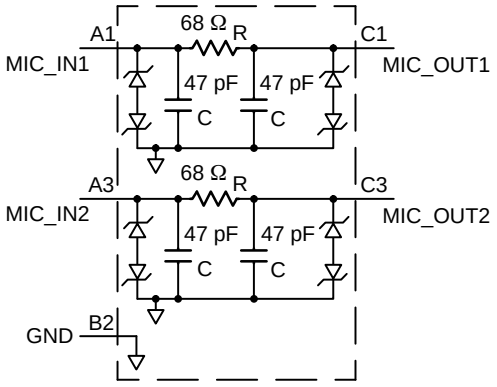
CM1412

2-Channel Head e / Mic o hone EMI Fil e A a i h ESD P o ec ion

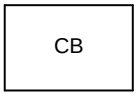
The CM1412 is a dual, low pass filter array integrating two pi style filters (C R C) that reduce EMI/RFI emissions while providing ESD protection. This part is custom designed to interface with a microphone port on a cellular telephone or similar device. Each high quality filter provides more than 35 dB attenuation in the 800 to 2700 MHz range. These pi style filters support bidirectional filtering that control EMI both to and from a microphone element. They also support AC signals, enabling audio signals to pass through without distortion.

In addition, the CM1412 provides a very high level of protection for sensitive electronic components that may be subjected to electrostatic discharge (ESD). The input pins safely dissipate ESD strikes of ±8 kV, the maximum requirement of the IEC 61000 4 2 international standard. Using the MIL STD 883 (Method 3015) specification for Human Body Model (HBM) ESD, the device provides protection for contact discharges to greater than ±15 kV.

The CM1412 is particularly well suited for portable electronics (e.g., cellular telephones, PDAs, notebook computers) because of its small package format and low weight. The CM1412 incorporates *OptiGuard*™ coating which results in improved reliability at assembly and is available in a space saving, low profile Chip Scale Package with lead free finishing.



- Functionally and Pin Compatible with ON Semiconductor's CSPEMI202A
- *OptiGuard*™ Coated for Improved Reliability at Assembly
- Two Channels of EMI Filtering
- Pi Style EMI Filters in a Capacitor Resistor Capacitor (C R C) Network
- Greater than 40 dB Attenuation at 1 GHz
- ±8 kV ESD Protection on Each Channel (IEC 61000 4 2 Level 4, Contact Discharge)
- ±15 kV ESD Protection on Each Channel (HBM)
- Supports AC Signals Ideal for Audio Applications
- Chip Scale Package Features Extremely Low Lead Inductance for Optimum Filter and ESD Performance
- 5 Bump, 0.930 mm X 1.410 mm Footprint Chip Scale Package (CSP)
- These Devices are Pb Free and are RoHS Compliant



CB = CM1412−03CP

		†
CM1412−03CP	WLCSP5 (Pb−Free)	3500/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.

- EMI Filtering and ESD Protection for Headset Microphone Ports
- Wireless Handsets
- Handheld PCs / PDAs
- MP3 Players
- Digital Camcorders
- Notebooks
- Desktop PCs

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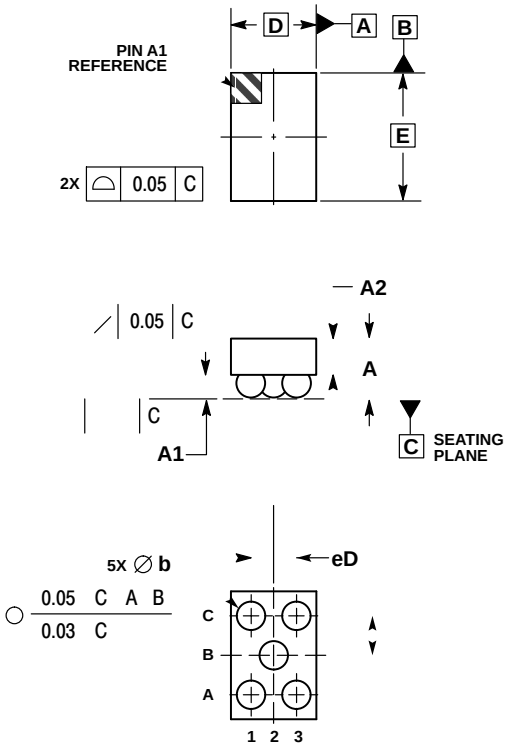
WLCSP5, 0.94x1.41
CASE 567AZ
ISSUE O

SCALE 4:1

DATE 26 JUL 2010



NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. COPLANARITY APPLIES TO SPHERICAL CROWNS OF SOLDER BALLS.

	MILLIMETERS	
DIM	MIN	MAX
A	0.56	0.72
A1	0.21	0.27
b	0.29	0.35
D	0.94 BSC	
E	1.41 BSC	
eD	0.50 BSC	
eE	0.435 BSC	

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