



Frequency Response Analyzer



The Moku:Pro Frequency Response Analyzer enables you to measure the frequency response of a system in both magnitude and phase using a swept sine output from 10 mHz to 500 MHz, with a noise floor of < -125 dBm across the entire frequency range. Moku:Pro is equipped with four inputs and four outputs, enabling differential or ratiometric measurements. Select up to 8192 points per sweep and configure settling and averaging times to balance total sweep duration and signal-to-noise ratio.



Frequency range
Up to 500 MHz

Input impedance
50 Ω or 1 M Ω

Averaging time
1 μ s to 10 s

Sweep
Linear/logarithmic

Output voltage range
Up to 20 Vpp

Harmonics detection
Up to 15th

Features

- Linear or logarithmic swept sine output
- Math channel to add, subtract, multiply, divide, or apply an arbitrary calculation to response functions as they are acquired
- Saturation detection and avoidance with Dynamic Amplitude drive
- Measure key metrics with cursors and markers
- Configurable measurement averaging and settling times
- Probe four systems simultaneously, or one system at multiple points
- Demodulate up to the 15th harmonic

Specifications

- Frequency range: 10 mHz to 500 MHz
- Averaging time: 1 μ s to 10 s
- Settling time: 1 μ s to 10 s
- Sweep points: 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192
- Source impedance: 50 Ω or 1 M Ω
- Output voltage range:
 - 4 Vpp
 - 20 Vpp (< 100 MHz)
- Input impedance: 50 Ω or 1 M Ω
- Input range: 400 mVpp, 4 Vpp, or 40 Vpp
- Measurement units: dB, dBm, dBVpp, dBVrms
- Noise floor:
 - < 100 kHz: < -125 dBm
 - 100 kHz to 300 MHz: < -135 dBm
 - 300 MHz to 500 MHz: < -125 dBm

Applications

- Capacitance/inductance measurement
- EMI filter characterization
- Impedance measurement
- Power supply analysis
- Stability analysis