

QR 540 Series Cables Product Descriptions

CommScope's patented QR® coaxial cable was developed to meet the increasing demands of tomorrow's broadband networks. QR has the highest reliability and flexibility of any Trunk and Distribution coaxial cable, low RF attenuation and an unprecedented 10 year warranty.

All QR cable products offer tough polyethylene jackets and a standardized, environmentally sealed connector interface engineered for reliability and craft friendliness.

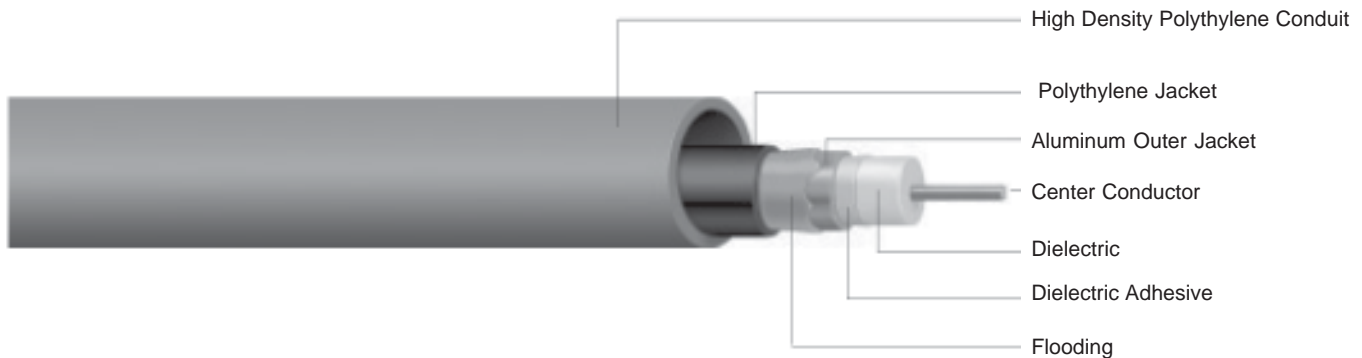
QR 540 is optimized for use in broadband feeder plants. QR 540 offers lower attenuation than larger traditional products, with unmatched flexibility, reliability and cost effectiveness.

Standard QR Construction

A precision aluminum strip is formed and continuously RF welded around a high compression micro-cellular foam dielectric core, eliminating RF leakage, and the rigidity common in traditional coaxial products. The shield is fully bonded to the dielectric core, as is the copper clad aluminum center conductor. A tough polyethylene jacket is applied standard, which enhances cable reliability and allows QR's unique connector technology to form an environmental seal.

Aerial Installation				
Part #	Description	Cable Weight	Shipping Wteight	Standard Length
QR 540 JCA	Offers all of QR's standard construction features	91 lbs/kft (135 kg/km)	120 lbs/kft (179 kg/km)	3700 ft (1128m)
QR 540 JCAM 109	Has an integrated figure 8 galvanized solid steel messenger for self-supporting applications	132 lbs/kft (196 kg/km)	170 lbs/kft (253 kg/km)	3700 ft (1128m)
Underground Installation				
Part #	Description	Cable Weight	Shipping Wteight	Standard Length
QR 540 JCASS	Features CommScope's Migra-Heal floodant that seals jacket damage to inhibit corrosion	92 lbs/kft (137 kg/km)	120 lbs/kft (179 kg/km)	3700 ft (1128m)
QR 540 2J(MA) CASS	offers twin polythylene jackets separated with tough polypropylene tape for extra cut-through resistance	121 lbs/kft (180kg/km)	63170 lbs/kft (253 kg/km)	3700 ft (1128m)
QR 540 JACASS	Features CommScope's Migra-Heal floodant, a bonded, chrome-plated armor and twin polythylene jackets for ultimate toughness	211 lbs/kft (314 kg/km)	260 lbs/kft (387 kg/km)	3700 ft (1128m)
Indoor/Riser Installation				
Part #	Description	Cable Weight	Shipping Wteight	Standard Length
QR 540 JCAR	has a flame-retardant polyethylene jacket that meets NEC's CATVR rating	91 lbs/kft (135 kg/km)	126 lbs/kft (188 kg/km)	3700 ft (1128m)

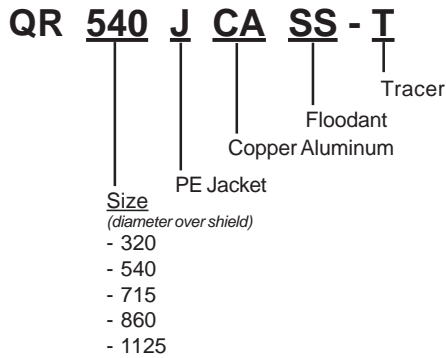
QR (JCASS)



CommScope's patented QR[®] coaxial cable was developed to meet the increasing demands of tomorrow's broadband networks. QR has the highest reliability and flexibility of any coaxial cable, low RF attenuation and an unprecedented 10-year warranty. QR coaxial cable offers lower attenuation than larger traditional products, with unmatched flexibility, reliability and cost effectiveness. CommScope offers four standard sizes (540, 715, 860 and 1125) of QR Cable-In-Conduit, each optimized for a specific use.

