

IML Is Taking Bluetooth to New Heights without Leaving the Ground



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With the rising popularity of connected devices and the growth of the Internet of Things, new and innovative use cases for wireless connectivity are popping up daily. The realm of connected industrial applications may be the big next frontier for developers. For example, the health and stability of wooden electrical poles is something that may rarely cross your mind but it is vital to not only an electrical company but also to the homes and businesses that it provides electricity to. This is just one example of how IML is saving time and enhancing safety by enabling workers to conduct inspections without ever leaving the ground.

1. TI: What Is the IML-RESI PD-Series Wood Testing Drill?



The IML PD-Series enables the testing of wood quality by measuring the drill's needle resistance through the core of the wood. The drill measures the resistance through the core of the wood while using pulsating technology to take measurements of the length of the pole, or other wooden structure. With a digital wood inspection drill, the measurements are easy to capture, display and analyze. Measurements are run through an algorithm that provides actionable data to the user who will quickly know whether the wooden object being measured is in a healthy or rotting condition by the data the drill displays. This technology can be applied to a wide variety of applications including monitoring the stability of wooden electrical poles, checking the health of trees, inspecting the integrity of buildings and structures built with wooden supports and more.

2. TI: What Makes the IML-RESI PD Drill Stand Out from Its Competitors?

The IML-RESI PD Drill has a straightforward and fast digital data collection as well as high drilling performance with minimum power consumption. The drill evaluates measuring graphs automatically and shows the user, for example, if a utility pole is still safe or not. The simultaneous recording of the drilling resistance and feed speed curve improves the identification of early and difficult-to-spot decay.

3. There Are Many Wireless Connectivity Technologies on the Market. Why Did You Choose to Integrate Dual-mode *Bluetooth*® Technology in IML-RESI PD Drill?

The integration of dual-mode Bluetooth technology enables us to transfer the data collected to all sorts of devices with high data rates and low latency. We can connect it to a Bluetooth-enabled printer to print out the graphs directly on-site. We can also wirelessly connect the drill to a handheld monitoring device to transfer the measurements in real-time to the customer's database with more detailed measurement information.

4. Why Did You Choose the BT53 Module from Amp'ed RF, Utilizing TI's Dual-mode Bluetooth CC2564 Device, for Your Product?

The [BT53 module](#) from Amp'ed RF, utilizing TI's dual-mode Bluetooth [CC2564](#) device, the optimal M4 MCU performance with customizable Amp'edUP SDK that suits our requirements the best. The module has all of the processing and connectivity options we need and the performance is great.

5. Where Do You See Your Technology/solution Going in the Next Five Years?

We see that the importance of regular inspections of utility poles and other wooden constructions is increasing. The ability to wirelessly connect our drills with customers' databases and applications will be the most important feature in the next five years.

Additional Resources

- [TI's dual-mode Bluetooth CC2564 controller](#)
- [BT 53 module from Amp'ed RF](#)
- [IML-RESI PD-Series Wood Testing Drill](#)

Want to learn more about the IML-RESI PD-Series Wood Testing Drill? Here's a [video](#) from the IML team to provide more information about applications for their drill.

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