Application Note # 327:

CH2165 iModem Default Configuration Profile

INTRODUCTION

iModem User Modifiable Configuration Profile. The CH2165 iModem is delivered with a customized configuration profile that will allow transmission of emails "right out of the box." Application Note # 327 explains in detail each of the configuration parameters. The customized configuration is provided as a convenience to our customers and it enables our customers to demonstrate proper operation of both the iModem and the iModem Evaluation Board without the need for further personalization or customization of the iModem ISP parameters.

It is anticipated that the customized configuration profile will be used by the customer on an interim basis and the customer should expect that some amount of personalization/customization will be needed to tailor the iModem's performance to the customer's specific application requirements. The factory installed customized configuration can be modified by the user as desired. Refer to Application Note # 325, @T® Command Set Description and Usage for CH2165 iModem Products, for a complete description of the available @T® commands.

iModem Default Configuration Profile. The CH2165 also contains a default configuration profile. This profile is intended for use as a failsafe or fall back profile. It can not be modified by the user but can be invoked at any time using the **@TZ** command. Executing the **@TZ** command will cause the current configuration parameters to be over written with the original factory set default configuration profile parameters. The **@TZ** command will NOT affect email message files created with the **@TMC** command.

@T® COMMAND SET

CH2165 Command Prompts. The CH2165 prompts the user for responses by supplying the **iModem>** command prompt. For the purposes of this document, the following command prompt conventions will be observed:

> **iModem>**   signifies that the iModem device is ready to accept command inputs.

@T® Command Syntax.

The **@T®** command syntax is identical to the industry standard Hayes AT command syntax. For a complete description of all available **@T®** commands, refer to Application Note # 325.

For the purposes of this document, the following conventions will be observed:

> **<CR>** is used to denote carriage return (equivalent to HEX 0D).
> **<LF>** is used to denote line feed (equivalent to HEX 0A).
>
> Enter: is used to denote the command string to be sent to the iModem (if the **iModem>** prompt is not present).
>
> Result: is used to denote the response sent (or action taken) by the iModem.

Any information listed in bold is a required portion of the command string. Brackets [] not in bold are intended to serve as delimiters only and are not part of the required command string. All embedded spaces are ignored except when in the data field of a message or in the subject line.

Each command line (except email message creation) has the following format:

> **@T[command][=data field]<CR><LF>**

Where: **@T**   is the iModem command attention sequence. Upper or lower case **T** is acceptable.
[**command**]   is the specific command. Upper or lower case characters are acceptable.
[**=data field**]   is the data field. Any ASCII character is acceptable (including blank spaces).
    The = sign must precede the information entered in the data field (except for the case query commands and as noted).
    Use **?** in the data field for the case of query commands. An **=** sign is not required for queries except as noted in Application Note # 325. Refer to Application Note # 325,

<u>**@T®** Command Set Description and Usage for CH2165 iModem Products</u>.

<CR><LF>	is the termination sequence for all commands except for the email generation command, **@TMC,** as described below and the streaming email command, **@TD=0**.

The email message creation command line has the following format:

        @T[**MC**][**=name field**]**<CR><LF>**[**message body**][**cntrl d**]

Where:

@T		is the iModem command attention sequence. Upper or lower case **T** is acceptable.
[**MC**]		is the email message creation command. Upper or lower case characters are acceptable.
[**=name field**]		is the email message name field. A maximum of eight alphanumeric characters are allowed. The first character cannot be a number. The **=** sign must precede the name field.
<CR><LF>		must precede the message body and serves as the **name field** delimiter.
[**message body**]		Any combination of legal ASCII characters may occur within the message body. Message length is limited to 100K ASCII characters per message.
cntrl d		is the termination sequence for the email message generation command.

ISP AND USER CONFIGURATION PROFILE PARAMETERS

The following ISP and User configuration profile parameters are preprogrammed into the CH2165 iModem. For a more detailed discussion of the associated **@T®** command, refer to Application Note # 325, <u>**@T®** Command Set Description and Usage for CH2165 iModem Products</u>.

