

2016 DVB-ASI & PAL Teletext Test Page Generator

- **Verify teletext decoder compliance against industry standard benchmarks**
- **Reduce customer complaints, reported faults and returns**
- **PAL and DVB-ASI in a single unit**

SysMedia's 2016 Teletext Test Page Generator is used to test the performance of teletext decoders in TV sets, set-top-boxes, chip-sets and PC cards.

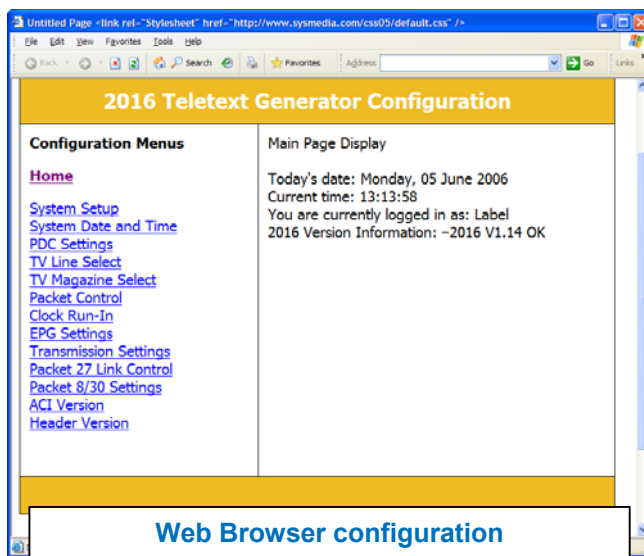
It can be used on the production line, in a quality control laboratory or in the development environment.

The 2016 is the next generation & supersedes the previous 1016 model. While it retains the same core software and test functionality as its predecessor, the 2016 is now designed around a specialised PCI inserter card and is housed in a Linux 19" rack PC chassis. The primary new feature of the 2016 is the ability to provide a DVB-ASI output for the new generation of TVs and chipsets as well as the standard analogue PAL signals.

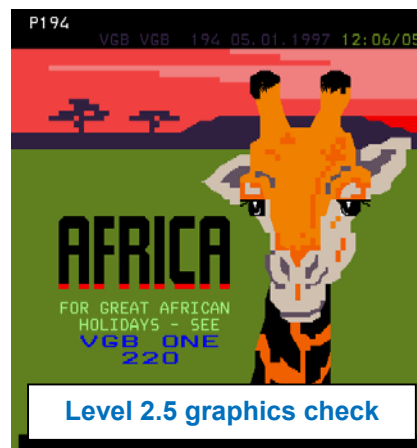
As well as support for 3 new languages (Serbian Cyrillic, Gaelic and Maori), the PAL 2016 can also insert other VBI data as well as the teletext pages (e.g. Line 21 closed captions, wide screen signalling, VPS and VITC & ACI). A standard web browser connected via a TCP/IP network is now used for all configuration settings. This allows much more flexibility when choosing a suitable location for the unit.

SysMedia (previously called VG Broadcast) are the world leaders in the design and manufacture of teletext reference test equipment, with a track record covering more than 30 years. Our test equipment has been supplied to the majority of leading television manufacturers including Daewoo, LG Electronics, Philips, Panasonic, Samsung and Sony.

SysMedia also produce teletext transmission systems, used by many TV stations worldwide (from Iceland to New Zealand including BBC CEEFAX and CNN), and the 2016 shares the same broadcast quality hardware now used in our latest generation teletext inserters.



Web Browser configuration



Level 2.5 graphics check



All 27 current languages

including Chinese, Arabic, Hebrew, and Thai

- Fully compliant with ETS 300-706
- Pre-programmed with over 460 test pages covering full range of teletext capabilities
- Full level 2.5 WST 625 & 525 line specifications as well as level 1 and 1.5
- Complete range of languages/character sets including "CCST" Chinese
- FASTEXT/FLOF, TOP, WSS, VPS, PDC ACI & EPG
- Multiple Output Streams and Transmission lists
- Serial or Parallel Mode option
- VBI TV line selection
- Packet control Enable/Disable extension packets
- Optional Row Adaptive Transmission

