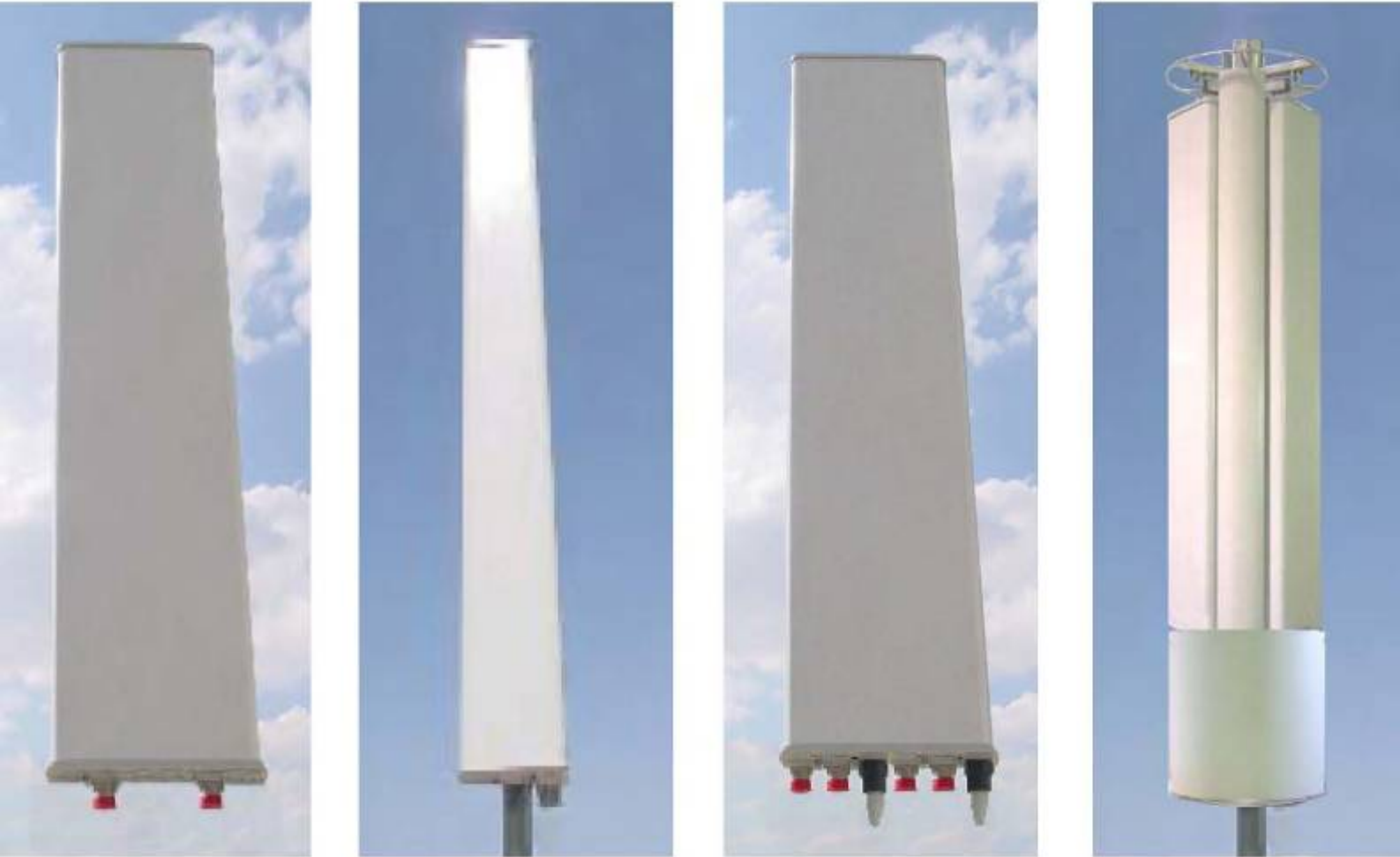




Antennas Engineered for Performance and Durability



PRODUCT CATALOG

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September 2006

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Cellular: *VPol*

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Electrical Tilt	Length (in)
824-896	AT 41-633Tx	VPOL	65°	18.0°	10.4/12.5	Fixed 0°-14°	35
824-896	AT 41-643Tx	VPOL	65°	14.5°	12.7/14.8	Fixed 0°-14°	53
824-896	AT 41-663Tx	VPOL	65°	9.5°	9.4/11.5	Fixed 0°-14°	78
824-896	AT 41-683Tx	VPOL	65°	7.0°	14.9/17.0	Fixed 0°-14°	100
824-896	AT 41-635Tx	VPOL	85°	18.0°	9.4/11.5	Fixed 0°-14°	35
824-896	AT 41-645Tx	VPOL	85°	14.5°	11.4/13.5	Fixed 0°-14°	53
824-896	AT 41-665Tx	VPOL	85°	9.5°	12.9/15	Fixed 0°-14°	78
824-896	AT 41-685Tx	VPOL	85°	7.0°	14.9/17.0	Fixed 0°-14°	100

Cellular: *XPol*

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Electrical Tilt	Length (in)
824-896	AT 41-634Tx	XPOL +/- 45°	65°	18.0°	10.4/12.5	Fixed 0°-14°	35
824-896	AT 41-644Tx	XPOL +/- 45°	65°	14.5°	12.7/14.8	Fixed 0°-14°	53
824-896	AT 41-644TV	XPOL +/- 45°	65°	14.5°	12.7/14.8	VET 0°-10°	53
824-896	AT 41-664Tx	XPOL +/- 45°	65°	9.5°	14.2/16.3	Fixed 0°-14°	78
824-896	AT 41-664TV	XPOL +/- 45°	65°	9.5°	14.2/16.3	VET 0°-8°	78
824-896	AT 41-684Tx	XPOL +/- 45°	65°	7.5°	14.9/17.0	Fixed 0°-14°	100
824-896	AT 41-684TV	XPOL +/- 45°	65°	7.5°	14.9/17.0	VET 0°-8°	100
824-896	AT 41-636Tx	XPOL +/- 45°	85°	18.0°	9.4/11.5	Fixed 0°-14°	35
824-896	AT 41-646Tx	XPOL +/- 45°	85°	14.5°	11.4/13.5	Fixed 0°-14°	53
824-896	AT 41-646TV	XPOL +/- 45°	85°	14.5°	11.4/13.5	VET 0°-10°	53
824-896	AT 41-666Tx	XPOL +/- 45°	85°	9.5°	12.9/15	Fixed 0°-14°	78
824-896	AT 41-666TV	XPOL +/- 45°	85°	9.5°	12.9/15	VET 0°-8°	78
824-896	AT 41-686Tx	XPOL +/- 45°	85°	7.5°	14.1/16.2	Fixed 0°-14°	100
824-896	AT 41-686TV	XPOL +/- 45°	85°	7.5°	14.1/16.2	VET 0°-8°	100

Cellular: *QuadPol*

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Electrical Tilt	Length (in)
824-896	AT D41-644TxTx	XPOL +/- 45°	2 X 65°	2 X 14.5°	12.4/14.5	Fixed 0°-6°	102
824-896	AT D41-646TxTx	XPOL +/- 45°	2 X 85°	2 X 14.5°	11.4/13.5	Fixed 0°-6°	102

Antenna Index

Cellular: *Trisector/Stealth*

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Electrical Tilt	Length (in)
824-896	TS 41-644TV	XPOL +/- 45°	3 X 65°	13.0°	12.9/15.0	VET 0°- 6°	70

Cellular: *Indoor*

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Dimensions (in)
824-896	AT 41-391	Vertical	Omni	75.0°	0.0/2.1	7.87 x 7.87 x 1.96
824-896	AT 41-394	Vertical	65°	75.0°	3.9/6.0	7.87 x 7.87 x 1.96
824-2170	TG V0-100	Vertical	Omni	75.0°	0.0/2.1	7.87 x 2.12

Cellular: *Repeater*

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Dimensions (in)
824-960	AT 42-596	Vertical	34°	34.0°	12.9/15.0	54.4 x 11.8 x 7.87

PCS: *VPol*

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Electrical Tilt	Length (in)
1710-2170	MG V1-800Tx	VPOL	30°	6.3°	18.9/21.0	Fixed 0°-14°	53
1710-2170	MG V3-400Tx	VPOL	65°	14.5°	12.4/14.5	Fixed 0°-14°	21
1710-2170	MG V3-800Tx	VPOL	65°	6.3°	16.15/18.25	Fixed 0°-14°	53
1710-2170	MG V3-900Tx	VPOL	65°	4.5	17.1/19.3	Fixed 0°-14°	73
1710-2170	MG V5-400Tx	VPOL	85°	14.5°	11.9/14	Fixed 0°-14°	21
1710-2170	MG V5-800Tx	VPOL	85°	6.0°	14.9/17.0	Fixed 0°-14°	53
1710-2170	MG V5-900Tx	VPOL	85°	4.5°	16.2/18.3	Fixed 0°-14°	73

PCS: *XPoI*

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Electrical Tilt	Length (in)
1710-2170	MG D1-800Tx	XPOL +/- 45°	30°	6.3°	18.9/21.0	Fixed 0°-14°	53
1710-2170	MG D3-400Tx	XPOL +/- 45°	65°	14.5°	12.9/15.0	Fixed 0°-14°	21
1710-2170	MG D3-400TV	XPOL +/- 45°	65°	14.5°	12.9/15.0	VET 0°-10°	26
1710-2170	MG D3-800Tx	XPOL +/- 45°	65°	6.3°	16.15/18.25	Fixed 0°-14°	53
1710-2170	MG D3-800TV	XPOL +/- 45°	65°	6.0°	15.9/18.0	VET 0°-10°	53
1710-2170	MG D3-900Tx	XPOL +/- 45°	65°	4.5 °	17.4/19.5	Fixed 0°-14°	73
1710-2170	MG D5-400Tx	XPOL +/- 45°	85°	14.5°	11.9/14.0	Fixed 0°-14°	21
1710-2170	MG D5-400TV	XPOL +/- 45°	85°	14.5°	11.9/14.0	VET 0°-10°	26
1710-2170	MG D5-800Tx	XPOL +/- 45°	85°	6.5°	14.9/17.0	Fixed 0°-14°	53
1710-2170	MG D5-800TV	XPOL +/- 45°	85°	6.5°	14.9/17.0	VET 0°-10°	53
1710-2170	MG D5-900Tx	XPOL +/- 45°	85°	4.5°	16.3/18.4	Fixed 0°-14°	73

Antenna Index

PCS: QuadPol

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Electrical Tilt	Length (in)
1710-2170	BG D3-800TxTx	XPOL +/- 45°	2 X 65°	2 X 6.3°	16.15/18.25	Fixed 0°-14°	53
1710-2170	BG D3-800TV	XPOL +/- 45°	2 X 65°	2 X 6.3°	15.9/18.0	VET 0°-10°	53

PCS: Trisector/Stealth

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Electrical Tilt	Length (in)
1710-2170	TS D3-800TV	XPOL +/- 45°	3 X 65°	6.5°	15.9/18.0	VET 0°-10°	67
1710-2170	TS BG-800TV	XPOL +/- 45°	3 x 2 x 65°	6.5°	15.9/18.0	VET 0°-10°	67

PCS: Indoor

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Dimensions (in)
824-2170	TG V0-100	Vertical	Omni	75°	0.0/2.1	7.87 x 2.12
1850-2170	AT 5A-169	Vertical	65°	80°	5.0/8.0	7.9 x 3.5 x 0.8

PCS: Repeater

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Dimensions (in)
1850-2170	AT 5A-169	Vertical	65°	80°	5.9/8.0	7.9 x 3.5 x 0.8
1710-2170	MG V1-300	Vertical	40°	30°	12.0/14.1	16.5 x 13.4 x 4.3

Dual Band

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Electrical Tilt	Length (in)
824-896 1850-2170	TGA D3-400TxTx	XPOL +/- 45°	65° 65°	14.5° 6.5°	12.4/14.5 15.4/17.5	Fixed 0°-14°	53
824-896 1850-2170	TGA D3-400TV	XPOL +/- 45°	65° 65°	14.5° 6.5°	12.4/14.5 15.4/17.5	VET 0°-8° 0°-10°	53
824-896 1850-2170	TGA D3-600TxTx	XPOL +/- 45°	65° 65°	10.0° 6.5°	13.4/15.5 15.4/17.5	Fixed 0°-14°	78
824-896 1850-2170	TGA D3-600TV	XPOL +/- 45°	65° 65°	10.0° 6.5°	13.4/15.5 15.4/17.5	VET 0°-8° 2°-10°	79
824-896 1850-2170	TGA D3-800TxTx	XPOL +/- 45°	65° 65°	7.0° 6.5°	14.6/16.7 15.4/17.5	Fixed 0°-14°	102
824-896 1850-2170	TGA D3-800TV	XPOL +/- 45°	65° 65°	7.0° 6.5°	14.6/16.7 15.4/17.5	VET 0°-8° 0°-10°	102

Antenna Index

Dual Band: *Trisector/Stealth*

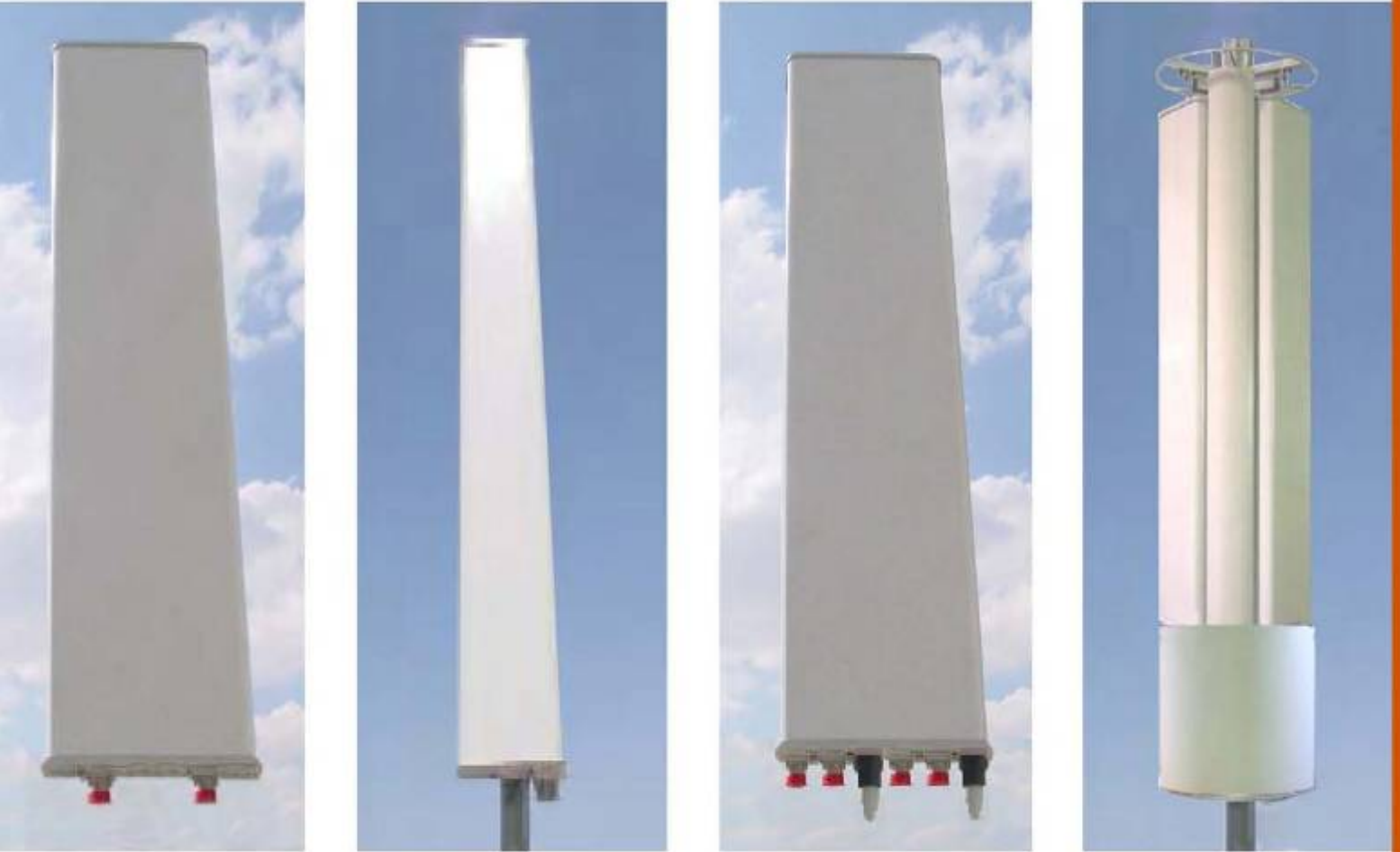
Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Electrical Tilt	Length (in)
824-896 1850-2170	TS TGA-400TV	XPOL +/- 45°	3 x 2 x 65°	14.5° 6.5°	12.4/14.5 15.4/17.5	VET 0°-10°	75
824-896 1850-2170	TS TGA-600TV	XPOL +/- 45°	3 x 2 x 65°	10.0° 6.5°	13.4/15.5 15.4/17.5	VET 0°-10°	98

RET System

Name	Model #	Interface	Power Supply	Temp. Range	Max. Cable Length	Max. Antennas per Cable
Antenna Control Unit	RACU-001	RS485/AISG 1.1 Protocol	+10 to +30 V	-40° to 140 °	100 meters	No limit



Antennas Engineered for Performance and Durability



CELLULAR

Cellular: *VPol*

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Electrical Tilt	Length (in)
824-896	AT 41-633Tx	VPOL	65°	18.0°	10.4/12.5	Fixed 0°-14°	35
824-896	AT 41-643Tx	VPOL	65°	14.5°	12.7/14.8	Fixed 0°-14°	53
824-896	AT 41-663Tx	VPOL	65°	9.5°	9.4/11.5	Fixed 0°-14°	78
824-896	AT 41-683Tx	VPOL	65°	7.0°	14.9/17.0	Fixed 0°-14°	100
824-896	AT 41-635Tx	VPOL	85°	18.0°	9.4/11.5	Fixed 0°-14°	35
824-896	AT 41-645Tx	VPOL	85°	14.5°	11.4/13.5	Fixed 0°-14°	53
824-896	AT 41-665Tx	VPOL	85°	9.5°	12.9/15	Fixed 0°-14°	78
824-896	AT 41-685Tx	VPOL	85°	7.0°	14.9/17.0	Fixed 0°-14°	100

824-896 MHz

Model # AT 41-633Tx

Vertical Polarized Panel Antenna

Beamwidth: H 65° V 18°

Gain: 10.4 dBd/12.5 dBi

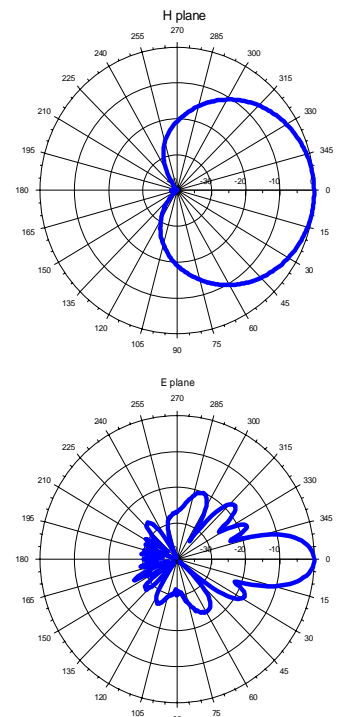
Length: 35.4 in

Electrical Specifications	
Antenna model	AT 41-633Tx
Frequency range (MHz)	824-896
Impedance	50 Ohms
VSWR	1.40:1
Polarization	Vertical
Average gain (dBd/dBi)	10.4/12.5
Horizontal beamwidth (deg)	65°±5°
Vertical beamwidth (deg)	18°±0.5°
Electrical tilt (deg)	Fixed 0°-14°
Upper sidelobe suppression 0°-20° (dB)	15
Front to back ratio (dB) @180°±30°	25
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per input (w)	500
Intermodulation products (dBc)	-150
Connectors	1 x 7/16 female
Connector position	Antenna bottom



Mechanical & Environmental Specifications	
Dimensions in (mm)	35.4 x 12.2 x 4.3 (900 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	90 (410)
Lateral windload lbs (N) @100 mph/160 km/h	33 (150)
Antenna weight lbs (kg)	20 (9)
Clamps weight lbs (kg)	6.5 (3)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55° to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	43.3 x 17.7 x 9.8 (1100 x 450 x 250)
Weight lbs (kg)	28 (13)
Material	Cardboard and Foam



824-896 MHz

Model # AT 41-643Tx

Vertical Polarized Panel Antenna

Beamwidth: H 65° V 14.5°

Gain: 12.7 dBd/14.8 dBi

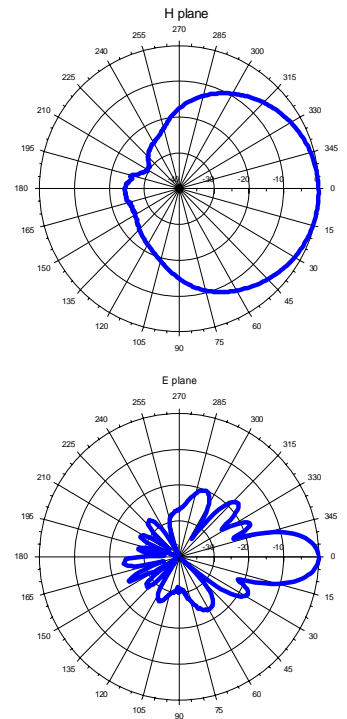
Length: 52.7 in

Electrical Specifications	
Antenna model	AT 41-643Tx
Frequency range (MHz)	824-896
Impedance	50 Ohms
VSWR	1.40:1
Polarization	Vertical
Average gain (dBd/dBi)	12.7/14.8
Horizontal beamwidth (deg)	65°±5°
Vertical beamwidth (deg)	14.5°±0.5°
Electrical tilt (deg)	Fixed 0°-14°
Upper sidelobe suppression 0°-20° (dB)	18
Front to back ratio (dB) @180°±30°	30
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per input (w)	500
Intermodulation products (dBc)	-150
Connectors	1 x 7/16 female
Connector position	Antenna bottom



Mechanical & Environmental Specifications	
Dimensions in (mm)	52.7 x 12.2 x 4.3 (1340 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	140 (637)
Lateral windload lbs (N) @100 mph/160 km/h	51 (234)
Antenna weight lbs (kg)	28.6 (13)
Clamps weight lbs (kg)	16 (7.3)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	66 x 16.5 x 9.8 (1680 x 420 x 250)
Weight lbs (kg)	57 (26)
Material	Cardboard and foam



824-896 MHz

Model # AT 41-663Tx

Vertical Polarized Panel Antenna

Beamwidth: H 65° V 9.5°

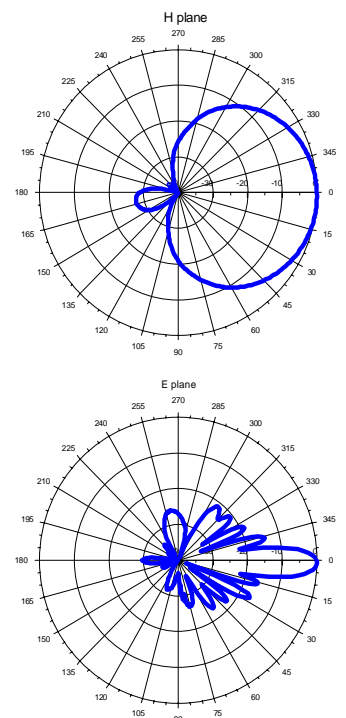
Gain: 14.2 dBd/16.3 dBi

Length: 78.2 in

Electrical Specifications	
Antenna model	AT 41-663Tx
Frequency range (MHz)	824-896
Impedance	50 Ohms
VSWR	1.40:1
Polarization	Vertical
Average gain (dBd/dBi)	14.2/16.3
Horizontal beamwidth (deg)	65°±5°
Vertical beamwidth (deg)	9.5°±0.5°
Electrical tilt (deg)	Fixed 0°-14°
Upper sidelobe suppression 0°-20° (dB)	18
Front to back ratio (dB) @180°±30°	30
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per Input (w)	500
Intermodulation products (dBc)	-150
Connectors	1 x 7/16 female
Connector position	Antenna bottom

Mechanical & Environmental Specifications	
Dimensions in (mm)	78.2 x 12.2 x 4.3 (1985 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	201 (910)
Lateral windload lbs (N) @100 mph/160 km/h	74 (334)
Antenna weight lbs (kg)	36.4 (16.5)
Clamps weight lbs (kg)	18.6 (8.4)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140° F (-55 to +60° C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	91.2 x 16.5 x 9.8 (2350 x 420 x 250)
Weight lbs (kg)	69.4 (31.5)
Material	Cardboard and foam



