

# Superpass Antenna

## Frequency Antenna

806 - 960 MHz  
 902 - 928 MHz  
 2400 - 2483 MHz  
 3.4 - 3.7 GHz  
 5.1 - 5.9 GHz  
 5.25 - 5.35 GHz  
 5.4 - 5.7 GHz  
 5.7 - 5.9 GHz  
 Ceiling Antenna  
 Diversity Antenna  
 Dual-Band Antenna  
 Dual-Pol Antenna  
 Wide Band Antenna  
 802.11N MIMO  
 Other Frequency

## SuperUSB Antenna

Active USB Cable  
 USB Antenna

## Cable& Connector

N Connector  
 SMA Connector  
 TNC Connector  
 Connector Adaptor  
 NM to NM Cable  
 NM to NF Cable  
 NM to RP SMA Cable  
 NM to RP TNC Cable  
 NF to NF Cable  
 NF to U.FL Cable  
 NF to MMCX Cable

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## 2.4GHz Dual Polarized Directional Antenna



Model Number: SPDPG-13-H13

Item Price: \$59.00

Qty:

### Technical Specification

No.	ITEM	TYPICAL	REMARKS
1	Frequency Range	2400 – 2483 MHz	
2	Impedance	50 $\Omega$	
3	VSWR (or Return Loss)	< 1.5:1 ( or > 14dB)	
4	Gain	13dBi @ V-Pol 13dBi @ H-Pol	
5	Polarization	V-Pol & H-Pol, Linear	
6	3dB Horizontal Beamwidth	20deg @ V-Pol 22deg @ H-Pol	
7	3dB Vertical Beamwidth	65deg @ V-Pol 64deg @ H-Pol	
9	Max. Power Input	20W	
10	Connector	N female	Or Custom Design
11	Port to Port Isolation	-30dB Min.	
12	Size	8.5x 11.5 x 1 [inch]	
14	Radome Material	ASA with UV Protection	
15	Radome Color	Gray or White	
16	Case Design	Water Resistance	
17	Weight	0.5 Lb	
18	Wind Loading (Frontal)	> 10Kg	200km/h
19	Temperature Range	-45 to +75° C	
20	Storage Temperature	-30 to +75° C	
21	Sensing Resistor or DC-Ground	DC-Grounded	
22	Life Expectancy	20 years	

## HyperLink Wireless 2.4 GHz 14 dBi 90 Degree Dual Polarized Dual-Feed Sector Panel Antenna - Model: HG2414DP-090

### Applications and Features

- Applications:**
- IEEE 802.11b, 802.11g and 802.11n (Pre-N, Draft-N, MIMO) applications
  - WiFi and Bluetooth® applications
  - Public Wireless Hotspot
  - Wireless Video Systems
  - Wireless Internet Provider "cell" sites

- Features:**
- **Vertical and Horizontal polarization**
  - **Dual polarity feed system** - (2) N-Female connectors
  - All weather operation
  - 10° down-tilt mast mounting bracket and hardware
  - Includes Mast Mounting Hardware



### Description

#### Superior Performance

The HyperGain® HG2414DP-090 Dual Polarized Sector Panel WiFi Antenna combines high gain with a wide 90° beam-width. It is a professional quality "cell site" antenna designed primarily for service providers in the 2.4GHz ISM band. Applications include IEEE 802.11b, 802.11g and 802.11n wireless LAN systems.

#### Dual Polarized Design

This antenna features a unique array of cross di-pole elements. The antenna is fed via two N-Female ports, one for vertically polarized and one for horizontally polarized signals. These features make these antennas ideal for polarization diversity systems.



#### Rugged and Weatherproof

This dual-band sector antenna features a heavy-duty fiberglass radome for all-weather operation. The heavy-duty mounting system allows installation adjusts from 0 to 10 degrees down tilt.

