

DCH-5200EC Professional H.264 SD/HD Encoder



The DCH-5200EC is a high quality single channel high definition MPEG4/H.264 encoder. It has a wide range of digital/ analog video and audio inputs: CVBS, HD-SDI, HDMI, YPbPr and stereo audio. It can support up to high definition TV up to 1080P, and the compressed MPEG4/H.264 signal is outputted from the ASI and IP port. Compared to DCH-4000EC and 5000EC, it presents a unique function of Time Base Correction to ensure the audio and video synchronization, the feature necessary for the professional TV signal flow.

The DCH-5200EC's re-multiplexing function enables creation of a new transport stream between the TS of encoder and the TS from ASI or IP. The encoder/trans-coder output can be multiple SPTS or MPTS over IP, as well as over ASI. In transcoding mode, the digital audios are looped through and time stamping is automatically implemented to ensure the synchronization between video and audio. This unique encoder/trans-coder with built-in re-multiplexer architecture makes the DCH-5200EC one of the best solutions to meet the MPEG2 to MPEG4/H.264 migration in today's digital broadcasting market.

Main Feature

- Multiple video resolution including 1080p, 1080i, 720p, 576i and 480i
- Multiple inputs HDMI, HD-SDI, YPbPr, and CVBS
- Unique video and audio synchronization by time base correction
- Support 10/100M TS/IP SPTS and MPTS
- Built-in re-multiplexer for encoder loop
- Support VBR and CBR encoding mode
- Support 2 pairs of analog stereo audio encoding with optional extension board
- Remote Control and Supervision by SNMP, HTTP WEB

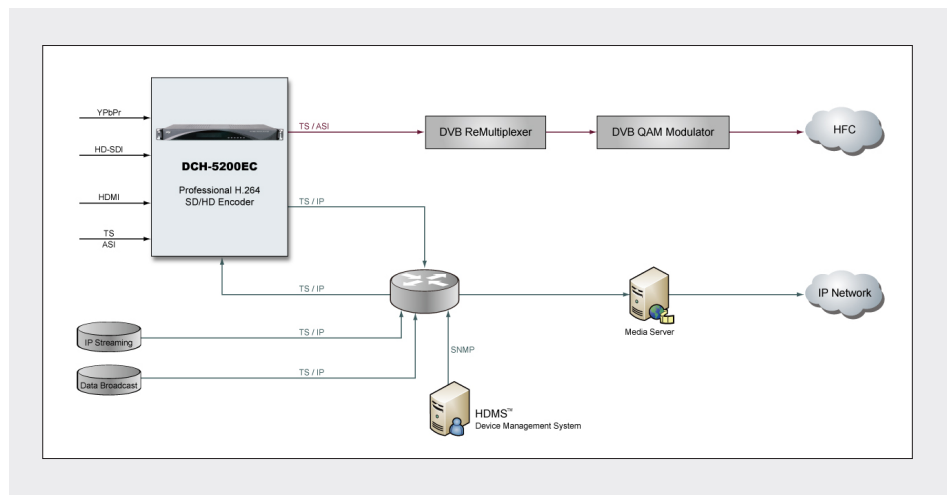
Multiple inputs HDMI, HD-SDI, YPbPr, and CVBS



