

4 拡張コネクタ端子表

ITL-MU3では、FMC(FPGA Mezzanine Card)に準拠したコネクタ(Samtec 社 ASP-134486-01)を拡張コネクタとして採用しています。ピン配置は独自に定義しています。相手(センサボード等)側のコネクタは、ASP-134488-01 を使用して下さい。以下にピン配置を示します。

なお、FPGAのカスタマイズにより、ピン配置を変更することも可能です。カスタマイズについては、弊社営業担当までお問い合わせください。

| FMCコネクタ | | | | | | FPGA | |
|---------|-----|-----|------|----|-------------|------|-----|
| 端子番号 | 信号名 | 入出力 | 電圧区分 | 機能 | MU3ボード内の接続先 | 端子番号 | 端子名 |
| A1 | GND | | | | | | |
| A2 | NC | | | | | | |
| A3 | NC | | | | | | |
| A4 | GND | | | | | | |
| A5 | GND | | | | | | |
| A6 | NC | | | | | | |
| A7 | NC | | | | | | |
| A8 | GND | | | | | | |
| A9 | GND | | | | | | |
| A10 | NC | | | | | | |
| A11 | NC | | | | | | |
| A12 | GND | | | | | | |
| A13 | GND | | | | | | |
| A14 | NC | | | | | | |
| A15 | NC | | | | | | |
| A16 | GND | | | | | | |
| A17 | GND | | | | | | |
| A18 | NC | | | | | | |
| A19 | NC | | | | | | |
| A20 | GND | | | | | | |
| A21 | GND | | | | | | |
| A22 | NC | | | | | | |
| A23 | NC | | | | | | |
| A24 | GND | | | | | | |
| A25 | GND | | | | | | |
| A26 | NC | | | | | | |
| A27 | NC | | | | | | |
| A28 | GND | | | | | | |
| A29 | GND | | | | | | |
| A30 | NC | | | | | | |
| A31 | NC | | | | | | |
| A32 | GND | | | | | | |
| A33 | GND | | | | | | |
| A34 | NC | | | | | | |
| A35 | NC | | | | | | |
| A36 | GND | | | | | | |
| A37 | GND | | | | | | |
| A38 | NC | | | | | | |
| A39 | NC | | | | | | |
| A40 | GND | | | | | | |

| FMCコネクタ | | | | | | FPGA | |
|---------|-----|-----|------|----|-------------|------|-----|
| 端子番号 | 信号名 | 入出力 | 電圧区分 | 機能 | MU3ボード内の接続先 | 端子番号 | 端子名 |
| B1 | NC | | | | | | |
| B2 | GND | | | | | | |
| B3 | GND | | | | | | |
| B4 | NC | | | | | | |
| B5 | NC | | | | | | |
| B6 | GND | | | | | | |
| B7 | GND | | | | | | |
| B8 | NC | | | | | | |
| B9 | NC | | | | | | |
| B10 | GND | | | | | | |
| B11 | GND | | | | | | |
| B12 | NC | | | | | | |
| B13 | NC | | | | | | |
| B14 | GND | | | | | | |
| B15 | GND | | | | | | |
| B16 | NC | | | | | | |
| B17 | NC | | | | | | |
| B18 | GND | | | | | | |
| B19 | GND | | | | | | |
| B20 | NC | | | | | | |
| B21 | NC | | | | | | |
| B22 | GND | | | | | | |
| B23 | GND | | | | | | |
| B24 | NC | | | | | | |
| B25 | NC | | | | | | |
| B26 | GND | | | | | | |
| B27 | GND | | | | | | |
| B28 | NC | | | | | | |
| B29 | NC | | | | | | |
| B30 | GND | | | | | | |
| B31 | GND | | | | | | |
| B32 | NC | | | | | | |
| B33 | NC | | | | | | |
| B34 | GND | | | | | | |
| B35 | GND | | | | | | |
| B36 | NC | | | | | | |
| B37 | NC | | | | | | |
| B38 | GND | | | | | | |
| B39 | GND | | | | | | |
| B40 | NC | | | | | | |

