

# Multiphysics measurements of GaN Power Microwave Transistors

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*N3M-Labs*

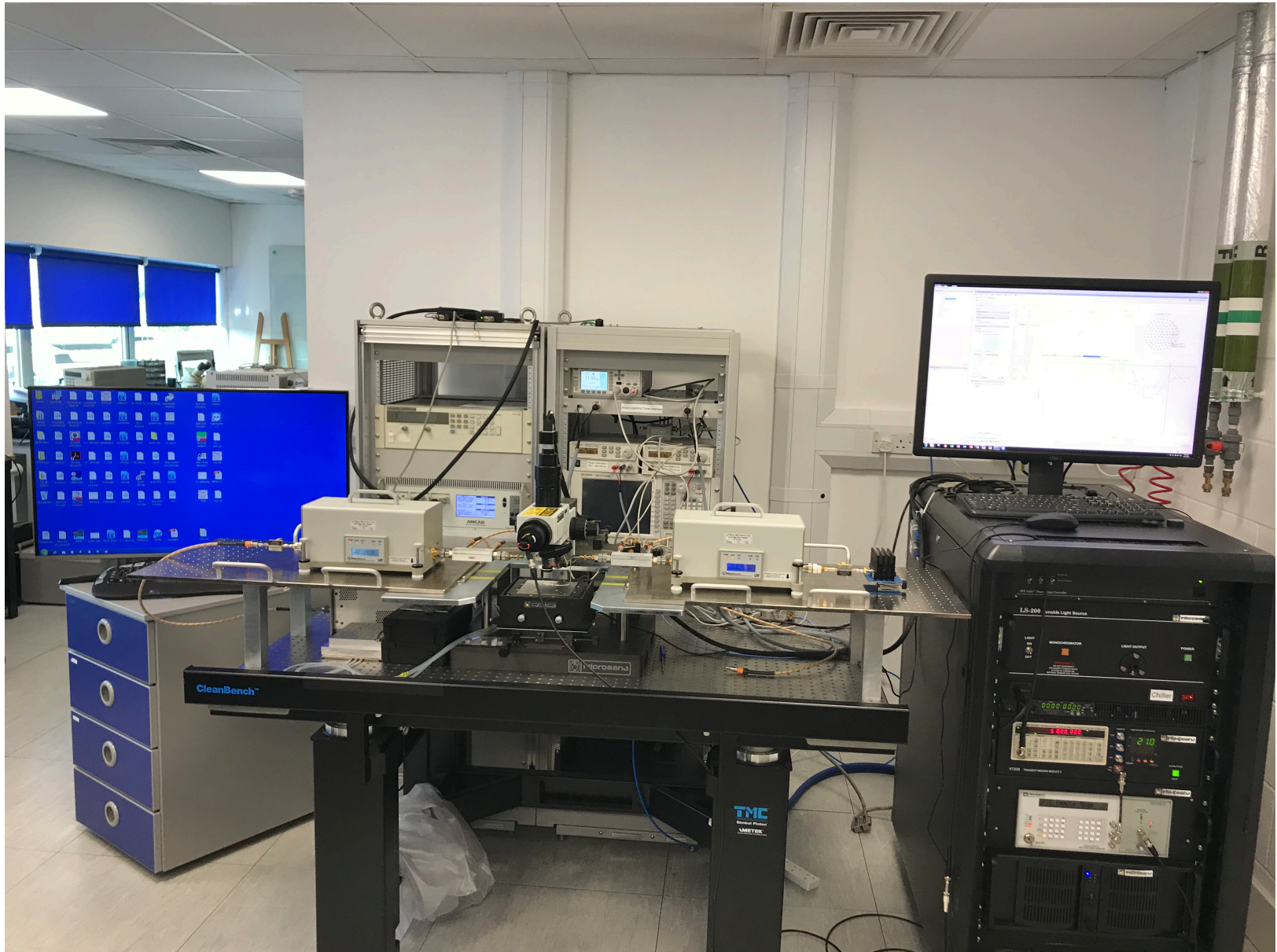
*University of Surrey*

