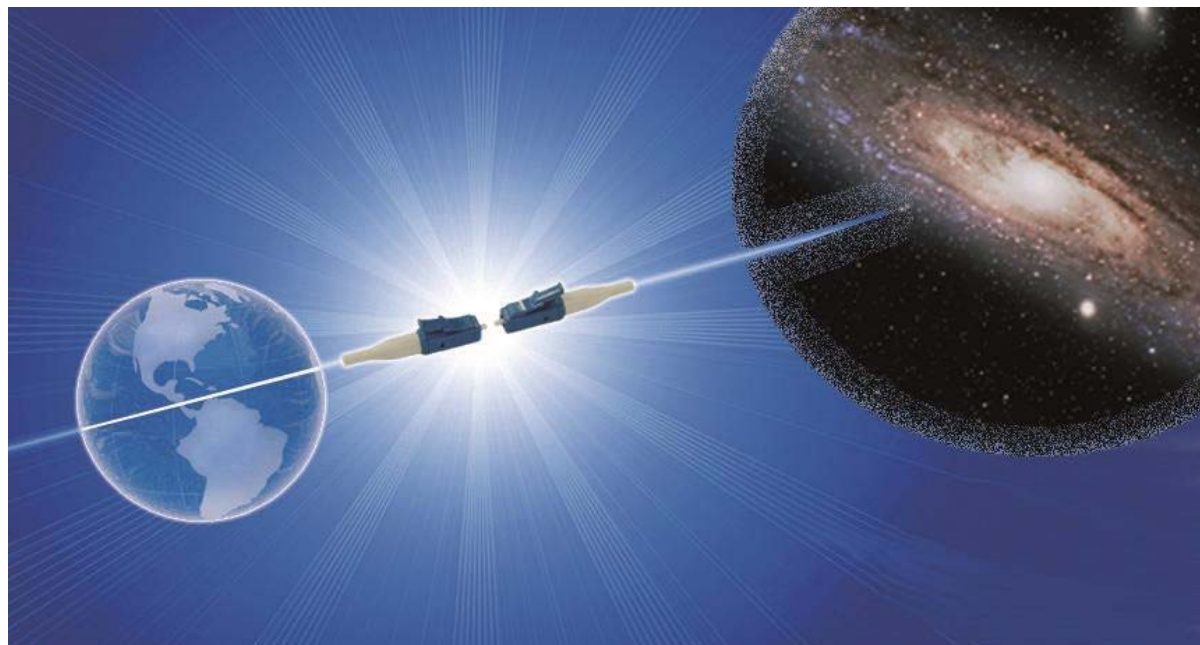


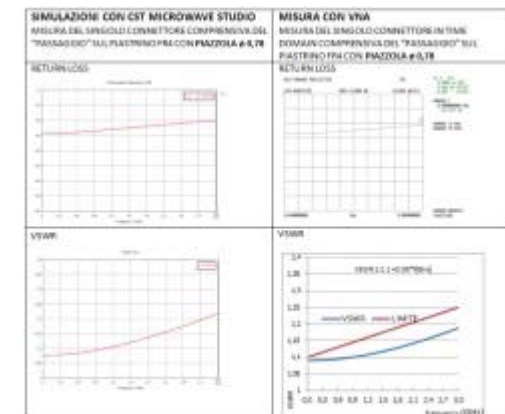


Give us a project and we'll connect you to the future

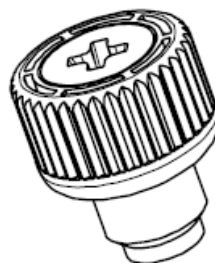
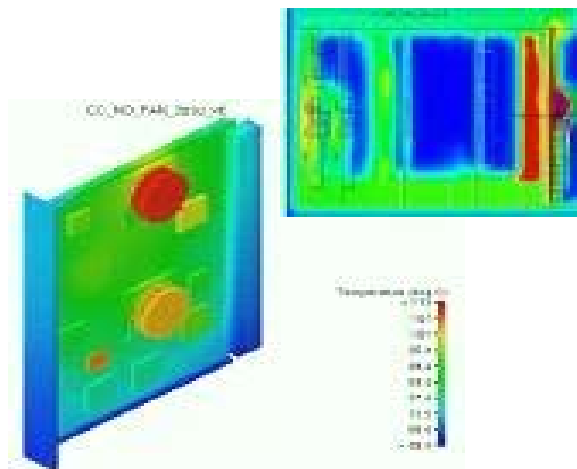
Interconnection Systems

R&D Department

- 9x Senior Engineer on electrical and mechanical design on interconnection solutions .
- 6x Pro-Engineer CAD work station
- Mechanical Static and modal simulation
- 1 X CST Mircorwave Studio
- 1 X mentor Graphics
- Raw Material expertise selection (metal and plastics parts)
- High frequency interconnection design
- High power interconnection design
- R&D Design flow process certified ISO 9001

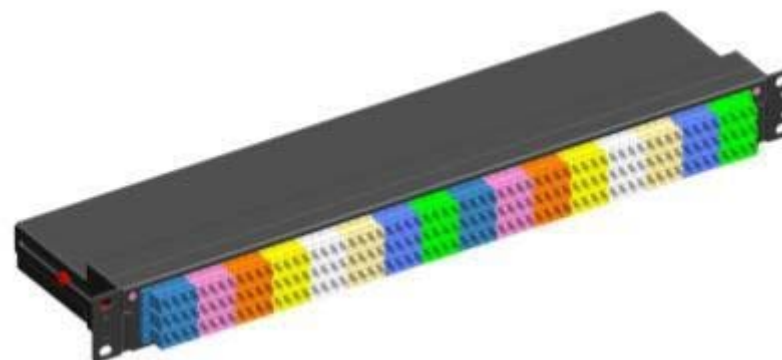
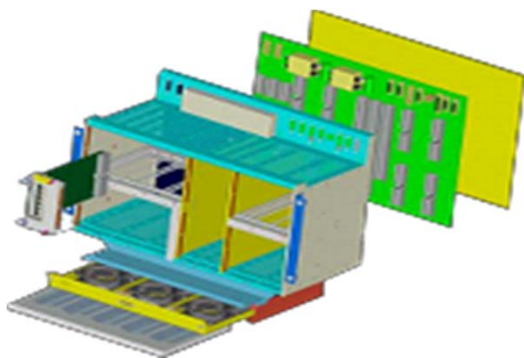


Mechanical Design



Internal know out and capabilities for mechanical design

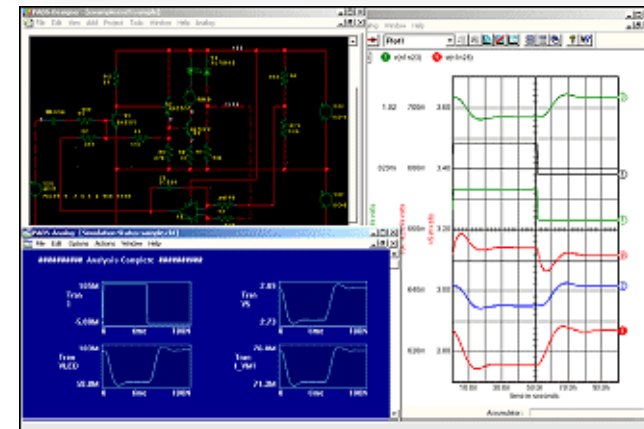
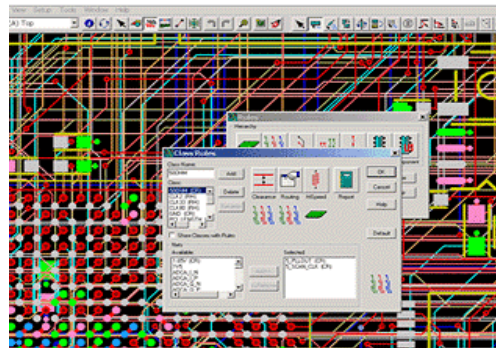
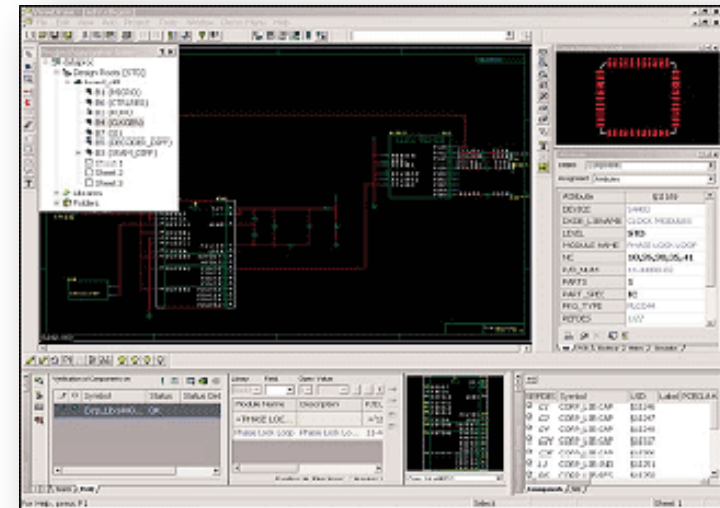
- Sub-Rack mechanical design
- Mechanical simulation
- Thermal and power dissipation analysis



