



Interfacing an Analog Camera
with a DOMINO Board

Pacific FAB9130

Main characteristics.....	2
Configurations.....	3
Compatible Cables.....	4
Connection Information.....	5
Camera Setup.....	6
Board Jumpers Setup.....	9

EURESYS s.a. shall retain all property rights, title and interest of the documentation of the hardware and the software, and of the trademarks of EURESYS s.a.

All the names of companies and products mentioned in the documentation may be the trademarks of their respective owners.

The licensing, use, leasing, loaning, translation, reproduction, copying or modification of the hardware or the software, brands or documentation of EURESYS s.a. contained in this book, is not allowed without prior notice.

EURESYS s.a. may modify the product specification or change the information given in this documentation at any time, at its discretion, and without prior notice.

EURESYS s.a. shall not be liable for any loss of or damage to revenues, profits, goodwill, data, information systems or other special, incidental, indirect, consequential or punitive damages of any kind arising in connection with the use of the hardware or the software of EURESYS s.a. or resulting of omissions or errors in this documentation.

Main characteristics

Sensor	Area-scan, monochrome
Image size	1020 (H) x 771 (V) Pixels
Line rate	Line per second
Frame rate	30 frames per second
Last update	24 Nov 2011

Configurations

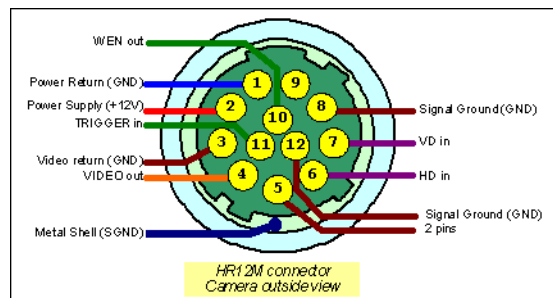
Configuration	CAM file	Description
P30RA	FAB9130_P30RA.cam	Asynchronous reset, Grabber controls exposure, Analog synchronization + WEN.
P30RM	FAB9130_P30RM.cam	Asynchronous reset, Grabber controls exposure, Master synchronization + WEN.
P30SA	FAB9130_P30SA.cam	Progressive Free-Run Scanning, Analog synchronization.
P30SM	FAB9130_P30SM.cam	Progressive Free-Run Scanning, Master synchronization.

Compatible Cables

Configuration	Cable name	Designator	Usage
P30SA P30RA P30SM P30RM	Single Channel RGC	A15-C11-XX	Asynchronous reset Single HD15M connector

Connection Information

HD15F Pin-out



Valid for all configurations

Signal Mapping

Cable "Single Channel RGC"


Pin name @ Camera	Pin name @ Board	Configuration				Usage
		P30SA	P30RA	P30SM	P30RM	
VIDEO out	V1+	✓	✓	✓	✓	Analog channel
VIDEO return GND	V1-	✓	✓	✓	✓	
Power Supply +12 V	+12 V	✓	✓	✓	✓	Power supply
Power Return GND	PGND	✓	✓	✓	✓	
HD in	HIO	-	-	✓	✓	Horizontal synchronization
VD in	VIO	-	-	✓	-	Vertical synchronization
TRIGGER in	RST	-	✓	-	✓	Asynchronous reset
Signal Return GND	GND	✓	✓	✓	✓	Signal return
	Metal Shell SGND	✓	✓	✓	✓	EMC shield
WEN OUT	Gate	-	✓	-	✓	Gate pulse

Refer to the camera cable A15-C11-xx for additional useful manufacturing information.


Camera Setup

DIP Switch


Valid for configuration P30SA

Look	Switch	Setting	Effect
 <p>OFF ON</p> <p>1 2 3 4 5 6 7 8 9 10</p>	1	ON/OFF	Electronic shutter switch: See "Establishing exposure time"
	2	ON/OFF	
	3	ON/OFF	
	4	OFF	Standard operation
	5	OFF	
	6	OFF	High Frame rate OFF
	7	OFF	
	8	OFF	Binning: OFF
	9	OFF	Monitor Mode: OFF
	10	OFF	DH/VD Input an Output change: Output


Valid for configuration P30RA

Look	Switch	Setting	Effect
 <p>OFF ON</p> <p>1 2 3 4 5 6 7 8 9 10</p>	1	ON/OFF	Irrelevant
	2	ON/OFF	
	3	ON/OFF	
	4	ON	Random trigger (Trigger pulse width exposure)
	5	OFF	
	6	OFF	High Frame rate OFF
	7	OFF	
	8	OFF	Binning: OFF
	9	OFF	Monitor Mode: OFF
	10	OFF	DH/VD Input an Output change: Output

Valid for configuration P30SM

Look	Switch	Setting	Effect
	1	ON/OFF	Electronic shutter switch: See "Establishing exposure time"
	2	ON/OFF	
	3	ON/OFF	
	4	OFF	Standard operation
	5	OFF	
	6	OFF	
	7	OFF	High Frame rate OFF
	8	OFF	
	9	OFF	Binning: OFF
	10	ON	Monitor Mode: OFF
			HD/VD: input

Valid for configuration P30RM

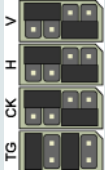
Look	Switch	Setting	Effect
	1	ON/OFF	Irrelevant
	2	ON/OFF	
	3	ON/OFF	
	4	ON	Random trigger (Trigger pulse width exposure)
	5	OFF	
	6	OFF	High Frame rate OFF
	7	OFF	
	8	OFF	Binning: OFF
	9	OFF	Monitor Mode: OFF
	10	ON	DH/VD Input an Output change: Input

Establishing exposure time for P30SA, P30SM

Switch 1	Switch 2	Switch 3	Exposure
OFF	OFF	OFF	Shutter is OFF (33.3 ms)
OFF	OFF	ON	Exposure time is 10 ms
OFF	ON	OFF	Exposure time is 3.99 ms
OFF	ON	ON	Exposure time is 2.0 ms
ON	OFF	OFF	Exposure time is 994 μ s
ON	OFF	ON	Exposure time is 486 μ s
ON	ON	OFF	Exposure time is 232 μ s
ON	ON	ON	Exposure time is 106 μ s

Board Jumpers Setup

The Domino Iota and Domino Alpha 2 jumper blocks should be configured as follows (valid for all configurations). Settings for the jumper block facing the connector the camera is linked to

Jumper block	MultiCam parameter	Value	Meaning
	JumperV	TTL	The pin 4 (VIO) and pin 5 (EXP) of the connector feeding the channel can be used as input or output in TTL format.
	JumperH	TTL	The pin 14 (HIO) and pin 15 (GATE) of the connector feeding the channel can be used as input or output in TTL format.
	JumperCK	ZLANE	Pin 9 and pin 10 of the channel connector are used as a third video lane borrowed to the Z connector.
	JumperL1	DT	The video lane 1 is sensed as a differential 75 W terminated analog signal applied at pin 1 (V1+) and pin 2 (V1-).
	JumperL2	DT	The video lane 2 is sensed as a differential 75 W terminated analog signal applied at pin 11 (V2+) and pin 12 (V2-).