

## USB CONNECTIVITY ANYWHERE

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Type A 3.2 Gen 1, 2.0

Type B 2.0

Type C 3.2 Gen 1 / Gen 2

Mini USB Type B 2.0

Micro USB Type AB







# Amphenol LTW

**Enabling the  
Electronics Revolution**



# Unrivaled InterConnects for Harsh Environments



**24+**

Product Series

**80,000+**

Part Numbers  
(>70% customized parts)



**75+**

Distribution  
Channels

**30+**

Market  
Applications

**Amphenol LTW**



Headquartered in New Taipei City, Taiwan with factories in Kunshan, Jiangsu Province, China PRC and Nogales, Mexico ALTW designs and manufactures uncompromising stringent quality interconnects.

## Amphenol LTW

Since 1993, Amphenol LTW Technology “ALTW” lives and breathes to create, innovate, design and produce “*unrivalled interconnects for harsh environments*”. With over 280 worldwide patents, not only does ALTW offer the broadest and widest range of rugged interconnects in the industry but also customization with the mission of “Customer Satisfaction First”. Undoubtedly, ALTW is the leader in rugged interconnects, highly recognized for its uncompromising quality, short lead time, fast and tailored service and its very competitive pricing.

Regardless of the challenging environments that your products will be subject to; there is a very good chance that you will find what you are looking for with ALTW.

## Our Capabilities

ALTW’s strategy is to have as much vertically integrated manufacturing in-house capabilities as possible in order to ensure quality assurance, short lead time and highly competitive pricing. These are for example:

- Testing Laboratories certified TAF and UL WDTP
- CNC lathe machined parts and contacts / pins
- Tooling / mold design and manufacturing
- Horizontal and vertical injection manufacturing
- Semi and full automated connector and cable assembly lines
- Cable assembly
- Total electronic turnkey solutions

## Online Resource



### Your benefits

- ✓ Worldwide access 24/7
- ✓ Product configuration
- ✓ Real time order tracking
- ✓ Online assistance (live chat)
- ✓ Instant drawing release
- ✓ Instant quotation
- ✓ Order online
- ✓ Catalogue

 **Easy to lock:** Quick lock mechanism for fast 、 easy 、 secure installation

 **Shielded:** 360° EMI and EMC protection



 **Smaller:** Toward miniaturization

 **Tough:** Withstands extreme/harsh environments

 **Faster:** Higher speed, quick/easy installation and build

# TREND OF PRODUCT DEVELOPMENT



Amphenol LTW's  
you ideal solution  
environments. T  
to customer eval  
of connecting in

# Product Overview

Amphenol LTW

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## USB Connectors

# Product Overview

Amphenol LTW

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## USB Connectors

Amphenol LTW's complete range of waterproof USB connectors offer you ideal solution to data/power transfer in harsh or demanding environments. This wide range of product provides the convenience to customer evaluating their USB connectors with multiple selection of connecting interfaces.



## Mating Style



Screw Thread



2 Points Lock

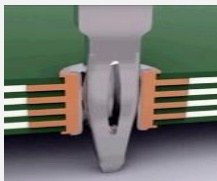


Snap-in

## Assembly Style



PCB 180°



Press fit



SMT



Jack



FPC

## Features



IP67 / IP68  
(1m/24hrs)



Salt Spray  
48H



UV  
Resistant



Thermoplastic  
UL Recognized



10 Gbps



Space  
Saving



Harsh  
Environment

# USB Connectors

Amphenol LTW

**Type A 3.2 Gen 1, 2.0**

**Type B 2.0**

**Type C 3.2 Gen 1 / Gen 2**

**Mini USB Type B 2.0**

**Micro USB Type AB**

# Type A & Type B (2.0, 3.2 Gen1)

## Features

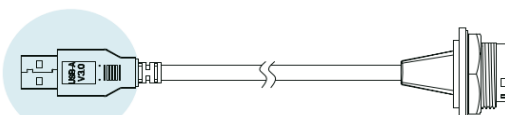
- Operating temperature: -20°C ~ +80°C
- Mated waterproof IP67
- Nominal current 1A
- Rated voltage 0.5KV AC
- Contact resistance: 30mΩ Max.
- Durability 5,000 cycles



## Applications



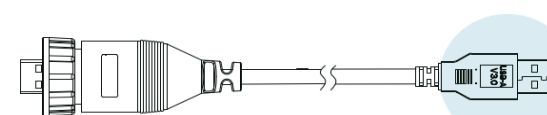
Receptacle with Cable to Overmolded with Cable



