

• APTIV •

SEMI-RIGID COAXIAL CABLES



Semi-Rigid Coaxial Cables

STANDARD, LOW LOSS, PRECISION BEND CABLES & ASSEMBLIES

Aptiv's semi-rigid cables offer a broad range of cables and assemblies designed for in the box applications as well as interconnect solutions between systems. These semi-rigid cables can be supplied in precision bend configurations for applications where space is limited phase stability is crucial.

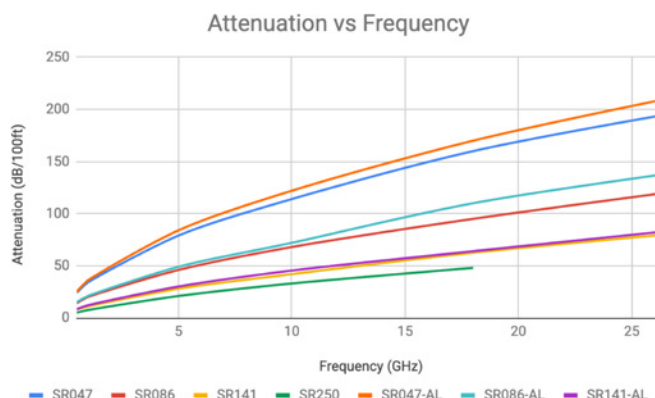
The multiple options of conductor, jacket and dielectric constructions are well suited for standard electrical mechanical requirements of low attenuation and durability requirements. In addition, an aluminum jacket option yields up to a 30% reduction in weight without sacrificing performance, providing an ideal solution for demanding environments where both durability and efficiency are essential. Due to the solid outer conductor design, they also have excellent shielding effectiveness to prevent signal interference.

Aptiv semi-rigid cables are an excellent choice for applications requiring broadband frequency performance, precision, and durability in demanding electrical mechanical environments, such as aerospace and defense, high power systems, telecommunications, test and measurement, and Medical electronics.



Semi-Rigid Cable and Assemblies

- Broadband and balanced frequency and power performance to >100 GHz
- Excellent shielding effectiveness
- Precision trimmed and precise CNC bent configurations ideal for phase matched requirements
- Aluminum jacket provides excellent option for tight in the box applications where space and weight are critical.
- Offering both bulk cable and assembly options
- Standard and custom connectors available for each cable



CABLE NAME		SR047	SR086	SR141	SR250	SR047-AL	SR086-AL	SR141-AL
PART NUMBER		HC10000-1	HC70000-1	HC90000-1	HC40001-1	HC13000-1	HC60000-1	HC80000-1
Electrical	Impedance Ohm	50	50	50	50	50	50	50
	Capacitance pF/ft @ 1 GHz	29	29	29	29	29	29	29
	Max Voltage VRMS	2000	5000	5000	7500	2000	5000	5000
	Max Frequency in GHz	100	60	32	18	100	60	32
Mechanical	Shield	Bare Copper	Bare Copper	Bare Copper	Bare Copper	SnPlateAl	SnPlateAl	SnPlateAl
	Center Conductor	Silver Plated Copper Clad Steel	Silver Plated Copper Clad Steel	Silver Plated Copper Clad Steel	Silver Plated Copper Clad Steel	Silver Plated Copper Clad Steel	Silver Plated Copper Clad Steel	Silver Plated Copper Clad Steel
	Dielectric	PTFE .037	PTFE .066	PTFE .116	PTFE .209	PTFE .037	PTFE .066	PTFE .116
	Bend Radius-in (mm)	0.05 (1.3)	0.10 (2.5)	0.15 (3.8)	0.38 (9.5)	0.05 (1.3)	0.10 (2.5)	0.15 (3.8)
	Cable Outer Diameter-in (mm)	0.047 (1.19)	0.085 (2.16)	0.141 (3.58)	0.250 (6.35)	0.047 (1.19)	0.085 (2.16)	0.141 (3.58)
Environmental	Temperature Range °C	-55/+100	-55/+125	-55/+125	-40/+90	-55/+100	-55/+125	-55/+125
Attenuation	Frequency	Insertion Loss (dB/100 ft)						
	0.5 GHz	24	14	8	5	25	15	9
	1 GHz	34	20	11	8	37	21	12
	5 GHz	79	46	28	21	85	49	30
	10 GHz	114	68	42	33	122	72	46
	18 GHz	160	95	63	45	170	110	64
	26.5 GHz	195	120	80	-	210	138	83
Power Handling	Frequency	Average Power (Watt) @ 20° C @ Sea Level						
	0.5 GHz	81	232	601	2100	85	241	600
	1 GHz	57	162	418	1400	60	169	450
	5 GHz	25	70	174	875	27	73	180
	10 GHz	17	48	118	350	18	50	120
	18 GHz	10	35	73	200	11	24	73

Key Features and Benefits

ADVANTAGES

- **Superior Shielding:** Near-perfect EMI protection against interference
- **Phase Stability:** Maintain shape or length during operation, ensuring the signal phase remains constant.
- **Broad Frequency:** Operates up to 110 GHz
- **Compact Design:** Bends into permanent shapes for secure, tight routing in dense electronic enclosures.
- **Space-Ready:** Low outgassing, high radiation and vibration resistance, and stable VSWR

APPLICATIONS

- **Aerospace & Defense:** Flight-critical radar and communications
- **Space:** Satellite transponders and deep-space probes
- **Telecom:** 5G infrastructure and high-speed computer systems
- **Medical:** MRI and surgical robotics (prevents equipment interference)

CONNECTORS OFFERING

Cable Type	1mm	1.85mm	SMPM	SMP	2.4mm	2.92mm	SMA	BMA	TNC	Type N	7/16
SR047/SR047-AL	X	X	X	X	X	X	X				
SR086/SR086-AL			X	X	X	X	X	X	X	X	
SR141/SR141-AL						X	X	X	X	X	X
SR250							X		X	X	X

*Low Loss Semi Rigid version cables and more connector interfaces options are available upon request

Market Solutions



Aerospace &
Defense



Automotive
& CV



Industrial &
Robotics



Marine
Subsea



Medical



Oil & Gas



Power & Data
Infrastructure



Rail Mass
Transit



Space

ABOUT APTIV:

Aptiv PLC (NYSE: APTV) is a global industrial technology leader delivering advanced solutions people trust when it matters most across automotive, commercial vehicle, aerospace and defense, telecom and datacom, and other diversified industrial end markets. Our differentiated portfolio enables devices and systems to sense, think, act, and continuously optimize performance. Building on decades of innovation, Aptiv brings global scale and a resilient, localized value chain to customers across the globe.

Learn more at www.aptiv.com.