

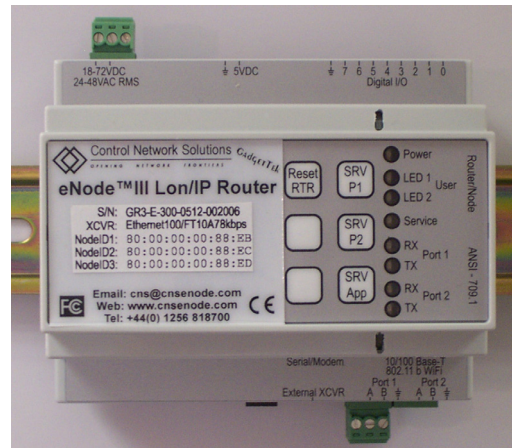


eNode™ III Lon/IP 852 Router

Data Sheet

Features

- ❖ Standards based IP 852 Lon over IP Router for up to 128 devices per channel
- ❖ Remote web configuration, real time clock
- ❖ Up to two 709 ports: FT-10 and/or RS-485 and/or optional external 709 XCVR interface supports one single ended or one special purpose mode XCVR
- ❖ Choice of 10/100 Base-T Ethernet or 801.11b WiFi
- ❖ 24-60V Power Over Ethernet (POE) pass through
- ❖ IP Multicast support
- ❖ Integrated FT-10 termination
- ❖ NAT and Dynamic DNS support
- ❖ Flood mode “invisible links” for legacy integration
- ❖ Interoperates with LonMaker™, i.LON, Configuration Server and Coactive™ Router –LL Configuration Server and all IP 852 compliant products
- ❖ High availability applications with optional redundant twin mode
- ❖ 18-72 VDC, 24-48VAC RMS input power
- ❖ In system remote firmware upgrades over IP connection
- ❖ Compact DIN mounted package 105mmx 86mmx 58mm
- ❖ Based on GadgetTek™ technology



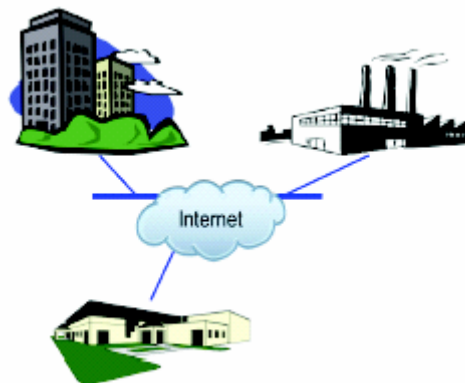
Description

The eNode™III Lon/IP 852 Router is based upon Adept System's GadgetTek™ technology for LON over IP 852 routing products. The eNode™III Lon/IP 852 Router brings an innovative modular design for optimal scalability and cost effectiveness. The eNode™III Lon/IP 852 Router further widens our leadership in price performance for EIA IP 852/709.1 routers.

eNode™III Lon/IP 852 Router has a wide range input power supply that accepts 18-72VDC and 24- 48VAC RMS. The power connector now uses a 2 pin 3.5 mm Euro connector. Also new are a real time clock, integrated FT-10 termination, an optional external transceiver interface, and support for up to two 709.1 ports at a time. Each port acts as an independent LON to IP 852 router.

The external interface supports one single ended mode transceiver or one special purpose mode transceiver, such as, LonWireless or Powerline. The two active ports can be selected from any combination of the two internal ports and the external transceiver interface. The internal port transceivers can be either either FT-10 or both RS-485. The integrated FT-10 termination is jumper selectable for off, bus, or free topology.

The packaging now comes with built in DIN rail clip and popular "top hat" plastic enclosure. The eNode™III Lon/IP 852 Router comes in either -25 to 71° C or -40 to 85° C temperature rating. Unique to the eNode™III Lon/IP 852 Router is the choice of either 10/100 Base-T Ethernet (CAT 5) or 802.11b WiFi wireless Ethernet network interface.



