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Research Dossier: LG Uplus



Country

South Korea

Company Name

LG Uplus, Corp.

Ownership Type

Publicly Traded Company
Subsidiary

Website

<http://www.uplus.co.kr>

MNC

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Company Overview

LG U+ (LG우플러스) is a mobile network operator and telecommunications service provider in the Republic of Korea (South Korea). The company was founded in July 1996 following the Korean government's decision to privatise Korea Telecom and subsequently open the telecommunications market up to the private sector. LG Electronics secured a CDMA operating licence under its subsidiary LG Telecom and launched a national digital cellular network. To improve its whole-of-business offerings, LG merged subsidiaries LG Dacom and LG Powercom in July 2010, and rebranded the new entity as LG U+.

The company has provided CDMA services since 1997 over the 1800 MHz band, and has opted not to develop a 3G UMTS network.

LG U+ launched 4G LTE in July 2011 using a 10 MHz channel of B5 (850 MHz). A dual-carrier network was developed in July 2012 with the addition of B1 (2100 MHz), with LTE-A 2C carrier aggregation implemented July 2013 supporting DL rates up to 150 Mbps. Following the August 2013 auction, LG U+ secured an additional 40 MHz of 2600 MHz spectrum and implemented B7 (2600 MHz) in mid-2014, permitting peak data rates of up to 225 Mbps using 2C aggregation of the new band.

The company became the first South Korean operator to implement 3C aggregation (300 Mbps - CA_1A-5A-7A), deploying the feature nationally by July 2014. LTE-Advanced Pro was tested in November 2015 achieving 1.2 Gbps using both 4X4 MIMO and 256QAM technologies. LG U+ has also tested LTE-U LAA, 4C aggregation, and UL 2C CA.

LG IoT

LG U+ formed a partnership with KT and Huawei to begin deploying a joint national NB-IoT network shared between the two networks. The network was commercially launched July 2017 using a 200 kHz channel in the B3 (1800 MHz) band.

LG U+ 5G

The company has performed extensive 5G testing with its partner Huawei. The tests include a dual-band network comprising n78 (3500 MHz) and n257 (28 GHz), demonstrating peak data rates in excess of 20 Gbps. After securing 80 MHz of 3.5 GHz spectrum in the June 2018 auctions, along with 800 MHz of 28 GHz spectrum, LG U+ launched its 5G network in April 2019 over the n78 (3500 MHz) band. The initial network launch comprises over 10,000 Huawei 5G base stations.

▼ 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	No Deployment
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UMTS Band Packet Data Status

▼ 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 (LTE-A)	Status	Active [Launched 2011-07]
Max. MIMO	2x2 MIMO	Max. Modulation	64QAM
Carrier Aggregation	CA_1A-5A (B1+B5) CA_1A-7A (B1+B7) CA_5A-7A (B5+B7) CA_1A-5A-7A (B1+B5+B7)	Features	VoLTE

LTE Band	Channel Width	Status
B1 (2100 MHz)	10 MHz	Active
B5 (850 MHz)	10 MHz	Active
B7 (2600 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	Active [Launched 2019-04-03]
Max. MIMO	Massive MIMO	Max. Modulation	256QAM
Carrier Aggregation	-	Features	-

NR Band	Channel Width	Status
n78 (3500 MHz)	80 MHz	Active
n257 (28 GHz)	400 MHz	Trialling

▼ IoT Network - NB-IoT (LTE Cat-NB1)

Technology	NB-IoT (LTE Cat-NB1)	Status	Active
Band	B3 (1800 MHz)	Launch Date	2017-07

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