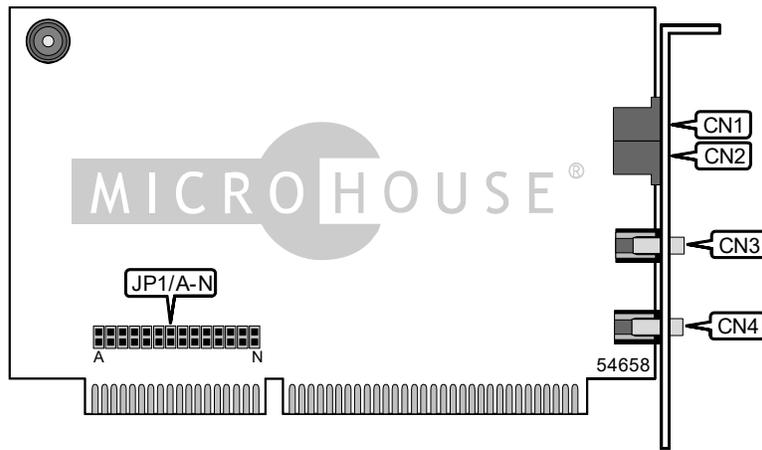


MAXTECH CORPORATION

XPVS 56IC (X2/CL)

Card Type	Modem (asynchronous), fax
Chip Set	Unidentified
I/O Options	Microphone, speaker out, line in, line out
Maximum Modem Rate	56Kbps
Maximum Fax Rate	14.4Kbps
Data Modulation Protocol	Bell 103/212A
	ITU-T V.21, V.22, V.22bis, V.23, V.32, V.32bis, V.34, V.34+, Std. X2
Fax Modulation Protocol	ITU-T V.17, V.27ter, V.29
Error Correction/Compression	MNP5, V.42, V.42bis
Fax Class	Class I
Data Bus	16-bit ISA
Card Size	Half-length, half-height card



CONNECTIONS			
Function	Label	Function	Label
Line out	CN1	Microphone	CN3
Line in	CN2	Speaker out	CN4

SERIAL PORT ADDRESS				
Setting	JP1/A	JP1/B	JP1/C	JP1/D
COM1 (3F8h)	Open	Open	Closed	Closed
COM2 (2F8h)	Closed	Open	Open	Closed
COM3 (3E8h)	Open	Closed	Closed	Open
COM4 (2E8h)	Closed	Closed	Open	Open
i PnP	Open	Open	Open	Open

INTERRUPT										
IRQ	JP1/E	JP1/F	JP1/G	JP1/H	JP1/I	JP1/J	JP1/K	JP1/L	JP1/M	JP1/N
3	Closed	Open								
4	Open	Closed	Open							
5	Open	Open	Closed	Open						
7	Open	Open	Open	Closed	Open	Open	Open	Open	Open	Open
10	Open	Open	Open	Open	Closed	Open	Open	Open	Open	Open
11	Open	Open	Open	Open	Open	Closed	Open	Open	Open	Open
12	Open	Open	Open	Open	Open	Open	Closed	Open	Open	Open
PnP	Closed									

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SUPPORTED COMMAND SET	
Basic AT Commands	
AT, '+++', A/	
A, E, H, M, O, P, Q, T, V, X, Y, Z	
&C, &F, &G, &T, &W, &Y, &Z	
Extended AT Commands	
\\A, \\B, \\C, \\G, \\J, \\K, \\O, \\U, \\X, \\Y, \\Z	
%A, %E	
S Registers	
S0, S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S16, S18, S21, S22, S23, S25, S27, S30, S37	
Special AT commands	
+MS, -J, "H, "O	
Note: See MHI Help File for full command documentation.	

Proprietary AT Command Set

COMMUNICATION PROTOCOLS	
Type:	Configuration
Format:	AT [cmds] Bn [cmds]
Description:	Selects the communication protocol for data calls
Note: The B command allows the simultaneous selection of more than one suffix, enabling multiple protocols.	
Command	Protocol
B0	CCITT mode
B1	Bell mode
B2	V.23 at 1200/75
B3	V.23 at 75/1200

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DIAL	
Type:	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
DP	Pulse dialing enabled
DR	Answer mode enabled; originate mode disabled following handshake initiation.
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;	Modem returned to idle state after dialing. The semicolon can only be placed at the end of the dial command.

