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## **New Products Reviewed**

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#### BY PAUL VNUK JR.

### Ingram Engineering MPA575

#### A full channel strip—preamp, EQ, and compressor-in a single 500 Series space

PHANTOM

ON

48V

+20

+3 6

0 6

-3

-10

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VU

2.4k

SIG

Back in June 2013, Scott Dorsey took a look at a new microphone preamp by Ingram Engineering. The MPA685 was/is a 2-channel mic pre with variable mic impedance, DI inputs and a high pass filter. Designed for cleanliness and accuracy, it also featured transformer coupling which helped add just the slightest hint of coloration.

Mr. Dorsey was impressed, concluding his review with: "This is the kind of preamplifier I want to see more of in our world. It does what it's supposed to do and it doesn't add much else to the sound. It has a lot of Swiss-Army-knife style features that can be very handy in a modern studio. And it's built with care and to last several lifetimes." That's high praise from Scott.

With that in mind, I was quite excited to take Eric Ingram's latest creation, the new MPA575, out for a spin. It's a channel strip with an MPA685 based mic preamp, a compressor, and an EQ... all in a singlespace 500 Series module.

Looking at all the 500 Series boxes on the market, it's surprising how few full channel strips there are. I would imagine this is because of the difficulty of providing all the necessary controls on the front and cramming in all of the needed circuitry—a tall order even for a double-wide module, let alone a single-space box! Ingram has done exactly that, however... and included some additional bells and whistles to boot.

#### **Dense-packed but neat**

The MPA575 is housed in a full wraparound metal enclosure. The unit uses a dual circuit board design-not the common stacked, miniature daughterboard format, but two fully loaded full-size boards, placed on opposite sides of the enclosure interior, facing inward and linked.

What I could see inside this "circuit board sandwich" was neatly laid out; I noticed the new unit uses a Lundahl LL1538 1+1:5 transformer vs. the Sowter transformer found in the MPA685. An optional output transformer, according to Ingram, adds "crunch and coloration"; my review unit lacked this option.

#### **Preamp controls**

The front panel is jam-packed with buttons, lights, pots, and switches. It all starts at the top with the mic preamp section, which centers around a large black 12-position stepped gain switch that goes from 10 dB up to an impressive 70 dB of gain. The steps are 6 dB increments from 10 to 40 dB, 5 dB

increments above that.

This section also includes a +48V phantom power switch with a green LED indicator, a 180 degree phase button, and a pair of signal (green) and clip (red) LED lights.

The MPA575 features impedance switching via a Mic Load button with a choice of 600 ohm or 2.4 kilohm vs. the MPA685's 3-way 600/ 1.5k/2.5k switch. The implementation is the same in both preamps. As Scott Dorsey pointed out in his review, it's done "the proper way-by adjusting input taps on the input transformer rather than just adding shunt resistors. You can tell this because the noise floor remains low as you drop the impedance." I can concur that the noise floor is not affected at all.

Tonally, when set to 600 ohms, I found the sound a touch thicker, forceful and gelled. At 2.4 kilohms, the sound spreads out a bit and opens up in the high end; the mids even seem to move out of the way a tad, and it has a more diffuse low end signature.



#### See-saw EQ

The EQ section starts with a switchable, variable highpass filter with a range of 30 to 400 Hz. Next, rather than a typical multiband parametric, the EQ here is a single knob with low frequencies on one side and high frequencies on the other. This EQ does not simply boost one band or the other like you might find on an old 1970s car stereo; instead it's best described as a See-Saw EQ.

Here, 1.2 kHz is the pivot point; as you raise the high frequencies, it lowers the low frequencies, and vice versa. There's a boost/cut range of greater than 15 dB boost and under 4 dB cut.

Like the highpass filter, the EQ can be bypassed at the touch of a button. That's also true of the next section ...

#### **Dynamics**

The Dynamics section is also controlled by a single knob. This may seem "limiting" (sorry, had to), but is similar to how many vintage compressors work. This one is a feed-forward design that's program dependent; in use, it adjusts its attack, release, and ratio depending on how hard it is hit by the incoming signal. The circuit is a soft knee design that goes from a gentle 1.2:1 up past 20:1 with a threshold of -30 dBu to +12 dBu with 1dB of compression.

The Dynamics section can be switched pre or post EQ. It also has a built-in sidechain EQ identical in function to the

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main see-saw EQ, and external sidechain control via the Option port of an API enclosure or the Omniport on a Radial Workhorse 500 Series enclosure (my trusty testbed for this review, along with an ÁPI 8-slot lunchbox®).

Last up is an output knob (like a fader on a mixer) with a throw from muted to full-on, and a 6-stage LED style meter with markings of -20 dB to +20 dB. Of course this is an analog scale; I found the meter's setting of +20 dB close to my DAW's output of digital zero.

#### Sound and use

Sonically the MPA575 has a very clean and natural sound with a hint of constrained transformer weight. This gives it just a bit of rounding, warmth, and punch when compared to a Millennia Media or Grace Design "straight wire with gain"-style preamp. I use those descriptives gently, as this is still a very character-neutral preamp.

Compared to other 500 Series preamps in my collection, I found the MPA575 to lie tonally between the Great River MP500NV (reviewed October 2011) and the Chandler Little Devil (July 2012)-nice company to keep! Thanks to its 70 dB of gain, which is in the range offered by products such as Millennia Media's HV preamps (most recently reviewed July 2013) and AEA's RPQ 500 (August 2012), it offers plenty of gain for use with ribbons and dynamics of all sorts. Its self-noise only becomes apparent in the last 10% of its input range.

The EQ section is simple yet very powerful, yielding deep thick pillowy lows or ultra bright highs when set to extremes. I liked it best set at one to three steps in either direction for quick and effective tone shaping. The highpass filter is really nice; it has a subtlety about it that sounds full and natural even at extreme settings, only less boomy.

The compressor was the trickiest of the three sections; a little goes a long way. On instruments like acoustic guitar and the like, I found threshold settings of no less than +5 to +7 dB to be good for gentle control. On vocals, -2 dB worked best for smoothing out transients while still sounding natural both on male and female voices. Digging in deeper can induce a standard pumping effect and even an odd gated attack and release if set to extremes. The compressor is a bit touchy and very source-dependent; it will take a bit of time and finesse to find your favorite uses when tracking.

#### Line level?

My only real disappointment with the MPA575 is that it as it comes out of the box, it really is more of a tracking and input device; there is no easily accessible line level setting for use as an inline EQ and compressor during mixdown. I could get it to work if I kept the input at 10 dB gain and attenuated the send level in my DAW, but to actually bypass the mic preamp gain circuit requires opening the unit and flipping a DIP switch. Eric Ingram informs us that future production runs will have this switch externally accessible.

In a mix the see-saw EQ and highpass filter come in quite handy, but the compressor is very easy to push into clipping and distortion. In a mix, the MPA575 exhibits a bit of Jekyll-and-Hyde personality; it can become a cool gritty vibe box for use on a mono drum room mic or on bass guitar. Not its intended use, I know... but still cool.

#### Conclusions

The MPA575's street price is completely in line with that of other high-end boutique 500 Series wares. In fact, even if all you got was a the ultra clean, loud, and great sounding preamp with the impedance switching and high pass filter, this would be a strong competitor for the money, but the EQ and dynamics features put it nicely over the top.  $\Rightarrow$ 

Price: \$1200 (\$975 street); with output transformer, \$1350 (\$1100 street)

More from: Ingram Engineering, www.ingramengineering.net

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