**STOCK CODE: 300351** 





# YGC - AEROSPACE AND SPECIAL PURPOSE CONNECTOR HANDBOOK



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**Circular Connector** 



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**Water-Tight Connector** 



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#### Part 1

## **Circular Connector**



#### **Y50 Series**



Product series: Inch Y50EX series, Metric Y50X series,

Power Y50DX series

**Compliant:** MIL-C-26482, Metric compliant with Chinese

domestic standard

Applicable environment: Suitable for ground, airborne,

Shipborne electrical signal

connection



#### **JY Series**



Product series: JY31 and JY41 Series

Compliant: MIL-C-26482

Applicable environment: Suitable for harsh environments,

the product has the performance of

moisture, salt spray, mold, rain

and dust.



#### **XC Series**



Product series: XC series, XCD series, XCE series, XC158,

XC filter series ( $\pi$  type or C type)

**Compliant:** Chinese Domestic Standard

**Applicable environment:** 1. suitable for the transmission of electrical signals or power in the airborne and shipborne fields.

Strong anti-RF interference (XC filter series )



#### J599 Series



Product series: I, II, III, IV standard series, Hermetic Series

filter series, Mixed series

Compliant: MIL-C-38999

**Applicable environment:** 1. Aerospace, Harsh environments, Precision electronic equipment,

- 2. Strong anti-RF interference (filter series)
- 3. the integration of microwave signal, high-speed data, optical fiber and power



#### **Small Circular Push-Pull Series**



Product series: B series, K series, S series, ferrule with

coaxial, optical fiber and power signal

integration

**Compliant:** Chinese Domestic Standard

Applicable environment: widely used in medical instruments, ground, airborne, broadcast communications, measurement and testing equipment and other professional occasions



#### JY83723 III. Series



**Product series:** 9 shell sizes, 2-61 cores, a total of 31 contact layouts

Compliant: MIL-DTL-83723

**Applicable environment:** The product is threaded and has the function of thread stop locking, which is suitable for high temperature and high vibration environments such as aero engines, with a working temperature of -65-260° C.



#### JY32689 Series High Density, Light Weight, Micro Circular Connector



**Product series:** 801, 802, 803, 804, 805

Compliant: MIL-DTL-32689

**Applicable environment:** Compared with GJB599III series, the weight is reduced by about 30% and the volume is reduced by about 50%, while meeting the Marine environment, rain and solar radiation resistance

Mainly used in the aerospace and special industrial markets; Mixed with microwave signal, high-speed data, optical fiber and power signal integration



#### **Micro Circular Series**



**Product series:** Micro Circular

**Compliant:** Chinese Domestic Standard

**Circuits Number:** 2/3/4/5/7/8/14/19

**Applicable environment:** 1. Twisted wire spring pins are adopted, and the product is light in weight and small in size

2. It is suitable for the electrical

signal connection between equipment in airborne, shipborne, communication and other industries.



#### **High-speed Network Series**



**Product series:** Built-in RJ45, HDMI, USB and 1394 standard interfaces.

**Compliant:** MIL-DTL-26482, MIL-DTL-38999, TIA/EIA-568

Applicable environment: High Speed Signal Transmission

with EMC

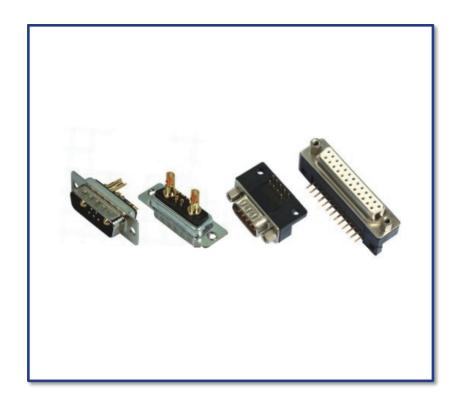


#### Part 2

# Rectangular Connector



#### **D-SUB Series**



**Product series:** Standard Series, High-density Series

Mixed Series

Compliant: MIL-C-24308

Circuits Number: 9/15/25/37/50--Standard

15/26/44/62/78--High-density

2V2/3V3/2W2/3W3/5W5--Mixed

**Applicable environment:** Suitable for signal or power transmission in communications, electronics, electrical appliances, instruments and other equipment, international general electrical connectors.



