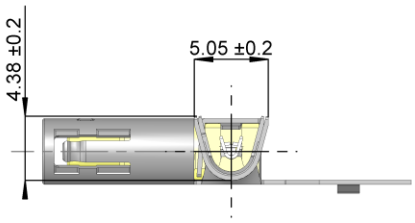
Fakra R3C –Right-Angle terminal

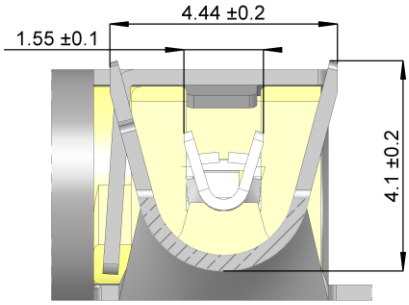
Cable type RTK (3.2/50Ω)

R299.197.610

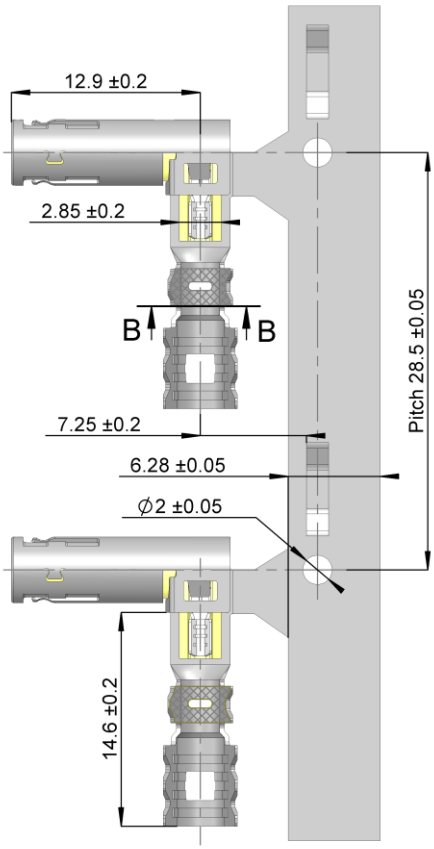
TECHNICAL DATA SHEET

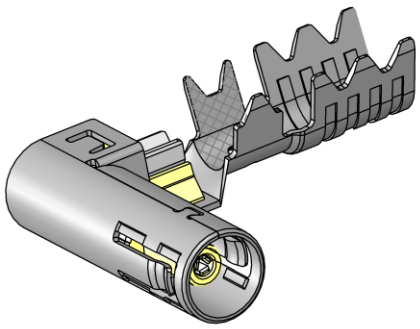
Rev	Date	Edited	Approved	Validated	Modification
1	15/10/2018	C.Chavanne	Y.Gay	R.Chantre	Creation





VIEW B-B





All dimensions are in mm

Components	Materials	Plating
Center contact	Bronze	Selective gold + selective tin
Outer contact - Body	Bronze	Tin 3 over nickel 1
Insulator	Polymer	-

Interface

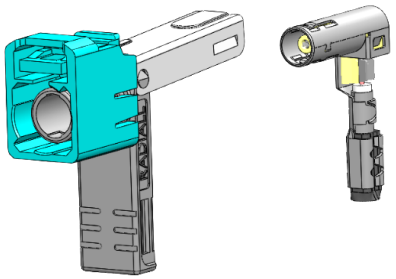
According to **ISO 20860-1 & USCAR-18**

Application

This terminal has to be assembled with the right components
to reach USCAR17 Rev.2 performances.

- For standard version refer to:

  Assembly **I**nstructions **AI_R-AR3C** to get the corresponding P/N
  Crimping **S**pecifications **CS_R-AR3C** for the crimping instructions.



Electrical characteristics

Impedance	50 Ω
Frequency	0-3 GHz
VSWR	≤1.4 to 2 GHz*
	≤1.5 to 3 GHz*
	*this value is dependent on the measurement setup & cable used, as no protocol is defined in the specification.
Insertion loss	0-3 GHz ≤0.3 dB
Insulation resistance	≥ 100 MΩ
Center contact & Outer contact resistance	≤ 40 mΩ before mating
Outer contact resistance	≤ 40 mΩ after 25 matings
RF Leakage	≥ 45 dB to 3 GHz

Mechanical characteristics

Mating cycles	≥ 25
Engagement force	≤ 25 N single contact / ≤ 45 N multi contact
Inner conductor retention	≥ 40 N according IEC 60352-2
Cable retention	≥ 110 N

Environmental characteristics

Mechanical shocks / vibrations	According to USCAR17 Rev.2
Thermal shocks	According to USCAR17 Rev.2
Temperature humidity cycling	According to USCAR17 Rev.2
Dry heat	According to USCAR17 Rev.2
RoHS	Compliant
Operating temperature	-40 /+105 °C

Suitable cables

3.2/50Ω

- Limitations are possible due to the used cable type -

Net weight

1.01 g

Crimping process parameters & recommended tools

In order to guarantee the quality of the final coaxial cable assembly, the terminal must be crimped on the coaxial cable with specific applicators, following specific instructions that have been defined and validated by Raydiall. Please refer to the following documents: **AI_R-AR3C** (assembly instructions) and the customer specific document **CS_R-AR3C** (Crimping specifications).

Specific attention must be paid with respect to:

- Approved applicator suppliers, references and spare parts.
- Cable modification. Raydiall must validate any change on the cable: new cable supplier, new cable design or material.

Raydiall cannot be responsible for any quality issue if these instructions are not followed.

Storage condition & shelf life

Reel of connectors should be stored indoors, in its original packaging (box + plastic bag), in a controlled climate environment not exceeding -20°C/+40°C and maximum 70% relative humidity. The reel should be protected from direct sunlight and should be used on a "first-in, first-out" basis.

It is recommended that connector be used within 1 year from the date of manufacture when stored according to the recommended storage condition.

Product handling

Care must be taken when handling the connector during all stages of production.
After crimping, when cable assemblies are manually handled, special attention must be paid, not to apply mechanical shock, e.g. by dropping connectors onto the floor or other hard surfaces (e.g. assembly tables). Once dropped, connectors must be inspected and should not show any type of impact or deformations.