

**INS/OUTS**

1 HD/SD SDI In (all HD formats except 1920/1080/50p or 60p) either 4:2:2 or 4x4 (YUVK and RGBK)  
 2 SD SDI Outs (down conversion)  
 4 GPI In and 2 GPI Outs

**DOWN CONVERTER - SYNCHRONIZER**

HD 1080i/50 and 720p/50 to SD 50i  
 HD 1080i/60 and 720p/60 to SD 59.94i  
 HD 1080i/59.94 and 720p/59.94 to SD 59.94i  
 HD 1080p/24 to SD 59.94i

4 SD aspect ratio : 4:3, 4:3 Anamorphic, 14:9, 16:9

**EMBEDDED AUDIO PROCESSOR**

8 channels synchronizer (audio in relative to SD Ref)

**DIGITAL PROC AMP (YUV)**

Y Lift -150/+150mV from nominal  
 Cb/Cr lift ±150mV from nominal  
 Y Gain +50% to +200%  
 Cb/Cr Gain +0% to +200%  
 Hue±180°  
 Y Black Clip -50/+50mV from nominal  
 Y Black Knee +100/-0mV from Black Clip  
 Y White Clip 760/650mV  
 Y White Knee -100/+0mV from White Clip  
 Cb/Cr Clip 150/50%

**LEGALIZER**

100% removal of illegal colors (if longer than 4 pixels)

**COLOR CORRECTOR (RGB)**

RGB Black -700/+1440mV from nominal  
 RGB Peak level -700/+1440mV from nominal  
 RGB Gamma equivalent to input gamma of +1.0 to 2.8  
 RGB Black Clip -50/+50mV from nominal  
 RGB Black Knee +100/-0mV from Black Clip  
 RGB White Clip 760/650mV  
 RGB White Knee -100/+0mV from White Clip

**CROPPING**

H Crop 0 to +half video line (linear edges)  
 V Crop 0 to +half video field

**BUG INSERTION**

1 animated bug inserter onSD Out  
 Bugs are stored internally or downloaded from Ethernet  
 Insertion can be GPI controlled

**DIMENSIONS (FIG)**

44mm (H) x 205mm (W) x 325mm (L)  
 Rack mounting with RM1 option (2 units in 1RU)

**WEIGHT**

2.5kg (without power supply)

**POWER**

FIG comes with an external 100-240V power supply  
 Optional redundant power supply (RPSU)  
 Power consumption: less than 20W

All specifications of this brochure are subject to change without notice. They are given for information only

**ORDERING INFORMATION**

**FIG** Universal HD-SD SDI to HD-SD SDI OS free computer  
 External 12V Power Supply

**UL509 application**  
 Logo Inserter, RGB Color Legalizer, Audio processor and  
 HD to SD Down Converter

**UL649 application**  
 Logo Inserter, RGB Color Corrector, Audio processor and  
 HD (4:2:2, 4x4) to SD Down Converter

**RC-CO** Remote control for Color Correction

**RM1** Rack mounting mechanics for 1 or 2 FIG modules

**RPSU** Redundant & Hot Swap external Power 12V Supply

Doc 2009-0--ULTIMA-V2.00

# ULTIMA

*HD to SD Down Converter,  
 Audio to Video Synch'r  
 RGB Color Corrector - Legalizer  
 SD Logo Inserter*

Software solutions developed on FIG hardware platform

**ULTIMA**  
 HD 4:2:2 to SD Down Converter  
 SD Color Legalizer  
 SD Logo Inserter  
 UL509 on FIG

**HD 4:2:2 and 4x4 to SD Down Converter  
 SD Color Corrector and Legalizer  
 SD Logo Inserter**  
 UL649 on FIG

**Additional Control unit  
 RC-CO for UL649**



*Tcube*



RC CO

*FIG*

OS-free 'computer' designed for dual link HD, HD, SDI  
 Second to none

FIG has everything to suit your needs  
 Dual HD or SDI Inputs  
 HD or SDI Outputs  
 Redundant Power Supply  
 Ethernet connection  
 GPI I/O  
 Field upgradable firmware from Compact Flash

