ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

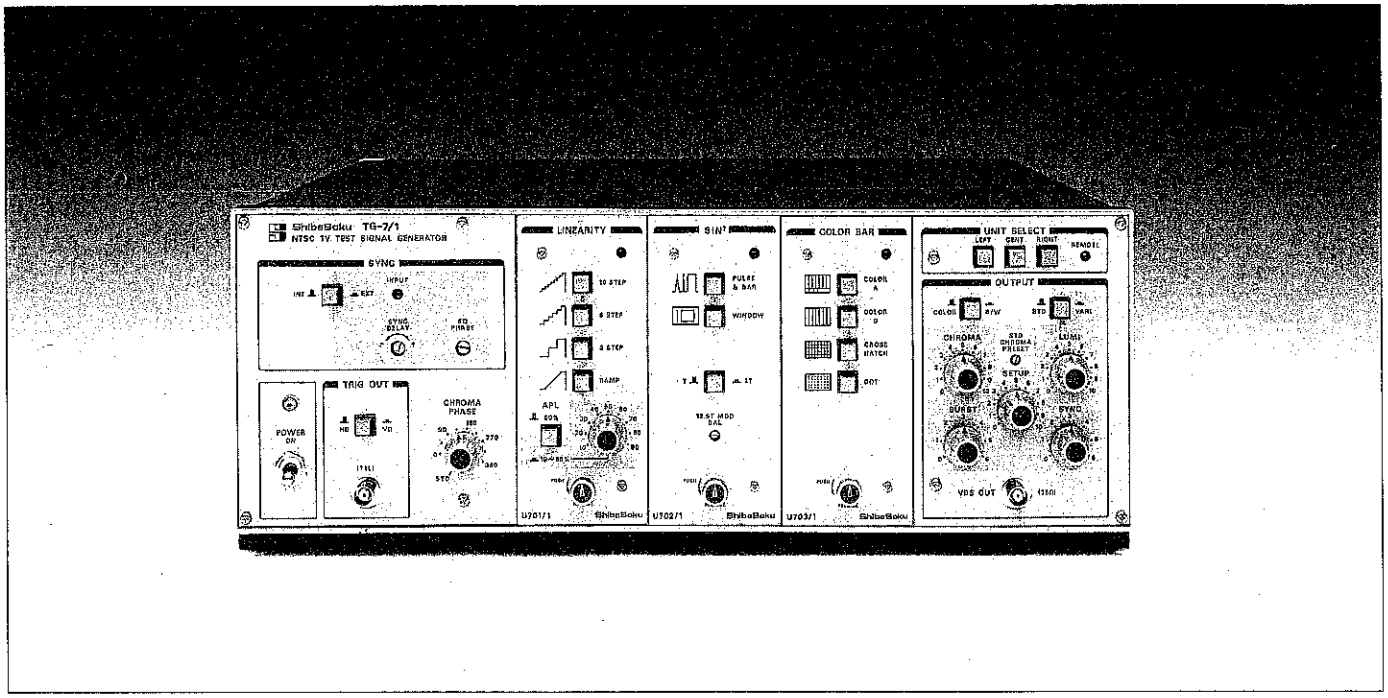
- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *ShibaSoku TG-7/1* at our website: ***Click HERE***

TG-7/1 TV Test Signal Generator



GENERAL

The TG-7 series is an extremely flexible, modular test generator system designed for use in television studios, VCR and tape research and development laboratories. When used with the optional GP-IB interface and the QB102B, the TG-7 can be used for automated testing applications for manufacturing or quality control labs.

The TG-7 mainframe houses the main power supply and the internal sync generator. With over 14 different signal modules available, the TG-7 is one of the most flexible generator systems available, providing all of the internationally accepted video test signals.

