



# Cisco 40-Gigabit Ethernet Transceiver Modules Compatibility Matrix

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## Note

For the clearest readability of these tables, use the PDF version located in the upper right-side of your browser screen. The HTML version might misalign the table data.



## Note

Because requirements and procedures for initial configurations and software upgrades tend to change, you should always refer to the switch or router software release notes for the latest information. Before installing, configuring, or upgrading a switch, refer to the product release notes on Cisco.com for the latest information. This compatibility matrix does not replace or supercede the release notes.

This publication lists the Cisco platforms and the minimum required software versions to support 40-Gigabit Ethernet transceiver modules. [Table 1](#) lists the model numbers and operating wavelengths for the available 40-Gigabit Ethernet transceiver modules.

**Table 1**      **40-Gigabit Ethernet Transceiver Modules**

| Model Number              | Transceiver Description                                                                                                                                            |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>QSFP+ Transceivers</b> |                                                                                                                                                                    |
| QSFP-40G-SR4=             | 40GBASE-SR4 QSFP+ transceiver module for MMF, 4-lanes, 850-nm wavelength, 12-fiber MPO/MTP connector                                                               |
| QSFP-40G-CSR4=            | 40GBASE-CSR4 QSFP+ transceiver module for MMF, 4-lanes, 850-nm wavelength, 12-fiber MPO/MTP connector, 300 m reach with OM3 fiber                                  |
| FET-40G=                  | 40G Fabric Extender Transceiver in QSFP form factor, 4-lanes, 850-nm wavelength, 12-fiber MPO/MTP connector, 100m reach with OM3 fiber                             |
| QSFP-40G-SR-BD=           | 40G QSFP Bi-Directional transceiver module, Duplex Multi-mode Fiber, LC Duplex connector, 100m reach with OM3 fiber                                                |
| QSFP-40GE-LR4=            | 40GBASE-LR4 QSFP40G transceiver module for Single Mode Fiber, 4 CWDM lanes in 1310nm window Muxed inside module, Duplex LC connector, 10km, 40G Ethernet rate only |



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**Table 1**                      **40-Gigabit Ethernet Transceiver Modules (continued)**

