

Allied Vision I/O cable



Specifications

Feature	8-pin cable	12-pin cable	13-pin cable Manta / Stingray board level
Jacket	HR-PVC (Pb free), 0.81 mm thick, 5.0 mm Ø	PVC Class 43, 6.4 mm Ø +/-0.20	PVC 105°C, 6.4 mm Ø
Outer braid shield	Tinned annealed copper, min. 85 % coverage	Tinned annealed copper, min. 85 % coverage	Tinned annealed copper
Cable assembly	5 pairs (4 used)	12 x single	13 x single
Insulation	HRLF PVC 0.1 mm thick, 0.58 mm Ø	SR-PVC	PVC 80°C
Conductor	Tinned annealed copper, 7 x 0.127 (AWG 28); 0.38 mm Ø	Tinned annealed copper, 7 x 0.16 mm (AWG26)	Tinned annealed copper, 7 x 0.16 (AWG26); 0.48mm Ø
Max. conductor DC resistance	246 Ω/km at 20°C	max. 140 Ω/km at +20°C	max. 155 Ω/km at +20°C
Min. insulation DC resistance	10 MΩ x km at 20°C	min. 100 MΩ x km at +20°C	min. 153 MΩ x km at +20°C
Compliance	UL 20276 (80°C / 30 V), RoHS (2011/65/EU)	UL/cUL, style 2464/1061, RoHS	UL 2464/1061, VDE881, UL1061

Table 1: 12-pin and 13-pin cable specifications

I/O and trigger cable configurations

Color-coding is only valid for part number.
Color-coding can be different for legacy cable variants.

Part number	Legacy part number	Length	Description	Prosilica GT	Prosilica GX	Prosilica GC	Prosilica GE	Prosilica GB/GS	Mako-G	Manta BL	Manta/PoE	Guppy PRO	Stingray	Stingray BL	Pike	Guppy	Marlin	Oscar
2814	K1200191	2.0 m	12-pin Hirose female to open end	X	X	X					X	X	X		X		X	X
2815	K1200292 02-6033A 02-6031A	3.0 m		X	X	X					X	X	X		X		X	X
2817	K1200193	5.0 m		X	X	X					X	X	X		X		X	X
2818	K1200194	10.0 m		X	X	X					X	X	X		X		X	X
2789	02-6032A	3.0 m	12-pin Hirose male to open end				X											
2790	-	5.0 m					X											
2791	-	10.0 m					X											
K1200301	-	3.0 m	13-pin PicoBlade to open end							X				X				
K1200302	-	5.0 m								X				X				
K1200196	-	2.0 m	8-pin Hirose female to open end						X							X		
K1200197	-	5.0 m							X							X		
2792	02-6041A	3.0 m	14-pin Mini-D shell to open end					X										
2793	-	5.0 m						X										
2794	-	10.0 m						X										
Trigger cable (only connected to Trigger IN 1)																		
K1200267	-	2.0 m	12-pin Hirose female to BNC	X	X						X	X	X		X		X	X
K1200252	-	5.0 m		X	X							X	X	X		X		X
K1200240	-	2.0 m	12-pin Hirose female to open end	X	X						X	X	X		X		X	X
K1200244	-	10.0 m		X	X							X	X	X		X		X
K1200229	-	10.0 m	8-pin Hirose to 4-pin open end													X		

