

**Gotharman's gear**

**October 2018**

**specs/comparison list**

**Gotharman's**  
Musical Instruments

	PolySpaze	Little deFormer 3	Anamono Xmini	Blank	FX deFormer
					
<b>Type</b>	Polyphonic/multi-timbral synth/sampler with analog filters, granular effects and sequencer	Granular workstation with 16 parts, synths, samplers, analog options, new sequencer and granular effects	Modular synthesizer with memory, 1 exchangeable analog filter, sampler, sequencer and granular effects		Granular effects processor with sampler, sequencer and line/guitar input
<b>No. of re-writable presets</b>	1024	1024	1024		512
<b>No. of re-writable songs</b>	1024	1024	1024		0
<b>Oscillators/samplers</b>					
<b>Polyphony/multi-timbral</b>	4 voices/4 parts	8 stereo voices/16 parts	4 voice semi-polyphonic via its modular structure		1 voice
<b>Max number of oscillators at the same time</b>	8 (2 per voice)	16	4		0
<b>Max number of samplers at the same time</b>	4 (1 per voice)	16	4		1
<b>Number of sample slots per preset –Selectable samplings within the samplers</b>	16 -4 per sampler	64 -4 per sampler	16 -4 per sampler		1
<b>No. of selectable chops per sampling</b>	64	64	64		0

	<b>PolySpaze</b>	<b>Little deformer 3</b>	<b>Anamono Xmini</b>	<b>Blank</b>	<b>FX deFormer</b>
<b>Oscillator waveforms</b>	Osc1: Morphable from sine to triangle to saw to square to feedback wave. PW affects all waveforms. Osc2: Selectable sine, triangle, saw, square, noise. PW affects all waveforms, except for noise.	Morphable from sine to triangle to saw to square to feedback wave. PW affects all waveforms.	Morphable from sine to triangle to saw to square to feedback wave. PW affects all waveforms.		-
<b>Oscillator FM</b>	Yes, 2>1	Yes, audio bus to oscillator	Yes, on any oscillator parameter		-
<b>Oscillator Sync</b>	Yes, 1>2	no	Yes		-
<b>Can modulate the parameters of:</b>	Osc/Sampler 1 pitch, VCF1-8 cutoff frequency.	Osc/Sampler 1-16 pitch, VCF1-4 cutoff frequency.	Osc1-4, VCF, VCA1-4, Ring VCA1-4, ENV1-8, LFO1-4, EFX1-4, CV out 1-4, Seq note track 1-4.		None
<b>Sub Oscillator</b>	No	No	Yes		No

	PolySpaze	Little deformer 3	Anamono Xmini	Blank	FX deFormer
<b>Ring Modulators</b>					
<b>No. of Ring Modulators</b>	4 (1 per voice).	2 has been planned to be added as effects, but they have not yet been added	4 Ring VCA. Also functions as modulation sources amount modulation		0
<b>Placement</b>	Between Osc1 and Osc2	On any of the 8 audio busses	Anywhere in the modular chain		
<b>Can modulate the parameters of:</b>	None	None	Osc1-1, VCF, VCA1-4, Ring VCA1-4, ENV1-8, LFO1-4, EFX1-4, CV out 1-4, Seq note track 1-4.		None

