# **MINIATURE CONNECTORS FOR MICRO SIM/SAM CARDS**

# W PRODUCT

#### CCM03 Mk II Connectors

ITT Cannon has developed a new range of CCM03 connectors to interface with mini Smart cards as defined by GSM11-11 and EMV1375-1. The connectors are available with either hinged covers or fixed covers and have been designed to minimise the amount of space needed for PCB mounting.

#### **Features**

#### **Hinged Cover**

Available with 6 or 8 contacts, with or without PCB locating pegs.

The cover springs open when unlocked while the card is in place.

- The moulding is polarised so that the cover can only be closed if the card is correctly inserted.
- The cover can be replaced without removing the connector from the PCB
- Inspection slots allow an electrical test to be made without opening the cover.
- The overall height of the connector is only 2.5mm (.098 inch). The amount of space needed to mount the connector is just 29.65mm (1.167 inch) x 17.2mm (.677 inch).

#### **Fixed Cover**

Available with 6 or 8 contacts.

The overall height of the connector is just 2.5mm (.098 inch). Only 25.5mm (1.003 inch) x 17.2mm (.677 inch) of board space is required to mount the connector.

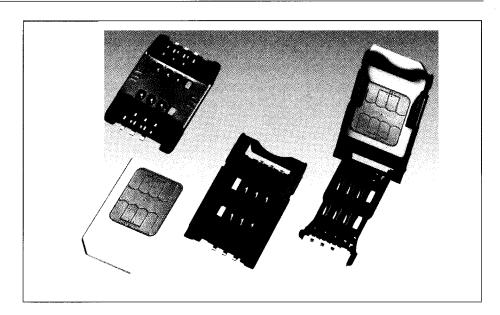
#### General

With tape and reel packaging as standard, the connectors are designed to be automatically pick-and-placed.

The high temperature thermoplastic mouldings are suited to infra-red and convection soldering processes.

By using an inlay finish in the contact area the life of the precious metal is extended by over 10 times that of standard gold plating.

Robustly formed printed circuit tails allow a coplanarity of ±0.05mm (.002 inch) to be maintained.



## Specifications

#### **MATERIALS**

Copper alloy Contacts

Plating Contact area: Gold alloy inlay

Terminals: Tin lead

Stainless steel

Slide lock/metal cover

Mouldings High temperature thermoplastic, UL94V-0 rated

**MECHANICAL** 

10,000 cycles minimum Mechanical life

0,5N maximum/0,25N minimum Contact force

**ELECTRICAL** 

Insulation resistance 1000 M $\Omega$  minimum

100 m $\Omega$  maximum Contact resistance

10 μA minimum / 1 A maximum Current rating

> 750 Vrms minimum DWV

#### **ENVIRONMENTAL**

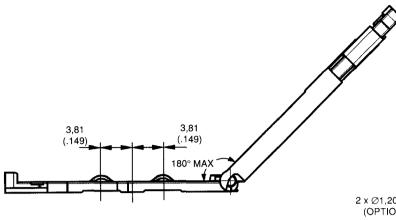
Operating temperature Soldering temperature

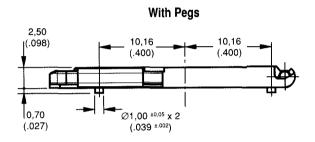
-40°C to +85°C

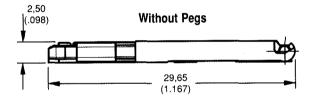
Temperature/time profile acc. to CECC 00802 para. 6.1, Fig 3

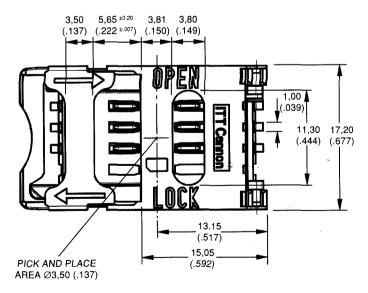
# Miniature Connectors for Micro SIM/SAM Cards

## CCM03-3001/3002/3003/3004. Hinged Cover

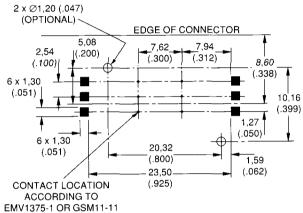




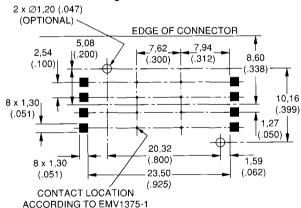




#### PCB Configuration CCM03-3001/3002



#### PCB Configuration CCM03-3003/3004



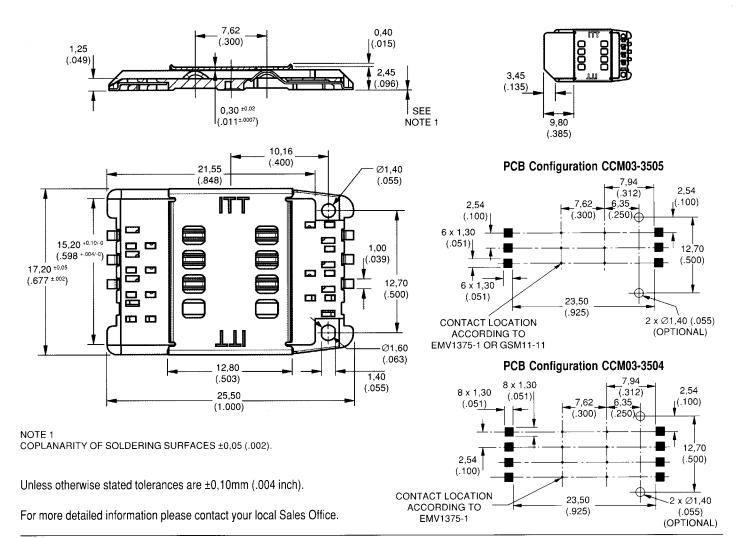
NOTE COPLANARITY OF SOLDERING SURFACES ±0,05 (.002).

Part Number	ber Number of Contacts	
CCM03-3001	6	No
CCM03-3002	6	Yes
CCM03-3003	8	No
CCM03-3004	8	Yes

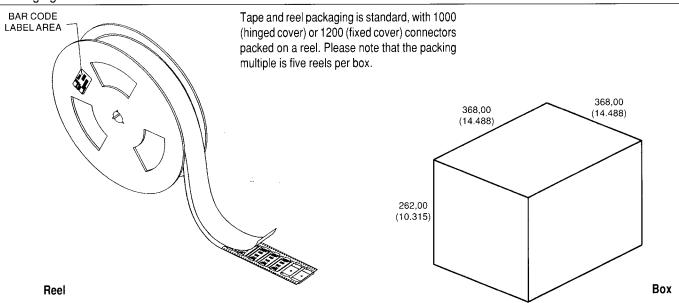
Unless otherwise stated tolerances are ±0,10mm (.004 inch).

# Miniature Connectors for Micro SIM/SAM Cards

### CCM03-3505 - 6 contacts / CCM03-3504 - 8 contacts. Fixed Cover



## Packaging



**ITT Cannon** 

Dimensions are shown in mm (inch)
Dimensions subject to change

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