FRACTUSANTENNAS

Dual-band Reach Xtend[™] (FR05-S1-NO-1-003)

WLAN (2.4 – 2.5 GHz and 4.9 – 5.875 GHz

Fractus Antennas specializes in enabling effective mobile communications. Using Fractus technology, we design and manufacture optimized 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.

The Dual-band Reach XtendTM 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. Dual-band Reach Xtend[™] antenna is built on glass epoxy substrate. Taking advantage of both spatial and polarization 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** Optimizes device usage due to a uniform radiation pattern.
- Multiband behavior 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)



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

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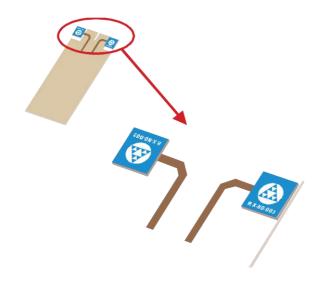
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| Technical Features | 802.11 b/g | 802.11a | |
|------------------------|----------------------------|-----------------|--|
| Frequency Range | 2.4 – 2.5 GHz | 4.9 – 5.875 GHz | |
| Peak Gain | 3.9 dBi | 6.0 dBi | |
| VSWR | < 2:1 | < 2:1 | |
| Average 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)

Antenna design optimized 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 polarization

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

• Easy-to-use

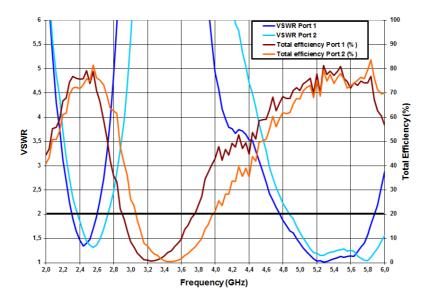
Takes into account standard plastic housing used in Cardbus32 devices.

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



See pictures of the evaluation boards and graphs of the specs in the User Manual.

For additional information, please visit www.fractusantennas.com or contact info@fractusantennas.com.