

## AVT I/O cable







AVT I/O cables are manufactured in accordance with the CE standard and its underlying directions.



AVT I/O cables comply with the requirements of the EU directive 2011/65/EU (Restriction of the use of certain hazardous substances in electrical and electronic equipment - RoHS).



We declare, under our sole responsibility, that the described parts or components conform to the directives of UL20276.

# **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 $\Omega/\mathrm{km}$ at 20°C	max. 140 Ω/km at +20°C	max. 155 $\Omega/\mathrm{km}$ 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		Χ	Χ	Χ					Χ	Χ	Χ		Χ		Χ	Χ
2815	K1200292 02-6033A 02-6031A	3.0 m	12-pin HIROSE female to open end	X	Х	Х					Х	X	Х		X		X	X
2817	K1200193	5.0 m		Χ	Χ	Х					Х	Χ	Χ		Χ		Χ	Χ
2818	K1200194	10.0 m		Χ	Χ	Х					Х	Χ	Χ		Χ		Χ	Χ
2789	02-6032A	3.0 m					Х											
2790	-	5.0 m	12-pin HIROSE male to open end				Х											
2791	-	10.0 m					Х											
K1200301	-	3.0 m	12 min Dies Dlade to anon and							Χ				Χ				
K1200302	-	5.0 m	13-pin PicoBlade to open end							Х				Χ				
K1200196	-	2.0 m	O min HTDOCT formula to a more and						Χ							Χ		
K1200197	-	5.0 m	8-pin HIROSE female to open end						Χ							Χ		
2792	02-6041A	3.0 m						Χ										
2793	-	5.0 m	14-pin Mini-D shell to open end					Х										
2794	-	10.0 m						Χ										
Trigger cal	ole (only cor	nected to	Trigger IN 1)															
K1200267	-	2.0 m	12-pin HIROSE female to BNC	Χ	Χ						Χ	Χ	Χ		Χ		Χ	Χ
K1200252	-	5.0 m	12-piii iiiiNO3L ieiliate to biiC	Χ	Χ						Χ	Χ	Χ		Χ		Χ	Χ
K1200240	-	2.0 m	12-pin HIROSE female to open end	Χ	Χ						Χ	Χ	Χ		Χ		Χ	Χ
K1200244	-	10.0 m	12 pin ninost remate to open end	Χ	Χ						Χ	Χ	Χ		Χ		Χ	Χ
K1200229	-	10.0 m	8-pin HIROSE to 4-pin open end													Χ		

Table 2: I/O and trigger cable configurations

## I/O connector pin assignment

### **Guppy camera**

Drawing	Pin	Cable color	Signal	Direction	Level	Description
HR25A-7TP-8S	1	Yellow dot Red	CameraOut1	Out	ΠL	Camera Output 1
	2	Yellow dot Black	CameraOut2	0ut	ΠL	Camera Output 2
7 4	3	Grey dot Red	CameraOut3	0ut	ΠL	Camera Output 3
8 6 3 1	4	Grey dot Black	CameraIn	In	ΠL	Camera Input
\$ 2	5	Pink dot Black	RxD	In	RS232	Terminal Receive Data
	6	Pink dot Red	TxD	0ut	RS232	Terminal Transmit Data
	7	Orange dot Black	ExtPower		+8 36V	Power Supply
	8	Orange dot Red	GND		GND	Ground

Table 3: Guppy I/O definition

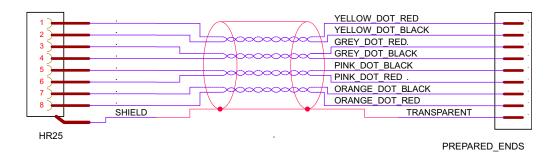


Figure 1: Guppy cable color-coding

Note

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



The mating cable connector is HIROSE HR25-7TP-8S and can be purchased from AVT.

