
**PREQUALIFICATION
STATEMENTS**

Oct, 2024

**MotherBoard
for PRVX & PB35/6500**

Newstep System Co., Ltd

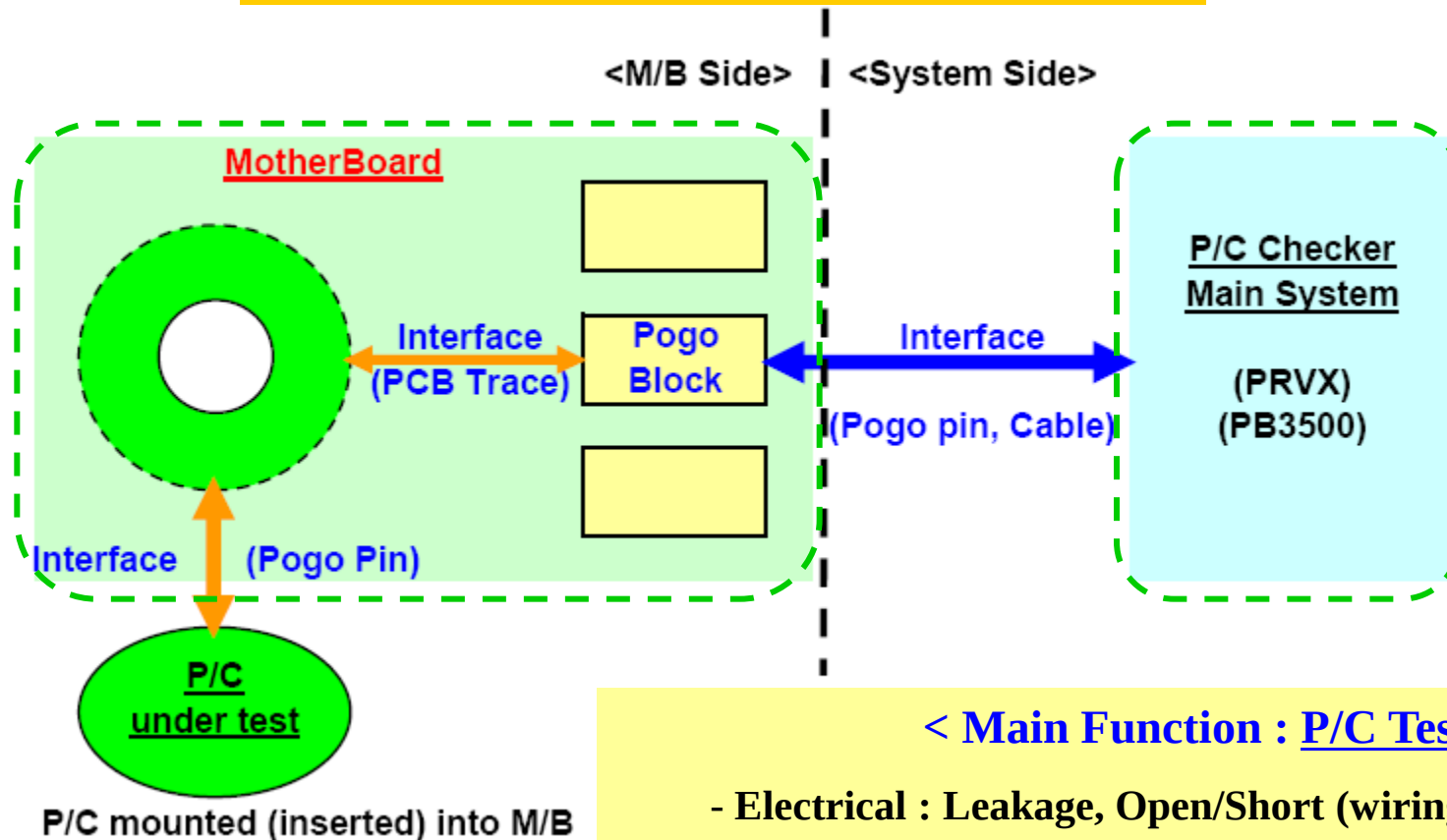
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What's MotherBoard?

