






Gotharman's gear

April 2019

specs/comparison list

Gotharman's
Musical Instruments

	PolySpaze	LD3/Tiny LD	SPACEboard6 LD3	Anamono Xmini	FX deFormer
					
Type	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	Granular analog workstation with 8 synth parts (6 analog), samplers, 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
No. of re-writable presets	1024	1024	1024	1024	512
No. of re-writable songs	1024	1024	1024	1024	0
Oscillators/samplers					
Polyphony/multi-timbral	4 voices/4 parts	8 stereo voices/16 parts	8 voices/8 parts	4 voice semi-polyphonic via its modular structure	1 voice
Max number of oscillators at the same time	8 (2 per voice)	16	14 (Part 1-6: 2 each, part 7-8: 1 each)	4	0
Max number of samplers at the same time	4 (1 per voice)	16	8	4	1
Number of sample slots per preset –Selectable samplings within the samplers	16 -4 per sampler	64 -4 per sampler	32 -4 per sampler	16 -4 per sampler	1
No. of selectable chops per sampling	64	64	64	64	0

	PolySpaze	LD3/Tiny LD	SPACEboard6 LD3	Anamono Xmini	FX deFormer
Oscillator waveforms	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.	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.	-
Oscillator FM	Yes, 2>1	Yes, audio bus to oscillator	Yes, 2>1 on part 1-6	Yes, on any oscillator parameter	-
Oscillator Sync	Yes, 1>2	no	Yes, 1>2, pt.1-6	Yes	-
Can modulate the parameters of:	Osc/Sampler 1 pitch, VCF1-8 cutoff frequency.	Osc/Sampler 1-16 pitch, VCF1-4 cutoff frequency.	Osc/Sampler 1 pitch, VCF 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
Sub Oscillator	No	No	No	Yes	No

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Ring Modulators					
No. of Ring Modulators	4 (1 per voice).	2 has been planned to be added as effects, but they have not yet been added	6 (1 per voice, part 1-6).	4 Ring VCA. Also functions as modulation sources amount modulation	0
Placement	Between Osc1 and Osc2	On any of the 8 audio busses	Between Osc1 and Osc2	Anywhere in the modular chain	
Can modulate the parameters of:	None	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	LD3/Tiny LD	SPACEboard6 LD3	Anamono Xmini	FX deFormer
Filters					
No. of Analog Filters	8 (2 per voice)	LD3: Up to 12 (SPACEboard) –up to 4 filter chains. Tiny LD: Max 1.	12 (2 per voice, part 1-6)	From 1 to 4 - Exchangable	0
Max no. of digital filters	8- one per voice, 4 in the EFX	32 -2 per part	20- one per voice, 12 in the EFX	4 –In the effects processors	1
Analog filter types	24dB HPF + 24dB LPF per voice, Filterbank with 8 filters.	Depends on the filterboards installed: VCF1: 12dB LPF, BPF, HPF. VCF2: 12dB LPF, BPF,HPF + BPF. VCF3: 12dB LPF + BPF + HPF or 3xBPF. VCF4: 12dB LPF,BPF,HPF special. VCF5: 6dB,12dB,18dB,24dB LPF, that can be mixed to form other filter types. VCF6: 24dB LPF+6/12bit conversion. VCF7: 12dB Tube LPF,BPF,HPF. VCF8: 2x24dB HPF, 2x24dB LPF.	24dB HPF + 24dB LPF per voice (part 1-6).	Depends on, what filterboard are installed: VCF1: 12dB LPF, BPF, HPF. VCF2: 12dB LPF, BPF,HPF + BPF. VCF3: 12dB LPF + BPF + HPF or 3xBPF. VCF4: 12dB LPF,BPF,HPF special. VCF5: 6dB,12dB,18dB,24dB LPF, that can be mixed to form other filter types. VCF6: 24dB LPF+6/12bit conversion. VCF7: 12dB Tube LPF,BPF,HPF. VCF8: 2x24dB HPF, 2x24dB	-

		SPACEboard2: 8x 24dB, 2x filterboard		LPF.	
	PolySpaze	LD3/Tiny LD	SPACEboard6 LD3	Anamono Xmini	FX deFormer
G-Ray (Gotharman Ray) feedback	Yes	Yes	Yes	Yes	No
Digital filter types	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.	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.
Digital filter adjust, to alter the shape of the filter	Yes	Yes	Yes	Yes	Yes
Analog filter FM	Yes	Yes	Yes	Yes, on any filter parameter	-
Digital filter FM	No	No	No	Yes	No

