

Picture perfect

A decent Freeview TV picture needs a decent aerial – but you can't always use one on a rooftop, so we reveal how you can get the most out of the best indoor models

You can't beat a good rooftop aerial. But if you want a cheap alternative for a portable TV (see p68) or you aren't allowed a rooftop receiver, you'll need an indoor aerial.

Many of those we've tested should work if you live close to a TV transmitter (go to www.which.co.uk/digitalmap for details). And some are quite stylish now; the One For All SV9340 (9) is designed as a picture frame. But we've also found pretty poor quality: among our four Don't Buys the best picked up only half of the available

channels in our in-house trials. For most people a Best Buy model is the wisest choice, especially with the switchover from analogue to digital TV looming.

Digital and analogue signals differ in two main ways, making your aerial choice crucial. A weak analogue signal often means grainy images and interference but you're usually able to view programmes. A weak digital signal often means no picture at all. Also, digital channels are broadcast in groups called multiplexes, instead of individually as on analogue TV.

If a signal is too weak and a group can't be received, it means missing out on several channels.

Fortunately, our Best Buys are good at picking up both weak digital signals and a wide spread of channel groups. But even a Best Buy is no guarantee of success. Where you live, the size of surrounding buildings and position of the aerial all play their part.

Digital TV signal strength will improve with analogue switch-off but to maximise your chances of getting decent pictures check our aerial troubleshooter (p74).



Our aerials work with both analogue and digital signals, but with digital switchover imminent we focus on finding pictures broadcast on Freeview channels

Our exhaustive tests, in the lab and in real homes, aim to find out which aerials pick up the most channels and work best with a weak signal.

Initial lab tests take place in a radio-frequency test chamber but our experts then up sticks – and aerials – and move to more homely surroundings in three locations served by different types and strength of TV transmitter.

In various rooms and on different floors, we find the optimal position and angle for each aerial. We note how critical this positioning is for a good picture while tuning into six TV channels (one from each multiplex) plus two radio stations. We then work out the total test scores, and therefore our Best Buys, based on the combined performance across all multiplexes in all three locations.



93% Telecam TCE2001 £20



This traditional directional model managed to tune in to 92 per cent of channels in our in-house trials – more than any other aerial. This superb model does an admirable job of picking up channels in areas of weak reception, and the booster makes it even better. It's cheapest at Argos. **WE SUGGEST** Opt for the cheaper Best Buy Telecam TCE2000 (5), which has no booster, if you live in an area with a strong signal.

Available Argos Booster Yes Power supply Mains 12V adaptor compatible No On/off switch No



86% Vivanco TVF25 £30



The aerial looks cumbersome but impressed our experts with an 85 per cent success rate during in-house tests. It features a signal booster, a plug for extending the aerial lead and decent reception. Like most other Best Buys, positioning and angling are fairly straightforward. It's available online. **WORTH KNOWING** The instructions provide useful hints about positioning this aerial.

Available Online Booster Yes Power supply Mains 12V adaptor compatible Yes On/off switch Yes

The Telecam TCE2001 picked up 92 per cent of channels during our in-house tests

What you should look for

SIGNAL BOOSTER

This can help pick up a weak signal, but a poor one can cause interference – a TV's internal amplifier will often do a better job

CABLE LENGTH

For the best reception, the aerial may have to be some distance from your TV, so you need long power and aerial leads if you don't want to use extension leads

DESIGN

Some aerials need to be angled horizontally or vertically to match the local transmitter; vertical rod designs like the Total (17, right) limit options in certain areas

12V ADAPTOR

Most signal boosters are mains powered but some models can run on an adaptor (not this model), making them ideal for a boat or caravan

USING THE TABLE

The more stars the better.

Specification

Price For Best Buys we give the cheapest, widely available high-street price. Those for other models are a guide. If a model is sold online only prices are in *italics*. **Type** Directional: similar to rooftop aerials. Loop: a circular design. Panel: aerial built into a flat panel. Monopole and dipole: aerial features either one or two antennae. **Booster** Whether aerial has a built-in signal booster. **Vertical/horizontal adjustment** Whether the aerial can be angled to match a transmitter. Loop aerials

don't require angling and some flat-panel types can be rotated 90 degrees. **Cable length** Of aerial and power leads, where applicable.

Test performance

In-house The ability to pick up signals and frequencies of different strengths in various domestic locations.

Sensitivity How good the aerials are at picking up weak signals in the lab. **Frequencies** The spread of groups of channels known as multiplexes (see p74).

Score

Ignores price, based on:

Performance **90%**

Power use, cable length

and features **10%**

MODEL		SPECIFICATION					WHICH? TEST PERFORMANCE			SCORE %
		PRICE (£)	TYPE	BOOSTER	VERTICAL/HORIZONTAL ADJUSTMENT	CABLE LENGTH AERIAL/MAINS (cm)	IN-HOUSE	SENSITIVITY	FREQUENCIES	
1	TELECAM TCE2001	20	Directional	✓ ^a	✓	244/94	★★★★★	★★★★★	★★★★★	93
2	VIVANCO TVF25 Indoor Antenna	30	Dish/Dipole	✓		125/183	★★★★★	★★★★★	★★★★★	86
3	ONE FOR ALL SV9365	35	Loop/Dipole	✓	n/a	178/178	★★★★★	★★★★★	★★★★★	85
4	ONE FOR ALL SV9210	20	Panel	✓	n/a	396/187	★★★★★	★★★	★★★	82
5	TELECAM TCE2000	10	Directional		✓	97/n/a	★★★★★	★★★★★	★★★★★	82
6	MAXVIEW Truvision C3010	5	Directional		✓	205/n/a	★★★★	★★★★★	★★★	71
7	MAXVIEW Contour Plus C3006	14	Panel	✓		196/n/a	★★★★	★★	★★★★★	68
8	ONE FOR ALL SV9140	20	Loop/Dipole	✓	n/a	104/185	★★★★	★★★	★	65
9	ONE FOR ALL SV9340	30	Panel	✓	✓	195/189	★★★★	★★★★★	★★★★★	64
10	ONE FOR ALL SV9150	30	Loop/Dipole	✓	n/a	103/185	★★★	★★★★★	★	55
11	PHILEX SLxA 27744R	20	Loop	✓	n/a	146/133	★★★	★★★	★	55
12	PHILEX ANR310	10	Directional		✓	139/n/a	★★★	★★★★★	★★★	50
13	ONE FOR ALL SV9030	10	Loop/Dipole		n/a	104/n/a	★★★	★★★	★★★	44
14	COMMTEL Z-Antenna with booster	20	Loop	✓	n/a	198/185	★★★	★★★	★	42
15	TOTAL CONTROL Amplified indoor aerial	15	Loop/Monopole	✓	n/a	104/183	★★	★★★★★	★★★	40
16	TOTAL CONTROL Non-amplified indoor aerial	10	Loop/Dipole		n/a	104/n/a	★★	★★★	★	34
17	TOTAL CONTROL Freeview indoor aerial	15	Rod			104/n/a	★★	★★★	★	22
18	COMMTEL Z-Antenna	10	Loop		n/a	196/n/a	★	★	★	19
19	NIKKAI A25GQ	40	Panel	✓	✓	193/179	★	★	★	19

^a External amplifier



85% One For All SV9365 £35

Great reception and decent features, such as a 12V adaptor, make this a good choice. It picked up 85 per cent of channels in our home tests. Both One For All Best Buys can be powered via the aerial socket of a set-top box and picked up every channel in our weak-signal area tests. It's the same price at both John Lewis and Argos. **WORTH KNOWING** The angling and positioning of this aerial can be crucial – more so than with other Best Buys.

Available Argos or John Lewis **Booster** Yes **Power supply** Mains **12V adaptor compatible** Yes **On/off switch** Yes



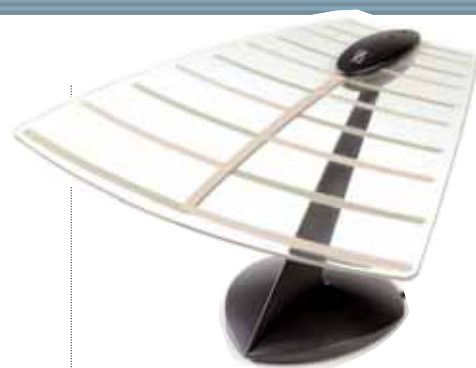
82% One For All SV9210 £20

This slim but sturdy flat-panel model works brilliantly when mounted on a wall and can be neatly hidden away. It picked up 83 per cent of channels in our domestic signal strength tests. A generous four metres of aerial cable and two metres of power cables are included in the price. It's available at Maplin. **WORTH KNOWING** As with loop designs, this model doesn't require horizontal or vertical angling.

Available Maplin **Booster** Yes **Power supply** Mains or set-top box **12V adaptor compatible** Yes **On/off switch** No



The slim One For All SV9210 is designed to be neatly hidden



82% Telecam TCE2000 £10

This excellent budget buy is the same as the other Telecam model (1) but without the booster. However, reception is still great and this aerial picked up 83 per cent of channels in our home locations, working in weak-signal areas where some pricier models struggled. You can buy this aerial at Argos. **WE LIKE** The price is great, but if you can't pick up all digital channels, give the TCE2001 (1) a shot.

Available Argos **Booster** No **Power supply** n/a **12V adaptor compatible** n/a **On/off switch** n/a



Aerial troubleshooter

Aerial instructions rarely help you set up and tune in, so read on for a better picture

■ **BUYING** If you want to receive more than the five analogue channels, check at www.freeview.co.uk that your area can receive Freeview. ■ **TUNING IN** It can be difficult to tune in new equipment, such as a Freeview box or integrated digital television, using an indoor aerial. A digital set-top box tunes in automatically but if the signal is too weak the screen will be blank, so try tuning it in with a rooftop aerial first – your own or take the box to a neighbour. Once tuned in, the box will remember the channel positions, so you can then plug in your indoor aerial and find the best position to get as many channels as possible. Failing that, use the indoor aerial to tune in analogue

stations on your TV – the aerial position should be similar for digital channels. ■ **BEST ANGLE** Check your aerial is angled horizontally or vertically to match the local transmitter (see our online map). The rooftop aerials in your area are good indicators. ■ **BEST LOCATION** We find this is usually near a window, just above head height. ■ **FINE TUNING** Digital stations are transmitted in bundles called multiplexes. To get a group, only one channel needs be selected when fine tuning. Checking the channels shown above right will reveal whether you have full reception on each multiplex. In some areas, retuning and repositioning may be needed after digital switchover.

	Multiplex 1
	Multiplex 2
	Multiplex A
	Multiplex B
	Multiplex C
	Multiplex D

■ **SECURING THE AERIAL** Once it's in the best position, secure the aerial with adhesive Velcro patches. ■ **IF ALL ELSE FAILS** If you're still having problems, consider wiring extensions from your rooftop aerial if you have one, or install a video sender that transmits the signal to other TVs that have receivers.

OUR RESEARCH

We select the aerials we test by talking to manufacturers about their biggest-selling models and future plans, consulting industry experts and market intelligence reports, and checking models available in the main high-street shops and on popular websites. The aerials are the top sellers from brands with the largest market share. We also may include models with innovative features from less well-known brands.

Contacts

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