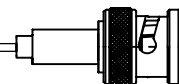


# BNC

## GENERAL



<b>50 <math>\Omega</math></b>	<b>DC - 4 GHz</b> <b>DC - 1.5 GHz (Commercial)</b>
<b>75 <math>\Omega</math></b>	<b>DC - 1 GHz</b>

### GENERAL

- Standardised worldwide coaxial connectors
- Bayonet coupling
- Proven strength and reliability
- Good RF performance
- 2 ranges : **BNC 50  $\Omega$**   
**BNC 75  $\Omega$**
- Commercial BNC
- Safety BNC (please consult RADIALL)

### APPLICABLE STANDARDS

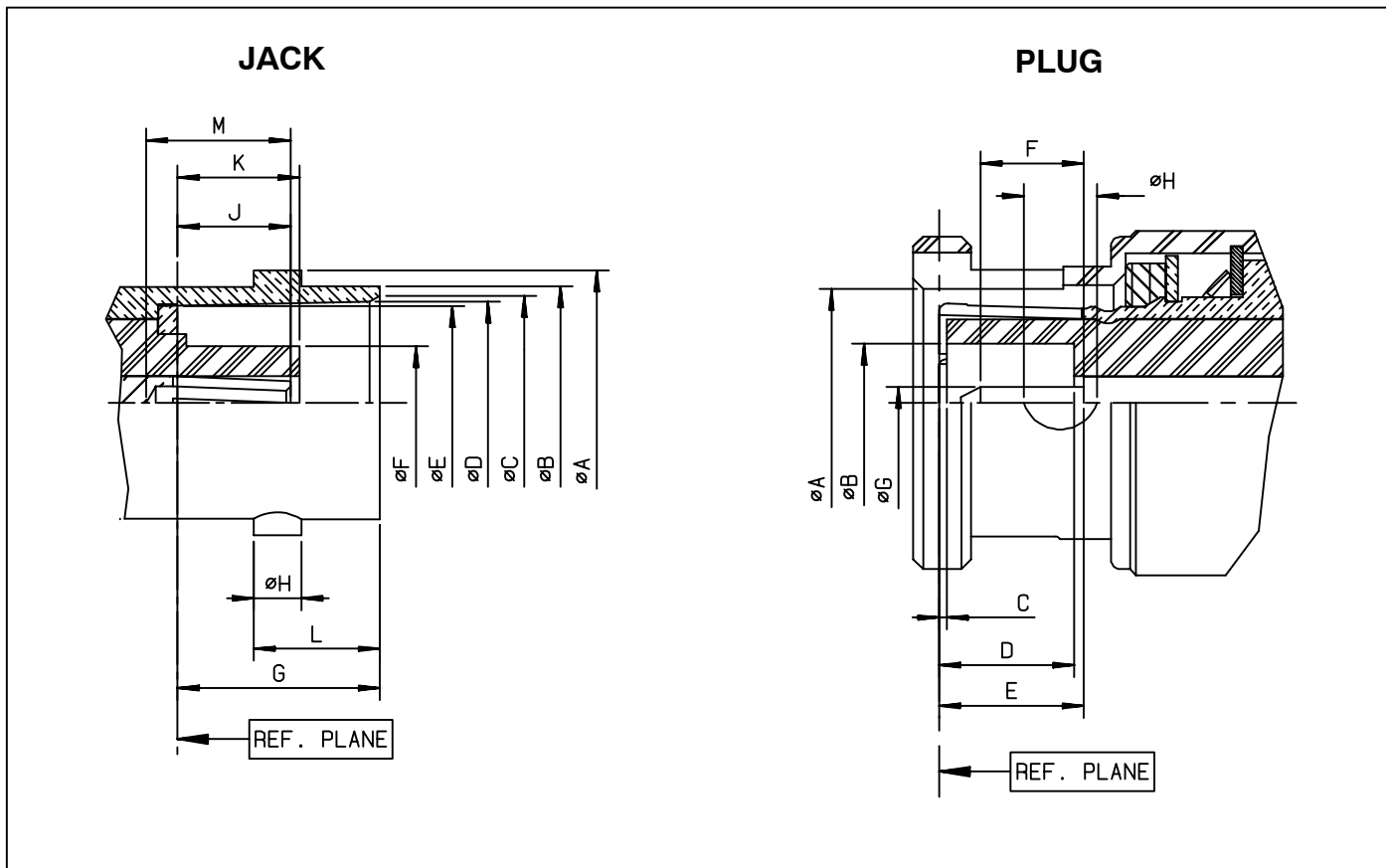
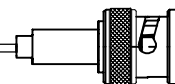
- MIL-C-39012 / MIL STD 348-A/301
- IEC 169-8
- CECC 22120
- NF-C-93564 KBN series
- UTE-C-93564

