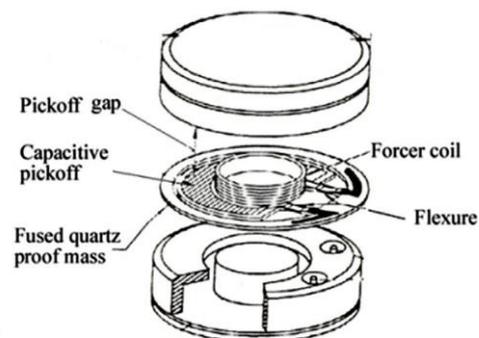


Ceramic Servo accelerometer (CSa)

IISU designed, developed quartz-based servo accelerometer called Ceramic Servo Accelerometer (CSA) for launch vehicle and spacecraft applications. CSA is a pendulous, forced rebalanced, analog, servo accelerometer with built in electronics. The core technology element of CSA is a monolithic flexure pendulum made of fused quartz, with special pick off coating and is indigenously developed at IISU.



Major Specifications

Sl. no	Parameters	Specification
1	Range	± 25 g
2	Scale Factor (SF)	-1.25 mA / g $\pm 15\%$
3	Bias	$< \pm 30$ mg
4	Input Axis Misalignment	$< \pm 600$ arcsec
5	Scale Factor Short-term stability	≤ 50 ppm
6	Bias Short-term stability	≤ 50 μ g
7	Misalignment Short-term stability	< 10 arc sec
8	Bias Warm-up to Warm-up Stability	< 500 μ g
9	SF Warm-up to Warm-up stability	< 225 ppm
10	Misalignment Warm-up to Warm-up Stability	< 36 arcsec
11	Non-Linearity	$< \pm 30$ μ g / g ²
12	Scale Factor Temperature Coefficient	$< \pm 150$ ppm/ $^{\circ}$ C
13	Bias Temperature Coefficient	$< \pm 150$ μ g/ $^{\circ}$ C
14	Band width (-3dB)	> 300 Hz
15	Mass	60 gram
16	Power	0.6W (In +/- 1g Range)
17	Size	38mm dia. x 21mm height

Technology Transfer from ISRO

ISRO is willing to offer the knowhow of this technology to suitable entrepreneurs / industries in India. Capable manufacturing industries interested in acquiring this knowhow may write with details of their present activities, requirements and plans for implementation, infrastructure and technical expertise available with them and their own market assessment.