Electrical Design

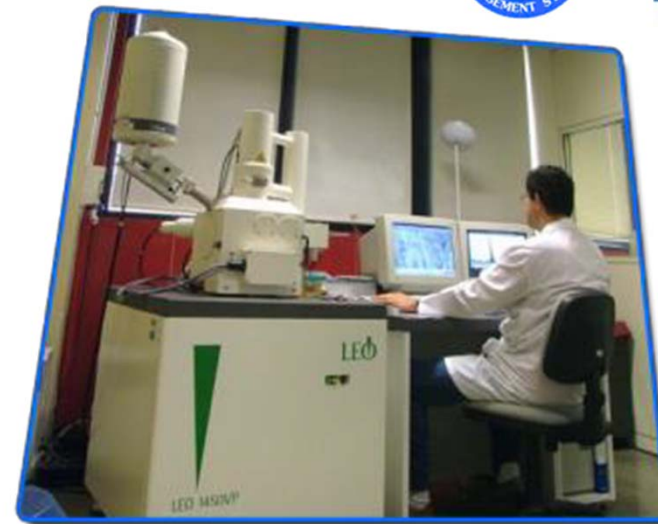
Internal know out and activities for Co-design and review Electronic projects

- Fan unit.
- SAP unit
- Co-design and review Signal Daughter Card
- Alarm System Management Board
- DC power supply board
- Power distribution unit



R&D LAB Department

- 3x Senior Engineer on electrical and mechanical measurements
- Laboratory measurement.
- International normative references know how
- Certifications measurements
- Technological analysis
- Environmental simulation test
- Mechanical analysis
- Electrical characterization
- Failure analysis
- Components and materials characterization



R&D LAB Department

The Compel R&D and Quality Laboratories are able to carry out chemical analysis, mechanical and electrical tests, structural analysis and non-destructive tests using state-of-the-art equipment, according to International Standards and Customer Specifications.

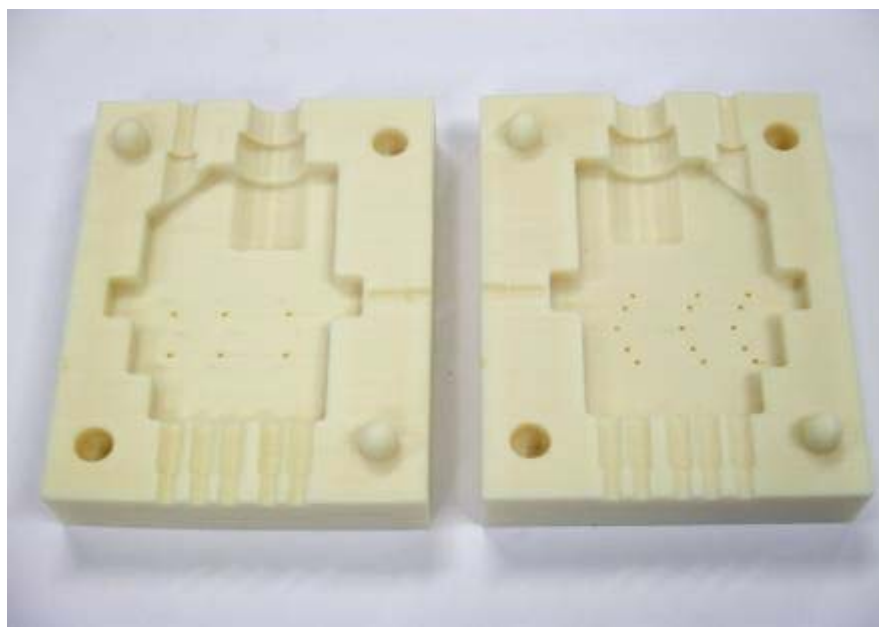
In the following main sectors:

- Electrical and optical connectors / jumpers
- SMT boards
- Backplanes
- Sub-rack
- Microwave components
- Passive Thin Film, Thick Film and Hybrid circuits
- Plastics



Fast Prototyping

FAST PROTOTYPING:
3D printer based on FDM technology is available
for new products development



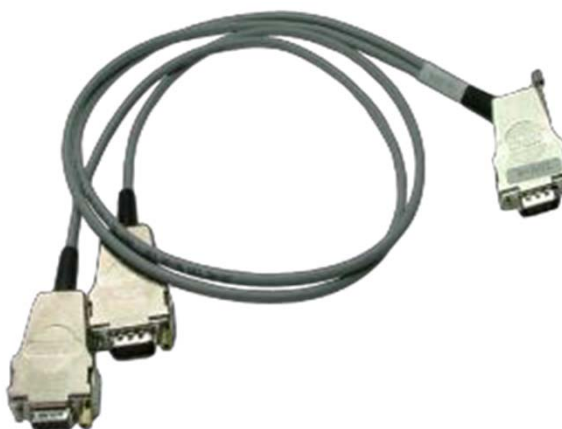
PRODUCTS: I/O and Power cable



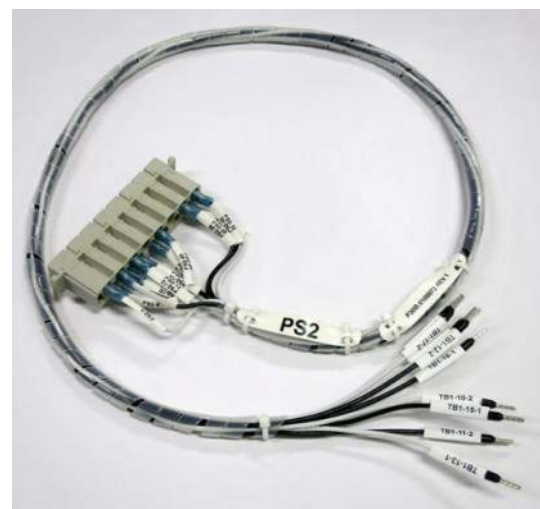
- Power DC cables
- I/O cables
- Signal cables
- Overmolded cables



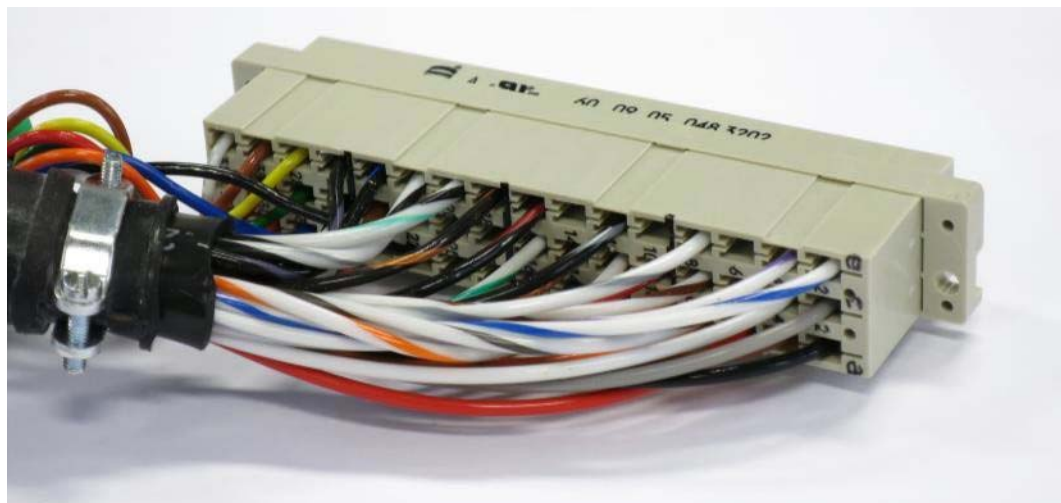
100% electrical functional test, custom special test as request, Labeling and packaging according the customer requirements



