

## SharpStreamer™ Pro PCIe-7211 High Density HEVC Video Accelerator

### Data Sheet

#### *High Performance Off-the-Shelf HEVC Video Transcoding Accelerator Card*

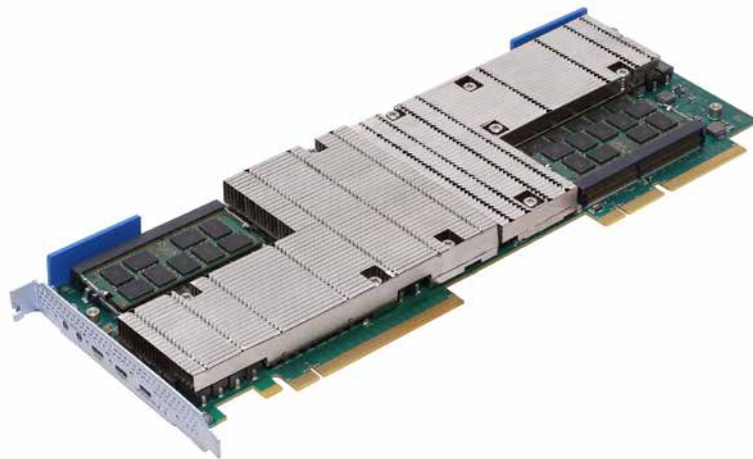
- HEVC transcoding accelerator
- Provides horsepower to run complete application on each microprocessor
- Designed for lowest in-system latency
- Offering the only server-based approach
- No dedicated appliances
- Higher H.264/AVC and H.265/HEVC transcoding density than software-only solutions

Designed for Artesyn's MaxCore™ PCIe system platform, the SharpStreamer™ Pro PCIe-7211 high performance video accelerator enables service provider networks to offer HEVC video transcoding services quickly and dynamically. Combined with GPU cards in a MaxCore™ Platform, the PCIe-7211 provides an excellent transcode solution for on-line gaming.

With a focus on the high density and low power demands of video streaming applications such as OTT streaming servers, mobile network optimization, video conferencing and broadcast equipment, Artesyn employs Intel® Xeon® E3-1585L v5 (codename Skylake-H) GPU accelerated devices in small, scalable PCI Express card footprints that are easily deployable in off-the-shelf platforms.

The SharpStreamer Pro solution offers network scalability for increased subscribers to pay as you go, adding more cards and density from small to large servers as needed. Compared to software-only solutions, the SharpStreamer PCIe-7211 requires far fewer servers and much less operational cost to power video transcoding services.

The SharpStreamer PCIe-7211 is equipped with a Software Development Kit comprising the Intel® Media Server Studio Essentials runtime files with the Intel® Iris™ Pro Graphics P580 fixed-function hardware acceleration, monitoring and processor subsystems, O/S, and management tools for easy integration with server host processing environments.



## Hardware Overview

### Hardware

With the PCIE-7211 deployed in MaxCore™, each subsystem communicates with the host server through a direct-attached PCI Express x8 Gen 3 link. The PCI Express version utilizes a non-transparent PCI Express x16 Gen 3 (128Gbps) bridge to connect to the host's PCI Express interface. Each CPU supports up to 32GB of removable DDR4 dual channel memory. The SharpStreamer PCIE-7211 card uses power from both the PCI Express slot and an on-board auxiliary power connector.

#### MAIN CHIPSET\*\*

- PCIE-7211-2: Two (2) Quad Core Intel® Xeon® E3-1585L v5 running at 3.0GHz processors

#### PROCESSOR GRAPHICS

- Intel® Iris™ Pro Graphics P580 (GT4e)
  - Graphics base frequency 350 MHz
  - Embedded graphics DRAM per GPU: 128MB

#### MEMORY

- 2x DDR4 SO-DIMMs per CPU
- Designed for up to 32GB DDR4 memory per CPU

#### PCIE INTERFACES

- Host: PCI Express Gen 3 x16

#### EXTERNAL INTERFACES

- Micro USB port
- Serial port
- Reset button (on face plate)
- USB 3.0 port (internally on card edge)

