

PAD ROL® 200

FOR QFN, DFN, AND OTHER PAD-STYLE APPLICATIONS

Your Solution for Analog / Mixed Signal / RF Testing

Johnstech's patented ROL® technology provides excellent electrical performance and proven mechanical reliability for Precision Analog, Mixed Signal and RF applications. The ROL® 200 Series provides Contact/Elastomer configurations for the unique challenges of matte tin and NiPdAu packages.

ROL® 200 Contacts

Gold-Plated
Low-Force XL-2

Device Platings

Matte Tin & Tin-Based
Nickel Palladium Gold

Characterization

ROL® 200 Contactors are ideal for Manual Device Evaluation, Lab Testing, Prototyping and Characterization

- **Designed to test to 20 GHz**
- **Reliable and repeatable results**
- **Lab Performance correlates to Production Test Floor**
- **Robust Manual Actuator life of 10k+ insertions**

Production Test

The "rolling contact" design of the ROL® Contactor, which creates a self-cleaning wipe action, provides extensive Production Test benefits:

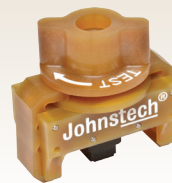
- **Consistent Contact Resistance**
- **Optimized Electrical Performance**
- **Higher First Pass Yield**
- **Repeatable Site-to-Site Performance**
- **Longer MTBA (Mean Time Between Assists)**
- **Prolonged Load Board Life**
- **Simple Maintenance & Rebuilding**
- **Improved OEE (Overall Equipment Efficiency)**
- **Lower Overall Cost of Test**



