

TOTOKU

High performance Coaxial Cable

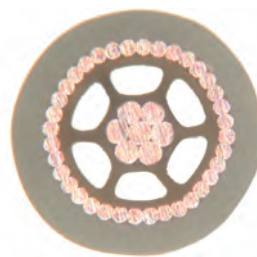
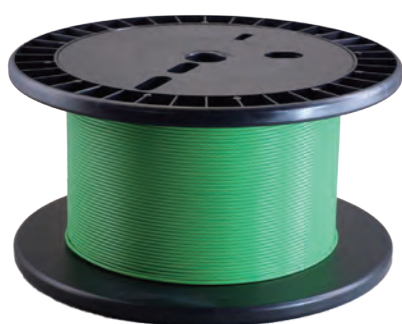
RUOTA



RUOTA is a high performance cable with our unique “hollow structure”.

■ Features

- RUOTA has a hollow structure with a uniquely shaped air layer that is uniform in the longitudinal direction, enabling a lower dielectric constant of the insulation compared to existing cables, and thus can be used in lower loss environments.
- Compared to cables with the same characteristic impedance, the cable can be made thinner, allowing it to be used in narrow pitch and wiring space saving applications.
- The unique hollow structure reduces phase fluctuation in relation to ambient temperature.
- Our unique manufacturing method enables us to produce products with uniform shape in the longitudinal direction.



■ Products Map

Outer Diameter	Frequency						
	1GHz	5GHz	10GHz	15GHz	20GHz	25GHz	30GHz ~
0.8 ~ 1.0mm	<div style="background-color: red; color: white; padding: 5px; text-align: center;"> TCYC Series Wiring in 5G devices </div>						
1.0 ~ 1.4mm	<div style="background-color: blue; color: white; padding: 5px; text-align: center;"> THPC Series Semiconductor testing </div>						
2.5 ~ 4.0mm	<div style="background-color: blue; color: white; padding: 5px; text-align: center;"> TCA Series Wiring in devices · ETC · Antennas </div>						

For 5G with ultra-low loss and space saving

RUOTA For Inter wiring 5G Device

Coaxial cables with thinner diameter and lower loss than conventional cables, suitable for internal wiring of 5G devices.

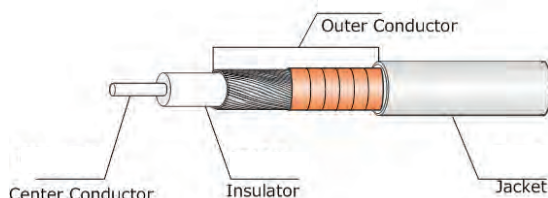
Applications

- Connection of the 5G device with built-in antenna
(Mobile terminals, notebook PCs, small base stations, CPE, etc.)

