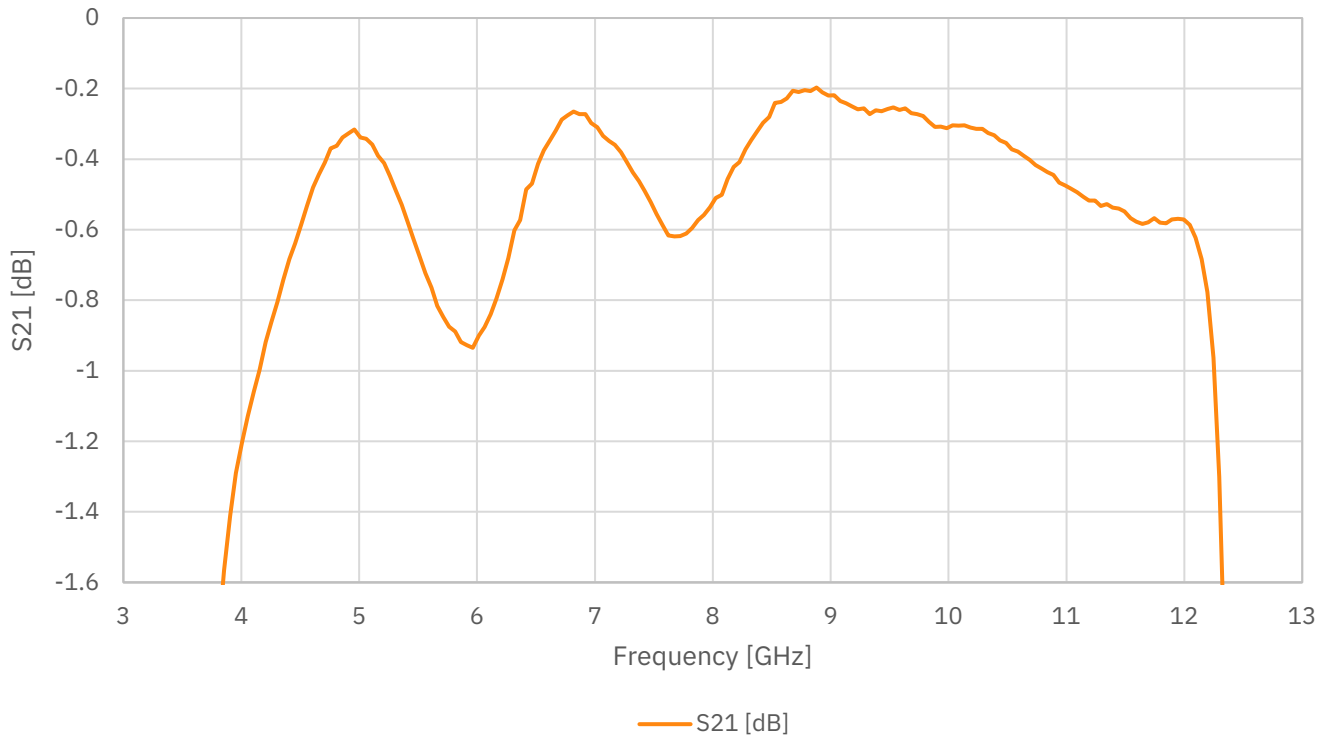


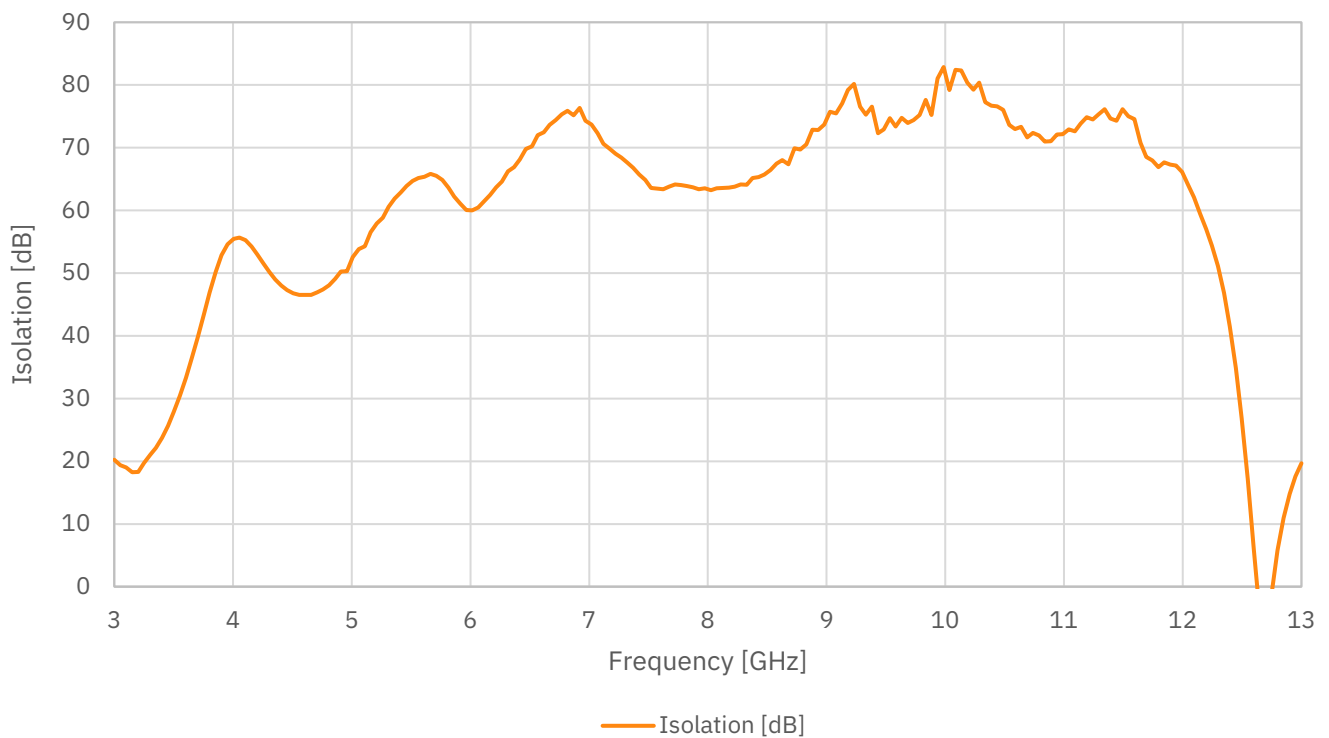


Measured data,  $T_{amb} = 77\text{ K}$

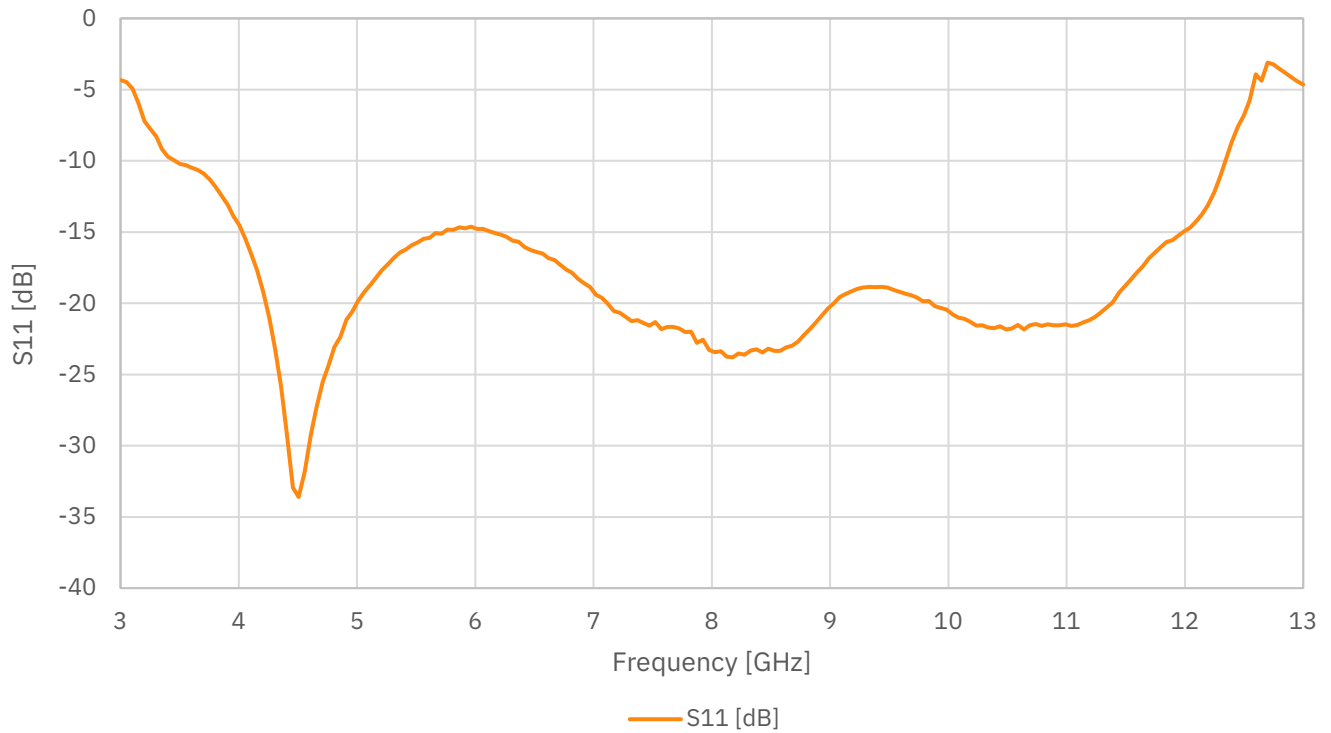
Insertion Loss at 77 K



Isolation at 77 K

