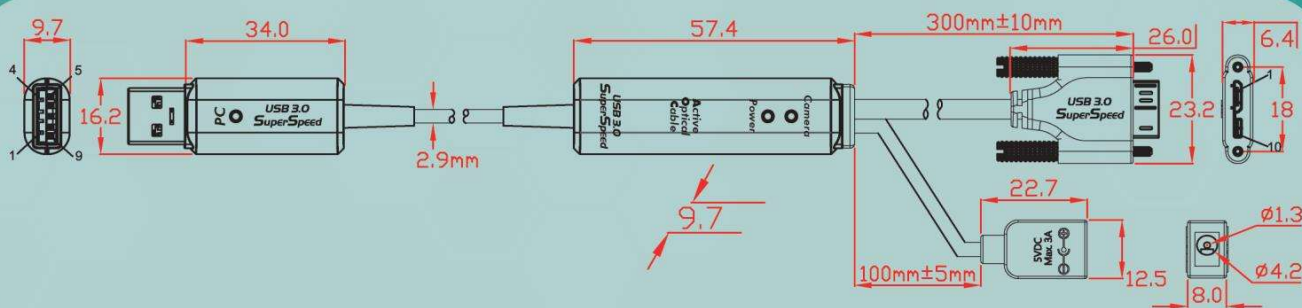# USB3 A to Micro-B Active Optical Cables

10m/15m/20m/30m/40m/50m/60m/70m/80m/90m/100m

- **support High Speed & High Resolution USB3 Cameras**
  high frame rate 170 fps at full 2.0~2.3 MP resolution,
  high frame rate 90 fps at full 4.0~4.2 MP resolution
  (430 MB/s wide bandwidth data throughput)
  without lost frames all the time.

- **USB 2.0/1.1/1.0 not supported**
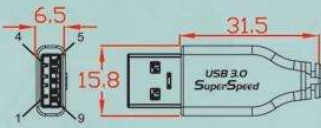
• Coming with AC power adapter

20m
(Optical Cable O.D.:2.9mm)

• USB 3.0 Camera

9.7 | 34.0 | USB 3.0 SuperSpeed | PC | 57.4 | USB 3.0 SuperSpeed | Active Optical Cables | Power | Camera | 300mm±10mm | 26.0 | USB 3.0 SuperSpeed | 23.2 | 6.4 | 18 | 16.2 | 2.9mm | 9.7 | 22.7 | 5VDC Max. 3A | 100mm±5mm | 12.5 | 8.0 | Ø1.3 | Ø4.2

10m
(Optical Cable O.D.:2.9mm)

15m
(Optical Cable O.D.:2.9mm)

20m
(Optical Cable O.D.:2.9mm)

30m
(Optical Cable O.D.:2.9mm)

CBL-U3AOC03-10m   CBL-U3AOC03-15m   CBL-U3AOC03-20m   CBL-U3AOC03-30m

JARGY
Mobile Computing

Ultra Slim

USB3 Straight A to Straight Micro-B Machine Vision Camera Cables - M/M
with locking screws on Micro-B plug
[1m,2m,3m,**4m,5m,6m,7m,8m,9m,10m,···,20m**]
O.D. : 4.3mm, 30AWG - U3 / 32AWG - U2 / 24AWG-PWR

6.4mm
thin (1:1 scale)

6.5mm
thin (1:1 scale)

short (1:1 scale)
26.0mm

narrow (1:1 scale)
23.2mm

USB 3.0 SuperSpeed
short (1:1 scale)
31.5mm

USB 3.0 SuperSpeed
narrow (1:1 scale)
15.8mm

- **support High Speed & High Resolution USB3 Cameras**
  high frame rate 170 fps at full 2.0~2.3 MP resolution, high frame rate 90 fps at full 4.0~4.2 MP resolution
  (430 MB/s wide bandwidth data throughput)
  without lost frames all the time.

Flexible
Wide Bandwidth

3m
(Cable O.D.:4.3mm)

PIN OUT

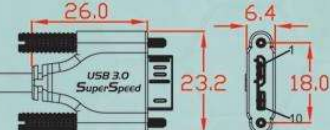| USB A(M)		USB MicroB(M)
1	RED	1
2	WHITE	2
3	GREEN	3
4	BLACK	5
5	BLUE	6
6	YELLOW	7
7	DRAIN WIRE	8
8	PURPLE	9
9	ORANGE	10
SHELL	BRAID	SHELL

[1m,2m,3m]
CBL-USPD302MBSWB-1m/2m/3m (Passive Type-no repeater)

- Straight USB 3.0 A Plug :
- Straight USB 3.0 Micro-B Plug :

6.5
31.5
15.8
USB 3.0 SuperSpeed
26.0
6.4
23.2
18.0
USB 3.0 SuperSpeed

Flexible
Wide Bandwidth

5m
(Cable O.D.:4.3mm)

PIN OUT

USB A(M)		USB MicroB(M)
1	RED	1
2	WHITE	2
3	GREEN	3
4	BLACK	5
5	BLUE	6
6	YELLOW	7
7	DRAIN WIRE	8
8	PURPLE	9
9	ORANGE	10
SHELL	BRAID	SHELL

[4m,5m,6m,7m,8m]
CBL-USD302MBSWB-4m/5m/6m/7m/8m (Active Type-with 1 repeater)

- Straight USB 3.0 A Plug :
- Straight USB 3.0 Micro-B Plug :

