



Metabee JVPX Series Robust High-Speed Backplane Connectors Catalog

JVPX Series Robust High-Speed Backplane Connectors



VPX (VITA46) 广泛运用于国防和航天领域，雷达、声纳、视频图像处理等，它所采用的连接器传输速率可以达到6.25Gbps以上。目前VPX已经不能满足越来越高的性能要求和越来越恶劣的环境。

JVPX连接器在VPX (VITA 46) 的基础上增加了金属外壳，更最大限度的集成转位附件、数字模块、射频模块、光纤模块、电源模块等，实现高集成混合模块，JVPX系列加固型背板和印制板连接器是在VPX (VITA 46) 总线印制电路连接器的基础上，为实现力学和电磁性能的提高，满足多种信号（差分、单端、光、射频等）或者功率集成传输等应用而开发的。集高可靠、多功能、模块化等特点于一体的互联系统于平台。为新一代雷达控制系统，军事信息化、网络化高速化传输系统、高速通信领域和功率提供可靠的互联解决方案。

产品主要特点

- 力学环境加固：随机振动 $0.2G^2/Hz$ (28.4g rms)；
- 电磁环境加固：互连系统整体金属屏蔽；
- 密封环境加固：插头结构整体密封，方便用户针对模块插界面的密封处理；
- 定位与导向优化：一体化加工、高精度保证；防错插键位可现场调整；
- 高速率传输：6.25Gbps（差分接点）；
- 高频率传输：DC~40GHz（同轴接点）；
- 大功率传输：单点工作电流46A+（8#低频接点）；
- 光信号传输：可选的单点光纤接点和MT多路光纤接点；
- 电源传输：115V或270V电源传输；
- 所有混装接触件（射频、光纤等）支持现场安装与拆卸；
- 模块化架构：方便客户选型或提出定制需求。

VPX (VITA46) series of connectors, with the data rate up to 6.25 Gbps and over, is applied in a wide range of applications in areas such as defense and aerospace, radar, sonar, and video image processing, yet it is becoming increasingly insufficient for the growing demands for better performance in harsher conditions.

JVPX Series of robust high speed backplane connectors aims for enhanced mechanical and electrical performances, and the integration of transmission of multiple types of signals (differential, single-ended, optical, RF, etc.) or power on the basis of VPX (VITA46) bus printed circuit connectors. It features additional metal housing compared to VPX (VITA 46) series, with a high level of integration of various modules, and a higher level of integration of turnable accessories, as well as digital modules, optical modules and power modules. This platform features high reliability, multiple functions and modularization altogether, and is solution to the next generation radar control systems, military information networks, high-speed communication systems, as well as power supplies.

Major features of product

- Enhanced mechanical resistance: Random vibration, $0.2g^2/Hz$ (28.4g rms);
- Enhanced electromagnetic resistance: Interconnect system entirely shielded by metal housing;
- Enhanced environmental seal: The plug structure is integrally sealed, convenient for user's sealing process of the mating surface of modules;
- Enhanced positioning and polarization: Integrative processing, guarantee for high precision; mismatch-proof keys, field adjustable;
- High transmission speed: 6.25Gbps (differential signal contact);
- High transmission frequency: DC-40GHz (coaxial contact);
- High transmission power: Single point operational current 46A+ (8# low frequency contact);
- Optical signal transmission: Optional single point optical contact and MT multi-channel optical contact;
- Power transmission: 115V or 270V electrical power transmission;
- All (RF, optical, etc.) contacts for connector with multiple kinds of contacts support field mounting and removal;
- Modularized architecture: Convenient for users to choose and make customized requirements.

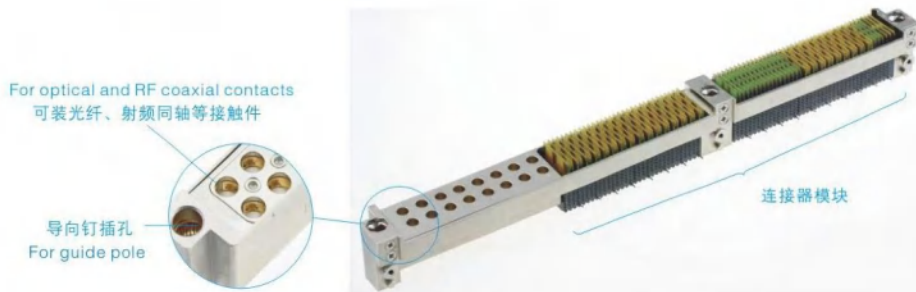
主要技术参数

类别	项目	性能与指标
射频接触件	特性阻抗	50 Ω
	工作频率	DC ~ 40GHz
	电压驻波比	$\leq 1.15 + 0.01f$, (f : GHz)
	插入损耗	$\leq 0.06\sqrt{f}$ dB, (f : GHz)
	相位稳定性	DC~18GHz时 $\leq \pm 3^\circ$; DC18~40GHz时 $\leq \pm 6^\circ$
	隔离度	-90dB(500MHz~18GHz), -70dB(18~40GHz)
	射频泄漏	优于-80dB(2~3GHz)
	接触电阻	中心接触件: 11mΩ, 外接触件: 5mΩ
差分接触件	特性阻抗	100 Ω
	传输速率	6.25 Gbps, 12.5Gbps
	低电平接触电阻	$\leq 80\text{m}\Omega$
	额定电流	1A
	耐电压	500V
	绝缘电阻	$\geq 1000\text{M}\Omega$
光纤接触件	误码率	$< 10^{-12}$ (1.25Gbps时, 码型2 ³¹ -1)
	插入损耗	$\leq 1.5\text{dB}$
电源接触件	工作电压	48V
	介质耐电	500V
	额定电流	16A
	接触电阻	$\leq 10\text{m}\Omega$
	绝缘电阻	$\geq 1000\text{M}\Omega$
整机载体	振动	50 Hz ~ 2000Hz, 功率谱密度0.2g ² /Hz
	冲击	80g, 半正弦波, 持续11ms
	机械寿命	500次
	电气连续性	不允许出现大于1 μs 的电气不连续
	工作温度	温度范围-55 ~ 125°C 光电混装产品: -55 ~ 80°C
	盐雾	96h

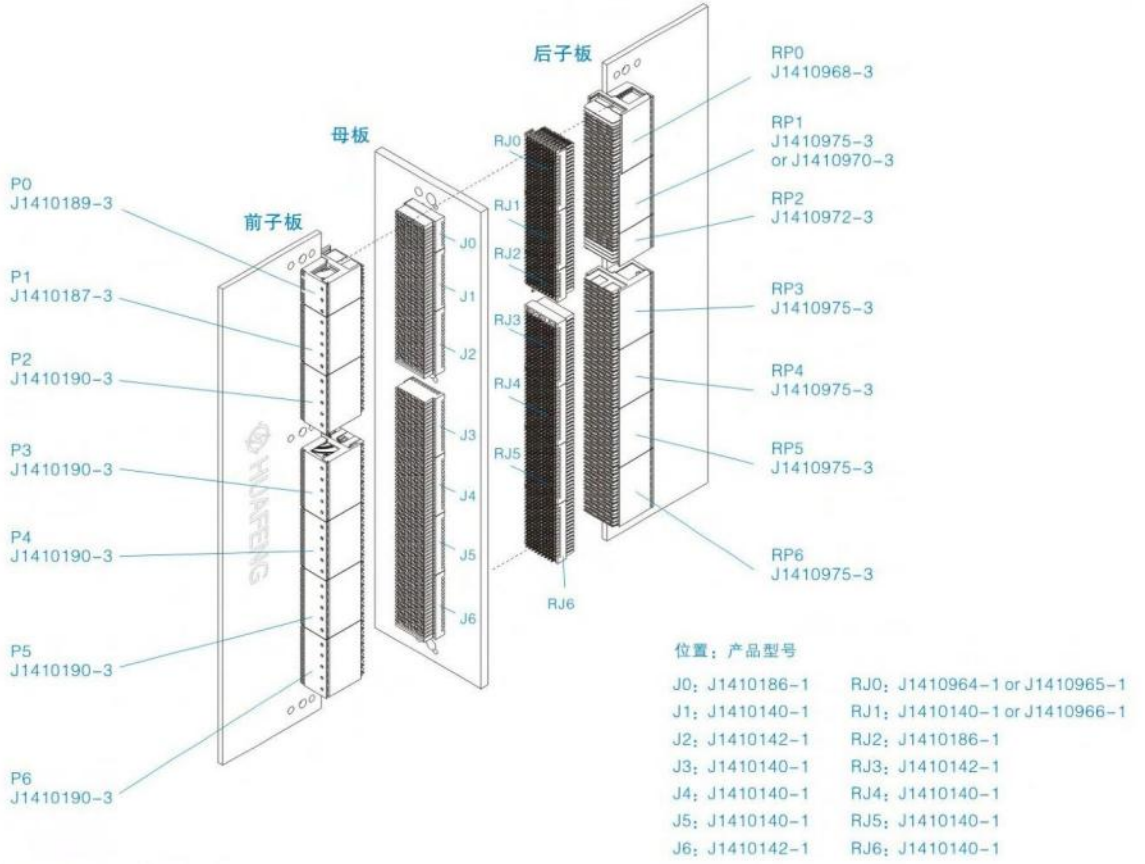
Major technical features

类别	项目	性能与指标
RF contacts	Characteristic impedance	50 Ω
	Operational frequency	DC ~ 40GHz
	VSWR	$\leq 1.15 + 0.01 \sqrt{f}$ (f : GHz)
	Insertion loss	$\leq 0.06\sqrt{f}$ dB, (f : GHz)
	Phase stability	DC~18GHz时 $\leq \pm 3^\circ$; DC18~40GHz时 $\leq \pm 6^\circ$
	Isolation ratio	-90dB(500MHz~18GHz), -70dB(18~40GHz)
	RF leak	-80dB(2~3GHz)
	Contact resistance	Center contact: 11mΩ, Outer contact: 5mΩ
Differential contacts	Characteristic impedance	100 Ω
	Transmission data rate	6.25 Gbps, 12.5Gbps
	Low voltage level contact resistance	$\leq 80\text{m}\Omega$
	Rated current	1A
	Voltage withstanding	500V
	Insulation resistance	$\geq 1000\text{M}\Omega$
Optical contacts	Bit error rate	$< 10^{-12}$ (1.25Gbps时, 码型2 ³¹ -1)
	Insertion loss	$\leq 1.5\text{dB}$
Power contacts	Operational voltage	48V
	Medium voltage withstanding	500V
	Rated current	16A
	Contact resistance	$\leq 10\text{m}\Omega$
	Insulation resistance	$\geq 1000\text{M}\Omega$
Assembly	Vibration	50 Hz ~ 2000Hz, power spectral density g ² /Hz
	Impact	80g, half-sine wave, lasting for 11ms
	Mechanical life	500次
	Electrical continuity	It is not allowed to have electrical discontinuity that is over 1 μs
	Operational temperature	-55 ~ 125°C Connector with both electrical and optical contacts: -55 ~ 80°C
	Resistance to salt spray	96h

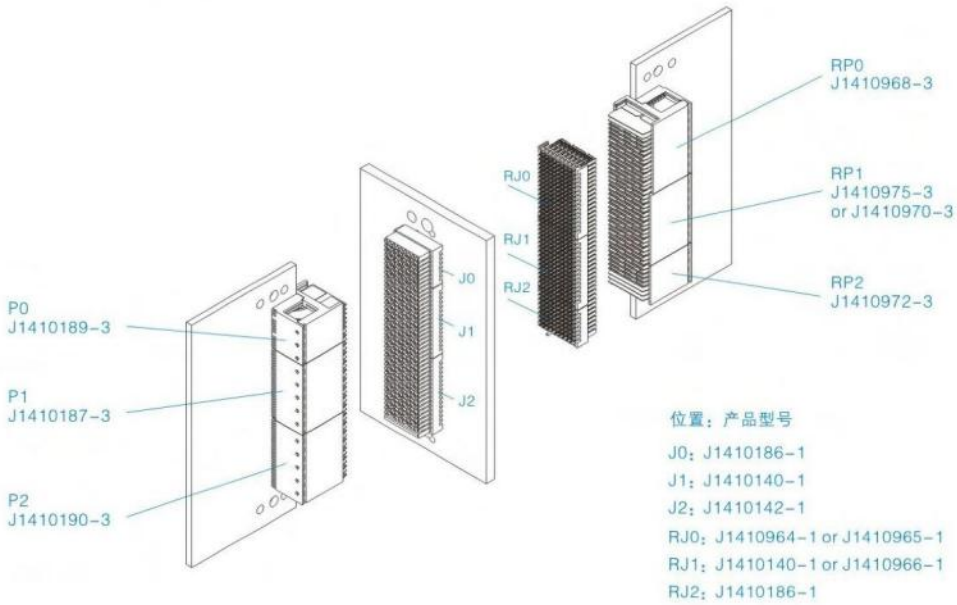
JVPX产品中应用的连接器模块



6U板BLINE系列(VPX)连接器配置



3U板BLINE系列(VPX)连接器配置



型号命名 Designation of types

J VPX - S 61 T 8 aAB 8 AAAD 8 -A -S

多功能、信号、模块集成 Integration of multiple functions, signals and modules

VPX加固型高速背板连接器 VPX series of robust high speed backplane connectors

不标-6.25Gbps; S-12.5Gbps; H-20Gbps

模块数量: ①
第1位数字表示全模块的数量
第2位数字表示半模块的数量
示例为6个全模块和1个半模块

Number of modules:
The 1st digit represents the number of whole modules
The 2nd digit represents the number of half modules
The example shows that there are 6 whole modules and 1 half module.

连接器类型:
T-插头; RT-板后插头
Z-插座; RZ-板后插座

Connector class:
T - Plug; RT - Plug for board back;
Z - Receptacle; RZ - Receptacle for board back;

导向键:
导向键位用数字0、1、2、3、4、5、6、7、8表示
若此项为空,则表示无导向键

Connector class:
T - Plug; RT - Plug for board back;
Z - Receptacle; RZ - Receptacle for board back;

型谱代号: ②
由单元模块的组合形式生成,单元模块包含全模块和半模块,其中全模块用大写字母(A、B……)表示,半模块用小写字母(a、b……)表示
此处表示有1个a半模块和A和B各1个全模块

Type spectrum code:
This code consists of letters representing the composing of the module unit, with uppercase letters (A, B, etc.) standing for whole modules and lowercase letters (a, b, etc.) for half modules.
The example shows that here are 1 half module of code a, 1 whole module of code A and 1 whole module of code B.

导向键:
导向键位用数字0、1、2、3、4、5、6、7、8表示
若此项为空,则表示无导向键

Guide key:
The number "8" here indicates the presence of a guide key; it is replaced by blank if otherwise.

型谱代号: ③
由单元模块的组合形式生成,单元模块包含全模块和半模块,其中全模块用大写字母(A、B……)表示,半模块用小写字母(a、b……)表示
此处表示有3个A和1个D全模块

Type spectrum code:
This code consists of letters representing the composing of the module unit, with uppercase letters (A, B, etc.) standing for whole modules and lowercase letters (a, b, etc.) for half modules.
The example shows that here are 3 whole modules of code A and 1 whole module of code D.

导向键: ④
导向键位用数字0、1、2、3、4、5、6、7、8表示
若此项为空,则表示无导向键

Guide key:
The number "8" here indicates the presence of a guide key; it is replaced by blank if otherwise.

隔断符: -
用以隔断“谱代号”“型谱识别号”,以免混淆

Partition symbol: -
This symbol is used to separate between the "type spectrum code" and the "identification code" to avoid confusion.
Identification code for models with the same type spectrum code:
The identification code is A if default contacts are used in all modules, to which if there is a change, then other codes (B, C, etc.) should be used accordingly.

同型谱识别号:
A、B、C……等,当型谱中所有模块组装默认接触件时,其同型谱识别号为A,否则相同型谱中接触件的每一次变更将对应一个“同型谱识别号”,以示区别。

外壳材料: S: 不锈钢, Z: 铝合金(镀锌镍合金), 无标识: 铝合金(镀镍)

Housing material: S: stainless steel, Z: aluminum alloy (zinc nickel alloy), No logo: aluminum alloy (nickel)

注:
订货时请注意,所有特殊接触件(光纤、电源、射频)需单独订货,不随产品提供!

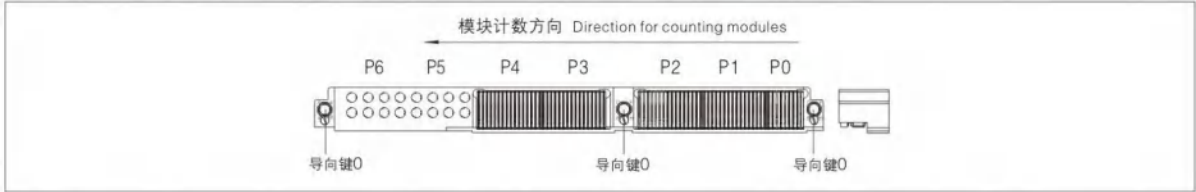
Note:
Please be aware when placing an order, that all special contacts (optical, power and RF ones) are NOT furnished together with the connector product, and need to be purchased separately.

注:

① 模块数量的确定: 正对插头插合面, 弯印制板引脚朝下, 然后从右到左 (即标准型VITA 系列6U 模块中P0至 P6 的方向) 开始计数模块 (全模块和半模块) 的数量。

Note:

① Method to determine the number of modules: Face the front side of the mating interface of the plug, point the right angle PCB pins downwards, count the number of modules (whole and half ones) from the right to the left (i.e. from P0 to P6 in the standard 6U connector of VITA series).

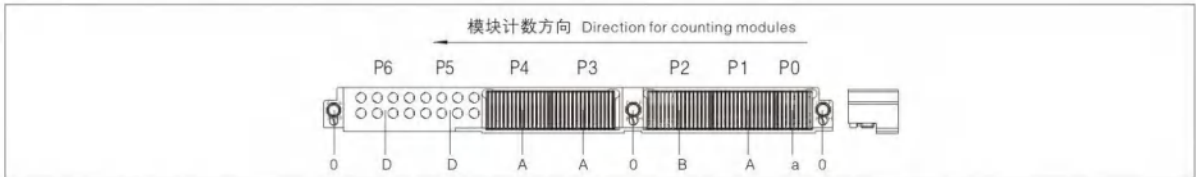


② 型谱代号的生成: 正对插头插合面, 弯印制板引脚朝下, 然后对比“模块与型谱”及“导向键位”中各模块及键位的含义, 从右到左依次 (即标准型VITA 系列6U 模块中P0至P6 的方向) 记录模块及导向键位的代号。

下图所示连接器型号为JVPX-61T8aAB8AADD8-A(图中键位号是0, 导向键位在产品型号命名中统一使用键位代号“8”, 见下页的导向键位的描述)

② Method to designate the type spectrum code: Face the front side of the mating interface of the plug, point the right angle PCB pins downwards, take down the codes for modules and guide keys from the right to the left (i.e. from P0 to P6 in the standard 6U connector of VITA series) according to the coding rules of modules and guide keys.

The type for the connector showed in the following diagram is designated as JVPX-61T8aAB8AADD8-A (If a guide key is present, it should then be designated as “8” when giving connector types, no matter of what kind of orientation the guide key is exactly on that position. Please refer to the detailed description about guide keys a few pages behind).



③与④只在标准6U 模块中含有, 若为标准3U 模块, 无③与④。

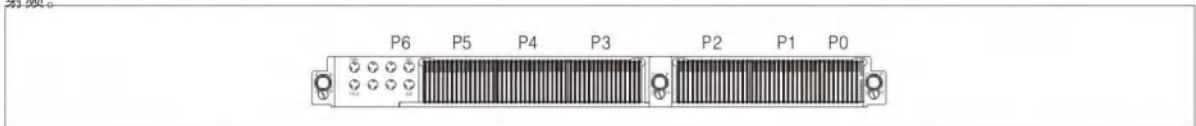
Part ③ and ④ only exist in standard 6U connectors, not in standard 3U connectors.

举例:

JVPX-61T8aAB8AAD8-A 表示: 6U 插头, 有6 个全模块和1 个半模块, 全模块包括4 个A (差分模块)、1 个B (单端模块) 和1 个D (射频模块); 半模块用a 来表示, “a” 也称作基础模块。其中P0 为基础模块a; P1、P3、P4、P5 为差分模块A; P2 为单端模块B; P6 为射频模块D。非射频部分端接方式为免焊压配形式, 射频接触件的端接方式默认为适配同轴线缆, 传输的信号类型为: 6 个电源+128 芯单端+132 对差分对+203 芯接地+8 芯射频。

Example:

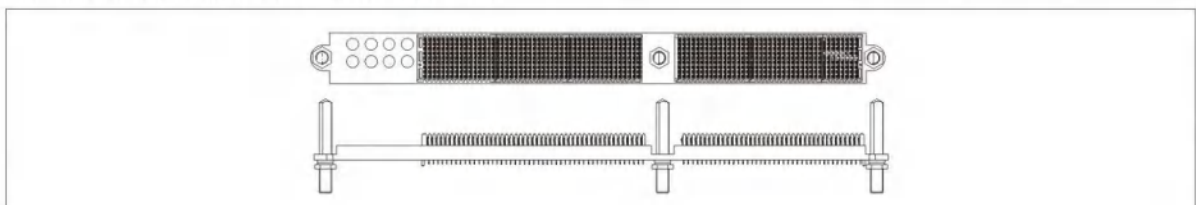
The type JVPX-61T8aAB8AAD8-A indicates the following: this is a 6U plug, with 6 whole modules and 1 half module; the whole modules include 4 units of code A (differential), 1 unit of code B (single-ended) and 1 unit of code D (RF), and the half module is of code a, which is also called the basic module. From P0 to P6, the modules are a, A, B, A, A, A and D, sequentially. The termination mode of non-RF modules is of the solderless press-fit type, and that of RF modules is accommodating coaxial cables by default. And the connector accommodates 6 power connections + 128 single-ended channels + 132 differential pairs + 203 ground connections + 8 RF pathways



JVPX-61Z8eIJ8IJD8-A 表示: 6U 插座, 有6 个全模块和1 个半模块, 全模块包括3 个I (插座中间全模块)、2 个J (插座右端全模块) 和1 个D (射频模块); 半模块用e 来表示, “e” 为VITA 标准插座半模块。其中J0 为VITA 标准插座半模块e; J1、J3、J4 为插座中间全模块I; J2、J5 为插座右端全模块J; P6 为射频模块D。非射频部分端接方式为免焊压配形式, 射频接触件的端接方式为适配同轴线缆, 传输的信号类型与对应的插头一致。

The type JVPX-61Z8eIJ8IJD8-A indicates the following: this is a 6U receptacle, with 6 whole modules and 1 half module; the whole modules include 3 units of code I (receptacle mezzanine), 2 units of code J (receptacle right hand side module) and 1 unit of code D (RF), and the half module is of code e, which is also called the standard receptacle half module. VITA From P0 to P6, the modules are e, I, J, I, J and D, sequentially.

The termination mode of non-RF modules is of the solderless press-fit type, and that of RF modules is accommodating coaxial cables by default. And the connector transmits same types of signals as its corresponding plug.



单元模块与型谱 Modules and type spectrum

半模块型谱 Half module type spectrum

差分信号
 单端信号
 电源
 接地
 无信号

适用连接器类型	型谱代号	型号 Type	外形示意图 Diagram of overall dimensions	信号排列 Signal grid array configuration	说明 Description	备注 Remarks
插头 Plug	Type spectrum code					
	a	J1410189-3			VITA标准插头基础模块，可安装差分、单端及片式电源接触件 The basic module in standard VITA plugs, accommodating differential contacts, single-ended contacts and power contact pieces.	用于P0位置，接点排列为7排8列，3列电源、3列单端及2列差分接触件，共6个电源/16个单端信号/4对差分信号/11个接地。 For use in position P0, with 7 rows and 8 columns of contacts, 3 columns of them being power, 3 columns being single-ended and 2 columns being differential, through which there are totally 6 power connections + 16 single-ended channels + 4 differential pairs + 11 ground connections.
	b	J1410971-3			VITA标准板后插头差分半模块，可安装差分、单端接触件 Differential signal half module in a standard VITA board back plug, accommodating differential and single-ended signal contacts.	用于RP2位置，接点排列为7排8列，全差分，信号类型为：16对差分信号/4个单端信号/20个接地。 For use in the position of RP2, with the contacts arranged in 7 rows and 8 columns, all differential ones, through which there are totally 4 single-ended channels + 16 differential pairs + 20 ground connections.
c	J1410972-3			VITA标准板后插头单端半模块，可安装单端接触件 Single-ended signal half module in a standard VITA board back plug, accommodating single-ended signal contacts.	用于RP2位置，端接点排列为7排8列，全单端，信号类型为：40个单端信号/16个接地。 For use in the position of RP2, with the contacts arranged in 7 rows and 8 columns, all single-ended ones, through which there are totally 40 single-ended channels + 16 ground connections.	

