

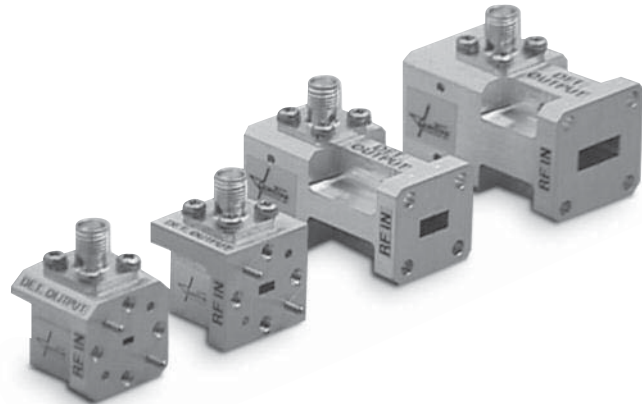


Spectrum Analyzer Mixers and Diplexers

QMA

Characteristics

- ◆ Extends Spectrum Analyzer Frequency Range
- ◆ High Sensitivity
- ◆ Compatible with Many Popular Spectrum Analyzer Models



Product Description

QuinStar Technology's **QMA** series of **spectrum analyzer mixers** facilitate the display and measurement of millimeter-wave signals using lower frequency (microwave) local oscillator signals. They cover the frequency range of 18 to 170 GHz in nine waveguide bands. These mixers are designed to operate with many popular spectrum analyzer models that have local oscillator outputs and IF inputs.

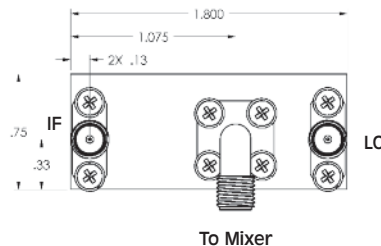
For spectrum analyzers with separate LO output and IF input ports, an optional diplexer that combines the LO and IF signals is available from QuinStar. Spectrum analyzers with built-in diplexers, such as the HP8555A, HP8565A, HP8569A, Tektronix 7L18 and Tektronix 492, do not require the diplexer option. However, the diplexer option is required for spectrum analyzers without built-in diplexers such as the HP8566A/B, HP8569B and Anritsu 710.

Specifications

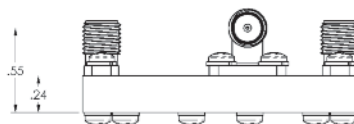
FREQUENCY BAND	K	Ka	Q	U	V	E	W	F	D
Frequency Range (GHz)	18-26.5	26.5-40	33-50	40-60	50-75	60-90	75-110	90-140	110-170
Waveguide Size	WR-42	WR-28	WR-22	WR-19	WR-15	WR-12	WR-10	WR-8	WR-6
Minimum Detectable Signal in 1 kHz bandwidth (dBm, typ.) ¹	-110	-110	-105	-100	-95	-90	-85	-80	-75

Other waveguide sizes are available.

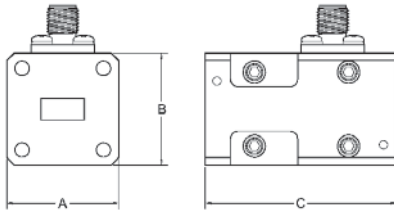
¹ For 9th harmonic of LO, IF < 1 GHz. Typical LO power range is 7 to 14 dBm. For other harmonics, the minimum detectable signal may vary



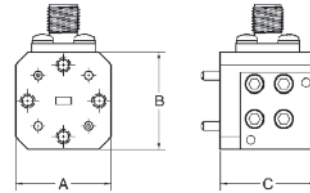
Diplexer Outline



Outline Drawings/Mechanical Specifications



WR-42 and WR-28



WR-22 through WR-10

FREQUENCY BAND	WAVEGUIDE SIZE	FLANGE PATTERN	LO and IF	OUTLINE DIMENSIONS, inches/mm ¹		
				A	B	C
K	WR-42	UG-595/U	SMA JACK	0.88/22.4	0.88/22.4	1.5/38.1
Ka	WR-28	UG-599/U	SMA JACK	0.75/19.1	0.75/19.1	1.5/38.1
Q	WR-22	UG-383/U ¹	SMA JACK	1.13/28.7	1.13/28.7	1.25/31.75
U	WR-19	UG-383/U ¹	SMA JACK	1.13/28.7	1.13/28.7	1.25/31.75
V	WR-15	UG-385/U	SMA JACK	0.75/19.1	0.75/19.1	0.75/19.1
E	WR-12	UG-387/U	SMA JACK	0.75/19.1	0.75/19.1	0.75/19.1
W	WR-10	UG-387/U	SMA JACK	0.75/19.1	0.75/19.1	0.75/19.1

¹ Dimensions do not include diplexer option.

Ordering Information

Model Number **QMA - A B C 000**

waveguide band designator

K = K-band V = V-band
A = Ka-band E = E-band
Q = Q-band W = W-band
U = U-band

diplexer option

0 = no diplexer provided by QuinStar
D = with diplexer provided by QuinStar

polarity *

P = positive
N = negative

* Mixer bias voltage with respect to case.