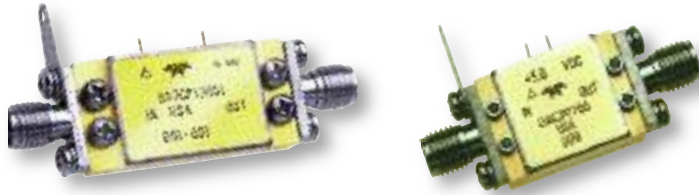




Microwave Voltage Controlled Oscillators
Typical Specifications—50 Ω System



| Model | Frequency Range MHz | Tuning Voltage Range | Power Output | Power Output Variation | Modulation Sensitivity | Phase Noise | Harmonic Suppression | Pushing | Pulling | DC Bias | |
|---|---------------------|----------------------|--------------|------------------------|------------------------|-------------------------------|----------------------|---------|------------------|---------------|------------|
| | | Volts | dBm | ±dB | Min.-Max. MHz/V | Offset at 10kHz/100kHz dBc/Hz | dBc | MHz/V | @1.67:1 VSWR MHz | Voltage Volts | Current mA |
| Oscillator available in TO-8, SMT0-8 or CougarPak® | | | | | | | | | | | |
| OC150 | 85-150 | 0-20 | 10.0 | 2.0 | 2-8 | -100/-120 | -8 | 2.0 | 2.0 | 15.0 | 35 |
| OC200 | 100-200 | 0-20 | 10.0 | 3.0 | 2-10 | -103/-117 | -10 | 0.5 | 1.0 | 15.0 | 35 |
| OC300 | 150-300 | 0-20 | 10.0 | 2.0 | 5-20 | -95/-115 | -8 | 2.0 | 2.0 | 15.0 | 35 |
| OC321 | 260-320 | 0-5 | 10.0 | 2.0 | 10-20 | -92/-115 | -12 | 5.0 | 5.0 | 5.0 | 18 |
| OC400 | 200-400 | 0-20 | 10.0 | 2.0 | 10-30 | -90/-105 | -10 | 3.0 | 5.0 | 15.0 | 35 |
| OC500 | 300-500 | 0-20 | 10.0 | 2.0 | 10-30 | -90/-105 | -10 | 3.0 | 5.0 | 15.0 | 35 |
| OC551 | 450-550 | 0-5 | 0.0 | 3.0 | 15-40 | -92/-115 | -12 | 6.0 | 10.0 | 5.0 | 18 |
| OC600 | 300-600 | 0-20 | 10.0 | 2.0 | 10-30 | -90/-105 | -10 | 5.0 | 12.0 | 15.0 | 35 |
| OC700 | 500-700 | 0-20 | 10.0 | 2.0 | 15-45 | -90/-105 | -10 | 5.0 | 15.0 | 15.0 | 35 |
| OC800 | 400-800 | 0-20 | 10.0 | 2.0 | 15-45 | -90/-105 | -10 | 5.0 | 25.0 | 15.0 | 35 |
| OC910 | 700-900 | 0-5 | 0.0 | 3.0 | 25-85 | -85/-108 | -12 | 8.0 | 10.0 | 5.0 | 18 |
| OC1000 | 500-1000 | 0-20 | 10.0 | 2.0 | 15-55 | -90/-105 | -10 | 5.0 | 25.0 | 15.0 | 35 |
| OC1200 | 800-1200 | 0-20 | 10.0 | 2.0 | 30-100 | -80/-100 | -10 | 10.0 | 25.0 | 15.0 | 35 |
| OC1500 | 500-1500 | 0-(-20) | 5.0 | 3.0 | 40-125 | -85/-107 | -12 | 25.0 | 50.0 | 5.0 | 35 |
| OC1510 | 1200-1500 | 0-5 | 0.0 | 3.0 | 60-200 | -82/-112 | -12 | 6.0 | 10.0 | 5.0 | 18 |
| OC1600 | 800-1600 | 0-20 | 13.0 | 3.0 | 15-100 | -90/-110 | -12 | 5.0 | 20.0 | 15.0 | 60 |
| OC1610 | 1400-1600 | 0-5 | 0.0 | 3.0 | 60-175 | -80/-110 | -12 | 6.0 | 10.0 | 5.0 | 18 |
| OC1810 | 1600-1800 | 0-5 | 0.0 | 3.0 | 60-165 | -85/-108 | -12 | 8.0 | 10.0 | 5.0 | 18 |
| OC1850 | 1250-1850 | 0-15 | 11.5 | 3.0 | 40-70 | -78/-107 | -16 | 4.0 | 8.0 | 15.0 | 57 |
| OC2000 | 1350-2000 | 0-15 | 10.0 | 3.6 | 40-75 | -78/-107 | -12 | 5.0 | 10.0 | 15.0 | 55 |
| OC2001 | 1000-2000 | 0-18 | 10.0 | 4.5 | 40-111 | -82/-112 | -10 | 13.0 | 14.0 | 15.0 | 58 |
| OC2560 | 1360-2560 | 0-17.5 | 10.5 | 5.9 | 51-123 | -82/-106 | -10 | 4.0 | 30.0 | 15.0 | 54 |
| OC2800 | 1900-2800 | 0-13.5 | 10.0 | 1.5 | 50-120 | -73/-101 | -12 | 15.0 | 32.0 | 15.0 | 58 |
| OC3400 | 2700-3400 | 0-15 | 10.0 | 2.0 | 75-115 | -80/-105 | -12 | 25.0 | 35.0 | 15.0 | 60 |
| OC4002 | 2000-4000 | 0-20 | 11.0 | 3.0 | 43-267 | -85/-106 | -15 | 8.0 | 32.0 | 15.0 | 60 |
| OC4500 | 3200-4500 | 0-15 | 12.0 | 2.0 | 120-310 | -80/-102 | -19 | 17.0 | 47.0 | 15.0 | 57 |
| Oscillator available in TO-8B, SMT0-8B or CougarPak® | | | | | | | | | | | |
| OR2001 | 1400-2100 | 0-15 | 10.0 | 2.0 | 40-70 | -92/-118 | -10 | 5.0 | 10.0 | (-5.0) | 65 |
| OR2600 | 1900-2600 | 0-15 | 10.0 | 2.0 | 40-70 | -92/-118 | -10 | 5.0 | 10.0 | (-5.0) | 65 |
| OR3700 | 3100-3800 | 0-15 | 5.0 | 2.0 | 50-150 | -89/-110 | -10 | 20.0 | 20.0 | (-5.0) | 70 |
| OR4400 | 3500-4400 | 0-15 | 5.0 | 2.0 | 50-150 | -89/-110 | -10 | 20.0 | 20.0 | (-5.0) | 70 |

