

1550 nm laser diode - DFB

Model 1 : >10 mW / singlemode fiber / 14 pin Butterfly package

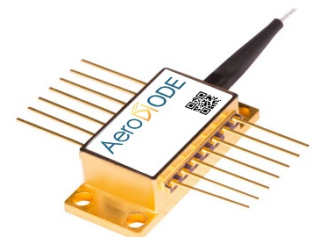
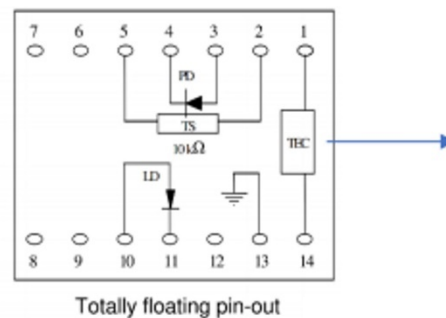
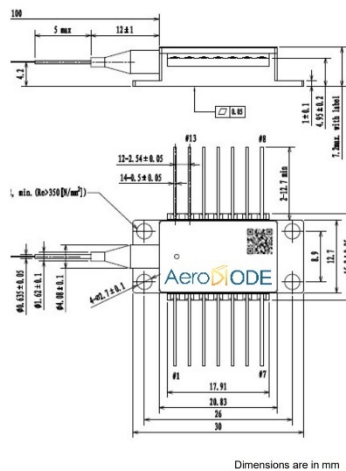
Reference: 1550LD-1-0-0-1 or 2 (SMF or PMF)

Technology : DFB*

SPECIFICATIONS	Unit	Min	Typ	Maximum
Output Power (CW mode)	mW	10		
Output Power (Pulse mode)	mW		20	
Center Wavelength (CW)	nm	1545	1550	1555
Spectral Width (FWHM)	kHz		1000	2000
Threshold Current	mA		8	20
Operating Current	mA		60	70
Operation Voltage	V		1.6	1.8
Wavelength shift w Temperature	nm/°C		0.08	
Wavelength shift w Current	nm/mA		0.003	
Side mode suppression ratio	dB	35	50	
Internal Photodiode Responsivity	mA/W	5		
Internal Photodiode Dark Current	nA			500
TEC current (-5/60°C)	A			1
TEC Voltage (-5/60°C)	V			1.5
Internal thermistor (25°C)	kOhm	9.5	10	10.5
Fiber type	PM1550 or equivalent			
Coating diameter	μm		900	
Fiber bend radius	mm			30
Storage case temperature	°C	-40 (abs min)		70 (abs max)
Case operating temperature	°C	-20		60
Lead soldering temperature	°C		260	300
Laser diode reverse voltage	V			15
Pigtail termination	FC/APC connector			
Polarization state (if PM version)	Aligned to the slow axis			

*: See our tutorial : [fiber coupled laser diode](#)

Form factor & Laser diode pinning (standard 14-pin Butterfly Type-1) :



NOTE : Other pin configuration available on demand (Type-2, Type-2 Bias-T etc.)

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Model 2 : >40 mW / singlemode fiber / 14 pin Butterfly package

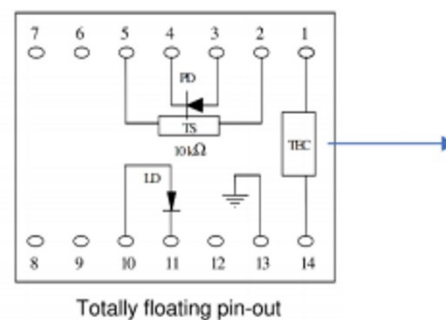
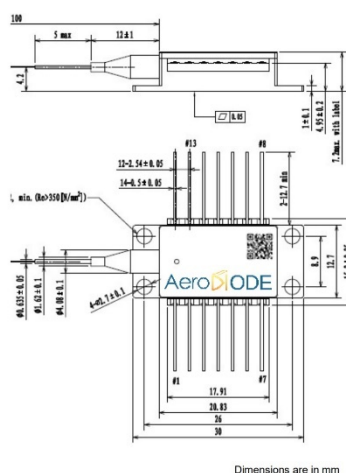
Reference: 1550LD-2-0-0-1 or 2 (SMF or PMF)

