

Maximizer® Fixed Tilt Antennas

Polarization: Vertical

Electrical Downtilt: Fixed

Horizontal beamwidth: 65° or 90°

Applications

This well-known range of fixed tilt antennas are vertically polarized for space diversity with an option of 65° or 90 degree horizontal beamwidths for use in the following cellular standards:

PCS1900 (1850-1910, 1930-1990MHz)

Due to its monolithic mechanical design these highly reliable antennas are IM3 free with extremely stable ageing. Maximizer® antennas are available in a variety of gain options varying from 13.6 to 18.1 dBi with with fixed tilt options. These antennas are covered by a UV stabilized high impact ABS radome and have one 7-16 connectors mounted at the back. They are all designed for use with either our APM18/19 fixed mount or our APM20/21 downtilt mount.

Features & Benefits

- High gain
- Stable horizontal and vertical beamwidths
- Optimized null fill
- 45 dB Front-to-Back ratio
- Fast horizontal pattern roll-off
- Efficient co-channel interference reduction
- High reliability no solder joints

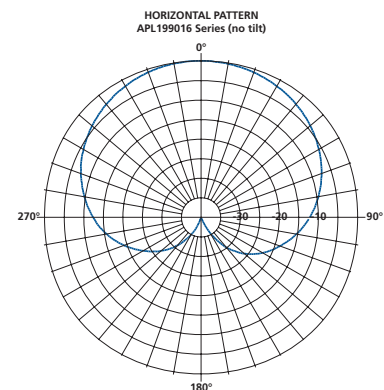
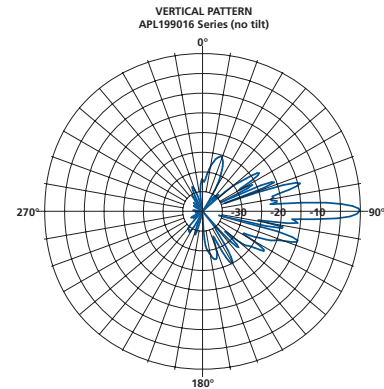
Performance Optimization Techniques

The RFS Maximizer® log periodic dipole array boasts the highest front-to-back ever achieved: 45dB.

The Maximizer's upper lobe suppression reduces co-channel interference in TDMA systems and its heavy null fill delivers exceptional close-in coverage. For CDMA systems the Maximizer helps to maximize capacity by minimizing the soft hand-off zone as well as a pilot pollution.



APL1990 Series



Maximizer® Fixed Tilt Antennas

APL196513-42T0

Horizontal Beamwidth, deg 65

Gain, dBi 15.1

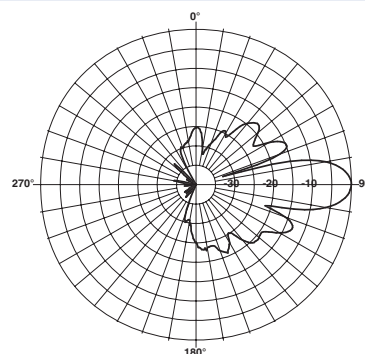
Electrical Downtilt, deg 0

ELECTRICAL SPECIFICATIONS

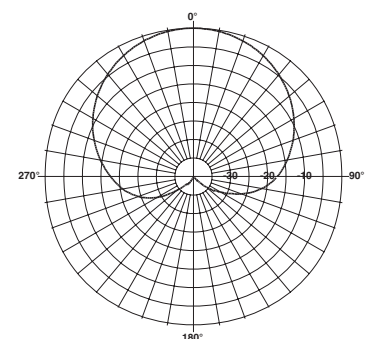
Frequency Range, MHz	1850-1990
Horizontal Beamwidth, deg	65
Vertical Beamwidth, deg	15
Gain, dBi (dBd)	15.1 (13)
Front-To-Back Ratio, dB	45
VSWR	< 1.5:1
Maximum Power Input, W	500
Polarization	Vertical
3rd Order IMP @ 2 x 43 dBm, dBc	<-143

