LINKTROPY MINI²
HARDWARE GUIDE
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This Linktropy Mini² Hardware Guide describes the physical hardware of the Linktropy Mini² WAN Emulator. The companion User’s Guide describes the installation, configuration, and operation of the Linktropy Mini² WAN emulation functionality. A separate Quick Start Guide provides a walkthrough for first time configuration.

The Linktropy Mini² contains no user serviceable parts. Opening the chassis voids the warranty. If you believe your unit is not functioning properly, see Section 5 for information on obtaining support.

This guide is for Linktropy Mini² hardware revision –P3.
The Linktropy Mini\textsuperscript{2} shipping carton contains the following items:

- Linktropy Mini\textsuperscript{2} hardware unit
- Linktropy Mini\textsuperscript{2} Quick Start Guide
- AC power adaptor
- RS-232 DB-9 serial cable
3 FRONT AND REAR PANELS

3.1 Front Panel

The front panel of the Linktropy Mini² contains:

**Power LED**: Lit green when the unit is powered on. Unlit when power is off.
3.2 Rear Panel

![Rear Panel Image]

The rear panel of the Linktropy Mini² contains:

**CONSOLE:** Console interface using RS-232 with a DB-9 connector.

**LAN A:** 10/100baseT Ethernet interface with a standard RJ-45 plug. Connects to the network segment functioning as LAN A in network emulations.

**LAN B:** 10/100baseT Ethernet interface with a standard RJ-45 plug. Connects to the network segment functioning as LAN B in network emulations.

**MGMT:** 10/100baseT Ethernet interface with a standard RJ-45 plug for browser-based management of the unit over the network.

**Power input:** Standard DC power jack with 2.1 mm center pin. The center pin is positive and the sleeve is ground. 7-20V DC power.
4 **CONSOLE INTERFACE**

Console access to the Linktropy Mini² is through the RS-232 interface on the rear panel labeled “CONSOLE.” A DB-9 cable is included with the unit to connect the device to a standard PC serial port. The pin-out for the DB-9 connector is shown below:

![DB-9 Connector Diagram]

<table>
<thead>
<tr>
<th>Pin</th>
<th>Definition</th>
<th>Pin</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DCD</td>
<td>6</td>
<td>DSR</td>
</tr>
<tr>
<td>2</td>
<td>RxD</td>
<td>7</td>
<td>RTS</td>
</tr>
<tr>
<td>3</td>
<td>TxD</td>
<td>8</td>
<td>CTS</td>
</tr>
<tr>
<td>4</td>
<td>DTR</td>
<td>9</td>
<td>RI</td>
</tr>
<tr>
<td>5</td>
<td>GND</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To connect to the console, use a terminal or a computer running terminal emulation software, and set the following parameters:

- 9600 baud
- 8 data bits
- No parity
- 1 stop bit
- Disable flow control
Purchase of the Linktropy Mini² includes a 1 year warranty on the hardware, 1 year maintenance, and 90 days of customer support.

If you believe your unit is not functioning properly and is under warranty, please upgrade to the latest firmware release. If the problem persists, please contact Apposite Support at:

support@apposite-tech.com
1.310.477.9955 ext. 2

When contacting Apposite Support, please include the following information:

- Linktropy model
- Serial number
- Your e-mail address and phone number
- Installed firmware version
- A detailed description of the problem

Do not attempt to fix any hardware problem yourself. The Linktropy Mini² contains no user serviceable parts. Opening the chassis voids the warranty.
## Appendix A: Specifications

<table>
<thead>
<tr>
<th>Capacity</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Max. Emulation Rate</td>
<td>100 Mbps full duplex</td>
</tr>
<tr>
<td>Max. Packet Rate</td>
<td>80,000 packets per second with 64 byte packets</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interfaces</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Network</td>
<td>2 x 10/100baseT Ethernet</td>
</tr>
<tr>
<td>Management</td>
<td>1 x 10/100baseT Ethernet</td>
</tr>
<tr>
<td>Console</td>
<td>1 x RS-232</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environmental and Physical</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DC Input</td>
<td>7 - 20V DC power</td>
</tr>
<tr>
<td>AC Input</td>
<td>100 – 240 VAC, 50 – 60 Hz with supplied AC power adaptor</td>
</tr>
<tr>
<td>Power Draw</td>
<td>6 Watts</td>
</tr>
<tr>
<td>Dimensions</td>
<td>6.6&quot; W x 6.2&quot; D x 1.2&quot; H</td>
</tr>
<tr>
<td></td>
<td>168 mm W x 157 mm D x 30 mm H</td>
</tr>
<tr>
<td>Weight</td>
<td>Product 1.1 lbs (0.5 kg)</td>
</tr>
<tr>
<td></td>
<td>Shipping 2.2 lbs (1.0 kg)</td>
</tr>
<tr>
<td>Temperature</td>
<td>32°C to 104°F (0°C to 40°C)</td>
</tr>
<tr>
<td>Certifications</td>
<td>FCC, CE, RoHS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Warranty and Support</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware warranty</td>
<td>1 year</td>
</tr>
<tr>
<td>Software Maintenance</td>
<td>1 year</td>
</tr>
<tr>
<td>Customer Support</td>
<td>90 days</td>
</tr>
</tbody>
</table>
APPENDIX B: REGULATORY

Federal Communications Commission Notice

This equipment has been tested and verified to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area may cause harmful interference, in which case the user will be required to take whatever measures may be required to correct the interference at their own expense.

Canadian Notice / Avis Canadien

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

CE Certification

The product described in this manual complies with all applicable European Union (CE) directives including EU Directive 2002/95/EC Restriction of Hazardous Substances (RoHS).
APPENDIX C: LINKTROPY END USER LICENSE AGREEMENT

The Apposite Technologies LLC. ("Apposite") Linktropy product includes the Linktropy hardware ("Hardware"), software embedded in the Hardware ("Software") including any upgrades, modified versions, updates, additions and copies of the Software, and related explanatory materials ("Documentation"). Collectively, the Hardware, Software, and Documentation are the "Product."

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Apposite warrants that for a period of one (1) year from the date of shipment of the Hardware to you ("Warranty Period"), the Hardware will be free of any defects in materials and workmanship under normal use and the Software will perform substantially in accordance with the Documentation. This limited warranty extends only to the original user of the Product. This limited warranty is void if failure of the Hardware or Software to conform to the warranty has resulted from improper installation, testing, misuse, neglect, accident, fire or other hazard, or any breach of this Agreement.
Apposite and its suppliers’ entire liability and your sole and exclusive remedy shall be, at Apposite’s sole discretion, to (i) repair the Software or Hardware; (ii) provide replacement Hardware or Software; or (iii) refund the purchase price and terminate this Agreement. This limited warranty applies only if the product is returned to Apposite, freight and insurance prepaid, in accordance with Apposite’s Return Material Authorization (RMA) procedures. Any repaired or replaced Software or Hardware will be warranted for the remainder of the original Warranty Period or thirty (30) days, whichever is longer.

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