

IBM CORPORATION

AT 288MW

Card Type	Fax, Modem (asynchronous)
Chip Set	Unidentified
I/O Options	Digital Simultaneous Voice Data
Maximum Data Rate	28.8Kbps
Maximum Fax Rate	Unidentified
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.32, V.32bis, V.34
Fax Modulation Protocol	Unidentified
Error Correction/Compression	MNP5, V.42, V.42bis

V1987

Proprietary AT Command Set

AUTO-RELIABLE FALLBACK CHARACTER	
Type:	Configuration
Format:	AT [cmds] %An [cmds]
Default:	0
Range:	0-127
Unit:	ASCII
Description:	Sets the character used as the auto-reliable fallback character; %A0 will disable this function.

AUTO-RETRAIN - AUTO-FALLBACK/FALL-FORWARD	
Type:	Configuration
Format:	AT [cmds] %En [cmds]
Description:	Controls auto-retrain mode and fallback/fall-forward
Command	Function
%E0	Auto-retrain disabled
%E1	Auto-retrain enabled
%E2	Auto-retrain and auto-fallback/fall-forward enabled

BREAK SEND	
Type:	Configuration
Format:	AT [cmds] \B [cmds]
Description:	Sends break to modem

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BREAK TYPE		
Type:	Configuration	
Format:	AT [cmds] \Kn [cmds]	
Description:	Configures action of break signal	
Command	Break from DTE	Break received from remote modem
\K0	Online command mode enabled, send no break to remote modem	Break sent immediately to DTE
\K1	Break sent to remote modem and buffered cleared	Buffers cleared, break sent to DTE
\K2	Send break to remote modem immediately	Break sent immediately to DTE
\K3	Send break to remote modem immediately	Break sent immediately to DTE

CALLING TONE		
Type:	Register	
Format:	AT [cmds] S24= <i>n</i> [cmds]	
Description:	Controls whether the DTE will allow the modem to send a 1300Hz calling tone when originating	
Command	Function	
S24=0	Disable calling tone	
S24=1	Enable calling tone	

COMPRESSION		
Type:	Configuration	
Format:	AT [cmds] %C <i>n</i> [cmds]	
Description:	Selects data compression	
Command	Function	
%C0	Data compression disabled	
%C1	MNP5 enabled	

CONNECT MODE		
Type:	Configuration	
Format:	AT [cmds] \N <i>n</i> [cmds]	
Description:	Controls the type of connection the modem will operate in	
Command	Function	
\N0	Normal mode enabled	
\N1	Direct mode enabled	
\N2	MNP reliable mode enabled	
\N3	MNP auto-reliable mode enabled	
\N4	V.42 reliable mode enabled	
\N5	V.42 auto-reliable mode enabled	
\N6	Reliable mode enabled	
\N7	Auto-reliable mode enabled	

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DCE LINE SPEED	
Type:	Register
Format	AT [cmds] S28= <i>n</i> [cmds]
Description:	Sets the maximum allowable data exchange rate attempted during handshake process.
Command	Function
i S28=0	Speed of last connection
S28=6	300bps
S28=8	1200bps
S28=9	2400bps
S28=10	4800bps using V.32bis
S28=11	7200bps using V.32bis
S28=12	9600bps using V.32bis
S28=13	12.0Kbps using V.32bis
S28=14	14.4Kbps
S28=15	16.8Kbps
S28=16	19.2Kbps
S28=17	21.6 Kbps
S28=18	24 Kbps
S28=19	26.4 Kbps
S28=20	28.8Kbps

DIAL	
Type:	Immediate
Format:	AT [cmds] D<#> [cmds]
Example:	ATDT18005551212,,251
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
L	Re-dial last number
P	Pulse dialing enabled
R	Answer mode enabled. Originate mode disabled following handshake initiation.
S= <i>n</i>	Dial stored telephone number <i>n</i>
T	Tone dialing enabled
W	Dialing resumed following 2 ND dial tone
,	Dialing paused for amount of time specified in S8 register
!	Flash function initiated. Modem commanded to go off-hook for specified time before returning on-hook.
@	Quiet 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.
;	Modem returned to command state after dialing. The semicolon can only be placed at the end of the dial command.