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VCA's					
No. of VCA's	4 (1 per voice)	16	8	4	0
Assignable to:	Output 1 + 2, EFX 1 + 2, EFX 3 + 4.	Audio bus 1-8.	Output L+R, Output EFX 1+2	Output 1, modular matrix.	Output 1.
Envelopes					
No. of envelopes	8 (2 per voice)	48 (3 per part)	24 (3 per voice)	8	0
Envelope types	ADSR –Attack, decay, sustain, release. D- Decay envelope.	ADSR –Attack, decay, sustain, release. D- Decay envelope.	ADSR –Attack, decay, sustain, release. D- Decay envelope.	ADSR –Attack, decay, sustain, release.	-
Can modulate the parameters of:	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.	Osc1-2, VCF1-2, VCA, ENV1-2, LFO1-16, INS EFX1-2, Outp EFX 1-2, 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.	-
LFO's					
No. of LFO's	4 (1 per voice)	16	16	4	4
LFO waveforms	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 FM waveform.	Morphable from triangle to saw to square to pulse to random.
Can modulate the parameters of:	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.	Osc1-2, VCF1-2, VCA, ENV1-2, LFO1-16, INS EFX1-2, Outp EFX 1-2, 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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Random Generators					
No. of Random Generators	4 (1 per voice)	64 (4 per part)	40 (4 per voice + 8 global)	4	0
Can be triggered by:	Note on's, LFO's.	Note on's.	Note on's, LFO's.	Note on's, LFO's.	-
Can modulate the parameters of:	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.	Osc1-2, VCF1-2, VCA, ENV1-2, LFO1-16, INS EFX1-2, Outp EFX 1-2, 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	LD3/Tiny LD	SPACEboard6 LD3	Anamono Xmini	FX deFormer
Effects Processors					
No. of Effects Processors	4	10 -8 INS, 2 global	14 -12 INS, 2 global	4	1
Effects placement	Each effect can be placed as Instrument insert or as global output effect.	Any of the 8 audio busses.	Part 1-6 has 2 INS EFX per part. 2 Output EFX.	Anywhere in the modular chain.	Fixed as global output effect.
Effect types	<ul style="list-style-type: none"> -Digital filter/EQ (24 types) -FAT -Chorus -Pitch-Shifter -Stretcher -FM -Resonator -Distortions (4 types) -Pitch Shaper 1 -Glitch Shifter (2 types) -Wave Shaper -Granulator -Variator -Delay -Roto Delay -Bright Delay -Bright Roto Delay -Reverb 	<ul style="list-style-type: none"> -Digital filter (24 types) -FAT -Chorus -Pitch-Shifter -Stretcher -FM -Resonator -Distortions (4 types) -Pitch Shaper (2 types) -Glitch Shifter (3 types) -Granulator (3 types) -Variator -Delay -Roto Delay -Bright Delay -Bright Roto Delay -Reverb -Sample Pitch -Time Stretch -Abstract0 	<ul style="list-style-type: none"> -Digital filter (24 types) -FAT -Chorus -Pitch-Shifter -Stretcher -FM -Resonator -Distortions (4 types) -Pitch Shaper (2 types) -Pitch Shaper (2 types) -Glitch Shifter (3 types) -Granulator (3 types) -Variator -Delay -Roto Delay -Bright Delay -Delay -Roto Delay -Bright Delay -Bright Roto Delay -Reverb -Sample Pitch -Time Stretch -Abstract0 	<ul style="list-style-type: none"> -Digital filter/EQ (18 types) -Chorus -Pitch-Shifter -Stretcher -FM -Resonator -Distortions (4 types) -Pitch Shaper (2 types) -Glitch Shifter (2 types) -Wave Shaper -Granulator -Variator -Delay -Roto Delay -Bright Delay -Bright Roto Delay -Reverb 	<ul style="list-style-type: none"> -Reverb (2 types) -Delay (2 types) -Glitch Shifter (2 types) -Granulator -Variator -PitchShaper -Sample Pitch -Time Stretch -Abstract0 -Chorus -Distortion (4 types)

