



K6097: Specifications of the Fiber Gigabit Ethernet SFP, XFP, SFP+, QSFP+, and QSFP28 module ports on BIG-IP system platforms

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Applies to

BIG-IP AAM : [15.1.10, 15.1.9, 15.1.8, 15.1.7, 15.1.6, 15.1.5, 15.1.4, 15.1.3, 15.1.2, 15.1.1, 15.1.0, 15.1.X, 15.0.1, 15.0.0, 15.0.X, 15.X.X, 14.1.5, 14.1.4, 14.1.3, 14.1.2, 14.1.0, 14.1.X, 14.0.1, 14.0.0, 14.0.X, 14.X.X, 13.1.5, 13.1.4, 13.1.3, 13.1.1, 13.1.0, 13.1.X, 13.0.1, 13.0.0, 13.0.X, 13.X.X, 12.1.6, 12.1.5, 12.1.4, 12.1.3, 12.1.2, 12.1.1, 12.1.0, 12.1.X, 12.0.0, 12.0.X, 12.X.X, 11.6.5, 11.6.4, 11.6.3, 11.6.2, 11.6.1, 11.6.0, 11.6.X, 11.5.10, 11.5.9, 11.5.8, 11.5.7, 11.5.6, 11.5.5, 11.5.4, 11.5.3, 11.5.2, 11.5.1, 11.5.0, 11.5.X, 11.4.1, 11.4.0, 11.4.X]

BIG-IP AFM : [17.1.1, 17.1.0, 17.1.X, 17.0.0, 17.0.X, 17.X.X, 16.1.4, 16.1.3, 16.1.2, 16.1.1, 16.1.0, 16.1.X, 16.0.1, 16.0.0, 16.0.X, 16.X.X, 15.1.10, 15.1.9, 15.1.8, 15.1.7, 15.1.6, 15.1.5, 15.1.4, 15.1.3, 15.1.2, 15.1.1, 15.1.0, 15.1.X, 15.0.1, 15.0.0, 15.0.X, 15.X.X, 14.1.5, 14.1.4, 14.1.3, 14.1.2, 14.1.0, 14.1.X, 14.0.1, 14.0.0, 14.0.X, 14.X.X, 13.1.5, 13.1.4, 13.1.3, 13.1.1, 13.1.0, 13.1.X, 13.0.1, 13.0.0, 13.0.X, 13.X.X, 12.1.6, 12.1.5, 12.1.4, 12.1.3, 12.1.2, 12.1.1, 12.1.0, 12.1.X, 12.0.0, 12.0.X, 12.X.X, 11.6.5, 11.6.4, 11.6.3, 11.6.2, 11.6.1, 11.6.0, 11.6.X, 11.5.10, 11.5.9, 11.5.8, 11.5.7, 11.5.6, 11.5.5, 11.5.4, 11.5.3, 11.5.2, 11.5.1, 11.5.0, 11.5.X, 11.4.1, 11.4.0, 11.4.X, 11.3.0, 11.3.X, 11.X.X]

BIG-IP APM : [17.1.1, 17.1.0, 17.1.X, 17.0.0, 17.0.X, 17.X.X, 16.1.4, 16.1.3, 16.1.2, 16.1.1, 16.1.0, 16.1.X, 16.0.1, 16.0.0, 16.0.X, 16.X.X, 15.1.10, 15.1.9, 15.1.8, 15.1.7, 15.1.6, 15.1.5, 15.1.4, 15.1.3, 15.1.2, 15.1.1, 15.1.0, 15.1.X, 15.0.1, 15.0.0, 15.0.X, 15.X.X, 14.1.5, 14.1.4, 14.1.3, 14.1.2, 14.1.0, 14.1.X, 14.0.1, 14.0.0, 14.0.X, 14.X.X, 13.1.5, 13.1.4, 13.1.3, 13.1.1, 13.1.0, 13.1.X, 13.0.1, 13.0.0, 13.0.X, 13.X.X, 12.1.6, 12.1.5, 12.1.4, 12.1.3, 12.1.2, 12.1.1, 12.1.0, 12.1.X, 12.0.0, 12.0.X, 12.X.X, 11.6.5, 11.6.4, 11.6.3, 11.6.2, 11.6.1, 11.6.0, 11.6.X, 11.5.10, 11.5.9, 11.5.8, 11.5.7, 11.5.6, 11.5.5, 11.5.4, 11.5.3, 11.5.2, 11.5.1, 11.5.0, 11.5.X, 11.4.1, 11.4.0, 11.4.X, 11.3.0, 11.3.X, 11.2.1, 11.2.0, 11.2.X, 11.1.0, 11.1.X, 11.0.0, 11.0.X, 11.X.X, 10.2.4, 10.2.3, 10.2.2, 10.2.1, 10.2.0, 10.2.X, 10.1.0, 10.1.X, 10.X.X]

BIG-IP ASM : [17.1.1, 17.1.0, 17.1.X, 17.0.0, 17.0.X, 17.X.X, 16.1.4, 16.1.3, 16.1.2, 16.1.1, 16.1.0, 16.1.X, 16.0.1, 16.0.0, 16.0.X, 16.X.X, 15.1.10, 15.1.9, 15.1.8, 15.1.7, 15.1.6, 15.1.5, 15.1.4, 15.1.3, 15.1.2, 15.1.1, 15.1.0, 15.1.X, 15.0.1, 15.0.0, 15.0.X, 15.X.X, 14.1.5, 14.1.4, 14.1.3, 14.1.2, 14.1.0, 14.1.X, 14.0.1, 14.0.0, 14.0.X, 14.X.X, 13.1.5, 13.1.4, 13.1.3, 13.1.1, 13.1.0, 13.1.X, 13.0.1, 13.0.0, 13.0.X, 13.X.X, 12.1.6, 12.1.5, 12.1.4, 12.1.3, 12.1.2, 12.1.1, 12.1.0, 12.1.X, 12.0.0, 12.0.X, 12.X.X, 11.6.5, 11.6.4, 11.6.3, 11.6.2, 11.6.1, 11.6.0, 11.6.X, 11.5.10, 11.5.9, 11.5.8, 11.5.7, 11.5.6, 11.5.5, 11.5.4, 11.5.3, 11.5.2, 11.5.1, 11.5.0, 11.5.X, 11.4.1, 11.4.0, 11.4.X, 11.3.0, 11.3.X, 11.2.1, 11.2.0, 11.2.X, 11.1.0, 11.1.X, 11.0.0, 11.0.X, 11.X.X, 10.2.4, 10.2.3, 10.2.2, 10.2.1, 10.2.0, 10.2.X, 10.1.0, 10.1.X, 10.0.1, 10.0.0, 10.0.X, 10.X.X, 9.6.1, 9.6.0, 9.6.X, 9.4.8, 9.4.7, 9.4.6, 9.4.5, 9.4.4, 9.4.3, 9.4.2, 9.4.1, 9.4.0, 9.4.X, 9.3.1, 9.3.0, 9.3.X, 9.2.5, 9.2.4, 9.2.3, 9.2.2, 9.2.0, 9.2.X, 9.X.X]