AVT P/N: K7600503

## **Guppy PRO camera**

Drawing	Pin	Cable color	Signal	Direction	Level	Description
HR10A-10P-12S	1	Blue	External GND		GND for RS232 and ext. power	External Ground for RS232 and external power
	2	Red	External Power		+8+36 V DC	Power Supply
(0.0)	3	Pink				
$\left \left(\left(\begin{pmatrix}2&10&8\\3&11&2&7\end{pmatrix}\right)\right)\right $	4	Grey	Camera In1	In	U <sub>in</sub> (high) = 3V24 V U <sub>in</sub> (low) = 0V1.5 V	Camera Input 1 (GPIn1) opto-isolated
(4 s) 6///	5	Yellow	Camera Out3	Out	Open emitter	Camera Output 3 (GPOut3) opto-isolated
	6	Green	Camera Out1	Out	Open emitter	Camera Output 1 (GPOut1) opto-isolated
	7	Brown	Camera In GND	In	Common GND for inputs	Camera Common Input Ground (In GND)
	8	White				
	9	Black				
	10	Orange	Camera Out Power	In	Common VCC for outputs max. 36 V DC	Camera Output Power for digital outputs (OutVCC)
	11	White/Black				
	12	White/Brown	Camera Out2	Out	Open emitter	Camera Output 2 (GPOut2) opto-isolated

Table 4: Guppy PRO I/O definition

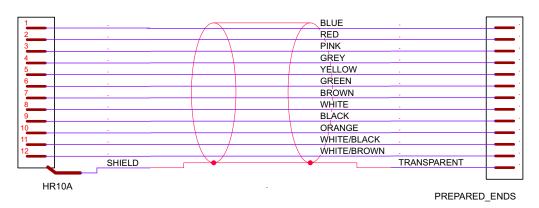


Figure 2: Guppy PRO cable color-coding

Note

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



The mating cable connector is HIROSE HR10A-10P-12S and can be purchased from AVT.

### Mako-G camera

Drawing	Pin	Cable color	Signal	Direction	Level	Description
HR25A-7TP-8S	1	Yellow dot Red	CameraOut1	Out	Open emitter max. 20 mA	Camera Output 1 (SyncOut1) opto-isolated
<b>2 9</b>	2	Yellow dot Black	CameraOut2	Out	Open emitter max. 20 mA	Camera Output 2 (SyncOut2) opto-isolated
8 6 3 1 5 2	3	Grey dot Red	CameraOut3	Out	Open emitter max. 20 mA	Camera Output 3 (SyncOut3) opto-isolated
	4	Grey dot Black	CameraIn	In	Uin(high) = 3 V24 V Uin(low) = 0 V1.0 V	Camera Input (SyncIn) opto-isolated
	5	Pink dot Black	CameraIn GND	In	Common GND for inputs	Camera Common Input Ground (In GND)
	6	Pink dot Red	CameraOut Power	In	Common VCC for outputs max. 30 V DC	Camera Output Power for digital outputs (OutVCC)
	7	Orange dot Black	ExtPower		12 V DC 24 V DC +/- 10 %	Power Supply
	8	Orange dot Red	GND		GND for ext. Power	External Ground for external power

Table 5: Mako-G I/O definition

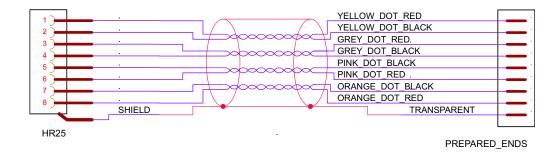


Figure 3: Mako-G cable color-coding

Note

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



The mating cable connector is HIROSE HR25-7TP-8S and can be purchased from AVT.

