Alcatel-Lucent Enterprise 8158s/8168s WLAN Handsets
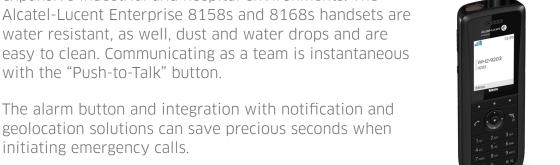
Provide customers with an exceptional experience with Alcatel-Lucent Enterprise 8158s and 8168s robust, quality WLAN wireless handsets. A large backlit color screen lets you easily manage your calls with access to all the ALE telephony features.

A Bluetooth headset lets you make secure, hands free, calls. You can be reached at any time, even in expansive industrial and hospital environments. The Alcatel-Lucent Enterprise 8158s and 8168s handsets are water resistant, as well, dust and water drops and are easy to clean. Communicating as a team is instantaneous with the "Push-to-Talk" button.

The alarm button and integration with notification and geolocation solutions can save precious seconds when initiating emergency calls.

Save money with a single WLAN network for your internet traffic and your business communications. Both handsets are compatible with Wi-Fi 6 technology and Alcatel-Lucent OmniAccess® Stellar Access Points. The handsets provide secure, excellent voice quality in "wideband audio" over ALE and third-party providers' WLAN and communications networks.

Features	Benefits
DUAL stack NOE and SIP protocols	The 8158s and 8168s can be deployed in any business environment on ALE communications servers, from on-premises PBX, to cloud deployment
Wi-Fi interoperability	A wide range of Wi-Fi infrastructures supported
Wideband voice quality (8168s)	More comfort with excellent wideband audio even in hands-free mode
Alarm features	8158s and 8168s features push-button alarm compatible with ALE alarm server and interoperable with third-party alarm solutions
Bluetooth (8168s)	Bluetooth headset support and BTLE ready for Location-based Services (LBS)
Push-to-talk	Enable workers to easily set-up group discussions
Retro-compatibility	Compatibility with Alcatel-Lucent Enterprise 8118 and 8128 Handsets protects your investments.

Technical Specifications

Physical characteristics

- Color: Black
- Material:
  - ¬ Case: Polycarbonates (PC)
  - ¬ Keypad: Coated vulcanized silicone
  - ¬ Clip: Polyamide (PA)
- Belt clip: Hinge-type; optional swivel clip

Dimensions

- Height: 137 mm (5.39 in.)
- Width: 52 mm (2.04 in.)
- Depth: 21 mm (0.82 in.)
- Weight: 135 g (4.8 oz) excl. clip

Display

- 31 × 41 mm (2.0 in), TFT color display
- 240 × 320-pixel LCD
- Display backlight: White

Keys and indications

- Top: alarm button
- Right-side:
  - ¬ jack port
- Left-side:
  - ¬ + and - volume control keys
  - ¬ push to talk
- Front:
  - ¬ 3 contextual keys
  - ¬ Answer, Hang-up/Off keys
  - ¬ 4-way navigation, OK button
- Keypad:
  - ¬ Backlight
- Illuminated display on:
  - ¬ Incoming call
  - ¬ Message
  - ¬ Charging
- Vibrator on
  - ¬ Incoming call
  - ¬ Message
- Audio signals
  - ¬ 14 ring signals
  - ¬ Aggressive ring signal
  - ¬ 5 beep signals
  - ¬ 3 user-defined custom sounds
- Answer call:
  - ¬ Phone button press
  - ¬ Headset button press
  - ¬ Auto answer

Connectors

- Multi-purpose connector:
  - ¬ Fast software download
  - ¬ Configuration
  - ¬ Battery charging
- Headset connector: Standard 3.5 mm jack (4 pole)

Battery pack

- All battery times are based on optimal conditions (no roaming or handover and black display)
- Easy to replace battery
- Li-polymer 3.7 V 920 mAh
- Speech time: Up to 10 h
- Standby time: Up to 100 h
- Charge time: Less than 4 h

Protocol specifications

- ALE communications servers protocol (NOE)
- Supports SIP protocol:
  - ¬ RFC1889, RFC2327, RFC2833, RFC3261, RFC3264, RFC3265, RFC3515, and RFC3842
  - ¬ Encryption: SRTP and TLS

