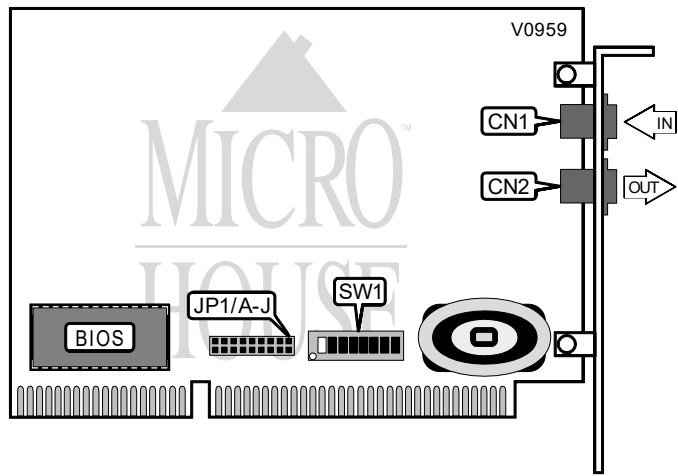


MULTITECH SYSTEMS, INC.
MT2834BC/MT2834BCI

Modem Type	Data (synchronous/asynchronous)/Fax
Maximum Data Rate	28.8Kbps
Maximum Fax Rate	14.4Kbps
Data Bus	16-bit ISA
Fax Class	Class I & II
Data Modulation Protocol	Bell 103A/212A ITU-T V.21, V.22, V.22bis, V.23, V.32, V.32bis, V.34 AT&T V.32terbo
Fax Modulation Protocol	ITU-T V.17, V.21CH2, V.27ter, V.29
Error Correction/Compression	MNP2-5, V.42, V.42bis



CONNECTIONS			
Purpos	Location	Purpos	Location
Line-in	CN1	Line-out	CN2

INTERRUPT SELECTION										
IRQ	JP1/A	JP1/B	JP1/C	JP1/D	JP1/E	JP1/F	JP1/G	JP1/H	JP1/I	JP1/J
3	Open	Closed	Open	Open	Open	Open	Open	Open	Open	Open
2	Closed	Open	Open	Open	Open	Open	Open	Open	Open	Open
4	Open	Open	Closed	Open	Open	Open	Open	Open	Open	Open
5	Open	Open	Open	Closed	Open	Open	Open	Open	Open	Open
7	Open	Open	Open	Open	Closed	Open	Open	Open	Open	Open
10	Open	Open	Open	Open	Open	Closed	Open	Open	Open	Open
11	Open	Open	Open	Open	Open	Open	Closed	Open	Open	Open
12	Open	Open	Open	Open	Open	Open	Open	Closed	Open	Open
14	Open	Open	Open	Open	Open	Open	Open	Open	Closed	Open
16	Open	Open	Open	Open	Open	Open	Open	Open	Open	Closed

Continued on next page . . .

MULTITECH SYSTEMS, INC.
MT2834BC/MT2834BCI

...continued from previous page

BASE I/O ADDRESS SELECTION							
Address	SW1/1	SW1/2	SW1/3	SW1/4	SW1/5	SW1/6	SW1/7
100h	Off	On	On	On	On	On	On
200h	On	Off	On	On	On	On	On
300h	Off	Off	On	On	On	On	On
400h	On	On	Off	On	On	On	On
500h	Off	On	Off	On	On	On	On
2E8h (COM4:)	Off	On	Off	Off	Off	On	Off
i 2F8h (COM2:)	Off	Off	Off	Off	Off	On	Off
3D8h	Off	Off	On	Off	Off	Off	Off
3E0h	On	On	Off	Off	Off	Off	Off
3E8h (COM3:)	Off	On	Off	Off	Off	Off	Off
3F0h	On	Off	Off	Off	Off	Off	Off
3F8h (COM1:)	Off	Off	Off	Off	Off	Off	Off

Note: A total of 127 memory base I/O address settings are available. The switches are a binary representation of the hexadecimal addresses. Switch SW1/1 is the Least Significant Bit and switch SW1/7 is the Most Significant Bit. The switches have the following decimal values: switch SW1/1=8, SW1/2=16, SW1/3=32, SW1/4=64, SW1/5=128, SW1/6=256, SW1/7=512. Turn off the switches and add the values of the off switches to obtain the correct base I/O address. (on=0, off=1)

FACTORY CONFIGURED - DO NOT ALTER	
Switch	Position
SW1/8	On

Proprietary Command Set

AUTO-RELIABLE TIME BUFFER CONFIGURATION	
Type:	Configuration
Format:	AT [cmds] \$An [cmds]
Example:	AT \$A1 &W<CR>
Description:	Controls the handling of incoming data during auto-reliable time period.
Command	Function
i \$A0	Data is discarded.
\$A1	Data is buffered.

