

Rugged High Resolution Digital Video Recorder for Feet Wet Applications

Record Clear Full-Speed Zero Latency Video on a Shock and Vibration Proof Recorder

KEY FEATURES & BENEFITS

- One or Four Channels
- High Resolution 720 x 486
- Full Speed 30 Frames Per Second
- Zero Latency
- Extract Still Images
- Record and View Simultaneously (Single Channel Only)
- Critical Event Marking
- LCD Screen for Easy Video Management
- Shock & Vibration Tested
- Embedded Operating System for Maximum Reliability
- Removable Hard Drive
- Free Software Upgrades

APPLICATIONS

- Coast Guard
- Commercial Diving
- Conservation & Protection
- Homeland Security
- Law Enforcement
- Military
- Oil & Gas
- Port Security
- Research & Exploration
- Search and Rescue

PRODUCT DESCRIPTION

The Marine Spec Xtreme (MSX) – Recording high resolution video is a necessity for any top side application. When you need a system to capture video in rugged and intense environments the MSX will perform with digital accuracy, collecting all the data you've programmed it to do. The MSX Single channel provides one live video output port for you to view your job at hand. The MSX Quad provides you with four simultaneously recorded channels for multiple viewing angles.

High resolution video (720 X 486) at full speed 30 frames per second with zero latency. The high performance digital platform combines a 1GHz host processor with a Linux real-time operating system and wavelet compression resulting in clear, crisp, non-jerky video. Wavelet compression performs a detailed mathematical analysis of the entire field of each frame at once, resulting in no blocking or artifacts.

Features allow you to adjust for maximum picture quality at full frame rate. You can record and view live video simultaneously. Overlay audio on the disk to record details of events at critical times during your recording.



The Critical Event Marker allows you to mark important events or incidents on disk as they happen, using "The Snapper". The event markers are grouped on the disk and are easily searchable with the LCD menu. You can search video by manual fast forward and rewind, index, alarms, date/time and clips. The subtitle feature includes project ID, date/time and alarms, ideal for easy video management. The secure Logon feature protects the system from being tampered with by preventing any non-user from being able to operate the system.

DOWNLOADING & VIEWING VIDEO

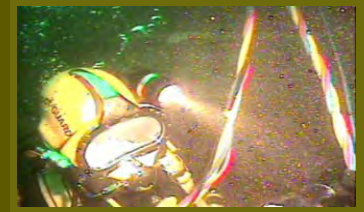
The Viperfish[®] MSX gives you several options to view recorded video. The Hard Drive trade named Comrad[™] is a combination reader and data storage device. The Comrad[™] can be removed and connected to a computer via high-speed USB 2.0 for viewing, emailing and burning video to disk.

The VF Viewer is customized to show time sensitive alarm events and allow for easy clip and still image extraction. If you prefer to download directly from the Viperfish[®] MSX to a separate drive, it can be done quickly via the USB 2.0 port. On the job, connect a TV directly to the video output port for a live video preview. Annotating video with text while recording can be done with a standard USB/PS2 keyboard.

VF VIEWER – VIPERFISH[®] MSX QUAD



*Actual Recorded Video from MSX



KEY FEATURES

- Built in LCD Screen for Easy:
 - ✓ Configuration
 - ✓ Video Search, Group and Download
 - ✓ Record
 - ✓ Power Management
- Automatic Daylight Savings Time Adjustment
- On Screen Subtitles
- Adjustable Record Quality
- Adjustable Frame Rate
- Critical Event Marking
- Secure Logon Feature
- Online Software Upgrades

OPERATING CHARACTERISTICS

Audio Video

Video Signal System	NTSC / PAL / SECAM
Video Input	1 or 4 Video Inputs
Video Input Signal	1.0Vp-p 75 Ohms
Video Output	1 Composite Video Out for live viewing (single channel only) 1 RCA/VGA for viewing/control
Video Output Signal	1.0Vp-p 75 Ohms
Audio Input	2 mono/stereo MP3/PCM
Audio Output	1 Audio Output

Recording

Compression	Wavelet-adjustable
Recording Frame Rate	1-30FPS NTSC 1-25 PAL
Recording Mode	Continuous or Delay
Recording Quality	Standard or High Res.
Avg. Recorded Image Size	20 KB / Frame / Sec / Camera

Playback

Playback Resolution	High (720 x 486) Med (320 x 243) Low (180 x 122)
Search Mode	FF, REW, Index, Date/Time, Alarms, Clips

Events

Alarm Inputs	8 inputs
Alarm Outputs	2 outputs

Storage & Download

Hard Drive	80 GB min
COMRAD™	Removable Hard Drive USB 2.0

Network

Network	10/100 Mbps Ethernet
Online Management	VF Viewer
Software upgrades	Via Internet through VF Viewer

Display

Display Size	720 x 640 NTSC / 720 x 570 PAL
--------------	--------------------------------

PHYSICAL / ENVIRONMENTAL CONDITIONS

Connectors

Video Input	BNC (single channel), RCA (Quad)
Video Output	BNC (single channel), RCA (Quad)
Audio Input	Mini Audio (3.5 mm)
Audio Output	Mini Audio (3.5 mm)
Alarm Input/Output	DB25
Ethernet	RJ45

Dimensions

Depth	10 1/4" (26 cm)
Width	9 5/8" (24 cm)
Height	4" (10.2 cm)

Environment

Operating Voltage	12 Volts
Output Voltage	12 Volts
Maximum Load	5 Amps (8 Amps Surge Current)
Weight	14 lbs (6.36 kg)
Shock & Vibration Testing	*Conforms to MIL-STD-167
Operating Temperature	*-20°C to 70°C
Operating Humidity	*0% to 90% (non-condensing)

*contact manufacturer for Test Data Results

PC SYSTEM REQUIREMENTS FOR VIDEO VIEWING

Operating System	MS Windows 2000 / XP
Processor	Intel / AMD 2GHz Processor
RAM	256 Megabytes or higher
Free Hard Drive Space	1 GB
Internet Browser	MS Internet Explorer 6.0 or Netscape Navigator 7

