

AVT-4

The AVT-4 is a broad-band VHF communications antenna. It incorporates a low drag blade housing design made of LURAN-S plastic for high strength and an aluminum radiator encapsulated in rigid polyurethane foam. The housing is finished with a Skydrol resistant white polyurethane paint and comes with mounting hardware and neoprene mounting pad. The antenna is designed to operate at speeds up to 350 mph and altitudes of 50,000'. It has a drag force of 0.85 lbs. @ 250 mph.

P/N AVT-4

Specifications

Application: Communications	Frequency: 118-137 MHz
VSWR: 3.0 to 1 Maximum	Impedance: 50 OHMS
Polarization: Vertical	Pattern: Omni-directional
Connector: Type "BNC" Female	Weight: 20 oz
RF Power Capability: 30 Watts	Height: 13-1/2"
TSO C37d, C38d, DO-160c	
Env.Cat. D2-AC SXSXDFSXXXXXXXXXX	

See Footprint Figure C on page 223

AV-568

The AV-568 is designed for the Civil Air Patrol band. It has a die-cast aluminum base and a uniquely designed radiator with a center loading coil to permit short antenna length for practical operation. The antenna is supplied with a weather-sealing gasket and mounting hardware. The antenna is designed to operate at speeds up to 350 mph and altitudes of 50,000'. It has a drag force of 3.43 lbs. @ 250 mph.

P/N AV-568

Specifications

Application: Communications	Frequency: 27 MHz
VSWR: 1.5 to 1 Maximum	Impedance: 50 OHMS
Polarization: Vertical	Pattern: Omni-directional
Connector: Type "BNC" Female	Weight: 8 oz
RF Power Capability: 5 Watts	Height: 26-1/2"
TSO C37d, C38d, DO-160c	
Env.Cat. D2-AC SXSXDFSXXXXXXXXXX	

See Footprint Figure A on page 223

AV-534

The AV-534 is a heavy-duty stainless steel quarter-wave VHF Com. antenna. It is manufactured with a durable type stainless steel whip and large stress-relieved ferrule and comes complete with porcelain insulators and mounting hardware. The antenna is designed to operate at speeds of up to 350 mph and altitudes of 50,000'. It has a drag force of 0.56 lbs. @ 250 mph.

P/N AV-534

AV-534L

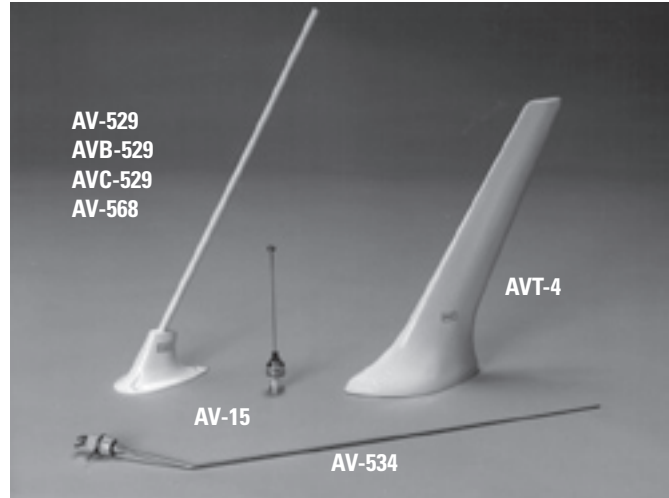
The same as the AV-534, but supplied with 96 inches of RG-58A/U cable, BNC male connector, ground strap and terminal lugs.

P/N AV-534L

Specifications

Application: Communications	Frequency: 118-137 MHz
VSWR: 3.0 to 1 Maximum	Impedance: 50 OHMS
Polarization: Vertical	Pattern: Omni-directional
Connector: Type "BNC" Male	Weight: 3.25 oz / with cable 16 oz
	Height: 19-1/2"
RF Power Capability: 50 Watts	
TSO C37d, C38d, DO-160c	
Env.Cat. D2-AC SXSXDFSXXXXXXXXXX	

See Footprint Figure K on page 224



AV-15

The AV-15 is used with aviation, land mobile radio and flight phone bands. The durably constructed chrome-plated phosphor bronze whip is set in a teflon insulator and the chrome-plated ball tip provides low noise static discharge. The antenna is designed to operate at speeds of up to 350 mph and altitudes up to 50,000'. It has a drag force of 0.75 @ 250 mph.

P/N AV-15

Specifications

Application: Communications	Frequency: 450-470 MHz
VSWR: 1.5 to 1 Maximum	Impedance: 50 OHMS
Polarization: Vertical	Pattern: Omni-directional
Connector: Type "N" Female	Weight: 2.5 oz
RF Power Capability: 100 Watts	Height: 6-1/4"
TSO C37d, C38d, DO-160c	
Env.Cat. D2-AC SXSXDFSXXXXXXXXXX	

See Footprint Figure K on page 224

AV-529

The AV-529 is designed for broadband communications (118-136 MHz). It has a die-cast aluminum base and a uniquely designed radiator encapsulated in a fiberglass whip. The antenna is supplied with a weather-sealing gasket and mounting hardware. The antenna is designed to operate at speeds up to 350 mph and altitudes of 50,000'. It has a drag force of 3.43 lbs. @ 250 mph.

P/N AV-529

Specifications

Application: Communications	Frequency: As noted above.
VSWR: 1.8 to 1 Maximum	Impedance: 50 OHMS
Polarization: Vertical	Pattern: Omni-directional
Connector: Type "BNC" Female	Weight: 8 oz
RF Power Capability: 25 Watts	Height: 20-1/4"
TSO C37d, C38d, DO-160c	
Env.Cat. D2-AC SXSXDFSXXXXXXXXXX	

See Footprint Figure A on page 223

AVB-529

Same as the AV-529 except designed for the Business Radio frequency band (148-174 MHz).

P/N AVB-529

AVC-529

Same as the AV-529 except designed for the 2 meter FM band (143-149 MHz).

P/N AVC-529

AV-64 Marker Beacon Antenna

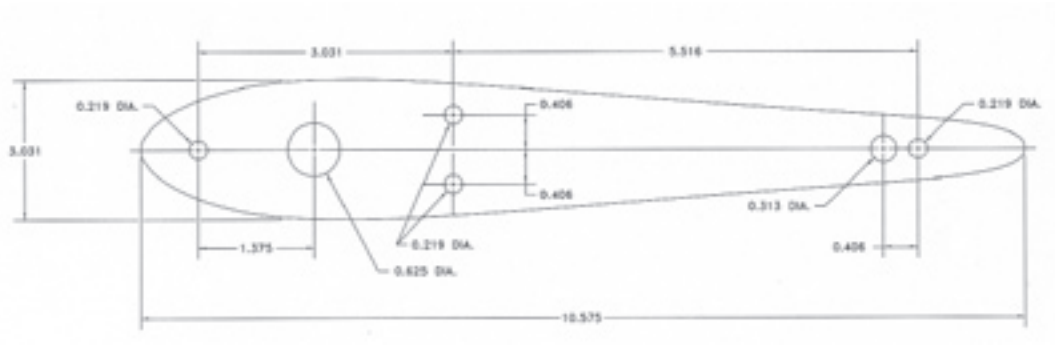
The AV-64 is a boat type marker beacon antenna designed for very low drag. It is constructed of an acrylonitrile-styrene-acrylic (ASA) shell with the internal parts encapsulated in rigid urethane foam for mechanical and electrical stability. The white color allows maximum performance without losses due to color pigments or unseen dirt. Supplied with cellular neoprene mounting pad and hardware. The antenna is designed to operate at speeds up to 350 mph and altitudes up to 50,000'. It has a drag force of 0.22 lbs. at 250 mph. This antenna is a direct replacement for Comant's model CI-102.

P/N AV-64



Specifications

Electrical	
Frequency	75 MHz
VSWR	1.4 to 1.0 maximum
Impedance	50 OHMS
Weight	0.5 lbs.
Height	2.2"
Connector	BNC (female)
RF Power Capability	Receive only
Environmental Category	[D2]XACA[SXX] XSXDFSXXXX[XXX]X[XXXX]XXX



AV-12

The AV-12 is a VOR receive only antenna which uses a highly efficient technique of molding the elements directly into a high-impact thermo-setting bakelite center insulator. The stainless steel elements are ground to close tolerances to provide a low profile. The antenna is designed to operate at speeds of up to 350 mph and altitudes up to 50,000'. It has a drag force of 0.92 lbs.@ 250 mph.

P/N AV-12

AV-569

The AV-569 is a Boat Type Marker Beacon antenna designed for very low drag. It is constructed of an acrylonitrile-styrene-acrylic (ASA) shell with the internal parts encapsulated in rigid urethane foam for mechanical and electrical stability. The white color allows maximum performance without losses due to color pigments or unseen dirt. Supplied with cellular neoprene mounting pad and hardware. The antenna is designed to operate at speeds of up to 350 mph and altitudes up to 50,000'. It has a drag force of 0.20 lbs.@ 250 mph.