*Faculty of Engineering and Physical Sciences*

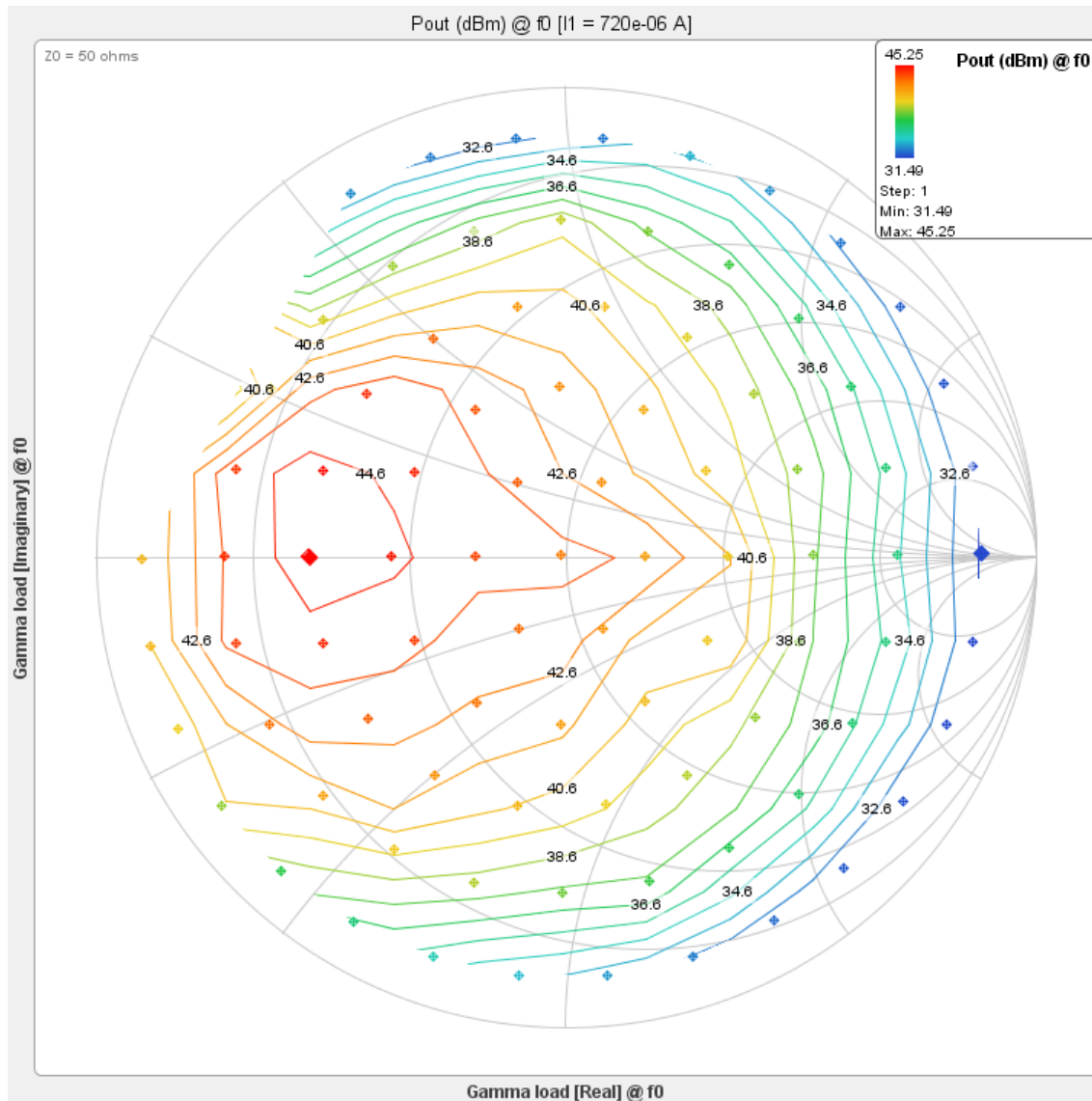
*Advanced Technology Institute*

*p.aalen@surrey.ac.uk*

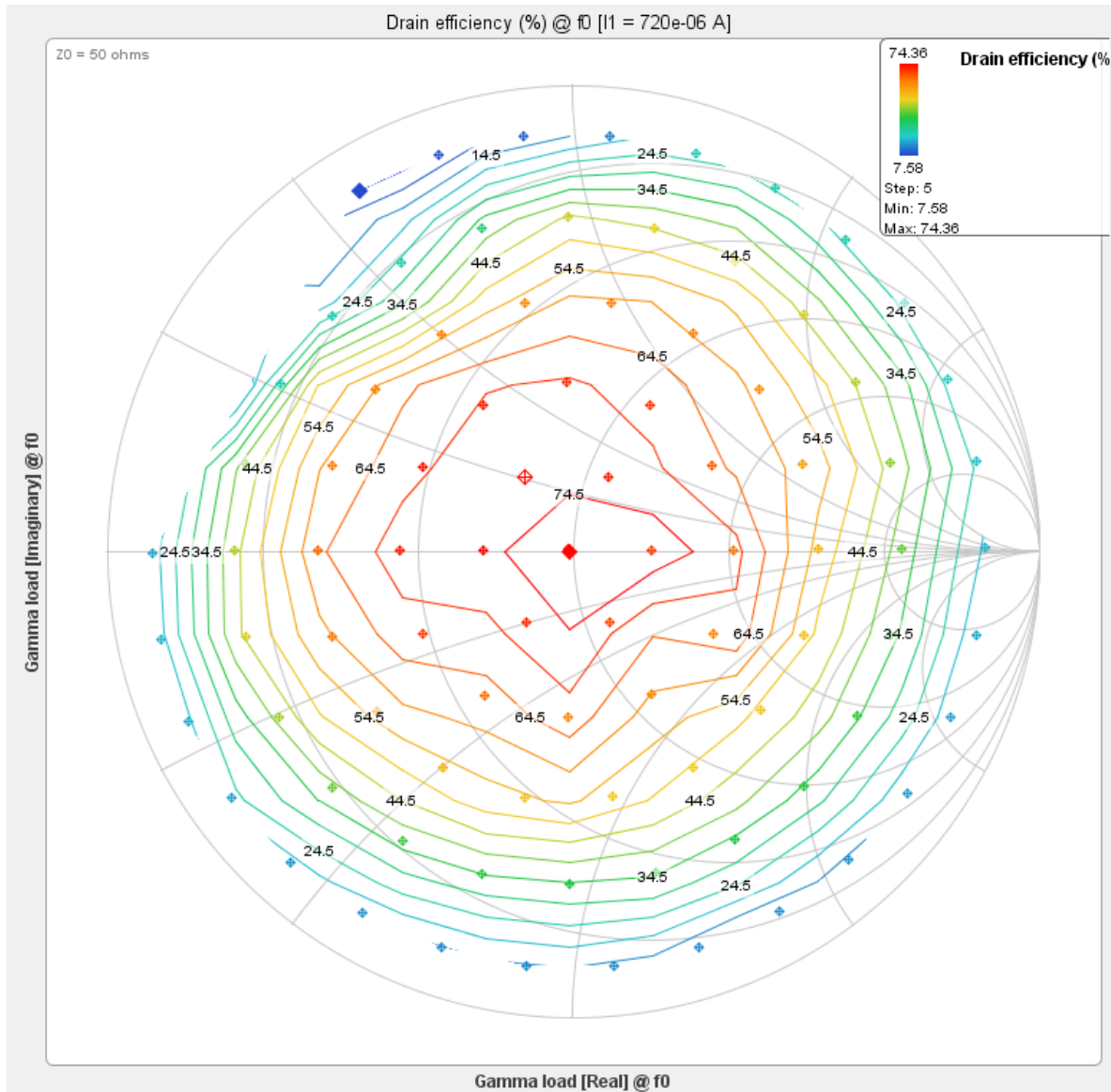
