

MC33696MODxxx Kit

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1 Overview

This document provides introductory information for using MC3359x tools with HyperTerminal software. Windows software is also available to ease use. Please refer to related documentation for more information.

MC33696MODxxx operation requires:

- An MC33696xxx RF module with attached printed antenna
- A DEMO9S08RG60E MCU board
- An RS232 cable
- A PC with RS232 port, CD player, and HyperTerminal.
- A 9 V battery

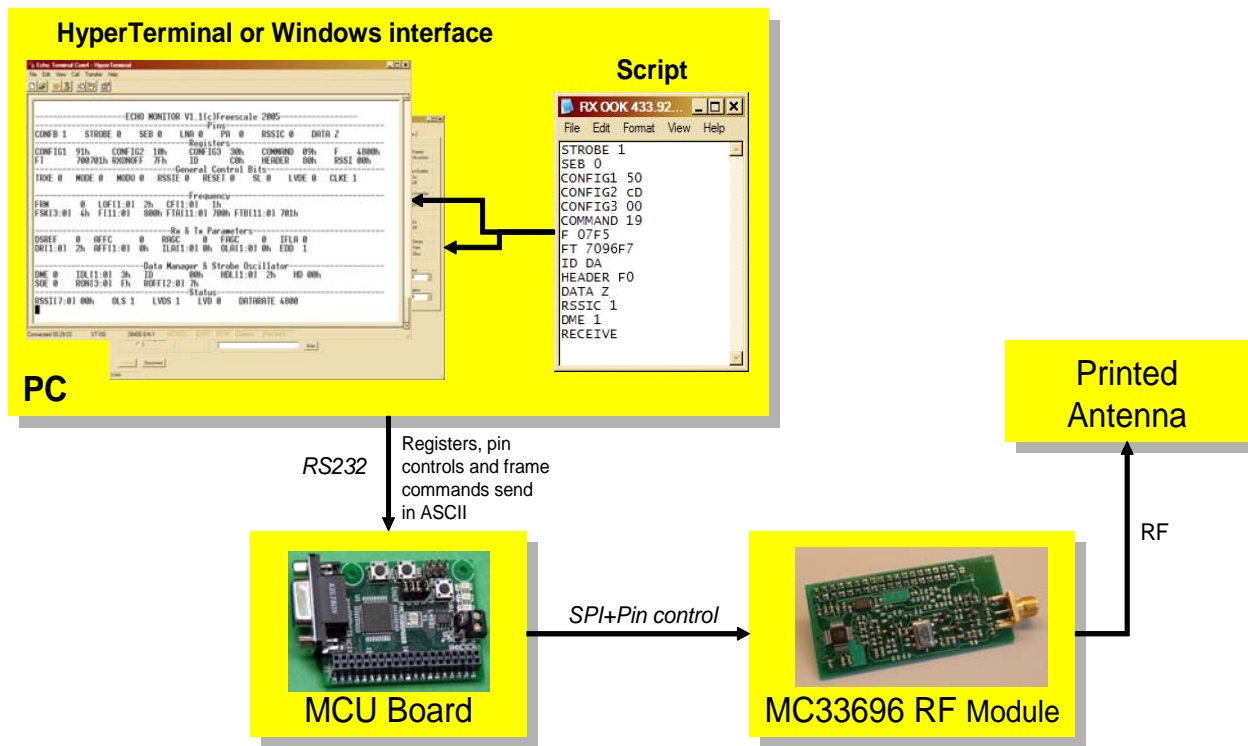


Figure 1. MC33696MODxxx Kit

MC33696 operates by sending a script via HyperTerminal to the MCU board that configures MC33696.

Available script files:

- Standby configuration
- Continuous CW transmission
- Continuous 4.8 kHz OOK transmission
- Continuous 4.8 kHz FSK transmission
- One frame transmission using ID and HD
- One frame reception using ID and HD

2 Launching the Kit

Perform these steps to launch the kit:

1. Plug the RF module on the MCU board.
2. Connect the MCU board to the PC using the RS232 cable.
3. Launch HyperTerminal using the proper xxx.ht file according to available COM port.
4. Connect the 9 V battery.

