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Sound solutions

An affordable, flexible server and integrated amplifier with audiophile appeal

PRODUCT T+A Music Player and Power Plant

TYPE Music server and integrated amplifier

PRICE £1,999 (Music Player) £1,499 (Power Plant)

KEY FEATURES (Music Player) Size (WxHxD): 4.4x1.2x3.9cm • Weight: 10kg • Digital inputs: 2x SP/DIF • Digital outputs: 1x coaxial • FM radio with RDS • Streaming clients: MP3, WMA, AAC, FLAC, OGG-Vorbis, WAV • Web server remote PC with browser control, vTuner internet radio station database • (Power Plant) Size (WxHxD) 4.4x1.2x3.9cm • Weight: 13kg • Rated power: 140 watts (8 Ohms) • Inputs: 5x line • Outputs: preamp and headphones • RS232 control interface

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As a product category, the music server is definitely on the ascendant, but as a group, they tend to under perform musically, for a variety of reasons. Internally, they look like computers, which is not always a good thing where audio sound quality is a major issue. They're also inherently complex, and tend to be pricey. But there is hope...

On one level, the new server introduction from T+A elektroakustik (recently voted Manufacturer of the Year in Germany) looks like many others, in principle anyway, but there are important differences. Called Music Player and nestling amongst T+A's E Series line up, the unit is unusually flexible and very well-priced. It comes with the promise of better-than-usual sound quality, for reasons that will become clear later. It is partnered, for this review, with the Power Plant: T+A's matching Class D stereo power amplifier, which was reviewed

in full in *HFC 303*, except that some shortcomings have now been addressed.

But it's the Music Player that's of interest here and while it's not a computer, it does have the ability to talk to a computer

“The Music Player will act as an internet radio when connected to a computer network, with data rates that extend to 320kbps...”

network. The Music Player is an audio-first component, no matter how you look at it. On one level it is a processor, which will address an arbitrarily large library of music from a number of sources. These sources include compact disc, which it can play using an internal CD player and it also has an FM tuner with RDS and 60 presets. There is a possibility that DAB will eventually become available in the form of a bolt-in module as the DAB aerial input has already been installed. Your iPod can also be connected directly to the server, and controlled by it. Unfortunately, other compressed audio players like the Sony MP3 range are not handled because of the different control protocols involved.

But this is not all. The Music Player will act as an internet radio when connected to a computer network, with access to thousands of stations and with data rates that currently extend to 320kbps, which for many ears, will be pretty close to CD.

Finally, and this is absolutely central to the Music Player's role as a music server, it will also collaborate with your computer's disc burner to provide disc-ripping facilities and the music stored by the hard disc or discs

attached to the computer can be accessed by the Music Player.

Essentially then, the Music Server acts as just another network client with some unusual qualities that suit it to its role. First of all computer data storage is now very cheap, much cheaper than anything similar with an audio manufacturer's name on the bonnet. It's also much more flexible. Add extra storage, a RAID array, for example, (RAID is an acronym for Redundant Array of Inexpensive or, according to some, Independent, Discs) and/or any other backup software/hardware options you prefer to provide redundancy if a hard disc goes down. This way you'll have the basis for a fully customised server solution which can be readily upgraded or extended when the occasion demands.

The matching Power Plant is an integrated Class D stereo amplifier and is of wholly T+A design. Even the Class D circuitry was developed by T+A in-house, the only digital part being the PWM (Pulse Width Modulation) output stage. The preamp (with its attendant ALPs volume control) can be switched on or off independently of the power stages and is automatically disabled when connected to the Music Player. It lives in a box styled similarly to the server and on any rational assessment definitely qualifies as a purist audio component. Changes made since we originally looked at this amp are to output distortion residuals which are now more firmly biased into low (primarily second-order harmonics). ▀



Q&A

We interviewed T+A's Director of Development, Lothar Wiemann about the music player.



HFC: What is it that sets the Music Player apart from most other servers?

LW: The Music Player Client has no internal data storage, apart from a few seconds for jitter reduction purposes. The music is stored externally, using the user's computer network and data storage, though it can also use USB hard discs or USB flash memory plugged in directly. Keeping music storage out of the main box is important, because optical and magnetic storage introduces a lot of electrical interference, which may be minimised with integral screening and other measures, but cannot be eliminated. Noise, jitter and the high current demands made by the laser tracking circuits all results in coupling into the analogue circuits.

Are there other advantages to this topology?

Delivering music through a network adds flexibility, as the data can be accessed remotely, wherever the computer network is accessible. Doing things this way also means we don't have to reinvent the wheel. Reliability of hard drives is not perfect, so improved fault recovery, by using RAID mirroring, for example, is a major benefit.

