

# PAT series, RAT series, high-precision chip attenuators



These 3042, 1632, 1220, 1010 and 0510 size chip attenuators exhibit excellent high frequency characteristics. The surface mount package is ideal for low noise, low inductance and parasitic capacitance applications. Thin film metalization provides for very stable characteristics over temperature and time.

**NEW** Smallest in the market  
lightest in the market.

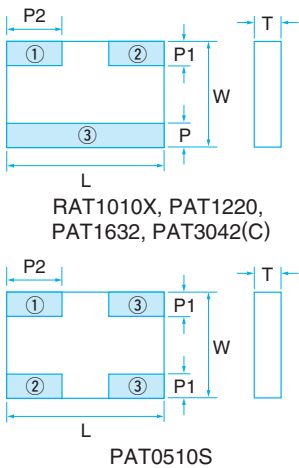
PAT0510S, Thin-film chip attenuator that is the smallest and

RoHS compliant



## SPECIFICATIONS

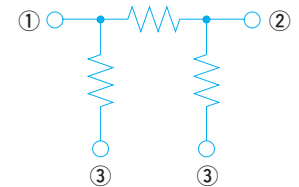
### Mechanical



Dimension (Inch Size)	RAT1010X (0404)	PAT0510S (0402)	PAT0816 (0603)	PAT1220 (0805)	PAT1632 (1206)	PAT3042S(C) (1712)
L	1.00±0.05	1.00±0.05	1.60±0.20	2.00±0.10	3.20±0.20	4.20±0.20
W	1.00±0.05	0.50±0.05	0.80±0.20	1.25±0.10	1.60±0.20	3.00±0.20
P	0.15±0.10	—	0.20±0.10	0.40±0.20	0.40±0.25	0.80±0.20
P1	0.15±0.10	0.15±0.10	0.15±0.10	0.40±0.20	0.55±0.25	0.95±0.20
P2	0.33±0.10	0.27±0.10	0.50±0.20	0.50±0.20	1.00±0.25	—
T	0.35±0.10	0.35±0.05	0.40±0.15	0.40±0.10	0.40±0.10	0.80±0.15

(unit : mm)

### Equivalent circuit



### Electrical

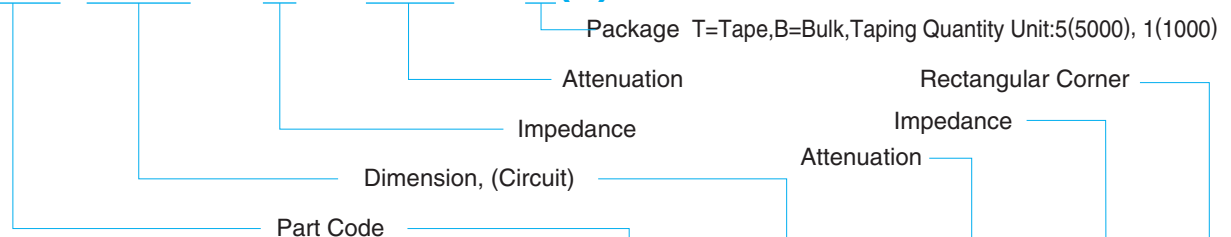
Type	RAT1010X				PAT0510S			PAT0816			PAT1220	PAT1632		PAT3042S		
Attenuation	1~5dB	6~9dB	10dB	11~16dB	20dB	0~3dB	4~7dB	8~10dB	0~3dB	4~7dB	8~10dB	0~10dB	0~10dB	16dB	0~10dB	16, 20dB
Attenuation tolerance	±0.3dB	±0.4dB	±0.75dB	±0.8dB	±2.5dB	±0.3dB	±0.5dB	±0.7dB	±0.3dB	±0.5dB	±1.0dB	±0.3dB	±0.3dB	±0.5dB	±0.3dB	±0.5dB
Impedance	50Ω(C)				50Ω(C)	50Ω(C)			50Ω(C)		50Ω(C)	50Ω(C), 75Ω(D)				
VSWR	<1.3				<1.3	<1.3			<1.3		<1.3	<1.2(50Ω), <1.3(75Ω)				
Frequency Range	~2.5GHz		~3GHz		DC ~10GHz	DC ~10GHz			DC ~10GHz		DC ~3GHz	~3GHz(50Ω), ~2GHz(75Ω)				
Power Rating	40mW				32mW	63mW			100mW	125mW	250mW					
Rated Operating Temperature	—				70°C											
Operating Temp Range	-55°C ~ +125°C															
Package	10,000pcs/reel				10,000pcs/reel(T10)			5,000pcs/reel(T)			100pcs/package 1,000pcs/reel(T1), 5,000pcs/reel(T5)		50pcs/package 2,000pcs/reel(T2)			

- PAT0510 series of 0402 chip with BGA are also available.
- Please contact us for power rating of up to 10W.



## PART NUMBER

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



**RAT 1010X - 3dB - C - B**