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Find the *Newport / ILX Lightwave LDM-4984* at our website: *Click HERE*

LDM 4980 Series

Telecom Laser Diode Mount

Specifications

INPUT CONNECTORS (EXCEPT 4989)

1) Laser Diode Current (Female 9-pin)
2) Internal Laser Temp Control (Male 9-pin)
3) Mount Temperature Control Option (Male 9-pin)

The LDM–4989 has three 9-pin connectors that are completely user–configurable.

CASE TEMPERATURE CONTROL OPTIONS

Temperature Control Range:[1]	–5°C to 50°C
Sensor Type:	10 kΩ thermistor
TE Module Ratings:	Q_{max} = 14W I_{max} = 6.0A V_{max} = 4.2V ΔT_{max} = 70°C
Size:	Adds approx. 1.5" to width and 0.3" to height

BIAS-T OPTION

Modulation Bandwidth[2]:	10–800MHz
Input Impedance:	50Ω
Connector:	SMA

GENERAL

Size (HxWxD):	32mm x 102mm x 140mm 1.25" x 4.0" x 5.5"
Size (with TE-550 option):	39mm x 140mm x 140mm 1.55" x 5.5" x 5.5"
Weight:	0.64 kg (1.4 lbs)

NOTES

1 Typical temperature control range at 20°C ambient. Actual range will depend on thermal power from laser module, ambient temperature, and whether or not the mount is affixed to optical table (¼–20 screws included with TE-550 option).

2 Actual optical modulation bandwidth and flatness are dependent upon laser used.

ORDERING INFORMATION

LDM-4982	DIL Laser Mount
TE-550	Case Temperature Control
BT-481	Bias-T Modulation Circuitry
LDM-4982M	Mini-DIL Laser Mount with Case Temperature Control
LDM-4984	14-pin Butterfly Mount
TE-550	Case Temperature Control
BT-482A	Bias-T Modulation Circuitry
BT-482B	Bias-T Modulation Circuitry
LDM-4986	Connectorized Laser Mount
LDM-4989	26-pin and 20-pin Butterfly Mount
LDM-4989T	Includes TE-550 Case Temperature Control
LDM-4983	13-pin and 7-pin Butterfly Mount
LDM-4983T	Includes TE-550 Case Temperature Control
LDM-4984RF	14-pin 2.5 GHz Butterfly Mount
TE-550	Case Temperature Control
LFS-498	Laser Fiber Spool

Bias–T and 2.5Gbits/s Pin Configuration Guide

Circuit Type	Type A Bias–T		Type B Bias–T	2.5Gbits/s Internally Modulated Lasers
Package Type	DIL	Butterfly	Butterfly	Butterfly–RF
Mount Option	BT481	BT482A	BT482B	LDM–4984RF
PIN 1	*	*	*	*
PIN 2	*	*	*	*
PIN 3	*	*	*	*
PIN 4	*	*	*	*
PIN 5	*	*	*	*
PIN 6	*	*	*	*
PIN 7	*	*	*	*
PIN 8	*	*	*	Las Anode/Case
PIN 9	Laser Cathode		*	Las Anode/Case
PIN 10	Las Anode/Case		Las Anode/Case	Las Anode/Case
PIN 11	*	*	Laser Cathode	Las Anode/Case
PIN 12	*	*	*	Modulation (AC in)
PIN 13	*	*	*	Las Anode/Case

* User configurable pin assignment. All pins are configurable on other mount versions.

Product Features

NEW! Mini-DIL version with case temperature control

DIL, Butterfly, or connectorized package versions

Easy insertion and removal of laser packages

Configurable laser pin-out

Standard laser current and temperature control connectors

Bias-T modulation option (LDM-4982 and LDM-4984)

Case temperature control option

Butterfly versions for 7-pin, 13-pin, 14-pin, 20-pin, and 26-pin packages

The LDM-4980 Series of Laser Diode Mounts provides a compact, easy-to-use solution for laser diode fixturing. These mounts are available in DIL, mini-DIL, butterfly, and connectorized laser diode package versions. Butterfly versions are available for 7-pin, 13-pin, 14-pin, 20-pin, and 26-pin packages. This series of mounts accommodates most telecom laser module types including CW, direct modulated (Bias-T), 2.5Gbits/s, 10Gbits/s, and tunable DFB laser modules.

Each mount features ILX Lightwave's standard 9-pin D-sub input connectors with configurable pin designations to accommodate virtually any laser diode pin configuration. Zero insertion force (ZIF) sockets and spring-loaded clamps facilitate ease of mounting. Bias-T options include a 50Ω SMA input connector and circuitry for directly modulating the laser drive current.

The TE-550 Case Temperature Control option is available for all of these laser diode mounts. Case temperature control is ideal for applications requiring tight temperature stability or different case temperatures or for testing laser diodes at a wider temperature range than can be accomplished with the internal TEC.

