



# High Frequency Chip Attenuators

## ■ATS-FD series

### Features

- Attenuation range up to 50GHz
- Internal circuit specially designed for 0-10dB attenuation.
- Miniature surface mount chip attenuator (1005,2012 size)
- Signal line sandwiched by ground – excellent heat dissipation and low noise.

### Applications

- Wireless communication devices and base stations
- Wireless communication modules



## ◆Part numbering system

### ATS 2012 - 10DB - FD - T1

Series Code

Size : 1005, 2012

Packing quantity :  
T1 (1,000pcs) , T05 (500pcs)

Fase down mounting

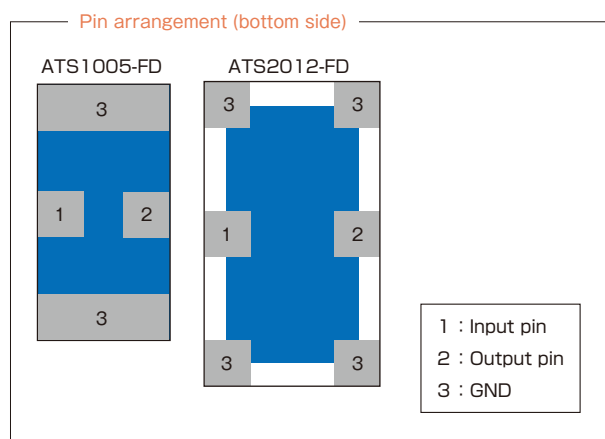
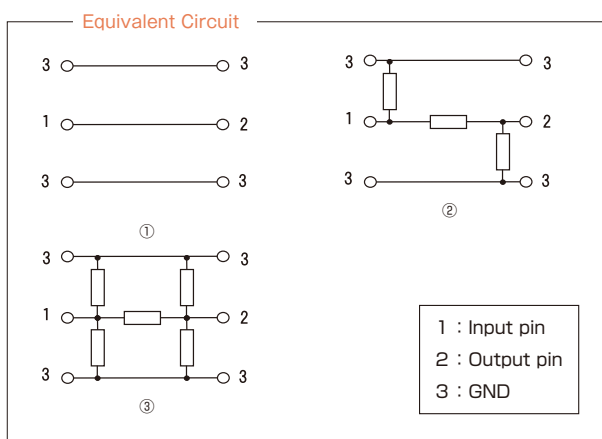
Attenuation

## ◆Electrical Specification

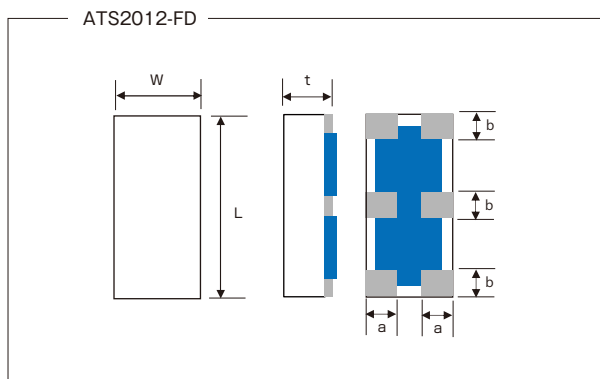
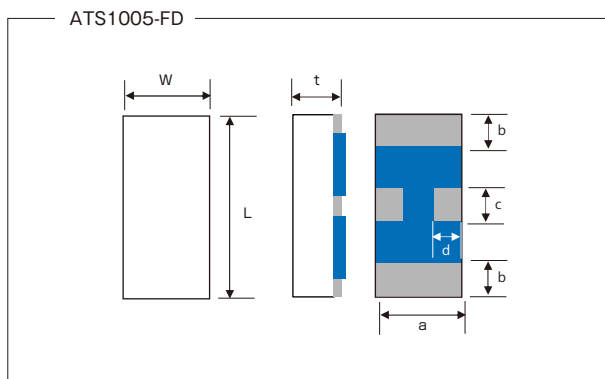
Type	ATS1005-FD		ATS2012-FD		
	Attenuation	0dB	1~10dB	0dB	1~8dB
Circuit Type	Thru	Pi( $\pi$ )	Thru	Pi( $\pi$ )	Dual Pi (Dual $\pi$ )
Equivalent circuits	①	②	①	②	③
Attenuation tolerance	$\pm 0.75$ (DC ~ 25GHz), $\pm 1.25$ dB(25 ~ 40GHz) $\pm 2.0$ dB(40 ~ 50GHz)		$\pm 1.00$ dB(DC ~ 25GHz), $\pm 2.00$ dB(25 ~ 50GHz)		
V S W R	$\leq 1.4$ (DC ~ 25GHz), $\leq 1.6$ (25 ~ 40GHz) $\leq 1.8$ (40 ~ 50GHz)		$\leq 1.4$ (DC ~ 25GHz), $\leq 1.6$ (25 ~ 50GHz)		
Impedance	50 $\Omega$				
Operating frequency	DC~50GHz		DC~50GHz		
Rated power	32mW		100mW		
Rated operating temperature	70°C				
Operating temperature	-40°C~+125°C				
Packaging quantity	500pcs/reel(T05) 1,000pcs/reel(T1)				

High frequency surface mount components  
ATS series

## ◆Equivalent Circuit and pin arrangement



## ◆ Dimensions



Type	Size (inch)	L	W	t	a	b	c	d
ATS1005-FD	0402	$1.0 \pm 0.20$	$0.5 \pm 0.15$	max 0.35	$0.46 \pm 0.05$	$0.15 \pm 0.05$ $0.10 \pm 0.05^{*1}$	$0.20 \pm 0.05$	$0.15 \pm 0.05$
ATS2012-FD	0805	$2.00 \pm 0.20$	$1.25 \pm 0.20$	max 0.40	$0.35 \pm 0.10$	$0.25 \pm 0.10$	—	—

(unit : mm)

\*1: Applies to ATS1005-01DB-FD

## ◆ Derating Curve

