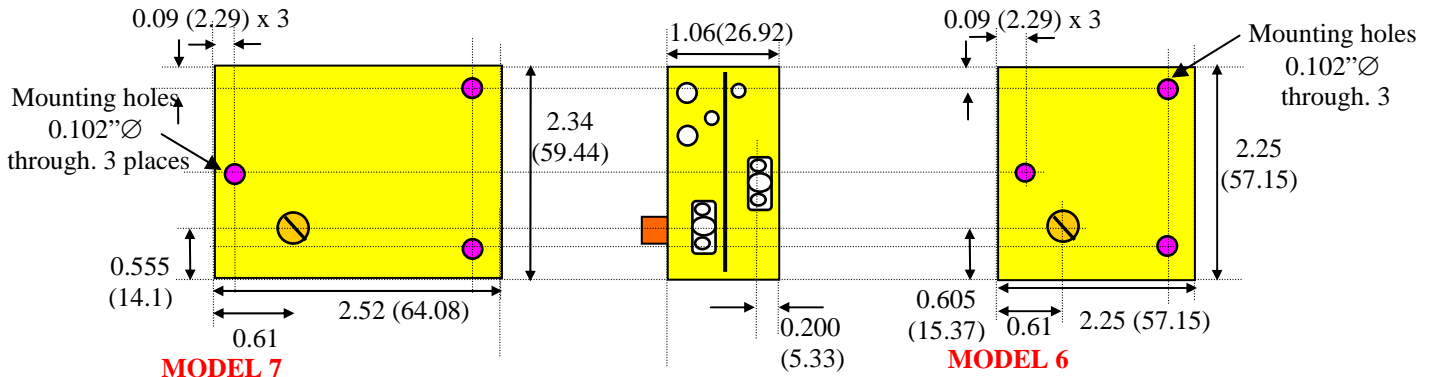


# RADITEK Phase Locked Oscillators

**ROHS Compliant**

code-a1

RADITEK Phase Locked Oscillators (PLO's) use dielectric resonators for improved stability and phase noise. The oscillator is phase locked to a crystal oscillator (external or internal). See also Raditek PLO-A M4-M5. (see other data sheets for frequencies >10.8GHz.



**PART#: RPLO-A-Model-FREQ-POWER-VCC-Reference-Alarm-Package**  
**Isolator at output is standard**  
**Example: RPLO-A-M6-9.3-14d-15v-ER10M**

**Not to scale. UNITS: inch (mm). Temperature range: -40 to +70°C.**

Phase noise of external reference must be better than -120 dBc/Hz at 100KHz. It degrades by 20LOG N +3 dB of reference.

**Options include:**

- 12V, 15V, Vcc (± 0.5V)
- Phase lock alarm: Open Collector**
- 1. **(A1, standard) Locked High** (customer supplied 5-16V, Unlocked Low 0.2V Typical ,
- 2. **(A2 special) Locked Low 0.2V Typical ,** Unlocked High (customer supplied 5-16V
- 20dBm OP on Model 7

**Installation details:**

1. Mechanical DRO adjustment is not advised. Monitor the Phase voltage during adjustment (to be mid way), wait 5 minutes (warm up) before any adjustment.
2. Crystal adjustment. Screw adjustment under cover, (on internal reference models). Monitor frequency Adjust after 5 minutes warm up. Monitor the Ref. Monitor port for mid Vcc voltage.

MODEL:	Model 6	Model 7	Units	
Frequency	8.0-10.8	3.35-7.9GHz	GHz	
Reference	External	External		
	ER 5-10M	ER 10M		
Reference	0±3	0±3 dBm	dBm	
Fr. Stability ppm	As ext. ref.	As ext. ref.	°C	
POWER out	+14	+14 20dBm opt	dBm	
Load VSWR	3.0	3.0	:1	
Spurious	-75	-75	dBc typ	
Harmonics	-20	-20	dBc typ	
DC power(Vcc)	+15	+15	V@	
±1Volt	190	190	mA typ	
Humidity: non condensing to 35C	95	95	%	
Alarm	Optional	Optional	optional	
<b>Typical Phase noise, in dBc/Hz, per offset: +/-4dB</b>				
AT:→	3G	5G	12G	Special
100Hz	-85	-85	-80	
1KHz	-100	-100	-95	
10KHz	-110	-110	-105	-110
100KHz	-115	-115	-110	-135
1MHz	-140	-140	-135	-130

