

Broadband Fixed Tilt Antennas

Polarization: Dual $\pm 45^\circ$

Electrical Downtilt: Fixed

Horizontal beamwidth: 65° or 90°

Broadband

Applications

This innovative range of broadband fixed tilt antennas are cross-polarized, available in 65° or 90 degree horizontal beamwidths for use in the following systems:

- Trunking / SMR (806-824, 851-869MHz)
- Cellular (824-849, 869-896 MHz)
- GSM 900 / ETACS (872-915, 917-960MHz)
- Trunking (896-901, 935-940MHz)

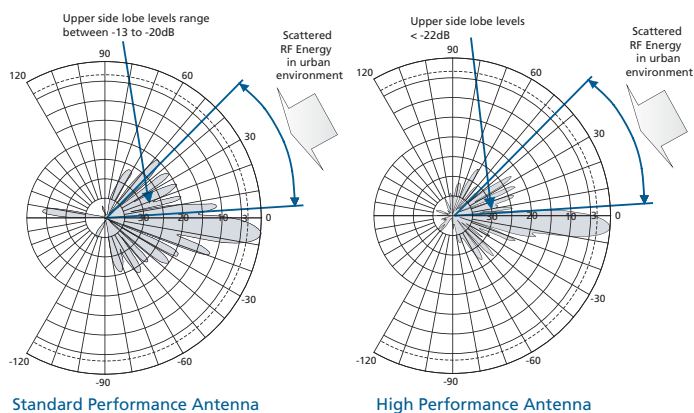
These high performance antennas have excellent upper sidelobe suppression, VSWR and front to back ratio. The antennas are available in a variety of gain options varying from 13.2 to 18.2dBi covered by a covered by an UV resistant ASA radome.

These antennas have two 7-16 connectors mounted at the bottom and are designed for use with our new APM40 Global Mount system / APM70-3C cluster kit.

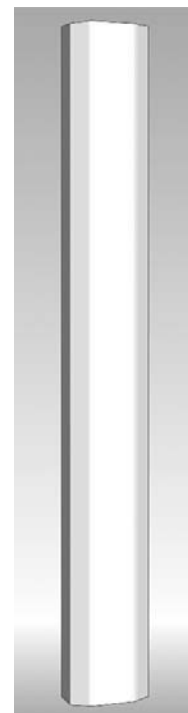
Performance Optimization Techniques

Fighting co-channel interferences is key to improve network performances. Suppressing side lobes reduces creation of co-channel interferences. Where once side lobe suppression was typically in the range of 12 dB, the target is now 18 to 20 dB—with RFS achieving typically better than 20 dB across the entire tilt range with its Optimizer antenna series.

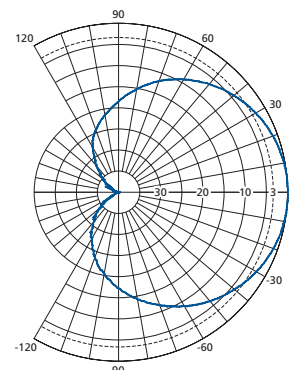
The smaller the side lobe compared with the main lobe, the better the antenna will fight co-channel interference, but if it's not the first upper side lobe that potentially interferes, it could always be the second – so every unwanted signal needs to be as small as possible.



Side lobe levels are suppressed to better than 20dB in high performance antennas as a means of reducing co-channel interference.



APX86-90* Series



Horizontal Pattern

Features & Benefits

- Constant performance across frequency band for all tilt values
- At least 30 dB isolation between polarization's
- High gain
- Stable horizontal and vertical beamwidths
- Excellent upper sidelobe suppression
- Very low beam squint over frequency band
- Effective polarization diversity ensured by high cross polar discrimination
- Broadband design

Broadband Fixed Tilt Antennas

APX86-906513L-CT0

Horizontal Beamwidth, deg 65

Gain, dBi 15.0

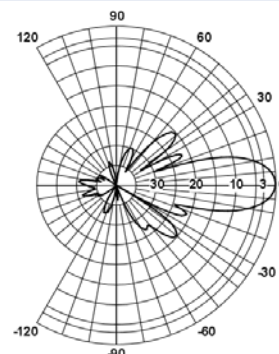
Electrical Downtilt, deg 0

ELECTRICAL SPECIFICATIONS

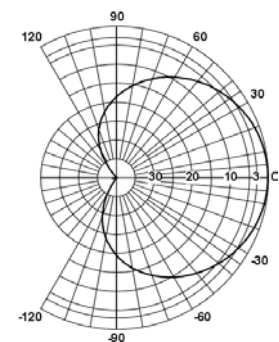
Frequency Range, MHz	806-870	870-960
Horizontal Beamwidth, deg	67	65
Vertical Beamwidth, deg	16	15
Gain, dBi (dBd)	14.5 (12.4)	15 (12.9)
Upper Sidelobe Suppression, dB	> 18 all (typically > 20)	
Front-To-Back Ratio, dB	> 25	
VSWR	< 1.3:1	
Isolation between Ports, dB	> 30	
Maximum Power Input, W	500	
Polarization	Dual pol +/-45°	
3rd Order IMP @ 2 x 43 dBm, dBc	> 150	

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	1319 x 312 x 120 (51.8 x 12.2 x 4.7)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m² (ft²)	0.39 (4.1)
Rated Wind Speed, km/h (mph)	160 (100)
Maximum Thrust @ Rated Wind, N (lbf)	479 (108)
Front Thrust @ Rated Wind, N (lbf)	479 (108)
Reflector Material	Aluminum
Radiating Element Material	Brass
Radome Material	ASA Plastic
Radome Color	Light Grey RAL7035
Weight w/o Mtg Hardware, kg (lb)	9.0 (19.8)
Packing Dimensions - HxWxD, m (ft)	1.5 x .37 x .23 (5.2 x 1.2 x 0.7)
Packing Dimensions, HxWxD, mm (in)	1590 x 370 x 225 (62.5 x 14.5 x 8.8)



Vertical Pattern



Horizontal Pattern

APX86-906513L-CT4

Horizontal Beamwidth, deg 65

Gain, dBi 15.0

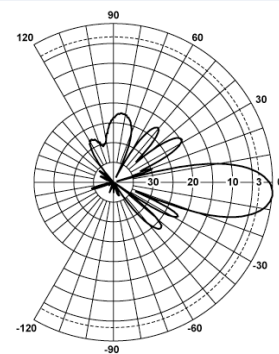
Electrical Downtilt, deg 4

ELECTRICAL SPECIFICATIONS

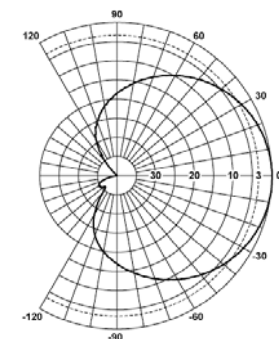
Frequency Range, MHz	806-870	870-960
Horizontal Beamwidth, deg	65	65
Vertical Beamwidth, deg	16	15
Gain, dBi (dBd)	14.3 (12.2)	15 (12.9)
Upper Sidelobe Suppression, dB	> 18 all (typically > 20)	
Front-To-Back Ratio, dB	> 30	
VSWR	< 1.35:1	< 1.3:1
Isolation between Ports, dB	> 30	
Maximum Power Input, W	500	
Polarization	Dual pol +/-45°	
3rd Order IMP @ 2 x 43 dBm, dBc	> 150	

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	1319 x 312 x 120 (51.8 x 12.2 x 4.7)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m² (ft²)	0.39 (4.1)
Rated Wind Speed, km/h (mph)	160 (100)
Maximum Thrust @ Rated Wind, N (lbf)	479 (108)
Front Thrust @ Rated Wind, N (lbf)	479 (108)
Reflector Material	Aluminum
Radiating Element Material	Brass
Radome Material	ASA Plastic
Radome Color	Light Grey RAL7035
Weight w/o Mtg Hardware, kg (lb)	9.0 (19.8)
Packing Dimensions - HxWxD, m (ft)	1.5 x .37 x .23 (5.2 x 1.2 x 0.7)
Packing Dimensions, HxWxD, mm (in)	1590 x 370 x 225 (62.5 x 14.5 x 8.8)



Vertical Pattern



Horizontal Pattern

Broadband Fixed Tilt Antennas

APX86-906513L-CT8

Horizontal Beamwidth, deg 65

Gain, dBi 14.8

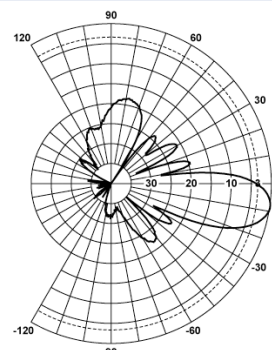
Electrical Downtilt, deg 8

ELECTRICAL SPECIFICATIONS

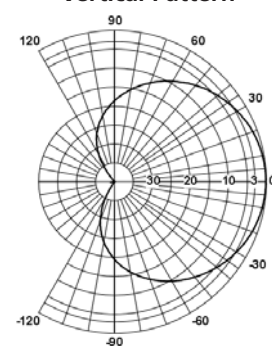
Frequency Range, MHz	806-870	870-960
Horizontal Beamwidth, deg	65	
Vertical Beamwidth, deg	16	15.5
Gain, dBi (dBd)	14.3 (12.2)	14.8 (12.7)
Upper Sidelobe Suppression, dB	> 18 all (typically > 20)	
Front-To-Back Ratio, dB	> 30	
VSWR	< 1.3:1	
Isolation between Ports, dB	> 30	
Maximum Power Input, W	500	
Polarization	Dual pol +/-45°	
3rd Order IMP @ 2 x 43 dBm, dBc	> 150	

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	1319 x 312 x 120 (51.8 x 12.2 x 4.7)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m² (ft²)	0.39 (4.1)
Rated Wind Speed, km/h (mph)	160 (100)
Maximum Thrust @ Rated Wind, N (lbf)	479 (108)
Front Thrust @ Rated Wind, N (lbf)	479 (108)
Reflector Material	Aluminum
Radiating Element Material	Brass
Radome Material	ASA Plastic
Radome Color	Light Grey RAL7035
Weight w/o Mtg Hardware, kg (lb)	9.0 (19.8)
Packing Dimensions - HxWxD, m (ft)	1.5 x .37 x .23 (5.2 x 1.2 x 0.7)
Packing Dimensions, HxWxD, mm (in)	1590 x 370 x 225 (62.5 x 14.5 x 8.8)



Vertical Pattern



Horizontal Pattern

APX86-906513L-CT12

Horizontal Beamwidth, deg 65

Gain, dBi 14.7

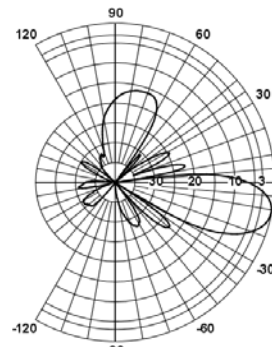
Electrical Downtilt, deg 12

ELECTRICAL SPECIFICATIONS

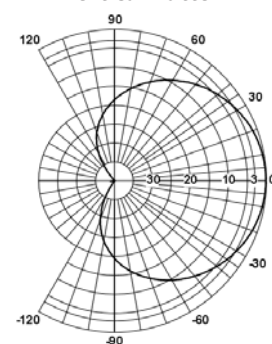
Frequency Range, MHz	806-870	870-960
Horizontal Beamwidth, deg	67	65
Vertical Beamwidth, deg	16	15
Gain, dBi (dBd)	14.3 (12.2)	14.7 (12.6)
Upper Sidelobe Suppression, dB	> 18 all (typically > 20)	
Front-To-Back Ratio, dB	> 27	
VSWR	< 1.3:1	
Isolation between Ports, dB	> 30	
Maximum Power Input, W	500	
Polarization	Dual pol +/-45°	
3rd Order IMP @ 2 x 43 dBm, dBc	> 150	

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	1319 x 312 x 120 (51.8 x 12.2 x 4.7)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m² (ft²)	0.39 (4.1)
Rated Wind Speed, km/h (mph)	160 (100)
Maximum Thrust @ Rated Wind, N (lbf)	479 (108)
Front Thrust @ Rated Wind, N (lbf)	479 (108)
Reflector Material	Aluminum
Radiating Element Material	Brass
Radome Material	ASA Plastic
Radome Color	Light Grey RAL7035
Weight w/o Mtg Hardware, kg (lb)	9.0 (19.8)
Packing Dimensions - HxWxD, m (ft)	1.5 x .37 x .23 (5.2 x 1.2 x 0.7)
Packing Dimensions, HxWxD, mm (in)	1590 x 370 x 225 (62.5 x 14.5 x 8.8)



Vertical Pattern



Horizontal Pattern

Broadband Fixed Tilt Antennas

APX86-906515L-CT0

Horizontal Beamwidth, deg 65

Gain, dBi 17

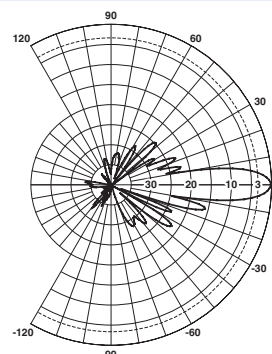
Electrical Downtilt, deg 0

ELECTRICAL SPECIFICATIONS

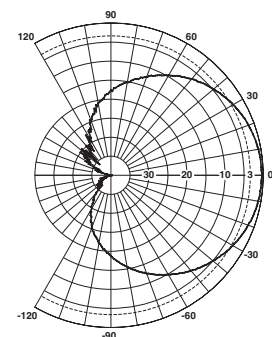
Frequency Range, MHz	806-870	870-960
Horizontal Beamwidth, deg	67	65
Vertical Beamwidth, deg	9.6	9
Gain, dBi (dBd)	16.5 (14.3)	17.0 (14.8)
Upper Sidelobe Suppression, dB	> 18 all (typically > 20)	
Front-To-Back Ratio, dB	> 30	
VSWR	< 1.4:1	< 1.3:1
Isolation between Ports, dB	> 30	
Maximum Power Input, W	500	
Polarization	Dual pol +/-45°	
3rd Order IMP @ 2 x 43 dBm, dBc	> 150	

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	2080 x 312 x 120 (81.8 x 12.3 x 5)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m² (ft²)	0.66 (7.10)
Rated Wind Speed, km/h (mph)	160 (100)
Maximum Thrust @ Rated Wind, N (lbf)	810 (182)
Front Thrust @ Rated Wind, N (lbf)	810 (182)
Reflector Material	Aluminum
Radiating Element Material	Brass
Radome Material	ASA Plastic
Radome Color	Light Grey RAL7035
Weight w/o Mtg Hardware, kg (lb)	14 (31.2)
Packing Dimensions - HxWxD, m (ft)	2.4 x .37 x .23 (7.8 x 1.2 x 0.75)
Packing Dimensions, HxWxD, mm (in)	2400 x 370 x 230 (94.5 x 14.5 x 9.0)



Vertical Pattern



Horizontal Pattern

APX86-906515L-CT6

Horizontal Beamwidth, deg 65

Gain, dBi 17

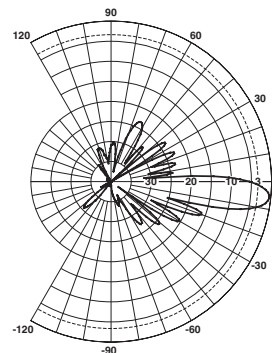
Electrical Downtilt, deg 6

ELECTRICAL SPECIFICATIONS

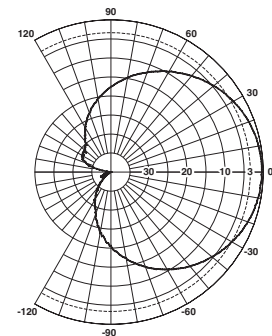
Frequency Range, MHz	806-870	870-960
Horizontal Beamwidth, deg	67	65
Vertical Beamwidth, deg	9.6	9
Gain, dBi (dBd)	16.5 (14.3)	17.0 (14.8)
Upper Sidelobe Suppression, dB	> 18 all (typically > 20)	
Front-To-Back Ratio, dB	> 30	
VSWR	< 1.4:1	< 1.3:1
Isolation between Ports, dB	> 30	
Maximum Power Input, W	500	
Polarization	Dual pol +/-45°	
3rd Order IMP @ 2 x 43 dBm, dBc	> 150	

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	2080 x 312 x 120 (81.8 x 12.3 x 5)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m² (ft²)	0.66 (7.10)
Rated Wind Speed, km/h (mph)	160 (100)
Maximum Thrust @ Rated Wind, N (lbf)	810 (182)
Front Thrust @ Rated Wind, N (lbf)	810 (182)
Reflector Material	Aluminum
Radiating Element Material	Brass
Radome Material	ASA Plastic
Radome Color	Light Grey RAL7035
Weight w/o Mtg Hardware, kg (lb)	14 (31.2)
Packing Dimensions - HxWxD, m (ft)	2.4 x .37 x .23 (7.8 x 1.2 x 0.75)
Packing Dimensions, HxWxD, mm (in)	2400 x 370 x 230 (94.5 x 14.5 x 9.0)



Vertical Pattern



Horizontal Pattern



APX86-90* Series

806-960 MHz

Broadband Fixed Tilt Antennas

APX86-906516L-CT0

Horizontal Beamwidth, deg 65

Gain, dBi 18.0

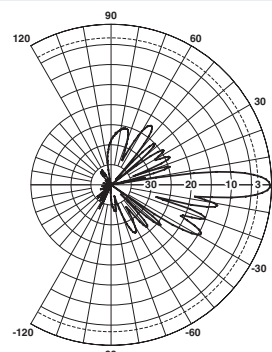
Electrical Downtilt, deg 0

ELECTRICAL SPECIFICATIONS

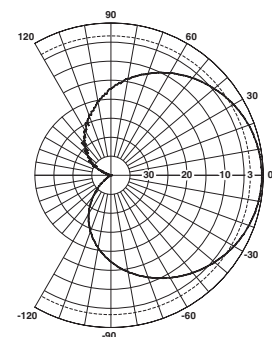
Frequency Range, MHz	806-870	870-960
Horizontal Beamwidth, deg	67	65
Vertical Beamwidth, deg	7.4	6.8
Gain, dBi (dBd)	17.5 (15.4)	18 (15.9)
Upper Sidelobe Suppression, dB	> 18 all (typically > 20)	
Front-To-Back Ratio, dB	> 30	
VSWR	< 1.35:1	
Isolation between Ports, dB	> 30	
Maximum Power Input, W	500	
Polarization	Dual pol +/-45°	
3rd Order IMP @ 2 x 43 dBm, dBc	> 150	

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	2600 x 312 x 120 (102.3 x 12.2 x 5)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m ² (ft ²)	0.82 (8.82)
Rated Wind Speed, km/h (mph)	160 (100)
Maximum Thrust @ Rated Wind, N (lbf)	1012 (228)
Front Thrust @ Rated Wind, N (lbf)	1012 (228)
Reflector Material	Aluminum
Radiating Element Material	Brass
Radome Material	ASA Plastic
Radome Color	Light Grey RAL7035
Weight w/o Mtg Hardware, kg (lb)	17 (37.5)
Packing Dimensions - HxWxD, m (ft)	2.9 x .37 x .23 (9.5 x 1.2 x 0.75)
Packing Dimensions, HxWxD, mm (in)	2900 x 370 x 230 (114 x 14.5 x 9.0)



Vertical Pattern



Horizontal Pattern

APX86-906516L-CT4

Horizontal Beamwidth, deg 65

Gain, dBi 17.8

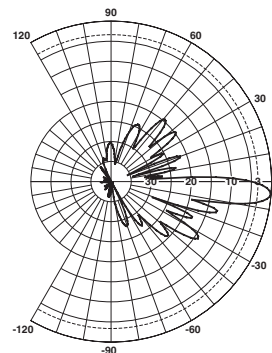
Electrical Downtilt, deg 4

ELECTRICAL SPECIFICATIONS

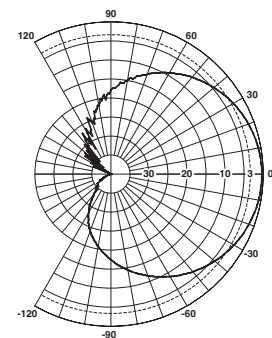
Frequency Range, MHz	806-870	870-960
Horizontal Beamwidth, deg	67	64
Vertical Beamwidth, deg	7.4	6.8
Gain, dBi (dBd)	17.2 (15.0)	17.8 (15.6)
Upper Sidelobe Suppression, dB	> 18 all (typically > 20)	
Front-To-Back Ratio, dB	> 30	
VSWR	< 1.35:1	< 1.3:1
Isolation between Ports, dB	> 30	
Maximum Power Input, W	500	
Polarization	Dual pol +/-45°	
3rd Order IMP @ 2 x 43 dBm, dBc	> 150	

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	2600 x 312 x 120 (102.3 x 12.2 x 5)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m ² (ft ²)	0.82 (8.82)
Rated Wind Speed, km/h (mph)	160 (100)
Maximum Thrust @ Rated Wind, N (lbf)	1012 (228)
Front Thrust @ Rated Wind, N (lbf)	1012 (228)
Reflector Material	Aluminum
Radiating Element Material	Brass
Radome Material	ASA Plastic
Radome Color	Light Grey RAL7035
Weight w/o Mtg Hardware, kg (lb)	17 (37.5)
Packing Dimensions - HxWxD, m (ft)	2.9 x .37 x .23 (9.5 x 1.2 x 0.75)
Packing Dimensions, HxWxD, mm (in)	2900 x 370 x 230 (114 x 14.5 x 9.0)



Vertical Pattern



Horizontal Pattern

Broadband Fixed Tilt Antennas

APX86-906516L-CT6

Horizontal Beamwidth, deg 65

Gain, dBi 17.5

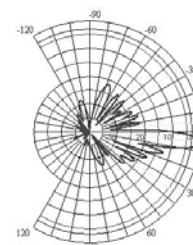
Electrical Downtilt, deg 6

ELECTRICAL SPECIFICATIONS

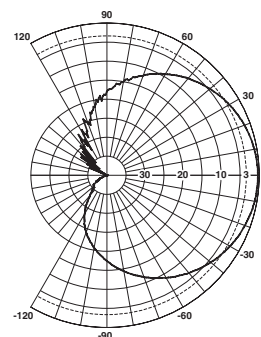
Frequency Range, MHz	806-870	870-960
Horizontal Beamwidth, deg	68	65
Vertical Beamwidth, deg	7.4	6.8
Gain, dBi (dBD)	16.8 (14.7)	17.5 (15.4)
Upper Sidelobe Suppression, dB	> 18 all (typically > 20)	
Front-To-Back Ratio, dB	> 30	
VSWR	< 1.35:1	< 1.3:1
Isolation between Ports, dB	> 30	
Maximum Power Input, W	500	
Polarization	Dual pol +/-45°	
3rd Order IMP @ 2 x 43 dBm, dBc	> 150	

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	2600 x 312 x 120 (102.3 x 12.2 x 5)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m² (ft²)	0.82 (8.82)
Rated Wind Speed, km/h (mph)	160 (100)
Maximum Thrust @ Rated Wind, N (lbf)	1012 (228)
Front Thrust @ Rated Wind, N (lbf)	1012 (228)
Reflector Material	Aluminum
Radiating Element Material	Brass
Radome Material	ASA Plastic
Radome Color	Light Grey RAL7035
Weight w/o Mtg Hardware, kg (lb)	17 (37.5)
Packing Dimensions - HxWxD, m (ft)	2.9 x .37 x .23 (9.5 x 1.2 x 0.75)
Packing Dimensions, HxWxD, mm (in)	2900 x 370 x 230 (114 x 14.5 x 9.0)



Vertical Pattern



Horizontal Pattern

APX86-906516L-CT9

Horizontal Beamwidth, deg 65

Gain, dBi 17.3

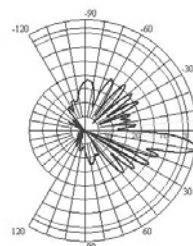
Electrical Downtilt, deg 9

ELECTRICAL SPECIFICATIONS

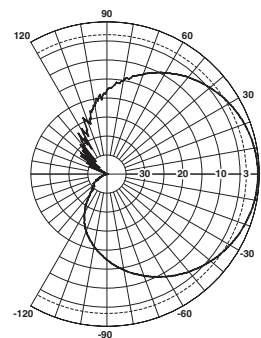
Frequency Range, MHz	806-870	870-960
Horizontal Beamwidth, deg	68	65
Vertical Beamwidth, deg	7.4	6.8
Gain, dBi (dBD)	16.8 (14.7)	17.3 (15.2)
Upper Sidelobe Suppression, dB	> 18 all (typically > 20)	
Front-To-Back Ratio, dB	> 30	
VSWR	< 1.35:1	
Isolation between Ports, dB	> 30	
Maximum Power Input, W	500	
Polarization	Dual pol +/-45°	
3rd Order IMP @ 2 x 43 dBm, dBc	> 150	

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	2600 x 312 x 120 (102.3 x 12.2 x 5)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m² (ft²)	0.82 (8.82)
Rated Wind Speed, km/h (mph)	160 (100)
Maximum Thrust @ Rated Wind, N (lbf)	1012 (228)
Front Thrust @ Rated Wind, N (lbf)	1012 (228)
Reflector Material	Aluminum
Radiating Element Material	Brass
Radome Material	ASA Plastic
Radome Color	Light Grey RAL7035
Weight w/o Mtg Hardware, kg (lb)	17 (37.5)
Packing Dimensions - HxWxD, m (ft)	2.9 x .37 x .23 (9.5 x 1.2 x 0.75)
Packing Dimensions, HxWxD, mm (in)	2900 x 370 x 230 (114 x 14.5 x 9.0)



Vertical Pattern



Horizontal Pattern

Broadband Fixed Tilt Antennas

APX869011-CT0

Horizontal Beamwidth, deg 90

Gain, dBi 13.7

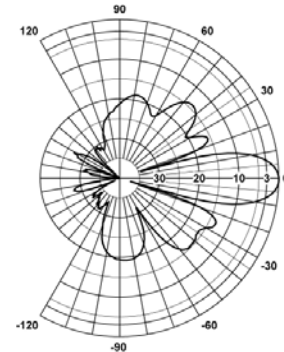
Electrical Downtilt, deg 0

ELECTRICAL SPECIFICATIONS

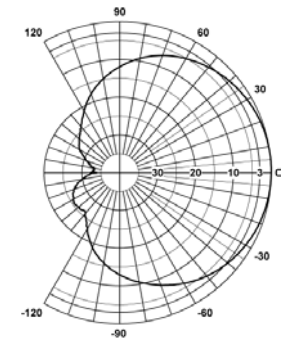
Frequency Range, MHz	806-894
Horizontal Beamwidth, deg	90
Vertical Beamwidth, deg	15
Gain, dBi (dBd)	13.7 (11.6)
Front-To-Back Ratio, dB	> 20
VSWR	< 1.5:1
Isolation between Ports, dB	> 32 (typ.35)
Maximum Power Input, W	400
Polarization	Dual pol +/-45°
3rd Order IMP @ 2 x 43 dBm, dBc	> 150

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	1320 x 265 x 140 (51.94 x 10.43 x 5.51)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m² (ft²)	0.35 (3.74)
Rated Wind Speed, km/h (mph)	160 (100)
Maximum Thrust @ Rated Wind, N (lbf)	319 (71)
Front Thrust @ Rated Wind, N (lbf)	319 (71)
Reflector Material	Aluminum
Radiating Element Material	Brass
Radome Material	UV resistant ASA
Radome Color	Light Grey RAL7035
Weight w/o Mtg Hardware, kg (lb)	8.6 (18.92)
Packing Dimensions - HxWxD, m (ft)	1.5 x 0.3 x 0.22 (4.95 x 0.99 x 0.75)
Packing Dimensions, HxWxD, mm (in)	1470 x 300 x 220 (57.84 x 11.81 x 8.66)



Vertical Pattern



Horizontal Pattern

APX909011-CT0

Horizontal Beamwidth, deg 90

Gain, dBi 13.5

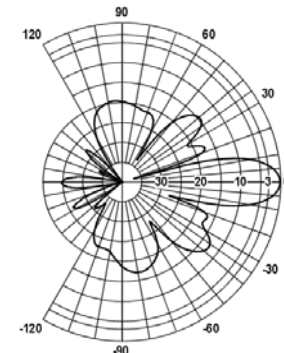
Electrical Downtilt, deg 0

ELECTRICAL SPECIFICATIONS

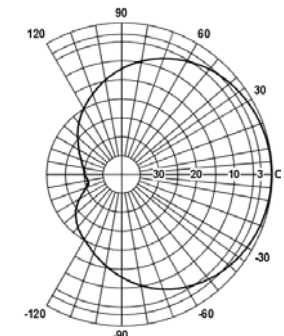
Frequency Range, MHz	872-960
Horizontal Beamwidth, deg	90
Vertical Beamwidth, deg	13
Gain, dBi (dBd)	13.5 (11.4)
1st Upper Sidelobe Suppression, dB	> 14
Front-To-Back Ratio, dB	> 20
VSWR	< 1.5:1@RX < 1.3:1@TX
Isolation between Ports, dB	> 30
Maximum Power Input, W	400
Polarization	Dual pol +/-45°
3rd Order IMP @ 2 x 43 dBm, dBc	> 150

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	1320 x 265 x 140 (51.94 x 10.43 x 5.51)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m² (ft²)	0.35 (3.74)
Rated Wind Speed, km/h (mph)	160 (100)
Maximum Thrust @ Rated Wind, N (lbf)	319 (71)
Front Thrust @ Rated Wind, N (lbf)	319 (71)
Reflector Material	Aluminum
Radiating Element Material	Brass
Radome Material	UV resistant ASA
Radome Color	Light Grey RAL7035
Weight w/o Mtg Hardware, kg (lb)	8.6 (18.92)
Packing Dimensions - HxWxD, m (ft)	1.5 x 0.3 x 0.22 (4.95 x 0.99 x 0.75)
Packing Dimensions, HxWxD, mm (in)	1470 x 300 x 220 (57.84 x 11.81 x 8.66)



Vertical Pattern



Horizontal Pattern

Broadband Fixed Tilt Antennas

APX86-909014L-CT0

Horizontal Beamwidth, deg 88

Gain, dBi 15.5

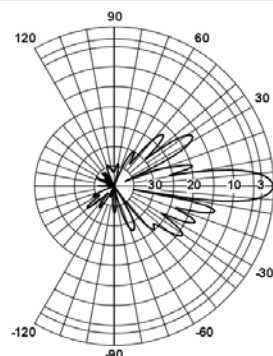
Electrical Downtilt, deg 0

ELECTRICAL SPECIFICATIONS

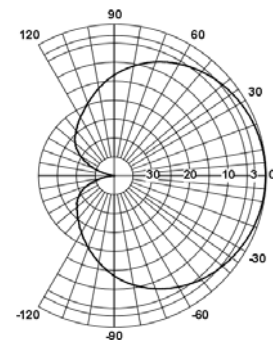
Frequency Range, MHz	806-870	870-960
Horizontal Beamwidth, deg	88	
Vertical Beamwidth, deg	9	
Gain, dBi (dBd)	15.2 (13.1)	15.5 (13.4)
1st Upper Sidelobe Suppression, dB	> 18	
Upper Sidelobe Suppression, dB	> 18 all (typically > 20)	
Front-To-Back Ratio, dB	> 22	> 23
VSWR	< 1.5:1	
Isolation between Ports, dB	> 30 (Typ.35)	
Maximum Power Input, W	500	
Polarization	Dual pol +/-45°	
3rd Order IMP @ 2 x 43 dBm, dBc	> 150	

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	2080 x 265 x 140 (82 x 10.43 x 5.51)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m² (ft²)	0.55 (5.9)
Rated Wind Speed, km/h (mph)	160 (100)
Maximum Thrust @ Rated Wind, N (lbf)	800 (180)
Reflector Material	Aluminum
Radiating Element Material	Brass
Radome Material	UV resistant ASA
Radome Color	Light Grey RAL7035
Weight w/o Mtg Hardware, kg (lb)	11.0 (24.2)
Packing Dimensions - HxWxD, m (ft)	2.1 x 0.28 x 0.23 (6.93 x 0.92 x 0.76)
Packing Dimensions, HxWxD, mm (in)	2100 x 280 x 230 (82.7 x 11 x 9)



Vertical Pattern



Horizontal Pattern

APX86-909014L-CT4

Horizontal Beamwidth, deg 88

Gain, dBi 15.7

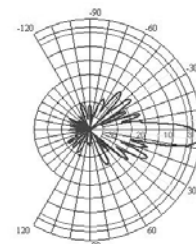
Electrical Downtilt, deg 4

ELECTRICAL SPECIFICATIONS

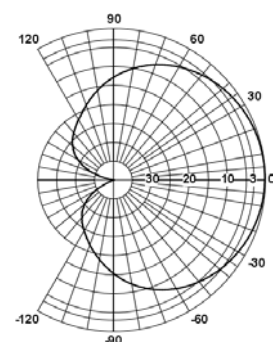
Frequency Range, MHz	806-870	870-960
Horizontal Beamwidth, deg	88	
Vertical Beamwidth, deg	9.5	9
Gain, dBi (dBd)	15.3 (13.2)	15.7 (13.6)
1st Upper Sidelobe Suppression, dB	> 18	
Upper Sidelobe Suppression, dB	> 18 all (typically > 20)	
Front-To-Back Ratio, dB	> 22	> 23
VSWR	< 1.3:1	
Isolation between Ports, dB	> 30 (Typ.35)	
Maximum Power Input, W	500	
Polarization	Dual pol +/-45°	
3rd Order IMP @ 2 x 43 dBm, dBc	> 150	

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	2080 x 265 x 140 (82 x 10.43 x 5.51)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m² (ft²)	0.55 (5.9)
Rated Wind Speed, km/h (mph)	160 (100)
Maximum Thrust @ Rated Wind, N (lbf)	800 (180)
Reflector Material	Aluminum
Radiating Element Material	Brass
Radome Material	UV resistant ASA
Radome Color	Light Grey RAL7035
Weight w/o Mtg Hardware, kg (lb)	11.0 (24.2)
Packing Dimensions - HxWxD, m (ft)	2.1 x 0.28 x 0.23 (6.93 x 0.92 x 0.76)
Packing Dimensions, HxWxD, mm (in)	2100 x 280 x 230 (82.7 x 11 x 9)



Vertical Pattern



Horizontal Pattern

Broadband Fixed Tilt Antennas

APX86-909014L-CT6

Horizontal Beamwidth, deg 88

Gain, dBi 15.6

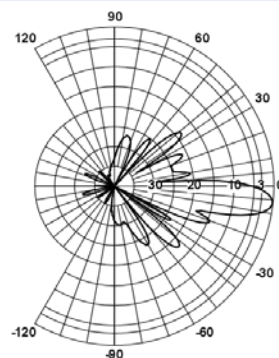
Electrical Downtilt, deg 6

ELECTRICAL SPECIFICATIONS

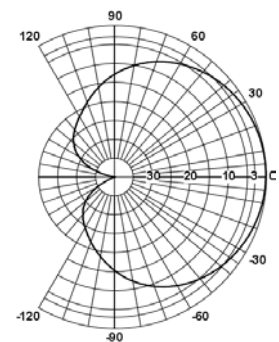
Frequency Range, MHz	806-870	870-960
Horizontal Beamwidth, deg	88	
Vertical Beamwidth, deg	9	
Gain, dBi (dBd)	15.2 (13.1)	15.6 (13.5)
1st Upper Sidelobe Suppression, dB	> 18	
Upper Sidelobe Suppression, dB	> 18 all (typically > 20)	
Front-To-Back Ratio, dB	> 22	> 23
VSWR	< 1.3:1	
Isolation between Ports, dB	> 30 (Typ.35)	
Maximum Power Input, W	500	
Polarization	Dual pol +/-45°	
3rd Order IMP @ 2 x 43 dBm, dBc	> 150	

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	2080 x 265 x 140 (82 x 10.43 x 5.51)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m² (ft²)	0.55 (5.9)
Rated Wind Speed, km/h (mph)	160 (100)
Maximum Thrust @ Rated Wind, N (lbf)	800 (180)
Reflector Material	Aluminum
Radiating Element Material	Brass
Radome Material	UV resistant ASA
Radome Color	Light Grey RAL7035
Weight w/o Mtg Hardware, kg (lb)	11.0 (24.2)
Packing Dimensions - HxWxD, m (ft)	2.1 x 0.28 x 0.23 (6.93 x 0.92 x 0.76)
Packing Dimensions, HxWxD, mm (in)	2100 x 280 x 230 (82.7 x 11 x 9)



Vertical Pattern



Horizontal Pattern

APX86-909015-CT0

Horizontal Beamwidth, deg 90

Gain, dBi 16.8

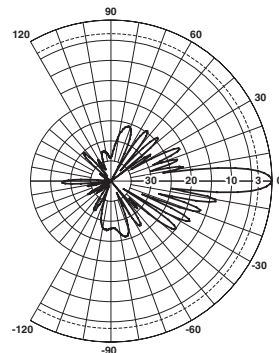
Electrical Downtilt, deg 0

ELECTRICAL SPECIFICATIONS

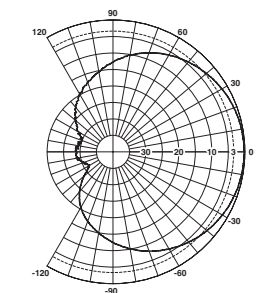
Frequency Range, MHz	806-870	870-960
Horizontal Beamwidth, deg	87	85
Vertical Beamwidth, deg	7.5	7
Gain, dBi (dBd)	16.3 (14.2)	16.8 (14.7)
1st Upper Sidelobe Suppression, dB	> 18 (typically > 20)	
Upper Sidelobe Suppression, dB	> 18 all (typically > 20)	
Front-To-Back Ratio, dB	> 25	
VSWR	< 1.35:1	< 1.4:1
Isolation between Ports, dB	> 30	
Maximum Power Input, W	500	
Polarization	Dual pol +/-45°	
3rd Order IMP @ 2 x 43 dBm, dBc	> 150	

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	2600 x 312 x 120 (102.3 x 12.2 x 5)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m² (ft²)	0.82 (8.82)
Rated Wind Speed, km/h (mph)	160 (100)
Maximum Thrust @ Rated Wind, N (lbf)	1012 (228)
Front Thrust @ Rated Wind, N (lbf)	1012 (228)
Reflector Material	Aluminum
Radiating Element Material	Brass
Radome Material	ASA Plastic
Radome Color	Light Grey RAL7035
Weight w/o Mtg Hardware, kg (lb)	19.0 (41.8)
Packing Dimensions - HxWxD, m (ft)	2.9 x .37 x .23 (9.5 x 1.2 x 0.75)
Packing Dimensions, HxWxD, mm (in)	2900 x 370 x 230 (114 x 14.5 x 9.0)



Vertical Pattern



Horizontal Pattern

Broadband Fixed Tilt Antennas

APX86-909015-CT4

Horizontal Beamwidth, deg 90

Gain, dBi 16.7

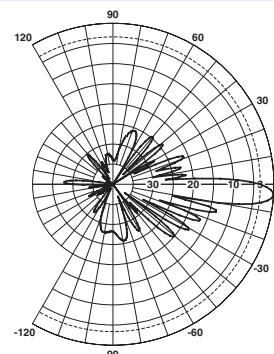
Electrical Downtilt, deg 4

ELECTRICAL SPECIFICATIONS

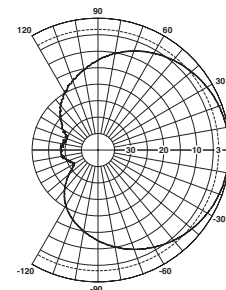
Frequency Range, MHz	806-870	870-960
Horizontal Beamwidth, deg	87	85
Vertical Beamwidth, deg	7.5	7
Gain, dBi (dBd)	16.3 (14.2)	16.7 (14.6)
1st Upper Sidelobe Suppression, dB	> 18 (typically > 20)	
Upper Sidelobe Suppression, dB	> 18 all (typically > 20)	
Front-To-Back Ratio, dB	> 25	
VSWR	< 1.35:1	< 1.4:1
Isolation between Ports, dB	> 30	
Maximum Power Input, W	500	
Polarization	Dual pol +/-45°	
3rd Order IMP @ 2 x 43 dBm, dBc	> 150	

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	2600 x 312 x 120 (102.3 x 12.2 x 5)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m ² (ft ²)	0.82 (8.82)
Rated Wind Speed, km/h (mph)	160 (100)
Maximum Thrust @ Rated Wind, N (lbf)	1012 (228)
Front Thrust @ Rated Wind, N (lbf)	1012 (228)
Reflector Material	Aluminum
Radiating Element Material	Brass
Radome Material	ASA Plastic
Radome Color	Light Grey RAL7035
Weight w/o Mtg Hardware, kg (lb)	19.0 (41.8)
Packing Dimensions - HxWxD, m (ft)	2.9 x .37 x .23 (9.5 x 1.2 x 0.75)
Packing Dimensions, HxWxD, mm (in)	2900 x 370 x 230 (114 x 14.5 x 9.0)



Vertical Pattern



Horizontal Pattern

APX86-909015-CT6

Horizontal Beamwidth, deg 85

Gain, dBi 16.5

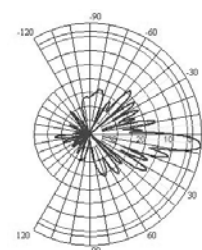
Electrical Downtilt, deg 6

ELECTRICAL SPECIFICATIONS

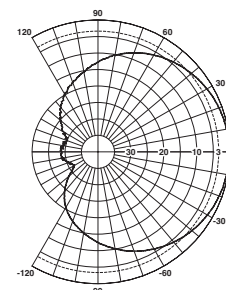
Frequency Range, MHz	806-870	870-960
Horizontal Beamwidth, deg	87	85
Vertical Beamwidth, deg	7.5	7
Gain, dBi (dBd)	16 (13.9)	16.5 (14.4)
1st Upper Sidelobe Suppression, dB	> 17	
Upper Sidelobe Suppression, dB	> 17	
Front-To-Back Ratio, dB	> 25	
VSWR	< 1.35:1	
Isolation between Ports, dB	> 30	
Maximum Power Input, W	500	
Polarization	Dual pol +/-45°	
3rd Order IMP @ 2 x 43 dBm, dBc	> 150	

MECHANICAL SPECIFICATIONS

Dimensions - HxWxD, mm (in)	2600 x 312 x 120 (102.3 x 12.2 x 5)
Survival Wind Speed, km/h (mph)	200 (125)
Max Wind Loading Area, m ² (ft ²)	0.82 (8.82)
Rated Wind Speed, km/h (mph)	160 (100)
Maximum Thrust @ Rated Wind, N (lbf)	1012 (228)
Front Thrust @ Rated Wind, N (lbf)	1012 (228)
Reflector Material	Aluminum
Radiating Element Material	Brass
Radome Material	ASA Plastic
Radome Color	Light Grey RAL7035
Weight w/o Mtg Hardware, kg (lb)	19.0 (41.8)
Packing Dimensions - HxWxD, m (ft)	2.9 x .37 x .23 (9.5 x 1.2 x 0.75)
Packing Dimensions, HxWxD, mm (in)	2900 x 370 x 230 (114 x 14.5 x 9.0)



Vertical Pattern



Horizontal Pattern