

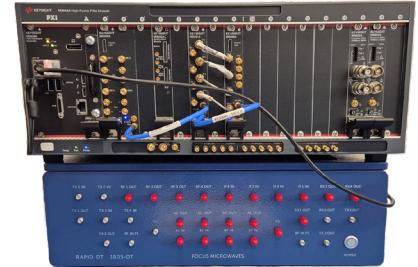
RAPID DT

0.001-18GHz Mesuro Digital Tuner | Active Load Pull

Focus Microwaves is elevating the capabilities of its wideband active load pull RAPID series with a new, advanced solution. The RAPID DT (Digital Tuner) is built around the all-new Keysight M5000 series PXI modules, combining RF AWG, digitizer, digital I/O, and downconverter modules. This high-performance PXI system provides 4 independent channels per module, enabling a flexible and powerful platform.

The RAPID DT forms a vector network analyzer architecture with a broadband receiver capable of up to 1 GHz measurement bandwidth and operational frequencies ranging from 1 MHz to 18 GHz. It offers rapid load pull testing for fundamental and harmonic frequencies, supporting CW or pulsed signals, as well as S-parameter measurements across multiple frequency bands.

Thanks to its extensive bandwidth, the RAPID DT is an excellent choice for testing the latest high-bandwidth, high-modulation cellular standards such as 4096QAM 802.11be, providing comprehensive testing capabilities across fundamental and harmonic spectra.



S Parameter Performance Summary*

	CW		Pulse		
Frequency Range [GHz]	Dynamic Range [dB]	Average Power [dBm]	Min. Width [ns]	Dynamic range [dB]	Max. Power [dBm]
0.001 - 0.5*	60	-	200	55	-
0.5 - 8	70	27		65	27
8 - 18	65			60	

* Internal test set, 100Hz IF BW, 20dBm reference level, 20dBm input signal

** External test set only, power rating is determined by user setup

Load Pull Performance Summary*

	CW		Pulse			Modulated		
Frequency Range [GHz]	Dynamic Range [dB]	Max. Power [dBm]	Min. Width [ns]	Dynamic Range [dB]	Max. Power [dBm]	Max. Bandwidth [MHz]	Dynamic Range [dB]	Peak Power [dBm]
0.001 - 0.5*	>50	-	200	>60	-	0.1 - 100	>60	-
0.5 - 2	>60	30			30	500		30
2 - 8						1000		
8 - 18						1000		

* Internal test set unless otherwise stated

** External test set only, power rating is determined by user setup

Key Features:

- Supports the latest 5G FR1 and IEEE 802.11be standards
- Up to 1GHz active load pull bandwidth capability
- Test the latest high bandwidth and high modulation cellular standards such as 4096QAM 802.11be
- Single-tone CW and pulsed signals
- Fundamental and harmonic tuning
- Load and source pull tuning configurations
- Hybrid load pull and source pull capability

Key Measurements Available:

- Input / Output Power Peak and Average
- Power Added Efficiency
- ACPR and EVM for Wideband Applications
- Multi Carrier Intermodulation
- Input Power Delivered (Pin_Del)
- Gamma In DUT (Γ_{in})
- Power Added Efficiency (PAE)
- AM/PM
- Time Domain Waveforms (Requires Mesuro Phase Reference)

