

CX81801-3x/5x/6x to CX81801-7x/8x/9x Firmware Updates

Application Note

The main difference between the -3x/5x/6x versions of the CX81801 and the -7x/8x/9x versions of the CX81801 is the updated masked firmware code. This application note identifies the changes between the mask code of the CX81801-3x/5x/6x and the mask code for the CX81801-7x/8x/9x.

New Features

1. AT-TTE parameters added:
 - a. Parameter 4 – Digital Line Protection Current Threshold.
 - b. Parameter 5 – Line Interruption Immunity (see item 2).
2. Adjustable Line Interruption Immunity can be used to provide immunity from false Extension Pickup detection.
3. Extension Pickup detection and Modem-on-Hold features can be enabled concurrently.
4. V.92 PCM upstream capability available (AT+PIG disabled by default).
5. AT%TT0x and AT%TT3x support for continuous tone generation tests.
6. FastPOS (V.29) support with V.22 fall back.
7. Support for V.22 fast connect, fast V.21 and fast B103.
8. Added off-hook and on-hook CID for various country profiles. See data sheet for support.
9. A-Law or u-Law selection in V.90 is stored in NVRAM.

Resolved Issues

1. AT-TRV now reports “1.40” when one leg of phone line is disconnected (BskyB).
2. Blacklisting and sleep mode features can run concurrently.
3. Fixed lockups when coming out of sleep mode.
4. Tuned timing for hook-flash used in Modem-on-Hold.
5. Digital Line Protection correctly implemented.
6. Auto-answer (ATS0=n) goes off-hook on the correct number of rings when operating with UK profile (AT+GCI=B4).
7. S-register option to perform non-standard LAPM disconnection when used with I-Courier.
8. Better immunity to lines experiencing high levels of 50 Hz noise.
9. DTMF transmit levels fixed in discreet DAA voice operations.
10. More robust quick connect and Modem-on-Hold operation.
11. Better control of PWRCLK drive strength to guarantee proper operation at VDD=2.7V.
12. Forced mode V.34 will disconnect rather than fallback.
13. Fixed No Connect when DTE rate is 2400 and lower.
14. Fixed intermittent change in transmit level during modem connection.
15. Fixed inability to detect fax calling tones in group 2 countries.
16. Modem no longer disconnects when switching from voice to fax mode in group 3 countries.
17. Increased range of S8 register (pause time for dial delay).
18. Waits for originate tone before sending answer tone in V.21 to enable busy tone detection.
19. Changed format of AT#UD results to be compatible with WHQL standards.
20. Bell103 and V.21 are more robust.

Other Changes

1. Make/Break ratio is adjusted to increase margin.
2. 2300 Ω Make impedance.
3. Greece country profile replaced by Hong Kong country profile.
4. Added Caller ID capability to some country profiles (Type I and/or Type II). Refer to the applicable data sheet.

Reference Documents

Doc. No.	Document Description
101898	CX81801-3x SmartV.XX Modem Data Sheet (also applies to CX81801-5x)
102025	CX81801-6x SmartV.XX Modem Data Sheet
102199	CX81801-7x/8x SmartV.XX Modem Data Sheet
102179	CX81801-9x SmartV.XX Modem Data Sheet
100722	AT Commands for CX81801-3x/5x/6x Modems Reference Manual
102184	AT Commands for CX81801-7x/8x/9x Modems Reference Manual

© 2003 Conexant Systems, Inc.
All Rights Reserved.

Information in this document is provided in connection with Conexant Systems, Inc. ("Conexant") products. These materials are provided by Conexant as a service to its customers and may be used for informational purposes only. Conexant assumes no responsibility for errors or omissions in these materials. Conexant may make changes to specifications and product descriptions at any time, without notice. Conexant makes no commitment to update the information and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to its specifications and product descriptions.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Conexant's Terms and Conditions of Sale for such products, Conexant assumes no liability whatsoever.

THESE MATERIALS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, RELATING TO SALE AND/OR USE OF CONEXANT PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, CONSEQUENTIAL OR INCIDENTAL DAMAGES, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. CONEXANT FURTHER DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE INFORMATION, TEXT, GRAPHICS OR OTHER ITEMS CONTAINED WITHIN THESE MATERIALS. CONEXANT SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST REVENUES OR LOST PROFITS, WHICH MAY RESULT FROM THE USE OF THESE MATERIALS.

Conexant products are not intended for use in medical, lifesaving or life sustaining applications. Conexant customers using or selling Conexant products for use in such applications do so at their own risk and agree to fully indemnify Conexant for any damages resulting from such improper use or sale.

The following are trademarks of Conexant Systems, Inc.: Conexant® and the Conexant C symbol. Product names or services listed in this publication are for identification purposes only, and may be trademarks of third parties. Third-party brands and names are the property of their respective owners.

For additional disclaimer information, please consult Conexant's Legal Information posted at www.conexant.com, which is incorporated by reference.

Reader Response: Conexant strives to produce quality documentation and welcomes your feedback. Please send comments and suggestions to tech.pubs@conexant.com. For technical questions, contact your local Conexant sales office or field applications engineer

www.conexant.com

General Information:

U.S. and Canada: (800) 854-8099

International: (949) 483-6996

Headquarters – Newport Beach

4311 Jamboree Rd.

Newport Beach, CA. 92660-3007

