

ALPHA DT3

Multi-Function



- High power output
- Color touchscreen
- Precise positioning
- Cable identification
- Integrated detection and measurement
- Multi-mode detection
- Sensitive tracking
- Fault location

α-GEO



ALPHA DT3

Introduction

The ALPHA DT3 is the latest multifunctional pipeline detector developed by AlphaGEO for detecting pipes, cables, optical fibers, etc.

Its transmitter has high power output up to 15 watt, and its locator has multi-mode for locating the target. It can accurately determine the position, path direction and burial depth of underground pipelines.

With optional accessories, it can also identify target cable even in complex cable networks and precisely locate cable grounding faults.

As a comprehensive solution in the field of detection, it truly achieves multi-purpose functionality, significantly reducing usage costs.





Features

- Locator 4.3-inch & Transmitter 5.6-inch touch color LCD.
- Intuitive display: Direction arrows, Signal bar, Current direction, Pipeline simulation, Color-coded signal quality (Blue=good, Red=poor)
- 20 active & 2 passive frequencies, supports radio detection.
- Built-in frequency sweep test.
- Fully digital high-precision sampling.
- Integrated pipeline detection and coordinate measurement
- Max output power 15W, 15 adjustable levels.
- Transmitter with digital high-power output, automatic impedance matching & protection.

Components

Keypad

Color touch screen

DC charging port, Type-C charging port,
Accessory connector

LOCATOR



TRANSMITTER SIGNAL CLAMP

Input port



Clamp Trigger

Keypad



TRANSMITTER

DC charging port

Signal output
connector



Locator 4.3 inch



ALPHA DT3 is a ergonomic designed pipeline detector, which is lightweight, sturdy, durable and well adapted to harsh environments.

Both locator and transmitter feature a **HD backlit color LCD** for clear viewing in all light and weather.

ALPHA DT3 enables real-time positioning of target location, direction and depth. Wide frequency range and multi-modes meet diverse application needs.

Transmitter 5.6 inch



4 Ways to Apply Signal



Direct connection



Clamp coupling



Induction



Sonde

- **Direct Connection Method:**
Metal pipelines such as gas pipes, heating pipes and water supply pipes.
- **Clamp Coupling Method:**
Cables such as high-voltage cables, communication cables and street lighting cables.
- **Induction Method:**
Effective for shallow metal pipe and cable detection.
- **Sonde:**
For non-metallic pipe detection by inputting the sonde into the pipe.

4 Locating Modes



Peak-Trough

Intuitively displays the signal strength and pipeline direction, also shows the values of buried depth and current from target pipeline in real time.



Navigation

Built-in multiple shielded 3D antennas, 360° pipeline path indication.



Signal Curve

Find the target location by observing the changes of the curve.



Sonde

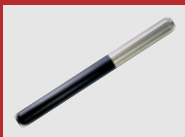
Determine the pipe location by detecting and tracing the sonde.

Optional Accessories



L2

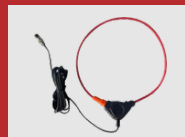
(including Surpro6.0)



Sonde



A-Frame



Flexible
signal clamp



Stethoscope

Specification

Locator

Function	Pipe/Cable detection (cable position tracking, direction display, depth measurement, current measurement), Cable identification, Sonde positioning, Ground fault location
Power	7.4V DC 6400mAh rechargeable lithium battery
Input Method	Built-in receiving coil; External exible signal clamp; External A-frame
Receiving Frequencies	Active detection frequencies: 128Hz, 512Hz, 577Hz, 640Hz, 1024Hz, 1280Hz, 2.56kHz, 3.20kHz, 4.09kHz, 8.19kHz, 9.50kHz, 9.80kHz, 10kHz, 33kHz, 66kHz, 82kHz, 83.1kHz, 89kHz, 133kHz, 201kHz (among which 512Hz, 640Hz, 1024Hz, 1280Hz, 2.56kHz, 3.20kHz have directional characteristics, can identify signal direction) Power frequency: 50Hz, 60Hz Communication frequency: Radio
Detecting Modes	Broad Peak method, Sharp Peak method, Trough method
Display Modes	Peak-Trough positioning mode, Navigation mode, Signal curve mode, Sonde mode
Detecting Range	Direct connection method: Generally up to 0-20 km cable length, mainly determined by grounding resistance, cable resistance, and cable burial depth Coupling method: Generally up to 0-10 km cable length, mainly determined by grounding resistance, cable resistance, and cable burial depth Induction method: Suitable for cables with burial depth less than 2m
Measuring Accuracy	±5% (burial depth 0-3m); -15% (burial depth 3m-20m)
Sound Indication	Frequency tone varying with signal strength
Bluetooth Communication	Supports Bluetooth communication for instrument control and connecting to Surpro6.0 for various data processing
Interference Distance	Pipe/Cable detection: More than 5m for coupling method, more than 20m for induction method can be considered interference-free. Cable identification: More than 5m for coupling method can be considered interference-free.
LCD	4.3-inch color LCD, supports touch operation
Coordinate Survey	Compatible with Professional RTK
Dimensions	Approx. 318mm * 140mm * 726mm
Weight	Approx. 2.1Kg
Charger	DC8.4V, 1A
Transmitting Signal Clamp	Length approx. 620mm, diameter approx. 8mm
	Inner Diameter ϕ 150mm
	Cable Length 3m
Direct Connect Cable	3m
Connecting Port	1 * USB interface (for firmware upgrade, can charge mobile phone) 1 * Type-C charging port 1 * DC charging port 1 * Accessory socket
Withstand Voltage	AC2000V/rms (between front and back of enclosure)
Operating Temp/Humidity	-10°C~40°C; below 80% Rh
Storage Temp/Humidity	-10°C~50°C, ≤95%RH, no condensation
Electromagnetic Characteristics	IEC61326(EMC)
Applicable Safety Regulations	IEC61010-1 CAT III 600V, IEC61010-031, IEC61326, Pollution degree 2

Transmitter

Function	Multi-frequency signal transmission for pipe/cable path detection, cable identification, and fault location
Power	11.1V DC 12800mAh rechargeable lithium battery
Output Method	Direct connection, Induction, Signal clamp coupling
Output Frequencies	128Hz, 512Hz, 577Hz, 640Hz, 1024Hz, 1280Hz, 2.56kHz, 3.20kHz, 4.09kHz, 8.19kHz, 9.50kHz, 9.80kHz, 10kHz, 33kHz, 66kHz, 82kHz, 83.1kHz, 89kHz, 133kHz, 201kHz
Output Power	15W Max, 15 adjustable levels, fully automatic real-time impedance matching
Direct Connect Output Voltage	150Vpp MAX
Circuit Protection	With overload and short circuit protection
LCD	5.6-inch capacitive touch LCD
Dimensions	Approx. 192mm * 307mm * 136mm
Weight	Transmitter 3.30Kg; Transmitting signal clamp 1.12kg
Charger	DC 12.6V, 1A
Transmitting Signal Clamp	Length*Width*Thickness 300mm×195mm×35mm
	Inner Diameter ϕ 150mm
	Cable Length 3m
Direct Connect Cable	3m
Connecting Port	1 * USB interface (for firmware upgrade, can charge mobile phone) 1 * Type-C charging port 1 * DC charging port 1 * Accessory socket
Withstand Voltage	AC 3700V/rms (between top and bottom of instrument case)
Electromagnetic Characteristics	IEC61326(EMC)
Applicable Safety Regulations	IEC61010-1 (CAT III 300V, CAT IV 150V, Pollution degree 2)