BIT MODE	
Type:	Configuration
Format:	AT [cmds] \$EBn [cmds]
Example:	AT \$EB1 E1<CR>
Description:	Selects 10- or 11-bit mode.
Command	Function
i \$EB0	Sets 10-bit mode.
\$EB1	Sets 11-bit mode.

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CALLBACK ATTEMPTS	
Type:	Register
Format:	AT [cmds] S16= <i>n</i> [cmds]
Example:	ATS16=6<CR>
Default:	4
Range:	1-255
Unit:	1 attempt
Description:	Sets the maximum number of login attempts after initial callback connection.

CALLBACK NUMBER	
Type:	Configuration
Format:	AT [cmds] [+/-]DT<#>N <i>nn</i>
Examples:	AT#DB2 +-DT555-1212N10<CR>
Description:	Sets the phone number associated with the password at memory location <i>nn</i> .
Command	Function
+DT	Modem will initiate callback on successful login.
-DT	Modem will allow immediate entry on successful login without callback.
+-DT	If password is followed by a -, modem will allow immediate entry. If password is followed by a + or nothing, modem will initiate callback.

CALLBACK PARITY	
Type:	Configuration
Format:	AT [cmds] #P <i>n</i> [cmds]
Example:	AT #P0 #DB1<CR>
Description:	Sets the parity of the modem when in callback mode.
Command	Function
i #P0	No parity.
#P1	Odd parity.
#P2	Even parity.

CALLBACK PASSWORD	
Type:	Configuration
Format:	AT [cmds] #CBN <i>nnxxxx</i>
Example:	AT#DB2 #CBN09snarf<CR>
Description:	Sets the callback password at memory location <i>nn</i> to <i>xxxx</i> . The password must be between 6 and 10 characters, inclusive.

Continued on next page . . .

MULTITECH SYSTEMS, INC.
MT2834BC/MT2834BCI

...continued from previous page

CALLBACK SECURITY	
Type:	Configuration
Format:	AT [cmds] #DBn [cmds]
Example:	AT #DB1 S0=1<CR>
Description:	Sets the security level of the callback function.
Command	Function
í #DB0	Disables security and clears callback memory.
#DB1	Enables remote security only.
#DB2	Enables local and remote security.

COMMAND ESCAPE TYPE	
Type:	Configuration
Format:	AT [cmds] %En [cmds]
Example:	AT %E3 &W<CR>
Description:	Sets type and response of command escape sequence.
Command	Function
%E0	Command escape disabled.
í %E1	TIES escape (+++AT...)
%E2	<BREAK>AT method.
%E3	Both TIES and BREAK methods.
%E4	OK response to command escape disabled.
%E5	OK response to command escape enabled.

COMMAND SET	
Type:	Configuration
Format:	AT &Qn
Example:	AT &Q1<CR>
Description:	Selects standard Hayes or custom command sets.
Command	Function
í &Q0	Multi-Tech custom command set enabled.
&Q1	Standard Hayes command set enabled.

COMPRESSION	
Type:	Configuration
Format:	AT &En
Example:	AT &E15 #L0<CR>
Description:	Selects data compression.
Command	Function
&E14	Data compression disabled.
í &E15	Data compression enabled.

Continued on next page . . .

MULTITECH SYSTEMS, INC.
MT2834BC/MT2834BCI

...continued from previous page

COMPRESSION MODE	
Type:	Configuration
Format:	AT #Ln
Example:	AT #L2 DT555-1212<CR>
Description:	Selects active compression protocols.
Command	Function
i #L0	V.42 negotiation enabled.
#L1	MNP negotiation enabled.
#L2	LAP-M negotiation enabled.
#L3	LAP-M enabled, no negotiation.

CTS SIGNAL	
Type:	Configuration
Format:	AT [cmds] &RFn [cmds]
Example:	AT &RF0<CR>
Description:	Selects the function of the CTS signal.
Command	Function
&RF0	CTS is set to RTS.
i &RF1	CTS is independent of RTS.

DIAL STORED PHONE NUMBER	
Type:	Immediate
Format:	AT [cmds] Nn1 [Nn2, Nn3...]
Example:	ATM0 N1N3N5<CR>
Description:	Dials stored phone number(s). If the first number is busy, the modem will proceed to the next number in the list.

