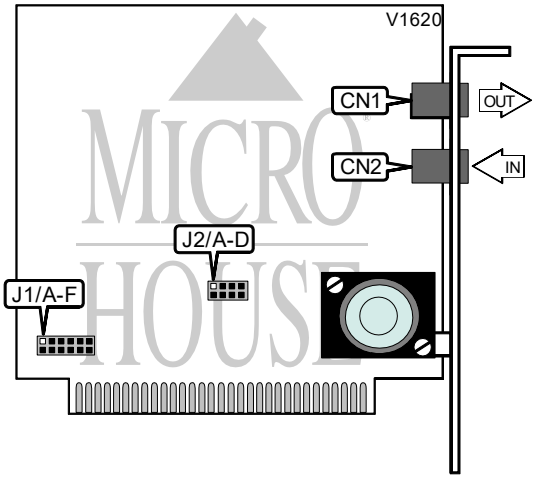
# MOTOROLA, INC.
# MODEMSURFR 28800 INTERNAL

| | |
|---|---|
| **Card Type** | Modem (asynchronous)/Fax |
| **Chip Set** | Unidentified |
| **Maximum Data Rate** | 28.8Kbps |
| **Maximum Fax Rate** | 14.4Kbps |
| **Data Bus** | 8-bit ISA |
| **Fax Class** | Class I & II |
| **Data Modulation Protocol** | Bell 103A/212A<br>ITU-T V.21, V.22, V.22bis, V.23, V.32, V.32bis, V.34 |
| **Fax Modulation Protocol** | ITU-T V.17, V.21CH2, V.27ter, V.29 |
| **Error Correction/Compression** | MNP5, V.42, V.42bis |




| CONNECTIONS | | | |
|---|---|---|---|
| **Function** | **Label** | **Function** | **Label** |
| Line out | CN1 | Line in | CN2 |

| SERIAL PORT ADDRESS | | |
|---|---|---|
| **Setting** | **J1/A** | **J1/B** |
| COM1 (3F8h) | Closed | Closed |
| COM2 (2F8h) | Closed | Open |
| í COM3 (3E8h) | Open | Closed |
| COM4 (2E8h) | Open | Open |

| INTERRUPT | | | | |
|---|---|---|---|---|
| **Setting** | **J1/C** | **J1/D** | **J1/E** | **J1/F** |
| 2 | Closed | Open | Open | Open |
| 3 | Open | Open | Closed | Open |
| 4 | Open | Open | Open | Closed |
| í 5 | Open | Closed | Open | Open |

| PLUG AND PLAY | | | | |
|---|---|---|---|---|
| **Setting** | **J2/A** | **J2/B** | **J2/C** | **J2/D** |
| í Disabled | Closed | Closed | Open | Open |
| Enabled | Open | Open | Closed | Closed |

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# Proprietary AT Command Set

| AUTO-RELIABLE FALLBACK CHARACTER | |
|---|---|
| **Type:** | Configuration |
| **Format:** | AT [cmds] %A*n* [cmds] |
| **Default:** | Unidentified |
| **Range:** | 1-127 |
| **Unit:** | ASCII |
| **Description:** | Sets the character used as the auto-reliable fallback character |
| **Note:** %A0 Auto-reliable fallback character disabled | |

| AUTO-RELIABLE TIME BUFFER CONFIGURATION | |
|---|---|
| **Type:** | Configuration |
| **Format:** | AT [cmds] \C*n* [cmds] |
| **Description:** | Controls the handling of incoming data during auto-reliable time period |
| **Command** | **Function** |
| í \CO | Disabled auto-reliable buffer |
| \C1 | Data is buffered for 4 seconds or 200 characters |
| \C2 | Switch to normal mode and sends auto-reliable character to serial port |

| AUTO FALL FORWARD/FALLBACK | |
|---|---|
| **Type:** | Configuration |
| **Format:** | AT [cmds] %G*n* [cmds] |
| **Description:** | Selects auto fallback/fall forward |
| **Command** | **Function** |
| í %G0 | Fallback/fall forward disabled |
| %G1 | Fallback/fall forward enabled |

| AUTO FALLBACK CHARACTER | |
|---|---|
| **Type:** | Register |
| **Format:** | AT [cmds] S43=*n* [cmds] |
| **Default:** | 13 |
| **Range:** | 0-127 |
| **Unit:** | ASCII |
| **Description:** | Set auto fallback character during MNP negotiation |
| **Note:** S43=0 disabled S43=(1-127) enabled | |

