The H264-ULL-RS343 is an ultra low latency, dual channel, H.264 encoder for CompactPCI-Serial systems. The H264-ULL-RS343 provides a powerful and flexible solution for capturing and compressing 2 Analog RGB RS-343 sources at up to 1080p HD resolution to the H.264/MPEG-4 AVC (Part 10) standard.

The H264-ULL-RS343 is ideal for time-critical applications as it offers Ultra Low Latency encoding of below 40ms across the entire capture resolution range. The H264-ULL-RS343 supports dual H.264 encodes at resolutions up to 1080p30 or a single channel encode at 1080p60. The H.264 encoding can be flexibly configured to suit a range of bandwidth and storage requirements.

The ultra low latency feature of the H264-ULL-RS343 makes it ideal for real-time video I/P streaming and distribution of RS-343, VGA or other Analog RGB video.

The H264-ULL-RS343 is a standard 3U CompactPCI-Serial form factor module available with a comprehensive video recording SDK for Linux and Windows. An extended RTSP video streaming SDK is also available for applications requiring transmission of the captured data over IP links.

Rev A.00- Preliminary Information
Subject to change without notification
H264-ULL-RS343
CompactPCI-Serial Dual channel RS-343 H.264 Video Encoder

Applications
Mission Recorder
STANAG video recorder
Rugged video recorders for marine, aviation
Real-time HD video distribution
Situational Awareness
Remote Video Surveillance
Border Security
Traffic Monitoring and Control
Video Acquisition and Analytics
Solid state multi-channel video and sensor recorders
H264-ULL-RS343

CompactPCI-Serial Dual channel RS-343 H.264 Video Encoder

Features

2x RS-343 video inputs
Dual channel encode at up to 1080p30
Single channel encode at up to 1080p60
H.264/MPEG-4 AVC (Part 10) encoder
Ultra Low Latency technology with a latency below 40ms
Intra-refresh to improve bandwidth utilization
Standard 3U CompactPCI-Serial mechanical form factor
Drivers for Windows and Linux
RS-343 Video Input
Dual RS-343 video inputs supporting up to 1080p60

Flexible capture resolutions
Flexible capture resolutions, 16x16 pixel granularity
Standard resolutions supported include:
1080i60, 1080i59, 1080i50, 1080p30, 1080p25
720p60, 720i60, 720p50, 720i50
480p60, 576p50
PAL, STANAG-B
NTSC, STANAG-C
UXGA, WSXGA+, SXGA, XGA, SVGA, VGA

Ultra Low Latency
Less than 40ms encode Latency

H.264 Video Encoding
ITU T H.264 (ISO/IEC 14496-10)
Baseline and Main profile up to L4.2
Interlaced and progressive video encode support
Real-time multi stream H.264 Ultra Low Latency capture
Dual channel encode at up to 1080p30
Single channel encode at up to 1080p60

Bit rate control
Constant bit rate (CBR)
Variable bit rate (VBR)

Configuration support per stream
Frame rate
Resolution
Bit-rate control
Key frame interval
Intra-refresh mode

Mechanical
Standard 3U CompactPCI-Serial form factor.
Operating temp 0˚C to 60˚C
Operating temp -40˚C to +85˚C (extended temp option)

Software
Drivers for Windows, Linux
Comprehensive video recording SDK
Sample video recording application with C/C++ source code

Ordering Information
H264-ULL-RS343
H.264 Video Encoder (0 to 60˚C)
H264-ULL-RS343-EXT
H.264 Video Encoder (-40˚C to +85˚C)