3-In-1 Panel Antennas
806-900 MHz, 806-941 MHz

BXV-800 Series

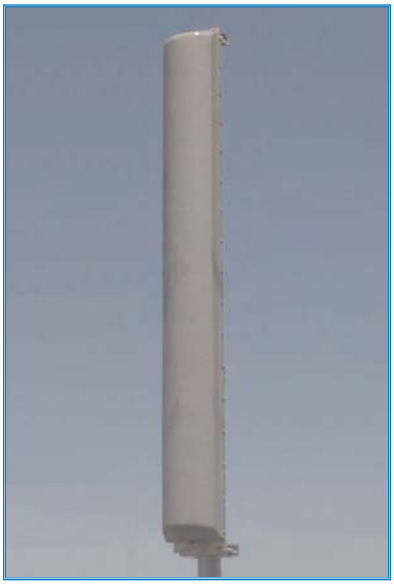
The **BXV** (Broadband X-Pol Vertical) is a sector panel covering the 806-900 MHz and 806-941 MHz frequency range. The antenna is designed with one vertically polarized antenna stacked atop a slant +/- 45° dual-polarized antenna for 3-In-1 polarization under one radome. Antennas are available with fixed electrical downtilt.

Design and Construction of the BXV-800 Panel:
BXV antennas are manufactured with our exclusive 3T Technology, featuring single-piece, water-cut brass feedline assemblies for consistent performance; a non-collinear system with access to each radiating element for control of the shaping of the vertical pattern; air as insulation for virtually no internal signal loss; fiberglass radomes and aircraft grade aluminum reflector plates for even heat dissipation to minimize plate warping and bending.

Model Number Guide:

BXV- 800 63 / 8 CF E-DIN 4°

- 4° — Electrical Downtilt
- E-DIN — Connector Type
  NE is an elongated N connector.
  E-DIN is an elongated DIN connector
- CF — CF refers to a “Center-Fed” connector.
- 8 — Number of Dipole Pairs
  Also refers to approx. length in feet
- 63 — Horizontal Beamwidth
- 800 — Operating Frequency Range
  800 = Operates within 806-900 MHz
  or 806-941 MHz



Model’s Currently Available:

Model Number	Frequency Range (MHz)	H-Plane	E-Plane	Gain (dBd)	Fixed Electrical Downtilt Options**	Length x Width x Depth (in inches)
BXV-80063/4CF _	806-941 MHz	63°	30°	10 dBd	0°	48.2” x 11.2” x 5.9”
BXV-80063/8CF _	806-900 MHz	63°	15°	13 dBd	0°, 4°, 10°	94.2” x 11.2” x 5.9”
BXV-80090/4CF _	806-941 MHz	90°	30°	9 dBd	0°	48.2” x 8.0” x 5.6”
BXV-80090/8CF _	806-900 MHz	90°	15°	12 dBd	0°	94.6” x 8.0” x 5.6”

When ordering replace “__” with the connector type (NE or E-DIN).

BXV-80063/4CF __

When ordering replace "___" with connector type.

Mechanical specifications

Length	1225	mm	48.2	in
Width	284	mm	11.2	in
Depth	150	mm	5.9	in
Depth with z-bracket	190	mm	7.5	in
[4] Weight	6.5	kg	14.0	lbs
Wind Area				
Fore/Aft	0.35	m^2	3.8	ft^2
Side	0.18	m^2	2.0	ft^2
Rated Wind Velocity (Safety factor 2.0)	>380	km/hr	>236	mph
Wind Load @ 100 mph (161 km/hr)				
Fore/Aft	500	N	112	lbs
Side	277	N	62	lbs

Antenna consisting of aluminum alloy with brass feedlines covered by a UV safe fiberglass radome.

Mounting and Downtilting

Mounting brackets attach to a pipe diameter of Ø50-160 mm (2.0-6.3 in).

