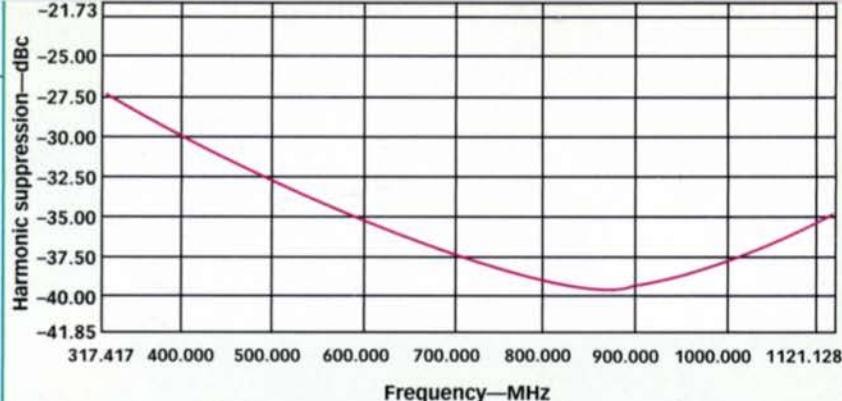


carrier and -110 dBc/Hz offset 100 kHz from the carrier. Maximum frequency pulling is 14 MHz for a $1.75:1$ VSWR load while maximum frequency pushing is 7 MHz/V. The VCO is supplied in a surface-mount package with slotted metal cover measuring just 0.50



6. Harmonic suppression in a DCFO oscillator is specified as -10 dBc, although measured performance clearly exceeds the specification.

$\times 0.50 \times 0.25$ in. Both the DCFO-35015 and the DCMO-190410 have an operating temperature range of -30 to $+75^\circ\text{C}$.

In between, the model DCMO-150320 tunes from 1500 to 3200 MHz via tuning voltages of 0.5 to 20.0 V and tuning sensitivity of 100 to 200 MHz/V. The oscillator delivers at least -2 dBm output power with typical phase noise of -92 dBc/Hz offset 10 kHz from the carrier and -112 dBc/Hz offset 100 kHz from the carrier. With a $1.75:1$ VSWR load, frequency pulling is a maximum of 12 MHz; the maximum frequency pushing is 6 MHz/V. The company also offers model DCMO-60170 with minimum output power of $+3$ dBm from 600 to 1700 MHz and phase noise of -99 dBc/Hz offset 10 kHz from the carrier and -120 dBc/Hz offset 100 kHz from the carrier.

In short, these VCOs combine the much desired wide tuning ranges required for multimode operation in next-generation cellular-communications handsets and infrastructure equipment with the low phase noise of much narrower-band sources. The combination should allow designers to make use of a single VCO where two or more were used in the past. Synergy Microwave Corp., 201 McLean Blvd., Paterson, NJ 07504; (973) 881-8800, FAX: (973) 881-8361, e-mail: sales@synergymwave.com, Internet: www.synergymwave.com. **MRF**

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