

Built on Tradition



Highland Tank®



LevelShield-LITE

HT-6128

Liquid Inventory Management

LevelShield LITE is a compact liquid inventory monitoring device designed for basic level monitoring in a wide range of applications. LevelShield LITE employs radar measurement technology, which not only ensures accuracy, but allows for compatibility with a wide variety of measured products.

Installation is simple with zero wiring or device modifications needed. Simply install the device in the tank, and use a free application on a mobile device to configure all settings using Bluetooth technology. Once configured, LevelShield LITE provides updates every two hours, ensuring updated tank level information for route planning or daily fuel use reconciliation.

The LevelShield LITE is suitable for use in hazardous locations, making it versatile for use across the oil and gas industry. The device also includes GPS location tracking using the High-LINK application, making it an ideal option for those with multiple assets in the field.

 **High-LINK**

High-LINK® Peace of Mind 24/7

Key Features of LevelShield LITE

- Flexible tank mounting options
- Works with a variety of cellular carriers
- Up to 10-year battery life
- GPS/GLONASS Global Positioning
- Bluetooth enabled for configuration and startup
- Replaceable battery
- 10-year cellular connectivity included
- Range up to 22 feet
- 8 Degree radar beam
- IP68 Protected
- FCC Approved
- Hazardous location ratings/IS Sealed

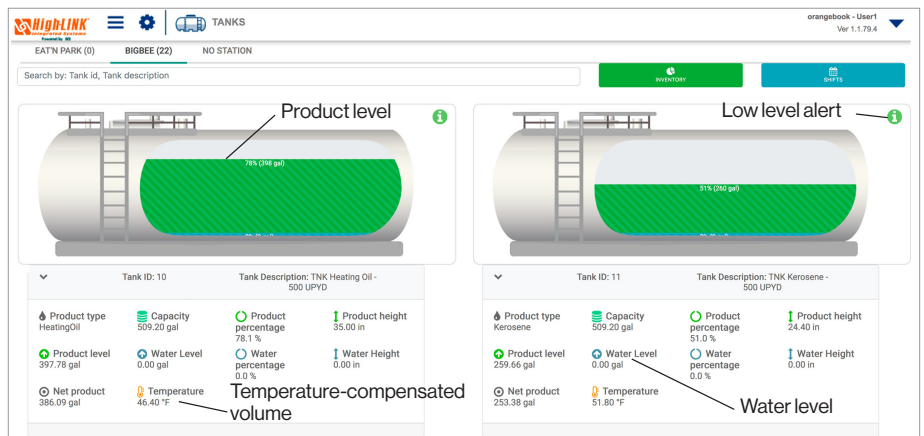
Utilizing High-LINK® provides years of unmatched monitoring for less upfront cost than a traditional level monitoring system

Manage liquid levels from anywhere

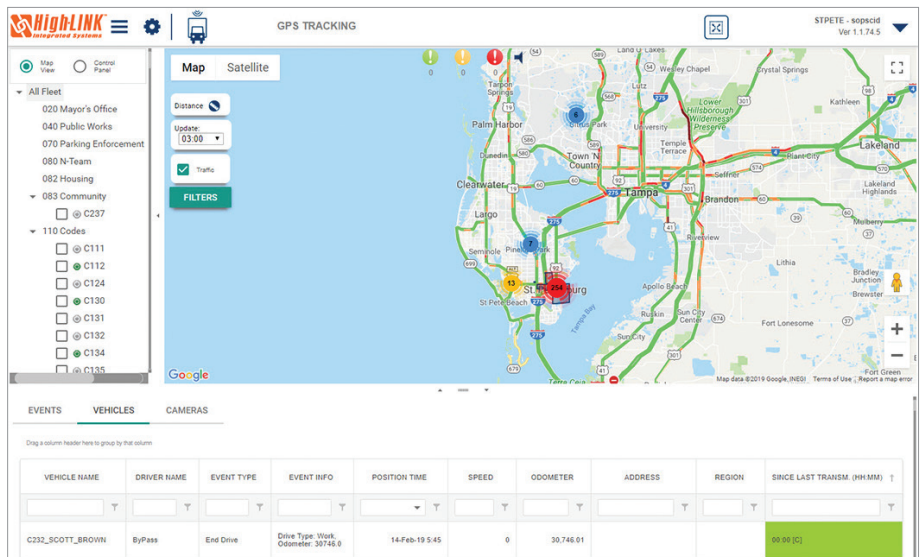
- Save money and increase efficiency
- Analyze data in real time
- Optimize operations
- Continuous water detection in tanks
- Verify physical delivery
- Fully customizable and remotely programmed alerts include: low liquid level, volume pumped and many more
- Auto-generated reports based on user-defined parameters



Updates and alerts on remote equipment data available anytime, anywhere, and on any device.



