



# LINK 16 ANTENNAS FOR TACTICAL DATA NETWORKS



RUGGED ANTENNA PRODUCTS AND RF ACCESSORIES

Military | First Responders | Federal Law Enforcement  
Unmanned Systems | Broadcast Video | Industrial | Commercial



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# Rugged Antennas for Tactical Data Link Networks

Southwest Antennas manufactures rugged antenna solutions for domestic and international military users who utilize the Link 16 tactical data link network. These antennas are designed specifically for the 969 - 1,206 MHz Link 16 band.

Our current Link 16 product portfolio includes several omni-directional antennas in addition to a high-gain, circularly polarized sector antenna for targeted, directional coverage.

## Link 16 Overview

Link 16 is a military-use tactical data link network that enables the US and allied forces to share near real-time tactical information and increase battlefield situational awareness between groups in theater, including location information, text messages, pictures, voice, and data.

Various Link 16 terminals, modules, and radio system designs allow the Link 16 network to be utilized between aircraft, ships, ground vehicles, dismounted soldiers, unmanned vehicles, and weapons platforms.

Data transmitted on the Link 16 network is encrypted and jam-resistant, and uses a Dynamic TDMA architecture to increase system capacity.

While normally the 969 - 1,206 band would be primarily suited for line-of-sight communication, satellite and secure TCP/IP protocols allow Link 16 networks to expand beyond line-of-sight limitations.

## Designed and Built in San Diego

Our antennas and accessory products are designed, built, and qualified at our head office and manufacturing facility in San Diego, California. We are proud to manufacture our products in the USA and use local vendors when possible in order to maintain our strict quality standards.



# Gooseneck Omni Antennas

Omni-directional antennas with an integrated flexible coaxial gooseneck base, allowing the antennas to be easily repositioned, tilted, and tucked through MOLLE loops or straps. Ideal for hand-held or bodyworn radio systems.

Our proprietary coaxial gooseneck design prevents cable radiation from affecting the pattern and performance of the antenna elements, ensuring maximum performance for attached radio systems.



[Part # 1001-087](#)

Frequency Range	969 - 1,206 MHz
Gain	2.15 dBi (peak)
VSWR	2:1
Polarization	Vertical
Max RF Power	50W
AZ Beamwidth	360 Degrees
EL Beamwidth	77 Degrees
Integrated Gooseneck	Yes
RF Connector	Black Chrome TNC(m)
Antenna Height	10.88 inches
Antenna Diameter	0.57 inches
Weight	4 oz



[Part # 1001-164](#)

Frequency Range	969 - 1,206 MHz
Gain	2.15 dBi (peak)
VSWR	2:1
Polarization	Vertical
Max RF Power	50W
AZ Beamwidth	360 Degrees
EL Beamwidth	77 Degrees
Integrated Gooseneck	Yes, sealed and waterproof to 65.6 ft / 20 m
RF Connector	Black Chrome TNC(m)
Antenna Height	10.88 inches
Antenna Diameter	0.57 inches
Weight	4 oz

# Standard Base Omni Antennas

Omni-directional antennas with standard non-spring base, these are ideal for applications where the user will not need to bend or reposition the antenna, such as fixed or mobile base stations.



[Part # 1001-088](#)

Frequency Range	969 - 1,206 MHz
Gain	2.15 dBi (peak)
VSWR	2:1
Polarization	Vertical
Max RF Power	50W
AZ Beamwidth	360 Degrees
EL Beamwidth	77 Degrees
RF Connector	Black chrome TNC(m)
Antenna Height	8.38 inches
Antenna Diameter	0.57 inches
Weight	4.0 oz