| FMCコネクタ | | | | | | FPGA | |
|---------|-----------|-------|------|----------------------------|-------------------------|------|------------------|
| 端子番号 | 信号名 | 入出力 | 電圧区分 | 機能 | MU3ボード内の接続先 | 端子番号 | 端子名 |
| C1 | GND | | | | | | |
| C2 | DPO_C2M_P | 0 | VDD1 | Clock Synthesizer出力(CLK0A) | Clock Synthesizer | - | - |
| C3 | DPO_C2M_N | 0 | VDD1 | Clock Synthesizer出力(CLK0B) | Clock Synthesizer | - | - |
| C4 | GND | | | | | | |
| C5 | GND | | | | | | |
| C6 | DPO_M2C_P | I | 1.8V | Parallel ch1 CLK | FPGA Bank0 | C13 | IO_L34P_GCLK19_0 |
| C7 | NC | | | | | | |
| C8 | GND | | | | | | |
| C9 | GND | | | | | | |
| C10 | LA06_P | I | | MIPI ch1 DATA1_P | MIPI D-PHY経由 FPGA Bank2 | AE5 | IO_L64P_D8_2 |
| C11 | LA06_N | I | | MIPI ch1 DATA1_N | MIPI D-PHY経由 FPGA Bank2 | AF5 | IO_L64N_D9_2 |
| C12 | GND | | | | | | |
| C13 | GND | | | | | | |
| C14 | LA10_P | 0 U | 3.3V | SPI ch4 MOSI | FPGA Bank2 | AC15 | IO_L16P_2 |
| C15 | LA10_N | I U | 3.3V | SPI ch4 MISO | FPGA Bank2 | AD15 | IO_L16N_VREF_2 |
| C16 | GND | | | | | | |
| C17 | GND | | | | | | |
| C18 | LA14_P | I | | MIPI ch2 DATA0_P | MIPI D-PHY経由 FPGA Bank2 | AE15 | IO_L14P_D11_2 |
| C19 | LA14_N | I | | MIPI ch2 DATA0_N | MIPI D-PHY経由 FPGA Bank2 | AF15 | IO_L14N_D12_2 |
| C20 | GND | | | | | | |
| C21 | GND | | | | | | |
| C22 | LA18_P | I | | MIPI ch2 CLK_P | MIPI D-PHY経由 FPGA Bank2 | AD14 | IO_L29P_GCLK3_2 |
| C23 | LA18_N | I | | MIPI ch2 CLK_N | MIPI D-PHY経由 FPGA Bank2 | AF14 | IO_L29N_GCLK2_2 |
| C24 | GND | | | | | | |
| C25 | GND | | | | | | |
| C26 | LA27_P | I | | MIPI ch2 DATA2_P | MIPI D-PHY経由 FPGA Bank2 | AE19 | IO_L4P_2 |
| C27 | LA27_N | I | | MIPI ch2 DATA2_N | MIPI D-PHY経由 FPGA Bank2 | AF19 | IO_L4N_VREF_2 |
| C28 | GND | | | | | | |
| C29 | GND | | | | | | |
| C30 | SCL | I/O U | 3.3V | FX3 I2C SCL | FX3 | - | - |
| C31 | SDA | I/O U | 3.3V | FX3 I2C SDA | FX3 | - | - |
| C32 | GND | | | | | | |
| C33 | GND | | | | | | |
| C34 | GA0 | I | 3.3V | GPI | FPGA Bank2 | AA13 | IO_L34P_2 |
| C35 | 12V/5V | 0 | | 12V/5V電源 | | | |
| C36 | GND | | | | | | |
| C37 | 12V/5V | 0 | | 12V/5V電源 | | | |
| C38 | GND | | | | | | |
| C39 | 3.3V | 0 | | 3.3V電源 | | | |
| C40 | GND | | | | | | |

