HL7062 Surface Mount Pick-off Tee (DC to 30 GHz)

Features and Technical Specifications

PRODUCT SUMMARY

The HL7062 is a surface mountable (SMD) 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.
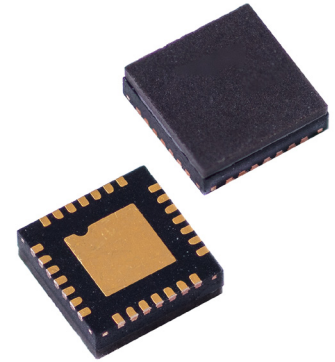
DEPLOYMENT NOTES

The HL7062 is packaged in a leadless 4 x 4 mm surface mount package.

MODELS & OPTIONS

The following models are available:

*HL7062*, SMD package
HL7062-EVAL, mounted on evaluation board.

Bandwidth	DC to 30 GHz
Insertion Loss	1 ± 1 dB, thru line 15 ± 2 dB, pick-off line See *Fig. 1*
Return Loss	> 15 dB, f < 20 GHz, thru line > 5 dB, pick-off line 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 mm² See *Fig. 4*
Temperature Limits	-40° to +85° C, operating
RoHS Compliant	Yes
REACH Compliant	Yes

HL7062, 4 x 4 mm QFN Package, 28 pin
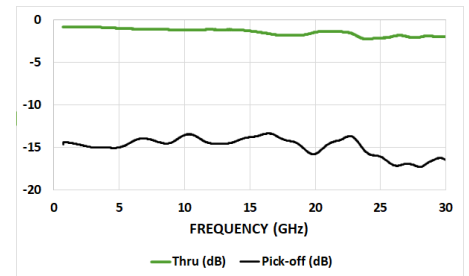
Typical HL7062 Insertion Loss
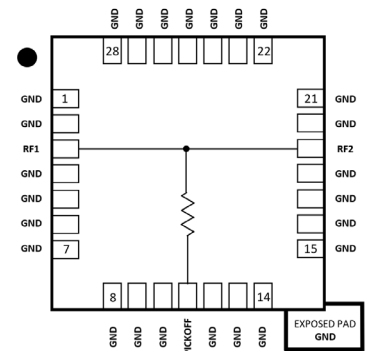
HL7062 Schematic and Port Assignments

HL7061 Insertion Loss and Return Loss

Figure 1 shows the insertion loss of the thru and pick-off lines of the HL7062 from DC to 30GHz.