Mounting bracket kit #36210002
Downtilt bracket kit #36114003

Electrical specifications

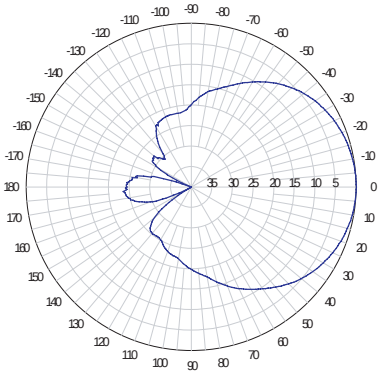
Frequency Range	806-941 MHz
Impedance	50Ω
[3] Connector(s)	NE or E-DIN 3 ports / center
[1] VSWR	≤ 1.4:1
Transmit Polarization	Vertical
Receive Polarization	Slant ± 45°
[1] Isolation Between Ports	
±45°/±45°	< -30 dB
±45°/Vertical	< -45 dB
[1] Gain	10 dBd
[2] Power Rating	500 W
[1] Half Power Angle	
H-Plane	63°
E-Plane	30°
[1] Electrical Downtilt	0°
[1] Null Fill	5%
Lightning Protection	Direct Ground

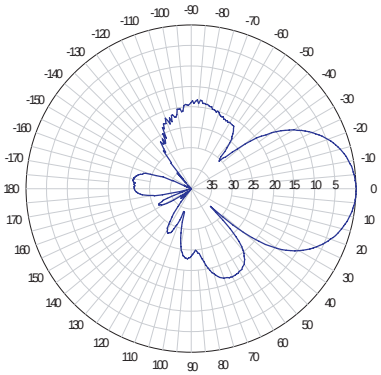
Patented Dipole Design: U.S. Patent No. 6,608,600 B2

1) Typical values.
2) Power rating limited by connector only.
3) NE indicates an elongated N connector. E-DIN indicates an elongated DIN connector.
4) The antenna weight listed above does not include the bracket weight.

Improvements to mechanical and/or electrical performance of the antenna may be made without notice.

Radiation pattern[1]





Radiation patterns for all antennas are measured with the antenna mounted on a fiberglass pole.

Mounting on a metal pole will typically improve the Front-to-Back ratio.

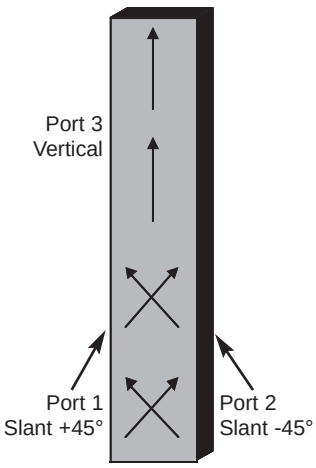


Diagram: As veiwed from the back.

Amphenol Antel's Exclusive 3T (True Transmission Line Technology) Antenna Design:

- Watercut brass feedline assembly for consistent performance.
- Unique feedline design eliminates the need for conventional solder joints in the signal path.
- A non-collinear system with access to every radiating element for broad band-width and superior performance.
- Air as insulation for virtually no internal signal loss.

This Amphenol Antel antenna is under a five-year limited warranty for repair or replacement.

Antenna available with center-fed connectors only.

CF Denotes a Center-Fed Connector.

806-941 MHz

Amphenol Antel, Inc. 1300 Capital Drive Rockford, Illinois 61109 USA Tel. (815) 399-0001
Toll-Free (888) 417-9562 Fax. (815) 399-0156 antel@antelinc.com www.antelinc.com

Revision Date: 7/3/07

3-In-1, Panel 63° / 13 dBd

BXV-80063/8CF __

When ordering replace "___" with connector type.

Mechanical specifications

Length	2390	mm	94.1	in
Width	284	mm	11.2	in
Depth	150	mm	5.9	in
Depth with z-bracket	190	mm	7.5	in
[4] Weight	12.3	kg	27.0	lbs
Wind Area				
Fore/Aft	0.68	m^2	7.3	ft^2
Side	0.36	m^2	3.9	ft^2
Rated Wind Velocity (Safety factor 2.0)	>212	km/hr	>132	mph
Wind Load @ 100 mph (161 km/hr)				
Fore/Aft	1022	N	230	lbs
Side	667	N	150	lbs

Antenna consisting of aluminum alloy with brass feedlines covered by a UV safe fiberglass radome.

Mounting and Downtilting

Mounting brackets attach to a pipe diameter of Ø50-160 mm (2.0-6.3 in).