适用连接器类型	型谱代号	型号 Type	外形示意图 Diagram of overall dimensions	信号排列 Signal grid array configuration	说明 Description	备注 Remarks
插座 Receptacle	e	J1410186-1		<p>装配同一种接触件，无差分、接地等之分，信号类型与对应的插头模块保持一致</p> <p>Accommodating the same kind of contacts with no discrimination among single-ended, differential, ground and etc., with its signal type in accordance with the plug module.</p>	<p>VITA标准插座半模块。</p> <p>Half module in a standard VITA receptacle.</p>	<p>用于 J0或 RJ2模块，接点排列为 9排 8列，当 J1为非射频、光纤或者空模块时选用。</p> <p>For use in the position of J0 or RJ2, with the contacts arranged in 9 rows and 8 columns, applicable when it is not a RF, optical or empty module in position J1.</p>
	f	J1410186-2		<p>装配同一种接触件，无差分、接地等之分，信号类型与对应的插头模块保持一致</p> <p>Accommodating the same kind of contacts with no discrimination among single-ended, differential, ground and etc., with its signal type in accordance with the plug module.</p>	<p>VITA标准插座独立半模块。</p> <p>Half module in a standard VITA receptacle.</p>	<p>用于 J0模块，接点排列为 9排 8列，当 J1为非射频、光纤或者空模块时选用。</p> <p>For use in the position of J0, with the contacts arranged in 9 rows and 8 columns, applicable when it is not a RF, optical or empty module in position J1.</p>
插头插座 Plug Receptacle	d				<p>4-12#接触件 4 contacts of #12</p>	<p>默认安装4个12#射频或者光纤，若需更改（低频、电源）请在订货中注明。</p> <p>4 RF or optical contacts of #12 installed by default, special remarks required during order placing if alteration (to low frequency or power) is needed.</p>
	t				<p>4-12#可拆卸接触件 4 contacts of #12</p>	<p>此模块通用安装4个12#可拆卸射频或光或电源接触件。12#可拆卸射频或光或电源接触件单独订货</p> <p>4 RF or optical contacts of #12 installed by default</p>
	n				<p>8列空模块 Empty module, the same size as previous modules that have 8 rows.</p>	<p>空模块，当接触件高度不满足规格（3U、6U）时用于填充空间。</p> <p>Empty module, to fill the space when the contact height does not fulfill the specification (of 3U or 6U).</p>

全模块型谱 Whole module type spectrum

适用连接器类型	型谱代号	型号 Type	外形示意图 Diagram of overall dimensions	信号排列 Signal grid array configuration	说明 Description	备注 Remarks
插头 Plug	Type spectrum code					
	A	J1410187-3			VITA标准 插头差分模块 Differential module for plug per VITA standard	接触点为7排16列，总共112芯，40芯底线、32对差分对、8芯单端，可运用于P1~P6任意位置。 For use in any position from P1 to P6, with the contacts of totally 112 contacts in 7 rows and 16 columns, through which there are totally 8 single-ended channels + 32 differential pairs + 40 ground connections.
	B	J1410190-3			VITA标准 插头单端模块 Single-ended module for plug per VITA standard	接触点为7排16列，总共112芯，32芯底线、80芯单端，可运用于P1~P6任意位置 For use in any position from P1 to P6, with 7 rows and 16 columns of 112 contacts, through which there are totally 32 ground connections + 80 being single-ended channels.
	C	J1410187-4			VITA标准 非标插头混装模块 (16列), 可安装单端、差分、电源接触片	接点排列为7排16列，总共112芯，默认为“J1410189-3+8列差分接触件”，依次为3列电源、3列单端、10列差分接触件，共6个电源/20个单端/20对差分对。若需变更其他组合形式的接触件，请在订货时明确接触件类型、数量及位置，并在型号中“同型谱识别号”中识别。可用于P1~P6任意位置。
		J1410187-5			VITA标准 非标插头混装模块, 16列电源接触片	
		J1410187-6			VITA标准 非标插头混装模块, 8列单端与8列差分	
		J1410187-8			VITA标准 非标插头混装模块, 4列差分与12列单端	

适用连接器类型	型号代号 Type spectrum code	型号 Type	外形示意图 Diagram of overall dimensions	信号排列 Signal grid array configuration	说明 Description	备注 Remarks
插头 Plug	E	J1410968-3			VITA标准板后插头差分模块 (15列) Differential module for plug for board back (15 columns) per VITA standard	用于RP0位置, 接点排列为7排15列, 信号类型为: 20对差分信号/20个单端信号/4个电源/31个接地。
	F	J1410975-3			VITA标准板后插头差分模块 (16列) Differential module for plug for board back (16 columns) per VITA standard	用于RP1、3、4、5、6,共7排16列, 32对差分对、8个单端、40个接地 For use in positions RP1, RP3, RP4, RP5 and RP6, with 7 rows and 16 columns of contacts, through which there are totally 32 differential pairs + 8 single-ended channels + 40 ground connections
	H	J1410970-3			VITA标准非标准插头混装模块, 8列单端、8列差分 Non-standard plug module integrated with multiple kinds of contacts per VITA standard. With 8 columns of single-ended ones and another 8 columns of differential ones	用于RP1位置, 7排16列, 16对差分对、44个单端、36个接地 For use in position RP1, with 7 rows and 16 columns of contacts, through which there are totally 16 differential pairs + 44 single-ended channels + 36 ground connections

适用连接器类型	型谱代号 Type spectrum code	型号 Type	外形示意图 Diagram of overall dimensions	信号排列 Signal grid array configuration	说明 Description	备注 Remarks
插座 Receptacle	I	J1410140-1		装配同一种接触件，无差分、接地等之分，信号类型与对应的插头模块一致 With the same class of contacts in accordance with the corresponding plug module, all single-ended, differential, power or ground	插座中间全模块 Whole module in the middle of a receptacle	用于J1、3、4、5、RJ1、4、5、6位置，接点排列为9排16列 For use in positions J1, J3, J4 and J5, as well as RJ1, RJ4, RJ5 and RJ6, with 9 rows and 16 columns of contacts
	J	J1410142-1			插座右端全模块 Whole module on the right of a receptacle	用于J2、6、RJ3位置，接点排列为9排16列。若为高低频混装、光电混装或者含有空模块的产品，可根据需要用于J1~J6任意位置 For use in positions J2, J6 and RJ3, with 9 rows and 16 columns of contacts. If the product has both high frequency and low frequency contacts, or both optical and electrical contacts, or empty modules, then this module could be used in any position from J1 to J6 according to actual requirements
	K	J1410964-1			板后插座左端全模块 Whole module on the left of a receptacle for board back	用于RJ0位置，接点排列为9排15列 For use in position RJ0, with 9 rows and 15 columns of contacts
	L	J1410965-1			板后插座左端全模块(未满载) Whole module on the left of a receptacle (slots not fully occupied) for board back	用于RJ0位置，接点排列为9排7列 For use in position RJ0, with 9 rows and 7 columns of contacts
	M	J1410966-1			用于RJ1位置，接点排列为9排8列 For use in position RJ1, with 9 rows and 8 columns of contacts	

适用连接器类型	型谱代号 Type spectrum code	型号 Type	外形示意图 Diagram of overall dimensions	信号排列 Signal grid array configuration	说明 Description	备注 Remarks
插头插座 Plug Receptacle	D				默认安装8个12#射频或者光纤接触件。若需变更为其他接触件（电源等），请在订货中明确接触件类型、数量及位置，并在型号中识别，可用于P2~P6位置。建议单独一个射频模块时用于P2或者P6位置。 For use in positions from P2 to P6, with 8 units of 12# RF or optical contacts installed by default. If other contacts (like power ones) are needed instead of the default ones, please specify the classes, quantities and positions of the contacts and designate a code for the module other than those in the type spectrum when placing the purchase order. It is recommended to be used in position P2 or P6 if this is the only module RF.	
	T				此模块通用安装8个12#可拆卸射频或光或电源接触件，用于P2~P6位置。12#可拆卸射频或光或电源接触件单独订货（请在订货中明确接触件类型、数量及位置）。 8 RF or optical contacts of #12 installed by default	
	G				2个 MT 光纤接触件 2 units of MT optical contacts	每个MT接触件可通12路（或24路）光信号，可用于P1~P6任意位置，建议单独一个光模块时用于P2或者P6位置。 For use in any position from P1 to P6, with each MT contact carrying 12 (or 24) optical links. It is recommended to be used in position P2 or P6 if this is the only optical module.
	G4				4个 MT 光纤接触件 4 units of MT optical contacts	每个MT接触件可通12路（或24路）光信号，两个模块配合使用，一般用于P5或者P6位置。 For use in positions P5 and P6, normally two modules as a pair together, with each MT contact carrying 12 (or 24) optical links.
	N				16列空模块 Empty module, the same size as previous modules that have 16 rows.	空模块，当所需接触件少于标准模块高度（如3U、6U等）时，用于填充空间，达到模块标准高度。 Empty module, to fill the space and reach standard module height when the contact height is less than that of a standard module (like in 3U or 6U).

型谱对应关系

模块类型	插头模块适用位置	插头模块	对应可选择插座模块	插座模块适用位置	
半模块	P0	a	e	用于J0 模块，接点排列为9 排8 列，当J1 为I或J 时选用。	
			f	用于J0 位置，接点排列为9 排8 列。当J1 为射频、光纤或者空模块时选用。	
		d/t	d/t	头座模块一致。	
		n	n	头座模块一致。	
	RP2	b	e	用于RJ2 模块，接点排列为9 排8 列。	
		c	e	用于RJ2 模块，接点排列为9 排8 列。	
全模块	P1 ~ P6 任意位置	A	I	用于J1、J3、J4、J5 位置，当上述模块相邻后面模块为I 或者J 时选用。	
			J	用于J2、J6、RJ3 位置，接点排列为9 排16 列。若为高低频混装、光电混装或者含有空模块的产品，可根据需要用于J1 ~ J6 任意位置即射频、光纤或者空模块前一模块选用。	
		B	I	用于J1、J3、J4、J5 位置，当上述模块相邻后面模块为I 或者J 时选用。	
			J	用于J2、J6、RJ3 位置，接点排列为9 排16 列。若为高低频混装、光电混装或者含有空模块的产品，可根据需要用于J1 ~ J6 任意位置即射频、光纤或者空模块前一模块选用。	
		C	I	用于J1、J3、J4、J5 位置，当上述模块相邻后面模块为I 或者J 时选用。	
			J	用于J2、J6、RJ3 位置，接点排列为9 排16 列。若为高低频混装、光电混装或者含有空模块的产品，可根据需要用于J1 ~ J6 任意位置即射频、光纤或者空模块前一模块选用。	
		D/T	D/T	头座模块一致。	
		G/G4	G/G4	头座模块一致。	
		N	N	头座模块一致。	
		RP0	E	K	板后插座左端全模块,用于RJ0 位置，接点排列为9 排15 列，信号类型与对应的插头模块一致。
				L	板后插座左端全模块(未满装), 用于RJ0 位置。
		RP1/RP3/ RP4/RP5/ RP6	F	M	板后插座左端全模块(未满装), 用于RJ1 位置。
	I			用于RJ1、RJ4、RJ5、RJ6位置。	
	J			用于RJ3 位置，接点排列为9 排16 列。	
	RP1	H	M	板后插座左端全模块(未满装), 用于RJ1 位置。	
			I	用于RJ1 位置。	

Relationship among type spectrum

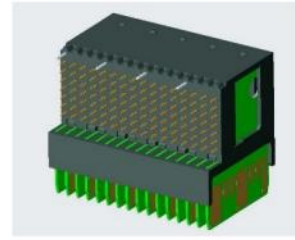
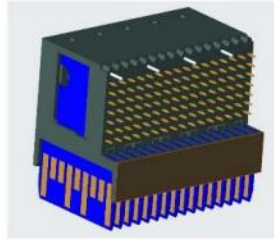
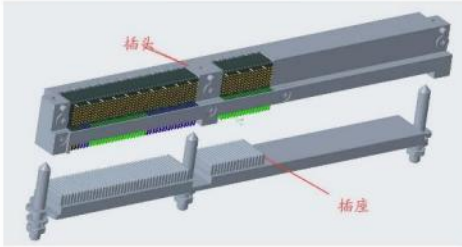
Module class	For use in positions for plug	Plug module	Corresponding compatible receptacle module	For use in positions for receptacle
Half modules	P0	a	e	For use in position J0, applicable when it is module I or J in position J1; with 9 rows and 8 columns of contacts
			f	For use in position J0, applicable when it is a RF, an optical or an empty module in position J1; with 9 rows and 8 columns of contacts
		d/t	d/t	The plug module and the receptacle module are the same.
		n	n	The plug module and the receptacle module are the same.
	RP2	b	e	For use in position RJ2, with 9 rows and 8 columns of contacts.
		c	e	For use in position RJ2, with 9 rows and 8 columns of contacts.
Whole module	P1 ~ P6	A	I	For use in positions J1, J3, J4 and J5, applicable when it is module I or J directly behind such positions.
			J	For use in positions J2, J6 and RJ3, with 9 rows and 16 columns of contacts. For use in any position from J1 to J6 and directly before a RF module, an optical module or an empty module, if the product has both low frequency and high frequency contacts, or both optical and electrical contracts, or empty module(s).
		B	I	For use in positions J1, J3, J4 and J5, applicable when it is module I or J directly behind such positions.
			J	For use in positions J2, J6 and RJ3, with 9 rows and 16 columns of contacts. For use in any position from J1 to J6 and directly before a RF module, an optical module or an empty module, if the product has both low frequency and high frequency contacts, or both optical and electrical contracts, or empty module(s).
		C	I	For use in positions J1, J3, J4 and J5, applicable when it is module I or J directly behind such positions.
			J	For use in positions J2, J6 and RJ3, with 9 rows and 16 columns of contacts. For use in any position from J1 to J6 and directly before a RF module, an optical module or an empty module, if the product has both low frequency and high frequency contacts, or both optical and electrical contracts, or empty module(s).
		D/T	D/T	The plug module and the receptacle module are the same.
		G/G4	G/G4	The plug module and the receptacle module are the same.
		N	N	The plug module and the receptacle module are the same.
		RP0	E	K
	L	Whole module on the left of a receptacle (slots not fully occupied) for board back. For use in position RJ0.		
	RP1/ RP3/ RP4/ RP5/ RP6	F	M	Whole module on the left of a receptacle (slots not fully occupied) for board back. For use in position RJ1.
			I	For use in positions RJ1, RJ4, RJ5 and RJ6.
			J	For use in position RJ3, with 9 rows and 16 columns of contacts.
	RP1	H	M	Whole module on the left of a receptacle (slots not fully occupied) for board back. For use in position RJ1.
			I	For use in position RJ1.

接触件介绍 Introduction to contacts

注：所有特殊接触件（光纤、射频和单芯电源）需单独订货，不随产品提供！
Note: All special contacts (optical, RF or single-pole power ones) are not included within the products and need to be purchased separately.

序号 SN	接触件插合面示意图 Side view diagram for mating face of contacts	接触件类型及性能指标 Class and performance of contacts	备注 Remarks
1		该接触件为电源接触件 This is a power contact.	
2		该接触件为单端信号接触件，单片提供5路单端信号，其余为地线。电信号额定电流1A。 This contact piece of single-ended contacts offers 5 single-ended channels per piece, with the rest being ground connections. Its rated current for electrical signals is 1 A.	
3		该接触件为单端与差分混合信号接触件，单片提供1路单端信号、2对差分对，其余为地线。电信号额定电流1A，差分传输速率6.25Gbps。 This contact piece with both single-ended and differential contacts offers 1 single-ended channel + 2 differential pairs (6.25 Gbps) + (the rest) ground connections. Its rated current for electrical signals is 1 A.	两者成对使用，依次交替排列。
4		该接触件为差分信号接触件，单片提供2对差分对，其余为地线。差分传输速率6.25Gbps。 This contact piece of differential contacts offers 2 differential pairs (6.25 Gbps) + (the rest) ground connections.	Contact piece 3 and 4 are normally used one after another in pairs.
5		射频接触件，工作频率可达40GHz，后装后取，模块端浮动，保证接触可靠 These rear-mount rear-remove RF contacts are floating on the module end to ensure reliable contact, with their operational frequency being up to 40 GHz. 注：不随产品提供，需单独订货 Note: These contacts don't come with the product and need to be purchased separately.	射频接触件默认端接方式为：适配同轴线缆。 Default termination mode of RF contacts: Connected with congruent coaxial cables.
6		MT型光纤接触件，插座浮动结构，保证接触可靠。每芯MT可通12路（或24路）光信号。 Type MT optical contact piece carries 12 (or 24) optical links each, with floating structures on receptacles to ensure reliable contact.	注：不随产品提供，需单独订货 Note: These contacts don't come with the product and need to be purchased separately.
7		12#光纤接触件，后装后取，可与12#射频接触件同孔使用 Rear-mount rear-remove 12# optical contacts, applicable in holes for 12# RF contacts.	
8		12#电源接触件 12# Power contacts	

电连接模块 Connector Modules



模块介绍

电连接模块主要由四种不同的金手指电路板通过不同的排列组合实现各种电路信号传输要求。

间距：插头1.35mm × 1.8mm，插座：1.8mm × 1.8mm

差分阻抗：100Ω

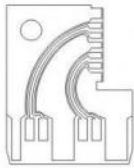
近端串扰：在100ps的上升时间内线间串扰不大于5%

数据传输速率：6.25Gbps

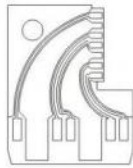
绝缘电阻：≥1000MΩ

耐压：500V

印制板硅晶片（金手指）的种类



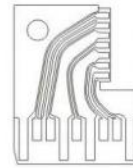
差分B印制板



差分A印制板



电源印制板

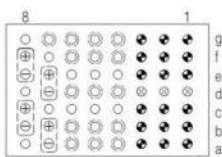


单端信号印制板

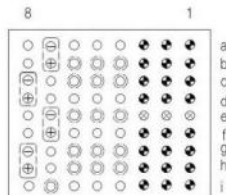
注：差分A印制板（单端与差分信号混合印制板）、差分B印制板（无单端信号）

头座信号对应关系

以基础模块为例说明



插头半模块



插座半模块



信号类型	插头	插座	对应关系	
			插头	插座
电源			abc	abcd
			d	e
			efg	fg hi
单端			插座在两端增加接地触点a和i, 信号对应关系	
			a	b
			b	c
			c	d
			d	e
			e	f
			f	g
			g	h
			a	a
			b	b
差分A (含有单端信号)			c	cd
			d	e
			e	f
			f	gh
			g	i
			a	ab
			b	c
差分B (无单端信号)			c	d
			d	ef
			e	g
			f	h
			g	i
			a	ab
			b	c

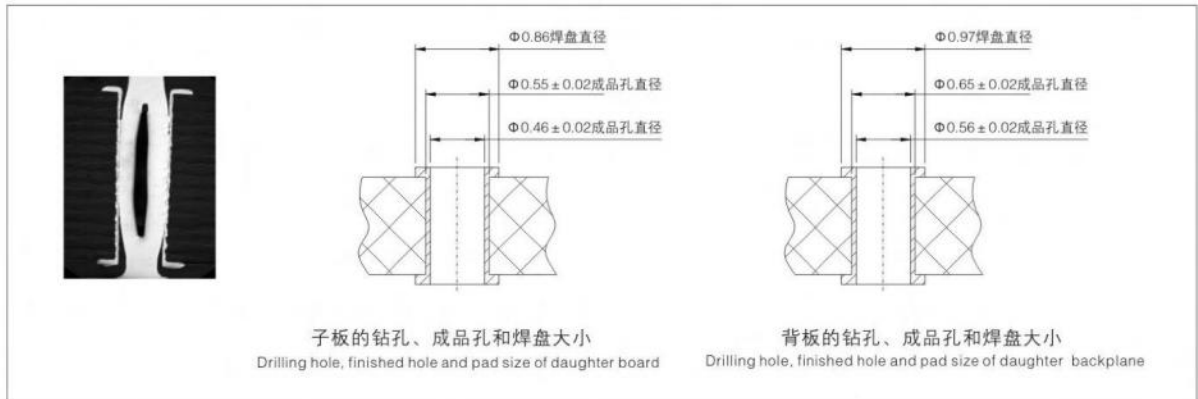
差分信号
 单端信号
 电源
 接地
 无信号

电连接模块PCB设计布线建议

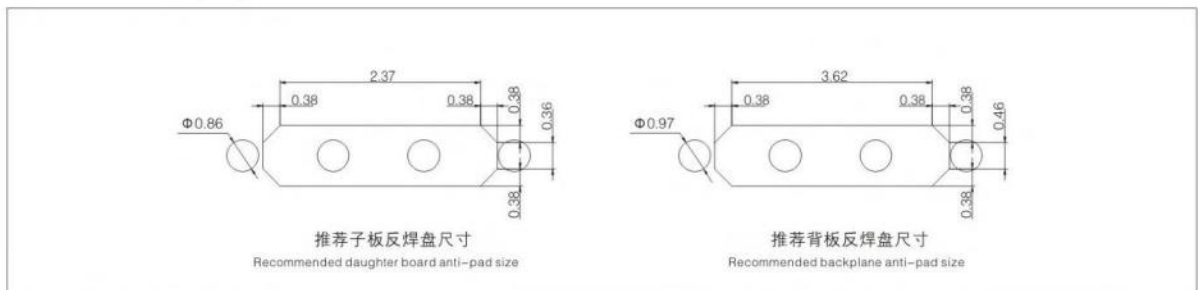
PCB trace recommendation

钻孔、成品孔、焊盘和反焊盘的大小如下图所示。图中给定尺寸为建议尺寸，可根据具体PCB板叠层的变化，依据信号完整性仿真结果调整焊盘和反焊盘尺寸。

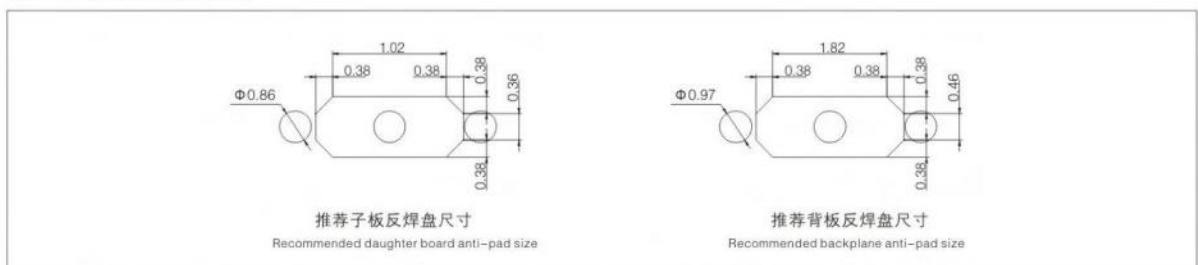
See the size of drilling holes, finished holes, pad holes and anti-pads in the figures below. Dimensions in the figure are recommended and will be changed according to the PCB stack, can be adjusted based on the signal integrity simulation results.



背板与子板反焊盘结构(差分)

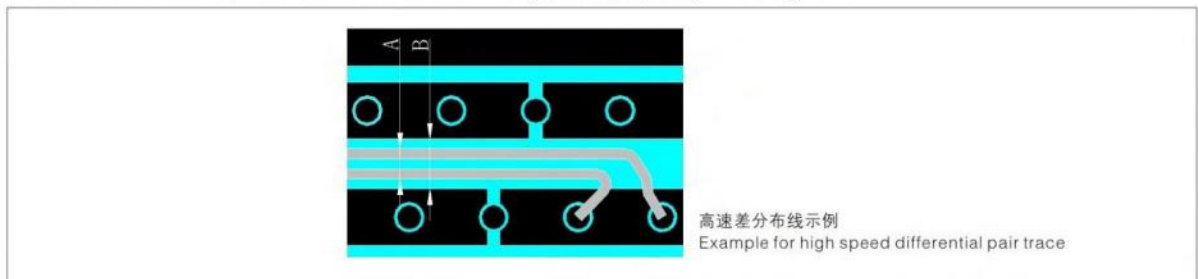


背板与子板反焊盘结构(单端)

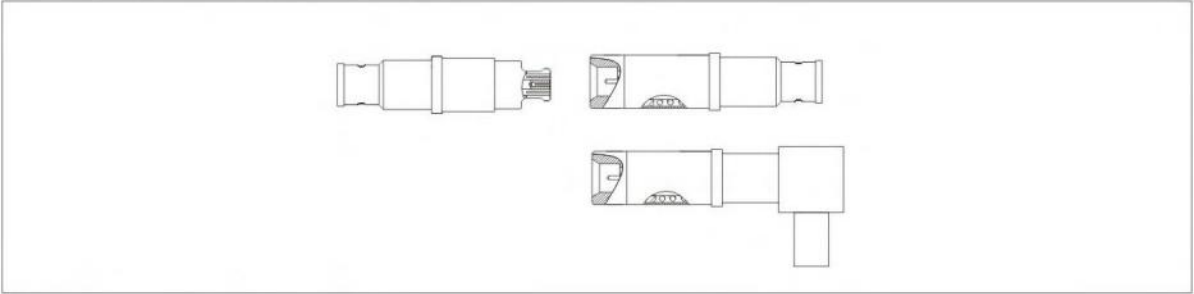


差分布线总宽度应小于反焊盘最小间隙，即下图A<B。

The total width of the differential pair trace should be less than the minimum gap of anti-pad, namely A < B in the figure below.



