

MatchBox™ Motorized 3-Stub Tuner

GERLING

Model GA1007
Model GA1008
Model GA1030

The MatchBox™ Motorized 3-Stub Tuner is designed for OEM applications that require the capability for remote control of waveguide impedance matching without the cost and complexity of fully automated impedance matching devices. Independently controlled high-speed micro-stepper motors are capable of moving each stub through its full length of travel within 100 ms or less, thus enabling extremely fast impedance matching.

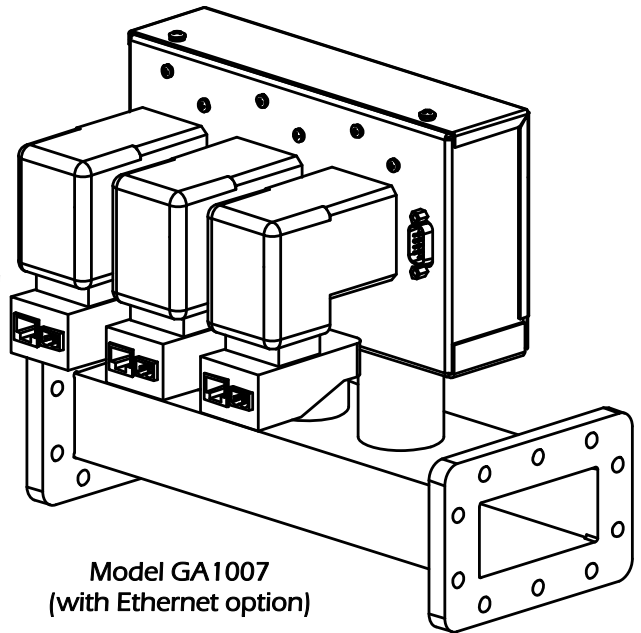
Each of the three stepper motors are controlled by the customer's remote computer, PLC or similar process control system via USB 2.0 (optional Ethernet) interface. Integrated motor controllers can be programmed using custom software for stand-alone operation. Windows and Linux drivers are provided to aid the customer in software development.

The tuning stubs are spaced at 1/4 guide wavelength intervals and offset 1/16 guide wavelength from center. This offset configuration provides the capability of tuning a broader range of impedances than standard tuners having no offset.

Optional features include manual stub operation, Ethernet control interface, water-cooling and flange interlock switches.

Preliminary Specifications:

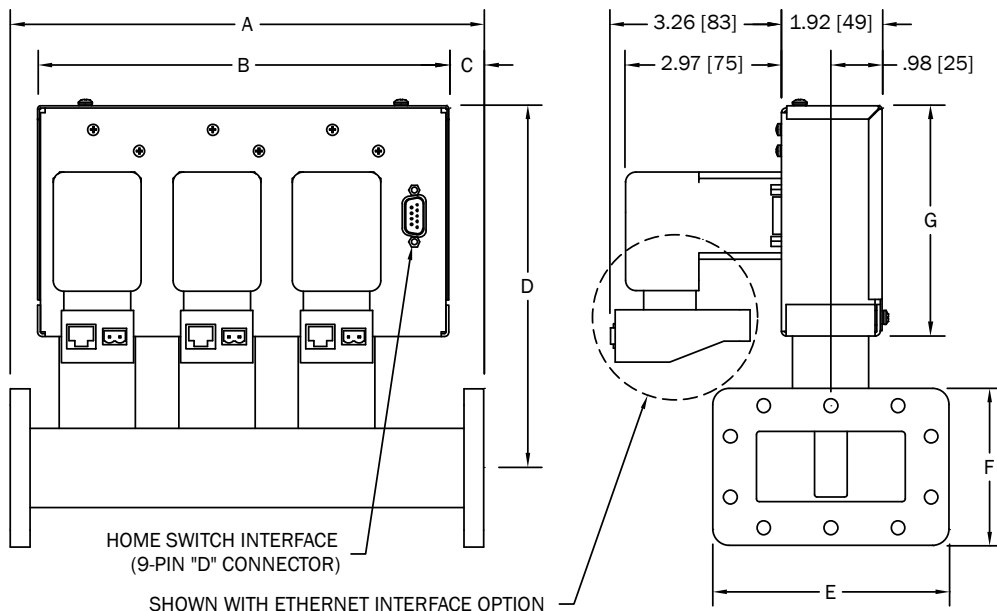
Waveguide	GA1007: WR284 GA1008: WR340 GA1030: WR430
Flange	Flat CPR (rectangular) w/thru holes
Frequency	2450 MHz +/- 50 MHz
Impedance Matching	3 stubs with 1/4-wave chokes on 1/4 guide wavelength spacing
Response Time	<100 ms total
Control Interface	USB, mini-B to A connector
Input Power	+12-24 VDC, 2 Amps max (each motor)
Power Connector	25-pin male D-sub



Model GA1007
(with Ethernet option)

Options:

- ◆ Ethernet interface
- ◆ Heli-Coils or studs on flanges (any combination)
- ◆ Round flanges with taper for quick-disconnect clamp (GA1007 only)
- ◆ Flange interlock switches
- ◆ Water cooling



HOME SWITCH INTERFACE
(9-PIN "D" CONNECTOR)
SHOWN WITH ETHERNET INTERFACE OPTION

DIM	GA1007	GA1008	GA1030
A	9.00 [229]	9.00 [229]	9.00 [229]
B	7.82 [199]	6.69 [170]	6.18 [157]
C	0.66 [17]	1.23 [31]	1.55 [39]
D	6.88 [175]	7.06 [179]	9.09 [231]
E	4.50 [114]	5.44 [138]	6.34 [161]
F	3.00 [76]	3.75 [95]	4.19 [106]
G	4.39 [111]	4.39 [111]	6.19 [157]



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