# IEC/PAS 61169-18

Edition 1.0 2009-03

# PUBLICLY AVAILABLE SPECIFICATION

## PRE-STANDARD

**Radio-frequency connectors –**
**Part 18: Sectional specification – Radio frequency coaxial connectors of type SSMA**

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# RADIO-FREQUENCY CONNECTORS –

## Part 18: Sectional specification – Radio frequency coaxial connectors of type SSMA

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IEC-PAS 61169-18 has been processed by subcommittee 46F: RF and microwave passive components, of IEC technical committee 46: Cables, wires, waveguides, R.F. connectors, R.F. and microwave passive components and accessories.

| The text of this PAS is based on the following document: | This PAS was approved for publication by the P-members of the committee concerned as indicated in the following document |
|---|---|
| **Draft PAS** | **Report on voting** |
| 46F/94/PAS | 46F/109/RVD |

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# RADIO-FREQUENCY CONNECTORS –

# Part 18: Sectional specification – Radio frequency coaxial connectors of type SSMA

## 1 Scope

This PAS is a sectional specification providing information and rules for preparation of detail specification of SSMA series R.F connectors together with the pro forma blank detail specification.

SSMA series connectors with characteristic impedance 50 Ω are used for millimeter wave applications, connecting with RF cables or micro strips. The operating frequency limit is up to 35 GHz. The coupling thread is 10-36 UNS thread.

It also prescribes mating face dimensions for grade 1 high performance connectors, dimensional detail of grade 0 standard test connectors, gauging information and tests selected from IEC 61169-1 applicable to all detail specifications relating to SSMA series RF connectors.

This specification indicates recommended performance characteristics to be considered when writing a detail specification and it covers test schedules and inspection requirements for assessment levels M and H.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61169-1:1992, *Radio-frequency connectors – Part 1: Generic specification – General requirements and measuring methods*[1)]

Amendment 1(1996)
Amendment 2 (1997)

## 3 Mating face and gauge information

### 3.1 Dimensions – High performance connectors – Grade1

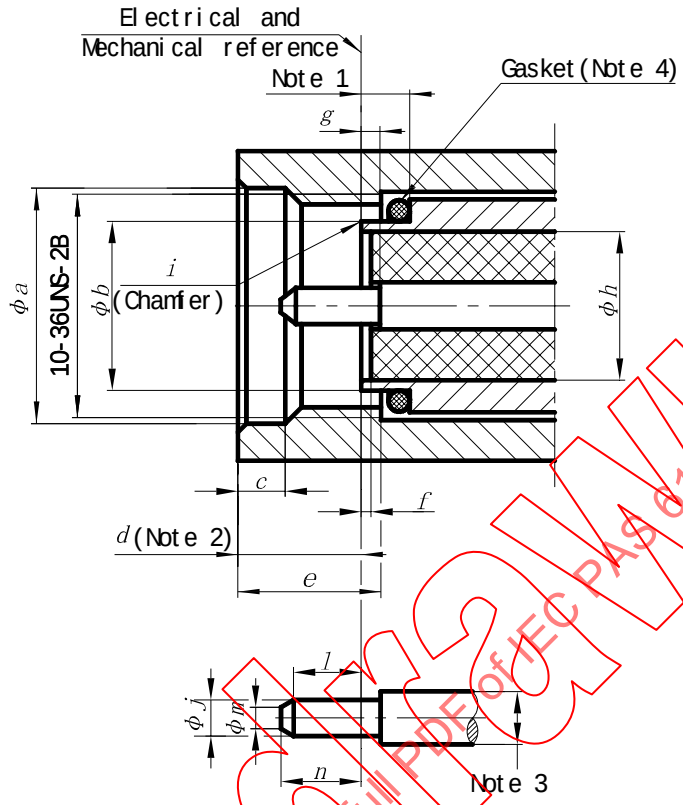
Inch dimensions are original dimensions.

All undimensioned pictorial configurations are for reference purpose only.



1) There exists a consolidated edition 1.2 (1998) that comprises IEC 61169-1, its Amendment 1 and its Amendment 2.

### 3.1.1 Connector with pin-centre contact




NOTE For dimensions and notes, see Table 1.

