

Specifications

품 명	Developed PM(Processor Module) for Research to improve the Performance of Satellite Computer
모 델 명	E698PM Development Kit
세부 사양(1/2)	<p><u>Processor Module Development Kit</u></p> <ul style="list-style-type: none"> ○ Processor Module Board <ul style="list-style-type: none"> - Quadcore Processor (32-bit SPARC V8 IU) - On-Chip interconnect based on AMBA2.0 - 4-channel SpaceWire bus node controller - 2-channel 1553B bus controller - 2-channel CAN2.0 bus controller - CCSDS TM/TC I/F - 10/100M Ethernet ○ Software <ul style="list-style-type: none"> - ICE(Orion 6) - SPARC-GCC - OCE DMON2 ○ 1 year licence & Training for DMON2 ○ Sample C Code ○ PM Technical Document ○ PM Hardware Detailed Specification <ul style="list-style-type: none"> - Each performance for four processor <ul style="list-style-type: none"> : 32bit SPARC V8 integer unit : 64bit double precision floating point unit : L1 cache, Memory Management Unit : Hardware Multiplier and divide : 7-stage instruction pipeline - On-Chip Interconnect based on AMBA2.0 <ul style="list-style-type: none"> : 128-bit AHB for the interconnect of 4 identical processor cores : 32-bit AHB for the interconnect of high-speed peripherals : 32-bit APB for the interconnect of low-speed peripherals : AHB-AHB bridge for the data exchange between 128bit AHB and 32bit AHB : AHB-APB bridge for the data exchange between 32bit AHB and 32bit APB

세부 사양(2/2)	<ul style="list-style-type: none"> - Two Level cache structure <ul style="list-style-type: none"> : L1 Cache : 328KB ICache and 16KB DCashe (located in the processor core) : L2 Cache : 512KB - On-Chip Peripherals <ul style="list-style-type: none"> : External memory controller supporting ROM, SRAM, ○ ○ 112, MAP10 : Interrupt Controller, on-chip peripheral interrupts and 6 external interrupts : 4-channel SpaceWire Bus node Controller : 2-channel 1M/10M 1553B bus controller, supports BC, RT and BM : 2-channel CAN2.0 bus controller : CCDS TM/TC interface : 10/100M Ethernet : USB2.0 HOST controller : Online Hardware Debug Support Unit(DSU) : Timer, Wachdog, GPIO, UART, I2C, SPI
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