Gold-Plated
Contact Profile
Matte Tin
Configuration



Low-Force XL-2
Contact Profile
NiPdAu
Configuration



DL-VCMA Plus™
Double-Latch Vertically
Compliant Manual
Actuator



SL-VCMA
Single-Latch Vertically
Compliant Manual
Actuator



Pad ROL[®] 200

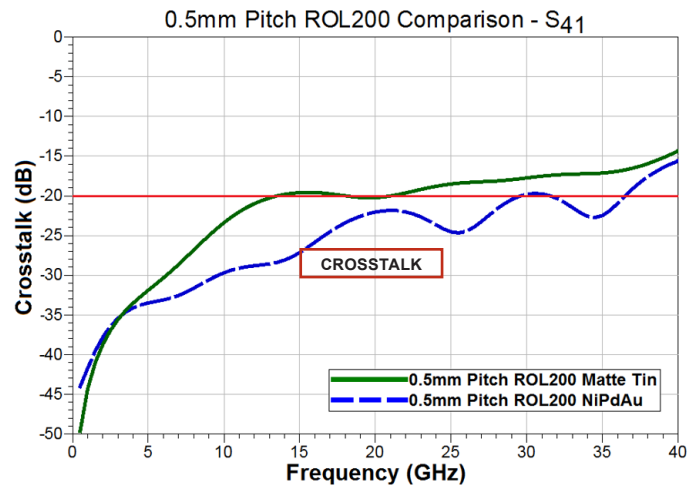
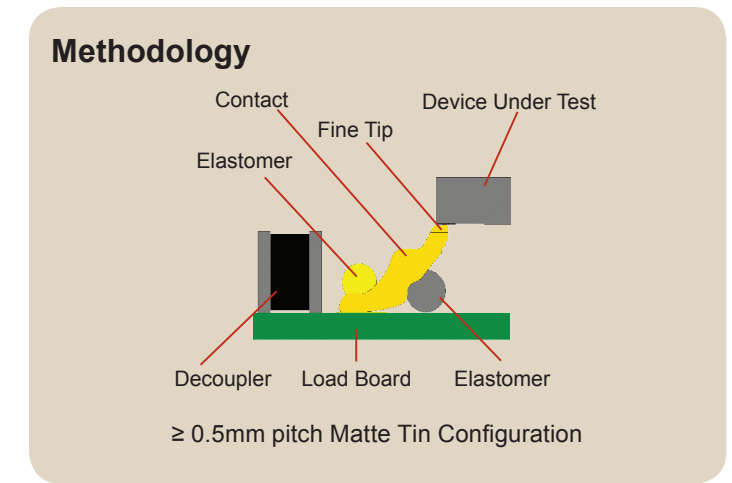
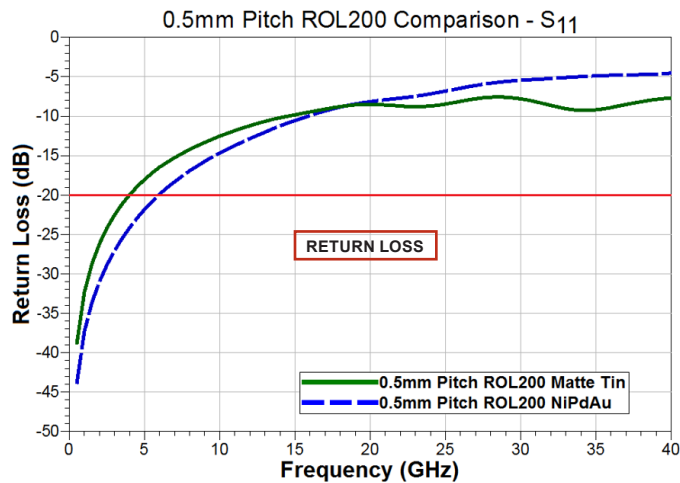
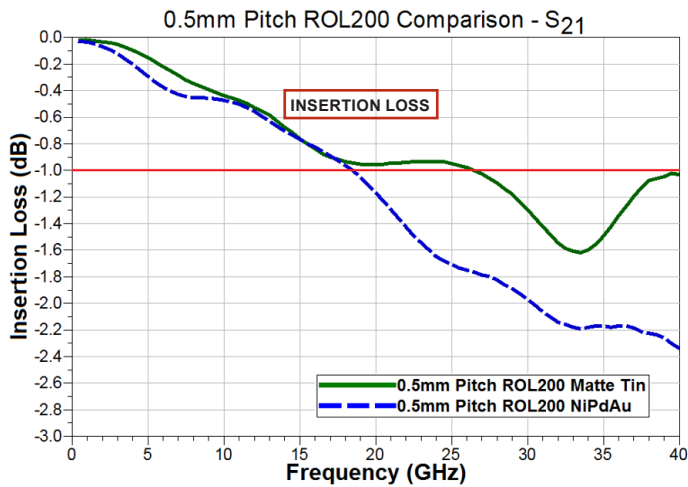
Electrical Specifications	Matte Tin Configuration	NiPdAu Configuration
Electrical Length (compressed height):	2.00 mm	2.07 mm
Inductance:	Self: 0.37 nH Mutual: 0.17 nH	Self: 0.55 nH Mutual: 0.24 nH
Capacitance:	Ground: 0.17 pF Mutual: 0.07 pF	Ground: 0.18 pF Mutual: 0.12 pF
S ₂₁ Insertion Loss (GSG):	-1dB @ 26.4 GHz	-1dB @ 18.5 GHz
S ₁₁ Return Loss (GSG):	-20dB @ 3.9 GHz	-20dB @ 5.8 GHz
S ₄₁ Crosstalk (GSSG):	-20dB @ 13.5 GHz	-20dB @ 29.5 GHz
Average CRES:	30 mΩ	<20 mΩ
Current Carrying Capability**:	3.8A, 6.0A, 9.8A	3A, 5.1A, 9.3A
Current Leakage:	<1pA @ 10V	
Nearest Decoupling Area:	1.58 mm	

Results for 0.5mm pitch configurations shown here. Electrical specifications based on third party measured testing.

* 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, 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 co-planarity; docking co-planarity; and temperature extremes.

** Test conditions: 300 msec pulse, 20°C temperature rise.

Mechanical Specifications	Matte Tin Configuration	NiPdAu Configuration
Physical Compressed Height:	1.40 mm	
Contact Life (# of insertions, Typical Performance*):	Elastomers = 300,000 Contacts = 500,000+ Housing = 2,000,000+	
Contact Compliance:	0.20 mm	
Contact Force (per contact):	70 grams	30 grams
Contact Tip Coplanarity:	0.05 mm	
Temperature:	- 40°C to 155°C	
Housing Material:	Torlon [®] 5030	
Contacts:	Gold-Plated	Low-Force XL-2
Contact Material:	BeCuNiAu	Gold-plated Alloy



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