Mounting bracket kit #36210002
Downtilt bracket kit #36114003

Electrical specifications

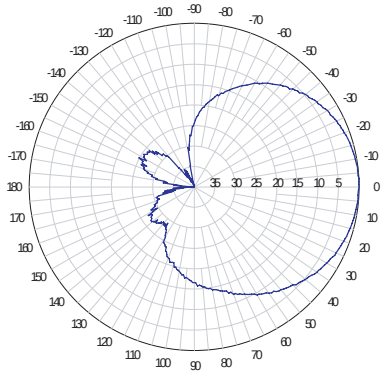
	Frequency Range	806-900 MHz
	Impedance	50Ω
[3]	Connector(s)	NE or E-DIN 3 ports / center
[1]	VSWR	≤ 1.4:1
	Transmit Polarization	Vertical
	Receive Polarization	Slant ± 45°
[1]	Isolation Between Ports	
	±45°/±45°	< -30 dB
	±45°/Vertical	< -35 dB
[1]	Gain	13 dBd
[2]	Power Rating	500 W
[1]	Half Power Angle	
	H-Plane	63°
	E-Plane	15°
[1]	Electrical Downtilt	0°
[1]	Null Fill	5%
	Lightning Protection	Direct Ground

Patented Dipole Design: U.S. Patent No. 6,608,600 B2

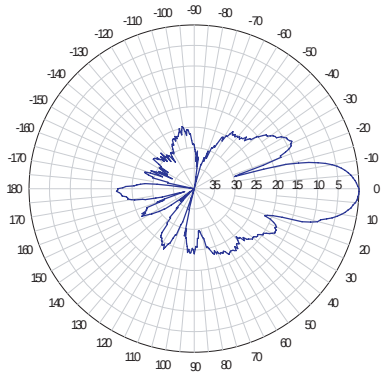
1) Typical values.
2) Power rating limited by connector only.
3) NE indicates an elongated N connector. E-DIN indicates an elongated DIN connector.
4) The antenna weight listed above does not include the bracket weight.

Improvements to mechanical and/or electrical performance of the antenna may be made without notice.

Radiation pattern[1]



Horizontal



Vertical

Radiation patterns for all antennas are measured with the antenna mounted on a fiberglass pole.

Mounting on a metal pole will typically improve the Front-to-Back ratio.

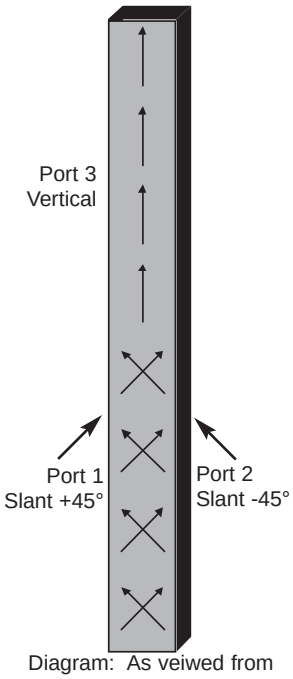


Diagram: As veiwed from the back

Amphenol Antel's Exclusive 3T (True Transmission Line Technology) Antenna Design:

- Watercut brass feedline assembly for consistent performance.
- Unique feedline design eliminates the need for conventional solder joints in the signal path.
- A non-collinear system with access to every radiating element for broad band-width and superior performance.
- Air as insulation for virtually no internal signal loss.

This Amphenol Antel antenna is under a five-year limited warranty for repair or replacement.

Antenna available with center-fed connectors only.

CF Denotes a Center-Fed Connector.

806-900 MHz

Amphenol Antel, Inc. 1300 Capital Drive Rockford, Illinois 61109 USA Tel. (815) 399-0001
Toll-Free (888) 417-9562 Fax. (815) 399-0156 antel@antelinc.com www.antelinc.com

Revision Date: 7/3/07

BXV-80063/8CF __ 4°

When ordering replace "___" with connector type.

Mechanical specifications

	Length	2390 mm	94.1	in
	Width	284 mm	11.2	in
	Depth	150 mm	5.9	in
	Depth with z-bracket	190 mm	7.5	in
4)	Weight	12.3 kg	27.0	lbs
	Wind Area			
	Fore/Aft	0.68 m^2	7.3	ft^2
	Side	0.36 m^2	3.9	ft^2
	Rated Wind Velocity (Safety factor 2.0)			
		>212 km/hr	>132	mph
	Wind Load @ 100 mph (161 km/hr)			
	Fore/Aft	1022 N	230	lbs
	Side	667 N	150	lbs

Antenna consisting of aluminum alloy with brass feedlines covered by a UV safe fiberglass radome.