| <b>Model Number</b> | <b>Transceiver Description</b>                                                                                                                                                         |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| QSFP-40G-LR4=       | 40GBASE-LR4 QSFP40G transceiver module for Single Mode Fiber, 4 CWDM lanes in 1310nm window Muxed inside module, Duplex LC connector, 10km, Multi-rate Support (40G Ethernet and OTU3) |
| QSFP-4SFP10G-CU5M=  | 40GBASE-CR4 QSFP+ to four 10GBASE-CU SFP+ direct attach breakout cable assembly, 5 meter passive                                                                                       |
| QSFP-4SFP10G-CU3M=  | 40GBASE-CR4 QSFP+ to four 10GBASE-CU SFP+ direct attach breakout cable assembly, 3 meter passive                                                                                       |
| QSFP-4SFP10G-CU1M=  | 40GBASE-CR4 QSFP+ to four 10GBASE-CU SFP+ direct attach breakout cable assembly, 1 meter passive                                                                                       |
| QSFP-4x10G-AC7M=    | 40GBASE-CR4 QSFP+ to four 10GBASE-CU SFP+ direct attach breakout cable assembly, 7 meter active                                                                                        |
| QSFP-4x10G-AC10M=   | 40GBASE-CR4 QSFP+ to four 10GBASE-CU SFP+ direct attach breakout cable assembly, 10 meter active                                                                                       |
| QSFP-H40G-CU5M=     | 40GBASE-CR4 QSFP+ direct-attach copper cable, 5 meter passive                                                                                                                          |
| QSFP-H40G-CU3M=     | 40GBASE-CR4 QSFP+ direct-attach copper cable, 3 meter passive                                                                                                                          |
| QSFP-H40G-CU1M=     | 40GBASE-CR4 QSFP+ direct-attach copper cable, 1 meter passive                                                                                                                          |
| QSFP-H40G-ACU7M=    | 40GBASE-CR4 QSFP+ direct-attach copper cable, 7 meter active                                                                                                                           |
| QSFP-H40G-ACU10M=   | 40GBASE-CR4 QSFP+ direct-attach copper cable, 10 meter active                                                                                                                          |
| QSFP-4X10G-AOC1M=   | 40GQSFP to four 10G SFP+ direct attach breakout Active Optical cable assembly, 1 meter                                                                                                 |
| QSFP-4X10G-AOC2M=   | 40GQSFP to four 10G SFP+ direct attach breakout Active Optical cable assembly, 2 meter                                                                                                 |
| QSFP-4X10G-AOC3M=   | 40GQSFP to four 10G SFP+ direct attach breakout Active Optical cable assembly, 3 meter                                                                                                 |
| QSFP-4X10G-AOC5M=   | 40GQSFP to four 10G SFP+ direct attach breakout Active Optical cable assembly, 5 meter                                                                                                 |
| QSFP-4X10G-AOC7M=   | 40GQSFP to four 10G SFP+ direct attach breakout Active Optical cable assembly, 7 meter                                                                                                 |
| QSFP-4X10G-AOC10M=  | 40GQSFP to four 10G SFP+ direct attach breakout Active Optical cable assembly, 10 meter                                                                                                |
| QSFP-H40G-AOC1M=    | 40G QSFP direct-attach Active Optical cable, 1 meter                                                                                                                                   |
| QSFP-H40G-AOC2M=    | 40G QSFP direct-attach Active Optical cable, 2 meter                                                                                                                                   |
| QSFP-H40G-AOC3M=    | 40G QSFP direct-attach Active Optical cable, 3 meter                                                                                                                                   |
| QSFP-H40G-AOC5M=    | 40G QSFP direct-attach Active Optical cable, 5 meter                                                                                                                                   |
| QSFP-H40G-AOC7M=    | 40G QSFP direct-attach Active Optical cable, 7 meter                                                                                                                                   |
| QSFP-H40G-AOC10M=   | 40G QSFP direct-attach Active Optical cable, 10 meter                                                                                                                                  |
| QSFP-H40G-AOC15M=   | 40G QSFP direct-attach Active Optical cable, 15 meter                                                                                                                                  |
| CVR-QSFP-SFP10G=    | Cisco QSFP to SFP/SFP+ Adapter module                                                                                                                                                  |

**Table 1 40-Gigabit Ethernet Transceiver Modules (continued)**

| Model Number            | Transceiver Description                                                                                                                            |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CFP Transceivers</b> |                                                                                                                                                    |
| CVR-CFP-4SFP10G=        | Cisco FourX CFP to four SFP+ converter module<br>Please see the <a href="#">Cisco 10-Gigabit Ethernet Transceiver Modules Compatibility Matrix</a> |
| CFP-40G-SR4=            | Cisco 40GBASE-SR4 CFP transceiver module for MMF, 4-lanes, 850-nm wavelength, 12-fiber MPO/MTP connector                                           |
| CFP-40G-LR4=            | Cisco multirate 40GBASE-LR4 and OTU3 C4S1-2D1 for SMF, 1310-nm window, SC duplex connector                                                         |
| CFP-40G-FR=             | Cisco 40GBASE-FR serial 40G, 1550-nm, SC duplex connector, 2 km reach                                                                              |

[Table 2](#) lists the Cisco data center platforms that support the 40-Gigabit Ethernet transceiver modules and the minimum software requirements.

