kordz®

Connectivity.Assured

Product **Brochure**

kordz

Connectivity.Assured

Founded in Australia in 2003, Kordz is a globally recognised, multi-award-winning specialist cable brand distributed in over 40 countries.

Kordz partners with global technology leaders to engineer and manufacture professional grade connectivity products designed for systems technicians.

Kordz strives for 'Predictable Reliability', a core philosophy, constant pursuit and promised experience of its industry-leading range, which incorporates a high standard of practical and graceful design, using advanced manufacturing methods and premium materials.

Attentive to its distributors, integrators and installers, Kordz is renowned for the care it takes to meet the specific needs of professionals, innovating, supporting and educating the industry through knowledge and expertise.

Contents

Timeline

2003
- Kordz founded in Mornington, Australia
- 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
- Hybrid Fibre (AOC) HDMI cable launched

2018
- Now exporting to over 29 different countries around the world
- Connected Home Most Popular Award - HDMI Cabling
- Joins AVIXA

2019
- Connected Home Most Popular Award - HDMI Cabling
- PRO series Cat6 patch cords released

2020
- Individually tested PRS series Cat6a patch cords released
- Connected Home Most Popular Award - HDMI Cabling

2021
- Ultra High Speed BRAVO HDMI cables released
- Connected Home Most Popular Award - HDMI Cabling
- 1st patent granted for PRO and PRS patch cables

2022
- Connected Home Most Popular Award - HDMI Cabling
- Connected Home Most Popular Award - Speaker Cables

2023
- PRO SlimCat Network Cable System released
- TNT (Top New Technology) Award –SlimCat Network Cable System
- Best Of Show Award –SlimCat Network Cable System

PRO Slim**Cat** 305m

Network Cable

Part of the multi-award-winning Kordz **PRO SlimCat™** Network Cable System, the PRO SlimCat™ Network Cable is the industry-leading, highly flexible network cable designed for high density installations. The slim 4.0mm diameter Cat6 U/UTP cable reduces bulk and makes installation easier, whilst delivering IEEE802.3bt PoE++ at 100W and 1Gbps network connectivity up to 50 metres. Pair it with Kordz PRO SlimCat RJ45 Crimp Connectors and Keystone RJ45 Sockets, and terminate with Kordz ONE Series Crimping Tool for a complete Kordz ecosystem that delivers 'Connectivity Assured'.

- Delivers ANSI/TIA-568.2-D Cat6 permanent link performance up to 50m, ideal for small and medium size installations
- Space-saving U/UTP design, enabling reliable wired networks to the places other systems can't reach
- Reducing bundle sizes by almost half (cross-sectional area)
- IEEE802.3bt 100W PoE++ capable
- Simultaneous UL444 CM and CPR Dca fire rating for full compliance with US and EU safety requirements

| SLIM CAT | 28 AWG | CAT6 → UP TO 50M | POE++ | c(UL)us CM FIRE RATED | CPR Dca | U/UTP | LIFETIME WARRANTY |

best of show 2023 Winner SOUND & VIDEO CONTRACTOR

TNT AWARDS @ ISE 2023 CEPro Commercial INTEGRATOR

kordz
Connectivity.**Assured**

PRS Slim**Cat**

305m

Network Cable

Kordz **PRS SlimCat™** Cat6A Network Cable is the industry-leading highly flexible shielded network cable designed for high performance and high-density installations that delivers all the power in half the size and goes where other Cat6A cables can't The slim 5mm diameter Cat6A F/UTP cable reduces bulk and makes installation easier whilst delivering IEEE802.3bt PoE++ at 100W and 10Gbps network connectivity up to 50 metres. Complete the Kordz PRS SlimCat™ system by pairing the cable with Kordz PRS SlimCat™ RJ45 Shielded Crimp Connectors and Cat6A Keystone RJ45 Sockets to ensure reliable, compact connectivity.

- Delivers ANSI/TIA-568.2-D Cat6A permanent link performance up to 50m, ideal for small and medium size installations
- Space-saving F/UTP design, enabling reliable wired networks to the places other systems can't reach
- Reducing bundle sizes by almost half (cross-sectional area)
- IEEE802.3bt 100W PoE++ capable
- Simultaneous UL444 CM and CPR Dca fire rating for full compliance with US and EU safety requirements

| SLIM CAT | POE++ | CAT6A → UP TO 50M | 28 AWG | SHIELDED | F/UTP | cULus CM FIRE RATED | CPR Dca | LIFETIME WARRANTY |

best of show 2023 Winner YOUNG/UNITED CONTRACTOR

TNT AWARDS@ISE 2023 CEPro Commercial INTEGRATOR

kordz Connectivity.Assured

PRO Slim**Cat**

RJ45 Crimp Connector with Strain Relief

The Kordz **PRO SlimCat™** RJ45 Crimp Connector is designed specifically for use with the Kordz PRO SlimCat™ Network Cable, as part of the multi-award-winning PRO SlimCat™ Network Cable System. It features an innovative composite construction that incorporates a transparent body and a durable snap-proof nylon latch. The Strain Relief features an optional locking pin to prevent accidental disconnects. This connector is rated for IEEE802.3bt PoE++ at 100W. Match it with Kordz PRO SlimCat Keystone RJ45 Sockets and terminate it with Kordz ONE Series Crimping Tool for a complete Kordz ecosystem that delivers 'Connectivity Assured'.

- Enables delivery of ANSI/TIA-568.2-D Cat6 performance up to 50m when paired with Kordz PRO SlimCat™ Network Cables
- Durable snap-proof nylon latch
- Transparent polycarbonate body for termination ease
- Tinted wire manager for handling ease and insertion verification
- Optional strain relief available featuring a removable locking pin

SLIM CAT	28 AWG	CAT 6	POE++	UNSHIELDED	RJ45	UL94 V-0	LIFETIME WARRANTY

best of show 2023
AT ISE 2023
Winner
SOUND&VIDEO CONTRACTOR

TNT
TOP NEW TECHNOLOGY
AWARDS@ISE
2023
CEPro   Commercial INTEGRATOR

kordz
Connectivity.**Assured**

PRS Slim**Cat**

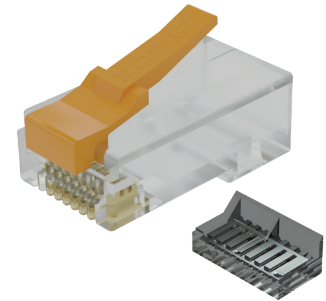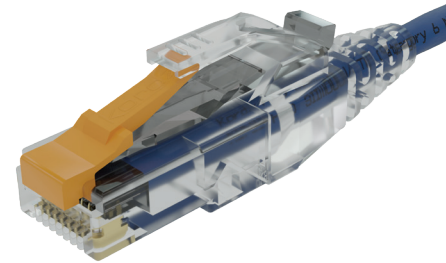## Shielded Crimp Connector with Strain Relief

The Kordz **PRS SlimCat™** Shielded RJ45 Crimp Connector is designed specifically for use with the Kordz PRS SlimCat™ Cat6A Network Cable and features an innovative composite construction that incorporates a shielded transparent body and a durable 'snap-proof' nylon latch and is compatible with the PRO SlimCat™ Strain Relief. This connector is rated for IEEE802.3bt PoE++ at 100W. Match it with other Kordz PRS SlimCat™ Cat6A components for a complete Kordz ecosystem that delivers 'Connectivity Assured'.