**Figure 1 – Connector with pin- centre contact**

**Table 1 – Dimensions of connector with pin-centre contact**

| Ref. | mm | | in | |
|---|---|---|---|---|
| | Min. | Max. | Min. | Max. |
| *a* | 4,98 | - | 0,196 | - |
| *b* | 3,15 | 3,22 | 0,124 | 0,126 8 |
| *c* | 0,38 | 1,14 | 0,015 | 0,045 |
| *d* | - | 3,43 | - | 0,135 |
| *e* | 2,54 | - | 0,100 | - |
| *f* | 0,00 | 0,18 | 0,000 | 0,007 |
| *g* | 0,00 | 0,25 | 0,000 | 0,010 |
| *h* | 2,79 nominal | | 0,110 nominal | |
| *i* | 0,08 max × 45° or R0.08 max | | 0,003 max × 45° or R0.003 max | |
| *j* | 0,495 | 0,528 | 0,019 5 | 0,020 8 |
| *l* | 1,00 | - | 0,039 | - |
| *m* | - | 0,25 | - | 0,010 |
| *n* | - | 1,65 | - | 0,065 |

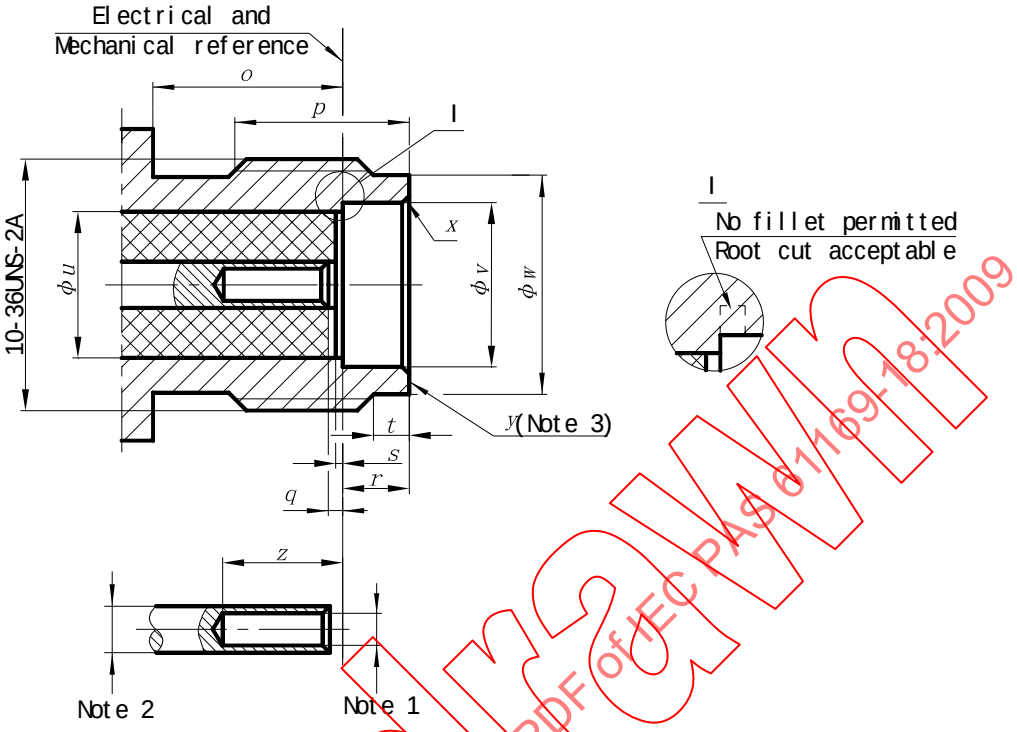
NOTE 1 Dimensions are such that the reference planes coincide and the connectors meet the required environmental performance.

NOTE 2 Dimension for coupling nut to screw forward.

NOTE 3 The diameters are chosen upon the assumption that the PTFE dielectric has a dielectric constant of 2,02 to give an impedance of 50 Ω.

NOTE 4 Gasket should be chosen in grade 1 connector, the design of the gasket is optional.

### 3.1.2 Connector with socket-centre contact




NOTE For dimensions and notes, see Table 2.

**Figure 2 – Connector with socket-centre contact**

**Table 2 – Dimensions of connector with socket-centre contact**

| Ref. | mm | | in | |
|---|---|---|---|---|
| | Min. | Max. | Min. | Max. |
| *o* | 3,91 | - | 0,154 | - |
| *p* | 4,32 | - | 0,170 | - |
| *q* | 0,00 | 0,25 | 0,000 | 0,016 0 |
| *r* | 1,88 | 1,98 | 0,074 | 0,078 |
| *s* | 0,00 | 0,18 | 0,000 | 0,007 |
| *t* | 0,38 | 1,14 | 0,015 | 0,045 |
| *u* | 2,79 nominal | | 0,110 nominal | |
| *v* | 3,231 | 3,300 | 0,127 2 | 0,130 0 |
| *w* | 3,89 | 4,06 | 0,153 | 0,160 |
| *x* | 45° | | 45° | |
| *y* | 0,25 | - | 0,010 | - |
| *z* | 2,92 | - | 0,115 | - |

