



**SAFETY, PERFORMANCE  
AND DEPENDABILITY**

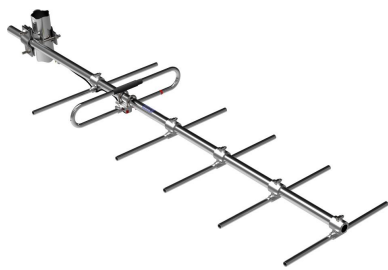
**WHEREVER YOU ARE**

## **Antennas, Splitters and Bi-Directional Amplifiers For In-Building Solutions**

***Designed for superior reliability and performance***

**DESIGNED FOR ENVIRONMENTS THAT REQUIRE INTERNAL PROPAGATION OF RF FOR PUBLIC SAFETY NEEDS**

Comprod In-Building products have been deployed for Mission-Critical projects including subway transit in-tunnel or underground projects, high-rise In-Building systems, nuclear power plants, correctional facilities, shopping malls, parking garages, casinos and public sports arenas.

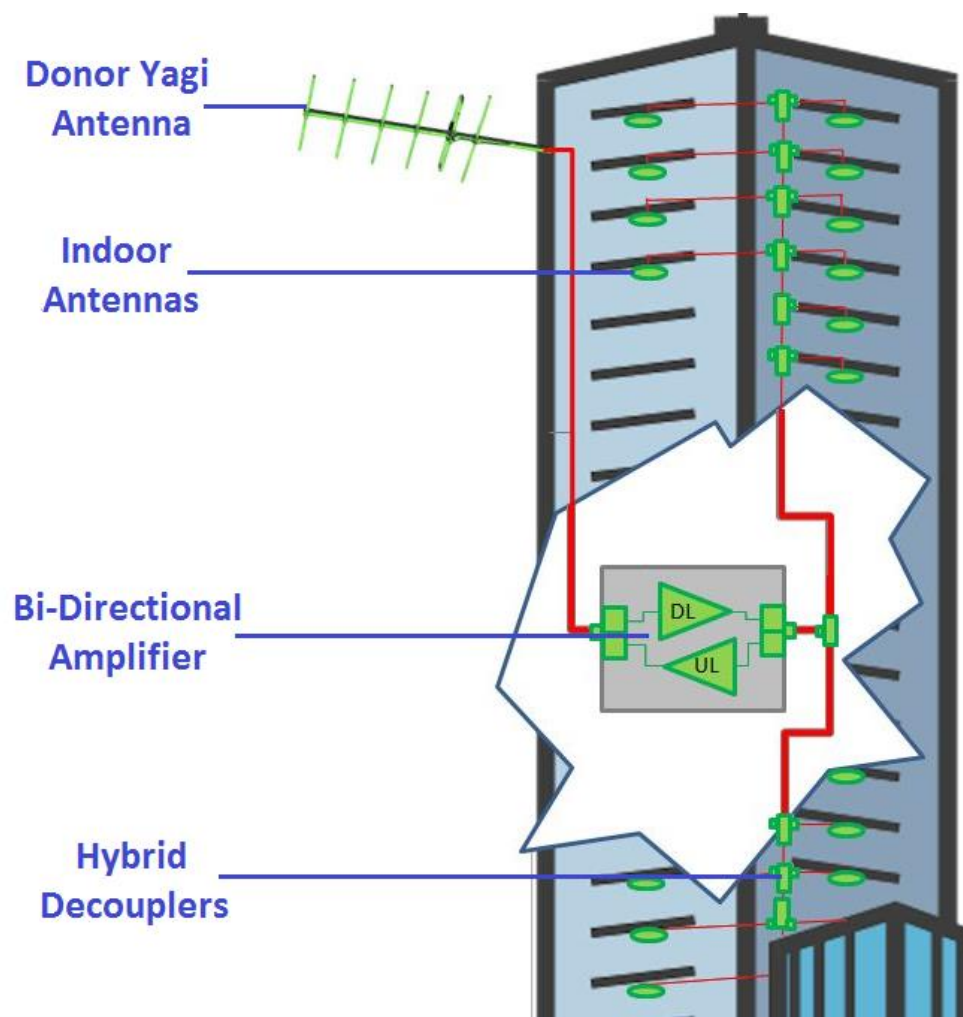


In Building Antennas								
Part #	Frequency Range, MHz	Length in (mm)	Dia. in (mm)	Pattern	Power	Radome	Connector	
357-75	136-174	4 x 21 x 3		Omni	150	ABS/Kydex	UHF/BNC	
360-75	406-512	3.25 x 3 x 11		Omni	50	ABS/Kydex	UHF/BNC	
361-75	806-960	3.15 (80)	9.3 (236)	Omni	50	ABS/Kydex	N Female	
362-75	806-960	2.0 (51)	4.5 (114)	Omni	100	ABS/Kydex	N Female	
F3987	380-470	6.75 (171)	0.5 (12.75)	Omni	150	Aluminum	N Male	
F3953	406-512	7.0 (178.5)	0.625 (15.93)	Omni	50	Polycarbonate	N Male	
F33005	806-960/1850-1990	2 (51)	4.5 (114)	Omni	50	6200 Kydex	N Female	
F33048	740-960	2 (51)	4.5 (114)	Omni	50	6200 Kydex	N Female	
F3749	VHF/UHF/806-960	9.78 (249)	7.0 (178.5)	Omni	50	6200 Kydex	N Female	
F3741	VHF/UHF/806-960	11.25 (286.88)	0.65 (16.575)	Omni	50	Polycarbonate	N Male	
945-70	680-2700	30 x 13 x 3		Directional	150	ABS	DIN 7/16	
Bi-Directional Amplifiers								
Pt Number	Frequency Range, MHz	Gain, dB	Noise, dB	Pwr, dBm	Input Voltage	Alarms	Connector	
UBDA-138225	138-225 MHz	+80	4 typical	+29	AC:115-220	Power Fail	N Female	
UBDA-4551	380-512 MHz	+70	4 typical	+29	AC:115-220	N/A	N Female	
BDA 764806	DL:764-776 UL:794-806	+80	2.5 typical	+31.5	AC:115-220 DC:24-27	AGC, S/D, PF	N Female	
BDA 806870	DL:851-869 UL:806-824	+80	2.5 typical	+31.5	AC:115-220 DC:24-27	AGC, S/D, PF	N Female	
BDA 896941	DL:935-941 UL:896-901	+80	2.5 typical	+31.5	AC:115-220 DC:24-27	AGC, S/D, PF	N Female	
Couplers/Splitters								
Model	118-136	138-174	406-512	746-960	Type	Power	Connector	
49-FF-YY-XX		●	●	●	Directional Coupler	Rx to 25W	N Female	
XBC-FF-PP	●	●	●	●	Crossband Coupler	RX to 250	N Female	
47-XX-0X	●	●	●	●	Power Splitter	RX Only	N Female	
Donor Antennas								
Model	138-174	406-512	746-960	BW 1.5:1	Type	Pattern	Gain dBd	Watts
871F-70LM	●			36	Exposed Dipole	Offset or Bi	2	200
771F-70LM		●		36	Exposed Dipole	Offset or Bi	2	200
291-70	●			36	Yagi	Directional	3.5	350
295-70	●			4% C F	Yagi	Directional	6.5	350
290-70	●			4% C F	Yagi	Directional	9.5	350
250-70	●			36 (2:1)	Yagi	Directional	7	250
F-3872		●		24	Yagi	Directional	3.5	350
433-70		●		24	Yagi	Directional	6.5	350
430-70		●		24	Yagi	Directional	10	350
480-70		406-470		64	Yagi	Directional	10	350
982-70			900-930	30	Yagi	Directional	3.5	200
983-70			●	85	Yagi	Directional	6.5	200
980-70			●	85	Yagi	Directional	10	200
987-70			●	85	Yagi	Directional	12	200
490-70			806-960	85	Yagi	Directional	10	200
470-70	132-174			15% C F	Corner Reflector	Directional	7	250
471-70	132-174			15% C F	Corner Reflector	Directional	10	250
440-70		●		64	Corner Reflector	Directional	9.5	100
442-70		●		64	Corner Reflector	Directional	12	100
365-70		●		20	Parabolic Refl.	Directional	15	100

Comprod In-building antennas are offered for a variety of RF communication projects for environments that require internal propagation of RF for public safety needs. Our products have been deployed for mission critical projects including subway transit in-tunnel or underground projects, high-rise in-building systems, nuclear power plants, correctional facilities, shopping malls, parking garages, casinos and public sports arenas.

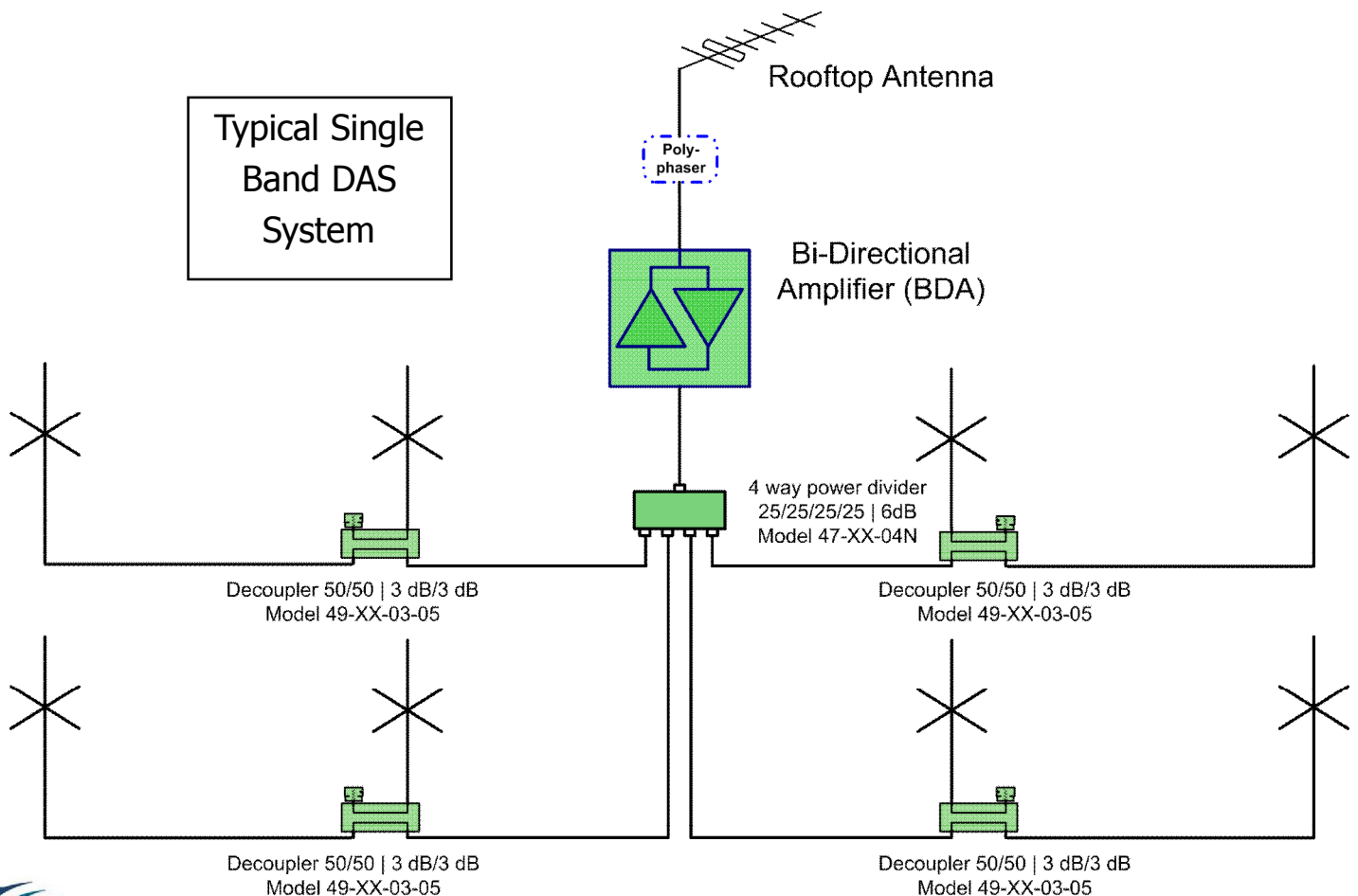
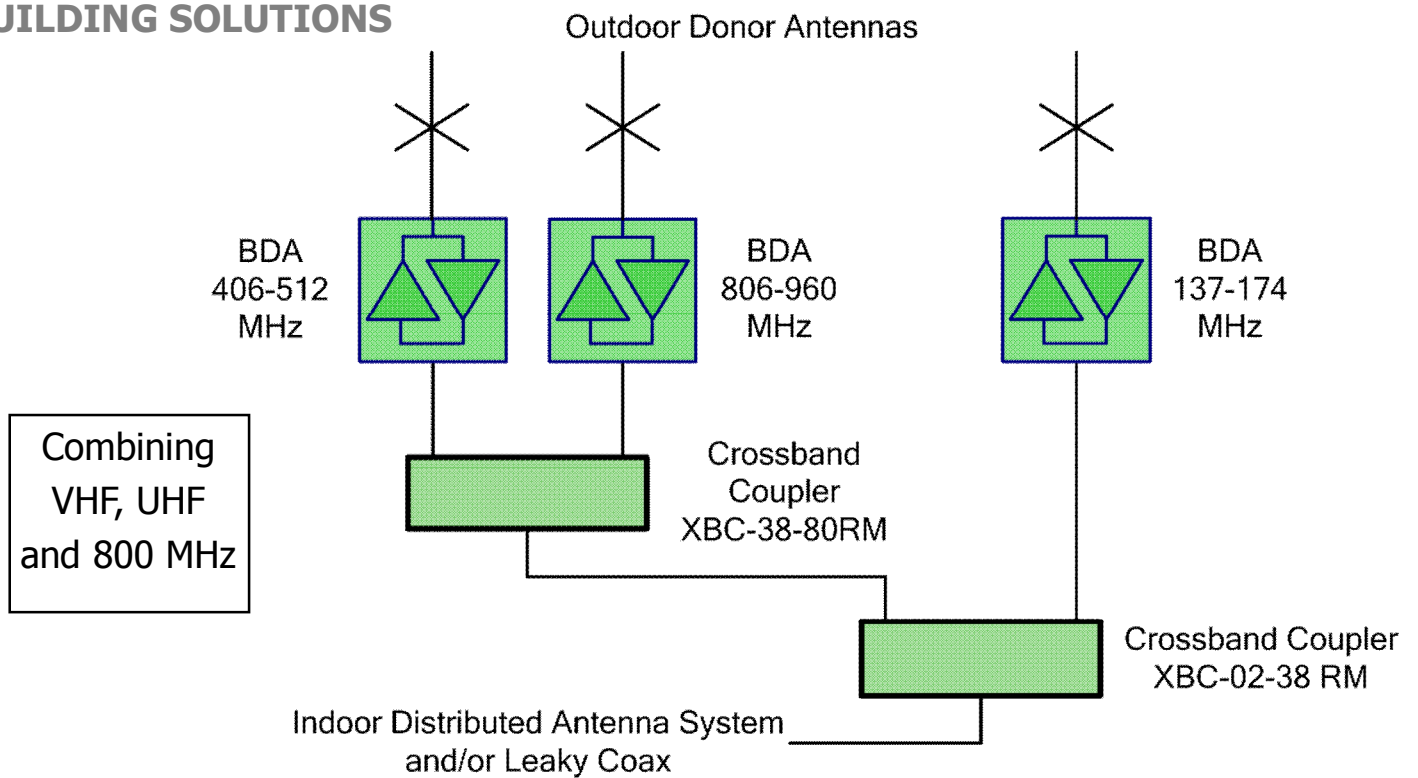
Our line of antenna system solutions incorporates single, dual, and tri-band frequency specifications. These antennas are offered in a wide range of endosures: radomes, low profile, 6200 Kydex fire-retardant material, ABS high-impact, and polycarbonate.

