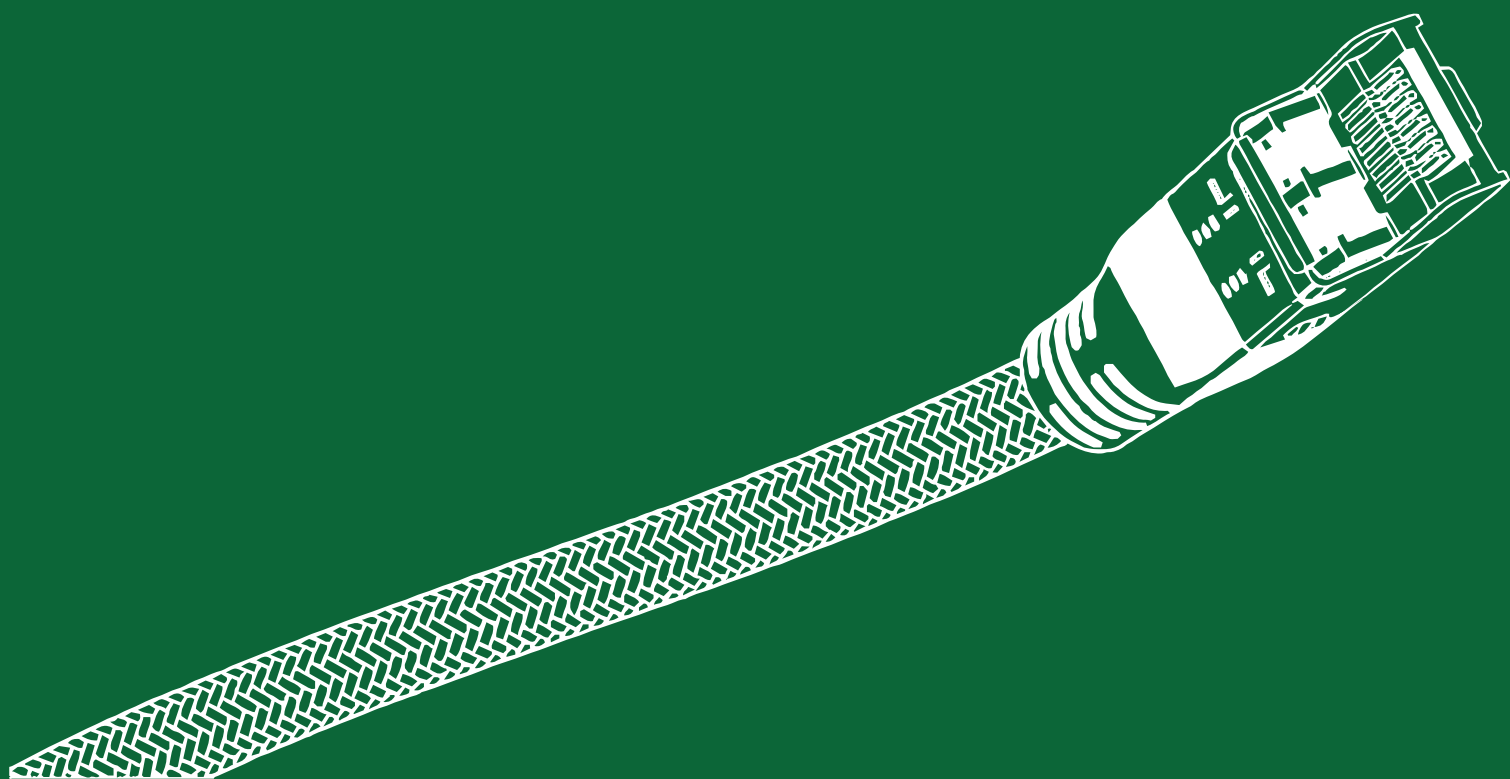


TIKA

C A B L E

**Communication
Networks**



Description

Communications cables carry data, voice, video, and security signals — the information backbone of modern buildings, campuses, and industrial facilities. This category covers the full range of copper and fiber optic cables used for network infrastructure, telephone systems, CCTV surveillance, and alarm systems.

Products include fiber optic cables (single-mode and multi-mode, indoor/outdoor/armored) for high-speed backbone networks, telephone cables (2 to 100 pairs, gel-filled or dry) for voice and PABX systems, coaxial cables (RG59/RG6/RG11) for CCTV and antenna signals, alarm/security cables for intrusion detection and fire alarm sensors, and LAN cables (Cat 5E, Cat 6, Cat 6A, UTP/FTP) for structured cabling and PoE applications. These cables are available with PVC or LSZH sheaths to suit different fire safety requirements.

Typical applications:

Office and campus data networks

CCTV surveillance systems

Telephone and intercom systems

Security and burglar alarm systems

Data center cabling infrastructure

Fiber to the Home (FTTH) deployments



Fully Filled Telephone Cable



Alarm Cable



Coaxial Cable

Specification

Fiber Optic Cable

Fiber optic cables transmit data using light pulses rather than electrical current, offering unlimited bandwidth potential, complete immunity to electromagnetic interference, and the ability to span distances of 10km to 100km without repeaters. These cables feature glass fibers (single-mode for long distance, multi-mode for short distance) protected by aramid yarn strength members, water-blocking gel or tape, and an outer sheath of PE (for outdoor), LSZH (for indoor), or steel tape armour (for direct burial or rodent-prone areas). ADSS (All-Dielectric Self-Supporting) versions are available for installation on power transmission towers without needing a separate messenger wire. Fiber optic cables are essential for campus backbone networks, telecommunications, data center interconnects, FTTH (Fiber to the Home), and long-haul transmission across Southeast Asian countries.

