



**Applications:**

- Instrumentation
- Module Assemblies
- Transceivers

**Features:**

- Low Insertion Loss
- Low Return Loss
- High Isolation
- Excellent Amplitude & Phase Balances



**Descriptions:**

**3J Microwave, Inc.** offers a complete line of Magic-Tees and waveguide power dividers in 8 waveguide bands. The Magic-Tees and power dividers feature low insertion loss, excellent amplitude and phase balance and high isolation between the ports. 2-way, 4-way and 8-way power dividers are available. Slit block structure is used for the Magic-Tees and power dividers.

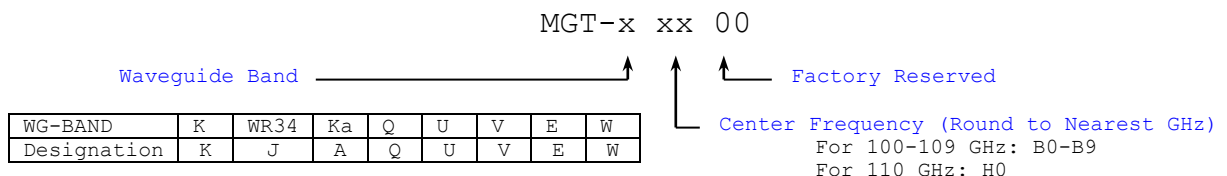
The Magic-Tees and power dividers cover 80% of the waveguide bandwidth. They are suitable for the applications of module assemblies, instrumentations and transceivers. The products in this category are sorted by: 1) **MGT** Magic-TEE; 2) **PDWG2** 2-Way Power Divider; 3) **PDWG4** 4-Way Power divider; 4) **PDWG8** 8-Way Power Divider.

**MGT Series Magic-Tee Specifications:**

<b>Model No.</b>	MGT-xxx-00*							
<b>WG Band</b>	WR-42	WR-34	WR-28	WR-22	WR-19	WR15	WR-12	WR-10
<b>Frequency Range (GHz)</b>	18 to 26.5	22 to 33	26.5 to 40	33 to 50	40 to 60	50 to 75	60 to 90	75 to 110
<b>Band Width (GHz)</b>	80% of the waveguide Band							
<b>I. L. (dB)</b>	0.1	0.1	0.2	0.3	0.3	0.3	0.4	0.4
<b>Amplitude Balance (dB)</b>	± 0.25							
<b>Phase Balance (°)</b>	+/- 10							
<b>Directivity (dB)</b>	-25 dB between E and H arms -20 dB between co							
<b>Return Loss (dB)</b>	-15 dB							
<b>WG Flange</b>	UG595/U	UG595/U	UG599/U	UG383/U	UG383/UM	UG385/U	UG387/U	UD387/UM
<b>Outline</b>								

\* Please see "how to order" for the model number details

**How to Order:**





**Section 4-5: Magic Tees and Waveguide Power Dividers**  
[www.3jmicrowave.com](http://www.3jmicrowave.com) Frequency Coverage: 18 to 110 GHz

**Model No. Example:**

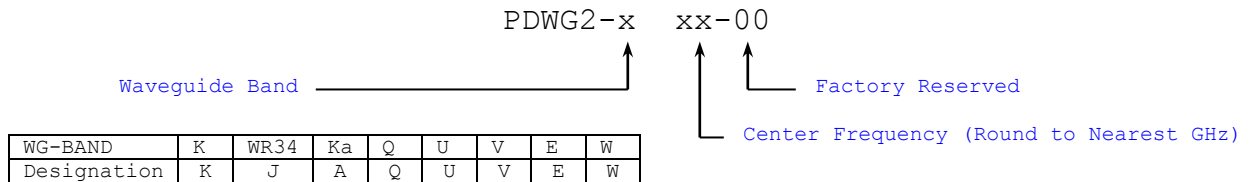
Model No. of a V-Band Magic-Tee at Center Frequency of 62.5 GHz:  
 MGT-V63-00

**PDWG2 Series 2-Way Waveguide Power Divider Specifications:**

Model No.	PDWG2-xxx-00*							
WG Band	WR-42	WR-34	WR-28	WR-22	WR-19	WR15	WR-12	WR-10
Frequency Range (GHz)	18 to 26.5	22 to 33	26.5 to 40	33 to 50	40 to 60	50 to 75	60 to 90	75 to 110
Band Width (GHz)	80% of the waveguide Band							
I. L. (dB)	0.1	0.1	0.2	0.3	0.3	0.3	0.4	0.4
Amplitude Balance (dB)	± 0.25							
Phase Balance (°)	+/- 10							
Directivity (dB)	-20 dB between co							
Return Loss (dB)	-15 dB							
WG Flange	UG595/U	UG595/U	UG599/U	UG383/U	UG383/U	UG385/U	UG385/U	UD387/UM
Outline								