824-896 MHz

Model # AT 41-683Tx

Vertical Polarized Panel Antenna

Beamwidth: H 65° V 7°

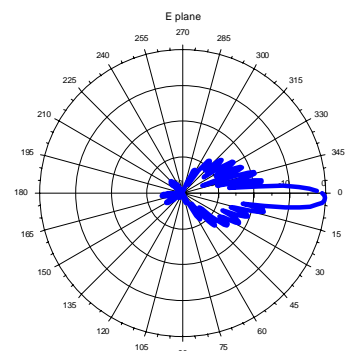
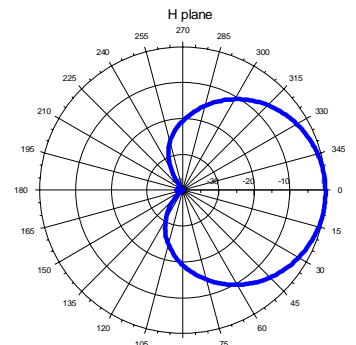
Gain: 14.9 dBd/17 dBi

Length: 99.6 in

Electrical Specifications	
Antenna model	AT 41-683Tx
Frequency range (MHz)	824-896
Impedance	50 Ohms
VSWR	1.40:1
Polarization	Vertical
Average gain (dBd/dBi)	14.9/17
Horizontal beamwidth (deg)	65°±5°
Vertical beamwidth (deg)	7°±0.5°
Electrical tilt (deg)	Fixed 0°-14°
Upper sidelobe suppression 0°-20° (dB)	18
Front to back ratio (dB) @180°±30°	30
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per Input (w)	500
Intermodulation products (dBc)	-150
Connectors	1 x 7/16 female
Connector position	Antenna bottom

Mechanical & Environmental Specifications	
Dimensions in (mm)	99.6 x 12.2 x 4.3 (2530 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	251 (1138)
Lateral windload lbs (N) @100 mph/160 km/h	92 (417)
Antenna weight lbs (kg)	45.2 (20.5)
Clamps weight lbs (kg)	18.6 (8.4)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	113 x 16.5 x 9.8 (2870 x 420 x 250)
Weight lbs (kg)	81.5 (37)
Material	Cardboard and foam



824-896 MHz

Model # AT 41-635Tx

Vertical Polarized Panel Antenna

Beamwidth: H 85° V 18°

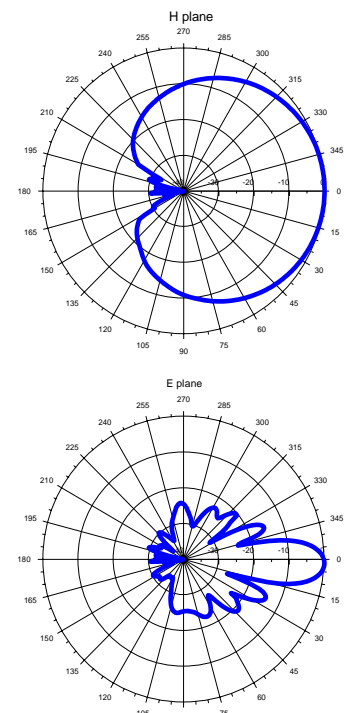
Gain: 9.4 dBd/11.5 dBi

Length: 35.4 in

Electrical Specifications	
Antenna model	AT 41-635Tx
Frequency range (MHz)	824-896
Impedance	50 Ohms
VSWR	1.40:1
Polarization	Vertical
Average gain (dBd/dBi)	9.4/11.5
Horizontal beamwidth (deg)	85°±5°
Vertical beamwidth (deg)	18°±0.5°
Electrical tilt (deg)	Fixed 0°-14°
Upper sidelobe suppression 0°-20° (dB)	15
Front to back ratio (dB) @180°±30°	25
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per input (w)	500
Intermodulation products (dBc)	-150
Connectors	1 x 7/16 female
Connector position	Antenna bottom

Mechanical & Environmental Specifications	
Dimensions in (mm)	35.4 x 12.2 x 4.3 (900 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	90 (410)
Lateral windload lbs (N) @100 mph/160 km/h	33 (150)
Antenna weight lbs (kg)	19 (9)
Clamps weight lbs (kg)	6.5 (3)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	43.3 x 13.8 x 9.8 (1100 x 350 x 250)
Weight lbs (kg)	28 (13)
Material	Cardboard and foam



824-896 MHz

Model # AT 41-645Tx

Vertical Polarized Panel Antenna

Beamwidth: H 85° V 14.5°

Gain: 11.4 dBd/13.5 dBi

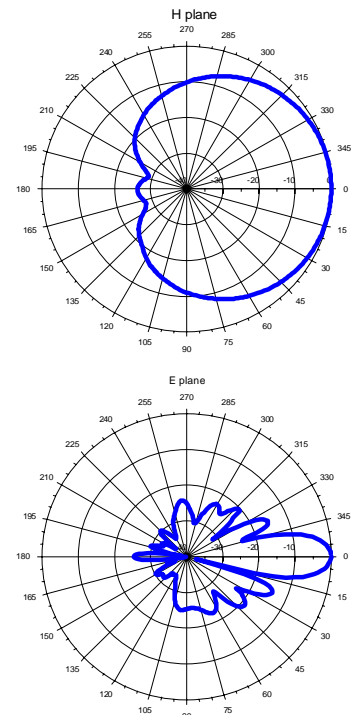
Length: 52.8 in

Electrical Specifications	
Antenna model	AT 41-645Tx
Frequency range (MHz)	824-896
Impedance	50 Ohms
VSWR	1.40:1
Polarization	Vertical
Average gain (dBd/dBi)	11.4/13.5
Horizontal beamwidth (deg)	85°±5°
Vertical beamwidth (deg)	14.5°±0.5°
Electrical tilt (deg)	Fixed 0°-14°
Upper sidelobe suppression 0°-20° (dB)	17
Front to back ratio (dB) @180°±30°	25
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per input (w)	500
Intermodulation products (dBc)	-150
Connectors	1 x 7/16 Female
Connector position	Antenna Bottom



Mechanical & Environmental Specifications	
Dimensions in (mm)	52.8 x 12.2 x 4.3 (1340 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	140 (637)
Lateral windload lbs (N) @100 mph/160 km/h	51 (234)
Antenna weight lbs (kg)	28.6 (13)
Clamps weight lbs (kg)	16.2 (7.3)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	66.1 x 16.5 x 9.8 (1680 x 420 x 250)
Weight lbs (kg)	57 (26)
Material	Cardboard and foam



824-896 MHz

Model # AT 41-665Tx

Vertical Polarized Panel Antenna

Beamwidth: H 85° V 9.5°

Gain: 12.9 dBd/15 dBi

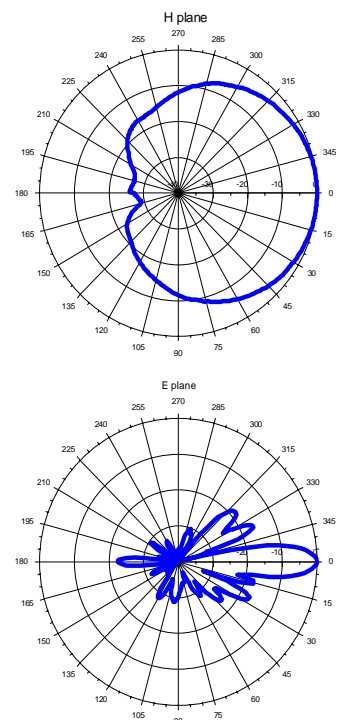
Length: 78.2 in

Electrical Specifications	
Antenna model	AT 41-665Tx
Frequency range (MHz)	824-896
Impedance	50 Ohms
VSWR	1.40:1
Polarization	Vertical
Average gain (dBd/dBi)	12.9/15
Horizontal beamwidth (deg)	85°±5°
Vertical beamwidth (deg)	9.5°±0.5°
Electrical tilt (deg)	Fixed 0°-14°
Upper sidelobe suppression 0°-20° (dB)	17
Front to back ratio (dB) @180°±30°	30
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per input (w)	500
Intermodulation products (dBc)	-150
Connectors	1 x 7/16 female
Connector position	Antenna bottom



Mechanical & Environmental Specifications	
Dimensions in (mm)	78.2 x 12.2 x 4.3 (1985 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	201 (910)
Lateral windload lbs (N) @100 mph/160 km/h	74 (334)
Antenna weight lbs (kg)	40.8 (16.5)
Clamps weight lbs (kg)	18.6 (8.4)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	91.9 x 16.5 x 9.8 (2335 x 420 x 250)
Weight lbs (kg)	72.7 (31.5)
Material	Cardboard and foam



824-896 MHz

Model # AT 41-685Tx

Vertical Polarized Panel Antenna

Beamwidth: H 85° V 7°

Gain: 14.1 dBd/16.2 dBi

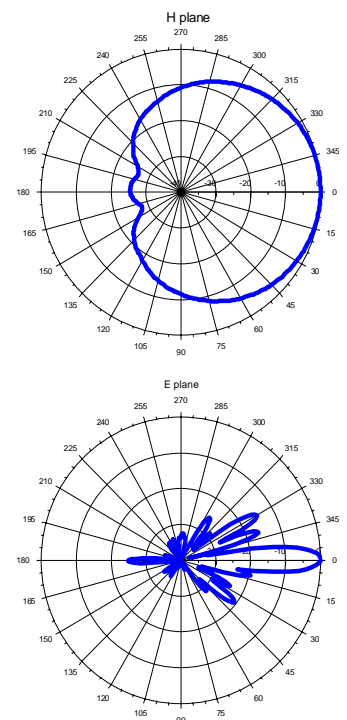
Length: 99.6 in

Electrical Specifications	
Antenna model	AT 41-685Tx
Frequency range (MHz)	824-896
Impedance	50 Ohms
VSWR	1.40:1
Polarization	Vertical
Average gain (dBd/dBi)	14.1/16.2
Horizontal beamwidth (deg)	85°±5°
Vertical beamwidth (deg)	7°±0.5°
Electrical tilt (deg)	Fixed 0°-14°
Upper sidelobe suppression 0°-20° (dB)	18
Front to back ratio (dB) @180°±30°	30
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per input (w)	500
Intermodulation products (dBc)	-150
Connectors	1 x 7/16 female
Connector position	Antenna bottom



Mechanical & Environmental Specifications	
Dimensions in (mm)	99.6 x 12.2 x 4.3 (2530 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front wind load lbs (N) @100 mph/160 km/h	259 (1174)
Lateral windload lbs (N) @100 mph/160 km/h	95 (430)
Antenna weight lbs (kg)	45.2 (20.5)
Clamps weight lbs (kg)	18.6 (8.4)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	113 x 16.5 x 7.9 (2870 x 420 x 200)
Weight lbs (kg)	81.5 (37)
Material	Cardboard and foam



Cellular: *XPoI*

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Electrical Tilt	Length (in)
824-896	AT 41-634Tx	XPOL +/- 45°	65°	18.0°	10.4/12.5	Fixed 0°-14°	35
824-896	AT 41-644Tx	XPOL +/- 45°	65°	14.5°	12.7/14.8	Fixed 0°-14°	53
824-896	AT 41-644TV	XPOL +/- 45°	65°	14.5°	12.7/14.8	VET 0°-10°	53
824-896	AT 41-664Tx	XPOL +/- 45°	65°	9.5°	14.2/16.3	Fixed 0°-14°	78
824-896	AT 41-664TV	XPOL +/- 45°	65°	9.5°	14.2/16.3	VET 0°-8°	78
824-896	AT 41-684Tx	XPOL +/- 45°	65°	7.5°	14.9/17.0	Fixed 0°-14°	100
824-896	AT 41-684TV	XPOL +/- 45°	65°	7.5°	14.9/17.0	VET 0°-8°	100
824-896	AT 41-636Tx	XPOL +/- 45°	85°	18.0°	9.4/11.5	Fixed 0°-14°	35
824-896	AT 41-646Tx	XPOL +/- 45°	85°	14.5°	11.4/13.5	Fixed 0°-14°	53
824-896	AT 41-646TV	XPOL +/- 45°	85°	14.5°	11.4/13.5	VET 0°-10°	53
824-896	AT 41-666Tx	XPOL +/- 45°	85°	9.5°	12.9/15	Fixed 0°-14°	78
824-896	AT 41-666TV	XPOL +/- 45°	85°	9.5°	12.9/15	VET 0°-8°	78
824-896	AT 41-686Tx	XPOL +/- 45°	85°	7.5°	14.1/16.2	Fixed 0°-14°	100
824-896	AT 41-686TV	XPOL +/- 45°	85°	7.5°	14.1/16.2	VET 0°-8°	100

824-896 MHz

Model # AT 41-634Tx

XPol Panel Antenna

Beamwidth: H 65° V 18°

Gain: 10.4 dBd/12.5 dBi

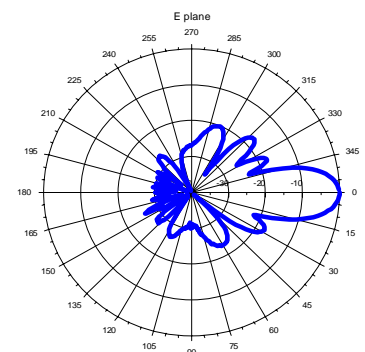
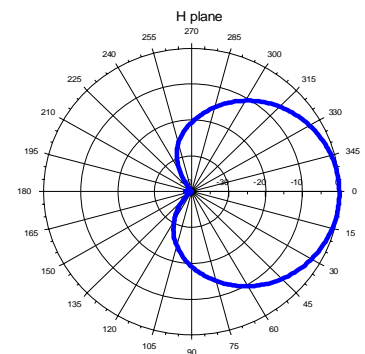
Length: 35.4 in

Electrical Specifications	
Antenna model	AT 41-634Tx
Frequency range (MHz)	824-896
Impedance	50 Ohms
VSWR	1.40:1
Polarization	±45°
Isolation between ports (dB)	30
Average gain (dBd/dBi)	10.4/12.5
Horizontal beamwidth (deg)	65°±5°
Vertical beamwidth (deg)	18°±0.5°
Electrical tilt (deg)	Fixed 0°-14°
Upper sidelobe suppression 0°-20° (dB)	15
Front to back ratio (dB) @180°±30°	30
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per input (w)	500
Intermodulation products (dBc)	-150
Connectors	2 x 7/16 female
Connector position	Antenna bottom



Mechanical & Environmental Specifications	
Dimensions in (mm)	35.4 x 12.2 x 4.3 (900 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	90 (410)
Lateral windload lbs (N) @100 mph/160 km/h	33 (150)
Antenna weight lbs (kg)	19 (9)
Clamps weight lbs (kg)	6.5 (3)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	43.3 x 17.7 x 9.8 (1100 x 450 x 250)
Weight lbs (kg)	28 (13)
Material	Cardboard and foam



824-896 MHz

Model # AT 41-644Tx

XPol Panel Antenna

Beamwidth: H 65° V 14.5°

Gain: 12.7 dBd/14.8 dBi

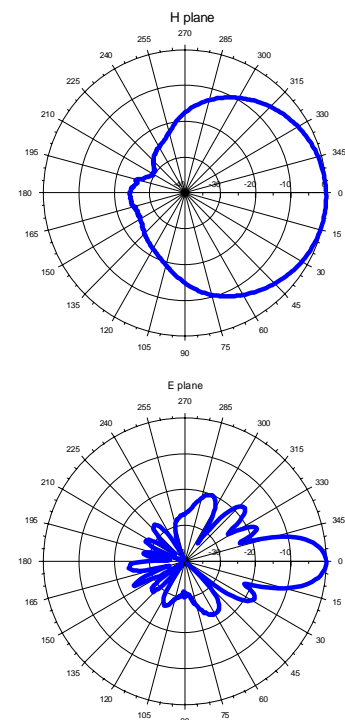
Length: 52.8 in

Electrical Specifications	
Antenna model	AT 41-644Tx
Frequency range (MHz)	824-896
Impedance	50 Ohms
VSWR	1.40:1
Polarization	$\pm 45^\circ$
Isolation between ports (dB)	30
Average gain (dBd/dBi)	12.7/14.8
Horizontal beamwidth (deg)	$65^\circ \pm 5^\circ$
Vertical beamwidth (deg)	$14.5^\circ \pm 0.5^\circ$
Electrical tilt (deg)	Fixed 0° - 14°
Upper sidelobe suppression 0° - 20° (dB)	18
Front to back ratio (dB) @ $180^\circ \pm 30^\circ$	30
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per input (w)	500
Intermodulation products (dBc)	-150
Connectors	2 x 7/16 female
Connector Position	Antenna bottom



Mechanical & Environmental Specifications	
Dimensions in (mm)	52.8 x 12.2 x 4.3 (1340 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front wind load lbs (N) @100 mph/160 km/h	140 (637)
Lateral windload lbs (N) @100 mph/160 km/h	51 (234)
Antenna weight lbs (kg)	29 (13)
Clamps weight lbs (kg)	16 (7)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140° F (-55 to $+60^\circ$ C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	66.1 x 16.5 x 9.8 (1680 x 420 x 250)
Weight lbs (kg)	57 (26)
Material	Cardboard and foam



824-896 MHz

Model # AT 41-644TV

XPoI Panel Antenna – Variable Electrical Tilt

Beamwidth: H 65° V 14.8°

Gain: 12.7 dBd/14.8 dBi

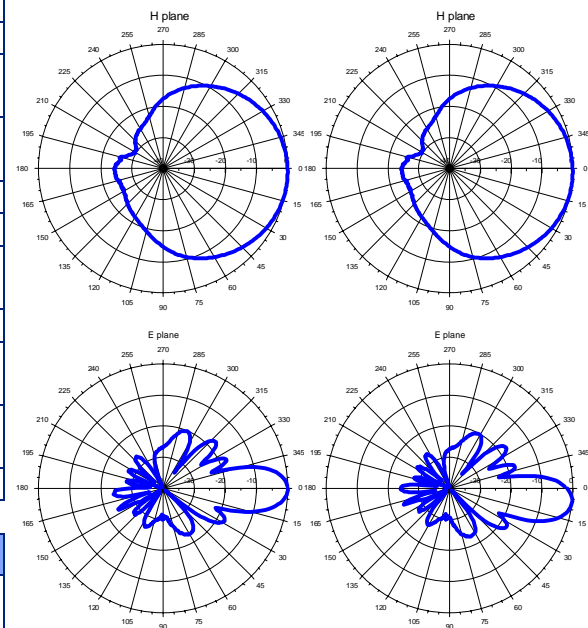
Length: 52.8 in

Electrical Specifications	
Antenna model	AT 41-644TV
Frequency range (MHz)	824-896
Impedance	50 Ohms
VSWR	1.40:1
Polarization	±45°
Isolation between ports (dB)	30
Average gain (dBd/dBi)	12.7/14.8
Horizontal beamwidth (deg)	65°±5°
Vertical beamwidth (deg)	14.5°±0.5°
Electrical tilt (deg)	VET 0°-10°
Upper sidelobe suppression 0°-20° (dB)	18
Front to back ratio (dB) @180°±30°	30
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per input (w)	500
Intermodulation products (dBc)	-150
Connectors	2 x 7/16 female
Connector position	Antenna bottom



Mechanical & Environmental Specifications	
Dimensions in (mm)	52.8 x 12.2 x 4.3 (1340 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front wind load lbs (N) @100 mph/160 km/h	140 (637)
Lateral windload lbs (N) @100 mph/160 km/h	51 (234)
Antenna weight lbs (kg)	33 (15)
Clamps weight lbs (kg)	16 (7)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	66.1 x 16.5 x 9.8 (1680 x 420 x 250)
Weight lbs (kg)	63 (28)
Material	Cardboard and foam



824-896 MHz

Model # AT 41-664Tx

XPol Panel Antenna

Beamwidth: H 65° V 9.5°

Gain: 14.2 dBd/16.3 dBi

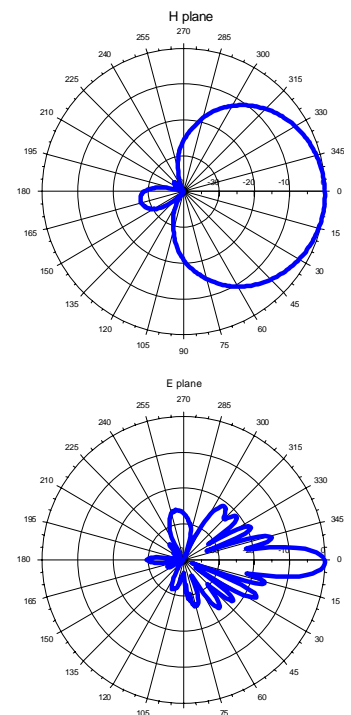
Length: 78.1 in

Electrical Specifications	
Antenna model	AT 41-664Tx
Frequency range (MHz)	824-896
Impedance	50 Ohms
VSWR	1.40:1
Polarization	±45°
Isolation between ports (dB)	30
Average gain (dBd/dBi)	14.2/16.3
Horizontal beamwidth (deg)	65°±5°
Vertical beamwidth (deg)	9.5°±0.5°
Electrical tilt (deg)	Fixed 0°-14°
Upper sidelobe suppression 0°-20° (dB)	18
Front to back ratio (dB) @180°±30°	30
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per input (w)	500
Intermodulation products (dBc)	-150
Connectors	2 x 7/16 female
Connector position	Antenna bottom



Mechanical & Environmental Specifications	
Dimensions in (mm)	78.1 x 12.2 x 4.3 (1985 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front wind load lbs (N) @100 mph/160 km/h	201 (910)
Lateral windload lbs (N) @100 mph/160 km/h	74 (334)
Antenna weight lbs (kg)	36.4 (16.5)
Clamps weight lbs (kg)	18.6 (8.4)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	91.9 x 16.5 x 9.8 (2335 x 420 x 250)
Weight lbs (kg)	69.4 (31.5)
Material	Cardboard and foam



824-896 MHz

Model # AT 41-664TV

XPol Panel Antenna – Variable Electrical Tilt

Beamwidth: H 65° V 9.5°

Gain: 14.2 dBd/16.3 dBi

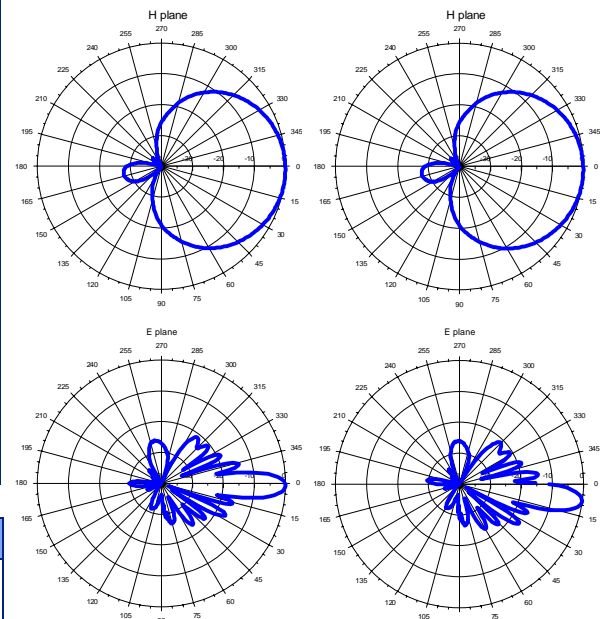
Length: 78.1 in

Electrical Specifications	
Antenna model	AT 41-664TV
Frequency range (MHz)	824-896
Impedance	50 Ohms
VSWR	1.40:1
Polarization	±45°
Isolation between ports (dB)	30
Average gain (dBd/dBi)	14.2/16.3
Horizontal beamwidth (deg)	65°±5°
Vertical beamwidth (deg)	9.5°±0.5°
Electrical tilt (deg)	VET 0°-8°
Upper sidelobe suppression 0°-20° (dB)	18
Front to back ratio (dB) @180°±30°	30
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per input (w)	500
Intermodulation products (dBc)	-150
Connectors	2 x 7/16 female
Connector position	Antenna bottom



Mechanical & Environmental Specifications	
Dimensions in (mm)	78.1 x 12.2 x 4.3 (1985 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	201 (910)
Lateral windload lbs (N) @100 mph/160 km/h	74 (334)
Antenna weight lbs (kg)	40.8 (18.5)
Clamps weight lbs (kg)	18.6 (8.4)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	91.9 x 16.5 x 9.8 (2335 x 420 x 250)
Weight lbs (kg)	72.7 (33)
Material	Cardboard and foam



