

AD-USB10AR38G95



Rackmount Programmable RF Attenuator

10-Channels, 95dB, 8GHz, 0.25dB Step size, USB/Ethernet Programmable

Specifications

Attenuation Step Size (dB)	0.25				
Number of individually controlled RF chains	10				
Enclosure	2U Rackmount				
Operating Frequency (MHz)	50 - 8,000				
Attenuation Range (dB)	0 - 95				
Input 0.1dB Compression Power (dBm)	34				
Impedance (Ω)	50				
IP3 Input (dBm) ¹	+58				
Attenuation Accuracy (dB)	50 - 2000 MHz	Frequency	Conditions	Typical	Max
			0.25 - 20	± 0.25	$\pm (5.5\% \text{ of Atten.} + 0.25)$
			20.25 - 60	± 0.50	$\pm (2.0\% \text{ of Atten.} + 0.90)$
		60.25 - 90	± 0.75	$\pm (3.5\% \text{ of Atten.} + 0.70)$	
	2000 - 4000 MHz		0.25 - 20	± 0.20	$\pm (5.5\% \text{ of Atten.} + 0.25)$
			20.25 - 60	± 0.30	$\pm (2.0\% \text{ of Atten.} + 0.70)$
			60.25 - 90	± 0.40	$\pm (3.0\% \text{ of Atten.} + 0.90)$
	4000 - 6000 MHz		0.25 - 20	± 0.15	$\pm (6.5\% \text{ of Atten.} + 0.15)$
			20.25 - 60	± 0.35	$\pm (3.5\% \text{ of Atten.} + 0.45)$
			60.25 - 90	± 0.65	$\pm (3.5\% \text{ of Atten.} + 0.90)$
	6000 - 8000 MHz		0.25 - 20	± 0.20	$\pm (6.5\% \text{ of Atten.} + 0.45)$
			20.25 - 60	± 0.40	$\pm (6.7\% \text{ of Atten.} + 0.55)$
		60.25 - 90	± 0.70	$\pm (7.0\% \text{ of Atten.} + 0.90)$	
Dwell Time per Channel (ms) ²	1				
Min. Dwell Time for all Channels (ms) ³	2				
Attenuation Transition Time (ns) ⁴	425				
VSWR	< 2.0: 1 (all states)				
Input RF Power	+28 dBm operating +33 dBm absolute max				
Power Source	AC/DC Adapter (5V / 3A) Power Over Ethernet (POE)				
Power Use (A)	0.302				
Power Over Ethernet (POE)	IEEE802.3at Class 2 compliant				
Operating Temperature ($^{\circ}\text{C}$)	0 to 40				
Communication ⁵	USB (Hybrid Serial COM Port and HID) Ethernet (Telnet, HTTP, HTTP Web GUI, DHCP & Static IP) Manual keypad panel				
Interchain Isolation (Chain-to-chain isolation)(dB)	>110				
External Isolation (dB)	>110				
Insertion Loss (dB)		Typical	Max		
	50 MHz	5.6	6.4		
	2400 MHz	6.7	7.5		
	6000 MHz	9.1	9.5		
	8000 MHz	10.9	12.0		

^A Exceeding absolute maximum ratings may cause permanent damage. Operation should be restricted to the limits in the Operating Ranges table.
Operation between operating range maximum and absolute maximum for extended periods may reduce reliability.

^B Attenuator RF ports are interchangeable bidirectional signal transmission.

¹ Tested with 10 kHz span between signals.

² Dwell Time per Channel is the time the will take an individual attenuator channel to transition to a new attenuation state (without PC communication delays).

³ Minimum Dwell Time for All Channels is the time it takes all channels to transition to a new attenuation state (without PC communication delays).

⁴ Attenuation Transition Time is the time it takes an attenuator to reach a new attenuation state.

⁵ USB support for simultaneous HID and Serial connections.

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Drawing

- Units in inches (in)
- Enclosure depth: 17.00

