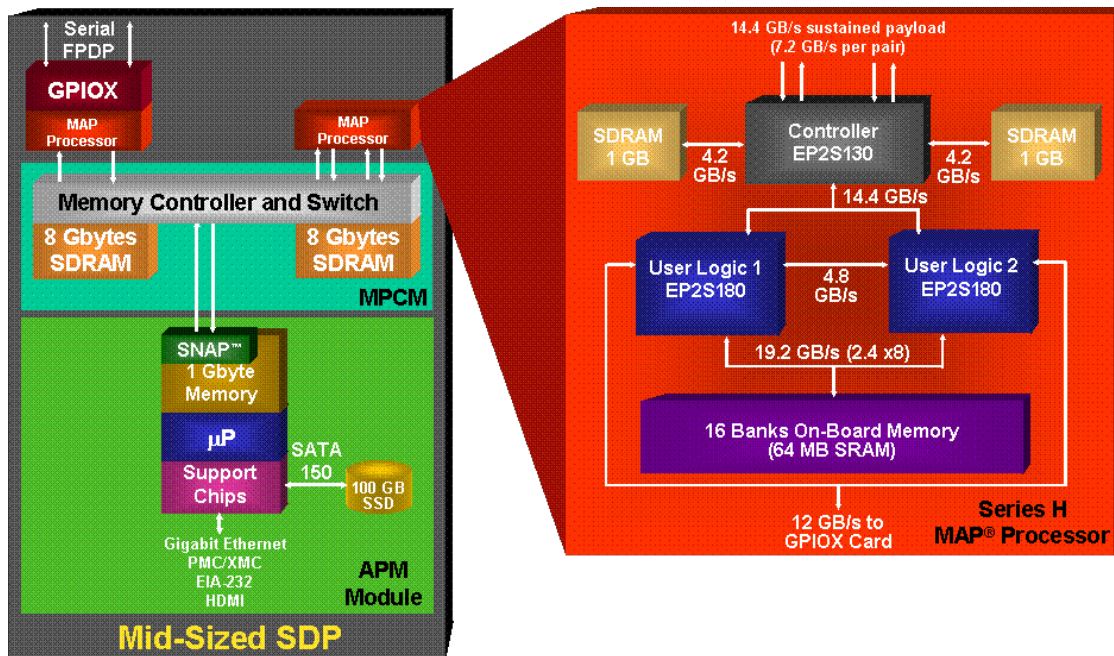


SRC® Mid-Sized Signal Data Processor



The mid-sized SRC Signal Data Processor (SDP) is a general purpose computer system well-suited to applications such as Synthetic Aperture Radar (SAR) and image processing. This mid-sized airborne system uses the low-power SRC APM microprocessor module combined with a Multi-Ported Common Memory (MPCM) module, two Series H MAP® reconfigurable processors and a GPIOX card which provides a variety of standard and custom interfaces directly into the MAP processors.

This system has been qualified to withstand an operating range from -54C to +60C, an altitude limit of 60K ft. and meets shock and vibration requirements for single engine aircraft weighing less than 12.5K pounds. The sealed system has a completely passive thermal solution resulting in very high reliability.



SRC® Mid-Sized Signal Data Processor Specifications

Mid-Sized SDP Feature	Parameter
Enclosure	
Dimensions	12.5"W x 5.5"H x 11.0"D (756 cu in) 31.8 cm W x 14.0 cm H x 27.9 cm D (12,388.62 cu cm)
Weight	25.0 lbs (11.3 kg)
Power	250 W (sleep states supported)
Input voltage	28.0 VDC (as per MIL-STD-704E)
External cooling methodology	Forced air cooling (ducted ram-air)
Removable data disk	None
Mounting	4 removable mounting feet (1/4-20 Std)
Altitude	60,000 ft
Ambient operating temperature	-54C to +60C (high temp limit dependant on supplied cooling air mass flow)
I/O connectors	Sealed MIL Connectors Fiber-Optic Gigabit Ethernet EIA-232 Serial Remote power control Remote thermal sense Behind Maintenance Panel HDMI Video USB JTAG
Reconfigurable MAP® Processor Module	
User Logic	2 Altera EP2S 180 FPGAs
Core clock rate	150 MHz
On Board Memory (OBM) SRAM size	64 Mbytes
On Board Common Memory (OBCM) SDRAM size	2 Gbytes
# simultaneous 64-bit OBM references per clock	16
# simultaneous User Logic DMAs	4 (2 in & 2 out)
Sustained aggregate DMA payload bandwidth	14.4 Gbytes/s
Sustained GPIOX bandwidth	12 Gbytes/s
APM Microprocessor Module	
Microprocessor type	Intel Atom™
Clock rate	1.4 GHz
Total SDRAM memory size	2 Gbytes
Integrated SNAP interface bandwidth	4.2 Gbytes/s
I/O available	HDMI, GigE, RS-232, USB, ESATA
Disk	1.8" On-Board
Multi-Ported Common Memory (MPCM)	
SDRAM volume per bank	16 Gbytes
# banks per MPCM module	2
# ports per MPCM	2 in & 2 out
Sustained DMA bandwidth per port	3.6 Gbytes/s