Comprod can complement antenna systems with other RF components from our portfolio to build out the network: splitters, couplers, taps, cables, connectors, signal boosters (Bi-Directional Amplifiers) required for complete RF needs for In-building public safety requirements.



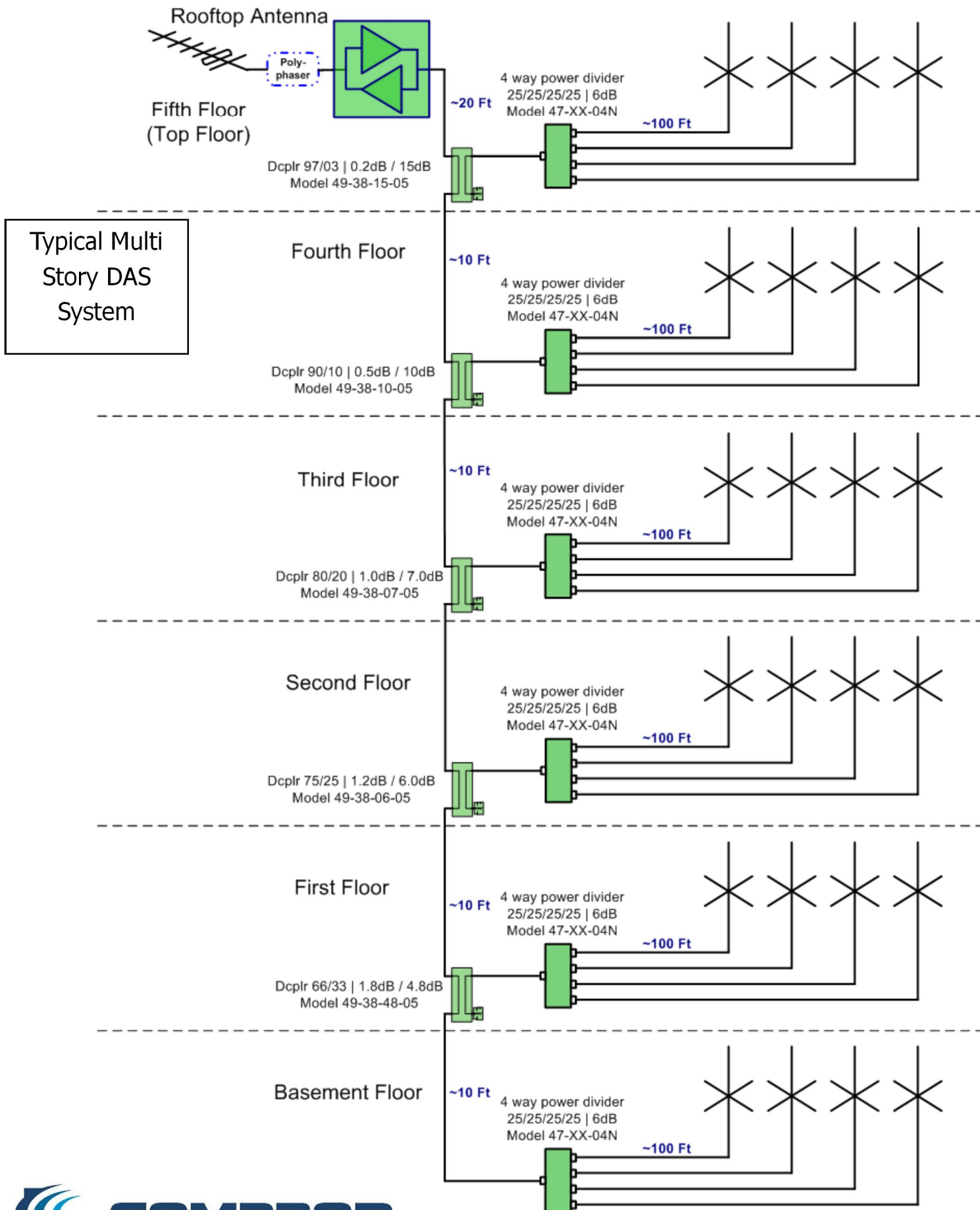


## IN-BUILDING SOLUTIONS





# IN-BUILDING SOLUTIONS



## SINGLE-BAND ANTENNAS

Comprod In-building antennas are designed to provide excellent coverage solutions in order for external Public Safety Radio Frequencies to propagate within buildings, tunnels or public use environments.

We offer a variety of antennas with Fire Retardant 6200 Kydex radomes. These materials are designed for In-building applications and inside public transport vehicles such as underground trains, vans, buses and trains. They meet the recommended fire safety practices of both the Federal Transit Administration (FTA) and the Federal Rail Administration (FRA) for smoke emission and flammability as tested under ASTM E-662 and ASTM E-162.

Our antennas have been installed worldwide and provide RF coverage inside nuclear power plants, correctional institutions, tunnels, high-rise buildings, subways, shopping malls, parking garages, power plants, high-security office networks and mine shafts.

**Note:** add the material and connector type to the part number when ordering:

-ABS is for outdoor use and is grey in color (Default)

-KYDEX is for indoor use and is white in color



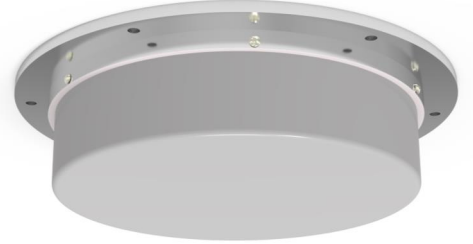
362-75

Electrical Specifications	357-75	360-75	361-75	362-75
Frequency Range, MHz	148-174	406-512	806-960	806-960
Nominal Gain, dBd	Unity	Unity	Unity	Unity
Bandwidth 1.5:1 VSWR, MHz	3	20	140	66
Bandwidth: 2.0:1 VSWR, MHz	4	40	140	100
Polarization	Vertical	Vertical	Vertical	Vertical
Pattern	Omnidirectional	Omnidirectional	Omnidirectional	Omnidirectional
Power Rating, Watts	150	50	50	100
Nominal Impedance, Ohms	50	50	50	50
Radome	ABS / 6200 Kydex	ABS / 6200 Kydex	ABS / 6200 Kydex	ABS / 6200 Kydex
Color	Grey / White	Grey / White	Grey / White	Grey / White
Standard Termination	UHF / BNC / N	UHF / BNC / N	N Female	N Female

Mechanical Specifications	357-75	360-75	361-75	362-75
Width, in (mm)	4.0 (102)	3.0 (76)	3.15 (80)	2.0 (51)
Length, in (mm)	21.0 (533)	11.0 (279)	n/a	n/a
Height, in (mm)	3.0 (76)	3.25 (83)	n/a	n/a
Diameter, in (mm)	n/a	n/a	9.3 (236)	4.5 (114)
Weight, lbs (kg)	2.1 (0.945)	1.0 (0.45)	2.5 (1.15)	0.375 (0.169)
Required Minimum Ground Plane Size, in (mm)	36 x 48 (914 x 1219) Not Included	20 x 16 (508 x 406) Not Included	14 x 14 (355 x 355) Not Included	10 x 10 (254 x 254) Not Included



357-75 Top and Underside-view



361-75



360-75



362-75 Top and Underside View





## UHF IN-BUILDING ANTENNAS

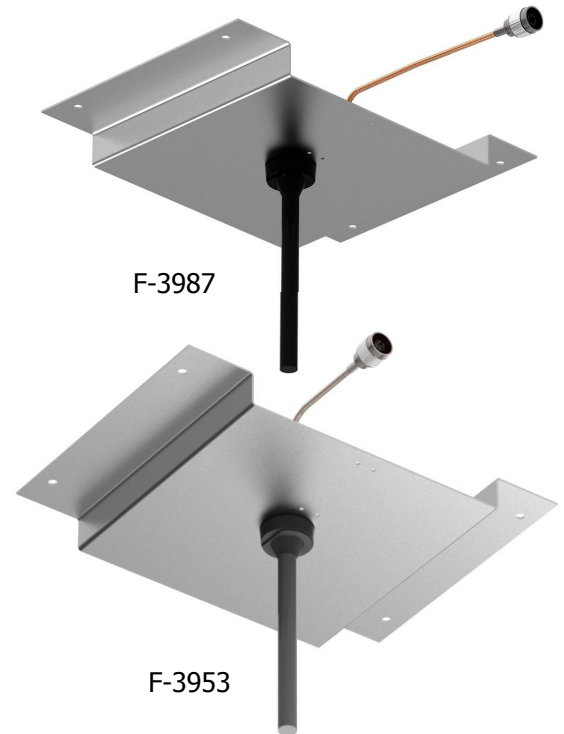
Comprod In-building antennas are designed to provide excellent coverage solutions in order for external Public Safety Radio Frequencies to propagate within buildings, tunnels or public use environments.

Our antennas can cover single or multiple frequency bands.

We offer a wide variety of antennas with Fire Retardant 6200 Kydex radomes. These materials are designed for In-building applications and inside public transport vehicles such as underground trains, vans, buses and trains. They meet the recommended fire safety practices of both the Federal Transit Administration (FTA) and the Federal Rail Administration (FRA) for smoke emission and flammability as tested under ASTM E-662 and ASTM E-162.

Our antennas have been installed worldwide and provide RF coverage inside nuclear power plants, correctional institutions, tunnels, high-rise buildings, subways, shopping malls, parking garages, power plants, high-security office networks and mine shafts.

Note: Add "NGP" to part number to order without the ground plane.



Electrical Specifications	F-3987	F-3953
Frequency Range, MHz	380-470	406-470 / 450-512
Nominal Gain, dBd	Unity	Unity
Bandwidth: 2.0:1 VSWR, MHz	90	64
Polarization	Vertical	Vertical
Pattern	omnidirectional	omnidirectional
Power Rating, Watts	150	50
Nominal Impedance, Ohms	50	50
Material	Aluminium painted	Aluminum painted
Color	Black or White	Black or White
Standard Termination	N Male	N Male

Mechanical Specifications	F-3987	F-3953
Max. Length, in (mm)	6.75 (171)	7.0 (178.5)
Diameter, in (mm)	0.5 (12.75)	0.625 (15.93)
Weight, lbs. (kg)	N/A	N/A
Required Minimum Ground Plane Size, in (mm)	8 x 8 (203 x 203)	8 x 8 (203 x 203)
Mounting Hardware	Included	Included

## MULTI-BAND ANTENNAS

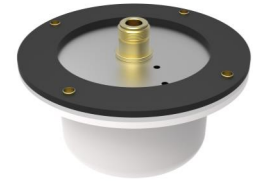
Comprod In-building antennas are designed to provide excellent coverage solutions in order for external Public Safety Radio Frequencies to propagate within buildings, tunnels or public use environments.

Our antennas can cover single or multiple frequency bands.

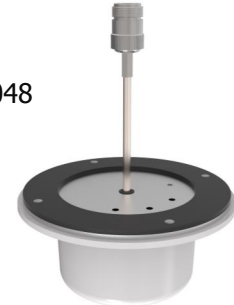
We offer a wide variety of antennas with Fire Retardant 6200 Kydex radomes. These materials are designed for In-building applications and inside public transport vehicles such as underground trains, vans, buses and trains. They meet the recommended fire safety practices of both the Federal Transit Administration (FTA) and the Federal Rail Administration (FRA) for smoke emission and flammability as tested under ASTM E-662 and ASTM E-162.

The antennas are installed on ceilings to provide RF coverage inside nuclear power plants, correctional institutions, tunnels, high-rise buildings, subways, shopping malls, parking garages, power plants, high-security office networks and mine shafts.

F-33005



F-33048



Electrical Specifications	F-33005	F-33048
Frequency Range, MHz	806-960 / 1850-1990	760-960
Nominal Gain, dBd	Unity	Unity
Bandwidth 1.5:1 VSWR, MHz		
138-174	n/a	n/a
406-512	n/a	n/a
760-960	n/a	200
806-960	72 (Specify Frequencies)	n/a
1800-1990	140	n/a
Polarization	Vertical	Vertical
Pattern	omnidirectional	omnidirectional
Power Rating, Watts	50	50
Nominal Impedance, Ohms	50	50
Radome	6200 Kydex	6200 Kydex
Standard Termination	N Female	32" Jumper - N Female
Mechanical Specifications	F-33005	F-33048
Max. Length, in (mm)	2 (51)	2 (51)
Diameter, in (mm)	4.5 (114)	4.5 (114)
Weight, lbs (kg)	0.375 (0.169)	0.375 (0.169)
Required Minimum Ground Plane Size, in (mm)	8 x 8 (203 x 203)	8 x 8 (203 x 203)
Mounting hardware	Not Included	Not Included

# IN-BUILDING SOLUTIONS

## TRI-BAND IN-BUILDING ANTENNAS

Comprod In-building antennas are designed to provide excellent coverage solutions in order for external Public Safety Radio Frequencies to propagate within buildings, tunnels or public use environments.

Our antennas can cover single or multiple frequency bands. We offer a wide variety of antennas with Fire Retardant 6200 Kydex radomes. These materials are designed for In-building applications and inside public transport vehicles such as underground trains, vans, buses and trains. They meet the recommended fire safety practices of both the Federal Transit Administration (FTA) and the Federal Rail Administration (FRA) for smoke emission and flammability as tested under ASTM E-662 and ASTM E-162.

The F-3741 has been designed for mounting with a ground plane on a concrete surface. This is a requirement for meeting full bandwidth specifications. Polycarbonate tubing is used for the radome on the F-3741. It's a flame resistant and self-extinguishing material.

The F-3749 Antenna is available in custom colors for orders of 150 or more.



