

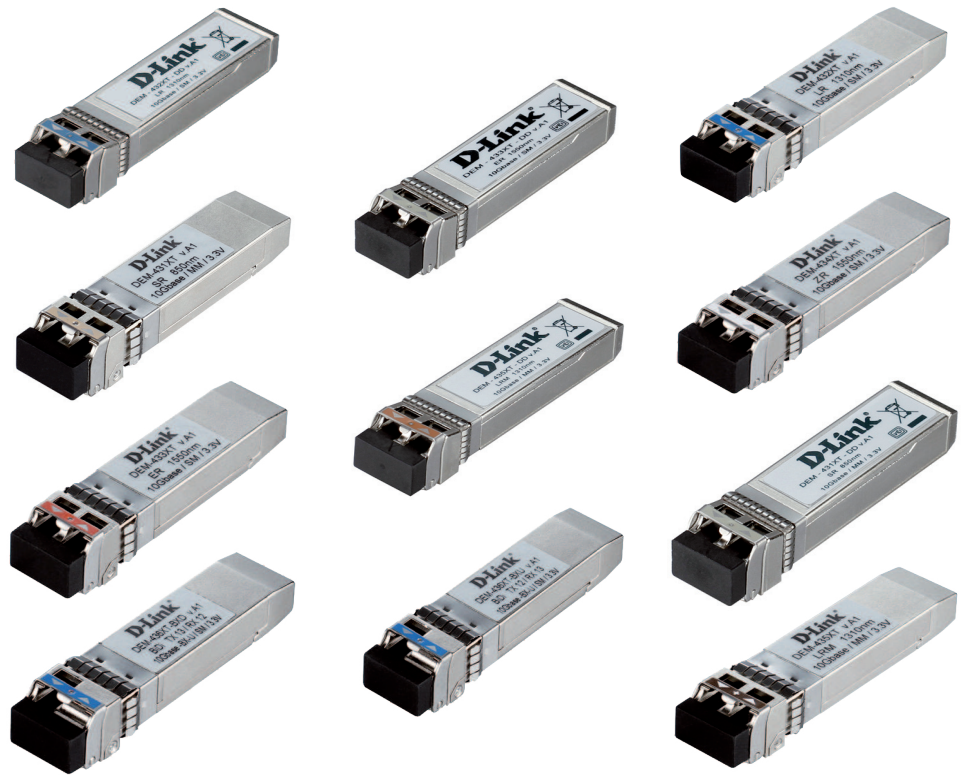
### Feature Highlights

- Enhanced Small Form-Pluggable (SFP+) form factor
- Hot pluggable
- Support 10G Ethernet
- Feature Digital Diagnostics Monitoring (DDM)<sup>1</sup>
- RoHS Compliant
- Compliant with MSA (Multiple Source Agreement)
- Compliant with IEEE802.3ae and 802.3aq standards

<sup>1</sup>DEM-431XT-DD, DEM-432XT-DD, DEM-433XT-DD, and DEM-435XT-DD only.

<sup>2</sup>DEM-436XT-BXD and DEM-436XT-BXU models only.

### 10G SFP+ Modules



D-Link's 10G SFP+ Module series are hot-swappable SFP+ transceivers that plug into SFP+ slots on switches and support 10G Ethernet. The D-Link 10GBASE SFP+ Module Series transceivers offer customers a wide variety of 10G Ethernet connectivity options for data centers, enterprise wiring closets, and service provider transport applications.

#### Enhanced Small Form-factor Pluggable Format

The transceivers use the Enhanced Small Form-factor Pluggable format (SFP+). The SFP+ form factor is smaller than other form factors such as Xenpak, X2, and 10G XFP, ensuring lower costs, lower power disruption, and higher port density. They provide the necessary signal amplification for data to be transmitted to the network cable from the port, and vice versa, for the port to receive data from the network cable.

#### Hot Pluggable

All D-Link transceivers are hot-pluggable. You can connect a transceiver while the system is powered on without causing any problems. This permits modules to be added or removed without interrupting the network.