Features

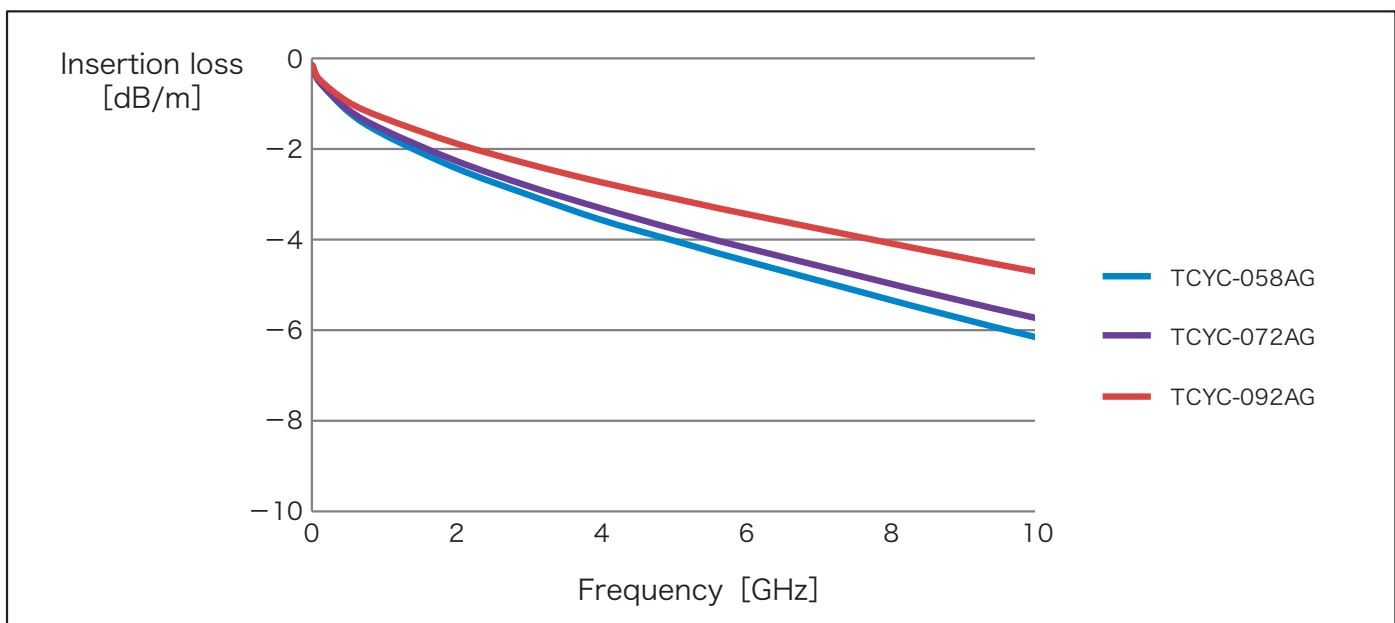
- Reduced attenuation by increasing the size of the center conductor without changing the finished outer diameter
- Low loss even in 5G frequency band
- Reduces battery power consumption due to signal loss

Structure and Specification



Model name	Impedance [Ω]	Attenuation 10GHz	Center conductor (SPC) AWG	Insulator	Outer conductor		Sheath (colour)	Cable O.D.
TCYC-058AG	50Ω	6.2dB/m	1/0.203 (AWG32)	Fuluororesin 0.58Φ	TCW spiral shield	Cu PET tape	Fuluororesin (gray)	0.87Φ
TCYC-072AG	50Ω	5.6dB/m	1/0.254 (AWG30)	Fuluororesin 0.72Φ				1.00Φ
TCYC-092AG	50Ω	4.7dB/m	1/0.32 (AWG28)	Fuluororesin 0.92Φ				1.21Φ

NOTE) SPC : Silver plated copper , TCW : Tin plated copper wire



※The graph above is a measured value, not a guaranteed value.

For wiring of semiconductor test equipment

RUOTA For Semiconductor Test Equipments

Coaxial cable with lower loss and smaller diameter than conventional cables, suitable for wiring semiconductor testers

