

MESSRS. \_\_\_\_\_

SPECIFICATION  
FOR  
HALF PITCH TWISTED FLAT CABLE  
KPCH-HP-N1-ST-30-\*\*\*-34P-RBW  
30AWG X 34P  
UL STYLE 2734 (80C, 30V)

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1. SCOPE

This specification covers the construction and characteristics of Half pitch Twisted flat cable "KPCH-HP-N1-ST-30-\*\*\*-34P-RBW" consisting of 30 AWG stranded conductors insulated with color coded FR-Polyolefin, twisted into pairs and formed a flat section with laminate tape laminated on both sides.

2. EXPLANATION OF CABLE TYPE

ex. KPCH-HP-N1-ST-30-\*\*\*-34P-RBW

(1) (2) (3) (4) (5) (6)

- (1) Cable Abbreviation
- (2) Kind of conductor :ST=Stranded Conductor
- (3) Conductor Size :30=30AWG
- (4) Length of Span :130mm,135mm,160-500mm(Standard 250mm)
- (5) Number of Pairs :34 pairs
- (6)Insulation Color Symbol :RBW= Red, Blue, White

3. CONSTRUCTION

3.1 Conductor

- 3.1.1 Material : Tinned annealed copper wire
- 3.1.2 Size : 30 AWG
- 3.1.3 Stranding : 7 stranded of 38AWG
- 3.1.4 Diameter : Nom. 0.306mm

3.2 Insulation

- 3.2.1 Material : Flame Retardant Polyolefin
- 3.2.2 Thickness : Nom. 0.16 mm
- 3.2.3 Diameter : Nom. 0.635 mm
- 3.2.4 Color Code : Red, Blue, White (See Fig.2)

3.3 Twisted Pairs

Two insulated conductors shall be twisted to form a pair.  
Twisted direction in adjacent pairs shall be reversed to reduce cable crosstalk even further.

3.4 Assembling

The twisted pairs shall be laid parallel in one plane and retained flat section at specific interval , then laminate tape fully laminated on both sides .  
The cable alternate twisted pair section with flat section. The length of twisted pair section and flat section shall be in accordance with Table 2 and Fig. 1.  
The cable shall meet the other dimensional requirements of Table 2 and Fig 1.

## 4. Electrical Characteristics

The characteristics of the completed cable shall be as shown in the attached table 1.

Table 1 Electrical Characteristics(at 20degrees)

Item		Unit	Specification Value
Maximum conductor resistance		Ohms/ km	365
Dielectric strength		V / min	AC 350 or DC 500
Minimum insulation resistance		M ohms km	10
Characteristic impedance (at TDR)	Single-ended	Ohms	Nom. 88
	Differential		Nom. 126
Propagation delay		ns/m	Max. 5.4
Attenuation(at 5MHz)		dB/m	Max. 0.095

## 5. UL Flammability Rating: VW-1

## 6. PACKING

Each spool shall be marked with the following information.

Cable shall be spooled and packed in such a manner as to be adequately protected from damage during packing, shipping, and normal handling.

Spools shall be packed on a carton. (The spool may contain joints. In that case, the detail of length is indicated.)

- (1) Type of Cable
- (2) UL Style and USE
- (3) Size and Number of Pairs
- (4) Length
- (5) Manufacturer's name or trade mark
- (6) Year of manufacture

## 7. UL STYLE and USE

UL STYLE: 2734 (80C, 30V)

UL USE: "Internal Wiring of Electronic Equipment in Class 2 Circuits Only."

Table 2 Dimension

Laminate Tape	Material	PET film with adhesive layer
	PET film Thickness (mm)	0.009
Length of Twisted pair Section	(mm)	80, 85, 110-450(Standard 200)
Length of Flat Section	(mm)	50
Length of Span	(mm)	130, 135, 160-500(Standard 250)
Flat Section Dimension	Pitch "P" (mm)	0.635 +/- 0.05
	Width "A" (mm)	42.55 +/- 0.25
	Width "B" (mm)	43.18 +/- 0.25
	Thickness "T" (mm)	Approx. 0.7

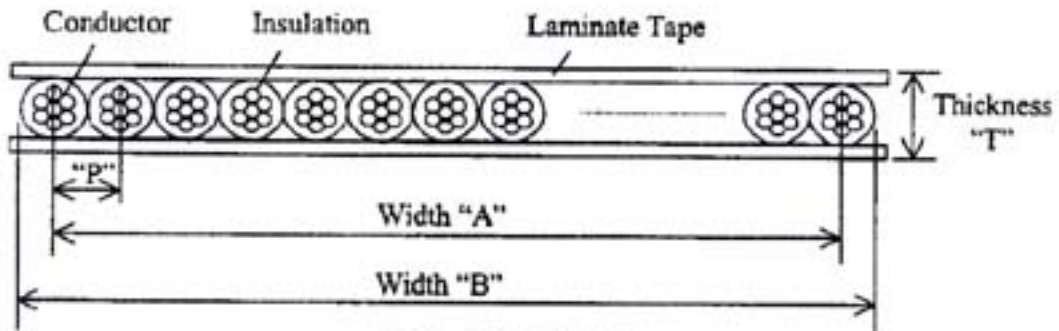
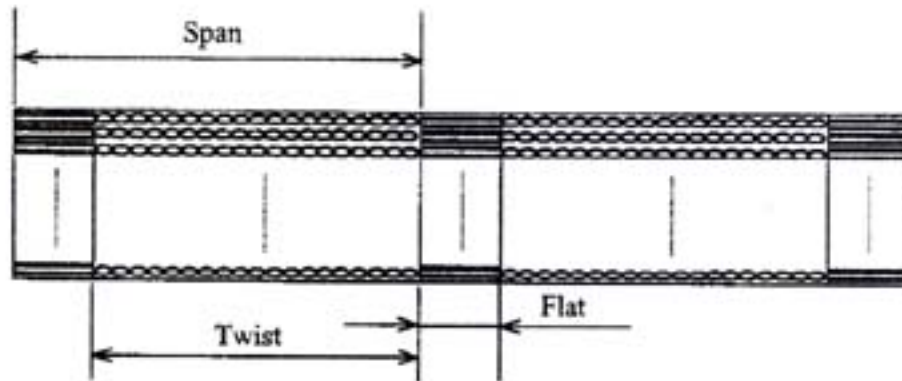


Fig.1 Construction

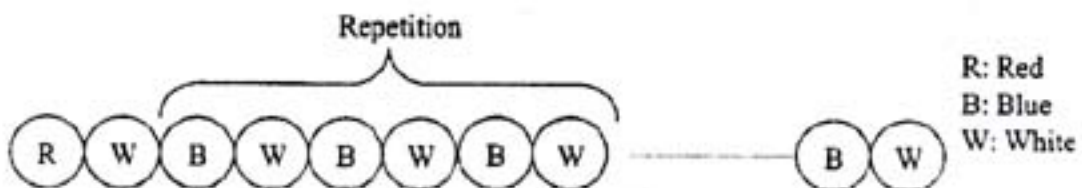


Fig. 2 Insulation color