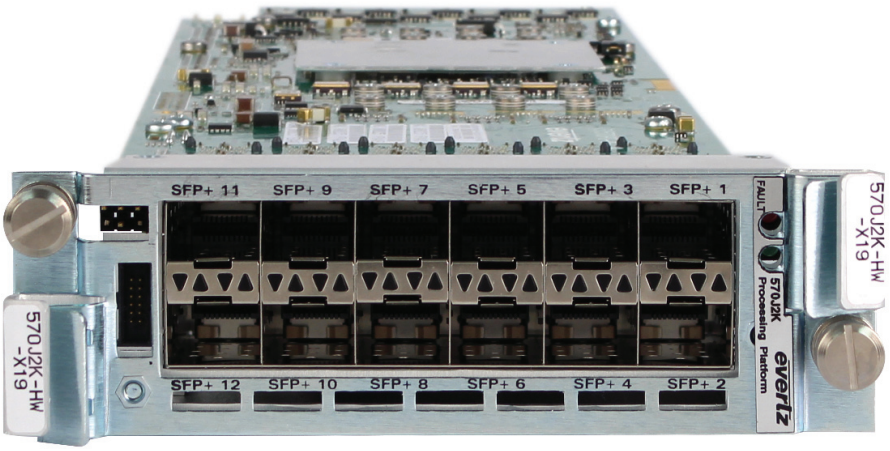
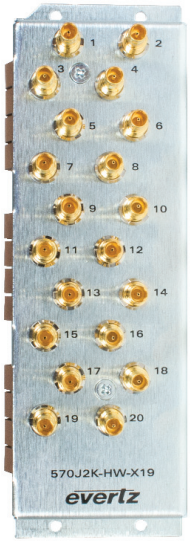
# 570J2K–HW–X19

## *Multi–Channel J2K Encoder/Decoder*




The 570J2K–HW–X19 is the optimal multi–channel J2K encoding and decoding platform. With direct conversion of up to 12x signals utilizing JPEG2000 mezzanine compression, the 570J2K–HW–X19 series delivers unparalleled processing density. Equipped with Advanced Encryption Standard (AES128), the 570J2K–HW–X19 provides industry–leading encryption.

The exceptional density of the 570J2K–HW–X19 supports up to 12x channels of 3G, HD/SDI, SD/SDI or up to 3x channels of UHD JPEG2000 encoding. The 570J2K–HW–X19 will support up to 9x channels of 3G, HD/SDI, SD/SDI JPEG2000 or 2x channels of UHD JPEG200 decoding.

With a truly unique and flexible design, the 570J2K–HW–X19 supports a variety of operating modes. Supported modes include: 12x JPEG2000 encodes, or 9x JPEG2000 decodes, or 6x JPEG2000 encodes/6x decodes and 4x JPEG2000 encodes/4x decodes on a single 570J2K–HW–X19 module.

As infrastructures continue to migrate to an all–IP workflow, we provide further flexibility with more supported modes, including: 9x uncompressed IP inputs SMPTE ST 2022–6 or ST 2110 and provide 9x JPEG2000 encodes; ***or*** 9x JPEG2000 decodes providing 9x uncompressed IP outputs SMPTE ST 2022–6 or ST 2110; ***or*** 4x uncompressed IP inputs SMPTE ST 2022–6 or ST 2110 with 4x JPEG2000 encodes and with 4x JPEG2000 decodes and 4x uncompressed IP outputs SMPTE ST 2022–6 or ST 2110.

The 570J2K–HW–X19 features Evertz' fourth–generation ultra–low latency, high–density JPEG2000 codec technology over multiple dedicated 10GbE links and 2x dedicated 1GbE links.

The 570J2K–HW–X19 will provide auto–timing time–stamped Ethernet outputs, multi–resolution JPEG2000 streaming outputs and incorporates patent pending multi–path, multi–flow packet merge base network bit error resilience for 100% QoS.

Adding to the unique one of a kind platform, the 570J2K–HW–X19 also supports modes that include TICO compression encoding and decoding. The exceptional density of the 570J2K–HW–X19 supports up to 4x channels of UHD TICO encoding or decoding.

