



MPT 1820APS ATTENUATOR-PHASE SHIFTER

FEATURES

- Attenuator and Phase Shifter Combination
- Surface-Mount Package
- Frequency Range: 1800 MHz to 2000 MHz
- Phase Shift Range: 360 degrees
- Attenuation Range: 20 dB

DESCRIPTION

MPT 1820APS is a combination of an attenuator and a phase shifter in a 18-pin surface-mount package. In this small package, MPT 1820APS has 360 degrees of phase shift range and 20 dB of attenuation range over the frequency range of 1800 MHz to 2000 MHz. Both the attenuator and the phase shifter function independently. It has a very low delay of 2.0 ns, which implies a lower value delay line in the application resulting in a correspondingly lower loss. MPT 1820APS has a delay variation of only ± 100 ps which corresponds to super flatness of phase and amplitude in the application circuits.

MAXIMUM RATINGS

Operating Temperature	-40°C to +85°C
RF Signal Input	20 dBm
Attenuation Control	8 volts
Phase Shifter Control	8 volts

ELECTRICAL CHARACTERISTICS (Frequency: 1800 MHz to 2000 MHz, T_c = +25°C)

Phase Shift Range	360 degrees (typ) 400 degrees (max)
Attenuation Range	15 dB (typ) -20 dB (max)
Delay	2 ns (typ)
Delay Variation	± 100 ps (typ)
VSWR	1.5 = 1 (typ)
Input Third-Order Intercept	> 30 dBm
Control Voltages	
Phase Shift	0 to 8 volts
Attenuator	0 to 8 volts

PIN ASSIGNMENTS

PIN #	FUNCTION
1	RF Input
4	In-Phase Attenuator Control (I ₁)
6	Quadrature Attenuator Control (Q ₁)
9	RF Output
18	In-Phase Attenuator Control (I ₂)
13	Quadrature Attenuator Control (Q ₂)
All Others	Ground