- Enables delivery of ANSI/TIA-568.2-D Cat6A performance up to 50m when paired with Kordz PRS SlimCat™ Cat6A Network Cables
- Durable snap-proof nylon latch
- Nickel-plated metal shielding
- Transparent polycarbonate body for termination ease
- Tinted wire-manager for handling ease and insertion verification
- Optional PRO strain relief available featuring a removable locking pin
- IEEE802.3bt 100W PoE++ capable
- UL94 V-0 fire-rated

SLIM CAT | 28 AWG | CAT 6A | SNAP PROOF | POE++ | SHIELDED | RJ45 | UL94 V-0 | LIFETIME WARRANTY

best of show 2023 — AT ISE 2023 — Winner SOUND&VIDEO CONTRACTOR

TNT AWARDS@ISE 2023 TOP NEW TECHNOLOGY CEPro Commercial Integrator

Kordz
Connectivity.Assured
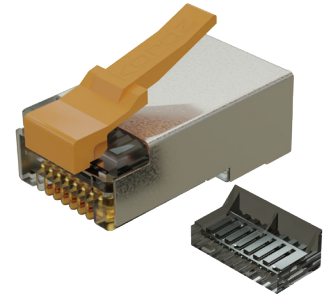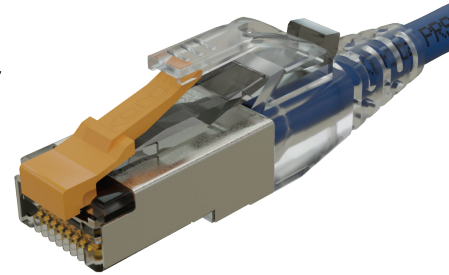
PRO Slim**Cat**

Cat6 Keystone RJ45 Socket

The Kordz **PRO SlimCat™** Keystone RJ45 Socket is designed specifically for use with the Kordz PRO SlimCat Network Cable, as part of the multi-award-winning PRO SlimCat™ Network Cable System. It enables professional integrators to deliver ANSI/TIA-568.2-D Cat6 permanent link performance up to 50 metres. Featuring an ABS clamshell and metal latching mechanism, Kordz PRO SlimCat Keystones make installation easier, support PoE++ at 100W and fit standard keystone panel cut-outs. Match with Kordz PRO SlimCat RJ45 Crimp Connectors and terminate it with the Kordz ONE Series Crimping Tool for a complete Kordz ecosystem that delivers 'Connectivity Assured'.

- Easy to terminate with latching mechanism
- Enables delivery of ANSI/TIA-568.2-D Cat 6 permanent link performance up to 50m when paired with Kordz PRO SlimCat™ Network Cables
- Contacts and wire manager customised for 28AWG conductors

SLIM CAT | 28 AWG | CAT 6 | POE++ | UNSHIELDED | RJ45 | UL94 V-0 | LIFETIME WARRANTY

best of show 2023 AT ISE 2023 Winner SOUND&VIDEO CONTRACTOR

TNT AWARDS@ISE 2023 CEPro Commercial INTEGRATOR

kordz
Connectivity.Assured

PRS Slim**Cat**

Cat6A Keystone RJ45 Socket

The Kordz **PRS SlimCat™** Cat6A Keystone RJ45 Socket is designed specifically for use with the Kordz PRS SlimCat™ Network Cable, enabling professional integrators to deliver ANSI/TIA-568.2-D Cat6A permanent link performance up to 50 metres. Featuring a die-cast zinc-alloy metallic clamshell design and metal latching mechanism, Kordz PRS SlimCat™ Keystones make installation easier, support PoE++ at 100W and fit standard keystone panel cut-outs. Match with other Kordz PRS SlimCat™ Cat6A components for a complete Kordz ecosystem that delivers 'Connectivity Assured'.

- Enables delivery of ANSI/TIA-568.2-D Cat6A permanent link performance up to 50m when paired with Kordz PRS SlimCat™ Cat6A Network Cables
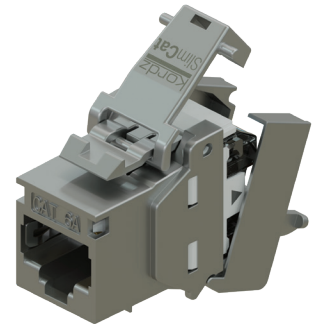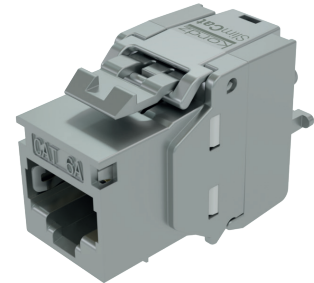- Contacts and wire manager customised for 28AWG conductors
- Easy to terminate with metal latching mechanism
- Die-cast zinc-alloy metallic clamshell design
- IEEE803.2bt 100W PoE++ capable
- UL94 V-0 fire-rated

PRO Slim**Cat**

| 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 Network 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 'snap-proof' latching tab rated for over 2,000 bend cycles
- Available in 8 Colours – Black, Blue, Green, Grey, Purple, Red, White, Yellow
- Available in lengths from 0.15m to 30.0m lengths
- Patented connector design

c(UL)us CM FIRE RATED | LIFETIME WARRANTY | CAT 6 | POE++ | SNAP PROOF | U/UTP

kordz
Connectivity.Assured

PRS SlimCat

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
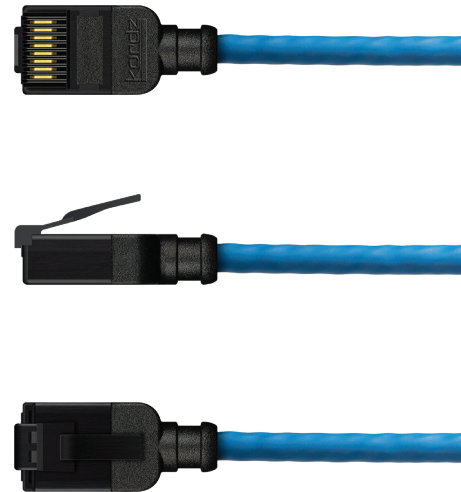
Cat6A Network Patch Cord

