525F/535F/555-x Series

200MHz Modulator Driver

ISOMET

4821

The 5x5F series dual modulation drivers are compatible with Isomet 200MHz AO modulators and pulse pickers. These RF drivers include a precision crystal oscillator, wideband mixer, high speed RF switch and power amplifier stage. Separate modulation inputs enable simultaneous analog (level) and digital (On:Off) amplitude control. Drivers can be factory configured for either or both modulation input controls (see options).

Active modulation	Model	Modulation Input
Digital	5**25**F-	5V logic compatable
Analog	5**35**F-	0 - 1V *, 50ohm
Dual	5**55**F-	both, as above

Efficient heat transfer from the driver is required. The mounting surface must be attached to an external heat sink. The supply to the 5x5F-2 driver is internally regulated and thus will accept a wide DC power input range. The DC input is not internally regulated on versions 5x5F-L, F-4
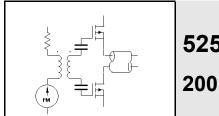
SPECIFICATIONS

Output impedance:	50Ω Nominal
Load Mismatch VSWR:	2:1 Max
<u>Analogue Input:</u>	0 - 1V * for 100% depth of modulation
RF output analog mod'n On-Off Ratio:	>40dB
<u>Digital Input:</u>	> 2.7V = ON, < 0.8V = OFF
RF output digital mod'n On-Off Ratio:	>55dB
Frequency Accuracy:	± 25ppm
Frequency Stability:	± 25ppm

DC Power Input: 5x5F-L   +15Vdc regulated to ± 1%, < 400mA
               5x5F-2   +22 to +30Vdc regulated to ± 1%, < 500mA
               5x5F-4   +24/+28Vdc regulated to ± 1%, < 500mA

Temperature Range: 0°C to 70°C ambient, temperature at mounting face must not exceed 60°C.

PERFORMANCE

Model	Centre Frequency	Minimum Rise Time	RF Drive Power	Supply
5x5F-L	200MHz	6nsec	>1.1W	+15V
5x5F-2	200MHz	6nsec	>2.2W	+22 to +30V
5x5F-4	200MHz	6nsec	>3.5W	+24V

OUTLINE DRAWING
Dim'n: mm

SMB

D-MOD

A-MOD

(Option) BIAS

(LED)

ISOMET

0V
+Vdc

PWR ADJ

RF

SMA

Phoenix 3.81mm connector

Vertical mount foot, option -R

4 off through holes, 3.2mmD

70

63,5

63,5

70

3

20

100

20

5

85

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

Options:	Add suffix'es (-x)
Modulation BIAS adj pot	' -B '
Heatsink with fan	' -F '
Vertical mount foot	' -R '
0-5V analog modulation	' -V '
0-10V analog modulation	' -X '