How we test

Listening tests

We transmit music to each radio using a laboratory-generated DAB signal. The same tracks are played to each radio so we can compare fairly. Each track tests the radio in a different way. Jazz from Jacques Loussier highlights the balance between bass and treble and a range of frequencies. Prokofiev's orchestral piece 'Troika' shows whether the radio can reproduce heavily layered music without the sound becoming muddy, as well as the clarity of different instruments. A piano trio by Tchaikovsky and a Rickie Lee Jones pop song give a good idea of the set's tonal quality. We use a U2 song to test ability to convey energy and a sense of space. To test the sets' ability to reproduce speech, we also listen to male and female voice recordings.

Radio times

Digital radios are popular presents. But are they worth buying and which are the best?

More than 25 years since The Buggles sang that 'Video killed the radio star', it looks as if the doom merchants have got it wrong.

Millions of us still listen to our radios and now the advent of digital audio broadcasts (DAB) has given this old technology a new shot in the arm. More than 1.5 million DAB radios were sold in the year up to May 2006 and they now outsell traditional analogue sets by 30 to one in Currys.digital, formerly Dixons.

It's not hard to see why. They offer a huge number of extra stations to listen to. If you live in Birmingham, for example, you can get almost 20 more stations on DAB than on a standard radio, offering everything from country to jazz, comedy to drama.

DAB radios also give you more features – some let you see what shows are coming up in the next seven days, to pause and rewind programmes, or even record them. Style is another big selling point, with some models available in aluminium or gorgeous wood cases. They don't have to cost the earth – our cheapest Best Buy is \$50 – but be warned there are some cheap, nasty models on the market.

Contacts

Bush 0870 873 0078 www.bush-radio.co.uk Dualit 01293 652 500 www.dualit.com Goodmans 0870 873 0078 www.albaplc.com Intempo 0161 828 5219 www.intempo-digital.co.uk Magicbox 01995 562220 www.magicboxproducts.co.uk Panasonic 0870 535 7357 www.panasonic.co.uk Pure 01923 277488 www.pure.com Roberts 01709 571 722 www.robertsradio.co.uk Sony 0870 511 1999 www.sony.co.uk Teac 0845 130 2511 www.teac.co.uk

What you should look for

EPG

Some more expensive models have electronic programme guides that allow you to select a channel and scroll through to see forthcoming shows. You can get this on BBC channels but not all other stations support it yet

FM

Most, but not all, digital radios can also receive FM signals – useful in areas not covered by a DAB signal. DAB coverage is weakest in areas of low population or places with lots of valleys or mountains such as Wales, the Scottish Borders or the Highlands



PAUSE AND REWIND LIVE RADIO

With some high-end models you can pause and rewind programmes. This is a great feature if the doorbell rings in the middle of your favourite show Some models allow you to insert a memory card, set a timer using the EPG and record a show. The only one on test to do this was the Pure Evoke-3 (3).

USING THE TABLE

We tested table-top and clock radios from leading brands. The more stars the better.

Specification

Price For Best Buys we give the cheapest widely available high-street price. Prices for other models are a guide. Batteries Whether the radio can run on batteries.

Features

DAB presets How many DAB stations the memory can store. Pause/rewind Whether the radio can pause or rewind live broadcasts. Number of alarms The number of different times you can set the radio to come on in a given period. Alarm stations Whether you can set alarms for more than one station at a time.

Score

based on:
40 %
30%
15 %
15%



Our tests of the radios uncovered these snippets of information

Colour choices

The Dualit DAB Kitchen Radio is available in cream, black and polished aluminium.

Radio in Europe

The Pure Evoke-3 and Teac R-3 are the only models on test which pick up L band stations – this means you can listen to digital radio while on holiday in Europe.

Narrow miss

Sound quality is generally poorer on clock radios but we think many will be happy to accept a compromise on sound for occasional listening.

