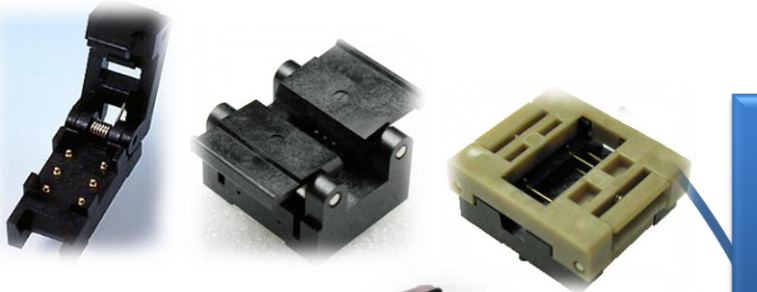


優力精密工業有限公司

A FORCE PRECISION INDUSTRY CORPORATION

產品綜合型錄

CATALOG



MiS Socket

(Crystal、Oscillator)

(LED、LD、SEMI、MEMS)



石英晶體振盪器治具設計

(crystal, Oscillator and TCXO)



石英振盪器老化系統

(Aging/TC system)



TCXO溫度補償系統

(TC-1280 TCXO)

A FORCE

優力精密工業有限公司

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Tel: +886-3-6571238

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<http://www.aforce.tw>

MiS
Technologies

MiS Technologies Corporation

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5-4-30 Nishihashimoto Midori-ku Sagamihara

Kanagawa 252-0131 Japan

Tel: +81-42-7709425

<http://www.mis-tech.jp/>

A FORCE

昆山優力技鑫精密機械有限公司

215300 江苏省昆山市经济技术开发区中
航城58-102号

Tel: +86-512-57865729

E-mail: simon@aforcecn.com

<http://www.mis-socket.com>

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NEW!

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SS02-IR-90_AC510-1746A-A00
(IR測試板轉90度)
SS03-PI_AC906-9651A_PI測試板
SS04_AD047-6301_PKG擋板
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T01_LVPECL 量測治具
T01_HCSL 量測治具
T01_OCXO 量測治具
T01_LVDS 量測治具

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下壓式測試座

Open-top Type
(CXC series)



翻蓋式測試座

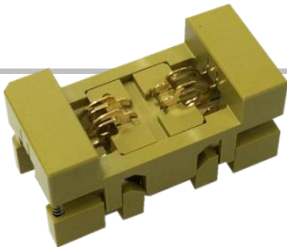
Clam-shell Type
(CXP series)



蝴蝶式測試座

Butterfly Type
(CXX series)

Your solution for global needs



微機電測試座

MEMS Type
(SEN series)



小型貼片測試座

Small Type
(CAP series)



3D打印測試座

3D Printer Type
(Special series)



翻蓋式測試座

Clam-shell Type (CXP series)

PKG : 1.0x0.8 - 34.3x25.4mm ,

PIN : 2pin - 12pin ,

超過1000種常規化規格 ,

單尺寸種類豐富多元, 例: 50種14X9mm測座。

可根據產品定製(Customized sockets available)。



Close



CXP系列利用蚌殼結構與懸臂蓋和探針接觸。它是理想的工程評估和測試用測試座。

CXP series utilize Clam-shell structure with a cantilever cover and pogo pin contacts. It is ideal for engineering evaluation and tests.

下壓式測試座

Open-top Type (CXC series)

PKG : 2.05x1.65 - 7.35x4.95等 ,

PIN : 2pin - 10pin ,

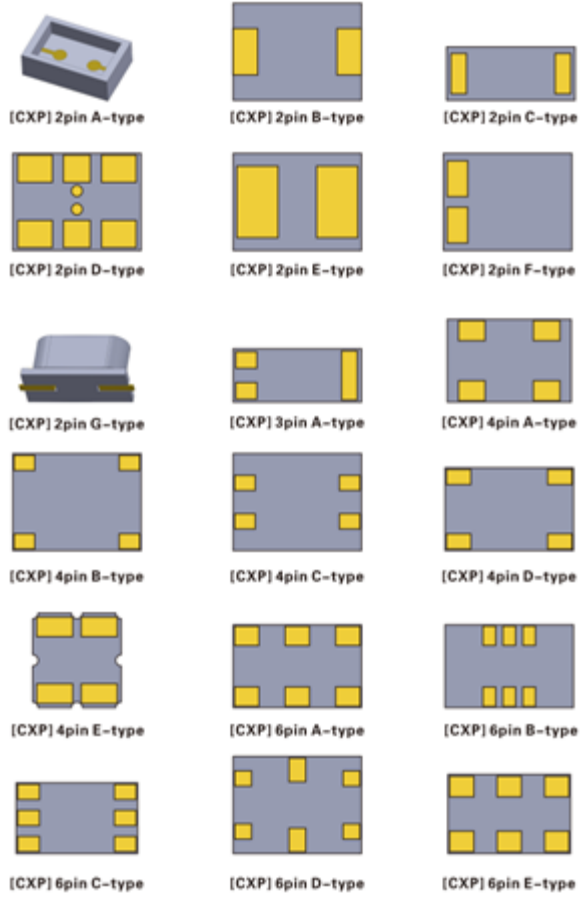
Stamped 接觸, 可檢測底面和側邊, 更適用於自動化批量測試。

可根據產品定製(Customized sockets available)。



CXC系列採用開放式頂部結構與沖壓簧片接觸。它是自動化生產測試的理想選擇。

CXC series utilize Open-top structure with stamped contacts. It is ideal for automated production systems.



特性 FEATURES

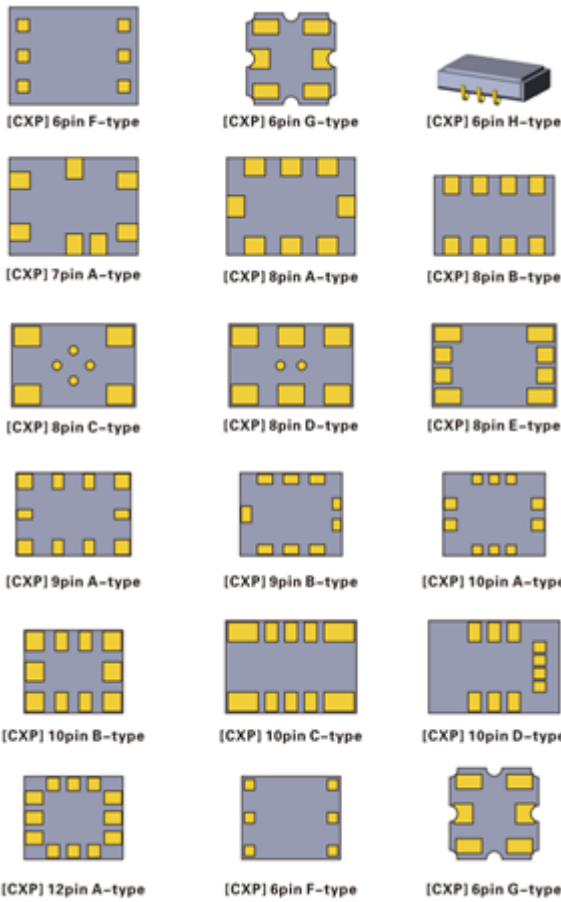
- ✓ 精確可靠的頻率控制裝置
- ✓ 理想的接觸力度, 避免測量誤差
- ✓ 提供最高質量的插座
- ✓ 蚌殼式設計, 易於開啟和關閉
- ✓ 可靠耐用的鍍金彈針
- ✓ 適用於長期高溫老化測試
- ✓ 工作溫度: -35°C ~ +150°C



- ✓ Accurate and reliable testing of frequency control devices
- ✓ Contact force ideal for avoiding measurement error
- ✓ Highest quality socket available
- ✓ Clam shell design for easy open and close
- ✓ Reliable gold plated POGO pins
- ✓ Suitable for high temperature burn-in test
- ✓ Operating Temperature: -35 ~ +150°C

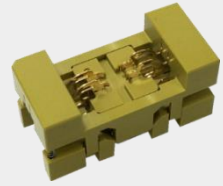
Malaysia
China
Thailand
Hong Kong
Russia
Taiwan
Singapore
Italy
UK
Japan
Philippines
Korea
Germany
USA
New Zealand
France
Switzerland

CEC 三所CETC	惠倫 Failong	晶寶 CREC(SC)	Hosonic 鴻星Hosonic	大普 DAPU
CEC 熊貓CEC Xtal	ECEC 東晶ECEC	晶源 YEG	晨晶 ChenJing	天奧 ELECSNP
TXC 台晶TXC	SIWARD 希華Siward	TST 嘉碩TST	AKER 安基AKER	
TAITIEN 泰藝Taitien	MEC 瑪居禮Mercury	加高 HELE	YOKE 友桂YOKETAN	
EPSON 愛普生Seikoepson	YAMAHA 雅瑪哈Yamaha	KYOCERA 京瓷Kyocera	NDK 日本電工NDK	RIVER 大河River Ele
OMRON 歐姆龍Omuron	KDS 大真空KDS	CITIZEN 西鐵城Citizen	muRata 牧田Murata	JRC 日本無線JRC
SAMSUNG 三星Samsung	H&S High Tech	SUNNY 陽光Sunny	EXA EXA	
BOSCH 博世Bosch				
rakon 銳康Rakon				
MC 微晶Micro Crystal				



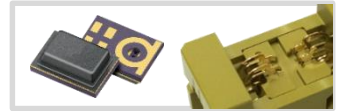
微機電測試座

MEMS Type (SEN series)



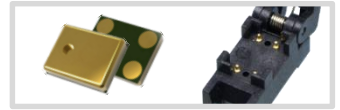
Open-top (下壓式), 適用於下進音麥克風產品。可根據產品定製。

(Customized sockets available)



Clam-shell (翻蓋式), 適用於上進音麥克風產品。可根據產品定製。

(Customized sockets available)



SEN系列針對MEMS麥克風產品進行特殊設計優化。可滿足①電器性能測試②聲音檢測。

①Socket to confirm only PKG conduction.

②Socket structure listened sound.

小型貼片測試座

Small Type (CAP series)

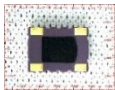


PKG : 2.0×1.2mm, 1.6×0.8mm, 1.0×0.5mm 等, PIN : 2pin,

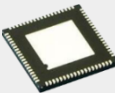
可根據產品定製(Customized sockets available).



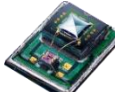
應用 APPLICATIONS



諧振器 & 晶體 Oscillator & Crystal
溫補晶振 / 恒溫晶振 / 壓控晶振 / 振盪器用



半導體 Semiconductor
SOP / QFN / SON / SOT / TO / CSP



微機電 MEMS
陀螺儀 / 壓力用 / 氣體用 / 加速度



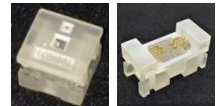
老化測試 Aging
低溫-45°C / 高溫+150°C

3D列印測試座

3D Printer Type (Special series)



微機電麥克風插座
用3D列印機製作的部件-底座, 蓋子
開頂式插座
用3D列印機組件-底座, 蓋子, 插銷
可根據產品定製(Customized sockets available).



適用於原型, 接受一件訂單, 低成本快速交貨。

Suitable for prototype, Accept order from 1 piece, Low cost & short delivery.

2009年度“300家活躍的中小型製造企業”

經濟貿易部2006年起, 每年從技術先進的中小型製造企業中, 評選出“300家活躍的中小型製造企業”。

In Ministry of Economy, Trade and industry, it commends a small and medium-sized manufacturing enterprise with a superior technique with the choice every year “300 active small and medium-sized manufacturing enterprise” from 2006.

MiS技術公司 (MiS) 專門生產電子器件的測試插座(Socket), 如石英晶體元件、MEMS傳感器、MEMS和C-MOS振盪器元件、電容器和光學元件。MiS為石英晶體器件市場提供了多種多樣的Socket, 可以滿足絕大多數客戶的封裝類型和尺寸。隨著汽車技術的進步, 先進電子設備不斷被開發並應用於高度集成的電子汽車系統。MiS所生產得各種測試插座, 可用於燃燒和可靠性測量, 以滿足這些行業特定的要求。MiS技術公司不斷致力於滿足和超越嚴格的全球高質量要求的測試插座的設計、製造和銷售。我們致力於成為客戶的“一站式解決方案”。

MiS Technologies Corporation
President Ichiro Midorikawa

Apr.2000	Founded Moved into Sagami-hara Incubation Center Ltd.	
Jun.2000	Developed TCXO (7×5) socket, the smallest.	
Nov.2000	Developed TCXO (6×3.5) socket.	
Aug.2001	Developed TCXO (5×3.2) socket, the smallest. Developed TCXO (4×2.5) socket.	
Jun.2002	Developed TCXO (3.2×2.5) socket, the smallest.	
Jan.2005	Developed TCXO (2.5×2) socket, the smallest.	
Oct.2006	Developed TCXO (2×1.6) socket.	
Mar.2008	Developed Oscillator (1.2×1) socket.	
Jun.2009	Received an award from METI (Ministry of Economy, Trade and Industry), as one of “300 active small and medium-sized manufacturing enterprise”.	
Jul.2012	Developed TCXO (1.6×1.2) socket, the smallest.	
Jun.2013	Developed 66 kinds of MEMS sockets.	
Sep.2013	Developed OCXO high-volume production socket (for great current).	
Aug.2014	Developed Fine pitch socket (0.3mm/0.35mm pitch).	
May.2015	Developed MEMS oscillator (1×0.8) socket.	

CXP測試座腳位表 (部份)

CXP series Pad position List



PKG Image	PKG Size (mm)	PKG Thickness (mm)	Pin Counts	Socket Part Number
	1x0.8	0.12	4	CXP-P04-05-00
	1x0.8	0.25	4	CXP-P04-13-00
	1.6x1.2	0.15	4	CXP-L04-12-00
	1.6x1.2	0.5	4	CXP-L04-11-00
	2x1.2	0.37	2	CXP-K02-08-00
	2x1.2	0.5	2	CXP-K02-04-00
	2x1.6	0.7	4	CXP-K04-19-00
	2x1.6	0.85	4	CXP-K04-30-00
	2x1.6	0.6	4	CXP-K04-28-00
	2x1.6	0.65	4	CXP-K04-13-00
	2x1.6	0.95	4	CXP-K04-10-00
	2.5x2	0.65	4	CXP-I04-23-00
	2.5x2	0.8	4	CXP-I04-01-00
	2.5x2	0.5	4	CXP-I04-09-00
	2.5x2	0.55	4	CXP-I04-10-00
	2.5x2	0.75	4	CXP-I04-16-00
	2.5x2	0.78	4	CXP-I04-03-00
	2.5x2	0.82	4	CXP-I04-07-00
	2.5x2	0.88	4	CXP-I04-04-00
	2.5x2	0.9	4	CXP-I04-08-00
	2.5x2	1.0	4	CXP-I04-13-00
	2.5x2	1.0	6	CXP-I06-12-00
	2.5x2	0.8	6	CXP-I06-13-00
	2.5x2	0.95	4	CXP-I04-24-00
	3.2x2.5	0.89	2	CXP-G02-13-00
	3.2x2.5	1.15	2	CXP-G02-01-00
	3.2x2.5	0.7	2	CXP-G02-11-00
	3.2x2.5	0.75	2	CXP-G02-09-00
	3.2x2.5	0.9	4	CXP-G04-06-00
	3.2x2.5	0.92	4	CXP-G04-09-00
	3.2x2.5	1.2	4	CXP-G04-24-00
	3.2x2.5	0.55	4	CXP-G04-01-00
	3.2x2.5	0.6	4	CXP-G04-04-00
	3.2x2.5	0.65	4	CXP-G04-15-00
	3.2x2.5	0.75	6	CXP-G06-10-00
	3.2x2.5	0.85	6	CXP-G06-08-00
	3.2x2.5	1.0	6	CXP-G06-04-00
	3.2x2.5	0.84	8	CXP-G08-07-00
	3.2x2.5	0.9	8	CXP-G08-05-00
	3.2x2.5	1.05	8	CXP-G08-01-00

PKG Image	PKG Size (mm)	PKG Thickness (mm)	Pin Counts	Socket Part Number
	5x3.2	1.25	2	CXP-C02-01-00
	5x3.2	1.42	2	CXP-C02-12-00
	5x3.2	0.6	2	CXP-C02-08-00
	5x3.2	0.95	2	CXP-C02-03-00
	5x3.2	1.25	2	CXP-C02-04-00
	5x3.2	0.8	4	CXP-C04-27-00
	5x3.2	1.0	4	CXP-C04-29-00
	5x3.2	0.75	4	CXP-C04-25-00
	5x3.2	1.1	4	CXP-C04-06-00
	5x3.2	1.5	4	CXP-C04-28-00
	5x3.2	1.2	6	CXP-C06-11-00
	5x3.2	1.4	6	CXP-C06-02-00
	5x3.2	1.05	8	CXP-C08-02-00
	5x3.2	1.6	8	CXP-C08-10-00
	5x3.2	1.7	8	CXP-C08-07-00
	5x3.2	0.9	10	CXP-C10-05-00
	5x3.2	1.0	10	CXP-C10-06-00
	5x3.2	1.6	10	CXP-C10-04-00
	7x5	0.8	2	CXP-A02-07-00
	7x5	1.0	2	CXP-A02-06-00
	7x5	1.15	4	CXP-A04-17-00
	7x5	1.3	4	CXP-A04-15-00
	7x5	1.4	4	CXP-A04-21-00
	7x5	1.8	4	CXP-A04-10-00
	7x5	0.9	4	CXP-A04-30-00
	7x5	1.5	4	CXP-A04-31-00
	7x5	2.5	4	CXP-A04-42-00
	7x5	0.85	6	CXP-A06-26-00
	7x5	1.45	6	CXP-A06-16-00
	7x5	1.75	6	CXP-A06-31-00
	7x5	1.85	6	CXP-A06-32-00
	7x5	0.9	6	CXP-A06-29-00
	7x5	1.15	6	CXP-A06-01-00
	7x5	1.5	8	CXP-A08-11-00
	7x5	1.7	8	CXP-A08-14-00
	7x5	2.05	8	CXP-A08-10-00
	7x5	1.38	10	CXP-A10-07-00
	7x5	1.9	10	CXP-A10-02-00
	7x5	1.7	10	CXP-A10-01-00
	7x5	1.8	10	CXP-A10-10-00

本表為部份CXP測試座型號，特殊需求或其他類型測試座請與我們聯繫



エム・アイ・エス テクノロジー株式会社
MIS Technologies Corporation

優力精密工業有限公司
AFORCE PRECISION INDUSTRY CORPORATION

昆山优力技鑫精密机械有限公司
AFORCE Unitech Precision Machinery Co., Ltd

TEL +81-42-770-9425

+886-3-6571238

0512-57865729 / 185-5006-2076

WEB www.mis-tech.jp

www.aforce.tw

www.mis-socket.com

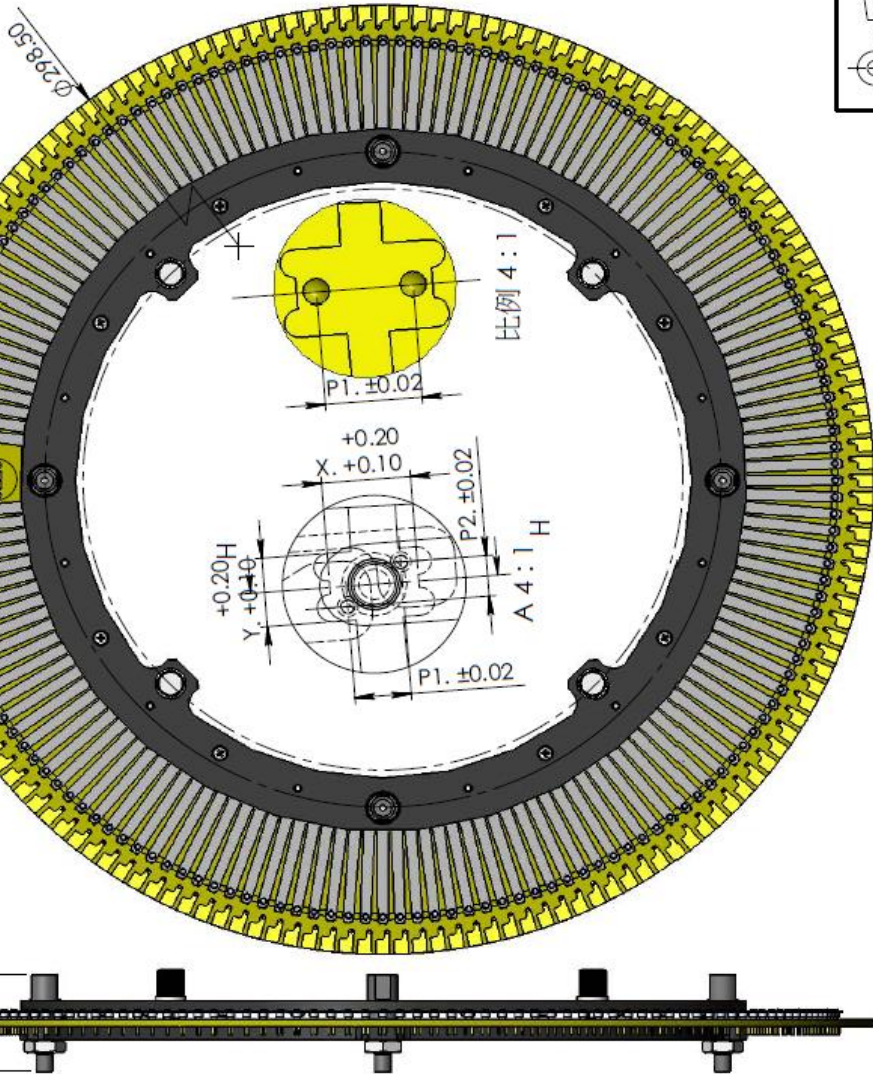
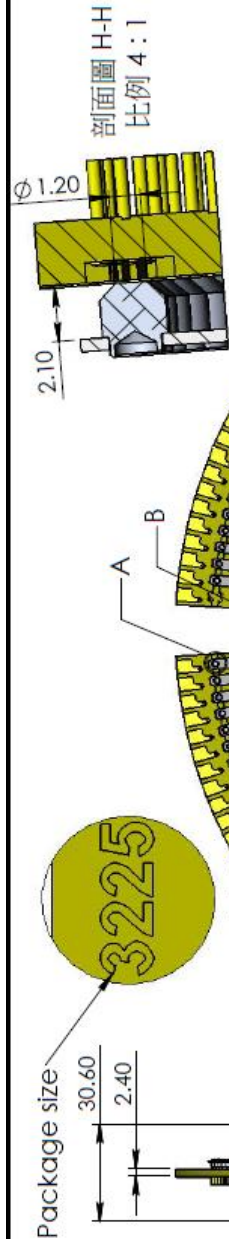
ADDRESS Sagamihara Sangyo Sozo Center#306
5-4-30 Nishihashinoto Midori-ku Sagamihara
Kanagawa 252-0131 Japan

