



Supported Cards and Pluggables

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Supported Transponder Cards and Pluggables

Table 1: Feature History

Feature Name	Release Information	Feature Description
Pluggable Support	Cisco ONP Release 4.1	QSFP-100G-FR-S= pluggable is supported on the QSFP ports of the 400G-XP LC transponder card with 100GE data rate.
QSFP-100G-ERL-S Pluggable	Cisco ONP Release 5.1	The new QSFP-100G-ERL-S pluggable enables you to design and validate topologies for NCS 2000 R11.1.3 networks. This pluggable is supported on the QSFP ports of the 400G-XP-LC transponder card with 100GE data rate. You can select this pluggable from the Client Interface drop-down list at trail level properties for the 400G-XP-LC transponder card.

Cisco ONP supports the following transponders and pluggables for NCS 2000 networks:

Table 2: Supported Transponder Cards and Pluggables for NCS 2000 Network

Transponder/ Muxponder	Traffic Type	FEC mode	Pluggables Supported	Encryption SSON	Encryption Non-SSON	Trunk Mode
200G-CK-LC + MR-MXP (200G MXP mode)	<ul style="list-style-type: none"> • 100GE • OTU4 	SD-FEC_20	<ul style="list-style-type: none"> • SR-1(CPAK-100G-SR10) • SR-1(CPAK-100G-SR4) • LR-1(CPAK-100G-LR4) • SR-1(CPAK-100G-SR10) • LR-1(CPAK-100G-LR4) 	Yes (only for 100GE)	No	Auto, TRK_200G
200G-CK-LC + MR-MXP (100G TXP mode)	100GE	SD-FEC_20	<ul style="list-style-type: none"> • SR-1(CPAK-100G-SR10) • SR-1(CPAK-100G-SR4) • LR-1(CPAK-100G-LR4) 	Yes	Yes	Auto, TRK_100G
200G-CK-LC + MR-MXP (100G TXP mode)	100GE	SD-EFEC	<ul style="list-style-type: none"> • SR-1(CPAK-100G-SR10) • SR-1(CPAK-100G-SR4) • LR-1(CPAK-100G-LR4) 	Yes	Yes	Auto, TRK_100G
200G-CK-LC + MR-MXP (100G TXP mode)	100GE	SD-FEC	<ul style="list-style-type: none"> • SR-1(CPAK-100G-SR10) • SR-1(CPAK-100G-SR4) • LR-1(CPAK-100G-LR4) 	Yes	Yes	Auto, TRK_100G
200G-CK-LC + MR-MXP (100G MXP mode)	<ul style="list-style-type: none"> • 10GE • 10GE LAN PHY • OC192 • OTU2 	SD-FEC_20	<ul style="list-style-type: none"> • LR-1(ONS-QSFP-4*10G-MLR) • LR-1(QSFP-4*10G-MLR) • SR-1(QSFP-40G-SR4) • SR-1(ONS-SC+10G-SR) • LR-1(ONS-SC+10G-LR) • DWDM(ONS-SC+-10G-C) • DWDM(ONS-SC+-10GEP:xxx) 	Yes	Yes	Auto, TRK_100G

