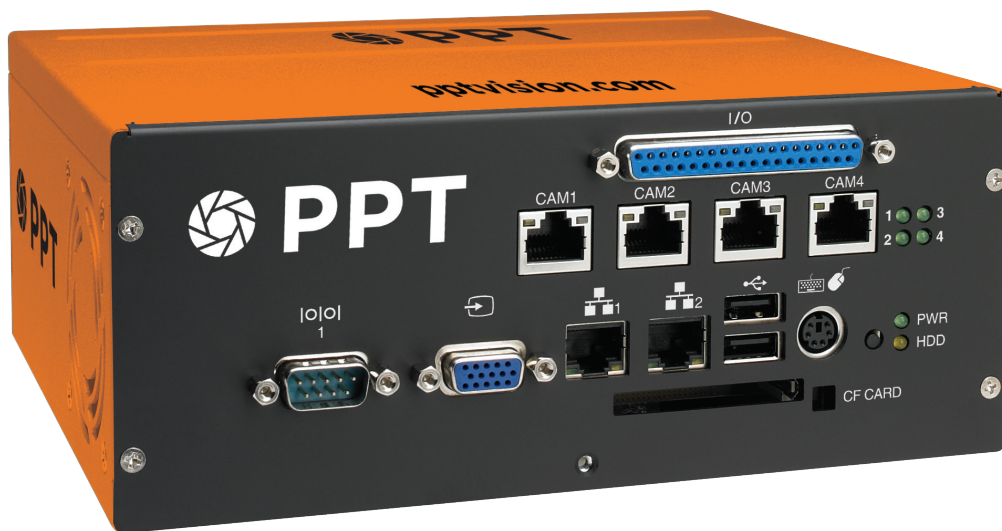


At a Glance

The PPT Vision M40 is a ruggedized and compact embedded vision processor that features Intel® multi-core processors and four independent PoE (Power over ethernet) camera ports. The M40's long-life embedded components provide a very robust and reliable vision system for critical inspection applications.



Features

- Windows® XP operating system
- Controls up to four M-Series cameras
- PC built into the M40 processor
- Multi-core processing power
- Wide selection of camera models
- high-capacity, solid-state drive
- Supports PoE and is capable of distances of 25 m (Cat5e) to 100 m (Cat6e) from the vision processor to the camera
- Runs PPT Vision Impact Software Vision Program Manager (VPM), providing fast deployment of flexible, robust inspection tasks and migration of existing inspection tasks to a-, t-, C- and M-Series processors
- Runs PPT Vision Impact Software Control Panel Manager (CPM), which enables deployment of a configurable and secure operator interface with on-the-fly control
- Optional PPT embedded Security Software maintains security by preventing unauthorized changes to the system software

Specifications

CPU	Intel® P8400 dual-core 2.26 ghz
SyStem memo r y	4 gB DDR3 Ra M
Stor age	40 gB solid-state hard drive, Compactflash type I
gr aPhICS	Intel g M45/ICH 9 video chipset (1600 x 1200 resolution)
Cam era inter faCe	4-1000 Mbps Base-t, Poe camera ports (up to 7 W per channel)
net work inter faCe	2-10/100/1000 Mbps Base-t, La N ports
Ser ial Co mmUniCatio nS	2-RS-232/RS-422/RS-485 serial ports
USB	3-USB 2.0 ports
keyBoar d/mo USE	Combined PS/2 type mini-DIN connectors
Co mm Co nneCt ivi ty	Supports ethernet/IP, Modbus tCP and OPC
i/o	16-Ch optically isolated digital inputs and outputs 2 event inputs (shared with the Polled Inputs)
oPer ating SyStem	Windows XP Pro 32-Bit OS, SP3
Power reqUir emen tS	24 VDC (+/- 10%, 3 amp min)
dimenSionS	200 mm x 85 mm x 165 mm (7.8 in. x 3.3 in. x 6.5 in.)
oPer ating temPer atUre	0 to 50° C (+32 to +131° f)
hUmidity	0 to 90% (non-condensing)
Cer tifiCatio nS (SaFety Co mPl ianCe)	Ce/f CC, Roh S, UL pending

