

4.0 Frequency Tuning

The M760REM frequency control is via the SL30 command intrface. Upon receipt of a valid “set active” or set standby” command, the microcontoller will decode the frewquency value and pass it to the PLL via an SPI interface.

The PLL will set the control volts for the VCO, which in turn provides the signal source to the transceiver.

5.0 PC Emulation

Microair provides a PC application to emulate a standard M760 display.

The emulator interfaces to the M760REM via the PC’s serial port, and used the SL30 command set.

All functions can be tested, and the application provides a communications window to confirm the command traffic.



6.0 Receiver Function

The M760REM has a superhetrodyne receiver with an IF frequency of 10.7MHz. The receiver is “high side” tuned (eg for 127.000MHz the VCO is tuned to 137.700MHz).

The M760REM is also fitted with a dual monitor function, where the PLL is rapidly switched between the active and standby frequencies. If carrier is detected, the switching process is locked to receive that signal. When carrier is no longer present the M760REM will return to rapid switching between the active and standby.

If the M760 is receiving on the standby frequency, it will regularly resample the active for the presence of carrier. If carrier is detected on the active, the M760REM will switch back to the active frequency.

The M760 can be pout into or out of dual monitor by setting the applicable bit in either the set active or set standby commands.