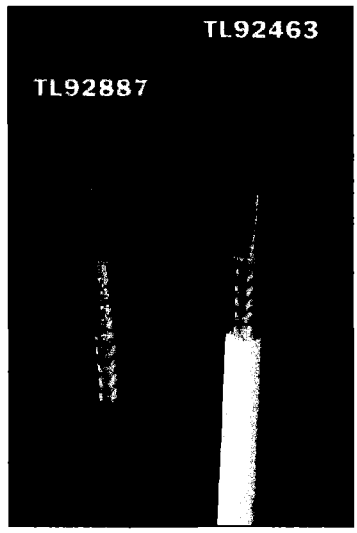
UltraLink Cable® Makes The Best Connections

Both of our UltraLink Cables® were designed to provide the best transmission lines for your applications. The smaller UltraLink Cables are designed to be electrically and mechanically efficient for mobile applications. The new UltraLink Cable 93605 is designed for medium length run base station applications. It is the lowest loss RG213 size cable.

When we designed these cables, we started from scratch. UltraLink cables are easily installed, low loss, and compatible with readily available connectors.



Mobile UltraLink

We started with a solid center conductor for the secure attachment of crimp-on connectors. We insulated it with a layer of low loss Teflon® dielectric which withstands the high temperatures encountered in mobile applications.

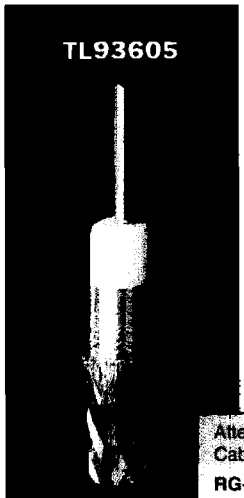
Next, we applied a layer of easily removed friction bound aluminum foil for 100% shielding. On top of that, we added tinned copper braid with full 95% coverage for good grip to the connector's outer shell. Finally, we selected a smooth, tough PVC jacket. The result is UltraLink 92463 (white) and UltraLink 92887 (black) RG58 size cable.

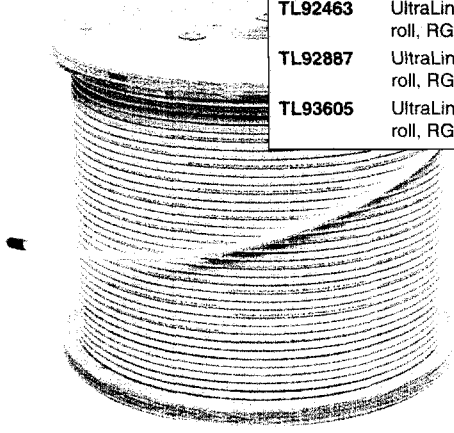
Base Station UltraLink

In designing the ultimate medium run base station cable, we began with a different set of goals. The center conductor is solid copper for the same reasons; it is low loss and aids in solid connection of crimp-on connectors. Next, we added a layer of foam polyethylene whose velocity of propagation is 89% that of air. This fact adds significantly to the low loss characteristics of the cable but it prevents the migration of water through the dielectric. Next, we add a layer of foil and a 95% coverage braid. The jacket is black PVC which withstands sunlight and weathering for many years.

UltraLink Cable

TL92463	UltraLink Cable, white, 500 ft. (152 m) roll, RG58 size
TL92887	UltraLink Cable, black, 500 ft. (152 m) roll, RG58 size
TL93605	UltraLink Cable, black, 500 ft. (152 m) roll, RG213 size





TL92463

Attenuation (loss) per 100 feet (Decibels)						
Cable Type	150 MHz	450 MHz	900 MHz	1700 MHz	1800 MHz	2400 MHz
RG-58	5.7	10.5	16	N/A	N/A	N/A
RG-8	2.3	4.3	7.6	N/A	N/A	N/A
RG-213	2.3	4.3	7.6	N/A	N/A	N/A
TL92887	5.1	9.5	14.0	N/A	N/A	N/A
TL92463	5.1	9.5	14.0	N/A	N/A	N/A
TL94703	5.1	9.5	14	20.2	20.8	24.1
TL93605	1.5	2.7	4.1	5.9	6.1	7.1
1/2 Hardline	0.7	1.4	2.2	3.3	3.4	3.9
7/8 Hardline	.4	0.8	1.2	2	2.1	2.4

Examples:
A 6 element PC-904N with a gain of 6 dBd attached to the radio with 25 feet of TL93605 would have an antenna system gain of 6 - [(25÷100) x 4.1]

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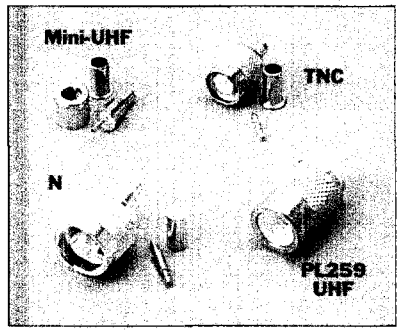
What cable do I choose for my Base Station?

Coaxial cable is like any wire in that it has attenuation which is a lot like resistance. Coaxial cable attenuation is a function of, among other things, length, cable size, dielectric material, shielding, and frequency. Larger cable has less loss but larger cable also costs more. In some cases, a lot more. The gain of your antenna system is the gain of the antenna less the loss in the coaxial cable between the antenna and the radio. The following chart illustrates some popular cables.

Crimp Tool Part# CPN8



Connectors

PL/UG	UHF connectors PL259 and UG175, 4 pcs
PL/UGT	Teflon® UHF connectors PL259 and UG175, 4 pcs
NCON58	N-male for RG58 size
TN58	TNC male for RG58 size
MU58	Mini-UHF male for RG58 size

CUSHCRAFT
COMMUNICATIONS ANTENNAS