| FMCコネクタ | | | | FPGA | | | |
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| 端子番号 | 信号名 | 入出力 | 電圧区分 | 機能 | MU3ボード内の接続先 | 端子番号 | 端子名 |
| D1 | NC | | | | | | |
| D2 | GND | | | | | | |
| D3 | GND | | | | | | |
| D4 | NC | | | | | | |
| D5 | NC | | | | | | |
| D6 | GND | | | | | | |
| D7 | GND | | | | | | |
| D8 | LA01_P | 0 U | 3.3V | SPI ch4 SSn | FPGA Bank2 | V16 | IO_L8P_2 |
| D9 | LA01_N | 0 U | 3.3V | SPI ch4 SCK | FPGA Bank2 | W17 | IO_L8N_2 |
| D10 | GND | | | | | | |
| D11 | LA05_P | I | | MIPI ch1 DATA3_P | MIPI D-PHY経由 FPGA Bank2 | AE7 | IO_L62P_D5_2 |
| D12 | LA05_N | I | | MIPI ch1 DATA3_N | MIPI D-PHY経由 FPGA Bank2 | AF7 | IO_L62N_D6_2 |
| D13 | GND | | | | | | |
| D14 | LA09_P | I | | MIPI ch1 DATA0_P | MIPI D-PHY経由 FPGA Bank2 | AE9 | IO_L48P_D7_2 |
| D15 | LA09_N | I | | MIPI ch1 DATA0_N | MIPI D-PHY経由 FPGA Bank2 | AF9 | IO_L48N_RDWR_B_VREF_2 |
| D16 | GND | | | | | | |
| D17 | LA13_P | I | | MIPI ch1 DATA2_P | MIPI D-PHY経由 FPGA Bank2 | AE11 | IO_L47P_2 |
| D18 | LA13_N | I | | MIPI ch1 DATA2_N | MIPI D-PHY経由 FPGA Bank2 | AF11 | IO_L47N_2 |
| D19 | GND | | | | | | |
| D20 | LA17_P | I | | MIPI ch1 CLK_P | MIPI D-PHY経由 FPGA Bank2 | AD12 | IO_L32P_GCLK29_2 |
| D21 | LA17_N | I | | MIPI ch1 CLK_N | MIPI D-PHY経由 FPGA Bank2 | AF12 | IO_L32N_GCLK28_2 |
| D22 | GND | | | | | | |
| D23 | LA23_P | I | | MIPI ch2 DATA1_P | MIPI D-PHY経由 FPGA Bank2 | AE17 | IO_L12P_D1_MISO2_2 |
| D24 | LA23_N | I | | MIPI ch2 DATA1_N | MIPI D-PHY経由 FPGA Bank2 | AF17 | IO_L12N_D2_MISO3_2 |
| D25 | GND | | | | | | |
| D26 | LA26_P | I | | MIPI ch2 DATA3_P | MIPI D-PHY経由 FPGA Bank2 | AE21 | IO_L2P_CMPCLK_2 |
| D27 | LA26_N | I | | MIPI ch2 DATA3_N | MIPI D-PHY経由 FPGA Bank2 | AF21 | IO_L2N_CMPMOS1_2 |
| D28 | GND | | | | | | |
| D29 | NC | | | | | | |
| D30 | NC | | | | | | |
| D31 | NC | | | | | | |
| D32 | 3.3V | 0 | | 3.3V電源 | | | |
| D33 | NC | | | | | | |
| D34 | NC | | | | | | |
| D35 | GA1 | I | 3.3V | GPI | FPGA Bank2 | AB13 | IO_L34N_2 |
| D36 | 3.3V | 0 | | 3.3V電源 | | | |
| D37 | GND | | | | | | |
| D38 | 3.3V | 0 | | 3.3V電源 | | | |
| D39 | GND | | | | | | |
| D40 | 3.3V | 0 | | 3.3V電源 | | | |

