



# Multi-Output Power Dividers

QMD

## Characteristics

- ◆ Low Insertion Loss over Broad Bandwidth
- ◆ Compact, Miniature
- ◆ Between 3 and 16 Output Ports
- ◆ Customized Configuration and Outline



## Product Description

QuinStar Technology offers compact multi-output power dividers for frequencies in the 18 to 140 GHz range as standard and customized products to suit specific application and assembly needs. Typical configuration has one input waveguide port and multiple (between 3 and 16) equal output power waveguide ports with minimal additional loss. These output ports may be located either in line, or at customer specified locations. Wide range of options is offered for port orientation, power divider type (short-slot hybrid, hybrid tee, rat-race or ring hybrid, etc.) and port separation/location. Also, several different applicable choices of phase relationship between the output ports and input port can be offered. Standard Products have four output ports in-line with the input port.

Output ports are designed to have isolation between them with minimal additional insertion loss. These power dividers offer considerable savings in space, cost and insertion loss over a conventional assembly of individual 2-way power dividers.

Custom Multi-Output Power Divider Arrays find numerous applications in subsystems and antenna assemblies as well as multi-channel receivers and transmitter products. QuinStar has a large selection of standard compact power dividers for 4 output ports, and miniaturized power dividers. In addition, custom configurations and geometries can be readily created to suit specific mechanical and performance requirements.

## Specifications

Performance Parameter	Typical Value
Number of Output Ports	Between 3 and 16 (typically 2N output ports)
Additional Insertion Loss	0.5 x N dB (in addition to the power division loss) for 2N output ports - K, Ka, Q, U bands. 0.7 x N dB (in addition to the power division loss) for 2N output ports - V, E, W bands. 1.0 x N dB (in addition to the power division loss) for 2N output ports - F, D bands.
Isolation	From 15 dB minimum to greater than 60 dB depending on the output port number

## Ordering Information

