

## HL7061 Surface Mount Z-Matched Pick-off Tee (30 GHz)

### Features and Technical Specifications

#### PRODUCT SUMMARY

The HL7061 is a surface mountable (SMD) impedance-matched pick-off tee that provides flat frequency response on both the thru and pick-off lines from DC to over 30 GHz.

They are suitable for use in 100 Gbps Ethernet, 100 Gbps Long Haul, and 40 Gbps (D)QPSK communications systems, high-speed analog-to-digital conversion, frequency response testing for differential devices, and many other applications.

#### DEPLOYMENT NOTES

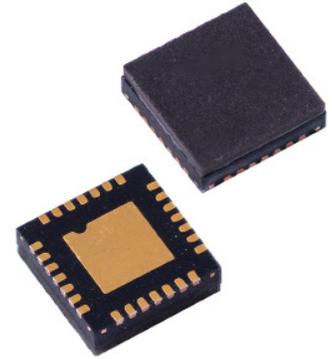
The HL7061 is packaged in a leadless 4 x 4 mm surface mount package.

#### MODELS & OPTIONS

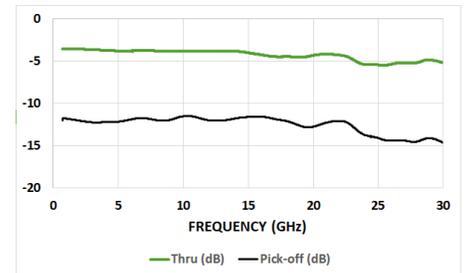
The following models are available:

- HL7061**, SMD package
- HL7061-EVAL**, mounted on evaluation board.

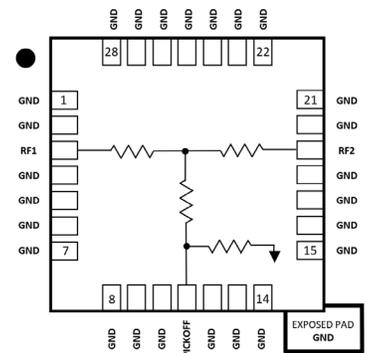
Bandwidth	DC to 30 GHz
Insertion Loss	4 ± 1 dB, thru line 13 ± 1 dB, pick-off line See Fig. 1
Return Loss	> 10 dB, all lines See Fig. 2
Group Delay	40 ps See Fig. 3
Rise Time (10-90%)	12 ps
Impedance	50 Ω
Interface	Solderable pads, Gold ENIG
Reflow Profile	Designed to be compatible with a SAC305 thermal reflow profile: - max reflow time above 217 C is 90 seconds - peak reflow temperature is 245 C, not to be exceeded
Dimensions	28 lead 4 x 4 mm SMT package; 16 mm <sup>2</sup> See Fig. 4
Temperature Limits	-40° to +85° C, operating
RoHS Compliant	Yes
REACH Compliant	Yes



HL7061, 4 x 4 mm QFN Package, 28 pin



Typical HL7061 Insertion Loss



HL7061 Schematic and Port Assignments

## HL7061 Insertion Loss and Return Loss

Figure 1 shows the insertion loss of the thru and pick-off lines of the HL7061 from DC to 30GHz.

Figure 2 shows the return loss of the HL7061 over the same bandwidth.