	PolySpaze	LD3/Tiny LD	SPACEboard6 LD3	Anamono Xmini	FX deFormer
Sample Recorder					
Max no. of samplings excluding chop samplings	256	LD3: 8192 Tiny LD: 2048	8191	256	127
Max no. of samplings including chop samplings, when using the "Load Samples As Chops" function	16.384	LD3: 524.288 Tiny LD: 131.072	524.224	16.384	-
Total sample time	22 minutes	LD3: Max.193 minutes Tiny LD: 43 minutes	Max. 193 minutes	22 minutes	10 minutes
Single sampling max length	12 minutes	LD3: 50 minutes Tiny LD: 43 minutes	50 minutes	12 minutes	10 minutes
Recording sources	Input 1-2, Output 1-2, USB import	LD3: Input1-6, Output1-6, USB import Tiny LD: Input L/R, Output L/R, USB import	Output L/R. Audio inputs can be recorded through the analog filters of part 5 and 6.	Output, USB import	Input, USB import via optional USB box
Stereo Samples	Recording and playback	Recording and playback	Playback of left or right channel	Playback of left or right channel	No
Sample Edit	Start, length, chops, chop no, tune, FM	Start, length, chops, chop no, tune, FM	Start, length, chops, chop no, tune, FM	Start,length, chops, chop no, tune, FM	Start, length, tune
Sample Chop system	Yes	Yes	Yes	Yes	No
Samples held in memory after switch off	Yes	Yes	Yes	Yes	Yes
FLASH memory type	NOR	NOR	NOR	NOR	NOR

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Sequencer					
Sequencer Type	Step sequencer	Advanced Step sequencer	Advanced Step sequencer	Step sequencer	Step sequencer
No. of note tracks	4	16	16	4	1
No. of control event tracks	8	32	32	8	3
No. of audio tracks	-	16	16	-	-
Max no. of recordable events per preset	768	5.120	5.120	768	64
Max track length	64 steps -4 bars	64 steps (Notes), 128 steps (controller)	64 steps (Notes), 128 steps (controller)	64 steps -4 bars	16 steps -1 bar
Max resolution	1/32	1/64	1/64	1/32	1/16
Note recording methods	Realtime, draw steps	Realtime, step time, draw steps, input via knobs	Realtime, step time, draw steps, input via knobs	Realtime, draw steps	Input via knobs
Controller event recording methods	Draw steps	Draw steps, realtime, step time.	Draw steps, realtime, step time.	Draw steps	Input via knobs
Event types supported	Notes, MIDI CC's, internal events	Notes, MIDI CC's, internal events	Notes, MIDI CC's, internal events	Notes, MIDI CC's, internal events	Notes, internal events
Sequencer controller events can modulate the parameters of:	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.	Osc1-2, VCF1-2, VCA, ENV1-2, LFO1-16, INS EFX1-2, Outp EFX 1-2, 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.

	PolySpaze	LD3/Tiny LD	SPACEboard6 LD3	Anamono Xmini	FX deFormer
Transmits notes via MIDI out	Yes	Yes	Yes	Yes	No
Transmits controller events via MIDI out	Yes	Yes	Yes	Yes	No
Polyphony	4	128	128	4	1
Morphing system					
Morph between 2 layers of synth parameters	Yes	Yes	Yes	Yes	No
Morph between 2 layers of sequencer parameters	Yes	Yes	Yes	Yes	No
No. of Morph knobs	1 (assignable to synth, seq or both)	2 (separate knobs for synth and seq)	2 (separate knobs for synth and seq)	1 (assignable to synth, seq or both)	-
User interface					
Interface type	Touch navigation	Touch and button navigation	Touch and button navigation	Touch navigation	Navigation via buttons
Display	3.2" capacitive touch	3.2" capacitive touch	3.2" capacitive touch	3.2" capacitive touch	2x16 character LCD
Touch screen keyboard	Adjustable, 1 to 8 octaves	Adjustable, 1 to 8 octaves	Adjustable, 1 to 8 octaves	Adjustable, 1 to 8 octaves	No
Parameter edit	Via 4 knobs	LD3: Via 8 knobs Tiny LD: Via 4 knobs	Via 8 knobs	Via 4 knobs	Via 3 knobs
Quick edit knobs	6	LD3: 8 Tiny LD: 1	8	6	0
Trigger buttons	4	LD3: 16 Tiny LD: 8	16	4	1 (Play button are assignable)