F-3749

Electrical Specifications	F-3741	F-3749	F-3749A
Frequency Range, MHz	VHF / UHF / 760-960	VHF / UHF / 760-960	VHF / UHF / 760-960
Nominal Gain, dBd	Unity	Unity	Unity
Bandwidth: 2.0:1 VSWR, MHz			
138-174	8	8	8
406-512	64	64	64
764-890	126	126	126
806-960	154	154	154
1800-1990	n/a	n/a	n/a
2400-3000	n/a	n/a	n/a
Polarization	Vertical	Vertical	Vertical
Pattern	Omnidirectional	Omnidirectional	Omnidirectional
Power Rating, Watts Total	50	50	50
Nominal Impedance, Ohms	50	50	50
Radome	Polycarbonate	6200 Kydex	6200 Kydex
Mean Time Between Failure, Hours	87,000	87,000	87,000
Color	Black	White	White
Standard Termination	N Male	N Female	2 foot jumper to N Male

Mechanical Specifications	F-3741	F-3749	F-3749A
Length, inch (mm)	11.25 (286.88)	9.78 (249)	9.78 (249)
Diameter, inch (mm)	0.65 (16.575)	7.0 (178.5)	7.0 (178.5)
Weight, lbs (kg)	N/A	4 (1.8)	4 (1.8)
Required Minimum Ground Plane Size, in (mm)	Included (Required)	14 x 14 (357 x 357) Not Included	14 x 14 (357 x 357) Not Included

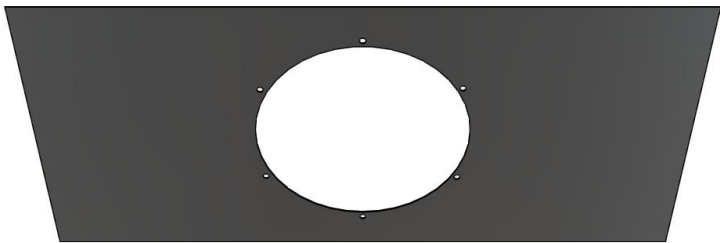


TRI-BAND ANTENNAS

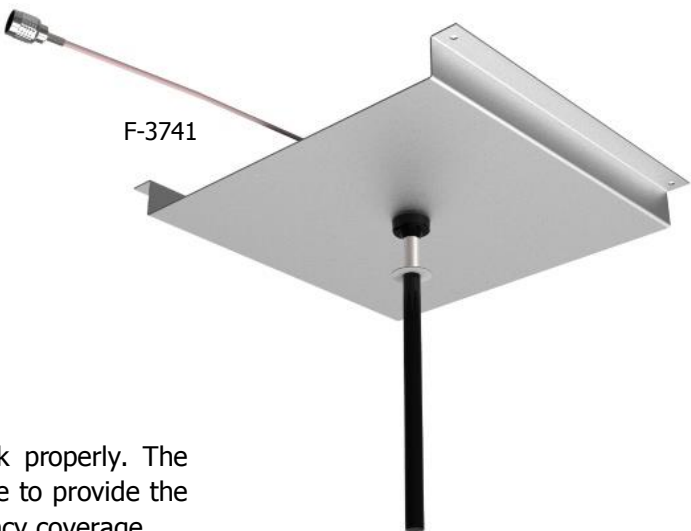
F-3749 Top and Underside View



F-3749A Top and Underside View

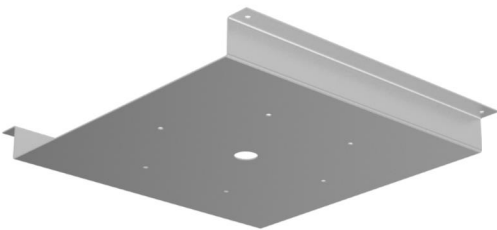


F-33159 Mounting Bracket

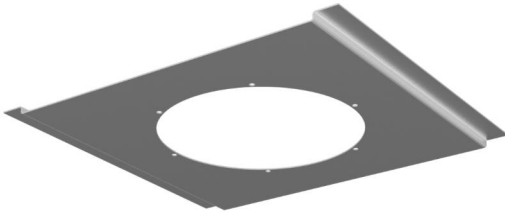


Comprod In-building antennas require a ground plane to work properly. The minimum ground plane size is specified for each antenna. Failure to provide the ground plane may result in poor propagation and/or poor frequency coverage.

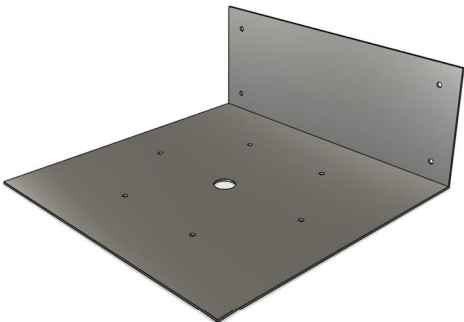
Specifications	F-33034	F-33220	F-33135	F-33203	F-33159	F-33105
Fits Antennas	F-3749/A	F-3749	F-3749/A	F-3749/A	F-3749/A	F-3749/A
Ground Plane in	14 x 14	14 x 14	24 x 48	24 x 24	12 x 26	14 x 14
Included with Antenna	No	No	No	No	No	No
Length, in	~16	~16	24	24	12	14
Width, in	14	14	48	24	26	14 x 5.625



F-33034 Mounting Bracket



F-33220 Mounting Bracket



F-33105 Mounting Bracket

### 945-70

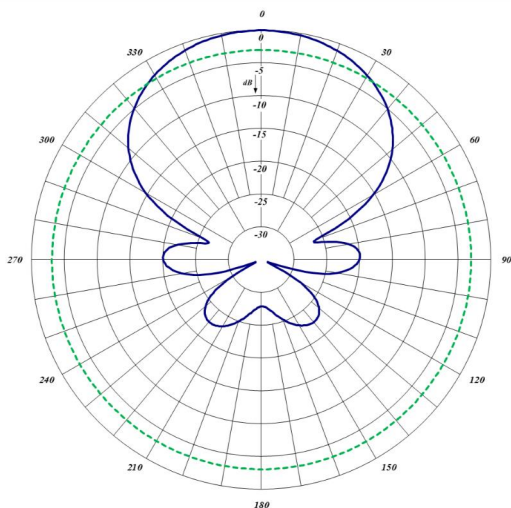
This antenna is a broadband antenna that can be used for public safety as well as in cellular bands. It makes an ideal solution for a donor antenna for a DAS system. Comprod In-building system antennas are designed to provide excellent coverage solutions in order for external Public Safety Radio Frequencies to propagate within buildings, tunnels or public use environments.

#### Features:

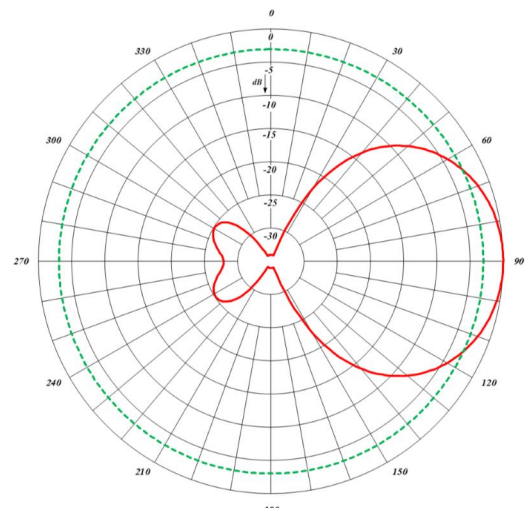
- Rugged design to withstand the most extreme environmental conditions.
- Extra wide bandwidth for use in multiple bands.



Specifications	945-70
Frequency Band:	680-2700 MHz.
Gain:	8-9 dBd
Impedance:	50 Ohm
Intermodulation IM3 2 carrier, 20 W each:	-150 dBc
Power:	300 watts at lowest frequency, 150 Watts at highest frequency
Front to back Ratio:	25 dB
Half power Horizontal Beamwidth (V Pol):	60 (high frequency)-65 (low frequency) degrees
Half power Vertical Beamwidth (V Pol):	45 (high frequency)-50 (low frequency) degrees
Connector:	DIN 7/16. N type also available (PIM not guaranteed with N type connector)
Max wind Velocity:	240 Km/h (150)mph
Dimensions:	30" x 13" x 3"



Horizontal pattern 680-1690 Vertical Polarization



Vertical pattern 680-1690 Vertical Polarization

**VHF BI-DIRECTIONAL AMPLIFIER (BDA)****138-225 MHz****BDA-138225-SERIES**

Comprod's BDA138225 is an unidirectional Class B signal booster. It covers both the 138-174 MHz and 216-225 MHz bands. The amplifier can be used with input / output filters as an Unidirectional Amplifier or it can be combined with input and output duplexers to create a FCC and IC Certified Bi-Directional Amplifier.

Note: The BDA138225 must have adequate input and output filtering to prevent undesired interference. Comprod Technical Solutions Specialists can provide guidance on the required filtering solution for a complete BDA system design.



Electrical Specifications	Canada	USA
Certification	IC: 7755A-UDA138225	FCC: WDM-BDA138225
Frequency Range, MHz	138-225	150-225
Automatic Level Control (ALC), dB	35	35
Amplifier Maximum Gain, dB	+80 Typical	+80 Typical
Input Manual Attenuator Range, dB	0 to 30 in 2 dB steps	0 to 30 in 2 dB steps
Output Level Manual Adjustment range, dB	0 to 15 in 1 dB steps	0 to 15 in 1 dB steps
3rd Order Output Intercept Point, dBm	+48 Typical	+48 Typical
Noise Figure, Typical (without filters), dB	4	4
Limited Output Composite Power, dBm	+31	+31
Nominal Impedance, Ohms	50	50
Input / Output Connectors	N Female	N Female
AC Power Source Input, Volts	100 to 260 50/60Hz	100 to 260 50/60Hz
Optional DC Power Source Voltages, Volts	+24 or +48	+24 or +48
Optional dry contact alarms	Power Failure	Power Failure

**Mechanical Specifications (Typical)**

Dimensions, in H, W, D	24 x 20 x 13.5
Temperature Range, °F (°C)	-4 to 131 F (-20 to +55) C
Weight, lbs (Kg)	100 (45)



## UHF BI-DIRECTIONAL AMPLIFIER (BDA)

380-512 MHz

## UBDA-3845/4551-SERIES

Our BDA system is designed for high standards with government and industrial clients in mind. The solution can be customized for unique client requirements.

Reliable RF coverage for public safety and utility clients in 380-512 MHz offered for applications including hotel parking garages, underground mining facilities, shopping malls, hospitals, government buildings, subway stations and tunnels. Available in rack mount, NEMA stainless steel or painted steel NEMA enclosures. Compliant to Govt. standards: FCC WDM-UBDA 4551; IC 7755A-UBDA4551. Comprod Technical Solutions Specialists can provide guidance on the required filtering solution for a complete BDA system design.



## Electrical Specifications

Frequency Range, MHz	380-512
Passbands	2 (4 passband version available)
Guard Band, MHz	2-3
Window Bandwidth, MHz (configured by channel filters)	2-3
Automatic Level Control (ALC), dB	Yes (30 dB)
Maximum Gain, dB	+ 70 dB Typical
Output Level / Input Attenuator Range, dB	0 to 15 in 1 dB steps / 0 to 30 in 2 dB steps
3rd Order Output Intercept Point, dBm	+48 Typical
Output 1 dB Compression Point, dBm	+38 Typical
Noise Figure, Typical (with filters), dB	5.5
Uplink Max Output (Composite), dBm	+29
Downlink Max Output (Composite), dBm	+29
Nominal Impedance, Ohms	50
VSWR	1.5:1
AC Power Input, Volts	117 to 260
Temperature Range, °F (°C)	-4 to 131 (-20 to +55)
Input / Output Connectors	N Female

## Mechanical Specifications

Enclosure	NEMA 4 Painted Steel
Dimensions, in H, W, D	24 x 16 x 11.5 (Large Enclosure) ; 14 x 8 x 7 (Attached Small Enclosure)
Weight, lbs (Kg) (Approximate)	100 (45)

## BI-DIRECTIONAL AMPLIFIER (BDA)

764-941 MHz

## BDA-40-SERIES

Designed and engineered to meet the fire protection codes (NFPA and IFC standards), Comprod's Bi-Directional Amplifier (BDA) features advanced Alarm, Monitoring & Control capabilities ensuring continuous availability of mission-critical services. Certified: FCC and IC.

- Available in 700, 800 and 900 MHz Public Safety bands
- Ideal for indoor applications in commercial and government buildings, parking garages, mining facilities, subway stations and tunnels
- Rack mounted or in NEMA 4/4x waterproof, stainless steel enclosures
- Low noise figure, wide dynamic range
- Visual alarms and remote failure monitoring with Dry contacts and Graphical User Interface



Electrical Specifications	BDA 764806	BDA 806870	BDA 896941
Frequency Range, MHz	DL: 764-776 UL: 794-806	DL: 851-869 UL: 806-824	DL: 935-941 UL: 896-901
Passband Ripple, dB	+/- 1.5	+/- 1.5	+/- 1.5
Automatic Gain Control (AGC), dB	30	30	30
Maximum Gain, dB	+80	+80	+80
Manual Gain Control (MGC), dB	0-31 in 1 dB Steps	0-31 in 1 dB Steps	0-31 in 1 dB Steps
Noise Figure, dB	2.5 Typical	2.5 Typical	2.5 Typical
Delay, Max., $\mu$ s	1	1	1
Max. Output Power, dBm	DL: +31.5 UL: +31.5	DL: +31.5 UL: +31.5	DL: +31.5 UL: +31.5
VSWR	1.5:1	1.5:1	1.5:1
Input Voltage, Volts	AC: 115-220 DC: 24-27	AC: 115-220 DC: 24-27	AC: 115-220 DC: 24-27
Temperature Range, $^{\circ}$ C	-30 to +60	-30 to +60	-30 to +60
Humidity, %	95	95	95
Connectors	N Female	N Female	N Female
LNA bypass Function Implementation, dBm	-20 @ Input Power	-20 @ Input Power	-20 @ Input Power
Alarms	AGC, S/D, Power	AGC, S/D, Power	AGC, S/D, Power

Mechanical Specifications	BDA 764806	BDA 806870	BDA 896941
Enclosure	NEMA 4 Painted Steel	NEMA 4 Painted Steel	NEMA 4 Painted Steel
Dimensions, in. H, W, D	17.5 x 11 x 9	17.5 x 11 x 9	17.5 x 11 x 9
Weight, lbs	33.5	33.5	33.5

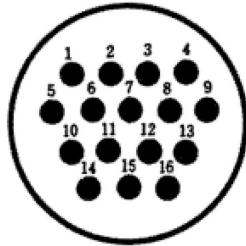
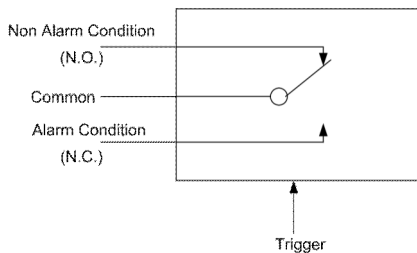
## BI-DIRECTIONAL AMPLIFIER (BDA)

764-941 MHz

### Four Dry Contact Alarms:

Donor Antenna Alarm	AC Current Alarm	DC Current Alarm	RF System Alarm
<ul style="list-style-type: none"> <li>- Antenna disconnected</li> <li>- Antenna open circuit</li> </ul>	<ul style="list-style-type: none"> <li>- AC Power failure (Can run on DC source)</li> </ul>	<ul style="list-style-type: none"> <li>- DC Power failure</li> </ul>	<ul style="list-style-type: none"> <li>- Shutdown of RF System:                             <ul style="list-style-type: none"> <li>- Overheating</li> <li>- Power over limit</li> <li>- VGA malfunction</li> <li>- Other failures</li> </ul> </li> </ul>

Relay Shown in Non-Alarm Condition.  
A kit of the connector with labeled wires is supplied with the unit.