Technology : DFB*

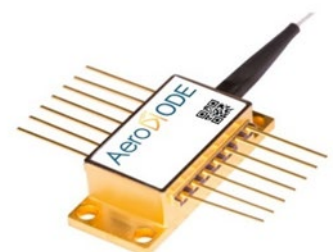
SPECIFICATIONS	Unit	Min	Typ	Maximum
Output Power (CW mode)	mW	40		
Output Power (Pulse mode)	mW		80	
Center Wavelength (CW)	nm	1545	1550	1555
Spectral Width (FWHM)	kHz		160	200
Threshold Current	mA		8	20
Operating Current	mA		300	350
Operation Voltage	V		1.6	1.8
Wavelength shift w Temperature	nm/°C		0.08	
Wavelength shift w Current	nm/mA		0.003	
Side mode suppression ratio	dB	35	50	
Internal Photodiode Responsivity	mA/W	5		
Internal Photodiode Dark Current	nA			500
TEC current (-5/60°C)	A			1
TEC Voltage (-5/60°C)	V			1.5
Internal thermistor (25°C)	kOhm	9.5	10	10.5
Fiber type	PM1550 or equivalent			
Coating diameter	µm		900	
Fiber bend radius	mm	30		
Storage case temperature	°C	-40		70
Case operating temperature	°C	-20		60
Lead soldering temperature	°C	255	260	265
Laser diode reverse voltage	V			15
Pigtail termination	FC/APC connector			
Polarization state (if PM version)	Aligned to the slow axis			

*: See our tutorial : [fiber coupled laser diode](#)

Form factor & Laser diode pinning (standard 14-pin Butterfly Type-1) :



NOTE : Other pin configuration available on demand (Type-2, Type-2 Bias-T etc.)



1550 nm laser diode - DFB

Model 3 : >100 mW / singlemode fiber / 14 pin Butterfly package

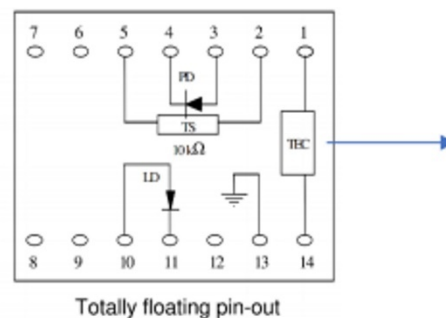
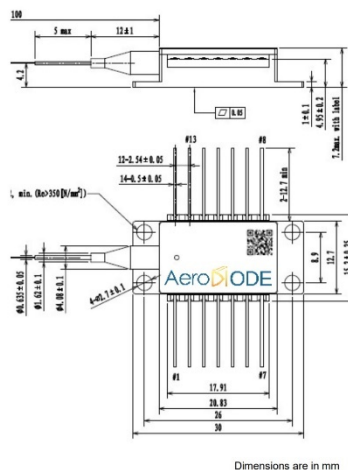
Reference: 1550LD-3-0-0-1 or 2 (SMF or PMF)

Technology : DFB*

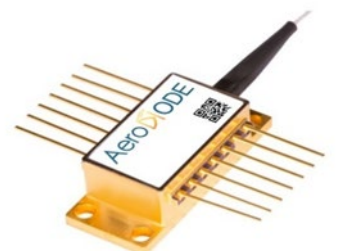
SPECIFICATIONS	Unit	Min	Typ	Maximum
Output Power (CW mode)	mW	100		
Output Power (Pulse mode)	mW		>180	
Center Wavelength (CW)	nm	1545	1550	1555
Spectral Width (FWHM)	kHz		160	200
Threshold Current	mA		20	30
Operating Current	mA		650	800
Operation Voltage	V		1.6	1.8
Wavelength shift w Temperature	nm/°C		0.08	
Wavelength shift w Current	nm/mA		0.003	
Side mode suppression ratio	dB	35	50	
Internal Photodiode Responsivity	mA/W	5		
Internal Photodiode Dark Current	nA			500
TEC current (-5/60°C)	A			1
TEC Voltage (-5/60°C)	V			1.5
Internal thermistor (25°C)	kOhm	9.5	10	10.5
Fiber type	PM1550 or equivalent			
Coating diameter	µm		900	
Fiber bend radius	mm	30		
Storage case temperature	°C	-40		70
Case operating temperature	°C	-20		60
Lead soldering temperature	°C		260	300
Laser diode reverse voltage	V			15
Pigtail termination	FC/APC connector			
Polarization state (if PM version)	Aligned to the slow axis			

*: See our tutorial : [fiber coupled laser diode](#)

Form factor & Laser diode pinning (standard 14-pin Butterfly Type-1) :



NOTE : Other pin configuration available on demand (Type-2, Type-2 Bias-T etc.)