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
- Available in 8 Colours – Black, Blue, Green, Grey, Purple, Red, White, Yellow
- Patented connector design

c(UL)us CM FIRE RATED | LIFETIME WARRANTY | CAT 6A | SNAP PROOF | F/UTP | POE++

kordz
Connectivity.Assured

ONE

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

Bulk Packaged Passive 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**

Mounting Length (nominal) - 0.5m - 3.0m: 32AWG, 55.0mm/2.17"
5m: 30 AWG, 58.0mm/2.27"
10m: 26 AWG, 69.0mm/2.72"

Connector - 27.6mm / 1.36"

Bend Radius - 0.5m - 3.0m: 32 AWG, 25.0mm/0.98"
5m: 30 AWG, 30.0mm/1.18"
10m: 26 AWG, 40.0mm/1.57"

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
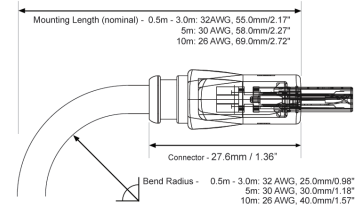
kordz
Connectivity.Assured

PRO³

Passive HDMI Cable

The Kordz **PRO³** Passive HDMI Cables exceed the standards of performance and flexibility to deliver 18Gbps 4K resolution. Fully shielded high quality ABS shells and with 1Kg connectors provide resilience in demanding applications where a cost- effective, reliable solution is required. Fit Kordz PRO³ Passive HDMI Cables with confidence, backed by the Kordz Lifetime Guarantee.

• A solid 1Kg grip, ensuring connectors stay in place for as long as required
• A compact 18mm wide ABS headshell for easy installation
• Reinforced internals for superior flexibility and pull strength during installation
• A lightweight and UL CMG fire rated jacket for safety
• No external power dependencies, it works like a normal passive HDMI cable
• High contrast detailed labelling with inventory management design

4K 60Hz 4:4:4   18 Gbps   HDR   1KG RETENTION   ARC   c UL us CMG FIRE RATED   LIFETIME WARRANTY   HDMI® HIGH SPEED with ETHERNET

1.2in
30.5mm
18.0mm
0.7in
Ø 0.22in / 5.7mm

Minimum operational depth
2.3in / 59.0mm
9.0mm
0.4in
0.9in   0.3in
23.0mm   7.5mm
Minimum bend radius during installation: 1.0in / 25.0mm

kordz
Connectivity.Assured
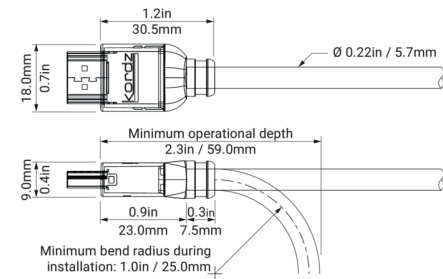
PRO³

Active Copper HDMI Cable

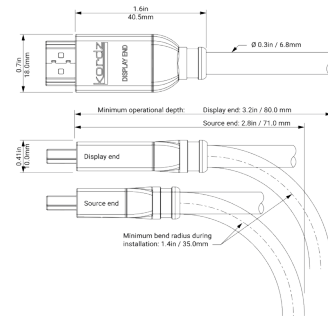The Kordz **PRO³** Active Copper HDMI Cables exceed the standards of performance and flexibility, delivering 18Gbps 4K resolution over long distances and optimised through Active Copper Technology. Fully shielded high quality ABS shells and with 1Kg connectors provide resilience in demanding applications where a cost- effective, reliable solution is required. Fit Kordz PRO³ Active Copper HDMI Cables with confidence, backed by the Kordz warranty.

• A solid 1Kg grip, ensuring connectors stay in place for as long as required
• A compact 18mm wide ABS headshell for easy installation
• Reinforced internals for superior flexibility and pull strength during installation
• A lightweight and UL CMG fire rated jacket for safety
• No external power dependencies, it works like a normal passive HDMI cable
• 18Gbps certification from DPL Labs
• High contrast detailed labelling with inventory management design
• Backed by the Kordz 2 Year Warranty

8K 30Hz 4:2:0 **4K** 60Hz 4:4:4 **18** Gbps **HDR** **ARC** c**UL**us CMG FIRE RATED **2** YEAR WARRANTY DPL SEAL of Approval

1.6in
40.5mm

Ø 0.3in / 6.8mm

0.7in
18.0mm

DISPLAY END

Minimum operational depth: Display end: 3.2in / 80.0 mm
                               Source end: 2.8in / 71.0 mm

0.41in
10.0mm

Display end

Source end

Minimum bend radius during
installation: 1.4in / 35.0mm

kordz
Connectivity.Assured

PRO³

10m · 15m · 20m

Active Optical HDMI Cable

The Kordz **PRO³** Active Optical HDMI Cables exceed the standards of performance and flexibility, delivering 18Gbps 4K resolution over long distances and optimised through Active Optical Technology. Fully shielded high quality ABS shells and with 1Kg connectors provide resilience in demanding applications where a cost- effective, reliable solution is required. Fit Kordz PRO³ Active Optical HDMI Cables with confidence, backed by the Kordz warranty.

- A solid 1Kg grip, ensuring connectors stay in place for as long as required
- A compact 18mm wide ABS headshell for easy installation
- Reinforced internals for superior flexibility and pull strength during installation
- A lightweight and UL CMG fire rated jacket for safety
- No external power dependencies, it works like a normal passive HDMI cable
- 18Gbps certification from DPL Labs
- High contrast detailed labelling with inventory management design
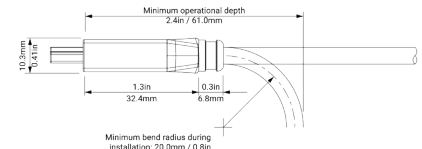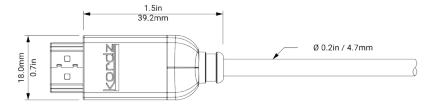- Backed by the Kordz 2 Year Warranty

8K 30Hz 4:2:0 · 4K 60Hz 4:4:4 · 18 Gbps · HDR · ARC · c(UL)us CMG FIRE RATED · 2 YEAR WARRANTY · DPL 4K

DISPLAY END

1.5in / 39.2mm
18.0mm / 0.7in
Ø 0.2in / 4.7mm

Minimum operational depth
2.4in / 61.0mm
10.3mm / 0.41in
1.3in / 32.4mm
0.3in / 6.8mm
Minimum bend radius during installation: 20.0mm / 0.8in
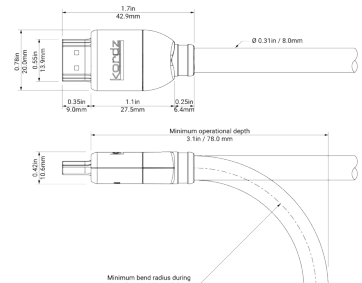
kordz Connectivity.Assured

PRS⁴

| 0.5m | 1.0m | 1.5m | 2.0m | 3.0m | 5.0m | 7.0m | 9.0m |

Passive HDMI Cable

The Kordz **PRS⁴** Passive HDMI Cables are designed to meet the high demands and rigour of professional integration. The Kordz PRS4 range features cables that are compact, tough and flexible with a 2Kg retention force die-cast connector. Kordz PRS⁴ HDMI Passive Cables support the full features and benefits of the latest HDMI technology when using 4K HFR or 8K devices.