# Load Pull and TR system



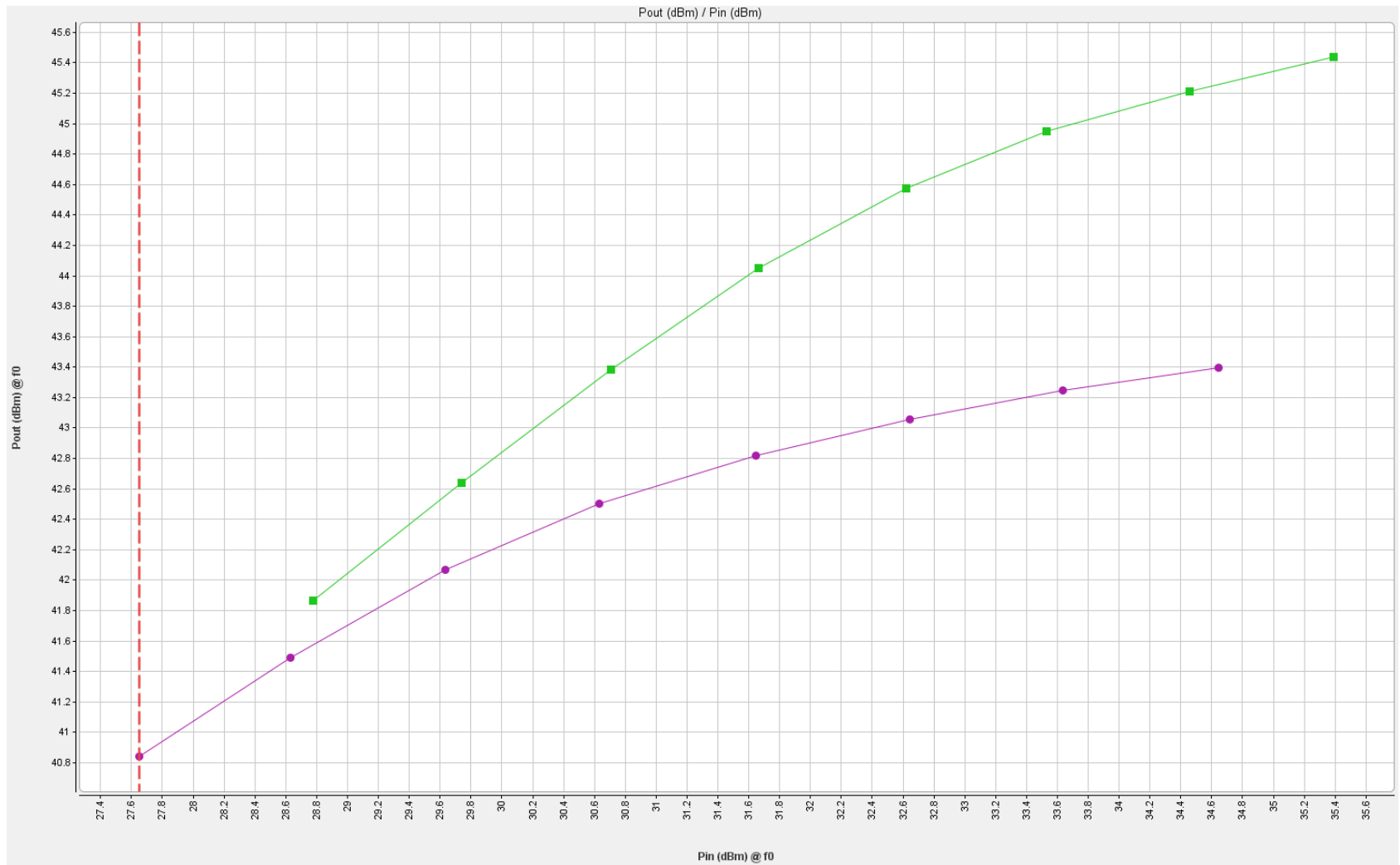
# Max Power



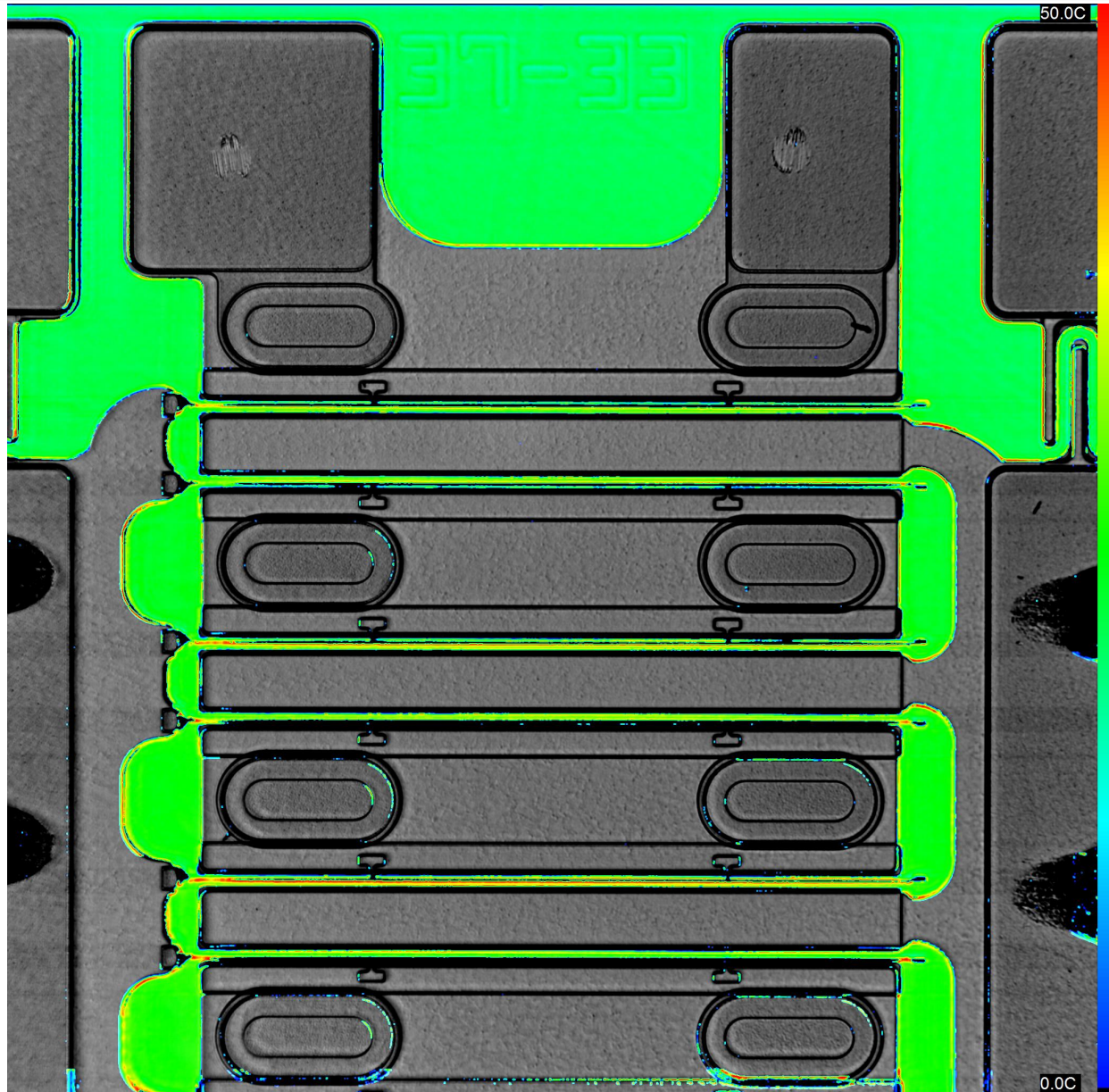
# Max Efficiency



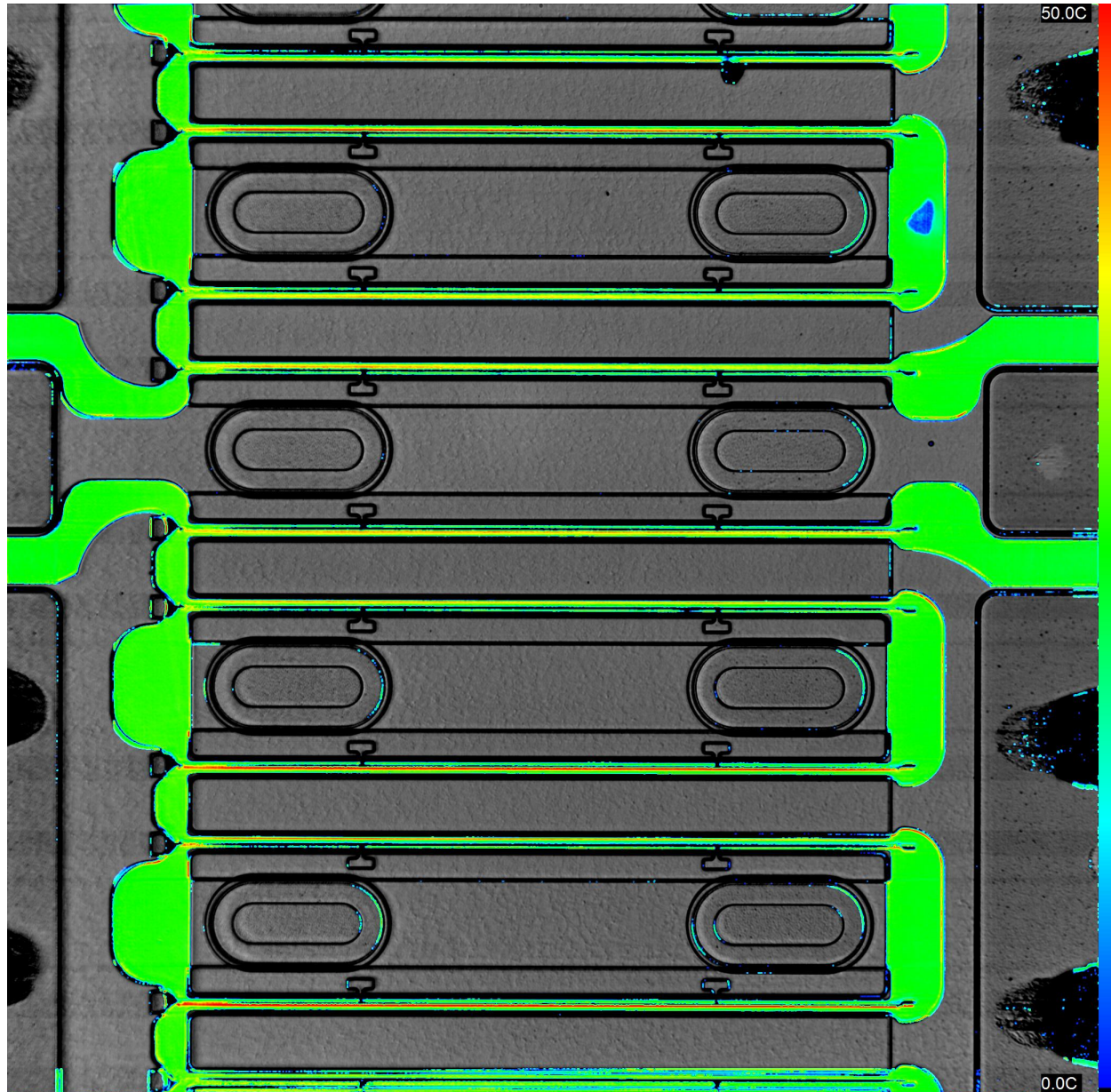