#### Ideal for Wireless Internet "Cell" Sites

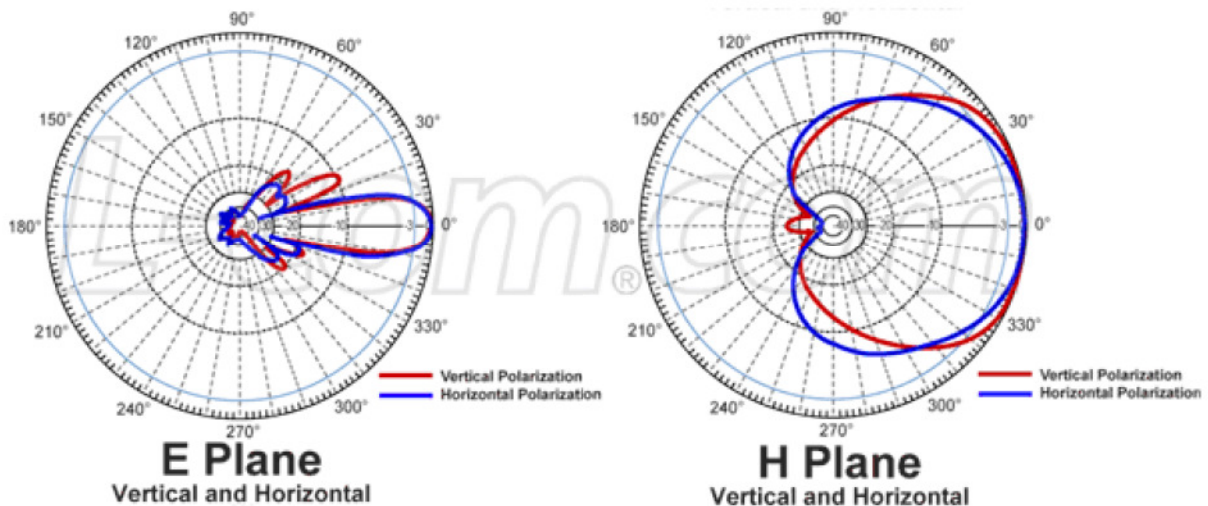
This is an ideal choice for Wireless Internet Provider "cell" sites since the cell size can be easily determined by adjusting the down-tilt angle. Horizontal coverage is a full 90 degrees.

**Specifications**

<b>Frequency Range</b>	2400 - 2500 MHz
<b>Gain</b>	14 dBi
<b>Polarization</b>	Vertical and Horizontal
<b>Horizontal Polarization H Plane</b>	75°
<b>Vertical Polarization H Plane</b>	90°
<b>Horizontal Polarization E Plane</b>	16°
<b>Vertical Polarization E Plane</b>	16°
<b>Impedance</b>	50 Ohm
<b>VSWR</b>	≤ 1.5:1 avg.
<b>Front to Back Ratio</b>	≥ 23 dB
<b>Isolation Between Ports</b>	≥ 28 dB
<b>Max. Input Power</b>	200 Watts
<b>Lightning Protection</b>	DC Ground
<b>Connectors</b>	(2) Integral N-Female
<b>Weight</b>	4.4 lbs. (2 kg)
<b>Dimensions</b>	18.3 x 6.3 x 2.3 in (465 x 160 x 60 mm)
<b>Radome Material</b>	UV-inhibited fiberglass
<b>Mounting</b>	1.5" (40 mm) to 2" (53 mm) dia. mast max.
<b>Operating Temperature</b>	-40° C to 60° C (-40° F to 140° F)
<b>Rated Wind</b>	>130 MPH (210 Km/h)
<b>RoHS Compliant</b>	Yes

**Wind Loading Data**

Wind Speed (MPH)	Loading
100	34 lb.
125	54 lb.