6.5
31.5
15.8
USB 3.0 SuperSpeed
42.0
10.0
9.0
26.0
6.4
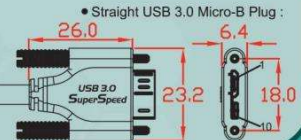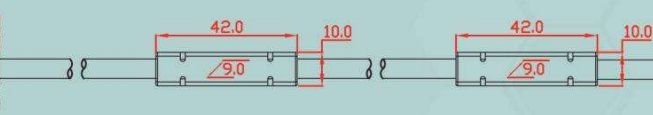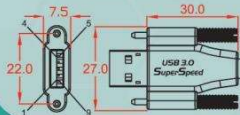23.2
18.0
USB 3.0 SuperSpeed
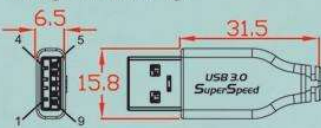
[9m,10m,11m,12m]

CBL-USD302MBSS-9m/10m/11m/12m (Active Type-with 2 repeaters)

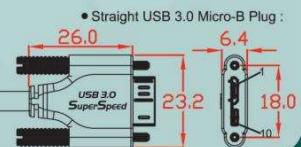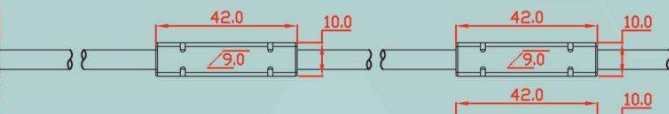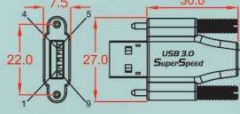• Straight USB 3.0 A Plug :
7.5 30.0
22.0 27.0
USB 3.0 SuperSpeed
42.0 10.0 ∠9.0
42.0 10.0 ∠9.0
• Straight USB 3.0 Micro-B Plug :
26.0 6.4
USB 3.0 SuperSpeed 23.2 18.0

[13m,14m,15m,16m]

CBL-USD302MBSS-13m/14m/15m/16m (Active Type-with 3 repeaters)

• Straight USB 3.0 A Plug :
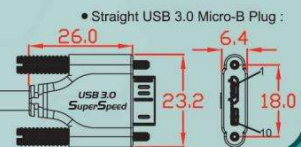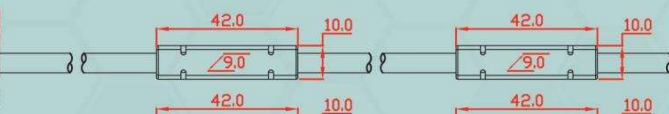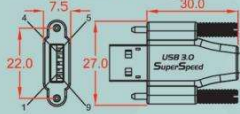7.5 30.0
22.0 27.0
USB 3.0 SuperSpeed
42.0 10.0 ∠9.0
42.0 10.0 ∠9.0
42.0 10.0 ∠9.0
• Straight USB 3.0 Micro-B Plug :
26.0 6.4
USB 3.0 SuperSpeed 23.2 18.0

[17m,18m,19m,20m]

CBL-USD302MBSS-17m/18m/19m/20m (Active Type-with 4 repeaters)

• Straight USB 3.0 A Plug :
7.5 30.0
22.0 27.0
USB 3.0 SuperSpeed
42.0 10.0 ∠9.0
42.0 10.0 ∠9.0
42.0 10.0 ∠9.0
42.0 10.0 ∠9.0
• Straight USB 3.0 Micro-B Plug :
26.0 6.4
USB 3.0 SuperSpeed 23.2 18.0

• fit for Basler's small cameras
• fit for IDS's small cameras
• fit for JAI's small cameras
• fit for Matrix Vision's small cameras
• fit for Point Grey's small cameras

• fit for SENTECH's small cameras
• fit for SVS-VISTEK's small cameras
• fit for The Imaging Source's small cameras
• fit for Toshiba Teli's small cameras
• fit for XIMEA's small cameras

Left Angle
Right Angle
Up Angle
Down Angle

USB3 Straight A to Micro-B Machine Vision Camera Cables - M/M
with locking screws on Micro-B plug

Passive Compact

[1m, 2m, 3m, 4m, 5m, 6m, 7m]
O.D. : 5.6mm, 28AWG - U3 / 28AWG - U2 / 20AWG-PWR

thin (1:1 scale) — 8.5mm

short (1:1 scale) — 27.0mm

narrow (1:1 scale) — 23.3mm

thin (1:1 scale) — 8.5mm

short (1:1 scale) — 31.5mm

narrow (1:1 scale) — 15.8mm

- **support High Speed & High Resolution USB3 Cameras**
  high frame rate 170 fps at full 2.0~2.3 MP resolution, high frame rate 90 fps at full 4.0~4.2 MP resolution
  (500 MB/s wide bandwidth data throughput)
  without lost frames all the time.

