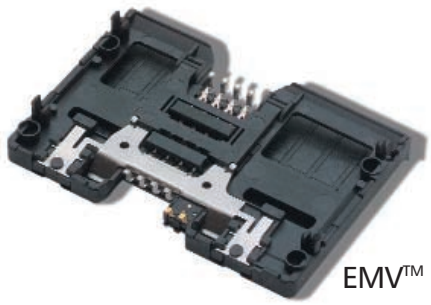


EMV™ compatible

The CCM02 MK II connectors with landing contacts are dedicated for applications where the reader usage is high and the life span of the card is a key consideration. A connector with contacts which land on the card, rather than slide over it, should be specified so as to minimize card wear. The CCM02 has been redesigned to give an even higher performance in a compact, affordable package.

Features

- 500,000 card insertion cycles.
- The contacts do not touch the card until it is almost fully inserted – A minimal wiping action removes any non-conductive material.
- The connector has been designed to give a positive indication once the card has been fully inserted.
- The reduced size of the contact base saves PCB space, making the connector more stable during surface mounting, and creates an air gap between the contacts and card entry slot, which reduces the risk of an electrostatic transfer to the PCB.
- For added reliability, the integrated card end-travel switch, which is normally open, is sealed against dust and grit.
- By using an inlay finish in the contact area, the life of the precious metal is extended by more than 10 times that of standard gold plating.
- The contact area is spooned to reduce the risk of accidental (or deliberate) damage and to optimize the electrical connection with the card.
- Snap-locks underneath the molding position and hold the connector on the PCB, and give additional support to the contact terminals.
- The plastic moldings are made from a high temperature thermoplastic suited for infrared and convection soldering processes.

EMV™ is a trademark owned by EMVCoLLC.

Construction	
Contacts	Copper alloy
Plating	Contact area : Gold alloy inlay Terminals: Tin lead (2µ min)
Moldings	High temp. thermoplastic UL 94V-0 rated
Spring	Stainless steel
Card detection switch actuator	Stainless steel

Mechanical Data	
Number of Contacts	8
Mechanical life	500,000 cycles min
Card insertion force	10 N max
Card extraction force	1 N min / 10 N max
Contact force	0.25 N min / 0.5 N max
Card detection switch actuation force	0.8 N max for actuation (end travel switch actuates when card is 1,0 mm from card stop) 1.8 N max for complete depression
Vibration	Frequency 10 to 500 Hz. Acceleration 50m/s² Duration 6 hours - amplitude 0,35 mm Max electrical discontinuity 1µs
Shock	Peak value 500 m/s² – Duration 11 ms 3 shocks in each direction of each axis Max electrical discontinuity 1 µs

Contact Electrical Data	
Insulation resistance	1,000 MΩ min
Resistance	100 mΩ max
Current rating	10 µA min / 1 A max
Dielectric strength	750 Vrms min

Switch Electrical Data	
Card detection switch	Normally open
Contact resistance	100 mΩ max
Dielectric strength	250 Vrms min
Current rating	1 mA min / 10 mA max
Maximum power	0.2 VA

Environmental Data	
Operating temperature	-40°C to +85°C
Soldering temperature	Temperature/time profile acc. to CECC00802 para. 6.1, Fig. 3 with peak temperature 250°C
Damp heat	IEC 512 test number 11c (10 days)
Salt mist	IEC 512 test number 11f (96 hours)
Card detection switch	Sealed IP 54