AVT P/N: K7600503

#### **Manta and Manta PoE camera**

Drawing	Pin	Cable color	Signal	Direction	Level	Description
HR10A-10P-12S	1	Blue	External GND		GND for RS232 and ext. power	External Ground for RS232 and external power
	2	Red	External Power		+8+30 V DC	Power Supply
	3	Pink	Video Iris			Video Iris (≥FW 1.44)
(3 (9 (9 (9 (9 (9 (9 (9 (9 (9 (9 (9 (9 (9	4	Grey	Camera In1	In	U <sub>in</sub> (high) = 3 V24 V U <sub>in</sub> (low) = 0 V1.0 V	Camera Input 1 (SyncIn1) opto-isolated
	5	Yellow	Reserved			
	6	Green	Camera Out1	Out	Open emitter max. 10 mA	Camera Output 1 (SyncOut1)opto-isolated
	7	Brown	Camera In GND	In	Common GND for inputs	Camera Common Input Ground (In GND)
	8	White	RxD	In	RS232	Terminal Receive Data
	9	Black	TxD	Out	RS232	Terminal Transmit Data
	10	Orange	Camera Out Power	In	Common VCC for outputs max. 30 V DC	Camera Output Power for digital outputs (OutVCC)
	11	White/Black	Camera In2	In	U <sub>in</sub> (high) = 3 V24 V U <sub>in</sub> (low) = 0 V1.0 V	Camera Input 2 (SyncIn2) opto-isolated
	12	White/Brown	Camera Out2	Out	Open emitter max. 10 mA	Camera Output 2 (SyncOut2) opto-isolated

Table 6: Manta and Manta PoE I/O definition

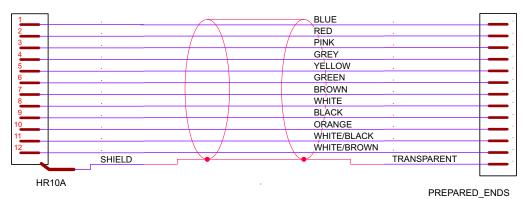


Figure 4: Manta and Manta PoE cable color-coding

Note

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



The mating cable connector is HIROSE HR10A-10P-12S and can be purchased from AVT.

AVT P/N: K7600040 or 02-7002A Camera IN1 and Camera IN2 for non-PoE variants manufactured prior

12/2011 are specified as follows:

 $U_{in}(high) = 2.5 V...6.0 V$ 

 $U_{in}(low)=0 V...0.8 V$ 

#### Manta board level camera

Drawing	Pin	Cable color	Signal	Direction	Level	Description
Molex PicoBlade	1	Blue	External GND		GND for RS232 and ext. power	External Ground for RS232 and external power
	2	Red	External Power		+8+30 V DC	Power Supply
	3	White/Black	Video Iris			Video Iris (≥FW 1.44)
1 -	4	Grey	Camera In1	In	U <sub>in</sub> (high) = 3 V24 V	Camera Input 1
					$U_{in}(low) = 0 V1.0 V$	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)
13	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 V DC	Camera Output Power for digital outputs (OutVCC)
	11	White/Brown	Camera In2	In	U <sub>in</sub> (high) = 3 V24 V U <sub>in</sub> (low) = 0 V1.0 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

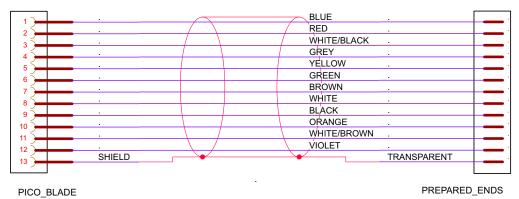


Figure 5: Manta board level cable color-coding

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:

 $U_{in}(high) = 2.5 V...6.0 V$  $U_{in}(low) = 0 V...0.8 V$ 

### Prosilica GT camera

Drawing	Pin	Cable color	Signal	Direction	Level	Description
HR10A-10P-12S	1	Blue	External GND		GND for RS232 and ext. power	External Ground for RS232 and external power
	2	Red	External Power		+5+24 V DC	Power Supply
(2 (i) 8)	3	Pink	Camera Out 4	Out	Open emitter max. 20 mA	Camera Output 4 (SyncOut4) opto-isolated
(3 th th 7) (4 to 6)	4	Grey	Camera In 1	In	LVTTL max. 3.3 V	Camera Input 1 (SyncIn1) non-isolated
	5	Yellow	Camera Out 3	Out	Open emitter max. 20 mA	Camera Output 3 (SyncOut3) opto-isolated
	6	Green	Camera Out 1	Out	LVTTL max. 3.3 V	Camera Output 1 (SyncOut1) non-isolated
	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 +5+24 V DC	Camera Output Power for digital outputs (Out VCC)
	11	White/Black	Camera In 2	In	$U_{in}(high) = 5V24 V$ $U_{in}(low) = 0V0.8 V$	Camera Input 2 (SyncIn2) opto-isolated
	12	White/Brown	Camera Out 2	Out	LVTTL max. 3.3 V	Camera Output 2 (SyncOut2) non-isolated

Table 8: Prosilica GT cable color code

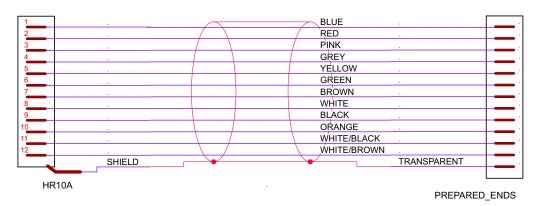


Figure 6: Prosilica GT cable color-coding

Note

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



The mating cable connector is HIROSE HR10A-10P-12S and can be purchased from AVT.

### **Pike and Stingray cameras**

Drawing	Pin	Cable color	Signal	Direction	Level	Description
HR10A-10P-12S	1	Blue	External GND		GND for RS232 and ext. power	External Ground for RS232 and external power
	2	Red	External Power		+8+36 V DC	Power Supply
2 10 8	3	Pink	Camera Out4	Out	Open emitter	Camera Output 4 (GPOut4) default: -
3 (1) (2) (2) (4) (5) (6)	4	Grey	Camera In 1	In	U <sub>in</sub> (high) = 3 V24 V U <sub>in</sub> (low) = 0 V1.5 V	Camera Input 1 (GPIn1) opto-isolated default: Trigger
	5	Yellow	Camera Out 3	Out	Open emitter	Camera Output 3 (GPOut3) default: Busy
	6	Green	Camera Out 1	Out	Open emitter	Camera Output 1 (GPOut1) default: IntEna
	7	Brown	Camera In GND	In	Common GND for inputs	Camera Common Input Ground (In GND)
	8	White	RxD	In	RS232	Terminal Receive Data
	9	Black	TxD	Out	RS232	Terminal Transmit Data
	10	Orange	Camera Out Power	In	Common VCC for outputs max. 35 V DC	Camera Output Power for digital outputs (OutVCC)
	11	White/Black	Camera In 2	In	U <sub>in</sub> (high) = 3 V24 V U <sub>in</sub> (low) = 0 V1.5 V	Camera Input 2 (GPIn2) default: -
	12	White/Brown	Camera Out 2	Out	Open emitter	Camera Output 2 (GPOut2) default: -

Table 9: Pike and Stingray I/O definition

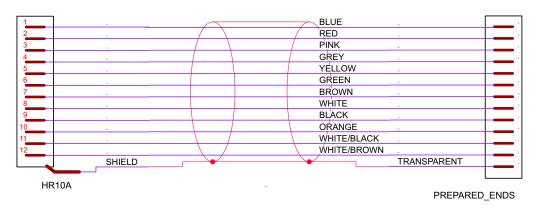


Figure 7: Pike and Stingray cable color-coding

Note

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



The mating cable connector is HIROSE HR10A-10P-12S and can be purchased from AVT.

