



## DOCUMENT CHANGE REQUEST

DCR number	221	Changes required for:	General	Originator:	S Thacker
Date:	2005/12/07	Date sent:	2005/12/07	Organisation:	ESA/ESTEC
Status: IMPLEMENTED					
Title:	Load, RF, Coaxial, type SMA 2.9, DC-31.5 GHz				
Number:	3403/009	Issue:	1		
Other documents affected:					
Page:					
Page 11 Para 1.6.2 Page 16/17 para 2.8					
Paragraph:					
Page 11 Para 1.6.2 Page 16/17 para 2.8					
Original wording:					
Proposed wording:					
1) Para 1.6.2 Mating Gauge Dimensions - Female interface Correct thread definition to be : 0.250-36 UNS-2A (was 0.260-36 UNS-2A)					
2) Para 2.8 Fix table lines as shown in attached mark-up					
Justification:					
1) & 2) Error correction					

Attachments:

DCR\_Attachment\_3403009.pdf, null

Modifications:

N/A

Approval signature:



Date signed:

2005-12-07

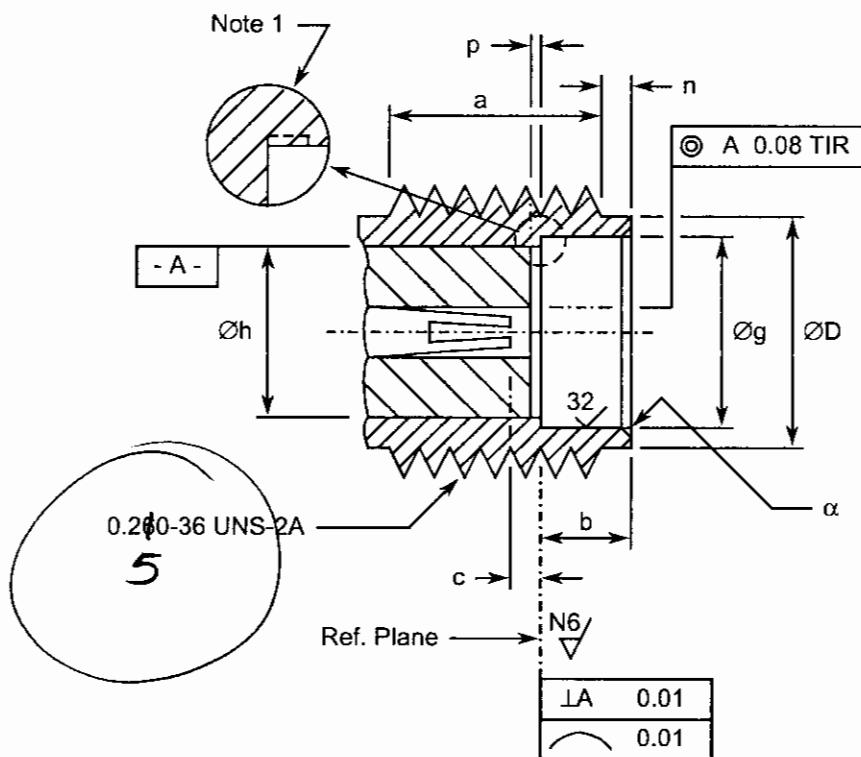
MARK-up SF  
6/12/05



Symbols	Dimensions mm		Notes
	Min	Max	
9	0.493	0.784	
10	0.616	0.727	
11	1.3	1.4	
ØA	6.6	6.7	
ØB	5.59	-	
ØC	4.55	4.58	
ØD	2.905	2.94	
ØE	1.26	1.28	
ØF	0.92	0.94	
ØG	0.2	0.34	

#### 1.6.2 Mating Gauge Dimensions

##### Female Interface



#### 2.6.2 High and Low Temperatures Electrical Measurements

The measurements shall be performed at  $T_{amb}=+125 (+0 -3) ^\circ C$  and  $T_{amb}=-55 (+3 -0) ^\circ C$ .

Characteristics	Symbols	Test Method and Conditions (Note 1)	Limits		Units
			Min	Max	
Temperature Coefficient of Resistance	$TC_R$	Test current < 50mA DC to 2kHz max.	-	$3 \times 10^{-4}$	$\Omega/\Omega/^\circ C$

##### **NOTES:**

- Measurements shall be performed during Screening Tests on a sample of 2 components. In the event of any failure a 100% inspection shall be performed.