- Ultra High Speed certified
- 48Gbps support for 8K/10K, HDR, VRR, HFR, 3D, FRL
- Robust engineering and construction with premium materials
- 15µ" gold-plated solid copper pins
- Compact connector with full internal zinc-alloy diecast housing
- Easy installation aided by the unique Kordz shark-nose dust-cap
- Convenient easy tear bulk packaging minimising waste on site
- UL CMG rating
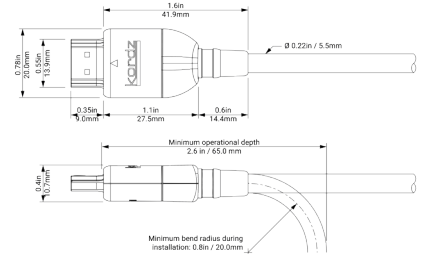- Backed by the Kordz Lifetime Guarantee

ULTRA Certified Cable

HDMI™ ULTRA HIGH SPEED

BCDFG123456
www.HDMI.org

| 48 Gbps | 8K ULTRA HD | 10K UHD WIDE | eARC | c(UL)us CMG FIRE RATED | LIFETIME WARRANTY |

kordz
Connectivity.Assured

PRS⁴

10m | 15m | 20m

Active Optical HDMI Cable

The Kordz **PRS⁴** Active HDMI Cable are designed to meet the high demands and rigour of professional integration. The Kordz PRS⁴ range features cables that are compact, tough and flexible with a 2Kg retention force die-cast connector. Kordz PRS⁴ HDMI Active Optical Cables support the full features and benefits of the latest HDMI technology when using 4K HFR or 8K devices.

- Ultra High Speed certified
- 48Gbps support for 8K/10K, HDR, VRR, HFR, 3D, FRL
- Robust engineering and construction with premium materials
- 15µ" gold-plated solid copper pins
- Compact connector with full internal zinc-alloy diecast housing
- Easy installation aided by the unique Kordz shark-nose dust-cap
- Convenient easy tear bulk packaging minimising waste on site
- Low Smoke Zero Halogen Construction
- Backed by the Kordz 2 Year Warranty

ULTRA Certified Cable

HDMI™ ULTRA HIGH SPEED

BCDFG123456
www.HDMI.org

48 Gbps | 8K ULTRA HD | 10K UHD WIDE | eARC | LSZH FIRE RATED | 2 YEAR WARRANTY

1.6in 41.9mm
0.78in 20.0mm
0.55in 13.9mm
Ø 0.22in / 5.5mm
0.35in 9.0mm
1.1in 27.5mm
0.6in 14.4mm

Minimum operational depth
2.6 in / 65.0 mm
0.4in 0.7mm

Minimum bend radius during
installation: 0.8in / 20.0mm

DISPLAY END

kordz
Connectivity.Assured

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

Passive HDMI Cable

R.3 is our most robust installation HDMI cable, designed for tight spaces and engineered for electrical signal preservation to protect critical HDMI signals amidst high electrical noise environments. A unique combination of advanced features and materials delivers unrivalled installation performance and reliability. High-tech assembly and vacuum infra-red soldering minimise signal drop-outs, while nitrogen foam polyethylene insulation ensures the highest dielectric consistency for digital transmission. With high flexibility and shallow operational depth, the Kordz R.3 HDMI Cable opens new installation design possibilities.

- Anti-fatigue, die-cast zinc alloy connectors tested to ≥1,000 cycles & 2kg retention force
- Double fully enclosed casings and unique copper wire annealing technique allows for twist rate responsiveness while relieving device socket pressure
- 100% of units tested for zero Bit Error Rate (BER) @ 340Mcsc, <0.05% in-field failure rate
- Available in a total of 14 precision rack fit lengths – 0.3m increments between 0.3m – 3.0m, 0.6m increments between 3.6m – 5.4m.
- High bandwidth solid OFC conductors and induction soldered pin transitions for benchmark inter-terminal uniformity

0.3m - 2.7m: Mounting Length - 32AWG 47.0 mm/1.85" (nominal)
3.0m - 5.4m: Mounting Length - 28AWG 54.0mm/2.13" (nominal)

22.15mm / .87"
Total Length
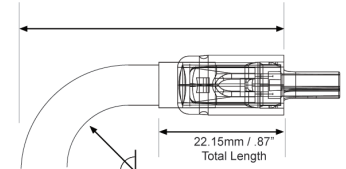
Bend Radius -   0.3m - 2.7m: 32 AWG, 20.0mm/0.79"
                3.0m - 5.4m: 28 AWG, 27.0mm/1.06"

Cable OD / AWG -   0.3m - 2.7m: 32 AWG, 4.8mm/0.19" ø
                  3.0m - 5.4m: 28 AWG, 6.5mm/0.22" ø

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

HDMI® HIGH SPEED with **ETHERNET**

kordz
Connectivity.**Assured**

Bravo

| 1.0m | 1.5m | 2.0m | 3.0m |

8K Peformance HDMI Cables

Kordz' industry-leading durability now in Ultra High Speed 8K with **Bravo**: an HDMI Licensing certified HDMI cable supporting all HDMI 2.1 features such as Dynamic HDR, Variable Refresh Rates, Quick Frame Transport and others. Bravo's robust materials, cutting edge manufacturing techniques and next-gen design exceeds the latest certification standards to elevate home cinema.

- Ultra High-Speed HDMI certification ensures 48Gbps bandwidth and up to 8K video, HDR, VRR, eARC support with low signal interference.
- Supports all HDMI 2.1 features such as Dynamic HDR, Variable Refresh Rates, Quick Frame Transport and others.
- Pliable soft-textured cable jacket made from halogen free raw materials, safe for use in home and office environments and supporting any tight spaces installation configuration.
- 99.99% Oxygen-free high purity copper for all conductors for superior signal transfer and integrity.

