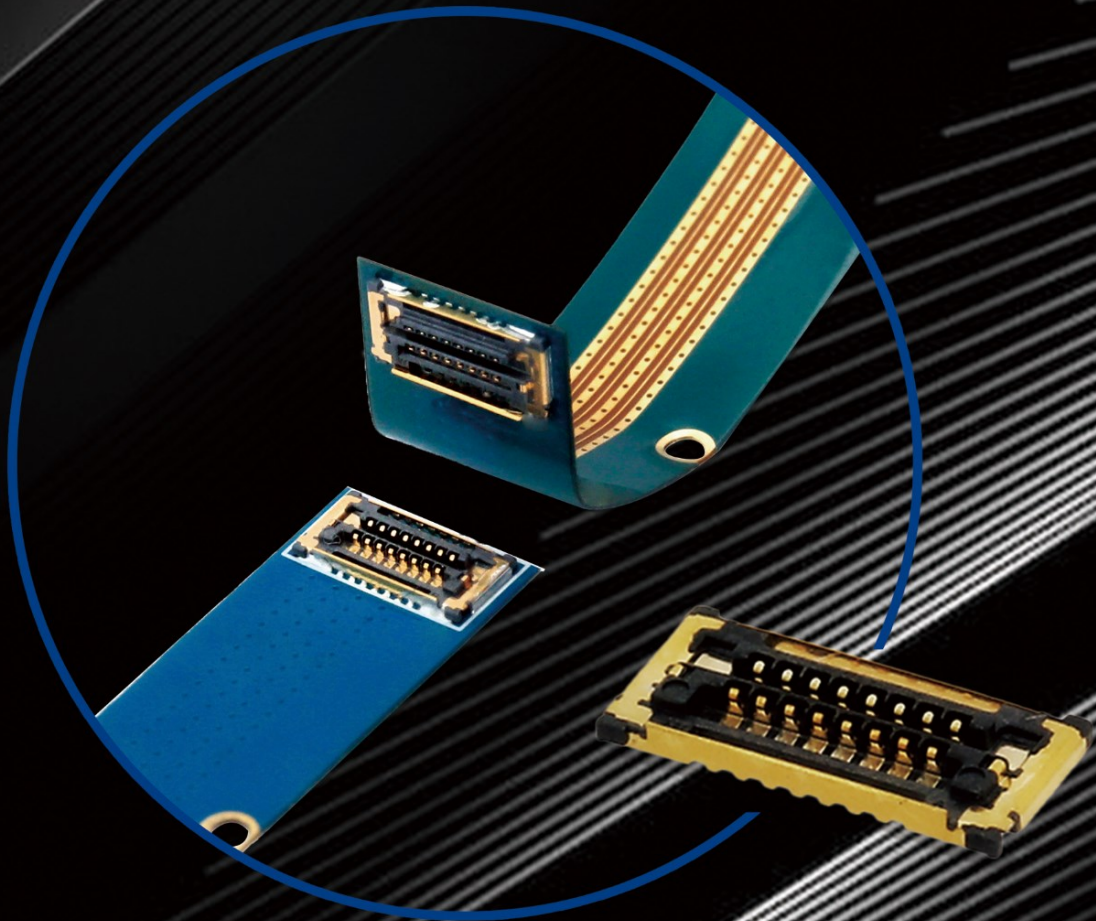
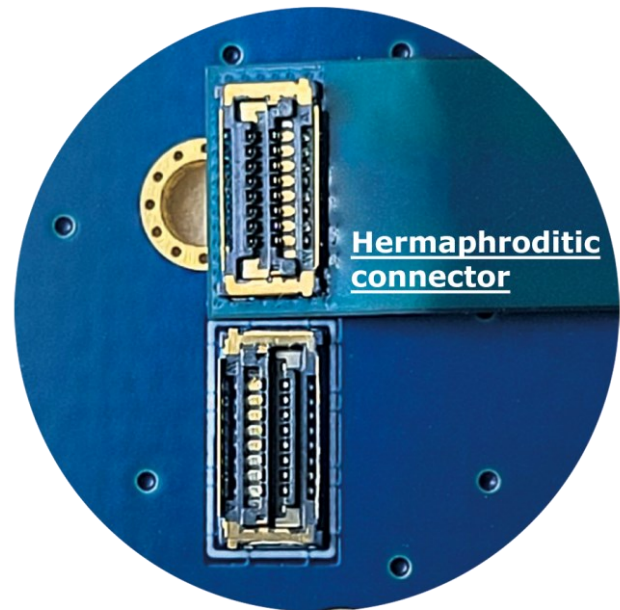
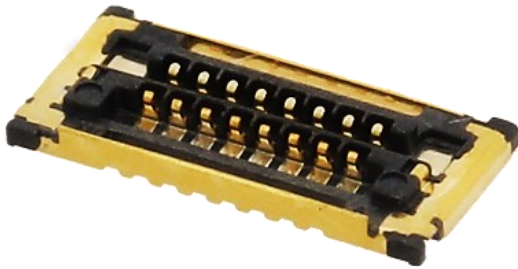


## High-speed & Micro-miniature Board to board connector (HMB)



**Withwave's High-speed & Micro-miniature Board to board connector (HMB Series)** are **hermaphroditic** mating interface and offers good RF characteristics for high-frequency (**Resonance frequency above 50GHz**) applications such as 5G Millimeter-Wave. The hermaphroditic mating design contributes to a very cost-effective solution.



