

## Digital H.264 video, audio and serial data encoder for IP/ Ethernet networking systems

Teleste MPH encoder range is the latest offering on the well-known MPX product family catering various video streaming solutions. The product is based on multi-purpose hardware and application specific software. It allows the use of hardware resources in a flexible manner, to enable a variety of profiles, resolutions, frame rates and add-ons for multiple applications.

The MPH range encoders offer an unbeatable video quality in a form factors that are flexible, scalable and easily upgradeable. The key video operation is standards based H.264 encoding providing streaming for Main Profile and Baseline Profile applications. Other supported video encoding formats are MJPEG, MPEG-4 and MPEG-2. Thanks to ingenious licensing scheme the Standard Definition video input in specific MPH encoders can be re-configured to support digital HD-SDI High Definition operation. The power of MPH encoders is extended also to audio and serial data channeling as well. ITU and AAC standard coding schemes are available for high-quality two-way communication or PA distribution. The serial data capable of handling various data standards is a must when dealing with camera PTZ protocols or other data bus controlled devices. For fluent network operation the MPH range features either an electrical 10/100/100Base-T interface or an optical port for 100/1000M SFP transceivers. The most feature-packed MPH encoder has an built-in Ethernet Edge Switch.

Depending on a required installation scheme the available mechanics portfolio is supporting well both standalone installations and locally grouped constellations in a rack. For most extreme operation environments specific models are not only temperature hardened but also meeting specifications coming from road side and rail installation requirements.

The MPH encoders are conforming to on industry standards; hence they can be deployed in any standards based system. This is of the essence in todays multi-vendor environment.

## MPH Encoding & switching for PTZ and fixed cameras

## MPH Benefits

- > H.264, MJPEG, MPEG-2 and MPEG-4 encoding
- > Excellent video quality: standard operation up 4CIF/D1 25/30 fps
- > HD ready; optional HD-SDI input for 1080i and 720p resolutions
- > Single channel units with video loop-through at input
- > Low system video latency, less than 150 ms
- > Profile, bandwidth, output resolution and frame rate are adjustable for each channel separately
- > Multi stream support: Separated streams for live-viewing and recording
- Stream rate control CBR, CVBR or VBR
- Unicast and/or multicast support
- > Built-in video content analytics
- Video authentication, privacy masking and text overlays
- > PTZ supported via ONVIF and/or dedicated data bus
- > Industrial temperature-hardened; long life-time via passive cooling
- > DIN-rail mounting support, specific models rack mounted
- > Built-in Gigabit Ethernet Edge Switch
- Support for ONVIF and SNMP management
- > Local or remote SW update via CLI, SNMP or WebUI
- > Support for SFP optics: No need for media converters
- > Supported by VMX video management system
- > Future options to cover local storage and video encryption