#### Micro Rectangular Series (Micro D) -- J29A Series



Product series: J29A Series

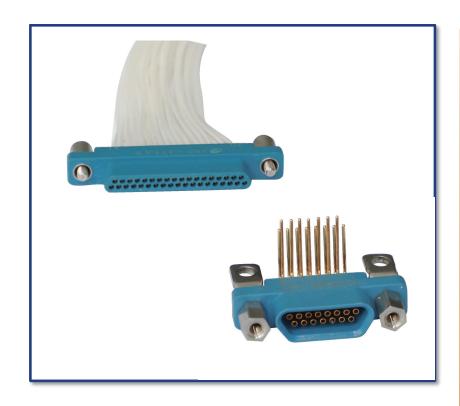
Compliant: MIL-DTL-83513

**Circuits Number:** 9/15/21/25/31/37/51/66

Pitch: Point Pitch 1.91mm, Row Pitch 1.65mm



#### Micro Rectangular Series (Micro D) -- J30 Series



Product series: J30 Series

Compliant: MIL-DTL-83513

**Circuits Number:** 9/15/21/25/31/37/51

Pitch: Point Pitch 1.27mm, Row Pitch 1.91mm



#### Micro Rectangular Series (Micro D) -- J30J Series



Product series: J30J, J30JA quick-lock, J30JZ series

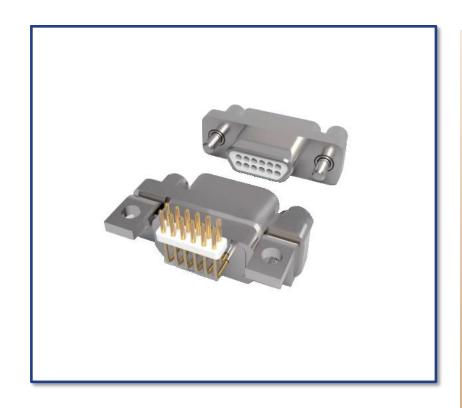
Compliant: MIL-DTL-83513

Circuits Number: 9/15/21/25/31/37/51/66/74/100/144

Pitch: Point Pitch 1.27mm, Row Pitch 1.1mm



#### Micro Rectangular Series (Micro D) -- HJ30J Series



**Product series:** High Speed Series

Compliant: MIL-DTL-83513

**Circuits Number:** 12/18/24/30/36/55/100

Pitch: Point Pitch 1.27mm, Row Pitch 1.27mm

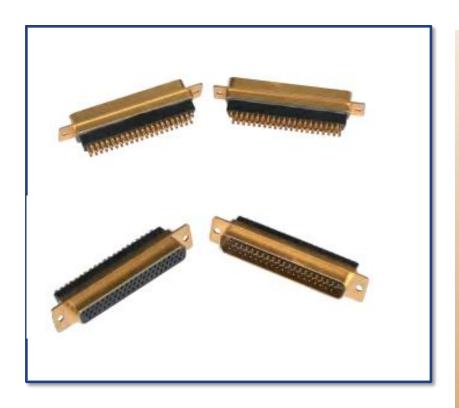
Applicable environment: 1. Apply Twist Wire Spring Pin

2. no less than 30dB within 100ps

Transmission characteristics: the transmission rate is 1.65Gbps



#### Micro Rectangular Series (Micro D) -- Space class Series



**Product series:** 5 types of shell, 5 Standards Contact Layouts, 5 High Density Contact Layouts and 19 Mixed Layouts

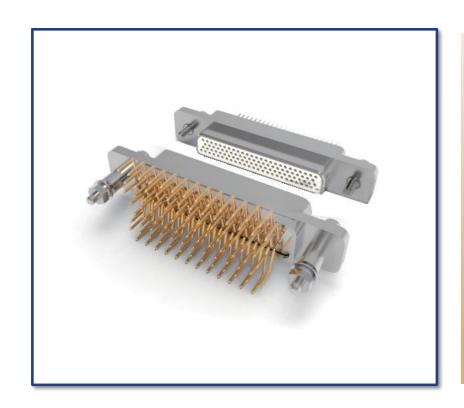
Compliant: MIL-DTL-24308

#### **Applicable environment:**

Applicable to space equipment, launchers, satellite wiring harnesses and effective payload, avionics fields, with radiation resistance in the space environment, resistant of heat vacuum gas release, remanent magnetic many special environmental requirements