Pin	Description	Pin	Description
1	NC DC Relay	9	NO RF System Failure Relay
2	COM DC Relay	10	NC AC Relay
3	NO DC Relay	11	COM AC Relay
4		12	NO AC Relay
5		13	
6		14	NC Antenna Relay
7	NC RF System Failure Relay	15	COM Antenna Relay
8	COM RF System Failure Relay	16	NO Antenna Relay

### Monitoring and Control via Built-in via RS-232 Connector (USB Optional)

Monitor	Alarm	Control
<ul style="list-style-type: none"> <li>- TX/RX System Gain</li> <li>- TX/RX Attenuation</li> <li>- TX Input Power</li> <li>- TX/RX Output Power</li> <li>- DC Voltage/Current</li> <li>- System Temperature</li> </ul>	<ul style="list-style-type: none"> <li>- TX Input Over Power</li> <li>- TX/RX Output Over Power</li> <li>- AGC Range Alarm</li> <li>- TX/RX Shutdown</li> <li>- PSU Alarm</li> <li>- Over Temperature</li> </ul>	<ul style="list-style-type: none"> <li>- HPA On/Off</li> <li>- Gain</li> <li>- AGC On/Off</li> <li>- Shutdown On/Off</li> <li>- MCU Reset</li> <li>- Alarm Limit</li> </ul>



Visual Alarms and Remote  
Failure Monitoring with  
Graphical User Interface



## BATTERY BACKUP SYSTEM

### P600-1-24-20

Comprod can supply a Battery backup system that is compatible with our VHF/UHF/700/800 and 900 MHz BDA's. This Battery backup is part of a complete solution for NFPA compliance.

Features:

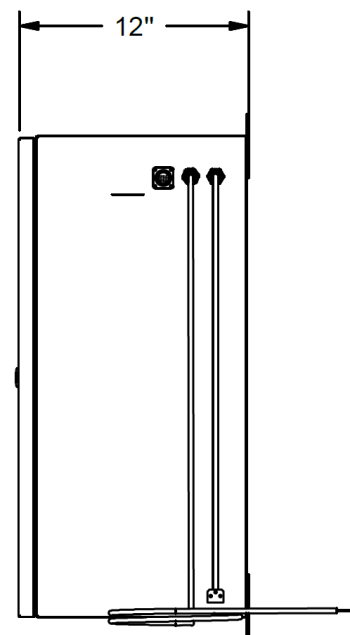
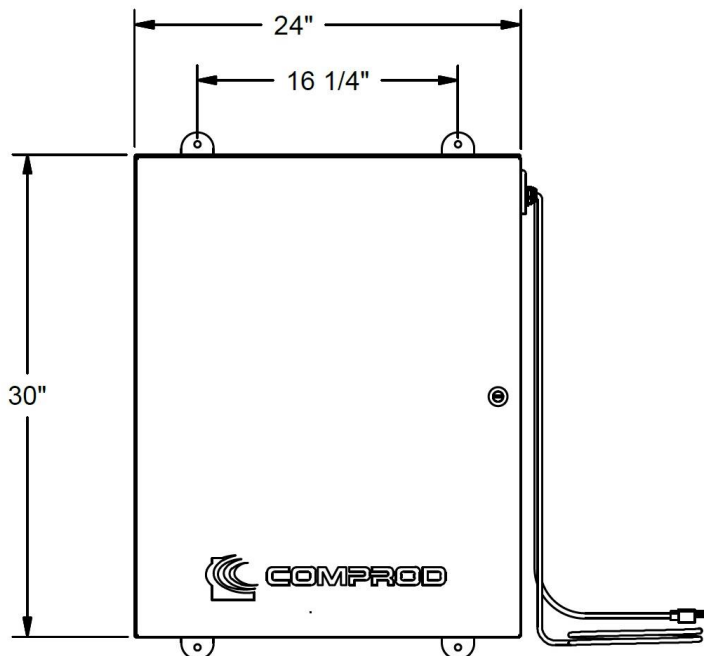
- Battery and charger/rectifier, up to 24 hour backup time.
- Universal input: 100-250V 1phase-60Hz
- Input protection: AC breaker (1 pole)
- Output: 27Vdc at 20 Amps with less than 100mV ripple
- Load protection: DC breaker (2 poles)
- Dry Contact Alarms for the following conditions:
  - ◇ High or Low DC volts
  - ◇ AC Power or Rectifier failure

Battery temperature compensation: to extend the battery life it reduces the charging voltage when temperature exceeds 25° C and increases it when the temperature is lower than 25° C.

Battery Type: VRLA type battery to provide 7.6Amps up to 24 hour backup time and down to 21Vdc end voltage at 25° C.



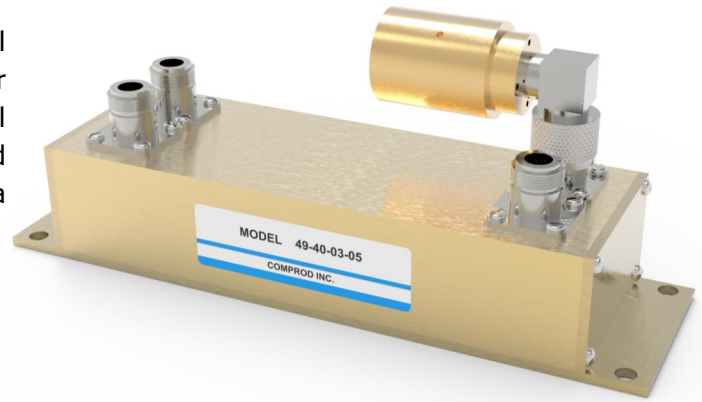
Disclaimer: Actual backup time depends on the actual connected load, battery temperature and aging.



**49-FF-YY-XX Series**

Comprod Communications Ltd. offers a full line of Hybrid Directional Couplers. The full range of decoupling values allows balanced power division and distribution. These couplers are bidirectional and are well suited for two-way communications systems. A full line of Tri-Band models is available for distribution of VHF, UHF and 800 MHz via a single transmission line. Standard finish is gold Alodine.

- Low Insertion Loss
- High Isolation between ports
- Excellent VSWR
- Tri-Band and other models are available and customizable. Please contact a Comprod Inc. Technical support technician for consultation.



Model With No Load	Model With 5 Watt Load	Model With 25 Watt Load	Frequency Range	Decoupling (dB)	Thru-line Loss (dB)	Power Split Ratio (%)
49-13-03-00	49-13-03-05	49-13-03-25	138-174MHz	-3.0, $\pm 0.7$	-3.0, $\pm 0.3$	50 / 50
49-13-48-00	49-13-48-05	49-13-48-25	138-174MHz	-4.8, $\pm 0.7$	-1.8, $\pm 0.3$	67 / 33
49-13-06-00	49-13-06-05	49-13-06-25	138-174MHz	-6.0, $\pm 1.0$	-1.2, $\pm 0.2$	75 / 25
49-13-07-00	49-13-07-05	49-13-07-25	138-174MHz	-7.0, $\pm 1.0$	-1.0, $\pm 0.2$	80 / 20
49-13-10-00	49-13-10-05	49-13-10-25	138-174MHz	-10.0, $\pm 1.0$	-0.5, $\pm 0.2$	90 / 10
49-13-20-00	49-13-20-05	49-13-20-25	138-174MHz	-20.0, $\pm 1.0$	-0.3 max.	99 / 1
49-38-03-00	49-38-03-05	49-38-03-25	380-512MHz	-3.0, $\pm 0.7$	-3.0, $\pm 0.3$	50 / 50
49-38-48-00	49-38-48-05	49-38-48-25	380-512MHz	-4.8, $\pm 0.7$	-1.8, $\pm 0.3$	67 / 33
49-38-06-00	49-38-06-05	49-38-06-25	380-512MHz	-6.0, $\pm 1.0$	-1.2, $\pm 0.2$	75 / 25
49-38-07-00	49-38-07-05	49-38-07-25	380-512MHz	-7.0, $\pm 1.0$	-1.0, $\pm 0.2$	80 / 20
49-38-10-00	49-38-10-05	49-38-10-25	380-512MHz	-10.0, $\pm 1.0$	-0.5, $\pm 0.2$	90 / 10
49-38-15-00	49-38-15-05	49-38-15-25	380-512MHz	-15.0	-0.2 max.	97 / 3
49-38-20-00	49-38-20-05	49-38-20-25	380-512MHz	-20.0	-0.2 max.	99 / 1
49-38-30-00	49-38-30-05	49-38-30-25	380-512MHz	-30.0	-0.2 max.	99.9 / 0.1
49-74-03-00	49-74-03-05	49-74-03-25	746-960MHz	-3.0, $\pm 0.7$	-3.0, $\pm 0.3$	50 / 50
49-74-48-00	49-74-48-05	49-74-48-25	746-960MHz	-4.8, $\pm 0.7$	-1.8, $\pm 0.3$	67 / 33
49-74-06-00	49-74-06-05	49-74-06-25	746-960MHz	-6.0, $\pm 1.0$	-1.2, $\pm 0.2$	75 / 25
49-74-07-00	49-74-07-05	49-74-07-25	746-960MHz	-7.0, $\pm 1.0$	-1.0, $\pm 0.2$	80 / 20
49-74-10-00	49-74-10-05	49-74-10-25	746-960MHz	-10.0, $\pm 1.0$	-0.5, $\pm 0.2$	90 / 10
49-74-15-00	49-74-15-05	49-74-15-25	746-960MHz	-15.0	-0.2 max.	97 / 3
49-74-20-00	49-74-20-05	49-74-20-25	746-960MHz	-20.0	-0.2 max.	99 / 1
49-74-30-00	49-74-30-05	49-74-30-25	746-960MHz	-30.0	-0.2 max.	99.9 / 0.1

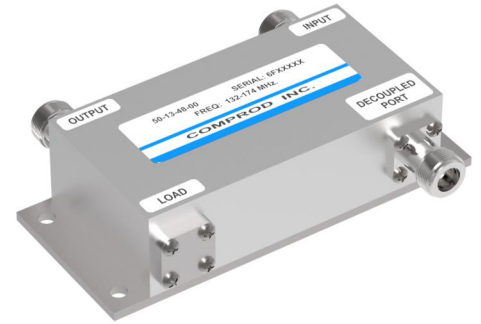
## HYBRID AND DIRECTIONAL COUPLERS/COMBINERS

138-520 MHz

### 50-FF-YY-XX Series

Comprod offers a full line of compact couplers covering the frequency ranges from 138-174, 215-300, or 350-520 MHz. The full range of coupling values provides balanced power division and distribution. The 50-FF series uses a multilayer bonded PCB design resulting in a high performance compact design.

- Low insertion Loss, Excellent return Loss.
- Compact dimensions VHF: 5.25x3.6875x1 in. and UHF: 2.75x2.75x1.125 in.
- 3, 4.8, 6, 7, 10, 15, 20, 30 dB values.
- 200 Watts Maximum main line power.
- Integrated Mounting Bracket.

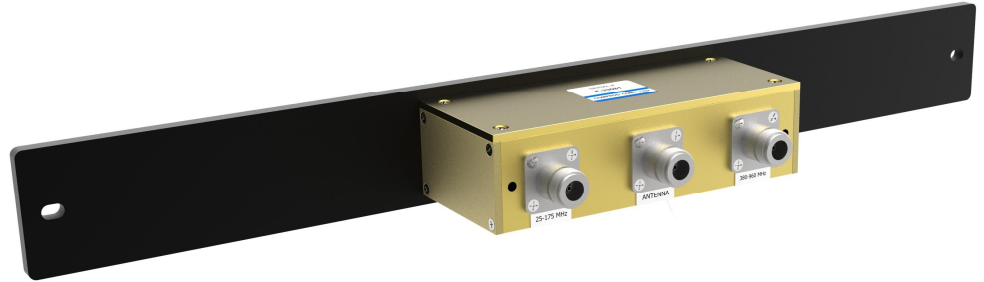


Model With No Load	With Integrated 5 Watt Load	Frequency Range	Coupling Nom. (dB)	Thru Line Loss (dB)	Power Split Ratio (%)
50-13-03-00	50-13-03-05	138-174MHz	-3.0	-3.0, ±0.3	50 / 50
50-13-48-00	50-13-48-05	138-174MHz	-4.8	-1.8, ±0.2	67 / 33
50-13-06-00	50-13-06-05	138-174MHz	-6.0	-1.2, ±0.2	75 / 25
50-13-07-00	50-13-07-05	138-174MHz	-7.0	-1.0, ±0.2	80 / 20
50-13-10-00	50-13-10-05	138-174MHz	-10.0	-0.5, ±0.2	90 / 10
50-13-15-00	50-13-15-05	138-174MHz	-15.0	-0.14 ±0.2	97 / 3
50-13-20-00	50-13-20-05	138-174MHz	-20.0	-0.04 ±0.2	99 / 1
50-13-30-00	50-13-30-05	138-174MHz	-30.0	-0.04 ±0.2	99.9 / .1
50-21-03-00	50-21-03-05	215-300MHz	-3.0	-3.0, ±0.3	50 / 50
50-21-48-00	50-21-48-05	215-300MHz	-4.8	-1.8, ±0.2	67 / 33
50-21-06-00	50-21-06-05	215-300MHz	-6.0	-1.2, ±0.2	75 / 25
50-21-07-00	50-21-07-05	215-300MHz	-7.0	-1.0, ±0.2	80 / 20
50-21-10-00	50-21-10-05	215-300MHz	-10.0	-0.5, ±0.2	90 / 10
50-21-15-00	50-21-15-05	215-300MHz	-15.0	-0.14 ±0.2	97 / 3
50-21-20-00	50-21-20-05	215-300MHz	-20.0	-0.04 ±0.2	99 / 1
50-21-30-00	50-21-30-05	215-300MHz	-30.0	-0.04 ±0.2	99.9 / .1
50-35-03-00	50-35-03-05	350-520MHz	-3.0	-3.0, ±0.3	50 / 50
50-35-48-00	50-35-48-05	350-520MHz	-4.8	-1.8, ±0.2	67 / 33
50-35-06-00	50-35-06-05	350-520MHz	-6.0	-1.2, ±0.2	75 / 25
50-35-07-00	50-35-07-05	350-520MHz	-7.0	-1.0, ±0.2	80 / 20
50-35-10-00	50-35-10-05	350-520MHz	-10.0	-0.5, ±0.2	90 / 10
50-35-15-00	50-35-15-05	350-520MHz	-15.0	-0.14 ±0.2	97 / 3
50-35-20-00	50-35-20-05	350-520MHz	-20.0	-0.04 ±0.2	99 / 1
50-35-30-00	50-35-30-05	350-520MHz	-30.0	-0.04 ±0.2	99.9 / .1

## X-BAND COUPLER

25-960MHz

Comprod Inc. Cross Band Couplers are designed for easy installation, reducing coaxial runs, and for in-building applications with multi-band antennas. They allow multiple bands to share the same transmission lines. They are available in VHF, UHF and 800/900MHz bands. They can be tower mounted (TM), rack mounted (RM), tray-mounted (TRM) or stand alone.

