

Slim Reach Xtend™ (NN01-104)

Bluetooth®, Zigbee®, 802.11 b/g/n WLAN (2.4 – 2.5 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 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. The Slim Reach Xtend™ antenna is built on glass epoxy substrate. Its broad bandwidth ensures high quality signal reception and transmission across wireless devices and different plastic housing regardless of how a user positions the device.

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

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**
Optimizes device usage due to a uniform radiation pattern.

7.0 mm x 3.0 mm x 0.9 mm (image larger than real size)

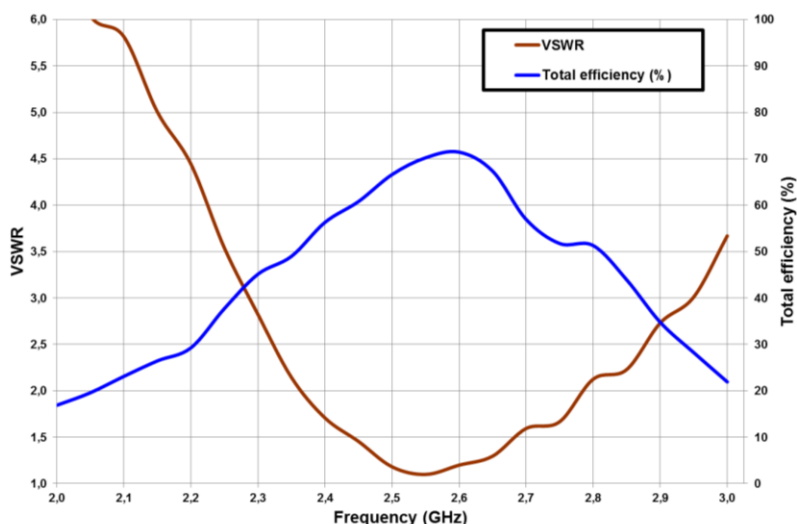


PAT US 7,148,850, US 7,202,822

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



Technical Features	
Frequency range	2.4 GHz – 2.5 GHz
Average Efficiency	61.0 %
Peak Gain	1.1 dBi
Radiation Pattern	Omnidirectional
VSWR	< 2:1
Polarization	Linear
Weight (approx.)	0.04 g
Temperature	-40 to + 125°C
Impedance	50 Ω
Dimensions (L x W x H)	7.0 mm x 3.0 mm x 0.9 mm

Measures from the evaluation board (40.0 mm x 20.0 mm x 1.0 mm)

See pictures of the evaluation boards, matching network configuration and graphs of the specs in the [user manual](#).

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

If you need assistance to design your matching network, please contact support@fractusantennas.com, or try our free-of-charge¹ **NN Wireless Fast-Track** design service, you will get your chip antenna design including a custom matching network for your device in 24h¹. Other related to NN's range of R&D services is available at: <https://www.fractusantennas.com/rdservices/>.

¹ See terms and conditions for a free NN Wireless Fast-Track service in 24h at: <https://www.fractusantennas.com/fast-track-project/>