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## ARRAY SOLUTIONS Wide Band 180 Degree Phase Shifter

Thank you for purchasing the 180 degree phase shift product from Array Solutions.

### Features include

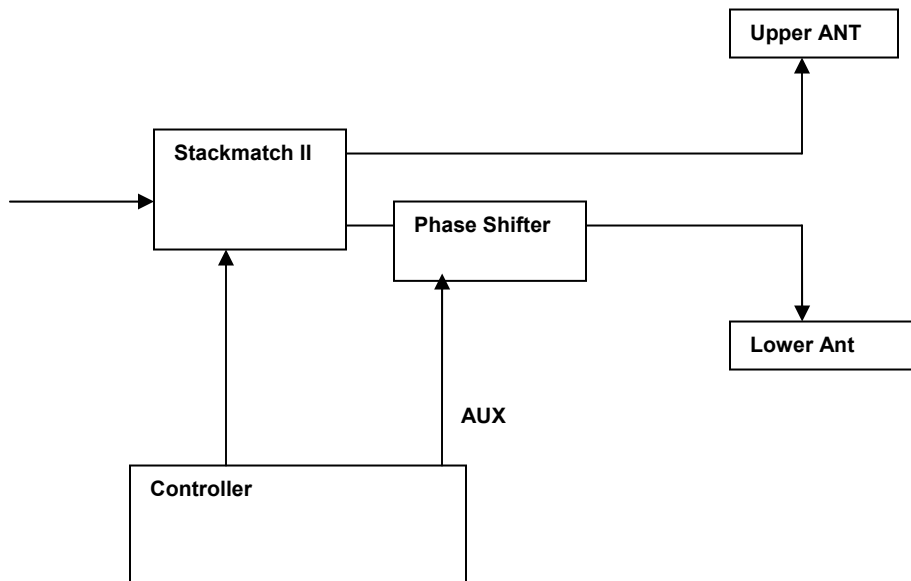
- Weather proof housing and galvanized mounting hardware
- 5 KW continuous duty for reliability
- 12VDC 100ma control voltage and current – for easy integration
- Lightning protection

## Applications

- Use with StackMatch, StackMatch II, StackMaster, and Four Square controllers to produce a 180 degree phase shift.
- Use it with your own fixed cabled stack to give you BIP / BOP capability.

## Wiring the Phase Shifter

1. Remove the cover of the box by removing the #6 screws.
2. Route your control cable (2 wire) to the terminal strip you will find inside.
3. Control it with the Auxiliary outputs from the Array Solutions products or you may wire it to your own 12VDC switch
4. Place the Phase shifter at the output of the antenna controller you desire to delay the phase. Use the U-bolt to clamp it to a tower leg if the Antenna power splitter is mounted on the tower. See a typical installation below.



5. The phase shifter has a constant free space delay of 85 inches. Therefore the feedline to the lower antenna in the figure above must be shortened by this distance multiplied by the velocity factor of the coax cable. For instance if using RG213 Coaxial cable which has a VF of .667 you would need to shorten the lower antennas coax by  $85 \times .667$  or 56.7 inches.
6. Replace the cover and weather proof your connections.

## Operation

Just activate the phase shift when a 180 degree phase shift is desired in your Array.

## Specifications

Power	5 KW continuous
Connectors	SO239 standard, N, 7/16 DIN optional
Power requirements	12-16 VDC 120 ma
Weight	6 lbs
Dimensions	Approx 14 L x 5 T x 6 W inches
Frequency Range	1.8 to 60 MHz
Insertion Loss	Less than .01 dB
VSWR 1.8 to 60 Mhz	Less than 1.1:1
Lightning & Surge protection	MOV

**Warranty – Lifetime unless damaged by Lightning**