

# UDS V.3225 QUICK REFERENCE CARD

## COMMANDS

COMMAND	DESCRIPTION
AT	Attention code - command prefix
A/	Repeat last command
+ + +	Escape sequence (pause + + + pause)
A	Manual answer
D	Dial
T	Tone dial *
P	Pulse dial
.	Long pause (S8 value)
W	Wait for 2nd dial tone (S6 value)
!	Flash the exchange (500 ms)
R	Switch to answer mode after dialing
@	Wait for 5 sec silence
.	Return to command mode after dialing
S	Dial number stored at Location 1
Sn	Dial number stored at Location n
E	Local character echo off
E1	Local character echo on *
H	Hang up
I	Modem product code
I1	EPROM CRC value
I3	Product Version
L	Low volume
L1	Low volume
L2	Medium volume *
L3	High volume
M	Speaker always off
M1	Speaker on until carrier present *
M2	Speaker always on
M3	Speaker off when dialing and carrier is present
O	Restore data mode (after escape)
O	Status displays on *
O1	Status displays off
O2	Status displays on in originate mode only
Sn?	Read register n (DEC)
Sn?*	Read value in register n (HEX)
Sn=v	Set reg. n to v (DEC)
Sn=v*	Set reg. n to v (HEX)
Sn.bit#	# = 1 or 0 Set single bit value in register
V	Response codes
V1	Response messages *
X	Connect (code 1), for all speeds
X1	Appropriate connect codes for rate, no dial tone detection
X2	Wait for dial tone (appropriate connect codes)
X3	Detect busy signal (appropriate connect codes)
X4	Wait for dial tone, detect busy signal (appropriate connect codes) *
Y	Long space disconnect disabled
Y1	Long space disconnect enabled *
Z	Reset to stored configuration
&C	DCD always on *
&C1	DCD on while carrier present
&C2	DCD off 5 secs after disconnect
&C3	OCD follows remote RTS
&D	DTR ignored *
&D1	On a DTR drop - return to command mode without disconnecting
&D2	On a DTR drop - disconnect and return to command mode, disable autoanswer until DTR true
&D3	DTR disconnects and resets modem to stored configuration
&F	Restore to factory configuration 1 *
&F1	Restore to factory configuration 1 *
&F2	Restore to factory configuration 2 *
&F3	Restore to factory configuration 3 *
&F4	Restore to factory configuration 4 *
&G	No guard tone *
&G1	550 Hz guard tone
&G2	1800 Hz guard tone
&L	Dial line *
&L1	Leased line 2-wire
&L2	Leased line 4-wire
&M	Asynchronous dial/async data *
&M1	Async dial/sync data
&M2	Autodial(DTR)/sync data
&M3	Manual dial/sync data
&P	39/61 pulse make/break ratio *
&P1	33/67 pulse make/break ratio
&R	CTS follows RTS
&R1	CTS always on *
&R2	CTS follows DCD
&R9	CTS equals RTS
&S	DSR always on *
&S1	DSR normal operation
&S2	DSR off for 5 secs after disconnect
&T	Terminate current test
&T1	Analog loopback
&T2	Remote analog loopback
&T3	Digital loopback
&T4	Grant remote RDL request *
&T5	Deny remote RDL request
&T6	Remote digital loop
&T7	Self test RDL
&T8	Self test analog loop
&T9	Self test remote analog loop test
&V	View configuration profiles
&V1	Display receive signal status
&W	Store current configuration
&X	Sync clock - Internal *
&X1	Sync clock - External
&X2	Sync clock - Receive
&Zn	Store dial string
%A	Disable auto reliable fallback character
%An	Set auto-reliable fallback character to n (n ≠ ASCII 1-127)
%B	Use DTE speed
%B1	DCE speed = 300 bps