# Pin vs Pout



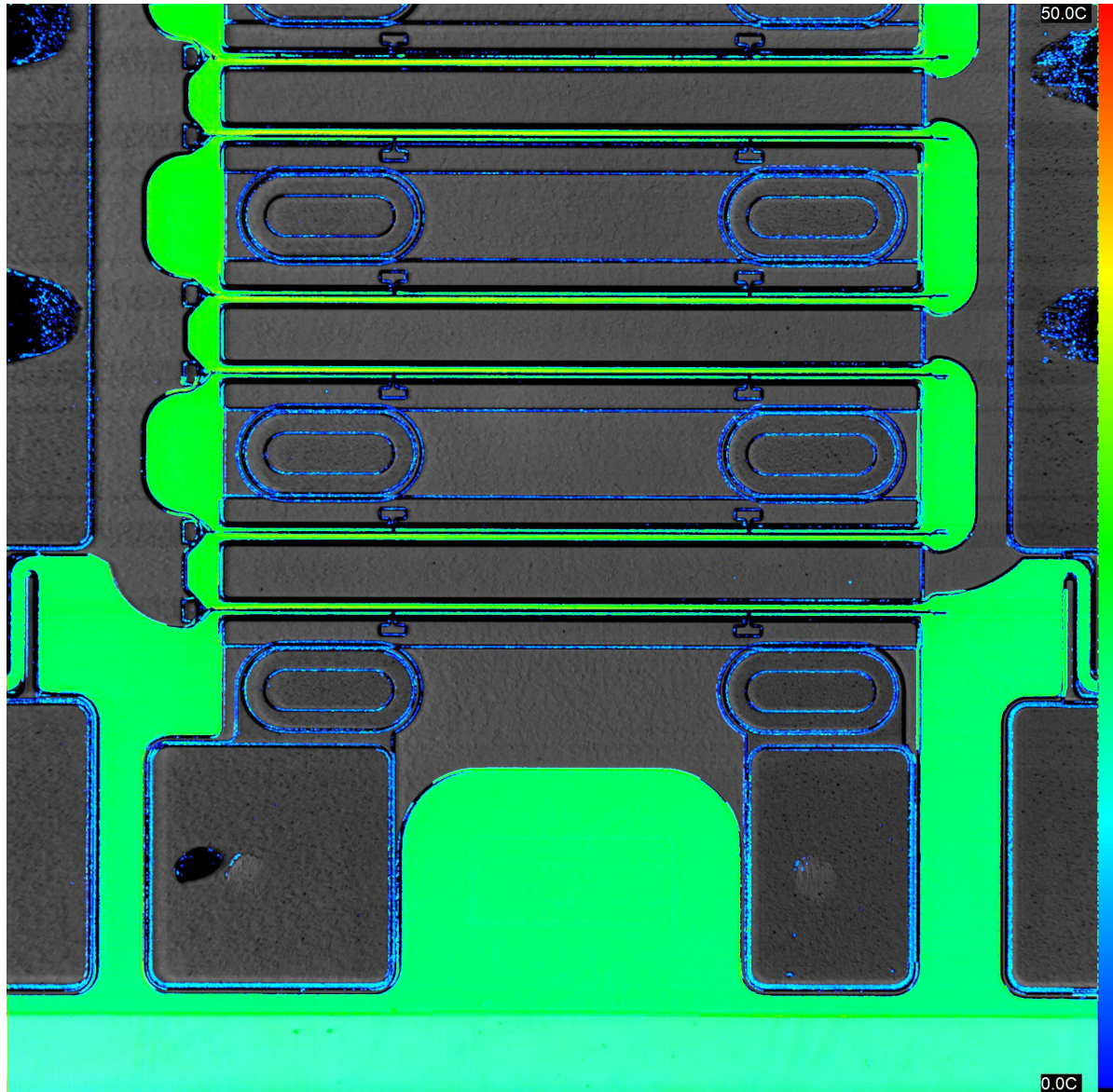
# DC Thermal Measurements



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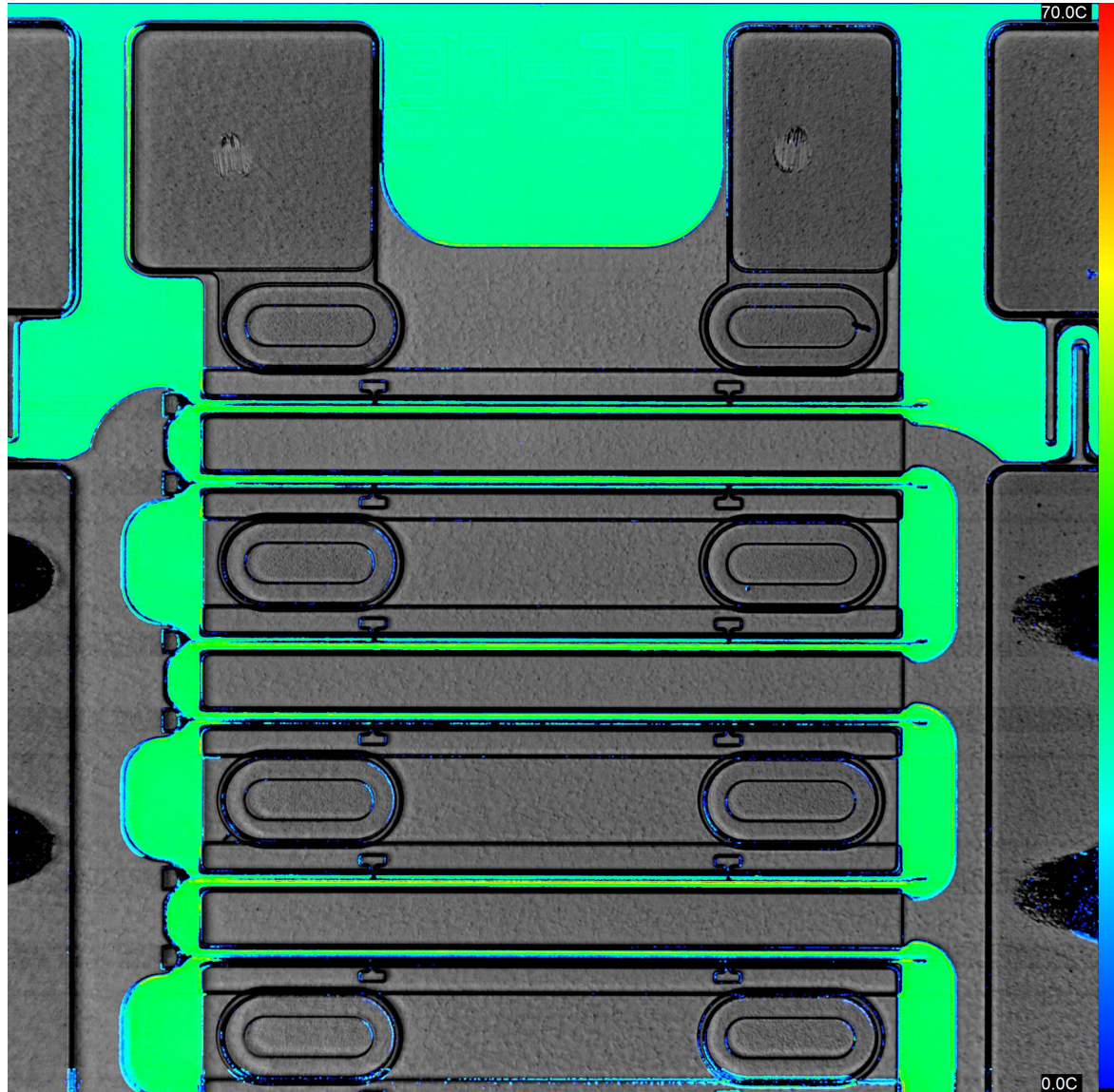


