

# Emotiva BasX TA-100

Budget hi-fi, from the USA: Emotiva's BasX TA-100 isn't quite what at first it seems – however, given what it does, it's hard not to conclude that it's something of a bargain  
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Well, this is rather confusing: look up the Emotiva BasX TA-100, which sells in the UK through Karma Audio Visual for £519, on its US-based manufacturer's website, and you'll find it appears under 'Preamps'. In fact Emotiva has a stack of preamps, and even more power amps, in its unusually extensive catalogue.

Except that the TA-100, part of the company's entry-level range, isn't a preamp, that role falling in this section of the Emotiva lineup to the £399 PT-100. You see, the TA-100 is a preamp with a power amp section built-in, delivering a claimed 50W per channel into 8ohm, and 80W into 4ohm [see PM's Lab Report, p67].

Ah, so it's an integrated amp, then? Well, not quite – or maybe 'not just' – as it also has on-board digital-to-analogue conversion able to accept music files up to 192kHz/24-bit. Furthermore there's a switchable MC/MM phono stage. Oh, and an FM tuner, complete with 50 presets...

## DIGGING DEEPER

So it's a receiver, then – remember them? But given all there is here, just to describe the TA-100 as a receiver seems to be selling it a bit short. So perhaps it's best to stick to the way its manufacturer describes it when you dig a little deeper into the website: it's a 'Stereo preamp/DAC/tuner with integrated amplifier'.

As an aside, that PT-100 I mentioned just now is no less unconventional, being a 'Stereo preamp/DAC/tuner'. In other words, it's basically a TA-100 shorn of its power amp stage, and to which you could add any of the company's power amplifiers.

These start at just £399 for the 75W A-150, and go all the way up to the purposeful-looking XPA-1 Gen2 mono power amps, selling for what looks like a very sensible £1499 apiece, given that

**RIGHT:** One pair of power transistors are deployed per channel on the TA-100's small internal heatsink [centre right], fed from a linear PSU [left]. A daughter board [top right] handles input switching and the AD1955 DAC-based pre

they deliver a claimed 600W/8ohm and 1000W/4ohm. More than 'claimed' in fact, for PM measured a full 650W/8ohm and 1.02kW/4ohm [*HFN* Oct '18].

If you need any further confusion the company also has an A-100 in the range, at £299. No, that's not a power amp, but a single-input compact integrated amp delivering the same power as the TA-100, and with a twist all of its own. As well as conventional speaker and headphone outputs, it can re-route its main speaker outputs to the headphone socket to drive low-sensitivity planar headphones.

That's only scratching the surface of the Emotiva range, which also takes in AV-targeted power amps offering up to 11 channels – the £2349 XPA-11 Gen 3, delivering 3x300W and 8x65W – and an XPA Gen 3 'Fully Modular Amplifier', that can be ordered as anything from a 2x300W model to a 7x200W version. Extra '300W Blade power modules' can be added to that one, at £299 a pop.

The first observation on unpacking and configuring the TA-100 is that, and despite its very agreeable price tag, this product feels anything but cheap. Yes, it looks simple, with no more than a display, a volume control, power on/standby, a couple of tiny buttons and a headphone socket on the front panel, but all this belies the flexibility within. In practice there's a reassuring solidity to the build, and decent heft, so while it's no back-breaker, at around 7kg it's weighty enough by the standards of its class.

## BLUE COLLAR

Fit and finish is good, with the power and volume controls ringed in blue illumination, and a basic if slightly old-fashioned almost-matching-blue dot-matrix display. The unit also comes complete with a stylish remote control that's a long way from the usual plasticky buttonfest. Instead you get a ring of up/down/left/right controls surrounding a mute function, and just three more



buttons, for on/standby, menu and tuner stereo/mono switching [pictured, p67].

This menu button indicates that there's more to the TA-100 than just input selection and volume, for as well as bass, treble and balance, it's also possible to set up display dimming, auto-tuning, with programming and recall for FM stations, and switchable US/Europe FM de-emphasis.

You can get into the menu by pressing the front panel volume knob then using the tiny input selector buttons to navigate, but the remote functionality is more intuitive than remembering to press the left button on the front panel to go down (or is it up?) and so on.

Anyway, once set up, the remote is simply up/down for volume and left/right for input choice, which is totally logical

provided you remember which input follows which. One neat touch here is that the TA-100 remembers separate volume settings for its main and headphone outputs – plug in your favourite 'phones and you can adjust the level, the amp returning to the previous 'speakers' setting when you unplug them.

As well as the phono inputs, which have their own ground post above the little slider to select MM or MC, the TA-100 has just two analogue line-ins. Naturally, this little amp also supports digital audio and offers coaxial, optical and asynchronous USB-B digital inputs, all feeding a legacy Analog Devices AD1955 192kHz/24-bit DAC. The USB facility is limited to 96kHz/24-bit files to enable it to work with both Macs and Windows-based

**ABOVE:** Deceptively simple – just volume and power, two tiny selection buttons and a display. Most settings are navigated using the menu, by pressing the volume control or using the remote

PCs without the need for a third-party driver. There's also a USB-A port, to which an optional Bluetooth adapter can be attached if required.

