Chip Scale Parallel Termination Array

Features

- 8,16 or 32 integrated high frequency bussed terminations
- Ultra small footprint Chip Scale Package
- Ceramic substrate
- 0.35mm Eutectic Solder Bumps, 0.65mm pitch

Applications

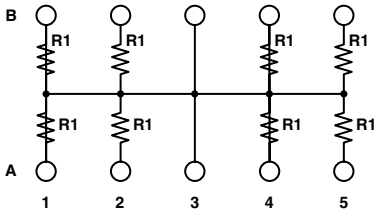
- Parallel resistive bus termination
- Bussed resistor array

Product Description

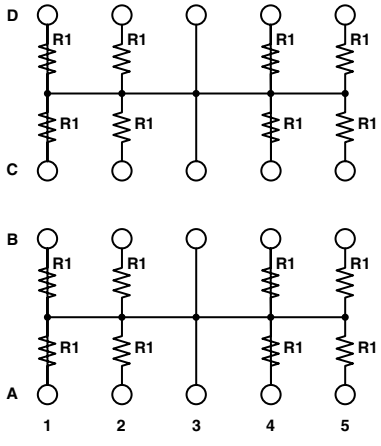
The CSPPT is a high performance Integrated Passive Device (IPD) which provides parallel terminations suitable for use in high speed bus applications. Eight (8), sixteen (16), or thirty-two (32) parallel termination versions are provided. These resistors provide excellent high frequency performance in excess of 3GHz and are manufactured to an absolute tolerance as low as ±1%.

The Chip Scale Package provides an ultra small footprint for this IPD and provides minimal parasitics compared to conventional packaging. Typical bump inductance is less than 25pH. The large solder bumps and ceramic substrate allow for standard attachment to laminate printed circuit boards without the use of underfill.

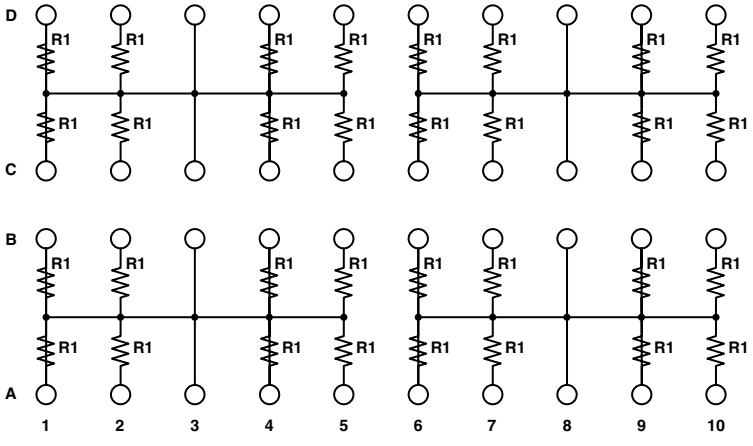
SCHEMATIC DIAGRAMS



CSPPT08



CSPPT16

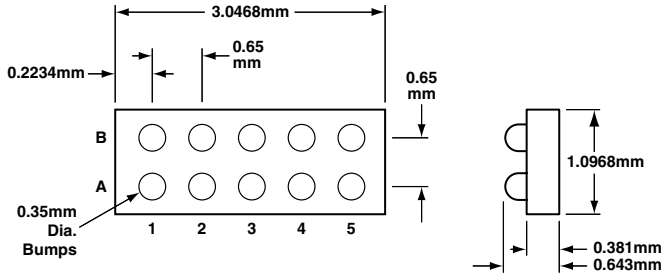


CSPPT32

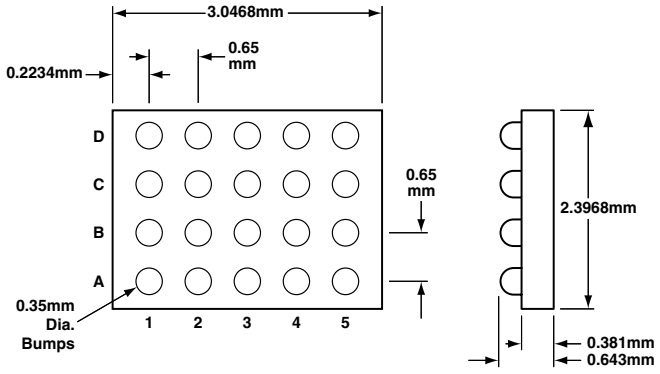
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STANDARD VALUES	
Resistor Value	R1 = 47Ω, 50Ω, 56Ω, 68Ω, 90Ω, 100Ω,
Absolute Tolerance R	±1%, ±5%
TCR of Resistors	±100ppm
Power Rating/Resistor	100mW
Operating Temperature Range	–40°C to 85°C

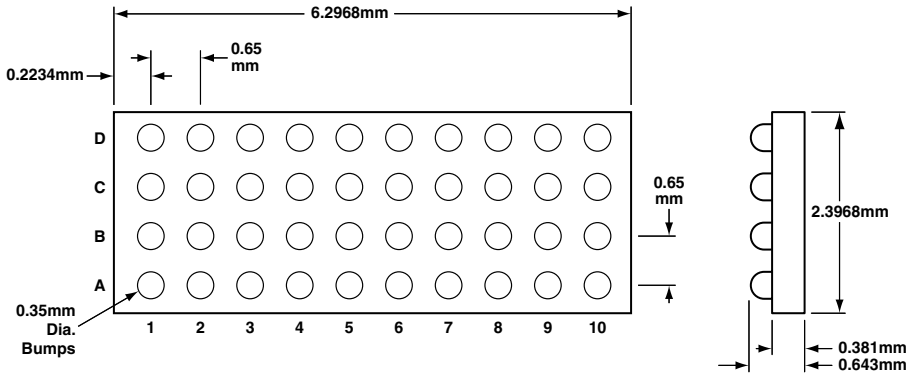
Package Diagram (Bumps Up View)



