DOCUMENT CHANGE REQUEST

DCR number 557	Changes required for: N/A	Originator: Alain Blanchard
Date: 2009/11/11	Date sent: 2009/11/11	Organisation: CNES
Status: IMPLEMENTED		

Title:	RF Coaxial Adaptors and Connecting Pieces, Type SMA 2.9, 50 Ohms		
Number:	3402/023	Issue:	2

Other documents affected:

Page:

Figure 2(b) Variants
ELECTRICAL CHARACTERISTICS
Maximum voltage standing wave ratio (VSWR)

Paragraph:

Figure 2(b) Variants
ELECTRICAL CHARACTERISTICS
Maximum voltage standing wave ratio (VSWR)

Original wording:

Proposed wording:

1.05+0.003 x F (GHz)

Justification:

1.05+0.003 x F (GHz) instead of 1.03+0.03xF(GHz).

Due to the mechanical tolerances of each detached parts, it is difficult to hold the requirements of VSWR value declared in the detail specification ESCC 3402/.

The waste production are quite important as lots of assembled parts (5 to 20%).
Requests for extension of VSWR values have been handed out to our customers Astrium and Thales, the penalty 1.05 + 0.003 x F meets their requirements for this type of adaptators.

Note : For an adaptator qualified according to ESCC3402/003 limited at 18 GHz, (SMA technology), the limit of VSWR value is 1.10+0.008 x F.

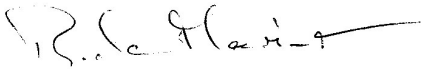
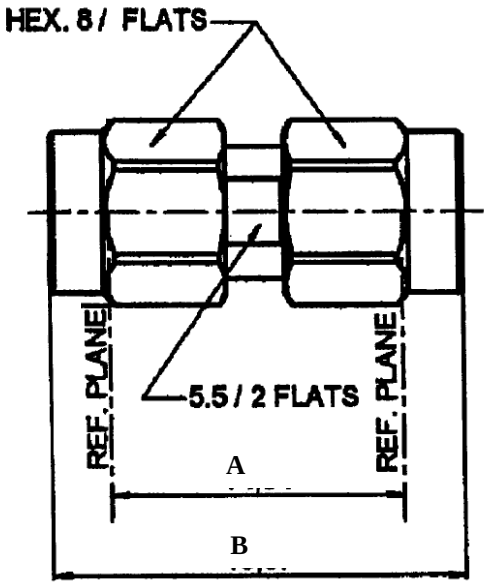
Attachments:
Demande_modification_variantes_ESCC3402-023.pdf, null
Modifications:
N/A
Approval signature:

Date signed:
2009-11-11

Figure 2(b) – VARIANTS (CONTINUED)

Variant 01 – STRAIGHT MALE-MALE ADAPTOR



Symbol	Millimetre		Notes
	Min.	Max.	
A	14.03	14.09	
B	19.70	20.00	

All dimensions are in mm

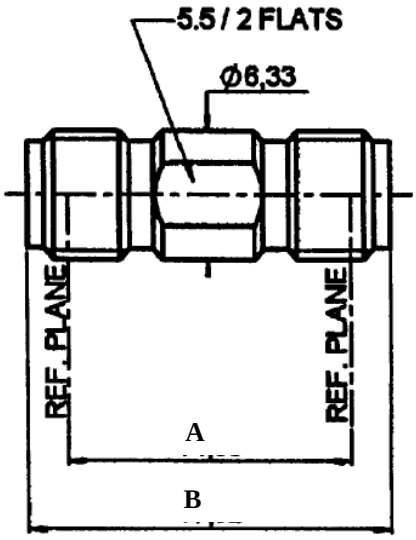
ELECTRICAL CHARACTERISTICS	VALUES	UNITS
Frequency range	0 to 40	GHz
Maximum voltage standing wave ration (VSWR)	1.05+0.003 x F (GHz)	-
Maximum insertion loss	0.03√F (GHz)	dB
RF leakage	- [90 – F (GHz)]	dB
Voltage proof	750	Vrms
Power Handling Category (Figure 1(a))	Category I	-

MECHANICAL CHARACTERISTICS	VALUES	UNITS
Mini centre contact retention force (axial)	27	N
Mini centre contact retention torque	Not Applicable	N.cm
Mini cable retention force	Not Applicable	N
Mini cable retention torque value	Not Applicable	N.cm
Maximum weigth	5.5	g