射频接触件 RF Contacts



型号命名 Ordering information

接触件命名 Contacts ordering information

JVPX/R 12 D 2 F / 50 W - 2

主称代号: JVPX系列射频同轴接触件

Series: JVPX series RF coaxial contacts

接触件规格: 12-12#射频同轴接触件

Contact Category: 12- RF coaxial contact

频 带: D-0~40GHz, 0~18GHz (弯式接触件)

Frequency Range:
D-0~40GHz, 0~18GHz (right angle contact)

接触件类型:

1-插针, 2-插孔, 3-弯针, 4-弯孔, 5-转接螺纹锁紧,
6-转接推拉锁紧, 7-转接带擒纵锁紧

Contact Type: 1-Pin, 2-Socket, 6-Pin/Socket adapter,
3-Right angle pin, 4-Right angle socket

11-VITA67型插针, 21-VITA67型插孔, 41-VITA67型弯孔

接触件方式: F-浮动, 不标-不浮动

Contact Method: F-Floating, None-No floating

接触件阻抗: 50-50Ω

Contacts Impedance: 50-50Ω

端接方式:

不标-导线焊接或压接, B-直板焊接, W-弯板焊接,
KK-孔转接孔, JJ-针转接针, KK1-转SMP孔

Termination:
None-Wire soldering or crimping, B-Straight board soldering,
W-Right angle board soldering, KK-Socket adapter, JJ-Pin adapter,
KK1-SMP Pin adapter,

导线类型:

2: CXN3506, 5: SFF-50-1.5-1, 6: SFT-50-2-1

Wire Type: 2: CXN3506, 5: SFF-50-1.5-1, 6: SFT-50-2-1

● 选用注意事项:

插座选用浮动接触件, 插头必须选固定接触件。

插座选用固定接触件, 插头必须选浮动接触件。

浮动接触件伸缩量为1.5mm max, 使用时请注意留够接触件的伸缩空间, 尽量选择用在电缆较短的一端, 或采取适当的固定措施将电缆捆扎, 避免接触件受到电缆的拖拽和影响接触件浮动。

接触件线缆组件命名 Cable assembly ordering information

JVPX/R12D2F/50 - 2.92 - J- L(电缆型号)
Cable type

射频同轴接触件型号

RF coaxial contacts type

射频同轴接触件型号

RF coaxial contacts type

可根据需要接SMPM、SMA或2.92

如果该项型号与第一个型号相同则用“×2”表示

线长与使用的线缆型号代码, 单位: mm,

Cable length(mm) and cable type

可根据需要接2: CXN3506, 5: SFF-50-1.5-1, 6: SFT-50-2-1

射频接触件订货型号及外形尺寸 Selection of RF contacts

序号 No.	型号 Type	名称 Name	装入连接器 Suitable connector	适配电缆 Suitable Cable	外形图 Outline Drawing	建议剥线尺寸 Stripping Length
1	JVPX/R12D1/50-2	插针 RF Pin	插头 Plug	CXN3506		
2	JVPX/R12D2F/50-2	插孔 RF Socket	插座 Receptacle	CXN3506		
3	JVPX/R12D4F/50-2	弯插孔 Right angle RF socket	插座 Receptacle	CXN3506		
4	JVPX/R12D1/50-5	插针 RF Pin	插头 Receptacle	SFF-50-1.5-1		
5	JVPX/R12D2F/50-5	插孔 RF Socket	插座 Plug	SFF-50-1.5-1		
6	JVPX/R12D4F/50-5	弯插孔 Right angle RF socket	插座 Receptacle	SFF-50-1.5-1		
7	JVPX/R12D1/50-6	插针 RF Pin	插头 Plug	SFT-50-2-1		
8	JVPX/R12D2F/50-6	插孔 RF Socket	插座 Receptacle	SFT-50-2-1		
9	JVPX/R12D4F/50-6	弯插孔 Right angle RF socket	插座 Receptacle	SFT-50-2-1		

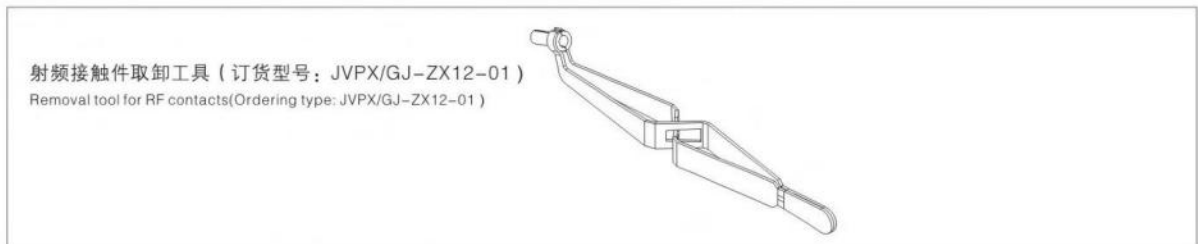
射频接触件的安装使用 Installation and use of RF contacts

1、装入

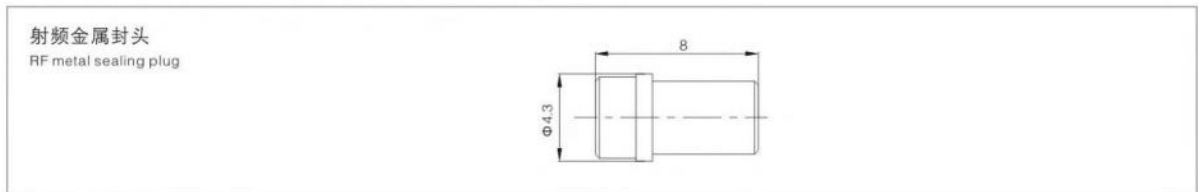
- ①. 捏紧取卸工具手柄尾端，使其前端张开。
- ②. 张开取卸工具夹住接触件尾端，端面紧靠最大台阶。
- ③. 垂直向前推送入孔中，至听到“咔哒”声响无法前进。
- ④. 松开取卸工具手柄将工具取出，然后轻轻地拉一下电缆，以确定射频接触件已经被卡住。

2、取出

- ①. 捏紧取卸工具手柄尾端，使其前端张开。
- ②. 从连接器尾部方向将张开的取卸头扣在射频电缆外圆上。
- ③. 松开手柄尾部，使取卸头与射频电缆紧密贴合。
- ④. 向前垂直推动取卸器。
- ⑤. 当听到轻微“咔哒”到位声后，松开取卸器，将电缆、接触件、取卸工具同时拉出。



3、当射频模块中有空位不装射频接触件时，可用封头进行封堵空位。



4、射频电缆出线注意事项

使用过程中，注意射频接触件的弯曲半径，弯曲时一定要大于其最小弯曲半径，以防影响射频线缆的传输性能，根据使用线缆的不同，射频线缆弯曲半径如下，同时在模块或者机箱后盖板配合时，也要预留足够的空间，使射频线缆在其弯曲半径范围内。

①. 插头端射频电缆出线注意事项

序号 No.	适配电缆 Suitable Cable	弯曲半径R bending radius	建议剥线尺寸 Stripping Length
1	Gore CXN3506	22mm	
2	SFF-50-1.5-1	25mm	
3	SFT-50-2-1	-	

②. 插座端射频电缆出线注意事项

序号 No.	适配电缆 Suitable Cable	弯曲半径R bending radius	建议剥线尺寸 Stripping Length
1	Gore CXN3506	22mm	
2	SFF-50-1.5-1	25mm	
3	SFT-50-2-1	-	

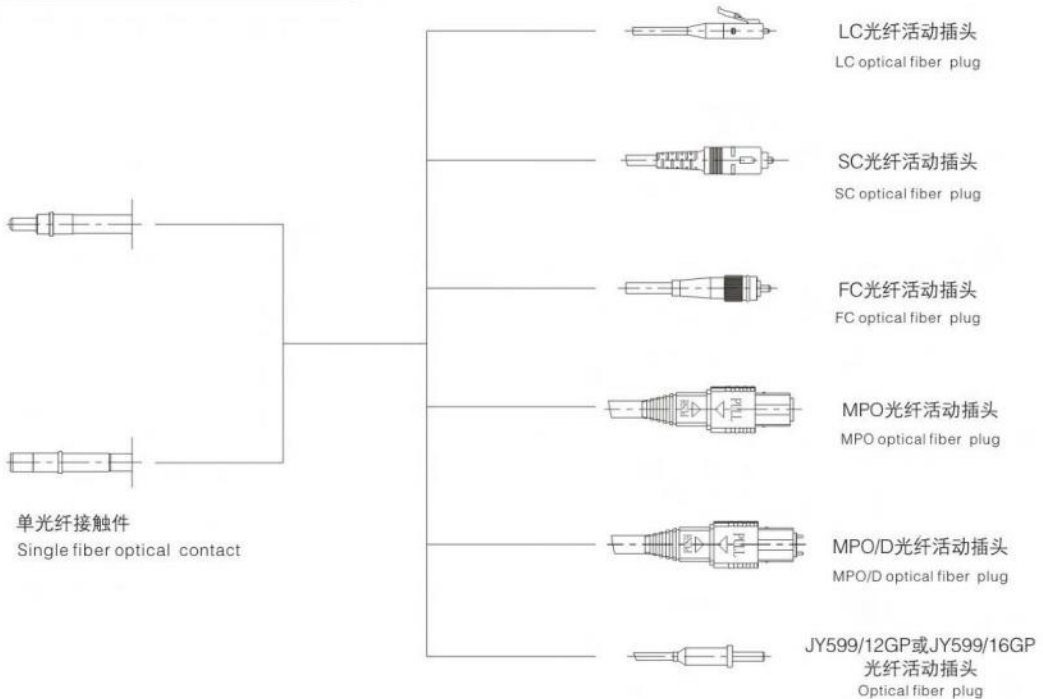
光纤接触件 Optical fiber contact

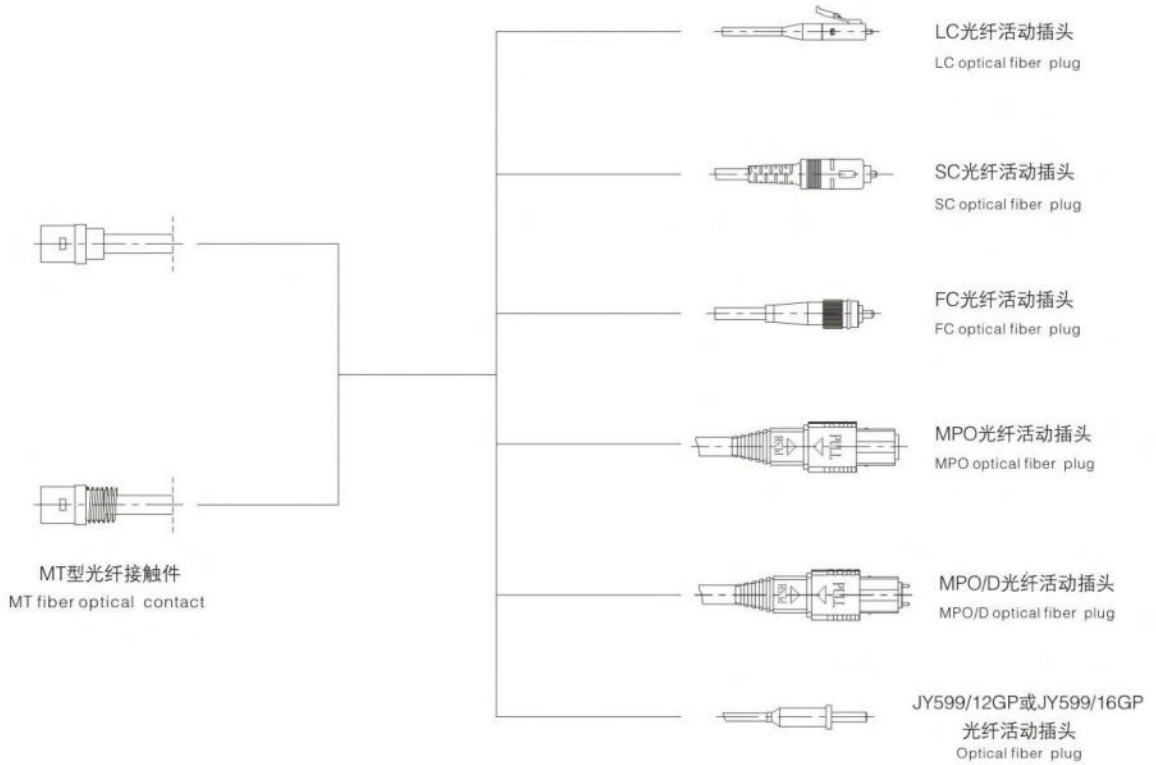


JVPX系列模块化混装连接器的光纤接触件有29504单光及MT型，29504单光只能接1路光信号，一个MT光纤接触件可通12路（或24路）光信号，传输模式有G652型标准普通单模、芯径62.5/125的多模和芯径50/125的多模三种选择。MT型光纤接触件可转接多种类型的光纤活动插头，例如FC、SC、LC、ST、MPO、MPO/D、JY599/16GP、JY599/12GP，并可按用户要求定制，可以很方便地实现与不同设备之间的互换。

- 采用MT型光纤接触件，光信号密度高。
- MT型光接触件可拆卸，单独订货，方便光纤布线，以及与设备上的其他光器件配合使用。
- 弹性接触，在振动冲击环境下保证可靠接触，插入损耗小于1.5dB。
- 工作温度：-55℃ ~ +80℃
- 插入损耗：MT：≤1.5dB，典型值1.0dB
- 随机振动：频率：10 ~ 2000Hz，功率谱密度：0.2g²/Hz
- 冲击：490m/s²

光纤活动插头图例 Optical fiber plug legend





型号命名 Ordering information

29504单光跳线型号命名

JVPX/F 12 P-LC-0.9 SM-500

主称代号: JVPX系列光纤接触件

Series: JVPX series optical fiber contacts

接触件规格: 12-12#光接触件,
16-16#光接触件,
20-20#光接触件

Contact Category: 12- 12# optical fiber contact
16- 16# optical fiber contact
20- 20# optical fiber contact

接触件类型: P-插针, S-插孔

Contact Type: P-Pin, S-Socket

尾端光纤活动插头类型:
LC、FC、SC、MPO、MPO/D、MT/S、
JY599/16GP、JY599/12GP等
(如果该项型号与第一个型号相同则用“×2”表示)

分线光纤直径: 0.9、2.0

接触件内孔规格: SM-单模, MM-多模

光缆总长度: 单位 (mm)

MT光阵列跳线型号命名

JVPX/MT 24 D M J-XXXX

主称代号：JVPX用MT光阵列

芯数：24-24芯，48-48芯，12-12芯

传输类型：D-数字，R-模拟

光纤类型：S-单模，M-多模，G-652

接触件类型：J-插针，K-插孔

尾端光纤组件型号：

根据需要可以接LC、FC、SC、MPO、MPO/D、MT/S、JY599/16GP、JY599/12GP等光纤接头和不同长度的光纤和光缆。
 型号根据具体需求来确定。

示例如下：

LC24-0.9-500/200，表示有24个LC接头，0.9的光纤，主光纤500mm长，分光纤200mm

光纤跳线订货型号示例

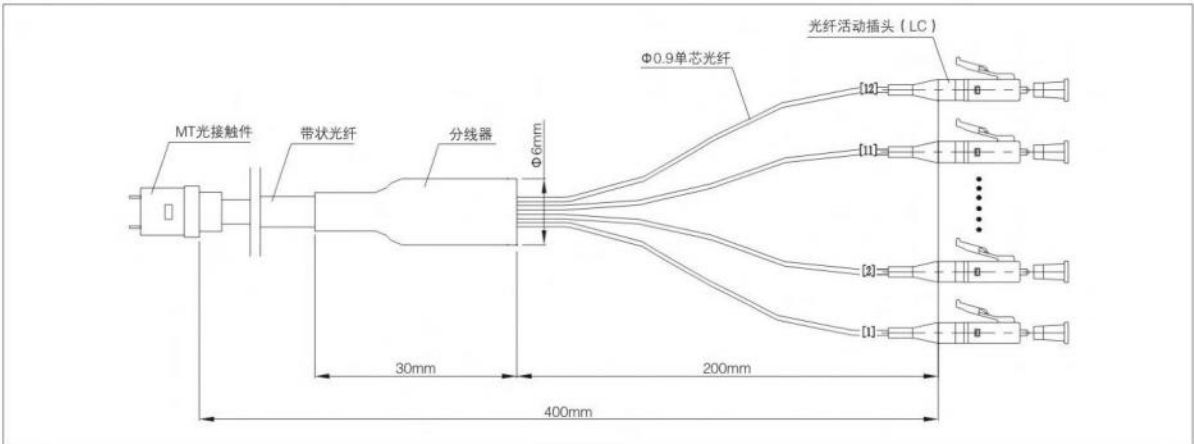
1、JVPX/F12P-LC-0.9SM-500(用于插头)



2、JVPX/F12S-LC-0.9SM-500(用于插座)



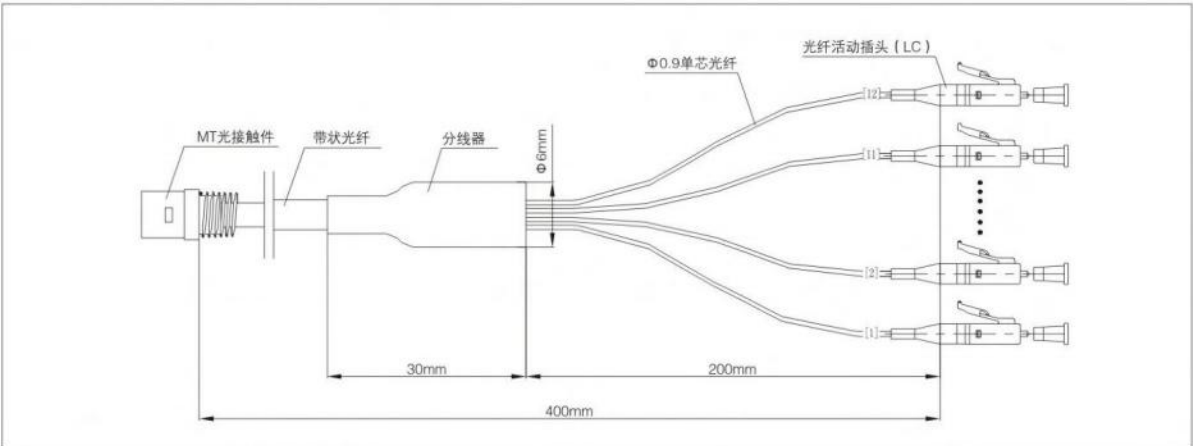
3、JVPX/MT12DMJ-LC12-0.9-400/200(用于插头)



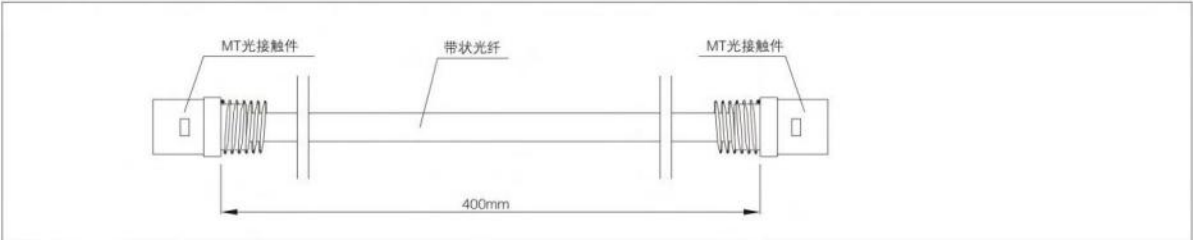
4、JVPX/MT24DMJ-MPO-400(用于插头)



5、JVPX/MT12DMK-LC12-0.9-400/200(用于插座)



6、JVPX/MT24DMKx2-400(用于插座)

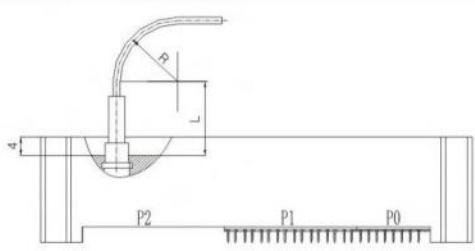


光纤跳线的安装说明

1、29504单光跳线的注意事项

单光跳线的安装与射频接触件安装方式相同，使用过程中，注意光缆的弯曲半径，弯曲时一定要大于其最小弯曲半径，以防影响光缆的传输性能，同时在模块或者机箱后盖板配合时，也要预留足够的空间，使光缆在其弯曲半径范围内。

① 插头端光缆出线注意事项



序号 No.	光缆直径 Cable Diameter	L	弯曲半径R bending radius
1	0.9mm	4max	9mm
2	2.0mm	16max	20mm

②. 插座端光缆出线注意事项

序号 No.	光缆直径 Cable Diameter	L	弯曲半径R bending radius
1	0.9mm	15max 弹簧压缩后	9mm
2	2.0mm	27max 弹簧压缩后	20mm

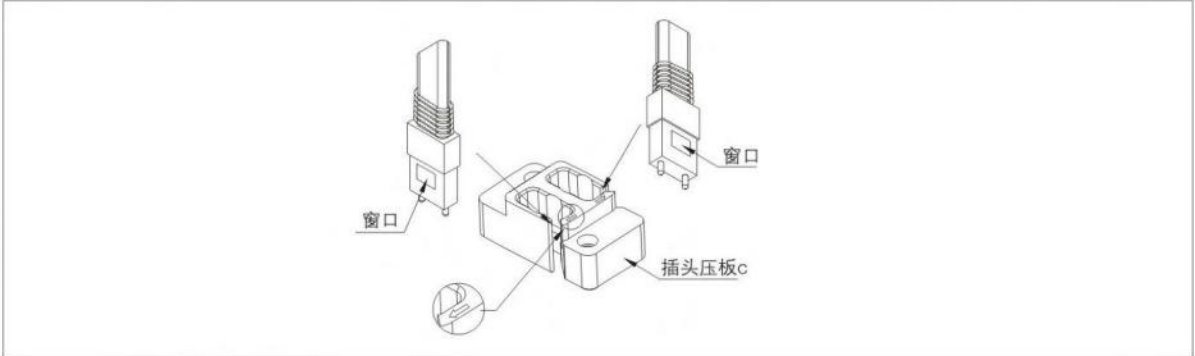
2、MT光阵列跳线的安装说明

(1). MT光阵列跳线装入插头的步骤

①. 松开螺钉b, 拆下插头压板c

②. 将光纤跳线a装上定位销部件, 该部件为配套散件, 装配方法如下: 将定位销部件装到光纤跳线上, 按图示方向装入, 没有前后方向之分。(定位销部件为配套散件, 随连接器提供)

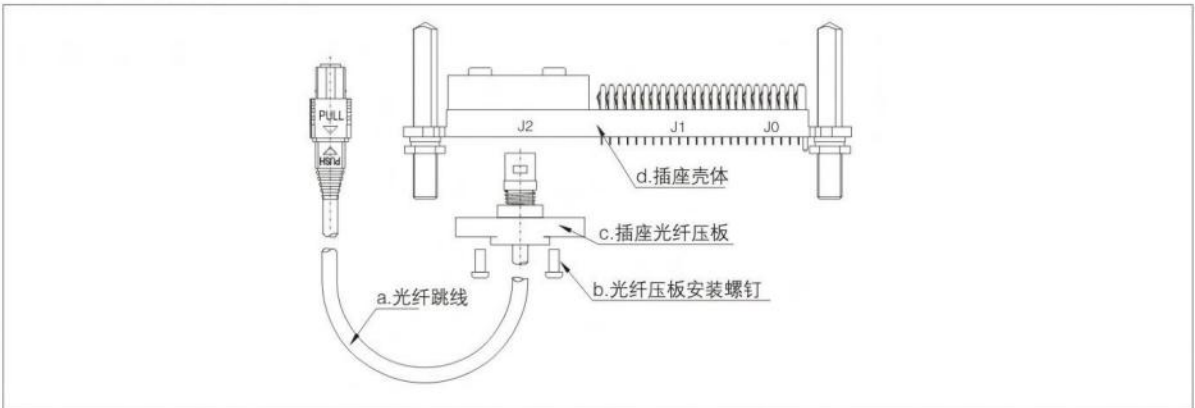
③ 将装配好的光纤跳线从插头压板c 45° 斜槽处放入，装配时注意MT光接触件的窗口朝向与连接器上的箭头指向一致，切勿装反，如下图所示。



