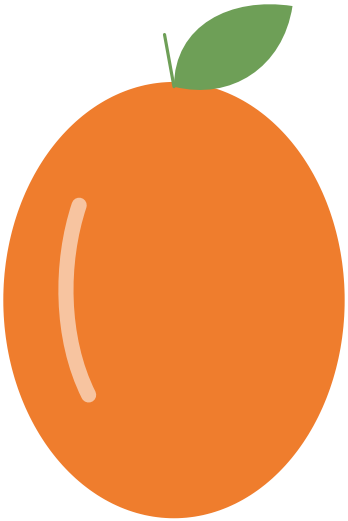


KA Multiband Comp

Instruction manual

Kumquat Audio · Edition 1.7.11 · October 2026

kumquataudio.com

NO. 16

KA Multiband Comp

Up to six bands, each with its own compressor or expander, in minimum or linear phase.

KA Multiband Comp splits the sound into up to six bands and gives each band its own compressor or expander. Drag the crossovers on the picture of the spectrum, drag each band's threshold, and see how much each band is being turned down. Use it to tame a boomy low end, a harsh upper mid or a shrill top without touching the rest of the sound.

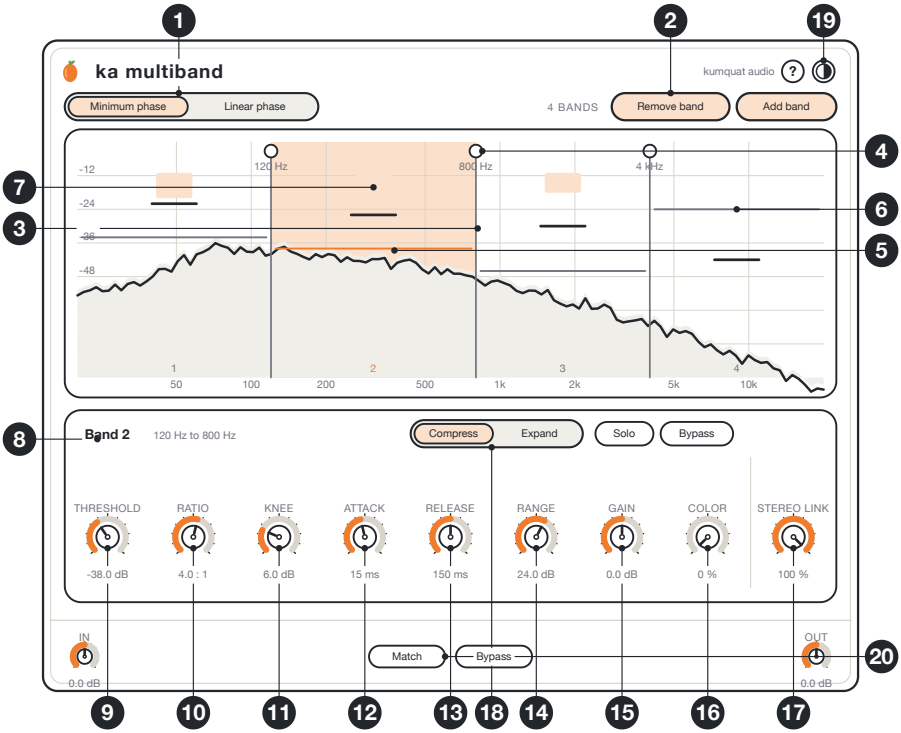


FIG. 1 The parts of KA Multiband Comp. The numbers are explained on the next page.

