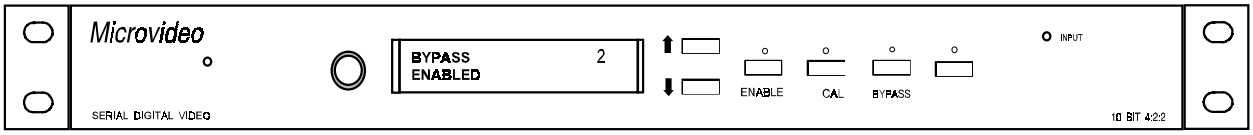
Microvideo

DIGITAL PROC AMP : NPROC-3

- **Full control of Digital Video levels**
- **Shows Out of Gamut Pixels**
- **Corrects Out of Gamut Pixels**
- **Split Screen Mode**
- **Front Panel or Remote Control**

The NPROC-3 offers a full set of controls for adjustment of video gains and levels. With its additional features it provides an ideal digital tool box for dealing with problems on incoming video feeds or preventing them on your outgoing tapes or broadcasts.



Controls

Full adjustment of all the video levels is available -

Video gain	Chroma gain	Y gain	U gain	V gain
Black Level	Y/C delay	Hue control	U pedestal	V pedestal

Display illegal — This colours the out of range pixels bright pink so that it is immediately clear what areas of the screen are illegal.

Correct illegal — When enabled, a processing engine looks at each pixel and decides if it is out of gamut. If it is, a calculation is made of how much correction should be applied to bring the colour back into the RGB colour space. This means that when the signal is coded to PAL or NTSC it will always remain legal.

Split Screen — Shows a horizontal split of the picture, with processed picture in one half and the original source in other.

Window select — Allows the user to define a window on the screen within which the corrections are carried out. All areas outside window are not changed.

Y/C Limit — Restricting the luma (Y) to digital values between 16 and 235 and Chroma (C) to -112 to +112, clipping of below black and above white spikes.
Additional menus allow adjustment of these upper and lower limits.

H cropping — This allows the Horizontal edges of the picture to be cropped. e.g for analogue line blanking.

V blanking — This enables the Vertical edges of the picture to be cropped, allowing letter box blanking.

VBI Line blank — Individual Lines in the VBI can blanked to removed timecode, teletext, etc.

No input detect — If enabled the unit can generates a black screen if the program input fails.

EDH Error Count — Detects and counts EDH input errors (as per SMPTE RP165).

Memory Select — Recalls up to 16 different setups.

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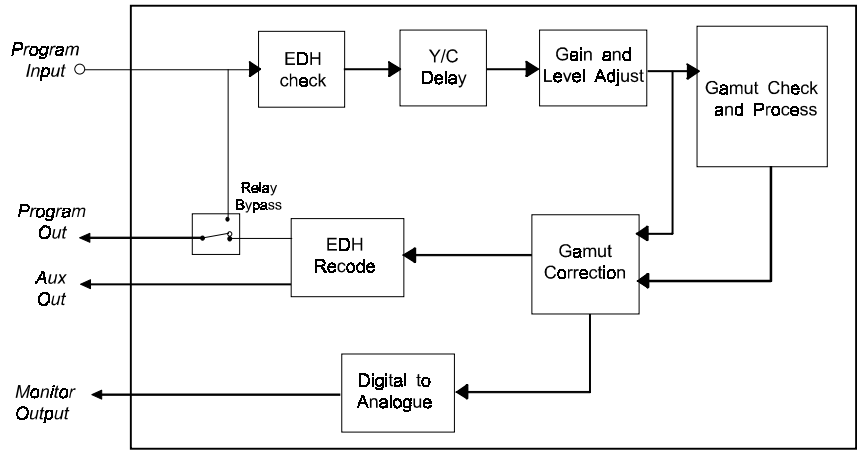
Data sheet ref - NPROC3-3.dtp (Jan 01)

Digital Proc Amp : NPROC-3

Internal block diagram



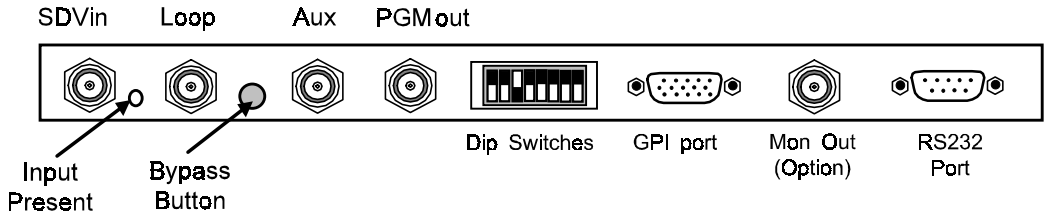
Technical Specification

Video In/Out Serial Digital Video (270Mb/s) to SMPTE 259M (EBU Tech 3264E)
Active Loop through of input is provided
Power Fail bypass connects Input (SDVin) to the main Program Out (PGMout)
This may be manually activated from the rear panel

Monitor Out Analogue PAL/NTSC output. This can show which areas of the screen contain illegal pixels.

Processing All video processing is done to 12 bit resolution.
No artifacts are introduced by colour space conversion or resampling, even when legalising.
Embedded Audio is passed transparantly through the unit, with the same delay as the video.
The EDH (SMPTE RP165) is checked and recalculated on the output.

Processing Delay 3.7uS



Remote Control RS232/RS422 is also provided for connection to our remote control panels or automation.
GPI inputs allow activation of Gamut Display, Gamut Correction, Blanking and Bypass

Physical 1U rack mounting unit, 240VAC (or 220,110) operation, Power cons. = 60W approx

Part No. NPROC-3 Digital Proc Amp with Gamut Correction in 1U frame
with Analogue PAL/NTSC monitoring output

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