

Technical Characteristics

Electrical

	105Q	190Q	200Q
Frequency, Max (GHz)	40	32	18
Impedance, nominal (Ω)	50	50	50
Velocity of Propagation (%)	70	80	80
Shielding Effectiveness, 18 GHz (dB/ft)	> -110dB	> -90dB	> -90dB
Capacitance (pF/ft)	30	25	25
Delay (ns/ft), (ns/meter)	1.45, 4.761024	1.27, 4.17	1.3, 4.268504
Attenuation k1 (db/100ft) @ 23 deg C	0.576	0.28	0.222
Attenuation k2 (db/100ft) @ 23 deg C	0.00019	0.000179	0.000175

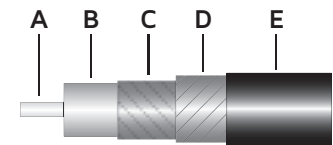
Attenuation (Typical) at any Frequency = k1 x SqRt (FMHz) + k2 x (FMHz)

Mechanical & Environmental

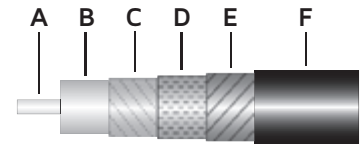
	105Q	190Q	200Q
Weight (lbs/100ft), (Kg/100m)	1.40, 2.10	3.30, 4.96	4.40, 6.61
Temperature Range (°C)	-55°C to +150°C	-55°C to +150°C	-65°C to +150°C
Minimum Bend Radius (inch), (mm)	0.50, 12.70	0.95, 24.13	1.00, 25.40

Construction

	A	B	C	D	E	F
Inner Conductor (inch)	A	Solid SCCS	Solid SC	Solid SC	Solid SC	Solid SC
Dielectric (inch)	B	Solid PTFE	Tape Wrap PTFE	Tape Wrap PTFE	Tape Wrap PTFE	Tape Wrap PTFE
First Outer Shield (inch)	C	SPC Spiral	Flat Braid SPC	Flat Braid SPC	Flat Braid SPC	Flat Braid SPC
Second Outer Shield (inch)	D	SPC Round	Metalized Tape	Metalized Tape	Metalized Tape	Metalized Tape
Third Outer Shield (inch)	E	-	Round Braid SC	Round Braid SC	Round Braid SC	Round Braid SC
Jacket (inch O.D.)	F	0.105, ETFE	0.190, ETFE	0.190, ETFE	0.200, ETFE	0.200, ETFE



Lab-Flex® 105



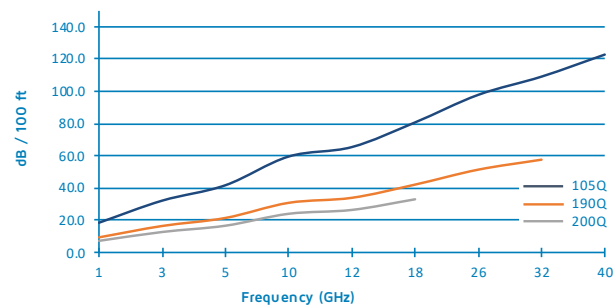
Lab-Flex® 190Q and 200

Attenuation (dB/100ft)

GHz	105Q	190Q	200Q
1	18.4	9.4	7.2
3	32.1	16.4	12.7
5	41.7	21.4	16.6
10	59.5	30.8	24.0
12	65.4	33.9	26.4
18	80.7	42.1	33.0
26	97.8	51.4	
32	109.1	57.6	
40	122.8		

Typical Cable Loss at +25° C & Sea Level

Attenuation vs Frequency

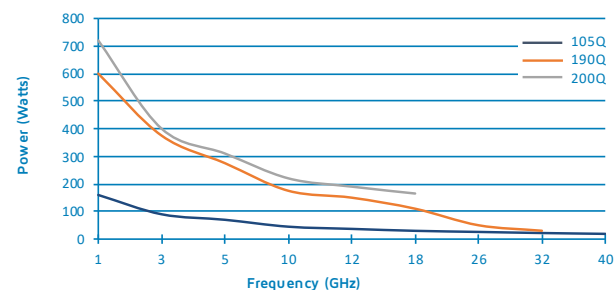


Average Power Rating (Watts)

GHz	105Q	190Q	200Q
1	160	600	720
3	90	375	400
5	70	275	310
10	45	175	220
12	37	150	190
18	30	110	165
26	26	50	
32	22	30	
40	19		

Typical Cable Loss at +25° C & Sea Level

Average Power Rating



Technical Characteristics

Cable Code	Connector Code	Series	Gender	Type	C-Nut Style ¹	Body Material ²	Body Finish ³	Loss per GHz	Frequency Max GHz
105Q	KFS	2.9mm	Female	Straight	N/A	SS	P	0.015	40
105Q	KMS	2.9mm	Male	Straight	H	SS	P	0.01	40
105Q	SFS	SMA	Female	Straight	N/A	SS	P	0.015	18
105Q	SMPFS	SMP	Female	Straight	N/A	Be	G	0.02	40
200Q	TMS	TNC	Male	Straight	H	SS	P	0.01	18
200Q	NMS	Type-N	Male	Straight	H	SS	P	0.011	18
105Q, 200Q	SMS	SMA	Male	Straight	H	SS	P	0.01	18
190Q	KMR	2.9mm	Male	R/A	H	SS	P	0.02	32
190Q	KMR	2.9mm	Male	R/A	H	SS	P	0.02	18
190Q	KMS	2.9mm	Male	Straight	H	SS	P	0.01	32
190Q	SMSV	SMA	Male	Straight	H	SS	P	0.01	18
200Q	SMR	SMA	Male	R/A	H	SS	P	0.02	18
200Q	KMS	2.9mm	Male	Straight	H	SS	P	0.01	18
200Q	TMR	TNC	Male	R/A	H	SS	P	0.02	18

¹C-nut Style: H= Hex, K=Knurled, HK= Hex Nut & Knurled

²Body Materials: B=Brass, SS=Stainless Steel, Be= Beryllium Copper

³Body Finish: N= Nickel, S=Silver, G=Gold, P= Passivated, T= Tri-metal
Sex of connector is determined by center pin

Cable Code	Option Code	Option Description	Option Details
105Q 190Q 200Q	+/-2.8ps	Phase Match	Standard Tolerance of +/-2.8ps

*for phase matched assemblies (+/-2.8ps) is required to be added to the end of standard part number
ex. NMS-105Q-120.0-NMS +/-2.8ps

Custom Options:

The above connectors and options represent the most common types used. Smiths Interconnect offers a wide range of cables, connectors and options. If you do not see an option you require please consult the sales department.