High-LINK® User Interface Screen



GPS Asset Tracking Screen



Highland Tank®

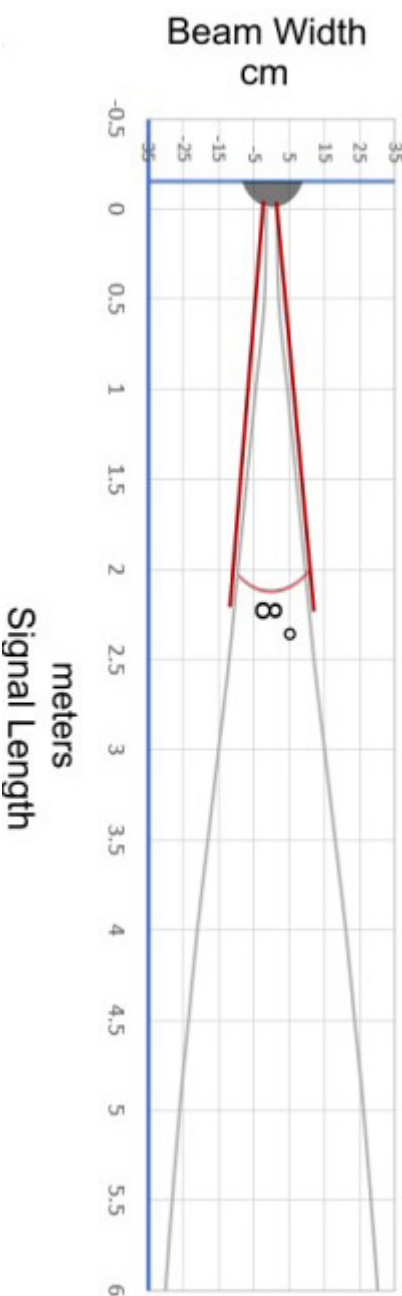
Transmitter	
Dimensions	Height (top) = 49.4 mm (height above tank mount - not including horn section 50 mm) Diameter = 115 mm
Weight	10 oz (280 g)
Housing material	UV Stabilized PVDF [Kynar] and PP material
Operating temperature	-13°F to 122°F (-25° to 50°) (Note 1)
Recommended storage temperature	32°F to 86°F (0°C to 30°C) (Note 1)
Humidity range	10% - 100%
Altitude range	<6,500 feet (<2Km) above sea level
Environmental Protection	IP68 - Outdoors
Battery	Lithium LiSOCi ₂ replaceable
Battery Life	Up to 13 years (Note 4)
Radar Range	>3.2" to < 22 feet (>10cm to <6.75m) (Note 2)
Radar Resolution	Up to 2mm
Radar Accuracy	Invasive mounting: Nominally +/-4mm @ up to 2m range. Between 2-4m use +/-0.75% of FS. Greater than 4m use +/-2%. Non-invasive mounting: +/-2% of FS (Note 5)
Material Compatibility	(Note 3)
Communications	Cat M1/Cat NB1: LTE FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B26/B28 LTE TDD: B39 (For Cat M1 Only). EGPRS: 850/900/1800/1900MH 2G fall-back. Bluetooth Low Energy (BLE) V5.2 for installation and customer local readings.
ATEX Approval	IECEx II (1)G Ex ia IIB T4 [-25 < Ta < +50°C] [-13 < Ta < +122°F] and North American Class 1, Division 1 UL913.

Accessories	
Gasket (included)	Viton seal included
Adapter	2" adapter, Optional, non-invasive adapter with adhesive pad.

- Note 1: Storage and operation above 68°F (20°C) may reduce battery life. Minimum distance measured is derated with temperatures <32°F (<0°C)
- Note 2: Based on a measurement to a flat liquid target of size 4.65in² (30cm²) and **y** reflectivity of liquid or object. E.g.: Kerosene range is typically 4m due to lower dielectric constant. Consult factory for range limits for various media. Non-invasive range is dependent on tank and liquid type – consult factory for further details. Maximum nominal range for hydrocarbons is 4m. For aqueous liquids up to 6.75m. For ullage measurements less than 20cm, there is an increased likelihood that measurements will have variation/jitter of a few cm.
- Note 3: Suitable for use in tanks for the storage of water diesel fuel, kerosene, gas oil types A2, C1, C2 and D as defined by BS2869. Consult factory for other applications.
- Note 4: One communication per day and assumes a good signal strength, so that no retries are required. One radar sample every 60 mins and assumes 1m tall tank with hydrocarbon liquid. Consult factory for other setups.
- Note 5: For non-invasive sensor mounting on plastic tanks. The material and plastic thickness affect the absolute accuracy of the measurements. Water condensation also impacts the accuracy measurement. Note this also assume vertical mounting.

Conformity	
EN 60079-0:2014	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
EN 60079-11:2014	Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety 'i'
EN 60079-18:2014	Electrical apparatus for explosive gas atmospheres - Part 18: Encapsulation 'm'
FCC Compliance	Yes
CE Compliance	Yes

Signal Diversion Chart



Highland Tank®



Stoystown, PA One Highland Rd. Stoystown, PA 15563 (814) 893-5701	Manheim, PA 4535 Elizabethtown Rd. Manheim, PA 17545 (717) 664-0600	Watervliet, NY 958 19th St. Watervliet, NY 12189 (518) 273-0801	Greensboro, NC 2700 Patterson St. Greensboro, NC 27407 (336) 218-0801	Friedens, PA 1510 Stoystown Rd. Friedens, PA 15541 (814) 443-6800	Clarkston, MI 4701 White Lake Rd. Clarkston, MI 48346 (248) 625-8700	Mancelona, MI 9517 Lake St. Mancelona, MI 49659 (231) 587-8412
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