



Mesh-Link

Private Communications Wireless Video Network

Mesh-Link is a high bandwidth MIMO wireless Mesh IP communications network. Is is ideally suited to industrial and marine operations where a private encrypted communications network is required.

The system can exchange any type of network traffic including video, audio and general IP data between up to 144 nodes. Broadband communications are up to 87Mb/s or 44Mb/s in reduced MIMO mode.

The radios are self forming and self healing, they exchange data on a single frequency, thereby simplifying spectrum management. It offers excellent RF penetration and performance in the presence of reflections and multipath. With line of sight, the range between nodes can exceed 30km.

The system consists of a rugged Out Door Unit, which houses the radio and an In Door Unit. The two are connected via an IP67 rated cat6 cable. The rack-mounted IDU connects to the local LAN and supplies PoE power and a network connection to the ODU.

The DCU connects to the IDU over the LAN and supports a HDMI output so the system's camera feeds can be displayed on a monitor via a HDMI cable.

Monitoring and user control of the system is achieved using the IDU screen and button interface, whilst a web interface supports configuration of the Mesh radio.

Overview
Wireless MIMO Mesh
Private Communication Network
Industrial and Marine Use
Self Forming and Self Healing
No Subscription Costs
Low Latency
MIMO Supports up to 87Mb/s
Reduced MIMO up to 44Mb/s
Configurable Hardware
Configurable Radio
Video, Audio and General IP
HD Video Encoding
Composite Video Encoding
Mains or 24v DC System Power
Encrypted Communications
IP67 Rated Outdoor Unit
Rugged Build



Specifications			
RF Frequency	S-Band, C-Band	Cable Connection	Amphenol Cat6
Max Number of Nodes	144	Camera Interface	BNC
Output power	+37dBm per channel in 0.25dB step (10W total)	Ethernet Connection	RJ45
Bandwidth	1.25, 1.5, 1.75, 2.5, 3.0, 3.5, 5.0, 6.0,7.0, 8.0, 10.0MHz (video and IP Mesh) 12.0, 14.0, 16.0, 20.0MHz (IP Mesh only)	SDI Video Inputs	1080p/25 @ 25 Hz 1080p/25 @ 29.97Hz 720p/25 @ 25 Hz 720p/25 @ 29.97Hz
Max Mesh capacity	87Mb/s Full MIMO 44Mb/s Reduced MIMO	Composite Video Inputs	PAL, NTSC
Modulation	COFDM 360 Carrier Modulation	System Power	24v DC or 240v AC
Range	>30km LOS	ODU Power	PoE
Receive Sensitivity	-98dBm (BW 2.5MHz/QPSK 1/2)	System Configuration	Web Interface
FEC rate	FEC1/2, FEC2/3 (adaptive)	Temperature	-20 to +50°C
IP Video Streaming	RTSP, RTP over TCP or UDP	Environmental	IP67
Video Encoding	H.264 & MJPEG @30fps	Dimensions of ODU with S-Band Antennas	86 x 306 x 938 mm
Encryption	DES or AES128, AES256 (Optional)	Housings	CNC Machined Aluminium

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Product specifications subject to change without notice

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