

### TNC Connectors

#### **Product Facts**

**Single Crimp Connectors** 

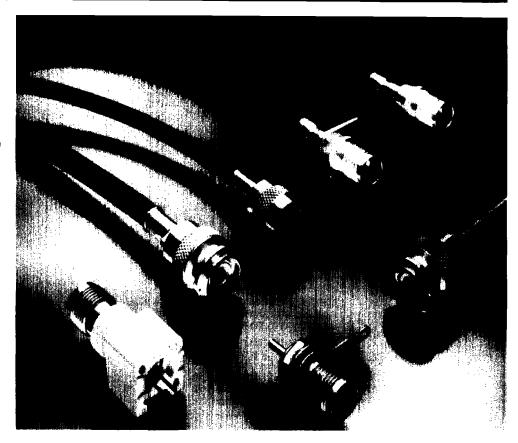
- Fast application—one crimping operation terminates inner conductor, outer braid and cable support
- Low application cost

#### **Dual Crimp Connectors**

- Manufactured in accordance with all requirements of MIL-C-39012, Class II, Category B
- Choice of dielectric materials
- Standard and weatherproof versions available
- Plugs available for high temperature cable
- Low cost commercial type available
- Commercial type is smaller and lighter weight
- Provides excellent performance at frequencies up to 7 GHz
- Tarnish resistant nickel finish
- 50 and 75 ohm commercial versions available

#### **Connectors for Semi-Rigid Cable**

- Standard cable stripping dimensions
- Universal cable termination common to all configurations



The AMP TNC RF connector family, with 7/16-28 threaded couplings, provides low noise levels and optimum stability, and can withstand the shock and vibration often present in hostile environments.

Available in both 50 and 75 ohm versions, these connectors feature numerous styles including cable plugs and jacks, adapters and printed circuit board connectors. These connectors accept a wide range of coaxial cables and are intermateable with industry standard connectors designed

to MIL-C-39012 specifications. Single crimp connectors provide reduced application time and lower applied costs. This is accomplished by using AMP one-crimp operation tooling which simultaneously terminates the inner conductor, outer braid and cable support with one controlled stroke.

When applications require military approved connectors, note that various dual crimp connectors meet or exceed all the requirements in specification MIL-C-39012,

Class II, Category B, and carry the appropriate military designation number. For reduced cost with a high degree of reliability, these same connectors are offered in a tarnish-resistant nickel finish. AMP can also supply low-cost alternatives with a commercial type product line. These connectors are designed around the mil-specifications, offering comparable mechanical and electrical

performance.



