



# COMPARISON OF 10 $\mu$ " (-L) AND 30 $\mu$ " (-S) GOLD-PLATED INTERCONNECTS

Over 90% of Samtec gold-plated interconnects are used in applications requiring less than 100 mating cycles. Despite this, most OEMs specify a 30 $\mu$ " Au plating thickness when 10 $\mu$ " Au or less would likely achieve the same result and be more cost-efficient. With a 3X+ increase in the cost of Au in recent years, many OEMs are switching to lower Au to control costs.

Samtec compared the durability of different Au plating thicknesses of many of its most popular interconnect products.

The test data comparison indicates that the change in LLCRA after cycling, thermal aging, and cyclic humidity testing, between -L (10 $\mu$ " Au) plated interconnects and -S (30 $\mu$ " Au) plated interconnects, is minimal and in applications requiring  $\leq$  100 cycles, -L plated interconnects could perform as effectively as their -S plated counterparts.

## LLCRA for Samtec -L vs. -S Plated Interconnects

Series	View Plating Test Reports	Result <sup>1</sup>
<b>SSW, SSQ, ESW, ESQ, BSW Series</b> (Mates with TSW, MTSW, MTLW, LCW, DW, EW, ZW, HW, TSS, ZSS, TSM, TSSH, HTSS Series)	<a href="#">-L (10<math>\mu</math>" Au)</a>	PASS
	<a href="#">-S (30<math>\mu</math>" Au)</a>	PASS
<b>SSM, BCS Series</b> (Mates with TSW, MTSW, MTLW, LCW, DW, EW, ZW, HW, TSS, ZSS, TSM, TSSH, HTSS Series)	<a href="#">-L (10<math>\mu</math>" Au)</a>	PASS
	<a href="#">-S (30<math>\mu</math>" Au)</a>	PASS
<b>SLW Series</b> (Mates with TLW, TSW, MTLW, MTSW, EW, ZW, HW Series)	<a href="#">-L (10<math>\mu</math>" Au)</a>	PASS
	<a href="#">-S (30<math>\mu</math>" Au)</a>	PASS
<b>CES Series</b> (Mates with TLW, TSW, MTLW, MTSW, EW, ZW, HW Series)	<a href="#">-L (10<math>\mu</math>" Au)</a>	PASS
	<a href="#">-S (30<math>\mu</math>" Au)</a>	PASS
<b>HLE Series</b> (Mates with TSW, MTSW, HTSW, HMTSW, DW, EW, ZW, HW, TLW, TSM, MTLW Series)	<a href="#">-L (10<math>\mu</math>" Au)</a>	PASS
	<a href="#">-S (30<math>\mu</math>" Au)</a>	PASS
<b>CLH Series</b> (Mates with TSW, MTSW, HTSW, HMTSW, DW, EW, ZW, HW, TLW, TSM, MTLW Series)	<a href="#">-L (10<math>\mu</math>" Au)</a>	PASS
	<a href="#">-S (30<math>\mu</math>" Au)</a>	PASS
<b>CLT Series</b> (Mates with TMM, TMMH, MTMM, MMT, TW Series)	<a href="#">-L (10<math>\mu</math>" Au)</a>	PASS
	<a href="#">-S (30<math>\mu</math>" Au)</a>	PASS
<b>SMM Series</b> (Mates with TMM, TMMH, MTMM, MMT, LTMM, TW, TCMD, PTT Series)	<a href="#">-L (10<math>\mu</math>" Au)</a>	PASS
	<a href="#">-S (30<math>\mu</math>" Au)</a>	PASS
<b>SQT, SQW Series</b> (Mates with TMMH, TMM, MTMM, MMT, TW, TSH, TCMD, ZLTMM, ESQT Series)	<a href="#">-L (10<math>\mu</math>" Au)</a>	PASS
	<a href="#">-S (30<math>\mu</math>" Au)</a>	PASS
<b>MMS Series</b> (Mates with TMMH, TMM, MTMM, MMT, TW, LTMM, ZLTMM, TCMD Series)	<a href="#">-L (10<math>\mu</math>" Au)</a>	PASS
	<a href="#">-S (30<math>\mu</math>" Au)</a>	PASS
<b>SFM Series</b> (Mates with TFM, TFSD, TFSS)	<a href="#">-L (10<math>\mu</math>" Au)</a>	PASS
	<a href="#">-S (30<math>\mu</math>" Au)</a>	PASS
<b>CLP Series</b> (Mates with FTSH, FTS, FW Series)	<a href="#">-L (10<math>\mu</math>" Au)</a>	PASS
	<a href="#">-S (30<math>\mu</math>" Au)</a>	PASS
<b>CLM Series</b> (Mates with FTMH, FTM, MW Series)	<a href="#">-L (10<math>\mu</math>" Au)</a>	PASS
	<a href="#">-S (30<math>\mu</math>" Au)</a>	PASS

1 - Pass = Post Stress LLCRA  $\leq$  15 m $\Omega$ , tested per EIA-364