

Machine Vision USB3.0 Cable Assemblies

Introduction

Product Histories

USB 3.0
Super Speed

USB 3.0
Assy Solutions

USB 3.0
Receptacles

Machine Vision
Configurator

Visit Us



Alysium-Tech - Introduction

Introduction

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Allowing you to do more with your vision systems.

- advanced technical capability
- optimised products
- early design involvement
- market leadership

BETTER QUALITY
MORE CAPABILITY
MORE RELIABLE
MORE COST EFFICIENT

Which extends our customers' competitive advantage.

Global Representation

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Product Histories

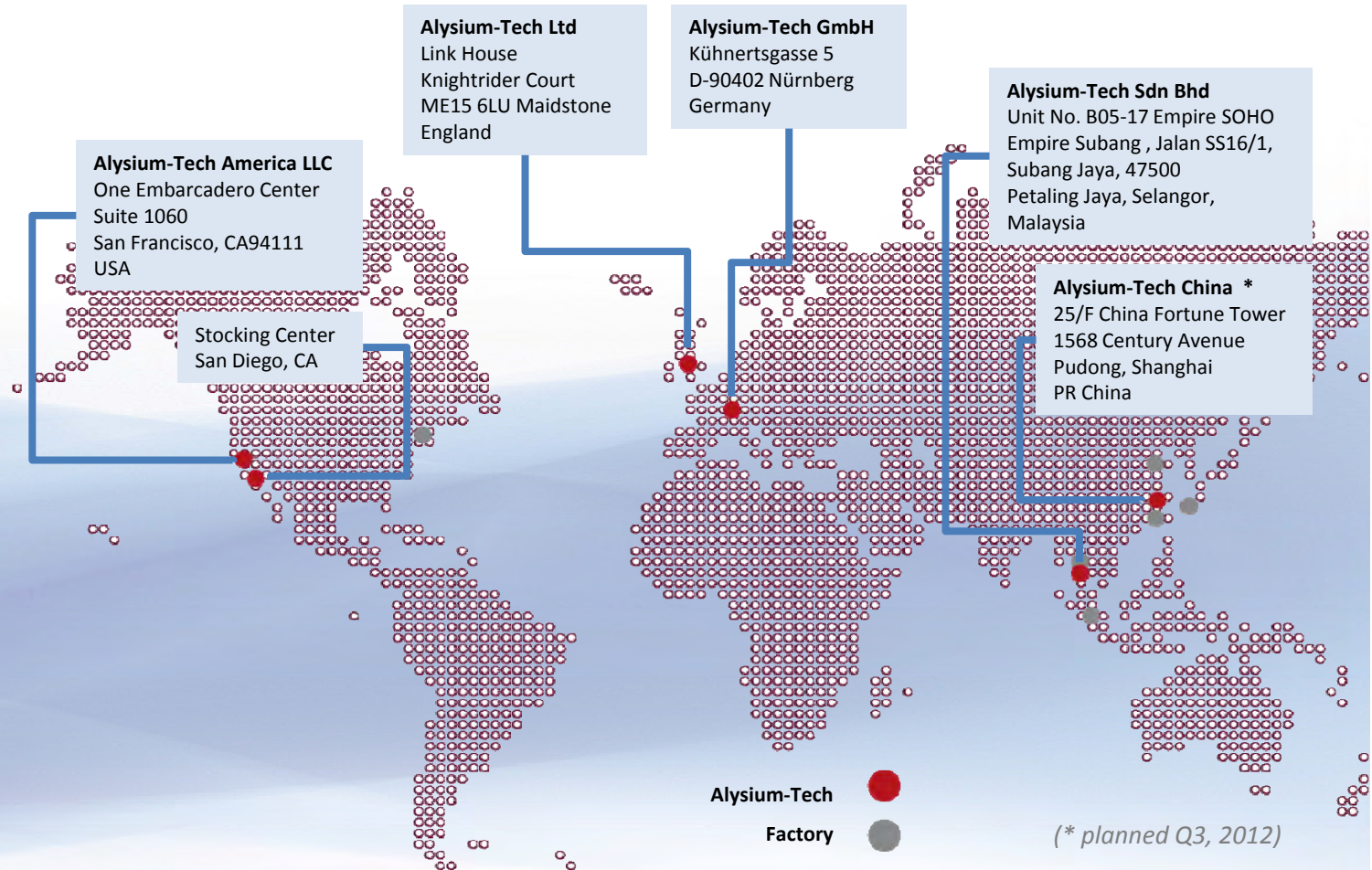
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Historical Product Highlights

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Extended Length Solutions

1394

20M (S800)

15M (S1600)

30M (S400)

CameraLink

12M (85MHz FULL)

20M (40MHz MED)

>15M (85MHz FULL)*

* currently under qualification

USB 2.0 8M (Full Bandwidth)

USB 3.0 – Super Speed



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USB 3.0 was released in November 2008

- maximum transmission speed of up to 5 Gbit/s (625 MB/s) **(more than 10 times as fast as USB 2.0)**
- backward compatible with USB 2.0
- »Out-of-the-box«-Standard IO Interface

Machine Vision

- First Cameras presented at Vision in Stuttgart in 2009
- AIA Standard Release: 4Q 2012*
- High expectations for USB3.0 in Machine Vision!