Plugs, Crimp

TNC Connectors, 50 Ohm

## Guide to **RF Connectors**









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Connecto able Ran Selection Code†	ige RG/U	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die	Interchangeable Dies for PRO-CRIMPER II Hand Tool	Interchangeable Dies for Hand Tool 69710-1 & Pneu. Tools 69365 & 69365-3
	174, 188,	Hex Crimp	Gold	Nickel	Polypropylene	Commercial		222506-5	_	58465-3	
В	188Å, 316	Dual Crimp	Gold	Nickel	Polypropylene	Commercial	_	5-227000-0	220009-5	220210-1	
D4	179, 179A, 179B	Hex Crimp	Gold	Nickel	Polypropylene	Commercial	_	222506-6		58465-3	_
B1	161, 187, 187A Belden 9221	Single Crimp	Gold	Silver	TEFLON	Mil Type		331103	69245-1	_	64908
	RD316	Hex Crimp	Gold	Nickel	Polypropylene	Commercial	_	222506-9	_	58465-3	_
B3	188 Double Braid	Dual Crimp	Gold	Nickel	Polypropylene	Commercial	_	5-227000-1	69477-4	58330-1	_
C1	180, 180A, 180B 195, 195A	Hex Crimp	Gold	Nickel	Polypropylene	Commercial		222506-7	<u></u>	58465-3	
		Hex Crimp	Gold	Nickel	Polypropylene	Commercial	<del>-</del>	222506-1		58436-1²	
		Dual Crimp	Gold	Silver	TEFLON	Mil Type	2680005	225550-2	220045-2		
D	58, 58A, 58B, 58C	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	Weatherproof	225555-2	220045-2	<del></del>	
		Single Crimp	Gold	Silver	TEFLON	Mil Type		330953	69376-3	_	69815
D, D1	58, 58A, 58B, 58C 141, 141A, 303	Dual Crimp	Gold	Nickel	Polypropylene	Commercial	_	227000-5	220187-1	58435-11	220217-1
D1	141, 141A, 303	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	Weatherproof	225555-5	220045-2		
D1	Belden 9907, 89907 Comm/Scope 3104, 2104, RG141, 141A, 303	Hex Crimp	Gold	Nickel	Polypropylene	Commercial	_	222506-8	_	58465-1	_
	500	Dual Crimp	Gold	Silver	TEFLON	Mil Type	26B0016 Weatherproof	225550-1	220045-2	<del>_</del>	
E	223, 55, 55A, 55B	Single Crimp	Gold	Silver	TEFLON		Weatherproof	2-330953-3	69376-3		69815
	50/1, 50B	Hex Crimp	Gold	Nickel	Polypropylene	Commercial		1-222506-1	_	58465-1	<del>-</del>
		Hex Crimp	Gold	Nickel	Polypropylene	Commercial	_	222506-4	_	58465-1	_
		Dual Crimp	Gold	Silver	TEFLON	Mil Type	2680006	225345-6	220045-2		
	142, 142A	Dual Crimp	Gold	Nickel	Polypropylene	Commercial	<del></del>	4-227000-6	220187-1	58435-11	220217-1
E1	142B 400	Dual Crimp	Gold	Silver	TEFLON	Mil Type	26B0006 Weatherproof	225550-6	220045-2		
		Dual Crimp	Gold	Nickel	TEFLON		Weatherproof	225555-6	220045-2	<del>-</del>	_
		Single Crimp	Gold	Silver	TEFLON	Mil Type	Weatherproof	2-330953-2	69376		69493-1
	·	Hex Crimp	Gold	Nickel	Polypropylene	Commercial		222506-2		58436-1²	_
	124, 140, 210	Dual Crimp	Gold	Silver	TEFLON	Mil Type	26B0007 Weatherproof	225550-3	220045-3	-	
G	62, 62A, 62B 59, 59A, 59B	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	Weatherproof	225555-3	220045-3	_	_
	Belden 9291 9209, 9269	Dual Crimp	Gold	Nickel	Polypropylene	Commercial		227000-7	220187-2	58435-11	220217-2
		Single Crimp	Gald	Silver	TEFLON	Mil Type	-	331100	69141-1		69224-1
J1	Belden 9248, 9114	Dual Crimp	Tin-Lead	Nickel	Polypropylene	Commercial		1-227000-7	220247-1	220244-1	
М	8, 8A, 213	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	Weatherproof	225555-7	220015-1		
МЗ	Alpha 9847, Belden 8213, 9292	Dual Crimp	Gold	Silver	TEFLON	Mil Type	Weatherproof	1-225550-3	220015-1		_
M4	225, 393	Dual Crimp	Gold	Silver	TEFLON	Mil Type	Weatherproof	1-225550-2	220015-1		

\*Order PRO-CRIMPER II Coaxial \*O" Crimp Hand Tool Assembly **Part No. 58433-1**, which includes dies **Part No. 58435-1**. \*Order PRO-CRIMPER II Coaxial Hex Crimp Hand Tool Assembly **Part No. 58433-2**, which includes dies **Part No. 58436-1**. †Refer to Appendix Pages for code specifications.

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#### TNC Connectors, 50 Ohm

(Continued)

Plugs, Crimp (Continued)



Connecto Cable Ran Selection Code'	ge RG/V	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Milliary No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die	Interchangeable Dies for PRO-CRIMPER II Hand Tool	Interchangeable Dies for Hand Tool 69710-1 & Pneu. Tools 69365 & 69365-3
		Dual Crimp	Gold	Silver	TEFLON	Mil Type	Weatherproof	225550-8	220015-1	_	_
N	9, 9A, 9B, 214	Dual Crimp	Gold	Nickel	TEFLON	Mit Type	Weatherproof	225555-8	220015-1		-
		Dual Crimp	Gold	Silver	TEFLON	Mil Type	_	225345-8	220015-1		_
	402	Crimp	Gold	Nickel	TEFLON	Commercial		228179-2		1	2
0	Semi-Rigid/.141	Crimp	Gold	Nickel.	TEFLON	Commercial	Weatherproof	228179-3		3	4

