Fujitsu Network
Real-time Video Transmission Gear IP-HE950

IP-HE950 is a video transmission equipment adopted highly efficient video encoding technology “H.265/HEVC”. H.265/HEVC realizes 2 times compression ratio than H.264/AVC. 1U half rack size small chassis with high performance LSI will realize real-time 4K contribution.

Features

- **1U half size chassis**
  1U half rack size chassis with front panel and keys will realizes PC less operation.

- **SD~4K Video**
  SD~HD transmission as normal function and 4K transmission as optional function will be supported. User can install as HD model first, then can upgrade to 4K later based on the 4K environmental improvement. This will realize user’s efficient investment. Also, video format auto sensing function will adjust compression video format automatically.

- **Robust Network Error Correction**
  Fujitsu proprietary FEC and ARQ combination proven by Fujitsu IP series and standardized SMPTE-2022-1 FEC will provide robust network error correction. In addition, 2 LAN port for IP network redundancy will provide robust network error tolerance.

- **For contents transmission**
  Support 4:2:2 format, 8ch audio, ancillary data transmission for contents transmission.

- **Variable I/O Interface**
  BNC I/O supports 12G/3G/HD/SD-SDI video signals. In addition, support SFP for other new interface such as HDMI and SDI over IP.

- **Video Archive, Video File Transmission**
  Support recording compressed video and audio into local storage and pickup them in arbitrary timing. Offline recording and transmitting will be also possible.

- **Dual Encode**
  Support transmitting main video and proxy video simultaneously for remote video switching application.

Venue
Encoder
Satellite Channel

Broadcaster / Audience
IP Network
 Decoder
 HQ / Public Viewing
 Affiliate
# Product Lineup

- **Main Unit**
  - IP-HE950E (Encoder)
  - IP-HE950D (Decoder)

- **Hardware Option**
  - Quad 3G-SDI Input
  - Quad 3G-SDI Output
  - HDMI Input, HDMI Output
  - SDI Output
  - SDI over IP

- **Software Option**
  - 4K Contribution-plus (422/ANC etc.)
  - BISS scramble
  - Dolby Digital

## Specifications

<table>
<thead>
<tr>
<th>Product</th>
<th>IP-HE950E (Encoder)</th>
<th>IP-HE950D (Decoder)</th>
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<tr>
<td><strong>Video coding</strong></td>
<td></td>
<td></td>
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<tr>
<td>Profile</td>
<td>H.265/HEVC</td>
<td>H.264/MPEG-4 AVC</td>
</tr>
<tr>
<td>Resolution</td>
<td>Main422 10, Main 10, Main</td>
<td>1080p x 1920/1440/960 (50/59.94Hz), 720p x 1280/960/460 (50/59.94Hz), 480i x 720/352 (59.94Hz), 576i x 720/352 (50Hz)</td>
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<tr>
<td>Level</td>
<td>5.1, 4.1, 4.0, 3.0</td>
<td>4.2, 4.0, 3.0</td>
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</table>

| Audio coding | MPEG-1 Layer2, MPEG-2 AAC LC, MPEG-4 AAC LC, MPEG-4 HE-AAC V2, MPEG-4 AAC-ELD, Dolby Digital, SMPTE 302M |
| Ancillary data | SMPTE 2038, SMPTE 334, SMPTE RD 11, CEA-608/708, ARIB STD-B40 |
| Streaming protocol | RTP, UDP, Unicast, Multicast (IGMPv3/IPv4, MLDv2/IPv6) |
| Error correction | FEC, ARQ, SMPTE 2022-1 |
| Encryption | BISS-1/2 |
| Audio & Video I/F | 1 x 12G/3G/HD/SD-SDI input AES-EBU 2stereo input, Analog (Balanced) stereo input 2 x SFP I/F (HDMI, Quad 3G-SDI, SDI over IP, SDI output (Active thru)) |
| | 1 x 12G/3G/HD/SD-SDI output AES-EBU 2stereo output, Analog (Balanced) stereo output 1 x Reference input, 1 x Reference output 2 x SFP I/F (HDMI, Quad 3G-SDI, SDI over IP, SDI output) |
| Streaming I/F | 2 x 10BASE-T/100BASE-TX/1000BASE-T (Stream & Control) 2 x DVB-ASI output |
| | 2 x 10BASE-T/100BASE-TX/1000BASE-T (Stream & Control) 1 x DVB-ASI input |
| AUX data | 1 x RS-232C/RS-422 |
| Misc. functions | HDR support, Recording*, Dual Encoding (Proxy)*1, Superimpose*, File reproduction*2 |
| Dimensions / Weight | 210(W) x 300(D) x 43(H) mm / Approx. 2.5kg |
| Temp / Humidity | -10 ~ 55°C (Except under 0°C start) / 20 ~ 90RH (No condensation) |

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*1 : Encoder’s function  
*2 : Decoder’s function

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The specifications are subject to change without notice.

## Contact Information

Planning & Global Business Support Team
Development & Technology Department
Product & System Development Division
Safety Solution Business Unit

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