

A new range of CCM03 connectors have been developed to interface with SIM/SAM cards as defined by GSM11-11 and ENV1375-1. The connectors are available with either hinged covers or fixed covers and have been designed to minimize the amount of space needed for PCB mounting.

Features

Hinged Cover

- Available with 6 or 8 contacts, with or without PCB locating pegs.
- Available with insulated card presence switch.
- The cover springs open when unlocked while the card is in place.
- The molding is polarized 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 2,5 mm. The amount of space needed to mount the connector is just 29,65 mm x 17,2 mm.

Fixed Cover

- Available with 6 or 8 contacts.
- The overall height of the connector is 2,85 mm max. Only 25,5 mm x 17,2 mm 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 moldings are suited for infrared 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 co-planarity of $\pm 0,05$ mm to be maintained.



Construction

| | |
|------------------------|---|
| Contacts | Copper alloy |
| Plating | Contact area : Gold alloy inlay or gold over nickel Terminals : Tin lead (2 μ min) |
| Moldings | High temp. thermoplastic UL 94V-0 rated |
| Slide lock/metal cover | Stainless steel |

Mechanical Data

| | |
|-------------------------------|---|
| Number of Contacts | 6 or 8 |
| Mechanical life, hinged cover | 10,000 cycles min |
| Mechanical life, fixed cover | 50,000 cycles |
| Card insertion force | Hinged cover: 1 N max Fixed cover: 3 N max |
| Card extraction force | Hinged cover: 1 N max Fixed cover: 0.80 N min / 3 N max |
| Contact force | 0.25 N min / 0.50 N max |
| Slide locking force | 2 N min / 6 N max |
| Vibration | Frequency 10 to 500 Hz. Acceleration 50m/s ² Duration 6 hours - amplitude 0,35 mm Max electrical discontinuity 1 μ s |
| Shock | Peak value 500 m/s ² – Duration 11 ms 3 shocks in each direction of each axis Max electrical discontinuity 1 μ s |

Contact Electrical Data

| | |
|-----------------------|--------------------------|
| Insulation resistance | 1,000 M Ω min |
| Resistance | 100 m Ω max |
| Current rating | 10 μ A min / 1 A max |
| Dielectric strength | 750 Vrms min |

Switch Electrical Data

| | |
|-----------------------|---------------------|
| Card detection switch | Normally open |
| Contact resistance | 100 m Ω max |
| Dielectric strength | 250 Vrms min |
| Current rating | 1 mA min / 10mA 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) |

Packaging

Quantity per reel, see table next page.

CCM03 MK II

Ordering Code

| Part Number | Number of Contacts | Cover | PCB Locating Pegs | Quantity per reel | Contact Finish | Switch lock | Card Presence switch |
|-----------------|--------------------|--------|-------------------|-------------------|----------------|-------------|----------------------|
| CCM03-3001 R102 | 6 | Hinged | No | 1000 | Inlay | No | No |
| CCM03-3002 R102 | 6 | Hinged | Yes | 1000 | Inlay | No | No |
| CCM03-3003 R102 | 8 | Hinged | No | 1000 | Inlay | No | No |
| CCM03-3004 R102 | 8 | Hinged | Yes | 1000 | Inlay | No | No |
| CCM03-3009 R102 | 6 | Hinged | No | 1000 | Gold | No | No |
| CCM03-3010 R102 | 6 | Hinged | Yes | 1000 | Gold | No | No |
| CCM03-3011 R102 | 8 | Hinged | No | 1000 | Gold | No | No |
| CCM03-3012 R102 | 8 | Hinged | Yes | 1000 | Gold | No | No |
| CCM03-3013 R102 | 6 | Hinged | No | 1000 | Gold | No | Yes (insulated) |
| CCM03-3514 R102 | 6 | Hinged | No | 1000 | Inlay | Yes | No |
| CCM03-3504 R122 | 8 | Fixed | No | 1200 | Inlay | No | No |
| CCM03-3505 R122 | 6 | Fixed | No | 1200 | Inlay | No | No |