| FMCコネクタ | | | | | | FPGA | |
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| 端子番号 | 信号名 | 入出力 | 電圧区分 | 機能 | MU3ボード内の接続先 | 端子番号 | 端子名 |
| E1 | GND | | | | | | |
| E2 | NC | | | | | | |
| E3 | NC | | | | | | |
| E4 | GND | | | | | | |
| E5 | GND | | | | | | |
| E6 | HA05_P | I/OT U | VDD1/2.5V | I2C ch1 SCL | Level Conv. 経由 FPGA Bank1 | AB21 | IO_L69P_1 |
| E7 | HA05_N | I/OT U | VDD1/2.5V | I2C ch1 SDA | Level Conv. 経由 FPGA Bank1 | AB22 | IO_L69N_VREF_1 |
| E8 | GND | | | | | | |
| E9 | HA09_P | I/OT U | VDD1/2.5V | I2C ch2 SCL | Level Conv. 経由 FPGA Bank1 | L17 | IO_L32P_A17_M1A8_1 |
| E10 | HA09_N | I/OT U | VDD1/2.5V | I2C ch2 SDA | Level Conv. 経由 FPGA Bank1 | K18 | IO_L32N_A16_M1A9_1 |
| E11 | GND | | | | | | |
| E12 | HA13_P | I/OT | 3.3V | I2C ch3 SCL | FPGA Bank1 | L19 | IO_L28P_1 |
| E13 | HA13_N | I/OT | 3.3V | I2C ch3 SDA | FPGA Bank1 | K19 | IO_L28N_VREF_1 |
| E14 | GND | | | | | | |
| E15 | HA16_P | I/OT | 3.3V | I2C ch4 SCL | FPGA Bank1 | L23 | IO_L29P_A23_M1A13_1 |
| E16 | HA16_N | I/OT | 3.3V | I2C ch4 SDA | FPGA Bank1 | L24 | IO_L29N_A22_M1A14_1 |
| E17 | GND | | | | | | |
| E18 | HA20_P | 0 U | VDD1 | SPI ch2 SSn | FPGA Bank5 | K26 | IO_L21N_M5DQ9_5 |
| E19 | HA20_N | 0 U | VDD1 | SPI ch2 SCK | FPGA Bank5 | K24 | IO_L21P_M5DQ8_5 |
| E20 | GND | | | | | | |
| E21 | HBO3_P | 0 U | VDD1 | SPI ch2 MOSI | FPGA Bank5 | J26 | IO_L22N_M5DQ11_5 |
| E22 | HBO3_N | I U | VDD1 | SPI ch2 MISO | FPGA Bank5 | J25 | IO_L22P_M5DQ10_5 |
| E23 | GND | | | | | | |
| E24 | HBO5_P | OT U | VDD1/2.5V | GPIO | Inverter経由 FPGA Bank5 | J23 | IO_L15P_M5UDM_5 |
| E25 | NC | | | | | | |
| E26 | GND | | | | | | |
| E27 | HB09_P | I/O U | 2.5V | GPIO | Level Conv. 経由 FPGA Bank3 | W10 | IO_L21P_3 |
| E28 | HB09_N | I/O U | 2.5V | GPIO | Level Conv. 経由 FPGA Bank3 | Y5 | IO_L22N_3 |
| E29 | GND | | | | | | |
| E30 | HB13_P | I/O U | 2.5V | GPIO | Level Conv. 経由 FPGA Bank3 | W5 | IO_L22P_3 |
| E31 | HB13_N | I/O U | 2.5V | GPIO | Level Conv. 経由 FPGA Bank3 | U7 | IO_L23N_3 |
| E32 | GND | | | | | | |
| E33 | HB19_P | I/O U | 2.5V | GPIO | Level Conv. 経由 FPGA Bank3 | U8 | IO_L23P_3 |
| E34 | HB19_N | I/O U | 2.5V | GPIO | Level Conv. 経由 FPGA Bank3 | V5 | IO_L24N_3 |
| E35 | GND | | | | | | |
| E36 | NC | | | | | | |
| E37 | NC | | | | | | |
| E38 | GND | | | | | | |
| E39 | VDD0 | 0 | | VDD0電源 | | | |
| E40 | GND | | | | | | |

