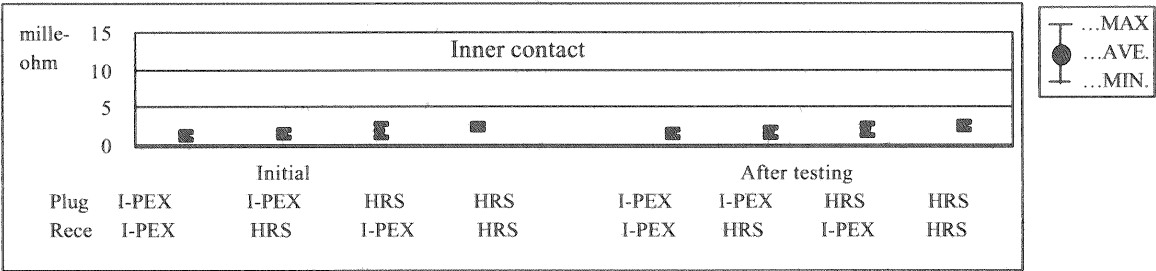


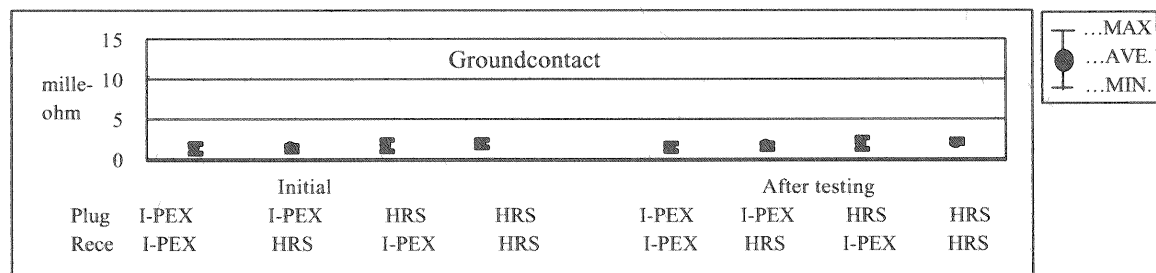
DOCUMENT CLASSIFICATION	TITLE	DOCUMENT No.
Qualification Test Report	Mechanical testing and environmental testing of I-PEX MHF and HIROSE U.FL connector	TR-1029

(6) Shock Electrical discontinuity : no abnormality at all combinations.

Contact resistance of inner contact				
	Initial			
Plug	I-PEX	I-PEX	HIROSE	HIROSE
Receptacle	I-PEX	HIROSE	I-PEX	HIROSE
AVE.	1.38	1.38	1.76	2.24
MAX.	1.9	2.0	2.7	2.7
MIN.	0.8	1.0	1.1	2.0
S	0.35			
	After testing			
Plug	I-PEX	I-PEX	HIROSE	HIROSE
Receptacle	I-PEX	HIROSE	I-PEX	HIROSE
AVE.	1.42	1.58	2.04	2.50
MAX.	2.0	2.3	2.8	3.0
MIN.	0.9	1.1	1.2	2.0
S	0.38			
Units	mille-ohm	mille-ohm	mille-ohm	mille-ohm
Sample quantity	10pcs.	5pcs.	5pcs.	5pcs.



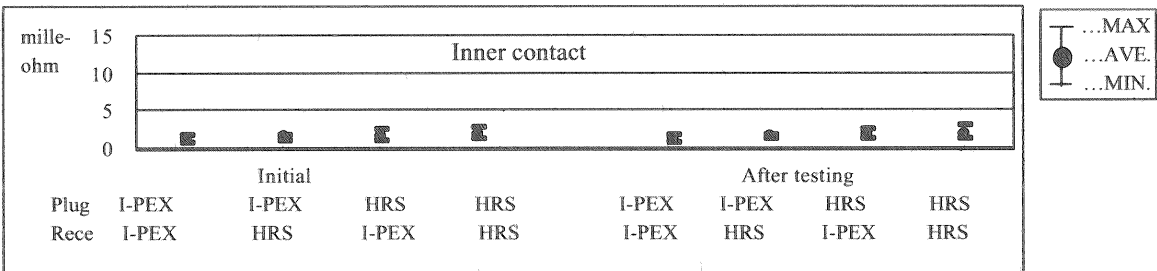
Contact resistance of ground contact				
	Initial			
Plug	I-PEX	I-PEX	HIROSE	HIROSE
Receptacle	I-PEX	HIROSE	I-PEX	HIROSE
AVE.	1.40	1.38	1.58	1.80
MAX.	1.8	1.7	2.5	2.4
MIN.	0.8	1.0	1.0	1.4
S	0.32			
	After testing			
Plug	I-PEX	I-PEX	HIROSE	HIROSE
Receptacle	I-PEX	HIROSE	I-PEX	HIROSE
AVE.	1.51	1.64	1.80	2.02
MAX.	2.0	1.9	2.6	2.4
MIN.	0.9	1.3	1.1	1.8
S	0.34			
Units	mille-ohm	mille-ohm	mille-ohm	mille-ohm
Sample quantity	10pcs.	5pcs.	5pcs.	5pcs.



