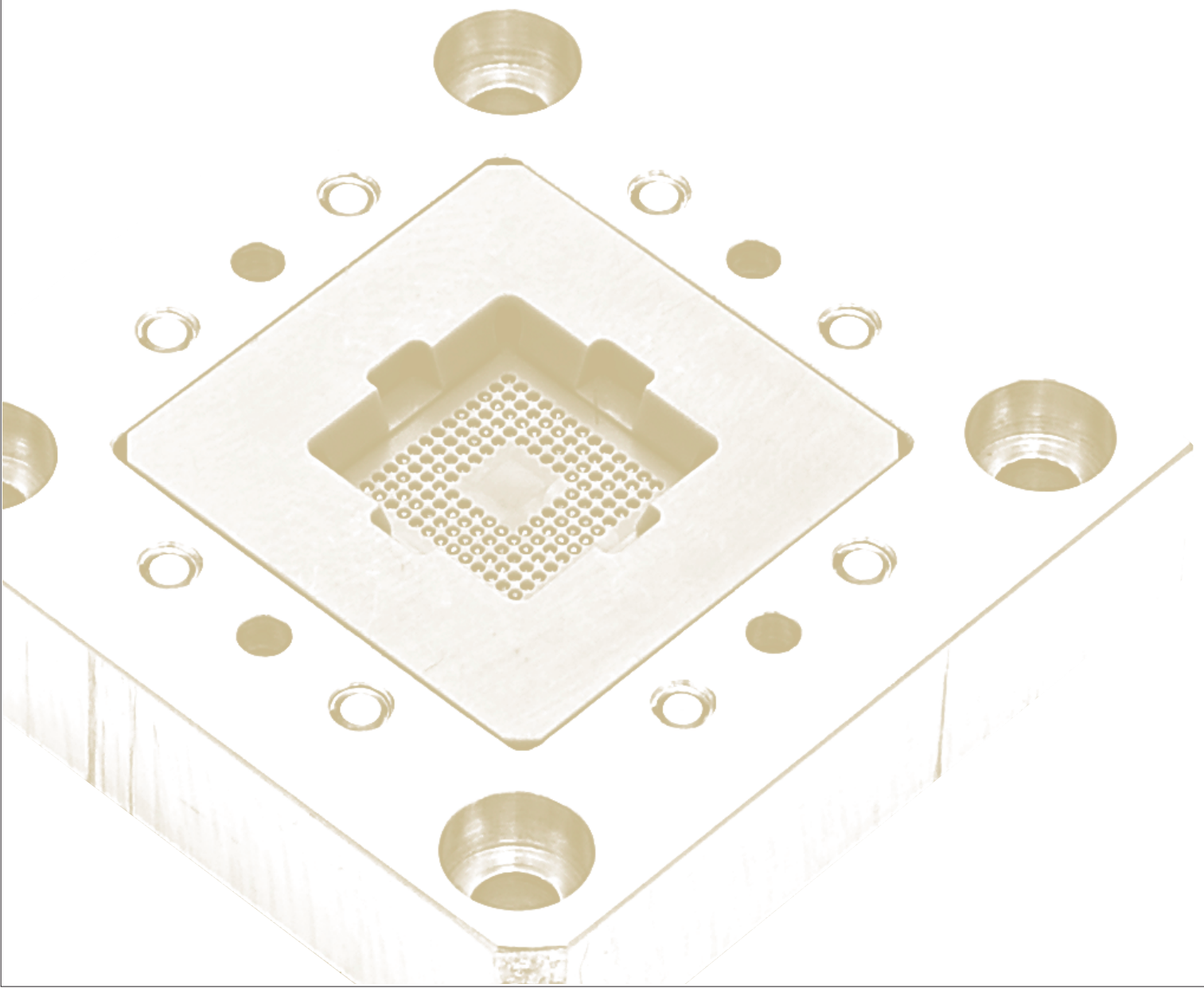


T3P

Timely Test Tool with Probe-pins
Cartridge-type Test Contactor



T3P Timely Test Tool with Probe-pins

A revolutionary cartridge-type test contactor, T3P, features not only high contact reliability but also short lead-time, usability and competitive price.

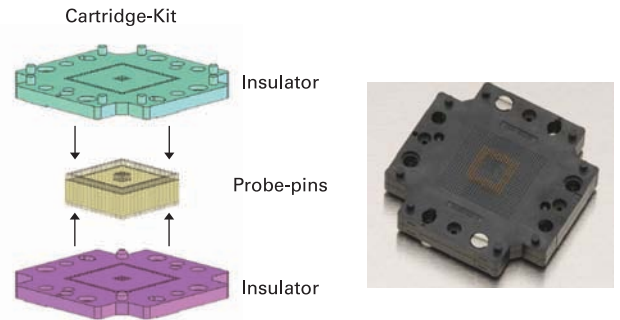
T3P is an innovative test contactor that Yamaichi Electronics designed using its state-of-the-art “fine-pitch” and “precision molding” technologies for improving the working efficiency and cost performance of semiconductor test process. Features include a high level of reliability, short lead-time, easy handling and low price.

