



Mars Series Industrial Cameras

NEW

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CONTRASTECH

MARS SERIES **NEW**

Mars series industrial cameras is newly developed high resolution and high speed cameras in 2016 by Contrastech.

They are allequipped with high-end industrial level, scientific level image sensor, and with advanced technology of imaging signal processing, electronic design and software, in order to create a best quality and excellent imaging effect.



Mars series industrial cameras

BACKGROUND

In April 2013 the Hannover industrial fair, Germany formally proposed the idea of "Industry 4.0". It means to improve the competitiveness of German industry, to occupy the initiative in the new round of industrial revolution. Since then, "Industry 4.0" is rapidly becoming another label of Germany, and triggered a new round of industrial restructuring in the competition around the world.

On March 5, 2015, Li Keqiang first the proposed a grand plan of "Made in China 2025" when made the government work report in the NPC and CPPCC . "Made in China 2025", as Chinese government's first ten years of the programme of action to make China become a powerful manufacturing country, is in order to change the present situation of China manufacturing industry-"big but not strong".

MACHINE VISION

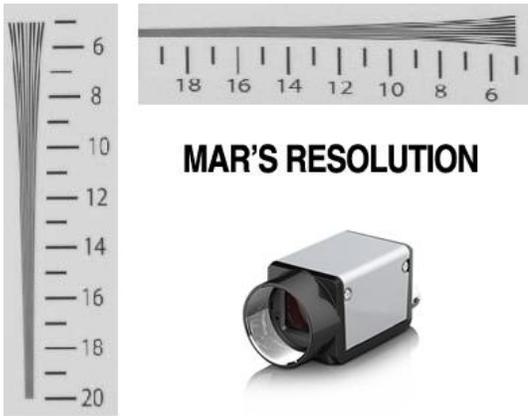
The basic idea of machine vision is to improve the flexibility and automation level of manufacture. Industrial camera, as a core part of machine vision system, is mainly used in intelligent products and intelligent equipment. By integrating it into the robot vision system or automation equipment, the machine has the ability to sense and independent judgment

Help "Made in China 2025"

MARS SERIES

Mars Series Industrial Cameras includes cost-effective, high frame rate, large area scan and line scan cameras, which can fully meet the various visual application requirements.

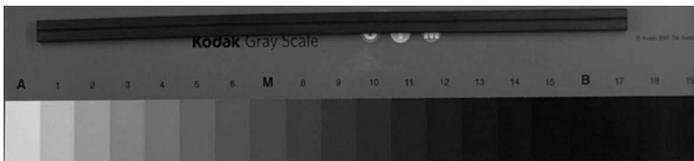
ISP/RESOLUTION



Color reproduction



Dynamic Range



Master Control Chip



1. Using FPGA V main control chip of Altera and 28nm low power (LP) technology of the TSMC's, its total power consumption is 40% lower than Cyclone IV, 55% lower than the Cyclone III (while the competing products Basler uses cyclone III chip, and PointGrey uses Spartan-6 chip which has the same quality with Cyclone IV).

2. Cyclone V uses hardware memory controller and external Samsung DDR3. Its bandwidth increases by 30% compared with the traditional soft core +DDR2. And it can achieve the required data throughput in high frame rate and high resolution .

Artisan Spirit

Our Vision is to help China to become a producer of superior quality industrial cameras, to change the world by technology. Attaining grand aspirations requires pragmatism in practice. We have at our disposal a multi-level field-programmable gate array(FPGA) that permits on-site independent configuration of logic blocks. Compared with generic market FPGAs, we greatly boost the performance of the logic array, while drastically lowering power consumption.

Our PCB designers are not only the ambassadors of spatial art , but also the ambassadors for the artisan spirit of machine vision technology. Thus our products can see more clearly, more truthfully, more broadly, more quickly and more accurately.



GigE Vision Area Scan Cameras

- Compact Design, Save Installation Space
- Hard Industrial Shell Design
- Built-in Temperature, Power Supply Real-time Monitoring Sensor
- Professional SDK Provided

GIGE VISION AREA SCAN CAMERAS

Equipped with the advanced high-end image sensor and covering a range of resolution from 0.3MP to 10MP, can meet various machine vision application requirements.

Technical Features

- Ethernet interface provides 1Gbps bandwidth, with max transmission distance up to 100m;
- 128MB on-board frame buffer for image data transmission;
- Supports software/external trigger, mixed mode, free run mode;
- Supports sharpness, noise reduction, gamma correction, LUT, black level correction, brightness, contrast and other ISP functions;
- Compatible with GigE Vision V2.0 protocol and GenICam standard;
- Supports POE and DC 6-26V wide-range power supply.