#### 10G Ethernet speeds

The transceivers all support 10G Ethernet, which results in very fast data transmissions of up to 10 Gbit/s. This is 10 times faster than Gigabit Ethernet and enables the switch to handle faster and higher data transmissions, making it very suitable for business needs.

#### Digital Diagnostics Monitoring (DDM)

Several of the 10G SFP+ Modules<sup>1</sup> feature DDM real-time monitoring of critical parameters, including transmitted and received power, temperature, and voltage. This allows for convenient monitoring of the module's fiber connection and early detection of problems.

#### Bi-directional WDM transmission<sup>2</sup>

Bi-directional WDM transmission allows data to be transmitted simultaneously in both directions on a fiber cable. This helps you save on the cost of deploying extra fiber cables as well as allows for more flexible bandwidth allocation.

### Technical Specifications

#### DEM-431XT

#### DEM-431XT-DD

#### DEM-432XT



Standard		DEM-431XT	DEM-431XT-DD	DEM-432XT
Standard	Standard Compliance	IEEE-802.3ae 10GBASE-SR	IEEE-802.3ae 10GBASE-SR	IEEE-802.3ae 10GBASE-SR
	Form Factor Type	SFP+	SFP+	SFP+
	Fibre Channel FC-PI Standard	1200-Mx-SN-I	1200-Mx-SN-I	1200-SM-LL-L
	Fiber Media Support	Multi-Mode	Multi-Mode	Single-Mode
	Distance Capacity	62.5 μm, 160 MHz-km: 26 m 62.5 μm, OM1 200 MHz-km: 33 m 50 μm, 400 MHz-km: 66 m 50 μm, OM2 500 MHz-km: 82 m 50 μm, OM3 2000 MHz-km: 300 m	62.5 μm, 160 MHz-km: 26 m 62.5 μm, OM1 200 MHz-km: 33 m 50 μm, 400 MHz-km: 66 m 50 μm, OM2 500 MHz-km: 82 m 50 μm, OM3 2000 MHz-km: 300 m	62.5 μm, 160 MHz-km: 26 m 62.5 μm, OM1 200 MHz-km: 33 m 50 μm, 400 MHz-km: 66 m 50 μm, OM2 500 MHz-km: 82 m 50 μm, OM3 2000 MHz-km: 300 m
Features	Hot Pluggable	✓	✓	✓
	MSA Compliant	✓	✓	✓
	RoHS Compliant	✓	✓	✓
Speed	Speed	10 Gbps	10 Gbps	10 Gbps
Interface	Connector	Duplex LC Connector	Duplex LC Connector	Duplex LC Connector
	Single/Bi-Directional	Single Direction		
	Wavelength	850 nm	850 nm	1310 nm
	Output Optical Power (TX Optical Power)	Max.: -1 dBm Min.: -6.5 dBm	Max.: -1 dBm Min.: -5 dBm	Max.: 0.5 dBm Min.: -8.5 dBm
	Input Optical Power (RX Optical Power)	Max.: -1 dBm Min.: -11.1 dBm	Max.: -1 dBm Min.: -5 dBm	Max.: 0.5 dBm Min.: -8.5 dBm
	Sensitivity	-11.1 dBm	-11.1 dBm	-12.6 dBm
	Cable Type	Multi-mode 50/125 μm or 62.5/125 μm fiber	Multi-mode 50/125 μm or 62.5/125 μm fiber	Single-mode 9/125 μm fiber
Operating	Power	3.3 V	3.3 V	3.3 V
	Maximum Input Current	3.3 V: 300 mA	3.3 V: 250 mA	3.3 V: 300 mA
	Minimum Power Budget	4.6 dB	6.1 dB	4.1 dB
	Maximum Power Budget	10.1 dB	10.1 dB	10.1 dB
	Heat Generated	3.6 kJ/h	2.9 kJ/h	3.6 kJ/h
Reliability	MTBF (Hours)	3,960,000	5,948,000	4,650,000
Function	DDM (Digital Diagnostics Monitoring)	—	✓	—
Physical and Environment	Operating Temperature	0 to 70 °C	0 to 70 °C	0 to 70 °C
	Storage Temperature	-40 to 85 °C	-40 to 85 °C	-40 to 85 °C
	Operating Humidity	5 to 85%	0 to 85%	5 to 85%
	Storage Humidity	5 to 95%	0 to 85%	5 to 95%
	Dimensions (W x D x H)	(0.58 x 2.22 x 0.47 inches) Compliant with SFF8432, 14.8 x 56.5 x 11.85 mm	(0.58 x 2.22 x 0.47 inches) Compliant with SFF8432, 14.8 x 56.5 x 11.85 mm	(0.58 x 2.22 x 0.47 inches) Compliant with SFF8432, 14.8 x 56.5 x 11.85 mm
	Weight	18 g (0.04 lbs)	22 g (0.05 lbs)	19.5 g (0.04 lbs)
	Bail Latch Color	Beige	Beige	Blue
Emission(EMI) and Safety	EMI	CE, FCC, VCCI	CE, FCC, VCCI	CE, FCC, VCCI
	Safety	UL, TUV, CDRH	CSA, TUV, CDRH	UL, TUV, CDRH

