

# 521C-x Series

## RF Driver



1106

The 521C series Digital Modulation Drivers are designed to operate with Isomet 40MHz AO modulators and compact Q-switches for the proportional digital (On:Off) control of laser beam intensity.

Contained in these Drivers is a crystal oscillator, a wideband balanced diode ring modulator, and RF power amplifier. A high speed, balanced ring modulator is used to switch the carrier amplitude under the control of the modulation input. The resulting double sideband AM signal is subsequently amplified by a Class A MOSFET amplifier stage.

Efficient heat transfer from the driver is required. The mounting base must be attached to an external heat sink not exceeding a temperature of 70°C. The supply to the 521C-2 driver is internally regulated and thus will accept a wide DC power input range. The DC input is not internally regulated on C-L, C-4 and C-7 variants.

### SPECIFICATIONS

Output impedance:	50Ω Nominal
Load Mismatch VSWR:	2:1 Max
RF On-Off Ratio:	>40dB
Digital Input:	TTL compatible > 2.7V = RF ON, < 0.8V = RF OFF (10mA input current)
Frequency Accuracy:	± 0.003%
Frequency Stability:	± 0.003%
DC Power Input: 521C-L	+15Vdc regulated to ± 1%, < 400mA
521C-2	+22 to +30Vdc regulated to ± 1%, < 500mA
521C-4	+24/+28Vdc regulated to ± 1%, < 500mA
521C-7	+24/+28Vdc regulated to ± 1%, < 700mA
Temperature Range:	0°C to 60°C ambient, temperature at mounting face should not exceed 60°C.
Mounting Orientation:	Any
Dimensions:	See Outline, reverse side.

### PERFORMANCE

<u>Model</u>	<u>Centre Frequency</u>	<u>Minimum Rise Time</u>	<u>RF Drive Power</u>	<u>Supply</u>
521C-L	40MHz	6nsec	>1.7 W	+15V
521C-2	40MHz	6nsec	>3.0 W	+22 to +30V
521C-4	40MHz	6nsec	>3.6 W	+24V
521C-6	40MHz	6nsec	>6.6 W	+24V

#### ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

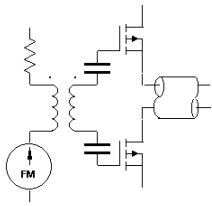
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Quality Assured.

In-house: RF & Digital design  
Software Development  
OEM manufacture

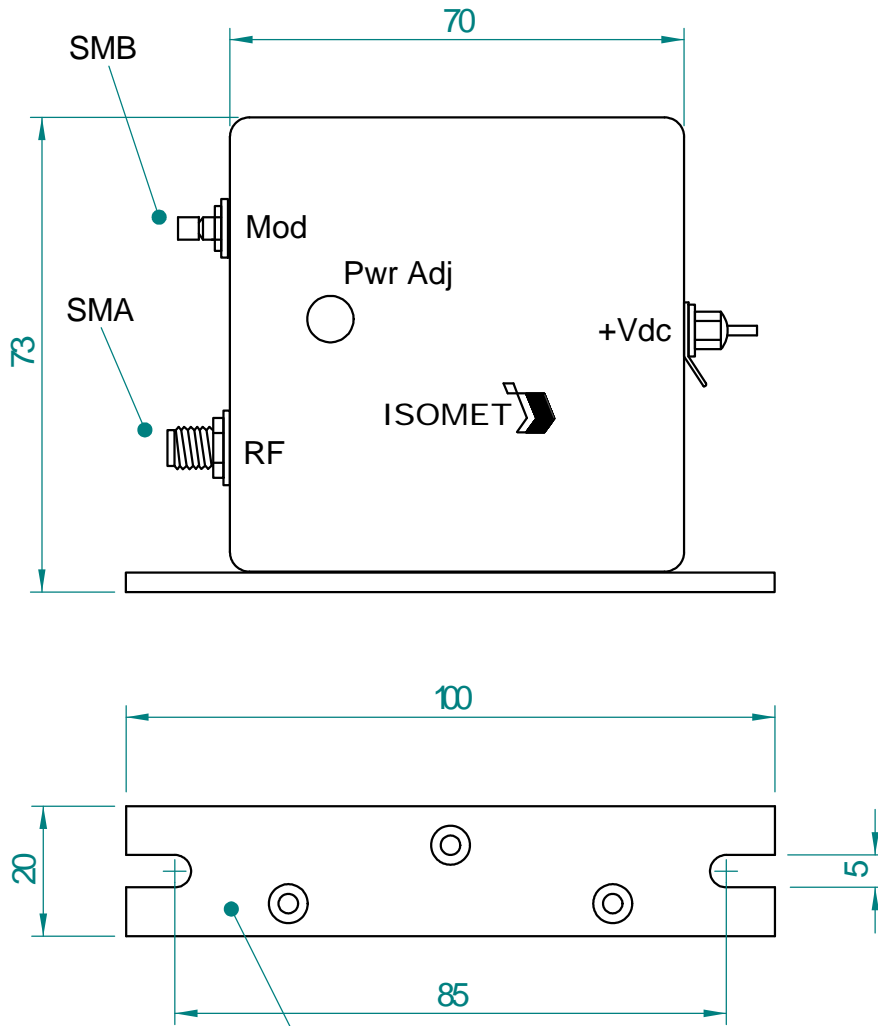


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## OUTLINE DRAWING



Mounting Flange to Heatsink  
Apply Thermal Compound  
Max. Temp 70deg C

Dimensions : mm

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