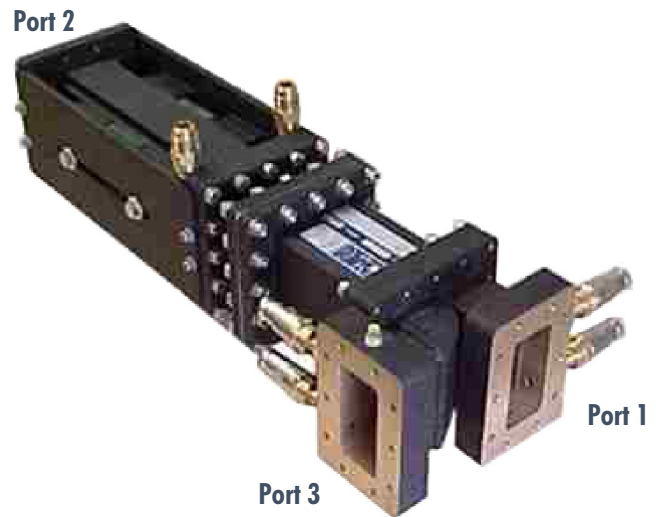


# Distributed Three Port Waveguide Circulator

Model 102483

Patent No 6,407,646,B1



## Product Overview

This high power S band circulator is based on EM Design's unique patented concept. It is especially attractive for isolating reflection from resonant loads such as accelerators or other similar devices. This circulator is set for the 2.998 GHz frequency but can be readily optimized for other frequencies, including 2.856 GHz.

Note that 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 varied from the nominal 60 db coupling. Typically, in isolator applications, a good high power load (such as our Model R284-3.0) is attached to Port 3 to receive power reflected into Port 2.

This circulator is broadband, yet has very good narrow band specifications. Our customers are pleased with the improved system performance achieved by this design.

## Unit Specifications

<b>Peak Power</b>	8 MW	<b>Frequency Band</b>	2.998 (+/- 0.010) GHz	2.8 to 3.2 GHz
<b>Average Power</b>	10 KW (max)			
<b>Flanges</b>	CPR284F	<b>VSWR (Port 1)</b>	1.10 max	1.25 max
<b>Water Flow</b>	4 GPM			
<b>Water Temperature</b>	25° to 40° C (selectable)	<b>Isolation (Port 1 to Port 3)</b>	>37 db	>25 db
<b>Gas Pressure</b>	35 PSIG SF <sub>6</sub>	<b>Insertion (Port 1 to Port 2)</b>	<0.2 db	---
<b>Length</b>	490 mm			

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