## Stingray board level cameras

Drawing	Pin	Cable color	Signal	Direction	Level	Description
Molex PicoBlade	1	Blue	External GND		GND for RS232 and ext. power	External Ground for RS232 and external power
	2	Red	External Power		+8+36 V DC	Power Supply
1	3	White/Black	Camera Out4	Out	Open emitter	Camera Output 4 (GPOut4) default: -
	4	Grey	Camera In 1	In	U <sub>in</sub> (high) = 3 V24 V U <sub>in</sub> (low) = 0 V1.5 V	Camera Input 1 (GPIn1) opto-isolated default: Trigger
	5	Yellow	Camera Out 3	Out	Open emitter	Camera Output 3 (GPOut3) default: Busy
13	6	Green	Camera Out 1	Out	Open emitter	Camera Output 1 (GPOut1) default: IntEna
	7	Brown	Camera In GND	In	Common GND for inputs	Camera Common Input Ground (In GND)
	8	White	RxD	In	RS232	Terminal Receive Data
	9	Black	TxD	Out	RS232	Terminal Transmit Data
	10	Orange	Camera Out Power	In	Common VCC for outputs max. 35 V DC	Camera Output Power for digital outputs (OutVCC)
	11	White/Brown	Camera In 2	In	U <sub>in</sub> (high) = 3 V24 V U <sub>in</sub> (low) = 0 V1.5 V	Camera Input 2 (GPIn2) default: -
	12	Violet	Camera Out 2	Out	Open emitter	Camera Output 2 (GPOut2) default: -
	13	Shield/ Transparent	Chassis GND		Chassis GND	Chassis Ground

Table 10: Stingray board level I/O definition

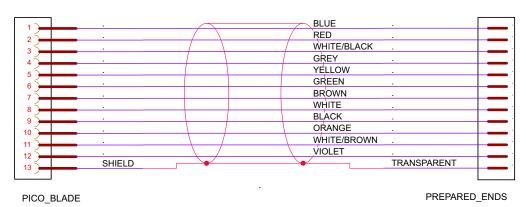


Figure 8: Stingray board level cable color-coding

Note

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



### Prosilica GC camera

Drawing	Pin	Cable color	Signal	Direction	Level	Description
HR10A-10P-12S	1	Blue	External GND		GND for RS232 and ext. power	External Ground for external power
	2	Red	External Power		+5 V+12 V DC +5 V+24 V DC*	Power Supply ← *April 2011
(2 (a) (8) (3 (a) (a) (2) (7)	3	Pink	Camera In 1	In	U <sub>in</sub> (high) = 5 V24 V U <sub>in</sub> (low) = 0 V0.8 V	Camera Input 1 opto-isolated(SyncIn1)
(4 s 6)	4	Grey	Camera Out1	Out	Open emitter max. 20 mA	Camera Output 1 opto-isolated (SyncOut1)
	5	Yellow	Isolated GND			Ground for isolated outputs
	6	Green	Video Iris	Out		PWM Signal for Iris Control
	7	Brown	Reserved			
	8	White	TxD	Out	RS232	Terminal Transmit Data
	9	Black	RxD	In	RS232	Terminal Receive Data
	10	Orange	Signal GND			Ground for RS232 and non- isolated outputs
	11	White/Black	Camera In 2	In	LVTTL max. 3.3 V	Camera Input 2 non-isolated (SyncIn2)
	12	White/Brown	Camera Out 2	Out	LVTTL max. 3.3 V	Camera Output 2 non-isolated (SyncOut2)

Table 11: Prosilica GC I/O definition

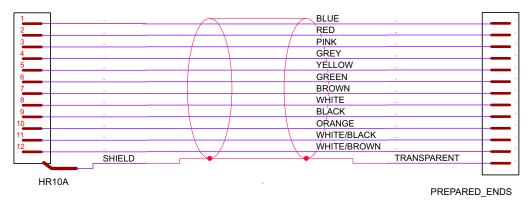


Figure 9: Prosilica GC cable color-coding

Note

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



The mating cable connector is HIROSE HR10A-10P-12S and can be purchased from AVT. AVT P/N: K7600040 or 02-7002A