The LDM-4980 Series offers a high-value solution for demanding applications, such as laser diode testing and characterization, and are ideal for use with ILX Lightwave instrumentation.



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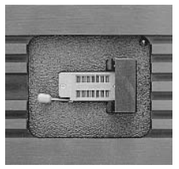
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LDM 4980 Series

Telecom Laser Diode Mount

CW or Direct Modulated Lasers

LDM-4982 DIL Laser Mount



Dual-In-Line (DIL)

Compatible with 14-pin DIL laser modules, the LDM-4982 employs a zero insertion force (ZIF) socket for ease-of-installation. This mount can be ordered with the Type-A Bias-T circuitry option.

ORDERING OPTIONS

TE-550	Case Temperature Control
BT-481	Bias-T Modulation Circuitry
LFS-498	Laser Fiber Spool

LDM-4982M Mini-DIL Laser



Mini-DIL

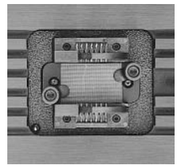
Compatible with 8-pin mini-DIL laser modules, the LDM-4982M employs a zero insertion force (ZIF) socket for ease-of-installation. The mount comes standard with case temperature control.

Temperature Control Range:	-5°C to 85°C
Sensor Type:	100kΩ thermistor
Size (H x W x D):	39.39mm x 139.70mm x 139.70mm 1.55" x 5.5" x 5.5"

ORDERING OPTIONS

LFS-498	Laser Fiber Spool

LDM-4984 14-pin Butterfly Mount



14-Pin Butterfly

The LDM-4984 is compatible with 14-pin butterfly laser modules. Optionally, Bias-T circuits can be ordered with Type-A or Type-B configurations.

ORDERING OPTIONS

TE-550	Case Temperature Control
BT-482A	Bias-T Modulation, Type A
BT-482B	Bias-T Modulation, Type B
LFS-498	Laser Fiber Spool

Internally Modulated Lasers

LDM-4983 13-pin (and 7-pin) Butterfly Mount



13/7-Pin 10 Gbits/s Package

The LDM-4983 is designed for "one-sided butterfly" packages that have the modulation input on one side and seven or thirteen pins on the other side. These packages are typically used for 10 Gbits/s internally modulated laser modules. A special electrical terminal allows you to configure the potential of the hotplate and laser module case (grounded, floating, or at a specified potential).

ORDERING OPTIONS

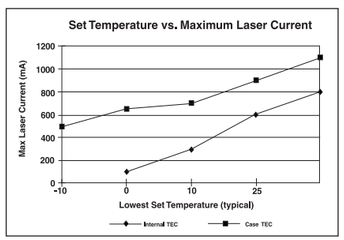
LDM-4983T	Includes TE-550 Case Temperature Control
LFS-498	Laser Fiber Spool

LDM-4986 Connectorized Laser Mount



Connectorized (Flanged)

The LDM-4986 is compatible with 3-pin and 4-pin can-type and flanged lasers. Flanges can be clamped to the hotplate either vertically or horizontally. The mount comes standard with case temperature control.

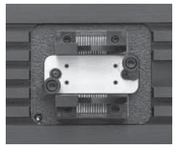


The LDM-4980 series mounts stabilize temperature under a variety of load conditions.

ORDERING OPTIONS

LFS-498	Laser Fiber Spool

LDM-4989 26-pin (and 20-pin) Butterfly Mount



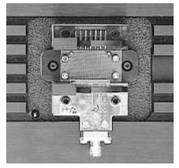
26/20-Pin Butterfly

The LDM-4989 is designed for 20-pin and 26-pin butterfly packages such as wavelength tunable DFB laser modules. Two standard 13-pin socket sides are used on this mount, enabling the use of most butterfly packages with standard pin–spacing. For example, on 20-pin packages with 7 pins on one side and 13 pins on the other side, every other mount pin is wired on the 7-pin side. Three 9-pin D-sub connector inputs are provided (1 female and 2 male) for use with user-supplied custom cables.

ORDERING OPTIONS

LDM-4989T	Includes TE-550 Case Temperature Control (Note: LDM-4989T option reduces the number of input connector pins available for laser control to 18.)
LFS-498	Laser Fiber Spool

LDM-4984RF 14-pin 2.5GHz Butterfly Mount



14-Pin Internal Bias-T Modulated

The LDM-4984RF is compatible with internal Bias-T modulated 14-pin butterfly laser modules. The specially designed RF modulation input block interfaces a 50 modulation source to internally–modulated lasers with a 25 input impedance on pin 12. A trim-capacitor is mounted on the RF block to optimize the modulation characteristics for your application. Pin configuration information is shown on the last page of this datasheet.