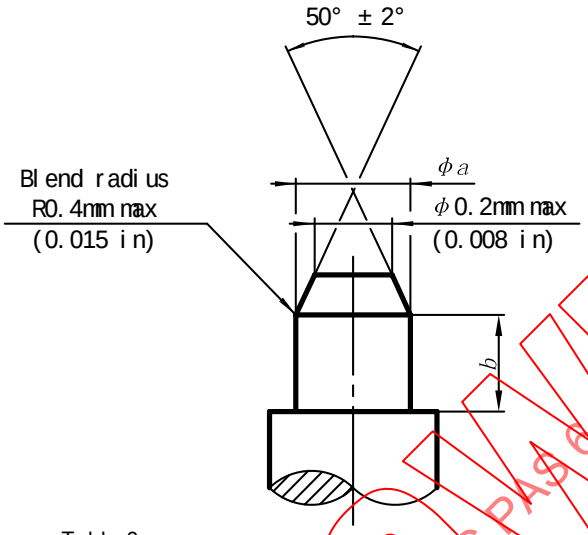
NOTE 1 Resilient contact may be closed or open entry, method of resilience is optional.

NOTE 2 The diameters are chosen upon the assumption that the PTFE dielectric has a dielectric constant of 2,02 to give an impedance of 50 Ω.

NOTE 3 *y* refers to the width of the end surface platform.

### 3.2 Gauges

#### 3.2.1 Gauge pins for socket-centre contact




NOTE For dimensions and notes, see Table 3.

**Figure 3 – Gauge pins for socket-centre contact**

**Table 3 – Dimensions of gauge pins for socket-centre contact**

| Ref. | Gauge A<br>Maximum material for sizing purposes | | | | Gauge B<br>Minimum material for measurement of retention force<br>Mass of gauge: 26 g ± 1 g | | | |
|---|---|---|---|---|---|---|---|---|
| | mm | | in | | mm | | in | |
| | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. |
| *a* | 0,528 | 0,533 | 0,0208 | 0,0210 | 0,492 | 0,495 | 0,0194 | 0,0195 |
| *b* | 1,25 | 1,35 | 0,0492 | 0,0531 | 1,25 | 1,35 | 0,0492 | 0,0531 |
| Material: steel, polished, surface roughness: Ra=0,4 µm (16 µin) maximum. | | | | | | | | |

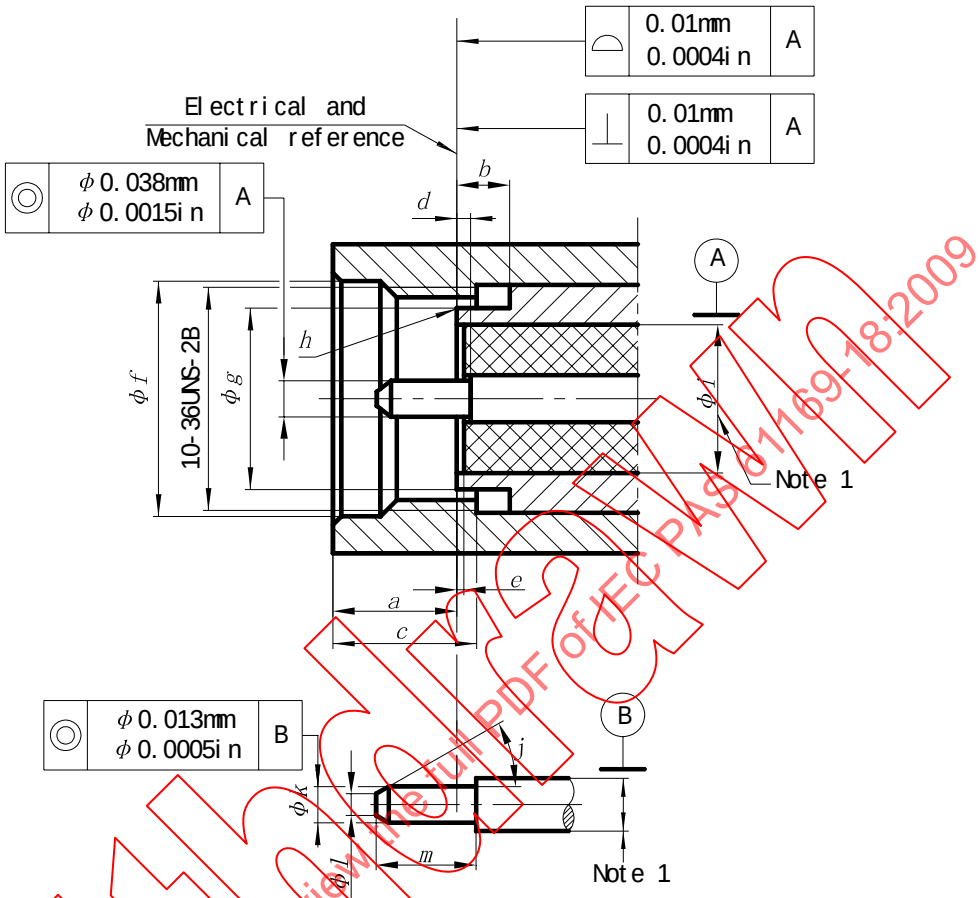
#### 3.2.2 Test procedure

The gauge A shall be inserted into the socket-centre contact three times with a minimum depth of 1,25 mm (0,049 in). This is a sizing operation and should only be carried out when the socket-centre contact is removed from the connector.