BIG-IP Analytics : [17.1.1, 17.1.0, 17.1.X, 17.0.0, 17.0.X, 17.X.X, 16.1.4, 16.1.3, 16.1.2, 16.1.1, 16.1.0, 16.1.X, 16.0.1, 16.0.0, 16.0.X, 16.X.X, 15.1.10, 15.1.9, 15.1.8, 15.1.7, 15.1.6, 15.1.5, 15.1.4, 15.1.3, 15.1.2, 15.1.1, 15.1.0, 15.1.X, 15.0.1, 15.0.0, 15.0.X, 15.X.X, 14.1.5, 14.1.4, 14.1.3, 14.1.2, 14.1.0, 14.1.X, 14.0.1, 14.0.0, 14.0.X, 14.X.X, 13.1.5, 13.1.4, 13.1.3, 13.1.1, 13.1.0, 13.1.X, 13.0.1, 13.0.0, 13.0.X, 13.X.X, 12.1.6, 12.1.5, 12.1.4, 12.1.3, 12.1.2, 12.1.1, 12.1.0, 12.1.X, 12.0.0, 12.0.X, 12.X.X, 11.6.5, 11.6.4, 11.6.3, 11.6.2, 11.6.1, 11.6.0, 11.6.X, 11.5.10, 11.5.9, 11.5.8, 11.5.7, 11.5.6, 11.5.5, 11.5.4, 11.5.3, 11.5.2, 11.5.1, 11.5.0, 11.5.X, 11.4.1, 11.4.0, 11.4.X, 11.3.0, 11.3.X, 11.2.1, 11.2.0, 11.2.X, 11.1.0, 11.1.X, 11.0.0, 11.0.X, 11.X.X]

BIG-IP DNS : [17.1.1, 17.1.0, 17.1.X, 17.0.0, 17.0.X, 17.X.X, 16.1.4, 16.1.3, 16.1.2, 16.1.1, 16.1.0, 16.1.X, 16.0.1, 16.0.0, 16.0.X, 16.X.X, 15.1.10, 15.1.9, 15.1.8, 15.1.7, 15.1.6, 15.1.5, 15.1.4, 15.1.3, 15.1.2, 15.1.1, 15.1.0, 15.1.X, 15.0.1, 15.0.0,

15.0.X, 15.X.X, 14.1.5, 14.1.4, 14.1.3, 14.1.2, 14.1.0, 14.1.X, 14.0.1, 14.0.0, 14.0.X, 14.X.X, 13.1.5, 13.1.4, 13.1.3, 13.1.1, 13.1.0, 13.1.X, 13.0.1, 13.0.0, 13.0.X, 13.X.X, 12.1.6, 12.1.5, 12.1.4, 12.1.3, 12.1.2, 12.1.1, 12.1.0, 12.1.X, 12.0.0, 12.0.X, 12.X.X]

BIG-IP FPS : [17.1.1, 17.1.0, 17.1.X, 17.0.0, 17.0.X, 17.X.X, 16.1.4, 16.1.3, 16.1.2, 16.1.1, 16.1.0, 16.1.X, 16.0.1, 16.0.0, 16.0.X, 16.X.X, 15.1.10, 15.1.9, 15.1.8, 15.1.7, 15.1.6, 15.1.5, 15.1.4, 15.1.3, 15.1.2, 15.1.1, 15.1.0, 15.1.X, 15.0.1, 15.0.0, 15.0.X, 15.X.X, 14.1.5, 14.1.4, 14.1.3, 14.1.2, 14.1.0, 14.1.X, 14.0.1, 14.0.0, 14.0.X, 14.X.X, 13.1.5, 13.1.4, 13.1.3, 13.1.1, 13.1.0, 13.1.X, 13.0.1, 13.0.0, 13.0.X, 13.X.X]

BIG-IP GTM : [11.6.5, 11.6.4, 11.6.3, 11.6.2, 11.6.1, 11.6.0, 11.6.X, 11.5.10, 11.5.9, 11.5.8, 11.5.7, 11.5.6, 11.5.5, 11.5.4, 11.5.3, 11.5.2, 11.5.1, 11.5.0, 11.5.X, 11.4.1, 11.4.0, 11.4.X, 11.3.0, 11.3.X, 11.2.1, 11.2.0, 11.2.X, 11.1.0, 11.1.X, 11.0.0, 11.0.X, 11.X.X, 10.2.4, 10.2.3, 10.2.2, 10.2.1, 10.2.0, 10.2.X, 10.1.0, 10.1.X, 10.0.1, 10.0.0, 10.0.X, 10.X.X, 9.6.1, 9.6.0, 9.6.X, 9.4.8, 9.4.7, 9.4.6, 9.4.5, 9.4.4, 9.4.3, 9.4.2, 9.4.1, 9.4.0, 9.4.X, 9.3.1, 9.3.0, 9.3.X, 9.2.5, 9.2.4, 9.2.3, 9.2.2, 9.2.0, 9.2.X, 9.X.X]

BIG-IP LTM : [17.1.1, 17.1.0, 17.1.X, 17.0.0, 17.0.X, 17.X.X, 16.1.4, 16.1.3, 16.1.2, 16.1.1, 16.1.0, 16.1.X, 16.0.1, 16.0.0, 16.0.X, 16.X.X, 15.1.10, 15.1.9, 15.1.8, 15.1.7, 15.1.6, 15.1.5, 15.1.4, 15.1.3, 15.1.2, 15.1.1, 15.1.0, 15.1.X, 15.0.1, 15.0.0, 15.0.X, 15.X.X, 14.1.5, 14.1.4, 14.1.3, 14.1.2, 14.1.0, 14.1.X, 14.0.1, 14.0.0, 14.0.X, 14.X.X, 13.1.5, 13.1.4, 13.1.3, 13.1.1, 13.1.0, 13.1.X, 13.0.1, 13.0.0, 13.0.X, 13.X.X, 12.1.6, 12.1.5, 12.1.4, 12.1.3, 12.1.2, 12.1.1, 12.1.0, 12.1.X, 12.0.0, 12.0.X, 12.X.X, 11.6.5, 11.6.4, 11.6.3, 11.6.2, 11.6.1, 11.6.0, 11.6.X, 11.5.10, 11.5.9, 11.5.8, 11.5.7, 11.5.6, 11.5.5, 11.5.4, 11.5.3, 11.5.2, 11.5.1, 11.5.0, 11.5.X, 11.4.1, 11.4.0, 11.4.X, 11.3.0, 11.3.X, 11.2.1, 11.2.0, 11.2.X, 11.1.0, 11.1.X, 11.0.0, 11.0.X, 11.X.X, 10.2.4, 10.2.3, 10.2.2, 10.2.1, 10.2.0, 10.2.X, 10.1.0, 10.1.X, 10.0.1, 10.0.0, 10.0.X, 10.X.X, 9.6.1, 9.6.0, 9.6.X, 9.4.8, 9.4.7, 9.4.6, 9.4.5, 9.4.4, 9.4.3, 9.4.2, 9.4.1, 9.4.0, 9.4.X, 9.3.1, 9.3.0, 9.3.X, 9.2.5, 9.2.4, 9.2.3, 9.2.2, 9.2.0, 9.2.X, 9.1.3, 9.1.2, 9.1.1, 9.1.0, 9.1.X, 9.X.X]