Ordering Code

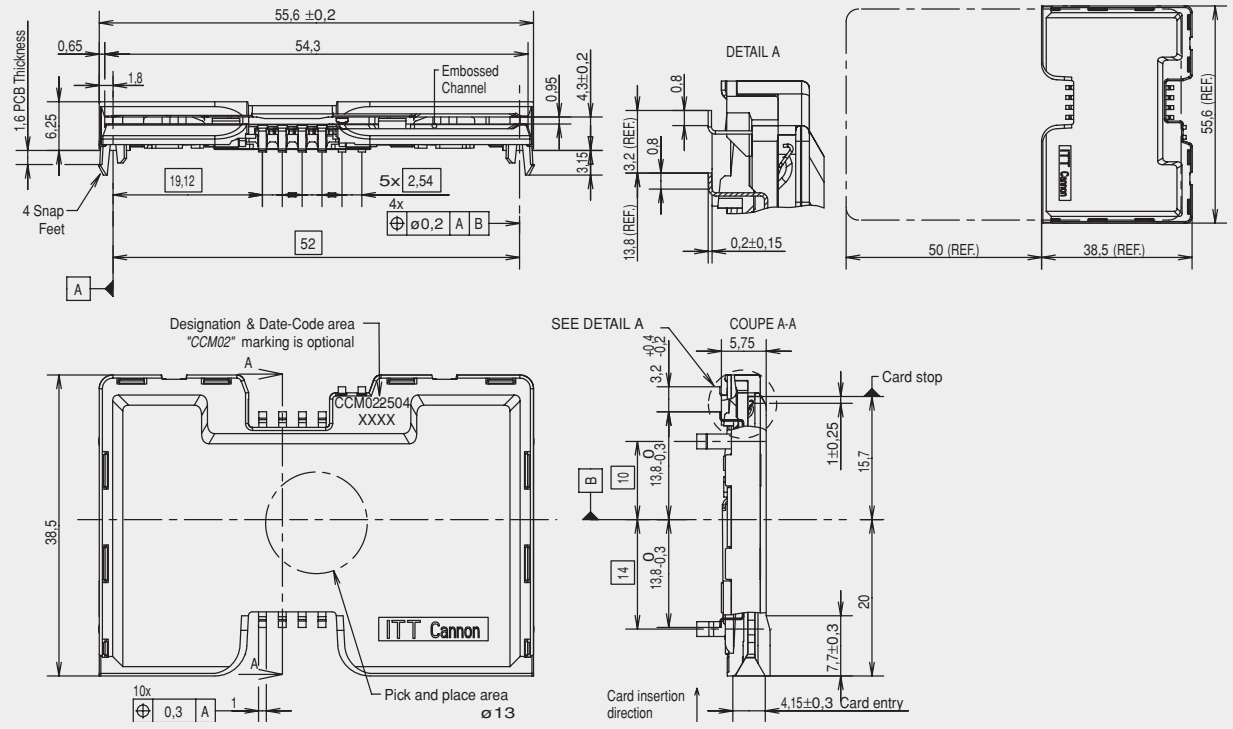
Part Number	Number of Contacts	Termination Tails Design	PCB Locating	Packaging Multiple
CCM02-2503	8	Through Hole	4 Board Lock (PCB 1.6 mm thick)	300
CCM02-2504	8	SMT	4 Board Lock (PCB 1.6 mm thick)	300
CCM02-2508	8	SMT	2 Pegs	300
CCM02-2511	8	Through Hole	4 Pegs	300
CCM02-2512	8	SMT	4 Pegs	300
CCM02-2758	8	SMT	2 Pegs (without cover)	300
CCM02-2763	8	SMT	4 Board Lock + 2 Pegs	300
CCM02-2765	8	Through Hole	4 Board Lock (PCB 1mm thick)	300
CCM02-2766	8	SMT	4 Board Lock (PCB 1mm thick)	300

Packaging

30 per tray, 10 trays per box.

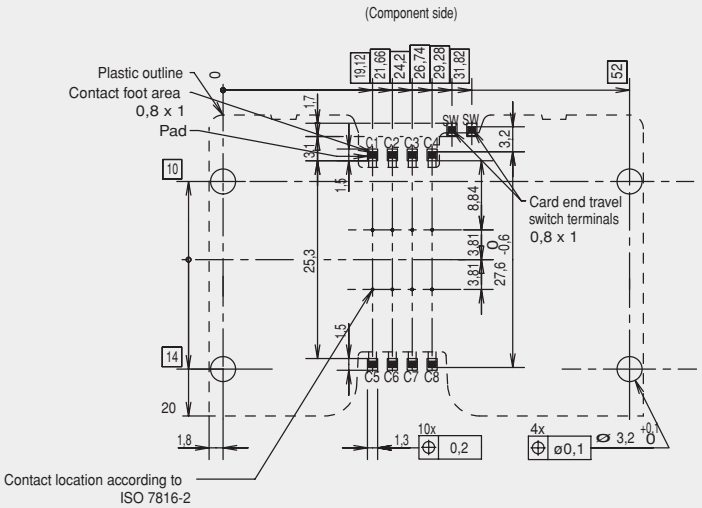
Dimensional Drawings

CCM02-2504 (8 contacts SMT - 4 board lock)



PCB Layout

CCM02-2504 (8 contacts SMT - 4 board lock)



Drawings shown for reference only. For other part numbers please consult your local Cannon Customer Service Center.

Unless otherwise stated, tolerances are ± 0,10 mm