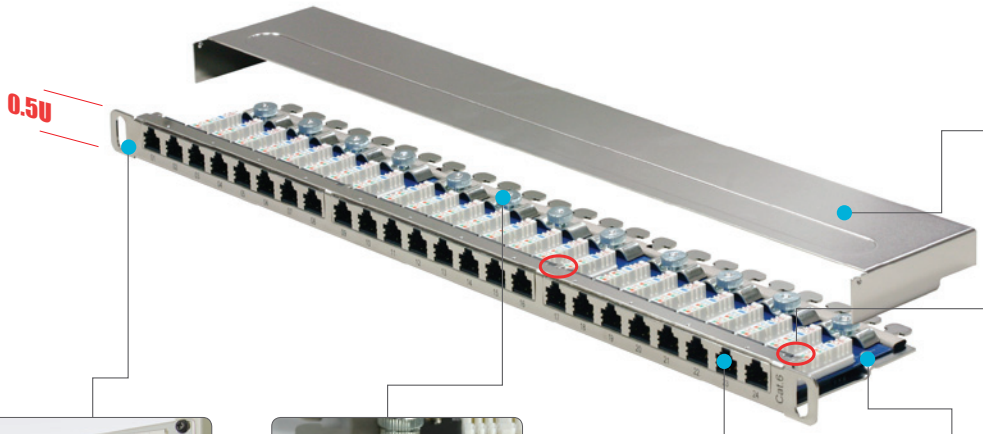
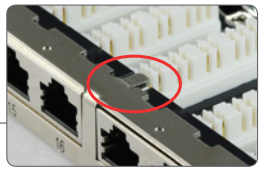
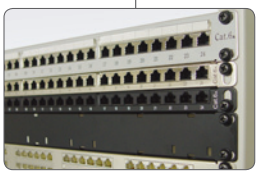
MLB246ASx 0.5U Class E_A / Cat.6A 24P STP Patch Panel (Auto press-fit)

Factory full compliance!

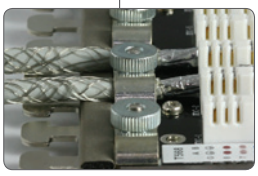




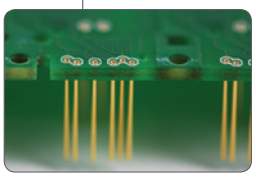
Metal cover and hinge design for better EMI/EMC.



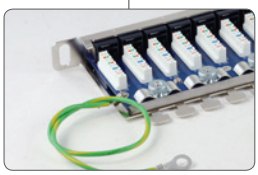
0.5U panel design saves 50% spaces.



"M" shape cable clamp to secure good contact resistance with cable braid to pass transfer impedance.



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



Connecting grounding wire to the rack.

The patch panels come T568A and T568B wiring and fully comply with ANSI/TIA-568-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.

High density patch panels are most commonly used at the cross-connect area for switches to the distribution side of the network, and can be mounted on 19” racks or cabinets.

THIRD PARTY TESTING 3P

Compliance Statement

ISO/IEC, EN & TIA Screened
Class E_A / 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. 112731

This type of Class E_A / Category 6A screened two connector permanent link has been tested by 3P Third Party Testing and complies with the 10 Gigabit Ethernet requirements of IEEE P802.3an, Class E_A requirements of Edition 2.2 of ISO/IEC 11801 and CENELEC EN 50173-1:2011, and Category 6A requirements of ANSI/TIA-568-C.2. The Compliance Statement is valid for the permanent link type in T568B designation connected with RJ 45 plugs from Telebox, P/N TA336BDS. The qualification may be suspended or withdrawn if it fails to pass a Maintenance Testing performed at 12 month intervals. The permanent link consists of the following components:

