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Mass terminable flat cable and cable assembly incorporating the cable.

(57) A flat cable for use with a mass termination connector having a plurality of regularly spaced terminal elements. The flat cable includes a laminated carrier film and a plurality of discrete conductors held in regularly spaced parallel relationship by the carrier film to match the terminal element spacing of the connector. Each conductor has an insulating jacket made of a thermoplastic material. The carrier film includes an attachment layer of thermoplastic insulation having a melting temperature similar to that of the jacket material, and a dimensional stabilization layer made of an insulative material having a melting temperature higher than those of the attachment layer and the jacket material and displaying dimensional stability at the melting temperatures of the attachment layer and jacket material. The jackets of the conductor are fused to the attachment layer, and the attachment layer is held by the stabilization layer. The carrier film can be longitudinally discontinuous to form first cable sections where the conductors are held parallel for ease of termination, and second cable sections where the conductors are not held to increase flexibility and reduce weight. The cable can also be formed into a round configuration to provide advantages during routing. A method of manufacturing this cable is also disclosed.

(ADHESIVE)

46
(DIMENSIONAL STABILIZATION LAYER)

(ADHESIVE)

(CONDUCTORS)

(METAL 20
20
20
20
20
44
(ATTACHMENT LAYER)

(LAMINATED CARRIER FILM)

CARRIER FILM)



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EUROPEAN SEARCH REPORT

Application Number

EP 86 11 5415

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· ,	DOCUMENTS CONS						
Category	Citation of document with indication, where appropriate, of relevant passages			Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)		
Υ	US-A-3 459 878 (GF * Column 4, line 38 25; figures 1-6 *	RESSITT) 3 - column 6, li	ne 1		H 01 B	7/08	
Α	on us		2	,8			
Υ	US-A-3 579 823 (GF * Column 2, lines 5 39 - column 4, line *	5-9; column 2, 1	ine 4-10				
Α			2	,5,8			
Υ	FR-A-2 240 602 (RI * Page 1, line 28 - figure 1 *	IST'S WIRES & CA page 3, line 1	BLES) 1				
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A	US-A-3 511 728 (FF * Column 5, lines 4	REEMAN) 16-60; figure 4	*	,5,7,8			
	US-A-4 443 277 (ROKAS) * Column 3, lines 24-66; column lines 53-62; figures 1,2,12 *		8-	-10,14	TECHNICAL SEARCHED (FIELDS Int. Cl.4)	
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X: part Y: part doct A: tech O: non	CATEGORY OF CITED DOCUME icularly relevant if taken alone icularly relevant if combined with an iment of the same category nological background -written disclosure rmediate document	other D: c	theory or principle un earlier patent docume after the filing date document cited in the locument cited for ot member of the same	ent, but publis e application her reasons	hed on, or		