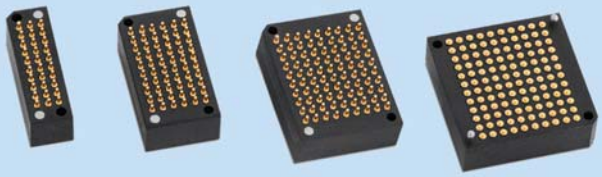
HYPERTAC

NEW MLPI SERIES

Hypertac's spring loaded Microminiature Low Profile Interposer is designed for demanding applications where space and height are limited but high performance is essential. Available in 30, 60, 90 and 120 positions as standard in a 4 mm board height, the connector fully supports mixed signal operation for DC, RF and Digital signal transmission.



Other features of the Micro Low Profile Interposer:

Different applications >> For DC operation each pin provides support for three amps. Extended corner ground pins allow for an optional first mate last break (FMLB). RF signals can be supported with a 3 x 3 pin field, offering coaxial connector levels of loss, VSWR and screening in a 50 Ohm transmission line.
High speed differential pairs are also supported for digital interconnect.

Long life cycle >> > 2000 mating cycles according to EIA 364.09.

Reliability >> Resistant to shock and vibration, salt spray and humidity according to EIA 364.

Quality >> Qualification inspection according to MIL-DTL-55302, ROHS compliant.

Customization >> Different pitches (i.e. 2.54 mm), pin counts, shapes and materials on request.

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HYPERTAC

Technical Characteristics

Contact number	30, 60, 90, 120 (stacking height 4 and 6 mm)
Contact pitch	1 mm square grid pitch
Contact materials	Plunger & Barrel: Brass, gold plated - Spring: Stainless Steel, gold plated
Contact current rating	3A @ 25°C for each contact according to IEC 512-3
Contact Resistance	< 20 mΩ for each contact according to EIA 364.6
Insulation Resistance	5000 MΩ @ 500 Vdc according to EIA 364.21
Mating Force	< 70 grams for each contact
Connector Life	> 2000 mating cycles according to EIA 364.09
Insulator	Glass reinforced Liquid Crystal Polymer type GLCP-30F or PPS Type GST-40F