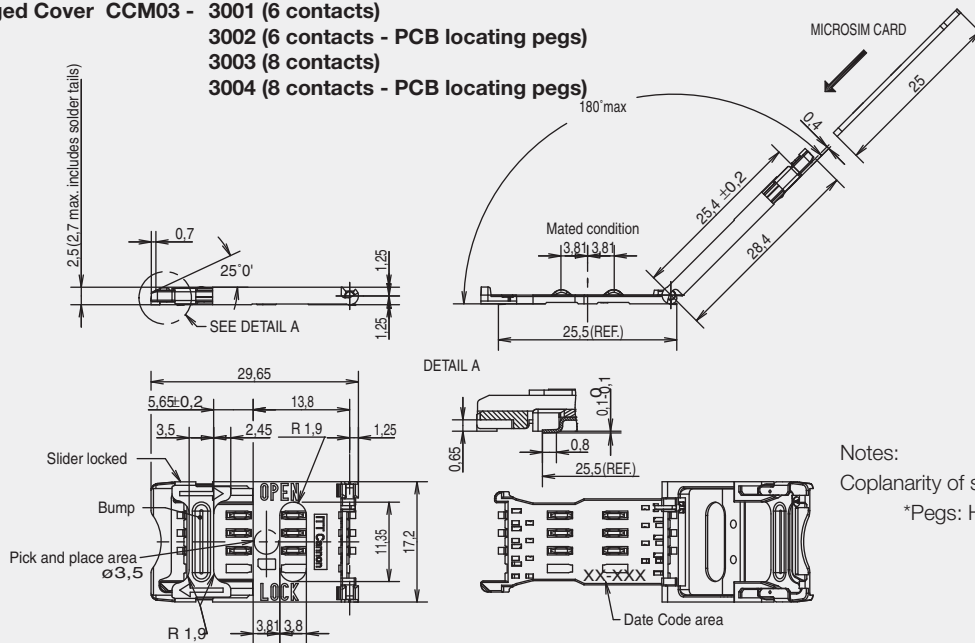
Dimensional Drawings

Hinged Cover CCM03 - 3001 (6 contacts)

3002 (6 contacts - PCB locating pegs)

3003 (8 contacts)

3004 (8 contacts - PCB locating pegs)



Notes:

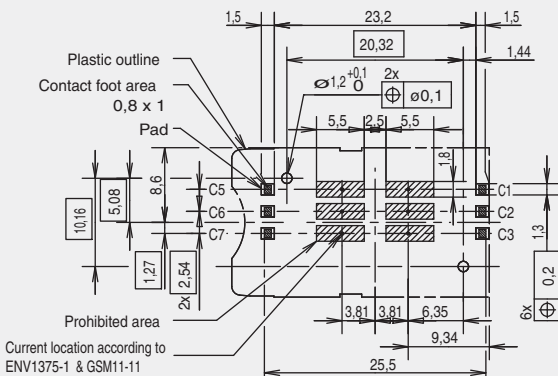
Coplanarity of soldering surfaces: $\pm 0,05$ mm

*Pegs: Height 0,7 mm and $\varnothing 1$ mm

PCB Layout

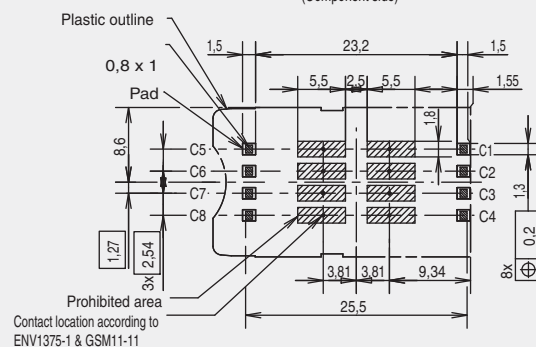
CCM03-3001 / 3002

(Component side)



CCM03-3003 / 3004

(Component side)



