

AdvancedCMT for AdvancedMC Connectors



AdvancedCMT for AdvancedMC Connector Series

ad  **anced**
CMT

 **CMT**

SPEED...

 **CMT**

FLEXIBILITY...

 **CMT**

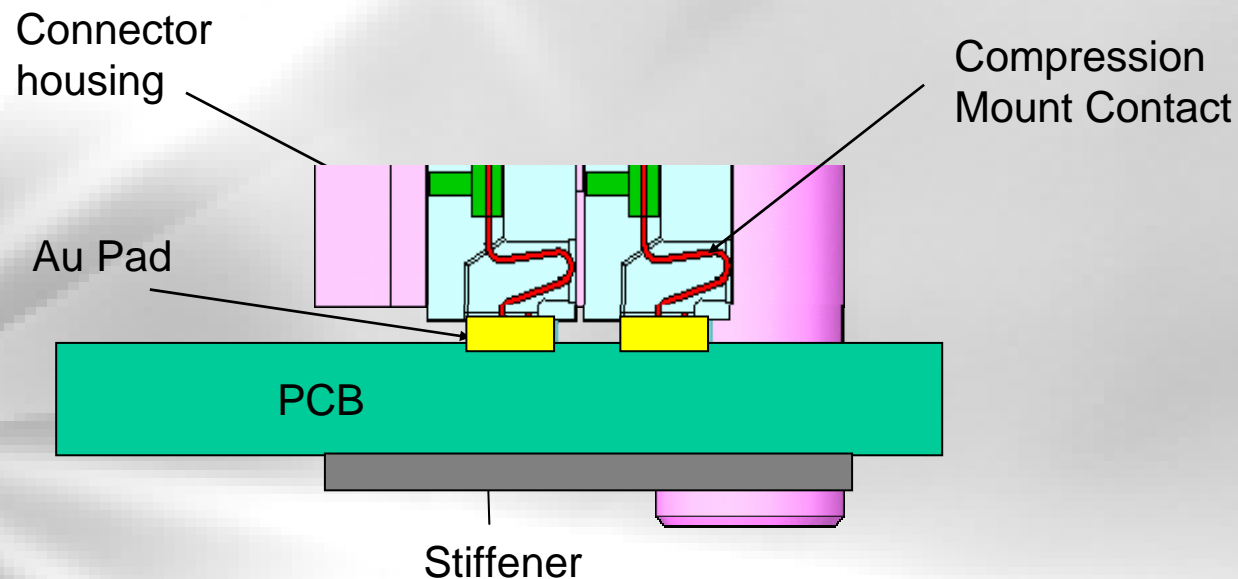
RELIABILITY...



CMT means Compression Mount Technology.

A contact technology between an electro-mechanical component (e.g. connector or test adapter for semiconductors) and a printed circuit board (PCB). The electrical contact is established through the compression of the two contact faces by screwing the component to the PCB. A stiffener is screwed from the backside to avoid stress on the PCB.

Easy field repair and component replacement is possible!