DSR SIGNAL	
Type:	Configuration
Format:	AT [cmds] &SFn [cmds]
Example:	AT &SF0<CR>
Description:	Selects the function of the DSR signal.
Command	Function
i &SF0	DSR is set to CD.
&SF1	DSR is independent of CD.

DTR DIALING	
Type:	Configuration
Format:	AT [cmds] \$Dn [cmds]
Example:	AT \$D1 DT555-1212<CR>
Description:	Turns DTR dialing on and off.
Command	Function
i \$D0	DTR dialing disabled.
\$D1	DTR dialing enabled.

Continued on next page . . .

MULTITECH SYSTEMS, INC.
MT2834BC/MT2834BCI

...continued from previous page

DTR TIMEOUT	
Type:	Register
Format:	AT [cmds] S24= <i>n</i> [cmds]
Example:	ATS24=40<CR>
Default:	20
Range:	0-255
Unit:	50 ms
Description:	Sets the time to drop the DTR signal to hangup.

ERASE CALLBACK PASSWORD	
Type:	Immediate
Format:	AT [cmds] #RCBN <i>n</i> [cmds]
Example:	AT #RCBN05 #RDN05<CR>
Description:	Erases the callback password at the memory location specified.

ERASE CALLBACK NUMBER	
Type:	Immediate
Format:	AT [cmds] #RDN <i>n</i> [cmds]
Example:	AT #RCBN05 #RDN05<CR>
Description:	Erases the callback phone number at the memory location specified.

ERROR CORRECTION DISABLE ON CONNECT	
Type:	Configuration
Format:	AT [cmds] \$F <i>n</i> [cmds]
Example:	AT \$F1 DT555-1212<CR>
Description:	Selects whether error correction can be disabled by a <CR> while handshaking.
Command	Function
\$F0	Error correction handshake interrupt disabled.
i \$F1	Error correction handshake interrupt enabled.

ESCAPE SEQUENCE BUFFER SIZE	
Type:	Register
Format:	AT [cmds] S34= <i>n</i> [cmds]
Example:	ATS34=30<CR>
Default:	10
Range:	0-60
Unit:	1 byte
Description:	Sets the size of the buffer used to store commands during an escape sequence.

Continued on next page . . .

MULTITECH SYSTEMS, INC.
MT2834BC/MT2834BCI

...continued from previous page

ESCAPE SEQUENCE - OUT OF BAND	
Type:	Immediate
Format:	<BREAK> AT [cmds]<CR>
Example:	<BREAK> AT #F1<CR>
Description:	Puts the modem in Command Mode.
Notes:	Do not precede this command with AT. <BREAK> refers to the hardware modem break signal.

ESCAPE SEQUENCE TIMEOUT	
Type:	Register
Format:	AT [cmds] S32= <i>n</i> [cmds]
Example:	ATS32=30<CR>
Default:	20
Range:	0-255
Unit:	1 second
Description:	Sets the maximum amount of time the modem will wait for a <CR> while executing an escape sequence.

FACTORY DEFAULTS	
Type:	Immediate/Configuration
Format:	AT &F[<i>n</i>]
Example:	AT &F8<CR>
Description:	Loads factory defaults, or sets write protect on NVRAM.
Command	Function
&F	Reloads defaults by setting. (Immediate, see below.)
i &F8	Sets &F to read factory defaults from ROM, and disables NVRAM write protect.
&F9	Sets &F to read defaults from NVRAM, and enables write-protect.

FAILED PASSWORD ATTEMPTS	
Type:	Register
Format:	AT [cmds] S26?
Example:	ATS26?<CR>
Default:	Read-only
Range:	0-255
Unit:	1 attempt
Description:	This register stores the number of failed password attempts.

Continued on next page . . .

MULTITECH SYSTEMS, INC.
MT2834BC/MT2834BCI

...continued from previous page

FALLBACK MODE	
Type:	Configuration
Format:	AT [cmds] #Fn [cmds]
Example:	AT #F1 O<CR>
Description:	Sets direction of fallback.
Command	Function
#F0	Fallback disabled.
#F1	Fallback from 28.8Kbps to 2400bps as line quality degrades.
i #F2	Fallback from 2400bps to 28.8Kbps as line quality improves.

FLOW CONTROL NORMAL MODE	
Type:	Configuration
Format:	AT [cmds] &En [cmds]
Example:	AT &E11 O<CR>
Description:	Selects normal flow control.
Command	Function
i &E10	Normal mode disabled.
&E11	Normal mode enabled.

