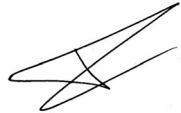






**Titre / Title**

**RF COAXIAL CONNECTORS, BASED  
ON TYPE SMP**

**ESCC Detail Specification No. 3402/0xx**

Rédigé par / Written by	Responsabilité / Responsibility	Date	Signature
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Vérifié par / Verified by			
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**Date:**  
February 17<sup>th</sup> ,06

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**ENREGISTREMENT DES EVOLUTIONS / CHANGE RECORD**

<b>ED./REV</b>	<b>DATE</b>	<b>AUTORISATION AUTHORIZATION</b>	<b>DESCRIPTION DES EVOLUTIONS CHANGE RECORD</b>	<b>REDACTOR AUTHOR</b>
Draft A	13/07/04	S. POIZAT	Creation	B. BARBE
Draft B	09/08/04	J. MONTAGNAT	§ 4.2.3, § 4.2.4 residual magnetism deleted § 4.5.2 level C deleted	B. BARBE
Draft C	21/09/04	B. BARBE	Added new variant (n°06)	S. POIZAT
Draft D	19/01/05	B. BARBE	Materials change for insulator of variant 01: Peek instead of PTFE. Drawing in figure 2B for Variant 01 updated with new design for insulator (PEEK) and cap was removed (new dimension of ØJ)	S. POIZAT
Draft E	11/03/05	B. BARBE	Updated table of variant 06 Variants 03 to 04 cancelled	S. POIZAT
Draft F	14/04/05	B. BARBE	Updated with correction of max weight for variant 06 (0.719grs instead of 0.59grs)	S. POIZAT
Draft G	26/10/05	A. BLANCHARD	Minor corrections of typing errors. Changing the number of variants: Variant 05 to be 03 Variant 06 to be 04	S. POIZAT
Draft-H	17/02/06	A. BLANCHARD	Minor corrections after CNES remarks	S. POIZAT

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## 1 GENERAL

### 1.1 SCOPE

This specification details the ratings, physical, and electrical characteristics, tests and inspection data for RF Coaxial connectors, based on type SMP, 50 Ohms. It shall be read in conjunction with the ESCC Generic Specification No. ESCC 3402, the requirements of which are supplemented herein.

### 1.2 TYPE VARIANTS

A list of the type variants of the connectors specified herein, which are also covered by this specification, is given in Table 1(a).

### 1.3 MAXIMUM RATINGS

The maximum ratings, which shall not be exceeded at any time during use or storage, applicable to the connectors specified herein, are as scheduled in Table 1(b).

### 1.4 PARAMETER DERATING INFORMATION

The parameter derating information of the connectors specified herein, are shown in Figure 1.

### 1.5 PHYSICAL DIMENSIONS

The physical dimensions of the connectors specified herein, are shown in Figure 2(b).

### 1.6 FUNCTIONAL DIAGRAM

Not Applicable

TABLE 1(A) : TYPE VARIANTS

Variant	Description
01	Limited Detent Receptacle for PCB CMS (pin contact)
02	Straight Female-Female Adapter (10.3mm)
03	Straight Female-Female Adapter (5.69mm)
04	Right Angle Receptacle for PCB – Limited Detent – Solder Type (pin contact)



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TABLE 1(B) : MAXIMUM RATINGS

N <sup>o</sup>	CHARACTERISTICS	SYMBOL	MAXIMUM RATING	UNIT	REMARKS
1	Peak Power at 25°C	Pmax	0,5	kW	1 us Max
2	Power	P	See Figure 1(a) and 1(b)	-	
3	Nominal Impedance	Z	50	Ohms	
4	Frequency Range	f	See Figure (2b)	GHz	
5	Operating Voltage	Vop	335	Vrms	
6	Operating Temperature Range	Top	See Figure 2(b)	°C	
7	Storage Temperature Range	Tstg	See Figure 2(b)	°C	

