



PatapSCO's Liberator® "Simulator"

Product Details

BRI (basic rate) and/or PRI (primary rate) ISDN network simulators or emulators

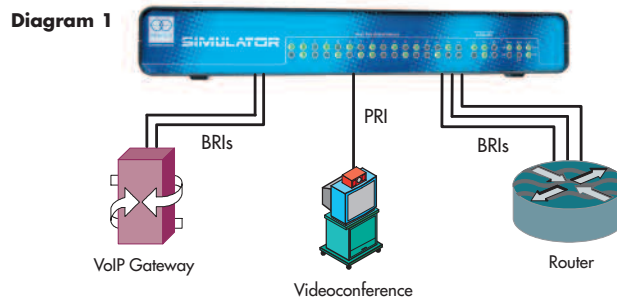


Main Features:

- Versions available with 4, 8 or 16 BRI ports
- Also available with 1, 2, 3 or 4 PRI ports
- BRI's and PRI's can be combined in one unit
- PRI - only platform supports 8/16 PRI's
- All ports present as NT or like a carrier-delivered service
- E1 and T1 user-switchable PRI ports
- A-Law to μ -Law voice encoded conversion
- ETSI and ANSI user-switchable BRI ports
- BRI point-to-point and multipoint
- Non-blocking; any channel to any channel
- Easy to configure via intuitive GUI via serial port or LAN
- Configuration changes do not require re-boot
- Fast connect time with no performance limitations
- Route on DDI/CLI/Sub-address
- Number conversion/manipulation
- Information Element manipulation
- Overlap & Enblock dialling
- Full ISDN layer 2 and 3 message capture together with separate free analysis tool
- Tone generator configurable per-port
- External clock can be sourced from PRI ports
- Clocking hierarchy with auto switch-over
- On-board non-volatile Event Log
- On-board Real-Time Clock for Events
- Optional Power Feed (Phantom Power)
- Internal high-quality auto-sensing PSU
- Fully approved for Safety and Emissions
- Fully lead-free and RoHS compliant

Overview

The Liberator "Simulator" range consists of two high-performance, extremely flexible yet low-cost ISDN network simulators or emulators.



One platform is available to purchase with different numbers of BRI and PRI ports, from just 4 x BRI's up to 4 PRI's with 16 BRI's, the unit can help with smaller requirements to the largest.

There is another platform available with a 8 or 16 PRI's (the 8 port unit is field upgradeable to 16). No BRI's on this unit.

[Pricing is available on the web site.](#)

Operation

ISDN services

Signalling is carried and converted between the different ports and port types.

All "D" channel signalling is passed.

Support for ANSI (US) and ETSI PRI and BRI's with full inter-connectivity

Support for Dual SPIDs (ANSI).

A-Law to μ -law for E1 to T1 voice conversation

Advanced features such as the ability to inhibit Information Element.

Optional Power Feed for BRI ports can be ordered before delivery.

Interconnectivity/Routing

Full non-blocking cross-connect capability between any "B" channel.

Routing to a specific "B" channel, ISDN port or group of ports based on dialled number (DDI), CLI, sub-address, call type, time-of-day and/or physical calling port.

Dialled numbers, CLIs and sub-addresses can be added/modified in software. For example a call to "1234" can be converted to "987123" with an added CLI of "555" and a sub-address of "video".

Easy-to-configure Groups for simple routing

If a destination channel is unavailable, busy or not answered, calls can be re-directed to Secondary or Tertiary destinations. Tones can be generated on a per-port basis for both A-Law and μ -Law.

[Click here for a "movie" showing the actual Manager and some of the product capabilities](#)



Patapsco's Liberator® "Simulator" Product Details

General

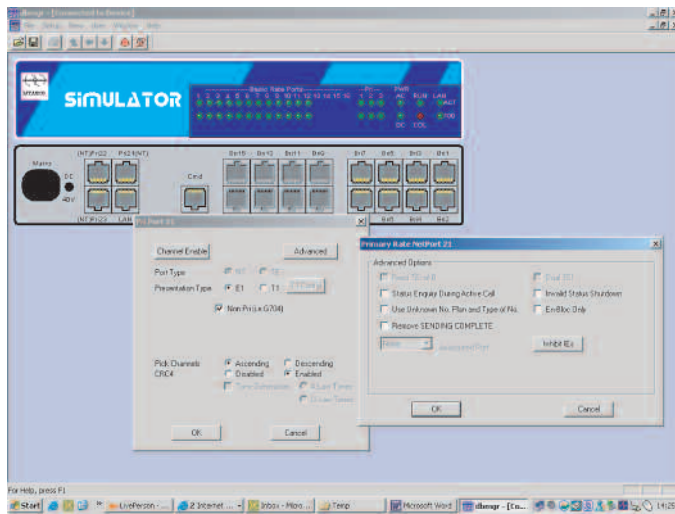
- Configuration held in non-volatile Flash so unaffected by power loss.
- Accessed/managed via serial port or LAN
- Real-time clock to time/date stamp all messages/events.
- Large Event Log held in battery-backed memory.

