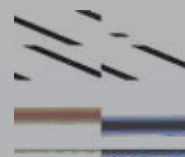


**BRIDGING THE GAP ACROSS 60 DIFFERENT COUNTRIES**



**THE POWER BEHIND THE POWER**



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**KEI Industries Limited**

REGISTERED AND CORPORATE OFFICE:

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E-MAIL: info@kei-ind.com WEBSITE: www.kei-ind.com CIN NO: L74899DL1992PLC051527



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KEI/CC/QCL/FEBRUARY /2023



**CAT 6 UTP  
Cables**



**Co-Axial  
Cables**



**CCTV  
Cables**



**Telephone  
Cables**



**COMMUNICATION CABLES**

ENABLING SUPERFAST COMMUNICATIONS



## CMD'S MESSAGE



**MR. ANIL GUPTA**

Chairman & Managing Director  
KEI Industries Limited

KEI Industries, an Indian MNC founded in 1968, is a global leader in wire and cable solutions having an extensive range of world-class products and services. With multiple robust & cutting edge manufacturing facilities and a vast network of more than 30,000 channel partners, KEI serves clients in 65+ countries, establishing itself as a one-stop-shop for comprehensive wire and cable solutions. The company achieved a turnover of INR 8000+ crore in the fiscal year 2023-24.

As the world faces the pressing challenges of global warming and climate change, KEI Industries is dedicated to leading the way towards a sustainable and a carbon-neutral future. Our

dedication involves using clean gas and solar energy, alongside advanced air and water treatment systems, to eliminate hazardous chemicals and ensure a safe, sustainable environment. Our diverse array of products also reflects our strong commitment towards building an eco-friendly efficient surrounding. With an ongoing focus on innovation, KEI is positioned to lead in sustainability while meeting the demands of global consumers through using cutting-edge technologies, driving progress and setting new standards for environmental responsibility.

## STATE OF THE ART MANUFACTURING 5 UNITS



**BHIWADI**  
RAJASTHAN



**CHOPANKI**  
RAJASTHAN



**PATHREDI**  
RAJASTHAN



**RAKHOLI**  
DADRA AND NAGAR  
HAVELI



**CHINCHPADA**  
DADRA AND NAGAR  
HAVELI

## BUILDING THE NATION...! PRESTIGIOUS PROJECTS WIRED BY KEI



**RAM MANDIR**



**WORLD'S TALLEST  
STATUE OF UNITY**



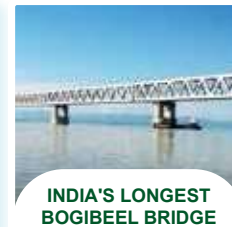
**WORLD'S  
LARGEST NARENDRA  
MODI STADIUM**



**PARLIAMENT OF  
INDIA**



**KONKAN RAILWAY  
PROJECT**



**INDIA'S LONGEST  
BOGIBEEL BRIDGE**



**BULLET TRAIN**



**INDIAN INSTITUTE  
OF TECHNOLOGY  
BOMBAY**



**AIROLI-KATAI  
NAKA TUNNEL**



**MUMBAI COASTAL  
ROAD MEGA PROJECT**



**MUMBAI MONORAIL**



**MUMBAI NAGPUR  
SAMRUDDHI HIGHWAY**

# Empowering the next-gen of superfast communication



- Co-Axial Cables
- Telephone Switch Board Cables
- CAT 6 UTP Cables
- CCTV Cables

## Our range





## Co-Axial Cables

KEI's co-axial cables, RG59, RG6 & RG11 used in the transmission of RF signals and power for voice, data and video applications. The double-shield coaxial cable protects signals from external electromagnetic interference & solid electrolytic grade 99.97% pure copper conductor offers superior electrical performance meeting all requirements of CATV, DTH, Broadband, Digital & Analog signal applications.

Our co-axial cables are Special International Digital Designed for transmission of high frequency signals with minimum loss for DTH, Institute and Digital Headend etc. The various configurations of our cables are solid copper center conductor and also available in Copper Clad Steel (CCS), Polyethylene Foam PE, Aluminium laminated tape to provide 100% coverage, Aluminium alloy wire braids to give additional mechanical strength, Flooding Compound jelly to provide internal corrosion & water resistance properties and PVC cover to give environmentally secured safe seal to the construction. Cables tested on 3.0 Ghz spectrum analyzer.