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	610 x 127 x 102 (24 x 5 x 4)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m ² (ft ²)	0.077 (0.83)
Rated Wind Speed, km/h (mph)	200 (125)
Maximum Thrust @ Rated Wind, N (lbf)	231 (52)
Reflector Material	5032-H32 Aluminum
Radiating Element Material	Aluminum Alloy
Radome Material	UV-Stabilized High Impact ABS
Weight w/o Mtg Hardware, kg (lb)	2 (4)
Packing Dimensions, HxWxD, mm (in)	813 x 356 x 254 (32 x 14 x 10)



Vertical Pattern



Horizontal Pattern

APL196516-42T0

Horizontal Beamwidth, deg 65

Gain, dBi 18.1

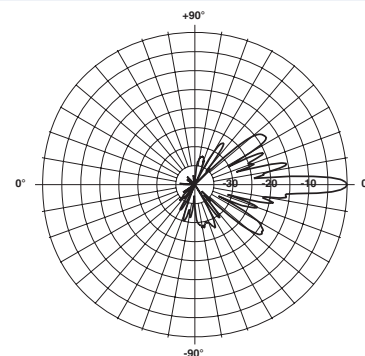
Electrical Downtilt, deg 0

ELECTRICAL SPECIFICATIONS

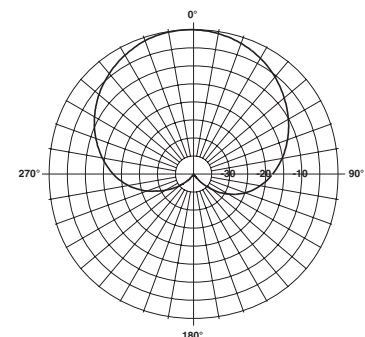
Frequency Range, MHz	1850-1990
Horizontal Beamwidth, deg	65
Vertical Beamwidth, deg	6
Gain, dBi (dBd)	18.1 (16)
1st Upper Sidelobe Suppression, dB	> 18
Upper Sidelobe Suppression, dB	> 18
Front-To-Back Ratio, dB	45
VSWR	< 1.5:1
Maximum Power Input, W	500
Polarization	Vertical
3rd Order IMP @ 2 x 43 dBm, dBc	<-143

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	1600 x 127 x 102 (63 x 5 x 4)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m ² (ft ²)	0.204 (2.2)
Rated Wind Speed, km/h (mph)	200 (125)
Maximum Thrust @ Rated Wind, N (lbf)	391 (88)
Reflector Material	5032-H32 Aluminum
Radiating Element Material	Aluminum Alloy
Radome Material	UV-Stabilized High Impact ABS
Weight w/o Mtg Hardware, kg (lb)	4 (8)
Packing Dimensions, HxWxD, mm (in)	2083 x 356 x 254 (82 x 14 x 10)



Vertical Pattern



Horizontal Pattern

Maximizer® Fixed Tilt Antennas

APL196516-42T2

Horizontal Beamwidth, deg 65

Gain, dBi 18.1

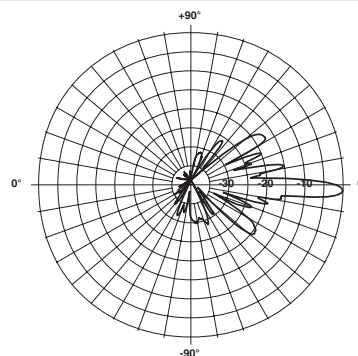
Electrical Downtilt, deg 2

ELECTRICAL SPECIFICATIONS

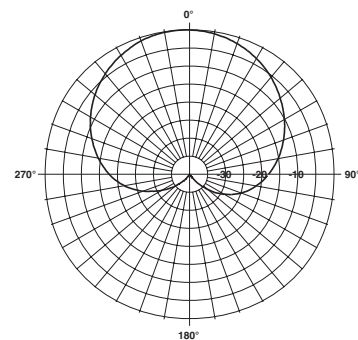
Frequency Range, MHz	1850-1990
Horizontal Beamwidth, deg	65
Vertical Beamwidth, deg	6
Gain, dBi (dBd)	18.1 (16)
1st Upper Sidelobe Suppression, dB	> 18
Upper Sidelobe Suppression, dB	> 18
Front-To-Back Ratio, dB	45
VSWR	< 1.5:1
Maximum Power Input, W	500
Polarization	Vertical
3rd Order IMP @ 2 x 43 dBm, dBc	<-143

