

Body Worn Video Transmitters

FCC TYPE: H25VTS250

Integral Battery Pack

VBX-250

The VBX-250 series is designed specifically to be a “video body wire”. We’ve taken our VMX-250, and added an internal 4 AA battery pack. Operation on AA Lithium batteries is approximately 4 hours, and about three hours with alkaline cells. Consider using one of DTC’s miniature remote switches to turn the device on or off, extending operating time.

Up to 10 video frequencies may be programmed by the user. Channel selection is via the 10 position rotary switch mounted on the cover.

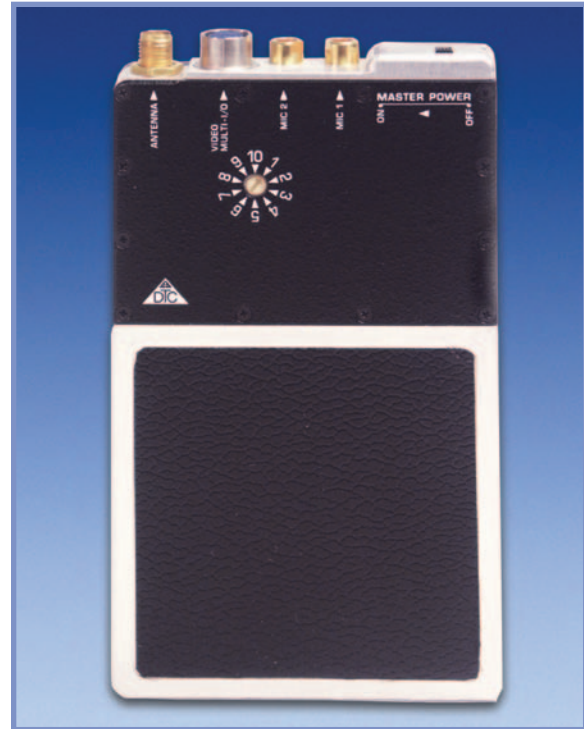
By phase locking the user programmable audio subcarriers, and adding AGC on the mic inputs, we’ve increased the audio quality dramatically. When used with DTC’s exclusive VidiWire™ patch antenna system and a DTC’s diversity receiver, users are assured of exceptional on-body video performance. DTC has focused on making the VBX series extremely frequency stable in body worn applications, a common problem in body worn mobile applications.

DTC offers the VBX-250 in multiple on-body concealments, designed and manufactured by DTC. Custom configurations are available as well. Programming cable and software are included at no extra charge.

Off the body, the VBX-250 series is ideal for “drop camera” applications, as it has its own power source and powers the camera. The on/off switch on the top of the unit makes it convenient to use in operations lasting up to four hours.

Features

- ▲ Ten channels, user programmable
 - Video in 250 KHz steps
 - Two audio subcarriers from 6.0-7.5 MHz
- ▲ Ten channel select switch
- ▲ Operates off integral AA battery pack
- ▲ 8:1 VSWR ensures frequency stability on body
- ▲ 4 Hour operation on LioN AA batteries
- ▲ Phase locked audio subcarriers with AGC
- ▲ Optional remote power capability through Hirose connector
- ▲ Battery pack powers 5V cameras, simplifying installation
- ▲ Small size, only .675” thick
- ▲ Optional VidiWire™ dual antenna system with matching network
- ▲ Programming cable and software included at no charge



Models

- ▲ VBL-250 1700-1850 MHz operation
- ▲ VBS2-250 2200-2300 MHz operation
- ▲ VBS-250 2400-2500 MHz operation

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

Ordering Information

- ▲ Select model based on your operating band
- ▲ Provide DTC with initial video frequencies (up to ten) and audio subcarriers. Subcarriers are programmable by channel, so you have many options. All channels may be programmed the same if desired.
- ▲ Order microphone(s) p/n 7011145



Specifications

Power Supply	Internal batteries 4 "AA" batteries or external 9 -16 VDC
Power Consumption	2.5 Watts (not including camera)
Battery Life	3 hours Minimum Lion AA Batteries
Reverse Polarity Protection	Yes
Dimensions	2.5" W x 4.5" L x 0.675" D
Camera Power Using External	Same as supply voltage 0-.5 VDC switched
Power Source	(200mAmax)
Camera Power Using Internal Batteries	5 VDC @ 175 mA, switched (internal regulator)
Controls	10 channel select rotary switch panel mounted, slide ON/OFF switch
Connectors	2 pin Lemo: Mic 1 2 pin Lemo: Mic 2 SMA: Antenna 6 pin Multi I/O: Video in, Data in, DC input 9-16 VDC, camera power, Remote ON/OFF, Multiplexed Data out, Ground
Chassis notes	Machined, solid aluminum with rounded edges

AUDIO

General	Mic level input (line level factory opt.) 50-3000 Hz. Phased locked AGC on both inputs. Subcarrier auto sensing, only active when microphone is attached.
Number of subcarriers	2
Subcarrier frequencies	6.0-7.5 MHz , user programmable per channel
Subcarrier ON/OFF control	Subcarriers are activated when mic is connected.
Subcarrier Frequency stability	+/- 0.003%, -30 to +70°C
Subcarrier Deviation	50 KHz peak
Audio S/N	45 dB min.
Frequency Response	BW1.5dB = 50-3000 Hz
Total Harmonic Distortion	<2%
Input Level	8 mVpp@400 Hz for 50 KHz peak dev.
Pre-Emphasis	75 uS
Input Impedance	10k ohm

VIDEO

Video Frequency Response	BW1.5dB = 6 Hz - 5.0 MHz
Input Impedance	75 ohms
Input Level	1 Vp-p Max.
S/N	60 dB min.
Pre-Emphasis	Per CCIR 405 525 line curve
Differential Gain	5%

RF

Operating Frequency	1700-1850 MHz, 250 KHz resolution steps 2200-2300 MHz, 250 KHz resolution steps 2400-2500 MHz, 250 KHz resolution steps
Power output	250 mW min. @ nominal supply voltage, 350 mW maximum
Output Impedance	50 ohms
Spurs and Harmonics	-50 dBC output
Operating Temperature Range	-30° to +70°C Humidity 90% non-condensing

Accessories

Part Number	Description
4045189-036	Video In/Ext Power/Cam. Power cable, 36" standard
4045173	Programming cable (Connects from the Multi I/O connector to the DB9 connector)
7011145-012	Microphone, 12" length