

## VX-3R Specifications

May, 2007

<b>Frequency Ranges:</b> (USA Version)	RX 0.5-1.8 MHz (AM Broadcast) 1.8-30 MHz (SW Band) 30-76 MHz (50 MHz HAM) 76-108 MHz (FM) 108-137 MHz (Air Band) 137-174 MHz (144 MHz HAM) 174-222 MHz (VHF TV) 222-420 MHz (ACT1) 420-470 MHz (430 MHz HAM) 470-800(729) MHz (UHF TV) (757-774) MHz (UHF TV) 800-999 MHz (GEN2; USA Cellular Blocked)
	TX 144-146(148) MHz 430-440(450) MHz
<b>Channel Steps:</b>	5/9/8.33/10/12.5/15/20/25/50/100 kHz
<b>Frequency Stability:</b>	±5 ppm (-10 °C to +60 °C)
<b>Repeater Shift:</b>	±600 kHz (144 MHz) ±1.6/5.0/7.6 MHz (430 MHz)
<b>Emission Type:</b>	F2D , F3E
<b>Antenna Impedance:</b>	50
<b>Supply Voltage:</b>	Nominal: 3.7 V DC, Negative Ground Operating: 3.5 ~ 7 V, Negative Ground ( <b>EXT DC</b> Jack) 5.0 ~ 7 V, Negative Ground ( <b>EXT DC</b> Jack with Charging)
<b>Current Consumption:</b>	120 mA (Receive) 60 mA (Standby, Saver Off) 30 mA (Standby, Saver On, Save Ratio 1:2) 50 mA (Radio Band Receive) 100 µA (Auto Power Off) 1.3 A (1.5 W Tx , 144 MHz) 3.7 V DC 1.6 A (3 W Tx , 144 MHz) 6 V DC 1.2 A (1 W Tx , 430 MHz) 3.7 V DC 1.8 A (2 W Tx , 430 MHz) 6 V DC
<b>Operating Temperature:</b>	-20 °C to +60 °C
<b>Case Size (W x H x D):</b>	1.9" x 3.2" x 0.9" (47 x 81 x 23 mm) (W/O knob & antenna)
<b>Weight:</b>	4.6 oz (130 g) With FNB-82LI & antenna
<b>Transmitter</b>	
<b>RF Power Output:</b>	1.5 W (@ 4.5 V AA x 3 or 3.7 V FNB-82LI 144 MHz) 3 W (@ 6 V or EXT DC 144 MHz) 1 W (@4.5 V AA x 3 or 3.7 V FNB-82LI 430 MHz) 2 W (@ 6 V or EXT DC 430 MHz) Low 0.1 W (@ 4.5 V AA x 3 or 3.7 V FNB-82LI) Low 0.3 W (@ 6 V or EXT DC)
<b>Modulation Type:</b>	Variable Reactance F2D , F3E
<b>Maximum Deviation:</b>	±5 kHz (F2D , F3E)
<b>Spurious Emission:</b>	At least 60 dB below (HIGH) At least 50 dB below (LOW or less than 1 W)
<b>Microphone Impedance:</b>	2 k

## Receiver

<b>Circuit Type:</b>	AM, NFM: Double-Conversion Superheterodyne WFM: Triple-Conversion Superheterodyne AM Radio/FM Radio: Single-Conversion Superheterodyne
<b>Intermediate Frequencies:</b>	1st: 47.25 MHz (AM, NFM) 1st: 45.8 MHz (WFM) 1st: 130 kHz (AM Radio/FM Radio) 2nd: 450 kHz (AM, NFM) 2nd: 10.7 MHz (WFM) 3rd: 1 MHz (WFM)
<b>Sensitivity:</b>	3 $\mu$ V for 10 dB SN (0.5-1.8 MHz, AM Radio) 3 $\mu$ V for 10 dB SN (0.5-30 MHz, AM) 0.35 $\mu$ V TYP for 12 dB SINAD (30-54 MHz, NFM) 1 $\mu$ V TYP for 12 dB SINAD (54-76 MHz, NFM) 1.5 $\mu$ V TYP for 12 dB SINAD (76-108 MHz, FM Radio) 1.5 $\mu$ V TYP for 10 dB SN (108-137 MHz, AM) 0.2 $\mu$ V for 12 dB SINAD (137-140 MHz, NFM) 0.16 $\mu$ V for 12 dB SINAD (140-150 MHz, NFM) 0.2 $\mu$ V for 12 dB SINAD (150-174 MHz, NFM) 1 $\mu$ V TYP for 12 dB SINAD (174-225 MHz, NFM) 0.5 $\mu$ V for 12 dB SINAD (300-350 MHz, NFM) 0.2 $\mu$ V for 12 dB SINAD (350-400 MHz, NFM) 0.18 $\mu$ V for 12 dB SINAD (400-470 MHz, NFM) 1.5 $\mu$ V for 12 dB SINAD (470-540 MHz, WFM) 3 $\mu$ V TYP for 12 dB SINAD (540-800 MHz, WFM) 1.5 $\mu$ V TYP for 12 dB SINAD (800-999 MHz, NFM) USA Version Cellular Blocked
<b>Selectivity:</b>	NFM, AM: 12 kHz/35 kHz (-6 dB /-60 dB) WFM: 200 kHz / 300 kHz (-6 dB/-20 dB)
<b>AF Output:</b>	50 mW @ 8 $\Omega$ for 10 % THD (@ 3.7 V) 100 mW @ 8 $\Omega$ for 10 % THD (@ 6 V)