

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

### Features and Technical Specifications HL8828

Bandwidth	DC to 145 GHz
Insertion Loss	$6 \pm 1.5$ dB, $f \leq 145$ GHz
Return Loss	$< 10$ dB, $f \leq 145$ GHz
Group Delay	$\approx 72$ 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

#### PRODUCT SUMMARY

The HL8828 is an ultra-broadband attenuator with a typical fixed insertion loss of 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

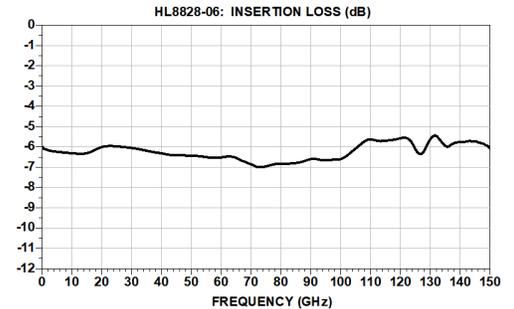
The following options are available:

**-06**, 6 dB attenuation

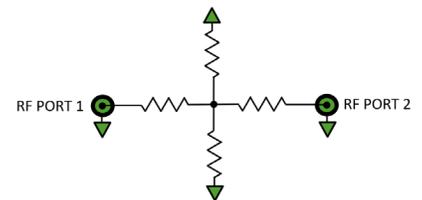
**-JJ**, jack RF 1 and RF 2



HL8828, Option -06-JJ shown



Typical HL8828 Insertion Loss



HL8828 Schematic and Port Assignments

## HL8828 Plot Diagrams and Mechanical Drawing

Figures 1-2 show the typical S-parameter characteristics of an HL8828 in option -06.

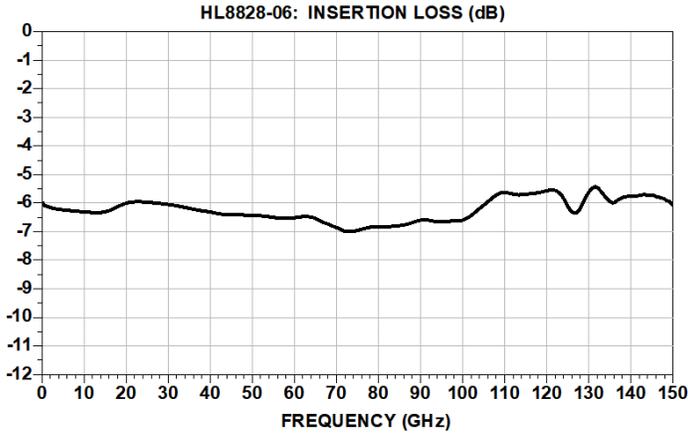


Figure 1: Typical HL8828-06 Bandwidth and Insertion loss

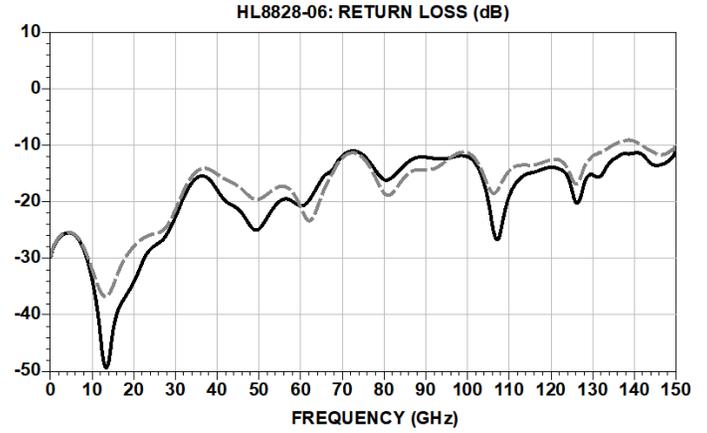


Figure 2: Typical HL8828-06 Return Loss

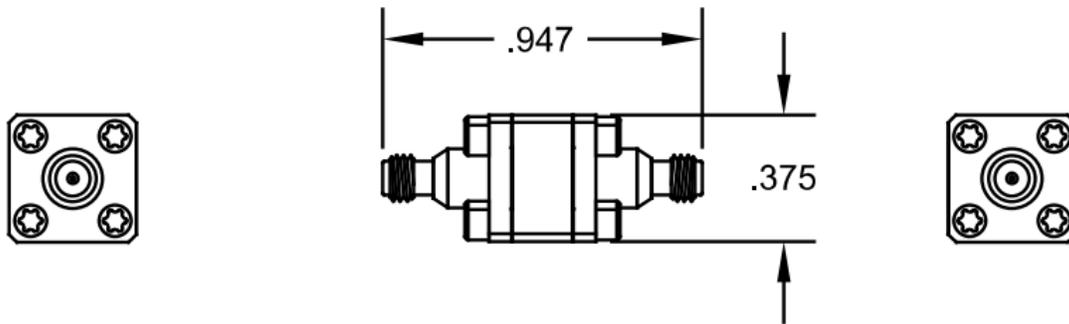


Fig 3: HL8828 Mechanical Drawing (dimensions in inches)