**Table 2 Data Center Switching Minimum Software Release Requirements**

| Platform                                | Switch or Module | Transceiver Model                                                                                                                                                                                                                | Minimum Software Release Required |                            |
|-----------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------|
|                                         |                  |                                                                                                                                                                                                                                  | DOM Support                       | Cisco IOS or NX-OS Release |
| <a href="#">Cisco Nexus 2000 Series</a> | N2K-C2248PQ      | QSFP-40G-SR4<br>QSFP-40G-CSR4<br>QSFP-H40G-ACU7M<br>QSFP-H40G-ACU10M<br>QSFP-4x10G-AC7M<br>QSFP-4x10G-AC10M<br>QSFP-4SFP10G-CU5M<br>QSFP-4SFP10G-CU3M<br>QSFP-4SFP10G-CU1M<br>QSFP-H40G-CU5M<br>QSFP-H40G-CU3M<br>QSFP-H40G-CU1M | —                                 | NX-OS 6.0(2)N1(1)          |
|                                         |                  | FET-40G<br>QSFP-40GE-LR4                                                                                                                                                                                                         | —                                 | NX-OS 6.0(2)N1(2)          |

**Table 2**      **Data Center Switching Minimum Software Release Requirements (continued)**

| Platform                | Switch or Module | Transceiver Model                                                                                                                 | Minimum Software Release Required |                            |
|-------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------|
|                         |                  |                                                                                                                                   | DOM Support                       | Cisco IOS or NX-OS Release |
| Cisco Nexus 3000 Series | N3K-C3064PQ      | QSFP-40G-SR4<br>QSFP-4SFP10G-CU5M<br>QSFP-4SFP10G-CU3M<br>QSFP-4SFP10G-CU1M<br>QSFP-H40G-CU5M<br>QSFP-H40G-CU3M<br>QSFP-H40G-CU1M | —                                 | NX-OS 5.0(3)U1(1d)         |
|                         |                  | QSFP-40GE-LR4                                                                                                                     | —                                 | NX-OS 6.0(2)U1(2)          |
|                         | N3K-C3064PQ-10GE | QSFP-40G-SR4<br>QSFP-4SFP10G-CU5M<br>QSFP-4SFP10G-CU3M<br>QSFP-4SFP10G-CU1M<br>QSFP-H40G-CU5M<br>QSFP-H40G-CU3M<br>QSFP-H40G-CU1M | —                                 | NX-OS 5.0(3)U1(2)          |
|                         |                  | QSFP-40GE-LR4                                                                                                                     | —                                 | NX-OS 6.0(2)U1(2)          |
|                         | N3K-C3064PQ-10GX | QSFP-40G-SR4<br>QSFP-4SFP10G-CU5M<br>QSFP-4SFP10G-CU3M<br>QSFP-4SFP10G-CU1M<br>QSFP-H40G-CU5M<br>QSFP-H40G-CU3M<br>QSFP-H40G-CU1M | —                                 | NX-OS 5.0(3)U3(1)          |
|                         |                  | QSFP-40GE-LR4                                                                                                                     | —                                 | NX-OS 6.0(2)U1(2)          |
|                         | N3K-C3016Q-40GE  | QSFP-40G-SR4<br>QSFP-4SFP10G-CU5M<br>QSFP-4SFP10G-CU3M<br>QSFP-4SFP10G-CU1M<br>QSFP-H40G-CU5M<br>QSFP-H40G-CU3M<br>QSFP-H40G-CU1M | —                                 | NX-OS 5.0(3)U2(2a)         |
|                         |                  | QSFP-40GE-LR4                                                                                                                     | —                                 | NX-OS 6.0(2)U1(2)          |