30251 新竹縣竹北市縣政十街207號

江苏省昆山市经济技术开发区中航城58-102号

W-2200 TC Disk Pallet

W-2200溫度特性測試盤(硬針型)



PIN:	PKG dimension(mm)		Test center(mm)		Height	Pin No.	製成溫度 晶片	PKG 規格
	X.	Y.	P1.	P2.				
X1-100080209-006654	1.05	0.85	0.66	0.54	0.24	X9-025	±0.6mm ±2mm	X
X1-1210-075000	1.2	1	0.75	0.60	0.3	X9-025	±0.6mm	X
X1-125105-075060	1.25	1.05	0.75	0.60	0.34	X9-025	±0.6mm	X
X1-125105-084070	1.25	1.05	0.84	0.70	0.55mm	X9-025	±0.6mm	X
X1-1610-10	1.6	1	1.08	—	0.45	X9-015G	±0.6mm	O
X1-1612-1007	1.8	1.2	0.98	0.88	0.3	X9-015G	±0.6mm	O
X1-165105-11	1.65	1.05	1.11	—	0.3	X9-015G	±0.6mm	O
X1-165125-1308	1.65	1.25	1.30	0.80	0.66	X9-015G	±0.6mm	O
X1-165125-1007	1.65	1.25	1.00	0.70	0.3	X9-015G	±0.6mm	O
X1-2012-13	2	1.2	1.30	—	0.45	X9-015G	±0.6mm	O
X1-205125-1407	2.05	1.25	1.40	0.72	0.35	X9-015G	±0.6mm	O
X1-2016-1209	2	1.6	1.34	0.97	0.5	X9-015G	±1.2mm	O
X1-205165-1310	2.05	1.65	1.28	0.88	0.45	X9-015G	±1.2mm	O
X1-205165-1511	2.05	1.65	1.50	1.10	0.5	X9-015G	±1.2mm	O
X1-205165-1610	2.05	1.65	1.64	1.03	0.5	X9-015G	±1.2mm	O
X1-2503-1612	2.5	2	1.66	1.20	0.5	X9-021C	±1.2mm	O
X1-2503-1912	2.5	2	1.90	1.20	0.7	X9-021C	±1.2mm	O
X1-3215-23	3.2	2.5	2.35	—	0.65	X9-021C	±1.2mm	O
X1-3225-21	3.2	2.5	2.10	—	0.5	X9-021C	±1.2mm	O
X1-3225-2116	3.2	2.5	2.15	1.60	0.6	X9-021C	±1.2mm	O
X1-3225-11	3.2	2.5	1.10	—	0.95	X9-021C	±1.2mm	O
X1-4025-3116	4	2.5	3.10	1.60	0.7	X9-021C	±1.2mm	O
X1-4115-33	4.1	3.5	3.30	—	0.5	X9-021C	±1.2mm	O
X1-6002-2822	5	3.2	2.54	2.20	0.9	X9-021C	±1.2mm	O
X1-6002-3723	5	3.2	3.70	2.30	0.9	X9-021C	±1.2mm	O
X1-6002-16	5	3.2	1.60	—	1.2	X9-021C	±1.2mm	O
X1-6002-37	5	3.2	3.70	—	1.1	X9-021C	±1.2mm	O
X1-6005-424	6	3.5	4.40	2.40	0.95	X9-021C	±1.2mm	O
X1-6005-44	6	3.5	4.40	—	1	X9-021C	±1.2mm	O
X1-468	12	4.8	4.68	—	3	X9-021C	±1.2mm	O
X2-7050-8025	7	5	5.60	2.54	1	X9-021C	±1.2mm	O
X2-7050-88	7	5	5.80	—	1	X9-021C	±1.2mm	O
X2-7349-8025	7.3	4.9	5.60	2.50	1.1	X9-021C	±1.2mm	O
X2-8045-68	8	4.5	6.60	—	1.2	X9-021C	±1.2mm	O
X2-4850-60	11.7	4.9	8.00	—	3	X9-021C	±1.2mm	O

W-2200 TC disk pallet

TITLE: W-2200 TC disk pallet
 DWG NO: X1(2)-XXX-XXX
 REV: B

MATERIAL: PAPER A4

UNIT: mm
 SCALE: 1:2
 SHEET: 1 of 1

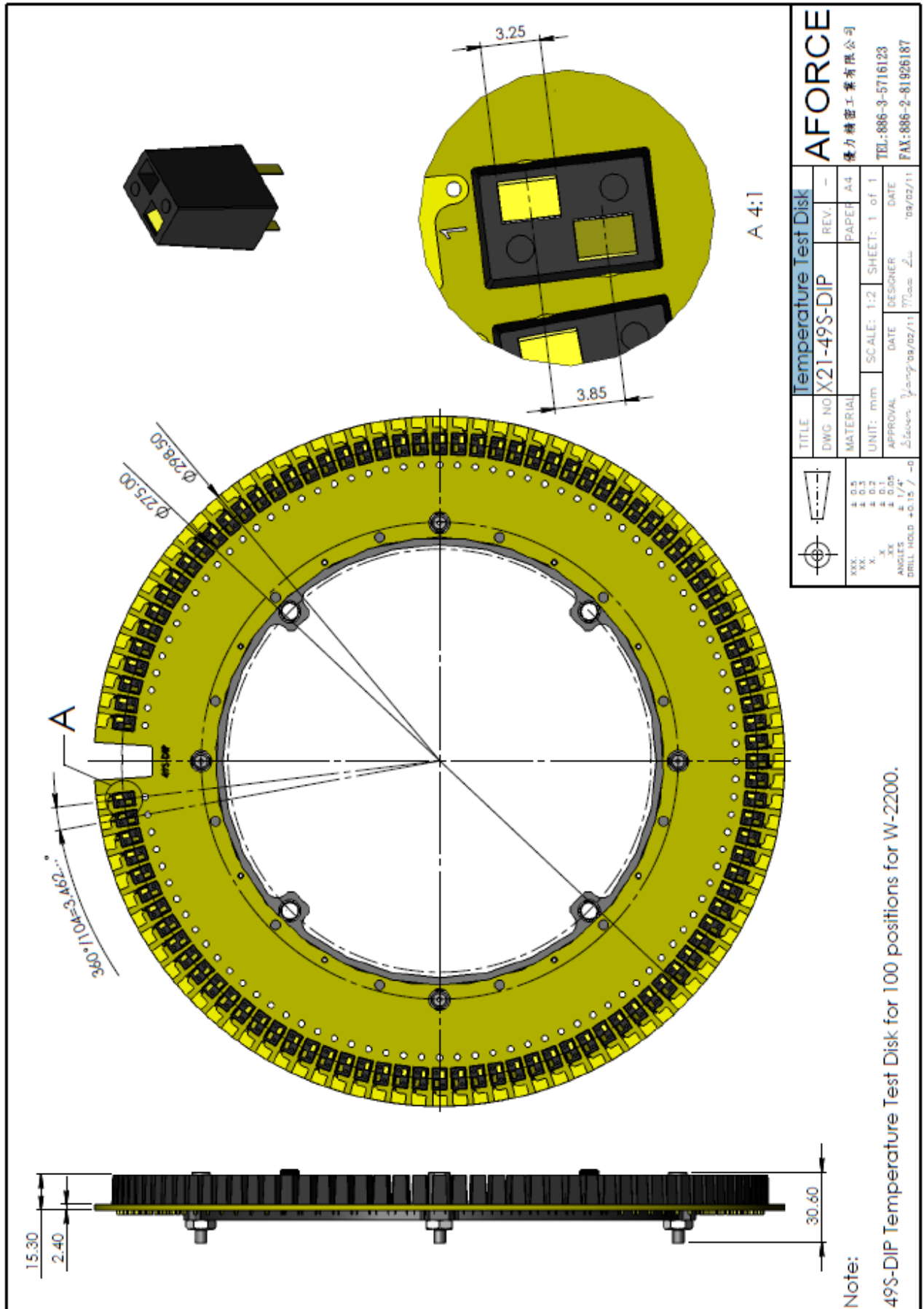
APPROVAL: DATE DESIGNER DATE
 Steven Yang '09/09 Steven Yang '09/09

TEL: 886-3-6571238
 FAX: 886-2-81926187

A FORCE
 俊力精密工業有限公司

Note:
 X1: Crystal Temperature Test Disk Pallet for 160 positions for W-2200.
 X2: Crystal Temperature Test Disk Pallet for 140 positions for W-2200.

W-2200 Temperature Test Disk
W-2200引腳型特性測試盤

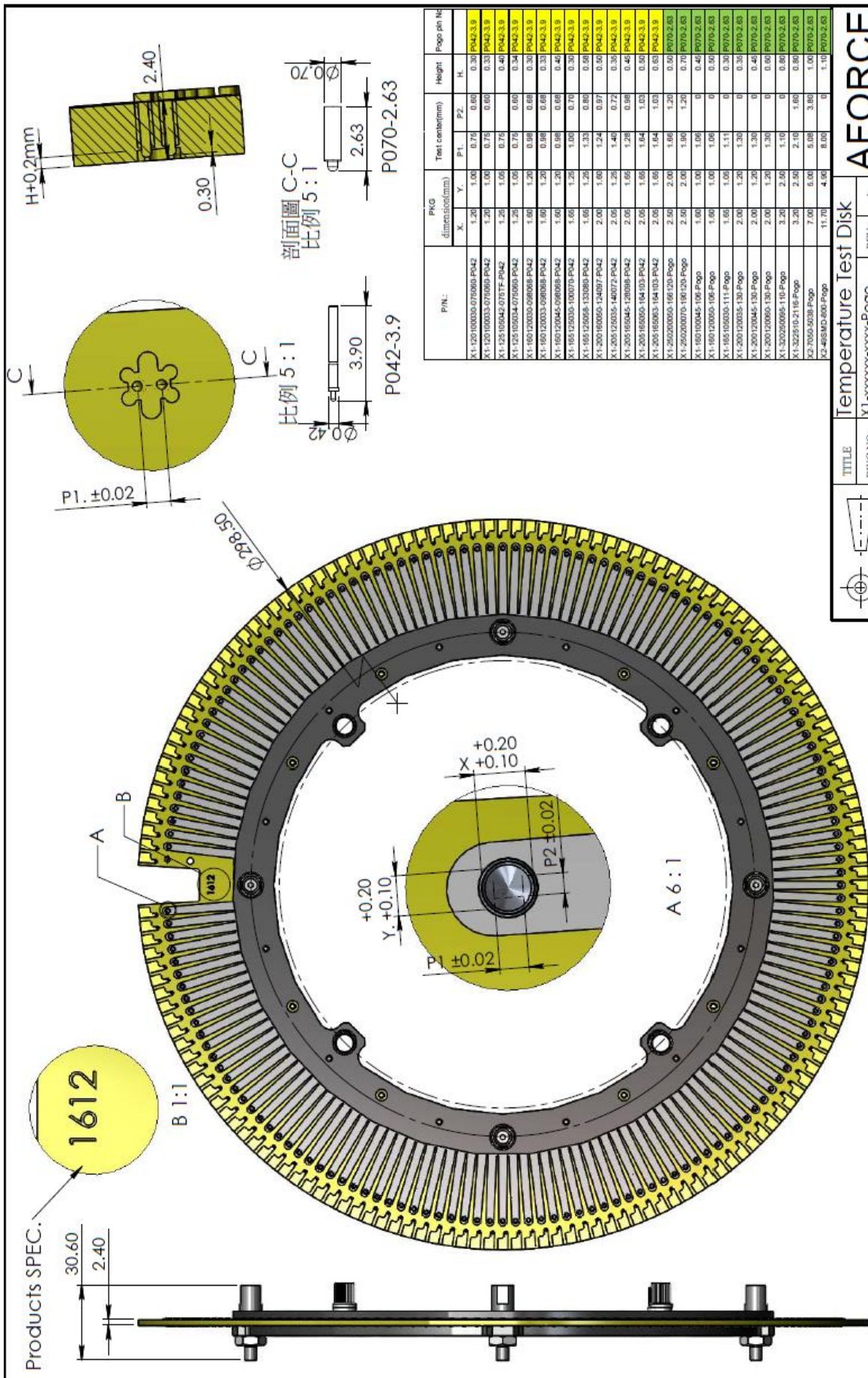


TITLE		Temperature Test Disk	
DWG NO	X21-49S-DIP	REV.	-
MATERIAL		PAPER	A4
UNIT	mm	SCALE	1:2
APPROVAL		DATE	
DESIGNER		DATE	
APPROVER	3/20/09	DATE	09/02/11
DRILL HOLD	+0.15 / -0		

AFORCE
優力精密工業有限公司
TEL: 886-9-5716123
FAX: 886-2-81926187

Note:
49S-DIP Temperature Test Disk for 100 positions for W-2200.

W-2200 TC Disk Pallet (POGO)
W-2200溫度特性測試盤(探針型)



PIN:	PKG dimension(mm)		Test center(mm)		Height		Pogo pin No.
	X	Y	P1	P2	H	H	
X1-12010003-07800P-P42	1.20	1.00	0.75	0.80	0.30	0.30	P042-3.9
X1-12010003-07800P-P42	1.20	1.00	0.75	0.80	0.30	0.30	P042-3.9
X1-125105042-0781P-P42	1.25	1.05	0.75	0.80	0.40	0.40	P042-3.9
X1-125105042-0781P-P42	1.25	1.05	0.75	0.80	0.40	0.40	P042-3.9
X1-180120033-09000P-P42	1.80	1.20	0.90	0.98	0.30	0.30	P042-3.9
X1-180120033-09000P-P42	1.80	1.20	0.90	0.98	0.30	0.30	P042-3.9
X1-180120044-09000P-P42	1.80	1.20	0.90	0.98	0.40	0.40	P042-3.9
X1-180120044-09000P-P42	1.80	1.20	0.90	0.98	0.40	0.40	P042-3.9
X1-185125030-10007P-P42	1.85	1.25	1.00	1.07	0.30	0.30	P042-3.9
X1-185125030-10007P-P42	1.85	1.25	1.00	1.07	0.30	0.30	P042-3.9
X1-185125058-13308P-P42	1.85	1.25	1.33	1.33	0.50	0.50	P042-3.9
X1-200180050-12407P-P42	2.00	1.80	1.24	1.24	0.30	0.30	P042-3.9
X1-205125035-14007P-P42	2.05	1.25	1.40	1.40	0.30	0.30	P042-3.9
X1-205165045-12008P-P42	2.05	1.65	1.20	1.20	0.30	0.30	P042-3.9
X1-205165045-12008P-P42	2.05	1.65	1.20	1.20	0.30	0.30	P042-3.9
X1-205165050-16410P-P42	2.05	1.65	1.64	1.64	1.03	1.03	P042-3.9
X1-205165050-16410P-P42	2.05	1.65	1.64	1.64	1.03	1.03	P042-3.9
X1-260200050-186120-Pogo	2.60	2.00	1.86	1.86	2.00	2.00	P070-2.63
X1-260200070-186120-Pogo	2.60	2.00	1.86	1.86	2.00	2.00	P070-2.63
X1-180100045-106-Pogo	1.80	1.00	1.06	1.06	0	0	P070-2.63
X1-180120050-106-Pogo	1.80	1.00	1.06	1.06	0	0	P070-2.63
X1-185105030-111-Pogo	1.85	1.05	1.11	1.11	0	0	P070-2.63
X1-200120035-130-Pogo	2.00	1.20	1.30	1.30	0	0	P070-2.63
X1-200120045-130-Pogo	2.00	1.20	1.30	1.30	0	0	P070-2.63
X1-200120060-130-Pogo	2.00	1.20	1.30	1.30	0	0	P070-2.63
X1-320200065-110-Pogo	3.20	2.00	1.10	1.10	0	0	P070-2.63
X1-3202010-218-Pogo	3.20	2.00	2.18	2.18	1.00	1.00	P070-2.63
X2-7000-0028-Pogo	7.00	5.00	3.80	3.80	1.00	1.00	P070-2.63
X2-485MD-800-Pogo	11.70	4.90	8.00	8.00	1.10	1.10	P070-2.63

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TEL: 886-3-6571238
FAX: 886-2-81926187

Temperature Test Disk

TITLE	Temperature Test Disk
DWG NO.	X1-xxxxxx-xxxx-Pogo
MATERIAL	PAPER
UNIT: mm	SCALE: 1:2
APPROVAL	DESIGNER DATE
Steven Yang	Steven Yang 1965/02

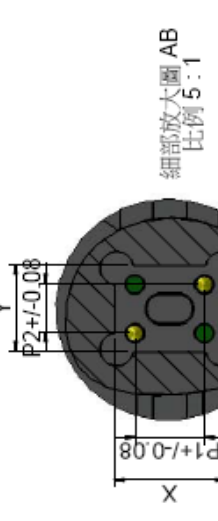
XXX: 4.05
XX: 4.03
X: 4.02
XX: 4.01
XX: 4.006
ANGLES: 8.14°
DRILL: H0.01-0.15 / 0

Note:
X1: 160 Positions crystal Temperature Test Disk Pallet for W-2200.
X2: 140 Positions crystal Temperature Test Disk Pallet for W-2200.

W-2220 TC Disk Pallet

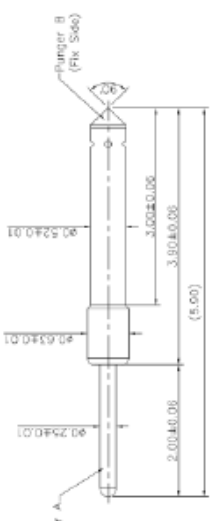
W-2220溫度特性測試盤

REV.		REVISION NOTE	DATE	CHECKED
▽				

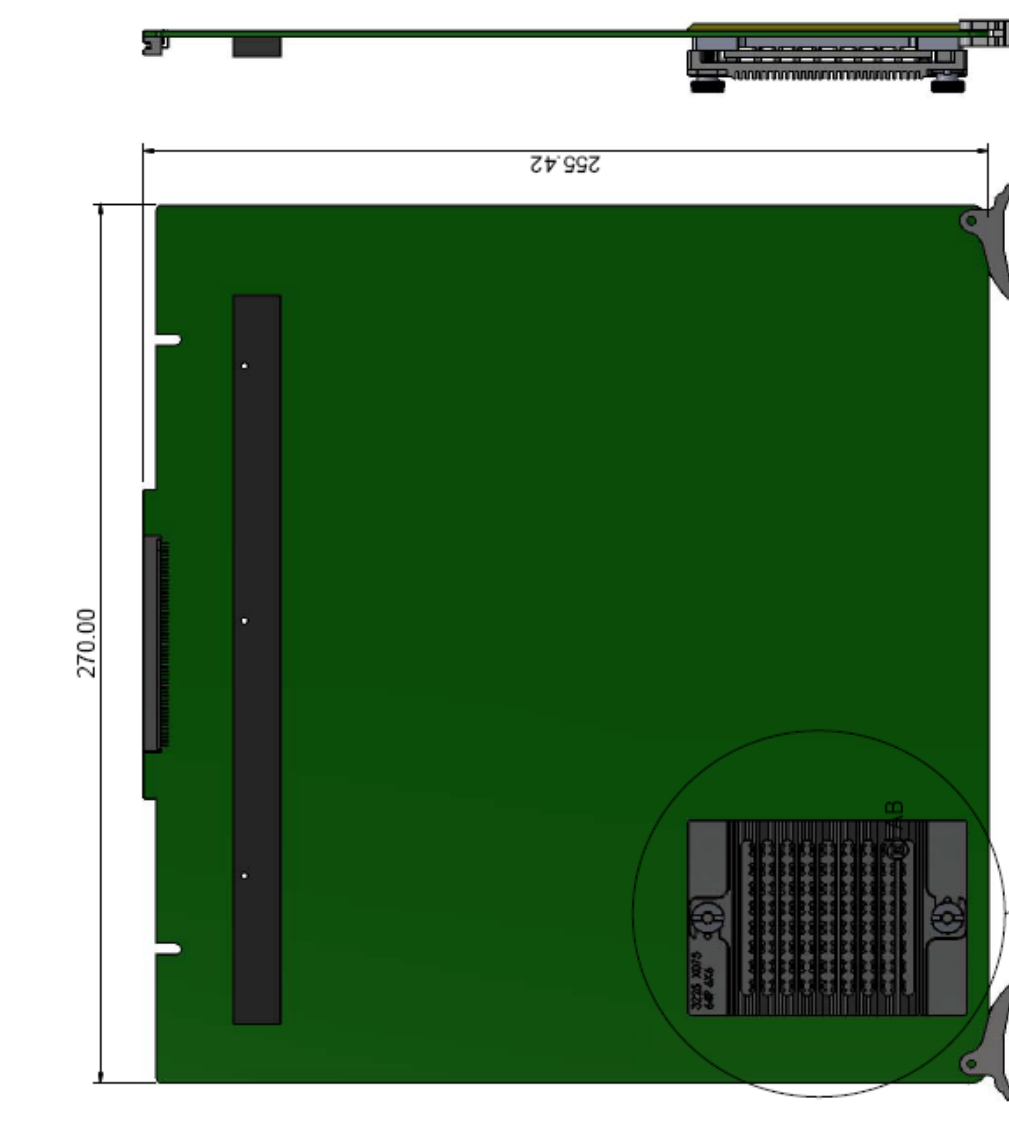


細部放大圖 AB
比例 5 : 1


2016(含)PKG 以上; 每個PKG 下方有四個探針孔兩支探針。
1612(含)PKG 以下; 每個PKG 下方只有兩個探針孔兩支探針。



P063-5.9



P/N:	PKG dimension(mm)			Test center(mm)		Probe
	X	Y	Z	P1	P2	
XZ220-1210-075060	1.20	1.00	0.30	0.75	0.60	P063-5.9
XZ220-125105-075060	1.25	1.05	0.34	0.75	0.60	P063-5.9
XZ220-160120040-1007	1.60	1.20	0.40	0.98	0.68	P063-5.9
XZ220-165125058-130080	1.65	1.25	0.58	1.33	0.80	P063-5.9
XZ220-205165063-164103	2.05	1.65	0.63	1.64	1.03	P063-5.9
XZ220-205165050-1310	2.05	1.65	0.50	1.28	0.98	P063-5.9
XZ220-322507-2116	3.20	2.50	0.70	2.15	1.60	P063-5.9
XZ220-503210-3723	5.00	3.20	1.00	3.70	2.30	P063-5.9
XZ220-503207-3723	5.00	3.20	0.70	3.70	2.30	P063-5.9



