Pre-Programmed EEPROMs, Flash and Real Time Clock Parts With MAC Address and/or a Unique ID

Summary

Media Access Control (MAC) address is a unique identifier assigned to each network device. It is used as a network address for most IEEE 802 network technologies, including Ethernet, Wi-Fi®, and Bluetooth®. Small to medium-size businesses pay higher costs for a smaller number of connected devices as well as having to self-procure and manage these unique MAC addresses.

Microchip offers pre-programmed MAC/ID address EEPROM, Flash and Real Time Clocks that are globally unique and are in EUI-48™ or EUI-64™ node format. They are in standard SPI, I^2C, Microwire and UNI/O busses and have up to full 2 Kb of EEPROM or 64 Mbit of Flash, which can be used to store configuration settings, routing tables or user data. This is the most flexible and cost-effective way of obtaining MAC addresses for any kind of project in the age of the Internet of Things. See our short 2 minute video on MAC addresses https://vimeo.com/345070297

Key Highlights

- Organizational Unique Identifiers (OUIs) for Microchip Issued by IEEE
- Available in EUI-48 or EUI-64 node format
- No minimum order qty, purchase what you need
- No registration fees
- Also available Non-IEEE Unique ID numbers for use as serial numbers, tracking etc
- Ideal for small and medium sized companies who require ID's and MAC Addresses
- User data can be stored in the unused remainder of the memory device
- Real Time Clocks with MAC/ID pre-programmed

How it Works

IEEE Standard Authority publishes MAC addresses in two schemes, EUI-48 and EUI-64, which are 48-bit address and 64-bit address respectively. Both schemes consist of two parts, a unique OUI issued by the IEEE and a unique Extension Identifier (EI). The OUI is generally purchased by different IEEE member organizations from the IEEE and they are globally unique. These organizations are then responsible for ensuring that a unique EI will go into every device they use or ship. The EUI-48 node address consists of a 24-bit OUI and a 24-bit EI while the EUI-64 consists of either a 24- or 36-bit OUI and a 40- or 28-bit EI respectively.

Microchip purchases large blocks of MAC addresses from IEEE with unique OUI for Microchip. By adding uniquely assigned EI to OUI, the MAC addresses can be pre-programmed into EUI-48 or EUI-64 format and are guaranteed globally unique.

Benefits of Purchasing from Microchip

Cost effective – There's no need to pay a registration fee (thousands of dollars) to IEEE, no need to set up a programming facility and manage the inventory of chips to be absolutely certain about global uniqueness when buying pre-programmed MAC address memory from Microchip.

Robust Functionality – Besides MAC address, the chip has full robust EEPROM/Flash functionality including high endurance and low-power consumption. They are ideal for applications in the embedded market to store routing tables, configuration settings or other user data.

For more information, please refer to the MAC Address Chips Products list.

For Real Time Clocks with MAC/ID, please refer to Real Time Clock Products list.

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