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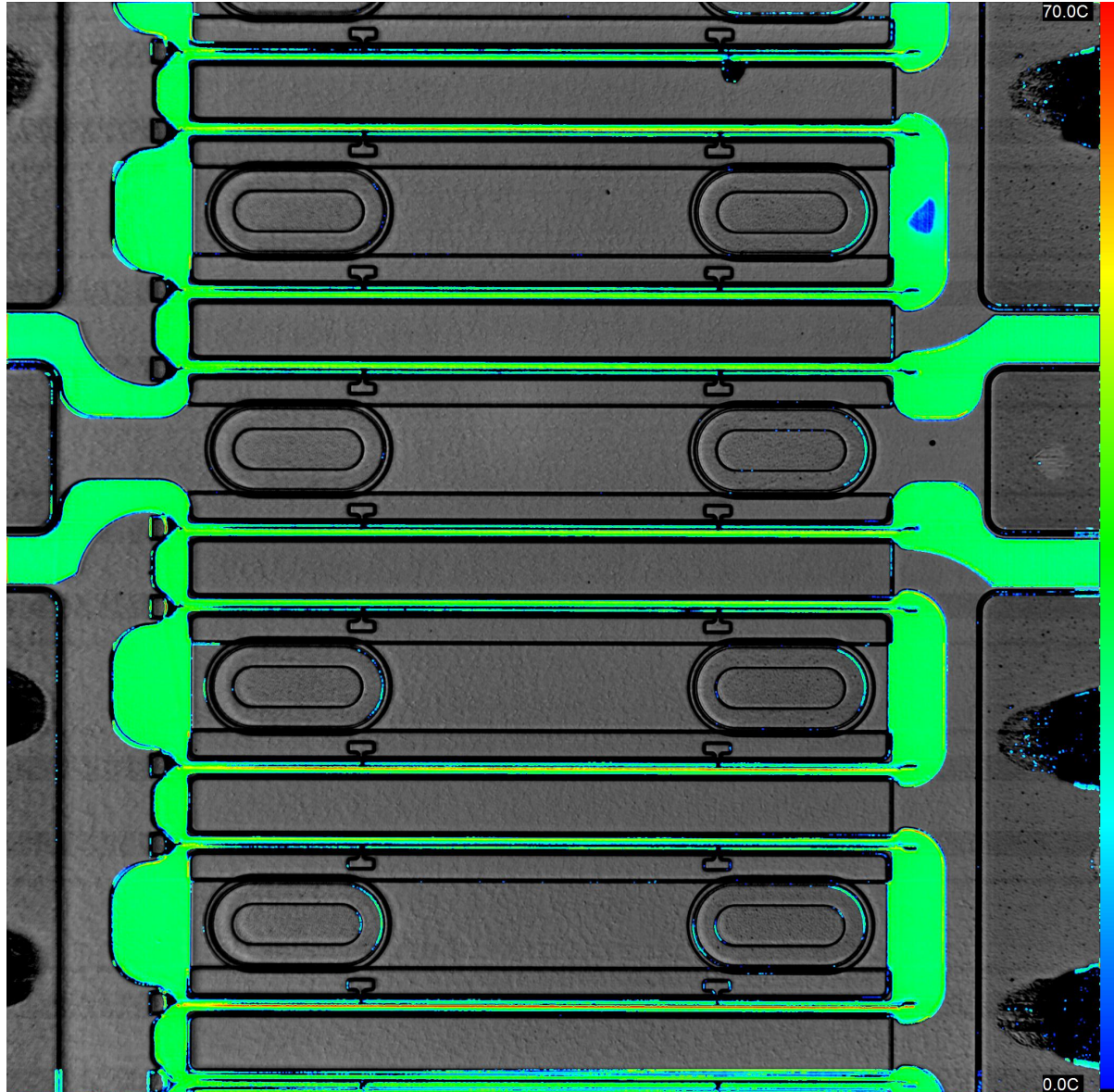




