

- Connectors - Versatys® range of products

Versatile & fast locking

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Space Products Manager

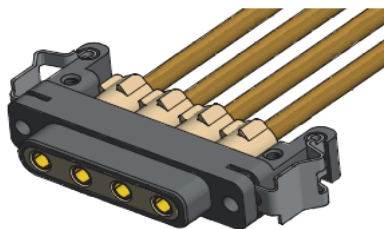


Versatys® MMC product range

- Versatys® MMC originally developed in the frame of an EMITS TRP.
 - Evaluation finished and successful.
- Improved after evaluation, addition of new variants (8 cavities).
- Used on some programs

Versatys® MMC product range

- MMC / MMCA doc
- Technical brochure available



MICRO PIGTAIL PCB CONNECTORS

IDENTIFICATION CODE

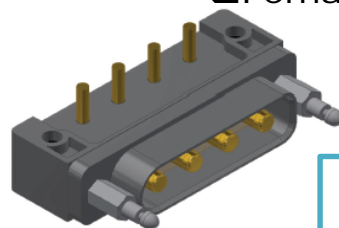
SERIES
MMCA: Micro Modular Connector Dismountable pigtail.

CONNECTOR TYPE
2: Nickel (15/18 µm) aluminium shell.

CONNECTOR GENDER
P: Male (pin contacts).
S: Female (socket contacts).

INSERT
4S12: 4 points size 12.
8S12: 8 points size 12.
Other configuration available on request.

MMCA 2 S 4S12 P B 020 DC



Connector gender by the contact type

- ☐ Male contact in female shell
- ☐ Female contact in male shell

A for "Amovable" ≈ Removable

MICRO MODULAR PCB CONNECTORS

IDENTIFICATION CODE

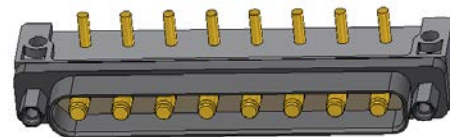
SERIES
MMC: Micro Modular Connector.

CONNECTOR TYPE
2: Nickel (15/18 µm) aluminium shell + potting 150°C.

CONNECTOR GENDER
P: Male (pin contacts).
S: Female (socket contacts).

INSERT
4S12: 4 points size 12.
8S12: 8 points size 12.

MMC 2 P 4S12 P CBR G 2

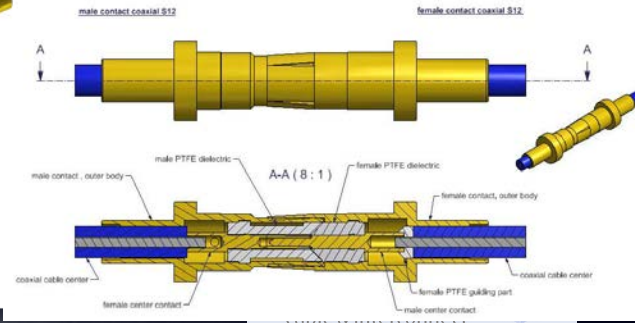
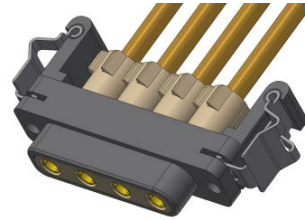


Versatys® MMC product range

- **MMC Versatys® connectors main characteristics**
 - **Versatile**
 - Power and RF coaxial contacts
 - 4 and 8 cavities (2 in development)
 - **Fast locking “D-click” hardware option**
 - Up to 8 power/coaxial contacts mated in one click:
 - **Removable contacts option** or potted
 - Easy removability (w/o tooling)
 - **Double insulation** compliant

