



**VIVAX**  
**METROTECH**

# vLoc3-Cam

Technical Specifications V1.9



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## A. Description and Typical Applications

Item	Parameter
Model Name	vLoc3-Cam
Model Number	VX225-01
Description	Sonde locator with passive locate modes
Intended Use	<ul style="list-style-type: none"> <li>- Locating &amp; pinpointing the position of sondes and inspection camera sondes</li> <li>- Locating &amp; pinpointing the position of pushrods and some buried utilities</li> </ul>

## B. Characteristics

Item	Parameter
Construction	High-impact thermoplastic (ABS) injection molded housing
Weight	4.6lbs (2.1kg)
Dimensions	12.6in(L) x 4.9in(W) x 26.6in(H) (321mm x 124mm x 676mm)
Display Type	High-Visibility Color Display, 4.3"/10cm with 480 x 272 resolution and automatic backlight
Receiver Antennas	Two sets of Omnidirectional Antennas, each comprising: <ul style="list-style-type: none"> <li>• Two Compass Antennas</li> <li>• Two Horizontal Antennas</li> <li>• Two Vertical Antennas</li> </ul>
Batteries	<ul style="list-style-type: none"> <li>- Six x AA Alkaline batteries (Standard)</li> <li>- Rechargeable custom Lithium-ion batteries with 100-240V AC mains charger (Optional)</li> </ul>
Battery Life <sup>1</sup>	<ul style="list-style-type: none"> <li>- Lithium-ion – typically 30 hours of continuous use at 70°F (21°C)</li> <li>- Alkaline – typically 10 hours of intermittent use at 70°F (21°C)</li> </ul>
Environmental	IP65
External Connectors	<ul style="list-style-type: none"> <li>- Accessory Socket – to charge the optional rechargeable batteries and attach accessories</li> <li>- Mini USB socket for data transfer and programming</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> <li>- Recommended storage temperature for lithium-ion batteries is typically:               <ul style="list-style-type: none"> <li>• Long-term storage: 59°F to 77°F (15°C to 25°C)</li> <li>• Short-term storage: 104°F (Up to 40°C)</li> <li>• Avoid: Temperatures below -4°F (-20°C) or above 140°F (60°C)</li> </ul> </li> </ul>

	*Storing batteries in a cool, dry place and at around 50% charge helps preserve battery health over time.	
<b>Compliance and Approvals</b>	<ul style="list-style-type: none"> <li>- Complies with European standard CE (Directive 99/5/EC)               <ul style="list-style-type: none"> <li>• EN 55011</li> <li>• EN 61000-4-2: A1 &amp; A2</li> <li>• EN 61000-4-3</li> <li>• EN 61000-4-8: A1</li> <li>• ETSI EN 300 330-2</li> <li>• ETSI EN 301 489-1</li> <li>• ETSI EN 301 489-3</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Complies with FCC Rules Part 15               <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>- vLoc3-Cam Receiver</li> <li>- USB data transfer cable</li> <li>- Alkaline battery holder</li> </ul>	<ul style="list-style-type: none"> <li>- User handbook</li> <li>- Bluetooth module (factory embedded not accessible)</li> </ul>
<b>Network &amp; Wireless Interfaces</b>	Bluetooth: Version 4.2 (BR/EDR and Low Energy)	
<b>Compatible Accessories</b>	<ul style="list-style-type: none"> <li>- Vehicle Charging DC Lead</li> <li>- Range of Sondes (waterproof, self-contained transmitters for use in nonmetallic pipes &amp; ducts)</li> <li>- Tall Adapter</li> </ul>	

## C. Operational

Item	Parameter
<b>Information Displayed</b>	<p><b>Information screen:</b></p> <ul style="list-style-type: none"> <li>- Measured estimated depth of signal in Ft. and inches, Inches, or Meter</li> </ul> <p><u>Only in combination with the VMMap App:</u></p> <ul style="list-style-type: none"> <li>- Altitude</li> <li>- GPS coordinates</li> <li>- Data logging storage options: store or discard</li> <li>- Incremental data log count per survey</li> </ul> <p><b>Status Bar Information:</b></p> <ul style="list-style-type: none"> <li>- Antenna configuration: Peak</li> <li>- Continuous depth estimation</li> <li>- Battery charge level condition and battery type (Li-Ion / Alkaline)</li> <li>- Speaker volume</li> </ul>