PRODUCTS: railway cables



PRODUCTS: railway cables



PRODUCTS: I/O and Power cable Telecom Decommissioning devices

- Complete portfolio of device for Telecom PSTN network decommissioning
- Migration form old PSTN equipment (Italtel, ALU, Ericsson) to news MSAN equipment Huawei and ALU
- Custom solution Cables to adapt old equipment interfaces to new MSAN
- Custom Patch panel and adapter
- PDU with fiber optics link integrated
- All products Telecom Italia homologated



High performances Flex and Semirigid cables

- Semirigid RF cables
- Flexible RF cables
- Power RF Cable
- Overmolded Power RF cables

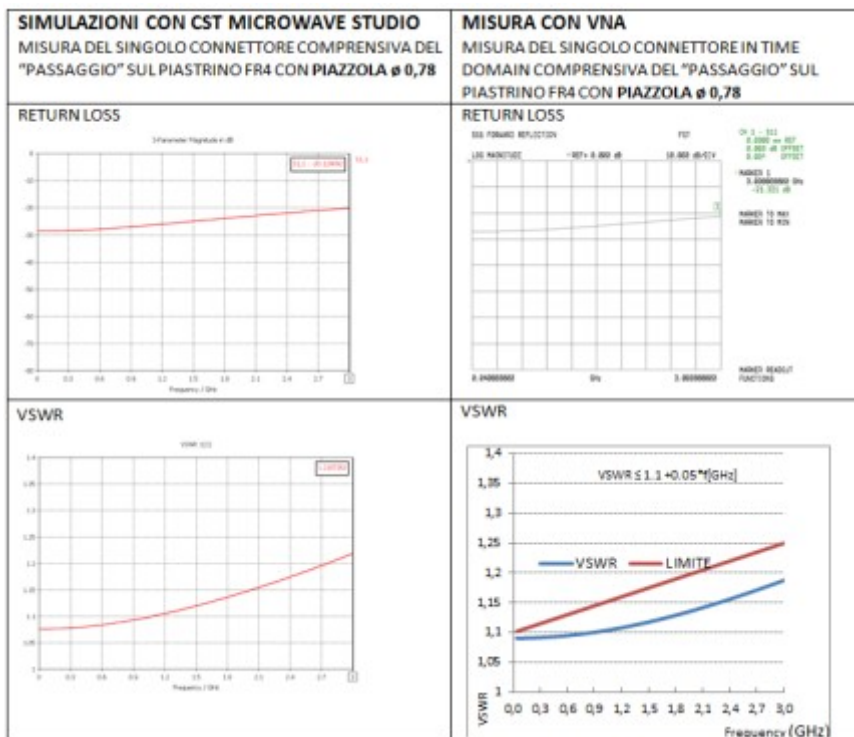
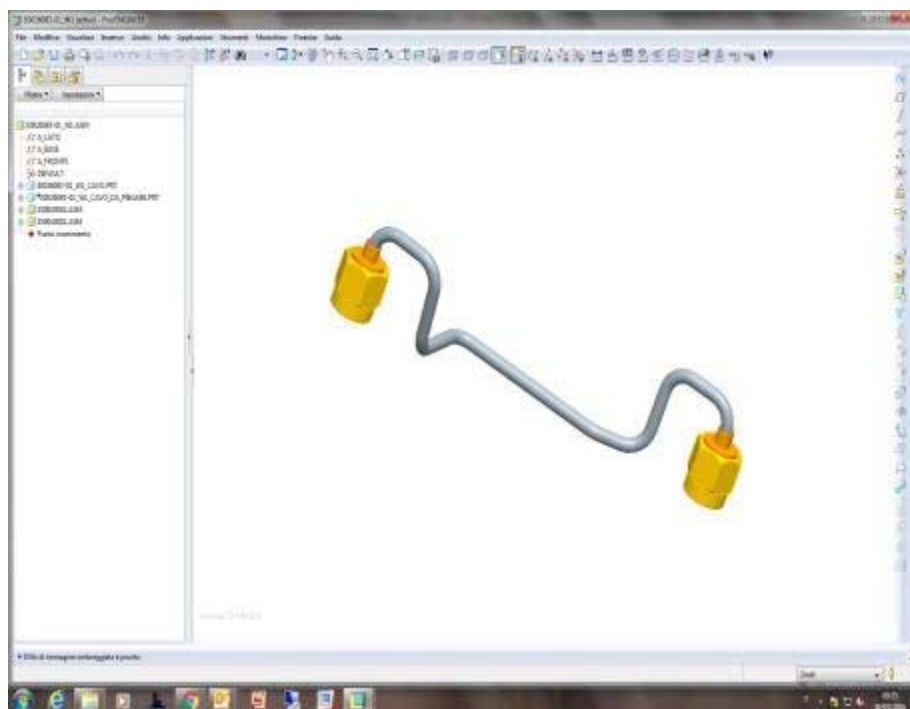


100% electrical functional test, custom special test as request, Labeling and packaging according the customer requirements



High performances Flex and Semirigid cables

Coaxial Connectors, cables design by 3D CAD according to customer mechanical requirements and performances simulations by SW CST MICROWAVE STUDIO



High performances

Flex and Semirigid cables Technology and tools

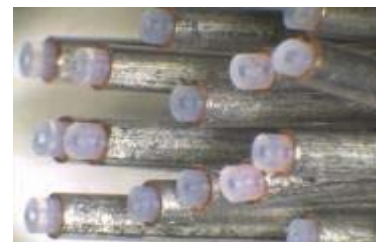
- High reliable industrial bending machine
- High reliable industrial cutting machine
- High reliable industrial solder process
- Climatic room for thermal stability raw material
- 100% RF test Vector network analyzer
- Digital serialization by barcode and RFID devices
- Custom Report according to customer need



Stripping tools



Bending tools



Climatic room for thermal stability



Solder tool



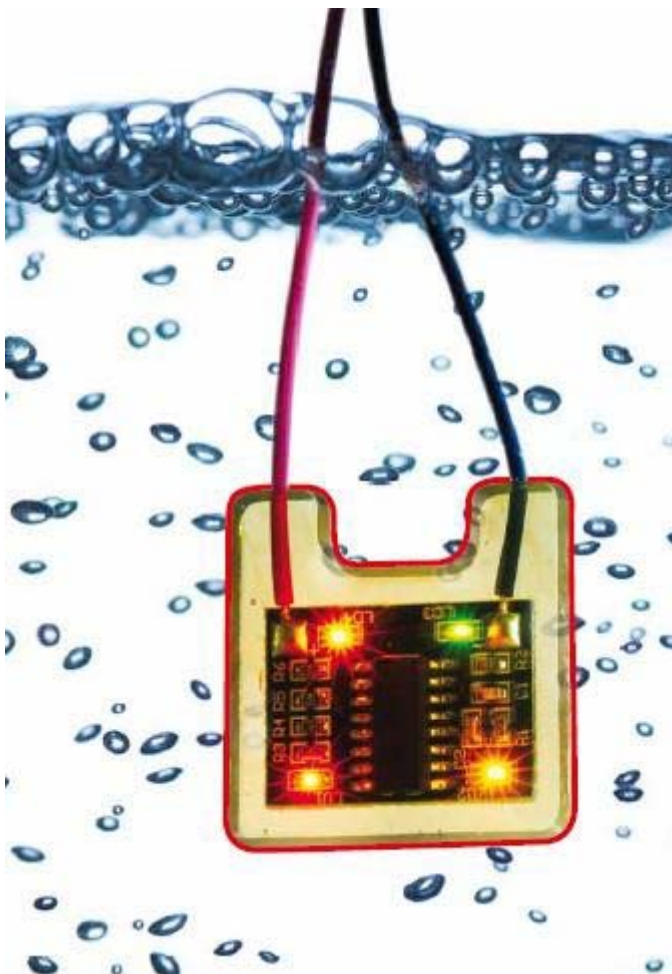
Cutting tools

-
- A close-up photograph of a metal rod, likely a part of a mechanical assembly. The rod is bent at a 90-degree angle. A white label with the text "XXXXXX-01" is attached to the horizontal section of the rod. The background is a plain, light-colored surface.