SPEED

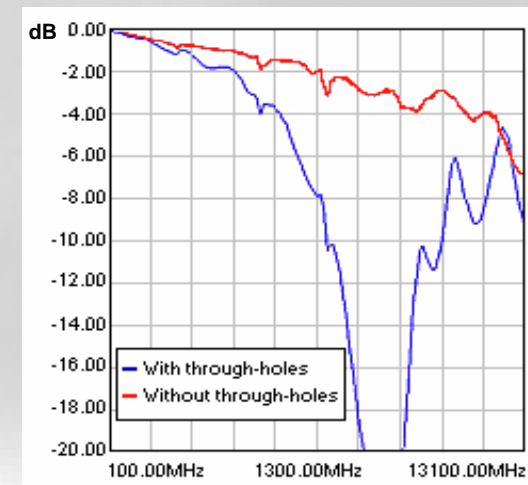
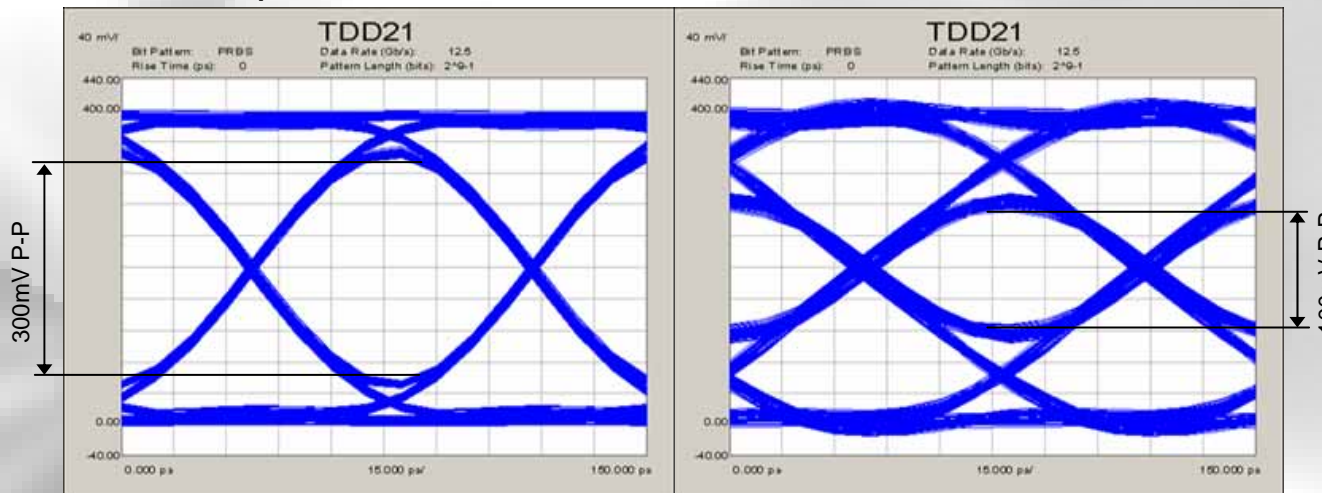
CMT allows the usage of blind via's, micro via's or drillings with a very small diameter thus

- reducing stub-effects and reflexion
- reducing cross-talk and insertion loss
- providing characteristic impedance matching
- enabling transmission waveform @12.5 Gbps and above

no compromise!

Compression Mount

Press-Fit



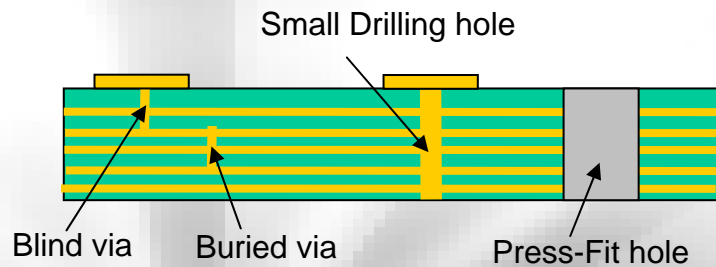


FLEXIBILITY

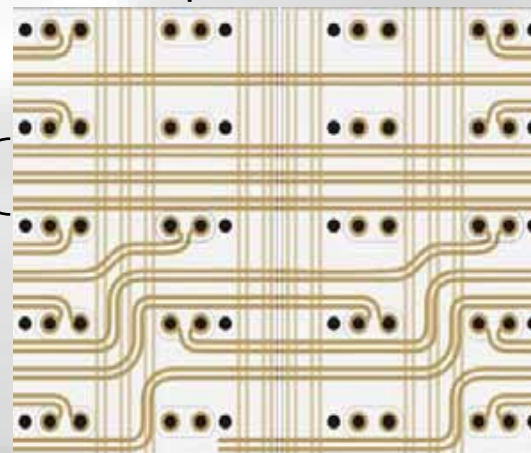
The usage of blind via's, micro via's or drillings with very small diameter also provides

- more space for signal routing on the backplane
- possibilities to reduce the number of backplane layers up to 30%
- cost saving due to less backplane layers

no compromise!



