

6-18 GHz 5-bit digital Phase Shifter

Features

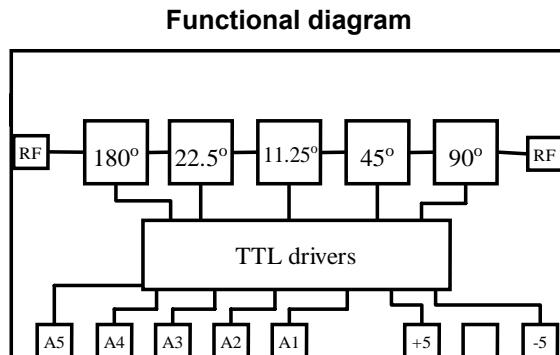
- ◆ 11.25 deg. phase shift resolution
- ◆ 0-360 deg. phase shift range
- ◆ Return losses < 9dB
- ◆ 14 dB mid-band insertion loss
- ◆ low RMS phase error
- ◆ On-chip TTL drivers
- ◆ 0.5µm InGaAs pHEMT technology
- ◆ Chip Size : 4.8 mm x 2.4 mm x 0.10 mm

Typical Applications

- ◆ RADAR
- ◆ Instrumentation

Description

The AMT2251011 is a wideband phase shifter operating in the 6-18 GHz frequency range. The phase shifter offers a phase shift range of 0 to 360° with a phase shift resolution of 11.25°. The phase shifter offers a mid-band insertion loss of 14 dB and a VSWR of 2:1 over the operating bandwidth. The on-chip integrated TTL interface provides easy access to control the phase shift with a 5-bit digital command. The TTL driver operates on +5/-5V supplies with minimal DC power consumption. The die is fabricated using a robust 0.5µm InGaAs pHEMT technology.



Electrical Specifications @ T_A = 25 °C, Z_o = 50 Ω

Parameter	Min.	Typ.	Max.	Units
Frequency range	6	-	18	GHz
Phase Shift range	0		360	deg.
Phase shift resolution	-	11.25	-	deg.
Mid-band Insertion Loss		14		dB
Insertion loss variation		±1.5		dB
RMS error (prime states)		2		deg.
I/O VSWR		2:1		
Pin @ 1dB compression		13		dBm
Control Voltage		TTL compatible		
DC supply (driver)		+5/-5		V

All information and Specifications are subject to change without prior notice

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