P/N AV-569

Specifications

Application: Marker beacon	Frequency: 75 MHz
VSWR: 1.6:1 maximum	Impedance: 50 OHMS
Connector: BNC (female)	Weight: 6.25 oz.
RF Power Capability: Receive only	Height: 2-1/2"
TSO C35d, DO-160c	
Env.Cat. D2-AC SXSXDFSXXXXXXXXXX	

See Footprint Figure E on page 223

AV-545

The AV-545 is an ADF Sense antenna supplied with "Government Approved" self-gripping jaws and a stainless steel small diameter low drag tension device for reliable installation. The unit is also supplied with 23' of type 6370-2 copperweld polycovered antenna wire for minimum stretching, mounting bracket and hardware, rubber pad and ASA insulator with feed-thru. The antenna is designed to operate at speeds of up to 350 mph and altitudes up to 50,000'. It has a drag force of 0.75 lbs.@ 250 mph.

P/N AV-545

AV-545 Specifications

Application: ADF Sense	Frequency: 190-1750 KHz
Impedance: 50 OHMS	Weight: 13 oz.
Connector: BNC (female)	Length: 24' maximum (field cuttable)

RF Power Capability: Receive only
TSO C41d, DO-160c
Env.Cat. D2-ACXXXSXSXDFSXXXXXXXXXX

See Footprint Figure J on page 224

AV-12L

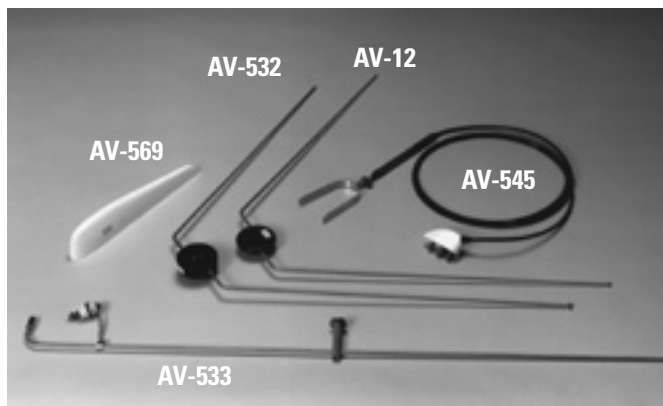
Same as the AV-12 except a 25' cable with integral balun is also supplied.

P/N AV-12L

Specifications

Application: VOR	Frequency: 108-118 MHz
VSWR: 2.2:1 maximum	Impedance: 50 OHMS
Connector: BNC (male)	Weight: 5.5 oz. / with cable 14 oz.
RF Power Capability: Receive only	Width across tips: 23-1/2"
TSO C40c, DO-160c	
Env.Cat. D2-AC SXSXDFSXXXXXXXXXX	

See Footprint Figure I on page 224



AV-532

The AV-532 is a VOR receive only antenna which consists of taper ground high-strength 17-7PH stainless steel elements to reliably withstand vibration and wind loads. The insulators are weather-sealed compression-molded bakelite with the mounting holes provided. The unit may be mounted with the V pointed either forward or aft. The antenna is designed to operate at speeds of up to 350 mph and altitudes up to 50,000'. It has a drag force of 3.42 lbs.@ 250 mph.

P/N AV-532

AV-532L

The same as the AV-532 except a 30' cable with integral balun is also supplied.

P/N AV-532L

Specifications

Application: VOR	Frequency: 108-118 MHz
VSWR: 2.0:1 maximum	Impedance: 50 OHMS
Connector: BNC (male)	Weight: 11 oz./w/cable 14 oz.
RF Power Capability: Receive only	Width across tips: 23-1/2"
TSO C40c, DO-160c	
Env.Cat. D2-AC SXSXDFSXXXXXXXXXX	

See Footprint Figure I on page 224

AV-533

The AV-533 is a sled type marker beacon antenna constructed of a high strength 17-7PH stainless steel element, feed system, and low absorption, high strength phenolic standoff insulator. Stainless steel mounting hardware is also included. The antenna is designed to operate at speeds of up to 350 mph and altitudes up to 50,000'. It has a drag force of 1.02 lbs.@ 250 mph.

P/N AV-533

Specifications

Application: Marker beacon	Frequency: 75 MHz
VSWR: 1.1:1 maximum	Impedance: 50 OHMS
Connector: Split end lugs	Weight: 7.25 oz.
RF Power Capability: Receive only	
Height: 2-1/2"	
Length: 29"	
TSO C35d, DO-160c	
Env.Cat. D2-ACXXXSXSXDFSXXXXXXXXXX	

See Footprint Figure H on page 224

AV-741

The AV-741 is designed for use with DME/Transponder sets. It is constructed from an aluminum casting which is capable of withstanding particle erosion to speeds of up to Mach 2. The antenna is produced to Military Specifications Mil-A-25708 & Mil-A-25708/1 and is qualified environmentally to Mil-Std-810. It has an operational temperature range of -55°C to 250°C (-67° to 482°F), can withstand a static load of 15psi perpendicular to the blade, and is operational to altitudes of 100,000'. The exterior is finished with a white polyurethane coating which is Skydrol resistant. The antenna is designed to operate at speeds of up to 350 mph and altitudes up to 50,000'. It has a drag force of 0.35 lbs.@ 250 mph.

P/N AV-741

Specifications

Application: Transponder/DME	Frequency: 980-1220 MHz
VSWR: 1.4:1 maximum	Impedance: 50 OHMS
Polarization: Vertical	Pattern: Omnidirectional
Connector: HN (female)	Weight: .5 lbs.
RF Power Capability: 4 kW peak, 0.1 kW continuous	Height: 3.3"

See Footprint Figure F on page 223

AVR-546

The AVR-546 is a transponder antenna durably constructed with a chrome-plated phosphor bronze radiator set in a teflon insulator. Rigid specifications assure reliable performance in all kinds of weather. The antenna is designed to operate at speeds of up to 350 mph and altitudes up to 50,000'. It has a drag force of 0.41 lbs.@ 250 mph.

P/N AV-546

Specifications

Application: Transponder	Frequency: 1030-1090 MHz
VSWR: 1.3:1 maximum	Impedance: 50 OHMS
Polarization: Vertical	Pattern: Omnidirectional
Connector: C (female)	Weight: 2 oz.
RF Power Capability: 250 Watts Pulse	Height: 3"
TSO C74c, DO-160c	
Env.Cat. D2-AC SXSXDFSXXXXXXXXXX	

See Footprint K on page 224

AV-9

The AV-9 is a broadband DME ("L" Band) antenna durably constructed around a Type "N" low-loss connector. The large diameter radiator of polished chrome-plated aluminum gives the broad coverage required with this type of antenna. The antenna is designed to operate at speeds of up to 350 mph and altitudes up to 50,000'. It has a drag force of 0.85 lbs.@ 250 mph.

P/N AV-9

Specifications

Application: DME	Frequency: 980-1220 MHz
VSWR: 1.75:1 maximum	Impedance: 50 OHMS
Polarization: Vertical	Pattern: Omnidirectional
Connector: N (female)	Weight: 3 oz.
RF Power Capability: 250 Watt pulse	Height: 2-1/2"
TSO C66c, DO-160c	
Env.Cat. D2-AC SXSXDFSXXXXXXXXXX	

See Footprint Figure K on page 224

AV-22

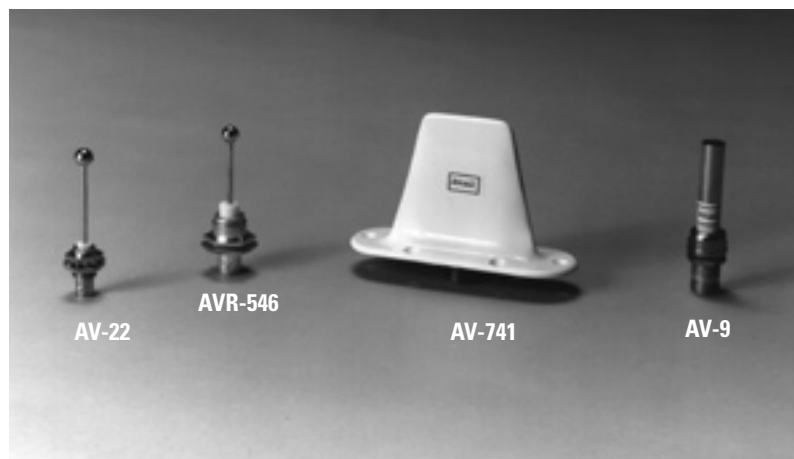
The AV-22 is a transponder antenna which utilizes a "BNC" connector that allows for a smaller mounting hole. The antenna is designed to operate at speeds of up to 350 mph and altitudes up to 50,000'. It has a drag force of 0.41 lbs.@ 250 mph.

