BITMAXX

USB3 LONG DISTANCE CABLES

CEI's USB3 BitMaxx active Plug & Play cable, supporting full 5 gig USB3 throughput and power delivery up to 20 meters with full USB2 backward compatibility. Assembly is NOT to be used in conjunction with other cables.

PART NUMBER REFERENCE: MVB3 – X – X – X – X XM

Select Connector Type: End "A"

Type A, Friction Fit = 1
Type A, w/Thumbscrews = 2

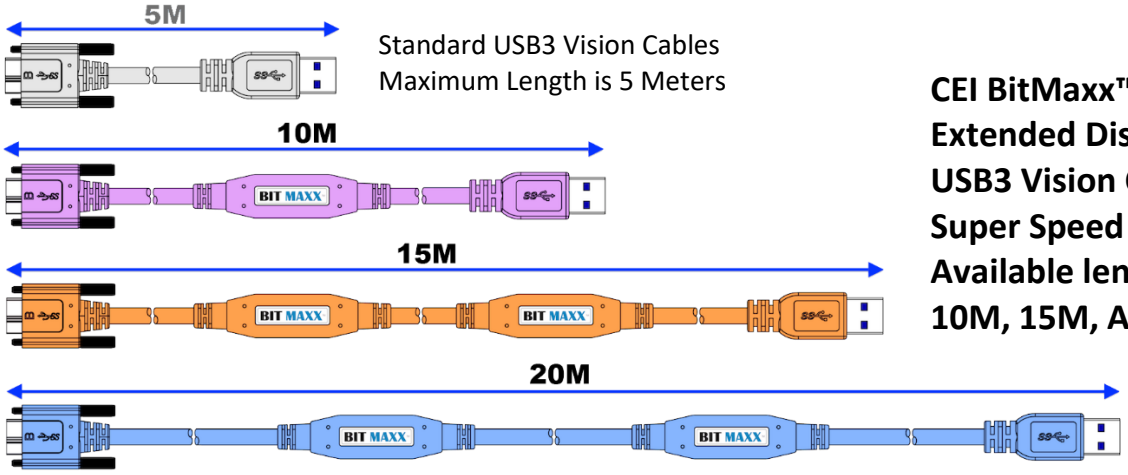
Select Cable Type:

Extended Distance = 1
**Available lengths: 10, 15 & 20 Meters*
Robotic / Drag Chain = 2
**Available length: 10Meters*

Select Connector Type: End "B"

Type A, Friction Fit = 1
Type A, w/Thumbscrews = 2
Micro B, Straight w/Thumbscrews = 3
Micro B, R/A Up w/Recessed Screws = 4
Micro B, R/A Down w/Recessed Screws = 5
Micro B, Exit Right w/Recessed Screws = 6
Micro B, Exit Left w/Recessed Screws = 7
Type B, w/Thumbscrews = 8
Type B, Friction Fit = 9

*Length in Meters: 10, 15, 15



Standard USB3 Vision Cables
Maximum Length is 5 Meters

CEI BitMaxx™
Extended Distance
USB3 Vision Cables
Super Speed USB 3.0
Available lengths:
10M, 15M, AND 20M

Temp 7-31-19

BITMAXX

USB3 LONG DISTANCE CABLES

1

Type A
Friction Fit

2

Type A
W/Thumbscrews

3

Micro B, Straight
W/Thumbscrews

4

Micro B, R/A Up
W/Recessed Screws

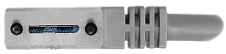
5

Micro B, R/A Down
W/Recessed Screws

6

Micro B, Exit Right
W/Recessed Screws

7



Micro B, Exit Left
W/Recessed Screws

8

Type B
W/Thumbscrews

9

Type B
Friction Fit

For more information please contact:

BOCK OPTRONICS INC.
14 Steinway Blvd., Unit 7
Toronto, Ontario M9W 6M6

Tel: (416) 674-2804
sales@bockoptronics.ca
www.bockoptronics.ca

Additional Dimensional Information:

For additional information regarding the physical dimensions of our connector profiles, please visit our Web-Site: www.ComponentsExpress.com or ask one our sales associates and we will be happy to assist.