### Prosilica GX camera

Drawing	Pin	Cable color	Signal	Direction	Level	Description
HR10A-10P-12S	1	Blue	External GND		GND for RS232 and ext. power	External Ground for RS232 and external power
	2	Red	External Power		+5+24 V DC	Power Supply
(2 19 8)	3	Pink	Camera Out4	Out	Open emitter max. 20 mA	Camera Output 4 (SyncOut4) opto-isolated
(3 th th 7) (4 to 6)	4	Grey	Camera In 1	In	$U_{in}(high) = 5 \text{ V24 V}$ $U_{in}(low) = 0 \text{ V0.8 V}$	Camera Input 1 (SyncIn1) opto-isolated
	5	Yellow	Camera Out 3	Out	Open emitter max. 20 mA	Camera Output 3 (SyncOut3) opto-isolated
	6	Green	Camera Out 1	Out	Open emitter max. 20 mA	Camera Output 1 (SyncOut1) opto-isolated
	7	Brown	Camera In GND	In	Common GND for inputs	Camera Common Input Ground (In GND)
	8	White	RxD	In	RS232	Terminal Receive Data
	9	Black	TxD	0ut	RS232	Terminal Transmit Data
	10	Orange	Camera Out Power	In	Common VCC for outputs +5+24 VDC	Camera Output Power for digital outputs (Out VCC)
	11	White/Black	Camera In 2	In	$U_{in}(high) = 5 \text{ V24 V}$ $U_{in}(low) = 0 \text{ V0.8 V}$	Camera Input 2 (SyncIn2) opto-isolated
	12	White/Brown	Camera Out 2	Out	Open emitter max. 20 mA	Camera Output 2 (SyncOut2) opto-isolated

Table 12: Prosilica GX I/O definition

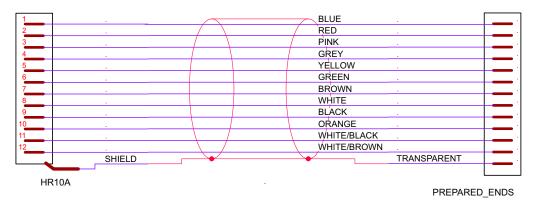


Figure 10: Prosilica GX cable color-coding

Note

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



The mating cable connector is HIROSE HR10A-10P-12S and can be purchased from AVT. AVT P/N: K7600040 or 02-7002A

### Marlin and Oscar cameras

Drawing	Pin	Cable color	Signal	Direction	Level	Description
HR10A-10P-12S	1	Blue	External GND		GND for RS232 and ext. power	External Ground for RS232 and external power
	2	Red	Power IN		+8+36 V DC	Power supply. Not required for CMOS models
	3	Pink	Reserved			
(3 (1) (2) (3) (4) (5) (6) (6) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7	4	Grey	GPInput 1	In	$U_{in}(high) = 2 VU_{inVCC}$ $U_{in}(low) = 0 V0.8 V$	TTL, Edge, programmable Camera Input1 (GPIn1) default: Trigger
	5	Yellow	Reserved			
	6	Green	GP Output 1	Out	Marlin:Open collector Oscar:Open emitter	Camera Output 1 (GPOut1) default: IntEna
	7	Brown	GPInput GND		Common GND for inputs	Camera Common Input Ground (InGND)
	8	White	RxD	In	RS232	Terminal Receive Data
	9	Black	TxD	Out	RS232	Terminal Transmit Data
	10	Orange	OutVCC	Out	Common VCC for outputs max. 36 V DC	Camera Output Power for digital outputs (OutVCC)
	11	White/Black	GPInput 2	In	$U_{in}(high) = 2 VU_{inVCC}$ $U_{in}(low) = 0 V0.8 V$	TTL Camera Input 2 (GPIn2) default: -
	12	White/Brown	GPOutput 2	Out	Marlin:Open collector Oscar:Open emitter	Camera Output 2 (GPOut2) default: -

