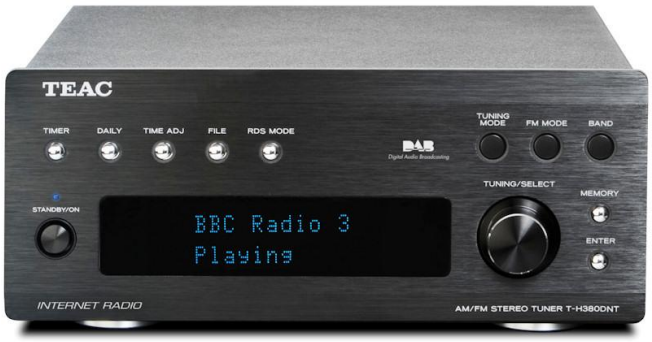
TEAC for Two?
The T-H380DNT Stereo Tuner

Neville Roberts

You're looking for a stereo tuner, but should you go for an FM/DAB receiver or an internet radio? Neville Roberts looks at something that receives both – and more...

The DAB-FM debate rages on and while the powers that be continue to implement a replacement for good old analogue FM, we are left with having to decide what to spend our hard-earned money on for listening to our favourite radio stations through our Hi-Fi system. Far be it from me to show any bias here, but given that we now have a sub-standard system inflicted on us, it seems that we have to accept DAB in the quest for quantity over quality on our radios. Sure, there are a number of FM/DAB tuners available now, but that is going to leave us with a choice of one when analogue FM is finally switched off. Fortunately, there is hope on the horizon in the form of internet radio. This would allow the great British public to have both choice and high quality – as long as they are able to access the internet.

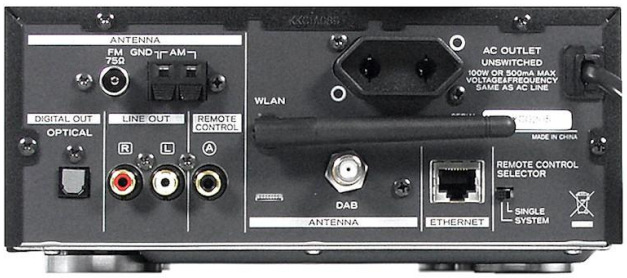


Back in May 2009, Paul Rigby was wowed by the TEAC Reference 380 mini system, of which the T-H380DNT is one component. Indeed, the system was awarded the highest accolade of five Globes. One third of this mini system comprises the T-H380DNT Stereo Tuner. This is no ordinary tuner, however, as it can receive AM and FM analogue radio, DAB digital radio, internet radio and, if that wasn't enough, it can also play music media files stored on your networked PC or NAS (Network Attached Storage) server in MP3, WMA and RealAudio formats.

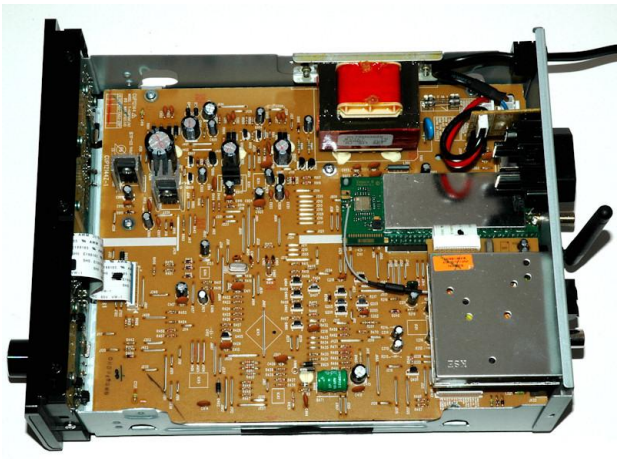
This unit therefore offers a wonderful opportunity to test out the various formats and make direct comparisons between them by comparing live BBC Radio broadcast on FM, DAB and the internet. It will also be possible to compare a CD track played on a high-end player with the same track ripped to a folder stored on a computer network in a high quality format.

Getting connected

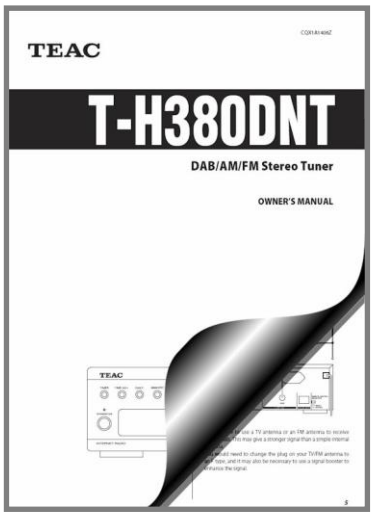
As with most Hi-Fi separates, the tuner is connected to the preamp using standard RCA phono connectors. There is also an optical digital output for DAB, internet radio or the media player for connecting to a digital recording or external DAC, which is a nice feature.



Under the bonnet, use is made of a Frontier Silicon Venice 6 module for the DAB and internet radio, as well as a separate module for the analogue AM and FM tuner. The Venice 6 module makes use of a Cirrus Logic CS4344 stereo D/A convertor chip which features a fourth order multi-bit delta-sigma modulator with 24-bit data conversion and automatically detects and processes sampling rates up to 192 KHz in QSM (Quad Speed Mode). In addition, the CS4344 incorporates circuitry to suppress output transients during power-up and power-down, thus eliminating those annoying clicks and pops at switch-on. There are separate aerial inputs for the AM/FM tuner and DAB modules. The manual states that either indoor aerials can be used or, for best results, external multi-element aerials should be connected. For DAB, an FM, television aerial or the supplied internal wire dipole can be used. At my location, I found the wire aerial satisfactory and had no trouble tuning in the DAB stations that interested me.



