



#### Product Group: Vishay Vitramon, MLCCs/ May 2012

Author: Daniel Fraimorice Tel: +972-4-644-7885 E-mail: Daniel.Fraimorice@vishay.com

# New 868 MHz and 915 MHz Surface-Mount Multilayer Ceramic Chip Antennas

# **Product Benefits:**

- Designed for the reception and transmission of digital signals at frequencies of 868 MHz and 915 MHz
- Small form factors of 35 mm x 5 mm x 1.2 mm and 15.5 mm x 10.5 mm x 1.2 mm
- Comply with the MBRAI standard
- 50 Ω unbalanced tuning interfaces
- Wide operating temperature ranges from 40 °C to + 85 °C
- RoHS compliant
- Halogen-free per IEC 61249-2-21

## **Market Applications:**



• Medical telemetry and instrumentation, industrial automation, security and home automation systems, gas and water meters, remote sensing and control, and long-range RFID

## The News:

# Vishay Intertechnology Introduces Four New Small-Form-Factor, Surface-Mount Multilayer Ceramic Chip Antennas for Operation at 868 MHz and 915 MHz

Vishay Intertechnology, Inc. (NYSE: VSH) expands its line of ceramic chip antennas with four new small-formfactor, high-performance MLCC devices designed for the reception and transmission of digital signals at frequencies of 868 MHz and 915 MHz.

- Utilize Vishay's unique materials and manufacturing technologies
- Comply with the MBRAI standard for portable communication while maintaining small outlines
- Eliminate the need for large external wipe antennas
- Manufactured in noble metal electrode technology (NME) with a wet build process
- Offer a high-reliability, ceramic-oxide body construction
- Designed to be assembled onto a PC board using a standard reflow process





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#### Key Device Specifications:

Part #	Operation frequency (MHz)	Size (mm)	Half-power tuned bandwidth (MHz)	Frequency range (MHz)
VJ5301M868MXBSR	868	35 x 5 x 1.2	100	820 to 920
VJ5601M868MXBSR	868	15.5 x 10.5 x 1.2	140	800 to 940
VJ5301M915MXBSR	915	35 x 5 x 1.2	160	835 to 995
VJ5601M915MXBSR	915	15.5 x 10.5 x 1.2	160	835 to 995

#### The Perspective:

Designed for the reception and transmission of digital signals at frequencies of 868 MHz and 915 MHz, the new VJ5301M868MXBSR, VJ5301M915MXBSR, VJ5601M868MXBSR, and VJ5601M915MXBSR surface-mount multi-layer ceramic chip antennas utilize Vishay's unique materials and manufacturing technologies to comply with the MBRAI standard while maintaining very small outlines. For medical, industrial, security, and RFID applications, the Vitramon devices lower costs by eliminating the need for large external wipe antennas.

**Availability:** Samples and production quantities of the new chip antennas are available now, with a lead time of nine weeks for larger orders.

To access the product datasheets on the Vishay Web site, go to <u>http://www.vishay.com/doc?45206</u> (VJ5301M868MXBSR) <u>http://www.vishay.com/doc?45207</u> (VJ5301M915MXBSR) <u>http://www.vishay.com/doc?45209</u> (VJ5601M868MXBSR) <u>http://www.vishay.com/doc?45208</u> (VJ5601M915MXBSR)

#### **Contact Information:**

#### THE AMERICAS

#### EUROPE

Brian Ward Brian.Ward@vishay.com Daniel Fraimorice Daniel.Fraimorice@vishay.com ASIA/PACIFIC

SongHee Lau Songhee.Lau@vishay.com