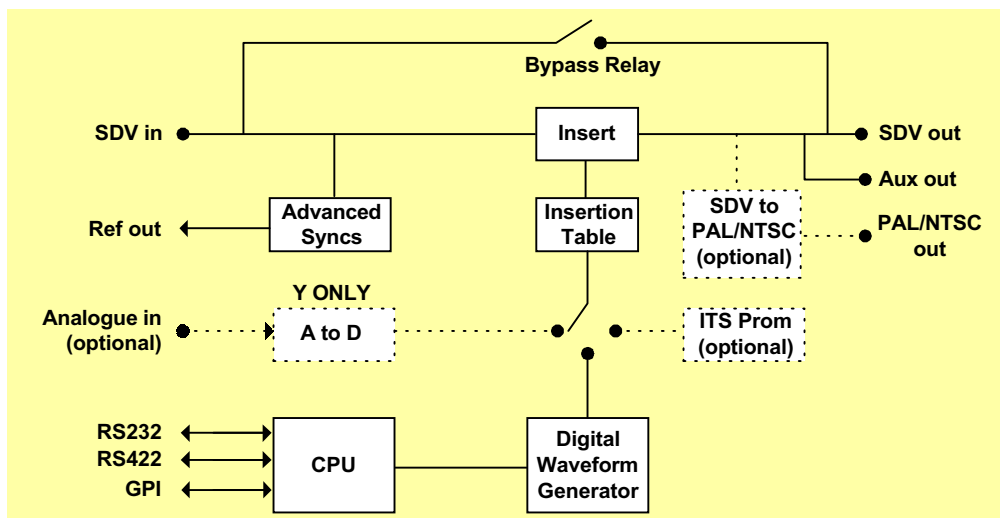


Wide Screen Signalling Inserter



- Inserts line 23 AFD or PAL+ aspect ratio data
- Front panel or remote control
- Serial Digital Video interface (270Mb/s)
- Power fail bypass relay

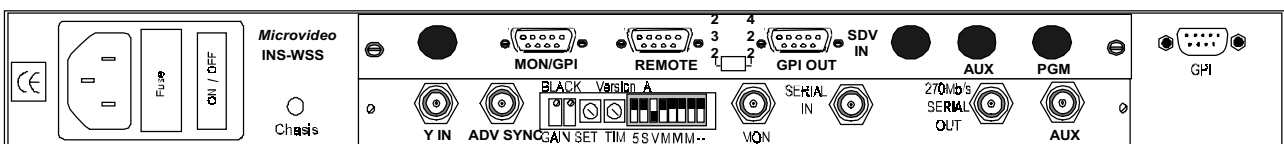
The first half of line 23 is used to carry aspect ratio information about the picture for transmission systems with the capability of having wide screen images. There are two standards in use at present, these are PAL Plus and Active Format Descriptor (AFD). The Microvideo INS-WSS is able to support both of these data types.



INS-WSS Functional Block Diagram

If the inserter is also required to insert Analogue VBI data such as teletext, -AN option should be specified and there will be additional menus to facilitate setting up these parameters and saving setups ('Insertion Tables').

Rear Panel Layout:



Operation:

PAL+ Mode:

Pal Plus data is put on line 23 using Biphase coding with a clock frequency of 1.67MHz. This is low enough to be recorded by consumer VCR's and decoded in the presence of noise. The data packet has a duration of 27.4uS. It consists of a sync run in, data identification, followed by 14 Consumer Information Bits (CIB). These CIB's are sectioned into four groups; Aspect ratio, Enhanced Services (Camera, Colour Plus, Helper), Subtitle formats and free (user bits). The Microvideo INS-WSS inserter supports programming of all these groups via the front panel (aspect ratio may also be set using GPI input), including the recently defined surround sound bit, bit 11. For more information on the exact structure we refer you to ETSI document ETS300 294.

Pal+ mode also allows 'Data Tables' to be stored. A 'Data table' is a way of storing a data setup, i.e 'Aspect Ratio', 'Camera mode', 'Subtitle mode' etc. So that it can be named and recalled easily from the front panel or via a GPI.

AFD Mode:

The Active Format Descriptor 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. This data is similar to that transported by Video Index signalling (See Microvideo Video Index Inserter datasheet).

Coded Image (Aspect Ratio), AFD, user bits, and reserved bits may all be programmed from the front panel of the INS-WSS. AFD/Coded Image or User Bits may also be set by GPI or RS232/RS422.

Specification:

| | | |
|----------------|-----------------------------|--|
| Inputs: | Serial in: | Serial Digital Video (SDV 270Mb/s) with bypass relay which connects to output on power failure |
| | Analogue VBI in (optional): | Analogue composite PAL/NTSC. Y only. Needs to be timed correctly relative to SDV input. |
| | Data in: | RS232 or RS422 data link for PC (RS422 available). |

| | | |
|-----------------|-------------------------|--|
| Outputs: | Serial out: | Serial Digital Video (270Mb/s). |
| | Aux out: | Serial Digital Video (270Mb/s). |
| | Monitor out (optional): | Analogue composite PAL/NTSC. |
| | Sync Out: | Advanced sync for synchronisation of analogue input. |

Physical: 1U rack mount, 420 mm deep.
220/240V or 110V operation, internal link selectable.

Ordering Information:

INS-WSS Digital Teletext Subtitle Generator.

Options:

| | |
|------|--|
| -AN | Analogue Composite PAL/NTSC data input. |
| -ITS | Insertion Test Signals, UK or CCIR patterns available. |
| -MON | Analogue Composite PAL/NTSC monitoring output. |
| -DM | Dual mains inlet. |