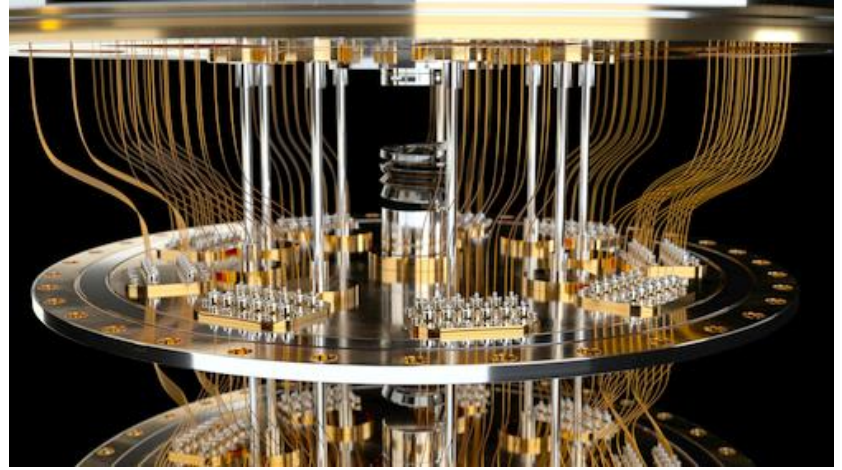


Cryogenic Low Noise Amplifier



Cryogenic Low Noise Amplifier

Withwave's **Cryogenic Low-Noise Amplifier** using InP HEMT(High Electron Mobility Transistor) technology offers high gain and **low noise figure characteristics (NF : 0.04~0.05dB)** for C-Band (4~8GHz) applications such as quantum computing and space communications. This LNA is tested and verified using Withwave's 4 K cryogenic measurement system.



Features

- Frequency Range : 4 ~ 8 GHz
- Very Low Noise Figure (NF : 0.04~0.05 dB)
- InP HEMT Technology
- Operation at Cryogenic Temperatures

Application

- Quantum Computing
- Space
- Communications
- Radio Astronomy

Specification

Scope	Items	Specification
Electrical	Frequency Range	4 ~ 8 GHz
	Gain	36 ~ 45 dB
	Noise Temperature	2.7 ~ 3.6 K
	Noise Figure	0.04 ~ 0.05 dB
	DC Power	$V_D=0.86$ V, $I_D=10.5$ mA
	Input Return Loss	-10dB
	Output Return Loss	-15dB
Mechanical & Environmental	Dimensions	25 * 23.45 * 7.8 mm
	Weight	13.8 g
	RF Connectors	2.92mm Female
	DC Connectors	9-pin Female Nano-D
	Operating Temperature	2 K ~ 313 K
Material	Housing	Aluminum with gold plate