\* Please see "how to order" for the model number details

**How to Order:**



**Model No. Example:**

Model No. of a V-Band 2-Way Waveguide Power Divider at Center Frequency of 62.5 GHz:  
 PDWG2-V63-00

**PDWG4 Series 4-Way Waveguide Power Divider Specifications:**

Model No.	PDWG4-xxx-00*							
WG Band	WR-42	WR-34	WR-28	WR-22	WR-19	WR15	WR-12	WR-10
Frequency Range (GHz)	18 to 26.5	22 to 33	26.5 to 40	33 to 50	40 to 60	50 to 75	60 to 90	75 to 110
Band Width (GHz)	80% of the waveguide Band							
I. L. (dB)	0.2	0.2	0.4	0.5	0.5	0.6	0.7	0.7
Amplitude Balance (dB)	± 0.35							
Phase Balance (°)	+/- 10							
Directivity (dB)	-20 dB between co							
Return Loss (dB)	-15 dB							
WG Flange	UG595/U	UG595/U	UG599/U	UG383/U	UG383/UM	UG385/U	UG387/U	UD387/UM
Outline								

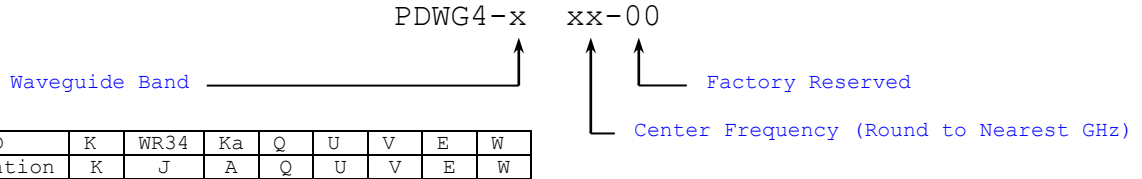
\* Please see "how to order" for the model number details



## Section 4-5: Magic Tees and Waveguide Power Dividers

[www.3jmicrowave.com](http://www.3jmicrowave.com)      Frequency Coverage: 18 to 110 GHz

### How to Order:



### Model No. Example:

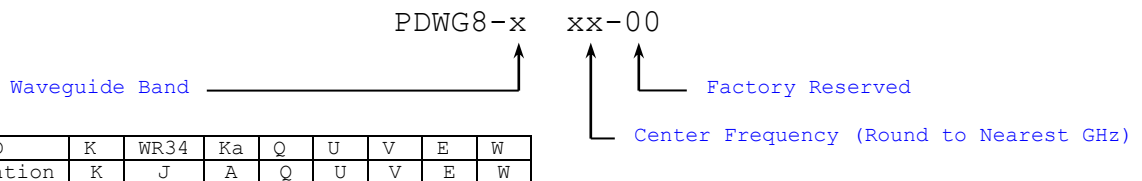
Model No. of a V-Band 4-Way Waveguide Power Divider at Center Frequency of 62.5 GHz:  
PDWG4-V63-00

### PDWG8 Series 8-Way Waveguide Power Divider Specifications:

Model No.	WPD8-xxx-00*							
WG Band	WR-42	WR-34	WR-28	WR-22	WR-19	WR15	WR-12	WR-10
Frequency Range (GHz)	18 to 26.5	22 to 33	26.5 to 40	33 to 50	40 to 60	50 to 75	60 to 90	75 to 110
Band Width (GHz)	80% of the waveguide Band							
I. L. (dB)	0.5	0.5	0.8	1.0	1.0	1.2	1.4	1.4
Amplitude Balance (dB)	± 0.5							
Phase Balance (°)	+/- 10							
Directivity (dB)	-20 dB between co							
Return Loss (dB)	-15 dB							
WG Flange	UG595/U	UG595/U	UG599/U	UG383/U	UG383/UM	UG385/U	UG387/U	UD387/UM
Outline								

\* Please see "how to order" for the model number details

### How to Order:



### Model No. Example:

Model No. of a V-Band 8-Way Waveguide Power Divider at Center Frequency of 62.5 GHz:  
PDWG8-V63-00

### Outlines:

Please see Section 4-11 page 4-25 to 4-26 for the outline details