

MX-U SERIES



The MX-U81 Vision Processor delivers maximum power and fast image acquisition for highly demanding machine vision applications.

With a USB 3.0 Vision interface standard for high speed camera connectivity and a state-of-art Intel® chipset, the MX-U81 Vision Processor guarantees outstanding performance delivering higher multi-camera inspection rates.

MX-U81 is equipped with NPN or PNP digital I/O and supports four independent USB 3.0 cameras resulting in application flexibility while dramatically reducing the cost per inspection point.

Powered by IMPACT Software, MX-U81 Series offers quick and easy application prototyping and deployment as well as seamless integration.



HIGHLIGHTS

- Multi-camera capability enables data collection and analysis from multiple points independently
- Shared processing reduces cost per inspection point
- Increased inspection power and USB3.0 data transfer speed for higher inspection rates
- Reduces cost by eliminating additional PC for operator user interface
- State-of-the-art Intel chipsets ensure long term product availability
- Easy integration with smart cameras for data sharing and inter-camera communication without needing a PC
- Universal dongles enable IMPACT software license and add-on license functionalities on MX-U81 and all other Datalogic vision processors

BENEFITS

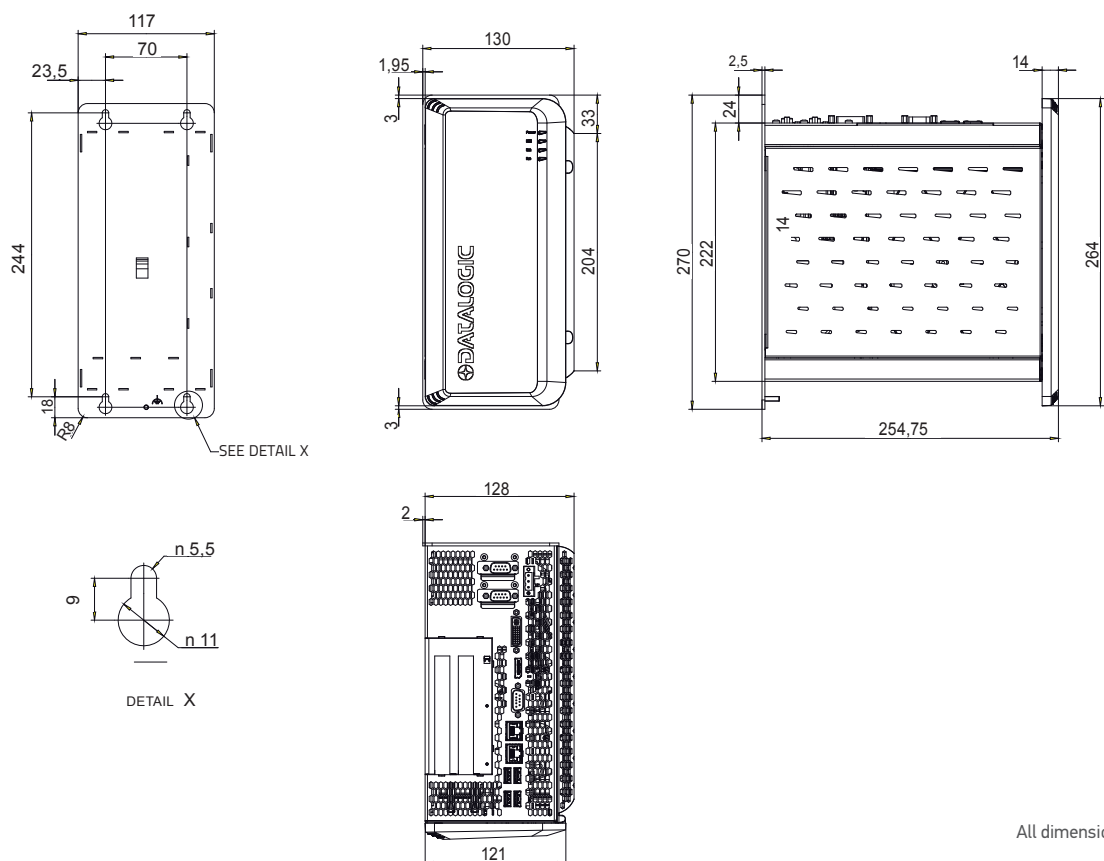
- Rugged, industrial, high-powered vision processor
- USB3 Vision standard connectivity and multi-camera support
- Multiple camera resolutions simultaneously supported by a single vision processor
- 4 dedicated high speed USB 3.0 camera ports
- 4 USB 3.0 ports for connecting external devices (i.e keyboard and mouse)
- Support of a wide selection of USB3.0 grayscale and color cameras, from VGA up to 20Mpix
- Complete IMPACT Software Suite included for ultimate programming flexibility
- Universal dongle for easier SW license management