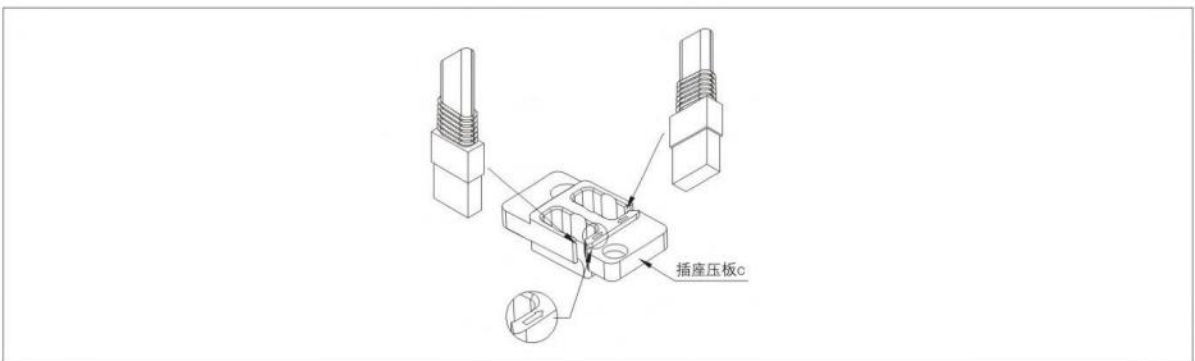
④ 在螺钉b上涂螺纹胶后上紧螺钉。

(2). MT光阵列跳线装入插座的步骤

① 松开螺钉b，拆下插座压板c



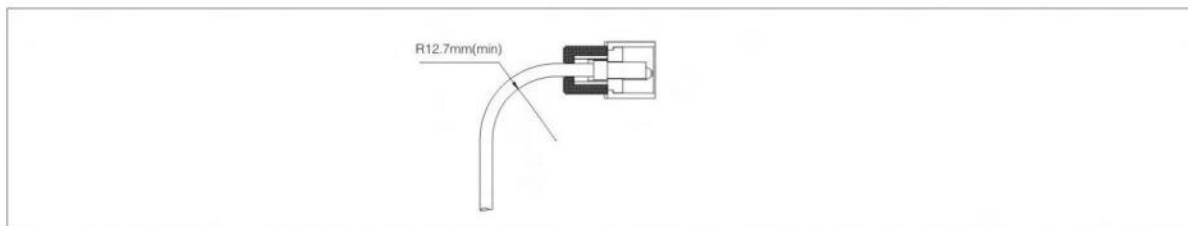
② 将装配好的光纤跳线从插座压板c 45° 斜槽处放入，装配时注意MT光接触件的窗口朝向与连接器上的箭头指向一致，切勿装反，如下图所示。



③ 将插座压板c装入绝缘基座，然后在螺钉b上涂螺纹胶后上紧螺钉

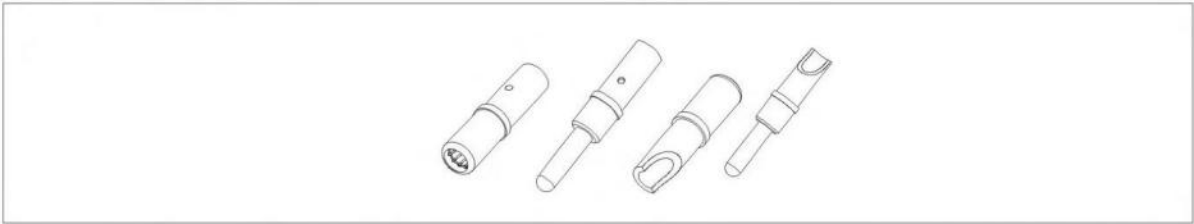
3、MT光阵列跳线在使用过程中的注意事项：

(1). 光纤跳线在使用过程中要注意防护，不可硬拉硬拽，并保证光纤的弯曲不得小于最小弯曲半径12.7mm，如下图所示。



(2). 连接器在不适用时，必须采取必要的防护措施；如果发现插合界面有异物，或长时间存放后再次使用时，需要用Kim布擦拭MT光纤接触件端面。

电源接触件 Power Contacts



型号命名 Ordering information

接触件命名 J1216 V / DG 12 S Y

主称代号: 可拆卸电源接触件 Main code name: removable power contact

适用产品类型: V-JVPX系列连接器、L-LRM系列连接器 Applicable product type: V-JVPX series connector, L-LRM series connector

接触件类别: D-大电流接触件; DG-高压接触件; Contact type: D- high current contact; DG- high voltage contact;

接触件规格号: 12-12# Contact Category: 12- 12#

接触件类型: P-插针, S-插孔 Contact Type: P-Pin, S-Socket

端接方式: Y1-导线压接 (适用12AWG导线),
 Y2-导线压接 (适用16AWG导线),
 Y3-导线压接 (适用20AWG导线),
 H-导线焊接, B-直式焊板, W-弯式焊板 Termination : Y1- wire crimping (12AWG wire),
 Y2- wire crimping (16AWG wire),
 Y3- wire crimping (20AWG wire),
 H- wire bonding,
 B- straight welded PCB
 W- bending PCB

接触件类别 Contact type	导线规格 (AWG) Wire specification	芯线截面积 (mm ²) Core area	工作电流 Operating current	耐压 Withstand voltage	备注 Remarks
大电流接触件D High current contact	12	3.0	23A	1000V	
	16	1.2	13A	1000V	
高压接触件DG High pressure contact	20	0.5	7.5A	3000V	只能接耐高压的导线 Can only connect to the high-voltage wire

接触件线缆命名

J1216V/D12SY2 - J1216V/D12PY2 - 500/1.2

电源接触件型号 Power contact model

电源接触件型号;
 如果该项型号与第一个型号相同则用“×2”表示; Power contact model

线长/线径: 500-线长500mm
 1.2-芯线截面积1.2mm²。 The length of the wire / wire diameter: 500- length 500mm,
 1.2- core wire cross-sectional area 1.2mm²

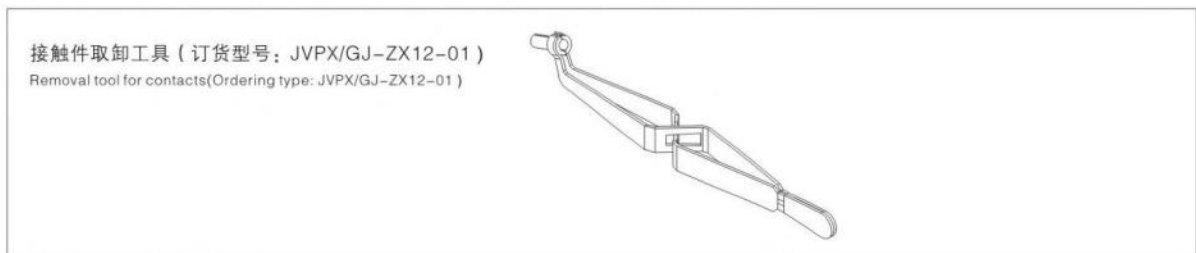
电源接触件的安装使用 Installation and use of Power contacts

1、装入

- ①. 捏紧取卸工具手柄尾端，使其前端张开。
- ②. 张开取卸工具夹住接触件尾端，端面紧靠最大台阶。
- ③. 垂直向前推送入孔中，至听到“咔哒”声响无法前进。
- ④. 松开取卸工具手柄将工具取出，然后轻轻地拉一下电缆，以确定射频接触件已经被卡住。

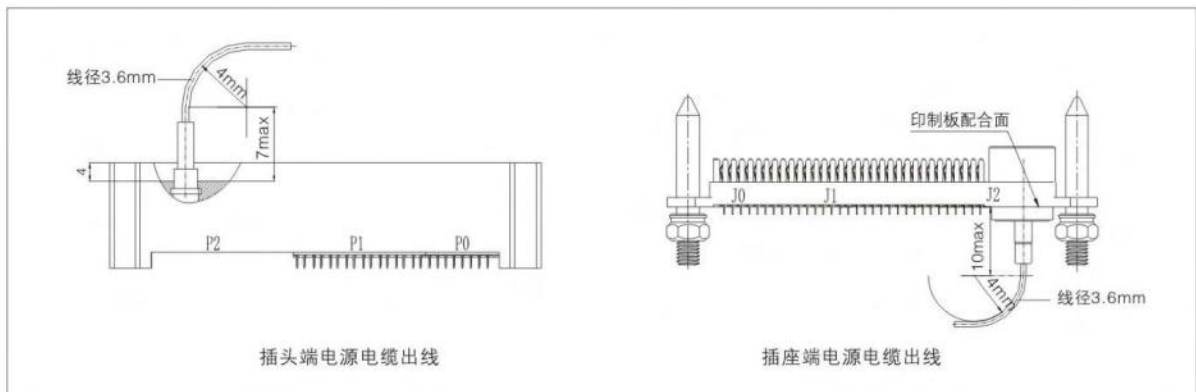
2、取出

- ①. 捏紧取卸工具手柄尾端，使其前端张开。
- ②. 从连接器尾部方向将张开的取卸头扣在射频电缆外圆上。
- ③. 松开手柄尾部，使取卸头与射频电缆紧密贴合。
- ④. 向前垂直推动取卸器。
- ⑤. 当听到轻微“咔哒”到位声后，松开取卸器，将电缆、接触件、取卸工具同时拉出。



3、电源电缆出线注意事项

使用过程中，注意电源接触件的弯曲半径，弯曲时一定要大于其最小弯曲半径，以防影响电源线缆的传输性能，根据使用线缆的不同，电源线缆弯曲半径如下，同时在模块或者机箱后盖板配合时，也要预留足够的空间，使电源线缆在其弯曲半径范围内。



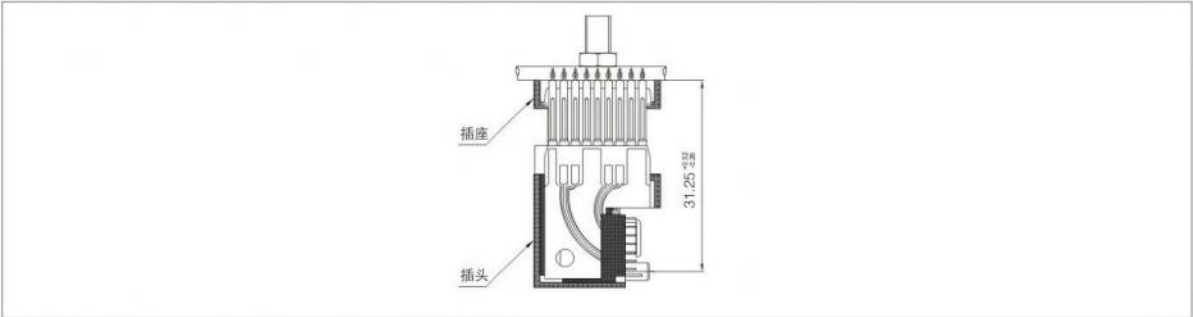
JVPX连接器的使用说明

Instructions for use of JVPX connectors

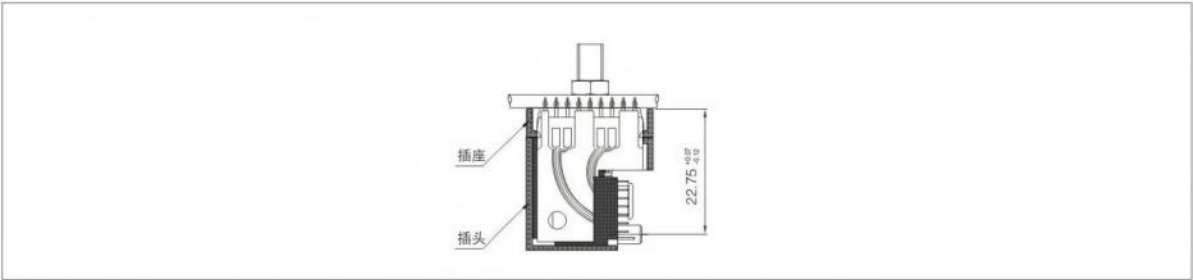
插头与插座安装插配示意图

Schematic diagram of plug and Receptacle installation

1、连接器完全分离尺寸（仅限接触件，没有考虑导向件）



2、连接器完全插合尺寸（仅限接触件，没有考虑导向件）



加固型连接器插头连接器的安装

Mounting of plug connectors

VPX 系列加固型连接器插头装配方式有两种：

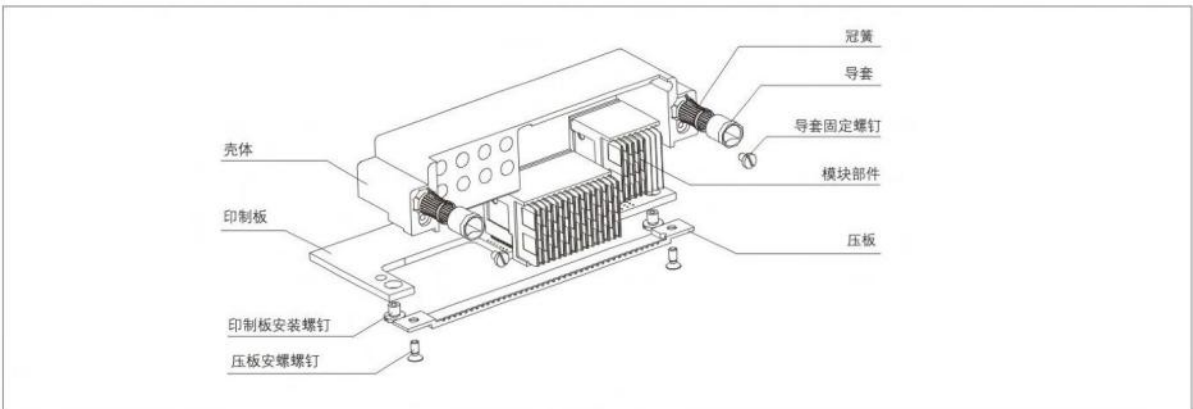
一种是将连接器与印制板整体压配，然后用螺钉（需涂抹螺纹紧固胶）将印制板与壳体固定到一起，具体安装方式及所需工具将在下面详细介绍；

另一种方式为先将连接器模块部件分别与印制板压配到一起，然后将压装好的模块部件连同印制板装配到插头壳体上，用螺钉（需涂抹螺纹紧固胶）将印制板与壳体固定到一起，最后安装压板，用螺钉（涂抹螺纹紧固胶）与壳体固定。

There are two ways of mounting VPX Series reinforced plug connectors:

One way is to press fit the PCB and the whole plug connector, then hold the PCB and the housing of the connector together by screw (application of thread fixative glue needed), specifics of which process and tools needed will be introduced in detail hereafter;

the other way is to press fit the PCB and the inserts, which, as a whole, is then mounted onto the housing of the plug connector and joined together by screw (application of thread fixative glue needed). Finally, mount the pressing plate and hold it together with the housing of by screw (application of thread fixative glue needed) after the PCB and the housing are secured.



连接器整体安装详细方法:

第一步: 观察结构

拿到JVPX系列插头连接器时首先观察产品的结构特点, 确定插头与印制板子板配合有几个关键点:

- (1) 插头连接器壳体两端的螺纹孔和导向柱;
- (2) 插头连接器模块上面的定位针;
- (3) 插头连接器模块上的鱼眼式接触件。

根据键位要求, 先将散件包装的导套和螺钉装配到连接器上。

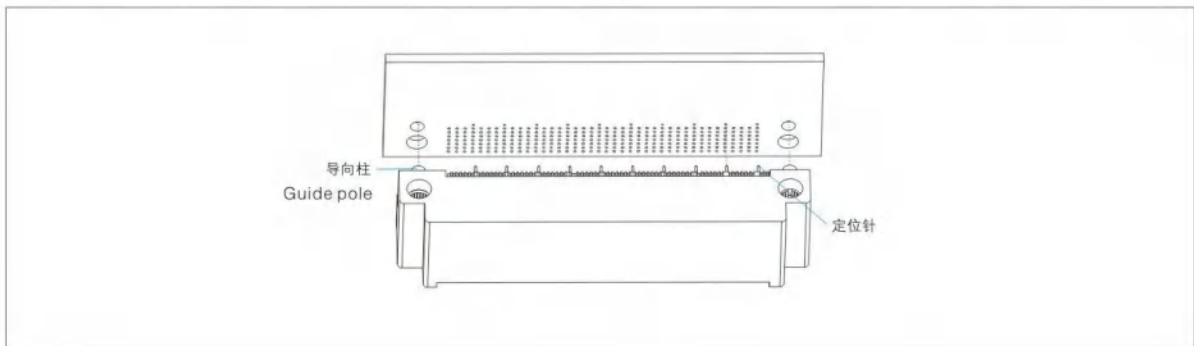
Detailed mounting method of whole connectors:

Step one: Observe structure

Observe the JVPX Series plug connector before mounting, and identify the key features for its fixation with the PCB:

- (1) Threaded holes and guide poles on both ends of the plug connector;
- (2) Pilot pins on the plug connector modules;
- (3) Fish eye contacts on the plug connector modules.

Mount the loose-packed guide conduits and retainer rings onto the connector according to the requirements on keys.



第二步:

首先将插头壳体两端与印制板配合面上的紧固螺钉卸下, 然后将插头连接器的各个关键部位与印制板配合孔进行试装 (严禁大压力试装), 待各部位对准后用力扣合在PCB上。随后, 根据子板厚度确定是否在印制板背面增加垫板 (内部连接器导向针露出连接器2.5mm, 插头壳体导向柱露出接触面2.7mm, 如果印制板子板厚度小于2.5mm时, 产品装配后导向针和导向柱会有多余长度从印制板背面露出, 如果印制板子板厚度在2.5mm与2.7mm之间时, 仅导向柱会有多余长度从印制板背面露出, 此时压配时须在印制板背面用垫板避开导向针和导向柱)。

第三步: 进行压配

待以上步骤完成后 (避开露出结构防止被破坏, 一般增加垫板和压板), 便可将其置于压力机下进行压配, 因压力机规格存在差异, 首次试压将压力调整为较小值 (原则上要 $\leq 0.2 \times n$ Mpa, “n”为连接器模块数量, 单个RT2连接器模块推荐压力在0.2Mpa左右, 可以根据模块数量进行推算), 然后逐步调整压力至有效值, 记录该有效值, 作为以后压配同类产品的参考。压配后, 观察压配质量, 要保证连接器与印制板间无间隙, 压配时位移给量要均匀, 严禁过压。在印制板背面将紧固螺钉涂抹螺纹胶后安装到壳体上, 完成装配。

Step two:

First, remove the fastening screws from the ends of the connector and the mating surface of the PCB, trial-engage the key positions of the plug connector and the holes on the PCB (strictly forbidding hard pressing), snap fit all these positions up after making sure that each of them is aligned up. Then determine whether or not to add a cushion plate based on the thickness of the PCB (the top of guide poles is 2.7 mm above the mating surface, and that of contact pins is 2.5 mm above, therefore if the thickness of the board is less than 2.7 mm or 2.5 mm, tips of guide poles or pins would then become exposed on the other side of the board when fully fitted, in which situation a cushion plate will be needed to protect guide poles and pilot pins)

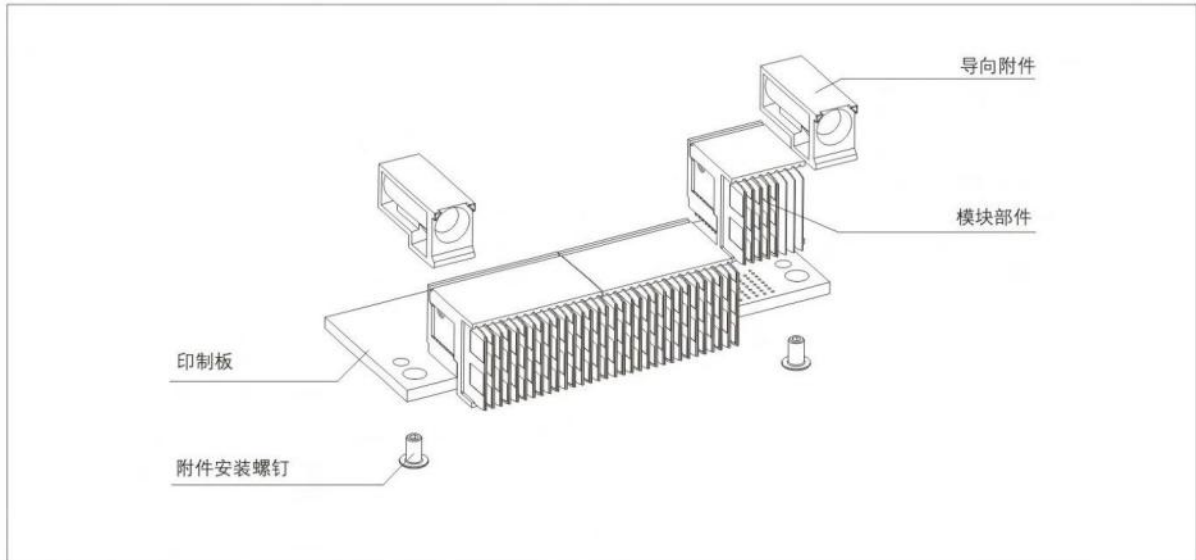
Step three: Crimp

Crimp the assembly under a punching machine after the aforementioned steps are completed, and a cushion plate is normally used to avoid damage to the exposed structures. Gradually increase the pressure from a small initial value ($\leq 0.2 \times n$ Mpa, on principle, where n = number of modules in the connector, with a pressure of 0.2 Mpa recommended for a single RT2 connector module) to an effective one, which is then recorded as reference for future crimping processes of the same kind of products. Observe the quality of the process after crimping, making sure that the displacement output is uniform and over pressure is avoided during the process, and that there's no gap between the connector and the PCB when crimping is done. Apply thread fixative glue to the fastening screws and then mount them to the housing, completing the assembly process.

连接器插头（不加固）的安装

将连接器模块部件分别与印制板压配到一起，把导向附件安装于印制板上并用螺钉锁紧。具体步骤大致与加固型插头一致。

Mounting of plug connectors

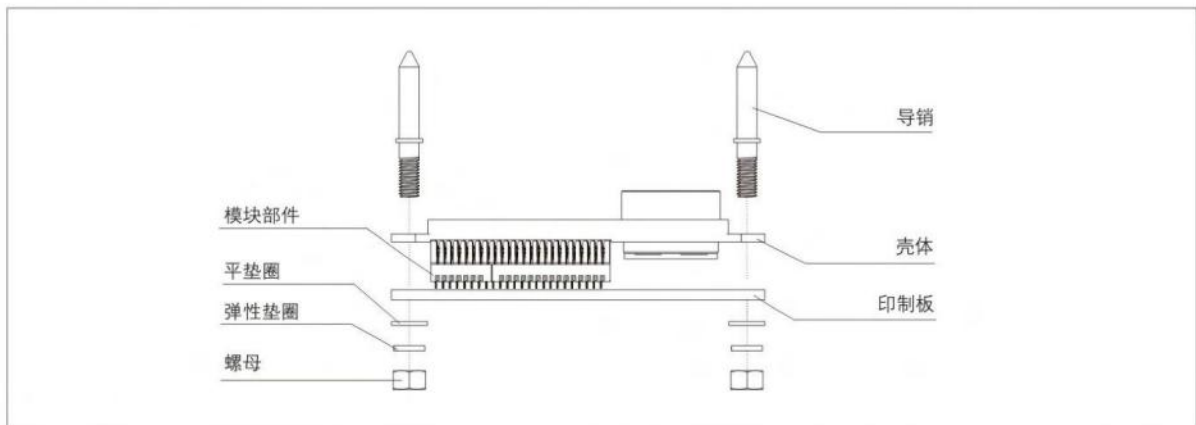


加固型连接器插座的安装

JVPX 系列连接器插座安装如下：先将模块部件压配到印制板上，然后将壳体与模块部件装配到一起，最后装上导销（带有识别键位），用螺母拧紧固定。

Mounting of receptacle connectors

JVPX Series receptacle connectors shall be mounted in the following way: first mount the inserts onto the PCB, then mount the housing of the receptacle onto the sub-assembly, and finally mount the guide poles (with identification keys) and join them together with nuts.



具体步骤如下：

第一步：观察结构、确定安装方式

拿到VPX 系列插座连接器时首先观察产品的结构特点，插座连接器压接插针部分露出绝缘体1.62mm，如果印制板背板厚度小于1.62mm，须在背板背面增加垫板避开露出部分，否则会破坏产品。

Step one: Observe the structure of the receptacle and determinate the mounting method

Observe the structural features of the product before mounting the VPX series receptacle connector; please note that the top of the receptacle connector contacts is 1.62 mm above the inserts, which means that a cushion plate would be needed if the thickness of the PCB is less than 1.62 mm, in order to protect the exposed tips of the contacts on the back of the PCB and to avoid damage to the product.

插座连接器因结构限制，无法设计为一体化结构，故名义上为散件包装，即插座壳体，导向附件及插座连接器模块。因此，插座连接器安装与插头连接器安装有所不同，可采用单个插座连接器模块安装。用户在接到产品后严禁将内部连接器模块顺序打乱，以免造成产品装配后无法使用。单个连接器模块装配时按照 J0 到 J6 的顺序依次安装。

第二步：进行试装

以上步骤完成后，将单个连接器模块对照过孔位置扣在印制板背板上，然后采用合适工具套在插座连接器上方，防止连接器被破坏。

第三步：进行试压配

待以上步骤完成后（避开露出结构防止被破坏，一般增加垫板和压板），因压力机规格存在差异，首次试压将压力调整为较小值（原则上要 $\leq 0.3 \times n$ Mpa，“n”为连接器全模块数量，单个连接器模块推荐压力在 0.3Mpa 左右，可以根据模块数量进行推算），然后逐步调整压力至有效值，记录该有效值，作为以后压配同类产品的参考。

内部连接器模块安装后，需对安装的质量进行检查，保证连接器与印制板贴合面无间隙存在，且在安装过程中保证内部接触件未受到任何破坏。最后将插座壳体和导向附件装配到印制板上，装配时导销键位应与插头连接器导套键位保持一致，否则无法对插使用（若键位与插头连接器键位不一致，建议更改插座连接器键位）。

The receptacle connector is unable to be designed as one piece due to its structural restrictions, and is therefore packed in a so-called loose package, which contains the housing, the guide accessories and the receptacle connector modules. Thus the mounting method of a receptacle connector is somewhat different from that of a plug connector, and receptacle modules can be mounted individually. The sequence order of the connector modules shall not be disrupted by user after receiving the product, in order to avoid product malfunction after its being assembled. Mount individual modules in positions from J0 to J6 sequentially.

