

## Frame Synchronizer / Time Base Corrector

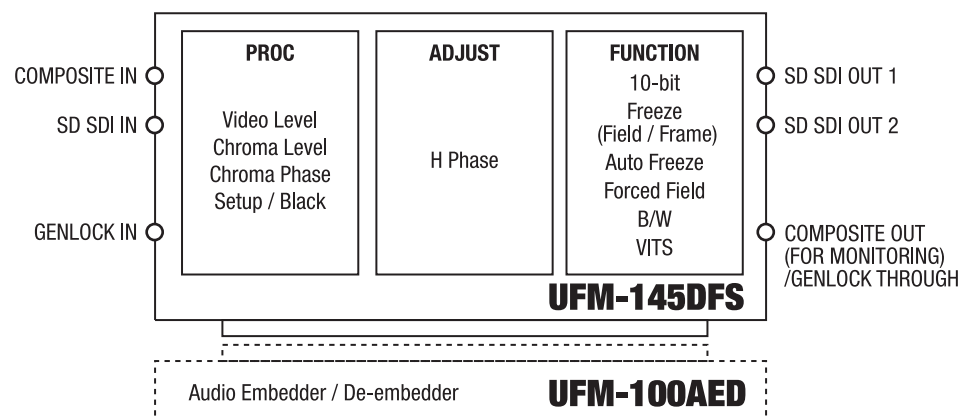
# UFM-145DFS

A modular type Frame Synchronizer/TBC with the supreme analog composite to digital component converter, the UFM-145DFS has wide internal genlock capability, so that almost low grade composite video signal can be genlocked.

### Features

- Supreme composite to digital component converter.
- 4:2:2 component internal signal processing.
- 10-bit signal processing.
- NTSC/PAL automatic detection.
- Full frame memory to prevent picture field inversion during processing.
- Line FS mode available (Minimum delay).
- SD-SDI ANC data signal pass through.
- SD-SDI signal EDH enable/disable.
- Proc Amp functions (video level, chroma level, setup level and chroma phase).
- Monitoring analog composite available.
- Dedicated optional audio interface, UFM-100AED, enables embedded/ de-embedded audio.
- Standalone type FA-145 lineup.

### Block Diagram



FS  
&  
TBC

Analog  
Composite  
1 in / 1 out

SD SDI  
1 in / 2 out

10 bit  
Process

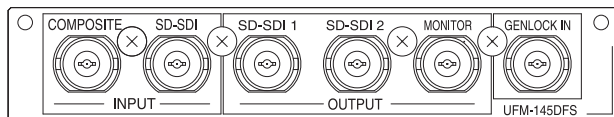
MUX  
DeMUX  
(Option)

## Specifications

● Standard	525/60 (NTSC) or 625/50 (PAL) (Auto detect)
● Signal Processing	4:2:2 component
● Correction	2 field (field inversion prevented)
● Sampling Frequency	Y: 13.5MHz, C: 6.75MHz
● Quantization	10-bit
● Video Input	Selectable as below
Analog composite	1.0Vp-p, 75Ω, 1ea., BNC
Digital component	270Mbps, 75Ω, 1ea., BNC
● Reference Input	BB: 0.429Vp-p (NTSC) / 0.45Vp-p (PAL), 75Ω or loopthrough, 1ea., BNC
● Video Output	
Digital component	270Mbps, 75Ω, 2ea., BNC
Analog composite	1.0Vp-p, 75Ω, 1ea., BNC (For monitoring)
● Frequency Response	100kHz - 4.2MHz: -0.5dB - +0.5dB, 4.2MHz - 5.0MHz: -1.0dB - 0dB, roll off above 5.0MHz (NTSC) 100kHz - 5.0MHz: -0.5dB - +0.5dB, 5.0MHz - 5.5MHz: -1.0dB - 0dB, roll off above 5.5MHz (PAL)
● S/N Ratio	56dB (no quantization noise)
● DG/DP	Within 1.5% / Within 1.5° (APL50%)
● K-Factor (2T pulse)	Within 1%
● H/V Tilt	Within 1%
● Residual Jitter	Y: -15nsec - +15nsec, C: -2° - +2°
● Process Control	◆ Video Level: -3dB - +3dB ◆ Chroma Level: -3dB - +3dB ◆ Setup Level: -15 IRE - +15 IRE ◆ Chroma Phase: -30° - +30°
● Genlock Phase Control*	◆ H Phase: -2μsec - +2μsec
● Temperature / Humidity	10°C - 40°C / 30% - 90% (no condensation)
● Power / Consumption	Supply from UFM Frame, +12VDC - +24VDC / Approx. 12VA (12W)
● Draw	+12VDC: Approx. 1.0A, +24VDC: Approx. 0.5A
● Dimensions / Weight	106 (W) x 303 (D) mm (Front board), 106 (W) x 66.1 (D) mm (Rear board) / Approx. 0.5kg
● Require Slot	1 slot
● Accessories	Operation manual
● Option	UF-RU: Remote control unit

\*Analog Composite output is not synchronized with SC Phase.

## Rear View



### Audio Interface

## UFM-100AED

The UFM-100AED, an audio interface for UFM-145DFS, provides audio embedding and de-embedding. Usable in discrete form as an A to D converter, D to A converter, sample rate converter and delay line.

- Support for UFM-145DFS Frame Synchronizer as a audio interface.
- Embedder and de-embedder.
- Accepts both AES/EBU analog and digital input audio, providing analog and digital output audio.
- Two stereo channels (4 monaural channels).
- Built-in variable range (4ms to 999ms) delay line.
- High-quality 24-bit quantizing, 48 kHz sampling frequency audio.
- Usable in discrete form as an A to D converter, D to A converter, sample rate converter (to 48 kHz) or delay line.

## Universal Frame Line-up

### UF-106A



Universal frame that can install up to 6 UFM modules, provides redundancy and universality, and contributes to reduced system space

### UF-112



Universal frame that can install up to 12 UFM modules, provides redundancy and universality, and supports remote monitoring with installation of control board

## FOR-A COMPANY LIMITED

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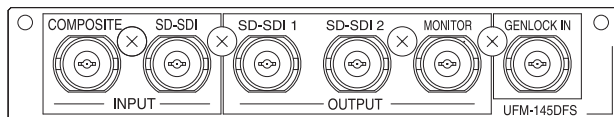


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