

PAD ROL 100A PERFORMANCE⁺ XT



FOR QFN, DFN, AND OTHER PAD-STYLE APPLICATIONS

The Automotive Test Solution That Drives Toward Higher Test Yields

As a designer of high performance devices for the automotive industry, you know that your applications are growing in both numbers and complexity. Since this trend is expected to continue for the next several years, it is more important than ever to require extreme versatility and superior reliability from your test solutions. Whether you are testing Audio & Infotainment, Vehicle Networking, Powertrain, or other automotive device applications, look for the solution that drives your results toward higher test yields and delivers superior production throughput.

Johnstech's The *Pad ROL[®] 100A Performance Plus XT[™]* Automotive Contactor is just the product you're looking for! This Xtreme Temperature (*XT[™]*) capable product is designed to maximize your test results, regardless of your tri-temp testing objectives! Even if you are not testing outside the temperature limits of standard Contactors and sockets, the robust design of the *XT[™]* Contactor provides additional design margin and certainly satisfies even your roadmap requirements.

The *Pad ROL[®] 100A Performance+ XT[™]* Automotive Contactor improves test yields and increases test reliability through several features, including:

FEATURES & BENEFITS (0.5 Pitch)	
FREQUENCY	61.3GHz
PITCH	≥ 0.4mm
TEMPERATURE	-65°C to 175°C
CURRENT CARRY CAPABILITY @ 100%	3.1A Matte Tin; 2.6A NiPdAu

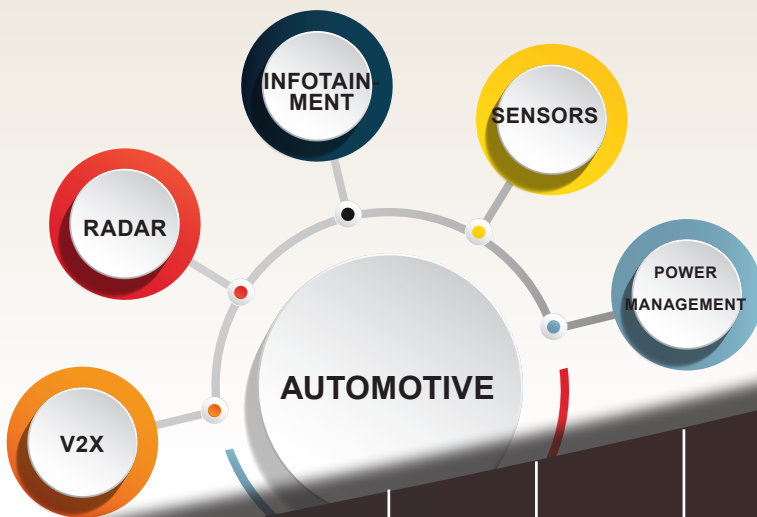
Electrical Reliability Improves Yields

- Patented, One-Piece ROL[®] Contacts
- Delivers Lowest Contact Resistance (CRES)
- High Current Carrying Capability
- Low Inductance
- Extremely Stable Contact Resistance (CRES)
- High Frequency Capability
- Wiping Contact Clears Debris

Mechanically Robust

- Long Life ROL[®] Contacts
- Temperature Test Stability
- Patented Wiping Lengthens MTBA

PRECISION ANALOG TO mmRF[™]



1 GHz 20 GHz 30 GHz 40 GHz 50 GHz 60 GHz 70 GHz 80 GHz 90 GHz 100 GHz

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Electrical Specifications	Matte Tin Configuration	NiPdAu Configuration
Average CRES:	50 mOhms	<20 mOhms
Current Carrying Capacity*: (Duty cycle 100%, 50%, 1%)	3.1A, 5.0A, 6.1A	2.6A, 4.2A, 5.2A
RMS Current Carrying Capacity**: (Duty Cycle 100%, 50%, 1%)	3.1A, 4.4A, 31.0A	2.6A, 3.7A, 26.0A
Current Leakage:	<1pA @ 10V	

	ROL100A Performance Plus*	Standard ROL100A Matte Tin	Standard ROL100A NiPdAu
Contact	152144	153164	161805
-1dB Insertion Loss	61.3GHz	45.8GHz	44.6GHz
-20dB Return Loss	69.7GHz	18.2GHz	17.8GHz

