



# REMOTELY CONTROLLED TV or FM SWITCHING COMBINER SYSTEMS

- Combines Outputs of Two Parallel Transmitters
- Allows Combiner Bypassing with Failure of One Transmitter
- Switches Either Transmitter to Diplexer or to Load
- Compatible with Computer Control
- Manual Override

The MCI high power switching combiner module permits the parallel combined operation of two transmitters or the use of either one singly in an emergency. This operation can be accomplished by computer control, hard-wired logic or local manual selection.

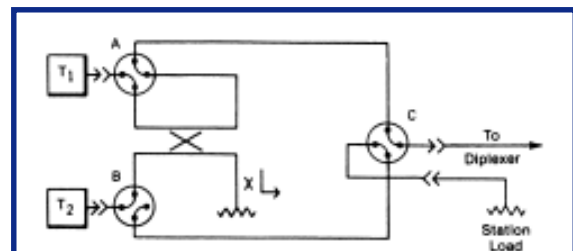
In the normal combined mode of operation, the outputs of both transmitters are fed to the two inputs of a 90° hybrid combiner. The combined signal can then be fed to the diplexer or station load.

If either transmitter should fail, switches A and B (see schematic) can be automatically actuated so that the transmitter outputs are connected directly to the inputs of switch C. Switch C, again automatically, selects the active transmitter to be connected to the diplexers and simultaneously connects the failed transmitter to a dummy load.

Manual override of the high power switch positions permits routine checks of system performance during off-air hours. The system



includes a hybrid combiner, three coaxial switches, and elbow and RF probe (on the dumping load port) and the mounting frame. The air or water cooled dumping load is not included but can be supplied.



## OPERATING MODES

$T_1$  and  $T_2$  into Combiner: Combined output to Diplexer.

$T_1$  and  $T_2$  into Combiner: Combined output to Load.

Bypass Combiner:  $T_1$  to Diplexer:  $T_2$  to Load.

Bypass Combiner:  $T_1$  to Load:  $T_2$  Diplexer.



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SPECIFICATIONS		
Frequency:	Specify Channel	Isolation:
VSWR:	1.10 Over Band	Parallel Mode:
Insertion Loss:	0.1 dB Max. Over Band	Emergency Mode:
		Switching Time:
		30dB Min.
		50 dB Min.
		2 Seconds Max.

	VHF			FM	UHF
FREQUENCY (MHz)	54-72	76-88	174-216	88-108	470-860
CHANNEL RANGE	2-4	5-6	7-13	201-300	14-69
MODEL	56035	56025	56015	56045	56065
POWER (Combined)	120kW	120kW	100kW	120kW	50kW
SIZE in	68x50x60	58x50x60	34x50x60	58x50x60	34x48x60
(mm)	(1727x1270x1524)	(1473x1270x1524)	(864x1270x1524)	(1473x1270x1524)	(864x1219x1524)
WEIGHT lbs	975	950	925	950	800
(kg)	(442)	(431)	(420)	(431)	(363)
CONNECTORES EIA	6 1/8	6 1/8	6 1/8	6 1/8	6 1/8
MODEL	56034	56024	56014	56044	56064
POWER (Combined)	100kW	100kW	80kW	60kW	36kW
SIZE in	68x32x54	58x32x54	34x50x60	58x50x60	34x48x60
(mm)	(1727x813x1372)	(1473x813x1372)	(864x1270x1524)	(1473x1270x1524)	(864x1219x1524)
WEIGHT lbs	900	875	850	875	850
(kg)	(408)	(397)	(386)	(397)	(386)
CONNECTORES EIA	4 1/16	4 1/16	4 1/16	4 1/16	4 1/16
MODEL	56033	56023	56013	56043	56063
POWER (Combined)	80kW	80kW	50kW	40kW	20kW
SIZE in	68x28x50	58x28x50	34x28x50	58x28x50	34x50x60
(mm)	(1727x711x1270)	(1473x711x1270)	(864x711x1270)	(1473x711x1270)	(864x1270x1524)
WEIGHT lbs	375	350	325	350	325
(kg)	(170)	(159)	(147)	(159)	(147)
CONNECTORES EIA	3 1/8	3 1/8	3 1/8	3 1/8	3 1/8
MODEL	56032	56022	56012	56042S	56062S
POWER (Combined)	25kW	25kW	16kW	20kW	10kW
SIZE in	68x28x50	58x28x50	34x28x50	58x28x50	32x50x60
(mm)	(1727x711x1270)	(1473x711x1270)	(864x711x1270)	(1473x711x1270)	(812x1270x1524)
WEIGHT lbs	275	250	225	250	225
(kg)	(125)	(113)	(102)	(113)	(102)
CONNECTORES EIA	1 5/8	1 5/8	1 5/8	1 5/8	1 5/8
MODEL	56031S	56021S	56011S	56042	56062
POWER (Combined)	10kW	10kW	6kW	10kW	5kW
SIZE in	64x22x48	54x24x46	32x24x46	54x26x48	32x50x60
(mm)	(1626x559x1219)	(1372x610x1168)	(812x610x1168)	(1372x660x1219)	(812x1270x1524)
WEIGHT lbs	275	250	225	250	225
(kg)	(125)	(113)	(102)	(113)	(102)
CONNECTORES EIA	7/8	7/8	7/8	1 5/8	1 5/8
MODEL	56031	56021	56011	56041	56061
POWER (Combined)	2kW	2kW	2kW	4kW	2kW
SIZE in	64x22x48	54x24x46	32x24x46	54x26x48	32x50x60
(mm)	(1626x559x1219)	(1372x610x1168)	(812x610x1168)	(1372x660x1219)	(812x1270x1524)
WEIGHT lbs	250	225	200	225	200
(kg)	(113)	(102)	(91)	(102)	(91)
CONNECTORES EIA	7/8	7/8	7/8	7/8	7/8

**All specifications subject to change without notice**

Consult factory for other power levels not listed.

Available upon special order:

1. Three transmitter switching combiner.
2. Station test load.
3. Combining reject load.
4. Operating control panel.



**Micro Communications, Inc. 15 Caron Street Merrimack, NH USA 03054**

**Tel: 603-429-0800 Toll-free: 800-545-0608 Fax: 603-426-1633 Web: www.mcibroadcast.com**

**Email: sales@mcibroadcast.com**