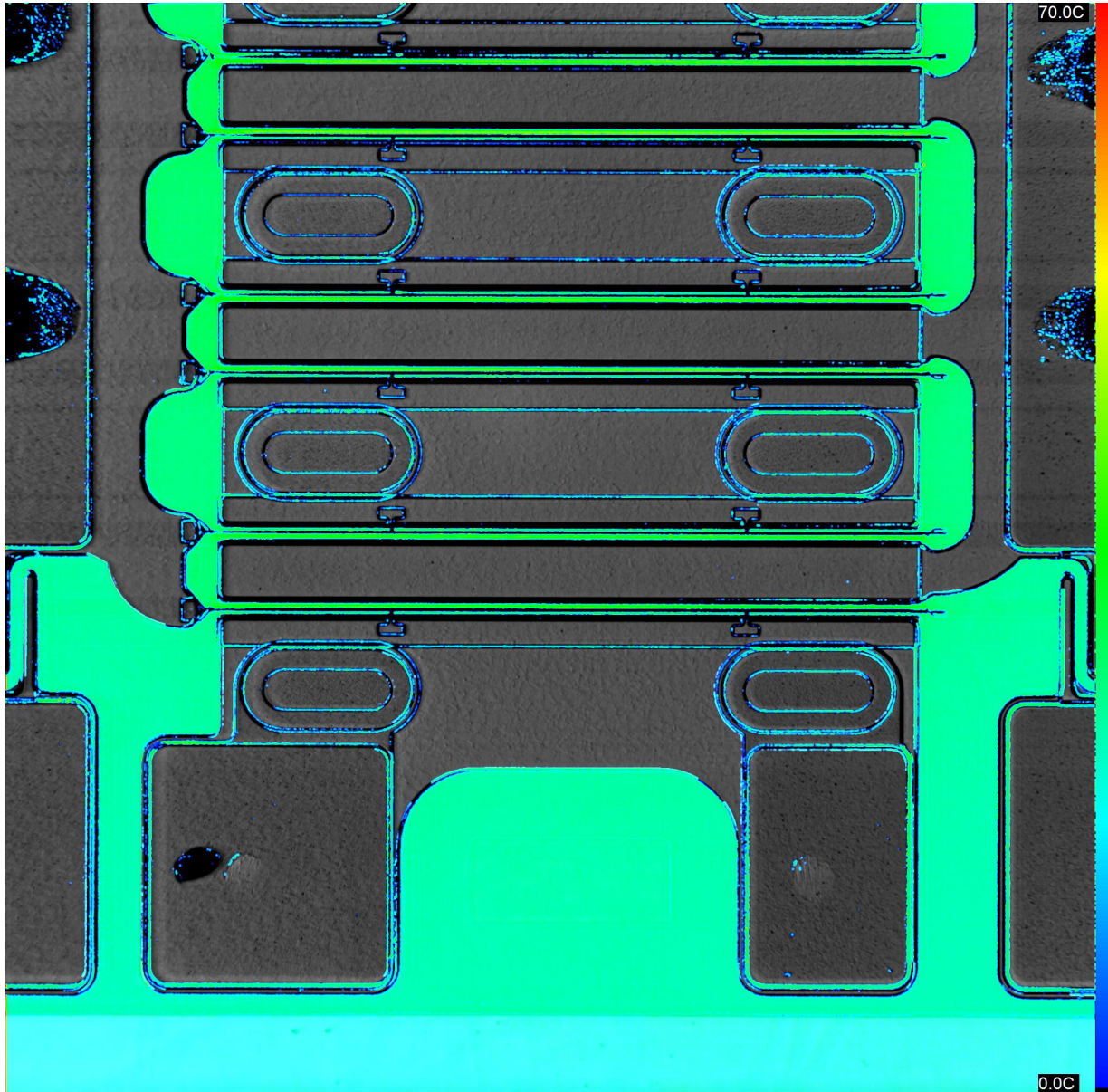
# Max Eff Thermal Measurements



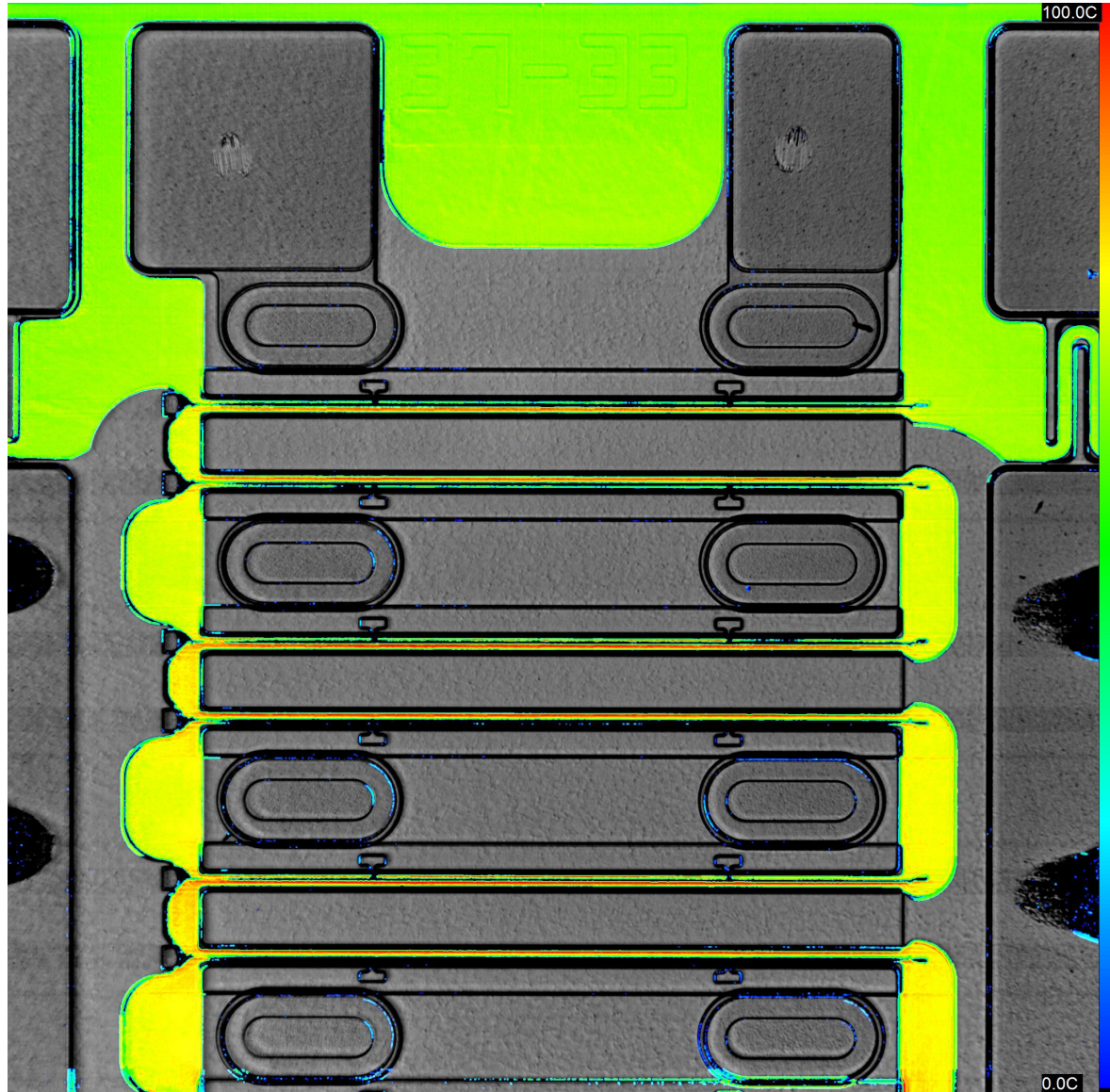
# Max Eff Thermal Measurements



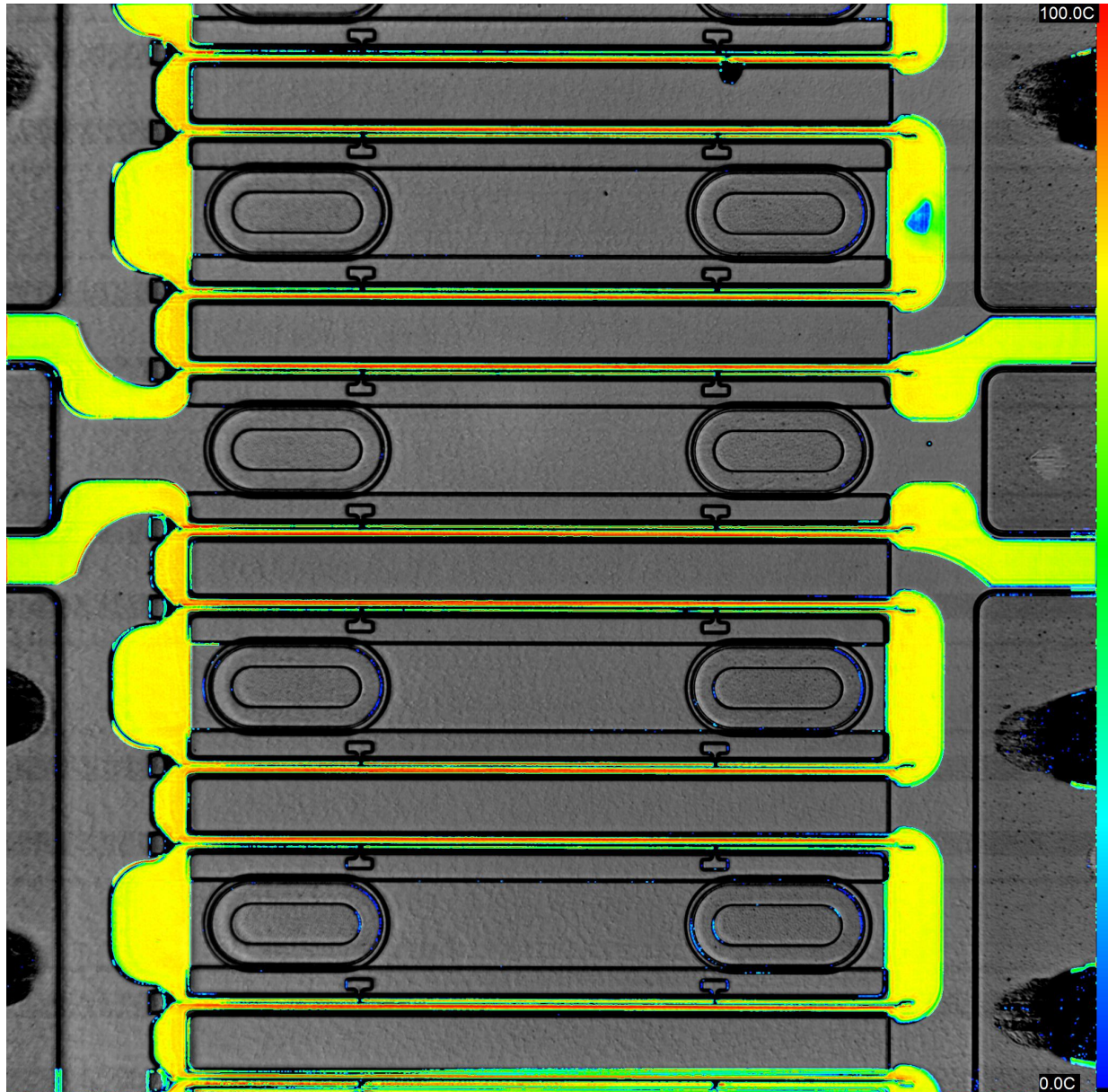