Versatys[®] MMC: Versatile

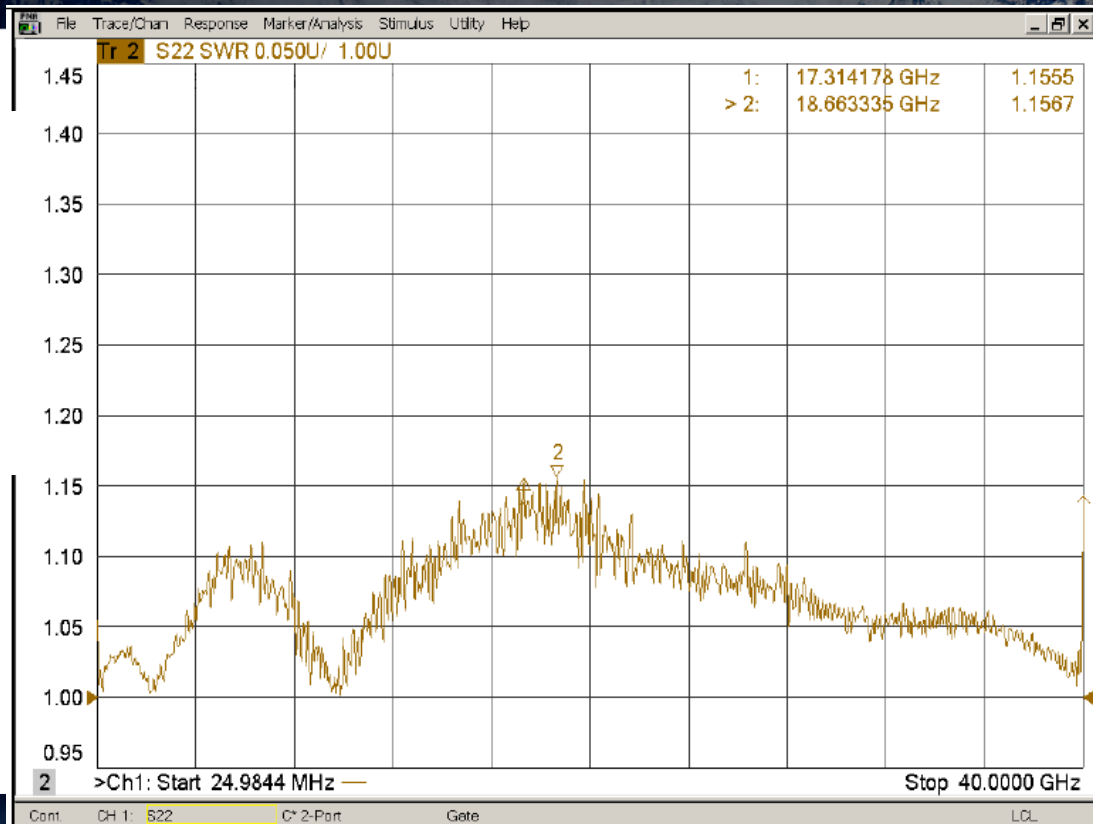
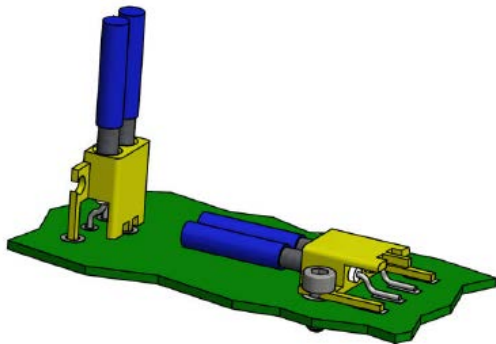
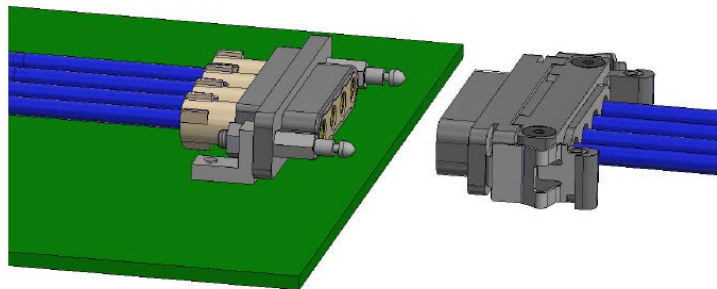
- ✓ Cavities for 4 or 8 contacts
- ✓ Removable or potted
- ✓ **S12 & S16 power**
 - Power up to 40A max (20A with de-rating).
- ✓ **S12 RF coaxial**
 - Coaxial up to 40 GHz (RL < 1.25 up to 40GHz)



Versatys[®] MMC: Versatile

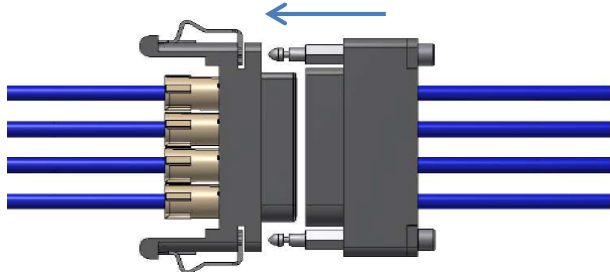
VSWR < 1.20 up to 40GHz!

