kordz®

Connectivity.Assured

2020 Product Brochure

About Kordz

kordz
Connectivity.Assured

About us

Kordz is a long-standing innovator and manufacturer of HDMI and other audio-visual cables. Kordz' extensive experience in design, engineering and manufacturing is the foundation to building products with our long-established principles.

These principles of design and engineering are to create products that are robust, offer high quality sound and picture, high-bandwidth, tight bend radius, shallow mounting depth and reliability. Kordz utilises research and development facilities in both Australia and Taiwan, plus the dedication and experience of its people, to engineer and build robust and quality connectivity solutions.

Founded in 2003 when HDMI cables were emerging to be the key connectivity medium for audio-visual products, Kordz has evolved into a well-respected, multi award-winning brand.

Kordz is committed to a high standard of practical and graceful design, partnered with superior manufacturing, delivering quality products around the world.

Kordz - Connectivity.**Assured**

Contents

Contents

Timeline

2003
- Kordz founded in Mornington, Australia
- Introduces Vector & Quantum premium custom long length interconnect components
- First HDMI Compliance Test Specification (CTS) released

2005
- Becomes an official HDMI Adopter company

2008
- Establishes first export partnership with Digital World in New Zealand
- Joins CEDIA
- Smarthouse - Winner for Best Cables Range - Master Series

2009
- Invited by HDMI Licensing to exhibit at CES as a technology partner

2010
- Smarthouse - Winner for Best HDMI Cables - EVX Series
- Established Kordz International in Hong Kong

2011
- CEDIA Finalist - Best New Product - HDBaseT™ Extender
- Smarthouse - Winner for Best HDMI Cables - EVX Series

2012
- Wins CEDIA's product innovation of the year award

2013
- Connected Home Most Popular Award - HDMI Cabling
- CEDIA Award - Best New Product - NEO S3

2014
- Connected Home Most Popular Award - HDMI Cabling

2015
- Kordz Exhibits at ISE and enters the European market
- Launched B.2 HDBaseT™ certified extender – slimmest HDBaseT™ commercial grade (24/7 operation) extender in the world at 16mm high
- Established Kordz Europe Ltd in UK

2016
- 1st European distributors appointed
- Future Ready Solutions appointed US Master Distributor

2017
- Kordz Partners with DPL Labs
- ONE Series HDMI cable launched
- Hybrid Fibre (AOC) HDMI cable launched
- ONE Series bulk speaker cable announced

2018
- Now exporting to over 29 different countries around the world
- ONE Series bulk CAT6/6A cable released
- Connected Home Most Popular Award - HDMI Cabling
- Joins AVIXA

2019
- Connected Home Most Popular Award - HDMI Cabling
- Launches bulk wire and unique patch cord solutions
- Establishes Taiwan R&D Centre

ONE Series - HDMI Cable

ONE

0.5m | 1.0m | 2.0m | 3.0m | 5.0m | 10m

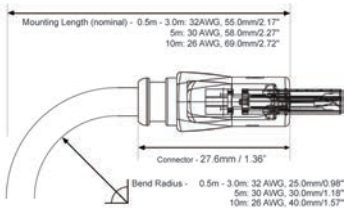
BULK PACKAGED HDMI CABLE

Our **ONE series** HDMI is flexible, compact and certified for your HDMI plug and play requirements. Each cable is individually tested as part of our strict production process, giving us the confidence to offer you our Lifetime Guarantee.

- Engineered and constructed to ensure installation success and ease
- High Speed with Ethernet in lengths to 3m (9'10") for 2160p (4K) support
- Standard with Ethernet with operational support to 1080p/60 up to 10m (32'9")
- Induction soldered pin transitions for benchmark inter-terminal uniformity
- PVC boot shell assembly with folded nickel plated HDMI connector
- 100% of units tested on the production line for electrically continuity on all pins, with 1080p/60 application test
- Lifetime Warranty

HDMI® STANDARD with ETHERNET

HDMI® HIGH SPEED with ETHERNET



4K UP TO 3M | 10.2 Gbps | 4.56 Gbps | ARC | 3D | HEAC | 4K 24 4:4:4 UP TO 3M | 1080p 60 UP TO 10M | LIFETIME WARRANTY

PRO Series - HDMI Cable

PRO

0.5m | 1.0m | 1.5m | 2.0m | 3.0m | 5.0m | 7.5m | 10m | 12.5m | 15m | 20m

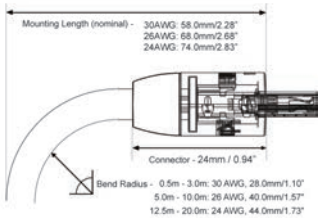
GENERAL APPLICATION HDMI CABLE

Our **PRO series** HDMI cable is engineered to make installations easier. This is achieved through a combination of solid copper pins, 1kg retention connectors and a highly flexible fire rated jacket. Available in lengths from 0.5m to 20m, the PRO series HDMI cable reliably delivers 4K resolutions and Ethernet to TV displays.

- Engineered and constructed to ensure installation success and longevity
- High Speed with Ethernet in lengths to 5m (16'4") for 2160p (4K) support
- Standard with Ethernet with operational support to 1080p/60 up to 20m (65ft)
- Induction soldered pin transitions for benchmark inter-terminal uniformity
- ABS + PVC boot shell assembly with folded gold plated HDMI connector
- 100% of units tested on the production line for electrical continuity on all pins, with full Bit Error Rate (BER) application test
- UL CMG fire rated in all lengths
- Lifetime Warranty

HDMI STANDARD with ETHERNET

HDMI HIGH SPEED with ETHERNET



4K UP TO 5M | 10.2 Gbps | ARC | 3D | HEAC | 1KG RETENTION | 4K 24 4:4:4 UP TO 5M | 1080p 60 UP TO 20M | LIFETIME WARRANTY

PRS³ - Passive - HDMI Cable

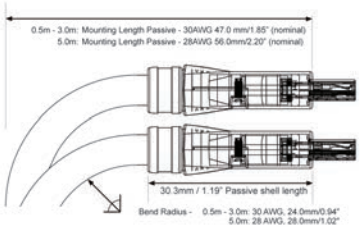
PRS³

0.5m | 1.0m | 1.5m | 2.0m | 3.0m | 5.0m

4K UHD 18Gbps PASSIVE HDMI CABLE

Our DPL certified **PRS³** HDMI cable has been engineered to deliver 18Gbps 4K resolutions in high performance installations. Designed to meet unrivalled tolerances, the PRS³ HDMI cable features a magnesium die-cast anti-vibration head shell and gold-plated 3kg retention connectors for optimised permanent installation. Available in lengths from 0.5m to 5m.

- DPL Certified 4K 18G-DC
- High Speed with Ethernet on all lengths
- Passive in lengths 0.5m - 5m / 1.64' - 16.4'
- 18mm wide connector engineered to fit through 1"/25mm conduit
- Induction soldered pin transitions for benchmark inter-terminal uniformity
- Unique grip tab connectors with 3kg retention for permanent installations
- 100% of units tested on the production line for electrical continuity on all pins, with full Bit Error Rate (BER) application test
- UL CMG fire rated in all lengths
- Lifetime Warranty



4K 60Hz 4:4:4 | 18 Gbps | HDR | ARC | HDCP 2.2 | 3KG RETENTION | CMG FIRE RATED | LIFETIME WARRANTY | HDMI 2.0 Adopter

PRS³ - Active Copper - HDMI Cable

PRS³

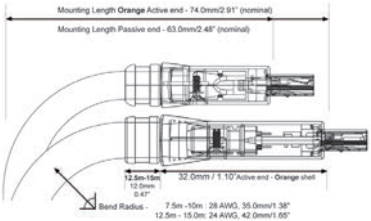
7.5m | 10m | 12.5m

4K UHD 18Gbps SPECTRA7 ACTIVE HDMI CABLE

Our DPL certified Active Copper **PRS³** HDMI cable has been engineered to deliver 18Gbps 4K resolutions in high performance installations. Designed to meet unrivalled tolerances, the PRS³ HDMI cable features a magnesium die-cast anti-vibration head shell and gold-plated 3kg retention connectors for optimised permanent installation. Available in lengths from 7.5m to 12.5m.

