

April 8, 2021

Press Release

NTT DOCOMO, INC.

DOCOMO Ranked Third in 5G Essential Patent Holdings
and Top among Telecom Operators in the World

Drive 5G Standardization Activities

and Contribute to Japan's International Competitiveness Beyond 5G

In the "Evaluation and Analysis Report on Major Technology and Service Development Trend for 5G Essential Patents" ("the Survey") by Cyber Creative Institute Co. Ltd., NTT DOCOMO, INC. ("DOCOMO") was ranked third in the world in the holdings of patents ("5G essential patent") that are essential in providing the fifth-generation mobile services ("5G") and top among the world telecommunication carriers. The ranking moved up from the sixth place in the October 2020 survey.

This Survey objectively evaluated the essentiality of the patents that were declared by the major players in the information and communication field and reported to international standardization bodies and then estimated the real number of 5G essential patent holdings.

The estimated number of 5G essential patents in this Survey can be more accurate than simply counting the number of declared patents. The number of 5G essential patent holdings reflect the technical contributions by companies participating in 5G standardization activities, and this Survey shows that DOCOMO's technical capabilities help driving the standardization activities for 5G.

In its standardization activities, DOCOMO made approximately 5,900 technology contributions^{*1}, the largest among telecommunication carriers, and declared approximately 1,300 technologies in total^{*2} as essential patents to the adopted 5G standards.

For example, as a promising use case of 5G, we proposed and declared essential patents for V2X^{*3}, which flexibly controls the priority of communications from a vehicle to a network and from a vehicle to a vehicle. It enables ultra-reliable and low latency communications as a unique feature to 5G. In addition, we proposed and declared essential patents for MIMO^{*4}. It enables faster and higher capacity 5G communications with timely information notifications that are necessary for smooth communications from a terminal to massive base stations.

As a domestic initiative, the Ministry of Internal Affairs and Communications (MIC) formulated the "Beyond 5G Promotion Strategy - Roadmap to 6G^{*5}" aiming at early and smooth migration to Beyond 5G and enhancement of international competitiveness in Beyond 5G. They established the "Beyond 5G New Management Strategy Center" in December 2020 to promote collaborations among industry, academia and government on strategic IP acquisitions and standardizations. As a member of the "Beyond 5G New Management Strategy Center," DOCOMO will strive to contribute to Japan's international competitiveness in accumulating a knowledge base from the 5G technology development and standardization activities, and strategically acquire intellectual properties and pursue standardization efforts in Beyond 5G.

DOCOMO will continue to engage in research and development and standardization activities to provide better services to our customers and to open the future for mobile

communications.

*1 Ranked 10th in the world (according to this survey by Cyber Creative Institute Co. Ltd..) <https://www.cybersoken.com/blog/topics/2021/04/02/2889/2>.

*2 The number of patent application families for the 5G standard is approximately 2,800. Among them, approximately 1,300 in total have been declared essential.

A patent application family is a group of patents where the same invention has been filed in in several countries.

*3 Abbreviation for Vehicle to X. Technology that facilitates communications and interconnections between vehicles and all kinds of things.

*4 Abbreviation for Multiple-Input and Multiple-Output. A technology that uses multiple antennas for both transmissions and receptions to improve communication quality.

*5 Ministry of Internal Affairs and Communications “Beyond 5G Promotion Strategy”
https://www.soumu.go.jp/menu_news/s-news/01kiban09_02000364.html

*DOCOMO's Approach to Standardization

<https://www.nttdocomo.co.jp/corporate/technology/rd/tech/standardization/>

For media inquiries to this press;

