

Features

- V band , 39 GHz to 59 GHz Frequency Range
- WR19 Waveguide Interface
- High Reliability
- Low Insertion Loss
- High Isolation
- Customization Supported

Applications

Test & Measurement

Space Systems

Radar

Instrumentation

Military Communications

Communication Systems

Description

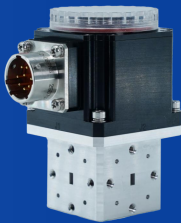
The WR19 waveguide C-type switch is an electromechanical microwave switch based on rectangular waveguide. It enables switching of one input signal between two output channels in the V-band. As a high-performance, high-value signal routing subsystem, it operates within the frequency range of 39 GHz~59 GHz. The product features insertion loss is less than 0.2 dB, VSWR is less than 1.2, and isolation of greater than 70 dB. It adopts the FBP500 waveguide flange as its RF interface.

Technical Specifications

Parameters	Min.	Typ.	Max.	Units
Frequency Range	39		59	GHz
Insertion Loss			0.2	dB
VSWR Output			1.2	
Isolation	70			dB
Operating Temperature Range	-55		+85	°C
Weight			0.45	Kg

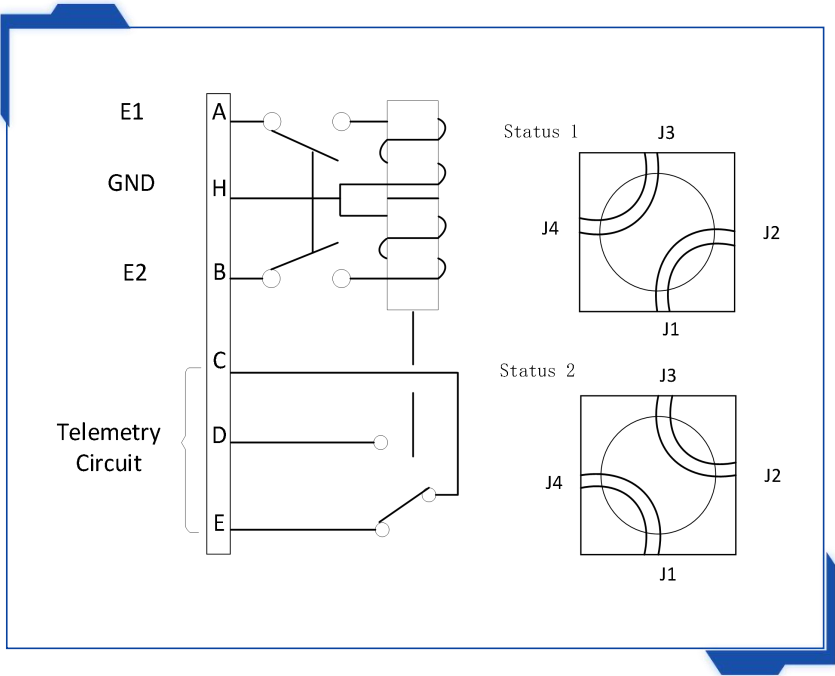
Notes:

Values at 25°C, sea level.



Item	Specification
Drive Type	High-level pulse signal
Latching Method	Self-latching (auto power-off after actuation)
Rated Voltage	28 V
Operating Current	≤ 0.8 A
Switching Time	≤ 50 ms
Low-Frequency Connector	JY3112E12-08PNS
Lifetime	200,000 operations
Ingress Protection	IP65