Parameter	Command	Parameter Description
Login Username:	@TUI	ISP User/Account Login Name.
Login Password:	@TPI	ISP User/Account Login Password.
POP3 Login ID:	@TUM	POP3 (i.e., retrieve email) User Login ID.
POP3 Password:	@TPM	POP3 (i.e., retrieve email) User Login Password.
SMTP Symbolic Name:	@TSS	SMTP (i.e., send email) Server Name.
POP3 Symbolic Name:	@TSM	POP3 (i.e., retrieve email) Server Name.
Destination Address:	@TAD	Email Destination Address for TCP/IP Header.
Error:	@TAE	Email Address for email redirection if email transmission errors occur while attempting to deliver to Destination Address.
FROM:	@TAF	Address that appears on email message FROM: line.
Reply TO:	@TAR	Email Address for email replies to retrieved email.
TO:	@TAT	Address that appears on email message TO: line.
Subject Line:	@TAS	Email message subject line.
Display Sample Message	@TMC?=**myMsg**	Display sample email message **myMsg**.
iModem Name	@TT	iModem device name. This name appears on the email TO: line in front of the TO: address.
POP Phone Number	@TN	Local Access POP dial-up phone number.
Serial Number	--------	Unique device Serial Number. NOT USER MODIFIABLE.

The ISP and User customized configuration profile parameters may be viewed by issuing the **@TW?** command to the iModem.

Example 1.	iModem>	**@T**[**W**][**?**]**<CR<LF>**	Display current iModem configuration profile.
	Result:	**dest_addr**	**cermetek@imodem.net**
		err_addr	**itest@imodem.net**
		reply_addr	**help@imodem.net**
		to_addr	**cerm@imodem.net**
		to_name	**Device01**
		from_addr	**imodem@imodem.net**

access_phone_no	**9,5551212**
mail_uname	**cermetek**
mail_passwd	**abcdef01**
mailserver	**pop.mail.net**
smtpserver	**smtp.mail.net**
isp_uname	**useraccount01@imodem.net**
isp_passwd	**userpswd01**
subject	**This is test message 1**
domainname	**modem.net**
hostname	**unit**
speed	**38400**
baud	**19200**
sn	**2164A-Bde0359-gt3e-utv-90wq-013**

iModem>   The CH2165 iModem is ready for the next command.

NOTE
The SMTP server is used by the iModem to send email. The POP3 server is used by the iModem to retrieve and delete email.

ISP AND USER CONFIGURATION PROFILE PARAMETERS

In each of the command function descriptions below, the parameter description is presented first. This is followed by the command (in parenthesis) and then the value for the parameter from Example 1 above. This should help the user associate the parameter, description and command.

ISP Local Access POP Phone Number (@TN command): 9,5551212. This is the local ISP access telephone number. The ISP access phone number is selected to be within the customer's area code, whenever possible. The long distance area code will be included in the PSTN dial string for completeness unless directed otherwise by the customer. When requested, the iModem will be programmed with an access number (e.g., 9) as part of the PSTN dial string.

ISP User Login Name (@TUI command): useraccount01@imodem.net. This is the ISP account name established by Cermetek. If directed otherwise by the customer, a non-iModem.net Network Login Name will be programmed.

ISP User Login Password (@TPI command): userpswd01. This is the password for the ISP account name established by Cermetek. If directed otherwise by the customer, a non-iModem.net Network Login Password will be programmed.

POP3 Login User ID (@TUM command): cermetek. This is the POP3 mail server User Login ID.

POP3 Login Password (@TPM command): abcdef01. This is the ISP password. This password is associated with the LOGIN NAME user account (@TL1). Again, if specified by the customer, a different Login Password will be programmed.

SMTP Mail Server Name (@TSS command): smtp.mail.net. This is the symbolic name used by the CH2165 to determine the SMTP mail server address. The SMTP server is used for SEND EMAIL.

For non-Cermetek accounts, the user obtains the required SMTP mail server symbolic name by contacting the ISP's technical support line. If the user chooses to use the Cermetek SMTP server, no changes are necessary and the supplied SMTP server symbolic name is acceptable.

