

Key Features

- Low insertion loss,
- High isolation
- Excellent port symmetry

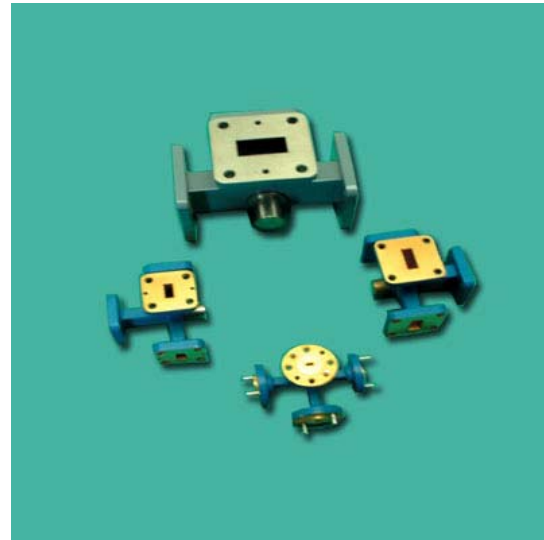
Primary Applications

- Power splitter/combiner
- Monopulse duplexer
- 3dB coupler

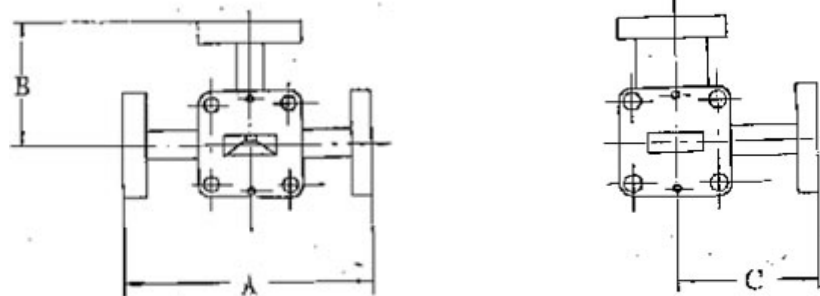
General Description

The magic tee is a four-port, 0° or 180° hybrid splitter, realized in waveguide. An incident signal at the sigma port (H-arms) splits equally between the co-linear ports with the resulting signals in phase. On the other hand, a signal incident on the delta port (E-arms) also splits equally between co-linear ports, but the resulting signals are 180° out of phase. Typical operating bandwidth of magic-T can cover 20%

bandwidth. Custom designs are offered to cover frequency range from 2.6-110GHz.



Outline Drawing



Typical specification

Part No.	Frequency Range, GHz	Waveguide sizes	Flange Type	Isolation (dB)	Symmetry (dB)	VSWR, E/H	Dimensions (mm)		
							A	B	H
WMT090-01	8.2~12.4	WR-90	UG39/U	30	0.3	1.25:1	80	40	40
WMT075-01	10.0~15.0	WR-75	UBR120	30	0.3	1.25:1	70	35	35
WMT062-01	12.0~18.0	WR-62	UG419/U	30	0.3	1.25:1	60	30	30
WMT051-01	15.0~22.0	WR-51	UG595/U	30	0.3	1.25:1	50	30	30
WMT042-01	18.0~26.5	WR-42	UG595/U	30	0.3	1.25:1	45	25	25
WMT034-01	22.0~33.0	WR-34	UG1530/U	30	0.3	1.25:1	45	25	25
WMT028-01	26.5~40.0	WR-28	UG599/U	30	0.3	1.25:1	45	25	25
WMT022-01	33.0~50.0	WR-22	UG383/U	30	0.3	1.25:1	45	25	25
WMT019-01	40.0~60.0	WR-19	EG383/U	30	0.3	1.25:1	45	25	25
WMT015-01	50.0~75.0	WR-15	UG385/U	30	0.3	1.25:1	45	25	25
WMT012-01	60.0~90.0	WR-12	UG387/U	30	0.3	1.25:1	45	25	25
WMT010-01	75.0~110.0	WR-10	UG387/U	30	0.3	1.25:1	45	25	25