



Innovative **Technology**  
for a **Connected** World

**Black Chip**

## Internal Surface Mount Antenna



The evolution of technology has brought the need to communicate everywhere and at all times without being confined to one space. Laird Technologies' internal wireless device antennas feature wide bandwidth to enhance the performance and application of portable wireless devices based on standards such as 802.11 and Bluetooth®. The antennas are specifically designed to be embedded inside devices for aesthetically pleasing integration with high durability.

### FEATURES

- Small and lightweight
- Wide bandwidth, ultra-wide band capable
- Available in tape and reel packaging
- SMT compatible including lead free processes
- Conformance to European RoHS directive 2002/95/EC

**global solutions: local support™**

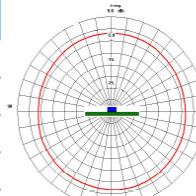
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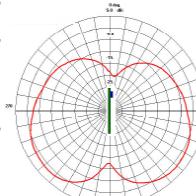
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# Black Chip Internal Surface Mount Antenna

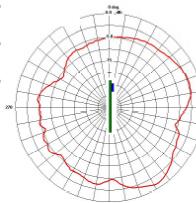
SPECIFICATIONS		
Frequency range	2.4 – 2.5 GHz	4.9 – 6.0 GHz
Peak gain	> 2 dBi	> 3 dBi
Polarization	Linear	
Nominal impedance	50 ohms	
SWR (min. performance)	<2.0:1	
Temperature range	-40° to +85°C	
Vibration	6G RMS (9.04g <sup>2</sup> /Hz) for 15 minutes each in vertical and horizontal. No appearance or functional change	
Thermal shock	Four repeated cycles of 1 hr. at +85°C and 1 hr. at -40°C. No appearance or functional change.	
Radiating element size	8 x 6 x 2.5 mm (L x W x H)	
Physical mass	0.21 grams	
Length w/ solder tabs	12mm	



**Azimuth**  
2.45 GHz  
Free Space

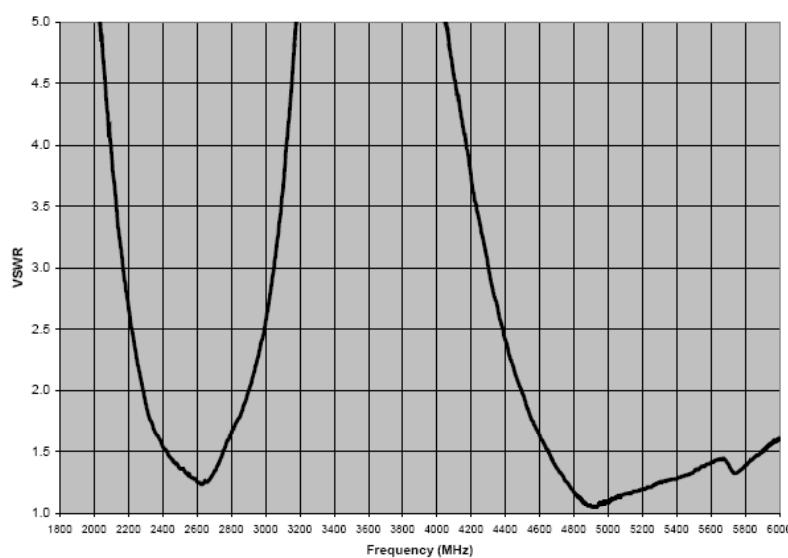


**Elevation**  
 $\phi=0$   
2.45 GHz  
Free Space



**Elevation**  
 $\phi=0$   
5.8 GHz  
Free Space

MODEL NUMBER	PART NUMBER	DESCRIPTION	CONNECTOR
WIC2452-A	MAF95029	Tape and reel	N/A
WIC2452-A-SM	MAF95032	Ultrawide-band on eval board	SMA-female edgemount



ANT-DS-BLACK-CHIP 0809

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