



# TIL-TEK Antennae



Solutions that Work



Affordable Quality



ISO 9001:2000



Reliability



Service



TIL-TEK Antennae Inc.  
P.O. Box 550  
Kemptonville, Ontario  
Canada  
K0G 1J0

December 7, 2006



## Quality Management System (QMS):

As a leading supplier of communications solutions to a global marketplace, TIL-TEK is committed to achieving the highest possible quality in all of its products and services. Both our Manufacturing and Research & Development facilities in Canada are ISO 9001:2000 compliant and have been certified since 1996.

Quality is one of the cornerstones of customer value along with innovation, cost and service/support. All product leaves the plant having gone through a rigorous process with a final verification stamp indicating conformance to that process. TIL-TEK is an ISO 9001:2000 registered company. This worldwide standard covers our entire operation of the company from order entry to shipping, from product design to production. Quality will never be compromised either over the long term or for short term convenience.

TIL-TEK's Quality Management System (QMS) provides the guidance and controls for an effective process management system. By implementing and maintaining the QMS, we will consistently provide product that meets customer and applicable regulatory requirements.

## Quality Policy:

TIL-TEK will strive to provide our customer with products and services that ensure a high level of customer loyalty and satisfaction. We are committed to a Quality Management System that supports and encourages a culture of customer focus, teamwork, continuous improvement and standards of excellence.

## Quality Objectives:

Management has ensured its quality objectives are established and communicated within the company. The Quality Objectives are measurable and consistent with TIL-TEK's Quality Policy and include the requirements needed for planning product realization.

TIL-TEK is committed to:

- \* Customer loyalty and satisfaction.
- \* Product quality, delivery and service.
- \* Continuous improvement of the Quality Management System.
- \* Teamwork and standards of excellence.

2005-12-22

# Warranty

The specifications on our product data sheets are for reference purposes only and may change at any time without prior notice. For exact specifications, the factory or an authorized representative should be contacted.

TIL-TEK products are warranted against defects in material and workmanship under normal use for a period of three years from the date of shipment from the factory. Authorization must be obtained from TIL-TEK prior to returning a product for warranty service and the product must be returned to TIL-TEK with all transportation charges prepaid. See RMA policy for details.

Warranty repair or replacement without charge will be made only after inspection at the factory shows a defect in material or workmanship. TIL-TEK will pay the return transportation charges, but all other expenses including duty, taxes, storage and all other transaction fees shall be paid by the customer. The warranty period shall not be extended beyond its original term with respect to any part or parts repaired or replaced by TIL-TEK.

TIL-TEK is in no event liable for consequential damages or other costs of any nature resulting from the use of the products it manufactures. TIL-TEK is not liable for replacement from the use of any products damaged by lightning. TIL-TEK is not liable for delays in or inability to fulfill contractual obligations when the causes thereof are beyond the reasonable control of TIL-TEK. TIL-TEK neither assumes nor authorizes any person to assume for it, any obligation or liability other than as herein expressly stated.

This limited warranty is in lieu of all other warranties, either expressed or implied.

2005-12-22

## Return Material Authorization (RMA) Policy

TIL-TEK products are warranted against defects in material and workmanship under normal use for a period of three years from the date of shipment from the factory. A RMA number must be obtained from TIL-TEK prior to returning a product for warranty service. The product must be returned to TIL-TEK with all transportation charges prepaid.

Defective Antenna: Provided an antenna is found to be defective under the terms of the warranty, TIL-TEK will repair, replace and return the antenna at no charge to the customer.

No Fault Found: If, after evaluation, the antenna is found to still meet TIL-TEK's electrical and mechanical specifications:

- 1) The customer shall incur an evaluation charge of 25% of the list price or a minimum fee of \$80.00 CDN.
- 2) The customer is responsible to incur the return freight. The antenna will be returned via freight collect.

Note: If an advance replacement is sent and the returned antenna is found to have no fault, the customer will be invoiced for the new replacement and will incur the freight to have the antenna returned to them.

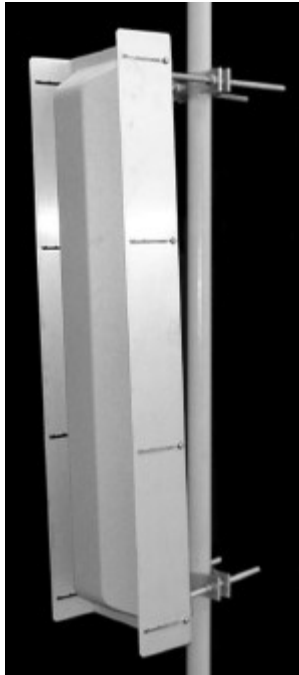


TA-700 Series	698-806 MHz
TA-800 Series	806-960 MHz
TA-900 Series	901-940 MHz
TA-1400 Series	1425-1535 MHz
TA-1800 Series	1850-1990 MHz
TA-1880 Series	1880-1930 MHz
TA-2100 Series	2150-2700 MHz
TA-2300 Series	2300-2500 MHz
TA-2400 Series	2400-2483 MHz
TA-2500 Series	2485-2690 MHz
TA-3400 Series	3400-3700 MHz
TA-4900 Series	4940-4990 MHz
TA-5200 Series	5250-5875 MHz
TA-5400 Series	5470-5875 MHz
TA-5700 Series	5725-5875 MHz



# TA-803 Adjustable Sector

806-896, 824-896, 890-960 MHz



The TA-803 adjustable sector is a broadband dipole array, enclosed in an aluminum base with an ASA UV stabilized radome for superior performance and weatherability. Extremely low side lobes, an adjustable azimuth pattern and up to 15 degrees of mechanical downtilt make this a remarkably versatile antenna.

### Electrical Specifications

**Frequency Range:** 806-896, 824-896, 890-960 MHz  
**Gain:** 12.5 dBd @ 60°, 11 dBd @ 90°  
 10.75 dBd @ 105°, 10.5 dBd @ 120°  
**VSWR:** 1.5:1 max. 1.35:1 typical  
**Front to Back Ratio:** 25 dB min. 30 dB typical  
**Polarization:** Vertical  
**Power Rating:** 500 Watts  
**H-Plane Beamwidth:** 60, 90, 105, 120 degrees  
**E-Plane Beamwidth:** 18 degrees  
**Electrical Downtilt:** 0°, 4°, 6°, 8°, 10°, 18°  
**Cross Pol. Discrimination:** 20 dB min.  
**Impedance:** 50 ohms nominal  
**Termination:** N female (7/16 optional)

Typical mid band values. (For details, contact factory)  
 Specifications subject to change without notice

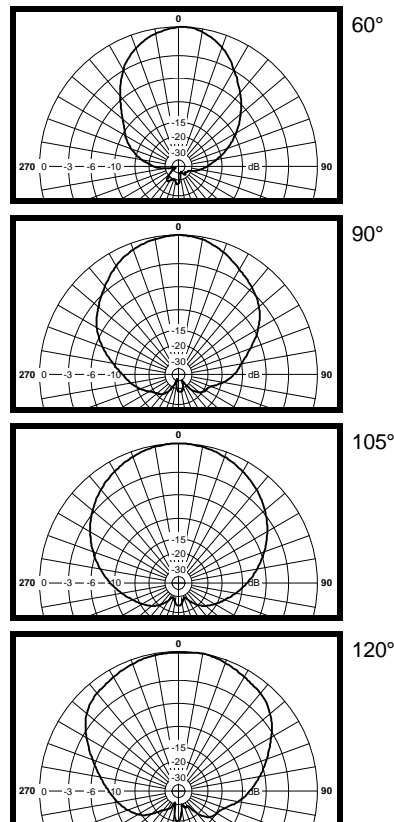
### Mechanical Specifications

**Length:** 48 in. (1220 mm)  
**Width:** 13 in. (330 mm)  
**Depth:** 8 in. (203 mm)  
**Weight (incl. Clamps):** 34 lb. (15.4 kg)  
**Rated Wind Velocity:** 125 mph (200 km/h)  
**Hor. Thrust at rated wind:** 269 lb. (122.1 kg)  
**Mechanical Tilt:** 0 - 15 degrees (w/ TMC-104)  
**Mounting (O.D.):** 1.75 - 4.0 in. (44.5 - 102 mm)

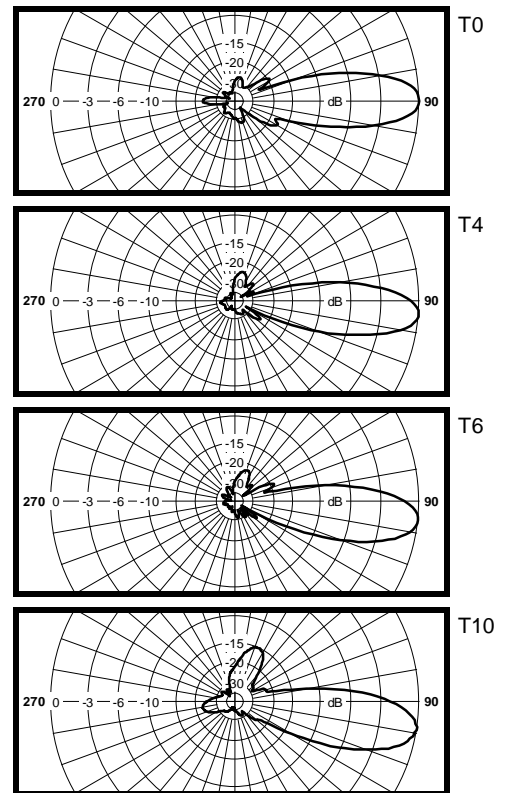
### Materials

**Radiating Elements:** Irridited aluminum  
**Reflector:** Irridited aluminum  
**Radome:** Gray UV stabilized ASA  
**Clamps:** HDG steel

H-Plane



E-Plane



Rev. 1.3

2005-02-15

500 Van Buren Street  
 P.O. Box 550  
 Kemptville, ON K0G 1J0  
 Canada

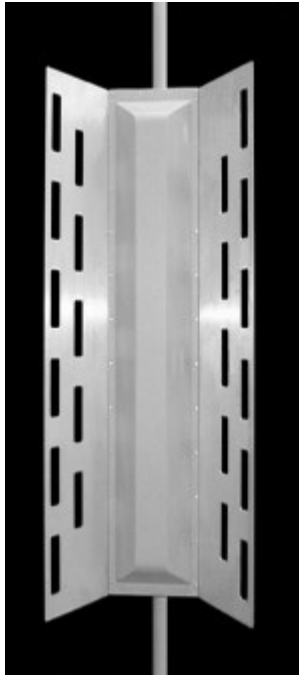


ISO 9001:2000  
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 Certificate 961004

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## TA-803-33 Sector

806-896, 824-896, 890-960 MHz



The TA-803-33 sector is a fixed pattern version of the TA-803 adjustable sector. It is enclosed in an aluminum base and has an ASA UV stabilized radome for superior performance. Extremely low side lobes and up to 15 degrees of mechanical downtilt make this antenna very useful for narrow coverage applications such as CDMA systems where interference between sites can be a particular problem.

### Electrical Specifications

**Frequency Range:** 806-896, 824-896, 890-960 MHz  
**Gain:** 15 dBd  
**VSWR:** 1.5:1 max. 1.35:1 typical  
**Front to Back Ratio:** 30 dB min.  
**Polarization:** Vertical  
**Power Rating:** 500 Watts  
**H-Plane Beamwidth:** 33 degrees  
**E-Plane Beamwidth:** 18 degrees  
**Electrical Downtilt:** 0°, 4°, 6°, 8°, 10°, 18°  
**Cross Pol. Discrimination:** 20 dB min.  
**Impedance:** 50 ohms nominal  
**Termination:** N female (7/16 optional)

Typical mid band values. (For details, contact factory)  
 Specifications subject to change without notice

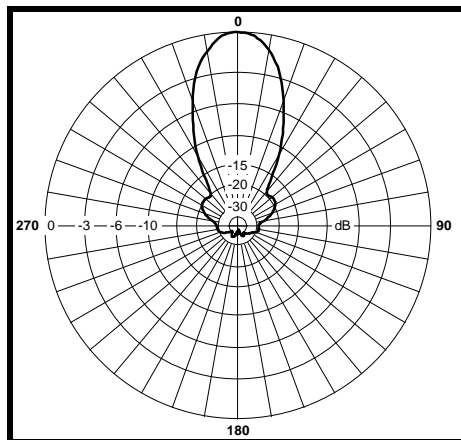
### Mechanical Specifications

**Length:** 48 in. (1220 mm)  
**Width:** 29.6 in. (751.8 mm)  
**Depth:** 12 in. (305 mm)  
**Weight (incl. Clamps):** 43 lb. (19.5 kg)  
**Rated Wind Velocity:** 125 mph (200 km/h)  
**Hor. Thrust at rated wind:** 580 lb. (263 kg)  
**Mechanical Tilt:** 0 - 15 degrees  
**Mounting (O.D.):** 1.75 - 4.0 in. (44.5 - 102 mm)

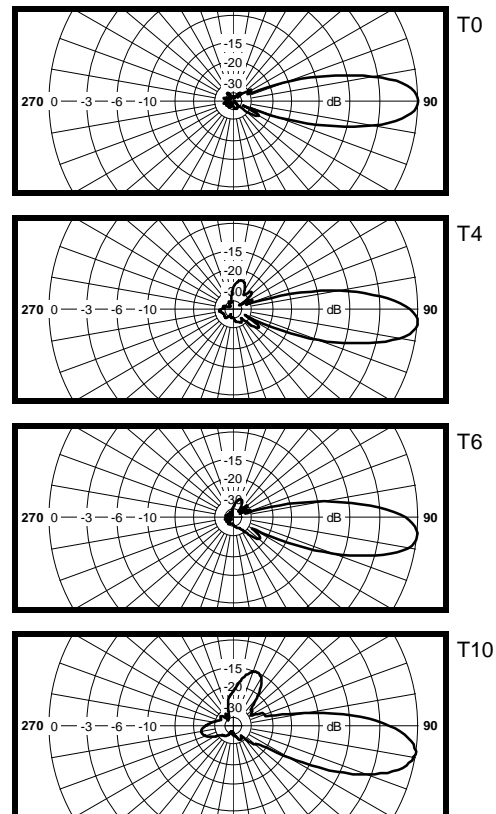
### Materials

**Radiating Elements:** Irridited aluminum  
**Reflector:** Irridited aluminum  
**Radome:** Gray UV stabilized ASA  
**Clamps:** HDG steel

H-Plane



E-Plane



## TA-803-45 Sector

806-896, 824-896, 890-960 MHz



The TA-803-45 sector is a fixed pattern version of the TA-803 adjustable sector. It is enclosed in an aluminum base and has an ASA UV stabilized radome for superior performance. Extremely low side lobes and up to 15 degrees of mechanical downtilt make this antenna very useful for narrow coverage applications such as CDMA systems where interference between sites can be a particular problem.

### Electrical Specifications

**Frequency Range:** 806-896, 824-896, 890-960 MHz  
**Gain:** 14 dBd  
**VSWR:** 1.5:1 max. 1.35:1 typical  
**Front to Back Ratio:** 30 dB min.  
**Polarization:** Vertical  
**Power Rating:** 500 Watts  
**H-Plane Beamwidth:** 45 degrees  
**E-Plane Beamwidth:** 18 degrees  
**Electrical Downtilt:** 0°, 4°, 6°, 8°, 10°, 18°  
**Cross Pol. Discrimination:** 20 dB min.  
**Impedance:** 50 ohms nominal  
**Termination:** N female (7/16 optional)

Typical mid band values. (For details, contact factory)  
 Specifications subject to change without notice

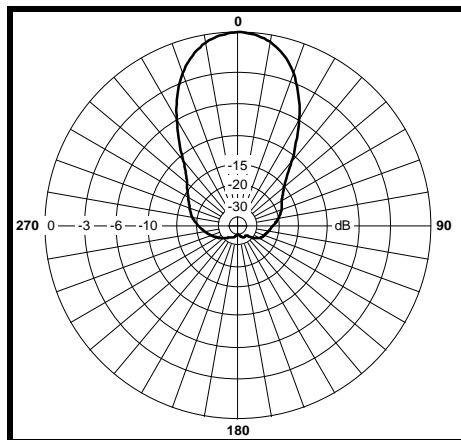
### Mechanical Specifications

**Length:** 48 in. (1220 mm)  
**Width:** 19 in. (483 mm)  
**Depth:** 8 in. (203 mm)  
**Weight (incl. Clamps):** 36 lb. (16.3 kg)  
**Rated Wind Velocity:** 125 mph (200 km/h)  
**Hor. Thrust at rated wind:** 396 lb. (180 kg)  
**Mechanical Tilt:** 0 - 15 degrees  
**Mounting (O.D.):** 1.75 - 4.0 in. (44.5 - 102 mm)

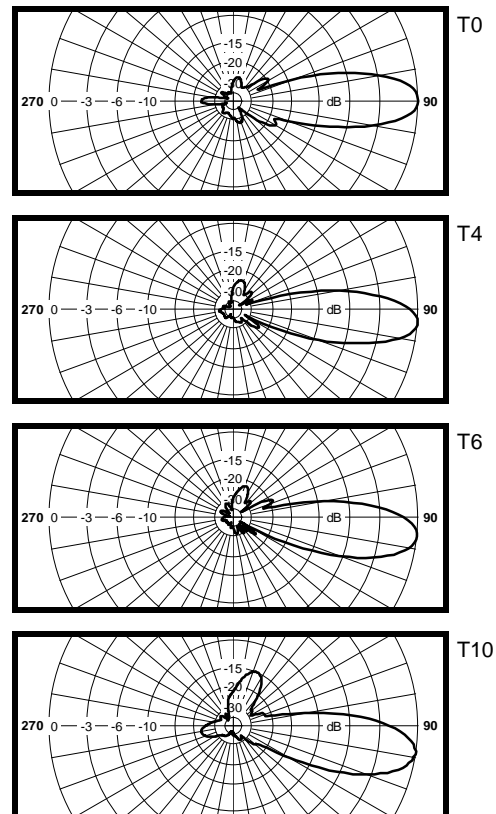
### Materials

**Radiating Elements:** Irridited aluminum  
**Reflector:** Irridited aluminum  
**Radome:** Gray UV stabilized ASA  
**Clamps:** HDG steel

H-Plane



E-Plane



# TA-807 Dual Band Directional Panel

## 824-896 / 1850-1990 MHz



The TA-807 is a dual band vertically or horizontally polarized directional panel antenna. The antenna consists of two dipole arrays and a cross band coupler enclosed in a UV stabilized ASA radome. The antenna is designed for severe weather conditions and is at DC ground to aid in lightning protection.

### Electrical Specifications

**Frequency Range:** 824-896 / 1850-1990 MHz  
**Gain:** 7.5 +/- 0.5 dBd @ 824-896 MHz  
 16.5 +/- 0.5 dBi @ 1850-1990 MHz  
**VSWR:** 1.5:1 max.  
**Front to Back Ratio:** 20 dB min. / 28 dB min.  
**Polarization:** Vertical or Horizontal  
**Power Rating:** 100 Watts  
**H-Plane Beamwidth:** 60° @ 824-896 MHz  
 21° @ 1850-1990 MHz  
**E-Plane Beamwidth:** 64° @ 824-896 MHz  
 22° @ 1850-1990 MHz  
**Cross Pol. Discrimination:** 15 dB min.  
**Impedance:** 50 ohms nominal  
**Termination:** 7/16 DIN female

### Mechanical Specifications

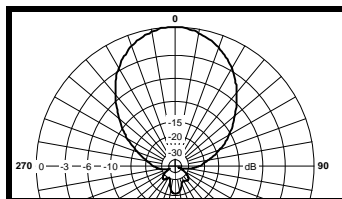
**Length:** 18 in. (457 mm)  
**Width:** 18 in. (457 mm)  
**Depth:** 4.5 in. (114 mm)  
**Weight (incl. Clamps):** 12 lb. (5.4 kg)  
**Rated Wind Velocity:** 125 mph (200 km/h)  
**Hor. Thrust at rated wind:** 140 lb. (63.6 kg)  
**Mechanical Tilt:** 0 - 15 degrees  
**Mounting (O.D.):** 1 - 3.5 in. (25.4 - 88.9 mm)

### Materials

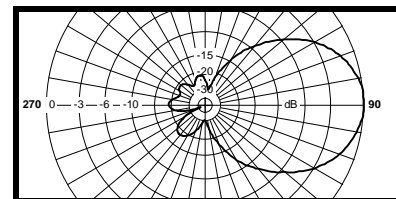
**Radiating Elements:** Plated Copper on PCB  
**Reflector:** Irridited aluminum  
**Radome:** Gray UV stabilized ASA  
**Clamps:** Aluminum and HDG steel

Typical mid band values. (For details , contact factory)  
 Specifications subject to change without notice

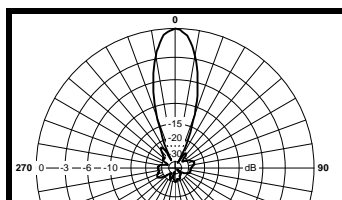
H-Plane @ 824-896 MHz



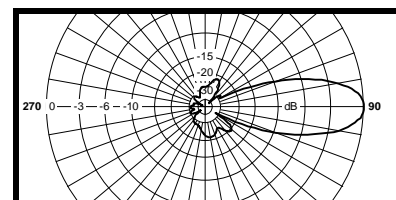
E-Plane @ 824-896 MHz



H-Plane @ 1850-1990 MHz



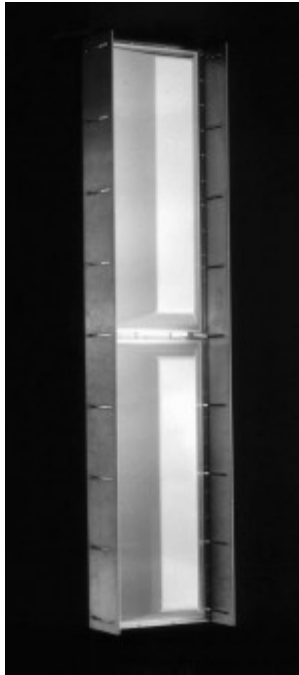
E-Plane @ 1850-1990 MHz





# TA-811 Adjustable Sector

806-896, 824-896, 890-960 MHz



The TA-811 adjustable sector is a high gain broadband dipole array enclosed in an aluminum base and has an ASA UV stabilized radome for superior performance and weatherability. Extremely low side lobes, an adjustable azimuth pattern and up to 6 degrees of mechanical downtilt make this a remarkably versatile antenna.

### Electrical Specifications

**Frequency Range:** 806-896, 824-896, 890-960 MHz  
**Gain:** 15.5 dBd @ 60°, 14 dBd @ 90°  
 13.75 dBd @ 105°, 13.5 dBd @ 120°  
**VSWR:** 1.5:1 max. 1.35:1 typ.  
**Front to Back Ratio:** 25 dB min. 30 dB typ.  
**Polarization:** Vertical  
**Power Rating:** 500 Watts  
**H-Plane Beamwidth:** 60, 90, 105, 120 degrees  
**E-Plane Beamwidth:** 8.5 degrees  
**Electrical Downtilt:** 0°, 2°, 4°, 5°, 6°, 10°, 13°, 15°  
**Cross Pol. Discrimination:** 20 dB min.  
**Impedance:** 50 ohms nominal  
**Termination:** N female (7/16 optional)

Typical mid band values. (For details, contact factory)  
 Specifications subject to change without notice

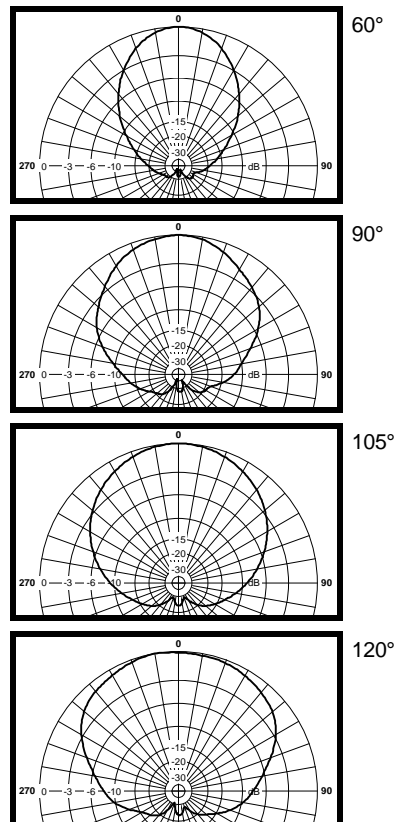
### Mechanical Specifications

**Length:** 96 in. (2438 mm)  
**Width:** 13 in. (330 mm)  
**Depth:** 8.0 in. (203 mm)  
**Weight (incl. Clamps):** 62 lb. (28 kg)  
**Rated Wind Velocity:** 125 mph (200 km/h)  
**Hor. Thrust at rated wind:** 538 lb. (244 kg)  
**Mechanical Tilt:** 0 - 6 degrees  
**Mounting (O.D.):** 1.75 - 4.5 in. (44.5 - 114 mm)

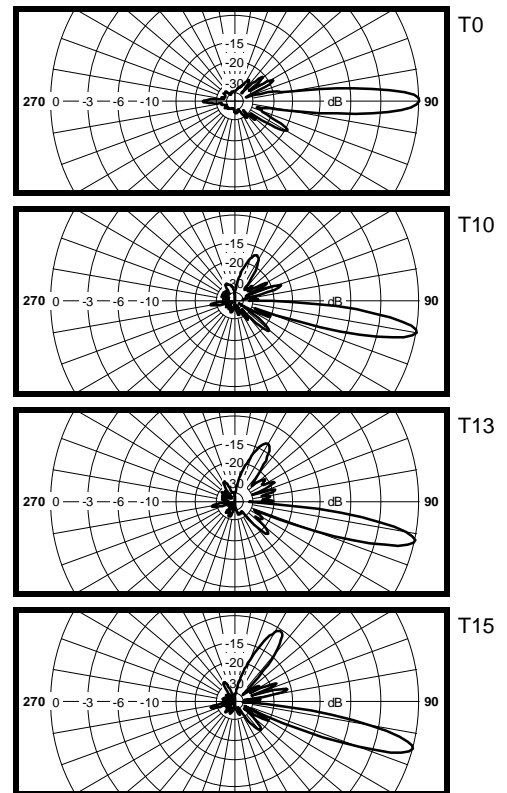
### Materials

**Radiating Elements:** Irridited aluminum  
**Reflector:** Irridited aluminum  
**Radome:** Gray UV stabilized ASA  
**Clamps:** HDG steel

H-Plane



E-Plane



Rev. 1.7

2005-02-15

500 Van Buren Street  
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 Canada

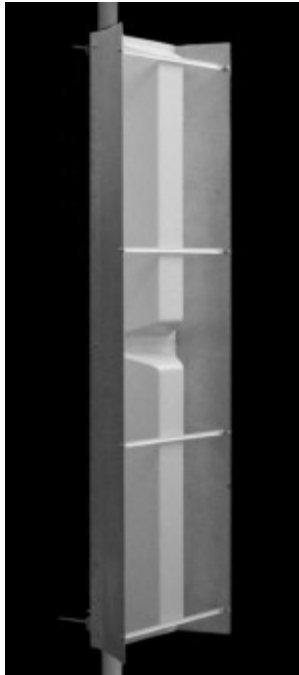


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 www.tiltek.com

## TA-811-33 Sector

806-896, 824-896, 890-960 MHz



The TA-811-33 is a fixed pattern version of the TA-811 adjustable sector. It is enclosed in an aluminum base and has an ASA UV stabilized radome for superior performance and weatherability. Extremely low side lobes and up to 15 degrees of electrical downtilt make this a remarkably versatile antenna.

### Electrical Specifications

**Frequency Range:** 806-896, 824-896, 890-960 MHz  
**Gain:** 17 dBd @ 33°  
**VSWR:** 1.5:1 max. 1.35:1 typical  
**Front to Back Ratio:** 25 dB min. 30 dB typical  
**Polarization:** Vertical  
**Power Rating:** 500 Watts  
**H-Plane Beamwidth:** 33 degrees  
**E-Plane Beamwidth:** 8.5 degrees  
**Electrical Downtilt:** 0°, 2°, 4°, 5°, 6°, 10°, 13°, 15°  
**Cross Pol. Discrimination:** 20 dB min.  
**Impedance:** 50 ohms nominal  
**Termination:** N female (7/16 optional)

Typical mid band values. (For details, contact factory)  
 Specifications subject to change without notice

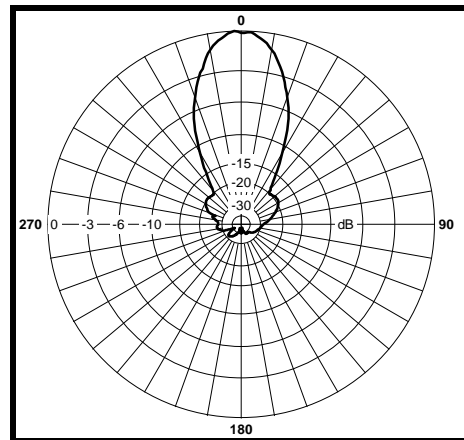
### Mechanical Specifications

**Length:** 96 in. (2438 mm)  
**Width:** 30 in. (762 mm)  
**Depth:** 13 in. (330 mm)  
**Weight (incl. Clamps):** 72 lb. (33 kg)  
**Rated Wind Velocity:** 125 mph (201 km/h)  
**Hor. Thrust at rated wind:** 1121 lb. (508 kg)  
**Mechanical Tilt:** 0 degrees fixed  
**Mounting (O.D.):** 1.75 - 4.5 in. (44.5 - 114 mm)

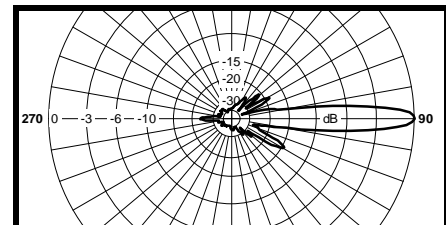
### Materials

**Radiating Elements:** Irridited aluminum  
**Reflector:** Irridited aluminum  
**Radome:** Gray UV stabilized ASA  
**Clamps:** HDG and EDZ steel

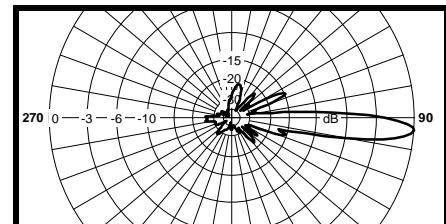
H-Plane



E-Plane



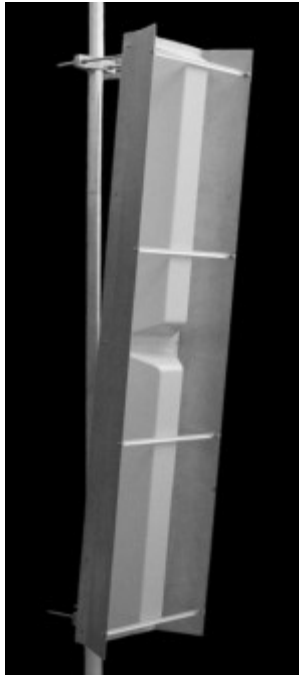
T0



T4

## TA-811-45 Sector

806-896, 824-896, 890-960 MHz



The TA-811-45 is a fixed pattern version of the TA-811 adjustable sector. It is enclosed in an aluminum base and has an ASA UV stabilized radome for superior performance and weatherability. Extremely low side lobes and up to 6 degrees of mechanical downtilt make this a remarkably versatile antenna.

### Electrical Specifications

**Frequency Range:** 806-896, 824-896, 890-960 MHz  
**Gain:** 17 dBd @ 45°  
**VSWR:** 1.5:1 max. 1.35:1 typical  
**Front to Back Ratio:** 25 dB min. 30 dB typical  
**Polarization:** Vertical  
**Power Rating:** 500 Watts  
**H-Plane Beamwidth:** 45 degrees  
**E-Plane Beamwidth:** 8.5 degrees  
**Electrical Downtilt:** 0°, 2°, 4°, 5°, 6°, 10°, 13°, 15°  
**Cross Pol. Discrimination:** 20 dB min.  
**Impedance:** 50 ohms nominal  
**Termination:** N female (7/16 optional)

Typical mid band values. (For details, contact factory)  
 Specifications subject to change without notice

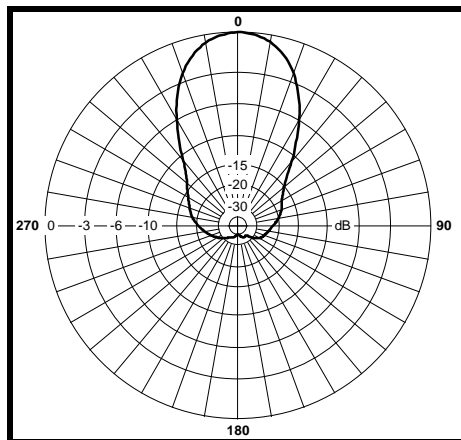
### Mechanical Specifications

**Length:** 96 in. (2438 mm)  
**Width:** 19 in. (483 mm)  
**Depth:** 8.2 in. (208 mm)  
**Weight (incl. Clamps):** 62 lb. (28 kg)  
**Rated Wind Velocity:** 120 mph (193 km/h)  
**Hor. Thrust at rated wind:** 792 lb. (359 kg)  
**Mechanical Tilt:** 0 - 6 degrees  
**Mounting (O.D.):** 1.75 - 4.5 in. (44.5 - 114 mm)

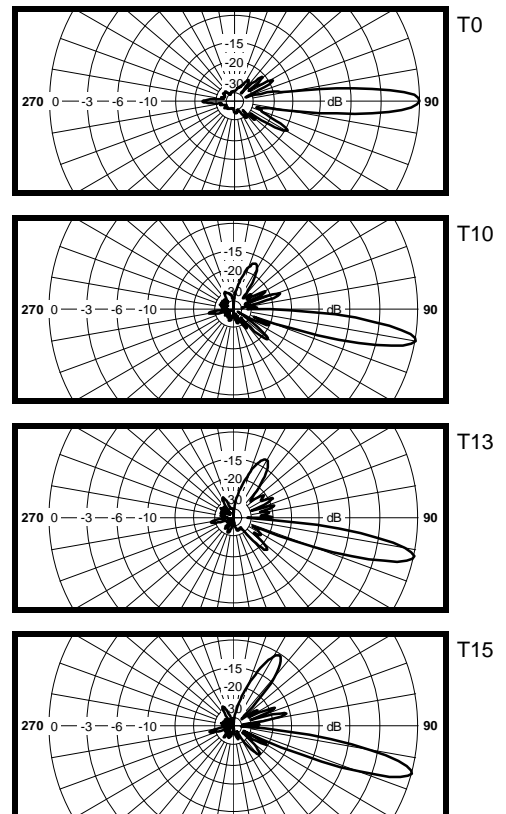
### Materials

**Radiating Elements:** Irridited aluminum  
**Reflector:** Irridited aluminum  
**Radome:** Gray UV stabilized ASA  
**Clamps:** HDG steel

H-Plane

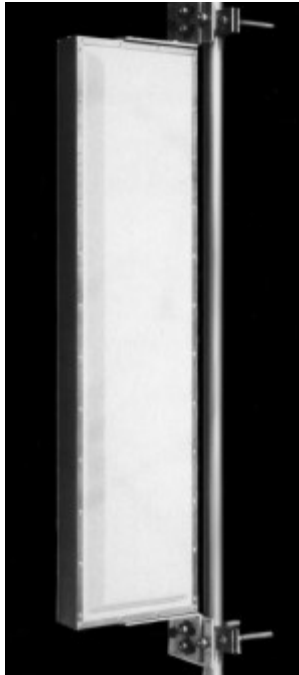


E-Plane



## TA-814 Bidirectional

806-866, 824-896, 890-960 MHz



The TA-814 bidirectional antenna is used to provide coverage along service corridors where omnidirectional coverage is either not required or not desired. The antenna mounts to the side of a tower or pipe, therefore eliminating the need for tower top space. Low side lobes and up to 6 degrees of electrical downtilt makes this antenna useful for many applications.

### Electrical Specifications

**Frequency Range:** 806-866, 824-896, 890-960 MHz  
**Gain:** 9.5 dBd bidirectional  
**VSWR:** 1.5:1 max. 1.35:1 typical  
**Polarization:** Vertical  
**Power Rating:** 500 Watts  
**H-Plane Beamwidth:** 60 degrees each side  
**E-Plane Beamwidth:** 18 degrees  
**Electrical\_Downtilt:** 0, 4, 6 degrees  
**Cross Pol. Discrimination:** 20 dB min.  
**Impedance:** 50 ohms nominal  
**Termination:** N female

Typical mid band values. (For details , contact factory)  
 Specifications subject to change without notice

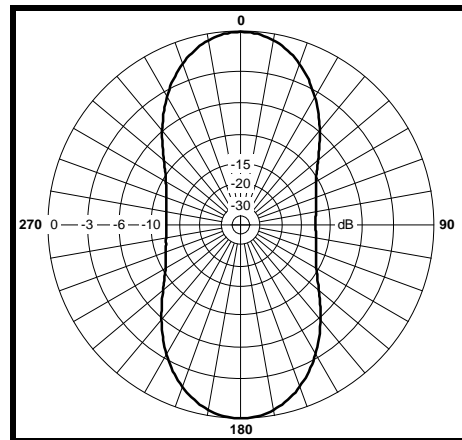
### Mechanical Specifications

**Length:** 48 in. (1220 mm)  
**Width:** 6 in. (152 mm)  
**Depth:** 13 in. (330 mm)  
**Weight (incl. Clamps):** 40 lb. (18.2 kg)  
**Rated Wind Velocity:** 125 mph (200 km/h)  
**Hor. Thrust at rated wind:** 270 lb. (123 kg)  
**Mechanical Tilt:** 0 - 6 degrees  
**Mounting (O.D.):** 1.75 - 4.0 in. (44.5 - 102 mm)

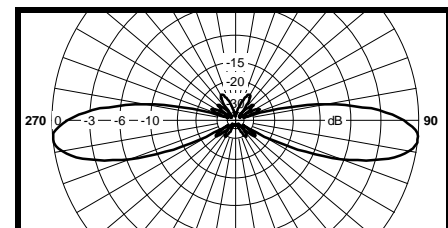
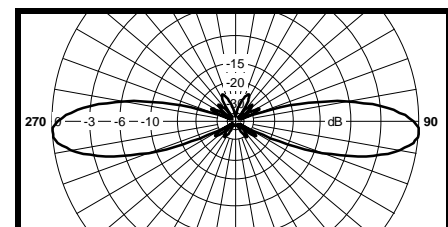
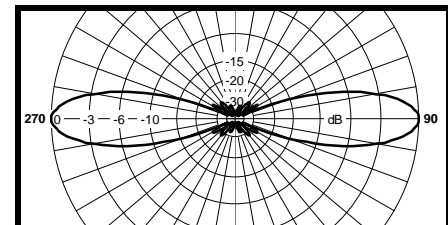
### Materials

**Radiating Elements:** Irridited aluminum  
**Reflector:** Irridited aluminum  
**Radome:** Gray UV stabilized ASA  
**Clamps:** HDG steel

H-Plane



E-Plane



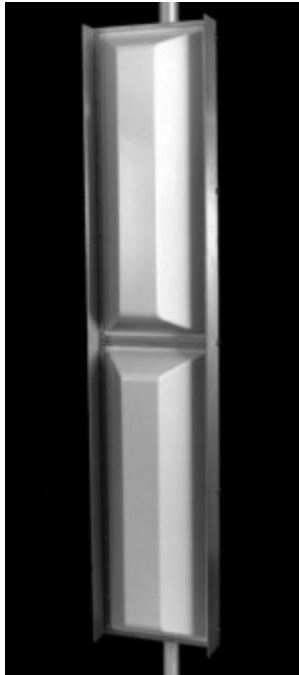
T0

T4

T6

# TA-817 Adjustable Sector

806-866, 824-896, 890-960 MHz



The TA-817 adjustable sector is a broadband dipole array enclosed in an aluminum base and has an ASA UV stabilized radome for superior performance and weatherability. Low side lobes, an adjustable azimuth pattern and up to 8 degrees of mechanical downtilt make this a remarkably versatile antenna.

### Electrical Specifications

**Frequency Range:** 806-866, 824-896, 890-960 MHz  
**Gain:** 14.5 dBd @ 60°, 13 dBd @ 90°  
 12.75 dBd @ 105°, 12.5 dBd @ 120°  
**VSWR:** 1.5:1 max. 1.35:1 typical  
**Front to Back Ratio:** 25 dB min. 30 dB typical  
**Polarization:** Vertical  
**Power Rating:** 500 Watts  
**H-Plane Beamwidth:** 60, 90, 105, 120 degrees  
**E-Plane Beamwidth:** 10 degrees  
**Electrical Downtilt:** 0, 5 degrees  
**Cross Pol. Discrimination:** 25 dB min.  
**Impedance:** 50 ohms nominal  
**Termination:** N female (7/16 optional)

Typical mid band values. (For details, contact factory)  
 Specifications subject to change without notice

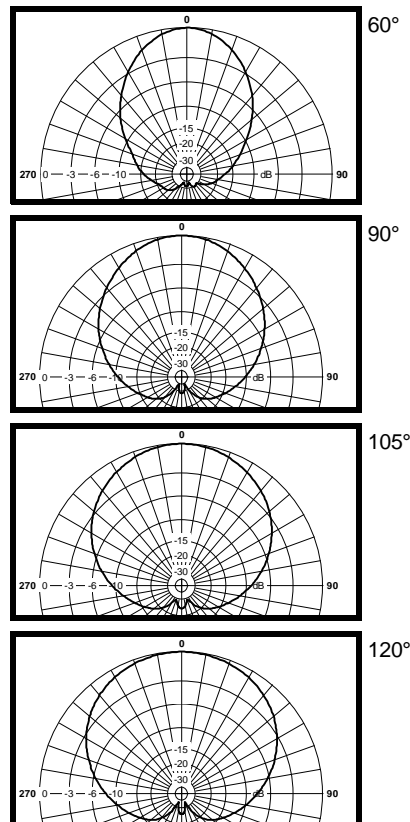
### Mechanical Specifications

**Length:** 76 in. (1930 mm)  
**Width:** 13 in. (330 mm)  
**Depth:** 8 in. (203 mm)  
**Weight (incl. Clamps):** 45 lb. (20.5 kg)  
**Rated Wind Velocity:** 125 mph (200 km/h)  
**Hor. Thrust at rated wind:** 429 lb. (195 kg)  
**Mechanical Tilt:** 0 - 8 degrees  
**Mounting (O.D.):** 1.75 - 4.5 in. (44.5 - 114 mm)

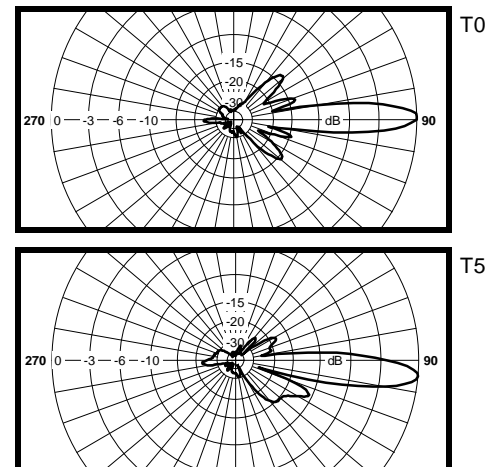
### Materials

**Radiating Elements:** Irridited aluminum  
**Reflector:** Irridited aluminum  
**Radome:** Gray UV stabilized ASA  
**Clamps:** HDG steel

H-Plane



E-Plane



# TA-824-4-45 Dual Polarized Sector

## 806-866, 824-896, 872-960 MHz



The TA-824-4-45 is a dual slant polarized 45 degree sectoral antenna. The antenna is intended for use where multiple antennas may not be practical. It consists of a broadband dipole array on an aluminum base with a UV stabilized ASA radome for superior weatherability. The antenna is at DC ground to aid in lightning protection.

### Electrical Specifications

**Frequency Range:** 806-866, 824-896, 872-960 MHz  
**Gain:** 2 x 14 dBd co-polarized  
**VSWR:** 1.5:1 max.  
**Front to Back Ratio:** 30 dB min.  
**Polarization:** Dual slant +45 and -45  
**Power Rating:** 500 Watts  
**H-Plane Beamwidth:** 45 degrees  
**E-Plane Beamwidth:** 19 degrees  
**Electrical Downtilt:** 0°, 4°, 6°, 8°, 9°, 12°, 15°, 18°  
**Port to Port Isolation:** 30 dB  
**Impedance:** 50 ohms nominal  
**Termination:** 2 x N female (7/16 optional)

Typical mid band values. (For details , contact factory)  
 Specifications subject to change without notice

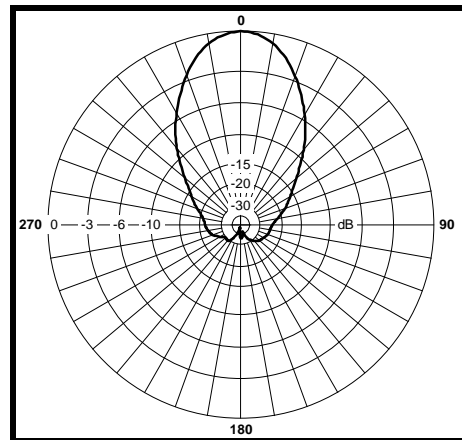
### Mechanical Specifications

**Length:** 48 in. (1220 mm)  
**Width:** 19.25 in. (489 mm)  
**Depth:** 8 in. (203 mm)  
**Weight (incl. Clamps):** 36 lb. (16.4 kg)  
**Rated Wind Velocity:** 125 mph (200 km/h)  
**Hor. Thrust at rated wind:** 401 lb. (182 kg)  
**Mechanical Tilt:** 0 - 15 degrees  
**Mounting (O.D.):** 1.75 - 4.0 in. (44.5 - 102 mm)

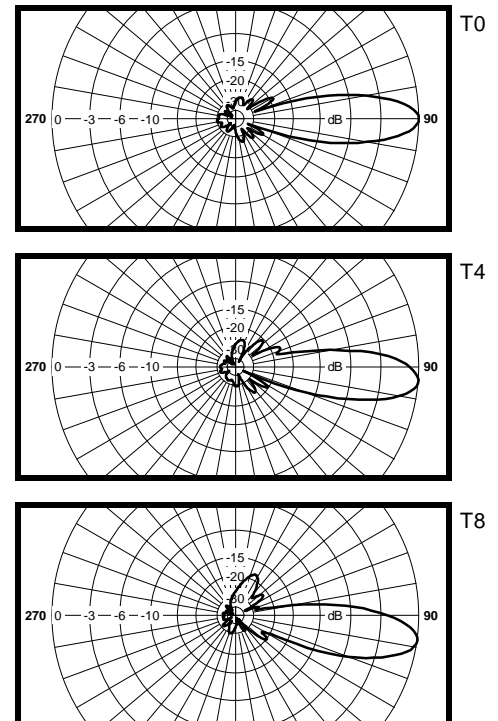
### Materials

**Radiating Elements:** Irridited aluminum  
**Reflector:** Irridited aluminum  
**Radome:** Gray UV stabilized ASA  
**Clamps:** HDG steel

Azimuth



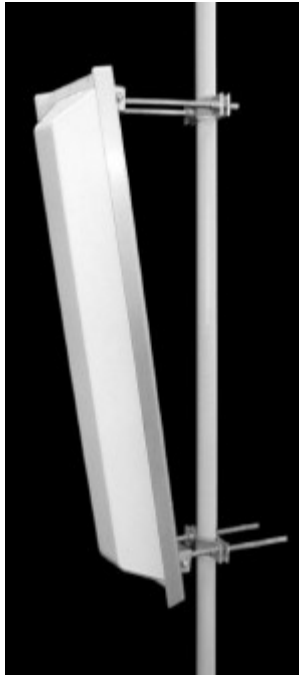
Elevation





# TA-824-4-65 Dual Polarized Sector

## 824-896, 872-960 MHz



The TA-824-4-65 is a dual slant polarized 65 degree sectoral antenna. The antenna is intended for use where multiple antennas may not be practical. It consists of a broadband dipole array on an aluminum base with a UV stabilized ASA radome for superior weatherability. The antenna is at DC ground to aid in lightning protection.

### Electrical Specifications

- Frequency Range:** 824-896, 872-960 MHz
- Gain:** 2 x 12.5 dBd co-polarized
- VSWR:** 1.5:1 max.
- Front to Back Ratio:** 30 dB min.
- Polarization:** Dual slant +45 and -45
- Power Rating:** 500 Watts
- H-Plane Beamwidth:** 65 degrees
- E-Plane Beamwidth:** 19 degrees
- Electrical Downtilt:** 0°, 4°, 6°, 8°, 9°, 12°, 15°, 18°
- Port to Port Isolation:** 30 dB
- Impedance:** 50 ohms nominal
- Termination:** 2 x N female (7/16 optional)

Typical mid band values. (For details , contact factory)  
Specifications subject to change without notice

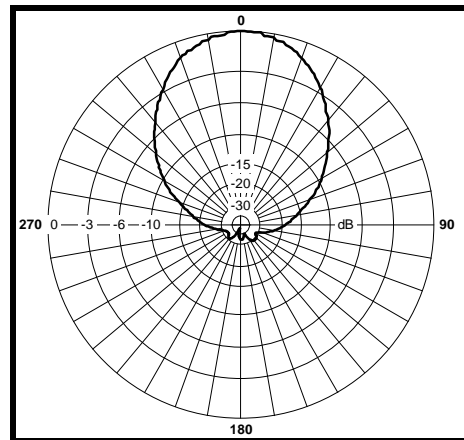
### Mechanical Specifications

- Length:** 48 in. (1220 mm)
- Width:** 13 in. (330 mm)
- Depth:** 8 in. (203 mm)
- Weight (incl. Clamps):** 27 lb. (12.3 kg)
- Rated Wind Velocity:** 125 mph (200 km/h)
- Hor. Thrust at rated wind:** 270 lb. (123 kg)
- Mechanical Tilt:** 0 - 15 degrees
- Mounting (O.D.):** 1.75 - 4.0 in. (44.5 - 102 mm)

