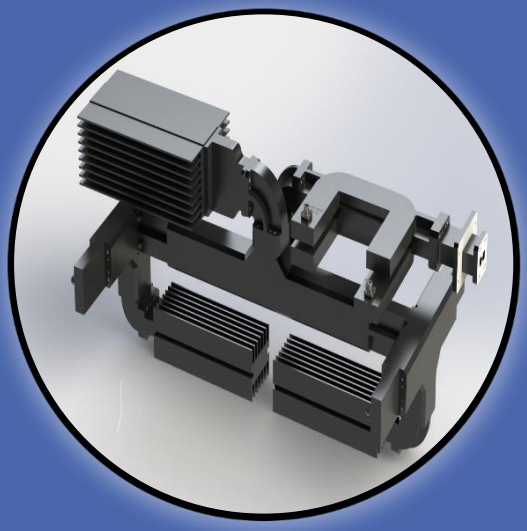
WRD600 Power Combining System Assembly

Description

The WRD600 Power Combining System Assembly is a custom-designed RF device tailored to operate effectively across the 6 to 18 GHz frequency band. It efficiently combines power from four RF sources using a 4-way power combiner integrated with a dual broad-wall coupler, ensuring precise control over signals and power. Within the assembly, three Magic Tees govern the phase and amplitude of incoming signals, allowing for seamless and interference-free signal merging. Loaded ports with high power termination enhance signal reliability, offering backup functionality in case of source failure. The dual broad-wall coupler embedded in the assembly can either sample input signals or monitor output power, facilitating precise adjustments as required by various applications. Moreover, the inclusion of right angle adapters at the input ports simplifies transitions to the N(m) interface, while a dedicated bulkhead facilitates connection to the output WRD650 interface. The WRD600 excels with its impressive high matching level and minimal insertion loss, making it the ideal choice for applications demanding both enhanced signal strength and optimal efficiency within the specified frequency range. Its versatility extends to critical applications like **solid state high power amplifiers and antenna feeding networks**, where signal integrity and power optimization are paramount for seamless and reliable performance.



Electrical Specifications

Frequency	: 6.00 – 18.00 GHz
VSWR - Input	: 2.00: 1
VSWR - Output	: 1.70: 1
Insertion Loss	: 1.2 dB
Isolation - Far	: 18.0 dB
Power Handling – Average	: 300 W CW

Mechanical Specifications

Waveguide Size	: WRD 600
Interface – Input Ports	: N(m)
Interface – Output Port	: Square Cover
Material	: Aluminum 6061
Finish	: Silver
Paint	: Black

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WRD600 Power Combining System Assembly Typical Measured Results