Audio

- Voice codecs:
  - ¬ 8168s: Opus Wideband, G.722
  - ¬ G.711 A-law (EU), G.711 u-law (US)
  - ¬ G.729, G.729A, G.729B, G.729AB
- Customizable sounds
- Ring signal:
  - ¬ Maximum sound level 88 dBA SPL @ 10 cm
  - ¬ Adjustable in 8 steps
  - • Earpiece: Volume adjustable in 8 steps of 3 dB each
  - • Loudspeaker (8168s): Duplex loudspeaker function
  - • Comfort noise: Constant noise level enhancing the quality of a call
  - • Sound pressure level range for medium priority alarm (one beep):
  - ¬ Measured according to IEC 60601-1-8
  - ¬ 44 dB–80 dB, adjustable in 8 steps
- Sound pressure level range for high priority alarm (siren):
  - ¬ Measured according to IEC 60601-1-8
  - ¬ 46 dB–81 dB, adjustable in 8 steps

Directory

- Central directory (system dependent)
- Local directory:
  - ¬ Selectable ring signals per contact

Messaging

- Maximum message length:
  - ¬ 160 characters from VoWiFi Handset
  - ¬ Message length to VoWiFi Handset is system dependent
- Storage capacity: 30 received/sent messages

Location (8168s)

BTLE, Poll location: system dependant

Alarms types (supported)

- Interoperability with several alarm servers (system dependent)
- Push button alarm

Languages

- Menu and message languages (20): Arabic, Chinese (simplified), Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Norwegian, Polish, Portuguese (Brazilian), Russian, Slovak, Spanish, Swedish, and Turkish

Desinfection and Cleaning

Liquid Disinfection Solution

- Ethanol 85%: Sporadic & daily disinfection
- Virkon S 1 %: Daily disinfections
- Actichlor Plus 0,1% Chlorine: Daily disinfections
- Aseptix (H2O2): Daily disinfections
- Chlorhexidin 0.5 mg/ml: Sporadic disinfection
- Chlorhexidin 0.5 mg/ml: Daily disinfections

Cleaning Wipe

- PDI Super Sani-Cloth (Purple)
- PDI Sani-Cloth Plus (Red)
- PDI Sani-Cloth Bleach (Orange)
- PDI Sani-Cloth HB (Green/blueish)
- PDI Sani-Cloth AF3 (Gray)
- PDI Sani-Cloth AF (White)
- Certol Prospray
- Clorox Hydrogen Peroxide (Green)
- Clorox Disinfecting Wipes
- CaviWipes and CaviWipes XL
- Cal Tech Dispatch (With bleach)

Radio specifications

- Receiver sensitivity:
  - ¬ −87 dBm (802.11a, 6 Mbps)
  - ¬ −93 dBm (802.11b, 1 Mbps)
  - ¬ −87 dBm (802.11g, 6 Mbps)
  - ¬ −86 dBm (802.11n, MCS0)
- Frequency range EU:
  - ¬ b/g: 2.4000–2.4835 GHz (Ch 1–13)
  - ¬ a: 5.1500–5.3500 GHz (Ch 36–64), 5.4700–5.7250 GHz (Ch 100–140)
- Frequency range USA:
  - ¬ b/g: 2.4000–2.4735 GHz (Ch 1–11)
  - ¬ a: 5.1500–5.3500 GHz (Ch 36–64), 5.4700–5.8500 GHz (Ch 100–165)

- Frequency range Canada
  - ¬ b/g: 2.4000–2.4735 GHz (Ch 1–11)
  - ¬ a: 5.1500–5.3500 GHz (Ch 36–64), 5.4700–5.6000 GHz (Ch 100–116), 5.6500–5.8500 GHz (Ch 132–165)
- Maximum average power: 100 mW/20 dBm
- Modulation speed:
  - ¬ b: 1, 2, 5.5, 11 Mbps
  - ¬ a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
  - ¬ n: MCS-0–MCS-7
  - ¬ ac: MCS-0–MCS-9
- Bluetooth radio spectrum: ISM 2.4000–2.4835 GHz
- Output power (8168s): Maximum 3 dBm (Class 1)

WLAN
- Number of networks: Four systems, auto selection and manual selection
- Quality of Service (QoS): WMM, TSPEC-based CAC
- Supported networks: 802.11 a/b/g/n/ac (MCS0-7)

Wireless security
- Security standard: 802.11i, 802.11w
- Encryption method: AES-CCMP
- Authentication methods:
  - ¬ Open
  - ¬ WPA2-PSK
  - ¬ EAP-FAST
  - ¬ PEAP-MSCHAPv2
  - ¬ EAP-TLS

