Ultra Low-Noise VCO

Z-Communications, Inc. introduces the SMV0915L for the 900 MHz ISM band market. Designed for applications where power consumption is the tantamount consideration, the SMV0915L generates frequencies between 905 925 MHz within 0.5-2.5 Vdc of control voltage and is designed for the toughest outdoor applications as it is guaranteed to operate over the extended commercial temperature range of &#150 40 &#176 to 85 &#176 C. This inexpensive device exhibits a clean spectral signal of &#150 101 dBc/Hz, typically, at 10 kHz form the carrier and attenuates the second harmonic to better than &#150 10 dBc.

The SMV0915L, intended for the popular 902-928 MHz ISM band will find numerous uses in amateur radio, location and monitoring services, radar, and radio-frequency identification tags. This rugged oscillator operates off only 3 Vdc source while drawing less than 6 mA, typically, and provides the end user nominally 4 dBm of output power in a 50Ω load. The technology utilized in the SMV0915L enhances the product's output frequency stability with respect to supply voltage variations (pushing) and output loading variations (pulling). The pulling specification for the SMV0915L is less than 5 MHz/V with a 14 dB return loss, any phase, while pushing is less than 5 MHz within a 5% change of the supply voltage.

The SMV0915L comes in Z-Communications' SUB-L surface mount package measuring 0.30 inches&#215 0.30 inches&#215 0.08 inches. This VCO is ideal for automated surface mount assembly and reflow; it is available in tape and reel packaging for production requirements.

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