| FMCコネクタ | | | | FPGA | | | |
|---------|--------|-----|------|---------------------|-------------|------|-------------------|
| 端子番号 | 信号名 | 入出力 | 電圧区分 | 機能 | MU3ボード内の接続先 | 端子番号 | 端子名 |
| F1 | NC | | | | | | |
| F2 | GND | | | | | | |
| F3 | GND | | | | | | |
| F4 | HA00_P | 0 | VDD1 | GPO | FPGA Bank5 | K20 | IO_L13P_M5A5_5 |
| F5 | HA00_N | 0 U | VDD1 | SPI ch1 SCK | FPGA Bank5 | K21 | IO_L13N_M5A6_5 |
| F6 | GND | | | | | | |
| F7 | HA04_P | I | VDD1 | Parallel ch1 FVAL | FPGA Bank5 | H20 | IO_L5P_M5A8_5 |
| F8 | HA04_N | I | VDD1 | Parallel ch1 LVAL | FPGA Bank5 | H21 | IO_L5N_M5A9_5 |
| F9 | GND | | | | | | |
| F10 | HA08_P | 0 U | VDD1 | SPI ch1 MOSI | FPGA Bank5 | G23 | IO_L8P_M5A7_5 |
| F11 | HA08_N | I U | VDD1 | SPI ch1 MISO | FPGA Bank5 | G24 | IO_L8N_M5A2_5 |
| F12 | GND | | | | | | |
| F13 | HA12_P | 0 U | VDD1 | SPI ch1 SSn | FPGA Bank5 | D24 | IO_L17P_M5DQ6_5 |
| F14 | HA12_N | 0 | VDD1 | GPO | FPGA Bank5 | D26 | IO_L17N_M5DQ7_5 |
| F15 | GND | | | | | | |
| F16 | HA15_P | I | VDD1 | Parallel ch1 DATA14 | FPGA Bank5 | C25 | IO_L11P_M5CLK_5 |
| F17 | HA15_N | I | VDD1 | Parallel ch1 DATA15 | FPGA Bank5 | C26 | IO_L11N_M5CLKN_5 |
| F18 | GND | | | | | | |
| F19 | HA19_P | I | VDD1 | Parallel ch1 DATA12 | FPGA Bank5 | B25 | IO_L12P_M5A3_5 |
| F20 | HA19_N | I | VDD1 | Parallel ch1 DATA13 | FPGA Bank5 | B26 | IO_L12N_M5ODT_5 |
| F21 | GND | | | | | | |
| F22 | HB02_P | I | VDD1 | Parallel ch1 DATA10 | FPGA Bank5 | B24 | IO_L10P_M5A0_5 |
| F23 | HB02_N | I | VDD1 | Parallel ch1 DATA11 | FPGA Bank5 | A25 | IO_L10N_M5A1_5 |
| F24 | GND | | | | | | |
| F25 | HB04_P | I | VDD1 | Parallel ch1 DATA8 | FPGA Bank5 | F24 | IO_L18P_M5LDQS_5 |
| F26 | HB04_N | I | VDD1 | Parallel ch1 DATA9 | FPGA Bank5 | F26 | IO_L18N_M5LDQSN_5 |
| F27 | GND | | | | | | |
| F28 | HB08_P | I | VDD1 | Parallel ch1 DATA6 | FPGA Bank5 | E25 | IO_L16P_M5DQ4_5 |
| F29 | HB08_N | I | VDD1 | Parallel ch1 DATA7 | FPGA Bank5 | E26 | IO_L16N_M5DQ5_5 |
| F30 | GND | | | | | | |
| F31 | HB12_P | I | VDD1 | Parallel ch1 DATA4 | FPGA Bank5 | H19 | IO_L27P_5 |
| F32 | HB12_N | I | VDD1 | Parallel ch1 DATA5 | FPGA Bank5 | J20 | IO_L27N_5 |
| F33 | GND | | | | | | |
| F34 | HB16_P | I | VDD1 | Parallel ch1 DATA2 | FPGA Bank5 | H24 | IO_L19P_M5DQ2_5 |
| F35 | HB16_N | I | VDD1 | Parallel ch1 DATA3 | FPGA Bank5 | H26 | IO_L19N_M5DQ3_5 |
| F36 | GND | | | | | | |
| F37 | HB20_P | I | VDD1 | Parallel ch1 DATA0 | FPGA Bank5 | L20 | IO_L26P_5 |
| F38 | HB20_N | I | VDD1 | Parallel ch1 DATA1 | FPGA Bank5 | L21 | IO_L26N_VREF_5 |
| F39 | GND | | | | | | |
| F40 | VDD1 | 0 | | VDD1電源 | | | |

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| G1 | GND | | | | | | |
| G2 | NC | | | | | | |
| G3 | NC | | | | | | |
| G4 | GND | | | | | | |
| G5 | GND | | | | | | |
| G6 | LA00_P | I | 3.3V | LVDS ch1 CLK_P | FPGA Bank2 | AC13 | IO_L31P_GCLK31_D14_2 |
| G7 | LA00_N | I | 3.3V | LVDS ch1 CLK_N | FPGA Bank2 | AD13 | IO_L31N_GCLK30_D15_2 |
| G8 | GND | | | | | | |
| G9 | LA03_P | I | 3.3V | LVDS ch1 LVAL_P | FPGA Bank2 | V15 | IO_L18P_2 |
| G10 | LA03_N | I | 3.3V | LVDS ch1 LVAL_N | FPGA Bank2 | W16 | IO_L18N_2 |
| G11 | GND | | | | | | |
| G12 | LA08_P | I | 3.3V | LVDS ch1 DATA15_P | FPGA Bank2 | Y14 | IO_L28P_2 |
| G13 | LA08_N | I | 3.3V | LVDS ch1 DATA15_N | FPGA Bank2 | AA14 | IO_L28N_2 |
| G14 | GND | | | | | | |
| G15 | LA12_P | I | 3.3V | LVDS ch1 DATA14_P | FPGA Bank2 | AC16 | IO_L17P_2 |
| G16 | LA12_N | I | 3.3V | LVDS ch1 DATA14_N | FPGA Bank2 | AD17 | IO_L17N_2 |
| G17 | GND | | | | | | |
| G18 | LA16_P | I | 3.3V | LVDS ch1 DATA12_P | FPGA Bank2 | AC19 | IO_L7P_2 |
| G19 | LA16_N | I | 3.3V | LVDS ch1 DATA12_N | FPGA Bank2 | AD19 | IO_L7N_2 |
| G20 | GND | | | | | | |
| G21 | LA20_P | I | 3.3V | LVDS ch1 DATA10_P | FPGA Bank2 | AB17 | IO_L15P_2 |
| G22 | LA20_N | I | 3.3V | LVDS ch1 DATA10_N | FPGA Bank2 | AC17 | IO_L15N_2 |
| G23 | GND | | | | | | |
| G24 | LA22_P | I | 3.3V | LVDS ch1 DATA8_P | FPGA Bank2 | AD8 | IO_L53P_2 |
| G25 | LA22_N | I | 3.3V | LVDS ch1 DATA8_N | FPGA Bank2 | AF8 | IO_L53N_2 |
| G26 | GND | | | | | | |
| G27 | LA25_P | I | 3.3V | LVDS ch1 DATA6_P | FPGA Bank2 | AD10 | IO_L49P_D3_2 |
| G28 | LA25_N | I | 3.3V | LVDS ch1 DATA6_N | FPGA Bank2 | AF10 | IO_L49N_D4_2 |
| G29 | GND | | | | | | |
| G30 | LA29_P | I | 3.3V | LVDS ch1 DATA4_P | FPGA Bank2 | AA9 | IO_L61P_2 |
| G31 | LA29_N | I | 3.3V | LVDS ch1 DATA4_N | FPGA Bank2 | AB9 | IO_L61N_VREF_2 |
| G32 | GND | | | | | | |
| G33 | LA31_P | I | 3.3V | LVDS ch1 DATA2_P | FPGA Bank2 | V11 | IO_L52P_2 |
| G34 | LA31_N | I | 3.3V | LVDS ch1 DATA2_N | FPGA Bank2 | W11 | IO_L52N_2 |
| G35 | GND | | | | | | |
| G36 | LA33_P | I | 3.3V | LVDS ch1 DATA0_P | FPGA Bank2 | U13 | IO_L50P_2 |
| G37 | LA33_N | I | 3.3V | LVDS ch1 DATA0_N | FPGA Bank2 | U12 | IO_L50N_2 |
| G38 | GND | | | | | | |
| G39 | VDD3 | 0 | | VDD3電源 | | | |
| G40 | GND | | | | | | |

