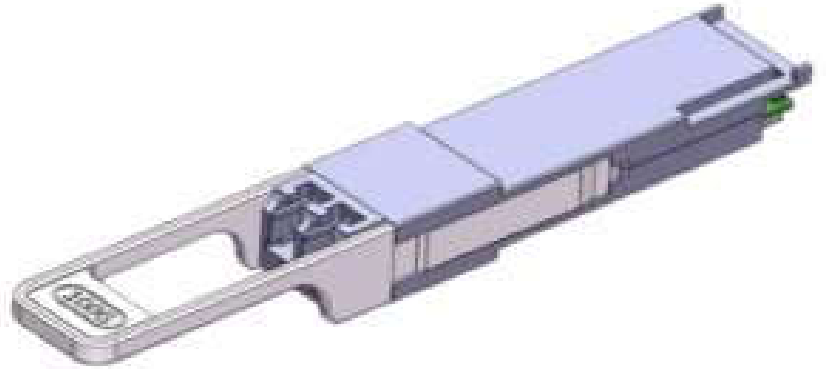


SNR-QSFP+Cxx-10

Single λ 40G PAM4 QSFP+ Transceiver

RoHS Compliant



Features

- Single wavelength 40GE transmission
- Fixed wavelengths on CWDM Grid
- Single 3.3V Power Supply and Power dissipation < 3.5W
- Up to 10km over SMF
- RoHS-6 compliant (lead-free)
- Commercial case temperature range of 0°C to 70°C
- 4x10G XLAUI Interface at host side
- Duplex LC receptacles
- I2C interface with integrated Digital Diagnostic Monitoring
- Safety Certification: TUV/UL/FDA*Note1
- RoHS Compliant

Applications

- CWDM 40GBASE-LR

Ordering Information

Part No.	Data Rate	Fiber	Distance *(note3)	Interface	Temp.	DDMI
SNR-QSFP+Cxx-10	42.5Gbps	SMF	10km	LC	0~+70°C	Yes

Note1: For the latest certification information, please check with NAG.

*The product image is only for reference purpose.

Product Description

SNR-QSFP+Cxx-10 – 40G single λ PAM4 QSFP+ transceiver modules are designed for 40 Gigabit Ethernet links over 10Km single mode fiber. Digital diagnostics functions are available via an I2C interface, as specified by the QSFP+MSA.

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Storage Temperature	Ts	-40	+85	°C
Supply Voltage	Vcc	-0.5	3.6	V
Operating Relative Humidity	RH	5	85	%

*Exceeding any one of these values may destroy the device immediately.

Recommended Operating Conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit
Operating case temperature	Tc	0		70	°C
Power supply voltage	Vcc	3.135	3.3	3.465	V
Power dissipation	P _D		3	3.5	W

Performance Specifications - Electrical

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Transmitter						
Data Rate per Lane	BR _{avg}		10.3125		Gbps	
Data Rate Variation		-100		+100	ppm	
Input Swing (Differential)	V _{in}	250		800	mVpp	AC coupled
Input Impedance (Differential)	Z _{in}	85	100	115	Ohm	
Receiver						
Data Rate per Lane	BR _{avg}		10.3125		Gbps	
Output Swing (Differential)	V _{out}	450			mVpp	AC coupled
Output Impedance (Differential)	Z _{out}	85	100	115	Ohm	
Low Speed Signals						
LPM _{Mode} , Reset, ModSel	V _{IL}	-0.3		0.8	V	
	V _{IH}	2		V _{cc} +0.3		
ModPrs, Int	V _{OL}	0		0.4	V	IOL = 2.0mA
	V _{OH}	V _{cc} -0.5		V _{cc} +0.3		
SCL, SDA	V _{IL}	-0.3		0.3*V _{cc}	V	
	V _{IH}	0.7*V _{cc}		V _{cc} +0.3		
SCL, SDA	V _{OL}	0		0.4	V	IOL _{max} = 3.0mA
	V _{OH}	V _{cc} -0.5		V _{cc} +0.3		

