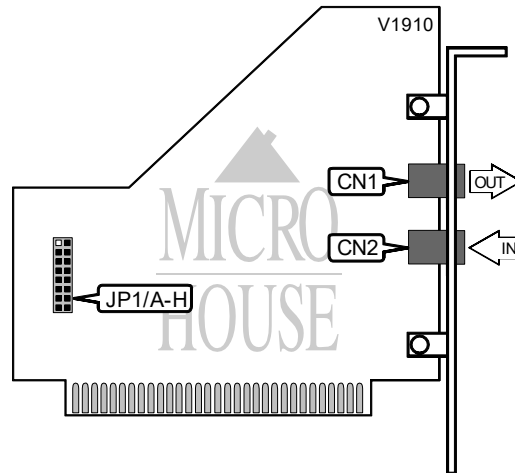


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MOD531 9600/2400 FAX/DATA

Card Type	Fax, Modem (asynchronous/synchronous)
Chip Set	Unidentified
Maximum Data Rate	2400bps
Maximum Fax Rate	9600bps
Data Bus	8-bit ISA
Fax Class	Class I
Data Modulation Protocol	Bell 103/212A
	ITU-T V.22, V.22bis
Fax Modulation Protocol	ITU-T V.21CH2, V.27ter, V.29



CONNECTIONS			
Function	Label	Function	Label
Line out	CN1	Line in	CN2

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

INTERRUPT				
Setting	JP1/E	JP1/F	JP1/G	JP1/H
3	Closed	Open	Open	Open
4	Open	Closed	Open	Open
5	Open	Open	Closed	Open
7	Open	Open	Open	Closed

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Proprietary AT Command Set

BIT-MAPPED REGISTER S14		
Format	AT [cmds] S14= <i>n</i> [cmds]	
Default:	170	
Range:	0-174	
Unit:	Bit-mapped	
Description:	Controls echo, result codes and display, dial mode, and answer/originate mode.	
Bit	Value	Function
0	í 0	Not used
1	0	Command echo disabled
	í 1	Command echo enabled
2	í 0	Result codes enabled
	1	Result codes disabled
3	0	Display result codes in numeric format
	í 1	Display result codes in verbose format
4	í 0	Not used
5	0	Tone dial enabled
	í 1	Pulse dial enabled
6	í 0	Not used
7	0	Answer mode enabled
	í 1	Originate mode enabled

BIT-MAPPED REGISTER S21		
Format	AT [cmds] S21= <i>n</i> [cmds]	
Default:	0	
Range:	0-253	
Unit:	Bit-mapped	
Description:	Selects jack type, CTS/DCD/DSR signals, low DTR action, and the long space disconnect function.	
Bit	Value	Function
0	í 0	Selects RJ-11, RJ-41S, or RJ45S jack
	1	Selects RJ-12 or RJ-13 jack
1	í 0	Not used
2	í 0	CTS follows RTS
	1	CTS forced high
4, 3	í 00	DTR signal ignored
	01	Modem goes to command mode on low DTR
	10	Modem disconnects on low DTR; Auto-Answer is disabled.
	11	Modem is initialized on low DTR
5	í 0	DCD forced high
	1	DCD normal
6	í 0	DSR forced high
	1	DSR normal
7	í 0	Long space disconnect function disabled
	1	Long space disconnect function enabled

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BIT-MAPPED REGISTER S22		
Format	AT [cmds] S22= <i>n</i> [cmds]	
Default:	118	
Range:	0-127	
Unit:	Bit-mapped	
Description:	Controls speaker volume and controls, and limits results codes.	
Bit	Value	Function
1, 0	00	Off volume
	í 01	Low level volume
	10	Medium level volume
	11	High level volume
3, 2	00	Speaker off
	í 01	Speaker off on carrier
	10	Speaker always on
	11	Speaker on during handshake
6, 5, 4	000	Basic result codes only enabled
	100	Basic and connection speed result codes enabled
	101	Basic and connection speed result codes and dialtone detection enabled
	110	All result codes except dialtone detection enabled
	í 111	All result codes enabled

BIT-MAPPED REGISTER S23		
Format	AT [cmds] S23= <i>n</i> [cmds]	
Default:	7	
Range:	0-189	
Unit:	Bit-mapped	
Description:	Grants/denies remote digital loopback, controls DTE rate and parity, and sets guard tone.	
Bit	Value	Function
0	0	Remote digital loopback denied
	í 1	Remote digital loopback allowed
3, 2, 1	000	Sets serial port speed to 0-300bps
	001	Sets serial port speed to 600bps
	010	Sets serial port speed to 1200bps
	í 011	Sets serial port speed to 2400bps
	100	Sets serial port speed to 4800bps
	101	Sets serial port speed to 9600bps
5,4	110	Sets serial port speed to 19200bps
	í 00	Parity even
	01	Not used
	10	Parity odd
7, 6	11	No Parity
	í 00	Guard tone disabled
	01	Guard tone disabled
	10	Guard tone 1800Hz enabled

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BIT-MAPPED REGISTER S27		
Format	AT [cmds] S27= <i>n</i> [cmds]	
Default:	9	
Range:	0-109	
Unit:	Bit-mapped	
Description:	Selects line type, clock source, and ITU-T/Bell modes.	
Bit	Value	Function
3, 1, 0	í 101	Not used
2	í 0 1	Switched line Leased line
5, 4	í 00 01 10	Local modem generates transmit clock source Local DTE generates transmit clock source Remote DCE/DTE generates transmit clock source
6	í 0 1	ITU/T mode Bell mode

