# GORE PRECISION COAXIAL CABLES THE ULTIMATE IN SPEED AND FIDELITY

W. L. GORE & ASSOCIATES • ELECTRONIC PRODUCTS DIVISION

### Impedance Control Plus...High Signal Speeds, Low Crosstalk, Less Loss and Less Skew...

Digital & RF system engineers and system designers use our custom designed coaxial cables to meet their most challenging packaging and electrical requirements.

The microporous structure of our GORE-TEX® expanded PTFE material provides a low dielectric constant (1.3) insulation system which is tough enough to be applied in thin walls over small conductors (down to awg50 conductors!). The results is a reliable interconnect which is optimized to meet the specific needs of your system. The 1.3 dielectric constant results in signal speeds of greater than 85% the speed of light!

The benefits of the GORE-TEX dielectric can also be utilized in controlled impedance pairs for differential signals. For critical signal busing applications, our coaxes and pairs can be cabled into ribbon or round cable form.

Gore also offers high performance quad cables. These cables are the only high speed differential cables which meet the electrical requirements and satisfy the functional requirements of two shielded pairs into one cable with a diameter no greater than approximately 15% larger than a single pair.

## Ideal for Miniaturized RF Coax Connectors

- Lower attenuation/greater density due to larger conductor (vs. standard insulations)
- RG-316 performance in an RG-178 package (O.D.)
- Today's high performance applications require lower loss at higher frequencies in denser packages
- Ideal for Telecom LEO handsets, automatic test equipment, mobile communications and infrastructure networks
- GORE-TEX dielectric also provides more flexibility and phase stability

#### **Benefits**

- Higher packaging density
- Higher signal fidelity
- Low propagation delay (about 1.2 nsec/ft)
- Lower capacitance
- Greater flex durability

#### W. L. Gore & Associates Nor

North America: 1 (800) 445-4673 International: 1 (302) 292-5100



## **Typical Applications**

- High Bandwidth
- High Signal Speeds
  (>85% speed of light)
- Longer distances
- High density interconnection (size advantage)
- Lower loss with same O.D.
- Low capacitance
- High temperatures
- Greater Flex Life
- Low level (weak signals)
- Low Noise Cable Requirement

Gore can complete your interconnection system by providing fully tested assemblies. Gore offers 2mm differential assemblies, QUIETZONE<sup>TM</sup> High Density Shielded Coaxial Interconnects and Gore Microwave Cable Assemblies. We can also develop custom assemblies designed to suit your mechanical or electrical requirements...



The GORE-TEX dielectric cable has a lower dielectric constant allowing for smaller profile with same center conductor.

**Europe:** +49/91 44/6010

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