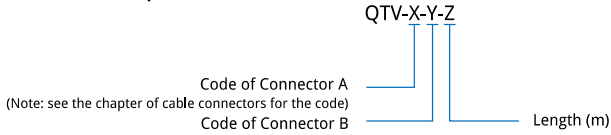


Cables And Cable Assemblies

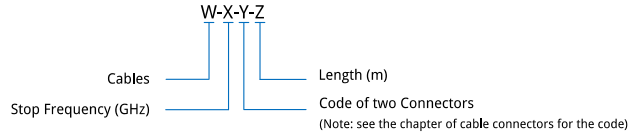
Qualwave offers various RF Cables and RF Cable Assemblies to meet different requirements. Frequency range is from DC to 110GHz. Low insertion loss, high power handling, light weighted, and long life.

How To Order QTV Series:



Examples: To order a pair of VNA test cable assemblies, DC-50GHz, 0.6 meter, specify QTV-M2F-M2-0.6 and QTV-M2F-2F-0.6.

How To Order Other Series:



Examples: To order a QT67 test cable assembly with armor, DC-60GHz, 1.85mm male to 1.85mm female, 0.5 meter, specify QT67P-60-VVF-0.5.

QT-Test Cables

QTV series is high precision test cable, especially used for VNA with frequency up to 67GHz. The low loss, amplitude and phase stabilized cable makes it highly precise. Its special armor design ensures its compression resistance, tension resistance and torsion resistance.

QTV series is high precision test cable especially used for VNA with frequency up to 67GHz.

QT series is high performance test cable with features of frequency up to 110GHz, Phase & Loss Stable and Long Flex Life.

The biggest feature of QTE test cable is low price.

The biggest feature of QTF test cable is ultra-flexible.

QTV:



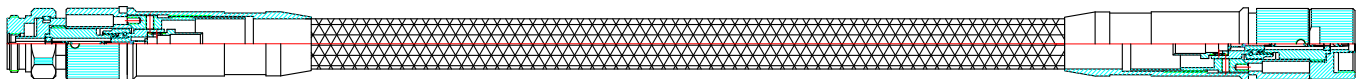
QT50P:



QT50:

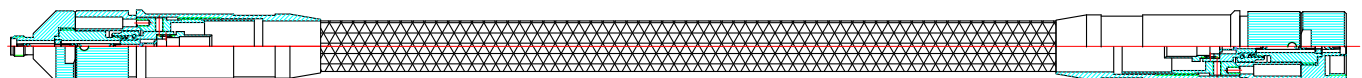


QTV - VNA Test Cables



NMD Male

NMD Female



Female

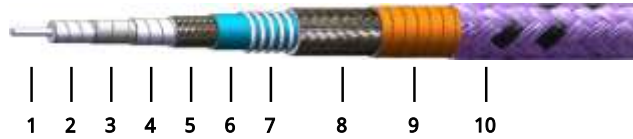
NMD Female

Cable	Frequency (GHz)	Bend Radius (mm)	VSWR (max.)	Phase Stability (±°)	Amplitude Stability (±dB)	Insertion Loss (dB)		
						0.6m	0.8m	1m
QTV-V	DC~67	50	1.5	10	0.13	4.91	6.11	7.31
QTV-2	DC~50	50	1.42	8	0.10	3.17	3.85	4.53
QTV-K	DC~40	50	1.35	6	0.10	2.78	3.37	3.96
QTV-3	DC~26.5	50	1.3	5	0.06	2.23	2.70	3.17
QTV-N	DC~18	50	1.3	4	0.05	1.58	1.88	2.18



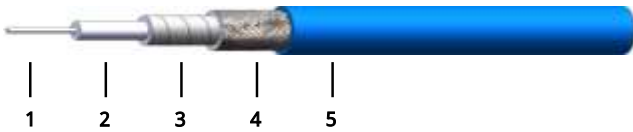
OOO «4TECT»
 Телефон: +7 (499) 685-4444
 info@4test.ru
 www.4test.ru

QT - High Performance Test Cable Construction



Number	Name	Material	Size (mm)					
			QT110	QT110P	QT67	QT67P	QT50	QT50P
1	Inner Conductor	Silver-plated copper	0.31	0.31	0.50	0.50	0.72	0.72
2	Dielectric	Low density PTFE	0.88	0.88	1.38	1.38	2.10	2.10
3	Inner Shield	Silver-plated copper tape	1.00	1.00	1.54	1.54	2.25	2.25
4	Interlayer	Low density PTFE	1.20	1.20	1.82	1.82	2.55	2.55
5	Outer Shield	Silver-plated copper braid	1.45	1.45	2.17	2.17	3.01	3.01
6	Jacket	FEP	1.85	1.85	2.40	2.40	3.60	3.60
7-9	Armor (optional)	Composite		2.70		5.50		5.50
10		PTFE		3.84		6.00		6.00

QTE - Economical Test Cables Construction



Number	Name	Size (mm)	Material
1	Inner Conductor	0.94	Silver-plated copper
2	Dielectric	3.00	PTFE
3	Inner Shield	3.20	Silver-plated copper tape
4	Outer Shield	3.55	Silver-plated copper braid
5	Jacket	4.00	FEP

QTF - Ultra-Flexible Test Cables Construction



Number	Name	Size (mm)	Material
1	Inner Conductor	1.02	Silver plated copper
2	Dielectric	3.07	Low density PTFE
3	Inner Shield	3.27	Silver-plated copper tape
4	Interlayer	3.55	PTFE
5	Outer Shield	4.12	Silver-plated copper braid
6	Jacket	5.20	PUR

Specifications

Feature	Cable	Frequency (GHz)	Outer Diameter (mm)	Shielding Effectiveness (dB, min.)	Phase/ Amplitude *1 (±° / ±dB)	Installation / Repeated Bend Radius (mm, min.)	Armor	Bending / Mating Life Cycle	Temperature (°C)
High Performance	QT110	DC~110	1.85	90	- / -	10 / 20	-	50k / -	-55~+125
	QT110P		3.84			30 / 50	Armored		
High Performance	QT67	DC~67	2.4	90	7 / 0.05	12 / 24	-	100k / 5k	-55~+125
	QT67P		6			30 / 60	Armored		
Hot High Performance	QT50	DC~50	3.6	90	7 / 0.05	18 / 36	-	100k / 5k	-55~+125
	QT50P		6			30 / 60	Armored		
Ultra-flexible	QTF	DC~26.5	5.2	90	- / -	20.8 / 52	-	- / -	-55~+85
Economic	QTE	DC~18	4	90	- / -	20 / 40	-	- / -	-55~+125

