



**Cisco Network Convergence System Routers
NCS 4201-02 Series
Optics Matrix**

December 2023

Cisco Systems, Inc.

www.cisco.com

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco website at www.cisco.com/go/offices.

Text Part Number: NA

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: www.cisco.com/go/trademarks. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

© 2023 Cisco Systems, Inc. All rights reserved.



Legend:
 NA: Not Applicable
 NS: Not Supported

PartNumber	Description	NCS 4201 and NCS 4202 Series Routers			
		NCS4202-SA	NCS4201-SA	NCS4200-3GMS	NCS4200-1T8LR-PS (8x1G SFP + 1x10G SFP+)
Fast Ethernet SFPS					
GLC-FE-100LX	100BASE-LX SFP for FE port	3.13	3.14	NA	3.13
GLC-FE-100BX-D	100BASE-BX10-D SFP	3.13	3.14	NA	3.13
GLC-FE-100BX-U	100BASE-BX10-U SFP	3.13	3.14	NA	3.13
GLC-FE-100EX	100BASE-EX SFP (40km)	3.13	3.14	NA	3.13
GLC-FE-100ZX	100BASE-ZX SFP (80km)	3.13	3.14	NA	3.13
GLC-FE-100FX	100BASE-FX SFP for FE port	3.13	3.14	NA	3.13
GLC-FE-100LX-RGD=	100BASE-LX SM Rugged SFP	3.13	3.14	NA	3.13
GLC-FE-100FX-RGD=	100BASE-FX MM Rugged SFP	3.13	3.14	NA	3.13

PartNumber	Description	NCS 4201 and NCS 4202 Series Routers			
		NCS4202-SA	NCS4201-SA	NCS4200-3GMS	NCS4200-1T8LR-PS (8x1G SFP + 1x10G SFP+)
ONS-SE-100-BX10D=	SFP-10/100 BX-D, EXT	16.5.1	16.5.1	NA	16.5.1
ONS-SE-100-BX10U=	SFP-10/100 BX-U, EXT	16.5.1	16.5.1	NA	16.5.1
ONS-SE-100-LX10=		NS	NS	NA	NS
ONS-SE-GE-BXD=		NS	NS	NA	NS
ONS-SE-GE-BXU=		NS	NS	NA	NS
GigabitEthernet SFPs					
GLC-SX-MM-RGD	1000Mbps Multi-Mode Rugged SFP	3.13	3.14	NA	3.13
GLC-LX-SM-RGD	1000Mbps Single Mode Rugged SFP	3.13	3.14	NA	3.13
GLC-ZX-SM-RGD	1000BASE-ZX Single Mode RuggedSFP	3.13	3.14	NA	3.13
GLC-BX-D=	1000BASE-BX SFP, 1490nm	3.13	3.14	NA	3.13
GLC-BX-U=	1000BASE-BX SFP, 1310nm	3.13	3.14	NA	3.13
GLC-EX-SMD	GE SFP, LC Connector, EX transceiver	3.13	3.14	NA	3.13

PartNumber	Description	NCS 4201 and NCS 4202 Series Routers			
		NCS4202-SA	NCS4201-SA	NCS4200-3GMS	NCS4200-1T8LR-PS (8x1G SFP + 1x10G SFP+)
GLC-SX-MMD	1000BASE-SX SFP transceiver module, MMF, 850nm, DOM	3.13	3.14	NA	3.13
GLC-LH-SMD	1000BASE-LX/LH SFP transceiver module, MMF/SMF, 1310nm, DOM	3.13	3.14	NA	3.13
GLC-ZX-SMD	1000BASE-ZX SFP transceiver module, SMF, 1550nm, DOM	3.13	3.14	NA	3.13
GLC-LH-SM	GE SFP, LC connector LX/LH transceiver	NS	NS	NA	NS
GLC-SX-MM	GE SFP, LC connector SX transceiver	NS	NS	NA	NS
GLC-ZX-SM	1000BASE-ZX SFP	NS	NS	NA	NS
GLC-T=	1000BASE-T SFP	NS	NS	NA	NS
GLC-TE	1000BASE-T SFP	3.18SP.1	3.18SP.1	NA	3.18SP.1
SFP-GE-T	1000BASE-T SFP (NEBS 3 ESD)	3.13	3.14	NA	3.13
SFP-GE-L	1000BASE-LX/LH SFP (DOM)	3.13	3.14	NA	3.13