XX ±0.5
XX ±0.3
X ±0.2
X ±0.1
XX ±0.05
ANGLE 15°
DOUBLE HOLE-HS 15°-0

TITLE W-2220 X'tal Temp. DUT board

DWG NO. XZ220-XXXXXX-XXXX

REV. A

MATERIAL XXXXXXXX

PAPER A4

UNIT: mm

SCALE: 1:2

SHEET: 1 of 1

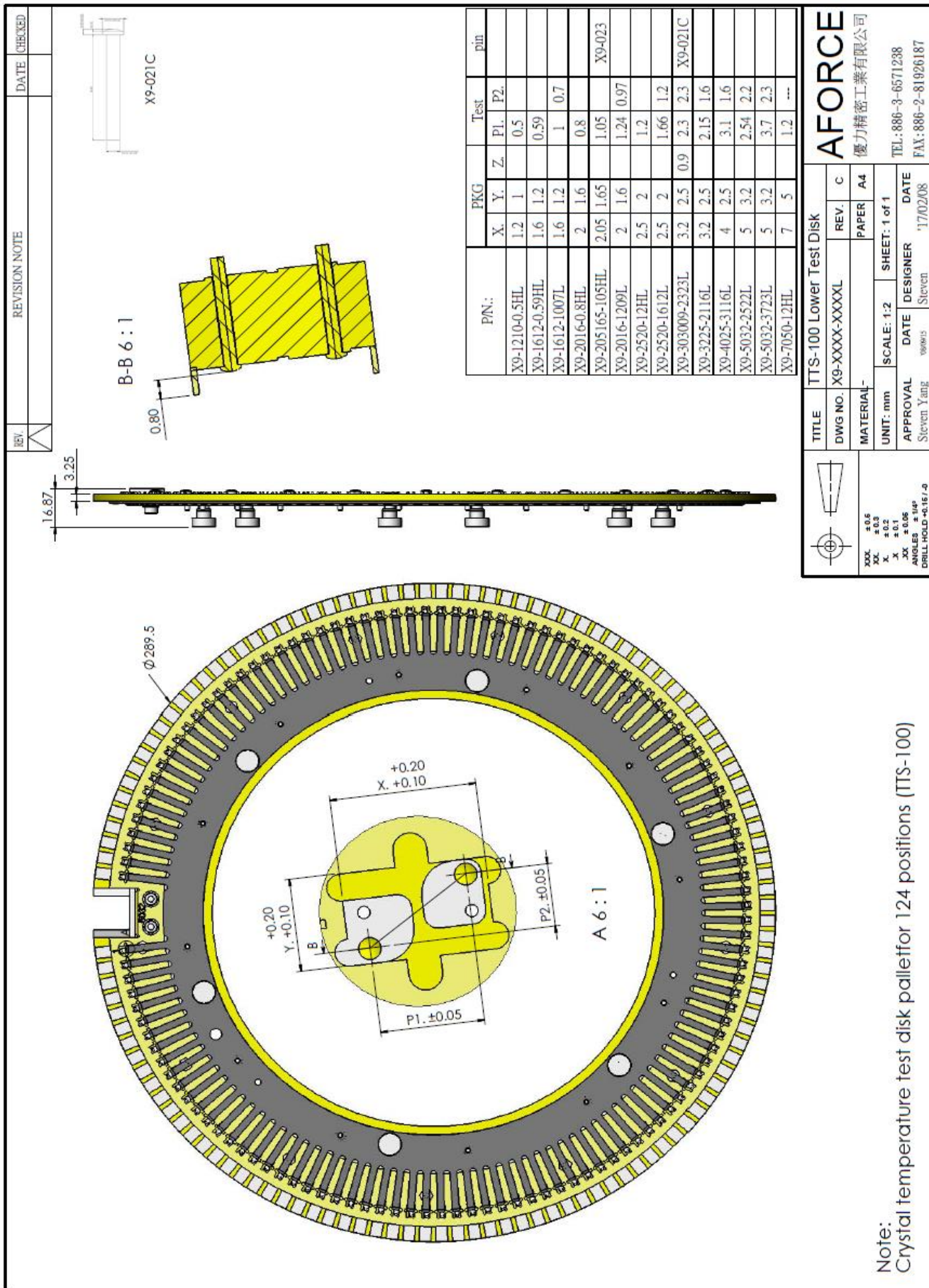
APPROVAL DATE DESIGNER DATE

Steven Yang 180625 Steven Yang 180625

AFORCE
優力精密工業有限公司

TEL: 886-9-6571298
FAX: 886-2-81926187

Note: PN: X-Z220-xxxxx-xxxx-socket means PKG tray only.



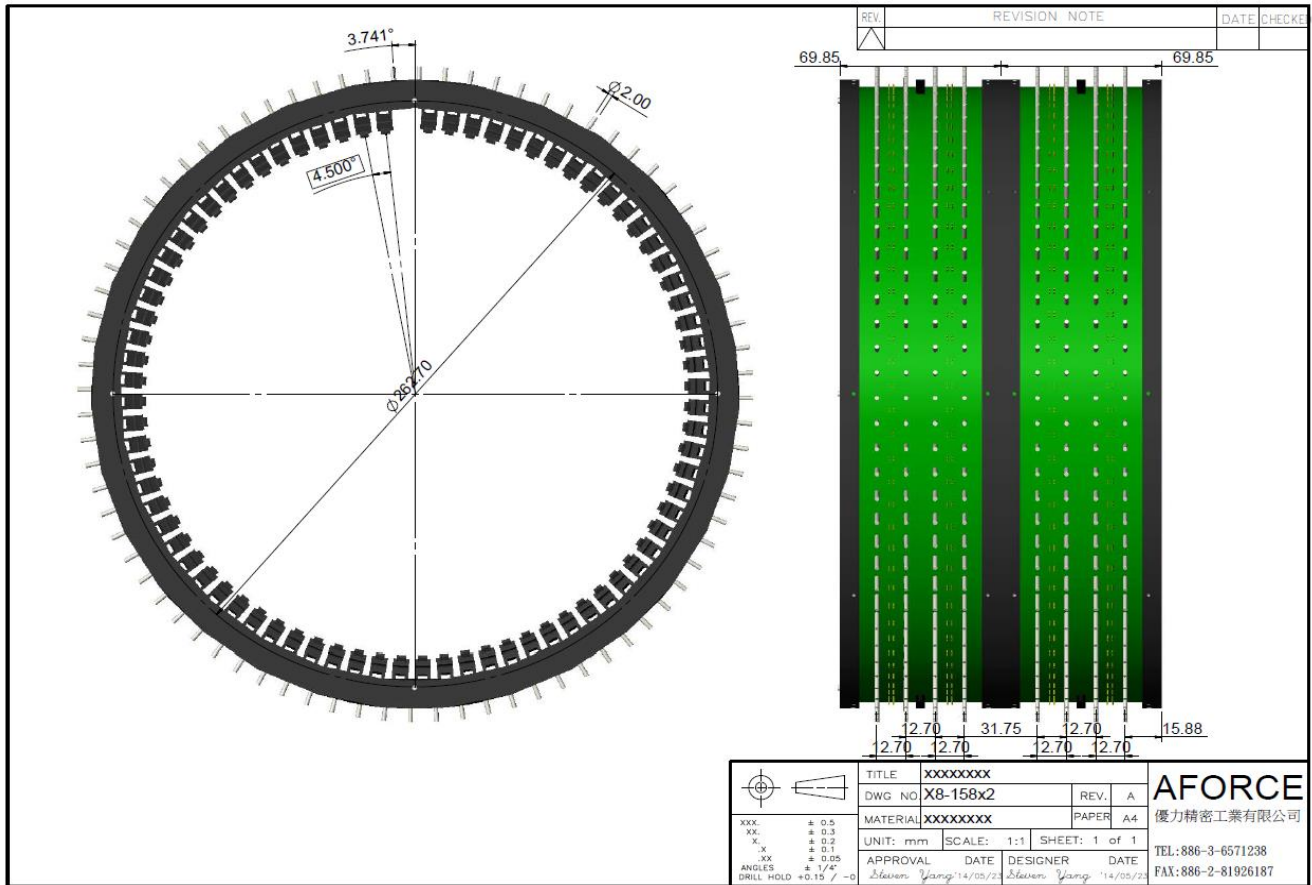
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 優力精密工業有限公司
 TEL: 886-3-6571238
 FAX: 886-2-81926187

TTS-100 Lower Test Disk
 DWG NO. X9-XXXX-XXXXL
 MATERIAL: -
 UNIT: mm
 SCALE: 1:2
 SHEET: 1 of 1
 APPROVAL DATE DESIGNER DATE
 Steven Yang Steven '17/02/08

$\phi \pm 0.05$
 $XX \pm 0.2$
 $X \pm 0.1$
 $.XX \pm 0.05$
 ANGLES $\neq 1/4^\circ$
 DRILL HOLD $\neq 0.167-0$

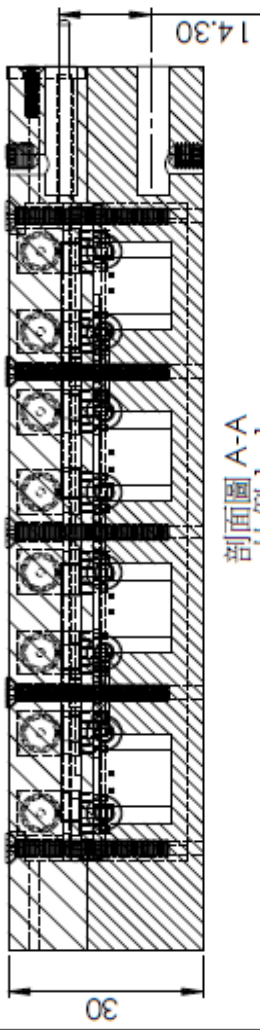
Note:
 Crystal temperature test disk pallet for 124 positions (TTS-100)

W-2200/T-714/4220MR Dual Row Crystal Test Wheel(晶振溫測圈)

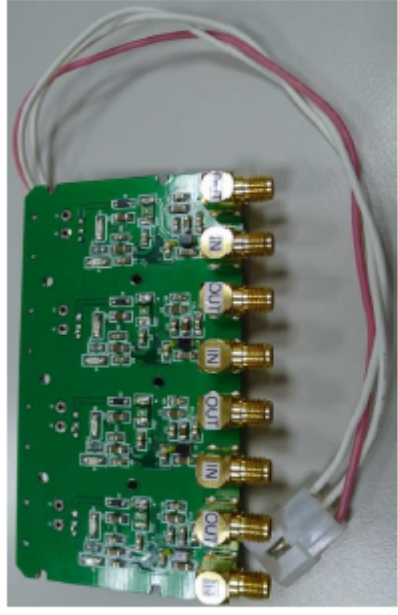
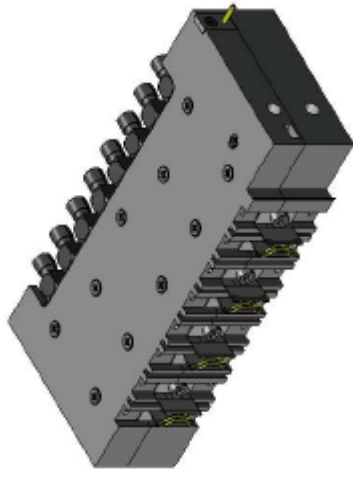
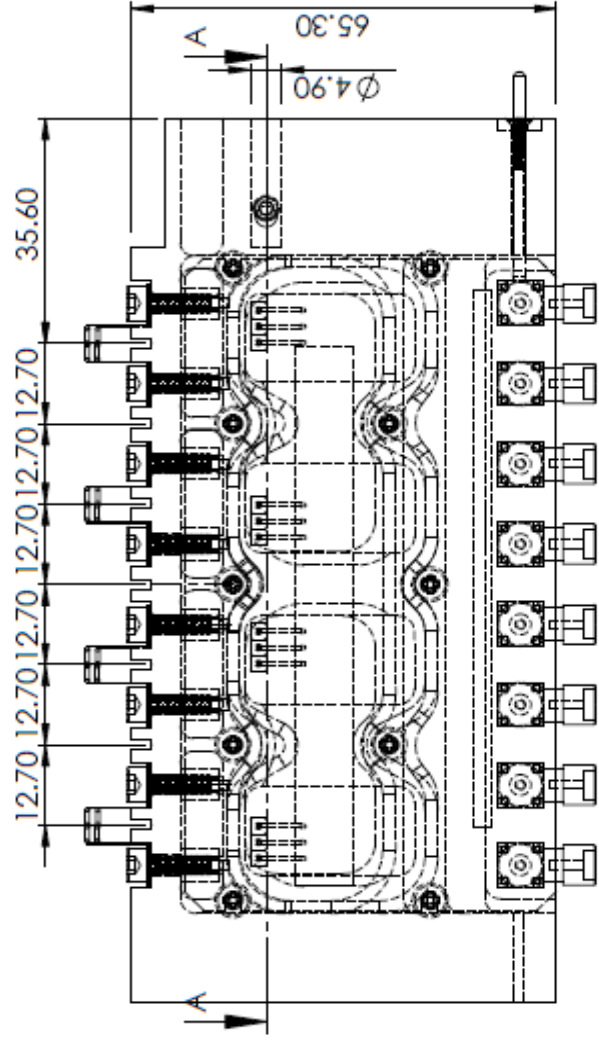


W-2200 KHz (1000K) / MHz Test Head
 W-2200 KHz (1000K) / MHz 測頭

REV.	REVISION NOTE	DATE	CHECKED



剖面圖 A-A
 比例 1:1

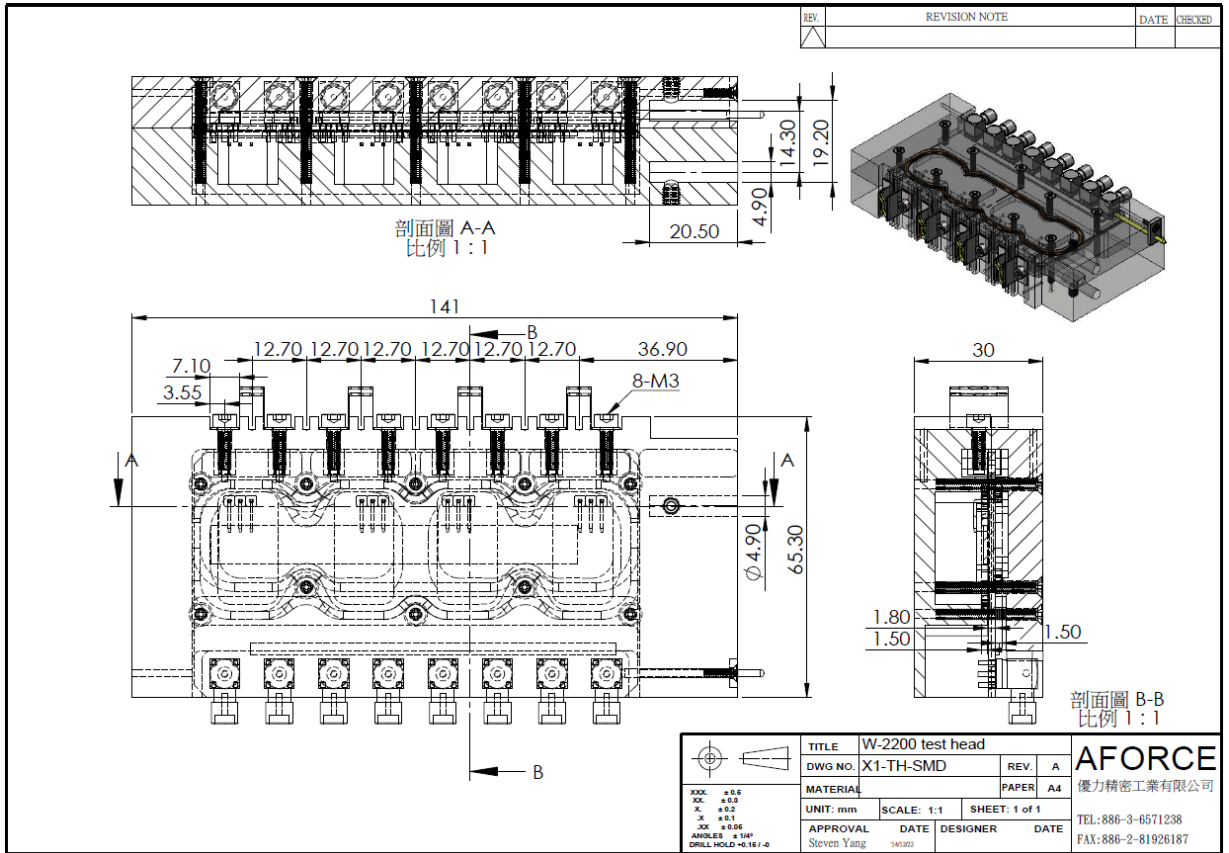


	XXX	±0.05
	XX	±0.02
	X	±0.1
	.XX	±0.05
ANGLES ±1/4°		
DRILL HOLD ±0.15/±0.4		

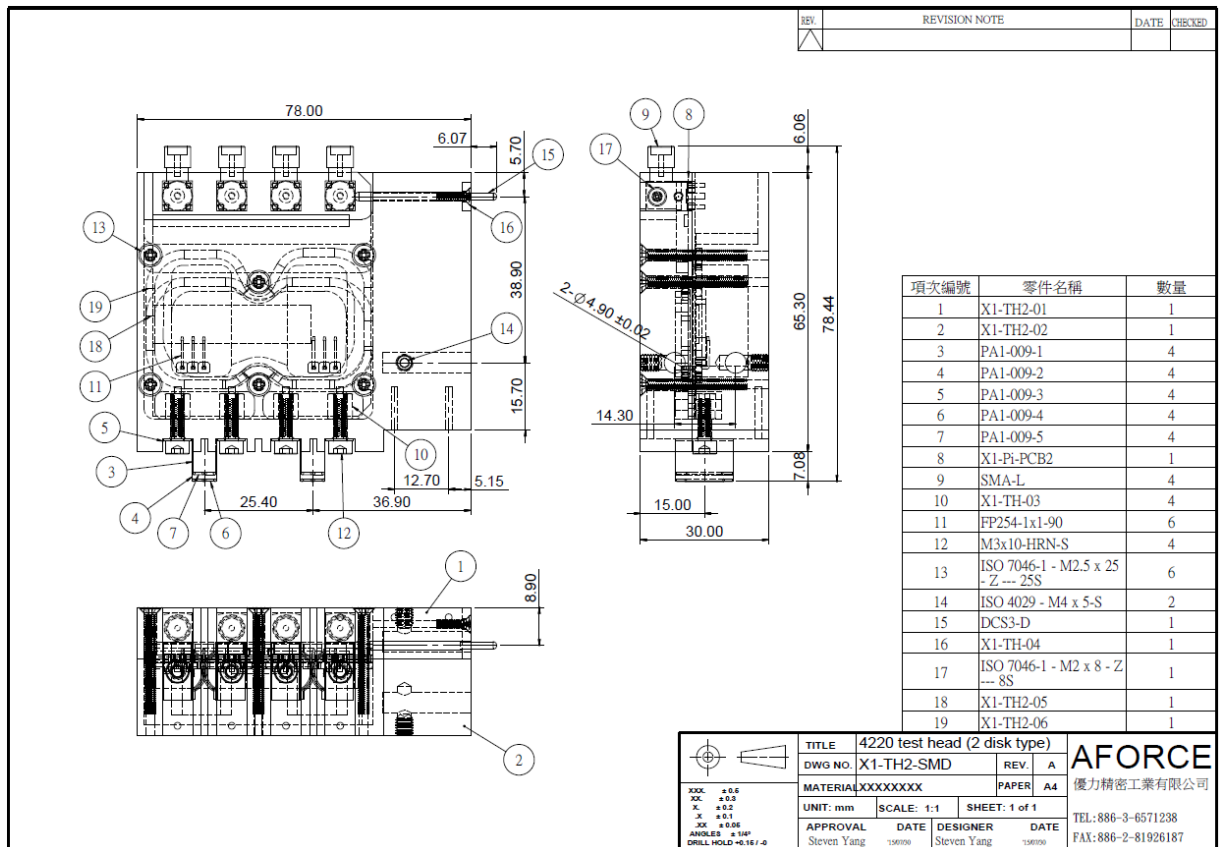
TITLE	W-2200 kHz test head	
DWG NO.	X1-TF-TH	REV. A
MATERIAL		PAPER A4
UNIT: mm	SCALE: 1:1	SHEET: 1 of 1
APPROVAL	DATE	DESIGNER
Steven Yang		Steven Yang

