

## HERD-2

### High-Energy-Radiation-Drain IR Blocking Filter

HERD-2 is a non-magnetic SMA inline infrared blocking filter based on our High-Energy Radiation Drain technology (HERD). The HERD-2 filter is designed to be much more compact than its predecessor HERD-1, providing similar, ultra-low in-band losses with improved filtration in the stopband. The filter features an integrated carbon-based absorber, well thermalized to the gold-plated copper body.



### Product Specifications

Design impedance	50 $\Omega$
Passband	DC-13.5 GHz
Stopband	70-145 (min.) GHz
Insertion loss (passband)	Typ. < 0.13 dB (DC-8GHz)
Return loss (passband)	Typ. > 20 dB (DC-13.5 GHz)
Insertion loss (stopband)	Typ. > 65 dB (70-120 GHz)
Return loss (> 20 GHz)	Typ. > 7 dB
RF Connectors	Male/Female SMA, SMP, SMPM, SMPS **
** Contact Sweden Quantum for alternative configurations	

### Absolute max ratings

Parameter	Min	Max
Operating Temperature	0 K	320 K
RF input power	-	30 dBm

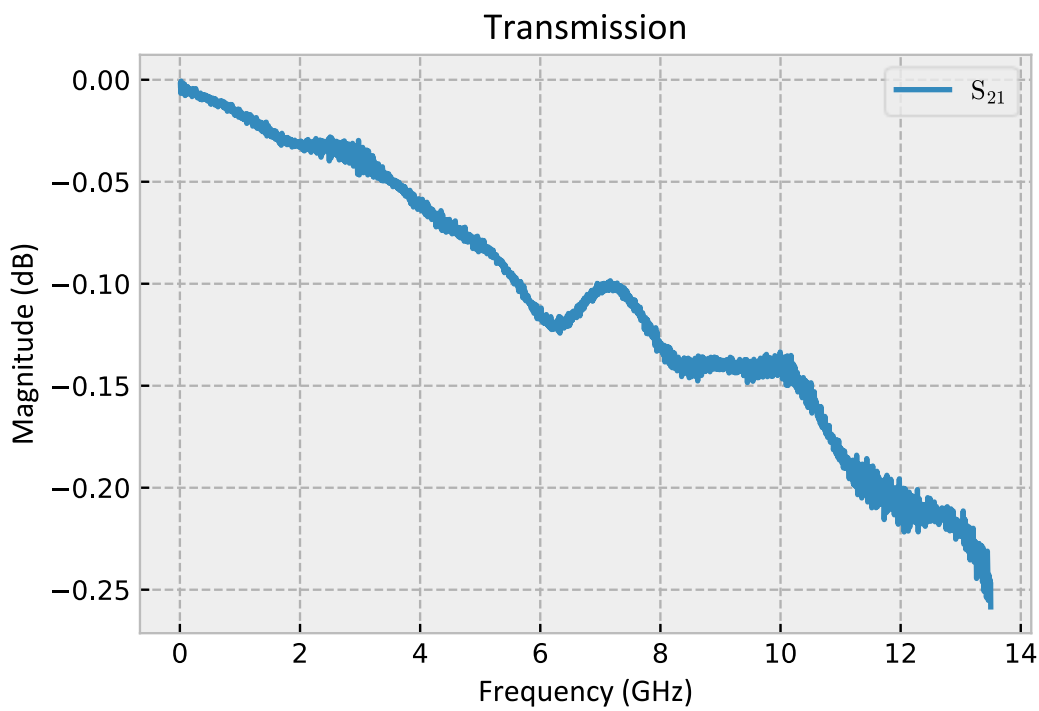
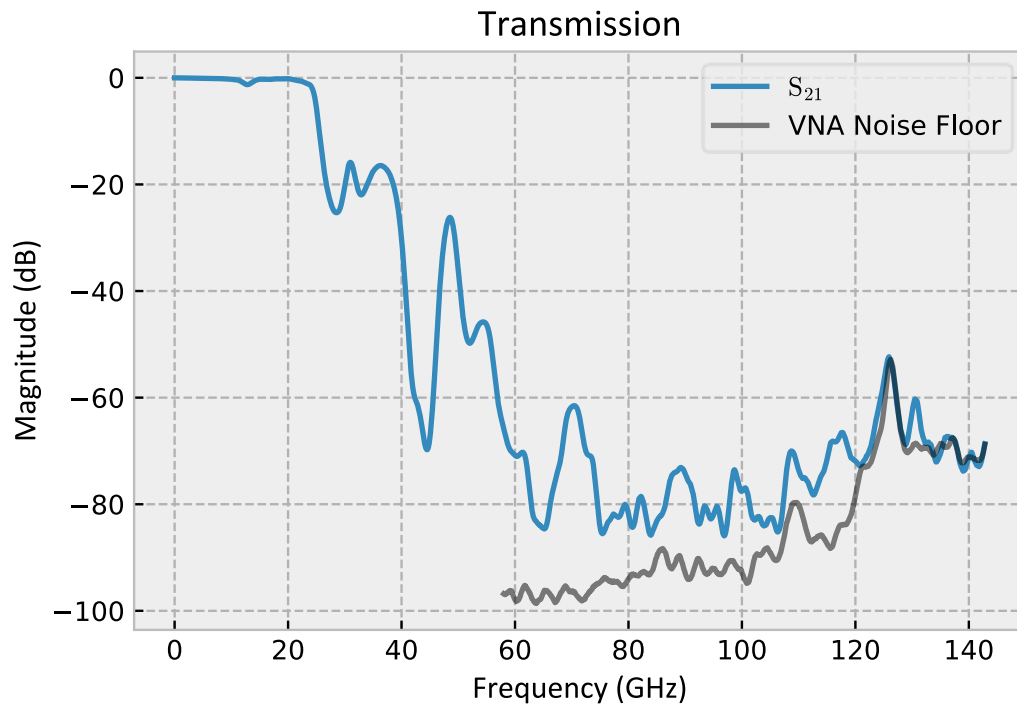
### Mechanics