Technical Specifications      DEM-432XT-DD      DEM-433XT      DEM-433XT-DD



Standard	Standard Compliance	IEEE-802.3ae 10GBASE-LR	IEEE-802.3ae 10GBASE-ER	IEEE-802.3ae 10GBASE-ER
	Form Factor Type	SFP+	SFP+	SFP+
	Fibre Channel FC-PI Standard	1200-SM-LL-L	N/A	N/A
	Fiber Media Support	Single-Mode	Single-Mode	Single-Mode
	Distance Capacity	10 km	40 km	40 km
Features	Hot Pluggable	✓	✓	✓
	MSA Compliant	✓	✓	✓
	RoHS Compliant	✓	✓	✓
Speed	Speed	10 Gbps	10 Gbps	10 Gbps
Interface	Connector	Duplex LC Connector	Duplex LC Connector	Duplex LC Connector
	Single/Bi-Directional	Single Direction		
	Wavelength	1310 nm	1550 nm	1550 nm
	Output Optical Power (TX Optical Power)	Max.: 0.5 dBm Min.: -8.2 dBm	Max.: 3 dBm Min.: -3 dBm	Max.: 4 dBm Min.: -4.7 dBm
	Input Optical Power (RX Optical Power)	Max.: 0.5 dBm Min.: -12.6 dBm	Max.: -1 dBm Min.: -14.1 dBm	Max.: -1 dBm Min.: -14.1 dBm
	Sensitivity	-12.6 dBm	-14.1 dBm	-14.1 dBm
	Cable Type	Single-mode 9/125 um fiber	Single-mode 9/125 um fiber	Single-mode 9/125 um fiber
Operating	Power	3.3 V	3.3 V	3.3 V
	Maximum Input Current	3.3 V: 285 mA	3.3 V: 500 mA	3.3 V: 400 mA
	Minimum Power Budget	4.4 dB	11.1 dB	9.4 dB
	Maximum Power Budget	17.6 dB	17.1 dB	18.1 dB
	Heat Generated	3.3858 kJ/h	5.94 kJ/h	4.752 kJ/h
Reliability	MTBF (Hours)	3,390,000	1,580,000	2,520,000
Function	DDM (Digital Diagnostics Monitoring)	✓	—	✓
Physical and Environment	Operating Temperature	-5 to 70 °C	0 to 70 °C	0 to 70 °C
	Storage Temperature	-40 to 85 °C	-40 to 85 °C	-40 to 85 °C
	Operating Humidity	0 to 85%	5 to 85%	0 to 85%
	Storage Humidity	0 to 85%	5 to 95%	0 to 85%
	Dimensions (W x D x H)	14.8 x 56.5 x 11.85 mm (0.58 x 2.22 x 0.47 inches) Compliant with SFF8432	14.8 x 56.5 x 11.85 mm (0.58 x 2.22 x 0.47 inches) Compliant with SFF8432	14.8 x 56.5 x 11.85 mm (0.58 x 2.22 x 0.47 inches) Compliant with SFF8432
	Weight	22 g (0.05 lbs)	20 g (0.04 lbs)	22 g (0.05 lbs)
	Bail Latch Color	Blue	Red	Red
Emission (EMI) and Safety	EMI	CE, FCC, VCCI	CE, FCC, VCCI	CE, FCC, VCCI
	Safety	UL, TUV, CDRH	CSA, TUV, CDRH	UL, TUV, CDRH