**Guaranteed Quality:** This product is backed by L-Com's Limited Warranty.

**Laird Technologies**Web site: [www.LairdTech.com](http://www.LairdTech.com)

All Categories > Antennas & Reception Solutions > In-Building, CPE, Access Point, and Mobile Client Antennas > WLAN AP and Client Antennas > WLAN > Dual Feed, Linear & Circular Panel Antennas (WLAN) > Item # S9028HVP12NF

**Item # S9028HVP12NF, Dual Linear Antennas****Linear Polarization Panel Antennas**[larger image](#)

Linearly polarized panel antennas feature high performance and versatility. All antennas in the series are provided with UV stabilized radome enclosures and can be mounted to either interior or exterior wall surfaces or masts in either fixed or articulating configurations. Models are available from 8 dBi to 17 dBi gain.

Integrated coaxial pigtailed can be modified for length and connectors can be modified to suit the application.

Consult your Laird Technologies' Sales Representative to discuss these alternatives.

**Dual Feed Panel Antennas**

Dual feed panel antennas offer two ports for polarization diversity and are well suited to environments where multipath is a concern but space is limited. Polarization diversity allows the user to achieve the desired diversity benefit in the footprint of one antenna. All Laird

Technologies dual feed antennas feature a minimum of 18 dB of port isolation.

HVP antennas offer diversity benefits in the foot print of a single antenna.

**Circular Polarization Panel Antennas**

Circular polarization antennas are a good choice for system applications where remote device orientation is random and widely variable.

Circular Polarized antennas mitigate performance degradation sometimes caused by variation in remote terminal orientation.

[Stock Locator](#)
**Specifications**

<b>Manufacturer</b>	Laird Technologies
<b>Frequency</b>	902 to 928 MHz
<b>Gain</b>	8 dBi
<b>VSWR</b>	1.5:1
<b>Polarization</b>	Dual Linear Vertical & Horizontal
<b>3dB Beamwidth, E Plane</b>	65 °
<b>3dB Beamwidth, H Plane</b>	70 °
	2.2 lbs

<b>Weight</b>	1.00 kg
<b>RF Connector</b>	N (Female)
<b>Dimensions</b>	12 x 12 x 1 3/4 in. 30.5 x 30.5 x 4.4 cm
<b>Power</b>	50 watts
<b>Mounting Style</b>	Surface Wall Mount

[Print](#) [Back](#)

# HyperLink Wireless 2.4 GHz to 5.8 GHz 3 dBi TNC-Male Tri-Band Rubber Duck Antenna

Model: HG2458RD-SM

## Applications and Features

- **2.4 GHz - 2.5 GHz Frequency Range:**
  - ◇ 802.11b, 802.11g, 802.11n Access Points and Routers
  - ◇ 2.4 GHz ISM Applications
  - ◇ WiFi Systems
  - ◇ Bluetooth® Applications
  - ◇ Public Wireless Hotspots
  - ◇ Wireless Video Services
- **4.9 GHz - 5.3 GHz Frequency Range:**
  - ◇ 802.11a Access Points and Routers
  - ◇ 5.3 GHz Band Applications
  - ◇ Homeland Security
  - ◇ Public Safety Services: Fire, Police, Security
- **5.7 GHz - 5.8 GHz Frequency Range:**
  - ◇ 5.8 GHz ISM Band Applications
  - ◇ 5.8 GHz UNII Band Applications
  - ◇ WiFi Systems
  - ◇ 5.8 GHz Wireless Video Systems
- Superior performance
- Tri-Band operation
- Better performance than most stock AP antennas
- Flexible "Rubber Duck" antenna
- Tilt and swivel design
- SMA-Male Connector
- RoHS Compliant



**Multi-Band Operation!**

## Description

The HyperGain® Model HG2458RD is a high performance Tri-Band rubber-duck antenna designed to operate from 2.4 GHz to 2.5 GHz, 4.9 GHz to 5.3 GHz and 5.7 GHz to 5.8 GHz. The Multi-Band design of this antenna eliminates the need to purchase different antennas for each frequency. The Tri-Band design of this antenna helps reduce interference and noise since it will reject out-of-band signals between the three bands of this antenna. This omnidirectional "rubber-duck" antenna provides broad coverage and 3 dBi gain.