ON TEST **DIGITAL RADIOS**



68% Dualit DAB Kitchen Radio £199

Dualit is best known for making toasters but this stylish radio could itself be the toast of the kitchen table.

The sound quality is excellent – natural and relaxing. The control buttons are logically laid out which, combined with the large tuning and

volume dials, makes using the radio really easy. The Dualit DAB Kitchen Radio is available from John Lewis.

WE FOUND We were impressed by the quality of voice broadcasts, so this is the model for Radio 4 fans.

Cheapest store John Lewis Tuner FM, DAB Speakers Mono External speaker output Yes (stereo) Connect to hi-fi No Headphone jack Yes 62% Pure Exceptional

The Pure One proves that cheap doesn't have to mean nasty where DAB radios are concerned. The sound quality is good – detailed and clear. It does take a while, however, to get used to the way that the large number of separate menus are controlled by a central dial. We were so impressed by what the Pure One offers for the price that we have given it our Exceptional Value award. It's available from Argos, Comet, John Lewis and Woolworths. WE LIKED It's easy to carry as it's so small and light.



Cheapest store John Lewis Tuner FM, DAB Speakers Mono External speaker output No Connect to hi-fi No Headphone jack Yes 60% Pure

60% Pure Evoke-3£199



You can pause and rewind live radio, and record up to 15 hours of programmes on to a 1GB SD memory card (the exact length of time depends on the station you are listening to). Its pre-sets remember up to 99 DAB stations and there is also an electronic programming guide. Sound quality is good and, although the number of complex features can be difficult to get to grips with, the instructions are clear. It's available from John Lewis.

WORTH KNOWING The card costs about £50 for 1GB of memory.

One proves that cheap doesn't have to mean nasty where DAB radios are concerned

The Pure

Cheapest store John Lewis Tuner FM, DAB Speakers Stereo External speaker output No Connect to hi-fi Yes Headphone jack Yes

MODEL	SPECIFICATION					FEATURES					TEST PERFORMANCE		SCORE %
	PRICE (£)	WEIGHT (kg)	SIZE wxhxd (cm)	BATTERIES	FM	DAB PRESETS	PAUSE/REWIND	EPG	NUMBER OF ALARMS	ALARM STATIONS	EASE OF USE	SOUND QUALITY	
TABLE-TOP RADIOS													
1 DUALIT DAB Kitchen Radio	199	2.5	27x18x15	1	✓	5			1	no	****	****	68
2 PURE One	50	1.1	21x15x8	✓	1	20			0	no	***	****	62
3 PURE Evoke-3	199	3.1	29x22x13	✓	1	99	\checkmark	\checkmark	20	yes	***	****	60
4 ROBERTS CRD-39	119	1.7	31x12x13		1	5	\checkmark		5	yes	***	***	53
5 TEAC R-3	109	1.4	24x13x13	1	1	5			1	no	****	***	51
6 ROBERTS RD-25	100	1.4	27x14x7	1	1	5			0	no	***	***	49
7 MAGICBOX Clarus	59	1.6	26x15x15	1	1	8	\checkmark		2	no	***	***	48
8 PANASONIC RF-D3	80	1.5	26x17x10	✓	1	10			1	no	***	***	48
9 SONY XDR-S20	100	1.8	28x16x8	1	1	20			0	no	***	***	48
10 ROBERTS RD-22	199	3.0	29x12x22		1	10	\checkmark		6	yes	**	***	43
11 BUSH TR2004DAB	69	2.3	32x18x13	1	1	10	\checkmark		0	no	**	***	41
12 INTEMPO KTC-01	60	2.0	25x20x12	✓	✓	4			1	no	**	***	40
13 PURE Elan DX20	57	1.6	28x18x10	1		5			0	no	***	*	26
CLOCK RADIOS				_									
14 INTEMPO RS-01	80	1.7	15x16x23		\checkmark	4			2	yes	**	**	33
15 GOODMANS GCR1930DAB	50	1.0	15x17 x15			20			2	no	*	**	19
16 PURE Chronos	80	0.6	9x6 x7			10			4	no	***	*	19

SHOULD YOU BUY A DAB RADIO?