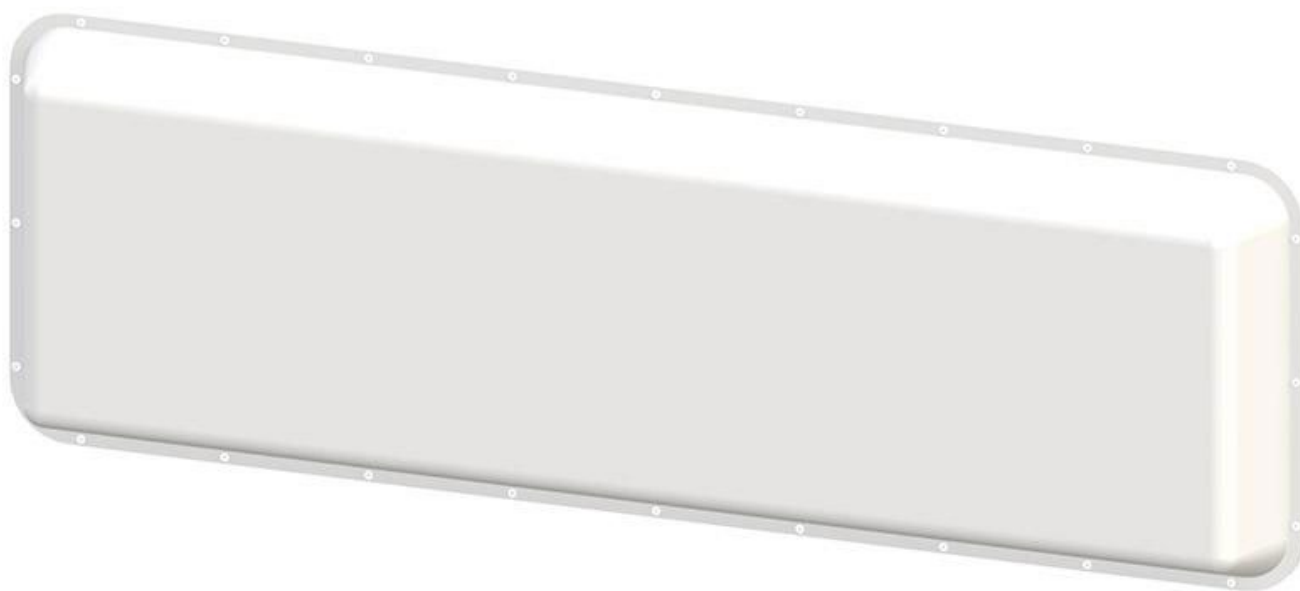
[Part # 1001-222](#)

Frequency Range	969 - 1,206 MHz
Gain	2.15 dBi (peak)
VSWR	2:1
Polarization	Vertical
Max RF Power	50W
AZ Beamwidth	360 Degrees
EL Beamwidth	77 Degrees
RF Connector	Type-N(f) flange mount
Antenna Height	8.52 inches
Antenna Diameter	0.57 inches
Weight	3.0 oz

# Panel Sector Antenna

A high-gain sector panel antenna with an operational frequency range of 969 - 1,206 MHz. The antenna features a typical gain of 17.8 dBic and is right hand circularly polarized (RHCP) for enhanced long-range RF link performance through varied atmospheric conditions.

This antenna's frequency range makes it ideal for tactical data link applications, including air-to-ground, telemetry communications, Link 16 networks, and ADS-B systems.



**Part # 1009-068**

Frequency Range	969 - 1,206 MHz
Gain	17.8 dBic typical mid-band
VSWR	2:1
Polarization	RHCP
Max RF Power	50W CW (200W Peak)
AZ Beamwidth	35.7 Degrees mid-band
EL Beamwidth	10.2 Degrees mid-band
RF Connector	Type-N(f)
Antenna Length	54 inches
Antenna Width	18 inches
Antenna Height	3.7 inches
Weight	21 lbs

**Part # 1009-070**

Frequency Range	969 - 1,206 MHz
Gain	17.8 dBic typical mid-band
VSWR	2:1
Polarization	RHCP
Max RF Power	50W CW (200W Peak)
AZ Beamwidth	35.7 Degrees mid-band
EL Beamwidth	10.2 Degrees mid-band
RF Connector	TNC(f)
Antenna Length	54 inches
Antenna Width	18 inches
Antenna Height	3.7 inches
Weight	21 lbs



# GNSS Antennas

Southwest Antennas GPS/GLONASS Active L1/L2 Antennas are high-performance and ruggedized products designed for SAASM GPS receivers, GLONASS receivers, manpack, hand-held, and small form factor radios used in military, defense, and homeland security radio applications, in addition to commercial navigation, GNSS receivers, asset location, and precision surveying applications.