RL < 1.25 up to 40GHz

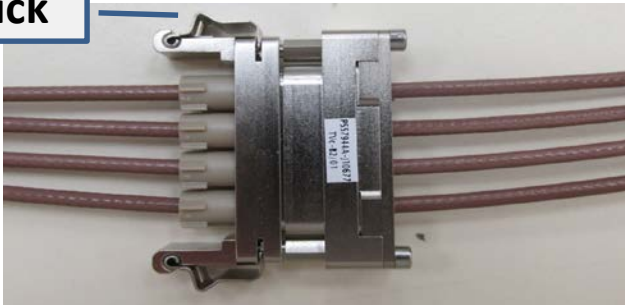


Versatys® MMC : Fast locking

D-click locking : ALT time saved

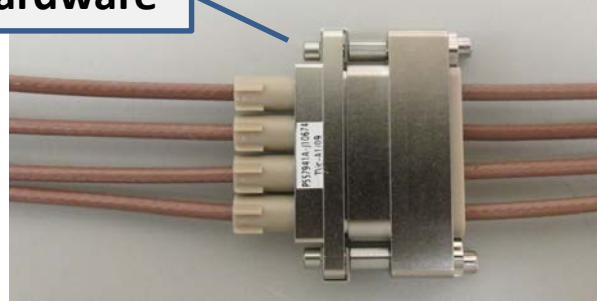


D- click



D-click variants available for male & female connector
Only latch pin required on PCB variants.

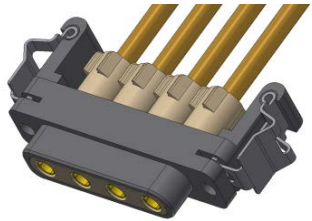
Std hardware



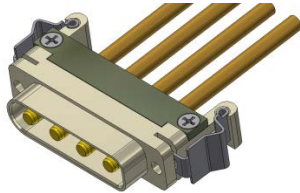
Versatys[®] MMC: Versatile

In line and PCB connectors

Socket D-Click



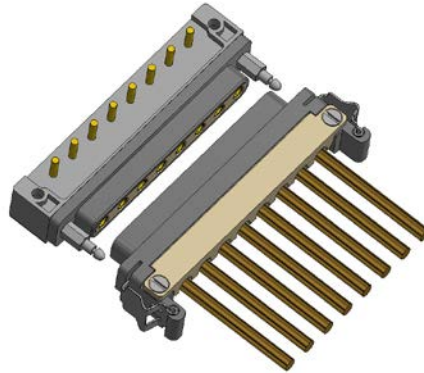
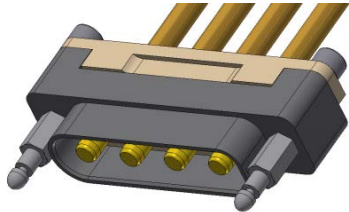
Pin D-Click



Socket guide-pins



Pin guide-pins



Potted versions also available

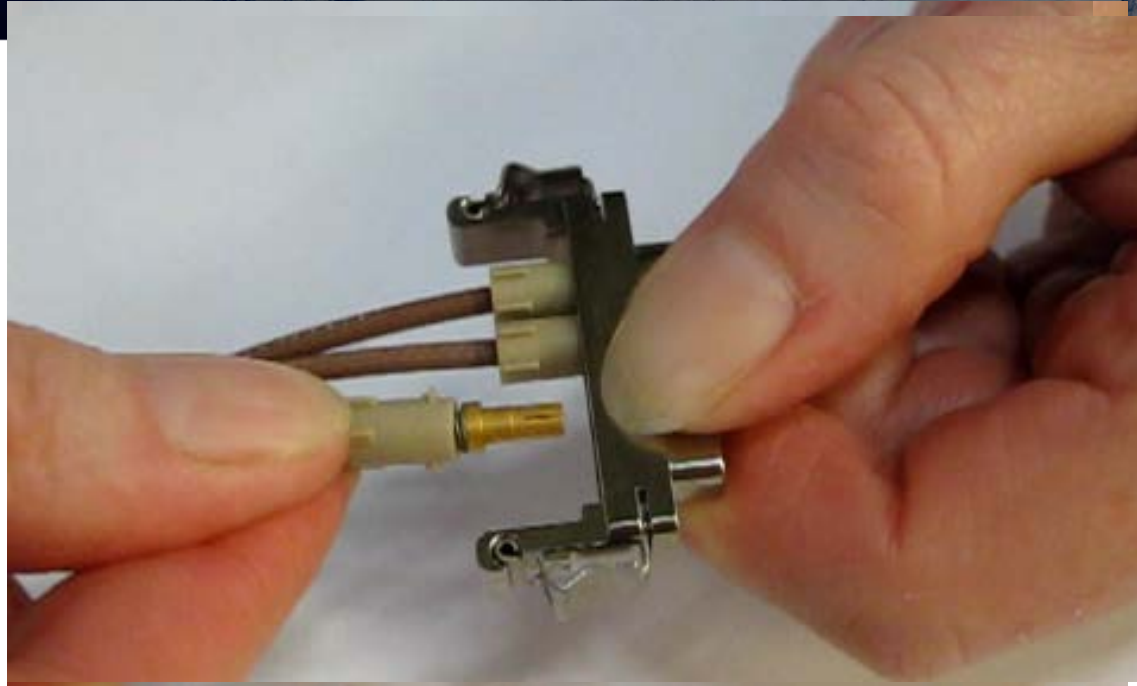
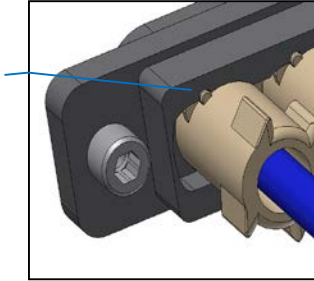
CBR & BS - Pin & Socket



