



Eaton's MFB magnetics solutions provide EMI suppression in commercial applications

As technology advances, the global Internet of Things (IoT) industry continues to boom. According to leading market research, the number of active IoT electronics across the globe will hit 24.1 billion by 2030¹. Experts predict that the industry will expand 11% annually over this period, as manufacturers build devices and systems that further enhance our personal and professional lives.

For consumer, computing, and industrial applications, IoT systems simplify, organize, and optimize the efficiency and reliability of processes and devices at both the pilot and commercial scales. However, to design these intelligent systems, manufacturers must overcome several limitations. For example, common issues with designing RF/wireless devices include electromagnetic interference

(EMI), impedance mismatching, signal reflections, and power losses.

Inductors and ferrite beads (aka ferrite chokes) are passive magnetics components that perform several essential functions in IoT systems. Examples include choking to inhibit AC while permitting the flow of DC, electrical noise filtering, and RF tuning. OEMs require high-reliability products from reliable supply networks to ensure the stable production of high-quality products. Additionally, these components should be always efficient and low-profile to cater to systems that are becoming increasingly miniaturized.

Eaton's commercial-grade multilayer ferrite beads (MFB) are low-profile, high impedance, high-current handling components ideal

for EMI suppression in high-frequency wireless/RF circuits. They offer high impedance and high current performance with low direct DCR for reliable signal line filtering. Eaton MFB series comes in two versions; MFBW and MFBM. The MFBW version provides high-impedance EMI suppression for sensitive RF circuits. MFBM types offer higher current-handling capabilities, ideal for next-gen, high-frequency RF applications. Both versions are suitable for use in a wide range of RF/wireless transmitting and receiving modules in mobile, computing, IoT, and remote monitoring applications.

Eaton MFB solutions come in a wide range of standard industry sizes and feature a ruggedized, monolithic, multilayer construction developed with unique noise-suppression

materials. Eaton MFBs achieve high impedance and high-current performance for reliable EMI suppression over a wide range of frequencies. All products are tested to withstand the most challenging EMI conditions in high-frequency RF/wireless commercial applications and are quality-assured to global manufacturing standards.

Eaton is a global leader in electronic components manufacturing, with extensive partnership channels through leading OEMs/ODMs/EMS across the globe. Our commercial-grade multilayer ferrite beads are quality-assured and certified to global industrial and environmental standards. Additionally, we provide user-friendly product selection tools to simplify product sorting and procurement.

¹ [Global IoT Market Will Grow to 24.1](#)

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