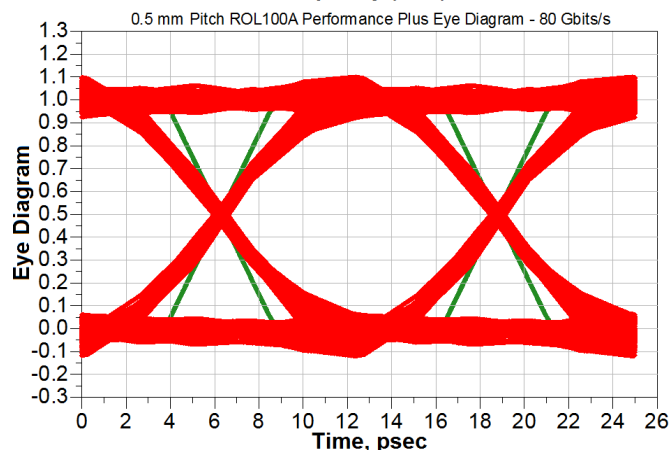
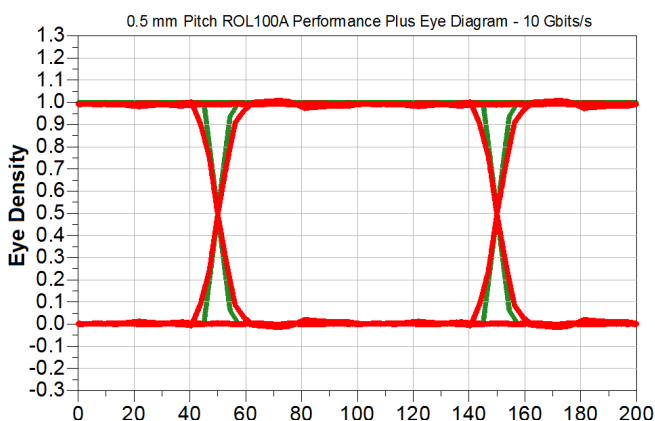
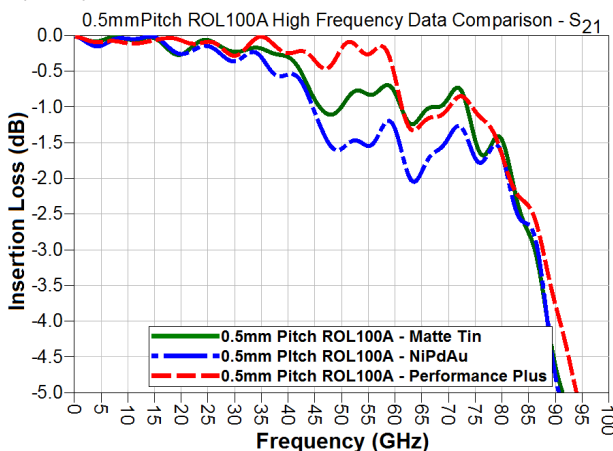
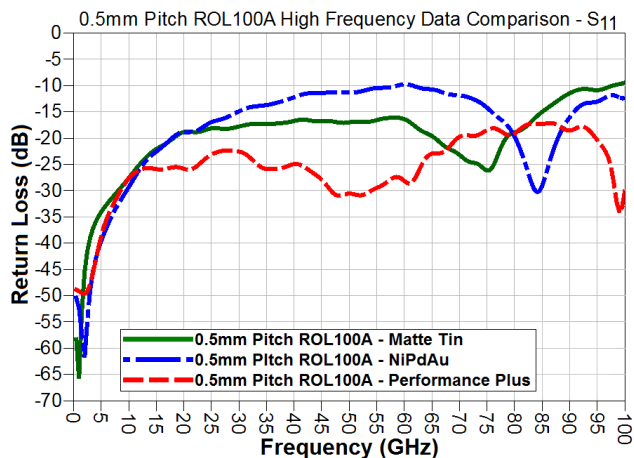
Results for 0.5mm pitch configurations. Specifications provided here are based on internal testing at Johnstech, customer production sites, and third party electrical testing. Actual individual results may vary based on a wide range of variables including: handler/contactor/load board interface, handler plunge depth and velocity, device presentation, alignment plate condition, package plating characteristics, test floor conditions, maintenance activities, mounting/fastening techniques, non-coplanarity from site to site, non-coplanar docking, and temperature extremes.

* Test conditions: 300 msec pulse, 20°C temperature rise. Higher currents allowed for higher temperature rises. ** RMS current carrying capacity for pulsed applications. Values based on measured steady state current capacity, standardized to 1 Hz test cycle, 20°C temperature rise. Higher currents allowed for higher

Mechanical Specifications	Matte Tin Configuration	NiPdAu Configuration
Physical Compressed Height:	0.75 mm	
Contact Life*** (# of insertions):	Elastomers = 300,000 Contacts = 500,000+ Housing = 1,000,000+	
Contact Compliance:	0.175 - 0.200 mm	
Contact Force (per contact):	50 Grams	
Temperature:	-65°C to 175°C	
Housing Material:****	Torlon 5030	
Contact Material:	BeCuNiAu	Gold-plated Alloy

temperature rises. Performance will vary depending on pitch, device plating, and mechanical interfacing. *** Contact, elastomer, and housing life values are TYPICAL based on Johnstech internal testing. Actual production life will vary based on a wide range of variables including: handler, Contactor, and load board interface; handler plunge depth and velocity; device presentation; alignment plate condition; package plating material and characteristics; test floor conditions; maintenance activities; mounting/fastening techniques; site-to-site coplanarity; docking coplanarity; and temperature extremes. **** Performance Plus housing is metal with non-conductive inserts. The type of metal and inserts varies and is dependent on the configuration and performance needs of device being tested.

**** Contact force is dependent on many variables. The contact force listed is typical and may not represent your test solution.



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