

R&S®RTx-K36 frequency response analysis (Bode plot) option vs Keysight FRA option

Low frequency response analysis applications for oscilloscopes



R&S®RTx-K36 frequency response analysis (Bode plot) options support R&S®RTB2000, R&S®RTM3000 and R&S®RTA4000 oscilloscopes



Keysight FRA supports 1000, 3000-T, 4000A, and 6000-X oscilloscopes

Your benefit	Features
Faster analysis	Using the same user parameters, the Rohde & Schwarz application executes twice as fast as the Keysight application.
Better frequency range	The lowest frequency is 10 Hz with the Rohde & Schwarz option versus 20 Hz with the Keysight solution

► For more information, see www.rohde-schwarz.com/scope-bode



Parameter	R&S®RTx-K36 frequency response analysis (Bode plot) option	Keysight FRA option
Power supply rejection ratio (PSRR)	•	•
Closed loop response (CLR)	•	•
Passive component characterization	•	•
Frequency range	10 Hz to 25 MHz	20 Hz to 20 MHz
Test amplitude modes	fixed or amplitude profile	fixed or amplitude profile
Test amplitude	R&S®RTB2000/R&S®RTM3000 20 mV to 10 V (high Z load) 10 mV to 5 V (50 Ω load)	3000T 20 mV to 5.0 V (high Z load) 10 mV to 2.5 V (50 Ω load)
	R&S®RTA4000 20 mV to 10 V (high Z load) 10 mV to 5 V (50 Ω load)	4000X/6000X 20 mV to 10 V (high Z load) 10 mV to 5 V (50 Ω load)
Number of test points	10 to 500 per decade	10 to 100 per decade
Test execution speed	75 s for 50 points/decade, 20 Hz to 20 MHz	150 s for 50 points/decade, 20 Hz to 20 MHz
Test results	overlaid gain and phase plot and tabular view	overlaid gain and phase plot and tabular view
Dynamic range	> 80 dB	> 80 dB
Measurements	gain and phase cursors	gain and phase markers
Supported scopes	R&S®RTB2000, R&S®RTM3000, R&S®RTA4000	1000X (G), 3000-T, 4000X, 6000X (2000X not supported)

Add low frequency network analysis to your oscilloscope



Key applications

- Determine the gain and phase margin of switched-mode power supplies or linear regulators to determine the control loop stability.
- Characterize the frequency response of a variety of electronics such as passive filters and amplifier circuits
- For switched-mode power supplies, measure the control loop response and power supply rejection ratio.

Enables waveform generator

- The R&S®RTx-K36 application uses the signal generator built inside the scope. The R&S®RTx-K36 application enables the signal generator when needed, independently of whether or not your scope has a license for the signal generator.

Advantage factors of R&S®RTx-K36 Bode application vs Keysight FRA Bode application



2X
faster



2X
frequency range (10 Hz to 25 MHz)



5X
more points per decade