Current data sheets available on website.



Microwave Voltage Controlled Oscillators
Typical Specifications—50 Ω System

| Model | Frequency Range MHz | Tuning Voltage Range | Power Output | Power Output Variation | Modulation Sensitivity Min.-Max. | Phase Noise | Harmonic Suppression | Pushing | Pulling | DC Bias | |
|---|---------------------|----------------------|--------------|------------------------|----------------------------------|-------------------------------|----------------------|---------|------------------|---------------|------------|
| | | Volts | dBm | ±dB | MHz/V | Offset at 10kHz/100kHz dBc/Hz | dBc | MHz/V | @1.67:1 VSWR MHz | Voltage Volts | Current mA |
| Oscillator available in SMT0-8 or CougarPak® | | | | | | | | | | | |
| OS5100 | 4300-5100 | 0-15 | 1.0 | 1.5 | 50-85 | -85/-108 | -12 | 10.0 | 13.0 | 5.0 | 25 |
| OS6100 | 4700-6100 | 0-15 | 0 | 2.0 | 70-150 | -80/-102 | -12 | 10.0 | 15.0 | 5.0 | 26 |
| OS6500 | 5000-6500 | 0-15 | 1.0 | 2.0 | 80-160 | -80/-102 | -17 | 15.0 | 15.0 | 5.0 | 26 |
| OS6700 | 5400-6700 | 0-15 | 0 | 2.0 | 80-180 | -75/-100 | -17 | 10.0 | 20.0 | 5.0 | 25 |
| OS7700 | 5700-7700 | 0-15 | 2.0 | 2.0 | 70-250 | -75/-100 | -17 | 10.0 | 20.0 | 5.0 | 25 |
| OS8600 | 6500-8600 | 0-15 | 1.0 | 2.0 | 90-250 | -70/-95 | -20 | 10.0 | 40.0 | 5.0 | 25 |
| OS8900 | 6900-8900 | 0-15 | 1.0 | 2.0 | 100-270 | -70/-95 | -25 | 21.0 | 47.0 | 5.0 | 24 |

