



DRAKON HD - SDI codecs

with transparent duplex serial link

DRAKON 01C Commercial
DRAKON 01R Rugged
DRAKON 01M OEM

- ❖ Low latency H264 video encoder, supporting High, Main and Baseline profiles
- ❖ Typical encoding latency less than 50ms
- ❖ SDI (270M) and HD-SDI (1.485G) video input with support for embedded audio
- ❖ Supports resolutions up to 1080p30
- ❖ Video loop through
- ❖ Supports RTP, RTSP, RTMP, HLS and MPEG-TS video streaming
- ❖ Bidirectional audio with AAC or G711 encoding via stereo line in and out
- ❖ Transparent bi-directional RS232 port with software SDK (RS422/485 available as factory build option)
- ❖ 10/100 Mbps Ethernet interface
- ❖ Local internal plus USB external storage
- ❖ 802.11 WiFi available as factory build option
- ❖ ONVIF 1.1/2.0 compatible
- ❖ Alarm input
- ❖ Web management interface
- ❖ Low consumption typically 3W

The **DRAKON** is a professional HD/3G-SDI H.264 video encoder, compact with ultra-low power consumption design. HD-SDI with looping input provides simple installation into existing systems. The SDI signal can be enhanced on-board prior to encoding by an SOC processor for creating H.264 high performance video encoding with a low bit rate.

DRAKON supports unbundled audio from an SDI signal and has separate analogue audio line inputs for AAC (MPEG4-Audio) or G.711 stereo audio encoding or G.711.

DRAKON allows interfacing and preview video through WEB management with simple operation and multi-language support for worldwide users.

The small size of 128(w) x 89(d) x 28mm (w), integrates FPGA, video co-processor and video encoding chip on a single board, with support for 10/100M self-adaptive Ethernet interface. **DRAKON** also supports 1080p60 full HD video encoding and 960x540 60Hz sub-stream encoding. Typically power consumption is <3W.

Other features provided by the on-board pre-processing include dynamic noise reduction, cut, rotation, grey scale and image enhancement plus character or image overlay. Local storage and recording is based on Micro SD/TF card and/or external USB storage

As a guide, 1Mbps @ 720p or 1.5Mbps @ 1080p provides good quality streaming video which meets the need for low bit rate transmission over radio networks and aircraft downlinks.

DRAKON models include a SUNSHINE streaming media engine, with full support of RTP/RTSP/RTMP/HLS/TS. Through protocols such as RTMP/TS, it can push live video to multiple global live video platform/CDN. **DRAKON** acts as light-weight streaming media server, allow 20-50 users to simultaneous access.

ONVIF 1.1/2.0 support is standard

Interface	Video input	BNC SDI (1 channel)
	Video looping out	BNC SDI
	Analog video input	3.5mm jack
	Analog video output	3.5mm jack
	Wired network	RJ-45, 10/100M self-adaptive Ethernet
	USB	USB 2.0 Type-A USB 2.0 Mini-USB
	Serial Data	RS232 standard , RS485/422 factory option
Network support	Micro SD	Micro SD/TF Card
	Ethernet	Supported
Signal and formats	SDI signal standard	0.8Vp-p
	SDI impedance	75 Ohm
	SDI coupling way	AC
	SDI signal formats	HD-SDI(1.485Gbps) 3G-SDI(2.97Gbps)
	Supported video formats	1080p23.98/24/25/29.97/30 1080p50/59.94/60 1080i50/59.94/60 720p23.98/24/25/29.97/30 720p50/59.94/60,576i, 480i 525i(480i) / 625i(575i)
Encoding	Audio	SDI unbind audio (stereo) Analogue Line-in/Line-out (stereo)
	Video encoding	H.264 AVC High profile (up to level 5.1), compatible with Main profile and Baseline
	Audio encoding	AAC/MPEG4-Audio, G.711(u-Law/a-Law) [other algorithms can be requested]
	Encoding delay	Typically ≤50ms
	Video encoding bitrates	256Kbps ~ 25Mbps adjustable
	Audio encoding bitrates	32Kbps ~ 512Kbps : AAC 64Kbps : G.711
Transmission protocols and Management protocols	Transmission protocols	RTP / RTSP (compatible RTP over RTSP, RTSP HTTP Tunnel and RTSP Multicast) RTMP pushing, RTMP service, TS over UDP, HLS
	Private protocol	Bristar
	Control/management protocol	Onvif 1.1/2.0 Bristar Control Protocol WindTalk compatible with (private) protocols
	Management protocol	HTTP
Management ways	Management interface	Web
	Remote management	supported
	Online firmware updating	Supported
Working environment	Power	DC 12V 1A
	Operating Temperature	-4 to 176°F / -20 to 80°C (extended low temperature range on request)
	Relative humidity	20 ~ 90%RH (non condensing for C version). 100% for R version
	Power consumption	4W Max
Size and accessories	Size	125 x 89 x 28 mm /4.9 x 3.5 x 1.125"/ (C version)
	Weight	380g/13.4oz
	Power adapter	External DC 12V 1A adapter