AFORCE
 優力精密工業有限公司
 TEL: 886-3-6571238
 FAX: 886-2-81926187

W2200 Test Head



4420 Test Head (2 disk type)



250B/C SMD/DIP (MHz) Test Head

250B/C SMD/DIP (MHz) 測頭

REV.	REVISION NOTE	DATE	CHECKED
△	product number modify	10/09	

項次	零件名稱	描述	數量
1	k-ems-1	圓頭母針	6
2	k-ems-4	圓頭公針	6
3	M3x6	M3 L=6mm	4
4	M3x8	M3 L=8mm	4
5	M3x8 Plastic	M3 L=8mm 塑膠	2
6	M3x8(圓頭十字)	M3 L=8mm	2
7	P068-16.35	探針	2
8	PD-77	socket pin	2
9	R068-097-17.6	探針套管	2
10	SMA9400-0000	SMA-L	2
11	SMSB-4.5-25	固定螺栓	1
12	XB-001(BOX)	銅盒	1
13	XB-002(COVER)	銅蓋	1
14	XB-003	PI電路板	1
15	XB-004	PI轉接板	1
16	XB-007(彈簧)	彈簧	1
17	XB-009	墊圈	2
18	XB-013	消音墊	4
19	XBO-005-1	轉接板座	1
20	XBO-008A	旋轉押臂	1

TITLE: SMD test head		REV. A		A FORCE 德力精密工業有限公司 TEL: 886-3-6571238 FAX: 886-2-81926187
DWG NO. XB-A01-XXX	PAPER: A4	SHEET: 1 of 1		
MATERIAL:	UNIT: mm	SCALE: 1:1	DATE:	DESIGNER:
APPROVAL: Steven Yang	DATE:	DATE:	DATE:	DATE:

P/N:
XB-A01-055 (可調電容腳徑 $\phi 0.55\text{mm}$)
XB-A01-100 (可調電容腳徑 $\phi 1.00\text{mm}$)

REV.	REVISION NOTE	DATE	CHECKED
△	product number modify	10/09	

項次編號	零件號碼/品名	數量
1	XB-001(BOX)	1
2	XB-003	1
3	XB-004	1
4	XB-002(COVER)	1
5	PD-77	2
6	k-ems-4	6
7	k-ems-1	6
8	XB-009	2
9	M3x8 Plastic	2
10	M3x8	4
11	M3x6	4
12	XB-011	2
13	PA1-003(XB-wiper)	2

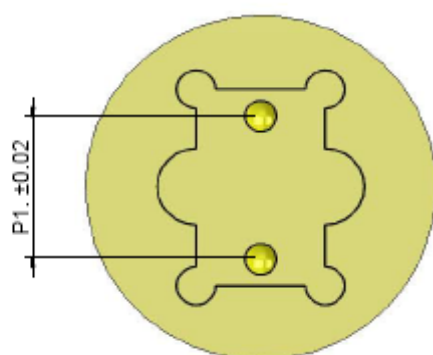
TITLE: DIP test head		REV. A		A FORCE 德力精密工業有限公司 TEL: 886-3-6571238 FAX: 886-2-81926187
DWG NO. XB-B00-XXX	PAPER: A4	SHEET: 1 of 1		
MATERIAL:	UNIT: mm	SCALE: 1:1.5	DATE:	DESIGNER:
APPROVAL: Steven Yang	DATE:	DATE:	DATE:	DATE:

P/N:
XB-B00-055 (可調電容腳徑 $\phi 0.55\text{mm}$)
XB-B00-100 (可調電容腳徑 $\phi 1.00\text{mm}$)

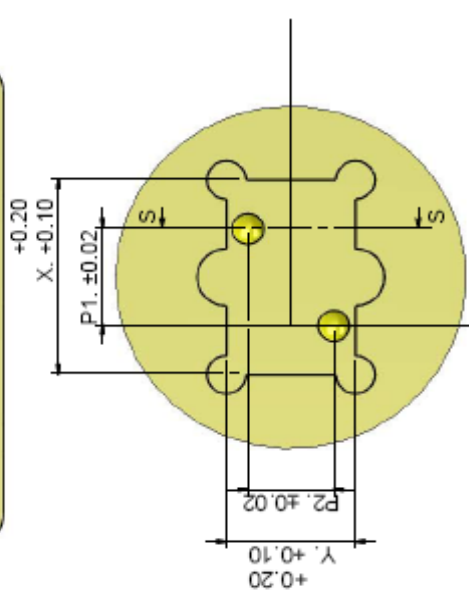
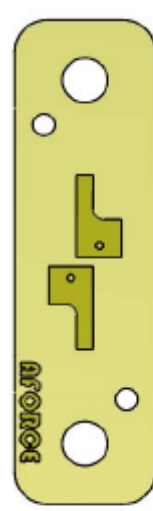
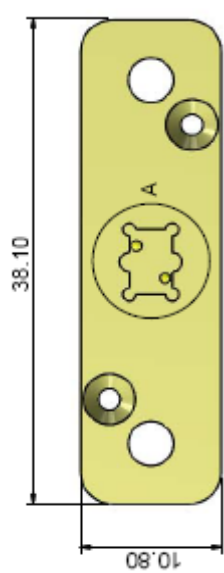
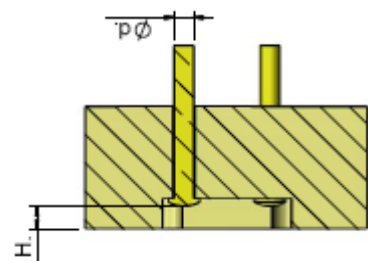
250B/C X' tal Adapter Board

250B/C 晶振量測用轉接板

REV	REVISION NOTE	DATE	CHECKED



6 : 1

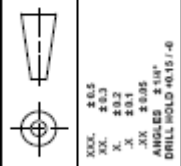


剖面圖 S-S
比例 6 : 1

Note:
X3-xxxx-xxxx: Adapter board with hard pin for 250B.
X3-xxxx-xxxx-pogo: Adapter board for 250B with pogo pin.

P/N:	PKG dimension			Test center(mm)		Height H	Pin Diameter d
	X	Y	Z	P1	P2		
XG-105085029-066054	1.05	0.85	0.54	0.66	0.54	0.24	0.22
XG-1210-075060	1.20	1.00	0.75	0.75	0.60	0.20	0.30
XG-125105-075060	1.25	1.05	0.75	0.75	0.60	0.25	0.30
XG-1210-09	1.20	1.00	0.90	0.90	0.35	0.30	0.30
XG-125105-09	1.25	1.05	0.90	0.90	0.35	0.35	0.30
XG-1610-10	1.60	1.00	1.00	1.00	0.30	0.50	0.30
XG-1612-1007	1.65	1.25	0.98	0.98	0.68	0.20	0.30
XG-165125-1208	1.65	1.25	1.20	1.20	0.80	0.20	0.30
XG-2012-13	2.00	1.20	1.30	1.30	0.30	0.30	0.30
XG-2012-14	2.00	1.20	1.40	1.40	0.30	0.30	0.30
XG-2016-12	2.00	1.60	1.20	1.20	0.60	0.60	0.30
XG-2016-1209	2.00	1.60	1.24	1.24	0.97	0.30	0.30
XG-200160070-161100	2.00	1.60	1.61	1.61	1.00	0.30	0.30
XG-2520-1612	2.50	2.00	1.66	1.66	1.20	0.30	0.50
XG-2520-1912	2.50	2.00	1.90	1.90	1.20	0.30	0.50
XG-3215-25	3.20	1.50	2.50	2.50	0.40	0.40	0.50
XG-3225-21	3.20	2.50	2.10	2.10	0.63	0.50	0.50
XG-3225-2114	3.20	2.50	2.15	2.15	1.60	0.50	0.50
XG-3225-2514	3.20	2.50	2.90	2.90	1.40	0.40	0.50
XG-4115-29	4.10	1.50	2.90	2.90	0.50	0.50	0.50
XG-5032-2522	5.00	3.20	2.54	2.54	2.20	0.60	0.50
XG-5032-3723	5.00	3.20	3.70	3.70	2.80	0.60	0.50
XG-5032-37	5.00	3.20	3.70	3.70	0.70	0.70	0.50
XG-6035-4824	6.00	3.50	4.80	4.80	2.40	0.70	0.50
XG-6035-31	6.00	3.50	3.10	3.10	0.70	0.70	0.50
XG-6035-45	6.00	3.50	4.50	4.50	0.70	0.70	0.50
XG-7050-5825	7.00	5.00	5.80	5.80	2.54	0.90	0.50
XG-7050-55	7.00	5.00	5.50	5.50	0.90	0.90	0.50
XG-7345-5825	7.30	4.90	5.80	5.80	2.50	0.90	0.50
XG-8045-65	8.00	4.50	6.50	6.50	0.90	0.90	0.50
XG-4955MD-50	7.00	4.00	5.00	5.00	1.00	1.00	0.50
XG-4955MD-85	12.10	4.70	8.50	8.50	1.30	1.30	0.50
XG-4955MDT-88	11.55	4.85	8.80	8.80	1.30	1.30	0.50

TITLE Adapter board for 250B		REV. C
DWG NO. X3-XXXX-XXXX	PAPER A4	SHEET: 1 of 1
MATERIAL -	SCALE: 2:1	DESIGNER DATE
UNIT: mm	DRILLER Steven Yang	DATE
APPROVAL Steven Yang	160915	



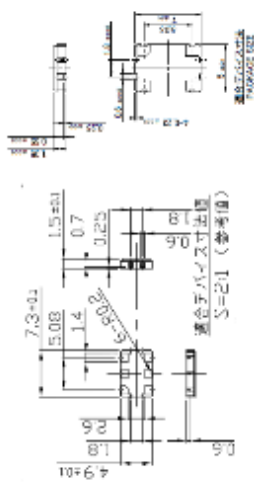
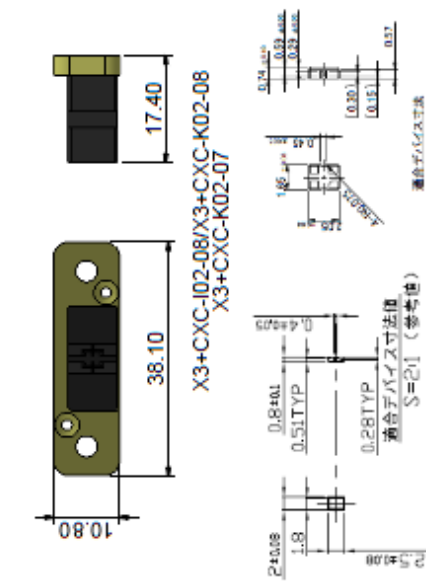
AFORCE
德力精密工業有限公司

TEL: 886-3-6571238
FAX: 886-2-81926187

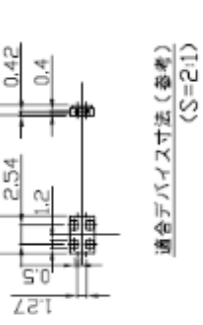
250B CXO X'tal Test Jig

250B CXO 晶振測試治具

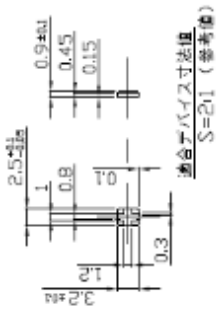
REV	REVISION NOTE	DATE	CHECKED



X3+CXK-A10-03(7349)/CXK-A04-09(7050)



X3+CXK-C04-04



X3+CXK-G04-09

Product No.	Socket No.	PKG	接觸點
X3+CXK-A10-03	CXC-A10-03-00	7349 1.8mm	兩點同短邊
X3+CXK-A04-09	CXC-A04-09-00	7050 1.8mm	兩點同短邊
X3+CXK-C04-04	CXC-C04-04-00	5032 1.27mm	兩點同短邊
X3+CXK-G04-09	CXC-G04-09-00	3225 0.8mm	兩點同短邊
X3+CXK-102-08	CXC-102-08-00	2520	長邊各一點
X3+CXK-K02-07	CXC-K02-07-00	2016	長邊各一點
X3+CXK-K02-08	CXC-K02-08-00	2016	長邊各一點

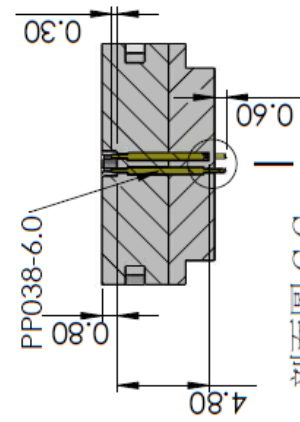
A FORCE
優力精密工業有限公司
TEL: 886-8-8571238
FAX: 886-2-81926187

TITLE CXO xtal test jig
REV. A
DWG NO. XXXXXXXX
PAPER A4
MATERIAL XXXXXXXX
UNIT: mm SCALE: 1:1 SHEET: 1 of 1
APPROVAL DATE DESIGNER DATE DATE
Seven Yang 79993

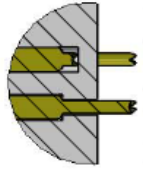
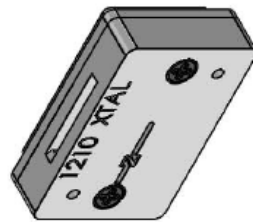
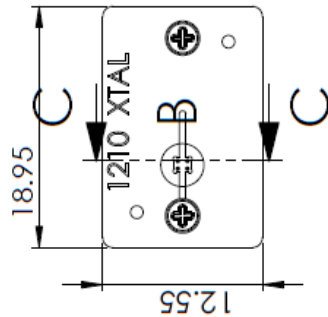
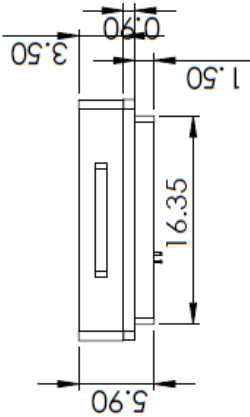
3X 0.05
 2X 0.03
 1X 0.02
 1X 0.01
 ANGLES 2.5°
 DRILL HOLD 0.15/0.4

250D 800MHz X' tal Adapter
250D 800MHz晶振量測用測試座

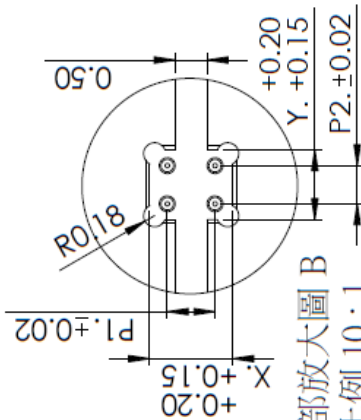
REV.	REVISION NOTE	DATE	CHECKED
-			



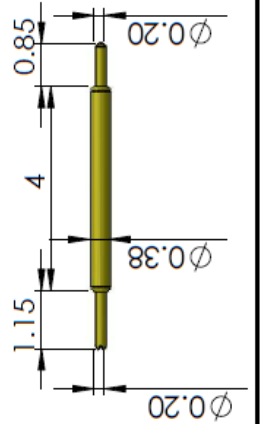
剖面圖 C-C
比例 3:1



細部放大圖 I
比例 10:1



細部放大圖 B
比例 10:1



PN:	PKG dimension(mm)			Test center(mm) PKG side		Probe PN
	X.	Y.	PL.	P1.	P2.	
X250D-120100035-074060	1.20	1.00	0.74	0.60		PP038-6.0
X250D-120100035-085060	1.20	1.00	0.85	0.60		PP038-6.0
X250D-160100050-106060	1.60	1.00	1.06	0.60		PP038-6.0
X250D-160120033-100070	1.60	1.20	1.00	0.70		PP038-6.0
X250D-165125058-144078	1.65	1.25	1.44	0.78		PP038-6.0
X250D-200120060-130070	2.00	1.20	1.30	0.70		PP038-6.0
X250D-2016-1209	2.00	1.60	1.24	0.97		PP038-6.0
X250D-200160-175100	2.00	1.60	1.75	1.00		PP038-6.0
X250D-2520-1612	2.50	2.00	1.66	1.20		PP038-6.0
X250D-250200-215130	2.50	2.00	2.15	1.30		PP038-6.0
X250D-258211-207125-6P	2.58	2.11	2.07	1.25		PP038-6.0
X250D-3225-2116	3.20	2.50	2.15	1.60		PP038-6.0
X250D-3225-2515	3.20	2.50	2.50	1.50		PP038-6.0
X250D-3225-2516-6P	3.20	2.50	2.50	1.50		PP038-6.0
X250D-5032-2522	5.00	3.20	2.54	2.20		PP038-6.0
X250D-5032-2522-6P	5.00	3.20	2.54	2.20		PP038-6.0
X250D-5032-2525-6P	5.00	3.20	2.54	2.50		PP038-6.0
X250D-5032-3723	5.00	3.20	3.70	2.30		PP038-6.0
X250D-7050-5038	7.00	5.00	5.00	3.80		PP038-6.0

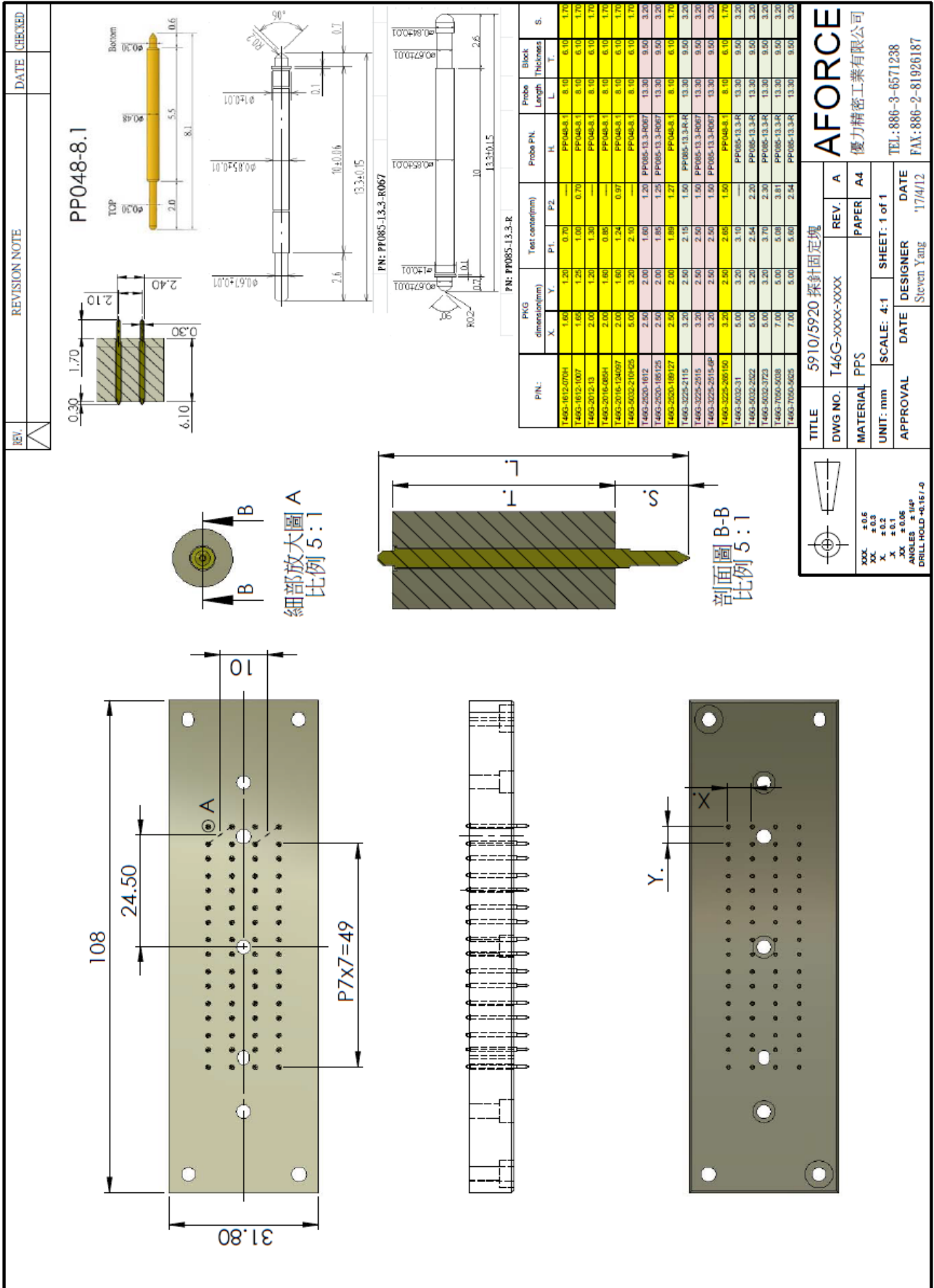
A FORCE
優力精密工業有限公司
TEL: 886-3-6571238
FAX: 886-2-81926187

X250D Adapter for Xtal

TITLE	REV.	A
DWG NO. X250D-XXXXXX-XXXXXX		
MATERIAL XXXXXXXXXX	PAPER	A4
UNIT: mm	SCALE: 2:1	SHEET: 1 of 1
APPROVAL	DATE	DESIGNER
		Steven Yang