[1] 50mm Radius, 360°bending

Attenuation & Power Handling

Attenuation*1 and Power Handling*2	Cable	Frequency (G)											Coefficient K
		1	3	6	10	12.4	18	26.5	40	50	67	110	
Attenuation (dB/100m)	QT110(P)	114	199	283	368	412	500	612	760	857	1003	1314	K1=3.557846 K2=0.0012207
Average Power (W)		102	58	41	31	28	23	19	15	13	11	8	
Attenuation (dB/100m)	QT67(P)	64	112	161	210	236	288	355	445	503	594	-	K1=1.975832 K2=0.001221
Average Power (W)		97	54	38	29	25	21	17	14	12	10	-	
Attenuation (dB/100m)	Hot QT50(P)	48.1	83.9	119.4	155.2	173.4	210.2	257.1	319.2	359.2	-	-	K1=1.507808 K2=0.000440
Average Power (W)		506	290	204	157	140	116	95	76	68	-	-	
Attenuation (dB/100m)	QTF	38.5	69.8	103.2	139.0	157.9	198.0	252.1	-	-	-	-	K1=1.136600 K2=0.002530
Average Power (W)		149	82	55	41	36	29	23	-	-	-	-	
Attenuation (dB/100m)	QTE	38.2	71.1	107.5	147.6	169.4	216.1	-	-	-	-	-	K1=1.082677 K2=0.003937
Average Power (W)		290	156	103	75	65	51	-	-	-	-	-	

[1] VSWR:1.0; Ambient:+25°C(77°F)

Calculate Cable Attenuation: Attenuation (dB/100m)= K1*√F (MHz)+K2* F (MHz)

[2] VSWR:1.0; Ambient:+40°C(104°F); Sea level

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03*√F (GHz)

QA-Ultra Low Loss & Phase Stable, Flexible Cables

QA series high-performance cable, with low loss and high power features, has good temperature vs. phase stability (750 PPM@-55~+85°C, max.) up to 50GHz. It is suitable for avionics, phased-array radar, satellite communication and other fields.



Construction			Size (mm)					
			Inner Conductor	Dielectric	Inner Shield	Outer Shield	Jacket	
			QA150	0.30	0.88	1.00	1.23	1.50
			Hot QA220	0.50	1.38	1.54	1.95	2.20
			QA300	0.70	1.93	2.09	2.66	3.10
			Hot QA360	0.91	2.50	2.66	3.11	3.60
			QA400	1.05	2.85	3.05	3.40	4.00
			QA480	1.40	3.80	3.95	4.35	4.80
			Hot QA500	1.45	3.99	4.19	4.60	5.20
			QA550	1.60	4.30	4.50	5.10	5.60
			QA750	2.10	5.70	5.95	6.60	7.40
			QA760	2.39	6.25	6.49	7.06	7.65
			Hot QA800	2.30	6.20	6.44	7.05	7.90
			QA810	2.40	6.36	6.60	7.10	8.10
			QA830	2.44	6.50	6.90	7.65	8.30

Number	Name	Material
1	Inner Conductor	Silver-plated copper (QA760 is Stranded silver-plated copper)
2	Dielectric	Low density PTFE
3	Inner Shield	Silver-plated copper tape
4	Outer Shield	Silver-plated copper braid
5	Jacket	PFA

Attenuation & Power Handling (Multi-channel cable assemblies are available for QA220 series.)

Cable Specifications	QA150	QA220	QA300	QA360	QA400	QA480	QA500	QA550	QA750	QA760	QA800	QA810	QA830
Frequency (GHz)	40	50	50	40	40	26.5	26.5	18	18	18	18	18	18
Cut-off Frequency (GHz)	128	83	60	48	41	31	29	27	20	19	19	18	18
Impedance (Ω)	50												
Velocity of Propagation (%)	80	81	82	82	82	83	83	83	83	83	83	83	83
Shielding Effectiveness (dB)	> 90												
Voltage Withstand (V DC)	400	400	500	500	1500	1500	1500	2000	2500	2500	2500	2500	2500
PIM (dBc)	-155												
Phase Stability (PPM@-55~+85°C)	< 1000	< 750											
Outer Diameter (mm)	1.50	2.20	3.10	3.60	4.00	4.80	5.20	5.60	7.40	7.65	7.90	8.10	8.30
Installation Bend Radius (mm)	8.0	8.8	15.0	18.0	20.0	24.0	26.0	28.0	37.0	38.0	39.0	40.0	41.0
Repeated Bend Radius (mm)	15.0	22.0	31.0	36.0	40.0	48.0	52.0	56.0	74.0	76.0	79.0	81.0	83.0
Weight (g/m)	5.4	16	29	33	36	58	67	93	125	137	130	140	162
TEMP. (°C)	-55~+125						-55~+165						

Attenuation & Power Handling (Multi-channel cable assemblies are available for QA220 series.)

Attenuation ^{*1} and Power Handling ^{*2}	Frequency (G)		0.3	1	2	6	12.4	18	26.5	40	50	Coefficient K
	Cable											
Attenuation (dB/100m)	QA150		62.0	113.7	161.6	282.9	411.3	499.3	611.5	760.4	-	K1=3.557846
Average Power (W)			177	97	68	39	27	22	18	15	-	K2=0.001221
Attenuation (dB/100m)	Hot QA220		34.6	63.7	90.8	160.4	235.2	287.1	354	444	502.8	K1=1.975832
Average Power (W)			178	97	68	38	26	21	17	14	12	K2=0.001221
Attenuation (dB/100m)	QA300		25.5	46.8	66.6	117.1	170.8	207.9	255.4	318.9	360.1	K1=1.458470
Average Power (W)			749	407	286	163	111	92	75	60	53	K2=0.000680
Attenuation (dB/100m)	Hot QA360		20.4	37.5	53.4	93.9	136.9	166.7	204.8	255.7	-	K1=1.168470
Average Power (W)			936	509	358	203	139	115	93	75	-	K2=0.000550
Attenuation (dB/100m)	QA400		18.4	33.5	47.5	82.8	119.7	144.7	176.4	218.1	-	K1=1.054470
Average Power (W)			1159	634	447	257	178	147	121	98	-	K2=0.000180
Attenuation (dB/100m)	QA480		13.1	24.1	34.3	60.1	87.6	106.6	130.8	-	-	K1=0.750400
Average Power (W)			1689	919	644	368	252	207	169	-	-	K2=0.000328
Attenuation (dB/100m)	Hot QA500		12.8	23.5	33.3	58.6	85.4	103.9	127.6	-	-	K1=0.730000
Average Power (W)			1688	919	646	368	251	207	169	-	-	K2=0.000328
Attenuation (dB/100m)	QA550		12.2	22.3	31.6	55.0	79.5	96.1	-	-	-	K1=0.701472
Average Power (W)			1873	1024	722	415	287	237	-	-	-	K2=0.000110
Attenuation (dB/100m)	QA750		8.6	15.8	22.5	39.1	56.6	68.5	-	-	-	K1=0.496490
Average Power (W)			3186	1740	1223	704	486	401	-	-	-	K2=0.000104
Attenuation (dB/100m)	QA760		9.8	18	25.7	45.3	66.3	80.9	-	-	-	K1=0.559764
Average Power (W)			2952	1604	1126	638	436	357	-	-	-	K2=0.000320
Attenuation (dB/100m)	Hot QA800		8.0	14.8	21.1	37.3	54.8	67.0	-	-	-	K1=0.456300
Average Power (W)			3341	1812	1270	717	487	399	-	-	-	K2=0.000320
Attenuation (dB/100m)	QA810		7.4	13.7	19.5	34.8	51.5	63.3	-	-	-	K1=0.419490
Average Power (W)			3503	1894	1324	742	502	409	-	-	-	K2=0.000389
Attenuation (dB/100m)	QA830		7.2	13.3	18.9	33.6	49.5	60.6	-	-	-	K1=0.408997
Average Power (W)			3498	1894	1326	747	507	414	-	-	-	K2=0.000320

