

TAPIX MBD 1400@15

Reference Manual

ENG

Preliminary

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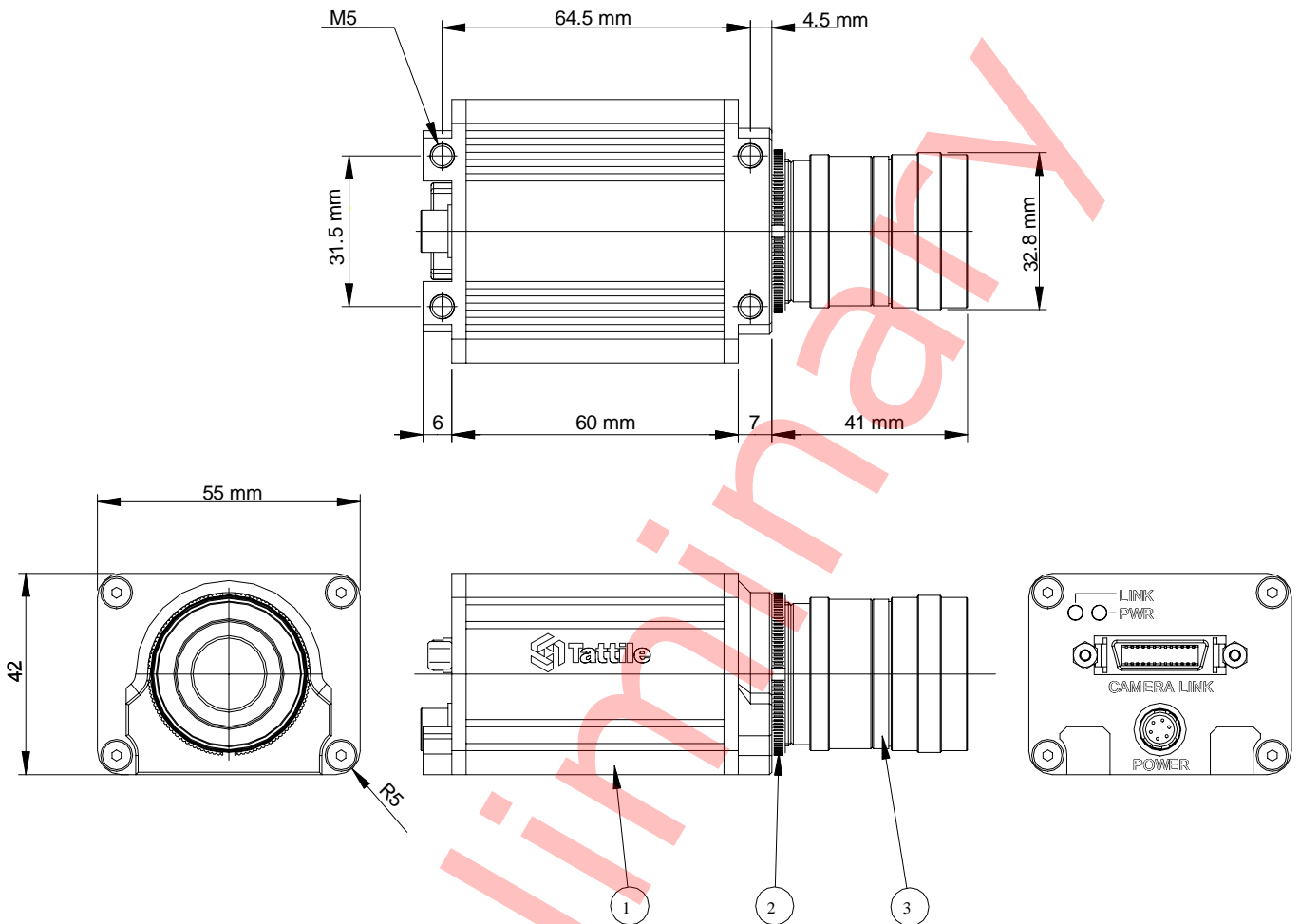
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Tapix MBD 1400@15 Global View