After this, the gauge B shall have a withdrawal force of 0,25 N minimum after inserted into socket-centre contact. The contact shall retain the mass of the gauge in a vertical downward position. This test also shall be carried out on connector when the socket-centre contact is not removed.

### 3.3 Dimensions – Standard test connectors – Grade 0

#### 3.3.1 Connector with pin-centre contact



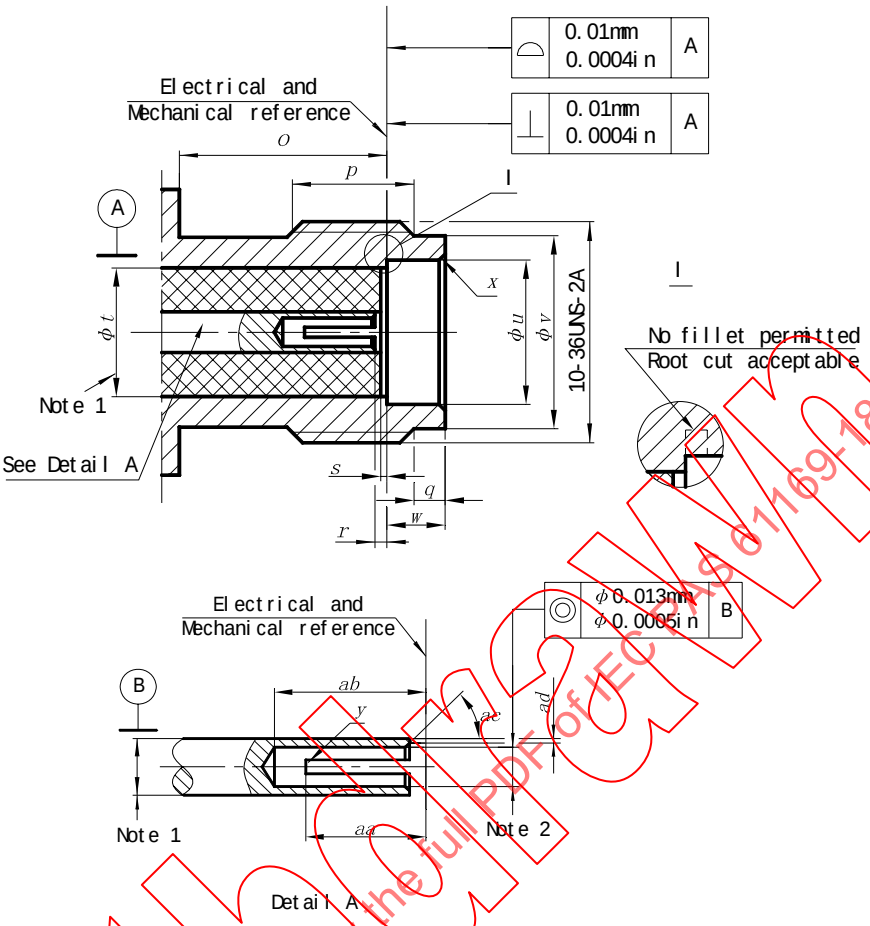

NOTE For dimensions and notes, see Table 4.

**Figure 4 – Connector with pin-centre contact**

**Table 4 – Dimensions of connector with pin-centre contact**

| Ref. | mm | | in | |
|---|---|---|---|---|
| | Min. | Max. | Min. | Max. |
| *a* | 2,54 | 3,40 | 0,100 | 0,134 |
| *b* | 2,03 | - | 0,080 | - |
| *c* | 2,54 | 4,32 | 0,100 | 0,170 |
| *d* | 0,000 | 0,076 | 0,000 0 | 0,003 0 |
| *e* | 0,000 | 0,050 | 0,000 0 | 0,002 0 |
| *f* | 4,98 | 5,21 | 0,196 | 0,205 |
| *g* | 3,17 | 3,22 | 0,125 | 0,127 |
| *h* | 0,08max × 45°or R0.08 max | | 0,003 max × 45°or 0,003 max | |
| *i* | 2,79 nominal | | 0,110 nominal | |
| *j* | 35° | 48° | 35° | 48° |
| *k* | 0,495 | 0,528 | 0,0195 | 0,020 8 |
| *l* | - | 0,25 | - | 0,010 |
| *m* | 1,40 | 1,65 | 0,055 | 0,065 |
| NOTE 1 The diameters are chosen upon the assumption that the PTFE dielectric has a dielectric constant of 2,02 to give an impedance of 50 Ω ± 0,5 Ω. | | | | |

### 3.3.2 Connector with socket-centre contact




NOTE For dimensions and notes, see Table 5.