Step two: Trial-assembly

Fit individual connector modules up onto the PCB in accordance with the positions of the through-holes after the aforementioned procedure is completed, and then cover the receptacle connector with suitable tool to prevent its being damaged.

Step three: Trial-crimp

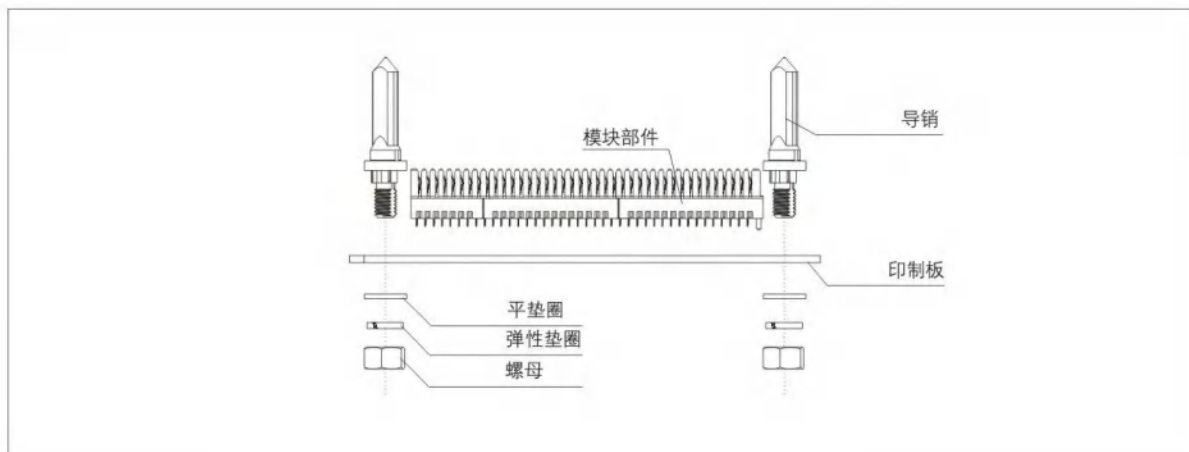
Crimp the assembly under a punching machine after the aforementioned procedure is completed, and a cushion plate is normally used to avoid damage to the exposed structures. Gradually increase the pressure from a small initial value ($\leq 0.3 \times n$ Mpa by principle, where n = number of modules in the connector, with a pressure of 0.3 Mpa recommended for a single receptacle connector module) to an effective one, which is then recorded as reference for future crimping processes of the same kind of products.

Observe the quality of the process after the installation of internal connector modules, making sure that there's no gap between the connector and the PCB and that internal contacts are not damaged. Finally mount the housing and the guide accessories onto the PCB. Remember to keep the guide pole keys in accordance with the guide conduits of the plug connector to avoid the inability of mating a plug and a receptacle with incompatible key structures (in which case, alteration of receptacle connector keys is recommended).

连接器插座(不加固)的安装

将连接器模块部件分别与印制板压配到一起，装上导销用螺母拧紧固定。具体步骤大致与加固型插座一致。

Mounting of receptacle connectors



导向键位及安装方法

导向键位在产品型号命名中统一使用键位代号“8”，因为产品出厂时，导向键位附件是散件提供，具体使用时，用户可根据实际使用情况现场调整防错插键的位置。“8”仅表示连接器配有导向防误插附件，无“8”就不配导向防误插附件。这样可以简化连接器的型号。

3U 连接器有2对导销导套，6U 连接器有3对导销导套，每对导销导套有8个键位，可以防止相同型号的连接器的错装，即每个型号的3U 连接器有64种不同的键位组合形式，每个型号的6U 连接器有512种不同的键位组合形式，用以防止错装。每对导销导套有8个键位，使用时需要导销、导套的键位一致，才能保证连接器的正常对插。

Guide key configurations and mounting method

The key code is uniformly designated as "8" when designating products' types, because the user is able to customize the key configurations in the field by assembling the loose-packed guide accessories differently. "8" The code "8" only indicates the existence of mismatch-proof accessories together with the connector, and its absence means the opposite, which therefore simplifies the designation of connector types.

The 3U connector has 2 pairs of guide poles and guide conduits, the 6U connector has 3 pairs, with 8 different key configurations for each pair, which, in other words, means 64 different key combinations for the 3U connector, and 512 combinations for the 6U, thus preventing plugs and receptacles with incompatible key combinations from mismatch.

键位代号 Key configuration code	键位界面示意图 Key interface diagram	键位代号 Key configuration code	键位界面示意图 Key interface diagram	键位代号 Key configuration code	键位界面示意图 Key interface diagram
0		1		2	
3		4		5	
6		7		8	

插头导套的装配

在连接器插头上安装导向的附件主要是导套和螺钉，把导套安装在连接器插头上，再利用螺钉进行固定。

Mounting of plug guide conduits

The accessories needing to be mounted on the plug are guide conduits and elastic retainer rings, with the former mounted on the plug first and fixed by the latter.

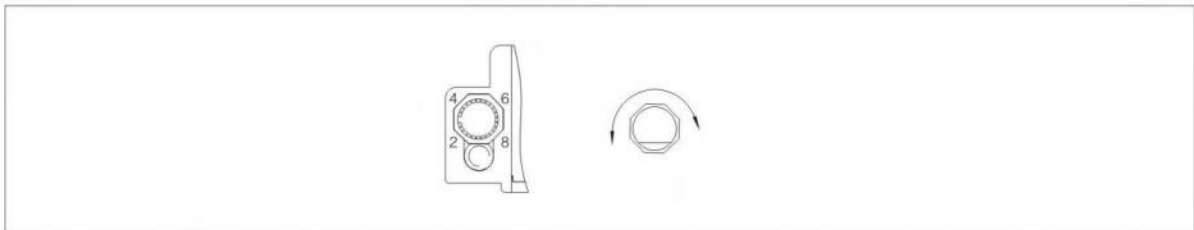


安装步骤:

1) 首先确定连接器的键位，有8个方向可选；

Installation procedure:

1) First, determine which key configuration to adopt, since there are 8 different orientations to choose from.



2) 键位确定后，将导套装入插头连接器的导套孔内，安装到位。注意导套的八方结构与壳体的八方结构相适应。

2) Once the configuration is determined, put the guide conduit in place inside the conduit slot on the plug connector.

Please note that the octagonal shape of the guide conduit is compatible with the octagonal hole on the housing.



3) 导套安装到位后，将螺钉安装入壳体，使其压住导套。

3) When the guide sleeve is installed in place, the screw is installed into the shell.



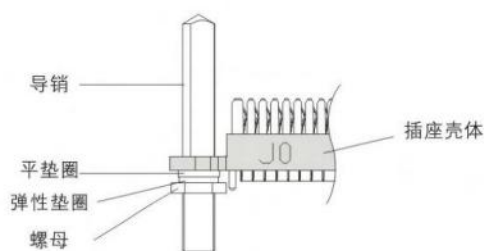
至此，导套装配完毕，若要更换导套的键位，取下螺钉，更换键位后按照以上安装步骤安装即可。

So far the installation of the elastic retainer conduit is completed.

插座导销的装配

在连接器插座上安装导向的附件主要是导销、平垫圈、弹性挡圈和螺母。

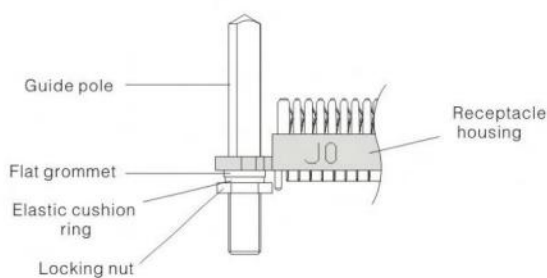
导销安装时，首先要确定导销的键位（与配合插头导套的键位一致），然后将导销按照键位装入壳体（注意导销八方与壳体八方的配合），依次放上平垫圈、弹性垫圈，拧紧螺母即可。若要调整键位，将螺母松开，导销脱离壳体的八方，转动导销到需要的键位再装入壳体即可。



Mounting of the guide pole

The accessories needing to be mounted on the receptacle are guide poles, flat grommets, elastic cushion rings and locking nuts.

Determine the orientation of the guide pole (making sure its key configuration is compatible with that of the conduit of the the intermating plug) before mounting, put the guide pole into the housing accordingly (with the octagonal hole on the housing accommodating the octagonal guide pole), install the flat grommet, the elastic cushion ring and the locking nut sequentially, and then fasten the locking nut. If alteration of the key configuration is needed, do as follows: loosen up the locking nut, release the guide pole by pull it off the housing, turn the guide pole to the wanted new orientation and then install it back on.



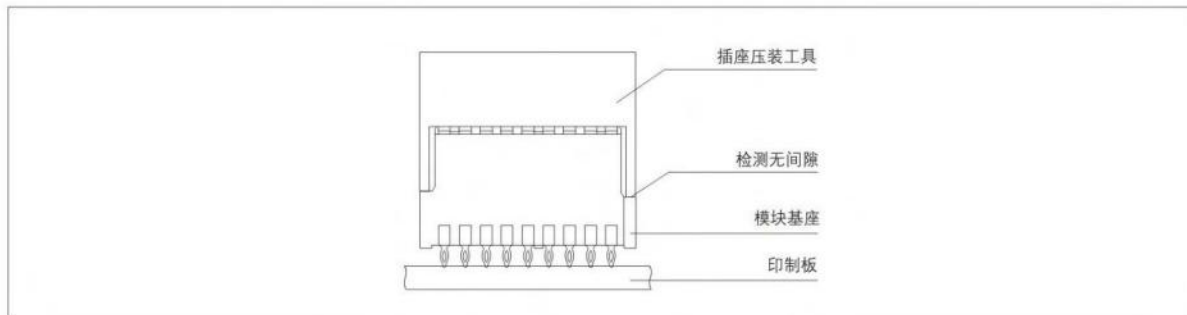
接触件免焊压接印制板使用说明

JVPX系列连接器高速部分与印制板间是免焊压配结构，该功能的实现是依靠连接器接触件的高强度弹性的鱼眼结构保证的，接触件与印制板过孔间是过盈配合，一旦模块出现问题，可采用取卸工具实现产品的可拆卸性。取卸工具可根据不同板厚和模块列数进行选择。对于免焊式电连接模块，需用专用工具在设备上压入或取出印制板。

注意：产品一旦取出，不可再次使用，但不会影响印制板的使用（印制板通常可用四次）。

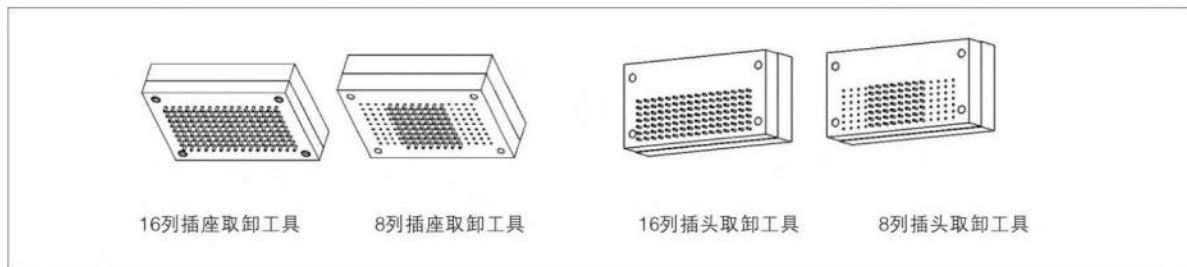
压装印制板 Half module type spectrum

- 1、安装之前，检查电连接模块的接触件是否存在弯曲折断现象。
- 2、将产品的电连接模块与印制板的腔位相对应，将模块按鱼眼孔位初固定于印制板面上。
- 3、将电连接模块与工具垂直对应，插座压装工具按照右图所示放于模块基座上端，检查工具与模块之间是否存在间隙，正确的位置两侧不会存在间隙。
- 4、先将放置好的电连接模块及工具平放于压床上，然后将压头平放于工具上，最后将模块鱼眼均匀缓慢压入印制板（半模块建议采用压入力为0.2MPa，全模块建议压力为0.3MPa），压配到位后稍停3~5s后再撤销压力。
- 5、最后上外壳及相应附件。



从印制板上取卸 Unloading instructions

- 1、将取卸工具上的插针从印制板背面与过孔对准。
- 2、放在压床上垂直压合。
- 3、将连接器取出后再将工装取出（不会伤到印制板过孔）。

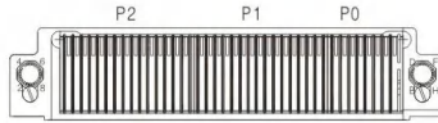


JVPX系列主要产品及型号

Major types of JVPX series

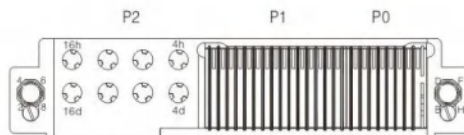
3U连接器

3U connectors



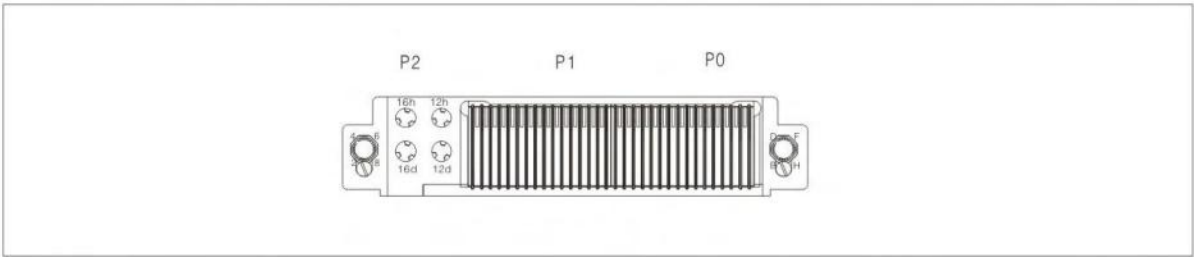
插头/插座型号	信号形式
JVPX-21T8aAB8-A/ JVPX-21Z8eIJ8-A	P0 为基础模块, P1为差分模块, P2为单端模块, 共6组电源+36对差分+104芯单端
JVPX-21T8aAA8-A/ JVPX-21Z8eIJ8-A	P0 为基础模块, P1、P2为差分模块, 共6组电源+68对差分+32芯单端
JVPX-21T8aBB8-A/ JVPX-21Z8eIJ8-A	P0 为基础模块, P1、P2为单端模块, 共6组电源+4对差分+176芯单端
JVPX-21T8aCB8-A/ JVPX-21Z8eIJ8-A	P0 为基础模块, P1为差分电源混装模块, P2为单端模块, 共12组电源+24对差分+116芯单端
JVPX-21T8aAC8-B/ JVPX-21Z8eIJ8-A	P0 为基础模块, P1为差分模块, P2为单端混合模块, 共6组电源+52对差分+60芯单端

Plug / receptacle type	Signal channel arrangement
JVPX-21T8aAB8-A/ JVPX-21Z8eIJ8-A	The basic module is in position P0, one differential module is in P1, and one single-ended module is in P2, through which there are totally 6 power connection sets + 36 differential pairs + 104 single-ended channels
JVPX-21T8aAA8-A/ JVPX-21Z8eIJ8-A	The basic module is in position P0, and two differential modules are in P1 and P2, through which there are totally 6 power connection sets + 68 differential pairs + 32 single-ended channels
JVPX-21T8aBB8-A/ JVPX-21Z8eIJ8-A	The basic module is in position P0, and two single-ended modules are in P1 and P2, through which there are totally 6 power connection sets + 4 differential pairs + 176 single-ended channels
JVPX-21T8aCB8-A/ JVPX-21Z8eIJ8-A	The basic module is in position P0, one differential module with both differential and power contacts is in P1, and one single-ended module is in P2, through which there are totally 12 power connection sets + 24 differential pairs + 116 single-ended channels
JVPX-21T8aAC8-B/ JVPX-21Z8eIJ8-A	The basic module is in position P0, one differential module is in P1, and one module with both single-ended and differential contacts is in P2, through which there are totally 6 power connection sets + 52 differential pairs + 60 single-ended channels

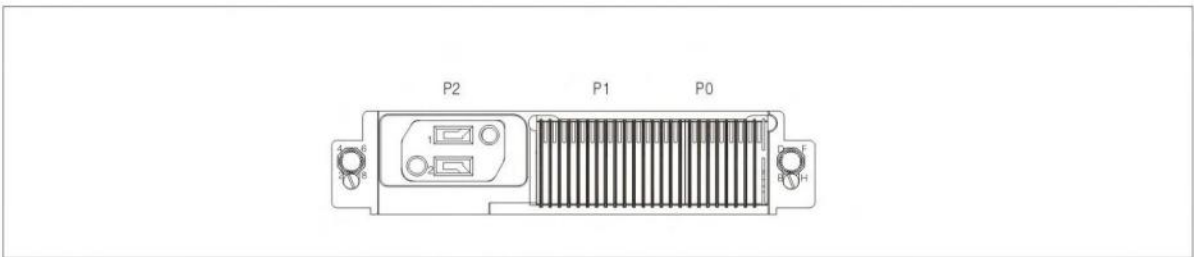


插头/插座型号	信号形式
JVPX-21T8aAD8-A/ JVPX-21Z8eJD8-A	高低频混装 P0 为基础模块, P1为差分模块, P2为8芯射频, 共6组电源+36对差分+24芯单端+8芯射频

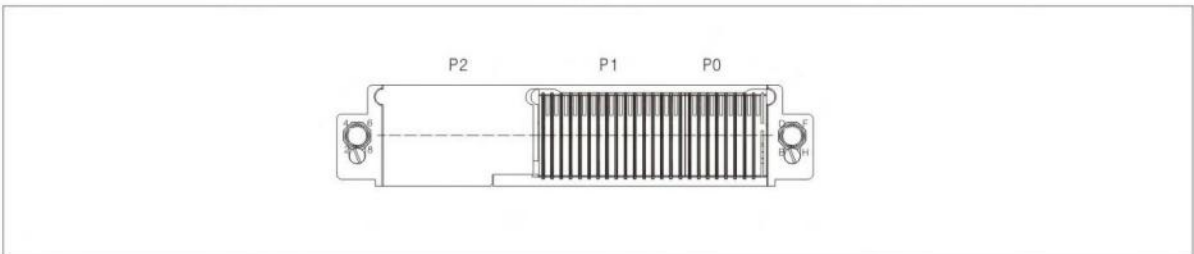
Plug / receptacle type	Signal channel arrangement
JVPX-21T8aAD8-A/ JVPX-21Z8eJD8-A	Connector with both high frequency and low frequency contacts The basic module is in position P0, one differential module is in P1, and one 8-pole RF module is in P2, through which there are totally 6 power connection sets + 36 differential pairs + 24 single-ended channels + 8 RF pathways



插头/插座型号	信号形式	Plug / receptacle type	Signal channel arrangement
JVPX-21T8CAd8-A/ JVPX-21Z8IJd8-A	高低频混装 共6组电源+52对差分+28芯单端 +4芯射频	JVPX-21T8CAd8-A/ JVPX-21Z8IJd8-A	Connector with both high frequency and low frequency contacts Totally 6 power connection sets + 52 differential pairs + 28 single-ended channels + 4 RF pathways



插头/插座型号	信号形式	Plug / receptacle type	Signal channel arrangement
JVPX-21T8aAG8-A/ JVPX-21Z8eJG8-A	光电混装 P0为基础模块, P1为差分模块, P2为2芯MT光纤接触件, 共6组电 源+36对差分+24芯单端+2芯MT光 纤接触件	JVPX-21T8aAG8-A/ JVPX-21Z8eJG8-A	Connector with both optical and electrical contacts The basic module is in position P0, one differential module is in P1, and one 2-kernel MT optical module is in P2, through which there are totally 6 power connection sets + 36 differential pairs + 24 single-ended channels + 24 MT optical links



插头/插座型号	信号形式	Plug / receptacle type	Signal channel arrangement
JVPX-21T8aAN8-A/ JVPX-21Z8eJN8-A	P0为基础模块, P1为差分模块, P2空模块, 共6组电源+36对差分 +24芯单端	JVPX-21T8aAN8-A/ JVPX-21Z8eJN8-A	The basic module is in position P0, one differential is module in P1, and one empty module is in P2, through which there are totally 6 power connection sets + 36 differential pairs + 24 single-ended channels

6U连接器

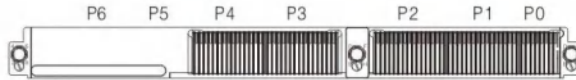
6U connectors



插头/插座型号	信号形式
JVPX-61T8aAB8AABB8-A/ JVPX-61Z8eIJ8IIIJ8-A	P0 为基础模块, P1、P3、P4为差分模块, P2、P5、P6为单端模块, 共6组电源+100对差分+280芯单端
JVPX-61T8aAA8AAAA8-A/ JVPX-61Z8eIJ8IIIJ8-A	P0 为基础模块, P1~P6为差分模块, 共6组电源+196对差分+64芯单端
JVPX-61T8aAB8AAAA8-A/ JVPX-61Z8eIJ8IIIJ8-A	P0 为基础模块, P1、P3~P6为差分模块, P2为单端模块, 共6组电源+164对差分+136芯单端
JVPX-61T8aBB8BBBB8-B/ JVPX-61Z8eIJ8IIIJ8-A	P0 为基础模块(特殊), P1~P6为单端模块, 共10组电源+495芯单端 “-B”为同型谱识别代号, 此型号中指P0处基础模块a有更改, 现为5列电源3列单端

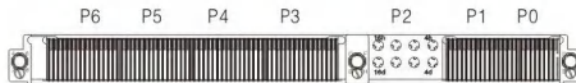
Plug / receptacle type	Signal channel arrangement
JVPX-61T8aAB8AABB8-A/ JVPX-61Z8eIJ8IIIJ8-A	The basic module is in position P0, three differential modules are in P1, P3 and P4, and three single-ended modules are in P2, P5 and P6, through which there are totally 6 power connection sets + 100 differential pairs + 280 single-ended channels
JVPX-61T8aAA8AAAA8-A/ JVPX-61Z8eIJ8IIIJ8-A	The basic module is in position P0, and six differential modules are in P1 to P6, through which there are totally 6 power connection sets + 196 differential pairs + 64 single-ended channels
JVPX-61T8aAB8AAAA8-A/ JVPX-61Z8eIJ8IIIJ8-A	The basic module is in position P0, five differential modules are in P1 and P3 to P6, and one single-ended module is in P2, through which there are totally 6 power connection sets + 164 differential pairs + 136 single-ended channels
JVPX-61T8aBB8BBBB8-B/ JVPX-61Z8eIJ8IIIJ8-A	A special variation version of the basic module is in position P0, and six single-ended modules are in P1 to P6, through which there are totally 10 power connection sets + 495 single-ended channels

Note: the code “-B” denotes a specific model within the same type spectrum. For this type, the special variation version of the basic module in position P0 is with 5 columns of power contacts and 3 columns of single-ended ones



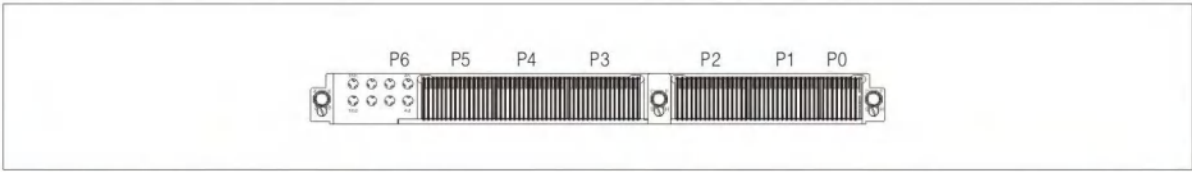
插头/插座型号	信号形式
JVPX-61T8aAA8AANN8-A/ JVPX-61Z8eIJ8IJNN8-A	P0 为基础模块, P1~P4为差分模块, P5、P6 为空模块, 共6组电源+132对差分+48芯单端

Plug / receptacle type	Signal channel arrangement
JVPX-61T8aAA8AANN8-A/ JVPX-61Z8eIJ8IJNN8-A	The basic module is in position P0, four differential modules are in P1 to P4, and two empty modules are in P5 and P6, through which there are totally 6 power connection sets + 132 differential pairs + 48 single-ended channels



插头/插座型号	信号形式
JVPX-61T8aAD8AAAA8-A/ JVPX-61Z8eJD8IIIJ8-A	高低频混装 P0 为基础模块, P1、P3~P6为差分模块, P2 为射频模块, 共6组电源+164对差分+56芯单端+8芯射频

