

Overview

Southwest Antennas Part # 1065-031 is a right hand circularly polarized (RHCP) directional patch antenna that is designed to be light weight and easily worn and hidden in tactical clothing such as tactical vests or MOLLE gear. This body worn antenna is ideal for use in multi-antenna MIMO / MANET radio applications such as handheld and small form factor body worn tactical radios.

The antenna's directional RHCP radiation pattern and axial ratio below 3 dB offers robust network connections, and allows radios to connect even when not directly facing one another or within clear line-of-site. With an operating frequency range covering 1.35 - 1.39 GHz this product is ideal for military / Department of Defense radio communication systems. Extensive field testing has shown that these antennas provides superior RF performance, ensure long range radio communication links, and provide high data rate throughput when used with MANET / MIMO self-forming, self-healing radio networks, or SISO radio systems.

Weighing only 3.4 ounces, #1065-031 features a high performance SMA(f) RF connector and waterproof, UV stable radome that can withstand immersion in 20-meters (65.6 ft.) of salt water for two hours if the RF connector is mated or sealed with a protective end cap.

In addition to body-worn applications, the free space performance of this antenna makes it ideal for many field applications in point-to-point or multi-antenna mesh configurations, including fixed site infrastructure and mobile antenna applications.

This product is considered "Dual Use" (Non-ITAR) by the US State Department and falls outside of Code of Federal Regulations title 22 (CFR) parts 120-130.

Features

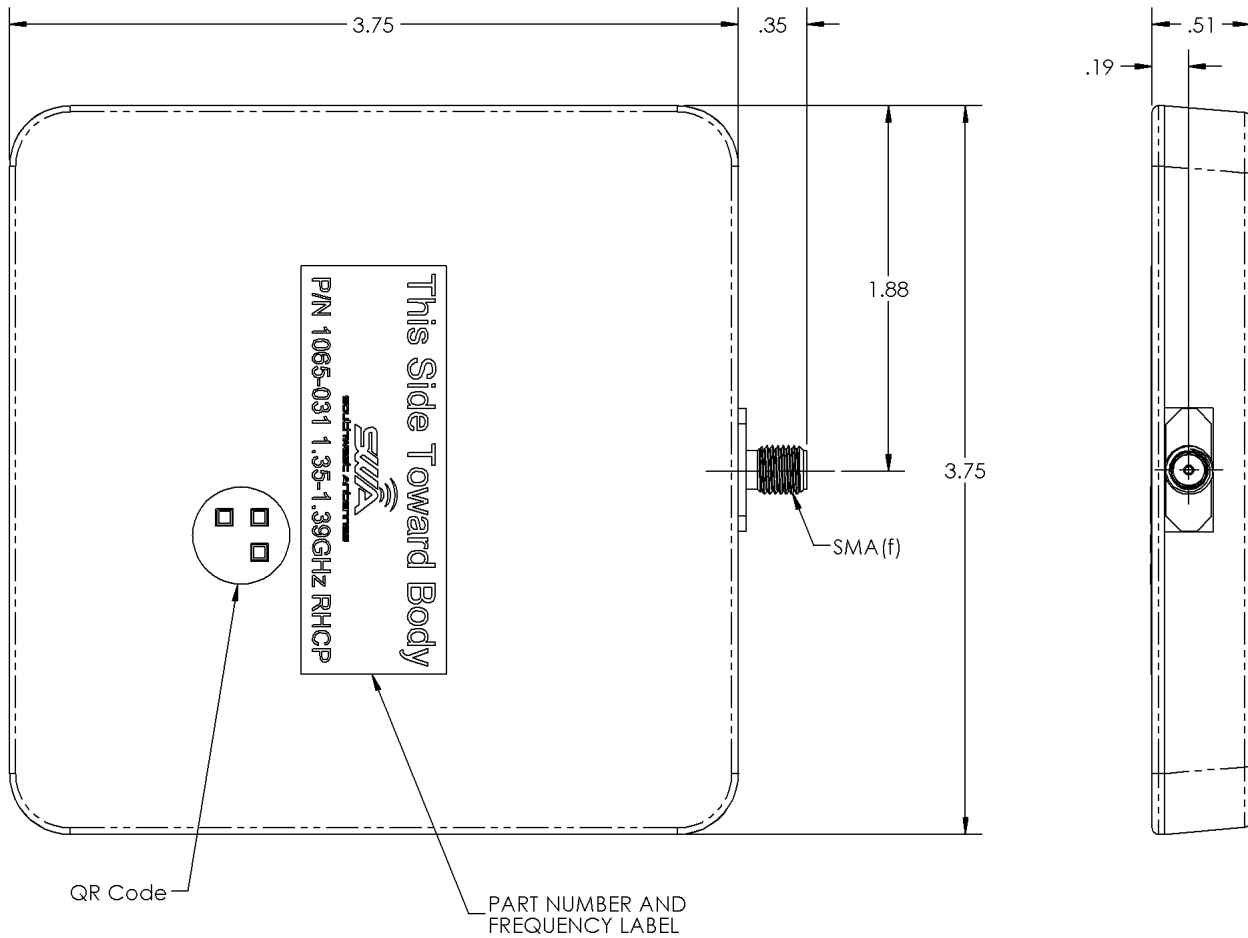
- 1.35 - 1.39 GHz
- Light Weight
- Designed Specifically for Use Against the Body
- Right Hand Circular Polarization (RHCP)
- Water Proof to 20 Meters (When RF Connector is mated)
- Rugged Design
- Markets and Applications include:
 - Military / Defense
 - Law Enforcement
 - Security
 - Body Worn Radios & Systems



Product Specifications

Parameter	Value	Units	Tolerance
Frequency Band	L		
Impedance	50		
Minimum Frequency	1.35 / 1,350	GHz / MHz	
Maximum Frequency	1.39 / 1,390	GHz / MHz	
Frequency Bandwidth	0.04 / 40	GHz / MHz	
Maximum VSWR	2.5:1	Ratio	
Maximum Gain	4.20	dBic	On Body Measurement (4.5 dBic in Free-Space)
Polarization	RHCP		
Color	Black		
Axial Ratio	3	dB	Maximum at Center Frequency
Maximum RF Input Power	10	Watts	
Horizontal AZ Beamwidth	104	Degrees	On Body Measurement (110 Degrees in Free-Space)
Vertical EL Beamwidth	88	Degrees	On Body Measurement (90 Degrees in Free-Space)
Antenna Labeling	Back Side with Part # and Frequency Range		
Radome Material	Lexan Plastic		
Mount Style	On-Body		
Immersion	20 meters in salt water for 2 hours (mated)		
RF Connector Type	SMA(f)		
Operating Temperature Range	-40 to 85	Celsius	

Parameter	Value	Units	Tolerance
ESD Protection	IEC 61000-4-2, Level 4 ± 8 kV contact discharge and ± 15 kV air gap		
Product Length	3.75 / 95.25	inches / mm	
Product Width	3.75 / 95.25	inches / mm	
Product Height	.51 / 12.95	inches / mm	
Product Weight	3.40 / 96.39	oz / g	



Engineering Drawing

All dimensions are in inches