

- Distributed Antenna Systems (DAS) have become a critical part of both carrier cellular networks and enterprise infrastructure. Networks include cellular, enterprise small cell, off-air (repeater), base transceiver station (BTS), and public safety (Bi-Directional Amplifier (BDA)) applications. These networks often utilize cables of long and irregular lengths that are largely terminated in the field, necessitating specialized tooling. The cables often run inside building plenums, requiring special flame-retardant 'plenum-rated' cable sheaths that resist burning and do not emit toxic fumes. Moreover, these cables are of the air-core type, using a multi-ribbed polymer spacer between the outer and inner conductors to minimize dielectric loss over extensive distances.
- Gamma's 4.3-10 compression connectors comprise of two halves. After the cable has been properly stripped, the connector's lower half can slip over the stripped cable end, snapping into the first corrugation of the metal shield. The connector's upper half can then be placed over the exposed and chamfered center conductor, allowing the threads of the two halves to engage and be torqued together (see figures). These connectors are compatible with multiple brands of 1/2 inch corrugated cable (see chart below).



Connector General Information

General	Specification
Interface / General	4.3-10
Weight	2.2 oz
Weatherproofing	PN: SDL-CX-125

Connector Materials and Finishing

Connector Part	Type N
Center Conductor	Phosphor Bronze, Silver Plating
Insulator	PTFE
Gasket	Silicone

Connector Electrical Properties

Electrical	Specification	Comment
Impedance, Ohms	50	
Operating Frequency Range, MHz	0-6 GHz	
PIM (2*43 dBm) 2X20 watts	≤ -158 dBc	Typical -163 to -168 dBc
Center Contact Resistance	≤ 1.0 M ohm	
Outer Contact Resistance	≤ 0.25 M ohm	
Dielectric Withstanding Voltage	≥ 5000 M ohm	
Insertion Loss Typical	≥ .10 dBm	Per Connector

Frequency Range

Frequency Band	VSWR	RL
0 -1 GHz	1.030	36.000
1 - 2.7 GHz	1.040	34.000
2.7 - 3.7 GHz	1.080	28.000
3.7 - 5 GHz	1.100	26.000
5 - 6 GHz	<1.25	19.000

Mechanical Data

Tools Required	Gamma PN	Requirement
Cable Prep	PLNST-7020	Per Spec
19mm Wrench & 19mm Torque Wrench	N/A	
Backshell Compression - Use Wrenches	N/A	20 N M
4.3-10 Mating Torque		5 N M

Connector Materials and Finishing

Cable Brand (Type, Shield Material)	Part Number
RFS (Plenum, Copper)	ICA12-50JPL ICA12-50JPLW ICA12-50JPLR ICA12-50JPLB
RFS (Plenum, Aluminum)	ICA12-50JPLL ICA12-50JPLLW ICA12-50JPLLR ICA12-50JPLLB
Commscope (Plenum, Copper)	HL4RPV-50 HL4RPV-50B HL4RPV-50G
Commscope (Plenum, Aluminum)	AL4RPV-50 AL4RPV-50R
Gamma (Plenum, Copper)	PLN-CU-50-BLU PLN-CU-50-WHT PLN-CU-50-RED
Gamma (Plenum, Aluminum)	PLN-AL-50-BLU PLN-AL-50-WHT PLN-AL-50-RED
Gamma (Annular, Copper)	STF50-LSZH-1/2
Commscope (Annular, Copper)	LDF4-50A



4.3-10 Compression Connector

Ordering Information

Connector Types	Specification
4.3-10 Male	4310M-50PLN
4.3-10 Female	4310F-50PLN
4.3-10 Right Angle Male	RA4310M-50PLN