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**WLCSP4**  
CP SUFFIX  
CASE 567CS



**WLCSP6**  
CP SUFFIX  
CASE 567BB

**WLCSP10**  
CP SUFFIX  
CASE 567BG

±8 kV, meeting the Level 4 requirement of the IEC61000-4-2 international standard as well as ±15 kV air discharges per the IEC61000-4-2 specification. Using the MIL-STD-883 (Method 3015) specification for Human Body Model (HBM) ESD, the pins are protected for contact discharges at greater than ±15 kV.

This device is well-suited for next generation wireless handsets that implement high-speed serial interface solutions for the LCD display and camera interfaces. In these designs, a tolerance above 1.5 pF cannot be tolerated when high data rates are transferred between the baseband chip and the LCD driver/controller ICs. Higher capacitive loading normally causes the rise and fall times to slow which hampers the functionality of circuit and operation of the wireless handset. The CM1230 incorporates *OptiGuard™* which results in improved reliability at assembly. The CM1230 is available in a space-saving, low profile Chip Scale Package with RoHS-compliant, lead-free finishing.

#### Features

- Two, Four, and Eight Channels of ESD Protection
- Provides ESD Protection to IEC61000-4-2 Level 4 ±8 kV Contact Discharge & ±15 kV Air Discharge
- Low Loading Capacitance of 0.8 pF Typical
- Minimal Capacitance Change with Temperature and Voltage
- Channel I/O to GND Capacitance Difference of 0.02 pF Typical is Ideal for Differential Signals
- Channel I/O to I/O Capacitance 0.15 pF Typical
- Zener Diode Protects Supply Rail and Eliminates the Need for External By-pass Capacitors
- Each I/O Pin Can Withstand Over 1000 ESD Strikes\*
- Available in 4, 6 and 10 Bump Chip Scale Packages (CSP)
- *OptiGuard™* Coated for Improved Reliability at Assembly
- These Devices are Pb-Free and are RoHS Compliant

#### Applications

- I/O Port Protection for Mobile Handsets, Notebook Computers, DSCs, MP3 Players, PDAs, etc. Including USB, 1394 and Serial ATA
- LCD and Camera Data Lines in Wireless Handsets that use High-speed Serial Interfaces
- Handheld PCs/PDAs
- LCD and Camera Modules
- Wireless Handsets

#### MARKING DIAGRAM



CSP-4

CSP-6

CSP-10

Lxxx = Specific Device Code  
M = Date Code  
■ = Pb-Free Package  
(Note: Microdot may be in either location)

#### ORDERING INFORMATION

Device	Package	Shipping†
CM1230-02CP (Note 1)	CSP-4 (Pb-Free)	3,500/Tape & Reel
CM1230-J2CP (Note 1)	CSP-4 (Pb-Free)	3,500/Tape & Reel
CM1230-04CP	CSP-6 (Pb-Free)	3,500/Tape & Reel
CM1230-08CP	CSP-10 (Pb-Free)	3,500/Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification Brochure, BRD8011/D.

\*Standard

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**DISCONTIN**



