



# SFP modules

For PCoIP zero clients and hosts

## Datasheet




Many Amulet Hotkey products have models that are available with SFP network connections. This datasheet describes SFP modules that have been verified for use with Amulet Hotkey products.

### SFP for Investment Protection

SFP (small form factor pluggable) modules are compact hot-swappable transceivers used to provide an interface between a device's network port and a fiber or copper networking cable. Selecting Amulet Hotkey zero client or remote workstation card end-points with SFP module slots future proofs your investment by providing the flexibility to deploy and re-deploy devices across a variety of network infrastructure and cable plant.

Amulet Hotkey provides secure zero client end-points and remote workstation host cards with SFP module slots so that you can choose the best cabling option for each deployment scenario.

- 1 Gbps Ethernet for multi-mode fiber
- 100 Mbps Ethernet for multi-mode fiber
- 1 Gbps Ethernet for single-mode fiber
- 100 Mbps Ethernet for copper cable
- 1 Gbps for copper cable

Amulet Hotkey End-point	Application	Models with SFP slot(s)
 <p>PCoIP Zero Clients</p>	Client end-point for secure remote access to: <ul style="list-style-type: none"> <li>• Remote workstations</li> <li>• Virtual Desktops</li> <li>• Cloud managed desktops</li> </ul>	DXZC-M, DXZC-MC, DXZC-EM, DXZC-EMC, DXZC-AM*, DXZC-AMC*, DXZ4-M, DXZ4-AM*
 <p>Remote Workstation PCIe cards</p>	Hardware remote display protocol acceleration for installation in performance workstations.	DXH4-M, DXP4-M
 <p>External Remote Workstation cards</p>	Hardware remote display protocol acceleration when cards cannot be installed in a workstation or laptop.	DXT-iP

\* Amulet Hotkey zero client models certified as secure by the UK Government and NATO/OTAN

### Fibre SFP Modules

[www.amulethotkey.com](http://www.amulethotkey.com)

### Amulet Hotkey SFP End-points

SFP network modules provide secure remote access solutions for:

- Performance workstations
- Virtual Desktops
- Cloud Managed Desktops

### SFP for Investment Protection

Protect end-point investment with SFP models that can be deployed and re-deployed across a variety of copper and fiber cable environments.

### Copper Cabling

- Widely deployed for client and desktop connections
- Generally easier to terminate copper cable
- Generally lower cabling cost

### Fibre Network Cabling

- Greater distance
- Improved security and easy to detect tamper attempts
- High reliability in noisy EMI/RFI environments

### Which SFP modules are supported?

SFP module functionality varies across models and vendors.

Only the SFP modules listed on this datasheet are verified for use with Amulet Hotkey products. Contact us if you require support for other SFP modules.



Fiber Optic cabling supports more bandwidth than copper with little signal loss during transmission. This allows greater distances between end-points and network equipment such as switches and routers. Fiber cable provides additional security as it has very little light emission and is extremely difficult to tap. Fiber cable provides extremely reliable data transmission due to immunity to many environmental factors that can affect copper. Since the core is made of glass there is no electric current flow, this is well suited to noisy environments with electromagnetic interference and radio-frequency interference (EMI/RFI). Fiber is less susceptible to temperature fluctuations than copper and can be submerged in water.

### Copper SFP Modules

Copper cabling such as Category 5 or better is widely deployed to users desks in office and work-from-home environments. Also, copper cabling is generally lower cost for these types of deployments.

- 1 - MMF: Multi-Mode Fiber, SMF: Single-Mode Fiber
- 5 - On 9/125µm Single mode fiber

	Cable	Data rate	Media type	Wavelength	Cable Length	Connector	Ethernet Standard	Supplier Model
CO-SFPF-001G-1	Fiber	1 Gbps	MMF <sup>1</sup>	850nm band	Up to 500m <sup>3</sup> Up to 300m <sup>4</sup>	Duplex LC	1000Base-SX	Finisar FTLF8519P3BNL
CO-SFPF-SM1G-1 <sup>7</sup>	Fiber	1.25 Gbps	SMF <sup>1</sup>	1310nm	Up to 10Km <sup>5</sup>	Duplex LC	1000Base-LX	Finisar FTLF1318P3BTL
CO-SFPF-100M	Fiber	100 Mbps	MMF <sup>1</sup>	1310nm	Up to 2Km	Duplex LC	100Base-FX	Module Tek MT1211 <sup>8</sup>
CO-SFPC-001G-1 <sup>7</sup>	Copper	1 Gbps	Cat5 <sup>2</sup>	n/a	Up to 100m	RJ45	1000Base-T	Finisar FCLF8521P2BTL
CO-SFPC-100M-1 <sup>7</sup>	Copper	100 Mbps	Cat5 <sup>2</sup>	n/a	Up to 100m	RJ45	100Base-TX	Finisar FCLF8520P2BTL
CO-SFPF-001G <sup>6</sup>	Fiber	1 Gbps	MMF <sup>1</sup>	850nm band	Up to 2Km	Duplex LC	1000Base-SX	Finisar FTLF8519P2BNL
CO-SFPF-SM1G <sup>6+7</sup>	Fiber	1 Gbps	SMF <sup>1</sup>	1310nm	Up to 10Km <sup>5</sup>	Duplex LC	1000Base-LX	Finisar FTLF1318P2BCL
CO-SFPF-100F <sup>6+7</sup>	Fiber	100 Mbps	MMF <sup>1</sup>	1310nm	Up to 2Km	Duplex LC	100Base-FX	Allied Telesis AT-SPFX/2
CO-SFPC-100M <sup>6</sup>	Copper	100 Mbps	Cat5 <sup>2</sup>	n/a	Up to 100m	RJ45	100Base-TX	Finisar FCLF-8520-3
CO-SFPC-001G <sup>6</sup>	Copper	1 Gbps	Cat5 <sup>2</sup>	n/a	Up to 100m	RJ45	1000Base-T	Finisar FCLF-8521-3

- Notes:
- 2 - Category 5 cable or better
  - 3 - On 50/125µm multi-mode fiber
  - 4 - On 62.5/125µm multi-mode fiber
  - 6 - Modules supported on current products, may not be available to order
  - 7 - Modules are not supported on the DXT-IP product
  - 8 - Or: MTKS0213M1CGN

#### Supplier web sites

##### Further information for listed modules:

- **Finisar:** [www.finisar.com/products](http://www.finisar.com/products)
- **ModuleTek:** [www.moduletek.com](http://www.moduletek.com)

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