

Coaxial Cable Specifications

	RG-8X+ RG-8X	Super 240	RG-8X Double Braid	RG-213	RG-213+	SuperCable	Super 400	ExtraFlex	BuryFlex
Z, Ohms	50	50	50	50	50	50	50	50	50
VF	78%	84%	78%	66%	66%	84%	84%	84%	84%
Dielectric	fp	fp	fp	p	p	p/air	fp	p/air	fp
Center	#16 sc	#16 sc	#16 sc	#13 sc	#13 sc	#9.5 c	.109 scca	#9 sc	#9 sc
Shield type	c	c/al	c/al	c	c	tc/al	tc/al	tc/al	c
Shield 1	95%	bc	95 bc	95%	96%	95%	91%	95%	91%
Shield 2		100%	100%			100%	100%	100%	
Jacket	IIA/I	PE	I	IIA	IIA	I	PE	IIA	PE
O.D.	.242"	.242"	.242"	.405"	.405"	.405"	.405"	.405"	.406
Attenuation per 100 feet of coax									
10 MHz	1.1	.9	1.1	.55	.55				.52
50 MHz	2.5	1.7	2.5	1.3	1.3	.64	0.90		1.1
144 MHz	3.7	3.0	3.7	1.9	1.9	1.3	1.5	1.35	1.5
200 MHz	5.4	3.7	5.4	2.7	2.7	1.6	1.85	1.7	2.0
400 MHz	8.0	5.3	8.0	4.1	4.1	2.5	2.80	2.5	2.9
900 MHz		7.6					4.0	4.2	4.9

The values in this chart represent manufacturer's data.

Conductor: al = aluminum c = copper tc = tinned copper bc = bare copper sc = stranded copper wire scca = solid copper clad aluminum
 Dielectric: p = polyethylene fp = foam polyethylene
 Jacket: I = PVC Polyvinyl chloride IIA = Non-contaminating PE = Polyethylene

Velocity Factor of Propagation Through Coaxial Cable

The velocity factor is the speed at which an RF signal travels through a material compared to the speed the same signal travels through a vacuum. The velocity of propagation is inversely proportional to the dielectric constant. Lowering the constant increases the velocity. Generally, the higher the velocity factor, the lower the loss through a coaxial cable.

Dielectric Material	Air	9913 types	Foam Polyethylene	Foam FPE Teflon	TFE Teflon	Polyethylene	Silicon	PVC
Vp in %	100	84	78-80	80	71	66 - 67	58	45

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General Rules for Coaxial Cable

D = diameter of insulation under the shield
 d = diameter of inner conductor.

Velocity Factor, Velocity of Propagation, V_p

The higher the velocity factor, the lower the loss through the cable.
 Raising the D/d has no effect on V_p
 Raising the dielectric constant lowers V_p

Capacitance

Raising the D/d ratio lowers capacitance
 Raising the dielectric constant raises capacitance

Impedance

Raising the D/d ratio raises impedance
 Raising the dielectric constant lowers impedance

Attenuation or Loss

Raising the D/d ratio lowers attenuation
 Raising the dielectric constant raises attenuation

Low Loss Coaxial Cable



Super 400

55¢ per ft in 50' increments

500' Spool \$250

Due to its special nature, this cable is available only in 50' increments.

This is a copy of LMR 400 made by one of our most reliable coax manufacturers. Some report that it is better than the real thing. As you can see from its specifications, its loss is similar to our 9096IIA which is one of the best, low loss coaxial cables of the 9913 type available. It features a solid copper-clad aluminum center conductor and a tough foamed polyethylene dielectric. It's a perfect solid-dielectric alternative to ExtraFlex.

RECOMMENDATIONS:
All HF, VHF and UHF installations.

CONNECTORS:
PL-259 - Standard types
N - Use special type, in stock



ExtraFlex 9096IIA

10 - 99' 67¢

100' - 499' 63¢

500' Spool \$290

This is International 9096-IIA. This is a top-of-the-line, flexible 9913-type coax. Construction is excellent with a 19-strand center conductor. It bends as easily as conventional RG-8 or RG-213. Will handle the legal power limit even at UHF.

RECOMMENDATIONS:
All VHF and UHF installations. HF runs over 200' feet. A must for crank-up towers and rotatable antennas in systems where low loss cables are needed.

