

Product-related Environmental Response

Semiconductors

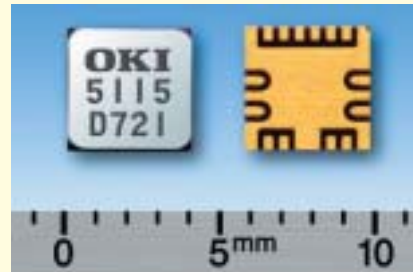
Our varied lineup of electronic devices includes display driver LSIs, P2ROM/OTP, communications LSIs, DRAM, Speech & Audio, micro controllers, real-time clock, ASICs and others as well as GaAsICs (optical communications ICs, high frequency devices) and fiber-optic devices (LD modules, PD modules, EA modulator modules, etc.) as optical components. In the field of devices for personal and mobile equipment, we develop products offering high environmental performance such as resource and power conservation.

KGL5115KD

The "KGL5115KD" is an EML*¹ driver IC for 10 Gbps optical communication operating at a power supply voltage of +3.3V. With 0.45W at 2.3 Vpp amplitude, the product realizes the world's lowest power consumption while including a compact package with one of the smallest footprints in the world. In compact pluggable modules for 10 Gbps optical communication, such as XFP / SFP+*², this enables high quality optical wave patterns as well as cuts in size and power consumption.

While maintaining the high-quality wave pattern characteristics of the OKI driver ICs using GaAs PHEMT*³, we optimized the design of the output circuits with high power consumption and succeeded in cutting power consumption by about 25% compared to ordinary OKI products. The product further uses 4 x 4 mm small ceramic packages for miniaturization.

- * 1) EML (Electro-Absorption Modulated Laser):
An optical semiconductor element integrating an electro-absorption optical modulator and a laser diode as the light source
- * 2) XFP / SFP+:
A type of multi-source agreement for transceiver modules for 10 Gbps optical communication
- * 3) GaAs PHEMT:
A high-speed compound semiconductor device using a two-dimensional electron gas layer as a channel



<http://www.oki.com/en/press/2007/z06184e.html>

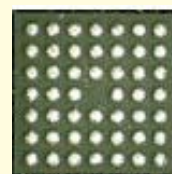
W-CSP

Waver Level CSP is the smallest package in the world supporting high performance and miniaturization as typically required in mobile equipment.

OKI developed this package on the basis of package technology developed for its own semiconductor devices. We offer foundry services for the latest packages, providing strong support to help our customers develop superior products.

< Ultra-small / Ultra-light >



- Realizes revolutionary small packages with only 10% of the mounting area and 10%* of the mass of conventional products



<Ultra-thin>

- Achieved 0.5 mm thickness (typ.) for LGA.
- Applications: semiconductor devices for mobile phones, PDA, DSC, cards and other compact and light-weight equipment
- Specifications: connection terminal material: eutectic crystal, Pb-free (Sn-Ag-Cu)
Connection terminal form: LGA, BGA

*) Compared with OKI 100-pin TQFP

QFP/WCSP Comparison	PKG Size (mm ²)	Mounting Area (mm ²)	Terminal Pitch (mm)	Weight (g)
100P-TQFP 	14×14	256	0.5	0.26
100P-W-CSP 	5×5	25	0.5	0.03

<http://www2.okisemi.com/site/productscatalog/wcsp/WaferLevelChip.html>