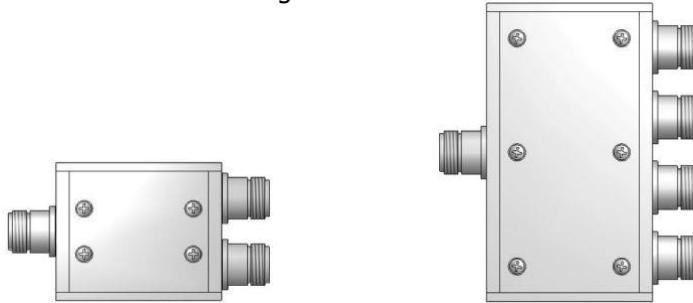


Electrical Specifications		XBC-02-38	XBC-02-38R	XBC-38-80	XBC-38-80R	XBC-38-
Frequency Range, MHz	1ST	25-175	25-175	380-512	380-512	380-512
	2nd	380-960	380-960	806-960	806-960	806-960
Typical Loss, dB	1ST	0.35	0.35	0.20	0.35	0.30
	2nd	0.50	0.50	0.20	0.50	0.50
Isolation, dB		40	40	40	40	40
Power Rating, Watts	1ST	250	Rx Only	250	Rx Only	250
	2nd	250	Rx Only	250	Rx Only	Rx Only
Connectors		N Female				
VSWR		1.25:1				
Temperature °C		-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60
Mechanical Specifications		XBC-02-38	XBC-02-38R	XBC-38-80	XBC-38-80R	XBC-38-80RX
Dimensions		DEPENDS on Mounting Configuration				
Rack Mount		DEPENDS on Mounting Configuration				
Tower Mount		DEPENDS on Mounting Configuration				
Order Information		19" Rack Mount	Tower Mount	Tray Mount	Without Bracket	
XBC-02-38		XBC-02-38-RM	XBC-02-38-TM	XBC-02-38-TRM	XBC-02-38-WB	
XBC-02-38R		XBC-02-38R-RM	XBC-02-38R-TM	XBC-02-38R-TRM	XBC-02-38R-WB	
XBC-38-80		XBC-38-80-RM	XBC-38-80-TM	XBC-38-80-TRM	XBC-38-80-WB	
XBC-38-80R		XBC-38-80R-RM	XBC-38-80R-TM	XBC-38-80R-TRM	XBC-38-80R-WB	
XBC-38-80RX		XBC-38-80RX-RM	XBC-38-80RX-TM	XBC-38-80RX-TRM	XBC-38-80RX-WB	

## POWER SPLITTERS

25-2700MHz

Comprod offers a full line of Power Splitters. The 47-02-XXN and 47-70-XXN series is a hybrid design which provides 20 dB or more of port to port isolation. They are typically used on receiver multicoupler applications. They provide low loss above the splitting loss and cover a very wide frequency range. N connectors are standard but other connectors are available. Standard finish is gold alodine.



Electrical Specifications	47-02-02N	47-02-04N	47-70-02N	47-70-04N	47-70-08N
Frequency Range, MHz	25-512	25-512	698-2700	698-2700	350-1000
Impedance, Ohms	50	50	50	50	50
Number of Outputs	2	4	2	4	8
Split Loss, dB	3	6	3	6	9
Insertion Loss, dB	.3	.5	.3	.3	1.0
VSWR (All Ports)	< 1.2:1	< 1.2:1	< 1.25:1	< 1.25:1	< 1.4:1
Port to Port Isolation	20	20	20	20	20
Power Rating Watts	RX Only	RX Only	RX Only	RX Only	RX Only
Split Ratio	50%	25%	50%	25%	12.5%
Connectors (All Ports)	N-Female	N-Female	N-Female	N-Female	N-Female
Mechanical Specifications	47-02-02N	47-02-04N	47-70-02N	47-70-04N	47-70-08N
Length, in (mm)	3.5 (89)	3.5 (89)	3.5 (89)	3.5 (89)	3.5 (89)
Height, in (mm)	1.0 (25.4)	1.0 (25.4)	1.0 (25.4)	1.0 (25.4)	1.0 (25.4)
Width, in (mm)	2.25 (57)	4.25 (114)	2.25 (57)	4.5 (114)	8.05 (204)
Weight, lbs (Kg)	.5 (230)	.96 (435)	.4 (185)	.96 (435)	2.6 (1150)
Mounting	Tray/Deck	Tray/Deck	Tray/Deck	Tray/Deck	Tray/Deck



**870 LM Series VHF Exposed Dipoles**

The 870 LM Series VHF Exposed Dipoles are available in 1, 2, 4, 8, dipole configurations. The LM stands for "Less Mast". The product includes the dipole, boom and clamps to mount the dipoles but no mast is supplied. All of our antennas can be completely customized to your particular applications. Our antennas can be black anodized, adjustable-only, side mount or top mount, and heavy duty versions are available.

- Each antenna is offered in a 1/4, 3/8 or 1/2 wave spacing versions.
- The 870 LM series has external cabling and is field adjustable pattern.
- Heavy-duty versions are available. Please contact a Comprod Inc. Technical support technician for consultation.



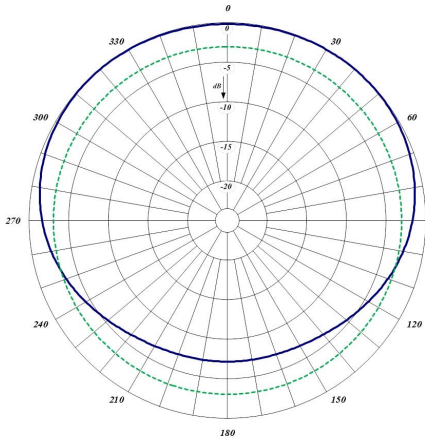
Electrical Specifications	871-70LM	771-70LM
Frequency Range, MHz	138-174	406-512
Nominal Gain, dBd	2.0-2.5	2.0-2.5
Number of Dipoles	1	1
Bandwidth 1.5:1 VSWR, MHz	36	106
Polarization	Vertical	Vertical
Pattern	Offset / bi	Offset / Bi
Power Rating, Watts	200	75
Nominal Impedance, Ohms	50	50
Lightning Protection	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male

Mechanical Specifications	871-70LM	771-70LM
Length, in (mm)	Mast Not Incl.	Mast Not Incl.
Width(1/2 Wave Spacing), in (mm)	40 (1016)	16 (406)
Weight, lbs. (kg)	4.5 (2.0)	
Rated Wind Velocity, No Ice, mph (km/h)	150 (241)	170 (274)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	135 (217)	145 (233)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	20 (9.1)	27 (12.3)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )	0.92 (0.08)	
Mounting Information: Clamp Included	181-85	

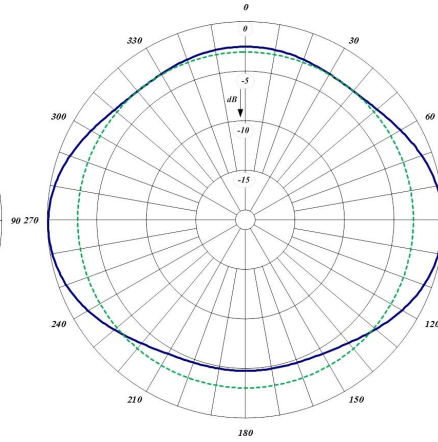
Order Information	Heavy Duty	Black Anodized
871-70LM	871-70LMHD	871-70LMHDB
771-70LM	771-70LMHD	771-70LMHDB



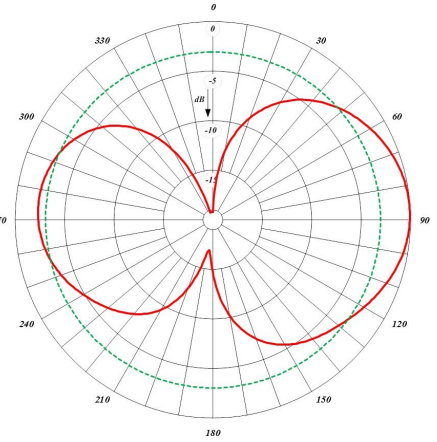
871F-70LM



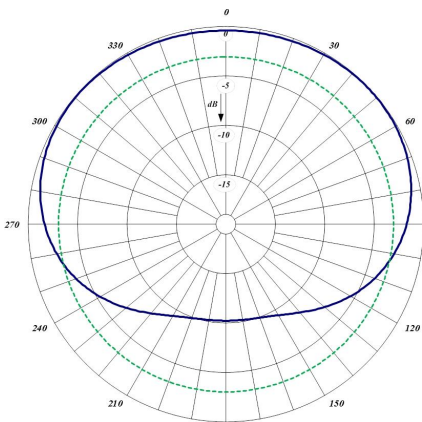
Quarterwave Spacing Horizontal



Halfwave Spacing Horizontal

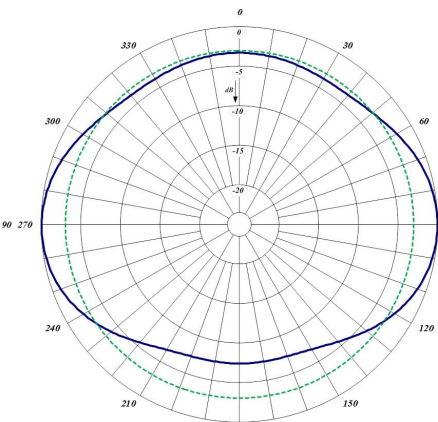


Halfwave Spacing Vertical

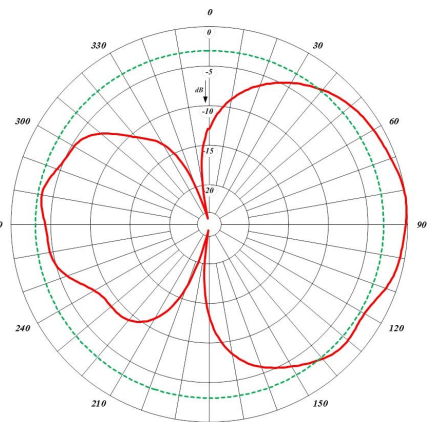


771-70LM

Quarterwave Spacing Horizontal



Halfwave Spacing Horizontal



Halfwave Spacing Vertical

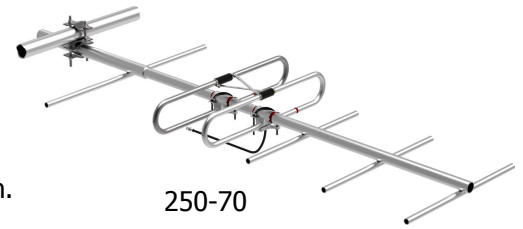
## VHF YAGI ANTENNA

138-174MHz

### 290 Series VHF Yagi Antennas

The 290 Series VHF Yagi Antenna are available in 2, 3, and 6 element configurations. All of our antennas can be completely customized to your applications. Our antennas can be black anodized, welded, vertically or horizontally polarized, and heavy duty versions are available.

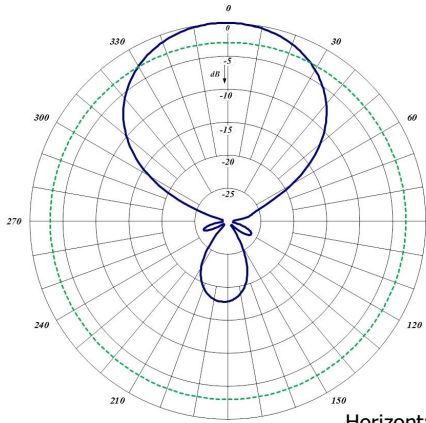
- Each antenna has a rugged design to withstand harsh environmental conditions.
- The mounting hardware supplied will permit either vertical or horizontal polarization.
- DC ground for lightning protection.
- Optionally have the entire antenna welded for added durability.
- Heavy-duty versions are available. Please contact Comprod Inc. Technical support.



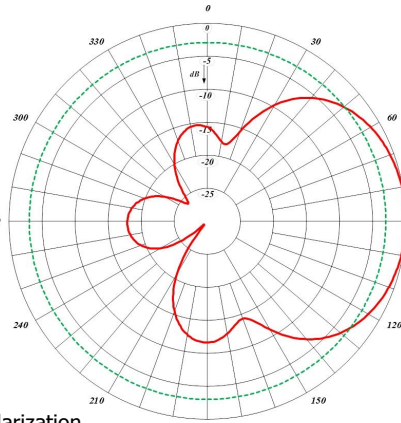
Electrical Specifications	291-70	295-70	290-70	250-70
Frequency Range, MHz	138-174	138-174	138-174	138-174
Nominal Gain, dBd	3.5	6.5	9.5	7
Number of Elements	2	3	6	7
Bandwidth 1.5:1 VSWR, MHz (Ctr.Freq.%)	36	4% @ 2:1	4%	36 @ 2:1
Polarization	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.
Horizontal Beamwidth (Horizontal Pol.)	140°	90°	62°	80°
Vertical Beamwidth (Horizontal Pol.)	70°	61°	50°	60°
Front to Back, dB	15	12	17	25
Pattern	Directional	Directional	Directional	Directional
Power Rating, Watts	350	350	350	250
Nominal Impedance, Ohms	50	50	50	50
Lightning Protection	DC Ground	DC Ground	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male	Type N Male	Type N Male

Mechanical Specifications	291-70	295-70	290-70	250-70
Length, in (mm)	50 (1270)	60 (1524)	108 (2743)	104 (2642)
Width(1/2 Wave Spacing), in (mm)	40 (1016)	43 (1092)	42 (1067)	42 (1067)
Weight, lbs. (kg)	4.8 (2.2)	6.5 (2.9)	12.0 (5.4)	12.0 (5.4)
Rated Wind Velocity, No Ice, mph (km/h)	150 (241)	145 (223)	120 (177)	110 (177)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	105 (169)	100 (161)	85 (137)	90 (145)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	29 (13)	39 (18)	65 (29)	95 (43)
Projected Area, ft² (m²)	1.1 (0.10)	1.4 (0.13)	2.4 (0.22)	2.6 (0.24)
Mounting Information	181-85 Clamp	181-85 Clamp	115-85 Clamp	115-85 Clamp

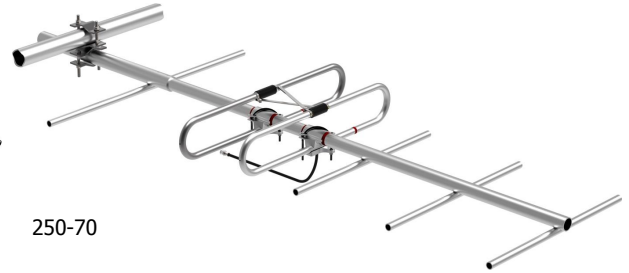
Order Information	End Mount	End Boom	Center Mount	Welded	Heavy Duty	Black Anodized	(2) Stacked
291-70	291-70	N/A	N/A	291-70W	291-70HD	291-70B	Call
295-70	295-70	N/A	295-70CB	295-70W	295-70HD	295-70B	Call
290-70	290-70	290-70EB	290-70CB	290-70W	290-70HD	290-70B	298-70
250-70	250-70	250-70	N/A	250-70W	250-70HD	250-70B	Call



