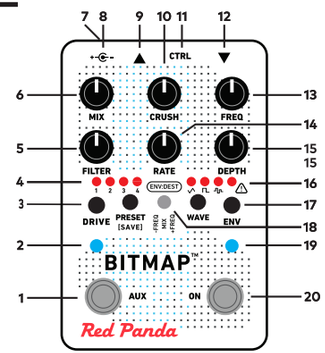
The Bitmap™ is a stereo bitcrusher with fractional bit reduction and sample rate modulation. It also features waveshaping, wavefolding, and a window comparator for extreme digital distortion. A drive control handles everything from single coil guitars to synthesizers, with +8 dBu maximum signal level and plenty of gain for hard clipping. Modulation and envelope control create dynamic, responsive distortion and digital artifacts.

The Bitmap 2 is tuned to provide maximum sustain without sputtering on staccato notes. Less extreme settings add layers of nonlinearities that interact in subtle ways, giving you the warmth and grit of 8- and 12-bit samplers. Sample rate reduction turns your guitar into 8-bit video game sounds or twists scales into inharmonic melodies. Sample rate modulation adds subtle motion or morphs your guitar into entirely new textures.

BITMAP



1. AUX (default: tap)
2. AUX LED
3. Drive (input gain)
4. Presets
5. Filter cutoff
6. Wet/dry mix
7. USB
8. 9V DC 250 mA
9. Output (TRS)
10. Bit reduction
11. Control port
12. Input (TRS)
13. Sample rate reduction
14. Modulation rate
15. Modulation depth
16. Modulation waveform
17. Envelope amount
18. Envelope destination
19. Bypass indicator
20. Bypass

CONTROLS

MIX
Dry/wet blend.

CRUSH
Bit reduction from 24 bits to 1 bit.

FREQ
Sample rate reduction (aliasing), from 48 kHz to 110 Hz

FILTER
Lowpass filter cutoff. Resonance can be adjusted using the editor or MIDI and saved to a preset.

DRIVE
Adjusts the input gain from 0 to +40 dB. When the knob is moved, the **PRESET** and **WAVE** LEDs will temporarily display the signal level.

Adjust the **DRIVE** knob so that the "warning" LED blinks only occasionally to maximize the input range. Reduce it to make the signal sputter and cut out. Increase it for hard sustain and a more saturated sound.

CONTROLS (CONT.)

WAVE
Press to cycle through modulation waves:

●○○○ Triangle LFO
○●○○ Square wave LFO
○○●○ Random LFO
●○○● Wavefolder
○●○● Wave window
○○●● Waveshaper

LFO waveforms modulate the **FREQ** control, but can be routed to **FILTER** or **MIX** using the editor or MIDI and saved to a preset.

RATE
LFO frequency. Also syncs to tap tempo or MIDI clock. (Use the editor to set divisions.) Moving the **RATE** knob disables tap tempo.

DEPTH
Sets the modulation amount for LFO waves. Adjusts the foldover point, window level, or waveshaper curve. These are level dependent, and also affected by **DRIVE**.

ON
Bypass / effect switch. Hold for momentary effect. The ON LED blinks yellow for tap tempo and MIDI clock sync.

CONTROLS (CONT.)

ENV:DEST
Envelope modulation destination. The input signal envelope can modulate the **FREQ** knob (+/-) or **MIX** (towards wet). Can be routed to MIX (-) or filter cutoff using the editor or MIDI and saved to a preset.

ENV
Envelope modulation amount.

AUX
Multi-purpose footswitch that can be configured using the editor:

Tap (default) - tap tempo (hold to cancel).

Preset - cycles through presets.

Preset shift - jumps to next preset while held, returns when released. Use for emphasis or bursts of noise.

Wave on/off - disables LFO or waveshaping.

LFO hold - freezes LFO at current output value (momentary or latching).

PRESETS

Press the **PRESET** button to cycle through presets 1-4 and the live knob settings.

To save a preset, select the desired preset and hold the **PRESET** button for two seconds to store the current settings in that location. Bypass indicator will blink green.

127 presets are available via MIDI program change messages. To save a preset, hold down the **PRESET** button while sending a MIDI program change.

POWER

Use an isolated, well-regulated 9V DC power supply that can deliver 250 mA or more. See our knowledge base for information about specific power supplies.

If the pedal detects a problem with the power supply, the bypass LED will turn magenta and switch to bypass.

CTRL PORT

The CTRL (control) port supports:
- expression pedal
- control voltage (0-3.3V)
- Red Panda Remote 4 (or DIY switches)
- Tap tempo (normally open)
- 1/4" MIDI (via 3rd-party adapters)

USB PORT

The Mini USB port supports:
- firmware updates
- MIDI

RESOURCES

Owner's Manual:
www.redpandalab.com/downloads

Firmware updates:
www.redpandalab.com/downloads

Web-based editor (requires Chrome):
www.redpandalab.com/web-editor

Knowledge base and support:
www.redpandalab.com/support

WARRANTY

This product is warranted against defects in materials and workmanship for one (1) year from date of original purchase. It does not cover damages or wear resulting from accident, misuse, abuse, or unauthorized adjustment and/or repair. Should this product require service (or replacement at our option) while under warranty, please contact support@redpandalab.com.

SPECS

Input impedance: 1 MΩ
Output impedance: < 470 Ω
Max. input: +8 dBu
Power: 9V DC, center negative
Current: 250 mA

EXPRESSION PEDAL

Use a pedal with a 10-25 kΩ linear pot.
• Hold right footswitch while plugging in exp.
• Move to heel position, adjust knobs.
• Move to toe position, adjust knobs.
• Hold right footswitch for 2 seconds to save.
Default assignment is **FREQ** knob, from minimum to knob position.

REMOTE 4

• Hold right footswitch while plugging in.
• Press footswitch for desired mode.
• Hold right footswitch for 2 seconds to save.

QUICKSTART

BITMAP 2

Red Panda