4 VOICE CLUSTER

ADDAC105

FM ON	DECAY
VOICE 1	

M ON	DECAY
VOICE 2	

FREQUENCY	FM ON	DECAY
	VOICE 3	

FREQUENCY	FM ON	DECAY
	VOICE 4	

ATTENUVERTER   RESONANCE

CUTOFF CV

TRIG. IN 3   TRIG. IN 4   EXTERNAL IN

LOWPASS   BANDPASS   HIGHPASS

2019
ADDAC SYSTEM

ADDAC105 4 VOICE CLUSTER
USER'S GUIDE . REV01   October.2019

Welcome to:
ADDAC105 4 VOICE CLUSTER USER'S GUIDE
Revision.01 October.2019

OVERALL FEATURES

Following our ADDAC103 T-Networks this new module is inspired by it's simplicity. This is a 4 voice Square Oscillator with VCA, FM switch and a slew decay for the incoming Trigger input. All voices are then mixed and processed through a Multimode Filter.

Each voice has it's own VCA input where any input is accepted (Trigger, Gate, CV) The [DECAY] controls the slew decay applied to the incoming signal, if [DECAY] is fully anti-clockwise then it also works as a Mute.
The [FM ON] switches activate/deactivate the FM input coming from the previous voice: Voice 1 FM comes from voice 4, voice 2 FM comes from voice 1, and so on, so you can FM all of them in a FM loop.

All 4 voices are summed and sent through a filter with controls over [CUTOFF] with an Attenuverter for the CV input and [RESONANCE]. Three filter outputs are provided [LOWPASS], [BANDPASS] and [HIGHPASS]

The [EXTERNAL IN] input can be routed through a jumper on the back of the module allowing the incoming signal to go to:
1. the filter input for processing an external audio source.
2. all of the 4 voices Frequency control allowing for some experimental CV control over pitch of all 4 voices at the same time (due to the specificities of the circuit and to keep the module at a low price these inputs are not callibrated to 1v/octave).
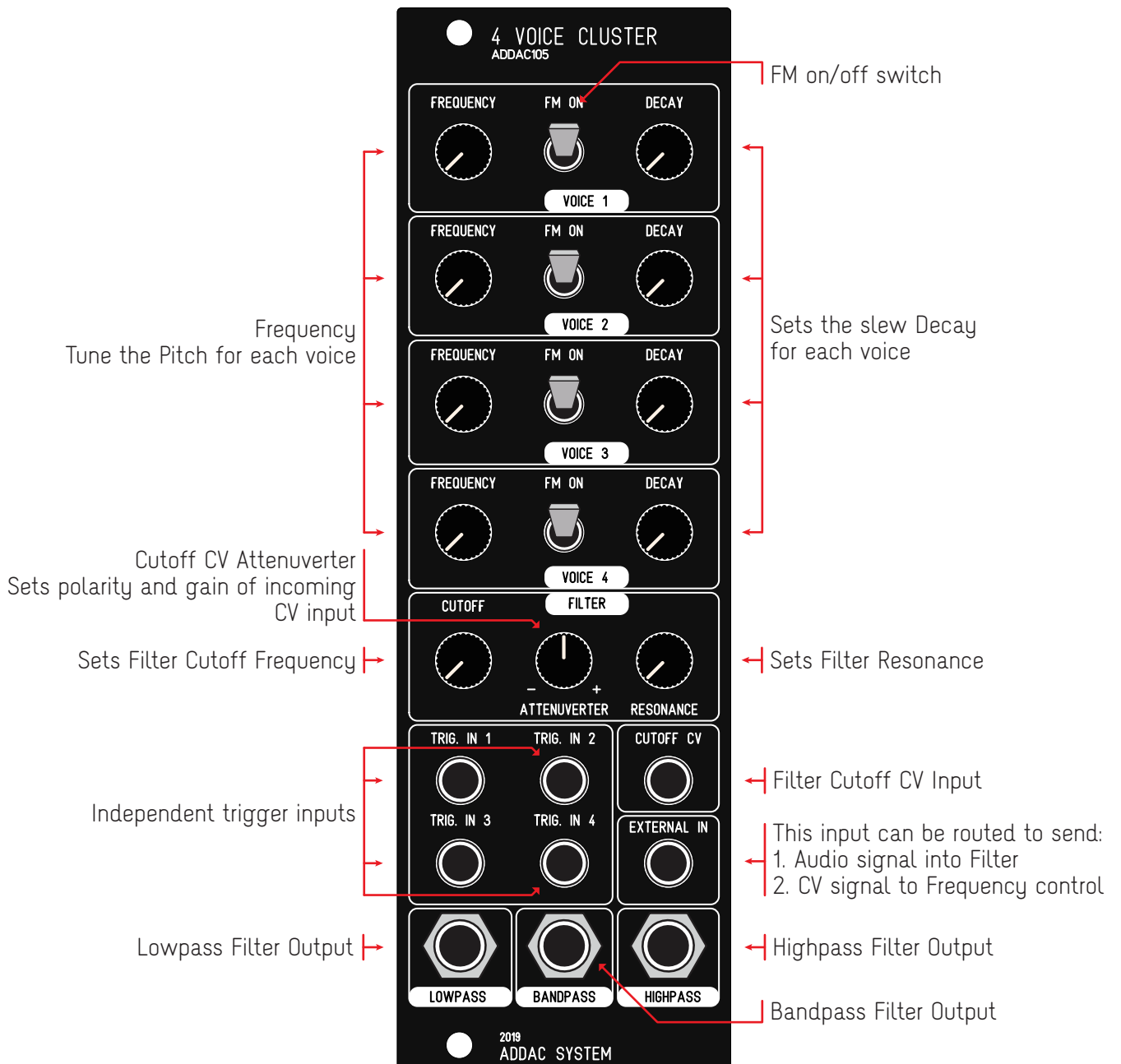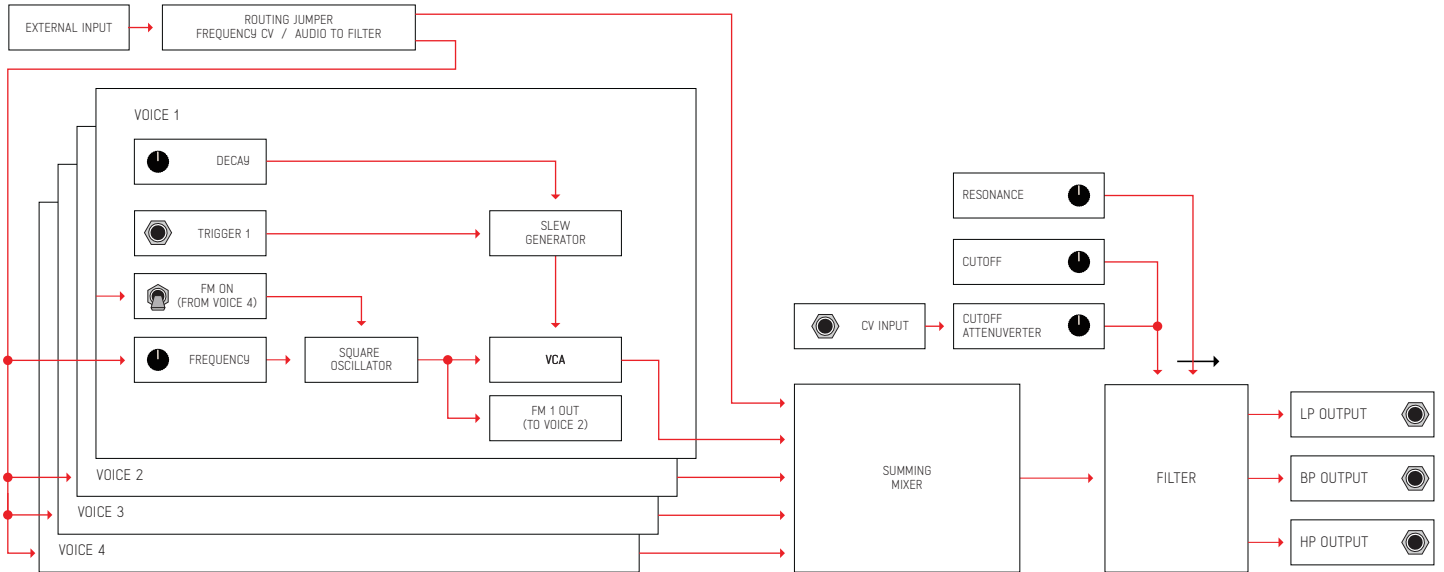
Tech Specs:
8HP
4.5 cm deep
40mA +12V
40mA -12V

