

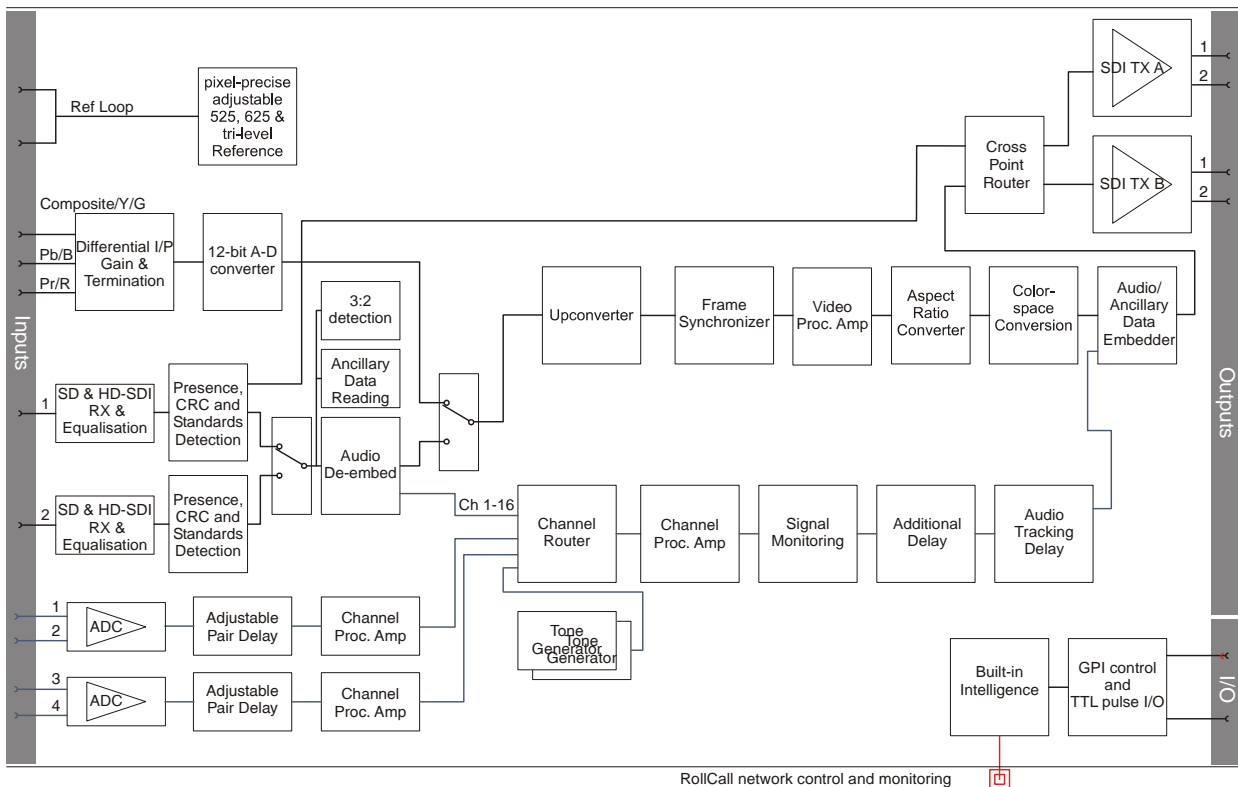
IQUPC01

Provisional Data

SNELL & WILCOX

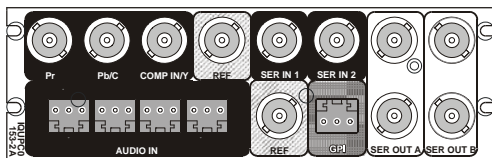
3G/HD/SD-SDI Upconverter with Synchronizer and Analog Interfacing

The IQUPC01 provides same frame rate up conversion with analog video and audio support. Both composite and component analog signals can be digitized and upconverted, as well as digital video signals from SD to HD or 3Gbps. Using high quality motion adaptive de-interlacing and flexible scaling technology the IQUPC01 is a broadcast quality conversion module featuring frame synchronization, aspect ratio conversion, along with advanced audio and metadata handling to provide a highly integrated space efficient package. Audio is also comprehensively handled with analog audio embedding, audio channel routing, delay adjustment and level controls. Video metadata such as timecode, SMPTE2020 Dolby, closed captions and teletext captions can also be passed through the module or processed according to the required output format.



