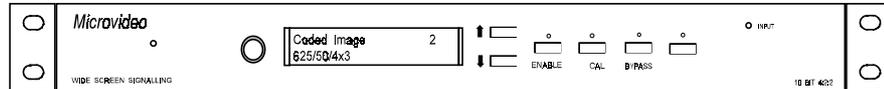# *Microvideo*

Serial Digital Line 23 - Wide Screen Decoder

- **Supports AFD**
- **GPI outputs**
- **LCD Display**
- **RS232 /422**

In a broadcast system which is using both standard 4:3 and wide screen (16:9) format pictures it is useful to label the video signal with aspect ratio information. This allows equipment in the transmission chain to know what the picture format is. There are currently two different signals used by UK broadcasters; Video Index (line 11) and Wide Screen Signalling (line 23). We supply Generators and Decoders for both types of signalling. This datasheet covers only the line 23 decoder.

Line 23 data:

The waveform used is of the same specification as PAL Plus but the 14 bits of data are interpreted differently. They are used to convey the source aspect ratio (4:3 or 16:9) and the active format descriptor (AFD) that is required for digital terrestrial systems. Contact Microvideo for the latest specification on the AFD data format. The advantage of using the line 23 waveform is that it will pass through an analogue system and be decoded either in the analogue or digital domain. Video Index may only be used in the digital domain. The Microvideo WSS Decoder is a digital decoder for line 23 carried in SDV.

The line 23 data format allows signalling of the source (coded image) aspect ratio and the Active Format Descriptor (AFD). The coding for the AFD is given as -

0 0 0	Active region same as coded frame (source material)
0 0 1	4:3
0 1 0	16:9
0 1 1	14:9
1 0 0	not used - reserved for future use
1 0 1	4:3 with shoot and protect 14:9 centre
1 1 0	16 : 9 with shoot and protect 14:9 centre
1 1 1	not used - reserved for future use

Video Input   SDV(270Mb/s) as per SMPTE259M

Video Output   1 x SDV(270Mb/s) relocked outputs - exact copy of input

power-fail relay protected

Data Interface   Coded (source) image and AFD is displayed on an LCD and output on 5 x GPI's.

The GPIs are TTL level outputs, active low, on 9 way D type.

It is proposed that they are configured -

C1   Valid Data (1) or No Data Present (0)

C2   Aspect ratio of source material (16:9 or 4:3)

C3,C4,C5 - The AFD information inserted - (using coding given above)

RS232 and RS422 interfaces. Protocol is defined by Microvideo.

Physical   The product will be supplied in 1U rack mounting frame with integral psu.

Product Code   WSS - DEC   1U rack mounting unit with GPI and RS232/422 interface .