Versatys® MMC: Contact Removability

**Contact
removal in
three steps.
No tool.**

Visual
check
of the
locked
position

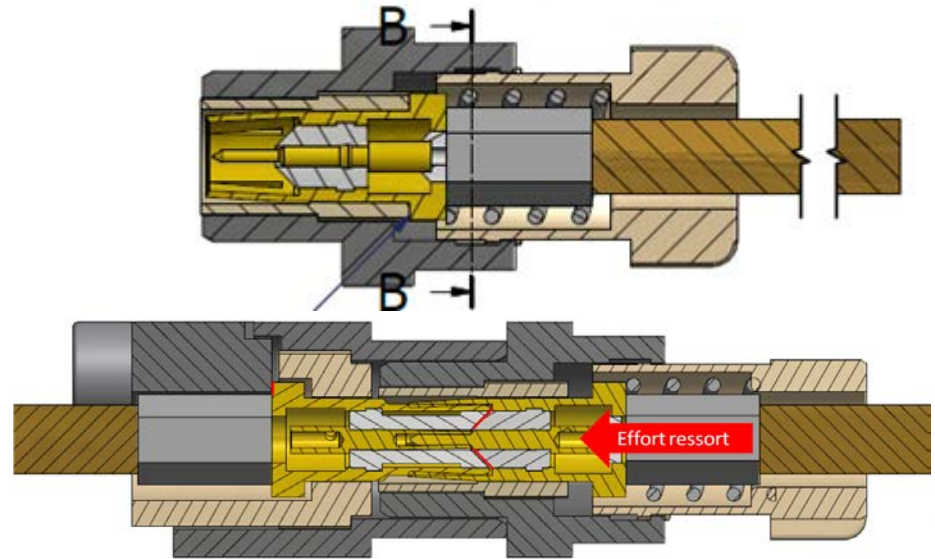
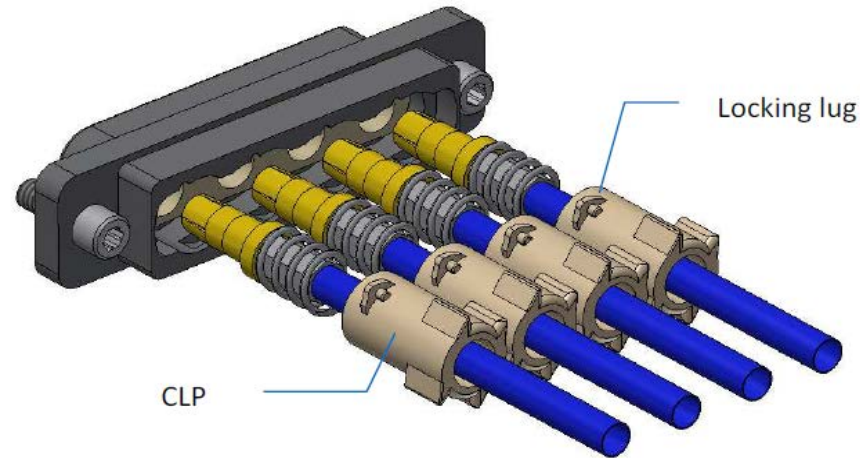