### Technical Specifications

#### DEM-434XT

#### DEM-435XT

#### DEM-435XT-DD



Standard		IEEE-802.3ae 10GBASE-ZR	IEEE-802.3ae IEEE-802.3aq 10GBASE-LRM	IEEE-802.3ae IEEE-802.3aq 10GBASE-LRM
Standard	Standard Compliance	IEEE-802.3ae 10GBASE-ZR	IEEE-802.3ae IEEE-802.3aq 10GBASE-LRM	IEEE-802.3ae IEEE-802.3aq 10GBASE-LRM
	Form Factor Type	SFP+	SFP+	SFP+
	Fibre Channel FC-PI Standard	1200-SM-LL-L 10G Fiber Channel	N/A	N/A
	Fiber Media Support	Single-Mode	Multi-Mode	Multi-Mode
	Distance Capacity	80 km	62.5 um, 160MHz-km: 220 m 62.5 um, OM1, 200MHz-km: 220 m 50 um, 400MHz-km: 100 m 50 um, OM2, 500MHz-km: 220 m 50 um, OM3, 2000MHz-km: 220 m	62.5 um, 160MHz-km: 220 m 62.5 um, OM1, 200MHz-km: 220 m 50 um, 400MHz-km: 100 m 50 um, OM2, 500MHz-km: 220 m 50 um, OM3, 2000MHz-km: 220 m
Features	Hot Pluggable	✓	✓	✓
	MSA Compliant	✓	✓	✓
	RoHS Compliant	✓	✓	✓
Speed	Speed	10 Gbps	10 Gbps	10 Gbps
Interface	Connector	Duplex LC Connector	Duplex LC Connector	Duplex LC Connector
	Single/Bi-Directional		Single Direction	
	Wavelength	1550 nm	1310 nm	1310 nm
	Output Optical Power (TX Optical Power)	Max.: 4 dBm Min.: 0 dBm	Max.: 0.5 dBm Min.: -8.5 dBm	Max.: 1.5 dBm Min.: -4.5 dBm
	Input Optical Power (RX Optical Power)	Max.: -7 dBm Min.: -24 dBm	Max.: 0.5 dBm Min.: -6.5 dBm	Max.: 1.5 dBm Min.: -6.5 dBm
	Sensitivity	-24 dBm	-6.5 dBm	-6.5 dBm
	Cable Type	Single-mode 9/125 um fiber	Multi-mode 50/125 um or 62.5/125 um fiber	Multi-mode 50/125 um or 62.5/125 um fiber
Operating	Power	3.3 V	3.3 V	3.3 V
	Maximum Input Current	450 mA	3.3 V: 300 mA	3.3 V: 300 mA
	Minimum Power Budget	24 dB	2 dB	2 dB
	Maximum Power Budget	28 dB	7 dB	8 dB
	Heat Generated	5.35 kJ/h	3.6 kJ/h	3.564 kJ/h
Reliability	MTBF (Hours)	1,584,786	3,590,000	4,140,000
Function	DDM (Digital Diagnostics Monitoring)	—	—	✓
Physical and Environment	Operating Temperature	0 to 70 °C	0 to 70 °C	-5 to 70 °C
	Storage Temperature	-40 to 85 °C	-40 to 85 °C	-40 to 85 °C
	Operating Humidity	5 to 85%	5 to 85%	0 to 85%
	Storage Humidity	5 to 85%	5 to 95%	0 to 85%
	Dimensions (W x D x H)	14.3 x 56.5 x 11.85 mm (0.58 x 2.22 x 0.47 inches) Compliant with SFF8432	14.8 x 56.5 x 11.85 mm (0.58 x 2.22 x 0.47 inches) Compliant with SFF8432	14.8 x 56.5 x 11.85 mm (0.58 x 2.22 x 0.47 inches) Compliant with SFF8432
	Weight	20 g (0.04 lbs)	18.5 g (0.04 lbs)	22 g (0.05 lbs)
	Bail Latch Color	White	Brown	Brown
Emission(EMI) and Safety	EMI	CE, FCC, VCCI	CE, FCC, VCCI	CE, FCC, VCCI
	Safety	UL, TUV	UL, TUV, CDR	CSA, TUV, CDRH