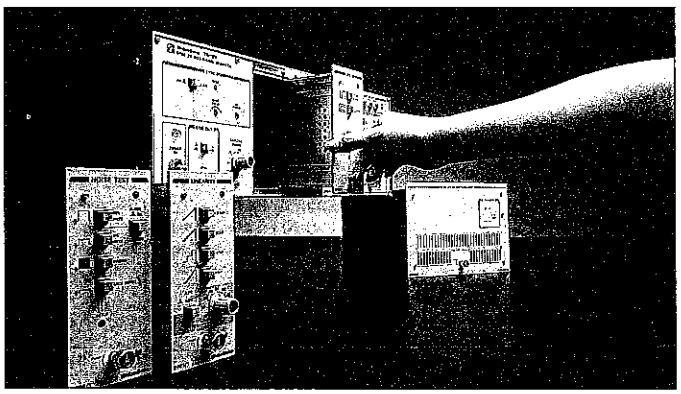
Up to three modules can be installed in the mainframe at one time. A simple three-position switch set selects the appropriate module to the main signal output, or the signal may be selected via the remote control connector. With a Vertical Interval Key pulse signal input, Vertical Interval Test Signals (VITS) can also be produced.

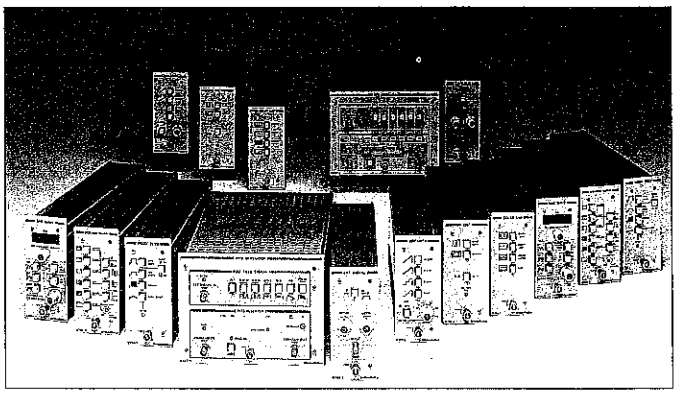
TELEVISION SYSTEMS

TG-7/1 . . . . . System M; Color NTSC

FEATURES

- NTSC (RS-170A standard), versions are available.
- Gen-lock and Color-lock with any composite video signal input.
- Provides all standard drive and sync output signals.
- Black burst output.
- Chroma Phase fully variable 360°.
- Local or Remote operation signal selection.
- GP-IB interface optional, model QB102B for automated testing (ATE).
- Modular test signals include: Ramp, Stair Step, Sin² with Pulse & Bar, Window, Color Bars, Crosshatch, Dot, Sinewave, 10MHz sweep, Multiburst, Squarewave patterns, B/W fields with variable bounce rate, Luminance and Chrominance noise test signals, VITS test signal inserter.





Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

SPECIFICATIONS (TG-7/1)

- Test Signal Output
  VBS Output
  Number of outputs . . . . . 2 (BNC)
  Output impedance . . . . . 75 Ω ±3%
  Luminance signal . . . . . TG-7/1: 0.714 Vp-p ±3% as standard
  Continuous variable: > 0~1 Vp-p
  SYNC signal . . . . . TG-7/1: 0.286 Vp-p ±3% as standard
  Chrominance signal . . . . . Depending on plug-in module as standard ±3%
  Continuous variable: 0 to specified value of plug-in module +3 dB
  Color burst signal . . . . . TG-7/1: 0.286 Vp-p ±3% as standard
  Continuous variable: > 0~0.6 Vp-p
  Set-up signal . . . . . 0 Vp-p as standard
  Continuous variable: > 0~1 Vp-p

  Y+S Output
  Number of outputs . . . . . 1, 75 Ω ±3% (TG-7/1)
  Luminance signal . . . . . Same as VBS output
  SYNC signal . . . . . Same as VBS output

  C Output
  Number of outputs . . . . . 1, 75 Ω 3% (TG-7/1)
  Chrominance signal . . . . . Same as VBS output
  Color burst signal . . . . . Same as VBS output

  Black Burst Signal
  SYNC signal . . . . . TG-7/1: 0.286 Vp-p ±3% as standard
  Color burst signal . . . . . TG-7/1: 0.286 Vp-p ±3% as standard

- Internal Sync Signal Output
  Output signals
  TG-7/1: HD / VD / BL / SYNC / BF / SC / FIELD REF
  Output level of pulse
  TG-7/1: 4 Vp-p ±10% each output, negative polarity
  SC output level
  TG-7/1: 2 Vp-p ±10%, Sine wave
  Output impedance
  TG-7/1: 75 Ω ±5%
  Number of outputs
  TG-7/1: 1 output for each signal

