

# MAXTECH CORPORATION

## XPV 56I41 (K56PLUS-L/CPI-SVD)

<b>Card Type</b>	Modem, Fax
<b>Chip Set</b>	Lucent
<b>I/O Options</b>	Line in, line out, microphone in, speaker out
<b>Maximum Modem Rate</b>	56Kbps
<b>Maximum Fax Rate</b>	14.4Kbps
<b>Data Modulation Protocol</b>	Bell 103/212A
<b>Fax Modulation Protocol</b>	ITU-T V.21, V.22, V.22bis, V.23, V.32, V.32bis, V.34, K56Plus
<b>Error Correction/Compression</b>	ITU-T V.17, V.29, V.27ter
<b>Fax Class</b>	MNP5, V.42, V.42bis
<b>Fax Class</b>	Class I & II
<b>Data Bus</b>	16-bit ISA

54823

SUPPORTED COMMAND SET	
<b>Basic AT Commands</b>	
AT, '+***', A/	
A, E, H, M, O, P, Q, T, V, W, Y, Z	
&C, &F, &G, &V, &W, &Z	
<b>Extended AT Commands</b>	
\A, \B, \J, \K, \T, \X	
-C	
<b>S Registers</b>	
S0, S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S14, S21, S22, S24, S30, S36, S37, S48	
<b>Note:</b> See MHI Help File for full command documentation.	

## Proprietary AT Command Set

AUTOSCAN MODE	
Type:	Immediate
Format:	AT [cmds] Nn [cmds]
Description:	Enables/Disables Autoscan mode
Command	Function
N0	Autoscan mode disabled
í N1	Autoscan mode enabled

COMMUNICATIONS MODE (ASYNCHRONOUS)	
Type:	Configuration
Format:	AT [cmds] &Mn [cmds]
Description:	Selects communications mode
Command	Mode
í &M0	Asynchronous mode

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COMMUNICATIONS MODE (DATA LINK AND FALLBACK)	
Type:	Configuration
Format:	AT [cmds] &Q [cmds]
Description:	Configures data link options
Command	Function
&Q0	Set Direct data link only
&Q5	Set V.42 data link with fallback options
&Q6	Set Normal data link only

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	Sets CCITT mode
í B1	Sets Bell mode
B2	CCITT V.23 originate: transmit 75/receive 1200bps
B3	CCITT V.23 originate: transmit 1200/receive 75bps
B15	Sets V.21 at 300 bps
B16	Sets Bell 103 at 300 bps

DATA SET READY (DSR)	
Type:	Configuration
Format:	AT [cmds] &Sn [cmds]
Description:	Selects DSR options
Command	Function
&S0	DSR forced high
í &S1	DSR is off while in command mode and set on in on-line mode

DATA TERMINAL READY (DTR)	
Type:	Configuration
Format:	AT [cmds] &Dn [cmds]
Description:	Selects modem response to DTR
Command	Function
í &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

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DIAL	
<b>Type:</b>	Immediate
<b>Format:</b>	AT [cmds] D<#> [cmds]
<b>Description:</b>	Dials telephone number according to any modifiers included in the string
<b>Note:</b>	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
í 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"WXY"	Optional method of denoting telephone numbers. Letters enclosed in quotes are interpreted as numbers according to the system found on a telephone keypad.
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.

FLOW CONTROL	
<b>Type:</b>	Immediate
<b>Format:</b>	AT [cmds] &K [cmds]
<b>Description:</b>	Configures flow control settings
Command	Function
&K0	Flow control disabled
&K3	RTS/CTS hardware flow control enabled
&K4	XON/XOFF software flow control enabled
&K5	Transparent XON/XOFF software flow control enabled
&K6	RTS/CTS & XON/XOFF flow control enabled

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HAYES SMARTMODEM 300 COMPATIBILITY	
Type:	Configuration
Format:	AT [cmds] Xn [cmds]
Description:	Configures modem response and blind dialing capabilities
Command	Function
X0	Sets modem to use Hayes Smartmodem 300 responses and blind dialing
X1	Sets modem to use Hayes Smartmodem 300 responses, CONNECT responses, and blind dialing
X2	Sets modem to use Hayes Smartmodem 300 responses, CONNECT responses, dial tone detection, and blind dialing
X3	Sets modem to use Hayes Smartmodem 300 responses, CONNECT responses, busy detection, and blind dialing
í X4	Set modem to use all responses, dial tone detection, and busy signal detection
X5	Set modem to use all responses, dial tone detection, and busy signal detection
X6	Set modem to use all responses, dial tone detection, and busy signal detection
X7	Sets modem to use Hayes Smartmodem 300 responses, dial tone detection, busy signal detection, and blind dialing

LINE TYPE	
Type:	Configuration
Format:	AT [cmds] &Ln [cmds]
Description:	Selects line type
Command	Line Type
í &L0	Switched line (PSTN/Dial-up)

