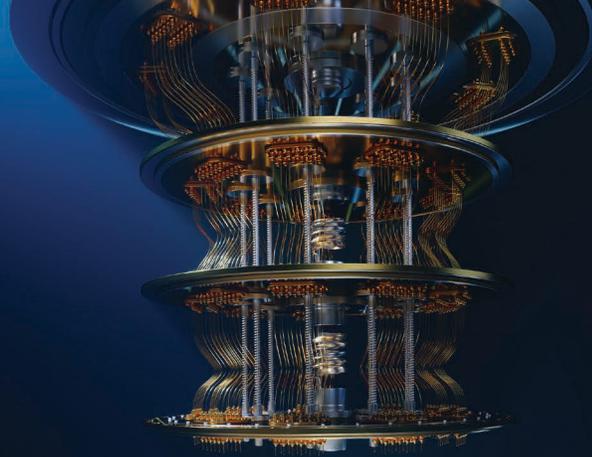


# CRYOGENIC ATTENUATORS

High Performance Attenuators  
for Quantum Computing



*As an important actor in the high technology sector and to anticipate the future's needs of components in the quantum race, Radiall developed a specific attenuator range for cryogenic applications. These attenuators fit perfectly for commercial quantum computer applications.*

In quantum computing, cryogenic microwave attenuators are used in different stages of the thermal dilution refrigerator to reduce the noise in the signal. The RF lines within each layer increases the signal-to-noise ratio (SNR), requiring the attenuator for the thermalized layer to protect the signal level.

## FEATURES & BENEFITS

- Power: up to 2 W
- Low deviation:  $\pm 0.3$  dB
- Operating temperature: 0.01 - 400 °K

## APPLICATIONS

- Cryogenic applications
- Quantum computing



*The challenge of quantum computing is to preserve the Qubits in their quantum state by isolating them as best as possible from the rest of the environment. Radiall quantum components make it possible to extend the life of Qubits.*

PART NUMBERS	ATTENUATION VALUE (dB)	CONNECTOR	FREQUENCY (GHz)	TYPE	POWER (W)
R429 800 000	0	SMA	DC - 18 GHz	F to F	2 W
R429 803 000	3				
R429 806 000	6				
R429 810 000	10				
R429 820 000	20				