

# *The Annie 204* Spectrum Analyser

Featuring analogue, digital terrestrial and digital satellite demodulation  
View the spectrum, data or the picture display-individually or simultaneously.



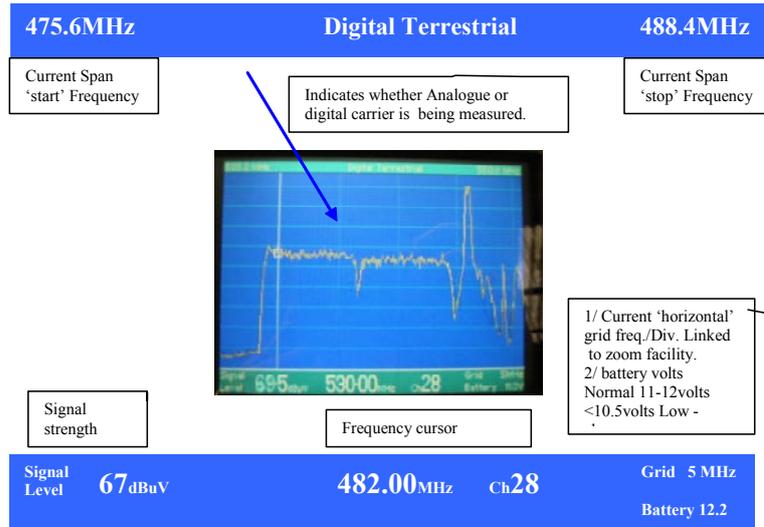
SWIRES  
research

- Large 148cm (5.8"inch) Full colour display for clarity of measurements.
- Level correction software for greatest accuracy.
- 30 to 860 and 950 to 2150 MHz. frequency range coverage with ZOOM facilities.
- Demodulates Terrestrial Analogue, QPSK (Satellite),COFDM (Terrestrial) giving pictures and sound and in addition BER and SNR figures on digital signals.
- Single button switching round all channels in a digital multiplex.
- Designed for 'ease of use' Automatic detection of analog or digital signals and of all the requires parameters for digital decoding means that complex settings are not required.
- Toggle to view each of the four LNB outputs and the terrestrial feed.
- Nylon carry case has a 'built in' light hood for bright sunny days
- Light weight, less than 3.8 Kg including battery and nylon carrying case.
- Store test setups as favourites, for rapid repeat measurements.

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SS11 8YJ

# Three easy steps to all the information you need

1



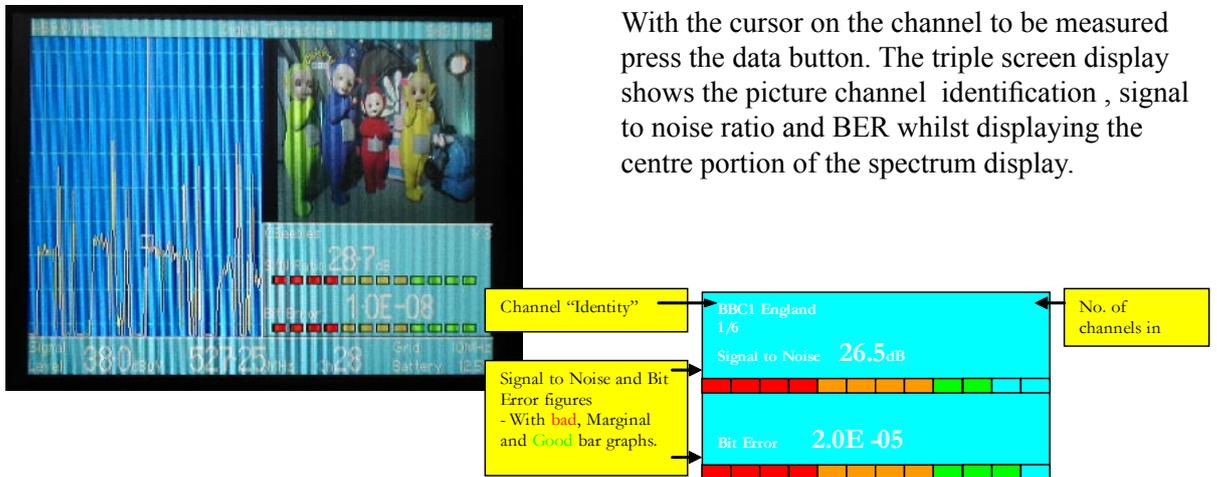
When the cursor is placed over a carrier Annie automatically detects whether the carrier is analog or digital. The correct measurement is then displayed for either analog or digital. This unique function avoids errors due to the wrong measurement method being selected.

View the spectrum, zoom in and out and change the centre frequency using the four arrow keys.

On terrestrial signals use the channel lock to step directly between channels.

The level and frequency of the signal under the cursor is displayed.

2



With the cursor on the channel to be measured press the data button. The triple screen display shows the picture channel identification, signal to noise ratio and BER whilst displaying the centre portion of the spectrum display.

