

## Matter and Raltron: Like Peanut Butter and Jelly, but for Smart Homes!

When it comes to developing smart home devices, you need the perfect pair of ingredients to make things work smoothly. Enter Matter and Raltron – the dynamic duo of the smart home world!

With Matter's ability to standardize communication protocols across all smart devices, and Raltron's expertise in creating high-quality frequency control products, it's like they were made for each other! Together, they're a match made in heaven, like peanut butter and jelly, Batman and Robin, or mac and cheese.

So, if you want to make sure your smart home devices are working together seamlessly, just remember: Matter and Raltron are the perfect pair!

The smart home market is experiencing rapid growth and shows no signs of slowing down anytime soon. With the plethora of smart devices available in the market, it can be challenging for consumers to choose products that will work well together. This is where Matter comes in. Matter is a smart home standard developed by Project Connected Home over IP (Project CHIP) in 2019, and it is now maintained by the Connectivity Standards Alliance (CSA), formerly known as the Zigbee Alliance. The main aim of Matter is to provide greater interoperability between different devices and platforms, regardless of the brand.

Matter's greatest benefit is the increased choice it provides consumers. With Matter, users can choose from a wide range of devices from different brands, all of which will work seamlessly together. This means that consumers are not locked into a specific brand or ecosystem and can mix and match products to create their perfect smart home setup.

Another benefit of Matter is the simplified user experience it provides. With Matter, the setup process for smart home devices is standardized, making it easier for users to set up and manage their devices. This is particularly helpful for those who are new to smart home technology, as it eliminates the need to learn how to use different setup procedures for each individual device.

Matter also provides local control for devices, which means that controlling smart home devices will happen on the user's home network rather than over the internet. This means that users don't have to worry about their devices becoming useless if the manufacturer goes out of business or suddenly decides to shut down their servers.

One of the unique features of Matter is the multi-Admin feature. With this feature, users can control their smart home devices through multiple smart home systems at the same time. This means that users are not limited to using just one smart home system and can use multiple systems simultaneously without any issues.

Lastly, Matter promotes more competition and choice for consumers. Although backed by major tech companies like Amazon, Apple, Google, and Samsung, Matter creates an open and fair playing field for all smart home device manufacturers. This will encourage more companies to join the market, providing even more choices for consumers.

Matching the right crystal oscillator and antenna to a Matter device is important for several reasons. First, the crystal oscillator is a crucial component in determining the accuracy of a device's timing and frequency, which is particularly important for devices that rely on wireless communication. Crystal oscillators generate a precise frequency that allows devices to synchronize their communication with other devices in a network. If the crystal oscillator is not matched correctly to the device, it can result in poor communication performance, reduced range, and other issues.

Antennas are also important for wireless communication, as they transmit and receive signals between devices. The right antenna can help improve a device's range, signal strength, and overall performance. For Matter devices, it is important to choose antennas that are optimized for the 2.4 GHz frequency range used by most smart home devices. Using the wrong antenna can lead to poor performance, reduced range, and other issues.

Matching the right crystal oscillator and antenna to a Matter device is particularly important for ensuring that the device can communicate effectively with other devices in a smart home ecosystem. If the device is not able to communicate effectively, it can lead to a frustrating user experience and may ultimately result in the device being replaced or abandoned.

By ensuring that the right crystal oscillator and antenna are matched to a Matter device, manufacturers can improve the device's overall performance and reliability, as well as the user experience. It also ensures that the device will be able to communicate effectively with other Matter-certified devices, regardless of the manufacturer or ecosystem.

To support the various chips used by Matter, companies like Raltron, a leading manufacturer of frequency management products, are offering a range of compatible products. Raltron's products are well-suited to support Matter-compatible devices, offering a range of crystal oscillators and antennas that can support the various chips used by Matter.

For example, Raltron offers several options such as:

Qorvo: QPG6105 chip requires a 32 MHz crystal oscillator, and Raltron offers several options such as:

- RH100-32.000-6-F-2020-EXT-TR
- R2520-32.000-6-F-2020-EXT-TR
- R2016-32.000-6-F-2020-X-TR

Raltron also offers 2.4 GHz antennas such as:

- RST-W2-P-105-RPSMA-H
- RCA-W2-P-3216-A36-G

NXP Semiconductors: IW416 chip, Raltron offers 26 MHz and 40 MHz crystal oscillators such as:

- R2520-26.000-5-F-1010-EXT-TR-NS 60Ω
- R2016-26.000-5-F-1010-X-TR-NS 60Ω
- R2520-40.000-5-F-1010-EXT-TR
- R2016-40.000-5-F-1010-X-TR

Additionally, Raltron offers the RT3215-32.768-12.5-TR 32.768 kHz crystal oscillator, which is compatible with this chip.

Silicon Labs: EFR32MG24 chip, Raltron offers 39 crystal oscillators such as:

- RH100-39.000-10-F-2525-EXT-TR-NS 40Ω
- R2520-39.000-10-F-2525-EXT-TR-NS 40Ω
- R2016-39.000-10-F-2525-X-TR-NS 40Ω

Additionally, Raltron offers the RT3215-32.768-12.5-TR 32.768 kHz crystal oscillator, which is compatible with this chip.

In addition to providing crystal oscillators and antennas, Raltron also offers technical support to ensure that their products are properly integrated into Matter-compatible devices. This is crucial for manufacturers who may not have experience with using crystal oscillators or antennas in their products, as well as for those who are new to developing smart home devices.

By offering a range of compatible products and technical support, Raltron is helping to ensure that smart home devices are easier to develop and more affordable for consumers. This, in turn, will help to accelerate the adoption of smart home technology and further drive the growth of the smart home market.

As the smart home market continues to grow, there will likely be greater demand for interoperability between different devices and platforms. Matter is a promising solution to this problem, and with the backing of major tech companies like Amazon, Apple, Google, and Samsung, it has the potential to become the dominant smart home standard.

Raltron's commitment to providing compatible crystal oscillators and antennas for Matter is just one example of how companies are working together to make smart homes more accessible to consumers. With more companies like Raltron jumping on board, the future of the smart home market looks bright.

In conclusion, Matter and Raltron are a dynamic duo in the smart home industry, working together to improve the interoperability and user experience of smart home devices. Matter provides an open and fair playing field for all smart home device manufacturers, enabling consumers to choose from a wide range of devices from different brands that work seamlessly together. On the other hand, Raltron offers a range of high-quality frequency control products such as crystal oscillators and antennas that are optimized for Matter-compatible devices, ensuring that the devices can communicate effectively and provide a reliable user experience. Matter and Raltron are making it easier for consumers to build the perfect smart home setup, just like peanut butter and jelly, Batman and Robin, or mac and cheese.