



Laird's Blackchip antenna is a cost-effective chip antenna designed for highly space-sensitive applications. This linear polarized antenna has a gain of >2 dBi at 2.4-2.5 GHz and >3 dBi at 4.9-6 GHz. The Blackchip is specifically designed to be embedded within devices for aesthetically pleasing integration with high durability.

FEATURES AND BENEFITS

- Small and Lightweight
- Wide bandwidth (ultra-wide band capable)
- Available in tape-and-reel packaging
- SMT Compatible including lead-free processes
- RoHS Compliant (2011/65/EU)

ELECTRICAL SPECIFICATIONS

Operating Frequency (MHz)	2400-2500	4900-6000
Peak Gain (dBi)	2.68	5.0
Polarization	Linear	
Nominal Impedance (Ohms)	50	
VSWR (minimum)	<2.0:1	

MECHANICAL SPECIFICATIONS

Dimensions (radiating element) (diameter x height) – mm (in.)	8.0 x 6.0 x 2.5 (0.31 x 0.24 x 0.098)
Dimensions (with solder tabs) (diameter x height) – mm (in.)	12.0 x 6.0 x 2.5 (0.47 x 0.24 x 0.098)
Weight – g (oz.)	0.21 (0.007)
Mount	Surface Mount

ENVIRONMENTAL SPECIFICATIONS

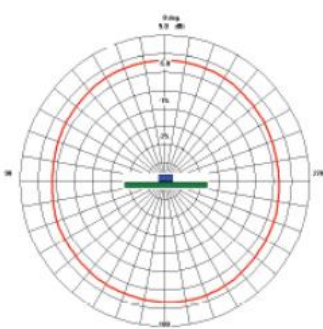
Vibration	6G RMS (0.04 g ² /Hz) Vertical and Horizontal
Thermal shock	4 cycles of 1 hour at +85°C followed by 1 hour at -40°C
Operating Temperature – °C (°F)	-40° to +85°C (-40 to +185°F)
Hazardous Materials Compliance	RoHS compliant (2011/65/EU)

CONFIGURATION

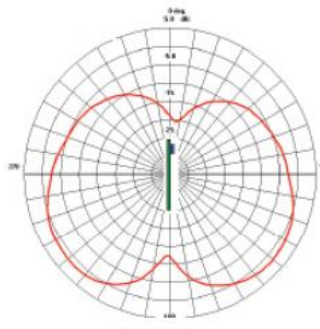
PART NUMBER	DESCRIPTION	CONNECTOR	PACKAGING
MAF95029	Blackchip Standard Antenna	Surface Mount	Tape and Reel
MAF95032	Ultrawide-Band Blackchip on Evaluation Board	SMA-Female Edge Mount	Single

RADIATION PATTERNS

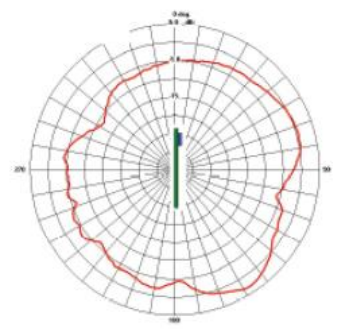
Azimuth @ 2.5 GHz



Elevation @ 2.5 GHz



Elevation @ 5 GHz



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