

# SGPS Requirements

Parameter	Current SGPS Specification	PORD REQUIREMENT
Proton Energy Range	1 MeV to 500 MeV in 10 log bins plus >500 MeV Integral	151, 139
Flux Range (cm <sup>2</sup> -s-ster-keV) <sup>-1</sup> (Min)	$8 \times 10^2 E^{-1.8} / >500 \text{ MeV} = 4 \times 10^{-2}$	151
Flux Range (cm <sup>2</sup> -s-ster-keV) <sup>-1</sup> (Max)	$5.4 \times 10^9 E^{-2.1} / >500 \text{ MeV} = 2 \times 10^3$	151
Differential Direct Energy Flux Accuracy	25%	144
Sensor Heads	2 Identical viewing in +X and -X	146
XY Sensor FOV	<=90° Symmetric	146
XZ Sensor FOV	<=90° Symmetric	146
Data Refresh Rate	1 minute (goal 1 second)	148
Data Latency	<5 Sec	149
Noise	< 10 keV for bands with threshold energy between 30 keV and 100 keV, <10% of band's threshold energy at >100 keV	85, 86
Energy Band Stability	<±3%	88
Size	26.6 cm, 26.6 cm, 12.6 cm CBE	
Mass	4.9 kg CBE	
Power	5.1 W CBE	