BIG-IP Link Controller : [17.1.1, 17.1.0, 17.1.X, 17.0.0, 17.0.X, 17.X.X, 16.1.4, 16.1.3, 16.1.2, 16.1.1, 16.1.0, 16.1.X, 16.0.1, 16.0.0, 16.0.X, 16.X.X, 15.1.10, 15.1.9, 15.1.8, 15.1.7, 15.1.6, 15.1.5, 15.1.4, 15.1.3, 15.1.2, 15.1.1, 15.1.0, 15.1.X, 15.0.1, 15.0.0, 15.0.X, 15.X.X, 14.1.5, 14.1.4, 14.1.3, 14.1.2, 14.1.0, 14.1.X, 14.0.1, 14.0.0, 14.0.X, 14.X.X, 13.1.5, 13.1.4, 13.1.3, 13.1.1, 13.1.0, 13.1.X, 13.0.1, 13.0.0, 13.0.X, 13.X.X, 12.1.6, 12.1.5, 12.1.4, 12.1.3, 12.1.2, 12.1.1, 12.1.0, 12.1.X, 12.0.0, 12.0.X, 12.X.X, 11.6.5, 11.6.4, 11.6.3, 11.6.2, 11.6.1, 11.6.0, 11.6.X, 11.5.10, 11.5.9, 11.5.8, 11.5.7, 11.5.6, 11.5.5, 11.5.4, 11.5.3, 11.5.2, 11.5.1, 11.5.0, 11.5.X, 11.4.1, 11.4.0, 11.4.X, 11.3.0, 11.3.X, 11.2.1, 11.2.0, 11.2.X, 11.1.0, 11.1.X, 11.0.0, 11.0.X, 11.X.X, 10.2.4, 10.2.3, 10.2.2, 10.2.1, 10.2.0, 10.2.X, 10.1.0, 10.1.X, 10.0.1, 10.0.0, 10.0.X, 10.X.X, 9.6.1, 9.6.0, 9.6.X, 9.4.8, 9.4.7, 9.4.6, 9.4.5, 9.4.4, 9.4.3, 9.4.2, 9.4.1, 9.4.0, 9.4.X, 9.3.1, 9.3.0, 9.3.X, 9.2.5, 9.2.4, 9.2.3, 9.2.2, 9.2.0, 9.2.X, 9.X.X]

BIG-IP PEM : [17.1.1, 17.1.0, 17.1.X, 17.0.0, 17.0.X, 17.X.X, 16.1.4, 16.1.3, 16.1.2, 16.1.1, 16.1.0, 16.1.X, 16.0.1, 16.0.0, 16.0.X, 16.X.X, 15.1.10, 15.1.9, 15.1.8, 15.1.7, 15.1.6, 15.1.5, 15.1.4, 15.1.3, 15.1.2, 15.1.1, 15.1.0, 15.1.X, 15.0.1, 15.0.0, 15.0.X, 15.X.X, 14.1.5, 14.1.4, 14.1.3, 14.1.2, 14.1.0, 14.1.X, 14.0.1, 14.0.0, 14.0.X, 14.X.X, 13.1.5, 13.1.4, 13.1.3, 13.1.1, 13.1.0, 13.1.X, 13.0.1, 13.0.0, 13.0.X, 13.X.X, 12.1.6, 12.1.5, 12.1.4, 12.1.3, 12.1.2, 12.1.1, 12.1.0, 12.1.X, 12.0.0, 12.0.X, 12.X.X, 11.6.5, 11.6.4, 11.6.3, 11.6.2, 11.6.1, 11.6.0, 11.6.X, 11.5.10, 11.5.9, 11.5.8, 11.5.7, 11.5.6, 11.5.5, 11.5.4, 11.5.3, 11.5.2, 11.5.1, 11.5.0, 11.5.X, 11.4.1, 11.4.0, 11.4.X, 11.3.0, 11.3.X, 11.X.X]

BIG-IP Platforms

BIG-IQ Centralized Management : [8.3.0, 8.3.X, 8.2.0, 8.2.X, 8.1.0, 8.1.X, 8.0.0, 8.0.X, 8.X.X, 7.1.0, 7.1.X, 7.0.0, 7.0.X, 7.X.X, 6.1.0, 6.1.X, 6.0.1, 6.0.0, 6.0.X, 6.X.X, 5.4.0, 5.4.X, 5.3.0, 5.3.X, 5.2.0, 5.2.X, 5.1.0, 5.1.X]

Enterprise Manager : [3.1.1, 3.1.0, 3.0.0, 3.0.X]

F5OS-A : [1.7.0, 1.7.X, 1.5.2, 1.5.1, 1.5.0, 1.5.X, 1.4.0, 1.4.X, 1.3.2, 1.3.1, 1.3.0, 1.3.X, 1.2.0, 1.2.X, 1.1.1, 1.1.0, 1.1.X, 1.0.1, 1.0.0, 1.0.X, 1.X.X]

F5OS-C : [1.6.2, 1.6.1, 1.6.0, 1.6.X, 1.5.1, 1.5.0, 1.5.X, 1.3.2, 1.3.1, 1.3.0, 1.3.X, 1.2.2, 1.2.1, 1.2.0, 1.2.X, 1.1.4, 1.1.3, 1.1.2,

1.1.1, 1.1.0, 1.1.X, 1.X.X]

VELOS Platforms

rSeries Platforms

Topic

The following specifications are for the available Fiber Gigabit Ethernet modules and the platforms that support those modules.

Important: The end user must ensure suitability of both the optical fiber and the laser transceiver on the other end.

Important: When you configure aggregated ports (trunked interfaces), the aggregated modules must be of the same data rate and the number of links in the trunk be a power of 2.

- Small Form-factor Pluggable (SFP) or GBIC-mini module
- 10 Gigabit Small-form Factor Pluggable (XFP)
- Enhanced Small Form-factor Pluggable (SFP+)
- Quad (4-channel) Small Form-factor Pluggable (QSFP+)
- 100 Gigabit Small-form Factor Pluggable (QSFP28)
- Active Optic Cables (AOC)

Small Form Factor Pluggable (SFP) or GBIC mini module

Note: F5 gigabit Ethernet modules comply with IEEE standards 802.3ab (1000BASE-T) and 802.3z (1000BASE-SX, 1000BASE-LX).

Important: According to IEEE Std 802.3ae, fiber cables must be at least two meters.

- F5-UPG-SFP-R (OPT-0010-00) - 1000Base-SX (Short Range) Ethernet Transceiver with DDM Support
- F5-UPG-SFPLX-R (OPT-0011-00) - 1000Base-LX (Long Range) Ethernet Transceiver
- F5-UPG-SFP28-SR (OPT-0053-01) - SFP28 TRANSCEIVER (25G-SR, 850NM, 100M, LC, MMF, DDM)
- F5-UPG-SFP28-LR (OPT-0054-01) - SFP28 TRANSCEIVER (25G-LR, 10KM, LC, SMF, 1.5W, DDM)

F5-UPG-SFP-R (OPT-0010-00) - 1000Base-SX (Short Range) Ethernet Transceiver with DDM Support

Specifications	• Optical Wavelength: 850 nm (multi-mode) • Connector type: LC • Operating distances and cable specification/requirements: • 220 meters maximum of 62.5 m core multi-mode fiber (MMF) that meets type A1a defined in IEC 60793-2:1992 • 500 meters maximum of 50.0 m core multi-mode fiber (MMF) that meets type A1b defined in IEC 60793-2:1992 <i>Note: Not all OPT-0010-00 transceivers support the DDM feature. Only OPT-0010-00 transceivers with the following characteristics support DDM:</i>
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	- The transceiver must have a serial number with seven alphanumeric characters (for example, PLA23D0). Transceivers with serial numbers in the 15-number format do not support DDM. - The transceiver must have a flared edge with two triangular arrows indicating the direction of the transmit and receive ports. Transceivers with the TX and RX characters indicating the direction of the transmit and receive ports do not support DDM.
Supported hardware products	- BIG-IP 800, 1500, 1600, 2000s/2200s, 3400, 3600, 3900, 4000s/4200v, 5000s/5200v, 6400, 6800, 6900, 7000s/7200v, 8400, 8800, 8900, 8950, 10000s/10200v, and 11050 platforms <i>Note: Older versions of OPT-0010 transceivers may not support DDM and can cause some hardware, such as the BIG-IP 800 system, to not terminate the link LED when the fiber has been removed.</i> <i>Note: The BIG-IP 2000s/2200s and 4000s/4200v series platforms do not support the Digital Diagnostic Monitoring feature (DDM).</i> - VIPRION B2100/B2150, B4100 (PB100), B4200 (PB200), and B4300 blades - BIG-IP i2600, i2800, i4600, i4800, i5600, i5800, i7600, i7800, i10600, i10800, i11600, and i11800 platforms <i>Note: The small form-factor pluggable plus (SFP+) slots in i2xxx and i4xxx do not support small form-factor pluggable (SFP) transceivers. The SFP+ slots in i5xxx and above support SFP transceivers.</i> - F5 r2600, r2800, r4600, r4800
Serial number location	

