

Red 3 - Dual Compressor / Limiter



➔ The Red 3 employs a unique single-VCA design to achieve high quality and truly independent compression and limiting, without the compromise and unnecessary processing involved in traditional designs. The success of the design is attested to by the Red 3's TEC award for Outstanding Technical Achievement in the Signal Processing Technology category.

The VCA used is a proprietary Focusrite design, fully discrete and balanced, offering superb low noise and distortion, and excellent common-mode rejection. In order to separate compression and limiting, the side-chain electronics contain three VCAs in series to generate compression and limiting control voltages which drive the main VCA. The result is true compression followed by limiting, rather than the more common characteristic of compression that turns into limiting. The side-chain electronics are class A, ensuring superb transient response. Both compression and limiting therefore, offer true peak response, not averaging RMS response. The use of such a high quality audio VCA as the only element between input and output means a very short signal path, and an ability to retain a natural, unobtrusive sound even when significant compression is being applied.

"...the Focusrite Red 3. I always put finished, stereo mixes through the Focusrite. It pulls the mix together a bit. I call that 'kissing the Focusrite'".

Tom Lord-Alge; Recording/Mixing Engineer – derived from an interview in Sound on Sound.

➔ SPECIFICATIONS

Input sensitivity	+4dBu	Distortion	0.02% with input at 0dBu @ 1kHz
Input Impedance	10kΩ ±15% (20Hz to 20kHz)		0.006% (+10dBu @ 1kHz)
Balance	>60dB		0.004% (+20dBu @ 1kHz)
Frequency response	5Hz to 200kHz (-3dB points)	Output	+24dBm with output loaded
Noise	Better than -80dB below +4dBu output level		600Ω, balanced and floating

Red 7 - Mic Pre & Dynamics



➔ Combining the Focusrite transformer-based mic pre with a compressor, limiter and de-esser/exciter, the Red 7 is a superb, single-channel dynamics processor, ideal for high quality recording, notably voice-overs and other vocal applications

The Red 7 employs the same superb mic pre-amp as the Red 1 and Red 8. A high quality output fader offers +6dB gain to infinite attenuation, essential for direct recordings, or for accurate level matching after EQ and dynamics. Added to this mic pre is a full dynamics section, optimised for vocals. With its superb signal path, outstanding ease of use, and an integrated all-in-one design, it is a powerful tool for voice recording in all situations from music studios to postproduction.

The compressor design is taken straight from the Red 3. The de-esser/exciter stage can be switched to provide frequency-selective compression (de-essing) or excitation. The amount and centre frequency of the processor are continuously variable, and as all the unit's dynamics still use the Focusrite single-VCA technique, unwanted colouration of the sound is kept to an absolute minimum. A clear VU meter shows level after the pre-amp gain control, or displays compressor gain change.

"The Sound dept of PINWOOD STUDIOS Ltd has been using the Focusrite Red 7 for many years; we have 7 in total. The two main areas of use are the Mic pre-amp and de-esser. For these purposes they do the job extremely well and we have found them to be very reliable."

Martin Powlesland, Technical Manager, Pinewood Studios Ltd

➔ SPECIFICATIONS

Mic Input Gain:	-6dB to +60dB in two variable ranges	Frequency Response:	10Hz to 140kHz (-3dB points), ±0.1dB within passband
Mic Input Impedance:	1200Ω ±15%, balanced and floating	Noise	Better than -80dB below +4dBu output level, dynamics in
Line Input Gain:	-12dB to +12dB	Distortion	0.006% (+10dBu @ 1kHz)
Line Input Impedance:	10kΩ ±15%, electronically balanced	Output	+24dBm into 600Ω
Input balance:	>60dB to 15kHz on both inputs		+26dBm into 10kΩ,
			Balanced and floating

For in-depth details of connections, specifications and comprehensive performance figures, please visit www.focusrite.com

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