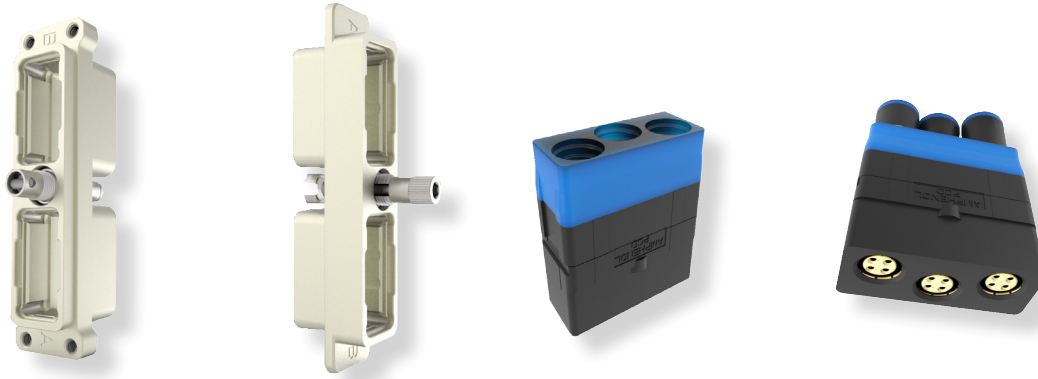


# APeX SERIES

# Amphenol Pcd



Amphenol Pcd is one of the world's leading suppliers of interconnect products for Military, Commercial Aerospace and Industrial applications. Located north of Boston in Beverly, Massachusetts, the company designs and manufactures a wide range of products; System Attachments, Junction Modules, Relay Sockets, Terminal Blocks, Rectangular & Circular Connectors, Cable Assemblies and Adapters. Each product is made and engineered with the highest quality standards in the industry. With facilities in North America and Asia, Amphenol Pcd products are chosen by thousands of OEMs around the world, reliant on Amphenol's technical excellence, global network of distributors, and cost-effective solutions for custom systems.

## Amphenol Pcd

72 Cherry Hill Dr. • Beverly, MA. 01915  
978.624.3400 • [info@amphenolpcd.com](mailto:info@amphenolpcd.com)  
[www.amphenolpcd.com](http://www.amphenolpcd.com)

# Arinc 810

## Arinc 810 Receptacle Kit

Part Number	Description	Radial Cross	Contacts
APX2B801C	APeX, Receptacle, 25 pos A polarization, 6 pos B polarization inserts		WC *
APX2B801G	APeX, Receptacle, 25 pos A polarization, 6 pos B polarization inserts	617 610 188	WC *
APX2B801K	APeX, Receptacle, 25 pos A polarization, 6 pos B polarization inserts		LC
APX2B801S1	APeX, Receptacle, 25 pos A polarization, 6 pos B polarization inserts		WC *
APX2B801S2	APeX, Receptacle, Blank Insert, 6 pos B polarization inserts	617 610 422	WC *
APX2B801S2K	APeX, Receptacle, Blank Insert, 6 pos B polarization inserts		LC
APX2B801S3	APeX, Receptacle, 25 pos insert A polarization, 6 pos B polarization inserts		WC *
APX2B801S4	APeX, Receptacle, 25 pos insert A polarization, 6 pos B polarization inserts & all contacts		WC *
APX2B801S5	APeX, Receptacle, 25 pos insert A polarization, 6 pos B polarization inserts & all contacts		WC *

\*WC: Reference drawing for exact contacts included.