P/N AV-22

Specifications

Application: Transponder	Frequency: 1030-1090 MHz
VSWR: 1.3:1 maximum	Impedance: 50 OHMS
Polarization: Vertical	Pattern: Omnidirectional
Connector: BNC (female)	Weight: 1 oz
RF Power Capability: 250 Watts Pulse	Height: 3"
TSO C74c, DO-160c	
Env.Cat. D2-AC SXSXDFSXXXXXXXXXX	

See Footprint Figure K on page 224



AV-74 DME/Transponder Antenna

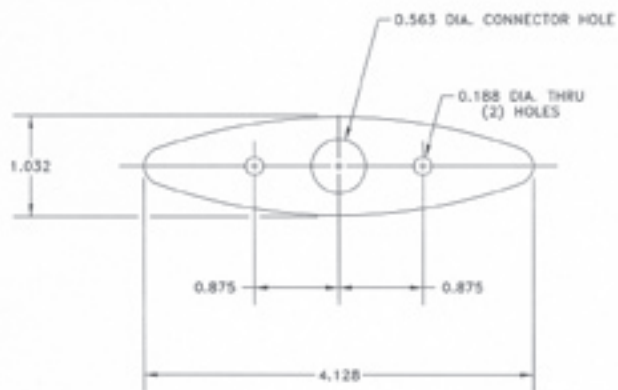
The AV-74 is a broadband blade style antenna for transponder or DME application. It's housing is constructed of an acrylonitrile-styrene-acrylic (ASA) shell. The white color allows maximum performance without losses due to color pigments or unseen dirt. Supplied with cellular neoprene mounting pad and hardware. The antenna is designed to operate at speeds up to 350 mph and altitudes up to 50,000'. It has a drag force of 0.09 lbs. at 250 mph. This antenna is a direct replacement for Comant's model CI-105.

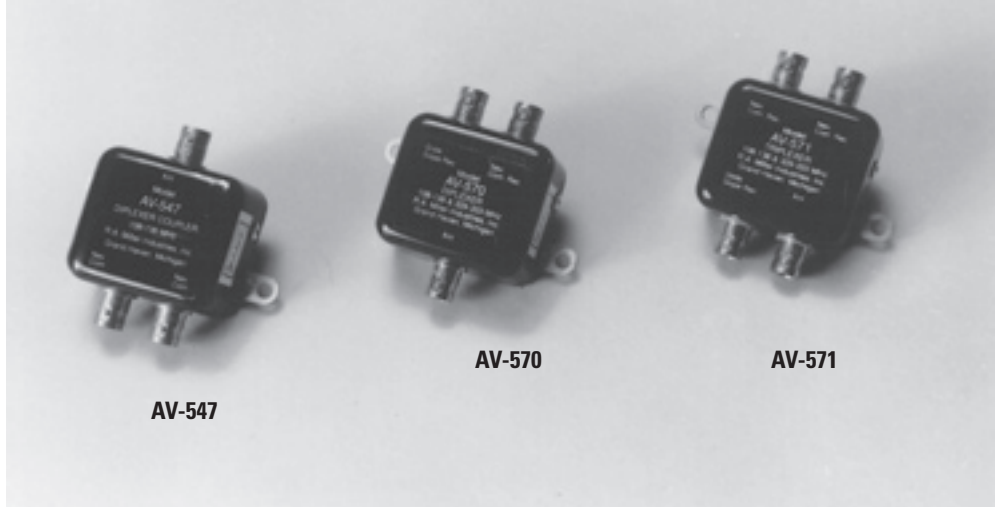
P/N AV-74



Specifications

Electrical	
Frequency	960 to 1220 MHz
VSWR	1.5 to 1.0 maximum
Impedance	50 OHMS
Weight	0.2 lbs.
Height	3.4"
Connector	BNC (female)
RF Power Capability	2.5 kW peak
Environmental Category	[D2]XACA[SXX] XSXDFSXXXX[XXX]X[XXXX]XXX





AV-547

The AV-547 coupler feeds two navigation receivers from one antenna. The matching circuitry is enclosed in a durable, light weight aluminum housing for superior mechanical and environmental stability. The coupler operates at altitudes of up to 50,000'.

P/N AV-547

Specifications

Application: Nav.	Frequency: 108-118 MHz
VSWR: 1.4:1 maximum	Impedance: 50 OHMS
Insertion loss: 3 dB Avg/5 dB maximum	Isolation: 30 dB minimum
Connector: Type "BNC" Females	Weight: 3.5 oz.
RF Power Capability: Receive only	Dimensions: 2" x 1-3/4" x 1-1/8"

TSO C36e, C40c, DO-160c
Env.Cat. D2-BC SXXXXFXXXXXXXXXX

See Footprint Figure D on page 223

AV-571

The AV-571 coupler splits the signal from a VOR-Type antenna to feed two NAV and one Glideslope receivers. The coupler's construction is similar to the AV-547 and AV-570 couplers and operates to the same altitude as both.

P/N AV-571

Specifications

Application: Nav & Glideslope	Frequency: 108-118 & 329-333 MHz
Filtering: 30dB min/40dB avg.	Impedance: 50 OHMS
Insertion loss: 3.75 dB Max.	Isolation: 22 dB Min./35 dB Avg.
Connector: (4) BNC (female)	Weight: 3.5 oz.
RF Power Capability: Receive only	Dimensions: 2" x 1-3/4" x 1-1/8"

TSO C34e, C36e, C40c, DO-160c
Env.Cat. D2-BC SXXXXFXXXXXXXXXX

See Footprint Figure D on page 223

AV-570

The AV-570 coupler splits the signal from a VOR-Type NAV antenna to feed NAV and Glideslope receivers. The coupler's construction is similar to the AV-547 coupler and operates at altitudes up to 50,000'.

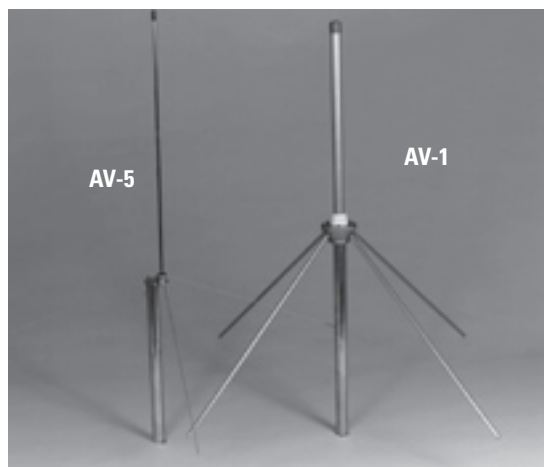
P/N AV-570

Specifications

Application: Nav & Glideslope	Frequency: 108-118 & 329-333 MHz
Filtering: 30dB min/ 40dB avg.	Impedance: 50 OHMS
Insertion loss: 1 dB Max.	Isolation: 38 dB Min.
Connector: (3) BNC (female)	Weight: 3.5 oz.
RF Power Capability: Receive only	Dimensions: 2" x 1-3/4" x 1-1/8"

TSO C34e, C36e, C40c, DO-160c
Env.Cat. D2-BC SXXXXFXXXXXXXXXX

See Footprint Figure D on page 223



AV-1

The AV-1 is a base station antenna for communications with ground vehicles or aircraft. It has heavy-duty construction with 3/8" diameter aluminum radials, a 1" diameter aluminum tube radiator, and is iridite-treated for durability. It mounts easily to a 1" diameter pipe or a 1-1/4" O.D. tube with locking set screws. A built-in gap-type lightning arrestor is an important design feature. The antenna requires no additional tuning and is designed to withstand wind speeds of up to 100 mph.

P/N AV-1

Specifications

Application: VHF communications	Frequency: 118-137 MHz
VSWR: 2.0:1 maximum	Impedance: 50 OHMS
Polarization: Vertical	Pattern: Omnidirectional
Connector: Accepts PL-259	Weight: 2.75 lbs.
RF Power Capability: 1000 Watts	Height: 34"

AV-5

The AV-5 is an economical Ground Plane base station antenna. It is ideally suited for use with Unicom transceivers and is field tunable for the frequency band desired. The radial arm angle is designed to give optimum VSWR at the tuned frequency. Durably constructed of high quality materials for a long operational life, the antenna is designed to withstand wind speeds of up to 100 mph. Field tunable for frequency desired.

P/N AV-5

Specifications

Application: Communications	Frequency: 118-137 MHz
VSWR: 1.5:1 maximum	Impedance: 50 OHMS
Polarization: Vertical	Pattern: Omnidirectional
Connector: Accepts PL-259	Weight: 1.0 lbs.
RF Power Capability: 100 Watts	Height: 34"

AV-6

The AV-6 is a Cable Assembly consisting of 50 foot of RG-58/U low loss transmission line, a PL-259 connector at one end and a BNC male connector at the other. The cable assembly is commonly used with the AV-1 and AV-5 Ground Based Antennas.

P/N AV-6

AV-2

The AV-2 is a high performance vehicular antenna for use on all surface vehicles where communication on the aircraft VHF frequency band is required. Heavy duty constructed with a tapered 17-7PH stainless steel whip and spring mount. All exposed fittings are chrome-plated brass or stainless steel. The antenna is supplied with 12 feet of cable with connectors. Mounting is easily achieved on rooftop, cowl, fender or other suitable location. DC grounded for low noise pick-up. The unit is also field tunable to the 25-50 MHz and 130-174 MHz ranges.