Transponder/ Muxponder	Traffic Type	FEC mode	Pluggables Supported	Encryption SSON	Encryption Non-SSON	Trunk Mode
200G-CK-LC + MR-MXP (100G MXP mode)	<ul style="list-style-type: none"> • 10GE • 10GE LAN PHY • OC192 • OTU2 	SD-EFEC	<ul style="list-style-type: none"> • LR-1(ONS-QSFP-4*10G-MLR) • LR-1(QSFP-4*10G-MLR) • SR-1(QSFP-40G-SR4) • SR-1(ONS-SC+10G-SR) • LR-1(ONS-SC+10G-LR) • DWDM(ONS-SC+-10G-C) • DWDM(ONS-SC+-10GEPxxx) 	Yes	Yes	Auto, TRK_100G
200G-CK-LC + MR-MXP (100G MXP mode)	<ul style="list-style-type: none"> • 10GE LAN PHY • 10GE • OC192 • OTU2 	SD-FEC	<ul style="list-style-type: none"> • LR-1(ONS-QSFP-4*10G-MLR) • LR-1(QSFP-4*10G-MLR) • SR-1(QSFP-40G-SR4) • SR-1(ONS-SC+10G-SR) • LR-1(ONS-SC+10G-LR) • DWDM(ONS-SC+-10G-C) • DWDM(ONS-SC+-10GEPxxx) 	Yes	Yes	Auto, TRK_100G
200G-CK-LC + MR-MXP (100G MXP mode 2*10G 2*40G MODE)	<ul style="list-style-type: none"> • 10GE • 10GE LAN PHY • 40GE 	SD-FEC_20	<ul style="list-style-type: none"> • SR-1(ONS-SC+10G-SR) • LR-1(ONS-SC+10G-LR) • DWDM(ONS-SC+-10G-C) • LR-1(QSFP-40G-LR4) • DWDM(ONS-SC+-10GEPxxx) • SR-1(QSFP-40G-SR4) • SR-1(QSFP-40G-SR-BD) 	Yes	Yes	Auto, TRK_100G
200G - CK-LC + MR - MXP (100G MXP mode 2*10G 2*40G MODE)	<ul style="list-style-type: none"> • 10GE • 40GE 	SD-EFEC	<ul style="list-style-type: none"> • SR-1(ONS-SC+10G-SR) • LR-1(ONS-SC+10G-LR) • DWDM(ONS-SC+-10G-C) • DWDM(ONS-SC+-10GEPxxx) • SR-1(QSFP-40G-SR4) • LR-1(QSFP-40G-LR4) • SR-1(QSFP-40G-SR-BD) 	Yes	Yes	Auto, TRK_100G

Transponder/ Muxponder	Traffic Type	FEC mode	Pluggables Supported	Encryption SSON	Encryption Non-SSON	Trunk Mode
200G - CK-LC + MR -MXP (100G MXP mode 2*10G 2*40G MODE)	<ul style="list-style-type: none"> • 10GE • 40GE 	SD-FEC	<ul style="list-style-type: none"> • SR-1(ONS-SC+10G-SR) • LR-1(ONS-SC+10G-LR) • DWDM(ONS-SC+-10G-C) • DWDM(ONS-SC+-10GEPxxx) • SR-1(QSFP-40G-SR4) • LR-1(QSFP-40G-LR4) • SR-1(QSFP-40G-SR-BD) 	Yes	Yes	Auto, TRK_100G
200G - CK-LC +10x10G -LC	<ul style="list-style-type: none"> • 10GE • OC192 • OTU2 • OTU2e 	SD- FEC_20	<ul style="list-style-type: none"> • SR-1(ONS-SC+-10G-SR) • LR-1(ONS-SC+-10G-LR) • DWDM(ONS-SC+-10G-C) • DWDM(ONS-SC+-10GEPxxx) • ER(ONS-SC+-10G-ER) • ZR (ONS-SC+-10G-ZR) • DWDM(ONS-SC+-10G-xxx) 	Yes for OTU2e	No	Auto, TRK_100G
200G - CK-LC +10x10G -LC	<ul style="list-style-type: none"> • 10GE • OC192 • OTU2 • OTU2e 	SD-EFEC	<ul style="list-style-type: none"> • SR-1(ONS-SC+-10G-SR) • LR-1(ONS-SC+-10G-LR) • DWDM(ONS-SC+-10G-C) • DWDM(ONS-SC+-10GEPxxx) • ER (ONS-SC+-10G-ER) • ZR (ONS-SC+-10G-ZR) • DWDM(ONS-SC+-10G-xxx) 	Yes for OTU2e	No	Auto, TRK_100G
200G-CK-LC + 10x10G -LC	<ul style="list-style-type: none"> • 10GE • OC192 • OTU2 • OTU2e 	SD-FEC	<ul style="list-style-type: none"> • SR-1(ONS-SC+-10G-SR) • LR-1(ONS-SC+-10G-LR) • DWDM(ONS-SC+-10G-C) • DWDM(ONS-SC+-10GEPxxx) • ER(ONS-SC+-10G-ER) • ZR(ONS-SC+-10G-ZR) • DWDM(ONS-SC+-10G-xxx) 	Yes for OTU2e	No	Auto, TRK_100G