PartNumber	Description	NCS 4201 and NCS 4202 Series Routers			
		NCS4202-SA	NCS4201-SA	NCS4200-3GMS	NCS4200-1T8LR-PS (8x1G SFP + 1x10G SFP+)
SFP-GE-S	1000BASE-SX SFP (DOM)	3.13	3.14	NA	3.13
SFP-GE-Z	1000BASE-ZX Gigabit Ethernet SFP (DOM)	3.13	3.14	NA	3.13
SFP-LX-SM		NS	NS	NA	NS
SFP-SX-MM		NS	NS	NA	NS
GLC-BX40-U-I		3.14	3.14	NA	3.14
GLC-BX40-D-I		3.14	3.14	NA	3.14
GLC-BX40-DA-I		3.14	3.14	NA	3.14
GLC-BX80-U-I		3.14	3.14	NA	3.14
GLC-BX80-D-I		3.14	3.14	NA	3.14
GLC-GE-DR-LX		3.18	3.18	NA	3.18
ONS-SC-GE-LX=		3.18	3.18	NA	3.18
ONS-SE-ZE-EL=		3.17	3.17	NA	3.17
ONS-SC-GE-BXD	(V01)	3.18	3.18	NA	3.18

PartNumber	Description	NCS 4201 and NCS 4202 Series Routers			
		NCS4202-SA	NCS4201-SA	NCS4200-3GMS	NCS4200-1T8LR-PS (8x1G SFP + 1x10G SFP+)
ONS-SC-GE-BXU	(V01)	3.18	3.18	NA	3.18
ONS-SI-GE-LX		3.17	3.17	NA	3.17
ONS-SI-GE-SX		17.8.1	17.8.1	NA	NS
ONS-SI-GE-EX		17.12.1	17.12.1	NA	NS
ONS-SI-GE-ZX		16.5.1	16.5.1	NA	16.5.1
ONS-SE-Z1=	OC-3 SR-1, OC-12 SR-1, OC-48 IR-1 or GE LX	3.18SP	3.18SP	NA	3.18SP
TN-GLC-BX-U20	Transition 1000Base-BX 1310nm TX/1490nm RX single fiber single mode (LC) with DMI [20 km]	16.12.1	16.12.1	NA	16.12.1
FTLF1318P3BTL	Finisar 1000BASE-LX and 1G Fibre Channel 10km	16.12.1	16.12.1	NA	16.12.1
TXN31115D100000	Intel SFP 1000BASE-SX 4GB Short Wavelength 850nm 500ft LC	16.12.1	16.12.1	NA	16.12.1

PartNumber	Description	NCS 4201 and NCS 4202 Series Routers			
		NCS4202-SA	NCS4201-SA	NCS4200-3GMS	NCS4200-1T8LR-PS (8x1G SFP + 1x10G SFP+)
FTRJ1319P1/BTL-J2	Juniper Finisar Industrial Temperature 2 Gigabit Long-Wavelength Pluggable SFP Transceiver	16.12.1	16.12.1	NA	16.12.1
GLC-BX-D-I	1000BASE BX10-D	17.3.1	17.3.1	NA	17.3.1
GLC-BX-U-I	1000BASE BX10-U	17.3.1	17.3.1	NA	17.3.1
1G Bi-di Optics (2x1G)					
ONS-SC-2GE-BX-D				NA	
GLC-2BX-D-I				NA	
GLC-2BX-D				NA	
100Mbps					
ONS-SI-100-LX10=					
ONS-SE-100-BX10D=					
ONS-SE-100-BX10U=					
ONS-SI-100-FX=					
GigabitEthernet Colored Plugables					
CWDM-SFP-xxxx=	CWDM "xxxx" NM SFP Gigabit Ethernet and 1G/2G FC	3.13	3.14	NA	3.13