## Cable Construction

		RG59	RG6	RG11
1	a) Cable Size & Type b) Construction Details	Electrolytic grade solid bare copper conductor, foam polyethylene insulation, with laminated aluminium tape and Aluminium Alloy Wire braid, Jelly flooded and PVC Jacketing in Black colour.		
2	<b>CONDUCTOR</b> a) Cross Sectional Area b) Diameter (Approx)	Solid Annealed Bare Electrolytic Grade Tough Pitch (ETP) Copper (CU) conductor. Also available in Copper Clad Steel - <b>RG 6 CCS &amp; RG 11 CCS</b>		
		0.81mm	1.02mm	1.63mm
3	<b>DIELECTRIC</b> a) Material b) Core Diameter (Approx)	Physical foam PE		
		3.60mm	4.60mm	7.10mm
4	<b>SHIELD CONSTRUCTIONS</b> a) 1st Shield b) 2nd Shield	Bonded Al tape Aluminium alloy wire braid with Minimum 60% coverage.		
5	<b>FLOODING COMPOUNDS</b> a) Material	Jelly		
6	<b>OUTER SHEATH ( JACKET )</b> a) Material b) Colour c) Nominal O.D of cable	Extruded PVC Black		
		6.10mm	6.93mm	10.16mm
	<b>OTHER DATA</b> a) Bending radius, Minimum b) Packing Length	40mm 100/305 Mtr Coil	70mm 100 mtr Coil/305 Mtr Spool	80mm 100 mtr Coil/305 Mtr Spool

## Electrical Properties

CHARACTERISTICS		RG59	RG6	RG11
Maximum DC Resistance at 20°C (Ohm/100m)		3.55	2.13	0.85
Impedance (Ohm)		75 ± 3	75 ± 3	75 ± 3
Velocity of Propagation (Vp)%		Min. 82	Min. 82	Min. 82
Nominal Capacitance (pf/mtr)		53	53	53
Maximum Attenuation @ 20°C	Frequency(MHz)	(dB/100m)	(dB/100m)	(dB/100m)
	5	2.82	1.9	1.25
	55	6.73	5.25	3.15
	211	12.47	10	6.23
	250	13.45	10.82	6.72
	270	13.85	11.04	7
	300	14.60	11.64	7.38
	330	15.29	12.26	7.71
	350	15.75	12.63	7.94
	400	16.73	13.61	8.53
	450	17.72	14.43	9.02
	500	18.70	15.29	9.51
	550	19.52	16.08	9.97
	600	20.34	16.73	10.43
	750	22.87	18.54	11.97
	870	24.85	20.04	13.31
	1000	26.64	21.49	14.27



## Telephone (switch board) Cables

KEI Telephone cables are recommended for use in internal telephone wiring in high-rise buildings, offices, factories, hotels, residential complexes, etc.

KEI twisted pair cables are best suited for telephone cabling applications. The conductor is made of solid annealed, electrolytic grade high conductivity bare copper. The conductor is insulated with special grade high - density polyethylene with colour coding. The insulated cores are twisted with uniform lay to form pairs and are bunched together in such a manner so as to minimize cross talk. The cable is jacketed with a grey colour specially formulated Fire Retardant (FR) PVC with high oxygen and temperature index.

### Reference Standard: ITD specifications S/WS 113C & KEI specifications

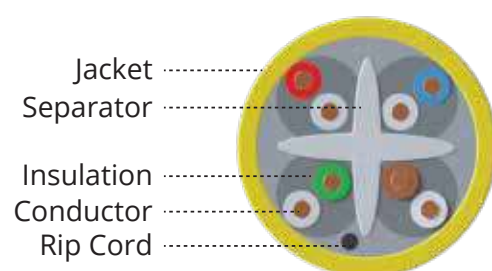


Electrical Parameters	0.4 mm Dia.	0.5 mm Dia.
Conductor Resistance (max.) Ohm/km at 20°C	143.0	92.20
Mutual Capacitance (max.) nf/km	50	50
Insulation Resistance in Air (min.) M-ohm/km	10,000	10,000
Capacitance Unbalance Pair to Pair (max.) Pf/km	250	250

