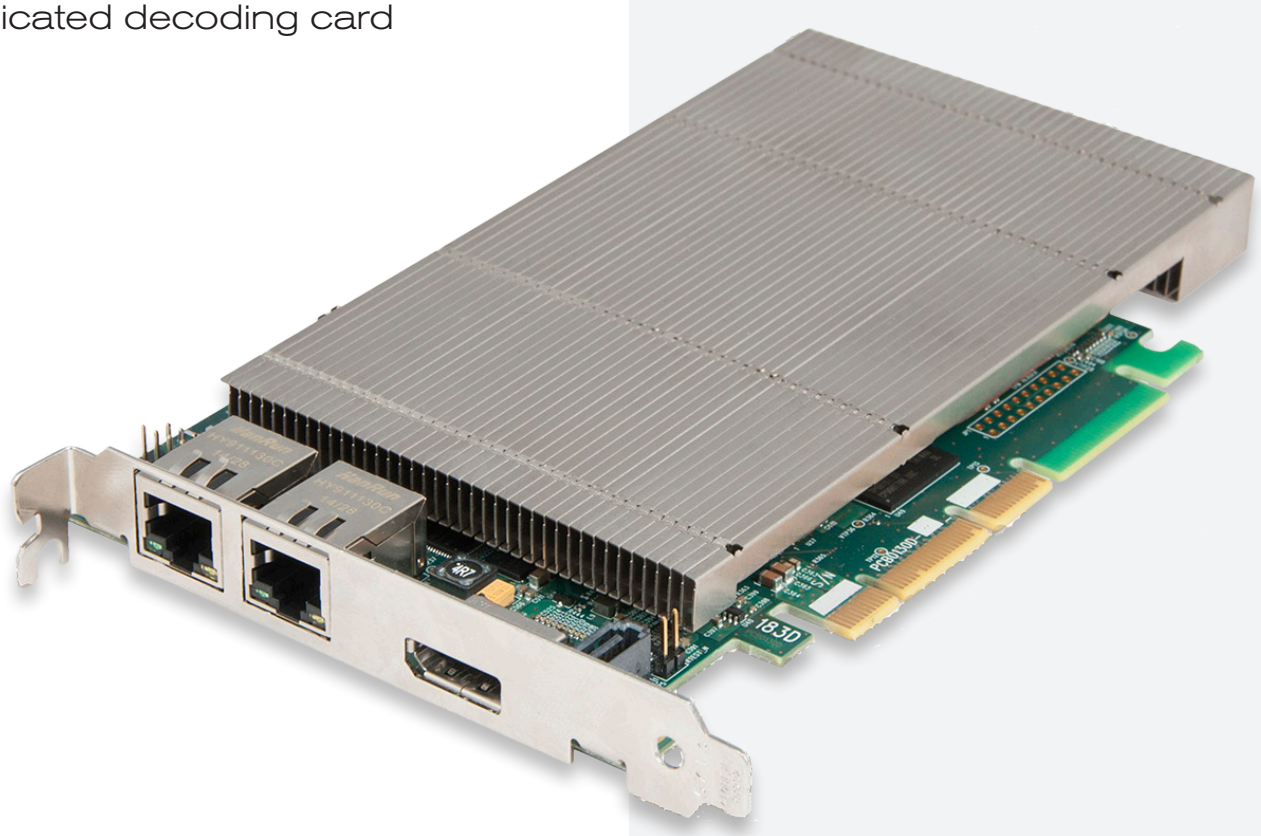
ActiveSQX

Dedicated decoding card



SCALABLE DECODING SOLUTION

Professional AV solutions require video to be received from a great many different sources and locations. The ability to receive and display video directly from online resources such as CCTV networks and remote desktop applications and combining them with local inputs has become an everyday part of a fully functional video wall display.

Datapath's ActiveSQX PCIe plug in card is a powerful addition to systems that require a scalable hardware based decoding solution under a single operation system platform, such as Windows®.

The ActiveSQX includes a dedicated processor capable of decoding several IP streams simultaneously via the on-board ethernet ports.

Fully PCIe compatible, multiple ActiveSQX cards can be used in a single system to provide project scalability, giving users more processing and more simultaneous decodes.

DATAPATH SQX TECHNOLOGIES

Datapath's SQX technology is compatible with industry standards for video compression and streaming.

The ActiveSQX allows users to decode large numbers of High Definition 1080p 60fps streams and multiple ActiveSQX cards reside in a single system to provide even more decoding capabilities.

In addition, the ActiveSQX can be placed in systems alongside graphics cards and video capture cards, such as the Datapath Vision range, to provide a powerful addition to any control room environment.

DATAPATH
EXCELLENCE BY DESIGN

A VITEC COMPANY

COMPATIBILITY

The ActiveSQX is supported by the following operating systems: Windows 10 64 bit and Windows server 2012.

Datapath SDK is included for software developers.

SPECIFICATION

BOARD FORMAT
PCIe x4 gen 2 plug-in card half length, full height

CONNECTORS
2 x RJ45 Ethernet ports, 1 x DisplayPort output connector (reserved for future use)

ETHERNET
Dual 1000 Base-T Ethernet ports DHCP or Static IP support IPv4 & IPv6

DMA ENGINE
Direct DMA to physical or virtual memory buffers with full scatter-gather support DMA bandwidth: up to 1.3GB/s

SCALING
Hardware downscaling prior to DMA transfer. One to One (1:1) transfer for upscale after DMA

CAROUSEL
IP Window carousel supported including the hardware based pre-buffering of IP decodes for smoother playback

STREAMING METHODS
Multicast & Unicast support

STREAMING CODECS
H.264 (Mpeg4 Part 10 AVC), VC-1, MPEG2 Part 2, MJPEG

STREAMING CONTAINERS
MPEG4 part 1, MPEG2-TS, WMV, MOV

STREAMING PROTOCOLS
HTTP, RTSP, RTP, UDP

DECODE DENSITY*
Up to:
1 x 4096 x 2160 at 60fps
3 x 4096 x 2160p at 30fps
6 x 1920 x 1080p at 60fps or 12 x 1080p at 30fps
or 10 x 1080i at 30fps/50 D1 at 30fps

DE-INTERLACING
Supported

STREAM AUTHENTICATION
Basic & Digest Stream Authentication

VIDEO CAPTURE MEMORY
4GB

H.264 PROFILES
Constrained Baseline Profile (CBP) / Main Profile (MP) / High Profile (HiP)

H.264 LEVELS
Level 3 / 3.1 / 4 / 4.1 / 4.2 / 5 / 5.1 / 5.2

COLOUR FORMAT
NV12 4:2:0(MP) / High Profile (HiP)

DIMENSIONS
174mm x 111mm (including heatsink)

POWER REQUIREMENTS
Max current at +3.3 - 1.9A
Max current at +12V-1.9A
Average power ≈ 14W

OPERATING TEMPERATURE
0 to 35 °C / 32 to 96 °F

STORAGE TEMPERATURE
-20 to 70 °C / -4 to 158 °F

RELATIVE HUMIDITY
5% to 90% non-condensing

WARRANTY
3 years

* Decode density may be affected if either the encoded stream was originally encoded to a pixel format other than NV12 (eg. YV12) or if the encoded stream is interlaced and requires de-interlacing.

MODELS AVAILABLE

Order Code: ActiveSQX
Dedicated decoding card

All products are shipped with the latest software available, unless stated otherwise. Special requirements may be organised by contacting our Sales team.

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