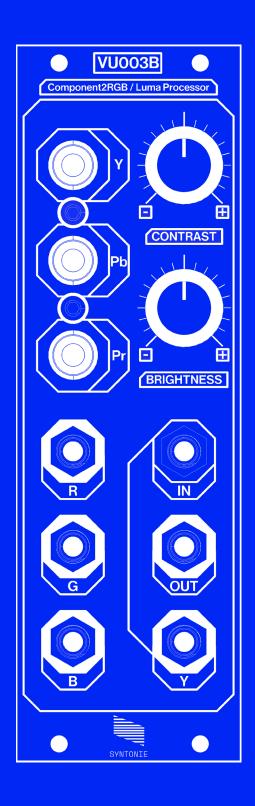
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# **VU003B**

# Component2RGB / Luma Processor ¬ User documentation







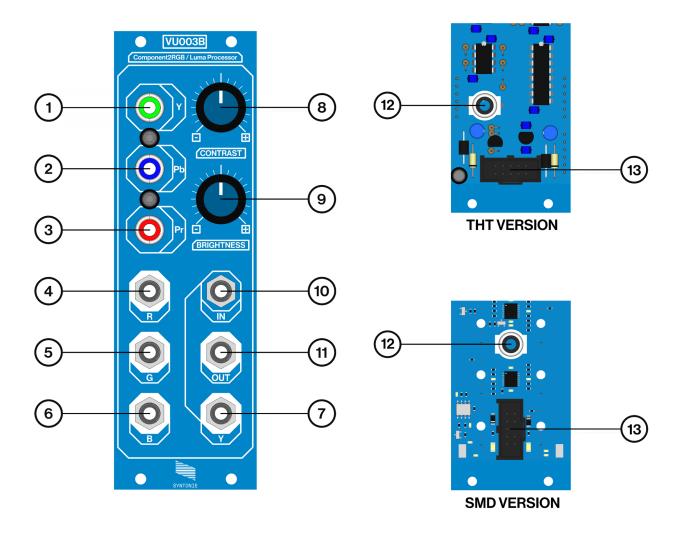
VU003B is a SD/HD Component to RGB decoder/ Luma processor. It takes a Component video input and decodes it into 1V RGBY signals, with the Y signal normaled to the processor input.

#### **Specifications**

- 8HP
- 70 mA +12V
- 41 mA -12V
- 0 mA +5V
- 50mm (THT)/30mm(SMD) depth

Special thanks to: LZX Team for the Cadet serie of modules which have been the starting point to develop this module. Lorenzo Ferronato for the documentation design // And of course, everyone who has supported Syntonie until now & those who will support it in the future.

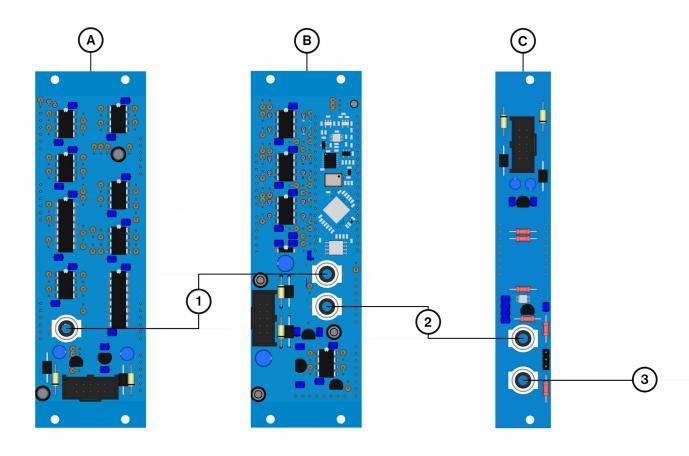
VU003B Interface syntonie.fr ¬2022



- (1) Y input : 0-700mV, 75Ω, RCA
- (2) Pb input : 0-700mV, 75Ω, RCA
- (3) Prinput: 0-700mV, 75Ω, RCA
- (4) Red output: 0-1V, 499Ω, minijack
- (5) Green output: 0-1V,  $499\Omega$ , minijack
- (6) Blue output: 0-1V,  $499\Omega$ , minijack
- (7) Y output: 0-1V, 499Ω, minijack
- (8) Processor level (contrast): unity gain/inverted unity gain.

- (9) Processor offset (brightness): -1V to +1V
- (10) Processor input: 0-1V, 100kΩ, minijack (normaled to 1V Y output)
- (11) Processor output: 0-1V, 499Ω, minijack
- (12) Y pass-through: 0-700mV, 75Ω, RCA
- (13) Power input: +12V/-12V, IDC 10pin

Note: Composite can be sent to the Y input, though only black and white information will be extracted, and will be present at Y output, as well as at the R, G and B outputs.



- (A) VU003B Component2RGB/Luma Proc
- (1) External video signal to sync generator (RCA cable)
- (B) VU007B Sync Generator / RGB Encoder
- (2) Generated sync to oscillator (RCA cable)
- (C) VU009 Sawtooth Oscillator
- (3) Generated sync to next modules in the chain (RCA cable)

Displayed here is the basic connection for sync distribution accross the modular system:

- The sync contained in the external video signal plugged in the Y input at the front of VU003B is retrieved at the back of the module at the Y Thru output.
- It is then sent to VU007B Sync Input so the sync generator can lock to the external signal.
- VU007B Sync Output is connected to VU009 Sync Input so the oscillator is in-sync with the sync generator (or external video signal if it is present).

Note: The sync generator needs to be set to the same video format as the external video source.

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