**Figure 5 – Connector with socket-centre contact**

**Table 5 – Dimensions of connector with socket-centre contact**

| Ref. | mm | | in | |
|---|---|---|---|---|
| | Min. | Max. | Min. | Max. |
| *o* | 3,89 | - | 0,153 | - |
| *p* | 3,81 | - | 0,150 | - |
| *q* | 0,38 | 1,14 | 0,015 | 0,045 |
| *r* | 0,000 | 0,076 | 0,000 0 | 0,003 0 |
| *s* | 0,000 | 0,050 | 0,000 0 | 0,002 0 |
| *t* | 2,79 nominal | | 0,110 nominal | |
| *u* | 3,23 | 3,28 | 0,127 | 0,129 |
| *v* | 3,89 | 4,04 | 0,153 | 0,159 |
| *w* | 1,88 | 1,98 | 0,074 | 0,078 |
| *x* | 0,13 max × 45° | | 0,005 max × 45° | |
| *y* | 2 slots - 0,13/0,15 wide | | 2 slots – 0,005/0,006 wide | |
| *aa* | 1,52 | 1,80 | 0,060 | 0,071 |
| *ab* | 2,92 | 3,30 | 0,115 | 0,130 |
| *ac* | 42° | 48° | 42° | 48° |
| *ad* | 0,05 | - | 0,002 | - |

NOTE 1 The diameters are chosen upon the assumption that the PTFE dielectric has a dielectric constant of 2,02 to give an impedance of 50 Ω ± 0,5 Ω.

NOTE 2 Design for slotting is optional, and should meet electrical and mechanical requirements, when mating with Ø 0,495 mm to Ø 0,528 mm (Ø 0,0195 in to Ø 0,0208 in) pin.

## 4 Quality assessment procedures

### 4.1 General

The following subclauses provide recommended rating, performance and test conditions to be considered when writing a detail specification. They also provide an appropriate schedule of tests with minimum levels of conformance inspection sampling, together with the pro forma blank detail specification (BDS) and instructions for the preparation of a detail specification.

### 4.2 Rating and characteristics (see Clause 6 of IEC 61169-1)

The values indicated below are recommended for SSMA series RF connectors and are given for the writer of the detail specification. They are applicable for the condition when the connectors are fully mated.

Certain tests are listed without any recommended values being given. These tests will usually not be required. When these tests are required, appropriate values shall be entered in the detail specification at the discretion of the specification writer.

**Table 6 – Rating and characteristics**

| Rating and characteristics | Test method IEC 61169-1 subclause | Values | Remarks including any deviations from standard test method |
|---|---|---|---|
| Electrical | | | |
| Nominal impedance | | 50 Ω | |
| Frequency range | | | Or upper frequency limit of cable |
| Grade 1 connectors | | DC to 35GHz | |
| Reflection factor [1] | 9.2.1 | | |
| Grade 1 connectors | | | |
| - For flexible cable | | | |
| - straight styles | | ≤0,090+0,01f | |
| - right-angle styles | | ≤0,090+0,011f | |
| - For semi-rigid and semi-flexible cable | | | |
| - straight styles | | ≤0,034+0,004f | |
| - right-angle styles | | ≤0,048+0,004f | |
| - Component mounting styles | | See DS | |
| - Solder bucket and PCB mounting styles | | See DS | |
| Centre contact resistance [2] | 9.2.3 | | |
| - initial | | ≤4,0 mΩ | |
| - after conditioning | | ≤10,0 mΩ | |
| Outer conductor continuity [2] | 9.2.3 | | |
| - initial | | ≤2,5 mΩ | |
| - after conditioning | | ≤7,5 mΩ | |
| Insulation resistance [2] | 9.2.5 | | |
| - initial | | ⩾ 1GΩ | |
| -after conditioning | | ⩾ 200 MΩ | |
| Proof voltage at sea –level [3][4] | 9.2.6 | | |
| - non-cable styles | | 750 V | |
| - semi-rigid and semi-flexible 2,16 mm (0,086 in) diameter | | 750 V | |
| - semi-rigid and semi-flexible 1,19 mm (0,047 in) diameter | | 500 V | |

