

## VCO Product Specification

**Model:** VCO790-600T      **Rev:** A      **Date:** 4/17/2003  
**Customer:** VARI-L COMPANY  
**Operating Temperature Range:** ( -40 ° to 70 ° C)

| Parameter                               | Min  | Typ  | Max  | Units   | X | Remarks |
|-----------------------------------------|------|------|------|---------|---|---------|
| Frequency Range -                       | 400  |      | 800  | MHz     | X |         |
| Tuning Voltage:                         |      |      |      |         |   |         |
| 400 MHz                                 | 0.5  | 2    |      | Vdc     | X |         |
| 800 MHz                                 |      | 14   | 20   | Vdc     | X |         |
| Tuning Sensitivity:                     |      |      |      |         |   |         |
| 400 MHz                                 | 12   | 18   | 24   | MHz/V   | X |         |
| 500 MHz                                 | 24   | 30   | 36   | MHz/V   | X |         |
| 600 MHz                                 | 24   | 30   | 36   | MHz/V   | X |         |
| 700 MHz                                 | 24   | 30   | 36   | MHz/V   | X |         |
| 800 MHz                                 | 24   | 30   | 36   | MHz/V   | X |         |
| Output Power -                          | 1.5  | 5.5  | 9.5  | dBm     | X |         |
| Output Phase Noise:                     |      |      |      |         |   |         |
| 1 kHz                                   |      | -72  | -66  | dBc/Hz  |   |         |
| 10 kHz                                  |      | -102 | -96  | dBc/Hz  |   |         |
| 100 kHz                                 |      | -122 | -116 | dBc/Hz  | X |         |
| Power Supply -                          | 4.75 | 5    | 5.25 | Volts   |   |         |
| Supply Current -                        |      | 23   | 30   | mA      | X |         |
| Harmonic Suppression:                   |      |      |      |         |   |         |
| 2nd Harmonic                            |      | -5   | -2.5 | dBc     | X |         |
| 3rd Harmonic                            |      | -12  | -6   | dBc     | X |         |
| Spurious (Non-Harmonic) -               |      |      | -80  | dBc     |   |         |
| Frequency Pushing - from 4.75 to 5.25 V |      | 0.5  | 2    | MHz p-p |   |         |
| Frequency Pulling - into a 12 dB RL     |      | 2    | 5    | MHz p-p |   |         |
| Tuning Port Capacitance -               |      | 220  |      | pF      |   |         |
| Output Impedance -                      |      | 50   |      | Ω       |   |         |

### Package Information

|               |                          |                   |       |
|---------------|--------------------------|-------------------|-------|
| Package Type: | T                        | Drawing Number:   | 60035 |
| Dimensions:   | 0.5 x 0.5 x 0.156 inches | Drawing Revision: | E     |

### Comments

**X** Indicates parameter to be tested 100% in production