

## Digital Recorder

Model No: JC-SMTP-REC11



Land



Air



Marine

The Digital Recorder has varying sustained record & Play back Aggregate data Rates, storage capacity & Interface Board (IFBs). The Digital recorder Provides high quality real-time dynamic signal monitoring function in record or idle mode. The Digital Recorder is required to record analog demodulated baseband signals, AGC signals and data/clock signals from Receivers with bit-synchronizer and with IRIG-B time during mission.

These signals are recorded in real time on Solid State Media in digital form and replayed back later for analysis.

### Applications

- Realtime data acquisition, recording and playback
- Telemetry data acquisition and storage

### Features

- Can record analog, digital and PCM streams from telemetry receive chain
- Can be used as a generic data acquisition and logging system with optional replay



## Technical Specifications

<b>Functional</b>	
No of Record & Reproduce Channels	5-Analog Channels
	<ul style="list-style-type: none"> <li>• 2-Baseband signals up to 1MHz</li> <li>• 2-AGC signals up to 40KHz</li> <li>• 1-IRIG-B AC Code up to 1KHz</li> </ul>
	4 Digital Channels <ul style="list-style-type: none"> <li>• 2 PCM Channels</li> <li>• 1 data and 1 clock signal per channel : bit rate up to 1 Mbps</li> </ul>
Signal Level	Single ended Analog: 8V pk-pk Single ended TTL: 0-5V
Signal Rate	High speed Analog channels: 1X2.5 -> 2.5 MHz
PCM Channel	Digital PCM channel: 10MHz
Clock Source	Internal
Clock Format	Data + Clock mode synchronous to rising or falling edge of data
Mode	Record, Replay
Coupling	AC/DC Coupling for High-speed Analog signals
Impedance	50Ω/1M Ω Selectable 100pF for High-speed Analog signals
Resolution	≥ 8 bits
Sampling Rate	Minimum 2.5 times of BW for analog channels
Drive Type and Capacity	<ul style="list-style-type: none"> <li>- Two removable Solid State Disks (1TB each) connected in RAID 1, capacity 1TB. Disk Interface: SATA</li> <li>- One SSD 1 TB for OS &amp; Application GUI S/W Storage. Disk Interface: SATA</li> <li>- External USB Hard Disk 1TB for external data transfer for backup</li> </ul>
• Outputs	<ul style="list-style-type: none"> <li>- Analog: 5 No's               <ul style="list-style-type: none"> <li>Resolution: ≥8 bits</li> <li>Signal Level: More than ±5V peak to peak, DC Coupled</li> <li>Impedance: 0.1 ohm</li> </ul> </li> <li>- Digital: 4 No's               <ul style="list-style-type: none"> <li>Output Signal: Data + Clock</li> <li>Clock rate: Identical to input Clock rate</li> <li>Clock format: Identical to input Clock format</li> <li>Signal level: Single ended TTL for all data, Clock</li> </ul> </li> <li>- 01-Time Channel (Modulated IRIG-B coded)</li> </ul>
Networking Connectivity	Ethernet 100/1000 Mbps, Ethernet network connectivity for easy file access
Interfaces	SATA, USB for Storage
<b>Electrical</b>	
Operating Voltage Range	230V±15V AC, 1 Phase, 50 Hz
Rated current	1.5 Amp Max
<b>Mechanical</b>	
Recorder System	W 482 mm X H 177 mm X D 530 mm
Rack Mount Keyboard	W 482 mm X H 44 mm X D 300 mm
Weight in Kg	<25kg
<b>Environmental</b>	
Temperature	
• Operating	-20 °C to +55 °C
• Storage	-25 °C to +65 °C
Environmental Compliance	JSS-55555 / MIL 810D
EMI/EMC Compliance	MIL-STD-461E

