



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

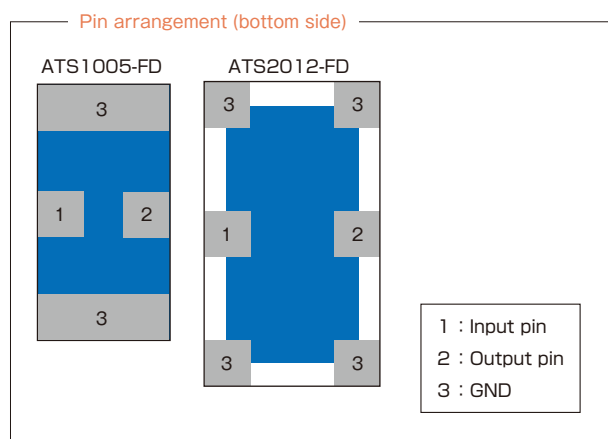
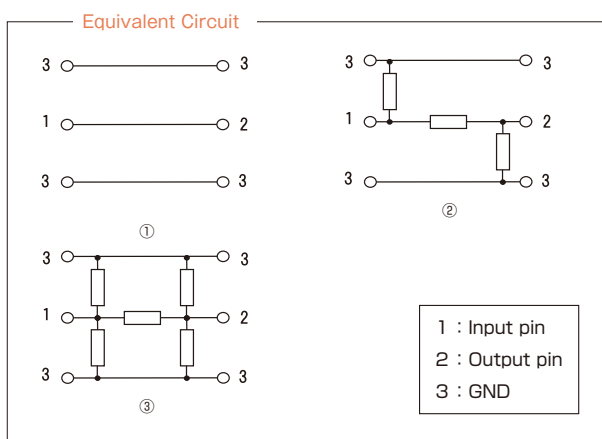
Attenuation

◆Electrical Specification

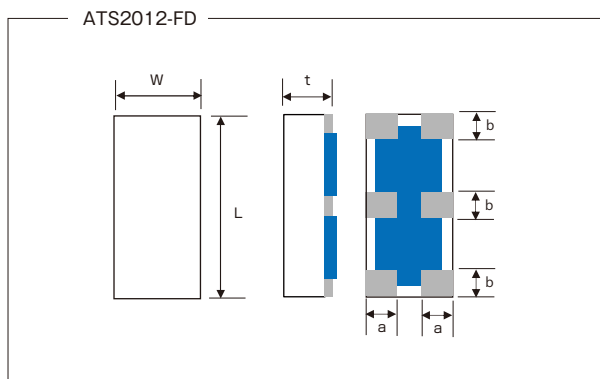
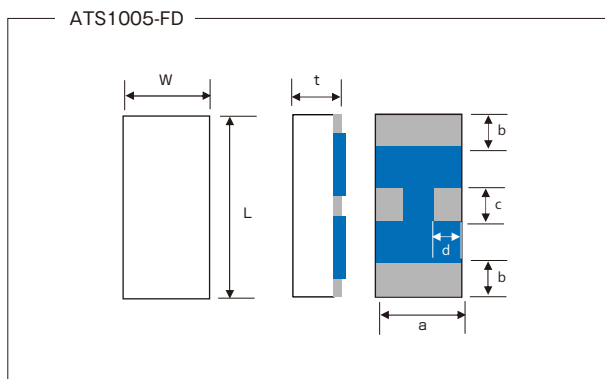
Type	ATS1005-FD		ATS2012-FD		
	Attenuation	0dB	1~10dB	0dB	1~8dB
Circuit Type	Thru	Pi(π)	Thru	Pi(π)	Dual Pi (Dual π)
Equivalent circuits	①	②	①	②	③
Attenuation tolerance	± 0.75 (DC ~ 25GHz), ± 1.25 dB(25 ~ 40GHz) ± 2.0 dB(40 ~ 50GHz)		± 1.00 dB(DC ~ 25GHz), ± 2.00 dB(25 ~ 50GHz)		
V S W R	≤ 1.4 (DC ~ 25GHz), ≤ 1.6 (25 ~ 40GHz) ≤ 1.8 (40 ~ 50GHz)		≤ 1.4 (DC ~ 25GHz), ≤ 1.6 (25 ~ 50GHz)		
Impedance	50 Ω				
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 ± 0.20	0.5 ± 0.15	max 0.35	0.46 ± 0.05	0.15 ± 0.05 $0.10 \pm 0.05^{*1}$	0.20 ± 0.05	0.15 ± 0.05
ATS2012-FD	0805	2.00 ± 0.20	1.25 ± 0.20	max 0.40	0.35 ± 0.10	0.25 ± 0.10	—	—

(unit : mm)

*1: Applies to ATS1005-01DB-FD

◆ Derating Curve

