

SPECIFICATION CONTROL DRAWING

TECC0030C5-XL

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S/FTQ / QUAD

Stranded Tinned Copper

(19/0.15) ±0.008 mm

22 AWG

COMMUNICATION CABLE - 4 x 22AWG S/FTQ CABLE XL-LSZH - EM104

The complete requirements for procuring the wire described herein shall consist of this document and the issue in effect of the referenced specifications. This document takes precedence over documents referenced herein.

PRODUCT DETAILS

Structure

Conductor

Application:	Profinet, IEEE 802.3bt	Type 1, Type 2

Rated temperature: 80°C

Reference Standard: EN 50288-2-2, IEC 61156-5 & ISO/IEC 11801,

DESCRIPTION

EN 50264, EN 45545-2

Flammability Rating: IEC 60332-3-25, IEC 60332-1

Stranded Tinned Copper Conductor

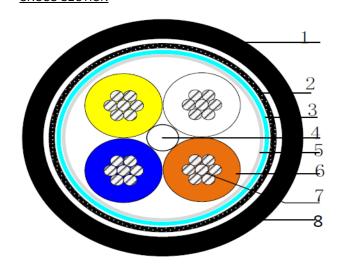
Colour-coded PE Insulation

XL-LSZH Jacket

Test Standard: EN 50264, EN 45545-2

Packaging: Per customer request

CROSS SECTION



1	Outer Jacket
2	Braid
3	AL/Polyester
4	Filler (Optional)
5	Separating Tape
6	Insulation
7	Conductor
8	Outer Tape

Insulation Insulation material Insulation dimension (mm) 1.60 ± 0.08 mm 1.60 ± 0.08 mm 1.7 white (Pure Colour) 2.7 yellow 3.8 lue 4.0 range 5.100 mm 5.1000 mm 5.1		Conductor dimension(mm)	(10/0.10) ±0.000 mm	
Insulation Colour (Pure Colour) Insulation Colour (Insulation Colour) Insulation Colour Insulation Insu	Insulation	Insulation material	PE	
Pure Colour 2. Yellow 3. Blue 4. Orange		Insulation dimension (mm)	1.60 ± 0.08 mm	
Cabling Cabling Lay Length ≤ 100mm Filler Filler Optional Separating Tape Separating Tape Material Wrap Overlap ≥ 25% Shield Primary shield & material Primary shield overlapping ≥ 15% Secondary shield & material Shield nom. Coverage ≥ 85% Outer Tape Outer Tape Tape Outer Jacket Outer Jacket Nominal Thickness Overall Nom Dimension (mm) Outer Jacket Colour Blue Mechanical Characteristics Operating Temp Range Ge Kykm Max. Pulling Tension Min. Bend Radius (Install) 6XOD(dynamic) 10xOD(static) Outer Jacket Longation Outer Jacket Longation Strength Variation Elongation Variation Elongation Variation Elongation Variation Strength Variation Elongation Variation Strength Variation Elongation Variation Strength Variation Stren		Insulation Colour	1.White	
Cabling Cabling Lay Length ≤ 100mm Filler Filler Optional Separating Tape Separating Tape Material PP Tape Wrap Overlap ≥ 25% Shield Primary shield & material AL/Polyester Primary shield overlapping ≥ 15% Secondary shield & material Tinned Copper Wire Shield nom. Coverage ≥ 85% Outer Tape Tape Outer Jacket Outer Jacket material XL-LSZH Jacket Nominal Thickness 0.80 mm Overall Nom Dimension (mm) 7.10 ± 0.20 mm Duter Jacket Colour Blue Mechanical Operating Temp Range -40°C to +80°C Characteristics 66 kg/km Bulk Cable weight 80N Max. Pulling Tension 60xOD(dynamic) Min. Bend Radius (Install) 60xOD(dynamic) Outer Jacket Tensile Strength 2 10 Mpa Outer Jacket Ageing 2 10 Mpa Tensile Strength Variation ≤± 30% of Unaging Electrical Nom. Mutual Capacitance ≤± 30% of Unaging Electrical Nom. Mutual Capacitance Unba		(Pure Colour)	2.Yellow	