P/N AV-2

Specifications

Application: Communications	Frequency: 118-137 MHz
VSWR: 1.5:1 maximum	Impedance: 50 OHMS
Polarization: Vertical	Pattern: Omnidirectional
Connector: PL-259	Weight: 2.50 lbs.
RF Power Capability: 100 Watts	Height: 55" maximum (field cuttable)

See Footprint Figure K on page 224

AV-3

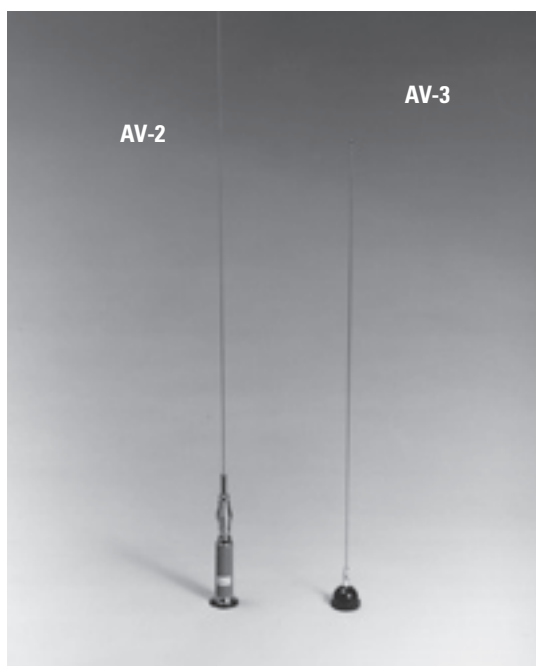
The AV-3 is a low profile snap-in mounting quarter-wave antenna for use on surface vehicles. It has a solderless cable connection at the antenna and is supplied with 12 feet of cable and PL-259 connector. The antenna is field tunable by simply cutting the whip to the required length.

P/N AV-3

Specifications

Application: Communications	Frequency: 108-512 MHz
VSWR: 1.5:1 maximum	Impedance: 50 OHMS
Polarization: Vertical	Pattern: Omnidirectional
Connector: PL-259	Weight: 7 oz.
RF Power Capability: 100 Watts	Height: 27-1/2"

See Footprint Figure K on page 224



AT-256A/ARC

The AT-256A/ARC is used for airborne communications on various fixed-wing aircraft and helicopters. The antenna is manufactured to Military Specifications MIL-A-5815 & MIL-A-5815/1. It is designed to operate at the extreme temperature range of -54°C to 125°C (-65° to 257°F) with intermittent operation at 150°C (302°F) and can withstand a static load of 55 MPA (8psi) perpendicular to the blade, with an ultimate of 83 MPA (12psi). The antenna is protected by an anodic coating to prevent corrosion. The antenna's sealability is tested to 21,340m (70,000') altitude.

P/N AT-256A/ARC

Specifications

Application	Airborne communications
Frequency	225 to 400 MHz
Impedance	50 OHMS (nominal)
VSWR	2.0:1 maximum
Polarization	Vertical
Pattern	Omnidirectional
Connector	N (female)
Weight	0.91 Kg (2 lbs.) maximum
Height	9.140" maximum
RF Power Capability	50 Watts average
Gain (Ref to a 1/4 wave Monopole)	-1 dB > 225-400 MHz

See Footprint Figure L on page 225

UH-408

The UH-408 is used for airborne communications on various fixed-wing aircraft and helicopters. The antenna is qualified to Military Specification MIL-E-5272 and MIL-E-5400. The antenna is designed to operate at the extreme temperature range of -54°C to 93°C (-65° to 200°F) and at altitudes of up to 18,293m (60,000'). It is protected by an anodic coating to prevent corrosion.

P/N UH-408

Specifications

Application	Airborne communications
Frequency	225 to 425 MHz
Impedance	50 OHMS (nominal)
VSWR	2.0:1 maximum
Polarization	Vertical
Pattern	Omnidirectional
Connector	N (female)
Weight	0.91 Kg (2 lbs.) maximum
Height	7 11/16"
RF Power Capability	50 Watts average
Gain (Ref to a 1/4 wave Monopole)	-1 dB > 225-425 MHz

See Footprint Figure N on page 225

AS-3808/ARC

The AS-3808/ARC is designed for High Power airborne UHF communications. The antenna is manufactured to ElectroSpace Systems Specification EM-A0051 which specifies environmental tests per MIL-STD-810, an operating altitude of 21,340m (70,000'). It is painted with a Skydrol resistant urethane coating per MIL-C-83286, Color White No. 17925. The antenna is a one-piece blade to replace the AT-1076/ARC antenna.

P/N AS-3808/ARC

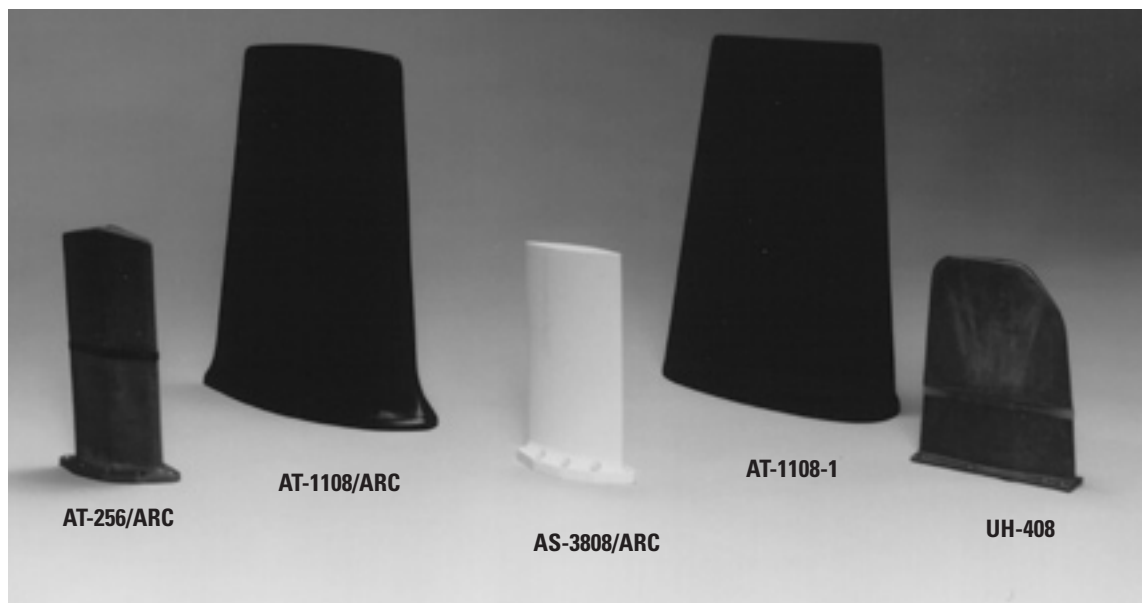
Specifications

Application	Airborne communications
Frequency	225 to 400 MHz
Impedance	50 OHMS (nominal)
VSWR	2.0:1 maximum
Polarization	Vertical
Pattern	Omnidirectional
Connector	HN (female)
Weight	0.45 Kg (1.0 lbs.)
Height	8.245"
RF Power Capability	1500 Watts continuous
Gain (Ref to a 1/4 wave Monopole)	+3 to -1 dBi

See Footprint Figure M on page 225

See product images on next page.





AT-1108/ARC

The AT-1108/ARC is a combined VHF/UHF airborne communications antenna designed for usage with both fixed-wing and rotary-wing aircraft. The antenna housing is fiberglass epoxy designed to withstand the exposure to sand and dust particles of desert areas and is foam filled to reduce the effect of extreme temperature changes, extreme humidity and excessive shock and vibration. The antenna is produced to Military Specification Mil-A-55680 and has continuous operation at altitudes up to 15,244m (50,000') and temperatures of -54°C to 55°C (-48° to 131°F). It can withstand the impact shock of 30g and the steady-state acceleration of 6g. The isolation between bands is ≥ 40 dB. A conductive gasket for positive grounding and sealing is included. The antenna is coated with a Skydrol resistant lusterless black epoxy paint.

P/N AT-1108/ARC

Specifications

Application	Airborne communications
Frequency	116-152 & 225-400 MHz
Impedance	50 OHMS (nominal)
VSWR	3:1 maximum
Polarization	Vertical
Pattern	Omnidirectional
Connector	BNC (VHF) & TNC (UHF) (female)
Weight	1.6 Kg (3.5 lbs.) maximum
Height	14.437"
RF Power Capacity	50 Watts average
Gain (Ref to a 1/4 wave Dipole)	-6dB Min. all freq.'s

See Footprint Figure Q on page 225

AT-1108-1

The AT-1108-1 is a combined VHF/UHF airborne communications antenna offering less drag than the AT-1108/ARC. It has a narrower leading edge and body. The outside surfaces are abrasive resistant fiberglass epoxy and the inside is filled with foam to reduce the effect of extreme temperature changes, extreme humidity and excessive shock and vibration. The antenna is manufactured to meet the electrical requirements of Mil-E-5400 and the environmental requirements of MIL-STD-810. Drag force on the antenna at Sea Level and at zero (0) angle of attack is 2.2 Kg (1.0 lbs.) at 4330 km/hr (250mph) and 5.5 Kg (2.5 lbs.) at 6928 km/hr (400mph). The isolation between bands is ≥ 40 dB. A conductive gasket for positive grounding and sealing is included. It is coated with a Skydrol resistant black epoxy paint.

