cmrsummit
TECHNOLOGIES

PRODUCT CAPABILITIES

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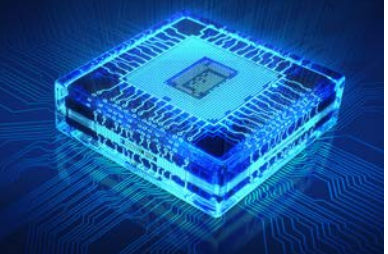
BOARD CONSTRUCTION	PRESENT Standard Capability	PRESENT Special Capability
Panel size	12″ x 18″ & 18″ x 24″ 21″ x 26″ & 24″ x 27″	30″ x 38″
Maximum board size	22″ x 25″	28″ x 36″
Maximum number of layers	Up to 50	51 to 66
Maximum finished PCB thickness	.400″	
Board thickness tolerance (Up to 0.100″ thick)	± 10% or ± 0.006″ whichever is higher	± 5%
Board thickness tolerance (0.101″ thick to 0.199″ thick)	± 0.010″	± 4%
Board thickness tolerance (0.200″ thick and over)	± 5%	± 4%
Warpage (With balanced construction)	0.3%	0.2%
Minimum dielectric thickness	0.0027″	0.0027″
Minimum core thickness (rigid)	0.0027″	
Layer to layer registration	± 0.002″	
Dimensions – hole location	± 0.002″	± 0.001″
Dimensional tolerance for routing	± 0.005″	± 0.002″
Minimum space, PCB edge to conductor	0.005″	

BOARD CONSTRUCTION	PRESENT Standard Capability	PRESENT Special Capability
INNER LAYER		
Minimum line width	0.003″	0.002″
Minimum space trace/pad	0.003″	0.002″
Minimum space trace/trace	0.003″	0.002″
Tolerance-line width & spacing	± 0.00025″	
OUTER LAYER		
Minimum line width	0.003″	0.002″
Minimum space trace/pad	0.003″	0.002″
Minimum space trace/trace	0.003″	0.002″
Tolerance-line width & spacing	± 0.0005″	
Minimum SMT size	0.004″	0.003″

0.004″ drill hole in a 0.160″ thick board (40:1)

Specialized in Sequential Lamination Process with Blind & Buried Vias (down to 0.35 mm pitch)

PRODUCT CAPABILITIES



PAD TO HOLE SIZE	PRESENT Standard Capability	PRESENT Special Capability
Minimum plated hole size (finished)	0.003”	0.002”
Tolerance – plated hole size	± 0.002”	± 0.001”
Min. mech. drilled hole size	0.003”	
Minimum outer layer pad	FHS + 0.016”	
Minimum inner layer pad	FHS + 0.016”	
Plane relief diameter	FHS + 0.022”	DHS + 0.016”
Min. inner plated hole to metal	0.008”	0.006”
Min. outer non-plated hole to metal	0.007”	0.005”
Min. inner non-plated hole to metal	0.008”	0.006”
Aspect ratio	Up to 32:1	Up to 45:1

PHOTO IMAGEABLE SOLDERMASK CRITERIA	PRESENT Standard Capability	PRESENT Special Capability
Pad clearance (min/side)	0.002”	
Minimum s/m web	0.004”	
SMT Minimum pad spacing for damming	0.009”	0.008”
Line to SMT minimum space	0.004”	
Via plugging capability	96% +	99% plug
Colors	Black, green, blue, red, clear, white	Custom colors
LEGEND CRITERIA		
Back print, minimum line width size	0.006”	0.005”
ELECTRICAL CARACTERISTIC		
Impedance tolerance (ohms)	±8%	±5% based on construction build up
ELECTRICAL TESTING PARAMETERS:		
Continuity threshold	>2.0 Ohms	1.0-2.0 Ohms
Isolation threshold	20 Mega Ohms at 100 Volts	Up to 65 Mega Ohms at 250 Volts
Isolation test voltage	30-250 V	
Feature density	0.006 pitch	< 0.006

LAMINATES

1.1 EPOXY BASE (STANDARD)	1.2 EPOXY BASE (HIGH SPEED, LOW LOSS)	1.3 PANASONIC	1.5 ROGERS RT/DUROID	1.6 OTHER HIGH-SPEED MATERIALS
Isola FR406	Nelco 4000-13	Megtron6	Rogers 3003	Rogers TMM3
Isola IS410	Nelco 4000-13SI	Megtron7	Rogers 3010	Taconic TLX-8
Isola 370HR	Nelco 4800-20	**1.4 ROGERS CERAMIC FILLED PTFE**	Rogers 3203	**1.7 THERMALLY CONDUCTIVE MATERIAL**
Electroply GFB-125, black		Rogers 4003	Rogers 5870	Thermagon T-preg series
		Rogers 4350	Rogers 5880	
			Rogers 6002	
			Rogers 6010	

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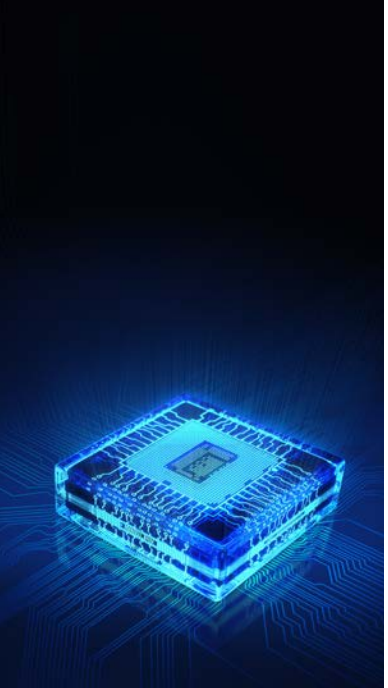

TECHNOLOGY ROAD MAP

BOARD CONSTRUCTION	▶ PRESENT ◀ Standard Capability	▶ PRESENT ◀ Special Capability	▶ ON GOING ◀ Current Research & Development for Future Capabilities
Maximum number of layers	Up to 50	51 to 66	67 to 72
Warpage (with balanced construction)	0.4%	0.2%	< 0.2 %
Minimum dielectric thickness	0.0027″	0.0027″	0.0017″
INNER LAYER			
Minimum line width	0.004″	0.003″	0.0025″
Minimum space trace/trace	0.004″	0.003″	0.0025″
OUTER LAYER			
Minimum line width	0.003″	0.002″	0.002″
Minimum space trace/pad	0.004″	0.003″	0.0025″
Minimum space trace/trace	0.004″	0.003″	0.0025″
Aspect Ratio for hole sizes > 0.005	30:1	40:1	50:1
Minimum SMT size	0.005″	0.004″	0.003″

0.004″ drilled hole in a 0.160″ thick board (40:1)
SPECIALIZED IN SEQUENTIAL LAMINATION PROCESS with Blind & Buried vias (down to 0.35mm pitch)

Whether your next requirement is a quotation or just simply more information, feel free to contact us at: info@cmrsummit.com

It will be our pleasure to be of service to you

Thank you

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