# Max Eff Thermal Measurements



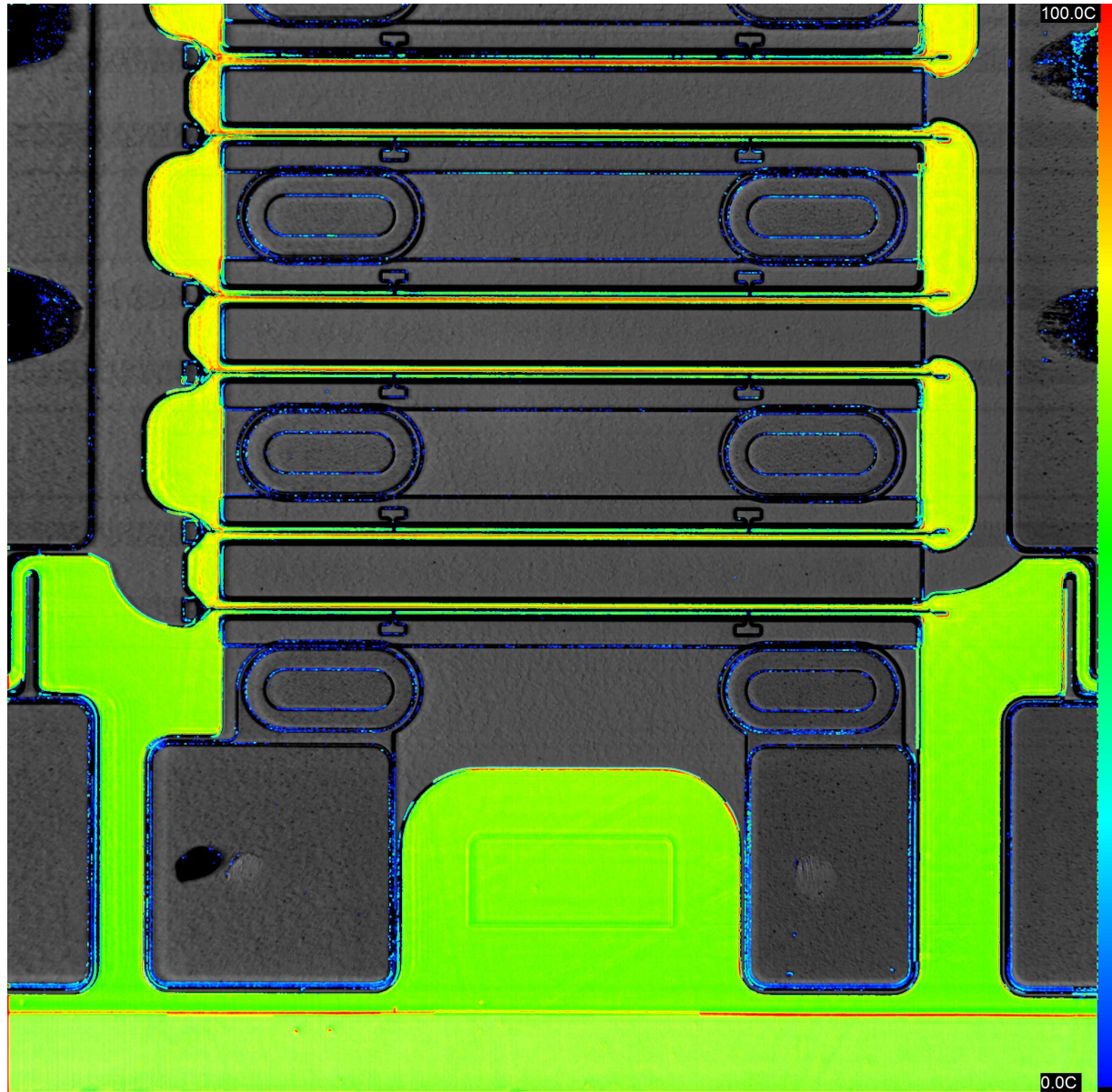
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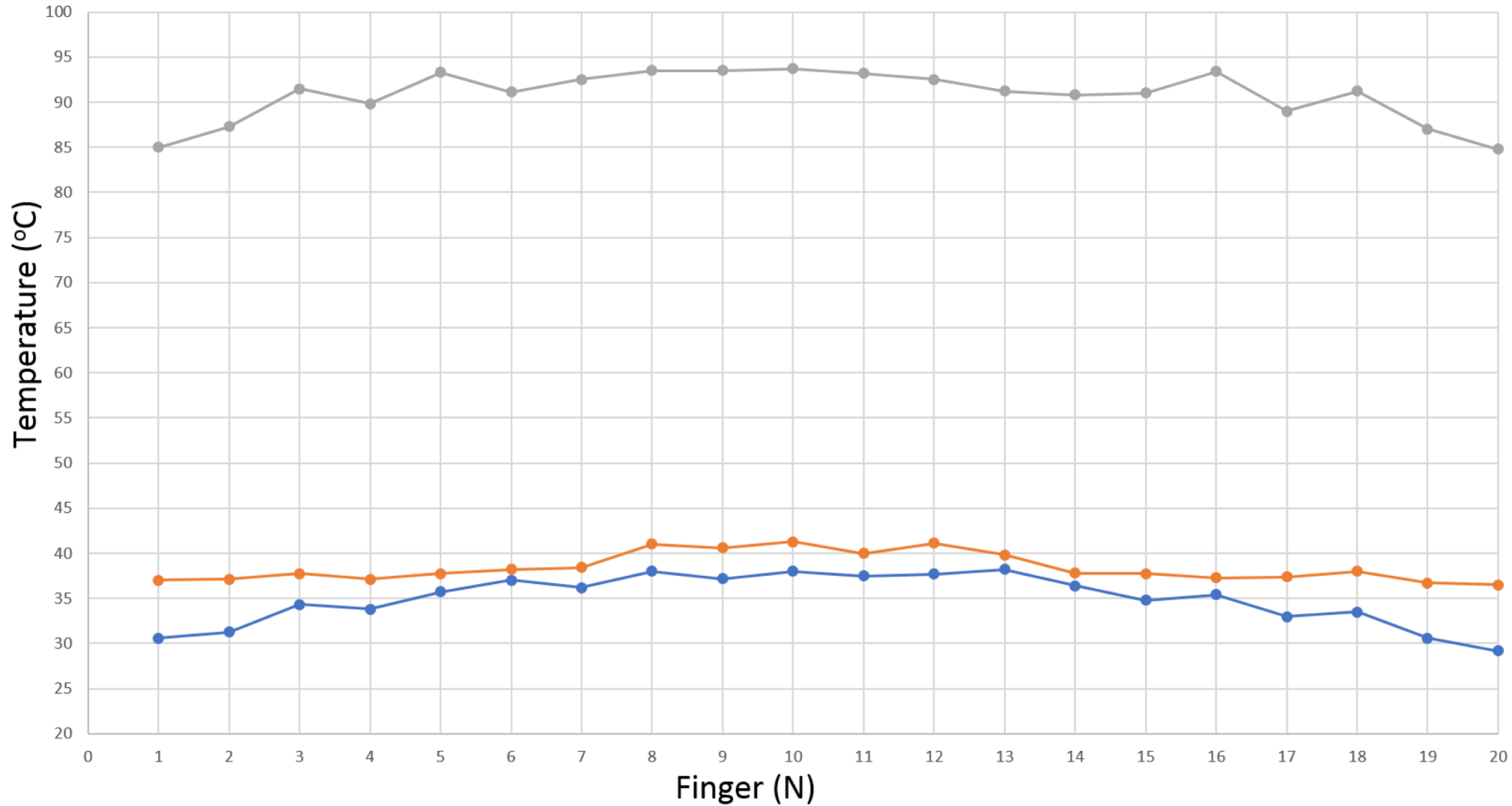