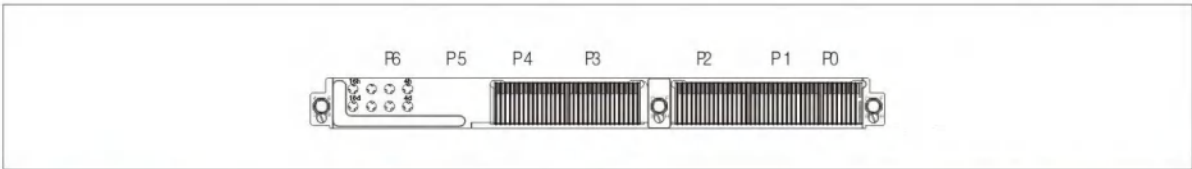
Plug / receptacle type	Signal channel arrangement
JVPX-61T8aAD8AAAA8-A/ JVPX-61Z8eJD8IIIJ8-A	Connector with both high frequency and low frequency contacts The basic module is in position P0, five differential modules are in P1 and P3 to P6, and one RF module is in P2, through which there are totally 6 power connection sets + 164 differential pairs + 56 single-ended channels + 8 RF pathways



插头/插座型号	信号形式
JVPX-61T8aAB8AAD8-A/ JVPX-61Z8eIJ8IJD8-A	高低频混装 P0 为基础模块, P1、P3~P5 为差分模块, P2 为单端模块, P6 为射频模块, 共 6 组电源+132 对差分+128 芯单端+8 芯射频
JVPX-61T8aAA8ABD8-A/ JVPX-61Z8eIJ8IJD8-A	高低频混装 P0 为基础模块, P1、P2、P4 为差分模块, P3、P5 为单端模块, P6 为射频模块, 共 6 组电源+100 对差分+200 芯单端+8 芯射频
JVPX-61T8aBB8AAD8-B/ JVPX-61Z8eIJ8IJD8-A	高低频混装 P0 为基础模块(特殊), P3~P5 为差分模块, P1、P2 为单端模块, P6 为射频模块, 共 10 组电源+96 对差分+199 芯单端+8 芯射频 “-B” 为同型谱识别代号, 此型号中指 P0 处基础模块 a 有更改, 现为 5 列电源 3 列单端

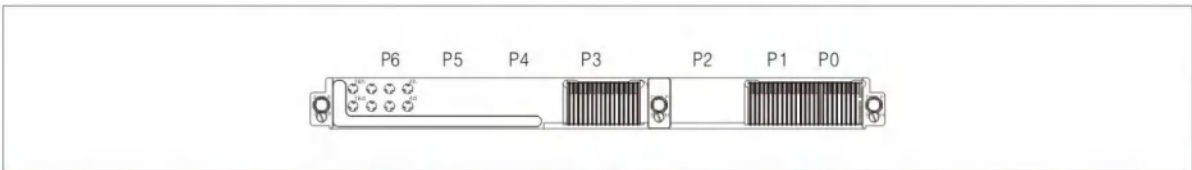
Plug / receptacle type	Signal channel arrangement
JVPX-61T8aAB8AAD8-A/ JVPX-61Z8eIJ8IJD8-A	The basic module is in position P0, four differential modules are in P1 and P3 to P5, and one single-ended module is in P6, through which there are totally 6 set of power connections + 132 differential pairs + 128 single-ended channels + 8 RF pathways
JVPX-61T8aAA8ABD8-A/ JVPX-61Z8eIJ8IJD8-A	Connector with both high frequency and low frequency contacts The basic module is in position P0, three differential modules are in P1, P2 and P4, two single-ended modules are in P3 and P5, and one RF module is in P6, through which there are totally 6 power connection sets + 100 differential pairs + 200 single-ended channels + 8 RF pathways
JVPX-61T8aBB8AAD8-B/ JVPX-61Z8eIJ8IJD8-A	Connector with both high frequency and low frequency contacts A special variation version of the basic module is in position P0, three differential modules are in P3 to P5, two single-ended modules are in P1 and P2, and one RF module is in P6, through which there are totally 10 power connection sets + 96 differential pairs + 199 single-ended channels + 8 RF pathways

Note: the code “-B” denotes a specific model within the same type spectrum. For this type, the special variation version of the basic module in position P0 is with 5 columns of power contacts and 3 columns of single-ended ones.



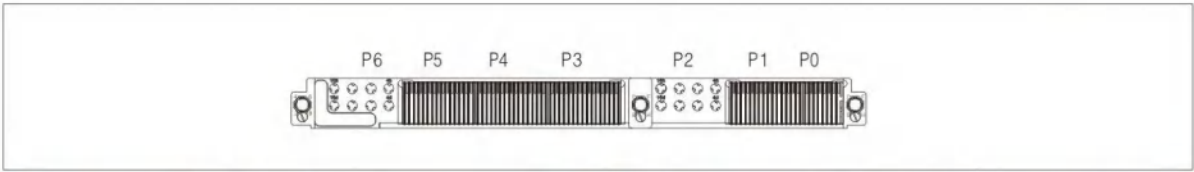
插头/插座型号	信号形式
JVPX-61T8aAA8AAND8-A/ JVPX-61Z8eIJ8IJD8-A	高低频混装 P0 为基础模块, P1~P4 为差分模块, P5 为空模块, P2 为射频模块, 共 6 组电源+132 对差分+48 芯单端+8 芯射频

Plug / receptacle type	Signal channel arrangement
JVPX-61T8aAA8AAND8-A/ JVPX-61Z8eIJ8IJD8-A	Connector with both high frequency and low frequency contacts The basic module is in position P0, five differential modules are in P1 to P4, one empty module is in P5, and one RF module is in P2, through which there are totally 6 power connection sets + 132 differential pairs + 48 single-ended channels + 8 RF pathways

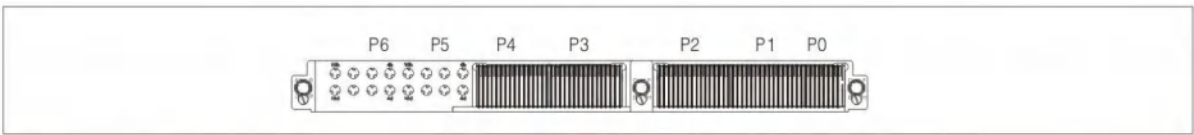


插头/插座型号	信号形式
JVPX-61T8aAN8ANND8-A/ JVPX-61Z8eJN8JNND8-A	高低频混装 P0 为基础模块, P1、P3 为差分模块, P2、P4、P5 为空模块, P6 为射频模块, 共 6 组电源+68 对差分+32 芯单端+8 芯射频

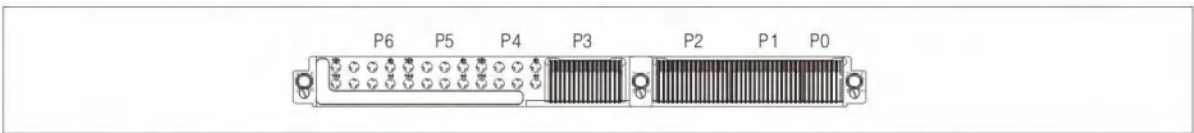
Plug / receptacle type	Signal channel arrangement
JVPX-61T8aAN8ANND8-A/ JVPX-61Z8eJN8JNND8-A	Connector with both high frequency and low frequency contacts The basic module is in position P0, two differential modules are in P1 and P3, three empty modules are in P2, P4 and P5, one RF module is in P6, through which there are totally 6 power connection sets + 68 differential pairs + 32 single-ended channels + 8 RF pathways



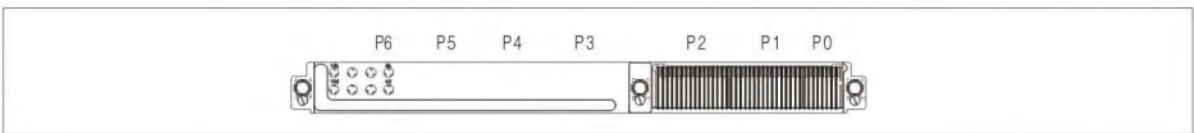
插头/插座型号	信号形式	Plug / receptacle type	Signal channel arrangement
JVPX-61T8aAD8AAAD8-A/ JVPX-61Z8eJD8IJD8-A	高低频混装 P0 为基础模块, P1、P3~P5 为差分模块, P2、P6 为射频模块, 共6组电源+132对差分+48芯单端+16芯射频	JVPX-61T8aAD8AAAD8-A/ JVPX-61Z8eJD8IJD8-A	Connector with both high frequency and low frequency contacts The basic module is in position P0, four differential modules are in P1 and P3 to P5, and two RF modules are in P2 and P6, through which there are totally 6 power connection sets + 132 differential pairs + 48 single-ended channels + 16 RF pathways



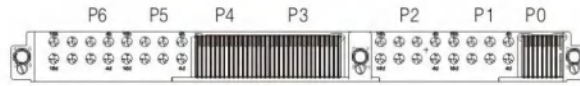
插头/插座型号	信号形式	Plug / receptacle type	Signal channel arrangement
JVPX-61T8aAB8AADD8-A/ JVPX-61Z8eIJ8IJD8-A	高低频混装 P0 为基础模块, P1、P3、P4 为差分模块, P2 为单端模块, P5、P6 为射频模块, 共6组电源+100对差分+120芯单端+16芯射频	JVPX-61T8aAB8AADD8-A/ JVPX-61Z8eIJ8IJD8-A	Connector with both high frequency and low frequency contacts The basic module is in position P0, three differential modules are in P1, P3 and P4, one single-ended module is in P2, and two RF modules are in P5 and P6, through which there are totally 6 power connection sets + 100 differential pairs + 120 single-ended channels + 16 RF pathways
JVPX-61T8aAA8AADD8-A/ JVPX-61Z8eIJ8IJD8-A	高低频混装 P0 为基础模块, P1~P4 为差分模块, P5、P6 为射频模块, 共6组电源+132对差分+48芯单端+16芯射频	JVPX-61T8aAA8AADD8-A/ JVPX-61Z8eIJ8IJD8-A	Connector with both high frequency and low frequency contacts The basic module is in position P0, four differential modules are in P1 to P4, and two RF modules are in P5 and P6, through which there are totally 6 power connection sets + 132 differential pairs + 48 single-ended channels + 16 RF pathways



插头/插座型号	信号形式	Plug / receptacle type	Signal channel arrangement
JVPX-61T8aAB8AADD8-A/ JVPX-61Z8eIJ8IJD8-A	高低频混装 P0 为基础模块, P1、P4 为差分模块, P2 为单端模块, P4~P6 为射频模块, 共6组电源+68对差分+112芯单端+24芯射频	JVPX-61T8aAB8AADD8-A/ JVPX-61Z8eIJ8IJD8-A	Connector with both high frequency and low frequency contacts The basic module is in position P0, two differential modules are in P1 and P4, one single-ended module is in P2, and three RF modules are in P4 to P6, through which there are totally 6 power connection sets + 68 differential pairs + 112 single-ended channels + 24 RF pathways



插头/插座型号	信号形式	Plug / receptacle type	Signal channel arrangement
JVPX-61T8aAA8NNND8-A/ JVPX-61Z8eIJ8NNND8-A	高低频混装 P0 为基础模块, P1、P2 为差分模块, P3~P5 为空白模块, P6 为射频模块, 共6组电源+68对差分+32芯单端+8芯射频	JVPX-61T8aAA8NNND8-A/ JVPX-61Z8eIJ8NNND8-A	Connector with both high frequency and low frequency contacts The basic module is in position P0, two differential modules are in P1 and P2, three empty modules are in P3 to P5, and one RF module is in P6, through which there are totally 6 power connection sets + 68 differential pairs + 32 single-ended channels + 8 RF pathways



插头/插座型号	信号形式
JVPX-61T8aDD8AADD8-A/ JVPX-61Z8fDD8IJDD8-A	高低频混装 P0 为基础模块, P3、P4为差分模块, P1、P2、P5、P6为射频模块, 共6组电源+68对差分+32芯单端+32芯射频
JVPX-61T8aDD8BADD8-B/ JVPX-61Z8fDD8IJDD8-A	高低频混装 P0 为基础模块(特殊), P4为差分模块, P3为单端模块, P1、P2、P5、P6为射频模块, 共10组电源+32对差分+103芯单端+32芯射频 <small>"-B" 为同型谱识别代号, 此型号中指P0处基础模块a有更改, 现为5列电源3列单端</small>
JVPX-61T8aDD8AADD8-B/ JVPX-61Z8fDD8IJDD8-A	高低频混装 P0 为基础模块(特殊), P3、P4为差分模块, P1、P2、P5、P6为射频模块, 共10组电源+64对差分+31芯单端+32芯射频 <small>"-B" 为同型谱识别代号, 此型号中指P0处基础模块a有更改, 现为5列电源3列单端</small>

Plug / receptacle type	Signal channel arrangement
JVPX-61T8aDD8AADD8-A/ JVPX-61Z8fDD8IJDD8-A	Connector with both high frequency and low frequency contacts The basic module is in position P0, two differential modules are in P3 and P4, and four RF modules are in P1, P2, P5 and P6, through which there are totally 6 power connection sets + 68 differential pairs + 32 single-ended channels + 32 RF pathways
JVPX-61T8aDD8BADD8-B/ JVPX-61Z8fDD8IJDD8-A	Connector with both high frequency and low frequency contacts A special variation version of the basic module is in position P0, one differential module is in P4, one single-ended module is in P3, and four RF modules are in P1, P2, P5 and P6, through which there are totally 10 power connection sets + 32 differential pairs + 103 single-ended channels + 32 RF pathways
JVPX-61T8aDD8AADD8-B/ JVPX-61Z8fDD8IJDD8-A	Connector with both high frequency and low frequency contacts A special variation version of the basic module is in position P0, two differential modules are in P3 and P4, and four RF modules are in P1, P2, P5 and P6, through which there are totally 10 power connection sets + 64 differential pairs + 31 single-ended channels + 32 RF pathways

Note: the code "-B" denotes a specific model within the same type spectrum. For this type, the special variation version of the basic module in position P0 is with 5 columns of power contacts and 3 columns of single-ended ones



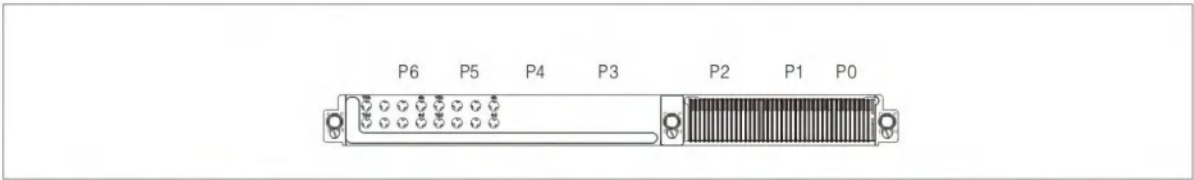
插头/插座型号	信号形式
JVPX-61T8aAN8NNND8-A/ JVPX-61Z8eJN8NNND8-A	高低频混装 P0 为基础模块, P1为差分模块, P2~P5为空白模块, P6 为射频模块, 共6组电源+36对差分+24芯单端+8芯射频

Plug / receptacle type	Signal channel arrangement
JVPX-61T8aAN8NNND8-A/ JVPX-61Z8eJN8NNND8-A	Connector with both high frequency and low frequency contacts The basic module is in position P0, one differential module is in P1, four empty modules are in P2 to P5, and one RF module is in P6, through which there are totally 6 power connection sets + 36 differential pairs + 24 single-ended channels + 8 RF pathways



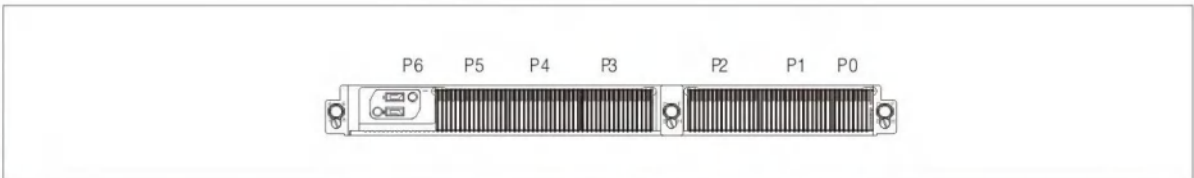
插头/插座型号	信号形式
JVPX-61T8aAA8AADN8-A/ JVPX-61Z8eIJ8IJDN8-A	高低频混装 P0 为基础模块, P1~P4为差分模块, P5为射频模块, P6为空白模块, 共6组电源+132对差分+48芯单端+8芯射频

Plug / receptacle type	Signal channel arrangement
JVPX-61T8aAA8AADN8-A/ JVPX-61Z8eIJ8IJDN8-A	Connector with both high frequency and low frequency contacts The basic module is in position P0, four differential modules are in P1 to P4, one RF module is in P5, and one empty module is in P6, through which there are totally 6 power connection sets + 132 differential pairs + 48 single-ended channels + 8 RF pathways



插头/插座型号	信号形式
JVPX-61T8aAA8NNDD8-A/ JVPX-61Z8eIJ8NNDD8-A	<p>高低频混装</p> <p>P0 为基础模块, P1、P2为差分模块, P3、P4为空白模块, P5、P6为射频模块, 共6组电源+68对差分+32芯单端+16芯射频</p>

Plug / receptacle type	Signal channel arrangement
JVPX-61T8aAA8NNDD8-A/ JVPX-61Z8eIJ8NNDD8-A	<p>Connector with both high frequency and low frequency contacts</p> <p>The basic module is in position P0, two differential modules are in P1 and P2, two empty modules are in P3 and P4, and two RF modules are in P5 and P6, through which there are totally 6 power connection sets + 68 differential pairs + 32 single-ended channels + 16 RF pathways</p>



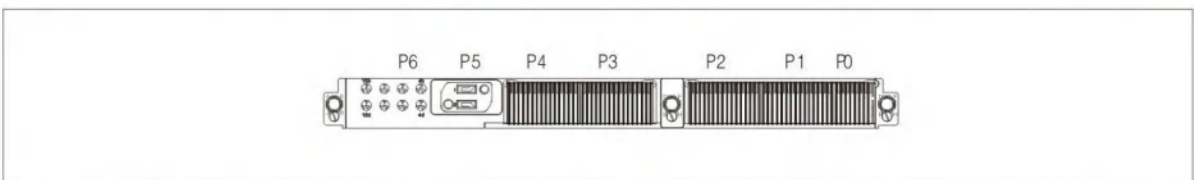
插头/插座型号	信号形式
JVPX-61T8aAA8AAAG8-A/ JVPX-61Z8eIJ8IJG8-A	<p>光电混装</p> <p>P0 为基础模块, P1~P5为差分模块, P6为MT光纤模块, 共6组电源+164对差分+56芯单端+2芯MT光纤接触件</p> <p>1芯MT可传12路光信号</p>

Plug / receptacle type	Signal channel arrangement
JVPX-61T8aAA8AAAG8-A/ JVPX-61Z8eIJ8IJG8-A	<p>Connector with both optical and electrical contacts</p> <p>The basic module is in position P0, five differential modules are in P1 to P5, and one 2-kernel MT optical module is in P6, through which there are totally 6 power connection sets + 164 differential pairs + 56 single-ended channels + 24 MT optical links</p>

插头/插座型号	信号形式
JVPX-61T8aAB8AAAG8-A/ JVPX-61Z8eIJ8IJG8-A	<p>光电混装</p> <p>P0 为基础模块, P1、P3~P5为差分模块, P2为单端模块, P6为MT光纤模块, 共6组电源+132对差分+128芯单端+2芯MT光纤接触件</p> <p>1芯MT可传12路光信号</p>

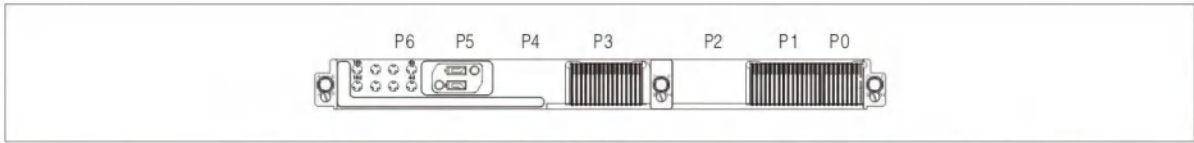
Plug / receptacle type	Signal channel arrangement
JVPX-61T8aAB8AAAG8-A/ JVPX-61Z8eIJ8IJG8-A	<p>Connector with both optical and electrical contacts</p> <p>The basic module is in position P0, four differential modules are in P1 and P3 to P5, one single-ended module is in P2, one 2-kernel MT optical module is in P6, through which there are totally 6 power connection sets + 132 differential pairs + 128 single-ended channels + 24 optical links</p>

1 MT kernel carries 12 optical links

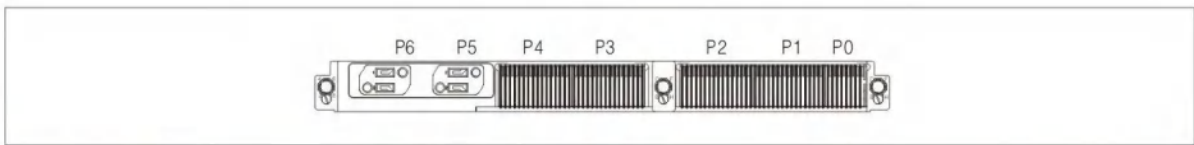


插头/插座型号	信号形式
JVPX-61T8aAB8AAGD8-A/ JVPX-61Z8eIJ8IJGD8-A	<p>光电射频混装</p> <p>P0 为基础模块, P1、P3、P4为差分模块, P2为单端模块, P5为MT光纤模块, P6为射频模块, 共6组电源+100对差分+120芯单端+8芯射频+2芯MT光纤接触件</p>

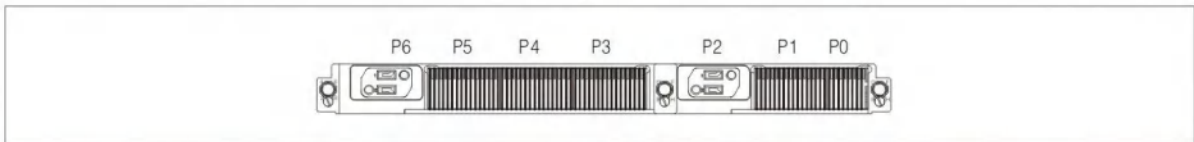
Plug / receptacle type	Signal channel arrangement
JVPX-61T8aAB8AAGD8-A/ JVPX-61Z8eIJ8IJGD8-A	<p>Connector with optical, high frequency and low frequency contacts</p> <p>The basic module is in position P0, three differential modules are in P1, P3 and P4, one single-ended module is in P2, one 2-kernel MT optical module is in P5, and one RF module is in P6, through which there are totally 6 power connection sets + 100 differential pairs + 120 single-ended channels + 8 RF pathways + 24 MT optical links</p>



插头/插座型号	信号形式	Plug / receptacle type	Signal channel arrangement
JVPX-61T8aAN8ANGD8-A/ JVPX-61Z8eJN8JNGD8-A	光电射频混装 P0 为基础模块, P1、P3为差分模块, P2、P4为空模块, P5为MT光纤模块, P6为射频模块, 共6组电源+68对差分+32芯单端+8芯射频+2芯MT光纤接触件 <small>1芯MT可传12路光信号</small>	JVPX-61T8aAN8ANGD8-A/ JVPX-61Z8eJN8JNGD8-A	Connector with optical, high frequency and low frequency contacts The basic module is in position P0, two differential modules are in P1 and P3, two empty modules are in P2 and P4, one 2-kernel MT optical module is in P5, and one RF module is in P6, through which there are totally 6 power connection sets + 68 differential pairs + 32 single-ended channels + 8 RF pathways + 24 MT optical links



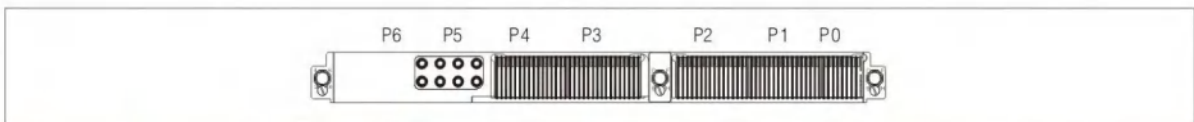
插头/插座型号	信号形式	Plug / receptacle type	Signal channel arrangement
JVPX-61T8aAA8AAGG8-A/ JVPX-61Z8eIJ8IJGG8-A	光电混装 P0 为基础模块, P1~P4为差分模块, P5、P6为MT光纤模块, 共6组电源+132对差分+48芯单端+4芯MT光纤接触件 <small>1芯MT可传12路光信号</small>	JVPX-61T8aAA8AAGG8-A/ JVPX-61Z8eIJ8IJGG8-A	Connector with both optical and electrical contacts The basic module is in position P0, four differential modules are in P1 to P4, and two 2-kernel MT optical modules are in P5 and P6, through which there are totally 6 power connection sets + 132 differential pairs + 48 single-ended channels + 48 MT optical links