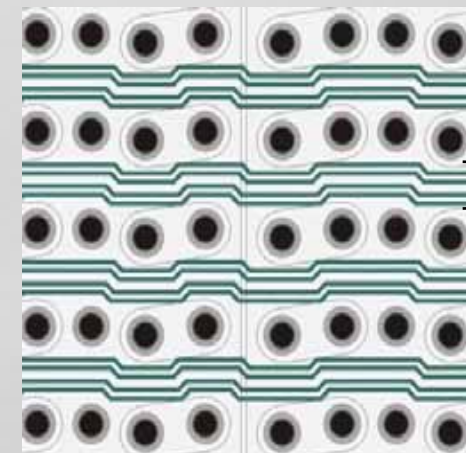
Compression Mount



Vertical Routing Channels possible

4 pairs between MCH Tongues
3 pairs in the middle of the connector

Press-Fit



1 pair between MCH Tongues
2 pairs in the middle of the connector





RELIABILITY

AdvancedMC connectors from Yamaichi have proven their reliability under vibration, temperature etc. according to all relevant specifications.

no compromise!

CMT connection area:

- Seismic: NEBS Level 3, Zone 4
- Shock: IEC 61587-1 Performance Level DL1
- Drop: NEBS Unpacked Equipment Drop
- Vibration: IEC 61587-1 Performance Level DL1



Vibration Test



Drop Test





no compromise!

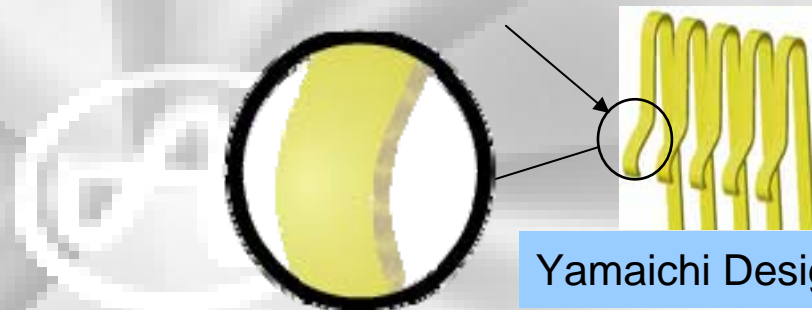
RELIABILITY

AdvancedMC connectors from Yamaichi have proven their reliability under vibration, temperature etc acc. to all relevant specifications.

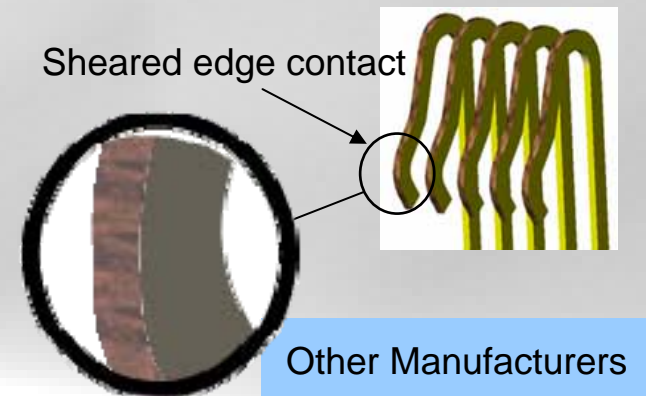
Card-Edge connection area:

- Yamaichi is using wider contacts to compensate manufacturing tolerances of the PCB → No additional “guiding” needed
- Yamaichi contact shape has the contact point at the bending area (not at the stamping / cutting area)
 - No damage of the contact surface while mating
 - Stable contact resistance during the lifetime
 - Precisely defined contact force

