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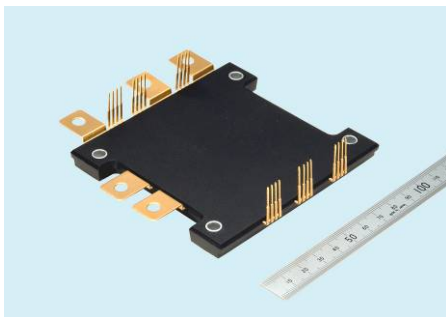
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## **Mitsubishi Electric to Release Sample J1-Series Power Modules**

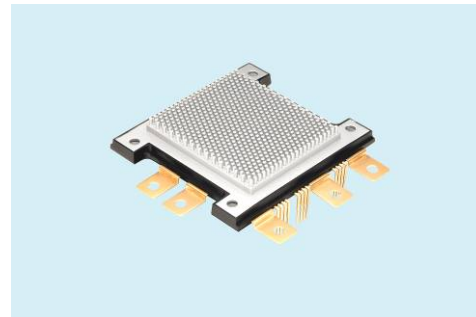
*New compact-package power modules for electric and hybrid vehicles*

**Tokyo, May 13, 2013** – Mitsubishi Electric Corporation (TOKYO: 6503) announced today its new J1-Series power modules featuring a compact 6-in-1 package mainly for use in electric and hybrid vehicles. Sample shipments of two J1-Series modules will start on September 30.

J1-Series power module samples will be exhibited at Power Conversion Intelligent Motion Europe 2013, which will be held in Nuremberg, Germany from May 14 to 16.



Top side



Bottom side

J1-Series power modules

(Above package may be changed without notice)

Power modules for automobiles must deliver higher reliability than industrial-use modules due to the extremely high standards for vehicle safety. Mitsubishi Electric pioneered the mass production of power modules for hybrid vehicles in 1997, and since then the demand for these modules has grown in parallel with the expanding global market for electric and hybrid vehicles. The new J1-Series power modules feature compact package with small footprint, low power loss and high reliability for use in the inverters of electric and hybrid vehicles. Mass production is expected to begin in 2015.

## **Sample Products**

Series	Model	Specifications	Saturation Voltage (Typ, Ic=Ratings, Tj=25°C)	Start of Sample Shipments
J1-Series	CT600CJ1A060	650V/600A (6-in-1 package)	1.4V	Sep. 30, 2013
	CT400CJ1A090	900V/400A (6-in-1 package)	1.7V	

## **Features of Sample Products**

### ***1) Extra-compact package for automotive inverters***

- 6-in-1 package design shrinks inverter footprint to about 80% of three 2-in-1 J-Series T-PM (CT600DJH060) design.

### ***2) Low power loss and high reliability for automotive motors***

- 6<sup>th</sup> Generation CSTBT™ chip technology enables collector-emitter saturation voltage to be reduced by about 15% compared to 2-in-1 J-Series T-PM (CT600DJH060) chips.
- Direct cooling package with cooling fin improves heat radiation by about 40% compared to 2-in-1 J-Series T-PM (CT600DJH060) mounting power modules on Al fin by way of thermal grease.

## **Environmental awareness**

J1-Series power modules are compliant with the European Restriction of the use of certain Hazardous Substances in electrical and electronic equipment (RoHS).

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## **About Mitsubishi Electric Corporation**

With over 90 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation (TOKYO: 6503) is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. Embracing the spirit of its corporate statement, Changes for the Better, and its environmental statement, Eco Changes, Mitsubishi Electric endeavors to be a global, leading green company, enriching society with technology. The company recorded consolidated group sales of 3,567.1 billion yen (US\$ 37.9 billion\*) in the fiscal year ended March 31, 2013. For more information visit <http://www.MitsubishiElectric.com>

\*At an exchange rate of 94 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2013

*CSTBT is registered trademark of Mitsubishi Electric*