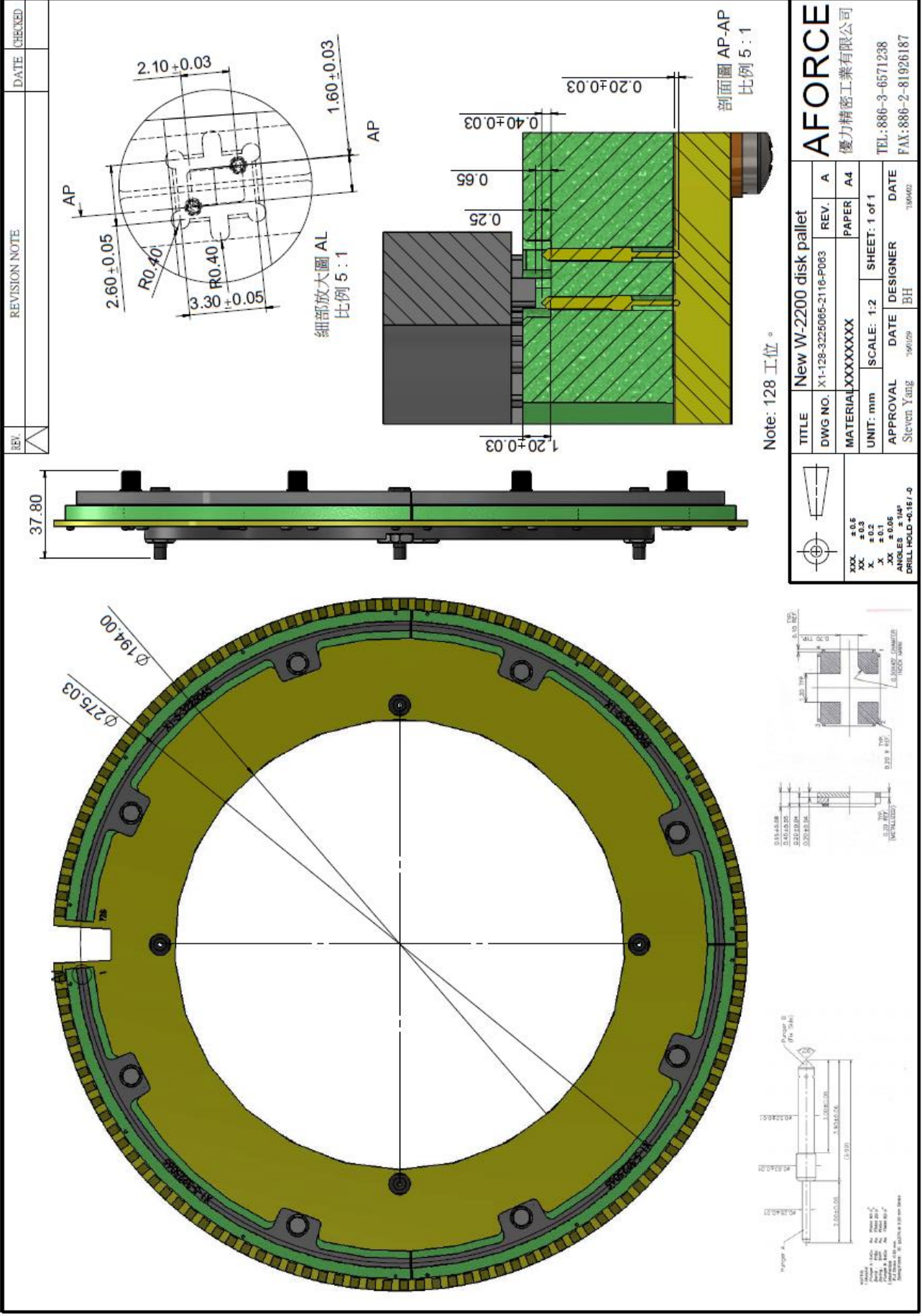
XXX ±0.5
 XX ±0.3
 X ±0.2
 ±0.1
 XX ±0.05
 ANGLE ± 1/4°
 DRILL HOLD ±0.16/-0

W-5910 石英晶體微調機探針座(T46)



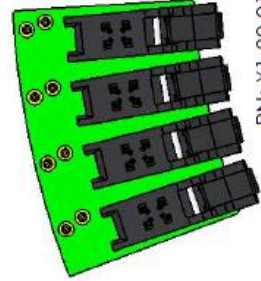
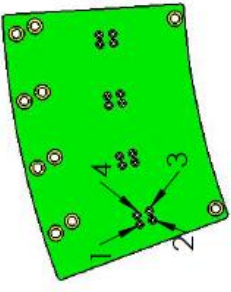
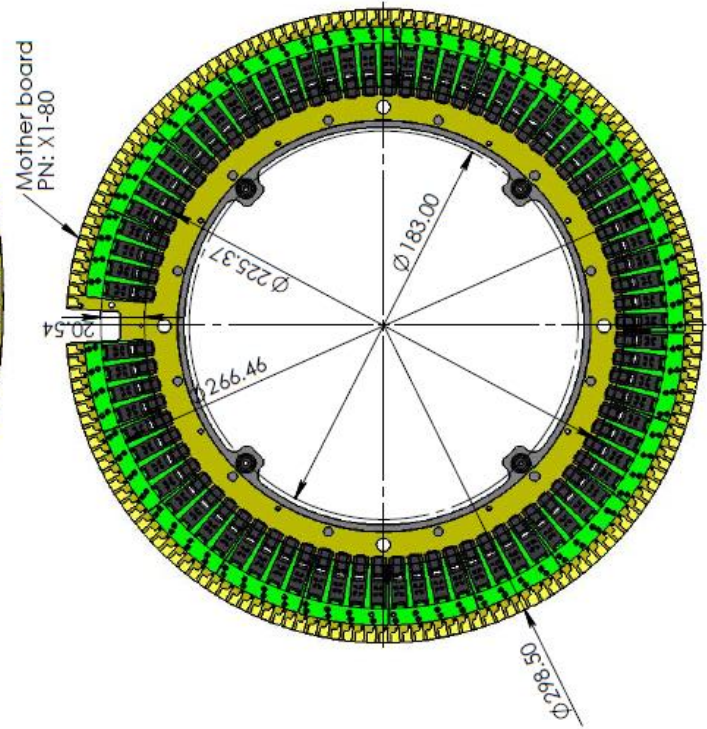
New W-2200 Disk Pallet

新版W-2200溫度特性測試盤



Side Pad Temperature test disk 側邊溫度特性測試盤

REV. **B** 新增 Product Number
REVISION NOTE
DATE 10/05 CHECKED



PN: X1-80-01 (Daughter board)

Item	PN	Socket PIN	Socket Density	PKG Size	remark
Mother board					
1	X1-80	none	80 pcs		
Daughter board					
1	X1-80-01 (P1 to P3)	CXP-G04-15-00	80 pcs	3.2x2.5x0.65	
2	X1-80-02A(P1 to P4)	CXP-G02-07-00	80 pcs	3.2x2.5x0.57	
3	X1-80-02 (P1 to P3)	CXP-G02-07-00	80 pcs	3.2x2.5x0.57	
4	X1-80-02A(P1 to P4)	CXP-G04-16-00	80 pcs	3.2x2.5x0.55	
5	X1-80-03 (P1 to P3)	CXP-104-10-00	80 pcs	2.5x2.0x0.55	
6	X1-40-04	CXC-A10-03-00	40 pcs	7.3x4.9x1.5	side pad
7	X1-40-04	CXC-A04-09-00	40 pcs	7.0x5.0x1.35	side pad
8	X1-80-05	CXC-C04-04-00	80 pcs	5.0x3.2x1.38	side pad
9	X1-80-06	CXC-G08-06-00	80 pcs	3.2x2.5x1.08	
10	X1-80-07 (P1 to P3)	CXC-L04-06-00	80 pcs	1.65x1.25x0.3	
11	X1-80-08 (P1 to P4)	CXC-G04-21-00	80 pcs	3.2x2.5x0.62	
12	X1-80-09	CXC-G04-09-00	80 pcs	3.2x2.5x0.9	side pad
13	X1-80-10 (P1 to P4)	CXC-G02-08-00	80 pcs	3.2x2.5x0.9	
14	X1-80-11	CXC-102-04-00	80 pcs	2.5x2.0	side pad
15	X1-80-12 (P1 to P3)	CXP-K06-09-00	80 pcs	2.05x1.65x0.7	
16	X1-40-13 (P1 to P3)	CXP-X02-03-00	40 pcs	11.5x4.7x4	
17	X1-80-14	CXC-K02-07-00	80 pcs	2.0x1.6	side pad
18	X1-80-15	CXC-G02-10-00	80 pcs	3.2x2.5	side pad

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TEL: 886-3-6571238
FAX: 886-2-81926187

Side pad Temperature test disk

TITLE: X1-80+XXX-XXX-XX REV. A
MATERIAL: PAPER A4
UNIT: mm SCALE: 1:2 SHEET: 1 of 1
APPROVAL: DATE: 7/6/24 DESIGNER: Steve Yang

XXX 405
XX 403
X 402
X 401
XX 400
X 400
ANGLES 4.14°
DRILL HOLD +0.15 / 0

整套料號: X1-80+XXX-XXX-XX
XXX-XXX-XX: 代表socket 前面八碼。

NS01-A00-10p0 溫測盤框架組

REV.	REVISION NOTE	DATE	CHECKED
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Note: 1. 依客戶現有軸徑決定料號
如: NS01-A00-10P0 指的是10.0mm軸徑

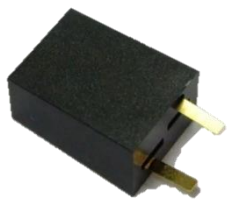
項次編號	零件名稱	數量
1	M3x8(內六角)	4
2	NS01-003(Clamp)	1
3	M4x10(內六角)	1
4	NS01-001-10p0(溫測盤框架)	1
5	NS01-002-10p0(框架固定座)	1
6	X1-016 φ3.0mm磁鐵	4

剖面圖 A-A
比例 1:3

Note:
 1. 材質：
 2. 未標註尺寸依照 **dxif** 檔
 3. 未標註公差依照一般公差
 3. 未標註倒角
 4. 去除尖角毛邊
 5. 表處：

	XXX ±0.5 ±0.3 ±0.2 X ±0.1 XX ±0.08 ANGLES DRILL HOLD ±0.15 / ±0	TITLE 溫測盤框架組	REV. A	DATE 11/01/20
DWG NO. NS01-A00-10p0	PAPER A4	SHEET: 1 of 1		
MATERIAL	SCALE: 2:1	DESIGNER Steven	DATE 10/09/20	DATE 11/01/20
UNIT: mm	APPROVAL			

AFORCE
 優力精密工業有限公司
 TEL: 886-3-6571238
 FAX: 886-2-81926187



X8-A01 49S DIP Socket



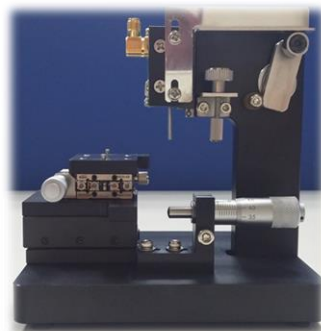
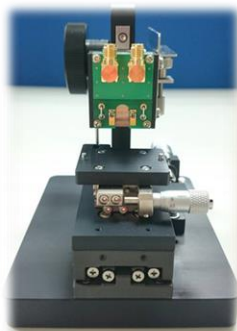
XB-011



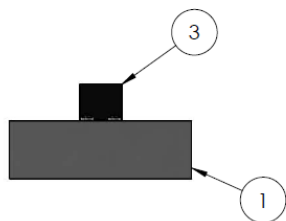
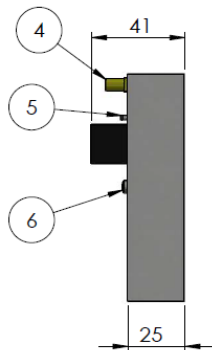
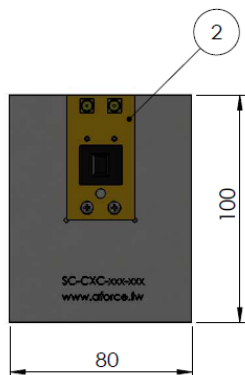
XB-011-A00



BP-003



XCB-C00



Product No.	Socket No.	PKG	接觸點間距	接觸點
SC+CXC-A10-03	CXC-A10-03-00	7349	1.8mm	兩點同短邊
SC+CXC-A04-09	CXC-A04-09-00	7050	1.8mm	兩點同短邊
SC+CXC-C04-04	CXC-C04-04-00	5032	1.27mm	兩點同短邊
SC+CXC-G04-09	CXC-G04-09-00	3225	0.8mm	兩點同短邊
SC+CXC-I02-04	CXC-I02-04-00	2520		長邊各一點
SC+CXC-K02-07	CXC-K02-07-00	2016		長邊各一點
SC+CXC-K02-08	CXC-K02-08-00	2016		長邊各一點

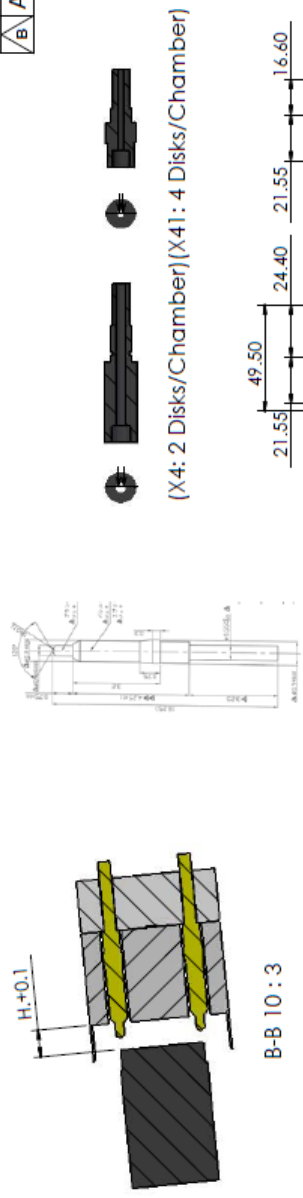
	TITLE	鐘振側邊Xtal量測PI測頭		
	DWG NO.	SC-CXC-xxx-xx	REV.	
MATERIAL		PAPER	A4	優力精密工業有限公司
UNIT: mm	SCALE: 1:1	SHEET: 1 of 1		TEL: 886-3-6571238
APPROVAL	DATE	DESIGNER	DATE	FAX: 886-2-81926187
Steven Yang	180108	Steven Yang	180108	

SC-CXC-xxx-xx

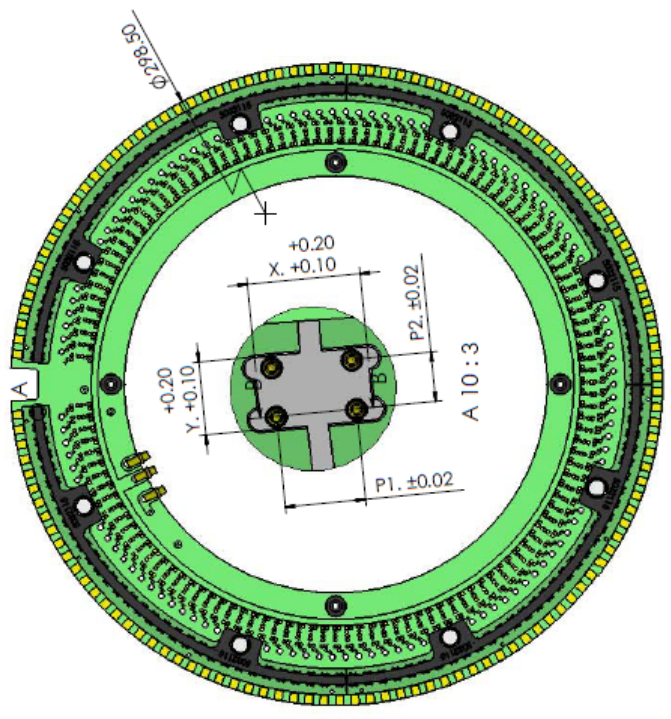
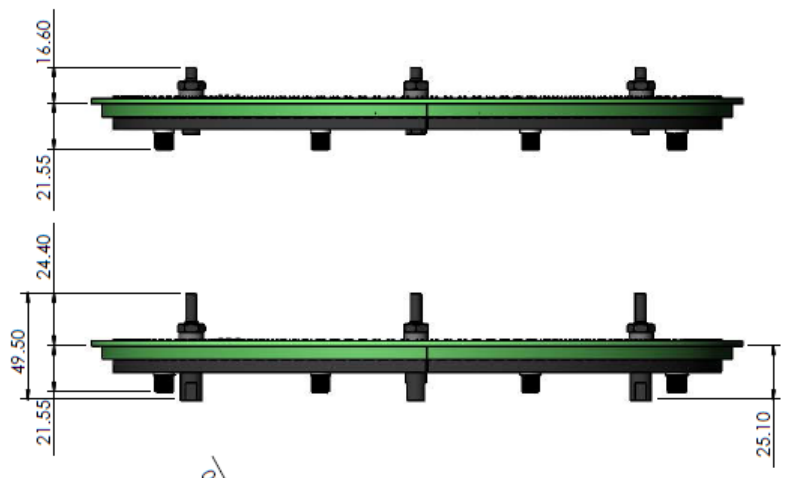
W-2800 TC Test Disk Pallet

W-2800溫度特性測試盤(單動針)

REV.	REVISION NOTE	DATE	CHECKED
1	Add P/N	1999/09	



(X4: 2 Disks/Chamber) [X41: 4 Disks/Chamber]



P.N.:	PKG			Height			Test
	X.	Y.	P2.	H.	P1.	P2.	
X4(1)-252007-215130	2.50	2.00	0.70	2.15	1.30	1.30	
X4(1)-252008-1612	2.50	2.00	0.80	1.65	1.25	1.25	
X4(1)-2520085-1612	2.50	2.00	0.85	1.65	1.25	1.25	
X4(1)-252008-215130	2.50	2.00	0.80	2.15	1.30	1.30	
X4(1)-252008-207125	2.50	2.00	0.80	2.07	1.25	1.25	
X4(1)-252009-1612	2.50	2.00	0.90	1.65	1.25	1.25	
X4(1)-322509-2116	3.20	2.50	0.90	2.15	1.60	1.60	
X4(1)-322509-2516	3.20	2.50	0.90	2.50	1.60	1.60	
X4(1)-322509-2518	3.20	2.50	0.90	2.50	1.80	1.80	
X4(1)-322510-2116	3.20	2.50	1.00	2.15	1.60	1.60	
X4(1)-322510-265134	3.20	2.50	1.00	2.65	1.34	1.34	
X4(1)-322511-2116	3.20	2.50	1.10	2.15	1.60	1.60	
X4(1)-322516-2617	3.20	2.50	1.60	2.60	1.70	1.70	
X4(1)-503210-2522	5.00	3.20	1.00	2.54	2.20	2.20	
X4(1)-503210-3723	5.00	3.20	1.00	3.70	2.30	2.30	
X4(1)-503211-2522-6P	5.00	3.20	1.10	2.54	2.20	2.20	
X4(1)-5032115-3723	5.00	3.20	1.15	3.70	2.30	2.30	
X4(1)-503212-2522	5.00	3.20	1.20	2.54	2.20	2.20	
X4(1)-503212-2525	5.00	3.20	1.20	2.54	2.50	2.50	
X4(1)-705013-5038	7.00	5.00	1.30	5.08	3.80	3.80	
X4(1)-705014-5038	7.00	5.00	1.40	5.08	3.80	3.80	
X4(1)-734810-5036	7.30	4.80	1.00	5.08	3.60	3.60	
X4(1)-755013-5038	7.50	5.00	1.30	5.08	3.80	3.80	
X4(1)-7551195-5038	7.50	5.10	1.95	5.08	3.80	3.80	
X42-705013-5038-6P	7.00	5.00	1.30	5.08	3.80	3.80	

TITLE		W-2800 Temperature Test Disk Pallet	
DWG NO.	X4-XXXXXX-XXXX	REV.	A
MATERIAL-		PAPER	A4
UNIT: mm	SCALE: 1:3	SHEET: 1 of 1	
APPROVAL	DATE	DESIGNER	DATE
Steven Yang	1999/09	Steven Yang	1999/09

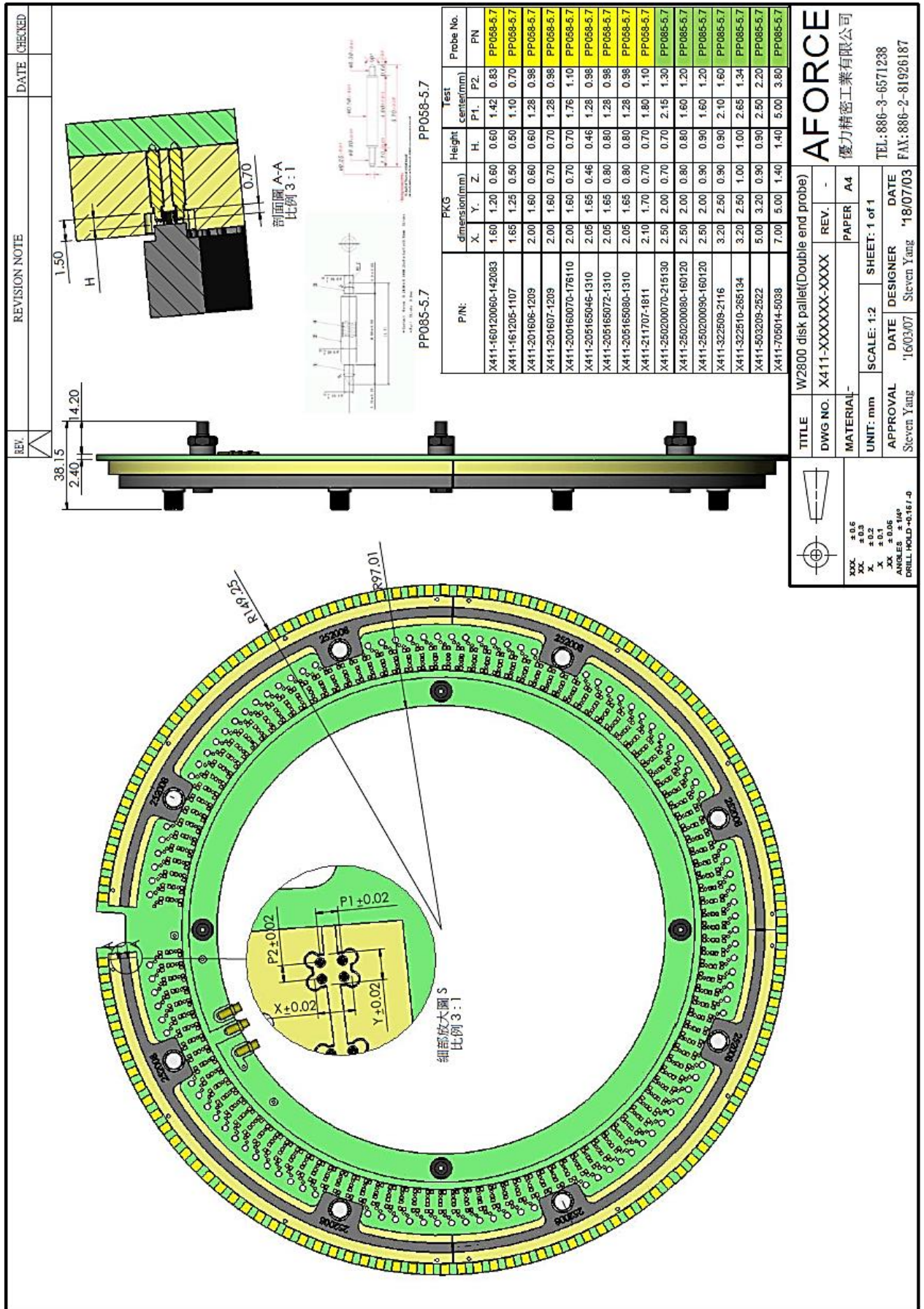
AFORCE

優力精密工業有限公司
TEL: 886-3-6571238
FAX: 886-2-81926187

Note:
 X4: Oscillator temperature disk pallet for W-2800. (2 Disks/Chamber)
 X41: Oscillator temperature disk pallet for W-2800B. (4 Disks/Chamber)
 X42: Oscillator temperature disk pallet for LVDS/LVPECL C XO. (6 positions)
 Gold plating on the golden finger >25u".
 Temperature range is -45~140 °C.