| Model | Frequency Range MHz | Tuning Voltage Range | Power Output | Power Output Variation | Modulation Sensitivity Min.-Max. | Phase Noise | Harmonic Suppression | Pushing | Pulling | DC Bias | |
|--|---------------------|----------------------|--------------|------------------------|----------------------------------|-------------------------------|----------------------|---------|------------------|---------------|------------|
| | | Volts | dBm | ±dB | MHz/V | Offset at 10kHz/100kHz dBc/Hz | dBc | MHz/V | @1.67:1 VSWR MHz | Voltage Volts | Current mA |
| Oscillator with internal MMIC amplifier available in SMT0-8 or CougarPak® | | | | | | | | | | | |
| OAS5100 | 4300-5100 | 0-15 | 13.0 | 2.0 | 50-85 | -84/-108 | -22 | 10.0 | 0.1 | 5.0 | 94 |
| OAS6100 | 4700-6100 | 0-15 | 10.0 | 2.0 | 70-150 | -80/-102 | -25 | 10.0 | 0.3 | 5.0 | 95 |
| OAS6500 | 5000-6500 | 0-15 | 13.0 | 2.0 | 80-190 | -80/-102 | -25 | 8.0 | 0.35 | 5.0 | 94 |
| OAS6700 | 5300-6700 | 0-15 | 10.0 | 2.0 | 80-180 | -75/-100 | -30 | 10.0 | 0.5 | 5.0 | 95 |
| OAS7700 | 5700-7700 | 0-15 | 13.0 | 2.5 | 70-250 | -75/-100 | -28 | 10.0 | 0.5 | 5.0 | 95 |
| OAS8600 | 6500-8600 | 0-15 | 10.0 | 2.0 | 90-250 | -70/-95 | -30 | 10.0 | 0.5 | 5.0 | 95 |
| OAS8900 | 6900-8900 | 0-15 | 10.0 | 2.0 | 100-270 | -70/-95 | -30 | 21.0 | 0.5 | 5.0 | 95 |

| Model | Frequency Range MHz | Tuning Voltage Range | Output Power | Output Power Variation | Modulation Sensitivity Min.-Max. | Phase Noise | Fractional/ Integer Harmonic Suppression | Pushing | Pulling | Settling Time PTD@1us ref. to 1 sec. ±MHz | DC Bias | |
|---|---------------------|----------------------|--------------|------------------------|----------------------------------|-------------------------------|--|---------|------------------|---|---------------|------------|
| | | Volts | dBm | ±dB | MHz/V | Offset at 10kHz/100kHz dBc/Hz | dBc | MHz/V | @1.67:1 VSWR MHz | | Voltage Volts | Current mA |
| Oscillator, Amp, Filter and Voltage Regulator in 2- and 3-Stage CougarPak® | | | | | | | | | | | | |
| OA2CP1001 | 500-1000 | 0-(-12) | 15.0 | 2.0 | 30-60 | -75/-105 | NA/-15 | 0.3 | 1.0 | 1.0 | 15.0 | 250 |
| OA2CP1450 | 850-1450 | 0-(-12) | 15.0 | 2.0 | 60-100 | -75/-105 | NA/-15 | 0.3 | 2.0 | 1.0 | 15.0 | 250 |
| OA2CP2001 | 1000-2000 | 0-(-15) | 15.0 | 2.0 | 50-150 | -70/-100 | NA/-15 | 0.3 | 2.0 | 1.0 | 15.0 | 250 |
| OA2CP4001 | 2000-4000 | 0-(-12) | 15.0 | 2.0 | 100-350 | -65/-95 | NA/-15 | 0.3 | 3.0 | 2.0 | 15.0 | 250 |
| OA2CP6001 | 4000-6000 | 0-(-12) | 15.0 | 2.0 | 75-225 | -65/-95 | NA/-25 | 0.3 | 3.0 | 2.0 | 15.0 | 250 |
| OA2CP9001 | 6000-9000 | 0-(-12) | 15.0 | 2.0 | 75-400 | -65/-95 | NA/-30 | 0.3 | 3.0 | 2.0 | 15.0 | 250 |
| OA2CP11001 | 8000-11000 | 0-(-12) | 15.0 | 2.0 | 200-400 | -70/-100 | -25/-30 | 0.3 | 3.0 | 3.0 | 15.0 | 250 |
| OA2CP12001 | 8000-12000 | 0-(-12) | 17.0 | 5.5 | 280-630 | -75/-100 | -35/-40 | 0.1 | 0.5 | 3.0 | 15.0 | 220 |
| OA2CP12500 | 9000-12500 | 0-(-12) | 15.0 | 2.0 | 150-450 | -65/-95 | -25/-30 | 0.3 | 3.0 | 3.0 | 15.0 | 250 |
| OA3CP18001 | 12000-18000 | 0-(-12) | 15.0 | 2.0 | 150-750 | -55/-85 | -15/-30 | 0.3 | 3.0 | 4.0 | 15.0 | 350 |