- fit for Basler's small cameras
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- fit for JAI's small cameras
- fit for Matrix Vision's small cameras
- fit for Point Grey's small cameras
- fit for SENTECH's small cameras
- fit for SVS-VISTEK's small cameras
- fit for The Imaging Source's small cameras
- fit for Toshiba Teli's small cameras
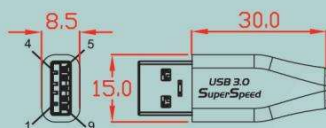- fit for XIMEA's small cameras

Wide Bandwidth

7m (Cable O.D.:5.6mm)

PIN OUT

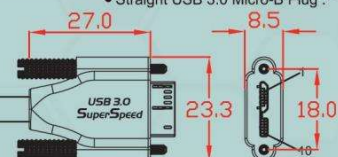| USB A(M)		USB MicroB(M)
1	RED	1
2	WHITE	2
3	GREEN	3
4	BLACK	5
5	BLUE	6
6	YELLOW	7
7	DRAIN WIRE	8
8	PURPLE	9
9	ORANGE	10
SHELL	BRAID	SHELL

[1m, 2m, 3m, 4m, 5m, 6m, 7m]
CBL-PD302MBS-1m/2m/3m
CBL-PD302MBSWB-4m/5m/6m/7m

- Straight USB 3.0 A Plug :

8.5 — 30.0 — 15.0

- Straight USB 3.0 Micro-B Plug :

27.0 — 8.5 — 23.3 — 18.0

Left Angle — Wide Bandwidth

PIN OUT

USB A(M)		USB MicroB(M)
1	RED	1
2	WHITE	2
3	GREEN	3
4	BLACK	5
5	BLUE	6
6	YELLOW	7
7	DRAIN WIRE	8
8	PURPLE	9
9	ORANGE	10
SHELL	BRAID	SHELL

[1m, 2m, 3m, 4m, 5m, 6m, 7m]

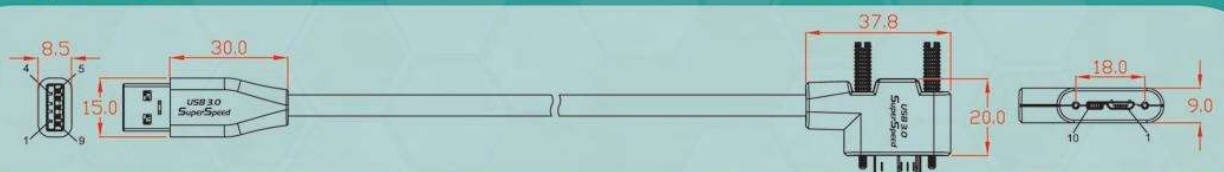CBL-PD302MBS-1mLA/2mLA/3mLA
CBL-PD302MBSWB-4mLA/5mLA/6mLA/7mLA

8.5　30.0　15.0　37.8　20.0　18.0　9.0

Right Angle — Wide Bandwidth

PIN OUT

USB A(M)		USB MicroB(M)
1	RED	1
2	WHITE	2
3	GREEN	3
4	BLACK	5
5	BLUE	6
6	YELLOW	7
7	DRAIN WIRE	8
8	PURPLE	9
9	ORANGE	10
SHELL	BRAID	SHELL

[1m, 2m, 3m, 4m, 5m, 6m, 7m]

CBL-PD302MBS-1mRA/2mRA/3mRA
CBL-PD302MBSWB-4mRA/5mRA/6mRA/7mRA

8.5　30.0　15.0　37.8　20.0　18.0　9.0

Up Angle — Wide Bandwidth

PIN OUT

USB A(M)		USB MicroB(M)
1	RED	1
2	WHITE	2
3	GREEN	3
4	BLACK	5
5	BLUE	6
6	YELLOW	7
7	DRAIN WIRE	8
8	PURPLE	9
9	ORANGE	10
SHELL	BRAID	SHELL

[1m, 2m, 3m, 4m, 5m, 6m, 7m]

CBL-PD302MBS-1mUA/2mUA/3mUA
CBL-PD302MBSWB-4mUA/5mUA/6mUA/7mUA

8.5　30.0　15.0　23.0　25.0　9.0　18.0 27.8

Down Angle — Wide Bandwidth

PIN OUT

USB A(M)		USB MicroB(M)
1	RED	1
2	WHITE	2
3	GREEN	3
4	BLACK	5
5	BLUE	6
6	YELLOW	7
7	DRAIN WIRE	8
8	PURPLE	9
9	ORANGE	10
SHELL	BRAID	SHELL

[1m, 2m, 3m, 4m, 5m, 6m, 7m]

CBL-PD302MBS-1mDA/2mDA/3mDA
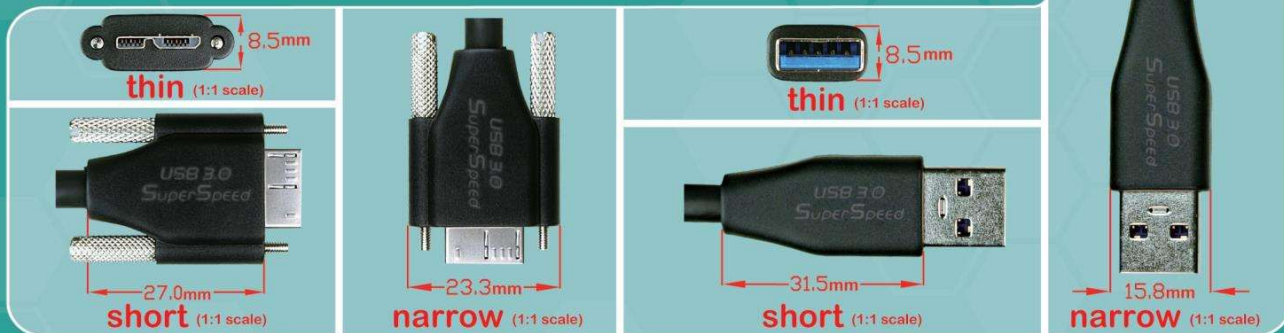CBL-PD302MBSWB-4mDA/5mDA/6mDA/7mDA

