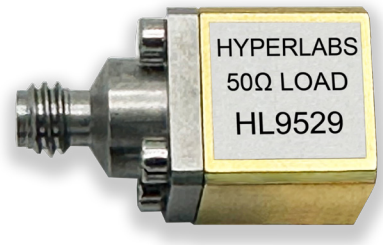
HL952x Series Termination (DC to 110 GHz)

Features and Technical Specifications[1] (HL9529 shown)

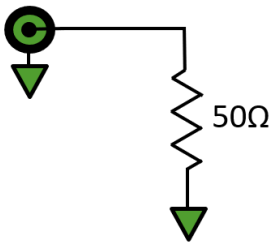
Bandwidth	DC to 110 GHz
Return Loss	15 dB, DC < f ≤ 90 GHz 10 dB, 90 GHz < f ≤ 110 GHz See *figure below*
Input Power	20 dBm (24 dBm max)[2]
Rise Time (10-90%)	3 ps, all options
Connectors	1.0 mm, jack/female (opt. -J) 1.0 mm, plug/male (opt. -P)
Temperature Limits	-40° to +50° C, case
RoHS Compliant	Yes, assembled with lead-free solder
REACH Compliant	Yes
Warranty	1 year, see website

1 - Unless otherwise noted, the specifications in this table are typical for Model Number HL9429. See page 2 for full specifications for each model.

2 - Long-term power handling testing is ongoing. The preliminary specification is 20 dBm.



HL9529, opt. -J



HL952x Schematic and Port Assignments

PRODUCT SUMMARY

The HL952x series are ultra-broadband 50 Ω load terminations.

These devices are typically used to provide a matched (dummy) load on an unused port to prevent unwanted reflections.

Typical Applications:

- 5G Wireless
- Test & Measurement
- Radar Systems
- Military and Aerospace

MODELS & OPTIONS

The following models are available:

HL9524, 40 GHz
HL9525, 50 GHz
HL9527, 70 GHz
HL9529, 110 GHz

The following options are available:

-J, jack/female
-P, plug/male

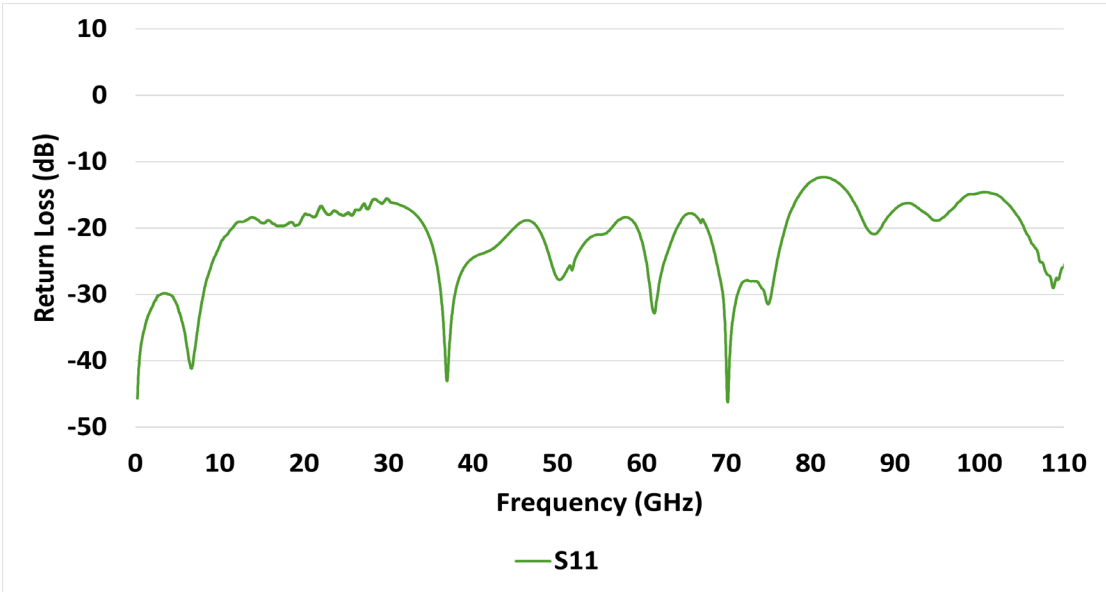


Fig. 1: Typical HL9529 Return Loss

HL952x Full Specifications

Parameter	HL9524	HL9525	HL9527	HL9529	Comment
Upper Frequency Limit	> 40 GHz	> 50 GHz	> 70 GHz	> 110 GHz	3 dB roll-off point, relative to nominal insertion loss
Lower Frequency Limit	DC				
Input Power	20 dBm (24 dBm max)				Preliminary
Return Loss *See Figs. 1-2*	25 dB	20 dB	20 dB	15 dB, f ≤ 90 GHz 10 dB, 90 GHz < f ≤ 110 GHz	Typical
Rise Time	8.75 ps	7 ps	5 ps	3 ps	
DC Resistance	50 ± 1 Ω				
Impedance	50 Ω				
Connectors	2.92 mm	2.4 mm	1.85 mm	1.0 mm	
Dimensions (W x D x H)	0.737" x 0.377" x 0.377" 18.7 x 9.57 x 9.57 mm	0.78" x 0.377" x 0.377" 19.8 x 9.57 x 9.57 mm	0.80" x 0.377" x 0.377" 20.3 x 9.57 x 9.57 mm	0.737" x 0.377" x 0.377" 18.7 x 9.57 x 9.57 mm	Package including connectors
Weight	6 g (0.21 oz.)				
Operating Temperature	-40° to +50° C				Case temperature
RoHS Compliant	Yes, assembled with lead-free solder				
REACH Compliant	Yes				
Warranty	1 year, repair or replacement; see website for details				