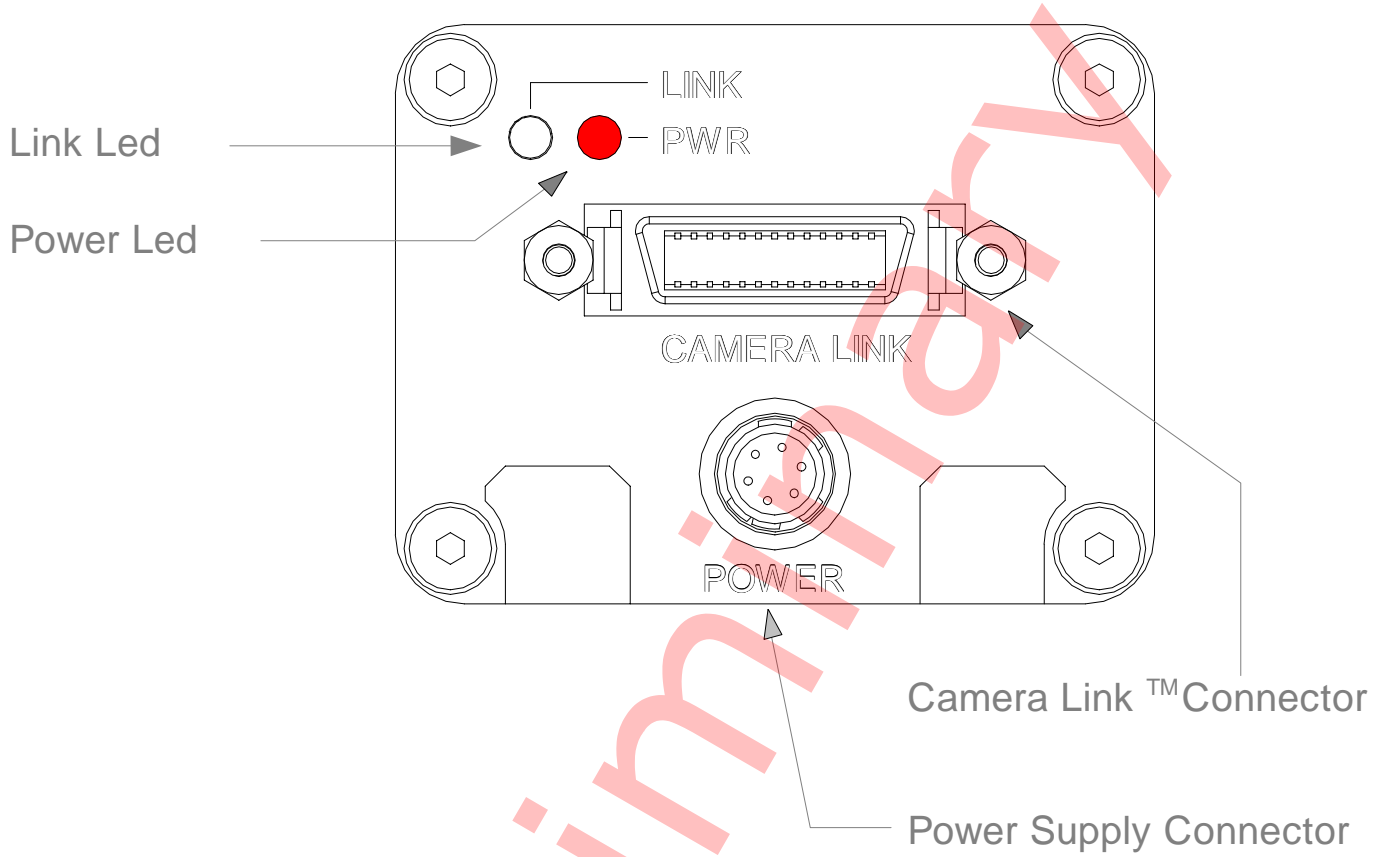


Tapix MBD 1400@15 Mechanical Dimensions



3	Lens
2	Locknut
1	Camera body

Tapix MBD 1400@15 Silkscreen Printings



Tapix MBD 1400@15 General Characteristics

Tapix MBD 1400@15 Characteristics

- Power Supply: 24VDC \pm 10%
- CCD Characteristics: 1380 x 1000 pixels resolution , 6.45 μ m x 6.45 μ m size
- Communication Port: 2x40MHz data rate via Camera Link™ high speed serial interface

Processor:

- Microprocessor: ARM 40 Mhz
- Analogic/Digital Section: 2 A/D 10 bit/12 bit converter with Gain from 0 to 36dB
- Flash: 4 Mbyte
- SDRAM: 16 Mbyte
- Logic Array: FPGA from 4 to 12K logic elements
- Image Acquisition: Synchronous
Asynchronous (external Trigger with shutter to set by software)

Mechanical Dimensions

- Mechanical Dimensions: 73 x 42 x 55 mm (LxHxW)
- Weight: 220 g
- Conformity: **Conforms to CE standard.**

Standard Supply

- Tapix MBD 1400@15 Camera.
- User Manual.
- Power Cable.