Size	Wall Thickness	Wall Rating	QR 540 JCASS			QR 715 JCASS		
			Nominal Length (ft)	Reel Size (FDT) (in)	Weight* lbs/ft	Nominal Length (ft)	Reel Size (FDT) (in)	Weight* lbs/ft
1"	SDR 13.5	Medium	3,700	63 x 30 x 40	261	NA	NA	NA
	SDR 11	Heavy	3,700	63 x 30 x 40	296	NA	NA	NA
	SCH 40	X-Heavy	3,700	63 x 30 x 40	311	NA	NA	NA
1 1/4"	SDR 13.5	Medium	3,700	80 x 40 x 38	357	3,000	68 x 30 x 40	409
	SCH 40	Heavy	3,700	80 x 40 x 38	387	3,000	68 x 30 x 40	439
	SDR 11	X-Heavy	3,700	80 x 40 x 38	412	3,000	68 x 30 x 40	464
1 1/2"	SDR 13.5	Medium	3,700	90 x 42 x 40	436	3,000	90 x 42 x 40	488
	SCH 40	Heavy	3,700	90 x 42 x 40	445	3,000	90 x 42 x 40	497
	SDR 11	X-Heavy	3,700	90 x 42 x 40	508	3,000	90 x 42 x 40	560
2"	SCH 40	Medium	3,700	102 x 48 x 42	564	3,000	102 x 48 x 42	616
	SDR 13.5	Heavy	3,700	102 x 48 x 42	624	3,000	102 x 48 x 42	676
	SDR 11	X-Heavy	3,700	102 x 48 x 42	732	3,000	102 x 48 x 42	784
			QR 860 JCASS			QR 1125 JCASS		
1"	SDR 13.5	Medium	NA	NA	NA	NA	NA	NA
	SDR 11	Heavy	NA	NA	NA	NA	NA	NA
	SCH 40	X-Heavy	NA	NA	NA	NA	NA	NA
1 1/4"	SDR 13.5	Medium	NA	NA	NA	NA	NA	NA
	SCH 40	Heavy	NA	NA	NA	NA	NA	NA
	SDR 11	X-Heavy	NA	NA	NA	NA	NA	NA
1 1/2"	SDR 13.5	Medium	2700	80 x 40 x 38	558	NA	NA	NA
	SCH 40	Heavy	2700	80 x 40 x 38	567	NA	NA	NA
	SDR 11	X-Heavy	2700	80 x 40 x 38	630	NA	NA	NA
2"	SCH 40	Medium	2700	102 x 48 x 42	686	3000	102 x 48 x 42	815
	SDR 13.5	Heavy	2700	102 x 48 x 42	746	3000	102 x 48 x 42	875
	SDR 11	X-Heavy	2700	102 x 48 x 42	854	3000	102 x 48 x 42	983

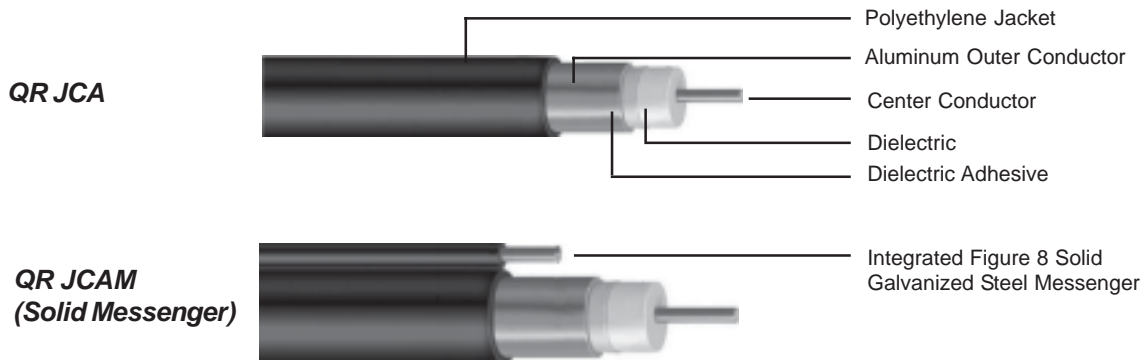
Trunk & Distribution Cable Catalog Numbering Key



