COLOR PATTERN GENERATORS

Color Pattern Generators

CG-960 SERIES

NTSC Color Pattern Generator

CG-961(NTSC)

PAL Color Pattern Generator

CG-962(PAL)

※ GP-IB option (Factory option)

OUTLINE

The CG-961 (NTSC) and CG-962 (PAL) are video signal generators, especially suitable to the needs of the audio/visual area which requires a large-sized screen and higher resolutions. The test signal provides a total of 23 types of patterns including a monoscope pattern all of which are generated by the 8-bit digital data. Furthermore, they are equipped with not only the monoscope pattern or color-bar signal, but also other special patterns such as pulse & bar signal,a 5-step modulation staircase signal, H sweep signal and bounce signal, etc. to be used to evaluate the video circuit characteristics -- ready to be used in a wide variety of applications.



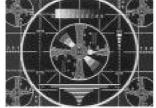


FEATURES

Monoscope Pattern

The monoscope pattern provides an horizontal resolution of 1,000 TV lines. It can be used for evaluation of a high-resolution TV monitor.





• Monoscope pattern

Negative-inverted mono-scope pattern

Y/C-Separated Output supplied as standard

In addition to the composite video output, S-Video output with luminance/chrominance separated terminals are also provided as standard.

Amplitude accuracy of \pm 3%, Phase accuracy of 3°

Since the digital data is generated in 8 bits, it features extremely high accuracy. The resulting amplitude accuracy is maintained to within \pm 3% or 10 mV, and the phase accuracy is maintained within \pm 3°.

Video noise evaluation signal

The 50% D-white signal (luminance noise) or 100% chroma signal (chroma noise) are also provided for evaluation of the video noise.

Bounce signal

The bounce signal to be used for evaluation of the DC clamp is also supplied. It alternates between white and black every second.

Enriched built-in patterns

An H Sweep signal for evaluation of frequency response, and a 5-step modulated staircase wave for DG/DP measurement are also provided. The pulse & bar signal for evaluation of the quality of circuit characteristics. At the same time, two types of color-bar signals – full-field and split – are also built in.

Setup 0%

In answer to market trends, the CG-961 (NTSC) is equipped with the setup 75% design.

RF Output

As an RF output, 1 kHz audio signal is also added. The frequency can be varied from the front panel control.

EEPROM backup

EEPROM is employed for backup of the panel setting status. You don't have to worry about exhaustion of the backup battery.

GP-IB option (Factory option)

As a factory set option, the CG-961/962 can be installed the GP-IB interface, for accommodating an automated system.

COLOR PATTERN GENERATORS

EXAMPLE OF PATTERNS

Monoscope Pattern



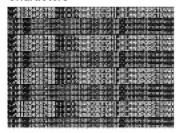
- Screen size, Position
- Resolution
- Streaking
- Total evaluation

Monoscope Pattern



(Inverted, negative)

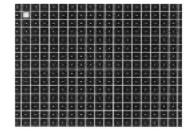
Characters



Focus

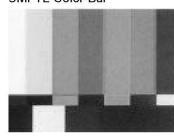
Blur

Cross & Dot



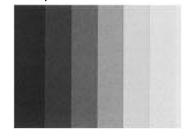
- Convergence
- Alignment
- Deflection yoke polarity check

SMPTE Color-Bar



- Color reproduction
- Saturation
- Brightness

5-Step

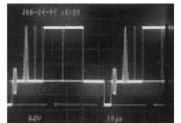


DG/DPLinearity

Pulse & Bar



Color irregular (unevenness) check



◆ Y/C delay◆ Y/C gain difference

50% White



Brightness noise

SPECIFICATIONS

Pattern type Monoscope Horizontal resolution of 1,000 TV lines Cross & Dot Cross hatch; 20 x 16, Dot: 19 x 15 Window 0,5 x 0,5 Characters 94 x 24 characters or 47 x 24 characters Raster 100% white, 50% white, 100% chroma, R, G, B, Mg Bounce Alternates between white and black in once per second (approx.) H Sweep 250 kHz - 5 MHz, with marker 250 kHz - 6 MHz, with marker Pulse & Bar 12.5T modulation pulse, 2T pulse, Bar Full field Color Bar Color bar in brightness order Full field Color Bar Color bar in brightness order Chroma ON/OFF selectable Dividing rate same as SMPTE Reverse Negative inversion of Mono Scope, cross & Dot, Wind, Characters Chroma ON/OFF selectable for Color Bar, 5-Step Chroma ON/OFF selectable for Color Bar, 5-Step Video Output: Y/C Output 1 Vpp± 3% (Sync tip - 100% white), color saturation 75%, Setup 0% Output Level 1 Vpp± 3% (Sync tip - 100% white), boly saturation 75%, Setup 0% Output Impedance 75 Ω± 10% Sub-Carrier Frequency 3.579545 MHz ± 100 Hz 4.433619 MHz ± 100 Hz Horizontal Scanning Frequency 5.94 H		Model	CG-961	CG-962							
Cross & Dot	Patterns		•								
Window	Pattern type	Monoscope	l ·								
Characters		Cross & Dot	Cross hatch: 20×16 , Dot: 19×15								
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Bounce		Characters									
H. Sweep		Raster									
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Full-field Color Bar Color bar in brightness order											
S-Step		Split Color Bar	Conforming SMPTE	Dividing rate same as SMPTE							
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Option GP-IB: Factory option											
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Video output signal level

CG-961

	75% White	Yellow	Cyan	Green	Magenta	Red	Blue	-I	100%White	Q	Burst	Black	Synced signal level
Luminance component (mVp-p)	536	477	375	316	220	161	59	0	714	0	0	0	286
Chroma level (mVp-p)	_	480	681	636	636	681	480	286	_	286	286	_	_
Chroma phase (deg)°	_	167	283	241	61	103	347	303	_	33	180	_	_

CG-962

		75% White	Yellow	Cyan	Green	Magenta	Red	Blue	U	100%White	V	Burst	Black	Synced signal level
Luminance component (mVp-p)		525	465	368	308	217	157	60	0	700	0	0	0	300
Chroma level (mVp-p)		_	470	664	620	620	664	470	300	_	300	300	_	_
Chroma phase (deg)	+ V	_	167	283	241	61	103	347	0	_	90	135	_	_
	-V	_	193	77	119	299	257	13	0	_	270	225	_	_