F5-UPG-SFPLX-R (OPT-0011-00) - 1000Base-LX (Long Range) Ethernet Transceiver

Specifications	- Optical Wavelength: 1310 nm (single-mode) - Connector type: LC - Operating distances and cable specification/requirements: <i>Note: When using MMF, you are required to use single-mode fiber offset-launch mode-conditioning patch cords in both ends of the link, as specified in IEEE 802.3-2005 section 38.11.4.</i> 5 kilometers maximum using 10 m core single-mode fiber (SMF) that meets type B1 in IEC 60793-2:1992 550 meters maximum using 50 m core multi-mode fiber (MMF) that meets type A1b defined in IEC 60793-2:1992
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	550 meters maximum using 62.5 m core multi-mode fiber (MMF) that meets type A1a defined in IEC 60793-2:1992
Supported hardware products	- BIG-IP 1500, 1600, 2000s/2200s, 3400, 3600, 3900, 4000s/4200v, 5000s/5200v, 6400, 6800, 6900, 7000s/7200v, 8400, 8800, 8900, 8950, 10000s/10200v, and 11050 platforms <i>Note: A known issue exists in BIG-IP 11.2.1 through 11.4.0 that prevents the BIG-IP 2000/4000 series platforms from detecting the 1 gigabit LX Fiber SFP (Module Number: OPT-0011-00). For more information, refer to K14538: The BIG-IP 2000 and 4000 series platforms fail to detect the 1 gigabit LX Fiber SFP Module.</i> - VIPRION B2100/B2150, B4100 (PB100), and B4200 (PB200) blades - BIG-IP i2600, i2800, i4600, i4800, i5600, i5800, i7600, i7800, i10600, i10800, i11600, and i11800 platforms <i>Note: The SFP+ slots in i2xxx and i4xxx do not support SFP transceivers. The SFP+ slots in i5xxx and above support SFP transceivers.</i> - F5 r2600, r2800, r4600, r4800 (OPT-0050-xx, replacement part for OPT-0011-00)
Serial number location	 A photograph of an F5 OPT-0011-00 SFP module. The module is black with a blue LC connector. The label on the module includes the F5 logo, 'NETWORKS, INC. Seattle, WA', 'OPT-0011-00', '1.25Gig, 1310nm, 10km', 'MADE IN MALAYSIA 13-40', 'S/N: PQC27VG', and 'Class 1 21CFR1040.10 LN#50 7/01'.

F5-UPG-SFP28-SR (OPT-0053-01) - SFP28 TRANSCEIVER (25G-SR, 850NM, 100M, LC, MMF, DDM)

Specifications	- Optical Wavelength: 850nm multi-mode - Connector type: Duplex LC - Operating distance: 100M
Supported hardware products	F5 r2600, r2800, r4600, r4800, r5600, r5800, r5900, r10600, r10800, r10900, r12600, r12800, and r12900 platforms
Serial number location	 A photograph of the label for an F5 OPT-0053-01 SFP28 module. The label includes the F5 logo, 'NETWORKS, INC. Seattle, WA', 'OPT-0053-01 RA1', '850nm, 100m', 'S/N: A123456', '19-22', '25G', 'TUV Rheinland', 'Class 1 21CFR1040.10 LN#50 6/07', and 'MADE IN MALAYSIA'.

F5-UPG-SFP28-LR (OPT-0054-01) - SFP28 TRANSCEIVER (25G-LR, 10KM, LC, SMF, 1.5W, DDM)

Specifications	• Optical Wavelength: 1310 nm • Connector type: Duplex LC • Operating distance: up to 10KM
Supported hardware products	• F5 r2600, r2800, r4600, r4800, r5600, r5800, r5900, r10600, r10800, r10900, r12600, r12800, and r1290 platforms
Serial number location	

10 Gigabit Small Form Factor Pluggable (XFP)

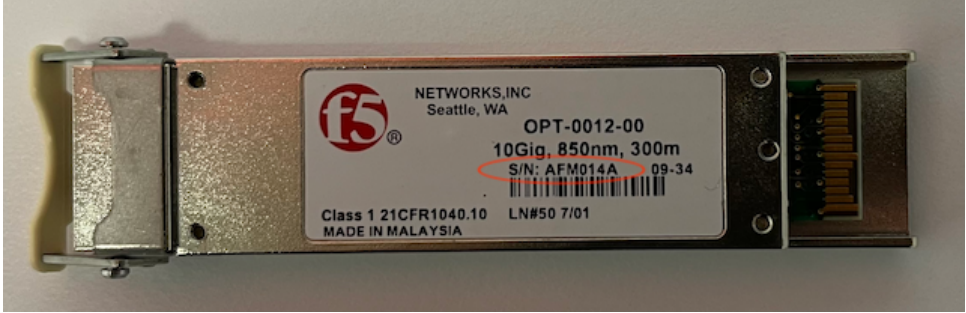
Note: F5 10-gigabit optical modules comply with IEEE Std 802.3ae.

Important: According to IEEE Std 802.3ae, fiber cables must be at least two meters in length.

- [OPT-0012-00 - 10GBASE-SR \(Short Range\) Ethernet Transceiver](#)
- [OPT-0013-00 - 10GBASE-LR \(Long Range\) Ethernet Transceiver with DDM Support](#)
- [OPT-0014-00 - 10GBASE-ER \(Extended Range\) Ethernet Transceiver with DDM Support](#)

OPT-0012-00 - 10GBASE-SR (Short Range) Ethernet Transceiver

Specifications	• Optical Wavelength: 850 nm (multi-mode) • Connector type: LC • Operating distances and cable specification/requirements: • 26 meters maximum for type FDDI grade 160MHz-km 62.5 m core multi-mode fiber (MMF) • 33 meters maximum for type OM1 200MHz-km 62.5 m core multi-mode fiber (MMF) • 66 meters maximum for type FDDI grade 400MHz-km 50.0 m core multi-mode fiber (MMF) • 82 meters maximum for type OM2 500MHz-km 50.0 m core multi-mode fiber (MMF) • 300 meters maximum for type OM3 2000MHz-km 50.0 m multi-mode fiber (MMF) • 400 meters maximum for type OM4 4700MHz-km 50.0 m multi-mode fiber (MMF)

Supported hardware products	BIG-IP 8400 and 8800 platforms and VIPRION B4100 (PB100) blades
Serial number location	

OPT-0013-00 - 10GBASE-LR (Long Range) Ethernet Transceiver with DDM Support

Specifications	- Optical Wavelength: 1310 nm (single-mode) - Connector type: LC - Operating distances and cable specification/requirements: 10 kilometers maximum for ITU-T G.652 single-mode fiber (SMF)
Supported hardware products	BIG-IP 8400 and 8800 platforms and VIPRION B4100 (PB100) blades
Serial number location	No image available.

OPT-0014-00 - 10GBASE-ER (Extended Range) Ethernet Transceiver with DDM Support

Specifications	- Optical Wavelength: 1550 nm (single-mode) - Connector type: LC - Operating distances and cable specification/requirements: 40 kilometers maximum for ITU-T G.652 single-mode fiber (SMF)
Supported hardware products	BIG-IP 8400 and 8800 platforms and VIPRION B4100 (PB100) blades
Serial number location	No image available.

Enhanced Small Form Factor Pluggable (SFP+)

Note: F5 10-gigabit Ethernet modules comply with IEEE standards 802.3ae 10GBASE-LR/LW, 10GBASE-SR 10G Ethernet.

