

MPEG2-TS Packet Streamer

MPEG2-TS Packet Streamer VT1200 Series



The VT1200 is available in two styles—the portable model (VT1200) and the rack-mountable VT1200.

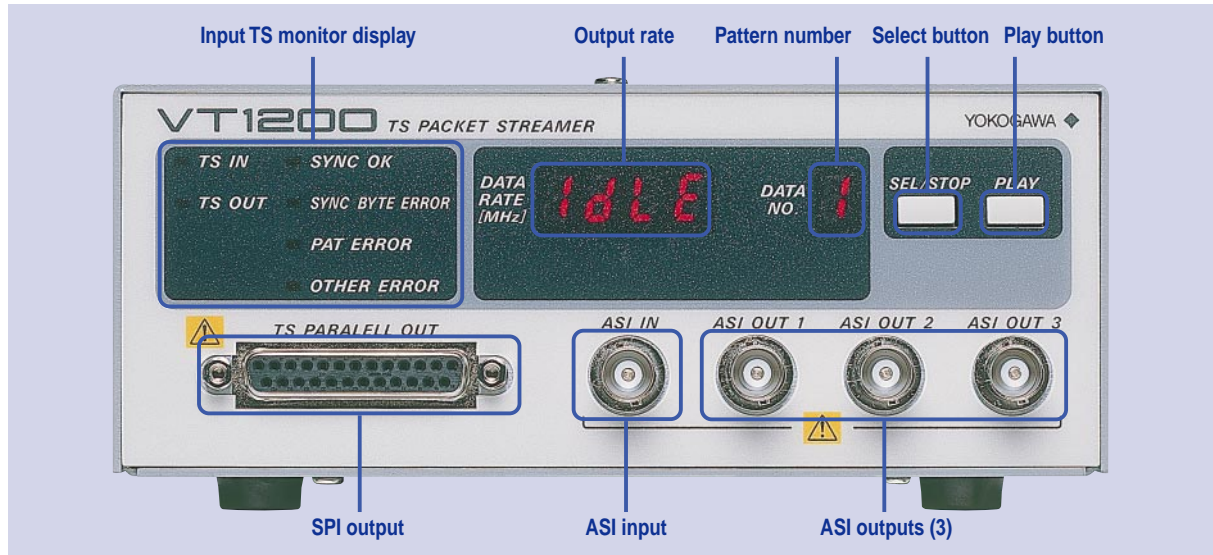
The MPEG2-TS Packet Streamer can be used in a wide range of applications, including:

- Built-in TS generator for broadcasting system
- TS generator for field maintenance and equipment installation
 - Demo TS generator for STB, MPEG2 decoder chips, etc.
 - TS generator for manufacturing and quality control

Superior Basic Performance and Mobility

Digital broadcasting infrastructure is rolled out and receivers developed in anticipation of widespread penetration of digital broadcasting services. The VT1200 compact MPEG2-TS generator is designed with the TS generation capabilities essential for operation, verification, maintenance and troubleshooting on MPEG2 equipment; as well as

other leading-edge features such as support for HDTV and saving user's contents. The VT1200 is available in two styles—the portable model and the rack-mountable VT1220—and can be used in a wide range of applications.



Main functions and features

■ Pre-installed contents and simulated motion video playback

Patterns such as a color bar are pre-installed and can be used immediately. Simply press the Select button to access the pre-installed contents. The VT1200 also has a simulated motion video playback feature for playing multiple frames consecutively. This is useful for detecting screen freezes. In addition, a 1 kHz tone signal is included for use in checking audio.

■ Creating and saving contents

The standard utility software can be used to create original contents, which can be transferred and saved in the VT1200 memory. For example, you can select the color bar as background and superimpose station name. Next, simply click the Convert button to create a color bar with the station name on it. Both HDTV and SDTV formats are supported.

■ User-friendly controls

The VT1200 is extremely easy to use. Simply use the Select button to select a pattern number and then press the Play button. An external control function (contact input) is included to support integration to broadcasting system.

