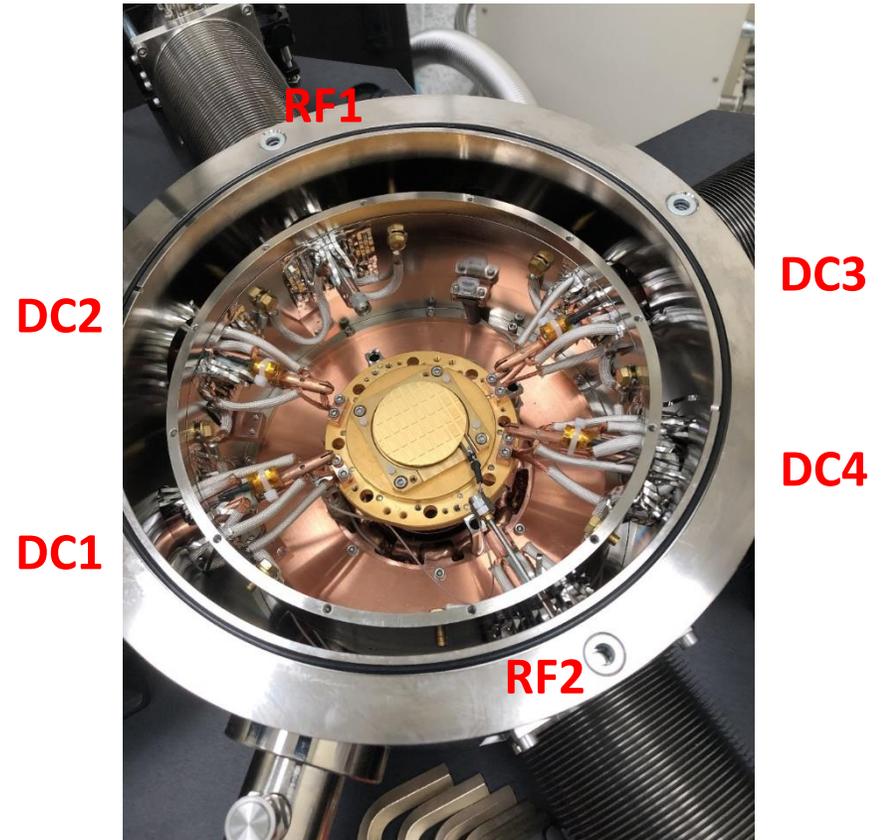
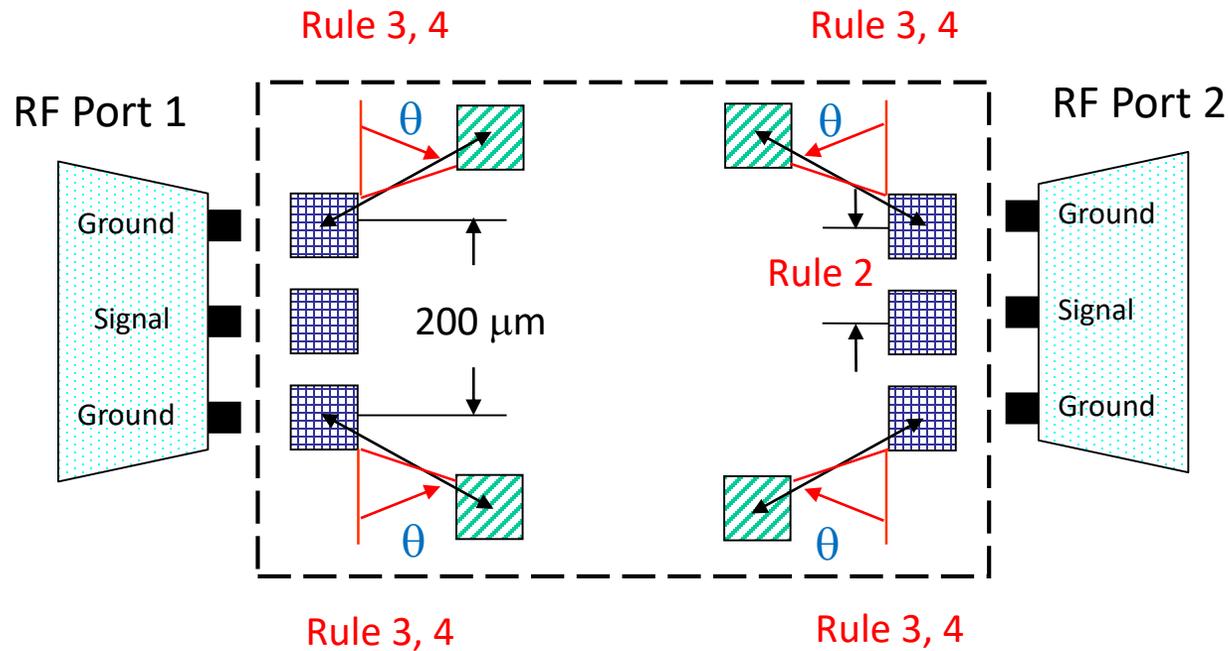


# Cryogenic On-Chip Measurement System

- Temperature Range : 4K ~ 300K, (-269°C ~ 27°C)
- Sample Size :  
1mm<sup>2</sup> ~ 25mm<sup>2</sup> (for DC tests)  
1mm<sup>2</sup> ~ 20mm<sup>2</sup> (for RF tests)
- Pad Size :  
DC pad  $\geq 75\mu\text{m}$  (Max. 4 probes)  
RF pad  $\geq 50\mu\text{m}$  (Max. 2 probes)
- Cycle Time (Standard Operation)  
Pump down time  $\leq 0.5\text{hrs}$   
Station cool-down  $\leq 2\text{ hrs}$   
Station warm-up  $\leq 1.5\text{ hrs}$



# Pad Layout Rule



Rule 1  $\Rightarrow$  Minimum pad size :  $75\mu\text{m} \times 75\mu\text{m}$

Rule 2  $\Rightarrow$   $100\mu\text{m}$  pitch for RF pad (center-to-center)

Rule 3  $\Rightarrow$  Minimum safety distance between the outermost RF pad and its nearby DC pad (if exists):  $200\mu\text{m}$  center-to-center

Rule 4  $\Rightarrow$  The Fan Angle between the outermost RF pad and its nearby DC pad (if exists) :  $0^\circ$  to  $90^\circ$

(The Fan Angle is defined in the left figure as symbol  $\theta$ .)