

Keysight RF & Microwave Programmable Step Attenuators



Keysight programmable step attenuators offer fast, precise signal-level control up to 50 GHz, with switching time of less than 20 ms.

Unmatched attenuation repeatability of less than 0.03 dB up to 5 million cycles per section ensures low measurement uncertainty and reduces calibration cycles when installed into test systems.

Automatic GPIB/USB/LAN drive control is achieved with the 11713B/C attenuator/switch driver.

Programmable step attenuators

- High reliability and exceptional repeatability reduce downtime
- Excellent RF specifications optimize test system measurement capability
- Broad portfolio of attenuation and connector options provide configuration flexibility

Product specifications

Programmable step attenuator

Model number	Frequency (GHz)	Attenuation range (dB)	Attenuation step (dB)	Insertion loss (dB) @ 0 dB	Maximum SWR	Maximum input average power (W)	Maximum input peak power (W)	Operating life (in million cycles/section)	Repeatability
8494G	DC to 4	0 to 11	1	0.96	1.50	1	100	5	± 0.03 dB max (5 million cycles per section)
8495G	DC to 4	0 to 70	10	0.68	1.35	1	100	5	± 0.03 dB max (5 million cycles per section)
8496G	DC to 4	0 to 110	10	0.96	1.50	1	100	5	± 0.03 dB max (5 million cycles per section)
8494H	DC to 18	0 to 11	1	2.22	1.90	1	100	5	± 0.03 dB max (5 million cycles per section)
8495H	DC to 18	0 to 70	10	1.66	1.70	1	100	5	± 0.03 dB max (5 million cycles per section)
8496H	DC to 18	0 to 110	10	2.22	1.90	1	100	5	± 0.03 dB max (5 million cycles per section)
8495K	DC to 26.5	0 to 70	10	3.95	2.20	1	100	5	± 0.03 dB max to 18 GHz, ± 0.05 dB max to 26.5 GHz (5 million cycles per section)
8497K	DC to 26.5	0 to 90	10	2.79	1.80	1	100	5	± 0.03 dB max to 18 GHz, ± 0.05 dB max to 26.5 GHz (5 million cycles per section)
84904K	DC to 26.5	0 to 11	1	1.86	2.00	1	50	5	± 0.03 dB max (5 million cycles per section)
84906K	DC to 26.5	0 to 90	10	1.86	2.00	1	50	5	± 0.03 dB max (5 million cycles per section)
84907K	DC to 26.5	0 to 70	10	1.40	1.90	1	50	5	± 0.03 dB max (5 million cycles per section)
84904L	DC to 40	0 to 11	1	2.40	2.00	1	50	5	± 0.03 dB max (5 million cycles per section)
84906L	DC to 40	0 to 90	10	2.40	2.00	1	50	5	± 0.03 dB max (5 million cycles per section)
84907L	DC to 40	0 to 70	10	1.80	1.90	1	50	5	± 0.03 dB max (5 million cycles per section)
84904M	DC to 50	0 to 11	1	3.00	3.00	1	50	5	± 0.03 dB max ¹
84905M	DC to 50	0 to 60	10	2.60	2.60	1	50	5	± 0.03 dB max ¹
84908M	DC to 50	0 to 65	5	3.00	3.00	1	50	5	± 0.03 dB max ¹

1. Typical

RF connector options:

- 849xG/H offers N (f) / SMA (f) / APC-7
- 849xK offers only 3.5 mm (f)
- 8490xK offers 3.5 mm (f) / 3.5 mm (f/m)
- 8490xL offers 2.4 mm (f), 2.92 mm (f) / 2.4 mm (f/m) / 2.92 mm (f/m)
- 8490xM offers 2.4 mm (f/m) / 2.4 mm (f/f)

Programmable step attenuator option

Keysight 8494/95/96/97 series ordering

example

Models	Option type	Option description
8494G/	001	N (f) ^{G,H}
8494H/	002	SMA (f) ^{G,H}
8495G/	004	3.5 mm (f) ^{2,K}
8495H/	024	24 Vdc
8495K/	011	5 Vdc
8496G/	060	12-pin viking connector ^{G,H,K}
8496H/	016	16-inch ribbon cable with 14-pin DAP plug ^{G,H,K}
8497K	UK6	Commercial calibration test data with certifications
Keysight 84904/905/906/907/908 series ordering example *		
84904K/	024	24 Vdc
84904L/	011	5 Vdc
84904M/	012	6 Vdc
84905M/	104	3.5 mm (f) drive cable end, 3.5 mm (m) opposite end ^K
84906K/	004	3.5 mm (f) both ends ^K
84906L/	006	2.92 mm (f) both ends ^L
84907K/	100	2.4 mm (f) drive cable end, 2.4 mm (m) opposite end ^{L,M}
84907L/	106	2.92 mm (f) drive cable end, 2.92 mm (m) opposite end
84908M	101	2.4 mm (f) both ends ^{L,M}

1. Each order must include RF connector option
* Drive cable not included
2. Available with 8495/97 only
 - G. G-models
 - H. H-models
 - K. K-models
 - L. L-models
 - M. M-models