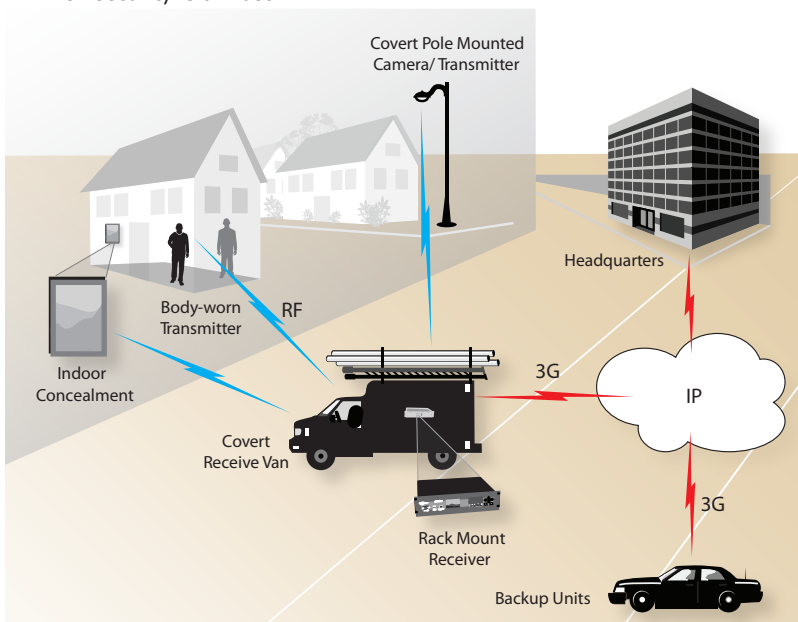# VISLINK

KAMELYON Series HDT-1000

SD/HD Digital Video Transmitter

Overview

The Kamelyon™ HDT-1000 digital transmitter meets the unique needs for sending high-quality HD video, audio and data transmission in highly demanding tactical environments. Kamelyon's software defined surveillance technology allows in-the-field system personality changes and upgrades without requiring hardware modification. Designed for rapid deployment, the rugged and compact HDT-1000 easily meets the tactical requirements for covert and overt surveillance of law enforcement, public safety, homeland security, and defense operations. The Kamelyon's low power consumption results in extended battery life and its small size make it ideal for concealments and portable use.

The HDT-1000 transmits High Definition (HD) video with up to 1080p resolution or Standard Definition (SD) video at 480i and supports a variety of video frame rates. Highly efficient H.264/MPEG-4 encoding provides real performance advantages over legacy MPEG-2 technology, including enhanced video quality and increased signal range and reliability. Multiple digital encryption options are available to prevent unauthorized intercepts when security is a must.

High Performance Advanced Features

- RangeMaster™ maximizes the transmission range, and sends video signals up to four times farther than COFDM/DVB-T transmission.
- DoubleVision™ supports dual simultaneous SD video feeds through a single HDX-1000 transmitter.
- FadeFighter™ greatly reduces video break-up in dense metro area environment from a fast moving aircraft or ground based vehicle.

Features

- High Definition / Standard Definition
- Multiple Encryption Algorithms
- Video / Audio / Data Transmission
- Web Browser User Interface
- Flexible Software Defined Surveillance
- Field upgradable Feature
- Up to 200 mW Output Power
- H.264, AVC SD/HD Encoding, BL/ML/HL profiles
- Multi-Function inputs: Composite Video, SDI, HD-SDI, ASI
- Multiple Modulation Formats
- Rugged Packaging
- Compact and Lightweight
- Wide Range Voltage Input
- 16 User Selectable Presets

Applications

- Covert Operations
- UAV / UGV
- Air–to–Ground Downlink
- Tactical / Field Response
- Crisis Management

Specifications

General

Modulation
- DVB-T (standard) 6/7/8 MHz bandwidth
- COFDM-EN300-744, QPSK, 16QAM, 64QAM
- RangeMaster - Narrow Band, programmable, 1-10 MHz bandwidth QPSK
- LMS-T 10 MHz COFDM (optional-consult factory)