OTHER CHARACTERISTICS	VALUES	UNITS
Rapid change of temperature (peak)	+165	°C
Operating temperature range	-65 to +165	°C
Maxi leakage (panel sealed connectors)	Not Applicable	-
Maxi leakage (hermetic sealed connector)	Not Applicable	-
Solderability	Not Applicable	-
Soldering proof	Not Applicable	-
Cable used	Not Applicable	-

Figure 2(b) – VARIANTS (CONTINUED)

Variant 02 – STRAIGHT FEMALE-FEMALE ADAPTOR



Symbol	Millimetre		Notes
	Min.	Max.	
A	14.03	14.09	
B	17.82	18.01	

All dimensions are in mm

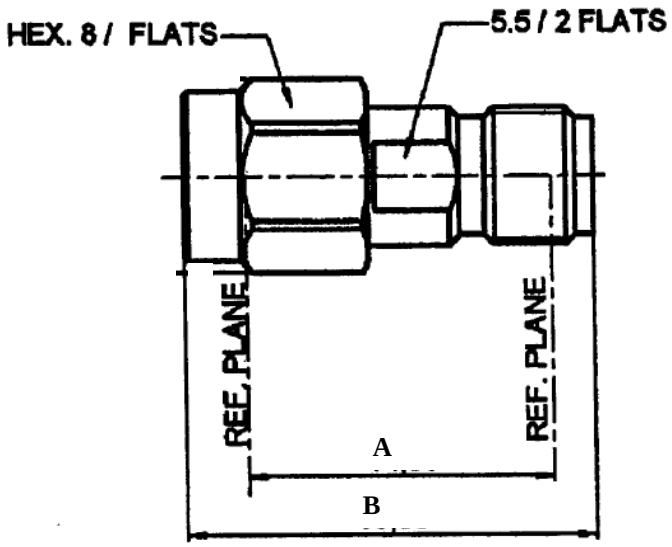
ELECTRICAL CHARACTERISTICS	VALUES	UNITS
Frequency range	0 to 40	GHz
Maximum voltage standing wave ration (VSWR)	1.05+0.003 x F (GHz)	-
Maximum insertion loss	0.03√F (GHz)	dB
RF leakage	- [90 – F (GHz)]	dB
Voltage proof	750	Vrms
Power Handling Category (Figure 1(a))	Category I	-

MECHANICAL CHARACTERISTICS	VALUES	UNITS
Mini centre contact retention force (axial)	27	N
Mini centre contact retention torque	Not Applicable	N.cm
Mini cable retention force	Not Applicable	N
Mini cable retention torque value	Not Applicable	N.cm
Maximum weigth	3.0	g

OTHER CHARACTERISTICS	VALUES	UNITS
Rapid change of temperature (peak)	+165	°C
Operating temperature range	-65 to +165	°C
Maxi leakage (panel sealed connectors)	Not Applicable	-
Maxi leakage (hermetic sealed connector)	Not Applicable	-
Solderability	Not Applicable	-
Soldering proof	Not Applicable	-
Cable used	Not Applicable	-

Figure 2(b) – VARIANTS (CONTINUED)

Variant 03 – STRAIGHT MALE-FEMALE ADAPTOR



Symbol	Millimetre		Notes
	Min.	Max.	
A	14.03	14.09	
B	18.82	18.97	

All dimensions are in mm

ELECTRICAL CHARACTERISTICS	VALUES	UNITS
Frequency range	0 to 40	GHz
Maximum voltage standing wave ration (VSWR)	1.05+0.003 x F (GHz)	-
Maximum insertion loss	0.03√F (GHz)	dB
RF leakage	- [90 – F (GHz)]	dB
Voltage proof	750	Vrms
Power Handling Category (Figure 1(a))	Category I	-

MECHANICAL CHARACTERISTICS	VALUES	UNITS
Mini centre contact retention force (axial)	27	N
Mini centre contact retention torque	Not Applicable	N.cm
Mini cable retention force	Not Applicable	N
Mini cable retention torque value	Not Applicable	N.cm
Maximum weigth	4.1	g

OTHER CHARACTERISTICS	VALUES	UNITS
Rapid change of temperature (peak)	+165	°C
Operating temperature range	-65 to +165	°C
Maxi leakage (panel sealed connectors)	Not Applicable	-
Maxi leakage (hermetic sealed connector)	Not Applicable	-
Solderability	Not Applicable	-
Soldering proof	Not Applicable	-
Cable used	Not Applicable	-