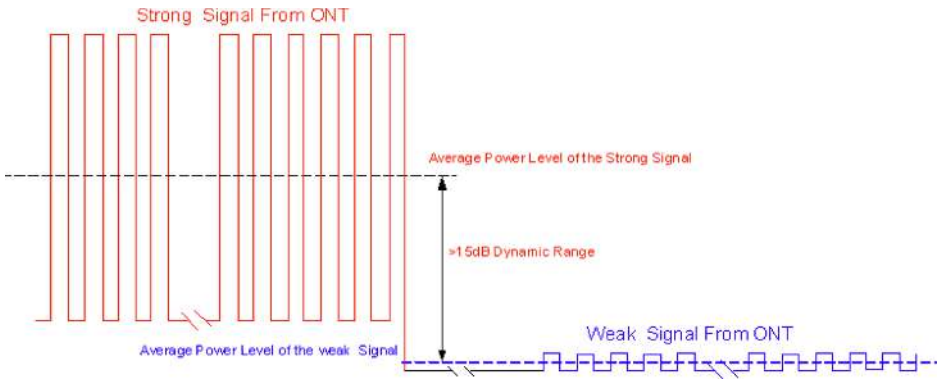
Receiver Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Wavelength of Operation		1260		1310	nm	
Data Rate			1.244		Gb/s	
Sensitivity	Sen			-30	dBm	1
Saturation Optical Power	Sat	-12			dBm	1
Receiver Reflectance				-12	dB	
Receiver Burst-mode Dynamic Range		15			dB	2
Data Output Voltage - High	VOH	VccR-1.05		VccR-0.85	V	
Data Output Voltage - Low	VOL	VccR-1.84		VccR-1.60	V	
Data Output Differential Swing		400		1600	mV	
RSSI accuracy		-3		3	dB	3
BPD Output Voltage - High	VIH	2.4			V	4
BPD Output Voltage – Low	VIL			0.4	V	4
Guard Time	T_{GUARD}		32		bits	
Reset Width	T_{RESET}		16		bits	
Optical Signal During Time	$T_{ONT\ EN\_DUR}$	300			ns	5
RSSI Trigger Delay	T_D	0		3000	ns	6
RSSI Trigger Width	T_W	300		$T_{ONT\ EN\_DUR}$	ns	

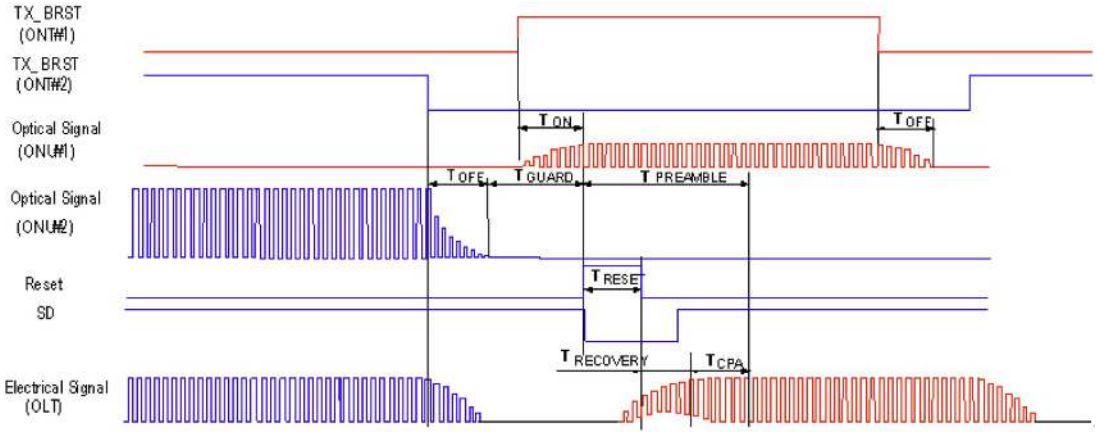
Notes

1. Measured with 1310nm, 1.244Gbps PRBS223-1 burst-mode optical input, ER=10dB, BER=1x10-10; Single burst packet length is 40us and packet interval is 40us.
2. Input optical power level difference of adjacent burst packets.
3. Receiver optical power ranged from -8dBm to -28dBm, measured with 1310nm, 1.244Gbps PRBS27-1 burst-mode optical input, ER=10dB, 50%duty cycle.
4. BPD assert low when module receive “Reset” signal, assert high when burst package is detected and latch to high state until next “Reset” signal.
5. For RSSI Measurement
6. Refer to first bit of the preamble

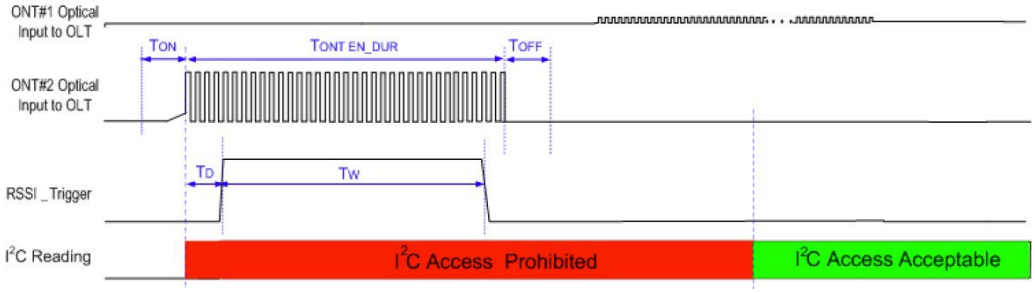
Burst Mode Receiver Dynamic Range



Timing Parameter Definitions in Burst Mode Sequence



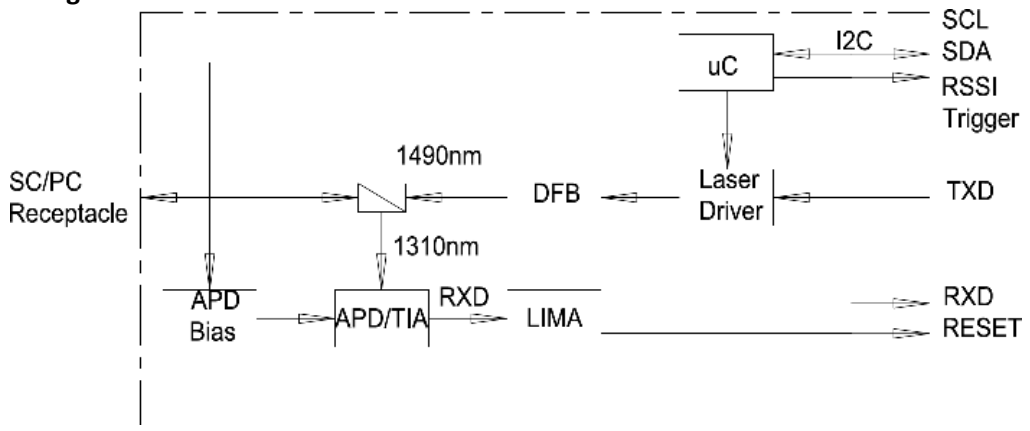
RSSI Timing Sequence



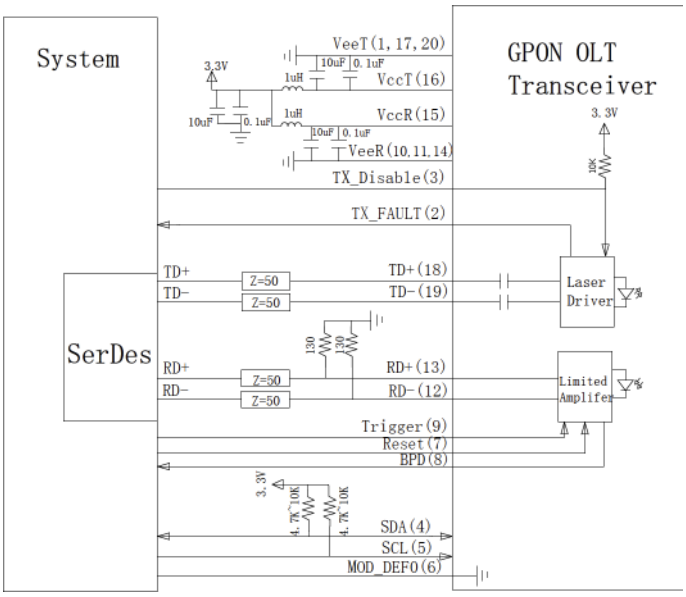
Pin Descriptions

Pin	Symbol	Name/Descriptions
1	V_{EET}	Transmitter Ground
2	TX_FAULT	Transmitter Fault Indication, LVTTL Output, Active High
3	TX_DISABLE	Transmitter Disable, LVTTL Input. Optical output power is off when this PIN is high or left unconnected.
4	SDA	I2C Data
5	SCL	I2C Clock
6	MOD_DEF(0)	Internally grounded
7	Rest	Receiver Reset, LVTTL Input. Set "Reset" high at the end of previous burst, 2 bytes in duration
8	BPD	Burst Packet Detect, LVTTL output. BPD assert low when module receives "reset" signal, assert high when incoming burst is preset.
9	RSSI_Trigger	RSSI Trigger Signal from Host, LVTTL input.
10	V_{EER}	Receiver ground
11	V_{EER}	Receiver ground
12	RD-	Inv. Received Data Out, LVPECL, DC coupled
13	RD+	Received Data Out, LVPECL, DC coupled
14	V_{EER}	Receiver ground
15	V_{CCR}	Receiver Power Supply
16	V_{CCT}	Transmitter Power Supply
17	V_{EET}	Transmitter Ground
18	TD+	Transmit Data In, LVPECL or CML (AC coupled; internally 100 ohms differential
19	TD-	Inv. Transmit Data In, LVPECL or CML (AC coupled; internally 100 ohms differential termination)
20	V_{EET}	Transmitter Ground

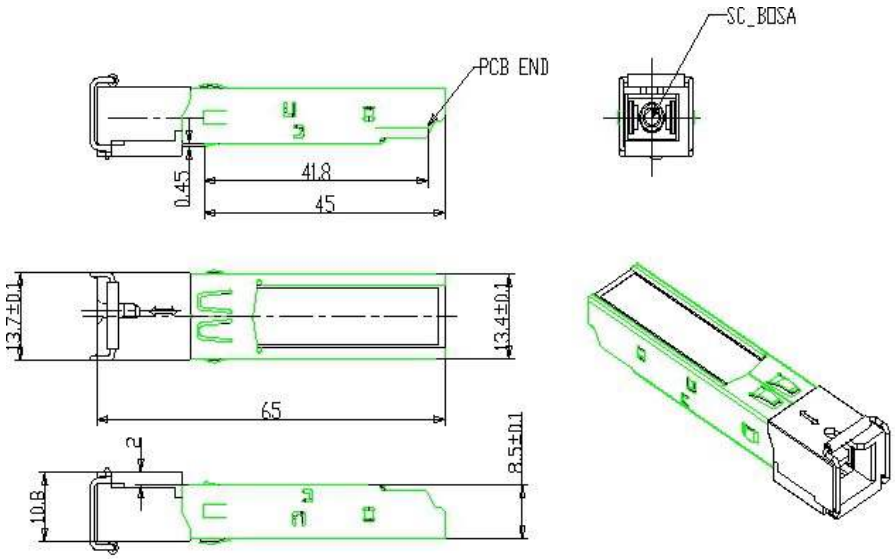
Functional Diagram



Recommended Application Circuit



Mechanical Specifications



About ProLabs

Our experience comes as standard; for over 15 years ProLabs has delivered optical connectivity solutions that give our customers freedom and choice through our ability to provide seamless interoperability. At the heart of our company is the ability to provide state-of-the-art optical transport and connectivity solutions that are compatible with over 90 optical switching and transport platforms.

Complete Portfolio of Network Solutions

ProLabs is focused on innovations in optical transport and connectivity. The combination of our knowledge of optics and networking equipment enables ProLabs to be your single source for optical transport and connectivity solutions from 100Mb to 400G while providing innovative solutions that increase network efficiency. We provide the optical connectivity expertise that is compatible with and enhances your switching and transport equipment.

Trusted Partner

Customer service is our number one value. ProLabs has invested in people, labs and manufacturing capacity to ensure that you get immediate answers to your questions and compatible product when needed. With Engineering and Manufacturing offices in the U.K. and U.S. augmented by field offices throughout the U.S., U.K. and Asia, ProLabs is able to be our customers best advocate 24 hours a day.

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