FlexLock® 2.54mm FPC-to-Board Connectors

AUTOMOTIVE GRADE CONNECTOR SYSTEM WITH FLEXIBLE SOLDERING

FlexLock® 2.54mm FPC-to-Board connectors are designed to address the growing demands of the automotive market. These compact USCAR-T2V2 compatible connectors have a nominal current carrying capacity of 3A per contact to support higher power application as well.

FlexLock® connectors are available in 10 to 30 positions in double row with vertical and horizontal TH and SMT configurations.

- USCAR-T2V2 compatible
- Reflow Tin plating to reduce mating force
- Available in 10 to 30 positions
- Terminal Position Assurance (TPA)
- Connector Position Assurance (CPA)







FEATURES

- Reflow Tin plating process for terminals
- Current rating of 3A per contact
- Terminal Position Assurance (TPA)
- Hold down design
- Connector positioning assurance (CPA)

BENEFITS

- Reduced mating and un-mating force
- Meets higher power Amps requirements
- Ensures proper terminal insertion position and retention
- Increases the board grip force
- Ensures that connectors are properly mated and locked together

TECHNICAL INFORMATION

MATERIAL

• Connector Contact: Copper alloy

■ Housing: High temperature UL 94V-0

• Plating: Tin plated

■ 8u" GXT/Au

ELECTRICAL PERFORMANCE

Voltage Rating: 48V AC/DC

• Insulation Resistance: $100M\Omega$ min.

• Contact Resistance: $25m\Omega$ max. (initial)

• Current Rating: 3A

■ Low Level Contact Resistance: < 25mΩ

• Dielectric Withstand Voltage: 500V AC

■ Temperature Rise: +55°C max. for 7.32A

MECHANICAL PERFORMANCE

Durability: 10 cycles (tin), 30 cycles (gold)

• Mating /Un-mating Force: 75N max.

■ Terminal Insertion Force: <5N max./pin

• Terminal Retention Force: 15N min.

ENVIRONMENTAL

• Operating Temperature Range: -40°C to +105°C

APPROVALS AND CERTIFICATIONS

- UL E66906

SPECIFICATIONS

■ Product Specification: GS-12-1679

■ PCB termination: 1.60mm

Packaging Specification: GS-14-2781
 Application Specification: GS-20-0707

PACKAGING

Header: Tape and reel

• Receptacle Housing: Tray

TARGET MARKETS/APPLICATIONS

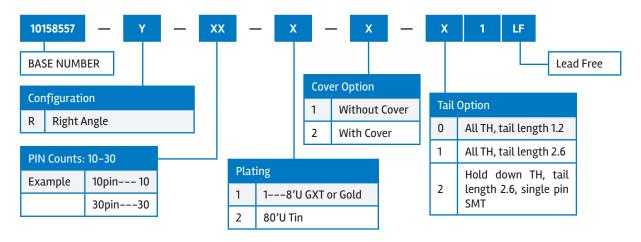


BMS (Battery Management System) OBC (On Board Charge) MCU (Micro Control Unit)

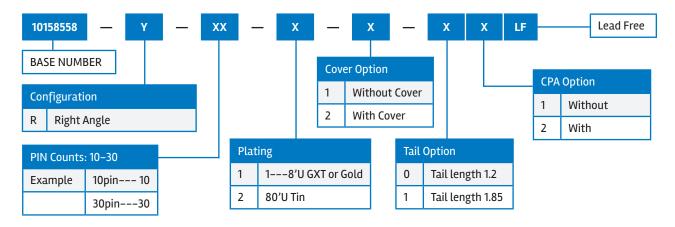


Robotics

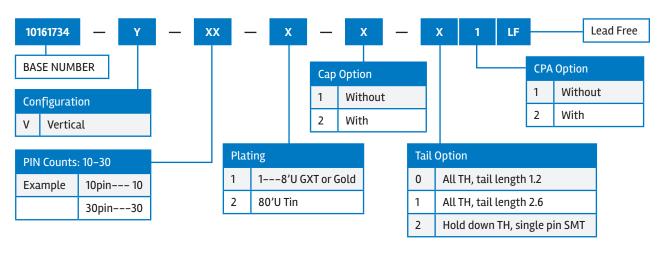
PART NUMBER SELECTOR - DOUBLE ROW R/A_ HEADER



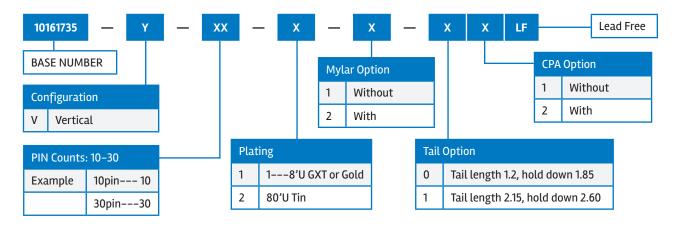
PART NUMBER SELECTOR - DOUBLE ROW R/A_ RECEPTACLE



PART NUMBER SELECTOR - DOUBLE ROW VERTICAL_ HEADER



PART NUMBER SELECTOR - DOUBLE ROW VERTICAL_ RECEPTACLE



PART NUMBERS

Description	Part Numbers
FlexLock®, 2.54mm FPC-to-Board Connector Platform, Board Header, 30 Position, Top Latch, Tin (preplated)	10158557-R302111LF
FlexLock®, 2.54mm FPC-to-Board Connector Platform, Receptacle, 30 Position, Top Latch, Tin (preplated)	10161735-V302011LF
FlexLock®, 2.54mm FPC-to-Board Connector Platform, Board Header, 28 Position, Top Latch, Tin (preplated)	10158557-R282111LF
FlexLock®, 2.54mm FPC-to-Board Connector Platform, Receptacle, 28 Position, Top Latch, Tin (preplated)	10158558-R282111LF
FlexLock®, 2.54mm FPC-to-Board Connector Platform, Board Header, 12 Position, Top Latch, Tin (preplated)	10158557-R122121LF
FlexLock®, 2.54mm FPC-to-Board Connector Platform, Receptacle, 12 Position, Top Latch, Tin (preplated)	10158558-R122111LF

Mouser Electronics

Authorized Distributor

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FCI / Amphenol:

10158557-R302111LF 10161735-V32011LF 10161735-V302011LF