SCHEDA "CHECK LIST" PER LA REGISTRAZIONE DEI CONTROLLI			
Lotto di produzione			
Codice	Descrizione	Giù	N° Ordine
XXXXXXXX	RTI CAVETTI SEMIRIGIDI		
CONTROLLI E COLLAUDO CAVETTI COAX			
DESCRIZIONE OPERAZIONE		SCARTI	
		SCARTI Cavetti cavetti	Giù
NOTE			
CONTROLLI:			
Controllo visiva pagine	☐		
Controllo orientamento e messa a terra	☐		
Controllo di spugna con aliquanti sulla T 1	☐		
Cavetti: controllo della e pulizia faldatore e in linea cavetto	☐		
Controllo qualità esterne e avviso cliente	☐		
Controllo di linea e collaudo	☐		
Controllo di spugna finale con aliquanti sulla T 1	☐		
COLLAUDO:			
Controllo elettrico temperatura	☐		
Assemblaggio o scarico di otti	☐		
ARCHIVIAZIONE DATI COLLAUDO PER LA TRACCIABILITÀ			
Archiviazione dei POP Da un emulatore cliente	☐	Nave file: XXXXXXXXXXXX.pdf	
LINEA CAVETTI		Data	Firma

**DELTRON**
ITALIA

MACROMELT TECHNOLOGY



MACROMELT TECHNOLOGY

Plastic Material

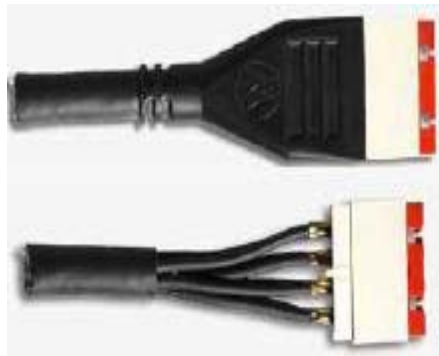
Macromelt products are thermoplastic hotmelt adhesives based on natural fatty acids. They show good adhesion to plastics like PA 6.6, ABS and PVC, low temperature flexibility, a wide service temperature range, and superior molding properties.

Technomelt Polyamid Hotmelt							
Product	Test Method	PA 653 PA 658 BLACK	PA 6208 PA 6208 BLACK	PA 633 PA 638 BLACK	PA 646 BLACK	PA 648 BLACK	PA 676 BLACK
Properties							
Colour	-	Amber Black	Amber Black	Amber Black	Black	Black	Black
Service Temp Range (°C)	-	-40 to +100	-40 to +100	-40 to +130	-40 to +130	-40 to +130	-50 to +140
Softening Point (°C)	ASTM E28	+160	+155	+175	+175	+175	+190
Viscosity at +210 °C (mPa.s)	ASTM D3236	4,500	3,000	3,500	7,000	7,300	7,500
Shore Hardness	ISO 868/15s	A77	A82	A90	A92	A93	A89
Creep Resistance (°C)	Henkel Method MH11	+125	+130	+155	+155	+155	+165
Cold Flexibility (°C)	ASTM D3111	-50	-40	-30	-35	-30	-55
Special Properties		good hydrolyse resistance	RTI-Value for 6208 S: 95 °C, UL-V0	UL-V0	UL-V0	UV-stabilized	Very good cold flexibility, very good temp resistance
Adhesion Properties							
Substrate							
PA6.6		good	good	moderate	moderate	moderate	moderate
PVC		good	good	good	excellent	moderate	moderate
ABS		good	good	moderate	moderate	moderate	moderate

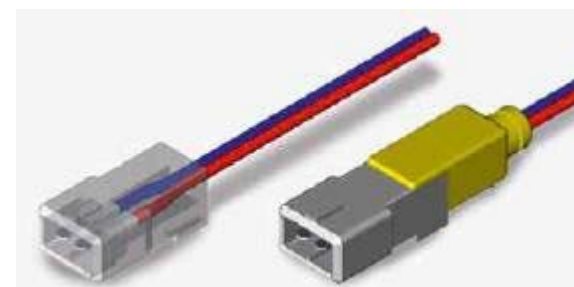
Technomelt Hotmelt					
		Polyolefin		Transparent	
Product	Test Method	AS 5375	AS 5361*	AS 4226*	
Properties					
Colour	-	white – light-beige	white – light-beige	transparent, colourless, clear	
Service Temp Range (°C)	-	-30 to +85	-30 to +100	-40 to +85	
Softening Point (°C)	ASTM E28	+141	+155	+165	
Viscosity at +210 °C (mPa.s)	ASTM D3236	2,400	4,000	45,000	
Shore Hardness	ISO 868/15s	A50	A68	D45	
Creep Resistance (°C)	Henkel Method MH11	+90	+130	+110	
Special Properties		Broad adhesion range	Broad adhesion range, UL-V2	Transmission rate at 2 mm thickness:	
				Wavelength:	Transmission rate:
				450 nm	89,0 %
				600 nm	90.5 %
				800 nm	91,0 %
				850 nm	91,5 %
Adhesion Properties					
Substrate					
PA6.6		good	good	moderate	
PE		good	good	-	
PP		excellent	excellent	-	
ABS		good	good	-	
PVC		moderate	moderate	good	
PC		moderate	moderate	good	