P/N AT-1108-1

Specifications

Application	Airborne communications
Frequency	116-152 & 225-400 MHz
Impedance	50 OHMS (nominal)
VSWR	3:1 maximum
Polarization	Vertical
Pattern	Omnidirectional
Connector	BNC (VHF) & TNC (UHF) (female)
Weight	1.6 Kg (3.5 lbs.) maximum
Height	14.4"
RF Power Capacity	50 Watts average
Gain (Ref to a 1/4 wave Dipole)	-6dB Min. all freq.'s

See Footprint Figure R on page 225

37P-4

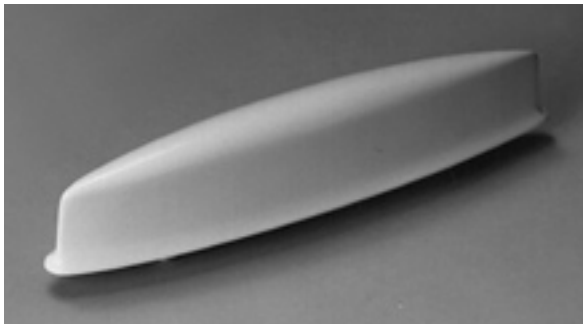
The 37P-4 is designed for use with Glide Slope receivers for reliable performance. The antenna is lightweight and is suitable for mounting either in a radome or externally on the aircraft. The antenna is provided with an adapter plate with an 11" radius for mounting on rounded fuselages. The 37P-4 has an "N" type female connector and is finished with a chemical film coating per Military Specification MIL-C-5541, Class 1A for maximum corrosion protection in a salt-laden atmosphere.

P/N 37P-4

See Footprint Figure T on page 225

Specifications

Application	Glide slope
Frequency	329-336 MHz
Impedance	52 OHMS/unbalanced line
VSWR	2.0:1 maximum
Polarization	Horizontal
Pattern	Forward directional
Connector	N (female)
Weight	0.7 lbs.
Height	6"
RF Power Capability	Receive only



AT-640A/ARN

The AT-640A/ARN is a receive-only VHF Marker Beacon antenna used on both fixed-wing and rotary-wing aircraft. The antenna will meet the requirements of Military Specification MIL-A-5999 for electrical and environmental performance. It is finished with a white Skydrol resistance polyurethane paint in accordance with MIL-C-81773. The antenna has an operating temperature -40°C to 60°C (-40° to 140°F). Precipitation static is minimized through the use of a foam-filled fiberglass construction. The foam also reduces the effects of vibration, shock and temperature extremes.

P/N AT-640A/ARN

See Footprint Figure S on page 225

Specifications

Application	Marker beacon
Frequency	75 MHz
Impedance	50 OHMS (nominal)
VSWR	2.5:1 maximum
Polarization	Parallel fore & aft of aircraft
Pattern	Lobally downward
Connector	C (female)
Weight	0.45 kg. (1.0 lbs.) maximum
Height	2.5" maximum
RF Power Capability	Receive only

AT-740/A

The AT-740/A is used for airborne radar interrogation on various fixed-wing aircraft. Manufactured to Military Specifications MIL-A-25707 and MIL-A-25707/1, it is designed to operate at the extreme temperature range of -55°C to 205°C (-67° to 401°F). The antenna is a flush-mounted, cavity-back slot antenna constructed of aluminum with a fiberglass radome. It has a type BNC sampling probe and is protected by an anodic coating to prevent corrosion.

P/N AT-740/A

Specifications

Application	DME, Tacan, Beacon
Frequency	960-1220 MHz
Impedance	50 OHMS (nominal)
VSWR (antenna)	1.8:1 maximum
VSWR (sample probe)	1.5:1 maximum
Polarization	Vertical
Pattern	Omnidirectional
Connector	HN (antenna) & BNC (female probe)
Weight	0.45 Kg (1.0 lbs.) maximum
Dimensions	Flush mount, 8" Dia. x 1.5" thick
RF Power Capability	4 kW peak, 100 Watts average
Gain (Ref 1/4 wave monopole)	-0.5 dB > 960-1220 MHz
Probe Attenuation	17.5 dB ≥ 1.5 dB > Freq. Rng.

See Footprint Figure V on page 226

AT-741B/B

The AT-741B/B is designed for use with DME, Tacan and Beacon sets. The antenna is manufactured to Military Specifications MIL-A-25708 and MIL-A-25708/1 and qualified environmentally to MIL-STD-810. It operates within a temperature range of -55°C to 250°C (-67° to 482°F) and can withstand a static load of 15 psi perpendicular to the blade. The antenna is operational to altitudes of 100,000' and is finished with a Skydrol resistant lusterless black polyurethane coating.

P/N AT-741B/B

Specifications

Application	DME, Tacan, Beacon
Frequency	960-1220 MHz
Impedance	50 OHMS (nominal)
VSWR	1.4:1 maximum
Polarization	Vertical
Pattern	Omnidirectional
Connector	HN (antenna) & BNC (female probe)
Weight	0.5 lbs.
Height	3.3"
RF Power Capability	4 kW peak, 0.1 kW continuous

See Footprint Figure W on page 226

AT-884

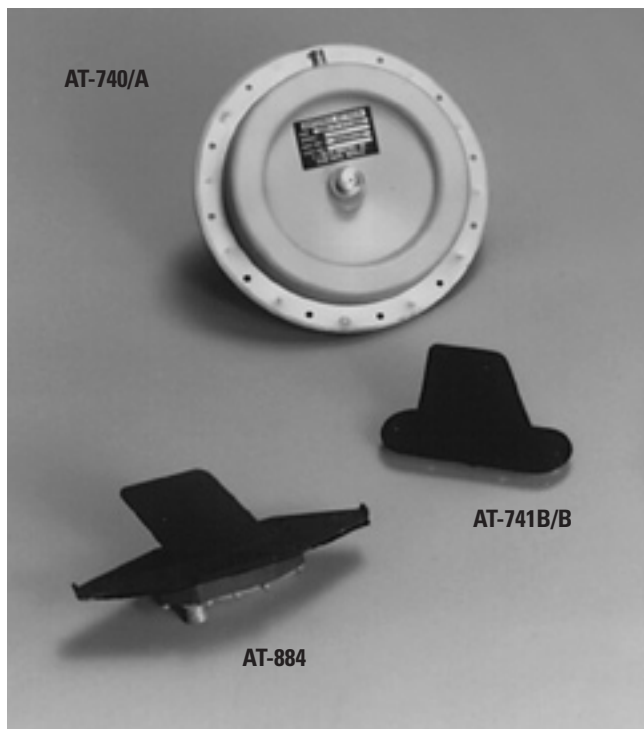
The AT-884 is designed to receive vertically polarized signals at 1010-1110 MHz and radiate vertically polarized signals at 1090-1110 MHz. The transponder antenna is constructed to provide functional operation during all normal maneuvers of the aircraft at all azimuthal headings in respect to any radial to the interrogating radar location. Manufactured to Military Specifications MIL-T-55046 & MIL-E-5400, the antenna has an operating temperature range of -55°C to 55°C (-65° to 130°F) and an operating altitude of up to 9,146m (30,000'). The outside surfaces are protected with a chemical resistant urethane coating.