	PolySpaze	Little deformer 3	Anamono Xmini	Blank	FX deFormer
<b>Filters</b>					
<b>No. of Analog Filters</b>	8 (2 per voice)	Up to 12 (SPAZEboard) –up to 4 filter chains	From 1 to 4 - Exchangable		0
<b>Max no. of digital filters</b>	8- one per voice, 4 in the EFX	32 -2 per part	4 –In the effects processors		1
<b>Analog filter types</b>	24dB HPF + 24dB LPF per voice, Filterbank with 8 filters.	Depends on the filterboards installed: <b>VCF1:</b> 12dB LPF, BPF, HPF. <b>VCF2:</b> 12dB LPF, BPF,HPF + BPF. <b>VCF3:</b> 12dB LPF + BPF + HPF or 3xBPF. <b>VCF4:</b> 12dB LPF,BPF,HPF special. <b>VCF5:</b> 6dB,12dB,18dB,24dB LPF, that can be mixed to form other filter types. <b>VCF6:</b> 24dB LPF+6/12bit conversion. <b>VCF7:</b> 12dB Tube LPF,BPF,HPF. <b>VCF8:</b> 2x24dB HPF, 2x24dB LPF. <b>SPAZEboard:</b> 10x 24dB, 2x 18dB	Depends on, what filterboard are installed: <b>VCF1:</b> 12dB LPF, BPF, HPF. <b>VCF2:</b> 12dB LPF, BPF,HPF + BPF. <b>VCF3:</b> 12dB LPF + BPF + HPF or 3xBPF. <b>VCF4:</b> 12dB LPF,BPF,HPF special. <b>VCF5:</b> 6dB,12dB,18dB,24dB LPF, that can be mixed to form other filter types. <b>VCF6:</b> 24dB LPF+6/12bit conversion. <b>VCF7:</b> 12dB Tube LPF,BPF,HPF. <b>VCF8:</b> 2x24dB HPF, 2x24dB LPF.		-

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<b>G-Ray (Gotharman Ray) feedback</b>	Yes	Yes	Yes		No
<b>Digital filter types</b>	LPF, BPF, BPF8, HPF, BEF, ADD, BASS, LOFI, LPF2, BPF2, BPF8-2, HPF2, BEF2, ADD2, BASS2, LOFI2, Peq1, Peq2.	LPF1-5, BPF1-4, HPF1-3, Destruction, FAT1-2, LOFI.	LPF, BPF, BPF8, HPF, BEF, ADD, BASS, LOFI, LPF2, BPF2, BPF8-2, HPF2, BEF2, ADD2, BASS2, LOFI2, Peq1, Peq2.		Lpf, Bpf, Bp8, hpf, Add, Bef, Bass, LoFi.
<b>Digital filter adjust, to alter the shape of the filter</b>	Yes	Yes	Yes		Yes
<b>Analog filter FM</b>	Yes	Yes	Yes, on any filter parameter		-
<b>Digital filter FM</b>	No	No	Yes		No

	<b>PolySpaze</b>	<b>Little deformer 3</b>	<b>Anamono Xmini</b>	<b>Blank</b>	<b>FX deFormer</b>
<b>VCA's</b>					
<b>No. of VCA's</b>	4 (1 per voice)	16	4		0
<b>Assignable to:</b>	Output 1 + 2, EFX 1 + 2, EFX 3 + 4.	Audio bus 1-8.	Output 1, modular matrix.		Output 1.
<b>Envelopes</b>					
<b>No. of envelopes</b>	8 (2 per voice)	24 (3 per part)	8		0
<b>Envelope types</b>	ADSR –Attack, decay, sustain, release. D- Decay envelope.	ADSR –Attack, decay, sustain, release. D- Decay envelope.	ADSR –Attack, decay, sustain, release.		-
<b>Can modulate the parameters of:</b>	Osc1-2, VCF1-2, VCA, ENV1-2, LFO1-4, EFX1-4, CV out 1-4, Seq note track 1-4.	Part Osc, Part filter1-2, part VCA, Part ENV, VCF1-4, LFO1-16, EFX1-10, CV out 1-4, Seq note track 1-16.	Osc1-1, VCF, VCA1-4, Ring VCA1-4, ENV1-8, LFO1-4, EFX1-4, CV out 1-4, Seq note track 1-4.		-
<b>LFO's</b>					
<b>No. of LFO's</b>	4 (1 per voice)	16	4		4
<b>LFO waveforms</b>	Morphable from triangle to saw to square to FM waveform.	Morphable from triangle to saw to square to FM waveform.	Morphable from triangle to saw to square to FM waveform.		Morphable from triangle to saw to square to pulse to random.
<b>Can modulate the parameters of:</b>	Osc1-2, VCF1-2, VCA, ENV1-2, LFO1-4, EFX1-4, CV out 1-4, Seq note track 1-4.	Part Osc, Part filter1-2, part VCA, Part ENV, VCF1-4, LFO1-16, EFX1-10, CV out 1-4, Seq note track 1-16.	Osc1-1, VCF, VCA1-4, Ring VCA1-4, ENV1-8, LFO1-4, EFX1-4, CV out 1-4, Seq note track 1-4.		Sampler, filter, effects.

