PMC-LC12-CL Camera Module

Features

- *Sensor Range : 12288 Pixels, 3.5 μm*
- *White anodized aluminum Housing*
- *Max Line Rate : 66 kHz*
- *Interface : Camera Link*
- *Automatic Tap Balance*
- *Output Format : Momo8, 10, 12*
- *Power : +12VDC ~ +24VDC*
- *Connectors : 26-pin SDR Connectors*

Introduction

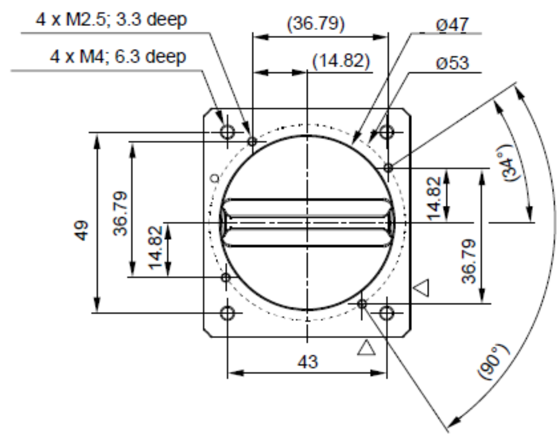
Monochrome Line scan Camera Module

Specification

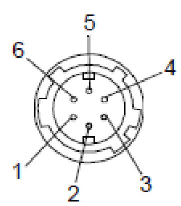
Resolution	12288 pixels max. 12280 pixels available with 1X10 tap geometry
Sensor Type	Awaiba DR-12k-3.5 Monochrome Linear CMOS
Pixel Size	3.5 μm x 3.5 μm
Max Line Rate	66 kHz
Min Line Rate	No minimum when an external line trigger signal is used 100 Hz when an external line trigger signal is not used
Mono/Color	Mono
Sensor Bit Depth	12 bit
Data Output Type	Camera Link base, medium or full configuration
Connectors	One 6-pin Hirose micro-miniature receptacle Two Camera Link 26-pin SDR connectors (also known as Mini Camera Link connectors)
Camera Link Pixel Clock Speed (Nominal)	32.5 MHz, 48 MHz, 65 MHz, 83.5 MHz (selectable; for the difference between nominal and actual values, see Section 8.1 on
Camera Link Tap Geometry	1X, 1X2, 1X4, 1X8, 1X10
Pixel Data Formats	Mono 8 Mono 10 Mono 12
Synchronization	Via external trigger signal, via software trigger signal or free run
Exposure Control	Programmable via the camera API
Camera Power Requirements	+12 VDC (-10 %) to +24 VDC (+5 %), < 1 % ripple, supplied via the camera's 6-pin connector.
Max Power Consumption (at 12 VDC)	< 6.5 W
I/O Lines	4 input lines (CC1 to CC4) and 1 output line (via Camera Link spare bit)
Lens Adapter	Universal camera front, suitable for lens mount adapters with the following lens mounts: F-mount, M42x0.75-mount, M42x1.0-mount (FBD 16 mm), M42x1.0-mount (FBD 45.56 mm), M58x0.75-mount. Lens adapter must be ordered separately as an accessory. See Section 1.5.4 on for information about selecting a suitable lens adapter for your camera.

* Module의 디자인은 변경될 수 있음.

Drawing



Connector



1	+12 VDC (- 10 %) to +24 VDC (+ 5 %), < 1 % ripple, Camera Power *
2	+12 VDC (- 10 %) to +24 VDC (+ 5 %), < 1 % ripple, Camera Power *
3	Not Connected
4	Not Connected
5	DC Ground **
6	DC Ground **

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PMT-LED-1900　LED Module

Features

- *LED Light Source*
- *Black anodized aluminum Housing*
- *Size : 1900(L) * 40(D) *103(H)*
- *Intensity : Avg.350,000 (Lx)*
- *Uniformity : Over 90%*
- *Dimming Range : 10 ~100*
- *Power : DC 24V*
- *1ch LED Controller Included*

Introduction

LED (Light Source) Module

Specification

No.	Items	Unit	Specification	Remarks
1	Input Voltage	DC	DC24V	MAX 25V
2	Input Current	A	2~15	
3	Power Consumption	W	Under 280	
4	Uniformity	%	Over 90%	
5	Life Time	hr	80,000	
6	Size	mm	1900(L)*40(D)*103(H)	
7	Display Size	mm	9(D)*1900(L)	
8	Dimming Range	%	10-100	
9	Max. Intensity	Lx	Over 400,000	
10	Avg. Intensity	Lx	350,000	