■ Through output and input TS monitor function

The VT1200 has a through output function (Works with ASI I/O only). With this function, broadcast data is output directly (through output), although you can switch to internal contents if necessary. The VT1200 monitors in real time for TS Sync Loss, PAT errors, and other errors input to the ASI input terminal. If an error occurs, the user is alerted by LEDs on the front panel and by contact output (rear panel).

Applications

■ Integrated TS generator applications

- Outside broadcast vehicles: Signal source for fixed-station link confirmation
- Unmanned relay stations: Signal source for remote testing of relay lines

■ Installation and maintenance

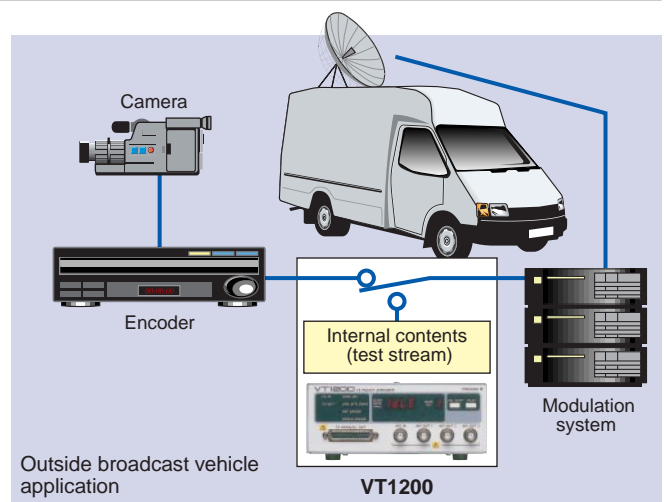
Test signal source for MPEG equipment installation and maintenance

■ Demonstration signal source

Demonstration signal source for STB, decoder chips, etc.

■ Signal source for manufacturing and testing

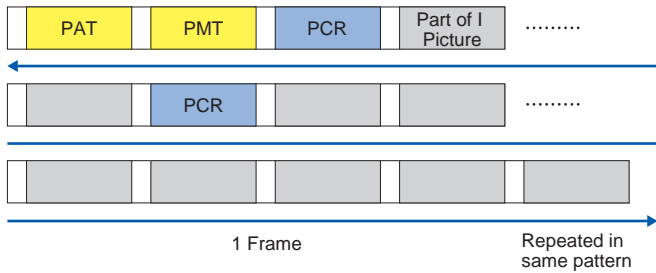
Adjustment and testing signal source for STB and DTV manufacturing



Using the Utility Software

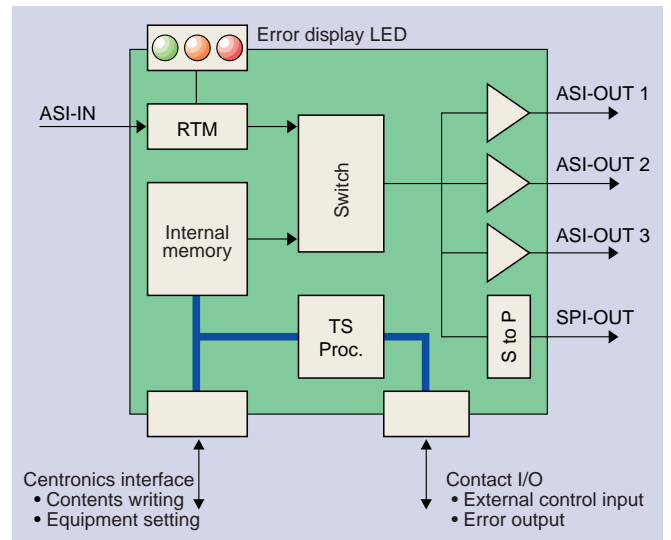
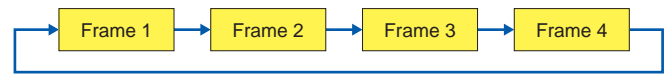
Automatic time stamp update of the internal contents

PTS, DTS, PCR and a Continuity Counter are updated for continuous MPEG2-TS output free of time conflicts.



