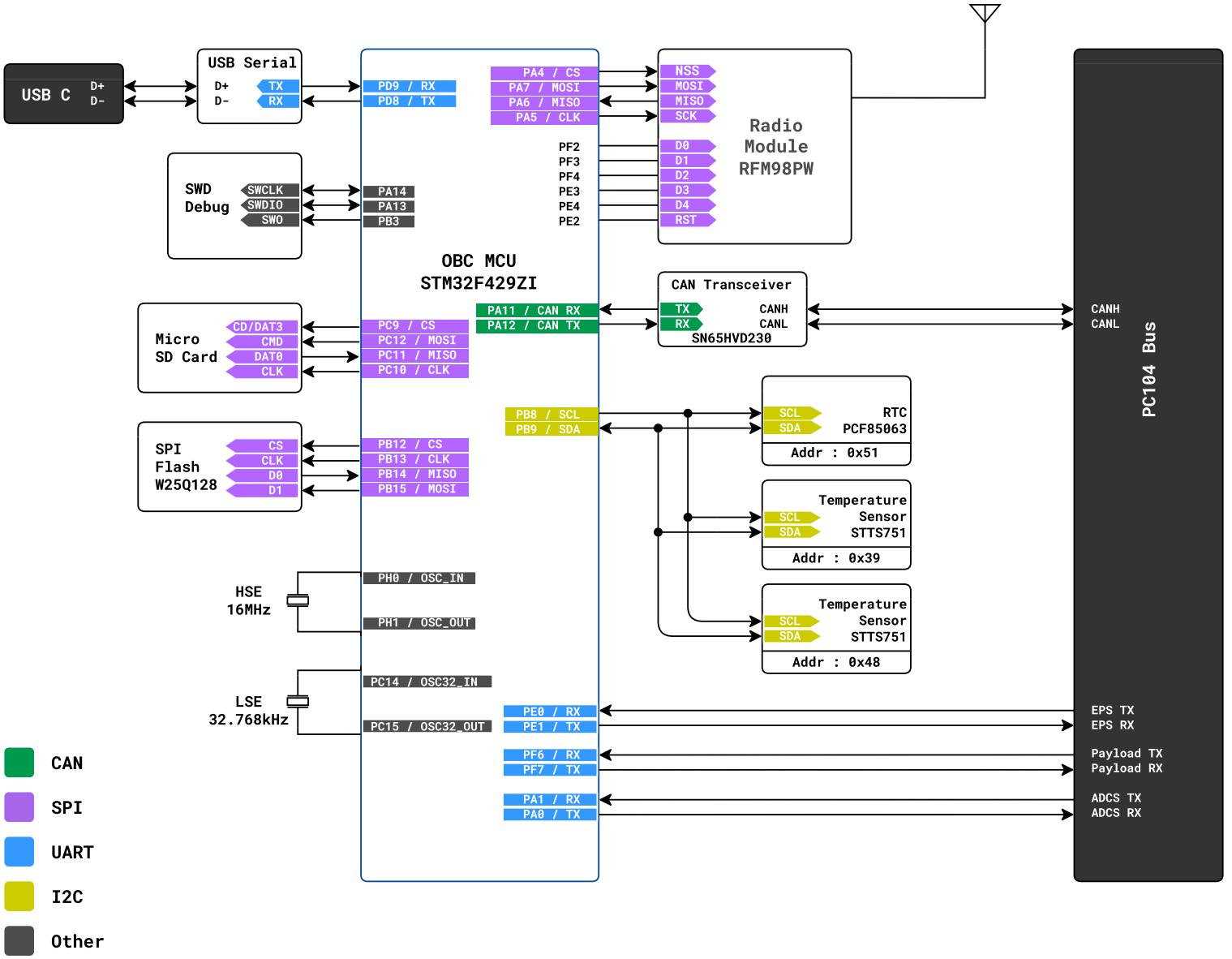
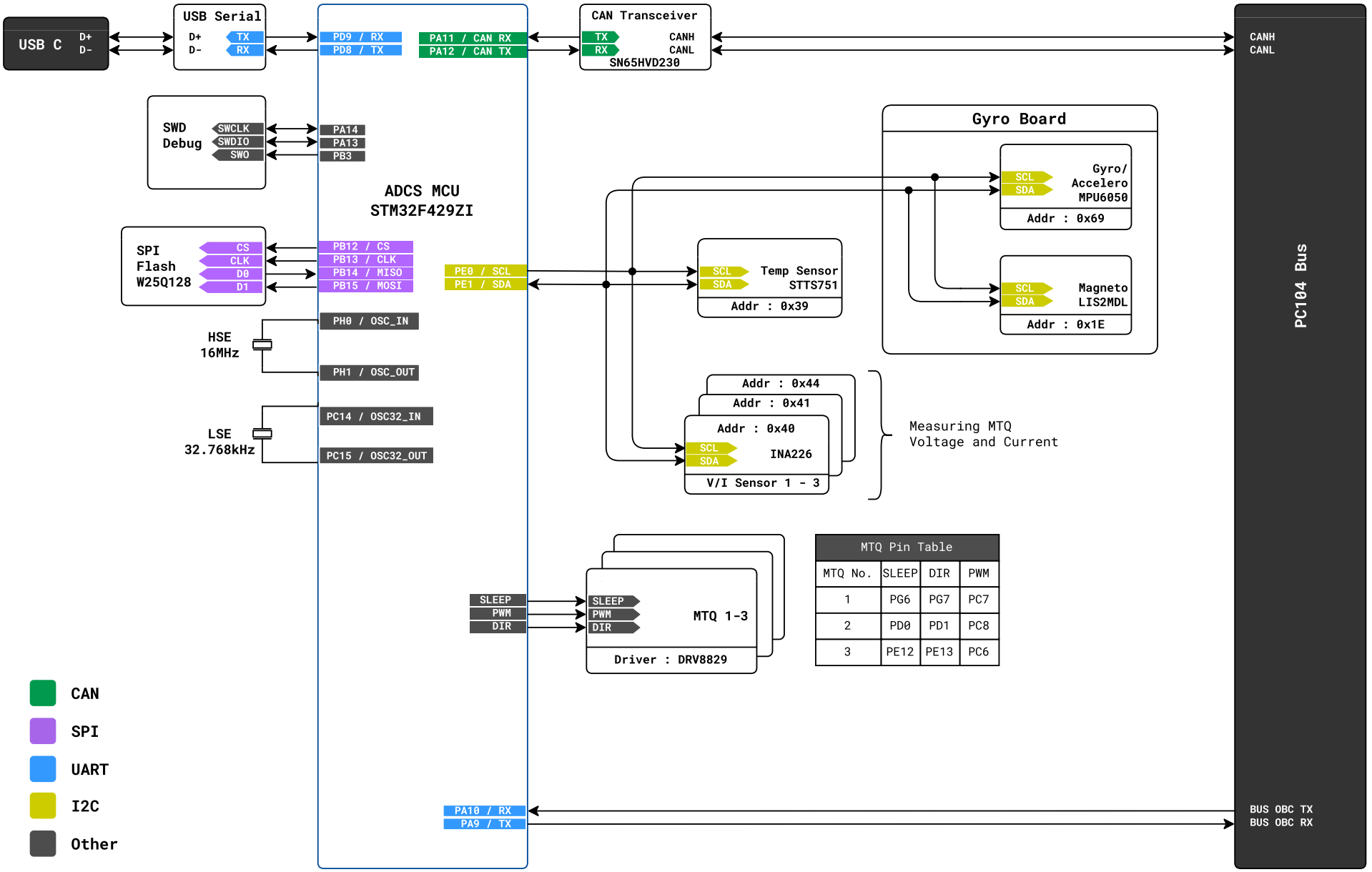
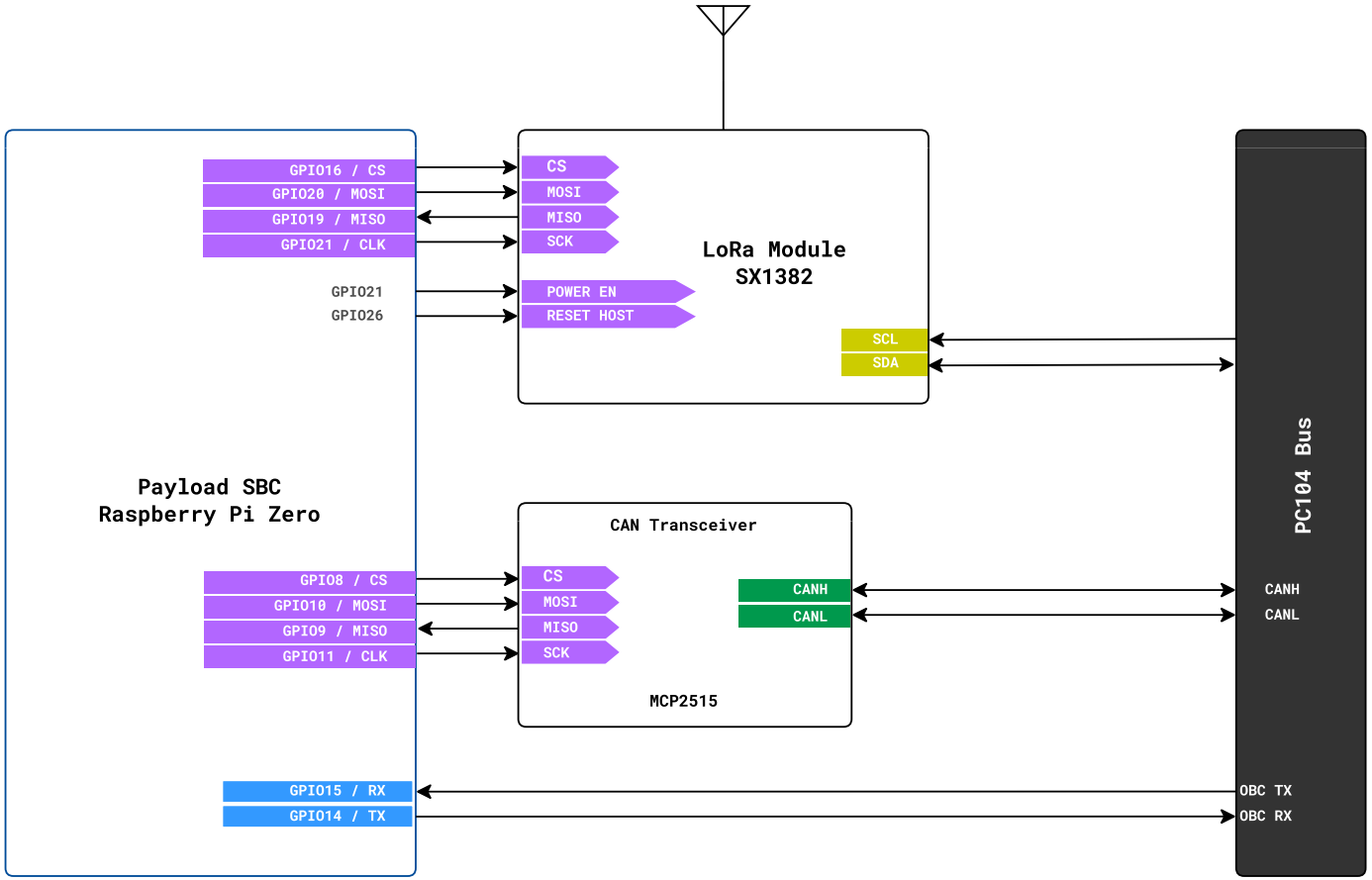
TUSat On-board Computer + Communication

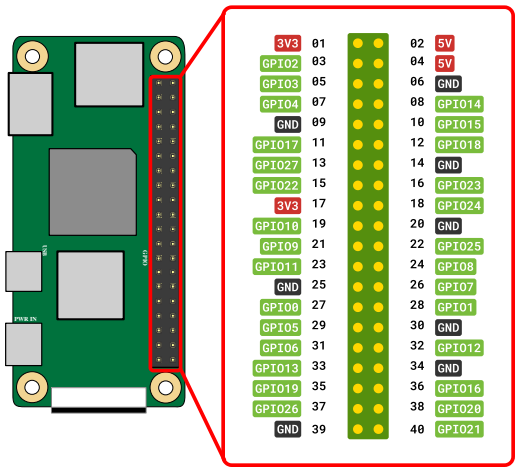


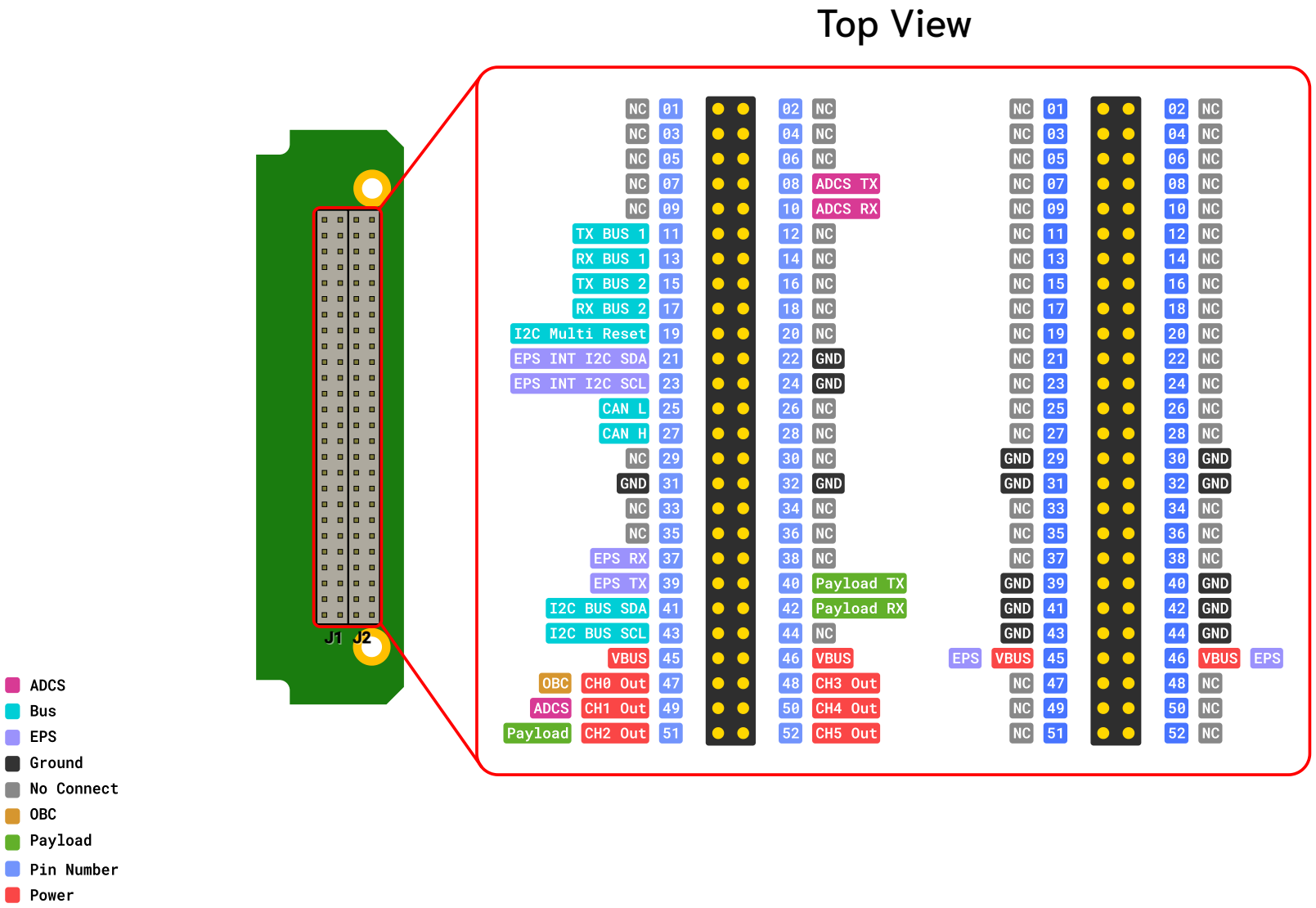
TUSat ADCS


USB C
D+
D-
USB Serial
D+
D-
TX