REPORT INFORMATION	
Type:	Immediate
Format:	AT [cmds] In [cmds]
Description:	Displays information requested
Command	Function
I0	Reports modem model and speed
I1	Reports ROM checksum
I2	Tests and reports internal memory
I3	Reports default speed and modem model
I4	Reports firmware ID
I9	Reports country ID

RESTORE PROFILE ON POWER-UP	
Type:	Configuration
Format:	AT [cmds] &Yn [cmds]
Description:	Restores a selected profile into the active profile on power-up (hard reset)
Command	Function
í &Y0	Restore profile 0 on power-up

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

TEST MODES	
<b>Type:</b>	Immediate
<b>Format:</b>	AT [cmds] &Tn
<b>Description:</b>	Selects test options
<b>Command</b>	<b>Function</b>
&T0	End current test
&T1	Begin local analog loopback test
&T3	Begin local digital loopback test
&T6	Begin remote digital loopback test

### Extended AT Commands

AUTO-RETRAIN - AUTO-FALLBACK/FALL-FORWARD	
<b>Type:</b>	Configuration
<b>Format:</b>	AT [cmds] %En [cmds]
<b>Description:</b>	Controls auto-retrain mode and fallback/fall-forward
<b>Command</b>	<b>Function</b>
%E0	Auto-retrain disabled
%E1	Auto-retrain enabled

COMPRESSION	
<b>Type:</b>	Configuration
<b>Format:</b>	AT [cmds] %Cn [cmds]
<b>Description:</b>	Selects data compression
<b>Command</b>	<b>Function</b>
%C0	Data compression disabled
%C1	MNP5 and V.42bis; or data compression and correction enabled

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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	Enables Normal mode
\N1	Enables Direct mode
\N2	Enables MNP mode
í \N3	Enables V.42/MNP/Normal modes
\N4	Enables V.42 mode
\N5	Enables V.42/MNP/Normal modes
\N7	Enables V.42/MNP/Normal modes

ERROR CORRECTION	
Type:	Immediate
Format:	AT [cmds] \Vn [cmds]
Description:	Reports error correction result codes
Command	Function
\V0	Error correction result codes disabled
í \V1	Error correction result codes enabled
\V2	Error correction result codes 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	Bi-Directional XON/XOFF flow control enabled
\Q3	Bi-Directional RTS/CTS flow control enabled

RE-DIALING SUPPRESSION	
Type:	Configuration
Format:	AT [cmds] %Xn [cmds]
Description:	Configures re-dialing suppression settings
Command	Function
í %X0	Re-dialing suppression disabled
%X1	Re-dialing suppression enabled

## S(status) -Registers

DATA CALLING TONE	
Type:	Register
Format	AT [cmds] S35=n [cmds]
Default:	0
Range:	0, 1
Unit:	Unidentified
Description:	Enables the data calling tone

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DIAL LINE RATE	
<b>Type:</b>	Register
<b>Format</b>	AT [cmds] S38= <i>n</i> [cmds]
<b>Default:</b>	0
<b>Range:</b>	0 - 19
<b>Unit:</b>	Unidentified
<b>Description:</b>	Sets the 56K dialing rate

LOCAL PHONE STATUS	
<b>Type:</b>	Register
<b>Format</b>	AT [cmds] S90= <i>n</i> [cmds]
<b>Default:</b>	Unidentified
<b>Range:</b>	0, 1
<b>Unit:</b>	Unidentified
<b>Description:</b>	0=on hook, 1=off hook

SLEEP MODE TIMER	
<b>Type:</b>	Register
<b>Format</b>	AT [cmds] S89= <i>n</i> [cmds]
<b>Default:</b>	10
<b>Range:</b>	0, 5 - 255
<b>Unit:</b>	seconds
<b>Description:</b>	Sets the sleep mode timer

SYNTHETIC RING DIALING	
<b>Type:</b>	Register
<b>Format</b>	AT [cmds] S32= <i>n</i> [cmds]
<b>Default:</b>	10
<b>Range:</b>	Unidentified
<b>Unit:</b>	dB
<b>Description:</b>	Sets the volume of the synthetic ring

SYNTHETIC RING FREQUENCY	
<b>Type:</b>	Register
<b>Format</b>	AT [cmds] S33= <i>n</i> [cmds]
<b>Default:</b>	0
<b>Range:</b>	0 - 5
<b>Unit:</b>	Unidentified
<b>Description:</b>	Sets the value of the synthetic frequency

TRANSMIT LEVEL	
<b>Type:</b>	Register
<b>Format</b>	AT [cmds] S92= <i>n</i> [cmds]
<b>Default:</b>	15
<b>Range:</b>	6 - 15
<b>Unit:</b>	dB
<b>Description:</b>	Sets the transmission level volume

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V.34 MODUALTION	
<b>Type:</b>	Register
<b>Format</b>	AT [cmds] S28= <i>n</i> [cmds]
<b>Default:</b>	1
<b>Range:</b>	0 - 255
<b>Description:</b>	Enables V.34 modulation