Idde    MPH101/11    MPH202/12    I    2    1    2    1    2    1    2    1    2      BS Di video input    up to 4								
VMS ideo input    1    2    1    2    1    2      DSD ideo input	Video	MPH101/111	MPH102/112	MPH401/411	MPH402/412	MPH241	MPH242	
dpSDI video input    I    I    I    I      fnceding channels    up to 4    up to	CVBS video input	1	2	1	2	1	2	
Braceding channels    up to 4    up to 6    up to 6    up to 8    up to 6    up to 8    up to 8    up to 6    up to 8    up to 8    up to 6    up to 8    up to 8    up to 6    up to 8    up to 17/20/17/2	HD-SDI video input	- 1* -						
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QCIF./CIF./2CIF./ACIF, MD1/01QCIF./CIF./2CIF./ACIF, MD1/01QCIF./CIF./2CIF./ACIF, MD1/01QCIF./CIF./2CIF./ACIF, MD1/01QCIF./CIF./2CIF./ACIF, MD1/01QCIF./CIF./2CIF./ACIF, MD1/01QCIF./CIF./2CIF./ACIF, 	Coding	H.264/MJPEG/MPEG-4*/MPEG-2*						
Frame rate (fps)  U=U=U=U=U=U=U=U=U=U=U=U=U=U=U=U=U=U=U=	Resolution	QCIF/CIF/2CIF/4CIF, ½D1/D1				QCIF/CIF/2CIF/4CIF, 1/2D1/D1/720p*/1080i*	QCIF/CIF/2CIF/4CIF, 1/2D1/D1	
Max. Performance (25/30 fps)  4 x 4CIF/D1 (per video input)  2 x 4CIF/D1 (per video input)  2 x 4CIF/D1 or 1 x 720p / 1080/* or 1 x 720p / 1080/* or 1 x 720p / 1080/* or 1 x 720p / 1080/*  2 x 4CIF/D1 (per video input)  2 x 4CIF/D1 or 1 x 720p / 1080/*  2 x 4CIF/D1 or 1 x 720p / 1080/*  (per video input)    PBE-64*, MPEG-2*  4 x 4CIF/D1 or 1 x 720p / 1080/*  2 x 4CIF/D1 or 1 x 720p / 1080/*  (per video input)    DNVIF	Frame rate (fps)	125 PAL, 130 NTSC						
1.264, MJPEG, MPEG-4*, MPEG-2*    4 x 4CIF/D1 (per video input)    2 x 4CIF/D1 (per video input)    4 x 4CIF/D1 or 1 x 72Op/180Pt or 1 x 72Op/180Pt    2 x 4CIF/D1 (per video input)      DNVF      Yes       SiMP*     Yes        Control decision    Yes         Samera tampering     Yes        Get orelay     Yes (Session Announcement Protocol)        Samera tampering     Yes (Session Announcement Protocol)        Safe     Yes (Real Time Protocol)         TSP     Yes (Real Time Streaming Protocol)         Valid chanels            Cading             Cading              Cading <t< td=""><td>Max. Performance (25/30</td><td>) fps)</td><td></td><td></td><td></td><td></td><td></td></t<>	Max. Performance (25/30	) fps)						
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SNMP*GeneratamperingYesCamera tamperingYesSamera tamperingYesSect overlaySAPAPSAPATSPStandardStandardStandardStandardSolid channelsSolid channels <t< td=""><td>ONVIF</td><td colspan="6">Yes</td></t<>	ONVIF	Yes						
Motion detectionYesCamera tamperingImage: YesFlext overlayImage: YesSAPImage: YesSAPImage: YesSTPImage: YesSTPImage: YesValido channelsImage: YesSitandardImage: YesImage: YesImage: YesValido channelsImage: YesImage: YesIma	SNMP*	Yes						
Camera tamperingSNPYesFext overlayGYes (Sessin Announcement Protocol)SAPGYes (Sessin Announcement Protocol)VTPGYes (Network Time Protocol)TSPGYes (Network Time Protocol)Data channelsZZSindardGZVadio channelsGZCodingGGContact closuresGStarter portsGContact closuresGFast Ethernet / Gebti Ethernet* (electrical or optical)GIthernet portsGIthernet portsGGSValicastGIthernet portsGSapport*SYes Support*SSAP CLI pass Ethernet / Fast Ethernet / Gebti Ethernet / Gebti Ethernet / Gebti Ethernet / Gebti Ethernet / SYes CondardGSTYes CondardSSAP CLI pass Ethernet / SYes Support*SSSAP CLI pass Ethernet / SYes Support*SYes SSAP CLI pass Ethernet / SYes Support*SYes SYes Support*SYes SYes Support*SYes SYes Support*SYes SYes Support*	Motion detection	Yes						