Horizontal Pattern



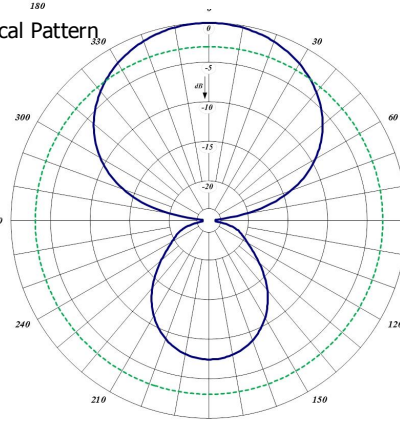
Vertical Pattern



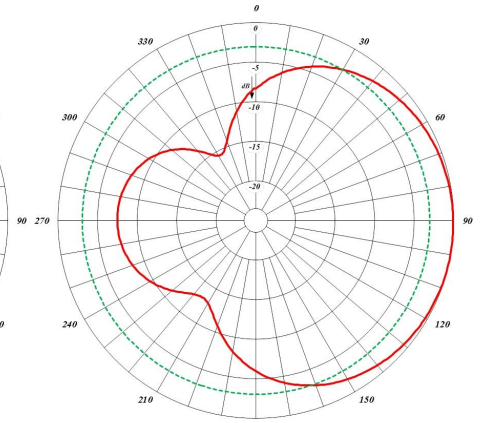
250-70



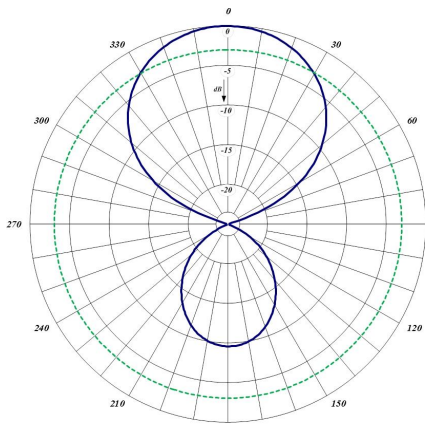
291-70



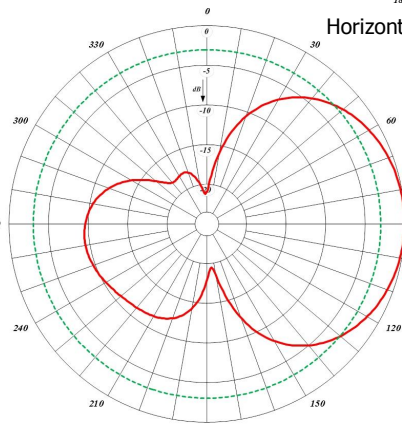
Horizontal Pattern



Vertical Pattern



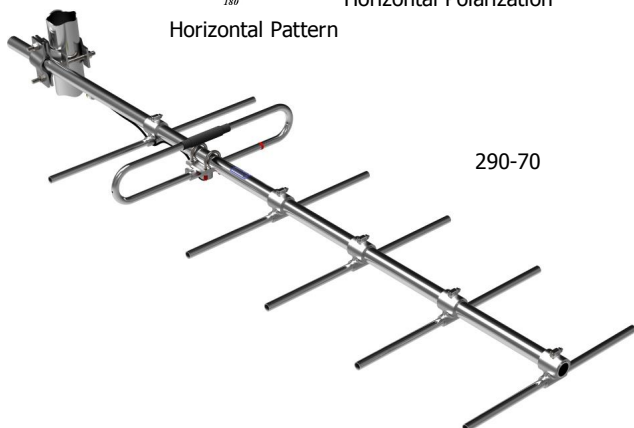
Horizontal Pattern



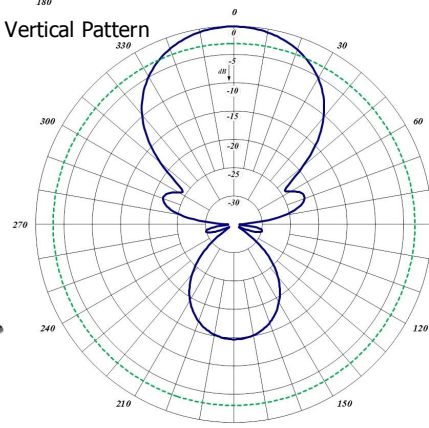
Vertical Pattern



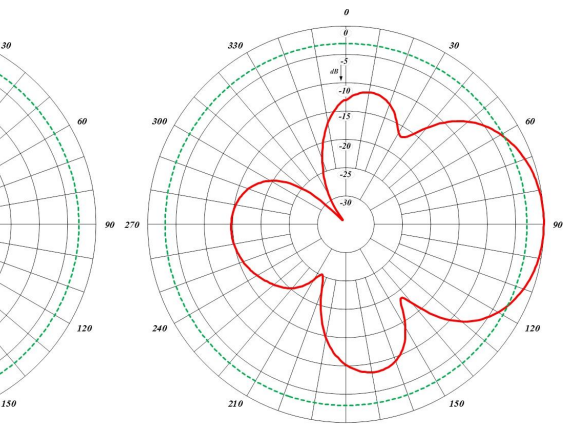
295-70



290-70



Horizontal Pattern



Vertical Pattern



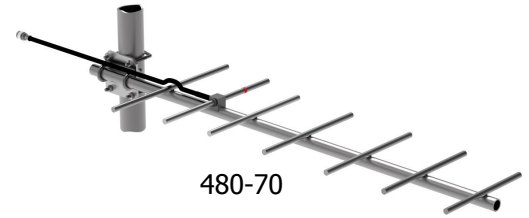
## UHF YAGI ANTENNA

406-512 MHz

### UHF Yagi Antennas Series

The UHF Yagi Antenna Series is available in 2, 3, 7 element and our 70 MHz wideband configurations. All of our antennas can be completely customized to your particular applications. Our antennas can be black anodized, fully welded, vertically or horizontally polarized, and heavy duty versions are available.

- Each antenna has a rugged, fully welded design to withstand harsh conditions.
- The mounting hardware supplied allows either vertical or horizontal polarization.
- DC ground for lightning protection.
- All UHF Yagi antennas are fully welded.
- Heavy-duty versions are available. Please contact Comprod Inc. Technical support.

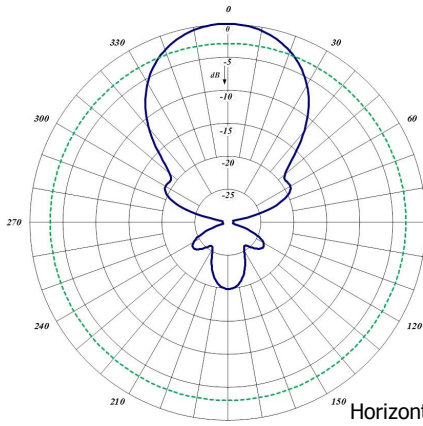


Electrical Specifications	F-3872	433-70	430-70	480-70
Frequency Range, MHz	406-512	406-512	406-512	406-470
Nominal Gain, dBd	3.5	6.5	10.0	10.0
Number of Elements	2	3	7	7
Bandwidth 1.5:1 VSWR, MHz (Center Freq.%)	24	24	24	64
Polarization	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.
Horizontal Beamwidth (Vert. Pol.)	138°	83°	62°	62°
Vertical Beamwidth (Vert. Pol.)	72°	59°	48°	50°
Front to Back, dB	10	12	20	17
Pattern	Directional	Directional	Directional	Directional
Power Rating, Watts	350	350	350	350
Nominal Impedance, Ohms	50	50	50	50
Lightning Protection	DC Ground	DC Ground	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male	Type N Male	Type N Male

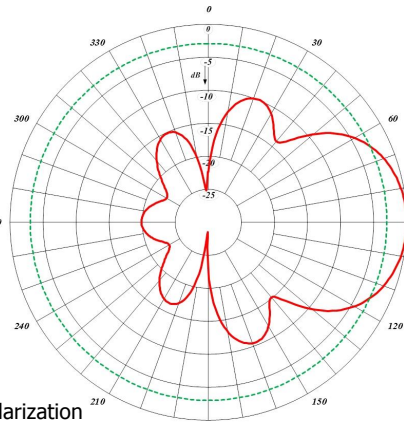
Mechanical Specifications	F-3872	433-70	430-70	480-70
Length, in (mm)	28 (711)	23 (584)	45 (1143)	45 (1143)
Width(1/2 Wave Spacing), in (mm)	14.5 (368)	14 (355)	14.5 (368)	14.4 (366)
Weight, lbs. (kg)	2.8 (1.3)	2.9 (1.3)	3.9 (1.8)	3.9 (1.8)
Rated Wind Velocity, No Ice, mph (km/h)	160 (257)	160 (257)	150 (241)	150 (241)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	120 (193)	120 (193)	110 (177)	110 (177)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	9 (4.1)	8.7 (4.0)	16 (7.3)	15 (6.8)
Projected Area, ft² (m²)	0.34 (0.03)	0.32 (0.03)	0.61 (0.06)	0.55 (0.05)
Mounting Information	127-85 Clamp	127-85 Clamp	127-85 Clamp	127-85 Clamp

Order Information	406-430	430-450	450-470	406-470	Black Anodized	(2) Stacked	(4) Stacked
F-3872	F-3872*1	F-3872*2	F-3872*3	N/A	F-3872B	N/A	N/A
433-70	433-70*1	433-70*2	433-70*3	N/A	433-70B	N/A	N/A
430-70	430-70*1	430-70*2	430-70*3	N/A	430-70B	431-70	432-70
480-70	480-70	480-70	480-70	480-70	480-70B	481-70	482-70

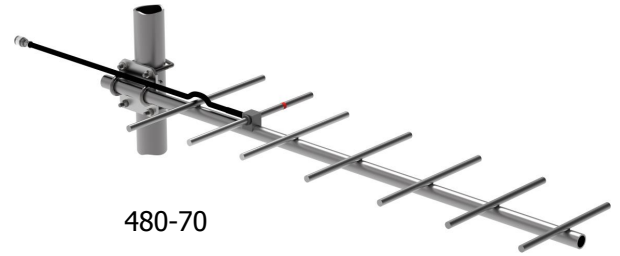




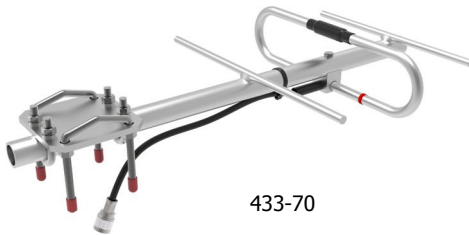
Horizontal Pattern



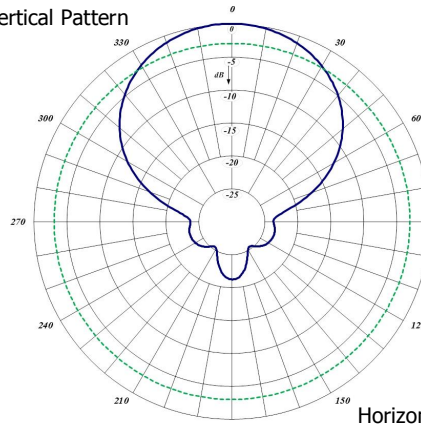
Vertical Pattern



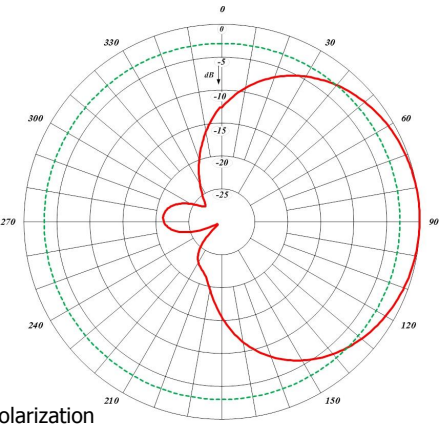
480-70



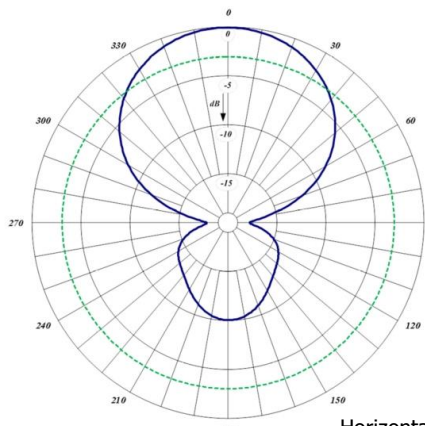
433-70



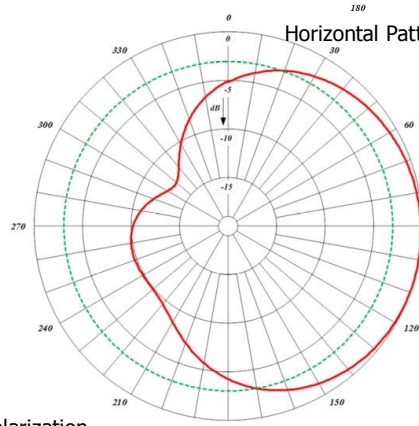
Horizontal Polarization



Vertical Pattern



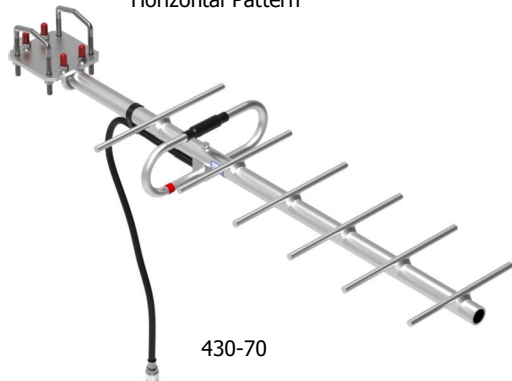
Horizontal Pattern



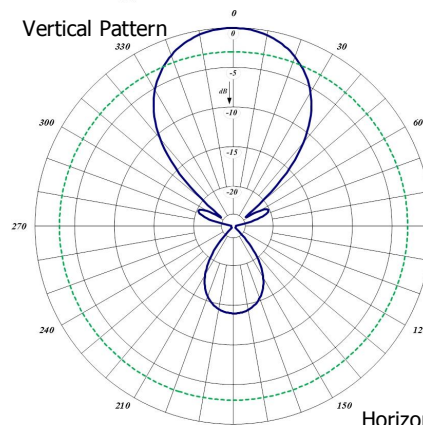
Vertical Pattern



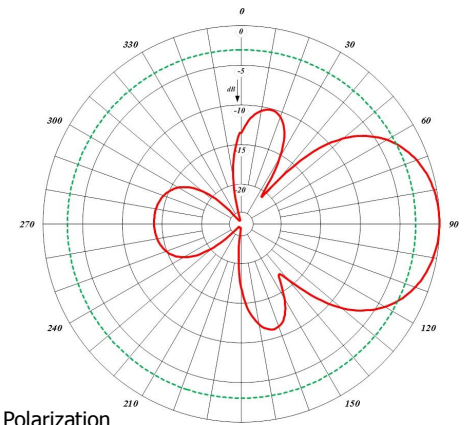
F-3872



430-70



Horizontal Pattern

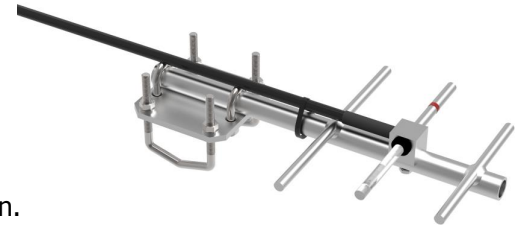


Vertical Pattern

### 980 Yagi Antennas Series

The 980 Yagi Antenna Series are available in 2, 3, 7, 12 element configurations. All of our antennas can be completely customized to your particular applications. Our antennas can be black anodized, vertically or horizontally polarized.

- Each antenna has a rugged design to withstand harsh environmental conditions.
- The mounting hardware supplied will permit either vertical or horizontal polarization.
- All 980 Series Yagi antennas are fully welded.
- Heavy-duty versions are available. Please Contact a Comprod Inc. Technical support technician for consultation.

