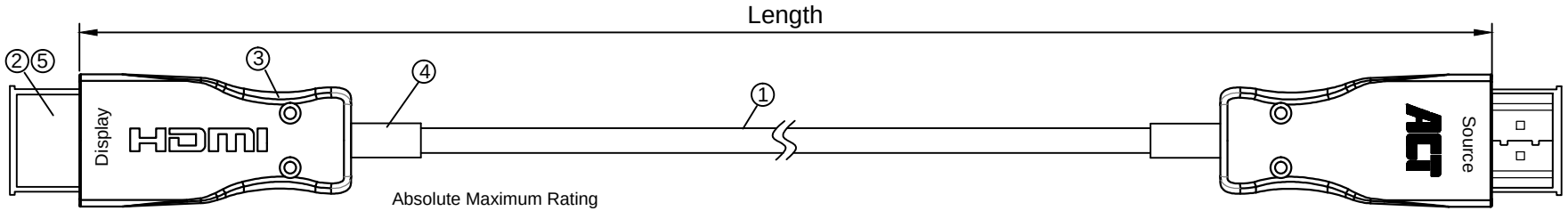
Autodesk

RoHS Compliant

REV.	REVISED DESCRIPTION	DATE	CHECKED
A0	FIRST RELEASE	2019/04/16	



KEY FEATURES

- Up to 100m Maximum Length.(Custom Length Available)
- Supports computer resolutions to **4K@60Hz@4:4:4**
- Plug and Play
- Compatible with **HDMI 2.0 standard**
- Support **HDCP2.2@ARC**
- Self-detecting function for EDID information
- No loss of signal
- Hybrid optical cable with fiber and copper wire

Applications

- Digital Signage
- LED signboards in streets and in stadiums
- Medical Imaging Equipment
- Airplane On-board Video System
- Home Theater
- Blue-ray, 3D video, Projector, Set-up box, DVR, Game Consoles and Computer
- TV Broadcast Station
- Conference Room Video Equipment
- Security systems

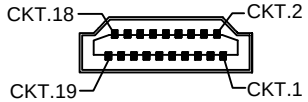
Absolute Maximum Rating

Parameter	Symbol	Min	Max	Unit
Power Supply Voltage	VCC	4.5	5.5	V
Operating Temperature	Top	0	50	°C
Storage Temperature	Ts	-40	70	°C
Relative Humidity	Hs	10	80	%RH

Recommended Operating Conditions

Parameter	Symbol	Min	Typical	Max	Unit
Power Supply Voltage	VCC	4.75	5.0	5.25	V
Operating Temperature	Top	0		50	°C

HDMI Type A Pin Assignment



PIN	Function	PIN	Function
1	T.M.D.S. Data 2+	11	TMDS Clock Shield
2	T.M.D.S. Data 2 Shield	12	TMDS Clock-
3	T.M.D.S. Data 2-	13	CEC
4	T.M.D.S. Data 1+	14	Utility
5	T.M.D.S. Data 1 Shield	15	SCL
6	T.M.D.S. Data 1-	16	SDA
7	T.M.D.S. Data 0+	17	DDC/CEC Ground
8	T.M.D.S. Data 2 Shield	18	+5V Power
9	T.M.D.S. Data 0-	19	Hot Plug Detect
10	TMDS Clock+		

Item NO.	Length(m)
AK3930	10.0m
AK3931	15.0m
AK3932	20.0m
AK3933	30.0m
AK3934	40.0m
AK3935	50.0m
AK3936	60.0m
AK3937	70.0m
AK3938	80.0m
AK3939	90.0m
AK3940	100.0m

Specifications

Item	Description	
Units	Transmitter (Source)	Receiver (Sink)
HDCP & DDC	HDCP 2.2 Fully Support bi-directional EDID and HDCP communication	
Video Bandwidth	6 Gbps/x3Channel (max)+ Clock.	
Supported	4k@60Hz@4:4:4@100m	
Resolution & Distance		
O/E Converter	4 channel 850 nm VCSEL array	4 CH GaAs PD array
Connector Type	HDMI type A	
Cable Type	Hybrid type with OM3 fiber and copper	
Cable Length	75m/100m(with +/- cm tolerance) Custom length available.	
Cable Outer Diameter	4.8mm	
Jacket Outer Material	TPU(Custom)	
Differential Input	100 ohm (typ)	

ITEM	DESCRIPTIONS & SPECIFICATIONS		QTY	REMARK
⑤		HDMI Protective Cap, PE	2PCS	
④	SR	Black	2PCS	
③	Shell	Metal Shell, Gun color	2Sets	
②	Connector	HDMI-A male, Gold-Plated	2Sets	
①	Cable	HDMI 2.0 Optical Cable OD4.8		

TOLERANCES UNLESS OTHERWISE STATED
X. = ± 1
.X = ± 0.2
.XX = ± 0.1

ERP NO.:		SAMPLE DWG NO:	
DOC No.:		REVISION	A0
CUSTOMER:		UNIT	mm
CUSTOMER P/N:		SCALE	NO
DESCRIPTION	HDMI 2.0 Active Optical Cable	PAGE NO	1/1
		DATE	2019/04/16
APPROVAL	CHECKED	DRAWN	

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