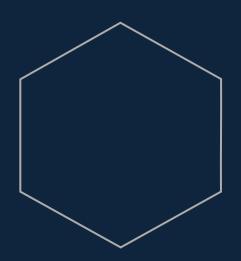# RAJANT Case Study

Radio Transceiver
Modules

Partnership

- [Rajant Corporation](#), a broadband communications technology company that invented patented [Kinetic Mesh® networking, BreadCrumb® wireless nodes, and InstaMesh® networking software](#), partnered with Vizmonet for the development of miniPCI and miniPCIe (miniPCI express) Radio Modules

- Vizmonet was entrusted with the design , development & Product life-cycle management of various miniPCI and miniPCie Modules

Kinetic Mesh® networking, BreadCrumb®, and InstaMesh® are registered trademarks of Rajant Corporation

Case Study

ViZMO
FREEDOM FROM WIRES

Product Requirements

Custom Heatsink Design

Best-in-Class RX Sensitivity & Interference Resilience

FCC/IC/CE Regulatory Approvals

miniPCI and miniPCie Form factor

TX Power of 29 dBm

Frequency options covering 900 MHz, 4.9 GHz, UNII B1,B2A,B2C & B3 Bands

2x2 MIMO IEEE 802.11a/b/g/n

-40 deg C to +85 Deg C operating Temperature

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The Design

- Vizmonet led the hardware design effort, including circuit design and custom heatsink development, while continuously incorporating Rajant's feedback from testing and validation.

- Vizmonet was acting as Satellite R&D center for Rajant and managed the complete product life-cycle.

- Vizmonet team worked very closely with Rajant development team during product design, characterization and validation phases, continuously improvising the design to meet the demanding and stringent Rajant Quality requirements.

- Vizmonet team worked with regulatory Labs to get the product approved for FCC/IC/CE and other geography specific homologation.

Case Study

The Solution

- FCC/IC/CE Approved modules offered ease of integration in Rajant BreadCrumb® devices
- Best-in-Class TX/RX performance
- Operating frequency combinations covering 900 MHz, 4.9 GHz, UNII-B1,B2A,B2C & B3 Bands
- -40 deg C to +85 deg C Operating temperature
- 24x7x365 High Availability
- FCC/IC/CE Regulatory Approvals.

Case Study

End Results

- Vizmonet' Partnership adds value to OEM customers' offerings

- miniPCI & miniPCIe Modules designed by Vizmonet helped to take away several man months of development cycles in Rajant product development, thereby reducing time-to-market

- The projects have helped Rajant to expand into new markets

- The projects were a huge success for Rajant and their customers

- As of now, thousands of transceiver modules have been manufactured, shipped and deployed successfully across the globe.

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Why Vizmonet?

WIRELESS DESIGN EXPERTISE

- With over 90 years of combined Wireless product development experience and in-depth understanding of wireless eco-system

- Continuous Innovation

ZERO-DEFECT QUALITY POLICY

- We aspire to achieve zero-defect as part of our Quality commitment.

- Continuous Process improvements by leveraging on home-grown Test, Process and Operation Automation Tools

BRAND PROMISE

- VIZMONET as a brand helps your brand grow.

- Business well knitted with Integrity as the core Value

- Our products are complimentary to Customers and not competing in the same market space.

Case Study

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Thank you

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