

# SRC-7 Portable MAPstation™ Systems



**SRC-7 Ruggedized Portable MAPstation Enclosure**  
3.5"H x 7.5"W x 10"D  
<7 lbs.

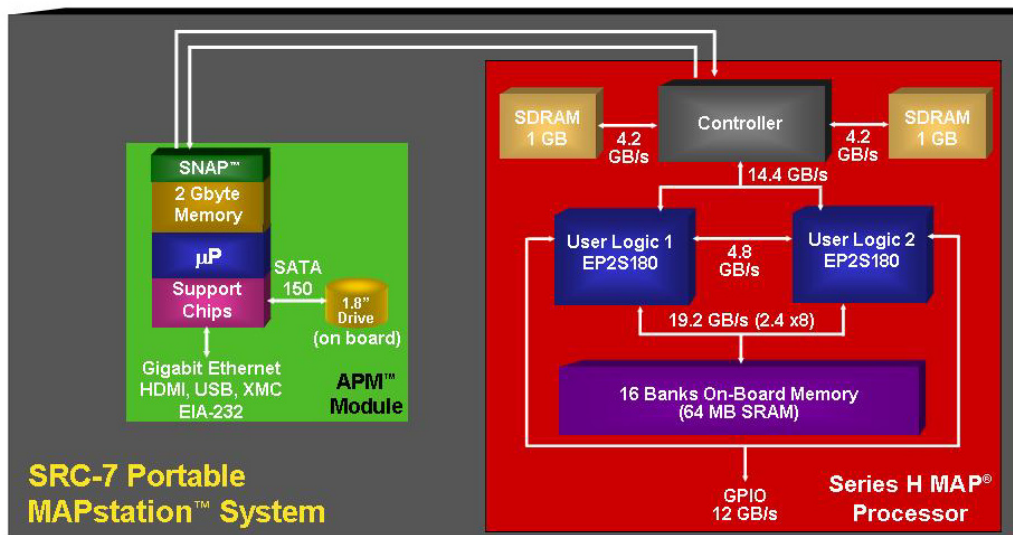


**Lightweight Enclosure**  
3"H x 6"W x 9"D  
4 lbs.

SRC® Portable MAPstation systems are miniaturized computer systems based on SRC Computers' IMPLICIT+EXPLICIT™ Architecture and reconfigurable MAP® processor, and they are software compatible with all other SRC products. Ruggedized models have up to 12 Gbytes per second of direct sensor I/O bandwidth in a single processor and weigh less than 7 pounds while using only 20 watts of power for typical applications. Lightweight models offer the same levels of performance in a package weighing just 4 pounds.

Initially targeted at unmanned aerial vehicle (UAV) and embedded applications, Portable MAPstation systems have demonstrated speeds of 3.77s to form a 1001x1001 image with 5040 pulses in the DARPA Backhoe Backprojection benchmark. This is a typical speedup of more than 20x when compared to a 2.67 GHz Nahalem core.

Portable MAPstation systems also internally accommodate GPIOX cards such as serial FPDP (SIOX) cards and quad channel gigabit Ethernet cards. Other form factors are available for volume orders.



## SRC-7 Portable MAPstation™ Specifications

<b>CPU</b>	Intel 1.6 GHz Atom Processor, Z530		
<b>Front Side Bus</b>	400 MHz		
<b>Cache</b>	L1 32 KB instruction / 24 KB data cache, 512 KB L2 advanced transfer cache		
<b>FLOPS</b>	2.92 GFLOPS theoretical peak performance (@1.46 GHz)		
<b>CPU Memory</b>	2 GB DDR2 400		
<b>Memory Bandwidth</b>	3.6 GB/s		
<b>Microprocessor to MAP Interconnect</b>	Patented SNAP™ memory interconnect to the MAP® processor Interconnect payload bandwidth per port SNAP-to-MAP -- TBD Aggregate payload bandwidth between SNAP and MAP -- TBD		
<b>MAP Processor</b>	Series H MAP Processor; five stuffing options available		
<b>Enclosure Type</b>		<b>Standard Sealed Enclosure</b>	<b>Lightweight Enclosure</b>
<b>External I/O</b>	Serial	2-USB 2.0	2-USB 2.0
	Network	1-Gigabit Ethernet	1 -Gigabit Ethernet
	Video	1-HDMI	1-HDMI
	Peripheral Cards Slot	1-XMC card slot (VITA 42.3, PCIe X1 lane)	1-XMC card slot (VITA 42.3, PCIe X1 lane)
	MAP GPIOX Card Slot	1-GPIOX card slot	1-SDHC card slot 1-GPIOX card slot
<b>Physical Dimensions</b>	Dimensions	Height: 3.5 in. (8.89 cm) Width: 7.5 in. (19.05 cm) Depth: 10.0 in. (25.40 cm)	Height: 3.0 in. (7.62 cm) Width: 6.0 in. (15.24 cm) Depth: 9.0 in. (22.86 cm)
	Construction	Sealed enclosure	Flow through enclosure
	Volume	262.5 cu in. (4.3 liters)	162 cu in. (2.65 liters)
	Weight	<7 lbs (3.2 kg)	4 lbs (1.8 kg)
	Cooling	Forced air conduction cooled	Fan-based convection cooled
	Operating Ambient Temperature w/HDD	40° to 130° F (+5° to 55° C)	40° to 130° F (+5° to 55° C)
	Operating Ambient Temperature w/SDD	-40° to 150° F (-40° to 65° C)	-40° to 150° F (-40° to 65° C)
	Non-Operating Temperature w/HDD	-5° to 150° F (-20° to 65° C)	-5° to 150° F (-20° to 65° C)
	Non-Operating Temperature w/SDD	-20° to 175° F (-30° to 60° C)	-20° to 175° F (-30° to 60° C)
	Operating Relative Humidity	0 to 100% condensing	20 to 80% non-condensing
Altitude	>30,000 ft	10,000 ft	
<b>MTBF (Khours)</b>	TBD		
<b>Operating System</b>	Fedora Linux		
<b>File Systems</b>	ext3		
<b>Compilers</b>	Intel C++, Intel Fortran, SRC Carte™ Programming Environment		
<b>Power</b>	+12 VDC (+2V/-1V), 20 W typical		