ADMESS

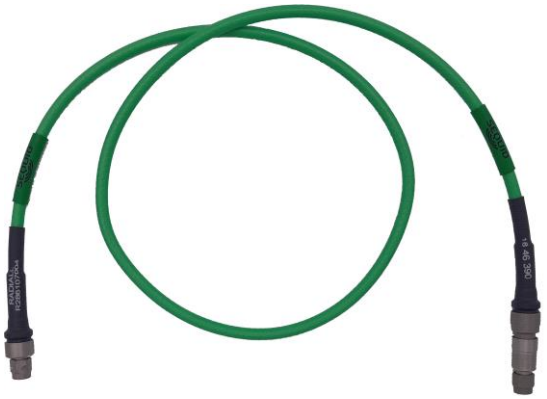
SEQUID

Sequid Cables

SCC-P / SCC-P-S / SCC-P-N
SPMC-P / SPMC-P-3.5mm

1. SCC-P: Sequid Coaxial Cable (precision)

Sequid's Coaxial Cable SCC-P cable is especially designed for the requirements of measurements with single-ended probes, like the SSTP-P & SSTP-E. It features two SMA Plugs, one being equipped with a rotatable adapter for optimized flexibility and best accessibility of contact points on the device under test (PCB, FPC, etc.). Its electrical length is matched to those of Sequid's differential phase-matched cables SPMC-P (see section 3), facilitating switching between single-ended and differential impedance measurements.



Property	Unit	Value / Parameter
Dimensions		
Outer Diameter	mm	5.2
Length (including SMA-adapters)	mm	823.0 ± 10
Materials		
Jacket		Green Fluorinated Ethylene Propylene
Dielectric		Low Density Polytetrafluoroethylene
RoHS compliant		Yes
Mechanical Characteristics		
Temperature Range	°C	-70 – +200
Min. inside Bend Radius	mm	25.0
Weight	g	76
Electrical Characteristics		
Characteristic Impedance	Ω	50±1
Sheet Capacitance	pF/m	79.0
Velocity of Propagation	%	84
Shielding Effectiveness	dB	>90 @ 1 GHz
Maximum Voltage	VRMS	NA
Signal Delay	ns/m	4.0
Typical Attenuation	dB/m	0.1581 @ 0.5GHz 0.2250 @ 1.0GHz 0.7457 @ 10.0GHz 1.0234 @ 18.0GHz
Connector 1 (TDR-side)		SMA Plug
Connector 2 (Probe-side)		Rotatable SMA Plug
Electrical Length (including Connectors)	ns	3.25 ± .05

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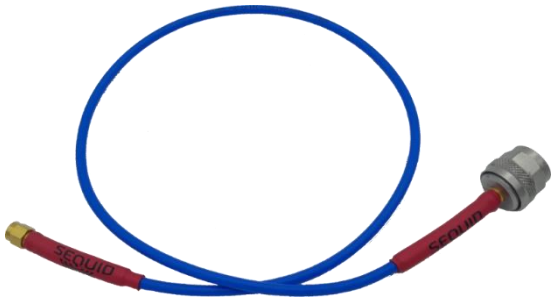
2. SCC-P-S & SCC-P-N: Sequid Coaxial Cable (precision)

Sequid's Coaxial Cable SCC-P-S and SCC-P-N cables are high frequency cables featuring a SMA plug on one side and a SMA or N plug (see picture on the right) on the other side, respectively. The cables are intended to connect Sequid's single-ended Time-Domain Reflectometers (TDRs) to static measurement objects and do thus not feature rotatable adapters. During manufacturing, special care is taken that the wave impedance deviation at the junction between cable and connector (measured with a 10GHz TDR) ensures proper functionality for TDR applications.



Property	Unit	Value / Parameter
Dimensions		
Outer Diameter	mm	4.2
Length (including SMA-adapters)	mm	750.0 (other lengths upon request)
Materials		
Jacket		Blue Fluorinated Ethylene Propylene
Dielectric		Polytetrafluoroethylene
RoHS compliant		Yes
Mechanical Characteristics		
Temperature Range	°C	-20 – +60
Min. Inside Bend Radius	mm	40.0
Weight	g	37 / 65
Electrical Characteristics		
Characteristic Impedance	Ω	50±2
Sheet Capacitance	pF/m	95.0
Velocity of Propagation	%	70.6
Shielding Effectiveness	dB	>90 @ 1 GHz
Maximum Voltage	VRMS	1,900 (at sea level)
Signal Delay	ns/m	4.7
Typical Attenuation	dB/m	0.2778 @ 0.5GHz 0.4011 @ 1.0GHz 1.4592 @ 10.0GHz 2.0856 @ 18.0GHz
Connector 1 (TDR-side)		SMA Plug
Connector 2 (Probe-side)		SMA Plug / N Plug
Electrical Length (including Connectors)	ns	3.53 (other lengths upon request)