Work Tensions

	Description	Typical	Note
Vcc	Voltage supply in the whole system	+24 V	Provide a stable supply \pm 10%
GND	Ground	0 V	

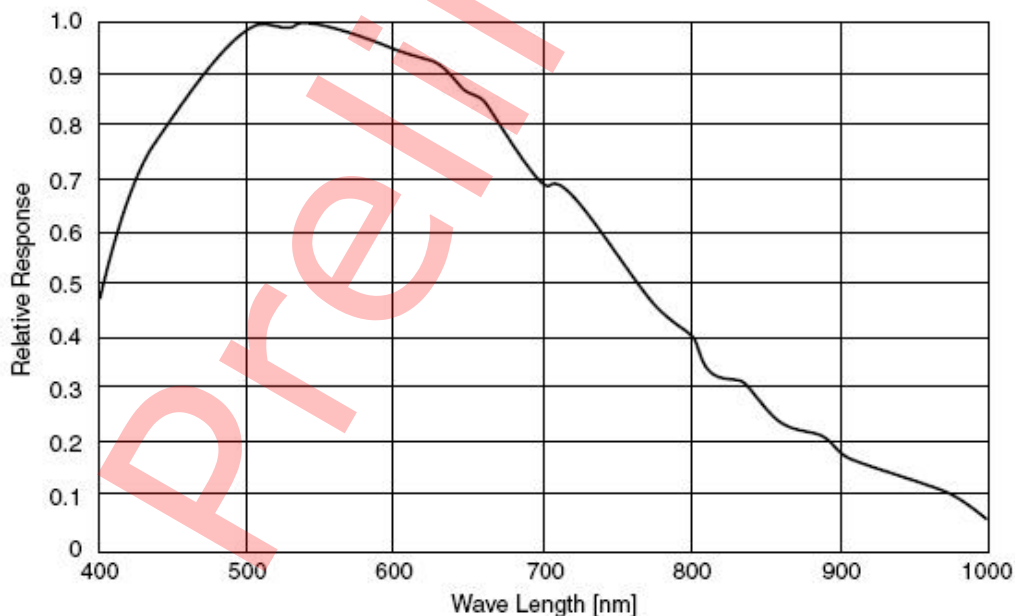
Operating Conditions

	Description	Min	Max	Note
T_{op}	Temperature of the surrounding environmental.	0°C	50° C	
Humidity	Dampness of the surrounding environmental.	35%	85%	Without condense.

CCD General Characteristics

CCD Sony ICX285AL B/W Specifications

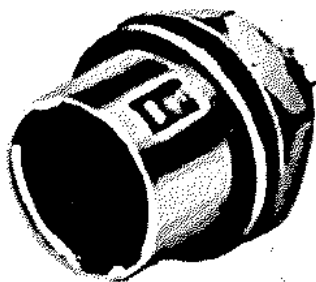
Parameters	Value
Image Size	Diagonal 11 mm Type 2/3
Total Number of Pixels	1434 (H) x 1050 (V) approx. 1.50M pixels
Number of Effective Pixels	1032 (H) x 1040 (V) approx. 1.45M pixels
Number of Active Pixels	1360 (H) x 1024 (V) approx. 1.40M pixels
Chip Size	10.2mm (H) x 8.3mm (V)
Unit Cell Size	6.45 μ m (H) x 6.45 μ m (V)
Aspect Ratio	4:3
Optical Black	H direction: front 2 pixels, rear 40 pixels V direction: front 8 pixels, rear 2 pixels
Number of Dummy Bits	Horizontal 20 Vertical 3
Horizontal Drive Frequency	28.64 Mhz
Horizontal Register	5.0V drive
Package	20 pin DIP (Ceramic)
Substrate Material	Silicon



