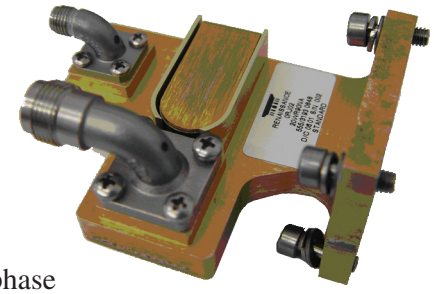
# Waveguide Circulator/ Adapter in Half Height WR90

## Model 20WR90NA

*half height*

***"Provides excellent isolation between the transmitter and the receiver"***

This unique circulator is used to separate forward transmit power from returning receive power in a high power X-Band phased array radar. This type of circulator provides excellent isolation between the transmitter and the receiver. The waveguide size of the circulator is WR90 and features a half height junction circulator to reduce size and weight in the system. The input power is applied to the TNC connector which launches into waveguide. The receiver port is connected through an SMA connector. Unit to unit insertion phase is controlled using a novel tuning approach thus maintaining equal phase across the array.



## Characteristics

| | |
|---|---|
| Frequency Band | 9.25 – 9.75 GHz |
| Peak Power | 200 W |
| Average Power | 40 W |
| VSWR | 1.3:1 Max |
| Loss | 0.3 dB to +/- 0.1 dB |
| Isolation | 17 dB min |
| Insertion Phase | +/- 5 degrees |

## Markets

| | |
|---|---|
| Military | Radar Systems |
| Commercial | Radar Systems |

| Features | Benefits |
|---|---|
| · Size/Weight | · Novel Reduced Height WR90 Circulator Exhibits Compact Size & Weight |
| · Phase Control | · Unique Design Controls Insertion Phase From Unit to Unit Across Antenna Array |
| · Loss | · Extremely Low Loss Ferrite is Specially Designed |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