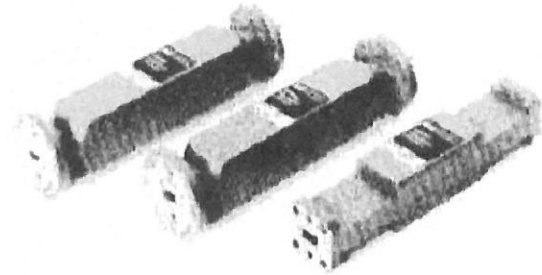




Agilent mm-Wave Precision Standard Sections 26.5 to 60.0 GHz Data Sheet

For Models:
R896B/D
Q896B/D
U896B/D



Performance Standards for mm-Wave Measurements

In a network analysis measurement, the calibration is verified by measuring a precise and traceable reference impedance. In waveguide measurements, this reference is a precisely-machined, low-reflection straight piece of waveguide. Agilent's R, Q, and U896 standard sections are these kinds of references. They have three important advantages.

First, they have very low SWR, less than 1,016. This is achieved through precise machining techniques.

Second, their impedance is traceable to the National Bureau of Standards. This means your calibration verification will also be traceable to NBS. Using laser interferometry to accurately measure waveguide dimensions, their impedance is indirectly traceable through dimensional standards.

Third, the Q and U896's have a unique precision flange design. When mating with a standard MIL-spec flange, this design improves repeatability by about a factor of two (when mating two Agilent precision flanges, repeatability is improved by about a factor of five).

Specifications

	R896B	R896D	Q896B	Q896D	U896B	U896D
Frequency range (GHz)	26.5 – 40.0		33.0 – 50.0		40.0 – 60.0	
SWR (maximum)	1.016		1.016		1.016	
Fits waveguide size:						
EIA	WR-28		WR-22		WR-19	
MIL-W-85/x-xxxx	3-006		3-010		3-014	
Equivalent flange:						
MIL-F-3922/xxx-xxx	54-003		67B-006		67B-007	
UG xxx/U	UG-599/U		UG-383/U		UG-383/U (mod.)	
Length:						
In centimeters	5.0	10.0	5.0	10.0	5.0	10.0
In inches	2.0	4.0	2.0	4.0	2.0	4.0
Net weight:						
In grams	45	68	68	91	68	91
In pounds	0.10	0.15	0.15	0.20	0.15	0.20

To improve measurement repeatability of any Q and U band instrument, the Q and U896B's can also be used as precision measurement port extensions.



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