Measuring 7.79" long, this flexible antenna features a tilt-and-swivel SMA-Male connector, allowing them to be used vertically, at a right angle, or any angle in-between. It is suitable as a replacement RF antenna for many radios that are equipped with SMA connectors.

## Specifications

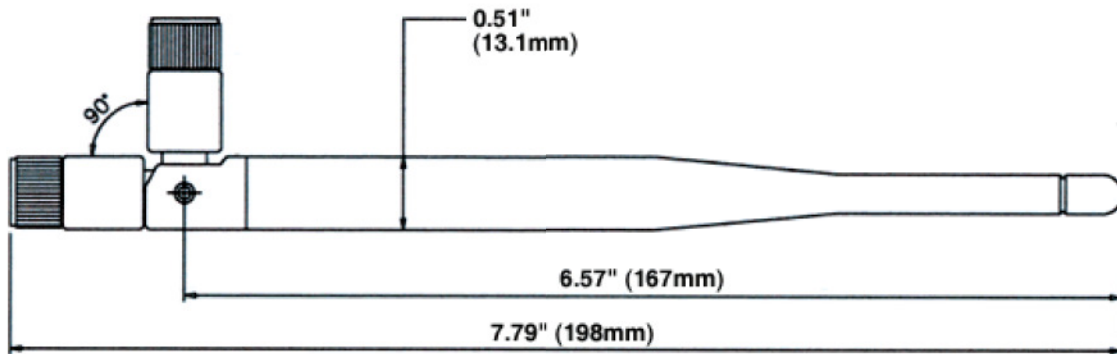
### Electrical Specifications

<b>Frequency Ranges</b>	2400-2500 MHz 4900-5350 MHz 5725-5850 MHz
<b>Gain</b>	3 dBi
<b>Horizontal Beam Width</b>	360°
<b>Impedance</b>	50 Ohm
<b>Max. Power</b>	50W
<b>VSWR</b>	< 2:1

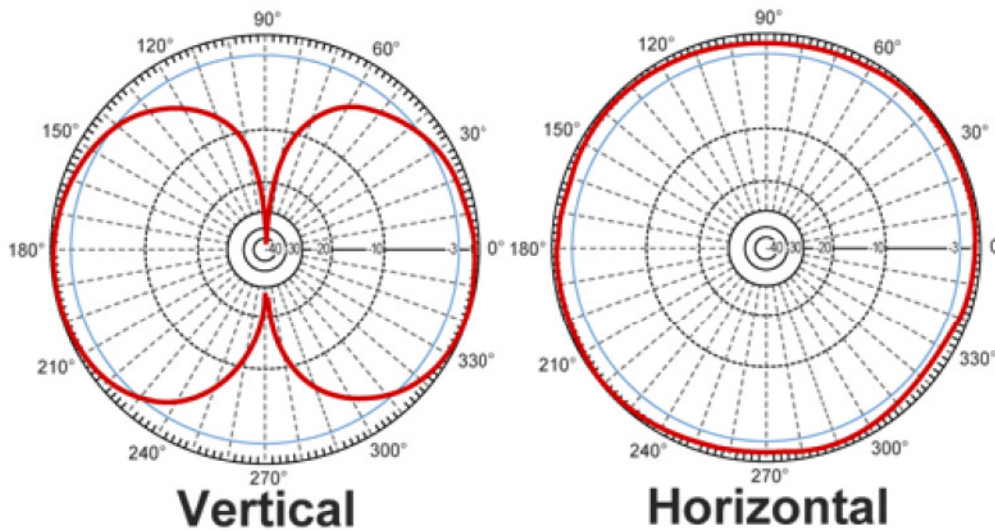
**Mechanical Specifications**

<b>Weight</b>	.96 oz. (27 g)
<b>Length</b>	7.79" (198 mm)
<b>Max. Diameter</b>	0.51" (13.1 mm)
<b>Finish</b>	Matte Black
<b>Connector</b>	SMA-Male
<b>Operating Temperature</b>	-40° C to 60° C (-40° F to 140° F)
<b>Polarization</b>	Vertical
<b>Flame Rating</b>	UL 94HB
<b>RoHS Compliant</b>	Yes

