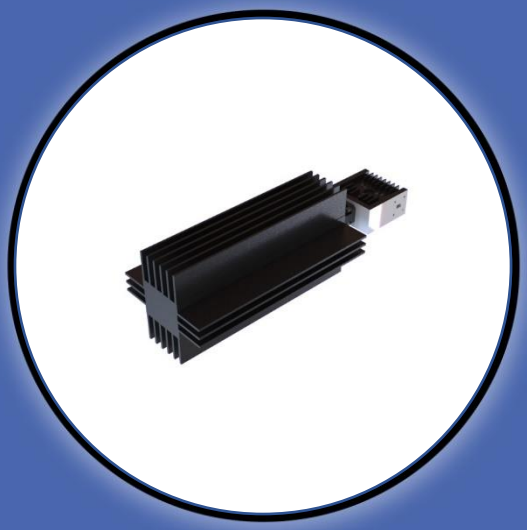
WR28 High-Power Wideband Isolator

Description

A WR28 high-power isolator is a two-port device where power can be transferred from one port to another while the third port is terminated with a matched load. The Port 1 of the isolator can be considered as transmit (TX) port, which directly sends the signal to the coupled port. In general, in the coupled port, an antenna is connected, which receives the signal and sends the signal to the receiver (RX) port. A high isolation is required between TX-RX ports. Therefore, in terms of the power transfer, the signal can go from Port 1 to Port 2 (full transmission). However, from Port 2 to Port 1 there will be a complete isolation. In order, to improve the matching level of the isolator, three-section of quarter-wave transformer were added. The proposed wideband WR28 isolator provides exceptional return loss beyond 18 dB, with isolation beyond 14 dB, while maintaining an average power of 200W over the entire operating range on the forward direction. High-power Circulators/Isolators are essential in many applications, including telecommunications, military radar systems, and satellite communications.



Electrical Specifications

Frequency	: 26.50 – 40.00 GHz
VSWR – All Ports	: 1.35: 1
Insertion Loss	: 0.9 dB (Goal 0.6 dB)
Isolation	: 14.0 dB
Power Handling Forward– Average	: 200 W CW
Power Handling Reverse– Average	: 66 W CW

Mechanical Specifications

Waveguide Size	: WR28
Interface – Input Ports	: Square Cover with Tapped holes
Interface – Output Port	: Square Cover with Tapped holes
Material	: Aluminum 6061
Finish	: Silver
Paint	: Black
Cooling	: Air-cooled

Contact Info :

Address:
5790 rue Donahue,
St-Laurent, QC
Canada, H4S 1C1

Phone:
(+1) 514-664-5790

Website:
www.smcq.com

email:
info@smcq.com

WR28 High-Power Isolator Typical Measured Results