P/N AT-884

Specifications

Application	DME, Tacan, Beacon
Frequency	1010-1110 MHz
Impedance	50 OHMS (nominal)
VSWR	1.4:1 maximum
Polarization	Vertical
Pattern	Omnidirectional
Connector	C (female)
Weight	0.75 lbs.
Height	2.426"
RF Power Capability	4 kW peak, 0.1 kW continuous

See Footprint Figure X on page 226



R.A. Miller Industries Inc.
General Aviation Antenna Cross Reference Guide

RAMI Model	Antenna Description/Application	Foot - Print Figure	Comant Model	Dorne & Margolin	Dayton Granger	Decibel Products	Other MFG's
AV-1	Broad Band Ground Plane Base Station, 118-136 MHz	-					
AV-2	Ground Vehicle, 118-136 Mhz (Field tuned)	K					
AV-3	High Performance Ground Vehicle, 108-512 Mhz	K					
AVT-4	Broad Band Blade, 118-136 Mhz	C	CI-119			AD-11	
AV-5	Ground Plane Base Station, 118-136 Mhz (Field Tuned)	-					
AV-6	Cable Kit for AV-1 and AV-5 Unicom radios, 50 foot	-					
AV-9	DME, 980-1220 Mhz	K					
AV-10	VHF Com, 118-136 Mhz	B	CI-109 CI-121				
AV-12	V dipole VOR, 108-118 Mhz	I	CI-158C				
AV-12L	V dipole with 25' cable & integral balun	I					Narco VRP37
AV-14	VHF/FM, extended range, 138-174 Mhz	B	CI-177-1				
AV-15	UHF Comm, 450-470 Mhz	K	CI-106-5				
AV-17	VHF Com, Bent Stainless Steel Whip, 118-136 Mhz	B	CI-122				
AV-22	Transponder Monopole, 1030-1090 Mhz	K	CI-101			AD-14	Narco 712-33-101 Bendix AT2062a
AV-23	Lo Band VHF Bent Rod (sled type), 27-50 Mhz	G					Wulfsberg AT690
AV-529	Broad Band Rod, 118-136 Mhz	A	CI-291				
AVB-529	Public Service and Business Band radio, 148-174 Mhz	A	CI-177-3	DMC63-4/A			
AVC-529	Civil Air Patrol, 143-149 Mhz	A					
AV-530	Stainless Steel Whip, 118-136 Mhz, 3 bolt mtg	A	CI-292-1	DMC63-1/A		AD-21	
AV-532	V dipole VOR, 108-118 Mhz	I					
AV-532L	V dipole with 30' cable & integral balun	I					
AV-533	Marker Beacon, Sled type, 75 Mhz	H					
AV-534	Stainless Steel Bent Rod, 118-136 Mhz	K					
AV-74	DME/Transponder		CI-105				

R.A. Miller Industries Inc. General Aviation Antenna Cross Reference Guide

RAMI Model	Antenna Description/Application	Foot - Print Figure	Comant Model	Dorne & Margolin	Dayton Granger	Decibel Products	Other MFG's
AV-534L	Stainless Steel Bent Rod with 8' RG58A/U cable	K					
AV-545	ADF Sense, Long wire, 190-1750 Mhz	J					
AVR-546	Transponder, Monopole 1030-1090 Mhz	K					
AV-547	Dual VOR Coupler, 108-136 Mhz	D	CI-502	DM H21-1	DRC20-04-14830	AD-3 AD-10	Beech 101-380042 Trivec 82-30-01
AV-568	Civil Air Patrol Rod, 27 Mhz	A					
AV-64	Marker Beacon, Boat Type, 75 Mhz	E	CI-102		MB 10-128	AD-8	Trivec 32-10-02
AV-570	1 VOR/1 GS, Coupler, 108-118 & 329-333 Mhz	D	CI-507	DM H22-1	GSNC20-05		Beech 101-380046
AV-571	2 VOR/1 GS, Coupler, 108-118 & 329-333	D	CI-505	DM H23-1	14830	AD-9	Sensor SSPD113-12 Beech 101-380043
AV-741	DME/Transponder, 960-1220 Mhz	F	CI-100-4	DMN150-4	L10-16		Sensor S65-5366-21 Collins 2372-1
AS-3808	UHF Com, Blade, High Power, 225-400 Mhz	M					
AT-256A/ ARC	UHF Com, Blade, 225-400 Mhz	L					
AT-640A/ ARN	Marker Beacon, Boat Type, 75 Mhz	S					
AT-740/A	DME/Transponder (flush mount) 960-1220 Mhz	V					
AT-741B/B	DME/Transponder Blade, 960-1220 Mhz	W					
AT-884/ APX	Transponder Blade, 1010-1110 Mhz	X					
AT-1108-1	UHF/VHF Blade, 116-152 & 225-400 Mhz (Jet)	R					
AT-1108/ ARC	UHF/VHF Blade, 116-152 & 225-400 Mhz (Helo)	Q					
UH-408	UHF Com, Blade, 225-400 Mhz	N					
37P4	Glideslope, 329-336 Mhz	T		DMN25-3			Collins 37P-4

FIGURE A
AV-529
AVB-529
AVC-529
AV-530
AV-568

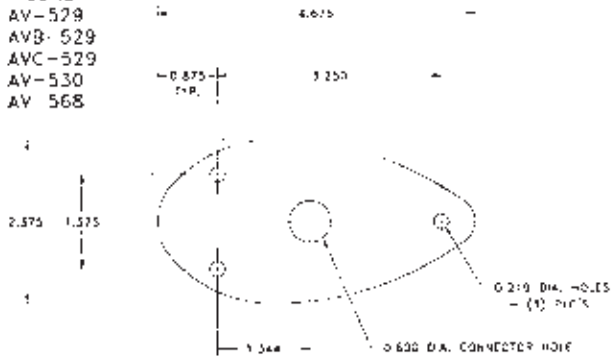


FIGURE B
AV-10
AV-14
AV-17

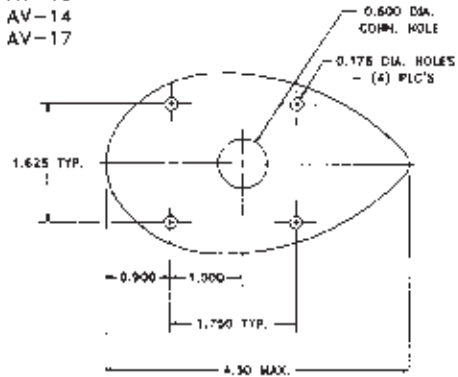


FIGURE C
AVT4

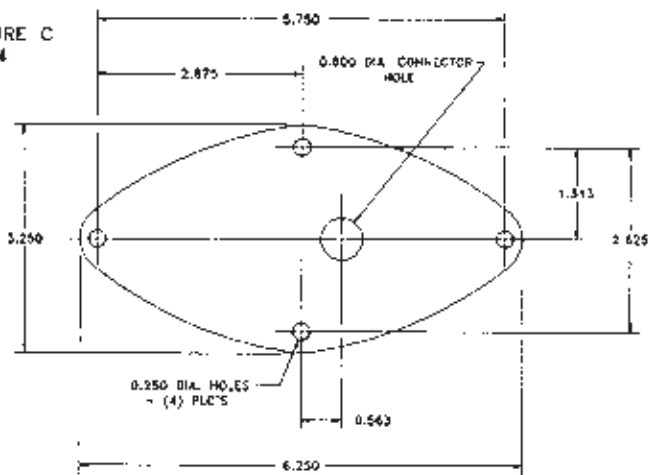


FIGURE D
AV-547
AV-570
AV-571

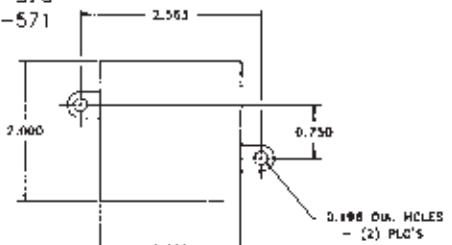


FIGURE E
AV-569

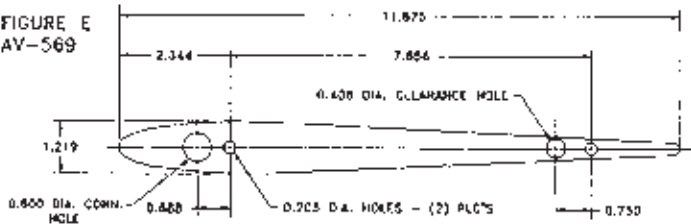


FIGURE F
AV-741

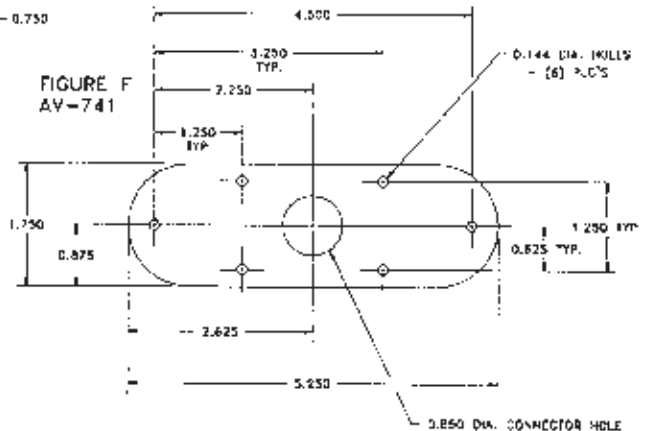
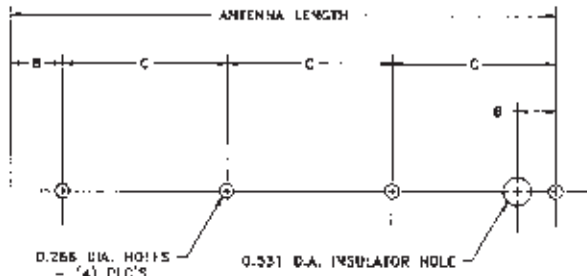


