





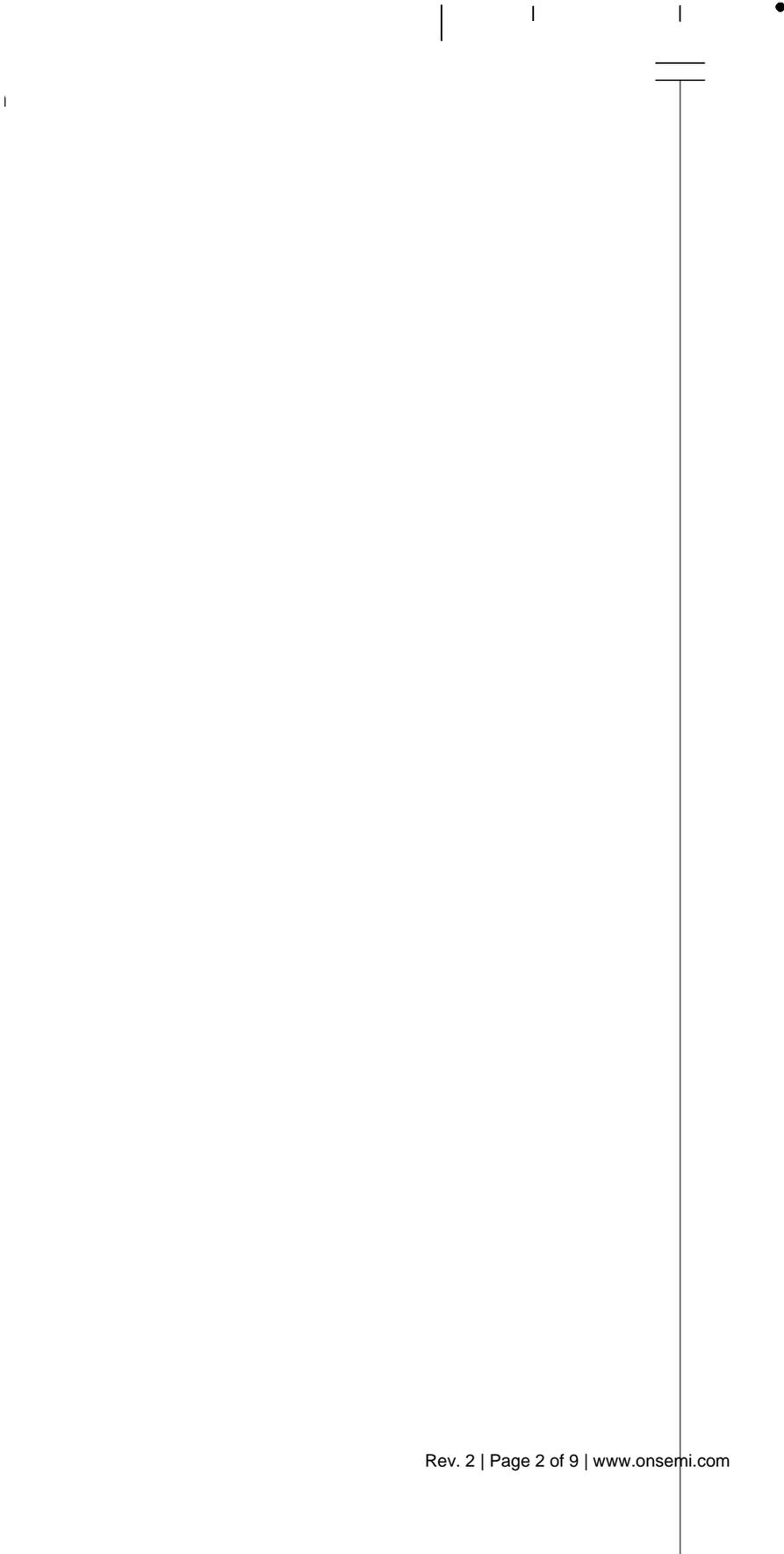
# Praetorian® 4-Channel EMI Filter Array with ESD Protection

CM1453-04CP

## Features

- Four channels of EMI filtering
- $\pm 15\text{kV}$  ESD protection  
(IEC 61000-4-2, contact discharge)
- $\pm 30\text{kV}$  ESD protection (HBM)
- Greater than -40dB of attenuation at 1GHz
- Chip Scale Package (CSP) with 0.40mm pitch and 0.25mm CSP solder ball which features extremely low parasitic inductance for optimum filter and ESD performance
- *OptiGuard*

Electrical Schematic







## Performance Information

Typical Filter Performance (nominal conditions unless specified otherwise, 50 Ohm Environment)



Figure 1. Insertion Loss VS. Frequency (CM1453-04: Filter 1)

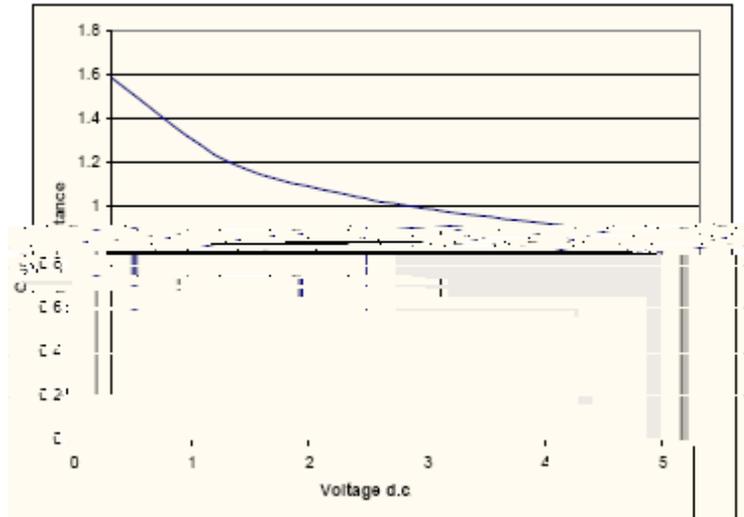


Figure 2. Insertion Loss VS. Frequency (CM1453-04: Filter 2)

**Performance Information (cont'd)**

Typical Filter Performance (nominal conditions)

**Performance Information (cont'd)**



**Figure 5. Typical Diode Capacitance vs. Input Voltage (normalized to 2.5V d.c)**

**Application Information**

Refer to Application Note AP-217, "The Chip Scale Package", for a detailed description of Chip Scale Packages offered by California Micro Devices. See <http://www.wlcsforum.org/documents/pdf/ap-217.pdf> for download.



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