
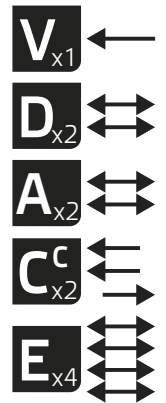


- SD/HD-SDI
- -34...+74 °C
- H.264
- MPEG-4
- MJPEG
- MPEG-2
- 



MPH241 can deliver up to four independent video streams at full frame rate and full SD resolution using H.264, MPEG-2, MPEG-4 or MJPEG, or any combination of these. This allows security professionals to optimise each of the individual streams for its purpose, e.g. live viewing, recording, web applications, PDA etc. It also ensures safe and seamless migration path from any legacy hybrid video network towards fully H.264 based network. As an option the composite video input can be configured to a digital HD-SDI interface.

The video stream can be accompanied with synchronised audio stream. The video streams can be decoded by standards compliant media players and video decoder devices. The stream authenticity is an integral part of the solution fulfilling the most stringent

requirements for evidential material set by authorities.

The built-in EIA RS data channels provide multi-vendor PTZ camera control through Ethernet network. The alarm inputs and output can be used to trigger events and control external devices.

MPH provides direct copper and fibre connectivity to Fast/Gigabit Ethernet networks through a built-in Ethernet switch. The use of SFP plug-in optics makes it suitable for deployment in a wide range of optical networks.

In addition to Command Line Interface (CLI) and comprehensive Web user interface, MPH speaks ONVIF fluently. This provides straight forward interoperability with any ONVIF compliant management system. Integration to third party systems can also be achieved using RTSP, SAP or SNMP.

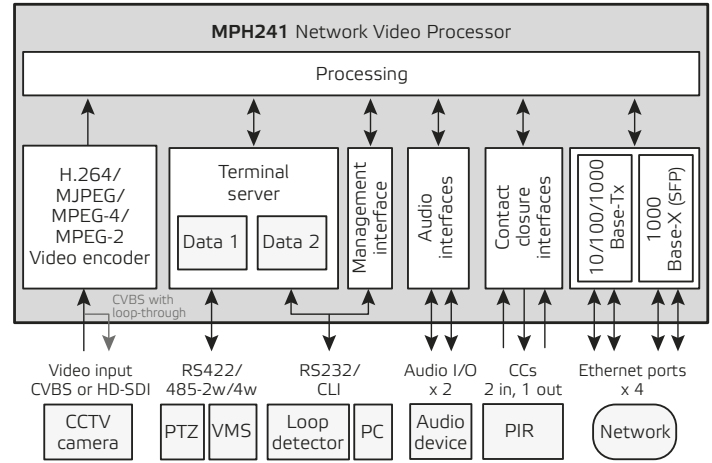
Reliability is the second name of the platform. Low cost of ownership is guaranteed by the industry leading figures in terms of power consumption per functionality as well as the mechanical design which is custom made to fit the high performance criteria in harsh environment. MPH meets the compliance requirements of EN50121 Railway standard as well as NEMA TS2 standard widely used for ITS applications.

MPH is the industry leader in video encoding for surveillance applications. It gives you the touch and feel of traditional analogue systems while providing the flexibility and manageability provided by today's Ethernet networks.

Benefits

- QCIF to HDTV resolution at 25/30 fps
- Simultaneous H.264, MPEG-4, MPEG-2 and MJPEG encoding
- Quad streaming to full D1
- Low video latency
- Optional HD-SDI input up to 720p30, 720p60, 1080p30 and 1080i60
- Support for transparent data tunnelling and ONVIF PTZ service
- Alarm inputs and relay output
- Built-in video analytics
- Built-in Gigabit Ethernet switch
- Video signature for content authentication
- Text overlay and privacy masking
- Industrial design for -34 ...+74°C operating temperature
- Support for ONVIF and SNMP management interface
- Support for WebUI and CLI user interface
- Support for SFP
- Optional support for PoE

Block diagram



Technical specifications (Typical values unless otherwise stated, * = define when ordering, ** = optional, *** = ordered separately)