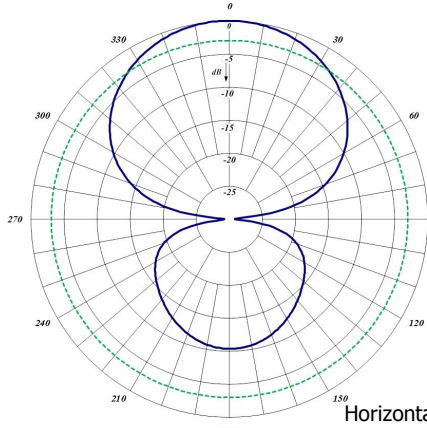


983-70

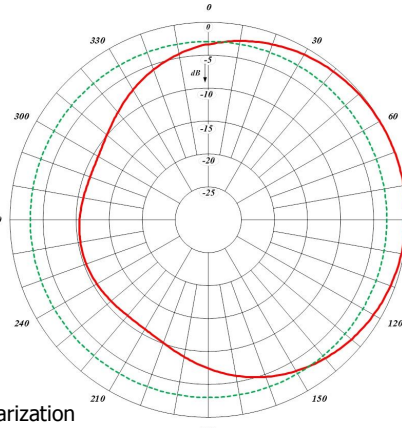
Electrical Specifications	982-70	983-70	980-70	987-70
Frequency Range, MHz	746-960	746-960	746-960	746-960
Nominal Gain, dBd	3.5	6.5	10.0	12.0
Number of Elements	2	3	7	12
Bandwidth 1.5:1 VSWR, MHz (Ctr.Freq.%)	30	85	85	85
Polarization	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.
Horizontal Beamwidth (Horizontal Pol.)	128°	99°	56°	41°
Vertical Beamwidth (Horizontal Pol.)	66°	60°	42°	38°
Front to Back, dB	9	16	20	20
Pattern	Directional	Directional	Directional	Directional
Power Rating, Watts	200	200	200	200
Nominal Impedance, Ohms	50	50	50	50
Standard Termination	Type N Male	Type N Male	Type N Male	Type N Male

Mechanical Specifications	982-70	983-70	980-70	987-70
Length, in (mm)	11 (280)	13 (330)	27 (686)	41 (1041)
Width(1/2 Wave Spacing), in (mm)	6.5 (165)	8 (203)	8 (203)	8 (203)
Weight, lbs. (kg)	1.7 (0.76)	1.8 (0.82)	2.5 (1.1)	3 (1.4)
Rated Wind Velocity, No Ice, mph (km/h)	160 (257)	160 (257)	150 (241)	140 (225)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	120 (193)	120 (193)	110 (177)	100 (161)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	2.6 (1.2)	2.8 (1.3)	7 (3.2)	11 (5.0)
Projected Area, ft² (m²)	0.10 (0.009)	0.13 (0.012)	0.26 (0.024)	0.41 (0.038)
Mounting Information	1.0-2.38" O.D.	1.0-2.38" O.D.	1.0-2.38" O.D.	1.0-2.38" O.D.

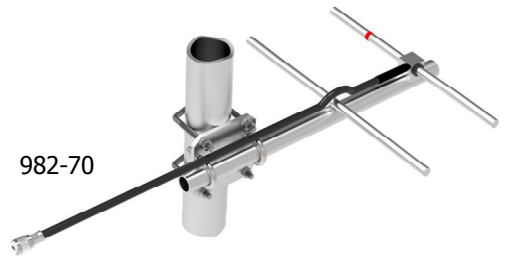
Order Information	746-806MHz	806-869MHz	824-896MHz	896-960MHz	Black Anodized	(2) Stacked
982-70	* Call With Frequencies *					N/A
983-70	983-70*1	983-70*2	983-70*3	983-70*4	983-70B	N/A
980-70	980-70*1	980-70*2	980-70*3	980-70*4	980-70B	(2)980-70
987-70	987-70*1	987-70*2	987-70*3	987-70*4	987-70B	(2)987-70



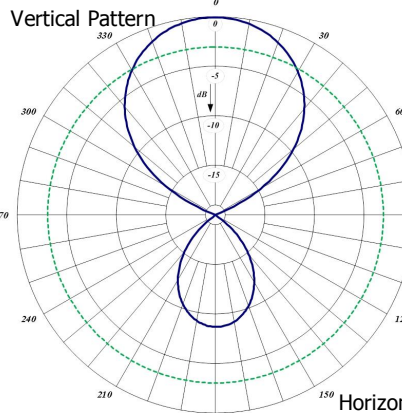
Horizontal Pattern



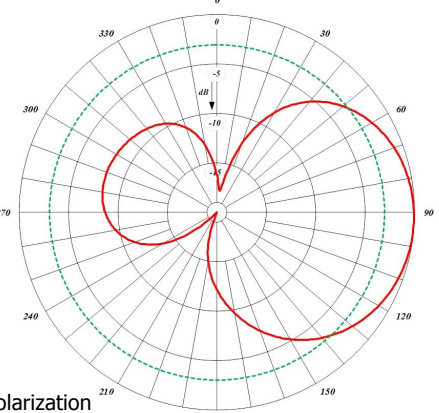
Vertical Pattern



982-70



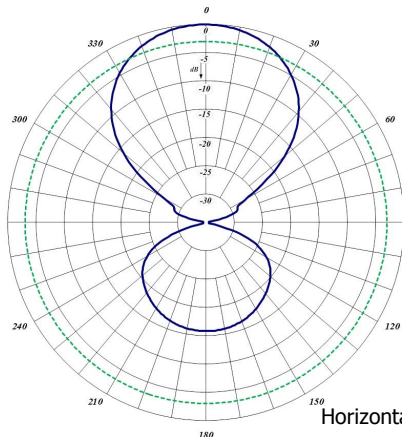
Horizontal Pattern



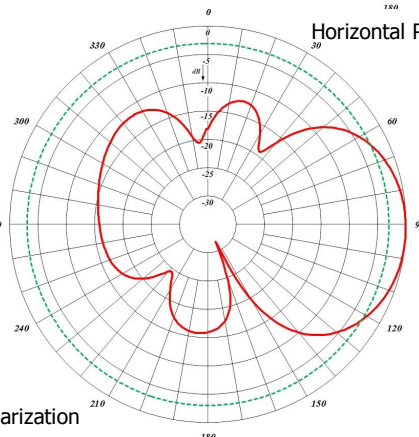
Vertical Pattern



983-70

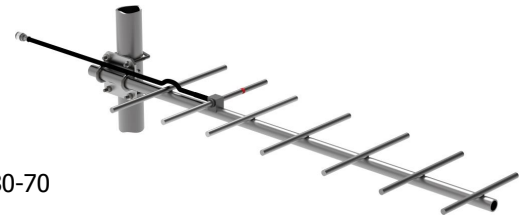


Horizontal Pattern

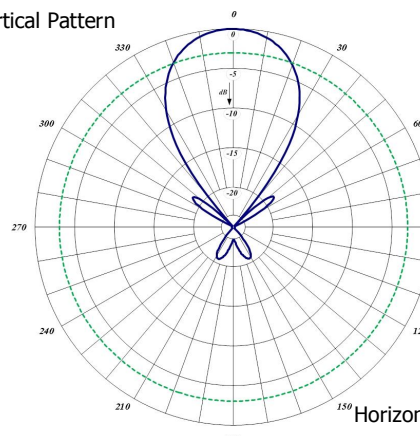


Vertical Pattern

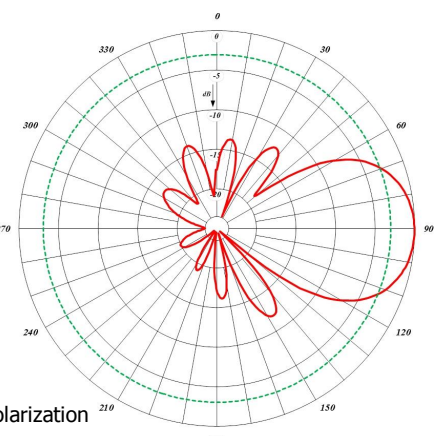
980-70



987-70



Horizontal Pattern



Vertical Pattern



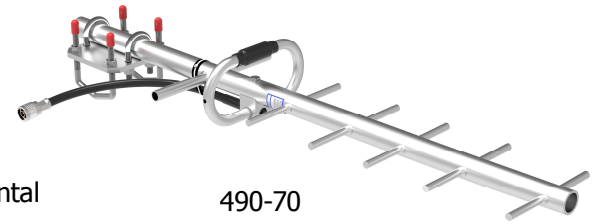
## 490 SERIES YAGI ANTENNA

806- 960 MHz

## 490 Heavy Duty Yagi Antennas Series

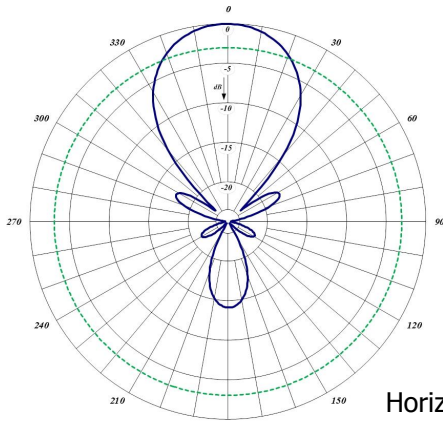
The 490 Heavy Duty Yagi Series is an extremely rugged, 7 element configuration antenna. All of our antennas can be completely customized to your particular applications. Our antennas can be black anodized, vertically or horizontally polarized.

- Each antenna has an extremely rugged design to withstand harsh environmental conditions.
- The mounting hardware supplied will permit either vertical or horizontal polarization.
- The 490 Series Yagi antennas are fully welded.
- DC ground for lightning protection.



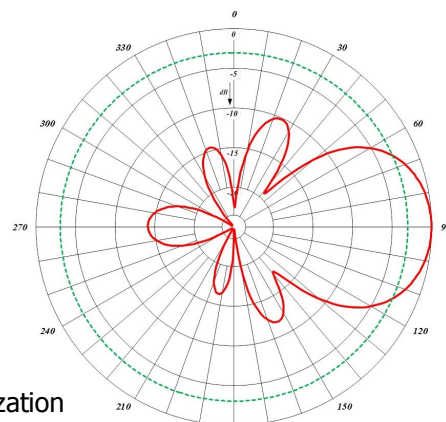
490-70

Electrical Specifications			490-70			
Frequency Range, MHz			806-960			
Nominal Gain, dBd			10.0			
Number of Elements			7			
Bandwidth: 1.5:1 VSWR, MHz			85			
Polarization			Vert. or Horiz.			
Horizontal Beamwidth (Horizontal Pol.)			56°			
Vertical Beamwidth (Horizontal Pol.)			42°			
Front to Back, dB			20			
Pattern			Directional			
Power Rating, Watts			200			
Nominal Impedance, Ohms			50			
Standard Termination			Type N Male			
Mechanical Specifications			490-70			
Length, in (mm)			27 (686)			
Width(1/2 Wave Spacing), in (mm)			8 (203)			
Weight, lbs. (kg)			2.5 (1.1)			
Rated Wind Velocity, No Ice, mph (km/h)			150 (241)			
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)			150 (241)			
Lateral Thrust @ 100 mph, wind, lbs. (kg)			38 (17)			
Bending Moment @ top clamp: 100 mph, ft*lb (kg*m)			13 (1.8)			
Projected Area, ft² (m²)			0.4 (0.04)			
Mounting Information			1.0-2.38" O.D.			
Order Information		806-869MHz	824-896MHz	896-960MHz	Black Anodized	(2) Stacked
490-70		490-70*1	490-70*2	490-70*3	490-70B	491-70

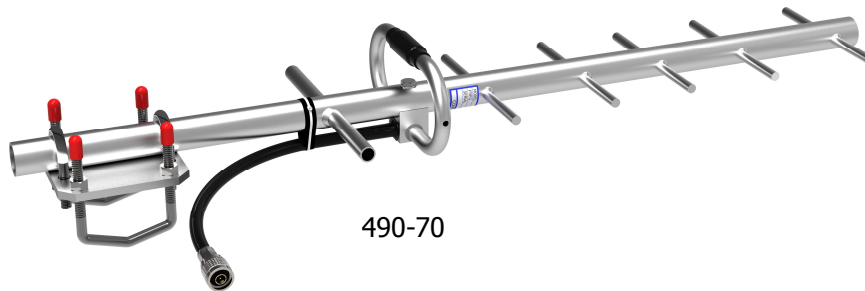


Horizontal Pattern

Horizontal Polarization



Vertical Pattern



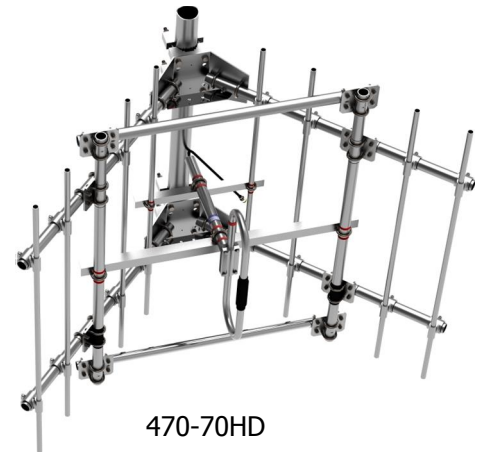
490-70



**VHF Corner Reflector Antenna Series**

The Corner Reflector Antennas are available in VHF, UHF, 700/800/900 MHz configurations. These antennas have an extremely good front-to-back ratio. They are broadband and are ideal for point-to-point applications. Performance is constant throughout the band.

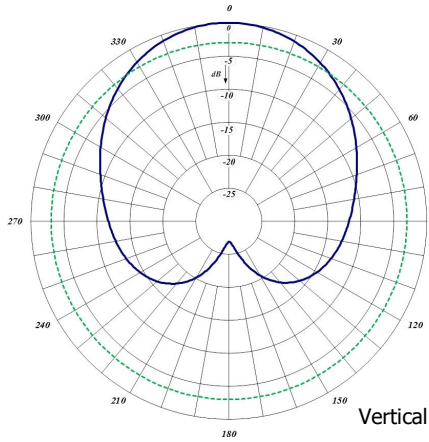
- Each antenna has a rugged design to withstand harsh environmental conditions.
- Single dipole mounted in the front of a 90° reflector, providing good directivity and a very high front-to-back ratio.
- These antennas have ultra-low VSWR ratings, and will not exceed 2.0:1 VSWR ratio with 0.5" (13 mm) of radial ice.
- The mounting hardware supplied allows either vertical or horizontal polarization.
- DC ground for lightning protection
- Heavy duty versions are available. Please contact a Comprod Inc. Technician for consultation.