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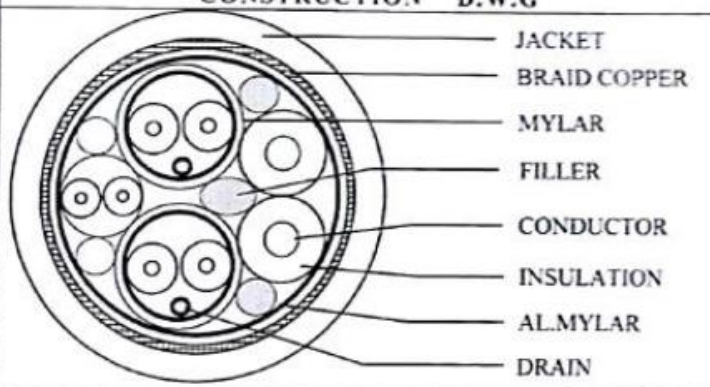
USB 3.0 BitMaxx Cable Type #: 1

SPECIFICATION: (1P*24#+DAM)2C+1P*26#+2C*18#+F+AL+B / UL2725

ITEM		SPECIFICATION		
CONDUCTOR	AWG	24AWG	26AWG	18AWG
	MATERIAL	TINNED COPPER	TINNED COPPER	TINNED COPPER
	COND.SIZE	7/0.20±0.008MM	7/0.16±0.008MM	43/0.16±0.008MM
INSULATION	MIN.AVG.THICK	0.35MM	0.23MM	0.23MM
	MATERIAL	FM-PE+SKIN	HD-PE	PVC
	O . D	1.35±0.10MM	1.00±0.10MM	1.80±0.10MM
	N O.	1P*2	1P	2C
DRAIN	AWG	24AWG	/	/
	MATERIAL	TINNED COPPER	/	/
	SIZE	7/0.20±0.008MM	/	/
Face Inside AL.MYLAR	COVERAGE	100%	/	/
	OVERLAP	25% MIN	/	/
Hot-MYLAR	COVERAGE	100%	/	/
	OVERLAP	25%MIN	/	/
	N O.	(1P+DAM)2C	1P	2C
Face Outside AL.MYLAR	COVERAGE	100%		
	OVERLAP	25% MIN		
DRAIN	MATERIAL	/		
	SIZE	/		
BRAID COPPER	MATERIAL	TINNED COPPER		
	SIZE	24*9/0.10±0.008MM (COVERAGE :85% MIN)		
JACKET	MIN.AVG.THICK	0.50MM		
	MATERIAL	PVC		
	COLOUR	BLACK		
	O . D	7.50±0.20MM		

CONSTRUCTION D.W.G



COLOUR CODE:

(1P*24#+DAM)2C:
1. YELLOW*BLUE
2. ORANGE*PURPLE

1P*26#: GREEN *WHITE

2C*18#: 1.BLACK 2.RED

ELECTRICAL CHARACTERISTICS

USB2.0 UTP

1. Rating Temperature: 80℃ ; VOLTAGE: 30V
2. Conductor Resistance: at 20℃max
   24AWG: 94.2Ω/km; 18AWG: 23.2Ω/km
3. Insulation Resistance: 10MΩ/km min at 20℃ dc 500V
4. Propagation Delay Skew:100ps (Full-/High-speed only)
5. Time Delay: 5.2ns/m(max.)
6. Impedance: 90±15%Ω
7. Attenuation(Full/High-speed only):

F(MHz)	Attenuation(dB)	F(MHz)	Attenuation(dB)
0.064	0.08	24	0.95
0.256	0.11	48	1.35
0.512	0.13	96	1.90
0.772	0.15	200	3.20
1	0.20	400	5.80
4	0.39		
8	0.57		
12	0.76		

USB3.0 STP*2P

1. Differential Impedance:90±7Ω
2. Intra-Pair Skew : 15ps /m
3. Attenuation/Insertion Loss:
   1.5dB/1.5M@0.1GHz
   5.0dB/1.5M@1.25GHz
   7.5dB/1.5M@2.5GHz
   25dB/1.5M@7.5GHz
4. Differential to common mode:
   20dB/cable @ 0.1~7.5GHz
5. NEXT:
   32dB@0.1GHz
   32dB@2.5GHz
   23dB@3.0GHz
   23dB@7.5GHz

