

# LUSB Connector Series

Type A, Right Angle with Positive Latch  
Product Specification S6044C Rev 0.5

Amphenol

*Now you're connected!*

## About Amphenol

### Commercial Products

Amphenol's commercial connector products are used in a variety of end user applications including networking, telecom, server & computer, storage & HDD, consumer electronics and entertainment, professional audio & Industrial & Military/Aerospace.

## Related Products

### MUSB



MUSB-B151-34  
SERIES MINI-B, RIGHT  
ANGLE SHOWN

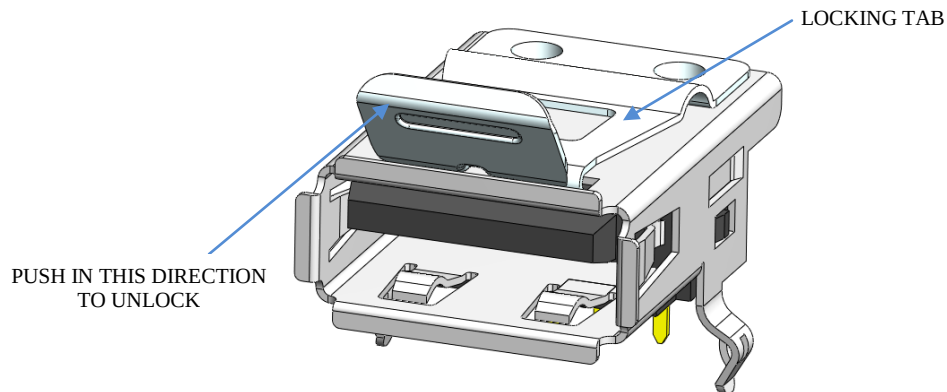


MUSB-C111-30  
SERIES A, RIGHT ANGLE,  
STACKED SHOWN

### MRJ



MRJ-5380-01 SHOWN  
RIGHT ANGLE, PCB TAIL, 8  
POSITION RJ45



P/N LUSB-A111-00 SHOWN.  
USB A TYPE RECEPTACLE  
WITH POSITIVE LOCKING  
TAB. RIGHT ANGLE.

## Overview

This Product Specification defines the general use and performance parameters for Amphenol's LUSB, USB with positive locking series of connectors.

Availability: USB 2.0 series type A, right angle PCB mount. USB 3.0 series type A, right angle PCB mount available now. USB 2.0 series type A, vertical planned for future release.

## Usage

The connector system is designed to provide a standard USB interface with a unique latching mechanism to prevent the unintentional interruption of data transmission. The latch must be intentionally raised in order to remove the plug. An accidental pull on the cable up to 50N (11.2lbs) force will not separate the connectors.

## Applications

Intended for use in applications such as:

- Medical equipment
- ATM machines
- Lottery Terminals
- GPS
- Military Vehicles, radios, PDA
- Hand Held Data Loggers
- Mobile Entertainment Systems

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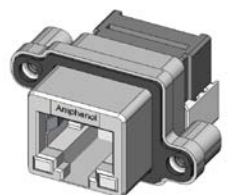


MUSB-B151-34  
SERIES MINI-B, RIGHT  
ANGLE SHOWN



MUSB-C111-30  
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MRJ-5380-01 SHOWN  
RIGHT ANGLE, PCB TAIL, 8  
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## Connector Electrical Characteristics

Maximum current: 1.5A per contact for USB 2.0  
1.8A for positions 1 & 4 with 0.25A on remaining positions on the USB 3.0  
Contact resistance: 30 mΩ max  
Insulation Resistance: 1000 MΩ min  
DWV: 500 VAC @ sea level

## Connector Mechanical Characteristics

Standard USB interface  
Thermal Shock: 10 cycles -65°C to +105°C  
Physical Shock: Per EIA-364-27 Condition H (11ms 30G)  
Humidity: Per EIA-364-31B, Method III, Condition B  
Vibration: Per EIA-364-28D per Condition V, Test A  
Durability: 1500 mating cycles  
Insertion Force: 35 N (7.87 lbs) max  
Withdrawal Force: 8 N (1.8 lbs) min with latch disengaged

## Material Requirements

USB connectors are RoHS compliant.  
Unless otherwise specified, the materials for each component shall be:

### Connector

- Contacts
  - Base material: Copper alloy
  - Plating: 30 μ" (0.76 μm) min Gold over Nickel
- Housing: High temperature thermoplastic, UL94V-0 rated, Black
- Shell
  - Base material: Copper alloy
  - Plating: Nickel
- Locking Tab: Stainless Steel

Temperature rise: Meets the requirement of 30° C ΔT  
Operating temperature -40° to +85° C

## Available Documents

### Drawing Numbers:

|                |                                                                  |
|----------------|------------------------------------------------------------------|
| P-LUSB-A111-00 | USB Series A Right Angle Receptacle with Positive Locking Tab    |
| P-LUSB-3193-00 | USB Series USB 3.0 Type A Receptacle with Positive Locking Latch |
| P-LUSB-A511-00 | USB Series A Vertical Receptacle with Locking Latch              |

### QTR:

|            |                           |
|------------|---------------------------|
| QTR9300426 | Qualification Test Report |
|------------|---------------------------|

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### Product Numbering System

| Product Numbering System |                                                        | LUSB | - | A | 1 | 1 | 1 | - | 00 | X |
|--------------------------|--------------------------------------------------------|------|---|---|---|---|---|---|----|---|
| LUSB                     | Lockable USB Series                                    |      |   |   |   |   |   |   |    |   |
|                          | Receptacle Type                                        |      |   |   |   |   |   |   |    |   |
|                          | A – Standard A Series per USB 2.0                      |      |   |   |   |   |   |   |    |   |
|                          | 3 – Standard A Series per USB 3.0                      |      |   |   |   |   |   |   |    |   |
|                          | Termination Style <sup>1</sup>                         |      |   |   |   |   |   |   |    |   |
|                          | 1 – Right angle                                        |      |   |   |   |   |   |   |    |   |
|                          | 5 – Vertical                                           |      |   |   |   |   |   |   |    |   |
|                          | Number of Contacts                                     |      |   |   |   |   |   |   |    |   |
|                          | 1 – 4 Contacts. Use with USB 2.0 A Series              |      |   |   |   |   |   |   |    |   |
|                          | 9 – 9 Contacts. Use with USB 3.0 A Series              |      |   |   |   |   |   |   |    |   |
|                          | Insulator Housing Colour                               |      |   |   |   |   |   |   |    |   |
|                          | 1 – Black, Standard for USB 2.0 A Series               |      |   |   |   |   |   |   |    |   |
|                          | 3 – Blue, Standard for USB 3.0 A Series                |      |   |   |   |   |   |   |    |   |
|                          | Other Options                                          |      |   |   |   |   |   |   |    |   |
|                          | 00 – Standard                                          |      |   |   |   |   |   |   |    |   |
|                          | Unique Special Code <sup>1</sup>                       |      |   |   |   |   |   |   |    |   |
|                          | No Digit – Standard part defined by previous 10 digits |      |   |   |   |   |   |   |    |   |
|                          | 1 to 9 - Unique special feature                        |      |   |   |   |   |   |   |    |   |

#### Notes:

- 1) Consult with Amphenol for additional connectors such as vertical or upright (flag) termination styles, contact tail lengths, latch styles or other special requirements