8.5　30.0　15.0　23.0　25.0　9.0　18.0 27.8

USB 3.0 SuperSpeed

USB3 Straight A to Micro-B Machine Vision Camera Cables - M/M
with locking screws on Micro-B plug

Active Compact

[5m, 7m, 10m, 15m, 20m, 25m, 30m, 35m, 40m, 45m, 50m]

O.D. : 5.6mm, 28AWG - U3 / 28AWG - U2 / 20AWG-PWR

8.5mm thin (1:1 scale)

27.0mm short (1:1 scale)

23.3mm narrow (1:1 scale)

8.5mm thin (1:1 scale)

31.5mm short (1:1 scale)

15.8mm narrow (1:1 scale)

- **support High Speed & High Resolution USB3 Cameras**
  high frame rate 170 fps at full 2.0~2.3 MP resolution, high frame rate 90 fps at full 4.0~4.2 MP resolution
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- fit for SVS-VISTEK's small cameras
- fit for The Imaging Source's small cameras
- fit for Toshiba Teli's small cameras
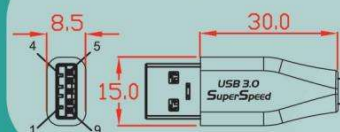- fit for XIMEA's small cameras

Wide Bandwidth

25m (Cable O.D.:5.6mm)

PIN OUT

USB A(M)		USB MicroB(M)
1	RED	1
2	WHITE	2
3	GREEN	3
4	BLACK	5
5	BLUE	6
6	YELLOW	7
7	DRAIN WIRE	8
8	PURPLE	9
9	ORANGE	10
SHELL	BRAID	SHELL

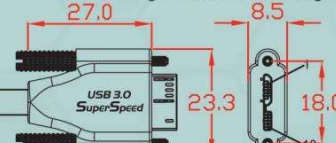[5m, 7m, 10m, 15m, 20m, 25m, 30m, 35m, 40m, 45m, 50m]

CBL-ED302MBCS-5m/7m/10m
CBL-ED302MBCSWB-15m/20m/25m/30m/35m/40m/45m/50m

- Straight USB 3.0 A Plug :
- Straight USB 3.0 Micro-B Plug :

8.5 / 30.0 / 15.0 / USB 3.0 SuperSpeed / 42.0 / 10.0 / 9.0 / 27.0 / 8.5 / USB 3.0 SuperSpeed / 23.3 / 18.0

Wide Bandwidth — Left Angle

PIN OUT

USB A(M)		USB MicroB(M)
1	RED	1
2	WHITE	2
3	GREEN	3
4	BLACK	5
5	BLUE	6
6	YELLOW	7
7	DRAIN WIRE	8
8	PURPLE	9
9	ORANGE	10
SHELL	BRAID	SHELL

[5m,7m,10m,15m,20m,25m, 30m,35m,40m,45m,50m]

CBL-ED302MBCS-5mLA/7mLA/10mLA

CBL-ED302MBCSWB-15mLA/20mLA/25mLA/ 30mLA/35mLA/40mLA/45mLA/50mLA

8.5 30.0 42.0 10.0 37.8 20.0 18.0 9.0 15.0 USB 3.0 SuperSpeed 9.0
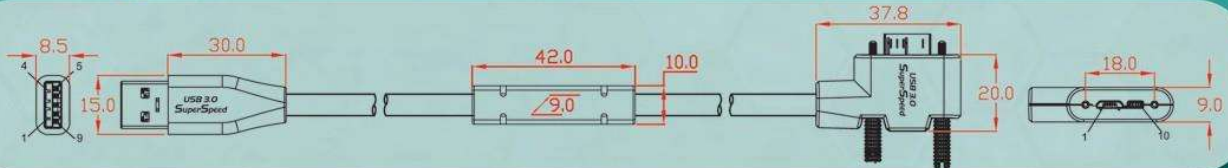
Wide Bandwidth — Right Angle

PIN OUT

USB A(M)		USB MicroB(M)
1	RED	1
2	WHITE	2
3	GREEN	3
4	BLACK	5
5	BLUE	6
6	YELLOW	7
7	DRAIN WIRE	8
8	PURPLE	9
9	ORANGE	10
SHELL	BRAID	SHELL

[5m,7m,10m,15m,20m,25m, 30m,35m,40m,45m,50m]

CBL-ED302MBCS-5mRA/7mRA/10mRA

CBL-ED302MBCSWB-15mRA/20mRA/25mRA/ 30mRA/35mRA/40mRA/45mRA/50mRA

8.5 30.0 42.0 10.0 37.8 20.0 18.0 9.0 15.0 USB 3.0 SuperSpeed 9.0
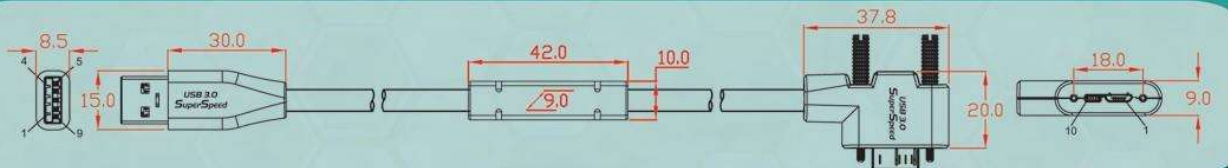
Wide Bandwidth — Up Angle

