

Network Cable

User's Manual

Product Overall



Network cables are the most commonly used transmission mediums in generic cabling system. It is usually composed of 4 pairs of twisted wires, and is generally applied in system cabling within 100 meters.

Parameter

Parameter	Description
Conductor	
Material	Oxygen free copper (99.97% purity)
Conductor Structure	0.57 mm $\pm$ 0.02 mm (0.0224" $\pm$ 0.0008")
American Wire Gauge	23AWG
Insulation	
Insulating Material	HDPE
Min. Average Thickness	0.21 mm (0.0083")
Insulation Diameter	1.02 mm $\pm$ 0.06 mm (0.04" $\pm$ 0.0024")
Insulation Color	8 cores, Blue, white/blue; Orange, white/orange; Green, white/green; Brown, white/brown
Rip Cord	
Material	Polyester
Specification	500D
Separator	
Material	PE
Specification	Translucent 4.5 mm $\times$ 0.4 mm (0.18" $\times$ 0.0157")
Wrapping Tape	
Material	Polyester tape (transparent)
Thickness	W: 20 mm $\pm$ 2 mm $\times$ T: 0.026 mm $\pm$ 0.02 mm (W: 0.79" $\pm$ 0.08" $\times$ T: 0.0010" $\pm$ 0.0008")
Sheath	

Sheath Material	MDPE
Min. Average Thickness	0.7 mm (0.0276")
Sheath Diameter	6.2 mm $\pm$ 0.4 mm (0.24" $\pm$ 0.0157")
Sheath Color	Black
Electrical	
Max. DC Resistance of a Single Conductor	7.35 Ω @100 m (328.08 ft)
Min. Insulation Resistance	5000 M Ω ·km
Max. DC Resistance Unbalance	2% (pair intra), 4% (pairs inter)
Dielectric Strength	No breakdown with 1kV DC for 1 min
Transmission	
Characteristic Impedance	100 Ω $\pm$ 15 Ω
Near-end Crosstalk	$\geq$ 39.3 dB/100 m@250 MHz
Max. Attenuation	32.8 dB/100 m@250 MHz
Return Loss	$\geq$ 17.3 dB/100 m@250 MHz
Mechanical	
Tensile Strength	Sheath $\geq$ 13.5 MPa, insulation $\geq$ 16 Mpa
Elongation at Break	Sheath $\geq$ 150%, insulation $\geq$ 300%
Installation Bending Radius	>15 times of outer cable diameter
Conductor Elongation at Break	$\geq$ 15%
Environmental	
Shrinkage of Insulation	$\leq$ 5%
Color Migration Resistance of Insulation	No migration
Sheath Tensile Strength and Elongation at Break after Aging	$\geq$ 9.6 MPa, rate of change $\leq$ 20%
Low Temperature Bending Test	No cracking after the test
Heat Shock Test	No cracking after the test
Operating Temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Installation Temperature	0 °C to +50 °C (+32 °F to +122 °F)
Storage Temperature	-10 °C to +40 °C (+14 °F to +104 °F)
Storage Humidity	<60% (RH)
Packaging	
Cable Length	305.0 m $\pm$ 2 m (1,000.66 ft $\pm$ 6.56 ft)
Packaging Method	305 m (1,000 ft) a carton, one carton with 2 inner cartons
Packaging Dimensions	436 mm $\times$ 436 mm $\times$ 222 mm (17.17" $\times$ 17.17" $\times$ 8.74") (L $\times$ W $\times$ H)
Transport Package Dimensions	470 mm $\times$ 470 mm $\times$ 470 mm (18.50" $\times$ 18.50" $\times$ 18.50") (L $\times$ W $\times$ H)

Net Weight	11.7 kg $\pm$ 0.6 kg (25.79 lb $\pm$ 1.32 lb)
Gross Weight	12.7 kg $\pm$ 0.6 kg (28.00 lb $\pm$ 1.32 lb)
Compliance Standard	
Compliance Standard	YD/T 3296.2-2018, NSI/TIA 568.2-D

Legal and Regulatory Information

Disclaimer

Every care has been taken in the preparation of this document. Please inform your nearest Dahua office of any inaccuracies or omissions. Dahua Technology shall not be held responsible for any technical or typographical errors and reserves the right to make changes to the product and manuals without prior notice. Dahua Technology makes no warranty of any kind with regard to the material contained within this document, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Dahua Technology shall not be liable or responsible for incidental or consequential damages in connection with the furnishing, performance or use of this material. This product is only to be used for its intended purpose.

Intellectual Property Rights

Dahua Technology retains all intellectual property rights relating to technology embodied in the product described in this document.

Equipment Modifications

This equipment must be installed and used in strict accordance with the instructions given in the user documentation. This equipment contains no user-serviceable components. Unauthorized equipment changes or modifications will invalidate all applicable regulatory certifications and approvals.

Trademark Acknowledgments

 **HDCVI** and other Dahua's trademarks and logos are the properties of Dahua in various jurisdictions.



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All other company names and products are trademarks or registered trademarks of their respective companies.