Connector Identification Code

MLPI - 1 - * - * - * - ***

SERIES

Pitch

1 mm square pitch	1

Positions

30 ways	030
60 ways	060
90 ways	090
120 ways	120

Compressed Thickness

4 mm (standard)	4
6 mm (on request)	6

Contact tip

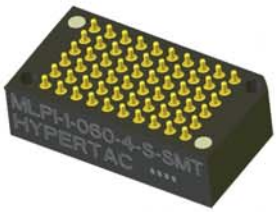
Short	S
Long	L
Long only at corners	C

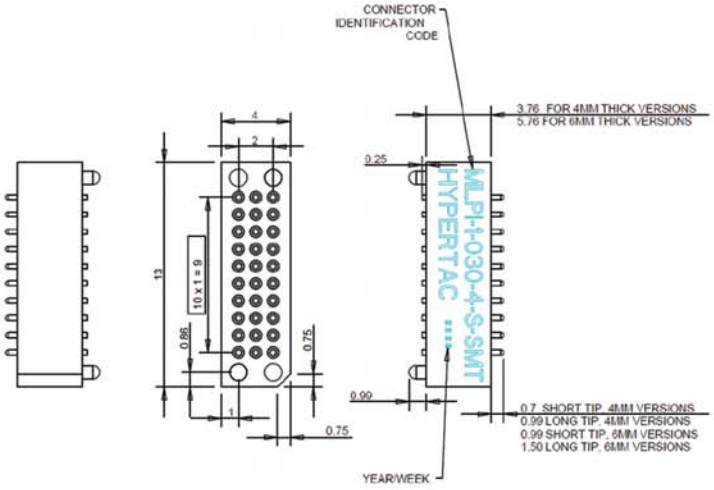
Termination

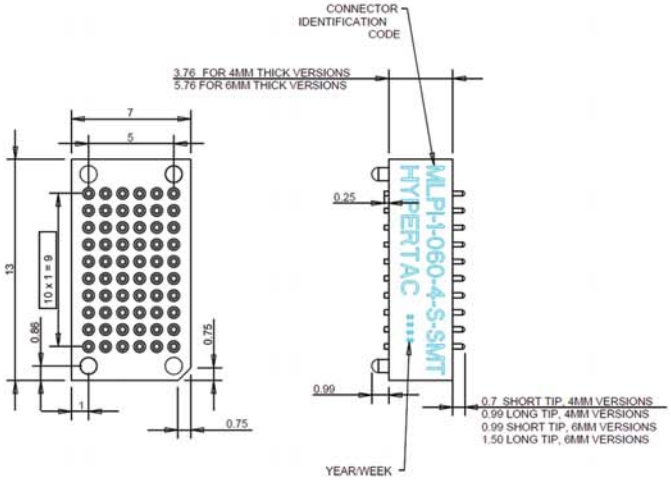
Surface Mount Technology (standard)	SMT

Drawings & Dimensions

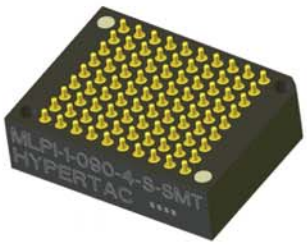
30 and 60 ways, 4mm or 6mm thick interposer connectors