## Arinc 810 Plug Kit

Part Number	Description	Radial Cross	Contacts
APX2A801C	APeX, Plug, 25 pos A polarization, 6 pos B polarization inserts, with strain relief		WC *
APX2A801G	APeX, Plug, 25 pos A polarization, 6 pos B polarization inserts, with strain relief	617 610 189	WC *
APX2A801K	APeX, Plug, 25 pos A polarization, 6 pos B polarization inserts, with strain relief		LC
APX2A801S1	APeX, Plug, 25 pos A polarization, 6 pos B polarization inserts, with strain relief		WC *
APX2A801S2	APeX, Plug, 25 pos A polarization, 6 pos B polarization inserts, with strain relief		WC *
APX2A801S2K	APeX, Plug, 25 pos A polarization, 6 pos B polarization inserts, with strain relief		LC
APX2A801S3	APeX, Plug, 25 pos A polarization, 6 pos B polarization inserts, with strain relief		WC *
APX2A801S4	APeX, Plug, 25 pos A polarization, 6 pos B polarization inserts, with strain relief		WC *
APX2A801S5	APeX, Plug, 25 pos A polarization, 6 pos B polarization inserts, with strain relief		WC *

\*WC: Reference drawing for exact number and type of included contacts.

## APeX Plugs

Part Number	Description	Radial Cross	Mate
APX2BL00N	APEX, ARINC810 Plug Shell, no inserts, with protective caps	616610613	APX2AR00N
APX2CA22N	APEX Plug, Shell, with jack screw, no mounting holes, with protective caps	EPXB2P22N	APX2DB32N

## Tools

Part Number	Description	Radial Cross
APXTL0001	Insert/Removal tool	282-521-002

## Receptacles

Part Number	Description	Radial Cross	Mate
APX2AR00N	Receptacle shell, with jack screw, with 2x size Self Locking 6-32 Threaded Holes, with protective cap	617610212	APX2BL00N
APX2AR11N	Receptacle shell, with jack screw, with 2x size 0.140 Through Holes, with protective cap.	617610419	APX2BL00N
APX2DB32N	APEX Receptacle Shell, with jack screw, 4x size Self Locking 6-32 Threaded Holes, with protective caps		APX2CA22N

## Shell Key Specifications

Item	Performance	Test Method
Durability	2000 mating cycles minimum	EIA-364-09
Altitude Immersion	IR greater than 1000Mohm @ 500V, 25k feet	EIA-364-03
Salt Spray	96 hours	EIA-364-26
Shock	50G, half-sine, 3 axis	EIA-364-27
Vibration	7.56G, 1000hz, 3 Axis	EIA-364-28
Temperature Life	175C for 1000 hours	EIA-364-17
Temperature Cycling	100 cycles, -65C to +175C	EIA-364-32
Humidity	96 hours, 90% - 95%	EIA-364-31
Mold Growth	28 days	EN-2591-306

## Contacts

Part Number	Description	Radial Cross	APCD Mate	Cable Type
PIN CONTACTS				
CNP882100	Twinax, Crimp, Pin, ARINC600	617-165-011	CNS882100	ABS0386WF24
CNP882110			CNS882110	ASNE0272TK22
CNP882120			CNS882120	ASNE0272TK24
CNP882130			CNS882130	ASNE0807WX26
CNP812100	size 12, Crimp, Pin	617-250	CNS812100	
CNP822100	size 22, Crimp, Pin	617-200	CNS822100	
CNP831033	size 22 pcb tail 0.186"		CNS822100	
CNP882200	Quadrax, PCB Tail, Pin, 100 ohm, ARINC600	617-177-008EN		ABS0972, ABS1503
TBD	Quadrax, Crimp, Pin, 100 ohm, ARINC600			

Part Number	Description	Radial Cross	APCD Mate	Cable Type
SOCKET CONTACTS				
CNS882100	Twinax, Crimp, Socket, ARINC600	617-065-011	CNP882100	ABS0386WF24
CNS882110			CNP882110	ASNE0272TK22
CNS882120			CNP882120	ASNE0272TK24
CNS882130			CNP882130	ASNE0807WX26
CNS812100	size 12, Crimp, Socket	617-350		
CNS822100	size 22, Crimp, Socket	617-300	CNP831033 CNP822100	
CNS882200	Quadrax, Crimp, Socket, 100 ohm, ARINC600	617-075-011	CNP882200	ABS0972, ABS1503

