

## Title (en)

ELECTRICAL CONNECTOR, MODULE CONNECTION AND CIRCUIT BOARD ASSEMBLY

## Title (de)

ELEKTRISCHE STECKVERBINDUNG, BAUGRUPPENVERBINDUNG UND LEITERPLATTENANORDNUNG

## Title (fr)

CONNECTEUR ENFICHABLE ÉLECTRIQUE, RACCORD DE MODULES ET ENSEMBLE DE CARTE DE CIRCUITS IMPRIMÉS

## Publication

**EP 3627636 B1 20201104 (DE)**

## Application

**EP 18215544 A 20181221**

## Priority

- EP 18215544 A 20181221
- EP 18195460 A 20180919

## Abstract (en)

[origin: US2020091636A1] Embodiments of a connecting element for connecting a first electrical assembly to a second electrical assembly may comprise a rigid, tubular outer housing made of an electrically conductive material and an electrical cable running inside the outer housing along a longitudinal axis of the outer housing. The electrical cable may include at least one inner conductor and a dielectric layer surrounding the at least one inner conductor. At least one segment of the outer housing may be reshaped along the longitudinal axis in such a way as to fix the electrical cable inside the outer housing.

## IPC 8 full level

**H01R 24/54** (2011.01); **H01R 13/627** (2006.01); **H01R 12/73** (2011.01); **H01R 24/50** (2011.01); **H01R 43/16** (2006.01); **H01R 103/00** (2006.01)

## CPC (source: CN EP US)

**H01B 13/004** (2013.01 - US); **H01R 12/7082** (2013.01 - EP US); **H01R 12/71** (2013.01 - CN); **H01R 12/716** (2013.01 - EP US); **H01R 24/40** (2013.01 - US); **H01R 31/06** (2013.01 - CN US); **H01R 43/18** (2013.01 - US); **H01R 43/20** (2013.01 - CN); **H01R 43/24** (2013.01 - US); **H01R 12/91** (2013.01 - EP); **H01R 13/6277** (2013.01 - EP); **H01R 24/50** (2013.01 - EP); **H01R 24/54** (2013.01 - EP); **H01R 24/58** (2013.01 - EP); **H01R 43/058** (2013.01 - EP); **H01R 43/16** (2013.01 - EP); **H01R 43/28** (2013.01 - EP); **H01R 2103/00** (2013.01 - EP US)

## Citation (examination)

- JP 2006260898 A 20060928 - AUTO NETWORK GIJUTSU KENKYUSHO, et al
- US 4963105 A 19901016 - LEWIS CHRISTOPHER [US], et al

## Citation (opposition)

Opponent : Axel Remde

- ANONYMOUS: "Adaptor QMA Jack-Jack 28K101-K00N5", ROSENBERGER - TECHNICAL DATA SHEET, 13 March 2014 (2014-03-13), pages 1 - 2, XP055946089, Retrieved from the Internet <URL:https://eu.mouser.com/datasheet/2/704/rsnb\_s\_a0002316213\_1-2291518.pdf> [retrieved on 20220726]
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- ANONYMOUS: "QMA and QN connector", WIKIPEDIA, THE FREE ENCYCLOPEDIA, 25 September 2021 (2021-09-25), XP055946091, Retrieved from the Internet <URL:https://en.wikipedia.org/wiki/QMA\_and\_QN\_connector> [retrieved on 20220726]

Opponent : HUBER+SUHNER AG

- EP 1222717 B1 20030507 - HUBER+SUHNER AG [CH]
- EP 3198686 B1 20180321 - ROSENBERGER HOCHFREQUENZTECHNIK GMBH & CO KG [DE]
- EP 1154527 A1 20011114 - RADIAL SA [FR]
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- WO 2007085099 A1 20070802 - HUBER+SUHNER AG [CH], et al
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- EP 1641086 A1 20060329 - ROSENBERGER HOCHFREQUENZTECH [DE]

## Cited by

WO2023280390A1; EP3671978A1

## Designated contracting state (EPC)

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

## DOCDB simple family (publication)

**EP 3627635 A1 20200325**; **EP 3627635 B1 20221102**; CN 110932003 A 20200327; CN 110932003 B 20240312; EP 3627636 A1 20200325; EP 3627636 B1 20201104; EP 3627636 B2 20231108; FI 3627635 T3 20230322; FI 3627636 T4 20240912; US 11251551 B2 20220215; US 11251552 B2 20220215; US 2020091636 A1 20200319; US 2020373694 A1 20201126

## DOCDB simple family (application)

**EP 18195460 A 20180919**; CN 201910886405 A 20190919; EP 18215544 A 20181221; FI 18195460 T 20180919; FI 18215544 T 20181221; US 201916574778 A 20190918; US 202016991289 A 20200812