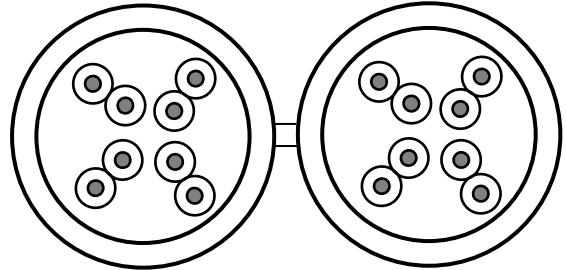


NN01302

Customer specific 2=2424
Networking Cables
Datatwist® cable
2= IBDN2424 U/UTP LSZH
2017-05-04 V3



Applications

- Horizontal and building backbone cable
- Support current and future Category 5e and 6 applications, such as:
1000Base-T (Gigabit Ethernet), 100 Base-T, 10 Base-T, FDDI, ATM

General standards

- International standard: ISO/IEC 11801 2nd edition (2002) and ISO/IEC 11801 Amendment 2 (2010)
- European standard: EN 50173-1 (2002) and EN 50173-1 Amendment 1 (2009)
- U.S. Standards: ANSI/TIA/EIA 568-B.2-1 (2002)

Construction & Dimensions

- 1. Conductor**
 - Material: Solid bare copper ETP
 - Diameter: AWG 24
- 2. Insulation**
 - Material: Polyethylene
 - Nominal diameter over insulation: 1.0 mm
- 3. Cable core**
 - Pair: 2 twisted insulated conductors
 - Number of pairs: 4, all twisted together
 - Colour code pair 1: White / Blue & Blue
 - Colour code pair 2: White / Orange & Orange
 - Colour code pair 3: White / Green & Green
 - Colour code pair 4: White / Brown & Brown
- 4. Jacket**
 - Material: LSZH
 - Diameter: 5.5 ± 0.3 mm x 11.5 ± 0.5 mm
 - Colour: White
 - Standard text (+ batch code and length indication per meter):

BELDEN NETWORKING (H) --- BELDEN IBDN --- GIGAFLEX 2424 2X4PR/24 UTP LSOH DCA-S2,D2,A1 TYPE ISO/IEC 11801 VERIFIED ETL CAT 6

Electrical characteristics

Reference standard: ISO/IEC 61156-5 edition 2.0 (2009)

Low frequency and D.C. (at 20°C)	Specification	Unit
D.C. resistance conductor	< 9,4	Ω/100m
Resistance unbalance: within a pair / between pairs	< 5	%
Insulation resistance	≥ 5000	MΩ.km
Dielectric strength conductor-conductor (2 sec.)	2.5	kV DC
Mutual capacitance	< 56	nF/km
Capacitance unbalance pair to ground	< 1600	pF/km
Delay skew (differential delay)	≤ 45	ns/100m
Nominal velocity of propagation (for information only)	> 0.6	c

High frequency (at 20°)														
TYPE	1	4	10	16	31.2	62.5	100	155	200	250	300	350*	450*	MHz
Attenuation	2.0	3.7	5.8	7.4	10.4	15.0	19.3	24.5	28.3	32.1	35.6	38.9	45.0	dB/100m
NEXT	75.3	66.3	61.8	58.6	54.0	49.1	45.8	42.7	40.9	39.3	38.1	37.1	35.5	dB/100m
PS NEXT	73.3	64.3	59.8	56.6	52.0	47.1	43.8	40.7	38.9	37.3	36.1	35.1	33.5	dB/100m
ACR	73.3	62.6	56.0	51.2	43.6	34.1	26.5	18.2	12.6	7.2	2.5			dB/100m
PS ACR	71.3	60.6	54.0	49.2	41.6	32.1	24.5	16.2	10.6	5.2				dB/100m
ACR-F	70.8	58.8	50.8	46.7	40.9	34.9	30.8	27.0	24.8	22.8	21.3	19.9	17.7	dB/100m
PS ACR-F	67.8	55.8	47.8	43.7	37.9	31.9	27.8	24.0	21.8	19.8	18.3	16.9	14.7	dB/100m
Return Loss	20.0	23.0	25.0	25.0	23.6	21.5	20.8	19.5	18.7	18.0	17.5	17.0	16.2	dB/100m
TCL level 1	40.0	40.0	40.0	38.0	35.1	32.0	30.0	29.0	27.0	26.0				dB/100m
EL TCTL	35.0	23.0	15.0	10.9	5.1									dB/100m
Impedance upper limit	115	115	115	115	115	115	115	122	122	132	132			Ω
Impedance lower limit	85	85	85	85	85	85	85	78	78	68	68			Ω
Propagation delay	570	552	545	543	540	539	538	537	536	536	536	535	535	ns/100m

NOTE: Limits above 300 MHz are for information only.

Mechanical characteristics

	Specification	Unit
Elongation at break of the conductors	10	%
Minimum elongation at break of the insulation	≥ 100	%
Minimum elongation at break of the sheath	≥ 100	%
Tensile strength of sheath	> 9	MPa

Environmental and overall characteristics

	Specification	Unit
Maximum operating voltage (for all temperatures cable is intended to be used)	72	V D.C.
Maximum continuous current per conductor (@25°C)	1.5	A
Temperature rating installation	0 / 50	°C
Temperature rating operation	- 30 / 60	°C
Total cable weight	68	kg/km
Minimum bending radius (during operation and installation)	23 / 46	mm
Maximum pulling strength	130	N
Burning load	750	kJ/m
Reaction to fire according IEC 60332-1	Pass	
Reaction to fire according EN 50575	Dca-s2,d2,a1	



Belden declares this product to be in compliance with the environmental regulations EU RoHS (Directive 2002/95/EC, 27 January 2003); this is valid for all material produced after the RoHS compliant date for this product.