- Subcarrier Frequency . . . . . TG-7/1: 3.579545 MHz ±5 Hz
  Phase range . . . . . Chroma phase: 0~360° or more variable (color burst not variable)

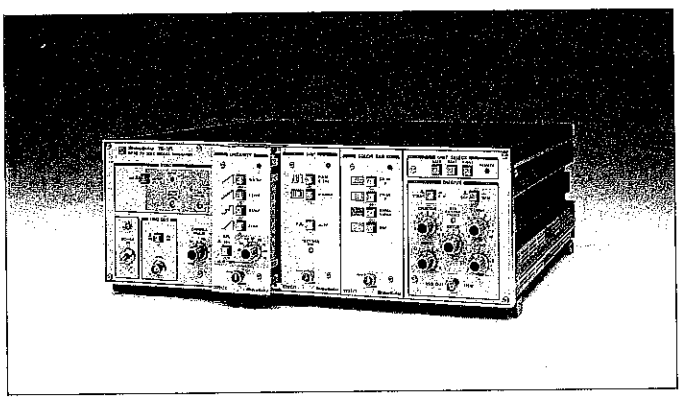
- Gen-lock Operation
  Input Signal
  TG-7/1: NTSC standard signal or sync with color burst
  Input Level (VBS) . . . . . < 1 Vp-p ±6 dB
  SC locked range . . . . . ±50 Hz

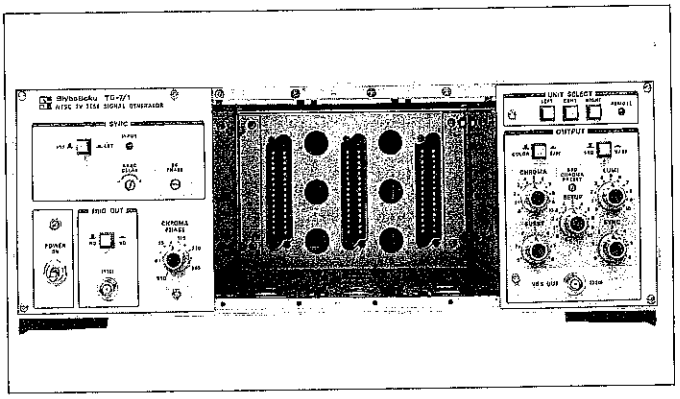
- VIK Pulse Input
  Input level . . . . . TTL, positive polarity
  Input impedance . . . . . > 150 Ω (BNC)

- External Control
  Gen-lock . . . . . Internal/External, switchable
  Chroma phase adjustment . . . . 0~360° variable
  Color/B&W switching . . . . . Available
  Plug-in module selection . . . . . Available
  Selection of signals generated by plug-in module . . . . . Variable

- Characteristics
  Hum and noise (at standard output) . . . . . < 1 mVp-p
  Synchronized noise (at standard output) . . . . . < 5 mVp-p

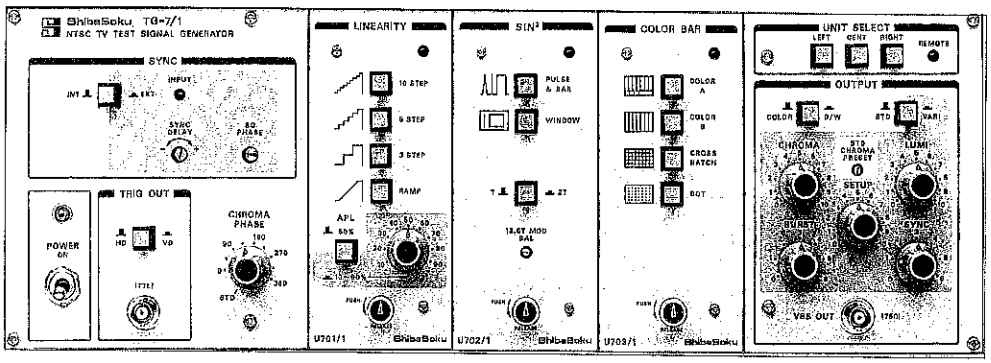
- General Specifications
  Power supply . . . . . AC 100/120/220/240 V ±10%, 50/60 Hz, approx. 130 VA
  Dimensions . . . . . 426 (W) x 149 (H) x 450 (D) mm
  Weight . . . . . Approx. 14 kg
  Accessories
  Supplied . . . . . Extender board x 2
  (Extender boards are available for both main frame and plug-in units.)





