

*Using breakthrough technology,
we aim for products that will create new markets.*

New Product News

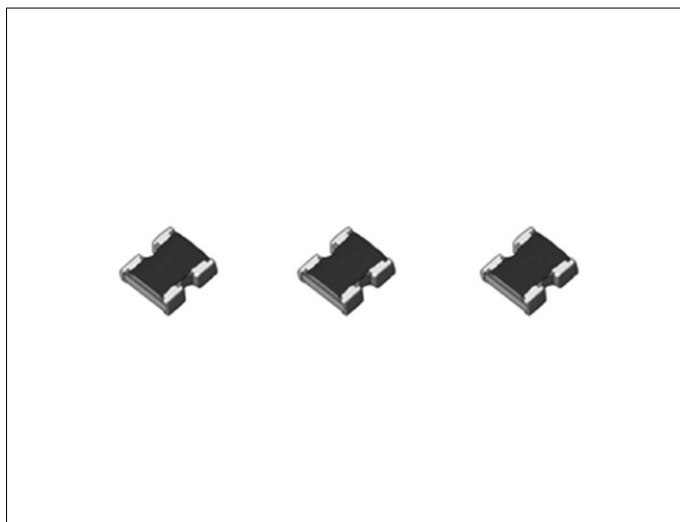
Minimum size in the market, World's first development

Chip resistor network

0404 Balanced O type chip attenuator

Industry/Field: Mobile communication

Balanced O type attenuator in 0404 chip



• Development Target:

Market: Equipment that needs attenuation, level-adjustment, impedance-matching in balanced circuit RF signal

Aim: Reducing the mounting occupation area and the number of chips

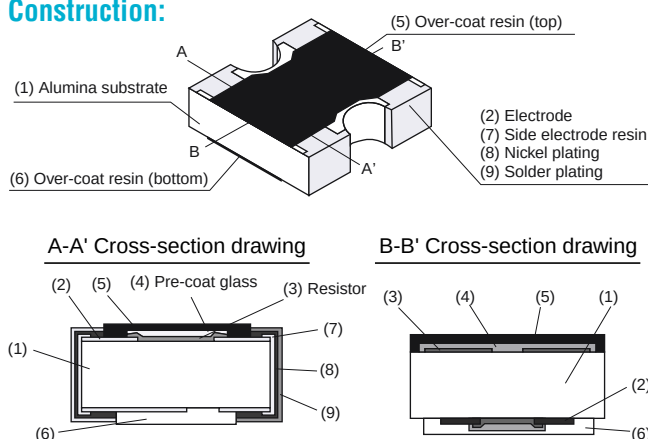
---Contributing to the downsizing and the down weighting

• Features:

- ① Reducing the mounting occupation area: about 67% reduction compared with attenuator circuit consisted of four 0402 chip resistors
- ② Reducing the mounting times : 4 times to 1 time
- ③ Superior high frequency characteristics

• Number of industrial property rights: 1 (pending)

• Construction:



• Characteristics/specifications:

Attenuation value	0 dB, 1 dB, 2 dB, 3 dB, 6 dB, 10 dB
Attenuation value tolerance	0 dB to 3 dB : ± 0.8 dB 6 dB : ± 1.0 dB 10 dB : ± 2.0 dB
Characteristic impedance	100 Ω , 200 Ω , 300 Ω
Rated power (70°C max.)	0.04 W / package
Frequency range	DC to 2.5 GHz
VSWR (Voltage Standing Wave Ratio)	1.2 max. (typical value) 1.5 max. (0 dB, typical value)

• Applications/usage examples:

- Attenuation, level-adjustment, impedance-matching in RF signal of mobile phone

• Explanation of part numbers:

1	2	3	4	5	6	7	8	9	10	11	12
E	X	B	2	4	A	B	6	G	1	R	X
Common code											
0404 size balanced O type chip attenuator											
Code	Attenuation value	Code	Characteristic impedance			Code	Packaging form				
0	0 dB	C	100 ohm			X	Punched (paper) taping (2 mm pitch)				
1	1 dB	E	200 ohm								
2	2 dB	G	300 ohm								
3	3 dB	0	100 ohm / 200 ohm / 300 ohm (attenuation: 0 dB)*			Code	Attenuation value tolerance				
6	6 dB					R8	± 0.8 dB				
A	10 dB					1R	± 1.0 dB				
						2R	± 2.0 dB				