PHYSICAL PROPERTIES OF JACKET

1. Tensile Strength: Unaged:
   1500PSI min Aged: 70% min
2. Elongation: Unaged:
   100% min Aged: 65%
3. Heat shock test:
   NO CRACKING
4. Cold bend test:
   NO CRACKING
5. Deformation test: MAX 50%
6. Flame test: PASS VW-1

COMPONENTS EXPRESS, INC.
10330 Argonne Woods Drive, Ste100
Woodridge, IL 60517

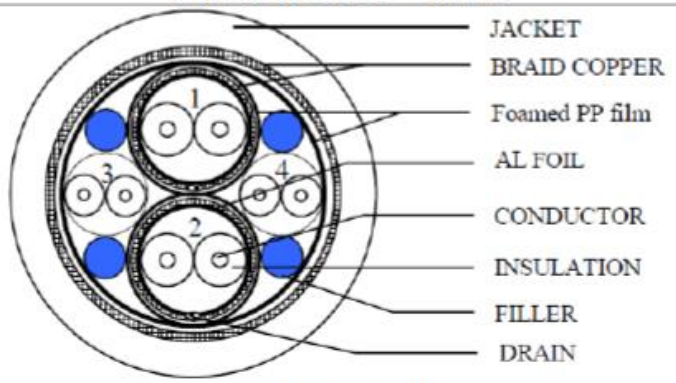
(E1013)

APPROVED		CUSTOMER	奕樹
CHECKED		REV	A / 1
DRAWING	*CHEN*	DATE	2018/5/17

USB 3.0 BitMaxx Cable Type #: 2

SPECIFICATION:		(1P*26#+ADBP)2C+1P*26#+1P*24#+FPB		
ITEM		SPECIFICATION		
CONDUCTOR	AWG	26AWG	26AWG	24AWG
	MATERIAL	TINNED COPPER	TINNED COPPER	TINNED COPPER
	COND.SIZE	19/0.10±0.008 mm	19/0.10±0.008 mm	41/0.08±0.008 mm
INSULATION	MIN.AVG.THICK	0.23 mm	0.23 mm	0.23 mm
	MATERIAL	FM-PE+SKIN	HD-PE	HD-PE
	O . D	1.20±0.10 mm	0.90±0.05 mm	0.95±0.05 mm
	N O.	1P*2	1P	1P
Face Outside AL.MYLAR	COVERAGE	100%	/	/
	OVERLAP	25% MIN	/	/
DRAIN	MATERIAL	TINNED COPPER		
	SIZE	19/0.08±0.008 mm		
BRAID COPPER	MATERIAL	TINNED COPPER	/	/
	SIZE	16*6/0.08±0.008MM	/	/
	COVERAGE	90%MIN	/	/
Foamed PP film	COVERAGE	100%	/	/
	OVERLAP	25%MIN	/	/
	N O.	(1P+ADBP)2C	1P	1P
Foamed PP film	COVERAGE	100%		
	OVERLAP	25% MIN		
BRAID COPPER	MATERIAL	TINNED COPPER		
	SIZE	16*10/0.08±0.008MM (Coverage：85%MIN)		
JACKET	MIN.AVG.THICK	0.76 mm		
	MATERIAL	MIXING PVC		
	COLOUR	PURPLE		
	O . D	7.00 ± 0.30 mm		

CONSTRUCTION D.W.G



COLOUR CODE:

(1P*26#+ADBP)*2C:
1. YELLOW * BLUE
2. ORANGE * PURPLE

1P*26#: 1.GREEN *WHITE

1P*24#: 1. BLACK RED

ELECTRICAL CHARACTERISTICS

USB2.0 UTP

1. Rating Temperature: 80℃ ； VOLTAGE: 30V
2. Conductor Resistance: at 20℃max
   26AWG: 150Ω/km;
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4. Propagation Delay Skew:100ps (Full-/High-speed only)
5. Time Delay: 5.2ns/m(max.)
6. Impedance: 90±15%Ω
7. Attenuation(Full/High-speed only):