Mounting and Downtilting

Mounting brackets attach to a pipe diameter of Ø50-160 mm (2.0-6.3 in).

Mounting bracket kit #36210002
Downtilt bracket kit #36114003

Electrical specifications

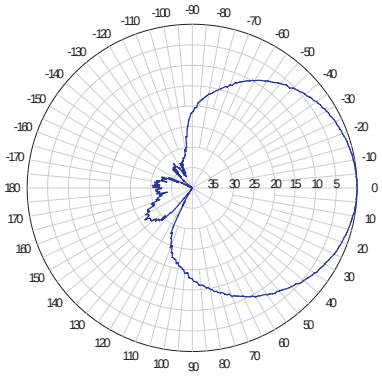
	Frequency Range	806-900 MHz
	Impedance	50Ω
3)	Connector(s)	NE or E-DIN 3 ports / center
1)	VSWR	≤ 1.4:1
	Transmit Polarization	Vertical
	Receive Polarization	Slant ± 45°
1)	Isolation Between Ports	
	±45°/±45°	< -30 dB
	±45°/Vertical	< -35 dB
1)	Gain	13 dBd
2)	Power Rating	500 W
1)	Half Power Angle	
	H-Plane	63°
	E-Plane	15°
1)	Electrical Downtilt	4°
1)	Null Fill	5%
	Lightning Protection	Direct Ground

Patented Dipole Design: U.S. Patent No. 6,608,600 B2

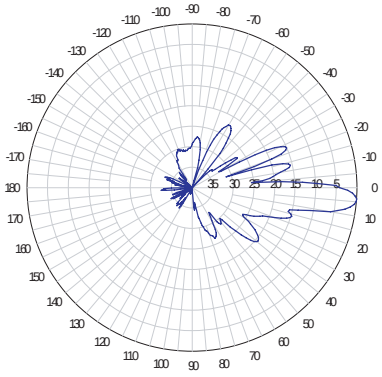
1) Typical values.
2) Power rating limited by connector only.
3) NE indicates an elongated N connector.
E-DIN indicates an elongated DIN connector.
4) The antenna weight listed above does not include the bracket weight.

Improvements to mechanical and/or electrical performance of the antenna may be made without notice.

Radiation pattern[1)]



Horizontal



Vertical

Radiation patterns for all antennas are measured with the antenna mounted on a fiberglass pole.

Mounting on a metal pole will typically improve the Front-to-Back ratio.

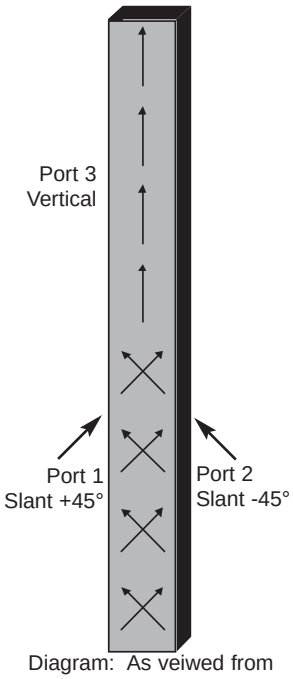


Diagram: As veiwed from the back

Amphenol Antel's Exclusive 3T (True Transmission Line Technology) Antenna Design:

- Watercut brass feedline assembly for consistent performance.
- Unique feedline design eliminates the need for conventional solder joints in the signal path.
- A non-collinear system with access to every radiating element for broad band-width and superior performance.
- Air as insulation for virtually no internal signal loss.

This Amphenol Antel antenna is under a five-year limited warranty for repair or replacement.

Antenna available with center-fed connectors only.

CF Denotes a Center-Fed Connector.

806-900 MHz

Amphenol Antel, Inc. 1300 Capital Drive Rockford, Illinois 61109 USA Tel. (815) 399-0001
Toll-Free (888) 417-9562 Fax. (815) 399-0156 antel@antelinc.com www.antelinc.com

Revision Date: 7/3/07

BXV-80063/8CF __ 10°

When ordering replace "___" with connector type.