824-896 MHz

Model # AT 41-684Tx

XPol Panel Antenna

Beamwidth: H 65° V 7.5°

Gain: 14.9 dBd/17 dBi

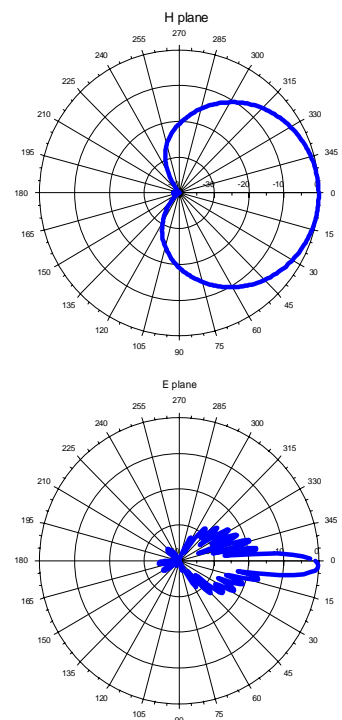
Length: 99.6 in

Electrical Specifications	
Antenna model	AT 41-684Tx
Frequency range (MHz)	824-960
Impedance	50 Ohms
VSWR	1.40:1
Polarization	±45°
Isolation between ports (dB)	30
Average gain (dBd/dBi)	14.9/17
Horizontal beamwidth (deg)	65°±5°
Vertical beamwidth (deg)	7.5°±0.5°
Electrical tilt (deg)	Fixed 0°-14°
Upper sidelobe suppression 0°-20° (dB)	18
Front to back ratio (dB) @180°±30°	30
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per input (w)	500
Intermodulation products (dBc)	-150
Connectors	2 x 7/16 female
Connector position	Antenna bottom



Mechanical & Environmental Specifications	
Dimensions in (mm)	99.6 x 12.2 x 4.3 (2530 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	251 (1138)
Lateral windload lbs (N) @100 mph/160 km/h	92 (417)
Antenna weight lbs (kg)	45.2 (20.5)
Clamps weight lbs (kg)	18.6 (8.4)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	112.9.3 x 16.5 x 9.8 (2870 x 420 x 250)
Weight lbs (kg)	81.5 (37)
Material	Cardboard and foam



824-896 MHz

Model # AT 41-684TV

XPoL Panel Antenna – Variable Electrical Tilt

Beamwidth: H 65° V 7.5°

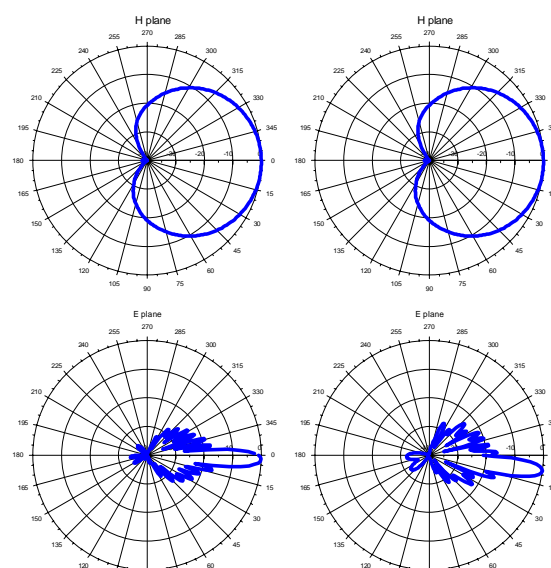
Gain: 14.9 dBd/17 dBi

Length: 99.6 in

Electrical Specifications	
Antenna model	AT 41-684TV
Frequency range (MHz)	824-896
Impedance	50 Ohms
VSWR	1.40:1
Polarization	±45°
Isolation between ports (dB)	30
Average gain (dBd/dBi)	14.9/17
Horizontal beamwidth (deg)	65°±5°
Vertical beamwidth (deg)	7.5°±0.5°
Electrical tilt (deg)	VET 0°-8°
Upper sidelobe suppression 0°-20° (dB)	18
Front to back ratio (dB) @180°±30°	30
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per input (w)	500
Intermodulation products (dBc)	-150
Connectors	2 x 7/16 female
Connector position	Antenna bottom

Mechanical & Environmental Specifications	
Dimensions in (mm)	99.6 x 12.2 x 4.3 (2530 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	251 (1138)
Lateral windload lbs (N) @100 mph/160 km/h	92 (417)
Antenna weight lbs (kg)	50 (22.5)
Clamps weight lbs (kg)	19 (8.4)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	113 x 16.5 x 9.8 (2870 x 420 x 250)
Weight lbs (kg)	87 (40)
Material	Cardboard and foam



824-896 MHz

Model # AT 41-636Tx

XPol Panel Antenna

Beamwidth: H 85° V 18°

Gain: 9.4 dBd/11.5 dBi

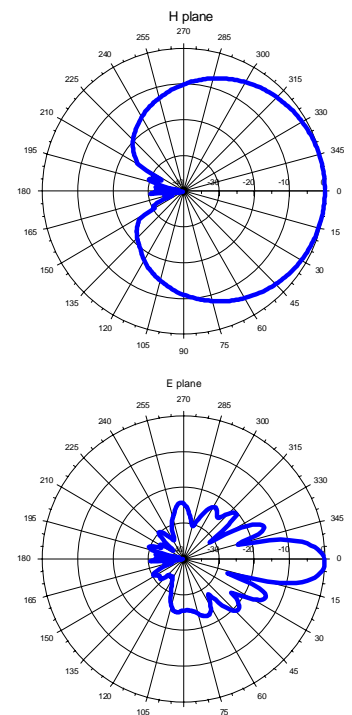
Length: 35.4 in

Electrical Specifications	
Antenna model	AT 41-636Tx
Frequency range (MHz)	824-896
Impedance	50 Ohms
VSWR	1.40:1
Polarization	$\pm 45^\circ$
Isolation between ports (dB)	30
Average gain (dBd/dBi)	9.4/11.5
Horizontal beamwidth (deg)	$85^\circ \pm 5^\circ$
Vertical beamwidth (deg)	$18^\circ \pm 0.5^\circ$
Electrical tilt (deg)	Fixed 0° - 14°
Upper sidelobe suppression 0° - 20° (dB)	15
Front to back ratio (dB) @ $180^\circ \pm 30^\circ$	25
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per input (w)	500
Intermodulation products (dBc)	-150
Connectors	2 x 7/16 female
Connector position	Antenna bottom



Mechanical & Environmental Specifications	
Dimensions in (mm)	35.4 x 12.2 x 4.3 (900 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	90 (410)
Lateral windload lbs (N) @100 mph/160 km/h	33 (150)
Antenna weight lbs (kg)	19 (9)
Clamps weight lbs (kg)	6.5 (3)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to $+60^\circ\text{C}$)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	43.3 x 17.7 x 9.8 (1100 x 450 x 250)
Weight lbs (kg)	28 (13)
Material	Cardboard and foam



824-896 MHz

Model # AT 41-646Tx

XPol Panel Antenna

Beamwidth: H 85° V 14.5°

Gain: 11.4 dBd/13.5 dBi

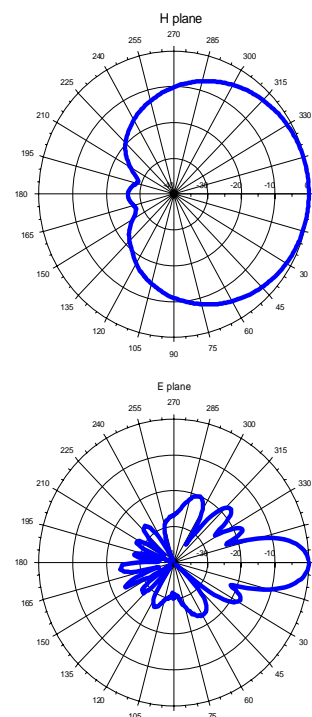
Length: 52.8 in

Electrical Specifications	
Antenna model	AT 41-646Tx
Frequency range (MHz)	824-896
Impedance	50 Ohms
VSWR	1.40:1
Polarization	$\pm 45^\circ$
Isolation between ports (dB)	30
Average gain (dBd/dBi)	11.4/13.5
Horizontal beamwidth (deg)	$85^\circ \pm 5^\circ$
Vertical beamwidth (deg)	$14^\circ.5 \pm 0.5^\circ$
Electrical tilt (deg)	Fixed 0° - 14°
Upper sidelobe suppression 0° - 20° (dB)	18
Front to back ratio (dB) @ $180^\circ \pm 30^\circ$	25
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per input (w)	30
Intermodulation products (dBc)	-150
Connectors	2 x 7/16 female
Connector position	Antenna bottom



Mechanical & Environmental Specifications	
Dimensions in (mm)	52.8 x 12.2 x 4.3 (1340 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	140 (637)
Lateral windload lbs (N) @100 mph/160 km/h	51 (234)
Antenna weight lbs (kg)	28.6 (13)
Clamps weight lbs (kg)	16.2 (7.3)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to $+60^\circ\text{C}$)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	66.1 x 16.5 x 9.8 (1680 x 420 x 250)
Weight lbs (kg)	57.3 (26)
Material	Cardboard and foam



824-896 MHz

Model # AT 41-646TV

XPoI Panel Antenna – Variable Electrical Tilt

Beamwidth: H 85° V 14.5°

Gain: 11.4 dBd/13.5 dBi

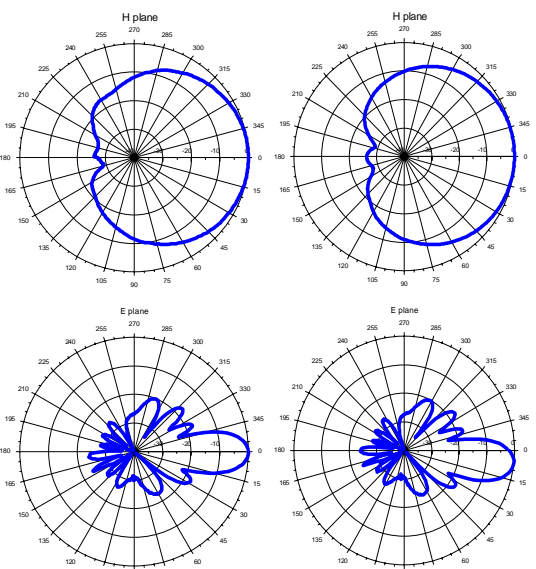
Length: 52.8 in

Electrical Specifications	
Antenna model	AT 41-646TV
Frequency range (MHz)	824-896
Impedance	50 Ohms
VSWR	1.40:1
Polarization	$\pm 45^\circ$
Isolation between ports (dB)	30
Average gain (dBd/dBi)	11.4/13.5
Horizontal beamwidth (deg)	$85^\circ \pm 5^\circ$
Vertical beamwidth (deg)	$14^\circ.5 \pm 0.5^\circ$
Electrical tilt (deg)	VET 0° - 10°
Upper sidelobe suppression 0° - 20° (dB)	18
Front to back ratio (dB) @ $180^\circ \pm 30^\circ$	25
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per input (w)	30
Intermodulation products (dBc)	-150
Connectors	2 x 7/16 female
Connector position	Antenna bottom



Mechanical & Environmental Specifications	
Dimensions in (mm)	52.8 x 12.2 x 4.3 (1340 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front wind load lbs (N) @100 mph/160 km/h	140 (637)
Lateral windload lbs (N) @100 mph/160 km/h	51 (234)
Antenna weight lbs (kg)	33 (15)
Clamps weight lbs (kg)	16.2 (7.3)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140° F (-55 to $+60^\circ$ C)
Humidity	100 %

Shipping Specifications	
Dimensions : in (mm)	66.1 x 16.5 x 9.8 (1680 x 420 x 250)
Weight lbs (kg)	62.8 (28.5)
Material	Cardboard and Foam



824-896 MHz

Model # AT 41-666Tx

XPol Panel Antenna

Beamwidth: H 85° V 9.5°

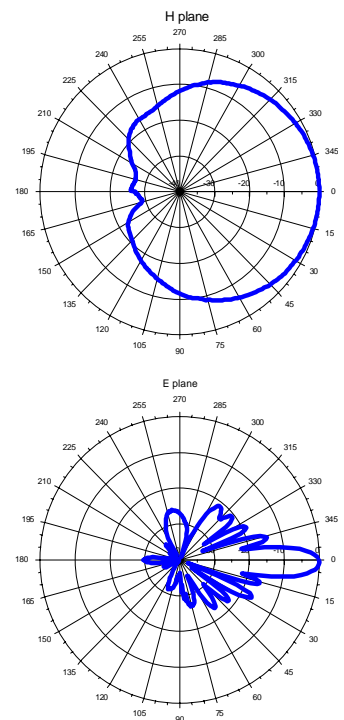
Gain: 12.9 dBd/15 dBi

Length: 78.1 in

Electrical Specifications	
Antenna model	AT 41-666Tx
Frequency range (MHz)	824-896
Impedance	50 Ohms
VSWR	1.40:1
Polarization	± 45°
Isolation between ports (dB)	30
Average gain (dBd/dBi)	12.9/15
Horizontal beamwidth (deg)	85°±5°
Vertical beamwidth (deg)	9.5°±0.5°
Electrical tilt (deg)	Fixed 0°-14°
Upper sidelobe suppression 0°-20° (dB)	18
Front to back ratio (dB) @180°±30°	30
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per input (w)	500
Intermodulation products (dBc)	-150
Connectors	2 x 7/16 female
Connector position	Antenna bottom

Mechanical & Environmental Specifications	
Dimensions in (mm)	78.1 x 12.2 x 4.3 (1985 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	201 (910)
Lateral windload lbs (N) @100 mph/160 km/h	74 (334)
Antenna weight lbs (kg)	36.4 (16.5)
Clamps weight lbs (kg)	18.6 (8.4)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	91.9 x 16.5 x 9.8 (2335 x 420 x 250)
Weight lbs (kg)	69.4 (31.5)
Material	Cardboard and foam



824-896 MHz

Model # AT 41-666TV

XPoI Panel Antenna – Variable Electrical Tilt

Beamwidth: H 85° V 9.5°

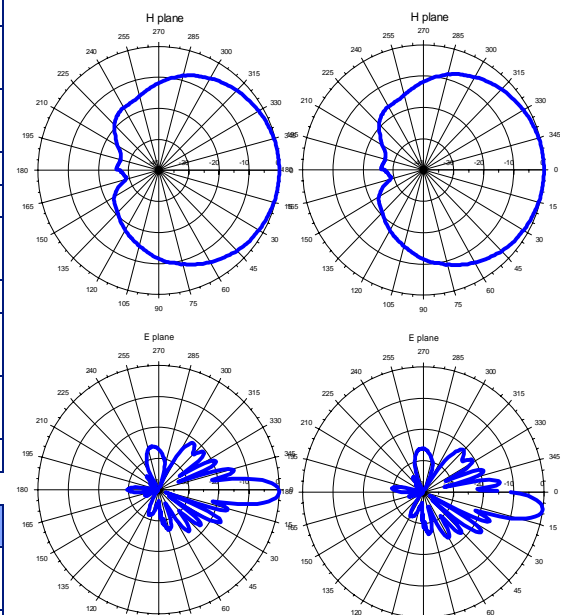
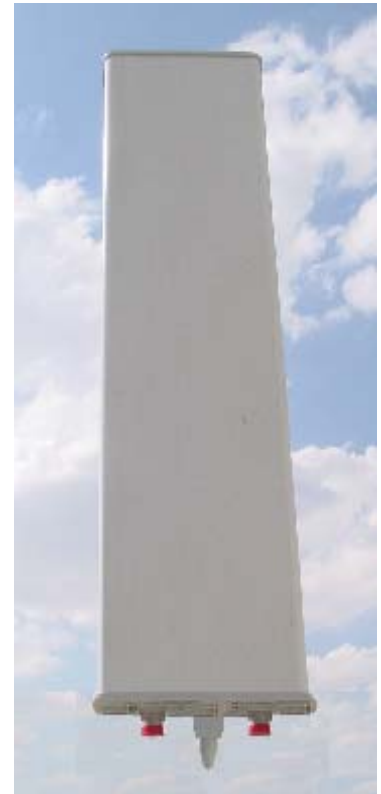
Gain: 12.9 dBd/15 dBi

Length: 78.1 in

Electrical Specifications	
Antenna model	AT 41-666TV
Frequency range (MHz)	824-896
Impedance	50 Ohms
VSWR	1.40:1
Polarization	$\pm 45^\circ$
Isolation between ports (dB)	30
Average gain (dBd/dBi)	12.9/15
Horizontal beamwidth (deg)	$85^\circ \pm 5^\circ$
Vertical beamwidth (deg)	$9.5^\circ \pm 0.5^\circ$
Electrical tilt (deg)	VET 0° - 8°
Upper sidelobe suppression 0° - 20° (dB)	17
Front to back ratio (dB) @ $180^\circ \pm 30^\circ$	30
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per input (w)	500
Intermodulation products (dBc)	-150
Connectors	2 x 7/16 female
Connector position	Antenna bottom

Mechanical & Environmental Specifications	
Dimensions in (mm)	78.1 x 12.2 x 4.3 (1985 x 310 x 110)
Survival wind Speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	201 (910)
Lateral windload lbs (N) @100 mph/160 km/h	74 (334)
Antenna weight lbs (kg)	408 (18.5)
Clamps weight lbs (kg)	18.6 (8.4)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140° F (-55 to $+60^\circ$ C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	91.9 x 16.5 x 9.8 (2335 x 420 x 250)
Weight lbs (kg)	72.7 (33)
Material	Cardboard and foam



824-896 MHz

Model # AT 41-686Tx

XPol Panel Antenna

Beamwidth: H 85° V 7.5°

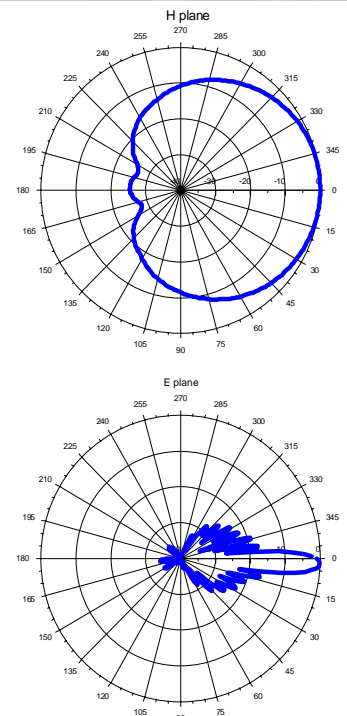
Gain: 14.1 dBd/16.2 dBi

Length: 99.6 in

Electrical Specifications	
Antenna model	AT 41-686Tx
Frequency range (MHz)	824-960
Impedance	50 Ohms
VSWR	1.40:1
Polarization	$\pm 45^\circ$
Isolation between ports (dB)	30
Average gain (dBd/dBi)	14.1/16.2
Horizontal beamwidth (deg)	$85^\circ \pm 5^\circ$
Vertical beamwidth (deg)	$7.5^\circ \pm 0.5^\circ$
Electrical tilt (deg)	Fixed 0° - 14°
Upper sidelobe suppression 0° - 20° (dB)	17
Front to back ratio (dB) @ $180^\circ \pm 30^\circ$	30
Polarization isolation (dB) @ 3 dB beamwidth	20
Maximum power per input (w)	500
Intermodulation products (dBc)	-150
Connectors	2 x 7/16 female
Connector position	Antenna bottom

Mechanical & Environmental Specifications	
Dimensions in (mm)	99.6 x 12.2 x 4.3 (2530 x 310 x 110)
Survival wind Speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	259 (1174)
Lateral windload lbs (N) @100 mph/160 km/h	95 (430)
Antenna weight lbs (kg)	45.2 (20.5)
Clamps weight lbs (kg)	18.6 (8.4)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140° F (-55 to $+60^\circ$ C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	113 x 16.5 x 9.8 (2870 x 420 x 250)
Weight lbs (kg)	81.5 (37)
Material	Cardboard and foam



824-896 MHz

Model # AT 41-686TV

XPoI Panel Antenna – Variable Electrical Tilt

Beamwidth: H 85° V 7.5°

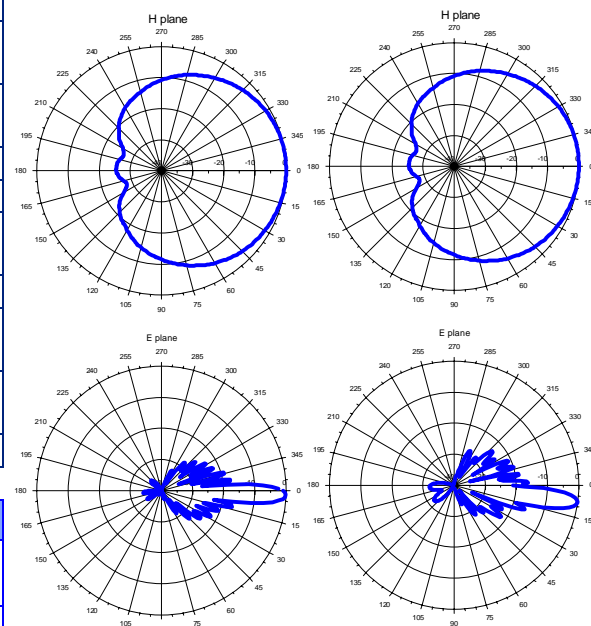
Gain: 14.1 dBd/16.2 dBi

Length: 99.6 in

Electrical Specifications	
Antenna model	AT 41-686TV
Frequency range (MHz)	824-960
Impedance	50 Ohms
VSWR	1.40:1
Polarization	$\pm 45^\circ$
Isolation between ports (dB)	30
Average gain (dBd/dBi)	14.1/16.2
Horizontal beamwidth (deg)	$85^\circ \pm 5^\circ$
Vertical beamwidth (deg)	$7.5^\circ \pm 0.5^\circ$
Electrical tilt (deg)	VET 0° - 8°
Upper sidelobe suppression 0° - 20° (dB)	17
Front to back ratio (dB) @ $180^\circ \pm 30^\circ$	30
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per input (w)	500
Intermodulation products (dBc)	-150
Connectors	2 x 7/16 Female
Connector position	Antenna Bottom

Mechanical & Environmental Specifications	
Dimensions in (mm)	99.6 x 12.2 x 4.3 (2530 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	251 (1138)
Lateral windload lbs (N) @100 mph/160 km/h	92 (417)
Antenna weight lbs (kg)	49.6 (22.5)
Clamps weight lbs (kg)	18.6 (8.4)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140° F (-55 to $+60^\circ$ C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	113 x 16.5 x 9.8 (2870 x 420 x 250)
Weight lbs (kg)	87 (39.5)
Material	Cardboard and foam



Cellular: *QuadPol*

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Electrical Tilt	Length (in)
824-896	AT D41-644TxTx	XPOL +/- 45°	2 X 65°	2 X 14.5°	12.4/14.5	Fixed 0°-6°	102
824-896	AT D41-646TxTx	XPOL +/- 45°	2 X 85°	2 X 14.5°	11.4/13.5	Fixed 0°-6°	102

824-896 MHz

Model # AT D41-644TxTx

QuadPol Panel Antenna

Beamwidth: 2 x H 65° V 14.5°

Gain: 2 x 12.4 dBd/2 x 14.5 dBi

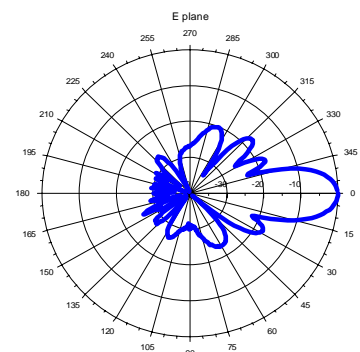
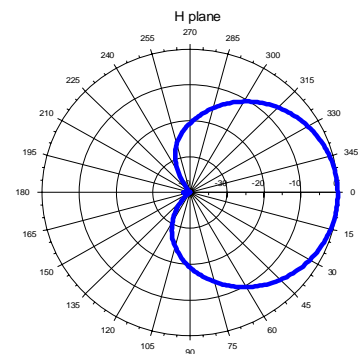
Length: 102.4 in

Electrical Specifications		
Antenna model	AT D41-644TxTx	
	Beam 1	Beam 2
Frequency range (MHz)	824-896	824-896
Impedance	50 Ohms	
VSWR	1.40:1	
Polarization	±45°	
Isolation between ports (dB)	30	
Average gain (dBd/dBi)	12.4/14.5	12.4/14.5
Horizontal beamwidth (deg)	65°±5°	
Vertical beamwidth (deg)	14.5°±0.5°	14.5°±0.5°
Electrical tilt (deg)	Fixed 0°-6°	
Sidelobe suppression (dB)	16	16
Front to back ratio (dB) @180°±30°	30	
Polarization isolation (dB) @3 dB beamwidth	20	
Maximum power per input (w)	500	
Intermodulation products (dBc)	-150	
Connectors	4 x 7/16 female	
Connector position	Antenna bottom	



Mechanical & Environmental Specifications	
Dimensions in (mm)	102.4 x 12.2 x 4.3 (2600 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	261 (1184)
Lateral windload lbs (N) @100 mph/160 km/h	96 (434)
Antenna weight lbs (kg)	43 (20)
Clamps weight lbs (kg)	6.5 (3)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	106.3 x 15.7 x 8.3 (2700 x 400 x 210)
Weight lbs (kg)	54 (25)
Material	Cardboard and foam