PartNumber	Description	NCS 4201 and NCS 4202 Series Routers			
		NCS4202-SA	NCS4201-SA	NCS4200-3GMS	NCS4200-1T8LR-PS (8x1G SFP + 1x10G SFP+)
DWDM-SFP-xxxx=	DWDM SFP xxxx.xx nm SFP (100 GHz ITU grid)	3.13	3.14	NA	3.13
ONS-SE-2G-xxxx	(xxxx = CWDM lambda)	NS	NS	NA	NS
ONS-SC-2G-xx.y		NS	NS	NA	NS
TenGigabitEthernet XFPs					
XFP-10G-MM-SR=	10GBASE-SR XFP Module	NA	NA	NA	NA
XFP-10GER-OC192IR=	10GBASE-ER and OC192 IR XFP Module	NA	NA	NA	NA
XFP-10GLR-OC192SR=	Multirate XFP module for 10GBASE-LR and OC192 SR-1	NA	NA	NA	NA
XFP-10GZR-OC192LR=	10GBASE-ZR and OC192 LR2 XFP Module	NA	NA	NA	NA
XFP-10GER-OC192IR-RGD=	10GBASE-ER and OC192 IR XFP Rugged Module	NA	NA	NA	NA
XFP-10GLR-OC192SR-RGD=	Multirate XFP rugged module for 10GBASE-LR and OC192 SR-1	NA	NA	NA	NA
XFP-10GZR-OC192LR-RGD=	10GBASE-ZR and OC192 LR2 XFP Rugged Module	NA	NA	NA	NA

PartNumber	Description	NCS 4201 and NCS 4202 Series Routers			
		NCS4202-SA	NCS4201-SA	NCS4200-3GMS	NCS4200-1T8LR-PS (8x1G SFP + 1x10G SFP+)
XFP10GER-192IR-L	Low Power multirate XFP supporting 10GBASE-ER and OC-192 IR	NA	NA	NA	NA
XFP10GLR-192SR-L	Low Power multirate XFP supporting 10GBASE-LR and OC-192 SR	NA	NA	NA	NA
Colored TenGigabitEthernet Pluggables					
DWDM-XFP-C	10G MultiRate C Band Tunable DWDM XFP	NA	NA	NA	NA
DWDM-XFP-xxxx	DWDM XFP xxxx.xx nm XFP (100 GHz ITU grid)	NA	NA	NA	NA
ONS-XC-10G-Epxx.x	10G MR, XFP, DWDM, Edge Performance xxxx.xx, 100 GHz, LC	NA	NA	NA	NA
ONS-XC-10G-xxxx=	OC192/10GE/OTU2, CWDM, xxxxmn, XFP C-Temp, 40km range	NA	NA	NA	NA
DWDM-SFP10G-xx.xx	DWDM SFP+	3.13	3.14	NA	3.13
CWDM-SFP10G-xxxx	8 wavelengths CWDM optics SFP+	3.14	3.14	NA	3.14
DWDM-SFP10G-C	DWDM SFP+	3.18	3.18	NA	3.18

PartNumber	Description	NCS 4201 and NCS 4202 Series Routers			
		NCS4202-SA	NCS4201-SA	NCS4200-3GMS	NCS4200-1T8LR-PS (8x1G SFP + 1x10G SFP+)
DWDM-SFP10G-C-S	DWDM SFP+	NS	NS	NA	NS
ONS-SC+-10G-C=	SFP+ -10G MR, Full C Band Tuneable DWDM SFP+, 50 Ghz, LC	16.6.1	16.6.1	NA	16.6.1
ONS-SC+-10GEPXX.X=	10G MR, SFP+, DWDM, Edge Performance xxxx.xx, 100 GHz, LC	3.18SP	3.18SP	NA	3.18SP
ONS-SC+-10G-xx.x=	(xx.x = DWDM lambda)	3.18	3.18	NA	3.18
TenGigabitEthernet SFP+					
SFP-10G-SR		3.13	3.14	NA	3.13
SFP-10G-LR		3.13	3.14	NA	3.13
SFP-10G-LRM		3.14	3.14	NA	NA
SFP-H10GB-CU1M		3.14	3.14	NA	NA
SFP-H10GB-CU1.5M		NA	NA	NA	NA
SFP-H10GB-CU2M		NA	NA	NA	NA
SFP-H10GB-CU2.5M		NA	NA	NA	NA
SFP-H10GB-CU3M		3.14	3.14	NA	NA
SFP-H10GB-CU5M		3.14	3.14	NA	NA