FIGURE 1 : PARAMETER DERATING INFORMATION

FIGURE 1(A) : POWER VERSUS TEMPERATURE

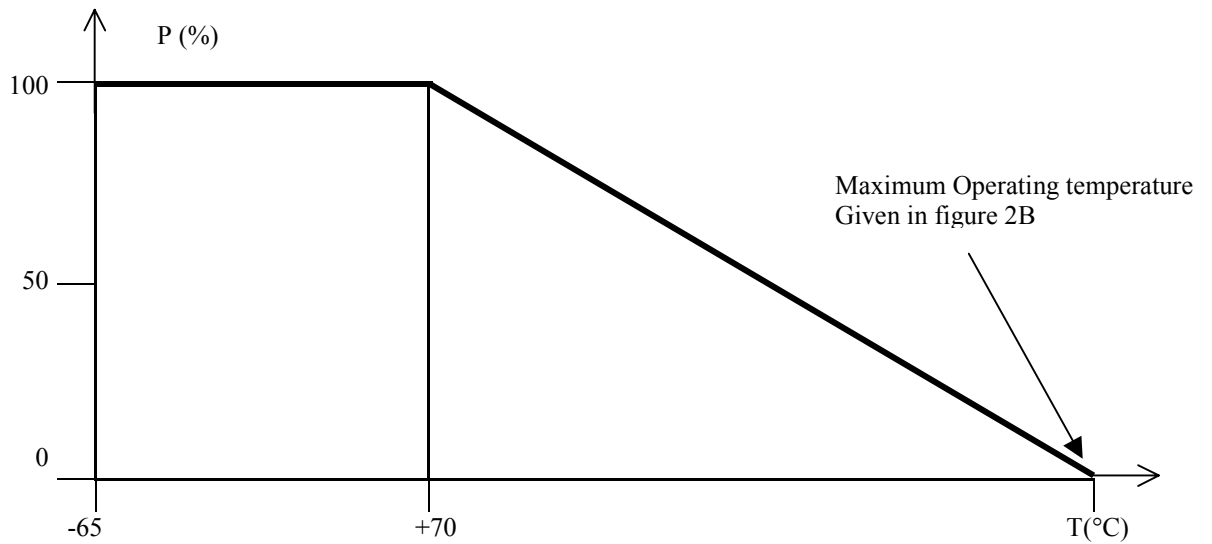
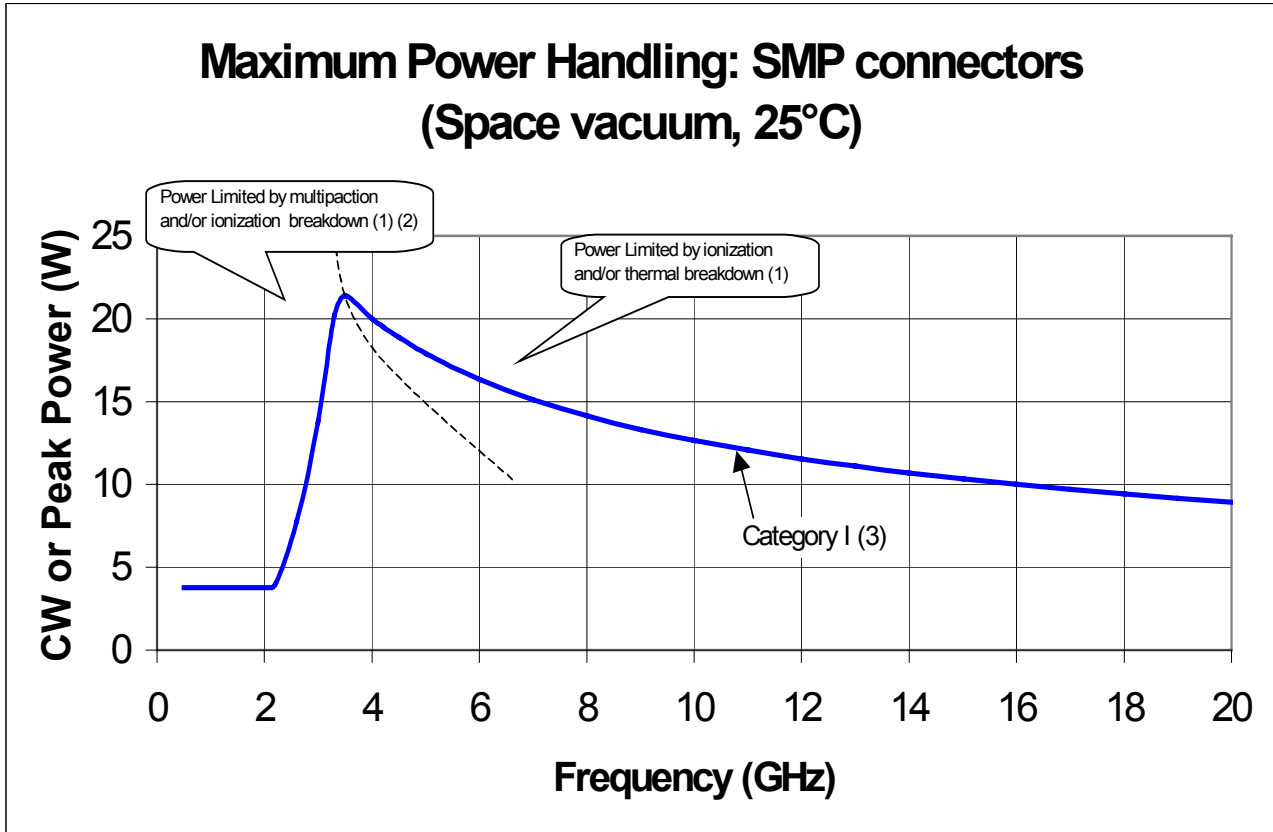


FIGURE 1(B) : POWER VERSUS FREQUENCY



**Notes:**

1: Load VSWR is better than 1,30:1

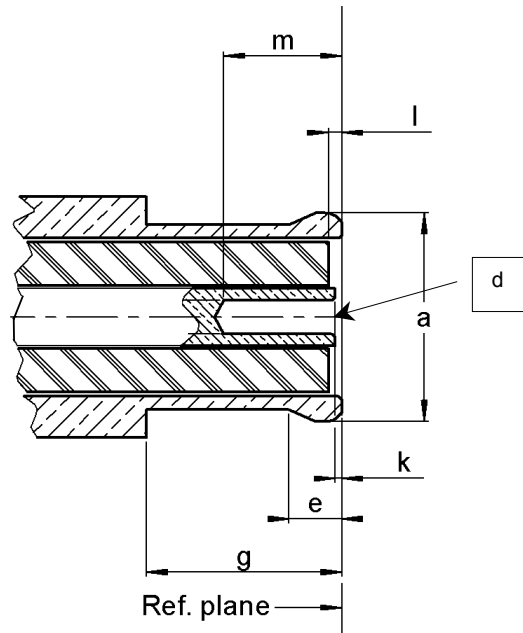
2: The part of the curve limited by multipaction takes into account a 6 dB margin as recommended by ESA