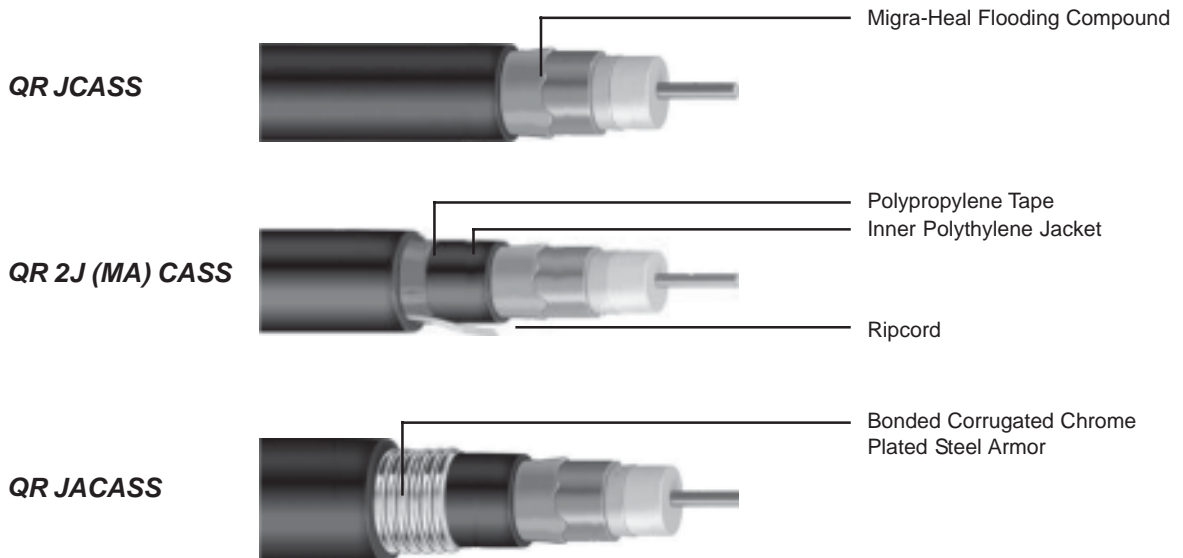
Suffix

- J - Jacketed
- CA - Copper Aluminum
- SS - Miagra-Heal Flooding Compound
- T - Tracer
- M - Messenger
- EHS - Extra High Strength

QR Aerial Construction Configurations



QR Underground Construction Configurations



QR 540 Series Cables Product Specifications

Physical Dimensions		
Component	Inches	mm
Nominal Center Conductor Diameter	0.124	3.15
Nominal Diameter Over Dielectric	0.514	13.03
Nominal Diameter Over Outer Conductor	0.540	13.72
Nominal Outer Conductor Thickness	0.0135	0.343
Nominal Diameter Over jacket	0.610	15.49
Nominal Jacket Wall Thickness	0.035	0.89
Messenger Version		
Diameter of Steel Messenger	0.109	2.77
Dual Jacket Version		
Nominal Jacket Wall Thickness - Outer	0.043	1.09
Nominal Diameter Over Outer Jacket	0.700	17.078
Armored Version		
Nominal Diameter Over Corrugated Armor	0.680	17.27
Nominal Armor Thickness	0.010	0.25
Nominal Diameter Over Outer Jacket	0.760	19.30
Nominal Diameter of Outer Jacket	0.040	1.02

Mechanical Characteristics		
Minimum Bending Radius		
	(Jacketed)	4.0 in 10.2 cm
	(Armored)	6.5 in 16.5 cm
Maximum Pulling Tension	220 lbs	100 kg _f
Minimum Breaking Strength of Messenger	(109) 1,800 lbs	816 kg _f

Electrical Characteristics		
Capacitance	15.3 ± 1.0 pf/ft	50 ± 3.0 nf/ft
Impedance	75 ± 2 ohms	
Velocity of Propagation	88%	

Maximum D.C. Resistance @ 68°F (20°C)		
Inner Conductor	1.02 ohms/1000ft	3.34 ohms/km
Outer Conductor	0.54 ohms/1000ft.	1.94 ohms/km
Loop	1.61 ohms/1000ft	5.28 ohms/km

Attenuation @ 68°F (20°C)				
Frequency (Mhz)	(dB/100 ft)		(dB/100 m)	
	Nom.	Max.	Nom.	Max.
5	0.13	0.14	0.43	0.46
30	0.34	0.34	1.12	1.12
45	0.41	0.41	1.35	1.35
50	0.43	0.44	1.41	1.44
55	0.45	0.47	1.48	1.54
83	0.55	0.58	1.80	1.90
108	0.63	0.66	2.07	2.17
150	0.74	0.79	2.43	2.59
181	0.84	0.88	2.76	2.89
193	0.87	0.90	2.85	2.95
211	0.91	0.95	2.99	3.12
220	0.93	0.98	3.05	3.22
250	0.99	1.03	3.25	3.38
270	1.03	1.07	3.38	3.51
300	1.08	1.13	3.54	3.71
325	1.13	1.18	3.71	3.87
350	1.17	1.23	3.84	4.03
375	1.22	1.27	4.00	4.17
400	1.26	1.32	4.13	4.33
425	1.30	1.37	4.27	4.49
450	1.35	1.40	4.44	4.59
500	1.41	1.49	4.63	4.89
550	1.51	1.56	4.95	5.12
600	1.59	1.64	5.23	5.38
750	1.80	1.85	5.92	6.07
865	1.90	2.00	6.23	6.56
1000	2.10	2.17	6.91	7.12