



## 500 MHz to 18 GHz Integrated Local Osc w/ pre-post-sel Filter

### RF PERFORMANCE - STANDARD 16 MILISECONDS OCTAVE BANDS

TYPE <sup>1</sup>	OMNIYIG MODEL No. <sup>3</sup>	FILTER FREQ RANGE (GHz)	FILTER INSERTION LOSS (dB)	FILTER BANDWIDTH at 3dB <sup>4</sup> (MHz)	LINEARITY OCILLATOR & FILTER (MHz)	OSC RF POWER OUTPUT (mW)	FILTER & OSC DRIFT 0° to 60° C (MHz)	FILTER OFF RESONANCE ISOLATION MINIMUM (dB)	DIMENSIONS (INCHES)	FREQ TRACKING BETWEEN OSC & FILTER (MHz)
WITH 2-STAGE FILTER	M132YTO	0.5-2.0	5.0	15-30	5	20	5	45	G	± 5
	M133YTO	2.0-8.0	5.0	24-45	7	20	5	55	G	± 7
	M134YTO	8.0-18.0	5.0	25-45	8	20	10	55	H	± 8
	M135YTO	2.0-18.0	7.0	20-45	14	15	12	50	H	± 9
WITH 3-STAGE FILTER	M136YTO	0.5-2.0	6.0	15-30	5	20	5	70	G	± 5
	M137YTO	2.0-8.0	5.0	20-45	7	20	5	70	G	± 7
	M138YTO	8.0-18.0	5.0	25-50	8	20	10	70	H	± 8
	M139YTO	2.0-18.0	7.5	20-50	14	15	12	65	H	± 9
WITH 4-STAGE FILTER	M140YTO	0.5-2.0	6.5	12-30	5	20	5	80	G	± 5
	M141YTO	2.0-8.0	5.5	20-45	7	20	5	80	G	± 7
	M142YTO	8.0-18.0	5.5	25-50	8	20	10	80	H	± 8
	M143YTO	2.0-18.0	7.5	20-50	14	15	12	80	H	± 9
WITH DUAL 2-STAGE FILTER	M144YTO	0.5-2.0	6.0	15-30	5	20	5	45	G	± 5
	M145YTO	2.0-8.0	5.0	24-45	7	20	5	55	G	± 7
	M146YTO	8.0-18.0	5.0	25-45	8	20	10	55	H	± 8
	M147YTO	2.0-18.0	7.0	20-45	14	15	12	50	H	± 9

### ADDITIONAL RF PERFORMANCE SPECIFICATIONS

- a. Oscillator frequency range is typically 160 MHz above the filter frequency. The oscillator frequency can also be factory adjusted to any other frequency requirement.
- b. The pulling figure (1.25:1 VSWR) is less than 3 MHz.
- c. The second harmonic is 14 dB minimum below fundamental.
- d. Other designs are available with 40 dB second harmonic.
- e. Weight 50 ounces max.
- f. Size: 2.8W x 2.8L x 1.65H inches, drawing # 82490
- g. Size: 3.4W x 3.1L x 1.95H inches, drawing # 82464

**Heater Voltage**                    28+4 Vdc unregulated  
**Driver Voltage**                    +24 Vdc @ 30 mA  
    -24 Vdc @ 600 mA  
  
**Oscillator Voltage**                +20 Vdc @ 100 mA  
**Driver Control Voltage**           12 BIT TTL Full  
    Frequency Band

### FAST SWITCHING ( < 800 mSec ) <sup>5,6</sup>

WITH 2-STAGE FILTER	M148YTOF	0.5-2.0	6.0	15-30	5	20	7	45	F	± 5
	M149YTOF	2.0-8.0	5.0	24-45	7	20	10	55	F	± 7
	M150YTOF	8.0-18.0	5.0	25-45	8	25	12	55	F	± 8
	M151YTOF	2.0-18.0	7.0	20-45	14	15	12	50	F	± 9
WITH 4-STAGE FILTER	M129YTOF	0.5-2.0	6.5	12-30	5	20	7	80	F	± 5
	M120YTOF	2.0-8.0	5.5	20-45	7	20	10	80	F	± 7
	M121YTOF	8.0-18.0	5.5	25-50	8	25	12	80	F	± 8
	M152YTOF	2.0-18.0	7.0	20-50	14	15	12	80	F	± 9
WITH DUAL 2-STAGE FILTER	M153YTOF	0.5-2.0	6.0	15-30	5	20	7	45	F	± 5
	M154YTOF	2.0-8.0	5.0	24-45	7	20	10	55	F	± 7
	M155YTOF	8.0-18.0	5.0	25-45	8	25	12	55	F	± 8
	M156YTOF	2.0-18.0	7.0	20-45	14	15	12	50	F	± 9

#### NOTES:

1. All connectors are standard 3mm (SMA) female.
2. Maximum isolation between channels is 50 dB.
3. Limiting levels for all units are greater than +10dBm.
4. Nominal bandwidths, other bandwidths are available.
5. Drivers are 12 BIT TTL or analog.
6. All units can be qualified to MIL-E-5400, Class II Specification on special order.