3: See Figure 2B to know applicability of power handling categories to the different part numbers

FIGURE 2 : PHYSICAL DIMENSIONS

FIGURE 2(A) CONNECTOR INTERFACE

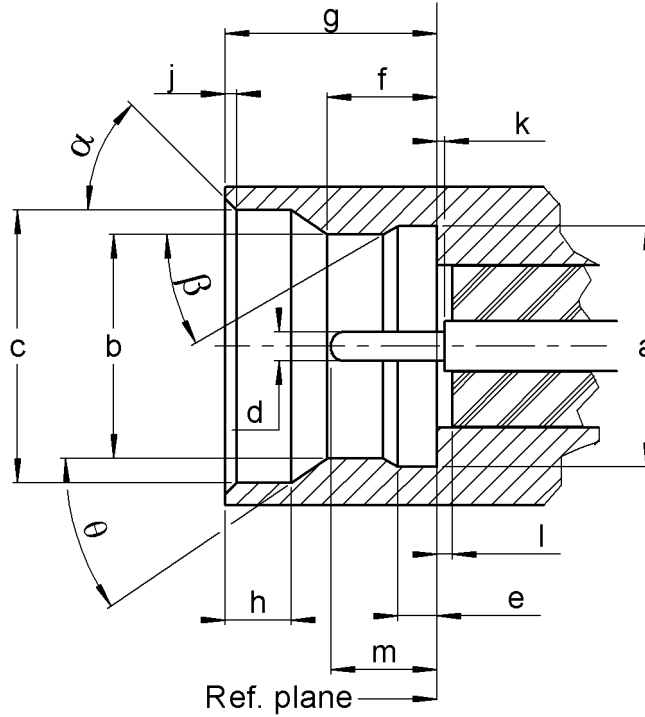
FEMALE INTERFACE : MIL-STD 348A, NOTICE 6, FIGURE 326-1



	MIL-STD-348A				Comments
	Inch (original)		mm		
	mini.	maxi.	mini.	maxi.	
<b>a</b>	-	0,135	-	3,43	Dia, opened slots
<b>d</b>	-	-	-	-	Dia, Accept 0,015 +/- 0,001 (inch) dia pin
<b>e</b>	0,018	0,025	0,46	0,64	Uncabled connector
<b>g</b>	0,112	-	2,84	-	
<b>k</b>	0,000	0,008	0,00	0,20	Contact recession
<b>l</b>	0,000	-	0,00	-	Dielectric recession
<b>m</b>	0,070	-	1,78	-	

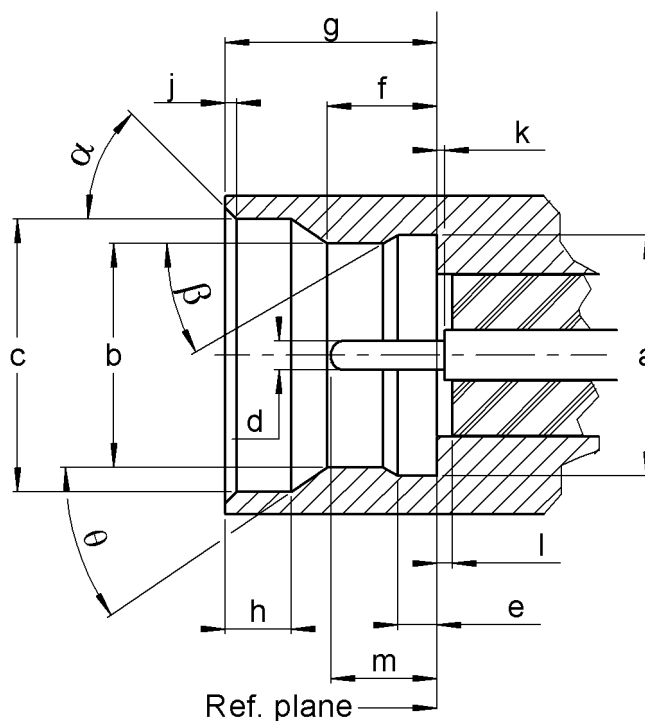


MALE INTERFACE, FULL DETENT : MIL-STD 348A, NOTICE 6, FIGURE 326-2



	MIL-STD-348A				Comments
	Inch (original)		mm		
	mini.	maxi.	mini.	maxi.	
<b>a</b>	0,124	0,126	3,15	3,20	dia
<b>b</b>	0,114	0,118	2,90	3,00	dia, Full Detent
<b>c</b>	0,139	0,145	3,53	3,68	dia
<b>d</b>	0,014	0,016	0,36	0,41	dia
<b>e</b>	0,0205	0,0235	0,52	0,60	
<b>f</b>	0,051	0,057	1,30	1,45	Full Detent
<b>g</b>	0,108	0,112	2,74	2,84	Full Detent
<b>h</b>	0,033	0,037	0,84	0,94	
<b>j</b>	0,003	0,008	0,08	0,20	
<b>k</b>	-	-	0,00	0,01	Contact recession
<b>l</b>	-	-	0,00	-	Dielectric recession
<b>m</b>	0,045	0,055	1,14	1,40	
<b><math>\alpha</math></b>	40	50	-	-	Degree (REF)
<b><math>\beta</math></b>	30 REF.		-	-	Degree
<b><math>\theta</math></b>	35 REF.		-	-	Degree (REF)