[1] VSWR:1.0; Ambient:+25°C(77°F)

Calculate Cable Attenuation: Attenuation (dB/100m)= K1*√F (MHz)+K2* F (MHz)

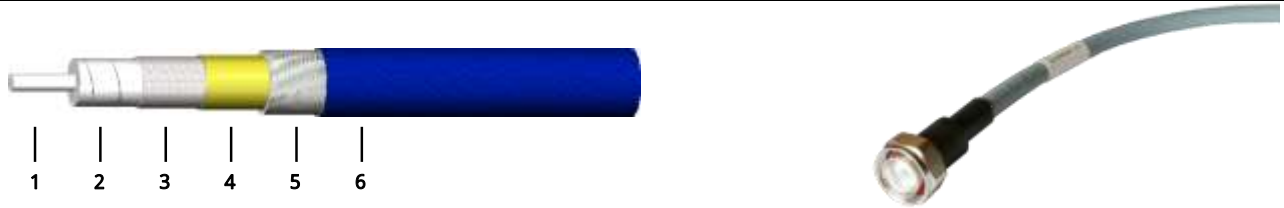
[2] VSWR:1.0; Ambient:+40°C(104°F); Sea level

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03*√F (GHz)

QB-Stable Loss, Phase vs Flexing, Flexible Cables

QB1200 & QB1500 have large outer diameter, low insertion loss, high power and bending durable features. They are used to all kinds of low loss and high power situation, such as phased-array radar, satellite communication, avionics, telecommunications, etc.

Construction



Number	Name	Material	Size (mm)	
			QB1200	QB1500
1	Inner Conductor	Stranded silver-plated copper	3.50	4.40
2	Dielectric	Low density PTFE	9.90	12.50
3	Inner Shield	Silver-plated copper tap	10.17	12.82
4	Interlayer	Aluminum tap	10.30	12.95
5	Outer Shield	Silver-plated copper braid	11.02	13.67
6	Jacket	FEP	12.00	14.70

Specifications

Cable	FREQ. (GHz)	Cut-off FREQ. (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Shielding Effectiveness (dB)	Voltage Withstand (V DC)	PIM (dBc)	Outer Diameter (mm)	Installation / Repeated Bend Radius (mm)	Weight (g/m)	TEMP. (°C)
QB1200	8	11	50	76	> 90	3000	-155	12.00	60.0 / 120.0	310	-55~+200
QB1500	6	10				4000		14.70	76.0 / 150.0	400	

Attenuation & Power Handling

Attenuation*1 and Power Handling*2	Cable	Frequency (G)											Coefficient K
		0.1	0.3	0.5	1	2	3	4	5	6	8		
Attenuation (dB/100m)	QB1200	4.0	7.0	9.1	13.0	18.8	23.3	27.2	30.7	33.9	39.8	K1=0.391680 K2=0.000600	
Average Power (W)		8450	4830	3713	2590	1793	1447	1238	1098	991	844		
Attenuation (dB/100m)	QB1500	3.1	5.5	7.1	10.3	14.8	18.5	21.6	24.5	27.2	-	K1=0.304208 K2=0.000591	
Average Power (W)		13440	7650	5870	4080	2818	2260	1928	1703	1537	-		

[1] VSWR:1.0; Ambient:+25°C(77°F)

[2] VSWR:1.0; Ambient:+40°C(104°F); Sea level

Calculate Cable Attenuation: Attenuation (dB/100m)= K1*√F (MHz)+K2* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03*√F (GHz)

QG-Economical Low Loss Flexible Cables

QG series has the characteristics of low loss, and its specification and price are between QA series and QH series. It is suitable for interconnection within equipment.

Construction



Number	Name	Material	Size (mm)		
			QG360	QG500	QG800
1	Inner Conductor	Silver-plated copper	0.91	1.45	2.30
2	Dielectric	Low density PTFE	2.65	4.20	6.80
3	Inner Shield	Self-adhesive aluminum foil	2.78	4.32	6.95
4	Outer Shield	Silver-plated copper braid	3.25	4.65	7.50
5	Jacket	FEP	3.60	5.10	8.10

Specifications

Cable	FREQ. (GHz)	Cut-off FREQ. (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Shielding Effectiveness (dB)	Voltage Withstand (V DC)	Outer Diameter (mm)	Installation / Repeated Bend Radius (mm)	Weight (g/m)	TEMP. (°C)
QG360	18	40	50	76	> 70	1000	3.60	18.0 / 36.0	28	-55--+125
QG500	18	28			> 70	1500	5.10	25.0 / 51.0	60	
QG800	18	19			> 90	2000	8.10	40.0 / 81.0	120	

Attenuation & Power Handling

Attenuation*1 and Power Handling*2	Cable	Frequency (G)										Coefficient K
		0.3	0.5	1	2	6	8	10	12.4	18		
Attenuation (dB/100m)	QG360	21.0	27.2	38.7	55.1	96.9	112.5	126.4	141.5	172.3	K1=1.204032 K2=0.000600	
Average Power (W)		850	657	462	325	185	159	141	126	104		
Attenuation (dB/100m)	QG500	12.8	16.6	23.8	34.3	62.1	73.0	82.7	93.4	115.9	K1=0.718000 K2=0.001088	
Average Power (W)		1428	1098	766	530	293	249	220	195	157		
Attenuation (dB/100m)	QG800	8.0	10.5	15.1	21.9	40.1	47.3	53.8	61.0	76.3	K1=0.448000 K2=0.000898	
Average Power (W)		3141	2409	1674	1152	629	533	469	413	331		

[1] VSWR:1.0; Ambient:+25°C(77°F)

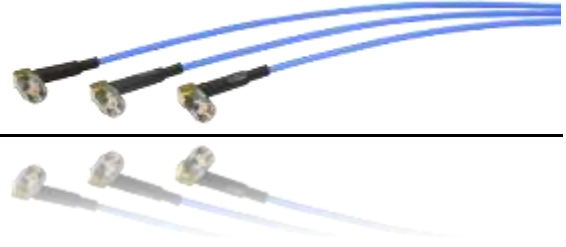
[2] VSWR:1.0; Ambient:+40°C(104°F); Sea level

Calculate Cable Attenuation: Attenuation (dB/100m)= K1*√F (MHz)+K2* F (MHz)

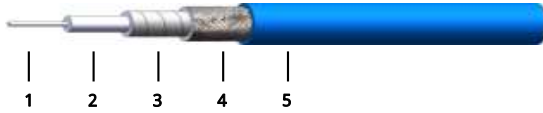
Calculate Single Connector Attenuation: Attenuation (dB)= 0.03*√F (GHz)

QH-Flexible, Alternative to Semirigid Cables

QH series are economical flexible cables. It can replace semi-rigid cable, semi-flexible cable, and it is suitable for interconnection inside the equipment.



