



**VIVAX**  
**METROTECH**

# Loc3-25Tx, 25-Watt Transmitter

Technical Specifications V1.4



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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 (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	IP65 and NEMA 4									
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> <li>• ETSI EN 300 330-2</li> </ul> </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>- Direct Connection Leads (10ft (3.5m) red/black leads)</li> <li>- Ground stake</li> <li>- Li-ion Rechargeable battery tray</li> <li>- DC/AC Power supply for rechargeable battery</li> <li>- Transmitter carry bag</li> <li>- Vehicle DC power supply</li> </ul>
<b>Compatible Accessories Options</b>	<ul style="list-style-type: none"> <li>- 4-inch (100mm) transmitter clamp</li> <li>- 5-inch (125mm) transmitter clamp</li> <li>- Loc3 Series Backpack</li> <li>- Ground Extension Spool</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> </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> <li>- ELF2-3Hz/6Hz/128Hz;</li> <li>- ELF3-4Hz/8Hz/98Hz;</li> <li>- ELF4-4Hz/8Hz/128Hz;</li> <li>- 3Hz/6Hz/512Hz;</li> <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>	<ul style="list-style-type: none"> <li>- 8kHz to 9.82kHz</li> </ul>

<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> <li>- *Dependent on frequency and mode</li> </ul>
<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>	<ul style="list-style-type: none"> <li>- vLoc3-DM, vLoc3-Pro, vLoc3-5000, vLoc3-9800, vLoc3-XLF</li> <li>- vLocDM, vLocDM2,</li> <li>- vLoc, vLoc2 series receivers, and vLoc3 series receivers with matching frequencies</li> </ul>

## D. Rechargeable Battery Tray

Item	Parameter
<b>Description</b>	Loc3 Series Transmitter Li-Ion rechargeable battery tray with charger
<b>Input/output</b>	Input DC12V 3A Output DC18V-93.6 Wh
<b>Battery Type</b>	Li-Ion battery
<b>Temperature Range</b>	<ul style="list-style-type: none"> <li>- Operating: 14°F to 122°F (-10°C to 50°C)</li> <li>- Storage: -4°F to 140°F (-20°C to 60°C)</li> <li>- Charging: 32°F to 113°F (0 °C to 45 °C)</li> </ul>
<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>	One Year

## 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>	<ul style="list-style-type: none"> <li>- Two years</li> <li>- Extended warranty available</li> </ul>

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