"Interface between P/C analyzer & P/C"



< Main Function : P/C Test >

- Electrical : Leakage, Open/Short (wiring), Resistance, Capacitance
- Mechanical: Needle Planarity & Position measure

Main Customer (M/B)

■ TAIWAN

- TSMC (HP93K_Direct Docking, T2000, Uflex_DD , Uflex+DD),
PTI(力成: T5377, KALOS2),
- AMKOR (HP93K_DD), Ardentec (T5377), ChipMOS, GTC, KYEC,
SPIL, Winstek (HP93K_DD), etc.
- Hermes (T5377), JEM (HP93K_DD, UFLEX_DD, UFLEX+DD), KeyStone
(HP93K_DD, UFLEX_DD), MPI(U-FLEX_DD), PL, Sync-Tech, etc.

■ Other Area

- China : FFI [MPC] , Wuxi-PL (HP93K_DD, T5830),
ZFC (HP93K_DD, T5830, etc.
- Vietnam : V-Probes

Main Models of M/B

Tester vendor	Tester Model	Main customer
Advantest	<u>T2000</u> , T5335, T5365, <u>T5371</u> , <u>T5377</u> , <u>T5771</u> , <u>T5830</u> , <u>T6371/72</u> , T7315	KYEC, <u>Hermes</u> , PL, <u>Wuxi_PL</u> , PTI, SV, <u>TSMC</u> , <u>ZFC</u>
Agilent (Advantest)	HP93K, <u>HP93K DD (+EXA)</u> , <u>VG93K 11"</u> , <u>V3300</u>	AMKOR, <u>JEM</u> , KYEC, PL, <u>FFI</u> (MPT, MPC), <u>TSMC</u>
<u>Xcerra</u> (Credence)	<u>D10</u> , <u>DX-DD</u> , KALOS, <u>KALOS-XW</u> , <u>KALOS2</u> , Quartet, <u>Sapphire</u> , SC312	STAR(GTN), <u>JEM</u> , KYEC, PL, TPTI(<u>PTI</u>), <u>Sync-Tech</u>
Teradyne	Catalyst, J750, J971, J996, <u>FLEX</u> , <u>UFLEX Direct Docking</u> , <u>UFLEX+ DD</u>	<u>AMKOR</u> , GTC, Hermes, <u>JEM</u> , PL, <u>SPIL</u> , <u>TSMC</u>
Yokogawa	TS6700 A,B,C, <u>ST6730</u>	<u>JEM</u> , <u>SV</u>
YTEC	<u>YT5100</u> , <u>S100-15D</u> , <u>S300</u>	<u>JEM</u> , <u>Keystone</u> , <u>Sync-Tech</u>
Others	<u>Delta50</u> , <u>Fusion</u> , LT1101, Megatest, TRIAD, VLCT	Wuxi-PL, TCS,....