Construction



Number	Name	Material	Size (mm)		
			QH160	QH280	QH400
1	Inner Conductor	Silver-plated copper	0.30	0.53	0.94
2	Dielectric	PTFE	0.95	1.63	3.00
3	Inner Shield	Silver-plated copper tape	1.10	1.83	3.20
4	Outer Shield	Silver-plated copper braid	1.35	2.18	3.55
5	Jacket	FEP (QH160 is PFA)	1.60	2.65	4.00

Specifications

Cable	FREQ. (GHz)	Cut-off FREQ. (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Shielding Effectiveness (dB)	Voltage Withstand (V DC)	Outer Diameter (mm)	Installation / Repeated Bend Radius (mm)	Weight (g/m)	TEMP. (°C)
QH160	18	110	50	70	> 90	300	1.60	6.0 / 16.0	5	-55--+125
Hot QH280	40	62				500	2.65	13.0 / 26.0	22	
Hot QH400	26.5	34				1500	4.00	20.0 / 40.0	49	

Attenuation & Power Handling (Multi-channel cable assemblies are available for QH280 series.)

Attenuation*1 and Power Handling*2	Cable	Frequency (G)										Coefficient K
		0.3	0.5	1	2	6	8	12.4	18	26.5	40	
Attenuation (dB/100m)	QH160	73.8	95.4	135.2	191.7	334.0	386.6	483.2	584.7	-	-	K1=4.248276 K2=0.000820
Average Power (W)		150	116	82	57	33	28	23	19	-	-	
Attenuation (dB/100m)	Hot QH280	37.0	48.2	69.3	100.4	183.7	216.4	279.0	348.2	440.8	570.9	K1=2.066929 K2=0.003937
Average Power (W)		187	171	119	82	45	38	30	24	19	14	
Attenuation (dB/100m)	Hot QH400	19.9	26.2	38.2	56.3	107.5	128.3	169.4	216.1	280.6	-	K1=1.082677 K2=0.003937
Average Power (W)		512	423	290	196	103	86	65	51	39	-	

[1] VSWR:1.0; Ambient:+25°C(77°F)

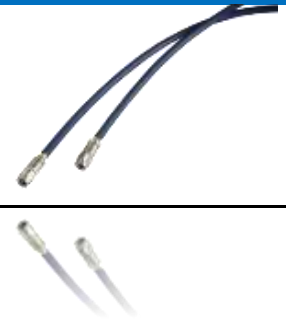
[2] VSWR:1.0; Ambient:+40°C(104°F); Sea level

Calculate Cable Attenuation: Attenuation (dB/100m)= K1*√F (MHz)+K2* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03*√F (GHz)

QZ-Ultra-Flexible Cables

QZ series is ultra flexible RF cable, suitable for phased-array radar, laboratory test and small & complicated interconnection occasions.



Construction



Number	Name	Material	Size (mm)			
			QZ360	QZ500	QZ600	QZ800
1	Inner Conductor	Stranded Silver-plated copper	0.72	1.02	1.44	1.88
2	Dielectric	Low density PTFE	2.05	3.00	4.25	5.50
3	Inner Shield	Silver-plated copper tape	2.22	3.20	4.45	5.74
4	Outer Shield	Silver-plated copper braid	2.66	3.78	4.90	6.31
5	Jacket	PUR	3.60	5.00	5.90	8.00

Specifications

Cable	FREQ. (GHz)	Cut-off FREQ. (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Shielding Effectiveness (dB)	Voltage Withstand (V DC)	Outer Diameter (mm)	Installation / Repeated Bend Radius (mm)	Weight (g/m)	TEMP. (°C)
QZ360	40	51	50	76	> 90	500	3.60	18.0 / 36.0	30	-55~+85
QZ500	26.5	35				1000	5.00	25.0 / 50.0	50	
QZ600	26.5	29.5				1700	5.90	30.0 / 60.0	82	
QZ800	18	20				1700	8.00	40.0 / 80.0	130	

Attenuation & Power Handling

Attenuation*1 and Power Handling*2	Cable	Frequency (G)											Coefficient K
		0.3	0.5	1	2	6	8	12.4	18	26.5	40		
Attenuation (dB/100m)	QZ360	28	36.3	51.9	74.5	133.4	156.1	198.7	244.9	305.5	388.8	K1=1.582929 K2=0.001806	
Average Power (W)		220	169	119	82	46	39	31	25	20	16		
Attenuation (dB/100m)	QZ500	20.4	26.7	38.5	55.6	103.2	122	157.9	198	252.1	-	K1=1.136600 K2=0.002530	
Average Power (W)		280	215	149	102	55	46	36	29	23	-		
Attenuation (dB/100m)	QZ600	15.6	20.2	28.7	41.2	73.6	86	109.2	134.3	167.2	-	K1=0.880600 K2=0.000900	
Average Power (W)		321	248	175	122	68	59	46	37	30	-		
Attenuation (dB/100m)	QZ800	9.5	12.5	18.2	26.8	50.9	60.7	80.0	101.9	-	-	K1=0.517315 K2=0.001806	
Average Power (W)		626	477	327	222	117	98	74	58	-	-		

[1] VSWR:1.0; Ambient:+25°C(77°F)

[2] VSWR:1.0; Ambient:+40°C(104°F); Sea level

Calculate Cable Attenuation: Attenuation (dB/100m)= K1*√F (MHz)+K2* F (MHz)

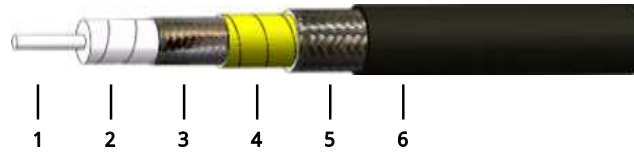
Calculate Single Connector Attenuation: Attenuation (dB)= 0.03*√F (GHz)

QY-Outdoor Use Flexible Cables

QY is low loss flexible cable, suitable for outdoor, such as wireless base station, satellite communication, maritime communication.



