

H264-XMC-RS343

XMC PCI-Express Dual channel RS-343 H.264 Video Encoder



The H264-XMC-RS343 is an ultra low latency, dual channel, H.264 encoder on an XMC expansion card. The H264-XMC-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-XMC-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-XMC-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-XMC-RS343 makes it ideal for real-time video I/P streaming and distribution of RS-343, VGA or other Analog RGB video.

The H264-XMC-RS343 is a standard compliant, single width CMC card using the XMC, PCI-Express fabric. The card is support by AMP's 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



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

Comprehensive
SDKs for
Video Recording
and
RTSP Video
Streaming
applications

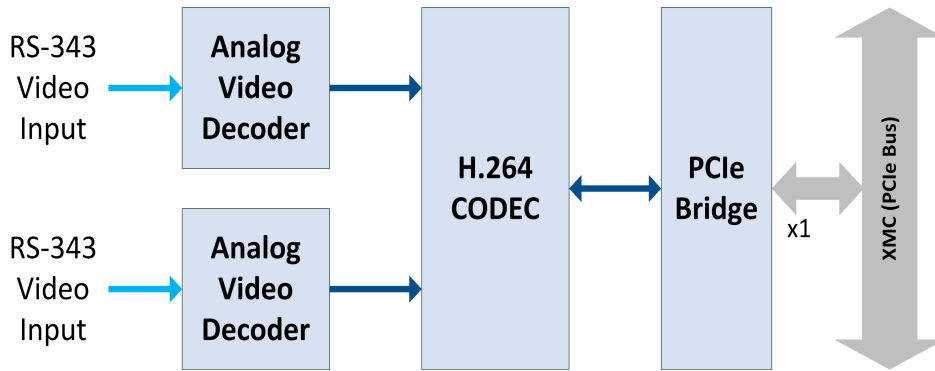
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H264-XMC-RS343 Functional Diagram

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
- XMC PCI-Express Bus
- CMC IEEE 1386 mechanical form factor
- Drivers for Windows and Linux

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XMC Interface

PCI Express 2.0 compliant
x1 PCI Express port

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
STANAG-B
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

System Requirements

X86 host with XMC socket

Environmental

Operating temp 0°C to 60°C
Operating temp -40°C to +85°C (extended temp option)

Mechanical

Single-width CMC (Common Mezzanine Card)
IEEE 1386 form factor (74mm x 149mm)

Software

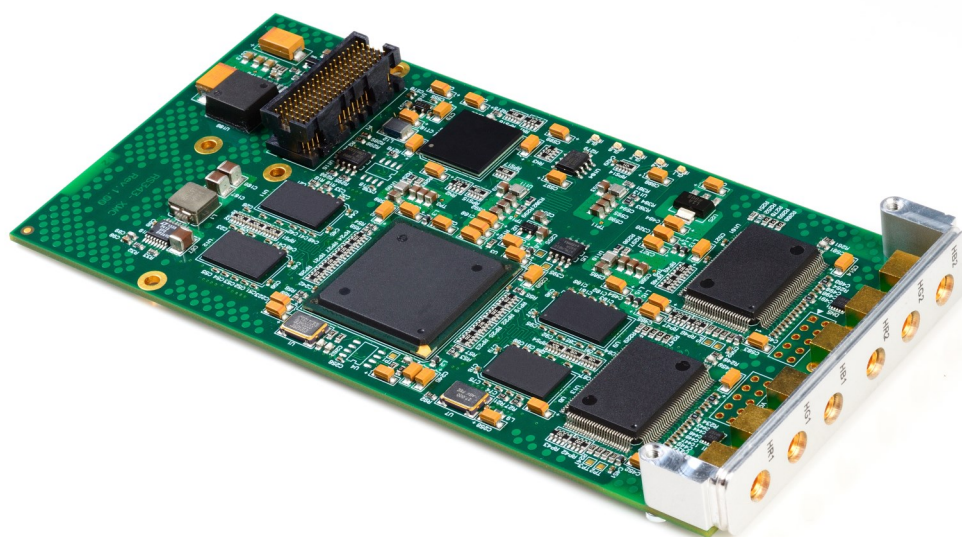
Drivers for Windows, Linux
Comprehensive video recording SDK
Sample video recording application with C/C++ source code

Ordering Information**H264-XMC-RS343**

H.264 Video Encoder (0 to 60°C)

H264-XMC-RS343-EXT

H.264 Video Encoder (-40°C to +85°C)

**H264-XMC-RS343**