Distributed Multi site Network

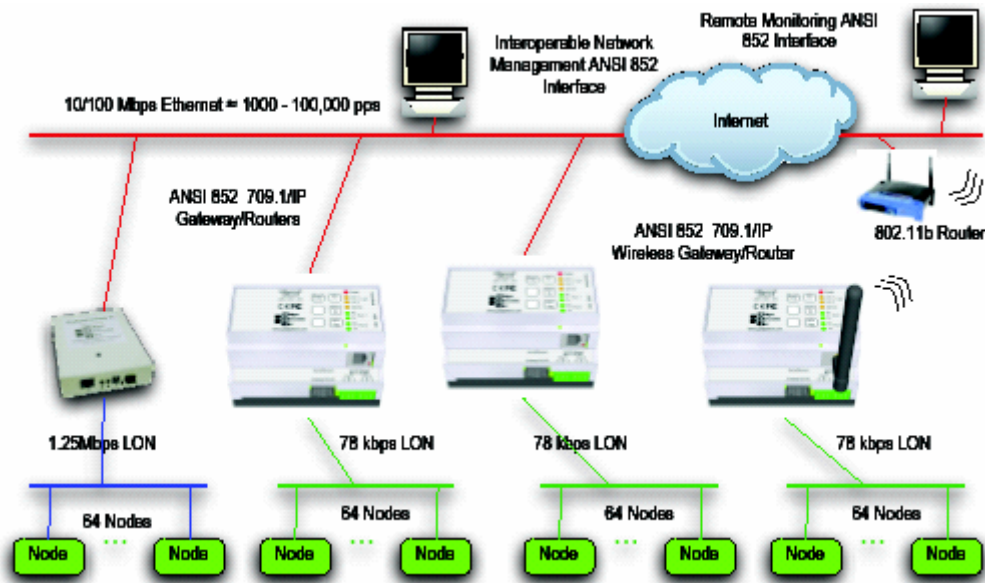
Interoperability

eNode™III Lon/IP 852 Router was designed to be compliant with existing router network management and configuration software to make upgrades easy for system's integrators (such as that for the i.Lon). IP communications are based on the open EIA IP 852 standard specification for interoperable EIA 709.1 to IP 852 gateways and tunnelling repeaters.

eNode™III Lon/IP 852 Router is designed for seamless integration into existing LonWorks® control networks and is highly interoperable with existing management tools, nodes, gateways, and routers, such as, the i.LON 600 or 1000. It supports a direct IP connection to LNS or LonMaker running on a PC. The eNode™III Lon/IP 852 Router also interoperates with and/or replaces legacy "Router-LL" systems.

In flood mode two or more routers will be "invisible" to other LON network components and network management tools. This allows seamless connection of remote channels over a LAN or the internet such that they all appear as members of the local subnet. Multicast makes flood mode efficient and scalable.

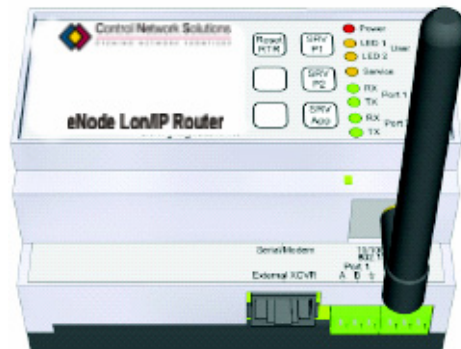
eNode™III Lon/IP 852 Router includes an on-board web server for remote configuration. The web configuration page includes a service pin button to enable remote commissioning in either Normal or Manual mode. The new look web interface includes even more functionality than previous versions.



IP-852 Back Bone Application

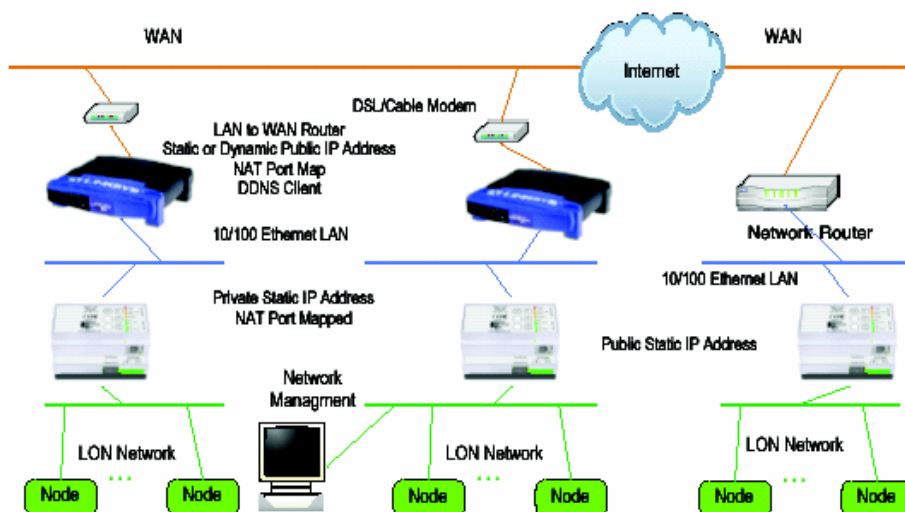
Integrated WiFi Support

eNode™III Lon/IP 852 Router is the first ever IP 852 router to provide integrated 802.11b WiFi support. With the WiFi option the Ethernet port is replaced with a WiFi port. The standard configuration includes an omnidirectional whip antenna. Other antennas are available. This makes it convenient to extend the network between buildings and other remote sites or for retrofit applications.



WAN Support with NAT and DDNS

eNode™III Lon/IP 852 Router provides support for Network Address Translation (NAT) when installed on a LAN. Unique to eNode™III Lon/IP 852 Router is support for Dynamic DNS (DDNS). With a DDNS compliant NAT router such as the LinkSys™ BEFSX41, the eNode™III Lon/IP Router will do DNS lookups to track changing IP addresses of its local WAN access point and those of other eNode™III Lon/IP 852 Routers. This saves the expense of static IP addresses for widely distributed sites. The webserver port for the eNode™III Lon/IP 852 Router is also user configurable to avoid conflicts when used behind a NAT router.