Cabling Cabling Lay Length ≤ 100mm Filler Filler Optional Separating Tape Separating Tape Material Wrap Overlap PP Tape Wrap Overlap ≥ 25% Shield Primary shield & material Primary shield overlapping Secondary shield & material Shield nom. Coverage ≥ 15% Outer Tape Tinned Copper Wire Shield nom. Coverage ≥ 85% Outer Jacket Outer Tape Tape Outer Jacket Outer Jacket material Jacket Nominal Thickness Overall Nom Dimension (mm) 7.10 ± 0.20 mm Overall Nom Dimension (mm) 7.10 ± 0.20 mm Blue Mechanical Characteristics Operating Temp Range Bulk Cable weight Max. Pulling Tension 66 kg/km Max. Pulling Tension Min. Bend Radius (Install) 6XOD(dynamic) Min. Bend Radius (Install) 6XOD(dynamic) Outer Jacket Tensile Strength Outer Jacket Elongation ≥ 10 Mpa Outer Jacket Ageing Tensile Strength Variation ≥ 125% Outer Jacket Ageing Tensile Strength Variation ≤± 30% of Unaging Electrical Characteristics Nom. Mutual Capacitance Unbalance Nominal Propagation Velocity Max. Delay Skew As ns/100m 54.6 nF/100m <th></th> <th></th> <th colspan="2">3.Blue</th>			3.Blue	
Filler Filler Optional Separating Tape Separating Tape Material PP Tape Wrap Overlap ≥ 25% Shield Primary shield & material Primary shield overlapping Secondary shield & material Tinned Copper Wire Shield nom. Coverage ≥ 85% Outer Tape Outer Tape Tape Outer Jacket Outer Jacket material Jacket Nominal Thickness Overall Nom Dimension (mm) Outer Jacket Colour Blue Mechanical Characteristics Bulk Cable weight Max. Pulling Tension Min. Bend Radius (Install) 6XOD(dynamic) 10xOD(static) Outer Jacket Tensile Strength Outer Jacket Ageing 240h @ 120°C Tensile Strength Variation ≤± 30% of Unaging Elongation Variation ≤± 30% of Unaging Elongation Variation ≤± 30% of Unaging Sincy Max. Delay Skew Max. Operating Voltage Max. Operating Voltage 300 V			4.Orange	
Separating Tape Separating Tape Material Wrap Overlap Primary shield & material Primary shield overlapping Secondary shield & material Primary shield overlapping Secondary shield & material Primary shield overlapping Secondary shield & material Shield nom. Coverage Primary shield overlapping Secondary shield & material Shield nom. Coverage Primary shield overlapping Secondary shield & material Tinned Copper Wire ≥ 85% Outer Tape Outer Jacket Mominal Thickness Overall Nom Dimension (mm) Outer Jacket Colour Overall Nom Dimension (mm) Outer Jacket Colour Operating Temp Range House	Cabling	Cabling Lay Length	≤ 100mm	
Wrap Overlap ≥ 25%	Filler	Filler	Optional	
Shield Primary shield & material AL/Polyester Primary shield overlapping ≥ 15% Secondary shield & material Tinned Copper Wire Shield nom. Coverage ≥ 85% Outer Tape Tape Outer Jacket Outer Jacket material XL-LSZH Jacket Nominal Thickness 0.80 mm Overall Nom Dimension (mm) 7.10 ± 0.20 mm Blue Blue Mechanical Characteristics Operating Temp Range -40°C to +80°C Bulk Cable weight 66 kg/km Max. Pulling Tension 80N Min. Bend Radius (Install) 6XOD(dynamic) 10xOD(static) ≥ 10 Mpa ≥ 10x0D(static) ≥ 10 Mpa ≥ 10x0D(static) ≥ 10 Mpa ≥ 125% 240h @ 120°C Tensile Strength Variation ≤ ± 30% of Unaging Electrical Characteristics Nom. Mutual Capacitance ≤ 5.6 nF/100m (@ 1kHz) ≤ 10x1D primary ≤ 160 pF/100m 65% Aux. Delay Skew 45 ns/100m Max. Delay Skew 45 ns/100m Max. Conductor Resistance 5000 MΩ.m	Separating Tape	Separating Tape Material	PP Tape	
