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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 |
| **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 ) |

**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** |

**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 |