You'll get more stations but will you able to hear them?

DAB radio doesn't cover the whole country yet, so before you rush out to get one of our Best Buys, head to www.digitalradio now.com to check whether your postcode is covered.

Even if you live in an area with good coverage, you'll find it difficult to pick up a DAB signal if you are in a basement, a steel-framed building or one made of reinforced concrete. In those cases, you'll probably need a rooftop aerial which costs about £25 plus installation.

If your FM signal is poor and it's difficult to get mobile phone reception in your home, you're likely to have similar problems with a DAB radio. Try

moving the radio so it's next to a window and retune it. If this doesn't work you'll probably have to fit a rooftop aerial.

Currently, 85 per cent of people in Britain can receive DAB radio and there are plans for extra transmitters. The BBC intends to put up seven new transmitters in **England and Wales** this year.

Don't Buys

The most important aspect of any type of radio is the quality of sound it delivers. Three of the 16 models on test were well below par – the Pure Elan DX20 table-top model and the Goodmans GCR1930DAB and Pure Chronos clock radios.

We found that the sound quality from the Pure (13) suffered from bad distortion - it sounded like a badly tuned FM radio. Sound quality of clock radios is usually worse than table-top models but we were surprised by how terrible

WHICH? the Pure (16) was. The

Goodmans (15) fared better, particularly when playing music, but it was so fiddly to use that we still wouldn't recommend buying it, even as a second set for your bedroom.



Which should you choose?



Best table-top with an alarm

PURE EVOKE-3 £199 If you want to be woken by your favourite station but don't want sound quality to suffer, consider the Pure (3) instead of a clock radio. You can set 20 different alarms for times when you want the radio to come on and a different station for each alarm.



Best clock radio

INTEMPO RS-01 £80 The sound from a clock radio will be worse than from a table-top model. The best we tested was the Intempo (14). It has two alarm settings, a sleep countdown timer, a snooze function and a clock you can read easily. The buttons are fiddly so use the remote.

Best for sports fans

PURE ONE £50 This Pure (2) is a must for sports fans as it has a system called Intellitext, which gives you up-todate scores and headlines. At the moment this feature is supported by just a few stations, including Talksport, but it's likely to be adopted by other broadcasters in future.

Best for MW listeners ROBERTS RD-25 £100 Most DAB radios can receive

an FM signal, but the Roberts (6) is the only model in this test that can receive MW. So if you're a big fan of the BBC's Five Live and are planning to use your set in an area that might not be able to receive a digital signal - the Peak District, for example - shop carefully.

Sound quality

DAB offers better sound than FM, doesn't it?

While DAB scores over FM in the number of stations you can listen to, the question of sound quality is not so clear. With DAB, you are less likely to experience problems with electrical or atmospheric interference. On the other hand, in areas with excellent FM reception, the sound can be better than DAB. Our experts say, however, that this is noticeable only if you're listening through a Hi-Fi system. This is because digital broadcasters are given bandwidth and, to fit all the stations they want to transmit into that bandwidth, they compress the signal of each station. A compressed signal reduces quality by taking out peripheral sound.

On a speech station, such as Five Live, you probably won't notice this, but you might with more complex music. Classical music station Radio 3 transmits a less compressed signal than other stations to counter this. Also, if you have a weak FM signal you'll get a hissing sound – on a DAB radio you'll hear a burbling noise or silence.

Analogue switch-off?

By 2012, TV viewers nationwide will need a digital TV or set-top box because the analogue signal will be turned off. The switchover starts in

2007. There are no plans to switch off the analogue radio signal – good news if you can't get DAB and can't access radio by the internet or digital TV.

