

## Digital and Analogue Channel Levellers



The Digital Cluster Leveller (DCL) is a device that has been designed for the simultaneous filtering and level control of digital and analogue terrestrial television services. The Single Channel Levellers (SCL) are for analogue television services only. The SCC range of combiners can be used as excellent filter combiners where set top boxes are being used to provide DTT or Sat programmes. The filters very effectively remove the spurious outputs generated by the set top box modulators.

Please specify a transmitter when you order.

*With Digital Switchover at your doorstep teldis developed new series of filters - **UCL Universal Cluster Levellers** designed to also filter newly appeared multiplexes.*

The main features of the levellers are:

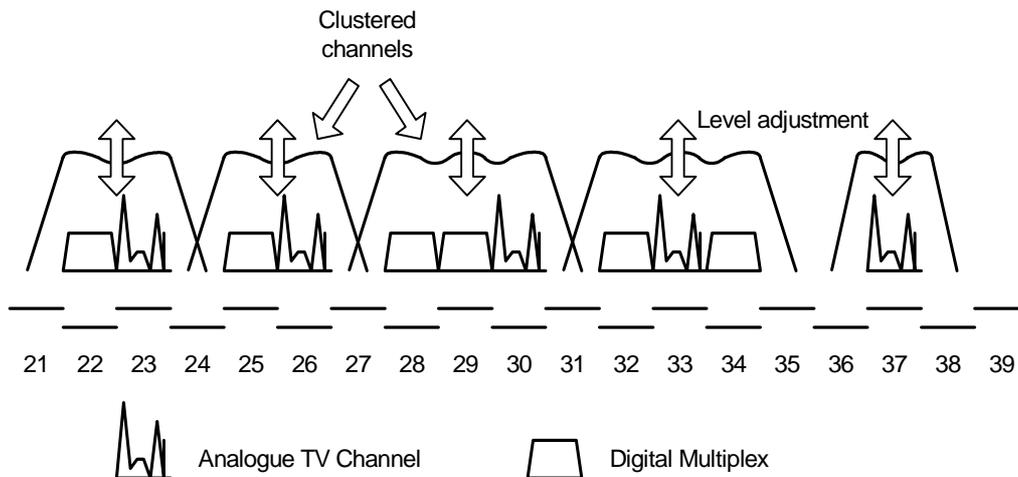
- Individual cluster or channel level control
- Low insertion loss, 3 to 4 dB
- Excellent filtering
- Mechanically robust
- **teldis** computerised tuning for accurate alignment

Each unit has up to six filter paths that are individually tuned to pass single or groups (clusters) of channels and to give as much rejection as possible to unwanted portions of the RF spectrum. Inherent insertion loss is low, between 3 – 4 dB.

The SCL analogue levellers are all single channel whereas the DCL digital cluster levellers deal with channels in small groups carefully selected to suit the local transmitter. Although the DCL does not give individual control of each channel or multiplex, for most small system applications the level of adjustment that can be applied is more than adequate.

Transmitter	Type no	1	2	3	4	5	6
Crystal Palace	DCL115 CP	22 - 23	25 - 26	28 - 30	32 - 34	37	
<i>Crystal Palace</i>	<i>UCL114 CP</i>	22 - 23	25 - 26	28 - 34	37		
Sutton Coldfield	DCL116 SC	37	40-41	43 - 44	46 - 47	50 - 52	55
Winter Hill	DCL116 WRH 03	40 - 43	48 - 50	55 - 56	59 - 60	62 - 63	65 - 68
Emley Moor	DCL115 MLM	37	40 - 41	43 - 44	46 - 47	49 - 52	

An example of a digital leveller for Crystal Palace is shown below, DCL115/CP:



The filtering provided by the levellers is desirable for two main reasons. Firstly to prevent or reduce the possibility of set-top boxes locking onto "out of area" Digital Multiplexes. Secondly to prevent as much interference as possible from entering the system as this is likely to result in picture blocking or, in extreme cases, a total failure to receive the digital signals.

The other important function is to provide level control, up to 20dB for each channel or cluster allowing you to set the levels at the Head End.

DCL filters are produced in versions appropriate to the transmitter being received. Most are five (DCL115) or six way (DCL116) versions similar to the example pictured above. There are a smaller number of 4 (DCL114) cluster versions and a few transmitters where there is more than one option. Our technical staff will be pleased to advise you.

As well as providing excellent electrical performance the units are mechanically robust and unlike other units the housing is a strong die casting with a screw fixed cover. This makes the unit very rigid and able to withstand the rigours of transport and installation which might otherwise upset the unit's fine tuning. You can also be assured of tuning accuracy as teldis carefully tune each individual unit to order using computer controlled accuracy.

- SCL/SCC Series Analogue Channel Levellers and Combiners
- DCL/DCC Series Digital Cluster Levellers and Combiners
- UCL Series Universal Cluster Levellers