



DATA SHEET · PRODUCTS & SERVICES

Dual Band Chip antenna for 2.4 GHz and 4.9-5.875 GHz



Fractus specialises in enabling effective mobile communications. Using Fractus technology, we design and manufacture optimised antennas to make your wireless devices more competitive. Our mission is to help our clients develop innovative products and accelerate their time to market through our expertise in antenna design, testing and manufacturing.

Dual-bandReach Xtend™ Chip Antenna

P/N: FR05-S1-NO-1-003

The Fractus Dual-band Reach Xtend 802.11 a/b/g/n WLAN Chip Antenna is engineered specifically for Cardbus32 devices operating at 2.4 GHz and 5 GHz.

Dual-band Reach Xtend lets you achieve high performance at a low cost. Taking advantage of both spatial and polarisation diversity, it will increase the reliability of your device's data rate. This combined with high isolation, makes it ideal for use within indoor (highly scattered) environments while navigating through inconsistent hotspot infrastructures.

Product Benefits

■ High efficiency

Increases your device range, signal quality and lengthens battery life.

■ Omnidirectional pattern

Optimises device signal reception due to a uniform radiation pattern.

■ Multiband behaviour

Includes both ISM bands in a single structure.

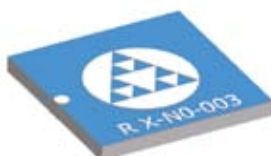
■ Worldwide functionality

Enables devices to work in all WLAN systems: Europe/US/Asia.

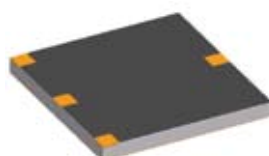
■ Small form factor

Integrates into space limited areas easily and efficiently.

10.0 mm x 10.0 mm x 0.9 mm (image larger than real size)



TOP



BOTTOM

PAT. US 7,148,850, US 7,202,822



Technical Features	802.11 b/g	802.11a
Frequency Range	2.4 - 2.5 GHz	4.9 - 5.875 GHz
Peak Gain	3.9 dB	6.0 dB
VSWR	< 2:1	< 2:1
Average Efficiency	75.0 %	74.6 %
Isolation	< -12.0 dB	< -16.0 dB
Polarization	Linear	
Radiation Pattern	Omnidirectional	
Weight (approx.)	0.2 g	
Temperature	-40° C to +85° C	
Impedance	50 Ω	
Dimensions (L x W x H)	10.0 mm x 10.0 mm x 0.9 mm	

Measures from the evaluation board (105.0 mm x 47.5 mm x 1.0 mm PCB)

For additional information, please download the user manual from <http://www.fractus.com/index.php/fractus/documentation> or contact info@fractus.com.



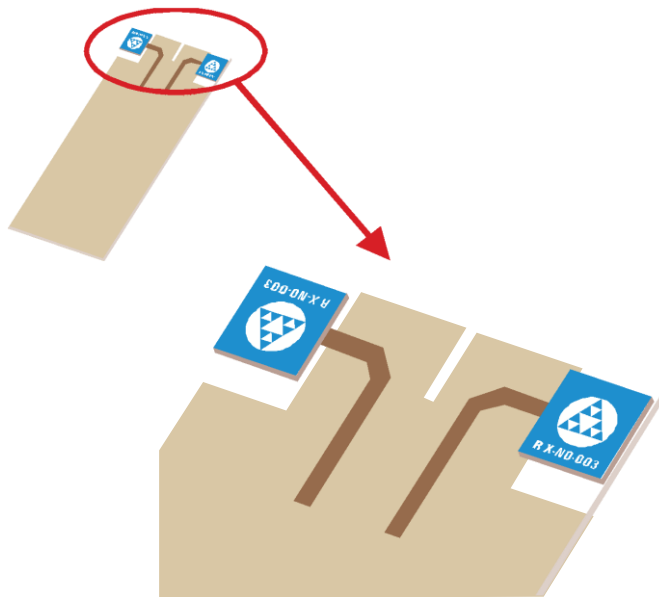
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Antenna design optimised for several PCB configurations. It can be used in diversity solutions (e.g. Cardbus 32 PCB).



Flexible design

Several standard PCB configurations (clearances, locations & tolerances) are available providing robust performance.

Cross polarisation

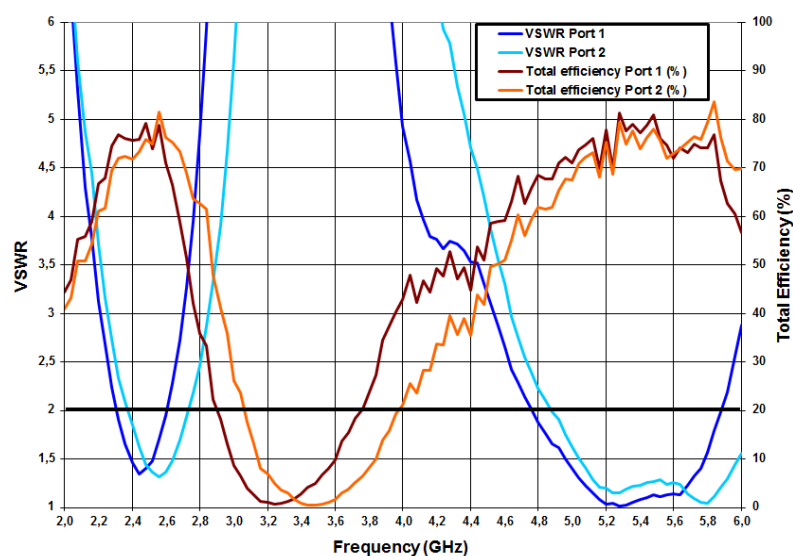
Improves signal reception within indoor (highly scattered) environments, thus increasing the reliability of the communication link.

Easy-to-use

Takes into account standard plastic housing used in Cardbus32 devices.

PAT. US 7,148,850, US 7,202,822

VSWR and Total Efficiency (%) vs. Frequency (GHz)



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