#### Micro Rectangular Series (Micro D) -- J30JL Series



**Product series:** Filter Series

Compliant: MIL-DTL-83513

Applicable environment: C-type low-pass filter with strong

radio frequency interference resistance



#### Micro Rectangular Series (Micro D) -- QuaDrax Series



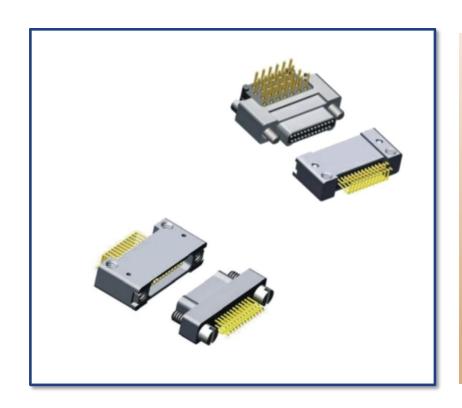
Product series: QuaDrax Series

Compliant: MIL-DTL-83513

**Applicable environment:** 



#### Micro Rectangular Series (Nano Micro D) -- J63A Series



**Product series:** J63A

Compliant: MIL-DTL-32139A

**Circuits Number:** 9/15/21/25/31/37/51/65/69

Pitch: Point Pitch 0.635mm, Row Pitch 1.27mm



#### **High-density Surface Mount High-speed Connector**



Product series: J63A

Compliant: MIL-DTL-32139A

**Circuits Number:** 20/30/40/50/60/64/70/80/90/100/120

Pitch:  $1 \text{mm} \times 1.5 \text{mm}$ 

**Transmission Rate:** 40Gpbs



#### **1900 Series Connector**



**Product series:** 9 Contact Layouts

Compliant: EN3545

**Circuits Number:** 9 Contact Layouts

#### **Characteristics:**

Plastic housing, lightweight design, suitable for transmission of low frequency, power supply, radio frequency and optical fiber signals



#### **ARINC 600 Series**



**Product series:** 3 Types of Shell, 40+ Contact Layouts

Compliant: ARINC600

**Feature:** Mixed Modulization

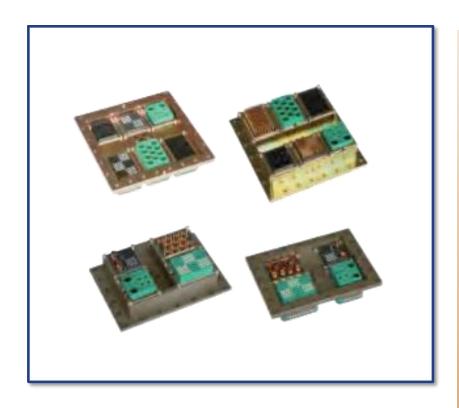
**Applicable environment:** 

Suitable for aviation products and equipment cabinet,

Good environmental resistance



#### **ARINC 700 Series**



**Product series:** 4 Types of Shell, 40+ Contact Layouts

Compliant: MIL-DTL-83527

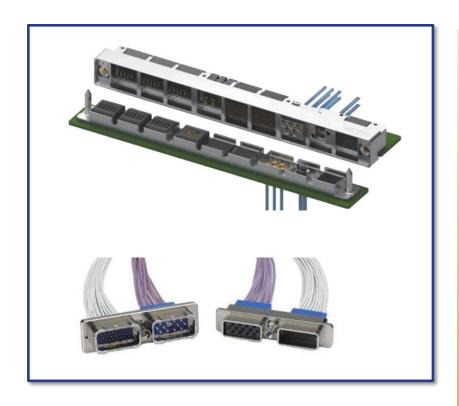
**Feature:** Mixed Modulization

#### **Applicable environment:**

Used for low frequency, power supply, radio frequency, optical fiber signal integrated transmission
Widely used in chassis cabinets



