BEST DATA PRODUCTS, INC.
1442F INTERNAL FAX/DATA MODEM

Card Type	Fax, Modem (synchronous/asynchronous)
Chip Set	Unidentified
Maximum Data Rate	14.4Kbps
Maximum Fax Rate	14.4Kbps
Data Bus	8-bit ISA
Fax Class	Class I & II
Data Modulation Protocol	Bell 103/212A
	ITU-T V.21, V.22, V.22bis, V.23, 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

V2327

MISCELLANEOUS TECHNICAL NOTES

Diagram not available

SERIAL PORT ADDRESS

Setting	SW1/5	SW1/6
COM1 (3F8h)	On	On
í COM2 (2F8h)	On	Off
COM3 (3E8h)	Off	On
COM4 (2E8h)	Off	Off

INTERRUPT SELECTION

Setting	SW1/1	SW1/2	SW1/3	SW1/4
í 3	On	Off	Off	Off
4	Off	On	Off	Off
5	Off	Off	On	Off
7	Off	Off	Off	On

SUPPORTED COMMAND SET

Basic AT Commands

AT, '+++', 'Comma', A/

A, B, C, D, E, F, , H, L, M, N, O, P, Q, S, T, V, W, X, Y, Z

&C, &D, &F, &G, &J, &K, &L, &M, &P, &Q, &R, &S, &T, &V, &W, &X, &Y, &Z

Extended AT Commands

\A, \B, \G, \L, \O, \T, \U, \Y, \Z, %E, %L, %Q

S Registers

S0, S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S16, S18, S22, S25, S26, S36, S38, S46

S48, S82, S86, S91, S95

Note: See MHI Help file for full command documentation.

Proprietary AT Command Set

BIT-MAPPED REGISTER S14		
Format:	AT [cmds] S14=*n* [cmds]	
Default:	170	
Range:	0-255	
Unit:	Bit-mapped	
Description:	Controls local echo, command echo, result codes and display, dial mode, and answer/originate mode.	
Bit	Value	Function
0	í 0	Disable local echo
	1	Enable local echo
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	Smart mode enabled
	1	Dumb mode enabled
5	0	Tone dial enabled
	í 1	Pulse dial enabled
6	í 0	Result codes enabled
	1	Result codes enabled when originating
7	0	Answer mode enabled
	í 1	Originate mode enabled

BEST DATA PRODUCTS, INC.
1442F INTERNAL FAX/DATA MODEM

BIT-MAPPED REGISTER S21		
Format	AT [cmds] S21=*n* [cmds]	
Default:	0	
Range:	0-255	
Unit:	Bit-mapped	
Description:	Selects jack type, setting profile, 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	Default profile
	1	User-defined profile
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

BEST DATA PRODUCTS, INC.
1442F INTERNAL FAX/DATA MODEM

BIT-MAPPED REGISTER S23		
Format	AT [cmds] S23=*n* [cmds]	
Default:	7	
Range:	0-191	
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 - 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
	110	Sets serial port speed to 19200bps
	111	Sets serial port speed to 38400bps
5, 4	í 00	Parity even
	01	Space Parity
	10	Parity odd
	11	Mark or No Parity
7, 6	í 00	Guard tone disabled
	01	Guard tone 550Hz enabled
	10	Guard tone 1800Hz enabled

BIT-MAPPED REGISTER S27		
Format	AT [cmds] S27=*n* [cmds]	
Default:	64	
Range:	0-127	
Unit:	Bit-mapped	
Description:	Selects synchronous/asynchronous mode, line type, clock source, and ITU-T/Bell modes.	
Bit	**Value**	**Function**
3, 1, 0	í 000	Asynchronous mode, serial port speed follows connect speed
	001	Asynchronous off-line command mode and synchronous connect mode
	010	Asynchronous off-line command mode; modem autodials first number in directory, then synchronous connect mode
	011	Asynchronous off-line command mode on low DTR, synchronous connect mode on high DTR
	100	Modem returns 'OK'
	101	Error correction mode
	110	Asynchronous mode during Normal connect mode
	111	Modem returns 'OK'
2	í 0	Switched line
	1	Leased line
5, 4	í 00	Local modem generates transmit clock source
	01	Local DTE generates transmit clock source
	10	Remote DCE/DTE generates transmit clock source
6	0	ITU/T mode
	í 1	Bell mode

