

design by Mr. K

59 Steps Shunt Type Stepped Attenuator High Quality Passive Preamplifiers Carbon (5%) Film Resistor

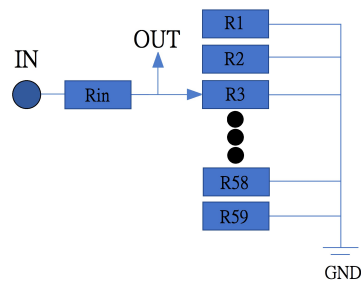


Shunt Type Stepped Attenuators

This attenuator is formed by a fixed series of resistors and shunt resistors.

Signal is fed through the fixed resistor and different shunt resistors, which selected from 59 values ranging from zero to infinity.

Despite shunt design will introduce a variable input impedance, the benefit of single resistor and switch in signal path make up for any possible matching issue.



SHUNT TYPE

Attenuation range: -60dB ... 0dB

Contact material: Hard gold

Mechanical life: > 10 000 cycles

CNC machined AL6063 aluminum

Indexing angle: 6 degree

Input Resistance: 10K, 24K, 47K, 100K, 250K ohm*

Input Resistor Brand: A-B**

Bearing: NMB

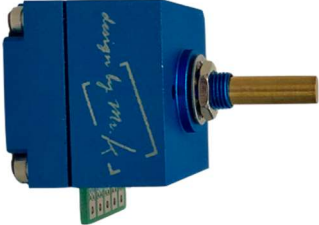
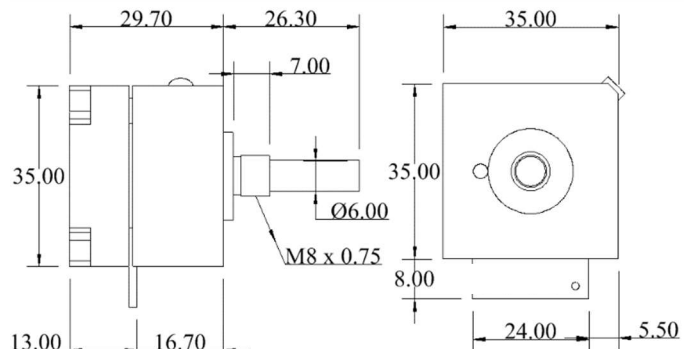
Ingress Protection Rating: IP54

Product Image	Part NO.	Type	Channel	Resistor Value	Resistor Type (Tolerance)	Resistance Taper	Size (L x W x H)
	SHM047KC 15A	Shunt	Mono	47K	Carbon (5%)	Refer. to Resistance Taper	35mm x 35mm x 29.7mm + (Shaft length 26.3mm)
	SHM100K C15A			100K	Carbon (5%)	15A***	

Shunt Type Stepped Attenuators/ Product Dimensions

Dimensions:

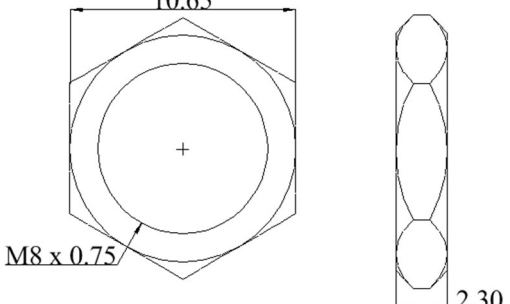
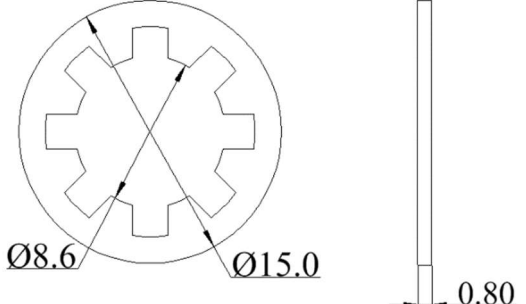
Unit: mm

Photo	Style
	

Shunt Type Stepped Attenuators/ Attached Parts

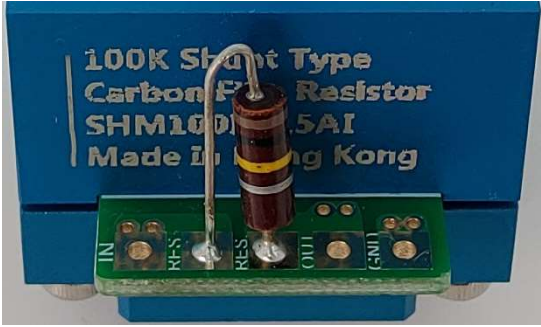
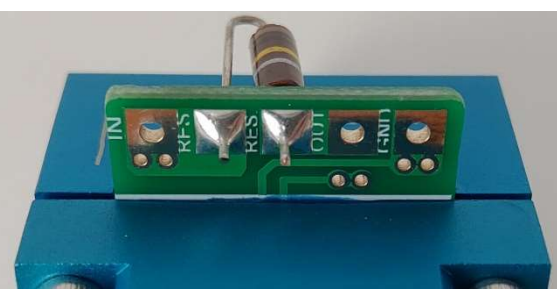
The following parts are included with the product.