570J2K–HW–X19 also supports the latest XS encode/decode compression. It can encode/decode XS up to 16x channels of 3G–SDI or 12x channels of SMPTE ST 2022–6 or ST 2110.

The 570J2K–HW–X19 can be managed via integrated HTTP web interface as well as SNMP management via frame controller.

### Features & Benefits

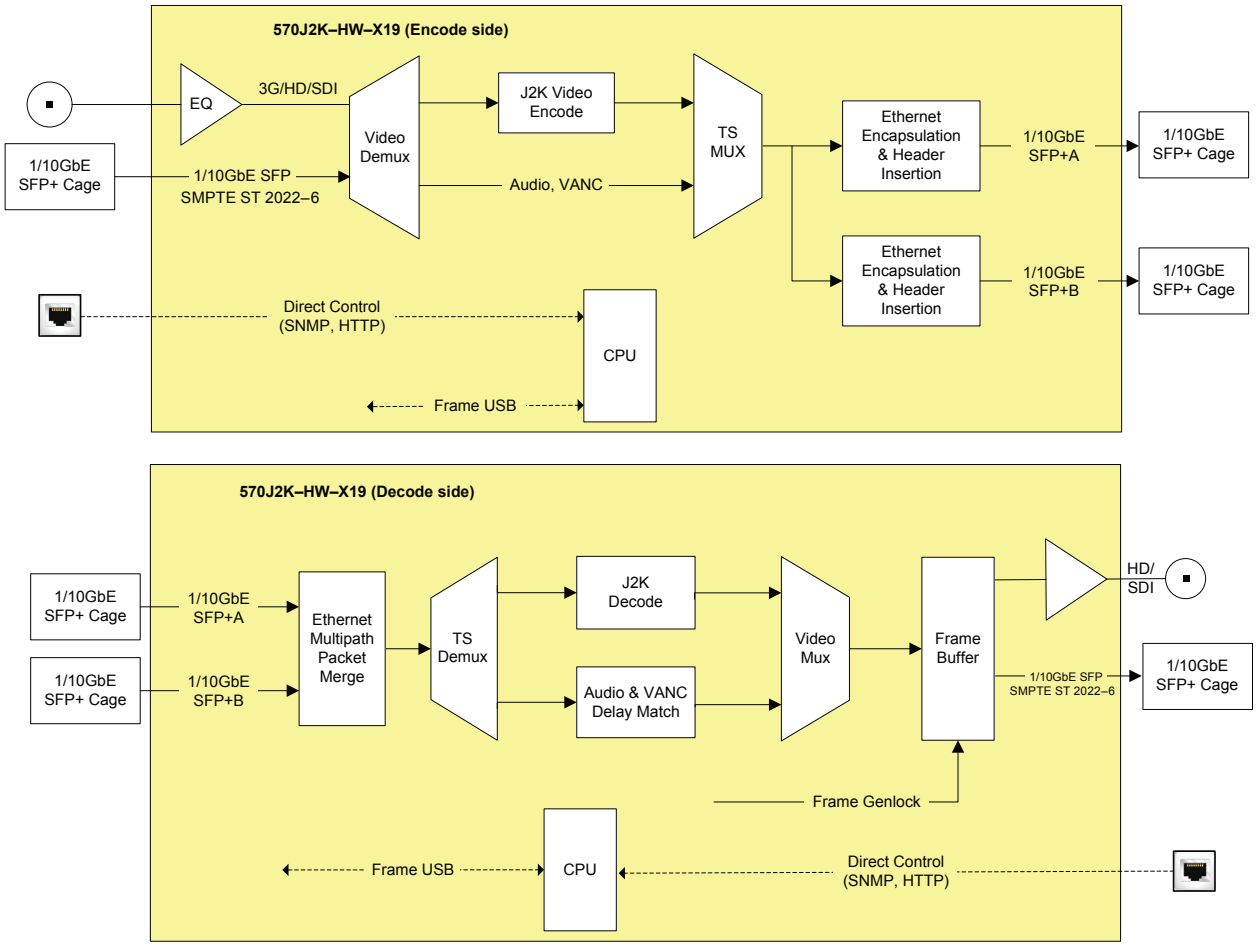
- 8 unique/flexible application modes to meet a variety of operating modes, see APP reference table for further information
- Forward Error Insertion and correction support (APP dependent)
- AES128 encryption and de–encryption support (APP dependent)
- Standards supported: 3840x2160p/59.94 (quad square), 3840x2160p/50 (quad square), 1080p/59.94, 1080p/50, 1080i/59.94, 1080i/50, 720p/59.94, 720p/50, 525i/59.94, 625i/50

