

# Waveguide Mixers

## WM780 Series



### Features

#### WM780 SERIES

- 18 to 325 GHz Frequency Range
- Frequency Response Is  $\pm 2$  dB
- Individual Frequency Characterization Curves Attached to Housing
- Custom Characterization Available
- Precision Gold-plated Brass Body



### Applications

- Radar
- Millimeter Wave R&D
- Communications

### WM780 Series Waveguide Mixers

The Tektronix WM780 Series Waveguide Mixers cover a frequency range of 18 to 325 GHz with optimum flatness. They can serve a wide variety of general-purpose uses, such as down-conversion for noise figure and network analysis measurements.

WM780 Series Waveguide Mixers feature individual frequency characterization curves attached to the housing for improved measurement accuracy.

All mixers are gold-plated brass, conforming to MIL-G-45204 Class I, Type 1 specifications, and will withstand harsh environments.

### ELECTRICAL CHARACTERISTICS

Tektronix Model No.	Band Desig.	Frequency Range (GHz)	Sensitivity Typical (dBm)	Frequency Response Typical (dB)	Conversion Loss Typical (dB)	Low-pass*1 Cut-off Frequency
WM780K	K	18-26.5	-100	$\pm 2$	30	12 GHz
WM780A	A	26.5-40	-95	$\pm 2$	30	16 GHz
WM780Q	Q	33-50	-90	$\pm 2$	35	21 GHz
WM780U	U	40-60	-90	$\pm 2.5$	35	16 GHz
WM780V	V	50-75	-90 @ 50 GHz -85 @ 75 GHz typ	$\pm 3$ typical	35 @ 50 GHz 40 @ 75 GHz	28 GHz
WM780E	E	60-90	-80 @ 60 GHz -80 @ 90 GHz typ	$\pm 3$ typical	35 @ 60 GHz 45 @ 90 GHz	28 GHz
WM780W	W	75-110	-80 @ 75 GHz -70 @ 110 GHz typ	$\pm 3$ typical	45 @ 75 GHz 55 @ 110 GHz	30 GHz
WM780F	F	90-140	-75 @ 90 GHz -65 @ 140 GHz typ	$\pm 3$ typical	50 @ 90 GHz 60 @ 140 GHz	32 GHz
WM780D	D	110-170	-70 @ 110 GHz -60 @ 170 GHz typ	$\pm 3$ typical	50 @ 110 GHz 60 @ 170 GHz	40 GHz
WM780G	G	140-220	-65 @ 140 GHz -55 @ 220 GHz typ	$\pm 3$ typical	55 @ 140 GHz 65 @ 220 GHz	40 GHz
WM780J	J	220-325	-55 @ 220 GHz, -45 @ 325 GHz typ	$\pm 3$ typical	65 @ 220 GHz 75 @ 325 GHz	40 GHz

\*1 These low-pass filters are in the LO/IF connector.

Note: Above characteristics are for information and are not warranted. User can enter frequency data into the Advantest R3271A and R3272 Spectrum Analyzers.

For your local Tektronix representative see the list in the back of this catalog or outside the U.S. call: 1-503-627-1933, inside the U.S. call: 1-800-426-2200.



See Tektronix on the World Wide Web:  
<http://www.tek.com>



Tektronix Measurement products are manufactured in ISO registered facilities.

### ORDERING INFORMATION

For price information: Outside the U.S. contact your local Tektronix representative, inside the U.S. see the price list in the back of this catalog.

#### WM780 WAVEGUIDE MIXERS AND SETS

- 18 to 26.5 GHz – Order WM780K.
- 26.5 to 40 GHz – Order WM780A.
- 33 to 50 GHz – Order WM780Q.
- 40 to 60 GHz – Order WM780U.
- 50 to 75 GHz – Order WM780V.
- 60 to 90 GHz – Order WM780E.
- 75 to 110 GHz – Order WM780W.

90 to 140 GHz – Order WM780F.

110 to 170 GHz – Order WM780D.

140 to 220 GHz – Order WM780G.

220 to 325 GHz – Order WM780J.

18 to 40 GHz Set – Includes WM780K, WM780A. Order WM7802.

18 to 60 GHz Set – Includes WM780K, WM780A, WM780U. Order WM7803.

33 to 170 GHz Set – Includes WM780Q, WM780V, WM780W, WM780D. Order WM78012.

#### ACCESSORIES

Case – Order 006-7340-00.