Title (en)

RF connector with reduced plated area

Title (de)

RF Verbinder mit verringerter Metallisierungsfläche

Title (fr)

Connecteur RF avec surface metallisée reduite

Publication

EP 2028724 A1 20090225 (EN)

Application

EP 07114746 A 20070822

Priority

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Abstract (en)

This invention relates to an RF connector interface. RF connector interfaces for male and female connectors typically contain outer bodies that latch together creating electrical continuity. In addition they contain centre contacts that engage creating electrical continuity. An insulator is typically positioned between the outer bodies and the centre contacts to provide insulation, support and in the case of RF connectors the insulator has a predetermined dielectric constant. To maintain reliable electrical continuity between the outer bodies the component mating faces are gold plated. The area of gold plating is kept to a minimum to reduce cost but is mostly determined by the shape of the component and the plating process adopted. The typical gold plating area of a male body is shown in Fig 1A . The present invention is to reduce the amount of gold plating required on a male connector outer body while maintaining electrical performance and mechanical integrity while mated or unmated. The current process for plating the outer body is by selective immersion in a gold solution while shielding the inside so as to only plate the outer surface. The gold is only required on the mating faces of the connector for reliable electrical continuity and to act as a lubricant during mating durability trials and in some cases reliable continuity after 250 mating cycles. Selectively plating just the contact area is not an option as wear will occur on the mating area of the female contact while mating with an unplated area of the male as shown in Fig 2 .

IPC 8 full level

H01R 13/03 (2006.01); **H01R 13/646** (2011.01); **H01R 24/02** (2006.01)

CPC (source: EP)

H01R 13/035 (2013.01); **H01R 24/40** (2013.01); H01R 2103/00 (2013.01)

Citation (search report)

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