MALE INTERFACE, LIMITED DETENT : MIL-STD 348A, NOTICE 5, FIGURE 326-3



	MIL-STD-348A				Comments
	Inch (original)		mm		
	mini.	maxi.	mini.	maxi.	
<b>a</b>	0,124	0,126	3,15	3,20	dia
<b>b</b>	0,118	0,122	3,00	3,10	dia, Limited Detent
<b>c</b>	0,139	0,145	3,53	3,68	dia
<b>d</b>	0,014	0,016	0,36	0,41	dia
<b>e</b>	0,0205	0,0235	0,52	0,60	
<b>f</b>	0,054	0,060	1,37	1,52	Limited Detent
<b>g</b>	0,108	0,112	2,74	2,84	Limited Detent
<b>h</b>	0,033	0,037	0,84	0,94	
<b>j</b>	0,003	0,008	0,08	0,20	
<b>k</b>	-	-	0,00	0,14	Contact recession
<b>l</b>	-	-	0,00	-	Dielectric recession
<b>m</b>	0,045	0,055	1,14	1,40	
<b><math>\alpha</math></b>	40	50	-	-	Degree (REF)
<b><math>\beta</math></b>	30 REF.		-	-	Degree
<b><math>\theta</math></b>	35 REF.		-	-	Degree (REF)



## 2 APPLICABLE DOCUMENTS

The following documents form part of this specification and shall be read in conjunction with it:  
ESCC Specifications

ESCC No. 3402	ESCC Generic Specification No 3402 for RF Coaxial Connectors
MIL-STD 348	Interface Standard
MIL-STD 348, Notice 5	Notice 5 to Interface Standard
MIL-STD 348 , Notice 6	Notice 6 to Interface Standard
MIL-G 45204C	Gold plating Electrodeposited

## 3 TERMS, DEFINITIONS, ABBREVIATIONS, SYMBOLS AND UNITS

For the purpose of this specification, the terms, definitions, abbreviations, symbols and units specified in ESCC Basic Specification No. 21300 shall apply shall apply

## 4 REQUIREMENTS

### 4.1 GENERAL

The complete requirements for procurement of the connectors specified herein are stated in this specification and ESCC Generic specification No 3402. Deviations from the Generic Specification applicable to this specification only, are listed in Para. 4.2.

### 4.2 DEVIATIONS FROM GENERIC SPECIFICATION

#### 4.2.1 Deviations from Special In-process Controls.

None

#### 4.2.2 Deviations- from Final Production Tests (Chart II)

- (a) Coupling Proof Torque: Not Applicable
- (b) Centre Contact Retention : To be tested to special inspection level S-4, AQL 1.0 of IEC publication N°410.
- (c) Seal Test: Not Applicable

#### 4.2.3 Deviations from Qualification Tests (Chart IV)

- (a) Coupling Proof Torque : Not Applicable
- (b) Seal Test : Not Applicable
- (c) Plating thickness : Not Applicable
- (d) Residual magnetism : Not Applicable



**4.2.4 Deviations from Lot Acceptance Tests (Chart V)**

- (a) Coupling Proof Torque : Not Applicable
- (b) Seal Test : Not Applicable
- (c) Plating thickness : Not Applicable

**4.3 MECHANICAL REQUIREMENTS**

**4.3.1 Dimension Check**

The dimensions of the connectors specified herein shall be checked in accordance with the requirements of ESCC No 3402, Para. 9.25 and shall conform to those shown in Figures 2(a) and 2(b) of this specification.

**4.3.2 Weight**

The maximum weight of the connectors specified herein shall be provided in figure 2(b).

**4.3.3 Coupling Proof Torque**

Not Applicable

**4.3.4 Cable Retention Force**

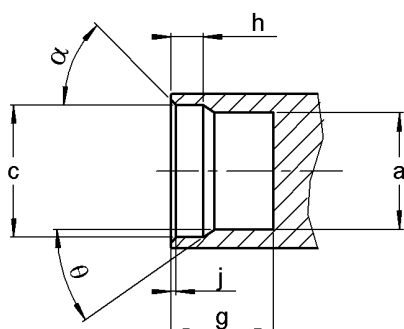
See figure 2(b) if applicable.

### 4.3.5 Mating and Unmating Forces

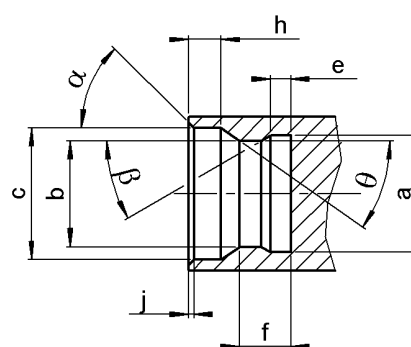
The applicable measurement requirements are specified in Section 9 of ESA/SCC Generic Specification No.3402. The maximum/minimum forces during mating and unmating are given in figure 2(b).