\* factory default

\* factory default

%B2	DCE speed = 1200 bps	!T	Disable inactivity timer *
%B3	DCE speed = 2400 bps	!Tn	Set inactivity to n (n = 1-255 minutes)
%B4	DCE speed = 4800 bps	!U	Accept an MNP link
%B5	DCE speed = 9600 bps	!V	Disable protocol result codes *
%B6	DCE speed = 9600 bps trellis coded	!V1	Enable protocol result codes
%C	Data compression disabled	!X	No XON/OFF characters to remote DCE *
!C1	Data compression enabled *	!X1	Pass XON/OFF characters to remote DCE
%D	Disable disconnect buffer delay *	!Y	Switch to MNP from normal mode
%Dn	Set disconnect buffer delay in seconds n	!Z	Switch to normal from MNP mode
%E	Auto-retrain disabled	*!AN	Disable bilateral analog loop *
%E1	Auto-retrain enabled *	*!AN1	Enable bilateral analog loop
%P =	Set remote configuration security code	*!AUn	Dial stored number n for any autodial condition
%P = 0	Disable R/C access	*!CNx,n	Store number n in location x
%P?	Display security code of local modem	*!DA	Switch to talk
%T =	Followed by a security code, establishes remote configuration	*!DA1	Switch to data
%T	Transmit self test	*!DB	Manual dial backup *
%V	Display product revision level	*!DB1	Automatic dial backup
!V	Display product serial number	*!DG	Disable bilateral digital loop *
%Z	Permissive *	*!DG1	Enables bilateral digital loop
%Z1	Programmable	*!FB	Ignore pin 23 *
!A	Maximum transmit block size of 64 characters	*!FB1	Pin 23 DTE speed fallback
!A1	Maximum transmit block size of 128 characters	*!FT	Disable fast train *
!A2	Maximum transmit block size of 192 characters	*!FT1	Enable fast train
!A3	Maximum transmit block size of 256 characters *	*!LA	Ignore pin 18 *
!B	Transmit break signal	*!LA1	DTE LAL enabled
!Bn	Break length in 20ms increments, n = 1-255, default 35 (700ms)	*!LC	Line current disconnect disabled
!C	Disable auto reliable buffer *	*!LC1	8ms LCD
!C1	Buffer data for 4 secs or 200 characters	*!LC2	90ms LCD *
!G	Disable modem port flow control *	*!ND	Display stored numbers
!G1	Enable modem port XON/XOFF flow control	*!NT	AT command set disabled
!J	Disable slaved DTE/DCE speed * (constant speed DTE on)	*!OR	Originate *
!J1	Enable slaved DTE/DCE speed (constant speed DTE off)	*!OR1	Forced answer
!Kn	Determines action taken when a break is encountered	*!RC	15-4800 bps, 18-9600 bps *
!K	MNP break option 0	*!RC	11-4800 bps, 12-9600 bps
!K1	MNP break option 1	*!RD	Ignore pin 21*
!K2	MNP break option 2	*!RD1	DTE RDL enabled
!K3	MNP break option 3	*!TLn	Set leased line TX level to n
!K4	MNP break option 4	!SS = x	Sets an empty password location to x
!K5	MNP break option 5 *	!SC = x,y	Changes either password where x represents the old password and y is the new one
!N	Normal mode	!SC = x,	Deletes password x from memory
!N1	Direct mode	!SE = x	Enables security where x is either password
!N2	Reliable mode	!SE?	Displays the current status of security
!N3	Auto reliable mode *	!SD = x	Disables security where x is either password
!O	Originate a MNP link	!SD?	Displays the current status of security
!O	Disable DTE flow control		
!O1	Enable DTE XON/XOFF flow control *		
!O2	Enable DTE CTS flow control		
!O3	Enable bilateral CTS/RTS flow control		
!R	!R blinks for ring and remains on for duration of call		
!R1	!R blinks for ring and turns off when call is answered *		