Unless otherwise stated, tolerances are $\pm 0,10$ mm



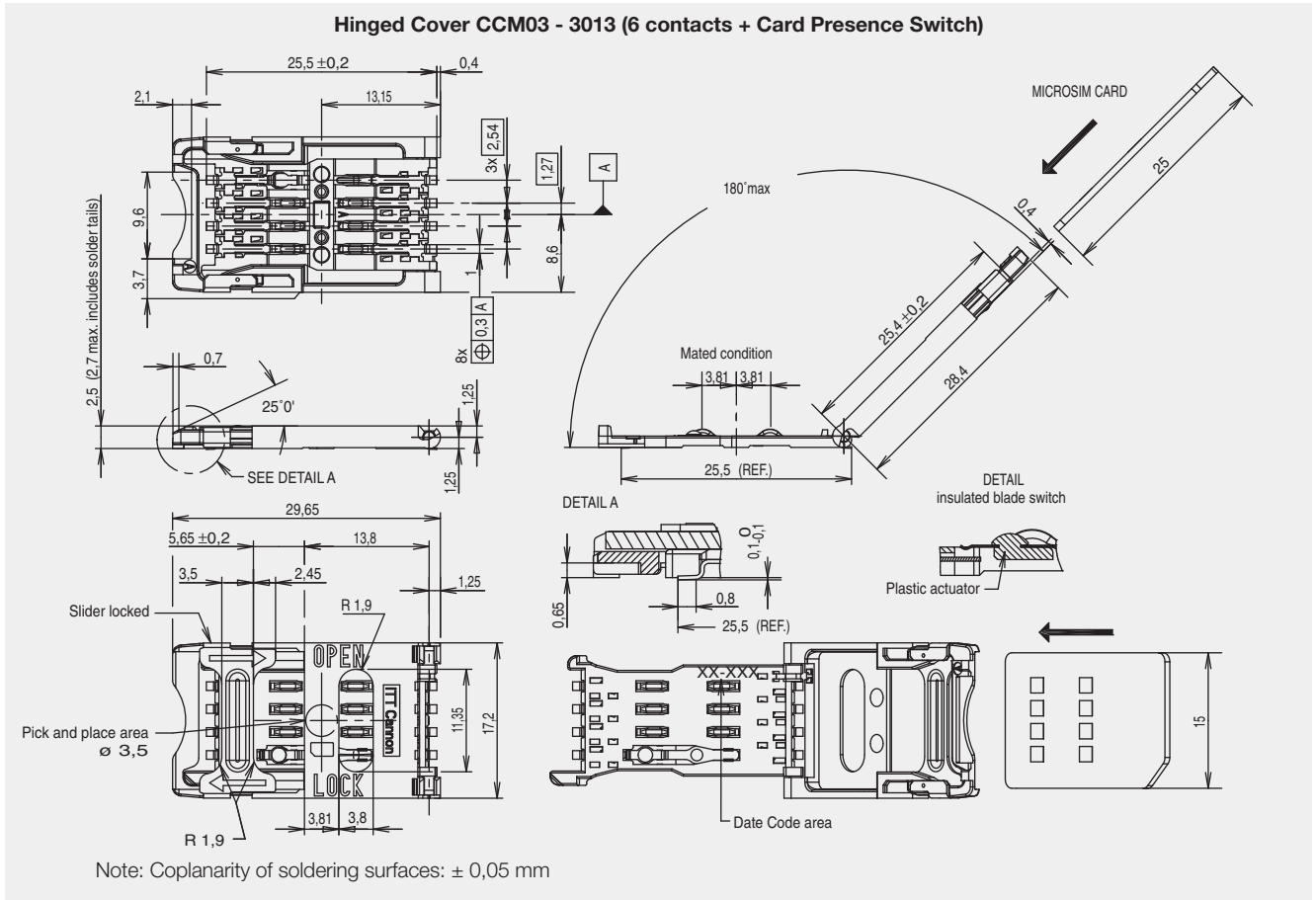
Dimensions are shown in mm
Specifications and dimensions subject to change