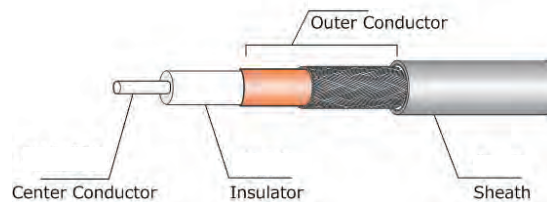
Applications

- Semiconductor tester wiring
- Wiring in devices

Features

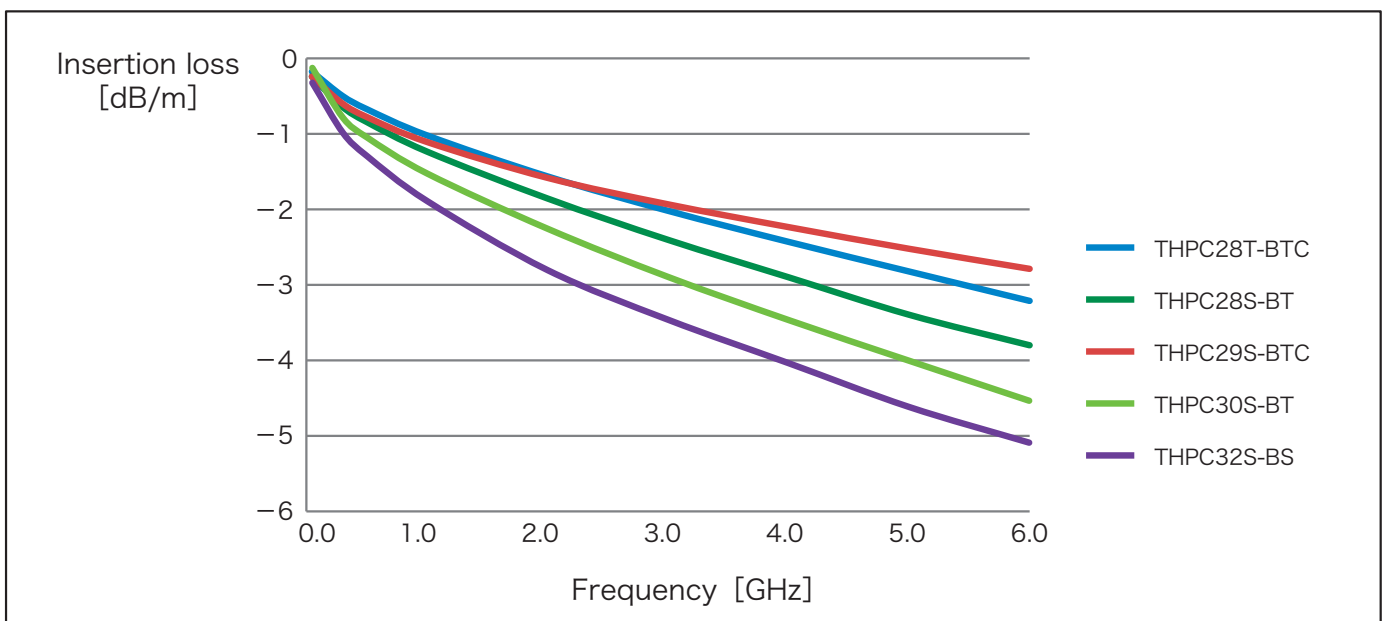
- RUOTA's unique hollow structure for insulation enables low-loss and small diameter to support narrow pitch wiring. Space saving is realized.

Structure and Specification



Model name	Impedance [Ω]	Attenuation 6GHz	Center conductor (SPC) AWG	Insulator	Outer conductor	Sheath (colour)	Cable O.D.
THPC28T-BTC	51Ω	3.3dB/m	7/0.127 (AWG28)	Fuluororesin 0.95Φ	Cu PET tape	Fuluororesin (gray)	1.40Φ
THPC28S-BT	51Ω	3.9dB/m	7/0.127 (AWG28)	Fuluororesin 0.93Φ	—		1.40Φ
THPC29S-BTC	50Ω	3.0dB/m	1/0.287 (AWG29)	Fuluororesin 0.81Φ	Cu PET tape		1.30Φ
THPC30S-BT	51Ω	5.4dB/m	7/0.102 (AWG30)	Fuluororesin 0.74Φ	—		1.20Φ
THPC32S-BS	51Ω	5.3dB/m	7/0.08 (AWG32)	Fuluororesin 0.60Φ	SPC wire braid		1.05Φ

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For flexible wiring with low loss

RUOTA For Device Leadwire

A flexible, low-loss high-performance coaxial cable with a small diameter that is suitable for the leads of measuring equipment and the connection wiring of antennas.

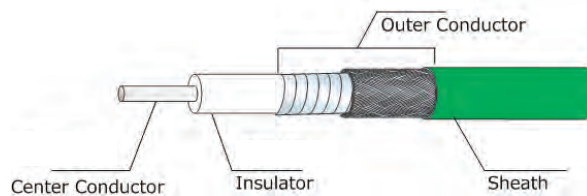
Applications

- ETC device connection
- Wiring in mobile base station equipment
- Antenna connection for communication
- internal wiring (within a car)

