



# MVR-IV

Multi-Band Video Receiver

# MVR

**covers L, S, and C bands**

**hand-held receiver**

**automatic frequency  
scanning**

**signal strength and  
battery life indicators**

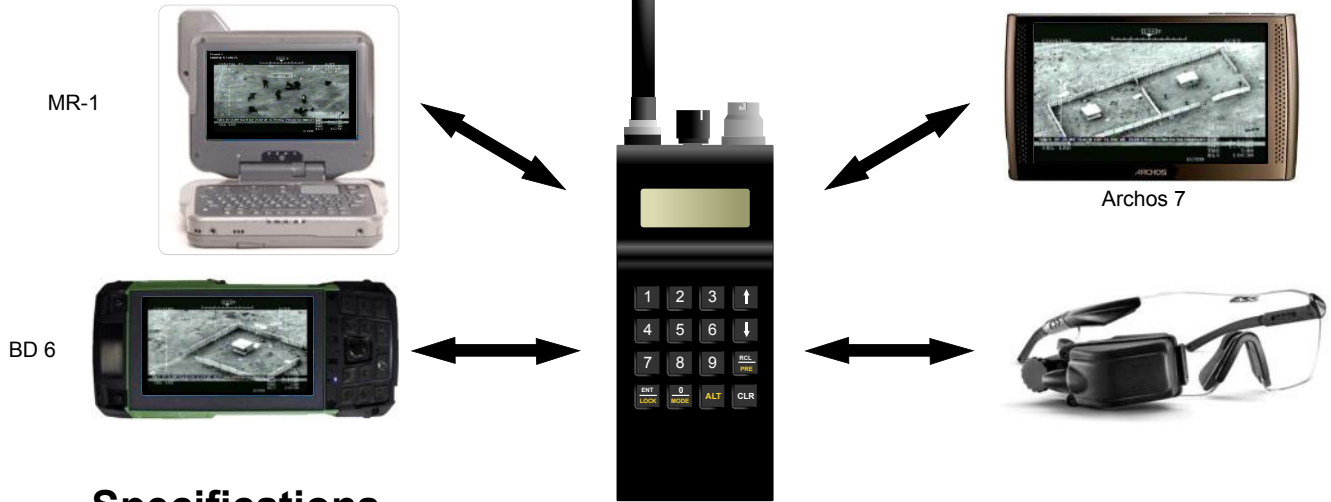


The MVR-IV is a hand-held unit that receives real-time, full-motion video. Designed to work over the L, S and C bands, it provides situational awareness to ground troops from aircraft, UAV, or ground based video sources. The unit is compatible with standard-issue eyepiece and can be interfaced to a portable computer for video capture, manipulation (John Madden), retransmitting and storage. It is modular in design, is upgradeable for unit specific requirements (to include digital encoding), and works with all legacy video transmission systems. Digital link encryption for all bands is available.

digital and secure versions available.<sup>1</sup>



# Application



# Specifications

## RF CHARACTERISTICS:

Frequency Ranges: 1700 to 1850 MHz, 2200 to 2500 MHz, 4400 to 5000 MHz, 5250 to 5858 MHz  
 Frequency Resolution: 1 MHz  
 Frequency Selection: Direct User Entry, Programmable Presets, Auto Scan and/or Up, Down  
 Band Select: Automatic

## RECEIVER CHARACTERISTICS:

Frequency Stability: +/- .001%  
 Sensitivity: -85 dBm  
 Input Impedance: 50 ohms  
 VSWR: 2.0:1 maximum  
 Noise Figure: 6 dB maximum  
 Dynamic Range: 60 dB minimum  
 IF Bandwidth: 22 MHz 1 dB, 27 MHz 3 dB nominal  
 L.O. Leakage: -25 dBm maximum

## VIDEO CHARACTERISTICS:

Format: NTSC FM (ROVER compatible)  
 Output Polarity: Increasing Frequency causes positive output  
 Frequency Response: 6 Hz to 4.5 MHz per CCIR 405 525 line de-emphasis  
 Output Amplitude: 1.0V p-p

## POWER REQUIREMENTS:

Input Voltage: +8.0 VDC min., +14 VDC max.  
 Current Draw: 450 mA nominal (650 mA with Vuzix eyepiece) @ 9V  
 350 mA nominal (550 mA with Vuzix eyepiece) @ 12V  
 Battery: Thales 12V Lithium Battery Pack or 9V 123 Battery Adapter; Harris PRC-152, and warrior pack system  
 Battery Life: 12 hours nominal @ 12V  
 Reverse Polarity Protection: Yes

## ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature: -25 to +60 degrees C  
 Altitude: Unlimited  
 Immersion: IP68 2 meters

## MECHANICAL SPECIFICATIONS:

Size: 1.5" x 2.6" x 9.7" (excluding connectors or switches)  
 Weight: approx. 2.0 lb (with batteries)

## CONNECTORS:

RF: TNC female  
 Video Output: 6-pin U-328 audio/data (shared with programming port)  
 Programming: 6-pin U-328 audio/data (shared with video output)

## Digital Specifications:

Waveform Applications	Streaming Video Application
FSK META Data*	MPEG-4 Simple Profile
ROVER Digital H.261 FSK	15 fps 640x480 resolution
ROVER Digital H.264 MPEG-4	RTP RFC-3016 Video Packetization

\* future model

## Standard Accessories

multi-band gooseneck antenna  
 12V 4.8 A-Hr Li-Ion rechargeable battery  
 hardened case

## Optional Accessories

wearable antenna	TOC kit
hands-free heads-up display	ARCHOS 7
battery charger	MR-1
AC adapter	multi-band video test set
BA5590 adapter	
vehicle power adapter	
vehicle mounting kit	

## Current Customers:

USASOC  
 AFSOC  
 NSW  
 MARSOC  
 USSOCOM

## Other Options:

GPS situational awareness  
 Digital Encryption

Note 1 contact Coastal Defense, Inc. for information.



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