

VORTEX™ Receiver

Modular Video Receiver

VBR-500 Series

DTC's Vortex series of video receivers offer superior video performance with complete user programmability. Up to ten user programmable video frequencies may be selected via a rotary switch. Each video frequency has two user programmable audio subcarriers. The audio subcarriers are phase locked, and will not drift over time or temperature. Programming software and a programming cable are provided with each unit.

Two video outputs are provided, one composite and one video only. The composite video output is ideal for re-transmission. The video only output is typically connected to either a local monitor and/or recording device.

Received Signal Strength Indication (RSSI) is available in three ways: First, through a local bar graph display. The display may be disabled after set up to conserve battery life. Second, as an analog voltage on one pin of the multipin connector. Third, through the serial communications protocol supported via the multipin connector. This is an ideal way to retrieve RSSI when the receiver is embedded in other devices.

Internal encryption using the Ovation Micro-ViewLock II module is supported as an option. Encryption On/Off is selected from the front panel.

Features

- ▲ Compact size of only 1.25" x 3" x 5.25"
- ▲ Current consumption of only 300 mA at 12 VDC
- ▲ Internal encryption option
- ▲ Video only and composite video output
- ▲ Ability to disable RSSI to reduce current consumption
- ▲ All connectors accessible via front panel
- ▲ Programming software and cable standard
- ▲ RSSI indication on front panel, as well as via multipin connector

Models

- ▲ VBR-500-KT01-L 1700-1850 MHz
- ▲ VBR-500-KT01-S2 2200-2300 MHz
- ▲ VBR-500-KT01-S 2400-2500 MHz
- ▲ VBR-500-KT01-C 4400-5000 MHz

Contact your DTC sales representative for other frequency bands which are not listed here

Add "ENC" to any of the above model numbers for Video Encryption

Add "ENC-AV" for Audio & Video Encryption

Ordering Information

- ▲ Call for availability
- ▲ Antennas optional



Specifications

RF

Operating Frequency Range	1700 – 1850 MHz 2200 – 2300 MHz 2400 – 2500 MHz 4400 – 5000 MHz
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Number of Channels	10 max. (user-programmable)
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Sensitivity @ 40 dB Video SNR	-83 dBm
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Input Impedance	50 ohms
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Video 1

Video Frequency Response	6 Hz – 4.5 MHz ±1 dB
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Output Impedance	75 ohms
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Video 2

Video Frequency Response	6 Hz – 7.5 MHz ±1 dB
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Output Impedance	75 ohms
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Audio

Number of Subcarriers	2 per video channel
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Subcarrier Frequencies	6 – 7.5 MHz (user-programmable)
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Tuning Step Size	10 KHz
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Power

Input Voltage	9 – 16 VDC
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Input Current	300/400 mA max. 375/475 mA max. (with descramble enabled)
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Reverse Polarity Protection	30 V
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Connectors

Video Output Jack	BNC M
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Repeater Video Output Jack	BNC M
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Audio Subcarrier Jack	Lemo EHG Series 3 pin (x2) M
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Multiple I/O	Hirose® 6-pin Power, ground RS-232 Data in, Out RSSI (analog 0-5 VDC output) Clear/Scramble
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Indicators

RSSI	Five-section LED; Part of membrane assembly; Indicates received signal strength
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Video Descrambler Clear/Scramble LED	Part of membrane assembly; Indicates status of descrambler module
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Encryption

Descrambling of Encrypted Video (optional)	Ovation Systems Micro-ViewLock II
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Environment

Operating Temperature Range	-20° to +60° C ambient
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Mechanical

Enclosure Dimensions	5.25" W x 3.00" D x 1.25" H
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Finish	Black hard anodized aluminum
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Weight	1.2 lb max
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Mounting Provisions	Supplied with three mounting holes-top and bottom-with Helicoil™ 4-40 inserts
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