Primary shield overlapping Secondary shield & material Shield nom. Coverage Outer Tape Outer Tape Outer Jacket Outer Jacket Nominal Thickness Overall Nom Dimension (mm) Outer Jacket Colour Mechanical Characteristics Operating Temp Range Bulk Cable weight Max. Pulling Tension Min. Bend Radius (Install) Outer Jacket Elongation Outer Jacket Elongation Outer Jacket Ageing Tensile Strength Variation Elongation Variation Elongation Variation Elongation Variation Elongation Variation Elongation Variation Elongation Variation Electrical Characteristics Nom. Mutual Capacitance Pair-Ground Capacitance Unbalance Nominal Propagation Velocity Max. Delay Skew Max. DC Conductor Resistance Max Conductor Resistance Max. Operating Voltage ≥ 15% Tinned Copper Wire ≥ 85% XL-LSZH XL-LSZH 0.80 mm 7.10 ± 0.20 mm Blue -40°C to +80°C 66 kg/km 80N 6XOD(dynamic) 10xOD(static) ≥ 10 Mpa ≥ 125% 240h @ 120°C ± 30% of Unaging ≤± 30% of Unaging ≤± 30% of Unaging ≤± 30% of Unaging 5 5.6 nF/100m (@ 1kHz) ≤ 160 pF/100m 65% 45 ns/100m 54.4 Ω/km (@20°C) 2% (@20°C) 5000 MΩ.m Max. Operating Voltage Max. Operating Voltage		Wrap Overlap	≥ 25%	
Secondary shield & material Shield nom. Coverage Outer Tape Outer Tape Outer Jacket Outer Jacket Nominal Thickness Overall Nom Dimension (mm) Outer Jacket Colour Mechanical Characteristics Outer Jacket Tensile Strength Outer Jacket Ageing Outer Jacket Ageing Electrical Characteristics Electrical Characteristics Electrical Characteristics Outer Jacket Ageing Elongation Variation Elongation Variation Elongation Variation Elongation Variation Elongation Variation Elongation Variation Amax. Delay Skew Max. DC Conductor Resistance Max. Operating Voltage Max. Operating Voltage Tinned Copper Wire ≥ 85% Tape Tape Tape Tape AL-LSZH 0.80 mm 7.10 ± 0.20 mm Blue -40°C to +80°C 66 kg/km 80N 6XOD(dynamic) 10xOD(static) ≥ 10 Mpa ≥ 125% 240h @ 120°C ± 30% of Unaging ≤± 30% of Unaging ≤± 30% of Unaging ≤ 5.6 nF/100m (@ 1kHz) ≤ 160 pF/100m 65% Max. Delay Skew Max. DC Conductor Resistance Nominal Propagation Velocity Max. Operating Voltage Max. Operating Voltage 300 V	Shield	Primary shield & material	AL/Polyester	
Shield nom. Coverage ≥ 85%		Primary shield overlapping	≥ 15%	
Outer Tape Tape Outer Jacket Outer Jacket material XL-LSZH Jacket Nominal Thickness 0.80 mm Overall Nom Dimension (mm) 7.10 ± 0.20 mm Blue Pull to to +80°C Mechanical Characteristics Operating Temp Range -40°C to +80°C Bulk Cable weight 66 kg/km Max. Pulling Tension 80N Min. Bend Radius (Install) 6XOD(dynamic) 10xOD(static) ≥ 10 Mpa ≥ 10 Mpa ≥ 125% Outer Jacket Elongation ≥ 125% Outer Jacket Ageing 240h @ 120°C Tensile Strength Variation ≤± 30% of Unaging Elongation Variation ≤± 30% of Unaging Elongation Variation ≤± 30% of Unaging ± 30% of Unaging ≤± 30% of Unaging ± 160 pF/100m ≤5% Nominal Propagation Velocity ≤ 160 pF/100m Max. Delay Skew 45 ns/100m Max Conductor Resistance 54.4 Ω/km (@20°C) Min. Insulation Resistance 5000 MΩ.m Max. Operating Voltage 300 V		Secondary shield & material	Tinned Copper Wire	
