

Title (en)

Airtight RF coaxial connector with self-locking by snap-fastening.

Title (de)

Luftdichter RF-Verbinder mit Selbstverriegelung durch Schnappverschluss

Title (fr)

Connecteur coaxial RF étanche à l'air doté d'un verrouillage automatique par fixation encliquetable

Publication

EP 2128935 A1 20091202 (EN)

Application

EP 08157007 A 20080527

Priority

EP 08157007 A 20080527

Abstract (en)

An airtight RF coaxial connector with self-locking by snap-fastening comprises a plug connector (1) and a socket connector (2), which is characterized in that the elastic locking element (9) of the plug connector used for locking the socket outer conductor of the socket connector is fixed on the outer surface of the plug outer conductor of the plug connector along its radius; that the front end of the inner hole of the plug outer conductor of the plug connector is provided with a sealing groove (4); and that the sealing groove is provided with a sealing ring (5) whose free inner diameter is shorter than the external diameter of the outer conductor of the socket connector. The chamfer at the front end of the socket connector makes pre-extrusion to the O-shaped sealing ring in the scaling groove. When the plug connector is further inserted into the socket, the conical surface on the locking bulge on the outer conductor of the socket connector re-extrudes the O-shaped sealing ring, and realizes a good sealing effect. In particular, the dual-extrusion has little damage to the sealing ring, and thus greatly increases the lifetime of the sealing ring.

IPC 8 full level

H01R 13/52 (2006.01); **H01R 13/627** (2006.01); **H01R 13/646** (2011.01)

CPC (source: EP)

H01R 13/5219 (2013.01); **H01R 13/6277** (2013.01); **H01R 24/40** (2013.01); **H01R 2103/00** (2013.01)

Citation (search report)

- [Y] EP 1906492 A1 20080402 - QU JINLIANG [CN]
- [Y] WO 2007085099 A1 20070802 - HUBER+SUHNER AG [CH], et al
- [Y] US 6733336 B1 20040511 - MONTENA NOAH [US], et al
- [A] US 2008108242 A1 20080508 - WU XIANGWEN [CN], et al
- [A] DE 4439852 A1 19960509 - SPINNER GMBH ELEKTROTECH [DE]

Cited by

CN112421317A; CN106936008A; CN106058589A; CN114914757A; EP3338327A4; CN107123879A; CN103346439A; CN107121732A; CN106816761A; CN113161787A; CN114094381A; CN102593655A; DE102013105602A1; CN105470752A; CN109546437A; CN113410984A; WO2016033996A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

EP 2128935 A1 20091202

DOCDB simple family (application)

EP 08157007 A 20080527