Regulatory Information

European Directives Compliance



This product complies with the applicable CE marking directives and standards:

- Low Voltage (LVD) Directive 2014/35/EU.
- Restrictions of Hazardous Substances (RoHS) Directive 2011/65/EU and its amending Directive (EU) 2015/863.

A copy of the original declaration of conformity may be obtained from Dahua Technology.

The most up to date copy of the signed EU Declaration of Conformity (DoC) can be downloaded from:
www.dahuasecurity.com/support/notice/

CE-Safety

This product, if applicable, complies with IEC/EN/UL 62368-1: Audio/video, information and communication technology equipment Part 1: Safety requirements and IEC/UL 60950-1: Safety of Information Technology Equipment.



Lorsque le matériel d'emballage doit être mis au rebut, recyclez chaque élément conformément aux exigences de votre collectivité locale.

Declaration of Conformity UKCA



This device complies with applicable UKCA relevant legislations and standards.

- Electrical Equipment (Safety) Regulations 2016.
- Electromagnetic Compatibility Regulations 2016.
- The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012.

UK Declaration of Conformity (DoC) can be downloaded from:
<https://www.dahuasecurity.com/uk/newsEvents/DahuaNotice/572>
Hereby, Dahua Technology declares that the radio equipment is compliant with Radio Equipment Regulations 2017.

Safety

The product, if applicable, complies with IEC/UL 60950-1, Information Technology Equipment – Safety – Part 1: General Requirements; or complies with IEC/EN/UL 62368-1, Audio/video, information and communication technology equipment – Part 1: Safety requirements.

If the power supply to the product is from external power adaptor without connecting to AC Mains, and the product is not shipped with power adaptor, customers are required to use the external power adaptor that must fulfill the requirements for Safety Extra Low Voltage (SELV) and Limited Power Source (LPS).

Waste Electrical and Electronic Equipment (WEEE)

Statements

Disposal and Recycling

When this product has reached the end of its useful life, dispose of it according to local laws and regulations. For information about your nearest designated collection point, contact your local authority responsible for waste disposal. In accordance with

local legislation, penalties may be applicable for incorrect disposal of this waste.



This symbol means that the product shall not be disposed of together with household or commercial waste. Directive 2012/19/EU on waste electrical and electronic equipment (WEEE) is applicable in the European Union member states. To prevent potential harm to human health and the environment, the product must be disposed of in an approved and environmentally safe recycling process. For information about your nearest designated collection point, contact your local authority responsible for waste disposal. Businesses should contact the product supplier for information about how to dispose of this product correctly.

Privacy Protection Notice

As the device user or data controller, you might collect the personal data of others such as their face, fingerprints, and license plate number. You need to be in compliance with your local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures which include but are not limited: Providing clear and visible identification to inform people of the existence of the surveillance area and provide required contact information.

About the Manual

- The manual is for reference only. If there is inconsistency between the manual and the actual product, the actual product shall prevail.
- All the designs and software are subject to change without prior written notice.
- We are not liable for any loss caused by the operations that do not comply with the manual.
- The manual would be updated according to the latest laws and regulations of related jurisdictions. For detailed information, refer to the paper manual, CD-ROM, QR code or our official website (<http://www.dahuatech.com>). If there is inconsistency between paper manual and the electronic version, the electronic version shall prevail.

Support

- Should you require any technical assistance, please contact your Dahua distributor. If your questions cannot be answered immediately, your distributor will forward your queries through the appropriate channels to ensure a rapid response. If you are connected to the Internet, you can:
 - Download user documentation and software updates.
 - Search by product, category, or phrase.
 - Report problems to Dahua support staff by logging in to your private support area.
 - Chat with Dahua support staff.
 - Visit Dahua Support at www.dahuasecurity.com/support

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English

Important Safeguards and Warnings

This Chapter describes the contents covering proper handling of the device, hazard prevention, and prevention of property damage. Read these contents carefully before using the device, comply with them when using, and keep it well for future reference.

Safety Instructions

The following categorized signal words with defined meaning might appear in the manual.

Signal Words	Meaning
 DANGER	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
 CAUTION	Indicates a potential risk which, if not avoided, could result in property damage, data loss, lower performance, or unpredictable result.
 TIPS	Provides methods to help you solve a problem or save you time.
 NOTE	Provides additional information as the emphasis and supplement to the text.

Safety Requirement

- Abide by local electrical safety standards to ensure that the voltage is stable and complies with the power supply requirement of the device.
- Transport, use, and store the device under the allowed humidity and temperature conditions. Refer to the corresponding technical specifications of device for specific working temperature and humidity.
- Do not place the device in a location exposed to dampness, dust, extreme hot or cold, strong electronic radiation, or unstable lighting conditions.
- Do not install the device in a place near the heat source, such as radiator, heater, furnace, or other heat generating device to avoid fire.
- Prevent liquid from flowing into the device to avoid damage to internal components.
- Install the device horizontally or install on the stable place to prevent it from falling.
- Install the device in a well-ventilated place, and do not block the ventilation of the device.
- Do not disassemble the device arbitrarily.
- Avoid heavy stress, violent vibration, and soaking during transportation, storage, and installation. Complete package is necessary during the transportation.
- Use the factory package or the equivalent for transportation.

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