Transponder/ Muxponder	Traffic Type	FEC mode	Pluggables Supported	Encryption SSON	Encryption Non-SSON	Trunk Mode
200G - CK-LC + MR-MXP (200G Mxp 100G+10*10G Mode)	<ul style="list-style-type: none"> • 100GE • 10GE • OC192 • OTU2 	SD- FEC_20	<ul style="list-style-type: none"> • SR-1(CPAK-100G-SR10) • SR-1(CPAK-100G-SR4) • LR-1(CPAK-100G-LR4) • SR-1(ONS-SC+-10G-SR) • LR-1(ONS-SC+-10G-LR) • DWDM(ONS-SC+-10G-C) • DWDM(ONS-SC+-10GEPxxx) • ER(ONS-SC+-10G-ER) • ZR(ONS-SC+-10G-ZR) • DWDM(ONS-SC+-10G-xx.x) 	Yes for 100GE and OTU2	No	Auto, TRK_200G
200G-CK-LC + MR-MXP + MR-MXP (200G Mxp 4*40G + 4*10G Mode)	<ul style="list-style-type: none"> • 10GE • 10GE LAN PHY • 40GE 	SD- FEC_20	<ul style="list-style-type: none"> • SR-1(ONS-SC+-10G-SR) • LR-1(ONS-SC+-10G-LR) • DWDM(ONS-SC+-10G-C) • DWDM(ONS-SC+-10GEPxxx) • SR-1(QSFP-40G-SR4) • LR-1(QSFP-40G-LR4) • SR-1(QSFP-40G-SR-BD) 	Yes	Yes	Auto, TRK_200G
200G-CK-LC + 10x10G -LC + MR-MXP	<ul style="list-style-type: none"> • 10GE • OC192 • OTU2 	SD- FEC_20	<ul style="list-style-type: none"> • SR-1(ONS-SC+-10G-SR) • LR-1(ONS-SC+-10G-LR) • DWDM(ONS-SC+-10G-C) • DWDM(ONS-SC+-10GEPxxx) • ER(ONS-SC+-10G-ER) • ZR(ONS-SC+-10G-ZR) • DWDM(ONS-SC+-10G-xx.x) • LR-1(ONS-QSFP4*10G-MLR) • ZR(ONS-SC+-10G-ZR) 	Yes	Yes	Auto, TRK_200G

Transponder/ Muxponder	Traffic Type	FEC mode	Pluggables Supported	Encryption SSON	Encryption Non-SSON	Trunk Mode
200G-CK-LC + MR-MXP + MR-MXP	<ul style="list-style-type: none"> • 10GE • OC192 • OTU2 	SD-FEC_20	<ul style="list-style-type: none"> • SR-1(ONS-SC+-10G-SR) • LR-1(ONS-SC+-10G-LR) • DWDM(ONS-SC+-10G-C) • DWDM(ONS-SC+-10GEPxxx) • ER(ONS-SC+-10G-ER) • ZR(ONS-SC+-10G-ZR) • DWDM(ONS-SC+-10G-xx.x) • LR-1(ONS-QSFP-4*10G-MLR) • ZR(ONS-SC+-10G-ZR) 	Yes	Yes	Auto, TRK_200G
100GS - CK-LC + 10x10G-LC	<ul style="list-style-type: none"> • 10GE • OC192 	EFEC, SD-FEC_20	<ul style="list-style-type: none"> • SR-1(ONS-SC+-10G-SR) • LR-1(ONS-SC+-10G-LR) • DWDM(ONS-SC+-10G-C) • DWDM(ONS-SC+-10GEPxxx) • ER(ONS-SC+-10G-ER) • ZR(ONS-SC+-10G-ZR) • DWDM(ONS-SC+-10G-xx.x) 	No	No	Auto, TRK_100G
100G - LC-C + 10x10G-LC	<ul style="list-style-type: none"> • 10GE • OC192 • Fiber Channel 10G • Fiber Channel 8G • OTU2 • OTU2e 	FEC	<ul style="list-style-type: none"> • SR-1(ONS-SC+-10G-SR) • LR-1(ONS-SC+-10G-LR) • DWDM(ONS-SC+-10G-C) • DWDM(ONS-SC+-10GEPxxx) • ER(ONS-SC+-10G-ER) • ZR(ONS-SC+-10G-ZR) • DWDM(ONS-SC+-10G-xx.x) 	No	No	Auto