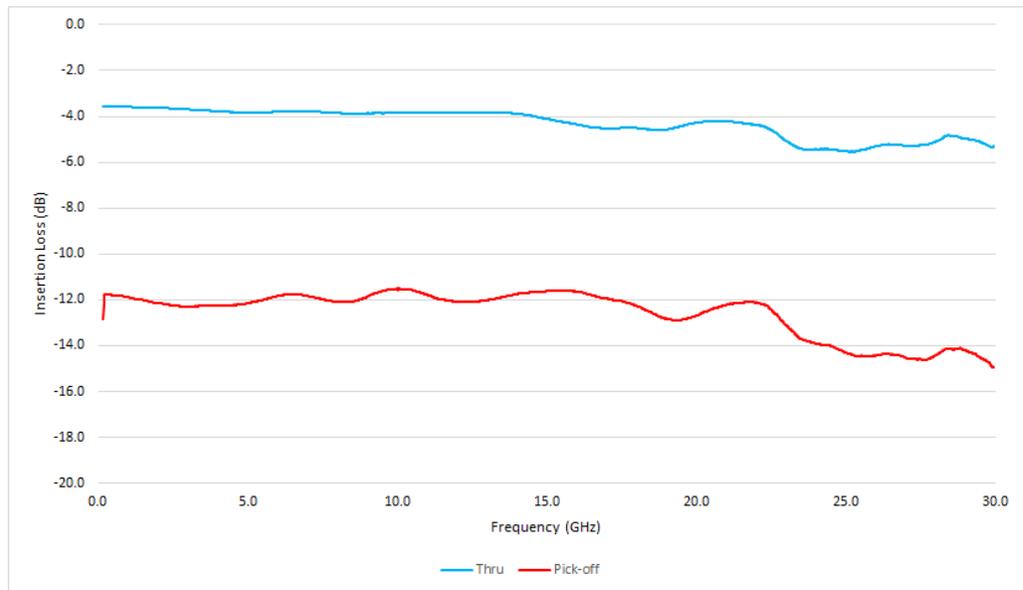


Figure 1: Typical HL7061 Insertion Loss

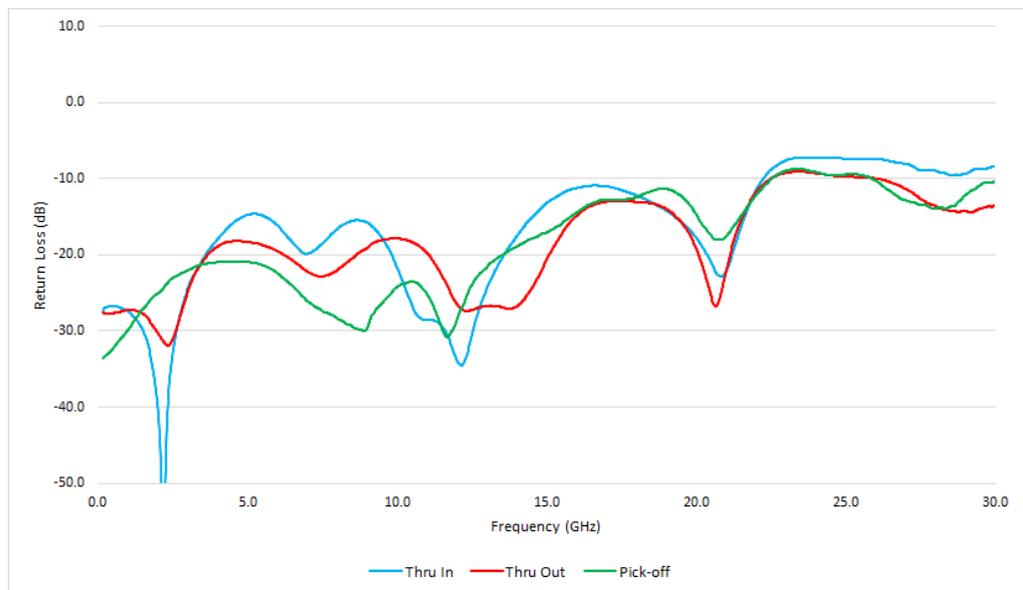


Figure 2: Typical HL7061 Return Loss

### HL7061 Group Delay

Figure 3 shows the Group Delay on a typical HL7061 from DC to 30GHz.

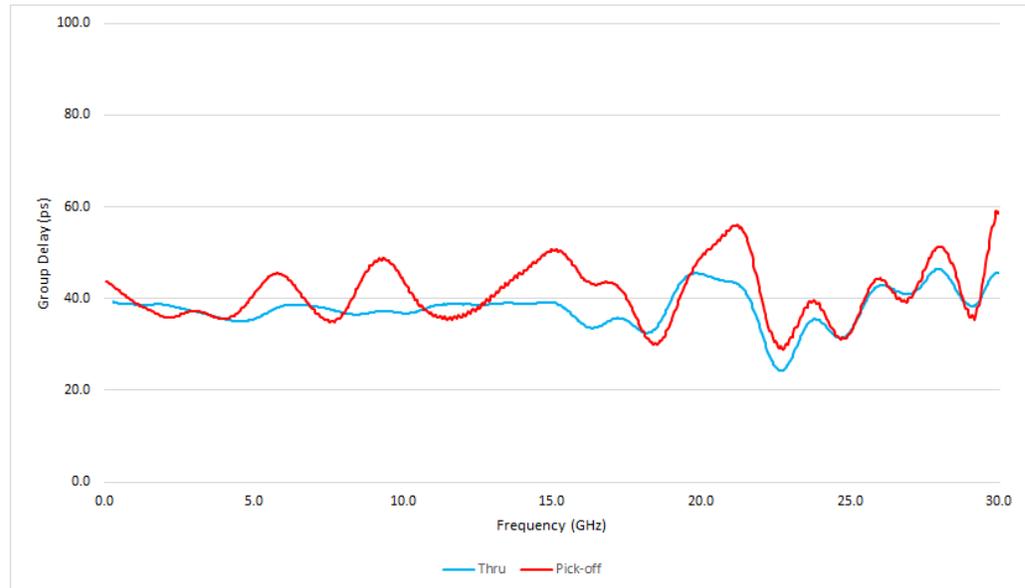


Figure 3: Typical HL7061 Group Delay

## HL7061 Dimensional Drawing

Figure 4 shows a mechanical drawing of an HL7061. Figure 5 shows an HL7061 mounted to the evaluation board. Unless otherwise noted, all units are shown in mm.

