



**VIVAX**  
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# Loc3-25Tx, 25-Watt Transmitter

Technical Specifications V1.5



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### A. Description and Typical Applications

| Item         | Parameter   |
|--------------|---|
| Model Name   | Loc3-25Tx   |
| Model Number | VX222-02  |
| Description  | 25-Watt Low-Frequency transmitter for buried utility locating and pipeline defect mapping   |
| Designed Use | <ul style="list-style-type: none"> <li>- Transmitting active signals for long-distance pipeline location</li> <li>- Transmitting active signals for the location of buried pipes and cables</li> <li>- Transmitting active signals for the location of coating defects on buried pipes</li> </ul> |

### B. Characteristics

| Item                | Parameter  |                       |          |                       |         |     |         |          |         |         |
|---------------------|--|-----------------------|----------|-----------------------|---------|-----|---------|----------|---------|---------|
| Construction        | High-impact ABS plastic  |                       |          |                       |         |     |         |          |         |         |
| Weight              | 7.05lbs (3.19kg)   |                       |          |                       |         |     |         |          |         |         |
| Dimension           | 13.1in(L) x 7.2in(W) x7.3in(H) (332mm x 182mm x 185mm)   |                       |          |                       |         |     |         |          |         |         |
| Display Type        | <ul style="list-style-type: none"> <li>- Monochrome-dot-matrix graphic LCD with LED backlight</li> <li>- 2.4in x 1.3in (60mm x 32mm)</li> </ul>  |                       |          |                       |         |     |         |          |         |         |
| Power Supply        | <ul style="list-style-type: none"> <li>- Li-Ion rechargeable battery tray with AC to DC adapter<br/>(Optional 12 x D Cell Alkaline battery tray (output limited to 10W))</li> </ul>  |                       |          |                       |         |     |         |          |         |         |
| Battery Life        | <table border="0"> <thead> <tr> <th>Output Power</th> <th>Alkaline</th> <th>Li-Ion (Rechargeable)</th> </tr> </thead> <tbody> <tr> <td>25-watt</td> <td>N/A</td> <td>4 hours</td> </tr> <tr> <td>*10-watt</td> <td>4 hours</td> <td>6 hours</td> </tr> </tbody> </table> <p>*When using Alkaline batteries, the output is limited to 10 watts</p> <p>*Continuous use at 70°F (21°C) with the backlight activated. The battery life varies with temperature, battery type and quality. Recharging cycles are approximately 500 times the life cycle. Based on the maximum output into a 50-ohm load and 50% duty cycle.</p> | Output Power          | Alkaline | Li-Ion (Rechargeable) | 25-watt | N/A | 4 hours | *10-watt | 4 hours | 6 hours |
| Output Power        | Alkaline   | Li-Ion (Rechargeable) |          |                       |         |     |         |          |         |         |
| 25-watt             | N/A  | 4 hours               |          |                       |         |     |         |          |         |         |
| *10-watt            | 4 hours  | 6 hours               |          |                       |         |     |         |          |         |         |
| Environmental       | IP54   |                       |          |                       |         |     |         |          |         |         |
| External Connectors | <ul style="list-style-type: none"> <li>- 1 x speakON® socket for clamps and connection leads</li> <li>- 1 x Mini-USB socket for firmware updates</li> <li>- 1 x socket for battery charger &amp; 12V DC power in</li> <li>- 1 x fuse socket (output protection) with 1.6A/250V fuse</li> </ul>   |                       |          |                       |         |     |         |          |         |         |
| Temperature Range   | <ul style="list-style-type: none"> <li>- Operating:-4°F to 122°F (-20°C to 50°C)</li> <li>- Storage:-40°F to 140°F (-40°C to 60°C)</li> </ul>  |                       |          |                       |         |     |         |          |         |         |