**Mezzanine Encode Processing and Encapsulation over IP:**
- Video JPEG2000, TICO (APP dependent) encoded to native resolution
- 4x groups of audio encapsulated
- Full VANC encapsulation and pass–through

**Mezzanine Decode Processing:**
- Video JPEG2000, TICO (APP dependent) decoded from native resolution
- 4x groups of audio de–capsulated and embedded into the SDI output
- Full VANC de–encapsulation and embedding on SDI outputs

**Control and Baseband Processing**
- Modules support control over frame controller or direct Ethernet interface
- SNMP control from VistaLINK® or MAGNUM Unified Control

*The Complete Solution Provider*




## Specifications

**Serial Digital Video:**

| | |
|---|---|
| Standards: | SMPTE ST 424M (3Gb/s),<br>SMPTE ST 292M (1.5Gb/s),<br>SMPTE ST 259M (270Mb/s)<br>SMPTE ST 2022–6,<br>SMPTE ST 2110<br>* PTP locking supported for sync rate of 32Hz of higher |

**Serial Video Input:**

| | |
|---|---|
| Number of Inputs: | *Per different APP as indicated in the table on the next page* |
| Connector: | DIN |
| Input Equalization: | Automatic to 100m @ 3Gb/s,<br>150m @ 1.5Gb/s,<br>350m @ 270Mb/s |
| Return Loss: | > 15dB up to 0.5GHz,<br>> 10dB up to 3GHz |

**Serial Video Output:**

| | |
|---|---|
| Number of Outputs: | *Per different APP as indicated in the table on the next page* |
| Connector: | DIN |
| Rise and Fall Time: | Per SMPTE spec |

**Video Over IP:**

| | |
|---|---|
| Number of Interfaces: | *Per different APP as indicated in the table on the next page* |
| Connector: | 10GbE SFP/SFP+, 1GbE SFP/SFP+ |
| J2K Encapsulation: | MPEG–2 TS over IP (SMPTE ST 2022–2) |
| Uncompressed: | SMPTE ST 2022–6/2110, ASPEN |
| Ethernet/IP Signaling: | Multicast IGMP V2/V3 (SSM support) |

**Embedding of HANC and VANC:**
4x groups audio pass–through per encoder
All type of VANC data pass–through

**Electrical:**

| | |
|---|---|
| Power: | 100W |
| Voltage: | 12VDC |
| EMI/RFI: | Complies with FCC Part 15, Class A<br>EU EMC directive |

**Enclosures:**

| | |
|---|---|
| 570FR: | 3RU chassis |
| S570FR: | 1RU chassis |

## Ordering Information

| | |
|---|---|
| **570J2K–HW–X19** | Enhanced logic capacity Evertz 570FR hardware module acting as a bulk J2K encoder/decoder. Up to 12x 10GbE interfaces using SFP+ cages (SFPs sold separately); must purchase 570J2K–APP–XX and encode/decode licenses to enable card functionality. |

**SFP Modules:**

| | |
|---|---|
| **SFPTR–RJ45–SGM–AV** | 1GbE electrical SFP |
| **SFP1G–TR13** | 1GbE optical SFP |
| **SFP10G–TR13–A** | 10GbE optical SFP+ |

**Licensing Options:**

| | |
|---|---|
| **570J2K–X19–CK–J2KP60** | 3G/HD/SD JPEG2000 encoder or decoder license |
| **570J2K–X19–CK–TICO4KE** | 4K TICO encoder license for 570J2K–HW–X19 |
| **570J2K–X19–CK–TICO4KD** | 4K TICO decoder license for 570J2K–HW–X19 |
| **570J2K–X19–CK–XS** | 3G/HD XS encoder or decoder license |

*The Complete Solution Provider*