PIN OUT

USB A(M)		USB MicroB(M)
1	RED	1
2	WHITE	2
3	GREEN	3
4	BLACK	5
5	BLUE	6
6	YELLOW	7
7	DRAIN WIRE	8
8	PURPLE	9
9	ORANGE	10
SHELL	BRAID	SHELL

[5m,7m,10m,15m,20m,25m, 30m,35m,40m,45m,50m]

CBL-ED302MBCS-5mUA/7mUA/10mUA

CBL-ED302MBCSWB-15mUA/20mUA/25mUA/ 30mUA/35mUA/40mUA/45mUA/50mUA

8.5 30.0 42.0 10.0 23.0 9.0 25.0 18.0 27.8 15.0 USB 3.0 SuperSpeed 9.0
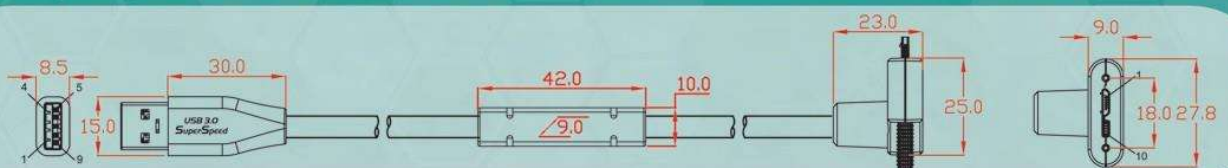
Wide Bandwidth — Down Angle

PIN OUT

USB A(M)		USB MicroB(M)
1	RED	1
2	WHITE	2
3	GREEN	3
4	BLACK	5
5	BLUE	6
6	YELLOW	7
7	DRAIN WIRE	8
8	PURPLE	9
9	ORANGE	10
SHELL	BRAID	SHELL

[5m,7m,10m,15m,20m,25m, 30m,35m,40m,45m,50m]

CBL-ED302MBCS-5mDA/7mDA/10mDA

CBL-ED302MBCSWB-15mDA/20mDA/25mDA/ 30mDA/35mDA/40mDA/45mDA/50mDA

8.5 30.0 42.0 10.0 23.0 9.0 25.0 18.0 27.8 15.0 USB 3.0 SuperSpeed 9.0
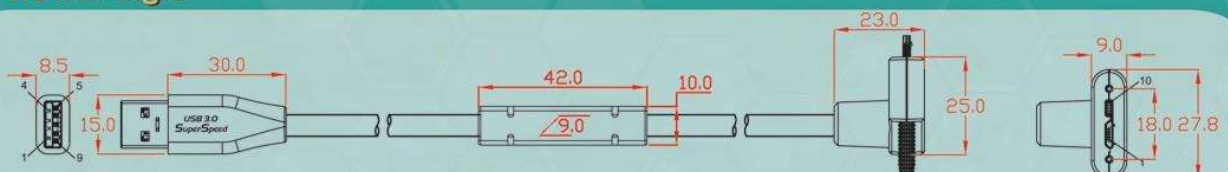
Repeater(s):
5m:1 / 7m:1 / 10m:1 / 15m:2 / 20m:3 / 25m:4 / 30m:4 / 35m:6 / 40m:7 / 45m:8 / 50m:8

High-Flex (Continuous-Flex)

- Flex Testing:
  - (1) TYPE-U (Rolling, C-Track, C-Chain) / R=67.5mm ► Minimum 5,000,000 times
  - (2) TYPE-S / R=60mm ► Minimum 1,000,000 times
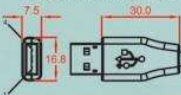 - (3) 90° BENDING (Tick-Tock Bending) / R=60mm ► Minimum 1,000,000 times
- Cable O.D.:5.4mm

Passive USB2 Connectors & Cable Assemblies for Automated Systems
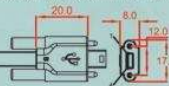- 1m/2m/3m/4m/5m/6m/7m/8m/9m/10m

USB 2.0 industrial camera

USB 2.0 Mini-B 5-pin plug, with locking screws (threaded M2)

CBL-HFPD203MBS-1m/2m/3m/4m/5m/6m/7m/8m/9m/10m
- Straight USB 2.0 A Plug :
- Straight USB 2.0 mini-B Plug :

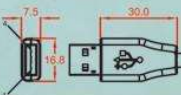7.5 30.0 16.8 20.0 6.0 12.0 17.3

USB 2.0 industrial camera

USB 2.0 Mini-B 5-pin plug

CBL-HFPD203MB-1m/2m/3m/4m/5m/6m/7m/8m/9m/10m
- Straight USB 2.0 A Plug :
- Straight USB 2.0 mini-B Plug :

7.5 30.0 16.8 20.0 6.2 10.0

USB 2.0 industrial camera
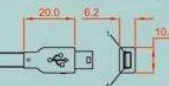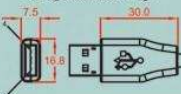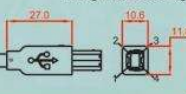
USB 2.0 B plug