# Max Power Thermal Measurement



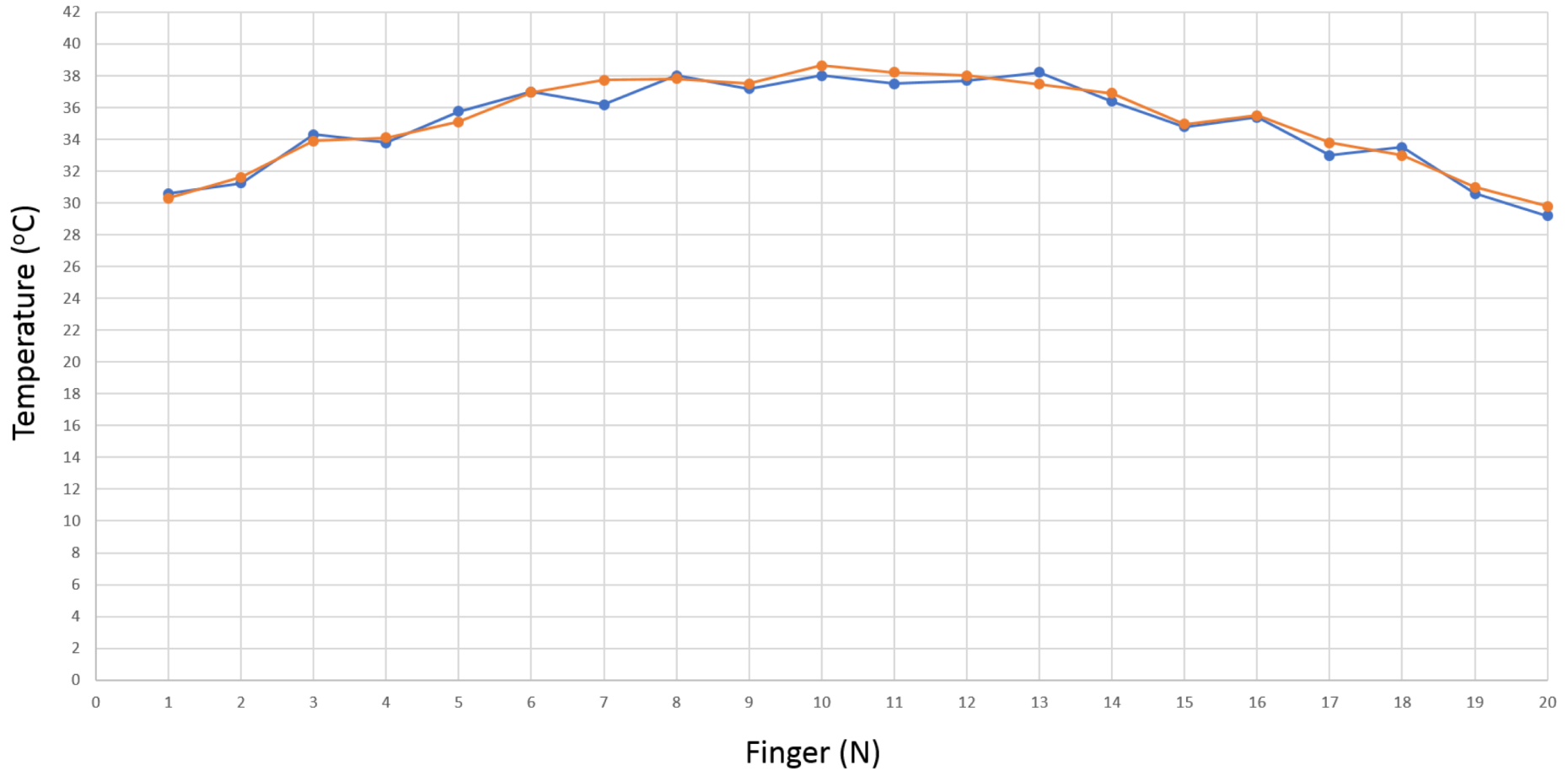
# Thermoreflectance Results

Temperature vs Transistor Finger for DC, Max Efficiency and Max Power



# Measurement results 20x vs 40x

## DC Temperature at 20x and 40x Magnification





Thank you for your attention