Right-Angle Plugs, Crimp





Connector Cable Range Selection Code†	e RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die	Interchangeable Dies for PRO-CRIMPER II Hand Tool	Interchangeable Dies for Hand Tool 69710-1 & Pneu. Tools 69365 & 69365-3
В	174, 174A, 188 188A, 316	Dual Crimp	Gold	Nickel	Polymethyl- pentene	Commercial		414173-3	_	220210-1	_
<b>B</b> 3	RD 188, 316 Double Braid	Dual Crimp	Gold	Nickel	Polymethyl- pentene	Commercial		414173-4	_	58330-1	<del></del>
D	58, 58A, 58B	Dual Crimp	Gold	Silver	TEFLON	Mil Type	Weatherproof	225554-2	220045-2	_	_
U	58C	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	Weatherproof	225559-2	220045-2		<del>-</del>
D, D1	58, 58A, 58B, 58C 141, 141A, 303	Dual Crimp	Gold	Nickel	Polymethyl- pentene	Commercial	-	414173-1		220189-1	_
D1	141, 141A, 303	Dual Crimp	Gold	Silver	TEFLON	Mil Type	~	225349-5	220045-2	_	
E	55, 55A, 55B 223	Dual Crimp	Gold	Nickel	Polymethyl- pentene	Commercial		414173-6		220189-1	-
	142, 142A, 142B	Dual Crimp	Gold	Silver	TEFLON	Mil Type	Weatherproof	225554-6	220045-2	<b>-</b> '	_
E1	400	Dual Crimp	Gold	Nickel	Polymethyl- pentene	Commercial		414173-5		220189-1	_
G	124, 140, 210, 62 62A, 62B, 59, 59A	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	-	225403-3	220045-3	_	_
	59B, Belden 9291 9209, 9269	Dual Crimp	Gold	Nickel	Polymethyl- pentene	Commercial		414173-2		220189-2	
M	8, 8A, 213	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	Weatherproof	225559-8	220015-1		
M4	393, 225	Dual Crimp	Gold	Silver	TEFLON	Mil Type	Weatherproof	1-225554-1	220015-1	_	
	0 0A 0P 214	Dual Crimp	Gold	Silver	TEFLON	Mil Type	_	225349-9	220015-1		_
N	9, 9A, 9B, 214	Dual Crimp	Gold	Silver	TEFLON	Mil Type	Weatherproof	225554-9	220015-1		

†Refer to Appendix Pages for code specifications.

<sup>†</sup>Refer to Appendix Pages for code specifications.

'Hand Tool Part No. 59980-1, requires (2) Crimping Dies Part No. 312253-1 and (1) Locator Part No. 220220-2.

'Pneumatic Tool Part No. 58318-1, requires (2) Crimping Dies Part No. 313720-1 and (1) Locator Part No. 220241-1.

'Phand Tool Part No. 59980-1, requires (2) Crimping Dies Part No. 312253-1 and (1) Locator Part No. 312644-1.

'Pneumatic Tool Part No. 59964-1, requires (2) Crimping Dies Part No. 220243-1 and (1) Locator Part No. 312645-1.



TNC Connectors, 50 Ohm (Continued)