ULTRA Certified Cable
HDMI™ ULTRA HIGH SPEED
BCDFG123456 www.HDMI.org

8K ULTRA HD | 48 Gbps | 10K UHD WIDE | eARC | QFT | QMS | ALLM | VRR | DYNAMIC HDR | LIFETIME WARRANTY

PRO

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

Passive DisplayPort™ Cable

Kordz **PRO** Series 8K DisplayPort™ Cable is engineered to enrich professional displays through a flexible, slim profile, solid copper pins and a fire rated jacket. Our 8K DisplayPort™ Cable offers installation success, longevity and backwards compatibility with high resolution displays up to 8K and High Bit Rate 3 (HBR3) mode with data rate up to 32.4Gbps.

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

D 8K

kordz
Connectivity.Assured

PRO³

TOSLINK Cable

0.5m	1.0m	1.5m	2.0m	3.0m	4.0m
5.0m	7.5m	10m	12.5m	15m	20m

Kordz **PRO³** Series TOSLINK Cable delivers a clean, accurate digital audio signal for professional AV installations. The robust, yet flexible jacket fits in tight spaces, whilst the secure SureFit connector is designed for easy installation. The PMMA acrylic polymer fibre conductor offers optimised digital audio transmission, supporting a wide range of audio formats. Available in lengths from 0.5m to 20m making them ideal for a wide range of applications, the Kordz PRO³ Series TOSLINK Cable makes installations easier for the professional installer.

• Shallow mounting depth connectors
• 1mm diameter PMMA Acrylic core for optimal light transmission
• 4.8mm cable diameter to be rugged yet flexible
• Metal optical tip designed for robustness
• Secure SureFit connector
• Flexible and durable matte black PVC jacket
• Available in lengths from 0.5m to 20m

TOSLink OPTICAL | SureFit CONNECTOR | → UP TO 7.1Ch CHANNEL AUDIO | c UL us CMG FIRE RATED | LIFETIME WARRANTY

kordz
Connectivity.Assured

PRO³

Single RCA Cable

| 0.5m | 1.0m | 1.5m | 2.0m | 3.0m | 4.0m |
| 5.0m | 7.5m | 10m | 12.5m | 15m | 20m |

Kordz **PRO³** Series RCA Cables are highly flexible, solid, and engineered for versatility in professional AV installations. They are designed for easy installation with shallow mounting depth and a secure connector. The double-shielded matte black CMG fire-rated jacket and stranded oxygen free copper conductors minimise signal loss and mitigates interference.

- Professional grade cable
- 1Shallow mounting depth connectors
- Digital Audio Optimised 75Ω coaxial cable (PRO3-1RCA)
- Stranded oxygen-free copper conductor
- Dual shielded cable with foil and braid
- Flexible and durable matte black PVC jacket

| RCA | 75Ω | OFC 99.99% | c UL us CMG FIRE RATED | LIFETIME WARRANTY |

kordz
Connectivity.Assured

PRO³

0.5m | 1.0m | 1.5m | 2.0m | 3.0m | 4.0m | 5.0m

Twin RCA Cable

Kordz **PRO³** Series RCA Cables are highly flexible, solid, and engineered for versatility in professional AV installations. They are designed for easy installation with shallow mounting depth and a secure connector. The double-shielded matte black CMG fire-rated jacket and stranded oxygen free copper conductors minimise signal loss and mitigates interference.

- Professional grade cable
- 1Shallow mounting depth connectors
- Analogue Audio Optimised 55Ω coaxial cable (PRO3-2RCA)
- Stranded oxygen-free copper conductor
- Dual shielded cable with foil and braid
- Flexible and durable matte black PVC jacket

RCA | 55Ω | OFC 99.99% | c(UL)us CMG FIRE RATED | LIFETIME WARRANTY

Kordz
Connectivity.Assured

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

ONE

KNX Certified 2 Pair Cable

The Kordz **ONE** CTRL KNX cable is designed and engineered to meet the exacting requirements of the KNX certification. This professional grade high performance cable designed for systems technicians is 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.

- Easy glide outer jacket with meter marks
- Compact Rapid-EZ-Reel packaging
- CPR Dca Fire-rated jacket - LSZH
- Enhance Pair Geometry with Al – Mylar Shield
- KNX Certified: 579/1721/20
- Sturdy and robust shielded construction
- Manufactured with quality materials using advanced manufacturing methods

ONE

Bulk Speaker Cable

Our **ONE Series** speaker cable has been designed and engineered to meet the highest industry standards for AV installation. Each cable flows from the Rapid-EZ Reel pro box without snags, twisting or curling and its robust materials feature an easy-glide outer jacket with low smoke and zero halogen emission construction.

- 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   **OFC**   **CPR** E_{ca}

kordz
Connectivity.Assured

ONE
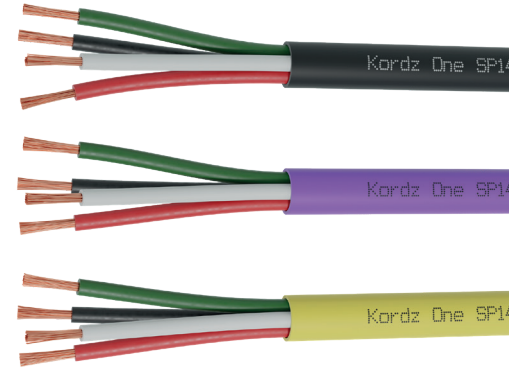
Bulk Speaker Cable Banana plugs

Kordz **ONE Series** Banana Plugs provide a convenient and secure connection through 24k gold plugs. The offset oversized grub screws allow snug fitting superior cable terminations and the molded plastic backshells protect against speaker terminal shorting risk. They contain high copper content brass for strength and positive electrical transmission and 100% surface gold plating to provide the best balance of conductivity and minimises corrosion. Each ONE Series Banana Plug is designed to fit all standard 4mm amplifier/speaker banana sockets and is colour coded for identification and ease of installation.