A single set of 4mm speaker outputs is provided, and the TA-100 also has preamp outputs controlled by the main volume setting (and muted when headphones are plugged in); there's a standard stereo pair, and two summed mono outputs, to which one or more subwoofers can be connected. Add in a terminal for an FM aerial, and a 12V trigger out so the amp can fire-up an external power amp, or maybe a subwoofer, and we're just about done. Our review sample also came with an AC mains lead, 'get you started' interconnects, a wire FM antenna and a 12V trigger cable.

## VALUE CULTURE

Founded by Dan Laufman, who had a background in OEM manufacturing and sourcing production, Emotiva started out selling through traditional retail channels, but soon changed direction to become an early web-based direct sales operation, enabling it to cut out distributor and retail margins. As noted in the main review, the company has a diverse range from the high-end X series – including the XSP-1/XPA-DR2 pre/power [*HFN* Oct '18] – to the entry-level BasX range, all at surprisingly affordable prices.

Improving the energy efficiency of its amplifiers also cuts down on bulk and build and shipping costs, while also enhancing the brand's 'green' credentials. In its bigger amplifiers this is achieved without resorting to a Class D technology – in the XPA-DR2 we saw Emotiva combine a bridged Class AB output stage with a Class H stepped-rail PSU architecture on each amplifier card. This hybrid power amp stage switches up to a higher voltage PSU rail only when signal conditions demand it, minimising waste heat. A more conventional Class AB amp design is employed in the lower-powered TA-100 although it is still very economic, drawing just 11W from the wall when idling, increasing to 180W when pumping out 2x50W/8ohm [see PM's Lab Report, p67].

All of this illustrates that, along with its vice-president and chief technology officer Lonnie Vaughan, Laufman's company has a philosophy that builds on the idea that keen pricing should not mean cheaply-made products. In practice, it's all a matter of making sensible decisions about the materials and components used, and how the products are made. The top-end Emotiva products are 'Assembled in the USA with Globally Sourced Components', while the BasX series is 'Designed in Nashville, Tennessee, Precision Crafted in China'.

## RIGHT ON TARGET

Despite having read a lot about Emotiva products in the past, including some rave reviews, I was still unsure what to expect from the TA-100, so it was gratifying to be almost as surprised by the performance as the generous specification. Yes, the sound is perhaps a bit on the 'commercial' side, arguably somewhat over-enthusiastic at times, but then that's just where this product is aimed, and there's certainly enough of a sniff of 'special' about it to ensure anyone buying one after an audition is unlikely to be disappointed.

Playing a set such as Paddy McAloon's recently remastered first solo outing, *I Trawl The Megahertz* [Sony Music 889854110628; 44.1kHz/24-bit], the TA-100 lacks a little of the lush, grandiose sound available on a more upscale system even when sandwiched between two unlikely bedfellows such as Naim's ND555 flagship streamer/DAC [see p36] and Neat's Iota Xplorer speakers [*HFN* Jul '18]. Sure enough there's occasionally a bit too much sting on percussion, and a slight thinness ☞



## AMPLIFIER/DAC



**ABOVE:** Two line ins and MM/MC phono are joined by low-pass (sub) and line outs, all on RCAs. Optical, coax and USB digital ins operate up to 192kHz/24-bit with a USB-A slot for an optional wireless BT dongle. Speaker outs are via 4mm binding posts

to the massed violins on the opening epic title track, but what is delivered offers a pleasing insight into the dense mix, and there's clearly plenty of power on hand to drive and control the speakers.

Back to earth with more appropriate partners, including Naim's ND5 XS 2 [HFN Jan '19] and Fyne Audio's F301 speakers [our other Budget Esoterica, p72], there's still no shortage of bass weight here, for this is no budget amp with biscuit-tin casework and a sound to match. And while the top-end may occasionally get a little wayward, as it does with Paul Oakenfold's fairly chilled *Sunset At Stonehenge* [New State Music NEW 9318CD], the strong bass ensures the album's tracks – or in this case Oakenfold's 79-minute continuous mix – are kept moving along smartly, and with decent punch. I doubt anyone in the target market for this amp is going to have much to complain about with music like this.

### POWER AND DRAMA

The attractive, if up-front balance is maintained whether you use the digital inputs or the analogue, with only the MM phono input sounding a shade lacklustre when compared to some of the good budget stages out there. Bass lacks some conviction from vinyl, and the treble is softened to an extent, but considering the price of the whole thing, this is no real hardship. Indeed, the phono input will be more than good

enough for entry-level turntables.

In fact the only real niggle here is with the tuner

**LEFT:** Compact IR remote yields full control over the amp's configuration menu plus input selection, volume and mute



section. In truth there's nothing wrong with the way it sounds, as a couple of afternoons spent listening to the BBC's output showed, but using the thing is something of a faff, as you must be in the TA-100's 'menu' mode to do so. I can't help thinking a bit of ease of use has been sacrificed for the sleek and minimalist look of the front panel, and that a few more buttons on the fascia and remote would be good.

