

Technical Release Note for 8232 DECT Handset R120

This document is the Technical Release Notes of 8232 DECT R120/43.82/b0004.

Revision History

Edition 1: July 27, 2012	R100 : v39.80 first delivered version on OXE solution
Edition 2: August 3, 2012	R100 : v40.80 improvement of handset identification
Edition 3: November 26, 2012	R100 : update following delivery on OXO/IP-DECT R105 solutions of v40.80
Edition 4: January 21, 2013	R100 : sections on documentation and cross compatibility updated
Edition 5: April 11, 2013	R110 : v41.81 full EGAP support, EHO and CAMPUS support
Edition 6: February 5, 2014	R110 : v42.81 maintenance version solves critical EHO issues
Edition 7: May 20, 2014	R110 : v44.81/OXE maintenance version, cumulative corrections of escalate issues
Edition 8: June 03, 2014	R110 : v44.81/OXO V44.81 delivered on OXO solution
Edition 9: December 1, 2014	R110 : v47.81 hotfix version
Edition 10: February 25, 2014	R110 : v48.81 maintenance version (build 0005)
Edition 11: June 29, 2015	R110 : v48.81 maintenance version (build 0006)
Edition 12: July 16, 2015	R110 : v49.81 maintenance version (build 0003). Modifications in section 9.1
Edition 13: Feb. 05, 2016	R120 : v42.82 (build 0003) New Release R120
Edition 14: Oct. 11, 2016	R120 : v43.82 (build 0004). Modifications in sections 7.4 and 9.1

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1 Overview



This document is the Technical Release Note of the Alcatel-Lucent 8232 DECT software. The current released version is **version 43.82 (build 0004) corresponding to a maintenance version.**

Version 43.82 (build 0004) is made available as a SW on the Enterprise Business Portal in the SW download section. It will also be loaded at the factory for future productions of 8232 handsets. SW modifications are detailed in sections 7.4 (new features), 8.1 (restrictions) and 9.1 (corrections).

This software applies to the 8232 DECT handset hardware (ref: 3BN67330AA)

Note : Modifications compared to previous edition are in blue text.



Warning

BEWARE: it is generally not recommended to downgrade a handset.



Warning

BEWARE: If you want to use UST application for Parallel SW upgrade (see section **Erreur ! Source du renvoi introuvable.**), please check that you are using the Handset Download Tool 3BN67339AB.

1.1 Product Overview

The Alcatel-Lucent 8232 DECT handset offers an easy-to-use, cost effective and reliable voice communication solution that addresses the mobility needs of evolving business environments.

The Alcatel-Lucent 8232 DECT Handset provides a convenient and practical solution for the basic personal mobility needs of most business environments. It offers simple and efficient voice communications, enhanced usability and compatibility with the existing Alcatel-Lucent base station portfolio. It also offers all of the Alcatel-Lucent OmniPCX Communication Server value-added voice services (such as dial-by-name and multi-line management) that Alcatel-Lucent fixed desk phones support.

New Contents of Release R120 introduced with 42.82 b0003 => See section 7.4 of this document.

1.2 Supported Solutions

The new DECT Handset 8232 DECT is introduced on OmniPCX Enterprise and OmniPCX Office. The terminal is mostly functionally compatible with previous Alcatel-Lucent MR 400 DECT terminals.

This software applies to the 8232 DECT handset hardware (ref: 3BN67330AA).

This product provides DECT mobility feature to the following Alcatel-Lucent solutions:

- Alcatel-Lucent OmniPCX Office (OXO) with following DECT infrastructure :
 - TDM base stations (IBS)
 - IP-DECT base stations (4080 DAP, 8340 DAP, 8340C DAP)
- Alcatel-Lucent OmniPCX Enterprise (OXE) with following DECT infrastructure :
 - TDM IBS base stations
 - TDM RBS base stations
 - IP-DECT base stations (4080 DAP, 8340 DAP)

1.3 History of firmware versions

Version 39.80 was the first version released to the public on the following solutions

- OXE/IBS, OXE/RBS, OXE/IPDECT (since R100)
- OXO/IBS, OXO/IP-DECT (since IP-DECT R105)

Version 40.80 is a minor enhancement release. It improves the identification of the handset and supports the following solutions:

- OXE/IBS, OXE/RBS, OXE/IPDECT(since R100)
- OXO/IBS, **OXO/IP (since DECT R105)**

Beware this version does not yet fully support the EGAP protocol for OXO / IP-DECT R105 solutions and thus cannot access the Enterprise Directory to make call by name. Nevertheless call by name using local directory is supported.

Version 41.81 : first version of R110 release; this version fully supports the EGAP protocol for OXO/IP-DECT configurations.

Version 42.81 : maintenance version of the R110 release; solves critical issues with EHO and greatly improve some cases of dialing after pressing OFF-HOOK or HOME keys

Version 44.81 : maintenance version of the R110 release; complete the resolution of issues related to EHO (multiPARI, CAMPUS).

Version 47.81 : hot fix versions gathering several important hot fixes; to use only if applying to your installation.

Version 48.81 : maintenance version of release R110 (build 0005).

Version 48.81 : maintenance version of release R110 (build 0006).

Version 49.81 : maintenance version of release R110 (build 0003). Modifications in section 9.1

Version 42.82 : New Release R120 (build 0003). Modifications in sections 7.4 (new features) and 9.1 (corrections)

Version 43.82 : maintenance version of release R120 (build 0004). Modifications in sections 7.4 and 9.1

2 Downloading Software Packages

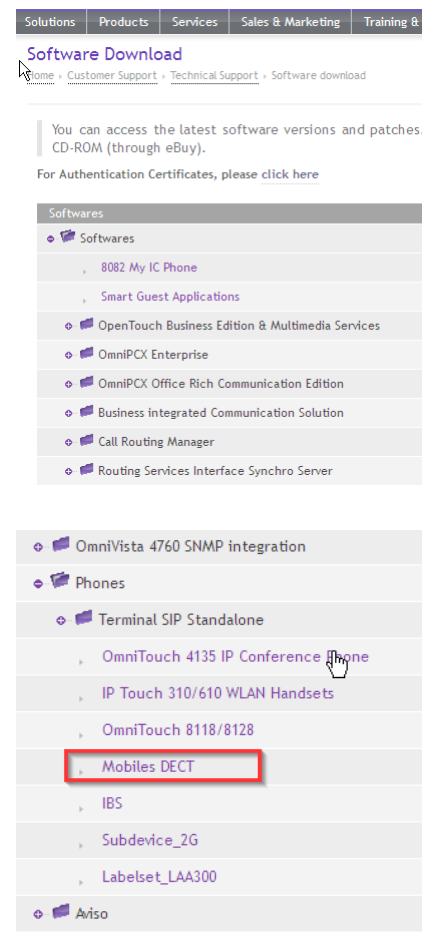
Following software packages can be downloaded from the Enterprise Business Portal:

From the main page of the Business Portal, select the « [Software Download](#) » page by hovering the mouse over the “Top Menu Bar” area, then over « [Customer Support](#) », then over « [Technical Support](#) », and finally click « [Software download](#) ».

The « [Software Download](#) » page is then displayed.

From this page you can access the latest software versions and patches. Click on the “[Software Communications](#)” then “[Phones](#)” node (be advised, you have to scroll down the list); then click on the “[Mobiles phones](#)” sub-node.

The page with “Mobiles DECT” is displayed. From this page you have access to the all the software packages related to Alcatel-Lucent DECT handsets.



In the section “*Mobile 8232 dect handset*” you can download the zip archive

- **The link “8232 DECT v4x8x” which triggers the download of the archive “8232_DECT_v4x8x_bxxxx.zip” For R120 43.82 => 8232_DECT_v4382_b0004.zip**

which contains:

- The 8232 dect firmware in the format .HEX to be used with the FLASHLOADER application (**deprecated since 43.82 b0004**) for single SW upgrade, or UST application for **single or** parallel SW upgrade,
- The 8232 dect firmware in the format .BIN to be used for the SUOTA feature of the IP-DECT infrastructure

In the section “*Serial Download Tools 500 DECT and 8232 DECT Handsets*” you will find:

- **The link “FLASHLOADER software download tools” which triggers the download of the archive “FlashLoaderGUI_vxxxx.zip”**

In the section “*Parallel Download Tools 8262/8242/8232 DECT Handsets*” you will find:

- **The link “Unified Support Tool vxxxx” which triggers the download of the archive “UnifiedSupportTool-Setup_vxxxx.zip”**

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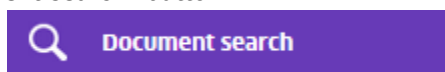
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3 Technical Documentation

3.1 How to access the technical documentation

The listed documentation can be found in the Technical Documentation Library accessed from the Enterprise Business Portal.

From the main page of the Business Portal, in the "Quick access" area, click the link to enter the Technical Documentation Library (TDL). To reach the "Document search" page you may have to click on the "Document search" button.



In the TDL "Document search" page, in the input box below the "YOUR SELECTION" box, enter the keyword **"8232 DECT Handset"** (include the quotes, it is important). Then click the "OK" button.

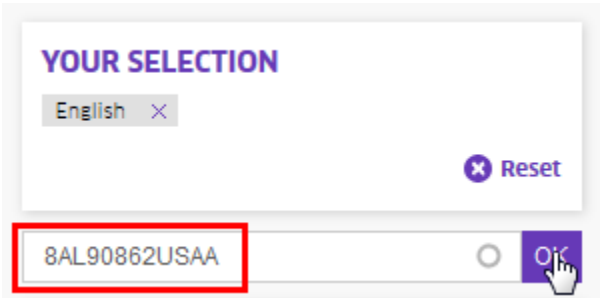
You will get generally many documents. You can try to narrow your search by using the selection boxes "REFERENCE BOOK", "THEME/FEATURE/SUBFEATURE", "PRODUCT / RELEASE".

The following values may be pertinent.

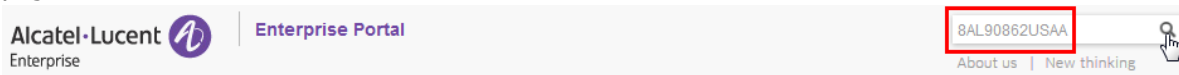
Selection Box	Item to check	Title	*
THEME/FEATURE/SUBFEATURE	Set/ DectHandset	Select documents related to DECT handset products	
	Installation Manual		
REFERENCE BOOK	User Guide	Select type of documents	
	User Manual		
PRODUCT/RELEASE	Communication Platforms/ OmniPCX Enterprise	Select documents applying to OmniPCX Enterprise Platforms	
	Communication Platforms/ OmniPCX Office Riche	Select documents applying to OmniPCX Office Platforms	
	Communication Edition		

Alternative Methods

You can type the reference of the document you search in the TDL "Document search" page, in the input box below the "YOUR SELECTION" box, enter the document reference (in the example below the reference is 8AL90862USAA). Then click the "OK" button.



You can also type the reference of the document you search in the search box on top of Enterprise Portal pages.



3.2 Technical Bulletins

Type	Ref	Ed	Title	*
Release Note	TC1772	(*)	8232 DECT Handset Technical Release Note	
Release Note	TC1784		Flashloader Application for Handset Firmware Upgrade	

(*) This document

3.3 OmniPCX Office Documentation

Product: OXO

Type	Ref	Title	*
User Guide	8AL90863USAA	8232 DECT Handset User Guide (common to OmniPCX Office and OmniPCX Enterprise)	c
User Manual	8AL90861USAB	8232 DECT Handset User Manual for OmniPCX Office For SW branch xx.81	S (1)
User Manual	8AL90861USAC	8232 DECT Handset User Manual for OmniPCX Office For SW branch xx.82 (MMI of xx.82 is different from MMI of xx.81)	
System Documentation		8232 DECT - Registering the Handset	S
System Documentation		8232 DECT - Hardware description	S
Administrator Manuals	8AL90305USAA	8232 DECT Handset - Maintenance Manual	c
Unified Support Tool	8AL90330ENAA	Installation Manual of the Dect handsets Unified Support Tool	

S: document specific to the solution OXO

c: document common to different solutions OXO/OXE

(1): this document describes some features in GAP mode, available only with EGAP support;
40.80 does not fully support EGAP; full EGAP support is introduced in 41.81

3.4 OmniPCX Enterprise Documentation

Product: OXE

Type	Ref	Title	*
User Guide	8AL90863USAA	8232 DECT Handset User Guide (common to OmniPCX Office and OmniPCX Enterprise)	c
User Manual	8AL90862USAA	8232 DECT Handset User Manual for OmniPCX Enterprise For SW branch xx.81	S
User Manual	8AL90862USAB	8232 DECT Handset User Manual for OmniPCX Enterp. For SW branch xx.82 (MMI of xx.82 is different from MMI of xx.81)	
System Documentation		8232 DECT - 8232 DECT description	S
Administrator Manuals	8AL90305USAA	8232 DECT Handset - Maintenance Manual	c
Unified Support Tool	8AL90330ENAA	Installation Manual of the Dect handsets Unified Support Tool	

S: document specific to the solution OXE

c: document common to different solutions OXO/OXE

4 Alcatel-Lucent commercial items related to 8232 DECT

This section is for information purpose only.

Please refer to ACTIS tool, accessible through the Enterprise Business Portal in order to get the actual content of the different Alcatel-Lucent offers.

Category	Designation	Reference
handset	8232 DECT Handset, includes battery and belt clip	3BN67330AA
charger	8232 DECT Handset desktop charger, includes USB cable	3BN67331AA
charger	82x2 DECT Handset Dual charger, includes USB cable	3BN67341AA
charger	8232 DECT Handset desktop charger power supply, Europe mains plug	3BN67335AA
charger	8232 DECT Handset desktop charger power supply, Australia-UK-US mains plug	3BN67336AA
spare	8232 DECT Handset spare battery	3BN67332AA
accessories	8232 DECT Handset spare belt clip	3BN67333AA
accessories	8232 DECT Handset swivel clip	3BN67334AA
accessories	8232 DECT Handset vertical pouch	3BN67337AA
accessories	8232 DECT Handset horizontal pouch	3BN67338AA
tool	8232 DECT Handset download tool (serial download only)	3BN67339AA
tool	8232 DECT Handset download tool (serial and parallel download)	3BN67339AB

5 Support of Alcatel-Lucent Solutions

5.1 Overview of Solution Support

Alcatel-Lucent solutions support 2 types of DECT infrastructures:

- The traditional DECT solution over TDM links;
- The more recent IP-DECT solution over IP links.

The traditional DECT solution exists in 2 variants: one using IBS base stations and one using RBS base stations (this latter only on OmniPCX Enterprise call server).

5.1.1 OmniPCX Office

On OmniPCX Office the AGAP protocol is only supported on DECT IBS infrastructures.

On IP-DECT infrastructures only the GAP protocol is supported.

To increase the level of features offered the IP-DECT infrastructure since release IP-DECT R105 support the EGAP (Extended GAP) protocol. The EGAP protocol is basically a GAP protocol with protocol extensions.

5.1.2 OmniPCX Enterprise

On OmniPCX Enterprise the AGAP protocol is supported both on DECT IBS/RBS and on IP-DECT infrastructures.

5.1.3 OpenTouch

Not currently in the scope of this product.

5.2 OXO Solution Support

On OXO solution, the technical release of the 8232 has been pronounced:

1. On OmniPCX Office Release 820 – for the DECT IBS infrastructure
 - With 8232 firmware v39.80
 - On newer version of OXO R820 the handset can be recognized as 8232 instead of as MR 400 by default. This needs version 40.80 in the handset.
2. On OmniPCX Office Release 900 - version 033.002 (see TC1729) for the IP-DECT infrastructure
 - With 8232 firmware v40.80

5.2.1 Cross platform compatibility

DECT infrastructure	DECT protocol	OXO software	Comments
TDM IBS	AGAP	from R7.1.2 upwards	From 8232 v39.80
IP-DECT from R105 upward	EGAP	from R9.0 upwards	From 8232 v40.80 Full EGAP from v41.81

Note: published OXO compatibility document support MR300/400 from R4.0 upwards; the 8232 DECT handset should interwork with those supported releases as a MR400 handset (without geolocation feature)

Note: 8232 DECT, as a GAP compliant terminal, can also perform as a basic GAP handset (although the set of features are very limited in this mode)

At the date of publication of this edition, the 8232 DECT has been checked on OXO version R7.1.2, R8.0, R8.1, R8.2, R9.0, R9.2, R10.0, R10.1, R10.2, **R10.3**.

5.3 OXE Solution Support

On OXE solution, the technical release of 8232 has been pronounced:

1. On OmniPCX Enterprise Release 10.1 – Version J2.501.16.B (see TC1644)
2. With firmware v39.80
 - This firmware is recognized as a MR 400
 - Version v40.80 is necessary for the handset to be recognized as a 8232 DECT handset

Sites using EHO, OXE multipari or CAMPUS configurations are recommended to upgrade to version 42.81 or upper. Especially if frequent call cuts and/or degradation of call quality are noticed.

5.3.1 Cross platform compatibility

DECT infrastructure	DECT protocol	OXE software	Comments
TDM IBS	AGAP	from R9.1 upwards	From 8232 v39.80
TDM RBS	AGAP	from R9.1 upwards	From 8232 v39.80
IP-DECT from R100 upward	AGAP	from R10.1 upwards	From 8232 v39.80

Note: published OXE compatibility document support MR300/400 from R6.1 upwards; the 8232 DECT handset should interwork with those supported releases as a MR400 handset (without geolocation feature)

Note: 8232 DECT, as a GAP compliant terminal, can also perform as a basic GAP handset (although the set of features are very limited in this mode).

At the date of publication of this edition, the 8232 has been checked on version OXE R9.1, R10.0, R10.1, R11.0 and R11.1, **R11.2**.

5.4 Cross compatibility matrix summary

Solution	OmniPCX Enterprise				OmniPCX Office			
Release	R9.1	R10.0	R10.1	R11.0 R11.1 R11.2	R7.1.2	R8.0 R8.1 R8.2	R9.0 R9.1 R9.2	R10.0 R10.1 R10.2 R10.3
DECT Infrastructure								
IBS	AGAP				AGAP			
RBS					N/A			
IP-DECT	Not supported		AGAP since IP-DECT R100		Not supported		EGAP since IP-DECT R105	

6 Installation and Upgrade

To upgrade the handset firmware using the FLASHLOADER application together with the handset download tool 3BN67339AA (**this method is deprecated**), or UST application together **with the handset download tool 3BN67339AA or** with the NEW 8232 DECT Download Tool 3BN67339AB, refer to sections 6.1.1 and 6.1.2. These methods use the firmware file format ".HEX".

When used with the IP-DECT infrastructure, it is possible to upgrade the handset firmware through the SUOTA (Software Upgrade over the Air) feature of the IP-DECT. This method is described in the IP-DECT technical documentation. This method uses the firmware file format ".BIN".

For information on registering the handsets on Alcatel-Lucent systems, refer to the user manual of the handsets and to the System Documentation of the deployed solution.
Refer to section 3 for guidance on searching in the Technical Data Library (TDL).

6.1 Related Hardware and Software for manual SW upgrade

There are 2 manual methods to upgrade the SW of 8232 DECT handsets:

- **Flashloader method : to upgrade one 8232 DECT handset at a time => this method is deprecated since 43.82 b0004**
- **UST method : It can be used with Handset Download Tool 3BN67339AA or 3BN67339AB.**
 - o **With Handset Download Tool 3BN67339AA : upgrade only one 8232 DECT handset at a time.**
 - o **With Handset Download Tool 3BN67339AB : upgrade up to eight 8232 DECT handset in parallel.**



Warning

BEWARE: Single SW upgrade uses Handset Download Tool 3BN67339AA **or 3BN67339AB**. Parallel SW upgrade uses Handset Download Tool 3BN67339AB.

6.1.1 SW upgrade with Flashloader => **This method is deprecated**



Warning

BEWARE: Since R120 43.82 b0004, SW upgrade with Flashloader is not tested anymore. It is recommended to switch to the UST application.

6.1.1.1 FLASHLOADER Application

The application FLASHLOADER, together with the "8232 DECT Download Tool" 3BN67339AA, enables to update the firmware of one 8232 DECT Handset at a time.

It can be downloaded from the Enterprise Business Portal (refer to section 0)

Use FLASHLOADER tool version 2.0.0.8. or greater (at the date of publishing, the latest available version is 2.0.0.8). To know how to use this application => See TC1784

6.1.1.2 Handset Download Tool => 3BN67339AA

Firmware upgrade of 8232 DECT Handset requires this specific HW tool:

- 8232 DECT Handset Download Tool, reference: 3BN67339AA.

This HW tool is used together with the application FLASHLOADER.

It connects to 8232 DECT Handset 3,5mm jack and to PC USB port.

6.1.2 UST Application

6.1.2.1 UST Application

The UST application can be used to upgrade the firmware of 8232 DECT manually together with the Handset Download Tools 3BN67339AA (one handset at a time) or 3BN67339AB (up to eight handsets at a time).

UST application can be downloaded from the Enterprise Business Portal (refer to section 2). Download UST Installation Manual (8AL90330ENAA) from the Enterprise Business Portal (refer to [UST manual](#))

6.1.2.2 Handset Download Tool => 3BN67339AB

Parallel Firmware upgrade of 8232 DECT Handset requires this specific HW tool:

8232 DECT Handset Download Tool, reference: 3BN67339AB.

This HW tool is used together with the UST application. If you want to upgrade eight 8232 handsets in parallel you need to buy eight Download Tools.

It connects to 8232 DECT Handset 3,5mm jack on one side and to PC USB port on the other => see tips in section 10.3

7 Delivered Features

7.1 Product Main features

- Alcatel-Lucent OmniPCX Telephony Protocol (AGAP)
- Enhanced GAP (EGAP) for OXO/IP-DECT support
- Standard DECT GAP profile compliant
- Classic TDM (IBS, RBS) connectivity
- IP-DECT connectivity
- One worldwide product
- Low power mode (50mW) for demanding environments
- DECT Security (authentication, encryption)
- Lightweight, ergonomic design and intuitive operation
- Color display, Backlight
- Vibrating mode
- Hands-free and mute
- Headset jack 3,5mm
 - Same corded headset as MR300/400 and OT8000
- Loudspeaker/mute during call
- Status led (missed calls, Battery status)
- Received messages visual and audio notification
- Antenna diversity
- Compatible with Alcatel-Lucent MR 400 DECT handsets
 - Note : the 8232 is fully compatible with MR 400 DECT and implement all the functions of MR 400 **except for the geolocation features of MR 400 which are not supported**

7.2 History of releases

Branch xx.80 (R100):

- Version 39.80 is the first released version of 8232 DECT release R100. Note that version 39.80 may display as 00.39.
- Version 40.80 is the last released version of branch xx.80

Branch xx.81 (R110):

- Version 41.81 is the first released version of 8232 DECT release R110
- Version 44.81 introduces the support of Turkish language
- Version 49.81 is the last released version of branch xx.81

Branch xx.82 (R120):

- Version 42.82 is the first released version of 8232 DECT release R120 (essentially to have MMI similar to 8242 DECT)

7.3 History of delivered software versions

ED	DATE	Version	Comment
01	27/07/2012	v39.80	First R100 version, delivered onl on OXE solution
02	03/08/2012	v40.80	R100 : improvement of handset identification
03	26/11/2012	V40.80	R100 : update following delivery of v40.80 on OXO (IP-DECT R105)
05	11/04/2013	V41.81	First R110 version, full EGAP support, EHO and CAMPUS support
06	05/02/2014	V42.81	R110 maintenance version, solves critical EHO issues
07	22/04/2014	V44.81/OXE	R110 maintenance version, cumulative correction of escalated issues
08	03/06/2014	V44.81/OXO	R110 V44.81 delivered on OXO solution
09	01/12/2014	V47.81	R110 Hot fix version, not introduced in production
10	05/02/2015	V48.81	R110 Maintenance version (build 0005)
11	29/06/2015	V48.81	R110 Maintenance version (build 0006)
12	16/07/2015	V49.81	R110 Maintenance version (build 0003)
13	05/02/2016	V42.82	R120 (build 0003)
14	11/10/2016	V43.82	R120 Maintenance version (build 0004)

ED: edition of this document introducing the version

7.4 New features introduced in release R120 (branch xx.82)

7.4.1 New MMI similar to 8242 DECT

This evolution is to improve readability of information displayed on the LCD screen. It is mainly based on a white background color instead of the current dark background color. A new variant of User Manual is available to describe the new user interface (see sections 3.3 and 3.4)

7.4.2 Feature alignment with 8242 DECT

7.4.2.1 MMI (introduced with 42.82 b0003) :

- Additional battery level icon,
- Status icon line improvement (lock, Meeting Mode,...)
- Direct access to menu from Tooltip
- 8242 start-up screen like
- New soft key management
- Use of # key during dial by name

7.4.2.2 Ringing (introduced with 42.82 b0003)

- Increase ringing volume
- Force ringing cadence 4

7.4.2.3 Low Battery warning (introduced with 42.82 b0003)

7.4.2.4 Robustness (introduced with 42.82 b0003) :

- Preventive CHO
- Buffer key pushes in case of quick dialing
- Default Economy mode value is put to off
- Economy Mode not activated on Docking

7.4.2.5 Serviceability (introduced with 42.82 b0003) :

- Hold screen in survey mode
- New setting "Legacy mode" during the registration to mimic behavior of 400 DECT in case of deployment on customer sites of a non homogeneous encryption configuration (main site encrypt while remote site with IBS does not encrypt). See also section 9.1. => **"Legacy mode" changed to "Security Enhancement" with 43.82 b0004 (see section 7.4.2.6)**
- Parallel download on 8232 DECT using UST (Unified Support Tool)

7.4.2.6 Security Enhancement (introduced with 43.82 b0004)

- **The setting "Legacy mode" introduced with 42.82 b0003 (see section 7.4.2.5) has been renamed as "Security enhancement" and the logic and default value has been inverted.**

	42.82 b0003	Since 42.82 b0004
Name of the setting	Legacy mode	Security enhancement
Value to mimic MR400 behavior	Yes	No
Value to increase security behavior	No	Yes
Default value	Yes	Yes

Note that releases R100 and R110 were configured for increased security (with no mean to mimic MR400 behavior).

7.4.2.7 Ringing Melody n°5

Ringing melody n°5 has been modified to increase its loudness

7.5 New features introduced in release R110 (Branch xx.81)

7.5.1 Improvement of battery status indication

The management of the battery status has been improved to better handle insertion of a new battery in the handset and also and handset on charger while powered off.

This improvement fixes bug crms00380625.

7.5.2 Handset / Software identification improvement

The handset identifies the solution where it is operating, both the call server type (OXO, OXE) and the kind of DECT solution (traditional TDM link (IBS or RBS) or new IP DECT). Based on this identification it performs the

pertinent protocol exchanges to best identify itself (AGAP protocol negotiation or IP DECT notification using extension byte).

This insure that the handset and software version is recognized as an "8232 handset or 8232 handset software" on recent release of OXO and OXE solutions operating with IBS and RBS, and on IP DECT configurations.

This will work with

- OXO versions from OXO R9.0.
- Future OXE version OXE R11.
- All supported IP DECT configurations.

On other call server configuration, 8232 will be recognized as a MR 400 handset while operating in AGAP mode.

7.5.3 Full Support of EGAP protocol [IP DECT/OXO]

In (OXO / IP DECT) solution the AGAP protocol is not supported. The handset support EGAP (Extended GAP) protocol which is basically the standard GAP mode with some extension to handle:

- call by name using the CDA (Corporate Directory Access) protocol ;
 - including use of directory for enquiry call
- Multi-line: 2 lines with up to 2 call each can be managed
 - Switching lines can be achieved with the "*" key short press.
 - Switching enquiry calls on a line can be achieved with the "R" key (Off hook long press).
- support of distinctive ringing (use of different ringing tone according to the type of call)
- and to improve the MMI ergonomic
 - management of "unread message" and "unread voice message" icon and tooltip

7.5.4 Messaging [IP DECT/OXO]

Behind IP DECT, using LRMS to DMLS or to SIP, support instant messaging according to RFC3428.

- The handset can store up to 20 messages of up to 128 characters long.
- Browsing and deleting messages is supported.
- Handset can edit and send a message up to 32 characters long, displayed on 2 lines of text.
- 3 fixed messages entries, shall be available,
 - message 1: "in a meeting, please call later"
 - message 2: "I am absent for a moment"
 - message 3: "please call again"
- Incoming messages are notified to the user by a beep, a message icon in status bar and optionally a LED signal.

7.5.5 Vibrator activation short cut

Long press of SK2 will switch to ringing mode B: « Vibrate only ».

7.5.6 Vibrate and Ring menu

The menu label "Vibrator» in Settings screen list is changed to "Vibrate/Ring".

7.5.7 DECT security

The 8232 DECT handset will be compliant with state of the art security for DECT:

- TS 102 841 V1.2.1

- DECT Forum security logo

This includes:

- Improvement of authentication algorithm using DSAA2 (based on AES).
- Encryption activation FT initiated
- On air key allocation (64-bit UAK) (feature N.12)
- Authentication of PP (feature N.9)
- Evaluation of peer sides behavior regarding encryption including timeout values for triggering of call release (feature N.35)
- Early encryption: immediately after connection establishment (feature N.35)
- Procedure for re-keying with a new derived cipher key during a call. (feature N.35)

7.5.8 Site Survey Function

Improved site survey, MR 400 like, **but still not** useable for DECT site survey.

Note: as of version 44.81 this is only partially delivered.

7.6 New features introduced in 40.80 (Branch xx.80)

Version 40.80 improves the identification of the handset; it is otherwise equivalent to version 00.39.

" for more details.

8 Restrictions and limitations

8.1 Status of restrictions

The following table give a status of the restrictions affecting the released software.

Description (link)	Introduced	Removed	Comment
Identification of the software	00.39 / 39.80	41.81	Behavior still found on old system releases
Screen flashes in blank	00.39 / 39.80	Hardware correction	Corrected since HW version V10R2
Loss of key presses when typing quickly	00.39 / 39.80	-	Greatly improved since 41.81 and then 42.81
Site Survey Mode Quality not at MR400 level	41.81	-	Use MR400 or 8242 DECT for site survey
Limitations in EGAP mode		-	
ECONOMY (ECO) mode performance in strong interferer environment	00.39 / 39.80		Added in ed 09 but affects all versions
EHO and CAMPUS not supported (OXE systems) until version 41.81	00.39 / 39.80	41.81	
Loss of key press when typing quickly	00.39 / 39.80	41.81	No fully solved (see above)
Version "40.80" does not fully support EGAP protocol (OXO/IP-DECT configuration)	00.39 / 39.80	41.81	
Identification of version 39.80	00.39 / 39.80	40.80	
Upgrading from version 00.39 in OXE/IP-DECT configuration	00.39 / 39.80	40.80	
Downgrade to earlier version from V48.81 is not possible using SUOTA	48.81		This restriction is due to the SW compression that has been introduced to secure code space for new features and bug fixes
Alarm with Cadence 4 is not ringing correctly when force ringing is activated from OXE mgr SETUP: HS master reseted then register to OXE IBS extension with NS server enabled. Mgr->system->Other system param.->System parameters->Forced ringing on NS. mess: True	43.82 b0004		The handset rings 0.3s on/0.3s off instead of ringing continuously

8.2 Current restrictions

The following are restrictions still applying to the last released version.

8.2.1 Identification of the software

8.2.1.1 Identification on old releases of systems of all versions of 8232 software

The DECT 8232 is recognized as a MR 400 DECT handset on old releases of OmniPCX Office and OmniPCX Enterprise systems that do not explicitly support 8232 handsets.

For identification on newer releases see section 8.2.1.3 - "Identification of version "40.80" on newer releases of systems".

8.2.1.2 Display of software version for version 39.80

Version "39.80": on the DECT 8232 the displayed version is « 00.39 ».

On OmniPCX Office and OmniPCX Enterprise the version will be displayed as « 39.80 ».

8.2.1.3 Identification of version "40.80" on newer releases of systems

Starting from 8232 version "40.80" and from OXO R820, the 8232 is recognized as an "8232 DECT handset".

On OXE, although the handset software is ready since version "40.80", there is not currently a version recognizing the 8232 as an "8232 DECT handset".

8.2.2 Screen flashes in blank

When the handset is switched off, sometime the screen flashes briefly in blank:

- When the handset is inserted in the charger;
- When the user press the on-hook key (red key) to switch it on even (even if the handset is not switched on because the press is too short)

This is a hardware limitation.



Note

This restrictions has been removed in 8232 hardware version V10 and upper.

8.2.3 Loss of key presses when typing quickly

The management of the keypad has been greatly improved to handle quick typing in version 41.81.

Most of the cases have been solved but there is still an issue on the second key press when the handset were in idle screen before pressing the first key.

Most of the time, the second key press is correctly handled. But if the dect system is busy and the system response is delayed and the second key is pressed quickly after the first one, a key press may be lost.

Since version 42.81, modifications in the handling in IDLE state of some keys (ON-HOOK, HOME, and NAVIGATOR) have improved the special case when dialing after pressing one of these keys, especially when pressing the ON-HOOK key.

8.2.4 Limitations in EGAP mode

The EGAP mode compared to AGAP mode has some intrinsic limitations.

- No conference feature; note: in EGAP mode the conference has to be supported inside the terminal while in AGAP mode the conference is handled in the call server side.
- Many features are accessible to the user but are not supported by menus in the handset. The user has to dial the appropriate feature codes. Refer to user manual for more information. These features include:
 - In call conversation features
 - Forward activation
 - Voicemail consultation

8.2.5 Site Survey Mode Quality not at MR400 level

As of version 41.81 a site survey mode has been introduced. **But it is not equivalent to MR400 site survey mode and it should not be used to perform the site survey of a site for DECT deployment study.**



Warning

Although the indication of the site survey of the 8232 DECT handset are useful and can be used for troubleshooting purpose, as of version 41.82 it shall not be used to perform the site survey of a site for DECT deployment study. MR400 **and 8242 DECT are** currently the only supported handsets for this purpose.

8.2.6 ECONOMY (ECO) mode performance in strong interferer environment

In strong interferer environment when the ECO mode is active, the transmission conditions can degrade resulting in bad quality of the audio channel and eventually call cuts. When these symptoms arise, it is recommended to disable the ECO mode.

Example of such environment are:

- Places where several DECT systems are co-located
- Installations with a high density of DECT handsets (over 100 or 200 handsets)
- Installations with a high density of DECT base stations (over 100 base stations)

Disabling the ECO mode.

1. From idle screen press "OK" and enter the main menu.
2. Select the "Settings" icon and press "OK".
3. Scroll to the "ECONOMY Mode" item.
4. Press "Off" soft key, this set the item to the value "Off".

8.2.7 Downgrade to earlier version from V48.81 is not possible using SUOTA

In version v48.81 a new compressed format is introduced for the firmware. It is possible to upgrade from earlier versions of 8232 to version v48.81, but once upgraded to v48.81 it is no longer possible to downgrade to earlier version using SUOTA (IPDECT software upgrade over the air).



Note

Although it is not recommended to downgrade firmware, it is generally possible to do so. The downgrade from version v48.81 is still possible using the FLASHLOADER method.

8.2.8 Notification Beep with 48.81

It has been reported that notification Beep cannot be heard with version v48.81 but this behavior has not been reproduced in ALE labs.

8.3 Restrictions removed in version 41.81

The following limitations / restrictions of the version 40.80 have been removed in version 41.81

- Support of EGAP mode for OXO solution
Version 41.81 fully supports the EGAP mode and especially the use of corporate directory to make calls.
- EHO handover and CAMPUS roaming support for OXE solution
The external handover (EHO) and the CAMPUS feature for large installations are now fully supported by the 8232 handset.
- Loss of key presses when typing quickly
The management of the keypad has been greatly improved to handle quick typing. Most of the cases have been solved.
Currently there is still an issue that most of the time did not arise, when pressing the second key when the handset were in idle screen before pressing the first key. Depending on the system response delay and if pressing quickly the second key, this key press can be lost.

8.3.1 EHO and CAMPUS not supported (OXE systems) until version 41.81

The EHO and CAMPUS features are not supported on OXE systems in versions 39.80 and 40.80. They are supported from version 41.81 onward.

8.3.2 Loss of key press when typing quickly

When pressing keys quickly, sometimes some key presses are lost. This is especially true for the second pressed key when the handset is in idle mode and a string of keys is pressed.

This behavior has been much improved in version 41.81. In most cases there is no longer loss of key press. When a radio link has to be established following a key press (for example dialing a number or pressing the OK key while the handset is in idle mode), it can occur. Depending on the load of the system, the second key can be lost. Most of the time there is no problem but if the system delay the link establishment it can occur.

8.3.3 Version "40.80" does not fully support EGAP protocol (OXO/IP-DECT configuration)

***This section only applies to global solutions including OXO and IP-DECT.
EGAP protocol is fully supported from version 41.81***

The IP-DECT solution has been released on OXO since releases OXO R900 and IP-DECT R105. This means that in an OXO/IP-DECT configuration you must use a version of OXO equal or greater than R900 and a version of IP-DECT equal or greater than R105.

The version "40.80" of the 8232 firmware has been released on OXO R900. It works with IP-DECT R105 but the EGAP protocol support is not fully functional:

1. Corporate Directory not supported (no dial by name using enterprise directory)
2. No notification of new voicemails
3. The handset language setting is local to the handset and cannot be set through OMC

8.4 Restrictions removed in 40.80

8.4.1 Identification of version 39.80

Version “39.80”: the DECT 8232 will be recognized as a MR 400 DECT Handset on OmniPCX Office and OmniPCX Enterprise systems due to limitations in the way the handset identifies itself.

8.4.2 Upgrading from version 00.39 in OXE/IP-DECT configuration



Warning

It is very important to follow the instructions in this section when the following conditions are met:

- The system configuration is **OXE/IP-DECT**
- The version of the handset firmware is **00.39** and should be upgraded
- The **handset is already registered** on the OXE/IP-DECT system

The issue arises when ALL of these conditions are met.

Due to the changes introduced in the management of the identification of the handset by the system, there is an issue when upgrading an already registered handset from version 00.39 to upper version. After upgrading the handset is in a “pseudo-blocked” state where it is unable to connect to the system and unable to enter the menu screen while it is under coverage.

8.4.2.1 Recommended procedure to upgrade the handset from version 00.39

When all the following conditions are met:

- The system configuration is OXE/IP-DECT,
- The firmware version of the handset is 00.39,
- The handset is registered on the OXE/IP-DECT system,

It is recommended to apply the following procedure:

1. De-register the handset from the OXE/IP-DECT system
2. Upgrade the handset firmware from version 00.39 to an upper version (e.g. 40.80, 41.81).
3. Register again the handset on the OXE/IP-DECT system

If your handset is not yet registered and you want to register it on an OXE/IP-DECT system, apply the following procedure:

1. First upgrade the handset firmware from version 00.39 to an upper version (e.g. 40.80, 41.81).
2. Then proceed to register the handset on the OXE/IP-DECT system

The following configurations are not affected by this issue and thus no special precaution is necessary:

- OXE/IBS, OXE/RBS
- OXO/IBS, OXO/IP-DECT



Note

On OXO the first released firmware version for 8232 DECT handset was version 40.80.

8.4.2.2 How to recover from issue

If for any reason your handset falls in the "pseudo blocked" state after upgrading from version 00.39 while it was registered on the OXE/IP-DECT system, it can be recovered by applying the following procedure:

1. De-register the handset from the OXE/IP-DECT system; this per se does not solve the "pseudo blocked" state issue, it is still not possible to enter the menu screen on the handset.
2. Take the handset out of coverage.
3. Once out of coverage, it is possible to enter the menu screen.
4. Go to menu XXXX and suppress the registration in the handset.
5. Now you can upgrade the handset firmware from version 00.39 to an upper version (e.g. 40.80, 41.81).
6. And then proceed to register the handset on the OXE/IP-DECT system.

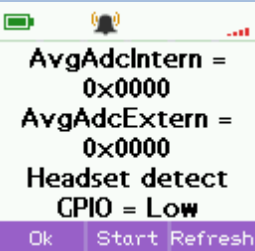


Note

Once pseudo-locked it is necessary to go out of the coverage area of your system.
It is no use to try to switch then handset off and on, or to remove/insert the battery.
After power up, the handset is still in the pseudo-blocked state.

9 Main corrections

9.1 Corrections in 43.82 b0004 (since 42.82 b0003)

R&D Identifier	BP Identifier	Description of the problem
Rnd_92051		Improvement of headset detection - 2 step solution - First step is to determine if the headset is inserted. - Second step is to determine if real headset is connected by checking the ADC value. An additional menu have been implemented in the service menu, Headset detect, see picture below.  This can be used to check the ADC value. There are 3 values: 1) AvgAdcIntern – ADC value used to detect headset in idle 2) AvgAdcExternal – ADC value used to detect headset in conversation 3) Headset Detect – when headset is plugged into the phone this should be high
Rnd_96727		Not able to enter all menus when out of coverage (AGAP mode)
Rnd_110791		8232 DECT : Handset completely freezes when it receives a new message when the memory is full with many draft messages
Rnd_116684		Back key is not functioning in install or setting menus when out of coverage (AGAP mode)
Rnd_116763		Missing SK icons in CDA, Language and Ring menu This was a regression due to correction of crqms00182387-
Rnd_116921		A small line of black dots displayed just above the softkey area in OXE AGAP call log Fix: 1 pixel added in height
Rnd_117014		Home key is not working in editors



Rnd_119749		EEPROM overwrite protection of production calibrated data. To improve the robustness of the handset (TX_BURST), a protection of the production related parameters has been included in the NVS (Non Volatile Storage). This will secure that they cannot be overwritten by the handset application SW. Note that if the protection mechanism is triggered, the handset will reboot.
crqms00157977		OT8232 OXO IPDect (Led) Led remains off by a new voicemail event (Led should slow blink orange) Modification : Add the right event condition to trigger the slow blink orange
crqms00184613	1-183015390	8232 DECT doesn't find radio signal after dectclean / OXE / R11.1 I1.301.30.a
crqms00188079		8232 DECT : bad french sentence : "Pas de reponse systeme" Modification : Change the character string
crqms00190281		8232 DECT : handset stopping charge while in charger Modification : improvement in the battery charging part
crqms00190295		Led needs 5 hours to switch red to green when charging Modification : improvement in the battery charging part
crqms00192794		Multitap keying does not meet the specifications. It is not possible to enter accentuated characters in GAP mode. Modification : Enabled the FEATURE_LOCALE_KEYMAP for GAP mode
crqms00193510	1-185290001	Battery charging issue at low/high temperatures Modification : The temperature parameters need to be changed: - Low Limit shall changes from 5 °C to 2 °C - Hysteresis shall changes from 5 °C to 2 °C So the handset will stop charging when the temperature is below 2 °C and start again when it is 4 °C (2+2) Improvement for temperature calibration has been implemented in factory.
crqms00194422		Sometimes the handset display does not go in dimmed mode. A possible use case is when the handset is on the charger after a SW upgrade Modification : Ensure that the backlight off timer is started after new SW loading and upgrading.
crqms00194945	1-181960241	Poor text string translation on DECT8232 and 8242 terminals (swedish)

crqms00196819		Registration legacy mode menu not in line with the specifications. Default value of Legacy mode should be “off”. Modification : Changed the "Legacy mode" to "Enhanced security" as specified. Changed the behaviour so that legacy mode is set on softkey "No" (SK3) instead of previously being set on "Yes". The default behavior is that legacy mode isn't set, which means that enhanced security is set per default. See also section 7.4.2.6
		Ringling melody n°5 has been modified to increase its loudness See section Erreur ! Source du renvoi introuvable.

9.2 Corrections in 42.82 b0003 (since 49.81 b0003)

R&D Identifier	BP Identifier	Headline / Comment
crqms00081421	1-138928151	Missed call notification doesn't lead to missed call menu on DECT 8232
crqms00081462		8232: bad submenu when user chooses the "cross" on tool tip zone.
crqms00156957		8232 OXE IBS/IPDECT (Screen display) At start-up, before idle screen display, out of range, then blank screen is shown
crqms00166247	1-171656021	8232 calls are released when the DECT is registered with encryption on an IBS Common Hardware
crqms00182632	1-182034193	German User Guide Corrections / OXE / R11.2 Correction : Improvement in User manuals 8AL90861DEAC (OXO) and 8AL90862DEAB (OXE). German labels displayed by the handset have also been improved.
crqms00156078	1-165837201 / 1-180192849	Partial display on set in the research company directory(blank entry)
crqms00182633	1-182034171	R120 - No calling name if battery low
crqms00182549		8232 Orange (OBS) : SK2/SK3 works incorrectly in idle state Note : This issue was not seen on previous release R110
crqms00163949	1-171656021	DECT 8232 and 8242 calls are released when the DECT is registered with encryption on an IBS Common Hardware Note : Issue is not a bug and thus needed a CHANGE REQUEST to be submitted, accepted and implemented. Issue is due to: 1) deployment on customer sites of a non homogeneous encryption configuration (main site encrypt while remote site with IBS does not encrypt) 2) evolution of DECT standard; to prevent security attacks the feature "encryption of all calls" make the handset control that the encryption is started within a timer; if the encryption is not started by the system, the handset cut the calls. Modification : a new setting is added during the registration to select this specific behavior (see also section 7.4.2.5)

9.3 Corrections in 49.81 b0003 (since 48.81 b0006)

Identifier	Siebel	Headline / Comment
crqms00169351	1-174147841	After upgrading to 48.81, the first day everything was working fine but on the next day the DECT set was displaying "register 0" and "alert" and nothing was able to be done on the DECT set. Dect set 8232. Connecting with IPDECT infrastructure. Call server OXE Reason : wrong management of a message received from call server OXE makes the handset switch to GAP mode (instead of keeping AGAP mode)
crqms00164558	1-172853771	The Inter-ACT (each ACT has his own PARI) external handover is not possible with a Dect 8242 and Dect 8232. Reason : the encryption key is sent to the wrong instance of MAC when performing the external handover (EHO)
crqms00152831		OT8232 (Screen display) In a call in handsfree, press mute key: Mute top bar icon displayed only after about 4 seconds
crqms00081469		8232 DECT : In survey mode the errors (A, X, Z , Syn) and the quality factor are not correct. Note : only Quality factor has been fixed. Flicker of display is still present.
crqms00163490		[IP Dect 8232] For Second Incoming call, waiting call alert is not shown. Regression compared to 47.81. Dect set 8232. Connecting with IPDECT infrastructure. Call server OXO
Rnd_84466		Handset reset when moving out and in coverage

9.4 Corrections in 48.81 b0006 (since 48.81 b0005)

Identifier	Siebel	Headline / Comment

9.4.1 8232 in key-locked state and pressing '1112' causes strange screen display and handset reset

This is a regression, the issue doesn't happen on versions v4481 and v4781.

Detailed description of the issue :

In the "Settings" menu set parameter "Security/Keylock" to 15s.

Go to idle screen, wait 15s. The handset enters the key-locked state.

Then press any key, the message "Long press Home to unlock" is displayed. While this message is displayed, press the key '1' (note: the '1' key must be pressed before message is erased), a strange screen is displayed (part of the screen are missing, the soft keys are empty).

The screen shows the message "Emergency call" and in the line below the digit '1'.

Now complete the sequence by pressing '1' again, then '2' ('112' is displayed), then off-hook (green key) the handset displays some strange sequence on screen and then resets.

Identifier	Siebel	Headline / Comment
crqms00162733		8232 in key-locked state and pressing '1112' causes strange screen display and handset reset

9.4.2 8232 reset while walking in/out of coverage

Issue is due to excessive debug mail. Fix: Remove some useless debug mails and some other optimizations.

Identifier	Siebel	Headline / Comment
crqms00159432		Reset while walking in/out of coverage

9.5 Corrections in 48.81 b0005 (since 47.81)

Identifier	Siebel	Headline / Comment

9.5.1 BHO continuously fails on strongest base station

Sometimes the Bearer Handover fails continuously on the base station with the strongest signal. In spite of this handset continues to try to make BHO on this base station instead of trying on another.

This led to many cracks and mutes on the audio channel and eventually can end in a call recovery.

Identifier	Siebel	Headline / Comment
crqms00130186		8242_DECT_HS: Sometimes the handset cannot succeed to perform BHO on the strongest RFP (impact is many cracks, mutes, and sometimes call recovery)

9.5.2 Changes in ECO mode

9.5.2.1 The default value of ECO mode is set to OFF

The factory default for ECO mode is set to OFF. This affects only handsets not already use or re-initialized after a factory reset.

As there can be cases where the use of the ECO mode has adverse side effects (see restrictions section), by default this mode is set to OFF.

9.5.2.2 ECO mode is not forced when handset in charger

When ECO mode was enabled, independently of the strength of the received signal, the low transmitting power mode was activated.

Now even while in the charger the strength of the received signal is taken into account to modulate the transmitting power.

9.5.3 The notification or alarm LED does not blink while silent notification received

Identifier	Siebel	Headline / Comment
crqms00135342	1-149516349	The notification or alarm LED does not blink while silent notification is received

9.5.4 Other corrections

Identifier	Siebel	Headline / Comment
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crqms00137619	1-162013863	Bips sound from Notification server turns off microphone on 8232 When the 8232 is involved in a call, the notification bips cut off the microphone of the 8232 set during the time the bips is heard on the 8232. This cause the other party to have blanks in the conversation.
crqms00147322	1-164667063	When the display of the 8232 is dimmed, if the handset is called the caller see the set as busy.
crqms00140354		am" or "pm" not displayed beside the time on handset's homepage registered on OXO US installation Context: OXO US
crqms00116715		In Idle homepage, often OK or menu key press not taken into account Context: OXE IPDECT
crqms00135541		Sometimes in overlap quick dialing, digits are not taken into account Context: OXE IPDECT
crqms00125070		Sometimes when dialing then pressing the "OK" key, the handset display "Set is locked" Context: OXE IPDECT
crqms00081424		Unwanted End Call info is displayed in DECT8232 when a call is made and cut before answering Context: IPDECT
crqms00095869		Wrong duration of communication for long communications (more than 1 hour) Context: OXE IBS
crqms00126285		8232 handset : ring menu accessible even if keypad locked
crqms00121068		Call log is not getting logged in 8232 IPDECT handset for outgoing calls made via Central directory search Context: IPDECT
crqms00081694		8232 OXO IP-DECT : when set is out of coverage, after a while (10 mn), it is blocked (not awoken by key press) Context: OXO IPDECT GAP

When the 8232 is involved in a call, the notification bips cut off the microphone of the 8232 set during the time the bips is heard on the 8232. This cause the other party to have blanks in the conversation.

9.6 Corrections in 47.81 (since 44.81)

9.6.1 Bug fixed: 1-156839398/crqms00130358 - DECT 8232 set stop ringing after 60 seconds when called by New Voice Mobil Call alarm-server

Context: OXE is connected with a new voice MOBICALL server via T0 and T2 trunk using ABCF/Qsig protocol

9.6.2 Bug fixed: crqms00102920 - When several outgoing calls are done on the 8232 connected to IP-DECT system, sometime the call is not performed and the 8232 displays "Set is blocked".

Context: OXE/IP-DECT

9.6.3 Improve the behavior of handset against short coverage/synchronization losses

In previous versions the handset has been prone, while in the idles state (no conversation) to short (1s to 2s) losses of signal coverage, and has been reported to sporadically display a "loss of coverage" message or the "non response from system" message.

This is due to interference of the beacon bearer used by the handset to maintain synchronization with the DECT system.

The behavior of the handset has been improved to better handle such interferences.

Related to this improvements, the following cases are closed:

Identifier	Siebel	Headline / Comment
crqms00132801	1-160543151	randomly "no response from system"
crqms00138889		See: "Coverage loss and no system response"
crqms00081740		8232 R110 [OXE/RBS]: Coverage loss for a few seconds in idle mode

9.6.4 Retry Location Registration while roaming in EHO environments

In some cases of high load on the system, OXE will suddenly release the bearer during location registration while roaming in systems with EHO. In such cases the handset now retries location registration 3 times with 3 second intervals before signaling out of lock.

9.6.5 The standard 250 mW power mode becomes the default mode during the registration procedure (previously the 50 mW power mode was the default mode)

Please read more about the use of the 50 mW low power mode in section 10.1 "Shall I use the 50 mW low power mode".

9.7 Corrections between version 42.81 and 44.81

9.7.1 Incoming call missed until the handset performed a new location procedure

In complex EHO scenarios where the handset change several times from one PARI area to another PARI area, it happened that the handset would stay locked to a base station in one PARI area while its last Location registration was performed in another PARI area.

This lead to incoming call missed until the handset performed a new location procedure.

9.7.2 crqms00129727 - EHO issues with outgoing calls

EHO would fail in rare cases due to bad handling of connection instances. The issue was observed while making continuously a lot of short calls in an EHO area.

9.7.3 crqms00081733/crms00458918: 8232 DECT set will go to switch off mode, if a call is routed from entity to virtual user and if the virtual user is supervised by 8232

Cause: during the processing of an AGAP message some unexpected conditions lead to a reboot of the software.

Software defenses and robustness have been improved and potential cases of reboot have been suppressed.

9.7.4 Improvement of SW reset detection while handset is in charger

This improvement was introduced following investigations of crqms00081733/crms00458918.

When a SW reset was performed while in charger, the handset would not switch on again since it is not allowed to turn on when placed in charger and the battery manager did not distinguish between the two scenarios (normal case (switch off handset put on charger) and reset case). The detection method is improved so handset will turn on again after a SW reset and handset will not "switch off automatically » while on charger.

9.7.5 Handset frozen with empty screen after power on

Rarely after power on the handset display an IDLE screen with not information inside are (name, extension of handset missing). When this happens the handset is partially frozen, only local key action are performed and it is not possible to set up a call. This state stand as long as the handset doesn't receive an incoming call or some internal state changes.

Cause: in some cases the system doesn't send the content of the screen to the handset.

Implemented workaround:

When this case happen, all the keys are active and the user will be able to trigger an outgoing call. Performing a call or starting an outgoing call and releasing it will show the normal display content and handset behavior. User will be able to trigger incoming and outgoing.

9.7.6 8232 Dect handsets get frozen (OXE/IPDECT)

8232 DECT handsets get frozen, reactivation only possible by switching off and on again the DECT handsets

crqms00123235 crqms00135170	1-155363251	8232 Dect handsets get frozen Context: OXE with IP-DECT
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9.7.7 crqms00102919/crms00477564 - 8232 with IP-DECT: reboot of the set when this one receives a big message

SMS size was set to 128 chars, so only 128 bytes buffer was allocated and this caused heap tail overwrite for msg bigger than 128 chars. Now the allocated buffer support the maximum size for messages (160 chars)

9.7.8 Improvement of string translations

This include several string translations improvements including

- crqms00081481/crms00407019 - "New Audio Mgs" is not translated
- crqms00081589/crms00429250 - Bad translation in German when making a call on 8232

9.7.9 Others

Identifier	Siebel	Headline	See
crms00457976 crqms00109672	1-152245431	Sleeping Dect set Typ 8232 V41.81	(1)
crms00459866 crqms00102188	1-154087031	DECT 8232 probleme de handover inter-site avec version v41.81	(2)
crms00461598 crqms00102131	1-152817831	Issues with 8232 on RBS Multi PARI	(2)

- (1) In specific configurations receiving a AGAP message can cause the handset to reboot or to be switched-off
- (2) In EHO configurations, sometimes when the handset is near the limits of areas covered by different PARI's, some incoming calls are not presented by the handset

9.8 Corrections between version 41.81 and version 42.81

Version 42.81 is a maintenance release which contains corrections and improvements to solve the following issues from field:

- External Handover not always possible
 - In EHO areas, call-cuts, degradation of communications (noise, one-way communications, very bad audio)
 - 8232 frozen on incoming call, doesn't stop ringing, no possible to answer the call, needs battery removal
- Sometimes other handovers not possible (CHO or bearer handover)
 - This issue is related to the previous one, in site where EHO is used, other handovers can also be impacted after EHO occurs.
- Slowness, Empty screens, not responsive or "frozen" handsets
 - Some cases of message collisions in the AGAP protocol causes these symptoms
 - To improve the handset behavior and minimize the occurrence of collisions the management of some keys in the IDLE state were revised
 - Remaining collisions were addressed by more robust code

9.8.1 Management of Function Keys in IDLE state

The IDLE state is the state when the handset is not engaged in a call and the user is not browsing the MENU. In this state after some delay, the screen of the handset is first dimmed than switch off to reduce power consumption.

When in IDLE state some keys has no functional effect from a user perspective, but nevertheless they cause a radio link establishment, the sending of the key code to the call server which ends by releasing the radio link. Pressing the ON-HOOK key is an example of such behavior.

This behavior can lead to message collisions in the AGAP protocol when pressing the ON-HOOK key is immediately followed by dialing. At least the dialing is somewhat delayed and in some cases, key presses are lost.

To improve the user experience the behavior of the following keys have been modified: HOME key, Navigation Pad Keys (up, down, left, and right), OK key and ON-HOOK key.

Now when the screen is dimmed or switched off, these keys only restore the screen to its ON state.

Furthermore, ON-HOOK key and the HOME key, when the screen is ON, only perform local action like clearing tool tips but do not longer establish a radio link to exchange messages with the call server.

9.9 Corrections between version 40.80 and version 41.81

See also the list of new features introduced in version 41.81

9.9.1 Major corrections

Identifier	Siebel	Headline
crms00409680	1-139936121	59820 - ALU - OXO - DECT 8232 feature Audio max level not memorized
crms00376027	1-141205625	202688 Date and time update on 8232 DECT is not working
crms00376027	1-141694147	Date and time not synchronised on DECT 8232 and Oxo
crms00376257	1-140265041	OT8232 keeps ringing after Pickup or parallel HGR
crms00376257	1-138886421	Call release with 5-8 seconds delay on DECT 8232 and 500
crms00376257	1-138275761	202688 delay at ringtone/vibration stop after call ends //900 BETA TEST//
crms00377084	1-134026693	202688 DECT8232 doesn't work after upgrade
crms00377297	1-134855677	Handset 8232 doesn't accept the key press always
crms00377301	1-134855673	Screen is flashing at switched off Dect 8232
crms00377899	1-134855731	Audio interruption on Dect 8232 when key press on volume button
crms00378672	1-135016078	8232, Problem of lost digits when you dial quickly in the terminal
crms00382367	1-135617051	OT8232 set suddenly frozen
crms00382518	1-135617055	OT8232 display flickering when typing or navigating in menus
crms00383625	1-136015655	OT8232 suddenly switched off without a known reason
crms00395642	1-138928231	DECT 8232 the missed call notification is truncated in German
crms00395649	1-140267221	OT8232 does not show the name during ringing phase
crms00395649	1-138886522	Calling party name is not displayed on DECT 8232 during ringing phase
crms00408205	1-141711878	8232 DECT can not be switched off when Out of Radio range//900 BETA TEST//
crms00408315	1-141694141	DECT 8232 and Yellow Icon display
crms00375906	1-134509391	R100: 8232 / Must be pressed slowly to correctly enter in the menu

9.9.2 Minor corrections

Identifier	Siebel	Headline
crms00368742		Vibrator menu should be Ring -Vibrator
crms00376066		R100: 8232Dect: Unable to play the voice mail through loudspeaker
crms00377167		IP-DECT OXO : in GAP mode, not possible to dial with digit by digit mode
crms00377379		8232 R100: Sometimes, a number is lost when dialing in bloc mode with 8232 DECT HS
crms00378815		8232 : Handset lock menu shows Headset icon
crms00379108		R100: Sometimes, the handset loses its synchronization and emits beep of out of coverage, while it is always covered
crms00380625		4 8232 OXO IBS: handset out of range after 1 hour conversation (the battery capacity switch from 30 % to <10% after that)
crms00380625		Battery management has been improved.
crms00380625		8232 OXO IBS: handset out of range after 1 hour conversation (the battery capacity switch from 30 % to <10% after that).
crms00393049		8232 IP-DECT OXO : impossible to register one 8232 if star character in PARK
crms00395649		Calling party name is not displayed on DECT 8232 during ringing phase ((crms00393767))
crms00398109		8232 : no € symbol is present (empty choice).
crms00400195		8232 : bad tool tip icons and bad tool tip actions.
crms00368959		8232: default date when bases reset.
crms00370119		8232 IP-DECT : "No answer from System" more often seen on IP-DECT

9.10 Changes in 40.80

Software identification evolved to enable systems to recognize the 8232 handset and to display the same version on handset and on systems

This version addresses the following restrictions of version 00.39/39.80:

- Identification on systems
- Display of software version

9.11 Initial release of software for 8232 DECT handset

Version 39.80 is the first software version released with the 8232 DECT Handset.

10 FAQ and troubleshooting tips

10.1 Shall I use the 50 mW low power mode: probably NOT

The 50 mW low power mode is intended for hazardous sites such as nuclear plants where it is requested that emissions do not exceed the maximum value (50 mW). This mode shall only be selected when required. Its use implies a specific site survey and base station deployment. If used inappropriately this mode can cause troubles like call drops, audio noise and poor quality transmissions in some areas of your installation.

10.2 Economy mode versus 50 mW low power mode

10.2.1 Economy mode

The aim of ECO mode (or Economy mode) is to lower power consumption and radiations whenever possible. Economy mode is intended to be green friendly and minimize automatically whenever possible, radio frequency power to 25 mW peak versus the 250 mW peak (or 210 mW peak in US) of standard power mode.

Economy mode is selected by the end-user in the DECT "settings" menu.

When Economy mode is active, RF emission will trigger automatically

- From normal power to economy mode low power when approaching a DECT base station -60dBm for at least 1,6 seconds
- From Economy to normal mode when going away from Base station RF field -70dBm for at least 1,6 seconds



Warning

There is currently a restriction (see section 8.2.6), in strong interferer environment when the ECO mode is active, the transmission conditions can degrade resulting in bad quality of the audio channel and eventually call cuts.

8.3.6 ECONOMY (ECO) mode performance in strong interferer environment

10.2.2 50mW mode

50mW mode is required for hazardous sites (like nuclear plants) where it is requested that emissions shall not be below a maximum value (50mW peak).

50mW mode is selected during DECT registration and then the selected mode is permanent.



Warning

50 mW mode shall be used ONLY in installation specially deployed for its use.

10.2.3 How to know if economy mode or 50 mW mode is active

The status of these modes are reflected in the Signal Strength Icon (vertical bars).

	Economy mode disabled	Economy mode enabled	
		inactive	active
Standard power mode			
50mW power mode			

50 mW power mode => icon with 3 bars

Standard power mode => icon with 4 bars

ECO mode disabled:

normal field strength, 3 or 4 bars

ECO mode enabled and inactive:

field strength with a white E letter on top left corner

ECO mode enabled and active:

field strength with a green E letter on top left corner

10.2.4 Peak transmission power according to mode

dBm	mW	Parameter
24	250	Standard power mode (Europe)
21	125	Standard power mode (US)
17	50	50 mW power mode
14	25	Economy mode enabled and active

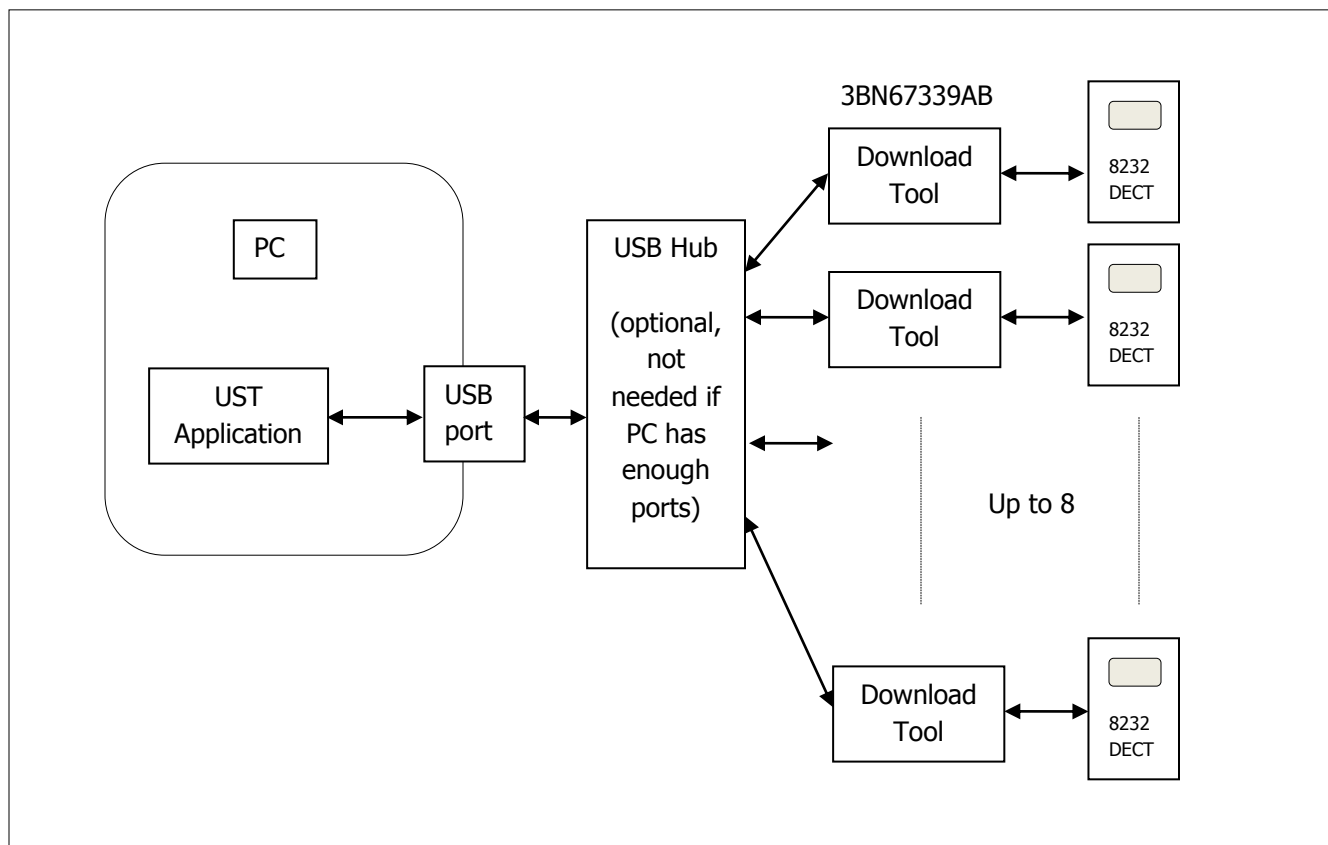
10.3 Unified Support Tool (UST) for Parallel SW download

10.3.1 Win7 and USB port

Please note that with PC Win7, you'd better use USB 2.0 ports (not 3.0) to connect the new Handset Download Tool (reference: 3BN67339AB) to the PC hosting the UST application. In that case the PC will automatically install a USB driver on each USB port used (it's about 3 to 4 minutes for automatic installation of the driver) at first connection of a Download Tool. With USB 3.0 ports, the PC will automatically install a USB driver at each connection of a Download Tool.

10.3.2 Connection Principles

See the figure below



11 Glossary

AGAP	Alcatel GAP. Proprietary protocol to enrich telephonic features
ALE	Alcatel-Lucent Enterprise
ATEX	ATmosphères EXplosives (explosive atmospheres)
BP	Business Partner
BS	Base Station (in this document = DAP)
CS	Call Server (in this document = OXO or OXE)
DAP	DECT Access Point. It is a DECT base station connected to the IP network which acts as DECT/SIP gateway. A set of DAPs correctly deployed and managed by a DAP Controller make an IP-DECT infrastructure (or IP-DECT system)
eBP	Enterprise Business Portal
EGAP	Extended GAP
GAP	Generic Access Profile
OXO	OmniPCX Office
OXE	OmniPCX Enterprise
SMB	Small and Medium Business (OXO market)
SUOTA	Software Upgrade Over The Air
UST	Unified Support Tool

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