CBL-HFPD203-1m/2m/3m/4m/5m/6m/7m/8m/9m/10m
- Straight USB 2.0 A Plug :
- Straight USB 2.0 B Plug :
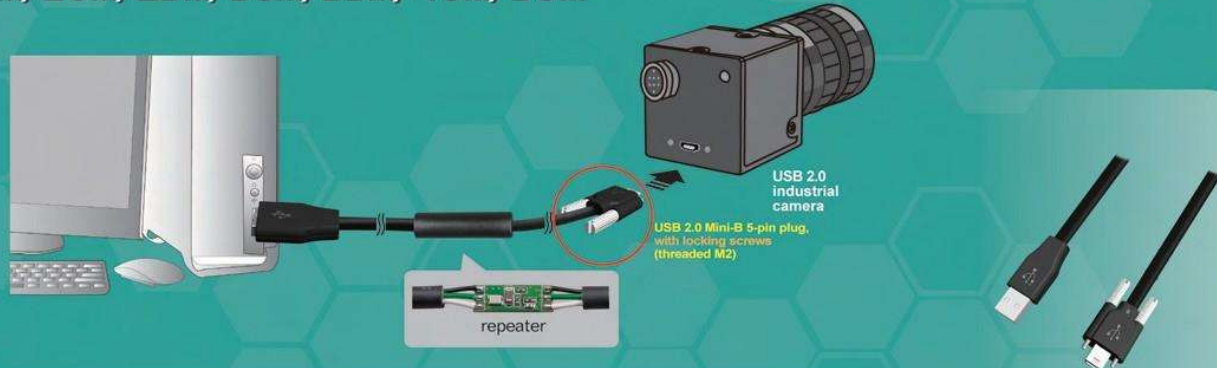
7.5 30.0 16.8 27.0 10.6 11.8
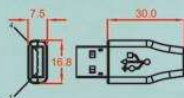
High-Flex (Continuous-Flex)

- Flex Testing:
  - (1) TYPE-U (Rolling, C-Track, C-Chain) / R=67.5mm ► Minimum 5,000,000 times
  - (2) TYPE-S / R=60mm ► Minimum 1,000,000 times
  - (3) 90° BENDING (Tick-Tock Bending) / R=60mm ► Minimum 1,000,000 times
- Cable O.D.:5.4mm

Active USB2 Connectors, Repeater(s) & Cable Assemblies for Automated Systems
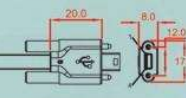- 15m/20m/25m/30m/35m/40m/50m

USB 2.0 industrial camera

USB 2.0 Mini-B 5-pin plug, with locking screws (threaded M2)

repeater

CBL-HFD203MBS-15m/20m/25m/30m/35m/40m/45m/50m
- Straight USB 2.0 A Plug :
- Straight USB 2.0 mini-B Plug :

7.5 30.0 16.8 11.0 42.0 20.0 8.0 12.0 17.3
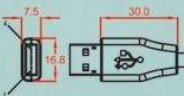

USB 2.0 industrial camera

USB 2.0 Mini-B 5-pin plug

repeater

CBL-HFD203MB-15m/20m/25m/30m/35m/40m/45m/50m
- Straight USB 2.0 A Plug :
- Straight USB 2.0 mini-B Plug :

7.5 30.0 16.8 11.0 42.0 20.0 6.2 10.0

USB 2.0 industrial camera

USB 2.0 B plug

repeater
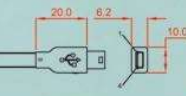
CBL-HFD203-15m/20m/25m/30m/35m/40m/45m/50m
- Straight USB 2.0 A Plug :
- Straight USB 2.0 B Plug :
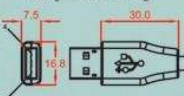
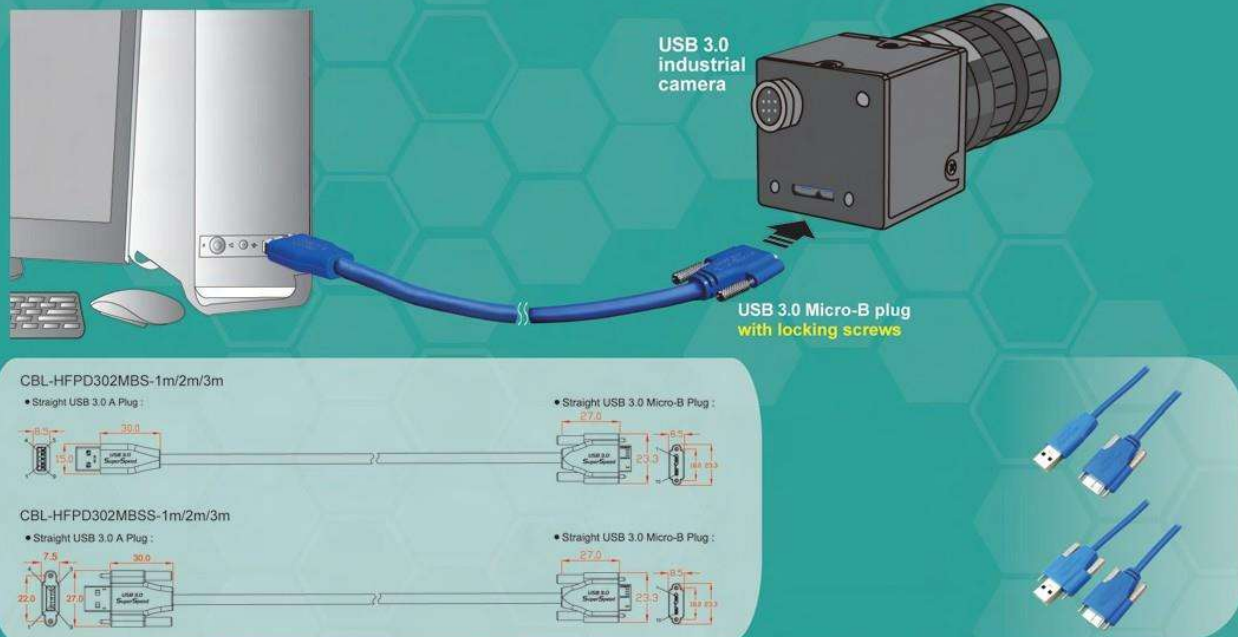7.5 30.0 16.8 11.0 42.0 27.0 10.6 11.8
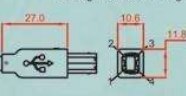
High-Flex (Continuous-Flex)