For the internet radio or media player, a connection to your home LAN (Local Area Network) will be required. This is achieved by a standard Ethernet RJ45 socket on the back for a direct physical connection to your network, or through your home wireless network using the Wi-Fi aerial (also attached to the rear panel and linked internally to the Venice 6). This aerial can be folded down if not required. The radio supports the standard WEP, WPA or WPA2 encryption standards that will already be set up for your computer's wireless network. A username and password for logging in to your computer to access your media files can also be stored. All this information, together with your stored radio station information, is kept safe inside the unit with a little PCB-mounted NiMH battery to keep the internal memory alive while the unit is switched off.



Inevitably with a digital tuner, it takes a little dexterity with the knobs and buttons on the front panel to select channels and enter data, such as usernames and passwords, without a keyboard! The procedures are quite straightforward, but it does take a degree of concentration to keep pressing the right buttons in the right sequence. However, once done, the stations can be programmed (either from the radio or on the internet via the Web) into 'Favourites' for Internet Radio, or into one of 30 FM, 30 AM or 20 DAB preset memories. Fortunately, the user manual is very clear and easy to follow, with some helpful diagrams where necessary.

Testing, 1... 2... 3...

I chose Radio 3 for my first set of tests as this has the highest bit rate of 192 Kbps, compared with 128 Kbps for Radios 1, 2 and 4. DAB uses MP2 encoding, but MP3, WMA and RealAudio are used for internet radio and offer better quality as they are far more modern and efficient codecs than MP2. Not only that, there is a view that these internet radio streams will also provide higher quality than the BBC could offer through DAB+ since the BBC would have to reduce the bit rate to fit all their channels into their national multiplexers, thus reducing quality. Sorry – I'm getting technical again – back to the listening!

Starting with FM stereo on 90.7MHz down here in Bournemouth, with the tuner fed with a good signal from a horizontally-mounted Yagi array in the loft, my initial impression when I first switched it on was that it sounded a little thin and lifeless compared to my existing Yamaha "Natural Sound" AM/FM Tuner. However, after about 20 minutes or so of running, the unit had settled down well and I am pleased to report that the sound quality was extremely good. As with all pieces of Hi-Fi equipment, the discrete components do take time to run in and settle down – particularly the capacitors.

On FM, there was no audible hiss, even during the quiet passages. The TEAC presented a wide sound stage and excellent frequency response, with no apparent peaks or troughs across the range. The music was very clear and precise, yet easy to listen to – in short, all that you would expect from a good FM tuner.

Pressing the 'Band' button to change to DAB, I braced myself in anticipation of a reduction in sound quality! In some respects, I was not surprised by what I heard. The sound was a little bass-light and became altogether more edgy - the string sections started to reveal their feline ancestry! The stereo imaging was very "left and right" and sounded a bit like those stereo demonstration recordings of the late '60s. Having said that, there was still a reasonable amount of detail and I have heard considerably worse DAB radios which I wouldn't like listening to for any extended period of time. In fact, without resorting to the "A/B" testing I was undertaking, I could have turned the TEAC on to the DAB band and quite happily had this radio playing music in my house during the day.

Moving on to internet radio and after the usual delay while the radio filled up its buffer with data, I continued listening to the Radio 3 broadcast. The first thing I had to do was turn up the volume a few clicks on my stepped attenuator as the signal level was significantly lower than with either FM or DAB. However, the end result was very impressive indeed and you could easily be forgiven for thinking you were listening to a good analogue FM reception. As with FM, there was a smooth and extended frequency response across the range and clear image placement across the sound stage, although arguably not quite as good as with FM.

I was also interested in comparing tracks from a CD played on my PrimaLuna ProLogue Premium valve CD player against those tracks that had been ripped from the same CD using 192Kbps sampling and saved on my NAS fileserver in WMA format. Switching rapidly between the TEAC and my CD player revealed that the CD had a slightly more refined presentation with greater depth to the sound, which given that my CD player costs nearly ten times that of the TEAC, was quite understandable! However, this should not detract from the fact that TEAC's Music Player gave an excellent performance which was very 'listenable-to'. The overall impression was that the quality of the music player was similar to internet radio, with excellent realism and detail.

Conclusions

The results obtained with the internet radio have removed my worries about what will we end up with if they do switch off FM! In my opinion and with a good piece of equipment such as the TEAC, reception over the internet does offer a viable alternative to high quality analogue FM, but with two main advantages: it does not require a bedstead in the loft to get a good signal and you have access to thousands of radio stations from around the world. So you can have both quality and quantity.

The TEAC's Music Player function can offer a splendid solution to storing your entire music collection on a fileserver or a networked PC hard disk in a high quality format. The unit provides the link between your digital network and your high quality analogue audio system for both internet radio and as a media player. Add to that the ability to receive DAB as well as the legacy formats of AM and FM analogue, all for around £250, this device is an excellent value for money Hi-Fi separate. Thoroughly recommended!

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