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

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| CONNECT MODE | |
|---|---|
| **Type:** | Configuration |
| **Format:** | AT [cmds] \N*n* [cmds] |
| **Description:** | Sets connect mode |
| **Command** | **Function** |
| \N0 | Normal mode enabled |
| \N1 | Direct mode enabled |
| \N2 | MNP reliable mode enabled |
| í \N3 | LAPM, MNP, or normal mode enabled |
| \N4 | LAPM or MNP mode enabled |

| DISPLAY CONNECT MESSAGE | |
|---|---|
| **Type** | Register |
| **Format** | AT [cmds] S41? [cmds] |
| **Description** | Displays connect message |
| **Command** | **Function** |
| í S41=0 | CONNECT/DTE to modem speed enabled |
| S41=1 | CONNECT/carrier, protocol, and compression enabled |
| S41=2 | CONNECT/modem to modem speed enabled |

| FLOW CONTROL | |
|---|---|
| **Type:** | Configuration |
| **Format:** | AT [cmds] \G*n* [cmds] |
| **Description:** | Selects modem port flow control |
| **Command** | **Function** |
| í \G0 | Flow control disabled |
| \G1 | Flow control enabled |

| FLOW CONTROL TYPE | |
|---|---|
| **Type:** | Configuration |
| **Format:** | AT [cmds] \Q*n* [cmds] |
| **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 by DTE enabled |
| í \Q3 | CTS/RTS flow control enabled |

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

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| LOCK SERIAL PORT | |
|---|---|
| **Type:** | Configuration |
| **Format:** | AT [cmds] \J*n* [cmds] |
| **Description:** | Sets operation of serial port speed |
| **Command** | **Function** |
| í \J0 | Serial speed locked |
| \J1 | Serial speed follows connect speed |

| MAXIMUM BLOCK SIZE FOR TRANSMISSION | |
|---|---|
| **Type:** | Configuration |
| **Format:** | AT [cmds] \A*n* [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 |
| í \A3 | MNP block size is 256 characters |

| EXTENDED RESULT CODES | |
|---|---|
| **Type:** | Configuration |
| **Format:** | AT [cmds] \V*n* [cmds] |
| **Description:** | Selects extended result codes |
| **Command** | **Function** |
| í \V0 | Extended result codes disabled |
| \V1 | Extended result codes enabled |

| V.32 RETRAIN | |
|---|---|
| **Type:** | Register |
| **Format:** | AT [cmds] S42=*n* [cmds] |
| **Description:** | Selects action the modem will take during bad line quality on V.32/32bis connection |
| **Command** | **Function** |
| S42=0 | Auto-retrain disabled, hang up |
| í S42=1 | Auto-retrain on line quality problem enabled |
| S42=2 | Modem ignores line quality problems |
| S42=3 | Unidentified |

| V.42 DETECTION PHASE | |
|---|---|
| **Type:** | Configuration |
| **Format:** | AT [cmds] -J*n* [cmds] |
| **Description:** | Controls V.42 detection |
| **Command** | **Function** |
| -J0 | V.42 detection disabled |
| í -J1 | V.42 detection enabled |

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| V.42bis COMPRESSION CONTROL | |
|---|---|
| **Type:** | Configuration |
| **Format:** | AT [cmds] “H*n* [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 |
| í “H3 | V.42bis when transmitting/receiving enabled |

| XON/XOFF PASS-THROUGH | |
|---|---|
| **Type:** | Configuration |
| **Format:** | AT [cmds] \X*n* [cmds] |
| **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 |