When these steps are complete, the screen on HyperTerminal displays the MC33696 registers and pin-level status (Figure 2).

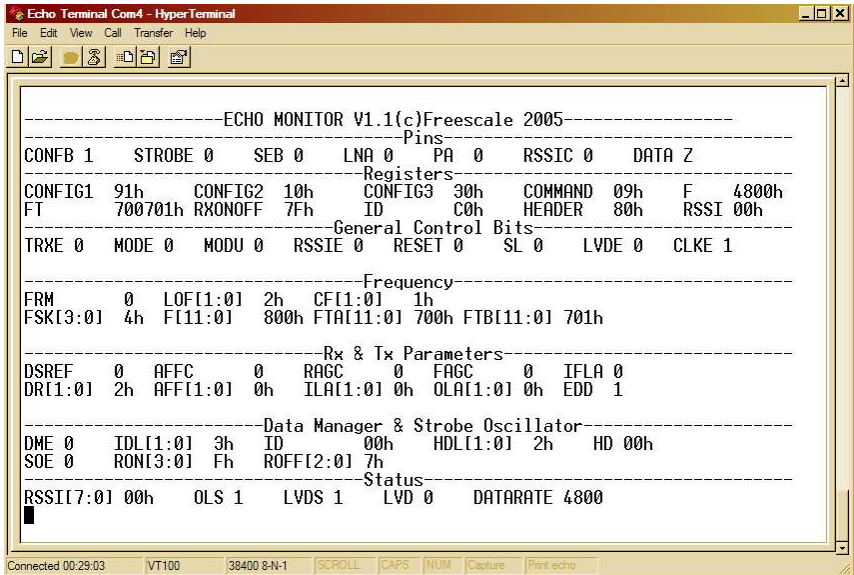


Figure 2. MC33696 Registers and Pin-Level Status

3 Sending a Script File

To configure the kit in receive mode, perform these steps:

1. With the mouse, click “Transfer/Send text file.”
2. Select the xxx.txt script file corresponding to the desired configuration. For example: “RX OOK 433.92MHz IDHD00.txt” configures the kit in receive mode at 433.92 MHz to receive any square-modulated signal at 4800 bps:
 - 433.92MHz, OOK
 - Receive with data manager
 - ID=00h, ID length=2 bits
 - HD=00h, HD length=1 bit

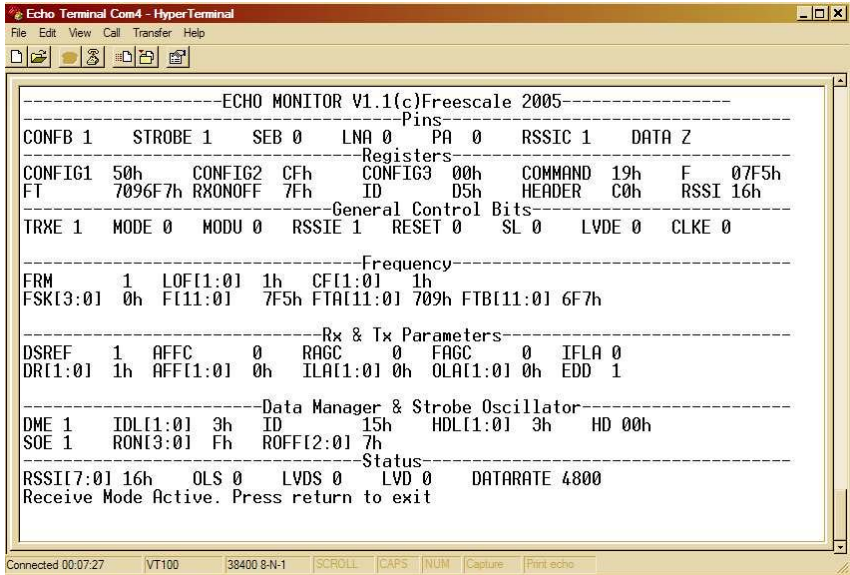


Figure 3. Receive Mode Configuration

“Receive Mode Active” indicates that the kit is waiting for data.

