

SPECIFICATIONS | PRELIMINARY DATA SHEET

MV4-D1280U-H01-GT

THE WORLD'S FIRST GLOBAL SHUTTER DEEP UV CMOS CAMERA



General

Free run frame rate, full resolution	28 fps @ 12 bit Full Format with High-Precision Mode up to 140 fps @ 10 bit with 10 GigE
Optical area	9.47 x 7.58 mm, 12.13 mm diagonal
Pixel Size	7.4 µm square, global shutter (CDS), mono
Active Pixels	1,280 (h) x 1,024 (v), SXGA
Read-out modes	1x2*, 2x1*, 2x2*, 4x4*, 8x8* subsampling*

EMVA 1288 Parameters

Absolute Responsivity (mono)	To Be Measured
Maximum SNR (mono)	To Be Measured

Sensor Parameter

ADC resolution	12 Bit
Max. Frame Rate	up to 140 fps @ 10 bit
Spectral response	150 – 1,020 nm target
Full well capacity	19 ke-
Dark noise	50 e-
Dark current	252 e-/s
Dynamic Range	53 dB, gain 1x, 25 °C
Quantum Efficiency	>70% @ 550 nm
PRNU	4%

Pixel Pipeline Output

	8 bit, 10 bit, 12 bit
--	-----------------------

Gain | Offset

analog	Black level, calibrated*
digital	Master Gain (0 .. ~24dB), 48dB Bitshift*

I/O Interface

	Input, Trigger, Shaft encoder, TTL, RS422, HTL, dHTL Output, Strobe, 2 Open Drain, 1 Fast TTL
--	---

Trigger Modes

	Single Shot, Burst, Level Controlled Exposure
--	---

Exposure Modes

	Free run, Interleave, single timed and single trigger level controlled
--	---

MV4-D1280U-H01-GT

High image quality thanks to global shutter technology and BSI.

Excellent QE with > 40% at 170 - 800 nm.

Extremely sensitive sensor: ranges from deep UV, over visible applications up to NIR.

Fast cycle times with up to 140 fps at full resolution.

Fast readout with standard 10 GigE interface and up to 300 m long cables.

Standard C-Mount lens connection.

Robust industrial-grade design for an excellent total cost of ownership.

Modular design for fast and easy integration into your application.

Distributed by
SYSTEMATIC VISION
bill@systematicvision.com
508-532-1116

MV4-D1280U-H01-GT

Main Interface

	10 GigE, Auto Negotiation*, Backwards compatible to NBase T and GigE 1 GigE*, CXP* X coded M12, RJ45*
--	--

Software Features

	GigE Vision 1.2 2.2* PTP Precision Timing Protocol (IEEE1588)* Auto Gain*, Exposure* Single ROI, Multi ROI*, Flip*, Mirror, Sequencer* Readout optical black area* Sensor and camera temperature
--	---

Housing

	C Type Lens Mount, adjustable back flange Dimensions Front 59 mm x 59 mm x 102.5 mm Mounting 8x M5 Weight: 460 g Quartz glass, No protection glass*, filter mount available*
--	--

Power

	12 – 24V ± 10%, < 15W, 17 Pin M12 PoE 802.3af Class 4 (25W)
--	--

Temperature

	Operating 0 to 45 °C Ambient (Extended Temp. Available*) Storage -20 to 70 °C Ambient
--	--

Humidity

	20 – 80% Non-condensing
--	-------------------------

Regulations

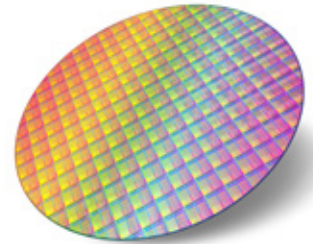
	CE Class A (B*), FCC Class A (B*), RoHS, UL, WEEE
--	---



RAILWAY:
Pantograph Spark Detection

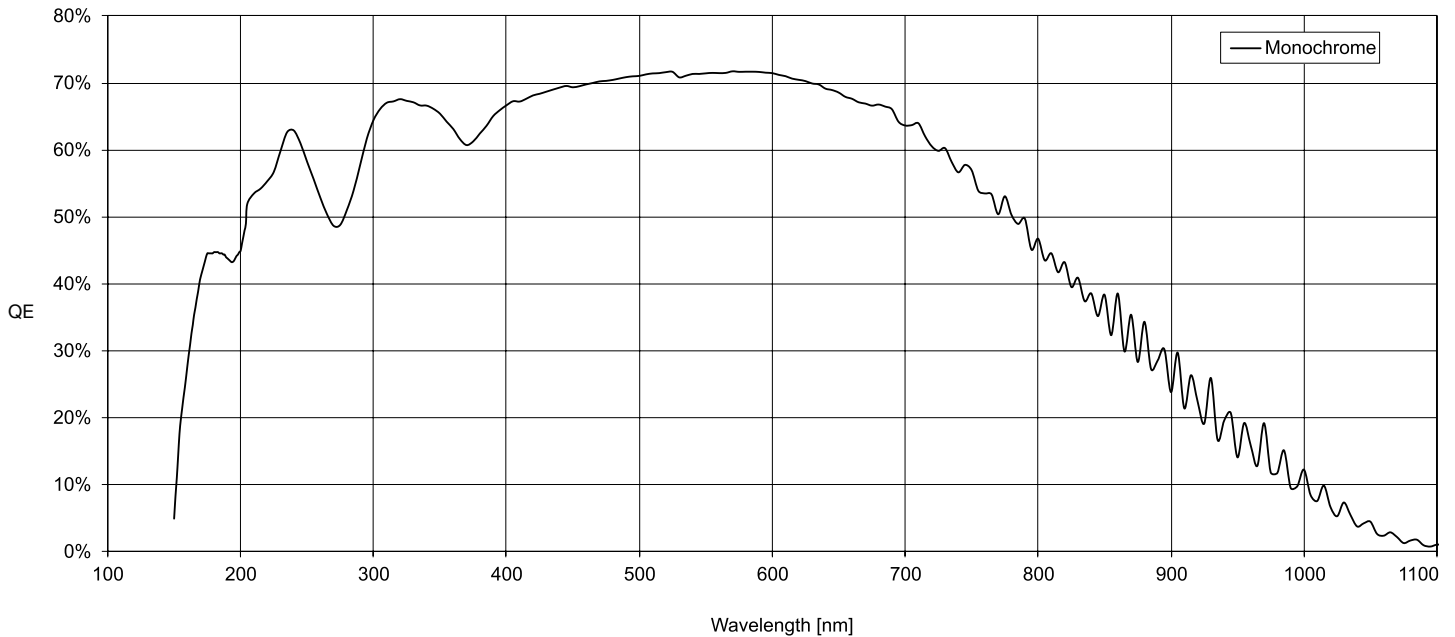


UV LASER:
Beam Profilometry



WAFER
Scratch Detection

Quantum Efficiency vs. Wavelength (Typical Spectral response) – Ta = 25 °C



Photonfocus cannot be held responsible for any technical or typographical errors and reserves the right for any changes

*On demand / customer project
Version 2.5 | January 25 2021
This specification may change without notice