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Research Dossier: SmarTone HK



Country

Hong Kong

Company Name

SmarTone Mobile Communications Limited

Ownership Type

Subsidiary

Website

<https://www.smartone.com>

MNC

06

Company Overview

SmarTone is a mobile network operator servicing Hong Kong SAR. The company was launched by Sun Hung Kai Properties and ABC Communications in 1992 and began operations in March 1993. SmarTone HK is operated by SmarTone Telecommunications Holdings Limited, which operates local subsidiaries in Hong Kong and Macau. SmarTone temporarily rebranded operations to SmarTone-Vodafone in 2005 following a partnership agreement with Vodafone Group, however following the agreement expiry in 2011 the partnership was not renewed.

The company provides 2G GSM services over 900 and 1800 MHz, and launched a 3G UMTS in June 2006 over the B1 (2100 MHz) band. The network was upgraded to HSPA+ in November 2009, and DC-HSPA+ in October 2011.

4G LTE began August 2012 over the B3 (1800 MHz) band. LTE-Advanced was launched July 2014, providing 2C aggregation of B3 (1800 MHz) with a new B7 (2600 MHz) service to provide up to 150 Mbps, or aggregation with a B8 (900 MHz) carrier to provide data rates up to 112 Mbps. 3C aggregation in CA_3A-7A-8A was also implemented.

The company announced an upgrade to LTE-A Pro in December 2016 with the addition of a B1 (2100 MHz) LTE network, along with 4X4 MIMO and 256QAM technologies. SmarTone trialled Massive MIMO over its B3 network in October 2017. The company became one of the first in the world to deploy LTE-U LAA in August 2018, providing peak data rates in excess of 1 Gbps using 5C carrier aggregation.

SmarTone IoT

SmarTone implemented its first NB-IoT project enabling a smart property management solution at

International Commerce Centre (ICC) in May 2018. The SmarTone network is NB-IoT ready, with further rollouts underway.

SmarTone 5G

One of Hong Kong's first to invest in 5G, SmarTone began demonstrating 5G technology as early as 2017. SmarTone began trialling 5G in partnership with Qualcomm and Ericsson in October 2018. The company announced it had begun field testing 5G using n78 (3500 MHz) and n257 (28 GHz) carriers simultaneously, operating 100 MHz and 2CA 400 MHz channels respectively.

▼ 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 2006-06 Status Active

UMTS Band Packet Data Status

[B1 \(2100 MHz\)](#) [DC-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 [Launched 2012-08]
Max. MIMO	4x4 MIMO	Max. Modulation	256QAM
Carrier Aggregation	CA_3A-7A (B3+B7) CA_3A-8A (B3+B8) CA_7A-8A (B7+B8)	Features	LTE-U VoLTE

LTE Band	Channel Width	Status
B1 (2100 MHz)	10 MHz	Active
B3 (1800 MHz)	10 MHz	Active
B7 (2600 MHz)	10 MHz	Active
B8 (900 MHz)	5 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
n78 (3500 MHz)	100 MHz	Trialling
n257 (28 GHz)	400 MHz	Trialling

▼ IoT Network - NB-IoT (LTE Cat-NB1)

Technology	NB-IoT (LTE Cat-NB1)	Status	Limited / Partial Use
Band	B8 (900 MHz)	Launch Date	-

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