fractus
Optimised Antennas
for Wireless Devices

DATA SHEET · SHORT-RANGE WIRELESS

Small SMD chip antenna for headset, compact flash, secure digital and small PCB 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® Compact Reach Xtend™ Chip Antenna

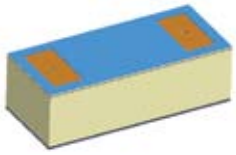
P/N: FR05-S1-N-0-102

The **Fractus Compact Reach Xtend Chip Antenna** for Bluetooth® and 802.11 b/g WLAN is a tiny rectangular 3D-shaped antenna suitable for headset, compact flash (CF), secure digital (SD) and other small PCB devices operating at 2.4 GHz where high performance and low-cost are mandatory. Its broad bandwidth ensures high quality signal reception and transmission across wireless devices and different plastic housing designs.

Taking advantage of the space-filling properties of fractals, this **small monopole** antenna is ideal for use within indoor (highly scattered) environments. The **Fractus Compact Reach Xtend Chip Antenna** speeds your time to market by allowing you to easily integrate it within your industrial design (SMD mounting).

7 x 3 x 2 mm (image larger than actual size)

Front



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Patent Pending: WO0154225, US11/154,843

Product Benefits

Small form factor

Allows integration into space limited areas easily and efficiently with minimum clearance area.

Broad bandwidth

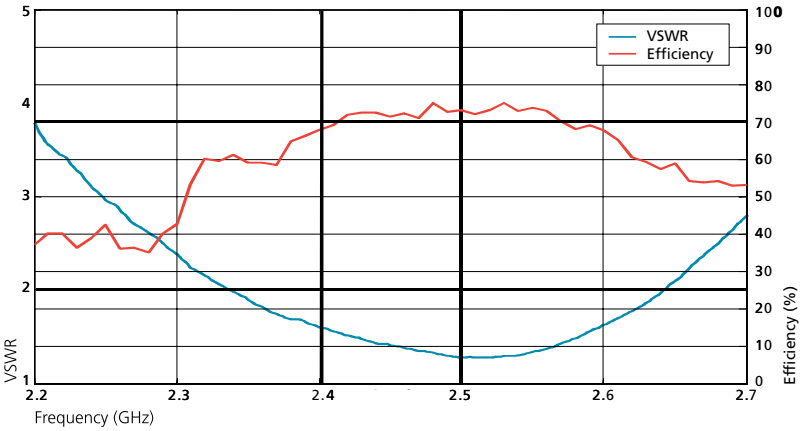
Ensures robust performance when considering different plastic housing and close body proximity.

Omnidirectional pattern

Optimises device usage due to a uniform radiation pattern.

Multi-mode support

Works for Bluetooth, and Wi-Fi 802.11b and g standards.



Frequency Range	2.4 - 2.5 GHz
Efficiency	> 70 %
Peak Gain	> 1 dBi
VSWR	< 2:1
Weight	0.20 g
Temperature	-40 to +85 °C
Impedance	50 Ω unbalanced
Dimensions	7 x 3 x 2 mm

Measured results from a standard PCB of 47x23 mm

Please contact your sales representative at Richardson Electronics to obtain additional information on recommended configurations for different UWB devices.
Richardson Electronics: **www.rell.com** Fractus: **wireless@fractus.com** Reference: **DS_FR05-S1-N-0-102_v01**