# Multi-Channel Transceivers

Radiometrix introduces VHF and UHF narrow band multi-channel transceivers for low power ISM applications. The SMX series transceivers are compact (53 &#215 32 &#215 12 mm) multi-channel narrowband radios intended for a range of industrial wireless data link applications. This family of designs comprises VHF (SMX1: 173 MHz band) and UHF (SMX2: 433 MHz band) units with identical footprint and pinout. Key features of both units include: high performance double conversion superhet receiver sections (&#150 120 dBm / 12 dB SINAD sensitivity, &#150 60 dB RX spurii, &#150 85 dB blocking) and a 128 channel (maximum) PLL based local oscillator system. The user interface provides RSSI, AF and data outputs. A 3 bit (1 of 8) parallel frequency select port is provided, but the units can also be fully re-programmed via the RS232 interface pin. Both radios support data rates of up to 5 kb/s (or a DC to 3 kHz AF passband), in a 25 kHz RF channel. Power requirements are 4.2 to 16 V at between 20 mA (receive) and 40 to 65 mA (transmit, depending on power output). The SMX1 operates on the 173.200 to 173.325 MHz (UK) band, or can be ordered on specified customer frequencies (any 1 MHz band in 130 to 180 MHz). Transmit power as standard is 10 mW (giving a range of well over 1 km), but can be supplied between 1 to 50 mW if required. The SMX2 is designed for the 433.05 to 434.79 MHz European ISM band, but can also be ordered on the UK 458 MHz and Asian 419 MHz bands (and other frequencies, subject to availability of the necessary receiver front end SAW filters). The SMX2 is a 10 mW output power device.
Radiometrix

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