

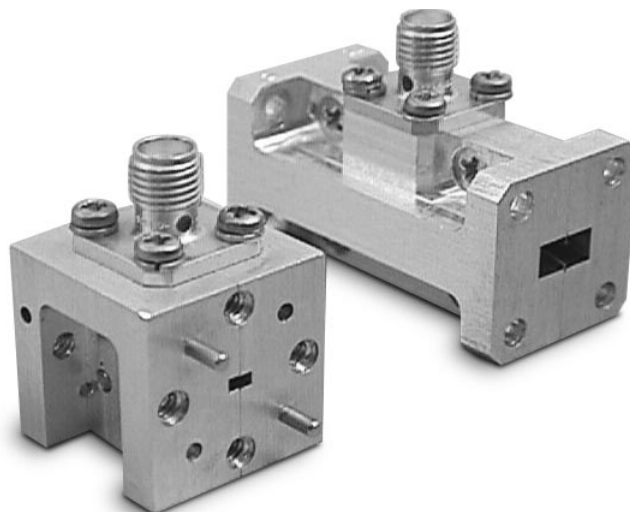


Variable PIN Attenuators

QSA

Characteristics

- ◆ Broad RF Bandwidth
- ◆ Low Insertion Loss
- ◆ Current Controlled



Product Description

QuinStar Technology's **QSA** series **millimeter-wave variable PIN attenuators** cover the frequency range of 18 to 110 GHz in seven waveguide bands. They are constructed with a rugged, split block mechanical design that utilizes PIN diodes, and are capable of handling RF power levels up

to 1 Watt. Standard units feature broad bandwidth. However, they can be optimized over a narrower frequency range for greater attenuation range or lower insertion loss. They are ideal for signal level control and amplitude modulation.

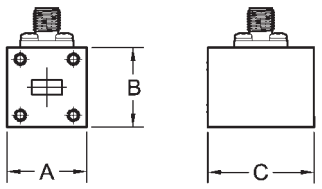
Specifications

FREQUENCY BAND	K	Ka	Q	U	V	E	W
Frequency Range (GHz)	18-26.5	26.5-40	33-50	40-60	50-75	60-90	75-110
Waveguide Size	WR-42	WR-28	WR-22	WR-19	WR-15	WR-12	WR-10
Insertion Loss (dB max)	1.0	1.0	1.0	1.2	1.5	2.0	2.0
Bandwidth (GHz min)	Full	Full	Full	Full	10	10	10
Attenuation Range (dB min)	0-23	0-23	0-23	0-23	0-20	0-20	0-20

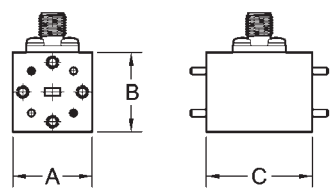
For ON-state (low insertion loss), the attenuator requires a reverse voltage of 10 Volts; for increasing attenuation, a forward bias current ramping up to 25 mA must be applied.

Power Rating: 1 Watt (max).

Outline Drawings/Mechanical Specifications



WR-42 and WR-28



WR-22 through WR-10

FREQUENCY BAND	WAVEGUIDE SIZE	FLANGE PATTERN	BIAS INPUT	OUTLINE DIMENSIONS, inches/mm		
				A	B	C
K	WR-42	UG-595/U	SMA JACK	0.88/22.4	0.88/22.4	1.50/38.1
Ka	WR-28	UG-599/U	SMA JACK	0.75/19.1	0.75/19.1	1.50/38.1
Q	WR-22	UG-383/U	SMA JACK	1.13/28.7	1.13/28.7	1.00/25.4
U	WR-19	UG-383/U	SMA JACK	1.13/28.7	1.13/28.7	1.00/25.4
V	WR-15	UG-385/U	SMA JACK	0.75/19.1	0.75/19.1	1.00/25.4
E	WR-12	UG-387/U	SMA JACK	0.75/19.1	0.75/19.1	1.00/25.4
W	WR-10	UG-387/U	SMA JACK	0.75/19.1	0.75/19.1	1.00/25.4

Ordering Information

