



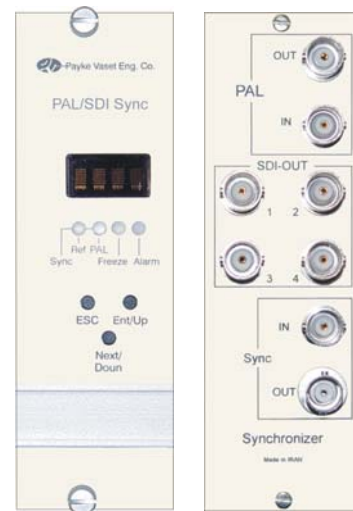
Digital Frame Synchronizer with Analog Input

The module accepted the analog composite input, converted to digital SDI, synchronized with respect to the reference sync signal according to BT656-3 standard. After automatic gain/color control, separate luminance/chrominance signals by using adaptive comb filter, shaping the color component by transient improvement filter, and then converted the analog component signals to digital by using 4xFsc Over-sampling and 10 bit resolution.

Two digital video frames storage used to synchronize/delay the digital signal output with respect to the external reference input. Selecting sync reference, delay and freezing control handled via front panel. BNC connectors for analog composite input with active loop-through output, SDI outputs and reference sync input with passive loop-through are placed on rear panel.

**Features**

- AGC & ACC Analog Input with Active Loop-through Output
- Adaptive Comb Filter for Luma/Chroma Separation
- Transient Improvement filter for Shaping Color Components
- Analog Reference Input with Passive loop-through Output
- 10 bit Resolution 4×Fsc Over-sampling A/D Converter
- Two Digital Frame Storage for Infinite Delay, Phase ±10%, Freezing, Synchronize Output WRT Reference Input
- Front Control Panel Keys with Display
- Four Serial Digital Outputs
- Installable in 3RU Digital Studio Subrack



**Specifications**

Analog Composite Input	
Standard	BT470, PAL or NTSC
Connector	BNC (×2), 75 Ω, active loop-through
Amplitude	1 Vp-p ±25% , 0.3V sync
Band width	5.5 MHz
Return loss	>40db @ 5.5 MHz
Analog Reference Input	
Input	Composite Sync
Connector	BNC (×2), 75 Ω, Auto-termination passive loop-through
Amplitude	1 ~ 4Vp-p negative sync
General	
Power	±5 VDC , 1.2 A
Operating humidity	10 to 85%
Operating temperature	0 to +50°C
Dimensions	234 * 125 * 40

Overall Performance	
Y/C Separation	2D Adaptive comb filter
A/D	S/N: >57 db, 2×Fs , 10 bit
Storage	two digital frames
Auto-Freeze	Cutoff analog input
Phase Adjust	2 pixel resolution in one line
Delay Adjust	0.5 pixel Steps up to one frame
Synchronization	Internal or External Ref. Input
SDI Output	
Standard	SMPTE 259M-C (270Mb/s)
Connector	BNC (×4), 75 Ohm
Jitter	>500 pSec
Amplitude	800 mV±10%
Offset	> ± 0.5V DC
Rise & fall time	>1.5 nSec