



fractus

The Technology of Nature®

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.

Small SMD chip antenna for small high performance wireless headset devices

Fractus® Slim Reach Xtend™ Bluetooth® Chip Antenna

P/N: FR05-S1-N-0-104

The **Fractus Slim Reach Xtend Bluetooth Chip Antenna** for wireless headsets is a tiny rectangular 3D-shaped antenna suitable for small headset devices operating at 2.4 GHz where high performance, low-cost and reduced form factor are mandatory. Its broad bandwidth ensures high quality signal reception and transmission across wireless devices, different plastic housing designs and multiple user wearing.

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

Bluetooth®



Front view



Bottom view

7 x 3 x 1 mm

Patent Pending: WO0154225, WO0122528, PCT/EP01/10589, PCT/EP02/07837, US60/613394, US60/627653 and PCT/EP02/07836 ©FRACTUS S.A. 2005

Frequency range	2400-2500 MHz*
Efficiency	> 50 %
Peak Gain	> 0 dBi
VSWR	< 2:1
Weight	0.20 g
Temperature	-40 to + 85 °C
Impedance	50 Ω Unbalanced
Dimensions	7 x 3 x 1 mm

(*) Results measured in a reference evaluation board of 40x20 mm with conventional plastic housing and mounted on the user's ear.

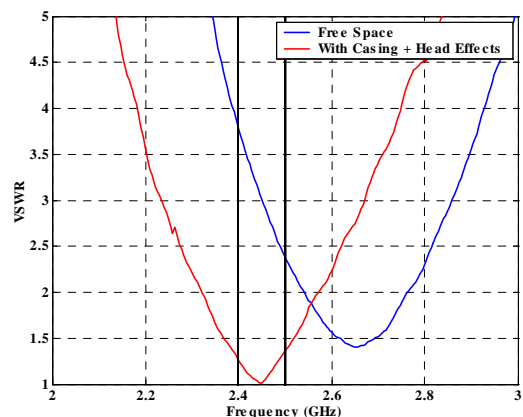
Product Benefits

- **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.
- **High performance:** Increases signal quality and device range due to a superior radiation efficiency.
- **Omnidirectional pattern:** Optimises device usage due to a uniform radiation pattern.

Please, contact your sales representative at Richardson Electronics to get additional information on recommended configurations for different devices:

RICHARDSON ELECTRONICS www.rell.com
FRACTUS wireless@fractus.com

Measured results from a standard PCB of 40x20 mm



Ref: DS_FR05-S1-N-0-104_v01

Information contained within this document is subject to change without prior notice