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 *Tektronix MTG300* at our website: *Click HERE*

MPEG Test and Monitoring Generator

MTG300



The MTG300 MPEG-2 Generator is a flexible, cost-effective source of MPEG-2 transport streams for design evaluation and conformance testing of compressed digital video products. This instrument offers storage and playback of MPEG-2 transport streams compliant with the ATSC, DVB and ISDB standards. The MTG300 generates error-free, seamless transport streams for long term playout. To facilitate complete stress testing, the MTG300 features the most comprehensive capabilities for customizing transport streams on the market. The basic functionality of the MTG300, combined with the customization features of the MTG300, makes this MPEG generator ideally suited for use in research, design and manufacturing applications.

Characteristics

Performance

Maximum Data Rate – 80 Mb/s.

Minimum Data Rate – 0.5 Mb/s.

Output Rate Resolution – 1 Hz or 10 ppm, whichever is larger.

Clock

Internal Reference – 27 MHz ±1 ppm.

Output Clock Frequency – 0.5 MHz to 80 MHz locked to reference clock.

External Reference Input – 27 MHz ±1 ppm (recommended).

Transport Stream Interfaces

ASI – Burst and non-burst, user selectable.

SSI – SMPTE 310.

DHEI.

ECL – Parallel and Serial.

TTL – Parallel and Serial.

LVDS – Parallel and Serial.

Packet Length

188, 204 or 208 bytes.

Control Interfaces

The instrument can be controlled through the Ethernet port.

Features & Benefits

High Capacity Storage and Playback of MPEG Transport Streams Files Let you Build, Maintain and Use a Large Local Library

Real-time Updating of Time Stamps and Time Tables for Error-free Looping

DVB, ATSC and ISDB Sample Transport Streams Provided To Get You Started

Easy Integration with MTS300 for Transport Stream Creation to Support Compliance and Stress Testing of Video Products Using MPEG-2 Technology

100Base-T Ethernet Download of Transport Streams for Optimal Flexibility

Color Hierarchical Display of Transport Stream Components for Quick and Easy Interpretation of Complex Structures

A Full Suite of Electrical Interfaces Let You Address a Wide Range of Applications

PSI/SI/PSIP Editor to Create Streams That Simulate Marginal Conditions

Dynamic Insertion of System Information for “On-the-fly” Stream Modification to Reduce Test and Troubleshooting Time

Locally Edit Transport Stream Headers to Help You Fully Exercise Designs

Extensive and Flexible Control of PCR Value and Interval Jitter Lets You Stress and Characterize Product Performance

Delete or Replace Transport Stream Packets and Sections in Real Time to test Products Under a Wide Range of Conditions

Applications

IRD/STB Design Test

IRD/STB Manufacturing Test

Evaluation of Professional MPEG Equipment

Performance Verification of MPEG Systems

Substitution Generator for Digital TV Transmitters

Tektronix
Enabling Innovation

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

Seamless Looping
Any transport stream can be looped, with real-time update of all time stamps, continuity counters and time tables (TDT or STT).

PSI, SI or PSIP Tables Manipulation
PSI/SI/PSIP tables can be dynamically deleted, inserted or replaced by user-defined tables. Tables can be created by the MTS300 Series. The starting and ending time of the table changes can be set to any value within PCR reference time.

Real-time Stress Addition
The following can be applied to any transport stream:

TS Header Stress –
- The packet headers for any TS element can be modified to any value.
- Packets from any PID can be deleted over a user-specified interval.
- Time tables (TDT or STT) can be inserted, including real-time updating of the time.
- Undefined PIDs (i.e., not default PID numbers, or those referenced by the PAT or any PMT) can be inserted.

PCR Stress –
- PCR Jitter: For a PCR value change, pattern, period, duration and amplitude can be defined.
- PCR Period: For a PCR packet period change, both period and period jitter are supported; pattern, period, duration and amplitude can be defined.

Transport Stream Storage
At least 18 GB standard. Any transport stream length, up to the entire storage amount, can be generated.

Sample Transport Streams
Sample streams can be seamlessly looped, including updating of all time stamps, continuity counters and time tables (TDT or STT), without buffer under- or overflow.

