

Connections

Labels on the module show the position and type of expected connections. SDI input can connect via BNC connectors or a choice of the following SFPs:



Transceiver (send and receive)

Option #	Wavelength	TX Power	RX Sensitivity	Max Distance*
OH-TR-12G-LC	1310nm (sm)	-5dBm	-10dBm	10km (6.2miles)
OH-TR-12G-XXXX-LC	1270-1590nm (sm)	-2dBm	-10dBm	10km (6.2miles)

Transmitter

Option #	Wavelength	TX Power	Max Distance*
OH-TX-12G LC / ST	1310nm (sm)	-5dBm	10km (6.2miles)
OH-TX-12G-XXXX-LC / ST	1270-1610nm (sm)	-2dBm	10km (6.2miles)

Receiver

Option #	Wavelength	RX Sensitivity
OH-RX-12G LC / ST	1260-1620nm (sm)	-10dBm

Operation

The IDC 1411 module supports automated plug-and-play functionality. In case the default parameters are not suitable for your intended purpose it is possible to change them via the yellow interface of our control software LynxCentraal or yelloGUI. A USB Connection to the module is necessary for this.

Settings

With a USB connection to a LynxCentraal or yelloGUI workstation established you get access to the device settings.

The IDC1411 processes one stereo audio channel which can be freely configured to be sourced either from one of the SDI Inputs embedded stereo channels or from AES Input.

The AES Output will always contain the processed stereo audio channel. Additionally one of the SDI Outputs embedded audio channels can be overwritten by the processed stereo audio channel.

Audio processing is split into three function blocks:

- Audionamix® IDC
- Equalizer
- Compressor

*Distances are an approximation. Real distances may vary.



IDC1411_R01

yellobrik®

Technical Specifications

SDI Video	1 x SDI video input on 75 Ohm BNC connector		
	1 x SDI video output on 75 Ohm BNC connector		
SMPTE ST 2082, SMPTE 424M, SMPTE 292M			
Electrical Return Loss:	1.5 – 3GHz	6 – 12GHz	
	>10dB	>4dB	
Automatic cable EQ	1.5Gbit/s	3Gbit/s	12Gbit/s
	220m*	140m*	80m*
	Belden 1694A		Belden 4794R
Fiber Optic	1 x fiber optic input (LC/PC or ST/PC Connections)		
	1 x fiber optic output (LC/PC or ST/PC Connections)		
SMPTE ST297-1:2015 , ST297-2:2017			
AES	AES3-id on 75 Ohm BNC, 2 channels		
USB	Standard USB Mini B port for yelloGUI/LynxCentraal interface + firmware updates		
Power	+12V DC @ 13W nominal - (power supply included) (supports 7 - 24V DC input range)		

Processing Delay

The timing of the SDI and AES Output will be locked to the SDI Input. Additional delay introduced by the audio processing will be compensated depending on the video refresh-rate resulting in the following input to output delay:

Video Standard	720p		1080i	1080psF	1080p		2160p	
Refresh Rate	30, 29, 25, 24, 23	50, 59, 60	50, 59, 60	25, 29, 30	23, 24, 25, 30	50, 59, 60	50, 59, 60	60
Delay (frames)	2	3	4	2	2	2	3	4

*Distances are an approximation. Real distances may vary.

