

Providing Electronic Solutions for Today's Difficult Problems

### Electronic Specifications

Frequency Output: 4 to 35 MHz, set at factory  
 Initial Frequency Accuracy: < 10 ppb (parts per billion), typ.  
 Internal Oscillator: Stratum III OCXO  
 Standard Output Power: 0 dBm  $\pm$  1 dB into 50 $\Omega$   
 Frequency Aging: <  $\pm$ 0.75 ppm 1st year; <  $\pm$ 4.5 ppm 10th year  
 Warm-Up Time: < 30 minutes  
 Spurious Signals: > 50 dBc, 65 dBc, typ.  
 Harmonics: > 50 dBc, 65 dBc, typ.

### Description

The FR-2000 is a low-cost, highly-accurate frequency source which can be used as a Calibration Standard, Laboratory Signal Generator, Synchronization Source, Cellular Base Station Reference, Phased-Locked Loop Reference Signal, and more. Frequency is calibrated before shipping. No GPS signal is required for operation.

Accuracy is limited by GPS timing accuracies, typically resulting in better than 10 parts per billion (0.1Hz out of 10MHz) at time of calibration. Visual indicators show unit status.

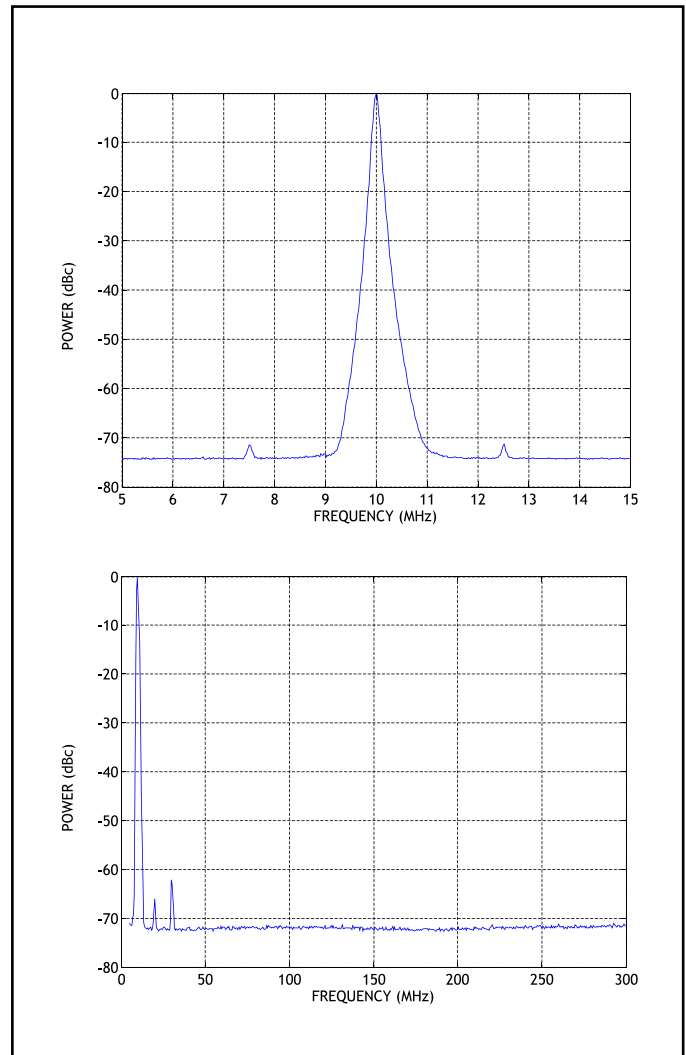
### Custom Options

Standard Power Output: 0 dBm into 50 $\Omega$   
 Available Power Output: -10 dBm to +10 dBm into 50 $\Omega$   
 Multiple Outputs: 3 or 5 Rear Outputs. Other configurations available -- please call.

Developed Frequencies (many more available, call us):

4.096 MHz	8.192 MHz	16.384 MHz
5.000 MHz	10.000 MHz	19.440 MHz
6.144 MHz	12.288 MHz	20.000 MHz

### Typical Spectral Responses



### Enclosure Outline & Physical Specifications

DIMENSIONS IN INCHES

INDICATORS

- READY     POWER ON
- STBY

Power Supply: 11 to 14 VDC  
 Supply Current: < 300 mA at 12 VDC (warm-up)  
 Power Jack: 2.1mm/5.5mm DC Jack  
 AC Power Adapter included

RF Connector: BNC Jack (RF Output)

Size: 2" x 5.5" x 7", overall  
 Weight: < 2 lbs.  
 Enclosure Finish: Black Powder Coat

For ordering information, contact Diarcy Technologies  $\square$  3804 Tamarack Trail, Austin, TX 78727 USA  
 +1.512.238.6840  $\square$  Skype: diarcy.technologies  $\square$  contact\_us@diarcy.com  $\square$  www.diarcy.com

# FR-2000

## Low-Cost Frequency Standard, GPS Calibrated

### Ordering Information and Options

Base Part Numbers    Single Front Output: FR-2000-xx.xxx-[P/N]xx-[Zxxx]  
                               Three Rear Outputs: FR-2030-xx.xxx-[P/N]xx-[Zxxx] (No Front Output)  
                               Five Rear Outputs:   FR-2050-xx.xxx-[P/N]xx-[Zxxx] (No Front Output)

#### Options:

Specify Frequency (MHz): 4 to 35 MHz, any frequency to within 1 Hz resolution  
 Specify Output Power (dBm): -10 to +10 dBm into 50Ω, set to ± 1dB  
 (Negative powers specified by 'N', Positive powers specified by 'P')  
 Z-suffix: Custom Options not specified here

#### Examples:

Output Frequency at 16.384 MHz at -5dBm would be:  
 FR-2000-16.384-N5

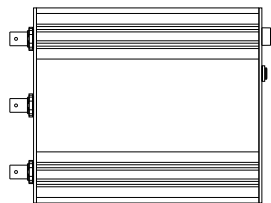
Output Frequency at 8.192 MHz at +10dBm would be:  
 FR-2000-8.192-P10

AC Power Adapter, included

#### Availability:

Stock to 3 weeks, typical

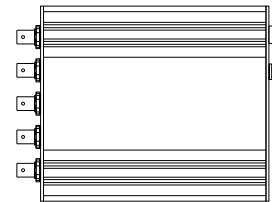
For 10.000000 MHz Frequency Standards, see our FR-1000 and DS-1000 models.  
 For GPS-disciplined Frequency Standards (4 to 35 MHz), see our DS-2000 models.



FR-2030 Option  
3 Rear Outputs



Both Model Options:  
 Size: 2" x 5.5" x 7.25", overall  
 Weight: < 2 lbs.  
 Enclosure Finish: Black Powder Coat



FR-2050 Option  
5 Rear Outputs



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