



Ligent

intelligent photonics

a global leader in transceiver technology

Ligent Photonics, Incorporated, a St. Charles, Illinois based U.S. Corporation is a world-class supplier of optical transceivers for telecommunications, data communication and fiber to the home applications.

Ligent was established in 2002 as a joint venture company with Hisense Optoelectronics. Our parent company, Hisense Corporation, was founded in 1969 and today is a >\$12 billion, 30,000 person global supplier of consumer electronics, IT software, white goods and professional telecom components.

Our management team is comprised of leaders from the telecommunications, semiconductor and investment banking industries including Moxley, Nortel, Philips, Fujitsu, Marconi, Nanovation Technologies and the Shenying & Wanguo Securities Company.

Our transceivers are designed in the U.S.A. and manufactured in China, a model that assures state of the art performance, the highest quality and the lowest cost.

Quality control processes such as SPC, ISO-9000 quality recognition, Telcordia GR-468 test programs, FDA and IEC laser safety, UL and CE product safety, extensive industry and government certification procedures and conservative designs assure our customers that the products delivered by Ligent have very low FIT Rates thereby assuring reliable service over the life of the product.

Our transceivers incorporate the feature sets incorporated in industry standard MSA documents and meet or exceed those requirements. Certain SFP and 2x10 SFF transceiver products incorporate the SFF 8472 Revision 9.3 / 10.3 digital diagnostic feature set for monitoring transceiver performance in real time.

We focus on high volume, low cost transceiver, diplexer and triplexer

products for telecom and datacom service covering Fast Ethernet, Gigabit Ethernet, Active Ethernet, Fibre Channel, SONET and PON applications. Our CWDM SONET and datacom product offering is one of the most extensive in the industry. Our PON products cover both CW and burst mode service.

On the pages of this catalog you will find a wide range of products including new state of the art transceivers:

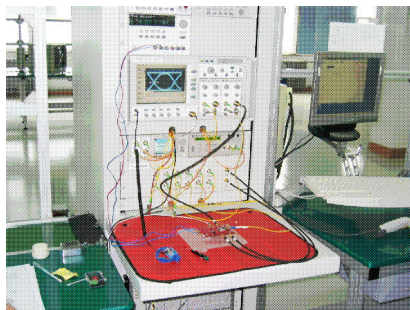
- Burst Mode Bidirectional Transceiver and Triplexers
 - Symmetrical 10G Next Generation E PON
 - Asymmetrical 1G/10G Next Generation E PON
 - Asymmetrical 2.5G/10G Next Generation E PON
 - Symmetrical 10G Next Generation G PON
 - Asymmetrical 2.5G/10G Next Generation G PON
 - Asymmetrical 1.2G/2.4G Next Generation G-PON
 - Symmetrical 1.25G E-PON
 - Asymmetrical 1.2G/2.5G E-PON
- Bidirectional Transceivers
 - 125M and 1.25G Ethernet / Active Ethernet
 - OC-3 and OC-12
- Gigabit Ethernet
- Gigabit Ethernet CWDM
- Fibre Channel 1X, 2X and 4X
- SONET OC-3 through OC-192
- SONET OC-48 Multi-Rate CWDM
- 10G Ethernet

We are totally committed to our customers and endeavor to provide our customers with the best solutions, the lowest prices and the highest level of quality.



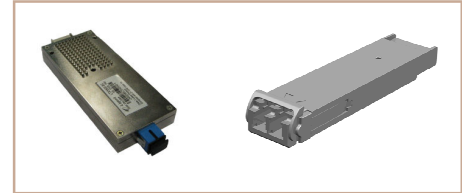
Ligent Photonics Manufacturing Facility
Qingdao, China

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APPLICATIONS

- | | |
|-----------------------------------|-----------------------------------|
| NG TDM burst mode E-PON and G-PON | Mass storage system interconnects |
| Channel extenders | Switch to switch interfaces |
| Data storage networks | Hub interconnects |
| High speed I/O file servers | Distributed multi processing |
| Storage networks | Bus extenders |
| LANs, SANs and remote SANs | Telecom switches |
| Host adapters | Router interconnects |



PRODUCT DESCRIPTION AND FEATURES

Product Mix

- 10G XFP Duplex 850nm, 1310m
- 10G / 10G NG E-PON and G-PON
- 10G / 2.5 NG E-PON and G-PON
- 10G / 1.25G NG E-PON

Transmitter

- 1270nm, 1310nm or 1577 DFB or EML
- 850nm VCSEL
- Internal CDR

Receiver [(BER < 1X10⁻¹⁰ (2³³ - 1 PRBS))]

- 1270nm, 1310nm or 1577nm APD
- 850nm PIN

Single 3.3V power supply
 LC Duplex / SC Simplex
 XFP or XFP-L package outline
 FDA / IEC Class 1 laser
 EEC 2002/95/EC Directive for RoHS compliance

10G E-PON and 10G G-PON XFP LC / XFP SC DUPLEX TRANSCEIVERS

P / N	Application	Package	Tx Data Rate (Gb/sec)	Tx Lambda (nm)	Tx Output (dBm)	Rx Data Rate (Gb/sec)	Rx Lambda (nm)	Rx Sensitivity TYP (dBm)	Electrical Interface	Internal WDM	Application
LTX3401	E-PON ONU	XFP / SC	1.25	1270	-1 to +4	10	1577	-25	30 pin XFI	Yes	Diplexer / RSSI
LTX3403	E-PON ONU	XFP / SC	1.25	1270	-1 to +4	10	1577	-25	30 pin XFI	Yes	Diplexer
LTX4301	E-PON OLT	XFP / SC	10 / 1.25	1577 / 1490	2.5 / 2.5	1.25	1270	-29	30 pin XFI	Yes	Triplexer / RSSI
LTX4303	E-PON OLT	XFP / SC	10 / 1.25	1577 / 1490	2.5 / 2.5	1.25	1270	-29	30 pin XFI	Yes	Triplexer / RSSI
LTX3502	E-PON ONU	XFP / SC	10	1270	-3 to +2	10	1577	-25	30 pin XFI	Yes	Diplexer / RSSI
LTX5302	E-PON OLT	XFP / SC	10/1.25	1577 / 1490	0 / 2.5	10 / 1.25	1270 / 1310	-20 / -20	30 pin XFI	Yes	Quadplexer / RSSI
LTX7214	E-PON OLT	XFP / LC	10	1577	-3 to +3	1.25	1270	-28	30 pin XFI	No	Diplexer
LTX7215	E-PON ONU	XFP / LC	1.25	1270	-1 to +4	10	1577	-25	30 pin XFI	No	Diplexer
LTX7216	E-PON OLT	XFP / LC	10	1577	+2 to +8	2.5	1270	-25	30 pin XFI	No	Diplexer
LTX7217	E-PON ONU	XFP / LC	2.5	1270	+1.5 to +5	10	1577	-25	30 pin XFI	No	Diplexer
LTX7218	E-PON OLT	XFP / LC	10	1577	+2 to +8	10	1270	-25	30 pin XFI	No	Diplexer / RSSI
LTX7219	E-PON ONU	XFP / LC	10	1270	-3 to +2	10	1577	-25	30 pin XFI	No	Diplexer / RSSI
LTX7220	G-PON OLT	XFP / LC	10	1577	+2 to +8	2.5	1270	-28	30 pin XFI	No	Diplexer
LTX7221	G-PON ONU	XFP / LC	2.5	1270	+1.5 to +5	10	1577	-25	30 pin XFI	No	Diplexer