Transponder/ Muxponder	Traffic Type	FEC mode	Pluggables Supported	Encryption SSON	Encryption Non-SSON	Trunk Mode
100G - LC-C + 10x10G-LC	<ul style="list-style-type: none"> • 10GE • OC192 • Fiber Channel 10G • Fiber Channel 8G • OTU2 • OTU2e 	EFEC	<ul style="list-style-type: none"> • SR-1(ONS-SC+-10G-SR) • LR-1(ONS-SC+-10G-LR) • DWDM(ONS-SC+-10G-C) • DWDM(ONS-SC+-10GEPxxx) • ER (ONS-SC+-10G-ER) • ZR(ONS-SC+-10G-ZR) • DWDM(ONS-SC+-10G-xx.x) 	No	No	Auto
100G - LC-C + 10x10G-LC	<ul style="list-style-type: none"> • 10GE • OC192 • Fiber Channel 10G • Fiber Channel 8G • OTU2 • OTU2e 	HG-FEC	<ul style="list-style-type: none"> • SR-1(ONS-SC+-10G-SR) • LR-1(ONS-SC+-10G-LR) • DWDM(ONS-SC+-10G-C) • DWDM(ONS-SC+-10GEPxxx) • ER (ONS-SC+-10G-ER) • ZR (ONS-SC+-10G-ZR) • DWDM(ONS-SC+-10G-xx.x) 	No	No	Auto
100G - CK- LC-C + 10x10G-LC	<ul style="list-style-type: none"> • 10GE • 10GE LAN PHY • OC192 • Fiber Channel 10G • Fiber Channel 8G • OTU2 • OTU2e 	FEC	<ul style="list-style-type: none"> • SR-1(ONS-SC+-10G-SR) • LR-1(ONS-SC+-10G-LR) • DWDM(ONS-SC+-10G-C) • DWDM(ONS-SC+-10GEPxxx) • ER(ONS-SC+-10G-ER) • ZR(ONS-SC+-10G-ZR) • DWDM(ONS-SC+-10G-xx.x) 	No	No	Auto

Transponder/ Muxponder	Traffic Type	FEC mode	Pluggables Supported	Encryption SSON	Encryption Non-SSON	Trunk Mode
100G -CK-LC-C + 10x10G-LC	<ul style="list-style-type: none"> • 10GE • 10GE LAN PHY • OC192 • Fiber Channel 10G • Fiber Channel 8G • OTU2 • OTU2e 	EFEC	<ul style="list-style-type: none"> • SR-1(ONS-SC+-10G-SR) • LR-1(ONS-SC+-10G-LR) • DWDM(ONS-SC+-10G-C) • DWDM(ONS-SC+-10GEPxxx) • ER(ONS-SC+-10G-ER) • ZR(ONS-SC+-10G-ZR) • DWDM(ONS-SC+-10G-xxx) 	No	No	Auto
100G - CK-LC-C + 10x10G-LC	<ul style="list-style-type: none"> • 10GE • 10GE LAN PHY • OC192 • Fiber Channel 10G • Fiber Channel 8G • OTU2 • OTU2e 	HG-FEC	<ul style="list-style-type: none"> • SR-1(ONS-SC+-10G-SR) • LR-1(ONS-SC+-10G-LR) • DWDM(ONS-SC+-10G-C) • DWDM(ONS-SC+-10GEPxxx) • ER(ONS-SC+-10G-ER) • ZR(ONS-SC+-10G-ZR) • DWDM(ONS-SC+-10G-xxx) 	No	No	Auto