插头/插座型号	信号形式	Plug / receptacle type	Signal channel arrangement
JVPX-61T8aBG8AAAG8-B/ JVPX-61Z8eJG8IJG8-A	光电混装 P0 为基础模块, P1为单端模块, P3~P5为差分模块, P2、P6为MT光纤模块, 共6组电源+100对差分+120芯单端+4芯MT光纤接触件 <small>1芯MT可传12路光信号</small>	JVPX-61T8aBG8AAAG8-B/ JVPX-61Z8eJG8IJG8-A	Connector with both optical and electrical contacts The basic module is in position P0, one single-ended module is in P1, three differential modules are in P3 to P5, two 2-kernel MT optical modules are in P2 and P6, through which there are totally 6 power connection sets + 100 differential pairs + 120 single-ended channels + 48 MT optical links <small>1 MT kernel carries 12 optical links</small>

"-B" 为同型谱识别代号, 此型号中指P0处基础模块a有更改, 现为5列电源3列单端

Note: the code "-B" denotes a specific model within the same type spectrum. For this type, the special variation version of the basic module in position P0 is with 5 columns of power contacts and 3 columns of single-ended ones



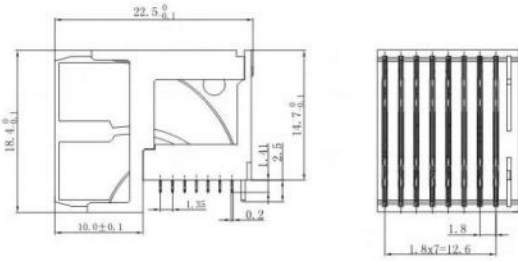
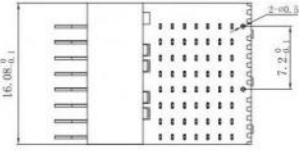
插头/插座型号	信号形式	Plug / receptacle type	Signal channel arrangement
JVPX-61T8aAA8AADN8-B/ JVPX-61Z8eIJ8IJDN8-B	P0 为基础模块, P1~P4为差分模块, P5为电源模块, P6为空模块, 共6组电源+132对差分+48芯单端+8芯电源接触件 "-B" 为同型谱识别代号, 此型号中指P0处基础模块a有更改, 现为5列电源3列单端	JVPX-61T8aAA8AADN8-B/ JVPX-61Z8eIJ8IJDN8-B	A special variation version of the basic module is in position P0, four differential modules are in P1 to P4, one power module is in P5, and one empty module in P6, through which there are totally 6 power connection sets + 132 differential pairs + 48 single-ended channels + 8 higher power connections

Note: the code "-B" denotes a specific model within the same type spectrum. For this type, the special variation version of the basic module in position P0 is with 5 columns of power contacts and 3 columns of single-ended ones

VPX系列外形尺寸 Overall dimensions

弯式公端模块连接器 Bending male-end connectors

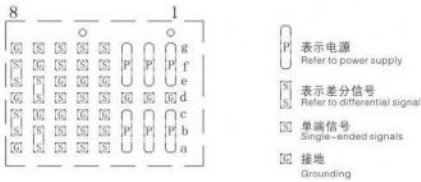
半模块弯式公端连接器 Bending male-end connectors



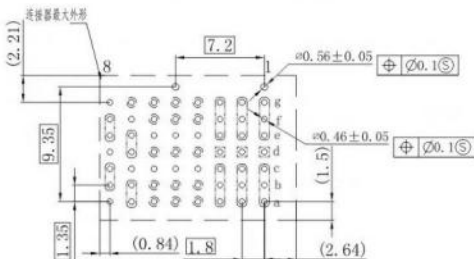
根据连接器内部PCB板布线方式的不同，其产品型号有：
 According to the different wiring methods of internal PCB of connector, the product types are as follows:

连接器型号 Type of connector	适用于 Applicable for	接触脚数量 Number of contact pins
J1410189-3	P0	56

J1410189-3弯式连接器内部PCB板分布图
 Internal PCB diagram of bending connector

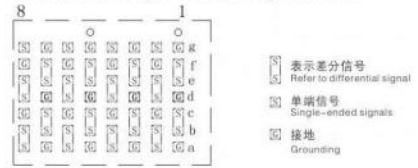


J1410189-3弯式连接器PCB板开孔
 PCB cut-out dimensions of bending connector

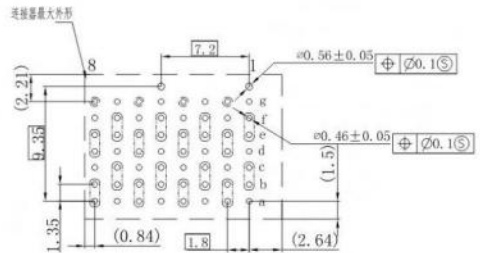


连接器型号 Type of connector	适用于 Applicable for	接触脚数量 Number of contact pins
J1410971-3	RP2	56

J1410971-3弯式连接器内部PCB板分布图
 Internal PCB diagram of bending connector

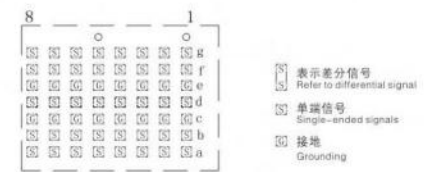


J1410971-3弯式连接器PCB板开孔
 PCB cut-out dimensions of bending connector

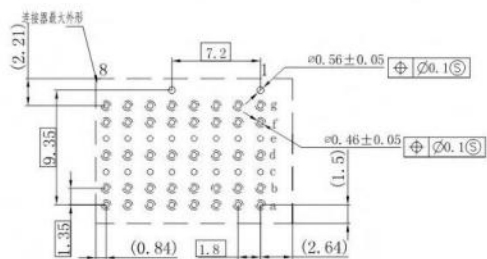


连接器型号 Type of connector	适用于 Applicable for	接触脚数量 Number of contact pins
J1410972-3	RP2	56

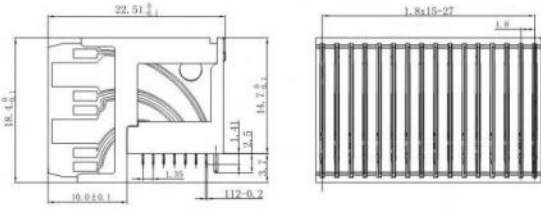
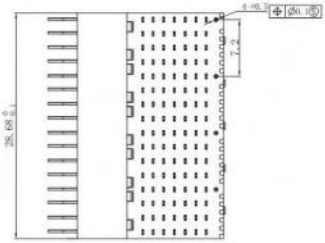
J1410972-3弯式连接器内部PCB板分布图
 Internal PCB diagram of bending connector



J1410972-3弯式连接器PCB板开孔
 PCB cut-out dimensions of bending connector



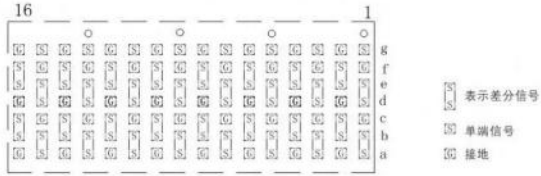
全模块弯式公端连接器 Bending male-end connectors



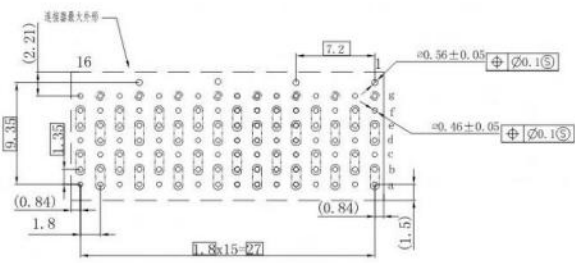
根据连接器内部PCB板布线方式的不同，其产品型号有：
 According to the different wiring methods of internal PCB of connector, the product types are as follows:

连接器型号 Type of connector	适用于 Applicable for	接触脚数量 Number of contact pins
J1410187-3	P1/P2/P3/P4/P5/P6	112

J1410187-3弯式连接器内部PCB板分布图
 Internal PCB diagram of bending connector

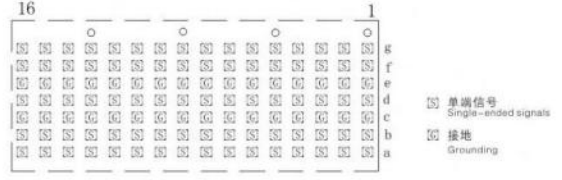


J1410187-3弯式连接器PCB板开孔
 PCB cut-out dimensions of bending connector

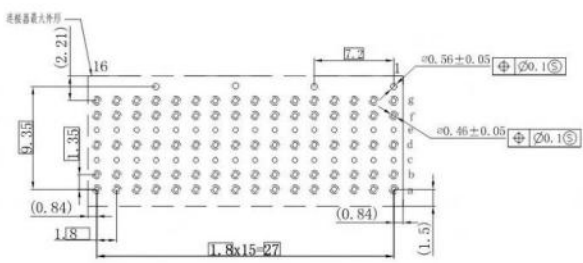


连接器型号 Type of connector	适用于 Applicable for	接触脚数量 Number of contact pins
J1410190-3	P2/P3/P4/P5/P6/ RP3/RP4/RP5/RP6	112

J1410190-3弯式连接器内部PCB板分布图
 Internal PCB diagram of bending connector

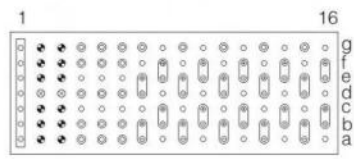


J1410190-3弯式连接器PCB板开孔
 PCB cut-out dimensions of bending connector

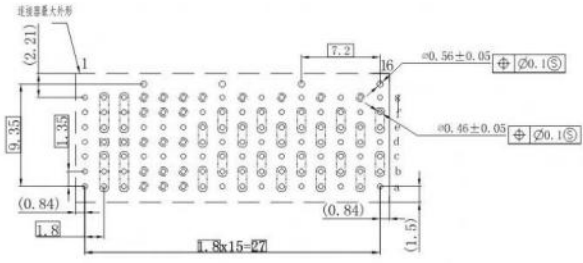


连接器型号 Type of connector	适用于 Applicable for	接触脚数量 Number of contact pins
J1410968-3	RP0	105

J1410968-3弯式连接器内部PCB板分布图
 Internal PCB diagram of bending connector

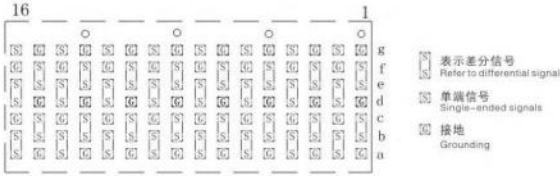


J1410968-3弯式连接器PCB板开孔
 PCB cut-out dimensions of bending connector

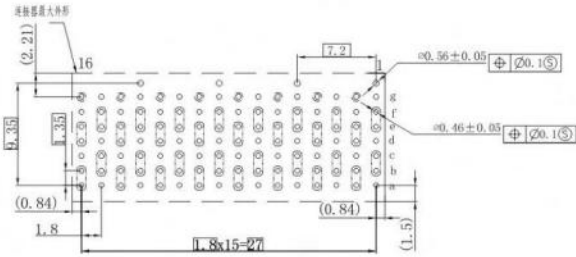


连接器型号 Type of connector	适用于 Applicable for	接触脚数量 Number of contact pins
J1410975-3	RP1/RP3/RP4/ RP5/RP6	112

J1410975-3弯式连接器内部PCB板分布图
 Internal PCB diagram of bending connector

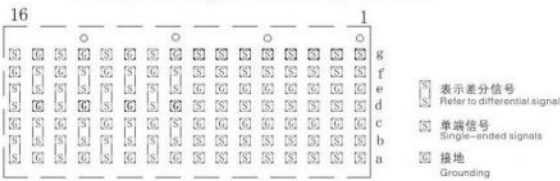


J1410975-3弯式连接器PCB板开孔
 PCB cut-out dimensions of bending connector

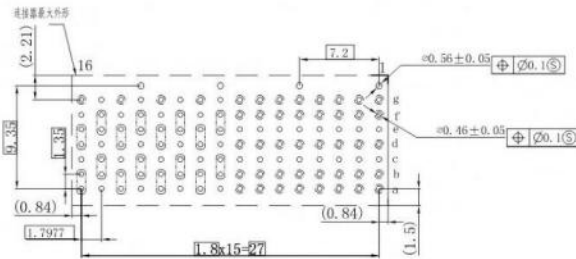


连接器型号 Type of connector	适用于 Applicable for	接触脚数量 Number of contact pins
J1410970-3	RP1	112

J1410970-3弯式连接器内部PCB板分布图
 Internal PCB diagram of bending connector



J1410970-3弯式连接器PCB板开孔
 PCB cut-out dimensions of bending connector

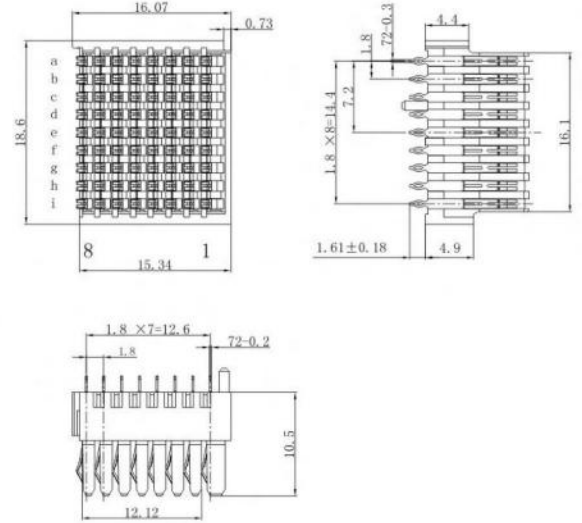


直式母端连接器 Straight female-end connectors

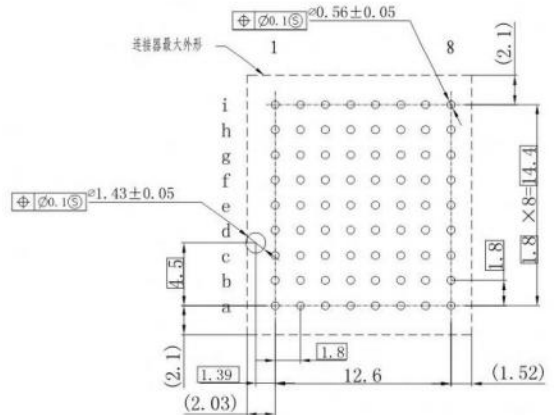
半模块直式母端连接器 Straight female-end connectors

连接器型号 Type of connector	适用于 Applicable for	接触脚数量 Number of contact pins
J1410186-1	J0/RJ2	72

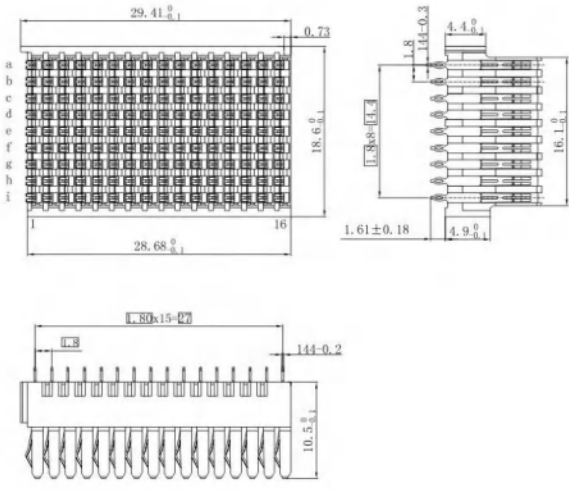
J1410186-1直式连接器结构外形
 Structural configuration of straight connector



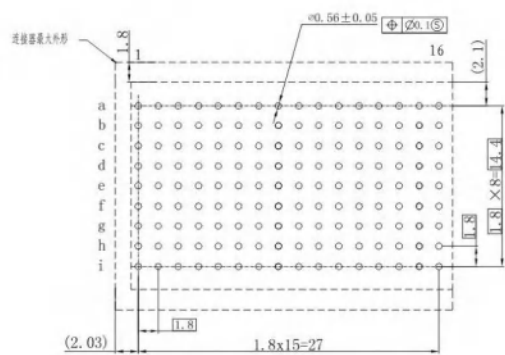
J1410186-1直式连接器PCB板开孔
 PCB cut-out dimensions of straight connector



全模块直式母端连接器 Straight female-end connectors

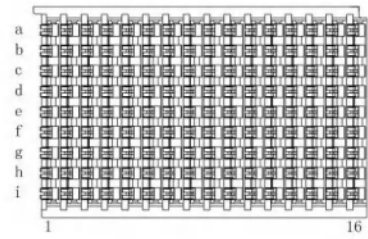


PCB板开孔尺寸
 PCB cut-out dimensions of straight connector

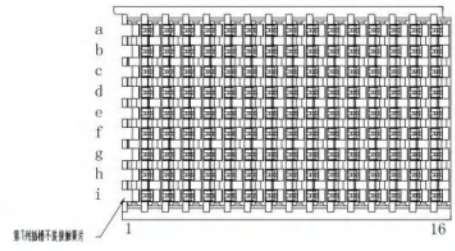


产品型号 Type of connector

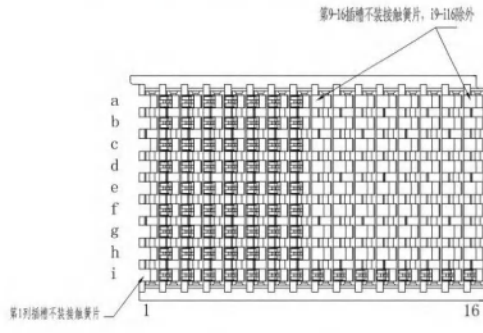
连接器型号 Type of connector	适用于 Applicable for	接触脚数量 Number of contact pins
J1410140-1	J1/J3/J4/J5/RJ1/ RJ4/RJ5/RJ6	144



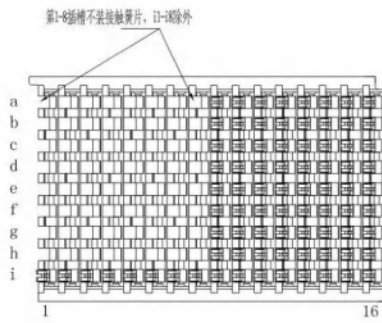
连接器型号 Type of connector	适用于 Applicable for	接触脚数量 Number of contact pins
J1410964-1	RJ0	135



连接器型号 Type of connector	适用于 Applicable for	接触脚数量 Number of contact pins
J1410965-1	RJ0	71



连接器型号 Type of connector	适用于 Applicable for	接触脚数量 Number of contact pins
J1410966-1	RJ1	80

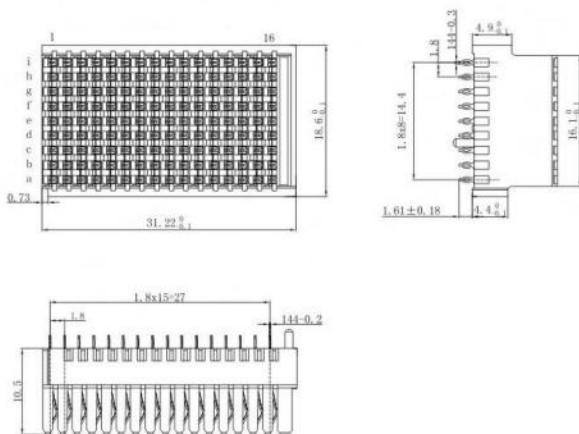


J1410142-1 型直式母端连接器 Straight female-end connectors

连接器型号 Type of connector	适用于 Applicable for	接触脚数量 Number of contact pins
J1410142-1	J2/J6/RJ3	144

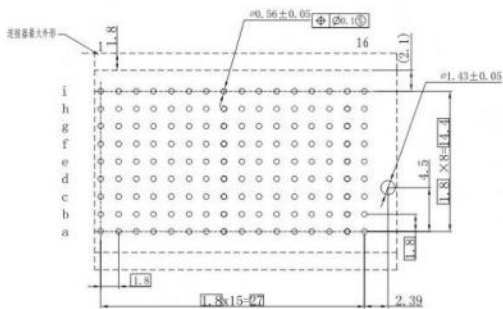
J1410142-1直式连接器结构外形

Structural configuration of straight connector



J1410142-1直式连接器PCB板开孔

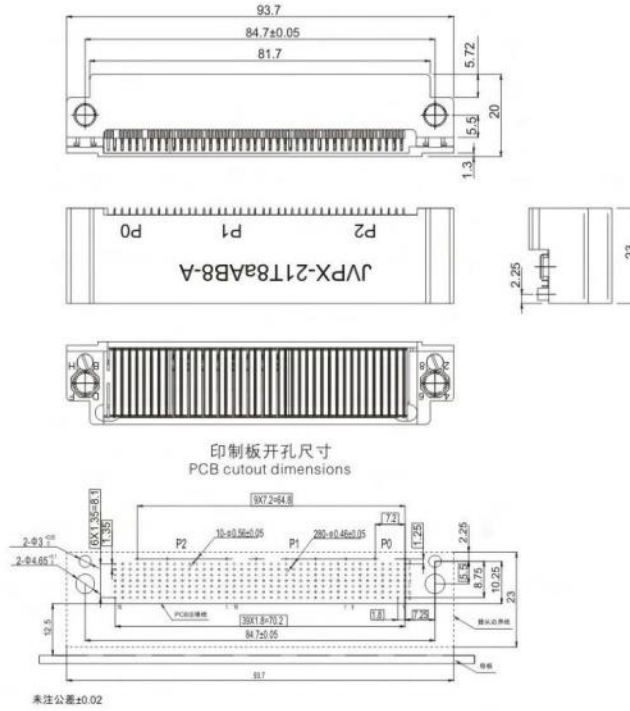
PCB cut-out dimensions of straight connector



JVPX加固型系列外形尺寸 Overall dimensions

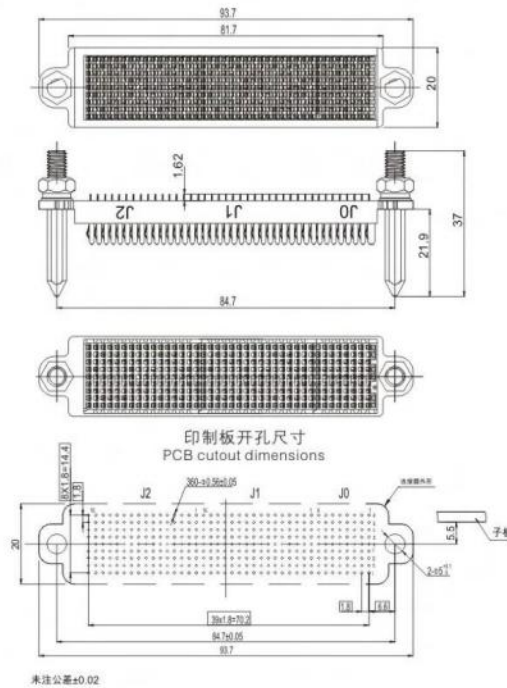
JVPX-21T8aAB8-A (3U插头)

3U Plug

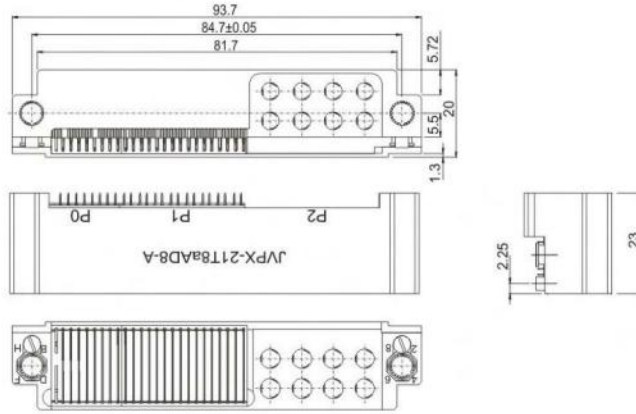


JVPX-21Z8eIJ8-A(3U插座)

