Key Features

- 4 RF channels in single enclosure
- Dynamic range of 95dB
- Attenuation resolution of 0.25dB
- Frequency range of 50 - 8000Mhz
- USB powered & controlled
- Ethernet for Telnet and HTTP control
- HTTP Website Interface
- Easy USB control via VCP
- Very compact size
  (181.20 x 89.30 x 25.70) mm

Overview

The **AD-USB4AR38G95** is Adaura Technologies' latest design in the AD-USB series of programmable RF attenuators. Combining all the best features of the previous models, the R3 is the new series flag ship. With a completely custom machined aluminum enclosure, the **AD-USB4AR38G95** boasts 95dB of attenuation with over 100dB of interchain isolation. The addition of Ethernet allows EASY implementation into the most modern of test setups by allowing network control via HTTP web interface or direct Telnet while the USB port powers the device and allows for serial communication.

The **AD-USB4AR38G95** is ideal for:

- Cellular (3G, 4G, LTE, & more)
- IoT
- WiFi MIMO
- Engineering Development and Automated Manufacturing Test
- U-NII-6 through U-NII-8 (5.925 to 7.125GHz)

Included Accessories

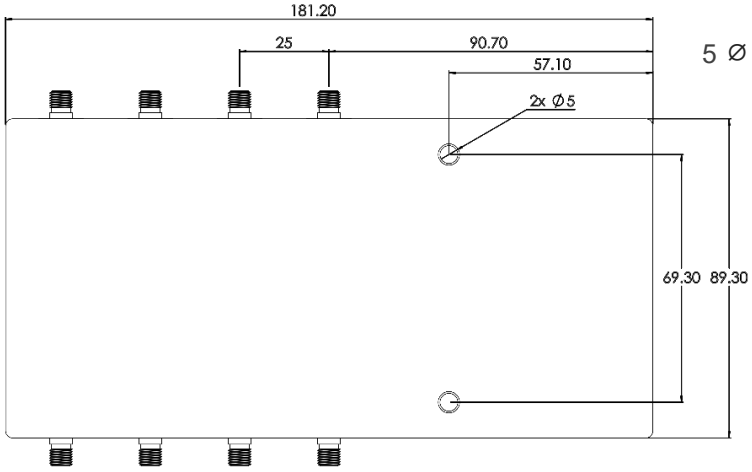
- USB flash drive containing software, drivers, manuals, and sample scripts/programs
- 6 ft. USB type A to type B cable
- 5 ft. CAT6 Ethernet cable

Specifications

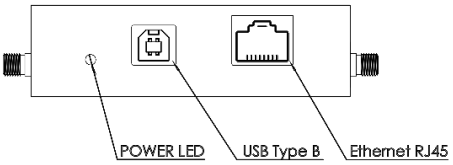
Attenuation Step Size (dB)	0.25				
Number of individually controlled RF chains	4				
Operating Frequency (Mhz)	50 – 8,000				
Attenuation Range (dB)	0 - 95				
Input 0.1dB Compression Power (dBm)	31				
Impedance (Ω)	50				
IP3 Input (dBm)	+56				
Attenuation Accuracy (dB)	**Frequency**	**Conditions**	**Typical**	**Max**	
	5 – 2000 Mhz	0.25 – 20	± 0.25	± (5.5% of Atten. + 0.25)	
		20.25 – 60	± 0.50	± (2.0% of Atten. + 0.90)	
		60.25 – 90	± 0.75	± (3.5% of Atten. + 0.70)	
	2000 – 4000 Mhz	0.25 – 20	± 0.20	± (5.5% of Atten. + 0.25)	
		20.25 – 60	± 0.30	± (2.0% of Atten. + 0.70)	
		60.25 – 90	± 0.40	± (3.0% of Atten. + 0.90)	
	4000 – 6000 Mhz	0.25 – 20	± 0.15	± (6.5% of Atten. + 0.15)	
		20.25 – 60	± 0.35	± (3.5% of Atten. + 0.45)	
		60.25 – 90	± 0.65	± (3.5% of Atten. + 0.90)	
	6000 – 8000 Mhz	0.25 – 20	± 0.20	± (6.5% of Atten. + 0.45)	
		20.25 – 60	± 0.40	± (6.7% of Atten. + 0.55)	
		60.25 – 90	± 0.70	± (7.0% of Atten. + 0.90)	
Switching Speed (ns)	520				
Return Loss (dB)	Better than 10 All States				
Max Input RF Power (dBm)	+28				
Power Use (USB) (mA)	90				
Operating Temperature (°C)	0 to 60				
Communication	USB (Virtual COM Port) Ethernet (Telnet & HTTP RESTful API, DHCP & Static IP)				
Interchain Isolation (Chain-to-chain isolation)(dB)	>100				
External Isolation (dB)	>120				
Insertion Loss (dB)		**Typical**	**Max**		
	50 Mhz	4.2	5.0		
	2400 Mhz	6.1	6.5		
	6000 Mhz	10.7	12.0		
	8000 Mhz	10.9	12.2		

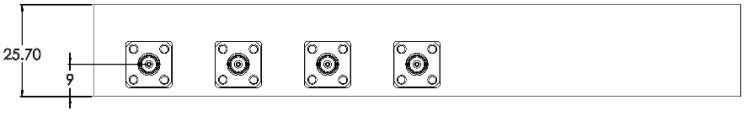
Permanent damage may occur if any of these limits are exceeded. Operating in the range between operating power limits and absolute maximum ratings for extended periods of time may result in reduced life and reliability.

Drawing



5 Ø device mounting through-holes





Units in millimeters (mm)

Performance Graph