824-896 MHz

Model # AT D41-646TxTx

QuadPol Panel Antenna

Beamwidth: 2 x H 85° V 14.5°

Gain: 2 x 12.1 dBd/2 x 13.5 dBi

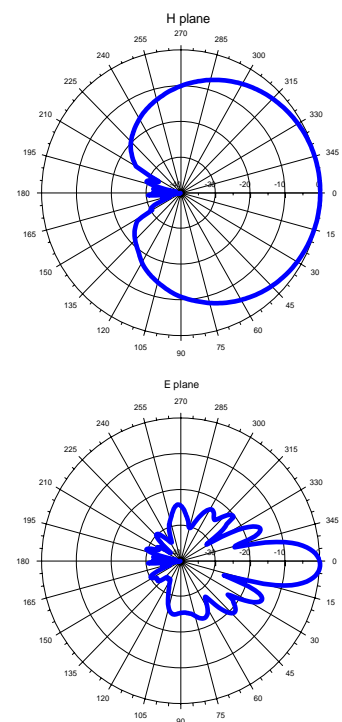
Length: 102.4 in

Electrical Specifications		
Antenna model	AT D41-646TxTx	
	Beam 1	Beam 2
Frequency range (MHz)	824-896	824-896
Impedance	50 Ohms	
VSWR	1.40:1	
Polarization	±45°	
Isolation between ports (dB)	30	
Average gain (dBd/dBi)	11.4/13.5	11.4/13.5
Horizontal beamwidth (deg)	85°±5°	
Vertical beamwidth (deg)	14.5°±0.5°	14.5°±0.5°
Electrical tilt (deg)	Fixed 0°-6°	
Sidelobe suppression (dB)	16	16
Front to back ratio (dB) @180°±30°	30	
Polarization isolation (dB) @3 dB beamwidth	20	
Maximum power per input (w)	500	
Intermodulation products (dBc)	-150	
Connectors	4 x 7/16 female	
Connector position	Antenna bottom	



Mechanical & Environmental Specifications	
Dimensions in (mm)	102.4 x 12.2 x 4.3 (2600 x 310 x 110)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	261 (1184)
Lateral windload lbs (N) @100 mph/160 km/h	96 (434)
Antenna weight lbs (kg)	43 (20)
Clamps weight lbs (kg)	6.5 (3)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	106.3 x 15.7 x 8.3 (2700 x 400 x 210)
Weight lbs (kg)	54 (25)
Material	Cardboard and foam



Cellular: *Trisector/Stealth*

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Electrical Tilt	Length (in)
824-896	TS 41-644TV	XPOL +/- 45°	3 X 65°	14.5°	12.7/14.8	VET 0°- 6°	75

Trisector 3 x 65° XPol

Gain: 3 X 12.4 dBd at 850 MHz

Azimuth adjustment on each sector +/- 15°

Length: 74.8 in

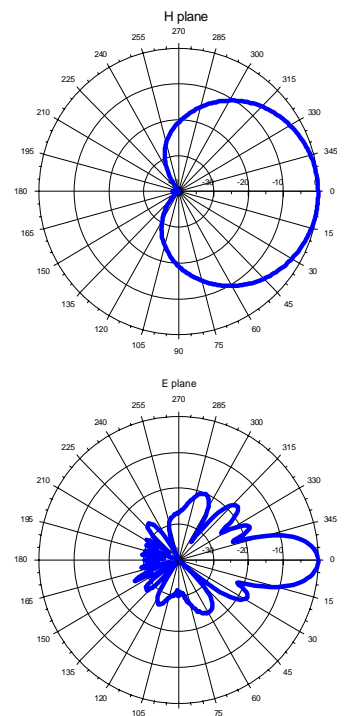
Electrical Specifications	
Antenna model	TS 41-644TV
Frequency range (MHz)	824-896
Impedance	50 Ohms
VSWR	<1.40:1
Polarization	±45°
Intraband isolation (dB)	>30
Interbands isolation (dB)	>40 dB
Average gain (dBd/dBi)	12.4 / 14.5
Horizontal beamwidth (deg)	65°±5°
Vertical beamwidth (deg)	14.5°±0.5°
Electrical tilt (deg)	VET 0°-10°
Upper sidelobe suppression 0°-20° (dB)	16
Front to back ratio (dB) @180°±30°	30
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per input (w)	500
Intermodulation products (dBc)	-150
Connectors	6 x 7/16 female
Connector position	Antenna bottom



Mechanical & Environmental Specifications	
Dimensions in (mm)	74.8 x 25.6 diameter (1900 x 650 diameter)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	310 (1405)
Lateral windload lbs (N) @100 mph/160 km/h	310 (1405)
Antenna weight lbs (kg)	264 (120)
Clamps weight lbs (kg)	NA
Mast mounting in (cm)	NA
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	86.6 x 31.5 x 31.5 (2200 x 800 x 800)
Weight lbs (kg)	309 (140)
Material	Cardboard and foam

824-896 MHz



Cellular: *Indoor*

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Dimensions (in)
824-896	AT 41-391	Vertical	Omni	75.0°	0.0/2.1	7.87 x 7.87 x 1.96
824-896	AT 41-394	Vertical	65°	75.0°	3.9/6.0	7.87 x 7.87 x 1.96
824-2170	TG V0-100	Vertical	Omni	75.0°	0.0/2.1	7.87 x 2.12

824-896 MHz

Model # AT 41-391

VPol Omnidirectional Indoor Antenna

Beamwidth: H 360° V85°

Gain: 0 dBd/2.1 dBi

Length: 7.87 in

Electrical Specifications

Antenna model	AT 41-391
Impedance	50 Ohms
VSWR	1.50:1
Polarization	Vertical
Average gain (dBi)	0/2.1
Vertical beamwidth (deg)	85°±15°
Maximum power per input (w)	50
Intermodulation products	-150 dBc
Connectors	N female
Connector position	Antenna rear

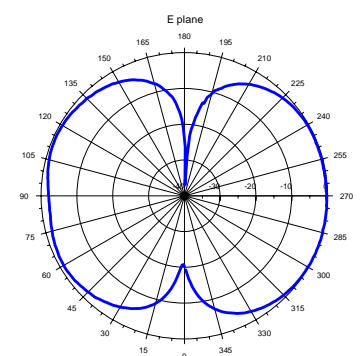
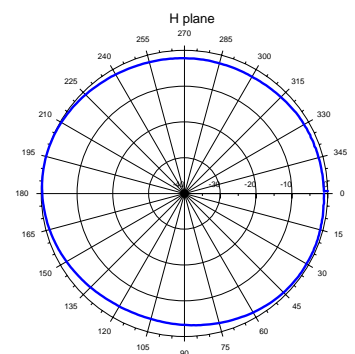


Mechanical & Environmental Specifications

Dimensions in (mm)	7.87 x 7.87 x 1.96 (200 x 200 x 50)
Antenna weight lbs (kg)	0.7 (0.3)
Radome color	White
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-4° to 122°F (-20° to +50°C)

Shipping Specifications

Dimensions in (mm)	9.84 x 9.84 x 2.75 (250 x 250 x 70)
Weight lbs (kg)	2.5 (1)
Material	Cardboard and foam



824-896 MHz

Model # AT 41-394

VPol Directive Indoor Antenna

Beamwidth: H 75° V 60°

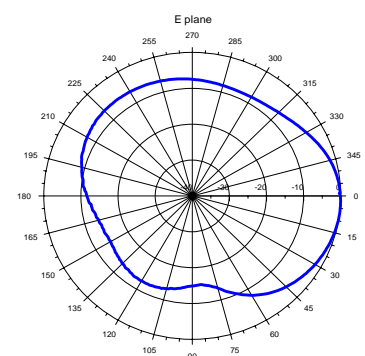
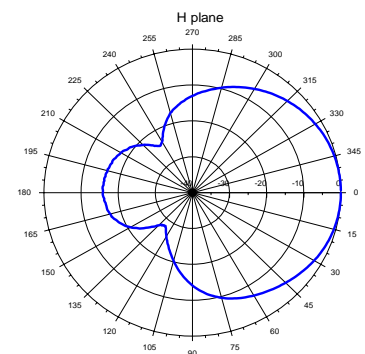
Gain: 4.4 dBd/6.5 dBi

Length: 7.87 in

Electrical Specifications	
Antenna model	AT 41-394
Impedance	50 Ohms
VSWR	1.50:1
Polarization	Vertical
Average gain dBd/dBi	4.4/6.5
Horizontal beamwidth (deg)	75°±5°
Vertical beamwidth (deg)	60°±5°
Front to back ratio (dB) @180°±45°	15
Maximum power per Input (w)	50
Connectors	N female
Connector position	Antenna rear

Mechanical & Environmental Specifications	
Dimensions in (mm)	7.87 x 7.87 x 1.97 (200 x 200 x 50)
Antenna weight lbs (kg)	0.7 (0.3)
Radome color	White
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-4° to 122°F (-20° to +50°C)

Shipping Specifications	
Dimensions in (mm)	9.84 x 9.84 x 2.75 (250 x 250 x 70)
Weight lbs (kg)	2.2 (1)
Material	Cardboard and foam



824-2170 MHz

Model # TG VO-100

VPol Multiband Omni Indoor Antenna

Beamwidth: H 360° V70°

Gain: 0 dBd/2.1 dBi

Length: 7.87 in

Electrical Specifications	
Antenna model	TG VO-100
Impedance	50 Ohms
Polarization	Vertical
VSWR	< 2:1
Average gain (dBd/dBi)	0/2.1
Maximum power per input (w)	50
Connectors	N female
Connector position	Antenna rear

Mechanical & Environmental Specifications	
Dimensions in (mm)	7.87 x 2.12 (200 x 54)
Antenna weight lbs (kg)	0.7 (0.3)
Radome color	White
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-4° to 122°F (-20° to +50°C)

Shipping Specifications	
Dimensions in (mm)	9.84 x 9.84 x 2.75 (250 x 250 x 70)
Weight lbs (kg)	2.22 (1)
Material	Cardboard and foam



Cellular: *Repeater*

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Dimensions (in)
824-960	AT 42-596	Vertical	34°	34.0°	13.0/15.1	54.4 x 12.2 x 7.87

824-896 MHz

Model # AT 42-596

Yagi Antenna

Beamwidth: H 34° V 34°

Gain: 13 dBd/15.1 dBi

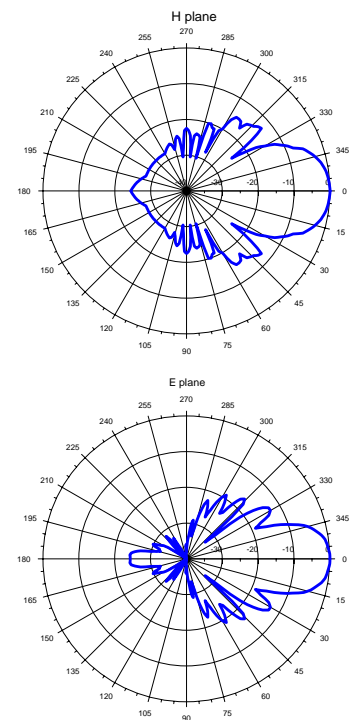
Length: 54.4 in

Electrical Specifications	
Antenna model	AT 42-596
Impedance	50 Ohms
Polarization	V/H
VSWR	1.50:1
Average gain dBd/dBi	13/15.1
Horizontal beamwidth (deg)	34
Vertical beamwidth (deg)	34
Side suppression	12
Front to back Ratio (dB) @180°±45°	25
Polarization isolation (dB) @3 dB beamwidth	20
Maximum power per input (w)	250
Connectors	N female
Connector position	Antenna rear



Mechanical & Environmental Specifications	
Dimensions in (mm)	54.4 x 12.2 x 7.87 (1383 x 310 x 200)
Survival wind speed	124 mph (200 km/h)
Front windload lbs (N)	443.7 (100)
Lateral windload lbs (N)	665.5 (150)
Antenna weight lbs (kg)	5.51 (2.5)
Clamps weight lbs (kg)	1.1 (0.5)
Mast mounting	1.57 to 2.36 (40 to 60 mm)
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-4° to 122°F (-20° to +50° C)

Shipping Specifications	
Dimensions in (mm)	59.1 x 13.8 x 9.85 (1500 x 350 x 250)
Weight lbs (kg)	8.81 (4)
Material	Cardboard and foam





Antennas Engineered for Performance and Durability



PCS

PCS: *VPol*

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Electrical Tilt	Length (in)
1710-2170	MG V1-800Tx	VPOL	30°	6.3°	18.9/21.0	Fixed 0°-14°	53
1710-2170	MG V3-400Tx	VPOL	65°	14.5°	12.4/14.5	Fixed 0°-14°	21
1710-2170	MG V3-800Tx	VPOL	65°	6.3°	16.15/18.25	Fixed 0°-14°	53
1710-2170	MG V3-900Tx	VPOL	65°	4.5	17.1/19.3	Fixed 0°-14°	73
1710-2170	MG V5-400Tx	VPOL	85°	14.5°	11.9/14	Fixed 0°-14°	21
1710-2170	MG V5-800Tx	VPOL	85°	6.0°	14.9/17.0	Fixed 0°-14°	53
1710-2170	MG V5-900Tx	VPOL	85°	4.5°	16.2/18.3	Fixed 0°-14°	73

1710-2170 MHz

Model # MG V1-800Tx

VPOI GSM1800+PCS & UMTS Panel Antenna

Beamwidth: H 30° V 6.3°

Gain: 18.9 dBd/21 dBi

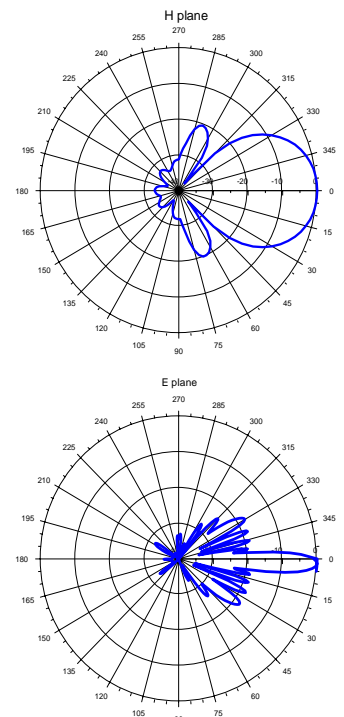
Length: 52.7 in

Electrical Specifications			
Antenna model	MG V1-800Tx		
Frequency range (MHz)	1710-1880	1850-1990	1920-2170
Impedance	50 Ohms		
VSWR	1.40:1		
Polarization	Vertical		
Isolation between ports (dB)	NA		
Average gain (dBd/dBi)	18.4/20.5	18.6/20.7	18.9/21
Horizontal beamwidth (deg)	30°		
Vertical beamwidth (deg)	6.5°±0.5°	6.3°±0.5°	6.3°±0.5°
Electrical tilt (deg)	Fixed 0°-14°		
Sidelobe suppression (dB)	18	18	18
Front to back ratio (dB) @180°±30°	30		
Polarization isolation (dB) @3 dB beamwidth	20		
Maximum power per input (w)	250		
Intermodulation products (dBc)	-150		
Connectors	1 x 7/16 Female		
Connector position	Antenna bottom		



Mechanical & Environmental Specifications	
Dimensions in (mm)	52.7 x 12.2 x 3.5 (1340 x 310 x 90)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	138 (628)
Lateral windload lbs (N) @100 mph/160 km/h	42 (188)
Antenna weight lbs (kg)	29.7 (13.5)
Clamps weight lbs (kg)	16.2 (7.3)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	64.2 x 14 x 7.5 (1630 x 355 x 190)
Weight lbs (kg)	53 (24)
Material	Cardboard and foam



1710-2170 MHz

Model # MG V3-400Tx

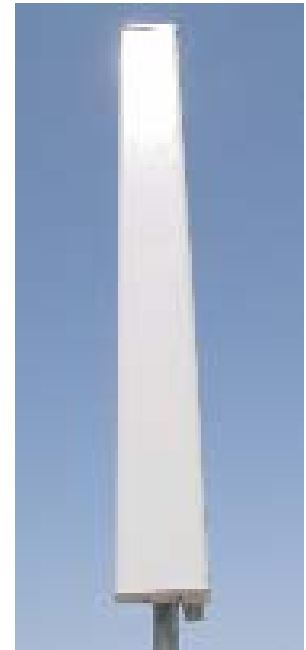
VPOI GSM1800+PCS & UMTS Panel Antenna

Beamwidth: H 65° V 14.5°

Gain: 12.4 dBd/14.5 dBi

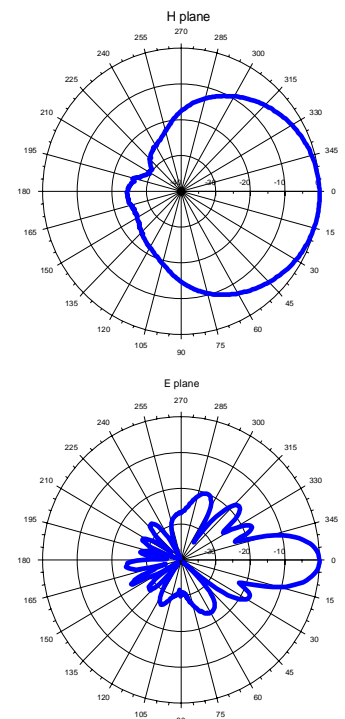
Length: 21.3 in

Electrical Specifications			
Antenna model	MG V3-400Tx		
Frequency range (MHz)	1710-1880	1850-1990	1920-2170
Impedance	50 Ohms		
VSWR	1.40:1		
Polarization	Vertical		
Isolation between ports (dB)	NA		
Average gain (dBd/dBi)	12.4/14.5	12.4/14.5	12.9/15
Horizontal beamwidth (deg)	65°±5°		
Vertical beamwidth (deg)	14.5°±0.5°	14.5°±0.5°	14.5°±0.5°
Electrical tilt (deg)	Fixed 0°-14°		
Side lobe suppression (dB)	16	16	16
Front to back ratio (dB) @180°±30°	25		
Polarization isolation (dB) @3 dB beamwidth	20		
Maximum power per input (w)	250		
Intermodulation products (dBc)	-150		
Connectors	1 x 7/16 female		
Connector position	Antenna bottom		



Mechanical & Environmental Specifications	
Dimensions in (mm)	21.3 x 6.3 x 3.5 (540 x 160 x 90)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	32 (146)
Lateral windload lbs (N) @100 mph/160 km/h	18 (82)
Antenna weight lbs (kg)	6.6 (3)
Clamps weight lbs (kg)	7.7 (3.5)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	33 x 8.7 x 6.9 (840 x 225 x 175)
Weight lbs (kg)	22 (10)
Material	Cardboard and foam



1710-2170 MHz

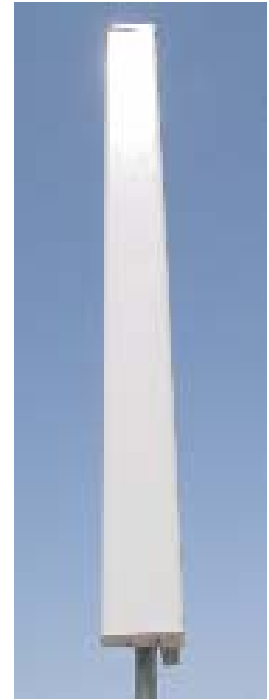
Model # MG V3-800Tx

VPOI GSM1800+PCS & UMTS Panel Antenna

Beamwidth: H 65° V 6.5°

Gain: 16.15 dBd/18.25 dBi

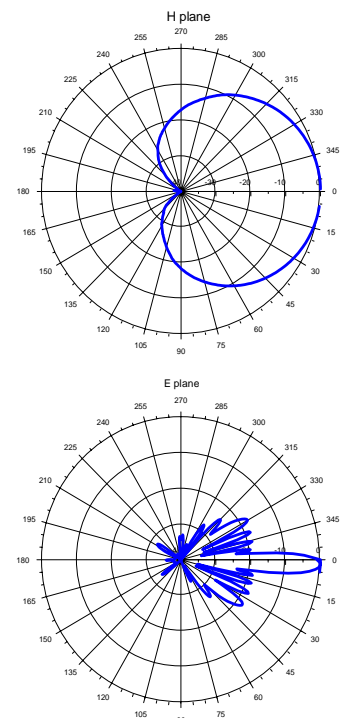
Length: 52.7 in



Electrical Specifications			
Antenna model	MG V3-800Tx		
Frequency range (MHz)	1710-1880	1850-1990	1920-2170
Impedance	50 Ohms		
VSWR	1.40:1		
Polarization	Vertical		
Isolation between ports (dB)	NA		
Average gain (dBd/dBi)	15.7/17.8	15.9/18	16.15/18.25
Horizontal beamwidth (deg)	65°±5°		
Vertical beamwidth (deg)	6.5°±0.5°	6.3°±0.5°	6.3°±0.5°
Electrical tilt (deg)	Fixed 0°-14°		
Sidelobe suppression (dB)	18	18	18
Front to back ratio (dB) @180°±30°	30		
Polarization isolation (dB) @3 dB beamwidth	20		
Maximum power per input (w)	250		
Intermodulation products (dBc)	-150		
Connectors	1 x 7/16 female		
Connector position	Antenna bottom		

Mechanical & Environmental Specifications	
Dimensions in (mm)	52.7 x 6.3 x 3.5 (1340 x 160 x 90)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	74 (335)
Lateral windload lbs (N) @100 mph/160 km/h	42 (188)
Antenna weight lbs (kg)	15.4 (7)
Clamps weight lbs (kg)	7.7 (3.5)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	64.1 x 8.8 x 6.9 (1630 x 225 x 175)
Weight lbs (kg)	27 (12.5)
Material	Cardboard and foam



1710-2170 MHz

Model # MG V3-900Tx

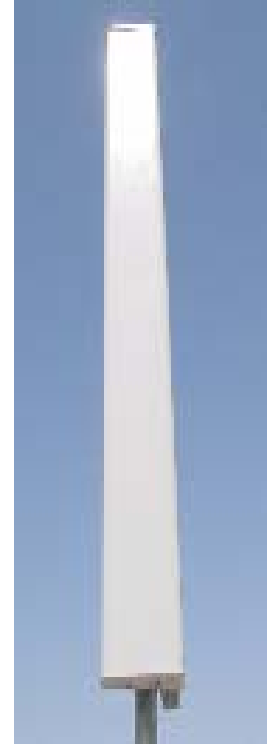
VPOI GSM1800+PCS & UMTS Panel Antenna

Beamwidth: H 65° V 4.5°

Gain: 17.4 dBd/19.5 dBi

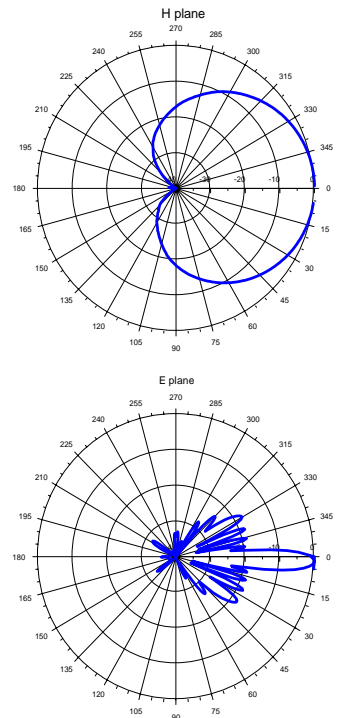
Length: 73.2 in

Electrical Specifications			
Antenna model	MG V3-900Tx		
Frequency range (MHz)	1710-1880	1850-1990	1920-2170
Impedance	50 Ohms		
VSWR	1.40:1		
Polarization	Vertical		
Isolation between Ports (dB)	NA		
Average gain (dBd/dBi)	16.9/19	17.2 /19.3	17.4/19.5
Horizontal beamwidth (deg)	65°±5°		
Vertical beamwidth (deg)	4.5°±0.5°	4.5°±0.5°	4.5°±0.5°
Electrical tilt (deg)	Fixed 0°-14°		
Sidelobe suppression (dB)	18	18	18
Front to back ratio (dB) @180°±30°	30		
Polarization isolation (dB) @3 dB beamwidth	20		
Maximum power per input (w)	250		
Intermodulation products (dBc)	-150		
Connectors	1 x 7/16 female		
Connector position	Antenna bottom		



Mechanical & Environmental Specifications	
Dimensions in (mm)	73.2 x 6.3 x 3.5 (1860 x 160 x 90)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	106 (481)
Lateral windload lbs (N) @100 mph/160 km/h	60 (270)
Antenna weight lbs (kg)	24.2 (11)
Clamps weight lbs (kg)	7.7 (3.5)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	87 x 8.9 x 6.9 (2210 x 225 x 175)
Weight lbs (kg)	37 (17)
Material	Cardboard and foam



