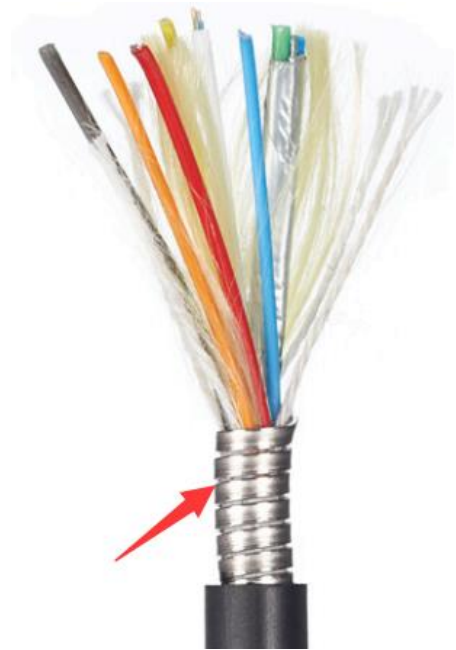


## Premium Optic Armored DisplayPort Cables



### *Descriptions*

Armored DP 1.4 AOC is our new Audio/Video cable, HD signal transmission depending on optical fiber, not only its support length become much longer (above 100m), but also signal quality is much more stable, no EMI completely, especially can support 8.1Gbps bandwidth per channel. Support 8K, meets DP 1.4 Standard, It is a mature & competitive solution in the high speed data transmission market. Plug and play, No external power required. This optical fiber cable can be applied to Displays outdoor, staging and rental projects, that transfer audio video signal.

## Key Features

- Support 8K@60Hz , Supports HBR3, HDCP 1.4 / 2.2; very good compatibility;
- Support DP 1.4 standard, bandwidth can reach 32.4Gbps (8.1 Gbps per channel);
- Support length up to 100m max , length custom is available ;
- Hybrid fiber and copper, much more slim and light ;
- Cable OD 5.8 mm, stainless steel reinforced.
- Low RFI / EMI profile for sensitive applications
- Plug and play.

## Applications

- Medical Imaging Equipment;
- Airplane On-board Video System;
- Car Service Center big screen show Video System;
- TV Broadcast Station;
- Conference room Video System;
- Blue-ray, 3D video, Projector, Set-up box, DVR, Game Consoles and Computer;
- Digital Home Theatre;
- LED signboards and panel information displays for Airports, Stadiums and Outdoor;
- Advertising, Auditorium, and Kiosk;
- Traffic control;
- Factory Automation Systems.

## Specifications

### 1. Performance

|                               |                                                  |
|-------------------------------|--------------------------------------------------|
| Standards Compliance          | DisplayPort 1.4 / HBR3, HDCP 1.4 / 2.2           |
| Maximum Pixel Clock Frequency | 810 MHz                                          |
| Maximum Video Bit Rate        | Supports up to 8.1 Gbps per lane, 32.4Gbps Total |
| Maximum Color Depth           | 48bits                                           |
| Maximum Supported Resolutions | 8K@60Hz                                          |

## 2. Connections

|                            |                                   |
|----------------------------|-----------------------------------|
| DisplayPort Input / Output | 20-pin DisplayPort                |
| Power                      | No external power supply required |

## 3. AUX Channel Support

|                            |                                                                           |
|----------------------------|---------------------------------------------------------------------------|
| AUX Channel Communications | Supports bidirectional communications for EDID, HDCP, Link training, etc. |
| HDCP Support               | HDCP 1.4 and HDCP 2.2                                                     |

## 4. Optical

|                     |                                            |
|---------------------|--------------------------------------------|
| Optical Technology  | 4x Discrete Optical Channels, 10GHz, 850nm |
| Optical Transmitter | Tx Module: 4 x 850nm Multi-Mode VCSELs     |
| Optical Receiver    | Rx Module: 4 x GaAs PIN Photo Diodes       |