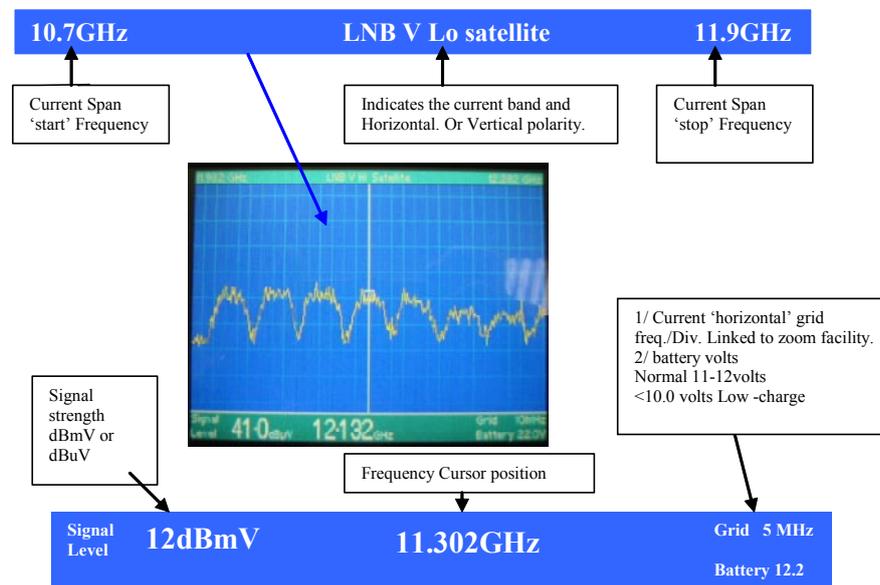
3



Press Data again and view a full screen TV picture. Sound is available via the head phone output socket. To check all the channels in a digital multiplex step through the channels using the up/down arrow keys.

## Satellite band Measurements.

Switch to the satellite band, set the appropriate LNB voltage. Exactly the same steps as those for terrestrial operation, may be used to view the spectrum, pictures and sound on all clear to air satellite channels in the Ku band.



View the spectrum, zoom in and out and change the centre frequency using the four arrow keys.

The level and frequency of the signal under the cursor is displayed.

## Extra features to make your measurements easier.

A peak hold function allows the capture of intermittent signals such as interference from mobile transmitters.

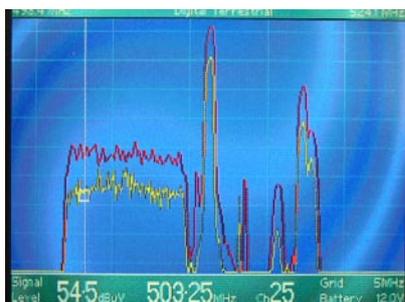
The setup menu allows measurement units and other parameters to be set to the user's preference.

A standard keyboard may be connected to allow the labeling of favorite settings.

Software upgrades and data downloads are via the built in USB port.



Pressing the Menu key brings many useful options- Favourite settings may be stored. Simply set up the spectrum display to the frequency, gain and zoom that you require. Store as a favourite (up to 100 available) next time you require these settings press recall favourite and return to the previous setup.



A complete trace may be stored and recalled.

This enables a trace stored at one location to be compared with a measurement at another place or time. Up to four colour coded traces may be stored and recalled.

## Technical Specification.

Frequency coverage	Terrestrial : 30 –860MHz, satellite: Ku band 10.7GHz to 12.75GHz (IF 950 to 2150MHz.)
Operating system	Analogue PAL I (other systems available please specify when ordering. Digital Terrestrial (DTT) plus Digital satellite (DTS) decoding. . Free to air (FTA) only.
Level measurement	Minimum 20dB $\mu$ V (-40dBmV) and maximum 110dB $\mu$ V (+50dBmV). Can be set to dB $\mu$ V or dBmV within setup menu. BER measurement for Terrestrial is Post Viterbi. Pre Viterbi for Satellite. Spurious signals $\leq$ 30dB $\mu$ V (terminated in 75ohm).
Screen	14.6cm (5.82 inch) TFT full colour
Accuracy	Terrestrial $< +$ -1.5dB, Satellite $< +$ -2.0dB Cursor frequency accuracy –full span less than 50KHz
Keypad	Tactile, hard wearing and splash proof keypad.
Case	Glass fibre reinforced polycarbonate, aluminium back plate. Size: 250mm wide X 270mm high X 85mm deep.
Connectors	Single RF input (30-2150 MHz) BNC 75ohm. Video Out BNC 75 ohm. USB data connector type 'B' External keyboard – PS/2 connector Stereo Headphone socket 3.5mm. Charger socket 2.1mm dc type.
Line powering	13 or 18 volts + switchable 22 KHz tone for Satellite operation 13 volts for terrestrial operation (Masthead amplifiers).
Nylon carrying case	Weatherproof nylon carry case with integral light hood.
Weight	Less than 3.8kg including battery and carrying case.
Power	Combined external mains to +15vDC power supply and charger, fitted with 2.1mm plug ( centre +ve). Battery life 2.5 hours.
Operating temperature	Gain stability +/- .5dB from 0°C to +40°C
Software supplied	Signal Records software for storing readings Useful for commissioning purposes. Download information stored when returned to base.

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