### APPLICATIONS

- Civil and military radio-telecommunication equipment
- Test and measurement
- Videocommunication
- Computer network
- Industrial network
- General electronics

# BNC 50 Ω

## INTERFACE

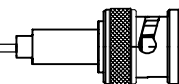


JACK

LETTER	mm		inch	
	min.	max.	min.	max.
A DIA	10.97	11.07	.432	.436
B DIA	9.60	9.70	.378	.382
C DIA	8.79	9.04	.346	.356
D DIA	8.31	8.46	.327	.333
E DIA	8.10	8.15	.319	.321
F DIA	-	4.72	-	.186
G	8.31	8.51	.327	.335
H	1.91	2.06	.075	.081
J	4.72	5.23	.186	.206
K	4.78	5.28	.188	.208
L	5.18	5.28	.204	.208
M	4.95	-	.195	-

PLUG

LETTER	mm		inch	
	min.	max.	min.	max.
A DIA	9.78	9.91	.385	.390
B DIA	4.83	-	.190	-
C	0.15	-	.006	-
D	5.28	5.79	.208	.228
E	5.33	5.84	.210	.230
F	1.98	-	.078	-
G DIA	1.32	1.37	.052	.054
H DIA	2.31	2.46	.091	.097

**BNC 50 Ω****CHARACTERISTICS**

TEST/CHARACTERISTICS	STANDARD REFERENCE	VALUES/REMARKS
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**ELECTRICAL CHARACTERISTICS**

Impedance		50 Ω									
Frequency range		DC-4 GHz									
Typical V.S.W.R. <i>Straight models cable group : 2/50, 2.6/50, 5/50, 10 + 11/50, .141"</i> <i>Right angle models 2/50, 2.6/50, 5/50,</i>		<table border="1"> <thead> <tr> <th>1 GHz</th> <th>2.5 GHz</th> <th>4 GHz</th> </tr> </thead> <tbody> <tr> <td>1.12</td> <td>1.18</td> <td>1.22</td> </tr> <tr> <td>1.13</td> <td>1.30 max</td> <td>1.22</td> </tr> </tbody> </table>	1 GHz	2.5 GHz	4 GHz	1.12	1.18	1.22	1.13	1.30 max	1.22
1 GHz	2.5 GHz	4 GHz									
1.12	1.18	1.22									
1.13	1.30 max	1.22									
Insertion loss <i>straight connector</i> <i>right-angle connector</i>		<table border="1"> <thead> <tr> <th>0.05</th> <th>0.07</th> <th>0.13</th> </tr> </thead> <tbody> <tr> <td>0.08</td> <td>0.16</td> <td>0.20</td> </tr> </tbody> </table>	0.05	0.07	0.13	0.08	0.16	0.20			
0.05	0.07	0.13									
0.08	0.16	0.20									
RF Leakage		- 55 dB min from 2 to 3 GHz									
Insulation resistance		5000 MΩ min      5000 MΩ min      5000 MΩ min									
Contact resistance <i>center contact</i> <i>outer contact</i>	MIL	1.5 mΩ 0.2 mΩ									
Working voltage in VRMS <i>at sea level</i> <i>(at 21 000m)</i>		500 125									
Dielectric withstanding voltage in VRMS <i>at sea level</i> <i>(at 21 000m)</i>		1500 375									
RF testing voltage in VRMS <i>sea level (5 MHz)</i>		1000									

**MECHANICAL CHARACTERISTICS**

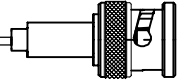
Durability		500 matings
Force to engage and disengage <i>axial torque</i>		13.6 N max 28.6 Ncm
Coupling nut retention force	MIL	445 N
Cable retention force <i>cable 2/50, 2.6/50</i> <i>cable 5/50, 10 + 11/50</i> <i>cable .141"</i>		227 N
Center contact retention force		27.2 N

**ENVIRONMENTAL CHARACTERISTICS**

Temperature range <i>flexible cables</i> <i>semi-rigid cables</i>	MIL	- 65°C + 165°C - 65°C + 105°C
Thermo cycling test		MIL STD 202, method 107, condition B
Thermal shock		MIL STD 202, method 107, condition B
Hight temperature endurance		MIL STD 202, method 108
Corrosion salt spray		MIL STD 202, method 101, condition B
Vibration		MIL STD 202, method 204, condition B
Shock		MIL STD 202, method 213, condition G
Moisture resistance		MIL STD 202, method 106
Hermetic test		MIL STD 202, method 112, condition C vacuum 10 <sup>-6</sup> Hgmm (Torr) leakage rate < 10 <sup>-6</sup> atm/cm <sup>3</sup> /s
Barometric pressure		Pressure test : 3.5 bars; duration : 2 mn; temperature : 15° C to 25 °C

