

RADIODETECTION® 

# 1205CXB™

Time Domain Reflectometer  
and Cable Analyzer

Technical specification



# 1205CXB Technical specifications

## 1. Product Summary

|                      |   |
|----------------------|---|
| Product descriptions | Cable analyzer<br>Time Domain Reflectometer, TDR<br>Cable Radar |
| Intended use         | Cable Avoidance Tool  |

## 2. Electrical characteristics

|                           |   |
|---------------------------|---|
| Pulse widths              | 3, 6, 12, 25, 50, 100, 200 and 500ns<br>1, 2, 5 and 10µs  |
| Accuracy                  | 0.1% of reading $\pm$ 4" / 0.1m   |
| Resolution                | $\pm$ 1" / 2.5cm  |
| VoP range                 | 10.0 to 99.9 %  |
| Measurements displayed    | Distance in feet or meters<br>Time in µs  |
| Fault severity assessment | Auto calculation of Return Loss, dBRL, at Cursor 1 and Cursor 2 in dB   |
| Filtering                 | 1x to 16x averaging for signal interference filtering   |
| Maximum range **          | 99,000ft / 30,000m at 99.9% VOP<br>65,600ft / 20,000m at 66.0%VOP   |
| Effective sampling rate   | 1 Gs/s  |
| Lithium Ion battery       | Capacity: 15.6Ah<br>Maximum charging current*: 2000mA via USB-A port<br>Run time: 6hrs typical<br>Charge time: 6hrs typical<br>Auto power off: 0.5, 1.0, 1.5, 2.0, 2.5 or 3.0hrs or off |
| Connections               | BNC for signal output and input<br>USB-A for charging and waveform storage to USB stick   |
| Input Protection          | 500V (AC + DC) from DC to 400 Hz, decreasing to 10V at 1MHz   |
| Waveform storage capacity | On-board Flash (permanent) memory: 500 waveforms<br>USB stick: unlimited (to multiple USB sticks)   |
| Waveform storage          | Images files (*.bmp) for screen captures<br>Data files (*.btr) for viewing with WaveView™ PC software   |

\* WARNING – do not exceed the maximum allowable charging current

\*\* Range varies with VOP. Maximum testable cable lengths vary with pulse width and cable type

## 3. Environmental

|                           |   |
|---------------------------|---|
| Ingress Protection rating | Lid open: IP54<br>Lid closed: IP68            |
| Operating temperature     | +32 to +122 °F<br>0 to +50 °C                 |
| Storage temperature       | -4 to +140 °F<br>-20 to +60 °C                |
| Humidity                  | 95% maximum relative humidity, non-condensing |

## 4. Physical characteristics

|                          |   |
|--------------------------|---|
| Display                  | 7" color display, 800x480 pixel<br>Backlighting brightness adjustable from 5% to 100% |
| Unit external dimensions | 11.8 x 9.8 x 4.7"<br>300 x 249 x 119 mm   |
| Weight                   | 6.6lb<br>3.0kg  |

## 5. Accessories

|                                  |  |
|----------------------------------|--|
| Accessories included as standard | BNC-to-BNC connection cable<br>BNC-to-Alligator clip connection cable<br>BNC-to-F-type adapter<br>Multi-regional USB-A charger<br>USBA-USBA cable<br>Nylon carry bag |
|----------------------------------|--|

## 6 Certification and compliance

| Product              | Standards              | EU (CE mark)   | GB/NI (UKCA mark)  | USA (FCC)            | Canada (IC)                   |
|----------------------|------------------------|--|--|----------------------|-------------------------------|
| 10/1205CXB TDR       | EN 61326-1:2013        | Electromagnetic compatibility (EMC) Directive (2014/30/EU)                           | Electromagnetic Compatibility Regulations 2016   |                      |                               |
|                      | EN 55011:2009/A1:2020  |  |  |                      |                               |
|                      | EN 61000-3-2:2014      |  |  |                      |                               |
|                      | EN 61000-3-3:2013      |  |  |                      |                               |
|                      | EN 55081:2012          | Restriction of the use of certain hazardous substances (RoHS) Directive (2011/65/EU) | The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 |                      |                               |
|                      | IEC /EN 62321-3-1:2013 |  |  |                      |                               |
|                      | ANSI C63.4-2014        |  |  | FCC Part 15b Class A | CAN ICES-003(A)<br>NMB-003(A) |
| 26/PSK11-USB Charger | EN 55022               | Electromagnetic compatibility (EMC) Directive (2014/30/EU)                           | Electromagnetic Compatibility Regulations 2016   |                      |                               |
|                      | IEC/EN 623368-1:2014   | Low voltage  | Electrical Equipment (Safety) Regulations 2016   |                      |                               |
|                      | IEC/EN 60950-1         | (LV) Directive (2014/35/EU)  |  |                      |                               |

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