#### 2.7 PARAMETER DRIFT VALUES

Unless otherwise specified, the measurements shall be performed at  $T_{amb}=+22 \pm 3^\circ C$ .

The test methods and test conditions shall be as per the corresponding test defined in Room Temperature Electrical Measurements.

The drift values ( $\Delta$ ) shall not be exceeded for each characteristic where specified. The corresponding absolute limit values for each characteristic shall not be exceeded.

Characteristics	Symbols	Drift Value $\Delta$	Units
Voltage Standing Wave Ratio	$\Delta VSWR$ VSWR	$\pm 2$	%
Resistance	$\Delta R$	$\pm 250$	$m\Omega$

#### 2.8 INTERMEDIATE AND END-POINT ELECTRICAL MEASUREMENTS

Unless otherwise specified, the measurements shall be performed at  $T_{amb}=+22 \pm 3^\circ C$ .

The test methods and test conditions shall be as per the corresponding test defined in Room Temperature Electrical Measurements.

The drift values ( $\Delta$ ) shall not be exceeded for each characteristic where specified. The corresponding absolute limit values for each characteristic shall not be exceeded.

Test Reference per ESCC No. 3403	Characteristics	Symbols	Limits		Units
			Min	Max	
Vibration					
Initial Measurements	Resistance VSWR $f = 0$ to 31.5GHz	R VSWR	47.5 -	52.5 1.5	$\Omega$ -
Measurements during last cycle	Intermittent contact	-	No discontinuity > 0.5ms No open or short circuit		-

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line

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Test Reference per ESCC No. 3403	Characteristics	Symbols	Limits		Units
			Min	Max	
Final Measurements	Resistance Resistance Drift VSWR $f = 0$ to 31.5GHz VSWR Drift $f = 0$ to 31.5GHz	R $\Delta R$ VSWR $\Delta VSWR$ VSWR	47.5 - - - -	52.5 $\pm 250$ 1.5 $\pm 2$	$\Omega$ $m\Omega$ - %
Shock					
Initial Measurements	Resistance (Note 1) VSWR (Note 1) $f = 0$ to 31.5GHz	R VSWR	47.5 -	52.5 1.5	$\Omega$ -
Final Measurements	Resistance Resistance Drift VSWR $f = 0$ to 31.5GHz VSWR Drift $f = 0$ to 31.5GHz	R $\Delta R$ VSWR $\Delta VSWR$ VSWR	47.5 - - - -	52.5 $\pm 250$ 1.5 $\pm 2$	$\Omega$ $m\Omega$ - %
Rapid Change of Temperature					
Initial Measurements	Resistance VSWR $f = 0$ to 31.5GHz	R VSWR	47.5 -	52.5 1.5	$\Omega$ -
Final Measurements	Resistance Resistance Drift VSWR $f = 0$ to 31.5GHz VSWR Drift $f = 0$ to 31.5GHz	R $\Delta R$ VSWR $\Delta VSWR$ VSWR	47.5 - - - -	52.5 $\pm 250$ 1.5 $\pm 2$	$\Omega$ $m\Omega$ - %
Climatic Sequence					
Initial Measurements	Resistance (Note 1) VSWR (Note 1) $f = 0$ to 31.5GHz	R VSWR	47.5 -	52.5 1.5	$\Omega$ -
Measurements during Dry Heat	Temperature Coefficient of Resistance	$T_{CR}$	-	$3 \times 10^{-4}$	$\Omega/\Omega/^{\circ}C$
Measurements during Cold	Temperature Coefficient of Resistance	$T_{CR}$	-	$3 \times 10^{-4}$	$\Omega/\Omega/^{\circ}C$
Final Measurements	Resistance Resistance Drift VSWR $f = 0$ to 31.5GHz VSWR Drift $f = 0$ to 31.5GHz	R $\Delta R$ VSWR $\Delta VSWR$ VSWR	47.5 - - - -	52.5 $\pm 250$ 1.5 $\pm 2$	$\Omega$ $m\Omega$ - %

delete → ~~Measurements during Dry Heat~~