Outer Jacket Outer Jacket Nominal Thickness 0.80 mm Overall Nom Dimension (mm) 7.10 ± 0.20 mm Blue 7.10 ± 0.20 mm Mechanical Characteristics Operating Temp Range -40°C to +80°C Bulk Cable weight 66 kg/km Max. Pulling Tension 80N Min. Bend Radius (Install) 6XOD(dynamic) 10xOD(static) ≥ 10 Mpa ≥ 10 Mpa ≥ 125% Outer Jacket Elongation ≥ 125% Outer Jacket Ageing 240h @ 120°C Tensile Strength Variation ≤± 30% of Unaging Electrical Characteristics Nom. Mutual Capacitance ≤ 5.6 nF/100m (@ 1kHz) Electrical Characteristics Nom. Mutual Capacitance ≤ 160 pF/100m Nominal Propagation Velocity 45 ns/100m Max. Delay Skew 45 ns/100m Max Conductor Resistance 54.4 Ω/km (@20°C) Max Conductor Resistance unbalance 2% (@20°C) Min. Insulation Resistance 5000 MΩ.m Max. Operating Voltage 300 V		Shield nom. Coverage	≥ 85%	
Jacket Nominal Thickness 0.80 mm 7.10 ± 0.20 mm Outer Jacket Colour Blue	Outer Tape	Outer Tape	Таре	
Overall Nom Dimension (mm) Outer Jacket Colour Mechanical Characteristics	Outer Jacket	Outer Jacket material	XL-LSZH	
Mechanical Characteristics Operating Temp Range -40°C to +80°C Bulk Cable weight Max. Pulling Tension Min. Bend Radius (Install) 66 kg/km Max. Pulling Tension Min. Bend Radius (Install) 6XOD(dynamic) Outer Jacket Tensile Strength Outer Jacket Elongation ≥ 10 Mpa Outer Jacket Ageing Tensile Strength Variation ≥ 40h @ 120°C Tensile Strength Variation ≤± 30% of Unaging Electrical Characteristics Nom. Mutual Capacitance Pair-Ground Capacitance Unbalance Nominal Propagation Velocity Max. Delay Skew ≤ 5.6 nF/100m (@ 1kHz) Max. Delay Skew Max. Delay Skew Max. Delay Skew Max. Delay Skew Max. Conductor Resistance Unbalance Max Conductor Resistance Unbalance Max Conductor Resistance Unbalance Max Conductor Resistance Unbalance Max Conductor Resistance Max Conductor Resistance Max Conductor Resistance Max Conductor Resistance Max. Operating Voltage 5000 MΩ.m		Jacket Nominal Thickness	0.80 mm	
Mechanical Characteristics Operating Temp Range Bulk Cable weight Amax. Pulling Tension -40°C to +80°C 66 kg/km Max. Pulling Tension Min. Bend Radius (Install) 80N Min. Bend Radius (Install) 6XOD(dynamic) 10xOD(static) 10xOD(static) Outer Jacket Tensile Strength Outer Jacket Elongation ≥ 10 Mpa Outer Jacket Ageing Tensile Strength Variation ≥ 125% Outer Jacket Ageing Tensile Strength Variation ≤± 30% of Unaging Electrical Characteristics Nom. Mutual Capacitance ≤ 5.6 nF/100m (@ 1kHz) Pair-Ground Capacitance Unbalance Nominal Propagation Velocity ≤ 160 pF/100m Nom. Delay Skew Max. Delay Skew Max. Delay Skew Max. Delay Skew Max Conductor Resistance Unbalance Max Conductor Resistance Unbalance Max Conductor Resistance Unbalance Max Conductor Resistance Unbalance Max Conductor Resistance Max Conductor Resistance Max Conductor Resistance Max Conductor Resistance Max Operating Voltage 5000 MΩ.m		Overall Nom Dimension (mm)	7.10 ± 0.20 mm	