Construction



Number	Name	Material	Size (mm)			
			QY460	QY520	QY635	QY1000
1	Inner Conductor	Silver-plated copper	1.02	1.29	1.57	2.44
2	Dielectric	Low density PTFE	3.07	3.91	4.72	7.24
3	Inner Shield	Silver-plated copper tap	3.27	4.15	4.96	7.48
4	Interlayer	Aluminum tape	3.43	4.28	5.10	7.61
5	Outer Shield	Silver-plated copper braid	3.94	4.79	5.66	8.19
6	Jacket	PUR	5.00	6.00	7.20	10.15

Specifications

Cable	FREQ. (GHz)	Cut-off FREQ. (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Shielding Effectiveness (dB)	Voltage Withstand (V DC)	Outer Diameter (mm)	Installation / Repeated Bend Radius (mm)	Weight (g/m)	TEMP. (°C)	Outdoor Life (year)
QY460	18	35	50	76	> 70	1000	5.00	25.0 / 50.0	56	-55~+85	20
QY520	18	35				1000	6.00	30.0 / 60.0	70		
QY635	18	27				2000	7.20	36.0 / 72.0	89		
QY1000	10	15				3000	10.15	50.0 / 100.0	190		

Attenuation & Power Handling

Attenuation*1 and Power Handling*2	Cable	Frequency (G)										Coefficient K
		0.3	0.5	1	3	6	8	10	12.4	18		
Attenuation (dB/100m)	QY460	19.2	24.9	35.4	62	88.8	103.2	116	129.9	158.3	K1=1.099485 K2=0.000602	
Average Power (W)		366	283	199	113	79	68	61	54	44		
Attenuation (dB/100m)	QY520	15	19.4	27.7	48.7	69.9	81.4	91.5	102.7	125.5	K1=0.856234 K2=0.000591	
Average Power (W)		484	374	263	149	104	88	79	71	58		
Attenuation (dB/100m)	QY635	12	15.6	22.2	39.2	56.4	65.8	74.2	83.4	102.2	K1=0.682743 K2=0.000591	
Average Power (W)		660	509	357	202	140	120	107	95	77		
Attenuation (dB/100m)	QY1000	7.9	10.3	14.7	26.2	38.2	44.7	50.6	-	-	K1=0.446080 K2=0.000600	
Average Power (W)		2053	1580	1104	619	425	363	321	-	-		

[1] VSWR:1.0; Ambient:+25°C(77°F)

[2] VSWR:1.0; Ambient:+40°C(104°F); Sea level

Calculate Cable Attenuation: Attenuation (dB/100m)= K1*√F (MHz)+K2* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03*√F (GHz)

QR-Low Loss Wireless Communication Cables

QR wireless communication cable, with low loss and low cost, is mainly used in communication field, and also can be used for microwave product interconnection.



Construction	Cable	Size (mm)				
		Inner Conductor	Dielectric	Outer Conductor	Outer Shield	Jacket
	QR280	0.46	1.52	1.65	2.11	2.80
	QR500	0.94	2.79	2.95	3.53	5.00
	QR500U	0.97	2.79	2.95	3.53	5.00
	Hot QR600	1.42	3.81	3.94	4.52	6.00
	QR600U	1.42	3.81	3.94	4.52	6.00
	QR700	1.78	4.83	4.98	5.72	7.60
	Hot QR1000	2.74	7.24	7.39	8.13	10.00
	QR1000U	2.74	7.24	7.39	8.13	10.30
	QR1500	4.47	11.56	11.72	12.45	15.00
	QR1500U	4.47	11.56	11.71	12.45	15.00

Cable	1: Inner Conductor	2: Dielectric	3: Outer Conductor	4: Outer Shield	5: Jacket
QR280	Copper-clad steel	PE	Double-edged aluminum foil	Tin-plated copper braid	PE or PVC
QR500 / QR600 / QR700	Copper	Foam PE			PE or PVC
QR1000 / QR1500	Copper-clad aluminum	Foam PE			PE or PVC
QR500U / QR600U / QR1000U / QR1500U	Stranded Copper	Foam PE			TPE

Specifications

Cable	FREQ. (GHz)	Cut-off FREQ. (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Shielding Effectiveness (dB)	Voltage Withstand (V DC)	Outer Diameter (mm)	Installation / Repeated Bend Radius (mm)	Weight (g/m)	TEMP. (°C)	Outdoor Life (year)
QR280	5.8	63	50	66	> 90	500	2.80	6.4 / 28.0	10	-40~+85	20 or 10
QR500	5.8	41		80		1000	5.00	12.0 / 50.0	30		20 or 10
QR500U	5.8	41		80		1000	5.00	12.0 / 50.0	30		20
QR600	5.8	30		83		1500	6.00	20.0 / 65.0	50		20 or 10
QR600U	5.8	31		84		1500	6.00	20.0 / 65.0	50		20
QR700	5.8	24.5		83		2000	7.60	25.0 / 76.0	80		20 or 10
QR1000	5.8	16.2		84		2500	10.00	25.0 / 100.0	100		20 or 10
QR1000U	5.8	16.2		85		2500	10.30	25.0 / 100.0	130		20
QR1500	5.8	10.3		87		4000	15.00	38.0 / 152.0	200		20 or 10
QR1500U	2	10		87		4000	15.00	40.0 / 80.0	250		20

Attenuation & Power Handling (The attenuation in this table is typical value, and the maximum value is 1.1 times of the typical value.)

Attenuation*1 and Power Handling*2	Cable	Frequency (G)												Coefficient K
		0.03	0.05	0.15	0.22	0.45	0.9	1.5	1.8	2	2.5	5.8		
Attenuation (dB/100m)	QR280	12.9	16.7	29.4	35.8	52.0	75.1	99.0	109.3	116	132	212	K1=2.3261155 K2=0.0059055	
Average Power (W)		230	180	100	83	57	39	29	27	25	22	13		
Attenuation (dB/100m)	QR500	6.5	8.4	14.7	17.8	25.7	36.7	47.9	52.8	55.8	62.8	98.6	K1=1.1778215 K2=0.0015420	
Average Power (W)		890	680	390	320	220	160	120	110	100	90	60		
Attenuation (dB/100m)	QR500U	7.7	10.0	17.4	21.1	30.4	43.5	56.8	62.5	66.1	75.4	117	K1=1.3943570 K2=0.0018701	
Average Power (W)		780	610	350	280	200	140	100	90	90	80	50		
Attenuation (dB/100m)	Hot QR600	4.4	5.7	10.0	12.2	17.5	25.1	32.8	36.1	38.1	42.9	67.5	K1=0.8038058 K2=0.0010827	
Average Power (W)		1490	1150	660	540	380	260	200	180	170	150	100		
Attenuation (dB/100m)	QR600U	5.3	6.9	12.1	14.6	21.1	30.2	39.5	43.4	45.9	51.7	81.3	K1=0.9678478 K2=0.0013123	
Average Power (W)		1240	960	550	450	310	220	170	150	140	130	80		
Attenuation (dB/100m)	QR700	3.5	4.6	8.0	9.7	14.1	20.2	26.4	29.1	30.8	34.7	55.0	K1=0.6397638 K2=0.0010827	
Average Power (W)		2090	1620	920	760	520	360	280	250	240	210	130		
Attenuation (dB/100m)	Hot QR1000	2.2	2.9	5.1	6.2	8.9	12.8	16.9	18.6	19.7	22.3	35.6	K1=0.4022310 K2=0.0008596	
Average Power (W)		3330	2570	1470	1200	830	580	440	400	370	330	210		
Attenuation (dB/100m)	QR1000U	2.7	3.5	6.1	7.4	10.7	15.4	20.3	22.4	23.7	26.7	42.8	K1=0.4822835 K2=0.0010499	
Average Power (W)		2770	2140	1220	1000	690	480	360	330	310	280	170		
Attenuation (dB/100m)	QR1500	1.4	1.8	3.2	3.9	5.7	8.4	11.1	12.3	13.0	14.8	24.2	K1=0.2526247 K2=0.0008530	
Average Power (W)		5510	4240	2410	1970	1350	930	700	630	590	520	320		
Attenuation (dB/100m)	QR1500U	1.7	2.2	3.8	4.6	6.8	9.8	13.1	14.5	15.4	-	-	K1=0.2974409 K2=0.0010236	
Average Power (W)		4590	3540	2010	1640	1130	770	580	530	500	-	-		