| FMCコネクタ | | | | FPGA | | | |
|---------|--------|-----|------|-------------------|-------------|------|--------------------------|
| 端子番号 | 信号名 | 入出力 | 電圧区分 | 機能 | MU3ボード内の接続先 | 端子番号 | 端子名 |
| H1 | NC | | | | | | |
| H2 | NC | | | | | | |
| H3 | GND | | | | | | |
| H4 | NC | | | | | | |
| H5 | NC | | | | | | |
| H6 | GND | | | | | | |
| H7 | LA02_P | 0 U | 3.3V | SPI ch3 SSn | FPGA Bank2 | Y18 | IO_L6P_2 |
| H8 | LA02_N | 0 U | 3.3V | SPI ch3 SCK | FPGA Bank2 | AA19 | IO_L6N_2 |
| H9 | GND | | | | | | |
| H10 | LA04_P | I | 3.3V | Parallel ch2 CLK | FPGA Bank2 | AE13 | IO_L30P_GCLK1_D13_2 |
| H11 | LA04_N | I | 3.3V | 未使用 | FPGA Bank2 | AF13 | IO_L30N_GCLK0_USERCCLK_2 |
| H12 | GND | | | | | | |
| H13 | LA07_P | 0 U | 3.3V | SPI ch3 MOSI | FPGA Bank2 | AB15 | IO_L19P_2 |
| H14 | LA07_N | I U | 3.3V | SPI ch3 MISO | FPGA Bank2 | AC14 | IO_L19N_2 |
| H15 | GND | | | | | | |
| H16 | LA11_P | I | 3.3V | LVDS ch1 DATA13_P | FPGA Bank2 | AD18 | IO_L9P_2 |
| H17 | LA11_N | I | 3.3V | LVDS ch1 DATA13_N | FPGA Bank2 | AF18 | IO_L9N_2 |
| H18 | GND | | | | | | |
| H19 | LA15_P | I | 3.3V | LVDS ch1 DATA11_P | FPGA Bank2 | AC20 | IO_L5P_2 |
| H20 | LA15_N | I | 3.3V | LVDS ch1 DATA11_N | FPGA Bank2 | AD21 | IO_L5N_2 |
| H21 | GND | | | | | | |
| H22 | LA19_P | I | 3.3V | LVDS ch1 DATA9_P | FPGA Bank2 | AD6 | IO_L63P_2 |
| H23 | LA19_N | I | 3.3V | LVDS ch1 DATA9_N | FPGA Bank2 | AF6 | IO_L63N_2 |
| H24 | GND | | | | | | |
| H25 | LA21_P | I | 3.3V | LVDS ch1 DATA7_P | FPGA Bank2 | AC9 | IO_L58P_2 |
| H26 | LA21_N | I | 3.3V | LVDS ch1 DATA7_N | FPGA Bank2 | AD9 | IO_L58N_2 |
| H27 | GND | | | | | | |
| H28 | LA24_P | I | 3.3V | LVDS ch1 DATA5_P | FPGA Bank2 | AC11 | IO_L45P_2 |
| H29 | LA24_N | I | 3.3V | LVDS ch1 DATA5_N | FPGA Bank2 | AD11 | IO_L45N_2 |
| H30 | GND | | | | | | |
| H31 | LA28_P | I | 3.3V | LVDS ch1 DATA3_P | FPGA Bank2 | Y10 | IO_L51P_2 |
| H32 | LA28_N | I | 3.3V | LVDS ch1 DATA3_N | FPGA Bank2 | AB10 | IO_L51N_2 |
| H33 | GND | | | | | | |
| H34 | LA30_P | I | 3.3V | LVDS ch1 DATA1_P | FPGA Bank2 | V12 | IO_L46P_2 |
| H35 | LA30_N | I | 3.3V | LVDS ch1 DATA1_N | FPGA Bank2 | W12 | IO_L46N_2 |
| H36 | GND | | | | | | |
| H37 | LA32_P | I | 3.3V | LVDS ch1 FVAL_P | FPGA Bank2 | Y15 | IO_L20P_2 |
| H38 | LA32_N | I | 3.3V | LVDS ch1 FVAL_N | FPGA Bank2 | AA15 | IO_L20N_2 |
| H39 | GND | | | | | | |
| H40 | VDD2 | 0 | | VDD2電源 | | | |