Mechanical specifications

	Length	2390 mm	94.1	in
	Width	284 mm	11.2	in
	Depth	150 mm	5.9	in
	Depth with z-bracket	190 mm	7.5	in
4)	Weight	12.3 kg	27.0	lbs
	Wind Area			
	Fore/Aft	0.68 m^2	7.3	ft^2
	Side	0.36 m^2	3.9	ft^2
	Rated Wind Velocity (Safety factor 2.0)	>212 km/hr	>132	mph
	Wind Load @ 100 mph (161 km/hr)			
	Fore/Aft	1022 N	230	lbs
	Side	667 N	150	lbs

Antenna consisting of aluminum alloy with brass feedlines covered by a UV safe fiberglass radome.

Mounting and Downtilting

Mounting brackets attach to a pipe diameter of Ø50-160 mm (2.0-6.3 in).

Mounting bracket kit #36210002
Downtilt bracket kit #36114003

Electrical specifications

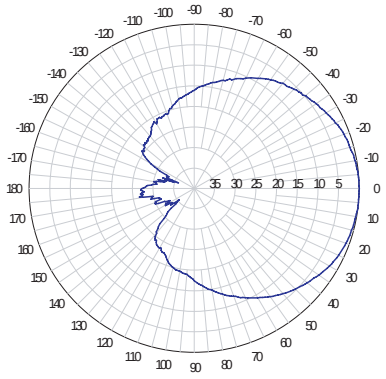
	Frequency Range	806-900 MHz
	Impedance	50Ω
3)	Connector(s)	NE or E-DIN 3 ports / center
1)	VSWR	≤ 1.4:1
	Transmit Polarization	Vertical
	Receive Polarization	Slant ± 45°
1)	Isolation Between Ports	
	±45°/±45°	< -30 dB
	±45°/Vertical	< -45 dB
1)	Gain	13 dBd
2)	Power Rating	500 W
1)	Half Power Angle	
	H-Plane	63°
	E-Plane	15°
1)	Electrical Downtilt	10°
1)	Null Fill	5%
	Lightning Protection	Direct Ground

Patented Dipole Design: U.S. Patent No. 6,608,600 B2

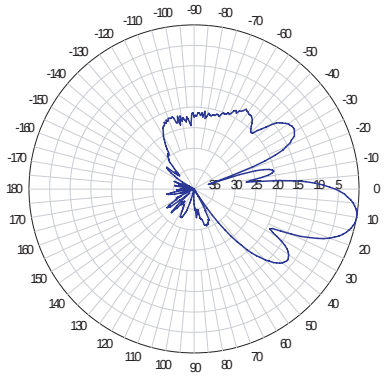
1) Typical values.
2) Power rating limited by connector only.
3) NE indicates an elongated N connector.
E-DIN indicates an elongated DIN connector.
4) The antenna weight listed above does not include the bracket weight.

Improvements to mechanical and/or electrical performance of the antenna may be made without notice.

Radiation pattern1)



Horizontal



Vertical

Radiation patterns for all antennas are measured with the antenna mounted on a fiberglass pole.

Mounting on a metal pole will typically improve the Front-to-Back ratio.

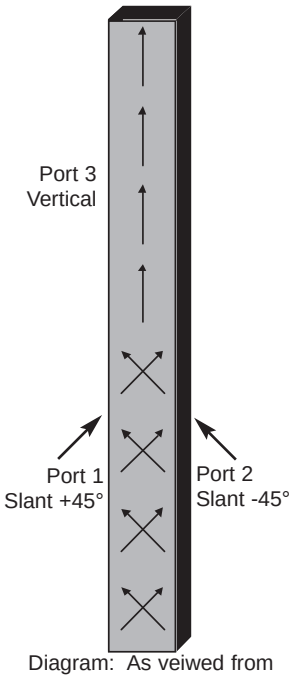


Diagram: As veiwed from the back

Amphenol Antel's Exclusive 3T (True Transmission Line Technology) Antenna Design:

- Watercut brass feedline assembly for consistent performance.
- Unique feedline design eliminates the need for conventional solder joints in the signal path.
- A non-collinear system with access to every radiating element for broad band-width and superior performance.
- Air as insulation for virtually no internal signal loss.