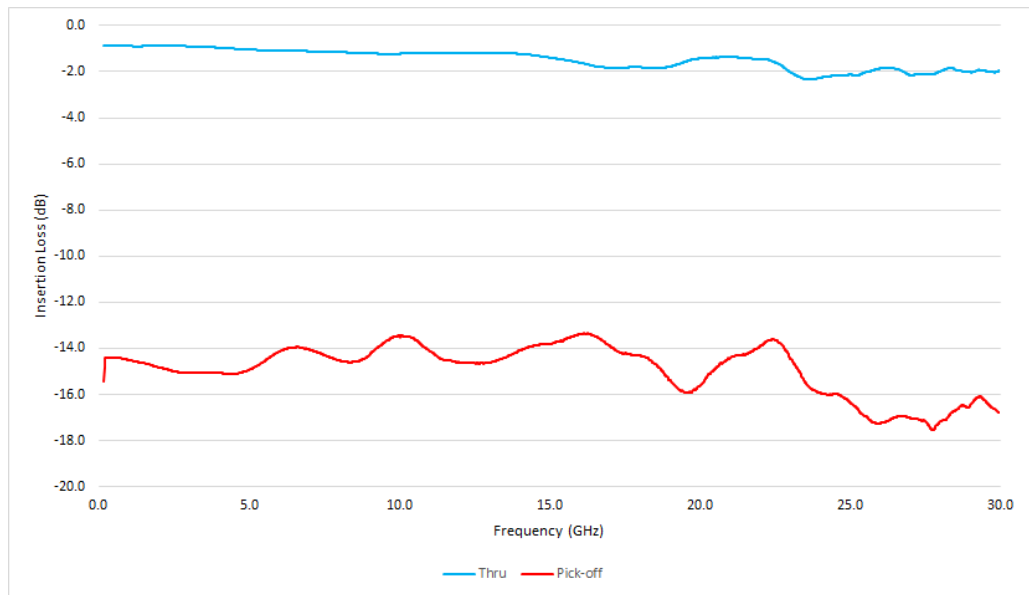*Figure 2* shows the return loss of the HL7062 over the same bandwidth.
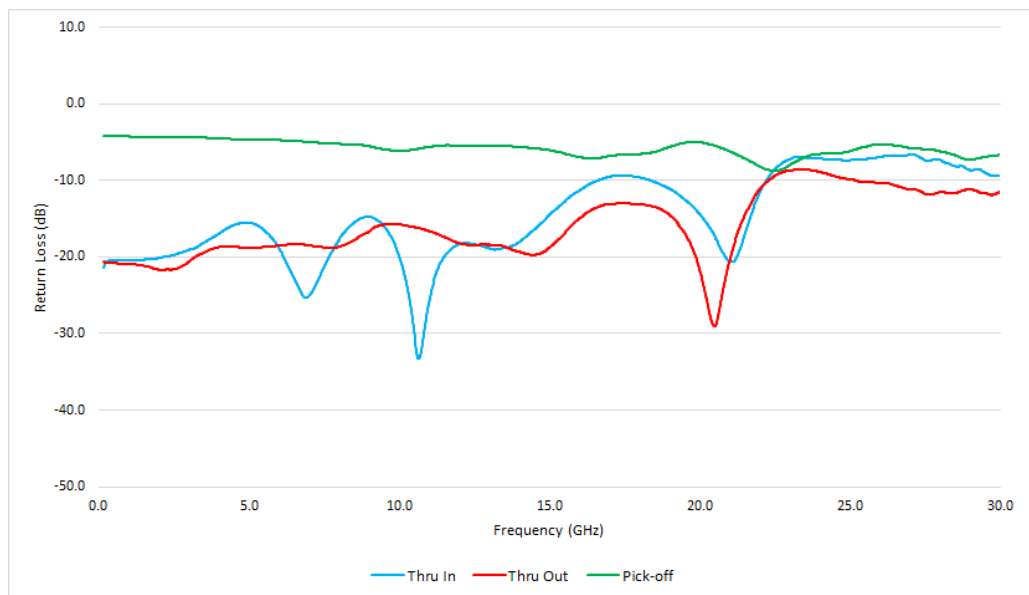

Figure 1: Typical HL7062 Insertion Loss

Figure 2: Typical HL7062 Return Loss

HL7062 Group Delay

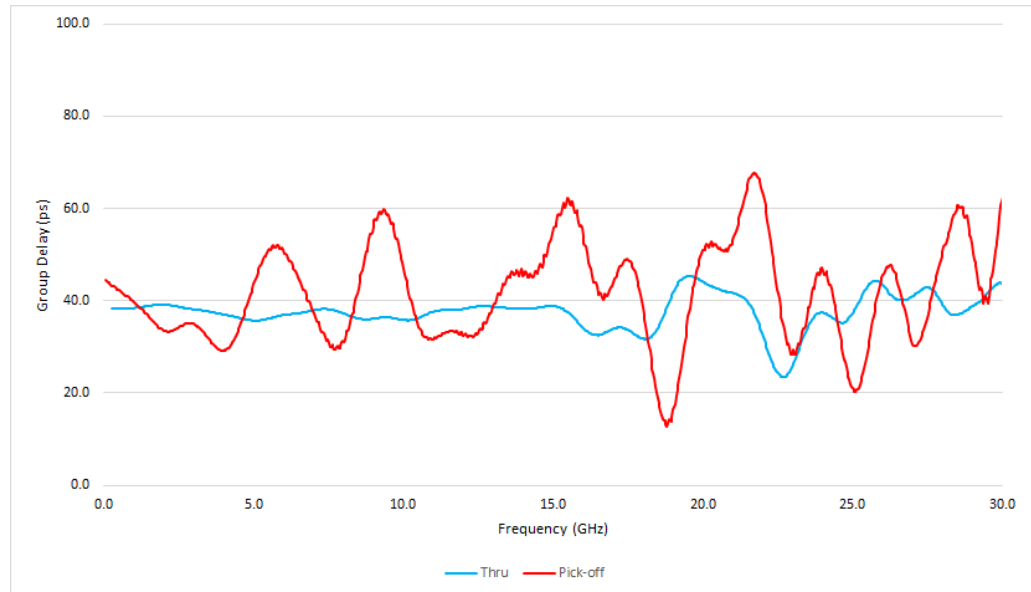*Figure 3* shows the Group Delay on a typical HL7062 from DC to 30GHz.