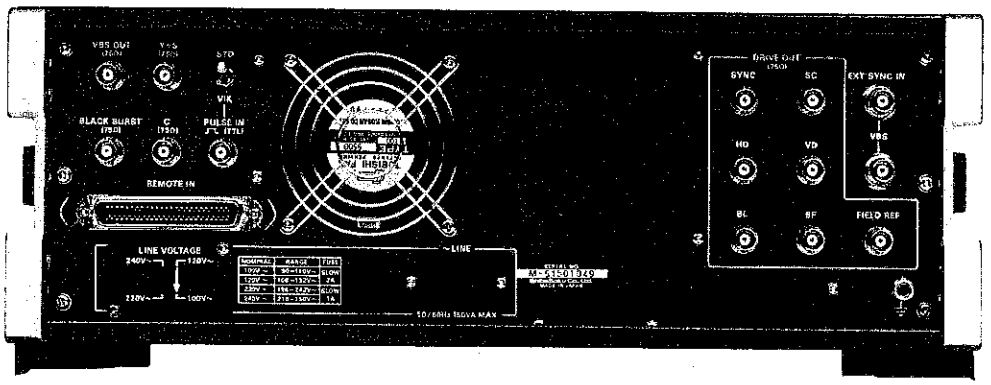
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Front View



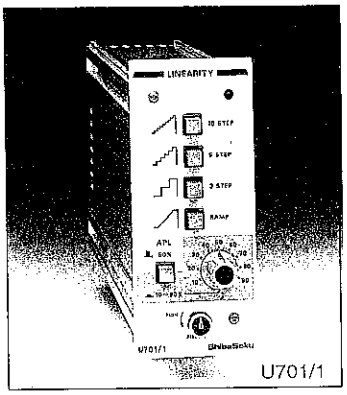
TG-7/1

Rear View



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

U701 Linearity Unit



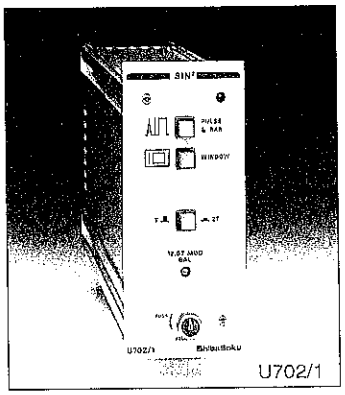
GENERAL
This TG-7 module generates 4 signals for evaluating non-linear distortion in video and television equipment.

FEATURES
- Generates 4 signals: 10/5/3-Stair Step, and Ramp signals, selected by pushbutton switches.
- With the Subcarrier signal ON, this unit is an ideal source for Differential Gain - Differential Phase measurements.
- Signals conform to CCIR-REC 421-2 Signal #3 standards.

TELEVISION SYSTEMS
U701/1 . . . . . System M; Color NTSC

SPECIFICATIONS
- Output Waveform
  Stair step signals . . . . . 10-, 5-, 3-stair step signals and ramp signal
  APL . . . . . U701/1: 50% and 10~90% adjustable
  Luminance output level . . . Depending on mainframe
  Chrominance signal (standard value) . . . . . U701/1: 0.286 Vp-p ±3%
- Characteristics
  Chroma phase . . . . . U701/1: ≤1° against color burst
  DG, DP . . . . . 0.1%, 0.1°
- External Signal Selection . . . All signals available
- General Specifications
  Dimensions . . . . . 61.5 (W) x 142 (H) x 285 (D) mm
  Weight . . . . . Approx. 2 kg

U702 SIN² Unit

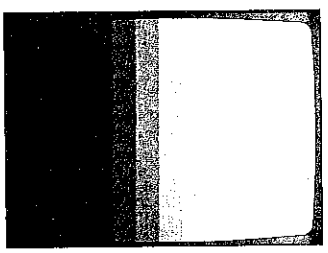


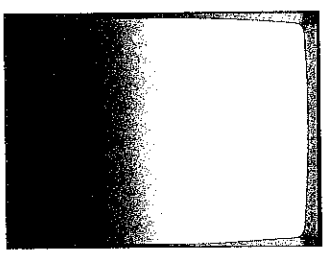
GENERAL
This TG-7 module generates 4 signals for evaluating the response to Sin² signal in video and television equipment.

