

## A-Core Container

# New power module for base station



## Overview

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TOKYO, June 12, 2025 - Mitsubishi Electric Corporation (TOKYO: 6503) announced today that it has developed a world's first 1 compact 7GHz band gallium nitride (GaN) power amplifier module (PAM) with the world's highest 1 power efficiency, which is expected to enhance the ease of installation as well as the power efficiency of 5G-Advanced base stations and thereby support the transition to 6G. Will a 5G power amplifier module be used in mmimo base stations?

TOKYO, September 14, 2023 - Mitsubishi Electric Corporation (TOKYO: 6503) announced today that it will begin shipping samples of a new Gallium Nitride (GaN) power amplifier module for use in 5G massive MIMO1 (mMIMO) base stations on September 21. Power amplifier modules help reduce the power consumption of 5G mMIMO base stations.

How big is a 5g-advanced base station module?

The compact module measures only 12.0mm x 8.0mm (prototype) thanks to the high-density mounting of components, which will enhance the installation efficiency of 5G-Advanced base stations. Going forward, Mitsubishi Electric will continue research and development aimed at the practical application of the PAM in 5G-Advanced base stations.

What is a Doherty circuit based power amplifier module?

Mitsubishi Electric's original high-density packaging technique allows the realization of a Doherty- circuit-based power amplifier module that is indispensable to 5G base station power amplifiers.

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