Fakra HFR3C – Straight Male terminal

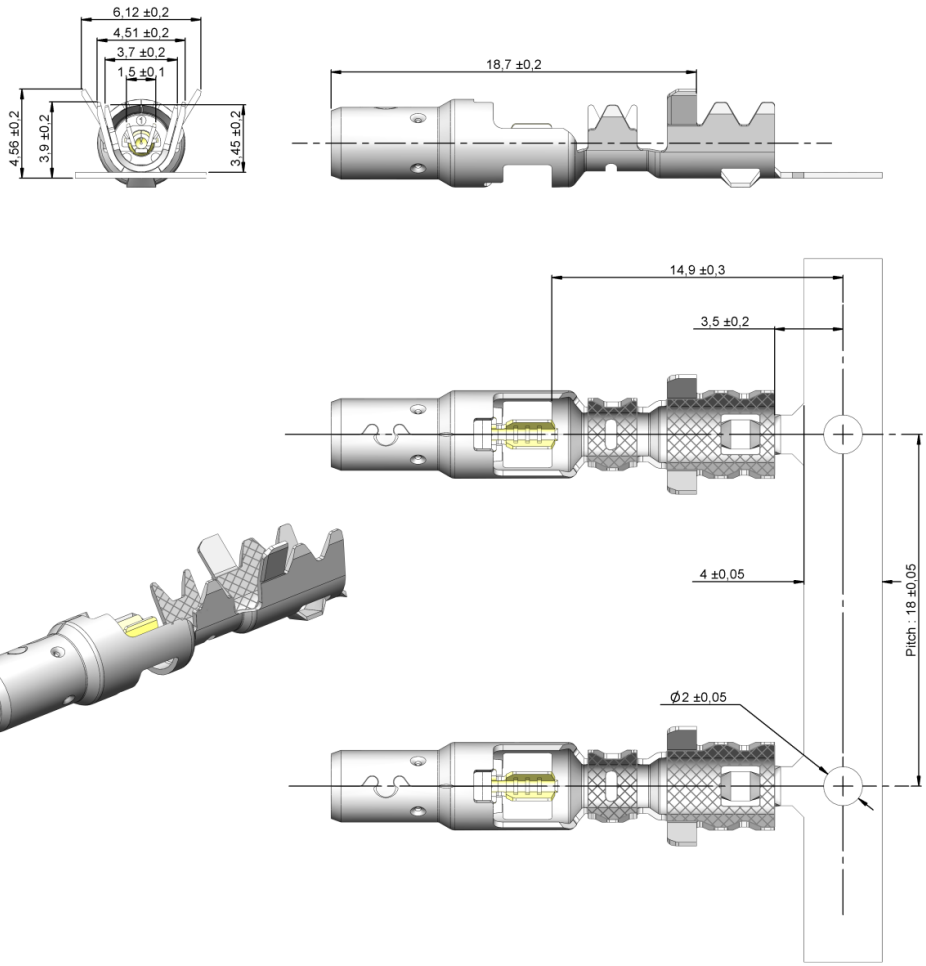
Cable type RG174 (2.6/50)

RAYDIALL AUTOMOTIVE

R299.197.100

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	Brass	Tin 3 over nickel 1
Insulator	Polymer	-

Interface

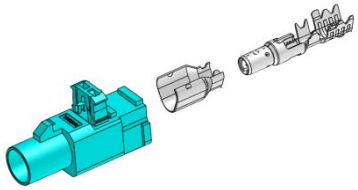
According to ISO 20860-1

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	≥ 1 000 MΩ before, and ≥ 500 MΩ after strain
Center contact & Outer contact resistance	≤ 5 mΩ before mating
Outer contact resistance	≤ 40 mΩ 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	≤ 25N	
Inner connector retention	≥ 25N	according IEC 60352-2
Cable retention	≥ 100N	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

2.6/50Ω

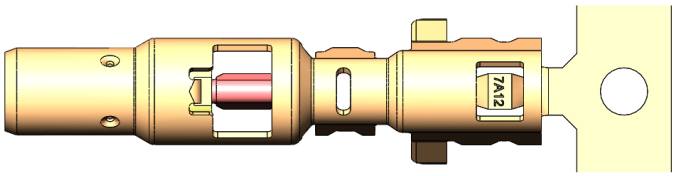
Net Weight

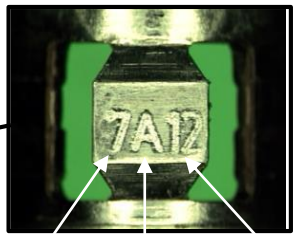
0.57g

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.

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 reels 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 reception, when stored according to the recommended storage condition.

Product Handling

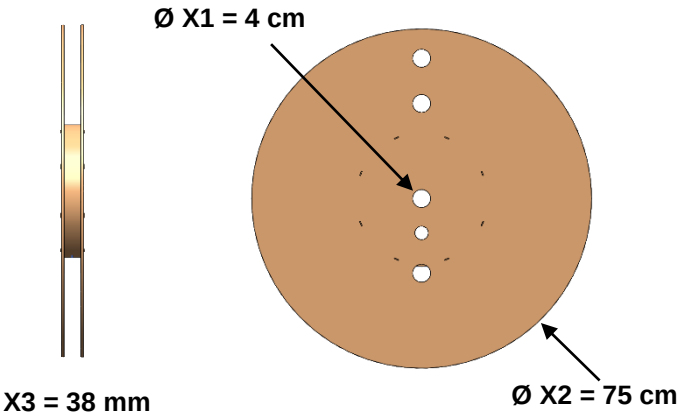
Care must be taken when handling the connectors during all stages of production.

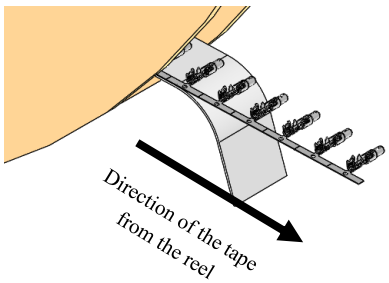
After crimping, when cables assemblies are manually handled, special attention must be paid, not to apply mechanical shock, by dropping connectors onto the floor or other hard surfaces. Once dropped, connectors must be inspected and should not show any type of impact or deformations.

Packaging

Primary packaging Cardboard reel

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





Secondary packaging: Pallet

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