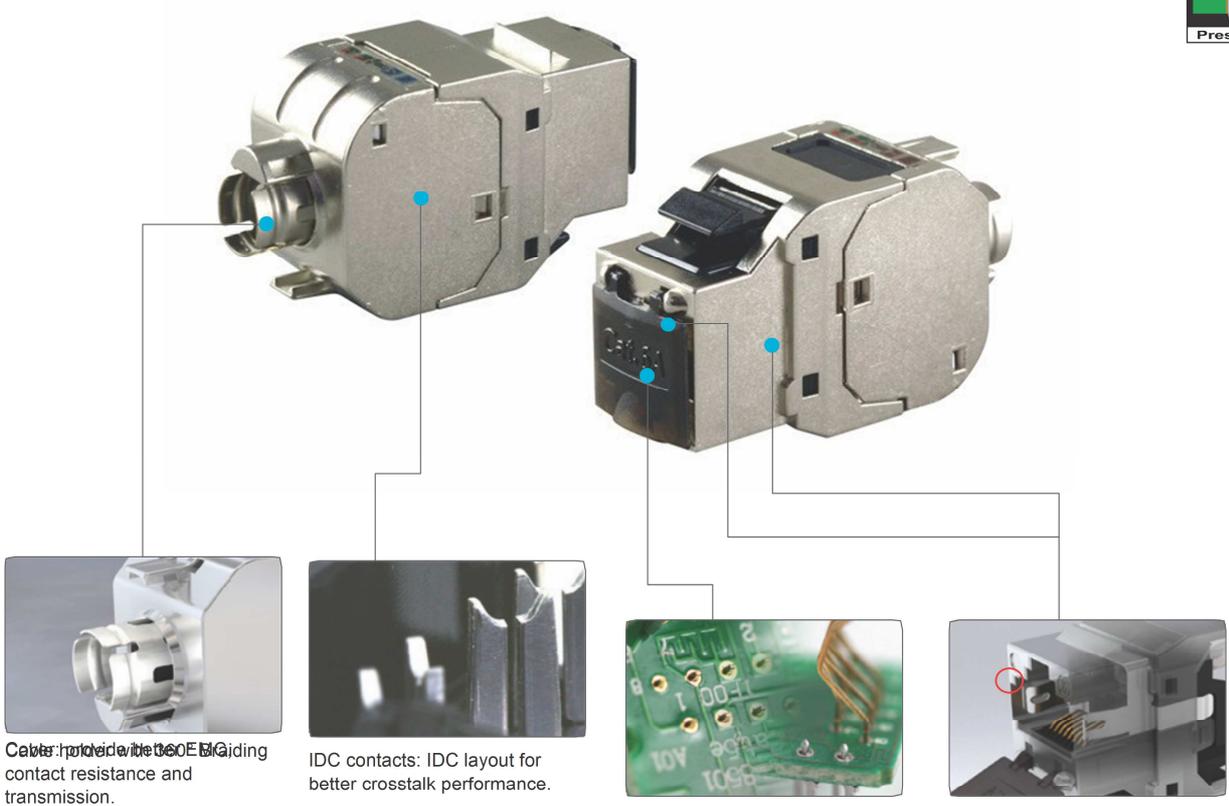


**TB906ADX Class E<sub>A</sub> / Cat.6A Die-Cast Keystone Jack (Auto press-fit)**



Cable shield with EMI shielding contact resistance and transmission.

IDC contacts: IDC layout for better crosstalk performance.

Press-fit process. 100% RoHS compliant, without soldering.

Metal contact: shield fingers for a better contact resistance and transmission. Unique design can resist RJ11/ RJ12 for 200 insertion. (Patent number : M435746)

The keystone jacks come with T568A or T568B wiring and fully comply with ANSI/TIA568-C-2 specifications for Insertion Loss (Attenuation), Near-End Crosstalk (NEXT), Return Loss, and Far-End Crosstalk (FEXT) for data transmissions of any pair combination with frequencies up to 500MHz.

**Compliance Statement**

**ISO/IEC, EN & TIA Screened Class E<sub>A</sub> / Category 6A Two Connector Permanent Link**

Telebox Industries Corp.  
4F, No. 306, Tatung Road, Sec 1,  
Hsichih-Taipei 221, Taiwan, R.O.C.