## 5. Cable

|                      |                                            |
|----------------------|--------------------------------------------|
| Fiber Cable Type     | Hybrid cable 4 X fiber and 8 x copper wire |
| Cable Jacket         | TPU, Black                                 |
| Maximum Cable Length | 100 meters                                 |

## 6. Mechanical – Cable

|                        |                    |
|------------------------|--------------------|
| Product Weight         | Varies with length |
| Maximum Tensile Load   | 300N               |
| Minimum Bend Radius    | 48mm               |
| Cable Outside Diameter | 5.8mm              |

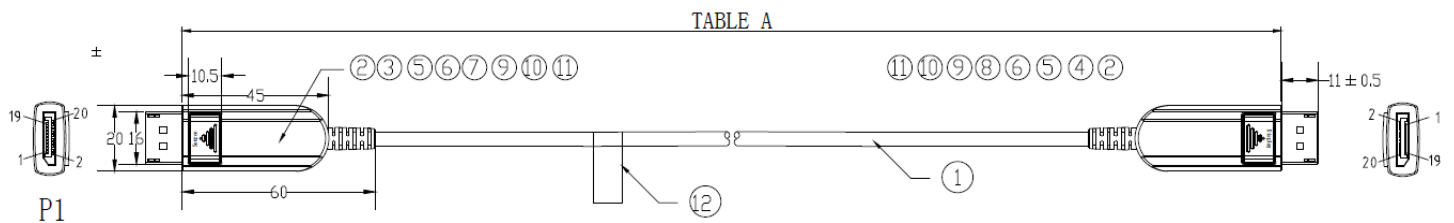
## 7. Environmental

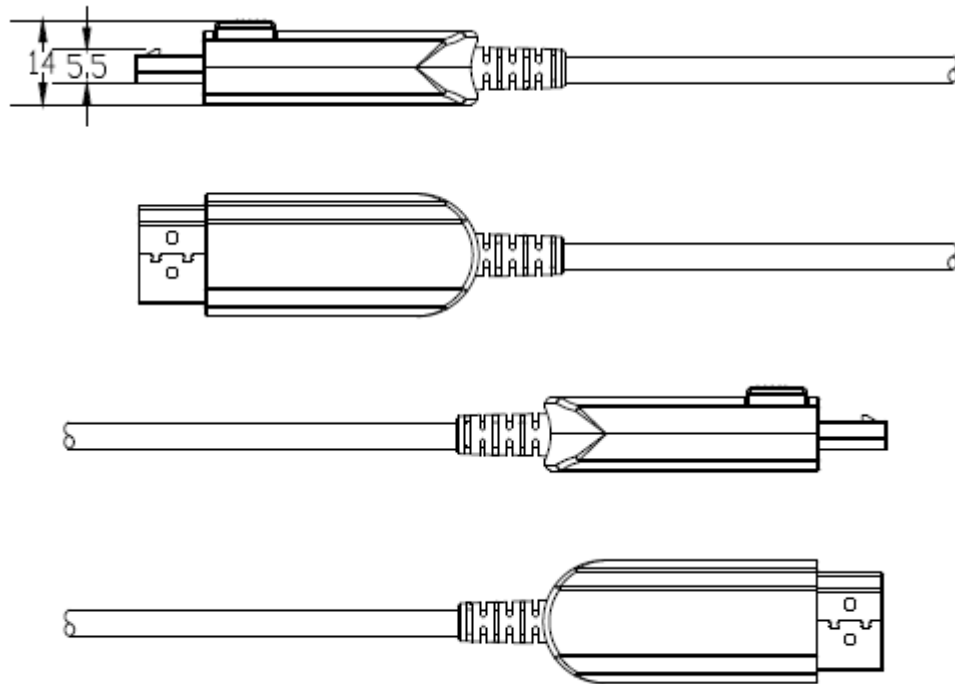
| Parameter             | Symbol | Min | Max | Unit |
|-----------------------|--------|-----|-----|------|
| Operating Temperature | Top    | 0   | 50  | °C   |
| Storage Temperature   | Ts     | -40 | 70  | °C   |
| Relative Humidity     | Hs     | 10  | 80  | %RH  |

