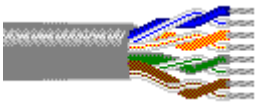
FULL TECHNICAL SPECS



1752A Paired - DataTwist 350 Patch Cable

Total # Cond.	# Pairs
8	4

AWG	Stranding	Type	Insulation	Insulation Thickness (in.)	Shield
24	(7x32)	TC - Tinned Copper	PE - Polyethylene	.00800	Unshielded

Jacket	Jacket Thickness (in.)	Nom. Core OD (in.)	Nom. OD (in.)	Nom. Cond. DCR (Ohms/M')	Nom. Imp. (Ohms)	Nom. Vel. of Prop. (%)	Nom. Cap. (pF/ft)
PVC - Polyvinyl Chloride	.0190	.1900	.2200	24.000	100.0	70.0	15.000

For technical data, click the button below	For available colors, click the button below
Tech Data or call 1-800-BELDEN-1	Put-ups & Colors or call 1-800-BELDEN-1

Description

Paired, 4 pairs, 24 AWG, stranded (7x32) TC - Tinned Copper conductors, PE - Polyethylene (Polyolefin) insulation, adjoined singles, Unshielded, PVC - flexible Polyvinyl Chloride jacket. Jacket sequentially marked at two foot intervals. Applicable Specifications: TIA/EIA 568-B.2 Category 5E Patch, TIA/EIA 568A, Category 5 Patch, UL verified to Category 5E Patch, UL Verified to Category 5E Solid, ISO/IEC 11801, Category 5 Patch, ICEA 661, Cat. 5x-100 Patch, NEMA WC-63.1 Cateogory 5 Patch. Flame Test: UL 1581 Vertical Tray, C(UL) Type CM, CSA FT1. 4 Pair UTP (Unshielded Twisted Pair) Cable. Local Area Network. Non-plenum. Bonded pairs. See DataTwist 350 Patch Cable color code chart. RJ-45 compatible. U.S. Patents 5,606,151 and 5,734,126 and 5,763,823. DATATWIST is a Belden registered trademark.

Disclaimer: Great effort is made to ensure the accuracy of the information presented, but errors or omissions may occur. This listing of information is presented as a courtesy and does not ensure that a product with these specifications is available. Specification and availability should be confirmed with a call to our sales representative or to Customer Service. Have a question? Call us at 1-800-BELDEN-1 or send us a comment

12/03/02

TECHNICAL DATA

Customer Number • 000001 Customer Name •

To display Technical Data, enter a Product Code and press Go.

Product Code 1752A Go

Example: 9269

Product Search

TECHNICAL DATA

11/06/02 REV. 10 1752A

DATATWIST(TM) 350 - PATCH

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I. DESCRIPTION NON-PLENUM PATCH:

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4 PAIR UTP (UNSHIELDED TWISTED PAIR) CABLE, 24 AWG STRANDED TINNED COPPER, POLYOLEFIN INSULATED ADJOINED SINGLES FLEXIBLE PVC JACKET. JACKET IS SEQUENTIALLY MARKED AT TWO FOOT INTERVALS. U.S. PATENTS 5,606,151 AND 5,734,126 AND 5,763,823.

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II. APPLICATIONS:

HIGH FLEXIBILITY, HIGH FLEX LIFE PATCH CORDAGE. RJ-45 COMPATIBLE FOR EITHER T568A OR T568B CONFIGURATIONS. PATENTED DESIGN MINIMIZES CHANGES IN ELECTRICAL CHARACTERISTICS DUE TO BENDING AND KINKING ASSOCIATED WITH PATCH CABLES. PATCH CABLE IMPEDANCE IS MATCHED WITH DATATWIST 350 HORIZONTAL CABLES TO REDUCE SIGNAL REFLECTIONS CAUSED BY IMPEDANCE MISMATCHES AND DECREASE SYSTEM RETURN LOSS. RESISTANT TO ATTENUATION INCREASUES DUE TO HIGH HUMIDITY ENVIRONMENTS.

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III. PHYSICAL CHARACTERISTICS:

TEMPERATURE RANGE:	-20 TO 80 C
INSULATION MATERIAL:	POLYOLEFIN
JACKET MATERIAL:	PVC

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     MAX. PULLING TENSION:         40 LBS.
     MIN. CONDUCTOR OD:            0.022"
     MIN. INSULATION OD:           0.037"
     MAX. INSULATION OD:           0.039"
     NOM. WEIGHT/1000 FT.:         25.0 LBS.
     MIN. BEND RADIUS:             .25"
     NOM. DIAMETER:                .220"
     APPLICABLE SPECIFICATIONS:
                           TIA/EIA 568-B.2 CATEGORY 5E PATCH
                           TIA/EIA 568A, CATEGORY 5 PATCH
                           UL VERIFIED TO CATEGORY 5E PATCH
                                                          .
                           ISO/IEC 11801, CATEGORY 5E PATCH
                           ICEA 661, CAT 5X-100 PATCH
                           NEMA WC-63.1 CATEGORY 5 PATCH
     FLAME TEST:                  UL 1581 VERTICAL TRAY,
                                  C(UL) TYPE CM, CSA FT1
.
IV.  COLOR CODE:
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     PAIR #1:     WHITE/BLUE & BLUE
     PAIR #2:     WHITE/ORANGE & ORANGE
     PAIR #3:     WHITE/GREEN & GREEN
     PAIR #4:     WHITE/BROWN & BROWN
.
V.   ELECTRICAL CHARACTERISTICS:
     ---------------------------
     MAX. OPERATING VOLTAGE:        300 V RMS
     NOM. CAPACITANCE @ 1 KHZ:      15 PF/FT.
     NOM. VELOCITY OF PROPAGATION:  70%
     TYPICAL VALUES REPRESENT VALUES FROM MULTIPLE TESTS
     OF OUR PRODUCT.  THESE NUMBERS ARE NOT GUARANTEED
     BUT ARE DESIGNED TO GIVE THE USER AN IDEA OF THE
     PRODUCTS TYPICAL CAPABILITIES. THE MAXIMUM VALUES ARE
     GUARANTEED VALUES. BECAUSE OF BELDEN'S STRICT QUALITY
     CONTROL PROGRAM, WHICH ALLOWS THE MAXIMUM VALUES TO
     BE MET ON A CONSISTENT BASIS, THERE MAY BE A
     SIGNIFICANT DIFFERENCE BETWEEN TYPICAL AND MAXIMUM
     VALUES.
.
       ;DELAY   ; DELAY     ;CAPACITANCE;DCR    ;DCR
       ;SKEW    ; @ 100 MHZ ;UNBALANCE  ;@ 20C  ;UNBALANCE
       ;(NS/100 ; (NS/100   ;(PF/100 M) ;(OHMS/ ;(%)
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       ; M)     ; M)        ;           ; 100 M);
-------;--------;-----------;-----------;-------;----------
MAXIMUM; 25     ;   510     ;   66.0    ;  9.0  ;  3.0
-------;--------;-----------;-----------;-------;----------
TYPICAL; 10     ;   480     ;   25.0    ;  8.6  ;  0.8
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IMPORTANT NOTE: THE IMPEDANCE AND RL (RETURN LOSS) VALUES
SPECIFIED BELOW ARE BASED ON SWEPT FREQUENCY CABLE INPUT
MEASUREMENTS ONLY.  CURVE FITTING OR SMOOTHING FUNCTIONS
HAVE NOT BEEN UTILIZED TO IMPROVE THE VALUES. TIA/EIA 568-A
TESTING ALLOWS FOR THE USE OF A CURVE FITTING FUNCTION TO
REMOVE THE EFFECTS OF RANDOM STRUCTURAL VARIATIONS. RETURN
LOSS VALUES ARE BASED ON A 100 OHM IMPEDANCE, WHICH IS THE
IMPEDANCE OF MOST SYSTEMS, AND ARE NOT BASED ON THE FITTED
IMPEDANCE.  A RETURN LOSS REQUIREMENT IS MORE DIFFICULT TO
MEET THAN AN SRL REQUIREMENT.  RETURN LOSS REPRESENTS THE
LOSSES FOR THE SYSTEM, WHEREAS SRL IS MERELY A CABLE
SPECIFICATION.  A FITTING FUNCTION WOULD IMPROVE THE
REPORTED IMPEDANCE AND RL VALUES.  NEXT MEASUREMENTS ARE
PERFORMED ON LENGTHS GREATER THAN 100 METERS.
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FREQUENCY (MHZ)	TYPICAL IMPEDANCE	IMPEDANCE SPEC	TYPICAL RL (DB)	MIN RL (DB)
1.0 MHZ	104 +/- 4%	100 +/- 12%	29	20.0
4.0 MHZ	101 +/- 5%	100 +/- 12%	31	23.0
8.0 MHZ	100 +/- 5%	100 +/- 12%	33	24.5
10.0 MHZ	100 +/- 5%	100 +/- 12%	34	25.0
16.0 MHZ	100 +/- 5%	100 +/- 12%	34	25.0
20.0 MHZ	100 +/- 7%	100 +/- 12%	35	25.0
25.0 MHZ	100 +/- 7%	100 +/- 15%	35	24.3
31.25MHZ	100 +/- 7%	100 +/- 15%	35	23.6
62.5 MHZ	100 +/- 7%	100 +/- 15%	35	21.5
100 MHZ	100 +/- 7%	100 +/- 15%	33	20.1
150 MHZ	100 +/- 7%	100 +/- 15%	33	20.0
200 MHZ	100 +/- 7%	100 +/- 15%	31	19.0
310 MHZ	100 +/- 10%	100 +/- 20%	30	18.0
350 MHZ	100 +/- 12%	100 +/- 22%	30	17.0

