# **≣FCi Basics**

# 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

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### **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: 100MΩ min.
- Contact Resistance: 25mΩ max. (initial)
- Current Rating: 3A
- Low Level Contact Resistance: <  $25m\Omega$
- 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</li>
- 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)



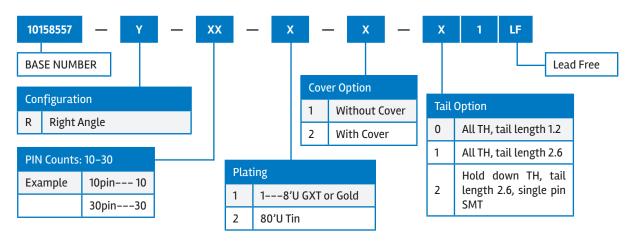
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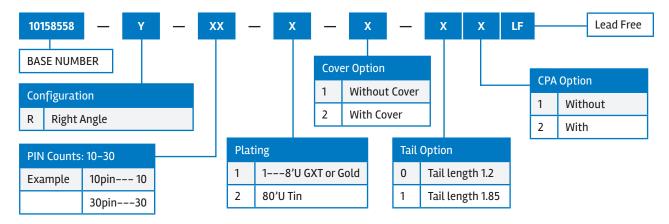
#### Disclaimer

Please note that the above information is subject to change without notice.

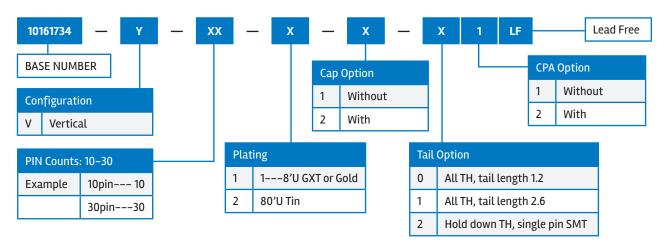
### PART NUMBER SELECTOR – DOUBLE ROW R/A\_ HEADER



### PART NUMBER SELECTOR – DOUBLE ROW R/A\_ RECEPTACLE



### PART NUMBER SELECTOR – DOUBLE ROW VERTICAL\_ HEADER



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### PART NUMBER SELECTOR – DOUBLE ROW VERTICAL\_ RECEPTACLE

10161735 — Y —	xx	— x	-	х	—	х	x	LF		Lead	Free	
BASE NUMBER		Myla								CPA Option		
Configuration			1	Without	t				1	Without		
V Vertical			2	With					2	With		
PIN Counts: 10–30	Pla	ting			Tai	l Opti	on					
Example 10pin 10	1	18'U	J GXT or G	iold	0	0 Tail length 1.2, hold down 1.8			wn 1.85			
30pin30	2	80'U Tin			1	Tai	Tail length 2.15, hold down 2.60					

## **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		

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