



## OVERVIEW

Zemecs T421B1XY Category 6 UTP keystone jacks exceed ISO/IEC 11801:2011(Ed.2.2) Class E, EN 50173, ANSI/TIA/568.2-D and IEC 60603-7 requirements for Gigabit structured cabling systems. The solderless PCB design guarantees stable signal quality at all frequencies. The products fit into Zemecs blank patch panels and faceplates and may be terminated via T875 series special termination tool minimizing termination time, eliminating termination errors and maximizing working ergonomics.

Having been verified by third parties on connecting hardware and channel levels, T471B1XY series keystone jacks are included into Zemecs' 25 year system performance warranty programme.

## FEATURES

- Exceeds requirements of ANSI/TIA/EIA-568.2-D, EN 50173, ISO/IEC 11801, IEC 60603-7 and IEC 60512-99 cabling standards for channels, links and components
- Supports PoE and PoE+ applications
- Error free performance up to 250 Mhz. at 1 Gigabit Ethernet
- TIA 568 A/B Wiring
- Choice of different colours
- Certificated by Intertek(ETL)

## APPLICATIONS

- 1000 Base-T Gigabit Ethernet
- 100 Base-TX Fast Ethernet
- 10 Base-T Ethernet
- 622 Mbps ATM
- 155 Mbps ATM
- ISDN
- 4/16 Mbps Token Ring
- 100 Mbps TP-PMD
- Broadband and baseband video



## MATERIAL AND PHYSICAL SPECIFICATIONS

Housing Material	ABS, UL94V-0
Plug Contact Surface	50µ" Gold Plate Over 100µ" Nickel
IDC Terminal	100µ" Tinned Phosphorous Bronze Over Nickel Undercoat
PCB	FR4, 1,6mm. Thickness
Contact Holder	PC,UL94V-0
IDC Contact Angle	180°
Colour	White (standard), others optional
Dust Protection Cover	Optional



## COMPLIANCE

Standards For Generic Cabling And Cabling Components - Category 6 Plug Requirements
• ISO/IEC 11801-1:2017 (V.1.0)
• ISO/IEC 11801-2:2017 (V.1.0)
• EN 50173-1:2018, EN 50173-2:2018
• IEC 60603-7-4: 2010 (V.2.0)
• IEC 60512-99-002:2019
• ANSI/TIA-568.2-D:2018
Standards For The Restriction Of Use Of Hazardous Substances In Electrical And Electronic Equipments
• 2011/65/EU (RoHS-2)
Certification
• Certificated by Intertek(ETL)

## TRANSMISSION PERFORMANCE

FREQUENCY (Mhz.)	INSERTION LOSS (dB., max.)	RETURN LOSS (dB., min.)	NEXT (dB., min.)	FEXT (dB., min.)	TCTL (dB., min.)
1	0,08	35,00	76,00	78,00	43,00
4	0,06	35,00	76,00	73,00	43,00
8	0,07	35,00	76,00	66,00	43,00
10	0,06	35,00	76,00	64,00	43,00
16	0,07	35,00	71,00	60,70	43,00
20	0,07	35,00	69,00	58,00	43,00
25	0,07	35,00	67,00	56,00	43,00
31,25	0,07	35,00	65,00	55,00	41,00
62,5	0,08	32,00	58,50	49,00	35,00
100	0,12	28,00	55,00	45,00	31,50
200	0,22	22,00	50,00	39,00	24,50
250	0,22	20,00	46,40	36,00	24,00

Typical performance for TIA Channel is given. Actual performance may vary depending on installation and environmental conditions.

## ENVIRONMENTAL SPECIFICATIONS

Transportation & Storage Temperature	-40 / +70	°C
Installation Temperature	-20 / +60	°C
Operation Temperature	-10 / +60	°C
Relative Humidity	10 - 93, Non-condensing	%

## MECHANICAL SPECIFICATIONS

Compatible Plug Type	8P8C	RJ-45
Insertion Life	750	Cycles (IEC-60603-7)
Durability(Termination Cycles)	200	Cycles, Max.
Plug-Jack Contact Force	100	g., Max. (FCC Compatible RJ-45 Plug)
Plug-Jack Coupling Force	8	N., Max. (all wires)
Contact Compatibility	22-26 AWG	Solid or stranded
Suitable Termination Tool	110	May also be used with Zemecs T825X

## ELECTRICAL SPECIFICATIONS

Insulation Resistance (@500 VDC)	500	MΩ, Min.
DC Resistance (@20 °C)	0,1	Ω, Max.
Contact Resistance	20	mΩ, Max.
Termination Resistance	2,5	mΩ, Max.
Current Rating	2	A, Max.
Dielectric Strength (@60 Hz. / 1min.)	1.000	VAC Rms
Propagation Delay Skew	1,25	ns., Max.
Coupling Attenuation	60	dB., Max.

## PART NUMBER CODING

Part Nr.	Product Description
T421B1XY	Zemecs Category 6 UTP 180° 110 Type Keystone Jack (X denotes shutter type and Y denotes colour)
X	1: Lift Up , 2: No Cover 3: Shutter
Y	A or W: White, C or K: Black, Y: Yellow G: Green L: Blue O: Orange R: Red V: Violet