TECHNICAL DATA

	MX-U81
CPU	Intel® Core i7 3615QE 2.3 Ghz – quad core
System memory	8 GB DDR3 RAM
Storage	128 GB SATA SSD (MLC)
Graphics	Intel® HD 3000 (1920x1200 resolution) - DVI
Camera interface	4x USB3.0 ports - 5 Gb/s max 1500 mA Max per port
Camera imager limit	None
Network interface	2x LAN ports - 10/100/1000 Mbps Base-T
Serial communications	1x RS-232 serial port
Keyboard/mouse	4x USB3.0 ports - 5 Gb/s max 1000 mA max per port
Comm connectivity	Supports Ethernet/IP, Profinet, Modbus TCP and OPC
I/O	see table below
Operating system	Windows Embedded Standard 7
Supply voltage	24 VDC +/- 25%
Nominal current draw	5.5 A @ 24 VDC
Dimensions	270 (H) x 130 (W) x 255 (D) mm - 10.6 (H) x 5.1 (W) x 10 (D) in.
Weight	2050 g
Housing	Galvanized plate - plastic
Operating temperature	0 to 55° C - 32 to 131° F
Operating humidity	10 to 90% (non-condensing)
Mechanical protection	IP20
Certifications (safety compliance)	CE, c-UL-us

MODEL	PROCESSING POWER	-	NO. OF PORTS	-	I/O TYPE	-	OPERATING SYSTEM
MX-U	XX	-	X	-	X	-	X
	81 = i7 - 2.3GHz Quad Core		4 = 4x USB3.0 ports		P = 16 IN - 16 OUT PNP N = 16 IN - 16 OUT NPN		1 = WES7
Examples	MX-U81-4-N-1 = MX-U81 with 4 camera ports, NPN digital I/Os and WES7 Operating System						

MECHANICAL DRAWINGS



All dimensions in mm

U-CAMERA

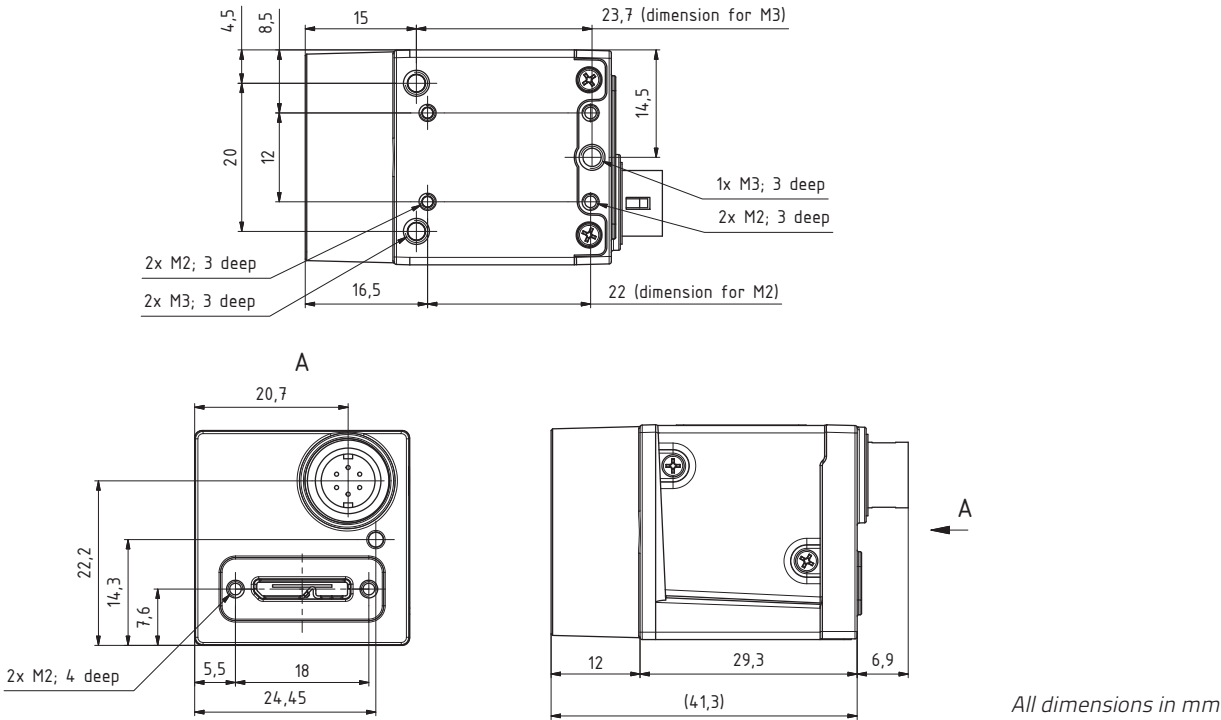
The U-Camera Series offers excellent performance packed into an incredibly compact housing (29x29x47mm). Ranging from VGA up to 5 MPix imager resolutions, the U-Cameras are available in both grayscale or color models providing the maximum application flexibility. The U-Camera Series supports the new USB 3.0 Vision communication protocol delivering ultra-high image transfer speeds to tackle even the most challenging machine vision applications.



