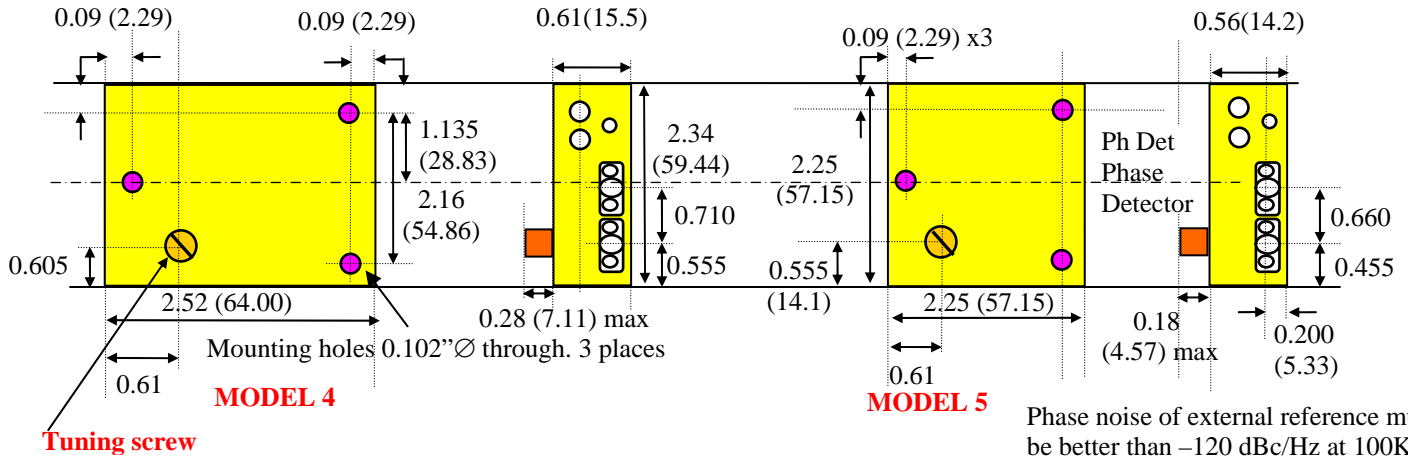


# RADITEK Phase Locked Oscillators

**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 reference (external or internal). See also Raditek PLO M6-M7. (see other data sheets for frequencies >10.6GHz.



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

**PART#: RPLO-A-Model-FREQ-POWER-VCC-Reference -Alarm-Package**  
 Isolator at output is standard  
 Example: RPLO-A-M4-6.95-15d-15v-ER50M

Not to scale. UNITS: inch (mm). Temperature range: -30 to +70°C.

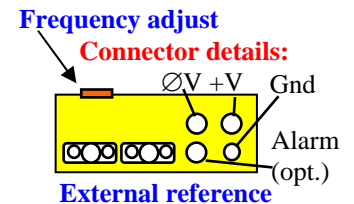
**Options include:**

- 12V, 15V, Vcc
  - 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 power out @ 8GHz

**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 4	Model 4	Model 5	Model 5	Units
Frequency	3.3-7.9	3.3-7.9	8.0-10.6	8.0-10.6	GHz
Reference	Internal	External	Internal	External	
		ER 50-110M	N/A	ER 50-110M	
Reference		0±3		0±3	dBm
Fr. Stability		as ext. ref.		as ext. ref.	ppm
0to50 °C	±10		±10		
-20to70 °C	±20		±20		
POWER out	+15	+15	+14	+14	dBm
Load VSWR	3.0	3.0	3.0	3.0	:1
Spurious	>-80	>-80	-75	-75	dBc typ
Harmonics	-20	-20	-20	-20	dBc typ
DC power(Vcc)	+15	+15	+15	+15	V@
±1Volt	100	75	100	75	mA typ
Humidity: non condensing to 35C	95	95	95	95	%
Alarm	NA	optional	NA	optional	optional
<b>Typical Phase noise, in dBc/Hz, per offset: +/-4dB</b>					
AT:→	3G	5G	12G		
100Hz	-85	-85	-85		
1KHz	-100	-100	-100		
10KHz	-110	-110	-110		
100KHz	-115	-115	-115		
1MHz	-140	-140	-140		



RADITEK PLO-A M4-M5-a1

Specifications may be subject to change

05/01/07

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