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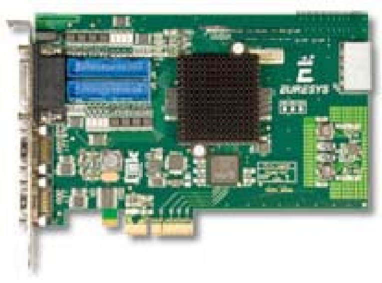
PMT -GL-DB Simultaneous Multi Camera Interface Card



Features

- *Dual Base or Medium configuration*
- *24 bits at 85MHz*
- *128-MByte on board memory*
- *Bus mastering*
- *Serial control of cameras*
- *On board memory*
- *Line-scan systems*
- *Area-scan systems*

Introduction

The PMT-GL-DB is a frame grabber for demanding industrial applications. Supporting the Base or Medium configuration, it can be connected to one or two cameras. The PMT -GL-DB is a 24-bit, 85 MHz PCI bus frame grabber. Each camera delivers images at a maximum speed of 85 MHz over the data paths towards the on board memory.

Specification

The PMT-GL-DB is a frame grabber for demanding industrial applications. Supporting the Base or Medium configuration, it can be connected to one or two cameras. The PMT -GL-DB is a 24-bit, 85 MHz PCI bus frame grabber. Each camera delivers images at a maximum speed of 85 MHz over the data paths towards the on board memory.

Area-scan systems

Camera modes: Features such as asynchronous reset, exposure control, strobe lighting often required in industrial applications are available on PMT -GL-DB series. The synchronous mode is also supported.

Trigger and exposure control: An external signal can be sent to the frame grabber to trigger the acquisition. PMT -GL-DB series is capable to consistently control the exposure time and the illumination.

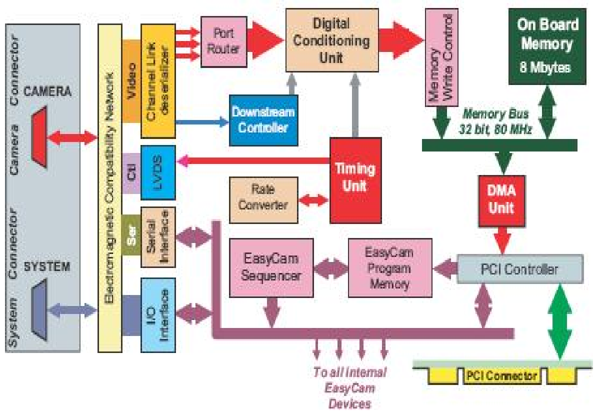
Camera tap structure: For any tap structure, PMT -GL-DB delivers a re-ordered bitmap image to the PC memory.

Tap-reversal is supported. With the multiplex tap technique, several taps are interleaved over PMT -GL-DB as long as the combined data rate remains below 85 MHz.

I/O lines

It implements the trigger and strobe facilities offered by the MultiCam driver. System components such as motion encoder benefits from isolated I/O lines and power supply.

Block diagram



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PMT-WG-VMC Vision Main Controller

Introduction

- *Vision Main Controller for Width Gauge*

Features

- ***Width Gauge Exclusive Vision Main Controller***
- ***Main Operation Software***
- ***Width Measuring Software***
- ***Operating System Windows 7 included***
- ***RAID1 System & Hot Backup & Swap System included***

Specification

[Software]

Width Measuring
Real-time Width Data Trend Display
Width Deviation, Off Center Display
Calibration
Image Processing
PLC Signal Interface
Level2 TCP/IP Interface
Event & Alarm Log
Parameter Control

[Hardware]

CPU	Intel Hexa Core Xeon 2.1GHz
RAM	DDR3 PC3-12800 16G
HDD	2TB, SATA3
CPU Board	LGA2011, Intel C602J chipset
Slot	7 Slots, 6 PICe, 1 PCI
Power	ATX/850W
ODD	DVD-Multi SATA Black
Raid kit	Raid 1 Raid Kit
CASE	Rackmount, 4U
OS	Microsoft Windows 7 64bit KOR

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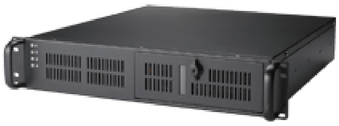
PMT-WG-HMI　HMI

Introduction

- ***HMI for Width Gauge***



Features

- ***Width Gauge Exclusive HMI***
- ***Main Operation Software***
- ***Width Measuring Data Management Software***
- ***Operating System Windows 7 included***
- ***RAID1 System & Hot Backup & Swap System included***

Specification

[Software]

Width Deviation Graphical Display
Actual Width Numerical Display
Width Deviation Numerical Display
Off Center Numerical Display
Display Status of Width Gauge
Coil Search
Historical view
Event & Alarm Log

[Hardware]