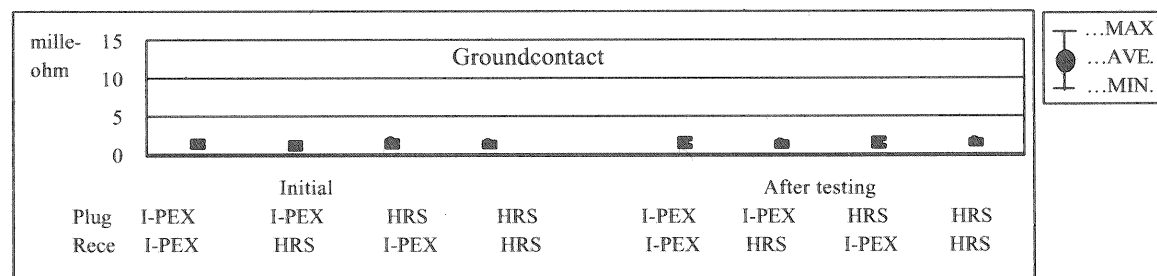
DOCUMENT CLASSIFICATION	TITLE	DOCUMENT No.
Qualification Test Report	Mechanical testing and environmental testing of I-PEX MHF and HIROSE U.FL connector	TR-1029

(7) Thermal shock

Contact resistance of inner contact				
	Initial			
Plug	I-PEX	I-PEX	HIROSE	HIROSE
Receptacle	I-PEX	HIROSE	I-PEX	HIROSE
AVE.	1.20	1.20	1.20	1.20
MAX.	1.8	1.8	1.8	1.8
MIN.	0.9	0.9	0.9	0.9
S	0.28			
	After testing			
Plug	I-PEX	I-PEX	HIROSE	HIROSE
Receptacle	I-PEX	HIROSE	I-PEX	HIROSE
AVE.	1.32	1.62	1.72	1.88
MAX.	1.9	1.9	2.6	3.0
MIN.	0.9	1.2	1.2	1.3
S	0.32			
Units	mille-ohm	mille-ohm	mille-ohm	mille-ohm
Sample quantity	10pcs.	5pcs.	5pcs.	5pcs.



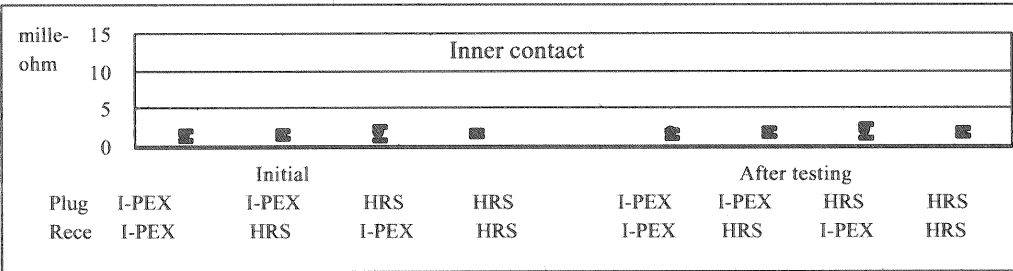
Contact resistance of ground contact				
	Initial			
Plug	I-PEX	I-PEX	HIROSE	HIROSE
Receptacle	I-PEX	HIROSE	I-PEX	HIROSE
AVE.	1.22	1.08	1.44	1.28
MAX.	1.8	1.4	1.7	1.6
MIN.	0.9	0.8	1.1	1.1
S	0.35			
	After testing			
Plug	I-PEX	I-PEX	HIROSE	HIROSE
Receptacle	I-PEX	HIROSE	I-PEX	HIROSE
AVE.	1.29	1.24	1.56	1.42
MAX.	2.0	1.5	1.9	1.7
MIN.	0.9	1.0	1.1	1.2
S	0.37			
Units	mille-ohm	mille-ohm	mille-ohm	mille-ohm
Sample quantity	10pcs.	5pcs.	5pcs.	5pcs.