[1] VSWR:1.0; Ambient:+25°C(77°F)

[2] VSWR:1.0; Ambient:+40°C(104°F); Sea level

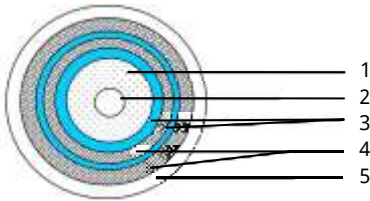
Calculate Cable Attenuation: Attenuation (dB/100m)= $K1*\sqrt{F}$ (MHz)+ $K2* F$ (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= $0.03*\sqrt{F}$ (GHz)

RG-Low Cost, Flexible Cables

RG cable is a kind of low cost cable, which is mainly used for the interconnection of microwave equipments.

RG6



Number	Name	Size (mm)	Material
1	Dielectric	4.60	FPE
2	Inner Conductor	1.02	Copper
3	Outer Conductor	-	Aluminum plastic strip
4	Outer Conductor	-	Aluminum wire
5	Jacket	7.80	FEP

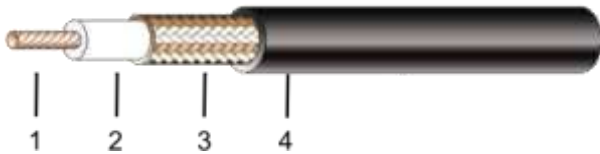
Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	VSWR	Capacitance (pF / m)	Bend Radius (mm)	TEMP. (°C)
0.005~2.2	75±3	83	1.25 @ 5~1000MHz 1.45 @ 1000~2200MHz	53	> 35	-20~+70

Frequency (G)	0.055	0.211	0.35	0.55	0.87	1	2.2	Coefficient K
Attenuation*1 (dB/100m)	5.25	10	12.63	16.08	20.04	21.49	33.7	K1=0.71075768, K2=-0.00166783

Calculate Cable Attenuation: Attenuation (dB/100m)= K1*√F (MHz)+K2* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03*√F (GHz)

RG58



Number	Name	Size (mm)	Material
1	Inner Conductor	0.90	Silver-plated copper
2	Dielectric	2.95	PE
3	Outer Shield	3.50	Bare copper
4	Jacket	4.95	Black PVC

Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Voltage Withstand (V DC)	Capacitance (pF / m)	Installation Bend Radius (mm)	TEMP. (°C)
DC~1	50	66	1400	101.05	25	-40~+80

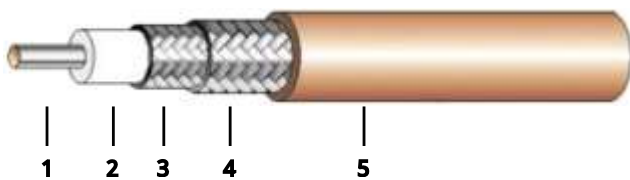
Frequency (G)	0.1	0.4	1	Coefficient K
Attenuation*1 (dB/100m)	15.1	30.8	50.2	K1=1.500603, K2=0.001875

[1] VSWR:1.0; Ambient:+20°C(68°F)

Calculate Cable Attenuation: Attenuation (dB/100m)= K1*√F (MHz)+K2* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03*√F (GHz)

RG142



Number	Name	Size (mm)	Material
1	Inner Conductor	0.93	Silver-plated copper
2	Dielectric	2.98	PTFE
3	Inner Shield	3.45	Silver-plated copper braid
4	Outer Shield	3.95	Silver-plated copper braid
5	Jacket	4.95	FEP

Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Voltage Withstand (V DC)	Capacitance (pF / m)	Installation / Repeated Bend Radius (mm)	TEMP. (°C)
DC~12.4	50	70	1400	95	25 / 50	-55~+200

Frequency (G)	0.1	0.4	1	3	5	6	12.4
Attenuation*1 (dB/100m)	12.5	25.6	42	78.1	105	118.5	226.7

[1] VSWR:1.0; Ambient:+25°C(77°F)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03*√F (GHz)

RG174



Number	Name	Size (mm)	Material
1	Inner Conductor	0.45	Bare copper wire
2	Dielectric	1.45	Solid PE
3	Outer Shield	2.00	Bare copper wire
4	Jacket	2.80	PVC

Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Voltage Withstand (V DC)	Capacitance (pF / m)	Installation Bend Radius (mm)	TEMP. (°C)
DC~3	50	66	900	101	14	-20~+75

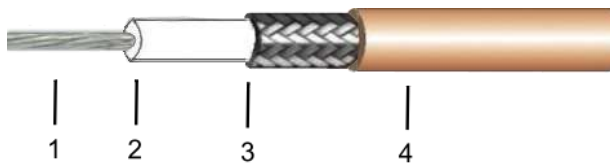
Frequency (G)	0.2	1.8	2.5	3	Coefficient K
Attenuation*1 (dB/100m)	44	147	181	199	K1=2.9578496, K2=0.011905

[1] VSWR:1.0; Ambient:+25°C(77°F)

Calculate Cable Attenuation: Attenuation (dB/100m)= K1*√F (MHz)+K2* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03*√F (GHz)

RG178



Number	Name	Size (mm)	Material
1	Inner Conductor	0.3	Silverplated copper Wire
2	Dielectric	0.9	PTFE
3	Outer Conductor	1.3	Silverplated copper Wire
4	Jacket	1.8	FEP

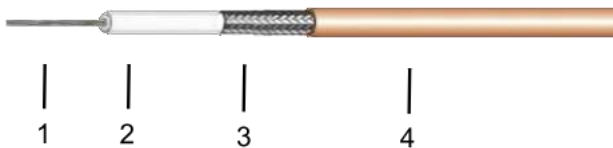
Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	VSWR (max.)	Voltage Withstand (V DC)	Capacitance (pF / m)	Installation / Repeated Bend Radius (mm)	TEMP. (°C)
DC~6	50±2	70	1.30@DC~6GHz	1000	96	> 10 / > 40	-55~+200