## Features

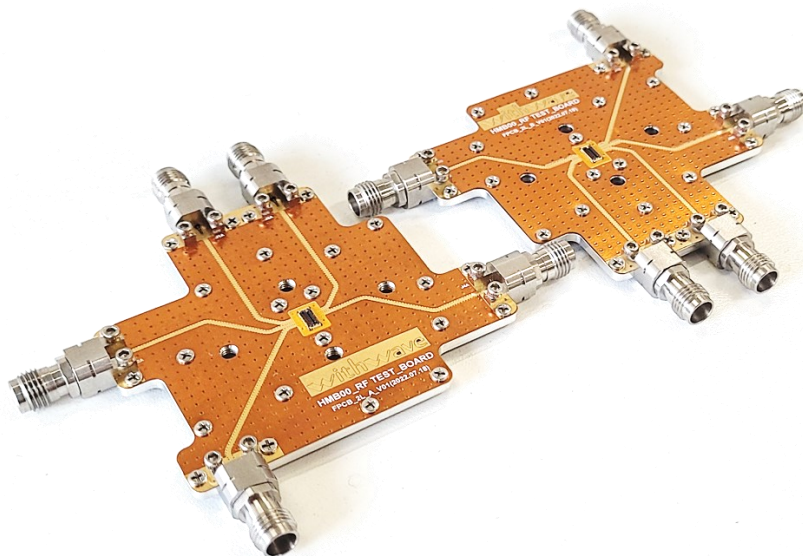
- Frequency Range : DC to 50 GHz
- Pitch : 0.35 mm
- Mated Height : 0.6 mm
- Width : 2.48 mm
- Number of Pins : 16 pins
- Excellent Insertion and Return loss performance
- Hermaphroditic mating interface
- Microstrip & Stripline application

## Application

- Smartphone
- Wearable device
- Array antenna
- Other wireless equipment

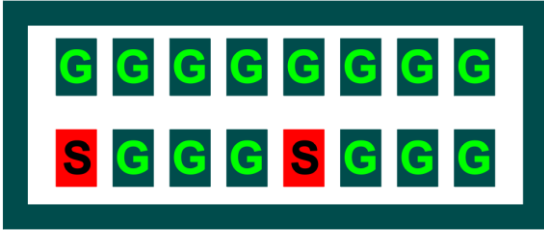
# Specification

| Scope                      | Items                 | Specification   |
|----------------------------|-----------------------|---|
| Electrical                 | Freq. Range (Max)     | 50 GHz  |
|                            | Impedance             | 50 $\Omega$   |
|                            | VSWR                  | DC to 20 GHz : 1.5 Max<br>20 to 40 GHz : 1.8 Max<br>40 to 50GHz : 2.0 Max |
|                            | Contact Resistance    | 100 m $\Omega$ Max.   |
|                            | Signal Rated Current  | AC, DC 0.3A/Pin   |
|                            | Insulation Resistance | 100 m $\Omega$ Min.   |
|                            | Withstanding Voltage  | AC 100V for 1 minute  |
| Mechanical & Environmental | Mating Durability     | 20 Mating Cycles  |
|                            | Mating Force          | 1.4 N / Pin Max.  |
|                            | Un-mating Force       | 0.15 N / Pin Min.   |
|                            | Operating Temperature | -55 to +85 $^{\circ}$ C   |
| Material                   | Contacts              | High Performance Copper Alloy   |
|                            | Shell                 | High Performance Copper Alloy   |
|                            | Housing               | High-Temperature LCP, UL94V-01  |