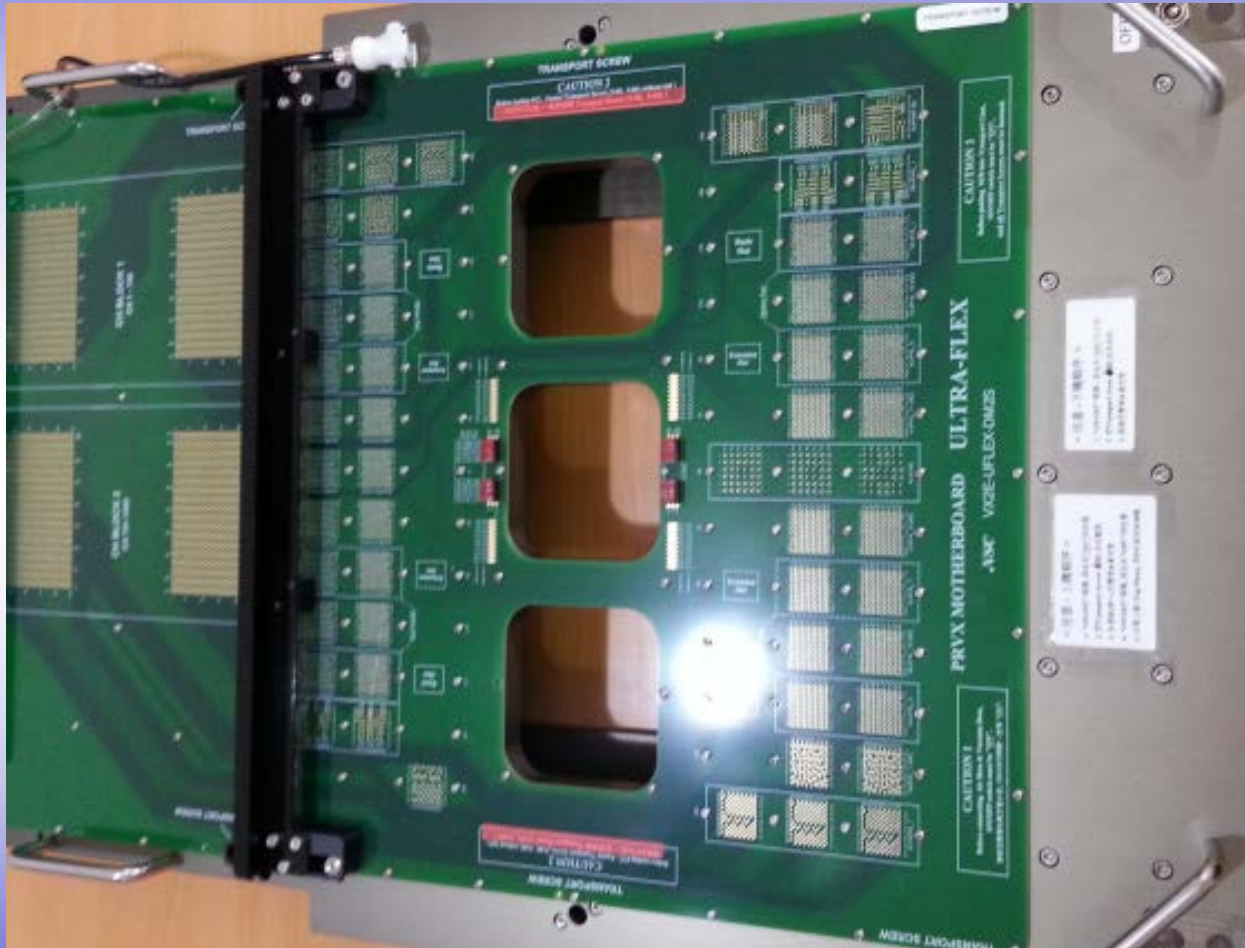
Note) We have supplied special M/B with new high technology for docking:

- ZIF connector type : T5371 (300m), T5377 (440mm)
- LIF connector type : T2000 (with 18.2" stiffener), T5830 (440mm, 480mm*)
- Extra big size (Direct Docking/Mount) : HP93K_DD(DM), UFLEX_DD, UFLEX+ DD

M/B example (T6371/2)