Roaming enhancement
- 802.11r, 802.11k
- Opportunistic Key Caching
- PMKSA caching

Serviceability
- Site survey tool
- Software update over the air
- Configuration cradle
- Centralized management:
  - ¬ Built-in management in ALE communications servers
  - ¬ Optional IMS3 Gateway for mass deployment

Regulations and Standards compliance Europe
- EU directives: 2014/53/EU (RED) and RoHS 2015/863 (RoHS3) amending Directive 2011/65/EU (RoHS)

- Product marking: BT QD: 81378
- Radio: EN 300 328, EN 301 893
- Bluetooth: EN 300 328, EN 301 489-17
- SAR (Specific Absorption Rate): EN 50360, 0.637 W/kg (10 gram)
- Safety: EN 60950-1
- EMC: EN 301 489-01, EN 301 489-17, EN 55032

United States
- Product marking:
  - ¬ FCC ID: BXZWH2
  - ¬ HAC
  - ¬ BT QD: 81378
- SAR (Specific Absorption Rate):
  - ¬ FCC/OET Bulletin 65 Supplement C and IEEE Std. 1528
  - ¬ Normal operation 1.108 W/kg (1 gram)
  - ¬ Body worn operation 1.586 W/kg (1 gram)
- Safety: UL 60950-1, UL 62368-1
- EMC/Radio: FCC Part 15 E, FCC Part 15 C (Bluetooth), and FCC Part 15 B
- Hearing Aid: FCC Part 20.19

Canada
- Product marking:
  - ¬ IC: 3724B-WH2
  - ¬ BT QD: 81378
- SAR (Specific Absorption Rate): RSS-GEN and RSS-247
- Safety:
  - ¬ RSS-102, Issue 5
  - ¬ Body Worn 1.586 W/kg (1 gram)
  - ¬ Left Head 1.108 W/kg (1 gram)
- EMC/Radio: CAN/CSA-C22.2 NO.60950-1A-07
- Hearing Aid: CS-03 Part V, Issue 9, Amendment 1

Australia and New Zealand
- Product marking:
  - ¬ N1514
  - ¬ BT QD: 81378
- Radio: Radiocommunications (Short Range Devices) Standard 2014, AS/NZS 4268
- Bluetooth: AUS/NZS-4771
- SAR (Specific Absorption Rate): EN 62209-1, 0.637 W/kg (10 gram)
- Safety: AUS/NZS 60950-1
- Audio: AS/CA S004

- EMC: Radiocommunications (Electromagnetic Compatibility) Standard 2008

Operating environment
- Operating temperature: −5°C to +45°C (+23°F to +113°F)
- Storage temperature (1): −20°C to +60°C (−4°F to +140°F)
- Charging temperature: 0°C to +50°C (+32°F to +122°F)
- Immunity to electromagnetic fields: 3 V/m IEC 61000-4-3
- Immunity to ESD: 4 kV contact discharge and 8 kV air discharge (IEC 61000-4-2)
- Enclosure protection: Ingress Protection IP44, IEC 60529
- Free fall test:
  - ¬ IEC 60068-2-32, procedure 1, dropped 12 times from 1 m;
  - ¬ IEC 60068-2-32, procedure 2, dropped 1000 times from 0.5 m
- The following chemicals have shown no harmful effect:
  - ¬ 3% Hydrochloric Acid M-alcohol (70% Methylated Ethanol)
  - ¬ 60% Chlorhexidine 0.5 mg/ml

Accessories
- Desktop charger, 3 models:
  - ¬ 3BN78403AA 81X8 Desktop charger Europe
  - ¬ 3BN78403AB 81X8 Desktop charger US-UK-AUS
  - ¬ 3BN78403AC 81X8 Desktop charger US-UK-AUS without PSU for countries not supporting above plugs
- 3BN78406AA 81X8 Rack charger
- 3BN78414AA 81X8 Configuration cradle
- 3BN78415XX Central management IMS3 Gateway
- 3BN78423AA 8158S/8168S Belt clip
- 3BN78424AA 8158S/8168S Carrying case
- 3BN78425AA 8158S/8168S Swivel clip
- 3BN78426AA 8158S/8168S Batteries rack charger
- 3BN78427AA 8158S/8168S LI-ION battery pack

*Check the Release notes published by Alcatel-Lucent Enterprise to discover more on features availability

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