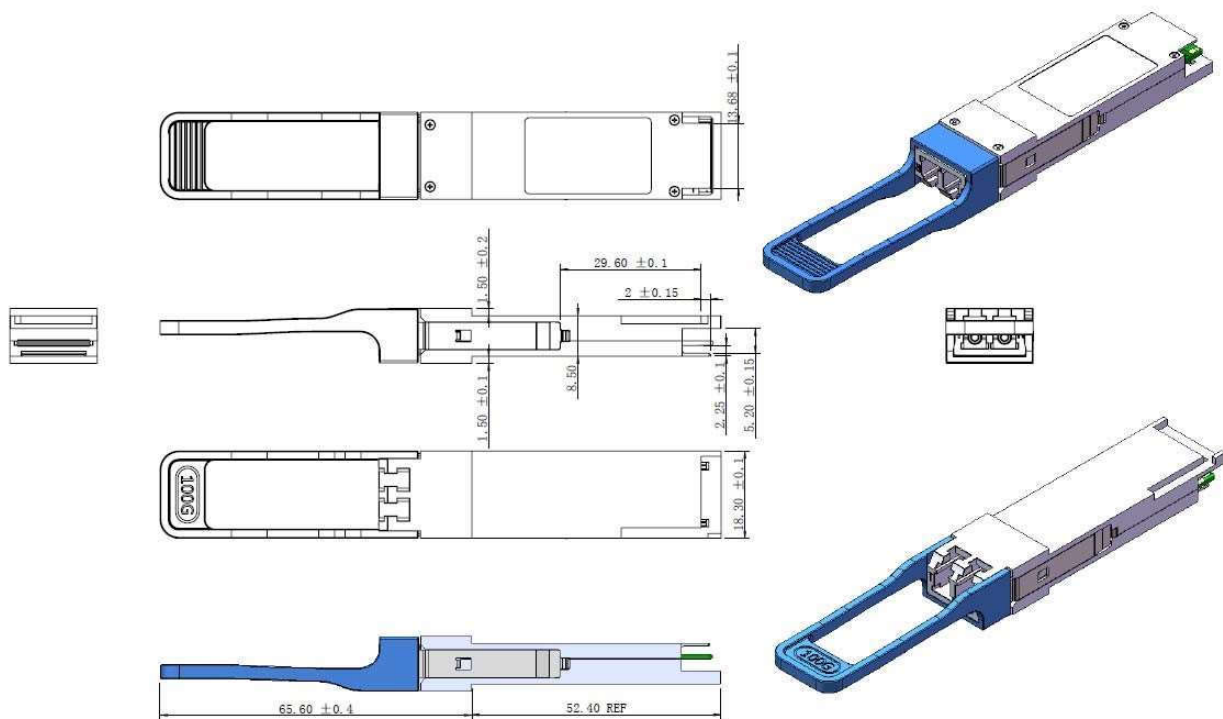
Optical Characteristics

Parameter	Symbol	Min.	Typical	Max.	Unit
Data Rate ⁽¹⁾	BR _{avg}		42.5		Gbps
Transmitter					
Center Wavelength	λ_c		1271 1291 1311 1331		nm
Center Wavelength Stability		$\lambda_c-6.5$		$\lambda_c+6.5$	nm
Average Output Power	P ₀	-1		4	dBm
Optical Output Power, Tx: OFF)	P _{off}			-30	dBm
Receiver					
Operating Wavelength		1260		1570	nm
Receiver Sensitivity (Avg Power) ⁽²⁾	R _{Xsens}		-10		dBm
Receiver Overload (Avg Power)	R _{Xsat}	4			dBm
Optical Return Loss	ORL	-27			dB
LOS Assert	LOSA	TBD			dBm
LOS De-Assert	LOSD			TBD	dBm
LOS Hysteresis		0.5	1.0		dB

Notes :

- (1) With KP4 FEC.
- (2) Rx sensitivity is for pre-FEC BER < 1E-5 without dispersion.

Mechanical Specifications



GUARANTEE:



Contact:

Address: Russian Federation, Ekaterinburg, Predelnaya st. 57/2

Tel: +7(343) 379-98-38

Fax: +7(343) 379-98-38

E-mail: info@nag.ru

Online shop: <http://shop.nag.ru>