CSPPT08



CSPPT16

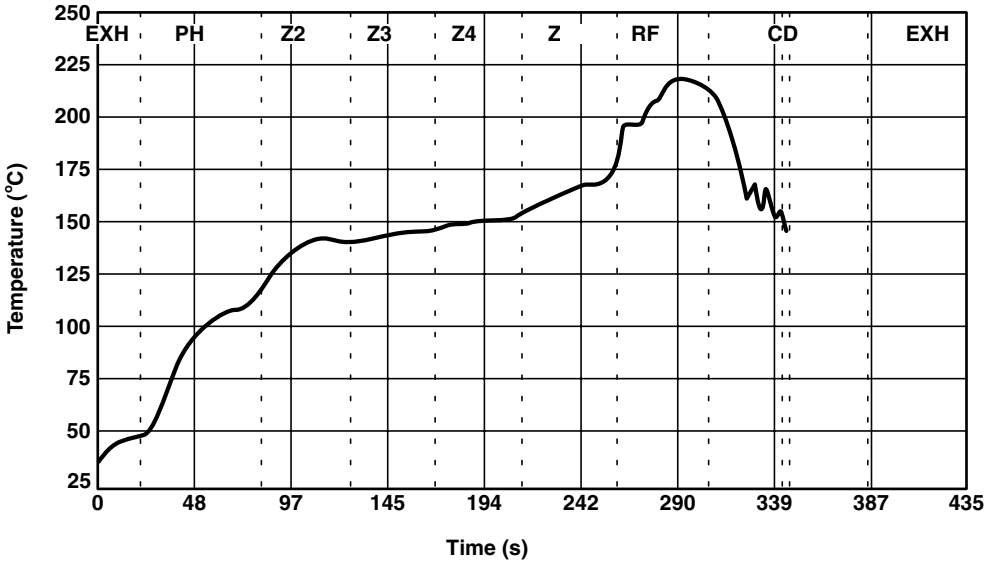


CSPPT32

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PRINTED CIRCUIT BOARD RECOMMENDATIONS	
Pad Size on PCB	0.300mm
Pad Shape	Round
Pad Definition	Non Solder Mask Defined Pads (NSMD)
Solder Mask Opening	0.350mm
Solder Stencil Thickness	0.152mm
Solder Stencil Aperture Opening	0.360mm (sq.)
Solder Flux Ratio	50/50
Solder Paste	No Clean
Bond Trace Finish	OSP (Entek Cu Plus 106A)

Typical Solder Reflow Thermal Profile (No Clean Flux)



PART NUMBER KEY

CSP PT YY XXX T

PACKAGE TYPE	APPLICATION	Number of Terminations	Resistor Value Code	Tolerance
CSP = Chip Scale Package	Parallel Termination	08 = 8 16 = 16 32 = 32	R1 Value First 2 digits are significant value. 3rd digit represents number of zeros	F = ±1% J = ±5%

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STANDARD PART ORDERING INFORMATION			
Package		Ordering Part Number	
Style	Terminations	Tape & Reel	Part Marking
Chip Scale	8	CSPPT08-470F	None
Chip Scale	8	CSPPT08-470J	None
Chip Scale	8	CSPPT08-500F	None
Chip Scale	8	CSPPT08-500J	None
Chip Scale	8	CSPPT08-560F	None
Chip Scale	8	CSPPT08-560J	None
Chip Scale	8	CSPPT08-680F	None
Chip Scale	8	CSPPT08-680J	None
Chip Scale	8	CSPPT08-900F	None
Chip Scale	8	CSPPT08-900J	None
Chip Scale	8	CSPPT08-101F	None
Chip Scale	8	CSPPT08-101J	None
Chip Scale	16	CSPPT16-470F	None
Chip Scale	16	CSPPT16-470J	None
Chip Scale	16	CSPPT16-500F	None
Chip Scale	16	CSPPT16-500J	None
Chip Scale	16	CSPPT16-560F	None
Chip Scale	16	CSPPT16-560J	None
Chip Scale	16	CSPPT16-680F	None
Chip Scale	16	CSPPT16-680J	None
Chip Scale	16	CSPPT16-900F	None
Chip Scale	16	CSPPT16-900J	None
Chip Scale	16	CSPPT16-101F	None
Chip Scale	16	CSPPT16-101J	None
Chip Scale	32	CSPPT32-470F	None
Chip Scale	32	CSPPT32-470J	None
Chip Scale	32	CSPPT32-500F	None
Chip Scale	32	CSPPT32-500J	None
Chip Scale	32	CSPPT32-560F	None
Chip Scale	32	CSPPT32-560J	None
Chip Scale	32	CSPPT32-680F	None
Chip Scale	32	CSPPT32-680J	None
Chip Scale	32	CSPPT32-900F	None
Chip Scale	32	CSPPT32-900J	None
Chip Scale	32	CSPPT32-101F	None
Chip Scale	32	CSPPT32-101J	None

PACKAGE		NON-STANDARD PART ORDERING INFORMATION	
Part Series	Terminations	Value Code: R1 (XXX)	Tolerance
Example (CSPPT)	*(8)*	*(201)*	*(J)*
CSPPT	8	First 2 digits are significant value. Third digit represents number of zeros to follow	F = ±1% J = ±5%
CSPPT	16		
CSPPT	32		

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