

CCM05 MKI



The CCM05 MKI is a connector for MultiMediaCards.

These cards have been developed as small form factor memory cards with ROM and RAM capabilities.

The CCM05 MKI connector provides the physical interface between the card and the printed circuit board.

Features

- Two of the seven contacts are set forward to allow hot insertion (ground and supply voltage contacts)
- The fixed metal cover holds the card in place and includes two solder tabs to help fix the connector to the PCB.
- Every effort has been made to minimize the outer dimensions of the connector to save PCB space, including the terminals location on the inside of the connector.
- 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 spooned contact is shaped so as to optimize the electrical connection with the card and prevent the contact from catching on sharp edges.
- The insulator, which is molded from a high temperature thermoplastic, is suited to infrared and convection soldering processes.
- With tape and reel packaging as standard, the connectors are designed to be automatically picked & placed.

Coming soon

• CCM05 MKII compatible with MultiMediaCard (MMC) and Secure Digital Memory Cards (SD).

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

Mechanical data	
Number of Contacts	7
Mechanical life	10,000 cycles min
Durability of inlay	5,000 cycles min (see note 1)
Card insertion force	3 N max
Card extraction force	0.8 N min / 3 N max
Contact force	0.25 N min / 0.50 N max
Vibration	Frequency 10 to 500 Hz. Acceleration 50m/s ² Duration 8 hours - amplitude 0.35 mm Max electrical discontinuity 1μs
Shock	Peak value 500 m/s ² - Duration 11 ms 3 shocks in each direction of each axis Max electrical discontinuity 1 μs

Electrical data	
Insulation resistance	1,000 MΩ min
Contact resistance max.	100 mΩ min
Switching current	10 μA min / 1 A max
Dielectric strength	750 Vrms min

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)

Ordering code

Part Number	N° of Contacts	Cover	PCB Locating	Quantity per reel
CCM05-5501	7	Standard	No	900
CCM05-5502	7	Standard	Yes	900
CCM05-5503*	7	Long cover	No	900
CCM05-5504*	7	Long cover	Yes	900

Packaging

900 pieces per reel, 5 reels per box.

Note 1: Inlay (precious metal) rating is based on a very abrasive card being used and is intended to represent worst case.

*On request. Depending on quantities.

Technical drawing of the CCM05-5501 (standard) component, showing front, side, and detail views with dimensions in millimeters.

Front View: Overall dimensions are 24.2 (height) and 16.25 (width). The central area contains five circular features. The bottom left corner has a "Date Code area" (XX-XXX) and a "Pick and place area" (Ø 4). The bottom right corner has a "Card stop" feature. The top right corner has a "Scale 1" label.

Side View: Shows the profile of the component with a height of 1.55 and a width of 0.75. The bottom edge has a "Scale 5" label.

Detail A: A close-up view of the bottom right corner, showing the "Card stop" and "Scale 5" label. Dimensions include 0.4, 0.3, 0.8, 0.8, 1.1 (REF), and 1 (REF). The bottom edge has a "Scale 1" label.

Top View: Shows the component from above with dimensions 16.7 (REF) and 16.25 (REF). The bottom edge has a "Scale 1" label.

RECOMMENDED PC BOARD LAYOUT
(Component side)

Contact location according to MMCA specification

Pad
Contact foot area
0.8 x 1
Plastic outline
Prohibited area

Grounding foot area
1 x 1

Unless otherwise stated, tolerances are ± 0.10 mm



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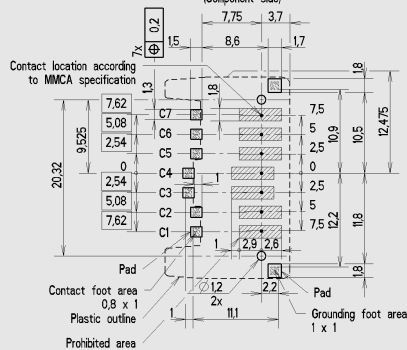
Dimensional Drawings

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CCM05-5502 (with PCB locating pegs)

RECOMMENDED PC BOARD LAYOUT

(Component side)