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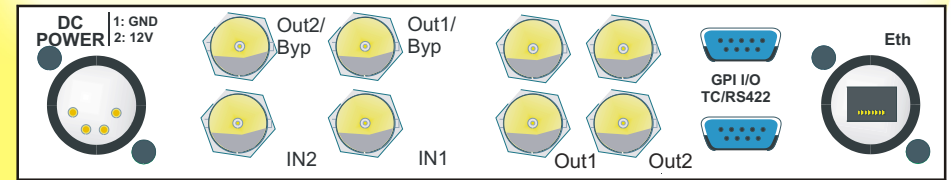
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# ULTIMA

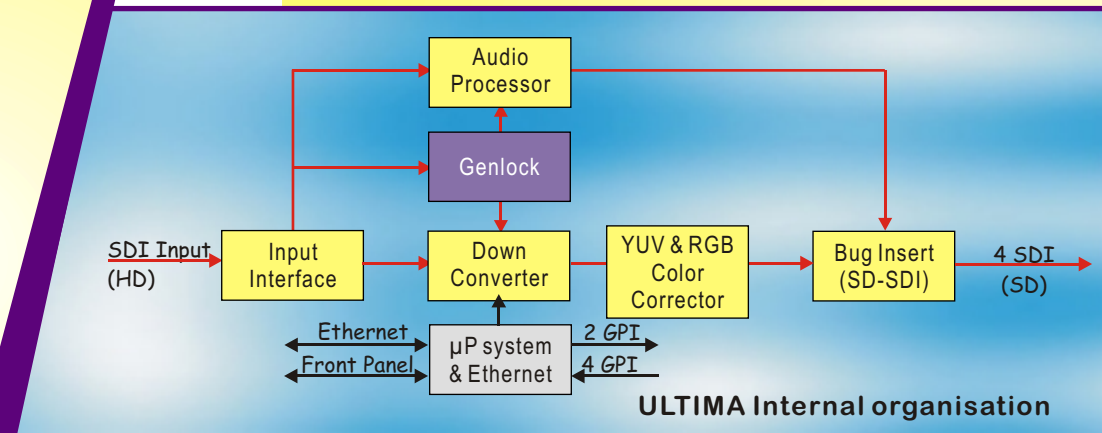
# FIG

*HD to SD Down Converter,  
Audio to Video Synchronizer  
RGB Color Corrector - Legalizer  
SD Logo Inserter*



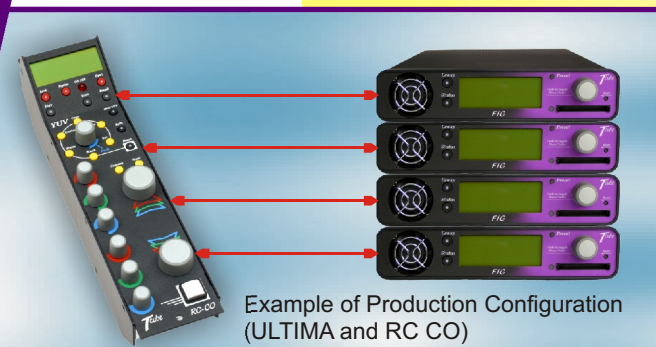
## ULTIMA functionalities

- Serial SD/HD-SDI Inputs (4:2:2 and 4x4)
- Serial SD-SDI Outputs
- 2 GPI Out, 4 GPI In all potential free
- User selectable GPI controls
- Total control from front panel
- 100baseT Ethernet network connector
- 1RU height, half 19" width (2 units in 1RU)
- RGB Color corrector (black, gain, gamma)
- Complete YUV Proc Amp plus YUV Clipping
- True False Color Legalizer with adjustable thresholds (RGB Clipper)
- H and V crop with linear edges
- Controls from front panel or from RC CO
- HD to SD Down converter
- Aspect ratio converter (16:9, 14:9, 4:3) on SD-SDI Out
- 24p to 29.97i with 3:2 pulldown
- 8 channels of embedded audio retimed and resynchronized (SD Out)
- Bugs stored internally or downloaded from Ethernet (Tomato freeware)



## RC-CO Functionalities

- 100 baseT Ethernet network
- Internal 10/100 Ethernet switch with 4 external ports
- Graphics LCD display
- Camera style mechanics
- Direct access to all functions of UL509, UL519
- Direct access to all devices on network



# Tcube