BIT-MAPPED REGISTER S40		
Format	AT [cmds] S40=*n* [cmds]	
Default:	119	
Range:	0-255	
Unit:	Bit-mapped	
Description:	Controls connect mode, break handling, MNP block size, and flow control.	
Bit	**Value**	**Function**
1, 0	00	Normal mode enabled
	01	Direct mode enabled
	10	Reliable mode enabled
	í 11	Auto-reliable mode enabled
4, 3, 2	000	\K0
	001	\K1
	010	\K2
	011	\K3
	100	\K4
	í 101	\K5
6, 5	00	MNP block size is 64 characters
	01	MNP block size is 128 characters
	10	MNP block size is 192 characters
	í 11	MNP block size is 256 characters
7	í 0	Flow control disabled
	1	Flow control enabled

BEST DATA PRODUCTS, INC.
1442F INTERNAL FAX/DATA MODEM

BIT-MAPPED REGISTER S41		
Format	AT [cmds] S41=*n* [cmds]	
Default:	1	
Range:	0-7	
Unit:	Bit-mapped	
Description:	Selects compression, auto-retrain, and MNP mode.	
Bit	Value	Function
0	0	Data compression disabled
	í 1	Data compression enabled
1	í 0	Auto-retrain disabled
	1	Auto-retrain enabled
2	í 0	Stream mode for MNP
	1	Block mode for MNP

BREAK TYPE			
Type:	Configuration		
Format:	AT [cmds] \K*n* [cmds]		
Description:	Configures action of break signal		
Command	Break from DTE during MNP mode	Break received from remote modem	Break from DTE during Direct mode
\K0	Online command mode enabled, send no break to remote modem	Buffers cleared, break sent to DTE	Online command mode enabled, send no break to remote modem
\K1	Break sent to remote modem and buffers cleared	Buffers cleared, break sent to DTE	Break sent to remote modem and buffers cleared
\K2	Online command mode enabled, send no break to remote modem	Break sent immediately to DTE	Online command mode enabled, send no break to remote modem
\K3	Send break to remote modem immediately	Break sent immediately to DTE	Send break to remote modem immediately
\K4	Online command mode enabled, send no break to remote modem	Break sent with received data to the DTE	Online command mode enabled, send no break to remote modem
\K5	Send break with transmitted data	Break sent with received data to the DTE	Send break with transmitted data

COMPRESSION	
Type:	Configuration
Format:	AT [cmds] %C*n* [cmds]
Description:	Selects data compression
Command	Function
%C0	Data compression disabled
í %C1	Data compression enabled

BEST DATA PRODUCTS, INC.
1442F INTERNAL FAX/DATA MODEM

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	Direct mode enabled
\N2	Reliable mode enabled
í \N3	Auto-reliable mode enabled

DCE LINE SPEED	
Type:	Register
Format	AT [cmds] S37=n [cmds]
Description:	Sets the maximum allowable data exchange rate attempted during handshake process.
Command	**Function**
í S37=0	Speed of last connection
S37=1	300bps
S37=2	300bps
S37=3	300bps
S37=5	1200bps
S37=6	2400bps
S37=8	4800bps
S37=9	9600bps
S37=10	12.0Kbps
S37=11	14.4Kbps
S37=12	7200bps

ECHO CANCELLATION	
Type:	Configuration
Format:	AT [cmds] \En [cmds]
Description:	Optimize echo cancellation

REPORT INFORMATION	
Type:	Immediate
Format:	AT [cmds] In [cmds]
Description:	Displays information requested
Command	**Function**
I0	Reports product code
I1	Reports ROM checksum
I2	Tests and reports ROM checksum, as 'OK' or 'ERROR'
I3	Reports firmware manufacturer identification and checksum
I4	Reports product capabilities

BEST DATA PRODUCTS, INC.
1442F INTERNAL FAX/DATA MODEM

V.42 - CLEAR DICTIONARY	
Type:	Immediate
Format:	AT [cmds] %P [cmds]
Description:	Clears the V.42 encoder dictionary

V.42bis - COMPRESSION CONTROL	
Type:	Configuration
Format:	AT [cmds] %Mn [cmds]
Description:	Controls V.42bis data compression
Command	Function
%M0	V.42bis disabled
%M1	V.42bis when transmitting enabled
%M2	V.42bis when receiving enabled
í %M3	V.42bis when transmitting/receiving enabled

V.42bis - DICTIONARY SIZE	
Type:	Configuration
Format:	AT [cmds] %Dn [cmds]
Description:	Select V.42 dictionary size
Command	Function
%D0	Select 512 bytes
%D1	Select 1024 bytes
í %D2	Select 2048 bytes
%D3	Select 4096 bytes, one-way compression

V.42bis - MAXIMUM STRING LENGTH	
Type:	Immediate
Format:	AT [cmds] %Sn [cmds]
Default:	32
Range:	6-250
Unit:	Characters
Description:	Selects string size for V.42bis compression