

## R.3 Rack Install HDMI® Cable

Kordz R.3 is engineered for bespoke commercial AV rack installations. The unique combination of the die-cast HDMI connector, flexible 32AWG halogen free cable and small profile lightweight design results in unrivalled installation flexibility and robustness.

- Engineered and built to deliver maximum commercial up-time,
- 1-10ft lengths in 1ft (0.3m) increments for precision rack fitoffs,
- Solid 32AWG OFC conductors,
- Induction soldered pin transitions for benchmark inter-terminal uniformity,
- Anti-fatigue Die-cast Zn alloy connectors tested to  $\geq 1,000$  cycles & 2kg retention force,
- 100% of units tested on the production line for NIL Bit Error Rate (BER) @ 340Mpsc,  $< 0.05\%$  in-field failure rate,
- Halogen free construction,
- **THX Certified** 4K Interconnect
- **Darbee Certified** for signal transfer and shielding performance
- Limited lifetime warranty,
- **Licensed HDMI 2.0 Adopter company.**



### Technical Specifications

#### HDMI Compliance

HDMI CTS Certification .....	High Speed with Ethernet (Category 2)
Certified Data Rate .....	3.4Gbps, 10.2Gbps aggregate
Supported HDMI Clock .....	27-340MHz

#### Construction

Primary Conductors .....	Solid 32AWG OFC	
Insulation	TMDS .....	Foam PE $\leq 1.45$ relative permittivity
	4C + HEAC Pairs .....	Solid polyolefin $\leq 2.0$ relative permittivity
Shielding	TMDS Pairs .....	Al/Mylar, 25% overlap
	Overall .....	Al/Mylar + Cu 90% coverage braid
Cable Jacket .....	Halogen-free TPE, black 4.8mm $\varnothing$	
HDMI Connector Shell .....	Anti-fatigue die cast Zn alloy, $1\mu$ " 24K Gold plated	
HDMI Connector Pins .....	Solid OFC, $15\mu$ " 24K Gold plated	
Termination .....	Contactless IR induction soldering	
HDMI Backshell .....	Al anodised front with Halogen-free TPE strain relief	

#### Mechanical

Mounting Length .....	47.0mm / 1.85"
Cable Bend Radius .....	20.0mm / 0.79"
Retention Force (nom) .....	20N (approx 2kg / 4.4lbs) $\pm 10\%$

#### Electrical

DUT 2.5m length, according to HDMI CTS standards (sample size:12)

TMDS Pair impedance .....	101.91 $\Omega$ $\pm 1.57\%$ test Mean	
TMDS Resistance .....	1.332 $\Omega$ @ 20°C	
Attenuation	300KHz .....	-0.034dB
(mean)	825MHz .....	-3.688dB
	2.475GHz .....	-7.217dB
	4.125GHz .....	-10.563dB
	5.1GHz .....	-11.908dB
Far-end Skew .....	-20dB (Max)	
Skew	Intrapair .....	29.11ps (min 13.67 / max 54.69, as tested)
	Interpair .....	$< 1.78$ ns
HEAC	Impedance .....	100 $\Omega$ $\pm 10\%$
	Common mode .....	24-36 $\Omega$
	Intra-pair skew .....	46.875ps mean
Voltage .....	+30V rated (+5.2V CTS limit)	
Temperature Rating .....	+75°C	

## Applications

- Mission critical rack installations to mitigate risk typically associated with HDMI connectivity;
  - high shielding permits cable bundling with immunity from interference & alien crosstalk,
  - benchmark low failure rate and robust construction for maximum commercial reliability,
- 0.3m length increments enables optimised routing without surplus cable,
- UHD video and professional graphics,
- Marine,
- Hotels and bars,
- Board room and training centres, suitable for repetitive plug/unplug events,
- Short range digital signage & video wall connectivity,
- HDMI 2.0 scaleable.

