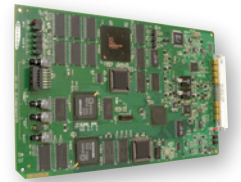


QDC-801i/V

Broadcast Quality HD to SDI Downconverter

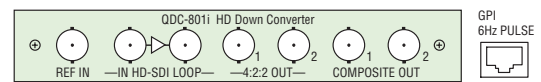


The QDC-801i is a high-quality (10-bit), HD-SDI to SDI downconverter. The HD input conforms to SMPTE 292M, and the output conforms to SMPTE 259M-C for SDI, SMPTE 170M for NTSC, and ITU 624-4 for PAL. The QDC-801i provides automatic line format and frame rate input detection plus VLI and WSS insertion. The QDC-801i offers advanced 3D de-interlacing with edge detection and interpolation, as well as 3:2 pull-down detection and insertion. Additional processing includes noise reduction, detail enhancement and color space conversion (from

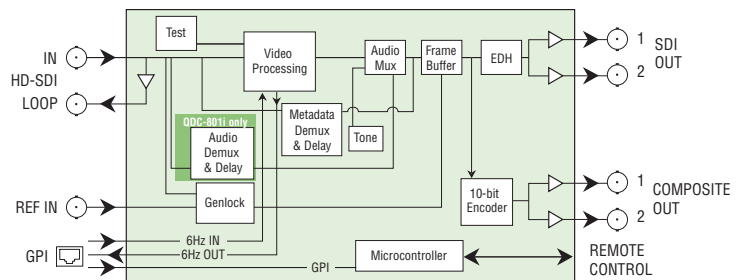
ITU-709 to ITU-601). Aspect ratio conversion (ARC) functions include resizing with full blending and picture positioning (DVE). Other ARC features include standard and custom user presets for added flexibility. The QDC-801i can de-embed digital audio, Time Code and Closed Captioning from the HD input, and then re-embed them within the SD output with the proper audio and data delay/process. A fixed processing delay can be set at the output.

Key Features and Benefits

- Automatic input format detection
- Support of 23.98p & 23.98psf
- Dual SDI & Composite 10-bit outputs
- Studio reference input support
- High quality 3D de-interlacing with edge detection
- Automatic 3:2 pull-down detection and Manual 2:2 film mode
- 3:2 insertion using external 6Hz pulse or time code or free running
- Aspect ratio conversion, resizing and positioning (DVE)
- Color space conversion
- Built-in Noise Reducer and Detail Enhancer
- Extraction & re-embedding of up to 16 channels of digital audio data with delay compensation and lip-sync correction
- Menu access to default ARC modes and favorite custom blends
- Incoming HD Time Code and CC Handling
- Built-in HD color bar test pattern
- Configuration and operation by card edge, GPI, RCP-100 or iControl



QDC-801i Back (Symphonie-R-HDM)



QDC-801i Functional Block Diagram

Technical Specifications

HDSDI IN	SDI OUT (1 AND 2)	DIGITAL PROCESSING PERFORMANCE	AUDIO PROCESSING PERFORMANCE (QDC-801i ONLY)
SIGNAL: SMPTE 292M (1.485, 1.485/1.001 Gbps) with equalized active loop-through	SIGNAL: SMPTE 259M-C (270 Mbps) SMPTE 272M (embedded audio)	SIGNAL: 10 bits	QUANTIZATION: 20-24 bits
SUPPORTED FORMATS: SMPTE 296M 720p59.94, 720p50 SMPTE 274M 1080i59.94, 1080i50 (1125, 1280), 1080p23.98, 1080p23.98sf, 1080p29.97, 1080p25sf, SMPTE 260M 1035i59.94	RETURN LOSS: > 15 dB up to 270 MHz JITTER: < 0.2 UI (0.74 ns) p-p	PROCESSING DELAY: up to 4 frames	CHANNELS: 16 (4 groups)
CABLE LENGTH: 125 m (410') (Belden 1694A)	COMPOSITE OUT (1 AND 2) SIGNAL: NTSC (525/60) SMPTE 170M PAL (625/50) ITU 624-4	DIGITAL TO ANALOG PROCESSING PERFORMANCE QUANTIZATION: 10 bits SAMPLING: 54 MHz (4x oversampling) FREQ. RESPONSE: ±0.1 dB to 5.5 MHz NOISE: < -62 dB to 5.75 MHz (UNWEIGHTED)	OTHER TEST PATTERN GENERATOR: HD color bars 100% white with 75% bars with white box for 16:9 aspect ratio TEST TONE GENERATOR (QDC-801i ONLY): 1kHz continuous tone on right channel with spurious 1kHz tone on left channel
RETURN LOSS: > 15 dB up to 1.5 GHz	RETURN LOSS: > 35 dB up to 5.75 MHz	DIFF. GAIN: < 1% DIFF. PHASE: < 1°	POWER: 13.9 W PHYSICAL FORMAT: imaging size (6.0 in. x 10.0 in.)
REF IN SIGNAL: SMPTE 170M/PAL ITU 624-4 or 2 Vpp / 4 Vpp composite sync with passive loop-through	GPI CONNECTOR: RJ-69 (RJ-45 10-contacts) providing 4 user presets (opto-isolated), a 6Hz input pulse and a 6Hz output pulse		
RETURN LOSS: > 35 dB up to 5.75 MHz			

Ordering Information

QDC-801i	HD Downconverter	Remote Control:	
QDC-801i/V	HD Downconverter (video only)	iControl	Remote Control and Monitoring
Housing Frames:	Symphonie, Quartet 2	iControl Solo	Stand-alone Remote Control Software
Rear Modules:	Symphonie-R-HDM	RCP-100	Remote Control Panel