

# GOING DIGITAL

The Redback is a DAB+/FM tuner ready to put digital radio into your system – in a proper component-shaped piece of hi-fi.



## Redback A2698 DAB+/FM tuner

Price: \$209

If you want no-frills DAB+ in a nice high-fidelity component, and to pay only a very reasonable price for it, then it's worth looking at the Redback A2698 receiver, from electronic parts specialist Altronics.

### EQUIPMENT

Actually, there is one frill — this unit also includes FM. That's important to me, although perhaps not to many other DAB+ users, most of whom live in places with permanent digital radio broadcasts (most State capital cities, for example), and have therefore been granted two broadcast channels by the government. That means that there's room for the ABC, for example, to have all its manifestations appear, from whatever local station it has in your city, through Radio National to News Radio, Classic (FM) and Triple J — plus the two digital-only stations, ABC Jazz and Grandstand.

Here in Canberra, the purported capital city of Australia, we are on a regional 'Trial' for digital radio. So we get low power (upped last year from 1kW to 3kW) and just one channel (VHF 10B, if you're interested). Consequently

while it carries everything on offer from SBS and the commercial stations, there is not enough room for all of ABC's content (ABC was late to join in).

But all the overflow is on FM, so nothing is missed here.

Except, of course, for a few community operations on the AM band, because the unit doesn't support that.

This is a nicely-built unit with an anodised aluminium fascia and solid construction. It weighs over three kilograms. The text printing on the front panel is a gentle gold, while the power indicator LED is bright blue when on, a low red when off. The front panel display has two lines of text in white against a blue background, and glows very brightly, sufficiently so that someone who needs glasses for reading may not need them for this unit.

A row of buttons provide control functions, replicating some of those on the small remote control. While the remote has number keys from 1 to 10, the front panel only has the first four. These are used to jump straight to the presets you choose. Ten are provided for DAB+ and ten for FM. Obviously you can select only the first four from the front panel.

At the back is an F-type screw terminal for an aerial. The same one is used for both FM and DAB+, and a short cable-style antenna is provided with the unit. Output is via stereo analogue audio or optical digital audio. There

is no volume control, but there is a mute key on the remote.

### PERFORMANCE

In some ways this unit was similar to the DigitalView unit we looked at some months back, but it does not implement the convenient time-shift function of that unit. In that sense it is a very traditional radio tuner.

Setting it up was fast with digital, and normal with FM. A scan for the former grabbed all the stations available in my area. With FM you need to pick and choose, since the sensitivity of the unit ensured that enough of a signal was grabbed from distant unusable

### VERDICT

## Redback A2698 DAB+/ FM component tuner

Price: \$209

- Good solid operation
- Well built
- Good price
- No time shift

INPUTS: 1 x aerial socket (F type threaded)  
OUTPUTS: 1 x stereo audio, 1 x optical digital audio  
POWER USAGE: 12 watts maximum  
DIMENSIONS (whd): 430 x 81 x 290mm  
WEIGHT: 3.45kg  
WARRANTY: 12 months

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stations to require lots of them to be skipped during scans.

Assigning presets couldn't be easier. You just tune a station, point the remote and hold down one of the number keys for a couple of seconds until the display tells you it has been set.

The front-panel display can cycle through several information screens, which show such things for DAB+ as the bit-rate for the current stations, any text associated with it (this continually scrolls horizontally if it is longer than the display width, which it usually is), the VHF TV channel the broadcast is on, the signal strength, and the error rate.

I was gratified to see that this last number remained locked on '0' whenever I looked at it, which I did a fair bit. That's despite the weakness of the DAB+ signal in Canberra, my 16km distance from the transmitter, and the volume of rock and soil in the form of a mountain ridge between me and it.

I used the unit mostly with the optical output, but a few spot checks revealed no apparent differences with the analogue output. With no volume control and no EQ or other processing on offer, there's little other reason to choose one output over the other.

The digital output used 48kHz sampling for DAB+, but 32kHz for FM (like the DigitalView unit). All AV receivers will definitely be perfectly happy with 48kHz, and in my experience they also seem happy with 32kHz. Nevertheless, this is so rarely used in consumer equipment that I do worry that it will simply not be available with some AV receiver somewhere — not necessarily through an intentional dropping of it, but simply because no-one will think to even test for it.

Still, 32kHz support does still seem to be around. Obviously, as Nyquist told us, the theoretical maximum bandwidth available with 32kHz sample is 16,000Hz, adequate for FM's 15,000 or so hertz.

When it comes to sound quality, the bottleneck with digital radio is, first and foremost, the quality of the signal created in the radio studio. The next is the compression imposed to fit this into digital radio, and the final and least limitation is anything that the DAB+ tuner may do to the signal. So, in short, this unit sounded fine where the broadcast signal was adequate.

Really, though, if you want high fidelity, buy some CDs. The first stage I mentioned — the studio processing — far too often leaves the signal dynamically compressed, harsh and lacking in any kind of detail. But that's not this unit's fault.

With FM the sound was about as good as my AV receiver's FM tuner, except perhaps for a slightly different character to the noise in stereo mode. You can switch between Auto and Mono modes by pressing the 'Enter' key. My location guarantees a poor FM signal with ABC Classic FM, so that station makes an interesting test. Both in Mono and Auto (the unit chose Stereo) there were significant noise levels, considerably worse in the latter. The music sounded smooth, but the noise sounded, well, kind of digital, or at least grainy, rather than smoothly white, almost as though there was low-level static. Still, the ability to force 'Mono' was welcome; it jammed the noise down a good 10dB or more.

For some reason the unit is specified as drawing up to 12W of power. According to my power meter it was locked at just four watts while in operation. In standby mode the consumption goes down to 2.4W, which is fair bit of power for something that has one feebly glowing red LED and is otherwise doing nothing other than waiting for a remote command to switch it back on.

The front power switch is just that — a power switch. Power consumption is zero when you use that. To put the unit into standby mode you must use the remote control. And you need the remote to switch the unit on from standby. None of the front panel controls do it, other than the power switch. To use that you of course turn off the unit with that button and then turn it back on.

### CONCLUSION

The Redback A2698 DAB+/FM tuner is a solidly-built, well-priced unit that should fill a gap in many a component home theatre or stereo system. *Stephen Dawson* +

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