Important: According to IEEE Std 802.3ae, fiber cables must be at least two meters in length.

- F5-UPG-SFP+-R (OPT-0016-00) - 10GBase-SR (Short Range) 10G Ethernet Transceiver with DDM Support**
- F5-UPG-SFP+LR-R (OPT-0017-00) - 10GBase-LR/LW (Long Range) 10G Ethernet Transceiver with DDM Support**

F5-UPG-SFP+-R (OPT-0016-00) - 10GBase-SR (Short Range) 10G Ethernet Transceiver with DDM Support

Specifications	- Optical Wavelength: 850 nm (multi-mode) - Connector type: LC - Operating distances and cable specification/requirements: 26 meters maximum for type FDDI grade 160MHz-km 62.5 m core multi-mode fiber (MMF) 33 meters maximum for type OM1 200MHz-km 62.5 m core multi-mode fiber (MMF) 66 meters maximum for type FDDI grade 400MHz-km 50.0 m core multi-mode fiber (MMF) 82 meters maximum for type OM2 500MHz-km 50.0 m core multi-mode fiber (MMF) 300 meters maximum for type OM3 2000MHz-km 50.0 m multi-mode fiber (MMF) 400 meters maximum for type OM4 4700MHz-km 50.0 m multi-mode fiber (MMF)
Supported hardware products	- BIG-IP 2000s/2200s, 4000s/4200v, 5000s/5200v, 7000s/7200v, 8900, 8950, 10000s/10200v, 11000, and 11050 platforms <i>Note: The 2000s/2200s and 4000s/4200v series platforms do not support the Digital Diagnostic Monitoring feature (DDM).</i> - VIPRION B2100/B2150, B4100 (PB100), B4200 (PB200), and B4300 blades - BIG-IP i2600, i2800, i4600, i4800, i5600, i5800, i7600, i7800, i10600, i10800, i11600, and i11800 platforms - F5 r2600, r2800, r4600, r4800, r5600, r5800, r5900, r10600, r10800, r10900, r12600, r12800, and r12900 platforms
Serial number location	

F5-UPG-SFP+LR-R (OPT-0017-00) - 10GBase-LR/LW (Long Range) 10G Ethernet Transceiver with DDM Support

Specifications	- Optical Wavelength: 1310 nm (single-mode) - Connector type: LC - Operating distances and cable specification/requirements: 10 kilometers maximum on 8-10m SMF
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Supported hardware products	- BIG-IP 2000s/2200s, 4000s/4200v, 5000s/5200v, 7000s/7200v, 8900, 8950, 10000s/10200v, 11000, and 11050 platforms <i>Note: The 2000s/2200s and 4000s/4200v series platforms do not support the Digital Diagnostic Monitoring feature (DDM).</i> - VIPRION B2100/B2150, B4100 (PB100), B4200 (PB200), and B4300 blades - BIG-IP i2600, i2800, i4600, i4800, i5600, i5800, i7600, i7800, i10600, i10800, i11600, and i11800 platforms - F5 r2600, r2800, r4600, r4800, r5600, r5800, r5900, r10600, r10800, r10900, r12600, r12800, and r12900 platforms
Serial number location	

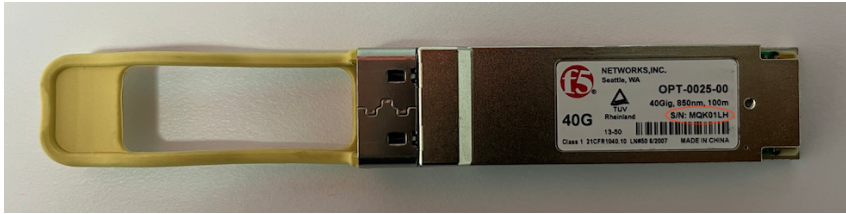
Quad (4-channel) Small Form Factor Pluggable (QSFP+)

- F5-UPG-QSFP+ (OPT-0025-00)** - 40GBase-SR4 100m QSFP+ 40G Ethernet Transceiver
- F5-UPG-QSFP+LR4 (OPT-0030-01)** - 40GBase-LR4 10km QSFP+ 40G Transceiver with DDM Support
- F5-UPG-QSFP+SR4 (OPT-0036-01)** - 40GBase-SR4 100m QSFP+ 40G Transceiver with DDM Support
- F5-UPG-QSFP+BD (OPT-0043-01)** - 40G-SR-BiDi 100m QSFP+ Bi-Directional 40G Transceiver with DDM Support
- F5-UPG-QSFP+PSM4 (OPT-0045-01)** - 40GBase-LR-PSM4 QSFP+ 4x10LR PSM4 40G Transceiver with DDM Support

F5-UPG-QSFP+ (OPT-0025-00) - 40GBase-SR4 100m QSFP+ 40G Ethernet Transceiver

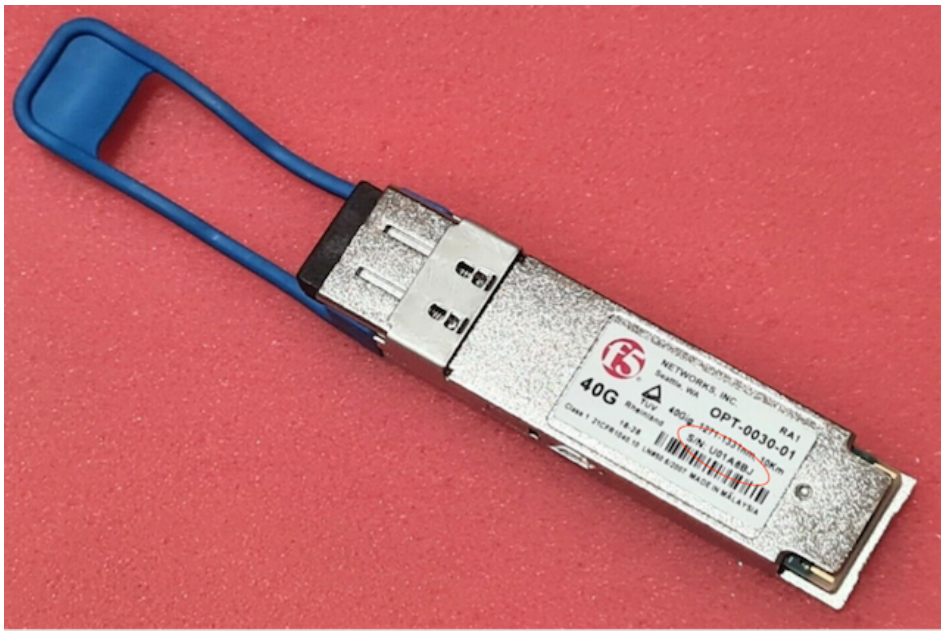
Note: The OPT-0025-00 module is scheduled to go End of Sale (EoS) in October 2016.