WAN Application with DDNS and NATS Routing

High Availability IP 852 Redundant Twin Mode

The eNode™III Lon/IP 852 Router supports an optional Redundant Twin mode with enhanced reliability for high availability applications.

In redundant twin mode two routers connect to the same LON channel but without duplicate forwarding of packets. This provides greater reliability without the scalability problems of excess duplicate packet traffic. The twins monitor, diagnose, and report faults. The secondary twin will automatically go active if the primary fails. Should there be a fault in either interface then both routers will go active and forward traffic until the fault has been healed. The router configuration is periodically automatically synchronized between the two routers to reduce fail-over time and increase the fidelity between the backup and primary router operation.

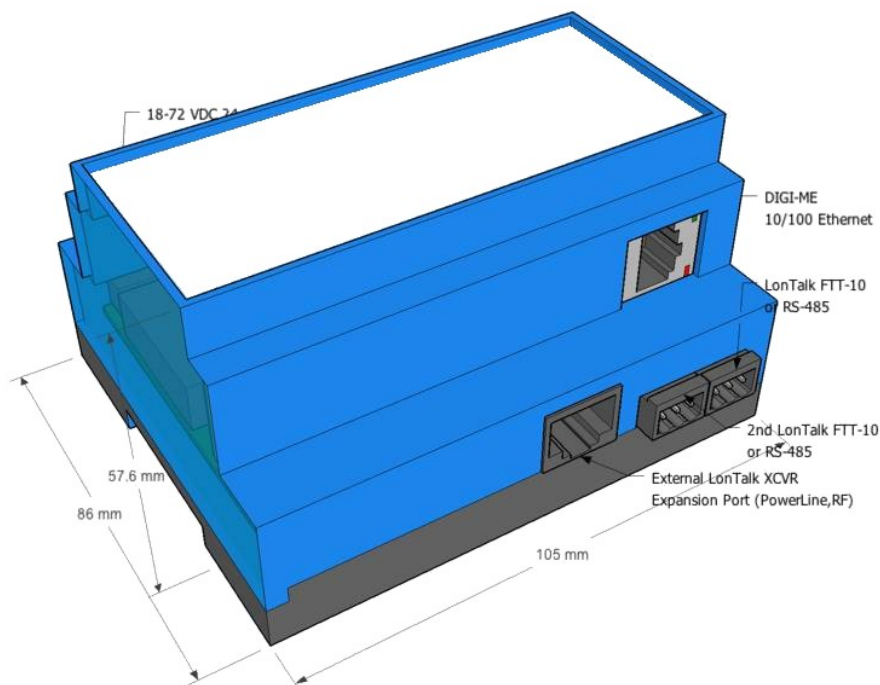
For more details on this product please refer to the eNode™III Redundant Lon/IP 852 data sheet, Application Note and User Manual.

Integrated Short Isolator

The eNode™III Lon/IP 852 Router will provide enhanced high availability support with an optional integrated short isolator module. This module detects and isolates shorts on an FT-10 bus or ring. The isolator is two sided, so communication through the eNode™III Lon/IP 852 Router to the IP side is preserved in the event of a short.

Specification

Mechanical



Electrical

Power Supply:	8-72VDC and 24 -48VAC
Power Connector	3 pin 3.5 mm Euro connector

Operational

Standard Operating temperature	-25 to +70 C
Storage temperature:	-25 - 85 C
Operating Humidity:	10 - 90%RH @ 50 C, non-condensing
Non-operating Humidity:	95% RH @ 50 C, non-condensing
Extended Operating Temperature:	-40 – 85 C

Approvals

CE, FCC Class B, UL

WiFi Version -

- FCC, Part 15 Class B
- EN 55022, Class B
- EN 61000-3-2 and EN 61000-3-3
- ICES-003, Class B
- VCCI, Class II
- AS 3548
- FCC Part 15 Subpart C Section 15.247
- IC (Industry Canada) RSS-210 Issue 5 Section 6.2.2(o)
- EN 300 328
- EN 301 489-3
- UL 60950-1
- EN 60950 (European Union)
- CSA C22.2, No. 60950
- EN 55024

Ordering Information

Standard Operating Temperature Range

CNSNeNode III/A/B/C

- A => 1 SP1 single Port FTT10
- 2 SP2 single port RS485
- 3 DP1 dual port both ports
- 4 DP2 one port FTT10 & one port RS485 = 4

- B= > 1 Nothing standard Lon/IP Routing,
- 2 R redundant Lon/IP routing,
- 3 B Lon/IP bridge functionality,
- 4 N standard user programmable node

- C => 1 Ethernet copper
- 2 Ethernet wireless

Extended Operating Temperature Range

CNSNeNode III/A/B/C/Ex

- A => 1 SP1 single Port FTT10
- 2 SP2 single port RS485
- 3 DP1 dual port both ports
- 4 DP2 one port FTT10 & one port RS485 = 4

- B= > 1 Nothing standard Lon/IP Routing,
- 2 R redundant Lon/IP routing,
- 3 B Lon/IP bridge functionality,
- 4 N standard user programmable node

- C => 1 Ethernet copper
- 2 Ethernet wireless

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