



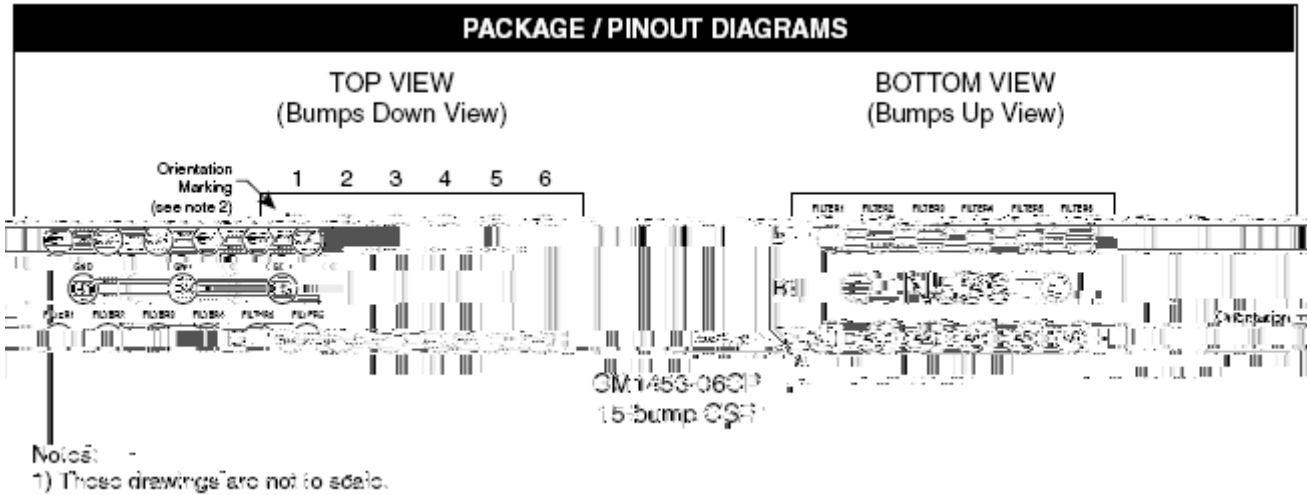
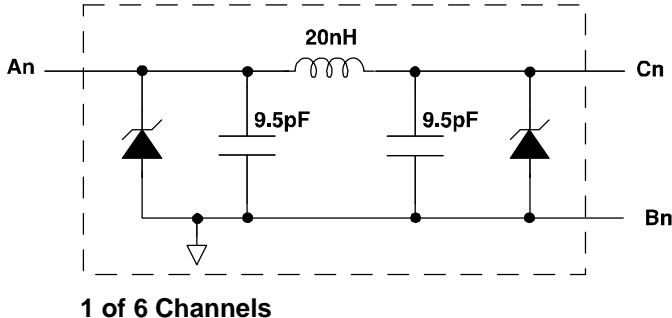
Praetorian® 6-Channel EMI Filter Array with ESD Protection

CM1453-06CP

Features

- Six 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



PIN DESCRIPTIONS							
PIN NUMBER		PIN DESCRIPTION		PIN NUMBER		PIN DESCRIPTION	
A1		Filter #1		C1		Filter #1	
A2		Filter #2		C2		Filter #2	
A3		Filter #3		C3		Filter #3	
A4		Filter #4		C4		Filter #4	
A5		Filter #5		C5		Filter #5	
A6		Filter #6		C6		Filter #6	
B1		GND				-	
B2		GND				-	
B3		GND				-	

CM1453-06CP

Ordering Information

PART NUMBERING INFORMATION			
Bumps	Package	Lead-free Finish	
		Ordering Part Number ¹	Part Marking
15	CSP	CM1453-06CP	N536

Note 1: Parts are shipped in Tape & Reel form unless otherwise specified.

Specifications

ABSOLUTE MAXIMUM RATINGS		
PARAMETER	RATING	UNITS
Storage Temperature Range	-65 to +150	°C
DC current per Inductor	30	mA
DC Package Power Rating	0.5	W

STANDARD OPERATING CONDITIONS		
PARAMETER	RATING	UNITS
Operating Temperature Range	-40 to +85	°C

ELECTRICAL OPERATING CHARACTERISTICS

CM1453-06CP

Performance Information (cont'd)

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

S₂₁ 1 log MAG 5 dB/ REF 0 dB 1: -0.8608 dB

Figure 3. Insertion Loss VS. Frequency (CM1453-06: Filter 3)

S₂₁ 1 log MAG 5 dB/ REF 0 dB 1: -0.8608 dB

Figure 4. Insertion Loss VS. Frequency (CM1453-06: Filter 4)

Performance Information (cont'd)