F(MHz)	Attenuation(dB)	F(MHz)	Attenuation(dB)
0.064	0.08	24	0.95
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   25dB@7.5GHz
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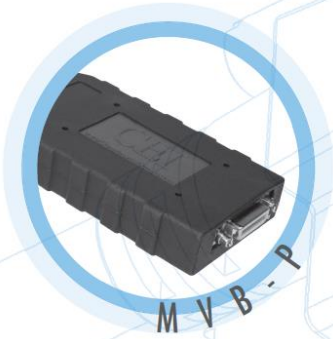
PHYSICAL PROPERTIES OF JACKET

COMPONENTS EXPRESS, INC.
10330 Argonne Woods Drive, Ste100
Woodridge, IL 60517

YS2018111302

APPROVED		CUSTOMER	奕樹
CHECKED		REV	A / 1
DRAWING	*CHEN*	DATE	2018/11/13



BITMAXX

ULTIMATE PERFORMANCE EXTENDED DISTANCE CAMERA LINK MVB-P

Exclusive NEW technology which allows you to extend your Camera Link cable to 25 Meters @ 85MHz without the use of repeaters and their associated hardware! A simplified solution. The kit contains the following:

BASE VERSION

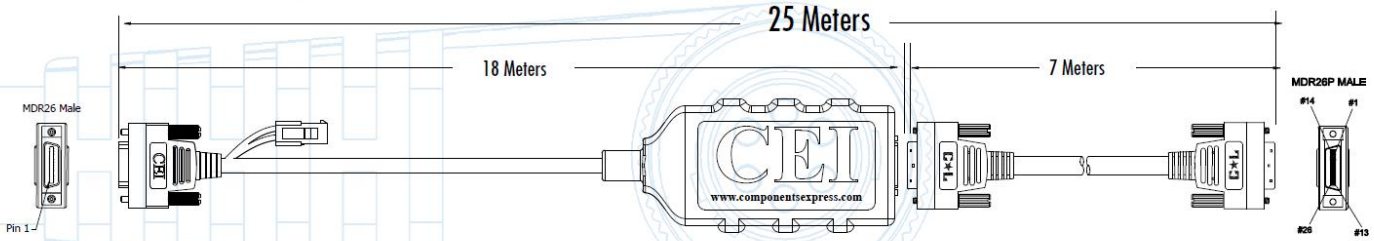
- (1) Power supply: Desktop - Switching type
- (1) 18 Meter CL line conditioner cable HIFLEX design 10,000,000 tick-tock cycles
- (1) 7 Meter CL cable MDR 26P male end HIFLEX design 10,000,000 tick-tock cycles

FULL VERSION

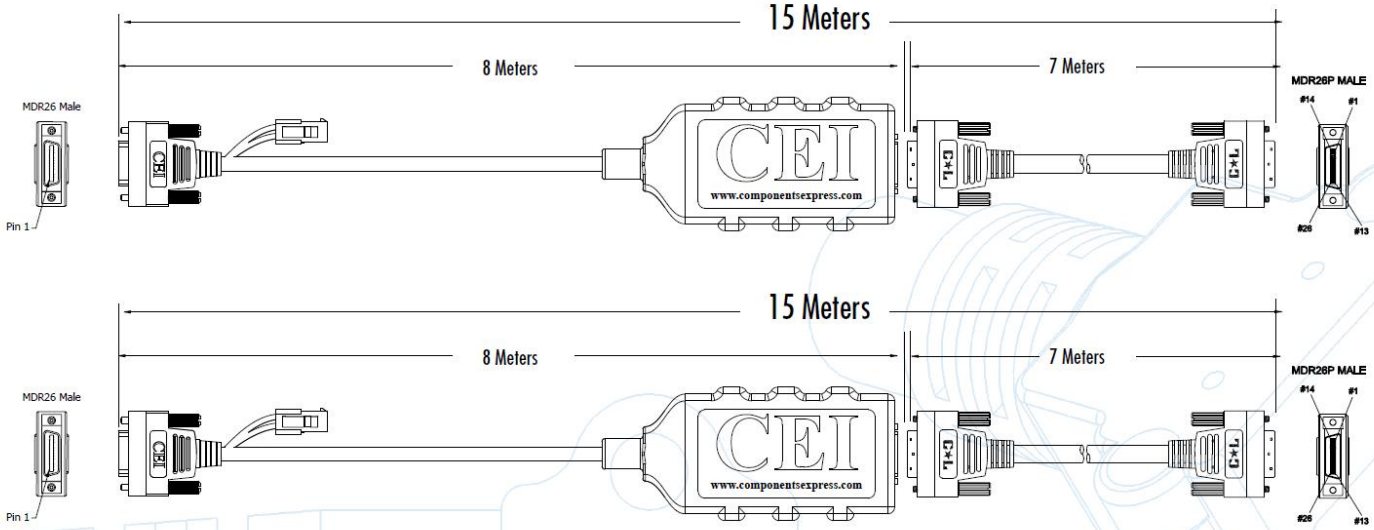
- (2) Power supply: Desktop - Switching type
- (2) 8 Meter CL line conditioner cable HIFLEX design 10,000,000 tick-tock cycles
- (2) 7 Meter CL cable MDR 26P male end HIFLEX design 10,000,000 tick-tock cycles

