PTU™ Portable Test Unit

The JDA Systems portable test unit (PTU) is a complete telemetry ground station in a box. The PTU leverages the capabilities off many JDA Systems components, the RF antennas, receivers, bit syncs, decoms and the VuSoft™ software program .

The PTU can receive dual channels of L, Upper L, S and NATO bands RF, dual channel PCM telemetry in accordance with IRIG106 Chapter 4, IRIG106 Chapter 8 and packet formats.

The recovered data may be recorded on the single removable 512GB solid state disk in IRIG106 Chapter 10 compliant files.

Portable Test Unit

Ready For Tranport

Rear Panel Connectors

Features

- Dual Integrated 3db wide band antennas
- Dual multiple Band L, Upper L, S and NATO band FM single receiver
- External Antenna Inputs
- Dual high performance Bit Synchronizers
- Dual channel soft decom
- IRIG A, B and G Decoder with time seed and free-wheel feature
- Integrated GPS sixteen channel receiver
- Advanced decoder, archival, display and analysis software

- Full IRIG 106 Chapter 10 support
- 8.5 inch TFT touch screen display
- Rugged fold down keyboard
- 70MHz IF Output and Input
- Integrated BNC Break Out panel
- Bit Sync Data Output suitable for external decryption
- Single removable 512GB SSD
- IRIG106 Chapter 10 Recorder/Regenerator
- Serial .DOT user equipment interfaces
- Windows 7 Based Software

The uniqueness of VuSoft is derived from flexibility and performance resulting from a highly efficient architecture. A micro messaging kernel abstracts the main system operation from the source and destination of the internal data stream. Optional libraries enable the attachment of this kernel to data from multiple sources, which can then be simultaneously acquired, displayed and processed.

Through the use of the library concept VuSoft itself is modular and virtually independent of the data source. This ensures an evolutionary path so that VuSoft can maintain compatibility with new PC hardware and software technology and new data formats. Import and export functions provide direct access to most popular databases including TMATS, Access, dBase and Oracle. A "Basic-like" Math Engine is included to generate derived parameters that may be used just like measured parameters even as inputs to other derived parameters.

VuSoft can also distribute encrypted and compressed real-time and played back data to multiple, networked PC workstations.

General Specifications

Temperature	-20° C to 60° C
Storage Temp	Better than -20 to 80 deg C
Relative Humidity	0 to 100% non condensing
RMM Type	Removable RMM Disk
Weight Approximate	14 Kg
Power Requirement	220 W
Voltage/Frequency	96 to 260 VAC, 50 or 60 Hz
Size	205 x 390 x 490 mm (WxHxD)

Receiver Specifications

NATO and S-band	2185-2480 MHz
Upper L-band	1700-1850 MHz
L-band	1435.5-1540.5 MHz
Output Frequency	70 MHz
Input Sensitivity	-130 dbm
Total Noise Figure	Less than 7 dB
Gain	Max 25 dB with programmable attenuation
Signal Bandwidth	Greater than +/- 20 MHz
SFDR	Approx 50 @ 20 MHz BW dB
Tuner resolution	Programmable down to 50 kHz
Frequency accuracy	Better than 0.002%
IF Input	SMA for RF at 70MHz
Demodulation Type	FM
IF Bandwidths	4 User Defined Video Filters
Data Output	Level Bi-Polar (variable up to +/-5 V) 75 Ohm output
AGC Time Constant	Software variable time constants
Post-Detection BW	Fully programmable to 3MHz and 4 presets at 3.5, 4, 6, 8, 10, 12, 16 or 20 MHz
Post-Detect Combiner	Bandwidth 20 Mbps

Recorder Specifications

File Type	IRIG106 Chapter 10
Data Handling	Record, Analysis and Regeneration
RMM Type	SSD Removable
Transfer Speed	Maximum 1.5 gigabits per second
Record Capacity	512 Gigabyte internal up to 3 Terabyte external
Remote Control	RS232 or Ethernet .DOT interface
Network Distribution	IRIG106 Chapter 10 compatible Broadcast or Multicast