

PRODUCT SUMMARY

The HL8828 is an ultra-broadband attenuator with a typical fixed insertion loss of 3 or 6 dB and a very flat frequency response over the specified bandwidth.

These devices are typically used to reduce RF input power to protect sensitive front-end instrumentation or any other application that requires a signal reduction.

Typical Applications:

- Optical communications
- Test & Measurement
- High-speed data systems
- Pulse experiments
- 224 Gbps PAM4 communications systems

MODELS & OPTIONS

The following models are available:

HL8828, 145 GHz

The following options are available:

- 03, 3 dB attenuation
- 06, 6 dB attenuation

-JJ, jack RF 1 and RF 2

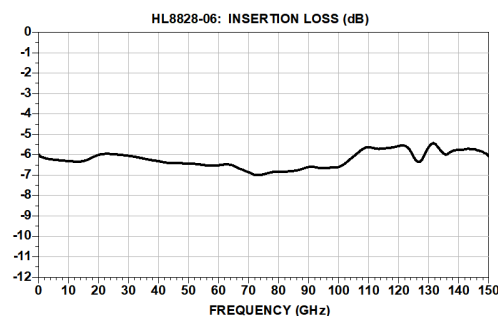
HL8828 Fixed Attenuators (3 or 6 dB), DC to 145 GHz

Features and Technical Specifications HL8828

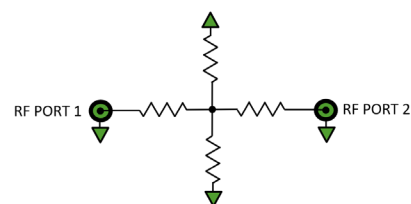
Bandwidth	DC to 145 GHz
Insertion Loss	3 ± 1.5 dB, f ≤ 145 GHz (opt. -03) 6 ± 1.5 dB, f ≤ 145 GHz (opt. -06)
Return Loss	< 10 dB, f ≤ 145 GHz
Group Delay	≈ 72 ps
Rise Time (10-90%)	2.5 ps
Input Power	24 dBm max
Connectors (PORT 1 / PORT 2)	0.8 mm, jack/jack (opt. -JJ)
Dimensions (L x W x H)	0.947" x 0.375" x 0.375" 24.0 x 9.52 x 9.52 mm
Weight	4.5 g
Temperature Limits	-40° to +70° C, operating
RoHS Compliant	Yes, assembled with lead-free solder
REACH Compliant	Yes
Warranty	1 year, see website



HL8828, Option -06-JJ shown



Typical HL8828-06 Insertion Loss



HL8828 Schematic and Port Assignments

HL8838 Plot Diagrams and Mechanical Drawing

Figures 1-4 show the typical S-parameter characteristics of an HL8828 in options -03 and -06.

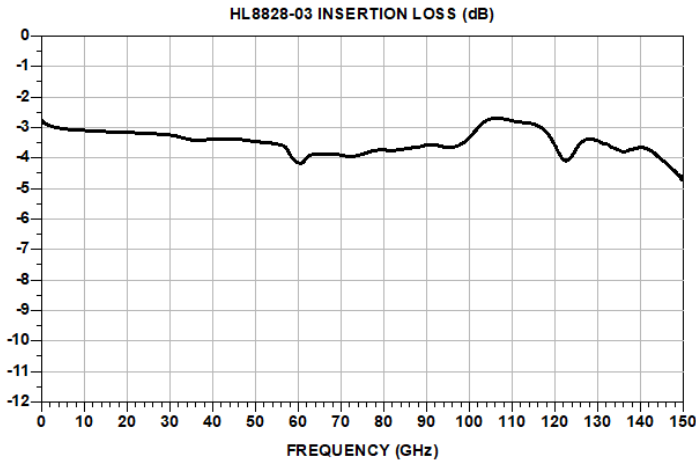


Figure 1: Typical HL8828-03 Bandwidth and Insertion loss

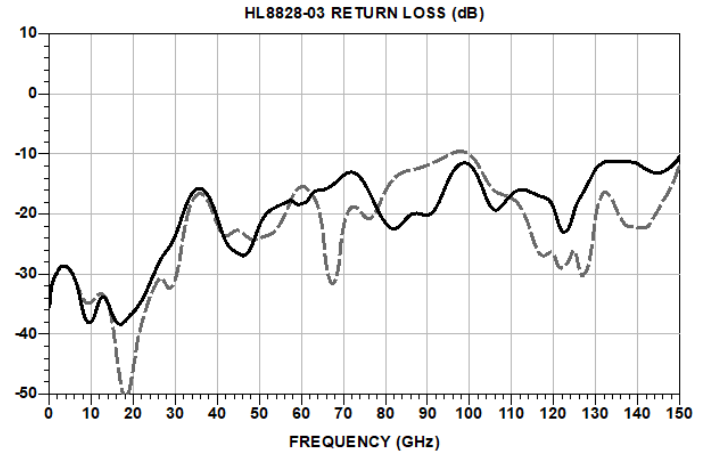


Figure 2: Typical HL8828-03 Return Loss

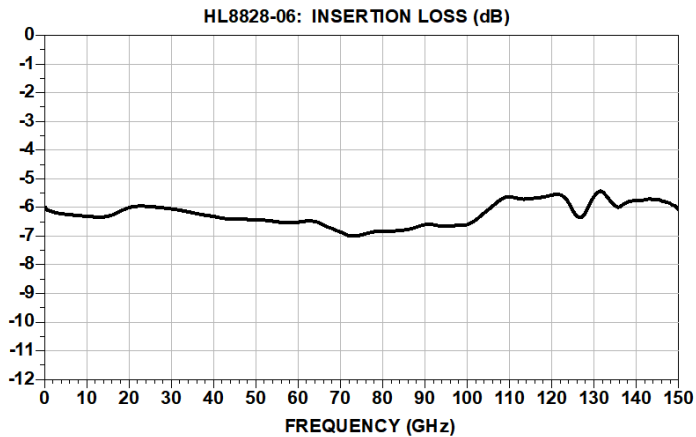


Figure 3: Typical HL8828-06 Bandwidth and Insertion Loss

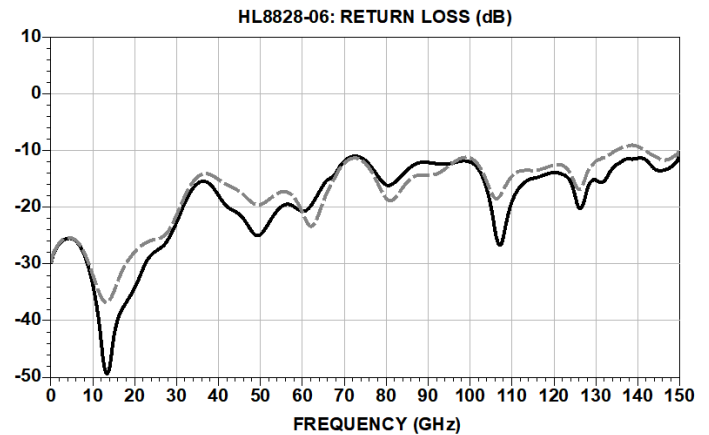


Figure 4: Typical HL8828-06 Return Loss

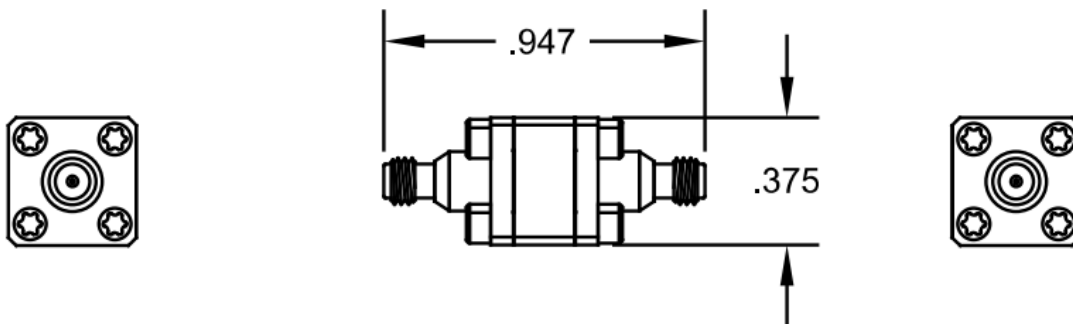


Fig 5: HL8828 Mechanical Drawing (dimensions in inches)