# BNC 50 Ω

## CHARACTERISTICS



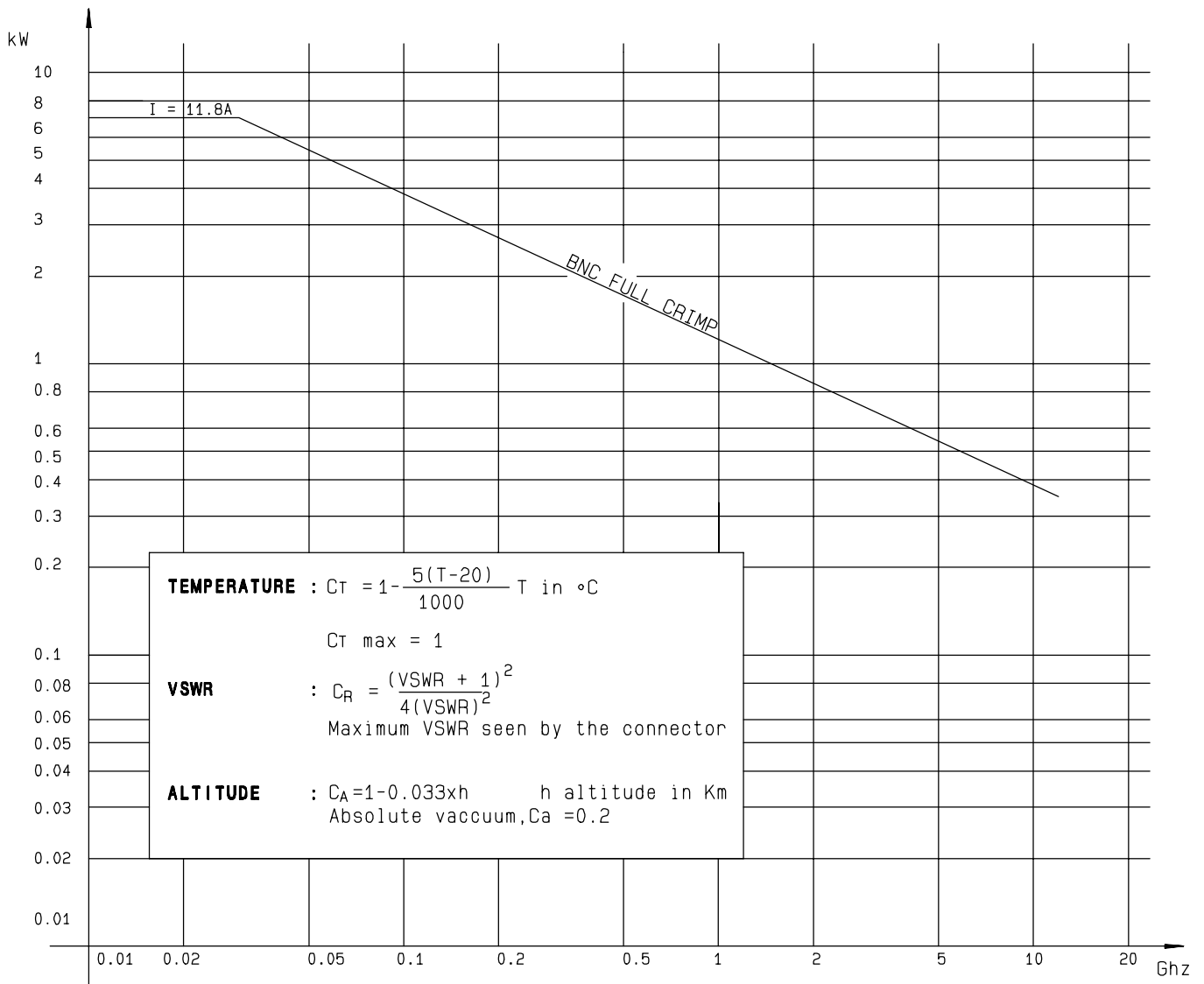
### MATERIALS

Bodies		Brass
Center contact	<i>male</i> <i>female</i>	Brass Bronze or heat treated beryllium following QQ-C-530
Nut		Brass
Insulator		PTFE
Gasket		Silicon rubber

### PLATINGS

Bodies		Nickel
Center contacts		Gold

### POWER RATING



Standard packaging : unit

All dimensions are given in mm.

