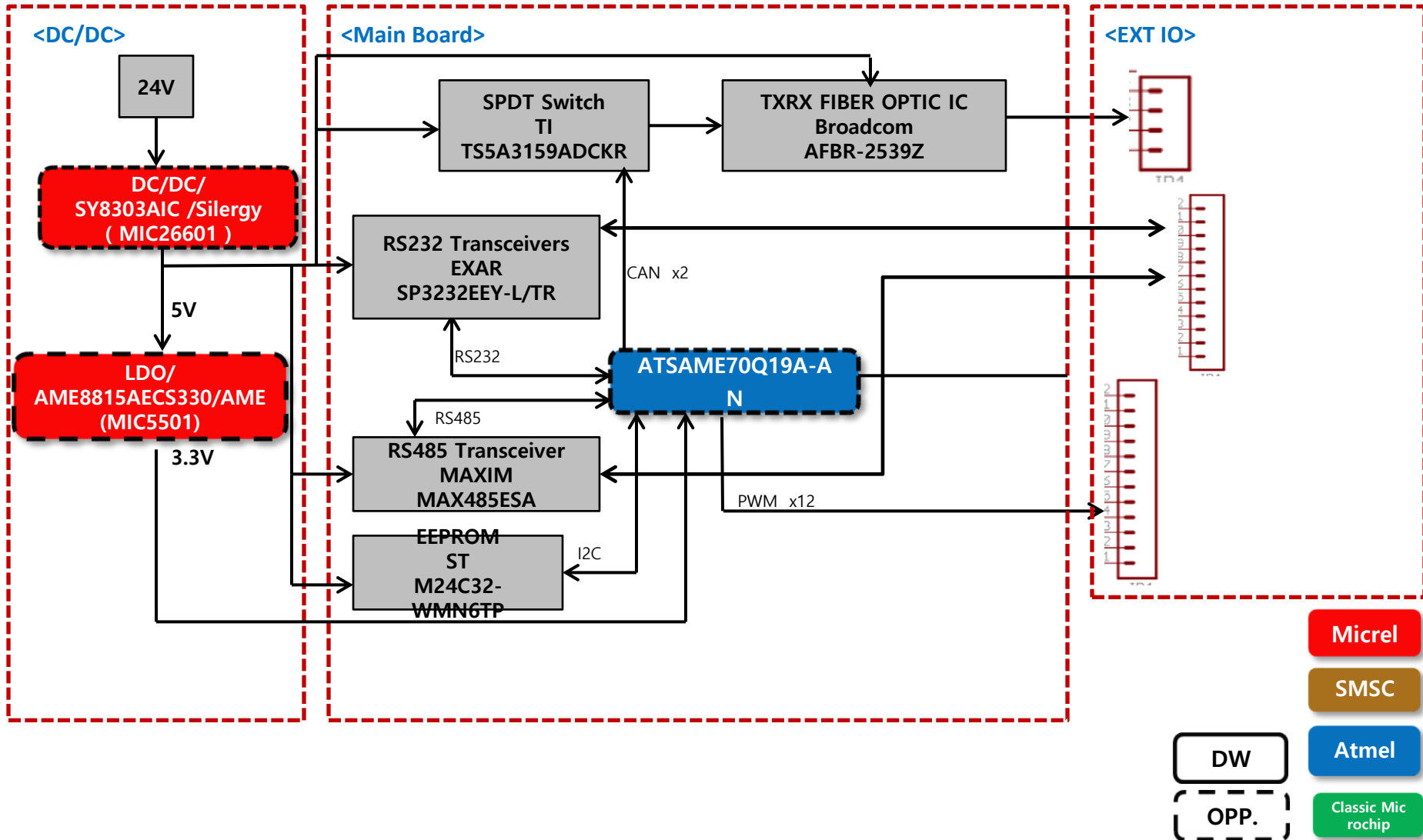
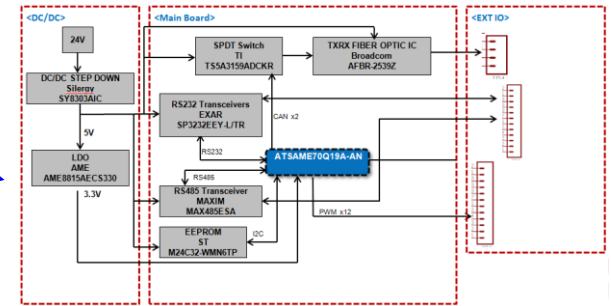


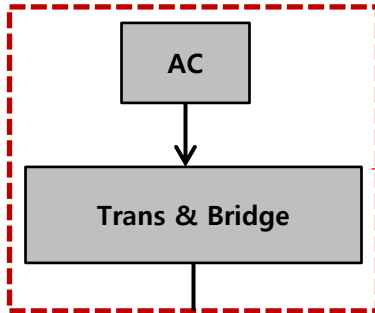
Cell Controller – Block Diagram



Cell Controller – System



< Cell Controller Main Board >



< Power >

- Microchip MPU, ATSAME70Q19A-AN
 - ARM® Cortex®-M7 running up to 300MHz
 - 16 Kbytes of ICache and 16 Kbytes of DCache with Error Code Correction (ECC)
 - Single- and double-precision HW Floating Point Unit (FPU)
 - Memory Protection Unit (MPU) with 16 zones
 - DSP Instructions, Thumb®-2 Instruction Set
 - Max CPU Speed : 300MHz
 - 512 Kbytes of Flash
 - up to 256 Kbytes of multi-port SRAM
 - CAN-FD interface
 - one 10/100Mbps Ethernet MAC

 - Microchip EEPROM, AT24C32
 - Low-Voltage and Standard-Voltage Operation
 - – 2.7 (VCC = 2.7V to 5.5V)
 - – 1.8 (VCC = 1.8V to 5.5V)
 - Low-Power Devices (ISB = 2 μ A at 5.5V) Available
 - Internally Organized 4096 x 8, 8192 x 8
 - 2-Wire Serial Interface
 - Schmitt Trigger, Filtered Inputs for Noise Suppression
 - Bidirectional Data Transfer Protocol
 - 100 kHz (1.8V, 2.5V, 2.7V) and 400 kHz (5V) Clock Rate
-

- Microchip LDO, MIC5501
 - General Purpose Single 300mA LDO
 - Input voltage range: 2.5V to 5.5V
 - Fixed output voltages from 1.0V to 3.3V
 - 300mA guaranteed output current
 - High output accuracy ($\pm 2\%$)
 - Low quiescent current: 38 μ A
 - Stable with 1 μ F ceramic output capacitors

- Microchip Regulator, MIC26601
 - 28V/6A DC-DC Buck Regulator w/Hyper Speed Control™
 - Hyper Speed Control™ architecture enables
 - High delta V operation ($V_{IN} = 28V$ and $V_{OUT} = 0.8V$)
 - Small output capacitance
 - 4.5V to 28V voltage input
 - 6A output current capability, up to 95% efficiency
 - Adjustable output from 0.8V to 5.5V