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

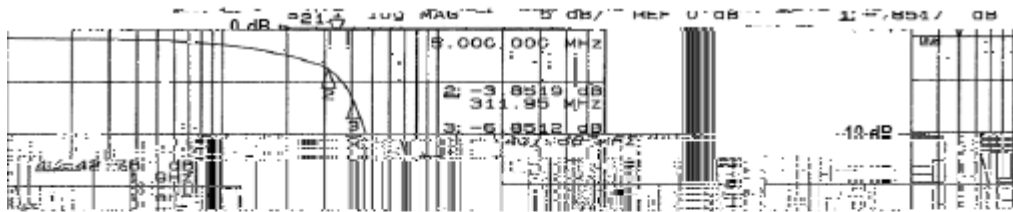


Figure 5. Insertion Loss VS. Frequency (CM1453-06: CSP1 – Filter 5)

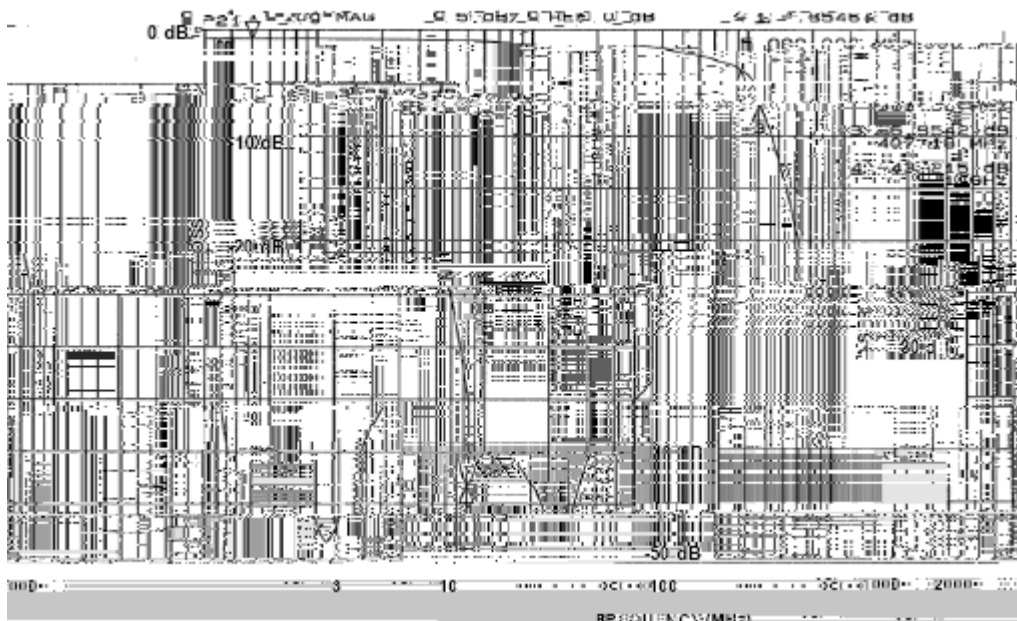


Figure 6. Insertion Loss VS. Frequency (CM1453-06: CSP1 – Filter 6)

Performance Information (cont'd)

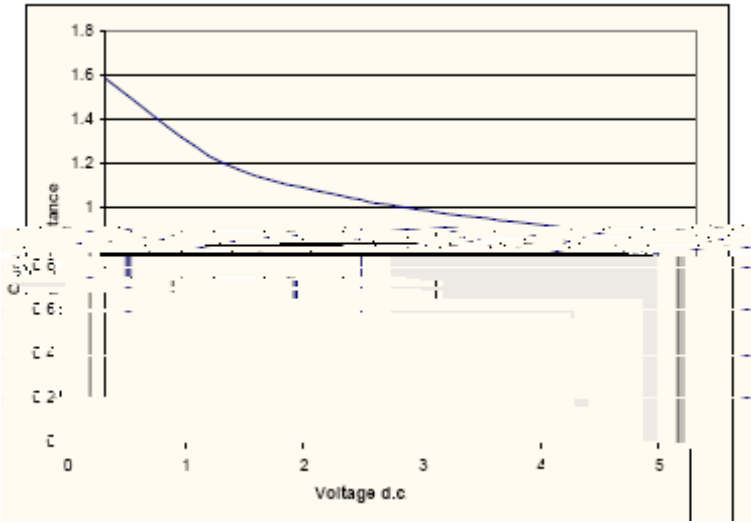


Figure 7. Typical Diode Capacitance vs. Input Voltage (normalized to 2.5V d.c)

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.

CSP Tape and Reel Specifications

PART NUMBER	CHIP SIZE (mm)	POCKET SIZE (mm) B ₀ X A ₀ X K ₀	TAPE WIDTH W	REEL DIAMETER	QTY PER REEL	P ₀	P ₁
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