Benefits

- easily integrates with the PPT Vision a-, t- and C-Series smart cameras for data sharing and inter-camera communication without needing a PC
- Lower installation cost
- Combines up to four unique camera capabilities for application-specific requirements
- Simplifies cabling by eliminating the necessity for camera power cables
- Shared processing reduces cost per inspection point
- Increased inspection power delivers higher inspection rates

At a Glance

M-Series cameras enable fast integration of challenging machine vision solutions. The unique ability to mix and match color, gray-scale and line scan cameras with an M-Series processor lets you define, select and deploy a solution for high-speed, multi-camera machine vision inspections.



Features

- designed for fast integration of challenging machine vision solutions
- GigE compatible for easy communication to M-Series processor
 - vGa to 5MP resolution, in both gray scale and color
 - camera settings fully controllable by Impact Software
 - Power over Ethernet (PoE) reduces cabling complexity
- Small form factor (as little as 29 mm x 29 mm x 60 mm) enables mounting in space-constrained locations
- Right-angle camera models for added camera mounting options
- a synchronous triggering enables each camera to independently capture images at rates up to 210 frames per second (fps)
- trigger and strobe i/O on camera eases integration

Specif cations

Gray-Scale camera model	color camera model	reSolutiOn	imaGer type/ Size (in.)	Frame rate (FpS)	mountinG dimenSiOnS (mm)
M100	M100c	640 x 480	ccd (1/4)	100	29 x 29 x 60.3
M110	M110c	640 x 480	ccd (1/3)	90	29 x 29 x 60.3
M150	M150c	1296 x 966	ccd (1/3)	30	29 x 29 x 60.3
M180	M180c	1628 x 1236	ccd (1/1.8)	20	29 x 29 x 60.3
M200*	M200c *	659 x 494	ccd (1/3)	70	44 x 29 x 85.5
M202*	M202c *	659 x 494	ccd (1/2)	79	44 x 29 x 85.5
M205	M205c	752 x 480	cMOS (1/3)	64	44 x 29 x 85.5
M210*	M210c *	782 x 582	ccd (1/2)	55	44 x 29 x 85.5
M230*	M230c *	1034 x 779	ccd (1/3)	31	44 x 29 x 85.5
M250*	M250c *	1296 x 966	ccd (1/3)	32	44 x 29 x 85.5
M270*	M270c *	1392 x 1040	ccd (2/3)	30	44 x 29 x 85.5
M295*	M295c *	1628 x 1236	ccd (1/1.8)	28	44 x 29 x 85.5
M300*	M300c *	648 x 488	ccd (1/3)	210	44 x 29 x 98.5
M330*	M330c *	1004 x 1004	ccd (2/3)	60	44 x 29 x 98.5
M350*	M350c *	1608 x 1208	ccd (1)	35	44 x 29 x 98.5
M390*	M390c *	2456 x 2058	ccd (2/3)	17	44 x 29 x 98.5

*Right-angle models available. to order gray-scale right-angle cameras, specify Model MXXX-Ra . to order color right-angle cameras, specify Model MXXXc -Ra .

Benef ts

- GigE compatible for fast integration with M-Series processors
- compact size f ts many machine conf gurations
- High-speed trigger input
- High-speed strobe light output
- Global shutter
- c -mount lens support
- iP30 rated housing
- cE, Fcc and RoHS compliant
- u tilizes color inspection tools

At a Glance

PPT Vision offers a broad range of smart cameras for machine vision applications, from single inspections to embedded vision systems and beyond. Powered by PPT Vision Impact Software, this ever-evolving line represents the latest technologies at the price, performance level and camera size to meet your requirements.