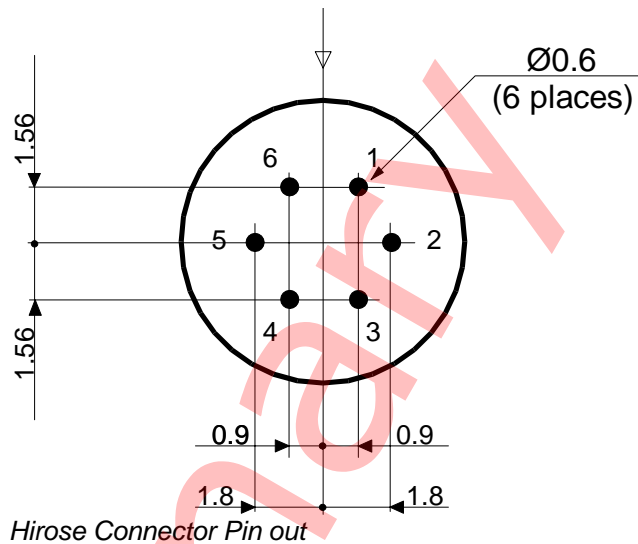
Spectral Sensitivity Characteristics

Interface Connectors

Power Connector

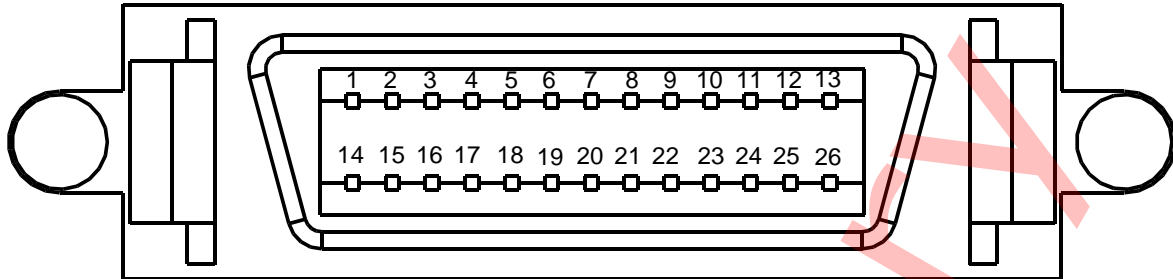


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PIN	Description
1	+ Vcc
2	+Vcc
3	NOT CONNECTED
4	GND
5	GND
6	NOT CONNECTED

Camera Link™ Connector



<i>Pin</i>	<i>Description</i>	<i>Pin</i>	<i>Description</i>
1	Logic Gnd via 0 ohm resistor	14	Logic Gnd via 0 ohm resistor
2	X0-	15	X0+
3	X1-	16	X1+
4	X2-	17	X2+
5	Xclk-	18	Xclk+
6	X3-	19	X3+
7	SERTC+	20	SERTC-
8	SERTFG-	21	SERTFG+
9	CC1-	22	CC1+
10	CC2+	23	CC2-
11	CC3-	24	CC3+
12	CC4+	25	CC4-
13	Logic Gnd via 0 ohm resistor	26	Logic Gnd via 0 ohm resistor

Instructions for a right installation of TATTILE control equipment

Good equipment operation is guaranteed only by respecting the instructions cited in this reference manual. TATTILE declines all responsibility for anomalous equipment operation, installed with criteria not respecting these instructions.

- Fixing of the Tapix MBD 1400@15 must be done using only M5 screws without generating an excessive tightening force.
- Tapix MBD 1400@15 cable courses must be kept separate from power cables.
- Pay attention to the various connections, especially in respect to the correct polarity of the power-supply cables.
- Supply the Tapix MBD 1400@15 with a dedicated power supply (24V-12W).
- The 24VDC voltage that powers inputs and outputs must never be taken from the same power source of the Tapix MBD 1400@15 and above all the mass must be split (negative pole).
- The maximum length of the power supply cable is 2 mt. This cable must be screened and not be longer than necessary.
- Tapix MBD 1400@15 must be fixed to structures well connected to the ground, mechanically stable and immune to vibration.



Warranty

The warranty covering TATTLE equipment is invalidated when:

1. The equipment has been opened or tampered with.
2. Faults have been detected that are due to incorrect connection of the power or input/output circuits.
3. Faults are due to overload or non-compliance with equipment's rated specifications.
4. Application conducted in conditions that do not comply with those specified for a correct installation.



Note: These conditions apply to all equipment supplied with the system.

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Revision

The Revision Index is reported below. The various revisions can contain additional information or corrections of printing errors.

Rev.	Date	Page	Description	Prepared	Checked	Approved
02.00.00	March 2004	All	First Release	Nicola G.	Massimiliano D.	Andrea S.

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