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<b>Random Generators</b>					
<b>No. of Random Generators</b>	4 (1 per voice)	16 (1 per part)	4		0
<b>Can be triggered by:</b>	Note on's, LFO's.	Note on's.	Note on's, LFO's.		-
<b>Can modulate the parameters of:</b>	Osc1-2, VCF1-2, VCA, ENV1-2, LFO1-4, EFX1-4, CV out 1-4, Seq note track 1-4.	Part Osc, Part filter1-2, part VCA, Part ENV, VCF1-4, LFO1-16, EFX1-10, CV out 1-4, Seq note track 1-16.	Osc1-1, VCF, VCA1-4, Ring VCA1-4, ENV1-8, LFO1-4, EFX1-4, CV out 1-4, Seq note track 1-4.		-



	PolySpaze	Little deformer 3	Anamono Xmini	Blank	FX deFormer
<b>Effects Processors</b>					
<b>No. of Effects Processors</b>	4	10 -8 INS, 2 global	4		1
<b>Effects placement</b>	Each effect can be placed as Instrument insert or as global output effect.	Any of the 8 audio busses.	Anywhere in the modular chain.		Fixed as global output effect.
<b>Effect types</b>	<ul style="list-style-type: none"> <li>-Digital filter/EQ (18 types)</li> <li>-FAT</li> <li>-Chorus</li> <li>-Pitch-Shifter</li> <li>-Stretcher</li> <li>-FM</li> <li>-Resonator</li> <li>-Distortions (4 types)</li> <li>-Pitch Shaper 1</li> <li>-Glitch Shifter (2 types)</li> <li>-Wave Shaper</li> <li>-Granulator</li> <li>-Variator</li> <li>-Delay</li> <li>-Roto Delay</li> <li>-Bright Delay</li> <li>-Bright Roto Delay</li> <li>-Reverb</li> </ul>	<ul style="list-style-type: none"> <li>-FAT</li> <li>-Chorus</li> <li>-Pitch-Shifter</li> <li>-Stretcher</li> <li>-FM</li> <li>-Resonator</li> <li>-Distortions (4 types)</li> <li>-Pitch Shaper (2 types)</li> <li>-Glitch Shifter (3 types)</li> <li>-Granulator</li> <li>-Variator</li> <li>-Delay</li> <li>-Roto Delay</li> <li>-Bright Delay</li> <li>-Bright Roto Delay</li> <li>-Reverb</li> </ul>	<ul style="list-style-type: none"> <li>-Digital filter/EQ (18 types)</li> <li>-Chorus</li> <li>-Pitch-Shifter</li> <li>-Stretcher</li> <li>-FM</li> <li>-Resonator</li> <li>-Distortions (4 types)</li> <li>-Pitch Shaper (2 types)</li> <li>-Glitch Shifter (2 types)</li> <li>-Wave Shaper</li> <li>-Granulator</li> <li>-Variator</li> <li>-Delay</li> <li>-Roto Delay</li> <li>-Bright Delay</li> <li>-Bright Roto Delay</li> <li>-Reverb</li> </ul>		<ul style="list-style-type: none"> <li>-Reverb (2 types)</li> <li>-Delay (2 types)</li> <li>-Glitch Shifter (2 types)</li> <li>-Granulator</li> <li>-Variator</li> <li>-PitchShaper</li> <li>-Sample Pitch</li> <li>-Time Stretch</li> <li>-Abstract0</li> <li>-Chorus</li> <li>-Distortion (4 types)</li> </ul>