Frequency (G)	0.1	0.4	1	2	3	4	5	6	Coefficient K
Attenuation*1 (dB/100m)	52	120	170	242	308	363	415	480	K1=2.577759, K2=0.004024

Calculate Cable Attenuation: Attenuation (dB/100m)= K1*√F (MHz)+K2* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03*√F (GHz)

RG179



Number	Name	Size (mm)	Material
1	Inner Conductor	0.306	Silver plated copper wire
2	Dielectric	1.60	FEP
3	Outer Conductor	2.05	Silver plated copper wire
4	Jacket	2.54	FEP

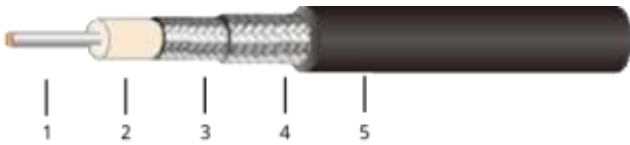
Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	VSWR (max.)	Voltage Withstand (V DC)	Capacitance (pF / m)	Installation / Repeated Bend Radius (mm)	TEMP. (°C)
DC~3	75±2	70	1.20@DC~1GHz	1200	64	> 12 / > 50	-55~+200

Frequency (G)	0.1	0.4	1	Coefficient K
Attenuation*1 (dB/100m)	26.6	54.1	87.5	K1=2.64685263, K2=0.0028125

Calculate Cable Attenuation: Attenuation (dB/100m)= K1*√F (MHz)+K2* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03*√F (GHz)

RG223



Number	Name	Size (mm)	Material
1	Inner Conductor	0.90	Silver-plated copper
2	Dielectric	2.95	PE
3	Inner Shield	112*0.12	Silver-plated copper braid
4	Outer Shield	112*0.12	Silver-plated copper braid
5	Jacket	5.4	PVC

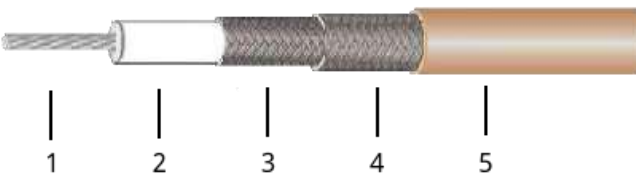
Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Voltage Withstand (V DC)	Capacitance (pF / m)	Bend Radius (mm)	Temperature (°C)
DC-6	50	66	1400	100	25	-20~+80

Frequency (G)	0.05	0.1	0.2	0.4	0.5	0.9	1.5	2	3	6
Attenuation*1 (dB/100m)	14	16	19	28	37	44	59	70	88	145

[1] VSWR:1.0; Ambient:+25°C(77°F)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03*√F (GHz)

RG304



Number	Name	Size (mm)	Material
1	Inner Conductor	1.48	Silverplated copper Wire
2	Dielectric	4.60	PTFE
3	Outer Conductor1	5.00	Silverplated copper Wire
4	Outer Conductor2	5.60	Silverplated copper Wire
5	Jacket	7.10	FEP

Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Voltage Withstand (V DC)	Capacitance (pF / m)	Installation / Repeated Bend Radius (mm)	TEMP. (°C)
DC-6	50±2	70	3200	96	> 40 / > 71	-55~+200

Frequency (G)	0.03	0.2	3	5	6	Coefficient K
Attenuation*1 (dB/100m)	6.27	16.5	73.7	78.9	86.9	K1=5.116766, K2=0.008134

[1] VSWR:1.0; Ambient:+25°C(77°F)

Calculate Cable Attenuation: Attenuation (dB/100m)= K1*√F (MHz)+K2* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03*√F (GHz)

RG316



Number	Name	Size (mm)	Material
1	Inner Conductor	0.51	Stranded Silver-plated copper
2	Dielectric	1.50	FEP
3	Outer Shield	1.95	Silver-plated copper braid
4	Jacket	2.50	FEP

Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Voltage Withstand (V DC)	Capacitance (pF / m)	TEMP. (°C)
DC-6	50	70	600	96	-55~+200

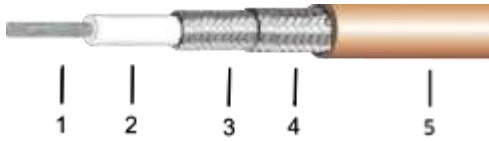
Frequency (G)	0.1	0.4	1	3	6	Coefficient K
Attenuation*1 (dB/100m)	26.2	53.2	85.6	153.2	295	K1=2.583794, K2=0.003893

[1] VSWR:1.0; Ambient:+25°C(77°F)

Calculate Cable Attenuation: Attenuation (dB/100m)= K1*√F (MHz)+K2* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03*√F (GHz)

RG316D



Number	Name	Size (mm)	Material
1	Inner Conductor	0.51	Silverplated copper Wire
2	Dielectric	1.52	PTFE
3	Outer Conductor1	1.95	Silverplated copper Wire
4	Outer Conductor2	2.40	Silverplated copper Wire
5	Jacket	2.90	FEP

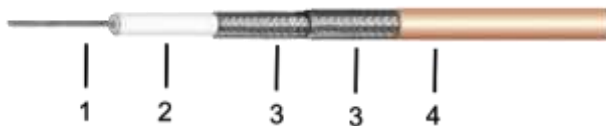
Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	VSWR (max.)	Voltage Withstand (V DC)	Capacitance (pF / m)	Installation / Repeated Bend Radius (mm)	TEMP. (°C)
DC-6	50±2	70	1.20@DC-3GHz	1200	95	> 15 / > 50	-55~+200

Frequency (G)	0.1	0.4	1	3	5	6	Coefficient K
Attenuation*1 (dB/100m)	26.2	53.1	85.6	153.2	208	226	K1=2.577759, K2=0.004024

Calculate Cable Attenuation: Attenuation (dB/100m)= $K1*\sqrt{F}$ (MHz)+K2* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= $0.03*\sqrt{F}$ (GHz)

RG400



Number	Name	Size (mm)	Material
1	Inner Conductor	1.02	Silverplated copper Wire
2	Dielectric	2.98	PTFE
3	Outer Shield1	3.50	Silverplated copper Wire
3	Outer Shield2	4.00	Silverplated copper Wire
4	Jacket	4.95	TPU

Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Voltage Withstand (V DC)	Capacitance (pF / m)	Installation / Repeated Bend Radius (mm)	TEMP. (°C)
DC-12.4	50	70	1400	95	> 25 / > 50	-55~+200

Frequency (G)	0.1	0.4	1	3	5	11	12.4	Coefficient K
Attenuation*1 (dB/100m)	14.1	30.5	49.2	90.2	110	190	205	K1=1.379353, K2=0.007188

[1] VSWR:1.0; Ambient:+20°C(68°F)

Calculate Cable Attenuation: Attenuation (dB/100m)= $K1*\sqrt{F}$ (MHz)+K2* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= $0.03*\sqrt{F}$ (GHz)