Transponder/ Muxponder	Traffic Type	FEC mode	Pluggables Supported	Encryption SSON	Encryption Non-SSON	Trunk Mode
400G-XP-LC	<ul style="list-style-type: none"> • 100GE • 10GE LAN PHY • 10GE • 40GE • Fiber Channel 10G • Fiber Channel 16G • Fiber Channel 8G • OC192 /STM64 • OTU2 • OTU2e • OTU4 	SD-FEC_25- NO_DE	<ul style="list-style-type: none"> • SR-1(QSFP-100G-SR4-S) • LR-1(QSFP-100G-LR4-S) • LR-1(QSFP-28-LR4) • SR-1(QSFP-100G-SM-SR) • SR-1(QSFP-40/100G-SRBD) • LR-1(ONS-QSFP-4*10G-MLR) • LR-1(QSFP-4*10G-LR) • SR-1(QSFP-40G-SR4) • ER(ONS-QSFP-4*10G-MER) • LR-1(QSFP-40G-LR4) • SR-1(QSFP-40G-SR-BD) • LR-1(ONS-QC16GFC-LW) • LR-1(ONS-QC16GFC-SW) • LR-1(ONS-QSFP28-LR4) • FR-1 (QSFP-100G-FR-S) (only for 100GE) • ER-1 (QSFP-100G-ERL-S) (only for 100GE) 	Yes	Yes	TRK_100G, TRK_200G

Transponder/ Muxponder	Traffic Type	FEC mode	Pluggables Supported	Encryption SSON	Encryption Non-SSON	Trunk Mode
400G-XP-LC	<ul style="list-style-type: none"> • 100GE • 10GE LAN PHY • 10GE • 40GE • Fiber Channel 10G • Fiber Channel 16G • Fiber Channel 8G • OC192 /STM64 • OTU2 • OTU2e • OTU4 	SD-FEC_15-NO_DE	<ul style="list-style-type: none"> • SR-1(QSFP-100G-SR4-S) • LR-1(QSFP-100G-LR4-S) • LR-1(QSFP-28-LR4) • SR-1(QSFP-100G-SM-SR) • SR-1 (QSFP-40/100G-SRBD) • LR-1(ONS-QSFP-4*10G-MLR) • LR-1(QSFP-4*10G-LR) • SR-1(QSFP-40G-SR4) • ER(ONS-QSFP-4*10G-MER) • LR-1(QSFP-40G-LR4) • SR-1(QSFP-40G-SR-BD) • LR-1(ONS-QC16GFC-LW) • LR-1(ONS-QC16GFC-SW) • LR-1(ONS-QSFP28-LR4) • FR-1 (QSFP-100G-FR-S) (only for 100GE) • LR-1 (QSFP-100G-ERL-S) (only for 100GE) 	Yes	Yes	TRK_100G, TRK_200G
100G-LC-C	<ul style="list-style-type: none"> • 100GE • OTU4 	FEC	SR-1(CPAK-100G-SR10)	No	No	Auto
100G-LC-C	<ul style="list-style-type: none"> • 100GE • OTU4 	EFEC	SR-1(CPAK-100G-SR10)	No	No	Auto
100G-LC-C	<ul style="list-style-type: none"> • 100GE • OTU4 	HGFEC	SR-1(CPAK-100G-SR10)	No	No	Auto
100G - CK-LC-C	<ul style="list-style-type: none"> • 100GE • 40GE • OTU4 	FEC	<ul style="list-style-type: none"> • SR-1(CPAK-100G-SR4) • SR-1(CPAK-100G-SR10) • LR-1(CPAK-100G-LR4) 	No	No	Auto