1710-2170 MHz

Model # MG V5-400Tx

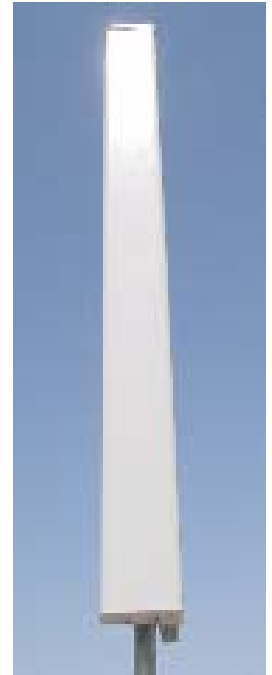
VPOI GSM1800+PCS & UMTS Panel Antenna

Beamwidth: H 85° V 14.5°

Gain: 11.9 dBd/14 dBi

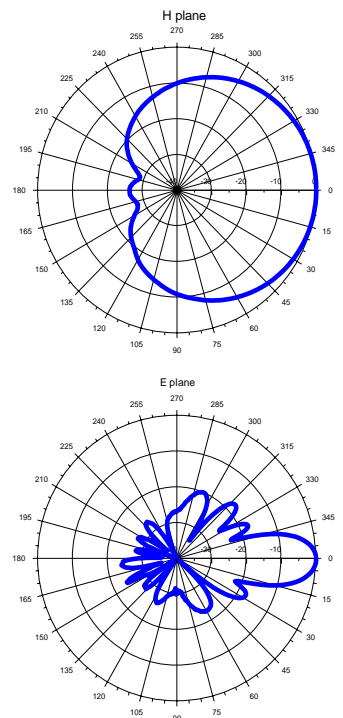
Length: 21.3 in

Electrical Specifications			
Antenna model	MG V5-400Tx		
Frequency range (MHz)	1710-1880	1850-1990	1920-2170
Impedance	50 Ohms		
VSWR	1.40:1		
Polarization	Vertical		
Isolation between ports (dB)	NA		
Average gain (dBd/dBi)	11.1/13.2	11.4 /13.5	11.9/14
Horizontal beamwidth (deg)	90°±5°		
Vertical beamwidth (deg)	14.5°	14.5°	14.5°
Electrical tilt (deg)	Fixed 0°-14°		
Sidelobe suppression (dB)	16	16	16
Front to back ratio (dB) @180°±30°	25		
Polarization isolation (dB) @3 dB beamwidth	20		
Maximum power per input (w)	250		
Intermodulation products (dBc)	-150		
Connectors	1 x 7/16 female		
Connector position	Antenna bottom		



Mechanical & Environmental Specifications	
Dimensions in (mm)	21.3 x 6.3 x 3.5 (540 x 160 x 90)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	32 (146)
Lateral windload lbs (N) @100 mph/160 km/h	18 (82)
Antenna weight lbs (kg)	6.6 (3)
Clamps weight lbs (kg)	7.7 (3.5)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	33 x 8.8 x 6.9 (840 x 225 x 175)
Weight lbs (kg)	22 (10)
Material	Cardboard and foam



1710-2170 MHz

Model # MG V5-800Tx

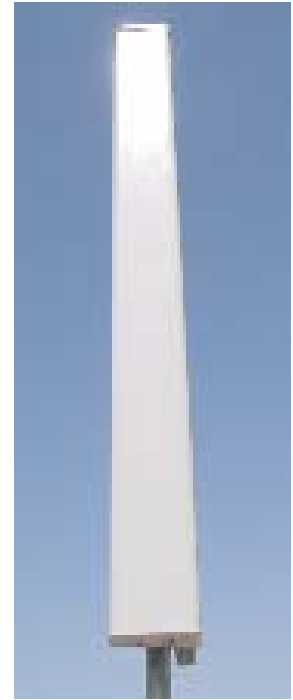
VPOI GSM1800+PCS & UMTS Panel Antenna

Beamwidth: H 85° V 6.5°

Gain: 14.9 dBd/17.0 dBi

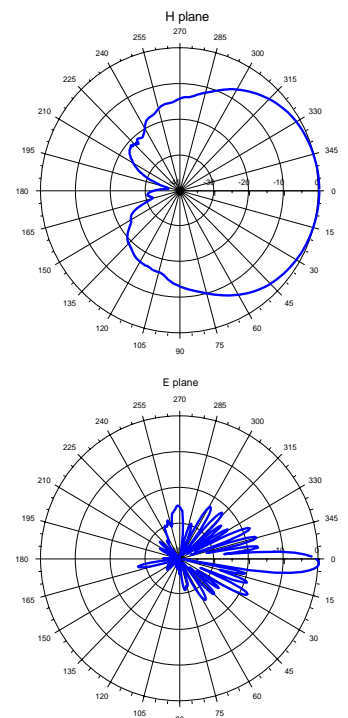
Length: 52.7 in

Electrical Specifications			
Antenna Model	MG V5-800Tx		
Frequency range (MHz)	1710-1880	1850-1990	1920-2170
Impedance	50 Ohms		
VSWR	1.40:1		
Polarization	Vertical		
Isolation between ports (dB)	NA		
Average gain (dBd/dBi)	14.2/16.3	14.6 /16.7	14.9/17
Horizontal beamwidth (deg)	85°±5°		
Vertical beamwidth (deg)	6.5°±0.5°	6.0°±0.5°	6.0°±0.5°
Electrical tilt (deg)	Fixed 0°-14°		
Sidelobe suppression (dB)	17	17	17
Front to back ratio (dB) @180°±30°	25		
Polarization isolation (dB) @3 dB beamwidth	20		
Maximum power per input (w)	250		
Intermodulation products (dBc)	-150		
Connectors	1 x 7/16 female		
Connector position	Antenna bottom		



Mechanical & Environmental Specifications	
Dimensions in (mm)	52.7 x 6.3 x 3.5 (1340 x 160 x 90)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	74 (335)
Lateral windload lbs (N) @100 mph/160 km/h	42 (188)
Antenna weight lbs (kg)	15 (7)
Clamps weight lbs (kg)	7.7 (3.5)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	64 x 8.8 x 6.9 (1630 x 225 x 175)
Weight lbs (kg)	27.5 (12.5)
Material	Cardboard and foam



1710-2170 MHz

Model # MG V5-900Tx

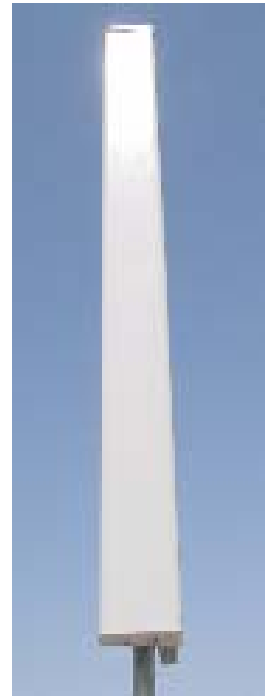
VPOI GSM1800+PCS & UMTS Panel Antenna

Beamwidth: H 85° V 4.5°

Gain: 16.2 dBd/18.3 dBi

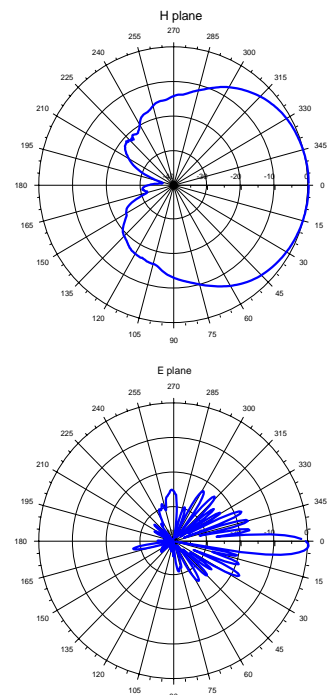
Length: 73 in

Electrical Specifications			
Antenna Model	MG V5-900Tx		
Frequency Range (MHz)	1710-1880	1850-1990	1920-2170
Impedance	50 Ohms		
VSWR	1.40:1		
Polarization	Vertical		
Isolation between ports (dB)	NA		
Average gain (dBd/dBi)	15.9/18	16.1/18.2	16.2/18.3
Horizontal beamwidth (deg)	85°±5°		
Vertical beamwidth (deg)	4.5°±0.5°	4.5°±0.5°	45°±0.5°
Electrical tilt (deg)	Fixed 0°-14°		
Sidelobe suppression (dB)	17	17	17
Front to back ratio (dB) @180°±30°	25		
Polarization isolation (dB) @3 dB beamwidth	20		
Maximum power per input (w)	250		
Intermodulation products (dBc)	-150		
Connectors	1 x 7/16 female		
Connector position	Antenna bottom		



Mechanical & Environmental Specifications	
Dimensions in (mm)	73.2 x 6.3 x 3.5 (1860 x 160 x 90)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	106 (481)
Lateral windload lbs (N) @100 mph/160 km/h	60 (270)
Antenna weight lbs (kg)	24 (11)
Clamps weight lbs (kg)	7.7 (3.5)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140° F (-55 to +60° C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	87 x 8.6 x 6.9 (2210 x 225 x 175)
Weight lbs (kg)	37 (17)
Material	Cardboard and foam



PCS: *XPol*

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Electrical Tilt	Length (in)
1710-2170	MG D1-800Tx	XPOL +/- 45°	30°	6.3°	18.9/21.0	Fixed 0°-14°	53
1710-2170	MG D3-400Tx	XPOL +/- 45°	65°	14.5°	12.9/15.0	Fixed 0°-14°	21
1710-2170	MG D3-400TV	XPOL +/- 45°	65°	14.5°	12.9/15.0	VET 0°-10°	26
1710-2170	MG D3-800Tx	XPOL +/- 45°	65°	6.3°	16.15/18.25	Fixed 0°-14°	53
1710-2170	MG D3-800TV	XPOL +/- 45°	65°	6.0°	15.9/18.0	VET 0°-10°	53
1710-2170	MG D3-900Tx	XPOL +/- 45°	65°	4.5 °	17.4/19.5	Fixed 0°-14°	73
1710-2170	MG D5-400Tx	XPOL +/- 45°	85°	14.5°	11.9/14.0	Fixed 0°-14°	21
1710-2170	MG D5-400TV	XPOL +/- 45°	85°	14.5°	11.9/14.0	VET 0°-10°	26
1710-2170	MG D5-800Tx	XPOL +/- 45°	85°	6.5°	14.9/17.0	Fixed 0°-14°	53
1710-2170	MG D5-800TV	XPOL +/- 45°	85°	6.5°	14.9/17.0	VET 0°-10°	53
1710-2170	MG D5-900Tx	XPOL +/- 45°	85°	4.5°	16.3/18.4	Fixed 0°-14°	73

1710-2170 MHz

Model # MG D1-800Tx

XPol GSM1800+PCS & UMTS Panel Antenna

Beamwidth: H 30° V 6.3°

Gain: 18.9 dBd/ 21 dBi

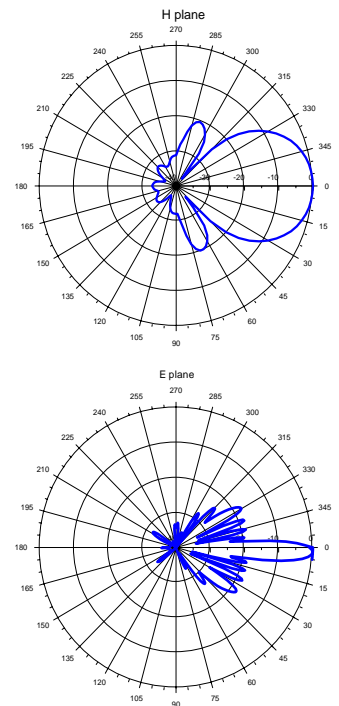
Length: 52.7 in

Electrical Specifications			
Antenna model	MG D1-800Tx		
Frequency range (MHz)	1710-1880	1850-1990	1920-2170
Impedance	50 Ohms		
VSWR	1.40:1		
Polarization	±45°		
Isolation between ports (dB)	30		
Average gain (dBd/dBi)	18.4/20.5	18.6/20.7	18.9/21
Horizontal beamwidth (deg)	30°		
Vertical beamwidth (deg)	6.5°±0.5°	6.3°±0.5°	6.3°±0.5°
Electrical tilt (deg)	Fixed 0°-14°		
Sidelobe suppression (dB)	18	18	18
Front to back ratio (dB) @180°±30°	30		
Polarization isolation (dB) @3 dB beamwidth	20		
Maximum power per input (w)	250		
Intermodulation products (dBc)	-150		
Connectors	2 x 7/16 female		
Connector position	Antenna bottom		



Mechanical & Environmental Specifications	
Dimensions in (mm)	52.7 x 6.3 x 3.5 (1340 x 160 x 90)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	138 (628)
Lateral windload lbs (N) @100 mph/160 km/h	42 (188)
Antenna weight lbs (kg)	15.4 (7)
Clamps weight lbs (kg)	7.7 (3.5)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	64.2 x 8.8 x 6.9 (1630 x 225 x 175)
Weight lbs (kg)	27 (12.5)
Material	Cardboard and foam



1710-2170 MHz

Model # MG D3-400Tx

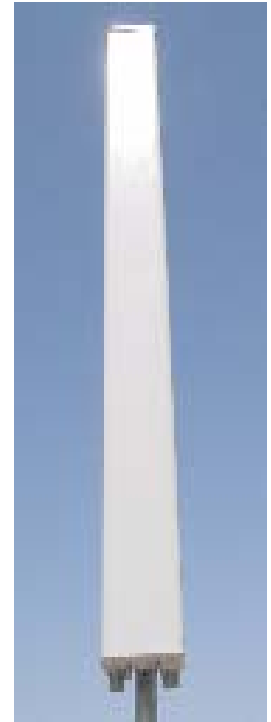
XPoI GSM1800+PCS & UMTS Panel Antenna

Beamwidth: H 65° V 14.5°

Gain: 12.9 dBd/15.0 dBi

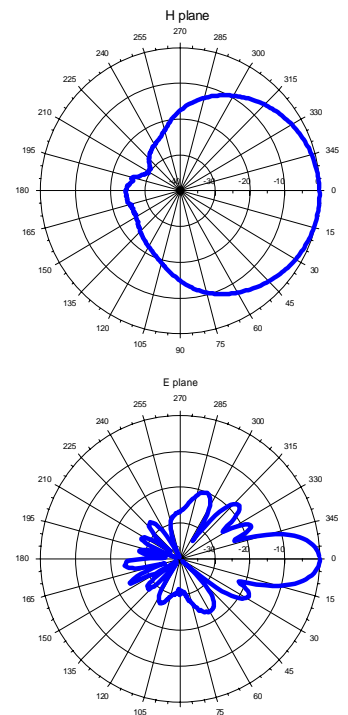
Length: 21.3 in

Electrical Specifications			
Antenna model	MG D3-400Tx		
Frequency range (MHz)	1710-1880	1850-1990	1920-2170
Impedance	50 Ohms		
VSWR	1.40:1		
Polarization	±45°		
Isolation between ports (dB)	30		
Average gain (dBd/dBi)	12.4/14.5	12.4/14.5	12.9/15
Horizontal beamwidth (deg)	65°±5°		
Vertical beamwidth (deg)	14.5°±0.5°	14.5°±0.5°	14.5°±0.5°
Electrical tilt (deg)	Fixed 0°-14°		
Sidelobe suppression (dB)	16	16	16
Front to back ratio (dB) @180°±30°	25		
Polarization isolation (dB) @3 dB beamwidth	20		
Maximum power per input (w)	250		
Intermodulation products (dBc)	-150		
Connectors	2 x 7/16 female		
Connector position	Antenna bottom		



Mechanical & Environmental Specifications	
Dimensions in (mm)	21.3 x 6.3 x 3.5 (540 x 160 x 90)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	32 (146)
Lateral windload lbs (N) @100 mph/160 km/h	18 (82)
Antenna weight lbs (kg)	6.6 (2.5)
Clamps weight lbs (kg)	7.7 (3.5)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	33.0 x 8.8 x 6.9 (840 x 225 x 175)
Weight lbs (kg)	22 (10)
Material	Cardboard and foam



1710-2170 MHz

Model # MG D3-400TV

XPol GSM1800+PCS & UMTS Panel Antenna

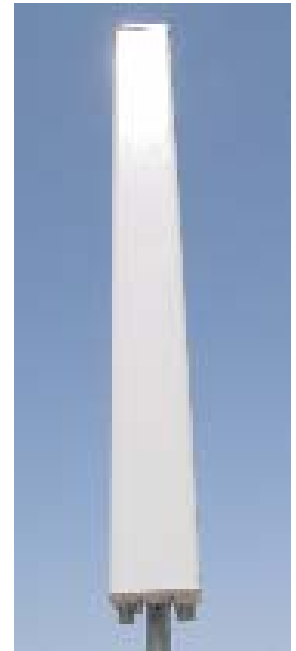
0°-10° Variable Electrical Tilt

Beamwidth: H 65° V 14.5°

Gain: 12.9 dBd/15.0 dBi

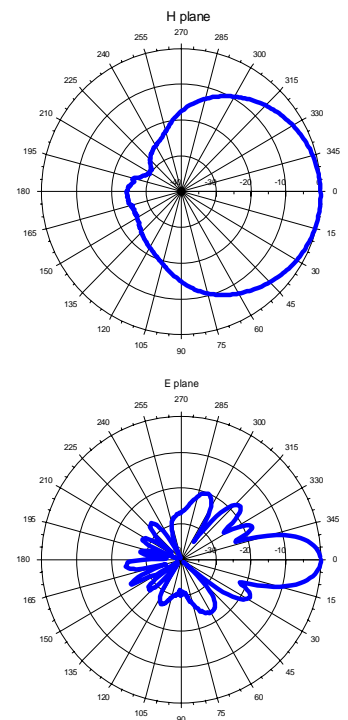
Length: 26.4 in

Electrical Specifications			
Antenna model	MG D3-400TV		
Frequency range (MHz)	1710-1880	1850-1990	1920-2170
Impedance	50 Ohms		
VSWR	1.40:1		
Polarization	±45°		
Isolation between ports (dB)	30		
Average Gain (dBd/dBi)	12.4/14.5	12.4/14.5	12.9/15
Horizontal beamwidth (deg)	65°±5°		
Vertical beamwidth (deg)	14.5°±0.5°	14.5°±0.5°	14.5°±0.5°
Electrical tilt (deg)	VET 0°-10°		
Sidelobe suppression (dB)	16	16	16
Front to back ratio (dB) @180°±30°	25		
Polarization isolation (dB) @3 dB beamwidth	20		
Maximum power per input (w)	250		
Intermodulation products (dBc)	-150		
Connectors	2 x 7/16 female		
Connector position	Antenna bottom		



Mechanical & Environmental Specifications	
Dimensions in (mm)	26.4 x 6.3 x 3.5 (670 x 160 x 90)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	32 (146)
Lateral windload lbs (N) @100 mph/160 km/h	18 (82)
Antenna weight lbs (kg)	8.8 (4)
Clamps weight lbs (kg)	7.7 (3.5)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	38 x 8.8 x 6.9 (970 x 225 x 175)
Weight lbs (kg)	24 (11)
Material	Cardboard and foam



1710-2170 MHz

Model # MG D3-800Tx

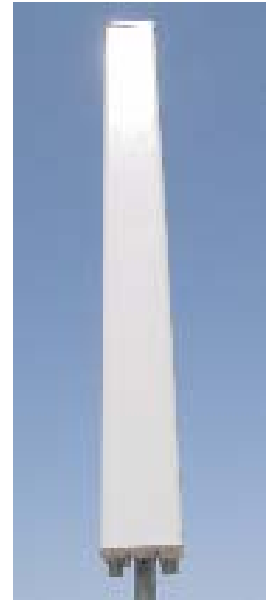
XPoI GSM1800+PCS & UMTS Panel Antenna

Beamwidth: H 65° V 6.5°

Gain: 16.15 dBd/18.25 dBi

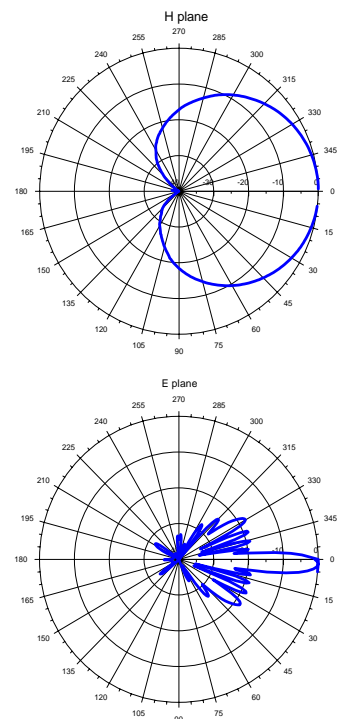
Length: 52.7 in

Electrical Specifications			
Antenna model	MG D3-800Tx		
Frequency range (MHz)	1710-1880	1850-1990	1920-2170
Impedance	50 Ohms		
VSWR	1.40:1		
Polarization	±45°		
Isolation between ports (dB)	30		
Average gain (dBd/dBi)	15.7/17.8	15.9/18	16.15/18.25
Horizontal beamwidth (deg)	65°±5°		
Vertical beamwidth (deg)	6.5°±0.5°	6.3°±0.5°	6.3°±0.5°
Electrical tilt (deg)	Fixed 0°-14°		
Sidelobe suppression (dB)	18	18	18
Front to back ratio (dB) @180°±30°	30		
Polarization isolation (dB) @3 dB beamwidth	20		
Maximum power per input (w)	250		
Intermodulation products (dBc)	-150		
Connectors	2 x 7/16 female		
Connector position	Antenna bottom		



Mechanical & Environmental Specifications	
Dimensions in (mm)	52.7 x 6.3 x 3.5 (1380 x 160 x 90)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	74 (335)
Lateral windload lbs (N) @100 mph/160 km/h	42 (188)
Antenna weight lbs (kg)	15 (7)
Clamps weight lbs (kg)	7.7 (3.5)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	64 x 8.8 x 6.9 (1630 x 225 x 175)
Weight lbs (kg)	27 (12.5)
Material	Cardboard and foam



1710-2170 MHz

Model # MG D3-800Tv

XPol GSM1800+PCS & UMTS Panel Antenna

0°-10° Variable Electrical Tilt

Beamwidth: H 65° V 6.5°

Gain: 15.9 dBd/18 dBi

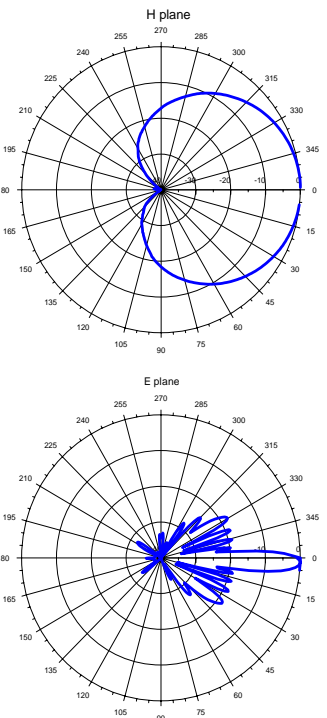
Length: 52.7 in



Electrical Specifications			
Antenna model	MG D3-800Tv		
Frequency range (MHz)	1710-1880	1850-1990	1920-2170
Impedance	50 Ohms		
VSWR	1.40:1		
Polarization	±45°		
Isolation between ports (dB)	30		
Average gain (dBd/dBi)	15.2/17.3	15.65/17.75	15.9/18
Horizontal beamwidth (deg)	65°±5°		
Vertical beamwidth (deg)	6.5°±0.5°	6.0°±0.5°	6.0°±0.5°
Electrical tilt (deg)	VET 0°-10°		
Sidelobe suppression (dB)	18	18	18
Front to back ratio (dB) @180°±30°	30		
Polarization isolation (dB) @3 dB beamwidth	20		
Maximum power per input (w)	250		
Intermodulation products (dBc)	-150		
Connectors	2 x 7/16 female		
Connector position	Antenna bottom		

Mechanical & Environmental Specifications	
Dimensions in (mm)	52.7 x 6.3 x 3.5 (1340 x 160 x 90)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	74 (335)
Lateral windload lbs (N) @100 mph/160 km/h	42 (188)
Antenna weight lbs (kg)	17.6 (8)
Clamps weight lbs (kg)	7.7 (3.5)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	64 x 8.8 x 6.9 (1630 x 225 x 175)
Weight lbs (kg)	30 (13.5)
Material	Cardboard and foam