- DPL Certified 4K 18G-DC
- High Speed with Ethernet, all lengths
- Spectra 7 Active 7.5m - 12.5m lengths, optimised with VerifEYE™
- 18mm wide connector engineered to fit through 1"/25mm conduit
- Unique grip tab connectors for permanent installations
- 100% of units tested on the production line for electrical continuity on all pins, with Bit Error Rate (BER) application test
- UL CMG fire rated in all lengths
- 5 Year Warranty

4K 60Hz 4:4:4 | 18 Gbps | HDR | ARC | HDCP 2.2 | 3KG RETENTION | CMG FIRE RATED | 5 YEAR WARRANTY | HDMI® 2.0 Adopter



PRS³ - Active Optical Cable (AOC) - 7.5m - 20m

PRS³

7.5m | 10m | 12.5m | 15m | 17.5m | 20m

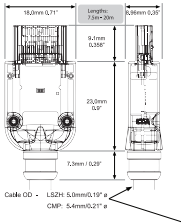
4K UHD 18Gbps ACTIVE OPTICAL HDMI CABLE - 7.5m - 20m

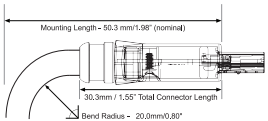
Our DPL certified Active Optical **PRS³** HDMI cable has been engineered to deliver 18Gbps 4K resolutions in high performance installations. Designed to meet unrivalled tolerances, the PRS³ HDMI cable features a magnesium die-cast anti-vibration head shell and gold-plated 3kg retention connectors for optimised permanent installation. Available in lengths from 7.5m to 20m.

- Active Optical Cable (AOC) 7.5m - 20m, 4K/UHD 18Gbps certified by DPL Labs™
- 18mm wide connector engineered to fit through a 1”/25mm conduit
- Reinforced internals for superior flexibility and pull strength during installation
- Light weight & flexible
- No external power requirements - works just like a 1m HDMI Cable
- 100% of units tested on the production line for electrical continuity on all pins with additional 4K (2160p/60), 4:4:4, 17.82Gbps application test
- High Speed, all lengths
- LSZH or Plenum rated
- 5 Year Warranty

HDMI® 2.0 Adopter

4K 60Hz 4:4:4 | 18 Gbps | HDR | AOC | ARC | HDCP 2.2 | 3KG RETENTION | LSZH FIRE RATED | 5 YEAR WARRANTY





PRS³ - Active Optical Cable (AOC) - 25m - 30m

PRS³

25m 30m

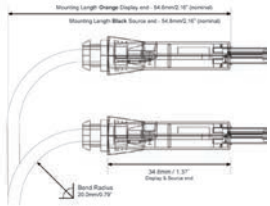
4K UHD 18Gbps ACTIVE OPTICAL HDMI CABLE - 25m - 30m

Our DPL certified Active Optical **PRS³** HDMI cable has been engineered to deliver 18Gbps 4K resolutions in high performance installations. Designed to meet unrivalled tolerances, the PRS³ HDMI cable features a magnesium die-cast anti-vibration head shell and gold-plated 3kg retention connectors for optimised permanent installation. Available in lengths from 25m to 30m.

- Active Optical Cable (AOC) 25m & 30m, 4K/UHD 18Gbps certified by DPL Labs™
- 18mm wide connector engineered to fit through a 1”/25mm conduit
- Reinforced internals for superior flexibility and pull strength during installation
- Light weight & flexible
- No external power requirements - works just like a 1m HDMI Cable
- 100% of units tested on the production line for electrical continuity on all pins with additional 4K (2160p/60), 4:4:4, 17.82Gbps application test
- High Speed, all lengths
- LSZH fire rated
- 5 Year Warranty

4K 60Hz 4:4:4 | 18 Gbps | HDR | AOC | ARC | HDCP 2.2 | 1KG RETENTION | LSZH FIRE RATED | 5 YEAR WARRANTY

HDMI® 2.0 Adopter



R.3 - HDMI Cable

R.3

0.3m	0.6m	0.9m	1.2m	1.5m	1.8m	2.1m
2.4m	2.7m	3.0m	3.6m	4.2m	4.8m	5.4m

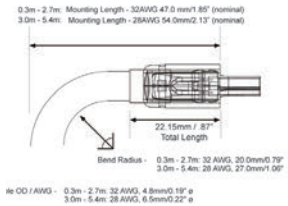
RACK INSTALLATION HDMI CABLE

Our **R.3** HDMI cable is designed for critical AV applications. Increased conductor shielding, 2kg retention connectors and flexible lengths make the R.3 HDMI cable perfect for 19" rack installations. This unique combination of advanced features delivers unrivalled installation performance and reliability. Available in lengths from 0.3m to 5.4m.

- Engineered and built to deliver maximum commercial up-time
- 0.3 - 3.0m lengths in 0.3m increments for precision rack fit
- 3.6 - 5.4m lengths in 0.6m increments
- High bandwidth solid OFC conductors
- Induction soldered pin transitions for benchmark inter-terminal uniformity
- Anti-fatigue Die-cast Zn alloy connectors tested to ≥1,000 cycles & 2kg retention force
- 100% of units tested for zero Bit Error Rate (BER) @ 340Mcsc, <0.05% in-field failure rate
- Halogen-free construction
- DPL Certified 4K 18G-DC
- Lifetime Warranty

4K 60Hz 4:4:4 | 18 Gbps | HDR | HDCP 2.2 | ARC | 2KG RETENTION | HALOGEN FREE FIRE RATED | LIFETIME WARRANTY

HDMI® 2.0 Adopter



Bravo

1.0m | 1.5m | 2.0m | 3.0m

8K PERFORMANCE HDMI CABLES

Our **Bravo** HDMI cables are the latest release to meet the new HDMI specification standard. Kordz Bravo HDMI cables have a compact design, flexibility and provide the performance needed to support the video standards of 4K/120fps UHD, 5K Wide, 8K & 10K Wide. Bravo will also support up to 32 channels of audio including Dolby Atmos, Auro3D and DTS:X immerse audio formats.

- Compact design
- Flexible
- Supports immersive audio up to 32 channels
- Newly designed anodized head shell
- Die-cast gold plated connector and contacts with a 2kg retention force
- 100% of units tested on the production line for electrically continuity on all pins, with full Bit Error Rate (BER) application test

10K UHD WIDE | 5K UHD WIDE | 8K ULTRA HD | 48 Gbps | DYNAMIC HDR | eARC | 3D | HDCP 2.2 | 2KG RETENTION | HALOGEN FREE FIRE RATED | LIFETIME WARRANTY

EVS Series - Audio / Videophile HDMI Cables

EVS

0.6m | 1.2m | 1.8m | 2.4m | 3.0m | 5.0m

AUDIO / VIDEOPHILE HDMI CABLES

Our flagship **EVS-R series** cable is our ultimate HDMI solution. The EVS-R HDMI cable has larger 28AWG solid conductors to provide generous bandwidth headroom to ensure compatibility with the latest 4K 18Gbps video resolutions. The conductors are silver plated (2%) to maximise the skin effect and signal integrity. Available in lengths of 0.6m - 5m.

- Solid 28AWG conductors
- Solid core copper, silver plated TMDS channels (2% by volume)
- Superior uncompressed HD/PCM audio
- Halogen-free cable jacket and larger strain relief
- World class low jitter IR induction soldered connectors
- 2kg retention force die-cast connectors

4K 60Hz 4:4:4 | 2% SILVER | 18 Gbps | HDR | HDCP 2.2 | ARC | 2KG RETENTION | HALOGEN FREE FIRE RATED | LIFETIME WARRANTY | HDMI® 2.0 Adopter

EVO Series - Audio / Videophile HDMI Cables

EVO

0.6m | 1.2m | 1.8m | 2.4m | 3.0m

AUDIO / VIDEOPHILE HDMI CABLES

Our **EVO-R series** HDMI cable delivers unrivalled 4K video performance. Superior materials and induction soldering enable us to guarantee the ultimate signal integrity. The compact construction and ultra light weight connector offer 360° fit-anywhere installation versatility. Available in lengths from 0.6m to 3m.