PartNumber	Description	NCS 4201 and NCS 4202 Series Routers			
		NCS4202-SA	NCS4201-SA	NCS4200-3GMS	NCS4200-1T8LR-PS (8x1G SFP + 1x10G SFP+)
SFP-H10GB-CU7M		3.14	3.14	NA	NA
SFP-10G-ER		3.13	3.14	NA	3.13
SFP-10G-ZR		3.13	3.14	NA	3.13
SFP-10G-SR-X	Extended temp version of SR SFP+	3.13	3.14	NA	3.13
SFP-10G-LR-X	Extended temp version of LR SFP+	3.13	3.14	NA	3.13
SFP-10G-BXD-I	10G BX 10Km SFP+	3.14	3.14	NA	3.14
SFP-10G-BXU-I	10G BX 10Km SFP+	3.14	3.14	NA	3.14
SFP-10G-BX40D-I	10G BX 40Km SFP+	3.14	3.14	NA	3.14
SFP-10G-BX40U-I	10G BX 40Km SFP+	3.14	3.14	NA	3.14
SFP-10G-SR-S		3.17	3.17	NA	3.17
SFP-10G-LR-S		3.17	3.17	NA	3.17
SFP-10G-ER-S		3.17	3.17	NA	3.17
SFP-10G-ZR-S		3.17	3.17	NA	3.17
ONS-SC+-10G-SR=		16.5.1	16.5.1	NA	16.5.1

PartNumber	Description	NCS 4201 and NCS 4202 Series Routers			
		NCS4202-SA	NCS4201-SA	NCS4200-3GMS	NCS4200-1T8LR-PS (8x1G SFP + 1x10G SFP+)
ONS-SC+-10G-LR=		3.18SP	3.18SP	NA	3.18SP
ONS-SC+-10G-ER=		3.18SP	3.18SP	NA	3.18SP
ONS-SC+-10G-ZR=		16.5.1	16.5.1	NA	16.5.1
10GSFP+E-LR	Champion Long haul 10GBase-LR SFP+, 1310nm, 10km rated	16.12.1	16.12.1	NA	16.12.1
FTLX1672D3BCL	Finisar 10Gb/s, 40km Single Mode, Multi-Rate SFP+ Transceiver	16.12.1	16.12.1	NA	16.12.1
ONS-SI+-10G-SR	Accelink	17.1.1	17.1.1	NA	17.1.1
ONS-SI+-10G-LR	Accelink	17.1.1	17.1.1	NA	17.1.1
ONS-SI+-10G-ER	Finisar	17.1.1	17.1.1	NA	17.1.1
ONS-SI+-10G-ZR	Finisar	17.1.1	17.1.1	NA	17.1.1
ONS-SC+-10G-SR					
ONS-SC+-10G-LR					
ONS-SC+-10G-ZR					
ONS-SC+-10G-ER					
SFP-10G-ZR-S		17.7.1	17.7.1	NA	NA
SFP-10G-LR10-I		17.7.1	17.7.1	NA	NA
SFP-10G-ER-I		17.7.1	17.7.1	NA	NA

