

522C-x Series

Digital Modulation RF Driver



0608

The 522C series Digital Modulation Drivers are designed to operate with Isomet 80MHz AO modulators and compact Q-switches for the 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.

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 standard 522C 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:	± 0.01%
Frequency Stability:	± 0.01%
DC Power Input: 522C-L	+15Vdc regulated to ± 1%, < 400mA
522C	+22 to +30Vdc regulated to ± 1%, < 500mA
522C-4	+24/+28Vdc regulated to ± 1%, < 500mA
522C-7	+24/+28Vdc regulated to ± 1%, < 800mA
Temperature Range:	0°C to 60°C ambient, temperature at mounting face must not exceed 60°C.
Mounting Orientation:	Any
Dimensions:	See Outline, reverse side.

PERFORMANCE

Model	Centre Frequency	Minimum Rise Time	RF Drive Power	Supply
522C-L	80MHz	6nsec	>1.7 W	+15V
522C-2	80MHz	6nsec	>2.8 W	+22 to +30V
522C-4	80MHz	6nsec	>4.0 W >3.5 W	+28V +24V
522C-7	80MHz	6nsec	>7.0 W	+24V

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

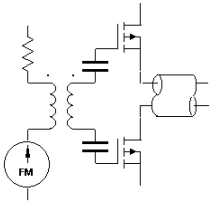
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Quality Assured.

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

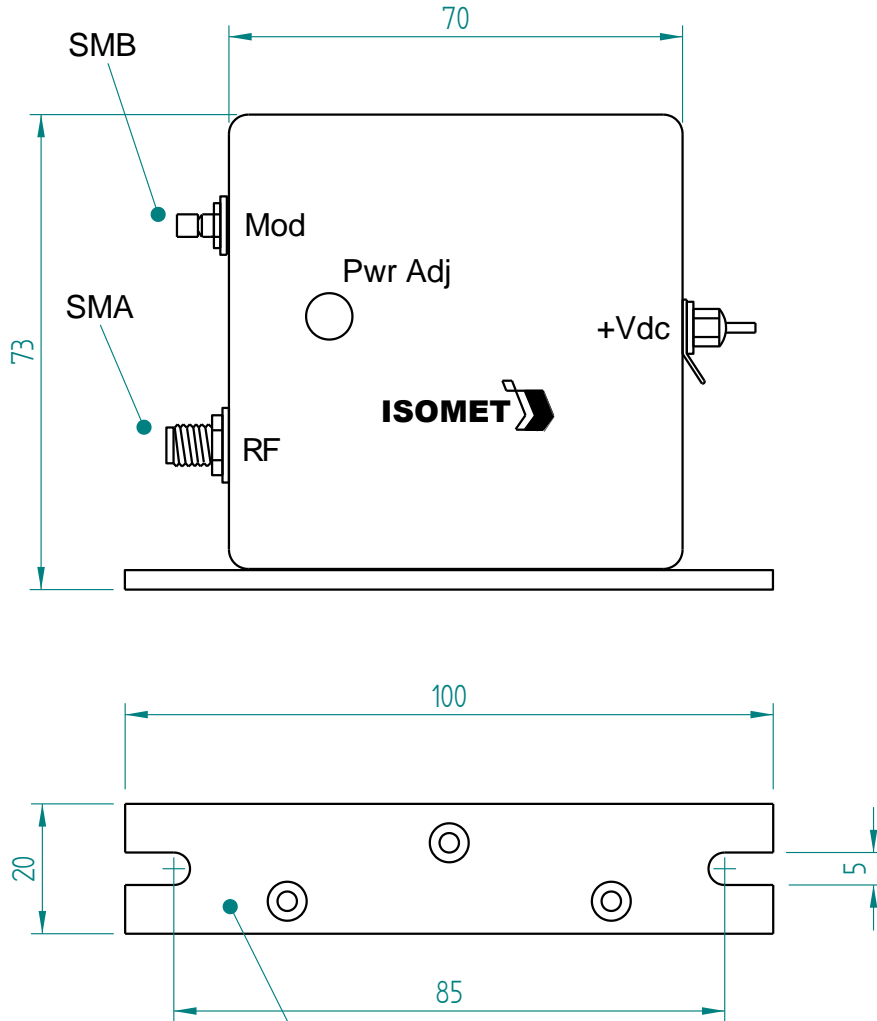


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OUTLINE DRAWING



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

Dim'n : mm

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