Simulated motion video playback function

The VT1200 has a simulated motion video playback function for consecutive playback of multiple frames. This makes it easy to detect locations where the screen freezes.



Arrangement of internal components in the VT1200

Utility Software

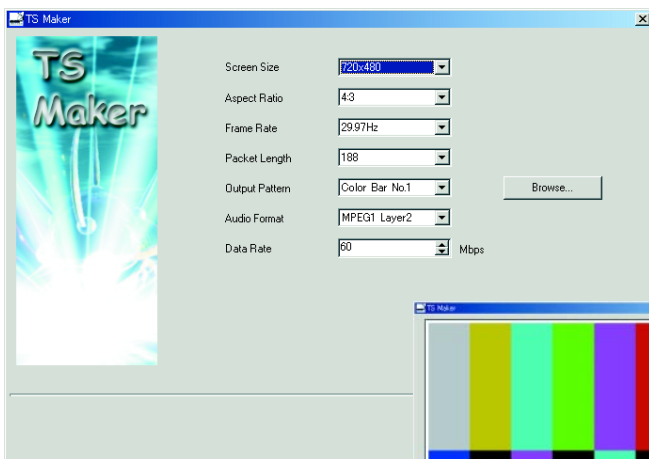
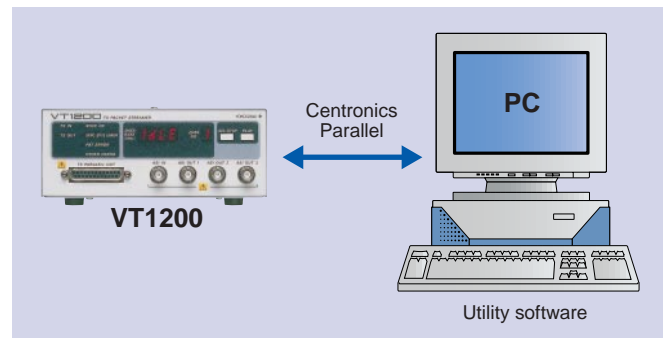
The standard utility software provides an even wider range of applications for the VT1200 Series.

Contents creation and transfer

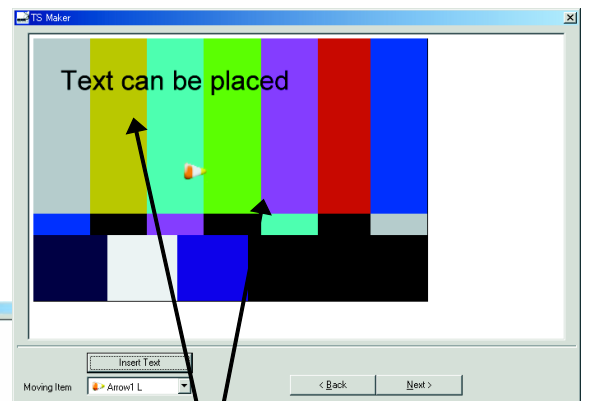
Simply follow the on-screen wizard to create original contents (TS) such as a color bar with a station name. User contents can be saved to the nonvolatile memory in the VT1200 and then played.

Adjustable settings

Screen size, aspect ratio, frame rate, packet type (188/204), output pattern (user selectable), audio type, and data rate settings can be selected and set by the user. More-detailed settings can be made by editing the Config file.



Contents creation wizard



Text and movable objects can be inserted in user contents.

