



DOCUMENT CHANGE REQUEST

DCR number 221 Changes required for: General

Date: 2005/12/07

Date sent: 2005/12/07

Originator: S Thacker

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

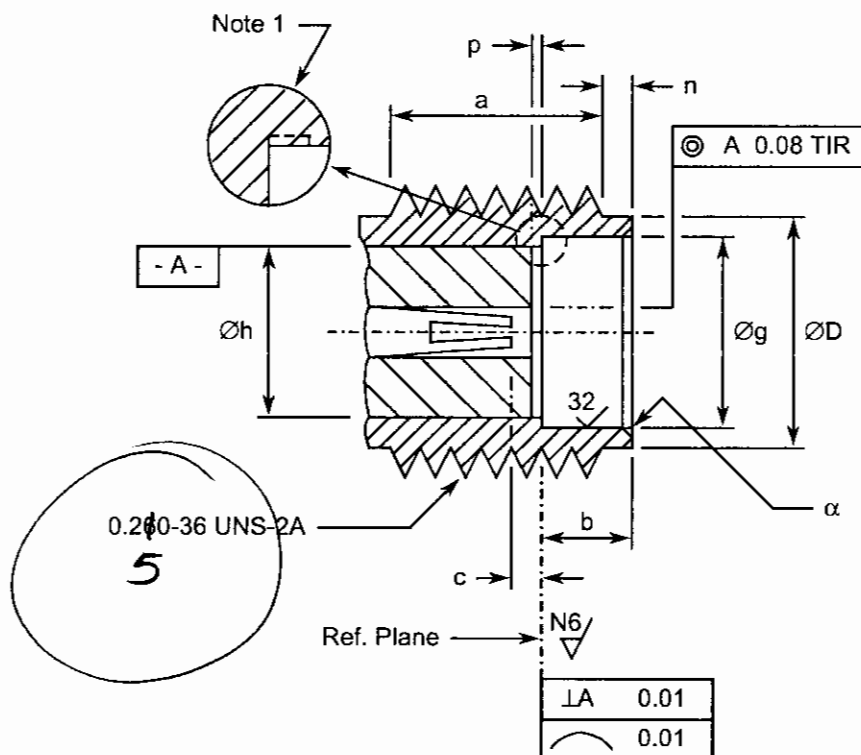
MARK-UP ST
6/12/05



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 $T_{amb}=+125 (+0 -3) ^\circ\text{C}$ and $T_{amb}=-55 (+3 -0) ^\circ\text{C}$.

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.	-	3×10^{-4}	$\Omega/\Omega/^\circ\text{C}$

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 $T_{amb}=+22 \pm 3^\circ\text{C}$.

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

The drift values (Δ) 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 Δ	Units
Voltage Standing Wave Ratio	$\frac{\Delta VSWR}{VSWR}$	± 2	%
Resistance	ΔR	± 250	m Ω

2.8 INTERMEDIATE AND END-POINT ELECTRICAL MEASUREMENTS

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

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

The drift values (Δ) 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	Ω -
Measurements during last cycle	Intermittent contact	-	No discontinuity > 0.5ms No open or short circuit		-

line →

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