

Bidirectional 2SI/SQD Quad Link to 12G SDI Single Link Converter

LYNX | Centraal™

yelloGUI✓

- Support for 12G/6G/3G/1.5G-SDI Video Formats
- 12G-SDI 2SI/SDQ and 6G-SDI Conversion in both directions [Single ► Quad Link / Quad ► Single Link]
- 12G/6G/3G/1.5G Distribution Mode 1►5+1 [BNC ► 5xBNC + 1xSFP* / SFP* ► 5xBNC]
- Automatic Link Loss Reply Options for 2SI/SQD
- Quad Link 12G-SDI to Single Link Fiber*
- Single Link Loopback Output
- 5x BNC and 1x Fiber Output*
- 4x BNC and Fiber Input*
- LynxCentraal & yelloGUI compatible for additional internal settings

*Fiber SFP not included. See Fiber I/O Options table for more information

The CQS 1462 is a compact solution designed to bridge 6G/12G SDI Quad Link 2SI/SQD devices and Single Link 1.5G/3G/6G/12G SDI devices. Conversion modes include:

- **Single Link to Quad Link (2SI)**
[1x12G-SDI ► 4x3G-SDI Level A / 1x6G-SDI ► 4x1.5G-SDI]
- **Single Link to Quad Link (SQD)**
[1x12G-SDI ► 4x3G-SDI Level A / 1x6G-SDI ► 4x1.5G-SDI]
- **Quad Link (2SI) to Single Link**
[4x3G-SDI Level A ► 1x12G-SDI / 4x1.5G-SDI ► 1x6G-SDI]
- **Quad Link (SQD) to Single Link**
[4x3G-SDI Level A ► 1x12G-SDI / 4x1.5G-SDI ► 1x6G-SDI]
- **Auto Quad Link to Single Link**
- **Distribution Amplifier mode (1►5+1)**
[1.5G / 3G / 6G / 12G -SDI]

Operational mode can be selected from the local rotary switch or via the LynxCentraal or yelloGUI control software. The CQS 1462 can also be used as a 1►5+1 distribution amplifier if needed. Link identification is possible through on-screen overlays which can be helpful for connectivity problems or link loss.

The module is suitable for all SMPTE standard signals from 1.5G-SDI to 12G SDI (SMPTE 292M, 424M, 2081 and 2082). For optical inputs and outputs, we offer optional SDI SFPs, in both CWDM and non-CWDM variants.

Fiber I/O Options:

Model	Description	Power	Sense
SDI Fiber Transceiver Options			
OH-TR-12G-LC	SFP Fiber RX/TX - Singlemode, LC Connector, 10km	-5 ... 0.5 dBm	-14 ... -10 dBm
SDI CWDM Fiber Transceiver Options			
OH-TR-12G-XXXX-LC	12G CWDM Fiber RX/TX - Singlemode LC Conn., 40km XXXX=Wavelength. 18 according to ITU T G692.2 (1270 - 1610nm)	-2 ... +3 dBm	-14 ... -10 dBm
OH-TR-8-XXXX-LC	3G CWDM Fiber RX/TX - Singlemode LC Conn., 80km XXXX=Wavelength. 18 according to ITU T G692.2 (1270 - 1610nm)	+1 ... +5 dBm	-26 ... -28 dBm
SDI Fiber Transmitter Options			
OH-TX-12G-LC	12G SFP Fiber TX- Singlemode, LC Connector, 10km	-5 ... 0.5 dBm	
SDI Fiber Receiver Options			
OH-RX-12G-LC	12G SFP Fiber RX- Singlemode, LC Connector, 10km		-16 ... -10 dBm

Other modules available on request

CAUTION: This is a high power module. If mounting the module in the RFR 1200 rack frame please leave an empty slot each side of the module to allow for adequate airflow to prevent the risk of overheating.



