



9 Westchester Ct Trabuco Canyon, CA 92679-4955 Phone: 949-713-6367
<http://www.jwmeng.com> E-Mail: jmulchin@jwmeng.com

For immediate release

JWM Engineering Group Introduces a Clean Way to Stabilize Microwave Transverters

Model 1152 Phase Locked Oscillator unit improves frequency accuracy and stability for Microwave Transverters

TRABUCO CANYON, CALIF. — JWM Engineering Group announces today the Model 1152 Phase Locked Oscillator, designed to improve frequency control to microwave receivers and transmitters using crystal oscillator local oscillator chains.

“The Model 1152 eliminates the ‘frequency uncertainty’ of most microwave transverter systems. Precise frequency control and stability eliminates at least one variable in establishing successful and enjoyable microwave communications,” said Jerry Mulchin, N7EME, and President of JWM Engineering Group.

The compact size simplifies integration into existing systems, and the frequency output options cover a multitude of local oscillator frequency schemes, see Table 1 and Table 2.

The Model 1152 requires a stable external 10MHz frequency reference oscillator, such as a temperature-controlled oscillator (TXCO), oven-controlled crystal oscillator (OCXO) or rubidium oscillator.

Table 1. Model 1152 Base Frequency Options

Frequency Option	Frequency Band	IF Frequency
1152 MHz	1296 MHz	144 MHz
1268 MHz	1296 MHz	28 MHz
1296 MHz	1296 MHz	Signal Source

Table 2. Model 1152 Multiplier Frequency Options

Frequency Option	Multiplier	Frequency Band	IF Frequency
1080 MHz	X2	2304 MHz	144 MHz
1128 MHz	X2	2400 MHz	144 MHz
1104 MHz	X3	3456 MHz	144 MHz
1123.2 MHz	X5	5760 MHz	144 MHz
1136 MHz	X9	10,368 MHz	144 MHz
1104 MHz	X9	10,368 MHz	432 MHz

NOTE: Custom frequencies are available on special order

Specifications

- 13.8 Vdc @ 200ma typical, designed for battery/remote operations
- +10 dBm RF output minimum, (+12dBm typical)
- All harmonics are > -33 dBc below fundamental
- Phase Noise -71 dBc/Hz @ 1kHz typical
- Phase Noise -85 dBc/Hz @ 10kHz typical
- Phase Noise -115 dBc/Hz @ 100kHz typical
- 200 kHz Reference Spurs > -120 dBc
- Operating Temperature Range -20 Deg C to +80 Deg C
- External Lock Signal output provided
- Small size - 4 3/4" long x 1 1/2" wide x 1 1/4" high
- Full 1 year limited warranty

About jwm Engineering Group

Backed by over 37 years of electronics design experience in radio frequency, microwave RF, analog, and digital design work. JWM Engineering Group is dedicated to delivering the highest level of quality at an affordable price for microwave experimenters. JWM Engineering Group will also perform consulting work for your special needs, from Amateur to Commercial products. Contact us to discuss your custom design requirements and goals. Visit our Web site for more details: <http://jwmeng.com>.