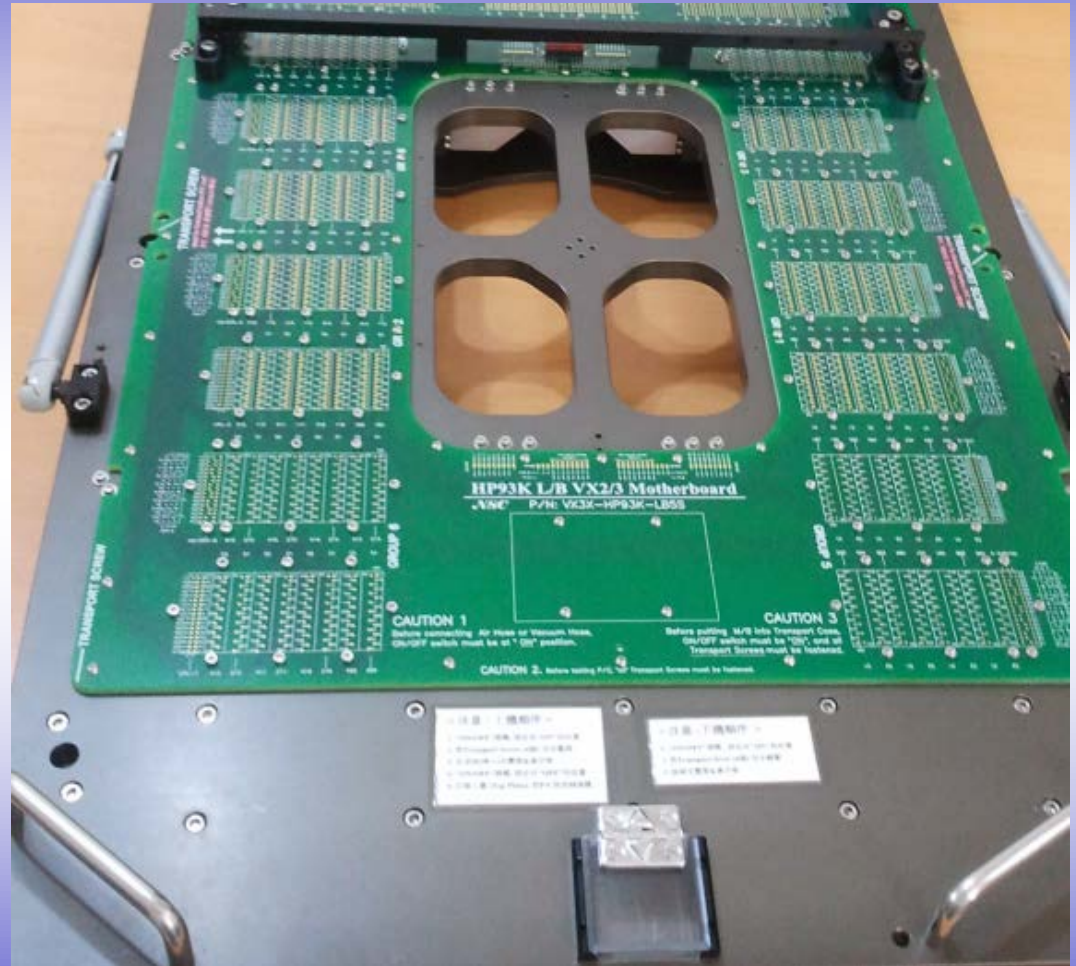
M/B ex. (Ultra-FLEX Direct Mount)



- * 22.5" P/C size
 - * 25" stiffener
 - * Separable pogo tower blocks
-
- Mounted on VX3 & VX4

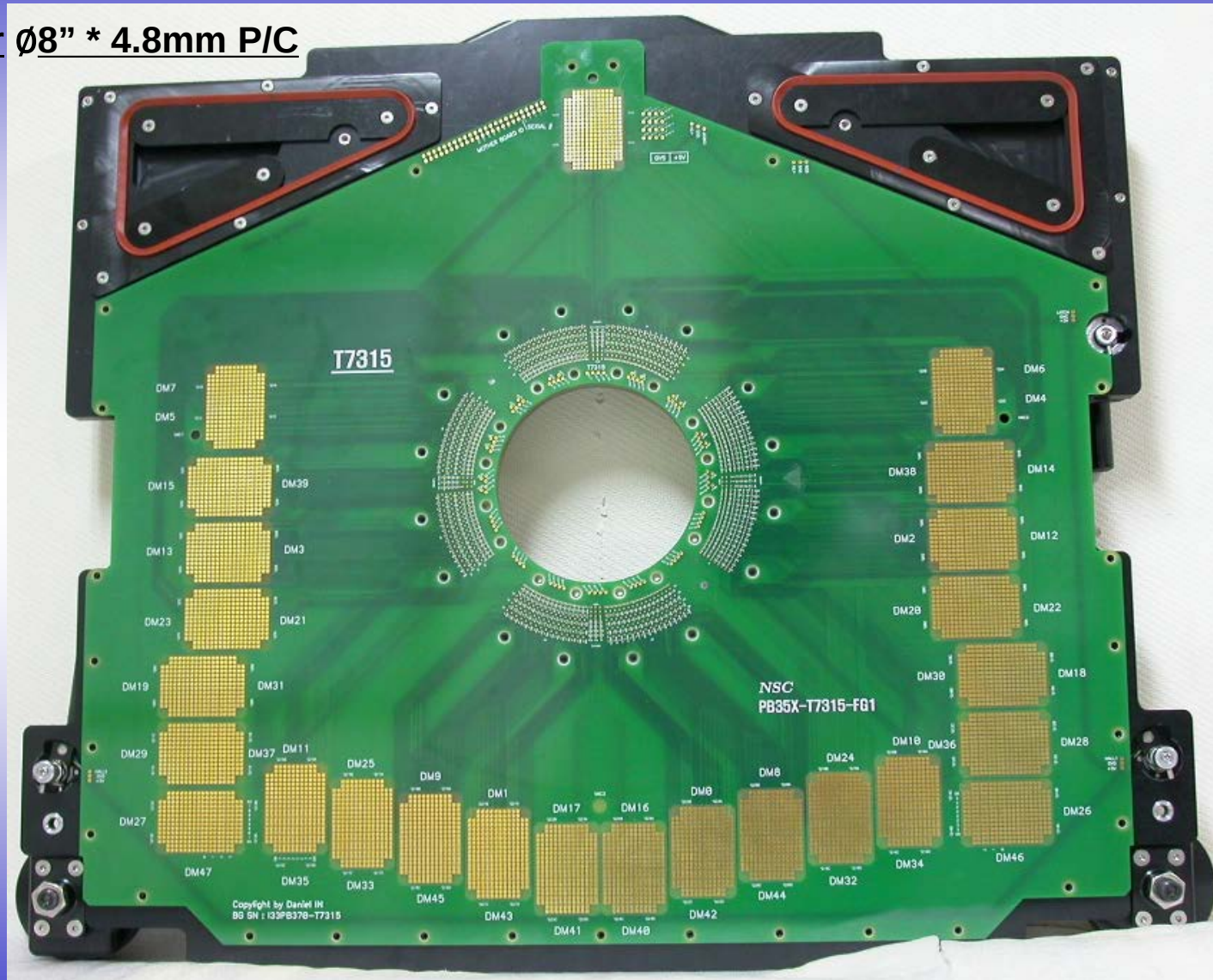
“Extra Big” M/B (HP93K_DM P/C)

