

Ascom d81 DECT Handset, Messenger

Features

Messaging

- Priority handling of calls and messages
- Advanced messaging queueing
- Colour messaging
- Interactive messaging
- Broadcast/Multicast messaging
- Message acknowledgement
- Sending/receiving messages (SMS)
- Voice mail

Location

- Base station location
- DECT location¹
- LF Location²
- Poll location

General

- Tough industrial handset
- IP65 classified design
- Easy registration
- Headset connector
- Wide temperature range, -10 to 55 °C
- Loud volume
- Color display
- GAP/CAP compliant DECT handset
- Dynamic output power
- Shared phone¹
- Upgradeable by license
- 18 default languages + 1 customizable

1. License dependent feature
2. Factory option

- Application controlled telephony
- Automation calls
- Automatic group calls
- Push to talk (PTT)
- Personalized menu
- Profiles
- System profiles
- Procedure call
- Programable handset restrictions
- Programable soft keys / hot keys
- Programable headset button
- Bluetooth and handsfree as standard
- Bluetooth barcode reader support¹



Technical Specifications

Physical

Dimensions (l × w × d):	142 × 56 × 25 mm
Weight:	170 g (battery and clip included)
Material:	Case: PC/ABS, Key pad: PC, Clip: PA
Color:	Handset: Gray/Dark Gray Front plates: Steel Gray (standard), Dark Gray, Turquoise, Green, and Orange.
Display (w × h):	28 x 35 mm, CSTN display
Clip:	Hinge-type (standard) or swivel-type

Battery

Type:	Li-Ion
Speech time:	18 h (Bluetooth disabled/Location features disabled) 12 h (with Bluetooth headset in use/Location features disabled) 16 h (Bluetooth disabled/LF location enabled) 10 h (with Bluetooth headset in use/LF location enabled)

Stand-by time:	120 h (Black screen saver activated/Location features disabled) 60 h (Black screen saver activated/LF location enabled)
Charge time:	2 hours - 90% charged; 3 hours - fully charged.
Discharge/charge cycles:	>=80% capacity left after 400 full charge/discharge cycles.

Connectors

Multi-purpose connector:	For battery charging, software download, connection of headset, and configuration.
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User interface

Display (w × h):	Multiple colors with high resolution, more than 65000 individual colors. 128 × 160 pixel LCD with white LED backlighting.
Indicator:	LED on top for visual indication of incoming call/message. The LED may also be used for visual indication of normal function.
Vibrator:	Incoming call/message
Buttons/Keypad:	<ul style="list-style-type: none"> - Soft keys (3) - Hook off key - On-hook and Power On/Off on the same key - Four-way navigation key - Numerical keys - Volume up/down buttons - Sound off key/Mute button

Audio

Ring signal:	Adjustable in 8 steps
Earpiece:	Adjustable in 8 steps
Maximum sound ring signal level:	100 dBspl @ 10 cm
Loudspeaker:	Duplex loudspeaking function

Settings

Languages:	18 (Czech, Danish, German, Greek, English, Spanish, French, Italian, Magyar, Dutch, Norwegian, Polish, Portuguese (Brazilian), Russian, Slovakian, Finnish, Swedish, Turkish) + 1 customizable
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Central Phonebook

Maximum name and number length:	40 characters in a name and 20 digits in a number
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Company Phonebook

Maximum name and number length:	24 characters in a name and 24 digits in a number (1 number per name).
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Entries:	1000
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Local Phonebook

Contacts:	<ul style="list-style-type: none"> - 48 character name - 24 digit work number - 24 digit mobile phone number - 24 digit other number - Selectable ring tones per contact
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Entries:	250
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Specifications are subject to change without notice.

Telephony

Indication:	14 ring signals, flashing LED and vibrator
Answer call:	Button press or auto answer
Call list storage capacity:	25 calls (received, dialled and missed) with time stamp

Messaging

Maximum message length:	160 characters from handset. Message length to handset is system dependent.
Storage capacity:	30 received/sent messages (> 20 000 characters)

Radio

Receiver sensitivity:	-93 dBm
Automatic DECT protocol detection:	Automatic detection and configuration for US DECT and EU DECT at first registration.