This Amphenol Antel antenna is under a five-year limited warranty for repair or replacement.

Antenna available with center-fed connectors only.

CF Denotes a Center-Fed Connector.

806-900 MHz

Amphenol Antel, Inc. 1300 Capital Drive Rockford, Illinois 61109 USA Tel. (815) 399-0001
Toll-Free (888) 417-9562 Fax. (815) 399-0156 antel@antelinc.com www.antelinc.com

Revision Date: 8/9/07

BXV-80090/4CF __

When ordering replace "___" with connector type.

Mechanical specifications

Length	1225	mm	48.2	in
Width	204	mm	8.0	in
Depth	142	mm	5.6	in
Depth with z-bracket	182	mm	7.2	in
[4] Weight	6.3	kg	13.9	lbs
Wind Area				
Fore/Aft	0.25	m^2	2.7	ft^2
Side	0.17	m^2	1.8	ft^2
Rated Wind Velocity (Safety factor 2.0)	>396	km/hr	>246	mph
Wind Load @ 100 mph (161 km/hr)				
Fore/Aft	366	N	82.3	lbs
Side	251	N	56.5	lbs

Antenna consisting of aluminum alloy with brass feedlines covered by a UV safe fiberglass radome.

Mounting and Downtilting

Mounting brackets attach to a pipe diameter of Ø50-160 mm (2.0-6.3 in).

Mounting bracket kit #36210002
Downtilt bracket kit #36114003

Electrical specifications

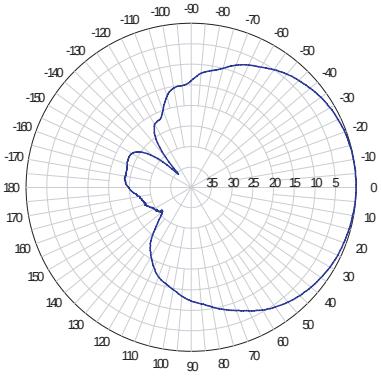
	Frequency Range	806-941 MHz
	Impedance	50Ω
[3]	Connector(s)	NE or E-DIN 3 ports / center
[1]	VSWR	≤ 1.4:1
	Transmit Polarization	Vertical
	Receive Polarization	Slant ± 45°
[1]	Isolation Between Ports	
	±45°/±45°	< -30 dB
	±45°/Vertical	< -30 dB
[1]	Gain	9 dBd
[2]	Power Rating	500 W
[1]	Half Power Angle	
	H-Plane	90°
	E-Plane	30°
[1]	Electrical Downtilt	0°
[1]	Null Fill	5%
	Lightning Protection	Direct Ground

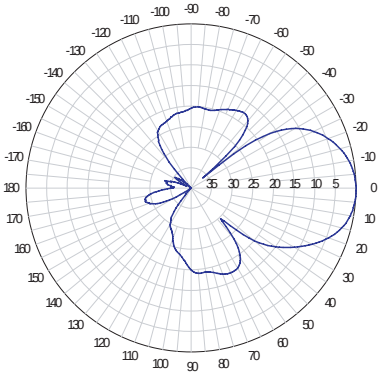
Patented Dipole Design: U.S. Patent No. 6,608,600 B2

1) Typical values.
2) Power rating limited by connector only.
3) NE indicates an elongated N connector.
E-DIN indicates an elongated DIN connector.
4) The antenna weight listed above does not include the bracket weight.

Improvements to mechanical and/or electrical performance of the antenna may be made without notice.

Radiation pattern[1]





Radiation patterns for all antennas are measured with the antenna mounted on a fiberglass pole.

Mounting on a metal pole will typically improve the Front-to-Back ratio.

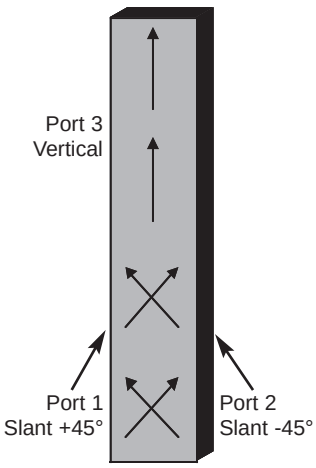


Diagram: As veiwed from the back.