1710-2170 MHz

Model # MG D3-900Tx

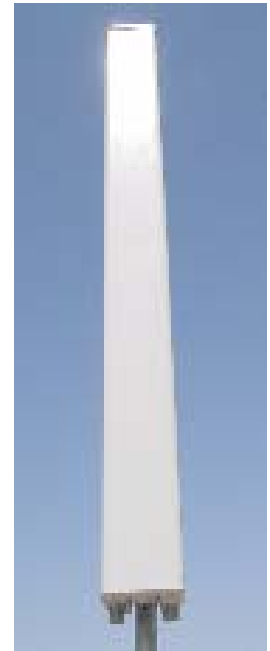
XPol GSM1800+PCS & UMTS Panel Antenna

Beamwidth: H 65° V 4.5°

Gain: 17.4 dBd/19.5 dBi

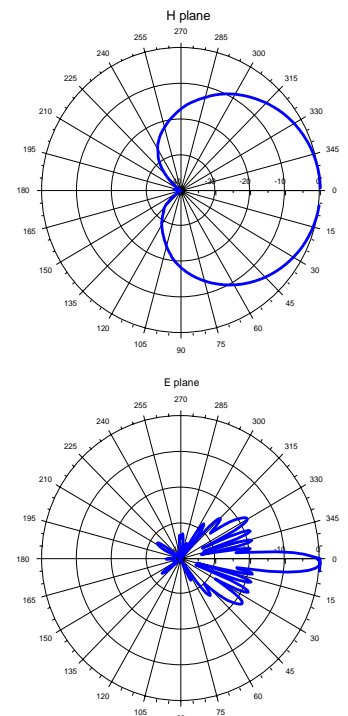
Length: 73.2 in

Electrical Specifications			
Antenna model	MG D3-900Tx		
Frequency range (MHz)	1710-1880	1850-1990	1920-2170
Impedance	50 Ohms		
VSWR	1.40:1		
Polarization	±45°		
Isolation between ports (dB)	30		
Average gain (dBd/dBi)	16.9/19	17.2/19.3	17.4/19.5
Horizontal beamwidth (deg)	65°±5°		
Vertical beamwidth (deg)	4.5°±0.5°	4.5°±0.5°	4.5°±0.5°
Electrical tilt (deg)	Fixed 0°-14°		
Sidelobe suppression (dB)	18	18	18
Front to back ratio (dB) @180°±30°	30		
Polarization isolation (dB) @3 dB beamwidth	20		
Maximum power per input (w)	250		
Intermodulation products (dBc)	-150		
Connectors	2 x 7/16 female		
Connector position	Antenna bottom		



Mechanical & Environmental Specifications	
Dimensions in (mm)	73.2 x 6.3 x 3.5 (1860 x 160 x 90)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	106 (481)
Lateral windload lbs (N) @100 mph/160 km/h	60 (270)
Antenna weight lbs (kg)	24.2 (11)
Clamps weight lbs (kg)	7.7 (3.5)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	87 x 8.8 x 6.9 (2210 x 225 x 175)
Weight lbs (kg)	37 (17)
Material	Cardboard and foam



1710-2170 MHz

Model # MG D5-400Tx

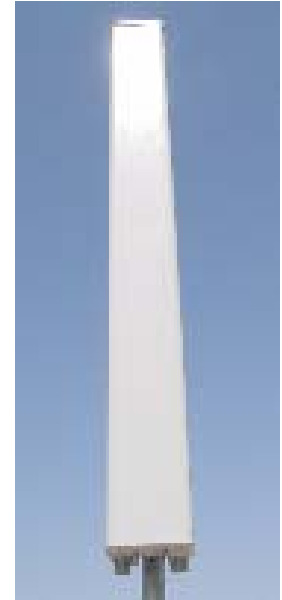
XPol GSM1800+PCS & UMTS Panel Antenna

Beamwidth: H 85° V 14.5°

Gain: 11.9 dBd/14.0 dBi

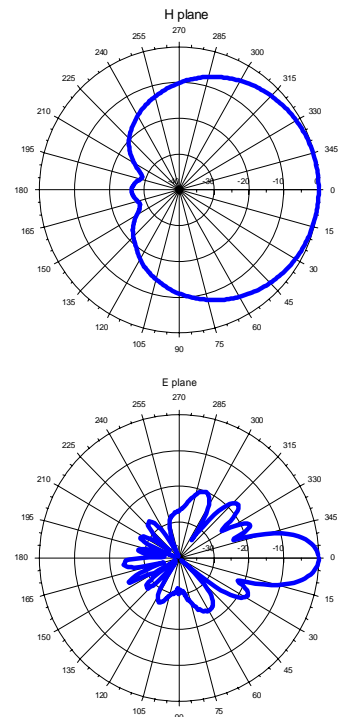
Length: 21.3 in

Electrical Specifications			
Antenna model	MG D5-400Tx		
Frequency range (MHz)	1710-1880	1850-1990	1920-2170
Impedance	50 Ohms		
VSWR	1.40:1		
Polarization	±45°		
Isolation between ports (dB)	30		
Average gain (dBd/dBi)	11.1/13.2	11.4/13.5	11.9/14
Horizontal beamwidth (deg)	90°±5°		
Vertical beamwidth (deg)	14.5°	14.5°	14.5°
Electrical tilt (deg)	Fixed 0°-14°		
Sidelobe suppression (dB)	16	16	16
Front to back ratio (dB) @180°±30°	25		
Polarization isolation (dB) @3 dB beamwidth	20		
Maximum power per input (w)	250		
Intermodulation products (dBc)	-150		
Connectors	2 x 7/16 female		
Connector position	Antenna bottom		



Mechanical & Environmental Specifications	
Dimensions in (mm)	21.3 x 6.3 x 3.5 (540 x 160 x 90)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	32 (146)
Lateral windload lbs (N) @100 mph/160 km/h	18 (82)
Antenna weight lbs (kg)	6.6 (3)
Clamps weight lbs (kg)	7.7 (3.5)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	33 x 8.8 x 6.9 (840 x 225 x 175)
Weight lbs (kg)	22 (10)
Material	Cardboard and foam



1710-2170 MHz

Model # MG D5-400TV

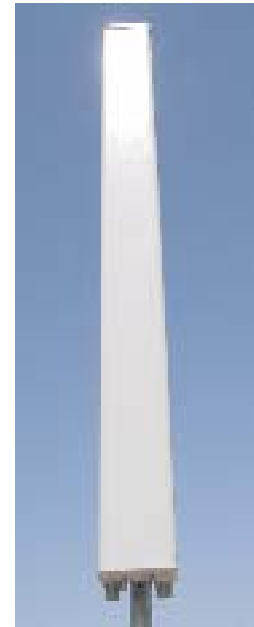
XPol GSM1800+PCS & UMTS Panel Antenna

0°-10° VARIABLE ELECTRICAL TILT

Beamwidth: H 85° V 14.5°

Gain: 11.9 dBd/14.0 dBi

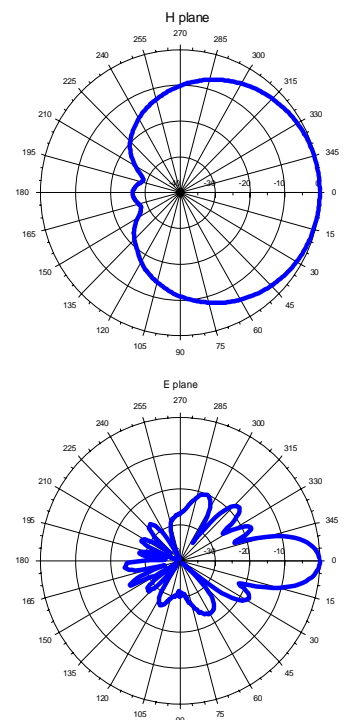
Length: 26.4 in



Electrical Specifications			
Antenna model	MG D5-400TV		
Frequency range (MHz)	1710-1880	1850-1990	1920-2170
Impedance	50 Ohms		
VSWR	1.40:1		
Polarization	±45°		
Isolation between ports (dB)	30		
Average gain (dBd/dBi)	11.6/13.7	11.9/14	11.9/14
Horizontal beamwidth (deg)	90°±5°		
Vertical beamwidth (deg)	14.5°	14.5°	14.5°
Electrical tilt (deg)	VET 0°-10°		
Sidelobe suppression (dB)	16	16	16
Front to back ratio (dB) @180°±30°	25		
Polarization isolation (dB) @3 dB beamwidth	20		
Maximum power per input (w)	250		
Intermodulation products (dBc)	-150		
Connectors	2 x 7/16 female		
Connector position	Antenna bottom		

Mechanical & Environmental Specifications	
Dimensions in (mm)	26.4 x 6.3 x 3.5 (670 x 160 x 90)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	32 (146)
Lateral windload lbs (N) @100 mph/160 km/h	18 (82)
Antenna weight lbs (kg)	6.6 (3)
Clamps weight lbs (kg)	7.7 (3.5)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	33 x 8.8 x 6.9 (840 x 225 x 175)
Weight lbs (kg)	22 (10)
Material	Cardboard and foam



1710-2170 MHz

Model # MG D5-800Tx

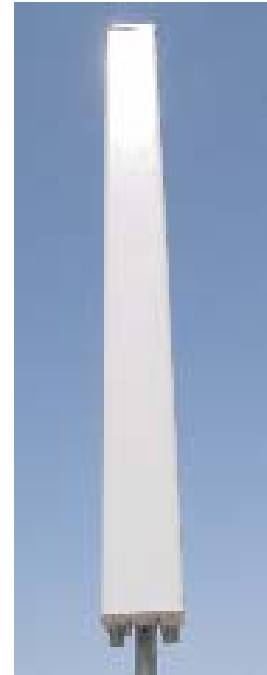
XPol GSM1800+PCS & UMTS Panel Antenna

Beamwidth: H 85° V 6.5°

Gain: 14.9 dBi/17.0 dBi

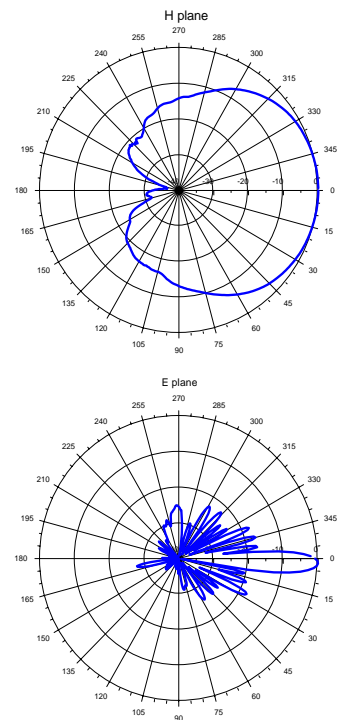
Length: 52.7 in

Electrical Specifications			
Antenna model	MG D5-800Tx		
Frequency range (MHz)	1710-1880	1850-1990	1920-2170
Impedance	50 Ohms		
VSWR	1.40:1		
Polarization	±45°		
Isolation between ports (dB)	30		
Average gain (dBd/dBi)	14.2/16.3	14.6/16.7	14.9/17
Horizontal beamwidth (deg)	85°±5°		
Vertical beamwidth (deg)	6.5°±0.5°	6.5°±0.5°	6.5°±0.5°
Electrical tilt (deg)	Fixed 0°-14°		
Sidelobe suppression (dB)	18	18	18
Front to back ratio (dB) @180°±30°	30		
Polarization isolation (dB) @3 dB beamwidth	20		
Maximum power per input (w)	250		
Intermodulation products (dBc)	-150		
Connectors	2 x 7/16 female		
Connector position	Antenna bottom		



Mechanical & Environmental Specifications	
Dimensions in (mm)	52.7 x 6.3 x 3.5 (1340 x 160 x 90)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	74 (335)
Lateral windload lbs (N) @100 mph/160 km/h	42 (188)
Antenna weight lbs (kg)	15.4 (7)
Clamps weight lbs (kg)	7.7 (3.5)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	64 x 8.8 x 6.9 (1630 x 225 x 175)
Weight lbs (kg)	27 (12.5)
Material	Cardboard and foam



1710-2170 MHz

Model # MG D5-800Tv

XPol GSM1800+PCS & UMTS Panel Antenna

0°-10° Variable Electrical Tilt

Beamwidth: H 85° V 6.5°

Gain: 14.9 dBd/17.0 dBi

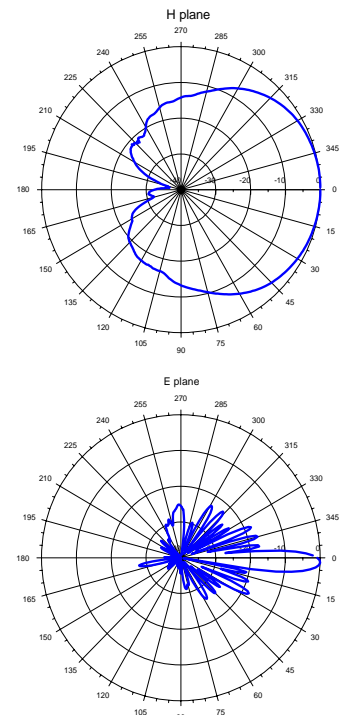
Length: 52.7 in

Electrical Specifications			
Antenna model	MG D5-800Tv		
Frequency range (MHz)	1710-1880	1850-1990	1920-2170
Impedance	50 Ohms		
VSWR	1.40:1		
Polarization	±45°		
Isolation between ports (dB)	30		
Average gain (dBd/dBi)	14.2/16.3	14.6/16.7	14.9/17
Horizontal beamwidth (deg)	85°±5°		
Vertical beamwidth (deg)	6.5°±0.5°	6.5°±0.5°	6.5°±0.5°
Electrical tilt (deg)	VET 0°-10°		
Sidelobe suppression (dB)	18	18	18
Front to back ratio (dB) @180°±30°	30		
Polarization isolation (dB) @3 dB beamwidth	20		
Maximum power per input (w)	250		
Intermodulation products (dBc)	-150		
Connectors	2 x 7/16 female		
Connector position	Antenna bottom		



Mechanical & Environmental Specifications	
Dimensions in (mm)	52.7 x 6.3 x 3.5 (1340 x 160 x 90)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	74 (335)
Lateral windload lbs (N) @100 mph/160 km/h	42 (188)
Antenna weight lbs (kg)	17.6 (8)
Clamps weight lbs (kg)	7.7 (3.5)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	64 x 8.8 x 6.9 (1630 x 225 x 175)
Weight lbs (kg)	30 (13.5)
Material	Cardboard and foam



1710-2170 MHz

Model # MG D5-900Tx

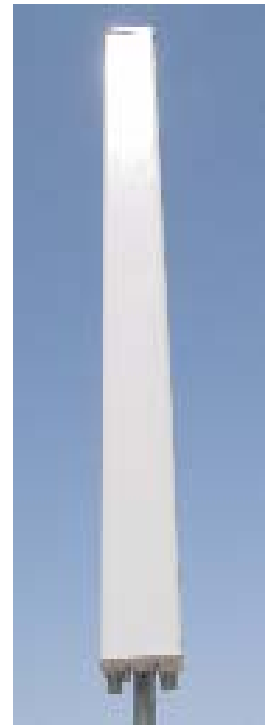
XPoI GSM1800+PCS & UMTS Panel Antenna

Beamwidth: H 85° V 4.5°

Gain: 16.3 dBd/18.4 dBi

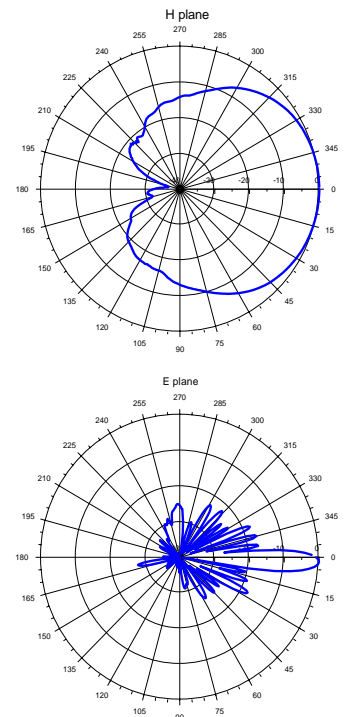
Length: 73.2 in

Electrical Specifications			
Antenna model	MG D5-900Tx		
Frequency range (MHz)	1710-1880	1850-1990	1920-2170
Impedance	50 Ohms		
VSWR	1.40:1		
Polarization	±45°		
Isolation between ports (dB)	30		
Average gain (dBd/dBi)	15.6/17.7	16.1/18.2	16.3/18.4
Horizontal beamwidth (deg)	85°±5°		
Vertical beamwidth (deg)	4.5°±0.5°	4.5°±0.5°	4.5°±0.5°
Electrical tilt (deg)	Fixed 0°-14°		
Sidelobe suppression (dB)	18	18	18
Front to back ratio (dB) @180°±30°	25		
Polarization isolation (dB) @3 dB Beamwidth	20		
Maximum power per input (w)	250		
Intermodulation products (dBc)	-150		
Connectors	2 x 7/16 female		
Connector position	Antenna bottom		



Mechanical & Environmental Specifications	
Dimensions in (mm)	73.2 x 6.3 x 3.5 (1860 x 160 x 90)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	106 (481)
Lateral windload lbs (N) @100 mph/160 km/h	60 (270)
Antenna weight lbs (kg)	24.2 (12)
Clamps weight lbs (kg)	7.7 (3.5)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	87 x 8.8 x 6.9 (2210 x 225 x 175)
Weight lbs (kg)	37 (18)
Material	Cardboard and foam



PCS: *QuadPol*

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Electrical Tilt	Length (in)
1710-2170	BG D3-800TxTx	XPOL +/- 45°	2 X 65°	2 X 6.3°	16.15/18.25	Fixed 0°-14°	53
1710-2170	BG D3-800TV	XPOL +/- 45°	2 X 65°	2 X 6.3°	15.9/18.0	VET 0°-10°	53

1710 – 2170 MHz

Model # BG D3-800TxTx

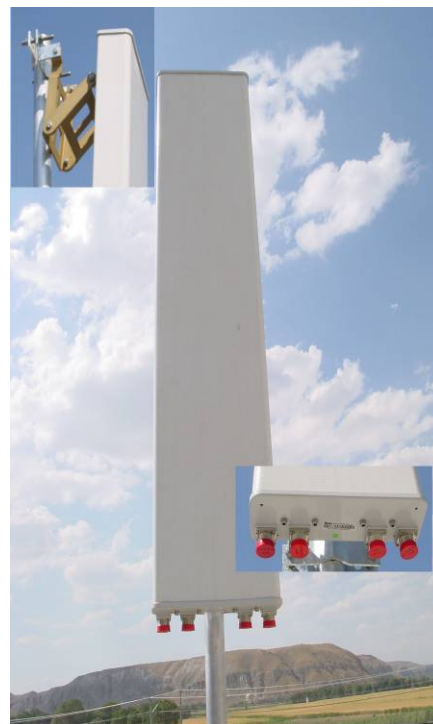
XPol GSM1800+PCS & UMTS Twin Beam/QuadPol Panel Antenna

Beamwidth: H 65° V 6.3°

Gain: 16.15 dBd/18.25 dBi

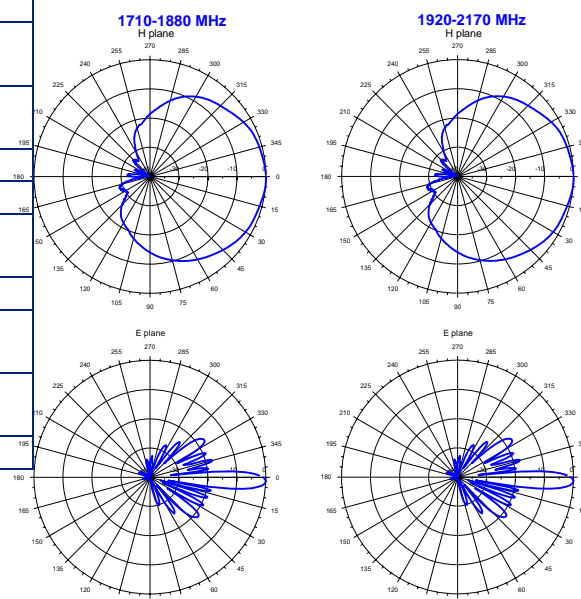
Length: 52.7 in

Electrical Specifications		
Antenna model	BG D3-800TxTx	
	Beam 1	Beam 2
Frequency range (MHz)	1710-2170	1710-2170
Impedance	50 Ohms	
VSWR	1.40:1	
Polarization	±45°	
Isolation between ports (dB)	30	
Average gain (dBd/dBi)	16.15/18.25	16.15/18.25
Horizontal beamwidth (deg)	65±5°	
Vertical beamwidth (deg)	6.3°±0.5°	6.3°±0.5°
Electrical tilt (deg)	Fixed 0°-14°	
Sidelobe suppression (dB)	18	18
Front to back ratio (dB) @180°±30°	30	
Polarization isolation (dB) @3 dB beamwidth	20	
Maximum power per input (w)	250	
Intermodulation products (dBc)	-150	
Connectors	4 x 7/16 female	
Connector position	Antenna bottom	



Mechanical & Environmental Specifications	
Dimensions in (mm)	52.7 x 11.8 x 3.5 (1340 x 300 x 90)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	138 (628)
Lateral windload lbs (N) @100 mph/160 km/h	42 (188)
Antenna weight lbs (kg)	30 (13.5)
Clamps weight lbs (kg)	16.2 (7.3)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	64 x 14 x 7.5 (1630 x 355 x 190)
Weight lbs (kg)	53 (24)
Material	Cardboard and foam



1710 – 2170 MHz

Model # BG D3-800TV

XPol GSM1800+PCS & UMTS Twin Beam/QuadPol Panel Antenna

0°-10° Variable Electrical Tilt

Beamwidth: H 65° V 6.3°

Gain: 15.9 dBd/18.0 dBi

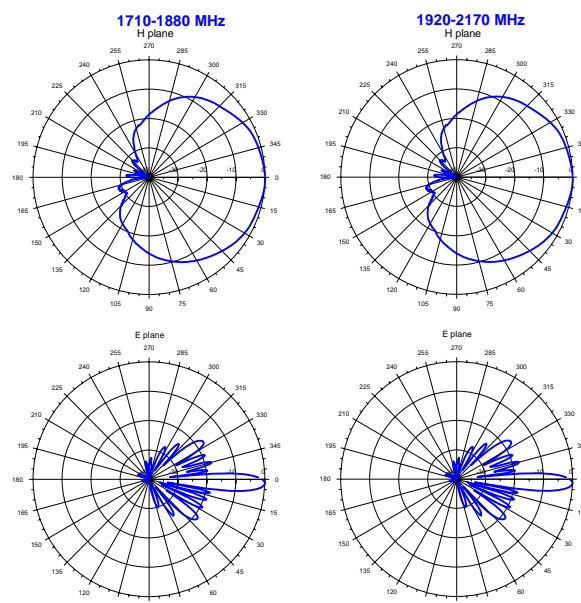
Length: 52.7 in

Electrical Specifications		
Antenna model	BG D3-800TV	
	Beam 1	Beam 2
Frequency range (MHz)	1710-2170	1710-2170
Impedance	50 Ohms	
VSWR	1.40:1	
Polarization	±45°	
Isolation between ports (dB)	30	
Average gain (dBd/dBi)	15.9/18.0	15.9/18.0
Horizontal beamwidth (deg)	65±5°	
Vertical beamwidth (deg)	6.3°±0.5°	6.3°±0.5°
Electrical tilt (deg)	VET 0°-10°	
Sidelobe suppression (dB)	18	18
Front to back ratio (dB) @180°±30°	30	
Polarization isolation (dB) @3 dB Beamwidth	20	
Maximum power per input (w)	250	
Intermodulation products (dBc)	-150	
Connectors	4 x 7/16 female	
Connector position	Antenna bottom	



Mechanical & Environmental Specifications	
Dimensions in (mm)	52.7 x 11.8 x 3.5 (1340 x 300 x 90)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	138 (628)
Lateral windload lbs (N) @100 mph/160 km/h	42 (188)
Antenna weight lbs (kg)	30 (13.5)
Clamps weight lbs (kg)	16.2 (7.3)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	64 x 14 x 7.5 (1630 x 355 x 190)
Weight lbs (kg)	53 (24)
Material	Cardboard and foam



PCS: *Trisector/Stealth*

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Electrical Tilt	Length (in)
1710-2170	TS D3-800TV	XPOL +/- 45°	3 X 65°	6.5°	15.9/18.0	VET 0°-10°	67
1710-2170	TS BG-800TV	XPOL +/- 45°	3 x 2 x 65°	6.5°	15.9/18.0	VET 0°-10°	67

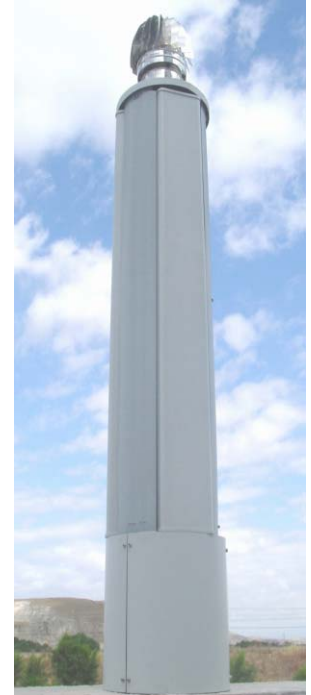
Trisector 3 x 65° XPol – Independent Variable Electrical Tilt on Each Sector