Encryption (Available Options)
- AES 128/256 bit key

Frequency Parameters

Frequency Stability
- 2.5 ppm

Frequency Step Size
- 250 KHz

Band Support

Band	Frequency
P	300 to 400 MHz
L	1.7 to 1.9 GHz
S	2.0 to 2.5 GHz
C1	3.1 to 3.5 GHz
C2	4.4 to 5.0 GHz
C3	6.425 to 6.525 GHz
For Custom Bands (Consult Factory)	

Video Encoding

H.264/MPEG-4
- SD/HD (standard feature)

AVC/MPEG – 4 (Part 10)
Profiles supported:
- Baseline profile
- Main profile
- Hi-Profile
Video Bit Rates
- Up to 12 Mbps maximum

Video Input Format

Analog Composite
(1 V p/p TIA/EIA RS170)
- 720 x 480i NTSC 525
- 720 x 576i PAL 625

SDI
(SMPTE 259M - 270 Mbps)
- 720 x 480i @ 25/30fps
- 720 x576i @ 25/30fps

HD-SDI
(SMPTE 292M - 1.5 Gbps)
- 1920 x1080p @ 24, 25, 29.97, or 30 FPS
- 1920 x 1080i @ 24, 25, 29.97, or 30 FPS
- 1280 x 720p @ 50, 59.94, or 60 FPS

ASI
- 188 byte, EN50083-9

Wayside Data
- Up to 115.2 kbps (serial)

Video Input Impedance
- 75Ω unbalanced

Audio

Line Level
- Line or Microphone (x2)
- 600 Ω unbalanced

MIC Level
- −57 dB, REF 1V/Microbar
- 5KΩ unbalanced

Phantom Power
- 4.5 Vdc

Power Output

RF Output (High Power Mode)
- 200 mW (+23 dbm)

RF Output (Low Power Mode)
- 20 mW (+13 dbm)

Environmental

Operating Temperature
- −10º C to +55 ºC [14º F to 149º F] (Extended temperature range with optional heat sink)

Storage Temperature
- −40º C to +75 ºC [−40º F to 167º F]

Humidity:
- 0 to 95% relative, non-condensing

Altitude
- 20,000 feet/ 6000 meters

Mechanical

Material
- Aluminum housing, anodized

Dimensions
- 4.125" W x 2.87" L x 0.675" H 10.48cm W x 7.29cm L x 1.71cm H

Weight
- 0.75 lbs (340 g)

Controls

Local Interface
- 7 button local interface for control

LED Indicators
- Preset Number
- Audio Input Level
- RF Power Level
- Encryption
- Video presence
- Alarm

Remote User Interface
- RS-232, 10/100Base-T Ethernet

Configurable Presets
- 16 user selectable configurations

Power Source

DC Input
- +10 to +32V

Power Consumption

L & S Band
- 10 Watts max.

C-Band
- 12 Watts max.

X-Band
- 14 Watts max.

Options
- Heat sink - for extended temperature range (1.5" x 2.49" x 1.06")
- AC Power Supply
- Breakout Cable - specify Mic or Line Level

Standard Equipment
- DC Power Connector and Breakout Cable
- CD ROM User Manual

Regulatory
- FCC Parts 15,90

Connections

Interface		Connector Type
RF Output		SMA Female
Video Input	• Video A - NTSC/PAL Composite • SD-SDI or HD-SDI (configurable) • ASI - Input from external encoder	BNC Female (Configurable)
	• Video B - NTSC/PAL Composite (MPEG-4 DoubleVision mode only)	21-Pin Receptacle
Control / Audio • RS232: I/O for remote control panel or PC interface • Wayside Data Input • Audio 1 & 2 Input		
Set-up & Maintenance (10/100 web browser interface)		RJ-45 (10/100)
DC Power • DC Power Input: +10 to +32V		4-pin LEMO female

www.vislink.com

VISLINK