

Rev:A00

Control Signal Combine



The control signal combiner is an essential electronic component used to connect and control circuits. It is used to combine control signals for qubit XY and Z, and can be used at both room temperature and low temperature.

Technical requirements

Item	Specification
Model	COMG00811A001
Frequency range	DC-2GHz, 2.7-8GHz
Insertion loss	≤0.5dB@DC-2GHz
	≤0.5dB@2.7-8GHz
Return loss	≥18dB@DC-2GHz
	≥18dB@2.7-8GHz
Out-of-band suppression	≥20dB@DC-2GHz
	≥15dB@2.7-8GHz
Isolation	≥15dB@DC-2GHz&2.7-8GHz
Temperature	300K
Connector	SMA-F

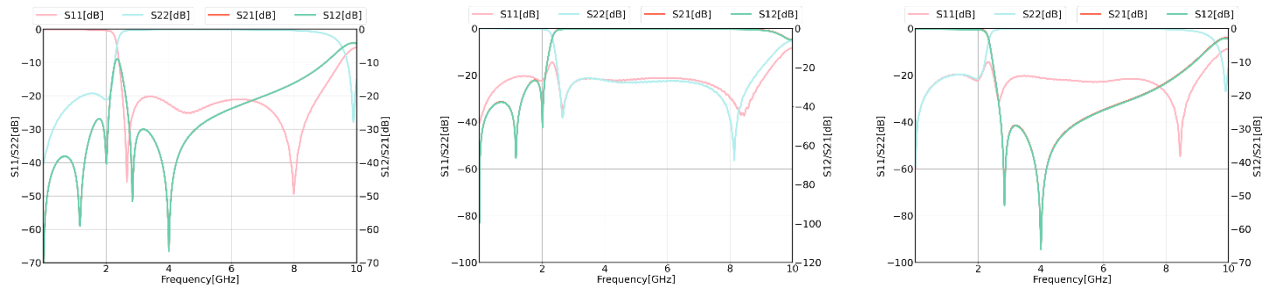
Control Signal Combiner

Material and surface

	Item	Material	Surface
SMA connector	Outer connector	Stainless steel	Passivated finish
	Center conductor	Beryllium bronze	Gold plated
	Connector-dielectric	PTFE & PEI	/
	Cavity	AL	Conductive oxidation

Test results

Measure data, $T_{amb}=300K$



Outline drawing (Unmarked tolerance: $\pm 0.1mm$)