Features

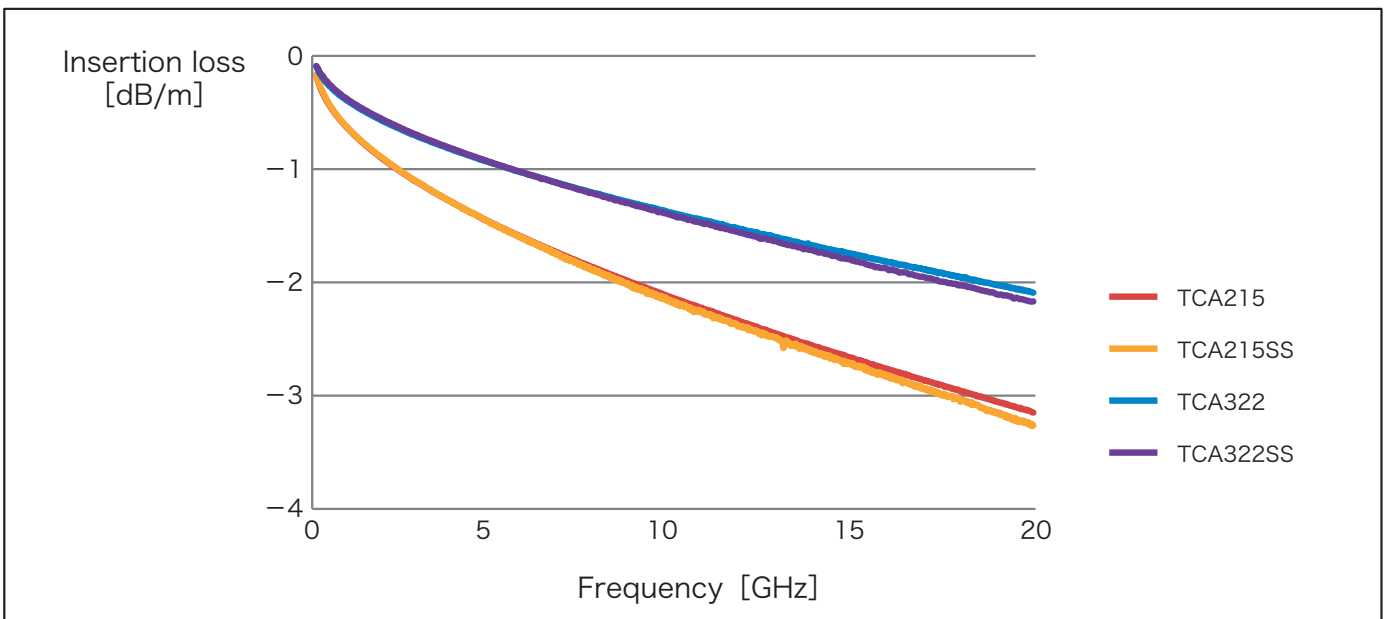
- RUOTA's unique hollow structure for insulation realizes lower loss and thinner diameter
- Phase fluctuations in response to ambient temperature changes can be reduced

Structure and Specification



Model name	Impedance [Ω]	Attenuation 20GHz	Center conductor (SPC) AWG	Insulator	Outer conductor	Sheath (colour)	Cable O.D.	
TCA322	50Ω	2.1dB/m	1/0.93 (AWG19)	Fuluororesin 2.6Φ	SPC tape	Fuluororesin (green)	3.80Φ	
TCA215	50Ω	3.2dB/m	1/0.574 (AWG23)	Fuluororesin 1.65Φ			TCW braid	2.75Φ
TCA322SS	50Ω	2.2dB/m	1/0.93 (AWG19)	Fuluororesin 2.5Φ	Cu PET tape	Fuluororesin (blue)		3.80Φ
TCA215SS	50Ω	3.3dB/m	1/0.574 (AWG23)	Fuluororesin 1.6Φ				2.70Φ

NOTE) SPC : Silver plated copper , TCW : Tin plated copper wire



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TOTOKU

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TOTOKU has obtained the following certifications: the ISO 14001, an international standard for Environmental Management Systems, and the ISO 9001, an international standard for Quality Management Systems.