CONTROLS DESCRIPTION

4 VOICE CLUSTER
ADDAC105

FM on/off switch

FREQUENCY FM ON DECAY

VOICE 1

FREQUENCY FM ON DECAY

VOICE 2

Frequency
Tune the Pitch for each voice

Sets the slew Decay
for each voice

FREQUENCY FM ON DECAY

VOICE 3

FREQUENCY FM ON DECAY

VOICE 4

Cutoff CV Attenuverter
Sets polarity and gain of incoming
CV input

CUTOFF FILTER

Sets Filter Cutoff Frequency

− +

ATTENUVERTER RESONANCE

Sets Filter Resonance

TRIG. IN 1 TRIG. IN 2 CUTOFF CV

Independent trigger inputs

TRIG. IN 3 TRIG. IN 4 EXTERNAL IN

Filter Cutoff CV Input

This input can be routed to send:
1. Audio signal into Filter
2. CV signal to Frequency control

Lowpass Filter Output

LOWPASS BANDPASS HIGHPASS

Highpass Filter Output

Bandpass Filter Output

2019
ADDAC SYSTEM

ADDAC105
4 VOICE CLUSTER SIGNAL FLOW DIAGRAM

EXTERNAL INPUT

ROUTING JUMPER
FREQUENCY CV / AUDIO TO FILTER

VOICE 1

DECAY

TRIGGER 1

FM ON
(FROM VOICE 4)

FREQUENCY

SLEW
GENERATOR

SQUARE
OSCILLATOR

VCA

FM 1 OUT
(TO VOICE 2)

VOICE 2

VOICE 3

VOICE 4

RESONANCE

CUTOFF

CV INPUT

CUTOFF
ATTENUVERTER

SUMMING
MIXER

FILTER

LP OUTPUT

BP OUTPUT

HP OUTPUT

For feedback, comments or problems please contact us at:
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