- 4K 60Hz 4:4:4 for lengths to 2.4m and 4K 60Hz 4:2:0 to 3m
- Solid 32AWG OFC conductors in twisted pair array
- Premium 24k Gold plated Die-cast connector
- 15µ" gold plated induction terminated contacts
- Halogen-free cable jacket and strain relief
- Identified by Green cable stripe

HDMI® HIGH SPEED with ETHERNET

4K UP TO 2.4M | 4K 60Hz 4:2:0 | 18 Gbps | 10.2 Gbps | HDR | HDCP 2.2 | ARC | 2KG RETENTION | HALOGEN FREE FIRE RATED | LIFETIME WARRANTY | HDMI® 2.0 Adopter

PRO Series - 8K 32.4Gbps DisplayPort™ Cables

PRO

1.0m | 1.5m | 2.0m | 3.0m | 4.0m | 5.0m

DISPLAYPORT™ 8K

Our **PRO series** DisplayPort™ cable is engineered to make installations easier. This is achieved through a combination of solid copper pins and a highly flexible fire rated jacket. Available in lengths from 1m to 5m, the PRO series DisplayPort™ cable reliably delivers up to 8K resolutions from compatible sources to displays.

- Engineered and constructed to ensure installation success and longevity
- DisplayPort™ 1.4 offers backwards compatibility with earlier DisplayPort™ standards
- Supports high resolution displays up to 8K 7680 x 4320@60Hz DSC1.2
- Supports High Bit Rate 3 (HBR3) mode with data rate up to 32.4Gbps
- Supports Display Stream Compression (DSC) 1.2
- Forward Error Correction (FEC)
- Supports Expanded Audio Transport - up to 32 audio channels
- 1536kHz audio sample rate, and inclusion of all standard audio formats

DisplayPort™

8K

8K ULTRA HD | 4K ULTRA HD | DSC 1.2 | 32.4 Gbps | FEC | HDCP 2.2 | LIFETIME WARRANTY

PRO Series - TOSLink Cable

PRO

0.5m | 1.0m | 1.5m | 2.0m | 3.0m | 5.0m | 7.5m | 10m | 12.5m | 15m | 20m

THE PRO SERIES TOSLink

Our **PRO series** TOSLink cable is a highly flexible optical fibre solution ideal for professional AV installations. Available in lengths from 0.5m to 20m the PRO TOSLink cable features a secure click fit connector and polyfibre conductor for an optimised digital audio transmission.

- Tight tolerance for secure connection
- Shallow mounting depth connectors
- 1mm polyfibre with polished ends
- Flexible and durable matte black PVC jacket

HD AUDIO | TOSLink OPTICAL | LIFETIME WARRANTY

PRO Series - Integrator Audio / Video Cable

PRO

0.5m	1.0m	1.5m	2.0m	3.0m	5.0m			Single AV
0.5m	1.0m	1.5m	2.0m	3.0m	5.0m	10m	15m	Double AV
0.5m	1.0m	1.5m	2.0m	3.0m	5.0m	10m	15m	Triple AV

INTEGRATOR AUDIO / VIDEO CABLE

Our **PRO series** AV RCA cables are designed for the custom installer to provide a solution that just works. Installers will appreciate the compact RCA connectors using the micro-shell technology which is amongst the world's smallest RCA shells.

The matte black PVC jacket is flexible and durable, suitable for both installation in-wall or to remain unobtrusively behind equipment.

- Purpose designed commercial grade
- Shallow mounting depth connectors
- 75 Ω coaxial cable
- 24AWG stranded oxygen free copper conductor
- Double Shielded with 6mmØ cable jacket
- Designed for S/PDIF, CV, Mono
- Channel ID rings included
- Flexible and durable matte black PVC jacket

Single AV

Double AV

Triple AV

PLX

PLX-HDB.2 HDBaseT™ HDMI EXTENDER

Our **PLX-HDB.2** HDBaseT™ extender delivers 4K HDMI, IR, RS-232 over a single CAT6 cable. The product supports 1080p resolutions up to 70m and 4K 60Hz 4:2:0 up lengths of 40m.

- Supports CATx UTP/FTP/STP cable
- 4K UHD to 40m
- 1080p/60 to 70m
- Supports HDMI 1.4 UHD60 8-bit 4:2:0
- Supports HDMI 1.4 UHD30 up to 12-bit 4:2:2, & 8-bit 4:4:4/sRGB
- HDCP 2.2 compatible
- HDBaseT™ certified
- HDBaseT™ Lite VS010 architecture
- IR & RS-232 Control

4K ULTRA HD | 4K 60Hz 4:2:0 | 10.2 Gbps | HDBT | HDMI 1.4 | HDR | HDCP 2.2 | HEAC | PoH | 2 YEAR WARRANTY

PLX - HDB.3 18Gbps HDMI HDBaseT™ Extender

PLX

PLX-HDB.3 HDBaseT™ HDMI EXTENDER

Our **PLX-HDB.3** HDBaseT™ extender delivers 4K HDMI, IR, RS-232 and PoC over a single CAT6 cable. The product supports 1080p resolutions up to 70m and 4K 60Hz 4:4:4 up lengths of 40m.

- TX and RX are 16mm thin with all connectors on one side
- Ideal for mounting in tight spaces
- Supports CATx UTP/FTP/STP cable
- 4K60UHD 4:4:4 (18Gbps) to 40m
- 1080p/60 to 70m
- Supports HDMI 2.0 4K60UHD 8-bit colour depth 4:4:4
- Supports HDMI 1.4 4K24UHD HDR 10 colour depth 4:4:4

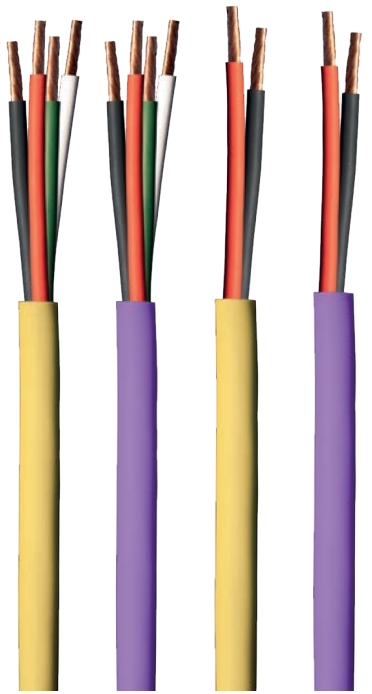
HDBT™

HDMI®

4K 60Hz 4:4:4 | UP TO 40M 4K 60Hz 4:4:4 | 18 Gbps | HDBT | HDMI 2.0 | HDR | HDCP 2.2 | HEAC | PoC | 2 YEAR WARRANTY

ONE Series - Speaker Cable

ONE



BULK SPEAKER CABLE

Our **ONE series** speaker cable has been designed and engineered to meet the highest industry standards for AV installation. The Rapid-EZ Reel pro box packaging allows the easy flow of cable from the box, whilst also keeping the cable from twisting and curling, minimising snags during installation and saving time.

- Engineered and constructed to ensure installation success and ease
- 99.99% Oxygen Free Copper (OFC)
- Low Smoke Zero Halogen (LSZH) construction
- Easy glide Yellow, Purple or Black outer jacket
- Supplied in the durable Rapid-EZ-Reel packaging – *152.5m (500ft) or *305m (1,000ft) *depends on cable gauge & configuration
- Metre Marked
- Easy strip internal nylon rip cord
- Available in 2 x 12AWG, 2 x 14AWG, 4 x 14AWG, 2 x 16AWG and 4 x 16AWG
- CPR Declared Performance: Eca (EN 50575:2014+A1:2016)
- Industry standard wire colour coding (Red, Black, Green, White)

LSZH
FIRE RATED

ONE Series - Bulk Speaker Cable Banana Plugs

ONE

BULK SPEAKER CABLE BANANA PLUGS

Our **ONE series** 24k gold plated banana plug delivers an enhanced connection for improved signal transfer, safety and reliability. The plug is designed to fit all standard 4mm banana sockets on amplifiers and speakers. Each plug is engineered for ease of installation and colour coded for identification.