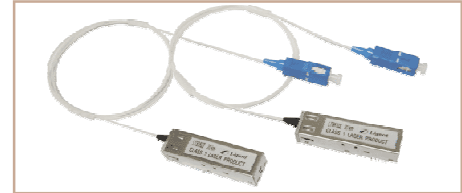
9.95 to 10.5 Gb/Sec XFP LC DUPLEX TRANSCEIVER

P / N	Package	Diagnostics	Lambda (nm)	Laser	Mode	Reach	Temp Range	Tx Output (dBm)	Rx Sensitivity (dBm)	Detector	Standards
LTX8502	XFP	XFP	850	VCSEL	MM	300m*	C, E	-7.3 to -1.0	-14	PIN	10G BASE SR
LTX8502	XFP	XFP	850	VCSEL	MM	300m*	C, E	-7.3 to -1.0	-14	PIN	1200-MX-SN-I

*The transmission distance of multi mode transceivers is dependent upon the characteristic of the multi mode fiber applied in the data link

APPLICATIONS

- Bidirectional point to multi point G-PON Class A / B+ / C+ access networks
- Upstream burst mode service / Downstream CW mode service
- Fiber to the Home, Curb, Office
- ATM, SONET / SDH / PDH
- PON downstream transceiver for OLT
- PON upstream transceiver for ONT
- TDM burst mode bidirectional single fiber networks



PRODUCT DESCRIPTION AND FEATURES

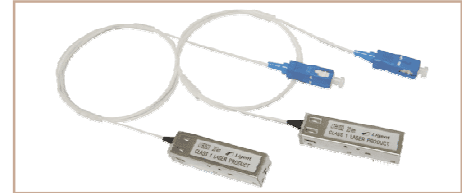
P/N	FSAN Class	Tx DDMI	CW Analog RSSI	CW Digital RSSI	BM Digital RSSI	Short Rx RESET	High Speed Rx LOS	Rx Squelch	Tx Power Control	TxSD	Class 1 Laser	RoHS	ITU-T G.984.2
LTB3464	A										●	●	●
LTB3465	B+										●	●	●
LTB3467	B+	●		●					●		●	●	●
LTB3468	B+	●		●						●	●	●	●
LTB3477	B+										●	●	●
LTB3478	B+	●	●								●	●	●
LTE3678	B+	●	●								●	●	●
LTE3678M	B+	●			●						●	●	●
LTE3679	B+	●				●	●				●	●	●
LTE3679M	B+	●			●	●	●				●	●	●
LTE3680	B+	●				●	●	●			●	●	●
LTE3680M	B+	●			●	●	●	●			●	●	●
LTB3478P	C+	●	●								●	●	●
LTE3679P	C+	●			●	●	●				●	●	●

G-PON ONU BURST MODE TRANSCEIVERS

Part Number	Application	Package	Reach	Transmitter				Receiver			
				Data Rate Mb/s	Lambda (nm)	Laser	Output (dBm)	Data Rate Mb/s	Lambda (nm)	Sensitivity (MAX dBm)	Detector
LTB3464	ONU	2x5 SFF	10 km	1244	1310	F-P	-2 to +3	2488	1490	-21	PIN
LTB3465	ONU	2x5 SFF	20 km	1244	1310	DFB	0.5 to +5	2488	1490	-28	APD
LTB3467	ONU	2x10 SFF	20 km	1244	1310	DFB	0.5 to +5	2488	1490	-28	APD
LTB3468	ONU	2x10 SFF	20 km	1244	1310	DFB	0.5 to +5	2488	1490	-28	APD
LTB3477	OLT	2x10 SFF Pigtail	20 km	2488	1490	DFB	1.5 to +5	1244	1310	-28	APD
LTB3478	OLT	2x10 SFF Pigtail	20 km	2488	1490	DFB	1.5 to +5	1244	1310	-28	APD
LTE3678	OLT	SFP	20 km	2488	1490	DFB	1.5 to +5	1244	1310	-28	APD
LTE3678M	OLT	SFP	20 km	2488	1490	DFB	1.5 to +5	1244	1310	-28	APD
LTE3679	OLT	SFP	20 km	2488	1490	DFB	1.5 to +5	1244	1310	-28	APD
LTE3679M	OLT	SFP	20 km	2488	1490	DFB	1.5 to +5	1244	1310	-28	APD
LTE3680	OLT	SFP	20 km	2488	1490	DFB	1.5 to +5	1244	1310	-28	APD
LTE3680M	OLT	SFP	20 km	2488	1490	DFB	1.5 to +5	1244	1310	-28	APD
LTB3478P	OLT	2x10 SFF Pigtail	20 km	2488	1490	DFB	3.5 to 7.0	1244	1310	-32	APD
LTE3679P	OLT	SFP	20 km	2488	1490	DFB	3.5 to 7.0	1244	1310	-32	APD

APPLICATIONS

Bidirectional point to multi point 1250Mb/s E-PON / GE-PON access networks
 Fiber to the home, curb, office
 ATM, SONET / SDH / PDH
 PON downstream transceiver for OLT
 PON upstream transceiver for ONT
 TDM burst mode bidirectional single fiber networks



PRODUCT DESCRIPTION AND FEATURES

1250Mb/s Symmetrical / 1250/2500Mb/s Asymmetrical TRX

1310nm F-P or DFB burst mode laser
 1310nm PIN or APD burst mode receiver
 1490nm DFB CW mode laser
 1490nm PIN CW mode receiver

Options (model dependent)

CW mode analog or digital RSSI
 Burst mode digital RSSI
 Tx Signal Detect
 SFF MSA or 8472 digital diagnostics
 Internal EPON MAC and SERDES

Available package options

2x5 SFF SC pigtail or SC receptacle
 2x10 SFF SC pigtail or SC receptacle
 SFP SC receptacle

Single 3.3V power supply
 10km or 20km reach (model dependent)
 IEEE 802.3ah compliant
 BER 10^{-12} (2⁷-1 PRBS)
 -40°C to +85°C case temperature
 FDA / IEC Class 1 laser
 EEC 2002/95/EC Directive for RoHS compliance

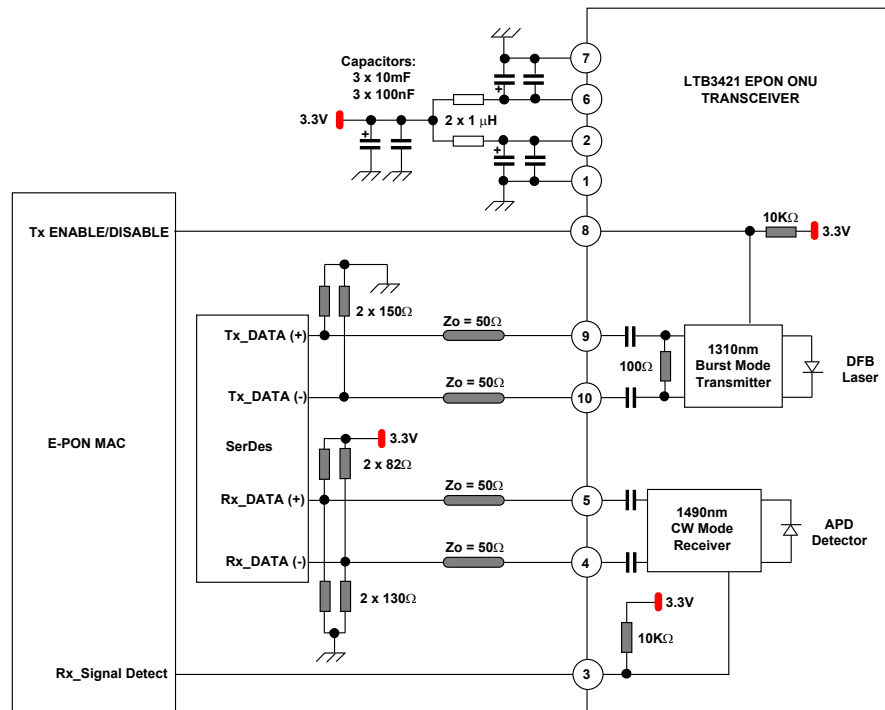
E-PON / GE-PON ONU BURST MODE TRANSCEIVERS

