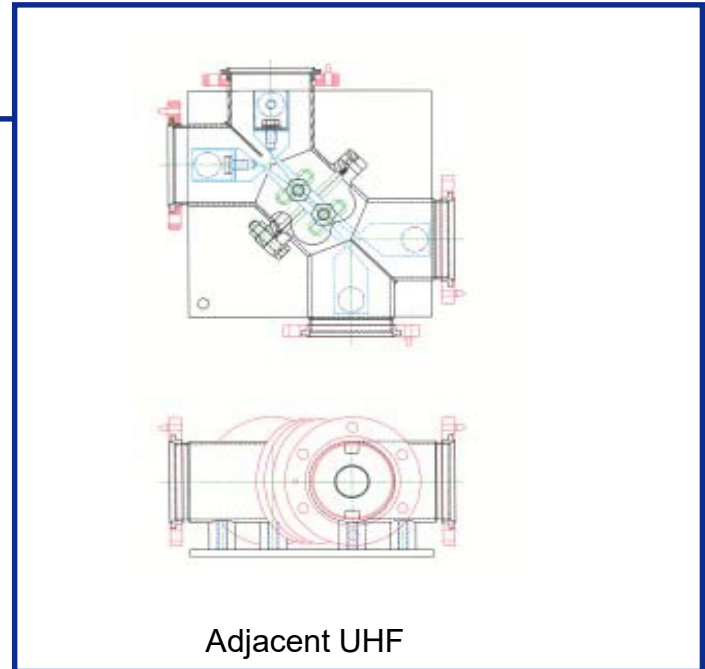


HYBRID POWER COMBINERS

- **Broadband**
- **Low Loss**
- **Low VSWR**
- **High Transmitter Isolation**
- **Low Cost**

The MCI Power Combiner is used to combine any two equal power transmitters operating at the same frequency. Models are available to handle combined output powers of 5kW, 10kW, 20kW, 25kW, 35kW, 40kW, 50kW, 70kW, and 120kW.

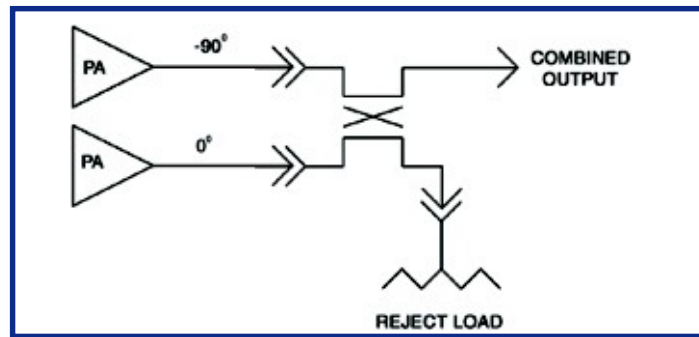


The combining action is accomplished by feeding signals of equal amplitude, but phased in quadrature, into the high power MCI broadband hybrid. A combining reject load (optional) capable of handling one-half the power of a single transmitter is connected to the load port of the hybrid. A directional coupler or wattmeter should be mounted in front of the combining reject load. The directional coupler/wattmeter is used to facilitate the adjustment of relative phase of the two inputs.

The combining reject load and wattmeter are sold separately.

TYPICAL PERFORMANCE CHARACTERISTICS

FREQUENCY (MHz)	47-88	88-108	174-230	470-860
	BROADBAND DESIGN	BROADBAND DESIGN	BROADBAND DESIGN	BROADBAND DESIGN
VSWR	< 1.08:1	< 1.08:1	< 1.08:1	< 1.10:1
POWER SPLIT	within 0.20 dB	within 0.10 dB	within 0.25 dB	within 0.40 dB
ISOLATION	> 30 dB	> 32 Db	> 30dB	> 28dB
INSERTION LOSS	< 0.10 dB	< 0.10 dB	< 0.10 dB	< 0.10 dB
	OPTIMIZED (8 MHz)	OPTIMIZED (10 MHz)	OPTIMIZED (8 MHz)	OPTIMIZED (8 MHz)
VSWR	< 1.03:1	< 1.03:1	< 1.03:1	< 1.03:1
POWER SPLIT	within 0.08 dB	within 0.08 dB	within 0.06 dB	within 0.06 dB
ISOLATION	> 35 dB	> 35 dB	> 35 dB	> 35 dB
INSERTION LOSS	< 0.05 dB	< 0.05 dB	< 0.05 dB	< 0.08 dB



