

## MI-3340 Family of Mixers

### Features & Benefits

- Covers all common microwave and millimeter wave frequency bands from 0.1 to 110 GHz
- Designed for broadband operation
- Low conversion losses
- Single cable between receiver and mixer
- No bias or tuning adjustments required
- Used with the MI-1797 Microwave Receiver and MI Technologies Automated Microwave Measurement Systems
- Ensures easy, automated measurements



MI-3343 Mixer

### Description

MI Technologies' MI-3340 Family of Mixers provides RF to IF signal conversion for measurement by the MI-1797 Microwave Receiver, an integral part of MI Technologies' Automated Microwave Measurement Systems.

The RF to IF conversion is accomplished by harmonic mixing. This technique permits multi-octave frequency coverage with an octave bandwidth Local Oscillator (LO). Frequency diplexing in the MI-1797 receiver allows the LO and IF signals to be carried on the same cable connecting the mixer and receiver.

The mixers are typically mounted directly to or near the device being measured.

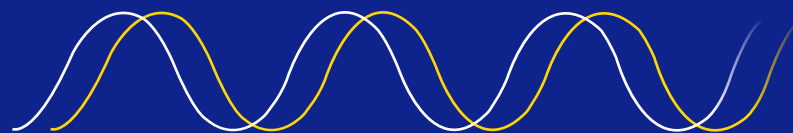
MI-3340 Series Mixers are shipped in operational condition. No special installation procedures, tools or external power source are required for installation or operation.

### Connector, Waveguide, and Flange Table

Mixer	RF Frequency (GHz)	LO/IF Connector	RF Connector Or Waveguide	Flange Compatibility
MI-3341	0.1-2	N Female	N Male	n/a
MI-3342	2-26.5	N Female	K Female	n/a
MI-3343	2-40	N Female	K Female	n/a
MI-3344	26.5-40	N Female	WR-28	UG-599
MI-3345	33-50	N Female	WR-22	UG-383
MI-3346	40-60	N Female	WR-19	UG-383 (MOD)
MI-3347	50-75	N Female	WR-15	UG-385
MI-3348	60-90	N Female	WR-12	UG-387
MI-3351	75-110	N Female	WR-10	UG-387 (MOD)



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## Product Specifications

Mixer	LO Power* (nom., dBm)	LO Frequency (GHz)	Harmonic	RF Frequency (GHz)	Conversion Loss (max., dB)
MI-3341	10	0.14 - 2.05	1st	0.1 - 2	9
MI-3342	10	2.04 - 18.05 2.015 - 8.85	1st 3rd	2 - 18 6 - 26.5	9 25
MI-3343	10	2.04 - 18.05 6.01 - 13.35	1st 3rd	2 - 18 18 - 40	13 24
MI-3344	10 4	13.3 - 17.03 8.85 - 13.35	2nd 3rd	26.5 - 34 26.5 - 40	20 32
MI-3345	10	11.01 - 16.68 8.26 - 12.51	3rd 4th	33 - 50	35 38
MI-3346	12	10.01 - 15.01	4th	40 - 60	40
MI-3347	10	12.51 - 18.76 10.01 - 15.01	4th 5th	50 - 75	35
MI-3348	12	12.01 - 18.01	5th	60 - 90	40
MI-3351	7	12.50 - 18.34	6th	75 - 110	40

\*LO power is specified at the input to the mixer. The LO source must be adjusted to provide these power levels at the mixer.

### Physical Dimensions

Mixer	Length (in)	Width (in)	Height (in)	Weight (Oz)
MI-3341	4.75	3.00	1.92	13
MI-3342	5.75	4.00	1.55	17
MI-3343	5.75	4.00	1.55	17
MI-3344	2.47	1.0	1.875	3.5
MI-3345	2.47	1.25	1.875	3.5
MI-3346	2.47	1.25	1.875	3.5
MI-3347	2.47	1.0	1.375	3.5
MI-3348	2.47	1.0	1.375	3.5
MI-3351	2.47	1.0	1.375	3.5

Specifications subject to change without notice.

The export of the equipment or components thereof, described herein, or export of the technical data associated with such items, may require the advance approval of the U.S. Government.