## 8. Power Requirements

|                   |                                        |
|-------------------|----------------------------------------|
| Power Source      | Powered from DisplayPort source device |
| Power Consumption | < 0.5 watt each end                    |

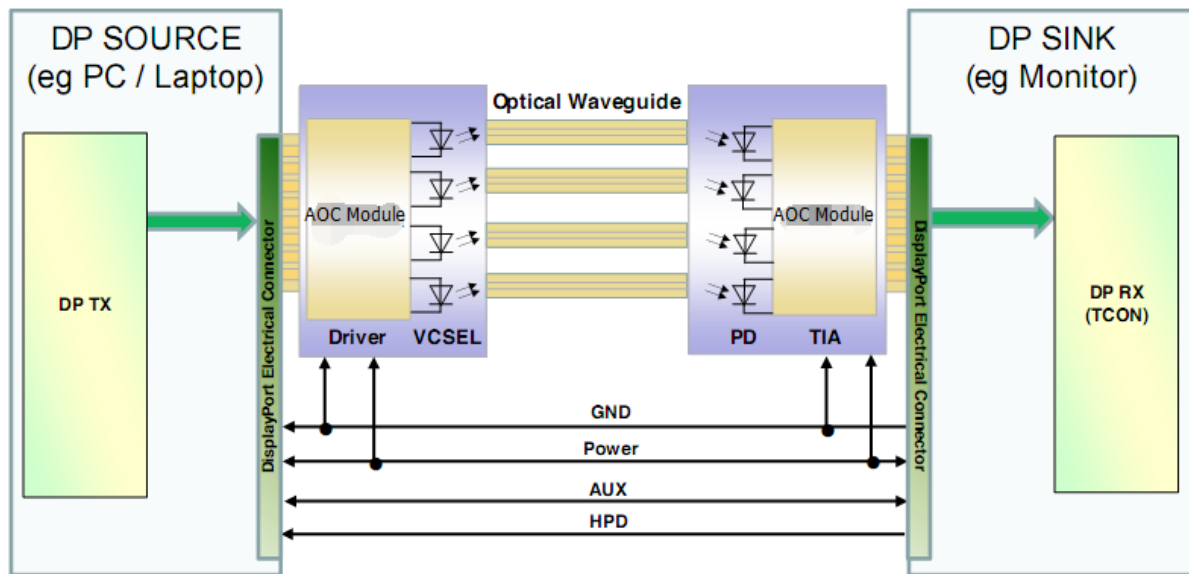
### DP Type A Pin Assignment



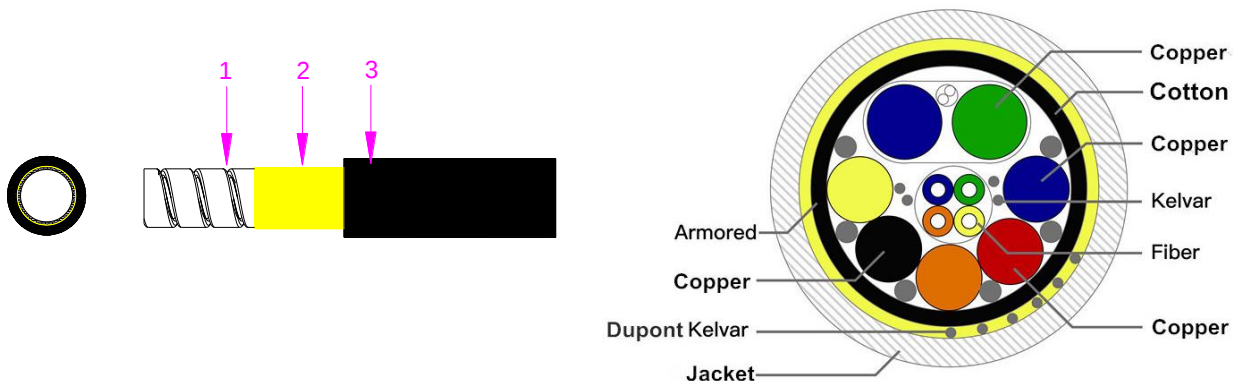


| PIN | Function      | PIN | Function        |
|-----|---------------|-----|-----------------|
| 1   | ML_Lane 0 (P) | 11  | GND             |
| 2   | GND           | 12  | ML_Lane 3 (n)   |
| 3   | ML_Lane 0 (n) | 13  | GND             |
| 4   | ML_Lane 1 (p) | 14  | GND             |
| 5   | GND           | 15  | AUX_CH (p)      |
| 6   | ML_Lane 1 (n) | 16  | GND             |
| 7   | ML_Lane 2 (p) | 17  | AUX_CH (n)      |
| 8   | GND           | 18  | Hot Plug Detect |
| 9   | ML_Lane 2 (n) | 19  | DP Power Return |
| 10  | ML_Lane 3 (p) | 20  | DP Power        |

## Installation



## Hybrid Cable Profile



| Cable Sturcture |                        | Material/Model        | Specifications |
|-----------------|------------------------|-----------------------|----------------|
| 1               | Metal Tube             | 200CU Stainless steel | 4.4±0.1        |
| 2               | To strengthen the unit | Dupont Kevlar         | 1670D*4        |
| 3               | Jacket                 | TPU                   | OD 5.8±0.2 mm  |

| Tensile(N) |            | Crush Resistance(N/100mm) |            | Bending Radius(mm) |        | Temperature(℃) |