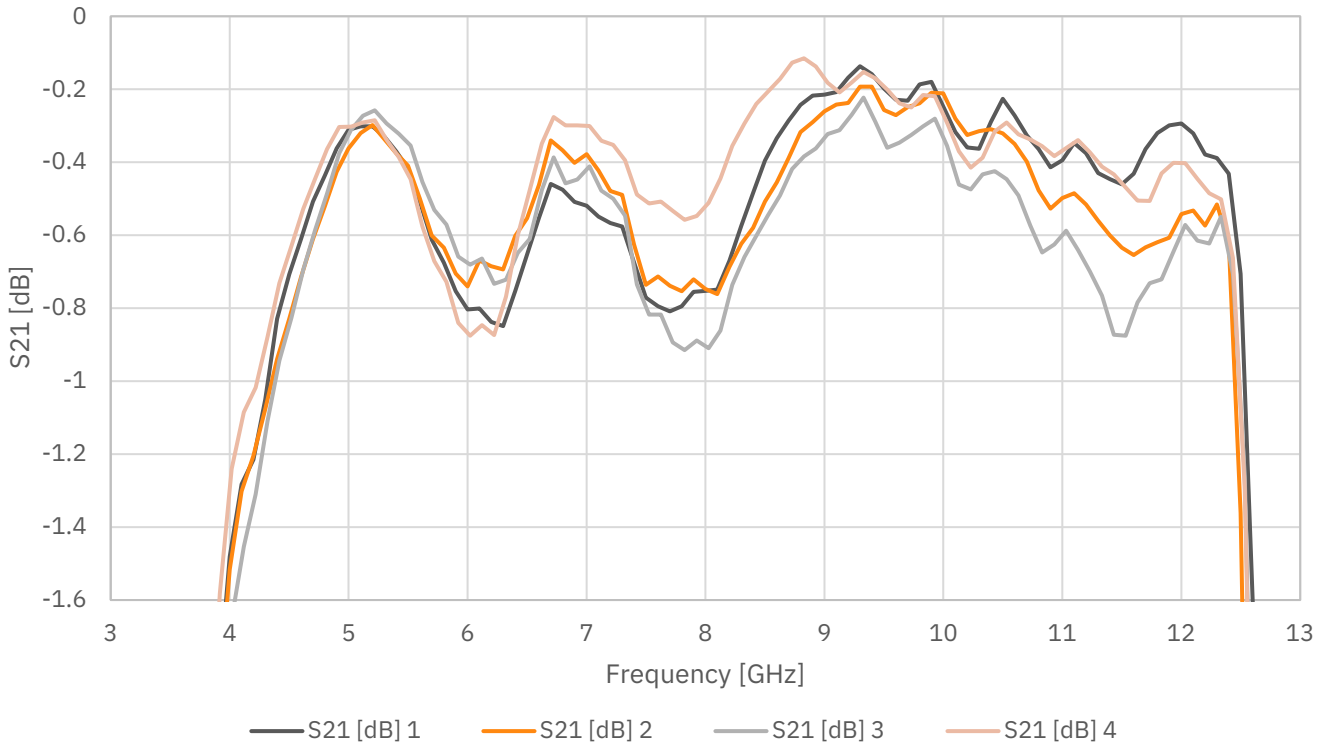


### Port Match at 77 K

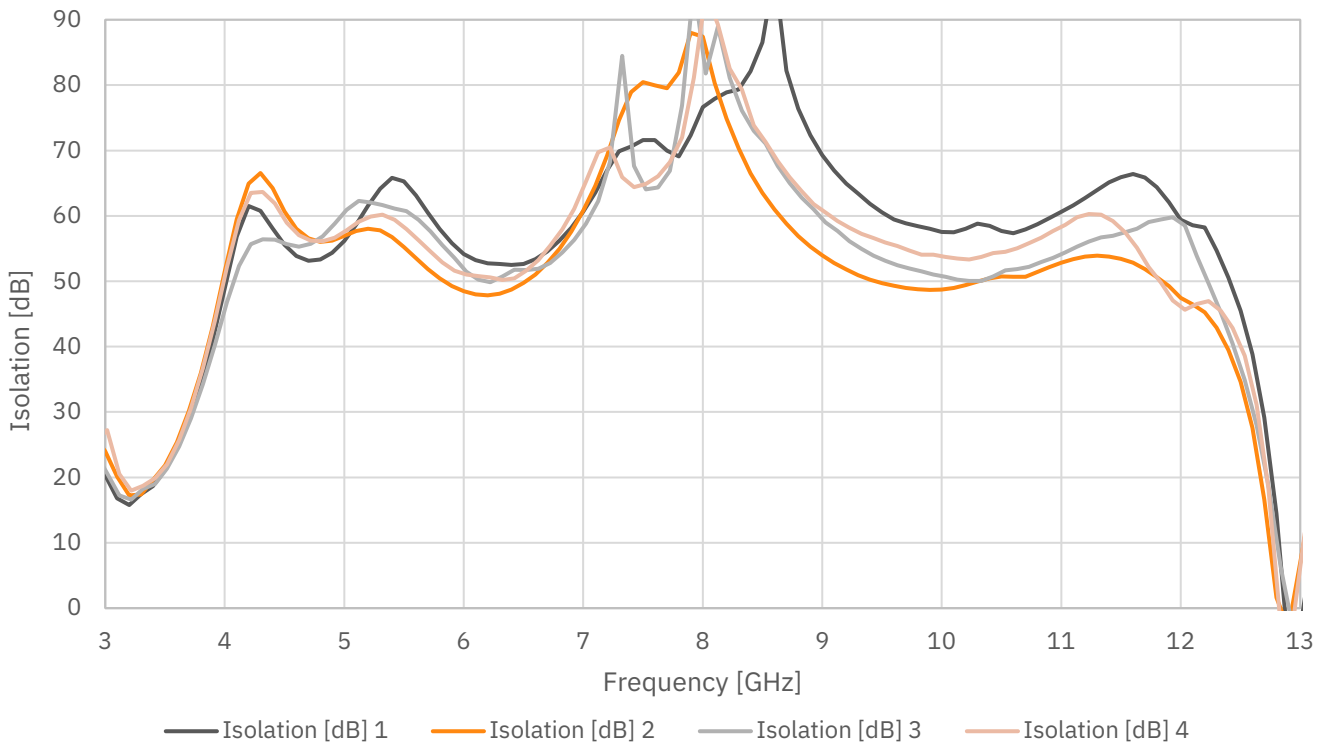


Measured data,  $T_{amb} = 5\text{ K}$

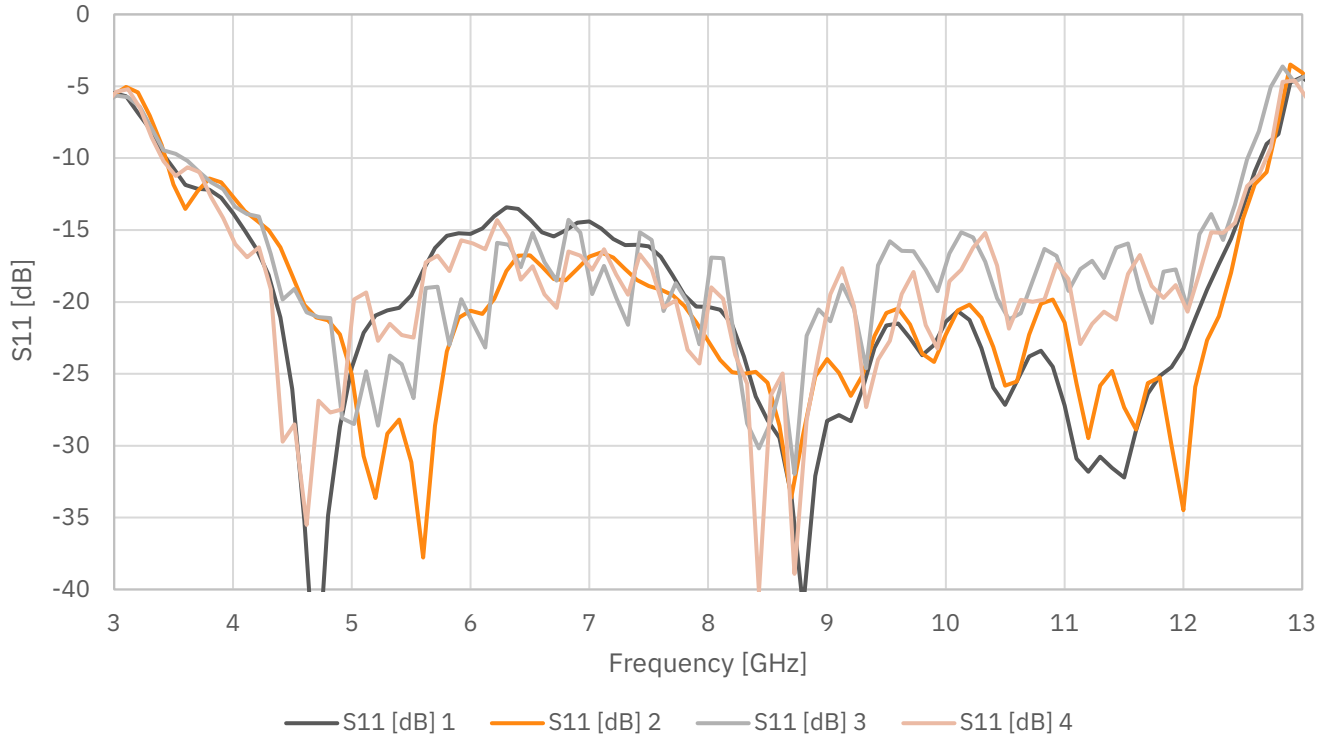
Insertion Loss of 4 Units at 5 K