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DSVD	
Type:	Configuration
Format:	AT [cmds] -Sxxx [cmds]
Description:	Controls Data Simultaneous Voice Data mode
Command	Function
-SSE0	Disable DSVD mode
-SSE1	Enable DSVD mode

EXTENDED RESULT CODES	
Type:	Configuration
Format:	AT [cmds] \Vn [cmds]
Description:	Selects extended result codes (MNP)
Command	Function
\V0	Extended result codes (MNP) disabled
\V1	Extended result codes (MNP) 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
\Q3	Bi-directional RTS/CTS flow control enabled

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

MAXIMUM BLOCK SIZE FOR TRANSMISSION	
Type:	Configuration
Format:	AT [cmds] \An [cmds]
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
\A3	MNP block size is 256 characters

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MNP - STREAM/BLOCK MODE	
Type:	Configuration
Format:	AT [cmds] \Ln [cmds]
Description:	Selects the transfer mode for MNP link
Command	Function
\L0	Stream mode for MNP enabled
\L1	Block mode for MNP enabled

PAUSE	
Type:	Immediate
Format:	AT [cmds] ,(comma) [cmds]
Description:	Pause for amount of time specified in S8 register. Can be used in dial string or the command string.

REPORT INFORMATION	
Type:	Immediate
Format:	AT [cmds] In [cmds]
Description:	Displays information requested
Command	Function
I1	Reports OK
I2	Reports OK
I3	Reports modem ID
I4	Reports product name

STATUS-REGISTER	
Type:	Configuration
Format:	Read: AT [cmds] Sn? [cmds] Write: AT [cmds] Sn=x [cmds]
Description:	Writes to or reads from a specified register
Note:	See the section on S-registers for detailed listing of commonly used S-registers.

V.34 - BAUD RATE	
Type:	Register
Format:	AT [cmds] S31=n [cmds]
Description:	Controls baud rate used by V.43 data pump
Command	Function
i S31=0	2400 baud rate disabled
S31=1	2743 baud rate disabled
S31=2	2800 baud rate disabled
S31=3	3000 baud rate disabled
S31=4	3200 baud rate disabled
S31=5	3429 baud rate disabled
S31=6	Asymmetric symbol rate disabled

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V.34 - DATA PUMP OPTIONS	
Type:	Register
Format:	AT [cmds] S33= <i>n</i> [cmds]
Description:	Select V.34 data pump options
Command	Function
S33=0	Asymmetric rate for V.34 disabled
S33=1	Auxiliary channel for V.34 disabled
S33=8	Power reduction disabled
S33=9	Pre-emphasis disabled
S33=10	Constellation warping disabled
S33=11	Constellation shaping disabled
S33=12	Precoding disabled

V.34 - OPTIONS	
Type:	Register
Format:	AT [cmds] S30= <i>n</i> [cmds]
Description:	Disables V.43 data pump at speeds higher than 14.4Kbps and enables V.32bis modem.
Command	Function
i S30=0	Call indicator disabled
S30=1	V.8 disabled
S30=2	V.34 disabled

V.34 - SIGNAL PROCESSING OPTIONS	
Type:	Register
Format:	AT [cmds] S34= <i>n</i> [cmds]
Description:	Controls signal processing for V.34 data pump
Command	Function
i S34=0	Request for power reduction disabled
S34=1	Request for pre-emphasis disabled
S34=2	Request for constellation warping disabled
S34=3	Request for constellation shaping disabled
S34=4	Request for precoding disabled

V.42bis - COMPRESSION CONTROL	
Type:	Configuration
Format:	AT [cmds] "H <i>n</i> [cmds]
Description:	Controls V.42bis data compression
Command	Function
"H0	V.42bis disabled
"H1	V.42bis when transmitting enabled
"H2	V.42bis when receiving enabled
"H3	V.42bis when transmitting/receiving enabled

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V.42bis - DICTIONARY SIZE	
Type:	Configuration
Format:	AT [cmds] "Nn [cmds]
Description:	Select V.42 dictionary size
Command	Function
"N0	Select 512 bytes
"N1	Select 1024 bytes
"N2	Select 2048 bytes

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