



The 3-axis Simple Aurora Monitor (SAM-III) magnetometer system is a sophisticated semi-professional geomagnetometer available in kit form. The primary application of the SAM-III is for the study of geomagnetism, but it may be used in other applications requiring magnetic sensing. The SAM-III uses up to three Speake & Co Llanfapley FGM-3 sensors.

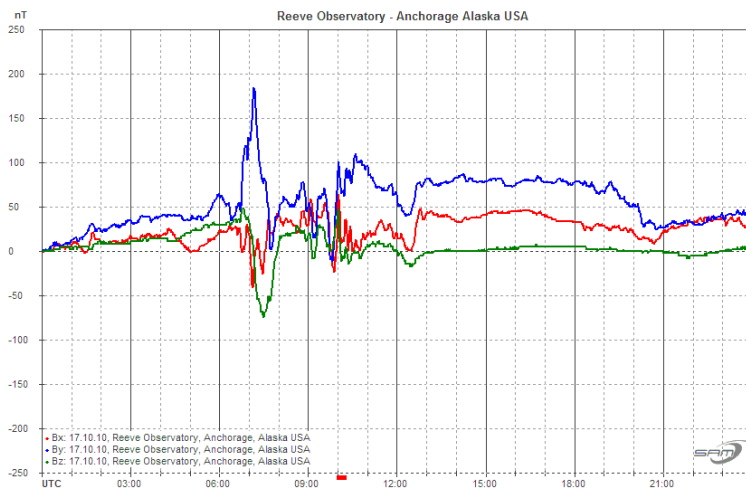
The correspondences between geomagnetic storms, solar events and solar wind, aurora and radio propagation anomalies are well-known. The

SAM-III is a useful instrument to radio astronomers, radio amateurs, aurora photographers and experimenters. Users can become part of the international SAM geomagnetometer network (SAM Magnetometer Project), whose goal is to place at least one SAM magnetometer on every continent.

Sensor outputs, K-index and time and date are shown on a liquid crystal display. Additional interface circuitry provides serial data, analog signal output and alarm outputs for external processing and display on a PC or voltmeter. The processor can be set to provide a dry contact alarm relay closure when the K-index exceeds a predetermined value. The alarm function is useful to aurora photographers and radio amateurs because it could indicate aurora picture and radio propagation opportunities. The SAM-III may be operated in an autonomous (standalone) mode or it may be used with a PC for logging and viewing.

The basic specifications for the SAM-III magnetometer system are

- Magnetic induction range: Approximately $\pm 50,000$ nT
- Resolution: 1 – 2 nT
- Connection of one, two or three sensors oriented in any direction
- Microprocessor controlled, 16 MHz clock
- Data displayed on backlit 4x20 LCD
- Data transmitted over EIA-232 serial interface as ASCII text
- K-index also available on an analog output
- Real-time clock with battery backup
- Isolated Form A relay output for K-index alarm
- Isolated input for detection of external voltage condition
- Configuration setup and measurement logging via EIA-232 serial-interface
- Power requirements: 12 Vdc at 60-90 mA
- Dimensions: 200 x 112 x 64 mm (7.9 x 4.4 x 2.5 in.)
- Software for setup, data logging, viewing and statistical analysis



Item	Description	Price USD
SK3-1	SAM-III Kit with (1) sensor	\$199.95
SK3-2	SAM-III Kit with (2) sensors	\$249.95
SK3-3	SAM-III Kit with (3) sensors	\$299.95
AS-1	Each additional sensor	\$55.95
AC-1	AC adapter power supply	\$14.95
EC-1	Enclosure	\$35.95
BW-1	Substitute blue-white LCD for standard yellow-green LCD	\$9.95
	SK3-1, SK3-2 or SK3-3 shipping (US only)	\$16.50
	Shipping (International)	Determined at shipment

SAM Description: www.reeve.com/SAMDescription.htm

SAM Ordering Information: www.reeve.com/SAMOrderInfo.htm

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