**Table 2 Data Center Switching Minimum Software Release Requirements (continued)**

| Platform                | Switch or Module                 | Transceiver Model | Minimum Software Release Required |                            |
|-------------------------|----------------------------------|-------------------|-----------------------------------|----------------------------|
|                         |                                  |                   | DOM Support                       | Cisco IOS or NX-OS Release |
| Cisco Nexus 5000 Series | N55-M4Q                          | QSFP-40G-SR4      | —                                 | NX-OS 6.0(2)N1(2)          |
|                         |                                  | QSFP-40G-CSR4     |                                   |                            |
|                         |                                  | QSFP-40GE-LR4     |                                   |                            |
|                         |                                  | QSFP-4x10G-AC7M   |                                   |                            |
|                         |                                  | QSFP-4x10G-AC10M  |                                   |                            |
|                         |                                  | QSFP-H40G-ACU7M   |                                   |                            |
|                         |                                  | QSFP-H40G-ACU10M  |                                   |                            |
|                         |                                  | QSFP-H40G-CU1M    |                                   |                            |
|                         |                                  | QSFP-H40G-CU3M    |                                   |                            |
|                         |                                  | QSFP-H40G-CU5M    |                                   |                            |
|                         |                                  | QSFP-4SFP10G-CU1M |                                   |                            |
|                         |                                  | QSFP-4SFP10G-CU3M |                                   |                            |
|                         |                                  | QSFP-4SFP10G-CU5M |                                   |                            |
|                         |                                  | FET-40G           |                                   |                            |
| Cisco Nexus 6000 Series | N604-96Q-B-24Q<br>N6K-C6004-M12Q | QSFP-40G-SR4      | —                                 | NX-OS 6.0(2)N1(1)          |
|                         |                                  | QSFP-40G-CSR4     |                                   |                            |
|                         |                                  | QSFP-4x-10G-AC7M  |                                   |                            |
|                         |                                  | QSFP-4x10G-AC10M  |                                   |                            |
|                         |                                  | QSFP-H40G-ACU7M   |                                   |                            |
|                         |                                  | QSFP-H40G-ACU10M  |                                   |                            |
|                         |                                  | QSFP-H40G-CU5M    |                                   |                            |
|                         |                                  | QSFP-H40G-CU3M    |                                   |                            |
|                         |                                  | QSFP-H40G-CU1M    |                                   |                            |
|                         |                                  | FET-40G           |                                   |                            |
|                         | N6K-C6001-64P                    | QSFP-40GE-LR4     | —                                 | NX-OS 6.0(2)N1(2)          |
|                         |                                  | QSFP-40G-SR-BD    | —                                 | NX-OS 7.0(0)N1(1)          |
|                         |                                  | CVR-QSFP-SFP10G   | —                                 | NX-OS 6.0(2)N2(1)          |
|                         |                                  | QSFP-40G-SR4      | —                                 | NX-OS 6.0(2)N1(2)          |
|                         | N6K-C6001-64P                    | QSFP-40G-CSR4     |                                   |                            |
|                         |                                  | QSFP-40GE-LR4     |                                   |                            |
|                         |                                  | QSFP-4x10G-AC7M   |                                   |                            |
|                         |                                  | QSFP-4x10G-AC10M  |                                   |                            |
|                         |                                  | QSFP-H40G-ACU7M   |                                   |                            |
|                         |                                  | QSFP-H40G-ACU10M  |                                   |                            |
|                         |                                  | QSFP-H40G-CU1M    |                                   |                            |
|                         |                                  | QSFP-H40G-CU3M    |                                   |                            |
|                         |                                  | QSFP-H40G-CU5M    |                                   |                            |
|                         |                                  | QSFP-4SFP10G-CU1M |                                   |                            |
|                         |                                  | QSFP-4SFP10G-CU3M |                                   |                            |
|                         |                                  | QSFP-4SFP10G-CU5M |                                   |                            |
|                         |                                  | FET-40G           |                                   |                            |
|                         |                                  | QSFP-40G-SR-BD    | —                                 | NX-OS 7.0(0)N1(1)          |