- Flex Testing:
  - (1) TYPE-U (Rolling, C-Track, C-Chain) / R=87mm ► Minimum 5,000,000 times
  - (2) TYPE-S / R=60mm ► Minimum 1,000,000 times
  - (3) 90° BENDING (Tick-Tock Bending) / R=60mm ► Minimum 1,000,000 times
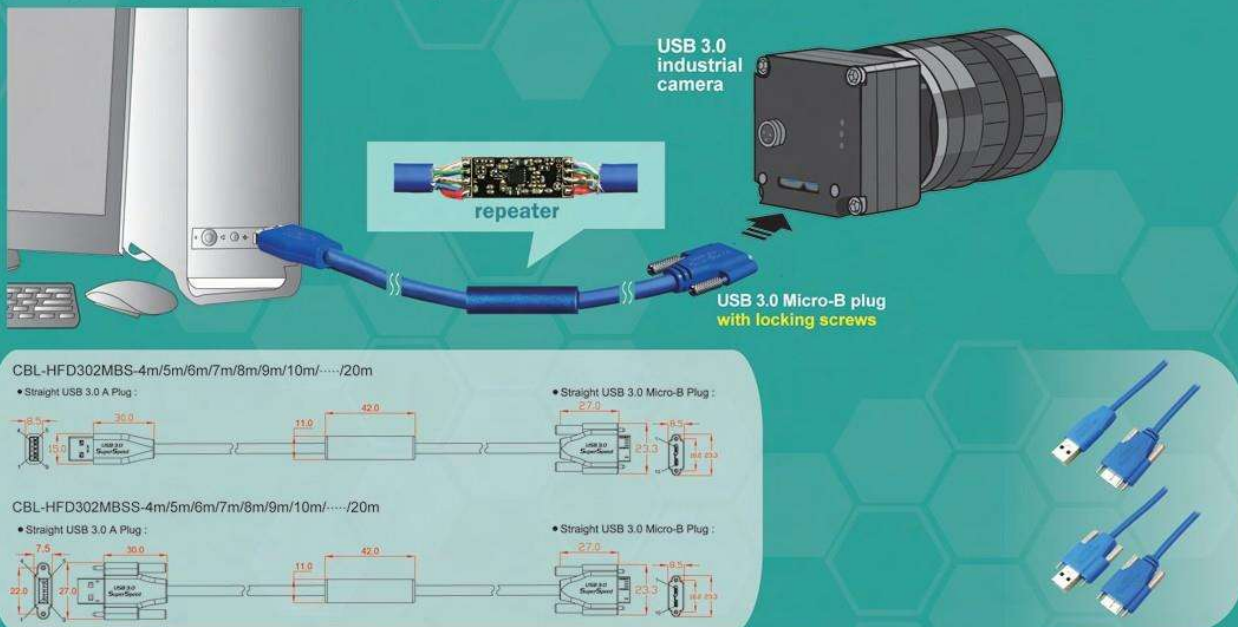- **support High Speed & High Resolution USB3 Cameras**
  high frame rate 170 fps at full 2.0~2.3 MP resolution, high frame rate 90 fps at full 4.0~4.2 MP
  resolution (430 MB/s wide bandwidth data throughput)
  without lost frames all the time.
- USB 2.0/1.1/1.0 not supported
- Cable O.D.:5.6mm

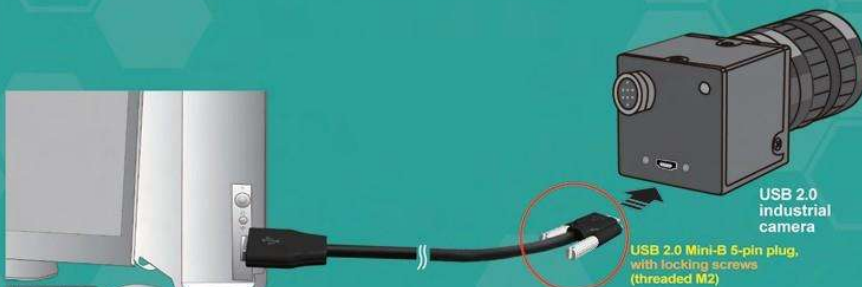## Passive USB3 Connectors & Cable Assemblies for Automated Systems - 1m/2m/3m

USB 3.0 industrial camera

USB 3.0 Micro-B plug with locking screws

CBL-HFPD302MBS-1m/2m/3m
- Straight USB 3.0 A Plug :
- Straight USB 3.0 Micro-B Plug :

CBL-HFPD302MBSS-1m/2m/3m
- Straight USB 3.0 A Plug :
- Straight USB 3.0 Micro-B Plug :