|------------|------------|---------------------------|------------|--------------------|--------|----------------|
| Long Term  | Short Term | Long Term                 | Short Term | Dynamic            | Static |                |
| 400        | 800        | 1000                      | 2000       | 10D                | 20D    |                |

## Ordering Information

| Part Number   | Description                                                            |
|---------------|------------------------------------------------------------------------|
| SADC-1400-010 | Armored Displayport AOC, V1.4, 8K@60Hz, Support EDID/HDCP, Length 10m  |
| SADC-1400-015 | Armored Displayport AOC, V1.4, 8K@60Hz, Support EDID/HDCP, Length 15m  |
| SADC-1400-020 | Armored Displayport AOC, V1.4, 8K@60Hz, Support EDID/HDCP, Length 20m  |
| SADC-1400-025 | Armored Displayport AOC, V1.4, 8K@60Hz, Support EDID/HDCP, Length 25m  |
| SADC-1400-030 | Armored Displayport AOC, V1.4, 8K@60Hz, Support EDID/HDCP, Length 30m  |
| SADC-1400-040 | Armored Displayport AOC, V1.4, 8K@60Hz, Support EDID/HDCP, Length 40m  |
| SADC-1400-050 | Armored Displayport AOC, V1.4, 8K@60Hz, Support EDID/HDCP, Length 50m  |
| SADC-1400-060 | Armored Displayport AOC, V1.4, 8K@60Hz, Support EDID/HDCP, Length 60m  |
| SADC-1400-070 | Armored Displayport AOC, V1.4, 8K@60Hz, Support EDID/HDCP, Length 70m  |
| SADC-1400-080 | Armored Displayport AOC, V1.4, 8K@60Hz, Support EDID/HDCP, Length 80m  |
| SADC-1400-090 | Armored Displayport AOC, V1.4, 8K@60Hz, Support EDID/HDCP, Length 90m  |
| SADC-1400-100 | Armored Displayport AOC, V1.4, 8K@60Hz, Support EDID/HDCP, Length 100m |