There are also some powerful software tools that we co-opt to improve performance. The Exact Audio copy software (www.exactaudiocopy.de/) we specify, for example, makes excellent 1:1 copies, even if the source media is corrupt or damaged, by using error correction and comparisons to data from other users stored on a central database – the Exact Audio website provides a good overview. Similarly, the internet radio software, called Vtuner (www.vtuner.com), also has an online database that is uploaded to the Music Player every time it is used. These databases are uploaded completely transparently from the users point of view every time the functions are accessed.

The technologies involved with the Music Player especially are evolving very quickly. So how do you protect against the obvious danger of obsolescence?

We have instituted a programme of updates designed for exactly this purpose. In general, the updates can be downloaded free of charge and this will remain the case unless additional hardware is required, or any additional licensing costs are involved.



❑ The amplifier features five inputs with record and preamp outputs and has an optional MM/MC phono stage. Both components are exceptionally well built and internally well endowed, and they're both unusually smooth in operation.

SOUND QUALITY

Unable to test the iPod's functionality with the Music Player for this review, we used a Sony MP3 player instead. As already stated above, it's not directly supported by the Music Player control system, but is compatible as an audio source via the USB 2.0 input and via this connection, it works extremely well.

More centrally to any rounded assessment of the server, CD ripping and internet radio are not directly dependent on the Music Player, they are clients that talk to the Music Player across a network and to a large extent are under the user's control using the client software. But it was clear from our experience with the test equipment that these elements are well designed, with key benefits over the common alternatives, for example in the area of jitter reduction using the online music database.

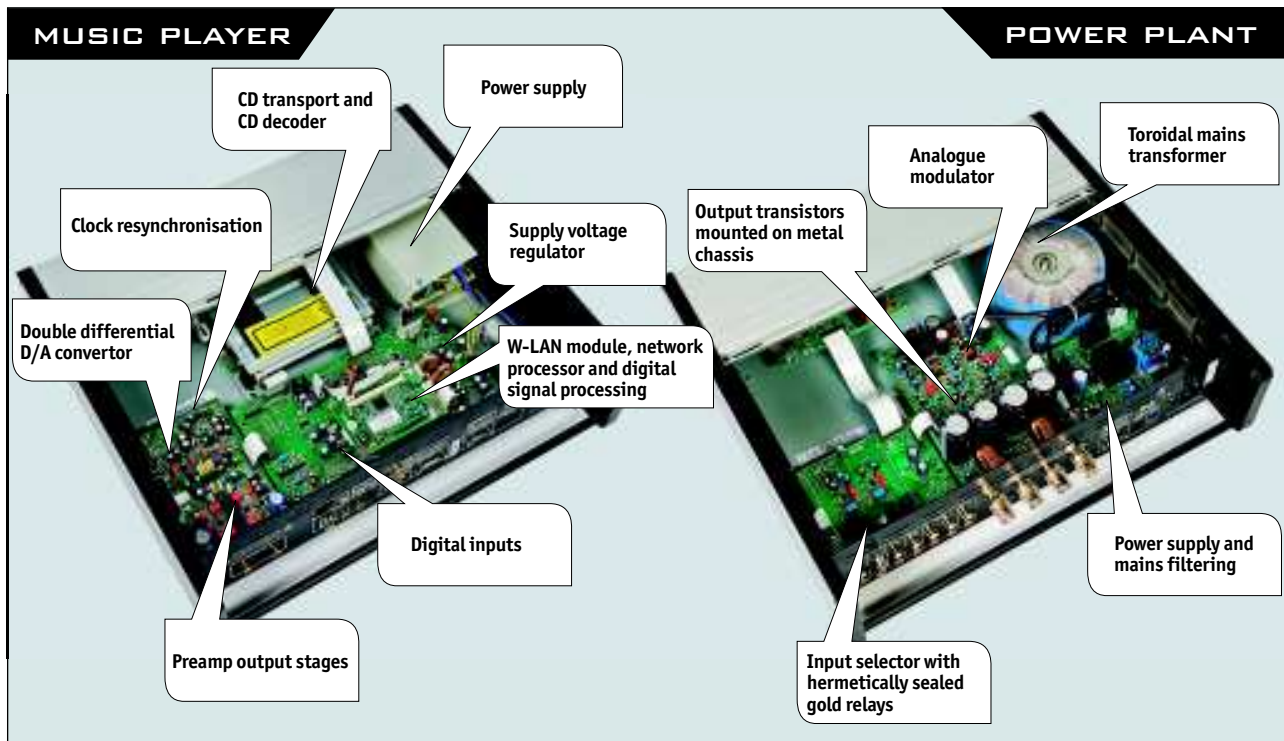
Once we'd acclimatised to the internet radio and the discs stored on the hard discs, they were fairly easy to access and use. But in the long term, the usability of the Music Player is compromised by the lack of a graphical interface, which is currently promised for the future. Many will not be completely satisfied by the ergonomics of the server until this add-on becomes available. But, within the

limits set by the front panel dot-matrix display and the simple control system, the designers have gone a great job. The supplied remote control gives fine grain access to the full feature set, but it is messily implemented and again highlights the need for a better solution.

