



DART-40

Digitally Accurate RF Tester



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Introduction

DART is a synthesized RF signal generator designed for both bench and field test environments. This unit is frequency accurate and stable, has a wide dynamic range and low phase noise and leakage.

DART incorporates an internal digital modulator and is suitable for numerous RF system development tasks. It can be operated manually via the front panel, remotely via a SCPI interface (over RS-232) or via the included Windows-based software

This low-cost unit is portable, easy to use and suitable for most applications where a stable signal source is needed.

Features

- 300 kHz to 400MHz Range
- 1 Hz resolution at any frequency
- -60 dBm to +10 dBm dynamic range
- Amplitude control in 0.1 dB increments
- Store up to 200 profiles
- Up-convert I/Q data (max 1024 points)
- Eight states for FSK, ASK or PSK
- Stream states: file, UART or random
- Lightweight and battery powered
- 4-way navigation control
- SCPI control over RS-232
- Windows-based control software for setup

Frequency

Frequency Range: 300 kHz to 400 MHz
Resolution: 1 Hz
Accuracy: .23 Hz
Stability: ± 2.5 ppm

Modulation

Digital Formats: ASK, FSK, PSK (up to 8 states)
Digital modulation rates: > 150 KBAUD states per second
Other modulations: Frequency sweep, Amplitude sweep, or Arbitrary IQ (up to 1024 vector pairs)

Output

Output Range: -60 dBm to +10 dBm
Resolution: 0.1dB
Accuracy: 0.001 dBm
Harmonics: < 25 dBc for an output level < 0 dBm
Spurious: < -60 dBm
Output impedance: $50\Omega < 2:1$ VSWR

Interfaces

User: 2 line 16 char LCD display with 4 way navigation switch.
Computer: SCPI over RS-232
Remote: Windows compatible software for remote control, setup, and storing profiles

General

Display: 2 line 16 character backlit alphanumeric LCD
Data Entry: 4 way navigation switch
Stored profiles: Up to 200
Size: 9.32" x 6.8" x 2.945" (16" x 13" x 6 7/8" case)
Weight: < 5 lbs (15 lbs with case and accessories)
Power: Internal Lithium polymer batteries or external 12VDC power supply provided

Environmental

Operating range: 0°C to 40°C < 80% RH
Storage range: -20°C to 60°C