



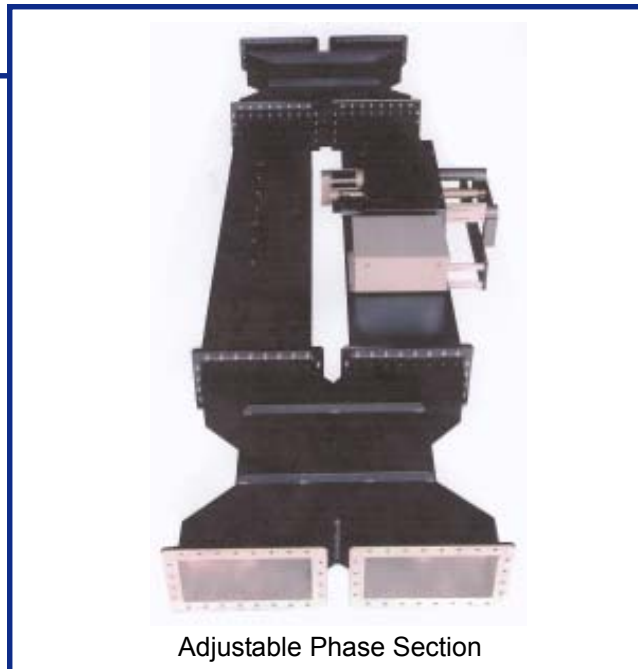
Micro Communications, Inc.

# WAVEGUIDE *HOT SWITCH*™ POWER COMBINER

- **Switches under power**
- **Prevents loss of air time**
- **Easy system integration**
- **High Power Handling**
- **Low Loss**

The MCI *Hot Switch*™ provides three combining modes for dual, phase locked, high power amplifiers (HPAs) with distribution of the combined power to two outputs, typically antenna and load. Should one HPA fail, the *Hot Switch*™ redirects, on command, the remaining HPA to the desired output port with no loss of airtime. This unit is recommended as standard equipment in new systems as a replacement for fixed hybrids, magic tees and in systems that cannot be switched under power.

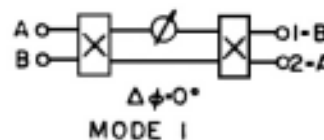
The *Hot Switch*™ is composed of two waveguide hybrids connected by parallel waveguide runs, one of which includes a motor driven dialectic phase shifter. A microprocessor based position controller drives the phase shifter and enables easy integration with the transmitter combining system. Multiple *Hot Switch*™ combiners may be integrated with a single master controller for systems with additional HPAs and/or antennas.



Adjustable Phase Section

Every *Hot Switch*™ is optimized for the intended channel in order to provide the lowest possible VSWR and highest possible transmitter isolation throughout all intermediate and terminal states. MCI also offers low-power and super-power versions of the *Hot Switch*™ that uses non-contacting short circuits in the phase shifter sections.

MODE	INPUT	$\Delta \phi$	OUTPUT
1	A or B	0°	A → 2, B → 1
2	A → B	90°	A + B → 2, ISO → 1
3	A or B	180°	A → 1, B → 2

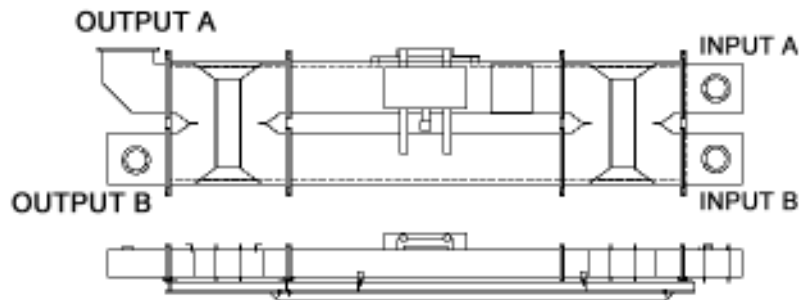




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**SERIES 55060**  
**WAVEGUIDE HOT SWITCH™ POWER COMBINER**

<b>SPECIFICATIONS</b>	
VSWR:	< 1.08
Insertion Loss:	< 0.1 dB
Input Isolation:	> 35dB
Switching Time	< 8 seconds



		<b>UHF</b>		
<b>FREQUENCY</b>	<b>MHz</b>	470-608	566-728	698-860
<b>CHANNEL RANGE</b>		14-36	30-56	52-69
<b>MODEL</b>		55069	55068	55067
<b>SIZE</b>		WR1800	WR1500	WR1150
<b>COMBINED OUTPUT POWER (Transmitters)</b>		240kW	240kW	240kW
<b>SIZE (LxWxH)</b>	<b>ft</b>	16.6x4.5x3.5	15.5x4.0x3.2	14.4x3.6x3.0
	<b>(m)</b>	(5.06x1.37x1.07)	(4.72x1.22x1.00)	(4.39x1.10x0.91)
<b>WEIGHT</b>	<b>lbs</b>	900	700	550
	<b>(kg)</b>	(408.24)	(317.52)	(249.51)
<b>INPUT FLANGE</b>		6 1/8 EIA	6 1/8 EIA	6 1/8 EIA
<b>OUTPUT FLANGE</b>		6 1/8 EIA/ WG	6 1/8 EIA/ WG	6 1/8 EIA/ WG

All specifications are subject to change without notice.



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