W-2800 TC Test Disk Pallet (Double end probe)

W-2800溫度特性測試盤(雙動針)



W-2810 CXO DUT/Daughter Board

W-2810鐘振測試母板及子板



X5轉接板+SOCKET

	REV	REVISION NOTE	DATE	CHECKED
<p>We recommended this type since 2015/05.</p>				
<p>X5-A00+socket number</p>				
<p>X5-A01+socket number</p>				
<p>X5-A02+socket number</p>				
<p>X5-A03+socket number</p>				

Note:

- PCB thickness is from 1.0 to 1.6mm.
- Currently, we use four types pin for different application.
 - X5-A00, lead (Brass) diameter is 0.64mm, length 4mm with plastic sleeve.
 - X5-A01, lead (Brass) diameter is 0.64mm, length 4mm without plastic sleeve.
 - X5-A02, lead (Bronze) diameter is 0.5mm, effective length 3.4~4mm.
 - X5-A03, lead (SCM415) diameter is 0.6mm, effective length 3.4~4mm.
 - X5, lead (Bronze) diameter is 0.65mm, effective length 4mm.
- X5+socket number, we recommend to use this number because
 - Pin material change to Phosphor Bronze Alloy for not so easy bending.
 - we keep a proper gap (1.8mm) for condenser or resistor.
 - we revised pin diameter from 0.46 to 0.6mm at PCB side, keep it stronger than old type.

	TITLE	Interposed board		AFORCE 優力精密工業有限公司 TEL:886-3-6571238 FAX:886-2-81926187	
	DWG NO.	X5-AXX+socket no.	REV.		B
	MATERIAL		PAPER		A4
	UNIT: mm	SCALE: 2:1	SHEET: 1 of 1		
APPROVAL	DATE	DESIGNER	DATE		
	Steven Yang	160525			

2451 switch controller
2451 訊號切換控制器

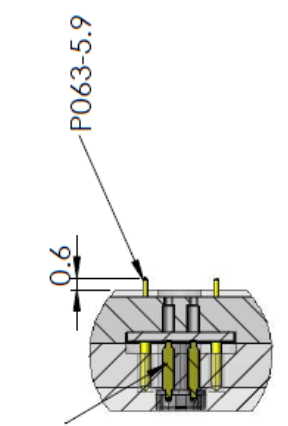


280A CXO Adapter
280A 鐘振量測用測試座

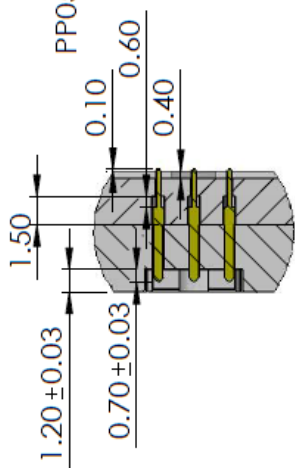


280B CXO Adapter 280B鐘振量測用測試座

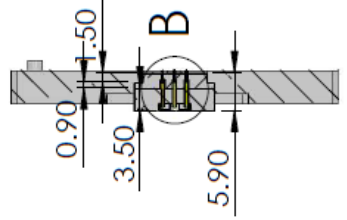
REV.	△	-	REVISION NOTE	DATE	CHECKED
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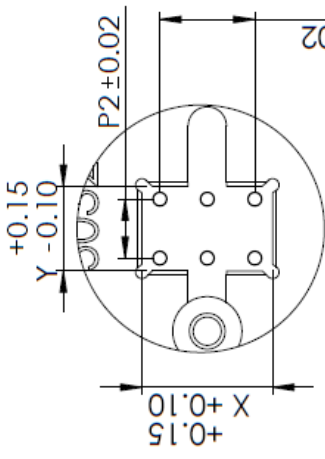
細部放大圖 = <2016 PKG
比例 3 : 1



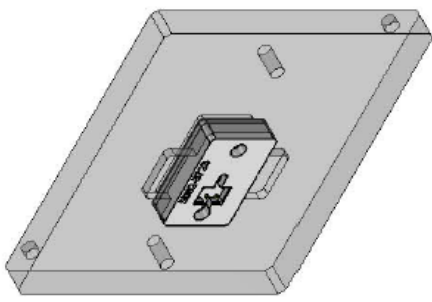
細部放大圖 B
比例 3 : 1



剖面圖 A-A



細部放大圖 D
比例 4 : 1



PN:	PKG dimension(mm)		Test center(mm)					Probe PN
	X	Y	PKG side		PCB side			
X280B-120100035-074060	1.20	1.00	0.74	0.60	3.70	2.30	P063-5.9&PP031-3.3	
X280B-120100035-085060	1.20	1.00	0.85	0.60	3.70	2.30	P063-5.9&PP031-3.3	
X280B-160100050-100060	1.60	1.00	1.06	0.60	3.70	2.30	P063-5.9&PP031-3.3	
X280B-160120033-100070	1.60	1.20	1.00	0.70	3.70	2.30	P063-5.9&PP031-3.3	
X280B-165125058-144078	1.65	1.25	1.44	0.78	3.70	2.30	P063-5.9&PP057-3.4	
X280B-200120060-130070	2.00	1.20	1.30	0.70	3.70	2.30	P063-5.9&PP031-3.3	
X280B-20016-1209	2.00	1.60	1.24	0.97	3.70	2.30	P063-5.9&PP057-3.4	
X280B-250200-215130	2.50	2.00	1.75	1.00	3.70	2.30	P063-5.9&PP057-3.4	
X280B-2520-1612	2.50	2.00	1.66	1.20	1.66	1.20	P063-5.9	
X280B-258211-207125-6P	2.58	2.11	2.07	1.25	1.65	2.07	P063-5.9	
X280B-3225-2116	3.20	2.50	2.15	1.60	2.15	1.60	P063-5.9	
X280B-3225-2515	3.20	2.50	2.50	1.50	2.50	1.50	P063-5.9	
X280B-3225-2516-6P	3.20	2.50	2.50	1.50	P2	2.50	P063-5.9	
X280B-5032-2522	5.00	3.20	2.54	2.20	2.54	2.20	P063-5.9	
X280B-5032-2522-6P	5.00	3.20	2.54	2.20	P2	2.54	P063-5.9	
X280B-5032-2525-6P	5.00	3.20	2.54	2.30	P2	2.50	P063-5.9	
X280B-5032-3723	5.00	3.20	3.70	2.30	3.70	2.30	P063-5.9	
X280B-7050-5038	7.00	5.00	5.00	3.80	5.00	3.80	P063-5.9	
X280B-7050-5038-6P	7.00	5.00	5.00	3.80	P2	5.00	P063-5.9	

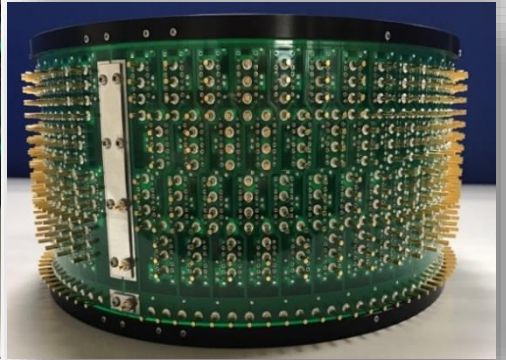
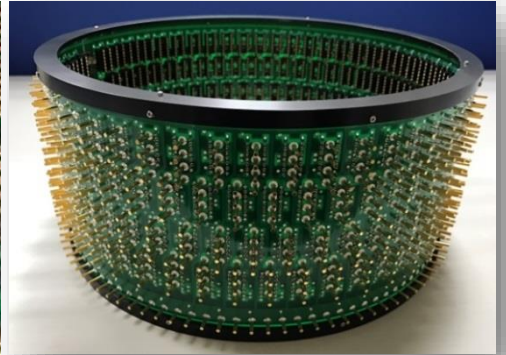
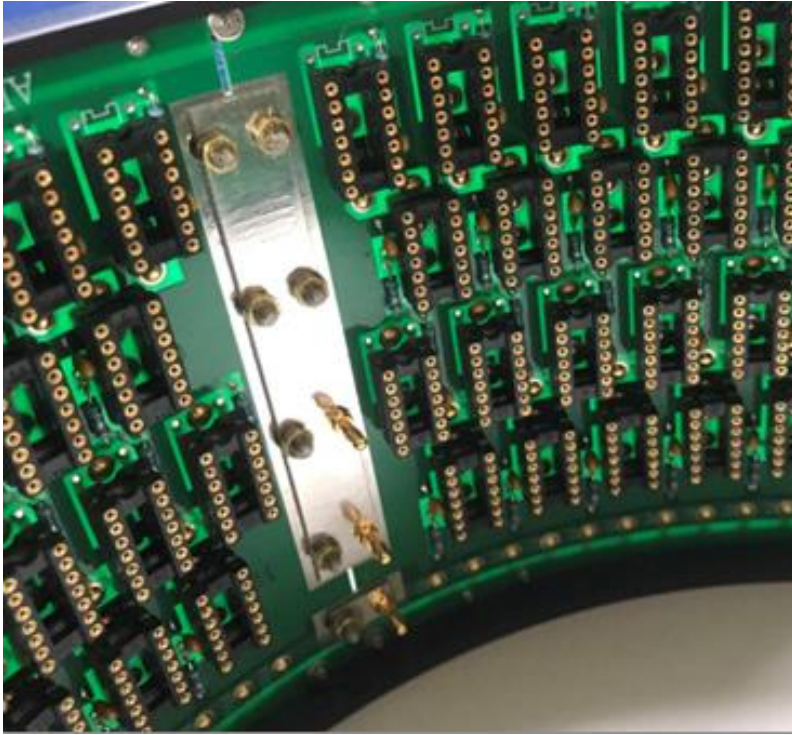
A FORCE
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TEL: 886-3-6571238
FAX: 886-2-81926187

280B Adapter for CXO

TITLE	DWG NO	REV.	A
X280B-XXXX-XXXX		PAPER	A4
MATERIAL	XXXXXXXXXX	SHEET: 1 of 1	DATE
UNIT: mm	SCALE: 20:1	DESIGNER	BH
APPROVAL	DATE	DRILL HOLD	160012

XXX ± 0.05
 XX ± 0.03
 X ± 0.1
 .XX ± 0.05
 ANGLES ± 1/4°
 DRILL HOLD ± 0.16/± 0.3

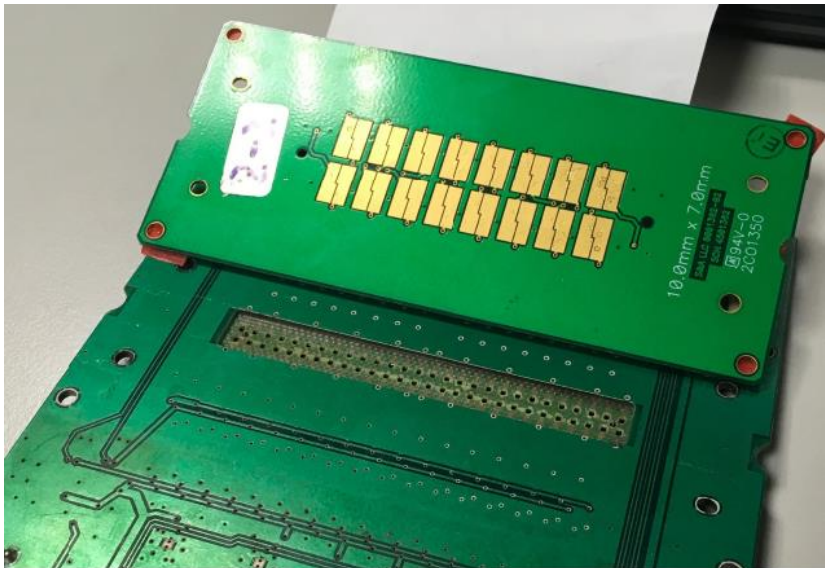
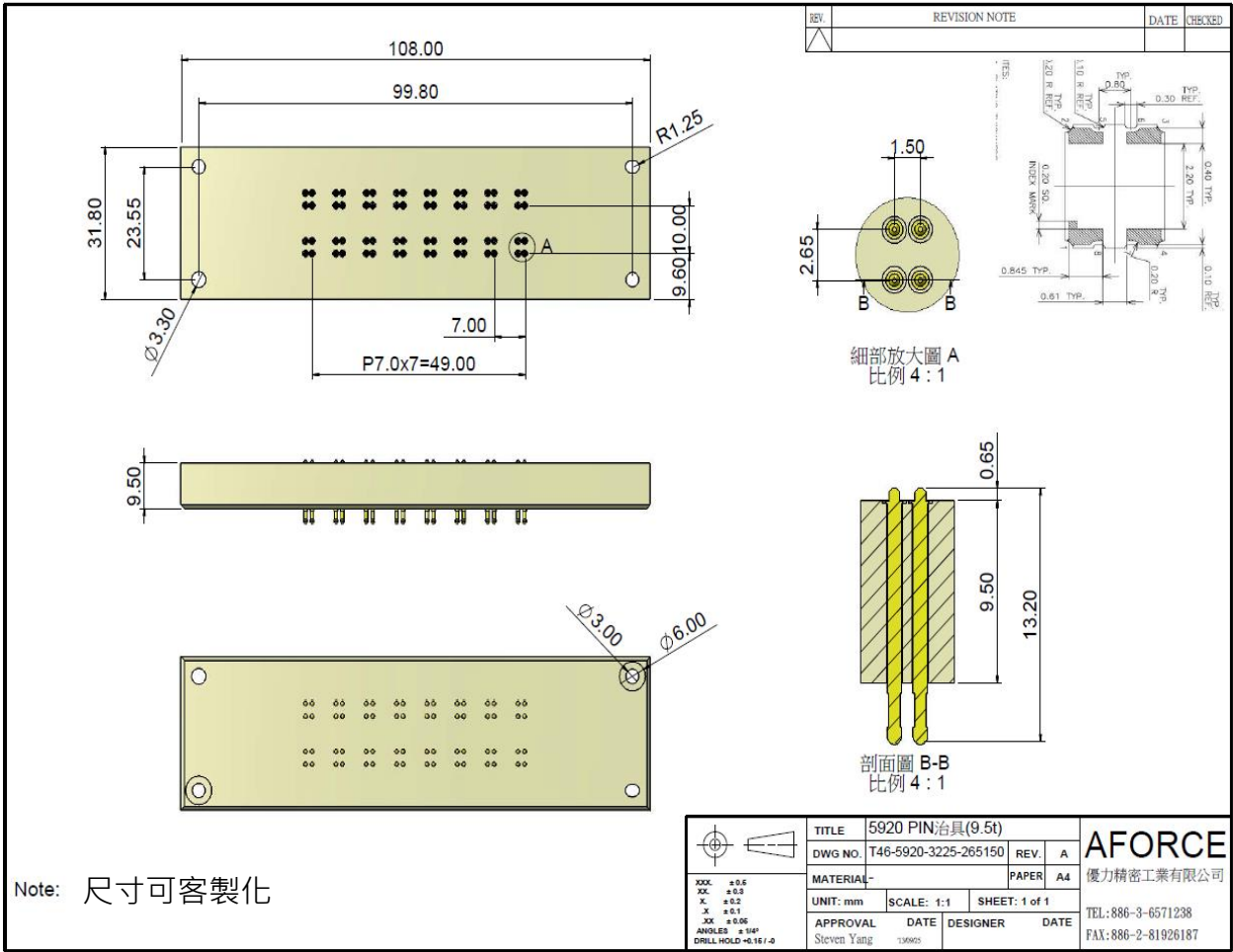
W-2800 TC Ring
鐘振溫測圈(X8H-196)



TBF-MB-01
10MHz標準時基信號源



W-5920振盪器微調機探針座(T46)



鐘振內(7050/5032/3225/2520/2016)側邊晶振溫測盤

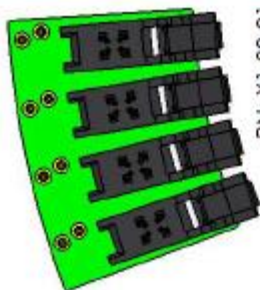
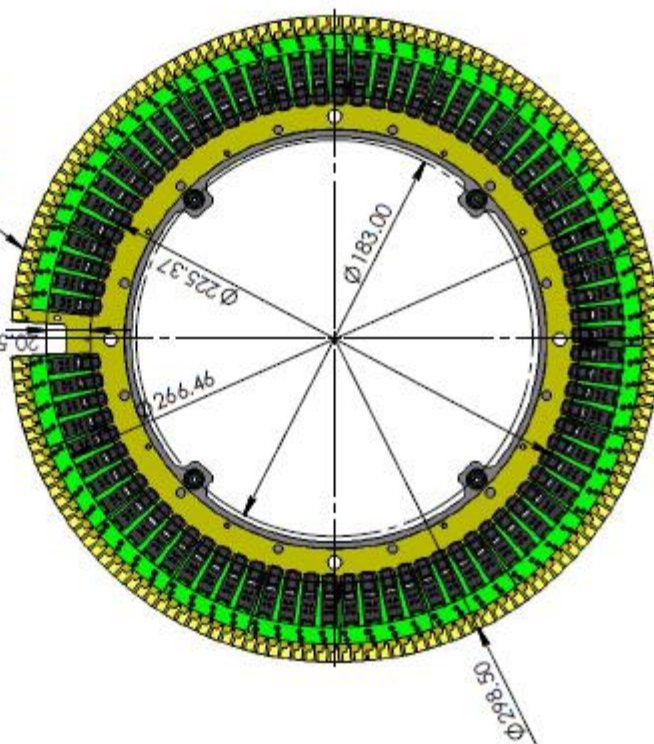
REV.	REVISION NOTE	DATE	CHECKED
B	新增 Product Number		



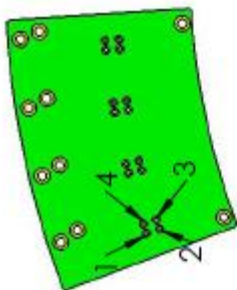
Mother board
PN: X1-80



41.25



PN: X1-80-01



(Daughter board)

Item	PIN	Socket PIN	Socket Density	PKG Size	remark
1	X1-80	none	80 pcs		
Daughter board					
1	X1-80-01 (P1 to P3)	CXP-G04-15-00	80 pcs	3.2x2.5x0.65	
2	X1-80-02A(P1 to P4)	CXP-G02-07-00	80 pcs	3.2x2.5x0.57	
3	X1-80-02 (P1 to P3)	CXP-G02-07-00	80 pcs	3.2x2.5x0.57	
4	X1-80-02A(P1 to P4)	CXP-G04-16-00	80 pcs	3.2x2.5x0.55	
5	X1-80-03 (P1 to P3)	CXP-R04-10-00	80 pcs	2.5x2.0x0.55	
6	X1-40-04	CXC-A10-03-00	40 pcs	7.3x4.9x1.5	side pad
7	X1-40-04	CXC-A04-09-00	40 pcs	7.0x5.0x1.35	side pad
8	X1-80-05	CXC-C04-04-00	80 pcs	5.0x3.2x1.38	side pad
9	X1-80-06	CXC-G08-06-00	80 pcs	3.2x2.5x1.08	
10	X1-80-07 (P1 to P3)	CXC-I04-06-00	80 pcs	1.65x1.25x0.3	
11	X1-80-08 (P1 to P4)	CXC-G04-21-00	80 pcs	3.2x2.5x0.62	
12	X1-80-09	CXC-G04-09-00	80 pcs	3.2x2.5x0.9	side pad
13	X1-80-10 (P1 to P4)	CXC-G02-08-00	80 pcs	3.2x2.5x0.9	
14	X1-80-11	CXC-R02-04-00	80 pcs	2.5x2.0	side pad
15	X1-80-12 (P1 to P3)	CXP-K06-09-00	80 pcs	2.05x1.65x0.7	
16	X1-40-13 (P1 to P3)	CXP-X02-03-00	40 pcs	11.5x4.7x4	
17	X1-80-14	CXC-K02-07-00	80 pcs	2.0x1.6	side pad
18	X1-80-15	CXC-G02-10-00	80 pcs	3.2x2.5	side pad