- Rear cable entry 4mm banana plug
- 24k gold plated body
- Offset oversized grub screws for superior cable termination
- Accepts up to 10AWG stranded speaker cable
- Moulded plastic backshells eliminates the risk of speaker terminal shorts
- Economy and performance
- Available in bulk trays of 20 plugs for each colour
- Lifetime Warranty

LIFETIME WARRANTY

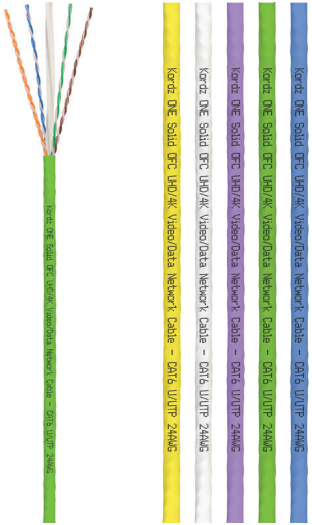
ONE Series - CAT6 U/UTP Cable

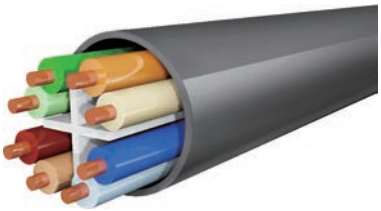
ONE

CAT6 U/UTP CABLE

Our **ONE series** CAT6 cable has been designed and engineered to exceed the bandwidth requirements of 4K video installations. Tested and approved to exceed 550Mhz, the ONE series CAT6 cable is HDBaseT™ recommended. Supplied in a 305m professional pull box, the Rapid-EZ reel allows the easy flow of cable from the box, whilst also keeping the cable from twisting and curling, minimising snags during installation and saving time.

- Suitable for 10BASE-T, 100BASE-TX, 1000BASE-T/1000BASE-TX (Gigabit) & 5GBASE-T, PoE, PoE+ & PoE++
- U/UTP Ethernet CAT6
- Four Twisted Pairs 24AWG Oxygen Free Solid Copper Conductors
- PVC Separator Reduces Crosstalk Between Pairs
- Suitable for IDC Terminations
- Supplied In The Durable Rapid-EZ-Reel Packaging - 305m (1,000ft)
- Metre Marked
- 5 Colours Available: Blue, Green, White, Yellow & Purple
- Exceeds ANSI/TIA 568C-2.1 Standard
- Available In LSZH - IEC60332-1 And UL 444 CM fire rated versions
- CPR Declared Performance: ONE-CAT6: Dca-s2, d2, a1 (EN 50575:2014+A1:2016)





LSZH FIRE RATED CAT 6

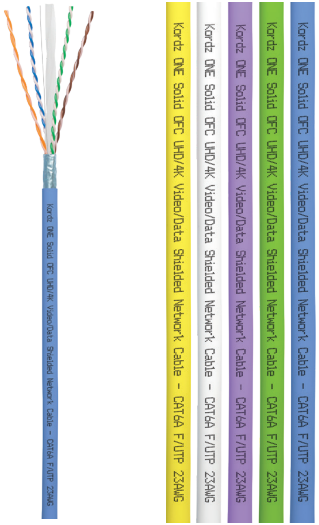
HDBT™ ASE

ONE Series - CAT6A F/UTP Cable

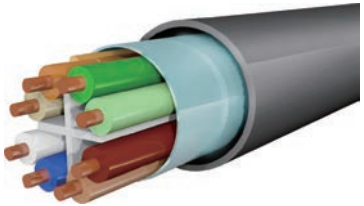
ONE

CAT6A F/UTP CABLE

Our **ONE series** CAT6A cable has been designed and engineered to exceed the bandwidth requirements of 4K video installations. This premium shielded, twisted pair (F/UTP) cable with grounding, provides industry-leading protection required in complex systems from external cable noise sources, also known as alien crosstalk or EMI (electromagnetic interference). Supplied in a 305m professional pull box, the Rapid-EZ reel allows the easy flow of cable from the box, whilst also keeping the cable from twisting and curling, minimising snags during installation and saving time.



- Suitable for 10BASE-T, 100BASE-TX, 1000BASE-T/1000BASE-TX (Gigabit) & 10GBASE-T, PoE, PoE+ & PoE++
- F/UTP Ethernet CAT6A
- Four Twisted Pairs 23AWG Solid Copper Conductors
- PVC Separator Reduces Crosstalk Between Pairs
- Mylar laminated aluminium tape shielding with a 26AWG drain wire
- Suitable for IDC Terminations
- Supplied in the durable Rapid-EZ-Reel packaging – 152.5m (500ft)
- Metre Marked
- 5 Colours Available: Blue, Green, White, Yellow & Purple
- Exceeds ANSI/TIA 568-C.2 and ISO/IEC 61156-5 standards
- Available in LSZH - IEC60332-3-25 and UL 444 CM fire rated versions
- CPR Declared Performance: ONE-CAT6A: Dca-s1, d2, a1 (EN 50575:2014+A1:2016)



LSZH FIRE RATED | CAT 6A

ONE Series - CAT6 Termination Connector & Strain Reliefs

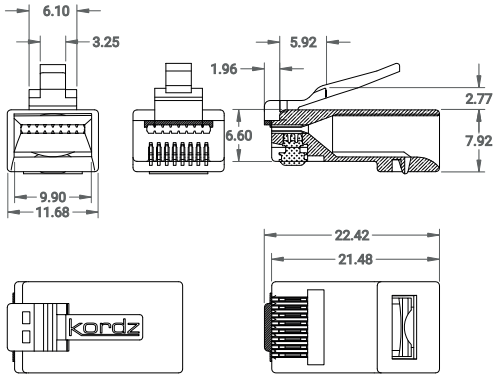
ONE

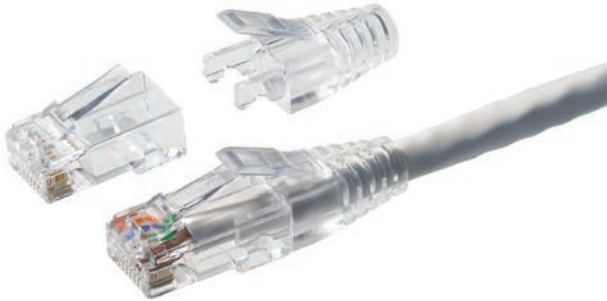
RJ45 CAT6 PUSH-THROUGH SITE TERMINATION CONNECTORS & STRAIN RELIEFS

Our **ONE series** CAT6 RJ45 field termination connectors are engineered to make AV installations easier. The One series RJ45 connectors work with both solid and stranded unshielded 24AWG category cables. The larger cable entry reduces the distance between the wires and contacts, ensuring optimal performance and reliability.

Strain relief sold separately, available in jars of 100 pcs.

Tool required:
Part #ONE-RJ45TOOL1

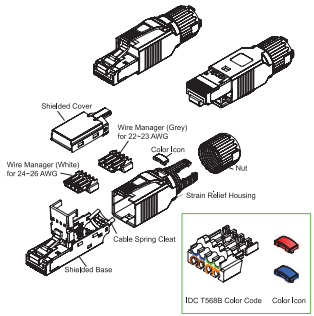


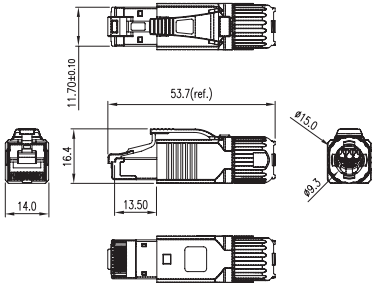


ONE

RJ45 CAT6A SHIELDED SITE TERMINATION CONNECTORS

Our **ONE series** CAT 6A field connector delivers an advanced toolless termination solution for use on high performance AV installations. The connector is IP20 rated and has 360º shielding for greater protection against electro-magnetic interference.





