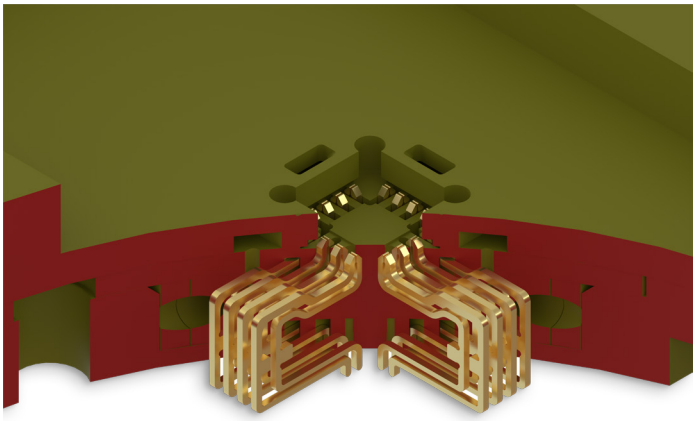
Ironwood ELECTRONICS

PowerRaptor



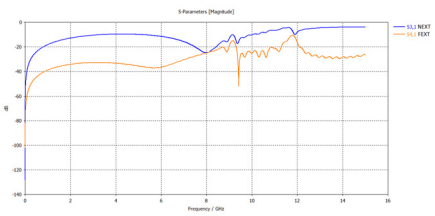
PowerRaptor meets your most demanding Electrical and Mechanical Test Requirements. Product easily integrates to most IC handler platforms.

PowerRaptor, a high-performance cantilever contactor from Ironwood Electronics. A single beam contact that is capable to absorb 3A continuously, perfect for high current/power applications. Ironwood offers AirTherm as an option when temperature testing is required that conditions the pins to the desired temperature & accurately keeps your temperature @ ±2˚C. PowerRaptor is available in Kelvin, Selectable Kelvin and Non-Kelvin configuration.

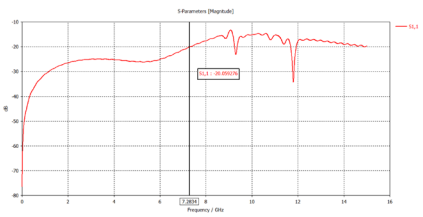
FEATURES AND BENEFITS

Configurable full kelvin, selectable kelvin or as single pin	Lower acquisition cost not having to populate all pads for kelvin
IW proprietary Cartridge system	Minimize downtime
Contact Wipe	Sustainable CRes and longer life between MTBA
High Current Testing	≥ 3A continuous
Temperature testing -60˚C to 180˚C	Excellent temperature test with single beam construction
Spring Pin Footprint Compatible	Minimal or No Hardware changes required
Advance Contact Finish (ACF)	Minimizes Debris and Prolong Cleaning lower MTBA
Short Wipe Stroke (SWS)	Ideal for Chamfer, wettable and side cut pads
AirTherm Technology	Minimize Soak time and accurate @ ±2˚C
Ironwood Cartridge System	Interchangeable cartridges for multiple pin/pitch using one frame. Simple interchangeable cartridge to minimize down time
Cirlex® cartridge	Excellent for temperature and high voltage testing while minimizing Corona affect

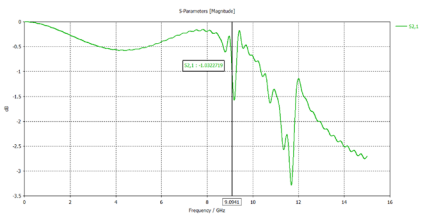
S31
End Cross Talk



S11
Return Loss



S21
Insertion Loss



ELECTRICAL SPECIFICATIONS

Electrical Specification	Single Contact (Non Kelvin)	Dual Contact (Kelvin)	Dual Contact (Power)
Self Inductance (nH)	2.9	3.34	3.07
Mutual Inductance (nH)	1.04	1.17	1.12
Capacitance (pF)	0.67	0.66 (10 MHz)	0.66 (11 MHz)
Current Carrying Capacity (CCC) (A) Duty Cycle 100% (300ms)	**Inner Pin:** PC102A - 2.8 ~ 3A / **Outer Pin:** PC103A - 2.7 ~ 3A		
Contact Resistance (mΩ)	31	34.7	16.8
S21 Insertion Loss (G-S-G)	-1db @ 8.79 GHz	-1dB @ 3.66GHz	-1dB @ 8.66 GHz
S11 Return Loss (G-S-S-G)	-20db @ 3.58 GHz	-20dB @ 1.91 GHz	-20dB @ 6.76 GHz
S41 (G-S-S-G)	-20dB @ 3.2 GHz	-20dB @ 3.4 GHz	20dB @ 8.6 GHz

MECHANICAL SPECIFICATIONS

Mechanical Specification	Kelvin	Non Kelvin
Pin Uncompressed Height (mm)	3.42	3.42
Pin Compliance (mm)	0.2	0.2
Pin Wipe Length (mm)	0.2	0.1
Gram Force Per Pin (g)	20 ~ 30	
Number of Insertion - Housing	≥ 6M	≥ 6M
Number of Insertion - Pin	300k ~ 500k	
Operating Temperature (°C)	-60 ~ 180°C	
Socket Frame	Torlon 5030 or equivalent	
Contact Cartridge	Cirlex® Polymide	
Pin Material	BeCu - NiAu	
Minimum Pitch (mm)	0.4P	

GROUND OPTIONS