| FMCコネクタ | | | | | | FPGA | |
|---------|--------|-----|------|---------------------|-------------|------|------------------|
| 端子番号 | 信号名 | 入出力 | 電圧区分 | 機能 | MU3ボード内の接続先 | 端子番号 | 端子名 |
| J1 | GND | | | | | | |
| J2 | NC | | | | | | |
| J3 | NC | | | | | | |
| J4 | GND | | | | | | |
| J5 | GND | | | | | | |
| J6 | HA03_P | I | VDD1 | Parallel ch2 DATA0 | FPGA Bank5 | H22 | IO_L6P_M5A10_5 |
| J7 | HA03_N | I | VDD1 | Parallel ch2 DATA1 | FPGA Bank5 | G22 | IO_L6N_M5A4_5 |
| J8 | GND | | | | | | |
| J9 | HA07_P | I | VDD1 | Parallel ch2 DATA2 | FPGA Bank5 | E23 | IO_L7P_M5WE_5 |
| J10 | HA07_N | I | VDD1 | Parallel ch2 DATA3 | FPGA Bank5 | E24 | IO_L7N_M5BA2_5 |
| J11 | GND | | | | | | |
| J12 | HA11_P | I | VDD1 | Parallel ch2 DATA4 | FPGA Bank5 | D23 | IO_L3P_M5RESET_5 |
| J13 | HA11_N | I | VDD1 | Parallel ch2 DATA5 | FPGA Bank5 | G24 | IO_L3N_M5A11_5 |
| J14 | GND | | | | | | |
| J15 | HA14_P | I | VDD1 | Parallel ch2 DATA6 | FPGA Bank5 | F22 | IO_L4P_M5CKE_5 |
| J16 | HA14_N | I | VDD1 | Parallel ch2 DATA7 | FPGA Bank5 | D22 | IO_L4N_M5A12_5 |
| J17 | GND | | | | | | |
| J18 | HA18_P | I | VDD1 | Parallel ch2 DATA8 | FPGA Bank5 | G20 | IO_L2P_M5A13_5 |
| J19 | HA18_N | I | VDD1 | Parallel ch2 DATA9 | FPGA Bank5 | G21 | IO_L2N_M5A14_5 |
| J20 | GND | | | | | | |
| J21 | HA22_P | I | VDD1 | Parallel ch2 DATA10 | FPGA Bank5 | H18 | IO_L9P_M5BA0_5 |
| J22 | HA22_N | I | VDD1 | Parallel ch2 DATA11 | FPGA Bank5 | G19 | IO_L9N_M5BA1_5 |
| J23 | GND | | | | | | |
| J24 | HB01_P | I | VDD1 | Parallel ch2 DATA12 | FPGA Bank5 | N25 | IO_L25P_M5DQ14_5 |
| J25 | HB01_N | I | VDD1 | Parallel ch2 DATA13 | FPGA Bank5 | N26 | IO_L25N_M5DQ15_5 |
| J26 | GND | | | | | | |
| J27 | HB07_P | I | VDD1 | Parallel ch2 DATA14 | FPGA Bank5 | L25 | IO_L24P_M5DQ12_5 |
| J28 | HB07_N | I | VDD1 | Parallel ch2 DATA15 | FPGA Bank5 | L26 | IO_L24N_M5DQ13_5 |
| J29 | GND | | | | | | |
| J30 | NC | | | | | | |
| J31 | NC | | | | | | |
| J32 | GND | | | | | | |
| J33 | NC | | | | | | |
| J34 | NC | | | | | | |
| J35 | GND | | | | | | |
| J36 | NC | | | | | | |
| J37 | NC | | | | | | |
| J38 | GND | | | | | | |
| J39 | NC | | | | | | |
| J40 | GND | | | | | | |