**Table 2 Data Center Switching Minimum Software Release Requirements (continued)**

| Platform                | Switch or Module                     | Transceiver Model                                                           | Minimum Software Release Required |                            |
|-------------------------|--------------------------------------|-----------------------------------------------------------------------------|-----------------------------------|----------------------------|
|                         |                                      |                                                                             | DOM Support                       | Cisco IOS or NX-OS Release |
| Cisco Nexus 7000 Series | N7K-M206FQ-23L                       | QSFP-40G-SR4                                                                | —                                 | NX-OS 6.1(1)               |
|                         |                                      | QSFP-40G-CSR4                                                               | —                                 | NX-OS 6.2(2)               |
|                         |                                      | QSFP-40GE-LR4                                                               | NX-OS 6.1(4)                      | NX-OS 6.1(4)               |
|                         |                                      | QSFP-H40G-ACU7M                                                             |                                   | NX-OS 6.2(2)               |
|                         |                                      | QSFP-H40G-ACU10M                                                            |                                   |                            |
|                         | N7K-M202CF-22L                       | CFP-40G-SR4<br>CFP-40G-LR4                                                  | NX-OS 6.1(2)                      | NX-OS 6.1(2)               |
|                         | N7K-F312FQ-25                        | QSFP-40G-SR-BD<br>QSFP-40G-SR4<br>QSFP-40G-CSR4<br>QSFP-40GE-LR4<br>FET-40G | —                                 | NX-OS 6.2(6)               |
| Cisco Nexus 9000 Series | N77-F324FQ-25                        | QSFP-40G-SR-BD<br>QSFP-40G-SR4<br>QSFP-40G-CSR4<br>QSFP-40GE-LR4            | —                                 | NX-OS 6.2(6)               |
|                         | N9K-C93128TX                         | QSFP-40G-SR-BD                                                              | 6.1(2)I1(1)                       | 6.1(2)I1(1)                |
|                         | N9K-C9396PX                          | QSFP-40G-SR4                                                                |                                   |                            |
|                         | N9K-C93128PX                         | QSFP-40G-CSR4                                                               |                                   |                            |
|                         | N9K-C9396TX                          | QSFP-40GE-LR4                                                               |                                   |                            |
|                         | N9K-X9564PX                          | QSFP-4x10G-AC7M                                                             |                                   |                            |
|                         | N9K-C9336PQ                          | QSFP-4x10G-AC10M                                                            |                                   |                            |
|                         | N9K-X9636PQ                          | QSFP-H40G-CU1M                                                              |                                   |                            |
|                         | N9K-X9736PQ                          | QSFP-H40G-CU3M                                                              |                                   |                            |
|                         | N9K-X9564TX                          | QSFP-H40G-CU5M                                                              |                                   |                            |
|                         |                                      | QSFP-H40G-ACU7M                                                             |                                   |                            |
| Catalyst 6500 Series    |                                      | QSFP-H40G-ACU10M                                                            |                                   |                            |
|                         | WS-X6904-40G-2T<br>WS-X6904-40G-2TXL | CFP-40G-SR4<br>CFP-40G-LR4<br>CVR-CFP-4SFP10G                               | 15.0(1)SY1                        | 15.0(1)SY1                 |

Table 3 lists the Cisco router platforms that support the 40-Gigabit Ethernet transceiver modules and the minimum software requirements.

**Table 3 Router Support and Minimum Software Release Requirements**

| Platform               | Switch or Module | Transceiver Model | Minimum Software Release Required |                            |
|------------------------|------------------|-------------------|-----------------------------------|----------------------------|
|                        |                  |                   | DOM Support                       | Cisco IOS or NX-OS Release |
| CRS Router             | 4-40GE-LAN/OTN   | CFP-40G-SR4       | XR 4.2.3                          | XR 4.2.3                   |
|                        | 4-40GE-LAN       | CFP-40G-LR4       |                                   |                            |
|                        | 2-40GE-LAN/OTN   | CFP-40G-FR        |                                   |                            |
| ASR 9000 Series Router | A9K-MPA-1X40GE   | QSFP-40G-SR4      | —                                 | XR 4.2.3                   |
|                        | A9K-MPA-2X40GE   | QSFP-40G-LR4      |                                   |                            |
|                        |                  | QSFP-40GE-LR4     |                                   |                            |
|                        |                  | QSFP-40GE-CSR4    | —                                 | XR 4.3.2                   |

## Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see *What's New in Cisco Product Documentation* at: <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

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