

ATxTel Blocking RF Switch

ATxTel's RF switch is specifically designed for precision RF testing, sensitive receiver protection, and high-frequency measurement environments where maintaining signal integrity is crucial. This blocking RF switch delivers exceptional performance with fast switching speeds, low insertion loss, and outstanding port-to-port isolation. These key features ensure reliable and consistent operation, making the ATxTel RF switch an ideal choice for a variety of demanding applications.

In automated test systems, the switch's quick response time enhances efficiency and precision in testing procedures, enabling engineers to effectively validate and troubleshoot electronic components. In wireless validation labs, the low insertion loss minimizes signal degradation, ensuring accurate measurements and assessments of the wireless devices being tested. Additionally, the impressive port-to-port isolation prevents unwanted interference, which is essential in aerospace applications where signal integrity directly impacts safety and performance. Lastly, in high-volume production environments, its repeatable performance increases throughput and reduces the risk of errors, contributing to overall operational efficiency.



Applications

- Cellular and Wi-Fi testing setup
- Automation control system
- Large-scale antenna testing
- Aerospace and Defense Testing
- Multi-DUT production testing
- Signal monitoring and network simulation
- R&D and prototype validation
- Signal distribution in labs

Features

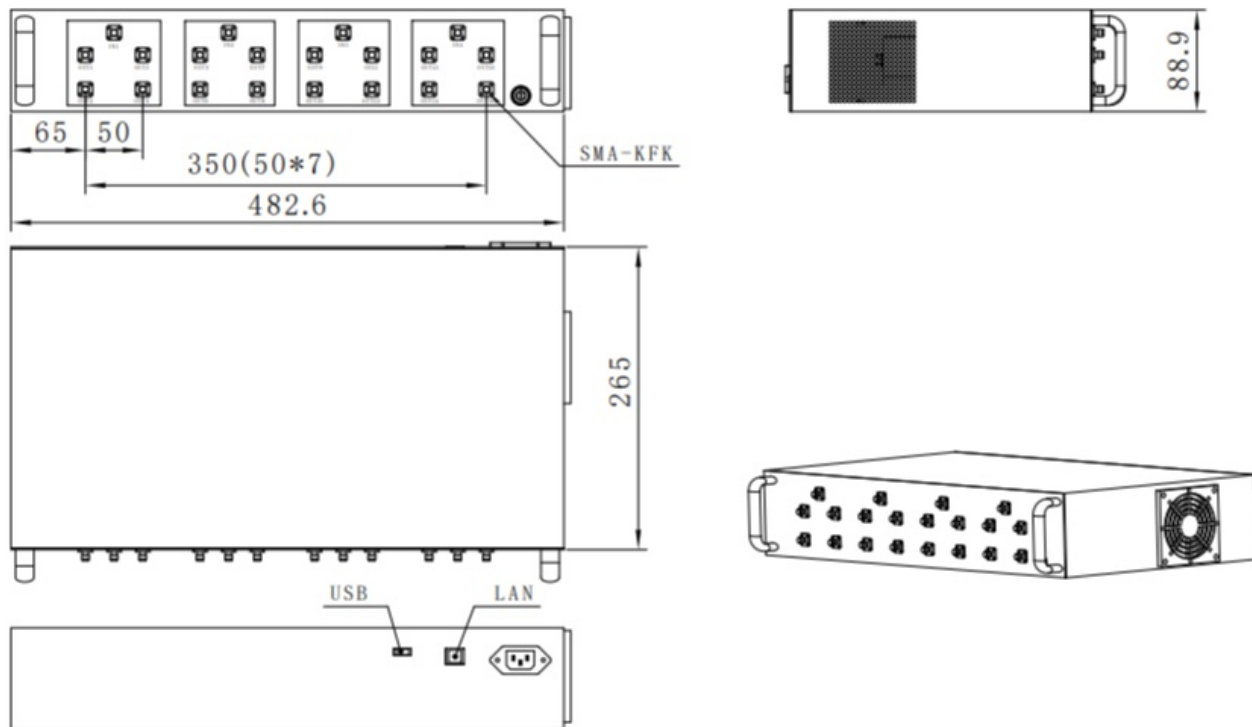
- Scalable and flexible channel topology
- Excellent RF performance and stability
- Compact integration options for portability