Amphenol Antel's Exclusive 3T (True Transmission Line Technology) Antenna Design:

- Watercut brass feedline assembly for consistent performance.
- Unique feedline design eliminates the need for conventional solder joints in the signal path.
- A non-collinear system with access to every radiating element for broad band-width and superior performance.
- Air as insulation for virtually no internal signal loss.

This Amphenol Antel antenna is under a five-year limited warranty for repair or replacement.

Antenna available with center-fed connectors only.

CF Denotes a Center-Fed Connector.

806-941 MHz

Amphenol Antel, Inc. 1300 Capital Drive Rockford, Illinois 61109 USA Tel. (815) 399-0001
Toll-Free (888) 417-9562 Fax. (815) 399-0156 antel@antelinc.com www.antelinc.com

Revision Date: 8/31/07

3-In-1, Panel 90° / 12 dBd

BXV-80090/8CF __

When ordering replace "___" with connector type.

Mechanical specifications

Length	2404	mm	94.6	in
Width	204	mm	8.0	in
Depth	142	mm	5.6	in
Depth with z-bracket	182	mm	7.2	in
[4] Weight	12.3	kg	27.0	lbs
Wind Area				
Fore/Aft	0.49	m^2	5.3	ft^2
Side	0.34	m^2	3.7	ft^2
Rated Wind Velocity (Safety factor 2.0)	>216	km/hr	>134	mph
Wind Load @ 100 mph (161 km/hr)				
Fore/Aft	790	N	178	lbs
Side	592	N	133	lbs

Antenna consisting of aluminum alloy with brass feedlines covered by a UV safe fiberglass radome.

Mounting and Downtilting

Mounting brackets attach to a pipe diameter of Ø50-160 mm (2.0-6.3 in).

Mounting bracket kit #36210002
Downtilt bracket kit #36114003

Electrical specifications

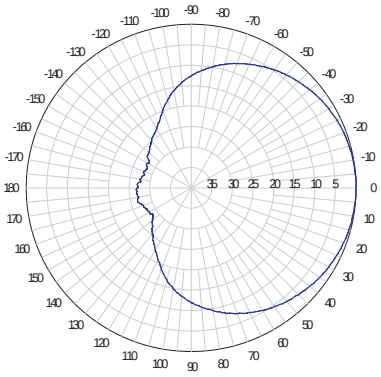
	Frequency Range	806-900 MHz
	Impedance	50Ω
[3]	Connector(s)	NE or E-DIN 3 ports / center
[1]	VSWR	≤ 1.4:1
	Transmit Polarization	Vertical
	Receive Polarization	Slant ± 45°
[1]	Isolation Between Ports	
	±45°/±45°	< -30 dB
	±45°/Vertical	< -30 dB
[1]	Gain	12 dBd
[2]	Power Rating	500 W
[1]	Half Power Angle	
	H-Plane	90°
	E-Plane	15°
[1]	Electrical Downtilt	0°
[1]	Null Fill	5%
	Lightning Protection	Direct Ground

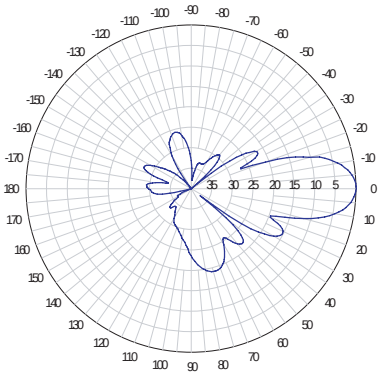
Patented Dipole Design: U.S. Patent No. 6,608,600 B2

1) Typical values.
2) Power rating limited by connector only.
3) NE indicates an elongated N connector. E-DIN indicates an elongated DIN connector.
4) The antenna weight listed above does not include the bracket weight.

Improvements to mechanical and/or electrical performance of the antenna may be made without notice.

Radiation pattern[1]





Radiation patterns for all antennas are measured with the antenna mounted on a fiberglass pole.

Mounting on a metal pole will typically improve the Front-to-Back ratio.