470-70HD

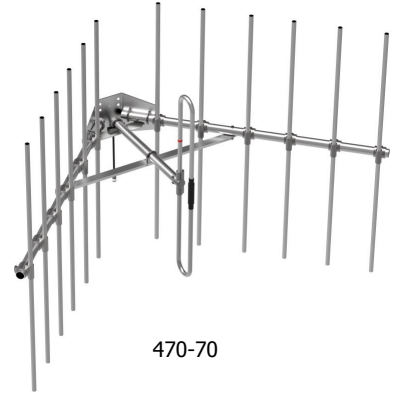
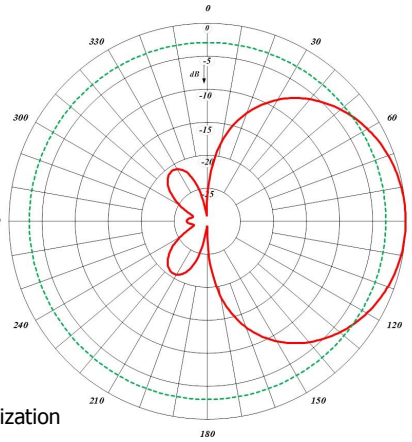
Electrical Specifications	470-70	470-70HD	471-70	471-70HD
Frequency Range, MHz	132-174	132-174	132-174	132-174
Nominal Gain, dBd	7.0	7.0	10.0	10.0
Bandwidth: 1.5:1 VSWR, MHz	15%	15%	15%	15%
Polarization	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.
Horizontal Beamwidth (Vert. Pol.)	67°	67°	50°	50°
Vertical Beamwidth (Vert. Pol.)	75°	75°	66°	66°
Front to Back, dB	30	30	30	30
Pattern	Directional	Directional	Directional	Directional
Power Rating, Watts	250	250	250	250
Nominal Impedance, Ohms	50	50	50	50
Lightning Protection	DC Ground	DC Ground	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male	Type N Male	Type N Male

Mechanical Specifications	470-70	470-70HD	471-70	471-70HD
Length, in (mm)	48 (1219)	48 (1219)	72 (1829)	72 (1829)
Width, in (mm)	75 (1905)	75 (1905)	120 (3048)	120 (3048)
Weight, lbs. (kg)	39 (17.7)	57 (25.8)	66 (30)	72 (32.7)
Rated Wind Velocity, No Ice, mph (km/h)	100 (61)	140 (225)	100 (61)	140 (225)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	85 (137)	100 (161)	85 (137)	100 (161)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	144 (65)	236 (107)	320 (145)	398 (181)
Projected Area, ft² (m²)	5.3 (0.5)	8.8 (0.82)	11.9 (1.10)	14.8 (1.38)
Mounting Information: (clamp included) for pipe size O.D. in (mm)	2.9 (73)	2.9 (73)	2.9 (73)	2.9 (73)

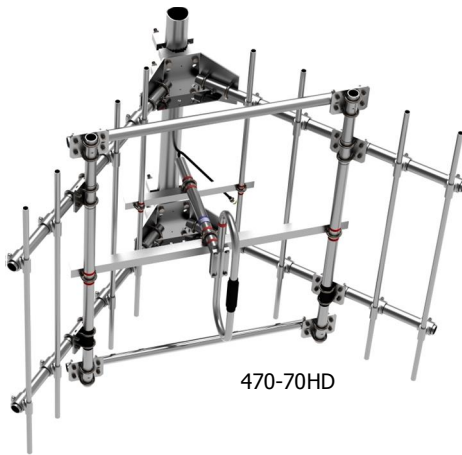


Vertical Polarization

Horizontal Pattern

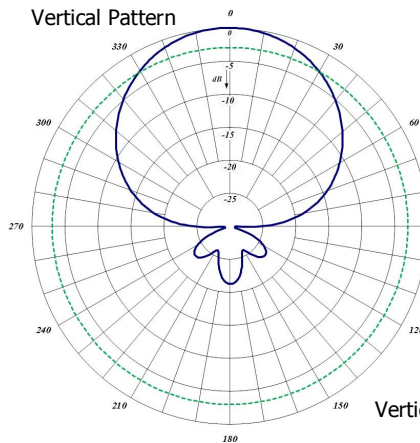


470-70



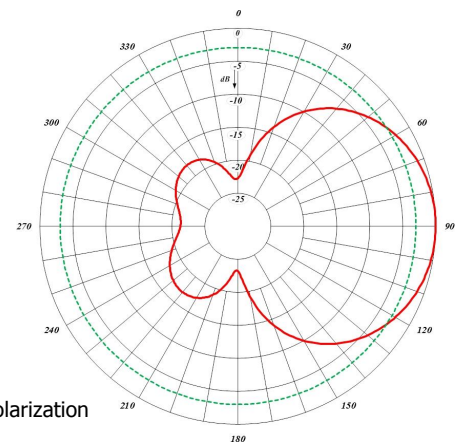
470-70HD

Vertical Pattern

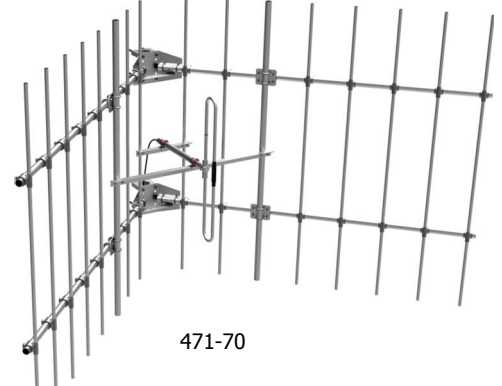


Horizontal Pattern

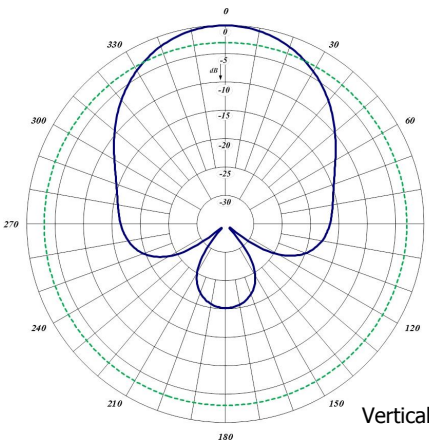
Vertical Polarization



Vertical Pattern

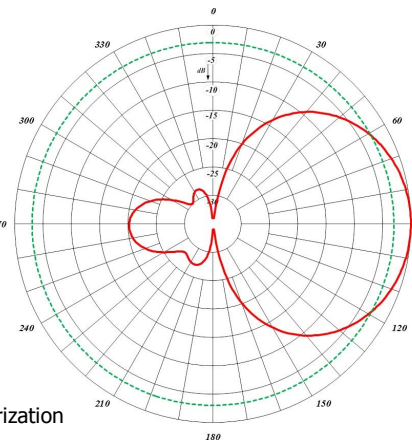


471-70

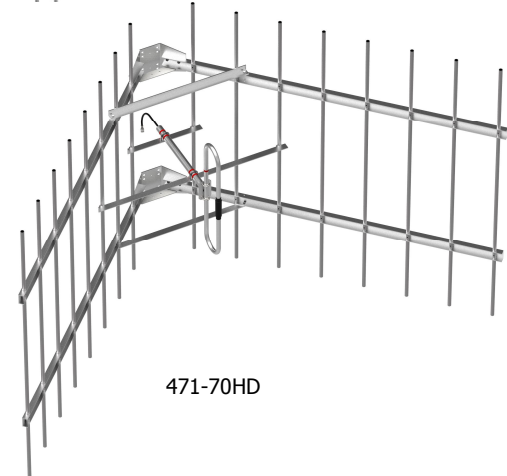


Horizontal Pattern

Vertical Polarization



Vertical Pattern

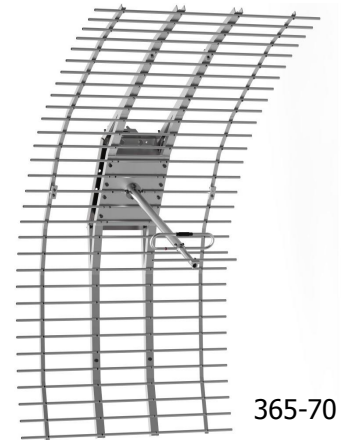


471-70HD

### UHF Corner Reflector Antenna Series

The Corner Reflector Antennas are available in VHF, UHF, 700/800/900 MHz configurations. These antennas have an extremely good front-to-back ratio. They are broadband and are ideal for point-to-point applications. Performance is constant throughout the band.

- Each antenna has a rugged design to withstand harsh environmental conditions.
- Single or Dual Dipole mounted in the front of a 90° reflector, providing good directivity and a very high front-to-back ratio.
- The 365-70 is a highly directive parabolic antennas consisting of a back-firing dipole reflector assembly for increased gain and directivity.
- These antennas have ultra-low VSWR ratings, and will not exceed 2.0:1 VSWR ratio with 0.5" (13 mm) of radial ice.
- The mounting hardware supplied will permit either vertical or horizontal polarization.
- DC ground for lightning protection.
- Heavy Duty versions are available. Please contact Comprod Inc. Technical support.



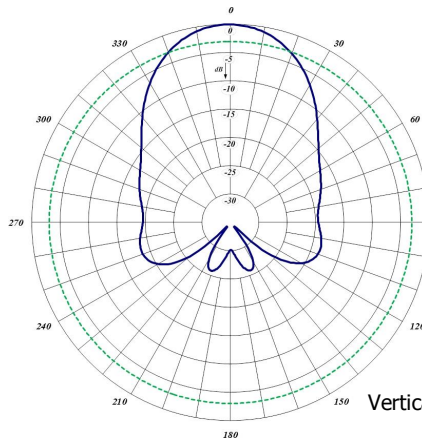
365-70

Electrical Specifications	440-70	440-70HD	442-70	365-70
Frequency Range, MHz	406-512	406-512	406-512	406-470
Nominal Gain, dBd	9.5	9.5	12.0	15.0
Bandwidth: 1.5:1 VSWR, MHz	64	64	64	20
Polarization	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.
Horizontal Beamwidth (Vert. Pol.)	60°	60°	40°	32°
Vertical Beamwidth (Vert. Pol.)	45°	45°	34°	18°
Front to Back, dB	25	25	25	24
Pattern	Directional	Directional	Directional	Directional
Power Rating, Watts	100	100	100	250
Nominal Impedance, Ohms	50	50	50	50
Lightning Protection	DC Ground	DC Ground	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male	Type N Male	Type N Male
Electrical Specifications	440-70	440-70HD	442-70	365-70
Length, in (mm)	30 (762)	30 (762)	48 (1219)	82 (2083)
Width, in (mm)	50 (1905)	50 (1905)	50 (1905)	41 (1041)
Weight, lbs. (kg)	22 (10)	36 (16)	42 (19.1)	25 (11.3)
Rated Wind Velocity, No Ice, mph (km/h)	125 (201)	135 (217)	125 (201)	100 (161)
Rated Wind Velocity, 0.5" (13mm) ice,	85 (137)	95 (153)	85 (137)	85 (137)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	97 (44)	210 (934)	185 (84)	233 (109)
Projected Area, ft² (m²)	3.6 (0.34)	3.6 (0.34)	6.9 (0.64)	8.7 (0.8)
Mounting Information: (clamp included)	2.9 (74)	2.9 (74)	2.9 (74)	2.9 (74)

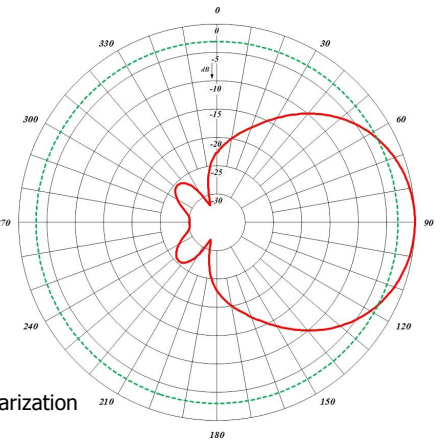




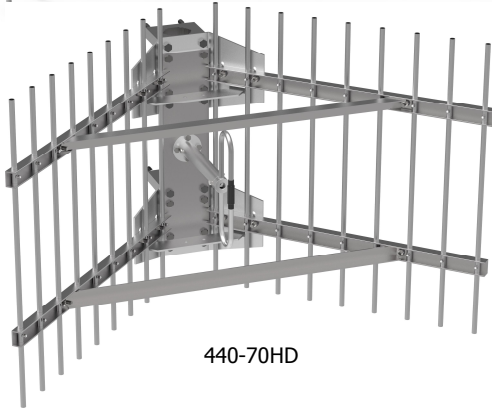
440-70



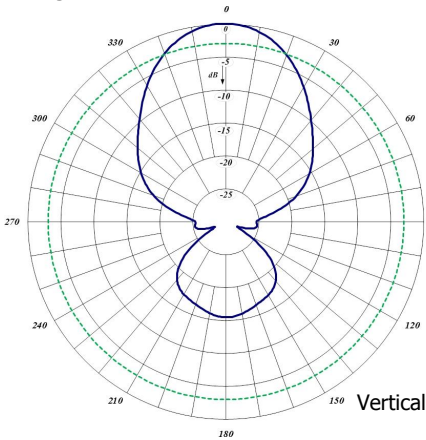
Horizontal Pattern



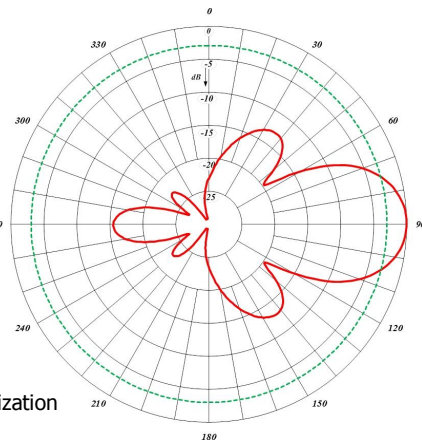
Vertical Pattern



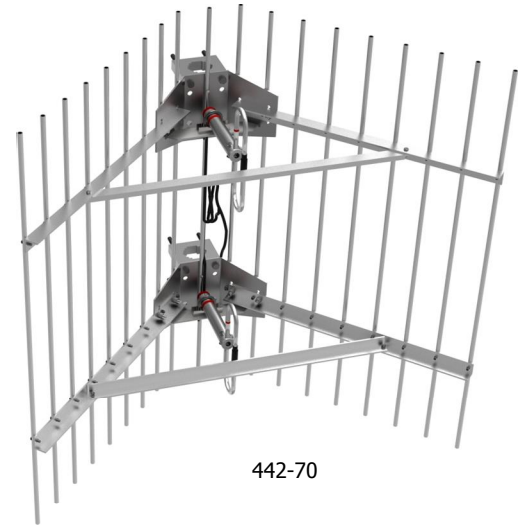
440-70HD



Horizontal Pattern



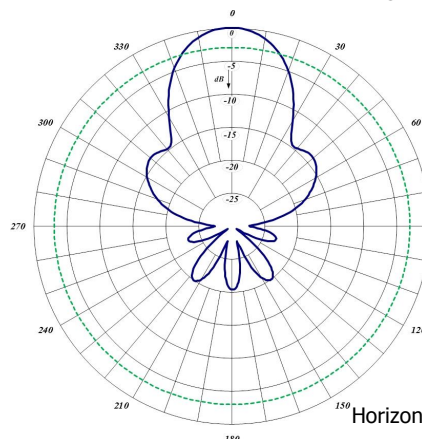
Vertical Pattern



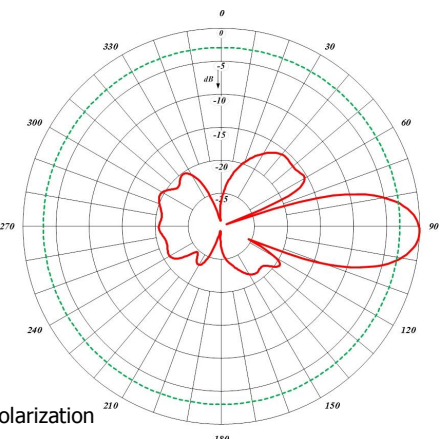
442-70



365-70



Horizontal Pattern



Vertical Pattern



**Our Mission:**

As a market leader in RF technology, we are committed to delivering best-in-class products and services to Public Safety, Utility, Transportation, Defense and Government organizations around the world.



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