#### 4.3.5.1 Outer Contact gauges (Full and Limited Detent)

Insertion Gauge

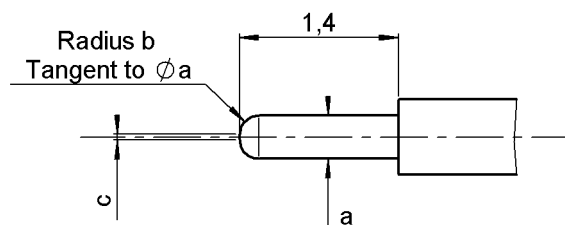


Separation Gauge



	Insertion		Separation		Comments
	mini.	maxi.	mini.	maxi.	
<b>a</b>	3,11	3,12	3,14	3,15	dia
<b>b</b>	2,885	2,90	3,00	3,015	dia, Full Detent
	2,985	3,00	3,10	3,115	dia, Limited Detent
<b>c</b>	3,55	3,65	3,55	3,65	dia
<b>e</b>	NA	NA	0,51	0,52	
<b>f</b>	NA	NA	1,32	1,42	Full Detent
	NA	NA	1,45	1,55	Limited Detent
<b>g</b>	2,75	2,83	2,75	2,83	
<b>h</b>	0,85	0,93	0,85	0,93	
<b>j</b>	0,10	0,20	0,10	0,20	
<b>alpha</b>	43,0	47	43,0	47,0	Degree (REF)
<b>beta</b>	NA	NA	29,5	30,5	Degree
<b>theta</b>	29,5	30,5	29,5	30,5	Degree

#### 4.3.5.2 Inner Contact gauges



	Insertion		Separation		Comments
	mini.	maxi.	mini.	maxi.	
<b>a</b>	0,41	0,425	0,35	0,365	dia
<b>b</b>	0,16	0,17	0,17	0,20	Radius
<b>c</b>	-	0,05	-	0,05	

#### 4.3.5.3 Measuring method :

Step 1 : Insertion one time (probe operation)

Step 2 : Insertion one time and measurement

	Insertion force	Separation force	Unit	Comments
	maxi.	mini.		
Outer Contact	63,0	22,0	N	Full Detent
	40,0	9,0		Limited Detent
Inner Contact	7,0	5,0	N	
Female Connector	68	22	N	Full Detent
	45,4	9		Limited Detent

#### 4.3.6 Endurance

The applicable test requirements are specified in section 9 of ESCC Generic Specification No. 3402. The test conditions shall be as follows:

- Number of cycles: 100 for Lot acceptance test and Qualification
- Rate: 12 cycles maximum /minute

#### 4.3.7 Residual Magnetism

The applicable measurement requirements are specified in Section 9 of ESCC Generic Specification No 3402. There are no requirements in respect of residual magnetism. This version is made such that the residual magnetism does not exceed 2000 gammas



**4.3.8 Centre Contact Retention**

The requirements for this test are specified in section 9 of ESCC Generic specification 3402. The axial and rotation forces as specified in figure 2(b).

**4.4 MATERIALS AND FINISHES**

The materials and finishes shall be as specified in figure 2(b). Where a definite material is not specified, a material that will enable the connectors specified herein to meet the performance requirements of this specification shall be used. Acceptance or approval of any constituent material does not guarantee acceptance of the finished product.

**4.5 MARKING**

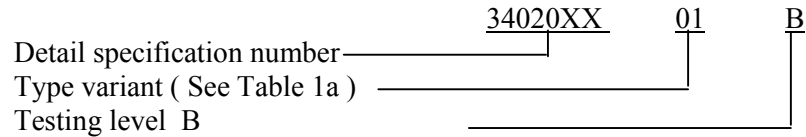
**4.5.1 General**

The marking of all components delivered to this specification shall be in accordance with the requirements of ESCC Basic Specification No. 21700 and the following paragraphs. Each component shall be marked with respect of:

- (a) The SCC Component Number.
- (b) Traceability Information.

**4.5.2 The ESA Component Number**

Each component shall bear the ESA Component Number, which shall be constituted and marked as follows



**4.5.3 Traceability Information**

Each component shall be marked in respect of traceability information in accordance with the requirements of ESCC Basic Specification No. 21700.



#### 4.5.4 Marking of small components

When it is considered that the component is too small to accommodate the marking as specified above, as much as space permits shall be marked. The order of precedence shall be as specified in Para. 4.5.1. The marking information in full shall accompany each component in its primary package.

#### 4.6 ELECTRICAL MEASUREMENTS

##### 4.6.1 Electrical Measurements at Room Temperature

The parameters to be measured at room temperature are scheduled in Table 2. The measurements shall be performed at  $T_{amb} = +22 \pm 2$  °C.

##### 4.6.2 Electrical Measurements at High and Low Temperatures (Table 3)

Not Applicable

##### 4.6.3 Circuits for Electrical Measurements

Not Applicable

#### 4.7 BURN-IN TESTS (Table 4 and 5)

Not Applicable

TABLE 2 : ELECTRICAL MEASUREMENTS AT ROOM TEMPERATURE

N°	Characteristics	Symbol	Spec. and/or Test Method	Test Conditions	Limits		Unit
					Min	Max	
1	Insulation resistance	Ri	ESCC 3402, Para 9.1	500 Vdc	5000		MΩ
2	Voltage Proof Leakage Current	I <sub>L</sub>	ESCC 3402, Para 9.2	See figure 2 (b)		2.0	mA