3rd step: Remove the contact

Versatys® MMC: Contact Removability

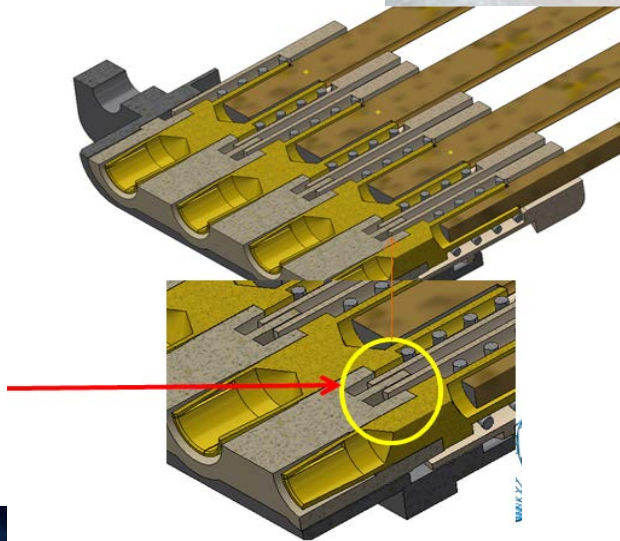
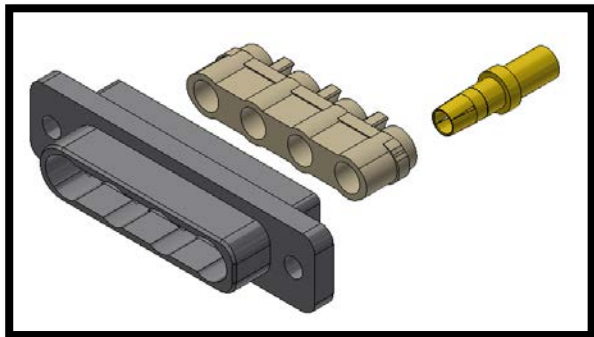
Easy contact removal: Spring maintains a good mating

Removable concept: contact using a spring & a CLP “Contact Locking Part”.



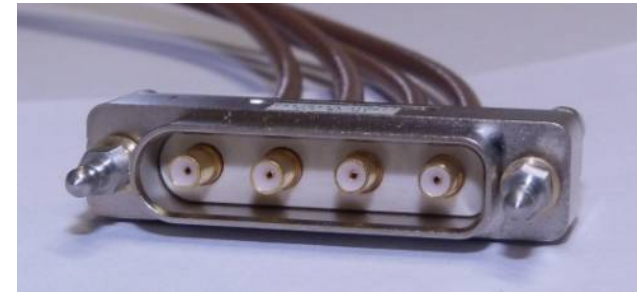
Versatys® MMC: Double insulation

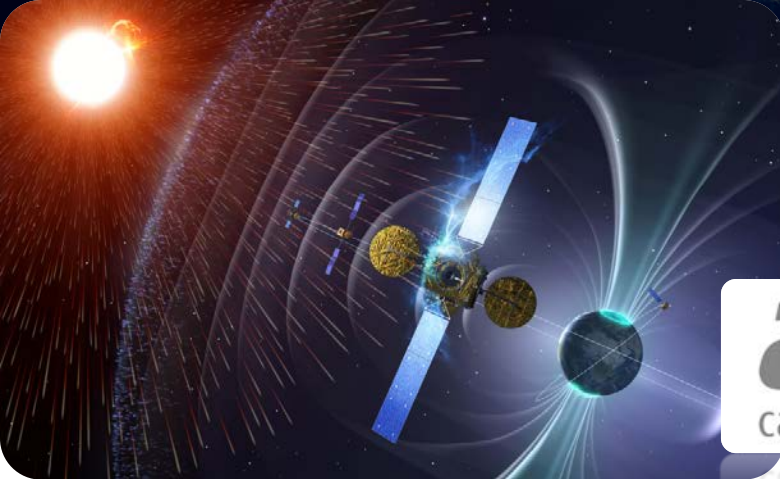
- Front face interfacial seal
- Insert designed for double insulation:
 - Zig-zag between 2 potentials
 - Kynar sleeve over wires below insert at the back



Versatys® MMC: Micro Modular Connector

- Development achieved. *Extension of the range.*
- Extensive evaluation done and positive
 - Vibrations, Mating
 - Shielding effectiveness
 - Thermal cycling
 - Current overload, voltage overload...
- ESCC specifications available soon: ESA review in process
 - ESCC qual to come
- Qualified **according to ESCC3401** and implemented on a **Mega-constellation program.**





Thank you

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