- Rear cable entry 4mm banana plug
- 24k gold plated body for economy and performance
- Superior cable termination with offset oversized grub screws
- Eliminates speaker terminal short risk with molded plastic backshells
- Accepts up to 10 AWG stranded speaker cable
- Available in bulk trays of 20 plugs for each colour
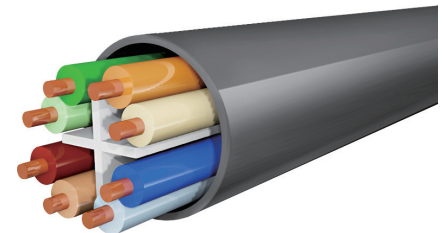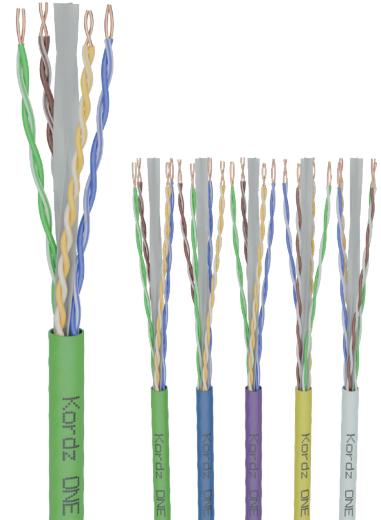- Backed by our Lifetime Warranty

LIFETIME WARRANTY

kordz
Connectivity.Assured

ONE

Category 6 Network Cable

The Kordz **ONE Series** Category 6 Network Cable has been designed and engineered to provide any application with a cost-effective, high-bandwidth and high-performance network cabling solution. It is tested to support IEEE802.3bt PoE++ at 100W, performs to Category 6 standards beyond 550Mhz and is HDBaseT Recommended. 1Gbps network connectivity is supported up to 100 metres, and 10Gbps network connectivity is supported up to 55 metres.

- HDBaseT Recommended cable
- 5.7mm diameter low profile cable
- 24AWG Oxygen-free Copper conductors & U/UTP construction for termination ease, suitable for both crimp or IDC style terminations
- Metre-marked
- Available in 6 colours (black, blue, green, white, yellow & purple)
- Available in CPR Dca rated LSZH or UL444 CM PVC jacket variants
- Conveniently packaged in a Reel-in-Box delivery system that's easy to identify in a van or on-site

ONE

Category 6A Network Cable

The Kordz **ONE Series** Category 6A Network Cable has been designed and engineered to provide any application with a cost-effective, high-bandwidth and high-performance network cabling solution. It is tested to support IEEE802.3bt PoE++ at 100W and exceeds Category 6A performance standards. 10Gbps network connectivity is supported up to 100 metres. The single foil F/UTP construction and 7.4mm diameter makes installation easier.

- ANSI/TIA-568.2-D Category 6A performance delivered, suitable for IEEE802.3 Ethernet & PoE applications
- Solid OFC 24AWG conductors
- F/UTP construction for termination ease
- Metre-marked
- Available in 6 colours (black, blue, green, white, yellow & purple)
- Available in CPR Dca rated LSZH or UL444 CM PVC jacket variants

LSZH FIRE RATED | CAT 6A | F/UTP | CPR D_{ca}

kordz | Connectivity.Assured
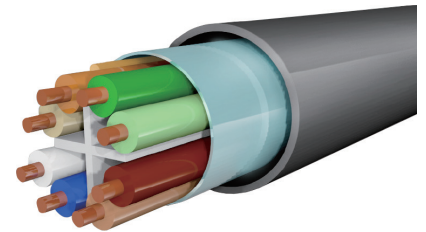
ONE

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

kordz
Connectivity.Assured
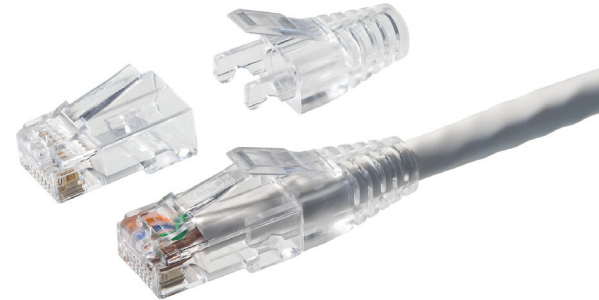
ONE

RJ45 Cat6A Shielded Field Termination Connectors

Our **ONE Series** Cat6A 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.

Shielded Cover
Wire Manager (Grey) for 22~23 AWG
Color Icon
Wire Manager (White) for 24~26 AWG
Nut
Strain Relief Housing
Cable Spring Cleat
Shielded Base
IDC T568B Color Code   Color Icon

(E&OE) ©Kordz 2019

11.70±0.10
16.4
14.0
53.7(ref.)
13.50
ø15.0
ø9.3
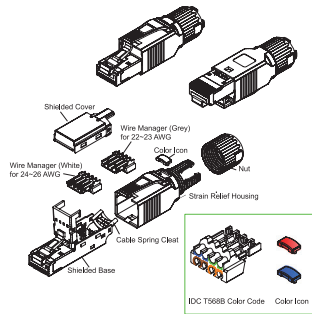
No Tool Required.
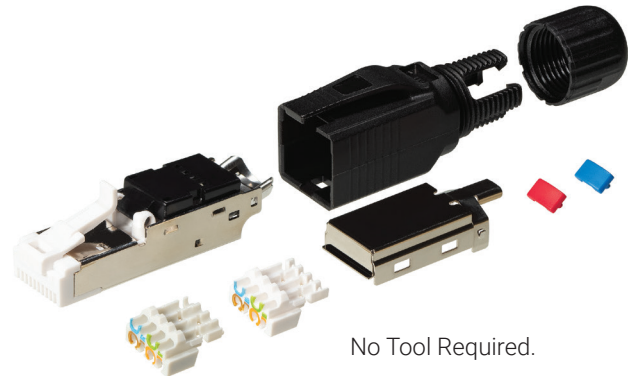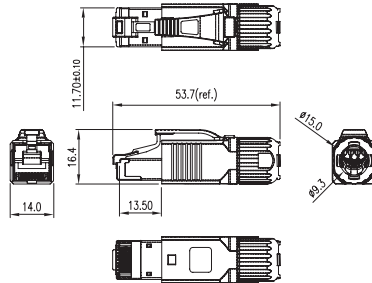
kordz
Connectivity.Assured

PRO

Cat6 Keystone RJ45 Socket

The Keystone RJ45 Sockets perfectly complement Kordz ONE Series Bulk Category Cabling and gives the professional integrator total confidence to deliver an end-to-end cabling solution. Featuring an ABS clamshell with a metal latching mechanism the Keystone RJ45 Sockets are very easy to fit. Match them with Kordz PRS Patch Cords for a complete Kordz ecosystem that delivers 'Connectivity Assured'.

- ABS clamshell design
- Available in black or white
- Easy to terminate with latching mechanism
- 6 pieces per pack
- Sturdy and robust construction
- Manufactured with quality materials and using advanced manufacturing methods
- Available in black and white variants
- Backed by the Kordz Lifetime Guarantee

kordz.com

kordz
Connectivity.Assured

PRS

Cat6A Keystone RJ45 Socket

The Kordz Category Cabling Components range allows professional integrators total confidence with an end-to-end cabling solution. The Keystone RJ45 Sockets perfectly complement Kordz ONE Series Bulk Category Cabling. Featuring a die-cast metal clamshell design and a latching mechanism the Keystone RJ45 Sockets are very easy to fit. Match them with Kordz PRO Patch Cords for a complete Kordz ecosystem that delivers 'Connectivity Assured'.