Technical specifications

Teletext system and test capabilities	World System Teletext, 625 or 525 line, EBU SPB 492, ETS 300706, CCIR Teletext System B Packet 8/30: initial page, network ident & programme label with time offset (format 1) and/or PDC (format 2) ACI accelerator codes, - none / cable / serial / terrestrial. Standard Level 1.5 tests: subtitles, rolling pages, Newsflash, Packet 26 language extension, FASTEXT/TOP, ACI Additional Level 2.5 tests: object definitions, public & local enhancement data																				
Languages & character sets	Czech/Slovak, English, Estonian, French, Gaelic, Hungarian, Icelandic, Italian, German/Flemish, Lettish, Lithuanian, Maori, Portuguese/Spanish, Polish, Turkish, Slovenian/Serbo-Croat, Swedish/Finnish/Danish, Rumanian Arabic, Byelorussian, Chinese (CCST), Farsi, Greek, Hebrew, Russian, Serbian (Cyrillic), Thai and Ukrainian																				
Video output (PAL)	<table border="0"> <tr> <td>Max no. inserted data lines</td> <td>35 lines in range 6 to 22 & 318-335 (625 line), 10 lines in range 10 to 20 (525 line)</td> </tr> <tr> <td>Video input</td> <td>1 V pk-pk into 75 ohms +3 dB / -6 dB</td> </tr> <tr> <td>Return loss</td> <td>Better than 30 dB in the range 0-6 MHz</td> </tr> <tr> <td>Frequency response</td> <td>0-6 MHz \pm 0.1 dB, 6-10 MHz \pm 0.3 dB</td> </tr> <tr> <td>Pulse and Bar performance</td> <td>2T Pulse/Bar ratio \pm 0.2%, 2T Pulse shape 0.25% K, Bar overshoot less than 1% Bar amplitude</td> </tr> <tr> <td>Insertion gain</td> <td>0 dB \pm 0.1 dB</td> </tr> <tr> <td>50 Hz Square wave response</td> <td>Output tilt less than 1% for an input signal of 0.7 V pk-pk</td> </tr> <tr> <td>Differential gain</td> <td>< 0.15%</td> </tr> <tr> <td>Differential Phase</td> <td>< 0.1 degrees</td> </tr> <tr> <td>Luminance non-linearity</td> <td>< 0.2%</td> </tr> </table>	Max no. inserted data lines	35 lines in range 6 to 22 & 318-335 (625 line), 10 lines in range 10 to 20 (525 line)	Video input	1 V pk-pk into 75 ohms +3 dB / -6 dB	Return loss	Better than 30 dB in the range 0-6 MHz	Frequency response	0-6 MHz \pm 0.1 dB, 6-10 MHz \pm 0.3 dB	Pulse and Bar performance	2T Pulse/Bar ratio \pm 0.2%, 2T Pulse shape 0.25% K, Bar overshoot less than 1% Bar amplitude	Insertion gain	0 dB \pm 0.1 dB	50 Hz Square wave response	Output tilt less than 1% for an input signal of 0.7 V pk-pk	Differential gain	< 0.15%	Differential Phase	< 0.1 degrees	Luminance non-linearity	< 0.2%
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Teletext page management	Page Create, Update (Row Adaptive), Replace and Delete; Include or Exclude pages in transmission Up to 256 sub-pages in each multi-page set with adjustable page display rate (in seconds) per page In/Out of sequence pages; Decimal and Hexadecimal page numbers Immediate update / transmission of pages for interactive teletext																				
Other VBI data (PAL versions only)	Wide Screen Signalling: preset test of four setups, other setups possible using WinSPRITE or Packet Editor Line 21: field 1 and field 2 test data, including an XDS/V chip test VPS: the PDC first interleave data (static and dynamic) can be output as VPS data on any selected line VITC: outputs the real time clock information and 4 bytes of user data																				
Power supply	100-264 VAC, 50-60Hz, max. 4A (1U) 10A (2U)																				
Temperature range	Operating 0–40°C (32–104°F) / Storage -20–60°C (-4–140°F)																				
PC specification	Linux OS, Celeron 733MHz processor, 256MB RAM, 1GB Disc On Module, VGA graphics, 1 x 10/100Base-T Ethernet, 2 x RS232 serial (1U=1 only), 1 x parallel port (2U only) 2 x USB 1.1 (via front panel), 1 x PS2 with keyboard/mouse splitter (via front panel or rear)																				

Model range and ordering information

Model No	2016-D-B1	2016-P-B1	2016-DD-B2	2016-DP-B2	2016-PP-B2	2016-DDP-B2	2016-DPP-B2	2016-PPP-B2
Outputs	1 x ASI	1 x PAL	2 x ASI	1 x ASI 1 x PAL	2 x PAL	2 x ASI 1 x PAL	1 x ASI 2 x PAL	3 x PAL
Size	1U			2U				
Dimensions	482 x 44 x 500mm (19" x 1.7" x 19.7")			482 x 88 x 450mm (19" x 3.46" x 17.7")				
Packed	66 x 61 x 18 cm approx weight 11 kg			62 x 58 x 21cm approx weight 16 kg				

Units with PAL output incorporate a cross-hatch test pattern generator that can be used as the video input where no factory standard reference signal or other suitable source (e.g. black and burst) is available. VBI lines in any incoming signal can be blanked if required. Pulse shaping and overshoot are controllable and automatically adjust to suit the data signal amplitude setting.

Associated software options

Engineering Packet Editor - allows editing of the extension packets including X25, X27/4, X27/5, X28/0 & X28/4 within a teletext page and can be used to create a custom restricted page set for production line testing.

WinSPRITE - SysMedia's full teletext editing package can be used to author bespoke additional teletext pages (sometimes used for corporate messages and client welcome pages).