Isolation of 4 Units at 5 K



### Port Match of 4 Units at 5 K



## Magnetic flux density generated by internal magnet

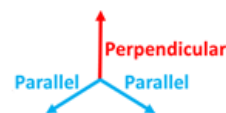
Parameter	Condition	Value	Unit
Magnetic flux density with standard shielding*	6 mm from chassis	< 4	Gauss
Magnetic flux density with optional shielding	6 mm from chassis	< 0.1	Gauss

- This is the magnetic field generated by the internal magnet inside the isolator/circulator chassis, which potentially may influence nearby components.
- Two isolators/circulators can be placed 3.3 mm apart without interfering with each other.

## Maximum external magnetic field imposed on the isolator

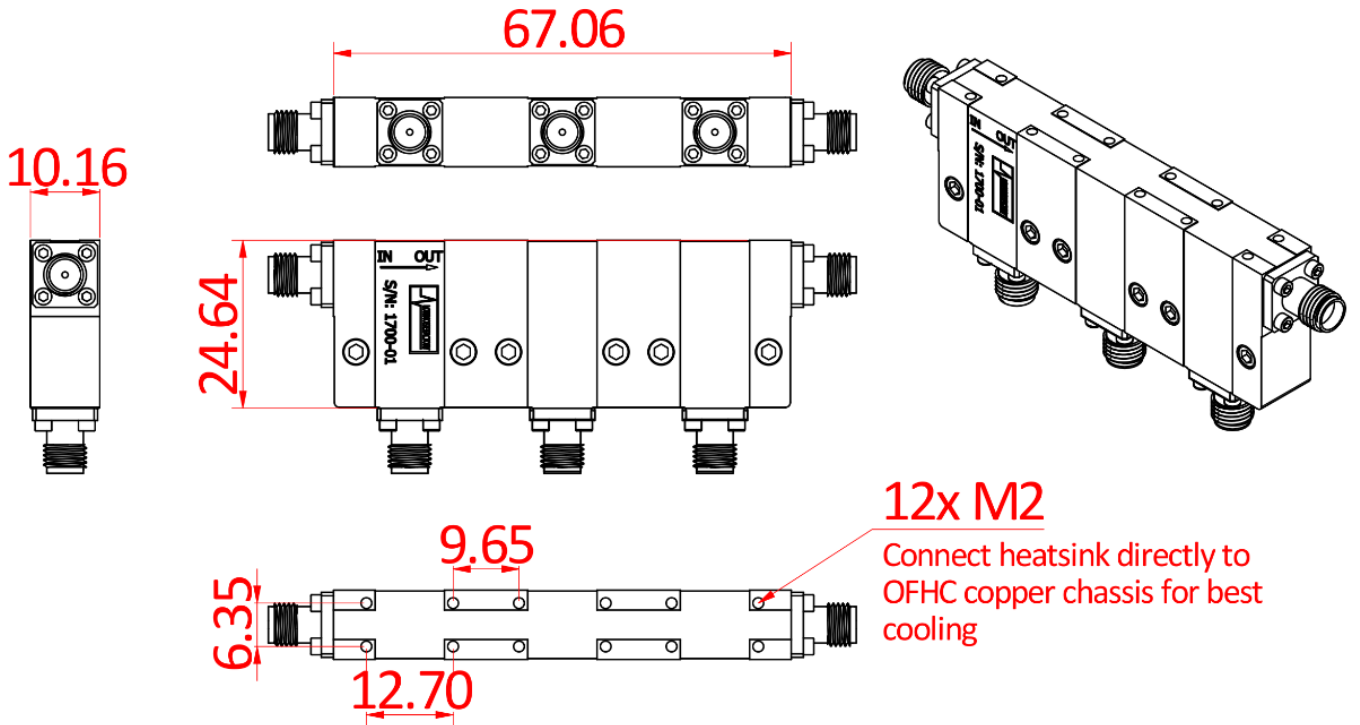
Parameter	Condition	Value	Unit
Maximum perpendicular external magnetic field	At chassis	650	Gauss
Maximum parallel external magnetic field	At chassis	1500	Gauss

