



TVG-V01 is a high-end generator for PAL analog video signals. The technology used allows to obtain a very high standard of quality with the recent feature precision and frequency stability of a typical object slaved to the GPS.

In the standard version are present as well as two independent outputs for the composite video also the reference signal 10MHz and PPS. the precision and the stability of the generated frequency is guaranteed by the system discipline based on the GPS signal typically used for standard time-frequency. Among the features is provided below a list that the TVG-V01 satisfy:

- Ability to adjust the amplitude of the peak-to-peak video signal only (local / remote),
- Possibility to adjust the amplitude of the sync pulse,
- Presence ITS lines 17, 18, 330, 331 (with activation by local / remote),
- Presence of the lines of teletext with one or more variable bits (local / remote, 2 pages).

Turns out to be very useful new feature that COLOR BOUNCE allows to immediately assess the characteristics of non-linearity of a amplification chain. **TVG-V01** implements an audio generator of high accuracy ebassissima distortion. Standard frequencies can be generated between a range of 20Hz to 16 KHz.

TVG-V01 is also designed for applications where control is needed remote apparatus. The microprocessor makes it possible to structure a Government via SNMP commands rather than a versatile and powerful web interface. **TVG-V01** is particularly easy to use both as regards installation and maintenance. All functions are completely accessible by PC locally, by means of serial communication RS-232, or remotely via Ethernet communication 10/100 with TCP / IP protocol. **TVG-V01** provides guidance on its operating status including through the use of 4 dry contact on the back of the device. **TVG-V01** is fully standardized SNMP protocol in which supplied from switch all the information about the electrical state of the two modules. **TVG-V01** is equipped with dual power supplies from one network to the other battery pack capable of a mutual aid.

- Internal high stability OCXO aging rate of $\pm 1 \cdot 10^{-10}$ /day,
- 12 channels GPS receiver with automatic tracking and timing error management system,
- Generator stereofonico integrated ultra low distortion,
- 2 Independent outputs CVBS,
- 1 Output 10 MHz,
- 1 PPS output,
- 4 dry contact for electrical signaling of the unit of exchange,
- 4 photo-coupled input for remote unit of exchange,
- Standard RS232 serial connection,
- Network connection standard 10/100 Ethernet with TCP / IP Complete,
- MIB descriptive of SNMPv2 protocol,
- Integrated web server for direct management by the browser,
- Power supply apparatus in logical OR, DC,
- AC 110Vac to 240 Vac 50/60 Hz,
- DC 12 Vdc to 50 Vdc,
- System in format 19" Rack 1U.

TxDAC

Resolution: 16 Bit.
IMD: 90dBc @ 10 MHz.
NSD: -164dBm/Hz @ 10 MHz.
DNL: +/- 0.3 LSB.
NL: +/- 0.6 LSB.
SFDF: < -82dBc.
SR: 220 Msps.

Output

Level: 2.5 V digitally adjustable (+/- 40%).
Accuracy: 0.025% compared to the full scale (2.5V) and 0.010% over the full scale of 10 levels (2.5V).

A/F linearity

<0.2 dB measured with sine cardinal and 5.5 MHz.

Group delay

+/- 5 ns.

Rise time

5 ns from 10% to 95% compared to the full scale (2.5V).

S/N

normal: <-78 DB from 10 kHz to 7 MHz.
weighed: <-80 DB from 200 kHz to 7 MHz.

CVBS connectors

2x BNC 50 Ω.

Frequency reference

Signal: 10 MHz sine wave.
Spectral purity: -70 dBc at full output power. (harmonics), -75 dBc at full output power (non-harmonics).
Phase noise: -125 dBc at 1 kHz.
Output level: 13 dBm each output.
Output impedance: 50 Ω.
Output connectors: BNC.
Stability: 1e-12 daily average OCXO locked at GPS in SA. OCXO Standard: 1e-10 daily average OCXO in free run,

Time reference

Signal: 1 PPS, 100 μs Duty, Rising Edge.
Output level: TTL 5 Vpp, Square wave.
Output impedance: 50 Ω.
Output Connectors: BNC.

GPS section

Receiver: 12 Channels L1 1575.42 MHz.
Tracking: correlation over 12 satellites.
PPS precision: < 50 ns on SA.
Antenna connector: TNC.
Capture time: < 4 min.

Audio section

Bandwidth: 10 Hz – 16.000 Hz +/- 0.1 dB
Output level: 0 dBm into 600 Ω for 400 Hz tone modulated 50%
Amplification: from 0 dB to 9 dB (1.0 dB steps)
THD: < 0.05%
S / N: < 84 dB
Connector: 2 x XLR, 600 Ω balanced transforms

Signaling

Serial connection: RS-232 Connector DB9 Male \pm 15 kV (ESD).
Network connection: Ethernet interface 10/100, TCP/IP protocol.
Signaling: 4 dry contact over Weidmuller connector step 3.5 mm.

Supply

Network: 95 Vac – 240 Vac, Plug IEC320 integrated, filter EMI/RFI.
Battery: 2 independent power suppliers.

Size

Width: 1 Unity 19".
Depth: 300 mm connectors excluded.
Weight: 1.5 Kg.