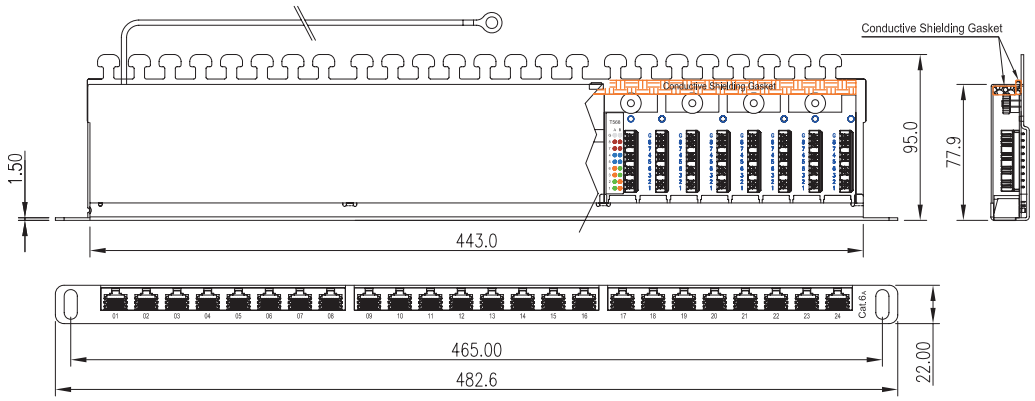
Cable:	*Horizontal Cable from Draka Communications;*	*P/N Silverline Gold 1000*
	Qualification Status:	*Manufacturer verified*
Conn. Hardware:	*Keystone Jack from Telebox,*	*P/N TB906ADx*
		having PCB Marking 001-9081
	Patch Panel from Telebox,	*P/N LB246ASx and P/N MLB246ASx*
		having PCB Marking Cat.6A 001-0895
	Qualification Status:	*Manufacturer verified*

Hoersholm, 30th November 2012
Ole Lambertsen
Test Responsible

Hoersholm, 30th November 2012
Poul Villien
Coordinating Manager

Independent Testing - For End User Confidence

Specification



Specification:

Qualified Screened Class EA / Category 6A
Permanent Link/Channel of ANSI/TIA-568-C.2
IEC60603-7-51
ISO/IEC11801 2.2 Edition
CENELEC EN 50173-1:2011

Electrical:

Current Rating: 1.5 Amps
Insulation Resistance: 500 MΩ Minimum
Contact Resistance: 10 mΩ Maximum
DC Resistance: 0.1 Ω Maximum
Shield Transfer Impedance @ 100 MHz 2000 mΩ Max.

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)

Physicals:

Frame : 1.5t SPCC, nickel plating
Shield : 0.25mm thickness copper alloy plated with tin
Plastic : High impact flame retardant plastic,
PCB: FR4, 1.6mm Thickness
Jack Wire: Ø0.46mm phosphor bronze gold over nickel plating
Connector: Insulation displacement connector (IDC) Accept AWG 22-26 solid wire
Covershielded: 1.0t SPCC, nickel plating

MLB	XX	XX	X	X	X
	24 : 24 ports	58 : Cat.5e 68 : Cat.6 6A : Cat.6A	U : Unshielded S : Shielded	K : K:Krone(TBX) C : Dual Type IDC	A:T568A B:T568B X:T568A/B

Class E_A / Cat.6A

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

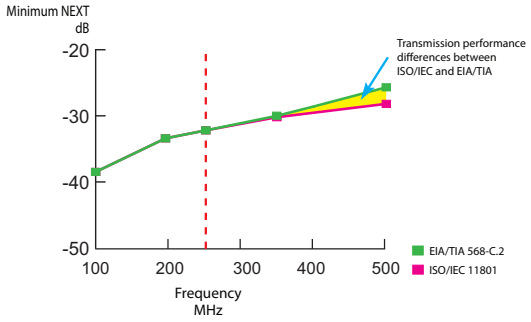
<<Comparison Chart I>>

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_A“.

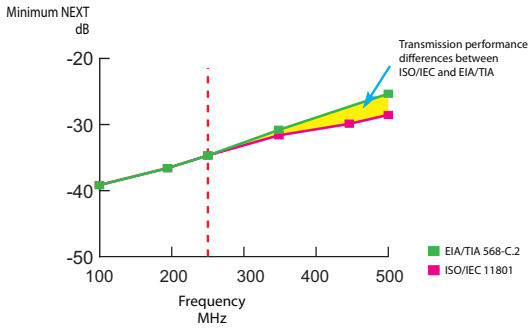
When you compare EIA/TIA with ISO/IEC or EN, they are not only naming differently, but also transmission performance requirements show significant variations, see below comparison charts.

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