#### **Modular Series**



Product series: LRM series, EPX series

Compliant: LRM, ARINC600, MIL-STD-1389D/ARINC650 and ASAAC

EPX, ARINC810, EN4644

Feature: Modulization

**Applicable environment:** 



#### Part 3

## **Explosion-Proof Connector**



#### **Explosion Proof Signal Series**



Compatible with ExdII.BT4Gb

Number of cores: 3/4/5/6/7/10/14/20/27

Voltage 60V, electricity 8~10A



#### **Explosion Proof Power Supply Series**



#### Compatible with ExdII.BT4Gb

EX1A, voltage 250V, current 16~63A, number of cores: 3/8/12

EX1B, voltage 400V, current 16~200A, number of cores: 5/20

EX1C, voltage 500V, current 16~200A, number of cores: 4

EX1D, voltage 1000V, current 800A, number of cores: 1



#### **Increased Safety Signal Series**



**Exell.T4Gc** is applicable

The number of cores is 5/6/7/8/9/10/12/14/20/27/37/60

Voltage 60V, electricity 6~16A



#### **Increased Safety Power Supply Series**



**Exell.T4Gc** is applicable

Voltage 250V, current 16~63A, number of cores: 3/8/12/20

Voltage 400V, current 16~200A, number of cores: 5

Voltage 500V, current 16~200A, number of cores: 4

Voltage 1000V, current 300~1000A, number of cores: 1



#### Part 4

## **RF Connector**



## **RF** Connector

#### Radio Frequency Coaxial Series



















































series	impedance	frequency			
PD4 type	50Ω	1GHz			
DB4 type	50Ω	2GHz			
C4 type	50Ω	2GHz			
BNC type	50/75Ω	3GHz			
Q9 type	50/75Ω	3GHz			
SSMB type	50Ω	3GHz	2		
MCX type	50Ω	6	GHz		
MMCX type	50Ω	6	GHz		
7/16 type	50Ω	7	.5GHz		
N type	50Ω		11GH	z	
TNC type	50Ω		11GHz		
4.1/9.5 type	50Ω	12GHz			
SMA type	50Ω	12.4GHz			
BMA type	50Ω		18GHz		
SBMA type	50Ω		28GHz		
SSMA type	50Ω		30GHz		
2.92 type	50Ω		40GHz		
SMP type	50Ω		40GHz		
SMB type	50Ω	3G	Hz		, , , , , , , , , , , , , , , , , , ,
	75Ω	2GHz			
CC4 type	50Ω	4.8G	4.8GHz		
	75Ω	1.65GHz			
L9 type	75Ω	1GHz			
SMZ type	75Ω	3GHz			

#### Part 5

# Water-Tight Connector



## Water-Tight Connector

#### **Metal Case Series**



#### **Product series:**

YM and SM series, signal, power, fiber optic communication and network communication

#### Two categories:

universal sealing and glass sintering sealing

#### **Application environment:**

Suitable for 0-3000 meters (Max) marine application environment.



## Water-Tight Connector

#### **Rubber and Plastic Product Series**



#### **Product series:**

SH series, with integral vulcanization, for signal transmission

#### **Application environment:**

Suitable for 0-7000 meters (Max) marine application environment.



#### Part 6

# Other Special Purpose Connector



## Other Special Purpose Connector

#### **Port Shore Power Series**



Type: DC, AC

Electric current: 300A~800A



## Other Special Purpose Connector

#### **Nuclear Power Series**



Suitable for environments such as nuclear power plants and facilities

Waterproof: 100 meters

Radiation resistance:  $2.5 \times 105$ Gy



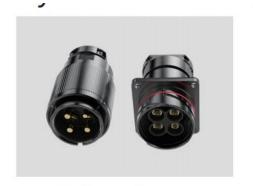
#### Part 7

## **Customized Service**



#### **Customized Service**

#### Customized connectors



High voltage electrical connector



Nuclear power connector



Deep sea electrical connector



Oil drilling electrical connector

- Fiber optic connectors
- Fluid connectors
- Gas electric hybrid connectors



#### **Customized Service**

#### Cable Assembly



Differential signal integrated wiring harness



RF wiring harness



J63 wiring harness



#### **Customized Service**

#### Personalized customization

Customize and develop personalized products according to customer requirements; Modify standard products based on customized solutions





# YONGGUI