Specifications	- Optical Wavelength: 850 nm (multi-mode) - Connector type: MPO/MTP - Operating distances and cable specification/requirements: 150 meters maximum on OM4 MMF 100 meters maximum on OM3 MMF
Supported hardware products	- BIG-IP 10000s/10200v platforms - VIPRION B2250, B4300, and B4400 blades

Serial number location	
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F5-UPG-QSFP+LR4 (OPT-0030-01) - 40GBase-LR4 10km QSFP+ 40G Transceiver with DDM Support

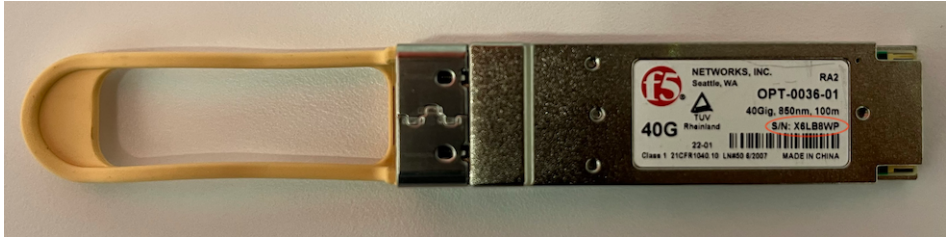
- SKU: F5-UPG-VEL-QSFP+LR4
- VELOS FIELD UPGRADE: QSFP+ TRANSCEIVER (40G-LR4, 1310NM, 10KM, LC, SMF, DDM SUPPORT)

Specifications	• Optical Wavelength: 1310 nm (single-mode) • Connector type: QSFP+ form factor with duplex LC fiber connectors • Operating distances and cable specification/requirements: • 10 kilometers
Supported hardware products	• BIG-IP 10000, 12000 platforms • VIPRION B2250, B4300, and B4400 blades • BIG-IP i5600, i5800, i7600, i7800, i10600, i10800, i11600, i11800, and i15000 platforms • VELOS BX110 blades • F5 r5600, r5800, r5900, r10600, r10800, r10900, r12600, r12800, and r12900 platforms
Serial number location	

F5-UPG-QSFP+SR4 (OPT-0036-01) - 40GBase-SR4 100m QSFP+ 40G Transceiver with DDM Support

- SKU: F5-UPG-VEL-QSFP+SR4

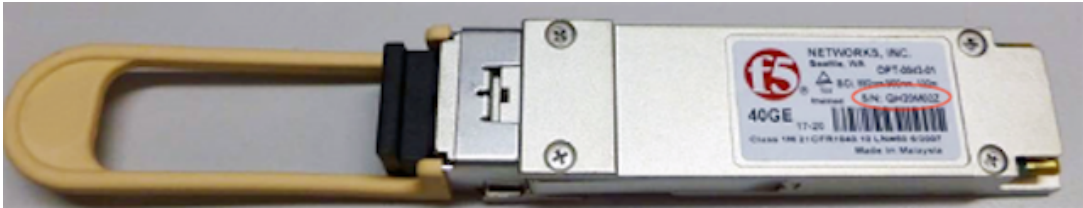
- VELOS FIELD UPGRADE: QSFP+ TRANSCEIVER (40G-SR4, 850NM, 100M, MPO, DDM SUPPORT)

Specifications	• Optical Wavelength: 850nm • Connector type: MPO/MTP • Operating distances and cable specification/requirements: • 150 meters maximum on OM4 MMF • 100 meters maximum on OM3 MMF
Supported hardware products	• BIG-IP 10000, 12000 platforms • VIPRION B2250, B4300, and B4400 blades • BIG-IP i5600, i5800, i7600, i7800, i10600, i10800, i11600, i11800, and i15000 platforms • VELOS BX110 blades • F5 r5600, r5800, r5900, r10600, r10800, r10900, r12600, r12800, and r12900 platforms
Serial number location	

F5-UPG-QSFP+BD (OPT-0043-01) - 40G-SR-BiDi 100m QSFP+ Bi-Directional 40G Transceiver with DDM Support

- SKU: F5-UPG-VEL-QSFP+BD
 - VELOS FIELD UPGRADE: QSFP+ TRANSCEIVER (2X20G-BIDI, 850NM-900NM, 100M, LC, MMF, DDM)

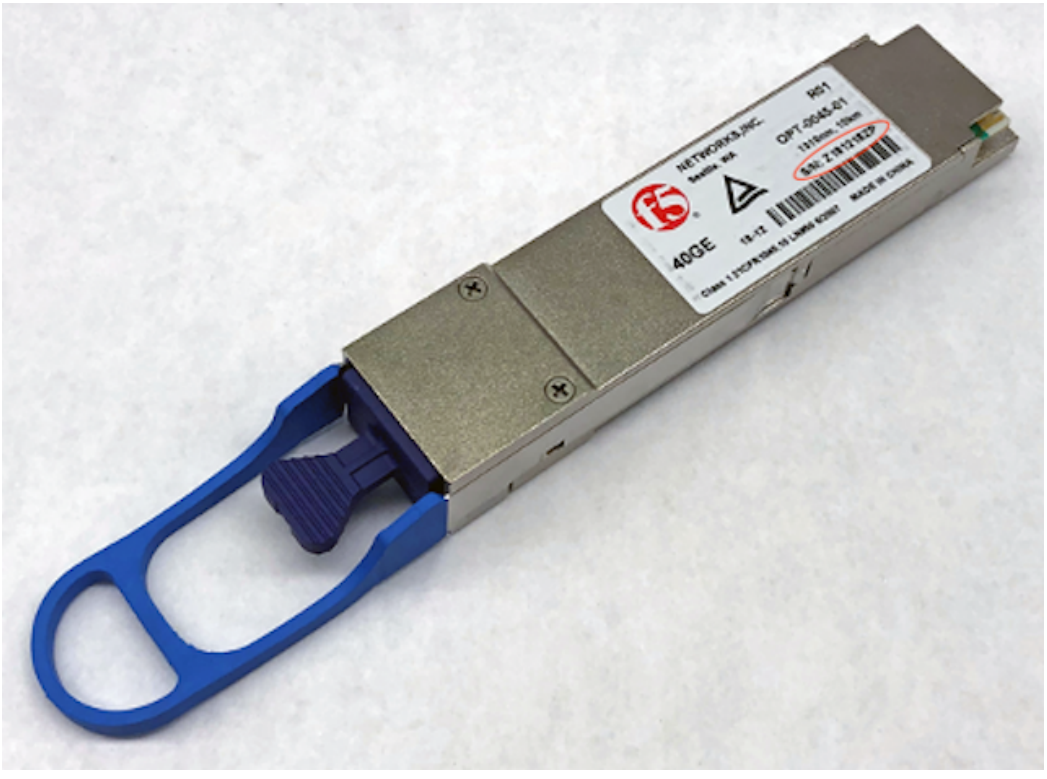
Specifications	• Optical Wavelength: 850nm • Connector type: LC • Operating distances and cable specification/requirements: • 150 meters maximum on OM4 MMF • 100 meters maximum on OM3 MMF <i>Note: The operating temperature for this transceiver is +10C to +70C. In the case of a cold start (below +10C), the platform must reset the transceiver once +10C has been read from the transceiver module.</i>
Supported	• BIG-IP 10000, 10050, 10055, 10200, 10250, and 12250 • VIPRION B2250 • BIG-IP i5600, i5800, i7600, i7800, i10600, i10800, i11600, i11800, i11800-DS, and i15000 platforms • VELOS BX110 blades • F5 r5600, r5800, r5900, r10600, r10800, r10900, r12600, r12800, and r12900 platforms

hardware products	Note: The QSFP+ ports in B4300, B4340N, B4400, B4450, and B4450N are incompatible with BiDi, and the optics part may be damaged if used in these platforms. Note: This transceiver is incompatible with platforms running BIG-IP 11.x. The minimum software is required for the following BIG-IP branches: • BIG-IP 12.1.1 HF1 and later (BIG-IP 12.x) • BIG-IP 13.1.1.2 and later (BIG-IP 13.x) • BIG-IP 14.0.0 and later (BIG-IP 14.x)
Serial number location	

F5-UPG-QSFP+PSM4 (OPT-0045-01) - 40GBase-LR-PSM4 QSFP+ 4x10LR PSM4 40G Transceiver with DDM Support

- SKU: F5-UPG-VEL-QSFP+PSM4
- VELOS FIELD UPGRADE: QSFP+ TRANSCEIVER (40G-PSM4, 1310NM, 10KM, MPO/APC, SMF, DDM)