10/100M TS/IP extension board option



Remote Control and Supervision by SNMP, HTTP WEB and Proprietary HDMS software



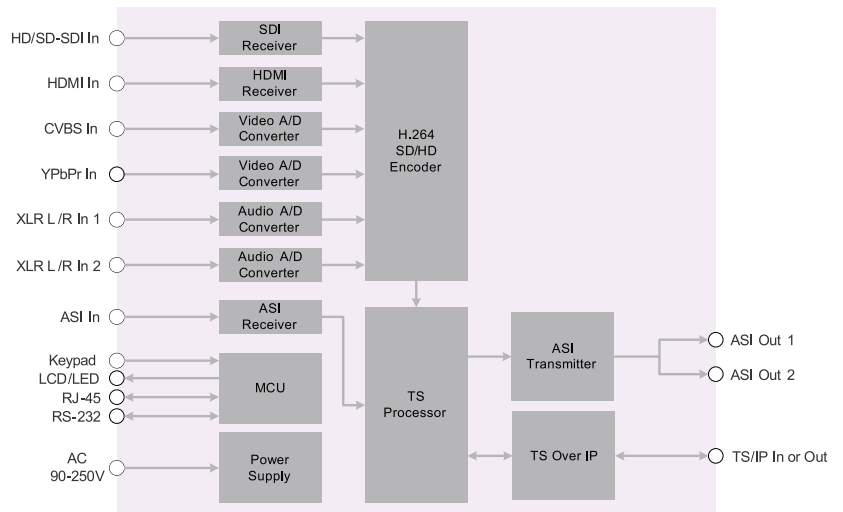
Specification

| Video Compression | |
|-----------------------------|--|
| Video Resolution | 1080p (1920 × 1080) @50Hz, 59.94Hz, 60Hz: SMPTE 372M 1080i (1920/1440 × 1080) @25Hz, 29.97Hz, 30Hz: SMPTE 292M 720p (1280 × 720) @50Hz, 59.94Hz, 60Hz: SMPTE 292M 480i (720 × 480) @29.97Hz: SMPTE 259M 576i (720 × 576) @25Hz: SMPTE 259M |
| Compression Standard | H.264, High Profile Level 4.0 |
| Aspect Ratio | 4:3/16:9 selectable |
| Video Encoding Bit Rate | 2Mb/s-30Mb/s |
| Audio Compression | |
| Audio Input | Embedded Audio, Analog audio |
| Audio Channels | Maximum 2 pair of stereo |
| Audio Sampling Rate | 48KHz |
| Audio compression Bit Rate | 32 ~ 384Kb/s |
| Audio/Video Input Interface | |
| Analog Audio | 1 × D-sub 9 Female male with XLR adaptor cables |
| Analog CVBS | 1 × BNC Female, 75Ω |
| HD-SDI | 1 × BNC Female, 75Ω |
| YPbPr | 3 × RCA Female, 75Ω |
| HDMI | 1 × HDMI 1.3 |
| ASI Input | |
| Connector Type | 1 × BNC Female, 75Ω |
| Input bit rate | ≤ 100Mb/s |
| Packet Mode | Byte |
| Packet Length | 188/204 Bytes |
| TS Processing | |
| TS Output Management | Remux and demux for mirrored ASI outputs |
| Service and PID management | Remux, filtering and remapping |

| TS Input Management | Remux and demux between ASI input and the SPTS encoded |
|---|--|
| PSI/SI | PSI/SI table regeneration, NIT and SDT edition |
| TS over IP | |
| Connector Type | 1 × RJ-45, 10/100M for TS/IP |
| Useful bit rate | 70Mb/s for 10/100M |
| Protocol | UDP / RTP, Multicast / Unicast, IGMPv2, ARP |
| Source | Built-in Re-mux, ASI input, Encoder |
| ASI Output | |
| Connector Type | 2 × BNC Female, 75Ω |
| Output bit rate | ≤ 99Mb/s |
| Packet Length | 188 / 204 Bytes |
| Signal Level | 800mVpp ± 10% |
| Control & Monitoring | |
| Connector Type | 1 × RJ-45, 10/100M, for equipment IP Control |
| Remote Control | SNMP, HTTP Web |
| Local Control | LCD display and 6-key keypad |
| Software Upgrade | Built-in FTP loader and Telnet |
| Physical | |
| Dimension | 44mm × 483mm × 340mm |
| Net weight | 3.2Kg |
| Power supply | AC90~250V, 50Hz/60Hz |
| Power Consumption | Maximum 20W |
| Operating Temperature | 0 ~ 45°C |
| Storage Temperature | -10 ~ 60°C |
| Humidity | 10 ~ 90%, non-condensed |
| Certification | |
| EMC: EN 55024:1998+A1:2001+A2:2003, EN 55022:2006+A1:2007, EN 61000-3-2:2006, EN 61000-3-3:2008 | |
| FCC: Part 15 Class B | |
| LVD: EN 60950-1:2006 + A11:2009 | |

Block Diagram

DCH-5200EC Functional Block Diagram



Order Information

| Functionality | Model | DCH-5200EC-30 | DCH-5200EC-40 |
|---------------|---|---------------|---------------|
| Input | Analog Audio Input (Stereo L/R, RCA) | • | • |
| | HD SDI Input (BNC) | • | • |
| | CVBS Input (RCA) | • | • |
| | HDMI Input | • | • |
| | YPbPr Input | • | • |
| | ASI Input | • | • |
| Processing | Built-in Remultiplexer | • | • |
| Output | ASI Output (2x mirrored) | • | • |
| TS/IP I/O | 10/100M TS/IP Extension Board (Single RJ-456 Channel) | | • |

• Standard function

Back panel Interface