WAN SFPs

PartNumber	Description	NCS 4201 and NCS 4202 Series Routers			
		NCS4202-SA	NCS4201-SA	NCS4200-3GMS	NCS4200-1T8LR-PS (8x1G SFP + 1x10G SFP+)
ONS-SI-155-SR-MM		NA	NA	16.7.1	NA
ONS-SI-155-I1		NA	NA	16.7.1	NA
ONS-SI-155-L1		NA	NA	16.7.1	NA
ONS-SI-155-L2		NA	NA	16.7.1	NA
ONS-SC-155-EL		NA	NA	16.7.1	NA
ONS-SI-622-SR-MM		NA	NA	16.7.1	NA
ONS-SI-622-I1		NA	NA	16.7.1	NA
ONS-SI-622-L1		NA	NA	16.7.1	NA
ONS-SI-622-L2		NA	NA	16.7.1	NA
ONS-SI-2G-S1	OC48 SR / STM16 I.1			16.7.1	
ONS-SI-2G-I1	OC48 IR1 / STM-S-16.1			16.7.1	
ONS-SI-2G-L1	OC48 LR1 / STM-L-16.1			16.7.1	
ONS-SI-2G-L2	OC48 LR2 / STM-L-16.2			16.7.1	
ONS-SC-155-TSOP	TSoP STM-1/OC3 Optics	3.17	3.17	NA	NA
ONS-SC-622-TSOP	TSoP STM-4/OC12 Optics	3.18	3.18	NA	3.18
ONS-SI-OC-VCOP	VCoP STM-1/STM-4 (oc3/oc12) Optics	16.5.1	16.5.1	NA	NA
ONS-SI-PDH-VCOP	VCoP DS3 Optics	16.5.1	16.5.1	NA	NA

PartNumber	Description	NCS 4201 and NCS 4202 Series Routers			
		NCS4202-SA	NCS4201-SA	NCS4200-3GMS	NCS4200-1T8LR-PS (8x1G SFP + 1x10G SFP+)
MIRICI-E3/T3	E3/T3 SFP	NA	NA	NA	NA
ONS-SI-DS1-TPOP=	T1 TPoP	16.12.1	16.12.1	NA	NA
SFP-T1F-SATOP-I	TPoP T1-FRAMED	17.6.1	17.6.1		
SFP-E1F-SATOP-I	TPoP E1-FRAMED	17.6.1	17.6.1		
SFP-TS-OC3STM1-I	TSOP SFP	17.13.1		17.13.1	17.13.1
SFP-TS-OC12STM4-I	TSOP SFP	17.13.1		17.13.1	17.13.1
40G QSFPs					
QSFP-40GE-LR4				NA	
QSFP-40G-LR4				NA	
QSFP-40G-SR4				NA	
QSFP-40G-ER4				NA	
QSFP-40G-LR4-S				NA	
QSFP-40G-SR4-S				NA	

Notes

TSOP Optics supported only on 1GigabitEthernet SFP ports of the Cisco ASR-920-12SZ-IM and Cisco ASR-920-24SZ-IM

CPAK-100G-SR4 optics support is for version V01 only

GLC-TE on ASR-920-12SZ is supported only with 1000M speed

PartNumber	Description	NCS 4201 and NCS 4202 Series Routers			
		NCS4202-SA	NCS4201-SA	NCS4200-3GMS	NCS4200-1T8LR-PS (8x1G SFP + 1x10G SFP+)

The Cisco ASR-920-12CZ-A/D supports a maximum of 4 VCoP Smart SFPs on Gig ports (Port number 0,1,10,11) with max ambient temperature of 65°C (OR)

Supports a maximum of 14 VCoP Smart SFPs on all 12 Gig + 2 10GE dual rate ports with max temp of 55°C.

The Cisco ASR-920-12SZ-IM router supports a maximum of 8 VCoP smart SFPs and on all GE and 10GE ports.

The Cisco ASR-920-24SZ-IM, ASR-920-24SZ-M routers support a maximum of 12 VCoP smart SFPs and only on GE ports of the top row

VCoP DS3 Optics is not supported on the Cisco ASR-920-10SZ

QSFP-100G-ER4L-S FEC supports from RLS 17.4.1