



main | 650.543.6800

fax | 650.327.2336

[www.spinalmodulation.com](http://www.spinalmodulation.com)

**Project: DP1003**

**Product: MN20700-03 Clinical Programmer**

**FCC ID: Y8L-MN20700-03**

**From: April Pixley**

## **Theory of Operation**

### Link Margin

The '400 MHz' Transceiver is used for MICS band communication. The Transceiver operates on channels within the allocated band of 402-405 MHz. The Basestation selects a channel using a Clear Channel Assessment routine. The Zarlink/Microsemi transceiver at each end of the communication link operates as a half-duplex transceiver. The Transmitter and Receiver subsystems are enabled alternately, as required by the Zarlink communication protocol.

Downlink: Effective Radiated Power (EIRP) is limited to -16 dBm maximum. This has the most effect on the downlink Tx portion. The Programmer is limited to -16 dBm EIRP in air for downlink power. The Programmer includes an LNA outside of the RF chip but on the Basestation board to improve the Uplink by a net total of 7 dB.