

7.3 Mapping Mach3 output pins to DSPMC Digital Outputs

The following table shows the mapping from Mach3 output pin numbers to the actual digital output pin numbers available on the DSPMC board.

| Mach3 Output ports and pins | | DSPMC J4 and J5 pin assignments | | Breakout board 7535 pin assignments | |
|-----------------------------|------------|---------------------------------|---------------|-------------------------------------|---------------------------|
| Port # | Pin Number | J4 Pin number | J5 Pin number | Board #1 On J4 | Board #2 On J5 |
| 1 | 0 | 14 | | 0 | 5PNDL CV |
| 1 | 1 | 2 | | 1 | 5PNDL CV |
| 1 | 2 | 15 | | 2 | enable xyz |
| 1 | 3 | 3 | | 3 | X Brake |
| 1 | 4 | 16 | | 4 | Y Brake |
| 1 | 5 | 4 | | 5 | Z Brake |
| 1 | 6 | 17 | | 6 | COOLANT |
| 1 | 7 | 5 | | 7 | |
| 1 | 8 | | | | |
| 1 | 9 | | | | |
| 1 | 10 | | | | |
| 1 | 11 | | | | |
| 1 | 12 | | | | |
| 1 | 13 | | | | |
| 1 | 14 | | | | |
| 1 | 15 | | | | |

| Mach3 Output ports and pins | | DSPMC J11 and J12 pin assignments | | Breakout board 7535 pin assignments | |
|-----------------------------|------------|-----------------------------------|----------------|-------------------------------------|-----------------|
| Port # | Pin Number | J11 Pin number | J12 Pin number | Board #3 On J11 | Board #4 On J12 |
| 1 | 16 | 14 | | 0 | |
| 1 | 17 | 2 | | 1 | |
| 1 | 18 | 15 | | 2 | |
| 1 | 19 | 3 | | 3 | |
| 1 | 20 | 16 | | 4 | |
| 1 | 21 | 4 | | 5 | |
| 1 | 22 | 17 | | 6 | |
| 1 | 23 | 5 | | 7 | |
| 1 | 24 | | | | 0 |
| 1 | 25 | | | | 1 |
| 1 | 26 | | | | 2 |
| 1 | 27 | | | | 3 |
| 1 | 28 | | | | 4 |
| 1 | 29 | | | | 5 |
| 1 | 30 | | | | 6 |
| 1 | 31 | | | | 7 |

7.2 Mapping Mach Input Signals to DSPMC Digital Inputs

The following table shows the mapping from Mach3 input pin numbers to the actual digital input pin numbers available on the DSPMC board.

| Mach3 Input ports and pins | | DSPMC J4 and J5 pin assignments | | Breakout board 7535 pin assignments | |
|----------------------------|------------|---------------------------------|---------------|-------------------------------------|---------------------|
| Port # | Pin Number | J4 Pin number | J5 Pin number | Board #1 | Board #2 |
| 1 | 0 | 18 | | 0 | X++ |
| 1 | 1 | 6 | | 1 | X-- |
| 1 | 2 | 19 | | 2 | X Home |
| 1 | 3 | 7 | | 3 | Y++ |
| 1 | 4 | 20 | | 4 | Y-- |
| 1 | 5 | 8 | | 5 | Y Home |
| 1 | 6 | 21 | | 6 | Z++ |
| 1 | 7 | 9 | | 7 | Z-- |
| 1 | 8 | 22 | | 8 | Z Home |
| 1 | 9 | 10 | | 9 | |
| 1 | 10 | 23 | | 10 | |
| 1 | 11 | 11 | | 11 | |
| 1 | 12 | 24 | | 12 | |
| 1 | 13 | 12 | | 13 | |
| 1 | 14 | 25 | | 14 | |
| 1 | 15 | 13 | | 15 | |
| 1 | 16 | | 18 | | 0 |
| 1 | 17 | | 6 | | 1 |
| 1 | 18 | | 19 | | 2 |
| 1 | 19 | | 7 | | 3 |
| 1 | 20 | | 20 | | 4 |
| 1 | 21 | | 8 | | 5 |
| 1 | 22 | | 21 | | 6 |
| 1 | 23 | | 9 | | 7 |
| 1 | 24 | | 22 | | 8 |
| 1 | 25 | | 10 | | 9 |
| 1 | 26 | | 23 | | 10 |
| 1 | 27 | | 11 | | 11 |
| 1 | 28 | | 24 | | 12 |
| 1 | 29 | | 12 | | 13 |
| 1 | 30 | | 25 | | 14 |
| 1 | 31 | | 13 | | 15 |