Specifications	• Optical Wavelength: 1310nm • Connector type: QSFP+ • Operating distances and cable specification/requirements: • up to 10km
Supported hardware products	• BIG-IP 10000, 10050, 10055, 10200, 10250, and 12250 • VIPRION B2250 • VIPRION B4450, B4450N • BIG-IP i5x00, i7x00, i10x00, i11x00, and i15x00 platforms • VELOS BX110 blades • F5 r5600, r5800, r5900, r10600, r10800, r10900, r12600, r12800, and r12900 platforms Note: The QSFP+ ports in B4300 and B4340N platforms are incompatible with PSM4, and the optics part may be damaged if used in these platforms. Note: The breakout cables associated with PSM4 (MPO/APC) are not compatible with SR4 breakout cables. Note: PSM4 only works with MTP/MPO Angled Polished Connectors (APC), so make sure you purchase the correct cables if you use PSM4 optics. Note: This transceiver is incompatible with platforms running BIG-IP 11.5.4.x and earlier. The minimum software is required for the following BIG-IP branches: • BIG-IP 11.6.3.1 and later (BIG-IP 11.x) • BIG-IP 12.1.4 and later (BIG-IP 12.x) • BIG-IP 13.1.1.2 and later (BIG-IP 13.x) • BIG-IP 14.0.0 and later (BIG-IP 14.x)

Serial number location	
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100 Gigabit Small Form Factor Pluggable (QSFP28)

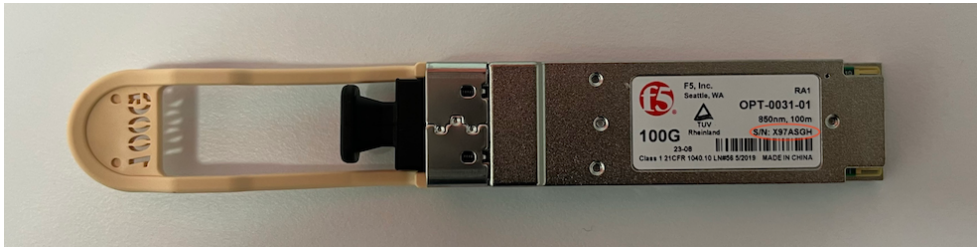
- **F5-UPG-QSFP28-SR4 (OPT-0031-01) - QSFP28 TRANSCEIVER (100G-SR4, 850NM, 100M, MMF, MPO, DDM)**
- **F5-UPG-QSFP28-LR4 (OPT-0039-01) - QSFP28 TRANSCEIVER (100G-LR4, 10KM, LC, SMF, 4.5W, DDM)**
- **F5-UPG-QSFP28-BD (OPT-0047-XX) - QSFP28 TRANSCEIVER (100G BIDI, 850-910 nm, 100M, MMF, Duplex LC, DDM)**
- **F5-UPGVELQSFP28LR4B (OPT-0052-01) - QSFP28 TRANSCEIVER (100G-LR4, 1295-1310 nm, 10KM, LC, SMF, DDM)**
- **F5-UPGVELQSFP28PSM4 (OPT-0055-01) - QSFP28 TRANSCEIVER (100G-PSM4, 1310nm, 500M, MPO/MTP, DDM)**
- **F5-UPG-QSFP28-SRBD (OPT-0060-XX) - QSFP28 TRANSCEIVER (100G BIDI, 850-910 nm, 100M, MMF, Duplex LC, DDM)**
- **F5-UPG-QSFP28-FR (OPT-0056-01) - TRANSCEIVER, QSFP28, 100G-FR, SINGLE LAMBDA, 2KM, LC UPC, SMF, F5 BRANDED**
- **F5-UPG-QSFP28-LR-SL (OPT-0061-01) - TRANSCEIVER, QSFP28, 100G, LR, SINGLE LAMBDA, 10KM, LC UPC, SMF, F5 BRANDED**
- **F5-UPG-QSFP28-DR (OPT-0062-01) - TRANSCEIVER, QSFP28, 100G, DR, SINGLE LAMBDA, 500M, LC UPC, SMF, F5 BRANDED**

Optic Thermal Limits:

During extended Network Equipment Building System (NEBS) operating temperature ranges above 50C ambient air temperature, optics may issue a thermal warning and alarm but still function normally. Refer to [K000139302: rSeries and VELOS 100G Optics can exceed optic temperature limit resulting in an optic warning or alarm](#) for details regarding the rSeries and Velos 100G Optic operating environments.

F5-UPG-QSFP28-SR4 (OPT-0031-01) - QSFP28 TRANSCEIVER (100G-SR4, 850NM, 100M, MMF, MPO, DDM)

- SKU: F5-UPGVELQSFP28-SR4
- VELOS FIELD UPGRADE: QSFP28 TRANSCEIVER (100G-SR4, 100M, MPO MMF, DDM) ROHS

Specifications	• Optical Wavelength: 850nm multi-mode • Connector type: Single MPO12 receptacle • 4x25Gb/s 850nm VCSEL-based transmitter • Operating distance and cable specification/requirements: • Compliant with IEEE 802.3bm for maximum link length of 100m on OM4 Multimode Fiber (MMF)
Supported hardware products	• BIG-IP i15000 series • VIPRION B4450 blades • VELOS BX110 blades • F5 r5600, r5800, r5900, r10600, r10800, r10900, r12600, r12800, and r12900 platforms
Serial number location	

F5-UPG-QSFP28-LR4 (OPT-0039-01) - QSFP28 TRANSCEIVER (100G-LR4, 10KM, LC, SMF, 4.5W, DDM)

- SKU: F5-UPGVELQSFP28LR4
- VELOS FIELD UPGRADE: QSFP28 TRANSCEIVER (100G-LR4, 10KM, LC, SMF, DDM) ROHS

Specifications	• Optical Wavelength: Class-one 1310nm (single-mode) • Connector type LC • 4x25Gb/s 850nm VCSEL-based transmitter • Operating distance and cable specification/requirements: • Compliant with IEEE 802.3ba 100GBASE LR4 for reaches up to 10km
Supported hardware products	• BIG-IP i15000 series • VIPRION B4450 blades • VELOS BX110 blades <i>Note: The BX110 blade also supports the OPT-0052-01 module.</i> • F5 r5600, r5800, r5900, r10600, r10800, r10900, r12600, r12800, and r12900 platforms

A blue and silver USB-to-serial adapter. The device has a blue plastic handle and a silver metal body. A white label on the silver part contains the following text: 'OPT-6039-01', 'F00C0218482', and '10-40'. There is also a barcode and some smaller text on the label.