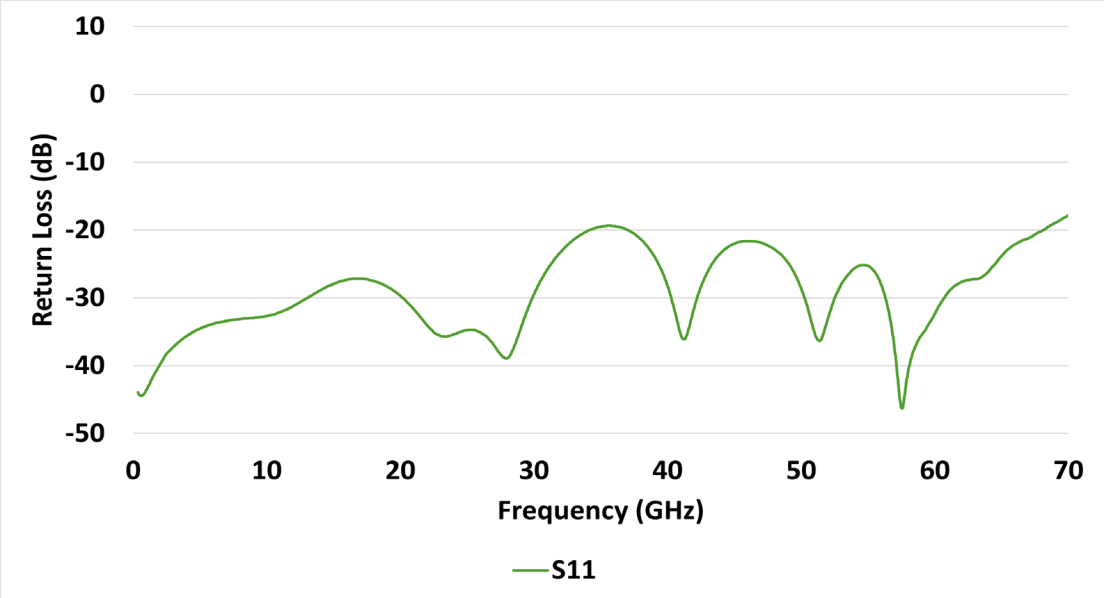


Fig. 2: Typical HL9527 Return Loss

HL9529 Dimensional Drawing

Figure 3 shows a mechanical drawing of an HL9529-J. Unless otherwise noted, all units are in inches. See page 2 for full dimensions.

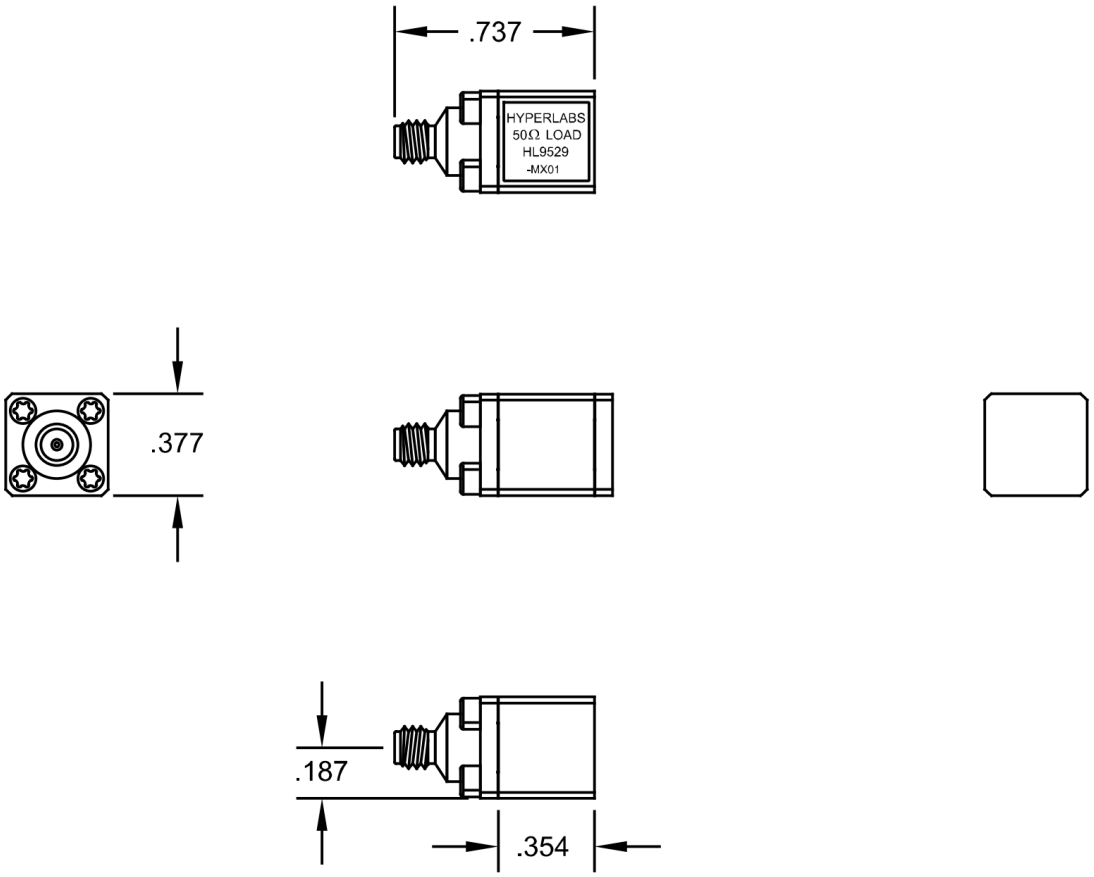


Fig 3: HL9529 Mechanical Drawing