



Video Test Pattern Generator

The module provides all multi-format analog and digital Video Test Pattern Generator compiling ITUT and SMPTE standard. Its compact design with simultaneous digital video SDI, analog [composite (PAL/NTSC), separate luma/chroma Y/C, Component (RGB or YUV)] outputs make it a perfect choice for broadcast studio applications.

Push buttons on front panel act as a short cut for toggling between two A/B patterns, Internal/External Sync, 50/60Hz format, and YUV or RGB selection.

Rich set of video test patterns selection, together with other features listed below easily performed via front panel rotary-push switch and the alphanumeric display. BNCs for External Sync, analog and digital outputs are placed on rear panel.

Features

- Different Video Outputs
 - Two Serial Digital SDI 270 Mbit/sec
 - Two Analog Composite (PAL/NTSC)
 - Two Analog Luma/Chroma Y/C (PAL/NTSC)
 - Three Analog Component RGB/YUV with Sync
- External Reference Input with Passive Loop-through
- Selective Operation in 525/60 or 625/50 Standards
- Five Different Test Pattern Groups
- VITS Lines Selection and Insertion
- Defining 2 Different Pattern Manual/Automatic Selecting
- Horizontal/Vertical Delay Adjustment
- Horizontal and Vertical Vision Adjustment
- Sync Pulse Insertion/Deletion for Analog RGB
- ±10% level adjustment for each analog output
- Installable in 3RU Digital Studio Subrack



Optional

- Brightness adjustment for analog outputs
- Saturation adjustment for analog outputs
- EDH insertion for digital outputs
- Embedded Audio in SDI Outputs with audio period adjustment





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Specifications

Reference Input	
Input Signal	NTSC/PAL Selective
Amplitude	1Vp-p, ± 3 dB
Connector	BNC, 75Ohm
Return Loss	> 30dB
SDI Output	
Standard	BT656-3
Connector	BNC (x2), 75Ohm
Return Loss	>18dB @ 270MHz
Amplitude	800mV +/-10%
Jitter	< 250ps
Analog Outputs	
Standard	BT470-4
Composite	PAL/NTSC, BNC(x2), 1Vp-p, 75 Ω
Y/C	Y; 1Vp-p, BNC (x1), 75 Ω , C ;0.3Vp-p, BNC(x1),75 Ω ,PAL/NTSC
Component	R/B ; 0.7Vp-p, G; 1Vp-p with sync, R-Y/B-Y; 0.7Vp-p, Y; 1Vp-p with sync, BNC (x3), 75 Ω , RGB/YUV, 625/50 or 525/60 Selective
DC offset	0~0.6V Adjustable (All outputs)
General	
Power	± 5 VDC , 800 mA
humidity	10 to 85%
temperature	0 to +35 $^{\circ}$ C
Dimensions	234 * 125 * 40

CVBS Measured Parameters	
Lum NL	< 1%
Tilt	< 0.5%
2T	< 1%
C/L Gain	< 1%
C/L Delay	<10ns
Diff Gain	<0.5%
Diff Phase	<1 $^{\circ}$
Frequency Response	$\pm 1\%$ up to 5.5MHz
S/N (UnWeighted, Quiet Line)	>68db

Generated Patterns	
General	Black burst, 100% White, 8-step gray Yellow/Cyan/Green/Magenta/Red/Blue different multi-burst, BT471-1-b + 8- step gray, or multi-burst (J63) SMPTE RP27.3 , SMPTE RP27.5
Color Bar	BT801-1, BT471-1, SMPTE RP219, SMPTE EG 1, Horizontal color bar
Digital	BT801-1 , SMPTE RP178 check field
Monitor Adjust.	SMPTE RP167, BT814, BT815-1, plug, window 100/20/10, 12x16 cross hatch + dots + center located square
VITS	J63 line 17/18/330/331/280