

# meshLINK – The New Wireless

***With meshLINK, Broadcast Solutions takes high-quality wireless video transmission to the next level: Providing state-of-the-art video encoding, full-duplex IP and Mesh networking as a truly rugged and straightforward system.***

meshLINK represents the latest developments in RF technology on the one hand and breakthroughs in ultra-low latency UHD HEVC encoding on the other, now combined in one product.

This is a true duplex IP-based wireless system allowing a wide range of functions during live broadcasts, like RCP and telemetry integration. Further on, intercom, return video, prompter and other functions can be integrated like in any other IP-based application.

Its basic version can be seen as a Tx/Rx system comparable with any other wireless point-to-point product, with the main difference being that it allows bidirectional IP traffic and complete monitoring of the link.

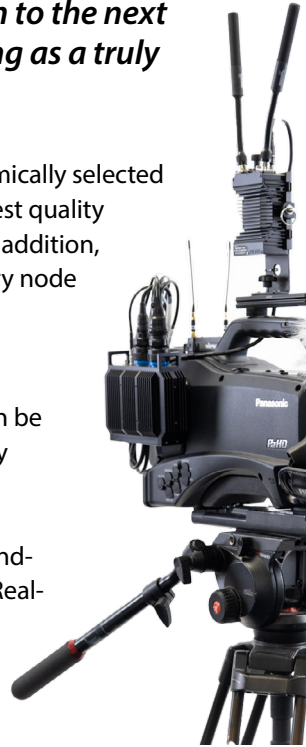
Adding radios (we call them “Nodes”) to the setup creates a Mesh, a single-frequency, highly scalable, self-forming, self-healing wireless network. Placing Nodes “on the fly” allows ad hoc transmissions from virtually ANY position. Here the additional benefits start to become obvious.

Signal routing is automatically and dynamically selected for optimal performance to deliver the best quality without compromising signal stability. In addition, data can be entered and retrieved at every node in the network.

For easy configuration and in-depth monitoring, all devices in the network can be controlled from any selected node via any common web browser.

To ensure the best possible result, a ground-breaking feature is offered as an option: Real-time adaptive video encoding. Video bandwidth (bitrate) is automatically adapted to the Mesh network capabilities, ensuring the best video quality under given circumstances.

In a nutshell: meshLINK offers an array of features and capabilities not seen before.



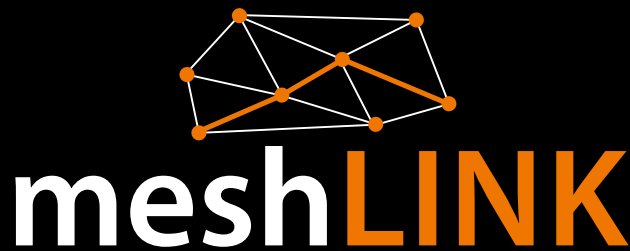
## Features

- Super-low latency (down to 45 ms in HD and 75 ms in 4K)
- Wide choice of frequencies
- Simplified planning: The entire Mesh network occupies only one frequency
- Mesh functionality: A radio is a transmitter, receiver and repeater at the same time
- H.265, 4K, UHD (12G or 2SI)
- 1 to 4 HD encoding channels (4 channels coming soon)
- Modular, flexible and easy setup
- Makes use of existing IP infrastructure to enhance networks
- Rugged, waterproof and passive cooled solid aluminium housing

## Applications

- Live Production
- News Gathering
- Event Coverage





# meshLINK

## General

Latency	Down to 45 ms in HD and 75 ms in 4K
Link capacity	Maximum 100 Mbps

## Encoder MT-102V

High efficiency dual channel encoder in Mil Spec rugged housing with integrated connector protection bars	
Integrated 5 port 10/100 Mbit Ethernet switch	
Dual channel HEVC and H.264	
Encodes and streams 2x HD/SD sources simultaneously, or 1x4K channel	
2 channels with encoding resolutions up to 3840x2160p60 total, frame scaling and frame rate range 1-60, low latency encoding	
1x12G-SDI, 1x3G-SDI and 1x analogue stereo audio input	
UDP TS, RTP TS/ES, RTMP and error correction (Zixi / Pro-MPEG / SRT) protocols	
AES encryption (128/256-bit)	
CVBS	Optional

## RF

MIMO Techniques	Spatial multiplexing, space-time coding, TX/RX Eigen Beamforming
Output power	1 mW - 10 W (up to 20 W effective w/TX Beamforming)
Channel BW	5-10-20 MHz
Available freq bands	400 MHz to 6 GHz (See radio datasheet for details)

## Mechanical

	Encoder	Radio SC4200
Size (h x w x d)	130 x 100 x 48 mm	101 x 67 x 38 mm
Weight	725 g	425 g
IP rating	IP67	IP68
Material	Black or natural anodized aluminium	Black anodized aluminium
Temp range	-40 to +65 °C	-40 to +65 °C

## Power

Power consumption	9 W	5-16 W @ 1 W TX power
		5-24 W @ 4 W TX power
Voltage	9-20V DC, internal DC/DC converter with reverse polarity, overvoltage & undervoltage protection	9-20 V DC
Power options	Fed from ext. battery	Fed from encoder
Status indicator	Green LED	Multicolour LED

## Interfaces

Primary cable	Mil Spec IP68 10 pin connector --> ODU primary cable Silvus (power, ETH, RS232), 30 cm or 2 m
Breakout cable	Mil-Spec IP68 22 pin connector --> 5 x Switchcraft connector (power in, 2 x Ethernet, RS232, audio), 30 cm. Compatible with Silvus SC 4200 / 4400
Video	2x Amphenol HD BNC

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