- “Maximum field” means the field when the passband frequency edge has shifted 150 MHz, and insertion loss degradation becomes noticeable.
- The optional MuMetal shield improves the maximum external magnetic field very little. MuMetal alloys are good at shielding very low level “stray” magnetic fields, however the material saturates quickly and doesn’t shield well against high field external sources.



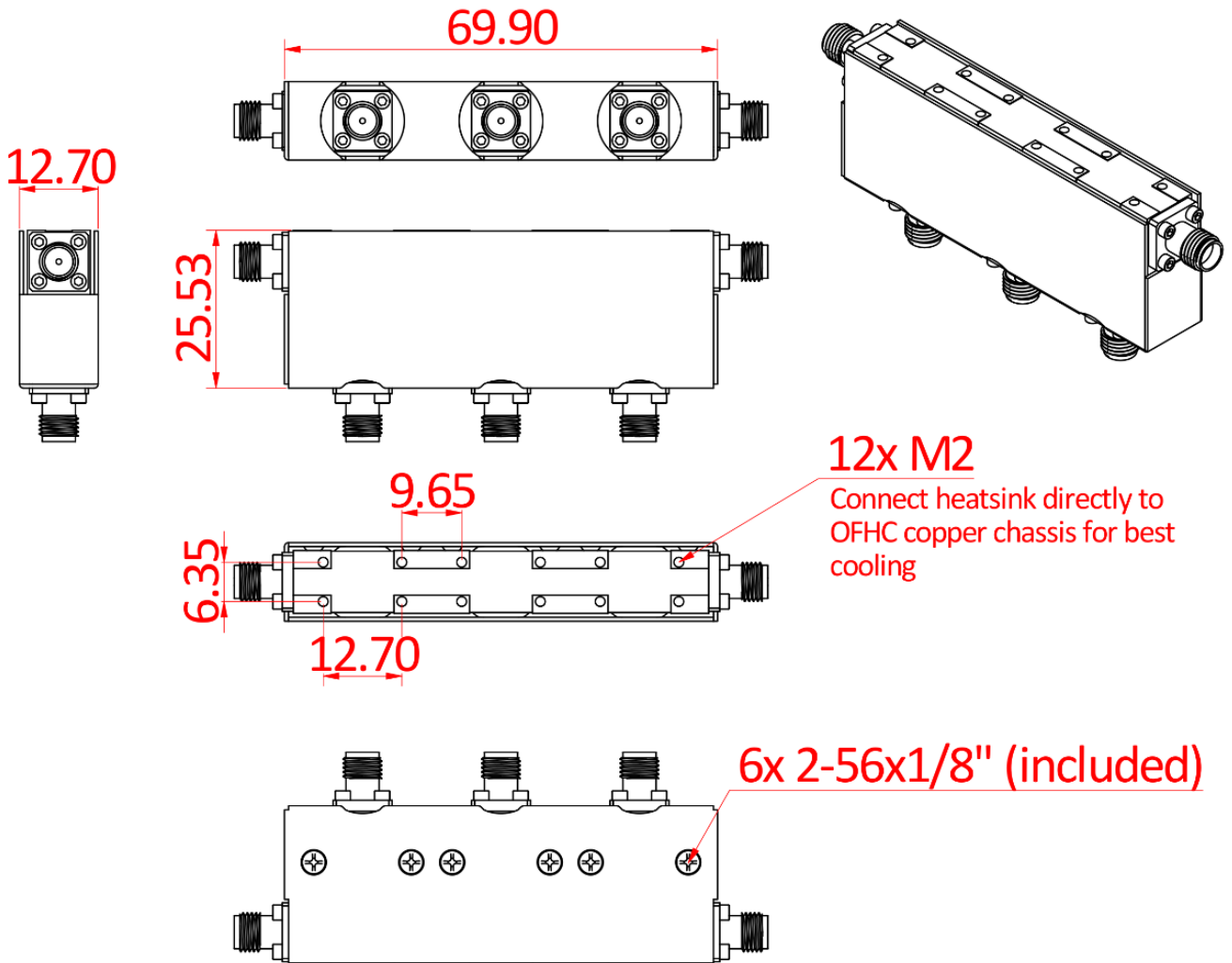
## Dimensions without additional shielding