FIGURE G
AV-23



B LENGTH
 27-41.125 MHz = 7 1/4"
 41.125-50 MHz = 4 1/4"
C LENGTH
 ANTENNA LENGTH MINUS
 B" DIVIDED BY 3

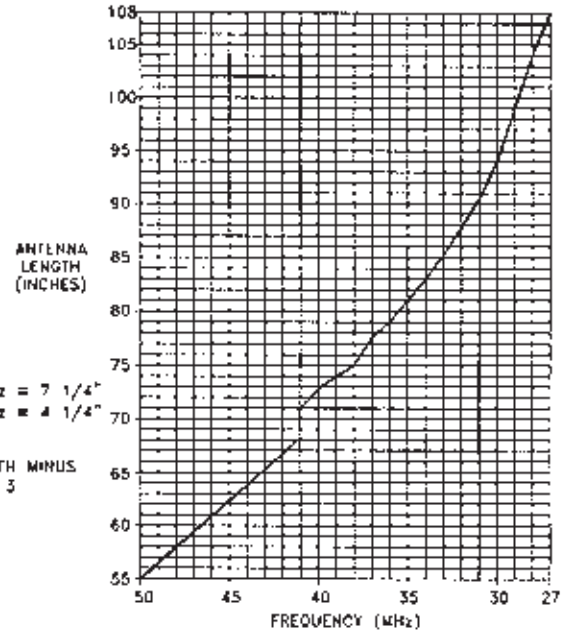


FIGURE H
AV-533

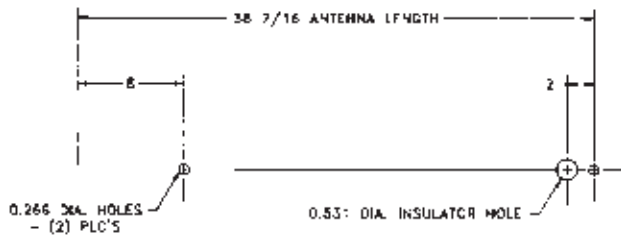


FIGURE I

AV-12
7/16" THICK

AV-532
1/8" THICK

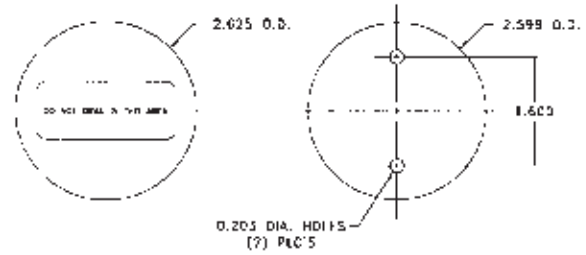
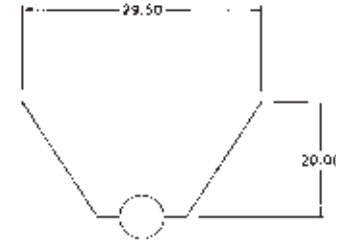
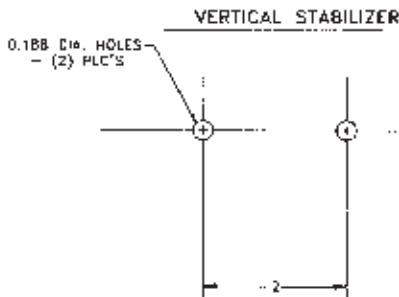
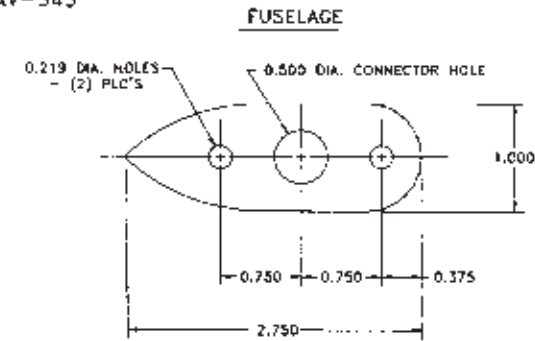


FIGURE J
AV-545



D DIA. HOLE

FIGURE K

D DIA.	ANTENNA
3/8	AV-3
1/2	AV-22 AV-534
17/32	AV-534-L AV-9
5/8	AV-15 AV-2
3/4	AVR546

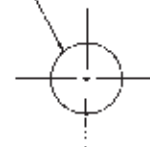


FIGURE L
AT-256A/ARC

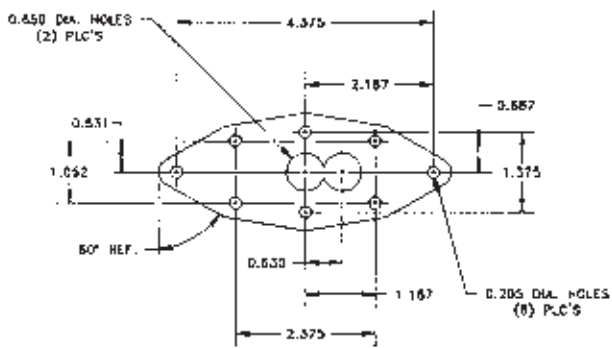


FIGURE M
AS-3BDB/ARC

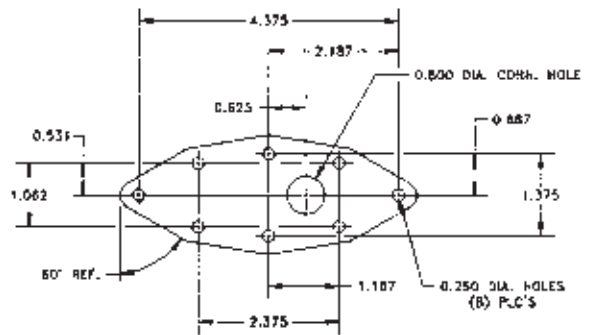


FIGURE N
UH-408

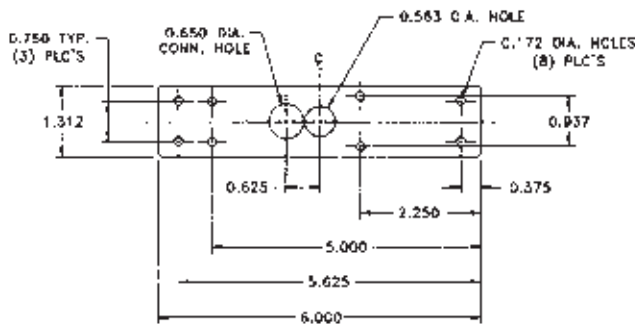


FIGURE O
AT-1108/ARC

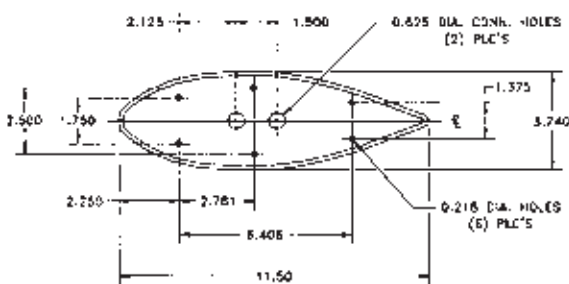


FIGURE R
87C1108-1

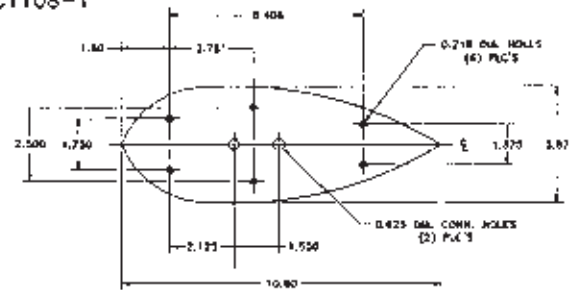


FIGURE S
AT-640A/ARN

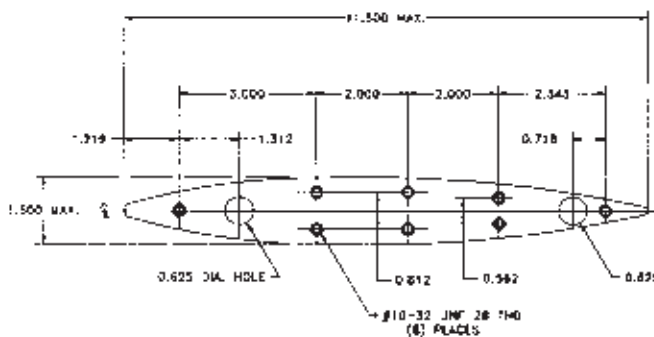
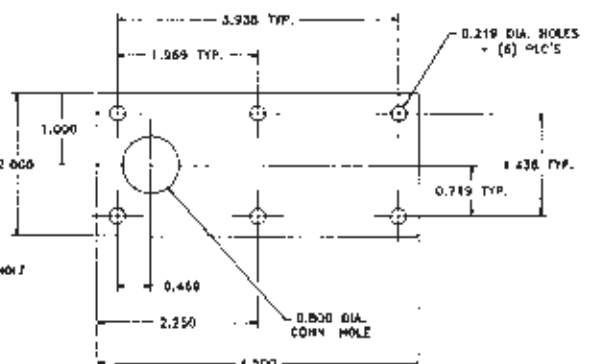
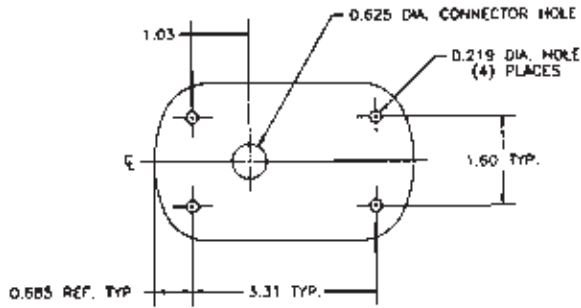