# APeX Modules, Inserts

Part Number	Description	Radial Cross	EN4644 Cross
APXIN0001	Blank insert		
APXM006PA	6 pin, size 12, polarization A, pin module	EPXBE06	6
APXM006PB	6 pin, size 12, polarization B, pin module	EPXBE06	6
APXM006SA	6 pin, size 12, polarization A, socket module	EPXBE06	6
APXM006SB	6 pin, size 12, polarization B, socket module, LC	EPXBE06	6
APXM030PA	30 pos, size 20, A polarization, Pin Module	EPXBE30	30
APXM030PB	30 pos, size 20, B polarization, Pin Module	EPXBE30	30
APXM030SA	30 pos, size 20, A polarization, socket module	EPXBE30	30
APXM030SB	30 pos, size 20, B polarization, socket module, B polarization	EPXBE30	30
APXM25QPA	25 pin polar A with twinax seal, pin module	EPXBE25Q1	25Q1
APXM25QPB	25 pin polar A with twinax seal, pin module	EPXBE25Q1	25Q1
APXM25QSA	25 socket polar A with twinax seal, socket module	EPXBE25Q1	25Q1
APXM25QSB	25 socket polar B with twinax seal, socket module	EPXBE25Q1	25Q1
APXM003PA	3 pos, size 5 Coax, A polarization, Pin Module,	EPXBEC3	C3
APXM003PB	3 pos, size 5 Coax, B polarization, Pin Module,	EPXBEC3	C3
APXM003SA	3 pos, size 5 Coax, A polarization, Socket Module	EPXBEC3	C3
APXM003SB	3 pos, size 5 Coax, B polarization, Socket Module	EPXBEC3	C3
APXM03PPA	3 pos, size 5 Power	EPXBEP3	P3
APXM03PPB	3 pos, size 5 Power	EPXBEP3	P3
APXM03PSA	3 pos, size 5 Power	EPXBEP3	P3
APXM03PSB	3 pos, size 5 Power	EPXBEP3	P3
APXM014PA	14 pos, size 16	EPXBE14	14
APXM014PB	14 pos, size 16	EPXBE14	14
APXM014SA	14 pos, size 16	EPXBE14	14
APXM014SB	14 pos, size 16	EPXBE14	14
APXM017PA	14 pos, size 20, 3 pos size 12	EPXBE17	17
APXM017PB	14 pos, size 20, 3 pos size 12,	EPXBE17	17
APXM017SA	14 pos, size 20, 3 pos size 12	EPXBE17	17
APXM017SB	14 pos, size 20, 3 pos size 12	EPXBE17	17
APXM022PA	16 pos, size 20, 6 pos size 16	EPXBE22	22
APXM022PB	16 pos, size 20, 6 pos size 16	EPXBE22	22
APXM022SA	16 pos, size 20, 6 pos size 16	EPXBE22	22