- SKU: F5-UPG-VEL-QSFP28-BD
 - VELOS FIELD UPGRADE: QSFP28 TRANSCEIVER (100G BIDI, 100M, LC, MMF)

Specifications	• Optical Wavelength: 850-910 nm • Connector type: Duplex LC • Operating distance and cable specification/requirements: • 70 meters maximum on OM3 MMF • 100 meters maximum on OM4 MMF • 150 meters maximum on OM5 MMF <i>Note: The operating internal temperature for this transceiver is +10C to +70C. In the case of a cold start (ambient below +10C), the platform must reset the transceiver once +10C has been read from the transceiver module.</i>
Supported hardware products	• VELOS BX110 blades • F5 r5600, r5800, r5900, r10600, r10800, r10900, r12600, r12800, and r12900 platforms
Serial	

number location	
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F5-UPGVELQSFP28LR4B (OPT-0052-01) - QSFP28 TRANSCEIVER (100G-LR4, 1295-1310 nm, 10KM, LC, SMF, DDM)

Specifications	- Optical Wavelength: 1295-1310 nm (single mode) - Connector type: Duplex LC - Operating distance and cable specification/requirements: 10 kilometers maximum on SMF (ITU-T G.652)
Supported hardware products	VELOS BX110 blades
Serial number location	

F5-UPGVELQSFP28PSM4 (OPT-0055-01) - QSFP28 TRANSCEIVER (100G-PSM4, 1310nm, 500M, MPO/MTP, DDM)

- SKU: F5-UPG-QSFP28-PSM4
 - FIELD UPGRADE: QSFP28 TRANSCEIVER (100G-PSM4, 500M, MPO/APC, SMF, DDM)
- SKU: F5-UPGVELQSFP28PSM4

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Specifications	- Optical Wavelength: 1310 nm - Connector type: MPO/MTP - Operating distance and cable specification/requirements: 500 meters maximum
Supported hardware products	- VELOS BX110 blades - F5 r5600, r5800, r5900, r10600, r10800, r10900, r12600, r12800, and r12900 platforms
Serial number location	

F5-UPG-QSFP28-SRBD (OPT-0060-XX) - QSFP28 TRANSCEIVER (100G BIDI, 850-910 nm, 100M, MMF, Duplex LC, DDM)

- SKU: F5-UPG-VELQSFP28SRBD
- VELOS FIELD UPGRADE: TRANSCEIVER QSFP28/QSFP+, DUAL RATE 40G/100G SR BIDI, 100M, LC, MMF

Specifications	- Optical Wavelength: 850-910 nm - Connector type: Duplex LC - Operating distance and cable specification/requirements: 70 meters maximum on OM3 MMF 100 meters maximum on OM4 MMF 150 meters maximum on OM5 MMF
Supported hardware products	- BIG-IP i5x00, i7x00, i10x00, i11x00, and i15x00 platforms (QSFP+, 40G) - VELOS BX110 blades (QSFP28, dual rate, 40G/100G) - F5 r5600, r5800, r5900, r10600, r10800, r10900, r12600, r12800, and r12900 platforms (QSFP28, dual rate, 40G/100G)

Serial number
location



F5-UPG-QSFP28-FR (OPT-0056-01) - TRANSCEIVER, QSFP28, 100G-FR, SINGLE LAMBDA, 2KM, LC UPC, SMF, F5 BRANDED

- SKU: F5-UPG-VEL-QSFP28-FR
- VELOS FIELD UPGRADE: QSFP28 TRANSCEIVER (100G-FR SINGLE LAMBDA, 2KM, LC, SMF, DDM SUPPORT)

Specifications	• Optical Wavelength: 1310 nm • Connector type: Duplex LC UPC (Ultra Polished Connector interface) • Operating distance/cable specifications: • 2km maximum on SMF • Digital Diagnostic Function (DDM): Yes Optics-MGR-Package Upload & Installation: To upload and install the optics-mgr-package on F5 VELOS and rSeries systems for this optic only, refer to K000: VELOS and rSeries.
Supported hardware products	100G mode: r5000, r10000, VELOS (BX110 Blade)
Serial number location	

F5-UPG-QSFP28-LR-SL (OPT-0061-01) - TRANSCEIVER, QSFP28, 100G, LR, SINGLE LAMBDA, 10KM, LC UPC, SMF, F5 BRANDED

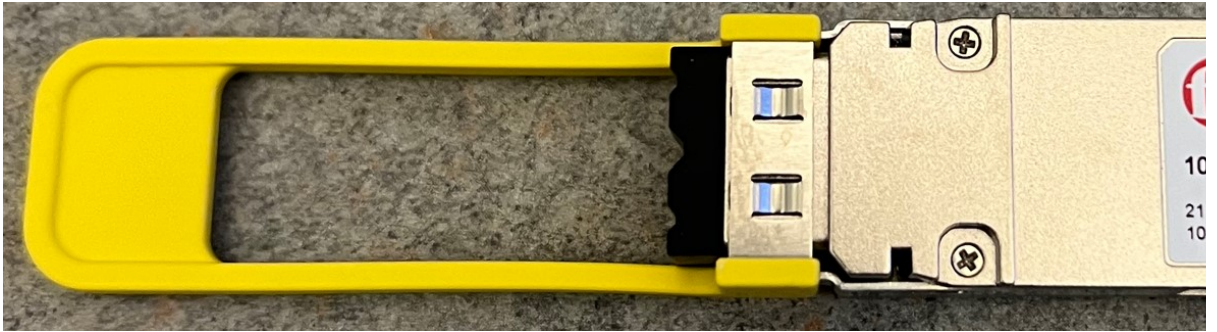
- SKU: F5-UPG-VELQSFP28LRSL
- VELOS FIELD UPGRADE: QSFP28 TRANSCEIVER (100G-LR SINGLE LAMBDA, 10KM, LC, SMF, DDM SUPPORT)

Specifications	• Optical Wavelength: 1310 nm • Connector type: Duplex LC UPC (Ultra Polished Connector interface) • Operating distance/cable specifications: • 10km maximum on SMF • Digital Diagnostic Function (DDM): Yes Optics-MGR-Package Upload & Installation: To upload and install the optics-mgr-package on F5 VELOS and rSeries systems for this optic only, refer to K000: VELOS and rSeries.
Supported hardware products	100G mode: r5000, r10000, VELOS (BX110 Blade)
Serial number location	

F5-UPG-QSFP28-DR (OPT-0062-01) - TRANSCEIVER, QSFP28, 100G, DR, SINGLE LAMBDA, 500M, LC UPC, SMF, F5 BRANDED

- SKU: F5-UPG-VEL-QSFP28-DR
- VELOS FIELD UPGRADE: QSFP28 TRANSCEIVER (100G-DR SINGLE LAMBDA, 500M, LC, SMF, DDM SUPPORT)

Specifications	• Optical Wavelength: 1310nm • Connector type: Duplex LC UPC (Ultra Polished Connector interface) • Operating distance/cable specifications: • 500m maximum on SMF • Digital Diagnostic Function (DDM): Yes Optics-MGR-Package Upload & Installation:
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	To upload and install the optics-mgr-package on F5 VELOS and rSeries systems for this optic only, refer to K000: VELOS and rSeries .
Supported hardware products	100G mode: r5000, r10000, VELOS (BX110 Blade)
Serial number location	

Active Optic Cables (AOC)

F5-UPG-QSFP+AOC3M (OPT-0029) Integrated QSFP+ 40G Transceiver to 4 LC OM3 breakout multi-mode cables

Note: DDM is currently not supported.

Specifications	- Optical Wavelength: Fixed (not detachable) - Connector type: QSFP+ - Operating distances and cable specification/requirements: 1.5 meters (OPT-0029-01) 3 meters (OPT-0029-03) 10 meters (OPT-0029-10)
Supported hardware products	- BIG-IP 10000, 12000 - BIG-IP i5000, i7000, i10000, i11000, and i15000 platforms - VIPRION B2250, B4300, and B4450 blades
Serial number location	No image available.

For information about specifications not listed in this article, refer to the documentation that came with your module.

Related Content

- [F5 Platforms: Accessories](#) manual

Note: For information about how to locate F5 product manuals, refer to [K98133564: Tips for searching AskF5 and finding product documentation](#).

- [K83253027: Overview of the BIG-IP Digital Diagnostics Monitoring feature](#)

- For information about 1000BASE-T Copper SFP modules, refer to [K12287: Specifications for the Copper Gigabit Ethernet SFP module ports on BIG-IP system platforms](#).
- Only F5-provided SFP modules are supported. For more information, refer to [K8153: F5 support of third-party hardware components](#).
- To purchase add-on hardware components for your BIG-IP platform, contact your F5 Reseller or [F5 Sales Representative](#) for specifications and pricing.
- [K000138382: Want to know the serial number of transceivers on a BIGIP](#)