REVERSE POLARITY
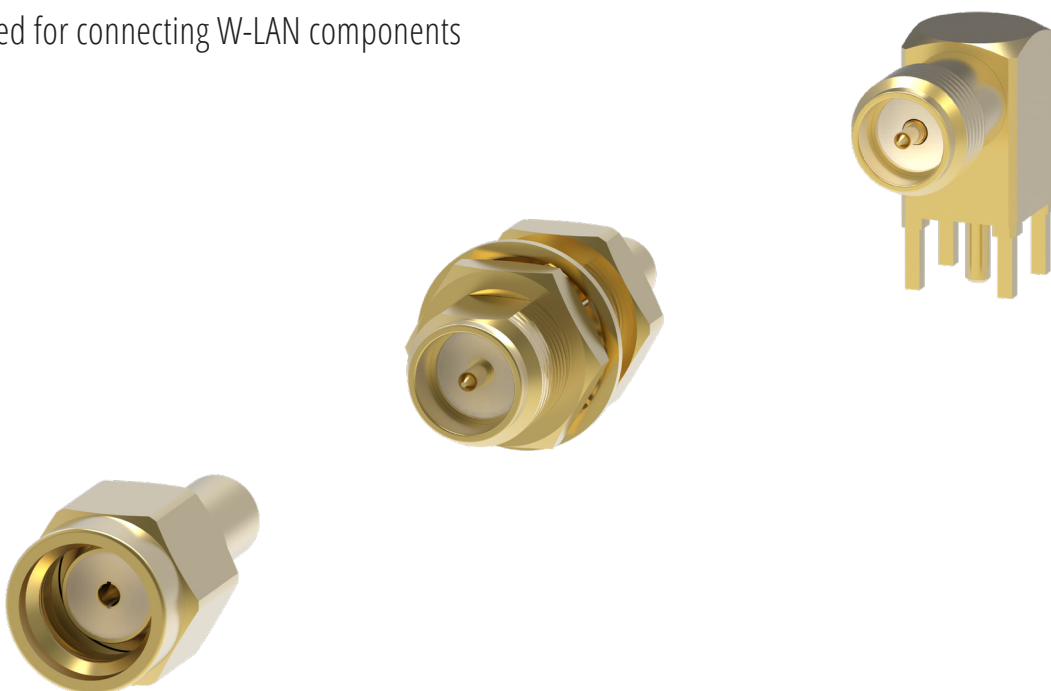
For connecting WLAN antennas

» Reverse polarity SMA (RP-SMA) is a variation of the SMA connector

» Gender of the interface has been reversed

» Purpose is to prevent mismatching

» Used for connecting W-LAN components

IMS CONNECTOR SYSTEMS

REVERSE POLARITY CONNECTORS
Prevent mismatching

SMA connectors with reverse polarity are widely used to connect WLAN antennas to network components such as routers or access points. The reverse polarity prevents damage by design: As the gender of the interface has been reversed, users cannot mismatch the connector and connect active components with standard connectors to the antenna outlet of a router, for example. For SMA connectors, „reverse polarity" refers only to the gender on the connectors contact pin and not in any way to the signal polarity.

IMS Connector Systems provides SMA connectors in standard and in reverse polarity design. The reverse polarity series offer the same characteristics in regards to material, plating and performances as the corresponding standard series.

Product features

» Gender of the interface has been reversed

» Variation of the standard SMA connector

» Same external housing

» Prevent mismatching

» Light weight, compact and vibration proof design

Characteristics

» Impedance 50Ω

» Frequency range DC to 18 GHz

» Return loss ≥ 28 dB up to 6 GHz

» Screw-on locking mechanism

» Mnimum 500 mating cycles guaranteed
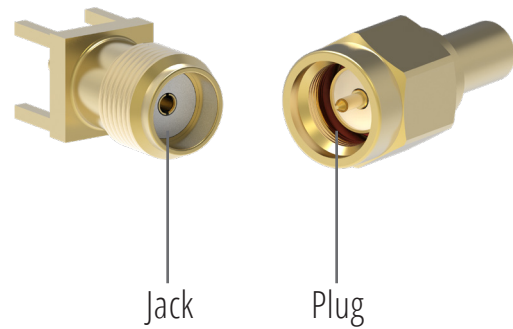
Reverse polarity series

Standard series

RP-SMA AND SMA IN COMPARISON

RP-SMA and SMA connections differ only in the gender of the interface. The male RP-SMA connector has the same housing with the threads on the outside as the standard version, however, the center jack is replaced by a plug. Accordingly, the RP-SMA female connector has threads on the inside like a conventional SMA connector but the center plug is replaced by a jack. Apart from this, an RP-SMA connector will have the identical characteristics and performances as the corresponding SMA connector.

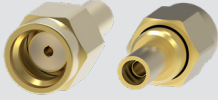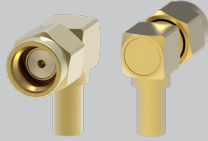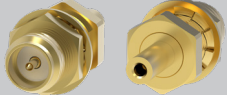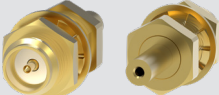| RP-SMA connectors	Standard SMA connectors

Plug	Jack		Jack	Plug

Applications

» W-LAN router

» Industrial networks

» Telecommunications

PRODUCT PORTFOLIO RP-SMA

Picture	Part number (P/N)	Style	Cable type	Description	Plating
	4026.42.2410.023 4447.42.2410.083	-	RG 174 LMR 195	RP-SMA Cable mount jack	3 = NiP+Au
	4024.42.2420.023	-	RG 174	RP-SMA Cable mount angle jack	3 = NiP+Au
	4824.42.1410.043	-	Hirose U.FL-LP-066 Ø 1,32mm	RP-SMA Cable mount plug	3 = NiP+Au
	4858.42.1412.243	-	Hirose U.FL-LP-066 Ø 1,32mm	RP-SMA Cable mount plug	3 = NiP+Au
	5474.42.1412.213	-	IPEX MHF4 / Murata MXTK 88 / 92	RP-SMA Cable mount plug	3 = NiP+Au
	K-2411	-	Hirose U.FL-LP-066 Ø 1,32mm		
	K-2420 (IP 67)	-	Hirose U.FL-LP-066 Ø 1,32mm		
	K-6424	-	IPEX MHF 20278-112R-32 Ø 1,32mm		

Cable types

Cable assemblies

PRODUCT PORTFOLIO RP-SMA

	Picture	Part number (P/N)	Style	Cable type	Description	Plating
Bulkhead types		2963.42.1414.213	Small flange	RG 178, RG 196	RP-SMA Bulkhead plug	3 = NiP+Au
		4346.42.1410.043 (without panel sealing)	Large flange	Hirose U.FL-LP-066 Ø 1,32mm	RP-SMA Bulkhead plug	3 = NiP+Au
		4401.42.1410.043 (with panel sealing)	Large flange	Hirose U.FL-LP-066 Ø 1,32mm	RP-SMA Bulkhead plug	3 = NiP+Au
PCB types		4344.42.1510.003	Short neck version	-	PR-SMA PCB mount plug	3 = NiP+Au
		4423.42.1510.003	Long neck version	-	PR-SMA PCB mount plug	3 = NiP+Au
		4023.42.1610.003	-	-	PR-SMA PCB mount plug	3 = NiP+Au
		4345.42.1520.001	-	-	PR-SMA PCB mount angle plug	1 = Au
Additional		Various RP-TNC connectors on request			Cable types PCB types Cable assemblies	

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