Part Number	Description	Radial Cross	EN4644 Cross
APXM022SB	16 pos, size 20, 6 pos size 16	EPXBE22	22
APXM028PA	22 pos, size 22, 6 size 16	EPXBE28	28
APXM028PB	22 pos, size 22, 6 size 16	EPXBE28	28
APXM028SA	22 pos, size 22, 6 size 16	EPXBE28	28
APXM028SB	22 pos, size 22, 6 size 16	EPXBE28	28
APXM034PA	18 pos, size 22, 16 pos size 20	EPXBE34	34
APXM034PB	18 pos, size 22, 16 pos size 20	EPXBE34	34
APXM034SA	18 pos, size 22, 16 pos size 20	EPXBE34	34
APXM034SB	18 pos, size 22, 16 pos size 20	EPXBE34	34
APXM040PA	40 pos, size 22	EPXBE40	40
APXM040PB	40 pos, size 22	EPXBE40	40
APXM040SA	40 pos, size 22	EPXBE40	40
APXM040SB	40 pos, size 22	EPXBE40	40
APXM048PA	48 pos, size 22	EPXBE48	n/a
APXM048PB	48 pos, size 22	EPXBE48	n/a
APXM048SA	48 pos, size 22	EPXBE48	n/a
APXM048SB	48 pos, size 22	EPXBE48	n/a
APXM10QPA	2 pos quadrax, 8 pos size 20	EPXBE10Q2	10Q2
APXM10QSA	2 pos quadrax, 8 pos size 20	EPXBE10Q2	10Q2
APXM13CPA	6 pos, size 20, 4 pos size 14, 2 pos size 12, 1 pos size 5 COAX	EPXBE13C1	13C1
APXM13CSA	6 pos, size 20, 4 pos size 14, 2 pos size 12, 1 pos size 5 COAX	EPXBE13C1	13C1
APXM13PPA	6 pos, size 20, 4 pos size 14, 2 pos size 12, 1 pos size 5 Power	EPXBE13P1	13P1
APXM13PSA	6 pos, size 20, 4 pos size 14, 2 pos size 12, 1 pos size 5 Power	EPXBE13P1	13P1
APXM22VPA	6 pos, size 16, 16 pos, size 20	EPXBE22V	22V
APXM22VSA	6 pos, size 16, 16 pos, size 20	EPXBE22V	22V
APXM003Q3PA	3 pos quadrax	EPXBE3Q3	3Q3
APXM003Q3PB	3 pos quadrax	EPXBE3Q3	3Q3
APXM003Q3SA	3 pos quadrax	EPXBE3Q3	3Q3
APXM003Q3SB	3 pos quadrax	EPXBE3Q3	3Q3

\*APXM- Environmental Sealing  
 APXME- Environmental Sealing  
 APXMN- Non Sealed, front and back  
 APXMH- Non Sealed, front and back  
 APXMT- Non Sealed, front and back

## APeX Module Key Specifications

Item	Performance	Performance	Performance	Performance	Test Method
Insulation Resistance	Greater than 5000Mohms				EIA-364-21
Dielectric Withstand Voltage	1500VAC, 2 ma max				EIA-364-20
Contact size	22	20	16	12	
Contact Insertion Force	10 lbs	15 lbs	20 lbs	25 lbs	EIA-364-24
Contact Removal Force	8 lbs	10 lbs	15 lbs	20 lbs	EIA-364-24
Contact Retention	12 lbs	20 lbs	25 lbs	30 lbs	EIA-364-29

# APeX Series

A high density, rectangular, modular connection system designed for use in avionics systems conforming to the EN4644 technical specification. Plug and Receptacle housings are a single piece, high-grade aluminum construction, precision-machined to ensure a lifetime of reliable operation. Housings are available in panel, rack or cable-to-cable mounting styles. Housings may be plated with nickel or aluminum chromate. Housings accommodate a wide range of modules, where each module is keyed to ensure proper orientation during installation. Plug and Receptacles shells may be configured with either pin or socket modules, depending on customer preference.

Housing-to-housing connectivity is assured using a center coupling screw, which may be a simple alignment feature or a multi-keyed jack screw and nut. Modules are made out of ULTEM, a rugged Polyetherimide plastic which is highly resistive to chemicals, stable through temperature and humidity variation, and with FAA FAR25 approved flammability and toxicity characteristics. Internally, stainless steel retaining clips ensure reliable locking under all operating conditions. Modules are rear insert, allowing cabling to be accomplished separately from panel mounting.

Each module may have an environmental rear seal of silicone elastomer, which is bonded to the housing using APCD's proprietary Epoxy sealant, proven superior in over 30 years use in the M81714 military module market. An interfacial seal front seal provides module to module sealing when mated, ensuring IP67 level performance. Typical applications include wing actuators, power generation and control, Ethernet distribution networks, electronic load management systems, and galleys.

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## Features & Benefits

### *-65C to +175C*

Wide operating temperature range

### *Blind-Mate connection*

Ease of Use

### *Silicone Elastomer Facial & Wire Sealing*

Environmental performance to IP67

### *ULTEM module housings*

Chemical resistance, Flammability & Toxicity compliance

### *Wide range of Module Configurations*

Application flexibility

### *EN4644 Conformance*

Intermateability with other manufacturers and 1000's of existing installations