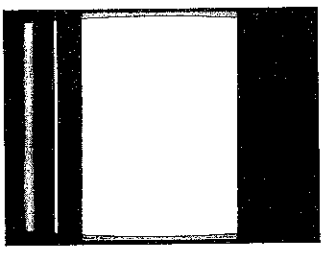
FEATURES
- Generates 4 signals . . . . . U702/1: 12.5T Modulation Pulse and E T/2T Pulse and Window Selected by pushbutton switches.
- An ideal source for measuring Luminance and Chrominance Linear in equipment that utilizes a 1-H delay for Y/C separation.
- Signals conform to CCIR-REC 421-2 Signal #2 standards.

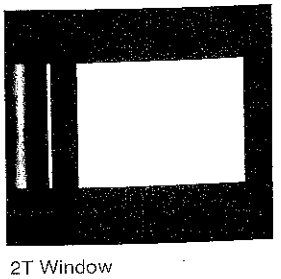
TELEVISION SYSTEMS
U702/1 . . . . . System M; Color NTSC

SPECIFICATIONS
- Output Waveform
  Pulse & bar (full field) . . . . 12.5T NTSC, T/2T and bar
  Window . . . . . 12.5T NTSC, T/2T and window
  Luminance output level . . . Depending on mainframe
  Modulated 12.5T chroma level . . . . . U702/1: 0.714 Vp
- Characteristics
  T pulse & bar (half amp.) . . . . . 125 ±4 ns
  2T pulse & bar (half amp.) . . . . . 250 ±8 ns
  Modulated 12.5T . . . . . 12.5T: 1560 ±70 ns
  Window . . . . . White window on black background
  Rating factor . . . . . K: ≤1
  Modulated 12.5T characteristics . . . . . Envelop delay: ≤10 ns Provided 60 Hz NTSC offset against subcarrier of mainframe
- External Signal Control . . . . . All signals available
- General Specifications
  Dimensions . . . . . 61.5 (W) x 142 (H) x 285 (D) mm
  Weight . . . . . Approx. 2 kg


Mod. 10 Step

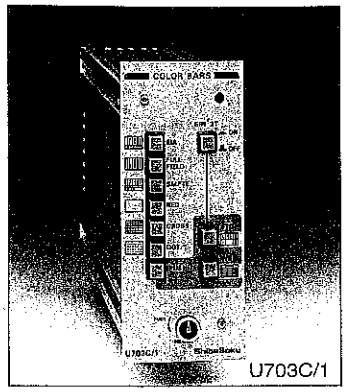

Mod. Ramp


2T Pulse & Bar


2T Window

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

U703 Color Bar Unit

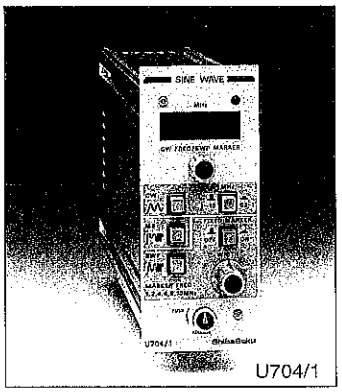


GENERAL
This TG-7 module generates 4 signals for evaluating color reproduction and deflection characteristics in video and television equipment.

