

DOCOMO ranks sixth in the world and first among the world's telecommunications carriers in the number of holdings of 5G essential patents

~Driving 5G specification standardization activities with the world-class technical competence~

In the evaluation conducted by Cyber Creative Institute Co. Ltd. on "Essentiality Evaluation of SEP Declared 5G Patents" (hereinafter, the evaluation), DOCOMO was ranked sixth in the world and first among the world's telecommunications carriers in the number of per-company holdings of authentically 5G essential patents.

The evaluation objectively examined whether patents declared and reported to international standards organizations by major players in the Information and Communications Technology field as '5G essential patents' are authentically essential for 5G standard specifications, and estimated the number of 5G essential patents actually held by each company. The numbers of essential patents estimated in the evaluation are more accurate than those obtained by simply counting companies' self-declared numbers.

DOCOMO has promoted standardization in an integrated manner with business activities such as research and development, provision of communication services, and development and maintenance of service solutions. In the standardization activities centered on 3GPP (standardization organization that establishes specifications for mobile communication systems), following the 3G (W-CDMA) and 4G (LTE) specifications establishment, DOCOMO has contributed by submitting approx. 5,000 technical proposals (contributions)*¹; the largest number among telecommunications carriers, and approx. 2,500 patent application families *² related to the 5G standard specifications.

The number of contributions and patents related to standard specifications is an indicator of the degree of technical contribution of companies participating in standardization, and the result of the evaluation is the evidence that DOCOMO's technical competence is driving the standardization of 5G specifications. One example is the fundamental 5G technology; "Beamforming/Massive MIMO", which was proposed by DOCOMO and adopted as a 5G standard specification. The technology introduces a mechanism to adjust the direction and intensity of radio waves transmitted from a communications network more flexibly than those in the past systems. It has enabled the use of high frequency bands previously considered unsuitable in mobile communications. With the high frequency bands, higher-speed and higher-capacity communications will become possible and more advanced mobile communications will be realized in 5G.

Going forward, DOCOMO will continue to engage in research and development and standardization activities to provide better services to customers and pave the way for the future of mobile communications.

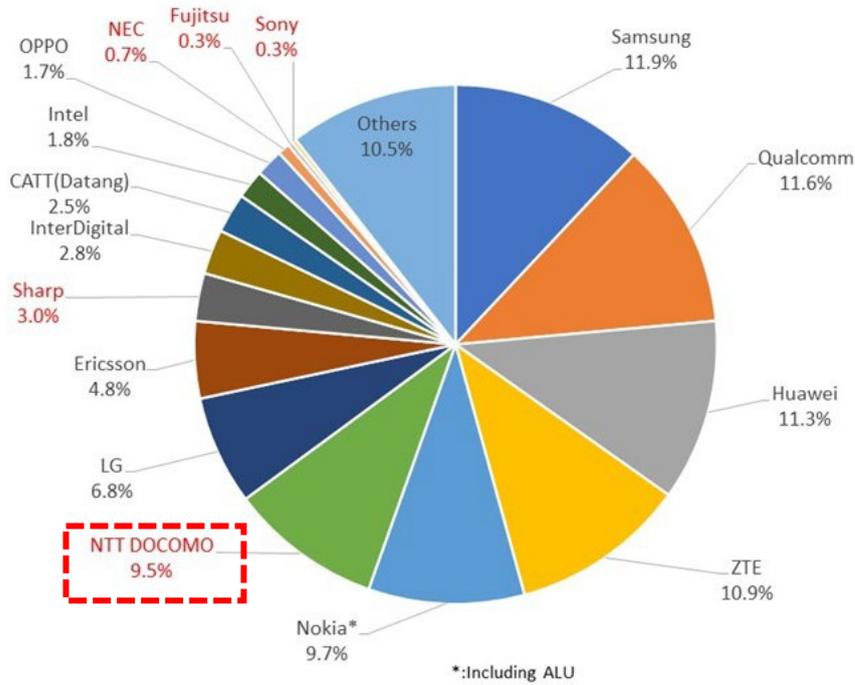
*¹ Ranked 10th in the world (Evaluated by Cyber Creative Institute Co. Ltd.:
<https://www.cybersoken.com/blog/topics/2020/01/14/2688/>)

*² A patent application family is a group of patents for the same invention filed in multiple countries.

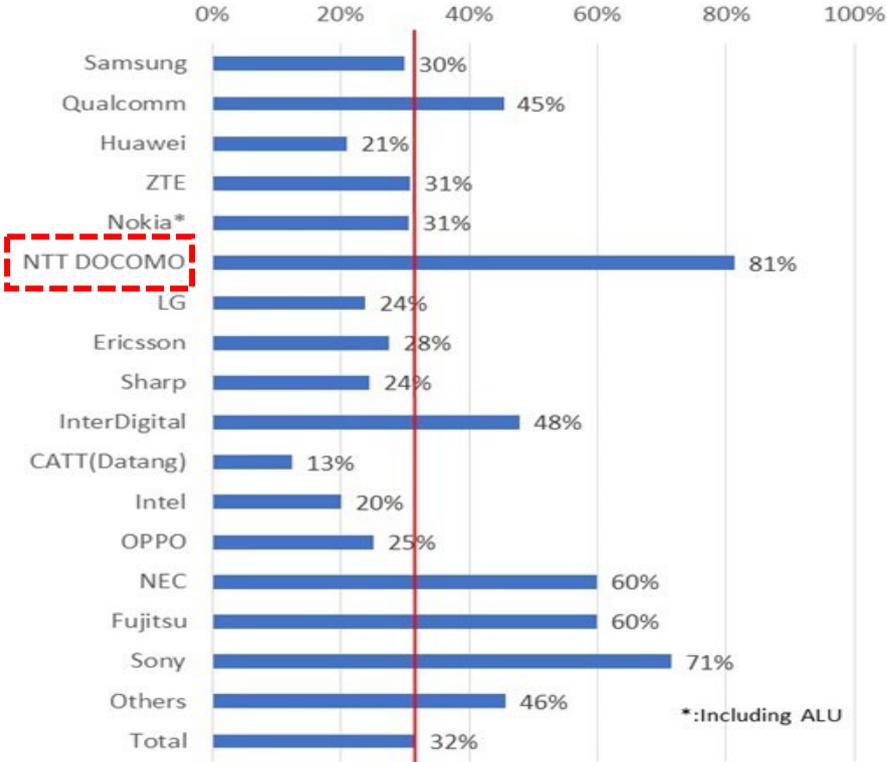
* DOCOMO's standardization efforts: <https://www.nttdocomo.co.jp/english/corporate/technology/rd/tech/standardization/index.html>

Reference

1. Holding status of 5G essential patents



2. Accuracy of 5G essential patent declaration



Source: Press release of Cyber Creative Institute Co. Ltd. (Oct. 12, 2020)

<http://www.cybersoken.com/blog/topics/2020/10/12/2825/>