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	1600 x 127 x 102 (63 x 5 x 4)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m ² (ft ²)	0.204 (2.2)
Rated Wind Speed, km/h (mph)	200 (125)
Maximum Thrust @ Rated Wind, N (lbf)	391 (88)
Reflector Material	5032-H32 Aluminum
Radiating Element Material	Aluminum Alloy
Radome Material	UV-Stabilized High Impact ABS
Weight w/o Mtg Hardware, kg (lb)	4 (8)
Packing Dimensions, HxWxD, mm (in)	2083 x 356 x 254 (82 x 14 x 10)



Vertical Pattern



Horizontal Pattern

APL199012-42T0

Horizontal Beamwidth, deg 90

Gain, dBi 13.6

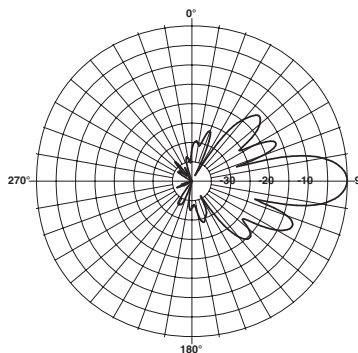
Electrical Downtilt, deg 0

ELECTRICAL SPECIFICATIONS

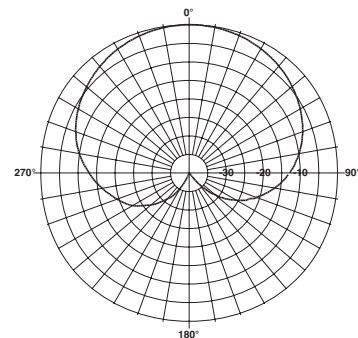
Frequency Range, MHz	1850-1990
Horizontal Beamwidth, deg	90
Vertical Beamwidth, deg	15
Gain, dBi (dBd)	13.6 (11.5)
Front-To-Back Ratio, dB	45
VSWR	< 1.5:1
Maximum Power Input, W	500
Polarization	Vertical
3rd Order IMP @ 2 x 43 dBm, dBc	<-143

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	610 x 102 x 102 (24 x 4 x 4)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m ² (ft ²)	0.046 (0.5)
Rated Wind Speed, km/h (mph)	200 (125)
Maximum Thrust @ Rated Wind, N (lbf)	119 (26.7)
Reflector Material	5052-H32 Aluminum
Radiating Element Material	Aluminum Alloy
Radome Material	UV Stabilized High Impact ABS
Weight w/o Mtg Hardware, kg (lb)	1 (3)
Packing Dimensions, HxWxD, mm (in)	813 x 305 x 203 (32 x 12 x 8)