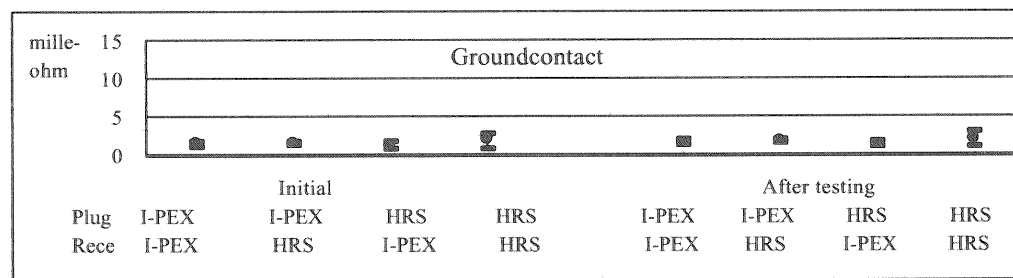
DOCUMENT CLASSIFICATION Qualification Test Report	TITLE Mechanical testing and environmental testing of I-PEX MHF and HIROSE U.FL connector	DOCUMENT No. TR-1029
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(8) Humidity

Contact resistance of inner contact				
	Initial			
Plug	I-PEX	I-PEX	HIROSE	HIROSE
Receptacle	I-PEX	HIROSE	I-PEX	HIROSE
AVE.	1.51	1.60	1.84	1.46
MAX.	2.1	2.1	2.6	2.1
MIN.	0.8	1.1	0.8	1.2
S	0.41			
	After testing			
Plug	I-PEX	I-PEX	HIROSE	HIROSE
Receptacle	I-PEX	HIROSE	I-PEX	HIROSE
AVE.	1.66	1.74	1.96	1.56
MAX.	2.1	2.2	2.9	2.4
MIN.	1.1	1.3	0.9	1.2
S	0.34			
Units	mille-ohm	mille-ohm	mille-ohm	mille-ohm
Sample quantity	10pcs.	5pcs.	5pcs.	5pcs.

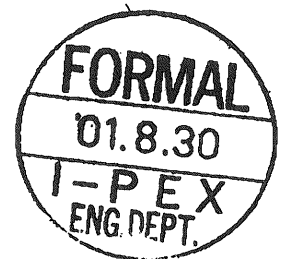


Contact resistance of ground contact				
	Initial			
Plug	I-PEX	I-PEX	HIROSE	HIROSE
Receptacle	I-PEX	HIROSE	I-PEX	HIROSE
AVE.	1.44	1.52	1.20	1.96
MAX.	1.8	1.7	1.7	2.8
MIN.	1.0	1.3	0.8	0.7
S	0.25			
	After testing			
Plug	I-PEX	I-PEX	HIROSE	HIROSE
Receptacle	I-PEX	HIROSE	I-PEX	HIROSE
AVE.	1.55	1.66	1.30	2.06
MAX.	1.9	2.0	1.8	2.9
MIN.	1.2	1.4	0.9	1.0
S	0.25			
Units	mille-ohm	mille-ohm	mille-ohm	mille-ohm
Sample quantity	10pcs.	5pcs.	5pcs.	5pcs.



Patent of MHF series micro coaxial connector

No. IER-001-00572



REV.	ECN	BY	DATE	APP.	Prepared by	Reviewed by	Approved by
1	R1111	K.O	AUG/30/01	<i>[Signature]</i>	K.Ohbayashi JUL/05/01	E.Kawabe JUL/06/01	K.Katabuchi JUL/09/01
0	R1063	K.O	JUL/05/01	<i>[Signature]</i>			
REVISION RECORD							

DOCUMENT CLASSIFICATION	TITLE	No.
Technical Report	Patent of MHF series micro coaxial connector	IER - 001 - 00572
<p>1. Name, part No. :MHF series micro coaxial connector , 20278-001R-**,20279-001E-01</p> <p>2. Contents</p> <p>Our MHF series micro coaxial connector does not conflict with Hirose's patent under our research of patent issues at this moment.</p> <p>弊社MHFシリーズ超小型同軸コネクタは、弊社調査結果においてはヒロセ電機の特許に抵触していない事を報告します。</p>		

 SUMITOMO ELECTRIC INDUSTRIES, LTD

Sheet No. 1

3-3, Satsuki-cho, Kanuma, Tochigi, 322-8585 JAPAN
Tel.(028978)-0324 Fax.(028976)-2789

Head Office : Osaka
International Div: Tokyo

Messrs, High Tek
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Date Oct. 9, 2002
Spec. No. IEEB-01026B
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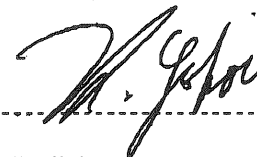
SPECIFICATION

FOR

LVCX Series
50Ω SUMIFRON® Insulation Coaxial Cable

0.7DS-PBE (COLOR)

SIGNED BY



K. Yokoi

Manager of Data Transmission
Engineering Section
Data Transmission Cable
Component Department
Electronic Wire Division

SUMITOMO ELECTRIC INDUSTRIES, LTD

Sheet No. 2
IEE8-01026B

1. Scope
This specification covers the construction and the electrical properties of 50Ω SUMIFRON® Insulation Coaxial Cable.

