Four channel video processor

MPC-E4 is a high performance, stand-alone, temperature hardened network video processing product encoding real time video in mission critical applications for customers in Transportation, City Center Monitoring, and Corporate Security

MPEG-4 / MJPEG / MPEG-2

Teleste's MPC-E4 is a perfect choice for IP networks as well as for a wide range of optical networks allowing easy migration from legacy fibre modem based systems towards modern IP based CCTV networks.

MPC-E4 is a versatile, temperature hardened video processing product that can be harnessed with four video inputs, 2-port terminal server, four bi-directional audio and one Fast Ethernet interfaces. The video processing is performed on software and can perform flexibly video encoding and analysis. The two built-in EIA RS data channels provide multi-vendor PTZ camera control through Ethernet network either from keyboard controller or from video management software. Beside standard copper interface the support for SFP plug-in optics makes MPC-E4 suitable for deployment in a wide range of optical networks.

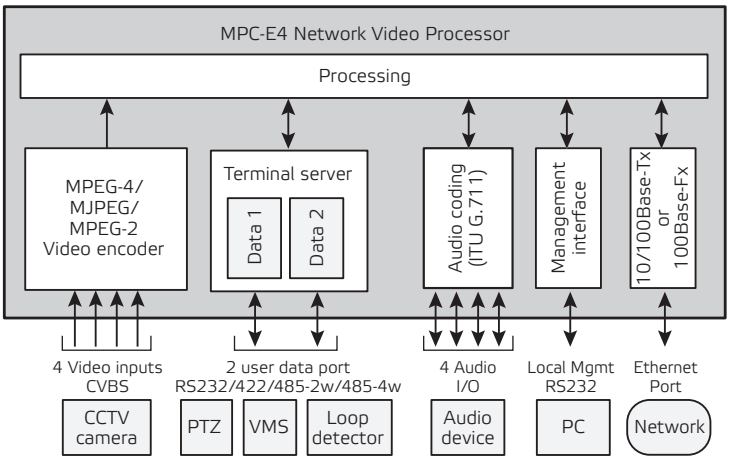
The video streams from MPC-E4 can be viewed from analog CRT or LCD monitors using MP-X decoders. Alternatively the video can be viewed by using software tools from video management system or by using standard video decoding software. The solid state MPC-E4 is a cool runner having industry leading figures in terms of power consumption per video channel. Low cost of ownership is further emphasized by upgradeable firmware enabling easy introduction of new features on existing hardware.

With unparalleled analog video performance and mission-critical application optimized encoding algorithm, MPC-E4 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 manageabilty provided by today's Ethernet networks.

Features

- DVD quality video
- ISO/IEC compliant MPEG-4, MJPEG and MPEG-2 video
- Low latency
- Multiple encoding profiles
- Multi-stream support
- JPEG image capture
- Bi-directional serial data and audio
- SFP optics support
- Unicast and multicast support
- SAP and NTP support
- Feasible for temperature hardened operation
- Low power consumption

Block diagram



Technical specifications *(Typical values unless otherwise stated, * = define when ordering, ** = optional, *** = ordered separately, **** = from SW 4.3.x onwards)*

Video

Number of inputs	4 CVBS	PAL/NTSC
Nominal level	1.0 Vpp	
Input impedance	75 ohms	
Number of encoding profiles	8	
Number of output streams	5 per profile	multicast and/or unicast
Encoding	ISO/IEC 14496-2 ISO/IEC 13818-2 ISO/IEC 13818	MPEG-4 SP L5 MJPEG MPEG-2 MP@ML **
Resolution	QCIF, CIF, 2CIF, 4CIF, ½D1, D1 QCIF, CIF, 2CIF, 4CIF	MPEG-4, MPEG-2 ** MJPEG
Frame rate (fps)	1...25 PAL, 1...30 NTSC 25 PAL, 30 NTSC	MPEG-4, MJPEG MPEG-2 **
Output bit rate (adjustable)	9.6 kbps...8 Mbps 9.6 kbps...8 Mbps 128 kbps...8 Mbps	MPEG-4 MJPEG MPEG-2 **
Performance (max) 25/30fps	MPEG-4 MPEG-2 MJPEG	4 x 2CIF / 2 x 4CIF/D1 2 x D1 4 x 4CIF/D1
Latency	< 150 ms	encoding - decoding
JPEG capture	8 (one per profile)	adjustable capture rate
Motion detection	yes	
Text overlay	yes	
Transport	RTSP ****/RTP/UDP/IP multi/unicast RTP/UDP TS/UDP/IP, ES/UDP/IP, ES/RTP/UDP/IP adjustable packet payload size	MPEG-4 MJPEG MPEG-2 **
Connector	BNC female	

Audio

Number of channels	4 bi-directional	unbalanced
Nominal level (RMS)	0.775 V	0 dBm
Impedance	> 10k ohm < 50 ohm	input output
Coding	ITU G.711	u-law
Sampling rate	8 **** / 32 kHz	
Data rate	64 **** / 256 kbps	per channel
Transport	RTP/UDP/IP multicast and unicast	
Connector	RJ-45 female	

Data

Number of channels	2	full duplex
Standard	EIA RS232/422/485	selectable
Bit rate	1.2...115.2 kbps	standard speeds
Format	asynchronous	standard framings
Transport	TCP/IP unicast or UDP/IP multicast	selectable
Connectors	RJ-45 female	

Ethernet Interface

Number of ports	1	
Port standard *	10/100Base-Tx / 100Base-Fx	SFP optics support
Connector	RJ-45 female	10/100Base-Tx

Ethernet Protocols

Video/Audio/Data	RTP, UDP, TCP, IP, SAP	
Management	SNMPv2, HTTP, DHCP, SSH, SSL, Telnet	
Generic	ICMP, IGMPv3, ARP, NTP, FTP	

SFP Optics **

MMF 1310 nm	2 km	2 fibres
SMF 1310 nm	30 / 60 km	2 fibres
SMF 1550 nm	20 / 100 / 120 km	2 fibres
CWDM (ITU G.694.2)	100 km	2 fibres
BIDI SMF 1310/1550 nm	25 / 60 km	1 fibre
Connector	LC	100Base-Fx

Management

WebUI	local via Ethernet port, remote via network
SNMP	remote via network
CLI	local via management port, remote via telnet
Software update	local or remote
Status indicators	front panel leds

General

Supply voltage	10.5...25 V DC	
Power consumption	6.6 W	
PSU connector	2-pin removable screw terminal	
Dimensions (H x W x D)	80 x 130 x 130 mm (3.1 x 5.1 x 5.1")	
Weight	1.3 kg (2.9 lb)	
Housing	Stand-alone, DIN rail mount **	
MTBF	> 150.000 h	HRD5
Operating temperature	-34...+74 ºC (-29...+165 ºF)	temperature hardened
Storage temperature	-40...+80 ºC (-40...+176 ºF)	
EMC compatibility	EN61000-6-3, EN50130-4, CE, FCC	
Environmental	IEC60068-2-1:1990 + A1:1993 + A2:1994, IEC60068-2-2:1974 + A1:1993 + A2:1995 NEMA TS 2-2003	

Accessories ***

Management cable	CIC504	D9, 2.0 m
Audio cable	CIC401	4 x RCA male, 3.0 m
Data cable	CIC603	RJ45 - open wires, 2.5 m
Power Supply	CPS241/242/243	12 VDC 3.3 A

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