MODELS

GRAY-SCALE MODEL	COLOR MODEL	SHUTTER	RESOLUTION	IMAGER	FRAME RATE (FPS)	DIMENSIONS
U100	U100C	Global	659 x 494	1/4" CCD	120	29 x 29 x 47 mm (1.14 x 1.14 x 1.85 in)
U101	U101C	Global	659 x 480	1/4" CMOS	750	
U110	U110C	Global	659 x 494	1/3" CCD	90	
U150	U150C	Global	1296 x 966	1/3" CCD	30	
U151	U151C	Global	1280 x 1024	1/2" CMOS	200	
U180	U180C	Global	1628 x 1236	1/1.8" CCD	20	
U190	U190C	Global	2048 x 1088	2/3" CMOS	165	
U193	U193C	Global	2048 x 1536	1/1.8" CMOS	55	
U195	U195C	Global	2048 x 2048	1" CMOS	90	
U197	U197C	Rolling	2592 x 1944	1/2.5" CMOS	14	
U198	U198C	Global	2448 x 2048	2/3" CMOS	35	

DIMENSIONAL DRAWINGS



MODELS AND ACCESSORIES

DESCRIPTION	Order no.
VISION PROCESSORS	
MX-U81-4-P-1, 4 ports, PNP, WES7	959918109
MX-U81-4-N-1, 4 ports, NPN, WES7	959918110
DONGLES	
DONGLE, IMPACT	93ACC0185
DONGLE, IMPACT, OCR	93ACC0186
DONGLE, IMPACT, PST	93ACC0187
DONGLE, IMPACT, 3rd party camera	93ACC0188
DONGLE, IMPACT, OCR, 3rd party camera	93ACC0189
DONGLE, IMPACT, PST, 3rd party camera	93ACC0190
DONGLE, IMPACT, PST, OCR	93ACC0191
DONGLE, IMPACT, PST, OCR, 3rd party camera	93ACC0192
CAMERAS	
Camera, U100, USB3.0, 659x494, 120fps, Grayscale, 1/4" CCD	959933003
Camera, U100C, USB3.0, 658x492, 120fps, Color, 1/4" CCD	959933004
Camera, U101, USB3.0, 659x480, 750fps, Grayscale, 1/4" CMOS	959933030
Camera, U101C, USB3.0, 659x480, 750fps, Color, 1/4" CMOS	959933031
Camera, U110, USB3.0, 659x494, 90fps, Grayscale, 1/3" CCD	959933001
Camera, U110C, USB3.0, 658x492, 90fps, Color, 1/3" CCD	959933002
Camera, U150, USB3.0, 1296x966, 30fps, Grayscale, 1/3" CCD	959933005
Camera, U150C, USB3.0, 1294x964, 30fps, Color, 1/3" CCD	959933006
Camera, U151, USB3.0, 1280x1024, 200fps, Grayscale, 1/2" CMOS	959933032
Camera, U151C, USB3.0, 1280x1024, 200fps, Color, 1/2" CMOS	959933033
Camera, U180, USB3.0, 1628x1236, 20fps, Grayscale, 1/1.8" CCD	959933007
Camera, U180C, USB3.0, 1624x1234, 20fps, Color, 1/1.8" CCD	959933008
Camera, U190, USB3.0, 2048x1088, 165fps, Grayscale, 2/3" CMOS	959933011
Camera, U190C, USB3.0, 2048x1088, 165fps, Color, 2/3" CMOS	959933012
Camera, U193, USB3.0, 2048 x 1536, 55 FPS, Grayscale, 1/1.8" CMOS	959933046
Camera, U193C, USB3.0, 2048 x 1536, 55 FPS, Color, 1/1.8" CMOS	959933047
Camera, U195, USB3.0, 2048x2048, 90fps, Grayscale, 1" CMOS	959933013
Camera, U195C, USB3.0, 2048x2048, 90fps, Color, 1" CMOS	959933014
Camera, U197, USB3.0, 2592x1944, 14fps, Grayscale, 1/2.5" CMOS	959933009