Shown with optional fiber SFP installed

Technical Specifications

SDI I/O	1 x dedicated SDI video input on BNC connector
	2 x dedicated SDI video output on BNC connector (1 x Loop/Processed output)
	3 x switchable SDI video in-/outputs on BNC connector
	SMPTE 292M, SMPTE 424M, SMPTE 2081-1, SMPTE 2082-1
	Multi-standard operation from 1.5G to 12G
	720p (23.98/24/25/29.97/30/50/59.94/60 Hz)**
	1080psf (23.98/24/25/29.97/30 Hz)**
	1080i (50/59.94/60 Hz)**
	1080p (23.98**/24**/25**/29.97**/30**/50/59.94/60 Hz)
	2160p (23.98/24/25/29.97/30/50/59.94/60 Hz)
	Electrical Return Loss
	to 1.5GHz >15dB
	to 3GHz >10dB
	to 6GHz >7dB
	to 12GHz >4dB
	Automatic cable EQ*
	1.5Gbit/s 200m
	3Gbit/s 150m
	6Gbit/s 90m
	12Gbit/s 85m
	Belden 1694A Belden 4794R
Fiber I/O	1 x fiber optic input and output (optional, see table)
	SMPTE 297M - 2006
Power	+12VDC @ 13.24W nominal (incl. SFP) - (7-24VDC input range)
Physical	Size (incl. connectors): 140mm x 90mm x 22mm (4.96" x 3.54" x 0.86") Weight (excl. SFP): 200g (7.05oz)
Ambient	5 - 40°C (41 - 104°F) 90% Humidity (non condensing)
Model #	CQS 1462 - (EAN# 4250479327832)
Includes	Module, AC power supply

** Only supported in Distribution Mode

*Distance is an approximation. Actual distances achieved can be longer or shorter depending on the type of cable. Determine link losses and perform optical budget calculations to ensure correct operation.

CQS1462_DS-rev02 Specifications subject to change

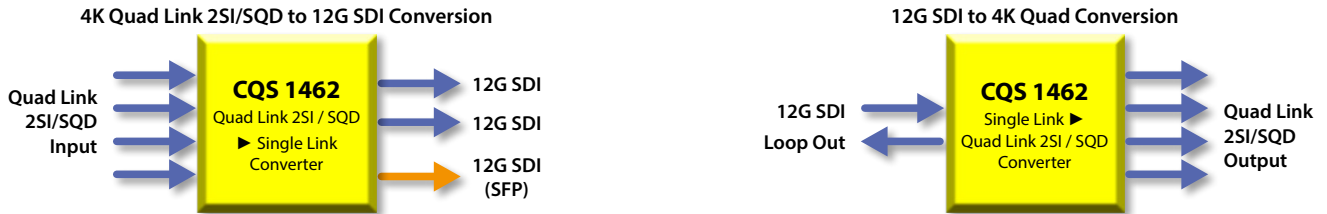


CQS 1462 Applications

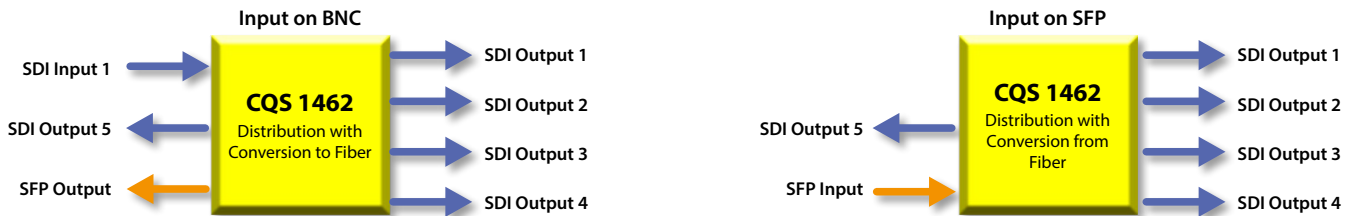
There are multiple applications for the CQS 1462. Aside from the basic conversions to and from Quad Link to Single Link, the optional fiber port opens up a host of additional possibilities.

Basic Applications

You may have a 4K camera (or another source device) which has a Quad Link 2SI/SQD 4K UHD output which you would like to convert to a standard Single Link 12G SDI signal. Likewise, you may have a disk recorder or other device which requires a Quad Link 2SI/SQD input, and you only have a 12G source. These basic "bridge" modes are the most simple and most common applications of the module.