- 25” L/B stiffener size
- Easily Replaceable Pogo Ring Block
- Delicate Docking mechanism
- Easy to load/unload the big L/B (P/C)
- Mounted on VX3 & VX4



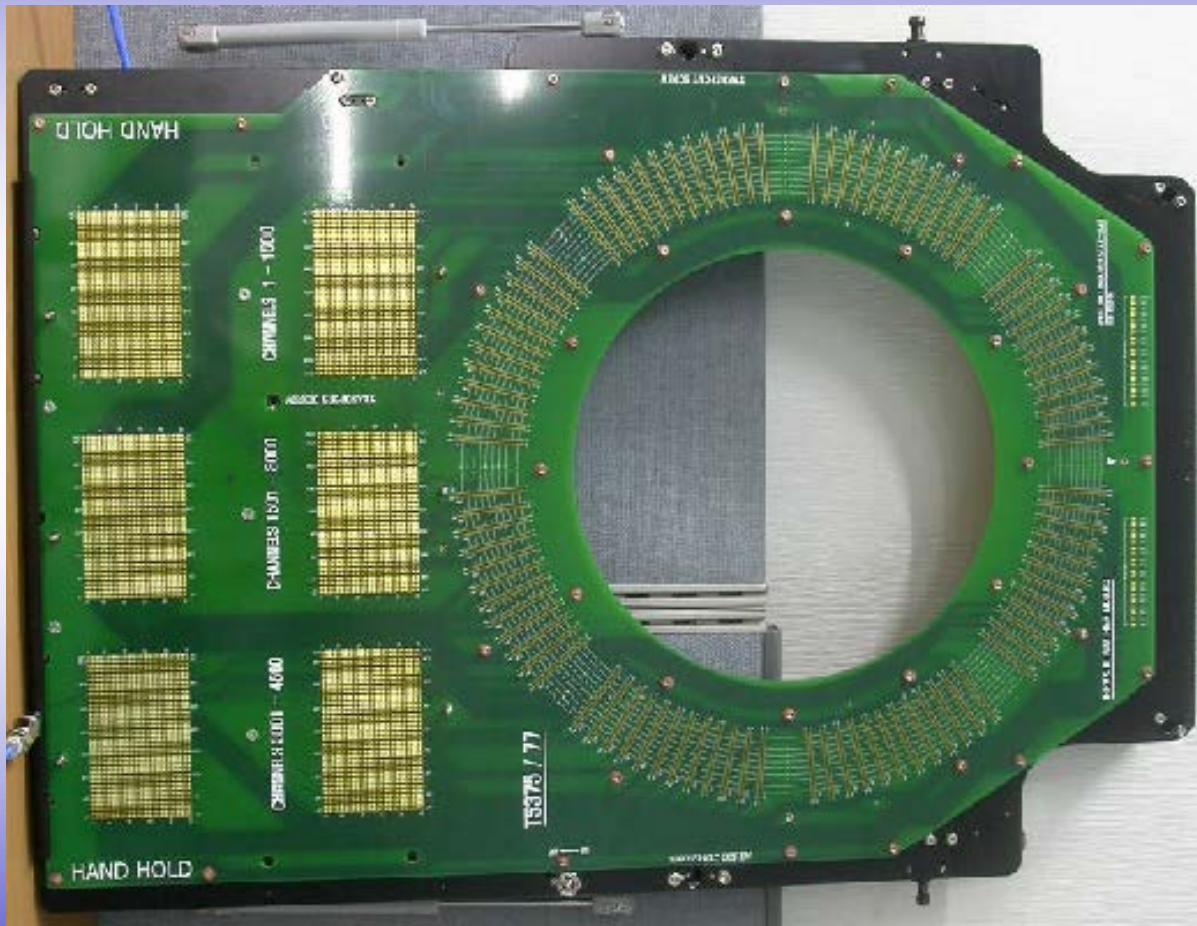
T7315 M/B (@PB3500)

