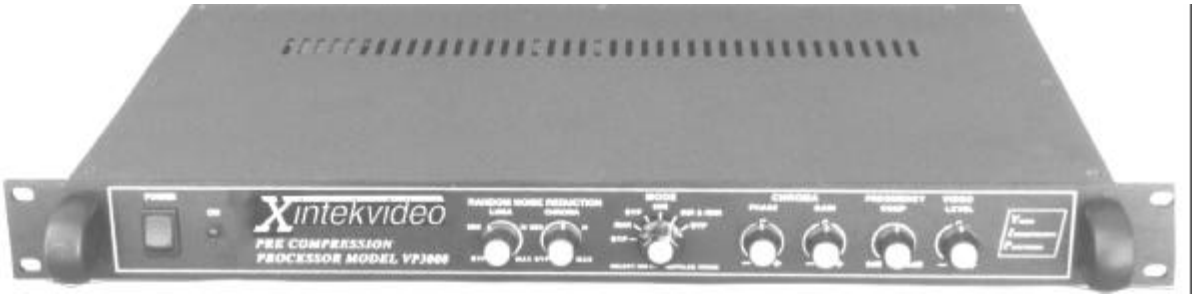
Xintekvideo INC.

PRE COMPRESSION PROCESSOR MODEL VP3000



AN ADVANCED DIGITAL PRE COMPRESSION PROCESSOR FEATURING:

**** Adaptive Comb Filters:***
Luminance chrominance separation based on the teaching of Pat. No. 4050084 and Pat No. 4072984 with up to 14-bit accuracy.

** **Linear Chrominance Demodulation:***
Chrominance demodulation using linear techniques, with 100% accuracy based on the teachings of Pat. No. 4219838.

**** Digital Compensation of High Frequency Luminance:***
High frequency luminance details are digitally cored, to minimize noise, and digitally added to luminance.

**** Color Phase and Color Gain Correction:***
Variable color phase and color gain corrections permits restoring proper color hue and color levels.

**** Impulse Noise and Dropout Elimination:***
Optional adaptive multidimensional correlation filter to remove dropouts and impulse noise.

****Xintekvideo's VIP Technology***
A digital Video Improvement Processor engine utilizing advanced filtering techniques based on the teachings of Pat. No. 4064530, and Pat. No. 4107739, with motion compensation to provide over 9 dB of random noise reduction with no objectionable artifacts. 12-bit processing,10-bit quantizing.

****Independent Noise Reduction of Luminance and Color Difference Signals***
It permits video processing optimization for all types of random noise.

****Xintekvideo's Auto Noise Reduction Technology***
Automatic setting of noise reduction level based on input video quality for hands-off operation.

**** Analog and Digital Outputs:***
Available RGB or YUV analog outputs and 270Mbs D1 serial digital outputs.

Pre Compression Processor

Model VP3000

The Model VP3000 Pre Compression Processor is a state of the art professional equipment. It delivers significant picture quality improvements by correcting most common video errors. It can remove dropouts and impulse noise and reduce random interference and noise by up to 9 dBs.

The unit provides independent noise reduction of the luminance and chrominance signals using recursive filtering techniques with motion detection and motion compensation. In addition, the VP3000 provides means to compensate luminance high frequency losses; It permits correction of chrominance level and chrominance phase for proper restoration of color levels and color hue; It can remove most video dropouts, impulse noise, threshold sparkles and other similar interference.

The VP3000 is ideal for transmission uplinks utilizing digital compression techniques (e.g. MPEG), where random noise can severely affect compression efficiency, and any interference can use up a considerable amount of data. It is highly effective in video post-production applications as it will improve picture quality from old video tapes and faded films. It can be used as a very high quality NTSC color decoder for format conversion and presentation applications.

The VP3000 uses programmable large gate array chips to perform complex signal processing operations with a high degree of accuracy and reliability. Future upgrades can easily be provided by simply changing a PROM.

SPECIFICATIONS:

Input:

NTSC Color Signal	1 volt peak to peak into 75 Ohms

Outputs:

Y, R-Y, B-Y analog signals	Levels adjusted to any standard
Sync signal	2v pp composite sync into 75 Ohms
Optional Red Blue Green	.7v pp into 75 Ohms
Optional D1 serial	at SDI levels into 75 Ohms

Video Specifications:

Y and Red, Blue, Green	+/-0.5 dB to 5 MHz
R-Y, B-Y	<3 dB down at 1.2MHz >20 dB down at 3.6 MHz
Non-Linearity	<2% plus quantizing effects
Differential Phase	<2% plus quantizing effects
K Factor with 2T Pulse	Better tan 1%
Frame tilt	Less than 2%
Y to Chroma timing	within 35 nsec.
Demodulator quadrature	within 1^0
System Delay	1 TV line plus 3 usec.
Additional delay with impulse noise correction option	1 TV field
Chrominance gain range	+/- 3 dBs
Chrominance phase range	+/- 15^0
High Frequency boost	0 dB to +6 dB
Luminance random noise reduction	up to 9 dB motion and initial quality dependent
Chrominance random noise reduction	same as for luminance
Impulse and dropouts removal	98% effective with low motion or no motion

Environmental:

Temperature	40^0F to 105^0F Ambient
Humidity	10% to 90% non-condensing

Mechanical:

Size	1.75" H; 19" W; 12" D
Weight	8 Lbs

Power:

120v AC, 60 Hz, 24 Watts

Front Panel Controls:

Power	ON/OFF
Luminance Level	+/- 20%
High Frequency Boost	0 to 6 dBs
Chrominance Level	+/- 20%
Chrominance Phase	+/- 15^0
Y Random Noise Reduction	Variable sensitivity or AUTO set
C Random Noise Reduction	Variable sensitivity

Mode Selection :
- Bypass
- Random Noise reduction ON
- Impulse and dropout reduction ON
- Random Noise and impulse reduction ON

Internal Controls:

Y, R-Y, B-Y, Red, Blue, Green level adjustments

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