### Technical Specifications

### DEM-436XT-BXD

### DEM-436XT-BXU



Standard		IEEE-802.3ae, 10GBASE-LR	IEEE-802.3ae, 10GBASE-LR
Standard	Standard Compliance	IEEE-802.3ae, 10GBASE-LR	IEEE-802.3ae, 10GBASE-LR
	Form Factor Type	SFP+	SFP+
	Fibre Channel FC-PI Standard	N/A	N/A
	Fiber Media Support	Multi-Mode	Single-Mode
	Distance Capacity	20 km	20 km
Features	Hot Pluggable	✓	✓
	MSA Compliant	✓	✓
	RoHS Compliant	✓	✓
Speed	Speed	10 Gbps	10 Gbps
Interface	Connector	Simplex LC Connector	Simplex LC Connector
	Single/Bi-Directional	WDM Bi-directional	WDM Bi-directional
	Wavelength	TX: 1330 nm, RX: 1270 nm	TX: 1270 nm, RX: 1330 nm
	Output Optical Power (TX Optical Power)	Max.: 0.5 dBm Min.: -5.2 dBm	Max.: 0.5 dBm Min.: -5.2 dBm
	Input Optical Power (RX Optical Power)	Max.: 0.5 dBm Min.: -12.5 dBm	Max.: 0.5 dBm Min.: -12.5 dBm
	Sensitivity	-12.5 dBm	-12.5 dBm
	Cable Type	Single-mode 9/125 um fiber	Single-mode 9/125 um fiber
Operating	Power	3.3 V	3.3 V
	Maximum Input Current	3.3 V: 300 mA	3.3 V: 300 mA
	Minimum Power Budget	7.3 dB	7.3 dB
	Maximum Power Budget	13 dB	13 dB
	Heat Generated	3.6 kJ/h	3.6 kJ/h
Reliability	MTBF (Hours)	1,920,000	1,920,000
Function	DDM (Digital Diagnostics Monitoring)	—	—
Physical and Environment	Operating Temperature	-40 to 85 °C	-40 to 85 °C
	Storage Temperature	-40 to 85 °C	-40 to 85 °C
	Operating Humidity	5 to 85%	5 to 85%
	Storage Humidity	5 to 95%	5 to 95%
	Dimension (W x D x H)	(0.58 x 2.22 x 0.47 inches) Compliant with SFF8432, 14.8 x 56.5 x 11.85 mm	(0.58 x 2.22 x 0.47 inches) Compliant with SFF8432, 14.8 x 56.5 x 11.85 mm
	Weight	22 g (0.05 lbs)	22 g (0.05 lbs)
	Bail Latch Color	Blue	Blue
Emission (EMI) and Safety	EMI	CE, FCC, VCCI	CE, FCC, VCCI
	Safety	UL, TUV, CDRH	UL, TUV, CDRH



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 Release 01 (October 2011)