If an RF signal is transmitted using another kit or a properly configured RF generator (433.92 MHz, [pulse modulation at 4800 bps), the screen fills with received data (Figure 4).

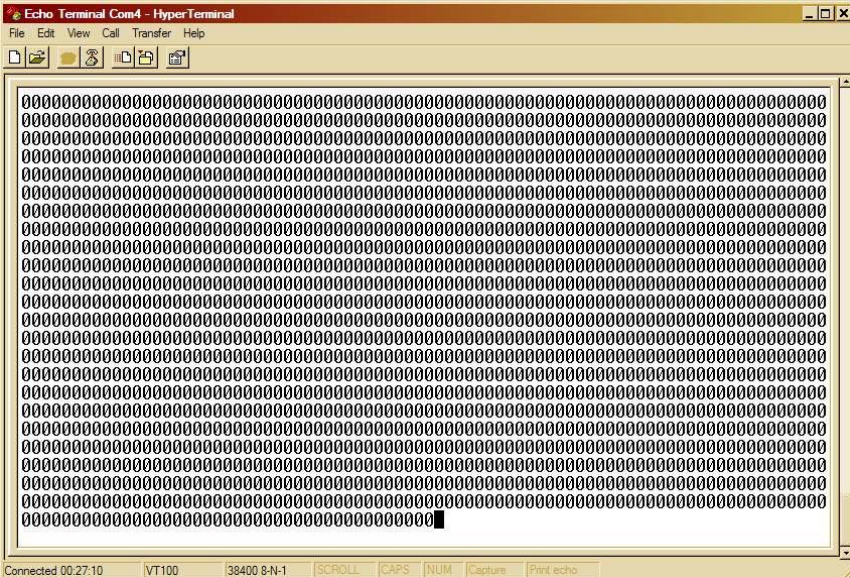


Figure 4. HyperTerminal Screen with Data

To configure the kit in transmit mode, perform these steps:

- 1. With the mouse, click “Transfer/Send text file.”
- 2. Select the xxx.txt script file corresponding to the desired configuration. For example: “TX OOK 433.92MHz Square 4800bps.txt” will configure the kit in transmit mode at 433.92 MHz to send a modulated signal at 4800 bps.

```

Echo Terminal Com5 - HyperTerminal
File Edit View Call Transfer Help
[Icons]

CONFB 1 STROBE 1 SEB 0 LNA 0 PA 0 RSSIC 0 DATA Z
-----Registers-----
CONFIG1 50h CONFIG2 EDh CONFIG3 00h COMMAND 39h F 07F5h
FT 7086F7h RXONOFF 7Fh ID C0h HEADER 80h RSSI 00h
-----General Control Bits-----
TRXE 1 MODE 1 MODU 1 RSSIE 1 RESET 0 SL 0 LVDE 0 CLKE 0

-----Frequency-----
FRM 1 LOF[1:0] 1h CF[1:0] 1h
FSK[3:0] 0h F[11:0] 7F5h FTA[11:0] 708h FTB[11:0] 6F7h

-----Rx & Tx Parameters-----
DSREF 1 AFFC 0 RAGC 0 FAGC 0 IFLA 0
DR[1:0] 1h AFF[1:0] 0h ILA[1:0] 0h OLA[1:0] 0h EDD 1

-----Data Manager & Strobe Oscillator-----
DME 0 IDL[1:0] 3h ID 00h HDL[1:0] 2h HD 00h
SOE 1 RON[3:0] Fh ROFF[2:0] 7h

-----Status-----
RSSI[7:0] 00h OLS 0 LVDS 0 LVD 0 DATARATE 4800
OK
TXSQUARE 208
Sending square wave. Press return to stop
█

Connected 00:30:31 |VT100 |38400 8-N-1 |SCROLL |CAPS |NUM |Capture |Print echo

```

Figure 5. Transmit Mode Configuration

“Sending square wave” indicates that the kit is sending a continuous modulation.

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