FLOW CONTROL TYPE	
Type:	Configuration
Format:	AT [cmds] &En [cmds]
Example:	AT &E4 &W<CR>
Description:	Sets type of flow control used by modem.
Command	Function
&E3	Flow control disabled.
i &E4	CTS/RTS flow control enabled.
&E5	XON/XOFF flow control enabled.

HANDSHAKE ATTEMPTS	
Type:	Configuration
Format:	AT [cmds] #An [cmds]
Example:	AT #A1 #L3<CR>
Description:	Configures the initial handshake phase.
Command	Function
#A0	Attempts in order: 28.8Kbps, 24Kbps, 21.6Kbps, 19.2Kbps, 16.8Kbps, 14.4Kbps, 12Kbps, 9600bps, 4800bps, 2400bps, 1200bps, 300bps.
#A1	Attempts only 28.8Kbps.
#A2	Attempts in order: 28.8Kbps, 24Kbps, 21.6Kbps, 19.2Kbps, 16.8Kbps, 14.4Kbps, 12Kbps, 9600bps, 4800bps.
#A3	Attempts in order: 2400bps, 1200bps, 300bps.

Continued on next page . . .

MULTITECH SYSTEMS, INC.
MT2834BC/MT2834BCI

...continued from previous page

HELP SCREENS	
Type:	Immediate
Format:	AT \$Hn
Example:	AT \$H1<CR>
Description:	Shows modem help screens.
Command	Function
\$H1	Shows help screen 1.
\$H2	Shows help screen 2.
\$H3	Shows help screen 3.

LIST CONFIGURATION	
Type:	Immediate
Format:	AT Ln
Example:	AT L5<CR>
Description:	Lists modem configuration.
Command	Function
L5	Lists all settings.
L6	Lists the values of all S-registers.
L7	Lists extended parameters.
L8	Lists current diagnostics.

LOCAL SERIAL PORT SPEED	
Type:	Configuration
Format:	AT [cmds] \$SBnnn [cmds]
Example:	AT \$MB9600 \$SB19200<CR>
Description:	Sets serial port speed.
Command	Function
\$SB300	Sets 300baud speed.
\$SB1200	Sets 1200baud speed.
\$SB2400	Sets 2400baud speed.
\$SB4800	Sets 4800baud speed.
\$SB9600	Sets 9600baud speed.
\$SB19200	Sets 19.2Kbaud speed.
\$SB38400	Sets 38.4Kbaud speed.
\$SB57600	Sets 57.6Kbaud speed.
\$SB115200	Sets 115.2Kbaud speed.

Continued on next page . . .

MULTITECH SYSTEMS, INC.
MT2834BC/MT2834BCI

...continued from previous page

LOCK SERIAL PORT	
Type:	Configuration
Format:	AT [cmds] \$BA <i>n</i> [cmds]
Example:	AT \$SB57600 \$BA0 <CR>
Description:	Sets operation of serial port speed.
Command	Function
í \$BA0	Serial speed locked at rate set by \$SB.
\$BA1	Serial speed follows connect speed, ignoring \$SB.

LOGIN PASSWORD	
Type:	Configuration
Format:	AT [cmds] #lxxx
Example:	AT #l MicroHouse <CR>
Description:	Sets the login password to xxxx. The password must be between 6 and 10 characters, case sensitive. It defaults to MULTI-TECH.

MAXIMUM BLOCK SIZE FOR TRANSMISSION	
Type:	Configuration
Format:	AT [cmds] &BS <i>n</i> [cmds]
Example:	AT &BS1 &MB28800<CR>
Description:	Sets the maximum transmittable block size.
Command	Function
&BS0	Maximum block size is 64 characters.
í &BS1	Maximum block size is 128 characters for LAP-M, and 256 characters for MNP.

PACING	
Type:	Configuration
Format:	AT [cmds] &E <i>n</i> [cmds]
Example:	AT &E13 <CR>
Description:	Selects ENQ/ACK pacing.
Command	Function
&E12	Disables ENQ/ACK pacing.
í &E13	Enables ENQ/ACK pacing.

PACING - ENQ/ACK	
Type:	Configuration
Format:	AT [cmds] &E <i>n</i> [cmds]
Example:	AT &E9 <CR>
Description:	Selects ENQ/ACK pacing.
Command	Function
í &E8	Enables ENQ/ACK pacing.
&E9	Disables ENQ/ACK pacing.

Continued on next page . . .

