

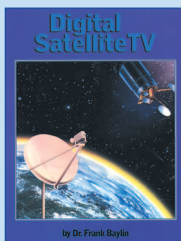
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DIGITAL SATELLITE TV

Evolved from the famous Ku-band Satellite TV series of books, this 486-page tome is crammed full of background information, and technical details on all aspects of satellite TV - both digital and analogue - with pretty much everything you need in the way of theory, installation and troubleshooting of satellite systems.

An indispensable guide to satellite TV technology.

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CLASSIC BLACK BOOK

The 'bible' of the black art of signal security, European Scrambling Systems is principally concerned with analogue scrambling systems, but is still of interest today to anyone interested in how scrambling and encryption systems are set up and knocked down by illicit 'hackers'.

This 576-page book is packed with technical data, circuit diagrams, software listings, tables and photos with details on hacks of scrambling systems for PAL, Mac and the DirecTV DSS American digital network.

UK £34 • Rest of Europe £35 • Worldwide £39

SATMAPS FOOTPRINTS CD-ROM

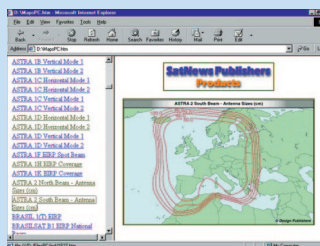
On CD-Rom for both PC and Mac, SatMaps is a simple collection of satellite footprints - essential to work out which signals you can receive with your dish.

Place the disc in your computer, double-click on an icon and away you go. Each footprint can be viewed, printed or downloaded for use in other software.

From Afristar to Turksat, over 600 footprints of broadcast satellites around the world are here.

SatMaps requires either Microsoft Internet Explorer or Netscape Communicator installed as the default internet application in your computer.

UK, Europe and rest of world: £29



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CAT5BLASTER ♦ £259.99 ♦ KEENE ELECTRONICS ♦ 01332 830551

Long dista

The CAT5Blaster is a simple route to delivering TV signals a long way with the quality you'd expect from a short Scart lead.



The presence of a secondary UHF output on the Sky Digibox is testament to the popularity of sending TV signals around the home. The trouble is that quality of a UHF signal transmission along a coaxial cable isn't really up to much. This involves modulating the video signal on a UHF carrier (just so the TV set can de-modulate it again) with all the inherent degradation of the picture that involves, and it only provides mono sound.

That's fine if you're connecting to a 14in portable in the kitchen, but for feeding the signal from the Digibox in the living room to the new home cinema setup in the loft conversion, UHF is not good enough.

It's not for nothing that everyone (Digital Satellite Choice included) always holds up the virtues of a Scart connection for your main TV set - Scart provides stereo sound and a picture of better quality than UHF will ever manage.

But the problem with Scart connections for secondary TVs is that they can't reach very far. Quite apart from the expense of 30m of Scart cable, and the problem of installing such thick cable under the floor or along the skirting board, Scart connections simply don't work over large distances. You can run into problems with a cable anything over about 10m - and that's not very long when you're talking about feeding the TV set in one room with the signal from your satellite receiver in another.

In many cases, people resort to a videosender. These modulate the video onto a radio signal and send stereo audio as well. It can be better than UHF but the videosender signal is prone to interference and dropout.

CONNECTIONS

The transmitter unit has two input sockets - a Scart for video and stereo analogue audio, and a coaxial S/PDIF digital audio input. The system cannot transmit both analogue and digital audio at the same time, so you must select which is used with DIP switches on the transmitter and receiver units. Other DIP switches are used to select the video format.

The CAT5Blaster will handle either composite video, S-video, RGB or component video (YPbPr), but only one format at a time. Your choice of which to use will depend on the level of quality you want of the signal at the other end and which signal your receiver can provide. Few receivers manage component video output but all have composite video and many provide S-video (although that will require a converter cable if it's not available on the receiver's Scart socket).

RGB is the most desirable signal format, because it produces the best

picture, but the CAT5Blaster does not use the standard RGBs output format used by most receivers (separate red, green, blue and sync signals) but a variation known as RGBB (red and blue signals and a third containing combined green and synchronisation information). This is because there are only three transmission channels available from the four-twisted-pair cable (one is taken up by the audio).

Keene can supply units to convert from RGBs to RGBB but these are not cheap (the Syncblaster Black Box costs £75). It's a shame that this functionality has not been built-in.

The three video channel capability of the system means that (with suitable converter cables) you could also transmit three composite video signals at once. It will only handle one stereo audio channel but you could use an additional video channel for, say, concurrent monitoring of a security camera.