Frequency range:

• EU:	1880-1900 MHz
• US:	1920-1930 MHz
• LA:	1910-1930 MHz
• BR:	1910-1920 MHz
• Other:	1900-1920 MHz

Modulation:	GFSK
Channel spacing:	1.728 MHz
Antenna:	Integral
Dynamic output power:	EU/LA/BR: 10 mW (maximum average power) US: 4 mW (maximum average power)

Bluetooth

Bluetooth radio spectrum:	ISM 2.4000-2.4835 MHz
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Environmental

Operating temperature:	-10°C to +55°C
Storage temperature ¹ :	-20°C to +60°C
Enclosure protection:	IP65, IEC EN60529
Immunity to electromagnetic fields:	3V/m EN61000-4-3
Immunity to ESD:	8 kV contact discharge and 16 kV air discharge (EN61000-4-2)
Accelerated Life Testing	
Climate stress	Handset exposed for quick temperature changes (-40° C to 75° C) 25 times. Handset dwelt on each temperature during 40 minutes.
Drop test	Handset dropped 30 times from 1,2 metres
Vibration test	Handset exposed for vibrations during 2,5 hours
Chemical stress	Handset exposed for Oleic Acid
Keypad actuation test	Keys pressed 15 000 times with a force of 13N
Squeeze test	Handset squeezed 1 000 times with a force of 130N.

1. Note that storing Li-Ion batteries at high temperature dramatically reduces its capacity. For example storage around maximum temperature reduces capacity with 20% in less than a month, permanently.

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Free fall test, standard product	IEC 60068-2-32, procedure 1, dropped 12 times, specification extended to 2 metres. IEC 68-2-32, procedure 2, dropped 1 000 times from 0,5 metre.
Chemical Resistance Test	3% Hydrochloric Acid M-alcohol (85% methylated ethanol) 60% Chlorhexidin 0.5mg/ml
Keypad Abrasion Test	20 NB 0500-B

Additional Features

- High quality voice
- Easy access to PBX services
- Easy replacement of handset
- Easy replaceable battery
- Mute button / Sound off key
- Local, central, and company phonebook
- Site survey tool
- Loudspeaking function
- Vibrator
- Clear call lists in charger
- Call list with the last 25 calls
- Site survey tool
- Centralized management



Accessories

- Hinge-type/Swivel-type clip
- Cover plate for no clip
- Security cord
- Leather casing, incl. swivel-type clip
- Desktop charger, Basic
- Desktop charger, Advanced
- Battery pack charger
- Charging rack
- Front plates (5 colors)
- Headset with microphone on boom¹
- Headset adaptor for Mic on boom
- Peltor hearing protection headset
- ATEX/IECEx-classified headset adaptor for standard and ATEX-classified Peltor headsets

Verified Bluetooth Headsets and Bluetooth Barcode Readers

- Bluetooth Headsets (10 supported)
 - Nokia BH-804
 - Nokia BH-904
 - Plantronics Explorer 390
 - Plantronics Voyager 835
 - Plantronics Voyager PRO
 - Plantronics Discovery 925
 - Jabra BT530
 - SonyEricsson HBH-GV435
 - SonyEricsson HBH-PV740
 - Peltor M2RX7-WS4
- Bluetooth Barcode Readers (4 supported)
 - Baracoda ScanWear BSW-L
 - Baracoda Roadrunners BRR-L
 - Baracoda Pencil2
 - Opticon OPL-2724


Compliance to European Regulations and Standards

EU directives:	1999/5/EC (R&TTE)
Product marking:	  BT QD: B016451
Radio:	EN 301 406, TBR22
Bluetooth:	EN 300 328, EN 301489-17
SAR (Specific Absorption Rate):	EN50360 and EN62209-1, 0.137 W/kg (10 gram)
Safety:	EN60950-1
EMC:	EN301489- 6, EN 301 489-1

1. Requires the headset adaptor for Mic on boom which is ordered separately.

Specifications are subject to change without notice.

Compliance to US Regulations and Standards

Product marking: FCC ID: BXZDH5BL,  BT QD: B016451
US: 9FVW4NANDH5
HAC


SAR (Specific Absorption Rate): FCC/OET Bulletin 65 Supplement C and IEEE Std. 1528 /
ANSI/IEEE Std. C95.1
Normal operation 0.013 W/kg (1 gram)
Body worn operation 0.016 W/kg (1 gram)

Safety: UL 60950-1

EMC/Radio: FCC Part 15 D, and FCC Part 15 C (Bluetooth)

Hearing Aid: 47 CFR Part 68, Subpart D and TIA-968-A

Compliance to Canadian Regulations and standards

Product marking: IC: 3724B-DH5BL,  BT QD: B016451



EMC/Radio: RSS-213 and RSS-210 (Bluetooth), ICES-003

SAR (Specific Absorption Rate): IEEE Std C95.3
Normal operation 0.013 W/kg (1 gram)
Body worn operation 0.016 W/kg (1 gram)

Safety: CSA 60950-1

Hearing aid: CS-03

Compliance to Australian Regulations and Standards

Product marking:   BT ID: B016451

Radio: EN301406

Bluetooth: EN 300 328-2, EN 301489-17, AUS/NZS-4771

SAR (Specific Absorption Rate): EN 50360 and EN62209-1, 0.137 W/kg (10 gram)

Safety: AUS/NZS 60950-1

EMC: EN301489- 6, EN 301 489-1

DECT: AS/ACIF S004

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