| FMCコネクタ | | | | | FPGA | | |
|---------|--------|-----|------|-------------------|-------------|------|-----------|
| 端子番号 | 信号名 | 入出力 | 電圧区分 | 機能 | MU3ボード内の接続先 | 端子番号 | 端子名 |
| K1 | NC | | | | | | |
| K2 | GND | | | | | | |
| K3 | GND | | | | | | |
| K4 | NC | | | | | | |
| K5 | NC | | | | | | |
| K6 | GND | | | | | | |
| K7 | HA02_P | I | 1.8V | Parallel ch2 FVAL | FPGA Bank3 | W8 | IO_L15P_3 |
| K8 | HA02_N | I | 1.8V | Parallel ch2 LVAL | FPGA Bank3 | W7 | IO_L15N_3 |
| K9 | GND | | | | | | |
| K10 | HA06_P | I/O | 1.8V | GPIO | FPGA Bank3 | V8 | IO_L19N_3 |
| K11 | HA06_N | I/O | 1.8V | GPIO | FPGA Bank3 | W9 | IO_L19P_3 |
| K12 | GND | | | | | | |
| K13 | HA10_P | I/O | 1.8V | GPIO | FPGA Bank3 | AB4 | IO_L18P_3 |
| K14 | HA10_N | I/O | 1.8V | GPIO | FPGA Bank3 | AC3 | IO_L18N_3 |
| K15 | GND | | | | | | |
| K16 | NC | | | | | | |
| K17 | NC | | | | | | |
| K18 | GND | | | | | | |
| K19 | HA21_P | I/O | 1.8V | GPIO | FPGA Bank3 | AB5 | IO_L16N_3 |
| K20 | HA21_N | I/O | 1.8V | GPIO | FPGA Bank3 | AA5 | IO_L16P_3 |
| K21 | GND | | | | | | |
| K22 | NC | | | | | | |
| K23 | NC | | | | | | |
| K24 | GND | | | | | | |
| K25 | NC | | | | | | |
| K26 | NC | | | | | | |
| K27 | GND | | | | | | |
| K28 | NC | | | | | | |
| K29 | NC | | | | | | |
| K30 | GND | | | | | | |
| K31 | NC | | | | | | |
| K32 | NC | | | | | | |
| K33 | GND | | | | | | |
| K34 | NC | | | | | | |
| K35 | NC | | | | | | |
| K36 | GND | | | | | | |
| K37 | NC | | | | | | |
| K38 | NC | | | | | | |
| K39 | GND | | | | | | |
| K40 | NC | | | | | | |

※入出力は、MU3ボードへの入力を I、MU3ボードからの出力を O としています。

I 入力
 I U 入力 PULLUP付
 O 出力
 O U 出力 PULLUP付
 OT U トライステート出力 PULLUP付
 I/O 入力/出力
 I/O U 入力/出力 PULLUP付
 I/OT 入力/トライステート出力
 I/OT U 入力/トライステート出力 PULLUP付

| | 絶対最大定格 (V) | VIH/VIL (V) | VOH/VOL (V) |
|-----------|------------|---------------|---------------|
| 3.3V | 4.1 | 2.0/0.8 | 2.9/0.4 |
| 2.5V | 4.1 | 1.7/0.7 | 2.1/0.4 |
| 1.8V | 4.1 | 0.8/0.38 | 1.35/0.45 |
| VDD1 | 4.1 | 0.7VIN/0.3VIN | VIN-0.45/0.45 |
| VDD1/2.5V | 4.1 | 0.7VIN/0.3VIN | VIN-0.45/0.45 |