Wide contact with smooth contact surface



Sheared edge contact



Product Overview

advanced
CMT



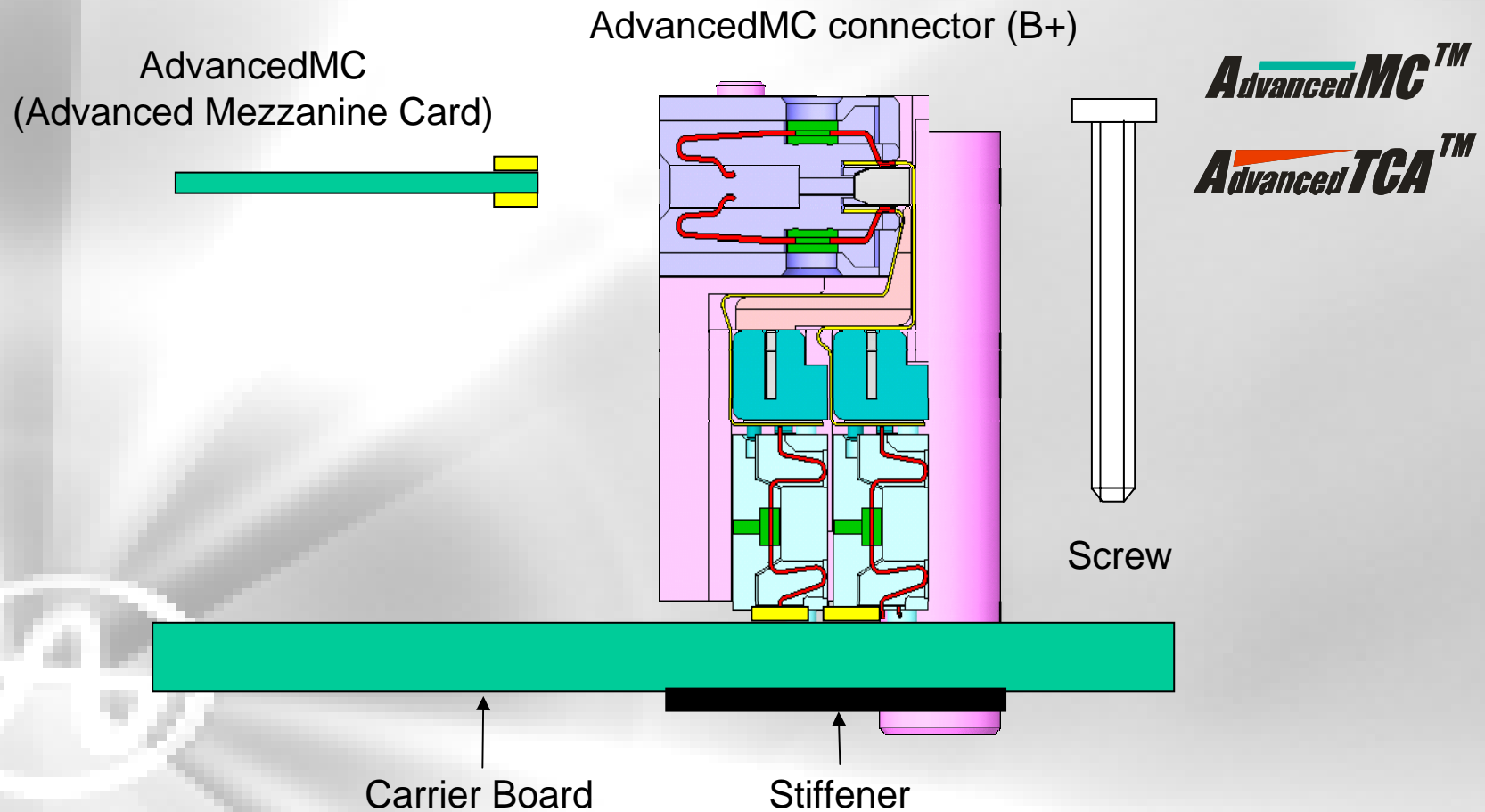
AdvancedMC™

AdvancedTCA™

μTCA™



CN074 Series



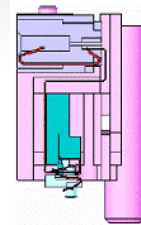
Yamichi Electronics is the only company on the market to-date that produces all available types for AdvancedMC connectors: B, B+, AB and A+B+



AdvancedMC Type

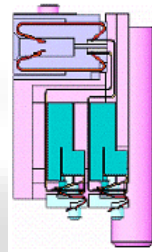
Yamaichi P/N

B:



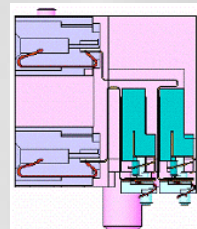
CN074 – 085 – 0003

B+:



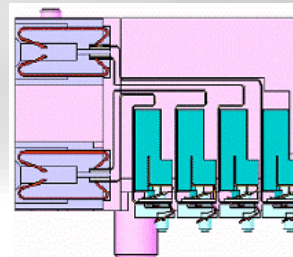
CN074 – 170 – 0005

AB:



CN074 – 170 – 0006

A+B+:

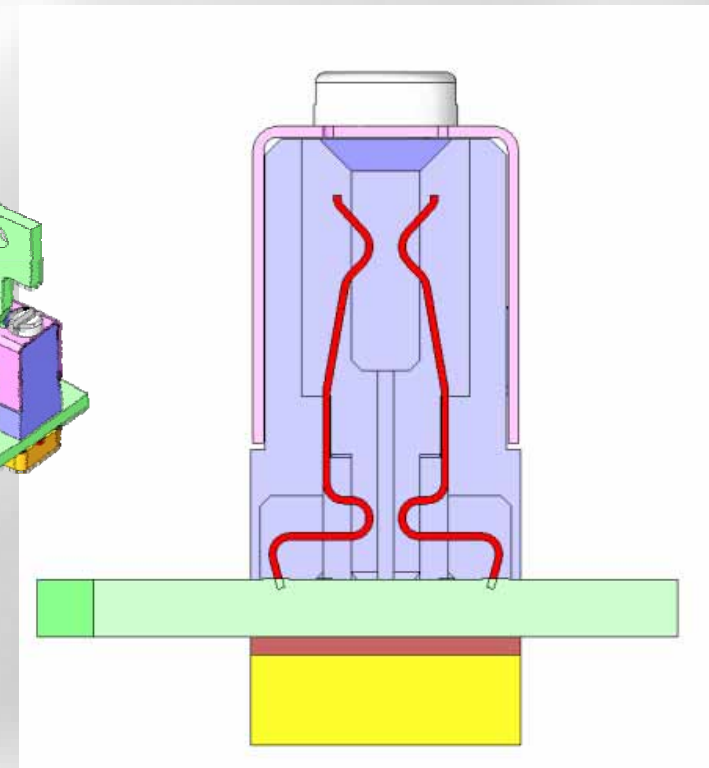
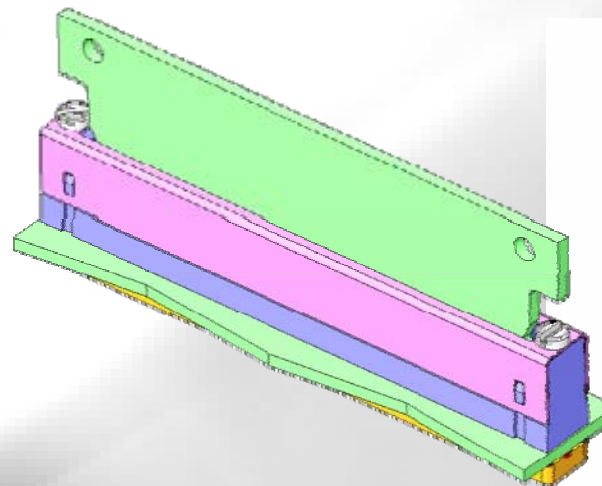
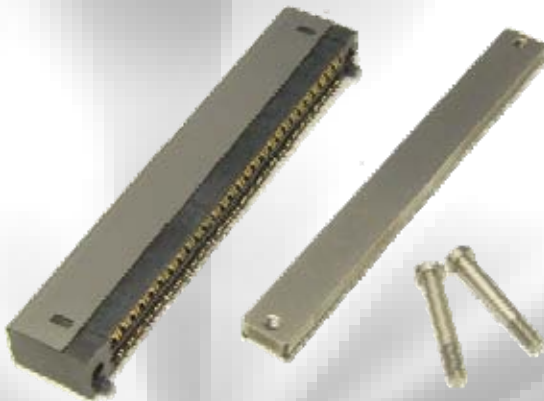