1420-1500 nm laser diode

Model 4 : >400 mW / singlemode fiber / 14 pin Butterfly package

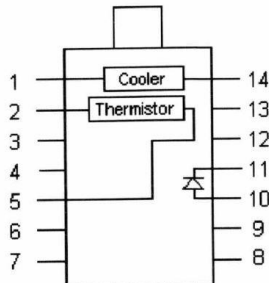
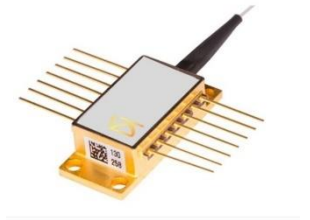
Reference: 1424LD-4-0-0-2(example)

Technology : Fabry-Perrot with Bragg*

SPECIFICATIONS	Unit	Min	Typ	Maximum
Output Power (CW mode – kink free)	mW	400		
Output Power (Pulse mode)	mW		>800	
Center Wavelength (CW)	nm	1423	1424	1425
Spectral Width (FWHM)	nm		1	2
Threshold Current	mA		80	120
Operating Current	mA		1500	
Operation Voltage	V		1.6	2.0
Wavelength shift w Temperature	nm/°C			0.015
Side mode suppression ratio	dB	35	50	
Internal Photodiode Responsivity	mA/W	none		
Internal Photodiode Dark Current	nA	none		
TEC current (-5/60°C)	A		1	
TEC Voltage (-5/60°C)	V		2.2	
Internal thermistor (25°C)	kOhm	9.5	10	10.5
Fiber type	PM1550 or equivalent			
Coating diameter	µm		250	
Fiber bend radius	mm	16		
Storage case temperature	°C	-40		85
Case operating temperature	°C	-5		70
Lead soldering temperature	°C		260	300
Laser diode reverse voltage	V			2
Pigtail termination	Ferrule only			
Polarization state (PM version)	Aligned to the slow axis			

*: See our tutorial : [fiber coupled laser diode](#)

Form factor & Laser diode pinning (standard 14-pin Butterfly Type-1) :



1	Cooler (+)	14	Cooler (-)
2	Thermistor	13	Case ground
3	NC	12	NC
4	NC	11	Lase Cathode
5	Thermistor	10	Laser Anode
6	NC	9	NC
7	NC	8	NC

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Model 5 : Special Narrow Bandwidth version with >20 mW

Singlemode fiber / 14 pin Butterfly package

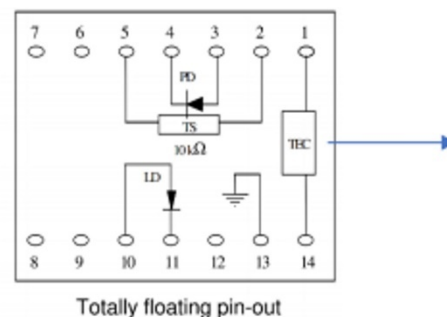
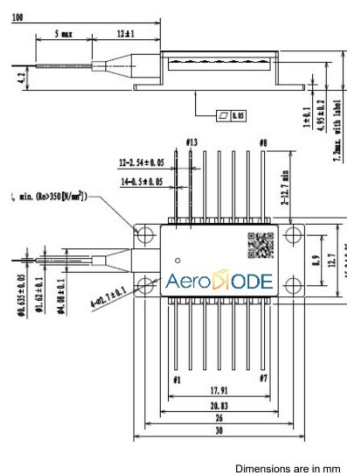
Reference: 1550LD-5-0-0-1 or 2 (SMF or PMF)

