

May 27, 2016

## Panasonic Develops Two Types of Connectors for Connecting In-vehicle LED Lamp Modules to Boards



Board to FPC Connector  
(CF1)

Board to Wire Connector  
(CW1)

(May 2016, Panasonic)

Panasonic will start delivering samples of its new "Board to FPC" and "Board to Wire" connectors in June 2016.

**Osaka, Japan** - Panasonic Corporation announced today that it has developed two types of connectors for connecting in-vehicle LED lamp modules to control boards. These connectors allow for greater freedom and refinement in designing in-vehicle LED lighting. One of these is a "Board to FPC (Flexible printed circuit) Connector", the first of its kind in the industry<sup>1</sup> that is suitable for cable connection to daytime running lights (DRLs), which are kept switched on during the daytime, and in rear lamps. The other is a "Board to Wire Connector", the lowest-profile connector in the industry<sup>2</sup> that is suitable for LED headlamp modules.

These new products have the following features:

### <Board to FPC Connector>

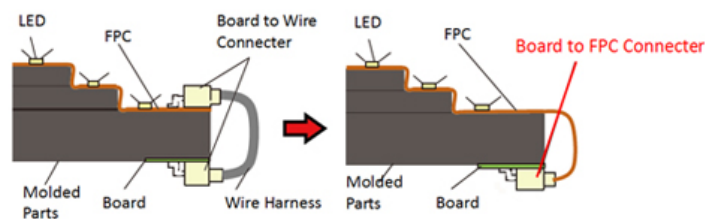
1. This connector has a metal terminal connection structure that eliminates the need for FPC contacts for the first time in the industry\*1, realizing direct connection between the LED-chip-mounted FPC and the control power board. It requires no relay harness, allowing the use of fewer components and fewer man-hours.
2. The connector's double-clip structure (clip metal contact structure) ensures its resistance to vibration and temperatures up to 125°C, both extremely desirable properties for headlamps.
3. The connector's inertial lock structure prevents incomplete engagement, thereby offering improved workability.

[applications]



[Conventional]

[Development]



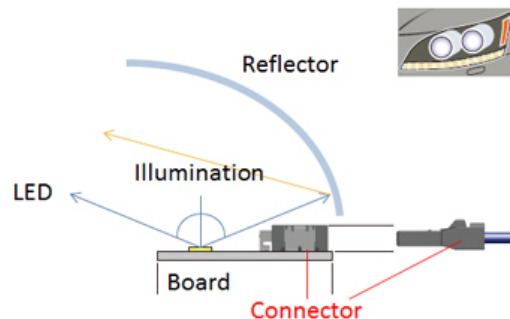
### <Board to Wire Connector>

1. This connector has an in-house-developed terminal shape that gives the connector a height of only 3.4 mm, the lowest profile of any connector in the industry\*2. This low profile connector exerts a minimal effect on the lighting angle of the LED, enabling smaller and low profile LED lamp modules to be easily manufactured.
2. The connector's unique LED headlamp terminal structure gives it vital vibration resistance as well as heat resistance up to 125°C.
3. The connector is equipped with a lock failure prevention guard that eliminates any failure in locking action, offering improved workability.

\*1:On May 27, 2016, it was developed as a two-piece type board to FPC connector (according to research by Panasonic).

\*2:On May 27, 2016, it was developed as a connector for in-vehicle LED lamp modules (according to research by Panasonic).

[applications]



Remarks:

The products will be exhibited at the JPCA Show 2016 held at Tokyo Big Sight from June 1 to 3 this year.

## About Panasonic

Panasonic Corporation is a worldwide leader in the development of diverse electronics technologies and solutions for customers in the consumer electronics, housing, automotive, enterprise solutions and device industries. Since its founding in 1918, the company has expanded globally and now operates 474 subsidiaries and 94 associated companies worldwide, recording consolidated net sales of 7.553 trillion yen for the year ended March 31, 2016. Committed to pursuing new value through innovation across divisional lines, the company uses its technologies to create a better life and a better world for its customers. To learn more about Panasonic:

<http://www.panasonic.com/global>.

### Media Contacts:

#### Public Relations Department

Panasonic Corporation

Tel: +81-(0)3-3574-5664 Fax: +81-(0)3-3574-5699

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