MODULATION SPECIFICATIONS

Modulation Bandwidth:	10MHz to >2.5GHz
Flatness to 2.5 GHz:	±1.5dB
Max. Modulation Current:	140mA rms
Input Connector:	50Ω SMA
Laser Input Impedance:	25Ω

ORDERING OPTIONS

TE-550	Case Temperature Control
LFS-498	Laser Fiber Spool

LFS-498 Laser Fiber Spool



The LFS-498 Fiber Management Spool

The LFS-498 is an innovative fiber management tool compatible with all the LDM-4980 Series Laser Diode Mounts. The LFS-498 effortlessly attaches to the top of the laser diode mount, organizing your benchtop or test station and prevents inadvertent fiber damage.

LDM 4980 Series

Telecom Laser Diode Mount

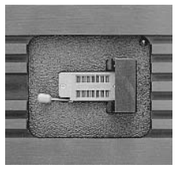
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LDM 4980 Series

Telecom Laser Diode Mount

CW or Direct Modulated Lasers

LDM-4982 DIL Laser Mount



Dual-In-Line (DIL)

Compatible with 14-pin DIL laser modules, the LDM-4982 employs a zero insertion force (ZIF) socket for ease-of-installation. This mount can be ordered with the Type-A Bias-T circuitry option.

ORDERING OPTIONS

TE-550	Case Temperature Control
BT-481	Bias-T Modulation Circuitry
LFS-498	Laser Fiber Spool

LDM-4982M Mini-DIL Laser



Mini-DIL

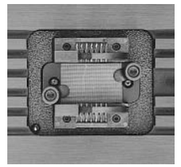
Compatible with 8-pin mini-DIL laser modules, the LDM-4982M employs a zero insertion force (ZIF) socket for ease-of-installation. The mount comes standard with case temperature control.

Temperature Control Range:	-5°C to 85°C
Sensor Type:	100kΩ thermistor
Size (H x W x D):	39.39mm x 139.70mm x 139.70mm 1.55" x 5.5" x 5.5"

ORDERING OPTIONS

LFS-498	Laser Fiber Spool

LDM-4984 14-pin Butterfly Mount



14-Pin Butterfly

The LDM-4984 is compatible with 14-pin butterfly laser modules. Optionally, Bias-T circuits can be ordered with Type-A or Type-B configurations.

ORDERING OPTIONS

TE-550	Case Temperature Control
BT-482A	Bias-T Modulation, Type A
BT-482B	Bias-T Modulation, Type B
LFS-498	Laser Fiber Spool

Internally Modulated Lasers

LDM-4983 13-pin (and 7-pin) Butterfly Mount



13/7-Pin 10 Gbits/s Package

The LDM-4983 is designed for "one-sided butterfly" packages that have the modulation input on one side and seven or thirteen pins on the other side. These packages are typically used for 10 Gbits/s internally modulated laser modules. A special electrical terminal allows you to configure the potential of the hotplate and laser module case (grounded, floating, or at a specified potential).

ORDERING OPTIONS

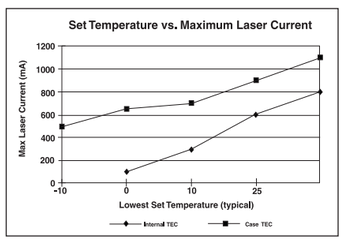
LDM-4983T	Includes TE-550 Case Temperature Control
LFS-498	Laser Fiber Spool

LDM-4986 Connectorized Laser Mount



Connectorized (Flanged)

The LDM-4986 is compatible with 3-pin and 4-pin can-type and flanged lasers. Flanges can be clamped to the hotplate either vertically or horizontally. The mount comes standard with case temperature control.

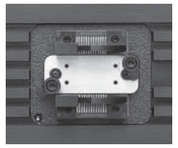


The LDM-4980 series mounts stabilize temperature under a variety of load conditions.

ORDERING OPTIONS

LFS-498	Laser Fiber Spool

LDM-4989 26-pin (and 20-pin) Butterfly Mount



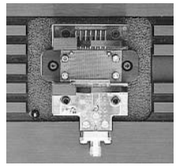
26/20-Pin Butterfly

The LDM-4989 is designed for 20-pin and 26-pin butterfly packages such as wavelength tunable DFB laser modules. Two standard 13-pin socket sides are used on this mount, enabling the use of most butterfly packages with standard pin–spacing. For example, on 20-pin packages with 7 pins on one side and 13 pins on the other side, every other mount pin is wired on the 7-pin side. Three 9-pin D-sub connector inputs are provided (1 female and 2 male) for use with user-supplied custom cables.