Construction parameters	1 pair	2 pair	3 pair	4 pair	5 pair	10 pair
Conductor (Solid Annealed Bare Copper)	0.4 mm diameter (nom.) / 0.5 mm diameter (nom.)					
Insulation Material	Extruded High-Density Polyethylene					
Insulation Thickness (Avg.)	0.17 mm (for 0.4mm Cables) / 0.20 mm (for 0.5mm Cables)					
Diameter of Insulated Conductor (Maximum)	0.74 mm (for 0.4mm Cables) / 0.92 mm (for 0.5mm Cables)					
Rip Cord	Nylon cord placed under Jacket for easy Jacket Stripping					
PVC Jacket	Extruded FR PVC Compound ( Grey Colour )					
Approx. Outer Diameter in mm (0.4 mm cables)	2.30	2.90	3.40	3.80	4.20	6.20
Approx. Outer Diameter in mm (0.5 mm cables)	2.60	3.30	3.80	4.50	4.90	8.20
Packing Length (mtrs.) 0.4mm & 0.5mm cables.	100	100	100	100	100	100

COLOUR COMBINATIONS	1 pair	2 pair	3 pair	4 pair	5 pair	10 pair
	White - Blue	White - Blue	White - Blue	White - Blue	White - Blue	White - Blue
	-	White - Orange	White - Orange	White - Orange	White - Orange	White - Orange
	-	-	White - Green	White - Green	White - Green	White - Green
	-	-	-	White - Brown	White - Brown	White - Brown
	-	-	-	-	White - Grey	White - Grey
	-	-	-	-	-	Red - Blue
	-	-	-	-	-	Red - Orange
	-	-	-	-	-	Red - Green
	-	-	-	-	-	Red - Brown
	-	-	-	-	-	Red - Grey

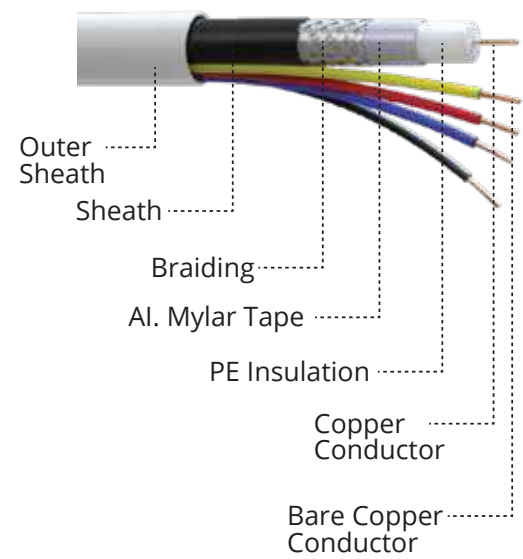




Cable Component	Component Material	
Conductor	Solid bare electrolytic grade copper conductor 23AWG	
Insulation	High Density Poly Ethylene	
Packing	Available in 305 mtr spool.	
Rip Cord	Nylon Cord	
Jacket	PVC outer jacket ( Dark Grey, Yellow, Blue Colour ) Customized colour options as per customer requirement available.	
Cable OD	Approx. 6.0 mm	
Separator	Made of PE material	
	Wire 1	Wire 2
Pair 1	White - Orange Stripe	Orange
Pair 2	White - Blue Stripe	Blue
Pair 3	White - Green Stripe	Green
Pair 4	White - Brown Stripe	Brown

