

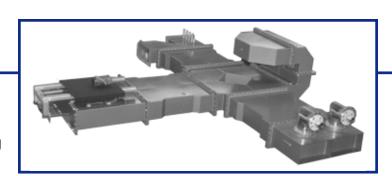
HIGH POWER HOT SWITCH™ COMBINER

- Microprocessor Controlled
- Choke-Type Phaser Non-Contacting
- High Isolation
- UHF Applications to 280kW
- All Waveguide Construction

Micro Communications, Inc., manufactures an assortment of RF switching systems for UHF, including switchless combiners designed to utilize peak power levels as high as 280 kilowatts.

The microprocessor control unit provides the broadcaster with the missing link between the RF system and efficient station operation. This unit allows remote and/or local control of the switchless combiners. The broadcaster needs only to provide a momentary contact for each position required.

MCI series 55080 switchless combiner uses (2) 90° hybrids and a one-sided phase shifter. The advantage is a single drive system. The phase



shifter uses a high power non-contacting short circuit.

MCI's switchless combiners are capable of transmitting full power from two transmitters (inputs A & B) to either output, or from either transmitter to either output.

Switchless combiners are also available from Micro Communications, Inc., for FM, LoV and HiV.

| | MODE | INPUT | Δφ | OUTPUT | | | |
|------------|-----------------|------------------------|--------------------------|---|------------------|--|--|
| | 1 | A or B | 0° | $A \rightarrow 2, B \rightarrow 1$ | | | |
| | 2 | A + B | 90° | $A + B \rightarrow 2$, ISO $\rightarrow 1$ | | | |
| | 3 | A or B | 180° | $A \rightarrow 1, B \rightarrow 2$ | | | |
| | 4 | A + B | 270° | A + B \rightarrow 1, ISO \rightarrow 2 | | | |
| A O | | | | | | | |
| АО— ВО— | Δ φ • 9 MODE | — <u> </u> ∆]—o: ⁰° | 1 • ISO A 2 • A + B B | IXI ~ IXI - | 01•A+B 02•ISO | | |



SPECIFICATIONS

Frequency: Specify Channel

VSWR: < 1.10 Over Pass Band

Insertion Loss: < 0.1 dB Isolation Between any Ports: > 30 dB

Switching Time: 5 Seconds between modes

| | | UHF | | | |
|----------------------------------|--------------------|----------------------------------|--------------------------------------|----------------------------------|--|
| FREQUENCY (MHz) | | 470-608 | 566-728 | 698-860 | |
| CHANNEL RANGE | | 14-36 | 30-56 | 52-69 | |
| MODEL SIZE COMBINED OUTPUT | | 55099 WR1800 | 55098 WR1500 | 55097 WR1150 | |
| POWER SIZE | ft | 280kW 14x14x4 | 280kW 12x12x4 | 280kW 10x10x3 | |
| WEIGHT | (m) Ibs (kg) | (4.26X4.26X1.22) 800 (363) | (3.65X3.65X1.22) 620 (281) | (3.04X3.04X0.91) 420 (190) | |
| INPUT FLANGE OUTPUT FLANGE | (3) | WR1800 WR1800 | WR1500 WR1500 | WR1150 WR1150 | |
| MODEL SIZE COMBINED OUTPUT | | 55089 WR1800 | 55088 WR1500 | 55087 WR1150 | |
| POWER (SIZE | ft (m) | 140kW 14x14x4 | 140kW 12x12x4 (3.65×3.65×1.33) | 140kW 10x10x3 | |
| WEIGHT | (m) Ibs (kg) | (4.26X4.26X1.22) 800 (363) | (3.65X3.65X1.22) 620 (281) | (3.04X3.04X0.91) 420 (190) | |
| INPUT FLANGE OUTPUT FLANGE | | 6 1/8 EIA WR1800 | 6 1/8 EIA WR1500 | 6 1/8 EIA WR1150 | |

All specifications are subject to change without notice.

 $\textbf{NOTES:} \ 1. \ \ 9 \ \text{inch or} \ 8 \ \text{inch coax output can be supplied except on models} \ 55099, 55098, \ \text{and} \ 55097.$

2. Transmitter interlock and status provided through the use of micro switches.