Jacks, Crimp







Connector Cable Rang Selection Code <sup>†</sup>	e RG/U	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die	Interchangeable Dies for PRO-CRIMPER II Hand Tool	Interchangeable Dies for Hand Tool 69710-1 & Pneu. Tools 69365 & 69365-3
В	174, 174A, 188 188A, 316	Dual Crimp	Gold	Nickel	Polymethyl- pentene	Commercial		414171-3		220210-1	
В3	RD 188, 316 Double Braid	Dual Crimp	Gold	Nickel	Polymethyl- pentene	Commercial		414171-4	_	58330-1	_
	58, 58A, 58B	Dual Crimp	Gold	Nickel	TEFLON	Mil Type		225400-2	220045-2	_	<del>-</del>
D	580	Dual Crimp	Gold	Silver	TEFLON	Mil Type	27B0005 Weatherproof	225551-2	220045-2	_	
D, D1	58, 58A, 58B, 58C 141, 141A, 303	Dual Crimp	Gold	Nickel	Polymethyl- pentene	Commercial		414171-1		220189-1	
D1	141, 141A, 303	Dual Crimp	Gold	Silver	TEFLON	Mil Type	27B0015 Weatherproof	225551-5	220045-2		_
-	55, 55A, 55B	Dual Crimp	Gold	Silver	TEFLON	Mil Type	2780016	225551-1	220045-2		
E	223	Dual Crimp	Gold	Nickel	Polymethyl- pentene	Commercial	-	414171-6		220189-1	-
	142, 142A, 142B	Dual Crimp	Gold	Silver	TEFLON	Mil Type	27B0006 Weatherproof	225551-6	220045-2		_
E1	400	Dual Crimp	Gold	Nickel	Polymethyl- pentene	Commercial	_	414171-5	<del></del>	220189-1	-
	124, 140, 210, 62 62A, 62B, 59, 59A	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	_	225400-3	220045-3	_	_
G 	59B, Belden 9291 9209, 9269	Dual Crimp	Gold	Nickel	Polymethyl- pentene	Commercial		414171-2	_	220189-2	-

†Refer to Appendix Pages for code specifications.

#### Panel Jacks, Crimp



Connector Cable Range Selection Code†	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die
D	58, 58A, 58B 58C	Dual Crimp	Gold	Silver	TEFLON	Mil Type	2980005	225348-2	220045-2

†Refer to Appendix Pages for code specifications.

#### **Bulkhead Jacks for** Semi-Rigid Cable, **Rear Mount**



Connector Cable Range Selection Code†	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39012/ Military No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die
0	402 Semi-Rigid/.141	Crimp	Gold	Nickel	TEFLON	Mil Type	-	228502-1	*
P	405 Semi-Rigid/.086	Crimp	Gold	Nickel	TEFLON	Mil Type	_	228507-1	**

†Refer to Appendix Pages for code specifications.

\*Tooling—Hand Tool Part No. 59980-1, requires (2) Crimping Dies Part No. 312253-1 and (1) Locator Part No. 220220-1.

Pneumatic Tool, Part No. 58318-1, requires (2) Crimping Dies Part No. 313720-1 and (1) Locator Part No. 220241-1.

\*Tooling—Hand Tool Part No. 59980-1, requires (2) Crimping Dies Part No. 312253-2 and (1) Locator Part No. 220221-2.

Pneumatic Tool Part No. 58318-1, requires (2) Crimping Dies Part No. 313719-1 and (1) Locator Part No. 308075-2.

SOURCE: Catalog 82074

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#### TNC Connectors, 50 Ohm

(Continued)