Characteristics Bulk Cable weight Max. Pulling Tension Min. Bend Radius (Install) 66 kg/km Min. Bend Radius (Install) 600D(dynamic) 10xOD(static) 10xOD(static) 2 10 Mpa 2125% Outer Jacket Elongation Outer Jacket Ageing Tensile Strength Variation 240h @ 120°C Tensile Strength Variation Elongation Variation ± 30% of Unaging Electrical Characteristics Nom. Mutual Capacitance Pair-Ground Capacitance Unbalance Nominal Propagation Velocity Max. Delay Skew 45 ns/100m ≤ 5.6 nF/100m (@ 1kHz) Max. Delay Skew Max. Delay Skew Max. Delay Skew Max. Conductor Resistance Unbalance Max Conductor Resistance Unbalance Max Conductor Resistance Unbalance Max Conductor Resistance Unbalance Max. Operating Voltage 5000 MΩ.m Max. Operating Voltage 300 V		Outer Jacket Colour	Blue	
Bulk Cable Weight Max. Pulling Tension Min. Bend Radius (Install) Outer Jacket Tensile Strength Outer Jacket Elongation Outer Jacket Ageing Tensile Strength Variation Elongation Variation Electrical Characteristics Pair-Ground Capacitance Nominal Propagation Velocity Max. Delay Skew Max. DC Conductor Resistance Max Conductor Resistance Max. Operating Voltage Max. Delay Standard Son Max. Max. Delay Standard Son Max. Delay Standard Son Max. Delay Standard Son Max. So		Operating Temp Range	-40°C to +80°C	
Min. Bend Radius (Install) Min. Bend Radius (Install) Outer Jacket Tensile Strength Outer Jacket Elongation Outer Jacket Ageing 240h @ 120°C Tensile Strength Variation Elongation Variation Elongation Variation Electrical Characteristics Nom. Mutual Capacitance Pair-Ground Capacitance Unbalance Nominal Propagation Velocity Max. Delay Skew Max. Delay Skew Max. DC Conductor Resistance Max Conductor Resistance Max Conductor Resistance Min. Insulation Resistance Max. Operating Voltage Max. Operating Voltage 6XOD(dynamic) 6XOD(dynamic) 6XOD(dynamic) 6XOD(dynamic) 6400 6400 ≥ 10 Mpa 240h @ 120°C ± 30% of Unaging 2± 30% of Unaging 2± 30% of Unaging 2± 30% of Unaging 65% 45 ns/100m 65% 45 ns/100m 54.4 Ω/km (@20°C) 5000 MΩ.m 300 V	Characteristics	Bulk Cable weight	66 kg/km	
Duter Jacket Tensile Strength ≥ 10 Mpa ≥ 125% Outer Jacket Elongation ≥ 125% 240h @ 120°C 240h @ 120°C ≤± 30% of Unaging ≤± 30% of Unaging ≤± 30% of Unaging ≤± 30% of Unaging ≤± 30% of Unaging ≤± 30% of Unaging ≤± 30% of Unaging ≤± 30% of Unaging ≤± 30% of Unaging ≤± 30% of Unaging ≤± 30% of Unaging ≤± 30% of Unaging ≤± 30% of Unaging ≤		Max. Pulling Tension	80N	
Outer Jacket Tensile Strength Outer Jacket Elongation Outer Jacket Ageing Tensile Strength Variation Elongation Variation Elongation Variation Electrical Characteristics Nom. Mutual Capacitance Pair-Ground Capacitance Unbalance Nominal Propagation Velocity Max. Delay Skew Max. DC Conductor Resistance Max Conductor Resistance Max Conductor Resistance Max. Operating Voltage ≥ 10 Mpa ≥ 125% 240h @ 120°C ≤± 30% of Unaging ≤± 30% of Unaging ≤± 30% of Unaging ≤± 30 pF/100m (@ 1kHz) ≤ 160 pF/100m 65% 45 ns/100m 54.4 Ω/km (@20°C) 5000 MΩ.m		Min. Bend Radius (Install)	6XOD(dynamic)	
