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## 6.2 V.22 bis Answering Modem Application

This section describes how the CMX868A can be used in a V.22 bis Answering modem application, employing V.25 automatic answering and the V.22 bis recommended handshake sequence. A 1200 or 2400 bps connection will be established depending on the signals received from the calling modem.

1. It is assumed that the CMX868A will be in Powersave mode, with the Ring Detector circuits monitoring the line.
2. When a ring signal is detected connect the line (go off hook), set a 2150ms timer and power up the CMX868A, setting the Tx Mode Register to DTMF/Tones mode (set for 'no tone' at this time) and the Rx Mode Register to V.22 1200bps Low Band receive, descrambler enabled, Rx USART disabled.
3. When the 2150ms timer expires set the Tx Mode Register to transmit the 2100Hz answer tone and set a 3300ms timer.
4. When the 3300ms timer expires set the Tx Mode Register to no tone and set a 75ms timer.
5. When the 75ms timer expires set the Tx Mode Register for V.22 High Band 1200bps transmission of unscrambled 1s. Monitor the received signal for the S1 signal or scrambled 1s.
6. If scrambled 1s are detected for 270ms go to step 15.
7. If the S1 signal is received wait for it to end then set the Tx Mode Register for V.22 High Band 1200bps transmission of the S1 signal and set a 100ms timer.
8. When the 100ms timer expires set the Tx Mode Register for V.22 High Band 1200bps transmission of scrambled 1s and set a 350ms timer.
9. When the 350ms timer expires set the Rx Mode Register for V.22 bis Low Band 2400bps receive (this will begin 16-way decisions) with the auto-equaliser and descrambler enabled and the Rx USART disabled, set a 150ms timer and start to monitor for Rx scrambled 1s.
10. When the 150ms timer expires set the Tx Mode Register for V.22 bis High Band 2400bps transmission of scrambled 1s and set a 200ms timer.
11. Load the Tx Data Buffer with the first data to be transmitted.
12. Once 32 consecutive bits of received scrambled 1s at 2400bps have been detected, enable the Rx USART.
13. When the 200ms timer expires set the Tx Mode Register for Start-Stop or Synchronous transmission of data from the Tx Data Buffer. This will start transmission of the data loaded in step 11.
14. A 2400bps data connection has now been established.
15. If scrambled 1s had been detected for 270ms in step 6, set the Tx Mode Register to V.22 High Band 1200bps scrambled 1s transmission and set a 765ms timer and enable the Rx USART.
16. Load the Tx Data Buffer with the first data to be transmitted.























