NXA-B168M

MATRIX SYSTEM

16 X 8 Matrix System
200 to 8000 MHz

OVERVIEW

The NXA-B168M is a fully shielded, high-performance 64-channel programmable RF matrix attenuator designed for automated RF test systems. It enables precise and repeatable signal power control across multiple RF paths, making it ideal for production testing environments.

NXA-B168M delivers excellent attenuation performance, wide dynamic range, and fast switching speed while maintaining strong channel isolation and signal integrity

Applications

- Wi-Fi communication systems
- Cellular systems (5G/4G/3G/2G)
- MIMO, Multipoint Radio Fading
- Automated Test Equipment (ATE)

Key Features/Benefits

- Extended Frequency Range: Operates across a broad spectrum from 200 MHz to 8 GHz, ensuring versatility for a wide array of testing applications.
- 24/7 Operation: Engineered for continuous use, supporting fully automated testing workflows to maximize efficiency and reliability in mission-critical environments.
- Shielded and Precise: Complete shielding ensures highly accurate and interference-free measurements, ideal for precision testing in demanding RF environments
- Customizable Topologies: Tailored to customer specifications, supporting multiple network topologies for enhanced flexibility and optimized test setups.
- High Dynamic Range: Offers up to 95 dB of attenuation with fine-grain control, adjustable in 0.25 dB increments, delivering exceptional precision for signal fading and attenuation simulations
- Tailored User Interface: Custom-designed software interfaces align with specific customer needs, providing an intuitive and efficient control experience for streamlined operations.

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SPECIFICATION

Parameter		Min	Typ	Max
Frequency Range (MHz)		200		8000
Impedance (Ω)			50	
Channels Inputs/Outputs			16x8	
Attenuation Range (dB)		95		
Shielding (dB)			90	
Isolation between Channels (dB)			90	
Step Size (dB)		0.25		
Insertion Loss (dB) (Includes theoretical loss of power dividers)	< 2GHz		21	
	< 4 GHz		26	
	< 7.5 GHz		30	
Attenuation Accuracy (dB)			±0.25	±1.5
Switching Speed (µs)			2	
Maximum Input Level (dBm)			+28 (operating) +33 (absolute max)	
Input IP3 (dBm)			58	
Operating modes	Uni/Bi-Directional GUI control or APIs			
Power	Power over Ethernet (PoE)			
Operating Temperature	-30 °C to +70 °C			
RF connectors	SMA			
Control Interface	Ethernet or USB			
Operating System	Windows, Linux and Mac			
Custom APIs as per user requirements	Yes			

MECHANICAL SPECIFICATIONS

Parameter	Test Conditions
Power Requirements	100 -240 V AC , 50/60 Hz
Environmental Conditions	Operating Temperature: 0°C to +40°C
Physical Connections	Power Connector: Power Cord Control: USB/Ethernet RF Connectors: SMA – female
Mechanical	Size (3RU): 17.0 × 18 × 5.23 inches Weight: 32 lbs / 14.5 kg

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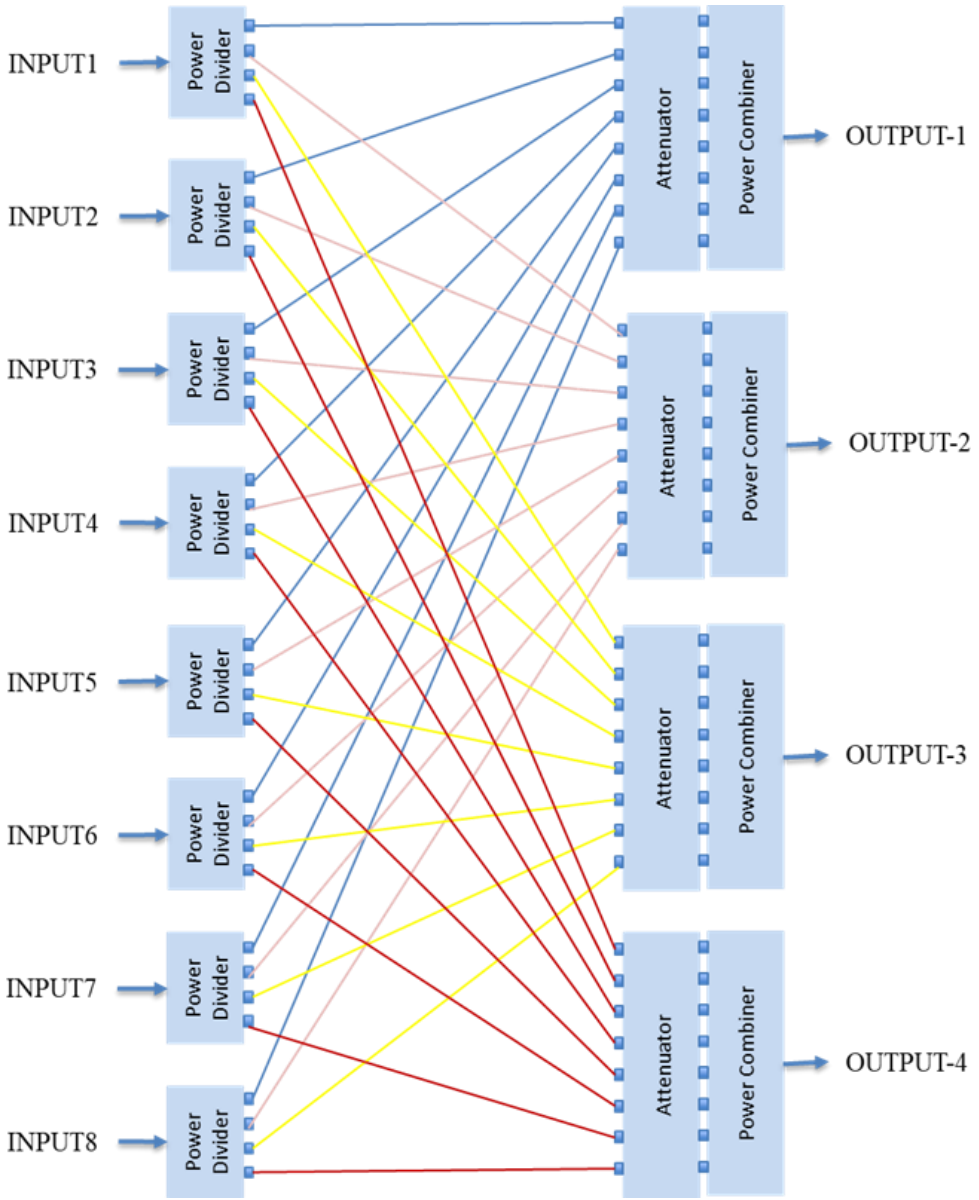
Functional Diagram



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