TABLES 3,4 AND 5 : NOT APPLICABLE

TABLE 4 : Parameter Drift Values During LAT :Not Applicable

#### 4.8 ENVIRONMENTAL AND ENDURANCE TESTS

See Charts IV and V of ESCC Generic Specification No. 3402

##### 4.8.1 Measurements and Inspections on Completion of Environmental Tests

The parameters to be measured on completion of environmental tests are scheduled in Table 6 of this specification. Unless otherwise stated, the measurements shall be performed at  $T_{amb} = +22 \pm 2$  °C

##### 4.8.2 Measurements and Inspection at Intermediate Points during Measurements and Inspection

Not Applicable

##### 4.8.3 Measurements and Inspection on Completion of Endurance Test

The parameters to be measured on completion of endurance tests are scheduled in Table 6 of this specification. Unless otherwise stated, the measurements shall be performed at  $T_{amb} = +22 \pm 2$  °C





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**4.8.4 Condition for Operating Life Tests (Part of Endurance Test)**  
Not Applicable

**4.8.5 Electrical Circuits for Operating Life Tests**  
Not Applicable

**4.8.6 Conditions for High Temperature Storage Test (Part of Endurance Testing)**  
The requirements for the high temperature storage test are specified in section 9 of ESCC Generic Specification No. 3402. The conditions for high temperature storage shall be the maximum operating temperature as specified in Figure 2(b)



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**TABLE 6 : MEASUREMENTS AND INSPECTIONS ON COMPLETION OF ENVIRONMENT AND ENDURANCE TESTS**

N°	ESCC Generic Spec. No.3402		Measurements and Inspections		Symbol	Limits		Unit
	Environmental and Endurance Test (1)	Test Method and Conditions	Identification	Conditions		Min	Max	
01	Mating and Unmating Forces	Para. 9.5	During Test Force	-	-	See figure 2(b)		N
02	External Visual Inspection	Para. 9.8	External Visual Inspection	Para.9.8 of ESCC 3402	-	-	-	-
03	Contact Resistance	Para. 9.9 6V; 10mA	During Test Contact Resistance	Centre Contact Shell			11 7	mΩ mΩ
04	Vibration	Para. 9.10  Full Engagement	During Test  Electrical Measurements Final Measurements Visual Inspection  Contact Resistance	Last cycle in each direction: No open or short circuits  No evidence of Damage Centre Contact (6V, 10mA)			11	mΩ
05	Shock or Bump	Para 9.11  Full Engagement	Final Measurements Visual Inspection  Contact Resistance	No evidence of Damage  Centre Contact (6V, 10mA)			11	mΩ
06	Rapid Change of Temperature	Para. 9.12	Final Measurements  Contact Resistance Voltage Proof Leakage Current Visual Inspection	After a recovery period of 24±2hrs Centre Contact (6V, 10mA)  Table 2, Item 2	I <sub>L</sub>		11 2	mΩ mA
07	Climatic Sequence	Para. 9.13	During Test  Voltage Proof  Final Measurements  External Visual Inspection Insulation Resistance Voltage Proof Leakage Current	At Low Air Pressure 0.1x value of figure 2b After final Damp Heat cycle (within 1 to 24 hrs recovery) Para. 9.8 of ESCC 3402  Table 2, Item 1  Table 2, Item 2	VP     Ri I <sub>L</sub>	No flash break   200	Over or down   2	MΩ mA
08	Cable Retention Force	Para 9.14 and Para. 4.3.4 of this spec	During Test Continuity					



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**Table 6 :MEASUREMENTS AND INSPECTIONS ON COMPLETION OF ENVIRONMENT AND ENDURANCE TESTS**

N°	ESCC Generic Spec. No.3402		Measurements and Inspections		Symbol	Limits		Unit
	Environmental and Endurance Test (1)	Test Method and Conditions	Identification	Conditions		Min	Max	
09	Cabling and Crimping Capability	Para 9.15	Visual Examination Dimensions Insulation Resistance Voltage Proof Leakage Current	Para. 9.15 of ESCC 3402 Para. 9.15 of ESCC 3402 Table 2, Item 1 Table 2, Item 2	Ri	Figure 5000	2a and 2b	MΩ
10	VSWR	Para 9.16	VSWR	Para. 9.16 of ESCC 3402		Figure 2b		
11	Corona Level	Para 9.17		Para. 9.16 of ESCC 3402		Figure 2b		
12	Endurance	Para 9.18 and Para 4.3.6 of this spec	Mating /unmating Forces Contact Resistance Visual Inspection	Para 4.3.5 of this spec Centre Contact Shell Contact Para 9.18 of ESCC 3402			11 7	mΩ mΩ
15	RF Insertion Loss	Para. 9.19	Insertion Loss	Para 9.19 of ESCC 3402		Figure 2b		
16	Corrosion	Para. 9.20	Visual Inspection	Para. 9.20 of ESCC 3402 No expose of base metal				
17	Residual Magnetism	Para 9.21	Magnetism		Para. 4.3.7			
18	Soldering Proof	Para 9.22	Final Measurements Interface Dimensions Mating/Unmating forces Insulation Resistance Voltage Proof Leakage Current Contact Resistance  External Visual Inspection	Par 4.3.5 of this spec. Table 2 item 1 Table 2 Item 2  Centre Contact ( 6V / 10 mA) Shell (6V/10mA) Hermetic Centre Contact Par 9.8 of ESCC 3402			11 7 40	mΩ mΩ mΩ
19	RF Leakage	Para 9.23	Leakage			See Figure 2(b)		
20	High temperature Storage	Para 9.24 and Para 4.8.6 of this spec	Final Measurements Interface Dimensions Mating/Unmating forces Insulation Resistance Voltage Proof Leakage Current Contact Resistance  External Visual Inspection	Par 4.3.5 of this spec. Table 2 item 1 Table 2 Item 2  Centre Contact ( 6V / 10 mA) Shell (6V/10mA) Hermetic Centre Contact Par 9.8 of ESCC 3402			11 7 40	mΩ mΩ mΩ



