

VCO-200A



Voltage Controlled Frequency Source

902

The VCO-200A is an oven stabilized, varactor tuned transistor oscillator that features excellent tuning linearity, good frequency stability, and fast slewing rate. These features make it ideally suited for use as a signal source for acousto-optic deflector drivers.

Short term frequency fluctuations in the VCO-200A are minimized by use of a drift-cancelling oscillator circuit. Long term frequency stability is obtained by regulating oscillator temperature in a proportionally controlled oven.

As supplied, the VCO-200A is adjusted for best linearity over the range from 75MHz to 125MHz*

SPECIFICATIONS

Oscillator Type:	Oven Stabilized, Varactor Tuned
Frequency Range:	30MHz to 130MHz
Output Impedance:	50Ω Nominal
Output RF Power Level:	-6dBm
RF Power Variation vs. Freq:	< 1.5dB
Spurious Outputs:	Harmonics > 20dB Below Fundamental
Source Impedance:	Drive From Low Impedance Source, 50Ω or Less
Tuning Voltage:	Ground to -3.0VDC (Ground ≤ 30MHz)
Tuning Characteristic:	Frequency Linearly Proportional to Voltage with Negative Scale Factor of $\cong 40\text{MHz/V}$.
Tuning Linearity:	+ 1% From Best-Fit Straight Line Tuning Curve Over Range From 30 to 130MHz + 0.1% From Best-Fit Straight Line Tuning Curve Over Range From 75 to 125 MHz
Tuning Slew Rate:	> 10 MHz/μs
Frequency Stability:	+ 0.1% / hr.
Residual FM:	< 10KHz Peak to Peak
Warm-Up Time:	Approximately 20 Minutes From Cold Start
DC Power Input:	-15.0Vdc @ < 100mA, Regulated to 0.5% +15.0Vdc @ < 15mA, Regulated to 0.5% +28Vdc (or +24Vdc) @ 600mA, Regulated to 0.5%
Temperature Range:	0°C to 50°C Ambient
Mounting Orientation:	Any
Dimensions:	See Outline (Reverse Side)

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

ISOMET CORP, 5263 Port Royal Rd, Springfield, VA 22151, USA.

Tel: (703) 321 8301 Fax: (703) 321 8546

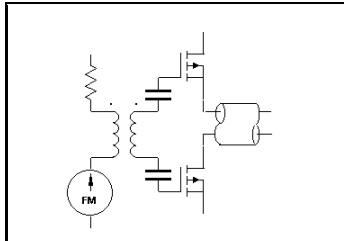
E-mail: ISOMET@ISOMET.COM Web Page: WWW.ISOMET.COM

Quality Assured.

In-house: RF & Digital design

Software Development

OEM manufacture



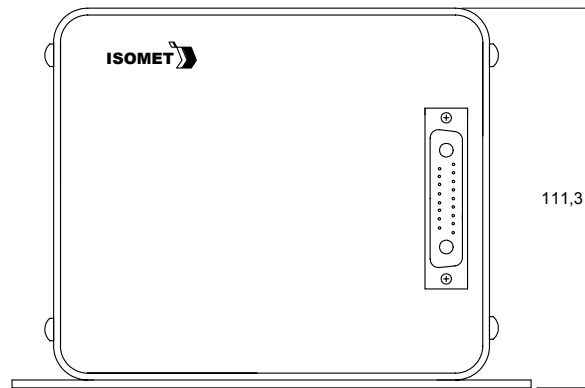
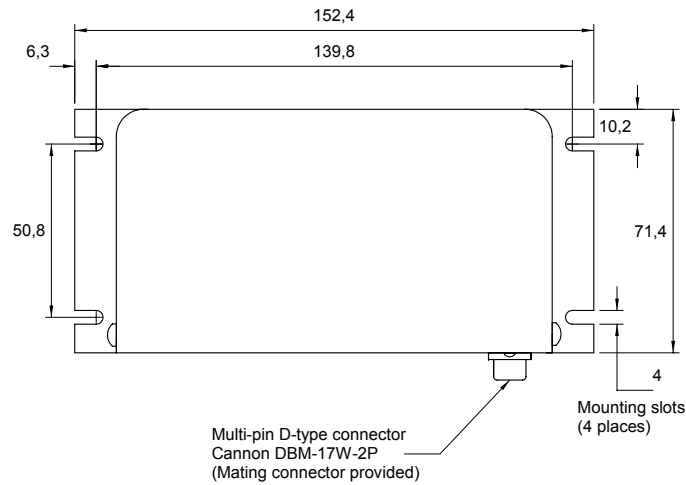
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OUTLINE DRAWING



Dim'n: mm
(1"=25.4mm)

ELECTRICAL CONNECTIONS

Pin 1 Ground
Pin 3 - 15VDC
Pin 5 + 15VDC
Pin 10 +28VDC, Oven
Pin 11 Return, Oven

A1 OSC Control Volt (RG178/188)
A2 RF Output (RG178/188)

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