Outer Jacket Elongation Outer Jacket Ageing 240h @ 120°C 250h Of Unaging 240h @ 160°C 250h Of Unaging 250			10xOD(static)	
Outer Jacket Ageing Tensile Strength Variation Elongation Variation Electrical Characteristics Nom. Mutual Capacitance Pair-Ground Capacitance Unbalance Nominal Propagation Velocity Max. Delay Skew Max. DC Conductor Resistance Max Conductor Resistance Max Conductor Resistance Max Conductor Resistance Min. Insulation Resistance Max. Operating Voltage 240h @ 120°C ± 30% of Unaging ≤ 5.6 nF/100m (@ 1kHz) ≤ 160 pF/100m 65% 45 ns/100m 54.4 Ω/km (@20°C) 2% (@20°C) 5000 MΩ.m 300 V		Outer Jacket Tensile Strength	≥ 10 Mpa	
Tensile Strength Variation $\leq \pm 30\%$ of Unaging Elongation Variation $\leq \pm 30\%$ of Unaging \leq		Outer Jacket Elongation	≥ 125%	
Electrical Characteristics Nom. Mutual Capacitance Pair-Ground Capacitance Unbalance Nominal Propagation Velocity Max. Delay Skew Max. DC Conductor Resistance Max Conductor Resistance Max Conductor Resistance Min. Insulation Resistance Max. Operating Voltage S ± 30% of Unaging ≤ ± 30% of Unaging ≤ 5.6 nF/100m (@ 1kHz) ≤ 160 pF/100m 65% 45 ns/100m 54.4 Ω /km (@20°C) 2% (@20°C) 5000 M Ω .m		Outer Jacket Ageing	240h @ 120°C	
Electrical Characteristics Nom. Mutual Capacitance ≤ 5.6 nF/100m (@ 1kHz) Pair-Ground Capacitance Unbalance ≤ 160 pF/100m Nominal Propagation Velocity 65% Max. Delay Skew 45 ns/100m Max. DC Conductor Resistance 54.4 Ω/km (@20°C) Max Conductor Resistance unbalance 2% (@20°C) Min. Insulation Resistance 5000 MΩ.m Max. Operating Voltage 300 V		Tensile Strength Variation	≤± 30% of Unaging	
Characteristics Pair-Ground Capacitance Unbalance ≤ 160 pF/100m Nominal Propagation Velocity 65% Max. Delay Skew 45 ns/100m Max. DC Conductor Resistance 54.4 Ω/km (@20°C) Max Conductor Resistance unbalance 2% (@20°C) Min. Insulation Resistance 5000 MΩ.m Max. Operating Voltage 300 V		Elongation Variation	≤± 30% of Unaging	
Nominal Propagation Velocity Max. Delay Skew Max. DC Conductor Resistance Max Conductor Resistance Min. Insulation Resistance Max. Operating Voltage S 180 pF/100m 65% 45 ns/100m 54.4 Ω/km (@20°C) 2% (@20°C) 5000 MΩ.m 300 V		Nom. Mutual Capacitance	≤ 5.6 nF/100m (@ 1kHz)	
Max. Delay Skew45 ns/100mMax. DC Conductor Resistance54.4 Ω/km (@20°C)Max Conductor Resistance unbalance2% (@20°C)Min. Insulation Resistance5000 MΩ.mMax. Operating Voltage300 V	Characteristics	Pair-Ground Capacitance Unbalance	≤ 160 pF/100m	
Max. DC Conductor Resistance54.4 Ω/km (@20°C)Max Conductor Resistance unbalance2% (@20°C)Min. Insulation Resistance5000 MΩ.mMax. Operating Voltage300 V		Nominal Propagation Velocity	65%	
Max Conductor Resistance unbalance 2% (@20°C) Min. Insulation Resistance 5000 MΩ.m Max. Operating Voltage 300 V		Max. Delay Skew	45 ns/100m	
Min. Insulation Resistance 5000 MΩ.m Max. Operating Voltage 300 V		Max. DC Conductor Resistance	54.4 Ω/km (@20°C)	
Max. Operating Voltage 300 V		Max Conductor Resistance unbalance	2% (@20°C)	
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		Min. Insulation Resistance	5000 MΩ.m	
JACKET MARK	Max. Operating Voltage 300 V			
	JACKET MARK			

