Performance Metric		Broadband			Short Period	Accelerometer	
		Class A+	Class A	Class A-	Class A	Class A	Class B
Power	Average Power Consumption	All sensors plus the DAU together shall draw a total of <2 W, worst-case 24-hour average (10.8 – 16.0 VDC single-sided at battery, negative ground)					
	General	Accommodate 10.8 – 16.0 VDC single sided power to DAU, with polarity and transient protection. Any internal backup batteries shall operate for at least seven days at 2-W average draw with surge power sufficient for DAS worst case, including telemetry and mass-storage cycling. Provide for automatic, controlled DAU and sensor shutdown below 10.8 VDC net available. Provide surge suppression and noise filtering from AC ("mains") power, static discharges from users, and proximal lightning strikes. Tolerate 90 – 130 VAC 60-Hz mains power. Offer solar-panel option.					
	DAU to Sensor	DAU shall supply 10.8 to 16.0 VDC single sided power to sensor, with not more than 1 mV ripple. Sensor shall be able to operate at full capability using this power.					
Packaging	Connector Standardization	ANSS, in consultation with vendors, will create standards for the interconnection between the DAU and sensors, the DAU and its ~12 VDC power supply, the ~12 VDC system and solar panels, the ~12 VDC system and AC "mains" power, and the DAU and GPS signals.					
	Environmental Considerations	All DAU, sensor, GPS and power supply systems shall meet IP67 requirements and be capable of operating permanently in 100% relative humidity, excepting that power supplies need withstand only heavy spray, not immersion, though it must safely shut down upon immersion.					
		Neither the sensors nor the DAU shall suffer disturbance above its self-noise floor in response to barometric variations of ±0.025 bar about ambient.					
		RFI performance of the DAU shall conform to IEC61326:2002 (EN55022 for emissions, EN61000-4-3 for immunity, and Annexes A, C, E, and F, for equipment types and usage circumstances).					
		Both sensors and DAU shall survive 30 cycles of 100-g 1-ms half-sines over an interval of 10 s, alternating polarity, and 30-s of 5-g rms Gaussian white noise, these paired intervals repeating in round-robin among the axes.					
	Leveling	All sensors shall be supplied with leveling devices. All strong-motion components shall be supplied with tie-down devices and internal bracing to prevent movement of the sensor, DAU, and other external units as well as shifting of internal parts up to ±3.5 g.					
	Mass	DAS (less power supply): <20 kg			DAS (less power supply): <15 kg	DAS (less power supply): <15 kg	
Orientations	Sensor Orienations	Standard orientations (in order of channel numbers) shall be positive Up, North, and East or Up and two horizontals in the same left-handed sense.					
	Orientation Indicators	A North-axis (1st horizontal) shall be proveded on the *top* of the sensor (or DAS) and shall be a scribed line at least 10 cm long or the width of the case, whichever is smaller, and with "N" or an arrowhead toward the positive ground-motion direction.					
	Level Indicators	If a leveling bubble is provided, it shall be on *top* of the sensor (or DAS).					