

Fakra HFR3C – Straight Female terminal

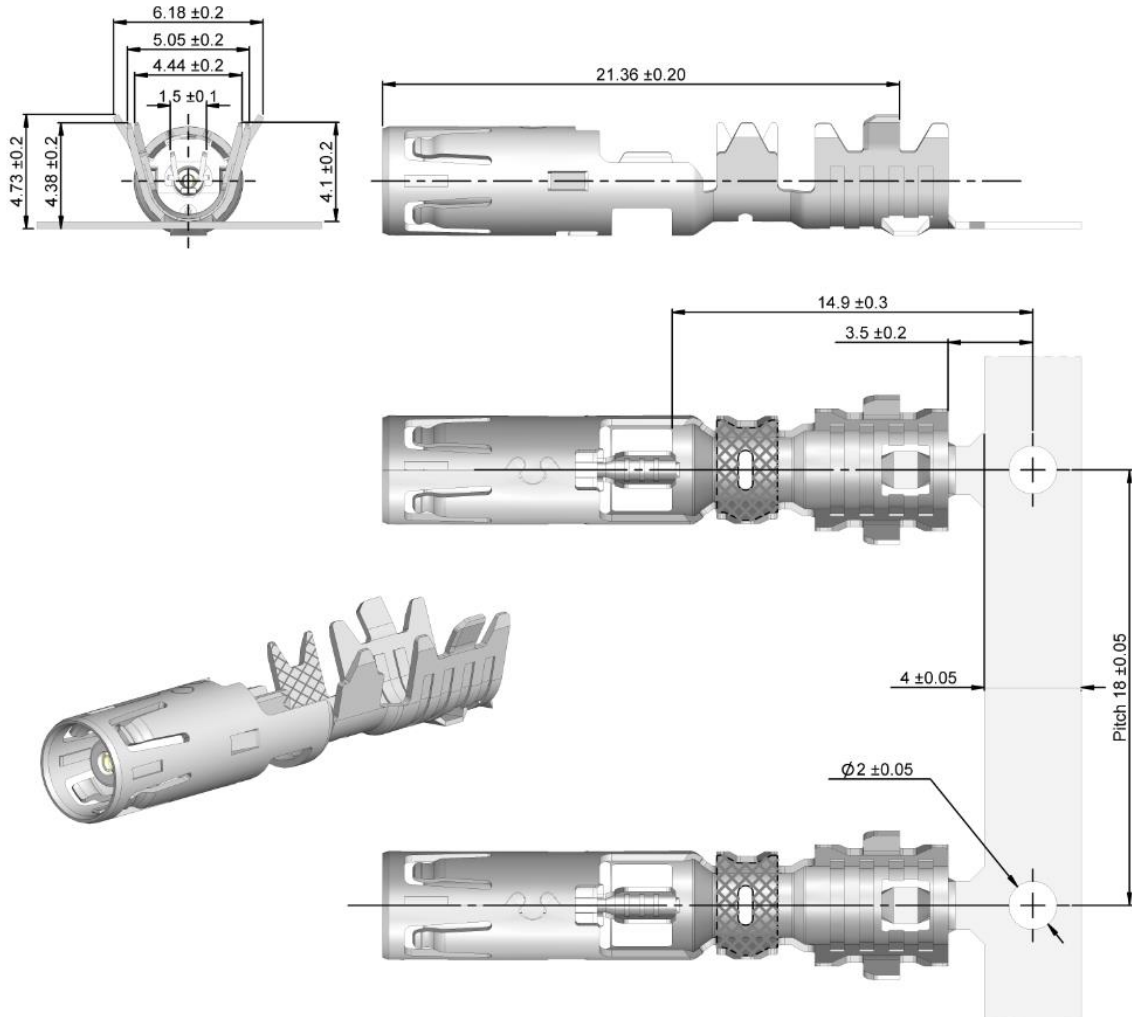
Cable type RTK (3.2/50)



R299.197.310

TECHNICAL DATA SHEET

| Rev | Date | Edited | Approved | Validated | Modification |
|-----|------------|------------|----------|-----------|--------------|
| 1 | 14/03/2018 | C.Chavanne | Y.Gay | R.Chantre | Creation |
| | | | | | |



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 | - |

Fakra HFR3C – Straight Female terminal

Cable type RTK (3.2/50)



R299.197.310

TECHNICAL DATA SHEET

Interface

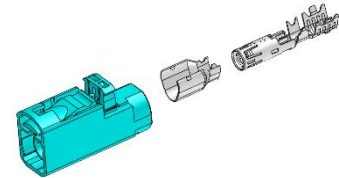
According to ISO 20860-1

Application

This terminal has to be assembled with the right components (ferrule & housing) to reach ISO 20860 performances.