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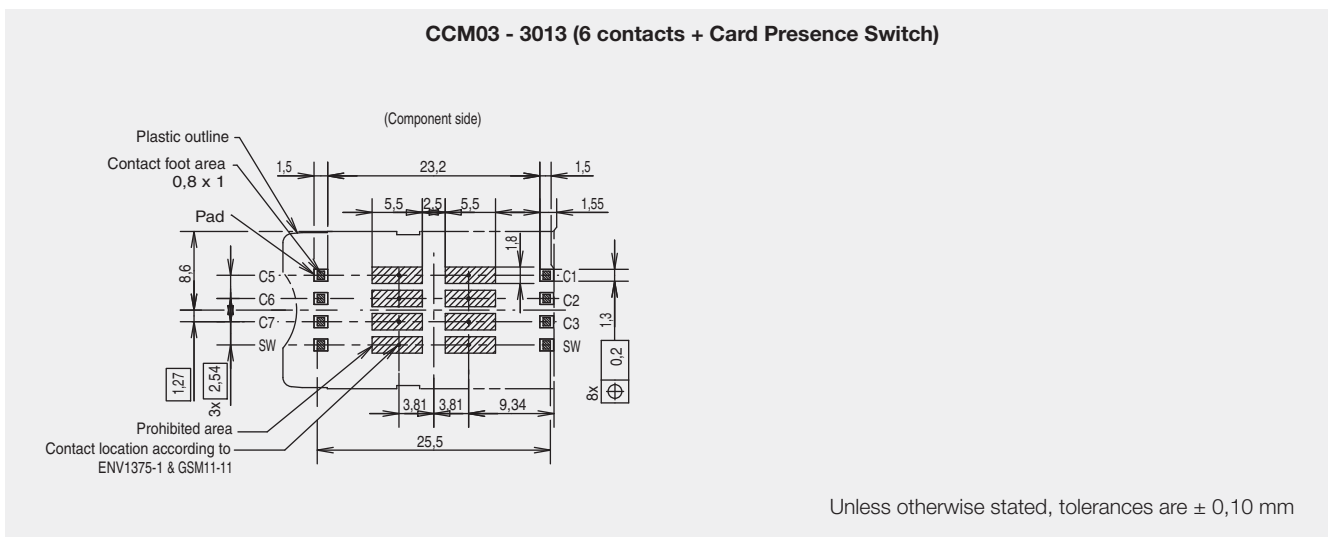
CCM03 MK II Hinged Cover

