

## VT-RX-SC4U Quad Channel All Band Receiver

The VT-RX-SC4U compact fully digital quad channel direct conversion all band (70MHz to 6GHz) receiver combines all the functions required for state of the art dual frequency and dual polarization telemetry data reception into a single easier to use and reliable system.



### VT-RX-SC4U All Band Receiver

The VT-RX-SC4U ultra performance all band receiver system offers a no compromise, high density data reception solution, with integrated quad channel all band (70MHz to 6GHz) receivers, predetect combiner post detect best source selector, integrated digital bit syncs, frequency analyzer and data scope. All this in a small form factor, low heat dissipation and ruggedized package.

The VT-RX-SC4U can operate stand alone or tethered. Remote control and monitoring is supplied as standard, either via the human remote interface or via the supplied Windows compatible control software operating locally or remotely for single or multiple units. This easy to use full function graphical software interface controls and monitors all aspects of the VT-RX-SC4U receiver systems operation.

The VT-RX-SC4U receiver system has a very wide bandwidth of more than 30 MHz per channel over the range 70MHz to 6GHz and an ultra low total noise figure of better than 4db.

This fully digital direct conversion receiver provides quad channel trellis based bit synchronization functionality for TIER0 and TIER1 and optional TIER2 reception with improved data reception performance over traditional reception systems of anywhere from 8db to 12db. The predetect combiner, post detect best source selector and integrated equalizer ensures exceptional reception performance

Uniquely the VT-RX-SC4U digital receiver can also supply analog data reception outputs suitable for legacy operation, such as analog Video reception, and improved performance AM down to below  $-125\text{dBm}$  for use with Auto Tracking antenna systems.

For more information, please contact your local agent or contact JDA Systems directly:

#### JDA US, LLC

555 E. Pikes Peak Avenue, Suite 205  
Colorado Springs, CO 80906 USA  
Tel: +1-719-338-1917

#### JDA Systems (Europe) GmbH

Gutenbergstrasse 4  
26632 Ihlow Riepe, Germany  
Tel: +49-4928-91560

[www.JDAUS.com](http://www.JDAUS.com)  
[sales@JDAUS.com](mailto:sales@JDAUS.com)

## VT-RX-SC4U Receiver Features

- Four Fully Digital Direct Conversion Receivers Per Chassis
- All Band Operation of 70MHz to 6GHz with 1KHz tuning resolution
- Compact and low power design
- Rugged construction
- Best in class performance
- RF SMA female inputs @ 50Ohm, VSWR < 1.5
- Predetect Combiner & Post Detection Best Source Selector
- Receives AM, FM, PM, BPSK, QPSK, AQPSK, AUQPSK, OQPSK, SOQPSK, VIDEO
- PM demodulation loss 1.5dB(max) @ 1Mbps/1rad
- 0.4 to 1.5 rad @ PM 1Mbps BIØ-L
- BPSK/QPSK output unique digital root nyquist (square) relating to output bandwidth
- Programmable tracking BW to +/-200kHz with 1KHz resolution
- Fully Programmable input BW and Input Filter with 1Hz resolution
- Low Total Noise of Less Than 4dB
- High Absolute Sensitivity < -125 dBm
- RF input maximum level -10dBm
- AGC with automatic response setting 1 to 100mSec
- Wide Band Operation greater than 30 MHz
- Digital Trellis Based Quad Bit Syncs 8kbps upto 20 Mbps with 1Hz resolution
- Data types NRZ-L/M/S, RZ, BIØ-L/M/S, DM-M/S, M2-M/S, RNRZ-L9/11/15/17/23
- Mini BNC analog outputs 0-5V AGC1, AM1, FM1(Video), AGC2, AM2, FM2(Video)
- TTL level Data1, Clock1, Lock1, Data2, Clock2, Lock2
- RJ45 100MB Ethernet Remote Control & Monitoring Interface



- Quad Channel Equalizer
- TCP/IP Direct Receiver Interface
- Dual RS232 pass through ports
- AGC Signal Level and Time Broadcast at 20Hz
- Embedded 9-axis INU with 10Hz to 100Hz Broadcast
- BIT Self Test: 0 Operational, 1 Startup, 2 DSP Initialize, 3 RF Initialize, 4 Comm Error, 5 Message Error, 6 Time Lost.
- Easy to use Windows 7 thru 10 Compatible Graphic User Interface
- Human remote interface system
- Analog Outputs for AGC, AM and data suitable for legacy Video Reception and Auto Tracking Antenna Control
- Dimensions mm 160W x 112W x 72H
- Weight approx. 1kg
- 6V-12V DC Operation (converters for 110-240VAC 50/60 Hz and 28VDC)
- Less Than 14W Heat Dissipation



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