



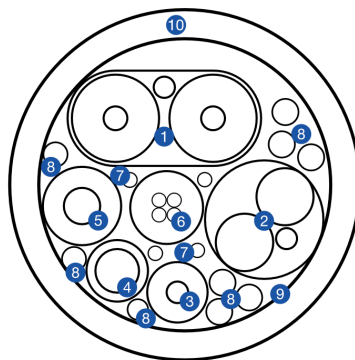
- AO Series Active Optical Standard and Armoured HDMI Cables
- Armoured Cable Crush Protection up to 200kg (<30 Seconds), 100kg (<48 hours)
- Available as Type A to Type A, Type A to Type D (Detachable A) and Type D (Detachable A) to Type D (Detachable A)
- Detachable connectors reveal a HDMI Type D (Micro HDMI) connector
- Includes USB A to Micro USB Auxiliary Power Cable and tool for detachable connectors
- Available lengths: 5m, 8m, 10m, 15m, 20m, 30m
- Hybrid type cable with OM3 fiber and copper wire
- Long length cables with full speed performance

Product Configuration Table

Cable Type	Cable Speed / Connector type	Cable Length
AOHA - Standard PVC Jacket	21AA - HDMI 2.1 A-A Cable	005 - 5m
AOHS - Armoured TPU Jacket	21AD - HDMI 2.1 A-D Cable	008 - 8m
	21DD - HDMI 2.1 D-D Cable	010 - 10m
		015 - 15m
		020 - 20m
		030 - 30m

Active Optical HDMI Cable Specifications

Electrical + Electronic	
Power Supply Voltage	Min 4.5V, Max 5.5V
O/E Converter	44 channel 850 nm VCSEL array, 4 CH GaAs PD array
HDCP & DDC	HDCP 2.2 Fully Support bi-directional EDID and HDCP communication
Video Bandwidth	12 Gbps/x4Channel (max)+ Clock
Differential Input	100 ohm (typ)
Low Power Consumption	250mW (max)
Supported Resolution	480p, 720p, 1080i and 1080p deep colour, 4Kp50/60/100/120 and 8Kp50/60
Mechanical + Materials	
Jacket Outer Material	850nm VCSEL (Multimode)
Cable Outer Diameter	4.5mm
Cable Length	5m, 8m, 10m, 15m, 20m, 30m
Cable Type	Hybrid type with OM3 fiber and copper wire
Connector Type	HDMI type A + HDMI Type D
Environmental	
Operating Temperature	0°C to 50°C
Storage Temperature	-40°C to 70°C
Relative Humidity	10 - 80 %RH

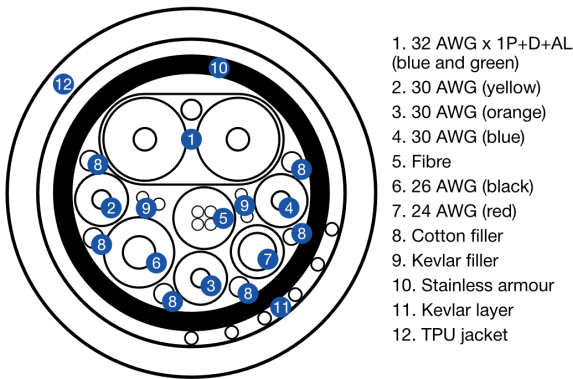
Active Optical HDMI Cable Diagram


1. 30 AWG x 1P+D+AL (blue and green)
2. 30 AWG x 1C, 28 AWG x 1C+D+AL
3. 28 AWG (orange)
4. 24 AWG (red)
5. 26 AWG (black)
6. Fibre
7. Kevlar filler
8. Cotton filler
9. Aluminium foil
10. Jacket

Active Optical Armoured HDMI Cable Specifications

Electrical + Electronic	
Power Supply Voltage	Min 4.5V, Max 5.5V
O/E Converter	4 channel 850 nm VCSEL array, 4 CH GaAs PD array
HDCP & DDC	HDCP 2.2 Fully Support bi-directional EDID and HDCP communication
Video Bandwidth	12 Gbps/x4Channel (max)+ Clock
Differential Input	100 ohm (typ)
Low Power Consumption	250mW (max)
Supported Resolution	480p, 720p, 1080i and 1080p deep colour, 4Kp50/60/100/120 and 8Kp50/60
Mechanical + Materials	
Crush Resistance	200kg (<30 Seconds), 100kg (<48 hours)
Jacket Outer Material	TPU
Cable Outer Diameter	5.8mm
Cable Length	5m, 8m, 10m, 15m, 20m, 30m
Cable Type	Armoured Hybrid type with OM3 fiber and copper wire
Connector Type	HDMI type A + HDMI Type D
Environmental	
Operating Temperature	0°C to 50°C
Storage Temperature	-40°C to 70°C
Relative Humidity	10 - 80 %RH

Active Optical Armoured HDMI Cable Diagram



1. 32 AWG x 1P+D+AL (blue and green)
2. 30 AWG (yellow)
3. 30 AWG (orange)
4. 30 AWG (blue)
5. Fibre
6. 26 AWG (black)
7. 24 AWG (red)
8. Cotton filler
9. Kevlar filler
10. Stainless armour
11. Kevlar layer
12. TPU jacket