[0.7DS-PBE (COLOR)]

2. Construction Unit: mm

Item		Details
Conductor	Material	Silver-coated copper wire
	Composition	7/0.079
	Nom. O. D.	0.237 (±0.03)
Insulation	Material	SUMIFLON® P (Natural)
	Nom. thick.	0.22
	Nom. O. D.	0.67 (±0.03)
Shield	Material	Silver-coated copper wire
	Composition	Single braid of 0.05
Jacket	Material	SUMIFLON® E (Color) **
	Nom. thick.	0.11
	Nom. O. D.	1.13 (±0.05)

3. Electrical Properties (at 20°C)

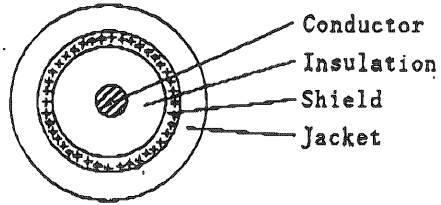
Item	Unit	Details
Conductor Resistance	Ω/km	Max. 567
Insulation Resistance	MΩ-km	Min. 305
Dielectric strength	ACV/1min.	500
Capacitance	pF/m	97 (1kHz)
Characteristic Impedance	Ω	50 ± 2 (TDR)
Attenuation *	dB/m	Nom. 1.82 (0.9GHz)
		Nom. 2.37 (1.5GHz)
		Nom. 2.70 (1.9GHz)
		Nom. 3.05 (2.4GHz)
		Nom. 3.43 (3.0GHz)
		Nom. 3.94 (4.0GHz)
		Nom. 4.45 (5.0GHz)
		Nom. 4.89 (5.8GHz)
		Nom. 5.16 (6.0GHz)

* Maximum Value = Nom. Value × 1.15
** White, Black, Blue, Gray

 SUMITOMO ELECTRIC INDUSTRIES, LTD

Sheet No. 3
IEE8-01026B

4. Packing
Standard unit length of finished cable shall be 500m on reel and shall be packed not to be damaged during transportation.



マイクロ

PORON

INC

ROGERS INOAC CORPORATION
TECHNICAL DEPT.

2/8

PORON HH-48C PHYSICAL PROPERTY

PROPERTY	UNIT	DATUM	TEST METHOD
Thickness	mm	± 1.0%	Thickness gauge
Density	g/cm ³	0.48	JIS-K-6401
Tensile strength	kg/cm ²	27.0	JIS-K-6901
Tear strength	kg/cm	7.6	↑
Elongation	%	140	↑
25NCLD	kg/cm ²	4.0	↑
Compression set	%	4.7	JIS-K-6401

(The figure indicates all mean value.)



409x-0

特 性

一般物性

PORONは、各々のタイプにより硬さ、強度等が異なり、各種用途への展開が容易になっています。物性の規格としては、JIS-K-6301に準拠していますが、主な項目は右表のようになっています。

項目	単位	密度	引張強度	引張伸び	引張弾性率	25℃圧縮率
		g/cm ³	kg/cm ²	%	kg/cm ²	%
L-24		0.24	5.5	115	1.8	0.4
L-32		0.32	7.9	150	2.4	0.8
H-32		0.32	14.7	155	3.4	1.4
H-48		0.48	17.4	105	4.1	2.2
U-32		0.32	4.0	115	1.5	0.5
LE-32		0.32	7.6	300	1.4	0.3
RH-48		0.48	27.0	140	7.5	3.0
#4000		0.27	10.2	120	2.5	0.9
CRスポンジ		0.19	5.0	150	2.2	0.6
PEフォーム		0.04	3.2	180	2.1	0.4
試験方法			ダンベル1号	ダンベル1号	ダンベルB型	形状：4 圧縮速度：1m

(値はすべて代表値を示しています)

圧縮残留歪

PORONの最大の特徴である、いつまでもシール性及びクッション性が維持できるということは、右表に示した圧縮残留歪によって理解できます。

条件：JIS-K6401に準じ、50%圧縮時70℃×22時間放置、その後開放30分後の厚み変化を求めた。

項目	PORON					CRスポンジ	Pフォーム
	L-24	L-32	H-32	H-48	U-32		
圧縮残留歪(%)	2.7	3.4	3.1	3.9	4.6	35	45

(値はすべて代表値を示しています)

圧縮残留歪の温度依存性について

PORONは他素材に比べて、温度変化に対して、圧縮残留歪の変化が少ない。