- Low-level visibility of all ISDN signalling messages with ability to save to file for analysis. Patapsco also supply a "translation" program to help understand these messages.
- Internal clock source or source clock from a PRI port.
- New software uploadable to off-line sector of Flash.

Many thousands of Simulators and its sister product, Liberator, have been shipped around the world connecting to different switches and different applications. Patapsco own and have developed the ISDN stacks over the last 16 years in the international ISDN market.

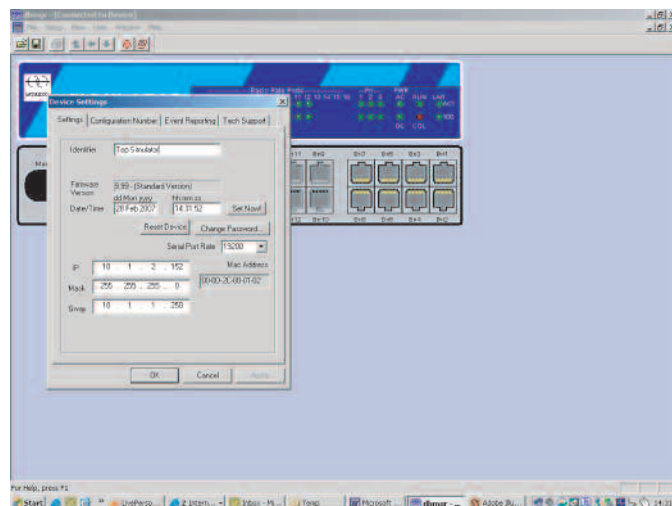
The four screen-shots below are taken from the actual Manager of the Simulator and are intended to give an idea of how the unit "looks and feels", its ease of use, and some of the configuration options. The illustrated Dblite Manager is supplied free with each Simulator. The manager only needs to be connected to the Simulator for configuration and/or analysis purposes.

Screen 1



In this window the operator has clicked on a PRI port, then the "Advanced" button.

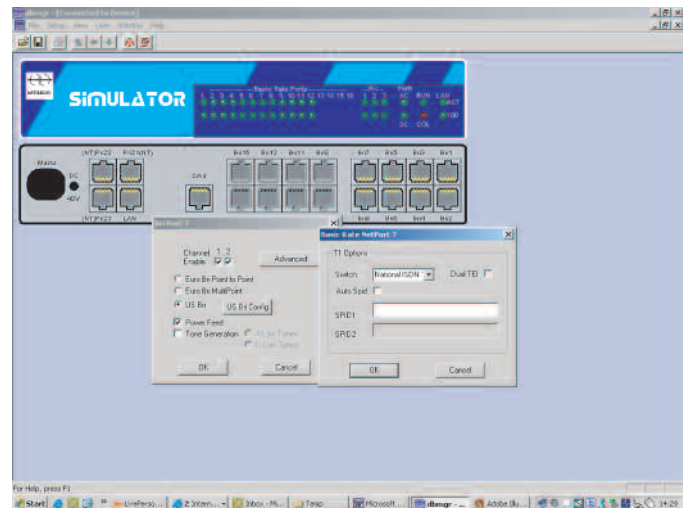
Screen 3



The simple configuration screen for the unit itself with IP address (if using a LAN for management), time (for time-stamped events and ISDN messages etc), passwords and such-like.

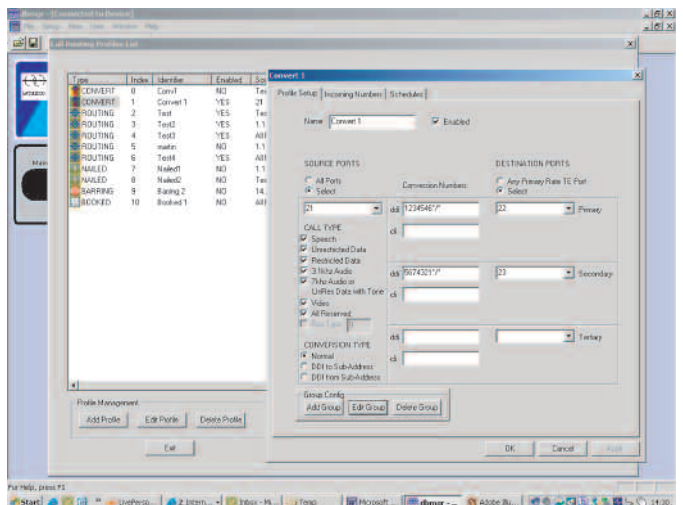
The above shows how the Patapsco Simulator is sophisticated in terms of features and flexibility, yet simple to use and configure. There is a "movie" on the web site which will give a more in-depth overview.

Screen 2



A BRI port has been clicked. This one is configured as US (ANSI) and then clicking the BRI configuration button allows the switch type and SPIDs to be configured. Note the ability to configure Multipoint and point-to-Point.

Screen 4



This screen shows a summary of all routing profiles in the Simulator, together with port numbers, dialled number etc. It is overlaid by a window which shows the details of one particular routing profile which is being used to convert an in-coming call to an out-going call with a different DDI.



