



Precision chip attenuators

■ PAT series, RAT series

Features

- Excellent noise characteristics, small stray/parasitic inductance and capacitance
- Excellent high frequency characteristics
- PAT0510S are the smallest and lightest thin film chip attenuators.

Applications

- Wireless communication devices, wireless communication modules, etc.

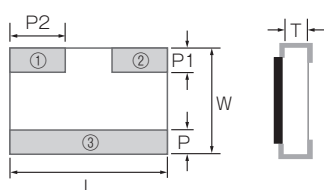
Specifications

* All made to order.

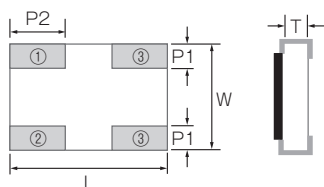
unit : mm

Dimensions

PAT0816, PAT1220,
PAT1632



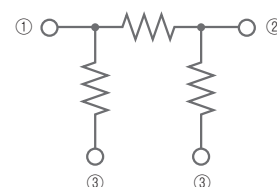
RAT1010X, PAT0510S,
PAT3042S



Back side

Dimension (inch)	RAT1010X (0404)	PAT0510S (0402)	PAT0816 (0603)	PAT1220 (0805)	PAT1632 (1206)	PAT3042S (1712)
L	1.00±0.05	1.00±0.05	1.60±0.10	2.00±0.10	3.20±0.20	4.20±0.20
W	1.00±0.05	0.50±0.05	0.80±0.10	1.25±0.10	1.60±0.20	3.00±0.20
P	0.25±0.05/-0.1	—	0.20±0.10	0.35±0.20	0.40±0.20	0.90±0.20
P1	0.25±0.05/-0.1	0.12±0.04	0.20±0.10	0.35±0.20	0.40±0.20	0.80±0.20
P2	0.33±0.10	0.27±0.05	0.50±0.10	0.60±0.20	1.00±0.20	0.50±0.20
T	0.42±0.05	0.34±0.05	0.40±0.10	0.40±0.10	0.40±0.10	0.80±0.15

Equivalent circuits



Electrical characteristics

Series name	RAT1010X					PAT0510S			PAT0816			PAT1220	PAT1632		PAT3042S	
Attenuation	1~5dB	6~9dB	10dB	11~16dB	20dB	0~3dB	4~7dB	8~10dB	0~3dB	4~7dB	8~10dB	0~10dB	0~10dB	16dB	0~10dB	16, 20dB
Attenuation tolerance	±0.3dB	±0.4dB	±0.75dB	±0.8dB	±2.5dB	±0.3dB	±0.5dB	±1.0dB	±0.3dB	±0.5dB	±0.7dB	±0.3dB	±0.3dB	±0.5dB	±0.3dB	±0.5dB
Impedance	50Ω (C)					50Ω (C)			50Ω (C)			50Ω (C)		50Ω (C), 75Ω (D)		
VSWR	<1.3					<1.3			<1.3(~6GHz) , <1.5(6~10GHz)			<1.3	<1.3		<1.2(50Ω) , <1.3(75Ω)	
Operating frequency	~2.5GHz		~3GHz			DC~10GHz			DC~10GHz			DC~3GHz		~3GHz(50Ω) , ~2GHz(75Ω)		
Rated power	40mW					32mW			63mW		100mW	125mW		250mW		
Rated operating temperature	—					70℃										
Operating temperature	-55℃~+125℃															
Packaging	10,000pcs/reel(no code)					10,000pcs/reel(T10)			5,000pcs/reel(T)			100pcs/bag 1,000pcs/reel(T1), 5,000pcs/reel(T5)		50pcs/bag 2,000pcs/reel(T2)		

- Contact us for 1.0 x 0.5mm GBA type PAT0510.
- Contact us for high power attenuators up to 10W.

Part numbering system

PAT 1632 - C - 3dB - T (5)

T=Tape, B=Bulk () - indicates taping quantity. Refer to packaging in the table above.
 Attenuation
 Impedance
 Size, circuitry
 Product code

(OLD P/N) **RAT 1010X - 3dB - C - B**