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Research Dossier: China Mobile HK (CMHK)



Country

Hong Kong

Company Name

China Mobile Hong Kong Company Limited

Ownership Type

Subsidiary

Ownership/Controlling Entity

China Mobile Communications Corporation

Website

<https://www.hk.chinamobile.com/en/>

MNC

12

Company Overview

China Mobile Hong Kong (中國移動香港), or CMHK, is the largest mobile network operator servicing Hong Kong. Founded in June 1994 as PEOPLES Telephone Company Limited, the company was acquired by China Mobile in October 2005. CMHK is a wholly owned subsidiary of China Mobile Communications Corporation.

The company provides GSM services over 1800 MHz, and since 2008 3G TD-SCDMA services over B34 (2100 MHz) with HSPA+ data services. Having won 2600 MHz band FDD spectrum in 2009, in February 2012 China Mobile Hong Kong won the SAR's 2330 to 2360 MHz TDD band to deploy integrated dual FDD and TDD LTE services in partnership with [ZTE](#) and [Ericsson](#). After activating an FDD-only B7 (2600 MHz) network in April, CMHK launched the world's first FDD-TDD network in December 2012 using B7 (2600 MHz) and B40 (2300 MHz) bands. Limited deployments of B1 (2100 MHz) are present within HK's MTR rail system.

Through its partnership with [Huawei](#), the network was upgraded to 4.5G LTE-A Pro in November 2016, deploying 2C CA, 4X4 MIMO and 256 QAM, to achieve peak throughput to over 580 Mbps. In August, CMHK became world's first operator to launch commercial 2.3 GHz TDD 128T128R Massive MIMO technology to improve network capacity and coverage in densely-populated areas.

NB-IoT was commercially demonstrated September 2017 with full deployment underway. It is expected that demonstration and pre-commercial deployment has been implemented over B3 (1800 MHz), however noting CMHK's recommendation of 900 MHz spectrum reassignment to permit a crucial B8 (900 MHz) deployment.

China Mobile HK successfully completed end-to-end 5G testing in August 2018 using n20 (800 MHz) and n257 (28 GHz) bands.

▼ 3G UMTS Network Information

Details on UMTS network deployments are shown below. Data are often incomplete due to commercial nature. Consult dossier text for further details.

Launch Date -	Status	Active
UMTS Band	Packet Data	Status
B34 (2100 MHz)	HSPA+	Active

▼ 4G LTE Network Information

Details on LTE network deployments are shown below. Data are often incomplete due to commercial nature. Consult dossier text for further details.

Evolution	LTE Advanced Pro (LTE-A Pro)	Status	Active
Max. MIMO	4x4 MIMO Massive MIMO	Max. Modulation	256QAM
Carrier Aggregation	CA_7A-40A (B7+B40) CA_40C (B40+B40)	Features	VoLTE
LTE Band	Channel Width	Status	
B1 (2100 MHz)	5 MHz	Active	
B3 (1800 MHz)	10 MHz	Active	
B7 (2600 MHz)	20 MHz	Active	
B40 (2300 MHz)	20 MHz	Active	

▼ 5G NR Network Information

Details on 5G NR network deployments are shown below. Data are often incomplete due to commercial nature. Consult dossier text for further details.

Type	NR (Standard)	Status	Trialling
Max. MIMO	Massive MIMO	Max. Modulation	256QAM
Carrier Aggregation -		Features	-
NR Band	Channel Width	Status	
n20 (800 MHz)	No Data	Trialling	
n78 (3500 MHz)	100 MHz	Trialling	
n257 (28 GHz)	No Data	Trialling	

▼ IoT Network - NB-IoT (LTE Cat-NB1)

Technology	NB-IoT (LTE Cat-NB1)	Status	Trialling
Band	-	Launch Date	-

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