PatapSCO's Liberator® "Simulator" Product Details

Technical Specifications:

PRI Interfaces

All present as "NT" and simulate a network

E1

Present as "NT" and simulate a network*
RJ45 1200hm balanced
G.703 HDB3 encoded
Selectable CRC4 and non-CRC4
Supports full PRI and fractional
ETSDSS1 (EuroISDN)
ETSI Q.931/921
ETSI 300-011 (layer 1)
ETSI 300-125 (layer 2)
ETSI 300-102 (layer 3)
Approved to TBR4

BRI

Present as "NT" and simulate a network*
RJ45 "S" 4-wire presentation
Point-to-Point and Multipoint
ETSDSS1 (EuroISDN)
ETSI Q.931/921
ETSI 300-011 (layer 1)
ETSI 300-125 (layer 2)
ETSI 300-102 (layer 3)
Approved to TBR3
NI-2 North-American National, DMS-100, AT&T 5ESS switch support
AT&T TR62411 and ANSI T1.403
Single/dual SPID configurations
Driving distance on UTP CAT5 cable up to 750m depending on DTE and environment
Optional terminal Power Feed with external 40VDC supply.
Provides 40V 1W to attached BRI devices which do not have their own power supply.

Approvals

All approvals completed in an independent Accredited UK lab.
Telecomms/EMC/Safety

All approvals completed in UK
Accredited laboratory - reports available

* PatapSCO's Liberator range has similar performance capabilities but with the added advantage of being able to connect to ISDN networks and supporting both NT and TE interfaces.

Ordering information:

Liberator "Simulator" Versions

| BRI-only units | Part Number |
|----------------|-------------|
| 4 BRI | SIM/4B0P |
| 8 BRI | SIM/8B0P |
| 16 BRI | SIM/16B0P |

| | |
|------------------------|-----------|
| 1 PRI Port with BRI | |
| Single PRI with 4 BRI | SIM/4B1P |
| Single PRI with 8 BRI | SIM/8B1P |
| Single PRI with 16 BRI | SIM/16B1P |

| | |
|----------------------|-----------|
| 2 PRI Ports | |
| Dual PRI | SIM/0B2P |
| Dual PRI with 4 BRI | SIM/4B2P |
| Dual PRI with 8 BRI | SIM/8B2P |
| Dual PRI with 16 BRI | SIM/16B2P |

| | |
|-------------|----------|
| 3 PRI Ports | |
| Triple PRI | SIM/0B3P |

| | |
|----------------------|-----------|
| 4 PRIs with BRI | |
| Quad PRI with 4 BRI | SIM/4B4P |
| Quad PRI with 8 BRI | SIM/8B4P |
| Quad PRI with 16 BRI | SIM/16B4P |

T1

Present as "NT" and simulate a network*
RJ45 1000hm balanced
ESF or D4 framing
B8ZS or AMI line encoding
NI-2 North-American National, DMS-100, AT&T 5ESS switch support
AT&T TR62411 and ANSI T1.403
Hong Kong variant available.

Management

RJ11 Serial port with dry-contact alarm
Asynchronous to 115kbps
Via LAN port 10/100baseT
Access password protected

Power

Internal PSU
Standard IEC connector
Auto-sensing
95-250VAC
Optional 2nd load - sharing PSU in 8/16 port units

Mechanical & Environmental

- Metal chassis 292w x 200d x 44h mm -1U
Optional 19" rack-mount kit
Weight 1.1Kg
Operating temperature 0-50 °C
Humidity 10-90% non-condensing
- 8/16 port units
Metal chassis and front/rear panels
W - 440w [plus rack ears] x 300d x 88h mm - 2U
Weight - 9.7Kg max
Operating temperature -20°C to +55°C
Humidity 10-90% non-condensing

Maintenance

No user-serviceable parts
No maintenance required
Battery for Real-Time Clock and NV
RAM elements has a typical 10-year life

ROHS

Fully lead-free and ROHS compliant

Liberator "Simulator" Versions Cont

| PRI-only units | Part Number |
|--------------------------------|-------------|
| 8 PRI upgradeable to 16 | SIM/8P |
| 16 PRI unit | SIM/16P |
| Field upgrade for 8 to 16 PRIs | SIM/8P/U16 |
| Optional 2nd ACPSU | SIM/AC |

| Hardware Options | Part Number |
|------------------------------------|---------------|
| 19" rack-mount kit | 3007/RMK/01 |
| Power Feed Option 4 BRIs | 3007/BRI4/PF |
| Power Feed Option 8 BRIs | 3007/BRI8/PF |
| Power Feed Option 16 BRIs | 3007/BRI16/PF |
| Power Feed is a factory-fit option | |

| Cable Packs | Part Number |
|---------------------------|--------------|
| Cables for PRI-only units | SIM/CPACK/0 |
| CP for 4 BRI versions | SIM/CPACK/4 |
| CP for 8 BRI versions | SIM/CPACK/8 |
| CP for 16 BRI versions | SIM/CPACK/16 |
| CP for 8 PRIs | SIM/CPACK/8P |

| | |
|---------------|----------|
| DbManager | |
| DBLITE (Free) | DBM/LITE |

All details subject to change without notification E&OE

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