MACROMELT TECHNOLOGY

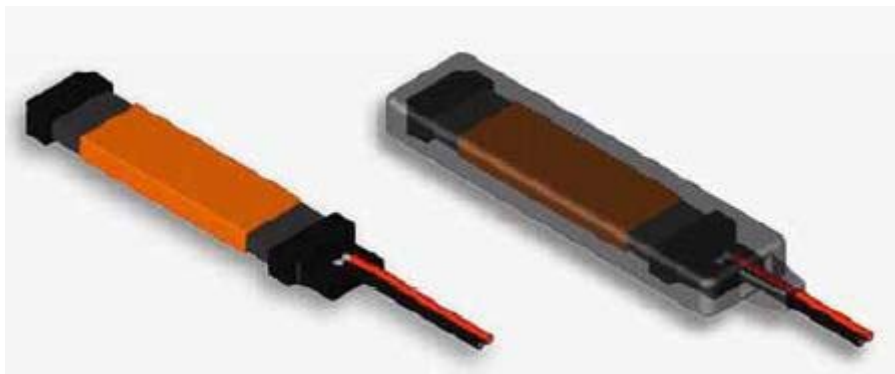
Examples



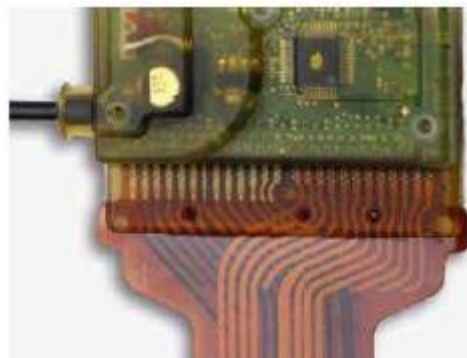
Cable and Connectors
Overmolding



MACROMELT TECHNOLOGY Examples

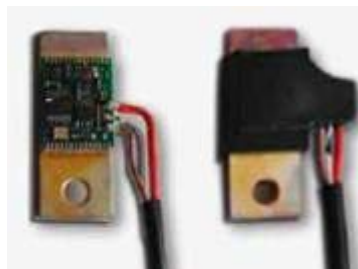


Antenna Coil



PCB Overmolding

MACROMELT TECHNOLOGY Examples



Cable and sensor

MACROMELT TECHNOLOGY

Examples



In/Out Grommets sockets and cable strain relief

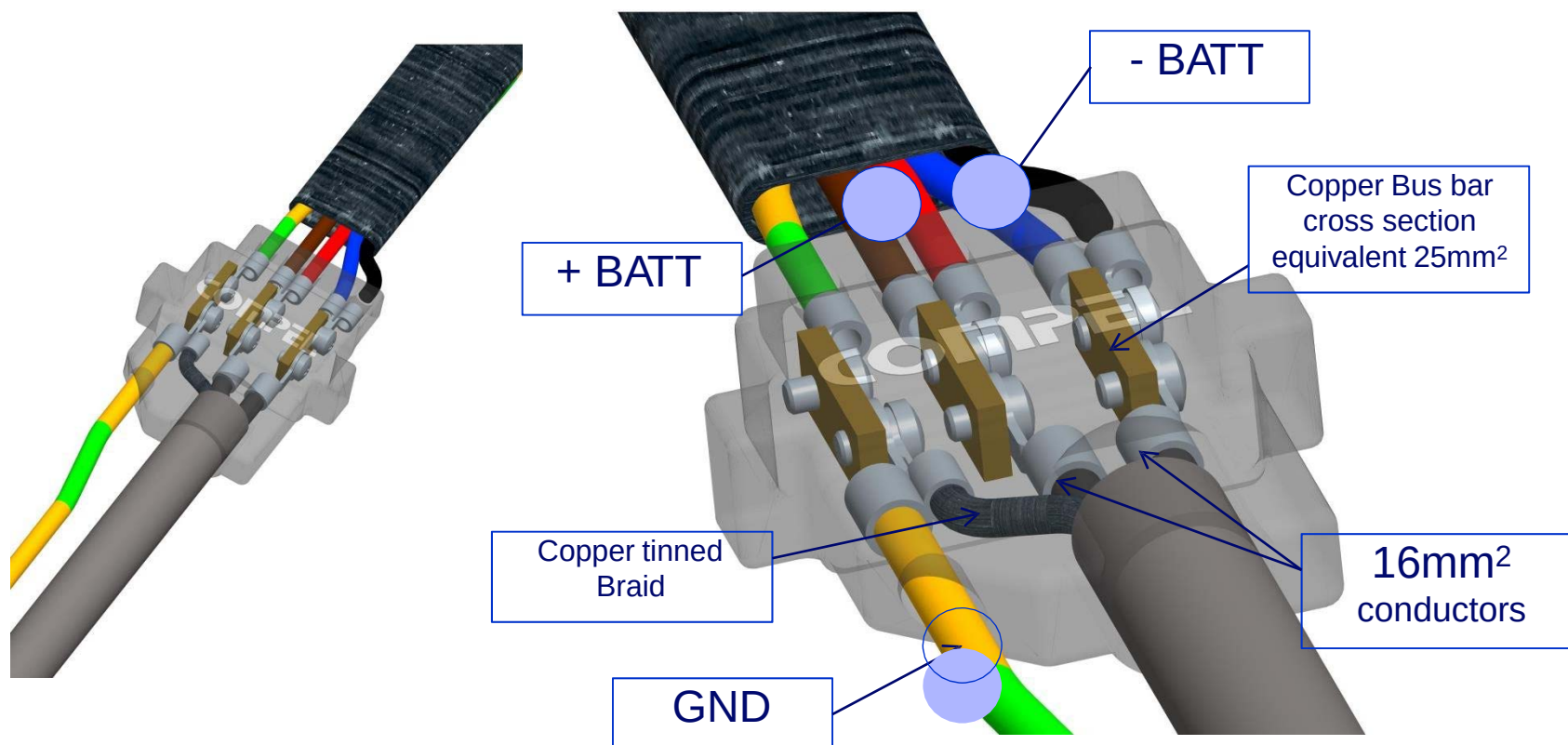


MACROMELT TECHNOLOGY Compel Machine



MACROMELT TECHNOLOGY POWER CABLE

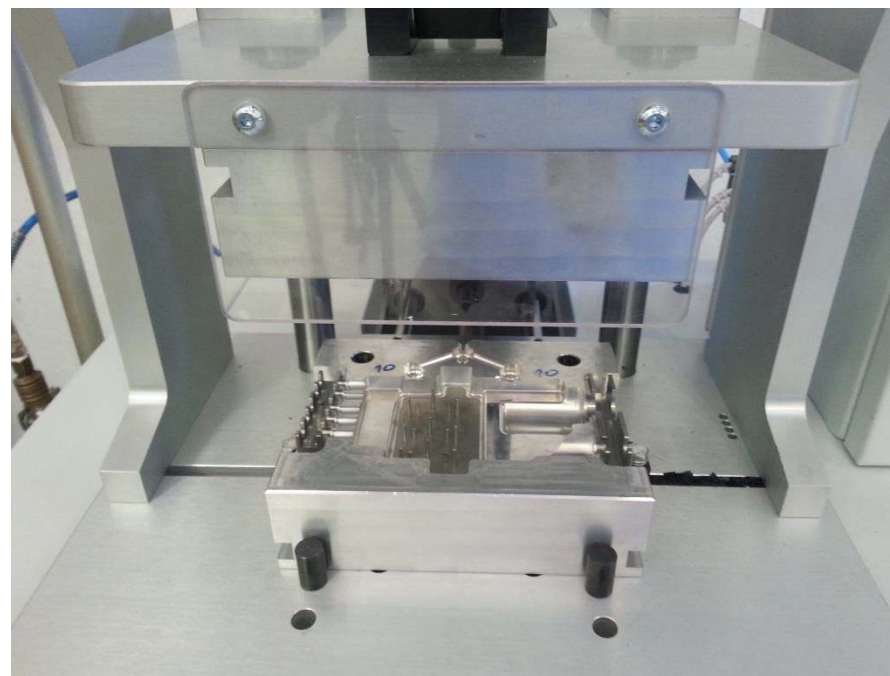
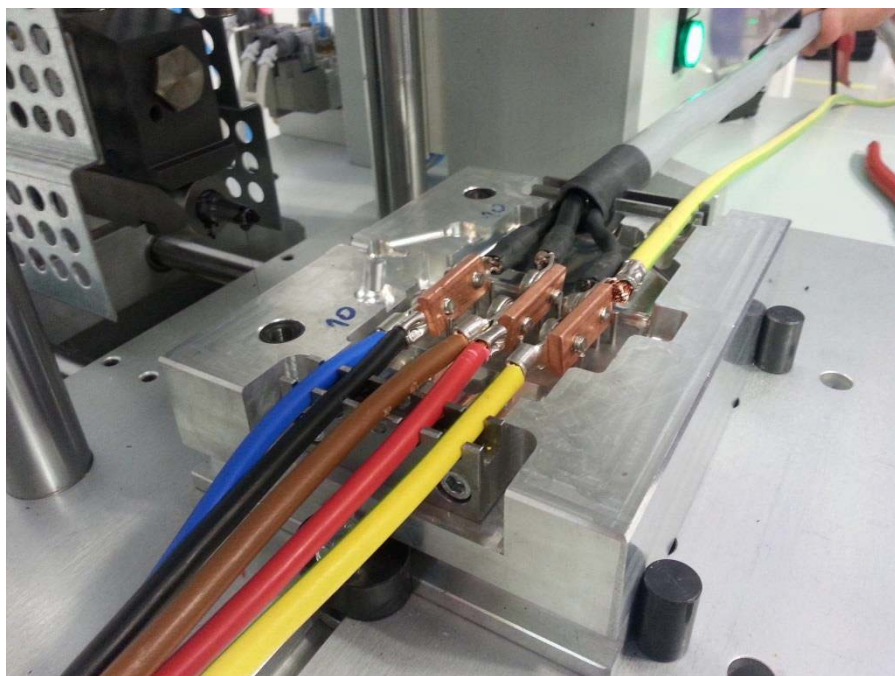
Rated Current up to 100A



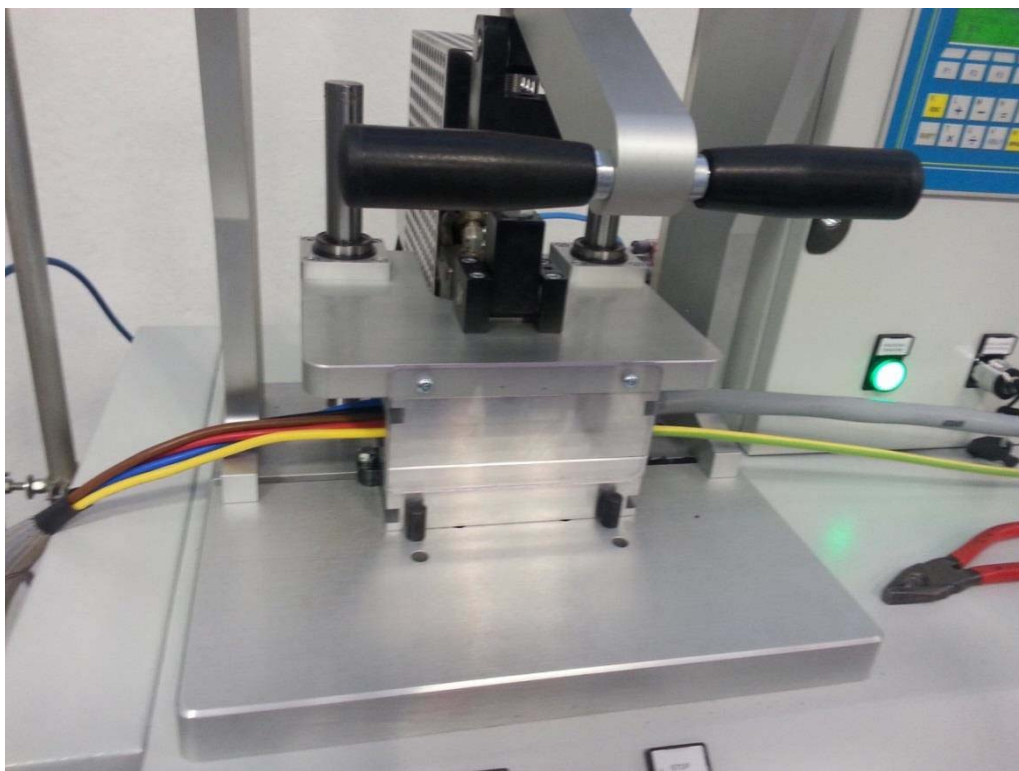
Fast prototyping mold made with 3D printer