Vertical Pattern



Horizontal Pattern

Maximizer® Fixed Tilt Antennas

APL199014-42T0

Horizontal Beamwidth, deg 90

Gain, dBi 16.1

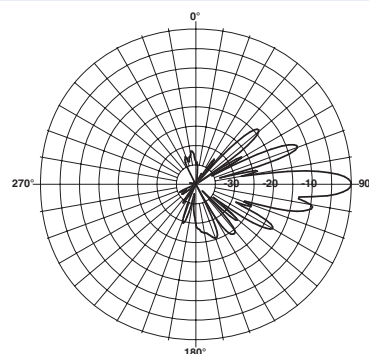
Electrical Downtilt, deg 0

ELECTRICAL SPECIFICATIONS

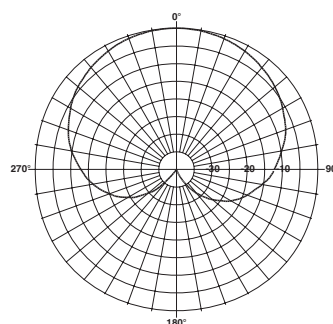
Frequency Range, MHz	1850-1990
Horizontal Beamwidth, deg	90
Vertical Beamwidth, deg	7
Gain, dBi (dBd)	16.1 (14)
1st Upper Sidelobe Suppression, dB	> 18
Upper Sidelobe Suppression, dB	> 18
Front-To-Back Ratio, dB	45
VSWR	< 1.5:1
Maximum Power Input, W	500
Polarization	Vertical
3rd Order IMP @ 2 x 43 dBm, dBc	<-143

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	1219 x 102 x 102 (48 x 4 x 4)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m ² (ft ²)	0.093 (1)
Rated Wind Speed, km/h (mph)	200 (125)
Maximum Thrust @ Rated Wind, N (lbf)	237 (53.3)
Reflector Material	5052-H32 Aluminum
Radiating Element Material	Aluminum Alloy
Radome Material	UV Stabilized High Impact ABS
Weight w/o Mtg Hardware, kg (lb)	3 (6)
Packing Dimensions, HxWxD, mm (in)	1422 x 305 x 203 (56 x 12 x 8)



Vertical Pattern



Horizontal Pattern

APL199014-42T2

Horizontal Beamwidth, deg 90

Gain, dBi 16.1

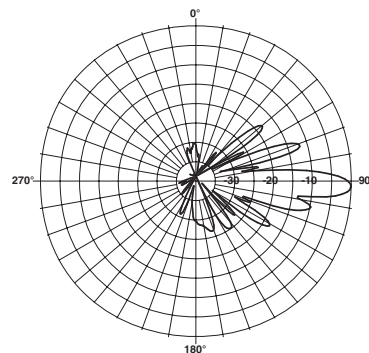
Electrical Downtilt, deg 2

ELECTRICAL SPECIFICATIONS

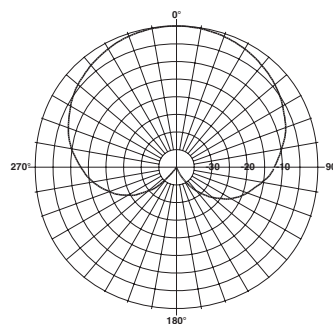
Frequency Range, MHz	1850-1990
Horizontal Beamwidth, deg	90
Vertical Beamwidth, deg	7
Gain, dBi (dBd)	16.1 (14)
1st Upper Sidelobe Suppression, dB	> 18
Upper Sidelobe Suppression, dB	> 18
Front-To-Back Ratio, dB	45
VSWR	< 1.5:1
Maximum Power Input, W	500
Polarization	Vertical
3rd Order IMP @ 2 x 43 dBm, dBc	<-143

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	1219 x 102 x 102 (48 x 4 x 4)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m ² (ft ²)	0.093 (1)
Rated Wind Speed, km/h (mph)	200 (125)
Maximum Thrust @ Rated Wind, N (lbf)	237 (53.3)
Reflector Material	5052-H32 Aluminum
Radiating Element Material	Aluminum Alloy
Radome Material	UV Stabilized High Impact ABS
Weight w/o Mtg Hardware, kg (lb)	3 (6)
Packing Dimensions, HxWxD, mm (in)	1422 x 305 x 203 (56 x 12 x 8)