|                                       |  |
|---------------------------------------|--|
| <b>Compliance/Approvals</b>           | <ul style="list-style-type: none"> <li>- Complies with European standard CE (Directive 99/5/EC) (Pending)             <ul style="list-style-type: none"> <li>• EN 55011</li> <li>• EN 61000-4-3</li> <li>• EN 61000-4-2: A1 &amp; A2</li> <li>• EN 61000-4-8: A1</li> </ul> </li> <li>• ETSI EN 300 330-2</li> <li>• ETSI EN 301 489-1</li> <li>• ETSI EN 301 489-3</li> <li>- Complies with FCC Rules Part 15 (Pending)             <ul style="list-style-type: none"> <li>• CFR 47 part 2</li> <li>• CFR 47 Part 15</li> </ul> </li> </ul>   |
| <b>Manufacturing</b>                  | Designed and manufactured per ISO 9001:2015  |
| <b>What's In the Box</b>              | <ul style="list-style-type: none"> <li>- Loc3-25Tx Transmitter</li> <li>- Ground stake</li> <li>- Vehicle DC power supply</li> <li>- DC/AC Power supply for rechargeable battery</li> <li>- Direct Connection Leads (10ft (3.5m) red/black leads)</li> <li>- Transmitter carry bag</li> </ul>  |
| <b>Compatible Accessories Options</b> | <ul style="list-style-type: none"> <li>- 2-inch (50mm) transmitter clamp</li> <li>- 4-inch (100mm) transmitter clamp</li> <li>- 5-inch (125mm) transmitter clamp</li> <li>- 9-inch (230mm) transmitter clamp</li> <li>- 18-inch (450mm) flexible transmitter clamp</li> <li>- Ground Extension Spool</li> <li>- Backpack</li> <li>- Carry Bag</li> <li>- Connection leads with Telco or heavy-duty clips</li> <li>- Live Plug Connector (<i>LPC Separation Filter</i>) - to connect and use the transmitter on lines carrying up to 240V AC</li> <li>- LCC Live Cable Connector - to connect and use the transmitter on lines carrying up to 480V AC</li> <li>- Rechargeable Battery Tray - custom Li-Ion battery tray and charger (input DC12V 3A, output DC18V-93.6 Wh)</li> <li>- 12V DC Vehicle Power Lead - for powering and charging the optional rechargeable battery from a vehicle</li> <li>- Adapter, 3-Pin XLR to speakON® for clamps and connection leads</li> </ul> |

## C. Operational

| Item                         | Parameter  |
|------------------------------|--|
| <b>Information Displayed</b> | <ul style="list-style-type: none"> <li>- Current (numeric)</li> <li>- Volts</li> <li>- Resistance</li> <li>- Frequency of output signal</li> <li>- Beeper volume (three levels &amp; off)</li> <li>- Output Step bar graph showing the proportion of signal current successfully applied</li> <li>- High voltage warning if utility-to-ground potential exceeds 21V (DC or AC peak)</li> <li>- Animation icon confirming connection mode (Direct connection or Clamp)</li> <li>- Battery condition icon</li> </ul> |
| <b>Transmitting Modes</b>    | <ul style="list-style-type: none"> <li>- <b>Direct connection mode</b> applies a signal directly to the cable by clipping one output lead to the cable and the other to an independent ground.</li> <li>- <b>Clamp mode</b> – applies a signal using an inductive clamp (aka toroid or coupler) placed around the target pipe or cable. *Compatible frequencies of 8kHz and above.</li> <li>- *Modes are automatically selected when an accessory is plugged in.</li> </ul>  |