Insulated Card Presence Switch

Dimensional Drawings



PCB Layout

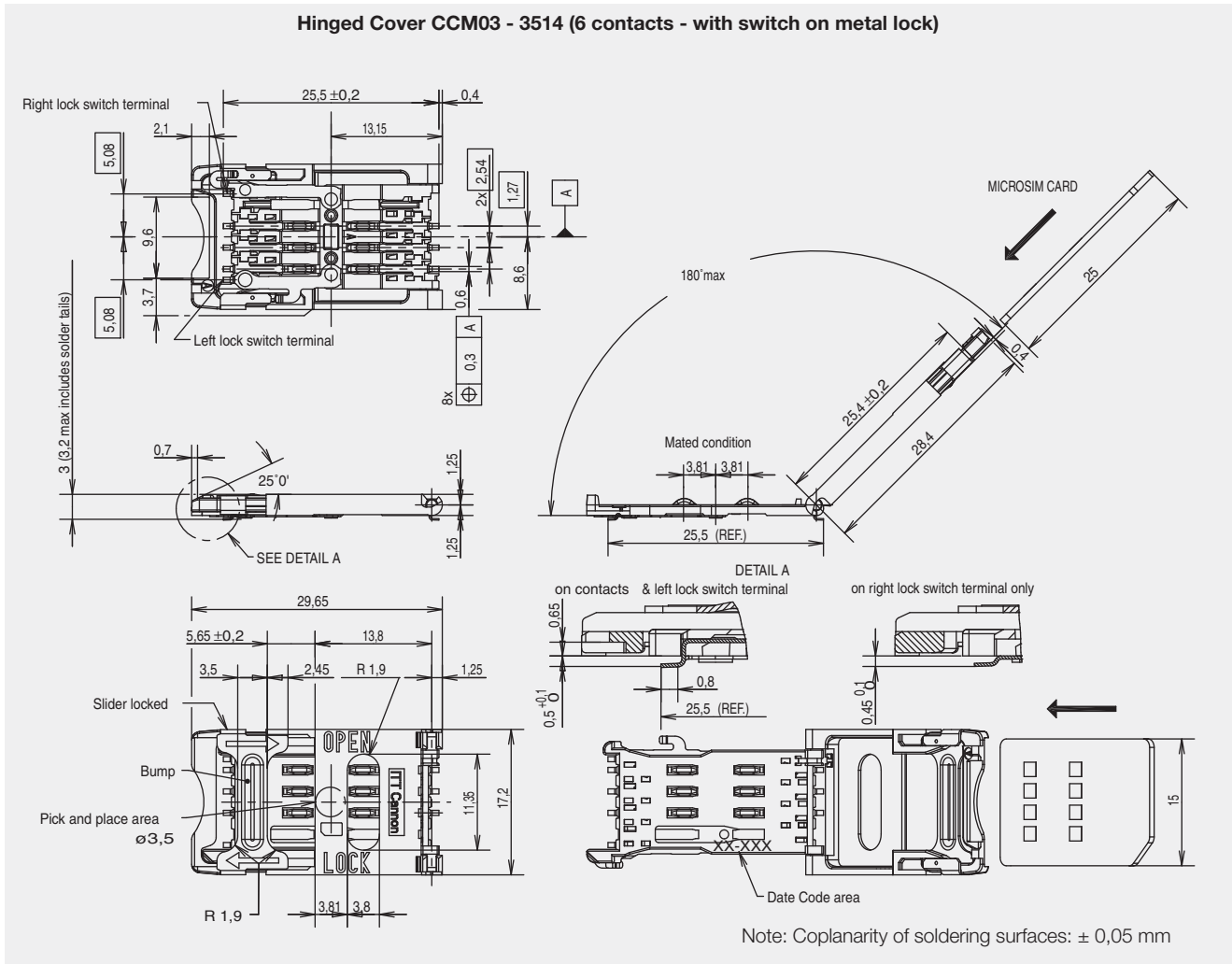


Dimensions are shown in mm
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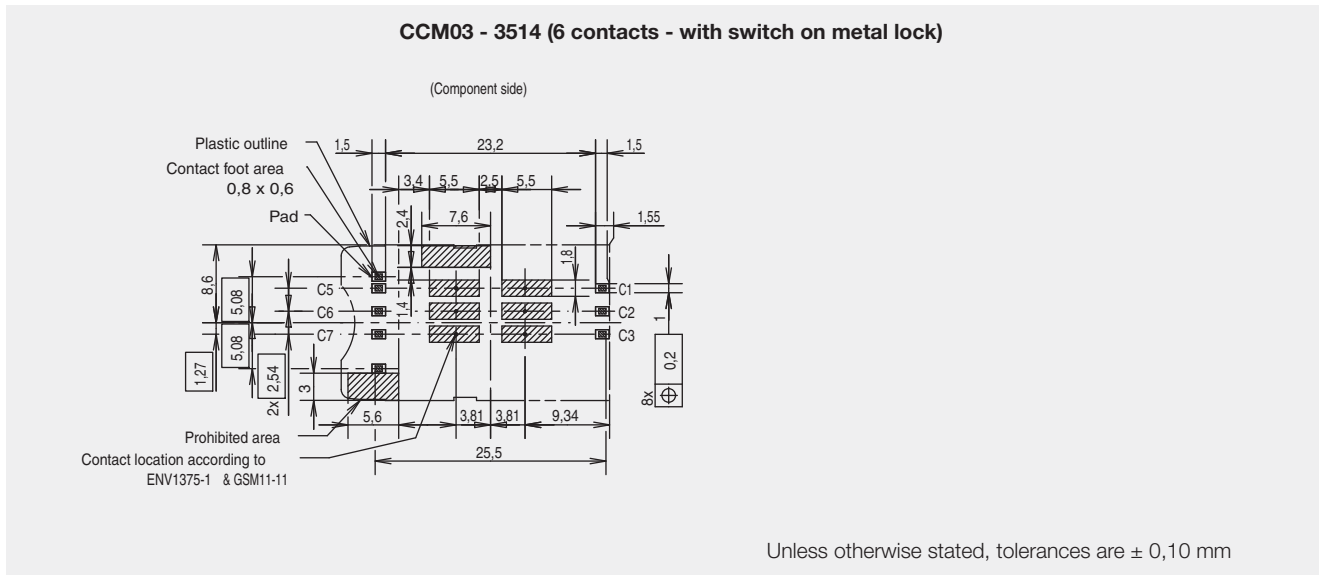
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CCM03 MK II Hinged Cover

