

Introduction to QUART&T WP4

- Claudio Puglia, Federica Mantegazzini
Kick-off meeting
21 Feb 2025

$|Q\rangle$

QUART&T

QUANTUM ARCHITECTURES
FOR THEORY & TECHNOLOGY

1. WP Overview

2. Main activities

3. INFN Pisa

WP Overview

Working Package Number	4	Start date or starting event	M1
WP Package Title	Microfabrication process for transmon qubits		
Participant short name	TIFPA	PI	LNL
WP Leaders	Federica Mantegazzini (TIFPA), Claudio Puglia (PI)		
Objectives	Development of microfabrication and packaging processes for 2D and 3D transmon qubits; investigation of new materials; production of the final devices.		



Istituto Nazionale
di Fisica Nucleare
TIFPA
Trento
Institute for
Fundamental
Physics and
Applications



Main activities

2D



Istituto Nazionale
di Fisica Nucleare
TIFPA
Trento
Institute for
Fundamental
Physics and
Applications

3D

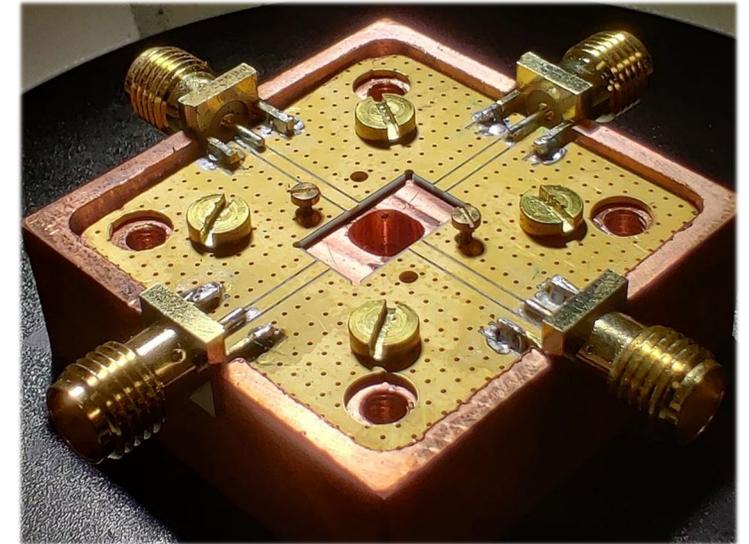
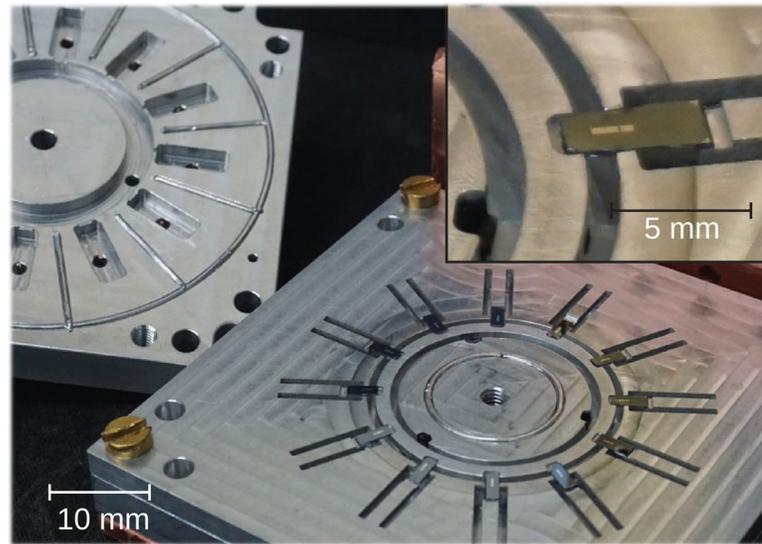
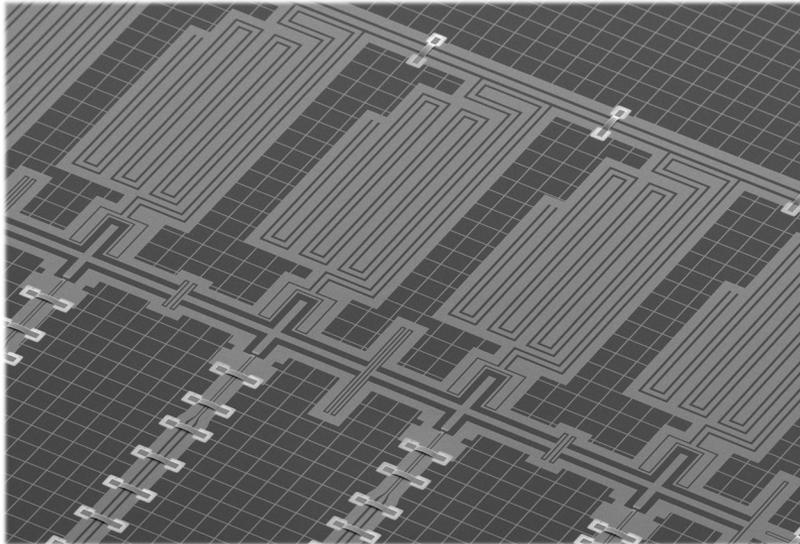