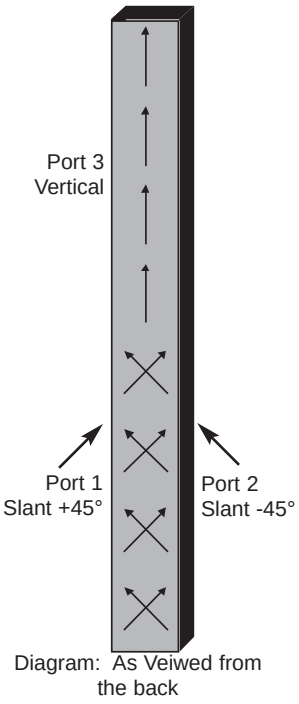


Diagram: As Veiwed from the back

Amphenol Antel's Exclusive 3T (True Transmission Line Technology) Antenna Design:

- Watercut brass feedline assembly for consistent performance.
- Unique feedline design eliminates the need for conventional solder joints in the signal path.
- A non-collinear system with access to every radiating element for broad band-width and superior performance.
- Air as insulation for virtually no internal signal loss.

This Amphenol Antel antenna is under a five-year limited warranty for repair or replacement.

Antenna available with center-fed connectors only.

CF Denotes a Center-Fed Connector.

806-900 MHz

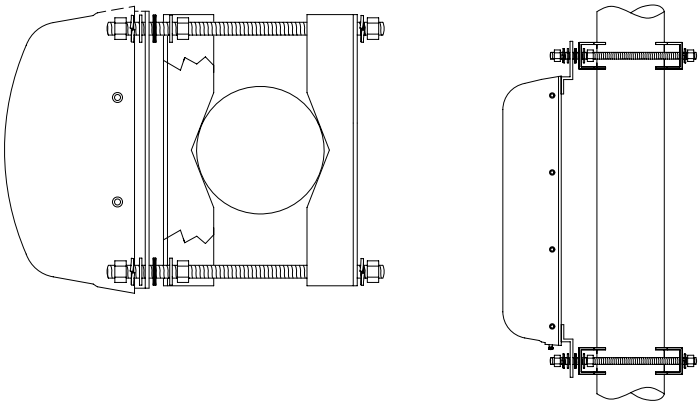
Amphenol Antel, Inc. 1300 Capital Drive Rockford, Illinois 61109 USA Tel. (815) 399-0001
Toll-Free (888) 417-9562 Fax. (815) 399-0156 antel@antelinc.com www.antelinc.com

Revision Date: 7/3/07

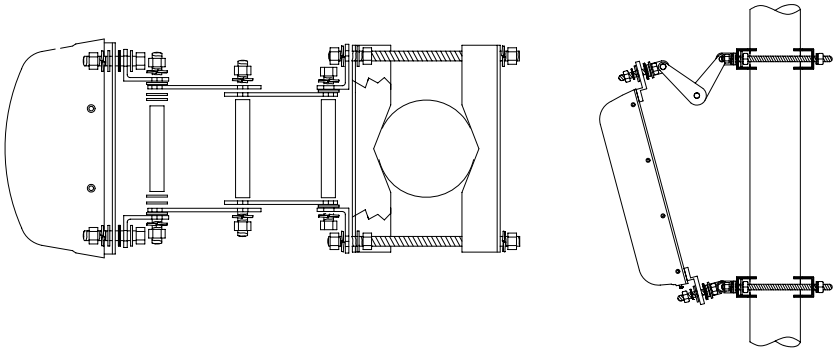
BXV Bracket Kits

Part Number	Bracket Type
36210002	**Standard BXV Mounting Bracket Kit for:** BXV-80063/4CF BXV-80063/8CF BXV-80090/8CF
36114003	**Standard BXV *Downtilt Bracket Kit for:** BXV-80063/4CF BXV-80063/8CF BXV-80090/8CF

36210002 **Top View** **Side View**



36114003 **Top View** **Side View**



*Both the downtilt bracket kit and the standard mounting bracket kit must be ordered for mechanical downtilt applications.

Mounting Bracket Kits are sold separately and not included in the price of antennas.

1300 Capital Drive Rockford, IL 61109 Toll-Free (888) 417-9562 Tel. (815) 399-0001
Fax. (815) 399-0156 Email: antel@antelinc.com www.antelinc.com