

Impedance – Total resistance that cable presents to the electrical current passing through it. Measured in Ohms.

Industrial backplanes – Circuit boards that contain sockets or expansion slots for connections to other circuit boards. There are two types of industrial backplanes: active and passive.

Ink jet printing – High-speed typing or printing process in which charged droplets of ink applied by nozzles are directed onto a material.



Insulation – Material having high resistance to the flow of electric current. Often called a dielectric.

Insulation Resistance (IR) – Resistance of an insulation to an impressed DC voltage, tending to produce a leakage current through the insulation.

Intertek – Multinationally recognized testing laboratory. Formerly known as ETL.

Insulation displacement connector – Mass termination connector with contacts that pierce the insulation in order to make contact with the conductor.



Irradiation – Process where an insulated wire or cable is exposed to an electron beam to change the chemical structure of the compound from thermoplastic to thermoset. This improves the physical properties and electrical performance of the material.

ISO 13485:2003 – Quality management system standard for medical devices and related services.

ISO 9000 Series – International Standards Organization, 9000 series is a family of standards (9001, 9002, etc.) for quality management systems and is administered by accreditation and certification bodies. ISO 9001 was the first standard that introduced a process based audit approach to improving quality management systems.

ITAR – International Traffic in Arms Regulations - Set of United States government regulations that control the export and import of defense-related articles and services on the United States Munitions List.

ITC – Instrumentation Tray Cable - UL 2250 listed, Article 727 of the National Electrical Code® for factory assembly of two or more insulated conductors, with or without grounding conductor(s), and enclosed in nonmetallic sheath or armor with an operating voltage of 150V or less and 5A or less.

Jacket – Outer covering, usually nonmetallic, mainly used for protection against the environment.



Jumper – Short length of conductor used to make a connection between terminals, around a break in a circuit, or around an instrument.

kV – kilovolt - Designation for 1000 volts.

Lab360 – NWI Engineering platform for contract manufacturing where professionally certified subject matter experts translate customer requirements through the disciplined process phases of research and development, new product development, prototyping, pilot models, clinical trials, low volume through high volume production, life-cycle innovation and logistics.

Lay – Distance along a cable occupied by one complete helix of a strand or conductor. The direction of lay (left or right hand) is the direction of the helix looking away from an observer. Also, to arrange the wires or members of a conductor either by twisting them or by forming them into one or more layers helically applied. Length of lay is the axial length of one turn of the helix of a wire or member (measured in inches or mm).

Laser – Used on wire and cable manufacturing equipment to measure and display the dimension of product.

Leaching – Loss of plasticizer or other liquid ingredient from a plastic due to heat, humidity or aging.

Legend – Indent or inkprint on inner conductor of finished jacket to identify cable.

Life cycle – Test to determine the length of time before failure in a controlled, usually accelerated, environment.

Limiting Oxygen Index – Percentage of oxygen necessary to support combustion of a specified material. Abbreviated as LOI.

LLDPE – Linear low-density polyethylene - Can be used as an insulation or jacket material.

LOI – Limiting Oxygen Index - Percentage of oxygen necessary to support combustion of a specified material.

Longitudinal shield – Tape shield, flat or corrugated, applied lengthwise with the axis of the core being shielded.

LS – Low Smoke.

LSHF – Low Smoke Halogen Free.

LSOF – Low Smoke Zero Fumes.

LSV – Low Speed Vehicles.

LSZH – Low Smoke Zero Halogen.

Magnet wire – Insulated copper or aluminum wire used in the coils of all types of electromagnetic machines and devices. It is a single-strand wire insulated with enamel, varnish, cotton, glass, asbestos, or combinations of these.



Major dimension – On flat cord, distance from side to side.

MARCORPSYSKOM – Marine Corps Systems Command.

Marker Threads – Colored strings laid parallel and adjacent to the strands of an insulated conductor to reveal information such as the conductor's manufacturer, the specification to which it was made, and its thermal capability.

Marker tape – Narrow strip of fabric, paper or plastic laid longitudinally within a cable that bears printed information such as the specification to which the cable was made and the name of the cable's manufacturer – typically used with cables where the material used for the jacket makes it difficult or impossible to print.