

# H264-ULL-RS343

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



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

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Ultra Low Latency  
Dual Channel  
H.264 compression  
from  
High Resolution  
RS-343 sources



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**Advanced Micro  
Peripherals**

THE EMBEDDED VIDEO EXPERTS



Comprehensive  
SDKs for  
Video Recording  
and  
RTSP Video  
Streaming  
applications

## 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

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Peripherals**

THE EMBEDDED VIDEO EXPERTS



**H264-ULL-RS343**

Rugged video  
capture and  
encoding for  
demanding  
environments

## 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

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### 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

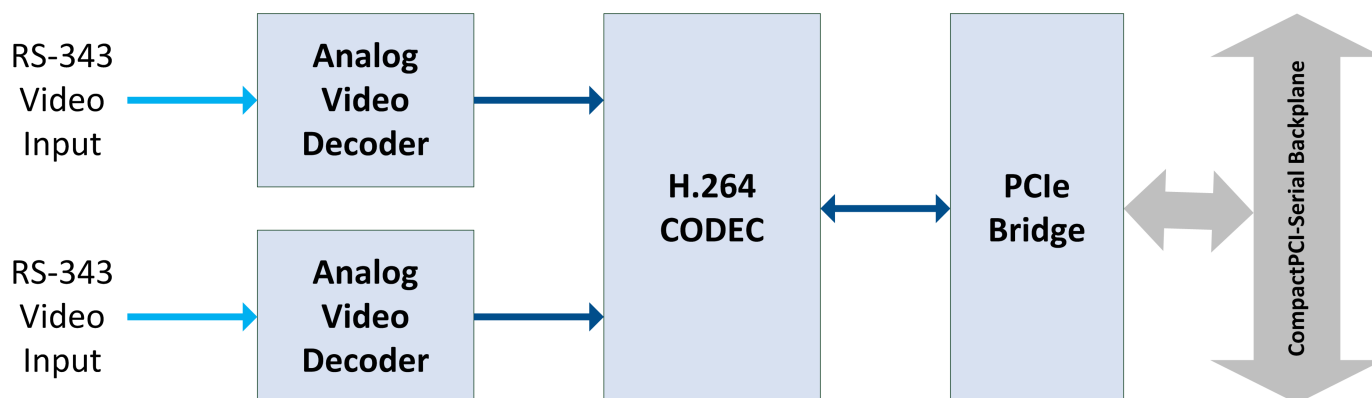
### Ordering Information

**H264-ULL-RS343**

H.264 Video Encoder (0 to 60°C)

**H264-ULL-RS343-EXT**

H.264 Video Encoder (-40°C to +85°C)



**H264-ULL-RS343 Functional Diagram**