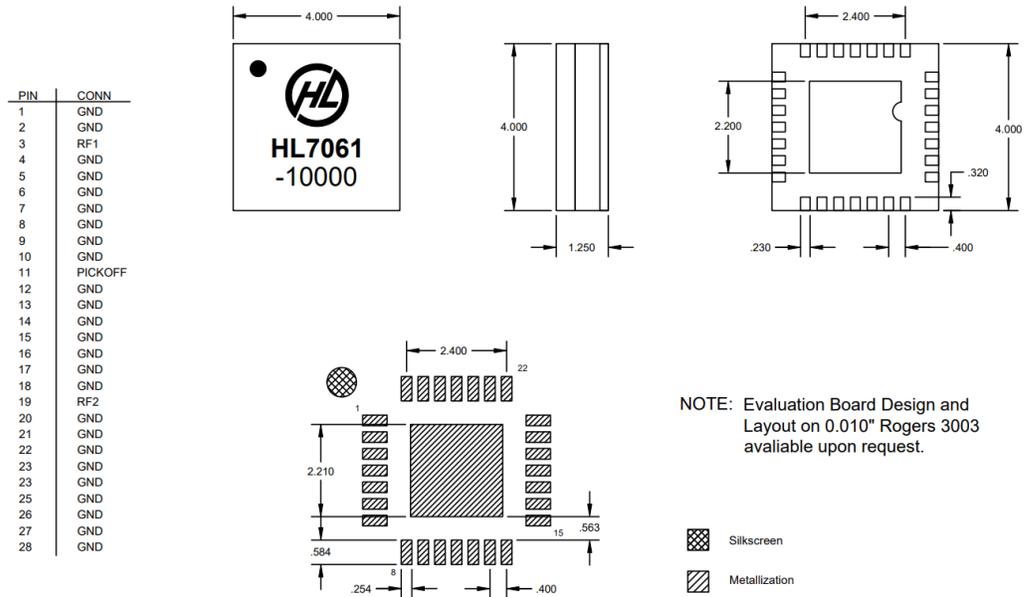


Figure 4: HL7061 Mechanical Drawing

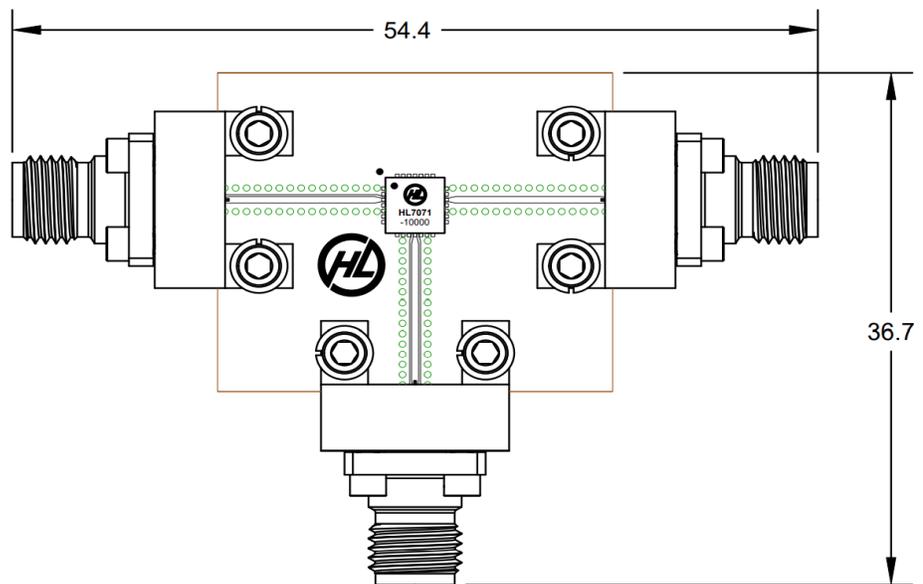


Figure 5: HL7061 Evaluation Board Dimensions