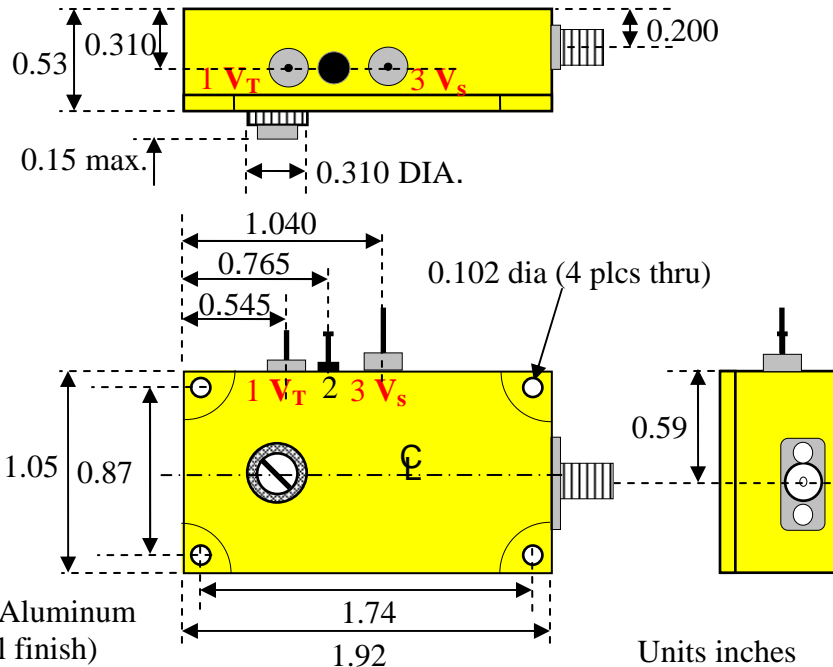


Dielectric Resonant Oscillators 8.0-13.0GHz 14dBm Output Power, 8-18Volts -E (Electronic Tuning Option Available)

This model covers 8-13GHz Standard OP is 14dBm. 8-18V. Larger model available for 3.8-7.9GHz



Pin #	Function
1	Elect. Tuning (optional) 0-30V
2	Ground
3	Vs +8 to +18V

PART#: RDRO-A-FREQ-POWER-VCC
Example: RDRO-A-8.00-14d(8-18v)
 -E (Electronic Tuning opt)

Specifications	Basic Model	Units
Operating Frequency	8-13	GHz
Mechanical Tuning Range	3.0	% Typ
Mechanical Tuning Resolution	150	KHz Typ.
Input Power Voltage	+8 to +18	VDC
Input Power Current	65	mA Max.
Output Power @ +25°C (3)	+14	dBm Min.
Output Power Variation		
Over 0 to +60°C	±0.6	dB Typ.
Over -30 to +70°C	+1.0/-1.3	dB Typ.
Weight	43	g Typ.
Size	1.92x1.05x0.53	Inches
Finish	Nickel Plated	

Specifications		Units
Frequency Stability	5	ppm/C Max.
2nd Harmonic	-20	dBc Min.
Spurious	-80	dBc Min.
Frequency Pushing	10	kHz/V Typ.
Frequency Pulling	±400	kHz Max.
2.5:1 VSWR		
Phase Noise, Single Sideband		
1HZ Bandwidth @ 10 GHz		
10 KHz from carrier	-85	dBc Typ.
100 KHz from carrier	-115	dBc Typ.

Notes:

- 1) Electrical tuning ranges of up to 1.0 % at X-Band and up to 2.0% at S-Band are available.
- 2) The standard tuning voltage range is 0 to +30V. For models with improved linearity (< 2:1) the tuning range is 0 to +22V.
- 3) +20dBm min output power is optional.

Dielectric Resonant Oscillators 8.0-13.0GHz 14dBm Output Power, 8-18Volts -E (Electronic Tuning Option Available)

This model covers 8-13GHz Standard OP is 14dBm. 8-18V. Larger model available for 3.8-7.9GHz

Electrical Tuning option

Specifications	Basic Model	Units
Electrical Tuning Range (1)	0.2-0.3	% Min.
Electrical Tuning Voltage (2)	0 to +30	VDC Max.

For manual electrical tuning applications of Raditek's DROs, an RC filter is recommended as shown in Fig. 1 to prevent phase noise degradation due to parasitic modulation by power supply ripples and/or low frequency interference.

Raditek's DROs have negligible pushing due to an internal voltage regulator. This feature facilitates manual electrical tuning with a single power supply as shown in Fig. 2. At room temperature, the voltage tuning range is +6 to +25 V for a basic model and +6 to +18 V for a high stability model.

- In order to fully utilize Raditek's mechanical tuning, capability with good frequency resolution, the housing of the tuning element should be used for course tuning and the piston/rotor for fine adjustment.
- When adjusting the tuning element housing, the piston/rotor must be set near the top of the housing, but not lower than 0.5mm from the top.
- When securing the tuning element, do not over tighten

Revision Table		
Date	Change	By
10-27-99	added hole dimensions and changed finish to Nickel	pc
6-17-01	All units have an isolator, longer and better Frequency Pulling spec	pc
7-25-05	Changes / red line	pc