	PolySpaze	Little deformer 3	Anamono Xmini	Blank	FX deFormer
<b>Sample Recorder</b>					
<b>Max no. of samplings excluding chop samplings</b>	256	8192	256		127
<b>Max no. of samplings including chop samplings, when using the "Load Samples As Chops" function</b>	16.384	524.288	16.384		-
<b>Total sample time</b>	22 minutes	193 minutes	22 minutes		10 minutes
<b>Single sampling max length</b>	12 minutes	50 minutes	12 minutes		10 minutes
<b>Recording sources</b>	Input 1-2, Output 1-2, USB import	Input1-6, Output1-6, USB import	Output, USB import		Input, USB import via optional USB box
<b>Stereo Samples</b>	Recording and playback	Recording and playback	Playback of left or right channel		No
<b>Sample Edit</b>	Start, length, chops, chop no, tune, FM	Start, length, chops, chop no, tune, FM	Start,length, chops, chop no, tune, FM		Start, length, tune
<b>Sample Chop system</b>	Yes	Yes	Yes		No
<b>Samples held in memory after switch off</b>	Yes	Yes	Yes		Yes
<b>FLASH memory type</b>	NOR	NOR	NOR		NOR

	PolySpaze	Little deformer 3	Anamono Xmini	Blank	FX deFormer
<b>Sequencer</b>					
<b>Sequencer Type</b>	Step sequencer	Advanced Step sequencer	Step sequencer		Step sequencer
<b>No. of note tracks</b>	4	16	4		1
<b>No. of control event tracks</b>	8	32	8		3
<b>No. of event tracks for any events</b>	-	-	-		-
<b>No. of audio tracks</b>	-	16	-		-
<b>Max no. of recordable events per preset</b>	768	5.120	768		64
<b>Max track length</b>	64 steps -4 bars	64 steps (Notes), 128 steps (controller)	64 steps -4 bars		16 steps -1 bar
<b>Max resolution</b>	1/32	1/64	1/32		1/16
<b>Note recording methods</b>	Realtime, draw steps	Realtime, draw steps, input via knobs	Realtime, draw steps		Input via knobs
<b>Controller event recording methods</b>	Draw steps	Draw steps	Draw steps		Input via knobs
<b>Event types supported</b>	Notes, MIDI CC's, internal events	Notes, MIDI CC's, internal events	Notes, MIDI CC's, internal events		Notes, internal events
<b>Sequencer controller events can modulate the parameters of:</b>	Osc1-2, VCF1-2, VCA, ENV1-2, LFO1-4, EFX1-4, CV out 1-4, Seq note track 1-4.	Part Osc, Part filter1-2, part VCA, Part ENV, VCF1-4, LFO1-16, EFX1-10, CV out 1-4, Seq note track 1-16.	Osc1-1, VCF, VCA1-4, Ring VCA1-4, ENV1-8, LFO1-4, EFX1-4, CV out 1-4, Seq note track 1-4.		Sampler, filter, effects.

	<b>PolySpaze</b>	<b>Little deformer 3</b>	<b>Anamono Xmini</b>	<b>Blank</b>	<b>FX deFormer</b>
<b>Transmits notes via MIDI out</b>	Yes	Yes	Yes		No
<b>Transmits controller events via MIDI out</b>	Yes	Yes	Yes		No
<b>Polyphony</b>	4	128	4		1
<b>Morphing system</b>					
<b>Morph between 2 layers of synth parameters</b>	Yes	Yes	Yes		No
<b>Morph between 2 layers of sequencer parameters</b>	Yes	Yes	Yes		No
<b>No. of Morph knobs</b>	1 (assignable to synth, seq or both)	2 (separate knobs for synth and seq)	1 (assignable to synth, seq or both)	-	-
<b>User interface</b>					
<b>Interface type</b>	Touch navigation	Touch and button navigation	Touch navigation		Navigation via buttons
<b>Display</b>	3.2" capacitive touch	3.2" capacitive touch	3.2" capacitive touch		2x16 character LCD
<b>Touch screen keyboard</b>	Adjustable, 1 to 8 octaves	Adjustable, 1 to 8 octaves	Adjustable, 1 to 8 octaves		No
<b>Parameter edit</b>	Via 4 knobs	Via 8 knobs	Via 4 knobs		Via 3 knobs
<b>Quick edit knobs</b>	6	8	6		0
<b>Trigger buttons</b>	4	16	4		1 (Play button are assignable)