TELEVISION SYSTEMS
U703/1 . . . . . System M; Color NTSC
U703C/1 . . . . . System M; Color NTSC

SPECIFICATIONS
- Output Waveform
  Color bar . . . . . U703/1: EIA standard and full-field (SET UP 7.5%)
  U703C/1: SMPTE bars, EIA bars, Full-field, White balance, Chroma phase/gain adj pattern, Red raster (SET UP 7.5%)
  Crosshatch . . . . 17 x 13 lines white grating
  Dot . . . . . Approx. 200 white dot
  Luminance Output Level
  Color bar . . . . ±2.5% to reference value (U703/1)
  Crosshatch & dot . . . . . Depending on mainframe
  Chrominance output level . . . ±2.5% to ref. val. (U703/1)
  Characteristics
  Chroma phase . . . . . ±2.5% to ref. val. (U703/1, U703C/1)
  Y/C delay inequality . . . . . ±50 ns (U703/1, U703C/1)
  External signal control . . . . . All signals available
- General Specifications
  Dimensions . . . . . 61.5 (W) x 142 (H) x 285 (D) mm
  Weight . . . . . Approx. 2 kg

U704 Sine Wave Unit

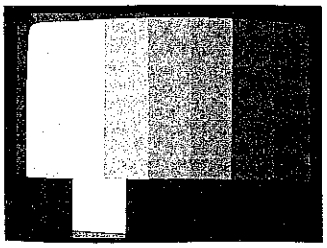


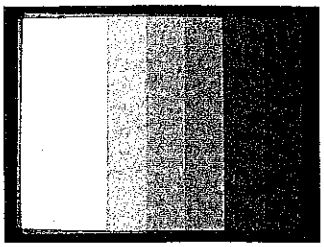
GENERAL
This TG-7 module generates 3 signals for evaluating frequency response characteristics in video and television equipment.

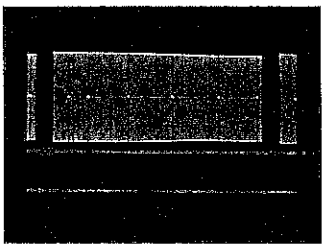
FEATURES
- Generates 3 signals: Sine wave (CW), Video sweep, and Multiburst, selected by pushbutton switches.
- Signals are generated with video sync to provide easy measurement of resolution and frequency response of monitors, VTRs, and other video equipment.
- Built-in frequency counter displays frequency of sinewave signals or the video sweep variable marker.

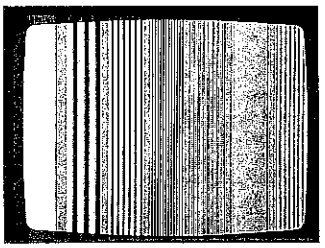
TELEVISION SYSTEMS
U704/1 . . . . . System M; Color NTSC

SPECIFICATIONS
- Output Waveforms . . . . . Sine wave, Sweep, Multiburst
  Output level . . . . . Depending on mainframe
- Characteristics
  Frequency Range and Flatness
  Sine wave . . . . . 100 kHz ~ 10 MHz, ±0.5 dB
  Sweep . . . . . 100 kHz ~ 10 MHz, ±0.5 dB
  Fixed marker . . . . . 1/2/4/6/8/10 MHz
  Variable marker . . . . 100 kHz ~ 10 MHz
  Multiburst . . . U704/1: White/0.5/1/2/3/3.58/4.2 MHz, ±0.5 dB
  Frequency Accuracy
  Frequency counter . . . . 5×10^{-4}
  Sine wave . . . . . Counter display ± 1 count
  Variable marker . . . . . Counter display ± 1 count
  Fixed marker . . . . . ±3%
  Multiburst . . . . . ±3%
  Distortion . . . . . ≤3%
- External Signal Control . . . Available for all signals
- General Specifications
  Dimensions . . . . . 61.5 (W) x 142 (H) x 285 (D) mm
  Weight . . . . . Approx. 2 kg


EIA Bar

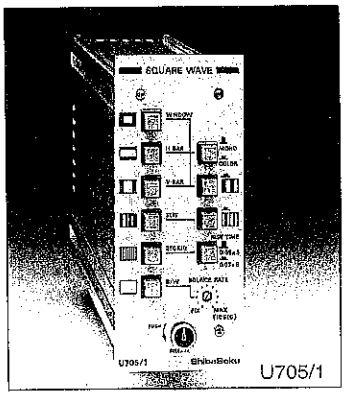

Full-field


Sweep


Multiburst

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

U705 Square Wave Unit



GENERAL
This TG-7 module generates 12 signals for evaluating the response to squarewave signals in video and television equipment.