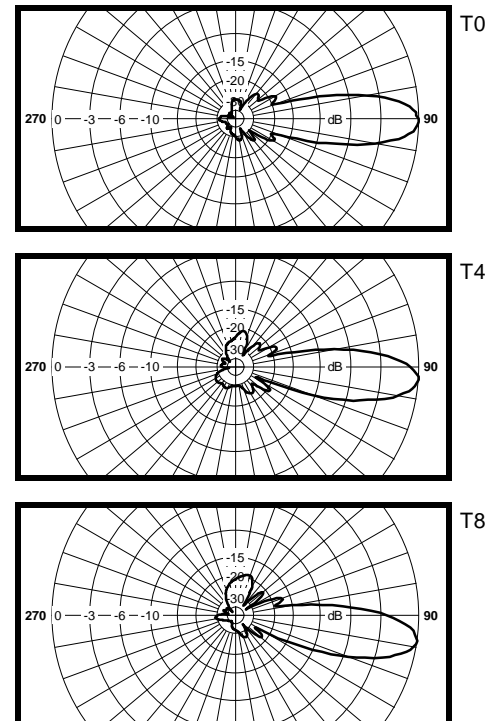
### Materials

- Radiating Elements:** Irridited aluminum
- Reflector:** Irridited aluminum
- Radome:** Gray UV stabilized ASA
- Clamps:** HDG steel

Azimuth



Elevation



# TA-824-4-90 Dual Polarized Sector

## 824-896 MHz



The TA-824-4-90 is a dual slant polarized 90 degree sectoral antenna. The antenna is intended for use where multiple antennas may not be practical. It consists of a broadband dipole array on an aluminum base with a UV stabilized ASA radome for superior weatherability. The antenna is at DC ground to aid in lightning protection.

### Electrical Specifications

- Frequency Range:** 824-896 MHz
- Gain:** 2 x 10.5 +/- 0.5 dBd co-polarized
- VSWR:** 1.5:1 max.
- Front to Back Ratio:** 25 dB min.
- Polarization:** Dual slant +45 and -45
- Power Rating:** 500 Watts
- H-Plane Beamwidth:** 90 degrees
- E-Plane Beamwidth:** 18 degrees
- Electrical Downtilt:** 0°, 4°, 6°
- Port to Port Isolation:** 25 dB
- Impedance:** 50 ohms nominal
- Termination:** 2 x N female (7/16 optional)

Typical mid band values. (For details , contact factory)  
Specifications subject to change without notice

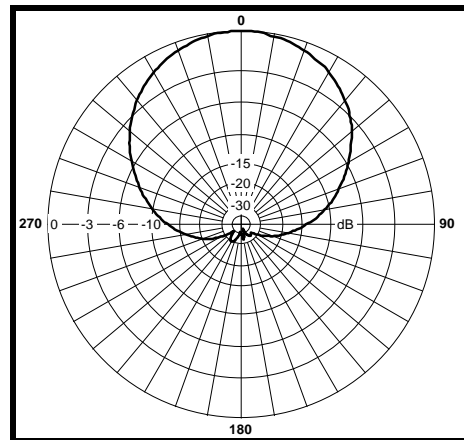
### Mechanical Specifications

- Length:** 48 in. (1220 mm)
- Width:** 13.5 in. (343 mm)
- Depth:** 8 in. (203 mm)
- Weight (incl. Clamps):** 29 lb. (13.2 kg)
- Rated Wind Velocity:** 125 mph (200 km/h)
- Hor. Thrust at rated wind:** 274 lb. (124.2 kg)
- Mechanical Tilt:** 0 - 15 degrees
- Mounting (O.D.):** 1.75 - 4.0 in. (44.5 - 102 mm)

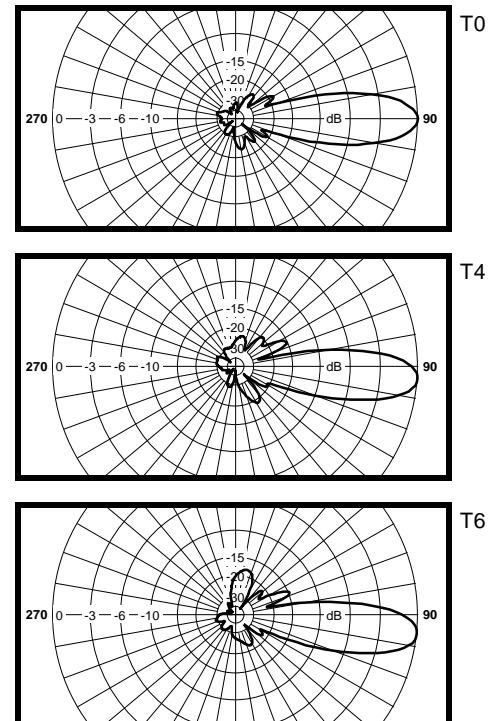
### Materials

- Radiating Elements:** Irridited aluminum
- Reflector:** Irridited aluminum
- Radome:** Gray UV stabilized ASA
- Clamps:** HDG steel

Azimuth

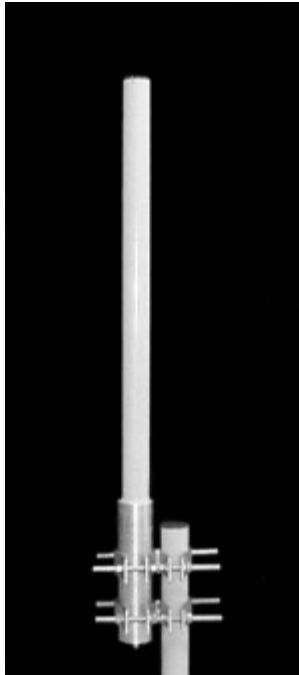


Elevation



# TA-853 Dual Band Omnidirectional

## 824 - 896 / 1850 - 1990 MHz



The TA-853 is a vertically polarized 2.5 dBd / 7.5 dBi dual band omnidirectional antenna. The antenna consists of two dipole arrays and a cross band coupler enclosed in a UV stabilized fiberglass radome. The antenna is designed for severe weather conditions and is at DC ground to aid in lightning protection.

### Electrical Specifications

**Frequency Range:** 824 - 896 / 1850 - 1990 MHz  
**Gain:** 2.5 dBd (824-896 MHz)  
 7.5 dBi (1850-1990 MHz)  
**VSWR:** 1.5:1 max.  
**Polarization:** Vertical  
**Power Rating:** 65 Watts  
**H-Plane Beamwidth:** 360 degrees  
**E-Plane Beamwidth:** 35 degrees (824-896 MHz)  
 16 degrees (1850-1990 MHz)  
**Cross Pol. Discrimination:** 15 dB min.  
**Impedance:** 50 ohms nominal  
**Termination:** N female

Typical mid band values. (For details , contact factory)  
 Specifications subject to change without notice

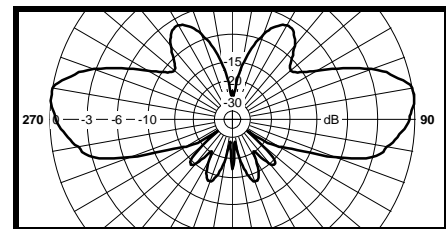
### Mechanical Specifications

**Length:**  
**Radiating Section:** 42 in. (1067 mm)  
**Base Section:** 12 in. (305 mm)  
**Total:** 54 in. (1372 mm)  
**Diameter:** 2.25 in. (57 mm)  
**Weight (Incl. Clamps):** 17 lb. (7.7 kg)  
**Rated Wind Velocity:** 125 mph (200 km/h)  
**Hor. Thrust at rated wind:** 35 lb. (16 kg)  
**Mounting (O.D.):** 1.75 - 4.0 in. (44.5 - 102 mm)

### Materials

**Radiating Elements:** Copper  
**Radome:** Gray UV stabilized fiberglass  
**Clamps:** EDZ steel

E-Plane 824-896 MHz



1850-1990 MHz