Specifications

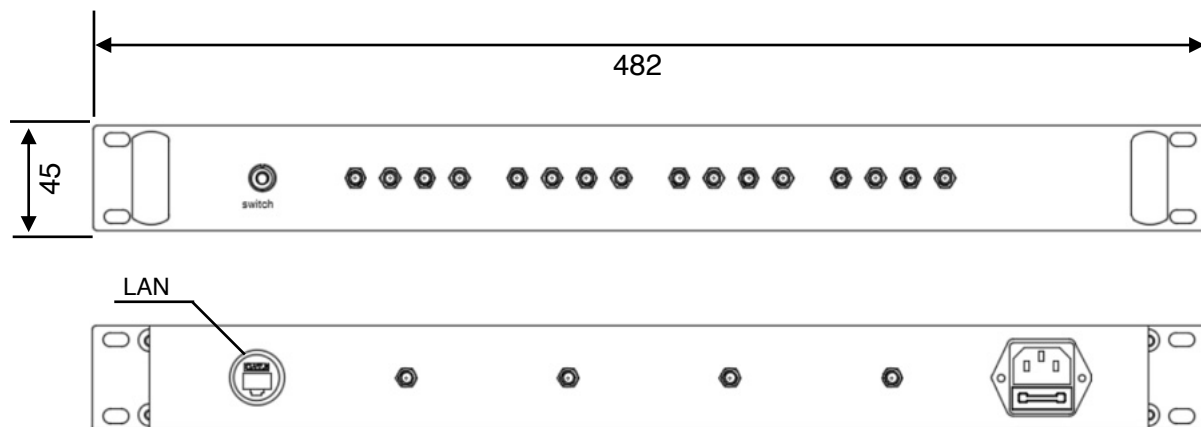
Electromechanical Blocking MxN Switches (M 1:N Connection)			
	DC-18GHz	DC-40GHz	DC-67GHz
RF Interface (Female)	SMA	2.92mm	1.85mm
Impedance (Ω)	50	50	50
Insertion Loss (dB Max)	0.5	1	2
Typical Isolation (dB Min)	70	50	50
Life Cycle	3,000,000	3,000,000	1,000,000
Typical Switching Time (ms)	25	25	25
Control Terminals	USB/LAN(RJ45)	USB/LAN(RJ45)	USB/LAN(RJ45)
Standard Configurations			
2x4 Switch	ATX-LM-SWEM-2X4-1X2FS-C18	ATX-LM-SWEM-2X4-1X2F29-C40	ATX-LM-SWEM-2X4-1X2F18-C67
2x8 Switch	ATX-LM-SWEM-2X8-1X4FS-C18	ATX-LM-SWEM-2X8-1X4FS-C40	ATX-LM-SWEM-2X8-1X4FS-C67
2x12 Switch	ATX-LM-SWEM-2X12-1X6FS-C18	ATX-LM-SWEM-2X12-1X6F29-C40	ATX-LM-SWEM-2X12-1X6F18-C67
4x8 Switch	ATX-LM-SWEM-4X8-1X2FS-C18	ATX-LM-SWEM-4X8-1X2FS-C40	ATX-LM-SWEM-4X8-1X2FS-C67
4x16 Switch	ATX-LM-SWEM-4X16-1X4FS-C18	ATX-LM-SWEM-4X16-1X4F29-C40	ATX-LM-SWEM-4X16-1X4F18-C67
Solid State Blocking MxN Switches (M 1:N Connection)			
	DC-8GHz	DC-9GHz	DC-18GHz
RF Interface (Female)	SMA	SMA	SMA
Impedance (Ω)	50	50	50
Insertion Loss (dB Max)	3	3	6
Typical Isolation (dB Min)	60	60	50
Typical Switching Time (ms)	0.3	0.3	0.3
Control Terminals	LAN(RJ45)	LAN(RJ45)	LAN(RJ45)
Standard Configurations			
4x8 Switch	ATX-MI-SWSS-4X8-1X2SF-C8	ATX-MI-SWSS-4X8-1X2SF-C9	ATX-MI-SWSS-4X8-1X2SF-C18
4x16 Switch	ATX-MI-SWSS-4X16-1X4SF-C8	ATX-MI-SWSS-4X16-1X4SF-C9	ATX-MI-SWSS-4X16-1X4SF-C18

Example Physical Design (*units in mm*)

Electromechanical 4x16 Switch



Solid State 4x16 Switch



Other RF Solutions

ATxTel designs and manufactures a wide variety of fully customized RF solutions engineered to meet each customer's exact requirements. Our portfolio includes high-performance **RF matrix**, **blocking RF switches**, and **fully non-blocking RF switch matrix** systems, scalable all the way to 64 × 64 configurations. Built for reliability, flexibility, and seamless integration, ATxTel solutions deliver exceptional signal integrity and repeatable performance for demanding test, validation, and mission-critical RF applications.



To discuss your specific technical requirements, system architecture, or performance targets, please contact us directly at sales@atxtel.com. Whether you need a fully customized RF switch, or a specialized RF solution tailored to a unique application, our team will work closely with you to design and deliver a solution optimized for your exact needs.

