microSD Express Connector

HIGH PERFORMANCE MEMORY CARD CONNECTOR COMPLIANT TO SD SPECIFICATION V7.1

Amphenol ICC is the first in the industry to offer card sockets for both microSD Express and Micro SD cards (UHS-I). The 17 pin microSD Express connector is capable of achieving high speeds up to 985MB/s and meeting PCIe® 3.0 requirements. The connector enables microSD Express platform to reach its full potential; making microSD Express card possible to serve as a removable Solid State Drive (SSD). This new platform is ideal for high resolution content and speed-hungry mobile computing and IOT devices.

- Data Rate: 8GT/s (PCle® Gen 3 requirement)
- Supports card-detect function
- Backward compatibility and interoperability with legacy Micro SD cards



FEATURES

- New 17 pin connector design
- Dedicated pin for card detect function
- Backwards compatible with the legacy Micro SD card (UHS-I)
- Data transfer speed of up to 8GT/s
- Robust mating mechanism that ensures reliable connection
- Up to 5000 mating cycles
- Lead and halogen-free

BENEFITS

- Supports next generation performance
- SD host is in deep low-power mode until the card is
- Provides higher adaptability and practicability
- Approximately 6x faster than existing Micro SD card
- Specially targets demanding application that requires high speed and storage capacities
- High durability
- Meets environmental, health and safety requirements

▶ microSD Express Connector

TECHNICAL INFORMATION

MATERIAL

• Housing: High temperature thermoplastic, UL94V-0, black

• Contact: Corson alloy

■ Shell: Stainless steel

MECHANICAL PERFORMANCE

• Durability: 5000 mating cycles

• Normal Force: 30gf/pin min.

ELECTRICAL PERFORMANCE

• Contact Resistance: $100m\Omega$ max.

• Dielectric Withstanding Voltage: 500V AC max. (1 minute)

• Insulation Resistance: $1000 m\Omega$ min.

• Current Rating: 0.5A AC/DC max.

• Voltage Rating: 100V rms min.

PACKAGING

Tray/Tape

ENVIRONMENTAL

■ Storage Temperature: -40°C to +85°C

• Operating Humidity Range: 95% R.H. max.

■ Operating Temperature Range: -25°C to +85°C

APPROVALS AND CERTIFICATIONS

• RoHS compliant

TARGET MARKETS/APPLICATIONS



Mobile Phone
Tablet
Virtual Reality Camera
Augmented Reality Camera
Unmanned Aerial Vehicle (UAV)
IOT Revices
Mobile Computing Devices
Surveillance Cameras

PART NUMBERS

| Description | Part Numbers |
|---|---------------|
| microSD Express connector, SMT, push-pull, with card detect, PCIe® 3.0 ready, backward compatibility with Micro SD cards | 101019966912A |