SVS-VISTEK
a TKH Vision brand

HR TEC

hr455CXGE-T

The HR 10GigE series with its high-end high-resolution CMOS sensors permits making full use of the sensor bandwidth. 10GigE delivers up to 1.1 GB/s of image data with distances up to 100m.

The clean design according to well established standards like GigE Vision, 10GigE Vision and GenICam ensure rapid integration into the final application. The camera features a rich choice of industrial hardware and software features. Burst mode enables even higher trigger frequencies.

The improved, milled aluminum housing of the "-T" versions ensures optimum heat dissipation through air circulation and protects the sensor from dust and other particles. In combination with a Peltier element for thermoelectric cooling (TEC) and heating, this model ensures an absolutely stable sensor temperature despite changing ambient conditions and therefore increased reliability and consistent image quality.

Best suited for applications such as optical metrology, surface control, quality control or monitoring of large areas.

LED 4 INTEGRATED LED-CONTROLLERS
SEQ INTEGRATED SEQUENCER
STT SAFE TRIGGER TECHNOLOGY
PLC PROGRAMMABLE LOGIC CONTROL

Technical Highlights

- Thermo-Electric Cooling (TEC) with innovative, dustproof air ventilation
- Defect pixel correction, lens shading correction
- ROI, LUT, binning, offset, gamma, auto exposure
- GenICam interface with GenTL driver
- Integrated 4-channel power LED strobe controller
- POE (Power Over Ethernet)
- M58 lens thread (F-mount optional)
- Industrial TTL-24V I/O interface with SafeTrigger, programmable logic functions, sequencers and timers, RS232

Please note: This product is preliminary.
Technical specifications might change.

Specifications

Resolution [MP]	61 MP
Resolution (h x v)	9568 x 6380 px
Frame rate (max.)	18 fps
Chroma	color
Interface	10GigE Vision (RJ-45)

Sensor

Sensor	IMX455AQK
Manufacturer	Sony
Sensor type	Area CMOS
Shutter type	rolling shutter
Sensor size (h x v)	35.98 x 23.99 mm
Optical diagonal	43.24 mm
Sensor format	43.3mm (Type 2.7)
Pixel size (h x v)	3.76 x 3.76 µm

Camera

Exposure modes	MANUAL;AUTO;EXTERNAL
Trigger modes	INTERNAL;SOFTWARE;EXTERNAL
Exposure time (min)	34 µs
Exposure time (max)	10 sec (external ∞)
Pixel format / max	bayer8, bayer12, bayer16 / 16 bit
Gain modes / max	manual, auto / 36 dB
S/N ratio (max)	47 dB (dep. on environment)
Dynamic range (max)	81.4 dB (dep. on environment)
Internal memory	512 MB SDRAM

Feature Set

Manual white balance	yes
Automatic white balance	yes
LUT	yes
Offset	yes
Binning	yes
Image flip	yes
Shading correction	yes (external)
Defect pixel correction	yes
Sequencer	yes
POE	yes (POE+)(optional)

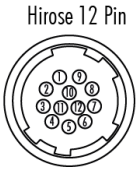
Housing

Lens mount	M58x0.75
Dimensions (w x h x d)	70 x 70 x 93.8 mm
Weight	500 g
Ambient temperature	-10 to 45 °C
Protection class	IP30

I/O-Interfaces

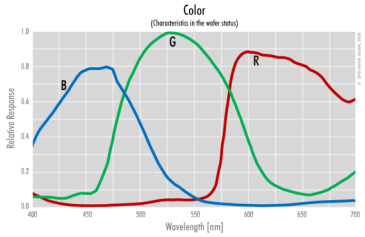
Input up to 24V	2 x
Input OPTO	1 x
Output open drain	4 x
I/O RS-232	1 x
Power supply	10 to 25 V (DC)
Power consumption	30 W (dep. on operating mode)

Pinout Mating Connector



1	VIN –	(GND)	7	OUT 1	(open drain)
2	VIN +	(10 V to 25 V DC)	8	OUT 2	(open drain)
3	IN 4	(RXD RS232)	9	IN 3 +	(opto In +)
4	OUT 4	(TXD RS232)	10	IN 3 –	(opto In –)
5	IN 1	(0 - 24V)	11	OUT 3	(open drain)
6	IN 2	(0 - 24V)	12	OUT 0	(open drain)

Spectral Response *



* Sensor data – excludes camera cover- or IR-cut filter characteristics

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