

## Manual Waveguide Switch, Ka-Band, E-Plane

### **Description:**

Model SWJ-28-M1-WP is a Ka-band manual switch that covers the frequency range of 22 to 44 GHz. It is an E-plane switch that has four ports which allows four switching positions, two through and two adjacent paths. The switch is a bi-directional, multi-path device which allows clockwise and anti-clockwise switching between two through ports and two adjacent ports. The typical insertion loss and isolation are 0.2 dB and 45 dB, respectively. The RF ports are WR-28



waveguides with UG-599/U flanges. The H-plane version of the switch is offered under model **SWJ-28-M1-H**.

### **Features:**

- Low Insertion Loss
- High Isolation
- Extended Standard Bandwidth to 22 to 44 GHz
- Durable and repeatable
- Either Clockwise or Anti-clockwise Rotation

## **Applications:**

- 5G mmW Band
- Test Set
- Communication Systems
- Radar Systems

## **Electrical Specifications:**

Parameter	Minimum	Typical	Maximum
Frequency	22 GHz		44 GHz
Insertion Loss		0.2 dB	
Isolation		45 dB	
Return Loss	A	20 dB	
Power Handling	V / V	100 W (CW)	
Cycle Time	250,000	500,000	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

## **Mechanical Specifications:**

Item	Specification	
RF Ports	WR-28 Waveguide with UG-599/U Compatible Flange	
Material	Brass	
Finish	Gold Plated	
Weight	1.8 lbs.	
Outline	WJ-MA	

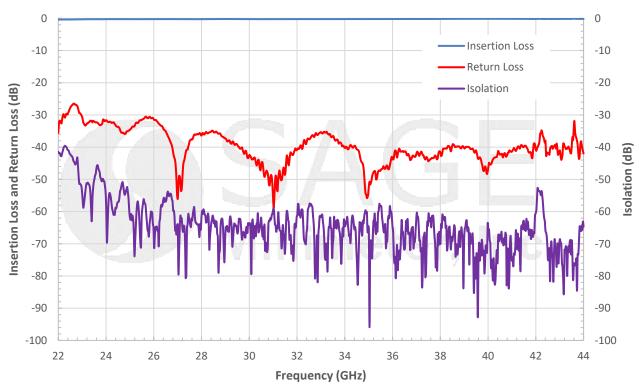


www.sagemillimeter.com | 3043 Kashiwa Street, Torrance, CA 90505 Phone: 424-757-0168 | Fax: 424-757-0188 | Email: sales@sagemillimeter.com

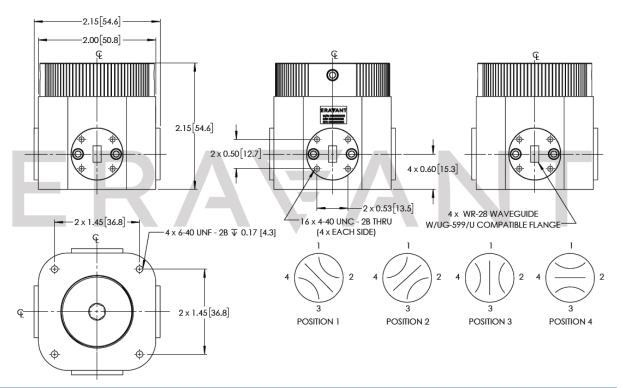
# 9

# Manual Waveguide Switch, Ka-Band, E-Plane

## **Typical Performance vs Frequency**



## Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])





www.sagemillimeter.com | 3043 Kashiwa Street, Torrance, CA 90505 Phone: 424-757-0168 | Fax: 424-757-0188 | Email: sales@sagemillimeter.com



### Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit, slightly.
- All testing was performed under +25 °C case temperature.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

#### Caution:

 Any foreign objects in the waveguide will cause performance degradation and possible device damage.





www.sagemillimeter.com | 3043 Kashiwa Street, Torrance, CA 90505 Phone: 424-757-0168 | Fax: 424-757-0188 | Email: sales@sagemillimeter.com