Refer to **AI_HFR3C** to get the corresponding P/N

Refer to **CS_HFR3C** for the crimping instructions



Electrical Characteristics

| | |
|--|--|
| Impedance | 50 Ω |
| Frequency | 0-6 GHz |
| VSWR | ≥ 15.6 dB to 2 GHz ≥ 14 dB to 4 GHz ≥ 12 dB to 6 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 3-4 GHz <0.35 dB |
| Insulation resistance | $\geq 1\ 000$ M Ω before, and ≥ 500 M Ω after strain |
| Center contact & Outer contact resistance | ≤ 5 m Ω before mating |
| Outer contact resistance | ≤ 40 m Ω after 25 matings |
| RF Leakage | ≥ 55 dB to 1 GHz ≥ 45 dB to 3 GHz ≥ 42.5 dB to 4 GHz |

Mechanical characteristics

| | |
|---------------------------|------------------------------------|
| Mating cycles | ≥ 25 |
| Engagement force | ≤ 25 N |
| Inner connector retention | ≥ 40 N according IEC 60352-2 |
| Cable retention | ≥ 100 N according ISO 20860-1 |

Environmental tests

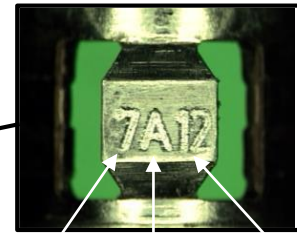
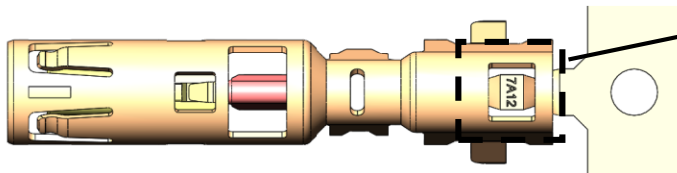
| | |
|--------------------------------|--------------------------|
| Mechanical shocks / vibrations | According to ISO 20860-2 |
| Thermal shocks | According to ISO 20860-2 |
| Temperature humidity cycling | According to ISO 20860-2 |
| Dry heat | According to ISO 20860-2 |
| RoHS | Compliant |
| Operating temperature | -40 /+105 °C |

Suitable cables 3.2/50Ω

Net Weight 0.67g

Laser marking

The Assembly date (Year/Month/Day) is laser marked on each terminal
The marking is performed on the latch of the jacket crimping area.



| Year | Month | Day |
|----------|--------------|-----|
| 7 = 2017 | A = January | 01 |
| 8 = 2018 | B = February | 02 |

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 - Fakra HFR3C** (assembly instructions) and the customer specific document **CS - Fakra HFR3C** (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.

Fakra HFR3C – Straight Female terminal

Cable type RTK (3.2/50)



R299.197.310

TECHNICAL DATA SHEET

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

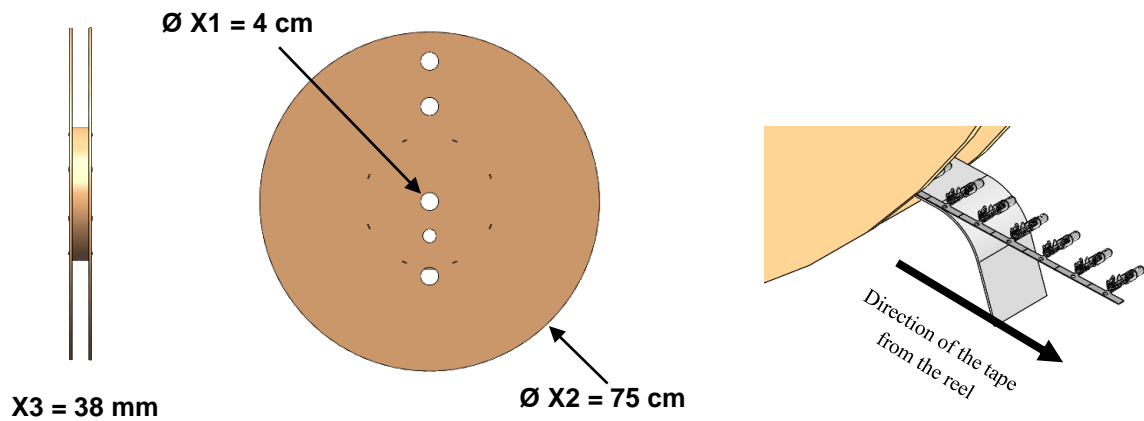
Care must be taken when handling the connector during all stages of production.

After crimping, when cables 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.

Packaging

Primary packaging Cardboard reel

- Reel Weight \approx 4.6 kg
- Number of pieces by reel: $3800 \pm 2\%$. It is possible to have a maximum of 5 missing parts consecutively



Secondary packaging: Pallet

- Size: 80x80x90 cm
- Weight \approx 85kg
- 1 pallet contains 13 connector Cardboard reels.
- Number of pieces per pallet = 49 400 pcs

