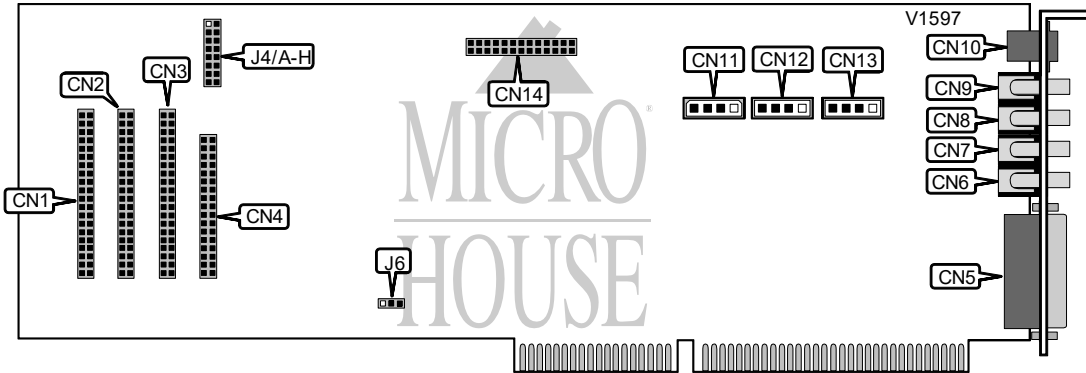# BOCA RESEARCH, INC.
SOUND EXPRESSION 14.4VSP (SE1440)

Modem Type   Data (synchronous/asynchronous)/Fax/Voice
Maximum Data Rate   14.4Kbps
Maximum Fax Rate   14.4Kbps
Data Bus   16-bit ISA
Fax Class   Class I
Data Modulation Protocol   Bell 103A/212A
    ITU-T V.22, V.22bis, V.32, V.32bis
Fax Modulation Protocol   ITU-T V.17, V.21CH2, V.27ter, V.29
Error Correction/Compression   MNP5, V.42, V.42bis

CONNECTIONS			
Purpos	Location	Purpos	Location
Panasonic CD-ROM interface	CN1	Line in	CN8
IDE CD-ROM interface	CN2	Microphone in	CN9
Mitsumi CD-ROM interface	CN3	Modem line out	CN10
Sony CD-ROM interface	CN4	Sony/IDE CD-ROM audio	CN11
Game/MIDI port	CN5	Panasonic CD-ROM audio	CN12
Speaker out	CN6	Mitsumi CD-ROM audio	CN13
Line out	CN7	Wavetable daughterboard connector	CN14

USER CONFIGURABLE SETTINGS		
Function	Label	Position
IDE CD-ROM enabled	J6	Pins 1 & 2 closed
IDE CD-ROM disabled	J6	Pins 2 & 3 closed

BASE I/O ADDRESS SELECTION				
Port	JP1/A	JP1/B	JP1/C	JP1/D
COM1: (3F8h)	Open	Closed	Open	Closed
í COM2: (2F8h)	Open	Closed	Closed	Open
COM3: (3E8h)	Closed	Open	Open	Closed
COM4: (2E8h)	Closed	Open	Closed	Open

BOCA RESEARCH, INC.
SOUND EXPRESSION 14.4VSP (SE1440)

INTERRUPT SELECTION				
IRQ	JP1/E	JP1/F	JP1/G	JP1/H
í 3	Open	Open	Open	Closed
4	Open	Open	Closed	Open
5	Open	Closed	Open	Open
7	Closed	Open	Open	Open

Proprietary AT Command Set

ACCEPT RELIABLE MODE	
Type:	Immediate
Format:	AT [cmds] \U
Example:	AT **\U**<CR>
Description:	Accepts remote modem's request for reliable link.

AUTO FALL FORWARD/FALLBACK	
Type:	Configuration
Format:	AT [cmds] %G*n* [cmds]
Example:	AT **%G1** &W0 <CR>
Description:	Selects auto fallback.

Command	Function
%G0	Fallback disabled.
í %G1	Fallback enabled.

AUTO-RELIABLE FALLBACK CHARACTER	
Type:	Configuration
Format:	AT [cmds] %A*n* [cmds]
Example:	AT **%A20**<CR>
Default:	13
Range:	0-127
Unit:	ASCII
Description:	Sets the character used as the auto-reliable fallback character. %A0 will disable this function.

AUTO-RETRAIN	
Type:	Configuration
Format:	AT [cmds] %E*n* [cmds]
Example:	AT **%E1** %Q<CR>
Description:	Selects auto-retrain mode.

Command	Function
í %E0	Auto-retrain disabled.
%E1	Auto-retrain enabled.

BOCA RESEARCH, INC.
SOUND EXPRESSION 14.4VSP (SE1440)

BREAK SEND	
Type:	Configuration
Format:	AT [cmds] \B*n* [cmds]
Example:	AT **\B3** &W<CR>
Default:	3
Range:	1-9
Unit:	.1 second
Description:	Sends break to modem.