- Die-cast metal clamshell design
- Easy to terminate with latching mechanism
- 6 pieces per pack
- Sturdy and robust shielded construction
- Manufactured with quality materials and using advanced manufacturing methods
- Backed by the Kordz Lifetime Guarantee

37.70mm
1.48in

17.10mm
0.67in

23.64mm
0.93in

CAT 6

RJ45

UL94 V-O

SHIELDED

POE++

LIFETIME WARRANTY

Kordz
Connectivity.Assured
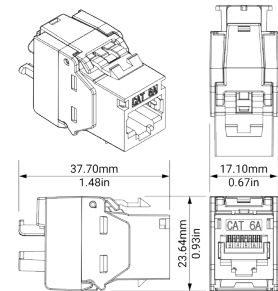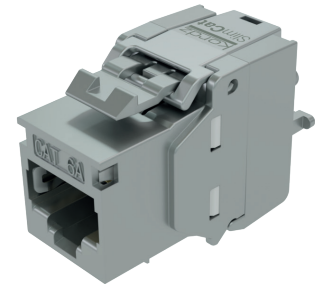
PRS

Cat6A Field Termination RJ45 Plug

The Field Termination RJ45 Plugs perfectly complement Kordz ONE Series Bulk Category Cabling and gives the professional integrator total confidence to deliver an end-to-end cabling solution. Featuring a die-cast alligator style design and advanced manufactured methods, you can match them with Kordz PRS Patch Cords for a complete Kordz ecosystem that delivers 'Connectivity Assured'.

- Die-cast alligator style design
- Easy to terminate
- 6 pieces per pack
- Sturdy and robust shielded construction
- Manufactured with quality materials using advanced manufacturing methods
- Backed by the Kordz Lifetime Guarantee

48.33mm
1.90in

11.68mm
0.46in

14.98mm
0.59in

CAT 6 RJ45 UL94 V-O SHIELDED POE++ LIFETIME WARRANTY

kordz
Connectivity.Assured

PRO
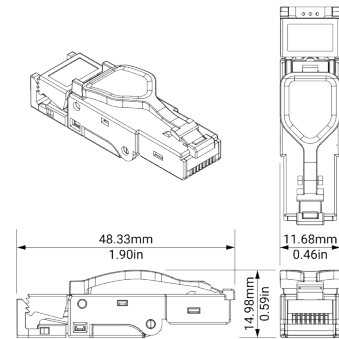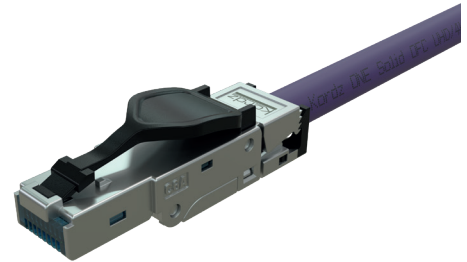
Professional Grade Hook and Loop

The Kordz Pro Hook and Loop is supplied in a 10m continuous length allowing the installer to create custom cable ties. Using this soft fluff free hook and loop makes it easier than ever to dress cables for a complete Kordz ecosystem with 'Connectivity Assured'.

- Premium soft finish
- High adhesion without the fluff
- 12.5mm width
- Cut to length reel for convenience
- 10m length in resealable foil bag
- 1kg adhesion for each cm of overlap

Width:12.5mm / 0.5in
Length: 10.0m / 32.8ft

Black
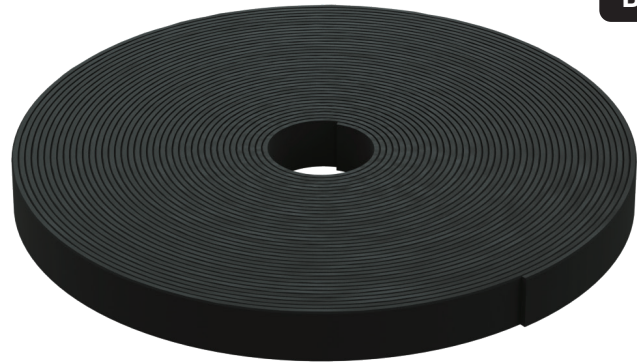
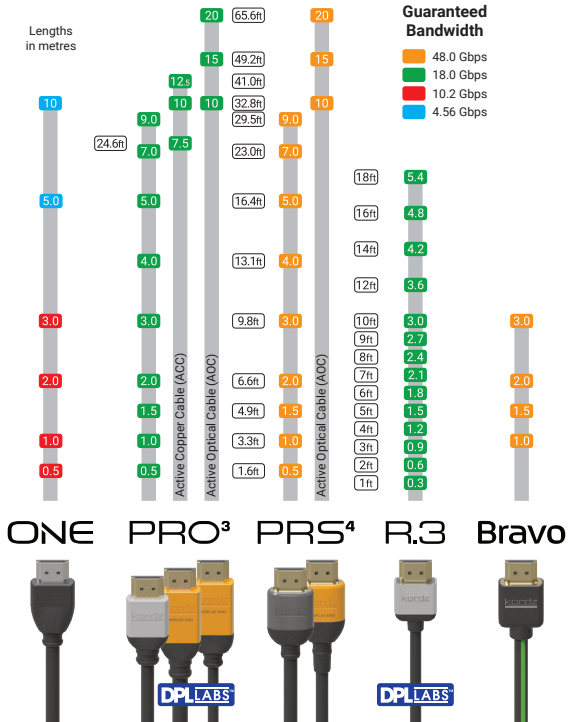|	Resolution	Frame Rate	Color depth (bits)	Chroma Subsampling	HDMI Certified Test Specification	Data Rate (Gbps)
HD*	1920 x 1080p	24	8-bit	4:2:0 / 4:2:2	Standard with Ethernet	2.22
		60		4:4:4 / 4:2:0 / 4:2:2		4.45
HD*	1920 x 1080p	120	8-bit	4:4:4 / 4:2:0 / 4:2:2	High Speed with Ethernet	8.91
4K*	3840 x 2160p	24	8-bit, HDR10 or 12	4:2:0 / 4:2:2		8.91
		24	8-bit	4:4:4 / RGB		8.91
		60		4:2:0		8.91
4K†	3840 x 2160p	24	HDR12	4:4:4 / RGB	High Speed** with Ethernet	11.14
		60	HDR10	4:2:0		11.14
			HDR12	4:2:2		17.82
			8-bit	4:4:4 / RGB		17.82
4K‡	3840 x 2160p	60	HDR10	4:4:4 / RGB	Ultra High Speed	20.05
			HDR12			24.06
		100 / 120	8-bit, HDR10 or 12	4:2:0 / 4:2:2		32.08
			8-bit	4:4:4 / RGB		32.08
			HDR10			40.10
			HDR12			48.11
5K‡	5120 x 2160p	48 / 60	8-bit, 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-bit, 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	Ultra + DSC	64.15
			HDR10	4:4:4 / RGB		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