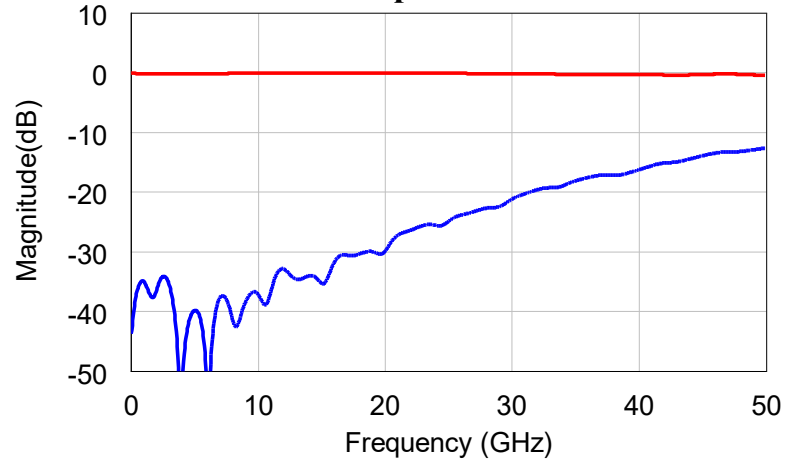


# Test Result

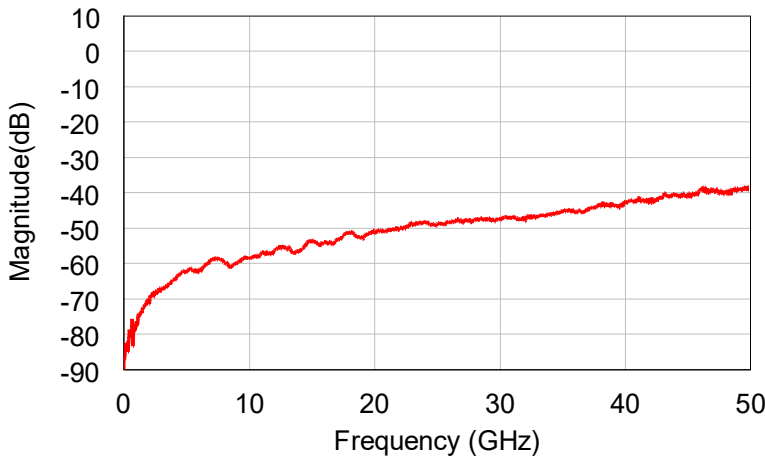
## Pin assignment



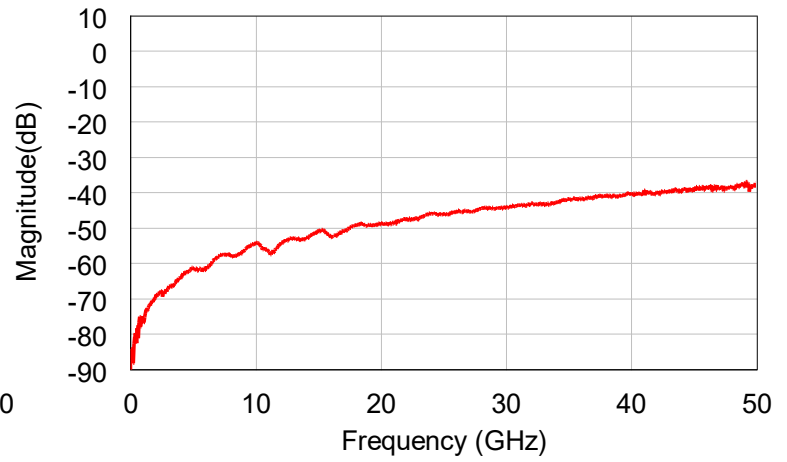
## S-parameter



## NEXT

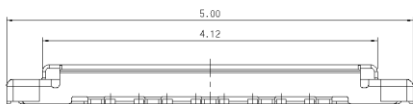
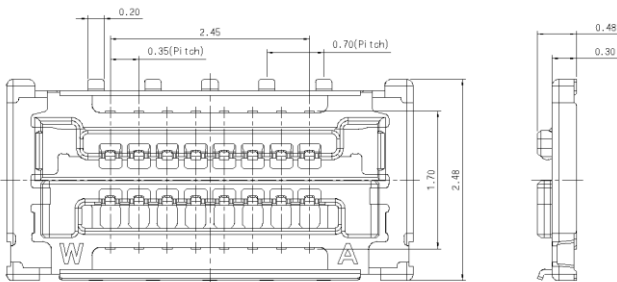


## FEXT

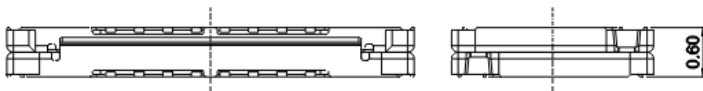


# Dimensions

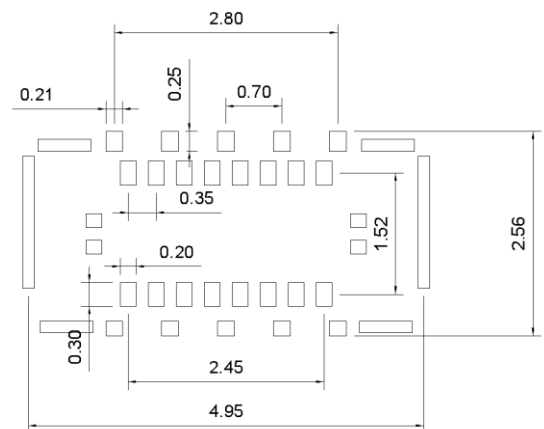
## 16 pin Dimensions



## Mated Dimensions



## 16 pin Footprint



\* Detailed drawings available upon request.