Vertical Pattern



Horizontal Pattern

Maximizer® Fixed Tilt Antennas

APL199016-42T0

Horizontal Beamwidth, deg 90

Gain, dBi 18.1

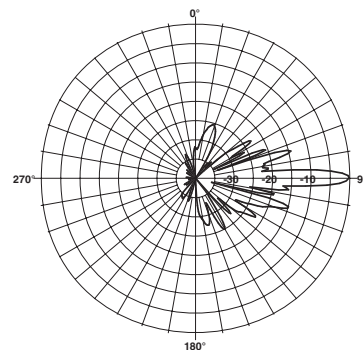
Electrical Downtilt, deg 0

ELECTRICAL SPECIFICATIONS

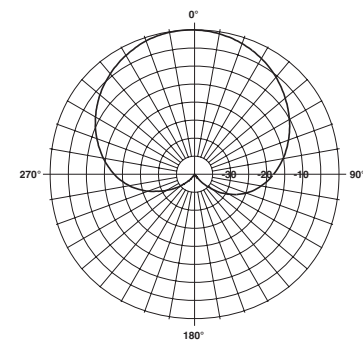
Frequency Range, MHz	1850-1990
Horizontal Beamwidth, deg	90
Vertical Beamwidth, deg	4
Gain, dBi (dBd)	18.1 (16)
1st Upper Sidelobe Suppression, dB	> 18
Upper Sidelobe Suppression, dB	> 18
Front-To-Back Ratio, dB	45
VSWR	< 1.5:1
Maximum Power Input, W	500
Polarization	Vertical
3rd Order IMP @ 2 x 43 dBm, dBc	<-143

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	1829 x 127 x 102 (72 x 5 x 4)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m ² (ft ²)	0.234 (2.5)
Rated Wind Speed, km/h (mph)	200 (125)
Maximum Thrust @ Rated Wind, N (lbf)	445 (100)
Reflector Material	5052-H32 Aluminum
Radiating Element Material	Aluminum Alloy
Radome Material	UV Stabilized High Impact ABS
Weight w/o Mtg Hardware, kg (lb)	4 (8)
Packing Dimensions, HxWxD, mm (in)	2083 x 356 x 254 (82 x 14 x 10)



Vertical Pattern



Horizontal Pattern

APL199016-42T2

Horizontal Beamwidth, deg 90

Gain, dBi 18.1

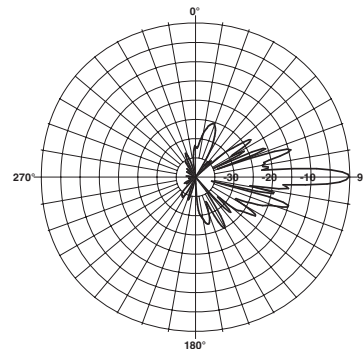
Electrical Downtilt, deg 2

ELECTRICAL SPECIFICATIONS

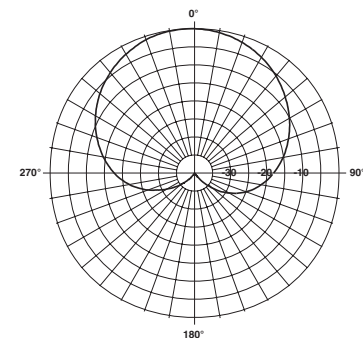
Frequency Range, MHz	1850-1990
Horizontal Beamwidth, deg	90
Vertical Beamwidth, deg	4
Gain, dBi (dBd)	18.1 (16)
1st Upper Sidelobe Suppression, dB	> 18
Upper Sidelobe Suppression, dB	> 18
Front-To-Back Ratio, dB	45
VSWR	< 1.5:1
Maximum Power Input, W	500
Polarization	Vertical
3rd Order IMP @ 2 x 43 dBm, dBc	<-143

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	1829 x 127 x 102 (72 x 5 x 4)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m ² (ft ²)	0.234 (2.5)
Rated Wind Speed, km/h (mph)	200 (125)
Maximum Thrust @ Rated Wind, N (lbf)	445 (100)
Reflector Material	5052-H32 Aluminum
Radiating Element Material	Aluminum Alloy
Radome Material	UV Stabilized High Impact ABS
Weight w/o Mtg Hardware, kg (lb)	4 (8)
Packing Dimensions, HxWxD, mm (in)	2083 x 356 x 254 (82 x 14 x 10)



Vertical Pattern



Horizontal Pattern