

# Video Cable

## Premium High Speed HDMI® Cable with Ethernet (30AWG) HDMI 2.0 Type A (Male) to Type A (Male), 4K60, 18Gbps, LSZH

SKU: VDC-HCL20-XXXM

### PRODUCT OVERVIEW

The **VDC-HCL20-XXXM, Premium High Speed HDMI® Cable with Ethernet**, is designed to deliver exceptional performance for high-definition video and audio transmission. It features 30AWG (American Wire Gauge) conductors, ensuring excellent signal integrity and high-speed data transfer. The cable supports HDMI 2.0 specifications and features, including 4K@60Hz video, high-definition audio, HDR, Ethernet connectivity, etc.



The image shown is for illustration purpose only and may not be an exact representation of the product

### KEY FEATURES

- **High-Speed Performance:** Delivers up to 18Gbps data transfer speed, supporting 4K Ultra HD, 1080p, 3D videos, and high-resolution audio formats.
- **Ethernet Over HDMI:** Enables Ethernet connectivity through the HDMI cable, eliminating the need for a separate Ethernet cable.
- **Premium Cable Build:** Designed for enhanced durability and signal integrity.
- **Gold-Plated Connectors:** Provide excellent conductivity and long-lasting performance.
- **Low Smoke Zero Halogen (LSZH) Jacket:** Designed to emit minimal smoke in case of fire, ideal for installations in sensitive environments.
- **Shielding:** Advanced shielding helps reduce electromagnetic interference (EMI), ensuring stable, interference-free performance.
- **Backward Compatibility:** Fully compatible with previous HDMI versions (HDMI 1.4, 1.3, etc.).
- **Length Options:** 1m, 2m or 3m

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## PRODUCT SPECIFICATIONS

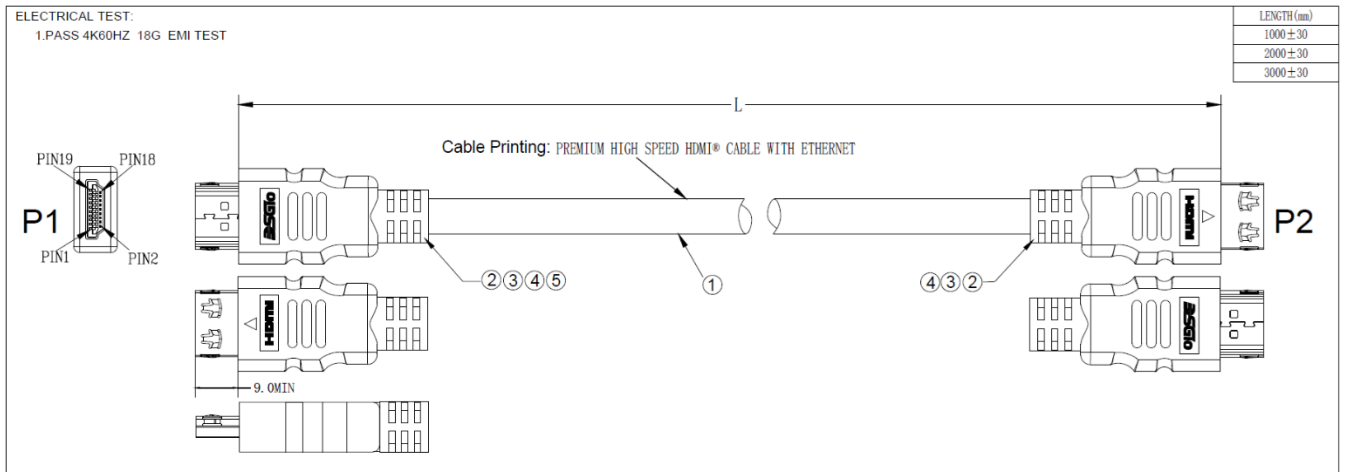
Parameter	Descriptions
<b>Cable Type</b>	Premium High Speed HDMI® Cable with Ethernet HDMI 2.0 Type A (Male) to Type A (Male)
<b>Cable Length</b>	1m, 2m or 3m
<b>Signal</b>	HDMI 2.0
<b>Resolution</b>	Up to 4096 x 2160 at 60Hz ( 4:4:4 )
<b>Data Transfer Rate</b>	18 Gbps
<b>Audio Performance</b>	Up to 32 audio channels with 1536Hz sampling rate
<b>Conductor Gauge</b>	30 AWG
<b>Material</b>	Tin-plated Copper
<b>Connector Type</b>	HDMI Type A Male (19-Pin)
<b>Connector Pin Type</b>	G/F Shell, Gold-Plated
<b>Cable Construction</b>	Multi-conductor design with bare copper, PE insulation and additional PET insulation around some parts of the wire, and aluminium foil shielding for optimal signal quality and protection. LSZH jacket made of TPE provides durability, flexibility and fire safety.
<b>Outer Diameter (OD)</b>	6.0 ± 0.20 mm
<b>Jacket Material</b>	LSZH (Low Smoke Zero Halogen)
<b>Cable Colour</b>	Black
<b>Rated Temperature</b>	80°C
<b>Rated Voltage</b>	30V
<b>Insulation Resistance</b>	Min. 100Mohms*m at 20°C
<b>Conductor Resistance</b>	at 20°C, 30AWG: <381Ω/KM
<b>Impedance(Ω)</b>	Differential: 100Ω ± 10%
<b>Tensile Strength</b>	Sheath: > 1.05kg/mm2
<b>Compliance</b>	RoHS, REACH