Cartridge-Kit realizing short lead-time and low price

A Cartridge-Kit incorporating injection-molded insulators and standardized probe-pins*1 allows us to offer a highly reliable testing tool at a very competitive price in a timely manner.

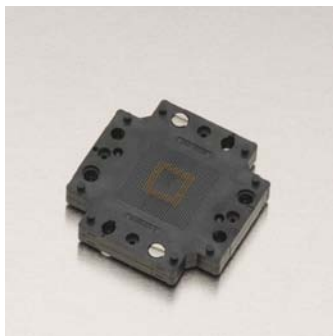
Probe-pins are available in two standard lengths: 5.7mm and 3.3mm. (3.3mm suitable for high-frequency applications)

*1 Please consult us for details about probe-pins of lengths shorter than 3.3mm.

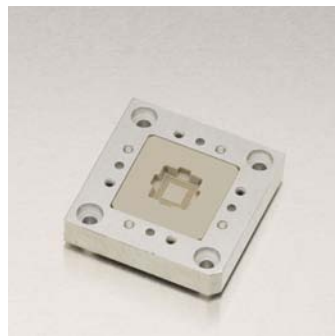


Cartridge-Kit providing high usability and efficiency

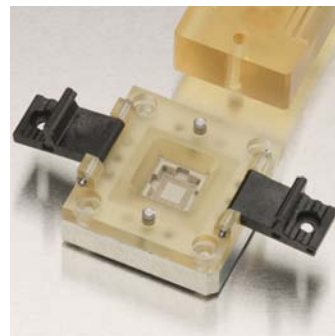
With only a Cartridge-Kit needing exchange, T3P eliminates the conventional time-consuming pin-to-pin replacement and brings significant cost savings because the rest part can be reused.



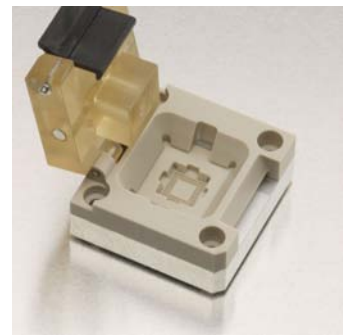
T3P for graphic-recognition handler*2



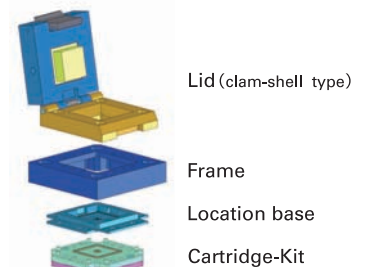
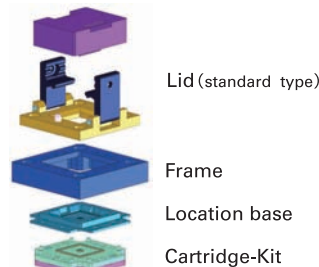
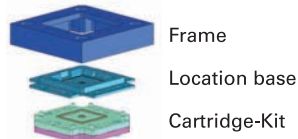
T3P for handler



T3P with standard-lid for manual testing



T3P with clam-shell lid for manual testing



*2 A graphic-recognition handler only requires a Cartridge-Kit.

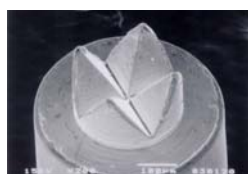


Probe-pins ensuring high contact reliability and stability

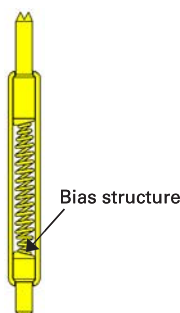
The crown-shaped plunger provides an effective way to penetrate an oxide film on a solder ball. The bias-cut structure of the probe-pins stabilizes contact resistance.