REPORT INFORMATION	
Type:	Immediate
Format:	AT [cmds] I <i>n</i> [cmds]
Description:	Displays information requested
Command	Function
I0	Reports modem model and speed
I1	Reports ROM checksum
I2	Tests and reports ROM checksum
I3	Reports device ID
I4	Reports internal ID
I5	Reports modem chip hardware configuration
I6	Reports country code
I7	Reports manufacturer and model information
I8	Reports modem firmware version
I10	Reports modem board configuration

SPEAKER VOLUME	
Type:	Configuration
Format:	AT [cmds] L <i>n</i> [cmds]
Description:	Controls speaker volume
Command	Function
L0	Low volume setting
L1	Low volume setting
i L2	Medium volume setting
L3	Highest volume setting

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AUTO-MODE DETECTION	
Type:	Configuration
Format:	AT [cmds] Nn [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	Connect only at DTE rate
i N1	Automatic rate negotiation

EXTENDED RESULT CODES	
Type:	Configuration
Format:	AT [cmds] Wn [cmds]
Description:	Enables selection of additional result codes when S95=0; otherwise, S95 takes precedence.
Command	Function
i W0	Enables CONNECT result codes to report DTE speed.
W1	Enables CONNECT result codes to report DTE speed.
W2	Enables CONNECT result codes to report DCE speed.
W3	Enables CONNECT result codes to report DTE speed, modulation mode, error control, data compression, DCE transmit and receive speed

DATA TERMINAL READY (DTR)	
Type:	Configuration
Format:	AT [cmds] &Dn [cmds]
Description:	Selects modem response to DTR
Note:	The action each variant of &D causes depends on the setting of &Q
Command	Function
i &D0	Modem does not respond to DTR
&D1	Modem goes to command mode after DTR goes is off
&D2	Modem goes to command mode and disconnects (hangs up) after DTR goes off; Auto-Answer is disabled.
&D3	Modem is initialized after DTR goes off

AUXILIARY RELAY	
Type:	Configuration
Format:	AT [cmds] &Jn [cmds]
Description:	Activates auxiliary relay
Command	Jack Type
i &J0	Auxiliary relay never operated
&J1	Activates auxiliary relay when modem is off-hook

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FLOW CONTROL	
Type:	Configuration
Format:	AT [cmds] &K <i>n</i> [cmds]
Description:	Enables flow control options
Command	Function
&K0	Flow control disabled
i &K3	Enable hardware flow control
&K4	Enable software flow control

COMMUNICATIONS MODE	
Type:	Configuration
Format:	AT [cmds] &M <i>n</i> [cmds]
Description:	Selects communications mode
Command	Mode
i &M0	Asynchronous mode

PULSE DIALING RATIO	
Type:	Configuration
Format:	AT [cmds] &P <i>n</i> [cmds]
Description:	Selects pulse dial make/break ratio
Command	Function
i &P0	39/61ms at 10pps (North America)
&P1	33/67ms at 10pps (Europe)

COMMUNICATIONS MODE	
Type:	Configuration
Format:	AT [cmds] &Q <i>n</i> [cmds]
Description:	Selects communications mode options
Command	Mode
i &Q0	Asynchronous mode

DATA SET READY (DSR)	
Type:	Configuration
Format:	AT [cmds] &S <i>n</i> [cmds]
Description:	Selects DSR options
Command	Function
i &S0	DSR forced high
&S1	DSR is off in command mode, on in on-line mode

TRELLIS CODING	
Type:	Immediate
Format:	AT [cmds] &U [cmds]
Description:	Enables trellis coding
Command	Function
i &U0	Enable trellis coding @ V.32
&U1	Disable trellis coding @ V.32

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CONFIGURATION PROFILES	
Type:	Immediate
Format:	AT [cmds] &V [cmds]
Description:	Displays active and stored configuration profiles
Command	Function
&V0	Displays the active profile to stored profile 0
&V1	Displays the active profile to stored profile 1
&V3	Displays the relay and general-purpose I/O status