	PolySpaze	Little deformer 3	Anamono Xmini	Blank	FX deFormer
<b>Trigger system</b>					
<b>Setup</b>	Fixed, no setup.	Fixed, no setup. One trigger per part.	Simple. Each trigger will always trigger something. It is possible to set which trigger should trigger which oscillator, sampler, envelope and random generator, but it is not mandatory.		Fixed, no setup.

	PolySpaze	Little deformer 3	Anamono Xmini	Blank	FX deFormer
<b>USB</b>					
USB functions	<ul style="list-style-type: none"> <li>-Import wav file</li> <li>-Import LD sampling</li> <li>-Import preset</li> <li>-Import song</li> <li>-Import all files from directory (samples, presets and songs)</li> <li>-Reload all files from directory (Imports all samples, presets and songs to their original slots)</li> <li>-Import all samples from directory as chops (generates one sampling from all of the samplings in the directory, and sets a chop point at each samplings start point)</li> <li>-Export sample wav</li> <li>-Export all samplings</li> <li>-Export preset</li> <li>-Export all presets</li> <li>-Export song</li> <li>-Export all songs</li> <li>-Create directory</li> <li>-Delete file</li> <li>-Update firmware</li> </ul>	<ul style="list-style-type: none"> <li>-Import wav file, 16 and 24 bit, standard and broadcast</li> <li>-Import LD sampling</li> <li>-Import preset</li> <li>-Import song</li> <li>-Import all files from directory (samples, presets and songs)</li> <li>-Reload all files from directory (Imports all samples, presets and songs to their original slots)</li> <li>-Import all samples from directory as chops (generates one sampling from all of the samplings in the directory, and sets a chop point at each samplings start point)</li> <li>-Export sample wav</li> <li>-Export all samplings</li> <li>-Export preset</li> <li>-Export all presets</li> <li>-Export song</li> <li>-Export all songs</li> <li>-Create directory</li> <li>-Delete file</li> <li>-Update firmware</li> </ul>	<ul style="list-style-type: none"> <li>-Import wav file</li> <li>-Import LD sampling</li> <li>-Import preset</li> <li>-Import song</li> <li>-Import all files from directory (samples, presets and songs)</li> <li>-Reload all files from directory (Imports all samples, presets and songs to their original slots)</li> <li>-Import all samples from directory as chops (generates one sampling from all of the samplings in the directory, and sets a chop point at each samplings start point)</li> <li>-Export sample wav</li> <li>-Export all samplings</li> <li>-Export preset</li> <li>-Export all presets</li> <li>-Export song</li> <li>-Export all songs</li> <li>-Create directory</li> <li>-Delete file</li> <li>-Update firmware</li> </ul>		<ul style="list-style-type: none"> <li>Via optional USB box.</li> <li>-Import wav file</li> <li>-Import LD sampling</li> <li>-Import preset</li> <li>-Import all files from directory (samples, presets and songs)</li> <li>-Export sample wav</li> <li>-Export all samplings</li> <li>-Export preset</li> <li>-Export all presets</li> <li>-Create directory</li> </ul>