Camera, U197C, USB3.0, 2590x1942, 14fps, Color, 1/2.5" CMOS	959933010
Camera, U198, USB3.0, 2448 x 2048, 35 FPS, Grayscale, 2/3" CMOS	959933048
Camera, U198C, USB3.0, 2448 x 2048, 35 FPS, Color, 2/3" CMOS	959933049
ACCESSORIES	
I/O CABLES, MX-U SERIES	
Cable, I/O, MX Series, Processor to Terminal Block, .75 Meter	606-0675-.75
Cable, I/O, MX Series, Processor to Terminal Block, 1.5 Meter	606-0675-1.5
Cable, I/O, MX Series, Processor to Terminal Block, 3 Meter	606-0675-3
Cable, I/O, MX Series, Processor to Terminal Block, 4.5 Meter	606-0675-4.5
Cable, I/O, MX Series, Processor to Terminal Block, 7.5 Meter	606-0675-7.5
Cable, I/O, MX Series, Processor to Terminal Block, 15 Meter	95A906060
I/O BOARDS, MX-U SERIES	
I/O Board, MX Series Processors, Female DB37, DIN Rail Mountable, no isolation	248-0110
USB3.0 CABLES, U-SERIES CAMERAS	
Cable, U1xx Camera, USB3.0, 3 Meter	95A906515
Cable, U1xx Camera, USB3.0, 5 Meter	95A906516
Cable, U1xx Camera, USB3.0, 8 Meter	95A906517
POWER AND I/O CABLES, U-SERIES CAMERAS	
Cable, M1xx and U1xx Camera, I/O, 6 pin, 2 Meter, pigtail	606-0672-02
Cable, M1xx and U1xx Camera, I/O, 6 pin, 3 Meter, pigtail	606-0672-03
Cable, M1xx and U1xx Camera, I/O, 6 pin, 5 Meter, pigtail	606-0672-05
Cable, M1xx and U1xx Camera, I/O, 6 pin, 10 Meter, pigtail	606-0672-10
Cable, M1xx and U1xx Camera, I/O, 6 pin, 2 Meter, Camera to Terminal Block	606-0674-02
Cable, M1xx and U1xx Camera, I/O, 6 pin, 3 Meter, Camera to Terminal Block	606-0674-03
Cable, M1xx and U1xx Camera, I/O, 6 pin, 5 Meter, Camera to Terminal Block	606-0674-05
Cable, M1xx and U1xx Camera, I/O, 6 pin, 10 Meter, Camera to Terminal Block	606-0674-10
Cable, M1xx and U1xx Camera, I/O, 6 pin, 15 Meter, Camera to Terminal Block	606-0674-15
Cable, M1xx and U1xx Camera, I/O, 6 pin, 20 Meter, Camera to Terminal Block	606-0674-20
I/O BOARDS, U-SERIES CAMERAS	
I/O Board, M1xx and U1xx Camera, 1 Input / 1 Output, Female DB9, DIN Rail Mountable, no isolation	248-0140
I/O Board, M1xx and U1xx Camera, w / isolation	661-0399
CAMERA BRACKETS, U-SERIES CAMERAS	
Camera Mount, M1xx, M6xx and U1xx Camera	95A903029
LICENSES, MX-U SERIES PROCESSORS	
License, Pattern Sorting Tool, Processor	95A906545
License, 3rd Party Cameras, Processor	95A906539
License, OCR, Processor	95A906998

NOTE
Dongle must be purchased and installed to make IMPACT running on MX-U81 Vision Processors.