No Tool Required.

PRO Series - CAT6 Patch Cords

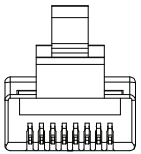
PRO

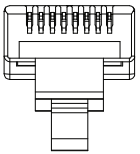
0.15m	0.25m	0.5m	0.75m	1.0m	1.5m	2.0m	2.5m
3.0m	4.0m	5.0m	7.5m	10m	15m	20m	30m

CAT6 PATCH CORD

Our **PRO series** CAT6 Network Patch Cord is a highly flexible, slim-profile, stranded 28AWG copper patch cord ideal for professional AV installations. Available in lengths from 0.15m to 30m the PRO patch cord features our custom designed compact RJ45 connector providing an almost unbreakable locking latch.

- Suitable for 10BASE-T, 100BASE-TX, 1000BASE-T/1000BASE-TX (Gigabit) & 10GBASE-T, PoE, PoE+ & PoE++
- Engineered and constructed to ensure installation success and longevity
- Exceeds all Category 6 ANSI/TIA 568.2-D standards for all frequencies from 1 to 250 MHz
- UTP 28AWG CAT6 slim-profile network patch cord
- UL (CM) fire rating
- 568B wire connection configuration
- Overall diameter of 3.9mmØ
- New compact design connector with 2000 bend cycle lock tab
- Available in 7 Colours – Black, Blue, Grey, Green, Yellow, Red & White
- Available in lengths from 0.15m to 30.0m lengths
- Patent pending design





PRS Series - CAT6A Patch Cords

NEW

PRS

0.15m | 0.25m | 0.5m | 0.75m | 1.0m | 1.5m | 2.0m | 2.5m
3.0m | 4.0m | 5.0m | 7.5m | 10m | 15m | 20m | 30m

SLIM PROFILE CAT6A U/FTP NETWORK PATCH CORD

Our **PRS series** CAT6A Network Patch Cord is a 10Gbps, slim-profile, 28AWG copper patch cord designed for high-bandwidth AV installations. Available in lengths from 0.15m to 30m the PRS patch cord features our custom designed compact RJ45 connector providing an almost unbreakable latching tab.

- Exceeds all Category 6A ANSI/TIA 568.2-D standards for all frequencies from 1 to 550 MHz
- 28AWG stranded U/FTP Category 6A shielded slim-profile network patch cord
- Each cable up to 10m is individually component tested with its own serialised test report
- Anti-corrosion gold-plated shielded connector
- Suitable for 10BASE-T, 100BASE-TX, 1000BASE-T/1000BASE-TX (Gigabit) & 10GBASE-T, PoE, PoE+ & PoE++
- UL (CM) fire rating
- 568B wire connection configuration
- Overall diameter of 4.8mmØ
- World's smallest minimal operational depth and most flexible CAT6A U/FTP patch cord
- Available in 7 Colours – Black, Blue, Grey, Green, Yellow, Red & White
- Patent pending design

c UL us CM FIRE RATED | LIFETIME WARRANTY | CAT 6A

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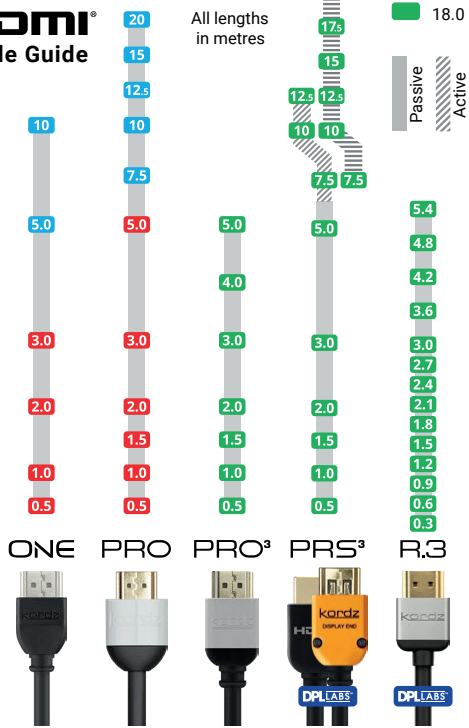
HDMI®
Cable Guide

All lengths in metres

Guaranteed Bandwidth

- 4.56 Gbps
- 10.2 Gbps
- 18.0 Gbps

Passive
Active
Optical



A-A6-EN-202001

HDMI®
Bandwidth Guide

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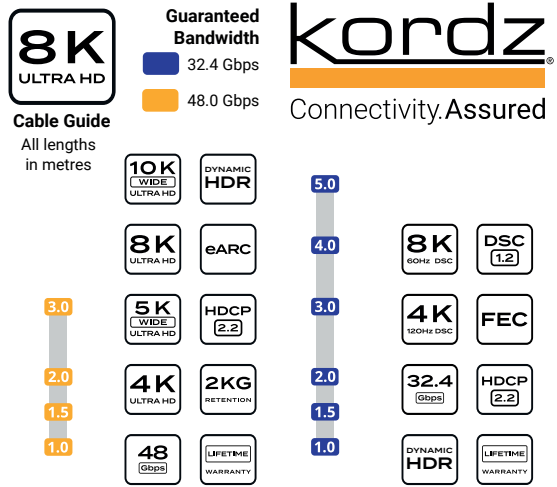
	Resolution	Frame Rate	Color depth (bits)	Chroma Subsampling	TMDS Clock (MHz)	Data Rate (Gbps)	Bandwidth (Hz)
HDMI 1.4 - 2009	1080p	24	8/HDR10	4:4:4/RGB	74.25	2.22	371.25M
	1080p	24	8/HDR10/12	4:2:0/4:2:2	74.25	2.22	371.25M
	1080p	24	HDR12	4:4:4/RGB	148.5	4.455	742.5M
	1080p	24 3D	8/HDR10	4:4:4/RGB	148.5	4.455	742.5M
	1080p	24 3D	8/HDR10/12	4:2:0/4:2:2	148.5	4.455	742.5M
	1080p	60	8	4:4:4/RGB	148.5	4.455	742.5M
	1080p	60	8/HDR10/12	4:2:0/4:2:2	148.5	4.455	742.5M
HDMI 1.4 - 2009	1080p	24 3D	HDR12	4:4:4/RGB	185.63	5.56	928.15M
	1080p	60	HDR10	4:4:4/RGB	185.63	5.56	928.15M
	1080p	60	HDR12	4:4:4/RGB	222.75	6.68	1.114G
	1080p	60 3D	8/HDR10/12	4:2:0/4:2:2	297	8.91	1.485G
	1080p	60 3D	8	4:4:4/RGB	297	8.91	1.485G
	2160p	24	8/HDR10	4:4:4/RGB	297	8.91	1.485G
	2160p	24	8/HDR10/12	4:2:0/4:2:2	297	8.91	1.485G
	2160p	60	8	4:2:0	297	8.91	1.485G
HDMI 2.0 - 2013	1080p	60 3D	HDR10	4:4:4/RGB	92.81	11.14	1.86G
	2160p	24	HDR12	4:4:4/RGB	92.81	11.14	1.86G
	2160p	60	HDR10	4:2:0	92.81	11.14	1.86G
	1080p	60 3D	HDR12	4:4:4/RGB	111.38	13.365	2.28G
	2160p	60	HDR12	4:2:2	148.5	17.82	2.97G
	2160p	60	8	4:4:4/RGB	148.5	17.82	2.97G
HDMI 2.1 - 2019	8K / 4320p	24/30	8	4:2:0	Imbedded	17.82	6.0G

HDMI 2.1 supports legacy TMDS mode and introduces Fixed Rate Link (FRL) mode which uses 3 Lanes operating at 3 or 6Gbps (max 18Gbps) or 4 Lanes at 6, 8, 10 or 12 Gbps (max 48Gbps). Bandwidth and optional DSC compression allow for a wide range of 4K, 5K Wide, 8K and 10K Wide resolutions, 8-12bit colour depths and frame rates up to 120FPS. New Category 3 HDMI cables will be required to support all 2.1 features. Refer to our **8K Cable Guide** for the HDMI 2.1 bandwidth guide.