Video			Ethernet Interfaces		
Number of inputs	1 PAL/NTSC 1 HD-SDI **	With video loop-through HD video	Number of ports	4 full duplex	2 electrical & 2 SFP slot *
Nominal level	1.0 Vpp		Speed	1000 Mbps	
Input impedance	75 ohms		Gigabit Ethernet	10/100/1000BASE-T 1000BASE-X	Electrical SFP ***
Number of encoding profiles	6		Ethernet connector	RJ-45 female LC	Electrical Optical
Number of output streams	4 per profile	Multicast/unicast	Ethernet Protocols		
Encoding ¹⁾	ISO/IEC 14496-10 RFC 2435 ISO/IEC 14496-2 ISO/IEC 13818	H.264 MP, BP MJPEG MPEG-4 SP/ASP ** MPEG-2 MP@ML **	Video/Data Management Generic	RTP, UDP, TCP, IP, SAP, RTSP SNMP **, HTTP, DHCP, SSH, Telnet DHCP, DNS, ZeroConf, ICMP, IGMPv2, ARP, NTP, QoS	
Resolution	½D1, D1, 1080p30**	H.264 MP, MPEG-4 ASP, MPEG-2	SFP Transceivers ***		
	QCIF, CIF, 2CIF, 4CIF, 720p30**	H.264 BP, MJPEG, MPEG-4 SP, MPEG-2	See separate document "Product Specification / SFP Transceivers"		
Frame rate (fps)	1...25 PAL, 1...30 NTSC 25 PAL, 30 NTSC	H.264, MJPEG, MPEG-4 MPEG-2	Management		
Output bit rate (adjustable)	64 kbps...8 Mbps	H.264, MJPEG, MPEG-4, MPEG-2	WebUI	Local via Ethernet port, remote via network	
Latency	< 150 ms		CLI	Via telnet, SSH or local RS232	
Video pre processing	Motion adaptive deinterlace, freely scaled antialiased truetype text overlay, privacy zone masking		SNMP **	Remote via network ²⁾	
Video content analytics (VCA)	Tampering detection, motion detection		ONVIF	Industry standard ONVIF protocol ²⁾	
Video authentication	cryptographic signatures (RSA)		Diagnostics	SNMP ** or ONVIF	
Video connector	BNC female	CVBS & HD video	Software update	Local or remote via CLI, WebUI or ONVIF	
Data			General		
Number of channels	2	Bi-directional	Supply voltage	10.5...28 V DC Power Over Ethernet Plus support (PoE, 802.3at) **	
Data 1 standard	RS422/485	Selectable, with term/bias	Power consumption	13 W	
Data 2 standard	RS232	Fixed	PSU connector	2-pin removable screw terminal	
Bit rate	0.6...230.4 kbps	Standard speeds	Dimensions (H x W x D)	52.5 x 130 x 254 mm (2.1 x 5.1 x 10") Without BNC conn.	
Format	asynchronous	Standard framings	Weight	1.9 kg (4.19 lbs)	
ONVIF PTZ service	Pelco D, Pelco D Extended	PTZ protocols	Mounting options	Wall mounting, DIN rail ***	
Transport	TCP/IP unicast or UDP/IP multicast	Selectable	Operating temperature	-34...+74 °C (-29...+165 °F) Temperature hardened	
Data connector	removable screw terminal		Storage temperature	-40...+80 °C (-40...+176 °F)	
Audio			MTBF	> 100.000 hours HRD5	
Number of channels	2 bi-directional	Unbalanced/balanced	Approvals	CE, FCC	
Nominal level	0.707 V _{rms} 1.414 V _{rms}	Unbalanced Balanced	EMC	EN 50130-4, EN 50121-4, EN 61000-6-3, FCC 47 part 15	
Impedance	10 kohm / 600 ohm 50 ohm / 10 ohm	Input Output	Environmental	IEC/EN 60068 series cold, Dry heat, Vibration, Shock test, Transport bump, Damp heat and Random vibration, NEMA TS 2-2003	
Coding	ITU G.711 ITU G.726 AAC-LC	U-law encoding 16, 24, 32, 40 kbps Mono, stereo	Additional Features and Services ***		
Sampling rate	8, 16, 32, 44.1, 48 kHz		MLH213	Support for HD-SDI input	
Transport	RTP/UDP/IP TS/UDP/IP		MLH251	Support for PoE	
Connector	removable screw terminal		MLH261	Support for local storage (future option)	
Contact Closure			MLH321	MPEG-2 encoding licence for 1 channel MPH	
Number of channels	2 inputs / 1 output		MLH331	MPEG-4 encoding licence for 1 channel MPH	
Input			MLH341	AAC-HE audio codec licence	
dry contact	on/off	Short circuit	MLH351	Encryption licence (future option)	
current loop (opto isolated)	logical 0 (0...+1.4 VDC), logical 1 (+2.2...+30 VDC)		MLH371	Support for SNMP configuration interface	
Output			MLH391	Support for RSVP protocol	
relay	max. 30 VDC / 0.6 A		MSH001	Configuration Service	
Control delay	< 20 ms		MSH271	Extended Warranty	
CC connector	removable screw terminal		Accessories ***		
			CPS250/251/252/253	Power supply	12 VDC 3.3 A
			CIC506	Management cable	D9F/8-pin screw terminal
Notes					
			¹⁾ H.264 and MJPEG are default encoding engines. MPEG-2 and MPEG-4 are add-on options.		
			²⁾ The unit can support only one of the ONVIF or SNMP at a time		