

# Alcatel-Lucent 8378 DECT IP-xBS

The Alcatel-Lucent 8378 DECT IP-xBS provides a robust infrastructure for Digital Enhanced Cordless Telecommunications (DECT) in buildings and outdoors, to connect mobile workers everywhere. The unique radio tuning capabilities and on-air synchronization enable network coverage in most difficult areas to ensure excellent voice quality everywhere.



**8378 DECT IP-xBS  
indoor internal antennas**

The IP-xBS base stations pair with Alcatel-Lucent DECT handsets to deliver expert communication features (such as, dial-by-name and multi-line management) from ALE communication servers.

The 8378 IP-xBS powered solution offers cost-effective operations for all sizes of enterprise businesses. Excellent voice quality meets operational simplicity in small branches, SMB, and large multi-site companies with networked communication servers. The base stations leverage the IP network for voice; do not require any IP network customization; and are centrally managed by the communication servers.

8378 DECT IP-xBS handover and roaming capabilities extend the mobile coverage of TDM DECT networks, based on Alcatel-Lucent 4070 and 8379 DECT Base Stations. Investments in TDM DECT are preserved with IP-xBS base stations. They deliver quick return on investment, and seamless mobility for remote buildings, branch offices and refurbished floors.

Features	Benefits
Automated provisioning and over-the-air synchronization of base stations	Zero-touch deployment suitable for small businesses and large buildings
Support of AGAP and GAP protocols	Expert communications with AGAP including twinset with desktop phone, multi-line management, dial-by-name
Suitable for indoor and outdoor environments	Excellent voice quality everywhere
Built-in centralized management over IP with ALE communication servers	Cost-effective operations with 100% IP, or virtualized communication servers, without requiring IP multicast and additional servers or gateways
Radio tuning capabilities per base station and on-air synchronization	DECT users can be reached in most challenging places such as staircases, U-shaped buildings, manufacturing, warehouses, and boats, among others
Up to 2032 base stations per communication server	Scalability to address very large campuses and networked buildings
Handover and roaming with Alcatel-Lucent TDM DECT base stations	TDM investments are preserved and IP base stations offer fast ROI for all-IP buildings and branch offices

## Technical specifications

### Radio specifications

- DECT/GAP
- Frequency band
  - Europe: 1.88 GHz – 1.90 GHz
  - US: 1.92 GHz to 1.93 GHz
  - South America: 1.91 GHz to 1.93 GHz
  - Except Brazil: 1910 to 1920 MHz
  - Asia: 1.90 GHz to 1.906 GHz

### Functionality

Channels can be disabled by communication server to adapt to local regulations

- Channel bandwidth: 1.728 MHz
- Transmission carriers: 10
- Maximum number of simultaneous active call: 11
- Over the air synchronization; requires one channel
- Mix of IP and TDM DECT Infrastructure supported (available on Q4 2018)
- RF power 250 mW, limited to 100 mW for US (DECT 6.0)
- Sensitivity: Typical -90 dBm measured at antenna connection at BER=0.001
- Radio coverage from 50 m to 300 m (approximately 55 yd to 328 yd) depending on location and environment
- Switched antenna diversity
- Integrated omni-directional antenna 2dBi gain (maximum)
- SMA connectors for connecting external antennas

### DECT protocol specifications

- ETSI GAP compliant
- Alcatel-Lucent AGAP protocol
- DECT Security, DECT encryption
- Roaming and seamless handover
- Support identity, authentication and encryption
- Audio CODEC G726
- OmniPCX Enterprise configuration: up to 2032 base per node
- OXO Connect, OXO Connect Evolution: up to 80 access points

### IP specifications

- IPV4, IPV6 hardware ready
- DHCP/TFTP, DHCP option 60, 77, 12, Next-server field, 43, option 43 sub option 58 VLAN id
- static IP address supported
- QoS: IEEE 802.1 P/Q

- LLDP MED
- Audio CODEC: G711 (A,μ), G729AB
- Framing: 20 ms
- Ready for manufacturing and customer certificates support

### Network interface

- IP interface 10/100Base-T, IEEE802.3
- IPV4
- RJ45 connector
- CAT 5 or CAT 6 UTP cabling

### Power feeding

- Remote power feeding on 802.3af IP link
- PoE class 2 (6.49 W maximum)
- Same PoE injector as the Alcatel-Lucent Premium DeskPhone range

### Operating temperature

- Indoor: 41°F to 113°F (+5°C to 45°C)
- Outdoor: -4°F to 131°F (-20°C to +55°C)

### Dimensions (Wall and ceiling mountable)

- Indoor integrated antennas
  - Height: 5.67 in. (144 mm)
  - Width: 5.51 in. (140 mm)
  - Depth: 1.38 in. (35 mm)
  - Weight: 10.40 oz. (295 g)
- Indoor for external antennas
  - Height: 5.67 in. (144 mm)
  - Width: 5.51 in. (140 mm)
  - Depth: 1.38 in. (35 mm)
  - Weight: 11.04 oz. (313 g)
- Outdoor
  - Height: 14.4 in. (365 mm)
  - Width: 8.3 in. (210 mm)
  - Depth: 2.6 in. (65 mm)
  - Weight: 38.8 oz (1.10 kg)

### Deployment

- IP auto discovery
- Automatic air synchronization
- Radio fine tuning for harsh environment

### Serviceability

- LED status indication
- Firmware downloadable through communication server
- Communication server troubleshooting tool, air synchronization tree, statistics

### Regulation

- EU directives
  - Radio Equipment Directive; 2014/53/EU
  - ROHS 2011/65/EU

- Limitation of exposure of general public to electromagnetic fields 1999/519/EC WEEE 2012/19/EU

- Safety
  - IEC 60950-1
  - EN 60950-1
  - UL 60950-1
  - CAN/CSA-22.2 No 60950-1
- EMC
  - EN 301 489-01
  - EN 301 489-06
  - Aus: EN 55032:2012 + AC:2013
- Radio
  - EU: EN 301 406
  - USA: FCC CFR47 Part 15D
  - CAN: RSS-213 Issue 3

### SAR

- EN 50385
- FCC OET Bulletin 65
- RSS-102
- AS/NZS 2772.2:2011: Assessment methods

### DECT

- EU:EN 301 406
- EN 300 175

### Environmental

- ETS
  - Operation (indoor): ETSI EN 300 019-1-3-class 3.1
  - Operation (outdoor): ETSI EN 300 019-1-4-class 4.2H with -20°C for low temperature and +55°C for high temperature
  - Storage: ETSI EN 300 019-1-1-class 1.2
  - Transport: ETSI EN 300-019-1-2-class 2.3
- IP Class
  - IP Class (IEC 60529)
  - Indoor base station: IP40
  - Outdoor base station: IP55

### Models

- 3BN67365AA 8378 DECT IP-xBS integrated antennas
- 3BN67366AA 8378 DECT IP-xBS for external antennas
- 3BN67367AA 8378 DECT IP-xBS OUTDOOR with external antennas

### Accessories

- 3BN67185AA 8 dBi Gain antenna
- 3BD52212AA 7,5 dB Gain antenna
- 3BD52205AA 8dB right circular antenna
- 3BD52206AA 8dB left circular antenna
- 3MG27035xx PoE injector