## APPLICATIONS

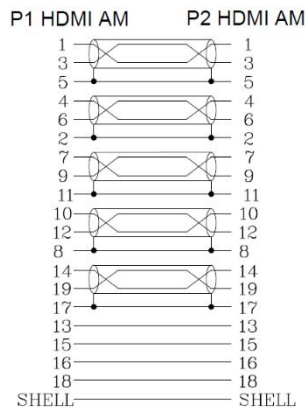
- **Home Entertainment Systems:** 4K UHD TVs, soundbars, and HDMI-enabled devices.
- **Gaming Consoles:** High-quality gaming visuals and sound.
- **Computers & Laptops:** Connects PCs to monitors or projectors.
- **Audio/Video & KVM Equipment:** Suitable for use in A/V & KVM devices requiring HDMI 2.0 connectivity.

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## CABLE CONSTRUCTION



### PIN Assignment



No.	Part Name	Specification
①	Cable	30#,(1/0.254BC*1P X 1/0.254BC PE0.55 +AL-foil)X4C+(1/0.254BC*1P X 1/0.254BC+AL-foil+PET)X1C+1/0.254BCX4C+AL-foil+1/0.254BC +144#/0.12AL OD=6.00 BK LSZH TPE
②	Plug	HDMI AM Connector HDMI AM 19P PIN: G/F SHELL: Gold Plated
③	Material	Tinplate Copper
④		LD-PE
⑤		45P BLACK PVC LSZH

Cross Section	Insulation Colour
<p><b>HDMI 30AWG</b></p> <p>Jacket</p> <p>Braid</p> <p>TMDS Pairs x4</p> <p>Cores</p> <p>Al-foil</p> <p>Drain wire</p> <p>Drain wire</p> <p>HEAC Al-foil + PET</p>	<p><b>4P:</b> 1. White-Blue 2. White-Green 3. White-Red 4. White-Brown</p> <p><b>1P:</b> 5. White-Orange</p> <p><b>4C:</b> 6. White 7. Red 8. Orange 9. Yellow</p>
	<p><b>Electrical Performance</b></p> <p>1. <b>Rated Temperature:</b> 80°C    <b>Voltage:</b> 30V 2. <b>Insulation Resistance:</b> Min. 100Mohms*m at 20°C 3. <b>Conductor Resistance:</b> at 20°C 30AWG: &lt;381Ω/KM 4. <b>Impedance(Ω):</b> Differential: 100Ω ± 10%</p>
	<p><b>Mechanical Characteristics</b></p> <p>1. Tensile strength test are before aging Sheath: &gt; 1.05kg/mm<sup>2</sup> 2. Elongation before aging Sheath: &gt; 100%</p>

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CABLE SPECIFICATION		30#,(1/0.254BC*1P X 1/0.254BC PE0.55 +AL-foil)X4C+(1/0.254BC*1P X 1/0.254BC+AL-foil+PET)X1C+1/0.254BCX4C+AL-foil+1/0.254BC +144#/0.12AL OD=6.00 BK LSZH TPE		
Parameters		Specifications		
Conductor	AWG	30AWG(4P)	30AWG(1P)	30AWG(4C)
	Material	Solid Bare Copper	Solid Bare Copper	Solid Bare Copper
	Size (mm)	1/0.254±0.008	1/0.254±0.008	1/0.254±0.008
Insulation	Thick (NOM. mm)	0.22	0.22	0.12
	Material	F-PE	F-PE	HD-PE
	OD (mm)	0.70±0.05	0.70±0.05	0.55±0.05
Drain Wire	Material	Solid Bare Copper	Solid Bare Copper	/
	Size (mm)	1/0.254±0.008	1/0.254±0.008	/
	Insulation	0.55±0.05	/	/
Face Inside AL-Foil	Coverage	≥100%	≥100%	/
	Overlap	≥25%	≥25%	/
PET	Overlap	≥25%	/	
AL-Foil	Coverage	100%		
	Overlap	25% Min		
Drain	Material	Solid Bare Copper		
	Size (mm)	1/0.254±0.008		
Braid	Material	Al-Mg		
	Size (mm)	16/9/0.12±0.008		
Jacket	Thick (NOM. mm)	0.51		
	Material	LSZH TPE (Half Matt)		
	Colour	Black		
	OD (mm)	6.00±0.20		
Marking	PREMIUM HIGH SPEED HDMI® CABLE WITH ETHERNET			