CPU	Intel Quad Core i5 3.2GHz
RAM	DDR3 PC3-12800 8G
HDD	1TB, SATA3, 2.5HDD
CPU Board	LGA1150, H81 chipset
Slot	4 Slots, 3 PICe, 1 PCI
Power	Micro ATX/350W
ODD	DVD-Multi SATA Black
Raid kit	Raid 1 Raid Kit
CASE	Rackmount, 2U
OS	Microsoft Windows 7 64bit KOR

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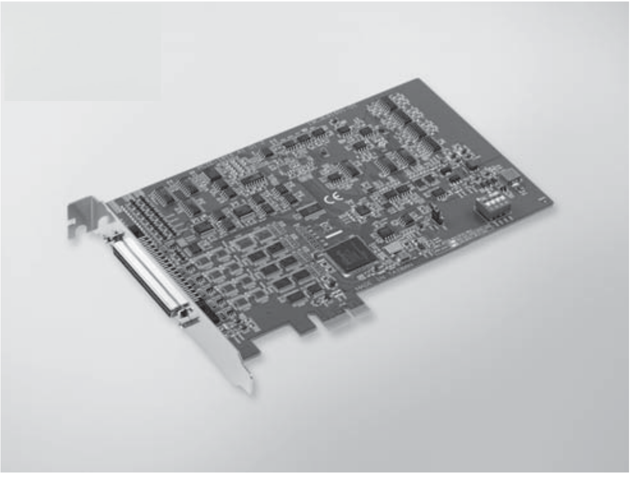
PMT-MF-1816 (Multi-Function Card)



Features

- 2 analog outputs up to 3 MS/s, 16-bit resolution
- Supports Analog and Digital Trigger for AI/O
- Supports Waveform generation for AO
- 24 programmable digital I/O lines
- Two 32-bit programmable counter/timers
- Onboard FIFO memory (4k samples)
- Supports Microsoft Windows 8 (desktop mode only)/7/XP

Specifications

Analog Input

- **Channels** Single-end 16-ch; Differential 8-ch
- **Resolution** 16 bits
- **Sample Rate**
  Single Channel 1 MS/s max.
  Multi-Channel 500 kS/s max.
  Single Channel 5 MS/s max.
  Multi-Channel 1 MS/s max.
- **Trigger Reference** Analog Trigger, Digital Trigger
- **FIFO Size** 4k samples
- **Max. Input Voltage** ± 15 V
- **Input Impedance** 1 GΩ
- **Sampling Mode** Software and external clock
- **Input Range** Software programmable

Gain	0.5	1	2	4	8
Bipolar	±10V	±5	±2.5	±1.25	±0.625
Unipolar	N/A	0 ~ 10	0 ~ 5	0 ~ 2.5	0 ~ 1.25
Absolute Accuracy (% of FSR)*	0.0075	0.0075	0.0075	0.008	0.008

Analog Output

- **Channels** 2
- **Resolution** 16 bits
- **Output Rate** 3 MS/s max.
- **Output Range** Software programmable

Internal Reference	Unipolar	0 ~ 5 V 0 ~ 10 V
	Bipolar	-5 V ~ 5 V -10 V ~ 10 V
External Reference		0 ~ +x V @ -x V (-10 ≤ x ≤ 10)

- **Slew Rate** 20 V/µs
- **Driving Capability** 5 mA
- **Operation Mode** Static update, Waveform Generation
- **Accuracy** INLE: ± 4 LSB, DNLE: ± 1 LSB

Digital I/O

- **Channels** 24
- **Compatibility** 5 V/TTL
- **Input Voltage** Logic 0: 0.8 V max.; Logic 1: 2.0 V min.
- **Output Voltage** Logic 0: 0.8 V max.; Logic 1: 2.0 V min.
- **Output Capability** Sink: 15 mA @ 0.8 V; Source: 15 mA @ 2.0 V

Counter

- **Channels** 2
- **Resolution** 32 bits
- **Compatibility** 5 V/TTL
- **Max. Input Frequency** 10 MHz
- **Pulse Generation** Yes
- **Timebase Stability** 50 ppm

General

- **Form factor** PCI Express x 1
- **Triggering** 16 bits Analog x 2 / Digital x 2
- **I/O Connector** 68-pin SCSI female connector
- **Dimensions (L x W)** 167 x 100 mm
- **Power Consumption** Typical: 3.3 V @ 488 mA, 12 V @ 112 mA; Max.: 3.3 V @ 2.25 A, 12 V @ 390 mA
- **Operating Temperature** 0 ~ 60°C (32 ~ 140°F)
- **Storage Temperature** -40 ~ 70°C (-40 ~ 158°F)
- **Storage Humidity** 5 ~ 95% RH non-condensing