A-Series



T-Series



C-Series

A-Series The Power of a Vision System in a Sensor Footprint

Model	Resolution	iMaGeR	iMaGe	FRaMes/second
A 20	752 x 480	1/3 in. CMOS	8-bit gray-scale	69

T-Series Today's Best General-Purpose Smart Cameras

Model	T20*	T21*	T23*	T24*	T25*	T27*	T28*
	T30**	T31**	T33**	T34**	T35**	T37**	T38**
Resolution	640 x 480	640 x 480	640 x 480	1024 x 768	1024 x 768	1600 x 1200	1600 x 1200
iMaGeR	1/3 in. CCD	1/3 in. CCD	1/3 in. CCD	1/3 in. CCD	1/3 in. CCD	1/18 in. CCD	1/18 in. CCD
iMaGe	8-bit gray-scale	8-bit gray-scale	24-bit color	24-bit color	8-bit gray-scale	8-bit gray-scale	24-bit color
FRaMes/second	60	60	60	16	16	12	12
Housing	Right-angle or in-line	Remote head	Right-angle or in-line	Right-angle or in-line	Right-angle or in-line	Right-angle or in-line	Right-angle or in-line

*T2X Series uses 1,334 MIPS processor

**T3X series uses 1,600 MIPS processor

C-Series High-Performance Smart Cameras

Model	5200	5300	5700	7200	7300	9200	9300
Resolution	640 x 480	640 x 480	640 x 480	1024 x 768	1024 x 768	1600 x 1200	1600 x 1200
iMaGeR	1/3 in. CCD	1/3 in. CCD	1/3 in. CCD	1/3 in. CCD	1/3 in. CCD	1/18 in. CCD	1/18 in. CCD
iMaGe	8-bit gray-scale	24-bit color	8-bit gray-scale	8-bit gray-scale	24-bit color	8-bit gray-scale	24-bit color
FRaMes/second	60	60	60	16	16	12	12
Housing	In-line	In-line	Remote head	In-line	In-line	In-line	In-line

	a-series	t-series	c-series
PRocessor	1,334 MIPS	T2X 1,334 MIPS T3X 1,600 MIPS	2,000 MIPS
Resolution	752 x 480	640 x 480, 1024 x 768, 1600 x 1200	640 x 480, 1024 x 768, 1600 x 1200
on-board iMaGe buFFeRing	up to 46	up to 54*	up to 54*
on-board PRogRaM stoRage	512 Mb f ash	512 Mb f ash	256 Mb f ash
dedicated on-board oPtically isolated i/o	1In/10Out	1In/10Out	3 In/5 Out
conFiguRable on-board oPtically isolated i/o	2 In/4 Out	2 In/3 Out	4 In/6 Out
Power Required	24VDC@0.5A	24VDC@0.5A	24VDC@2A
diMensions	5.5 x 2.68 x 0.94 in. (140 x 68 x 24 mm)	In-line: 5.43 x 2.5 x 1.75 in. (138 x 63 x 45 mm)	Right-angle: 5.0 x 3.0 x 2.54 in. (127 x 76 x 66 mm)
oPeRating teMPeRatuRe	0 to 50° C	-5 to 45° C	-5 to 45° C

*with 640 x 480 images

Features

All PPT smart cameras are supported by PPT Vision Impact Software and feature out-of-the box network connectivity (ethernet/IP, TCP/IP, Modbus and OPC), 10/100 ethernet port, RS-232 serial port, choice of I/O connections (NPN or PNP) and unlimited I/O expansion options.

Features

- includes c or f mount lensing options with 1K and 2K line scan cameras
- captures 10 micron pixel size
- allows for selectable exposure control and synchronization
- Scans up to 56,100 lines per second
- allows ppt software to fully control camera settings
- compatible with a full selection of lenses, lighting and filters

Specifications

MODEL	RESOLUTION	IMAgER SizE	Ma x . LINE RaTE
M510	1024 pixels	10.24 mm	18.7 Khz
M520	1024 pixels	10.24 mm	35.7 Khz
M530	1024 pixels	10.24 mm	56.1Khz
M540	2048 pixels	20.48 mm	9.7 Khz
M550	2048 pixels	20.48 mm	18.7 Khz
M560	2048 pixels	20.48 mm	29.2 Khz

Benefits

- gige compatible for fast integration with M-Series processors
- trigger i/O on camera eases integration
- compact (62 mm x 62 mm x 54.5 mm) size fits many machine configurations
- Supports multiple encoder configurations with direct digital input
- ip30 rated housing
- ce and fcc compliant
- Requires impact Software 10.1 or later