DOCUMENT CHANGE REQUEST

DCR number 578	Changes required for: N/A	Originator: alain blanchard
Date: 2011/09/29	Date sent: 2010/02/18	Organisation: CNES
Status: IMPLEMENTED		

Title:	Attenuator, RF Coaxial, Type SMA 2.9, DC-31.5GHz		
Number:	3403/008	Issue:	2

Other documents affected:

Page:

1.4.2 Component Type Variants and Range of Components

1.5 MAXIMUM RATINGS

Paragraph:

1.4.2 Component Type Variants and Range of Components

1.5 MAXIMUM RATINGS

Original wording:

Proposed wording:

See document attached

Justification:

A DC Shunt is a component with the same design, material and technologies than an attenuator 0 dB.
A resistance between 3 and 10 kOhms is inserted in series with the 0dB line to protect the components against DC bias inside the RF line. Many of our Customers use the DC shunt to protect their equipment in place of attenuator 0dB
Radiall propose to add DC shunt components in the next verification of qualification to qualify this new variant.

Attachments:

Proposed_wording_of_change3403008.pdf, null

Modifications:

The following changes replace the original contents of DCR578:

Para 1.4.2 (Variant Table):
Add new Variant 22 and note 1 as follows:
Variant Number: 22 (Note 1)
Nominal attenuation (dB): 0
Att Tolerance (dB)(at DC to 17.5Ghz & 17.5 to 31.5Ghz): +/-0.8 & +/-0.5
VSWR: <=1.5
Max Weight (g): 7

Note 1: Variant 22 is a DC shunt attenuator that includes a high value series resistance element.

Para 1.5 (Maximum Ratings table):
For Peak Power, amend Max Rating to be "Note 2" (was 50W)
For RF Power, Peak Power add to the remarks:
Tamb <=+25C
For DC Power replace Tamb =+25C by Tamb <=+25C
For Coupling Nut Torque change remark to be "Note 3" (was Note 2)

Amend note 1 to read:
1. RF Power shall be derated against operating temperature as follows:
For Tamb >+25C, derate linearly to 125mW at +125C

Renumber note 2 to be note 3 and change to read as follows:
3. Coupling Proof Torque: 170N.cm. During engagement of the component with its mating counterpart the body of the component shall be restrained by means of the body flats whilst torque is aplied to the coupling nuts (see Physical dimensions)."

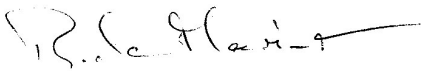
Add new note 2:
2. For Variants 01 to 21 the maximum rated Peak Power shall be 50W.
For Variant 22 the maximum rated Peak Power shall be 25W.

Para 1.6 Physical Dimensions
Add a "Notes" column to the table and new note 1 applicable to symbol D as follows:
1. The body flats shall be used to restrain the body during engagement whilst torque is applied to the coupling nuts.

Para.2.6.1 (Room Temp Electrical Measurements table)
Add new characteristic as follows:
Characteristics: Series Resistance
Symbols: Rs
Test Methods & Conditions: f=DC, Note 3, Variant 22 only
Limits: 3 min, 10 max
Units: dB

Add new note 3 as follows:
3. Guaranteed but not tested.

Approval signature:



Date signed:

2011-09-29

Proposed wording of change

Var. N°	Nominal Attenuation (dB)	Attenuation Tolerance (dB)		Voltage Standing Wave Ratio	Weight Max g
		DC to 17.5GHz	17.5 to 31.5 GHz	DC to 31.5 GHz	
99	0	± 0.8	± 0.5	≤1.5	7

Additional:
Maximum ratings in paragraph 1.5 for variant 99 only

Characteristics	Symbols	Maximum Ratings	Units	Remarks
DC impedance	Zc	3 to 10	KΩ	between coaxial line and body
RF Power	P	0.5	W(1) (2)	For variant 99 only
Peak Power (at 25°) (3)	Pp	25	W	For variant 99 only

1) See Figure 1.
2) (2) Multipactor free +6dB margin