Quick Reference Guide
SIM Card Connector Series

SIM (Subscriber Identity Module) and UIM (Universal Identity Module) cards are widely used in a variety of mobile applications, including, billing, security and number storage purposes in mobile devices. The SIM card parameters are defined by ISO, ETSI and GSM standards.
TE's outstanding technological capability delivers a high comfort for the end customer and great durability and longevity of the SIM connectors. In addition, TE has the ability to fabricate very high volume products in a cost-efficient, lean manufacturing process. The huge array of products, combined with TE's ability to redesign existing products to customer requirements, allow TE to be a reliable source for SIM and UIM card connectors.

Features
- Large portfolio covering several styles and card sizes
- Connectors optimized for reliability (i.e. by spherical contact points increasing hertz stress, pre-loaded contacts and anti retention features in the contacts.)
- The SIM connector series offers the best possible design freedom; many products are even scalable in height within the same form factor
- Best possible applied cost by fully-automated processing

Benefits
- Large, versatile portfolio offers the best product closest to the actual need
- Highly reliable connector technology helps customers reduce production line defect rates – ultimately reducing costs for quality control and service
- Unmatched design freedom creates optimal possibilities for the design engineer to match the device's requirements
- Fully-automated processing leads to stable quality
- Global footprint means enhanced support for all regions

Applications
- Mobile Phones
- Tablets
- Personal computers
- Ultrabook
- Data cards
- Portable GSM modems
- Servers

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TE connectivity

Variety of SIM Card Connectors Portfolio

Push-Pull Type

- Card guidance and card stops provides fixation of the SIM card in X, Y and Z direction
- Card is typically located inside the device shell. Consumer must open the device shell to extract the card, and must insert and eject card manually
- Full single clip, provides shielding, and prevents card bending. This ensures a stable connection with all card types
- Components underneath the SIM card are possible (optional)

Block Type

- Basic SIM Connector without enhanced features in combination with an efficient manufacturing process leads to an extremely cost-effective component
- Anti-lifting contact prevents the contact from being accidentally lifted. Reduces the risk of damaged contacts
- Five (5) directional mating allows for card insertion from five directions: front, back, left, right and top. It thereby allows for maximum design freedom

Push-Push Type

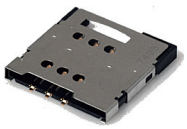
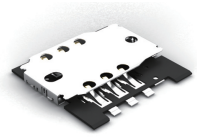
- Push to insert, push to eject mechanism provides enhanced card handling for the end user
- Push-Push type connectors are typically used under the battery cover or behind a door at the device exterior
- The card detection switch senses card removal
- The connector prevents for reversed card insertion, eliminating damage done by wrong card insertion

Tray Type

- Tray type SIM connectors are typically used on the exterior of a device. The tray forms a unity with the device covers
- Tray can be fully separated from the body, allowing for easy card handling by the end user
- Fully-shielded, preventing EMI or other disturbances
- The connector prevents reversed card insertion, eliminating damage done by wrong card insertion
- The card detection switch senses card removal

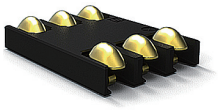
Connectors for mini SIM (2FF) cards

Push-Pull Type

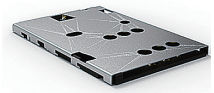
Picture	P/N	Height range	Length x width	Description	Features and Benefits	Status
	*-2042647-* *-2042920-*	1.8 – 2.0	15.5 x 10	Scalable Shielded SIM	**Features** -shielded -holes for additional components under the connector -test holes for automatic inline testing **Benefits** -shield protects against radio interference -holes under the connector save space -test holes reduce applied costs	MP SH/India
	*-1551663-*	1.8 – 2.0	15.5 x 10	Narrow shield version		MP SH/India
	1981898-1	1.43	17.5 x 16.3	Super low profile SIM	**Features** -fully shielded -test holes -super low height contact -super low height **Benefits** -shield protects against radio interference -test holes reduce applied costs -can only be engaged from one side	MP SH
	1932669-2	2.05	26.3 x 14.7	Side entry SIM connector LEFT Side entry SIM connector RIGHT	**Features** -visible detection of wrong card insertion -chamfered housing -user friendly shield design -test holes **Benefits** -prevents wrong card insertion -safe user handling -can remove card without tools -shield prevents EMI -inline testing reduces costs	MP SH
	1551956-1	1.4	15.5 x 14.25	SIM 1.4mm height	**Features** -provides card stop -shielded -preloaded contacts -holes under the connector -test holes **Benefits** -card stop prevents damage to the SIM card -shield prevents EMI, RF distortion and card bend -preloaded anti-lifting contacts protect card from abuse -mounting components under the connector saves space -automated testing reduces costs	MP GD
	1932766-1	1.5	17.6 x 16.1	SIM 1.5mm height		MP GD
	1932768-1	1.95	16.3 x 14.8	Super low profile SIM with flange (big shield)	**Features** -one clip type (Bridge type) -shielded -holes under the connector -card stop and guide -preloaded contacts -test holes **Benefits** -prevents card damage -shield prevents EMI, RF distortion and card bend -preloaded anti-lifting contacts protect card from abuse -mounting components under the connector saves space -automated testing reduces costs	MP SH