* HDMI 1.4 - 2009   † HDMI 2.0 - 2013   ‡ HDMI 2.1 - 2019
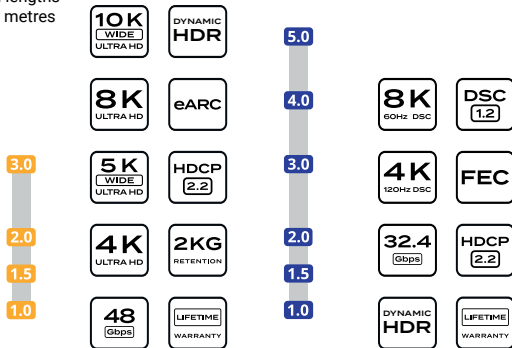
** Although High Speed HDMI CTS is 10.2Gbps, Kordz guarantees 18Gbps for products indicated in green on reverse side of this card.

All lengths in metres

10K WIDE ULTRA HD | **DYNAMIC HDR** | 5.0
8K ULTRA HD | eARC | **8K** 60Hz DSC | DSC 1.2
5K WIDE ULTRA HD | HDCP 2.2 | 4.0 | **4K** 120Hz DSC | FEC
3.0 | 3.0
4K ULTRA HD | 2KG RETENTION | 2.0 | **32.4** Gbps | HDCP 2.2
2.0
1.5 | 1.5
48 Gbps | LIFETIME WARRANTY | 1.0 | **DYNAMIC HDR** | LIFETIME WARRANTY
1.0

Bravo HDMI | **PRO** DisplayPort

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-AF-EN-202001

HDMI	Resolution	Frame Rate	Color depth (bits)	Chroma Subsampling	Speed	Data Rate (Gbps)
4K	3840 x 2160p	60	HDR10	4:4:4/RGB	Ultra High Speed	20.05
			HDR12			24.06
		100/120	8, HDR10 or 12 8-bit	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 8-bit	4:2:0/4:2:2	Ultra High Speed	20.05
			8-bit			20.05
			HDR10	4:4:4/RGB		25.06
			HDR12			30.07
		100/120	8, HDR10 or 12 8-bit	4:2:0/4:2:2		40.10
			8-bit			40.10
			HDR10	4:4:4/RGB	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	Ultra + DSC	64.15
			HDR10	4:4:4/RGB		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

HDMI 2.1 - 2019-2020

DisplayPort	Resolution	Frame Rate	Color depth (bits)	Chroma Subsampling	DSC 1.2[1]	Data Rate (Gbps)
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

DisplayPort 1.4 2018-2019

[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

Speaker Cable Options, Q4'2019

Model	Configuration	Cross Section to scale	Spool Length metre-marked	Rating LSZH	Jacket Colour Purple	Jacket Colour Yellow	Jacket Colour 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.

Speaker Cable Reference

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

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

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

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 10m 32ft	20m 65ft	40m 131ft	80m 262ft	8Ω Speaker 10m 32ft	20m 65ft	40m 131ft	80m 262ft	16Ω Speaker 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

kordz
Connectivity.Assured

Cat6/6A - Cable Guide

ONE Unterminated Network Cabling

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:

HDBT™ BASE-T **Recommended**

Model: K13002-305M-XX

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)

ONE-CAT6 actual size

Kordz ONE Solid OFC

C-A6-EN-202001

Ethernet over Copper Reference Guide

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

kordz®
Connectivity.Assured
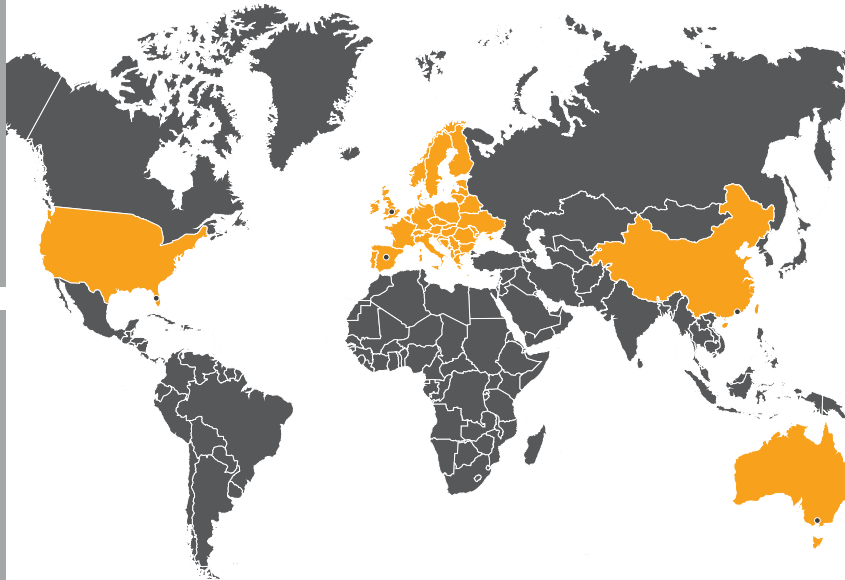
Kordz - Global Offices

USA

Future Ready Solutions

24551 Production Circle

Suite 2 Bonita Springs

FL 34135, USA

info@futurereadysolutions.com

EUROPE

The Service Station
Melton Road
Hickling Pasture
Nottinghamshire
LE14 3QG
United Kingdom
sales@kordz.co.uk

Calle Oro 45,
Nave 10
28770 Colmenar
Viejo Madrid, Spain
sales@kordz.co.uk

HONG KONG

Unit C, 3/F.
Houston Industrial Building
32-40 Wang Lung Street
Tsuen Wan
New Territories
Hong Kong
orders@kordz.com

AUSTRALIA

1/7 Sir Laurence Drive
Seaford
Victoria
3198
Australia
wholesale@kordz.com

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 — 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 — 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 — 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 — 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 — 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).

4K 60Hz 4:4:4 — 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.

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

4K UP TO 5M — 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 UHD WIDE — 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 ULTRA HD — 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 UHD WIDE — 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 — 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 — 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 — 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 OPTICAL — 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 — 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.

UP TO 40M (4K 60Hz 4:2:0) 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.

UP TO 40M (4K 60Hz 4:4:4) 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.

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

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

kordz.com

kordz
Connectivity.Assured

Tech Icon Glossary

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

4K 120Hz DSC — 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.

8K 60Hz DSC — 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 — 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 — 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 — 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.