

Array Combinations

330-520 MHz

UHF Array Configurator



The RFI range of UHF dipole arrays provide expanded bandwidth, high power ratings and unequalled performance in gain, pattern and intermodulation performance.

Ever increasing costs and site density requirements are reducing availability of antenna positions on prime sites. In order to reduce the overall number of antennas the RFI dipole array series provides system engineers and site owners with a flexible solution to reduce antenna numbers.

The RFI combination arrays are available in three types:

The Single Section Multiple Array

A combination of two arrays mounted upon a single piece of 48.4mm diameter, 3 meter length mast section. These arrays are common where any combination of medium gain UHF omnidirectional, offset or elliptical arrays are required. The feeding of each of the arrays is via separate coaxial cable tails at the base of the array.

Some common configuration examples are shown in the following tables. The electrical specifications are very similar to those provided for the individual arrays listed within the catalogue.

Shown on the right is the BA4040-67.

The Dual Section Combination Dipole Array

These arrays are provided in two sections for ease of shipping and handling and can be assembled on site. The lower section array is made on a larger diameter mast stock, the upper array telescoping into the lower section. Both upper and lower arrays can be any one of our standard UHF arrays or be externally coupled for even higher gain using a phasing harness. This type of configuration provides unrestricted gain, pattern and beamtilt combinations.

Some more common configuration examples are shown in the following table. The electrical specifications are very similar to those provided for the individual arrays previously listed within the catalogue.

Shown on the left is the BA80-67L lower section with OA40-67 upper section.

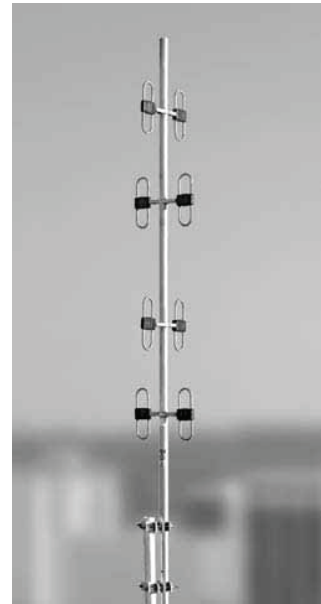
The Combination Collinear and Dipole Array

Similar in many regards to the above arrays this type of combination array employs a collinear antenna as the upper section of the array. These arrays are ideal where tower wind loading is a critical consideration. The collinear antenna fits into a lower section array, which can be essentially any style of our higher gain UHF dipole arrays.

The collinear antenna (COL8 or COL17) is held in an adaptor which can be fitted to any appropriately configured UHF dipole array. A sample of the more common configurations are provided in the following table.

The electrical specifications are very similar to those provided for the individual arrays previously listed within the catalogue.

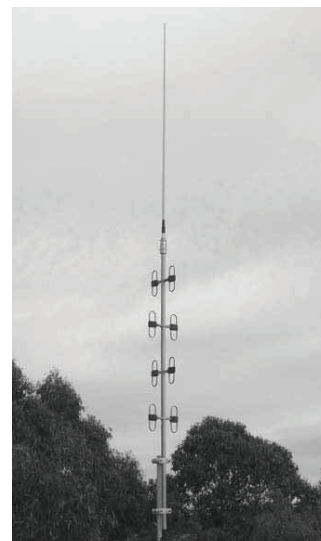
Shown on the left is the BX80-67 lower section with COL8 upper section.



Single section multiple array



Dual section combination array



Combination collinear and array

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Single section Multiple Arrays

Part number	Description	Frequency
Omnis		
BA4040-57	2 x 3dBd omnis with separate feeds	330-420MHz
BA4040-67	2 x 3dBd omnis with separate feeds	400-520MHz
Elliptical		
EA4040-57	2 x 5dBd ellipticals with separate feeds	330-420MHz
EA4040-67	2 x 5dBd ellipticals with separate feeds	400-520MHz
Offset Sections		
OA2020-67	2 x 5dBd offsets with separate feeds	400-520MHz

Dual section combination Dipole Arrays

Part number	Description	Frequency
Omnis		
BA4040-57L	2 x 3dBd omnis with separate feeds	330-420MHz
BA80-57L	1 x 6dBd omni	330-420MHz
BA4040-67L	2 x 3dBd omnis with separate feeds	400-520MHz
BA80-67L	1 x 6dBd omni	400-520MHz
Elliptical Sections		
EA4040-57L	2 x 5dBd ellipticals with separate feeds	330-420MHz
EA80-57L	1 x 9dBd elliptical	330-420MHz
EA4040-67L	2 x 5dBd ellipticals with separate feeds	400-520MHz
EA80-67L	1 x 9dBd elliptical	400-520MHz
Offset Sections		
OA2020-67L	2 x 5dBd offsets with separate feeds	400-520MHz
OA40-67L	1 x 9dBd offset	400-520MHz

Shown above are lower sections only which include a through harness to connect your choice of upper section. Select your upper section from our range of standard UHF Arrays.

When ordering a dual section combination array you will need to order as follows:

1. Specify your lower Section from the list above eg: BA80-67L **PLUS**
2. Specify your single upper section from our range of standard UHF Arrays

Combination Collinear and Dipole Arrays

Omnis	Description	Frequency
Omnis		
BX40-67	1 x 3dBd omni	400-520MHz
BX4040-67	2 x 3dBd omnis with separate feeds	400-520MHz
BX80-67	1 x 6dBd omni	400-520MHz
Elliptical Sections		
EX40-67	1 x 5dBd elliptical	400-520MHz
EX4040-67	2 x 5dBd ellipticals with separate feeds	400-520MHz
EX80-67	1 x 9dBd elliptical	400-520MHz
Offset Sections		
OX2020-67	2 x 5dBd offsets with separate feeds	400-520MHz
OX40-67	1 x 9dBd offset	400-520MHz

These lower sections are for use with COL series collinears. They are provided with a through harness to connect your choice of COL8 (UHF), COL15 (VHF) or COL17 (VHF) collinears.

When ordering a combination collinear and dipole array you will need to order as follows:

1. Specify your lower Section from the list above eg: BX80-67 **PLUS**
2. Specify your COL collinear either COL15, COL17 or COL8 eg: COL8 (and remember to specify frequency)