# Video Cable

## HANDLING AND INSTALLATION

Proper installation and handling of the Premium HDMI 2.0 Copper Cable with an LSZH (Low Smoke Zero Halogen) jacket are essential to ensure optimal performance, signal integrity, and the longevity of the cable. Follow these guidelines to maintain the quality of your signal and ensure reliable device connectivity.

### Installation Instructions:

1. **Handle with Care:** When installing the cable, avoid any sharp bends, kinks or excessive pulling that could damage the cable's internal wiring. Maintain a bend radius of at least 80 mm (3.15 in) to prevent stress on the conductors.
2. **Ensure Secure Connections:** Connect one end of the cable to the HDMI source device (e.g., laptop, Blu-ray player, or gaming console), ensuring the connector is fully inserted into the HDMI port for a secure and stable connection. Connect the other end to the HDMI display device (e.g., TV, monitor, projector) with the same care, ensuring a snug and secure fit.
3. **Avoid Excessive Strain:** Avoid placing excessive strain on the cable by securing it along its path to minimize tension at the connectors. Do not hang or suspend the cable by its ends.
4. **Gentle Handling:** Handle the cable gently, avoiding twisting, pulling, or bending at extreme angles. Always disconnect devices by gripping the connectors, not the cable itself, to prevent any internal damage.
5. **Installation in Tight Spaces:** While the LSZH jacket is designed to be more fire-resistant and emit less smoke in the event of a fire, ensure that the cable is installed in well-ventilated spaces, particularly when running the cable through walls, ceilings or densely packed hot-spot spaces.

### Additional Notes:

- **Directional Use:** Unlike some other cable types, HDMI cables are generally bi-directional; however, to ensure optimal performance, always ensure you are using the cable between the correct source and display device.
- **No Intermediate Adapters and Cables:** We recommend that the HDMI cable be used directly between source and display devices, without the use of any intermediate adapters or extension cables. These can degrade signal quality, especially at high data rates like 18Gbps, and may affect performance, leading to issues such as screen flickering or resolution loss.

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- **Avoid Overheating:** While HDMI cables are designed for high speed transmission, prolonged exposure to high temperatures or placing the cable near heat sources may degrade its performance. Ensure that the cable is routed away from direct heat sources.
- **Verify Cable Length for Optimal Performance:** Ensure that the length of the HDMI cable is suitable for your application. For 18Gbps signal transmission, it is recommended to use cables that are not excessively long (typically less than 5m for full 4K 60Hz support without signal degradation). For longer cable runs, consider using active HDMI cables or signal boosters.

Following these handling and installation guidelines will help ensure that your Premium HDMI 2.0 Copper Cable delivers high-quality, stable and reliable video and audio performance over its lifetime, while maintaining its durability and functionality.

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## PACKAGE CONTENTS

- 1 x Premium High Speed HDMI® Cable with Ethernet (length based on selection)

## WARRANTY

- Standard 3-Year Limited Warranty, unless otherwise specified by Sales.
- Optional Advance Replacement Warranty is available upon request

## ORDERING INFORMATION

Part Number	Descriptions	Length
<b>VDC-HCL20-001M</b>	Premium High Speed HDMI 2.0 Type A (Male) to Type A (Male) Cable with Ethernet, 4K60, 18Gbps, LSZH, 1m	1m
<b>VDC-HCL20-002M</b>	Premium High Speed HDMI 2.0 Type A (Male) to Type A (Male) Cable with Ethernet, 4K60, 18Gbps, LSZH, 2m	2m
<b>VDC-HCL20-003M</b>	Premium High-Speed HDMI 2.0 Type A (Male) to Type A (Male) Cable with Ethernet, 4K60, 18Gbps, LSZH, 3m	3m

## CONTACT INFORMATION

For more information, please visit our website or contact our customer service team:

- **Website:** [www.dsgio.com](http://www.dsgio.com)
- **Email:** [sales.apac@dsgio.com](mailto:sales.apac@dsgio.com)

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