**Bulkhead Jacks**, Crimp





Connector Cable Range Selection Code†	RG/U Cable	Termination Type	Center Contact Plating	Body Plating	Dielectric	Style	M39812/ Military No. and/or Comments	Part No.	CERTI-CRIMP Hand Tool with Integral Die	Interchangeable Dies for PRO-CRIMPER II Hand Tool	Interchangeable Dies for Hand Tool 69710-1 & Pneu. Tools 69365 & 69365-3
	174, 174A, 316	Dual Crimp	Gold	Nickel	Polymethyl- pentene	Commercial		414168-3	_	220210-1	
В	188, 188A	Single Crimp	Gold	Silver	TEFLON	Mil Type		331237	69245-1		69422
B1	179, 179A, 179B 161, 187, 187A Belden 9221	Single Crimp	Gold	Nickel	TEFLON	Mil Type	<del>-</del>	331238	69245-1	_	69408
В3	RD 188, 316 Double Braid	Dual Crimp	Gold	Nickel	Polymethyl- pentene	Commercial		414168-4		58330-1	
C1	180, 180A, 180B 195, 195A	Single Crimp	Gold	Silver	TEFLON	Mil Type		331239	69346-1	_	69423
		Dual Crimp	Gold	Silver	TEFLON	Mil Type	Weatherproof	1-225552-1	220045-2		_
D	58, 58A, 58B, 58C	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	Weatherproof	225557-2	220045-2		_
		Single Crimp	Gold	Silver	TEFLON	Mil Type	Weatherproof	331325	69376-3		69815
D, D1	58, 58A, 58B, 58C 141, 141A, 303	Dual Crimp	Gold	Nickel	Polymethyl- pentene	Commercial	<del></del>	414168-1		220189-1	
D1	141, 141A, 303	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	Weatherproof	225557-5	220045-2	-	_
-	223	Dual Crimp	Gold	Silver	TEFLON	Mil Type	28B0016	225347-1	220045-2		_
E	55, 55A, 55B	Dual Crimp	Gold	Nickel	Polymethyl- pentene	Commercial	-	414168-6		220189-1	
F4	142, 142A	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	Weatherproof	225557-6	220045-2		_
E1	142B, 400	Dual Crimp	Gold	Nickel	Polymethyl- pentene	Commercial	_	414168-5		220189-1	
G	120, 240, 210 62, 62A, 62B 59, 59A, 59B	Dual Crimp	Gold	Nickel	TEFLON	Mil Type	_	225401-3	220045-3	-	_
u	Belden 9291 9209, 9269	Dual Crimp	Gold	Nickel	Polymethyl- pentene	Commercial		414168-2	_	220189-2	<del>-</del>

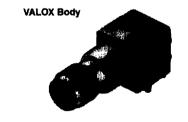
†Refer to Appendix Pages for code specifications.

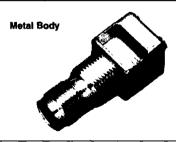
#### Right-Angle PC Board/Panel **Mount Jacks**

Lockwasher and Jam Nut









Dadi	Center	Part Numbers			
Body Material	Contact Plating	Without Mounting Posts	With Mounting Posts		
VALOX, White	Gold	227812-1	227818-1		
Metal	Gold	227838-1	227839-1		

Note: Maximum panel thickness .240 [6.10]. 2-56 Self-Tapping Screw for panel thickness of 3/32 [2.38] or greater Part No. 221108-2. 2-56 Self-Tapping Screw for panel thickness of less than 3/32 [2.38] Part No. 221108-4.

# TNC Connectors, 50 Ohm

(Continued)

Vertical PC Board/Panel Mount Jacks





Body Material VALOX, White	Center	Part Numbers				
	Contact Plating	Without Mounting Posts	With Mounting Post			
VALOX, White	Gold	227816-1	227820-1			
VALOX, Black	Gold	227817-1				
Metal	Gold	_	227835-1			

Note: Maximum panel thickness .240 [6.1] 2.56 Self-Tapping Screws for panel thickness of 3/32 [2.38] or greater Part No. 221108-2. 2-56 Self-Tapping Screws for panel thickness of less than 3/32 [2.38] Part No. 221108-4.

# Right-Angle PC Board/ Panel Mount Jacks





#### **Bulkhead Solder Jacks**

Insulation Bushing Part No. 227223-1



D1	Part Numbers					
Panel Thickness	With Solder Terminal	Without Solder Terminal				
<b>.040156</b> 1.02-3.96	227760-2	227758-2				
. <b>046250</b> 1.17-6.35	227762-2	227764-2				

TNC Dust Cap with Chain

#### **Jack Adapters**





#### **Bulkhead Jack Adapters**

Note: Maximum panel thickness .250 [6.35].



SOURCE: Catalog 82074

# **X-ON Electronics**

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M39012/56-3126 M55339/02-30001 M55339/28-30001 M55339/28-30002 M55339/29-30001 M55339/31-30001 UG-29A/U SMA2071A1-3GT50G-50 1102-0003 M39012/16-0101 M39012/26-0011 M39012/26-0012 M39012/26B0006 M39012/26B0015 M39012/28-0022
M39012/30-0101 M39012/33-0001 M39012/39-0501 M39012/55-3006 M39012/55-3007 M39012/55-3009 M39012/55-3026 M39012/79-3008