

S-Band Distributed 3-Port Circulator, Model #102483C**Product Overview**

This high power distributed, phase-shifted S-Band circulator is based on EM Design's unique patented concept. It is attractive for isolating reflection from resonant loads such as accelerators or other similar devices. This circulator can be set at either the 2.998 GHz or 2.856 GHz frequency.

The power input, port 1, and the 90° elbowed port 3 have two variable insertion E-field probes (at each one) for monitoring and/or control signals. These probes can be adjusted from the nominal - 60 db coupling. Typically, in isolator applications, a good high power load (such as EM Design's Model #R284-3.0) is attached to port 3 to receive power reflected into Port 2. EM Design Model #102647 and Model #102647A include this circulator, packaged as an isolator.

The circulator is broadband, yet has very good narrow band specifications.

Unit Specifications

Peak Power	8 MW	Center Frequency	2.998 GHz
Average Power	10 KW		
Flanges	CPR284F	VSWR (Port 1)	1.10 max
Water Flow	4.5 GPM		
Required Water Treatment	Deionized Water		
Water Temperature	25° to 40° C (selectable)	Isolation (Port 2 to Port 1)	>35 db
Gas Pressure	35 PSIG SF ₆		
Length	19.5" (495 mm)	Insertion (Port 1 to Port 2)	<0.30 db
Weight	26 lbs. (11.8 Kg)		
Probe Connector	Type N Female		