CONNECTORS:
PL-259 - Standard types
N - Use special 9913 type



Bury Flex™

62¢ per ft in 50' increments

500' Spool \$275

Due to its special nature, this cable is available only in 50' increments

Bury Flex™ is a low cost alternative to LMR and other hard line. It's highly flexible for rotator loops and applications requiring nonrigid coaxial cable. The jacket is Polyethylene, PVC, so this is a true directly buriable cable. A slightly enlarged center conductor (vs. 9913) and the high tech foam PE dielectric work together to insure low signal loss. Since this cable is foam-filled, it is not nearly as fragile as similar, low-loss coax.

RECOMMENDATIONS:
All ExtraFlex 9096IIA applications.

CONNECTORS:
PL-259 - Standard types
N - Use special 9913 type

Jim's note: Due to extra large center conductor, installation of connectors will be easier if a few strands of the centers are trimmed.

Explanation of various price schedules-

Spool Length - If you can use a whole spool of coax, we'll give you a discount. Generally all RG-8X size cables come in 1000 foot spools and larger coax is put-up in 500 foot spools. Rotator cable = 500'

0-99' - Our new policy is to discontinue the 50 foot increment requirement with some exceptions. Now all wire and cable are sold with price breaks based on length.

100' up to Spool Length - any length in this range is the same price. Order the length you need.

Prices and specifications are subject to change without notice.

High Quality Coaxial cable



SuperCable

10 - 99' 59¢

100' - 499' 54¢

500' Spool \$243

SuperCable is International's type 9086. It is a very low loss, double shielded, high quality coaxial cable. 9086 is similar to Belden 9913 but has better braid coverage.

RECOMMENDATIONS:

Use for 2 meters and up unless cable runs are short where RG-213 is suitable. Use in high performance HF installations when cable runs are over 200'.

CONNECTORS:

PL-259 - Standard types
N - Use special 9913 type



RG-213

10 - 99' 44¢

100' - 499' 39¢

500' Spool \$175

RG-213 is the standard 50 coax replacing RG-8 which was the popular choice for years. RG-213 is similar to RG-8 but is built to a much higher standard.

RECOMMENDATIONS:

All HF installations and short runs on VHF and UHF. Use RG-8X for wire antenna installations due to the size and heavy weight of this cable. Good for HF runs out to 200'.

CONNECTORS:

PL-259 - Standard types
N - Standard types



RG-213 Plus

10 - 99' 49¢

100' - 499' 43¢

500' Spool \$199

There are always ways to improve a product and that is what was done to RG-213 Plus. It features an improved braid and even better quality, non-contaminating jacket.

RECOMMENDATIONS:

All RG-213 recommendations apply.

CONNECTORS:

PL-259 - Standard types
N - Standard types



Premium RG-8X

10 - 99' 22¢

100' - 999' 18¢

100' with PL-259 on each end \$23.95

1000' Spool \$162

Premium Quality RG-8X is a low loss, low cost, 50 ohm coax that **WILL** handle the legal power limit. Losses on HF are only slightly higher than RG-213. **LOW** cost, **LOW** weight, and **LOW** loss make RG-8X a very **best buy!**

Available in White

CONNECTORS:

PL-259 - Std types + UG-176
BNC - Special crimp type



RG-8X Plus

10 - 99' 31¢

100' - 999' 26¢

1000' Spool \$230

Most RG-8X is made with a type IA jacket. RG-8X Plus uses a Military type IIA, non-contaminating jacket which is preferred by many users. Except for jacket, the specs on this coax are identical to our Premium RG-8X.

CONNECTORS:

PL-259 - Std types + UG-176
BNC - Special crimp type



Super-240

10 - 99' 39¢

100' - 999' 33¢

1000' Spool \$295

Factory rated for 1.5 kW @ 30 MHz

This is an RG-8X size version of the popular LMR-400 type, low loss coax. Gas-injected foam dielectric. 100% shield - bonded aluminium tape plus tinned copper braid. DC breakdown 1500 V. Shield effectiveness is >90dB **Top of the Line!** Special crimp-on connectors are available.

CONNECTORS: see connector sect.

PL-259 - Std types + UG-176
BNC - Special crimp type



RG-8X Double Shield 10 - 99' 30¢ 100' - 499' 25¢ 500' spool \$115

This is our new, double shielded, top quality RG-8X. Braid is 95% over 100% coverage tinned aluminium foil. The construction is similar to larger, low loss cables. Velocity factor is 78%. All other specs are the same as our quality RG-8X. The extra shielding provides far less cable leakage and stray signal pickup. Loss is slightly lower than standard RG-8X. Standard PL-259 connectors with UG-176 adaptors and N-200 connectors plus UG-176 adaptor work with this cable.

Prices and specifications are subject to change without notice.