Extended AT Command Set

AUTO-FALLBACK/FALL-FORWARD	
Type:	Configuration
Format:	AT [cmds] %Gn [cmds]
Description:	Selects auto-fallback/fall-forward
Command	Function
%G0	Auto-fallback/fall-forward enabled
%G1	Auto-fallback/fall-forward disabled

AUTO_RELIABLE FALLBACK	
Type:	Configuration
Format:	AT [cmds] %An [cmds]
Description:	Set auto-reliable fallback character to <i>n</i> (<i>n</i> =0-127) (requires the \C2 setting)
Command	Function
-C0	Calling tone disabled
-C1	1300hz calling tone
-C2	V.8 and 1300hz calling tones enabled

CALLING TONE	
Type:	Configuration
Format:	AT [cmds] -C [cmds]
Description:	Controls calling tone
Command	Function
-C0	Calling tone disabled
-C1	1300hz calling tone
-C2	V.8 and 1300hz calling tones enabled

MNP CLASS 5 DATA COMPRESSION	
Type:	Configuration
Format:	AT [cmds] %C [cmds]
Description:	Controls the MNP class 5 data compression
Command	Function
%C0	Disable MNP class 5 data compression
%C1	Enable MNP class 5 data compression

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CONNECT MODE	
Type:	Configuration
Format:	AT [cmds] \Nn [cmds]
Description:	Controls the type of connection the modem will operate in
Command	Function
\N0	Normal mode enabled
\N1	Normal mode enabled
\N2	Reliable mode enabled
\N3	Auto-reliable mode enabled
\N4	V.42 reliable mode enabled

FLOW CONTROL TYPE	
Type:	Configuration
Format:	AT [cmds] \Qn [cmds]
Description:	Sets type of flow control used by modem
Command	Function
\Q0	Flow control disabled
\Q1	XON/XOFF software flow control enabled
\Q2	CTS flow control by DCE enabled
\Q3	RTS/CTS hardware flow control enabled

INACTIVITY TIMER	
Type:	Configuration
Format:	AT [cmds] \Tn [cmds]
Default:	0
Range:	0-90
Unit:	1 second
Description:	Sets the length of time that the modem does not receive information before it disconnects.

S(status) -REGISTERS

SLEEP TIMER	
Type:	Register
Format	AT [cmds] S33=n [cmds]
Default:	Unidentified
Range:	0-255
Unit:	Unidentified
Description:	Maximum duration of DTE and DCE inactivity allowed prior to initiating low-power sleep mode.

STANDARD AT# VOICE COMMAND SET

VOICE MODEM SELECT	
Type:	Immediate
Format:	AT [cmds] +FCLASS=8 [cmds]
Description:	Select voice modem

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FLOW CONTROL	
Type:	Immediate
Format:	AT [cmds] +FLO [cmds]
Description:	Flow control select

TONE GENERATOR LENGTH	
Format	AT [cmds] +VBT= <i>n</i> [cmds]
Default:	10
Range:	0 - 40
Unit:	0.1 second
Description:	Sets the length of DTMF tones that are generated.

CALLED ID	
Type:	Immediate
Format:	AT [cmds] +VCID= <i>n</i> [cmds]
Description:	Called ID selection

VOICE COMMAND	
Type:	Immediate
Format:	AT [cmds] +VCSD= <i>n</i> [cmds]
Description:	Voice command mode silence detection

DISTINCTIVE RING	
Type:	Immediate
Format:	AT [cmds] +VDR= <i>n</i> [cmds]
Description:	Distinctive ring selection

EVENT REPORTING	
Type:	Immediate
Format:	AT [cmds] +VEM= <i>n</i> [cmds]
Description:	Event reporting and masking

GAIN	
Type:	Immediate
Format:	AT [cmds] +VGM= <i>n</i> [cmds]
Description:	Speakerphone microphone gain

GAIN	
Type:	Immediate
Format:	AT [cmds] +VGR= <i>n</i> [cmds]
Description:	Receive gain

GAIN	
Type:	Immediate
Format:	AT [cmds] +VGS= <i>n</i> [cmds]
Description:	Speakerphone speaker gain

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VOICE VOLUME LEVEL	
Type:	Configuration
Format:	AT [cmds] +VGT= <i>n</i> [cmds]
Description:	Sets the volume level when playing back audio signals.