Dimensional Drawings



PCB Layout



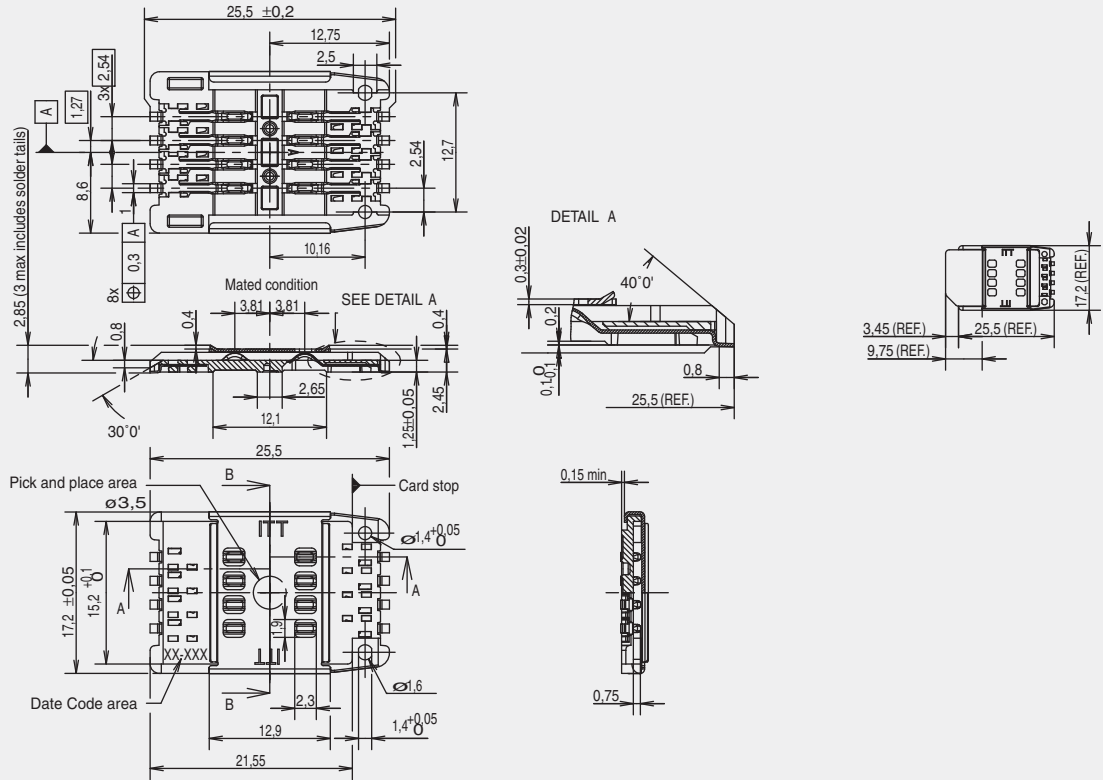
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CCM03 MK II Fixed Cover

Dimensional Drawings

Fixed cover CCM03 - 3504 (8 contacts)

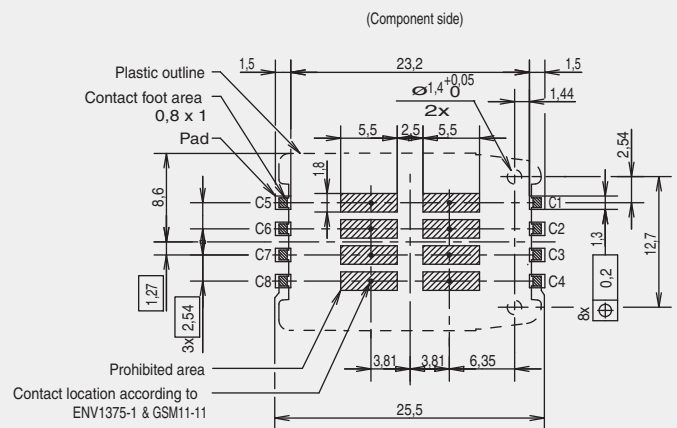
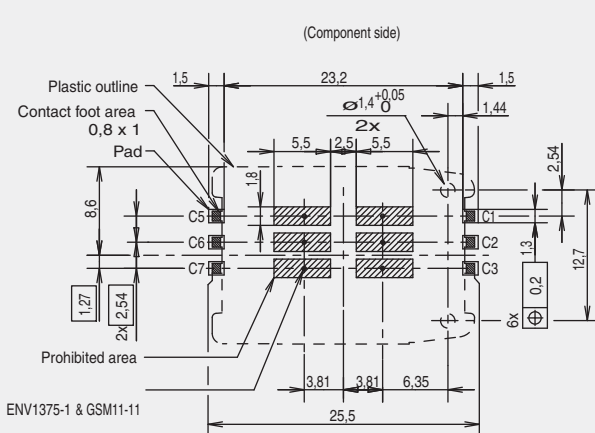


Note: Coplanarity of soldering surfaces: $\pm 0,05$ mm

PCB Layout

CCM03 - 3505

CCM03 - 3504



Unless otherwise stated, tolerances are $\pm 0,10$ mm



Dimensions are shown in mm
Specifications and dimensions subject to change

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