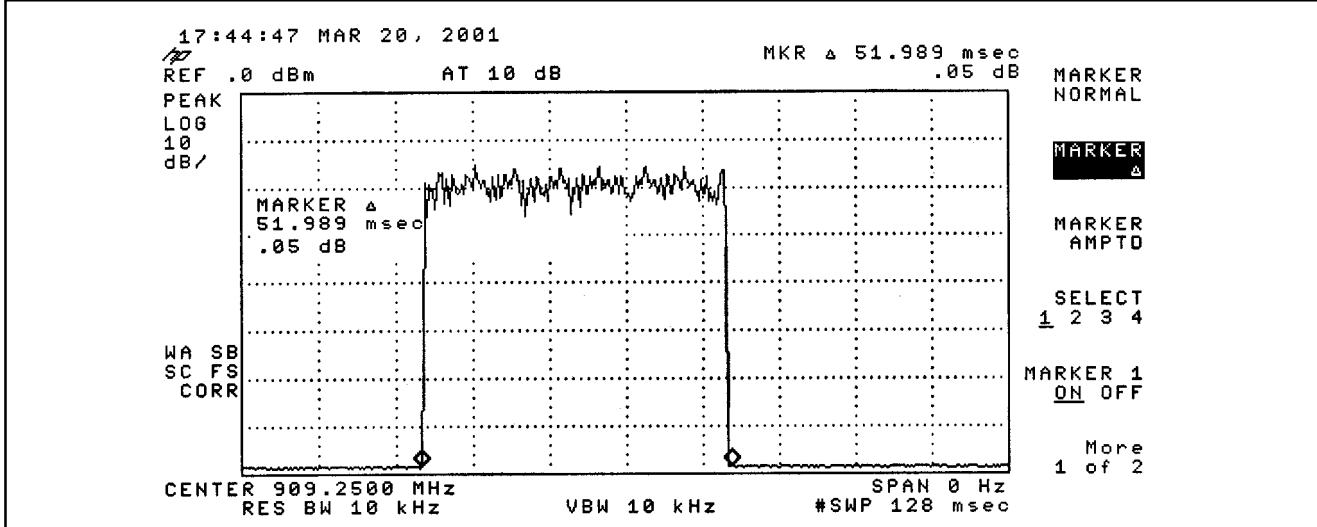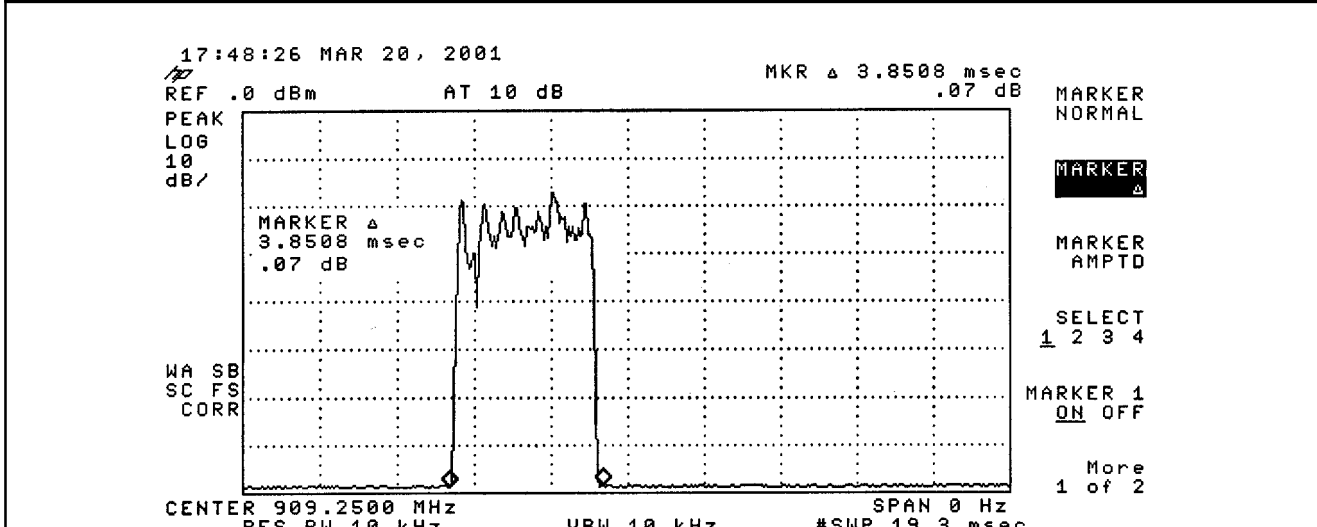# Dwell Time

The MHX-920 is a frequency hopping transceiver, meaning that it "hops" to a new frequency after a predetermined time interval. The receiver shall hop in synchronization with the master when the network address and the hopping patterns of the master and the slave are set to the same. The hopping patterns are stored in an onboard EEPROM and programmed in the factory. The hop time interval is a fixed time set by the user, and can range from 8ms to 120ms. The master's transmit time is less than the 120ms and varies depending on the size of the packet. See plots 1 and 2.

In plot 1, there is data on the serial port and the unit transmits for 51.99ms. In any case the maximum time for the system to be on a single channel is 120ms as stated in the MHX-920 User's Manual.

In plot 2, there is no data transmitted over the RS-232 port and hence the master only transmits a beacon, which is 3.85ms in duration.

Plot 1. Master Transmit Time on a Given Channel in the Pseudorandom Hop Sequence with Data on RS-232 port

Plot 2. Master Transmit Time on a Given Channel in the Pseudorandom Hop Sequence with no Data on RS-232 port