

Model 6067 Digital Radar Altimeter Test Set is designed to test and calibrate radar altimeter systems up to 200,000 feet

System Features

- Easy, repeatable operation
- Accurate amplitude balance
- Ascent/descent simulation
- Stable and repeatable performance
- Pulsed, LPI, and CW (Swept FM) Operation
- Antenna Installation Delay simulation

Configure Now



Model 6067 Digital Radar Altimeter Test Set

The Model 6067 Digital Radar Altimeter Test Set delivers precise testing and calibration of radar altimeter systems across a wide range of platforms and technologies. It provides continuous, fully programmable delay simulation through intuitive front-panel controls or remote operation via SCPI command interface. Engineered for performance, the 6067 features wide bandwidth, low insertion loss, high isolation, and exceptional dynamic range. Operating from 4.2 to 4.4 GHz, the system simulates altitudes up to 200,000 feet with accuracy to 0.1%, enabling reliable verification of virtually all radar altimeter models and architectures.

Technology Features

Digital design provides smooth transitions and environment simulation including:

- Multiple ground reflections
- Doppler
- Clutter
- Inference

Product Configurations

- Altitude Ranges:
 - 25 to 100 feet in 5 foot steps (Option 1)
 - 15 to 100 feet in 5 foot steps (Option 2)
 - 100 to 55,000 feet in one foot steps (Standard)
- Altitude Resolution: 1 foot
- Antenna Installation Delay (AID): 0 to 500 feet in 1 foot resolution
- Option 3: Ground reflections:
 - Up to 6 ground independent ground reflections
 - Radar transmit pulses and ground reflections may overlap in time.
 - Each ground reflection may have a separate range, carrier phase and Doppler.

Options

- Doppler
- Jammers

See our Model 6067 Application Video  **YouTube**



Model 6067 Digital Radar Altimeter Test Set



System Description

The Model 6067 Digital Radar Altimeter Test System is a precision RF simulation platform engineered to replicate real-world altitude conditions for radar altimeters in a controlled, repeatable lab environment. Operating within the 4.2–4.4 GHz band, the system emulates ground-return signals by applying highly accurate, programmable time delay - effectively translating delay into altitude across a wide range from very low-level flight through high-altitude scenarios. This enables comprehensive verification and calibration of radar altimeters without the cost, variability, or logistical burden of flight testing.

At the core of the system is a fully digital delay architecture that delivers smooth, continuous altitude simulation with fine resolution and high accuracy. The Model 6067 goes beyond basic delay generation by incorporating advanced RF conditioning and signal control, allowing users to precisely adjust amplitude, balance, and isolation to match real-world conditions. Integrated features such as antenna installation delay (AID) simulation further enhance realism by accounting for platform-specific offsets.

In addition to altitude simulation, the system provides robust environmental modeling capabilities, including multi-path reflections, Doppler effects, and clutter or interference scenarios - enabling engineers to evaluate performance under both nominal and edge-case conditions. With flexible operation via front panel controls or full remote automation using standard SCPI interfaces, the Model 6067 integrates seamlessly into ATE environments for production, depot calibration, and R&D workflows.

Parameter	Specifications / Notes
Altitude Range	100 to 200,000 feet
Altitude Range Steps	1 foot
Altitude Resolution	1 foot
Reliability	> 140,000 hours of operation in field environments
Operating Temperature	0 to 65°C, 95% RH
Antenna Installation Delay (AID)	0 to 500 feet in 1 foot resolution
Option 1	25 to 100 feet in 5 ft steps
Option 2	15 to 100 feet in 5 ft steps
Option 3	Ground reflections • Up to 6 ground independent ground reflections • Radar transmit pulses and ground reflections may overlap in time. • Each ground reflection may have a separate range, carrier phase and Doppler
Additional Options	Doppler Jammers

