

# HSBridge+ Connector System

## USCAR-2 COMPLIANT AUTOMOTIVE GRADE USB TYPE C CONNECTOR

HSBridge+ connectors come with automotive grade USB Type C interface. These connectors have headers compliant to USCAR-30 USB and are performance-tested according to USCAR-2. They are an ideal solution for in-vehicle connections with high data rates up to 5Gb/s supporting advanced infotainment, telematics and camera devices across the automotive and commercial vehicle industries. The USB Type C interface helps in connecting the automobile with high bandwidth personal infotainment devices.

- High data rate up to 5Gb/s
- Meets UL94V-0 flammability rating
- Available in SMD and hybrid (DIP and SMD) packaging
- Performance tested according to USCAR-2
- Current Rating: 5V/3A



### TARGET MARKETS



### FEATURES

- Supports data rate up to 5Gb/s
- Color coding effectiveness compliant to automotive requirements
- Type-C standard interface
- Creating more opportunity for infotainment architecture
- Plug/wafer protected by scoop proof design
- USB 3.1, one port solution for data, power, and A/V
- Contact has insertion shell protection
- Test according to USCAR standard

### BENEFITS

- Increased data-transfer speeds for infotainment
- Effective coding for better user experience in installation
- Also supports legacy USB 2.0
- Connecting automotive with personal infotainment device through Type C USB
- Prevents pins from being bent or contacts from being electrically shorted during mating
- Bringing increased productivity and satisfaction comparing to USB 2.0
- Prevent connector damage during incorrect release
- Automotive grade standard connector.

# TECHNICAL INFORMATION

## MATERIAL

- Housing: High temperature thermoplastic, UL 94V-0
- Contacts: Copper alloy
- Shell : Stainless steel
- Finish: Nickel plating

## ELECTRICAL PERFORMANCE

- Contact Resistance: 40mΩ max.
- Voltage Rating: 5V DC
- Current Rating: 3A
- Insulation Resistance: 100MΩ min.
- Withstanding voltage: 100V rms AC

## MECHANICAL PERFORMANCE

- Mating (engage) force meets the SAE/USCAR-25 requirements
- Un-mating force must be  $\leq 45\text{N}$  with the primary connector lock completely disengaged/disabled
- Un-mating force must be  $\geq 110\text{N}$  with the primary connector lock fully engaged
- The force to completely disengage the primary connector lock must be  $>10\text{N}$  and  $< 70\text{N}$
- Durability: 10 cycles

## SPECIFICATION

- Amphenol Product Specification: HSBridge+ series

## ENVIRONMENTAL

- Humidity: 40 cycles between  $-40^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$
- Vibration: V1 Class
- Thermal Shock: 100 cycles between  $-40^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$

## PACKAGING

- Tape & Reel

## APPROVALS AND CERTIFICATION

- USCAR-30 compliant
- IATF production compliant
- RoHS
- REACH/SVHC
- Low halogen

## TARGET MARKETS/APPLICATIONS



Infotainment

# PART NUMBERS

| Description             | Part Numbers   |
|-------------------------|----------------|
| HSBridge+ hybrid type   | UTCAR0111001HR |
| HSBridge+ dual SMD type | UTCAR0111001SR |