Technology : DFB*

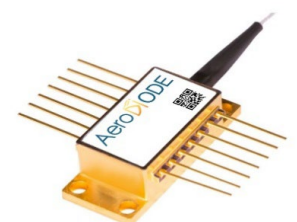
SPECIFICATIONS	Unit	Min	Typ	Maximum
Output Power (CW mode)	mW	20		
Output Power (Pulse mode)	mW		40	
Center Wavelength (CW)	nm	1545	1550	1555
Spectral Width (FWHM)	kHz		< 50	100
Threshold Current	mA		12	20
Operating Current	mA		170	250
Operation Voltage	V		1.6	1.8
Wavelength shift w Temperature	nm/°C		0.08	
Wavelength shift w Current	nm/mA		0.003	
Side mode suppression ratio	dB	35	50	
Internal Photodiode Responsivity	mA/W	5		
Internal Photodiode Dark Current	nA			500
TEC current (-5/60°C)	A			1
TEC Voltage (-5/60°C)	V			1.5
Internal thermistor (25°C)	kOhm	9.5	10	10.5
Fiber type	PM1550 or equivalent			
Coating diameter	µm		900	
Fiber bend radius	mm	30		
Storage case temperature	°C	-40		70
Case operating temperature	°C	-20		60
Lead soldering temperature	°C	255	260	265
Laser diode reverse voltage	V			15
Pigtail termination	FC/APC connector			
Polarization state (if PM version)	Aligned to the slow axis			

*: See our tutorial : [fiber coupled laser diode](#)

Form factor & Laser diode pinning (standard 14-pin Butterfly Type-1) :



NOTE : Other pin configuration available on demand (Type-2, Type-2 Bias-T etc.)



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Model 6 : Special narrow linewidth version with >40 mW

Singlemode fiber / 14 pin Butterfly package

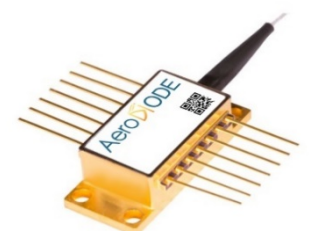
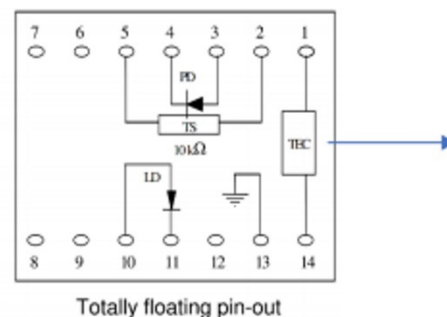
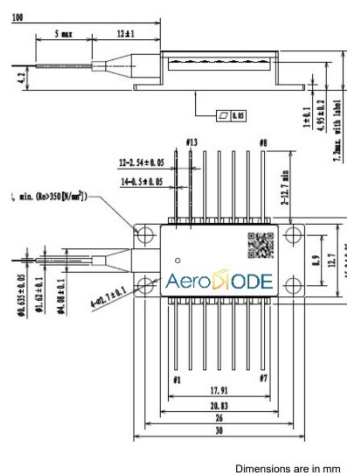
Reference: 1550LD-6-0-0-1 or 2 (SMF or PMF)

Technology : DFB*

SPECIFICATIONS	Unit	Min	Typ	Maximum
Output Power (CW mode)	mW	40		
Output Power (Pulse mode)	mW		60	
Center Wavelength (CW)	nm	1545	1550	1555
Spectral Width (FWHM)	kHz		< 50	100
Threshold Current	mA		20	40
Operating Current	mA		300	500
Operation Voltage	V		1.6	1.8
Wavelength shift w Temperature	nm/°C		0.08	
Wavelength shift w Current	nm/mA		0.003	
Side mode suppression ratio	dB	35	50	
Internal Photodiode Responsivity	mA/W	5		
Internal Photodiode Dark Current	nA			500
TEC current (-5/60°C)	A			1
TEC Voltage (-5/60°C)	V			1.5
Internal thermistor (25°C)	kOhm	9.5	10	10.5
Fiber type	PM1550 or equivalent			
Coating diameter	µm		900	
Fiber bend radius	mm	30		
Storage case temperature	°C	-40		70
Case operating temperature	°C	-20		60
Lead soldering temperature	°C	255	260	265
Laser diode reverse voltage	V			15
Pigtail termination	FC/APC connector			
Polarization state (PM version)	Aligned to the slow axis			

*: See our tutorial : [fiber coupled laser diode](#)

Form factor & Laser diode pinning (standard 14-pin Butterfly Type-1) :



NOTE : Other pin configuration available on demand (Type-2, Type-2 Bias-T etc.)