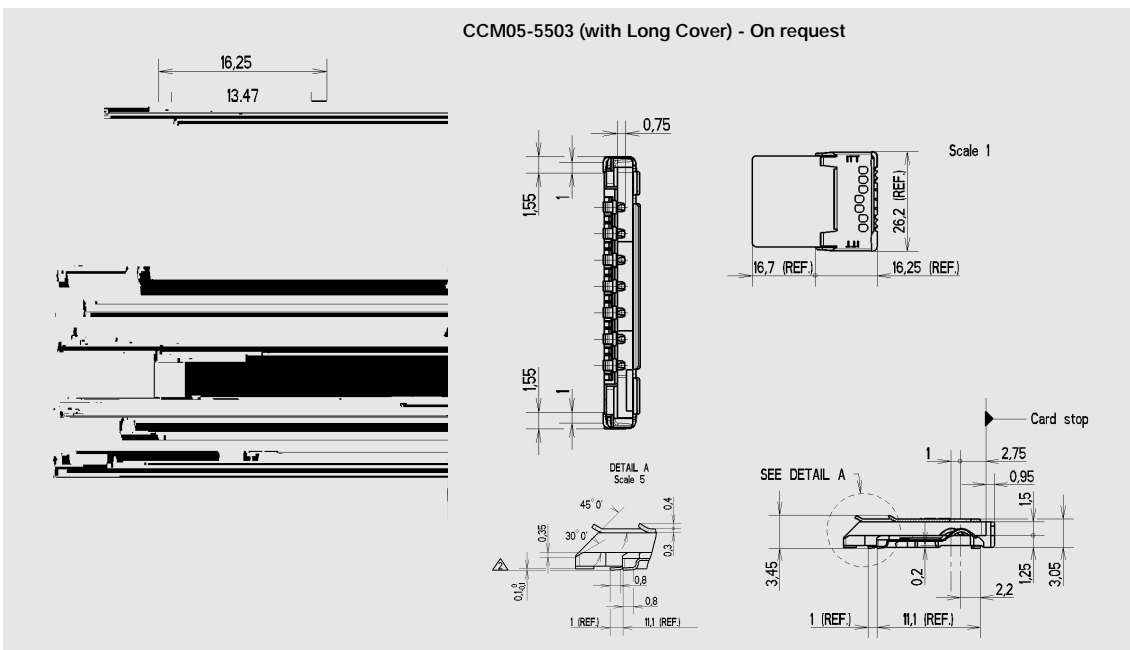
Unless otherwise stated, tolerances are ± 0.10 mm



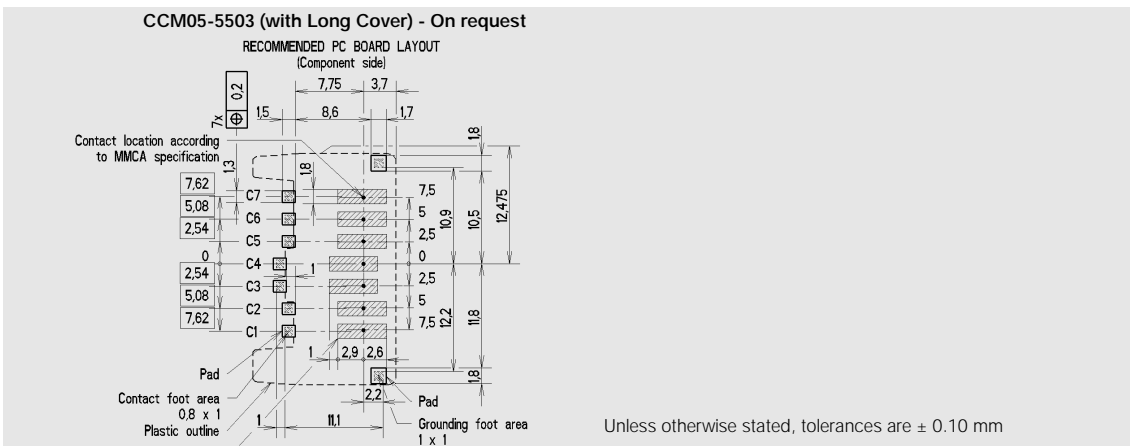
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CCM05 MKI

Dimensional Drawings



PCB Layout



Dimensional Drawings

Technical drawing of the CCM05-5504 component, showing dimensions in mm.

Top View Dimensions:

- Overall width: 16,25
- Distance from left edge to center of mounting holes: 13,47
- Distance between mounting holes: 9,95
- Overall height: 24,2
- Distance from top edge to center of mounting holes: 17,62
- Distance from bottom edge to center of mounting holes: 8,6
- Distance from bottom edge to center of mounting holes (alternative): 8,15
- Overall height (alternative): 26,2

Side View Dimensions:

- Overall height: 1,55
- Distance from top edge to center of mounting holes: 0,75
- Distance from bottom edge to center of mounting holes: 0,7

Detail A (Scale 5):

- Overall width: 0,4
- Distance from top edge to center of mounting holes: 0,25
- Distance from bottom edge to center of mounting holes: 0,3
- Distance from left edge to center of mounting holes: 0,1
- Distance from right edge to center of mounting holes: 0,8
- Distance from left edge to center of mounting holes (alternative): 0,8
- Distance from right edge to center of mounting holes (alternative): 0,8

Scale 1 View:

- Overall width: 16,7 (REF)
- Distance from left edge to center of mounting holes: 16,25 (REF)
- Distance from top edge to center of mounting holes: 26,2 (REF)

Card stop View:

- Overall width: 3,45
- Distance from left edge to center of mounting holes: 1,1 (REF)
- Distance from right edge to center of mounting holes: 11,1 (REF)
- Distance from top edge to center of mounting holes: 2,75
- Distance from bottom edge to center of mounting holes: 0,95
- Distance from left edge to center of mounting holes (alternative): 1,5
- Distance from right edge to center of mounting holes (alternative): 1,5
- Distance from top edge to center of mounting holes (alternative): 2,2
- Distance from bottom edge to center of mounting holes (alternative): 3,05

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