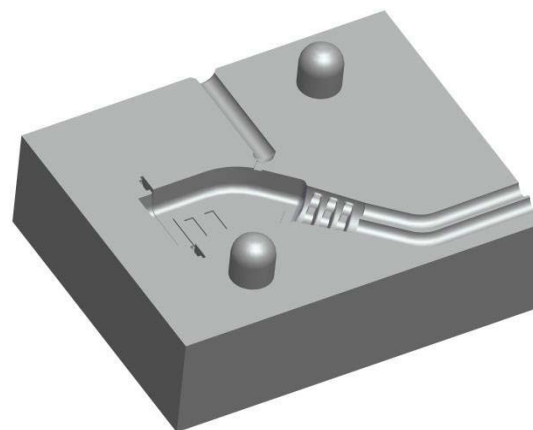
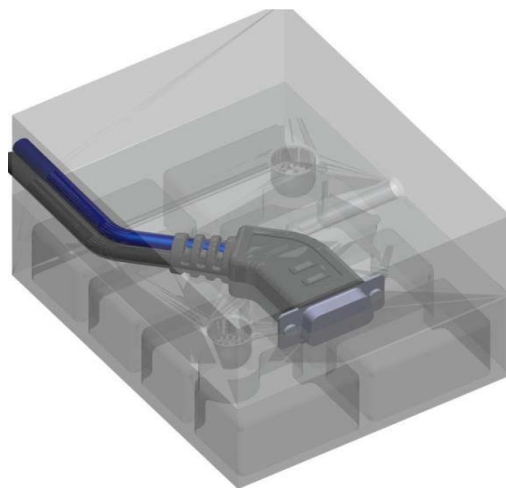
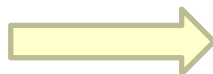
MACROMELT TECHNOLOGY POWER CABLE Rated Current up to 100A



MACROMELT TECHNOLOGY POWER CABLE Rated Current up to 100A

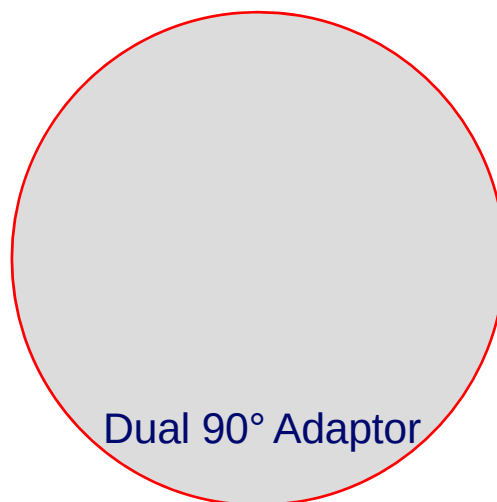
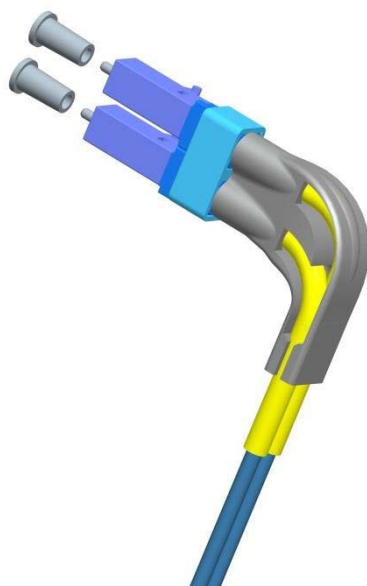


MACROMELT TECHNOLOGY I/O cable



MACROMELT TECHNOLOGY

Optical adapter

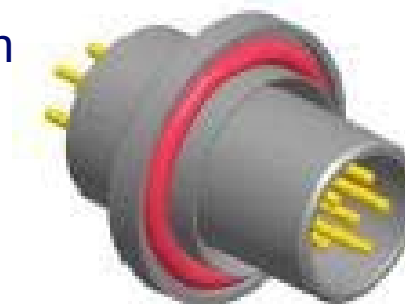


LC 90° ANGLE BOOT



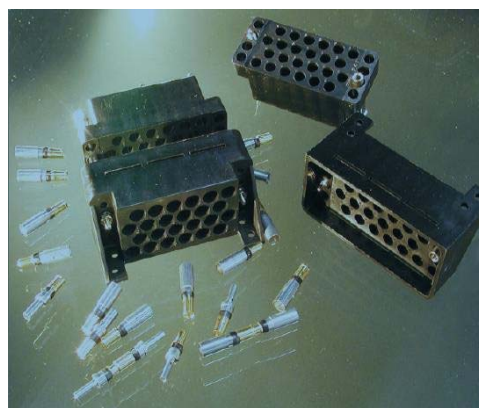
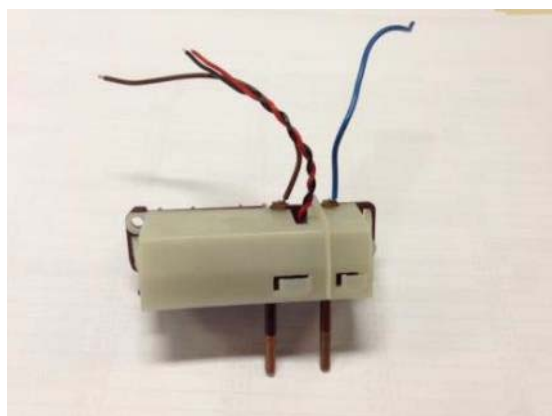
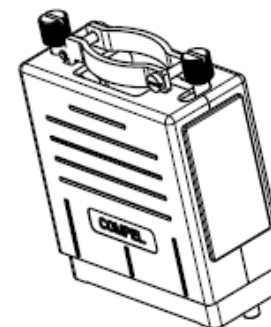
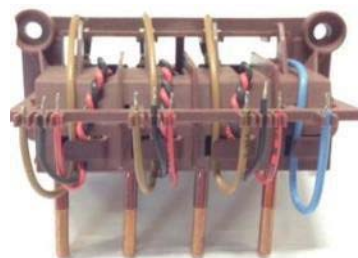
Energy Interconnection System

Solutions for vertical markets and special application
(medical, energy, avionics, industrial, oil&gas,...)



Energy Interconnection System

Shunt devices and terminal block
for energy meter

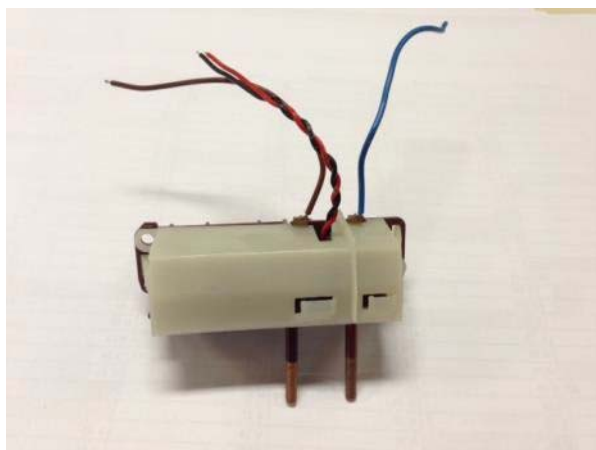


**PRESCRIZIONI PER LA COSTRUZIONE ED IL
COLLAUDO DEI CONNETTORI PER INTERNO
IMPIEGATI NELLE CABINE PRIMARIE UNIFICATE
DELLA DISTRIBUZIONE**