PHYSICAL CHARACTERISTICS

Construction

AWG / mm²

Number of Conductors

Conductor dimension(mm)

Conductor material

"TE CONNECTIVITY - TECC0030C5-XL - 4 X 22AWG S/FTQ CAT 5E CABLE EM104 - YEAR OF MANUFACTURE - BATCH NUMBER - METRE MARK"

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SPECIFICATION CONTROL DRAWING

TECC0030C5-XL

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COMMUNICATION CABLE - 4 x 22AWG S/FTQ CABLE XL-LSZH - EM104

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issue in effect of the referenced specifications. This document takes precedence over documents referenced herein.

ELECTRICAL CHARACTERISTICS CONTINUED

Frequency	Input Impedance	ATT	RL	NEXT	ELFEXT	Delay
(MHz)	(Ω)	(dB/100m)	(dB Min)	(dB Min)	(dB Min)	(ns/100m Max.)
1	100 ± 15	2.0	20.0	65.3	63.8	570.0
4	100 ± 15	4.1	23.0	56.3	51.8	552.0
10	100 ± 15	6.5	25.0	50.3	43.8	545.4
16	100 ± 15	8.2	25.0	47.2	39.7	543.0
20	100 ± 15	9.3	25.0	45.8	37.8	542.0
31.25	100 ± 15	11.7	23.6	42.9	33.9	540.4
62.5	100 ± 15	17.0	21.5	38.4	27.9	538.6
100	100 ± 15	22.0	20.1	35.3	23.8	537.6

Note; Cable that meet the requirements of the template are not required to be measured for return loss; alternately cables that meet the return loss requirements are not required to be measured for characteristic impedance.

Mechanical performance Requirements for the tests for outer jacket.

Test	Type of compound		test method	
Hot set test	(200.2) % (45.4) (201.) 2	elongation under load≤100%	EN 60811-2-1 9	
not set test	(200±3) ℃/15Min/20N/cm ²	elongation after unloading≤25%	EN 60811-2-19	
Ozone resistance				
Method A	(0.025-0.03%)(25±2)℃/24h	No Crack	EN50305 7.4.2	
Method B	(0.00015-0.00025%)(40±-2)°C/72h	No Crack	LN30303 7.4.2	
Mineral oil	IRM902/(100±2)°C/72h	Tensile strength Variation ≤±30%.		
resistance	TRM902/(100±2) C/72h	Elongation at break Variation ≤±40%.		
Ford and determine	IDN 4002 // 70 / 21 °C /4 CSL	Tensile strength Variation ≤±30%.		
Fuel resistance	IRM903/(70±2)℃/168h	Elongation at break Variation ≤±40%.	EN 60811-2-1 10	
A -: -!	N oxalic acid solution/(23±2)℃	Tensile strength Variation ≤±30%.	EN 60811-2-1 10	
Acid resistance	/168h	Elongation at break Variation ≥100%.		
-1111	N-sodium-hydroxide solution/(23±2)	Tensile strength Variation ≤±30%.	1	
alkaline resistance	℃/168h	Elongation at break Variation ≥100%.		
Hot pressure	(125±2)℃/4h,	tear strength≤50%	EN 608111-3 9.2	
Cold bend	- (40±2) ℃,8D	No Crack	EN 60811-1-4 8.1	
Impact test	- (25±2) ℃	No Crack	EN 50305 5.1	
	HCl and HBr	≤0.5%	EN50267-2-1	
Assessment of	HF	≤0.1%	EN 60684-2	
halogens	pH	≥4.3	ENEGGE7 2 2	
	Conductivity	≤10μS/mm	EN50267-2-2	
l Reaction to fire I	Single vertical flame	IEC 60332-1-2	IEC 60332-1-2	
	Bunched cable flame	IEC 60332-3-25	IEC 60332-3-25	
	Smoke emission	>=70%	EN 61034-2	
	Toxicity index	ITC <=3	EN 50305 9.2	
Water absorption	70±2°Cx168hrs	Weight increase <=15mg/cm ²	EN 60811-1-3	

Approval Electronic sign off - no signatures will appear.

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