

▶ Crusader Recorder

CRUSADER RECORDER

RV-CRUS-X1 Single Channel
RV-CRUS-X2 Dual Channel
RV-CRUS-X3 Three Channel
RV-CRUS-X4 Four Channel

The Rugged Video Crusader was designed as video recording solution for professional aerospace applications.

Features

- One, Two, Three or Four Channel Recording
- 1080p60 HD Video
- Accepts 3G-SDI, HD-SDI, SD-SDI, HDMI/DVI, or NTSC/PAL
- Built-in GPS Automation
- GPS Integration for Overlay and Data File Recording
- Built-in Audio Mixing
- WiFi Streaming
- Internal Battery Backup

Applications

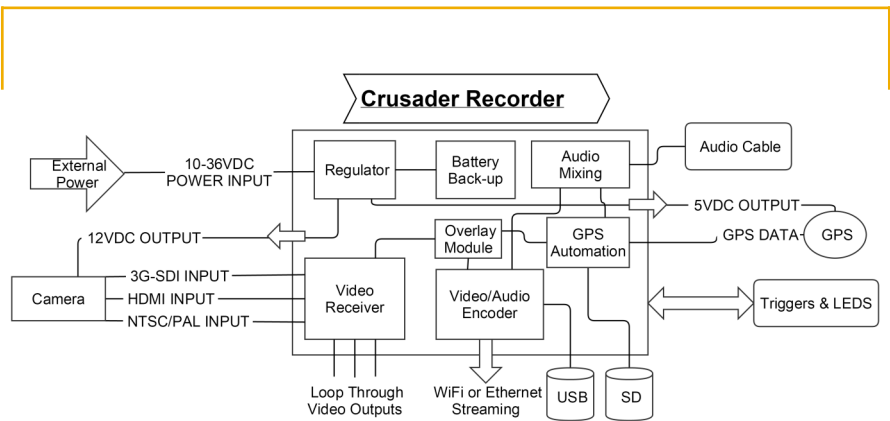
- Aerial Patrol/Mapping
- Flight Testing
- Airborne Law Enforcement
- Mission Recording/Debriefing

Add-on Modules

- Four Channel Switcher
- Four Channel Multiplexer
- CoPilot Control Module
- Narrator PTT Module



▶ FUNCTIONAL DIAGRAM



RUGGED
VIDEO

Phone: 414-399-3370
 E-mail: sales@ruggedvid.com
 Web: http://ruggedvid.com

Rugged Video, LLC
 10555 N. Port Washington Rd. #204
 Mequon, WI 53092
 USA

Specifications

SYSTEM



FRONT



REAR



ISOMETRIC



Video

SDI Input

3G-SDI—SMPTE 424M (1080p60, 1080p59.94, 1080p50)
 HD-SDI—SMPTE 292M (1080i60, 1080i59.94, 1080i50, 1080p30, 1080p29.97, 1080p25, 720p60, 720p50, 720p30)
 SD-SDI—SMPTE 259M (576i, 480i)

HDMI/DVI Single Link (DVI-D) Input

1920x1200p60, 1920x1200p50, 1440x900p60
 1280x1024p60, 1280x1024p30, 1280x960p60, 1280x960p30
 1280x960p60, 1280x960p30, 1024x768p60, 1024x768p30
 800x600p60, 1080p60, 1080p50, 1080p30, 1080p25
 1080i60, 1080i59.94, 1080i50, 720p60, 720p50, 720p30, 720p25
 480p60, 480p30, 576p50

CVBS Input

Composite/Analog
 NTSC, PAL, SECAM
 75ohm 1V p-p

Resolution/ Framerate

Resolutions: 1920x1200, 1920x1080, 1680x1050, 1600x900, 1440x900
 1280x1024, 1280x920, 1280x720, 1024x768, 800x600
 640x480, 640x360, 352x288, 352x576, 352x240, 352x480
 720x240, 720x288, 720x480, 720x576
 Framerates: (60,50,30,25,20,15,10,8,6,5,4,3,2,1)

Compression/ Bitrate

H.264 (AVC, MPEG-4 Part 10)
 Baseline, Main, and High Profile
 32Kb/s to 16.5Mb/s CBR or VBR
 MJPEG
 2Mb/s to 55Mb/s VBR

Audio

Input/ Sources

External: Analog Stereo, Line Level up to 8V P-P
 General Aviation, Helicopter (U174), Bose 6-Pin
 Microphone, AUX Jack Input, RCA Input, 1/4" Input, XLR input
 Internal: MP3 (Automator SD Card)
 Soundtracks, Narrations, Safety Messages, Background Music
 Embedded: SDI, or HDMI

Output/ Destination

Output to Headset(s)/Audio Panel
 MP3 Narrations, Soundtracks, etc. via Automator and/or
 Mixed Automator Audio & AUX Input (iPod, etc.)

Audio Mixing

External/Internal Source Mixing
 Independent Level Adjust 0 to 10x Volume
 2 x Master Gain

Compression

AAC at 64Kb/s or 128Kb/s (32KHz, 44.1KHz, 48KHz)
 G.711 at 64Kb/s

Triggers/Indicators

Triggers

Front Panel: Power On/Off, Record
 Rear Connector (Remote Mounting): Record, Snapshot, Waypoint
 RF Remote: Record, Snapshot, Waypoint (Optional)

Indicators

Front Panel: Power, Record, Fault, GPS
 Rear Connector (Remote Mounting): Record, Fault, GPS

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NARRATOR PTT



COPILOIT



MULTIPLEXIER



UNIT STACKING



Specifications

Automation

Event Triggering Time, Speed, Direction, Waypoint, Waypoint & Direction

Trigger Action Start/Stop Recording
Take Snapshot(s)
Play MP3 (Soundtrack, Narration, etc.)
Overlay Custom Text on Video (Three Positions)

GPS/Data

Input RS-232 Baud 2400 to 115200
Garmin 18x LVC, 5Hz,
Garmin Aviation NAV
Standard NMEA 0183

Sample Rate Overlay: 20Hz
KML/GPX: 1Hz or 5Hz

Sentences GPS: GPRMC, GPGGA, GPGSA, GPVTG
CUSTOM: \$ASCII, TEXT 1, TEXT 2, TEXT 3<CR><LF>

Overlay Data Coordinates (Degrees, Degrees Minutes, Degrees, Minutes, Seconds)
Speed (KT, MPH, KPH)
Altitude (Meters, Feet)
Heading (Degrees) *VTG only
Time/Date
Custom (Three Lines)

GPS Companion Files KML & GPX - Synced with Video
GPS Supports Waypoints

Media

SD SD, SDHC, SDXC (For MP3 & Automation Information)

USB USB 2.0/3.0 (6MB/s write speed or better) up to 2TB
Supports Most USB 3.0 Drives

Power

Input 10 to 36VDC 4.25W
Compatible with 12V, 14V, 24V, and 28V Aircraft Power Systems

Physical

Temperature Range Operation: -40°C to +85°C (-40°F to 185°F)
Storage: -55°C to +105°C (-67°F to 221°F)

Dimensions L, W, H 5.00" x 5.00" x 1.85" /
127mm x 127mm x 47mm

Weight 22.5oz /
638g

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