CHARACTERISTICS									
DC Resistance (20deg)		Max 9.38 Ohm/100m							
DC Resistance Unbalanced		Max 5.0 %							
Mutual Capacitance		Max 5.6 nF/100m							
Capacitance Unbalance (Pr – Gr)		Max 330 pF/100m							
Insulation Resistance		Min 500 MΩ/100m							
Dielectric Strength		1/1 DC kV/min							
Impedance - Zo (1~250MHz)		100 +/- 15 Ω							
NVP		69%							
	Freq (MHz)	RL(min.)	ATT (max)	NEXT (min.)	PSNEXT (min.)	ELFEXT(min.)	PSELFEXT (min.)	TCL (min.)	ELTCTL (min)
RL - Return Loss	1	20	2.03	74.3	72.3	67.8	64.8	40	35
	4	23	3.78	65.3	63.3	55.8	52.8	40	23
Att - Attenuation	8	24.5	5.32	60.8	58.8	49.7	46.7	40	16.9
NEXT – Pair To Pair Near End Cross Talk	10	25	5.95	59.3	57.3	47.8	44.8	40	15
	16	25	7.55	56.2	54.2	43.7	40.7	38	10.9
PSNEXT – Power Sum Near End Cross Talk	20	25	8.47	54.8	52.8	41.8	38.8	37	9
	25	24.3	9.51	53.3	41.3	39.8	36.8	36	7
ELFEXT – Pair To Pair Equal Level Far End Cross Talk	30	-	-	-	-	-	-	-	5.5
	31.25	23.6	10.67	51.9	49.9	37.9	34.9	35.1	n/s
PSELFEXT – Power Sum Equal Level Far End Cross Talk	62.5	21.5	15.38	47.4	45.4	31.9	28.9	32	n/s
	100	20.1	19.8	44.3	42.3	27.8	24.8	30	n/s
TCL-Transverse conversion loss	200	18	28.98	39.8	37.8	21.8	18.8	27	n/s
	250	17.3	32.8	38.3	36.3	19.8	16.8	26	n/s
Propagation Delay (Max)	1 MHz	570 ns/100m							
	250 MHz	536 ns/100m							
Propagation Delay Skew (Max) at 20°C, 40°C & 60°C. Variation between pairs from values measured at 20 °C is +/-10ns max.	1 MHz	45 ns/100m							
	10 MHz	45 ns/100m							
	100 MHz	45 ns/100m							
	250 MHz	45 ns/100m							





## CCTV Cables

This CCTV 3+1, 4+1 construction cable is of hybrid type with combination of Communication and Electrical conductors. The 4 power cores enable powering of the CCTV camera. This cable used for combination of communication and electrical supply to CCTV Cameras & due to its composite component nature it allows CCTV installations tidy & provides lossless out . The communication cable (RG 59 Co-Axial Cable) is used for recording the images by the camera and to communicate with the data center. Co-axial cables are designed to transmit the complete video frequency range with minimum distortion or attenuation, making them an excellent choice for CCTV. The 4 number of wires in this CCTV cables are used for powering the cameras.



### Construction Parameters: Co-axial Cable ( RG 59)

INNER CONDUCTOR	
Material	Solid Bare Copper
Diameter	0.81 mm (approx.)
DIELECTRIC	
Material	Physical Foam Polyethylene
Diameter	3.60 mm (approx.)
SHIELD	
1st Shield	Bonded Aluminium Tape
2nd Shield	Aluminium Alloy Braid
Coverage	Min. 60%
JACKET	
Material	PVC (Black)
Diameter	6.10 mm (approx.)
Bending Radius	40 mm (approx.)

### ELECTRIC DATA

Inner Conductor dc Resistance	Max. 3.55 $\Omega$ /Km at 20°C
Capacitance (Nom.)	53.0 pF/m
Characteristic Impedance	75 $\pm$ 3 ohm
Structural Return Loss	Min. 15 dB @ 1 – 1000 MHz
Nominal Velocity Ratio	Min. 82%

### PERFORMANCE

FREQUENCY	Max. Attenuation (db/100 m) at 20°C
55 MHz	6.73
211 MHz	12.47
300 MHz	14.60
550 MHz	19.52
750 MHz	22.87
870 MHz	24.85
1000 MHz	26.64

### INSULATED POWER CORES

No. of Cores	Conductor Diameter (Nom.) Solid or Flexible Bare Annealed Copper	Insulation Material	Core Diameter	Colour Codes	Overall Jacket (PVC) White	Overall Diameter
3	1/0.5mm OR 1/0.188	High Density Polythene	0.9 mm	Red, Yellow, Blue	PVC ST1 Conforming to IS 5831	8.0mm max.
4	1/0.5mm OR 1/0.188	High Density Polythene	0.9 mm	Red, Yellow, Blue, Black	PVC ST1 Conforming to IS 5831	8.0mm max.