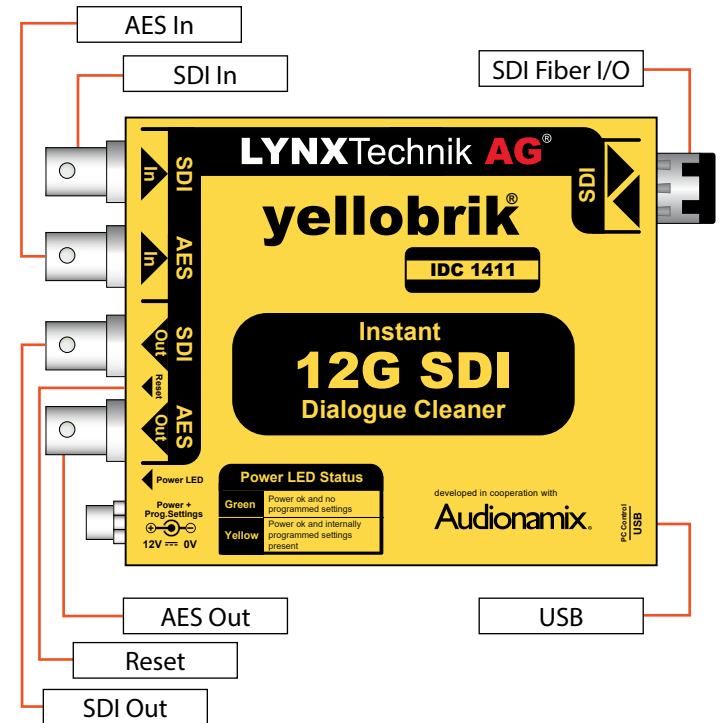
LYNXTechnik AG | www.lynx-technik.com

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Quick Reference

IDC 1411

AI based instant dialogue cleaner, filter and amplifier



WARNING
CLASS 1M LASER PRODUCT



Laser Radiation
Do not look directly into emitter with optical instruments

Audionamix® Instant Dialogue Cleaner

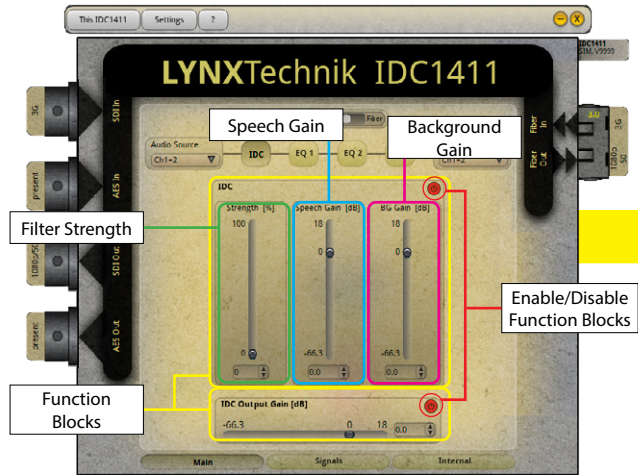
This audio filter is based on the plugin developed by Audionamix® to provide a hardware based solution that works independently of software in realtime with minimal delay.

Powered by a deep neural network that separates and preserves speech in real time you are able apply a gain (-66.3 – +18dB) to speech and background separately. This allows you to remove background interference without compromising integrity of the dialogue.

The Strength parameter allows you to slightly modify what is identified as speech and respectively as noise. Increasing the strength will cause the filter to be more “aggressive”, i.e. it will identify more content as noise.

Dialogue Cleaner can be enabled separately from the other functions like the Equalizers or Compressor.

If your audio signal needs to be increased or reduced after this process, a master gain is available as IDC Output Gain, which can be enabled separately.



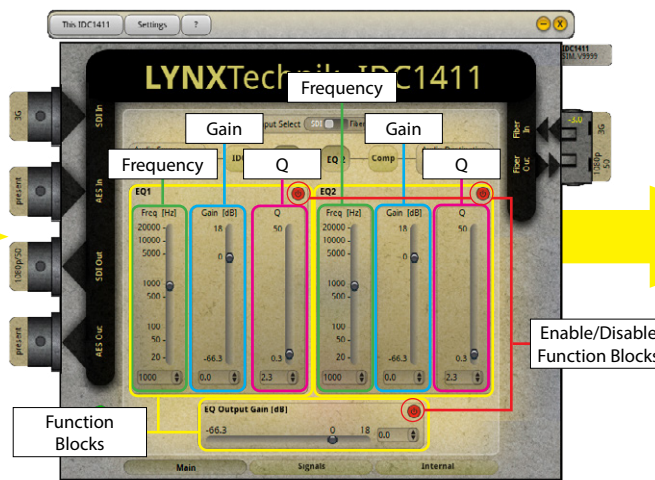
Equalizer Settings

Two fully parametric peak/notch equalizers are provided which are applied in series.

Both Equalizers provide parameters for the center frequency (20Hz – 20kHz), gain (-66.3 – +18dB) and Q (0.3 – 50) which controls the bandwidth.

Equalizers can be enabled separately from the other functions like the Dialogue Cleaner or the Compressor.

If your audio signal needs to be increased or reduced after this process, a master gain is available as EQ Output Gain, which can be enabled separately.

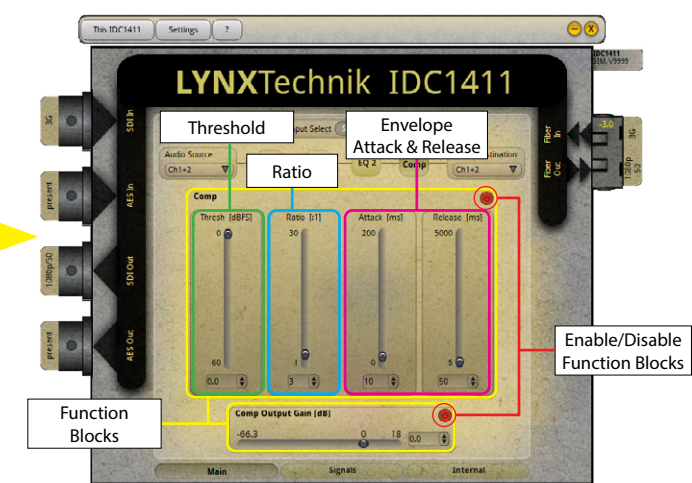


Compressor Settings

A hard-knee, peak-sensing, stereo-linked audio compressor is provided with parameters for Threshold (-60 – 0dBFS), Ratio (1:1 – 30:1), Attack (0 – 200ms) and Release (5 – 5000ms).

Compressor can be enabled separately from the other functions like the Dialogue Cleaner or Equalizers.

If your audio signal needs to be increased or reduced after this process, a master gain is available as Comp Output Gain, which can be enabled separately.



If your settings don't seem to be applied please check if you have enabled the function block.