 A-A6-EN-202001

8K - Bandwidth Guide



HDMI 2.1 supports legacy TMDS mode and introduces Fixed Rate Link (FRL) mode which uses 3 Lanes operating at 3 or 6Gbps (max 18Gbps) or 4 Lanes at 6, 8, 10 or 12 Gbps (max 48Gbps). Bandwidth and optional DSC compression allow for a wide range of 4K, 5K Wide, 8K and 10K Wide resolutions, 8,10 & 12bit colour depths and frame rates up to 120fps. New Category 3 HDMI cables will be required to support all 2.1 features.

DisplayPort 1.4 uses the transmission mode HBR3 (32.4 Gbit/s) as introduced in version 1.3 and is still the highest available mode. DisplayPort 1.4 adds support for 4K, 5K & 8K resolutions with frame rates up to 240fps, Display Stream Compression 1.2 (DSC), Forward Error Correction, 8, 10 & 12 bit colour space including static and dynamic HDR. It also includes Rec.2020 colour space for HDMI interoperability. Audio capabilities extend to a maximum number of 32 audio channels.

D-46-FN-202001

8K Bandwidth Guide

HDMI DisplayPort

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HDMI Resolution			Frame Rate	Color depth (bits)	Chroma Subsampling	Speed	Data Rate (Gbps)
HDMI 2.1 - 2019-2020	4K	3840 x 2160p	60	HDR10	4:4:4/RGB	Ultra High Speed	20.05
				HDR12			24.06
			100/120	8, HDR10 or 12	4:2:0/4:2:2		32.08
				8-bit			32.08
				HDR10	4:4:4/RGB		40.10
				HDR12			48.11
	5K	5120 x 2160p	48/60	8, HDR10 or 12	4:2:0/4:2:2	Ultra High Speed	20.05
				8-bit	4:4:4/RGB		20.05
				HDR10			25.06
				HDR12			30.07
			100/120	8, HDR10 or 12	4:2:0/4:2:2		40.10
				8-bit	4:4:4/RGB		40.10
				HDR10		Ultra + DSC	50.12
				HDR12			60.14
	8K	7680 x 4320p	24/30	8-bit	4:2:0	Ultra High Speed	17.82
				HDR10 or 12	4:2:0/4:2:2		32.08
				HDR10	4:4:4/RGB		40.10
				HDR12			48.11
			48/60	HDR10	4:2:0		40.10
				HDR12			48.11
				HDR10 or 12	4:2:0/4:2:2		64.15
				HDR10	4:4:4/RGB	Ultra + DSC	80.19
				HDR12			96.23
			100/120	HDR10 or 12	4:2:0/4:2:2		128.30
	10K	10240 x 4320p	24/30	HDR10 or 12	4:2:0/4:2:2	Ultra High Speed	40.10
				HDR10	4:4:4/RGB		50.12
				HDR12			60.10
			48/60	HDR10 or 12	4:2:0/4:2:2	Ultra + DSC	80.19
				HDR10	4:4:4/RGB		100.24
				HDR12			120.29
			100/120	HDR10	4:2:0		100.24
				HDR12			120.29

DisplayPort Resolution			Frame Rate	Color depth (bits)	Chroma Subsampling	DSC 1.2[1]	Data Rate (Gbps)
DisplayPort 1.4 2018-2019	4K	3840 x 2160	60	8-bit	4:4:4/RGB	No	15.68
			75				19.74
			120				32.28
			144			DSC or 4:2:2	39.19 or 26.16
			240			DSC or 4:2:0	68.55 or 30.92
	5K	5120 x 2880	30	8-bit	4:4:4/RGB	No	13.68
			60				27.73
			120			DSC or 4:2:0	57.08 or 27.36
			144			DSC	69.30
			240		4:2:2	DSC + 4:2:2	80.91
	8K	7680 x 4320	30	8-bit	4:4:4/RGB	No	30.60
			60			DSC or 4:2:0	62.06 or 30.60
			120		4:2:2	DSC + 4:2:2	85.28
			144		4:2:0	DSC + 4:2:0	77.56

[1] - Display Stream Compression (DSC1.2) is a VESA-developed low-latency compression algorithm to overcome the limitations posed by sending high-resolution video over physical media of limited bandwidth. It is a visually lossless low-latency algorithm based on delta PCM coding and YCoCg-R colour space; it allows increased resolutions and colour depths and reduced power consumption.

ONE

Speaker Cable Guide

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Speaker Cable Options, Q4'2019				Rating	Jacket Colour		
Model	Configuration	Cross Section to scale	Spool Length metre-marked	LSZH	Purple	Yellow	Charcoal
ONE-SP122	12AWG (65/30) 2 core OFC 7.5±0.2mm OD		152.5m 500ft	✓	✓	✓	‡
ONE-SP142	14AWG (82/33) 2 core OFC 7.5±0.2mm OD		152.5m 500ft	✓	✓	✓	‡
ONE-SP144	14AWG (82/33) 4 core OFC 8.8±0.2mm OD		152.5m 500ft	✓	✓	✓	‡
ONE-SP162	16AWG (65/34) 2 core OFC 6.0±0.2mm OD		305m 1000ft	✓	✓	✓	‡
ONE-SP164	16AWG (65/34) 4 core OFC 7.0±0.2mm OD		152.5m 500ft	✓	✓	✓	‡

Internal Conductor Colours		
Model	Pair A	Pair B
2 core	Black, Red	–
4 core	Black, Red	Green, White

‡ Available mid-Q4'2019

- All models in plastic spool box 340H x 265W x 335D (mm).
- 12 cartons per pallet layer, maximum 3 layers per pallet.

 B-A6-EN-201910

Speaker Cable Reference

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Selected American Wire Gauge (AWG) Conductor Sizes					
Solid Conductor	10AWG	12AWG	14AWG	16AWG	18AWG
Cross-section (actual size)	●	●	●	●	●
Diameter (mm)	2.588	2.053	1.628	1.291	1.024
Area (mm²)	5.261	3.309	2.081	1.309	0.823

Formulae

$d = 0.127\text{mm} \times 92^{\frac{36-AWG}{39}}$

$A = \pi \times \left(\frac{d}{2}\right)^2$

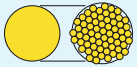
For inches, substitute 0.127mm with 0.005in

Stranded Cores vs. Solid Cores

Speaker cable is often labelled with solid core AWG sizes while actually being constructed with multiple smaller conductor strands to improve flexibility and handling. The combined strands have the same cross-sectional area of conductor material as the equivalent solid core.

Solid Core	Stranded Equivalent	Common Labelling	Area (mm²)
12AWG	65 × 30AWG	12AWG 65/30	3.309
14AWG	82 × 33AWG	14AWG 82/33	2.081
16AWG	65 × 34AWG	16AWG 65/34	1.309

Real-World Measurements
Stranded diam. ≈ 105% solid diam.
Stranded area ≈ 110% solid area



ONE-SP Electrical Characteristics - Power loss by cable length

Cable Gauge	4Ω Speaker				8Ω Speaker				16Ω Speaker			
	10m 32ft	20m 65ft	40m 131ft	80m 262ft	10m 32ft	20m 65ft	40m 131ft	80m 262ft	10m 32ft	20m 65ft	40m 131ft	80m 262ft
16AWG	6%	12%	22%	35%	3%	6%	12%	22%	2%	3%	6%	12%
14AWG	4%	8%	15%	26%	2%	4%	8%	15%	1%	2%	4%	8%
12AWG	3%	5%	10%	18%	1%	3%	5%	10%	<1%	1%	3%	5%

Above figures are based on copper resistivity at 20°C (68°F). Resistivity and cable power loss both increase with temperature. For example, driving a 4Ω speaker over 80m of 16AWG cable loses 35% power (-1.9dB) at 20°C (68°F) and 39% (-2.1dB) at 75°C (167°F).