Istituto Nazionale di Fisica Nucleare
Laboratori Nazionali di Legnaro

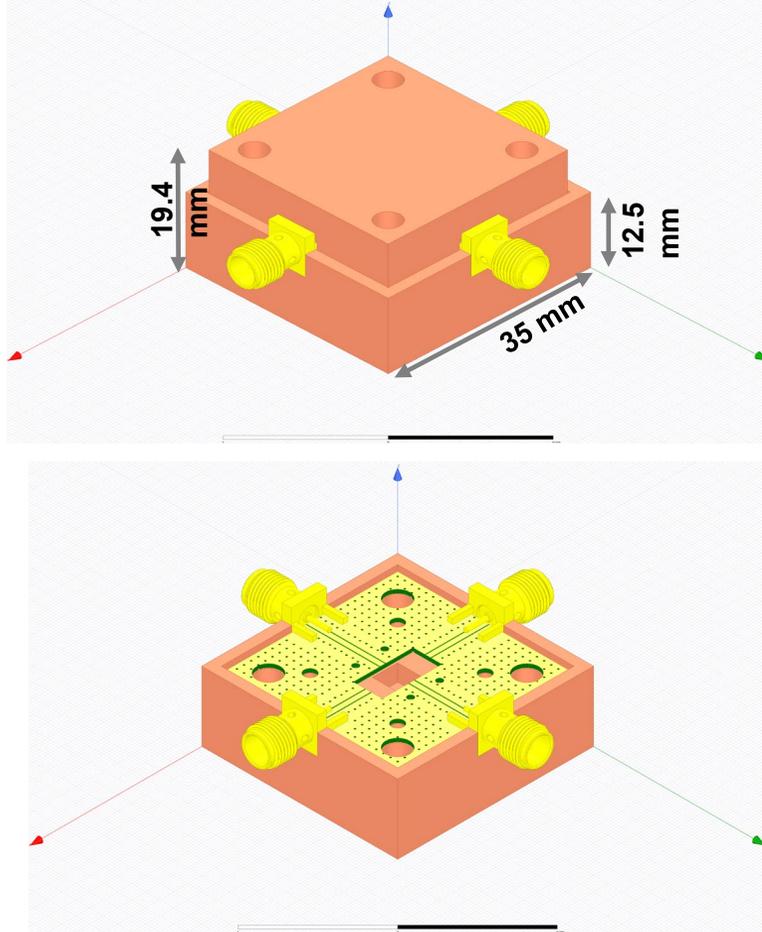
Packaging



Istituto Nazionale di Fisica Nucleare
Sezione di Pisa



From Design



To fabrication and test

Capabilities

- DC
- RF up to 40 GHz
- DC+RF up to 35 GHz
- Magnetic shield
- Optical fiber



Thank you for your time.