Table 2: I/O and trigger cable configurations

Manta board level camera

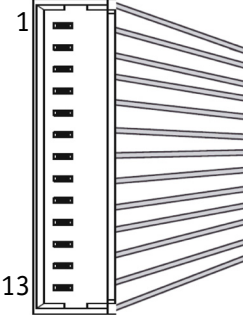
Drawing	Pin	Cable color	Signal	Direction	Level	Description
	1	Blue	External GND	---	GND for RS232 and ext. power	External Ground for RS232 and external power
	2	Red	External Power	---	+8...+30 VDC	Power Supply
	3	White/Black	Video Iris	---	---	Video Iris (\geq FW 1.44)
	4	Grey	Camera In1	In	$U_{in}(high) = 3\text{ V to }24\text{ V}$ $U_{in}(low) = 0\text{ V to }1.0\text{ V}$	Camera Input 1 opto-isolated (SyncIn1)
	5	Yellow	Reserved	---	---	---
	6	Green	Camera Out1	Out	Open emitter max. 10 mA	Camera Output 1 opto-isolated (SyncOut1)
	7	Brown	Camera In GND	In	Common GND for inputs	Camera Common Input Ground (In GND)
	8	White	RxD (RS232)	In	RS232	Terminal Receive Data
	9	Black	TxD (RS232)	Out	RS232	Terminal Transmit Data
	10	Orange	Camera Out Power	In	Common VCC for outputs max. 30 VDC	Camera Output Power for digital outputs (OutVCC)
	11	White/Brown	Camera In2	In	$U_{in}(high) = 3\text{ V to }24\text{ V}$ $U_{in}(low) = 0\text{ V to }1.0\text{ V}$	Camera Input 2 opto-isolated (SyncIn2)
	12	Violet	Camera Out2	Out	Open emitter max. 10 mA	Camera Output 2 opto-isolated (SyncOut2)
	13	Shield/Transparent	Chassis GND	---	Chassis GND	Chassis Ground

Table 7: Manta board level I/O definition

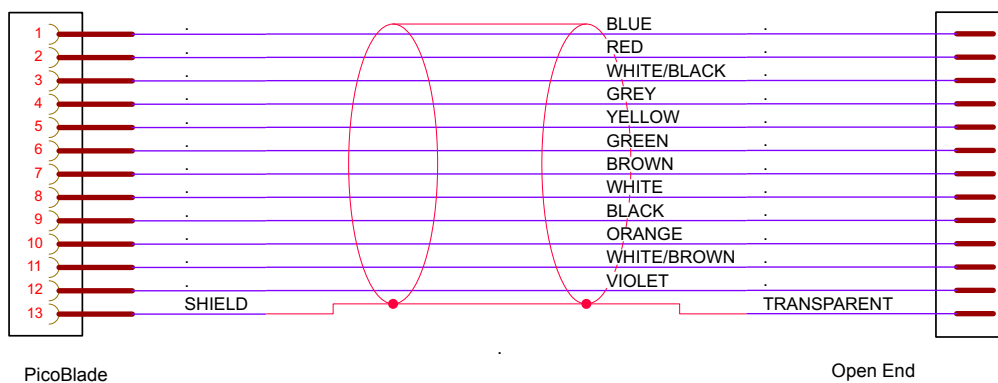


Figure 5: Manta board level cable color-coding

Note

Color-coding is only valid for part numbers as specified in the table above, the pinout can be different for legacy cable variants.



Camera IN1 and Camera IN2 for Non-PoE variants up to serial number 503323258 are specified as follows:

$U_{in}(high) = 2.5\text{ V to }6.0\text{ V}$

$U_{in}(low) = 0\text{ V to }0.8\text{ V}$

Additional references

To download AVT Technical Manuals etc.:

<http://www.alliedvisiontec.com/emea/support/downloads/product-literature.html>

AVTcamera webpages:

<http://www.alliedvisiontec.com/emea/products/cameras.html>

AVT case studies:

<http://www.alliedvisiontec.com/emea/products/applications.html>

Copyright

All text, pictures and graphics are protected by copyright and other laws covering intellectual property. It is prohibited to copy or modify them for trade use or transfer, or inclusion on websites.

Allied Vision Technologies GmbH 10.10.13

Headquarters:

ALLIED VISION TECHNOLOGIES GMBH
Taschenweg 2a
D-07646 Stadtroda / Germany
All rights reserved.
Managing Director:
Mr. Frank Grube
Tax ID: DE 184383113

Design and specification of the described product(s) are subject to change without notice.

Document owner: O. Antikoglu

© 10/13