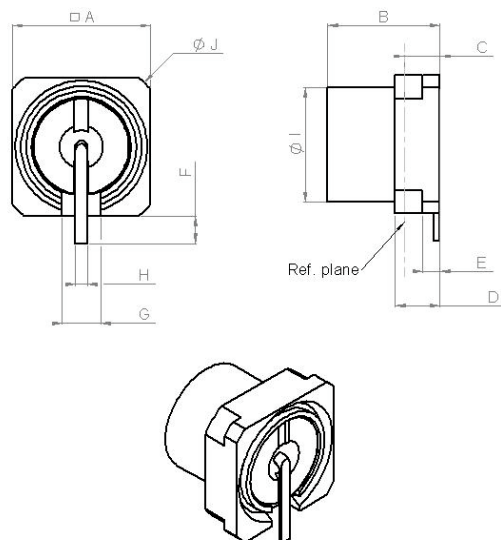
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**FIGURE 2(B) : VARIANT 01 : LIMITED DETENT RECEPTACLE**



Symbol	MILLIMETERS		Notes
	Min	Max	
A	4,9	5,1	Square
B	4,04	4,12	
C	1,29	1,33	
D	1,54	1,72	
E	0,44	0,82	
F	0,9	1,1	
G	1,37	1,43	
H	0,4	0,5	Diameter
I	4,1	4,2	Diameter
J	6,45	6,55	Diameter

ELECTRICAL CHARACTERISTICS	Values	Units	Notes
Frequency Range	0 to 3	GHz	
Max VSWR	1,35	-	
Max Insertion Loss	$0.12 \cdot \sqrt{f}$	dB	
Min RF leakage	60 (TBC)	dB	
Voltage Proof	335	V	
Corona	190 (TBC)	V <sub>rms</sub>	
Insulation Resistance	5000	MΩ	
Power	See figure 1B		Category I

MECHANICAL CHARACTERISTICS	Values	Units	Notes
Max Weight	0,45	g	
Soldering	260	°C	Max 10 sec
Cable Retention Force	Not Applicable	N	
Max Mating force	45,4	N	
Min Unmating Force	9	N	
Endurance	100		Matings and Unmatings
Min Center Contact Retention Force (axial)	7	N	
Min Center Contact Retention torque	Not Applicable	N.cm	

OTHER CHARACTERISTICS	Values	Units	Notes
Operating Temperature	-65 to +165	°C	
Storage Temperature	-65 to +165	°C	

MATERIALS and FINISHES	Materials	Finishes	Notes
Body / Soldering parts	Brass	Ni 2 Au 0,5	Thickness of plated in μm
Insulator	PEEK	-	-
Center contact	Bronze	Ni 1,27 Au 1,27	Thickness of plated in μm



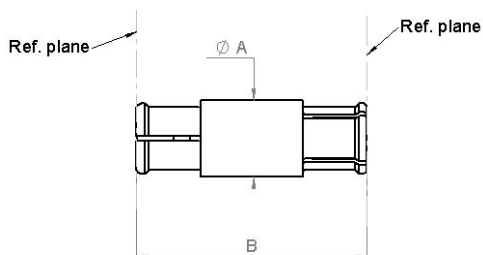
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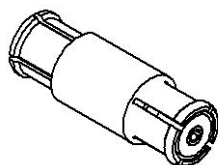
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**FIGURE 2(B) : VARIANT 02 : BULLET ( 10,3 MM )**



Symbol	MILLIMETERS		Notes
	Min	Max	
A	3,32	3,41	Diameter
B	10.28	10.32	



ELECTRICAL CHARACTERISTICS	Values	Units	Notes
Frequency Range	0 to 20	GHz	
Max VSWR	1,15 1,25	- -	Up to 3 GHz From 3 to 20 GHz
Max Insertion Loss	0.12*√f	dB	
Min RF leakage	- 80 -65	dB	Up to 3 GHz From 3 to 20 GHz
Voltage Proof	335	V	
Corona	190 (TBC)	Vrms	
Insulation Resistance	5000	MΩ	
Power	See figure 1B		Category I

MECHANICAL CHARACTERISTICS	Values	Units	Notes
Max Weight	0,42	g	
Soldering	Not Applicable	°C	
Cable Retention Force	Not Applicable	N	
Max Mating force	See §4.3.5.3	N	
Min Unmating Force	See §4.3.5.3	N	
Endurance	100		Matings and Unmatings
Min Center Contact Retention Force (axial)	7	N	
Min Center Contact Retention torque	Not Applicable	N.cm	

OTHER CHARACTERISTICS	Values	Units	Notes
Operating Temperature	-65 to +165	°C	
Storage Temperature	-65 to +165	°C	

MATERIALS and FINISHES	Materials	Finishes	Notes
Body	CuBe2	Ni 2 Au 1,3	Thickness of plated in μm
Insulator	PTFE	-	-
Center contact	CuBe2	Ni 2 Au 1,3	Thickness of plated in μm