Table 13: Marlin and Oscar I/O definition

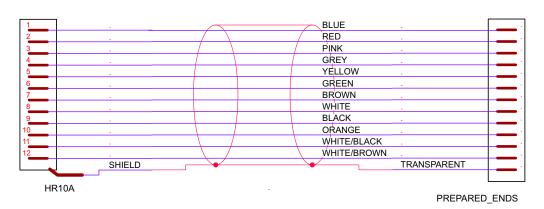


Figure 11: Marlin and Oscar cable color-coding

Note

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



The mating cable connector is HIROSE HR10A-10P-12S and can be purchased from AVT. AVT P/N: K7600040 or 02-7002A

### Prosilica GE camera

Drawing	Pin	Cable color	Signal	Direction	Level	Description
HR10A-10P-12P	1	Blue	Camera In 1	In	TTL max. 5 V	Camera Input 1 (SyncIn1) Galvanic isolation
(8 (9 (2) (7 (2) (3) (3) (6 (5) (4)	2	Red	Camera Out 2	Out	TTL max. 5 V	Camera Output 2 (SyncOut2) Galvanic isolation
	3	Pink	Camera Out 3	Out	TTL max. 5 V	Camera Output 3 (SyncOut3) Galvanic isolation
	4	Grey	RxD	In	RS232	Terminal Receive Data
	5	Yellow	TxD	0ut	RS232	Terminal Transmit Data
	6	Green	Reserved			
	7	Brown	Reserved			
	8	White	Reserved			
	9	Black	Reserved			
	10	Orange	Isolated GND			
	11	White/Black	Isolated GND			
	12	White/Brown	Isolated GND			

Table 14: Prosilica GE I/O definition

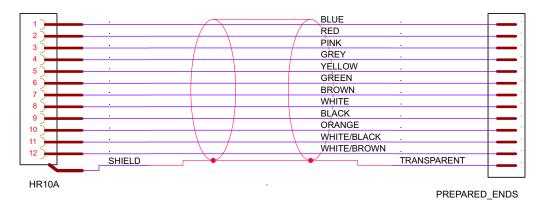


Figure 12: Prosilica GE cable color-coding

Note

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



The mating cable connector is HIROSE HR10A-10P-12P and can be purchased from AVT.

### Prosilica GB/GS camera

Drawing	Pin	Cable color	Signal	Direction	Level	Description
14-pin Mini-D	1	Red	External Power		+5+16 V DC	Power Supply
7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2	Black	External GND		GND for power	External Ground for external power
	3	White	Camera In 1	In	$U_{in}(high) = 5 \text{ V24 V}$ $U_{in}(low) = 0 \text{ V0.8 V}$	Camera Input 1 (SyncIn1) opto-isolated
	4	Brown	Isolated GND			Ground for isolated outputs (isolated GND)
	5	Green	Camera Out 1	Out	Open emitter max. 20 mA	Camera Output 1 (SyncOut1) opto-isolated
	6	Blue	Video Iris	Out		PWM Signal for Iris Control
	7	Orange	Reserved			
	8					
	9					
	10	Yellow	TxD	Out	RS232	Terminal Transmit Data
	11	White/Brown	RxD	In	RS232	Terminal Receive Data
	12	Pink	Camera In 2	In	LVTTL max. 3.3 V	Camera Input 2 (SyncIn2) non-isolated
	13	White/Black	Camera Out 2	Out	LVTTL max. 3.3 V	Camera Output 2 (SyncOut2) non-isolated
	14	Grey	Non-isolated GND			Ground for non-isolated outputs and RS232

Table 15: Prosilica GB/GS I/O definition

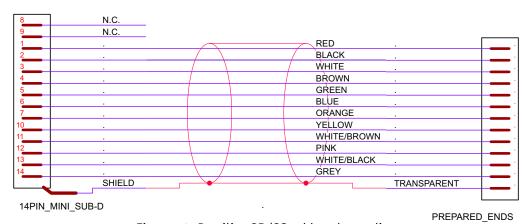


Figure 13: Prosilica GB/GS cable color-coding

Note

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



The mating cable connector is 3M 10114-3000PE and can be purchased from AVT.

AVT P/N: 02-7003A

#### **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

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