ORDERING OPTIONS

LDM-4989T	Includes TE-550 Case Temperature Control (Note: LDM-4989T option reduces the number of input connector pins available for laser control to 18.)
LFS-498	Laser Fiber Spool

LDM-4984RF 14-pin 2.5GHz Butterfly Mount



14-Pin Internal Bias-T Modulated

The LDM-4984RF is compatible with internal Bias-T modulated 14-pin butterfly laser modules. The specially designed RF modulation input block interfaces a 50 modulation source to internally–modulated lasers with a 25 input impedance on pin 12. A trim-capacitor is mounted on the RF block to optimize the modulation characteristics for your application. Pin configuration information is shown on the last page of this datasheet.

MODULATION SPECIFICATIONS

Modulation Bandwidth:	10MHz to >2.5GHz
Flatness to 2.5 GHz:	±1.5dB
Max. Modulation Current:	140mA rms
Input Connector:	50Ω SMA
Laser Input Impedance:	25Ω

ORDERING OPTIONS

TE-550	Case Temperature Control
LFS-498	Laser Fiber Spool

LFS-498 Laser Fiber Spool



The LFS-498 Fiber Management Spool

The LFS-498 is an innovative fiber management tool compatible with all the LDM-4980 Series Laser Diode Mounts. The LFS-498 effortlessly attaches to the top of the laser diode mount, organizing your benchtop or test station and prevents inadvertent fiber damage.

LDM 4980 Series

Telecom Laser Diode Mount

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LDM 4980 Series

Telecom Laser Diode Mount

Specifications

INPUT CONNECTORS (EXCEPT 4989)

1) Laser Diode Current (Female 9-pin)
2) Internal Laser Temp Control (Male 9-pin)
3) Mount Temperature Control Option (Male 9-pin)

The LDM–4989 has three 9-pin connectors that are completely user–configurable.

CASE TEMPERATURE CONTROL OPTIONS

Temperature Control Range:[1]	–5°C to 50°C
Sensor Type:	10 kΩ thermistor
TE Module Ratings:	Q_{max} = 14W I_{max} = 6.0A V_{max} = 4.2V ΔT_{max} = 70°C
Size:	Adds approx. 1.5" to width and 0.3" to height

BIAS-T OPTION

Modulation Bandwidth[2]:	10–800MHz
Input Impedance:	50Ω
Connector:	SMA

GENERAL

Size (HxWxD):	32mm x 102mm x 140mm 1.25" x 4.0" x 5.5"
Size (with TE-550 option):	39mm x 140mm x 140mm 1.55" x 5.5" x 5.5"
Weight:	0.64 kg (1.4 lbs)

NOTES

1 Typical temperature control range at 20°C ambient. Actual range will depend on thermal power from laser module, ambient temperature, and whether or not the mount is affixed to optical table (¼–20 screws included with TE-550 option).

2 Actual optical modulation bandwidth and flatness are dependent upon laser used.

ORDERING INFORMATION

LDM-4982	DIL Laser Mount
TE-550	Case Temperature Control
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LDM-4982M	Mini-DIL Laser Mount with Case Temperature Control
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TE-550	Case Temperature Control
BT-482A	Bias-T Modulation Circuitry
BT-482B	Bias-T Modulation Circuitry
LDM-4986	Connectorized Laser Mount
LDM-4989	26-pin and 20-pin Butterfly Mount
LDM-4989T	Includes TE-550 Case Temperature Control
LDM-4983	13-pin and 7-pin Butterfly Mount
LDM-4983T	Includes TE-550 Case Temperature Control
LDM-4984RF	14-pin 2.5 GHz Butterfly Mount
TE-550	Case Temperature Control
LFS-498	Laser Fiber Spool

Bias–T and 2.5Gbits/s Pin Configuration Guide

Circuit Type	Type A Bias–T		Type B Bias–T	2.5Gbits/s Internally Modulated Lasers
Package Type	DIL	Butterfly	Butterfly	Butterfly–RF
Mount Option	BT481	BT482A	BT482B	LDM–4984RF
PIN 1	*	*	*	*
PIN 2	*	*	*	*
PIN 3	*	*	*	*
PIN 4	*	*	*	*
PIN 5	*	*	*	*
PIN 6	*	*	*	*
PIN 7	*	*	*	*
PIN 8	*	*	*	Las Anode/Case
PIN 9	Laser Cathode		*	Las Anode/Case
PIN 10	Las Anode/Case		Las Anode/Case	Las Anode/Case
PIN 11	*	*	Laser Cathode	Las Anode/Case
PIN 12	*	*	*	Modulation (AC in)
PIN 13	*	*	*	Las Anode/Case

* User configurable pin assignment. All pins are configurable on other mount versions.

Product Features

NEW! Mini-DIL version with case temperature control

DIL, Butterfly, or connectorized package versions

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Configurable laser pin-out

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Bias-T modulation option (LDM-4982 and LDM-4984)

Case temperature control option

Butterfly versions for 7-pin, 13-pin, 14-pin, 20-pin, and 26-pin packages

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