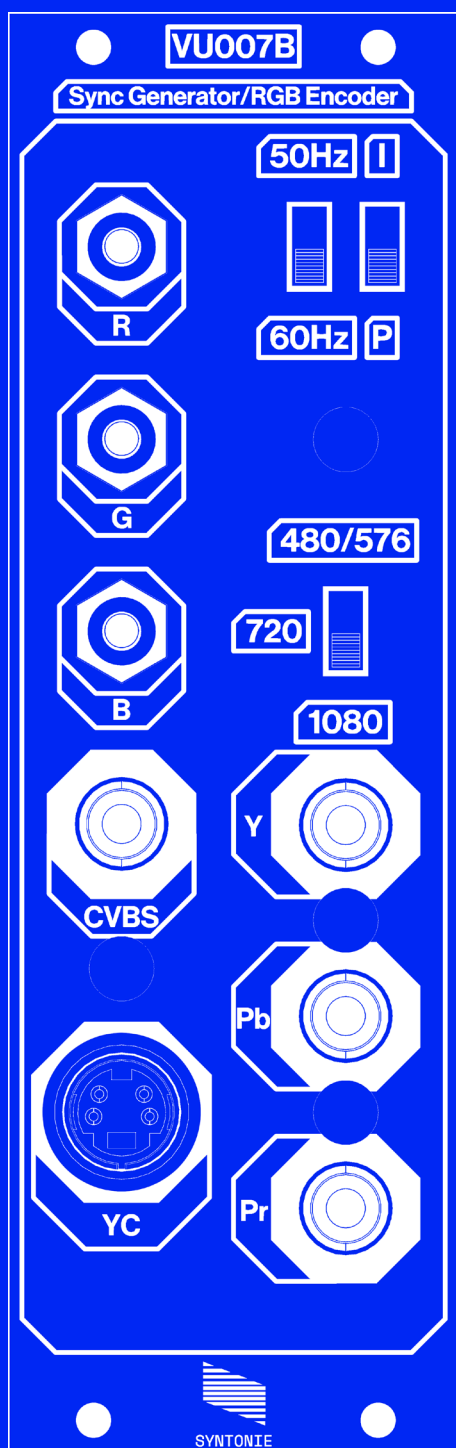
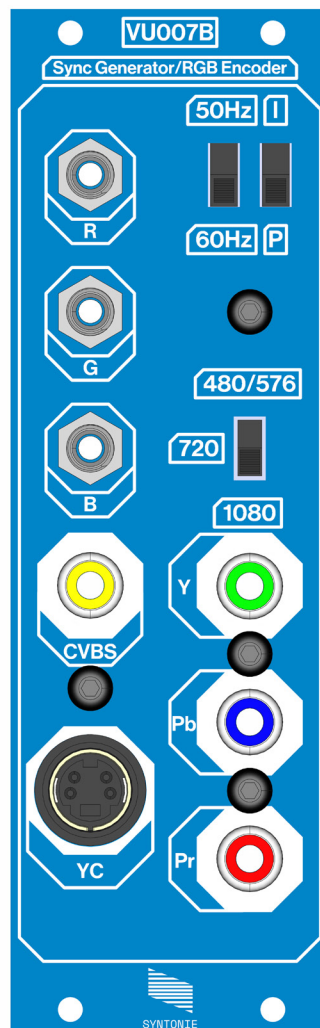


VU007B

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Sync Generator / RGB Encoder - User documentation





VU007B is a SD/HD sync generator/RGB encoder.
It takes 1V RGB inputs and encodes them into
Composite, S-Video and Component video signals.