Compliance Statement No. 112731A

This type of Class E<sub>A</sub> / Category 6A screened two connector permanent link has been verified by 3P Third Party Testing and complies with the 28 Copper Ethernet requirements of IEEE 802.3an, Class E<sub>A</sub> requirements of Table 21 of ISO/IEC 11801 and ANSI/TIA 568-C-2, and Category 6A requirements of ANSI/TIA 568-C-2. The Compliance Statement is valid for the permanent link type 1A. Third Party Testing conducted with RJ 45 shield from Telebox, 3P ISO/IEC. The qualification may be suspended or withdrawn if 1A fails to pass a Maintenance Testing performed at 24 month intervals. The permanent link consists of the following components:

Conductor:	High-purity Copper from Dupont	Plating:	Silver/White Gold 100µ
Conductor:	Shielded from Telebox	Shielding:	Shielded
Conductor:	Shielded from Telebox	Shielding:	Shielded
Conductor:	Shielded from Telebox	Shielding:	Shielded
Conductor:	Shielded from Telebox	Shielding:	Shielded
Conductor:	Shielded from Telebox	Shielding:	Shielded

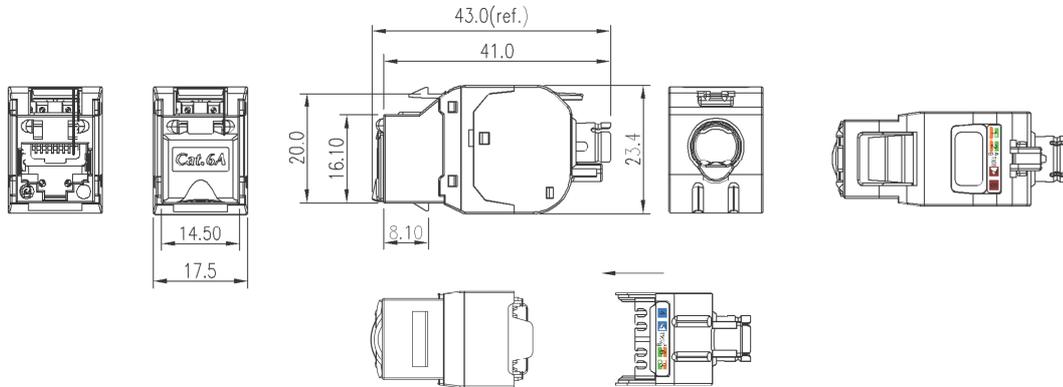
Hoersholm, 23<sup>rd</sup> November 2012 Hoersholm, 23<sup>rd</sup> November 2012

Ole Lambertsen  
Test Responsible

Paul Villen  
Coordinating Manager

Independent Testing - For End User Confidence

## Specification



### Specification:

Qualified unscreened Class E<sub>A</sub>/Category 6A

**Permanent Link/Channel of ANSI/TIA-568-C.2**

IEC 60603-7-51

ISO/IEC 11801 AMD2

CENELEC EN 50173-1

### Mechanical:

Plug Insertion Life: 750 Cycles minimum

Plug & Jack Contact Force: 100 Grams minimum

using FCC-approved plug

Plug Retention Force: 30 lbs minimum

Temperature: -40° to 150°F (-40° to 68°C)

### Electrical:

Current Rating: 1.5 Amps

Insulation Resistance: 500 MΩ minimum

Contact Resistance: 10 mΩ maximum

DC Resistance: 0.1 Ω maximum

### Physicals:

Housing & Cap: Zinc alloy die-casting

Cover & holder: High impact flame retardant plastic

Springshielded: 0.25t Phosphor bronze nickel plating

PCB: FR4, 1.6mm Thickness

Jack Wire: Ø0.40 mm Phosphor bronze gold over nickel plating

Connector: Insulation displacement connector (IDC) Accept #23~24 AWG solid wire

TB90	XX	X	X	-	XX
	58 : Cat.5e 68 : Cat.6 6A : Cat.6A	D : Die cast	D : door T : without door		BK : Black