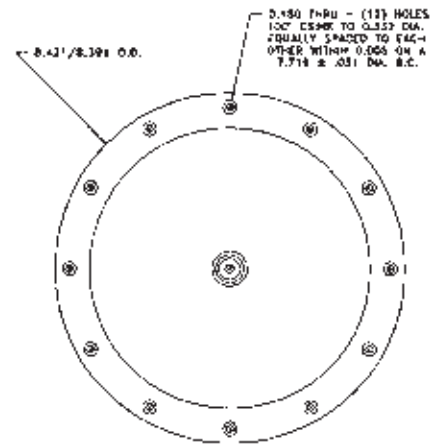
FIGURE T
37P-4



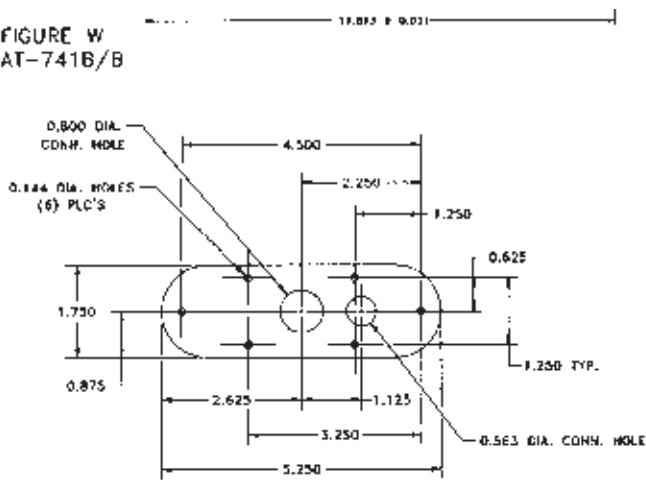
**FIGURE AA
AV-GPS**



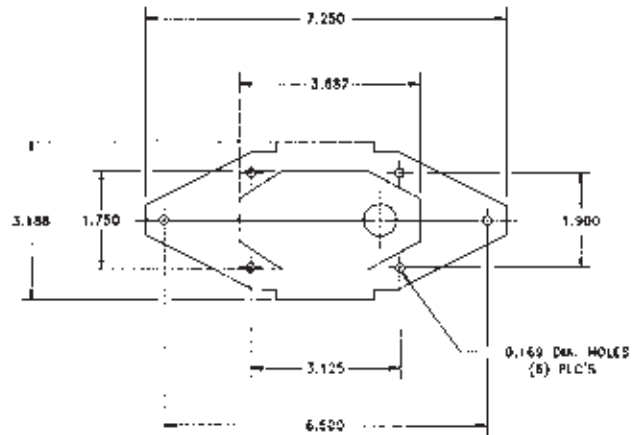
**FIGURE V
AT-740/A**

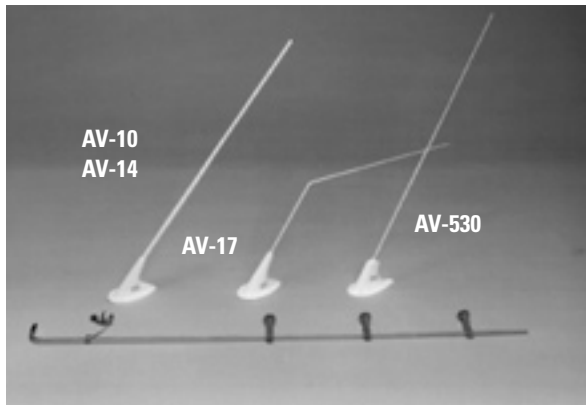


**FIGURE W
AT-741B/B**



**FIGURE X
AT-884B/APX**





AV-23

The AV-23 is a bent rod field tunable, low profile Com. antenna which operates on the Lo-VHF Business and Public Safety Bands. Four-point mounting provides maximum durability and easy feed-thru connection. It is supplied with 20 foot of RG-58C/U cable, PL-259 Connector and mounting hardware. The antenna is designed to operate at speeds up to 350 mph and altitudes up to 50,000'. It has a drag force of 2.37 lbs. @ 250 mph.

P/N AV-23

Specifications

Application: Communications	Frequency: 27-50 MHz (field tunable)
VSWR: 1.5 to 1 @ resonance	Impedance: 50 OHMS
Polarization: Vertical	Pattern: Omnidirectional
Connector: PL-259	Weight: 28 oz
RF Power Capability: 100 Watts	Height: 3" Length: 9' @ 27 MHz
TSO C37d, C38d, DO-160c	
Env.Cat. D2-ACXXXSDFSXXXXXXXXXX	

See Footprint Figure G on page 224

AV-10

The AV-10 is designed for high-performance aircraft applications. It exhibits excellent electrical characteristics and incorporates an efficient aerodynamic 4-bolt mounting base. The antenna essentially matches the styling of the communication antennas currently used on most singles and light twins. The antenna is designed to operate at speeds up to 350 mph and altitudes up to 50,000'. It has a drag force of 2.70 lbs. @ 250 mph.

P/N AV-10

Specifications

Application: Communications	Frequency: (AV-10) 118-137 MHz (AV-14) 138-174 MHz
VSWR: 2.0 to 1 Maximum	Impedance: 50 OHMS
Polarization: Vertical	Pattern: Omnidirectional
Connector: BNC (female)	Weight: 8 oz
RF Power Capability: 25 Watts	Height: 20-1/4" (AV-10) 14-1/2" (AV-14)
TSO C37d, C38d, DO-160c	
Env.Cat. D2-AC SXSXDFSXXXXXXXXXX	

See Footprint Figure B on page 223

AV-14

The AV-14 is similar to the AV-10 using the same 4-bolt mounting base except it has a shorter radiating whip element. The antenna is designed to operate in the Public Service and Business Bands 138-174 MHz. The antenna is designed to operate at speeds up to 350 mph and altitudes up to 50,000'. It has a drag force of 2.70 lbs. @ 250 mph.

P/N AV-14

AV-17

The AV-17 is designed specifically for mounting to the underside of an aircraft, providing an excellent radiation pattern for air-to-ground communications. It has a 4-bolt mounting base and a low profile configuration that makes it ideal for helicopters and low-wing aircraft. The antenna is designed to operate at speeds up to 350 mph and altitudes up to 50,000'. It has a drag force of 0.66 lbs. @ 250 mph.

P/N AV-17

Specifications

Application: Communications	Frequency: 118-137 MHz
VSWR: 3.0:1 maximum	Impedance: 50 OHMS
Polarization: Vertical	Pattern: Omnidirectional
Connector: BNC (female)	Weight: 8 oz
RF Power Capability: 25 Watts	Height: 8-3/4"
TSO C37d, C38d, DO-160c	
Env.Cat. D2-AC SXSXDFSXXXXXXXXXX	

See Footprint Figure B on page 223

AV-530

The AV-530 is designed for broadband communications. The antenna has a die-cast aluminum base and a tapered stainless steel whip for less drag at higher air-speeds. It is supplied with a weather-sealing gasket and mounting hardware. The antenna is designed to operate at speeds up to 350 mph and altitudes up to 50,000'. It has a drag force of 1.65 lbs. @ 250 mph.

P/N AV-530

Specifications

Application: Communications	Frequency: 118-137 MHz
VSWR: 2.5 to 1 Maximum	Impedance: 50 OHMS
Polarization: Vertical	Pattern: Omnidirectional
Connector: BNC (female)	Weight: 0.5 lbs.
RF Power Capability: 25 Watts	Height: 24-1/2"
TSO C37d, C38d, DO-160c	
Env.Cat. D2-AC SXSXDFSXXXXXXXXXX	

See Footprint Figure A on page 223

RAMI Model AV-GPS

A permanently mounted external aircraft antenna designed for use with GPS receivers which provide +5 volts DC on their antenna connector. It is an active (amplified) antenna providing an average of 26 dB gain over a passive (non amplified) antenna. The antenna is designed to operate at speeds up to 350 mph and altitudes of 50,000'. It has a drag force of 0.18 lbs. @ 250 mph.



Specifications

Application	GPS Navigation
Frequency	1575 MHz ± 2MHz
VSWR	1.2:1 Typical, 1.5:1 maximum
Gain	26 dBic ± 2 dB
DC Power Req'm't.	+5VDC ± 0.5VDC @ 20 µa maximum
Connector	BNC (female)
Height	3/4"
Footprint	See Figure AA on page 226
TSO Pending	