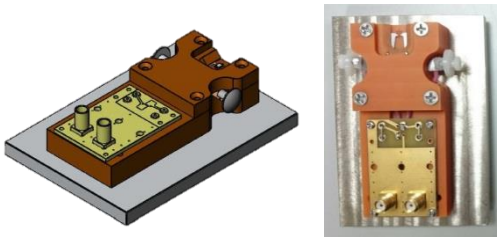
TITLE		Side pad Temperature test disk	
DWG NO.	X1-80+XXX-XXX-XX	REV.	A
MATERIAL	PAPER	AA	
UNIT: mm	SCALE: 1:2	SHEET: 1 of 1	
APPROVAL	DATE	DRAWN	DATE
		Shen Jiny	16/2/24

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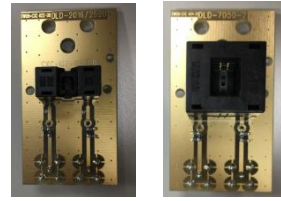
整套料號: X1-80+xxx-xxx-xx
xxx-xxx-xx: 代表socket 前面八碼。

鐘振內部側邊晶振手動量測治具

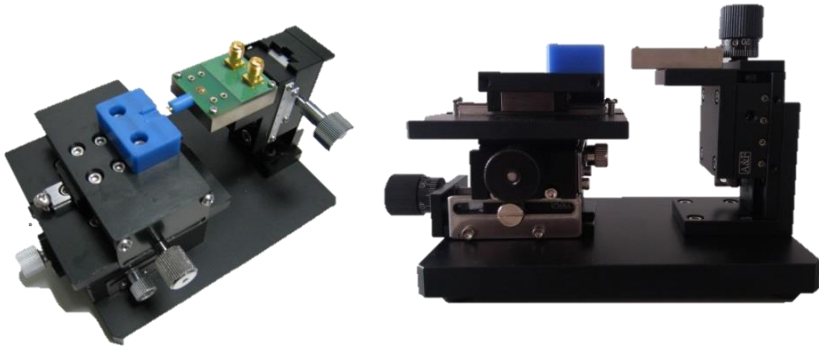
SC-XXXX-XXXX



SW09-1



XCS-C00



晶振終檢機配件

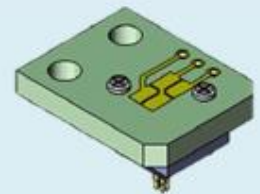
SS01_A8829-9009C_0
&50Ohm校正板



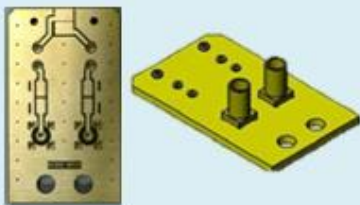
SS02-IR_AC510-1746A_IR測試板



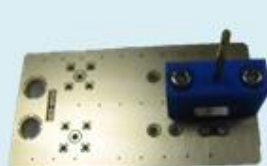
SS02-IR-90_AC510-1746A-A00
(IR測試板轉90度)



SS03-PI_AC906-9651A_PI測試板



SS04_AD047-6301_PKG擋板



SS05-IR_A8829-9079A_IR校正板



EC03-C137-9105-XXXX

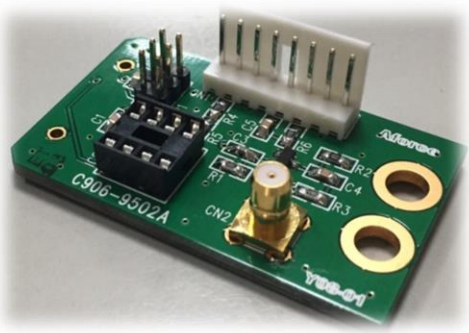
REV	REVISION NOTE	DATE	CHECKED
△	更改探針PP075-11.5	15/03/17	Robin

探針序 P.N.:	Test center(mm)	Probe number	Remark
EC03-1-A00-XXXX-XXXX			
EC03-1-A00-1612-1007	0.98	0.68	PP057-10.6
EC03-1-A00-2012-13	1.3	---	PP075-11.5
EC03-1-A00-2016-1209	1.24	0.97	PP075-11.5
EC03-1-A00-2820-1612	1.66	1.2	PP075-11.5
EC03-1-A00-3215-25	2.5	---	PP075-11.5
EC03-1-A00-3225-2114	2.15	1.6	PP075-11.5
EC03-1-A00-4025-2914	2.9	1.4	PP075-11.5
EC03-1-A00-4115-29	2.9	---	PP075-11.5
EC03-1-A00-5032-2522	2.54	2.2	PP075-11.5
EC03-1-A00-5032-3723	3.7	2.3	PP075-11.5
EC03-1-A00-5032-37	3.7	---	PP075-11.5
EC03-1-A00-6035-4824	4.8	2.4	PP075-11.5
EC03-1-A00-6035-45	4.5	---	PP075-11.5
EC03-1-A00-7050-5038	5.08	3.81	PP075-11.5
EC03-1-A00-7050-5825	5.8	2.54	PP075-11.5
EC03-1-A00-7050-55	5.5	---	PP075-11.5
EC03-1-A00-7349-5825	5.8	2.5	PP075-11.5
EC03-1-A00-8045-65	6.5	---	PP075-11.5

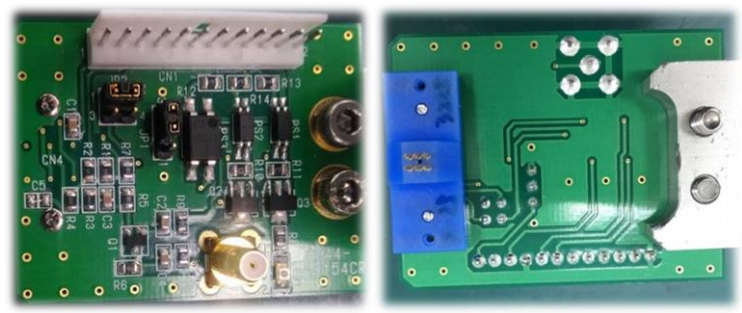
項次編號	零件名稱	數量	描述
1	EC03-02_PCB	1	
2	PP075-11.5	4	
3	EC03-01_probe holder	1	
4	M1.7x6-PR-S	2	

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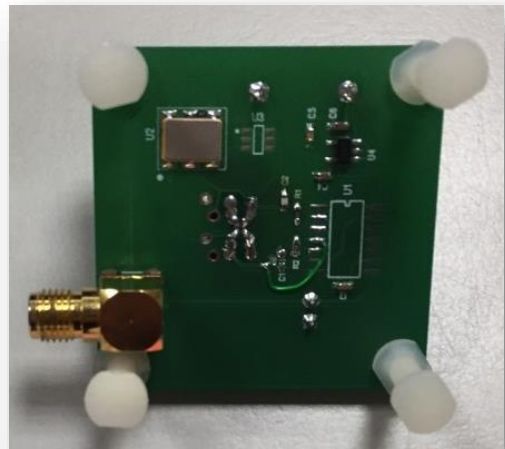
Y08_C906-9502A



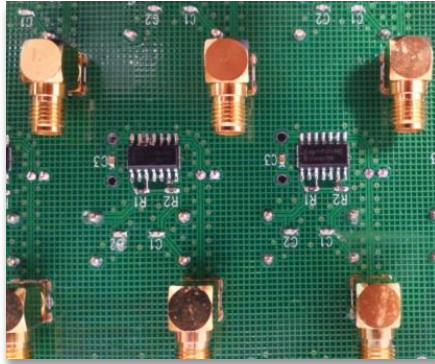
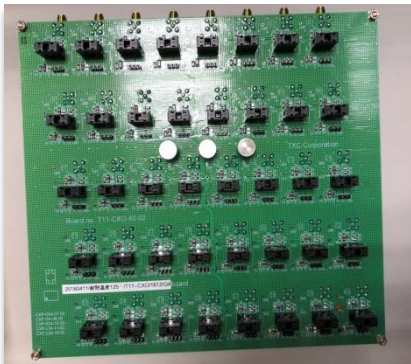
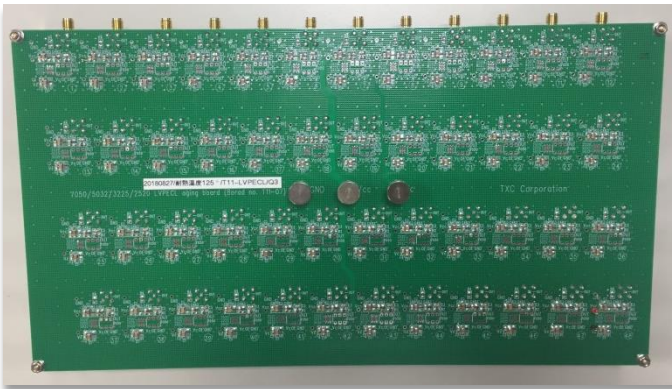
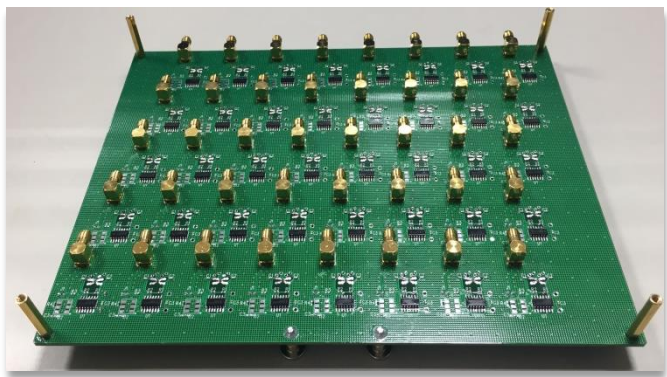
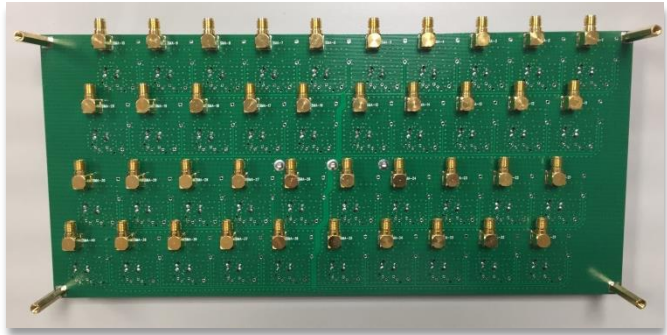
SS07-HCSL



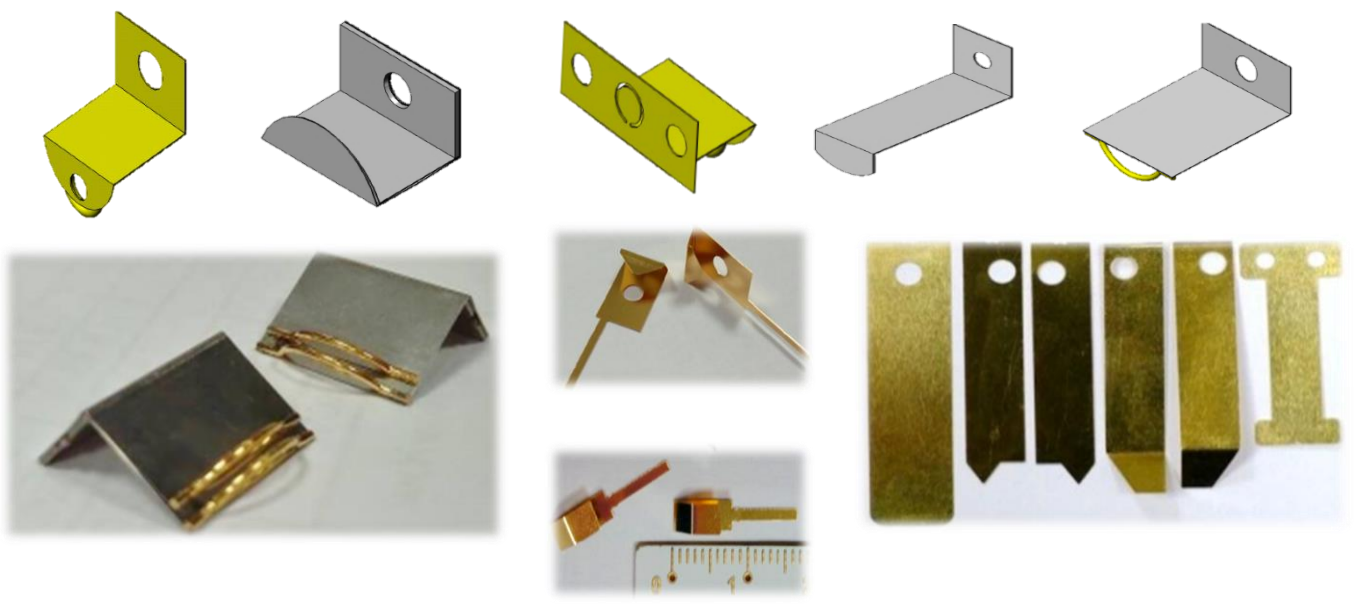
X'tal/CXO/TCXO/LVPECL
/LVDS/HCSL/OCXO單顆量測治具



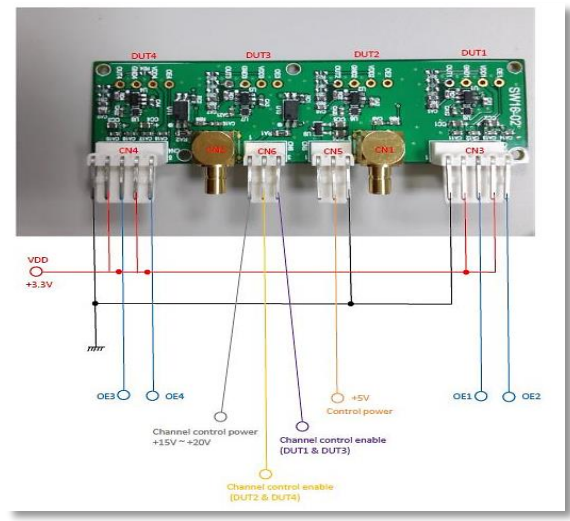
X'tal/CXO/TCXO/LVPECL /LVDS/HCSL/OCXO 客制化老化測試板



WIPERS 各類客製化彈片



Pioneer設備相關零件



其他零件(Cable線、SMA接頭等)

SMA-I 接頭



SMA-L 接頭



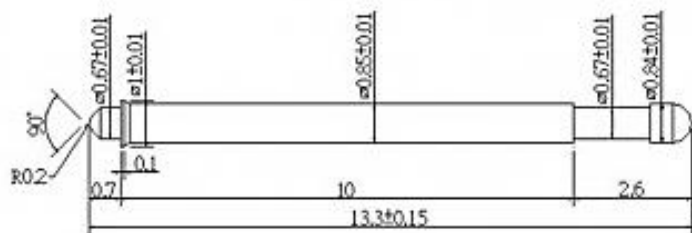
CABLE 線材



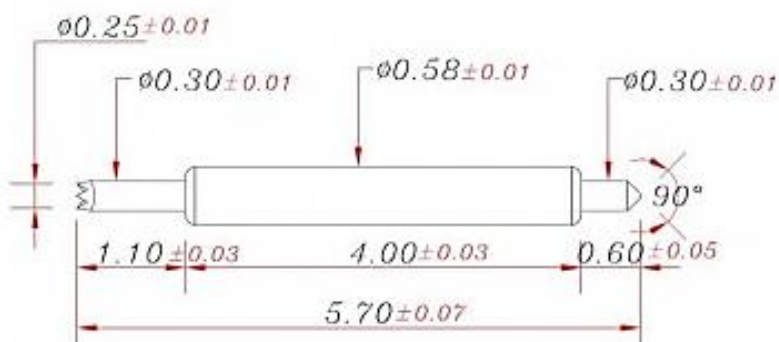
香蕉接頭



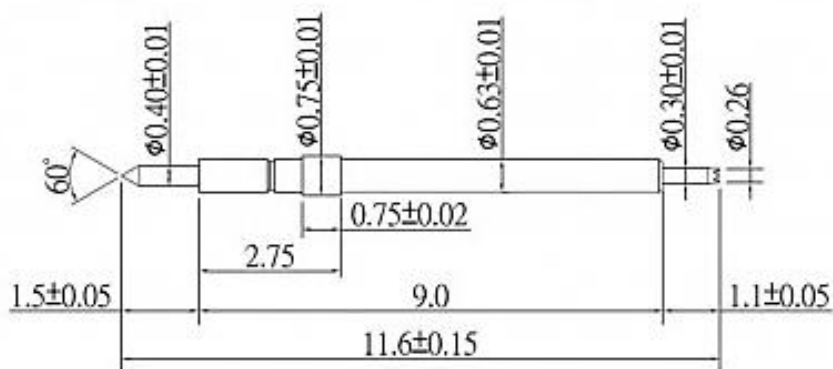
PP085-13.3



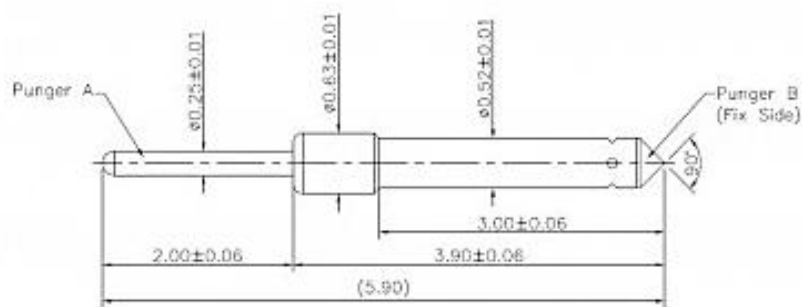
PP058-5.7



PP075-11.5






P063-5.9



Equipment Introduction

晶振、鐘振老化設備一覽表

設備型號		QAS-2500	QAS-640TH	QAS-4280	QAS-640T	TC-1280
設備名稱		石英晶體及振盪器動態老化系統	石英晶體及振盪器動態老化系統	石英晶體及振盪器動態老化系統	石英晶體及振盪器動態老化系統	TCXO溫度補償系統
設備外型						
基本規格	設備尺寸	75cm(W) x 185cm(H) x 100cm(D) - x 2	97cm(W) x 150cm(H) x 105cm(D)	110cm(W) x 180cm(H) x 85cm(D)	97cm(W) x 150cm(H) x 105cm(D)	60cm(W) x 140cm(H) x 62cm(D) (不含溫箱)
	電源需求	AC單相220V / 3KW + 2KW	AC單相220V / 7KW	AC單相220V / 8.8KW	AC單相220V / 5KW	AC單相220V / 3.3KW
	重量	280Kg + 240Kg	350Kg	420Kg	340Kg	200Kg (不含溫箱)
溫度	溫度範圍	RT+ 10°C ~ 150°C	-40°C ~ 125°C	20°C ~ 85°C	-40°C ~ 125°C	-40°C ~ 85°C
	外加冷卻循環水	X	X	X	X	依溫箱規定
濕度	濕度範圍	X	25% ~ 95%RH	X	X	X
	水箱容量	X	20 公升	X	X	X
測試	測試容量	256 DUT + 256 DUT	640 DUT	640 DUT	640 DUT	1280 DUT
	測試頻寬	30KHz ~ 150MHz (及測試治具板規定)	30KHz ~ 350MHz (及測試治具板規定)	30KHz ~ 150MHz (及測試治具板規定)	30KHz ~ 350MHz (及測試治具板規定)	10MHz ~ 55MHz
	測試治具板	測試模組 4+4	QAS-80MB-01-PBA x8	QAS-050A-PBA x8	QAS-80MB-01-PBA x8	TCB-5042-01-PBA x20 或 (TCB-AK21xx-PBA)
另外選購項目	QAS-012B-PBA (X'tal振盪子板)	QAS-XDB01-PBA (X'tal振盪子板)	QAS-004B-PBA (X'tal振盪子板)	QAS-XDB01-PBA (X'tal振盪子板)	TC-1280-DB04 (FOR AK21xx-01)	
	SOCKET板	QAS-ODB02-PBA (OSC子板)	SOCKET	QAS-ODB02-PBA (OSC子板)	TC-1280-DB03 FOR(TCB-5042-01)	
	X	SOCKET	X	SOCKET	SOCKET	

TC-1280 TCXO

溫度補償系統



補償精度

IC Type	Freq. range	Spec.	Yield rate
NPC CF5042	<=12MHz	+/- 2.5ppm	95%
NPC CF5042	12MHz ~ 26MHz	+/- 2.5ppm	90%
NPC CF5042	26MHz~ 39MHz	+/- 2.5ppm	80%
AKM 2177	<=39MHz	+/- 1ppm	90%
AKM 2197	<=39MHz	+/- 2.5ppm	90%