P / N	Application	Package	Diagnostics	Data Rate Down / Up	Transmitter				Receiver			
					Mode	Lambda (nm)	Laser	Output (dBm)	Mode	Lambda (nm)	Sensitivity (dBm) MAX	Detector
LTB3416	PX-10U ONU	2x5 SFF	MSA	1250 / 1250	Burst	1310	F-P	-1 to +4	CW	1490	-24	PIN
LTB3421	PX-10U ONU	2x5 SFF	MSA	1250 / 1250	Burst	1310	F-P	-1 to +4	CW	1490	-26	PIN
LTB34D2	PX-20U ONU	2x10 SFF	8472	1250 / 1250	Burst	1310	F-P	-1 to +4	CW	1490	-26	PIN
LTB3403	2.5G PX-20U ONU	2x5 SFF	MSA	2500 / 1250	Burst	1310	F-P	-1 to +4	CW	1490	-25	PIN
LTB34D3	PX-20U ONU	2x10 SFF	8472	1250 / 1250	Burst	1310	F-P	-1 to +4	CW	1490	-26	PIN
LTB3404	2.5G PX-20U ONU	2x10 SFF	8472	2500 / 1250	Burst	1310	F-P	-1 to +4	CW	1490	-25	PIN
LTE4312	PX-20U ONU PON	SFP	MSA	1250 / 1250	Burst	1310	F-P	-1 to +4	CW	1490	-25	PIN
LTB3418	PX-10D OLT	2x5 SFF Pigtail	MSA	1250 / 1250	CW	1490	DFB	-3 to +2	Burst	1310	-24	PIN
LTB3423	PX-20D OLT	2x5 SFF Pigtail	MSA	1250 / 1250	CW	1490	DFB	+2 to +7	Burst	1310	-30	APD
LTB43D2	PX-20D OLT	2x10 SFF Pigtail	8472	1250 / 1250	CW	1490	DFB	+2 to +7	Burst	1310	-30	APD
LTB4303	2.5G PX-20 OLT	2x10 SFF Pigtail	8472	2500 / 1250	CW	1490	DFB	+2 to +7	Burst	1310	-30	APD
LTE4301	PX-10D OLT	SFP	MSA	1250 / 1250	CW	1490	DFB	-3 to +2	Burst	1310	-26	PIN
LTE4302	PX-20D OLT	SFP	8472	1250 / 1250	CW	1490	DFB	+2 to +7	Burst	1310	-30	APD
LTE4302M	PX-20D OLT	SFP	8472	1250 / 1250	CW	1490	DFB	+2 to +7	Burst	1310	-30	APD
LTE4303	2.5G PX-20D OLT	SFP	8472	2500 / 1250	CW	1490	DFB	+2 to +7	Burst	1310	-30	APD
LTE4303M	2.5G PX-20D OLT	SFP	8472	2500 / 1250	CW	1490	DFB	+2 to +7	Burst	1310	-30	APD

E-PON / GE-PON ONU BURST MODE TRANSCEIVER FEATURES MATRIX

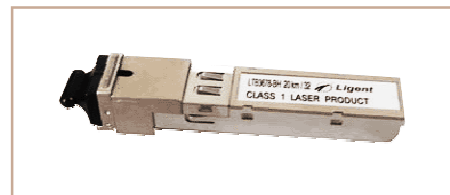
PART NUMBER	Analog CW RSSI	Digital CW RSSI	Digital BM RSSI	Tx Signal Detect	Tx Fault	Tx Disable	Rx LOS	Rx SD	Rx Squelch	Tx DDMI	1.25G SYM	2.5G ASM	MAC & SERDES
LTB3416						●		●	●		●		
LTB3421						●		●	●		●		
LTB34D2		●			●	●		●	●	●	●		
LTB3403						●		●	●			●	
LTB34D3		●		●	●	●		●	●	●	●		
LTB3404		●			●	●		●	●	●		●	
LTE4312					●	●		●					●
LTB3418						●		●	●		●		
LTB3423						●		●	●		●		
LTB43D2	●				●	●	●		●	●	●		
LTB4303	●				●	●	●		●	●		●	
LTE4301					●	●	●		●	●	●		
LTE4302					●	●	●		●	●	●		
LTE4302M			●		●	●	●		●	●	●		
LTE4303		●			●	●	●		●	●		●	
LTE4303M			●		●	●	●		●	●		●	

Electrical Interface LTB3421
Typical of LVPECL Transceiver



APPLICATIONS

Bidirectional point to point 155Mb/s access networks
 Bidirectional point to point 125Mb/s Active Ethernet data links
 Fiber to the Home, Curb, Office
 Active Ethernet
 ATM, SONET / SDH / PDH
 Point to point CW mode bidirectional single fiber networks



PRODUCT DESCRIPTION AND FEATURES

125Mb/s to 155Mb/s bidirectional transceiver
 Single +3.3V power supply
 20km or 40km reach
 SFP package with simplex LC or SC receptacle
 8472 digital diagnostics (model dependent)
 High performance transmitters
 1310nm F-P or DFB laser
 1490nm DFB laser
 1550nm F-P or DFB laser

Operating case temperature options
 Commercial 0°C to +70°C
 Extended -10°C to +80°C
 Industrial -40°C to +85°C

High sensitivity PIN/TIA receiver
 BER < 1X10⁻¹⁰ (2²³ - 1 PRBS)
 FDA / IEC Class 1 laser
 EEC 2002/95/EC Directive for RoHS compliance

BIDI 2x10 SFP TRANSCEIVER WITH LC RECEPTACLE

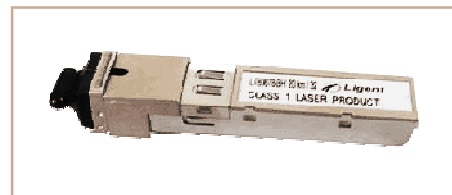
P / N	Package	Diagnostics	Tx Lambda (nm)	Laser	Rx Lambda (nm)	Reach (km)	Temp Options	Tx Output (dBm)	Rx Sensitivity (dBm)
LTE3513	SFP / LC	8472	1310	F-P	1550	20	C, E, H	-14 to -8	-31
LTE5313	SFP / LC	8472	1550	F-P	1310	20	C, E, H	-14 to -8	-31
LTE3505	SFP / LC	8472	1310	F-P	1550	40	C, E, H	-7 to -3	-34
LTE5305	SFP / LC	8472	1550	F-P	1310	40	C, E, H	-7 to -3	-34