| Rating and characteristics | Test method IEC 61169-1 subclause | Values | Remarks including any deviations from standard test method |
|---|---|---|---|
| Proof voltage at 4,4 kPa [3)4)] | | | |
| - non-cable styles | | 150 V | 4,4 kPa approximately equivalent to 20 km |
| - semi-rigid and semi-flexible 2,16 mm (0,086 in) diameter | | 150 V | |
| - semi-rigid and semi-flexible 1,19 mm (0,047 in) diameter | | 100 V | |
| Environmental test voltage at sea level[3)4)] | | | |
| - non-cable styles | | 250 V | |
| - semi-rigid and semi-flexible 2,16 mm (0,086 in) diameter | | 250 V | |
| - semi-rigid and Semi-flexible 1,19 mm (0,047 in) diameter | | 175 V | |
| Environmental test voltage at 4,4 kPa[3)4)] | 9.2.6 | | |
| - non-cable styles | | 65 V | 4,4 kPa approximately equivalent to 20 km |
| - semi-rigid and semi-flexible 2,16 mm (0,086 in) diameter | | 65 V | |
| - semi-rigid and semi-flexible 1,19 mm (0,047 in) diameter | | 45 V | |
| Screening effectiveness (straight cables only)[7)] | 9.2.8 | ⩾ 90 dB, at 1 GHz | |
| Discharge test (corona effect) | 9.2.9 | See DS | Extinction voltage |
| Mechanical | | | |
| Gauge retention force (resilient contacts) | 9.3.4 | | |
| -centre contacts | | ⩾ 0,25 N | |
| -outer contacts | | na[6)] | |
| Centre contact captivation | 9.3.5 | | |
| -axial force | | 22 N | Maximum displacement 0,25 mm in each direction |
| -torque | | ≤0,018 N·m | |
| Engagement and separation | 9.3.6 | | |
| - coupling nut friction | | ≤0,12 N·m | Can be carried out by hand |
| Coupling moment | 9.3.6 | | |
| - normally moment | | 0,6 N·m to 0,8 N·m | |
| - moment resistance | | 1,1 N·m | |
| Mechanical tests on cable fixing | | | |
| - cable rotation (nutation) | 9.3.7.2 | See DS | |
| - cable pulling | 9.3.8 | See DS | |
| - cable bending | 9.3.9 | See DS | |
| - cable torsion | 9.3.10 | See DS | |
| Tensile strength of coupling mechanism | 9.3.11 | ⩾100 N | |
| Bending moment | 9.3.12 | 0,15 N·m | |
| Vibration | 9.3.3 | 100 $m/s^2$ | 10 $g_n$ |
| | | 10 Hz to 500 Hz | |
| Impact | 9.3.13 | na[6)] | |

| Rating and characteristics | Test method IEC 61169-1 subclause | Values | Remarks including any deviations from standard test method |
|---|---|---|---|
| Shock | 9.3.14 | 500 $m/s^2$<br>1/2 sine wave<br>11 ms | 50 $g_n$ |
| Environmental | | | |
| Climatic category | 9.4.2 | A: 55/125/21<br>B: 40/085/21 | |
| Sealing non-hermetic | 9.4.5.1 | ≤100 kPa·$cm^3$/h max | 100 kPa to 110 kPa differential |
| Hermetic | 9.4.5.2 | ≤$10^{-3}$ Pa·$cm^3$/s | 100 kPa to 110 kPa differential |
| Salt mist | 9.4.6 | 48 h spray | |
| Sulphur dioxide | 9.4.8 | na[6)] | |
| Endurance | | | |
| Mechanical endurance | 9.5 | 500 operations | |
| High temperature endurance [5)] | 9.6 | Category A:<br>250 h at 125 °C<br>Category A:<br>250 h at 85 °C | |

1) These values apply to basic connector. In practice, these may be influenced by the cable used and reference should always be made to the actual values given in the detail specification.

2) Values for a single pair of connectors.

3) Voltages are r.m.s. values of a.c. at 40 Hz to 65 Hz, unless otherwise specified.

4) Some cables usable with these connectors have ratings lower than the values given here.

5) For certain connectors, the upper temperature limit is restricted by the cable characteristics. Reference should be made to the relevant cable specification. When semi-rigid and semi-flexible cables are used, the upper temperature is limited to 115 °C maximum.

6) na -not applicable.

7) When interfaces are fully mated.

