<u>Telemetry Receiver SRX400</u>

<u>Rejection of Cellular Telephony Signals</u>

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The SRX400 receiver has extensive safeguards to prevent the unauthorized reception of cellular telephone voice and data signals. The same measures prevent an unauthorized and illegal attempt to modify the device for such a purpose:

◊ The two high Q band-pass filters on the front end of the RF receiver are tuned to the VHF band (e.g.160 MHz) band and offer 30 dB rejection each of out-of-band signals, including the cellular frequencies. The cellular band is far from the SRX reception band and so the cellular signals will be greatly attenuated by as much as 60 dB.

◊ The crystal IF filter (10.7 MHz) offers additional selectivity and permits only 8 kHz bandwidth signals through. Since the cellular signals have a 30 kHz bandwidth, even if they pass through the narrower IF filter they would be weakened & distorted.

◊ The SRX demodulator is designed to receive AM on-off keying modulation. Since cellular phones use FM modulation they will not be demodulated by the SRX receiver.

◊ Due to the embedded firmware, cellular frequencies, or any other parameter which would be relevant to a cellular RF signal cannot be entered into the keypad, nether can they be entered through any other method. Only valid frequencies belonging to the frequency range (VHF band) of the receiver can be entered.

◊ Access to the internal resident firmware is practically impossible. Removing the memory chips or other elements of the circuitry would practically compromise the whole functionality of the unit. Furthermore, the firmware is strongly customized for this type of receiver, which significantly adds to its security.

◊ Mechanically, the SRX RF and digital boards are enclosed in a die cast box with 14 screws making access difficult, should anyone attempt modifications.