**2 Points Lock Bayonet**



**Screw Thread**

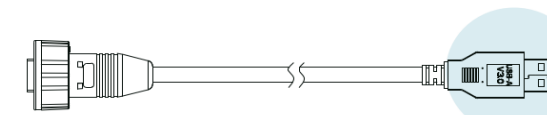


\* Non-Waterproof

In Line



**Screw Thread**





# Type A 2.0

## Success Story

Amphenol LTW

- Market: Heavy Equipment
- Application: USB Charging Port

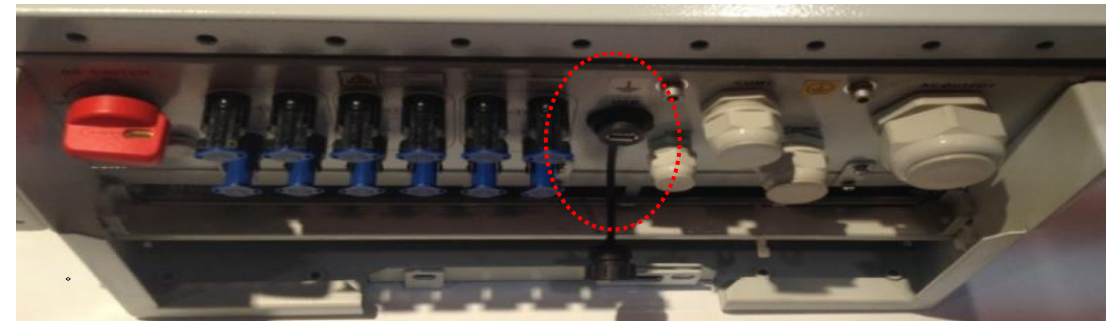


Type A 2.0

# Success Story

Amphenol LTW

- Market: Renewable Energy
- Application: Inverter





# Type A 2.0

## Success Story

Amphenol LTW

- Market: Automotive
- Application: Charging Port

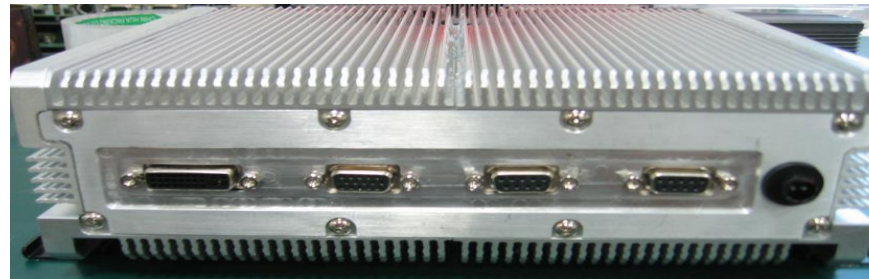


## Type A 2.0

# Success Story

Amphenol LTW

- Market: Industrial Automation
- Application: Industrial PC / Server





Type A 2.0

# Success Story

Amphenol LTW

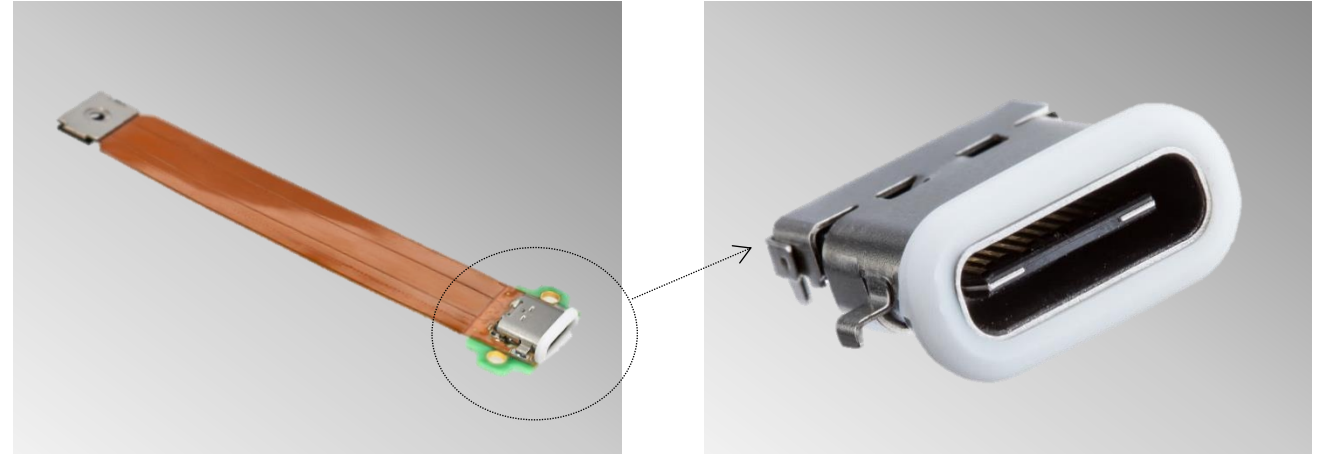
- Market: Marine
- Application: Electric Boat Motor



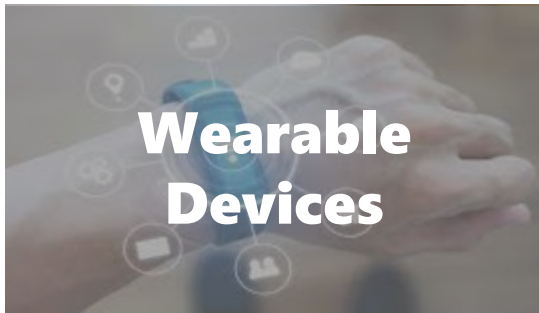
\*Customized

### Features

- Unmated waterproof IP67
- Nominal current 5A
- High data transmission up to 10 Gbps
- For applications where space is limited
- One-stop solution for receptacle with FPC