POP3 Mail Server Name (@TSM command): pop.mail.net. This is the symbolic name used by the CH2165 to determine the POP3 mail server address. POP3 server is used to RETRIEVE EMAIL.

For non-Cermetek accounts, the user obtains the required POP3 mail server symbolic name by contacting the ISP's technical support line. If the user chooses to use the iModem.net ISP mailbox, established by Cermetek, then the supplied POP3 server symbolic name is acceptable and no changes are necessary.

FROM: Address (@TAF command): imodem@imodem.net. This is the address that the CH2165 inserts on the FROM: line of the email.

TO: Address (@TAT command): cerm@imodem.net. This is the address that the CH2165 inserts on the TO: line of the email.

Destination Address (@TAD command): cermetek@imodem.net. This is the address that the CH2165 inserts in the TCP/IP header of the email. This is the address to which the SMTP server will attempt to send the email.

ERROR TO: Address (@TAT command): itest@imodem.net. This is the address that the CH2165 inserts on the ERROR TO: line of the email. This is the address to which emails will be sent when an email delivery error is encountered by the SMTP server. This address becomes the DESTINATION address of the Error Email and will appear in the TCP/IP header.

REPLY TO: Address (@TAR command): help@imodem.net. This is the address that the CH2165 inserts on the REPLY TO: line of the email. This is the address to which emails will be sent when an email recipient, using a browser, selects the REPLY TO button. In this case, this address becomes the DESTINATION address of the reply email and will appear in the TCP/IP header.

Subject Line (@TAS command): This is test message 1. This is the email subject line.

Device Name (@TT command): Device01. This is a user definable name or ID for the CH2165 iModem device. This is the name that appears on the email TO: line before the email TO: address. The iModem.net ISP uses the Device Name in combination with the device Serial number to verify identity.

Domain Name (THIS PARAMETER IS NOT USER MODIFIABLE): modem.net. The CH2165 determines this value. It is the ISP account domain.

Host Name (THIS PARAMETER IS NOT USER MODIFIABLE): unit. The CH2165 sets this parameter. It is a symbolic name used by the CH2165 when performing certain internet tasks.

Speed (THIS PARAMETER IS NOT USER MODIFIABLE): 38400. This is the DTE speed. This parameter is currently not modifiable by the CH2165.

Baud (THIS PARAMETER IS NOT USER MODIFIABLE): 19200. This is the DCE speed. This parameter is currently not modifiable by the CH2165.

Serial Number (THIS PARAMETER IS NOT USER MODIFIABLE): 2164A-Bde0359-gt3e-utv-90wq-013. This is a unique serial number established by Cermetek when the CH2165 is initially programmed.

VERIFICATION DATA
Each iModem is shipped with the following verification information:
1. CH2165 Programming Summary Form.
2. Test Data Verification Printout.
3. Sample FAX printout (optional).

CH2165 Programming Summary Form. This document summarizes all iModem and ISP configuration parameters.

Test Data Verification Printout. These documents list the iModem parameters displayed with the **@TW?** and **@TZ?** commands. The status messages received during various email transmission tests using the iModem personalized ISP configuration parameters are also listed on the printout.

Sample FAX Printout. This is a copy of the FAX message sent during testing of the iModem device prior to shipment from the factory. This is supplied only if the customer selected the FAX option when ordering the iModem.

PREPROGRAMMED EMAIL MESSAGE
The CH2165 iModem contains one preprogrammed email message, **myMsg**. The content of these messages is displayed on the CH2165 iModem Programming Form supplied with the CH2165 iModem product.

Displaying The Preprogrammed Email Message. This is a preprogrammed email message. This message is completely modifiable by the user by issuing the **@TMC=myMsg** command to the iModem.

Example 2.   iModem>   **@T[MC][?=myMsg]<CR><LF>**   Display the preprogrammed email message **myMsg**.
              Result: **This Message has been sent courtesy of**
                          Cermetek Microelectronics, using the
                          CH2165 iModem.
              iModem>   The CH2165 iModem is ready for the next command.

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