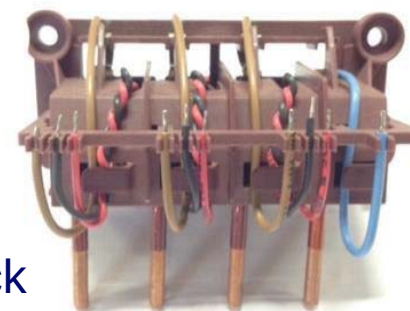
DV 1509A

Dicembre 1998
Ed. 3 - 1/24

Energy Interconnection System



Shunt devices and terminal block
for energy meter



Optical interconnections system



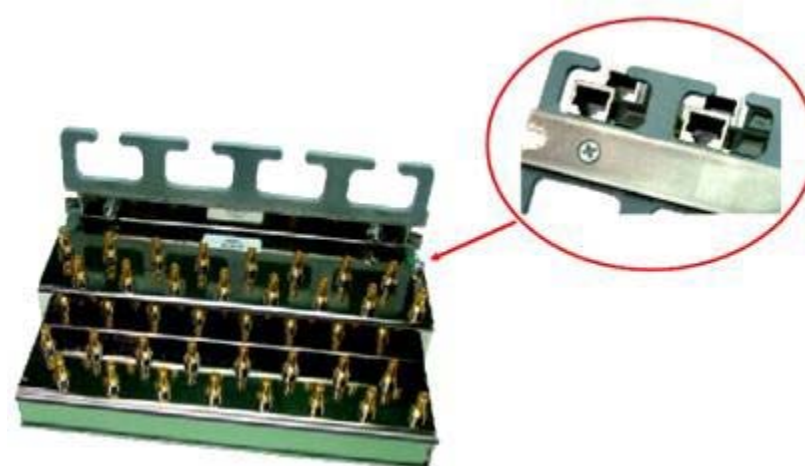
- Optical Adapter and connectors
- Patch-cord / Pigtail
- Fan-out cord / Breakout
- Patch panel
- Distribution Box
- Hybrid cable management system



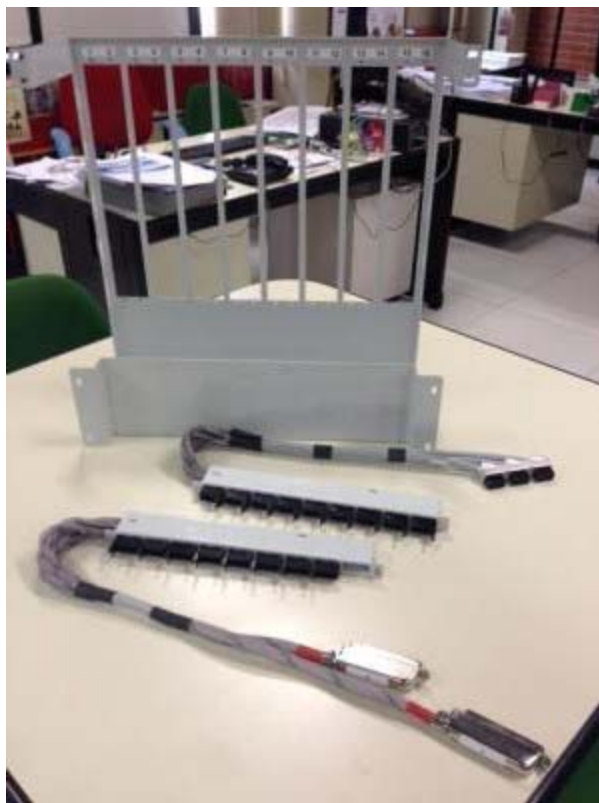
Customs interconnections solutions



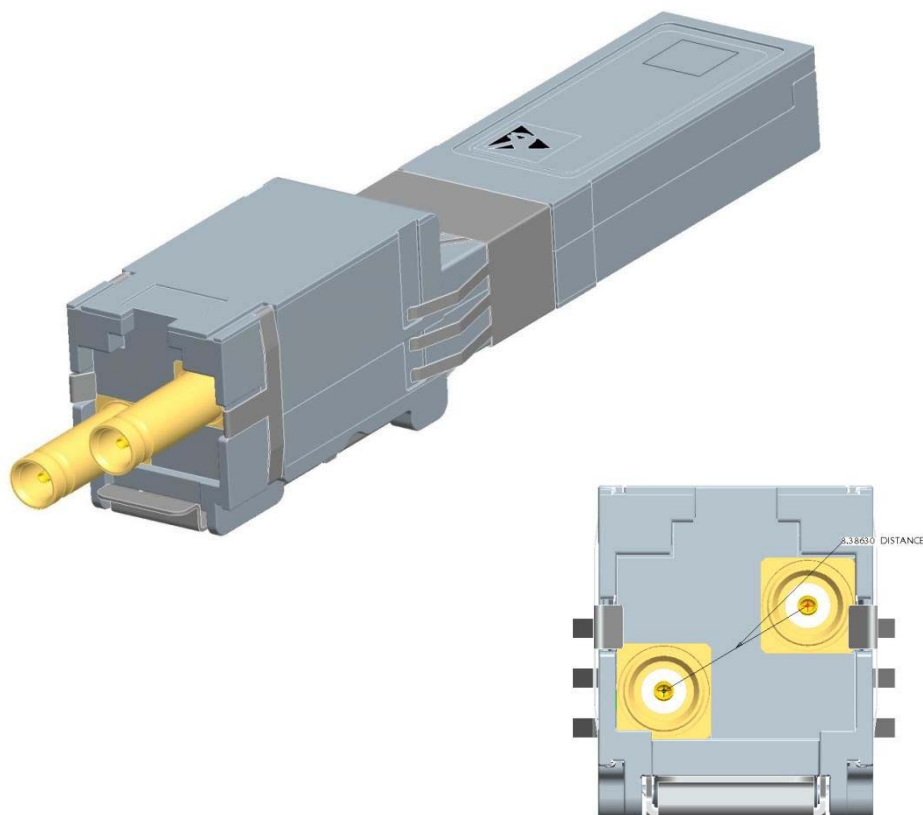
- Custom lay-out cable
- Patch panel
- Power distribution unit
- Distribution Box
- Rack and sub rack
- Adapter



Customs interconnections solutions



Custom SFP Broadcasting with two 1.0/2.3 diagonal connectors *12 Gb/s SDI, SMPTE ST 2082*



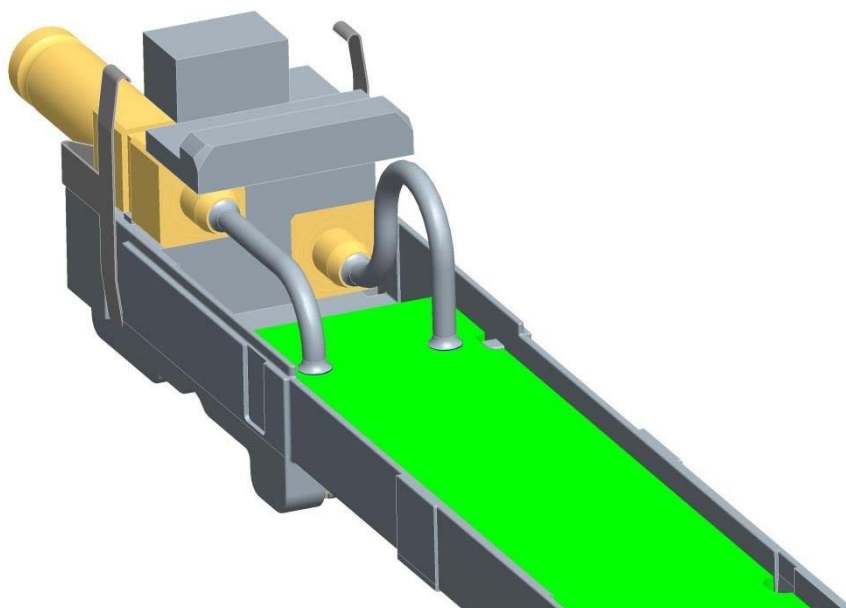
Pitch 8,4mm is compatible
with standard 1.0/2.3 plug
for Belden 1855A cable according
to Broadcast requirement

Custom SFP Broadcasting with two 1.0/2.3 diagonal connectors

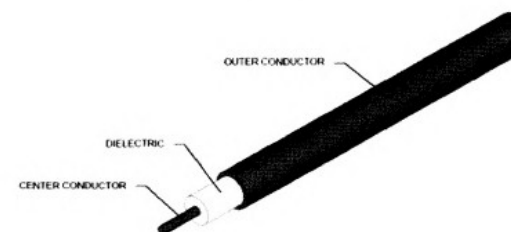
MICRO-COAX
Leading the way in transmission line solutions.

UT-047-75/CA75047

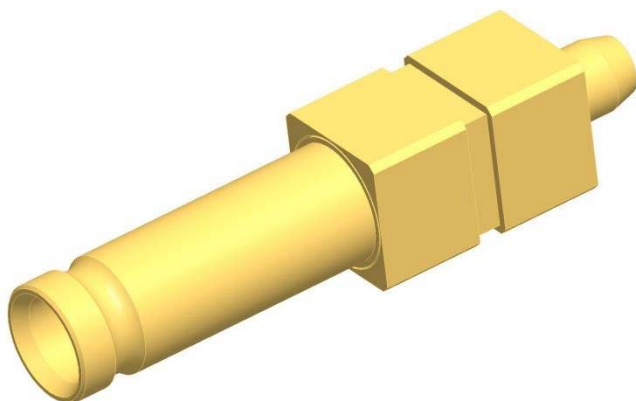
Semi-Rigid Coaxial Cable



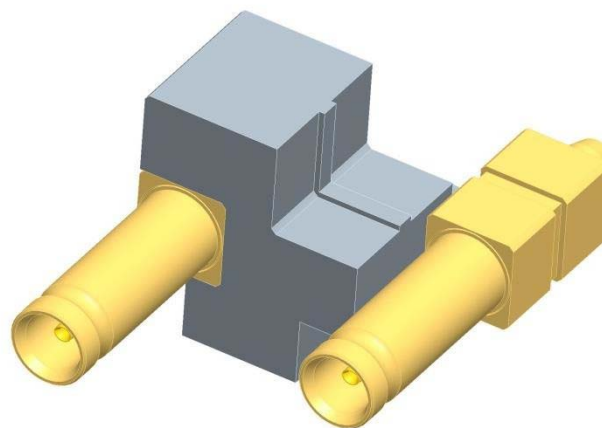
MECHANICAL CHARACTERISTICS			
Outer Conductor Diameter, inch (mm)	0.047+/-0.001 (1.194+/-0.0254)		
Dielectric Diameter, inch (mm)	0.037 (0.94)		
Center Conductor Diameter, inch (mm)	0.0063+/-0.0005 (0.160+/-0.0127)		
Maximum Length, feet (meters)	20 (6.1)		
Minimum Inside Bend Radius, inch (mm)	0.125 (3.175)		
Weight, pounds/100 ft. (kg/100 meters)	0.29 (0.44)		
ELECTRICAL CHARACTERISTICS			
Impedance, ohms	75+/- 1.5		
Frequency Range GHz	DC-109		
Velocity of Propagation %	70		
Capacitance, pF/ft. (pF/meter)	19.3 (63.3)		
Typical Insertion Loss, dB/ft. (dB/meter) and Average Power Handling, Watts CW at 20 degrees Celsius and Sea level	Frequency	Insertion Loss	Power
	0.5 GHz	0.26 (0.85)	60.5
	1.0 GHz	0.37 (1.21)	42.6
	5.0 GHz	0.85 (2.77)	16.6
	10.0 GHz	1.22 (4.00)	13
	20.0 GHz	1.77 (5.82)	9
Corona Extinction Voltage, VRMS @ 60 Hz	750		
Voltage Withstand, VRMS @ 60 Hz	2000		
ENVIRONMENTAL CHARACTERISTICS			
Outer Conductor Integrity Temperature, Deg Celsius	150		
Maximum Operating Temperature, Deg Celsius	125		
MATERIALS			
Outer Conductor	Copper		
Dielectric	PTFE		
Center Conductor	SPCW		
CUTAWAY			



Custom 75 Ω connector

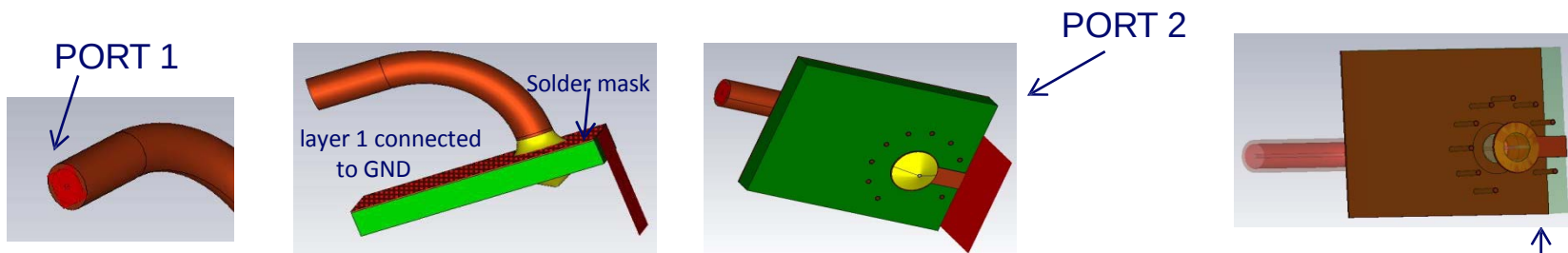


Custom 1.0/2.3 coax. conn.



Custom 1.0/2.3 coax. connector
Assembled in custom case

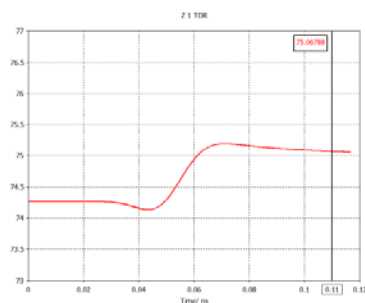
Semirigid cable 0.047" (75 Ω) connected to the PCB



We have simulated the area where the semirigid cable 0.047" (75 Ω) is connected to the PCB with the through hole technology and GND Vias

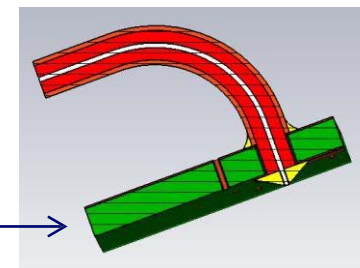
Time domain

PORT 1

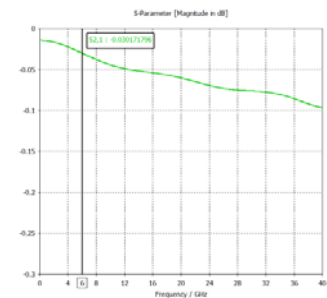
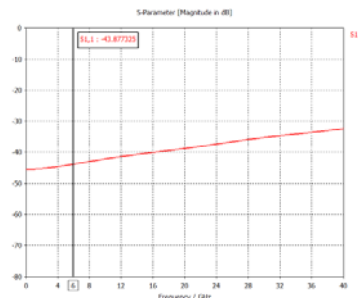
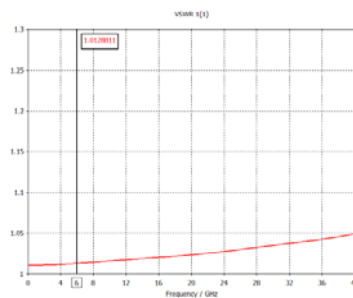


PORT 2

no internal layer

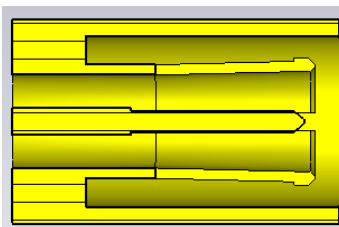


S - Parameter

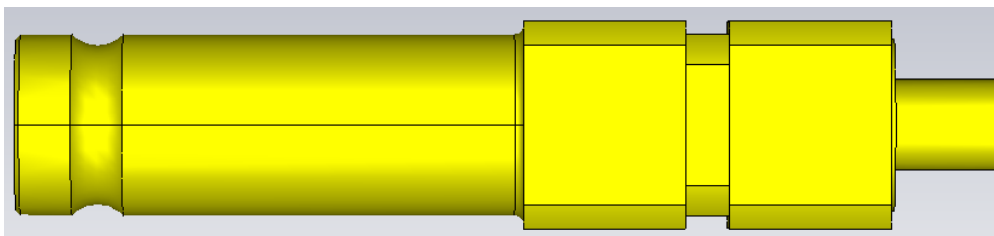


DIN 1.0/2.3 female 75 ohm "true"

PORT 1



1.0/2.3 male 75 Ω "true" line

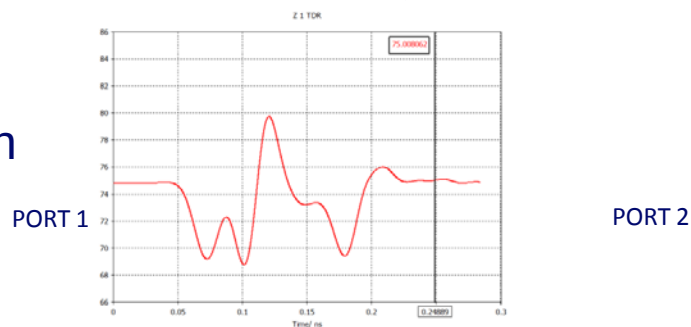


PORT 2

DIN 1.0/2.3 female connector 75 Ω "true"

We have mated a 1.0/2.3 male 75 ohm line to simulate the adapter used during the real measurement in laboratory with the VNA (vector network analyser)

Time domain



S - Parameter