Text overlay  Yes    SAP  SAP    SAP  SAP    SAP  Second Announcemet Protocol    STP  Second Announcemet Protocol    STP  Second Announcemet Protocol    STP  Second Announcemet Protocol    Stat chanels  2    Stat chanels  Second 2    Stat chanels	Camera tampering	Yes						
SAP  Import Session Announcement Protocol    NTP  Session Announcement Protocol    STSP  Session Announcement Protocol    Standard  Session Announcement Protocol  Session Announcement Protocol    Standard  Session Announce	Text overlay	Yes						
NTP  Image: Second	SAP	Yes (Session Announcement Protocol)						
RTSP  (See a Time Streaming Protocol)    Data channels  2    Standard  2    Vadio channels  Coling   <th colspan="2</td> <td>NTP</td> <td colspan="6">Yes (Network Time Protocol)</td>	NTP	Yes (Network Time Protocol)						
Data channels  Ended  2    Standard  Image: Data 1: RS422/485, Data 2: RS232    Audio channels  Image: Data 1: RS422/485, Data 2: RS232    Coding  Image: Data 1: RS422/485, Data 2: RS232    Coding  Image: Data 1: RS422/485, Data 2: RS422    Coding  Image: Data 1: RS422/485, Data 2: RS42    Contact closures  Image: Data 1: RS422/485, Data 2: RS42    Contact closures  Image: Data 1: RS422/485, Data 2: RS42    Contact closures  Image: Data 1: RS422/485, Data 2: RS42    Contact closures  Image: Data 1: RS422/485, Data 2: RS42    Contact closures  Image: Data 1: RS422/485, Data 2: RS42    /LAN  Image: Data 1: RS422/485, Data 2: RS42,	RTSP	Yes (Real Time Streaming Protocol)						
Standard  Data 1: RS422/485, Data 2: RS232    Audio channels  Q    Coding  G.711. G.726, AAC-LC, AAC-HE*    Contact closures  Z in, 1 out    Contact closures  Z in, 1 out    Chernet ports  G.711. G.726, AAC-LC, AAC-HE*    Contact closures  Z in, 1 out    Chernet ports  G.711. G.726, AAC-LC, AAC-HE*    Chernet ports  Fast Ethernet / Gigabit Ethernet* (electrical or optical)    /LAN  G.711. G.726, AAC-LC, AAC-HE*    /LAN  G.721. G.730  G.730. G.730	Data channels	2						
Audio channels	Standard	Data 1: RS422/485, Data 2: RS232						
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Contact closures  2 in, 1 out    Ethernet ports  4    Ethernet ports  Fast Ethernet / Gigabit Ethernet* (electrical or optical)  Fast Ethernet / Gigabit Ethernet (electrical or optical)    /LAN  Contact Context Contex Contact Contact Contact Contex Contact Co	Coding	- G.711. G.726, AAC-LC, AAC-HE*						
Ethernet portsImage: Constraint of the second o	Contact closures	2 in, 1 out						
Fast Ethernet / Gigabit Ethernet* (electrical or optical)Fast Ethernet / Gigabit Ethernet (electrical or optical)/LAN16 ids/ulticastIGMP v1, v2/ulticastIGMP v1, v2.ink redundancySTP/RSTP?rotocolsSTP/RSTP?rotocolsSTP/RSTP?FP support*41 x 129 x 166.5 mm (1.6 x 5.1 x 6.6 in)130 x 26 x 170 mm (5.1 2 x 1.02 x 6.6 9 in)52.5 x 130 x 254?perating temperature-34+74 °C (-29+165 °F)-10+60 °C (-14+140 °F)-34+74 °C (-29+165 °F)?ower Consumption5.5 V13 W?poter EthernetPoE, 802.11af, 7.5W (class 3)-PoE+, 802.11at, 15W (class 4)	Ethernet ports	1 4						
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Multicast    IGMP v1, v2      Link redundancy    STP/RSTP      Protocols    RTP, UDP, TCP, UDP, TCP, DHCP, SSH, Telnet, DHCP, DNS, Zero Conf, ICMP, ARP, QoS      SFP support*    Stroke St	VLAN	16 ids						