**Dimensions**



**RF Antenna Patterns**



**Guaranteed Quality**

This product is backed by L-Com's Limited Warranty

# x-pol tetra panel antenna

tetracube

## customized for your needs



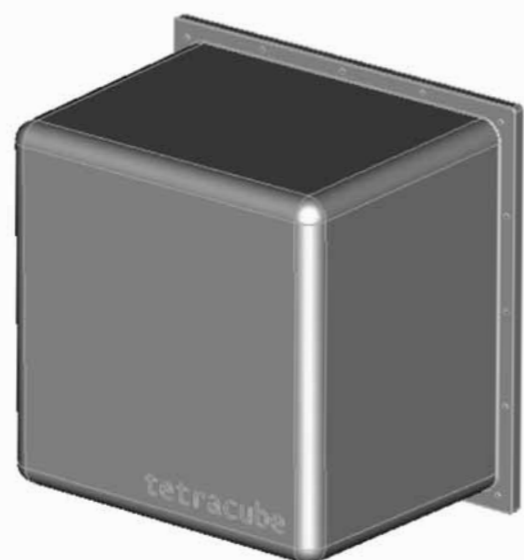


### Electrical specifications

Frequency range	: 380 – 470 MHz
Input impedance	: 50 Ω
V.S.W.R.	: < 1.5
Isolation between channels	: > 20 dB
Polarization	: ±45°
Gain	: 5.5 dBi
Half-power beam width:	: 105°
Front-to-back ratio	: >25 dB
Lightning protections	: DC grounded
Continuous max power per input	: 500 W
Intermodulation IM3	: < -150 dBc (2x43 dBm carrier)
Operating temperature	: -50°C ÷ 70°C
Radome material	: Taramid B280
Antenna elements	: Stainless steel

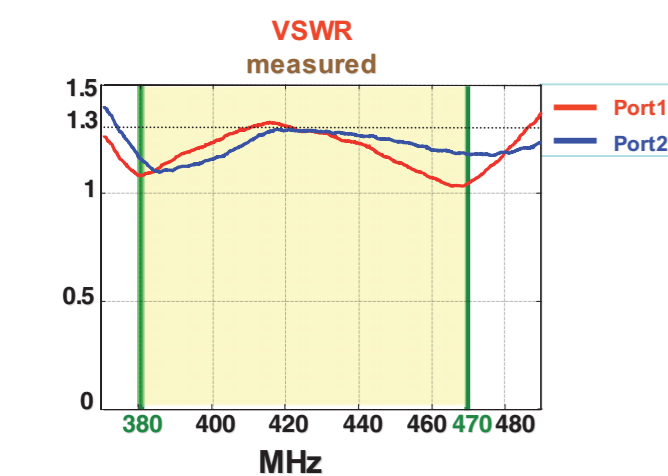
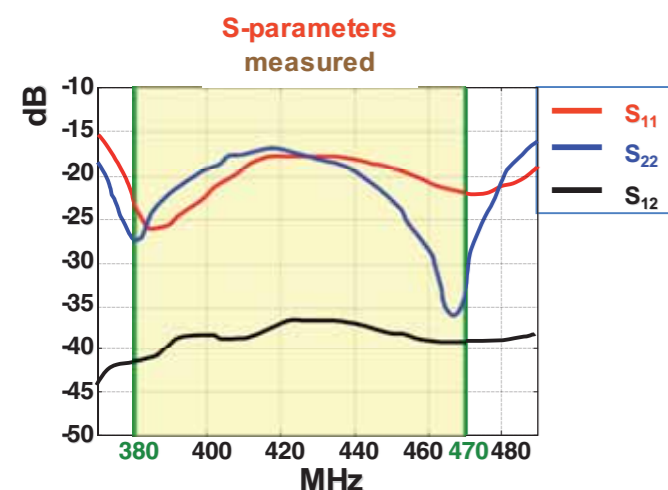
### Mechanical specifications

