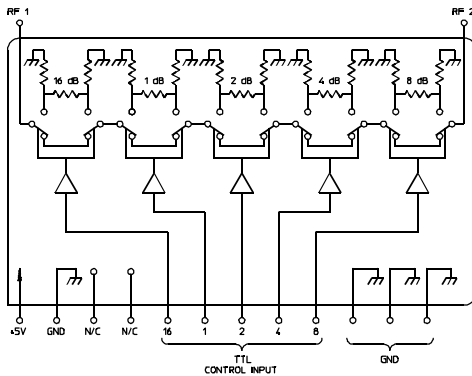


ADS-51V-1000

31 dB DIGITAL ATTENUATOR

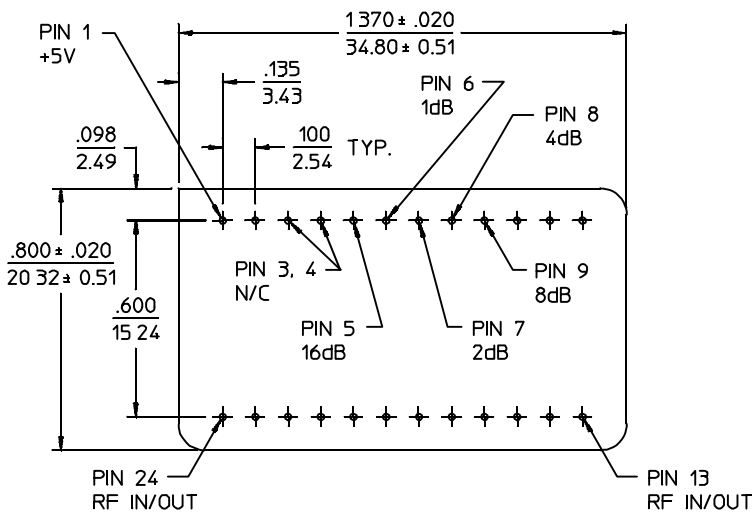
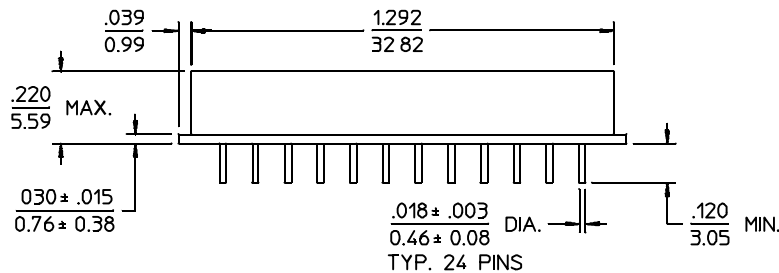
50 to 1500 MHz / 0 to 31 dB Attenuation / Monotonic / 5-Bit Direct TTL Drive / +5V Supply



V Package Outline - 24 pin Dual In Line

TRUTH TABLE					
Attenuation Setting, dB	Control Input				
	"6"	"7"	"8"	"9"	"5"
Reference	0	0	0	0	0
1	1	0	0	0	0
2	0	1	0	0	0
4	0	0	1	0	0
8	0	0	0	1	0
16	0	0	0	0	1

"1" = Logic High TTL
"0" = Logic Low TTL



- NOTES:
1. Tolerance on 3 place decimals $\pm .010(.25)$ except as noted.
 2. Dimensions in inches over millimeters.
 3. Lead dimensions apply only at body.
 4. All unmarked terminals are ground.

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GENERAL SPECIFICATIONS

- Frequency Range: 50 - 1500 MHz
- Attenuation Range: 0 - 31 dB
- Minimum Step Size: 1 dB
- Attenuation Flatness: ± 0.5 dB/bit max.
 ± 1.0 dB max.
- Attenuation Accuracy: ± 0.5 dB at f_0
- Insertion Loss: 5 dB max.
- Phase Variation: $\pm 10^\circ$ typ. at f_0
- VSWR: 1.7:1 max.
- Impedance: 50 Ω nom.
- Switching Delay Time: 2 μ s typ.
(50% control transition to 10/90% RF)
- Switching Transients: 20 mV typ.
(50% control transition to 10/90% RF)
- Bias Requirement: +5 VDC
@ 100 mA nom.
- Input Intercept Point: +32 dBm typ.
- Power Input: 0.25 W max.
- Weight, nominal: 0.4 oz (11 g)
- Operating Temperature: -55° to $+85^\circ$ C

General Notes:

1. The ADS-51V-1000 is a 50 to 1,500 MHz constant impedance 5-bit digital attenuator designed to be driven directly from TTL logic. PIN diode switched attenuator pads are activated by Advanced Fact™ C-MOS, TTL compatible logic drivers, allowing high speed operation without need of a negative supply. Careful design of thick film resistive pads and detailed selection of suitable PIN diodes provide a wide bandwidth with minimal phase shift.
2. Screened versions with extended reliability components are available for applications requiring the highest reliability.