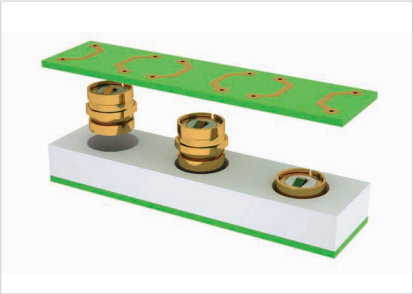
IMP

FULL SOLDERLESS

IMP FULL SOLDERLESS FEATURES

- Low profile (Board-to-Board distance: 1.41 mm) and small pitch (IMP diameter: 2.8 mm)
- High frequency range (designed for Ku band applications – up to 20 GHz)
- Designed to work in harsh environments, such as airborne platforms



IMP FULL SOLDERLESS INSTALLATION

Most targeted applications for such low Board-to-Board distances or high density integration use a cold plate between Printed Circuit Boards (PCB).

Using this application constraint to receive IMP (to create a cavity) generates a high cost advantage for product integration or maintenance. Its design delivers high performances and signal integrity even in vibration conditions.

IMP FULL SOLDERLESS RANGE

IMP Full Solderless Range:

- IMP-LP (Low Profile)
  The “single model” IMP-LP provides a lower Board-to-Board distance up to 1.41 mm, with an outer diameter of 3.9 mm. To achieve higher Board-to-Board distance (up to 5 mm), Radiall designed a “double model” that provides twice the axial tolerance of the “single model” with the same outer diameter (3.9 mm).
- IMP-HD (High Density)
  When applications require a high density integration, Radiall offers a smaller product with a diameter of 2.8 mm. As most of those applications require a higher Board-to-Board distance, IMP-HD features a wide axial tolerance up to 1 mm. Low phase noise performance is available upon request.
- IMP-LP “Hybrid”
  This solderless solution addresses interconnections between two PCBs or a front panel to a PCB. Encapsulating the IMP-LP “double model” into a panel front interface (eg: SMP, SMP-Lock. etc.), this product becomes an IMP-LP Hybrid that combines an interface similar to to IMP-LP’s size and performance. Please contact Radiall for more information on this product family.





APPLICATIONS

As designed for applications up to Ku band, the IMP full solderless range is ideal for antennas, radars and seekers.

ELECTRICAL CHARACTERISTICS

	IMP-LP	IMP-HD
Impedance	50Ω	
Frequency Range	18 GHz	20 GHz
V.S.W.R.	≤ 1.3 @ 12 GHz ≤ 1.5 @ 18 GHz	≤ 1.4 @ 18 GHz
Insertion Loss	0.20 dB max	0.15 dB max

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

	IMP-LP	IMP-HD
Weight	≥ 110 mg	320 mg
Outer Diameter	3.9 mm	2.8 mm
Board to Board Distance	≥ 1.41 mm	Typ. 13.4 mm
Operating Temperature	-55/+125 °C	
Vibrations	MIL STD 810 G	