**HDMI®**  
2.0 Adopter

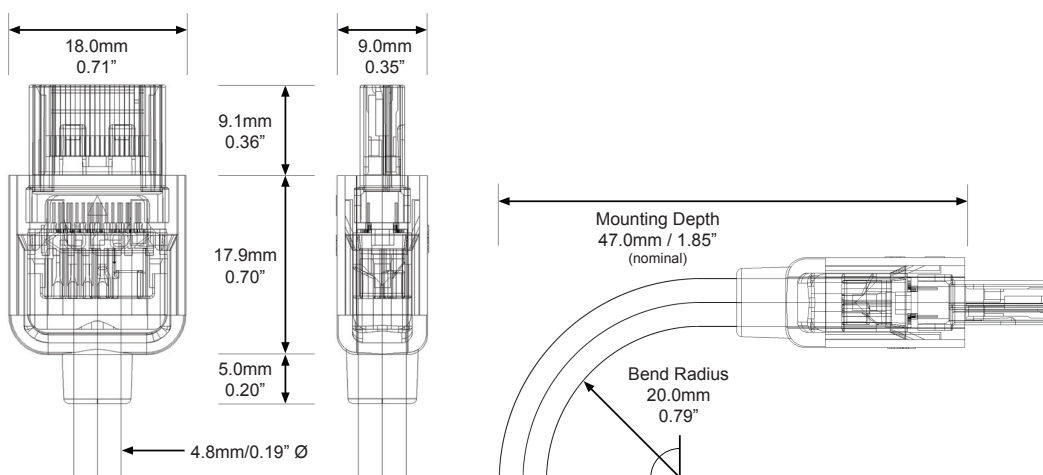


# R.3

## Application Specifications

Video Format Support	Data rate per channel / Aggregate, TMDs Bandwidth
<b>480i/p, 576i/p</b> .....	≤ 540Mbps/1.62Gbps, 270MHz
<b>720p/1080i</b> .....	742.5Mbps/2.22Gbps, 371.25MHz
<b>1080p</b>	
8-bit RGB/YCbCr 4:4:4, 10/12-bit 4:2:2 or 4:2:0	
23.98/24/29.97/30 .....	742.5Mbps/2.22Gbps, 371.25MHz
50/59.94/60 .....	1.485Gbps/4.455Gbps, 742.5MHz
3D-24/30 .....	1.485Gbps/4.455Gbps, 742.5MHz
3D-50/60 .....	2.97Gbps/8.91Gbps, 1.485GHz
10/12/16-bit RGB/YCbCr 4:4:4	
50/59.94/60fps .....	1.86-2.97Gbps/5.57-8.91Gbps, ≤ 1.485GHz
<b>2160p (UHD/4K)</b>	
HDMI 1.4b, 8-bit RGB/YCbCr 4:4:4, 10/12-bit 4:2:2 or 4:2:0	
4096x2160p/24 (SMPTE).....	2.97Gbps/8.91Gbps, 1.485GHz
3840x2160p/23.98/24/29.97/30 .....	2.97Gbps/8.91Gbps, 1.485GHz
HDMI 2.0, 8-bit YCbCr 4:2:0	
2160p*/50/59.94/60 .....	2.97Gbps/8.91Gbps, 1.485GHz
HDMI 2.0 mode, 8-bit 4:4:4, 10/12-bit 4:2:2 or 16-bit 4:2:0	
2160p*/50/59.94/60-2D (CEA-861-F) .....	5.94Gbps/17.82Gbps, 2.97GHz
2160p*30-3D .....	5.94Gbps/17.82Gbps, 2.97GHz
<b>VESA graphics</b> .....	Supports all as defined by HDMI specification
<b>Color Spaces</b> .....	RGB, YCbCr, xvYCC, Adobe sRGB, sYCC601, ITU-BT.2020
<b>Audio Formats Support</b> .....	PCM 2.0-7.1, DD/DTS HD 7.1, 3D Audio (10.2   22.2   30.2ch)
<b>HDMI Ethernet Channel</b> .....	Supported, system dependent
<b>HDMI Audio Return Channel</b> .....	Supported, Single Mode & Common Mode

\* HDMI 2.0 2160p modes encapsulate both 4,096 or 3,840 Hres variants & 4:3 anamorphic pixel ratio support



## Models



Length	Model	Length	Model
0.3m   1'	R.3-HD0030	1.8m   6'	R.3-HD0180
0.6m   2'	R.3-HD0060	2.1m   7'	R.3-HD0210
0.9m   3'	R.3-HD0090	2.4m   8'	R.3-HD0240
1.2m   4'	R.3-HD0120	2.7m   9'	R.3-HD0270
1.5m   5'	R.3-HD0150	3.0m   10'	R.3-HD0300