Figure 3: Typical HL7062 Group Delay

HL7062 Dimensional Drawing

Figure 4 shows a mechanical drawing of an HL7062. *Figure 5* shows an HL7062 mounted to the evaluation board. Unless otherwise noted, all units are shown in mm.
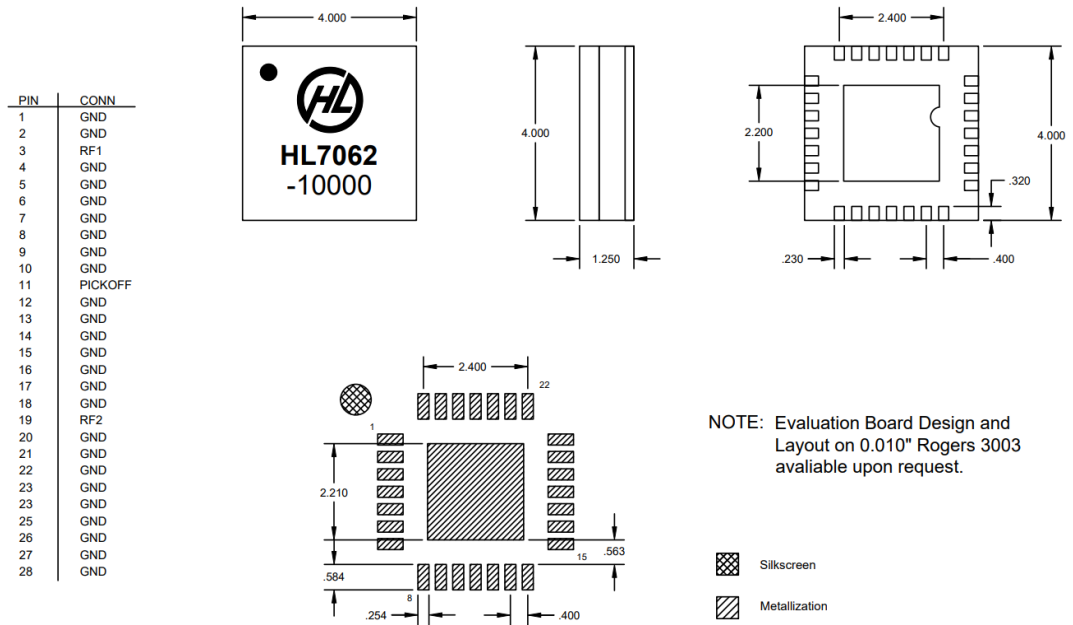
PIN	CONN
1	GND
2	GND
3	RF1
4	GND
5	GND
6	GND
7	GND
8	GND
9	GND
10	GND
11	PICKOFF
12	GND
13	GND
14	GND
15	GND
16	GND
17	GND
18	GND
19	RF2
20	GND
21	GND
22	GND
23	GND
23	GND
25	GND
26	GND
27	GND
28	GND

NOTE: Evaluation Board Design and Layout on 0.010" Rogers 3003 avaliable upon request.
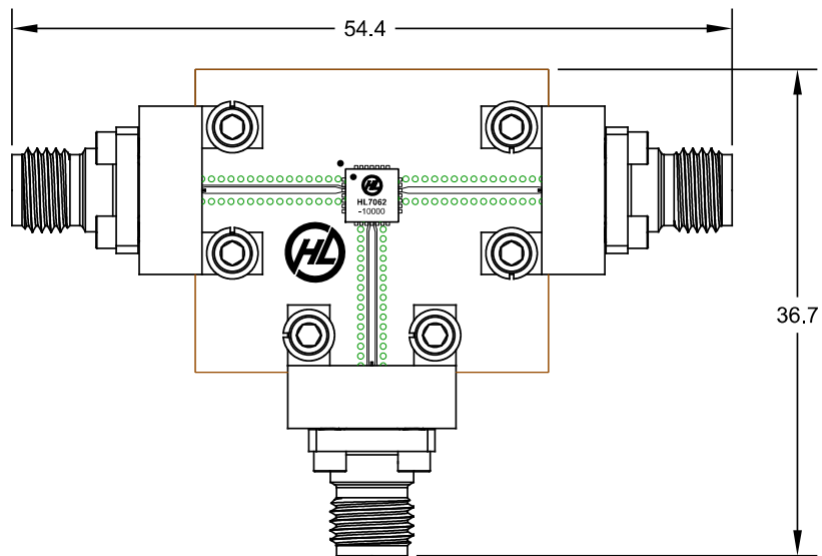
Silkscreen

Metallization

Figure 4: HL7062 Mechanical Drawing

Figure 5: HL7062 Evaluation Board Dimensions