Product Type	Specifications		Typical Application	
Fiber Optic Cables	Single-mode / Multi-mode, Indoor/Outdoor, Armored/ADSS, Up to 144 cores		High-speed network, long-distance transmission, campus backbone	
Conductor	Insulation	Sheath	Standards	Key Features
Glass fiber (SM G.652 / MM OM1–OM4)	IAcrylate / Tight buffer	PE / LSZH / PVC	ITU-T G.652, IEC 60793	Low loss, high bandwidth, long distance

Telephone Cable

Telephone cables provide voice and low-speed data connectivity for traditional telephone networks, PABX systems, and intercom networks. These cables feature solid annealed copper conductors (0.4mm to 0.6mm), solid polyethylene insulation (for stable electrical characteristics), and a PVC or LSZH outer sheath. Outdoor versions are gel-filled (also called "jelly-filled" or "flooded") to prevent water ingress along the cable core. Indoor versions are dry-core. Pair counts range from 2 pairs up to 100 pairs or more. While fiber and wireless technologies have replaced telephone cables in new installations, large quantities are still used for maintenance of existing networks, building intercom systems, and analog telephone lines in industrial facilities and remote areas.

Product Type	Specifications		Typical Application	
Telephone Cable	Solid copper, 2 to 100 pairs, Gel-filled or dry core, PVC or LSZH sheath		Voice network, PABX, intercom, telephone exchange	
Conductor	Insulation	Sheath	Standards	Key Features
Solid annealed copper (0.4–0.6mm)	Solid polyethylene (PE)	PVC / LSZH	IEC 60708, GR-421	Gel-filled for outdoor, dry for indoor

Coaxial Cable

Coaxial cable is the standard for video transmission — specifically CCTV surveillance systems, satellite and terrestrial antenna downloads, and cable television networks. These cables feature a single center conductor (solid or stranded copper, or copper-clad steel for cost-sensitive applications), a gas-injected polyethylene dielectric (providing precise 75Ω impedance), a foil and braid shield (for noise rejection), and a PVC or LSZH outer sheath. Common RG types include RG59 (short runs, flexible), RG6 (longer runs, better shielding, CATV standard), and RG11 (very long runs, thick, low loss). Coaxial cables provide excellent video quality for analog and HD-TVI/CVI security cameras, making them a staple of security system installations throughout Southeast Asia.

Product Type	Specifications		Typical Application	
Coaxial Cable	RG59, RG6, RG11, 75Ω, Copper or Copper-Clad Steel (CCS) center conductor		CCTV surveillance, antenna signal, video transmission	
Conductor	Insulation	Sheath	Standards	Key Features
CCS or solid copper	Gas-injected PE	PVC / LSZH	IEC 61196, SCTE	75Ω impedance, low attenuation

Alarm / Security Cable

Alarm cables are used for wiring security systems including burglar alarms, door and window contacts, passive infrared (PIR) motion sensors, glass break detectors, smoke detectors, and security keypads. These cables feature 2 to 8 cores of stranded copper conductors (for flexibility and vibration resistance), PVC insulation, and a PVC or LSZH outer sheath. Unarmoured construction allows easy routing through walls, ceilings, and conduit. Alarm cables are typically installed in residential and commercial security systems, connecting all sensors and detectors back to the main alarm control panel. The stranded conductors resist breakage when cables are flexed during installation or disturbed by building movement.

Product Type	Specifications		Typical Application	
Alarm / Security Cable	Multi-core (2 to 8 cores), Solid or stranded copper, PVC or LSZH sheath, Unarmored		Burglar alarm, door sensor, smoke detector, security panel wiring	
Conductor	Insulation	Sheath	Standards	Key Features
Stranded copper (7/0.2 or similar)	PVC / PE	PVC / LSZH	IEC 60227, BS 4737	Easy termination, flexible

LAN Cable (UTP / FTP) – Cat 5E, Cat 6, Cat 6A

LAN cables (also called Ethernet cables) are the foundation of modern office and data center networks. These cables feature 8 solid or stranded copper conductors (24 to 26 AWG) arranged in four twisted pairs, with a cross separator (Cat 6 and above) to reduce crosstalk between pairs, and a PVC or LSZH outer jacket. UTP (Unshielded Twisted Pair) is suitable for standard office environments, while FTP (Foiled Twisted Pair) adds an overall foil shield for environments with moderate electrical noise. Performance categories include Cat 5E (1 Gbps, 100 MHz), Cat 6 (1 Gbps / short range 10 Gbps, 250 MHz), and Cat 6A (10 Gbps, 500 MHz, full 100m range). These cables support Power over Ethernet (PoE) for devices like IP cameras, wireless access points, and VoIP phones. LAN cables are used for structured cabling systems, data center patch cords, office workstations, and building backbone networks.

Product Type		Specifications	Typical Application	
LAN Cable (UTP/FTP)		Cat 5E, Cat 6, Cat 6A, 24–26 AWG, UTP or FTP, PVC or LSZH jacket	Office network, data center, PoE (Power over Ethernet), structured cabling	
Conductor	Insulation	Sheath	Standards	Key Features
Bare copper (24–26 AWG) HDPE		PVC / LSZH / LSOH	TIA/EIA 568, ISO 11801, IEC 61156	Up to 500MHz (Cat 6A), PoE compatible

