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CM 2-metre Lindenblad PARASITIC Array, converted with 4nec2 on 7-Oct-15 8:47
CM Based on lindnbld.ez file download: http://nec-archives.pa3kj.com/EZNEC_FILES
CM Four Passive Elements at 45-deg Angles, L=37.61-in, assuming 13.3-in from Center.
CM holl_ands mods: Add FR/RP, Just ONE vs Multiple LD Cards, Convert All SYmbols.
CM Parasitic Array mod: Add 37.93-in Vertical Dipole, which is ONLY Active Element.
CM Angle of the Parasitic Array Elements must be REVERSED to return to RHCP.
CM Active & Passive Element Lengths adjusted for Min SWR and Min LHCP at 145 MHz.
CM
CMD--EVAL --auto-segmentation=0 --char-impedance=50 --num-cores=7
CMD--EVAL -s(130,5,7) --total-gain --publish
CE
SY freq=145.0       ' Design frequency
SY Cond=3.0e7       ' Conductivity (Copper=3.0e7, Alum=2.0e7, StainlessSteel=1.67e7)
'
' Half of Stick Dipole Length (in Wavelengths):
SY Zmax=0.233
' Radius of Stick Dipole Element (in Wavelengths):
SY RSD=0.0005
'
' Half-Length of Parasitic Diagonals (in Wavelengths):
SY Ldiag=0.231
' Distance of Diagonals from Center of Antenna (in Wavelengths):
SY Sep=0.25
' Angle of Diagonal wrt X-Y Plane:
SY Alpha=-45.0
' Projection of Parasitic Diagonal Half-Length onto X-Y Plane:
SY Proj1=Ldiag*cos(Alpha)
' Projection of Parasitic Diagonal Half-Length onto Z-Axis:
SY Z1=Ldiag*sin(Alpha)
'
' Height of Antenna's Center above Ground Plane: [No effect on FREE SPACE Performance]
SY Zh=0.0
' Radius of Diagonal Elements:  [ALSO IN WAVELENGHT UNITS]
SY Rdiag=0.0005
'
'  # segs  X1      Y1       Z1         X2      Y2       Z2      radius
' SIMULATED BALUN SOURCE ON GW1:
GW 1  15   0.0     0.0    -Zmax+Zh   0.0     0.0    Zmax+Zh  RSD
'
GW 2  15  -Proj1  -Sep    -Z1+Zh     Proj1  -Sep    Z1+Zh    Rdiag
GW 3  15   Proj1   Sep    -Z1+Zh    -Proj1   Sep    Z1+Zh    Rdiag
GW 4  15   Sep    -Proj1  -Z1+Zh     Sep     Proj1  Z1+Zh    Rdiag
GW 5  15  -Sep     Proj1  -Z1+Zh    -Sep    -Proj1  Z1+Zh    Rdiag
'
GS     0      0      299.8/freq    ' Convert above in Wavelengths to meters for NEC2.
GE     0
GN     -1
EK
LD     5      0      0      0      Cond   0
'
EX 0 1 8 0 1 0                    ' GW1 is SOURCE wire
'
' FR   0      1      0      0      145.8  0      ' fm Original
'
' FR choices:
' FR 0 1 0 0 52                   ' Fixed Frequency for 6-metes
' FR 0 1 0 0 146                  ' Fixed Frequency for 2-meters
' FR 0 1 0 0 443                  ' Fixed Frequency for 70-cm
'
' FR 0 21 0 0 40 1                ' Freq Sweep 40-60 every 1 MHz for 6-meters
FR 0 31 0 0 130 1                 ' Freq Sweep 130-160 every 1 MHz for 2-meters
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' FR 0 41 0 0 420 1              ' Freq Sweep 420-460 every 1 MHz for 70-cm
'
' FR 0 121 0 0 131 3       ' Freq Sweep 131-471 every 3 MHz for 2-m & 70-cm
' FR 0 61 0 0 50 2         ' Freq Sweep 40-160 every 2 MHz for 6-m & 2-m
' FR 0 146 0 0 36 3              ' Freq Sweep 36-471 every 3 MHz for 6-m, 2-m & 70-cm
'
' RP choices in order of increasing calculation time:
' RP 0 1 1 1510 90 90 1 1 0 0     ' 1D Gain toward 0-deg Azimuth - SIDE GAIN
' RP 0 1 1 1510 90 0 1 1 0 0      ' 1D Gain toward 90-deg Azimuth - FORWARD GAIN
' RP 0 1 1 1510 90 180 1 1 0 0    ' 1D Gain toward 270-deg Azimuth - REVERSE GAIN
' RP 0 1 37 1510 90 0 1 5 0 0     ' 2D (Left only) Azimuthal Gain Slice
RP 0 1 73 1510 90 0 1 5 0 0       ' 2D Azimuthal Gain Slice - PREFERRED
' RP 0 73 1 1510 90 0 5 1 0 0     ' 2D Elevation Gain Slice
' RP 0 73 73 1510 90 0 5 5 0 0    ' 3D Lower Hemisphere reveals antenna (Fixed Freq)
' RP 0 285 73 1510 90 0 5 5 0 0   ' 3D Full Coverage obscures antenna (Fixed Freq)
EN
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