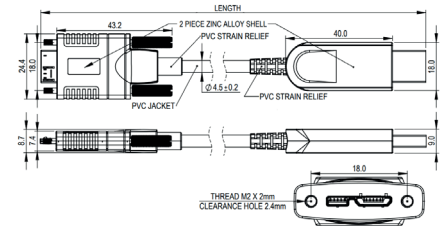


- Hybrid optical cable with fibre and copper
- High speed and long length USB 3.2 cables
- No loss of signal and reduced EMI/RFI
- Plug and Play
- Flammability VW-1 rated
- Available in custom lengths up to specified range(30m or 50m)*

AO A-Micro B Screw Cable



- USB 3.2 Gen1 Active Optical Cable, A male to Micro-B male PVC jacket with screws
- Available in lengths: 5m, 8m, 10m, 15m, 20m, and 30m
- Secure screw lock design
- Braided cable jacket for drag chain applications
- Up to 5Gbps



AOUS7/XXX

Part no.	Length	Description
AOUS7/005	5m	USB 3.2 Gen1 Active Optical Cable, A male to Micro-B male PVC jacket with screws
AOUS7/080	8m	USB 3.2 Gen1 Active Optical Cable, A male to Micro-B male PVC jacket with screws
AOUS7/010	10m	USB 3.2 Gen1 Active Optical Cable, A male to Micro-B male PVC jacket with screws
AOUS7/015	15m	USB 3.2 Gen1 Active Optical Cable, A male to Micro-B male PVC jacket with screws
AOUS7/020	20m	USB 3.2 Gen1 Active Optical Cable, A male to Micro-B male PVC jacket with screws
AOUS7/030	30m	USB 3.2 Gen1 Active Optical Cable, A male to Micro-B male PVC jacket with screws

Product Configuration Table						
Product	Type	Terminations	Angle	Screws	Cable Jacket	Available Lengths
AOUS1	USB	Male A to Female A	Straight	No	PVC Normal Jacket	10m, 20m, and 30m
AOUS2	USB	Male A to Male C	Straight	Yes	PVC Optimised for Drag Chain jacket (Braided PVC)	5m, 8m, 10m, 15m, 20m, 30m
AOUS3	USB	Male A to Male C	Right angle	No	PVC Normal Jacket	5m, 8m, 10m, 15m, 20m, 30m
AOUS4	USB	Male A to Male C	Straight	No	PVC Normal Jacket	5m, 8m, 10m, 15m, 20m, 30m
AOUS6	USB	Male A to Male Micro B	Straight	Yes	PVC Optimised for Drag Chain jacket (Braided PVC)	5m, 8m, 10m, 15m, 20m, 30m
AOUS7	USB	Male A to Male Micro B	Straight	Yes	PVC Normal Jacket	5m, 8m, 10m, 15m, 20m, 30m

BUCCANEER FOR DATA
AO Series Active Optical USB

Active Optical



Electrical	
Voltage MIN/MAX Absolute	-0.5V / 5.5V
Voltage Supply MIN/TYP/MAX	4.75V / 5.00V / 5.25V
Power Consumption	≤ 0.5W
Differential Impedance	90Ω
Performance	
Fibre Mode	Multimode

Optical	
Optical Transceiver	850nm VCSEL (Multimode)
TX Random Jitter	3ps
TX Deterministic Jitter	60ps
Total Jitter at a 10 ⁻¹² BER	100ps
RX Sensitivity MIN	-7.5dBm
AC Coupling Capacitor RXOUT	MIN 75nF, TYP 100nF, MAX 200nF

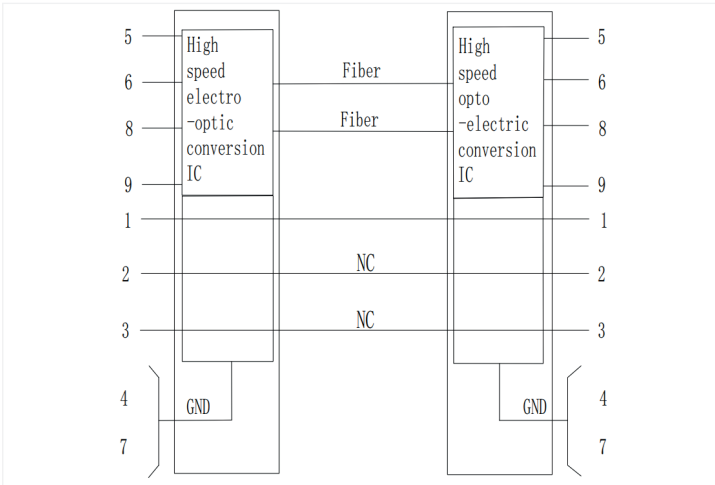
Material	
Connector Shell material	Zinc Alloy
Jacket Material	PVC

Dimensions	
Minimum bend radius	25mm

Safety	
Flammability	VW-1
Environment Protection	ROHS
Operating Temperature	0C to 50C
Storage Temperature	-20C to 85C
Humidity	10% to 85%

Wiring

AOUS1, AOUS6, AOUS7



AOUS2, AOUS3, AOUS4