So, how about the cable?

USB 3.0 – Extended Length (passive):

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Cable Assembly Development

- Compliant to EMC requirements FCC class B (in given systems)
- UL certified to +80°C

Cable Type	Length	Camera Type 1			Camera Type 2		
		Detect	Initialised	Image Capture	Detect	Initialised	Image Capture
MCD-USB-209B	10M	Y	N	N	N	N	N
MCD-USB-211	10M	Y	Y	Y	Y	Y	Y
MCD-USB-209B	9M	Y	Y	Y	Y	Y	Y
MCD-USB-211	9M	Y	Y	Y	Y	Y	Y
MCD-USB-209B	8M	Y	Y	Y	Y	Y	Y
MCD-USB-211	8M	Y	Y	Y	Y	Y	Y
MCD-USB-209B	7M	Y	Y	Y	Y	Y	Y
MCD-USB-211	7M	Y	Y	Y	Y	Y	Y
MCD-USB-209B	6M	Y	Y	Y	Y	Y	Y
MCD-USB-211	6M	Y	Y	Y	Y	Y	Y

USB 3.0 – Extended Length (passive):

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Cable Assembly Development

iDS: It's so easy

POINT GREY

ximea

TESTED TO **8MTR**

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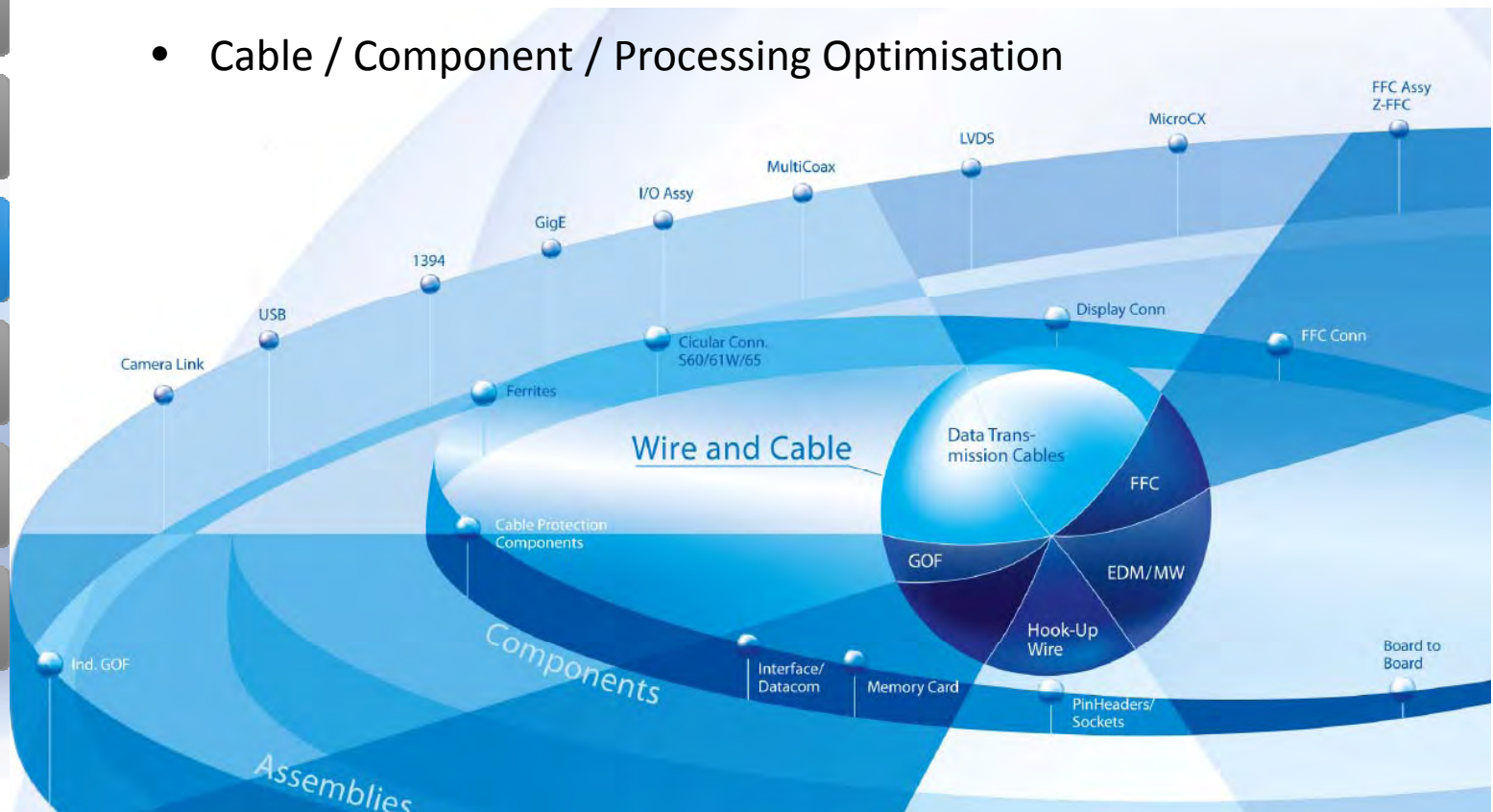
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Product Details

- Parallel twinax elements
- Cable / Component / Processing Optimisation



USB 3.0 – Assy Solutions:

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Applicable in Various Termination Directions



- Use of offset angle designs (avoids screw bisecting cable)

USB 3.0 – Assy Solutions:

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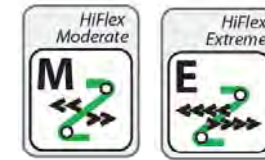
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Further Possibilities...