	<ul style="list-style-type: none"> <li>- Bluetooth status</li> <li>- GNSS Fix type status</li> </ul> <p><b>Locate screen (Classic display):</b></p> <ul style="list-style-type: none"> <li>- Signal strength moving bar graph &amp; numeric value from 0% to 99.9%</li> <li>- Bar graph</li> <li>- Peak level indicator</li> <li>- Compass with full 360°-line direction indicator</li> <li>- Gain level 0dB to 140dB</li> <li>- Frequency selected</li> </ul> <p><b>Customer definable start-up screen</b></p>		
<p><b>Locate Perspectives</b></p>	<ul style="list-style-type: none"> <li>- <b>Classic Locate</b> – moving bar graph with numeric value showing signal strength</li> <li>- <b>3D Sonde Locate Screen</b> – directing arrow to move to the Sonde position along the polar axis <ul style="list-style-type: none"> <li>• Directional guidance arrow</li> <li>• Null point indicator</li> <li>• Bar graph with peak signal response</li> <li>• Magnetic field alignment indicator</li> </ul> </li> </ul>		
<p><b>Configuration</b></p>	<p>The intuitive setup menu enables the user to configure:</p> <ul style="list-style-type: none"> <li>- Display Backlight (Low, Medium, High, Auto)</li> <li>- Frequency menu</li> <li>- Measurement units (Feet, Inches, Metres)</li> <li>- Speaker Volume (Low, Medium, High, Off)</li> <li>- Continuous information (Depth, Off)</li> <li>- Sound configuration (AM, FM)</li> <li>- Auto Power off (5 mins, 10 mins, Never)</li> <li>- Language (31 different languages available)</li> <li>- Adapter (Tall, Not attached)</li> <li>- Bluetooth Connection Enable/Disable/Auto Connect</li> <li>- Bluetooth Pairing</li> </ul>		
<p><b>Data Logging</b></p>	<ul style="list-style-type: none"> <li>- Data can be transferred via Bluetooth to the VMMap Mobile App and VMMap Cloud</li> <li>- All parameters stored at each location, including depth, date, time, mode, gain setting, frequency, longitude, latitude, and more</li> </ul>		
<p><b>Operating Frequencies</b></p>	<table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>- Dedicated Power 50Hz and 60Hz</li> <li>- Radio: 10.0kHz – 22.7kHz bandwidth</li> <li>- Sonde: 512Hz, 640Hz, 8.19kHz, 9.82kHz, 32.8kHz, 83.1kHz</li> </ul> </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>- Pushrod and Line trace: <ul style="list-style-type: none"> <li>• USA = 83.1kHz</li> <li>• EU, UK, AU = 32.8kHz or 83.1kHz</li> </ul> </li> </ul> </td> </tr> </table>	<ul style="list-style-type: none"> <li>- Dedicated Power 50Hz and 60Hz</li> <li>- Radio: 10.0kHz – 22.7kHz bandwidth</li> <li>- Sonde: 512Hz, 640Hz, 8.19kHz, 9.82kHz, 32.8kHz, 83.1kHz</li> </ul>	<ul style="list-style-type: none"> <li>- Pushrod and Line trace: <ul style="list-style-type: none"> <li>• USA = 83.1kHz</li> <li>• EU, UK, AU = 32.8kHz or 83.1kHz</li> </ul> </li> </ul>
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<b>Operating Antenna Modes</b>	<ul style="list-style-type: none"> <li>- Peak (Pushrod and Line Locating)</li> <li>- Omni Directional Peak (Sonde mode)</li> </ul>	
<b>Integrity Test</b>	<ul style="list-style-type: none"> <li>- Calibration Self-test <ul style="list-style-type: none"> <li>• Uses direct signal injection to test antenna transfer function (TRF)</li> </ul> </li> </ul>	
<b>Gain Control</b>	<ul style="list-style-type: none"> <li>- Manual gain using "+" or "-" keys</li> <li>- One-touch of "+" or "-" keys rescales to 60% of the bar graph scale</li> </ul>	
<b>Accuracy<sup>2</sup></b>	Locate pinpointing accuracy:	<ul style="list-style-type: none"> <li>- Up to 9ft (3m) – 3% of the depth</li> <li>- Over 9ft (3m) – 5% of the depth</li> </ul>
	Depth measurement accuracy:	+/- 3% of the depth
	Depth range:	<ul style="list-style-type: none"> <li>- Dependent on the strength of the signal radiating to the locator</li> <li>- Maximum depth displayed 98ft (30m)</li> </ul>
	* Performance rated using a single undistorted signal source	
<b>Sensitivity</b>	5 uA rms @ 1m depth, 32768Hz to yield +20dB SNR referred to a <10Hz> bandwidth	
<b>Compatible Transmitters</b>	VM-550FF, vScan Tx, Loc3 series and any Vivax-Metrotech transmitter with matching frequencies	

## D. Communications

Item	Parameter
<b>Bluetooth</b>	Internal Bluetooth for communicating with: <ul style="list-style-type: none"> <li>• External GPS, data logging devices or Apps</li> <li>• Apple® devices</li> <li>• Android™ devices</li> <li>• Windows® devices</li> </ul>

## E. Shipping and Packaging

Item	Parameter
<b>Shipping Weight</b>	9.5lbs (4.3kg)
<b>Shipping Dimension</b>	30in(L) x 11in(W) x 14in(H) (760mm x 280mm x 350mm)

## F. Warranty

Item	Parameter
Warranty	<ul style="list-style-type: none"> <li>- 24 months</li> <li>- Extended warranty available</li> </ul>

## G. Software Updates

Item	Parameter
Software	The software can be upgraded using a PC with a USB port. Program updates and locator software updates are available via the free MyLocator3 app

- 1) Battery life varies with usage conditions such as backlight, brightness, speaker volume, and BT connectivity; continuous operation may reduce the runtime compared to typical intermittent use. Lithium-ion battery performance will gradually degrade over time and with repeated charge cycles, leading to reduced operating duration under continuous use. Re-charging cycles are approximately 500 times the life cycle.
- 2) Locate and depth accuracy are quoted for 20°C and average soil conductivity. It is also assumed the return current localisation is deep compared to the target cable.

**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.

**Third-Party Services Disclaimer**

Use of GNSS correction services or cloud platforms may require third-party subscriptions and are subject to their terms and availability.

**Feature Availability Disclaimer:**

Certain features, frequencies, or accessories may only be available in specific markets due to regional regulations or product certifications. Please consult your local Vivax-Metrotech representative for availability in your area.

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