16AWG ≤ 13.7 Ω/km
14AWG ≤ 8.62 Ω/km
12AWG ≤ 5.64 Ω/km

Power loss % to dB conversion	5%	10%	15%	20%	25%	30%	35%	40%
	-0.2dB	-0.5dB	-0.7dB	-1.0dB	-1.2dB	-1.5dB	-1.9dB	-2.2dB

 B-A6-EN-201910

ONE

Unterminated Network Cabling

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Models Available	Class	Construction		Spool Length	Jacket Options	
		Type	Conductors		Rating	Colour
ONE-CAT6	CAT 6	U/UTP	Solid OFC 24AWG	305m 1000ft	LSZH or UL CM	Blue Green Purple Yellow White
ONE-CAT6A	CAT 6A	F/UTP	Solid OFC 23AWG	152.5m 500ft		

ONE Series CAT6 Network Cable is:
Model: K13002-305M-XX

HDBT™ Recommended

ONE-CAT6 actual size

Common Construction Names (ISO/IEC 11801 Annex E)		
Name	**Cable Shielding**	**Twisted Pair Shielding**
U/UTP	–	–
U/FTP	–	Foil
F/UTP	Foil	–
S/UTP	Braiding	–
SF/UTP	Braiding + Foil	–
F/FTP	Foil	Foil
S/FTP	Braiding	Foil
SF/FTP	Braiding + Foil	Foil

Compliance - LSZH models

CPR Declared Performance:
ONE-CAT 6: Dca-s2,d2,a1 (EN 50575:2014+A1:2016)
ONE-CAT 6A: Dca-s1,d2,a1 (EN 50575:2014+A1:2016)

C-A6-EN-202001

Ethernet over Copper Reference Guide

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Ethernet Standard	Twisted Pair Cable		Data[1] Bandwidth (Mbit/s)	Bits/Hz	Spectral Bandwidth (MHz)	Data lanes per direction
	Name	Rating (MHz)				
40GBASE-T	CAT 8	2,000	40,000	6.25	1,600	4 lanes [2]
25GBASE-T			25,000	6.25	1,000	
10GBASE-T	CAT 6A	500	10,000	6.25	400	
5GBASE-T	CAT 6	250	5,000	6.25	200	
2.5GBASE-T	CAT 5e	100	2,500	6.25	100	
1000BASE-T			1,000	4	100	
100BASE-TX	CAT 5	100	100	3.2	100	1 lane [3]
10BASE-T	CAT 3	16	10	1	10	

1. Effective data bandwidth (after encoding overhead) is calculated as: **Bits/Hz × Spectral Bandwidth × Data lanes per direction**.
2. All four twisted pairs operate at full duplex (thus 4 lanes per direction)
3. One twisted pair operates TX at half duplex and another operates RX at half duplex. Two twisted pairs are unused.

Ethernet Standard	Maximum Run Length		
	<30m	<55m	<100m
40GBASE-T	CAT 8	–	–
25GBASE-T	CAT 8	–	–
10GBASE-T	CAT 5e/6	CAT 6	CAT 6A
5GBASE-T	CAT 5e	CAT 5e/6	CAT 6
2.5GBASE-T	CAT 5e	CAT 5e	CAT 5e
1000BASE-T	CAT 5e	CAT 5e	CAT 5e

Lengths as recommended by 802.3x standards. It is generally possible to use lower rated cables for shorter runs.

What About CAT 7 / 7a Cables?

These were originally intended for 10GBASE-T and higher but were supplanted by Cat 6a for 10BASE-T and bypassed by the 25 and 40GBASE-T standards.

Cat 7 is rated to 600MHz and Cat 7a is rated to 1000MHz.

The twisted pairs are individually shielded and the cables are shielded overall, providing better resistance to crosstalk.

CAT7/7a cables are not ratified by TIA/EIA & hence doesn't appear in the cable guide charts.

C-A6-EN-202001

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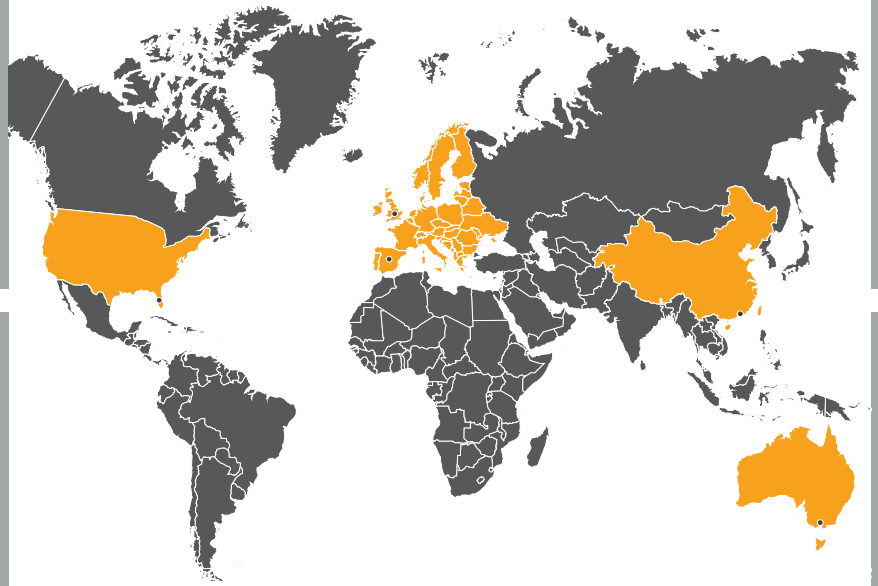

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Tech Icon Glossary

HDMI 1.4 is the seventh revision of the High Definition Multimedia Interface (HDMI) standard and was published in 2009. HDMI 1.4 cables and devices must be able to transmit a minimum of 10.2 Gbps (gigabits per second). HDMI 1.4 enabled new features such as HEAC (defined below), 3D and the first versions of 4K.

HDMI 2.0 is the tenth revision of HDMI and was published in 2013. HDMI 2.0 cables and devices must be able to transmit a minimum of 18 Gbps. This was the first HDMI revision that truly allowed for Ultra HD/4K video. HDMI later added High Dynamic Range to the standard in the 2.0a and 2.0b revisions.

This is the most recent version of HDMI; released in 2017. HDMI 2.1 is perhaps the most drastic change to the standard since its inception. While the physical layout of the cables and connectors are the same, the transport mechanism changes. Other features found in the HDMI 2.1 specification include variable refresh rate, quick media switching and quick frame transport. HDMI 2.1 compatible devices and cables must be able to transmit and receive a massive 48Gbps.

AOC is the acronym for Active Optical Cable. Active optical cables use optical fibres to transport data, which is converted from electricity to light. This conversion enables signals to travel significantly greater distances than copper-based cables. AOC uses active electronics, built inside the head of the connector, which requires power (either from the source device or a separate power supply) to convert and transmit the signals.

High Bandwidth Digital Content Protection (HDCP) is the latest version of copyright protection, which is embedded in HDMI and DisplayPort™. HDCP 2.2 was released in 2015 and is backwards compatible. Devices requiring HDCP 2.2 must have 2.2 compliant devices from source all the way to the device.

HDR stands for High Dynamic Range. HDR is a newer advancement in television which enables displays to show a greater range between the black and white levels on a display (called dynamic range). The greater the dynamic range, the more detail one can see in an image. There are various versions of HDR and each one has its pros and cons. The most common forms are HDR10, HDR10+, DolbyVision.

Dynamic HDR is the next evolution of High Dynamic Range video. How HDR differs lies in the metadata transmitted by source content. In standard HDR, a signal is sent when viewing begins where HDR is determined and if present, it remains in that state for the remainder of the content. Dynamic HDR allows for frame by frame HDR which allows for a movie to only show HDR in specific sequences, which allows for more efficient video transport and more impactful uses of HDR during the content.