BREAK TYPE				
Type:	Configuration			
Format:	AT [cmds] \K*n* [cmds]			
Example:	AT **\K1** <CR>			
Description:	Configures action of break signal.			
Command	**Break from DTE Reliable/Normal mode**	**Break from DTE Direct mode**	**Modem receives \B**	**Break from remote modem**
\K0	Enter command mode, do not send break to remote modem.	Send break to remote modem immediately, then enter command mode.	Buffers cleared and break sent to remote modem.	Buffers cleared and break sent to DTE.
\K1	Buffers cleared and break sent to remote modem.	Send break to remote modem immediately.	Buffers cleared and break sent to remote modem.	Buffers cleared and break sent to DTE.
\K2	Enter command mode, do not send break to remote modem.	Send break to remote modem immediately, then enter command mode.	Send break to remote modem immediately.	Send break to DTE immediately.
\K3	Send break to remote modem immediately.	Send break to remote modem immediately.	Send break to remote modem immediately.	Send break to DTE immediately.
\K4	Enter command mode, do not send break to remote modem.	Send break to remote modem immediately, then enter command mode.	Send break to remote modem with transmitted data.	Break sent with received data to the DTE.
í \K5	Send break with transmitted data.	Send break to remote modem immediately.	Send break to remote modem with transmitted data.	Break sent with received data to the DTE.

BOCA RESEARCH, INC.
SOUND EXPRESSION 14.4VSP (SE1440)

CALLING TONE	
Type:	Configuration
Format:	AT [cmds] -C*n* [cmds]
Example:	AT **-C0** &W<CR>
Description:	Controls whether the DTE will allow the modem to send a 1300Hz calling tone when originating.

Command	Function
í -C0	Disable calling tone.
-C1	Enable calling tone.

CONNECT MODE	
Type:	Configuration
Format:	AT [cmds] \N*n* [cmds]
Example:	AT **\N1** DT555-1212<CR>
Description:	Sets connect mode.

Command	Function
\N0	Normal mode enabled.
\N1	Direct mode enabled
\N2	Reliable mode enabled.
í \N3	V.42 auto-reliable mode enabled.
\N4	LAPM mode enabled.

CONVERT TO RELIABLE MODE	
Type:	Immediate
Format:	AT [cmds] \Y
Example:	AT **\Y**<CR>
Description:	Initiates reliable mode link.

FLOW CONTROL	
Type:	Configuration
Format:	AT [cmds] \G*n* [cmds]
Example:	AT **\G1** &K3<CR>
Description:	Selects modem port flow control.

Command	Function
í \G0	Flow control disabled.
\G1	Flow control enabled.

BOCA RESEARCH, INC.
SOUND EXPRESSION 14.4VSP (SE1440)

FLOW CONTROL TYPE	
Type:	Configuration
Format:	AT [cmds] \Q*n* [cmds]
Example:	AT **\Q0** \K3<CR>
Description:	Sets type of flow control used by modem.

Command	Function
\Q0	Flow control disabled.
\Q1	XON/XOFF flow control enabled.
\Q2	CTS flow control to DTE enabled.
í \Q3	RTS/CTS flow control enabled.

INACTIVITY TIMER	
Type:	Configuration
Format:	AT [cmds] \T*n* [cmds]
Example:	AT\T20<CR>
Default:	0
Range:	0-90
Unit:	1 minutes
Description:	Sets the length of time that the modem does not receive information before it disconnects.

INACTIVITY TIMER	
Type:	Register
Format:	AT [cmds] S90=*n* [cmds]
Example:	AT**S90=20**<CR>
Default:	0
Range:	0-255
Unit:	1 minute
Description:	Sets the length of time that the modem does not receive information before it disconnects. S90=0 will disable.

LOCK SERIAL PORT	
Type:	Configuration
Format:	AT [cmds] \J*n* [cmds]
Example:	AT %B1 **\J0**<CR>
Description:	Sets operation of serial port speed.

Command	Function
í \J0	Serial speed locked.
\J1	Serial speed follows connect speed.

BOCA RESEARCH, INC.
SOUND EXPRESSION 14.4VSP (SE1440)

MAXIMUM BLOCK SIZE FOR TRANSMISSION	
Type:	Configuration
Format:	AT [cmds] \A*n* [cmds]
Example:	AT **\A3** %E1<CR>
Description:	Sets the maximum transmittable block size.

Command	Function
\A0	MNP block size is 64 characters.
\A1	MNP block size is 128 characters.
\A2	MNP block size is 192 characters.
í \A3	MNP block size is 256 characters.

ON-LINE IN RELIABLE MODE	
Type:	Immediate
Format:	AT [cmds] \O
Example:	AT **\O** <CR>
Description:	Returns to on-line and requests reliable mode connection.

REPORT SIGNAL QUALITY	
Type:	Immediate
Format:	AT [cmds] %Q [cmds]
Example:	AT **%Q**<CR>
Description:	Reports signal quality. If the value is greater than 7, the modem will retrain when %E1 is set.

RESULT CODE FORMAT	
Type:	Configuration
Format:	AT [cmds] \V*n* [cmds]
Example:	AT **\V0** Q0<CR>
Description:	Selects result codes from ATV command, MNP or V.42.

Command	Function
\V0	ATV command defined result codes enabled.
í \V1	Modified MNP result codes enabled.
\V2	Extended V.42 result codes enabled.

SWITCH TO MNP MODE	
Type:	Immediate
Format:	AT [cmds] \Z
Example:	AT **\Z** <CR>
Description:	Switches to normal mode from MNP mode.

BOCA RESEARCH, INC.
SOUND EXPRESSION 14.4VSP (SE1440)

XON/XOFF PASS-THROUGH	
Type:	Configuration
Format:	AT [cmds] \X*n* [cmds]
Example:	AT **\X0** \U<CR>
Description:	Selects whether XON/XOFF signals are sent to remote modem.

Command	Function
í \X0	XON/XOFF signals trapped by local modem.
\X1	XON/XOFF passed through local modem.