RF113



Number	Name	Size (mm)	Material
1	Inner Conductor	0.24	Tinned Copper Wire
2	Dielectric	0.70	FEP
3	Outer Conductor	0.92	Tinned Copper Wire
4	Jacket	1.13	FEP

Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	VSWR (max.)	Voltage Withstand (V DC)	Capacitance (pF / m)	Installation / Repeated Bend Radius (mm)	TEMP. (°C)
DC-6	50±2	70	1.30@DC-6GHz	1000	98	> 5 / > 10	-55~+200

Frequency (G)	1	2	3	4	5	6	Coefficient K
Attenuation*1 (dB/100m)	220	310	380	440	490	540	K1=6.9592643, K2=-0.00065630

Calculate Cable Attenuation: Attenuation (dB/100m)= $K1*\sqrt{F}$ (MHz)+K2* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= $0.03*\sqrt{F}$ (GHz)

RF137



Number	Name	Size (mm)	Material
1	Inner Conductor	0.306	Tinned Copper Wire
2	Dielectric	0.90	FEP
3	Outer Conductor	1.13	Tinned Copper Wire
4	Jacket	1.37	FEP

Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	VSWR (max.)	Voltage Withstand (V DC)	Capacitance (pF / m)	Installation / Repeated Bend Radius (mm)	TEMP. (°C)
DC-6	50±2	70	1.30@DC-6GHz	1000	96	> 5 / > 20	-55~+200

Frequency (G)	1	2	3	4	5	6	Coefficient K
Attenuation*1 (dB/100m)	170	250	300	350	400	450	K1=5.3386764, K2=0.00558114

Calculate Cable Attenuation: Attenuation (dB/100m)= K1*√F (MHz)+K2* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03*√F (GHz)

QD-Semiflex Cables

QD series is a kind of semi-flexible RF cable, whose shape could be formed manually. It is easy to assembly and often used for equipment interconnection.



Construction



Number	Name	Material	Size (mm)			
			QD047	QD086	QD141	QD250
1	Inner Conductor	Silver-plated copper (QD047 IS SCCS) Silver-plated copper clad steel	0.31	0.53	0.94	1.65
2	Dielectric	PTFE	0.94	1.65	2.98	5.25
3	Inner Shield	Tin-plated copper braid	1.19	2.17	3.55	6.30

Specifications

Cable	Frequency (GHz)	Cut-off Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Shielding Effectiveness (dB)	Voltage Withstand (V DC)	Outer Diameter (mm)	Installation / Repeated Bend Radius (mm)	Weight (g/m)	TEMP. (°C)
QD047	20	-	50	70	-	900	1.19	4 / 20	-	-55~+200
Hot QD086	40	61			> 100	1000	2.17	10 / 20	20	-55~+150
Hot QD141	6	34.4			> 100	1500	3.55	17.75 / 35.5	50	-55~+150
QD250	6	19			> 100	2500	6.30	20 / 40	140	-55~+225

Attenuation & Power Handling

Attenuation* ¹ and Power Handling* ²	Frequency (G)											
	Cable	0.3	0.5	1	2	6	8	12.4	18	26.5	40	Coefficient K
Attenuation (dB/100m)	QD047	63	82	118	171	314	370	476	594.6	-	-	K1=3.512916 K2=0.006852
Average Power (W)		-	-	-	-	-	-	-	-	-	-	
Attenuation (dB/100m)	Hot QD086	38.2	49.8	71.9	104.6	193.8	229.1	297.4	373.6	476.6	622.6	K1=2.115000 K2=0.004990
Average Power (W)		135	103	72	49	27	22	17	14	11	8	
Attenuation (dB/100m)	Hot QD141	20.6	27	39.4	58.1	110.7	-	-	-	-	-	K1=1.119870 K2=0.003986
Average Power (W)		311	237	163	110	58	-	-	-	-	-	
Attenuation (dB/100m)	QD250	12.14	16.03	23.6	35.23	69.09	-	-	-	-	-	K1=0.645600 K2=0.003180
Average Power (W)		713	540	367	246	125	-	-	-	-	-	

[1] VSWR:1.0; Ambient:+25°C(77°F)

[2] VSWR:1.0; Ambient:+40°C(104°F); Sea level

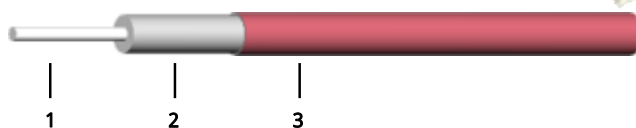
Calculate Cable Attenuation: Attenuation (dB/100m)= K1*√F (MHz)+K2* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03*√F (GHz)

QE-Semirigid Cables

QE series semirigid RF cable with low PIM, is used for internal connection of precision instruments.

Construction



Number	Name	Material	Size (mm)			
			QE020	QE047	QE086	QE141
1	Inner Conductor	Silver-plated copper	0.127	0.28	0.53	0.94
2	Dielectric	PTFE	0.432	0.92	1.68	2.98
3	Outer Conductor	Ternary alloy plated seamless copper tube	0.580	1.20	2.18	3.58

Specifications

Cable	Frequency (GHz)	Cut-off Frequency (GHz)	Impedance (Ω)	Velocity of Propagation (%)	Shielding Effectiveness (dB)	Voltage Withstand (V DC)	Outer Diameter (mm)	Installation Bend Radius (mm)	Weight (g/m)	TEMP. (°C)
QE020	40	110	50	70	> 165	100	0.58	1.27	2	-55--+125
QE047	40	110				100	1.20	4.2	3	
QE086	40	64				400	2.18	7	19	
QE141	26.5	34				500	3.58	15	46	

Attenuation & Power Handling

Attenuation*1 and Power Handling*2	Cable	Frequency (G)										Coefficient K
		0.3	0.5	1	6	10	12.4	18	26.5	40		
Attenuation (dB/100m)	QE020	130	170	240	600	780	870	1060	1300	1620	K1=7.5016 K2=0.0029	
Average Power (W)		99	77	54	22	17	15	12	10	8		
Attenuation (dB/100m)	QE047	62	80	114	290	380	430	520	650	820	K1=3.5016 K2=0.0029	
Average Power (W)		109	84	59	23	18	16	13	10	8		
Attenuation (dB/100m)	QE086	35.0	45.5	64.9	166.6	219.9	247.6	304.9	379.9	482.7	K1=1.985320 K2=0.002140	
Average Power (W)		475	366	256	100	76	67	55	44	34		
Attenuation (dB/100m)	QE141	20.3	26.5	38.2	102.4	137.7	156.4	195.9	249.2	-	K1=1.131702 K2=0.002450	
Average Power (W)		1020	782	542	203	151	133	106	83	-		

[1] VSWR:1.0; Ambient:+25°C(77°F)

[2] VSWR:1.0; Ambient:+40°C(104°F); Sea level

Calculate Cable Attenuation: Attenuation (dB/100m)= K1*√F (MHz)+K2* F (MHz)

Calculate Single Connector Attenuation: Attenuation (dB)= 0.03*√F (GHz)