L=5.7mm

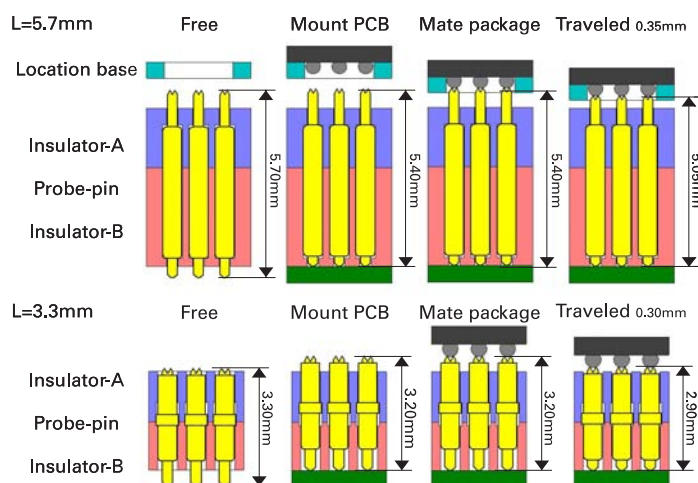


L=3.3mm



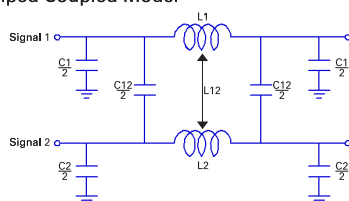
Bias structure

Contact Mechanism



Typical Frequency Characteristic (L=5.7mm, 0.8mm Pitch)

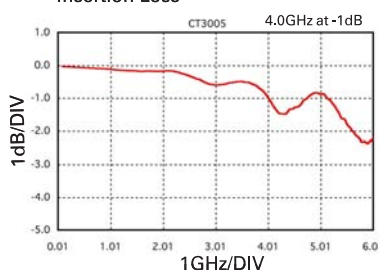
Lumped Coupled Model



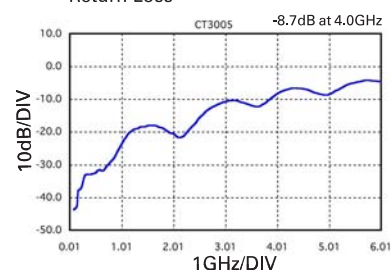
Result

L1,L2	1.553 nH
L12	0.255 nH
C1,C2	0.602 pF
C12	0.168 pF

Insertion Loss



Return Loss



Probe-pin Specifications

Pin Length [mm]	Pitch [mm]	Operating Temperature [°C]	Mechanical Durability [times]	Force [g]	Self Inductance [nH]	Insertion Loss / Return Loss
L=5.7	1.27	-55 ~ +125	over 1,000,000	30	1.4	2.9GHz at -1dB / -6.3dB at 2.9GHz
	1.00	-55 ~ +125	over 1,000,000	30	1.7	2.7GHz at -1dB / -9.2dB at 2.7GHz
	0.80	-55 ~ +125	over 1,000,000	25	1.6	4.0GHz at -1dB / -8.7dB at 4.0GHz
	0.65	-55 ~ +125	over 1,000,000	25	1.5	4.2GHz at -1dB / -9.3dB at 4.2GHz
	0.50	-55 ~ +125	over 1,000,000	25	1.3	4.6GHz at -1dB / -7.8dB at 4.6GHz
	0.40	-55 ~ +125	over 300,000	20	1.5	4.2GHz at -1dB / -10.6dB at 4.2GHz
L=3.3	1.27	-55 ~ +100	over 300,000	30	1.1	3.9GHz at -1dB / -8.1dB at 3.9GHz
	1.00	-55 ~ +100	over 300,000	30	1.1	4.3GHz at -1dB / -8.2dB at 4.3GHz
	0.80	-55 ~ +100	over 300,000	22	1.0	6.9GHz at -1dB / -7.8dB at 6.9GHz
	0.65	-55 ~ +100	over 300,000	20	0.8	6.8GHz at -1dB / -9.7dB at 6.8GHz
	0.50	-55 ~ +100	over 300,000	20	1.0	6.8GHz at -1dB / -7.5dB at 6.8GHz
	0.40	-55 ~ +100	over 300,000	13	1.0	5.6GHz at -1dB / -9.2dB at 5.6GHz

T3P Test Contactor Series

Pin Length [mm]	Pitch [mm]	Molded Type			Machined Type*4
		Series	Grid Area	Dimension [mm]*3	Series
L=5.7	1.27	IC449	27	69 x 69 x 10	IC420
	1.00	IC450	39	69 x 69 x 10	IC421
	0.80	IC451	23	37 x 37 x 8	IC422
	0.65	IC452	25	37 x 37 x 8	IC423
	0.50	IC453	29	37 x 37 x 8	IC424
	0.40	IC454	29	37 x 37 x 8	IC425
L=3.3	1.27	IC455	Planning	37 x 37 x 8	IC430
	1.00	IC456			IC431
	0.80	IC457			IC432
	0.65	IC458			IC433
	0.50	IC459			IC434
	0.40	IC460			29

*3: Denotes the dimensions of T3P for handler. *4: Machined products are available upon request.

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Specifications in this document are reference values for representative products of each series and may change without prior notice.

Since product improvement entails changes to electrical,

material and mechanical properties, the purchasing party is strongly encouraged to inquire about the latest specifications before placing a purchase order.

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