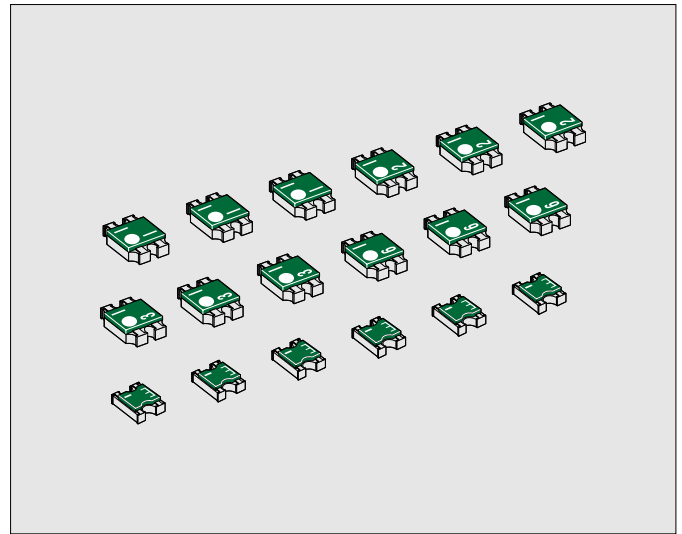


# RAC10 1A, RAC16 1A, 2A

## ●Features

1. The RAC10 1A and RAC16 1A, 2A Series are small size chip attenuators, suitable for high density surface packaging.
2. Suitable for use as DC and up to UHF band frequencies.
3. Similar foot print for chip resistor networks.
4. Standard impedance of 50 ohm and 75 ohm are available up to 600 ohm available on request.
5. Replaces conventional attenuation circuits with one chip in place of three discrete resistors.



## ●Dimensions and Circuit

RAC16 1A, 2A

RAC10 1A

RAC16 : Impedance on Termination 1  
Attenuation factor on Termination 3  
Dot mark on Termination 4

RAC10 : Dot mark on Termination 1  
Attenuation factor on Termination 2 to 3

Unbalanced  $\pi$  Type

Unit : mm

Style	Terminal Style	L	W	H	Q	a	b	*P	*Unit weight/pc.
RAC10 1A	C	1.0±0.05	1.0±0.05	0.35±0.10	0.33±0.10	0.15±0.10	0.25 <sup>+0.05</sup> <sub>-0.10</sub>	0.65	1.1mg
RAC16 1A,2A	A	1.6±0.1	1.6±0.1	0.55 <sup>+0.05</sup> <sub>-0.10</sub>	0.5 ±0.1	0.25±0.10	0.25 <sup>+0.15</sup> <sub>-0.10</sub>	0.8	3.5mg

\*Values for reference

## ●Product Classification

Example

RAC
10
1
A
1
C
TH

① Product Type
② Size
③ Characteristic Impedance
④ Circuits
⑤ Attenuation Factor
⑥ Terminal Style
⑦ Packaging

Style

① Product Type

② Size	
Code	Width
10	1.0mm
16	1.6mm

③ Characteristic Impedance

Code	Characteristic Impedance
1	50 ohm
2	75 ohm

④ Circuits

Code	Circuits
A	Unbalanced $\pi$ Type

⑤ Attenuation Factor

Code	Attenuation Factor
X	0.5dB
1	1dB
2	2dB
3	3dB
4	4dB
5	5dB
6	6dB
7	7dB
8	8dB
9	9dB
A	10dB
B	11dB
C	12dB
D	13dB
E	14dB
F	15dB
G	16dB
L	20dB

\*⑦ Packaging

Code	Packaging	Application
B	Bulk(Loose Packaging)	RAC10,16
TP	Paper Tape.	RAC16
TH	Paper Tape.(2mm pitch)	RAC10

\*Refer to Taping and Packaging information in page 34.35

⑥ Terminal Style

Code	Termination Style	Application
A	□Type	Without corner
C	▤Type	With corner

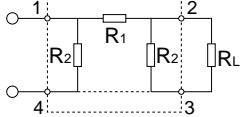
●Ratings

Style	Characteristic Impedance	Attenuation dB	Attenuation Factor Tolerance dB	Attenuation Range	VSWR Voltage standing wave Ratio	Rated Input Power mW/element	Category Temperature Range °C
RAC10 1A	50 ohm	0.5	±0.1	DC ≤ f ≤ 3GHz DC ≤ f ≤ 1.5GHz 1.5GHz < f ≤ 3GHz	1.1max.          1.2max. 1.3max.	100	-40~+125
		1	±0.3				
		2					
		3					
		4					
		5					
		6	±0.4				
		7					
		8					
		9					
		10	±0.75				
		11	±0.8				
		12					
		13					
		14					
		15					
16							
RAC16 1A	50 ohm	1	±0.3	DC ≤ f ≤ 3GHz	1.2max.	100	-40~+125
		2	±0.3				
		3	±0.5				
		6	±0.75				
		10	±0.75				
RAC16 2A	75 ohm	1	±0.3	DC ≤ f ≤ 3GHz	1.2max.	100	-40~+125
		2	±0.3				
		3	±0.5				
		6	±0.75				
		10					

\*The following information is available.

1. 0dB attenuation.
2. Test methods for Attenuation Factor and VSWR characteristics.

●Performance Characteristics JIS C 5201-1 : 1998

Description	Requirements			Test Methods
	0.5-2dB	3dB-5dB	6dB-20dB	
Characteristic impedance	50 ohm, 75 ohm			Measuring Circuit  RL=50 ohm 75 ohm
Insulation resistance	At least 100M ohm			50Vd.c., 60s
Solderability	In accordance with Clause 4.17.4.5			Clause 4.17 Dip into 235°C solder bath for 2s.
Resistance to soldering heat	Within±0.1dB No major visible damage.	Within±0.2dB	Within±0.3dB	Clause 4.18 Dip into 260°C solder bath for 5s.
Rapid change of temperature	Within±0.1dB No major visible damage.	Within±0.2dB	Within±0.3dB	Clause 4.19 5 cycles between -55°C and +125°C
Endurance at 85°C	Within±0.1dB	Within±0.2dB	Within±0.3dB	Clause 4.25.1 Rated voltage, 1.5h"ON", 0.5h"OFF" 85°C, 1000h.
Bend strength of the face plating	Within±0.1dB	Within±0.2dB	Within±0.3dB	Clause 4.33 Amount of bend 3mm, 10s