Stick to the basics of the TA-100 and it remains an attractive prospect, albeit one best used with speakers with a somewhat restrained nature. Driving either the Fyne Audio or Neat Acoustics speakers it proved overall an enjoyable listen with everything from the subtle piano and subdued synths of Vangelis's *Nocturne* album [Decca; 96kHz/24-bit download] to the power and drama of the recent Budapest Festival Orchestra/Iván Fischer Mahler 7th [Channel Classics CCS SA 38019; DSD128].

The strings can sound a shade papery, and the brass has a bit too much blare in absolute terms, but it's hard not to like the verve with which the TA-100 attacks the music, backed by an impressive ability to convey dynamic contrasts. ☺

### HI-FI NEWS VERDICT

You certainly get a lot of stuff for your money, and while the TA-100 isn't a total giant-killer, as a total package (and by the standards of what else this amount will buy you) it's an appealing one. Partner it with smooth-sounding speakers able to deliver the bass it can punch out, get to grips with the vestigial controls despite its comprehensive spec, sit back and enjoy. This is a great budget amp-with-benefits buy.

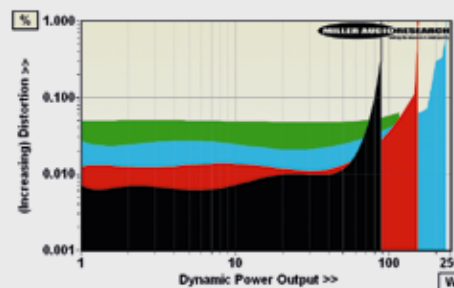
Sound Quality: 83%



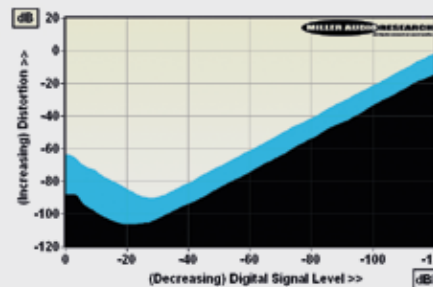
## EMOTIVA BASX TA-100

I mentioned in our recent review of Audiolab's contemporary 6000A [HFN Mar '19] that some brands are more conservative in their power specification than others. So while the 6000A is flying close to the wire with its 2x55W/2x85W 8/4ohm output and restricted 99W/55W delivery under dynamic conditions into lower 2/1ohm loads, Emotiva's TA-100 goes further offering 2x63W/8ohm and 2x95W/4ohm with a dynamic 87W, 153W and 234W possible at <1% THD into 8, 4 and 2ohm loads [see Graph 1]. The current limit is 10.8A so the TA-100's protection kicks in at 116W/1ohm, suggesting the amp will be most comfortable with 6-8ohm nominal impedance speakers. Distortion remains a low 0.001-0.002% over the first 10W of its range through bass and midrange frequencies, increasing to 0.011% at the rated 50W/8ohm. THD also increases with frequency above 10kHz, reaching 0.012% at 20kHz/10W and 0.04% at 40kHz/10W. Output impedance is low enough at 0.04ohm and the response suitably extended at -0.35dB/20kHz and -4.85dB/100kHz.

Analog Device's venerable AD1955A DAC performs well here, the maximum preamp output (at 0dBfs) of 4.15V being supported by a wide 111.5dB A-wtd S/N ratio and an impressively low 1.5ohm output impedance (increasing at bass frequencies to 17ohm/20Hz). Distortion reaches a maximum of 0.0005-0.065% (20Hz-20kHz) at 0dBfs and a minimum of 0.0003-0.002% at -25dBfs [see Graph 2, below]. Low level resolution is good to ±0.5dB over a 110dB dynamic range and the response reaches out to -0.2dB/20kHz (CD/48kHz data), -2.0dB/45kHz and -5.6dB/90kHz (96kHz and 192kHz data). Jitter is complex but low at <180psec for all sample rates. PM



**ABOVE:** Dynamic power versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (green) and 1ohm (cyan) speaker loads. Maximum current is 10.8A



**ABOVE:** Distortion vs. digital signal level over a 120dB dynamic range (preamp out), 1kHz (black); 20kHz (blue)

### HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	63W / 95W
Dynamic power (<1% THD, 8/4/2/1ohm)	87W / 153W / 234W / 116W
Output impedance (20Hz-20kHz)	0.042-0.068ohm (1.5ohm, pre)
Freq. resp. (20Hz-20kHz/100kHz)	+0.07 to -0.35dB/-4.85dB
Digital jitter (S/PDIF at 48kHz/96kHz)	115psec / 180psec
A-wtd S/N ratio (re. 0dBW/0dBfs)	88.9dB (Analogue) / 111.5dB (Dig)
Distortion (20Hz-20kHz; 0dBW/0dBfs)	0.0018-0.018%/0.0005-0.065%
Power consumption (idle/rated o/p)	11W / 183W (2W standby)
Dimensions (WHD) / Weight	432x67x330mm / 6.8kg