alhua
TECHNOLOGY

DH-MV-A7200M/CG30E
Area Scan Cameras

· 1Gbps Ethernet interface , max 100m transmission
· 128MB on-board frame buffer
· Supports software trigger /external trigger/mixed mode / free run mode
· Supports several image data formats output /ROI /binning , decimation /mirror etc
· Supports POE and DC 6-26V wide-range power supply
· Conforms to GigE vision V2.0 protocol and GenlCam standard

| Area Scan | GigE | PoE | Multi Trigger | WDR | Mono / Colour | AC 6~26V |

System Overview

As we all know machine vision is a mature technology widely used in condition monitoring and product inspection.It not only provides more consistent and reliable consequents resulting in improved product quality but also higher yields and lower production cost.As the core component of the machine vision system, industrial camera requires high image quality, high transmission rate, standard interface and reliable & stable performance. As one of the worlds' best security product suppliers, Dahua is able to provide serialized industrial cameras with excellent image, high frame rate and related software. Our area scan cameras portfolio includes matrix cameras in color and monochrome versions as well as with 2MP resolution, which enables customers to flexibly integrate the camera with general standard interfaces with GigE vision.

Functions

CMOS Area Sensor
Dahua A7200M/CG30E area scan camera embeds 2MP global shutter and 5.86X5.86 pixel size CMOS sensor that can provide high quality and original image. Every pixel in CMOS chip has its own amplifier and there are multiple A/D converters so each picture element can be read out individually, which means that pixels can be randomly addressed and accessed with AOI (automated optical inspection) and realize lower power dissipation than the CCD cameras.Combined with the advantage of the words' leading image processing technology we can effectively overcome the noise issue and output excellent picture equivalent to CCD camera.

GigE vision
GigE vision is a camera interface standard which is developed based on Gigabit Ethernet communication protocol that provides secure and cost-effective transmission of image data. In the field of industrial application, GigE vision supports high quality image fast transmission for up to 100m with general Ethernet cable (CAT-5 or higher grade).And with this kind of port the camera can work compatibly with various hardware and software from different manufacturers.

Global Shutter
An imaging sensor is consisting of lots of pixels .For knowing the whole image all of them have to be readout via A/D conversion by the ADC in once shutter .By global shutter mode all of the pixels will be readout simultaneously instead of in parallel. This difference makes the output from a industrial camera with global shutter sensor will not change with the fluctuating environmental brightness and capture the high speed moving object easily.

Supports multi trigger mode
In the application field of the machine vision, Dahua industrial camera is capable of capturing image via signal trigger and exposure frequency set on SDK. Besides, image capture will not be affected in case of induced network load and processing time of machine vision system.

High capacity buffer
With the stable 128MB on-board frame buffer, the camera leaves more time for the host computer to process pictures and realizes no frame loss. 128MB buffer is able to store different number of pictures according to specific sensor.

Rich SDK functions
Embedded with industry leading SDK software programming and debugging capability, original pictures can still be clearly captured even in harsh and low light industrial environment by adjusting the sharpness /noise reduction/ gamma correction /LUT (look-up-table: make adjustments to the picture within the camera)/black level correction/brightness/contrast and other ISP functions which are set in the SDK.

POE and wide-range power supply
The camera supports DC 6-26V wide-range power supply makes it suits even the most unstable power supply conditions .Meanwhile power over Ethernet (POE) technology can ensure the safe operation of the existing network without another power cable to reduce the total cost.

Several image formats output
Dahua industrial cameras output raw data with wide spectral range such as mono, color and RGB8 packed etc. Different types of format is equipped with corresponding data capacity which makes it suit various application scenarios.

Camera

Specification \ Model	A7200MG30E	A7200CG30E
Lens Interface	C-mount	
Sensor	Sony IMX249	
Sensor Spec	CMOS 1/2" Global shutter	
Resolution	2.3MP 1920(H)x1200(V)	
Framerate	30fps	
Pixel Size	5.86X5.86	
Interface	GigE,POE	
Mono/Color	Mono	Color
S/N Ratio	>38db	
WDR	70db	
GPIO Interface	6-pin hirose connector;1 channel opto-isolated input;1 channel opto-islated output	
Image Format	Mono:Mono8/10/10 Packed	Color:Mono8,BayerRG8/10/10Packed,BayerGB8/10/10Packed,RGB8Packed,YUV422Packed
Gain	0db ~ 48db	
Gamma	Range:0~4,Supports LUT	
Exposure time	33.6μs~1s	
Image Buffer	Supports 64MB	
User Set	Supports two sets of user-defined configurations	
Dimension	29mmx29mmx42mm(Not including the lens mount and the rear case connectors)	
Net Weight	88g(0.19lb)	
Power Supply	POE/DC power supply by Hirose connector , with voltage range from 6V to 26V	
Power Consumption	12V≈2.8w	
Operating Conditions	-30° C ~ +50° C (-22° F ~ +122° F) / Less than 95% RH	
Storage Conditions	-30° C ~ +80° C (-22° F ~ +176° F) / Less than 95% RH	

Ordering Information

Type	Part Number	Description
A7200M/CG30E GigE Cameras	DH-MV-A7200MG30E	2Megapixel Mono 30 framerate GigE Area Scan Camera
	DH-MV-A7200CG30E	2Megapixel Color 30 framerate GigE Area Scan Camera

Dimensions (mm)