For $\varnothing 8'' \times 4.8\text{mm}$ P/C



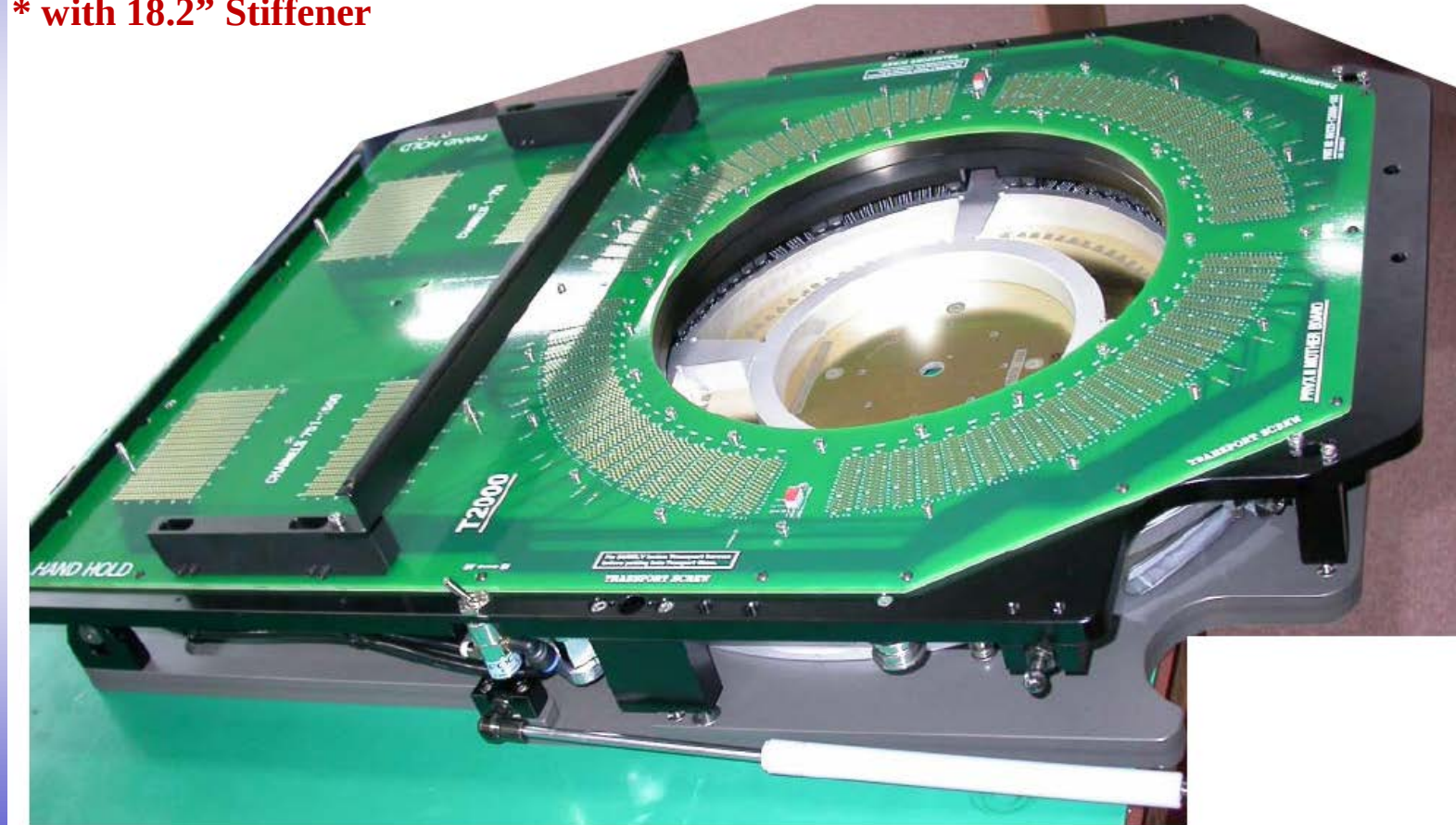
M/B example (T5377 w/ ZIF con.)

