

Camera Cable Assemblies for long-distance transmission

[HPcL series] **Patented**



These cables support Camera Link, which is one of the machine vision interfaces. Our proprietary cable technology and the use of original connectors* have enabled long-distance data transmission **up to 30 meters**.

These are high flex cables that can be used at moving parts.

* The maximum transmission distance changes depending on the performance of the camera and grabber board involved. The cable may have to be used in combination with the camera's built-in Pre-Emphasis function if you require the length of 20 meters or longer. Please provide us with camera details before purchasing this product.

Usage

Connecting a digital camera using the Camera Link interface to a frame grabber

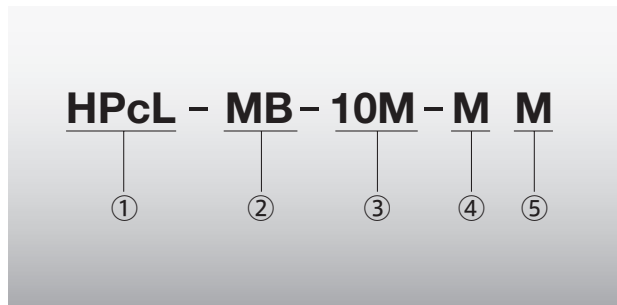
Long-distance interface that supports SDR and MDR connectors

Features

Enabling long-distance data transmission for high bandwidth cameras!!

- This product, when combined with camera's Pre-Emphasis function, enables long distance data transmission of up to 30 meters.
- CL standards: Supporting cameras with the clock rate of 85MHz.
- Supporting full configuration.
- Supporting PoCL
- Flexible, high flex cables that can be used at moving parts
- These cables are UL compliant (VW-1).
- These cables are RoHS Directive compliant.

Product nomenclature



① Series name	Camera cables for long distance data transmission
② Cable size and transmission type	MB: 28AWG / Base-Medium
	MF: 28AWG / Full
	LB: 26AWG / Base-Medium
	LF: 26AWG / Full
③ Product length	In meters
④ Camera-side connector	M: MDR type
	S: SDR type
⑤ Grabber-side connector	M: MDR type
	S: SDR type

* SDR Angle type is under development.

Length-based selection criteria (reference)

Assuming the clock rate of 85MHz

Cable size	10M	15M	20M	25M	30M
M (28AWG)	○	○	⊙	-	-
L (26AWG)	○	○	⊙	⊙	⊙

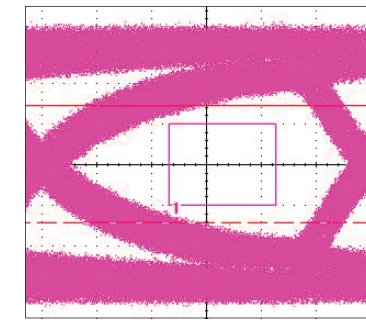
Types of the camera cable assemblies



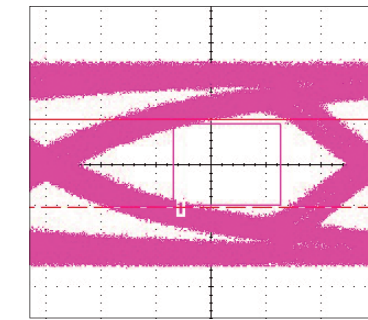
Transmission characteristics <<Eye Pattern>>

Input voltage: 700mVp-p, measuring frequency: 595Mbps (assuming the clock rate of 85MHz)

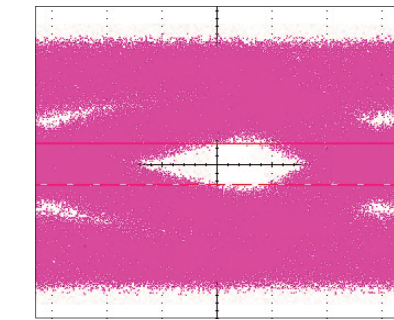
Conventional products



10 M

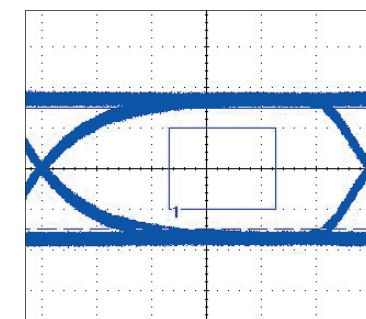


15 M

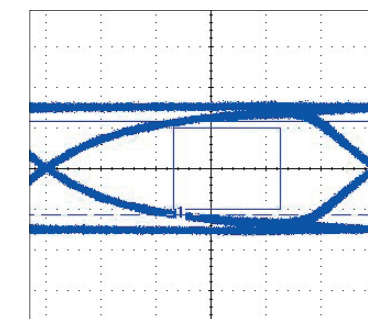


20 M

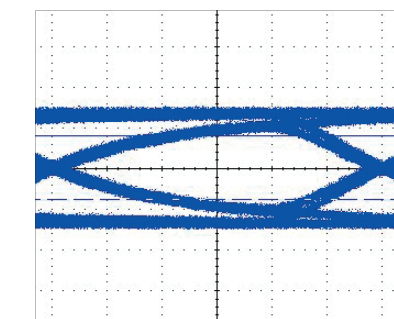
HPcL-M series



10 M



15 M

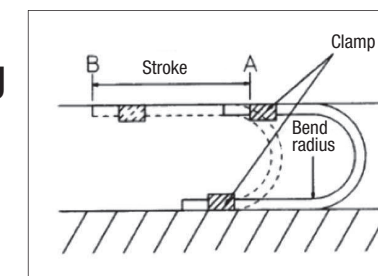


20 M

Flex resistance characteristics <<Slide Cableveyor>>

Stroke: 500mm, bend radius: 50mm, speed: 30 times / minute

No disconnection after 6 million bending cycles and still counting



Testing condition



Cableveyor bend tester