## Transmitting Frequency by Mode

|                               |  |  |  |
|-------------------------------|--|--|--|
| <b>Direct Connection Mode</b> | <ul style="list-style-type: none"> <li>- 3Hz/98Hz</li> <li>- 3Hz/128Hz</li> <li>- 4Hz/98Hz</li> <li>- 4Hz/128Hz;</li> <li>- ELF1-3Hz/6Hz/98Hz;</li> </ul>  | <ul style="list-style-type: none"> <li>- ELF2-3Hz/6Hz/128Hz;</li> <li>- ELF3-4Hz/8Hz/98Hz;</li> <li>- ELF4-4Hz/8Hz/128Hz;</li> <li>- 3Hz/6Hz/512Hz;</li> </ul> | <ul style="list-style-type: none"> <li>- 3Hz/6Hz/640Hz;</li> <li>- 4Hz/8Hz/512Hz;</li> <li>- 4Hz/8Hz/640Hz</li> <li>- 20Hz to 9.82kHz</li> </ul> |
| <b>Clamp Mode</b>             | 8kHz to 9.82kHz  |  |  |
| <b>Transmitting Mode</b>      | In accordance with FCC part 15:  |  |  |
| <b>Power Output</b>           | <ul style="list-style-type: none"> <li>- Frequencies under 45 kHz - 25 watts</li> <li>- 25 watts Li-Ion rechargeable battery or external 19V 180W power adapter:</li> <li>- 10 watts when using alkaline batteries</li> </ul>  |  |  |
| <b>Maximum Output Voltage</b> | <ul style="list-style-type: none"> <li>- Li-Ion rechargeable battery, or external 19V 180W power adapter: 130V peak</li> <li>- 12V power adapter: 42V peak</li> </ul>  |  |  |
| <b>Maximum Output Current</b> | <ul style="list-style-type: none"> <li>- 1 Amp RMS constant output (<i>4 Amps Peak</i>)</li> </ul> <p>*Dependent on frequency and mode</p>   |  |  |
| <b>Output Protection</b>      | <ul style="list-style-type: none"> <li>- Maximum utility-to-ground potential (operating): 21V (DC or AC peak)</li> <li>- Output protected against accidental momentary connection to up to 230V AC (rms)</li> </ul>  |  |  |
| <b>Audio Indication</b>       | <ul style="list-style-type: none"> <li>- Connection quality – Increased beep rate indicates a better-applied signal</li> <li>- Beep to confirm the action</li> </ul>   |  |  |
| <b>Controls</b>               | <ul style="list-style-type: none"> <li>- Use pushbuttons to select: <ul style="list-style-type: none"> <li>• On/Off</li> <li>• Frequency</li> <li>• Output level</li> </ul> </li> </ul> <p>Information (volts &amp; resistance) / Setting (volume, frequency &amp; multi-mode)</p> |  |  |
| <b>Compatible Receivers</b>   | vLoc3 series   |  |  |

## D. Rechargeable Battery Tray

| Item                | Parameter  |
|---------------------|--|
| <b>Description</b>  | Li-Ion rechargeable battery tray with charger  |
| <b>Input/output</b> | <ul style="list-style-type: none"> <li>- Input DC12V 3A</li> <li>- Output DC18V-93.6 Wh</li> </ul> |
| <b>Battery Type</b> | Li-Ion battery   |

|                           |   |
|---------------------------|---|
| <b>Temperature Range</b>  | - Operating: 14°F to 122°F (-10°C to 50°C)      - Charging: 32°F to 113°F (0°C to 45°C)<br>- Storage: -4°F to 140°F (-20°C to 60°C) |
| <b>Storage humidity</b>   | ≤ 75% RH  |
| <b>Weight</b>             | Battery Tray: 3.31lbs. (1.5kg)  |
| <b>Dimension</b>          | 13.1in(L) x 7.2in(W) x 2.9in(H) (332mm x 182mm x 73mm)  |
| <b>Shipping Weight</b>    | 4.6lbs (2.1kg) (Battery Tray)   |
| <b>Shipping Dimension</b> | 16.1in(L) x 10.2in(W) x 6.7in(H) (410mm x 260mm x 170mm)  |
| <b>Warranty</b>           | 12 months   |

## E. Shipping and Packaging

| Item                       | Parameter  |
|----------------------------|--|
| <b>Shipping Weight</b>     | 14.4lbs. (6.5kg)   |
| <b>Shipping Dimensions</b> | 15.7in(L) x 11.8in(W) x 8.7in(H) (400mm x 300mm x 220mm) |

## F. Warranty

| Item            | Parameter                                    |
|-----------------|--|
| <b>Warranty</b> | - 12 months<br>- Extended warranty available |

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**Disclaimer:** Product and accessory specifications and availability information are subject to change without prior notice.

**Performance Disclaimer** Actual performance may vary depending on environmental conditions, user technique, and signal interference.  
**Software & Firmware Disclaimer** Functionality described may depend on the software or firmware version installed. Features are subject to modification through future updates.

**Battery & Power Disclaimer** Battery life is estimated and may vary based on settings, usage, temperature, and battery age.

**Calibration Disclaimer** Self-Test results confirm system consistency with factory calibration but do not replace periodic professional calibration if required by company policy or regulation.

**Compliance Disclaimer** Compliance with regional standards may vary by country. Users are responsible for ensuring the product is used in accordance with local laws and regulations.

**Use Case Disclaimer** The system is intended for professional utility locating and should not be used for purposes outside the manufacturer's defined scope.

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