	<b>PolySpaze</b>	<b>Little deformer 3</b>	<b>Anamono Xmini</b>	<b>Blank</b>	<b>FX deFormer</b>
<b>MIDI</b>					
<b>MIDI events received</b>	Note, CC, pitch bend, program change, mono aftertouch, poly aftertouch, clock, start/stop	Note, CC, pitch bend, program change, mono aftertouch, clock, start/stop	Note, CC, pitch bend, program change, mono aftertouch, clock, start/stop		Note, CC, pitch bend, program change, mono aftertouch, clock, start/stop
<b>MIDI events transmitted</b>	Note, CC, clock, start/stop	Note, CC, clock, start/stop	Note, CC, clock, start/stop		CC
<b>Assignable MIDI CC's</b>	1-29 for each part. 32= bank change.	1-16. 32= bank change.	1-9. 32= bank change.		1-6. 32= bank change. 14= effect bypass.
<b>Controller events can modulate the parameters of:</b>	Osc1-2, VCF1-2, VCA, ENV1-2, LFO1-4, EFX1-4, CV out 1-4, Seq note track 1-4.	Part Osc, Part filter1-2, part VCA, Part ENV, VCF1-4, LFO1-16, EFX1-10, CV out 1-4, Seq note track 1-16.	Osc1-1, VCF, VCA1-4, Ring VCA1-4, ENV1-8, LFO1-4, EFX1-4, CV out 1-4, Seq note track 1-4.		Sampler, filter, effects.
<b>CV</b>					
<b>No. of CV inputs</b>	4 (optional)	4 (optional)	4 (optional)		4 via optional AnaX
<b>No. of CV outputs</b>	4 (optional)	4 (optional)	4 (optional)		2 via optional AnaX
<b>CV inputs can modulate the parameters of:</b>	Osc1-2, VCF1-2, VCA, ENV1-2, LFO1-4, EFX1-4, CV out 1-4, Seq note track 1-4, trigger 1-4.	Part Osc, Part filter1-2, part VCA, Part ENV, VCF1-4, LFO1-16, EFX1-10, CV out 1-4, Seq note track 1-16.	Osc1-1, VCF, VCA1-4, Ring VCA1-4, ENV1-8, LFO1-4, EFX1-4, CV out 1-4, Seq note track 1-4, trigger 1-4.		Sampler, filter, effects.
<b>CV outputs can transmit</b>	Any modulation source, trigger 1-4.	Any modulation source, trigger 1-16.	Any modulation source, including audio, trigger 1-4.		Any modulation source.

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<b>Connections</b>					
<b>Audio inputs</b>	2 –Assignable to sample recording (mono or stereo), and to the analog filters and the effects processors	Up to 6.	1 –Always assigned to the analog filter.		1 –Assigned to sample recording and the effects.
<b>Audio outputs</b>	2	Up to 6.	1		1
<b>MIDI inputs</b>	1	1	1		1
<b>MIDI outputs</b>	1	1	1		1
<b>Power Supply</b>	9V, 2A	9V, 2A	9V, 2A		9V, 660 mA
<b>Audio system</b>					
<b>Inputs</b>	24 bit, 44.1 KHz	24 bit, 44.1 KHz	24 bit, 44.1 KHz		24 bit, 44.1 KHz
<b>Outputs</b>	24 bit, 44.1 KHz	24 bit, 44.1 KHz	24 bit, 44.1 KHz		24 bit, 44.1 KHz
<b>Internal system</b>	32 bit, 44.1 KHz	32 bit, 44.1 KHz	32 bit, 44.1 KHz		40 bit, 44.1 KHz
<b>Sampler</b>	16 bit, 44.1 KHz	16 bit, 44.1 KHz	16 bit, 44.1 KHz		16 bit, 44.1 KHz
<b>Size and weight</b>					
<b>Size</b>	22 x 12.5 x 5 cm	23 x 16 x 6 cm	22 x 12.5 x 5 cm		17 x 10 x 6 cm
<b>Weight</b>	0.9 Kg	1.0 Kg	0.9 Kg		0.5 Kg
<b>Price</b>					
	From EUR 1.560,-	From EUR 1.290,-	From EUR 1.159,-		EUR 549,-