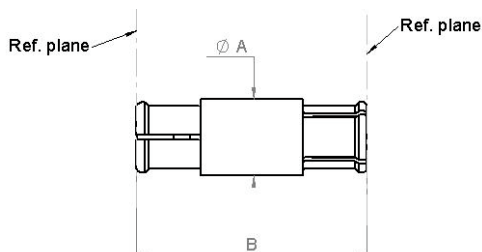
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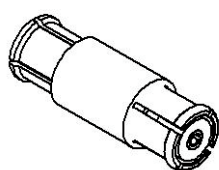
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FIGURE 2(B) : VARIANT 03 : BULLET ( 5,69 MM )



Symbol	MILLIMETERS		Notes
	Min	Max	
A	3,32	3,41	Diameter
B	5.67	5.71	



ELECTRICAL CHARACTERISTICS	Values	Units	Notes
Frequency Range	0 to 20	GHz	
Max VSWR	1,15 1,25	-	Up to 3 GHz From 3 to 20 GHz
Max Insertion Loss	0.12*√f	dB	
Min RF leakage	- 80 -65	dB	Up to 3 GHz From 3 to 20 GHz
Voltage Proof	335	V	
Corona	190 (TBC)	V <sub>rms</sub>	
Insulation Resistance	5000	MΩ	
Power	See figure 1B		Category I

MECHANICAL CHARACTERISTICS	Values	Units	Notes
Max Weight	0,22	g	
Soldering	Not Applicable	°C	
Cable Retention Force	Not Applicable	N	
Max Mating force	See §4.3.5.3	N	
Min Unmating Force	See §4.3.5.3	N	
Endurance	Not Applicable		
Min Center Contact Retention Force (axial)	7	N	
Min Center Contact Retention torque	Not Applicable	N.cm	

OTHER CHARACTERISTICS	Values	Units	Notes
Operating Temperature	-65 to +165	°C	
Storage Temperature	-65 to +165	°C	

MATERIALS and FINISHES	Materials	Finishes	Notes
Body	CuBe2	Ni 2 Au 1,3	Thickness of plated in μm
Insulator	PTFE	-	-
Center contact	CuBe2	Ni 2 Au 1.3	Thickness of plated in μm



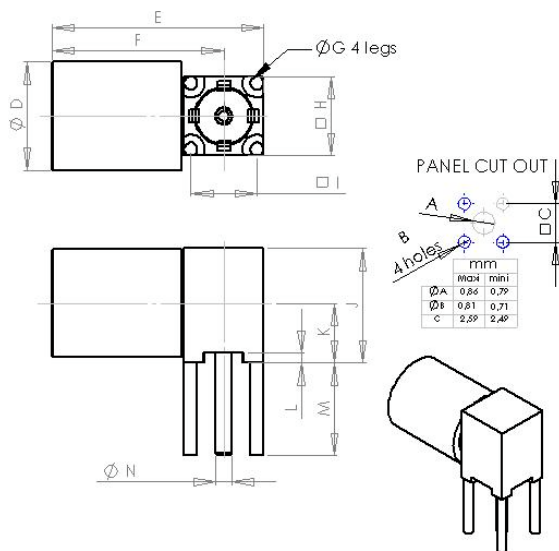
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**FIGURE 2(B) : VARIANT 04 : RIGHT ANGLE RECEPTACLE FOR PCB LIMITED DETENT – SOLDER TYPE**



Symbol	MILLIMETERS		Notes
	Min	Max	
A	0.79	0.86	Diameter
B	0.71	0.81	Diameter
C	2.49	2.59	
D	4.13	4.19	Diameter
E	7.955	8.285	
F	6.505	6.685	
G	0.49	0.53	Diameter
H	3	3.1	Square
I	2.54		Square
J	4.23	4.53	
K	2.18	2.38	
L	0.33	0.43	
M	3.51	3.61	
N	0.6	0.62	Diameter

ELECTRICAL CHARACTERISTICS	Values	Units	Notes
Frequency Range	0 to 12	GHz	
Max VSWR	1.25	-	
Max Insertion Loss	0.1* $\sqrt{f}$	dB	
Min RF leakage	60 (TBC)	dB	
Voltage Proof	335	V	
Corona	190 (TBC)	V <sub>rms</sub>	
Insulation Resistance	5000	M $\Omega$	
Power	See figure 1B		Category I

MECHANICAL CHARACTERISTICS	Values	Units	Notes
Max Weight	0,75	g	
Soldering	260	°C	Max 10 sec
Cable Retention Force	Not Applicable	N	
Max Mating force	45.4	N	
Min Unmating Force	9	N	
Endurance	100		Mating and Unmating
Min Center Contact Retention Force (axial)	7	N	
Min Center Contact Retention torque	Not Applicable	N.cm	

OTHER CHARACTERISTICS	Values	Units	Notes
Operating Temperature	-65 to +165	°C	
Storage Temperature	-65 to +165	°C	

MATERIALS and FINISHES	Materials	Finishes	Notes
Body (for PCB)	Brass	Ni 2 Au 0.5	Thickness of plated in $\mu$ m
Body (for connector)	Stainless steel	Passivated	
Insulator	PTFE	-	-
Center contact	CuBe2	Ni 1.27 Au 1,27	Thickness of plated in $\mu$ m