



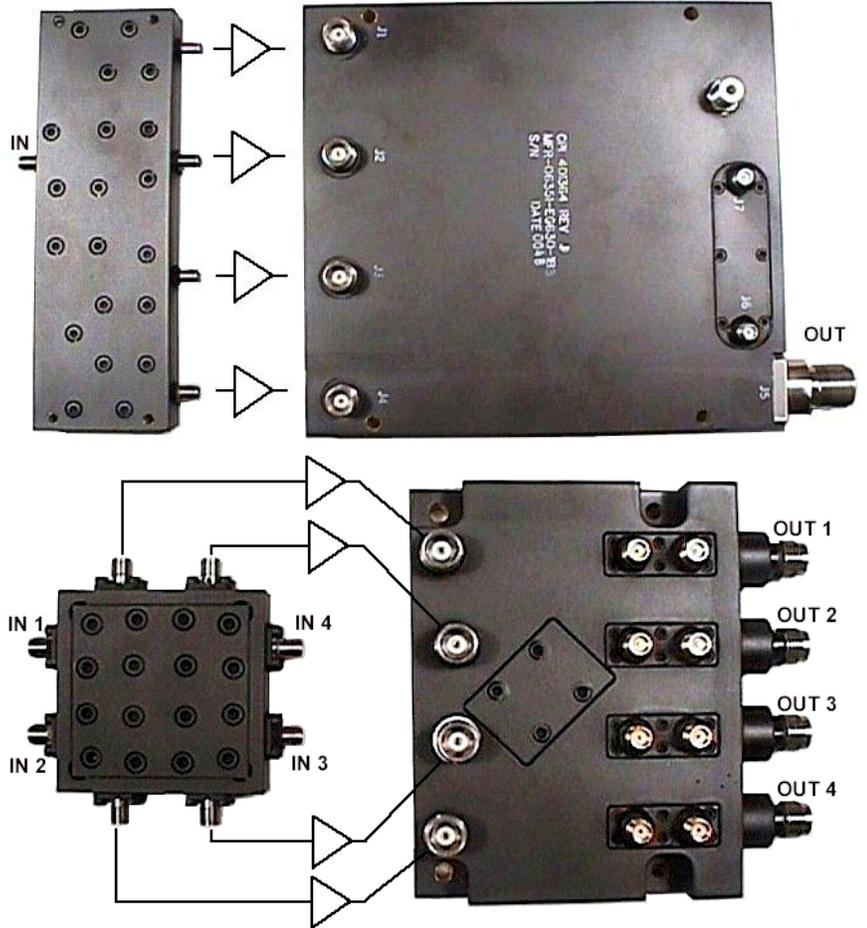
# COMBINERS AND DIVIDERS, HIGH POWER, MULTI PORT, COAXIAL, QUADRATURE PHASE

**DATA SHEET**  
No. T151

- HIGH POWER
- BROADBAND
- LOW LOSS
- RUGGED CONSTRUCTION

## DESCRIPTION

These broadband components are used as feeds in antenna arrays and other applications requiring precise summing or dividing of high RF power. They are also frequently used to combine several lower power



TWT's or solid-state sources into an effectively higher power source. The advantages of this scheme include flexibility in power management such as switching and variable distributions, graceful degradation, harmonic suppression and increased reliability of lower-voltage power supplies. In such cases an available matching low-power divider is used at the driver stage to the amplifiers. The 504-series consists of high power 2:1 combiners or 1:2 dividers using quadrature hybrids with 0 to 90° phase relation and equal-amplitude. Similarly, the 630-series consists of N-way combiner or divider networks.

The models listed are only a representative sample of MEC's capabilities. Other requirements such as sum and difference monopulse feeds, non-equal amplitude distributions and 0° or 180°-phase options are available. These products may be readily customized to suit individual requirements.

## SPECIFICATIONS

MODEL NUMBER	TYPE	FREQUENCY RANGE (GHz)	POWER TOTAL		VSWR (MAX)	INSERTION LOSS TOTAL (dB)	PHASE BALANCE +/-	ISOLATION (MIN) (dB)	DIMENSIONS (INCHES)		
			Pk (KW)	AVE. (W)					L	W	H
EG630-18	4 :1 Combiner	2.0-8.0	3.0	1000	1.7:1	1.0	90°+/- 5°	12	6.75	6.3	1.0
EG630-21	1:4 Divider	2.0-8.0	0.5	100	1.2:1	0.3	90°+/- 5°	16	6.7	2	.75
IJ630-50	4 x 4 Combiner	5.2-17.5	2.0	400	1.6:1	1.0	90°+/- 10°	11	4.5	3.6	.78
IJ630-32	4 x 4 Divider	5.2-17.5	.5	100	1.6:1	.8	90°+/- 10°	12	2.2	2.2	.5

## ORDERING INFORMATION

- (1) Specify frequency, power environment and any other special requirements.
- (2) Specify connectors. Refer to connector chart data sheet number T-100. Power handling is usually limited by the RF connectors used.

