Vision Processing Unit K-HIPE-R-PC

**Features**
- PC-based type
- Face recognition by multi-core CPU
- Selectable memory media, HDD or SSD
- Connect multiple cameras or sensors
- Connect to various equipment via Ethernet, DeviceNet, Serial I/O, or Parallel I/O
- Available 0.3 ~ 5 mega-pixel GIGE camera and camera link

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High performance vision system, applied to various usages flexibly and immediately.

### 2D vision system

**Recognition module**

- **Features**
  - Fast and accurate recognition
  - Pattern matching, binarization, and color recognition processing
  - Recognition of various objects (shapes and colors)
  - Inspection, discrimination of both sides
  - Easy operation

**Distribution module**

- **Features**
  - Work is distributed between multiple robots (max. 8), based on vision findings

### Application

- **High-speed picking**
  - Crack inspection for glass plate
  - Discrimination of items
    - Character recognition
    - QR code recognition
  - Palletizing and depalletizing
    - Bar-code recognition

- **Alignment of differently shaped objects**
  - Pattern matching

- **Inspection**
  - Binarization

- **Sealing**
  - Body measurement
  - Sealing material inspection system

- **Depalletizing system for bags**
  - Steel rods bin picking

### 3D vision system

**Features**

- Kawasaki's original 3D laser sensors can be adjusted based on content and required level of accuracy
- System isn't susceptible to lighting changes and object surface conditions
- Select the view area according to usage for the 3D laser sensor (2 or 1 laser slit type)
- The stereo sensor's working distance and view area can be modified based on usage
- Detectable by only standalone camera through wide area (LSC)
- Online interference check function for bin picking applications

**3D sensor lineup**

- **Camera**
  - GigE camera
  - Analog camera
  - Camera Link/Color - black and white

- **Controller**

- **Robot**

### 3D vision system

- **Features**
  - Kawasaki's vision system is a multi-function, high-speed, and high precision visual sensing system that can be used on a wide range of sites. Adopting a Kawasaki vision system requires no workpiece positioning and the initial setup is simple.

- **Exterals**
  - Narrow view
  - Middle view
  - Wide view

- **Usage**
  - Measurement-
  - Inspection, Position correction
  - Parts picking, Position correction
  - Bin-picking, Environment recognition (interference avoidance)