

Cellular Frequency Blocking in WiNRADiO receivers

Series WR-3700

The cellular frequency blocking is achieved in a micro-controller chip ROM-based code which resides on the WiNRADiO receiver controller card.

The actual cellular frequency blocking is done inside a ROM-based (non-reprogrammable) micro-controller which resides on the WiNRADiO controller card. This micro-controller is used to control the parameters of the Phase-Locked Loop synthesizer of the receiver.

All input parameters which would lead to the synthesis of a cellular frequency are intercepted and disallowed. This means that even entirely user-developed PC-resident software (in any case very difficult to develop without a detailed knowledge of internal registers and command codes of the micro-controller chip) could not access the cellular frequencies.

The micro-controller disallows any frequencies within the frequency ranges 824-849 and 869-894 MHz.

The PC-based control software is not solely responsible for the cellular frequency blocking, but it detects the presence of this restricted chip and, if an attempt is made to tune into any frequency within the restricted ranges, a message is issued on the screen: "Illegal frequency", thus further enhancing the low-level blocking effect of the micro-controller.

This double-blocking scheme has been used successfully in our earlier models of WiNRADiO receivers, and no trespassing has been observed or reported.