

W241BB Wilkes-Barre Bunker Composite Antenna Description

This proposal is for a composite antenna consisting of 2 Scala CA2 style antennas, one polarized vertically and one polarized horizontally. Here is the antenna layout:

1. One Scala CA-2V (FCC pattern 16130) (Scala CA2-FM Vertical) pointed at 74 degrees true north. This is a vertical only antenna and the ERP of this antenna will be 10 watts.
2. One Scala CA-2D (FCC pattern 16126) (Scala CA2-FM Horizontal) pointed at 263 degrees true north. This is a horizontal only antenna and the ERP on this antenna will be 40 watts.

This translator will incorporate an uneven power splitter in the transmission line prior to the antennas to provide the correct power input to the antenna system.

To achieve 10 watts V and 40 watts H:

Each antenna has the same gain, 4 dB; 2.512.

4 watts (3.98 watts rounded) antenna input for the CA2V and 16 watts (15.92 watts rounded) antenna input for the CA2D.

Total input power to 2 port 80/20 power divider is 20 watts (16 watts plus 4 watts).