KT8002 Compress Tool



HT90X8 Termination Tool

## Class E<sub>A</sub> / Cat.6A

Standard	Configuration	Cat.6A or Class E <sub>A</sub> (500MHz)
ISO/IEC 11801 AMD 2	Channel	Class E <sub>A</sub>
	Permanent Link	Class E <sub>A</sub>
CENELEC EN50173-1	Channel	Class E <sub>A</sub>
	Permanent Link	Class E <sub>A</sub>
EIA/TIA 568-C.2	Channel	Cat.6A
	Permanent Link	Cat.6A

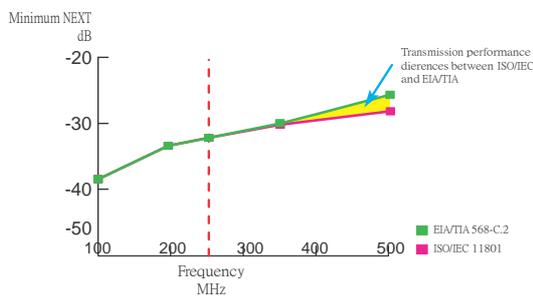
<<Comparison Chart I>>

For the regional US American cabling standard EIA/TIA 568-C.2, see <<Comparison Chart I>>, it describes channels and permanent links as “Cat. 6A.”

For the international cabling standard ISO/IEC 11801 and the European cabling standard EN 50173-1, both standards configurations like channels and permanent links are called “Class E<sub>A</sub>”.

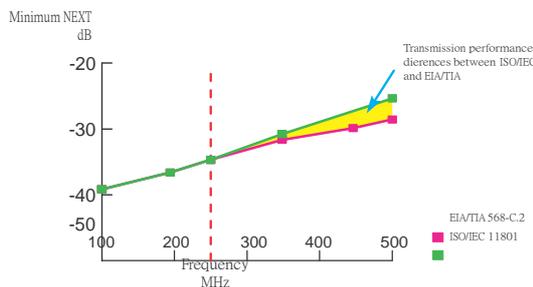
When you compare EIA/TIA with ISO/IEC or EN, they are not only naming differently, but also transmission performance requirements show significant variations, see below comparison charts.

### ISO/IEC 11801 v.s. EIA/TIA568-C.2 Channel NEXT Limits



Frequency MHz	ISO/IEC 11801	EIA/TIA 568-C.2
1.0	65.0	65.0
16.0	53.2	53.2
100.0	39.9	39.9
200.0	34.8	34.8
250.0	33.1	33.1
350.0	30.6	30.3
500.0	27.9	26.1

### ISO/IEC 11801 v.s. EIA/TIA568-C.2 Permanent Link NEXT Limits



Frequency MHz	ISO/IEC 11801	EIA/TIA 568-C.2
1.0	65.0	65.0
16.0	54.6	54.6
100.0	41.8	41.8
200.0	36.9	36.9
250.0	35.3	35.3
350.0	32.6	31.8
450.0	30.2	
500.0	27.8	26.7

## ■ Automatically Pressing contacts and IDC into a plated-through hole in the PCB.



### Advantages of Press-fit Connectors:

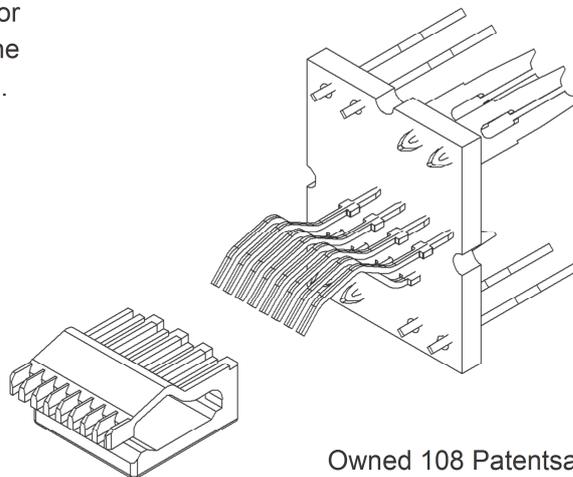
- Stable and reliable form of the contact
- Time-saving production
- Cost effective, no manual soldering
- Environmentally friendly
- Reduced inspection process



## ■ Patents and trade marks

Automatically Pressing contacts and IDC into a plated-through hole in the PCB.

The contact pins are bended by auto machine for better strength, together with contact support, the contact pins can resist RJ11/12 for 200 insertion.  
(Patent number : M435746)



Owned 108 Patents and 9 trade marks registered

