

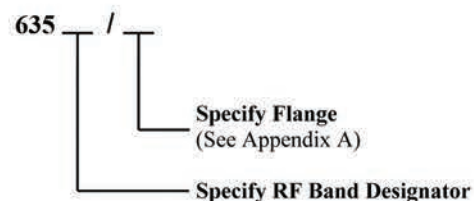
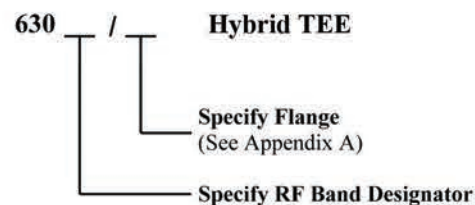
630 / 635 Series Magic & Hybrid Tees



Features

- Equal Power Division
- Available from 12.4 to 220 GHz
- High Isolation Provided by Symmetrical Construction

Ordering Information



Description

Mi-Wave's 630/635 series E/H hybrid and magic tees consist of three mutually perpendicular flanged sections of a standard waveguide. Two of these sections are symmetrically located on the broad and narrow walls of the main tee section to provide E-plane and H-plane connections.

The internal geometry of these hybrids provides a powerdividing and phase-inverting characteristic. Power applied to the shunt H-plane arm is divided between the two in-line ports of the main tee section to result in equal power, in-phase output signals. Power applied to the series E-plane arm is also divided between these two ports, but with a phase reversal which provides equal power, opposite-phase outputs. With symmetrical construction, good isolation is maintained between the E-plane and H-plane arms. The 630/635 series hybrid tees are available in standard wave-guide sizes from 12.4 to 220 GHz.

Applications

The 630/635 series hybrid tees are four-port transmission line components designed for basic power-splitting and mixing applications. These devices are useful as integral parts of RF bridge circuits for routine impedance comparisons and reflection coefficient measurements or as power dividers and isolators in radar balanced mixer circuits. Because the series (E) and shunt (H) arms are not matched, these units are not suited for low VSWR applications. For these applications, Mi-Wave recommends the 600 series and 605 hybrids and 635 series.

Please inquire with Mi-Wave for 630 specifications.

Dimensional Specifications

Model No	A		B		C		Weight (oz)
	in	mm	in	mm	in	mm	
635Ku	2.50	63.5	1.25	31.7	2.25	57.2	5.5
635K	2.50	63.5	1.25	31.7	1.63	41.4	5.5
635A	2.50	63.5	1.25	31.7	1.20	30.5	5.0
635B	2.50	63.5	1.25	31.7	1.17	29.7	4.8
635U	2.50	63.5	1.25	31.7	1.15	29.2	4.4
635V	2.00	50.8	1.00	25.4	0.85	21.6	3.4
635E	2.00	50.8	1.00	25.4	0.83	21.1	3.2
635W	2.00	50.8	1.00	25.4	0.82	20.8	3.0
635F	1.50	38.1	0.75	19.1	0.56	14.2	2.2
635D	1.50	38.1	0.75	19.1	0.55	14.0	1.6
635G	1.50	38.1	0.75	19.1	0.54	13.7	1.5