### 4.3 Test schedule and inspection requirements

#### 4.3.1 Acceptance tests

**Table 7 – Acceptance tests**

| | Test method IEC61169-1 subclause | Assessment level M (higher) | | | | Assessment level H (lower) | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Test required | IL | AQL % | Period | Test required | IL | AQL % | Period |
| Group A1<br>Visual examination | 9.1.2 | a | II | 1.0 | Lot | a | S-3 | 1,5 | Lot |
| Group B1<br>Outline dimension | 9.1.3.1 | a | S-4 | 0.40 | | a | S-3 | 4,0 | |
| Mechanical compatibility | 9.1.3.3 | a | II | 1.0 | By | a | S-3 | 1,5 | By |
| Engagement and separation | 9.3.6 | a | S-4 | 0.40 | | a | S-3 | 1,5 | |
| Gauge retention (resilient contacts) | 9.3.4 | ia | II | 1.0 | Lot | ia | S-3 | 1,5 | Lot |
| Sealing | | | | | | | | | |
| non-hermetic | 9.4.5.1 | ia | II | 0.65 | | ia | S-3 | 1,0 | |
| hermetic | 9.4.5.2 | ia | II | 0.015 | | ia | II | 0,025 | |
| Voltage proof | 9.2.6 | a | S-4 | 0.40 | | a | II | 4,0 | |
| Solderability (d) | 9.3.2.1.1 | ia | S-4 | 0.40 | | ia | S-3 | 4,0 | |
| Insulation resistance | 9.2.5 | a | S-4 | 0.40 | | a | S-3 | 4,0 | |
| For the symbols, abbreviations and procedures, see the end of Table 8. | | | | | | | | | |

### 4.3.2 Periodic tests

There are no group C tests for levels H and M.

**Table 8 – Periodic tests**

| | Test method IEC61169-1 subclause | Assessment level M (higher) | | | | Assessment level H (lower) | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Test required | Number of specimens | Permitted failures per group[1)] | Period | Test required | Number of specimens | Permitted failures per group[1)] | Period |
| Group D1 (d)<br>Solderability<br>-connector assemblies | 9.3.2.1.1 | ia | 6 | 1 | 3 years | ia | 3 | 1 | 3 years |
| Resistance to soldering heat | 9.3.2.1.2 | ia | | | | ia | | | |
| Mechanical tests on<br>cable fixing<br>-cable rotation (nutation)<br>-cable pulling<br>-cable bending<br>-cable torsion | <br><br>9.3.7.2<br>9.3.8<br>9.3.9<br>9.3.10 | <br>ia<br>ia<br>ia<br>ia | | | | <br>ia<br>ia<br>ia<br>ia | | | |
| Bending moment | 9.3.12 | a | | | | a | | | |
| Strength of coupling mechanism | 9.3.11 | ia | | | | ia | | | |
| Group D2 (d)<br>Contact resistance | 9.2.3 | a | 6 | 1 | 3 years | a | 3 | 1 | 3 years |
| Outer conductor and screen continuity<br>Centre conductor continuity | 9.2.3 | | | | | | | | |
| Bump | 9.3.13 | na | | | | na | | | |
| Vibration | 9.3.3 | a | | | | a | | | |
| Shock | 9.3.14 | a | | | | a | | | |
| Damp heat, steady state | 9.4.3 | a | | | | a | | | |
| Salt mist | 9.4.6 | a | | | | a | | | |
| Group D3<br>Dimensions piece part and materials | 9.1.3.2 | a | 1[2)] | 1 | 3 years | a | 1[2)] | 1 | 3 years |

| | Test method IEC61169-1 subclause | Assessment level M (higher) | | | | Assessment level H (lower) | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Test required | Number of specimens | Permitted failures per group[1)] | Period | Test required | Number of specimens | Permitted failures per group[1)] | Period |
| Group D4 (d) Mechanical endurance | 9.5 | a | 6 | 1 | 3 years | a | 3 | 1 | 3 years |
| High temperature endurance | 9.6 | a | | | | a | | | |
| Sulphur dioxide | 9.4.8 | na | | | | na | | | |
| Group D5 (d) Reflection factor | 9.2.1 | a | 6 | 1 | 3 years | a | 3 | 1 | 3 years |
| Screening effectiveness | 9.2.8 | a | | | | a | | | |
| Water Immersion | 9.2.7 | ia | | | | ia | | | |
| Group D6 (d) Contact Captivation | 9.3.5 | ia | 6 | 1 | 3 years | ia | 3 | 1 | 3 years |
| Discharge test (corona effect) | 9.2.9 | a | | | | a | | | |
| Rapid change of temperature | 9.4.4 | a | | | | a | | | |
| Climatic sequence | 9.4.2 | a | | | | a | | | |
| Group D7 (d) Resistance to solvents and contaminating fluids | 9.7 | na | 1[3)] | 1 | 3 years | na | 1[3)] | 1 | 3 years |

1) For qualification approval, a total of 2 failures only permitted for level H and 1 failure only permitted for level M from groups D1 to D7.

2) One set of piece parts each style and variant unless using common piece parts.

3) Group D7 -number of pairs for each solvent.

ABBREVIATIONS:

a - applicable.

na - not applicable.

ia - test required (if technically applicable).

(d) - destructive test -specimens shall not be returned to stock.

IL-inspection level.

AQL- acceptable quality level.

### 4.4 Procedures

#### 4.4.1 Quality conformance inspection

This shall consist of test group A1 and B1 on a lot-by-lot basis and test group D1 to D7 on a periodic basis.