Our proprietary antenna technology features remarkable polarization purity, excellent low- elevation coverage, and superior multi-path rejection. The radiation pattern shape and phase center are constant across both frequency bands yielding unmatched accuracy in a compact form factor. Integrated LNAs and filters provide active system gain and out-of-band rejection, allowing these antennas to find and lock onto satellites in noisy RF environments.

## Rugged Overmolded Radome



Part #	Frequency	Polarization	VSWR	Active Gain	RF Connector
1055-210	L1: 1.563 – 1.61 GHz L2: 1.215 – 1.25 GHz	RHCP	<1.5:1 Nominal	+22	TNC(m)
1055-216	L1: 1.563 – 1.61 GHz L2: 1.215 – 1.25 GHz	RHCP	<1.5:1 Nominal	+36	TNC(m)
1055-217	L1: 1.563 – 1.61 GHz L2: 1.215 – 1.25 GHz	RHCP	<1.5:1 Nominal	+22	TNC(m) with gooseneck*
1055-218	L1: 1.563 – 1.61 GHz L2: 1.215 – 1.25 GHz	RHCP	<1.5:1 Nominal	+36	TNC(m) with gooseneck*
1055-283	L1: 1.565 – 1.585 GHz L2: 1.217 – 1.227 GHz	RHCP	<1.5:1 Nominal	+19	TNC(m)
1055-307	L1: 1.563 – 1.61 GHz L2: 1.215 – 1.25 GHz	RHCP	<1.5:1 Nominal	+22	SMA(m)

\*Coaxial gooseneck assembly is available as optional accessory for any GPS antenna.

## Rugged Patch-Style Radome



This patch-style active GPS L1/L2 antenna design is housed in a small, low-profile waterproof radome allowing for a wide array of antenna mounting and deployment options including:

- MOLLE pouches or secured within other strap/web system.
- An integrated magnet on the bottom of the radome allows the antenna to attach to any ferromagnetic surface, such as vehicle roofs.
- Waterproof to 65.6 ft / 20 meters.

Part #	Frequency	Polarization	VSWR	Active Gain	RF Connector
<a href="#">1065-042</a>	L1: 1.57 – 1.59 GHz L2: 1.22 – 1.24 GHz	RHCP	2.0:1	+28	SMA(f)



# WE ARE **RUGGED RF**

Southwest Antennas specializes in the design and manufacture of high-performance broadband RF / Microwave antennas and accessories designed to be the critical link in today's audio, video, and data communication environments, from DC to 8.4 GHz and beyond.

Our product portfolio includes more than 2,000 antenna and accessory products for a wide array of military, government, broadcast video, and commercial RF / Microwave applications needs. Southwest Antenna specialties include tactical comms for military and law enforcement, government microwave, concealment / surveillance antennas, MIMO & COFDM antenna solutions, rugged commercial antennas, and accessory RF products to support these systems including filters, diplexers, isolators / circulators and more.

We design our antennas to withstand the rigors of active field use outside of ideal lab conditions. The engineering team at Southwest Antennas has over 75 years of combined experience and have pioneered many mechanical and electrical techniques in antenna design to deliver rugged antennas that withstand harsh, real-world use conditions to keep you connected when it matters the most. All SWA products are covered by our two-year performance warranty, and are designed and built at our office and manufacturing facility in San Diego, California.



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