

# Fostex RP Series Headphones | £115

Fostex have updated their T-RP range of headphones. *Robbie Stamp* listens in...

## WHAT IS IT?

Studio monitoring headphones

## CONTACT

Who: Fostex (UK distribution via SCV)

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## HIGHLIGHTS

- 1 The excellent mid-range clarity
- 2 High input headroom
- 3 Overall performance of the T50RP model

## PRICING

T20RP mk2, T40RPmk2 & T50RP mk3

£115

**T**hese three pairs of headphones represent Fostex's third iteration of the T-RP range. The RP suffix refers to

their patented Regulated Phase technology, which couples a copper foil etched polyimide film diaphragm with a neodymium magnet driver. The former apparently offers improvements over traditional materials with increased flexibility and durability to handle high pressure levels, while the latter is a regular component for modern high sensitivity transducers, as it is capable of articulating transient information with great accuracy (this is due to a high mass to magnetic field strength ratio).

The mk3 T-RP range is based on a solid design, weighing in at just over a pair of Beyerdynamic DT770s. The wide

headband is adjusted via sturdy metal rails and the padding is finished with a soft (faux?) leather. All three models are supplied with two cords for single sided connection: a 3m straight black cord (6.3mm jack), and a 1.2m straight orange cord (3.5mm jack) for mobile usage. Both are secured to the headphones with a simple twist-lock.

The enclosures are of the supra-aural type, which can prove fatiguing when pressed against the ears on long sessions, though I did not find this effect as much as I expected. The three models differ in transducer housing type: open back (T20), closed back (T40) and semi-open back (T50). This can be seen via the grille slats on the outside of the ear enclosures, which for the T20s and T50s reveals varying

thicknesses of foam lining, while for the T40s the slats haven't been cut through the plastic moulding.

## Three of a kind

Common to all is a clear yet soft high-frequency response. They are by no means bright, which on the positive side leaves them free from harsh top-end hype. At first I found them a tad dull, or soft, but over time I became used to this characteristic and was impressed with the coherency of the high-frequency range which appears free of audible resonant peaks/troughs. I missed a bit of airiness, finding it harder to push/pull in a mix than usual, and found some high sibilance or noise components were harder to spot than on my studio monitors, but conversely this did help them feel less fatiguing in use.

As ever this is a subjective quality, especially as the actual response is smooth, and this is nowhere more apparent than in the mids where these headphones come into their own. I don't have a bad word to say about the mid and low mid characteristics of the T-RP mk3s as the articulation is excellent. This is great for tracking/mixing as dialling in EQ, judging mic distance and pushing saturation/distortion, to name but a few tasks, are made quick and easy. Subtle changes are free from the masking effects of





poor frequency/phase response in this critical frequency range.

The major difference between the models results from the three enclosure topologies (open, closed, semi-open), and this is mostly focused on the low-end, which is where I found my (least) favourite model. The semi-open back T50s are the best balanced of the three with regard to the bass range. The low frequencies come through clear and

out of view a little quicker on the T40s. The open back T20s go the opposite way, sounding overly dominant in the bottom octaves, which then tends to mask the low mids and accentuate the soft high-end, and such a voicing made them hard for me to trust in a mix. Again, this is a subjective response.

Stereo imaging for headphones has a lot to do with damping enclosure suspension vibrations to keep the two

The RP drivers give these models high headroom and I can attest to their lack of audible distortion at high gain, though I have now vowed to never turn headphones up that loud again! I wouldn't advise cranking up headphones, but these will cut through in a loud environment, and that softer high-end makes much more sense up at such levels. The only drawback is that the supra-aural design makes them less

effective at isolating the listener from external sound sources than a circumaural design. The 50 input impedance does mean to get them right up

there you will need an amplifier with plenty of power.

The T-RP range has real quality with its mid-range clarity and high input headroom, making them useful for engineers, performers and DJs. The high-frequency response is smooth and unusually un-forward, setting them apart from many brash sounding headphones that can be found at this price. Whether this is a good thing is a purely subjective matter, and one I have shifted on having spent time with these headphones. I definitely recommend checking out the T40 and T50 models, with the latter being the standout. **FM**

## Headphone Topologies

There are two central design considerations for headphones: how they enclose the ear and how they enclose the driver/transducer. With regard to the ear there are three types: circumaural (around the ear), supra-aural (on the ear), and intra-aural (in-ear), which we'll leave out as they're not suitable for studio monitoring. Circumaurals provide the greatest isolation from external noise, making them great for drummers or checking mixes while the main monitors are

blasting out. Their drawback is enclosure resonance which requires quality acoustic design to control. Supra-aurals do not require the same degree of enclosure design as they directly address the ear without creating a resonant chamber. However, they provide far less isolation from external noise, though this can be useful for studio vocalists.

Isolation of the driver/transducer is also a major design issue. A closed-back headphone, especially in a

circumaural enclosure, will be most prone to low frequency resonance issues and require more power to drive at the bass end (due to increased resistive pressure). An open backed design allows the driver to move back and forth more freely due to reduced pressure, theoretically producing a flatter frequency response, but at the expense of reduced isolation. A semi-open back design seeks to combine the strengths of both systems.

**SPECS**

**Type:** Open (T20), Closed (T40), Semi-open (T50)

**Frequency response:** 15Hz  
– 35kHz (T20 & T50), 20Hz  
– 35kHz (T40)

**Impedance:** 50 (all models)

**Sensitivity:** 92dB/mW (T20 & T50), 91dB/mW (T40)

**Max input:** 3W (all models)

**Package contents:** 3m (6.3mm jack) and 1.2m (3.5mm jack) straight cords for single sided connection

**Weight:** excl cord

**315g**

## ALTERNATIVES



**Beyerdynamic  
DT770**

**£119**

A studio stalwart for engineers and performers alike. Light and comfortable circumaural closed back design with plenty of clarity for the price. Available in a range of impedances.

[beyerdynamic.com](http://beyerdynamic.com)



**Beyerdynamic  
DT990**

**£119**

For less noisy environments the open back DT990 presents a slightly smoother version of the 770 response. Like its brethren, spares are always available.

[beyerdynamic.com](http://beyerdynamic.com)



Shure SRH1540

**£399**

If you've got a bigger budget then you cannot go wrong with these super light closed back circumaurals. The sound is damn near perfect and could put your main monitors out of work.

[shure.co.uk](http://shure.co.uk)

FutureMusic **VERDICT**

**BUILD**

VALUE 

**EASE OF USE**

**VERSATILITY**

## RESULTS

**Sturdy in body and sound with an excellent mid-range focus and smooth fatigue-free highs.**