RX
PD9 / RX
PD8 / TX
PA11 / CAN RX
PA12 / CAN TX
CAN Transceiver
TX
RX
CANH
CANL
SN65HVD230
CANH
CANL
PC104 Bus
SWD
Debug
SWCLK
SWDIO
SWO
PA14
PA13
PB3
ADCS MCU
STM32F429ZI
Gyro Board
SCL
SDA
Gyro/
Accelero
MPU6050
Addr : 0x69
SCL
SDA
Magneto
LIS2MDL
Addr : 0x1E
SPI
Flash
W25Q128
CS
CLK
D0
D1
PB12 / CS
PB13 / CLK
PB14 / MISO
PB15 / MOSI
PE0 / SCL
PE1 / SDA
SCL
SDA
Temp Sensor
STTS751
Addr : 0x39
HSE
16MHz
PH0 / OSC_IN
PH1 / OSC_OUT
LSE
32.768kHz
PC14 / OSC32_IN
PC15 / OSC32_OUT
Addr : 0x44
Addr : 0x41
Addr : 0x40
SCL
SDA
INA226
V/I Sensor 1 - 3
Measuring MTQ
Voltage and Current
SLEEP
PWM
DIR
SLEEP
PWM
DIR
MTQ 1-3
Driver : DRV8829
MTQ Pin Table
MTQ No. | SLEEP | DIR | PWM
1 | PG6 | PG7 | PC7
2 | PD0 | PD1 | PC8
3 | PE12 | PE13 | PC6
PA10 / RX
PA9 / TX
BUS OBC TX
BUS OBC RX
CAN
SPI
UART
I2C
Other

TUSat Payload





- CAN
- SPI
- UART
- I2C
- Other

TUSat EPS PC104 Pinout