	Lo V	Hi V	FM	UHF
FREQUENCY (MHz)	54-88	174-216	88-108	470-860
CHANNEL RANGE	2-6	7-13	201-300	14-69
MODEL	55035	55015	55045	55225
COMBINED POWER	140kW	100kW	100kW	80kW
SIZE	in 72x12x10 (mm) (1828x300x250)	in 28x12x10 (mm) (710x300x250)	in 42x12x10 (mm) (1070x300x250)	in 20x14x12 (mm) (510x350x300)
WEIGHT	lbs 80 (kg) (36)	lbs 40 (kg) (18)	lbs 60 (kg) (27)	lbs 60 (kg) (27)
CONNECTORS EIA	6 1/8	6 1/8	6 1/8	6 1/8
MODEL	55034	55014	55044	55224
COMBINED POWER	120kW	90kW	80kW	50kW
SIZE	in 72x12x8 (mm) (1828x300x200)	in 28x12x8 (mm) (710x300x200)	in 42x12x8 (mm) (1070x300x200)	in 20x16x8 (mm) (510x410x200)
WEIGHT	lbs 75 (kg) (34)	lbs 35 (kg) (16)	lbs 55 (kg) (25)	lbs 50 (kg) (23)
CONNECTORS EIA	4 1/16	4 1/16	4 1/16	4 1/16
MODEL	55033	55013	55043	55223
COMBINED POWER	80kW	50kW	40kW	30kW
SIZE	in 72x10x6 (mm) (1828x250x150)	in 28x10x6 (mm) (710x250x150)	in 42x10x6 (mm) (1070x250x150)	in 14x10x6 (mm) (360x250x150)
WEIGHT	lbs 65 (kg) (30)	lbs 30 (kg) (14)	lbs 45 (kg) (20)	lbs 35 (kg) (16)
CONNECTORS EIA	3 1/8	3 1/8	3 1/8	3 1/8
MODEL	55032	55012	55042	55222
COMBINED POWER	20kW	12kW	14kW	6kW
SIZE	in 72x6x4 (mm) (1828x150x100)	in 28x6x4 (mm) (710x150x100)	in 42x6x4 (mm) (1070x150x100)	in 12x8x4 (mm) (300x200x100)
WEIGHT	lbs 40 (kg) (18)	lbs 25 (kg) (11)	lbs 30 (kg) (14)	lbs 15 (kg) (7)
CONNECTORS EIA	1 5/8	1 5/8	1 5/8	1 5/8
MODEL	55031	55011	55041	55221
COMBINED POWER	6kW	5kW	4kW	3kW
SIZE	in 72x6x3 (mm) (1828x150x75)	in 26x6x3 (mm) (660x150x75)	in 40x6x3 (mm) (1010x150x75)	in 12x8x4 (mm) (300x200x100)
WEIGHT	lbs 30 (kg) (14)	lbs 15 (kg) (7)	lbs 20 (kg) (9)	lbs 10 (kg) (4.5)
CONNECTORS EIA	7/8	7/8	7/8	7/8
MODEL	55030	55010	55040	55220
COMBINED POWER	2kW	1kW	1kW	0.60kW
SIZE	in 72x6x3 (mm) (1828x150x75)	in 26x3x1.5 (mm) (660x77x38)	in 14x3x1.5 (mm) (350x77x38)	in 10x7x2 (mm) (250x180x50)
WEIGH	lbs 20 (kg) (9)	lbs 10 (kg) (4-5)	lbs 12 (kg) (5)	lbs 3 (kg) (1.4)
CONNECTORS EIA	N	N	N	N

All specifications subject to change without notice

Power Ratings: TV - Peak Sync
FM - CW

Crossover and adjacent designs--consult factory.