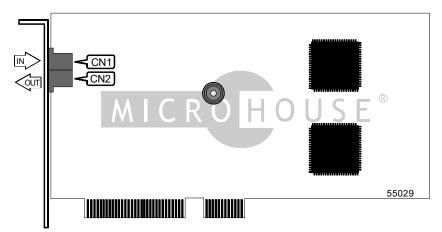
Card Type Modem, Fax **Chip Set** Unidentified 56Kbps **Maximum Modem Rate Maximum Fax Rate** 14.4Kbps Bell 103A/212A **Data Modulation Protocol** ITU-T V.21, V.22, V.22bis, V.22A/B, V.23, V.32, V.32bis, V.34 ITU-T V.17, V.21CH2, V.27ter, V.29, V.33 Fax Modulation Protocol MNP10-EC, MNP5, V.42, V.42bis **Error Correction/Compression** Fax Class Class I Data Bus 32-bit PCI **Card Size** Three-quarter length, full-height card



	CONNE	CTIONS	
Function Label Function Label			
Line in	CN1	Line out	CN2

SUPPORTED COMMAND SET			
Basic AT Commands			
AT, '+++', A/			
A, E, H, M, O, Q, V, W, X, Y, Z			
&C, &P, &T, &V, &W, &Y			
Extended AT Commands			
\K, \N			
%C, %E, %L, %Q			
S Registers			
S0, S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S14, S16, S18, S21, S22, S23, S24, S25,			
S26, S27, S28, S29, S30, S31, S32, S33, S36, S37, S38, S39, S40, S41, S82, S91, S92, S95			
Special Commands			
+MS			
Note: See MHI Help File for full command documentation.			

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# **Proprietary AT Command Set**

	AUTO-MODE DETECTION
Type:	Configuration
Format:	AT [cmds] N <i>n</i> [cmds]
Description:	Selects various options for the automatic detection and negotiation of protocols during the handshake process if the modem is communicating with a remote modem of dissimilar speed.
Command	Function
N0	Auto-mode detection disabled
í N1	Auto-mode detection enabled

	COMMUNICATIONS MODE
Type:	Configuration
Format:	AT [cmds] &Q <i>n</i> [cmds]
Description:	Selects communications mode options
Command	Mode
Command í &Q0	Mode Asynchronous mode, serial port speed follows connect speed.

DATA SET READY (DSR)			
Туре:	Configuration		
Format:	AT [cmds] &S <i>n</i> [cmds]		
Description:	Selects DSR options		
Command	Function		
&S0	DSR forced high		
í &S1	DSR high only while modem is handshaking or connected		

DATA TERMINAL READY (DTR)					
Туре:	Configurat	Configuration			
Format:	AT [cmds]	AT [cmds] &D <i>n</i> [cmds]			
Description:	Selects me	Selects modem response to DTR			
Note: The action each variant of &D causes depends on the setting of &Q					
&Q Setting &D0 &D1 &D2 &D3			&D3		
í &Q0, &Q5, d	6, &Q6 NONE Command 2 Command 3 Command		Command 4		
&Q1, &Q	Q4 Command 1 Command 2 Command 3 Command 4			Command 4	
&Q2, &Q	Q4 Command 3 Command 3 Command 3 Command 3				
Command	Function				
í Command 0	Modem do	Modem does not respond to DTR			
Command 1	Modem goes to command mode after DTR goes is off				
Command 2	Modem goes to command mode and disconnects (hangs up) after DTR goes off;				
	Auto-Answer is disabled.				
Command 3	Modem is initialized after DTR goes off				

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	DIAL		
Туре:	Immediate		
Format:	AT [cmds] D<#> [cmds]		
Description:	Dials telephone number according to any modifiers included in the string		
Note:	Any combination of modifiers can be used to produce the desired dial functions in		
	sequence.		
Command	Function		
DL	Re-dial last number		
DP	Pulse dialing enabled		
DS=n	Dial stored telephone number <i>n</i>		
DT	Tone dialing enabled/Pulse dialing disabled		
DW	Dialing resumed following dial tone detection		
D,	Dialing paused for amount of time specified in S8 register		
D!	Flash function initiated. Modem commanded to go off-hook for specified time before returning on-hook.		
D@	Wait for Quite Answer function enabled. Modem waits until a "quiet answer," a ring- back signal followed by silence up to the time specified in S7, is received prior to executing the rest of the dial string.		
D^	Disable calling tone		
D;	Modem returned to idle state after dialing. The semicolon can only be placed at the end of the dial command.		

