



## GIGALAN CAT.7A INDUSTRIAL S/FTP LSZH-3D CABLE

<b>Description</b>	Shielded industrial data cable GigaLan Augmented Category 7A for indoor applications																	
<b>Application</b>	It supports: 10GIGABIT ETHERNET, IEEE 802.3an; GIGABIT ETHERNET, IEEE 802.3z; 100BASE-TX, IEEE 802.3u; 100BASE-T4, IEEE 802.3u; 100vg-AnyLAN, IEEE802.12; ATM -155 (UTP), AF-PHY-xxxx.000; TP-PMD, ANSI X3T9.5; 10BASE-T, IEEE802.3; TOKEN RING, IEEE802.5; 3X-AS400, IBM.																	
<b>Category</b>	CAT.7A																	
<b>Installation Environment</b>	Internal																	
<b>Operation Environment</b>	Non heavy																	
<b>Compatibility</b>	All FIS (Furukawa Industry System) products																	
<b>Conductor</b>	Solid bare copper																	
<b>Conductor Gauge</b>	23AWG																	
<b>Insulation</b>	Foamed Polyethylene. Insulated conductor nominal diameter: 1.4 mm																	
<b>Pair</b>	All pairs are twisted in such way to reduce Crosstalk effects. Each conductor is identified according to a color sequence.																	
<b>Number of Pairs</b>	4																	
<b>Core</b>	All individually shielded pairs are assembled, making the cable core																	
<b>Construction</b>	S/FTP																	
<b>Color code</b>	<table border="1"> <thead> <tr> <th>Pair</th> <th>Insulation Color "A"</th> <th>Insulation Color "B"</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Blue</td> <td>White / Blue Stripe</td> </tr> <tr> <td>2</td> <td>Orange</td> <td>White / Orange Stripe</td> </tr> <tr> <td>3</td> <td>Green</td> <td>White / Green Stripe</td> </tr> <tr> <td>4</td> <td>Brown</td> <td>White / Brown Stripe</td> </tr> </tbody> </table>	Pair	Insulation Color "A"	Insulation Color "B"	1	Blue	White / Blue Stripe	2	Orange	White / Orange Stripe	3	Green	White / Green Stripe	4	Brown	White / Brown Stripe		
Pair	Insulation Color "A"	Insulation Color "B"																
1	Blue	White / Blue Stripe																
2	Orange	White / Orange Stripe																
3	Green	White / Green Stripe																
4	Brown	White / Brown Stripe																
<b>Shield</b>	Over each single pair an aluminum foil tape (Al/PET) is applied with its conductive side facing outwards. The cable core is covered by a solid tinned copper braid.																	
<b>Ripcord</b>	Yes																	

Sheath	LSZH compound suitable to meet the cable flame rating class
Color	Gray Other colors on request
Cable Flammability Rating	LSZH - IEC 60332-3-25 (Category D)
Nominal Diameter	7.9mm
Operation Temperature	-20°C up to 75°C
Storage Temperature	-40°C up to 70°C
Installation Temperature	0°C up to 50°C
Insulation Resistance	5000 MΩ.km
Maximum Unbalance Resistance	2 %
Conductor Max. DC Resistance @ 20 °C	73.2 Ω/km
Maximum Mutual Capacitance @ 1 kHz	56 pF/m
Max. Unbalance Capacitance Pair x Ground @ 1 kHz	1.6 pF/m
Maximum Delay Skew	25 ns/100 m
NVP	65%

## Transmission Performance

Freq.	IL, dB	NEXT, dB	PSNEXT, dB	ELFEXT, dB	PSELFEXT, dB
(MHz)	Max.	Min.	Min.	Min.	Min.
4	3.7	78.0	75.0	78.0	75.0
8	5.2	78.0	75.0	77.2	74.2
10	5.8	78.0	75.0	75.3	72.3
16	7.3	78.0	75.0	71.2	68.2
20	8.2	78.0	75.0	69.3	66.3
25	9.2	78.0	75.0	67.3	64.3
31,25	10.3	78.0	75.0	65.4	62.4
62,5	14.6	78.0	75.0	59.4	56.4
100	18.5	75.4	72.4	55.3	52.3
150	22.8	72.8	69.8	51.8	48.8
200	26.5	70.9	67.9	49.3	46.3
250	29.7	69.4	66.4	47.3	44.3
300	32.7	68.2	65.2	45.8	42.8
500	42.8	64.9	61.9	41.3	38.3
600	47.1	63.7	60.7	39.7	36.7
800	54.9	61.9	58.9	37.2	34.2
1000	61.9	60.4	57.4	35.3	32.3

Freq. (MHz)	PROPAGATION DELAY, dB Max.	RL, dB Min.	CARACTERISTIC IMPEDANCE, $\Omega$ Upper Limit	CARACTERISTIC IMPEDANCE, $\Omega$ Lower Limit	COUPLING ATTENUATION, dB Min.
4	552.0	23.0	115.2	86.8	-
8	546.7	24.5	112.6	88.8	-
10	545.4	25.0	111.9	89.4	-
16	543.0	25.0	111.9	89.4	-
20	542.0	25.0	111.9	89.4	-
25	541.2	24.3	112.9	88.5	-
31,3	540.4	23.6	114.1	87.7	85.0
62,5	538.6	21.5	118.3	84.5	85.0
100	537.6	20.1	121.9	82.0	85.0
150	536.9	18.9	125.7	79.6	81.5
200	536.5	18.0	128.8	77.6	79.0
250	536.3	17.3	131.5	76.0	77.0
300	536.1	16.8	131.6	76.0	75.5
500	535.6	15.2	131.6	76.0	71.0
600	535.5	17.3	131.6	76.0	69.4
800	535.3	16.1	137.4	72.8	66.9
1000	535.1	15.1	142.8	70.0	65.0

**POE**  
 PoE (IEEE 802.3af) - Without bundle restriction  
 PoE+ (IEEE 802.at) - Without bundle restriction  
 PoE++ (IEEE 802.bt) - 192 bundles  
 4PPoE (IEEE 802.bt) - 192 bundles  
 PoH HDBaseT (100W) - 192 bundles

**Permanent Link**  
 Up 90m permanent link

**Channel**  
 Channel up to 4 connections - 100m

**MPTL**  
 Up to 90m MPTL

**RoHS**  
 Cable according with RoHS directive (Restriction of Hazardous Substances)

**Standard**  
 ANSI/TIA-568.2-D  
 ISO/IEC 11801  
 IEC 61156-5 CATEGORY 7A  
 IEC 60332-3-25  
 IEC 60754-2 (Acidity of smoke)  
 IEC 61034-2 (smoke density)  
 EN 50173-1

Warranty	12 months
Marking	<b>FURUKAWA GIGALAN AUGMENTED CAT. 7A INDUSTRIAL S/FTP 23AWGX4P LSZH 75°C IEC 60332-3 VERIFIED TO IEC 61156-5 CAT 7A --- LZ AAMMDDHHmm JNN {1}m</b>  Where: <b>YAAMMDDHHmm</b> - Y: Traceability, AA: Year, MM: Month, DD: Day, HH: Hour, mm: minute <b>JNN</b> - Batch Number  <b>{1}</b> - Sequential length marking in meters
Package	305m: Plywood or wooden spool

[Codification](#)