TD-32 B







Transient Protection

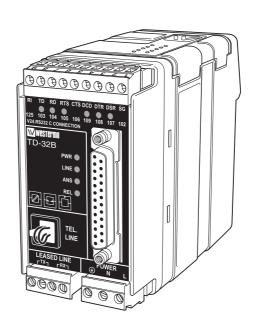


Balanced Transmission



CE Approved

# (F)



This appendix describes how to set V.34 modulation on the TD-32 B



### General

In order to make the settings below, the modem must be connected to a terminal program.

It is important that the dipswitch setting of switch 5 is set to "Use saved parameters" (all switches on block 5 set to OFF).

# **Command settings**

Use the AT-command "AT+MS" to control the modulation technique on the line. This command selects the modulation and optionally, enables or disables automode and specifies the lowest and highest receiving and/or transmitting rates. The format of the command is:

```
AT+MS=<carrier>,<automode>,<min_tx_rate>,<max_tx_rate>,<min_rx_rate>,<max_rx_rate>,<min_rx_rate>,<max_tx_rate>,<min_rx_rate>,<max_rx_rate>,<min_rx_rate>,<max_rx_rate>,<min_rx_rate>,<max_rx_rate>,<min_rx_rate>,<max_rx_rate>,<min_rx_rate>,<max_rx_rate>,<max_rx_rate>,<min_rx_rate>,<max_rx_rate>,<min_rx_rate>,<max_rate>,<min_rx_rate>,<max_rate>,<min_rx_rate>,<max_rate>,<min_rx_rate>,<max_rate>,<min_rx_rate>,<max_rate>,<max_rate>,<min_rx_rate>,<max_rate>,<min_rx_rate>,<max_rate>,<min_rx_rate>,<max_rate>,<min_rx_rate>,<max_rate>,<min_rx_rate>,<max_rate>,<min_rx_rate>,<max_rate>,<min_rx_rate>,<max_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,<min_rx_rate>,
```

All sub-parameters after <carrier> are optional. Which means that a command string with only carrier is valid. If no max and min rates are specified, the default values are set.

## Reporting supported options.

The modem can send a string of information to the DTE consisting of supported options using the following command:

AT+MS=?

### For listing current configuration:

AT+MS7

The settings made with this command can be saved with the AT&W command. If the settings not are saved, they will be lost after a power OFF or after a software reset (ATZ).

**NOTE** The default line modulation is V.32bis (14 400 bit/s) which means that if the factory default command (AT&F) is send to the modem, the line modulation will be reset to V32bis.

# Dial-up connections example:

To set V34 modulation at 33600 bit/s with automode set initiate the modem with the following command(s):

AT+MS=V34,I ; sets modulation to V.34

AT&W0 ; save settings

All functionality on the dipswitches can be optionally set except switch 5 which must be set to "Use saved settings" (all set to OFF).

# **Least Line connections example:**

To set V34 modulation at 28 800 bit/s with automode enabled, initiate the modem with the following command(s):

AT+MS=V34,1,2 400,28 800,2 400,28 800 ; sets modulation to V.34 max to 28 800

and min to 2 400

AT&W0 ; save settings

Power off the modem and set the dipswitches to Least Line operation.

All functionality on the dipswitches can be optionally set except switch 5 which must be set to "Use saved settings" (all set to OFF).



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