(dimensions : mm)

Block Type

Picture	P/N	Heights	Length x width	Description	Features and Benefits	Status
	*-1705300-*	1.5 – 2.8	10 x 7.6	5-Directional SIM connector	**Features** -5 insert directions -preloaded contacts -fits both standards (2FF and 3FF) **Benefits** -smooth insertion for consumer -design flexibility	MP QD

Push – Push Type

Picture	P/N	Height	Length x width	Description	Features and Benefits	Status
	1981959-1	1.87	23.7 x 18.9	Push Push SIM connector	**Features** -Push Push function -card detection switch -fully shielded -anti launch mechanism -test holes **Benefits** -prevents inaccurate switch readings caused by common rough edges on cards -shield prevents EMI RF distortion and card bend -prevents wrong card insertion -prevents card going airborne when extracted -automated testing reduces costs	MP SH
	2174918-1	1.40	26 x 17	Push Push SIM, super low profile	**Features** -Push Push function allows SIM card ejection by connector itself -Lower profile -Dual slanted contacts -card detection switch **Benefits** -Easy to handle SIM Card -Low profile saves PCB space -Dual slanted contacts provide strong mating force and avoid contact jam -card detection switch secures circuit design	MP GD

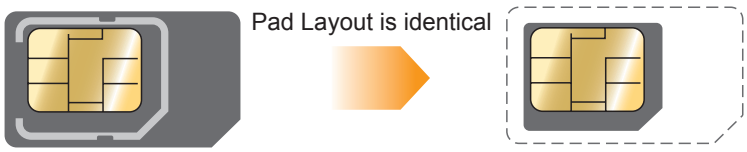
Tray Type

Picture	P/N	Height	Length x width	Description	Features and Benefits	Status
	2134033-1	1.4	25.85 x 16.7	Double Contact Metal Tray	-Tray can be fully separated from the body, allowing for easy card handling by the end user	MP JP
	2134034-1			Double Contact Body Assy		MP JP

(dimensions : mm)

Connectors for micro SIM (3FF*) cards

Size Comparison : Mini SIM (2FF) vs Micro SIM (3FF)



Mini SIM/2FF
25L x 15W (375mm²)

Micro SIM/3FF
15L x 12W (180mm²)

*FF : Form Factor

Push-Push Type

Picture	P/N	Height range	Length x width	Description	Features and Benefits	Status
	2174803-2	1.27	15.98 x 15.1	Ultra Low profile push-push	-Push-Push function allows SIM card ejection by connector itself to help the end customer handle SIM Card easily -Avoid card insertion with wrong direction, avoid card jamming issue -Low profile saves space -Dual slanted contacts provide strong mating force and avoid contact jam -Card detection switch secures circuit design	MP SH

Push-Pull Type

Picture	P/N	Height range	Length x Width	Description	Features and Benefits	Status
	2108431-3 (8 position)	1.24	14.1 x 13.3	Ultra Low Profile Push-Pull	**Features and Benefits** -Low profile saves space -Card detect switch uniquely integrated on connector contacts to better secure circuit connection while not taking extra PCB space -Avoid card insertion with wrong direction -6position is optional -Card stop confirms full insertion to the user -Inspection holes allow customers to inspect solder connection	MP SH

Combo Type Connector for Micro SIM + MicroSD™

Picture	P/N	Height range	Length x width	Description	Features and Benefits	Status
	2199003-2	2.5	17.75 x 14.0	Micro SIM + Micro SD Combo	-Dual Card reader Micro SIM/Micro SD type, space saving design -Transverse card orientation -Push pull type -Micro SD card retention feature -Micro SD detect switch -Pick and place design on Shell	MP GD

(dimensions : mm)

Frequently Asked Questions

Question 1
How do I decide which type of SIM Connector to choose?
Answer 1
The major difference in choosing between SIM connectors depends on the design of the customer device. Push-Push or Tray type SIM connectors allow users to extract the SIM card from the external portion of the device. Push-Pull or Block type connectors require users to open the back shell of the device and manually pull out the SIM card.

Question 2
What is the purpose of an 8-position SIM connector?
Answer 2
The extra two positions support an additional function like e-Pay.

Question 3
What is the benefit of dual-slanted contact performance?
Answer 3
The dual-slanted design prevents contact jam issues and creates a stronger mating performance, as demonstrated during the drop test.

Question 4
When should I use a Micro SIM Connector?
Answer 4
When the device requires the use of a Micro SIM card.

Question 5
What's the scalable Height?
Answer 5
The scalable height is found when the SIM card connector is scalable by a different P/N, but the connector footprint stays the same. The benefit is enabling the customer to swap the product easily when a design change occurs, thereby reducing the lead-time of TTM (Time To Market), TTV (Time To Value) and design cost.

FOR MORE INFORMATION

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