

# DAC210 series

SDI to Analogue RGB/YUV converter

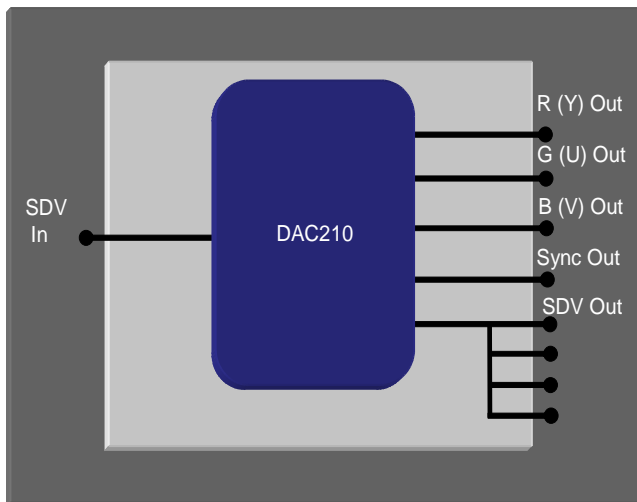
INSERTERS

SWITCHES

CONVERSION

KEYERS

MIXERS



Broadcast quality performance

Multiple output capability

Blank to analogue line length

Unique clock regenerator circuitry



These modules are part of our Series 200 range and are intended for broadcast quality applications. They offer a high level of features, with excellent specifications and performance. The conversion is performed to 10 bit resolution with a choice of either full 601, or near 601 filters (for single pass applications). The circuitry on the DAC210 modules contain a unique digital clock regenerator which removes distortion caused by jitter, giving a cleaner analogue output. This output is switchable between YUV/RGB. The module accepts both 525 or 625 line standards and can be set to automatically switch between them. For 525 (NTSC) applications there is the option to put set-up on the analogue signal. The DAC210 modules can also be set to blank to analogue video line length. This is a shaped blanking and is often needed as the digital line length is longer than the analogue one. There is also the option to pass or blank the VBI lines.

## MicroVideo

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## Technical Information

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- Inputs:** 270Mb/s serial digital to EBU Tech. 3267-E & SMPTE 259M.  
625 and 525 line standards.
- Outputs:** Analogue YUV or RGB (selectable), 700mV into 75R and mixed syncs, 2V p-p.  
Sync on Green selectable.  
2nd set of outputs available (see options).  
Reclocked serial digital video (see options).
- Specification:** 10 bit conversion with high performance separated DAC's. Full Broadcast reconstruction filters are fitted as standard, complying with Rec 601.
- |                         |  |
|-------------------------|--|
| Frequency response      | Y = 5.75MHz and UV=2.75 (+/- 0.1dB) for full 601 filters |
| Differential Phase      | <0.05deg   |
| Differential Gain       | <0.05%   |
| YUV to RGB matrix error | <1%  |
| Crosstalk               | <-54dB   |
| Noise                   | <-54dB   |
| Cr-Cb delay             | +/-5nS   |
| Y-Cr,Cb delay           | +/-5nS   |
| Group delay inequality  | <10nS (to 5.5MHz)  |
- Physical:** Eurocard size module for mounting in our 1U or 3U frames.
- Power usage:** 8.5W
- Frames:** Up to 6 modules will fit in a Microvideo 1U frame and 15 in a 3U frame.
- Ordering:**
- |         |   |
|---------|---|
| DAC210  | D to A, RGB/YUV output, 10 bit, full 601filtering                         |
| DAC211  | D to A, RGB/YUV output, 10 bit, full 601filtering, 1 SDV out              |
| DAC211D | D to A, two sets of RGB/YUV output, 10 bit, full 601 filtering, 1 SDV out |
| DAC214  | D to A, RGB/YUV output, 10 bit, full 601 filtering, 4 SDV out             |
| FR1U-20 | 1U rack mounting frame for series 200 cards (dual PSU)                    |
| FR3U-10 | 3U rack mounting frame for series 200 cards (single PSU)                  |
| FR3U-20 | 3U rack mounting frame for series 200 cards (dual PSU)                    |

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