#### POWER REQUIREMENTS\*\*

- Estimated peak electrical power: 150 W

#### TEMPERATURE CHARACTERISTICS\*\*

- Normal operation: 0 °C to 35 °C

#### RELEVANT CARD SIZE

- PCIE-7211-2: Full Height; Full Length: H x L: 107 mm X 312 mm

#### RELEVANT STANDARDS

- PCI-SIG PCI Express Base Specification rev. 2.0

#### HARDWARE ACCELERATED CODECS

- H.264
- H.265
- MPEG-2
- MJPEG (Partial acceleration decode only)
- VC-1 (Decode only)
- VP8 (Partial acceleration)

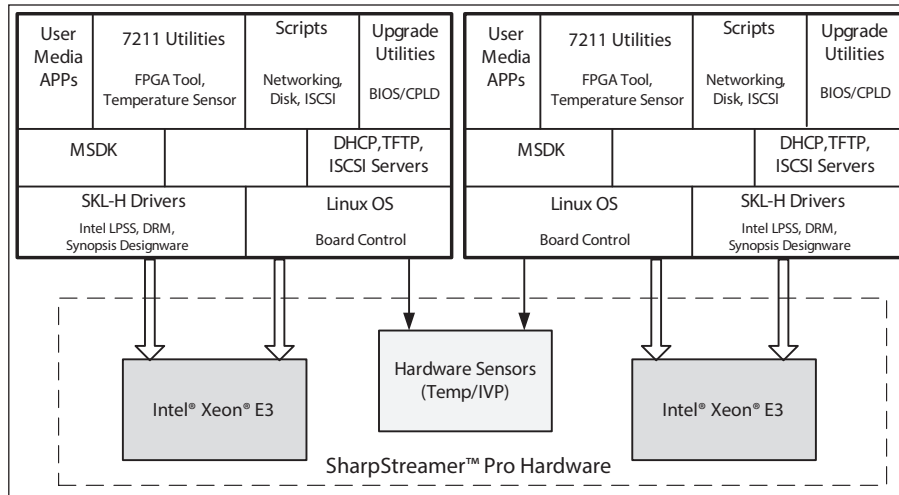
#### VIDEO PROCESSING APIS

- Composition
- Scaling
- Color-Space Conversion
- De-noise
- Adaptive De-Interlace
- Interpolated Frame Rate Conversion

For performance results for specific applications please contact your Artesyn FAE.

\*\*Please note these values are subject to change.

## Software Block Diagram



## Ordering Information

PCIE Boards	Description
PCIE-7211-2-0GB	PCIE card with 2x Quad Core Intel® Xeon® E3-1585L v5 Processors, 16GB DRAM/CPU, 0GB SSD/CPU
PCIE-7211-2-32GB	PCIE card with 2x Quad Core Intel® Xeon® E3-1585L v5 Processors, 16GB DRAM/CPU, 32GB SSD/CPU
PCIE-7211-2-128GB	PCIE card with 2x Quad Core Intel® Xeon® E3-1585L v5 Processors, 16GB DRAM/CPU, 128GB SSD/CPU

## Software Development Kit

### Includes:

- Network bootable Linux Operating System for each processor subsystem with Intel® Media Server Studio - Essentials Edition SDK runtime files
- Remote console access to BIOS and OS
- Hardware Monitoring Software
- Host Side Artesyn Firmware and Software Update tools
- The card's processor subsystems can be communicated with over Ethernet from the host. Each processor's Linux OS includes the Ethernet drive.

### Intel Media Server Studio Media SDK:

SharpStreamer™ SDK comes packaged with Intel® Media Server Studio - Essentials Edition runtime files. For development purposes, Intel Media Server Studio - Essentials Edition must be downloaded and installed on the each Intel® Xeon® E3-1585L v5 node. The Intel Media Server Studio SDK contains an application programming interface (API) library for developing media applications. The kit makes it easier for developers to optimize their applications with the use of the Intel® Iris™ Pro Graphics fixed-function hardware acceleration. Some application use cases which can benefit from this acceleration include video processing, transcoding and video conferencing.

### Network Bootable Operating System:

- First Release: Centos 7.x

## SOLUTION SERVICES

Artesyn Embedded Technologies provides a portfolio of solution services optimized to meet your needs throughout the product lifecycle. Design services help speed time-to-market. Deployment services include global 24x7 technical support. Renewal services enable product longevity and technology refresh.

## WORLDWIDE OFFICES

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