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Find the *OMRON / Delta Tau ACC-8FE* at our website: ***Click HERE***

9.0 – Hybrid Stack/UMAC configuration

– Introduction

When stack boards are used inside a UMAC system the system is then referred to as "**Hybrid System configuration**". This is the case for legacy systems and already existing applications. The stack boards have these main limitations in comparison to the UBUS boards:

- Stack boards can only control 8 axes and less I/O points than an equivalent UMAC.
- Stack boards that are packaged in a UMAC rack system are more difficult to install as compared to backplane boards. The necessary cables and special backplane boards interconnecting the different boards to each other and to the machine makes the sliding of the individual component boards in and out of the UMAC system a more difficult process than when using only backplane boards.
- The stack axis boards require additional breakout boards for connections to motors and amplifiers. The UBUS backplane boards, on the other hand, have the dual function of being interface\breakout boards in one unit.

Note: It is for these reasons that although the stack configuration itself is quite usable, its use is not recommended in a UMAC system. If a packaged system is desired instead of an open low-cost stack configuration the UMAC system itself is highly recommended, as it will provide better service and greater flexibility.

Note: While the stack boards can be mounted inside a UMAC system, the 96-pin DIN connector at the back of each board is not compatible with the UBUS backplane board and cannot be plugged into a backplane bus board. Plugging a stack board in a UBUS backplane will damage the on-board circuitry of the stack accessory and of the components inside the UMAC system.

– ACC-8DE/ACC-8FE: Breakout Boards for ACC-1E or ACC-2E



The UMAC supports two breakout boards for the servo interface circuitry on either the ACC-2E or ACC-1E stack boards. The ACC-24E2, ACC-24E2A and ACC-24E2S backplane axis interface boards have their own breakout connectors and so do not need separate breakout boards.

The ACC-8DE, (part # 3A0-603215-10x) is a 3U-sized board that provides the breakout for 2 axes with single analog outputs. It connects to a PMAC2-style 100-pin connector on an ACC-1E or ACC-2E axis interface board through a provided 100-pin flat cable. It is meant for a hybrid "stack/UMAC" configuration.

The ACC-8FE, (part # 3A0-603176-10x) is a 3U-sized board that provides the breakout for 2 axes with PWM digital outputs. It connects to a PMAC2-style 100-pin connector on an ACC-1E or ACC-2E axis interface board through a provided 100-pin flat cable. It is meant for a hybrid "stack/UMAC" configuration.





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Options:

- If ordered with the 3A0 part number prefix, this accessory comes with a front panel attached to the board, but no top or bottom panels. This configuration is appropriate for mounting in an open 3U rack.
- If ordered with the 3R0 part number prefix, this accessory comes with a front panel attached to the board, and top and bottom panels attached (or that can be attached) to one of the Option P 3U-rack frames. This configuration is appropriate for mounting in the enclosed 3U rack frame supplied by Delta Tau.
- Option-1: This option provides an on-board 2 Axes Analog Encoder Interpolation Circuitry that performs interpolation on analog "sine-cosine" incremental encoders resulting in 128 or 256 states per line of the encoder.
- Option-2A: Part Number: 603177. This option provides a one-slot backplane for one ACC-8DE/ACC-8FE board. A 100-pin flat cable is provided.
- Option-2B: Part Number: 603285. This option provides a two-slot backplane for two ACC-8DE/ACC-8FE boards. Two 100-pin flat cables are provided.
- Option-2C: Part Number: 603286. This option provides a four-slot backplane for four ACC-8DE/ACC-8FE boards. Four 100-pin flat cables are provided.
- Option-3A: Part Number: 200-603270-036x. Flag Cable, 900 mm (36 inches) long, mini-D, 20 conductor, 1/2 per axis
- Option-3B: Part Number: 200-603270-072x. Flag Cable, 1.8 m (72 inches) long, mini-D, 20 conductor, 1/2 per axis
- Option-3C: Part Number: 200-603270-144x. Flag Cable, 3.6 m (144 inches) long, mini D, 20 conductor, 1/2 per axis
- Option-4A: Part Number: 200-603271-036x. Encoder Cable, 900 mm (36 inches) long, mini-D, 14 conductor, 1/axis
- Option-4B: Part Number: 200-603271-072x. Encoder Cable, 1.8 m (72 inches) long, mini-D, 14 conductor, 1/axis
- Option-4C: Part Number: 200-603271-144x. Encoder Cable, 3.6 m (144 inches) long, mini-D, 14 conductor, 1/axis
- Option-5A: (200-602739-024x) Amplifier PWM Cable, 600 mm (24) inches long, mini-D, 36 conductor, 1/axis
- Option-5B: (200-602739-036x) Amplifier PWM Cable, 900 mm (36 inches long), mini-D, 36 conductor, 1/axis
- Option-5C: (200-602739-060x) Amplifier PWM Cable, 1.5 m (60 inches) long, mini-D, 36 conductor, 1/axis
- Option-5D: (200-602739-072x) Amplifier PWM Cable, 1.8 m (72 inches) long, mini-D, 36 conductor, 1/axis
- Option-5E: (200-602739-084x) Amplifier PWM Cable, 2.1 m (84 inches) long, mini-D, 36 conductor, 1/axis
- Option-5F: (200-602739-144x) Amplifier PWM Cable, 3.6 m (144 inches) long, mini-D, 36 conductor, 1/axis

– ACC-13x: Breakout Boards adapters

The ACC-13 series provides a convenient method to convert the connectors present on the ACC-8DE/ACC-8FE boards into terminal breakout boards.

ACC-13: Encoder Breakout Board

14 pin mini-D to screw in terminal blocks (one per axis). Connects to ACC-8DE/8FE with Option 4x cables. Part Number: 300-603365-100

- Option-1: Rail mount

ACC-13A: Flag Breakout Board

20 pin mini-D to screw in terminal blocks (one per 2 axes). Connects to ACC-8DE/8FE with Option 3x cables. Part Number: 300-603366-100

- Option-1: Rail mount





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ACC-13B: Amplifier Connector Breakout

36 pin mini-D to screw in terminal blocks (one per axis). Connects to ACC-8DE/8FE with Option 5x cables. Part Number: 300-603376-100

- Option-1: Rail mount





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