

## Hand Held Portable Standard Definition SDI and Analog Video and Audio Signal Generator



Hamlet Video International Limited, designers and manufacturers of unique digital and analog equipment produce the Protean Index for the professional broadcast industry. It is a multifunctional SD SDI, Analog, video and audio hand-held portable generator.

It outputs 16 SD SDI; 16 composite video; group

selectable and identifiable embedded, AES/EBU and analog audio test signals. In addition to industry standard video signals it provides a moving pattern MPEG signal, path continuity check test signal and circle and Text overlays. They are dual standard, 625/PAL and 525/NTSC. The units produces up to four channels of embedded audio and analog reference tone or silence which enhances the flexibility of the generator. The Protean has full broadcast CCIR601 (SMPTE259M) The products are designed for TV and broadcast engineers working in maintenance, installation, field operations, outside broadcasts, single camera shoots and even editing suites, anywhere digital and analog signals are required.

***This product contains proprietary patented designs***

### Features and Functions

- Hand held portable 160 x 95 x 36 mm (6.3 x 3.7 x 1.4 inches).
- 10 bit Digital Video.
- 8 bit Analog Video.
- 16 test patterns: 100% Bars, 75% Bars, Split Bars, Bowtie, Sweep, Pluge, Multi, Pulse & Bar, Modulated Steps, White Screen, Red Screen, Convergence, Split equaliser/pll test pattern, Ramp, Limit Ramp, Optional pattern\*.
- Moving MPEG pattern.
- Circle overlay.
- Embedded audio, groups 1 to 4, indent and silence.
- User defined 16 character scrollable idents.
- AES and analog audio on XLR connector.
- Easy to operate, 625/525 dual standard.
- Enclosed in rugged ABS case with soft feel buttons and LED indicators.
- In-built nickel metal hydride (NiMh) rechargeable battery pack (Adapter included).
- 2 hours use on battery or external 6vdc mains
- Weighs less than two pounds

\* Features available as options  
(see options list below)

See our website for applications

[www.hamlet.co.uk](http://www.hamlet.co.uk)

## **TECHNICAL SPECIFICATION**

### **OUTPUTS**

Serial digital BNC connector. Output impedance 75 ohms.  
SMPTE 259M, ITU-R BT.601/656 serial component. 800mV pp  
Full 10 bit pattern generation.  
Addition of CRC checksum word.  
Addition of embedded tone at -18db.  
Composite BNC connectors. Output impedance 75 ohms.  
1 volt p/p +/- 1% PAL, NTSC or PALM from 9 bit dac.  
Differential gain and phase +/- 1% and +/- 1 deg.  
Sch phase 0 +/- 5 deg.  
Audio 3 pin xlr plug.  
Analog: 1KHz tone 0db to +8db balanced to 600 ohms Thd  
<0.5%.  
Digital: AES/EBU encoded 1KHz tone, balanced output to 110  
ohms.  
Frequency The crystal master oscillator is accurate to better  
than +/- 15ppm.

### **POWER**

External 6Vdc +/-0.5V regulated @ 500mA.  
Current draw is 600mA if charging as well. 100mA if charging  
only.  
Charging time 16 hours max.  
2.1mm power connector, centre negative.  
Mains supply adapter 220/110VAC +/-20% 50/60Hz 10VA max.  
Internal 600mA hour NiMh batteries with integral charger.

### **ENVIRONMENT**

Indoor use, 5 to 45 deg.C. Ambient to 2,000m.  
Max humidity 80% to 31 deg.C decreasing to 50% at 40 deg.C.  
Overvoltage category 2. Pollution degree

### **PHYSICAL**

**DIMENSIONS:** - 90mm x 160mm x 35 mm.  
**WEIGHT:** - 500g.

### **WARRANTY:** - 1 Year.

Extendable free on registration: - To 2 Years  
By using the service area of our web site  
<http://www.hamlet.co.uk/support/warranty/>

### **ORDERING INFORMATION**

#### **Protean Index**

Advanced Version Hand held serial SDI 601 generator  
with 16 test signals including : Circle, "Real time"  
moving MP signal path test, Embedded, AES/EBU,  
analog audio & composite video outputs, & 16  
Character Alpha / Numeric Ident scrollable.

\* Features available as options (see options list below)

#### **OPTIONS**

PROT - CP	Customised patterns
PCC-1	Universal carry case

Specifications and features herein are subject to change without prior notice. Hamlet Video International Limited products are covered by a number of Applied or Granted UK, North American and World Patents. Prior art is claimed in All Territories on features and functions incorporated in the product designs herein. Hamlet is a registered Trademark of Hamlet Video International Limited. Flexiscope, Whichwire and Videoscope are registered Trademarks of Hamlet Video International Limited. Monitor Scope, Digi Scope, Adept, LCD Scope, Protean, Digi Gen, VidScope, AudioChex, GenPen, Micro Scope, Pico Scope, PC Scope, Chameleon, Digital Window, Programme Level Meter and Stereo Scope are Trade Marks of Hamlet Video International Limited.

Hamlet products are Manufactured to ISO9001.2000 and ISO14001 specification.

Our most up to date information is available on our web site.

Copyright © 2012 Hamlet Video International  
10/04/2012

Hamlet Video International Ltd, Maple House, 11 Corinium Business Centre, Raans Road,  
Amersham, Bucks, HP6 6FB, England. Tel: - +44 (0) 1494 729 728 Fax: - +44 (0) 1494 723 237  
Freephone (UK): - 0500 625525 E-mail: [sales@hamlet.co.uk](mailto:sales@hamlet.co.uk) Website: [www.hamlet.co.uk](http://www.hamlet.co.uk)

USA Master Distribution, Omnivue New York, NY 10016 USA  
Tel: - +866-4-HAMLET or 001 212 779 2580 Website: [www.hamlet.tn](http://www.hamlet.tn)