	FACTORY DEFAULT PROFILE
Туре:	Configuration
Format:	AT [cmds] &F [cmds]
Description:	Sets values in active profile to values found in the default profile
Command	Function
í &F0	Restore factory configuration 0
&F1	Restore factory configuration 1

	FLOW CONTROL
Туре:	Configuration
Format:	AT [cmds] &K <i>n</i> [cmds]
Description:	Enables flow control options
Command	Function
&K0	Flow control disabled
í &K3	RTS/CTS flow control enabled
&K4	XON/XOFF flow control enabled
&K5	Transparent XON/XOFF flow control enabled
&K6	Both RTS/CTS and XON/XOFF flow control enabled

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	REPORT INFORMATION
Type:	Immediate
Format:	AT [cmds] I <i>n</i> [cmds]
Description:	Displays information requested
Command	Function
10	Reports the product identification code
1	Reports ROM checksum
12	Tests and reports ROM checksum
13	Reports the firmware revision level
14	Reports OEM defined identifier string
15	Reports country code
16	Reports modem data pump model
17	Reports DAA code

	RTS/CTS
Туре:	Configuration
Format:	AT [cmds] &R <i>n</i> [cmds]
Description:	Selects RTS/CTS options
Command	Function
í &R0	Function not supported
&R1	CTS forced high, RTS is ignored.

SPEAKER VOLUME		
Туре:	Configuration	
Format:	AT [cmds] L <i>n</i> [cmds]	
Description:	Controls speaker volume	
Command	Function	
LO	Low volume setting	
L1	Low volume setting	
í L2	Medium volume setting	
L3	Highest volume setting	

STORE TELEPHONE NUMBER	
Type:	Configuration
Format:	AT [cmds] &Z <i>n</i> =(phone # & modifiers)
Description:	Writes selected telephone numbers into the non-volatile memory at location <i>n</i>
Note: The characters described in the D command are valid for use in the &Z command; telephone	
numbers and modifiers can include up to 36 characters.	
Command	Function
&Z0	Stores a 34 digit dial string
&Z1	Stores a 34 digit dial string
&Z2	Stores a 34 digit dial string
&Z3	Stores a 34 digit dial string

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# **Extended AT Commands**

	SINGLE LINE CONNECT MESSAGE
Туре:	Configuration
Format:	AT [cmds] \V <i>n</i> [cmds]
Description:	Selects the operating mode the modem uses while connected
Command	Function
\V0	Connect messages are controlled by the command settings X, W, and S95
\V1	Connect messages are displayed in single line format

### S(status) -REGISTERS

	AUTOSYNC OPTIONS
Туре:	Register
Format	AT [cmds] S19= <i>n</i> [cmds]
Default:	0
Range:	0-255
Unit:	1 second
Description:	Sets the AutoSync options

	CONNECTION FAILURE CODES
Туре:	Register
Format	AT [cmds] S86? [cmds]
Description:	Reports codes which correspond to the possible causes of a connection failure
Value	Meaning
0	Normal hang up
4	Carrier signal lost
5	No error-control detected for remote modem during feature negotiation
9	No common protocol found
12	No failure - remote modem disconnected normally
13	Remote modem failed to respond after 10 re-transmissions same message
14	Violation of negotiated protocol caused failure

	DATA COMPRESSION CONTROL
Туре:	Register
Format	AT [cmds] S46 [cmds]
Default:	128
Range:	128
Description:	Controls data compression

	HDLC ADDRESS
Type:	Register
Format	AT [cmds] S20= <i>n</i> [cmds]
Default:	0
Range:	0-255
Unit:	1 second
Description:	Sets the AutoSync HDLC address

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	V.42 NEGOTIATION
Type:	Register
Format	AT [cmds] S48 [cmds]
Default:	7
Range:	0, 7, 128
Description:	Controls V.42 negotiation