

YIG TUNED HARMONIC MULTIPLIERS

The OMNIYIG YM100X YIG Tuned Harmonic Multipliers series have been designed to electronically tune in octave and multioctave bands and to provide harmonics of the input frequency with extreme purity. The harmonics can be selected by the continuously tunable YIG Filter which is integrated with the multiplier in one compact package.

Model YM1001 accepts an input signal from 1 to 2 GHz. The harmonics of that signal is selected by a tunable YIG Filter and offers a continuously swept output frequency from 2 to 13 GHz. Models YM1002, YM1003 and YM1004 are operated with a fixed input signal of 100 MHz, 250 MHz and 500 MHz respectively. Harmonics up to 12.4 GHz can be selected with their 3 stage filter to obtain signal with extreme purity.

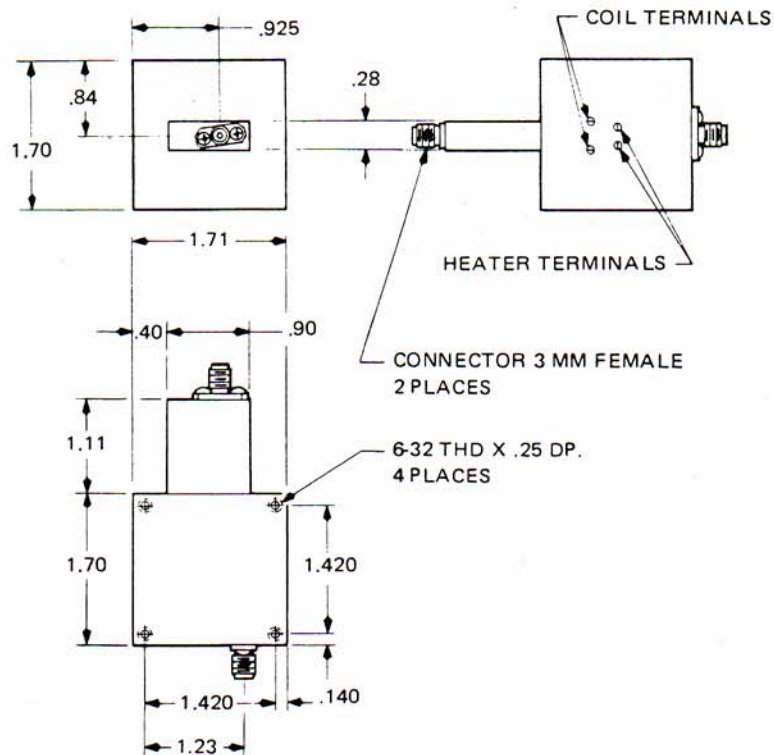
The integration of the multiplier and filter in one compact package gives an efficiency in the harmonic generation never obtained before.

The YM100X Series YIG Tuned Harmonic Multipliers have applications in octave and multioctave sweepers, frequency synthesizers, C-band oscillators, frequency counters, digital tuned ECM receivers.

Other special designs can be provided for octave bands with higher RF power outputs or other extended frequency ranges.

Features:

- Compact Design
- High Efficiency
- Outstanding Reliability



SPECIFICATIONS

OMNIYIG Models	YM1001	YM1002	YM1003	YM1004
Input Frequency	1-2.1 GHz	100 MHz	200 MHz	500 MHz
Output Frequency Range	2-13 GHz	1-12.4 GHz	1-12.4 GHz	1-12.4 GHz
		(Continuous Coverage)		
Input RF Power	1 W	1 W	1 W	1 W
Harmonic Rejection	40 dB	60 dB	60 dB	60 dB
Output Power (at 12.4 GHz)	4 mW	-33 dBm	-28 dBm	-10 dBm
Tuning Sensitivity (typical)	18 MHz/mA	18 MHz/mA	18 MHz/mA	18 MHz/mA
Linearity	0.15%	0.15%	0.15%	0.15%
Tuning Hysteresis	30 MHz	30 MHz	30 MHz	30 MHz
Tuning Coil Resistance (typical)	80 ohms	80 ohms	80 ohms	80 ohms
Temperature Coefficient	200 kHz/°C	200 kHz/°C	200 kHz/°C	200 kHz/°C
Weight	16 oz.	16 oz.	16 oz.	16 oz.
Heater Voltage	18-32 V	18-32 V	18-32 V	18-32 V
Heater Current (typical)				
Surge for 4 seconds	500 mA	500 mA	500 mA	500 mA
Steady State at 0°C	80 mA	80 mA	80 mA	80 mA
Size (excluding connectors)	1.69 in. x 1.69 in. x 1.69 in., all models			
Connectors				
RF Input and Output	3 mm (5 mA) Female, all models			
DC	Solder Terminals, all models			

MODEL NO. YM1001
TYPICAL CONTINUOUSLY OUTPUT POWER
VERSUS 1 WATT INPUT POWER