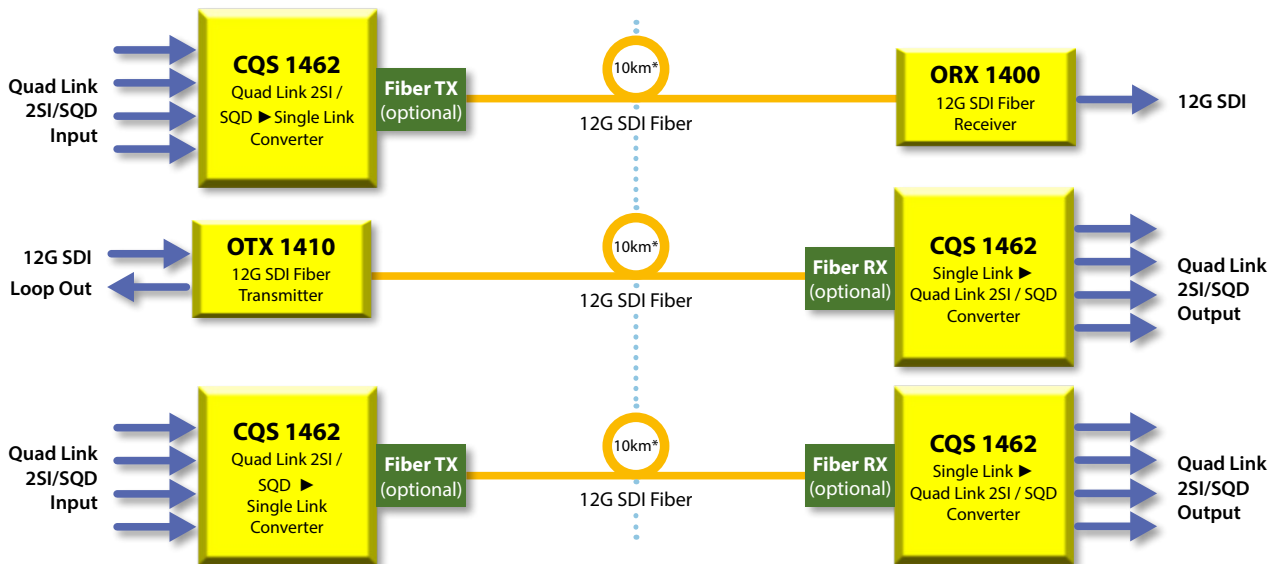
You can also use CQS 1462 for distributing one SDI signal from Input 1 [BNC/SFP] and distribute it to output 1-5 and SFP.



Basic Fiber Applications

Due to the 12G SDI cable length restrictions, using fiber makes a lot of sense. The CQS 1462 is equipped with an integrated SFP port which can accept several fiber options to expand the distance of the 12G SDI signal. Likewise, you can also extend the distance of a native Quad Link 2SI/SQD signal using fiber if needed.

Note: Additional LYNX Technik Fiber conversion modules are shown in some applications



Fiber transceiver options are also available. These include both a transmitter and receiver in a single SFP package. Depending on the application, both SFP ports can be used at the same time. This option is also useful, if the CQS 1462 configuration is frequently changed and fiber transmission is sometimes needed and on other occasions fiber reception.

***Note:** Max distances quoted are only approximations based on nominal fiber links. Actual distances achieved can be shorter or longer than that stated. Many things can impact distance such as splices, connections, patches, splitters and the quality of the fiber. For longer distances you should always calculate the total fiber losses in the fiber link and ensure adequate optical budget.

CQS1462_DS-rev02 Specifications subject to change



CWDM Fiber Applications

12G SDI CWDM fiber options with the CQS 1462 open up a whole host of additional possibilities for remote, complex system designs: Combining multiple signals into a single fiber link, unidirectional and even bi-directional transmission over a Single Link. Quad Link 2SI/SQD and 12G can be combined with ethernet, serial data and even additional SDI signals if needed. There are too many possibilities to show them all, but below are a few which show the versatility of CWDM fiber when used with the CQS 1462.