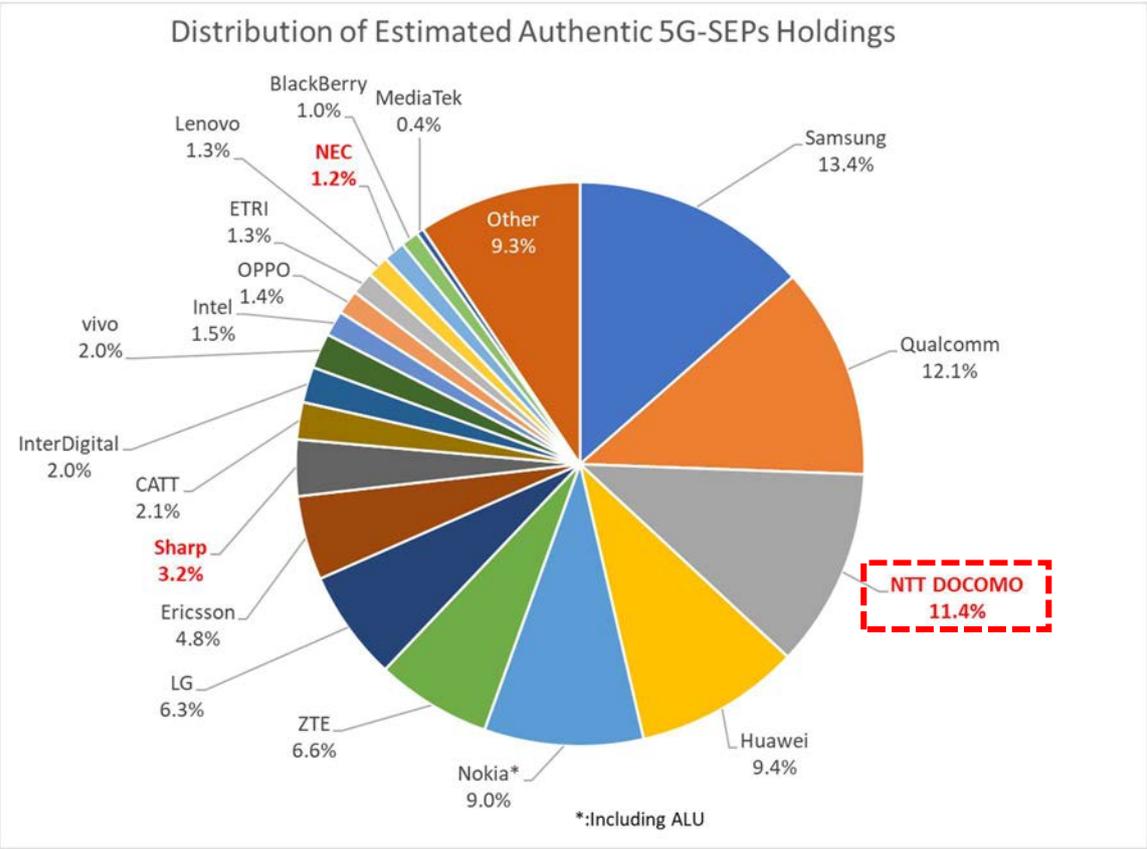
NTT DOCOMO, INC.

Prosecution Section, Intellectual Property Department

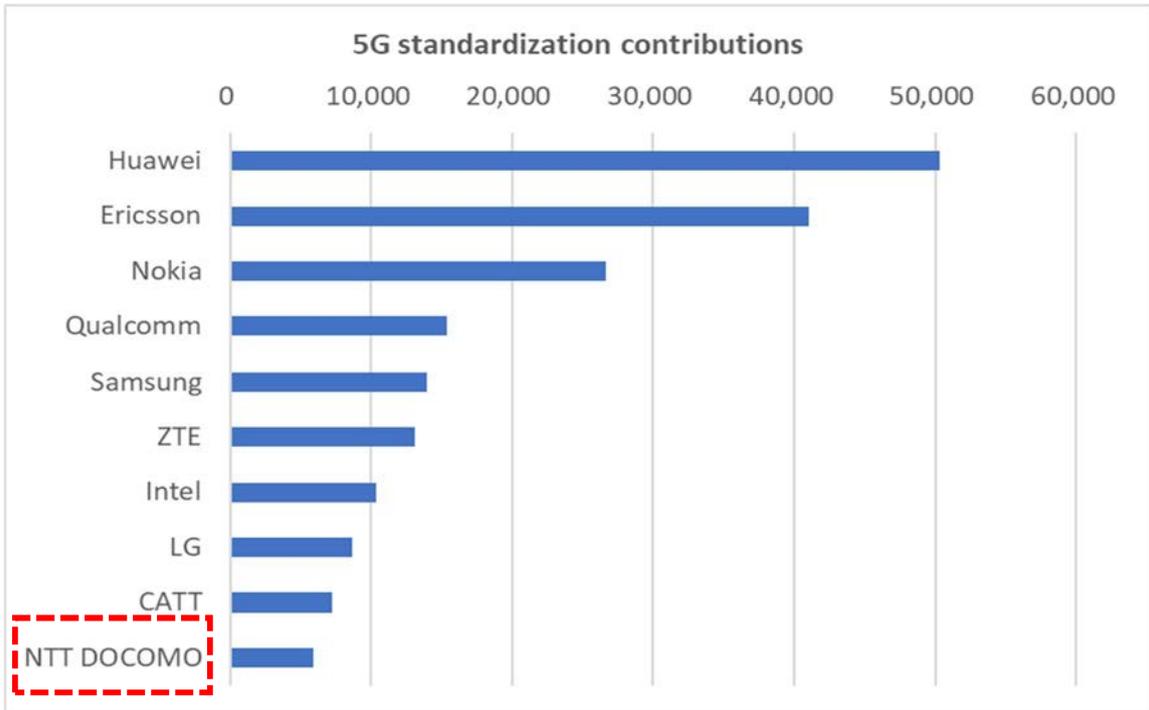
TEL:+ 81-3-5156-1776

Reference

1. Status of 5G essential patent holdings



2. Number of technology contributions from major 5G standardization players



Source: [Press Release by Cyber Creative Institute Co. Ltd. \(Released on April 2, 2021\)](#)

<https://www.cybersoken.com/blog/topics/2021/04/02/2889/>