

12-Channel Multi-GNSS Receiver (NAVIC-1)

U R Rao Satellite Centre (URSC) of Indian Space Research Organisation (ISRO) has developed a dual band (L1 & L5) Multi-GNSS receiver to provide an accurate orbit determination of low earth satellites. The system is capable of supporting GPS-L1, NavIC-L5 and SBAS-L1 bands. Navic-1 is user configurable to support any/combination of constellations or frequency bands. It provides a precise 1-pulse per second timing signal, aligned with universal coordinated time for an accurate time transfer and can support up to 3 systems. The system is based on an anti-fuse FPGA and a 32-bit floating point processor platform.



12 Channel NavIC-1 Receiver

Salient Features

- ✦ Built-in storage memory to record, store and playback 3.5 hours of measurement data.
- ✦ Self-recovery capability system to recover from an upset as well as integrity assured navigation solution.
- ✦ Reliable communication/control interface based on MIL-STD-1553B protocol.

Major Specifications

Frequency bands	:	GPS-L1, NavIC-L5 & SBAS-L1
No. of Channels	:	12
Dynamics	:	8 km/s
Position Accuracy	:	2.2 m
Velocity Accuracy	:	2 cm/s
Operating Voltage	:	5 V
System Interface	:	MIL-STD-1553B
Size	:	253 X 258 x 78 mm ³
Mass	:	2.4 kg
Power	:	12.0 W

Technology Transfer

URSC/ISRO offers to transfer this technology of 12-Channel Multi-GNSS Receiver (NAVIC-1) to industries in India with adequate experience and facilities. Industries interested in obtaining knowhow may write giving details of their present activities, infrastructure and facilities.

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