

# Stabilised Oscillators CRO & DRO

- 300 MHz to 18 GHz
- Fundamental Frequency (CRO or DRO)
- Small Size
- Low Phase Noise
- Low Microphonics
- Low Current
- Custom Design



### General Specifications (also see options)

Output Frequency (fixed) (see options for tuning)	300 MHz to 18.0 GHz
Frequency Stability	
300 MHz to 3.0 GHz (CRO)	+/-10ppm/degC max.
3.0 GHz to 18.0 GHz (DRO)	+/-5ppm/degC max.
Output Power	+13dBm min. (see options)
Output Power Stability	+/-2dB max
Harmonics	-20dBc max.
Spurious	-80dBc max.
Frequency Pulling	+/-1MHz max. @ 1.7:1VSWR
Frequency Pushing	+/-1MHz/V max.
Input Voltage	+15V d.c. (see options)
Input Current	125mA max. (for +13dBm)
Mechanical Tuning (DRO only)	1% typ.
Operating Temperature	0+50C standard (see options)
Storage Temperature	-40+85C

The ACR and ADR series of fundamental frequency stabilised oscillators utilise coaxial resonators (CRO) to 3GHz and dielectric resonators (DRO) to 18 GHz. Circuit design uses SMT devices including Si bipolar active devices up to 3 GHz and GaAs FET active devices above 3 GHz. The output contains a buffer amplifier for improved ruggedness, higher output power and a wider range of load VSWR. DRO types have an external tuning screw for factory set up and limited mechanical tuning.

### Phase Noise (dBc/Hz) typical

Offset Frequency (Hz)	Output Frequency (GHz)					
	0.6	1.5	3	4	10	14
1K	-95	-85	-75	-75	-70	-65
10K	-115	-105	-95	-95	-90	-85
100K	-135	-125	-115	-115	-110	-105
1M	-140	-140	-135	-135	-120	-115

#### Options:

00 - Standard

#### Operating Temperature

01 - -10+60C

02 - -20+70C

03 - -40+85C

#### Output Power

11 - +16dBm min. up to 10 GHz

12 - +20dBm min. up to 6 GHz

D.C. Supply

21 - Input Voltage +12V d.c.

22 - Regulated +11 to +16V d.c.

23 - +28V d.c.

#### Electrical Tuning

31- Electrical Tuning for 0 - 12V

300 MHz to 3.0GHz (CRO) 0.5% typ.

3.0 GHz to 14.0GHz (DRO) 0.2% typ.

#### Custom Options:

- Higher Output Frequency to 30 GHz (multiplied)
- Higher Output Power to +30dBm (amplified)
- Lower Harmonics (filtered)
- Custom Sizes
- Instrument or Rack Mount Housing with Power Supply

#### Model Numbers:

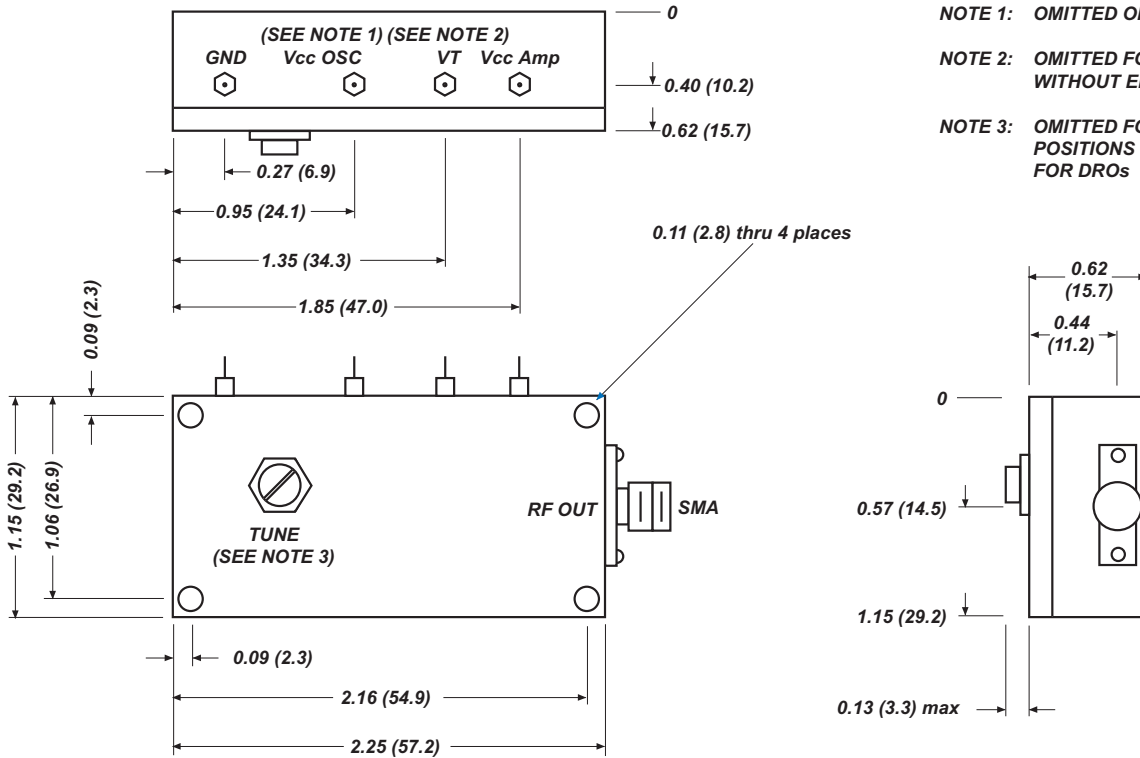
Examples:

ACR-1.750-00 1.75 GHz CRO with standard specifications

ADR-9.050-02-11-23 9.05 GHz DRO with -20+70C, +16dBm and +28V.

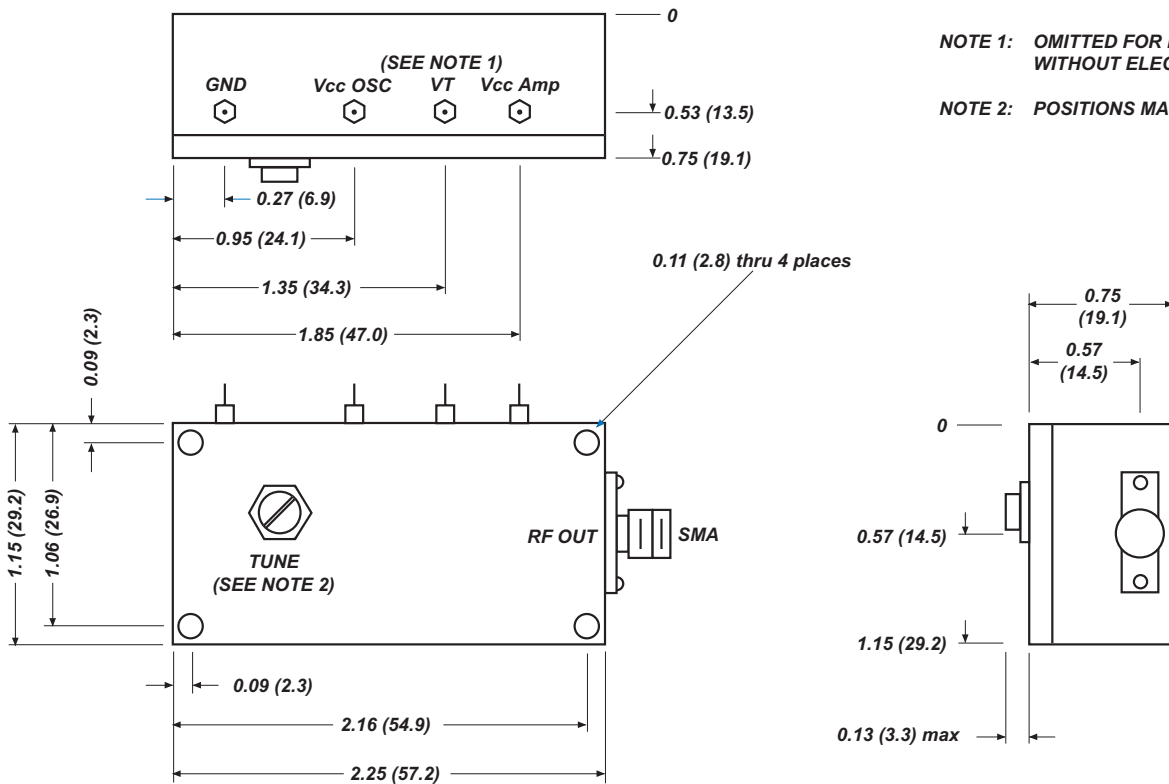
# OUTLINE E

USED ON: CROs: 0.3 TO 3.0 GHz  
DROs: 6.0 TO 14.0 GHz



# OUTLINE F

USED ON: DROs: 3.0 TO 6.0 GHz



All dimensions are inches (mm)

We reserve the right to change standard product specifications without notice but will be pleased to consider control drawings for quotation.