BIT-MAPPED REGISTER S28		
Format	AT [cmds] S28= <i>n</i> [cmds]	
Default:	0	
Range:	0-31	
Unit:	Bit-mapped	
Description:	Controls V.23 split speed, transmit/receive speed, half duplex; and pulse dialing.	
Bit	Value	Function
0	í 0 1	V.23 split speed operation disabled V.23 split speed operation enabled
1	í 0 1	75bps transmit, 1200bps receive enabled 1200bps transmit, 75bps receive disabled
2	í 0 1	1200bps transmit, 1200bps receive disabled 1200bps transmit, 1200bps receive enabled
4, 3	í 00 01 10 11	39ms make/61ms break at 10pps 33ms make/67ms break at 10pps 39ms make/61ms break at 20pps 33ms make/67ms break at 20pps

BIT-MAPPED REGISTER S31		
AT [cmds] S31= <i>n</i> [cmds]		
2		
0-10		
Bit-mapped		
Controls auto-baud function and result codes		
Value	Function	
í 0	Not used	
	0	Auto-baud disabled
	í 1	Auto-baud enabled
	í 00	DTE speed displayed in result code
	01	Extended result codes enabled; DC
	10	DCE speed displayed in result code

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BIT-MAPPED REGISTER S39		
Format	AT [cmds] S39= <i>n</i> [cmds]	
Default:	3	
Range:	0-6	
Unit:	Bit-mapped	
Description:	Controls flow control	
Bit	Value	Function
2, 1, 0	000	Flow control disabled
	í 011	Hardware flow control enabled
	100	Normal software flow control enabled
	101	Transparent software flow control enabled
	110	Both hardware and software flow control enabled

BIT-MAPPED REGISTER S40		
Format	AT [cmds] S40= <i>n</i> [cmds]	
Default:	105	
Range:	0-239	
Unit:	Bit-mapped	
Description:	Controls power level and break handling; selects MNP extended services, link negotiation, and block size.	
Bit	Value	Function
0	0	MNP extended services disabled
	í 1	MNP extended services enabled
1	í 0	Power level adjustment enabled
	1	Power level adjustment disabled
2	í 0	Link will be negotiated at highest possible speed
	1	Link will be negotiated at 1200bps
5, 4, 3	000	\K0
	001	\K1
	010	\K2
	011	\K3
	100	\K4
	í 101	\K5
7, 6	00	MNP block size is 64 characters
	í 01	MNP block size is 128 characters
	10	MNP block size is 192 characters
	11	MNP block size is 256 characters

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BIT-MAPPED REGISTER S41		
Format:	AT [cmds] S41= <i>n</i> [cmds]	
Default:	3	
Range:	0-31	
Unit:	Bit-mapped	
Description:	Selects compression, auto-retrain, flow control, and MNP mode.	
Bit	Value	Function
1 - 0	00	Data compression disabled
	01	MNP5 enabled
	10	V.42bis enabled
	11	MNP5 and V.42bis enabled
2	0	Auto-retrain disabled
	1	Auto-retrain enabled
3	0	Flow control disabled
	1	Flow control enabled
4	0	Stream mode for MNP
	1	Block mode for MNP

DIAL STORED PHONE NUMBER	
Type:	Immediate
Format:	AT [cmds] S= <i>n</i>
Description:	Dials a phone number previously stored in AT&Zn

FLOW CONTROL CHARACTER - XOFF	
Type:	Register
Format:	AT [cmds] S33= <i>n</i> [cmds]
Default:	19
Range:	0-255
Unit:	ASCII
Description:	Sets the character used to represent XOFF

FLOW CONTROL CHARACTER - XON	
Type:	Register
Format:	AT [cmds] S32= <i>n</i> [cmds]
Default:	17
Range:	0-255
Unit:	ASCII
Description:	Sets the character used to represent XON

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REPORT INFORMATION	
Type:	Immediate
Format:	AT [cmds] ln [cmds]
Description:	Displays information requested
Command	Function
I0	Display product identification code
I1	Display ROM checksum
I2	Display OK or ERROR for ROM checksum
I3	Display firmware revision
I4	Display OEM string
I5	Display country code
I6	Display data pump model
I7	Reports manufacturer and model information

SLEEP TIMER	
Type:	Register
Format	AT [cmds] S24= <i>n</i> [cmds]
Default:	0
Range:	0-255
Unit:	1 second
Description:	Maximum duration of DTE and DCE inactivity allowed prior to initiating low-power sleep mode.

S-REGISTER - CONTENTS	
Type:	Immediate
Format:	AT [cmds] ? [cmds]
Description:	Displays contents of last S-register access

TEST MODES		
Type:	Register	
Format	AT [cmds] S16= <i>n</i> [cmds]	
Default:	128	
Range:	0-128	
Unit:	Bit-mapped	
Description:	Controls loopback tests, analog, digital, remote digital, and self tests.	
Bit	Value	Function
0	0	Local analog loopback not in progress
	1	Local analog loopback in progress
1	0	Not used
2	0	Local digital loopback not in progress
	1	Local digital loopback in progress
3	0	Modem not in remote digital loopback
	1	Remote digital loopback in progress
4	0	Remote digital loopback not requested
	1	Remote digital loopback requested
5	0	Remote digital loopback w/ self-test not in progress
	1	Remote digital loopback w/ self-test in progress
6	0	Local analog loopback w/ self-test not in progress
	1	Local analog loopback w/ self-test in progress
7	1	Not used

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TRANSMISSION LEVEL - PSTN	
Type	Register
Format	AT [cmds] S91= <i>n</i> [cmds]
Default	10
Range	0-15
Unit	-1 dBm
Description	Sets the signal level for transmission over switched phone lines

TRANSMISSION LEVEL - FAX	
Type:	Register
Format:	AT [cmds] S92= <i>n</i> [cmds]
Default:	10
Range:	0-15
Unit:	-1 dBm
Description:	Sets the signal level for transmission while in fax mode