Block diagram for IQUPC0153-2A shown

Order codes for IQH3A/1A enclosures



IQUPC0153-2A SDI Up converter with frame synchronizer and analog inputs. 1 SDI input, 1 composite/component input, reference loop, 4 analog audio inputs, 4 selectable main or bypass SDI outputs, 2 GPI/O

IQUPC0153-2A3 HD/SD-SDI Up converter with frame synchronizer and analog inputs. 1 SDI input, 1 composite/component input, reference loop, 4 analog audio inputs, 4 selectable main or bypass SDI outputs, 2 GPI/O

IQUPC01-3G Upgrade for IQUPC01 SDI Up converter with frame synchronizer and analog inputs to operate with 3Gbps signals

For more details on enclosure types please refer to the Frames/Enclosures section

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3G/HD/SD-SDI Upconverter with Synchronizer and Analog Interfacing

Does this module suit your application?

- High quality up conversion for HD/SD-SDI or analog video inputs to 3G/HD-SDI of the same frame rate
- Frame synchronizer with HD Tri-sync / SD Bi-Level Reference Input
- Standards supported:
 - 3G-SDI to SMPTE 424M/425M
 - HD-SDI to SMPTE292M/274M/296M
 - SD-SDI to SMPTE259M-C
- Adaptive comb filter for PAL/NTSC Composite decoding
- SD/HD component ADC with support for SMPTE 274M (1080i) or SMPTE 296M (720p) in HD, and SMPTE /EBU N10, MII, or BetaCam in SD
- Multiplex analog audio onto HD/SD-SDI video streams with channel-level control (24-bit HD, 20-bit SD embedded resolution)
- User variable static aspect ratio conversion with 10 user definable presets
- Aspect ratio control using ETSI WSS and AFD Video Index signaling (RP186), inc SMPTE 2016
- Closed caption passing or processing for CEA608/708 and ETS300 Teletext captions
- VITC or RP188 timecode can be decoded and then re-encoded in the output format
- Processing for 16 channels of embedded audio and SMPTE 2020 Dolby metadata present on the incoming SDI stream with channel level control
- Independent horizontal and vertical ancillary data blanking
- Intelligent conversion of film cadences and color space conversion to ITU 601 and 709
- Video delay and proc-amp including horizontal and vertical picture enhancement
- Input SDI, CRC, and ANC data checking and reporting (and EDH insertion on output)
- Input Loss Detection – Clean Cut to Freeze, Black or Pattern
- Embedded audio handling – 3G/HD 24 bit to SMPTE 299M, SD 20 bit to SMPTE 272M-A – all synchronous to 48 kHz
- Standards supported:
 - Dolby E/AC3
 - HD embedded audio to SMPTE299M
 - SD embedded audio to SMPTE272M

- Detects and supports Dolby E and PCM audio present in the same group
- Downmixing of embedded 5.1 surround sound signals for monitoring or additional stereo sources
- In-built test pattern and audio tone generators
- Audio proc-amp with gain, invert and delay (inc Dolby E delay), and pair selectable mono-mixdown mode
- Audio delay channels for 8 pairs including selectable fixed delay and tracking delays with per pair delays on AES and analog inputs
- Any group of embedded audio may be passed unchanged
- 16 x user memories per channel
- Rollcall control and monitoring compatible
- RollTrack triggers available for detected module states
- 2 GPI/O ports for general purpose control and reporting

Why should I choose this module?

- High quality video conversion and frame synchronization allows fully flexible multi-format working, and provides a future proof migration path as digital workflows evolve
- Flexible Up, down and cross conversion allows for multi-format operations such as in OB vans
- Analog video and audio inputs allow existing assets to be repurposed for SD or HD operations
- Comprehensive audio processing functions allow complete control over embedded audio signals for applications where channel routing or mixing is required
- Full RollCall and SNMP compatibility allows easy integration with Snell & Wilcox, or third party, network management systems providing an all-inclusive monitoring and control solution