Units: mm



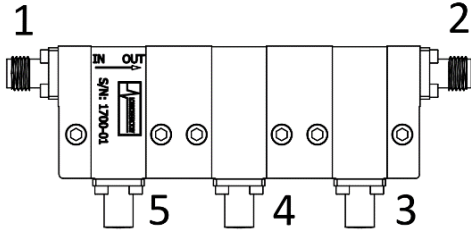
## Dimensions with additional shielding

Units: mm





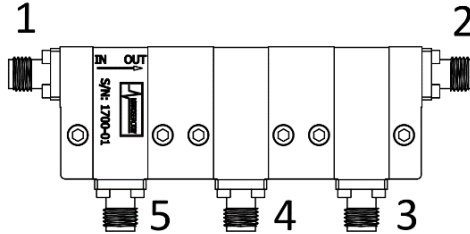
## Model numbering



**LNF-ISISISC4\_12A**

Triple Junction Isolator-Isolator-Isolator

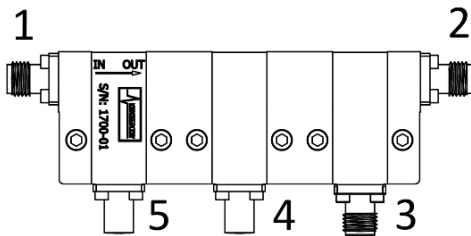
Port 1: Female SMA  
Port 2: Female SMA  
Port 3: Termination  
Port 4: Termination  
Port 5: Termination



**LNF-CICICIC4\_12A**

Triple Junction Circulator-Circulator-Circulator

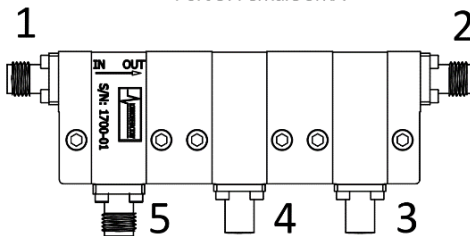
Port 1: Female SMA  
Port 2: Female SMA  
Port 3: Female SMA  
Port 4: Female SMA  
Port 5: Female SMA



**LNF-ISISCIC4\_12A**

Triple Junction Isolator-Isolator-Circulator

Port 1: Female SMA  
Port 2: Female SMA  
Port 3: Female SMA  
Port 4: Termination  
Port 5: Termination



**LNF-CIISISC4\_12A**

Triple Junction Circulator-Isolator-Isolator

Port 1: Female SMA  
Port 2: Female SMA  
Port 3: Termination  
Port 4: Termination  
Port 5: Female SMA

Version	Model number
Triple Isolator	LNF-ISISISC4_12A
Triple Circulator	LNF-CICICIC4_12A
Isolator-Isolator-Circulator	LNF-ISISCIC4_12A
Circulator-Isolator-Isolator	LNF-CIISISC4_12A
Extra shield	LNF-SHIELD4_12_TJ