Control Circuit



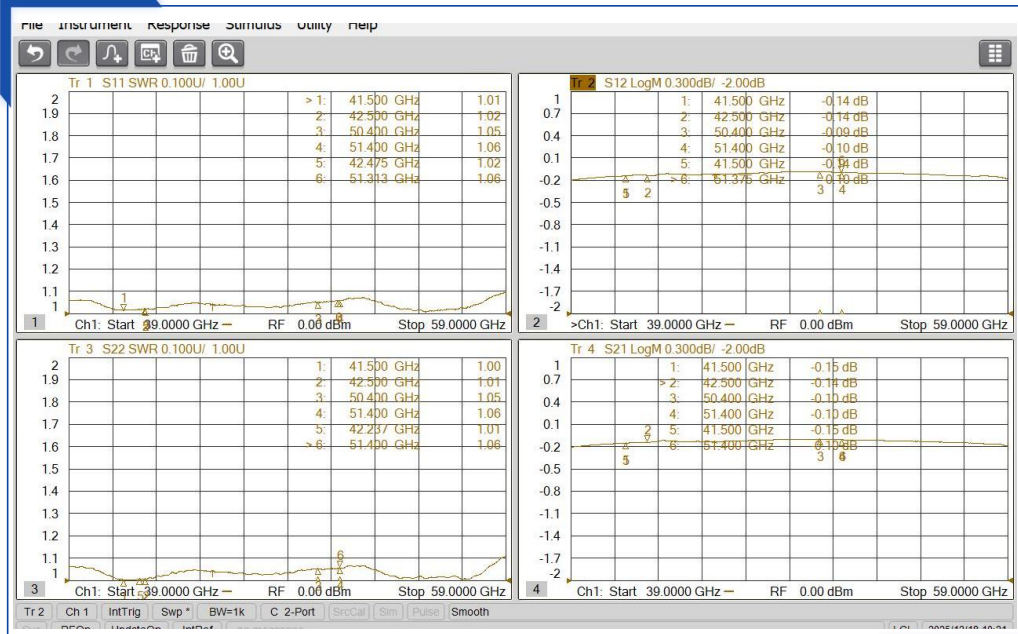


Node Definition

Interface No.	Node No.	Node Definition	Remarks
A	E1	Status 1 control signal (signal hold time > 200 ms)	RF channels 1 & 2 on RF channels 3 & 4 on
G	N/A	Unused node	—
B	E2	Status 2 control signal (signal hold time > 200 ms)	RF channels 1 & 4 on RF channels 2 & 3 on
C	Ic	Common terminal for switch operating status feedback	—
D	I1	Status 1 feedback port	I1 and Ic are connected when switch is in Status 1
E	I2	Status 2 feedback port	I2 and Ic are connected when switch is in Status 2
H	GND	Ground	Control return path



Typical Performances

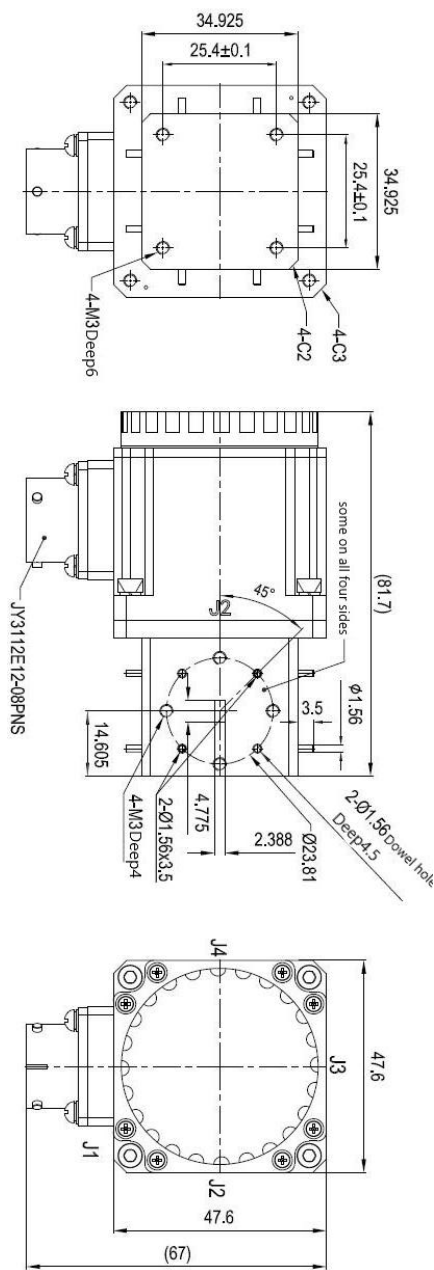


Test Curves of Insertion Loss and VSWR



Performance Test Curve

Outline Drawing:



- NOTES:**
- 1.UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
 - 2.ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.
 - 3.DIMENSIONS ARE IN mm.

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	WR19 Waveguide C-Type Switch		
	J-601Q37310	REV	DATE
		V1.0	2026.4.9
		SCALE 1:1	