ATOM MkII

The second generation of the Advanced Teletext Origination Module (ATOM) is a compact and powerful Teletext management and transmission system running on the Windows 2000 platform. The ATOM manages 16 teletext magazines (up to 8 on-air), and provides storage for a total of 8000 pages, which can all be mapped for transmission as required.

Access to the ATOM is by either an RS232 or LAN interface, with sections of the database protected by password.

Key Features

- ➢ Integrated Teletext encoder and broadcast-quality analogue inserter
- ➢ Windows 2000 operating environment
- ➢ 2 serial communications ports provided as standard, which can be configured either for RAS access or as teletext editing terminal ports for workstations such as Accent.
- ➢ USB interface for system expansion.
- ➢ 100Mbit LAN interface for administration and editing terminal access.
- ➢ Optional support for multiple TV networks
- ➢ Optional database mirroring with a second ATOM (for hot standby applications)
- ➢ Automation facilities
- ➢ FASTEXT and TOP support
- ➢ Engineering status page

Functional Summary

- ➢ Teletext output may be inserted on up to 16 VBI lines, using serial or parallel mode.
- ➢ High-efficiency transmission, with redundant packets transmitted only when required to fulfil Teletext specification requirements
- ➢ Total capacity of 8000 pages (including both on-air and non-transmitted pages)
- ➢ Up to 16 editorial magazines, with on-air any time (8 per network in optional multiple network systems)
- ➢ Rolling page sequences of any length up to a maximum number of transmittable pages
- ➢ Both RS232 and LAN ports available for editing terminal access.
- ➢ FASTEXT and TOP support
- ➢ Packet 8/30 Format 1 support, with optional packet 8/30 Format 2 support for Programme Delivery Control (PDC)

➢ Extension packets capability for Levels 1.5, 2, 3 and PDC support

➢ Optional composite magazines, giving "virtual" transmission pages composed of pages from several other magazines

➢ Multiple language support

➢ Frequently-transmitted pages, in-sequence rolling-page durations and priority rolling page durations may be specified in increments of one second

➢ Optional interface for studio time reference

➢ Optional subtitle transmission – both pre-recorded and live subtitling feeds can be supported from suitable preparation or management systems

➢ Optional archiving of all pages placed on transmission.

➢ Optional logging of all transactions for added system security.

Editorial facilities

➢ The RS232 terminal interface is compatible with the first generation ATOM command set. This includes the deferred time command interface.

➢ LAN access to the transmission sub-system permits interfacing to both the Tapestry teletext management system and standalone Accent workstations

TECHNICAL SPECIFICATIONS

Mechanical	
Case	2U high, 19-inch rack-mountable
Connections	Video in and Video out – BNC Serial ports – 9-pin "D" type Ethernet connection – RJ45 10/100BaseT auto sensing TCP/IP based network interface
Video Signals	
Video input	1v pk-pk into 75Ω with 70/30 video/sync ratio $\pm$ 3dB
Insertion gain	0dB $\pm$ 0.1dB
Frequency response	0-6MHz $\pm$ 0.1dB 6-10MHz $\pm$ 0.5dB
Differential gain	< 0.5%
Differential phase	< 0.5 degrees
Field tilt	< 1%
Return loss	> 30dB 0-6MHz
Output data lines	7-22 and 320-335 inclusive for 625-line operation.
Miscellaneous	
Power requirements	210-250 Vac or 96-128 Vac 50/60 Hz (Internally strapped)
Operation temperature	0-35 degrees Celsius