As already noted, we've looked at the amplifier before, but it was obvious that the Power Plant has changed, and for the better. Initially, we were surprised by its palpably smoother and more expressive quality. It no longer sounds obviously digital or mechanical in origin, a charge that was easily levelled at the earlier version. It is now a more organic, fluid performer, that no longer sounds under stress through louder passages. In fact, it no longer sounds obviously like a digital amplifier, which is a valid criticism of the majority of Class D amplifiers. If anything the sound is slightly soft-edged, which is not only unexpected, but gives the amplifier a far more analogue-like feel. The power stages produce considerable heft and authority, without sounding either hard or aggressive and have a truly organic way of tracking recorded dynamics.

The internet radio is dependent on the data rate currently in use and, of course, you don't have control over this, but the better stations with higher data rates – 192kHz or better – worked better than we have heard internet radio perform in the past, but the reason appears to be better performance at the internet end of the hardware/software chain, rather than the Music Player itself.

T+A Music Player music server and Power Plant integrated amplifier [Review]



The tools available for selecting and memorising stations are easy to access and do a good job. Lower data rate stations had a character that was very iPod-like, in other words scrawny and one-dimensional. The senior sources in the package, FM radio, the internal CD player and streaming from the users own discs, that have been ripped and stored on the users computer are the serious contenders here, of course. In fact, the internal CD player is extremely good and the

“When you find it impossible to locate discs you want to access, a server-type solution is a natural way of resolving the problem.”

FM tuner also performed well. The CD player’s character is dominated by the sound of the Power Plant, but happily the latter is fairly transparent. Used together the effect is bold and powerful, with just a hint of the softness identified earlier. The FM tuner is also a serious source, at least it is on BBC Radio 3 and 4, which these days are about the only stations that make a serious attempt at delivering good sound, one of course with music and the other with speech.

This is an intriguing combination. Either product can be used with alternative partners, of course, but they do seem to belong naturally together. The amplifier needs extra warming-up before it fully delivers, which is odd for an amplifier that runs so cool. At power up, the sound balance is a little cold, but within half an hour or so, the system sounds considerably more comfortable.

On balance, this is an excellent system which we regret passing back to the manufacturer. When you consistently find it almost impossible to locate discs you want to access, a server-type solution is a natural way of resolving the problem. In its favour the Music Player is extremely well priced, which makes it a particularly attractive option. But as it stands, the lack of a

graphical interface to help sort through a large disc collection would be a major limitation and, of course, the promised add-on would mean a much higher price, though it should still maintain a useful differential over the obvious competition. **HFC**

Alvin Gold

HOW IT WORKS WITH YOUR COMPUTER

T+A claims to be the first audio company to use RS232 as an audio control system some years ago. To make this clear, the idea is to use your own data storage with a home computer. The Music Player then becomes just another device on your home network, a UPnP-AV server, which may be wired or wirelessly connected. The server looks for a wired connection at power up and in its absence it connects wirelessly. Add a terabyte or so of storage to your computer (large hard discs these days are eminently affordable) and a disc ripping programme, Exact Copy in this case, and you have a fully fledged audio server, with the Music Player acting as the front end interface, thanks to its native controls and text display. A better graphics interface unit is currently being designed and will be available at extra cost, but as it stands right now, an AMX or a Creston (or similar) controller can be connected via the RS-232 interface.

VERDICT - MUSIC PLAYER	
SOUND ★★★★☆	CONCLUSION Excellent performance and real flexibility from a compact unit. Excellent internal CD player and FM tuner. Internet radio and CD-ripping software is well-chosen.
FEATURES ★★★★☆	
BUILD ★★★★☆	HI-FI CHOICE OVERALL SCORE ★★★★★
VALUE ★★★★★	
URL www.techradar.com/560106	

VERDICT - POWER PLANT	
SOUND ★★★★☆	CONCLUSION Reviewed previously, the current version sounds considerably better, with hardly a trace of the slightly mechanical quality of the original sample.
FEATURES ★★★★☆	
BUILD ★★★★★	HI-FI CHOICE OVERALL SCORE ★★★★★
VALUE ★★★★☆	
URL www.techradar.com/560106	