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Trigger system					
Setup	Fixed, no setup.	Fixed, no setup. One trigger per part.	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	LD3/Tiny LD	SPACEboard6 LD3	Anamono Xmini	FX deFormer
USB					
USB functions	<ul style="list-style-type: none"> -Import wav file -Import LD sampling -Import preset -Import song -Import all files from directory (samples, presets and songs) -Reload all files from directory (Imports all samples, presets and songs to their original slots) -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) -Export sample wav -Export all samplings -Export preset -Export all presets -Export song -Export all songs -Create directory -Delete file -Update firmware 	<ul style="list-style-type: none"> -Import wav file, 16 and 24 bit, standard and broadcast -Import LD sampling -Import preset -Import song -Import all files from directory (samples, presets and songs) -Reload all files from directory (Imports all samples, presets and songs to their original slots) -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) -Export sample wav -Export all samplings -Export preset -Export all presets -Export song -Export all songs -Create directory -Delete file -Update firmware 	<ul style="list-style-type: none"> -Import wav file, 16 and 24 bit, standard and broadcast -Import LD sampling -Import preset -Import song -Import all files from directory (samples, presets and songs) -Reload all files from directory (Imports all samples, presets and songs to their original slots) -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) -Export sample wav -Export all samplings -Export preset -Export all presets -Export song -Export all songs -Create directory -Delete file -Update firmware -Export all samplings -Export preset 	<ul style="list-style-type: none"> -Import wav file -Import LD sampling -Import preset -Import song -Import all files from directory (samples, presets and songs) -Reload all files from directory (Imports all samples, presets and songs to their original slots) -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) -Export sample wav -Export all samplings -Export preset -Export all presets -Export song -Export all songs -Create directory -Delete file -Update firmware 	<ul style="list-style-type: none"> Via optional USB box. -Import wav file -Import LD sampling -Import preset -Import all files from directory (samples, presets and songs) -Export sample wav -Export all samplings -Export preset -Export all presets -Create directory

- Export all presets
- Export song
- Export all songs
- Create directory
- Delete file
- Update firmware

	PolySpaze	LD3/Tiny LD	SPACEboard6 LD3	Anamono Xmini	FX deFormer
MIDI					
MIDI events received	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	Note, CC, pitch bend, program change, mono aftertouch, clock, start/stop
MIDI events transmitted	Note, CC, clock, start/stop	Note, CC, clock, start/stop	Note, CC, clock, start/stop	Note, CC, clock, start/stop	CC
Assignable MIDI CC's	1-29 for each part. 32= bank change.	1-61. 32= bank change.	1-61. 32= bank change.	1-9. 32= bank change.	1-6. 32= bank change. 14= effect bypass.
Controller events can modulate the parameters of:	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.	Osc1-2, VCF1-2, VCA, ENV1-2, LFO1-16, INS EFX1-2, Outp EFX 1-2, 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.
CV					
No. of CV inputs	4 (optional)	LD3: 4 (optional) Tiny LD: None	4 (optional)	4 (optional)	4 via optional AnaX
No. of CV outputs	4 (optional)	LD3: 4 (optional) Tiny LD: None	None	4 (optional)	2 via optional AnaX
CV inputs can modulate the parameters of:	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.	Osc1-2, VCF1-2, VCA, ENV1-2, LFO1-16, INS EFX1-2, Outp EFX 1-2, 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.
CV outputs can transmit	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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Connections					
Audio inputs	2 –Assignable to sample recording (mono or stereo), and to the analog filters and the effects processors	LD3: Up to 6. Tiny LD: 2	2	1 –Always assigned to the analog filter.	1 –Assigned to sample recording and the effects.
Audio outputs	2	LD3: Up to 6. Tiny LD: 2	2	1	1
MIDI inputs	1	1	1	1	1
MIDI outputs	1	1	1	1	1
Power Supply	9V, 2A	9V, 2A	9V, 2A	9V, 2A	9V, 660 mA
Audio system					
Inputs	24 bit, 44.1 KHz	24 bit, 44.1 KHz	24 bit, 44.1 KHz	24 bit, 44.1 KHz	24 bit, 44.1 KHz
Outputs	24 bit, 44.1 KHz	24 bit, 44.1 KHz	24 bit, 44.1 KHz	24 bit, 44.1 KHz	24 bit, 44.1 KHz
Internal system	32 bit, 44.1 KHz	32 bit, 44.1 KHz	32 bit, 44.1 KHz	32 bit, 44.1 KHz	40 bit, 44.1 KHz
Sampler	16 bit, 44.1 KHz	16 bit, 44.1 KHz	16 bit, 44.1 KHz	16 bit, 44.1 KHz	16 bit, 44.1 KHz
Size and weight					
Size	22 x 12.5 x 5 cm	LD3: 23 x 16 x 6 cm Tiny LD: 17 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
Weight	0.9 Kg	LD3: 1.0 Kg Tiny LD: 0.7 Kg	1.2 Kg	0.9 Kg	0.5 Kg
Price					
	From EUR 1.560,-	LD3: From EUR 1.290,- Tiny LD: From EUR 899,-	From EUR 2.089	From EUR 1.159,-	EUR 549,-