### Applications





## Features

- Unmated waterproof IP67
- Nominal current 3A
- High data transmission up to 5 Gbps
- Quick and easy installation with audio feedback
- Guided key for fool-proof, intuitive mating



## Applications



## Features

- Nominal current 3A
- High data transmission up to 5 Gbps
- Snap-in quick mating style
- Reversible mating style
- Receptacle unmated IP68, Cable mated IP67



## Applications





## Features

- Nominal current 5A
- High data transmission up to 10 Gbps
- Screw threaded
- Vibration environment approved
- Receptacle unmated IP67, Cable mated IP67

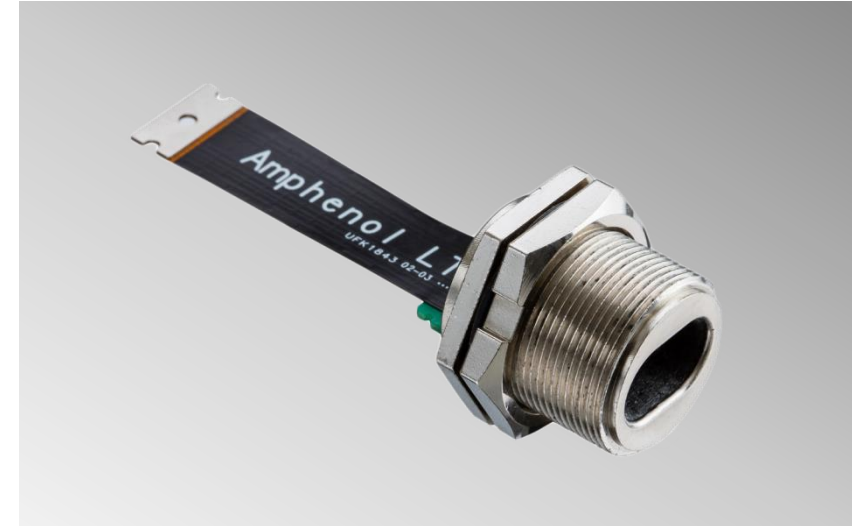


## Applications



## Features

- Nominal current 5A
- High data transmission up to 10 Gbps
- Designed for automotive application
- Vibration environment approved protective conduit for harsh environment
- Type A 2.0 available
- Type C to Type C, Type C to Type A 2.0 overmolded cable available



## Applications

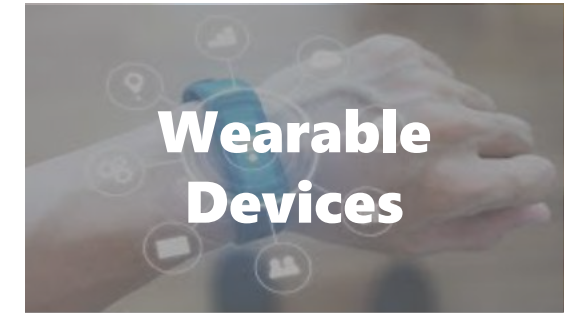
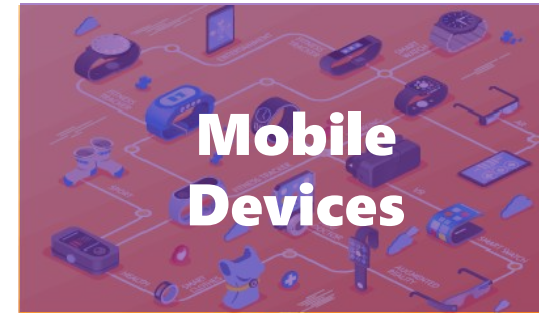
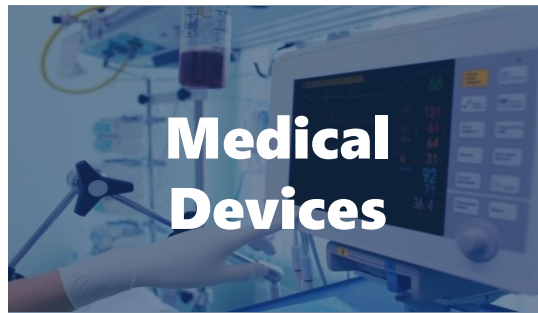


## Features

- Unmated waterproof IP67 / IP68
- Nominal current 1.8A
- Stainless steel shell
- Compact & low profile design



## Applications





**Micro USB  
Swift**

# **Success Story**

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Amphenol LTW

- Market: Wearable Devices
- Application: GPS Tracker



## Features

- Mated waterproof IP67
- Nominal current 1.8A
- Snap-in quick mating style
- Quick and easy installation with audio feedback
- Compact & low profile design



## Applications





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# Thank You