Gain: 3 x 18 dBi wide band 1710-2170 MHz

Azimuth adjustment on each sector +/- 20°

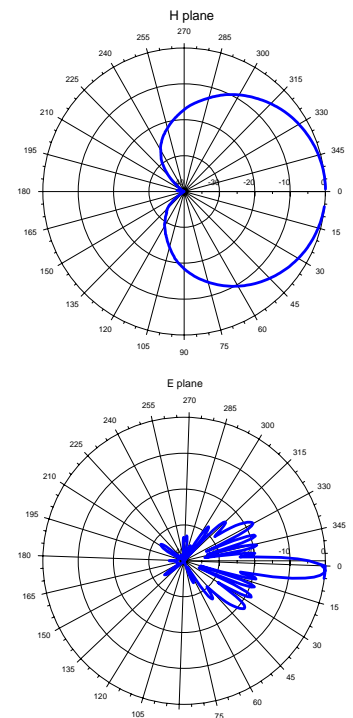
Length: 66.9 in

Electrical Specifications			
Antenna model	TS D3-800TV		
Frequency range (MHz)	1710-1880	1850-1990	1920-2170
Impedance	50 Ohms		
VSWR	1.40:1		
Polarization	±45°		
Connector isolation (dB)	30		
Sector isolation (dB)	35		
Average gain (dBd/dBi)	15.1/17.2	15.65/17.75	15.9/18
Horizontal beamwidth (deg)	65°±5°	65°±5°	65°±5°
Vertical beamwidth (deg)	6.5°±0.5°	6.3°±0.5°	6.3°±0.5°
Electrical tilt (deg)	VET 0°-10°		
Upper sidelobe suppression 0°-20° (dB)	17		
Front to back ratio (dB) @180°±30°	30		
Polarization isolation (dB) @3 dB beamwidth	20		
Maximum power per input (w)	250		
Intermodulation products (dBc)	-150		
Connectors	6 x 7/16 female		
Connector position	Antenna bottom		



Mechanical & Environmental Specifications	
Dimensions in (mm)	66.9 x 13.8 diameter (1700 x 350 diameter)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	149 (677)
Lateral windload lbs (N) @100 mph/160 km/h	149 (677)
Antenna weight lbs (kg)	132 (60)
Clamps weight lbs (kg)	NA
Mast mounting in (cm)	NA
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	76 x 22 x 23.6 (1940 x 550 x 600)
Weight lbs (kg)	187 (85)
Material	Cardboard and foam



Trisector 6 x 65° XPol

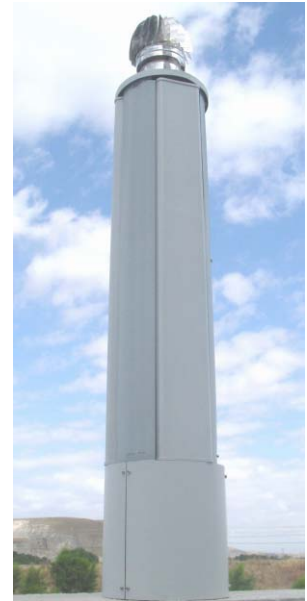
Independent Variable Electrical Tilt on Each Sector

Gain: 3 x 2 x 18 dBi wide band twin beam/QuadPol

Azimuth adjustment on each sector +/- 20°

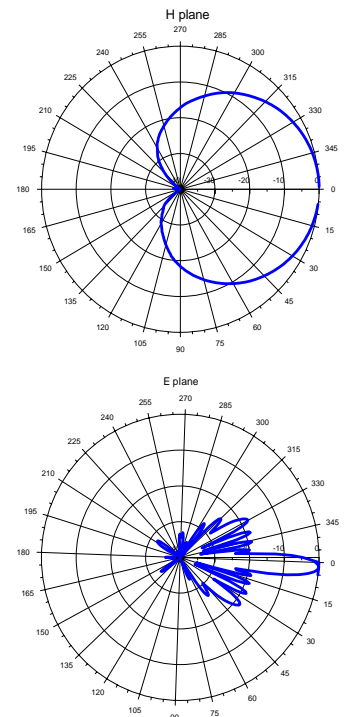
Length: 66.9 in

Electrical Specifications			
Antenna model	TS BG-800TV		
Frequency range (MHz)	1710-1880	1850-1990	1920-2170
Impedance	50 Ohms		
VSWR	1.40:1		
Polarization	±45°		
Connector isolation (dB)	30		
Sector isolation (dB)	35		
Average gain (dBd/dBi)	15.2/17.3	15.65/17.75	15.9/18
Horizontal beamwidth (deg)	65°±5°	65°±5°	65°±5°
Vertical beamwidth (deg)	6.5°±0.5°	6.3°±0.5°	6.3°±0.5°
Electrical tilt (deg)	Variable 0°-10°		
Sidelobe Suppression (dB)	18		
Front to back ratio (dB) @180°±30°	25		
Polarization isolation (dB) @3 dB beamwidth	20		
Maximum power per input (w)	250		
Intermodulation products (dBc)	-150		
Connectors	12 x 7/16 female		
Connector position	Antenna bottom		



Mechanical & Environmental Specifications	
Dimensions in (mm)	66.9 x 17.7 diameter (1700 x 450 diameter)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	192 (870)
Lateral windload lbs (N) @100 mph/160 km/h	192 (870)
Antenna weight lbs (kg)	176 (80)
Clamps weight lbs (kg)	NA
Mast mounting in (cm)	NA
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	70.9 x 23.6 x 23.6 (1800 x 600 x 600)
Weight lbs (kg)	220 (100)
Material	Cardboard and foam



PCS: *Indoor*

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Dimensions (in)
824-2170	TG V0-100	Vertical	Omni	75°	0.0/2.1	7.87 x 2.12
1850-2170	AT 5A-169	Vertical	65°	80°	5.0/8.0	7.9 x 3.5 x 0.8

824-2170 MHz

Model # TG V0-100

VPol Multiband Omni Indoor Antenna

Beamwidth: H 360° V70°

Gain: 0 dBd/2.1 dBi

Length: 7.87 in

Electrical Specifications	
Antenna model	TG V0-100
Impedance	50 Ohms
Polarization	Vertical
VSWR	< 2:1
Average gain (dBd/dBi)	0/2.1
Maximum power per input (w)	50
Connectors	N female
Connector position	Antenna rear

Mechanical & Environmental Specifications	
Dimensions in (mm)	7.87 x 2.12 (200 x 54)
Antenna weight lbs (kg)	0.7 (0.3)
Radome color	White
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-4° to 122°F (-20° to +50°C)

Shipping Specifications	
Dimensions in (mm)	9.84 x 9.84 x 2.75 (250 x 250 x 70)
Weight lbs (kg)	2.22 (1)
Material	Cardboard and foam



1850-2170 MHz

Model # AT 5A-169

Yagi Antenna Indoor/Outdoor

Beamwidth: H 65° V 80°

Gain: 5.9 dBd/8 dBi

Length: 7.9 in

Electrical Specifications	
Antenna model	AT 5A-169
Impedance	50 Ohms
Polarization	V/H
VSWR	1.50:1
Average gain dBd/dBi	5.9/8 (including 1 m. jumper)
Horizontal beamwidth (deg)	65°
Vertical beamwidth (deg)	80°
Sidelobe suppression	10
Front to back ratio (dB) @180°±45°	20
Polarization isolation (dB) @3 dB beamwidth	15
Maximum power per input (w)	20
Connectors	N
Connector position	1 m. jumper cable

Mechanical & Environmental Specifications	
Dimensions in (mm)	7.9 x 3.5 x 0.8 (200 x 90 x 20)
Survival wind speed	124 mph (200 km/h)
Front windload lbs (N) @100mph/160 km/h	6 (27)
Lateral windload lbs (N) @100mph/160 km/h	1 (6)
Antenna weight lbs (kg)	0 (0.25)
Clamps weight lbs (kg)	1 (0.5)
Mast mounting in (cm)	2.0 to 5.3 in (40 to 60 mm) (wall mounting included)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55° to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	11.8 x 5.9 x 2.0 (300 x 150 x 50)
Weight lbs (kg)	3 (1.5)
Material	Cardboard and foam



PCS: *Repeater*

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Dimensions (in)
1850-2170	AT 5A-169	Vertical	65°	80°	5.9/8.0	7.9 x 3.5 x 0.8
1710-2170	MG V1-300	Vertical	40°	30°	12.0/14.1	16.3 x 13.7 x 5.7

1850-2170 MHz

Model # AT 5A-169

Yagi Antenna Indoor/Outdoor

Beamwidth: H 65° V 80°

Gain: 5.9 dBd/8 dBi

Length: 7.9 in

Electrical Specifications	
Antenna model	AT 5A-169
Impedance	50 Ohms
Polarization	V/H
VSWR	1.50:1
Average gain dBd/dBi	5.9/8 (including 1 m. jumper)
Horizontal beamwidth (deg)	65°
Vertical beamwidth (deg)	80°
Sidelobe suppression	10
Front to back ratio (dB) @180°±45°	20
Polarization isolation (dB) @3 dB beamwidth	15
Maximum power per input (w)	20
Connectors	N
Connector position	1 m. jumper cable

Mechanical & Environmental Specifications	
Dimensions in (mm)	7.9 x 3.5 x 0.8 (200 x 90 x 20)
Survival wind speed	124 mph (200 km/h)
Front windload lbs (N) @100mph/160 km/h	6 (27)
Lateral windload lbs (N) @100mph/160 km/h	1 (6)
Antenna weight lbs (kg)	0 (0.25)
Clamps weight lbs (kg)	1 (0.5)
Mast mounting in (cm)	2.0 to 5.3 in (40 to 60 mm) (wall mounting included)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55° to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	11.8 x 5.9 x 2.0 (300 x 150 x 50)
Weight lbs (kg)	3 (1.5)
Material	Cardboard and foam



1710-2170 MHz

Model # MG V1-300

VPol Donor Antenna

Beamwidth: H 40° V33°

Gain: 12 dBd/14.1 dBi

Length: 16.3 in

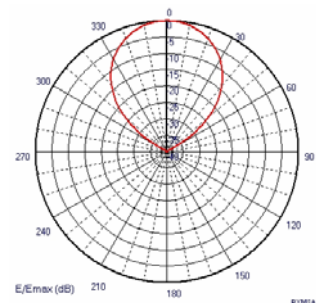
Electrical Specifications			
Antenna model	MG V1-300		
Frequency range (MHz)	1710-1880	1850-1990	1920-2170
Impedance	50 Ohms		
VSWR	1.50:1		
Polarization	Vertical		
Isolation between ports (dB)	30		
Average Gain (dBi)	11.5/13.6	12/14.1	12/14.1
Horizontal beamwidth (deg)	42	40	40
Vertical beamwidth (deg)	33	33	33
Electrical tilt (deg)	0°		
Sidelobe suppression (dB)	20	20	20
Front to back ratio (dB) @180°±30°	40		
Polarization isolation (dB) @3 dB beamwidth	25		
Maximum power per input (w)	150		
Intermodulation products (dBc)	-150		
Connectors	1 x 7/16 female		
Connector position	Antenna bottom		

Mechanical & Environmental specifications	
Dimensions in (mm)	16.3 x 13.7 x 5.7 (413 x 347 x 145)
Survival wind speed	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	48 (217)
Lateral windload lbs (N) @100 mph/160 km/h	15 (70)
Antenna weight lbs (kg)	11 (5)
Clamps weight lbs (kg)	7.7 (3.5)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55° to +60°C)
Humidity	100 %

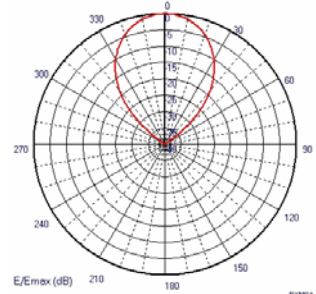
Shipping Specifications	
Dimensions in (mm)	23.6 x 17.7 x 9.8 (6000 x 450 x 250)
Weight lbs (kg)	20 (9)
Material	Cardboard and foam



H Plane

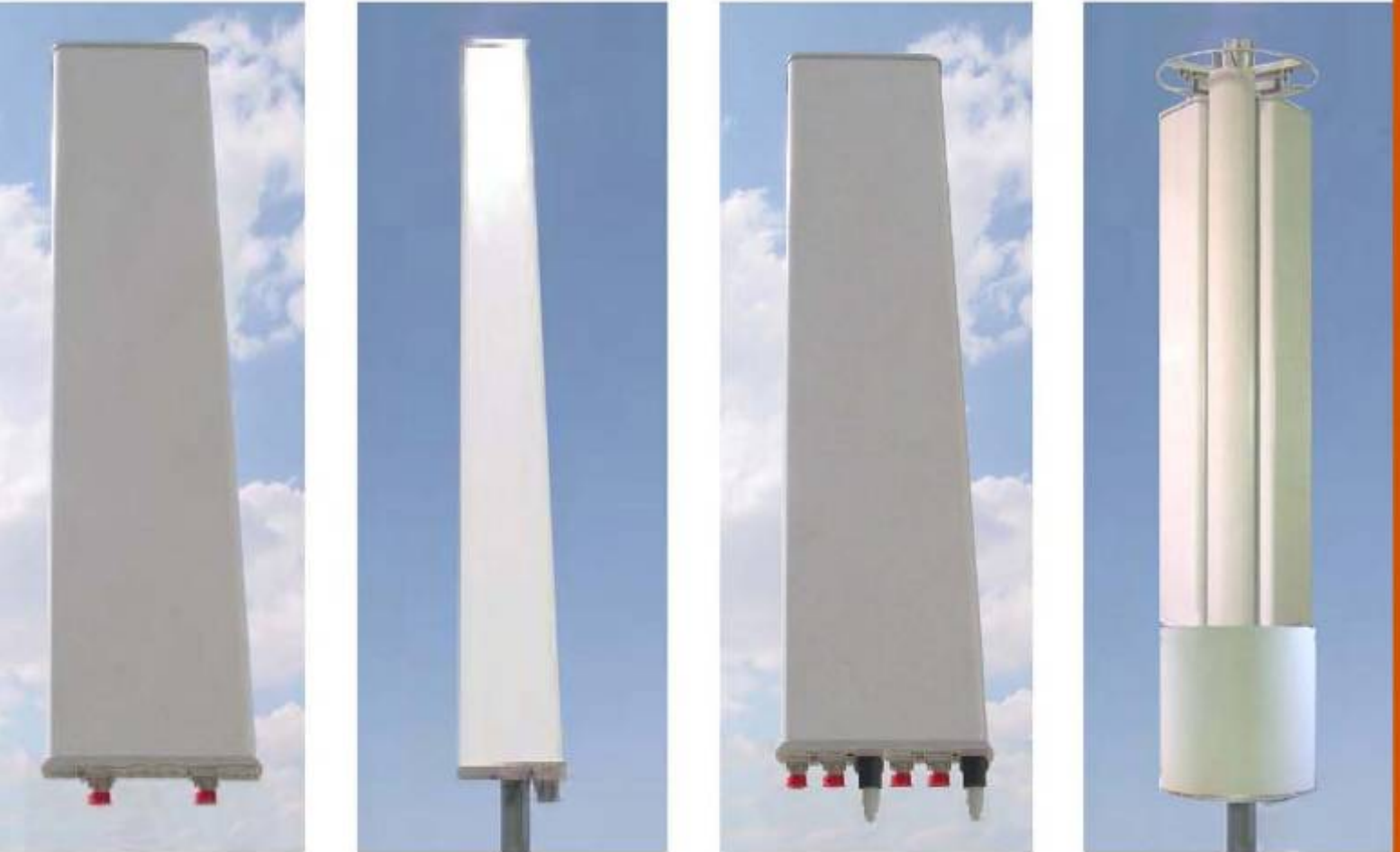


V Plane





Antennas Engineered for Performance and Durability



DUAL BAND

Dual Band

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Electrical Tilt	Length (in)
824-896 1850-2170	TGA D3-400TxTx	XPOL +/- 45°	65° 65°	14.5° 6.5°	12.4/14.5 15.4/17.5	Fixed 0°-14°	53
824-896 1850-2170	TGA D3-400TV	XPOL +/- 45°	65° 65°	14.5° 6.5°	12.4/14.5 15.4/17.5	VET 0°-8° 0°-10°	53
824-896 1850-2170	TGA D3-600TxTx	XPOL +/- 45°	65° 65°	10.0° 6.5°	13.4/15.5 15.4/17.5	Fixed 0°-14°	78
824-896 1850-2170	TGA D3-600TV	XPOL +/- 45°	65° 65°	10.0° 6.5°	13.4/15.5 15.4/17.5	VET 0°-8° 2°-10°	79
824-896 1850-2170	TGA D3-800TxTx	XPOL +/- 45°	65° 65°	7.0° 6.5°	14.6/16.7 15.4/17.5	Fixed 0°-14°	102
824-896 1850-2170	TGA D3-800TV	XPOL +/- 45°	65° 65°	7.0° 6.5°	14.6/16.7 15.4/17.5	VET 0°-8° 0°-10°	102

824-896/1850-2170 MHz

Model # TGA D3-400TxTx

XPoI Dual Band Antenna – Independent Fixed Electrical Tilt on Each Band

Beamwidth: H 68°/65° V 14.5°/6.5°

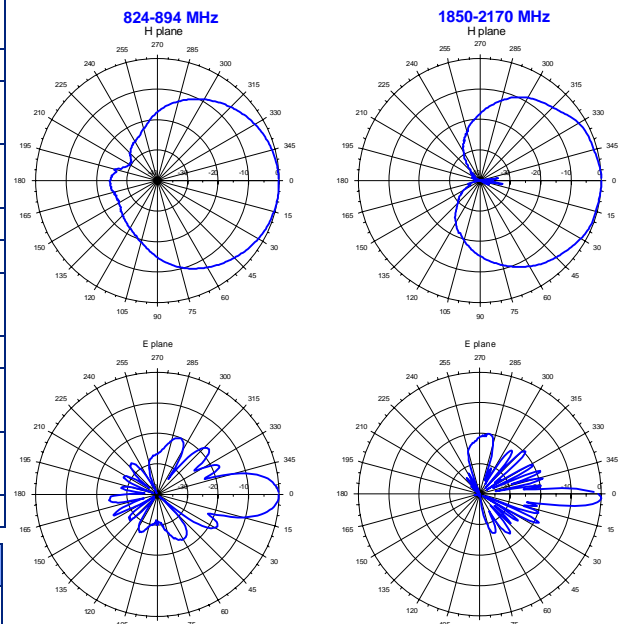
Gain: 12.4 dBd (14.5 dBi) at 850 MHz/15.4 dBd (17.5 dBi) at PCS & UMTS

Length: 52.8 in

Electrical Specifications		
Antenna model	TGA D3-400TxTx	
Frequency range (MHz)	824-896	1850-2170
Impedance	50 Ohms	
VSWR	<1.40:1	
Polarization	±45°	
Intraband isolation (dB)	>30	
Interbands isolation (dB)	>40	
Average gain (dBd/dBi)	12.4/14.5	15.4/17.5
Horizontal beamwidth (deg)	68°±4°	65±0.5°
Vertical beamwidth (deg)	14.5°±0.5°	6.5°±5°
Electrical tilt (deg)	Fixed 0°-14°	
Upper sidelobe suppression 0°-20° (dB)	16	17
Front to back ratio (dB) @180°±30°	25	30
Polarization isolation (dB) @3 dB beamwidth	20	
Maximum power per input (w)	500	250
Intermodulation products (dBc)	-150	
Connectors	4 x 7/16 female	
Connector position	Antenna bottom	

Mechanical & Environmental Specifications	
Dimensions in (mm)	52.8 x 13.4 x 5.5 (1340 x 340 x 140)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	153 (696)
Lateral windload lbs (N) @100 mph/160 km/h	63 (287)
Antenna weight lbs (kg)	43 (20)
Clamps weight lbs (kg)	16.2 (7.3)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55° to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	64 x 14 x 7.5 (1690 x 440 x 290)
Weight lbs (kg)	57 (33)
Material	Cardboard and foam



824-896/1850-2170 MHz

Model # TGA D3-400TV

XPOL Dual Band Antenna – Independent Variable Electrical Tilt on Each Band

Beamwidth: H 68°/65° V 14.5°/6.5°

Gain: 12.4 dBd (14.5 dBi) at 850 MHz/15.4 dBd (17.5 dBi) at PCS & UMTS

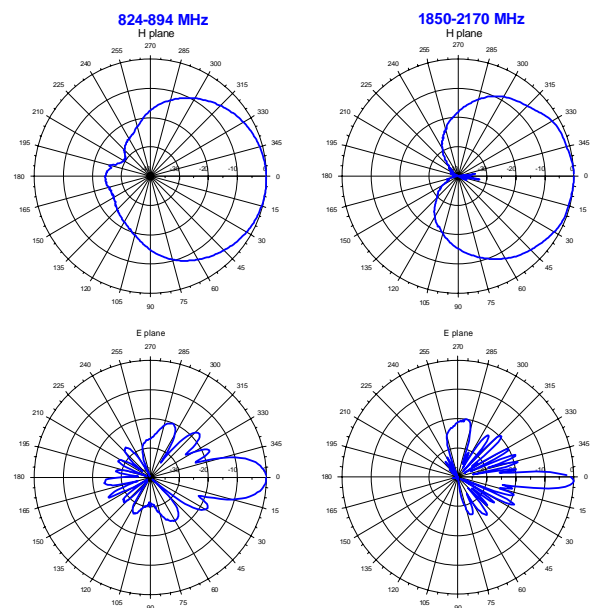
Length: 52.7 in

Electrical Specifications		
Antenna model	TGA D3-400TV	
Frequency range (MHz)	824-894	1850-2170
Impedance	50 Ohms	
VSWR	<1.40:1	
Polarization	±45°	
Intraband isolation (dB)	>30	
Interbands isolation (dB)	>40	
Average gain (dBd/dBi)	12.4/14.5	15.4/17.5
Horizontal beamwidth (deg)	68°±0.5°	65±0.5°
Vertical beamwidth (deg)	14.5°±0.5°	6.5°±0.5°
Electrical tilt (deg)	0°- 10°	
Upper sidelobe suppression 0°-20° (dB)	16	17
Front to back ratio (dB) @180°±30°	25	30
Polarization isolation (dB) @3 dB beamwidth	20	
Maximum power per input (w)	500	250
Intermodulation products (dBc)	-150	
Connectors	4 x 7/16 female	
Connector position	Antenna bottom	



Mechanical & Environmental Specifications	
Dimensions in (mm)	52.7 x 13.4 x 5.5 (1340 x 340 x 140)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N)	153 (696)
Lateral windload lbs (N) @100 mph/160 km/h	63 (287)
Antenna weight lbs (kg)	46.3 (21)
Clamps weight lbs (kg)	16.2 (7.3)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature Range F (°C)	-67° to 140°F (-55° to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions: in (mm)	66.5 x 17.7 x 11 (1690 x 450 x 290)
Weight lbs (kg)	73 (33)
Material	Cardboard and foam



824-896/1850-2170 MHz

Model # TGA D3-600TxTx

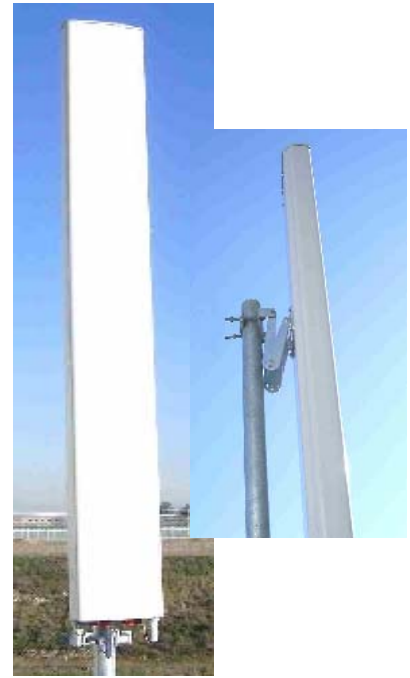
XPol Dual Band Antenna – Independent Fixed Electrical Tilt on Each Band

Beamwidth: H 65°/65° V 10°/6.5°

Gain: 13.4 dBd (15.5 dBi) at 850 MHz/15.4 dBd (17.5 dBi) at 1850-2170 MHz

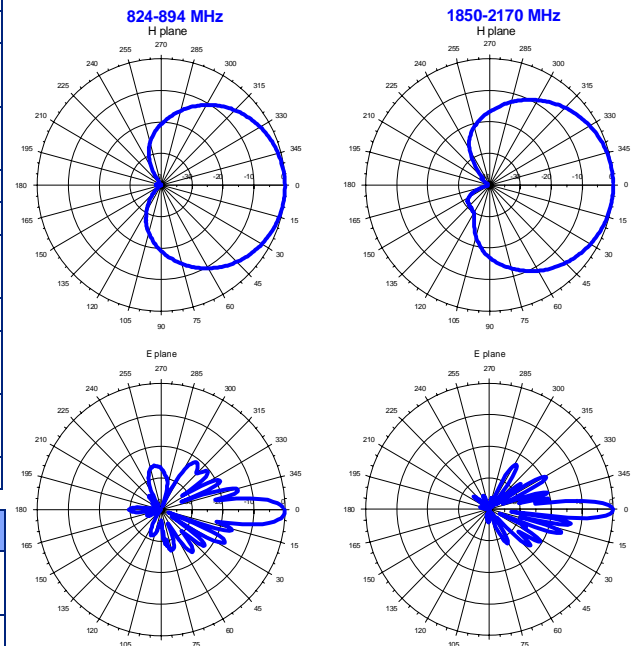
Length: 78.3 in

Electrical Specifications		
Antenna model	TGA D3-600TxTx	
Frequency range (MHz)	824-894	1850-2170
Impedance	50 Ohms	
VSWR	<1.40:1	
Polarization	±45°	
Intraband isolation (dB)	>30	
Interbands isolation (dB)	>40	
Average gain (dBd/dBi)	13.4/15.5	15.4/17.5
Horizontal beamwidth (deg)	65°±5°	65°±5°
Vertical beamwidth (deg)	10°±0.5°	6.5°±0.5°
Electrical tilt (deg)	Fixed 0°-14°	Fixed 0°-14°
Upper sidelobe suppression 0°-20° (dB)	18	18
Front to back ratio (dB) @180°±30°	30	30
Polarization isolation (dB) @3 dB beamwidth	20	20
Maximum power per input (w)	500	250
Intermodulation products (dBc)	-150	-150
Connectors	4 x 7/16 female	
Connector position	Antenna bottom	