概要

本系統適用於溫度補償振盪器TCXO 的自動數據補償及測試。

適用產品

- 適用 IC : AKM 的 AK2177C-8 、 AK2197和NPC的CF5042A1
- 適用產品 : 5032 、 3225 、 2520 、 2016 總共 4 種尺寸 SEAM 封裝 (VC)TCXO(可客製)
- 適用SOCKET : 上項產品適用的MiS SOCKET
- 適用溫箱 : S&A的4365MR or ESPEC CORP MC810

特點

- 獨特的算法，補償精度高，參數設置靈活
- 根據用戶的製程經驗，用戶可任意設置補償/檢驗溫度點，溫度點數無限制，介面簡潔，操作方便
- 自動完成補償、燒錄、檢驗、不良品報告
- 所有數據存入資料庫，補償結果輸出到 EXCEL

電源

- 220V/20A

TC-1280 TCXO

燒錄基本工作參數

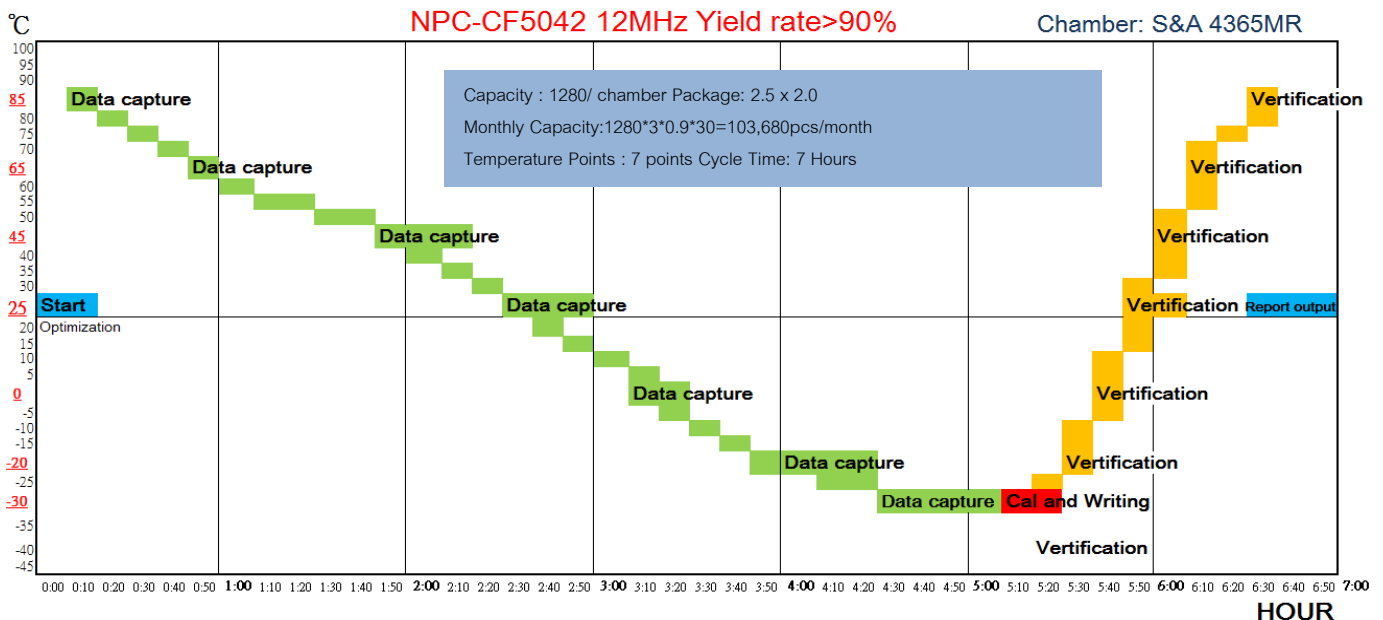
- 工作溫度範圍：-40°C ~ 85°C
- 根據客戶選擇的S&A4365S-2溫箱，最多可容納兩個框架，每個框架最多可放10片補償測試板,每個測試板有64個位置(最大產量為1280顆/批次)
- 溫度穩定/均勻度及升溫/降溫時間：參照溫箱規格
- 頻率測量精度：優於0.1PPM
- 在AKM公司的IC及產品Package本身的特性相同的情況下，同一片補償測試板上互相兼容
- 補償系統可以對測試頻率進行修正
- 測試系統採測試座逐個手動測試，具有頻率調整功能



TCXO one stage compensation

NPC-CF5042 12MHz Yield rate>90%

Chamber: S&A 4365MR



QAS-640TH Dynamic aging system

石英晶體溫溼度控制動態老化系統



設備外型
(此為參考圖片,實際樣式以出貨時樣式為準)

系統概述

QAS-640TH Aging system為溫溼度控制的石英晶體動態老化系統,硬體架構在一個整合的箱體,並由一部電腦在相同的操作介面下可設定及控制溫度與濕度(或是設定為純溫度控制),同時可容納8片80DUT的測試母板同時作業,每片測試母板可插上80個X'tal振盪子板或是OSC信號轉接子板。

設備特徵

每片測試板都可由軟體選擇供應給產品的電源電壓(可選擇1.25V, 1.8V, 2.5V, 2.8V, 3.0V, 3.3V, 4.5V, 5.0V等8種固定電壓值)。

測試流程支援單溫度點及雙溫度點產品電源ON/OFF動作。

設備系統規格

外型尺寸: 970mm(寬) x 1050mm(深) x 1470mm(高) (※注一)

測試容量: 最多同時640 DUT (8片測試母板,每板80 DUT)

測試儀表: Picotest U6220A Frequency Counter

測試精度: ± 0.1 ppm以內(Counter需外接銻原子鐘或GPS等10MHz標準頻率).

產品頻率: X'tal: 4MHz ~ 65MHz(基本波) OSC: 32KHz ~ 125MHz

溫度控制: $-40^{\circ}\text{C} \sim +95^{\circ}\text{C}$ (※注二)

濕度控制: 25% ~ 95%RH

溫濕偏差: $3^{\circ}\text{C}/8\%RH$

溫控精度: $\pm 0.3^{\circ}\text{C}$

濕度精度: $\pm 3\%RH$

設定解析: $0.1^{\circ}\text{C} / 0.1\%RH$

水箱容量: 20公升(自動補水或手動補水,缺水會主動提示)

電源需求: AC單相220V /30A

注一: 高度不含螢幕及鍵盤架)

注二: 純溫度機種(不含濕度功能)可達 $+125^{\circ}\text{C}$



測試框架

QAS-640TH



80 DUT 測試母板

測試母板規格

產品電壓：8種固定電壓可選
產品電流：<=80mA/個 及 <=5A/板

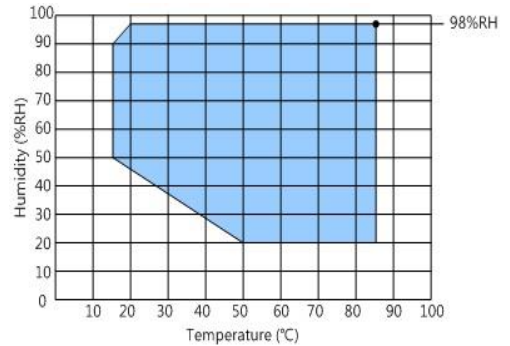
測試子板規格

X'tal : 4MHz ~ 65MHz(fundamental)
OSC : 32KHz ~ 125MHz

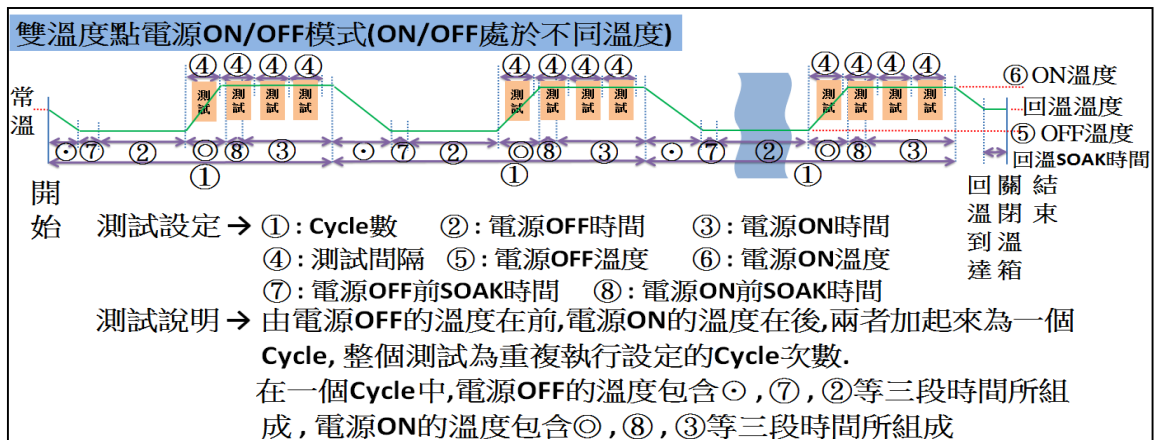
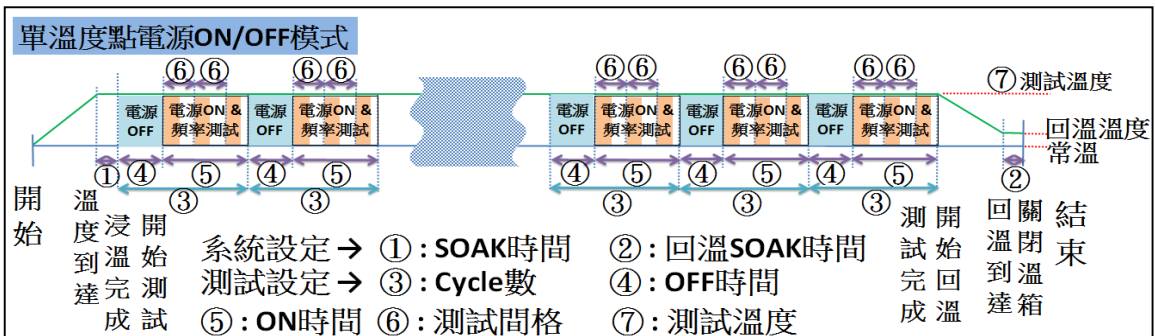
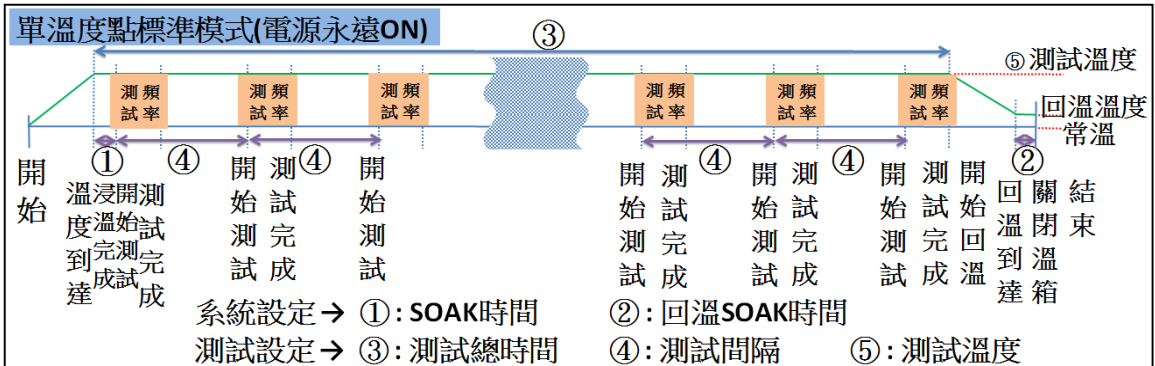


測試子板

溫溼度範圍參考圖



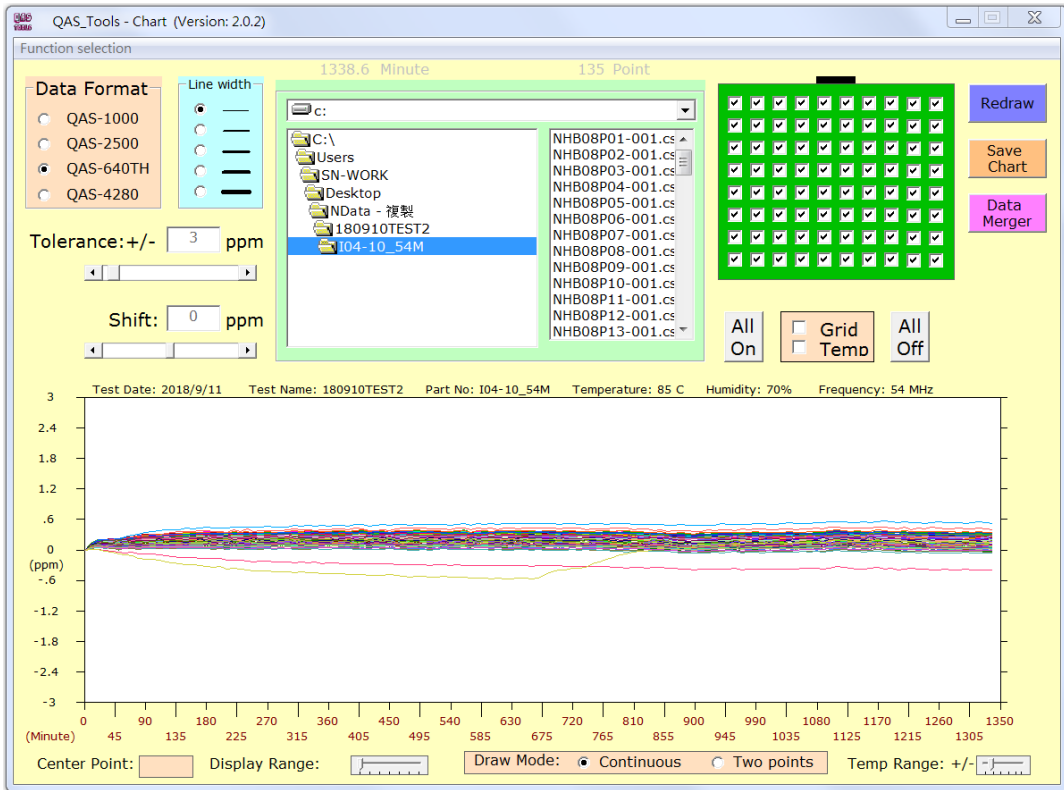
測試時序圖



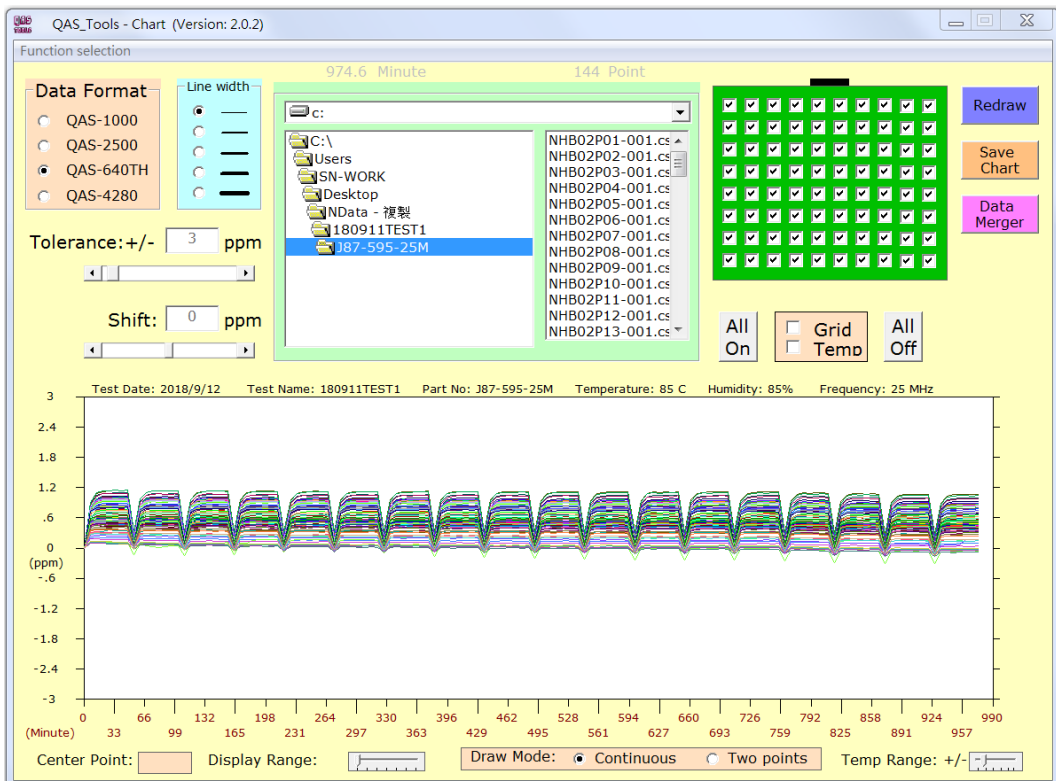
QAS-640TH

測試資料圖型

單溫度點標準測試

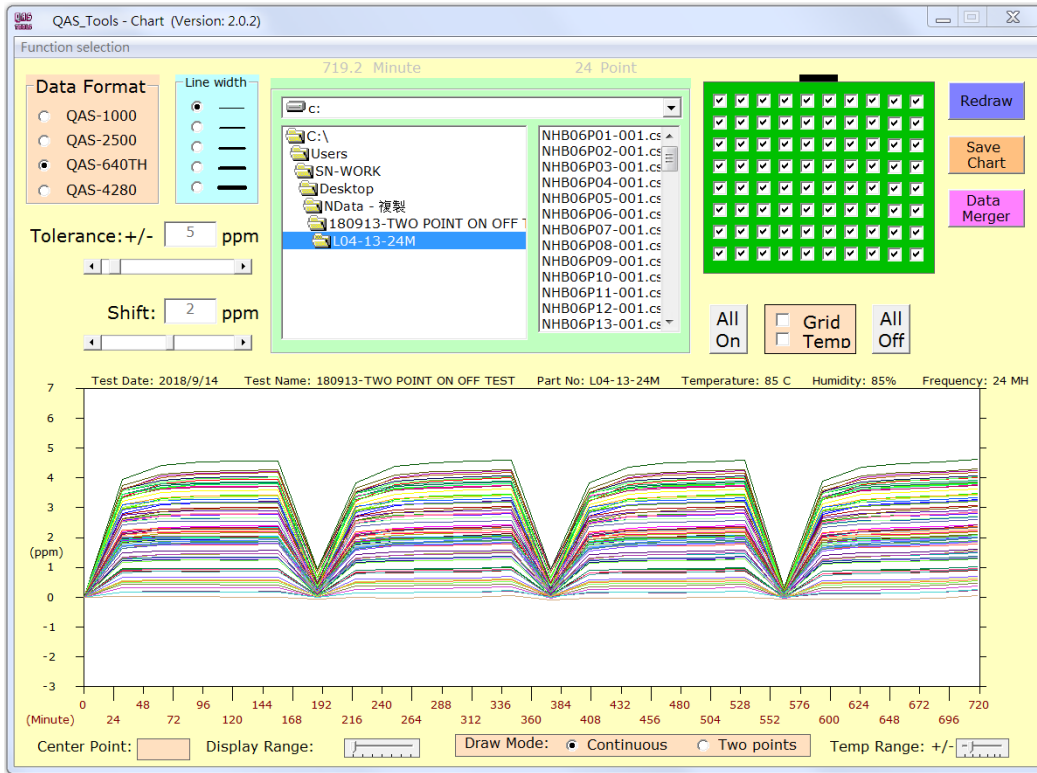


單溫度點電源ON/OFF

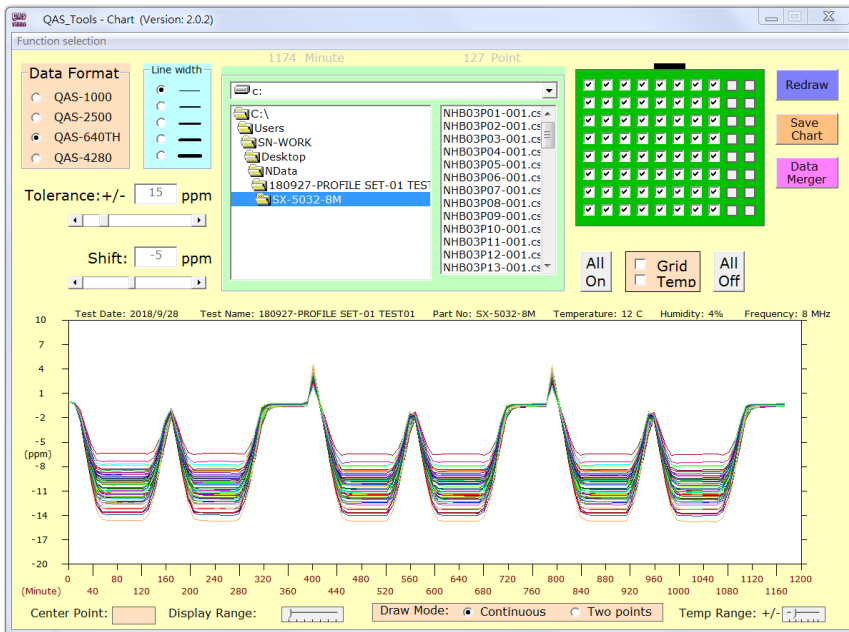


QAS-640TH

雙溫度點電源ON/OFF (ON→85°C 85%, OFF→10°C 80%)



溫巡測試



設定段號	設定溫度	設定濕度	小時	分鐘	電源ON/OFF
1	25	85	0	0	ON
2	25	85	0	1	ON
3	65	85	0	30	ON
4	65	85	1	0	ON
5	25	85	0	30	ON
6	25	85	0	1	ON
7	65	85	0	30	ON
8	65	85	1	0	ON
9	25	85	0	30	ON
10	25	85	1	0	ON
11	10	30	0	0	OFF
12	10	30	1	0	OFF

Asian Sales Agency



Sales Agency

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