

New Products

***A 60 GHz Band Millimeter-wave
Wireless Communication Module
Pre-certified with the Technical
Regulations Conformity
Certification under the Radio
Law in Japan.***

In recent years, the need for gigabit-class high-speed wireless communication for industrial applications has been increasing.

However, the 5th generation mobile communication system (5G) and local 5G, which are currently attracting attention, often have high cost and lack installation flexibility due to requirements for radio licenses.

On the other hand, the 60 GHz band does not require a radio station license and can be used with a simple system configuration, so development of communication equipment and industrial equipment using this frequency band is expected.

Even though no license is required for 60 GHz band, devices operating in this band still need to obtain the Technical Regulations Conformity Certification stipulated by the Radio Law. However, the difficulty of conducting tests and measurements, and the high cost of measuring equipment currently limit the number of specialized companies that develop such 60 GHz devices.

In order to solve the problem, we have developed a 60 GHz band millimeter-wave wireless communication module that can be independently certified for the Technical Regulations Conformity Certification.

The newly developed 60 GHz band millimeter-wave wireless communication module maintains its key features and world-class performance: automatic beam-forming and a throughput of 1 Gbps or more at a distance of 500 m while having an improved and optimized structure suitable for the Technical Regulations Conformity Certification.

This module will be shipped with the Technical Regulations Conformity Certification mark issued by a certification body after obtaining all the data necessary for certification by the in-house 60 GHz band inspection and measurement environment. By incorporating this module, customers will be able to develop equipment in a shorter period of time and at a lower cost.

Through the provision of this module, we will support the development of communication equipment for customers, identify market needs, and pursue the development of high-value-added millimeter-wave communication modules for industrial use.



Fig. 1. Pre-certified 60 GHz millimeter-wave communication module.

Abbreviations, Acronyms, and Terms.

5G—the 5th generation mobile communication system

The latest mobile communication system that is currently spreading.

Local 5G—Self-operated 5G networks built in specific areas mainly by companies or local governments other than telecommunications carriers.

Technical Regulations Conformity

Certification—Proof that specified radio equipment (small-scale radio equipment stipulated by the Ministry of Internal Affairs and Communications Ordinance; mobile phones, wireless LAN devices, etc.) conforms to the technical standards of the Radio Law.

Beamforming—Technology for electrically controlling the directivity of an antenna (the property of strongly radiating radio waves in a specific direction) and transmitting/receiving data to/from communication partners in various directions.

throughput—In communication, the amount of information transmitted within a certain period of time.

[information]
Wideband Radio System Development
Department
Electronic Technologies R&D Center
TEL : +81-43-484-1705
E-mail : mmwave@jp.fujikura.com