Parts

fig. 1

1. **Phase**
   Minimum phase: no delay, and the crossovers turn the phase of the sound a little. Linear phase: no phase turning at all, the cleanest on a mix or a master, but the sound is delayed by about 48 ms (the plug-in tells your music software).
2. **Add band / Remove band**
   Splits the selected band in two, or takes it out (its part of the spectrum joins its neighbour). Two to six bands. You can also double-click the picture to add a crossover, and double-click a crossover to remove it.
3. **The spectrum**
   Grey is the sound coming in, the line is the sound going out. Click a band to choose it: the one being edited is shaded.
4. **A crossover**
   Drag the round handle left or right to move the crossover. The frequency is written under it.
5. **The threshold**
   The line across a band: drag it up and down. The compressor turns the band down when its level is above the line (in Expand: below it).
6. **The band's level**
   The short dark bar in each band is the band's own level, to compare with the threshold.
7. **Gain reduction**
   The orange block hanging from the top is how much the band is being turned down now, in dB.
8. **The band**
   Which band the controls below are for, and the frequencies it covers.
9. **Threshold**
   The band's level above which it is turned down (in Expand: below which).
10. **Ratio**
    How firmly. 2 is gentle, 4 is firm, 10 and
11. **Knee**
    How gradually the turning down starts round the threshold. 0 is a hard corner.
12. **Attack**
    How fast the band is turned down when it gets loud.
13. **Release**
    How fast the band comes back up.
14. **Range**
    The most the band is ever turned down. A small range makes a gentle, safe correction.
15. **Gain**
    Turns the band up or down by a fixed amount after the compressor, like a broad EQ.
16. **Color**
    A little saturation on this band, after the compressor and its Gain (the same warmth as KA FET Comp and KA Opto Comp). 0 leaves the band clean.
17. **Stereo link**
    How much the two sides are turned down together. 100 % keeps the stereo picture steady.
18. **Compress / Expand, Solo, Bypass**
    Compress turns the band down when it is loud. Expand turns it down when it is quiet, which cleans up rumble and bleed. Solo plays the band alone. Bypass switches this band's compressor off.
19. **Help and light/dark**
    The ? turns the pop-up help on and off. The half circle switches light and dark.
20. **In, Out and Match**
    In turns the sound up or down before the plug-in hears it, and Out turns the result up or down. Bypass plays the sound without the plug-in. Match keeps the output as loud as the sound that came in, whatever In and the plug-in do, so you hear what a setting does and not just a change in loudness.

Controls and settings

range · start

Control	Range	Starts at	What it does
Phase	Minimum, Linear	Minimum	How the bands are split. Linear has no phase turning but delays the sound about 48 ms.
Live	on / off	off	Switches linear phase off (the bands use minimum phase, whatever Phase says), so there is no delay: for playing through the plug-in.
Bands / Crossovers	2 to 6, 20 Hz to 20 kHz	4 bands	Drag the handles on the picture; Add band and Remove band change the number.
Threshold	–60 to 0 dB	–24 dB	The band's level above which it is turned down (Expand: below which).
Ratio	1 to 20	3	How firmly the band is turned down.
Knee	0 to 24 dB	6 dB	How gradually the turning down starts round the threshold.
Attack	0.1 to 250 ms	15 ms	How fast the band is turned down.
Release	10 ms to 2 s	150 ms	How fast the band comes back up.
Range	0 to 40 dB	24 dB	The most the band is ever turned down.
Gain	–24 to +24 dB	0 dB	Turns the band up or down after the compressor.
Color	0 to 100 %	0 %	A little saturation on this band, after the compressor and its Gain. 0 leaves the band clean.
Compress / Expand	two choices	Compress	Compress turns a loud band down; Expand turns a quiet band down.
Solo, Bypass	per band	off	Solo plays one band alone; Bypass switches its compressor off.
Stereo link	0 to 100 %	100 %	How much the two sides are turned down together.
In / Out	–24 to +24 dB	0 dB	The two knobs under the meters: before and after the plug-in.
Match	on / off	off	Keeps the output as loud as the sound that came in, whatever In and the plug-in do. See In, Out and Gain Match.

How it works

a closer look

KA Multiband Comp splits the sound with crossovers. In Minimum phase they are Linkwitz-Riley filters of the fourth order, no delay, and the bands add up to a flat level, with only the phase turning a little round each crossover. In Linear phase each crossover is a long filter cut so that the bands add up to the sound exactly, only later: the phase does not turn at all, and the plug-in tells your music software that it delays the sound by about 48 milliseconds.

Each band listens to its own level (the average over a few periods of its lowest frequency), and compares it with its threshold. A compressor turns the band down as much as Ratio says when it is over the threshold. An expander turns it down when it is under the threshold. The turning down is never more than Range, and it follows Attack and Release.

The bands are then turned up or down by Gain, given a little saturation if you turn Color up (the same warmth as KA FET Comp and KA Opto Comp, for one part of the spectrum), and added up again. Solo plays one band alone. Stereo link makes the two sides follow the louder one.

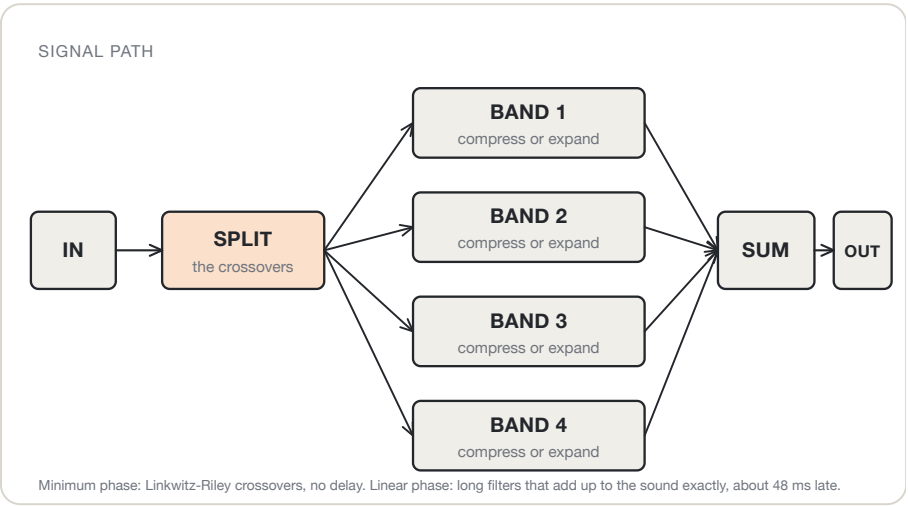


FIG. 2 The sound is split, each band is treated, and the bands are added up.

CARE

Care and troubleshooting

If this happens	Do this
A plug-in does not appear in the list	Restart the music software. In Logic Pro, open the Plug-in Manager, select the Kumquat plug-ins and choose Reset & Rescan Selection.
An old name is still showing	Quit Logic with Cmd+Q and open it again. If it persists, remove the old copies from /Library/Audio/Plug-Ins/Components.
My key was not accepted	Copy all of it, from KA1 to the end, with no spaces added or lost. A key for one plug-in does not unlock the others.
The pop-up help does not show	Press the “?” at the top of the window to turn it on. It is one choice for all the plug-ins.
Which part of the picture does a knob change?	Point at the knob, or hold it down while you turn it: the part of the picture it controls lights up, with the knob’s name and value.
KA Drum Gate, Silence Trim, Auto Mixer or Time Align shows a message instead of a picture	Open Logic Pro using Rosetta, put the plug-in first in the Audio FX list, select a region and press play.
The sound is late	KA De-Click, De-Verb, De-Noise, Contour, Mic Blend, Saturator (it oversamples), EQ (with the suppressor), Multiband (in Linear phase) and Limiter delay the sound a little and tell the music software, which lines everything up. Do not compensate by hand. For playing through a plug-in, the Saturator, EQ and Multiband have a Live switch that takes the delay away; the compressors, De-Esser, Delay, Reverb and Rider have no delay at all.
A window is too small or too big	Drag the corner at the bottom right. The size is remembered, and it is the same for all the plug-ins: make one bigger and the others open that big.
The Limiter pumps	Leave Release on Auto, or set 60 to 100 ms. A release of a millisecond or two is the dirtiest setting.

If something is not right, write to **audiokumquat@gmail.com** and say which plug-in, which music software, and what you were doing.

FOR YOUR OWN NOTES

Notes