INITIALIZE PARAMETER	
Type:	Immediate
Format:	AT [cmds] +VIP [cmds]
Description:	Initialize parameter

INACTIVITY TIMER	
Type:	Immediate
Format:	AT [cmds] +VIT= <i>n</i> [cmds]
Description:	DTE/DCE inactivity timer

VOICE DEVICE	
Type:	Configuration
Format:	AT [cmds] +VLS= <i>n</i> [cmds]
Description:	Selects the I/O device for the DSP chip.
Note:	This modem may not support all options listed below. The #VLS? command will display the available options.
Command	Function
í +VLS=0	Telephone line and handset used for voice I/O.
+VLS=1	Telephone handset used for voice I/O.
+VLS=2	Internal speaker only used for voice I/O.
+VLS=3	External microphone only used for voice I/O.
+VLS=4	Telephone line and handset used for voice I/O; internal speaker enabled.
+VLS=5	Headset used for voice I/O.
+VLS=6	Speakerphone used for voice I/O.
+VLS=7	Handset muted by disconnecting handset or speakerphone from telephone line.
+VLS=8	Connects caller ID relay for recording of conversation over handset.
+VLS=9	Connects handset (or speakerphone) to DSP chip for recording or playback.

AUTO HANG-UP	
Type:	Immediate
Format:	AT [cmds] +VNH= <i>n</i> [cmds]
Description:	Automatic hang-up control

VOICE RE-RING DETECT TIME	
Type:	Configuration
Format:	AT [cmds] +VRA= <i>n</i> [cmds]
Default:	70
Range:	0-255
Unit:	10 mS
Description:	Sets the maximum time the modem will wait for the remote station to ring again before it assumes that it has gone off-hook.

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VOICE RING DETECT TIME	
Type:	Configuration
Format:	AT [cmds] +VRN= <i>n</i> [cmds]
Default:	Unidentified
Range:	Unidentified
Unit:	Unidentified
Description:	Sets the maximum time the modem will wait for the remote station to ring before it assumes that it went off-hook before it rang.

VOICE RECEIVE	
Type:	Immediate
Format:	AT [cmds] +VRX
Description:	Commands the modem to begin receiving voice data.

SILENCE DETECTION	
Type:	Immediate
Format:	AT [cmds] +VSD= <i>n</i> [cmds]
Description:	Silence detection (quiet and silence)

COMPRESSION	
Type:	Immediate
Format:	AT [cmds] +VSM= <i>n</i> [cmds]
Description:	Compression method selection

SPEAKERPHONE CONTROL	
Type:	Configuration
Format:	AT [cmds] +VSP= <i>n</i> [cmds]
Default:	Unidentified
Range:	0 - 255
Unit:	.1 second
Description:	Speakerphone on/off control

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tone detection

AT [cmds] +VTD=x,y,z [cmds]

x,y,z 63

0 - 63

Sets which tones the tone detection will report.

The value of x sets the tone detection modes in voice transmit mode, y sets the voice command mode.

Value	Function
0	DTMF tones are not detected.
i 1	DTMF tones are detected.
0	V.25 1300Hz calling tone is not detected.
i 1	V.25 1300Hz calling tone is detected.
0	T.30 1100Hz fax tone is not detected.
i 1	T.30 1100Hz fax tone is detected.
0	V.25/T.30 2100Hz answer tone is not detected.
i 1	V.25/T.30 2100Hz answer tone is detected.
0	Bell 2225Hz answer tone is not detected.
i 1	Bell 2225Hz answer tone is detected.
0	Call progress tones are not detected.
i 1	Call progress tones are detected.

tone generator - timed phone keys

Type:	Immediate
Format:	AT [cmds] +VTS={a, n}
Range:	a 0-9, A-D, #, *; x 0-255
Unit:	x .1 second
Description:	Generates the DTMF tone for duration x for the character a.

voice transmit

Type:	Immediate
Format:	AT [cmds] +VTX
Description:	Commands the modem to begin transmitting voice data.