CN074 – 340 – 0001

CN080 Series

Advanced MC™

μTCA™



Yamaichi P/N

CN080-170-0001

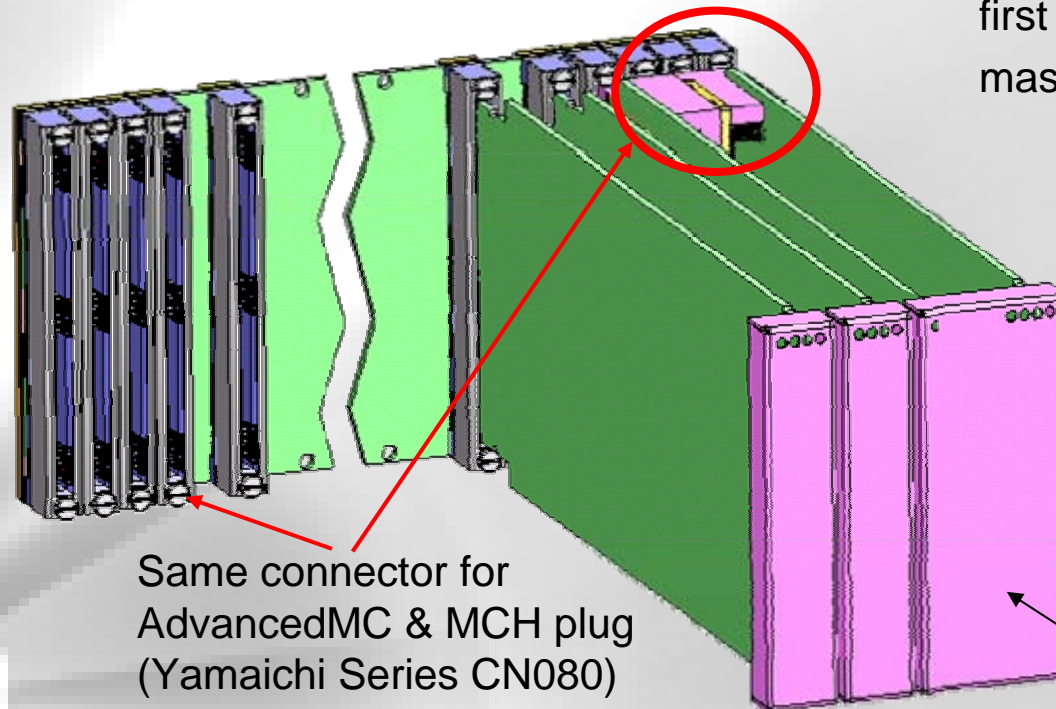
CN080-170-0002

CN084 Series

AdvancedMC™

μTCA™

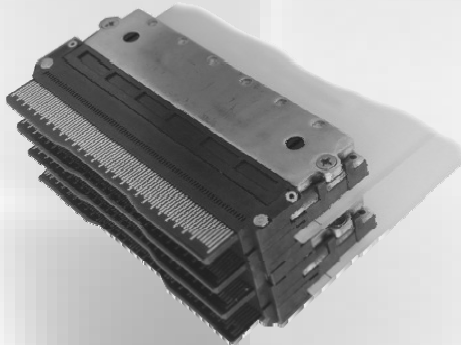
Yamichi Electronics is the first on the market with mass production parts



Same connector for AdvancedMC & MCH plug (Yamaichi Series CN080)

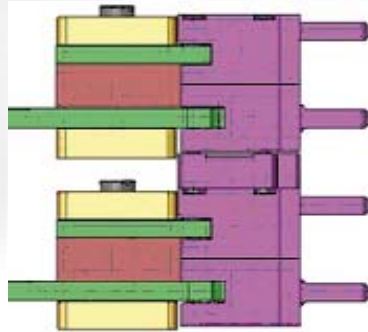
MCH controller card using MCH plug





CN084-680-1232-1010-0

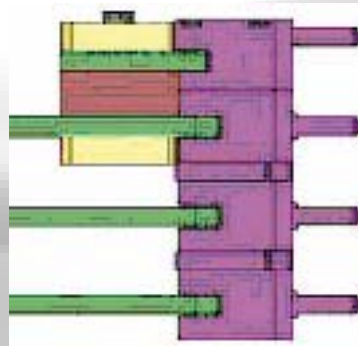
**Pin count
680**



MCH-1
MCH-2
MCH-3
MCH-2

CN084-680-1332-1110-0

**Pin count
680**



MCH-1
MCH-3
MCH-3
MCH-2

CN084-340-1200-1000-0

**Pin count
340**



MCH-1
MCH-2

CN084-340-0032-0010-0

**Pin count
340**



MCH-3
MCH-2

CN084-170-1000-1000-0

**Pin count
170**



MCH-1

CN084-170-0030-0010-0

**Pin count
170**



MCH-3



Thank you for your attention

