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|  | **SP80 GNSS receiver****Name of the equipment:** SP80 GNSS receiver**Make & Model:**make:Spectra precision model: SP80**I-Stem Registration ID-** **Category of Instrument**High-Precision GNSS Receiver**Types of Analysis / Testing**High Precision Positioning and Surveying Analysis**Application:** Land boundary mapping, site planning.**Description of Instrument**The sp80 dgps is a high accuracy gnss receiver for professional surveying |

**Booking Details**

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| **Book through I-STEM:**<https://www.istem.gov.in/>**Slot Booking Link**I-STEM Slot Booking link for External User | **Booking available for**Internal and External Both**Requisition form for**[Internals](https://randc.nitc.ac.in/pdf/instruments/civil/CED-REQUISITION_FORM_Internal.pdf)[Externals](https://randc.nitc.ac.in/pdf/instruments/civil/CED-REQUISITION_FORM_Internal.pdf) |

**Contact Details**

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**Features, Working Principle and Specifications**

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| **Features of the equipment*** High-Precision GNSS: Provides centimeter-level accuracy
* Real-Time Kinematic (RTK) Corrections
* Can be used globally with proper reference stations
* Multiple Connectivity Options: Supports Bluetooth, Wi-Fi, and cellular
 | **Unique features/Measurement capabilities, if any*** Patented Z-Blade technology
* 240-channel 6G ASIC)
* Patented SBAS ranging
* Patented Strobe™ Correlator for reduced GNSS multi-path
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| **Instrument Technical Description and Major Specifications (This Specifications Limited to Major 5)*** Physical Characteristics:Size 22.2 x 19.4 x 7.5 cm Weight 1.17 kg
* 240 GNSS channels
* Recording Interval:0.05-999 seconds
* Supported data formats: ATOM, CMR, CMR+, RTCM 2.1, 2.2, 2.3, 3.0, 3.1 and 3.2 (including MSM), CMRx and sCMRx (rover only)
 | **Measurement/Sample specifications:** * + Up to 20 Hz real-time raw data (code & carrier and position output)
	+ NMEA 0183 messages output
	+ Real-Time Kinematic Position (Horizontal Accuracy: 8 mm + 1 ppm,Vertical Accuracy: 15 mm + 1 ppm )
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**Type of Sample Required for Analysis / Testing (Quantity, Pre-Preparation, State etc.) Guidelines for Sample Submission – User Instructions**

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| * + **Testing Requirements**: Specify any particular tests or scenarios. (For GNSS receiver, this might include specific environmental conditions, accuracy checks, or data logging tests or duration of use.
	+ **User instructions**: power on the device, connect it to a data controller via Bluetooth or Wi-Fi, and configure it as a **base or rover** for data collection. Ensure **good satellite visibility, charged batteries,** for optimal performance.
	+ **Battery Duration**: The receiver is designed to operate for about **10 hours** with both batteries fully charged, assuming **GNSS is on**
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**User Charges Rs. (GST Extra)**

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| **Internal** | **External Academic Institutes** | **National R&D Lab** | **Industry** |
| 50000/day | 60000/day | 60000/day | 75000/day |