Unit: mm

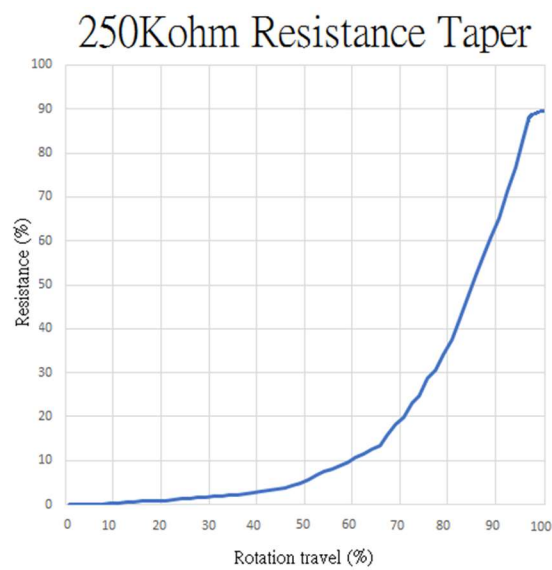
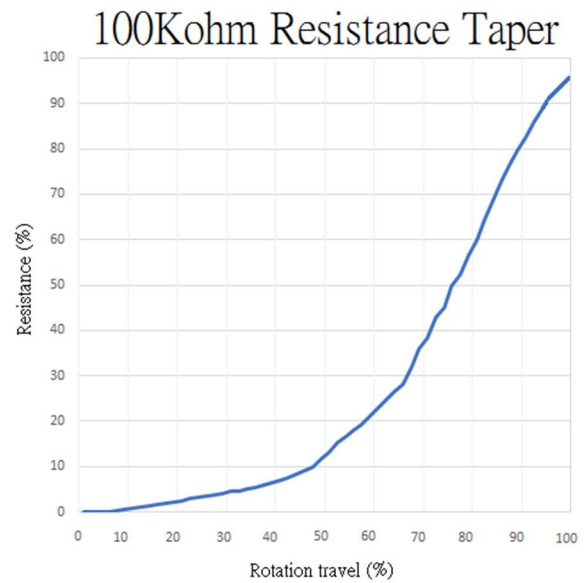
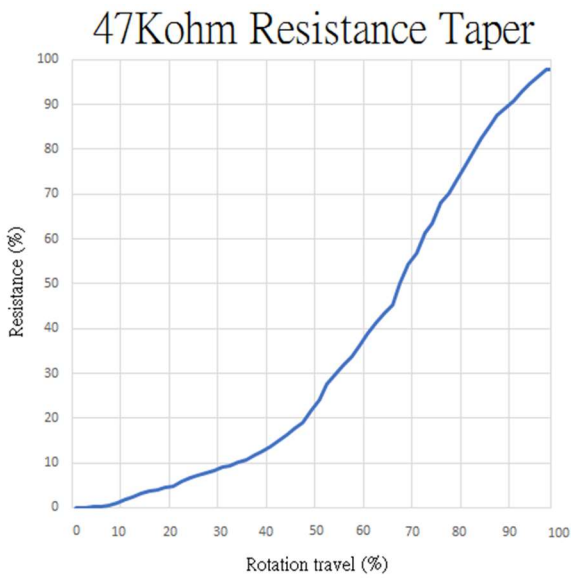
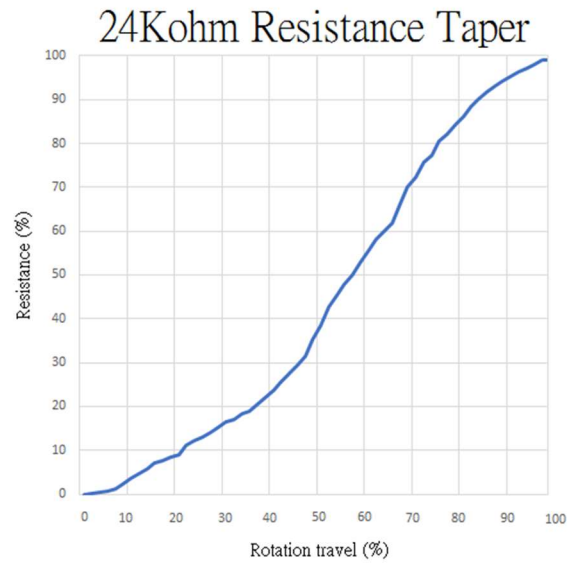
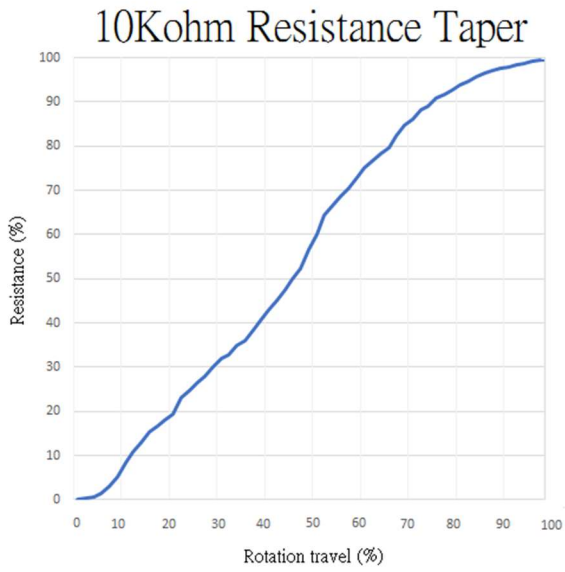
Nut	Washer
	