Active USB3 Connectors, Repeater(s) & Cable Assemblies for Automated Systems - 4m/5m/6m/7m/8m/9m/10m/·····/20m

USB 3.0 industrial camera

repeater

USB 3.0 Micro-B plug with locking screws

CBL-HFD302MBS-4m/5m/6m/7m/8m/9m/10m/·····/20m
- Straight USB 3.0 A Plug :
- Straight USB 3.0 Micro-B Plug :

CBL-HFD302MBSS-4m/5m/6m/7m/8m/9m/10m/·····/20m
- Straight USB 3.0 A Plug :
- Straight USB 3.0 Micro-B Plug :

Passive USB2 Machine Vision Camera Cables
- 1m/2m/3m/4m/5m/6m/7m/8m/9m/10m

USB 2.0 industrial camera

USB 2.0 Mini-B 5-pin plug, with locking screws (threaded M2)

CBL-PD203MBS-1m/2m/3m/4m/5m/6m/7m/8m/9m/10m
- Straight USB 2.0 A Plug :
- Straight USB 2.0 mini-B Plug :

7.5 30.0 16.8 20.0 8.0 12.0 17.3

USB 2.0 industrial camera
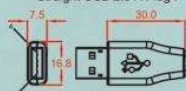
USB 2.0 Mini-B 5-pin plug

CBL-PD203MB-1m/2m/3m/4m/5m/6m/7m/8m/9m/10m
- Straight USB 2.0 A Plug :
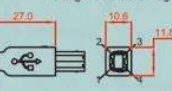- Straight USB 2.0 mini-B Plug :

7.5 30.0 16.8 20.0 6.2 10.0
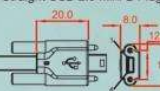
USB 2.0 industrial camera
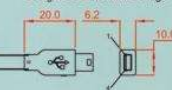
USB 2.0 B plug

CBL-PD203-1m/2m/3m/4m/5m/6m/7m/8m/9m/10m
- Straight USB 2.0 A Plug :
- Straight USB 2.0 B Plug :

7.5 30.0 16.8 27.0 10.6 11.8
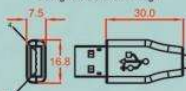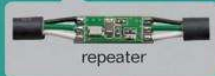
Long Distance Active USB2 Machine Vision Camera Cables

USB 2.0 industrial camera

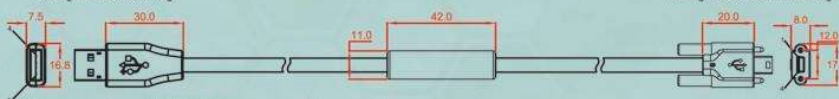USB 2.0 Mini-B 5-pin plug, with locking screws (threaded M2)

repeater

CBL-D203MBS-5m/7m/10m/15m/20m/25m/30m/35m/40m/45m/50m/55m/60m/65m/70m/75m/80m
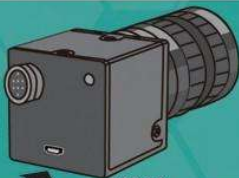- Straight USB 2.0 A Plug :
- Straight USB 2.0 mini-B Plug :

7.5 30.0 11.0 42.0 20.0 8.0 12.0 16.8 17.3

Connects a USB 2.0 camera located
5/7/10/15/20/25/30/35/40/45/50/55/60/65/70/80 meters
(16/22/32/49/65/82/98/114/131/147/164/180/196/213/262 feet) far away!!
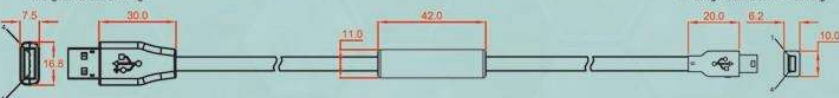

USB 2.0 industrial camera

USB 2.0 Mini-B 5-pin plug

repeater

CBL-D203MB-5m/7m/10m/15m/20m/25m/30m/35m/40m/45m/50m/55m/60m/65m/70m/75m/80m
- Straight USB 2.0 A Plug :
- Straight USB 2.0 mini-B Plug :

7.5 30.0 11.0 42.0 20.0 6.2 16.8 10.0

Connects a USB 2.0 device located
5/7/10/15/20/25/30/35/40/45/50/55/60/65/70/80 meters
(16/22/32/49/65/82/98/114/131/147/164/180/196/213/262 feet) far away!!

USB 2.0 industrial camera

USB 2.0 B plug

repeater

CBL-D203-5m/7m/10m/15m/20m/25m/30m/35m/40m/45m/50m/55m/60m/65m/70m/75m/80m
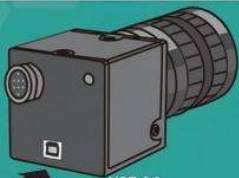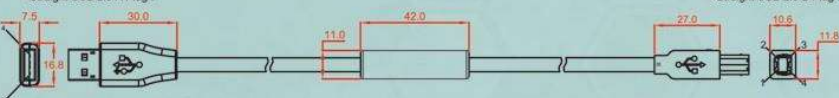- Straight USB 2.0 A Plug :
- Straight USB 2.0 B Plug :

7.5 30.0 11.0 42.0 27.0 10.6 16.8 2 3 11.8

Connects a USB 2.0 device located
5/7/10/15/20/25/30/35/40/45/50/55/60/65/70/80 meters
(16/22/32/49/65/82/98/114/131/147/164/180/196/213/262 feet) far away!!