\* factory default

V.3225

5000 Bradford Drive  
 Huntsville, Alabama 35805-1993  
 Telephone (205) 430-8000  
 P/N 1198 January 1992

\* factory default

# S-REGISTERS FUNCTIONS

# RESPONSE MESSAGES

REGISTER	DEFAULT
S0	Ring to answer 1
S1	Ring count 0
S2	Escape sequence char. 43 (" + ")
S3	End-of-line character 13 (CR)
S4	Line feed character 10 (LF)
S5	Backspace character 8 (BS)
S6	Pause before dialing 2 (2 sec)
S7	Pause for carrier 30 (30 sec)
S8	Pause for comma 2 (2 sec)
S9	Carrier validation 6 (0.6 sec)
S10	Loss-of-carrier disconnect delay 14 (1.4 sec)
S11	DTMF tone length 30 (80 ms)
S12	Escape seq pause 50 (1 sec)
S14	Bit mapped 8A hex
S16	System tests 0
S18	Test timer 0 sec
S21	Bit mapped 84 hex
S22	Bit mapped 46 hex
S23	Bit mapped 01 hex
S25	DTR detect delay 5 (.05 sec)
S26	RTS-to-CTS delay 0
S27	Bit mapped 00 hex
S28	Lookback Timer 15 min
S29	Bit mapped 00 hex
S32	Bit mapped 06 hex
S34	Bit mapped 00
S52	Bit mapped 00
S53	801 V.32 timeout 0 (long)
S54	Flow control DTE 1
S57	Number code application 0
S58	Disable MNP inactivity timer 0
S59	MNP break control 5
S60	Bit mapped 43 hex
S61	DTE speed 1E hex
S62	Disconnect buffer delay 0
S63	Maximum MNP block size 255
S64	Auto-reliable fallback character 0
S67	Link speed status 5
S69	Independent DCE/DTE speed 6
S70	Operating mode 3
S71	Operating mode status 5
S72	Bit mapped 00
S78	Autocallback timer 30
S79	Break length 35
S84	Single key call abort 0

DIGIT	WORD	MEANINGS
0	OK	Command received
1	CONNECT	Connection made at 300 while X1, X2, X3, or X4 command in effect. All DTE rates while X command in effect.
2	RING	Incoming ring detected.
3	NO CARRIER	Valid carrier not detected within period specified by register S7 or carrier lost for value of S10 or more
4	ERROR	Command not recognized or too long (more than 40 characters).
5	CONNECT 1200	Connection made at 1200.
6	NO DIAL TONE	No dial tone detected for 5 secs or (X2 or X4 in effect).
7	BUSY	Dialed number busy (X3 or X4 in effect).
10	CONNECT 2400	Connection made at 2400 bps.
11, 15	CONNECT 4800	Connection made at 4800 bps.
12, 18	CONNECT 9600	Connection made at 9600 bps
14	CONNECT 19200	Connection made at 19200 bps.
20	CONNECT 300/REL	MNP 300 bps connection.
22	CONNECT 1200/REL	MNP 1200 bps connection.
23	CONNECT 2400/REL	MNP 2400 bps connection.
24	CONNECT 4800/REL	MNP 4800 bps connection.
25	CONNECT 9600/REL	MNP 9600 bps connection.
26	CONNECT 19200/REL	MNP 19200 bps connection.

# SPECIFICATIONS SUMMARY

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**DATA FORMAT:** Serial, binary, synchronous or asynchronous; 7 or 8 data bits; 1 or 2 stop bits: odd, even, or no parity.

**DIALING CAPABILITY:** Tone and pulse.

**COMMAND BUFFER:** 40 characters.

**AUDIO MONITOR:** Speaker.

**REAR PANEL:** Two modular telephone jack connectors, power connector and RS-232 interface connector.

**OPERATION:** 2-wire full-duplex/2-wire/4-wire lease line.

**DATA RATE:** CCITT V.32 compatible 9600 or 4800 bps; CCITT V.22 bis compatible 2400 or 1200 bps; Bell 103J compatible 300 bps; (4-wire V.32 mode only).

**ERROR CONTROL PROTOCOLS:** MNP 2-5.

**INTERFACE:** EIA-232D and CCITT V.24.

**RECEIVE SENSITIVITY:** to -43 dBm.

**TRANSMIT LEVEL:** -9 dbm permissive, or programming resistor for dial-up operation; 0 to -15 dbm in 1 db increments for leased line operation.

FCC registered for direct connection to the nationwide telephone system.