Shunt Type Stepped Attenuators/ Soldering Info.

Resistor soldering position:

Font View	Bot View
	

Shunt Type Stepped Attenuators/ Resistance Taper



Shunt Type Stepped Attenuators

Detent against dB for 15A Resistance Taper

Part Number: SHM100KC15A

Serial Number: _____

Tested by: _____

Detent	Pass Value	Measured value*	Detent	Pass Value	Measured value*	Detent	Pass Value	Measured value*
1	95.22-96.05		21	24.57-28.46		41	4.079-4.938	
2	91.57-92.99		22	22.99-26.73		42	3.745-4.537	
3	88.12-90.06		23	21.35-24.90		43	3.408-4.132	
4	84.87-87.27		24	19.63-22.98		44	3.154-3.827	
5	80.96-83.86		25	17.84-20.97		45	2.899-3.519	
6	77.92-81.17		26	16.60-19.56		46	2.643-3.209	
7	74.91-78.48		27	15.32-18.10		47	2.125-2.584	
8	70.95-74.90		28	14.01-16.59		48	1.952-2.374	
9	66.56-70.86		29	11.95-14.22		49	1.777-2.163	
10	61.96-66.55		30	10.52-12.56		50	1.602-1.951	
11	57.58-62.38		31	9.052-10.84		51	1.339-1.631	
12	54.05-58.96		32	8.297-9.953		52	1.074-1.309	
13	49.88-54.87		33	7.607-9.139		53	0.817-0.996	
14	47.50-52.50		34	6.907-8.310		54	0.504-0.615	0.
15	42.59-47.54		35	6.355-7.655		55	0.271-0.330	0.
16	40.43-45.32		36	5.796-6.990		56	0.136-0.166	0.
17	35.94-40.66		37	5.312-6.413		57	0.068-0.083	0.
18	33.63-38.23		38	4.822-5.829		58	0.030-0.036	0.
19	29.84-34.19		39	4.625-5.593		59	0	0
20	26.08-30.12		40	4.220-5.108				

* this value means the tolerances of the resistor of each step by 10V loading in percentage.

Important Warning:

- a. Do not apply torque more than 3kgf-cm on the product's hex nut, excessive force will damage the product.
- b. Do not unscrew the product. This action is irreversible to the inner mechanic structure.
- c. Noise may be heard after long term usage. Apply oil-based cleaner to the outer gap will solve the problem. Do not disassemble the product.

Remark:

* Input Resistance can customize from 10Kohm to 250Kohm. We only provide 10K, 24K, 47K, 100K and 250K ohm Resistance Taper(s).

** Only 47K ohm and 100K ohm stepped attenuator within A-B resistor(s). Stereo type within 2pcs A-B resistor(s). Mono type within 1pc A-B resistor(s).

*** The 15A Resistance Taper for 100Kohm Series Resistor only. Other Resistance Taper(s) Reference for specification's Resistance Taper.