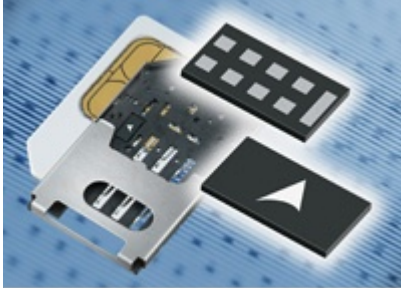


Products & Technologies



Ceramic components

November 2006

ESD/EMI modules for SIM card readers

EPCOS has developed a new ESD/EMI module that can be integrated directly into SIM card readers. It permits significant space saving compared to discrete solutions. Four Pi filters and four varistors are integrated in the module. This solution was implemented jointly with Lumberg, a leading manufacturer of SIM card readers for mobile phones.

The combined filter and surge-voltage protection function is applied to the V_{oc} , Rst, Clk and I/O ports. Its ESD protection meets the requirements of IEC 61000-4-2. The varistor voltage is 29 V. The leakage current of less than 5 nA has a positive impact on the operating life of the rechargeable batteries. An attenuation of more than 30 dB is attained in the frequency range from 900 MHz to 1000 MHz. The specification applies to a temperature range from -40 °C to +125 °C.