

## Packaged EMI Filter with ESD Protection Diode

**Features**

- Low pass EMI filters with excellent attenuation at high frequencies
- ESD protection at 15KV per IEC61000
- Offered in 4, 6 or 8 channels in small form-factor
- TDFN package with 0.5mm and 0.4mm pad pitch
- RoHS Compliant in Lead-Free Versions

**Applications**

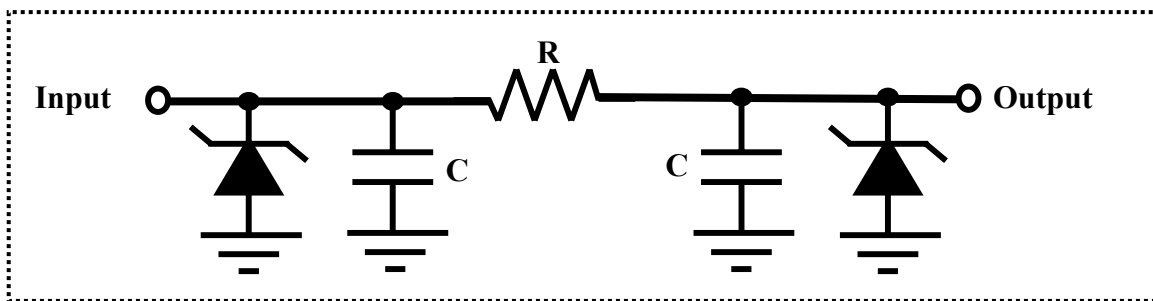
- Cellular Handsets
- PDA
- MP3 Players
- PC & Notebooks
- Smart Cards
- Digital Cameras

**Product Description**

The EMF1103 Array is a pi-style Capacitor-Resistor-Capacitor EMI/RFI Filter with integrated Diodes for electrostatic discharge (ESD) protection. Housed in miniature TDFN and UDFN Packages this product is available in 4, 6 & 8 channels filters. This device has a cut-off frequency of 110MHz and can be used in applications with data rates up to 80Mbps.

TDFN and UDFN packages come in 8-lead (4-channel), 12-lead (6-channel) and 16-lead (8-channel); and are available both in 0.4mm and 0.5mm pad pitch. The 0.4mm pitch package provides a 40% PCB space savings compared to the 0.5mm format.

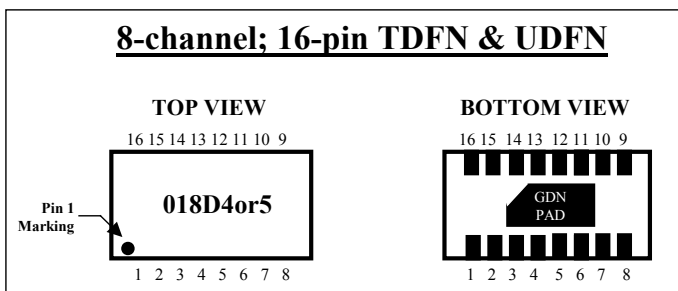
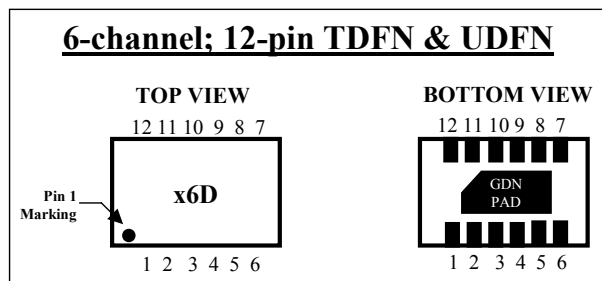
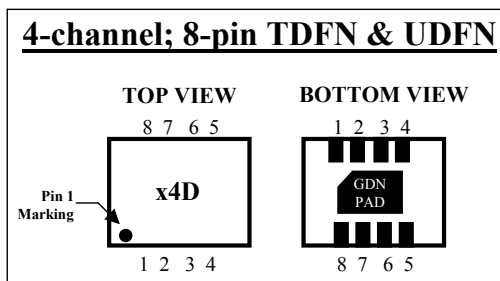
**Schematic for Each Line (4, 6 or 8 lines per device)**



PART NUMBER	RATED STAND-OFF VOLTAGE	MINIMUM BREAKDOWN VOLTAGE	MAXIMUM REVERSE LEAKAGE CURRENT	TYPICAL FORWARD VOLTAGE	MINIMUM ATTENUATION @ 800 to 3,000 MHz	CUT-OFF FREQUENCY 50-OHMS SOURCE & LOAD	RESISTANCE R +/-20%	CAPACITANCE C +/-20%
EMF1103-04	6 Volts	7 Volts	0.1 uA	0.8 Volts	-25dB	110 MHz	100-ohms	15-pF
EMF1103-06	6 Volts	7 Volts	0.1 uA	0.8 Volts	-25dB	110 MHz	100-ohms	15-pF
EMF1103-08	6 Volts	7 Volts	0.1 uA	0.8 Volts	-25dB	110 MHz	100-ohms	15-pF

OnChip Part Number	Pkg Type	C & R Values
EMF1103-04D4R	TDFN-8 (0.4mm)	15-pF / 100-ohms
EMF1103-04D5R	TDFN-8 (0.5mm)	15-pF / 100-ohms
EMF1103-04U4R	UDFN-8 (0.4mm)	15-pF / 100-ohms
EMF1103-04U5R	UDFN-8 (0.5mm)	15-pF / 100-ohms
EMF1103-06D4R	TDFN-12 (0.4mm)	15-pF / 100-ohms
EMF1103-06D5R	TDFN-12 (0.5mm)	15-pF / 100-ohms
EMF1103-06U4R	UDFN-12 (0.4mm)	15-pF / 100-ohms
EMF1103-06U5R	UDFN-12 (0.5mm)	15-pF / 100-ohms
EMF1103-08D4R	TDFN-16 (0.4mm)	15-pF / 100-ohms
EMF1103-08D5R	TDFN-16 (0.5mm)	15-pF / 100-ohms
EMF1103-08U4R	UDFN-16 (0.4mm)	15-pF / 100-ohms
EMF1103-08U5R	UDFN-16 (0.5mm)	15-pF / 100-ohms

**Number of Channels/Package Options**



**DEVICE CHARACTERISTICS**

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified		
PARAMETER	VALUE	UNITS
Operating Temperature	-40°C to 85°C	°C
Storage Temperature	-55°C to 150°C	°C
Soldering Temperature for 10 seconds	265	°C