Transponder/ Muxponder	Traffic Type	FEC mode	Pluggables Supported	Encryption SSON	Encryption Non-SSON	Trunk Mode
100G - CK-LC-C	<ul style="list-style-type: none"> • 100GE • 40GE • OTU4 	EFEC	<ul style="list-style-type: none"> • SR-1(CPAK-100G-SR4) • SR-1(CPAK-100G-SR10) • LR-1(CPAK-100G-LR4) 	No	No	Auto
100G - CK-LC-C	<ul style="list-style-type: none"> • 100GE • 40GE • OTU4 	HGFEC	<ul style="list-style-type: none"> • SR-1(CPAK-100G-SR4) • SR-1(CPAK-100G-SR10) • LR-1(CPAK-100G-LR4) 	No	No	Auto
100GS - CK-LC	100GE	FEC	SR-1(CPAK-100G-SR10)	Yes	No	Auto, TRK_100G
100GS - CK-LC	100GE	EFEC	LR-1(CPAK-100G-LR4)	Yes	No	Auto, TRK_100G
100GS - CK-LC	100GE	SD-FEC_20	SR-1(CPAK-100G-SR10)	Yes	No	Auto, TRK_100G
200G - CK-LC (100G Mode only)	<ul style="list-style-type: none"> • 100GE • OTU4 	FEC	<ul style="list-style-type: none"> • SR-1(CPAK-100G-SR4) • SR-1(CPAK-100G-SR10) • LR-1(CPAK-100G-LR4) 	Yes (for 100GE)	No	Auto, TRK_100G
200G - CK-LC (100G Mode only)	<ul style="list-style-type: none"> • 100GE • OTU4 	EFEC	<ul style="list-style-type: none"> • SR-1(CPAK-100G-SR4) • SR-1(CPAK-100G-SR10) • LR-1(CPAK-100G-LR4) 	Yes (for 100GE)	No	Auto, TRK_100G
200G-CK-LC (100G Mode only)	<ul style="list-style-type: none"> • 100GE • OTU4 	SD-FEC_20	<ul style="list-style-type: none"> • SR-1(CPAK-100G-SR4) • SR-1(CPAK-100G-SR10) • LR-1(CPAK-100G-LR4) 	Yes (for 100GE)	No	Auto, TRK_100G

Cisco ONP supports the following transponders and pluggables for NCS 2000 networks:

Table 3: Supported Transponder Cards and Pluggables for NCS 1010 Network

Transponder / Muxponder	Traffic Type	FEC mode	Pluggables Supported	Encryption	Trunk Mode
NCS1K14-24T-K9	100GE 400GE	SD_FEC_15	Client Pluggables: <ul style="list-style-type: none"> • Auto • QDD-400G-FR4-S • QDD-400-AOC1M • QDD-400G-DR4-S • QDD-4x100G-LR-S Trunk Pluggables: <ul style="list-style-type: none"> • Auto • CIM-C-K9 	No	<ul style="list-style-type: none"> • Auto • 400G • 500G • 600G • 700G • 800G • 900G • 1000G • 1100G • 1200G
NCS1K14-24T-x-K9	100GE 400GE	SD_FEC_15	Client Pluggables: <ul style="list-style-type: none"> • Auto • QDD-400G-FR4-S • QDD-400-AOC1M • QDD-400G-DR4-S • QDD-400G-LR4-S • QDD-4x100G-LR-S • QDD-4x100G-FR-S Trunk Pluggables: <ul style="list-style-type: none"> • Auto • CIM-C-K9 	Yes	<ul style="list-style-type: none"> • Auto • 400G • 500G • 600G • 700G • 800G • 900G • 1000G • 1100G • 1200G

Transponder / Muxponder	Traffic Type	FEC mode	Pluggables Supported	Encryption	Trunk Mode
NCS1K4-QXP-K9	100GE 400GE	OFEC CFEC	Client Pluggables: <ul style="list-style-type: none"> • Auto • QDD-400G-FR4-S • QDD-400-AOC1M • QDD-400G-DR4-S • QDD-4x100G-LR-S • QSFP-100G-DR-S • QSFP-100G-LR4-S • QSFP-100G-LR-S • ONS-QSFP-28-LR4 • QSFP-100G-CWDM4S • QSFP-100G-FR-S • QSFP-100G-SR4-S Trunk Pluggables: <ul style="list-style-type: none"> • Auto • QDD-400G-ZRP-S • QDD-400G-ZR-S 	Yes	<ul style="list-style-type: none"> • Auto • 100G • 200G • 300G • 400G

