China starts 3rd phase of 5G tests

China has started the third phase of 5G technology research and development tests, ahead of schedule, as the country accelerates steps to gain a lead in the race toward commercializing the next-generation communication technology.

The move came as China Mobile Communications Corp and Huawei Technologies Co Ltd showcased the world's smallest 5G testing terminal on Friday, indicating that the country will pioneer the world in 5G research and development.

The Ministry of Industry and Information Technology said the third phase of technical tests aims to get pre-commercial 5G products ready when the first version of 5G standards comes out in June next year.

The industry regulator has called for more efforts to upgrade testing environments and a bigger push to experiment with more 5G-enabled applications, with added focus on the integration of chips, systems and other instruments.

Previously, officials said the third phase tests would not start until next year. The country had concluded the second phase of tests earlier this year, with contributions from both domestic and foreign companies such as Huawei, ZTE and Ericsson.

On Friday, China Mobile and Huawei also showcased the world's smallest 5G testing device at the former's global partners conference in Guangzhou, Guangdong province.

The device, which is roughly the size of Amazon.com Inc's smart speaker, can convert high-speed 5G signals into Wi-Fi signals, helping users access wireless broadband services. It can be used to test 5G pre-commercial networking and support other trials, Huawei said in a statement.

In comparison, most of the testing machines are very heavy and some even need to be carried by a trolley.

These moves are part of China's broad push to commercialize 5G services in 2020.

China Mobile said it would deploy 10,000 5G base stations by 2020.

Huang Haifeng, an expert at the leading telecom industry website cww.net, said China has evolved from a follower into a leader in the global telecom sector.

"The smallest 5G testing machine shows that China Mobile and Huawei have poured tons of resources into research and development, because 5G-enabled devices are far better than 4G devices in many aspects and it is hard to shrink the devices into a small size," Huang said.