

iSPA4060-2

Dual Output RF Synthesizer/Amplifier



0914

The iSA4060-2 is a programmable frequency synthesizer and power amplifier with two phase controlled outputs. This driver suits the Isomet Beam Steered acousto-optic deflectors such as the D1315-G50 . This driver includes a micro-controller and high speed dual-output synthesizer. Initial set-up and diagnostics are made via a USB interface. Once programmed, operation is from non-volatile memory and the outputs are controlled from dedicated external inputs.

A digital input selects the required output beam by switching the frequency and phase offset of the driver outputs. The power level for each output can be set either by two external independent analog input signals or internal digital pots. A separate digital gate input provides global On:Off control.

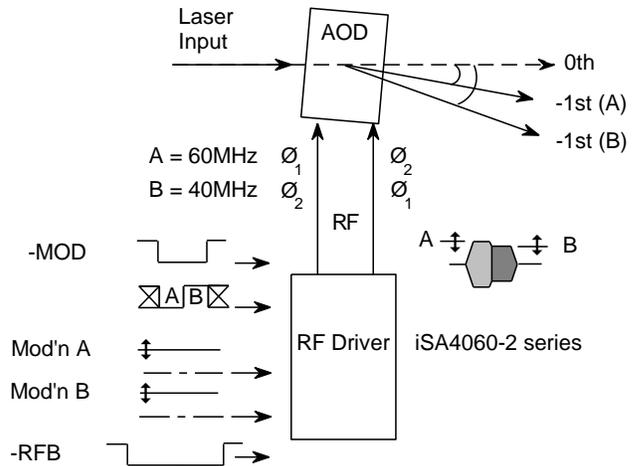
Diagnostics include:

- RF power level indication
- Driver temperature
- DC supply voltage

Protection includes:

- Over temperature shut down
- DC supply over-voltage clamp
- External thermal interlock.

The iSPA4060-2 will operate from a +24V to +28Vdc supply. LED's indicate the status of the thermal interlocks, DC supply and RF output activity.



SPECIFICATION

Maximum RF power output (Total)	:	> 200 Watts CW (28V supply) > 180 Watts CW (24V supply)
Load impedance	:	50Ω
RF outputs	:	BNC (2 off)
Harmonic distortion	:	>20dB below fundamental
Output frequencies, programmable	:	Up to 8 across 40-60 MHz power bandwidth.
Frequency stability	:	± 25ppm
Frequency accuracy	:	± 25ppm
Analog modulation (Mod_A or _B)	:	0.0V OFF to 10.0V fully ON
Digital modulation , active low	:	TTL Compatible. Low = On
FRQ select	:	TTL Compatible. Low = 60MHz, High = 40MHz
RF ON to OFF Contrast ratio	:	>37dB below full power
Output switching speed	:	< 0.15μs Rise/Fall, 0 to 50 Watts per output
Power supply	:	+24V to +28Vdc, 0.25% regulation, < 20A
Power input	:	Feed through filter solder tag
Temperature range	:	0° to 60°C, Thermal Shutdown Interlock Integral water-cooled heatsink

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

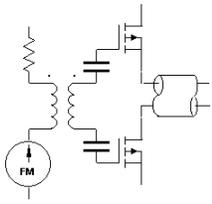
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Quality Assured.

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



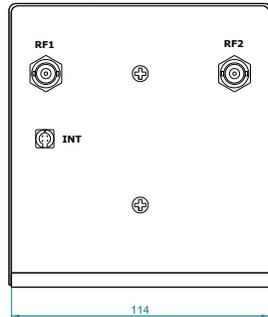
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OUTLINE DRAWING

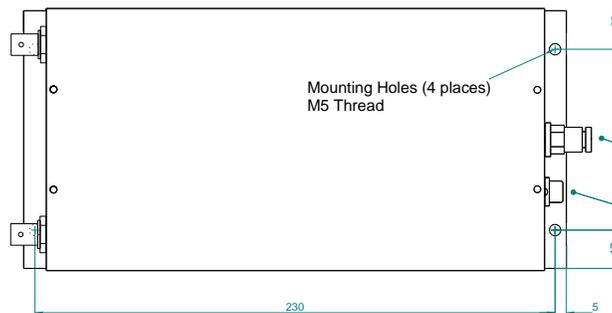
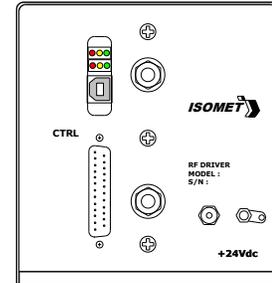
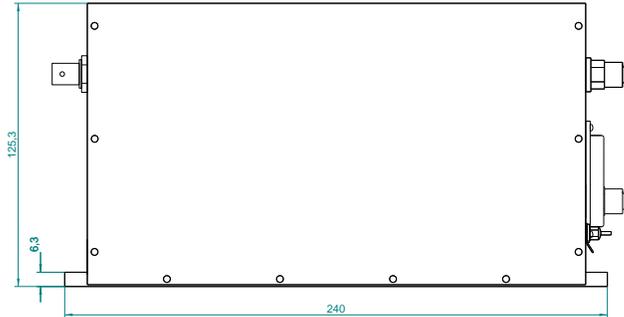


RF Outputs
BNC (2 off)

INT Input
4 way Plug
(Binder 719)

RF Amplifier Outline

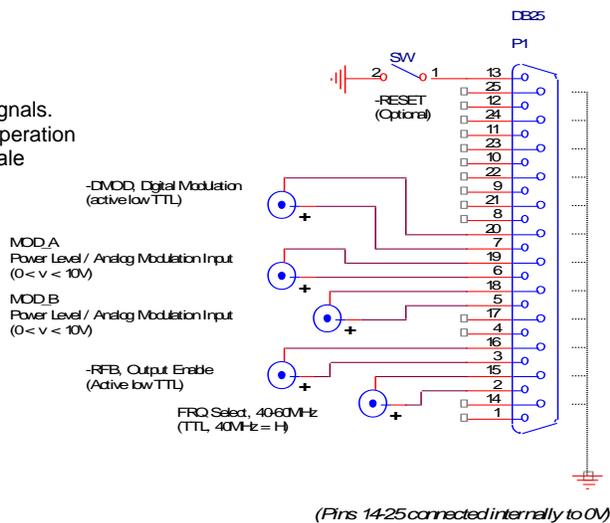
Dimensions : mm
1" = 25.4mm



G 1/8" Thread Water Fittings (2 off)
Water cooled Heatsink
Must not exceed 50deg C

25way D-type Plug

Typical control signals.
Dual frequency operation
25 pin 'D' type Male



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