MULTITECH SYSTEMS, INC.
MT2834BC/MT2834BCI

...continued from previous page

REDIAL	
Type:	Immediate
Format:	ATA:
Example:	ATA:<CR>
Description:	Redials the last number dialed until it is no longer busy.

REMOTE CONNECT SPEED	
Type:	Configuration
Format:	AT \$MBnnn
Example:	AT \$MB9600 \$SB19200<CR>
Description:	Sets maximum remote connect speed.
Command	Function
\$MB75	Sets V.23 (1200bps/75bps bi-directional).
\$MB300	Sets 300bps connect.
\$MB1200	Sets 1200bps connect.
\$MB2400	Sets 2400bps connect.
\$MB4800	Sets 4800bps connect.
\$MB9600	Sets 9600bps connect.
\$MB14400	Sets 14.4Kbps connect.
\$MB19200	Sets 19.2Kbps connect.
\$MB28800	Sets 28.8Kbps connect.

RETRANSMIT FAIL ACTION	
Type:	Configuration
Format:	AT [cmds] \$Rn [cmds]
Example:	AT \$R1<CR>
Description:	Sets whether the modem gives up on a bad connection.
Command	Function
f \$R0	Hang up after 12 failed retransmissions.
\$R1	Do not hang up after 12 failed retransmissions.

SETUP INACTIVITY TIMER	
Type:	Register
Format:	AT [cmds] S29=n [cmds]
Example:	ATS29=5<CR>
Default:	20
Range:	1-255
Unit:	1 minute
Description:	Sets the maximum amount of time between commands until the setup password must be re-entered.

Continued on next page . . .

MULTITECH SYSTEMS, INC.
MT2834BC/MT2834BCI

...continued from previous page

STORE PHONE NUMBER IN NVRAM	
Type:	Configuration
Format:	AT [cmds] D<#>Nn [dialstring]
Example:	ATD555-1212N1<CR>
Description:	Stores a phone number in the modem's memory.

TIME UNTIL HANG UP ON LOW DTR	
Type:	Register
Format:	AT [cmds] S36=n [cmds]
Example:	ATS36=5<CR>
Default:	0
Range:	0-255
Unit:	1 second
Description:	Sets the maximum amount of time the modem will wait to hang up after the DTR signal goes low.

TIME UNTIL PICK UP ON HIGH DTR	
Type:	Register
Format:	AT [cmds] S37=n [cmds]
Example:	ATS37=5<CR>
Default:	0
Range:	0-255
Unit:	1 second
Description:	Sets the maximum amount of time the modem will wait to pick up after the DTR signal goes high.

TRELLIS MODULATION	
Type:	Configuration
Format:	AT [cmds] #Tn [cmds]
Example:	AT #T1<CR>
Description:	Controls Trellis Coded Modulation.
Command	Function
#T0	Disables TCM.
i #T1	Enables TCM.

UUCP SPOOFING	
Type:	Configuration
Format:	AT [cmds] \$SPn [cmds]
Example:	AT \$SP1 O<CR>
Description:	Controls the UUCP spoofing function.
Command	Function
i \$SP0	Spoofing disabled.
\$SP1	Spoofing enabled.

Continued on next page . . .

MULTITECH SYSTEMS, INC.
MT2834BC/MT2834BCI

...continued from previous page

V.32terbo CONTROL	
Type:	Configuration
Format:	AT [cmds] #V <i>n</i> [cmds]
Example:	AT #V1 DT555-1212<CR>
Description:	Controls the V.32terbo protocol in answer mode.
Command	Function
i #V0	V.32terbo enabled.
#V1	V.32terbo disabled.

V.42 MODE	
Type:	Configuration
Format:	AT [cmds] &E <i>n</i> [cmds]
Example:	AT &E0 <CR>
Description:	Configures the operation of V.42 mode.
Command	Function
&E0	Error correction disabled.
i &E1	V.42 set to auto-reliable.
&E2	V.42 set to reliable.

XOFF SEND	
Type:	Configuration
Format:	AT [cmds] #X <i>n</i> [cmds]
Example:	AT #X1<CR>
Description:	Selects how XOFF signal is sent.
Command	Function
i #X0	Single XOFF character sent until ready.
#X1	Multiple XOFF characters sent until ready.

XON/XOFF PASS-THROUGH	
Type:	Configuration
Format:	AT [cmds] &E <i>n</i> [cmds]
Example:	AT &E7 O<CR>
Description:	Selects whether XON/XOFF signals are sent to remote modem.
Command	Function
i &E6	XON/XOFF signals trapped by local modem.
&E7	XON/XOFF passed through local modem.