Length	63 mm
Width	9.525 mm

NOTE: Not tested in liquid-cooled cryostats

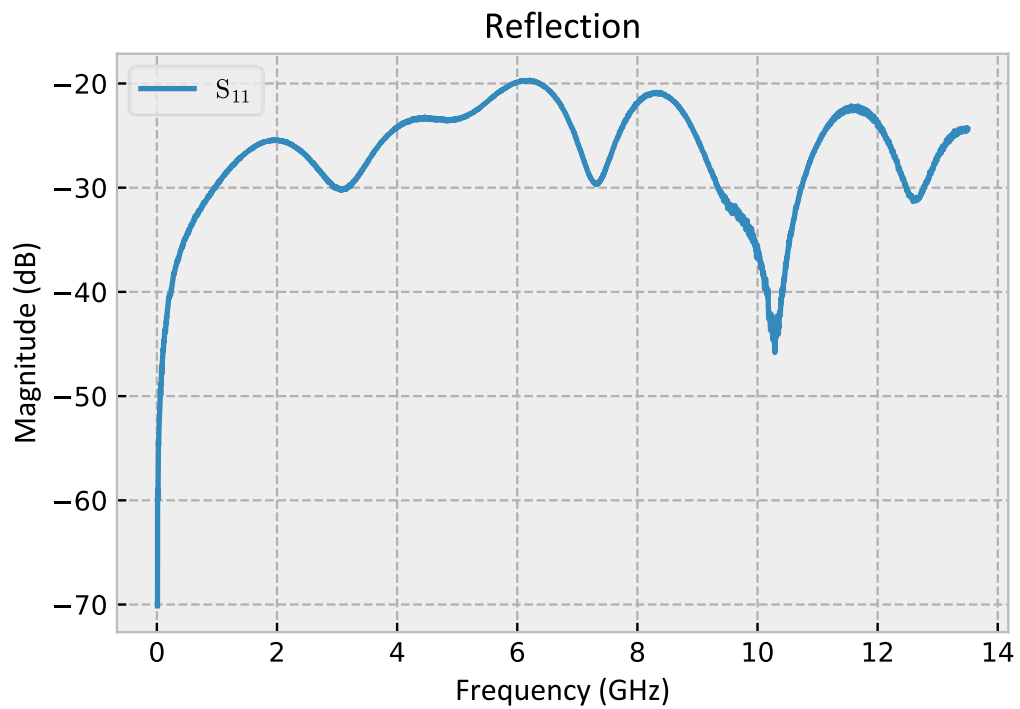
RoHS compliant

### Measurement Data (pre-production prototype)



RoHS compliant

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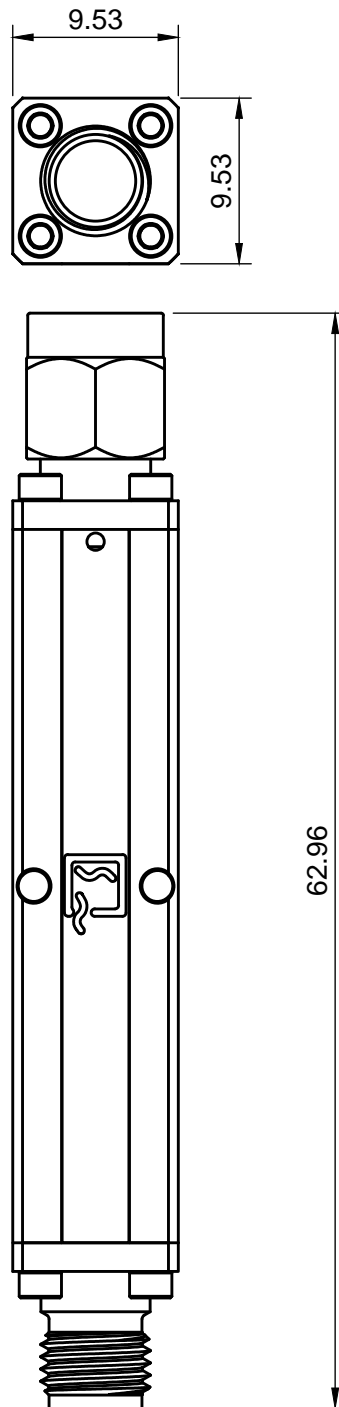


RoHS compliant

Date  
29-01-2024

Datasheet Rev. 1  
HERD-2  
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### Dimensions (mm)



RoHS compliant