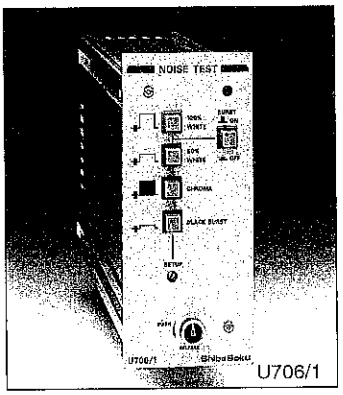
FEATURES
- Generates 12 signals: H Bar, V Bar, Window, Slit, 250-kHz Bar, B/W Field with variable bounce rate, Color Window, and Bar. Selected by pushbutton switches.
- Three Slit waveforms with different pulse widths are generated simultaneously.
- Selectable rise time for 250-kHz squarewave, 0.05 µs or 0.03 µs.
- Full White Field with bounce rate in fixed position.

TELEVISION SYSTEMS
U705/1 . . . . . System M; Color NTSC

SPECIFICATIONS

Output waveforms	Window, H bar, V bar, color window, color H bar, color V bar, twin V bar, color twin V bar, slit, reverse slit, 250 kHz bar, and B/W (variable bounce rate)
Luminance output level	Depending on main frame
Characteristics	
Waveform distortion	≤ 1% overshoot, sag, smear
Rise time of 250-kHz bar	Switchable: 0.03 µs ±20% and 0.05 µs ±20%
Bounce rate	Fixed or 0~10 sec. variable
External control of signal	Available for all signals
General Specifications	
Dimensions	61.5 (W) x 142 (H) x 285 (D) mm
Weight	Approx. 2 kg

U706 Noise Test Unit



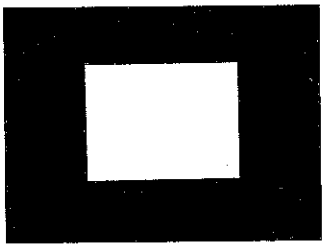
GENERAL
This TG-7 module generates 4 signals for evaluating Luminance and Chroma noise in video and television equipment, especially in VTR and video tape testing.

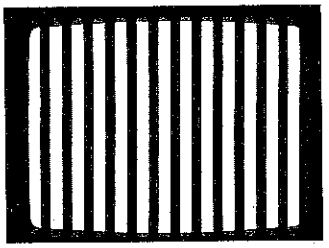
FEATURES
- Generates 4 signals: 100% White Field, 50% White Field, 100% Chroma, and Black burst. Selected by pushbutton switches.
- Burst selectable for ON/OFF for White Field signals.
- Provides an ideal reference signal for Luminance and Chroma noise measurements with the Shibasoku VN31AX color noise meters.

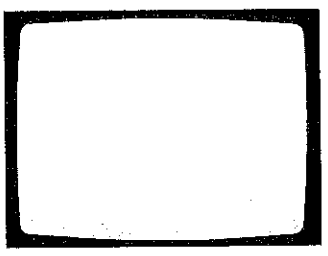
TELEVISION SYSTEMS
U706/1 . . . . . System M; Color NTSC

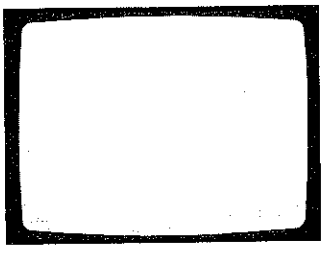
SPECIFICATIONS

Output waveform	100% white, 50% white, 100% chroma, black burst	
Color burst	ON/OFF, selectable for 100% and 50% white	
Output Level		
100% white	0.714 ±3%	
50% white	0.357 ±3%	
100% chroma	0.714 ±3%	
Black burst	Set-up 0~0.143 Vp-p	
Characteristics		
S/N		
–60 dB	100 Hz ~ 4.2 MHz (S = 0.714 Vp-p, N = Vrms)	100 Hz ~ 5 MHz (S = 0.7 Vp-p, N = Vrms)
–65 dB	10 kHz ~ 4.2 MHz	10 kHz ~ 5 MHz
External control of signal	Available for all waveforms	
General Specifications		
Dimensions	61.5 (W) x 142 (H) x 285 (D) mm	
Weight	Approx. 2 kg	


Color Window


250 kHz Bar


50% White


100% Chroma

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP