

High Performance Products

TPM
SANYU EUROPE



Reed Relays

Interconnect – POGO Products

RF Cable and Connectors

 **NUCLETRON**
TECHNOLOGIES

High Performance Reed Relays

Surface Mount Reed Relays

- High power up to 10W
- Miniaturized
- High reliability
- Long life up to 300×10^6 cycles
- RoHS compliant
- UL certified

Ultra Density/Low Profile

- Low profile: Reduce Height to 3.6mm
- Ultra Density: Reduce Real estate

High Frequency

- Up to 20GHz Capability



Mercury Reed Relays

- No contact bounce
- High power up to 250W
- Low + stable contact resistance
- Extended life up to 10000×10^6 cycles

Technology is Here!

Patent Pending
State-of-Art Technology
Suitable for Critical
Data Transmission Line
50Ω Impedance

PCB Reed Relays

- Miniature
- Multi contact configuration
- Low EMF
- SIP + DIP package available

20 GHz

13 GHz

6 GHz

High Voltage

- High voltage up to 15kV
- High dielectric strength
- 5kV, 10kV, 15kV

High Current

- Ultra high current
- 10/20/25ADC
- 25/50/75/100A pulse

15kV

High Insulation Resistance

- High insulation resistance up to $10^{14}\Omega$
- Available 1 Form A, 2 Form A, 3 Form A and Form B
- Contact rating 50W



Interconnect – POGO Products

High RF Coaxial POGO/PROBE PIN

- ▶ This Coaxial POGO PIN is designed for high performance digital and analog signal interface
- ▶ Combination of High RF Coaxial POGO and coaxial cable offers accurate signal integrity through transmission line up to 13GHz range
- ▶ High performance coaxial PROBE ensures great stability over any deflection amount

- ATE/Measurement Equipment Industry
- High RF signal path up to 13GHz
- $50\Omega \pm 5$
- High performance Coaxial PROBE ensures greater stability
- Coaxial/Single PROBE available

POGO Blocks

- ▶ The POGO blocks are ideal for multiple and high density contacts
- ▶ This solid design provides better contacts to the load board and maximizes RF characteristics

- High density/Narrow Pitch available
- Custom Design
- Robust and reliable design
- Custom dimension/Design available

Cable Connector Block

- ▶ The cable connector block series offers blind-mate smooth connectivity and flexibility between module to module/board to board maintaining accurate signal integrity on critical transmission path

- Coaxial Cable Blind-Mate Connector
- Variety of Choice/Custom Design
- High Density/Low Profile Version available

Flexible high density design ensures both usability and functionality greatly improved for ultra high density interconnection

Cable Assembly available with SMPM and other high performance connector

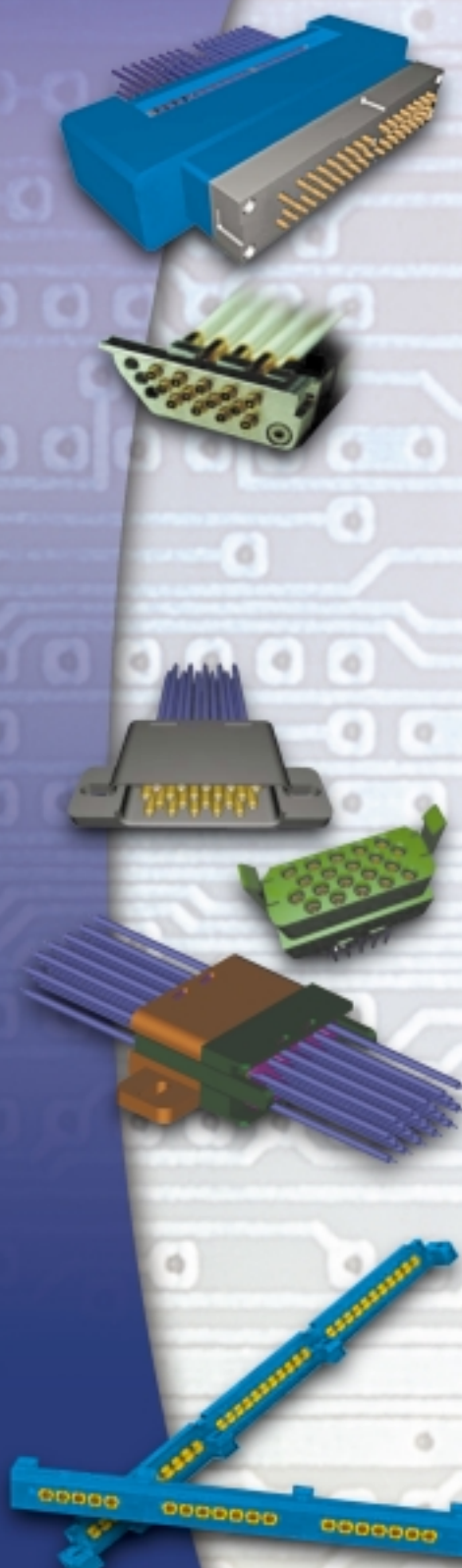
Edge-Mount Connector Block

- ▶ This product achieves both "space saver" and "high performance" at high frequency range
- ▶ Edge-mount design reduces real-estate on PCB and maintains low profile
- ▶ At the same time, block design provides shorter and straight signal path

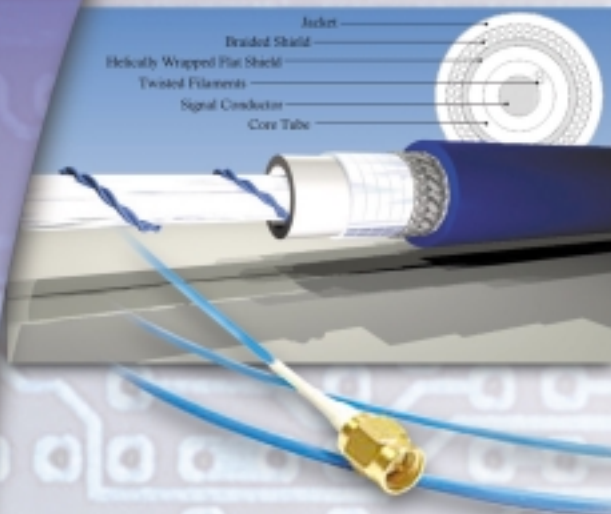
- Up to 65GHz
- Low Profile and Narrow Pitch
- Available Connectors: SMPM/MMCX/Other
- Custom Design available

Interconnect

- Variety of high Performance Material (Elastomer/Kapton)
- Cut according to specification
- Narrow Pitch capability



RF Cable

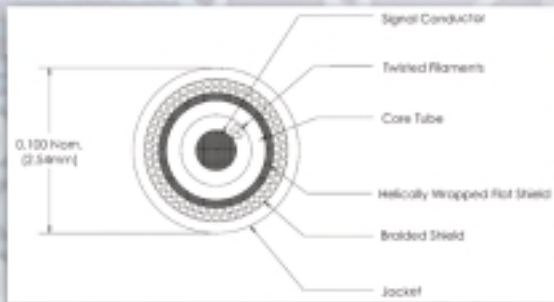


High Speed Data Coaxial Cable

- ▶ Patented dual monofilament technology is proven to enhance high frequency performance
- ▶ Consistent mechanical tolerances yield highly reliable electrical performance
- ▶ Available in multiple AWG selections from 32AWG to 24AWG for 50Ω, 34AWG to 20AWG for 75Ω characteristics

- Tested to 20GHz
- High RF Bandwidth Cable
- Low Dielectric Constant
- Low Capacitance
- High Velocity of Propagation (>85%)

Custom cable assembly with SMA, SMPM and other available

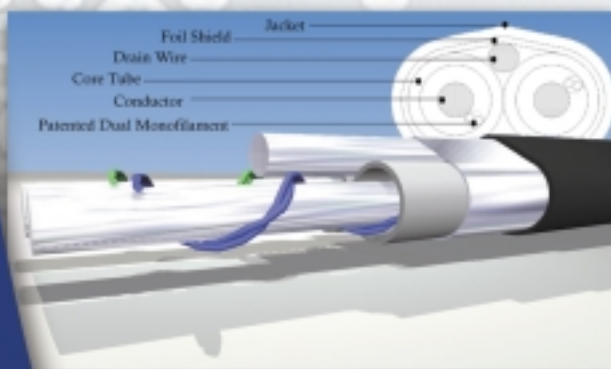


Low Loss Flexible Microwave Cable

- ▶ Low loss flexible microwave products incorporate a patented dual monofilament technology proven to enhance performance at high frequency (>12GHz)
- ▶ Ideal for high density and high speed data transfer

Specifications		047-2801	086-2301	053-2501
Signal Conductor	AWG	28, Solid	23, Solid	25, Solid
	Size	.0126"	.0226"	.0179"
	Material	Silver Plated Copper		
Impedance	(ohm)	50 +/- 1		
Capacitance	(pF/ft)	23pF/ft		
Propagation Delay	(ns/ft)	1.155 +/- 0.01	1.15 +/- 0.01	1.17 +/- 0.01
Velocity of Propagation		88%	88,50%	87%
Overall Shield Diameter		.046"	.085"	.053"

Cable Assembly available with SMPM and other high performance connector



Twinax for ATE

- ▶ Twinax cable has excellent AC and DC characteristics feature
- ▶ Ideal for Kelvin test, SMU test and DC parameter test

- High RF Bandwidth Cable
- Low Dielectric Constant Insulation
- High Velocity of Propagation (>85%)
- Robust Twinax Design
- Solder Resistant Insulation



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