

## Engineering Development Model

### Voltage Controlled Oscillator

JCOS-ED8174/3

#### Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability. At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.



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CASE STYLE : BG419

| ELECTRICAL SPECIFICATIONS 50Ω      |      |       |      |        |
|------------------------------------|------|-------|------|--------|
| Parameter                          | Min. | Typ.  | Max. | Units  |
| Frequency                          | 125  |       | 175  | MHz    |
| Tuning Voltage                     | 1    |       | 17   | V      |
| Power Output                       |      | +3.7  |      | dBm    |
| Phase Noise                        |      |       |      |        |
| at 1 kHz offset                    |      | -95   |      | dBc/Hz |
| at 10 KHz offset                   |      | -118  |      | dBc/Hz |
| at 100 KHz offset                  |      | -138  |      | dBc/Hz |
| at 1000 kHz offset                 |      | -158  |      | dBc/Hz |
| Pulling at 12 dBr PK-PK all phases |      | 0.08  |      | MHz    |
| Pushing at Vcc=5V±0.25V            |      | 0.05  |      | MHz/V  |
| Tuning Sensitivity                 |      | 3 - 5 |      | MHz/V  |
| Harmonic Suppression               |      | -25   | -20  | dBc    |
| 3 dB Modulation Bandwidth          |      | 2900  |      | kHz    |
| Supply Voltage                     |      | 12    |      | V      |
| Supply Current                     |      |       | 20   | mA     |

| MAXIMUM RATINGS                 |                |
|---------------------------------|----------------|
| Operating Temperature           | -55°C to 85°C  |
| Storage Temperature             | -55°C to 100°C |
| Absolute Supply Voltage (Vcc)   | +14V           |
| Absolute Tuning Voltage (Vtune) | +19V           |

| PIN CONNECTIONS |                            |
|-----------------|----------------------------|
| RF OUT          | 10                         |
| VCC             | 14                         |
| V-TUNE          | 1                          |
| GROUND          | 2,3,4,5,6,9,10,11,12,13,14 |