USB 3.0 Area Scan Cameras

- Compact Design, 29*29*29mm
- Hard Industrial Shell Design
- Built-in Temperature, Power Supply Real-time Monitoring Sensor
- Professional SDK Provided

USB 3.0 AREA SCAN CAMERAS

Equipped with USB3.0 high-speed data transmission bus, have a extremely high frame rate on the condition of high image quality and stability, which could up to 800 FPS.

Technical Features

- USB3.0 backwards compatible with USB2.0, and provides 5Gbps bandwidth with power supply;
- 128MB on-board frame buffer for image data transmission;
- Supports software/external trigger, mixed mode, free run mode;
- Supports sharpness, noise reduction, gamma correction, LUT, black level correction, brightness, contrast and other ISP functions;
- Compatible with USB3 Vision protocol and GenICam standard.



Camera link Area Scan Cameras

- Compact Design, Save Installation Space
- Hard Industrial Shell Design
- Built-in Temperature, Power Supply Real-time Monitoring Sensor
- Professional SDK Provided

CAMERA LINK AREA SCAN CAMERAS

Equipped with stable Camera Link international standard protocol, and bandwidth up to 5.44Gbps and frame buffer up to 512M.

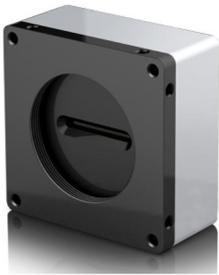
Technical Features

- Camera Link interface supports Base and Full mode;
- Supports software/external trigger, mixed mode, free run mode;
- Supports ROI, binning, decimation, mirror etc;
- Compatible with Cameralink v2.0 protocol and GenICam standard;
- Supports PoCL and DC6V-26V wide-range power supply.



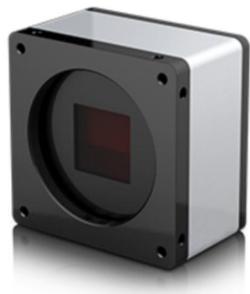
GigE Vision Line Scan Cameras

- Compact Design, 62*62*35mm
- Hard Industrial Shell Design
- Built-in Temperature, Power Supply Real-time Monitoring Sensor
- Professional SDK Provided



Camera link Line Scan Cameras

- Compact Design, Save Installation Space
- Hard Industrial Shell Design
- Built-in Temperature, Power Supply Real-time Monitoring Sensor
- Professional SDK Provided



GigE Vision Large Area Scan Cameras

- Hard Industrial Shell Design
- Built-in Temperature, Power Supply Real-time Monitoring Sensor
- Professional SDK Provided

GIGE VISION LINE SCAN CAMERAS

Equipped with 2k and 4K CMOS sensor. Compared to traditional CCD cameras, it has a higher scanning frequency and sensitivity.

Technical Features

- 256MB on-board frame buffer for image data transmission;
- Supports software/external trigger, mixed mode, free run mode;
- Supports gamma correction, LUT and other ISP functions;
- Supports flat field correction for multiple user groups;
- Supports a variety of output formats for image data, and ROI/Binning functions;
- Compatible with GigE Vision protocol and GenICam standard;
- Supports DC12V-24V wide power supply range.

CAMERA LINK LINE SCAN CAMEAS

Line Scan Industrial Cameras have color and mono two models and follow stable Camera Link international standard protocol, with line rates up to 100kHz.

Technical Features

- Camera Link interface supports Full, Medium, Base, with a max bandwidth up to 5Gpbs;
- Supports Gamma Correction, LUT and other ISP functions;
- Supports flat field correction for multiple user groups;
- Supports a variety of output formats for image data, and ROI/Binning functions;
- Supports DC10-15V wide power supply voltage range.

GIGE VISION LARGE AREA SCAN CAMERAS

Equipped with advanced high resolution image sensor, up to 12mp and 25mp, for high precision measurement, high resolution visual detection and other machine vision applications.

Technical Features

- 256MB on-board frame buffer for image data transmission;
- Supports software/external trigger, mixed mode, free run mode;
- Supports sharpness, noise reduction, gamma correction, LUT, black level correction and other ISP fuctions;
- Compatible with GigE Vision protocol and GenICam standard;
- Supports DC 12-24V wide-range power supply.