

# MI-1797 MICROWAVE RECEIVER

## Key Features

- Takes 10,000 data points per second in CW mode; 10,000 data points per second, Pulsed. Drastically reduces test time and improves test range productivity
- Provides up to 16 measurement channels to allow rapid testing of complex multiport antennas
- Wide frequency range: 0.1 to 140 GHz
- Wide dynamic range: 90 dB with 1 Average
- User selectable output formats: Phase/Amplitude or I/Q to simplify data processing
- Remote Local Oscillator (LO) allows maximum dynamic range and sensitivity
- Menu-driven, easy-to-use and easy-to-set-up for measurements, control, display and configuration
- Color flat panel display provides easy-to-read menus
- Operates in manual or automatic systems
- Performs Continuous Wave (CW) and Pulsed Radio Frequency measurements for testing antennas, radomes and microwave networks (Multi-chip Modules, Monolithics Microwave Integrated Circuit (MMICs) and passive components)



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## Description

The MI-1797 Microwave Receiver is the fastest, most versatile microwave receiver available today. The new MI-1797 receiver's speed, frequency agility and wide dynamic range significantly improves measurement productivity for all RF measurement applications.

Designed and built by the world leader in antenna measurement instrumentation, the MI-1797 Receiver provides significantly higher data acquisition speeds than any other receiver on the market — 10,000 data points per second in CW and 10,000 data points per second, Pulsed.

Efficient testing of multiport antennas requires a receiver that supports multiple measurement channels.

The MI-1797's capability for simultaneous measurement of up to 16 signal channels and dynamic range of up to 110 dB is unsurpassed.

In addition, the MI-1797 offers the fastest frequency changing capability in the market. The receiver can maintain phase lock while performing frequency transitions.



1-800-848-7921

## MI-1797 Microwave Receiver

The MI-1797 Microwave Receiver offers ease-of-use and configuration convenience not found in other receiving equipment. The large, full-color Flat Panel Display provides easy-to-read menus that lead the operator through the configuration, display, control and measurement modes. Measurement bins are provided to independently display phase and amplitude data or In Phase and Quadrature Phase (I-Q) values of each active channel. An information window displays key operating parameters of the receiver, as well as entry and error status. A frequency display also can be activated for viewing the actual received frequency.

### Key Specifications

Frequency Range		
Basic Receiver	2 to 26.5 GHz	
Low Frequency Option	.1 to 2 GHz	
Expandable Options	Up to 140 GHz	
Dynamic Range		
Average 1 sample		
90 dB	.1 to 3 GHz	
95 dB	3 to 20 GHz	
With averaging up to 110 dB	.1 to 18 GHz	
Maximum RF Input Power to the Mixer	-20 dBm, 0.1 to 140 GHz	
Accuracy		
Amplitude		
Linear (%) Mode	1% of full scale	
Logarithmic (dB) Mode	0.05 dB/10 dB over full dynamic range	
Phase	0.4 degrees/10dB over full dynamic range	
Resolution		
Low	0.1% or 0.1dB Amplitude	1 degree Phase
Medium	0.01% or 0.01 dB Amplitude	0.1 degree Phase
High	0.001% or 0.001dB Amplitude	0.01 degree Phase
Reference Channel to Signal Channel Isolation (Reference Channel at -40dBm)	110 dB	
Channel to Channel Isolation (Signal Channels)	100 dB	
Local Oscillator Frequency:	.1 to 18 GHz	
Frequency Agility:	1 millisecond (typical)	
Size:	4U EIA 19" rack mount chassis, 18" deep	
Weight:	30 lbs.	
Power:	105 to 130V ac, 47 to 63 Hz or 208 to 240V ac, 47 to 63 Hz	
Power Consumption:	300 Watts maximum	

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05/00 www.mi-technologies.com



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