Input 120V AC cord NOT included.

BASE VERSION MVB-P-B-18-7



FULL VERSION MVB-P-F-8-7



Temp 6-5-19

BITMAXX
EXTENDED DISTANCE CAMERA LINK CABLES
MVB-EP

CEI's exclusive Bitmaxx technology utilizes Pre-Emphasis and Equalization in order to extend the distance of Camera Link Cables.

Technology:

Equalization is an analog technique to reverse the low pass effect of the cable with a high pass filter to recover and restore the original signal.

Pre-Emphasis is a unique signal improving technique that opens the eye pattern at the far end of the cable for point to point applications. Pre-Emphasis adds additional output current during the transition time of the bit.

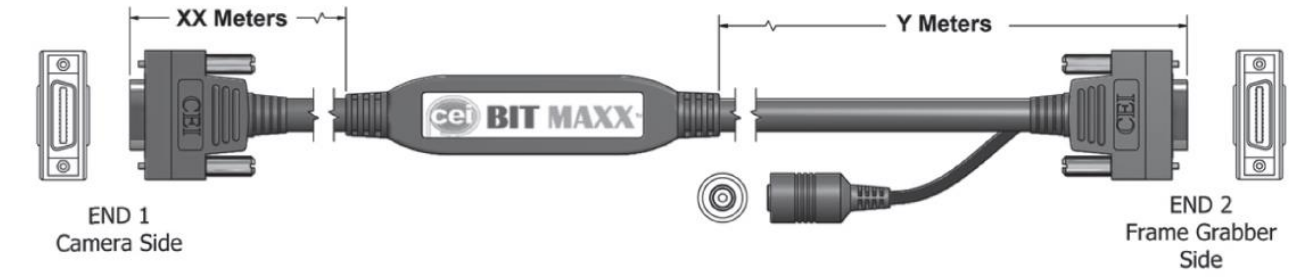
Benefits:

- Double your cable distance
- Fraction of the cost of repeaters
- High-flex cable construction
- Compact, low profile solution
- PoCL compatible
- Base and Full configurations available

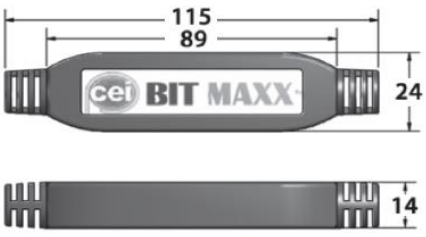
BIT MAXX™

Physical Dimensions:

Units = mm



Power Supply Included
3.3 VDC



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Base Configuration
Part Numbers:

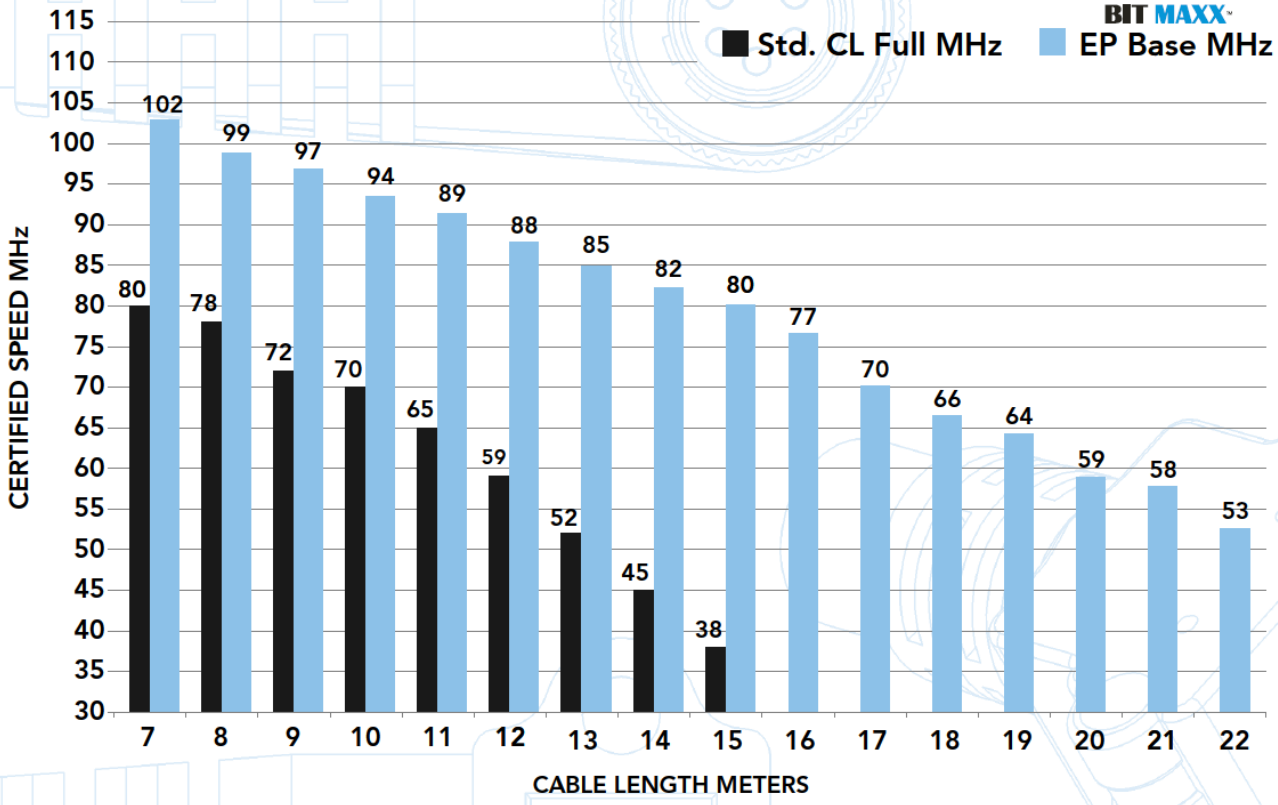
MVB-EP-B-(XX)-(Y)
1 Bitmaxx EP base cable, MDR to MDR
1 Power supply (Does NOT include cord)

MVB-EPMC-B-(XX)-(Y)
1 Bitmaxx EP base cable
HDR (Camera side) to MDR (FG side)
1 Power supply (Does NOT include cord)

MVB-EPMF-B-(XX)-(Y)
1 Bitmaxx EP base cable
HDR (FG side) to MDR (Camera side)
1 Power supply (Does NOT include cord)

MVB-EPMM-B-(XX)-(Y)
1 Bitmaxx EP base cable, HDR to HDR
1 Power supply (Does NOT include cord)

***See Performance chart below for Length vs Speed.**
For MDR-MDR configurations only.



Temp 6-5-19

Full Configuration
Part Numbers:

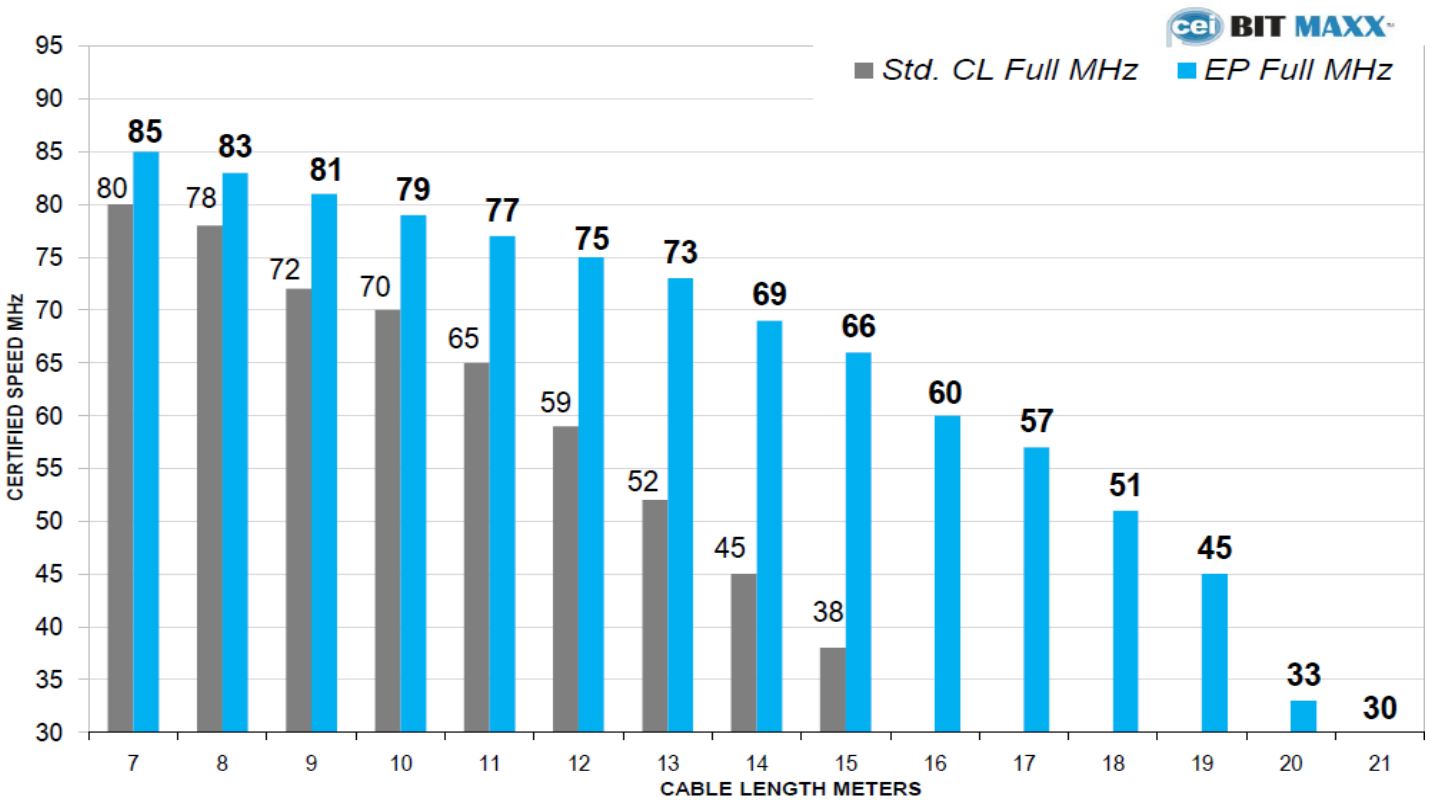
MVB-EP-F-(XX)-(Y)
1 Bitmaxx EP base cable, MDR to MDR
1 Bitmaxx EP full cable, MDR to MDR
1 Power supply (supplies power to both cables)

MVB-EPMC-F-(XX)-(Y)
1 Bitmaxx EP base cable
HDR (Camera side) to MDR (FG side)
1 Bitmaxx EP full cable
HDR (Camera side) to MDR (FG side)
1 Power supply (supplies power to both cables)

MVB-EPMF-F-(XX)-(Y)
1 Bitmaxx EP base cable
HDR (FG side) to MDR (Camera side)
1 Bitmaxx EP full cable
HDR (FG side) to MDR (Camera side)
1 Power supply (supplies power to both cables)

MVB-EPMM-F(XX)-(Y)
1 Bitmaxx EP base cable, HDR to HDR
1 Bitmaxx EP full cable, HDR to HDR
1 Power supply (supplies power to both cables)

***See Performance chart below for Length vs Speed.**
For MDR-MDR configurations only.



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