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FREQUENCY MIN PSUM ACR TYP PSUM  MIN PSELFEXT MIN PSELFEXT
  (MHZ)   (DB/100 M)    ACR (DB) (DB/100M)    (DB/100M)
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.772 MHZ	64.9	74	63	75
1.0 MHZ	62.9	72	69.8	73
4.0 MHZ	51.5	66	48.7	71
8.0 MHZ	44.9	60	42.7	65
10.0 MHZ	42.6	55	40.8	63
16.0 MHZ	37.5	51	36.7	48
20.0 MHZ	34.8	49	34.7	45
25.0 MHZ	32.0	45	32.8	43
31.25MHZ	29.0	42	30.9	41
62.5 MHZ	18.2	35	24.8	35
100 MHZ	9.3	27	20.8	31
155 MHZ	-	19	16.9	28
200 MHZ	-	12	15	25
250 MHZ	-	7	-	-
350 MHZ	-	-	-	-

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FREQUENCY (MHZ)	MIN PSNEXT (DB)	TYP PSNEXT (DB)	MAX ATTEN (DB/100M)	TYPICAL ATTEN (DB/100M)
.772 MHZ	67	78	2.1	1.6
1.0 MHZ	65.3	76	2.4	1.9
4.0 MHZ	56.3	72	4.8	3.9
8.0 MHZ	51.8	68	6.8	5.6
10.0 MHZ	50.3	63	7.7	6.2
16.0 MHZ	47.3	61	9.8	7.9
20.0 MHZ	45.8	60	11.0	9.0
25.0 MHZ	45.3	57	12.4	10.2
31.25MHZ	42.9	55	13.9	11.0
62.5 MHZ	38.4	53	20.1	15.9
100 MHZ	35.3	50	26.1	20.7
155 MHZ	32.5	47	33.3	26.2
200 MHZ	30.8	45	38.4	30.8
250 MHZ	29.3	43	43.7	35.8
350 MHZ	27.2	42	53.2	45.3

THE DATA IN THE ABOVE TABLES REPRESENTS DISCRETE FREQUENCY POINTS. ALL TEST ARE SWEEP TESTED OUT TO 350 MHZ. THE EQUATIONS BELOW ARE USED TO CALCULATE THE LIMITS FOR EACH ATTRIBUTE SO THAT A MAXIMUM (OR MINIMUM) VALUE CAN BE CALCULATED AT ANY FREQUENCY IN THE RANGE.

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INPUT IMPEDANCE: 1.0 - 20.0 MHZ, 100 +/- 12 OHMS

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                    20.0 - 100.0 MHZ,    100 +/- 15 OHMS
                   100.0 - 200.0 MHZ,    100 +/- 18 OHMS
                   200.0 - 310.0 MHZ,    100 +/- 20 OHMS
                   310.0 - 350.0 MHZ,    100 +/- 22 OHMS
.
MIN. RETURN LOSS:   1.0 -  10.0 MHZ,    20 + 5*LOG(F) DB
                    10.0 -  20.0 MHZ,    25 DB
                    20.0 - 100.0 MHZ     25.7*LOG(F/20)DB
                   100.0 - 150.0 MHZ     20 DB
                   150.0 - 200.0 MHZ,    19 DB
                   200.0 - 310.0 MHZ,    18 DB
                   310.0 - 350.0 MH,     17 DB
.
FITTED IMPEDANCE*:  1.0 - 10.0 MHZ,     105 +/- 10 OHMS
                    10.0 - 600.0 MHZ,    100 +/- 10 OHMS
.
MAX. ATTENUATION (DB/100 M):   1.2*0.988*(1.967*SQRT(F) +
                               0.023*F+0.05/SQRT(F))
MIN. PSNEXT (DB):              67 - 15*LOG(F/.772)
MIN. PSACR (DB/100 M):         67 - 15*LOG(F/.772) -
                               1.2*0.988*(1.967*SQRT(F) +
                               0.023*F+0.05/SQRT(F))
MIN. PSELFEXT (DB/100 M):      63- 20*LOG(F/.772),
                               UP TO 200 MHZ
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WHERE F IS THE FREQUENCY FROM 0.772 TO 350 MHZ.
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* =INFORMATION ONLY
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THE BELDEN DIVISION OFFICE AND ENGINEERING CENTER ARE ISO
9001 CERTIFIED FACILITIES.  BELDEN'S U.S. DOMESTIC
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