Output signal

Parameter	Specifications
Output signal specifications	Compliance with ISO/IEC-13818
Data rate	Maximum 80 Mbps(4 digits displayed, in Mbps)
Packet length	188 or 204 bytes
Saved patterns	Up to 7
Audio insertion	1 kHz tone * MPEG1 Layer2

Signal I/O types

Parameter	Specifications
Parallel output	Compliance with DVB-SP
	Output level: LVDS (DVB-A10)
	Connector: D-sub 25-pin
	Pin connections: See pinout chart
Serial output	Compliance with DVB-ASI (BS EN 50083-9)
	Mode: Packet, Burst
	Output terminals: 3 (distributed output of same TS)
	Output level: 800 mV p-p Connector: BNC
Serial input (for throughput output)	Compliance with DVB-ASI (BS EN 50083-9)
	Mode: Packet, Burst
	Input terminals: 1 Input level: 800 mV p-p
	Connector: BNC
Through output	Switches between ASI input and internal contents

Pin no.	Signal name	Pin no.	Signal name
1	CLKA	14	CLKB
2	SYS GND	15	SYS GND
3	DATA7 A	16	DATA7 B
4	DATA6 A	17	DATA6 B
5	DATA5 A	18	DATA5 B
6	DATA4 A	19	DATA4 B
7	DATA3 A	20	DATA3 B
8	DATA2 A	21	DATA2 B
9	DATA1 A	22	DATA1 B
10	DATA0 A	23	DATA0 B
11	DATA VALID A	24	DATA VALID B
12	SYNC A	25	SYNC B
13	NC		

Parallel output terminal pinout

Order information

Model no.	Suffix code	Description
706550		VT1200 portable model
706551		VT1220 rack-mounted model (height: 1U)
	Power cord	
	-T	UL/CSA standard, includes 2/3-Plug adapter
	-U	UL/CSA standard type
	-E	VDE standard type
	-G	SAA standard type
	-S	BS standard type

Input TS monitor

Parameter	Specifications
Monitor messages	Sync OK
	Sync Byte Error
	PAT Error
	Continuity Counter Error*1
Display	LED display
Monitor output	Contact output

External interface

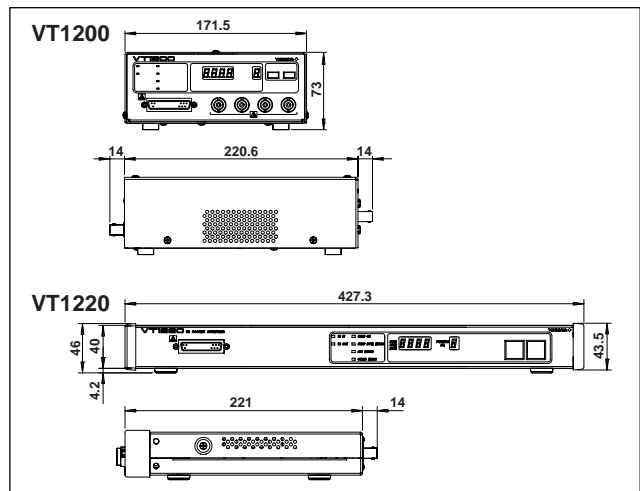
Parameter	Specifications
Contents and settings	Centronics, parallel
External control input	Contact input (SELECT/STOP, PLAY, pattern selection)
Monitor output	Contact output (see "Input TS Monitor" above)

General specifications

Parameter	Specifications
Standard operating conditions	Ambient temperature: 23±5°C
	Ambient humidity: 55±10% RH
	Supply voltage/frequency tolerance: 1% of rating
	Warmup time: 30 minutes or longer
Storage conditions	Temperature: -20°C to 60°C
	Humidity: 20–85% RH (no condensation)
Operating conditions	Temperature: 5°C to 40°C
	Humidity: 20–85% RH (no condensation)
Rated supply voltage	100–120 VAC, 200–240 VAC (switches automatically)
Rated supply frequency	50/60 Hz
Maximum consumed power	50 VA
Withstand voltage	1.5 kVAC for one minute
Insulating resistance	500 VDC, 10 MΩ or greater

*1: Continuity Counter of PAT and Transport Indicator error.

External dimensions



CAUTION



* Be sure to read the User's Manual thoroughly to ensure safe use of this product.

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