



XVGN0C-N3Hx

12G-SDI SFP+ Coaxial Transceiver

Applications

- Video, Camera, and Security Monitoring
- High-density Video Routers

Features

- ST2082, ST2081, ST424, ST292, ST259 Compliant
- Hot-Pluggable SFP+ Footprint Coaxial Video Transceiver with Built-in Reclocker
- HD-BNC Connector Type
- SFP+ MSA compatible
- Speed up to 11.88 Gb/s
- Equalized Belden 1694A cable up to 30 m for 12G-SDI
- Support Video Pathological Patterns for SD-SDI, HD-SDI, 3G-SDI, 6G-SDI, and 12G-SDI
- Single +3.3 V Power Supply
- Temperature and Voltage monitoring
- RoHS 6/6 Compliant
- Operating temperature
 - 0°C to +70°C (Commercial)
 - 40°C to +85°C (Military)

Description

XVGN0C-N3Hx series is a coaxial transceiver module designed to transmit/receive serial digital signals such as defined in ST2082, ST2081, ST424, ST292, and ST259 over 75 ohms coaxial cables via HD-BNC connectors. It supports up to 12 Gbps and is specifically designed to transmit/receive the pathological patterns for 12G-SDI, 6G-SDI, 3G-SDI, HD-SDI, and SD-SDI. It is with the SFP+ 20-pin connector to allow hot plug capacity. Temperature and voltage monitoring functions are available via an I²C.

Absolute Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Units	Notes
Storage Temperature	T _{stg}	-40	85	°C	
Operating Case Temperature	T _{opr}	0	70	°C	XVGN0C-N3HY
		-40	85		XVGN0C-N3HM
Power Supply Voltage	V _{CC}	-0.5	3.6	V	

Recommended Operating Conditions

Parameter	Symbol	Min	Typical	Max	Unit/Notes
Supply Voltage	V_{CC}	3.13	3.3	3.47	V
Operating Case Temperature	T_{opr}	0		70	°C/XVGN0C-N3HY
		-40		85	°C/ XVGN0C-N3HY
Power Supply Current	$ICC_{(TX+RX)}$		320	340	mA
Data Rate		270		11880	Mbps

Electrical Characteristics

Parameter	Symbol	Min	Typ	Max	Units	Notes
Transmitter						
Differential Input Impedance	R_{in}		100		Ω	
Differential Data Input Amplitude		200		1200	mVpp	Internally AC coupled
SDI Output Return Loss	RL_{TX}			-15	dB	@ 0 - 1.5 GHz
				-10	dB	@ 1.5 - 3 GHz
				-7	dB	@ 3 - 6 GHz
				-4	dB	@ 6 - 12 GHz
Receiver						
Differential Output Impedance	R_{out}		100		Ω	
Differential Data Output Amplitude		350			mVpp	Internally AC coupled
SDI Input Return Loss	RL_{RX}			-15	dB	@ 0 - 1.5 GHz
				-10	dB	@ 1.5 - 3 GHz
				-7	dB	@ 3 - 6 GHz
				-4	dB	@ 6 - 12 GHz
Cable Length (Belden 1694A)	L			120	m	@ 3G-SDI
				60	m	@ 6G-SDI
				30	m	@ 12G-SDI
LOS Output Voltage -- High		2.4		V_{cc}	V	
LOS Output Voltage -- Low		GND		0.5	V	

Ordering information

Part number	Product Description
XVGN0C-N3HY	Transceiver, 12 Gbps, HDBNC 75 ohm, 30 m, LC, DDMI, 0°C ~ 70°C
XVGN0C-N3HM	Transceiver, 12 Gbps, HDBNC 75 ohm, 30 m, LC, DDMI, -40°C ~ 85°C

Notes

¹ For accurate order specification please contact XenOpt reseller before placing an order. The content of this document is subject to change without notice.

These modules are available in multiple customized compatible versions. **Please specify any compatibility requirements at time of ordering.** Standard MSA compatible pluggable components may not work or some function of these components may not be available in devices that require customized compatible devices. Pluggable components compatible with one type of communications equipment may not work in other type of communications equipment.

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