Transport Stream Creation
Compatible with transport stream recorders, such as the MTS300 Series, that can export a captured file in *.trp format. Also compatible with custom transport streams created by the MTS300, the MTS300 Stream Application Creation or any other software package that creates files in *.trp format.

Networking
100Base-T
MTG Comm, an included standard accessory PC software program, can download and upload transport streams through the Ethernet port to/from the MTG300.

Remote Control
MTG Comm, an included standard accessory PC software program, can control MTG300 through the Ethernet port. Stream generation start/stop, output stream selection and the recall of user presets can be controlled.

General Specifications

Environmental Characteristics
Temperature –
Operating: +5°C to +40°C.
Nonoperating: –20°C to +60°C.

Humidity –
Operating: 20% to 80% (noncondensing).
Nonoperating: 5% to 90% (noncondensing).

Power Requirements
AC Line – 90 to 250 VAC, auto switching.

Line Frequency – 48 to 63 Hz.

Power Consumption – 200 Watts Max.

EMC
Meets intent of Directive 89/336/EEC.

Safety Certification
Complies with the following safety standards:

UL3111-1 – Standard for electrical measuring and test equipment.

Can/CSA c22.2 No.1010.1 – Safety requirements for electrical equipment for measurement, control and laboratory use.

IEC61010-1 – Safety requirements for electrical equipment for measurement, control and laboratory use.

Warranty – 1 year.

Physical Characteristics

Dimensions	**mm**	**in.**
Height	132	5.2
Width	430	16.9
Depth	560	22.0
Weight	**kg**	**lbs.**
Net	14.5	32.0

▶ Ordering Information

MTG300
MPEG-2 Generator.

Includes: User manual, Application software disk, 3.5 in., Interface cable, D-sub 25-pin, twisted pair.

Opt. D1 – Calibration data report.

Opt. 1H – High capacity 36 GB HDD.

Opt. 1R – Rackmount kit.

Support Options
Opt. C3 – Three years of Calibration Services.

Opt. D3 – Test data (requires Opt. C3).

Opt. R3 – Repair warranty extended to cover three years.

Contact Tektronix:

ASEAN Countries & Pakistan (65) 6356 3900

Australia & New Zealand (65) 6356 3900

Austria +43 2236 8092 262

Belgium +32 (2) 715 89 70

Brazil & South America 55 (11) 3741-8360

Canada 1 (800) 661-5625

Central Europe & Greece +43 2236 8092 301

Denmark +45 44 850 700

Finland +358 (9) 4783 400

France & North Africa +33 (0) 1 69 86 80 34

Germany +49 (221) 94 77 400

Hong Kong (852) 2585-6688

India (91) 80-2275577

Italy +39 (02) 25086 1

Japan (Sony/Tektronix Corporation) 81 (3) 3448-3111

Mexico, Central America & Caribbean 52 (55) 56666-333

The Netherlands +31 (0) 23 569 5555

Norway +47 22 07 07 00

People's Republic of China 86 (10) 6235 1230

Poland +48 (0) 22 521 53 40

Republic of Korea 82 (2) 528-5299

Russia, CIS & The Baltics +358 (9) 4783 400

South Africa +27 11 254 8360

Spain +34 (91) 372 6055

Sweden +46 8 477 6503/4

Taiwan 886 (2) 2722-9622

United Kingdom & Eire +44 (0) 1344 392400

USA 1 (800) 426-2200

For other areas contact Tektronix, Inc. at: 1 (503) 627-7111

Updated 8 February 2002

For the most up-to-date product information visit our web site at www.tektronix.com

Copyright © 2002, Tektronix, Inc. All rights reserved. Tektronix products are covered by U.S. and foreign patents, issued and pending. Information in this publication supersedes that in all previously published material. Specification and price change privileges reserved. TEKTRONIX and TEK are registered trademarks of Tektronix, Inc. All other trade names referenced are the service marks, trademarks or registered trademarks of their respective companies.

04/02 HB/XBS 20W-13530-4

Tektronix
Enabling Innovation

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