- 17.3" size, 6.3mm thick P/C
- 96 ZIF connectors assembled
- With 17.3" Stiffener



M/B example (T2000 w/ LIF con.)

- * P/C PCB size & thickness : 440mm & 6.35mm
- * P/C docking method : **Automatic(自動)** by pneumatic (壓縮空氣推動的) mechanism
- * Electrical Contact Method : LIF connectors with coaxial cables
- * **with 18.2" Stiffener**



“Top-Referencing” M/B (KALOS_2)



M/B QUALITY ASSURANCE

◆ Outgoing Test Item

- **Visual Inspection:**
 - marking, plating, etc.
- **Mechanical Measurement:**
 - Planarity/flatness, size, thickness, hole size, etc.
 - Planarity error < 0.12mil/inch = 1.2um/cm @PC/Stiffener supporting area
- **Mechanical Operation Test :**
 - Vacuum absorption & release, Pogo pin contact position, etc
 - Docking operation (ZIF, LIF connector type)
- **Electrical Test:**
 - Open/Short, Leakage, etc.
 - Leakage < 10nA @5V, 20mA

◆ 1-year Warranty

M/B TECH. CAPABILITY

Item	Coverage	Remark
Supported Analyzer		PRVX3 & VX4, PB3000/3500 /6500*
Signal Channels	Full	Max. 6000ch (PRVX), <u>6016ch</u> (PB6500)
Relay Control	Full	500ch (PRVX)
P/C or Stiffener size (X-direction width) @VX3	~20"	DX-DD , T5377, T2000 , T2000_DD* , HP93K_DD, UFLEX_DD, T5830 (440mm)
P/C or Stiffener size (X-direction width) @VX4	~28"	T5830 (440/480mm) , UFLEX+DD
P/C Bottom-Referencing type	yes	general type for most of testers
P/C <u>Top-Referencing</u> type	yes	Direct Docking (DX, HP93K, UFLEX, UFLEX+), KALOS2 (15.5") , V4400 (14"), V5400 (17.3")
ZIF Connector type	yes	T2000, T5371 , T5377
LIF Connetor type	yes	T2000 , T5830

STRONG POINT

- **Superior & Stable Quality:**

- Know-how from over 20 years experience. Have supplied over 100 sets.
- Superior **machining shop** for excellent planarity.
- Tight control of quality: Thorough outgoing test.