BIDI 2x10 SFP TRANSCEIVER WITH SC RECEPTACLE

LTB3506	SFP / SC	MSA	1310	DFB	1490	20	C, E, H	-15 to -8	-32
LTB5306	SFP / SC	MSA	1490	DFB	1310	20	C, E, H	-15 to -8	-32
LTB3507	SFP / SC	MSA	1310	F-P	1550	20	C, E, H	-15 to -8	-32
LTB5307	SFP / SC	MSA	1550	F-P	1310	20	C, E, H	-15 to -8	-32
LTB3516	SFP / SC	MSA	1310	F-P	1550	40	C, E, H	-6 to 0	-33
LTB5316	SFP / SC	MSA	1550	DFB	1310	40	C, E, H	-6 to 0	-33

APPLICATIONS

Bidirectional point to point Gigabit Ethernet access networks
 Fiber to the home, curb, office
 Point to point bidirectional single fiber networks
 High speed Active Ethernet
 Cellular Radio G3/G4back haul bidirectional data links
 High speed studio bidirectional data links
 HDTV bidirectional studio applications
 CATV fiber to the node bidirectional links



PRODUCT DESCRIPTION AND FEATURES

1250Mb/s Gigabit Ethernet CW mode bidirectional transceiver
 Single 3.3V power supply
 10km, 20km or 40km reach (model dependent)
 Available package options
 SFP LC simplex receptacle package
 SFP SC receptacle package
 Bidirectional transceiver configuration options
 1310nm Tx 1490nm Rx
 1310nm Rx 1490nm Tx

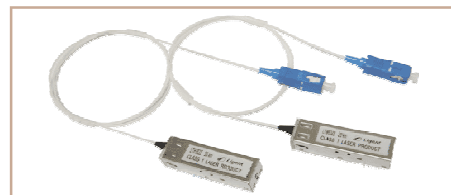
1310nm Tx 1550nm Rx
 1310nm Rx 1550nm Tx
 High performance transmitters
 1310nm F-P or DFB laser
 1490nm DFB laser
 1550nm DFB laser
 High sensitivity PIN/TIA receiver
 FDA / IEC Class 1 laser
 EEC 2002/95/EC Directive for RoHS compliance

BIDI SFP TRANSCEIVER

P / N	Package	Diagnostics	Tx Lambda (nm)	Laser	Rx Lambda (nm)	Reach (km)	Temp Options	Tx Output (dBm)	Rx Sensitivity (dBm)
LTB3509	SFP / SC	MSA	1310	F-P	1490	10	C, E, H	-9 to -3	-20
LTB5309	SFP / SC	MSA	1490	DFB	1310	10	C, E, H	-9 to -3	-20
LTB3510	SFP / SC	MSA	1310	F-P	1550	10	C, E, H	-9 to -3	-20
LTB5310	SFP / SC	MSA	1550	DFB	1310	10	C, E, H	-9 to -3	-20
LTB3514	SFP / SC	MSA	1310	DFB	1550	40	C, E, H	-3 to 0	-20
LTB5314	SFP / SC	MSA	1550	DFB	1310	40	C, E, H	-3 to 0	-20
LTE3550	SFP / LC	8472	1310	F-P	1550	20	C, E, H	-9 to -3	-22
LTE5350	SFP / LC	8472	1550	DFB	1310	20	C, E, H	-14 to -8	-26
LTE3405	SFP / LC	8472	1310	F-P	1490	10	C, E, H	-9 to -3	-20
LTE4305	SFP / LC	8472	1490	DFB	1310	10	C, E, H	-9 to -3	-20

APPLICATIONS

Bidirectional point to point 155Mb/s access networks
 Bidirectional point to point 125Mb/s Active Ethernet data links
 Fiber to the Home, Curb, Office
 Active Ethernet
 ATM, SONET / SDH / PDH
 CW mode point to point bidirectional single fiber networks



PRODUCT DESCRIPTION AND FEATURES

125Mb/s to 155Mb/s bidirectional transceiver
 Single +3.3V power supply
 20km or 40km reach
 Available package configurations
 2x5 SFF pigtail with SC/PC connector
 2x5 SFF SC receptacle
 High performance transmitters
 1310nm F-P or DFB laser
 1550nm F-P or DFB laser

High sensitivity PIN/TIA receiver with limiter
 Operating case temperature options
 Commercial 0°C to +70°C
 Extended -10°C to +80°C
 Industrial -40°C to +85°C
 Cross talk <-30dB
 BER < 1X10⁻¹⁰ (2²³ - 1 PRBS)
 FDA / IEC Class 1 laser
 EEC 2002/95/EC Directive for RoHS compliance

BIDI 2X5 SFF TRANSCEIVER WITH SC/PC PIGTAIL

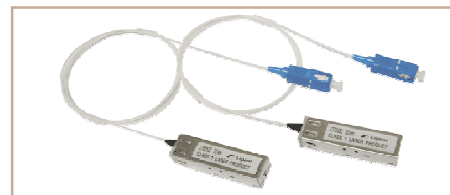
P / N	Package	Diagnostics	Tx Lambda (nm)	Laser	Rx Lambda (nm)	Reach (km)	Temp Options	Tx Output (dBm)	Rx Sensitivity (dBm)
LTB3301	2x5 SFF Pigtail	MSA	1310	F-P	1310	20	C, E, H	-14 to -8	-31
LTB3305	2x5 SFF Pigtail	MSA	1310	DFB	1310	40	C, E, H	-5 to 0	-31
LTB3501	2x5 SFF Pigtail	MSA	1310	F-P	1550	20	C, E, H	-15 to -8	-31
LTB5301	2x5 SFF Pigtail	MSA	1550	F-P	1310	20	C, E, H	-14 to -8	-31
LTB3505	2x5 SFF Pigtail	MSA	1310	DFB	1550	40	C, E, H	-5 to 0	-31
LTB5305	2x5 SFF Pigtail	MSA	1550	DFB	1310	40	C, E, H	-5 to 0	-31

BIDI 2x5 SFF TRANSCEIVER WITH SC RECEPTACLE

LTB3303	2x5 SFF SC	MSA	1310	F-P	1310	20	C, E, H	-14 to -8	-31
LTB3304	2x5 SFF SC	MSA	1310	DFB	1310	40	C, E, H	-5 to 0	-31
LTB3503	2x5 SFF SC	MSA	1310	F-P	1550	20	C, E, H	-14 to -8	-31
LTB5303	2x5 SFF SC	MSA	1550	F-P	1310	20	C, E, H	-14 to -8	-31
LTB3504	2x5 SFF SC	MSA	1310	DFB	1550	40	C, E, H	-5 to 0	-31
LTB5304	2x5 SFF SC	MSA	1550	DFB	1310	40	C, E, H	-5 to 0	-31

APPLICATIONS

Bidirectional point to point 622Mb/s access networks
 Fiber to the Home, Curb, Office
 ATM, SONET / SDH / PDH
 CW mode point to point bidirectional single fiber networks
 Cellular Radio G3/G4 back haul bidirectional data links
 High speed studio bidirectional data links
 HDTV bidirectional studio applications
 CATV fiber to the node bidirectional links



PRODUCT DESCRIPTION AND FEATURES

622Mb/s bidirectional transceiver

Single +3.3V power supply

20km or 40km reach

Available package configurations

2x5 SFF pigtail with SC/PC connector

2x5 SFF SC receptacle

High performance transmitters

1310nm F-P or DFB laser

1550nm F-P or DFB laser

High sensitivity PIN/TIA receiver with limiter

Operating case temperature options

Commercial 0°C to +70°C

Industrial -40°C to +85°C

Cross talk <-30 dB

BER < 1X10⁻¹⁰ (2²³ - 1 PRBS)

FDA / IEC Class 1 laser

EEC 2002/95/EC Directive for RoHS compliance

BIDI 2X5 SFF TRANSCEIVER WITH SC/PC PIGTAIL

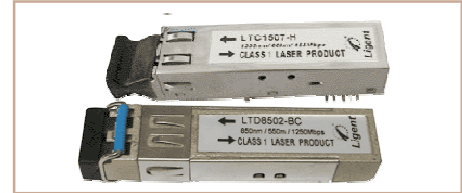
P / N	Package	Diagnostics	Tx Lambda (nm)	Laser	Rx Lambda (nm)	Reach (km)	Temp Options	Tx Output (dBm)	Rx Sensitivity (dBm)
LTB3322	2x5 SFF Pigtail	MSA	1310	F-P	1310	20	C, E, H	-14 to -8	-26
LTB3332	2x5 SFF Pigtail	MSA	1310	DFB	1310	40	C, E, H	-5 to 0	-26
LTB3522	2x5 SFF Pigtail	MSA	1310	F-P	1550	20	C, E, H	-15 to -8	-26
LTB5322	2x5 SFF Pigtail	MSA	1550	F-P	1310	20	C, E, H	-15 to -8	-26
LTB3532	2x5 SFF Pigtail	MSA	1310	DFB	1550	40	C, E, H	-5 to 0	-26
LTB5332	2x5 SFF Pigtail	MSA	1550	DFB	1310	40	C, E, H	-5 to 0	-26

BIDI 2x5 SFF TRANSCEIVER WITH SC RECEPTACLE

LTB3321	2x5 SFF SC	MSA	1310	F-P	1310	20	C, E, H	-14 to -8	-26
LTB3331	2x5 SFF SC	MSA	1310	DFB	1310	40	C, E, H	-5 to 0	-26
LTB3521	2x5 SFF SC	MSA	1310	F-P	1550	20	C, E, H	-14 to -8	-26
LTB5321	2x5 SFF SC	MSA	1550	F-P	1310	20	C, E, H	-14 to -8	-26
LTB3531	2x5 SFF SC	MSA	1310	DFB	1550	40	C, E, H	-5 to 0	-26
LTB5331	2x5 SFF SC	MSA	1550	DFB	1310	40	C, E, H	-5 to 0	-26

APPLICATIONS

1062.5Mb/sec, 2125Mb/sec and 4250Mb/sec Fibre Channel data links
 Channel extenders and data storage networks
 High speed I/O file servers and storage networks
 LANs, SANs and remote SANs
 Host adapter and mass storage system interconnects
 Switch to switch interfaces and hub interconnects
 Distributed multi processing and bus extenders
 Telecom switches and router interconnects



PRODUCT DESCRIPTION AND FEATURES

Full duplex operation @ 1062.5Mb/s, 2125Mb/s or 4250Mb/sec
 850nm VCSEL or 1310nm F-P transmitter

High sensitivity PIN receiver

Package types

2x5 SFF LC duplex

SFP LC duplex

Reach (model dependent)

550m multi mode 1062.5Mb/s

300m multi mode 2125Mb/s

150m multi mode 4250 Mb/s

10km single mode 1062.5Mb/s

10km single mode 2125Mb/s

Operating case temperature options

Commercial 0°C to +70°C

Extended -10°C to +80°C

Industrial -40°C to +85°C

Model dependent Fibre Channel compliance

FC-PI 100/200-SM-LCL

FC-PI 100 M5/M6 SNI

FC-PI 400-M5/M6-SNI

BER 10^{-12} (2⁷-1 PRBS)

3.3V operation

8472 digital diagnostics (model dependent)

FDA / IEC Class 1 laser

EEC 2002/95/EC Directive for RoHS compliance

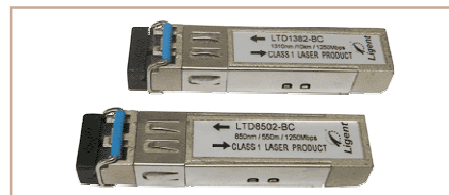
FIBRE CHANNEL DUPLEX TRANSCEIVERS

P / N	Package	Diagnostics	Lambda (nm)	Laser	Mode	Reach	Data Rate (Mb/s)	Temp Options	Tx Output (dBm)	Rx Sensitivity (dBm)	Detector	FC-PI Standard
LTC8501	2x5 SFF	MSA	850	VCSEL	MM	550 m*	1062.5	C, E, H	-10 to 0	-15	PIN	100-M5/M6-SNI
LTC8503	2x5 SFF	MSA	850	VCSEL	MM	300 m*	2125	C, E, H	-10 to 0	-13	PIN	200-M5/M6-SNI
LTC1301	2x5 SFF	MSA	1310	F-P	SM	10 km	1062.5	C, E, H	-9.5 to -3	-18	PIN	100-SM-LCL
LTC1303	2x5 SFF	MSA	1310	F-P	SM	10 km	2125	C, E, H	-10 to -3	-18	PIN	200-SM-LCL
LTD8501	SFP	MSA	850	VCSEL	MM	550 m*	1062.5	C, E, H	-10 to 0	-15	PIN	100-M5/M6-SNI
LTD8503	SFP	MSA	850	VCSEL	MM	300 m*	2125	C, E, H	-10 to 0	-13	PIN	200-M5/M6-SNI
LTD8542	SFP	8472	850	VCSEL	MM	150 m*	4250	C, E, H	-9.5 to 0	-15	PIN	400-M5/M6-SNI
LTD1301	SFP	8472	1310	F-P	SM	10 km	1062.5	C, E, H	-9.5 to -3	-18	PIN	100-SM-LCL
LTD1303	SFP	8472	1310	F-P	SM	10 km	2125	C, E, H	-10 to -3	-18	PIN	200-SM-LCL

NOTE: The transmission distance of multi mode transceivers is dependent upon the characteristic of the multi mode fiber applied in the data link.

APPLICATIONS

1250Mb/sec Gigabit Ethernet data links
 Channel extenders and data storage networks
 High speed I/O file servers and storage networks
 LANs and remote SANs
 Host adapter and mass storage system interconnects
 Switch to switch interfaces and hub interconnects
 Distributed multi processing and bus extenders
 Telecom switches and router interconnects



PRODUCT DESCRIPTION AND FEATURES

Full duplex operation @ 1250Mb/s

High performance transmitter

850nm VCSEL

1310nm F-P

1310nm DFB

1550nm DFB

High sensitivity PIN or APD receiver

2x5 SFF or SFP LC duplex receptacle package

Reach (model dependent)

550m multi mode

10km to 120km single mode

Operating case temperature options

Commercial 0°C to +70°C

Extended -10°C to +80°C

Industrial -40°C to +85°C

IEEE 802.3z 1000BASE SX, LX or LH compliant

BER 10^{-12} (

3.3V operation

8472 digital diagnostics on specific SFP models

FDA / IEC Class 1 laser

EEC 2002/95/EC Directive for RoHS compliance

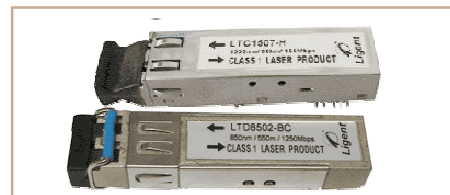
GIGABIT ETHERNET DUPLEX TRANSCEIVERS

Part Number	Package	Diagnostics	Lambda (nm)	Laser	Mode	Reach	Temp Options	Tx Output (dBm)	Rx Sensitivity (dBm)	Detector	1000BASE Standard
LTC8502	2x5 SFF	MSA	850	VCSEL	MM	550 m*	C, E, H	-9.5 to 0	-17	PIN	SX
LTC1302	2x5 SFF	MSA	1310	F-P	SM	10 km	C, E, H	-11 to -3	-19	PIN	LX
LTC1314	2x5 SFF	MSA	1310	DFB	SM	40 km	C, E, H	-2 to 3	-23	PIN	LX
LTC1519	2x5 SFF	MSA	1550	DFB	SM	80 km	C, E, H	0 to 4	-23	PIN	LH
LTC1531	2x5 SFF	MSA	1550	DFB	SM	120 km	C, E, H	2 to 5	-31	APD	LH
LTD8502	SFP	MSA	850	VCSEL	MM	550 m*	C, E, H	-9.5 to 0	-17	PIN	SX
LTD1302	SFP	8472	1310	F-P	SM	10 km	C, E, H	-11 to -3	-19	PIN	LX
LTD1314	SFP	8472	1310	DFB	SM	40 km	C, E, H	-2 to 3	-23	PIN	LX
LTD1382	SFP	8472	1310	F-P	SM	10 km	C, E, H	-9.5 to -3	-19	PIN	LX
LTD1501	SFP	8472	1550	DFB	SM	80 km	C, E, H	-2 to 3	-27	APD	LH
LTD1508	SFP	8472	1550	DFB	SM	70 km	C, E, H	0 to 4	-23	PIN	LH
LTD1519	SFP	8472	1550	DFB	SM	80 km	C, E, H	0 to 4	-23	PIN	LH
LTD1531	SFP	8472	1550	DFB	SM	120 km	C, E, H	2 to 5	-31	APD	LH
LTD1533	SFP	8472	1550	DFB	SM	40 km	C, E, H	-2 to 3	-23	PIN	LX
LTD1534	SFP	8472	1550	DFB	SM	80 km	C, E, H	2 to 5.2	-28	APD	LH
LTD1593	SFP	MSA	1550	DFB	SM	40 km	C, E, H	-2 to 3	-23	PIN	LX

NOTE: The transmission distance of multi mode transceivers is dependent upon the characteristic of the multi mode fiber applied in the data link

APPLICATIONS

ATM and OC-48 SONET / SDH data links
 Rack to rack system interconnects
 Metro / Access networks
 Switch to switch interfaces and hub interconnects
 Buss or channel extenders
 Host adapter interconnects
 Mass storage system interconnects
 Telecom switches and router interconnects



PRODUCT DESCRIPTION AND FEATURES

Full duplex operation @ 2488Mb/s
 OC-48 / STM-16 single rate and multi rate models
 High performance transmitter
 1310nm F-P
 1310nm DFB
 1550nm DFB
 High sensitivity PIN or APD receiver
 2x5 SFF or SFP LC duplex package
 8472 digital diagnostics (model dependent)
 2km to 80km reach (model dependent)

Operating case temperature options
 Commercial 0°C to +70°C
 Extended -10°C to +80°C
 Industrial -40°C to +85°C

OC-48 SR, IR-1, IR-2, LR-1, LR-2 and LR-3 compliant
 STM-16 I-16, S-16.1, L16.1, L-16.2 and L16.3 compliant
 BER < 1X10⁻¹⁰ (2²³ - 1 NRZ PRBS)
 3.3V operation
 FDA / IEC Class 1 laser
 EEC 2002/95/EC Directive for RoHS compliance

OC-48 SONET / SDH DUPLEX TRANSCEIVERS

P / N	Package	Diagnostics	Lambda (nm)	Laser	Mode	Reach (km)	Temp Option	Tx Output (dBm)	Rx Sensitivity (dBm)	Detector	Standard
LTC1304	2x5 SFF	MSA	1310	F-P	SM	2	C, E, H	-10 to -3	-18	PIN	SR-1 / I-16
LTC1305	2x5 SFF	MSA	1310	DFB	SM	15	C, E, H	-5 to 0	-18	PIN	IR-1 / S-16.1
LTC1306	2x5 SFF	MSA	1310	DFB	SM	40	C, E, H	-2 to 3	-28	APD	LR-1 / L-16.1
LTC1502	2x5 SFF	MSA	1550	DFB	SM	80	C, E, H	-2 to 3	-28	APD	LR-2 / L-16.2
LTC1503	2x5 SFF	MSA	1550	DFB	SM	40	C, E, H	-3 to 2	-18	PIN	LR-2 / L-16.2
LTD1304	SFP	8472	1310	F-P	SM	2	C, E, H	-10 to -3	-18	PIN	SR-1 / I-16
LTD1305	SFP	8472	1310	DFB	SM	15	C, E, H	-5 to 0	-18	PIN	IR-1 / S-16.1
LTD1306	SFP	8472	1310	DFB	SM	40	C, E, H	-2 to 3	-28	APD	LR-1 / L-16.1
LTD1326	SFP	8472	1310	DFB	SM	40	C, E, H	0 to 5	-21	PIN	LR-1 / L-16.1
LTD1394	SFP	MSA	1310	F-P	SM	2	C, E, H	-10 to -3	-18	PIN	SR-1 / I-16
LTD1395	SFP	MSA	1310	DFB	SM	20	C, E, H	-0.5 to 5	-20.5	PIN	IR-1 / S-16.1
LTD1502	SFP	8472	1550	DFB	SM	80	C, E, H	-2 to 3	-28	APD	LR-2 / L-16.2
LTD1503	SFP	8472	1550	DFB	SM	40	C, E, H	-3 to 2	-18	PIN	LR-2 / L-16.2
LTD1520	SFP	MSA	1550	DFB	SM	15	C, E, H	-10 to -5	-18	PIN	IR-2 / L-16.2
LTD1590	SFP	MSA	1550	DFB	SM	15	C, E, H	-10 to -5	-18	PIN	IR-2 / L-16.2

APPLICATIONS

ATM and OC-12 SONET / SDH data links
 Rack to rack system interconnects
 Metro / Access networks
 Switch to switch interfaces and hub interconnects
 Buss or channel extenders
 Host adapter interconnects
 Mass storage system interconnects
 Telecom switches and router interconnects



PRODUCT DESCRIPTION AND FEATURES

Full duplex operation @ 622Mb/s
 OC-12 / STM-4 single rate and multi rate models
 High performance transmitter
 1310nm F-P
 1550nm DFB
 High sensitivity PIN or APD receiver
 2x5 SFF or SFP LC duplex package
 8472 digital diagnostics (model dependent)
 2km to120km reach (model dependent)

Operating case temperature options
 Commercial 0°C to +70°C
 Extended -10°C to +80°C
 Industrial -40°C to +85°C

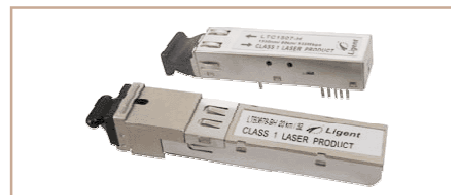
OC-12 SR, IR-1, IR-2, LR-1, LR-2, VR-2 compliant
 STM-16 I-4, S4.1, S4.2, L4.1, L4.2, V4.2 compliant
 BER < 1X10⁻¹⁰ (2²³ - 1 NRZ PRBS)
 3.3V operation
 FDA / IEC Class 1 laser
 EEC 2002/95/EC Directive for RoHS compliance

OC-12 SONET / SDH DUPLEX TRANSCEIVERS

P / N	Package	Diagnostics	Lambda (nm)	Laser	Mode	Reach (km)	Temp Option	Tx Output (dBm)	Rx Sensitivity (dBm)	Detector	Standard
LTC1308	2x5 SFF	MSA	1310	F-P	SM	15	C, E, H	-15 to -8	-28	PIN	IR-1/S-4.1
LTC1309	2x5 SFF	MSA	1310	F-P	SM	40	C, E, H	-3 to 2	-28	PIN	LR-1/L-4.1
LTC1313	2x5 SFF	MSA	1310	F-P	SM	20	C, E, H	-12 to -5	-28	PIN	IR-1/S-4.1
LTC1504	2x5 SFF	MSA	1550	DFB	SM	80	C, E, H	-3 to 2	-28	PIN	LR-2/L-4.2
LTC1595	2x10 SFF	MSA	1510	DFB	SM	15	C, E, H	-15 to -9	-28	PIN	IR-2/S-4.2
LTD1308	SFP	8472	1310	F-P	SM	15	C, E, H	-15 to -8	-28	PIN	IR-1/S-4.1
LTD1309	SFP	8472	1310	F-P	SM	40	C, E, H	-3 to 2	-28	PIN	LR-1/L-4.1
LTD1313	SFP	8472	1310	F-P	SM	20	C, E, H	-12 to -5	-28	PIN	IR-1/S-4.1
LTD1398	SFP	MSA	1310	F-P	SM	15	C, E, H	-15 to -8	-28	PIN	IR-1/S-4.1
LTD1399	SFP	MSA	1310	F-P	SM	40	C, E, H	-3 to 2	-28	PIN	LR-1/L-4.1
LTD1504	SFP	8472	1550	DFB	SM	80	C, E, H	-3 to 2	-28	PIN	LR-2/L-4.2
LTD1505	SFP	8472	1550	DFB	SM	40	C, E, H	-5 to 0	-28	PIN	LR-1/L-4.1
LTD1532	SFP	8472	1550	DFB	SM	120	C, E, H	2 to 5	-31	PIN	VR-2/V4.2
LTD1594	SFP	MSA	1550	DFB	SM	80	C, E, H	-3 to 2	-28	PIN	LR-2/L-4.2

APPLICATIONS

ATM and OC-3 SONET / SDH data links
 Rack to rack system interconnects
 Metro / Access networks
 Switch to switch interfaces and hub interconnects
 Buss or channel extenders
 Host adapter interconnects
 Mass storage system interconnects
 Telecom switches and router interconnects



PRODUCT DESCRIPTION AND FEATURES

Full duplex operation @ 155Mb/s
 OC-3 / STM-1 single rate and multi rate models
 High performance transmitter
 1310nm LED, F-P or DFB
 1550nm DFB
 High sensitivity PIN receiver
 2x5 SFF or SFP LC duplex package
 8472 digital diagnostics (model dependent)
 2km to 140km reach (model dependent)

Operating case temperature options

Commercial 0°C to +70°C
 Extended -10°C to +80°C
 Industrial -40°C to +85°C

OC-3 SR, IR-1, LR-1, LR-2, VR-1 compliant

STM-1 I-1, S1.1, L1.1, L1.2, V1.2 compliant

BER < 1X10⁻¹⁰ (2²³ - 1 NRZ PRBS)

3.3V operation

FDA / IEC Class 1 laser

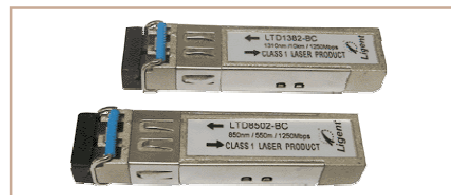
EEC 2002/95/EC Directive for RoHS compliance

OC-3 SONET / SDH DUPLEX TRANSCEIVERS

P / N	Package	Diagnostics	Lambda (nm)	Laser	Mode	Reach (km)	Temp Option	Tx Output (dBm)	Rx Sensitivity (dBm)	Detector	Standards
LTC1311	2x5 SFF	MSA	1310	F-P	SM	15	C, E, H	-15 to -8	-30	PIN	IR-1/S-1.1
LTC1312	2x5 SFF	MSA	1310	F-P	SM	40	C, E, H	-5 to 0	-34	PIN	LR-1/L-1.1
LTC1316	2x5 SFF	MSA	1310	LED	MM	2	C, E, H	-22 to -12	-30	PIN	SR/I-1
LTC1507	2x5 SFF	MSA	1550	DFB	SM	80	C, E, H	-5 to 0	-34	PIN	LR-2/L-1.2
LTD1311	SFP	8472	1310	F-P	SM	15	C, E, H	-15 to -8	-30	PIN	IR-1/S-1.1
LTD1312	SFP	8472	1310	F-P	SM	40	C, E, H	-5 to 0	-34	PIN	LR-1/L-1.1
LTD1316	SFP	MSA	1310	LED	MM	2	C, E, H	-22 to -12	-30	PIN	SR/I-1
LTD1325	SFP	8472	1310	DFB	SM	80	C, E, H	0 to +5	-35	PIN	LR-2/L1.2
LTD1391	SFP	MSA	1310	F-P	SM	15	C, E, H	-15 to -8	-30	PIN	IR-1/S-1.1
LTD1392	SFP	MSA	1310	F-P	SM	40	C, E, H	-5 to 0	-34	PIN	LR-1/L-1.1
LTD1506	SFP	8472	1550	DFB	SM	40	C, E, H	-10 to -5	-34	PIN	LR-1/L-1.1
LTD1507	SFP	8472	1550	DFB	SM	80	C, E, H	-5 to 0	-34	PIN	LR-2/L-1.2
LTD1535	SFP	8472	1550	DFB	SM	140	C, E, H	0 to +5	-36	PIN	VR-1/V1.2
LTD1597	SFP	MSA	1550	DFB	SM	80	C, E, H	-5 to 0	-34	PIN	LR-2/L-1.2

APPLICATIONS

ATM and OC-3 to OC-48 SONET / SDH CWDM data links
 Rack to rack system interconnects
 Metro / Access networks
 Switch to switch interfaces and hub interconnects
 Buss or channel extenders
 Host adapter interconnects
 Mass storage system interconnects
 Telecom switches and router interconnects



PRODUCT DESCRIPTION AND FEATURES

OC-48 / STM-16 CWDM multi-rate models
 OC-12 / STM-4 CWDM multi-rate models
 OC-3 / STM-1 CWDM single rate models
 High performance 1270nm to 1610nm DFB transmitters
 High sensitivity PIN or APD receiver
 2x5 SFF or SFP LC duplex package
 8472 digital diagnostics (SFP models)

40km to 80km reach (model dependent)
 0°C to +70°C operating case temperature
 BER < 1×10^{-10} (2^{23} - 1 NRZ PRBS)
 3.3V operation
 FDA / IEC Class 1 laser
 EEC 2002/95/EC Directive for RoHS compliance

SONET / SDH CWDM LC DUPLEX TRANSCEIVERS

P / N	Package	Diagnostics	Lambda (nm)		Data Rate (Mb/s)	Reach (km)	Tx Output (dBm)	Rx Sensitivity (dBm)	Detector	Application
			Lowest	Highest						
LTC1511-WL	2x5 SFF	MSA	1470	1610	2488	40	-3 to +2	-18	PIN	OC-48
LTC1521-WL	2x5 SFF	MSA	1470	1610	2488	80	-2 to +3	-28	APD	OC-48
LTD1511-WL	SFP	8472	1470	1610	155 to 2670	40	0 to +5	-18	PIN	OC-48 MR
LTD1521-WL	SFP	8472	1470	1610	155 to 2670	80	0 to +5	-31	APD	OC-48 MR
LTD1611-WL	SFP	8472	1470	1610	622	40	-5 to 0	-28	PIN	OC-12
LTD1621-WL	SFP	8472	1470	1610	622	80	-5 to 0	-34	PIN	OC-12
LTD1811-WL	SFP	8472	1470	1610	125 to 155	80	-5 to 0	-34	PIN	OC-3 MR

MR = Multi Rate Transceiver

APPLICATIONS

Fibre Channel, Fast Ethernet or Gigabit Ethernet CWDM data links
 Rack to rack system interconnects
 Metro / Access networks
 Switch to switch interfaces and hub interconnects
 Buss or channel extenders
 Host adapter interconnects
 Mass storage system interconnects
 Telecom switches and router interconnects



PRODUCT DESCRIPTION AND FEATURES

Gigabit Ethernet single rate and multi-rate CWDM models
 Fibre Channel 1X and 2X single rate and multi-rate CWDM models
 High performance 1270nm to 1610nm DFB transmitter
 High sensitivity PIN or APD receiver
 2x5 SFF or SFP LC duplex package
 8472 digital diagnostics (SFP models)

40km to 120km reach (model dependent)
 0°C to +70°C operating case temperature
 $BER < 1 \times 10^{-12}$ ($2^7 - 1$ NRZ PRBS)
 3.3V operation
 FDA / IEC Class 1 laser
 EEC 2002/95/EC Directive for RoHS compliance

DATA COM CWDM LC DUPLEX TRANSCEIVERS

P / N	Package	Diagnostics	Lambda (nm)		Data Rate (Mb/s)	Reach (km)	Tx Output (dBm)	Rx Sensitivity (dBm)	Detector	Application
			Lowest	Highest						
LTC1711-WL	2x5 SFF	MSA	1270	1610	1250	40	-5 to 0	-20	PIN	Gigabit Ethernet
LTC1731-WL	2x5 SFF	MSA	1270	1610	1250	80	0 to +3	-24	PIN	Gigabit Ethernet
LTD1711-WL	SFP	MSA	1270	1610	1250	40	-5 to 0	-20	PIN	Gigabit Ethernet
LTD1731-WL	SFP	MSA	1270	1610	1250	80	-3 to +3	-24	PIN	Gigabit Ethernet
LTD1761-WL	SFP	8472	1270	1610	100 to 1250	40	0 to +5	-22	PIN	Gigabit Ethernet MR
LTD1781-WL	SFP	8472	1270	1610	100 to 1250	80	0 to +5	-24	PIN	Gigabit Ethernet MR
LTD1821-WL	SFP	8472	1270	1610	622 to 1250	80	0 to +5	-32	APD	Gigabit Ethernet MR
LTD1751-WL	SFP	SFP	1270	1610	622 to 2125	40	-3 to +2	-18	PIN	Fibre Channel MR
LTD1771-WL	SFP	8472	1270	1610	622 to 2125	80	0 to +5	-21	PIN	Fibre Channel MR
LTD2721-WL	SFP	8472	1270	1610	1250	120	-1 to +4	-31	APD	Gigabit Ethernet
LTD5801-WL	SFP	8472	1470	1610	1250	40	-3 to +2	-22	PIN	Gigabit Ethernet SR

MR = Multi-Rate Transceiver

SR = 850 nm Narrow Band Receiver (LTD5801 contains a CWDM optical transmitter and a 850nm optical receiver)

APPLICATIONS

- Passive Optical Networks (PON)
 Full Service Access Networks (FSAN)
 Fiber-to-the-Home (FTTH) or Fiber-to-the-Business (FTTB)
 PON upstream transceiver / transponder
 Supports multiple video formats:
- NTSC
 - ATSC
 - IPTV



PRODUCT DESCRIPTION AND FEATURES

TRIPLEXER B-PON / E-PON / GE-PON and G-PON ONT ONU

- 1310nm Upstream Burst Mode F-P or DFB Digital Tx
- 1490nm Downstream CW Mode PIN or APD Digital Rx
- 1550nm Downstream Video Rx
- 2x2 inch housing with SC fiber pigtail and choice of RF interface
- 8472 digital diagnostics (model dependent)
- 3.3V Digital Tx and Rx
- 12V Video Rx
- 40°C to +85°C case temperature
- FDA / IEC Class 1 laser
- EEC 2002/95/EC Directive for RoHS compliance

DIPLEXER G-PON ONT ONU

- 1310nm Upstream Burst Mode F-P or DFB Digital Tx
- 1490nm Downstream CW Mode PIN or APD Digital Rx
- 2x2 inch housing with SC fiber pigtail
- 8472 digital diagnostics (model dependent)
- 3.3V Digital Tx and Rx
- 40°C to +85°C case temperature
- FDA / IEC Class 1 laser
- EEC 2002/95/EC Directive for RoHS compliance

TRIPLEXER ONU

P / N	ONU	Reach	DDM	Laser	1310 nm BM Tx			1490 nm CW Mode Rx			1550 nm Video	
					Data Rate (Mb/s)	Output (dBm) TYP	Detector	Data Rate (Mb/s)	Sensitivity (dBm)	Monitor	BW (MHz)	RF Out (dBmV)
LTY9405	E-PON	20km	8472	F-P	1250	-1 to +4	PIN/TIA	1250	-26	Rx_SD	47 to 870	17
LTY9774	G-PON	10km	8472	F-P	1244	-2 to +3	PIN/TIA	2488	-21	Rx_SD	47 to 870	17
LTY9775	G-PON	20km	8472	DFB	1244	0.5 to 5.0	APD/TIA	2488	-28	Rx_SD	47 to 870	17
LTY9775A	G-PON	20km	8472	DFB	1244	0.5 to 5.0	APD/TIA	2488	-28	Rx_SD	47 to 870	17

LTY9775A contains Tx Power Control and CATV Soft Switch

DIPLEXER ONU

P / N	ONU	Reach	DDM	Laser	1310 nm BM Tx			1490 nm CW Mode Rx		
					Data Rate (Mb/s)	Output (dBm)	Detector	Data Rate (Mb/s)	Sensitivity (dBm)	Monitor
LTY9765	G-PON	20km	8472	DFB	1244	0.5 to +5	APD/TIA	2488	-28	Rx_SD
LTY9764	G-PON	10km	8472	F-P	1244	-1 to +4	PIN/TIA	2488	-20	Rx_SD

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