◆ www.keene.co.uk

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An entirely different approach is taken by Keene Electronics with its CAT5Blaster. This digitises the video and audio signal and sends it along a single CAT5 network data cable.

Because the signal has been digitised it's not worried by interference or degradation along the way. And the CAT5 cable is cheap, easily available and simple to hide along the route.

Like a videosender, the CAT5Blaster comes as a transmitter unit that sits by your Digibox (or DVD player, or whatever) to convert the video and audio signals for transmission, and a receiver unit that converts the digital signals back to video

and audio to feed to the TV. Both units are tiny, and designed to be placed out of sight and forgotten.

The system also includes a return path for infrared commands from a remote handset, so you can change channel, and so on, from the second TV set.

The CAT5Blaster uses all four twisted cable pairs in a CAT5 cable and so a network cannot use the same lead. Even if you have a home network in place, the CAT5Blaster must use its own cable.

The CAT5Blaster transmitter unit has a separate power supply and this can also power the receiver by way of the CAT5 cable, provided the cable is not much more than 100m long. For longer cable runs, a second power supply plugs into the receiver.

An infrared sensor connects to the receiver unit and an emitter plugs into the transmitter box to be stuck near the AV hardware. Remote control is then possible in the same way as a videosender.

The CAT5Blaster is easy to set up with no tuning or aiming required; the hardest part is laying (hiding) the CAT5 cable. Just plug in the Scart cables and the CAT5

against the CAT5Blaster. It was hard to tell the difference. Analogue audio was virtually indistinguishable, apart from a

trace of added hiss on the CAT5Blaster distributed signal (digital audio passed through entirely unchanged).

Both composite and S-video signals picked up a touch of video noise along the way but the pictures were bright, crisp and with no noticeable colour bleed or

softening or other effects seen with long Scart leads or videosenders.

The cream on the cake is that the CAT5Blaster system is expandable. By looping the CAT5 cable through additional slave receiver units (£129.99 each, with a power supply), you can tap off the video and audio signals at additional points, with each receiving the same high quality signals.

This is not a cheap system and many potential users will balk at the price, settling for a videosender instead. However, the CAT5Blaster is a much better bet for any use where quality is important. And if you mean to deliver a TV signal across any distance – particularly across a building that is not too videosender-friendly – the CAT5Blaster is the best method available. ■

SPECIFICATIONS

Transmission: 3x video, 1x stereo audio, infrared command return path
Range: 100m (with one power supply), greater than 300m (with receiver power supply)
Video input signals: Component video, composite video, S-video, or RGB
Audio input signals: Stereo analogue audio, or digital audio
Video output signals: Component video, composite video, S-video, RGB
Audio output signals: Stereo analogue audio, digital audio

RATINGS

Highs: Reliable, high quality video and audio connection over a very long distance.

Lows: Expensive. Requires additional equipment for most RGB applications.

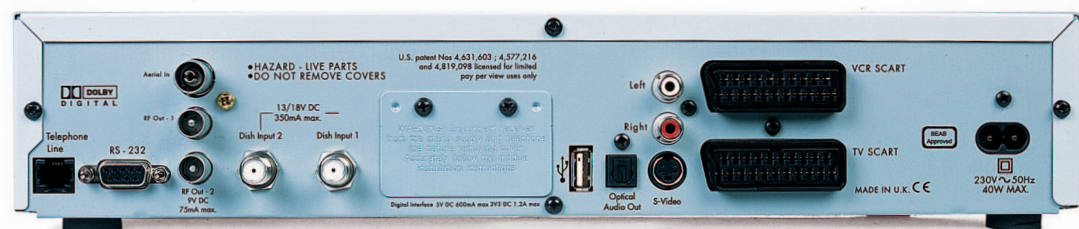
Picture	★★★★
Setup	★★★★
Performance	★★★★
OVERALL	★★★★

cable (it uses standard RJ45 connectors), switch on and away you go. It's entirely transparent – just like having a very long Scart lead. And the quality is just like a short Scart lead!

The system was first tested with about 200m of cable laid out around the house, using composite video, S-video and component video formats for transmission. It operated well, providing good quality pictures and clean stereo sound. The infrared back channel operated faultlessly. Keene reckons the system will drive a cable of at least 300m (with two power supplies).

The cable was then re-routed back to the Digibox so a direct comparison could be made – a short quality Scart lead

'If you mean to deliver a TV signal across any distance, the CAT5Blaster is the best method available'



Cat5Blaster bypasses the limitations of using your receiver's UHF outputs to distribute AV signals