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3. SPMC-P: Sequid Phase Matched Cables (precision)

Sequid's Phase Matched Cable SPMC-P cable consists of a pair of two precision single-ended coaxial cables, being phase matched to ±1ps. It is especially designed for the requirements of measurements with differential probes, like the SDTP-P & SDTP-E. Each single-ended cable is uniquely color-coded and features two SMA plugs. Its electrical length is matched to those of Sequid's Coaxial Cable SCC-P (see section 1), facilitating switching between single-ended and differential impedance measurements.

Property	Unit	Value / Parameter	
		Single-ended	Differential Pair
Dimensions			
Outer Diameter	mm	5.6	11.2
Length (including SMA Plugs)	mm	758.0 ± 10.0	
Materials			
Jacket		Polyurethane	
Dielectric		Low Density Polytetrafluoroethylene	
RoHS compliant		Yes	
Mechanical Characteristics			
Temperature Range	°C	-55 – +80	
Min. Inside Bend Radius	mm	25.4	
Weight	g	62	125
Electrical Characteristics			
Characteristic Impedance	Ω	50 ± 1	100 ± 2
Sheet Capacitance	pF/m	86.58	NA
Velocity of Propagation [%]	%	77	
Shielding Effectiveness	dB	> 100 @ 1 GH	
Signal Delay	ns/m	4.33	
Typical Attenuation	dB/m	0.3609 @ 1.0 GHz 1.1811 @ 10.0 GHz 1.6404 @ 18.0 GHz 2.0341 @ 26.5 GHz	
Connector 1		SMA Plug	
Connector 2		SMA Plug	
Electrical Length (including connectors)	ns	3.25 ± .05	

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4. SPMC-P-3.5mm: Sequid Phase Matched Cables (precision)

Sequid's Phase Matched Cable SPMC-P-3.5mm cable consists of a pair of two precision single-ended coaxial cables, being phase matched to ±1ps. In contrast to the SPMC-P it features 3.5mm connectors and is thus especially suited for high precision measurements, where the devices under test as well as the used calibration standards using the same type of connector. For minimized losses, the cable length has been shortened to 0.5m. The proven color coding has been adopted from the SPMC-P.

Property	Unit	Value / Parameter	
		Single-ended	Differential Pair
Dimensions			
Outer Diameter	mm	5.6	11.2
Length (including SMA Plugs)	mm	508.0 ± 10	
Materials			
Jacket		Polyurethane	
Dielectric		Low Density Polytetrafluoroethylene	
RoHS compliant		Yes	
Mechanical Characteristics			
Temperature Range	°C	-55 – +80	
Min. Inside Bend Radius	mm	25.4	
Weight	g	54	110
Electrical Characteristics			
Characteristic Impedance	Ω	50 ± 1	100 ± 2
Sheet Capacitance	pF/m	86.58	NA
Velocity of Propagation [%]	%	77	
Shielding Effectiveness	dB	> 100 @ 1 GHz	
Signal Delay	ns/m	4.33	
Typical Attenuation	dB/m	0.3609 @ 1.0 GHz 1.1811 @ 10.0 GHz 1.6404 @ 18.0 GHz 2.0341 @ 26.5 GHz	
Connector 1		SMA Plug	
Connector 2		SMA Plug	
Electrical Length (including connectors)	ns	2.14 ± 0.05	

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5. Summary of Order Codes

a. SCC-P: Sequid Single-ended Coaxial Cable with SMA & rotatable SMA plugs
b. SCC-P-S: Sequid Single-ended Coaxial Cable with two SMA plugs
c. SCC-P-N: Sequid Single-ended Coaxial Cable with SMA & N plugs
d. SPMC-P: Sequid Differential Phase Matched Cable with SMA plugs
e. SPMC-P-3.5mm: Sequid Differential Phase Matched Cable with RPC3.5 plugs

6. Sales Contact

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