

HooRii Tech Launches HRR53 and HRR54 Modules: Cost-Effective Solutions for Matter over Thread Devices

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/EINPresswire.com/ -- HooRii Technology ("HooRii Tech") today introduced two affordable Matter over Thread modules, the HRR53 and HRR54. Both support Matter 1.5 and later, as well as Thread 1.4 and future versions, targeting always-powered Matter devices or applications with moderate low-power demands.

By preserving full Matter functionality and Thread connectivity while reducing hardware costs, the HRR53 and HRR54 enable manufacturers to cut BOM expenses without sacrificing essential features. The HRR53 offers full pin-to-pin compatibility with HooRii Tech's existing HRN71 module, allowing for smooth migration with minimal hardware changes. Meanwhile, the HRR54 features an integrated PCB antenna, ideal for compact device designs.

Designed for Cost-Sensitive, Always-Powered Matter Applications

The HRR53 and HRR54 are tailored for cost-conscious Matter products such as smart plugs, wall switches, lighting controllers, motorized curtains, and other mains-powered or plug-in devices. Both modules provide the complete Matter protocol stack and strong RF performance, while maintaining Thread's inherent low-power benefits. This makes them well-suited for Matter devices where cost efficiency is crucial, but interoperability and reliability remain priorities. Supporting Matter 1.5 and beyond, along with Thread 1.4 and future updates, these modules ensure seamless compatibility with major Matter ecosystems including Apple Home, Google Home, Amazon Alexa, Samsung SmartThings, and Home Assistant.

Key Differences: Compatibility and Antenna Options

The main differences between the two modules involve HRN71 platform compatibility and



antenna design.

HRR53: Seamless HRN71 Replacement

The HRR53 is fully pin-to-pin compatible with the HRN71 module. Manufacturers with existing HRN71-based designs can upgrade to HRR53 with minimal hardware adjustments, reducing redesign efforts, engineering validation, and time to market.

It includes an antenna pad for external antenna integration, making it suitable for products requiring customized antenna solutions or existing RF designs.

HRR54: Integrated PCB Antenna for Compact Designs

The HRR54 uses a different pinout than the HRN71 and requires a dedicated PCB design following its hardware specifications.

To streamline development and simplify BOM management, the HRR54 incorporates an onboard PCB antenna, ideal for compact devices and applications focused on minimizing component count. No external antenna tuning is needed.

Compact Design with Optimized Cost and Performance

Both modules offer:

- 2 MB Flash memory
- Integrated RF shielding
- Compact form factor
- Optimization for always-powered environments
- Full Matter and Thread support

By balancing functionality, reliability, and cost, the HRR53 and HRR54 give manufacturers flexible options to develop next-generation Matter devices while ensuring stable wireless performance.

End-to-End Matter Product Development and Manufacturing Support

HooRii Tech brings extensive experience from large-scale deployments of Matter and Thread technologies.

Paired with HooRiiOS, the company's cluster-intelligent cross-platform OS, the all-in-one HooRii Console solution platform, and HooRii Production Line Service, HooRii Tech delivers a comprehensive end-to-end solution covering Matter product development, testing, manufacturing, and deployment.

From sensors and smart locks to smart shades and other connected devices, HooRii Tech's Matter solutions have been proven across diverse smart home applications, helping customers launch reliable Matter products faster and with reduced development risk.

Availability

The HRR53 and HRR54 are available now for sample requests and volume orders.

For evaluation samples, reference designs, pricing, or technical support, please contact the HooRii Tech sales team.

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