Link redundancy    STP/RSTP      Protocols    RTP, UDP, TCP, UDP, TCP, DTP, DTCP, SSH, Telnet, DHCP, DNS, Zero Conf, ICMP, ARP, QoS      SFP support*    Yes      Management    WebUI / SNMP / CLI (passure protected user groups with different user Les, CLI via serial or SSH connection)      size (H x W x D)    41 x 129 x 166.5 mm (1.6 x 5.1 x 6.6 in)    130 x 26 x 170 mm (5.12 x 1.02 x 6.69 in)    52.5 x 130 x 254      Operating temperature    -34+74 °C (-29+165 °F)    -10+60 °C (14+140 °F)    -34+74 °C (-29+165 °F)      Power consumption    Set	Multicast					IGMP v1, v2		
Protocols    RTP, UDP, TCP, IP, HTTP, DHCP, SSH, Telnet, DHCP, DNS, ZeroConf, ICMP, ARP, QoS      SFP support*    Yes      Management    WebUI / SNMP / CLI (passwort protected user groups with different user levels, CLI via serial or SSH connection)      Size (H x W x D)    41 x 129 x 166.5 mm (1.6 x 5.1 x 6.6 in)    130 x 26 x 170 mm (5.12 x 1.02 x 6.69 in)    52.5 x 130 x 254      Operating temperature    -34+74 °C (-29+165 °F)    -10+60 °C (-14+140 °F)    -34+74 °C (-29+165 °F)      Ower consumption    PoE, 802.11af, 7.5W (class 3)    -    PoE, 802.11at, 15W (class 4)	Link redundancy	STP/RSTP						
SFP support*    Yes      Management    WebUI / SNMP / CLI (passwort protected user groups with different user levels, CLI via serial or SSH connection)      Size (H x W x D)    41 x 129 x 166.5 mm (1.6 x 5.1 x 6.6 in)    130 x 26 x 170 mm (5.12 x 1.02 x 6.69 in)    52.5 x 130 x 254      Operating temperature    -34+74 °C (-29+165 °F)    -10+60 °C (-14+140 °F)    -34+74 °C (-29+165 °F)      Ower consumption    PoE, 802.11af, 7.5W (class 3)    -    PoE, 802.11at, 15W (class 4)	Protocols	RTP, UDP, TCP, IP, HTTP, DHCP, SSH, Telnet, DHCP, DNS, ZeroConf, ICMP, ARP, QoS						
Management    WebUI / SNMP / CLI (password protected user groups with different user levels, CLI via serial or SSH connection)      Size (H x W x D)    41 x 129 x 166.5 mm (1.6 x 5.1 x 6.6 in)    130 x 26 x 170 mm (5.12 x 1.02 x 6.69 in)    52.5 x 130 x 254      Operating temperature    -34+74 °C (-29+165 °F)    -10+60 °C (-14+140 °F)    -34+74 °C (-29+165 °F)      Ower consumption    5.5 w    13 W    13 W      Power Over Ethernet    PoE, 802.11af, 7.5W (class 3)    -    PoE+, 802.11at, 15W (class 4)	SFP support*	Yes						
Size (H x W x D)    41 x 129 x 166.5 mm (1.6 x 5.1 x 6.6 in)    130 x 26 x 170 mm (5.12 x 1.02 x 6.69 in)    52.5 x 130 x 254      Operating temperature    -34+74 °C (-29+165 °F)    -10+60 °C (-14+140 °F)    -34+74 °C (-29+165 °F)      Ower consumption    5.5 V    130 V    -10+60 °C (-14+140 °F)    -10+74 °C (-29+165 °F)      Ower Over Ethernet    PoE, 802.11af, 7.5W (class 3)    -    PoE+, 802.11at, 15W (class 4)	Management	WebUI / SNMP / CLI (password protected user groups with different user levels, CLI via serial or SSH connection)						
Operating temperature    -34+74 °C (-29+165 °F)    -10+60 °C (-14+140 °F)    -34+74 °C (-29+165 °F)      Power consumption    5.5 W    13 W      Power Over Ethernet    PoE, 802.11af, 7.5W (class 3)    -    PoE+, 802.11at, 15W (class 4)	Size (H x W x D)	41 x 129 x 166.5 mr	n (1.6 x 5.1 x 6.6 in)	130 x 26 x 170 mm (	5.12 x 1.02 x 6.69 in)	52.5 x 130	x 254	
Power consumption    5.5 W    13 W      Power Over Ethernet    PoE, 802.11af, 7.5W (class 3)    -    PoE+, 802.11at, 15W (class 4)	Operating temperature	-34+74 ºC (-	29+165 ⁰F)	-10+60 °C (	-14+140 ºF)	-34+74 °C (-29+165 °F)		
Power Over Ethernet    PoE, 802.11af, 7.5W (class 3)    -    PoE+, 802.11at, 15W (class 4)	Power consumption		5.1	5 W		13 W		
	Power Over Ethernet	PoE, 802.11af,	7.5W (class 3)			PoE+, 802.11at,	15W (class 4)	

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