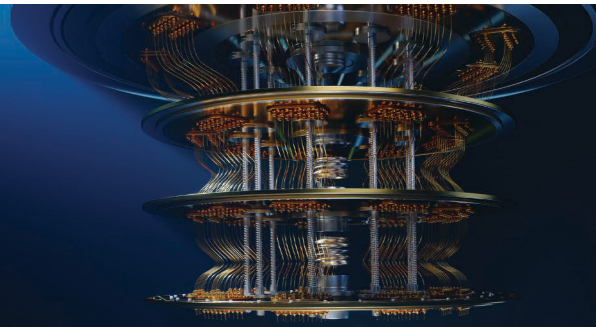




# CRYOGENIC ATTENUATORS

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, Synergy 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. Synergy quantum components make it possible to extend the life of Qubits.*

PART NUMBERS	ATTENUATION VALUE (dB)	CONNECTOR	FREQUENCY (GHz)	TYPE	POWER (W)
ST429 800 000	0	SMA	DC - 18 GHz	F to F	2 W
ST429 803 000	3				
ST429 806 000	6				
ST429 810 000	10				
ST429 820 000	20				