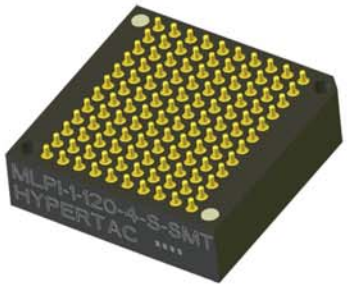


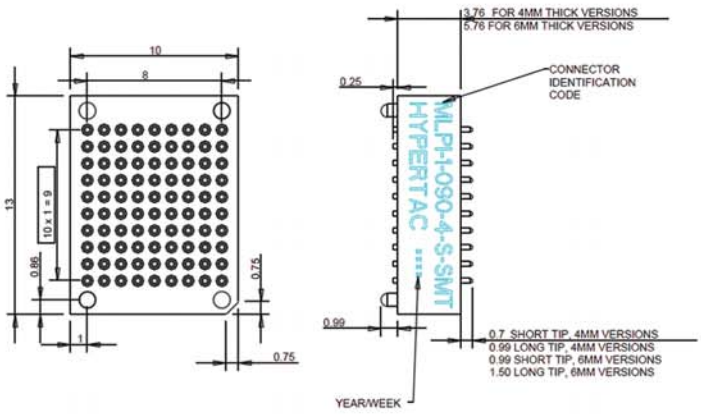


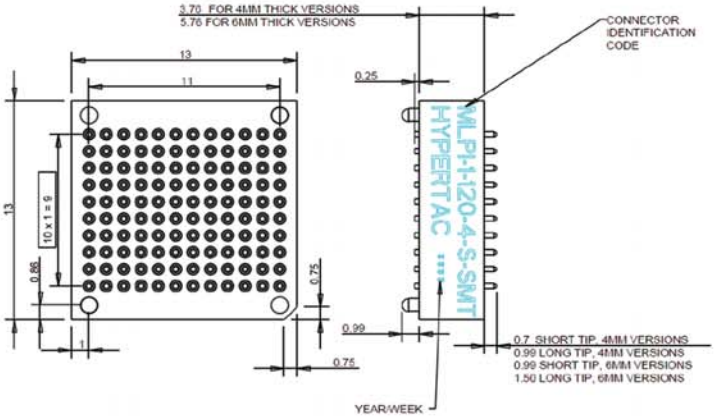


90 and 120 ways, 4mm or 6mm thick interposer connectors



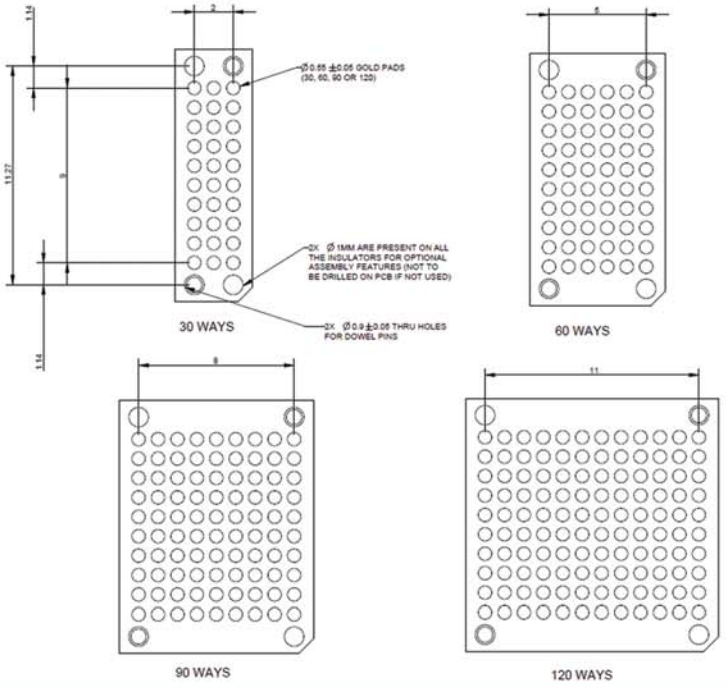






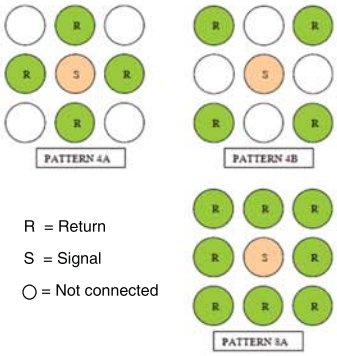
Contacts	Full stroke	Force at preload	Force at full stroke
4 mm short	0.028 in [0.71 mm]	1.0 oz [30 grams]	2.1 oz [62 grams]
4 mm long	0.039 in [0.99 mm]	0.4 oz [11.8 grams]	2.1 oz [62 grams]
6 mm short	0.039 in [0.99 mm]	1.0 oz [30 grams]	2.1 oz [62 grams]
6 mm long	0.059 in [1.5 mm]	0.4 oz [11.8 grams]	2.1 oz [62 grams]

Recommended PCB Patterns



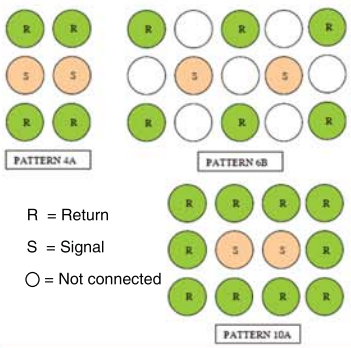
- Connector should not be rinsed
- Connector shall not be exposed to temperatures higher than 260°C

Single Ended RF Pattern Simulated Performance



Pattern	L [nH]	C [pF]	Z0 [Ohms]	Time Delay [ps]	-1dB Insertion loss BandWidth [GHz]	-10dB Return loss BandWidth [GHz]
4A	0.52	1.06	43	37	4.6	2.8
4B	0.49	1.05	44.5	38	4.85	3.05
8A	0.50	1.06	43	39	4.6	2.8

Differential Signaling Pattern Simulated Performance



Pattern	Differential Impedance [Ohms]	Odd Mode Time delay [ps]	-1dB Insertion loss Banwidth [GHz]	-10dB Return loss BandWidth [GHz]	-10dB Near End Cross Talk [GHz]	-20dB Far End Cross Talk [GHz]
4A	71	33	6.15	3.75	>20	12
6B	77	33	8.65	5.2	>20	>20
10A	68	34	5.5	3.5	>20	14