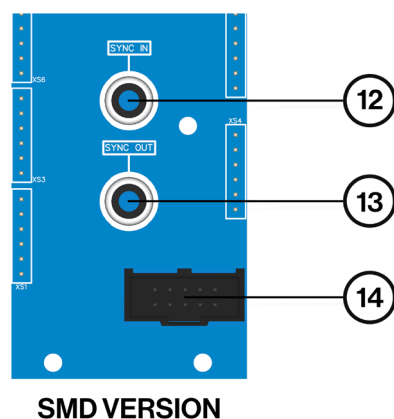
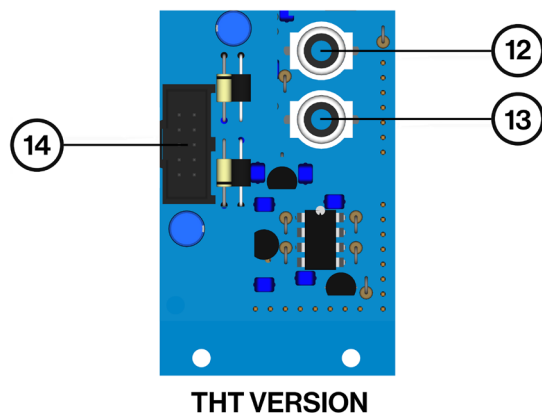
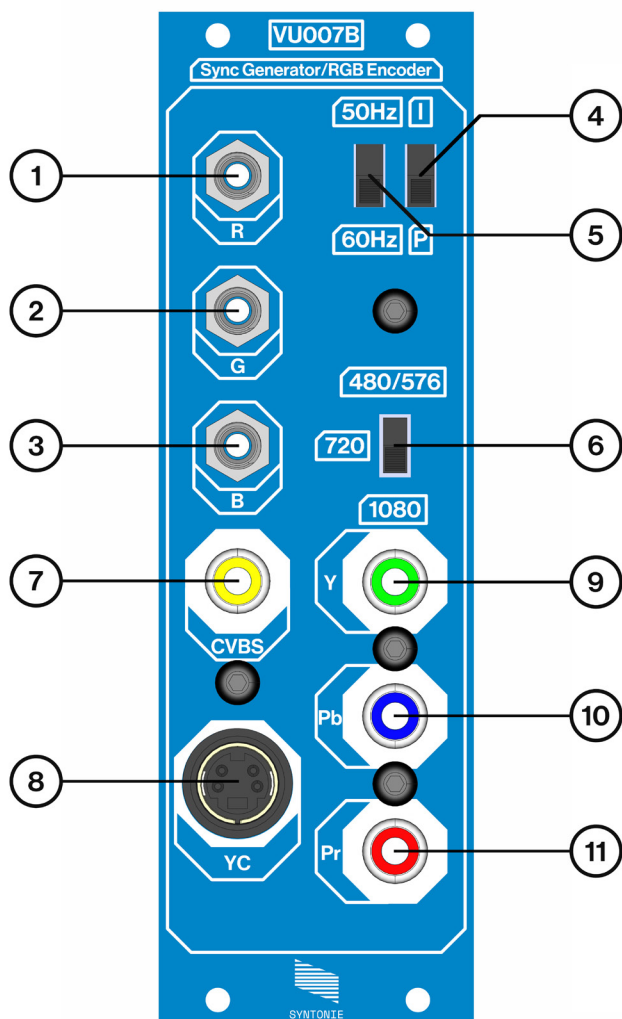
Specifications

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

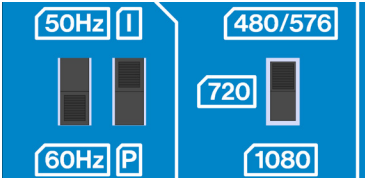
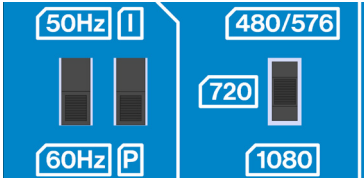
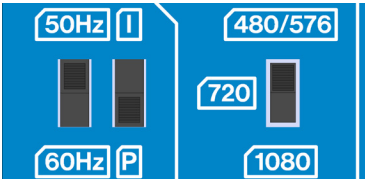
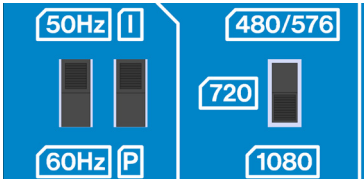
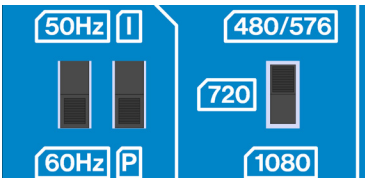
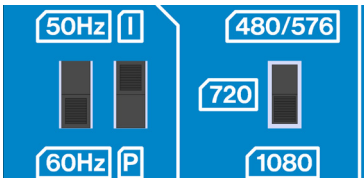
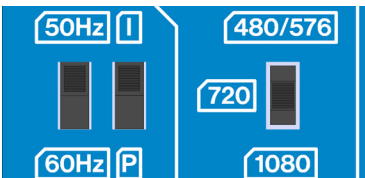
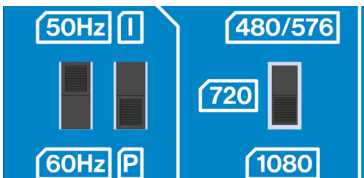
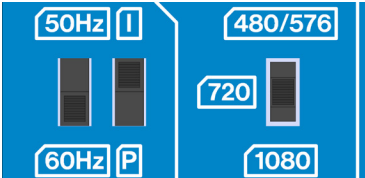
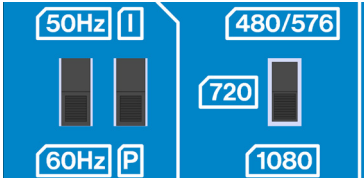
Special thanks to: **LZX Team** for the Cadet serie of modules which have been the starting point to develop this module.