Type of connection	: 2x7/16 female
Dimensions	: 270x270x192 mm
Weight	: 2.8 Kg
Wind load (@ 150 Km/h)	: Frontal : 100 N Lateral : 95 N Rearside : 110 N

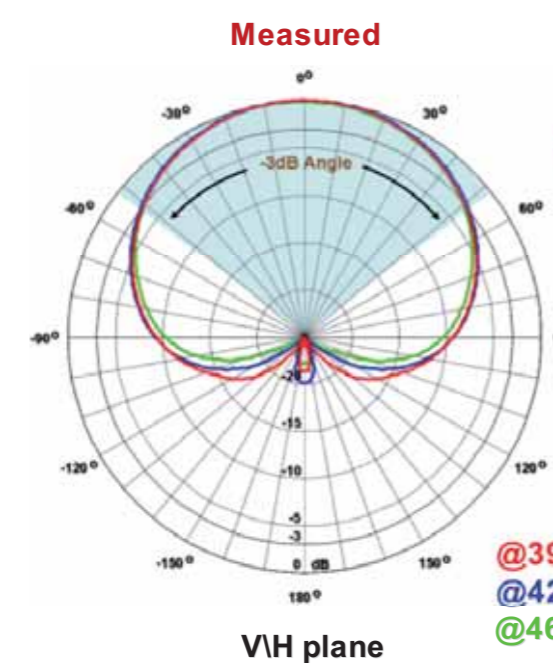


### Environmental conditions

Designed to operate on the environmental conditions as described in ETS 300 019-1-4.



### Radiation Pattern for ±45° Polarization



### Configuration Type

### Radiation Pattern

### Variation of the Max Gain with the elements distance

Configuration Type	Radiation Pattern	@390 MHz	@420 MHz	@460 MHz																									
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# components for configuration

configuration	tetracube modules	array feeding 2-ways	array feeding 3-ways	array feeding 4-ways	vertical mast	horizontal mast	down - tilt electrical or mechanical	
2x1	2 pcs	2 pcs	---	---	1 pcs type 77	---	---	available
3x1	3 pcs	---	2 pcs	---	1 pcs type 147	---	available	available
4x1	4 pcs	---	---	2 pcs	1 pcs type 207	---	available	available
2x2	4 pcs	---	---	2 pcs	2 pcs type 77	2 pcs type 77	---	available
3x2	6 pcs	2 pcs	2 pcs	---	2 pcs type 147	2 pcs type 77	available	available
4x2	8 pcs	2 pcs	---	2 pcs	2 pcs type 207	2 pcs type 77	available	available



**Our array feeding are IP67,  
assembled with high quality  
flexible cable.**

**Return Loss (RL) <-22 dB,  
Insertion Loss (IL) <0.5 dB  
in frequency band 380-470 MHz.**

**All antenna elements are made  
in stainless steel with 7/16 silver  
plated connectors.**

**Tetracube is equipped with 2  
stainless steel clamps.**





**Traditional tetra panel antenna  
length around 2 meters, 22 Kg  
(only antenna, mast not included)**



**TETRACUBE panel antenna  
length around 1.5 meters, 12 Kg  
(only antennas; mast not included)**

## **ADVANTAGES OF TETRACUBE Vs. TRADITIONAL PANEL ANTENNA**

**Tetracube is a smaller smart panel antenna.  
Thanks to its own modularity, you can tailor-made antenna on your needs,  
by adding more modules.**

**You can have good performances with smaller dimension,  
reducing weight and wind resistance.**

**This way makes the installation easier.**

**Thanks to its very large bandwidth, you can reduce the stock in  
your storehouse: with a single code, you can cover  
all tetra markets: civil; military and transportation.**



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