ARC, or Audio Return Channel, is a feature that started in HDMI 1.4 and allows for audio to transmit from a television to a receiver or other device, as opposed to only sending audio from a source such as a Blu-Ray player to a television or receiver. This is a very useful feature for those "cutting the cord" where off air antennas are used or built-in streaming applications such as Netflix, which allows for a better listening experience by bypassing television speakers, which are usually substandard quality.

Tech Icon Glossary

eARC or Enhanced Audio Return Channel is the next iteration found in the new HDMI 2.1 standard. The biggest change in eARC is immersive audio formats such as Dolby ATMOS, DTS:X and Auro3D. These audio formats allow for a greater listening experience by adding audio overhead and in a greater 3D type space, called object-based audio. eARC supports up to 32 channels of high resolution 192/24 audio.

HEAC stands for HDMI Ethernet/Audio Return Channel. Beyond ARC, HDMI 1.4 also added Ethernet support. This enabled two-way internet connections via HDMI if one device has an established Ethernet connection. This is particularly useful if a display needs an Ethernet connection and a source, which is HEAC compatible, is already connected.

3D stands for three-dimensional video. 3D was very popular in the early 2010's and typically relies on glasses, either coloured or active shutter, to give an image three -dimensional depth. 3D often required higher refresh rates to allow for each eye to receive full resolution of the image. There are various formats for 3D, some of which require more data than others.

1080p is the top resolution for non UHD/4K displays. 1080p means there are 1080 vertical lines of resolution, along with 1920 lines of horizontal resolution. The p stands for progressive scan, which is a method where each horizontal line is scanned consecutively (1.2.3 etc) as opposed to interlace where odd then even lines are scanned (1,3,5 … then 2,4,6…) Progressive scan provides a much better viewing experience than interlace. A 1080p image has 2.07 million pixels (2 megapixels).

4k Ultra HD is the next generation of high definition video, where both the vertical and horizontal resolution is doubled to 3,840 x 2160. There is a bit of a misnomer when calling Ultra HD 4K, as the resolution for Ultra HD falls just short of four thousand horizontal lines of resolution. This is due to the aspect ratio of televisions (16:9 or 1.78:1) being slightly narrower than cinemas (1.85:1). An Ultra HD image has 8.3 million pixels (8.3 megapixels).

This icon needs to be broken into a couple explanations, 4K refers to the native resolution of 4K, as described in the icon above. 60Hz refers to the how many frames are shown per second. There are many frame rates, but most common are 24, 25, 30, 50, and 60. The higher the frame rate, the more data. As an example, HDMI 1.4 could handle Ultra HD/4K with 4:4:4 24Hz, as the bitrate 8.91 gigabits/second (Gbps). The same signal at 60Hz comes in at 17.2 Gbps. 4:4:4 refers to the colour compression scheme, called chroma subsampling. Without getting too detailed 4:4:4 means there is no colour compression, thus providing pristine colour accuracy. Other options are 4:2:0 and 4:2:2 colour compression.

This icon states that this HDMI cable is capable of transmitting Ultra HD/4K signal up to 3 meters (9.84 feet)

This icon states that this HDMI cable is capable of transmitting Ultra HD/4K signals up to 5 meters (16.4 feet).

Tech Icon Glossary

5K is specific to video shot in anamorphic aspect ratio (2.35:1). You most often see these commercial movie theaters. Videos output in anamorphic typically have a black bar on the top and bottom of the screen. The typical video resolution for 5K is 5120x2160. You'll notice that the vertical resolution is the same as 4K. Since there are more horizontal pixels, 5K resolutions have higher bitrates than 4K and not all cables are capable of transmitting 5K signals. 5K images come in at 22.1 megapixels.

8K is the next wave of high-resolution video and is double the vertical and horizontal resolution of Ultra HD/4K at 7680x4320. There are 33.2 million pixels (33.2 megapixels) in an 8K image.

10K is double the vertical and horizontal resolution of 5K, which is found in videos shot and produced in anamorphic (2.35:1) aspect ratio. The most common resolution of 10K will be, as it is not widely adopted currently, 10240x4320. 10K equates to just over 44 megapixels.

10.2 Gbps means that the HDMI cable is capable of the speeds required in the HDMI 1.4 standard, which was released in 2009. In this case, the cable must be capable of sending/receiving 10.2 billion bits per second.

18 Gbps is based on the HDMI 2.0 standard, which was released in 2013. This means that the cable is capable of handling 18 billion bits per second.

48 Gbps is the latest speed for the newest standard, HDMI 2.1, which was released in the fall of 2017. At 48 billion bits per second, these cables are transmitting massive amounts of data and thus significant engineering and care is required to pull these off, particularly in distances beyond a few meters.

TOSLink is an optical audio cable, originally designed by Toshiba. TOSLink is easily identified by its square shaped connector, is used to transmit digital audio via S/PDIF (Sony Phillips Digital Interface) from a device or display to a receiver. TOSLink does have limitations and is not designed for immersive audio formats.

HD Audio is a term for high resolution audio. HD audio typically refers to content recorded and played back at rates at or higher than 44.1K samples per second and a bit depth of 16 or greater. Common HD audio formats are 96Hz/24b and 192Hz/24b.

Tech Icon Glossary

HDBaseT™ is a proprietary format of transporting uncompressed HD and UHD video over Ethernet. Founded by Valens, HDBaseT™ enables ease of distributing HD and UHD quality video throughout a residence via existing or new Ethernet cables within the home.

This cable is able to transmit 4K video with 60 frames per second with 4:2:0 chroma subsampling up to forty meters (131.2'). This equates to approximately 10.2 Gbps.

This cable is able to transmit 4K video with 60 frames per second with uncompressed colours up to 40 meters (131.2'). This equates to 18 Gbps.

PoE (or Power over Ethernet) allows for devices to operate without the need for a separate power adapter, as the power is provided by a PoE switch. Based off the IEEE 802.3af-2003 standard, PoE provides up to 15.4 watts of power. IEEE 802.3af-2009, called PoE+ provides 25.5watts of power. PoE is very useful for wiring devices such as video cameras and wireless access points. PoE is standardised to adhere to specific voltage ranges between 37 and 57 volts. This ensures that any PoE device connected to a system receives a compatible power supply.

PoC (or Power-over-Cable) works to similar principles (supplying simultaneous power and data signals over Cat cable) but is non-standardised and is applied to proprietary systems. Therefore, the voltage supply can be set to meet the needs of a specific product/system (which may be lower or higher than voltage range of PoE).

PoH (or Power over HDBaseT™) combines the flexibility of PoE with HDBaseT™. PoH has more power than PoE, at 100 watts which is enough to operate PoH enabled televisions.

This connector on this cable requires a minimum of 1 kg (2.2 lbs) of force to remove it from the connected device.

This connector on this cable requires a minimum of 2 kg (4.4 lbs) of force to remove it from the connected device.

Tech Icon Glossary

This connector on this cable requires a minimum of 3kg (6.6 lbs) of force to remove it from the connected device.

This denotes a cable which is able to output Ultra HD/4K resolutions at framerates up to 120 frames per second utilizing Display Stream Compression, which is a new feature added in the HDMI 2.1 specification.

This denotes a cable which is able to output 8K (33 megapixels) resolutions at framerates up to 60 frames per second utilizing Display Stream Compression, which is a new feature added in the HDMI 2.1 specification.

32.4 Gbps refers to 32.4 gigabits per second. This amount of data is often used in widescreen computer monitors, which are attractive to games looking for a wide field of view.

DSC 1.2 or Display Stream Compression version 1.2 is a video compression scheme developed by VESA which enables 3:1 compression over HDMI and DisplayPort. DSC is considered lossless and enables higher resolutions and framerates to be transported over cables otherwise unable to do so. HDMI 2.1 is the first HDMI standard which has allowed video compression.

FEC or Forward Error Correction is a transmission scheme/protocol used to prevent errors before they occur. DisplayPort 1.4 utilizes FEC which allows it to provide a more reliable signal.

Notes

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