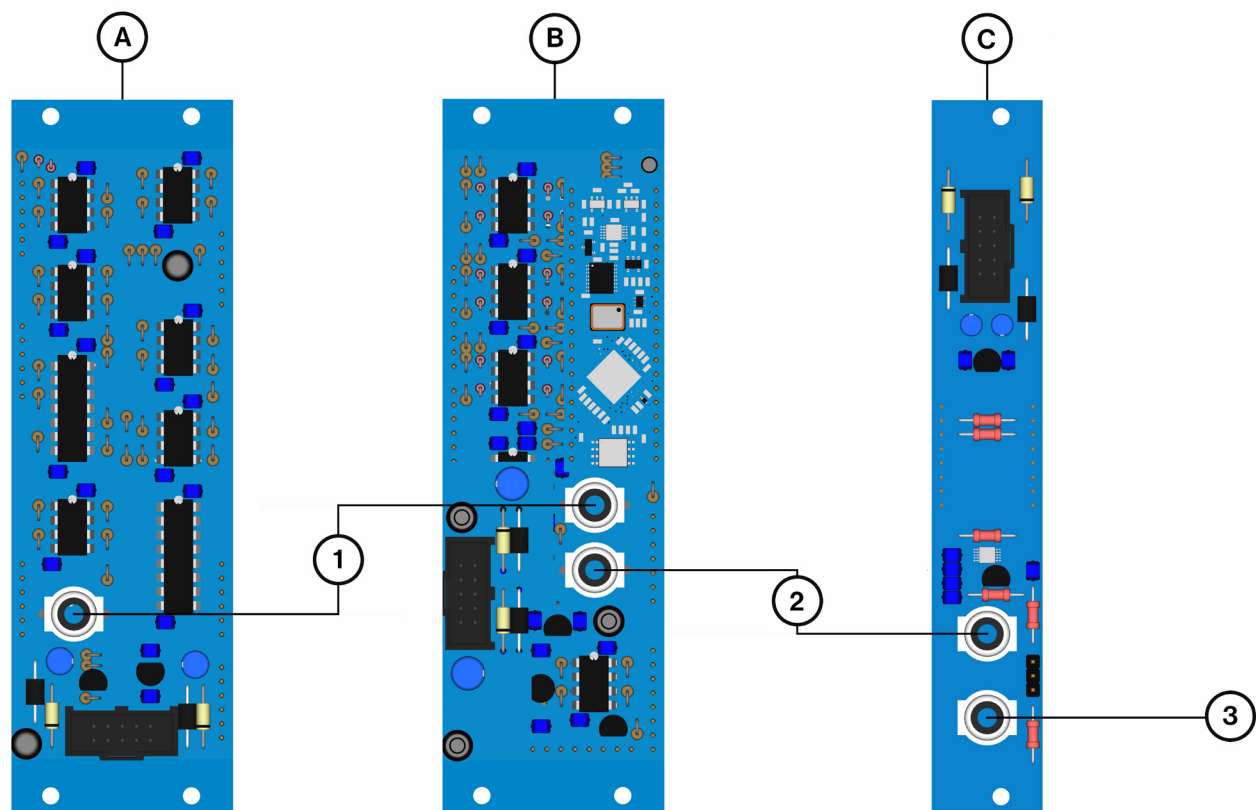
Eric Schlappi for the help on FPGA/Verilog to design the sync generator. **Lorenzo Ferronato** for the documentation design //

And of course, **everyone who has supported Syntonie until now & those who will support it in the future.**



- | | |
|--|--|
| (1) Red input : 0-1V, 100kΩ, minijack | (8) S-Video output : 0-700mV, 75Ω, Mini Din-4 |
| (2) Green input : 0-1V, 100kΩ, minijack | (9) Y output : 0-700mV, 75Ω, RCA |
| (3) Blue input : 0-1V, 100kΩ, minijack | (10) Pb output : 0-700mV, 75Ω, RCA |
| (4) Scan type switch : Interlaced/Progressive | (11) Pr output : 0-700mV, 75Ω, RCA |
| (5) Framerate switch : 50Hz/60Hz | (12) Sync input : 0-700mV, 75Ω, RCA |
| (6) Resolution switch : 480 or 576 lines / 720 lines / 1080 lines | (13) Sync output : 0-700mV, 75Ω, RCA |
| (7) Composite output : 0-700mV, 75Ω, RCA | (14) Power input : +12V/-12V, IDC 10pin |

	576i50 (PAL)		720p50
	480i59.94 (NTSC)		720p60
	576p50		1080i50
	480p59.94		1080i60
	288p50		1080p25
	240p59.94		1080p30



- | | |
|--|--|
| (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.

VU007B

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