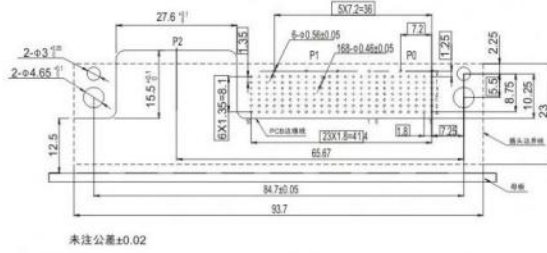
3U Receptacle



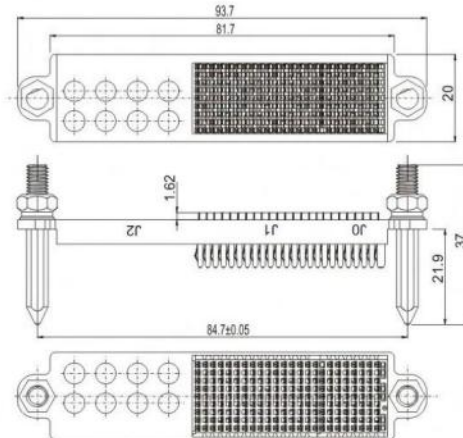
JVPX-21T8aAD8-A (3U插头) 3U Plug



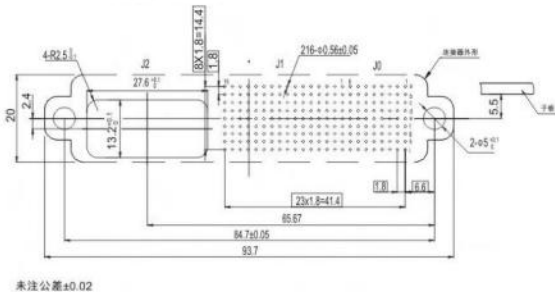
印制板开孔尺寸
PCB cutout dimensions



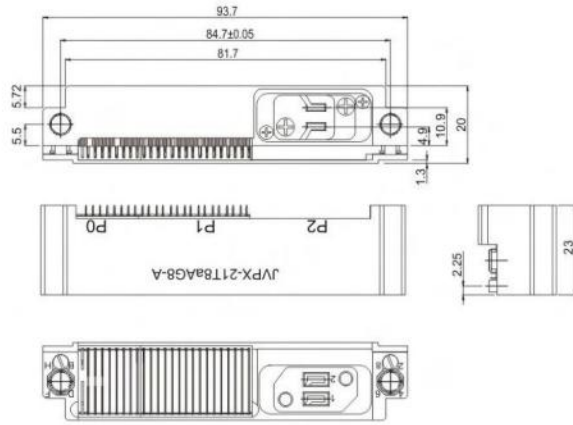
JVPX-21Z8eJD8-A(3U插座) 3U Receptacle



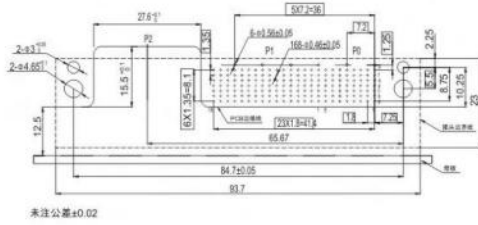
印制板开孔尺寸 PCB cutout dimensions



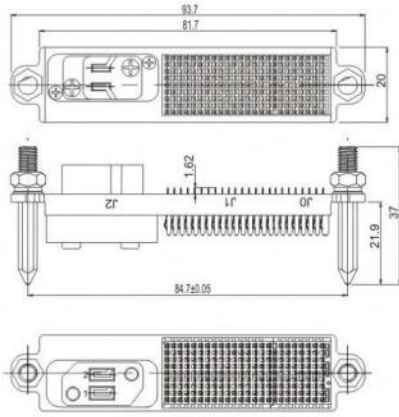
JVPX-21T8aAG8-A (3U插头) 3U Plug



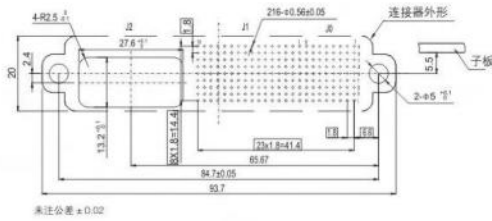
印制板开孔尺寸
 PCB cutout dimensions



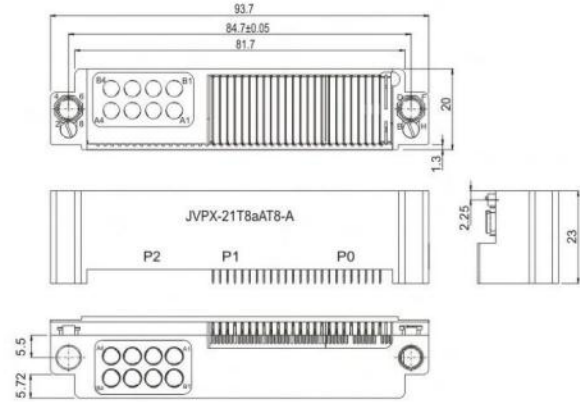
JVPX-21Z8eJG8-A(3U插座) 3U Receptacle



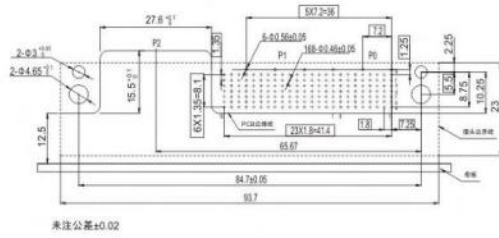
印制板开孔尺寸
 PCB cutout dimensions



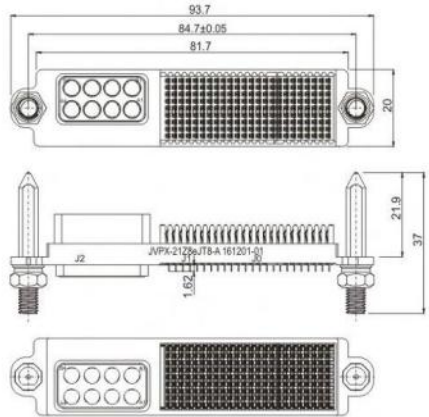
JVPX-21T8aAT8-A (3U插头) 3U Plug



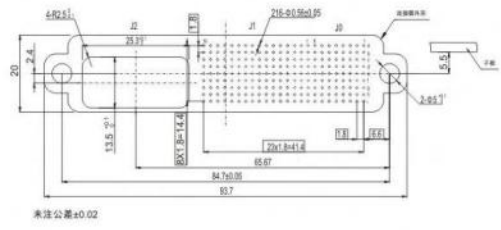
印制板开孔尺寸
 PCB cutout dimensions



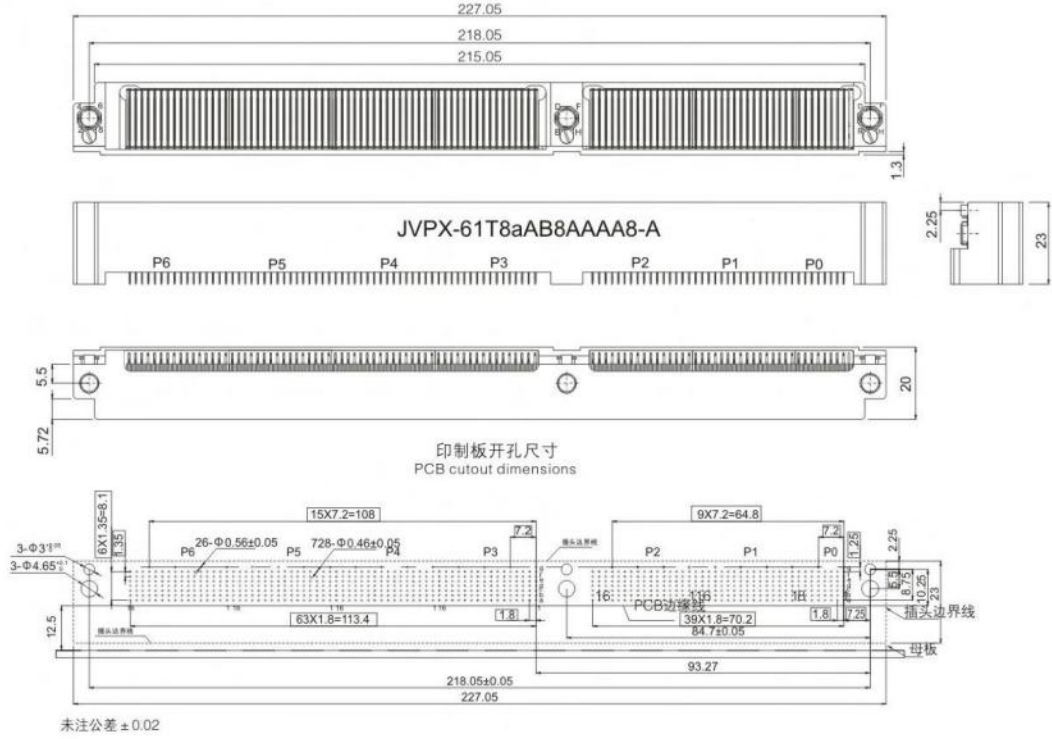
JVPX-21Z8eJT8-A(3U插座) 3U Receptacle



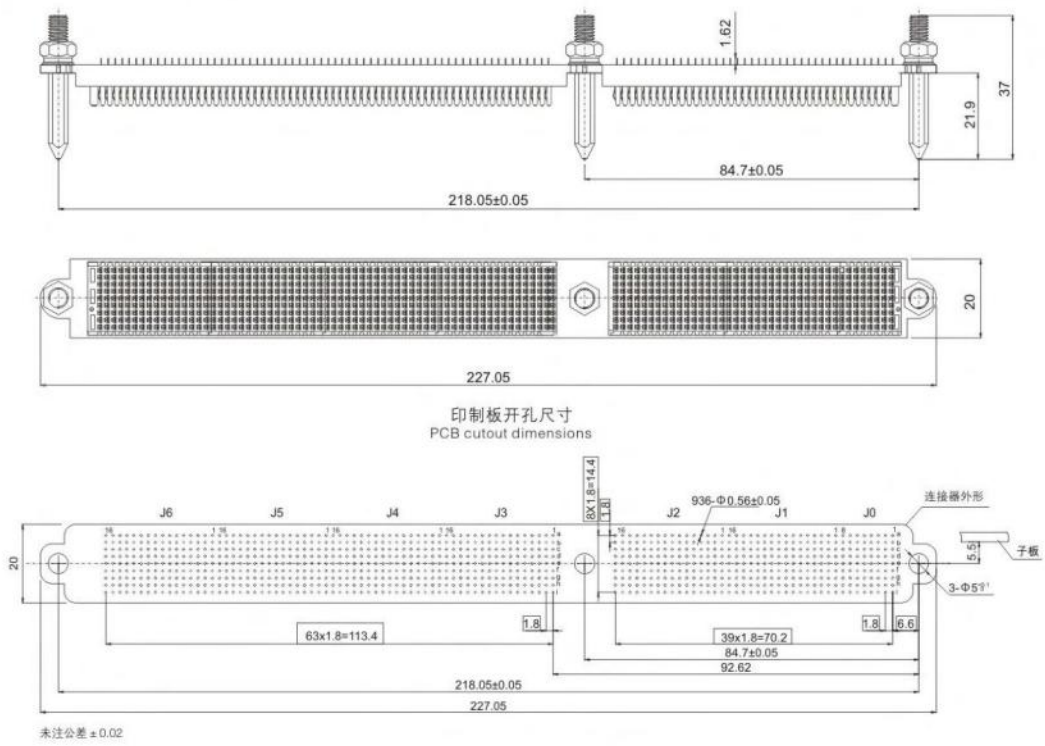
印制板开孔尺寸
 PCB cutout dimensions



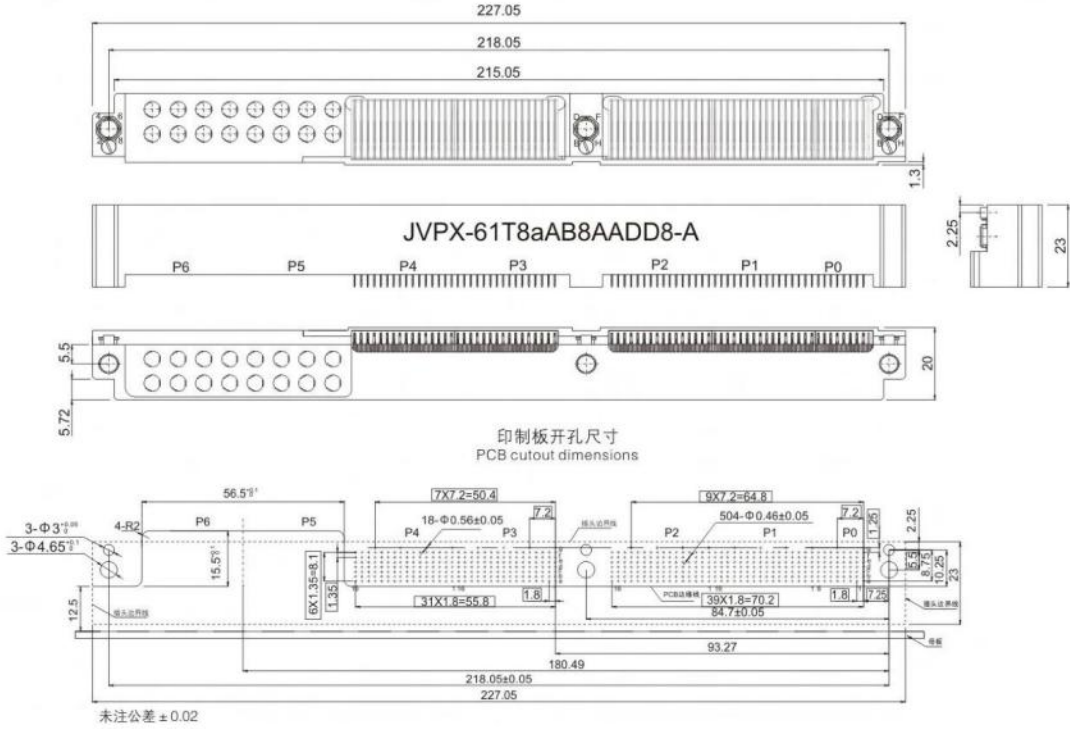
JVPX-61T8aAB8AAAA8-A (6U插头) 6U Plug



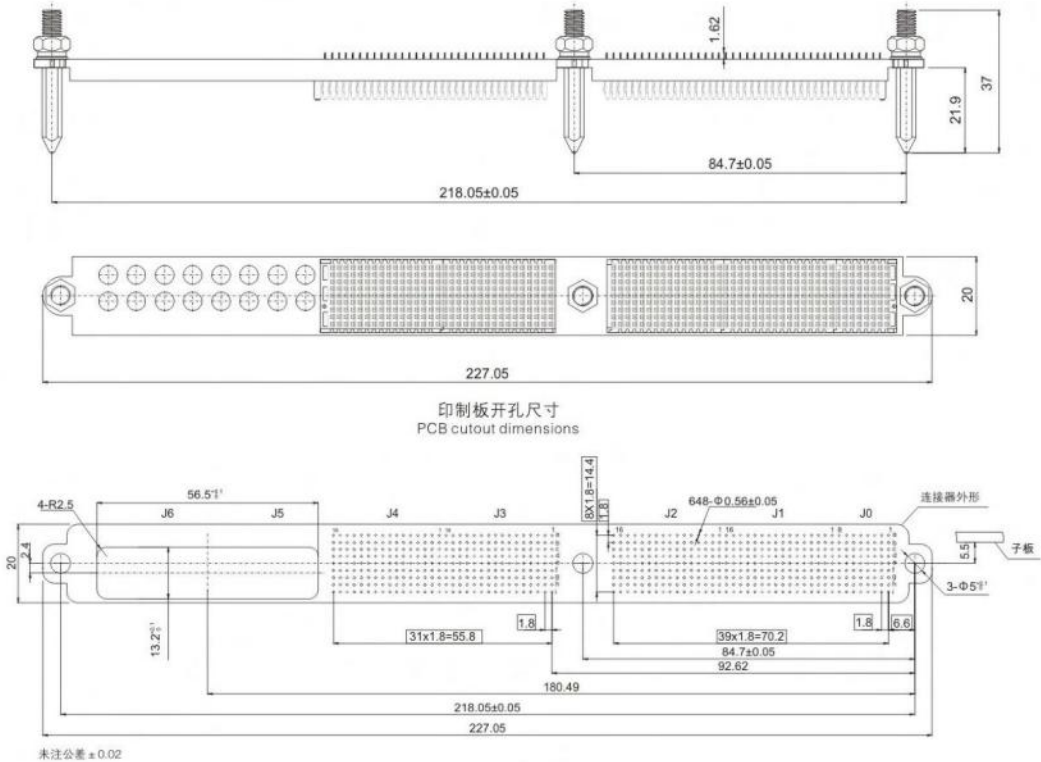
JVPX-61Z8eI J8III J8-A(6U插座) 6U Receptacle



JVPX-61T8aAB8AADD8-A (6U插头) 6U Plug

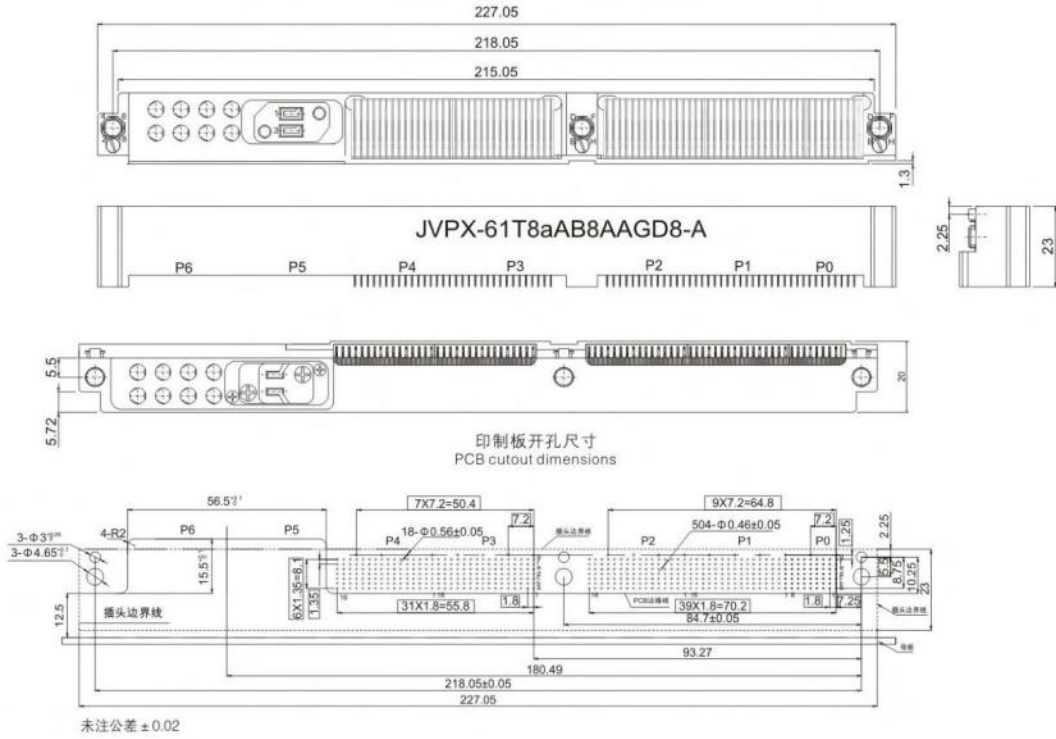


JVPX-61Z8eI8IJDD8-A(6U插座) 6U Receptacle



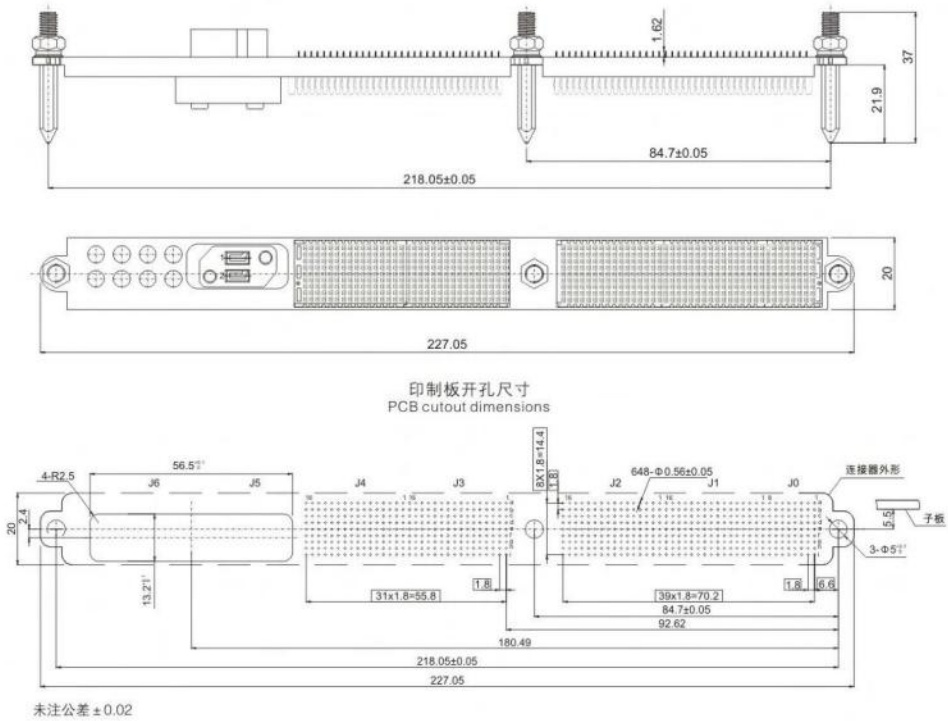
JVPX-61T8aAB8AAGD8-A (6U插头)

6U Plug

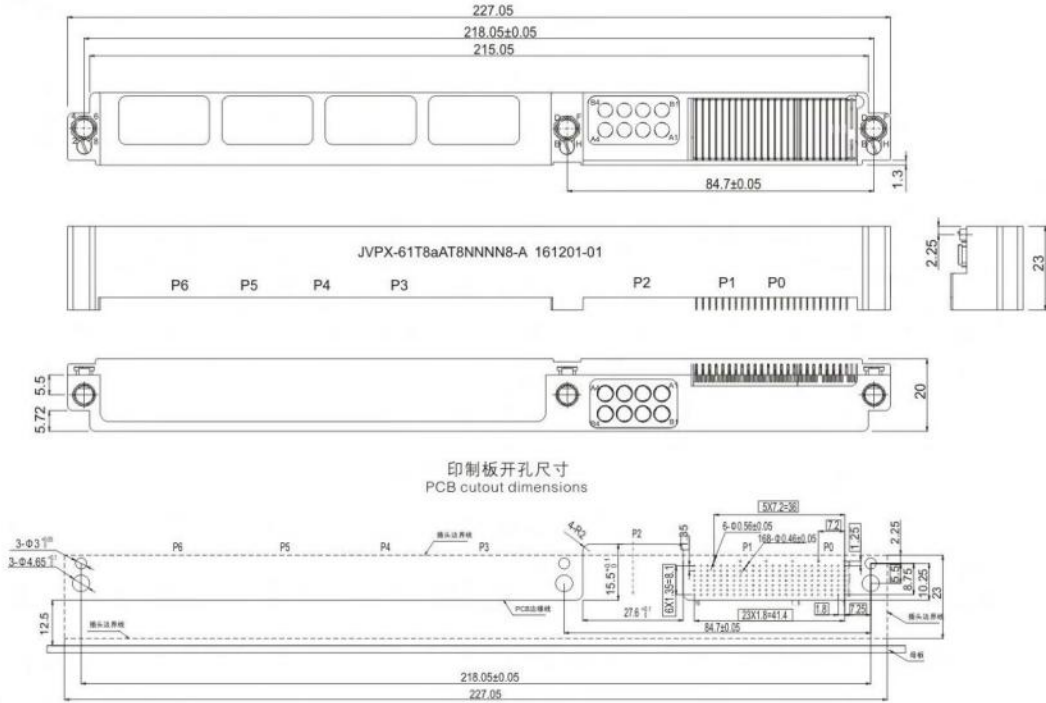


JVPX-61Z8eIJ8IJGD8-A(6U插座)

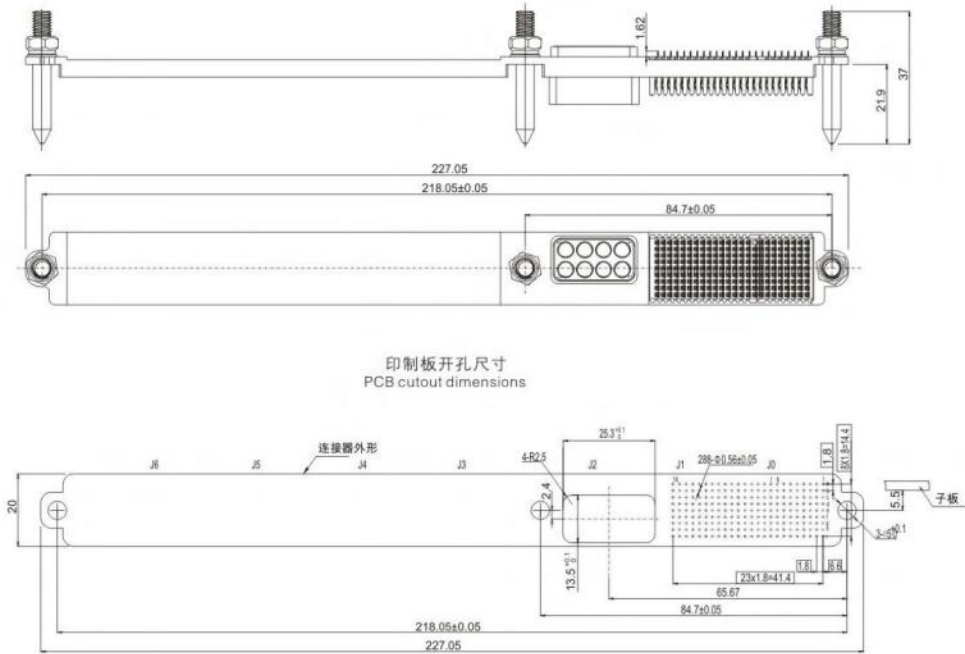
6U Receptacle



JVPX-61T8aAT8NNNN8-A (6U插头) 6U Plug



JVPX-61Z8eJT8NNNN8-A(6U插座) 6U Receptacle



Thank You!