



fractus

Optimised Antennas
for Wireless Devices

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DATA SHEET · PRODUCTS & SERVICES

High performance chip antenna for Cardbus32 devices



Fractus specialises in enabling effective mobile communications. Using fractal 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.

Fractus®Dual-bandReach Xtend™ Chip Antenna

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

The Fractus Dual-band Reach Xtend 802.11 a/b/g 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.

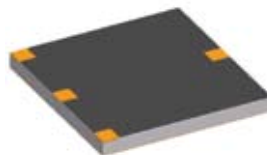
Product Benefits

- 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 mm x 10 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 | 3.88 dB | 6 dB |
| VSWR | < 2:1 | < 2:1 |
| Average Efficiency | 75 % | 74 % |
| Isolation | < -12 dB | < -16 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 mm x 10 mm x 0.9 mm | |

Measures from the evaluation board (105 mm x 47.5 mm x 1 mm PCB)

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



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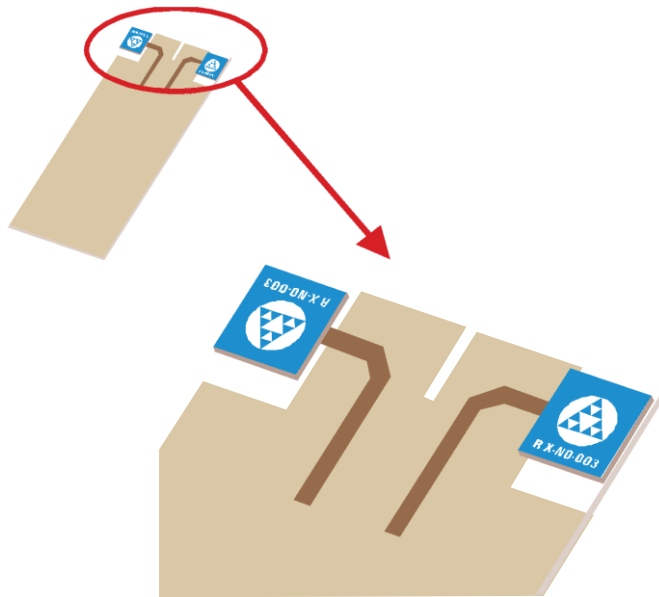
High performance chip antenna for Cardbus32



Fractus® Dual-bandReach Xtend™ Chip Antenna

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

Antenna design optimised for several PCB configurations
Configuration fit within a 20 mm space on in the top part of a Cardbus32 PCB



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

Second Generation Product

■ Flexible design

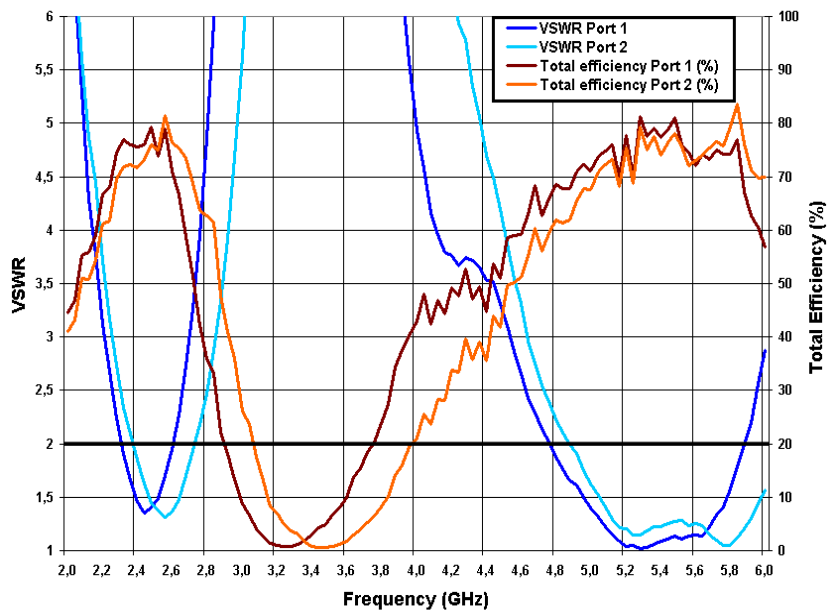
Several standard PCB configurations (clearances, locations & tolerances) are available providing robust performance.

■ 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.



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