- High Flex Versions
Prototyping of “Moderate” rating High Flex by July, 2012.
- IP54+ Versions?



Current GigE Solution



USB 3.0 microB

USB 3.0 – XXtended Length (active optical):

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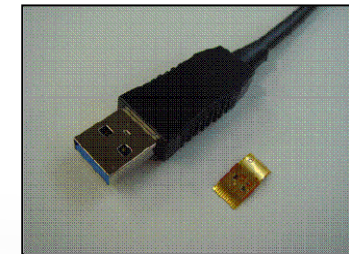
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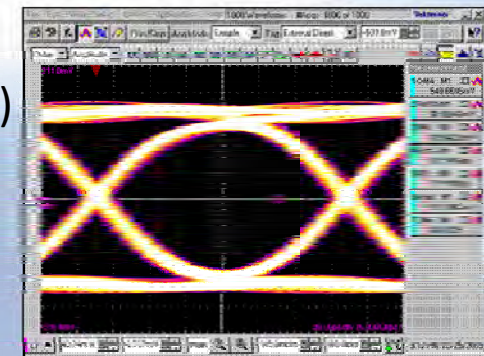
Structure

- Small OE converter integrated into connector
- Copper/Optical Hybrid Cable (OD: 4.7mm)



Feature

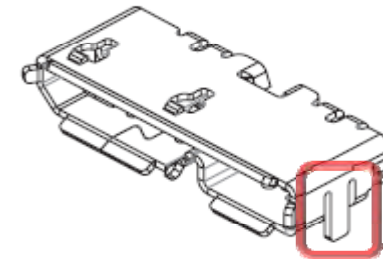
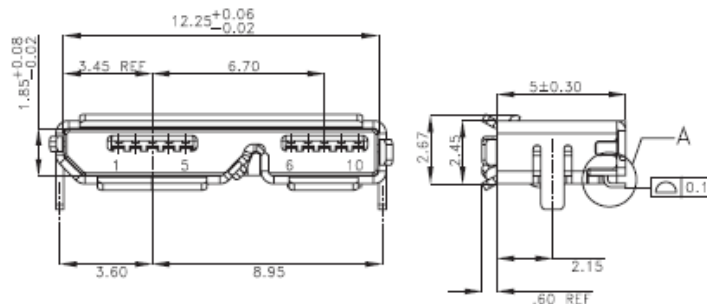
- USB3.0 Signal (5Gbps/ch) up to 20m
- Power supply (currently 500mA, 4.75V)
- Target, extend to high flex version



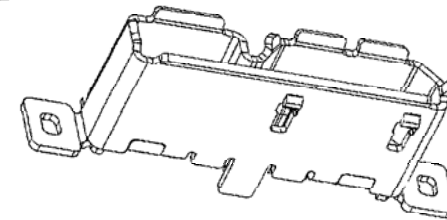
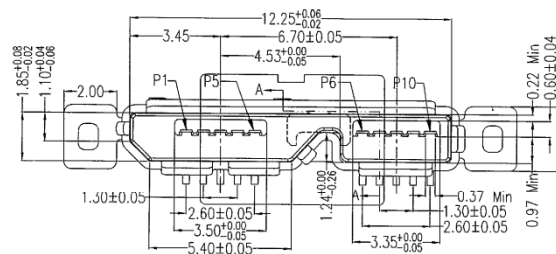
USB 3.0 – Receptacles:

Turnkey Solutions: Receptacle Side – MicroUSB 3.0 B-type:

Horizontal Type: Part No: A46-8571



Vertical type: Part No: A46-8572



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Cable Configurator

Current configuration:
Family:
Cable Length:

Connector Left drag here

Ferrite

Label

Label

Ferrite

Connector Right drag here

STEP 1 Select cable family

Family

1394

GigE

CAMERA LINK

CAMERA LINK HS

IO

Analogue

Power

2.0

3.0

Connectors

Cable Length

Basket

Facts:

- » Robotic and High Flex Cable solutions
- » IP-67 and IP-68 waterproof solutions available
- » Durable, robust Industrial Grade Materials
- » Small Lot production runs of 20pcs for custom products possible

Please send me an offer

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Industrial Machine Vision and Customised Assemblies.



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Booth 220

Assembly Highlights:
USB3.0 to 8M
CameraLinkHSTM High Flex
CameraLink(R) to 15M
1394B to 10mil. cycles
GigE IP67/IP68 solutions