

Diarcy Technologies

DCW-5000/DCW-6000

Low-Cost RF CW Frequency Standard, GPS Disciplined with Optional PPS Output

Providing Electronic Solutions for Today's Difficult Problems

Electronic Specifications

Frequency Output: 35 MHz to 4000 MHz, set at factory
Frequency Accuracy: < 10 ppb (parts per billion), typ.
Internal Oscillator: Stratum III OCXO
Standard Output Power: 0 dBm \pm 1 dB into 50 Ω

Warm-Up Time: < 10 minutes
Spurious Signals: > 50 dBc, 65 dBc, typ.
Harmonics: > 10 dBc, typ. (square wave output)

Description

The DCW-5000 is a low-cost, highly-accurate RF 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.

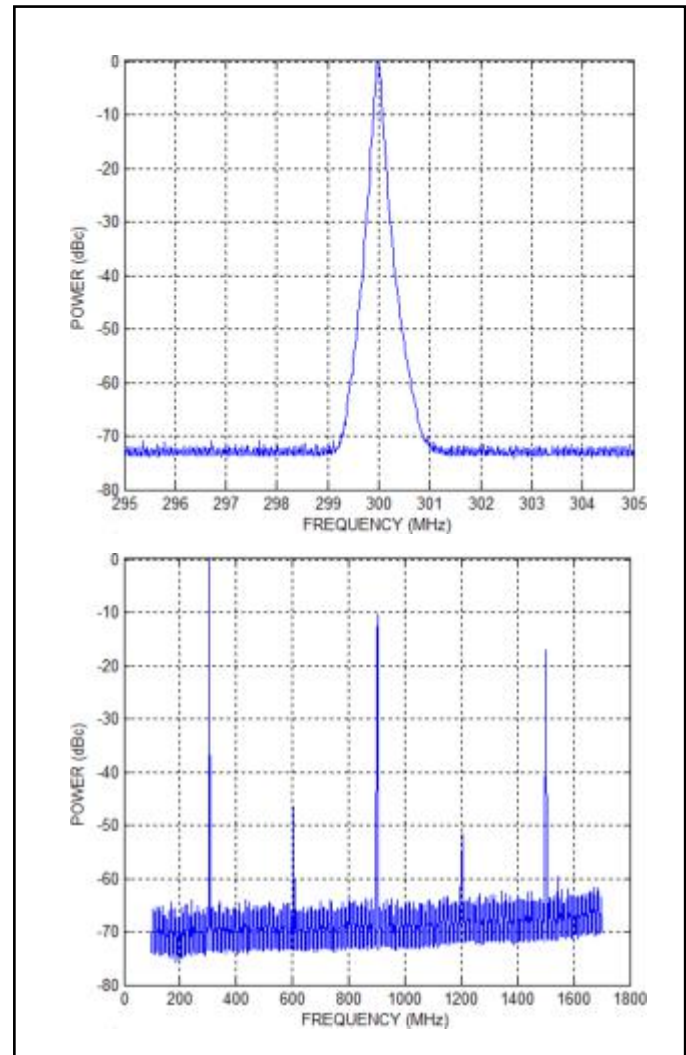
The DCW-6000 adds a logic-level PPS output.

Accuracy is limited by GPS timing accuracies, typically resulting in better than 10 parts per billion (10Hz out of 1000MHz). Visual indicators show GPS and unit status.

Custom Options

Standard Power Output: 0 dBm into 50 Ω
Available Power Output: -10 dBm to +10 dBm into 50 Ω
SMA Connector available for RF Output
Optional PPS Output: 3.3V or 5V logic-level at 24mA, min.

Typical Spectral Responses



Enclosure Outline & Physical Specifications

INDICATORS

- READY
- STBY
- UNLOCKED
- POWER ON
- COMPUTING
- GPS 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

GPS Antenna Bias: 5 VDC at 120 mA, max. (3.3 VDC, opt.).
GPS Active Antenna required (not included, but available)
RF Connectors: BNC Jack (RF Output, PPS Output, GPS Input)
SMA Connector available for RF Output Jack.

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

For ordering information, contact Diarcy Technologies \square Austin, TX 78727 USA
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SPECIFICATIONS ARE SUBJECT TO CHANGE

DCW-5000/DCW-6000

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Ordering Information and Options

Base Part Numbers Single Front Output: DCW-5000-xxxx.xxx-[P/N]xx-Gx-[Zxxx]

Single Front Output with PPS Output: DCW-6000-xxxx.xxx-[P/N]xx-Gx-[Zxxx]

Options:

Specify Frequency (MHz): 35 MHz to 4000 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')

Specify GPS Antenna Bias: +5VDC Standard, +3.3VDC Optional

Z-suffix: Custom Options not specified here

Examples:

Output Frequency at 881.5 MHz at -5dBm using a 3.3VDC GPS Antenna Bias would be:

DCW-5000-881.5-N5-G3.3

Output Frequency at 1575.42 MHz at +10dBm using a 5VDC GPS Antenna Bias would be:

DCW-5000-1575.42-P10-G5

Active GPS Antenna required, not included but available at additional cost

AC Power Adapter, included

Availability:

Stock to 3 weeks, typical

For 10.000000 MHz Frequency Standards, see our DS-1000 and DS-3000 models

For Custom Frequency Standards (35 MHz to 4000 MHz), see our DS-2000 and DS-4000 models