- **Excellent in High-Difficulty M/B:**

- **Big size** & Special **connector** docking: over 17" P/C.
HP93K_DD, UFLEX_DD, UFlex+DD, **T2000 (LIF con.)**, **T5377 (ZIF)**, **T5830 (LIF con.)**
- Technology in **P/C Top-Referencing** type of M/B : KALOS2, Direct Docking Types

- **Quick Delivery: (Typical TAT)**

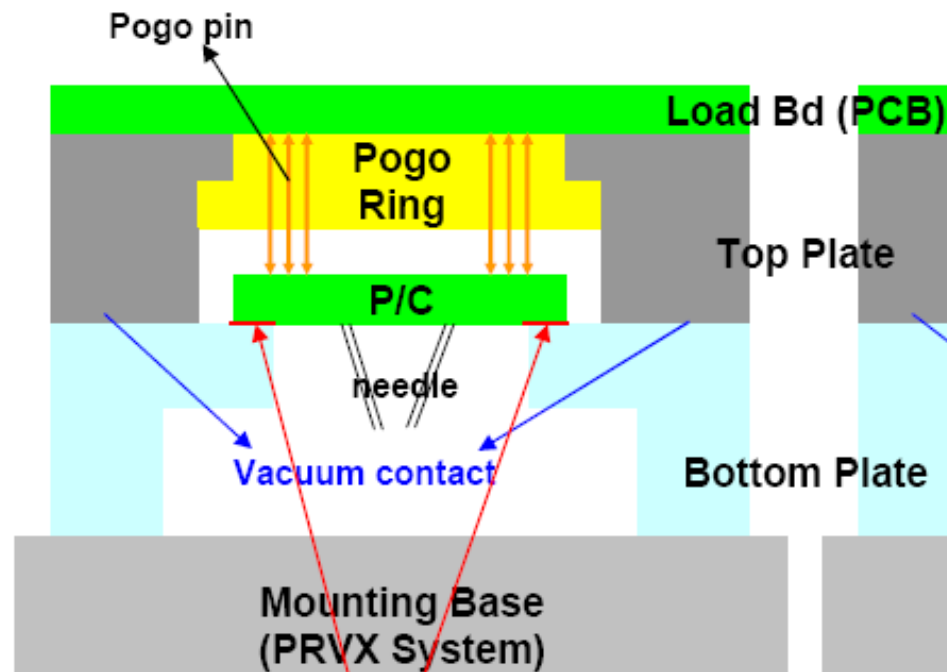
- New design & delivery : 4~5 wks, 6~9 wks (ZIF/LIF conn. or special type)
- Repeat delivery : 3~4 wks, 5~7 wks (ZIF/LIF conn. type)

- **Competitive Price, compared with quality**

P/C Top- & Bottom-Referencing

“Higher “ technology required

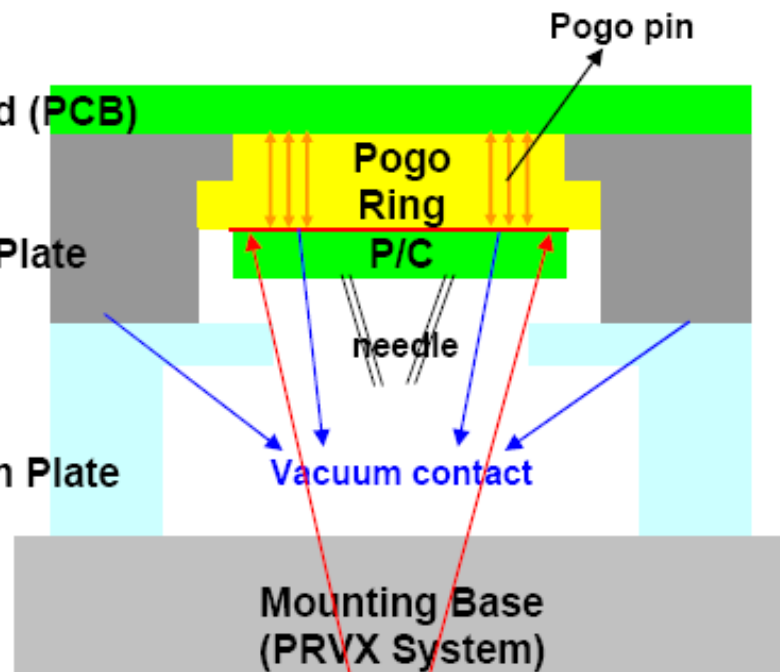
P/C Bottom-Referencing



Reference surface for P/C Planarity

Ex) P/C for most of tester models

P/C Top-Referencing



Reference surface for P/C Planarity

Ex) P/C for KALOS2, V4400