#### 4.4.2 Qualification approval and its maintenance

This still consists of three consecutive lots passing test groups A1 and B1 followed by selection of specimens from the lots as appropriate. These specimens shall successfully pass the specified periodic D tests.

## 5 Instructions for preparation of detail specifications

### 5.1 General

Detail specifications (DS) writers shall use the appropriate BDS pro-forma. The following pages comprise the pro-forma BDS dedicated for use with 50 Ω type SSMA connectors. As such, it will already have entered on it information relating to

a) the basic specification number applicable to all the detail specifications covering connector styles of the type covered by the sectional specification;

b) the connector series designation.

The specification writer should enter the details relating to the connector style/variant(s) to be covered as indicated. The numbers in brackets on the BDS pro-forma correspond to the following indications which shall be given.

### 5.1 Identification of the component

(5) Enter the following details:

Style: The style designation of the connector including type of fixing and sealing, if applicable.

Attachment: By deletion of the inapplicable options of cable/wire: given for centre and outer conductors.

Special features and markings: As applicable.

(6) Enter details of assessment level and the climatic category.

(7) A reproduction of the outline drawing and details of the panel piercing, if applicable. It shall provide the maximum envelope dimensions, also the position of the reference plane and, in the case of a fixed connector, the position of the mounting plane(s) relative to the front face of the connector.

Any maximum panel thickness limitations for fixed connectors shall be stated.

(8) Particulars of all variants covered by the DS. As appropriate, the information shall include:

- cable types (or sizes) applicable to each variant;
- alternative plated or protective finishes;
- details of alternative mounting flanges having either tapped or plain mounting holes;
- details of alternative solder spills or solder buckets including, when applicable, those for use with microwave integrated circuit (MIC) components.

### 5.2 Performance

(9) Performance data listing the most important characteristics of the connector taking into account the recommended values in 4.2 of this specification. Deviations from the minimum requirements shall be clearly indicated. Non-applicable parameters shall be marked ‘na’.

### 5.3 Marking, ordering information and related matters

(10) Insert marking and ordering information as appropriate, together with details of related documents and any invoked structural similarity.

### 5.4 Selection of tests, test conditions and severities

(11) 'na' shall be used to indicate non-applicable tests. All tests marked 'a' by the detail specification writer shall be mandatory.

When using the normal procedure with a dedicated BDS, the letter 'a' – for applicable – shall be entered in the 'Test required' column against each of the tests indicated as being mandatory in the test schedule as in 4.3 of this specification. Any additional tests required at the discretion of the specification writer shall also be indicated by an 'a'.

The specification writer shall also indicate, when necessary, details of deviations from the standard test methods and test conditions, including any relevant deviations given in the test schedule of the sectional specification.

The qualification approval and conformance inspection shall be such that the national supervising inspectorate (NSI) shall be satisfied that they are appropriate and in line with those for other connectors within the system providing a reasonably comparable service.

### 5.5 Blank detail specification pro-forma for type SSMA connector

The following pages contain the complete BDS pro-forma.

<table>
<tr><td>(1)</td><td>Page 1 of 10<br>  </td></tr>
<tr><td>ELECTRONIC COMPONENT OF ASSESSED QUALITY IN ACCORDANCE WITH GENERIC SPECIFICATION IEC 61169-1<br>SECTIONAL SPECIFICATION IEC 61169-18<br>NATIONAL REFERENCE</td><td>(4) ISSUE<br>.....<br>.....</td></tr>
<tr><td colspan="2">(5) Detail specification for<br>Radio frequency coaxial connector of assessed quality type SSMA</td></tr>
<tr><td>Style:.....</td><td>Special features and markings</td></tr>
<tr><td colspan="2">Method of cable/wire+ attachment centre conductor – solder/crimp+<br>outer conductor – solder/clamp/crimp +<br>+ delete as appropriate</td></tr>
<tr><td colspan="2">(6) Assessment level..... Characteristic impedance 50 Ω Climatic category..../.../.../</td></tr>
<tr><td>(7) Outline and maximum dimensions</td><td>Panel piercing and mounting details</td></tr>
<tr><td colspan="2">(8) Variants<br><br>Variant No. Description of variant 61196 IEC<br><br>01..... ..... ..... ..... ..... .....<br>..... ..... ..... ..... ..... .....<br>..... ..... ..... ..... ..... .....<br>..... ..... ..... ..... ..... .....<br>..... ..... ..... ..... ..... .....<br>..... ..... ..... ..... ..... .....<br>..... ..... ..... ..... ..... .....<br>..... ..... ..... ..... ..... .....<br>..... ..... ..... ..... ..... .....</td></tr>
<tr><td colspan="2">Information about manufacturers who have components qualified to this detail specification is available through IECQ on-line certificate system.</td></tr>
</table>