Mechanical & Environmental Specifications	
Dimensions in (mm)	78.3 x 13.4 x 5.5 (1990 x 340 x 140)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	227 (1032)
Lateral windload lbs (N) @100 mph/160 km/h	94 (425)
Antenna weight lbs (kg)	51 (23)
Clamps weight lbs (kg)	18.6 (8.4)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55° to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	92 x 17.3 x 11.4 (2340 x 440 x 290)
Weight lbs (kg)	88 (40)
Material	Cardboard and foam



824-896/1850-2170 MHz

Model # TGA D3-600TV

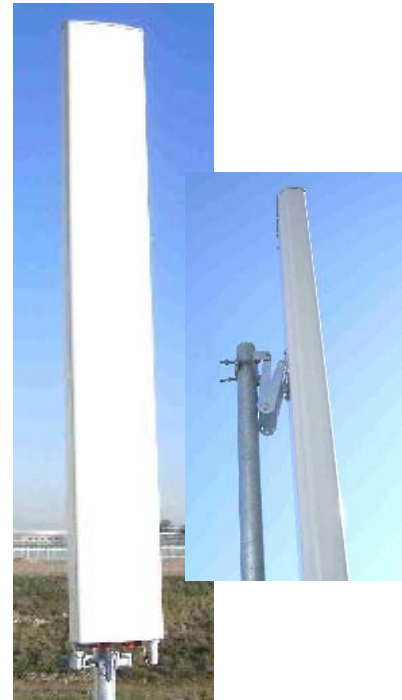
XPol Dual Band Antenna – Independent Variable Electrical Tilt on Each Band

Beamwidth: H 65°/65° V 10°/6.5°

Gain: 13.4 dBd (15.5 dBi) at 850 MHz/15.4 dBd (17.5 dBi) at 1850-2170 MHz

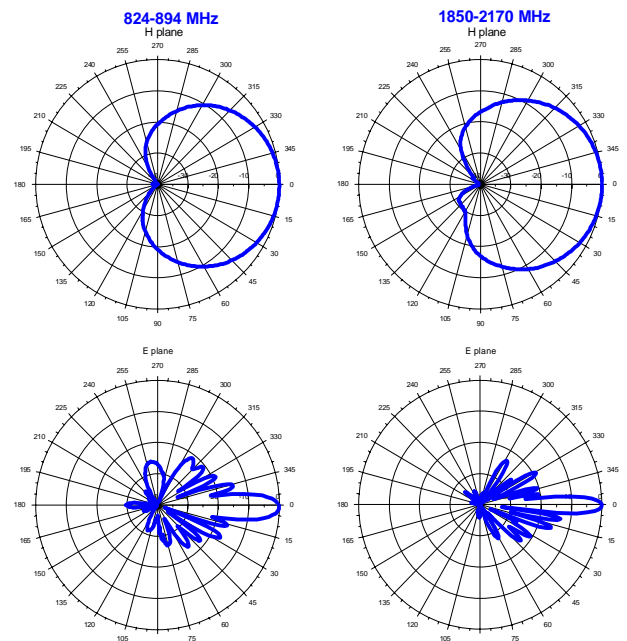
Length: 78.7 in

Electrical Specifications		
Antenna model	TGA D3-600TV	
Frequency range (MHz)	824-894	1850-2170
Impedance	50 Ohms	
VSWR	<1.40:1	
Polarization	±45°	
Intraband isolation (dB)	>30	
Interbands isolation (dB)	>40	
Average gain (dBd/dBi)	13.4/15.5	15.4/17.5
Horizontal beamwidth (deg)	65°±5°	65°±5°
Vertical beamwidth (deg)	10°±0.5°	6.5°±0.5°
Electrical tilt (deg)	VET 0°-8°	VET 0°-10°
Upper sidelobe suppression 0°-20° (dB)	17	17
Front to back ratio (dB) @180°±30°	30	30
Polarization isolation (dB) @3 dB beamwidth	20	20
Maximum power per input (w)	500	250
Intermodulation products (dBc)	-150	-150
Connectors	4 x 7/16 female	
Connector position	Antenna bottom	



Mechanical & Environmental Specifications	
Dimensions in (mm)	78.7 x 13.4 x 5.5 (2000 x 340 x 140)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	227 (1032)
Lateral windload lbs (N) @100 mph/160 km/h	94 (425)
Antenna weight lbs (kg)	56 (26)
Clamps weight lbs (kg)	6.5 (3)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55° to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	90.5 x 17.7 x 11 (2300 x 450 x 280)
Weight lbs (kg)	78 (36)
Material	Cardboard and foam



824-896/1850-2170 MHz

Model # TGA D3-800TxTx

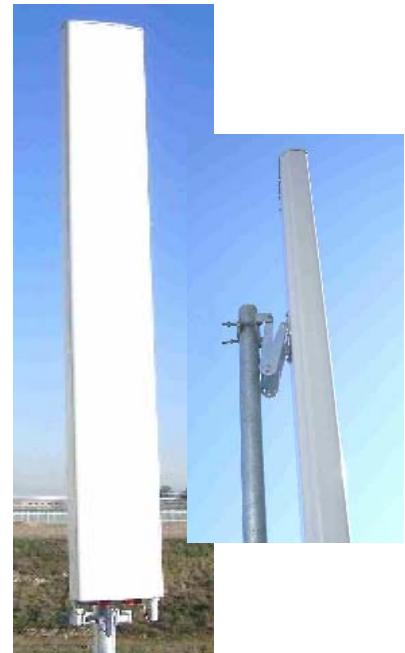
XPol Dual Band Antenna – Independent Fixed Electrical Tilt on Each Band

Beamwidth: H 65°/65° V 7°/6.5°

Gain: 14.6 dBd (16.7 dBi) at 850 MHz/15.4 dBd (17.5 dBi) at 1850-2170 MHz

Length: 102.4 in

Electrical Specifications		
Antenna model	TGA D3-800TxTx	
Frequency range (MHz)	824-894	1850-2170
Impedance	50 Ohms	
VSWR	<1.40:1	
Polarization	±45°	
Intraband isolation (dB)	>30	
Interbands isolation (dB)	>40	
Average gain (dBd/dBi)	14.6/16.7	15.4/17.5
Horizontal beamwidth (deg)	65°±5°	65°±5°
Vertical beamwidth (deg)	7°±0.5°	6.5°±0.5°
Electrical tilt (deg)	Fixed 0°-14°	Fixed 0°-14°
Upper sidelobe suppression 0°-20° (dB)	17	17
Front to back ratio (dB) @180°±30°	30	30
Polarization isolation (dB) @3 dB beamwidth	20	20
Maximum power per input (w)	500	250
Intermodulation products (dBc)	-150	-150
Connectors	4 x 7/16 female	
Connector position	Antenna bottom	

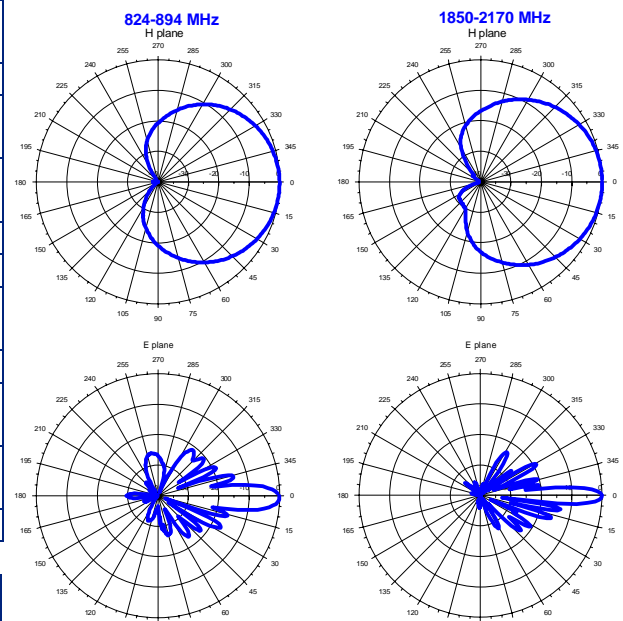


Mechanical & Environmental Specifications

Dimensions in (mm)	102.4 x 13.4 x 5.5 (2600 x 340 x 140)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	296 (1341)
Lateral windload lbs (N) @100 mph/160 km/h	122 (552)
Antenna weight lbs (kg)	69 (32)
Clamps weight lbs (kg)	6.5 (3)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140° F (-55° to +60° C)
Humidity	100 %

Shipping Specifications

Dimensions in (mm)	110.2 x 17.7 x 11 (2800 x 450 x 280)
Weight lbs (kg)	91 (42)
Material	Cardboard and foam



824-896/1850-2170 MHz

Model # TGA D3-800TV

XPol Dual Band Antenna – Independent Variable Electrical Tilt on Each Band

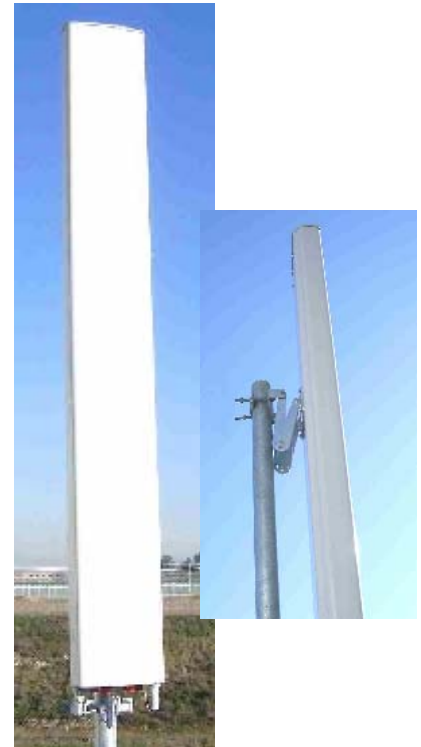
Beamwidth: H 65°/65° V 7°/6.5°

Gain: 14.6 dBd (16.7 dBi) at 850 MHz/15.4 dBd (17.5 dBi) at 1850-2170 MHz

Length: 102.4 in

Electrical Specifications

Antenna model	TGA D3-800Tv	
Frequency range (MHz)	824-894	1850-2170
Impedance	50 Ohms	
VSWR	<1.40:1	
Polarization	±45°	
Intraband isolation (dB)	>30	
Interbands isolation (dB)	>40	
Average gain (dBd/dBi)	14.6/16.7	15.4/17.5
Horizontal beamwidth (deg)	65°±5°	65°±5°
Vertical beamwidth (deg)	7°±0.5°	6.5°±0.5°
Electrical tilt (deg)	VET 0°-8°	VET 0°-10°
Upper sidelobe suppression 0°-20° (dB)	17	17
Front to back ratio (dB) @180°±30°	30	30
Polarization isolation (dB) @3 dB beamwidth	20	20
Maximum power per input (w)	500	250
Intermodulation products (dBc)	-150	-150
Connectors	4 x 7/16 female	
Connector position	Antenna bottom	

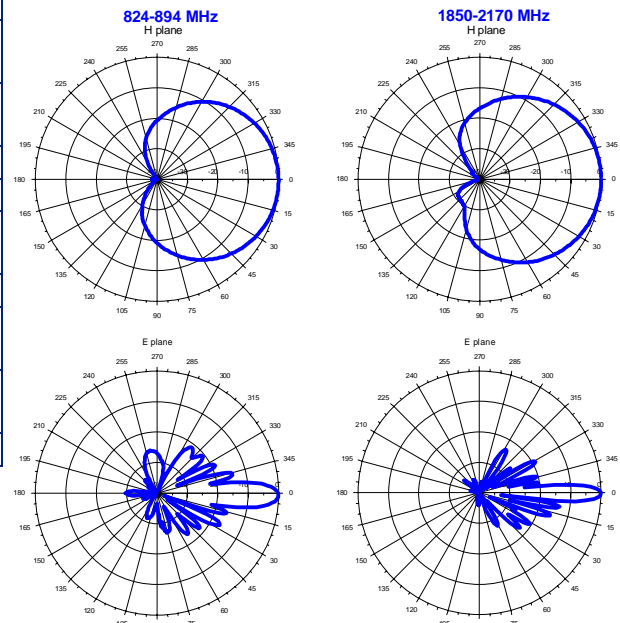


Mechanical & Environmental Specifications

Dimensions in (mm)	102.4 x 13.4 x 5.5 (2600 x 340 x 140)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	296 (1341)
Lateral windload lbs (N) @100 mph/160 km/h	122 (552)
Antenna weight lbs (kg)	69 (32)
Clamps weight lbs (kg)	6.5 (3)
Mast mounting in (cm)	2.0 to 5.3 in (50 to 135 mm)
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55° to +60°C)
Humidity	100 %

Shipping Specifications

Dimensions in (mm)	114 x 17.7 x 11 (2900 x 450 x 280)
Weight lbs (kg)	91 (42)
Material	Cardboard and foam



Dual Band: *Trisector/Stealth*

Frequency MHz	Model #	Polarization	HBW	VBW	Gain dBd/dBi	Electrical Tilt	Length (in)
824-896 1850-2170	TS TGA-400TV	XPOL +/- 45°	3 x 2 x 65°	14.5° 6.5°	12.4/14.5 15.4/17.5	VET 0°-10°	75
824-896 1850-2170	TS TGA-600TV	XPOL +/- 45°	3 x 2 x 65°	10.0° 6.5°	13.4/15.5 15.4/17.5	VET 0°-10°	98

Trisector 3 x 65° XPol – Independent Variable Electrical Tilt on Each Band

Gain: 3 x 14.5 dBi at 850 MHz/3 x 17.5 dBi at 1850-2170 MHz

Azimuth adjustment on each sector +/- 15°

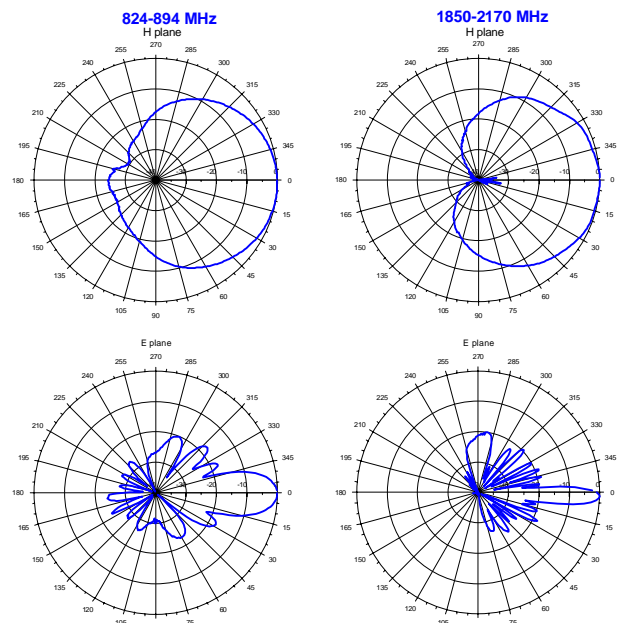
Length: 74.8 in

Electrical Specifications		
Antenna model	TS TGA-400TV	
Frequency range (MHz)	824-896	1850-2170
Impedance	50 Ohms	
VSWR	<1.40:1	
Polarization	±45°	
Intraband isolation (dB)	>30	
Interbands isolation (dB)	>35	
Average gain (dBd/dBi)	12.4/14.5	15.4/17.5
Horizontal beamwidth (deg)	65°±5°	65°±5°
Vertical beamwidth (deg)	14.5°±0.5°	6.5°±0.5°
Electrical tilt (deg)	VET 0°-10°	VET 0°-10°
Sidelobe suppression (dB)	16	17
Front to back ratio (dB) @180°±30°	25	30
Polarization isolation (dB) @3 dB beamwidth	20	20
Maximum power per input (w)	500	250
Intermodulation products (dBc)	-150	-150
Connectors	12 x 7/16 female	
Connector position	Antenna bottom	



Mechanical & Environmental Specifications	
Dimensions in (mm)	74.8 x 25.6 diameter (1900 x 650 diameter)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	310 (1405)
Lateral windload lbs (N) @100 mph/160 km/h	310 (1405)
Antenna weight lbs (kg)	264 (120)
Clamps weight lbs (kg)	NA
Mast mounting in (cm)	NA
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67° to 140°F (-55 to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	86.6 x 31.5 x 31.5 (2200 x 800 x 800)
Weight lbs (kg)	309 (140)
Material	Cardboard and foam



Trisector 3 x 65° XPol – Independent Variable Electrical Tilt on Each Band

Gain: 3 x 15.5 dBi at 850 MHz/3 X 17.5 dBi at 1850-2170 MHz

Azimuth adjustment on each sector +/- 15°

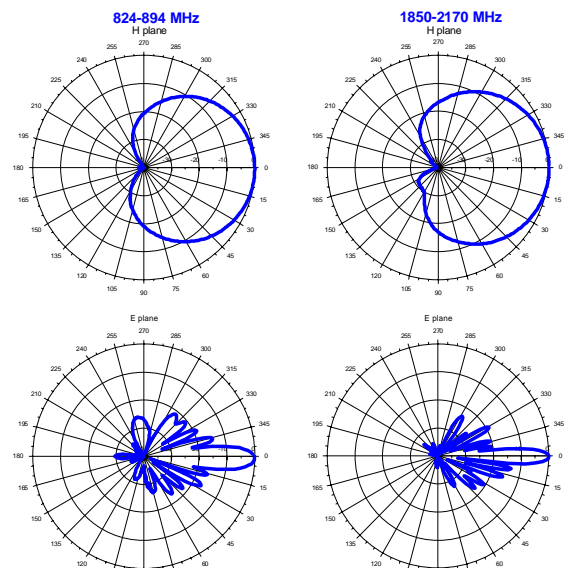
Length: 98.4 in

Electrical Specifications		
Antenna model	TS TGA-600TV	
Frequency range (MHz)	824-894	1850-2170
Impedance	50 Ohms	
VSWR	<1.40:1	
Polarization	±45°	
Intraband isolation (dB)	>30	
Interbands isolation (dB)	>35	
Average gain (dBd/dBi)	13.4/15.5	15.4/17.5
Horizontal beamwidth (deg)	65°±5°	65°±5°
Vertical beamwidth (deg)	10°±0.5°	6.5°±0.5°
Electrical tilt (deg)	VET 0°-10°	VET 0°-10°
Sidelobe suppression (dB)	17	17
Front to back ratio (dB) @180°±30°	30	30
Polarization isolation (dB) @3 dB beamwidth	17	17
Maximum power per input (w)	500	250
Intermodulation products (dBc)	-150	-150
Connectors	12 x 7/16 female	
Connector position	Antenna bottom	



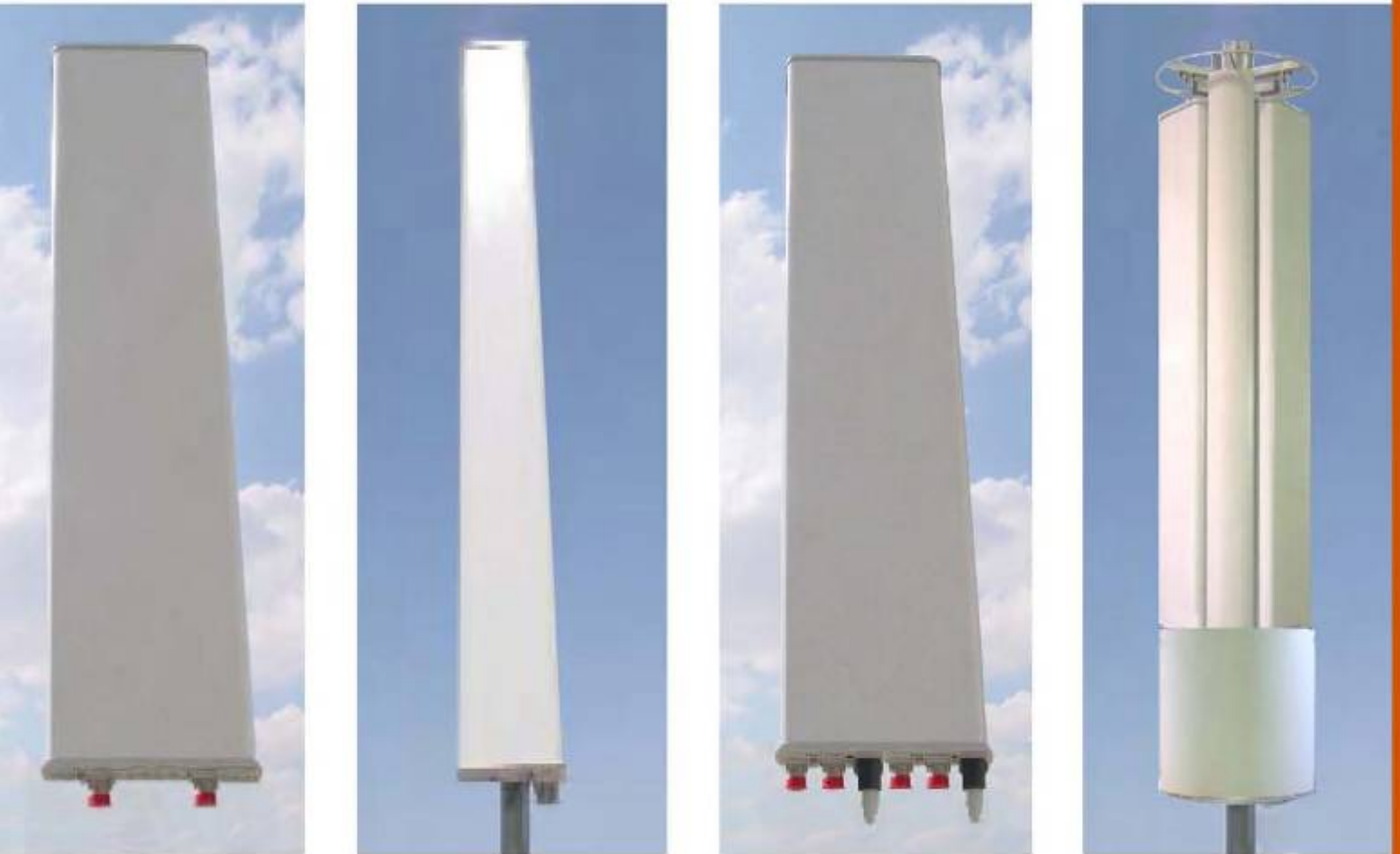
Mechanical & Environmental Specifications	
Dimensions in (mm)	98.4 x 25.6 diameter (2500 x 650 diameter)
Survival wind speed mph (km/h)	124 mph (200 km/h)
Front windload lbs (N) @100 mph/160 km/h	408 (1849)
Lateral windload lbs (N) @100 mph/160 km/h	408 (1849)
Antenna weight lbs (kg)	396 (180)
Clamps weight lbs (kg)	NA
Mast mounting in (cm)	NA
Radome color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-67°F to 140°F (-55°C to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	106.2 x 31.5 x 31.5 (2700 x 800 x 800)
Weight lbs (kg)	441 (200)
Material	Cardboard and foam





Antennas Engineered for Performance and Durability



REMOTE ELECTRICAL TILT

RET System

Name	Model #	Interface	Power Supply	Temp. Range	Max. Cable Length	Max. Antennas per Cable
Antenna Control Unit	RACU-001	RS485/AISG 1.1 Protocol	+10 to +30 V	-40° to 140 °	100 meters	No limit

Remote Electrical Tilt

Model # RACU-001

Remote Control of Electrical Tilt for Variable Electrical Tilt Antennas



Automatic antenna calibration
No installation adjustment required
RS485 interface and transparent port

Electrical Specifications	
Unit model	RACU-001
Interface	RS485
	AISG 1.1 protocol
Adjustment time (full range)	60 sec
Power Supply	+10 to +30 V

Mechanical & Environmental Specifications	
Dimensions in (mm)	5.2 x 3.7 x 2.4 (132 x 94 x 62)
Weight lbs (kg)	1.5 (0.7)
Color	Grey
Grounding	All metallic parts are DC grounded
Temperature range F (°C)	-40° to 140°F (-40° to +60°C)
Humidity	100 %

Shipping Specifications	
Dimensions in (mm)	9.8 x 5.9 x 5.9 (250 x 150 x 150)
Weight lbs (kg)	4.4 (2)
Material	Cardboard and foam

