



Ultra-Fast Wi-Fi 7 Enabled by INPAQ

1. Optimized Antenna

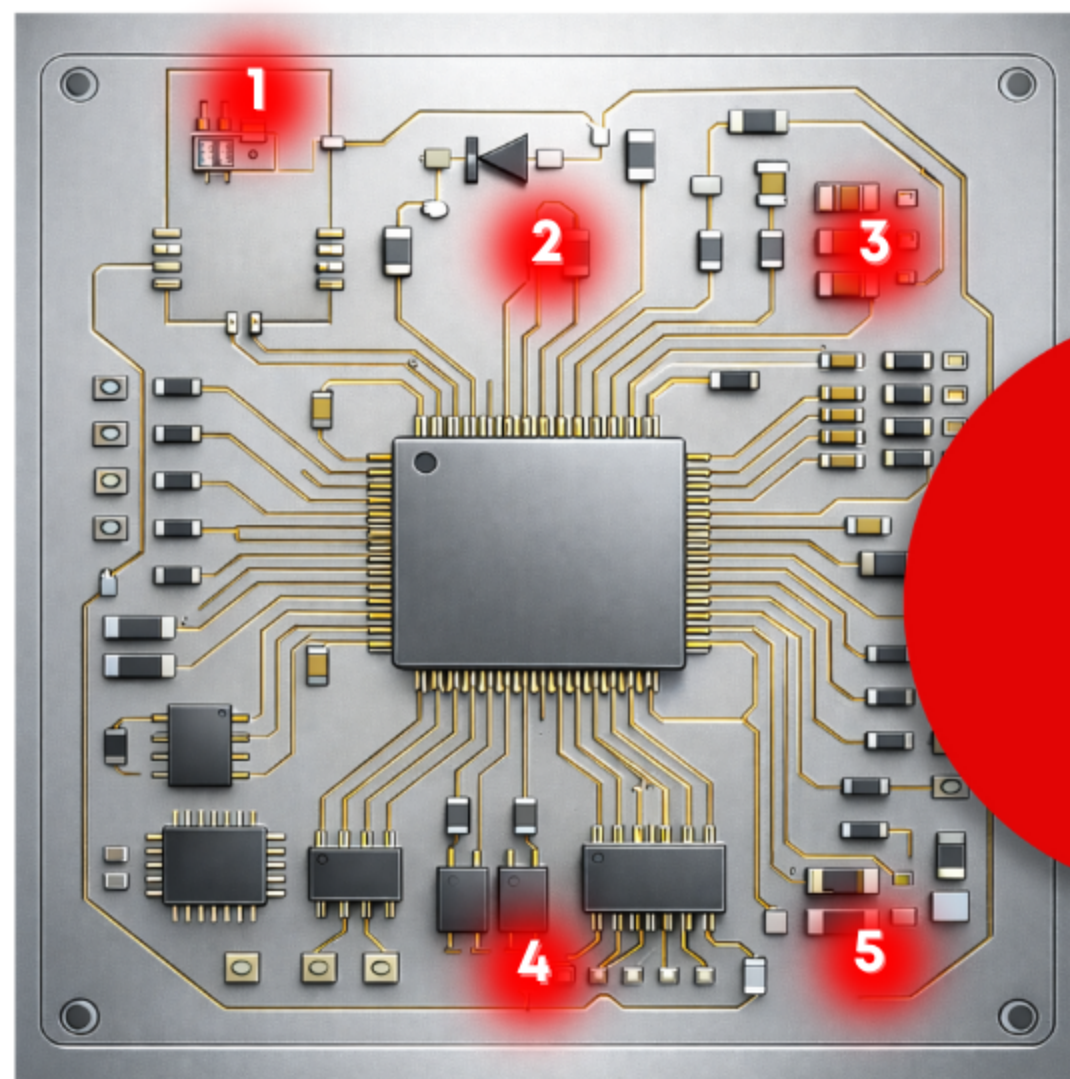
- **Customized antenna**
 - For isolation, polarization, and radiation pattern optimization
- **In-house chamber verification**
 - Wi-Fi 7 OTA pre-test

3. Impedance Matching

- **RF inductor**
 - High Q
 - High self-resonant frequency (SRF)
 - Small size and low profile

2. ESD Protection

- **TVS diode**
 - Fast turn-on and ultra-low clamping voltage
- **ESD suppressor**
 - Extremely low capacitance (0.05 pF)



**Wi-Fi 7 Requires
+20~50% More
Antennas & Key Components
Compared to Wi-Fi 6/6E**

4. EMI Signal Filter

- **Ferrite chip bead**
 - High frequency noise suppression
 - Current rating up to 6 amps with low DCR
- **Common mode filter**
 - Minimal impact on differential signals
 - Suitable for high-speed data lines
 - Improve EMI/EMC compliance

5. Power Inductor

- **Mini molding power inductor**
 - Low profile and ultra high current
- **Metal molding power inductor**
 - Low core loss
 - Ultra low buzz noise due to molding structure

INPAQ Customization



佳邦科技股份有限公司
INPAQ TECHNOLOGY CO., LTD.



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• Multi Link Operation

need more antennas with better isolation

• Higher Frequency

need ultra-low cap value, & low insertion loss in ESD

• More Bandwidth

need smaller step value, or tunable component

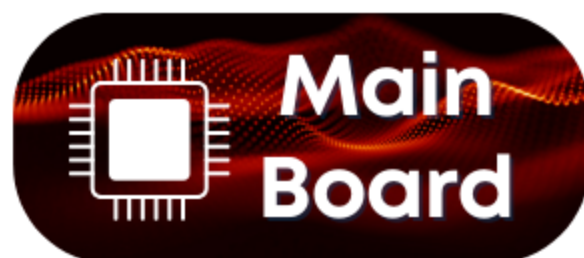
• More Noise

need higher cutoff frequency CMF



• More Power

need higher I_{sat} & lower DCR for power inductor



Main Board



PMIC



Interface



Matching Circuit



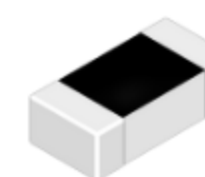
Mini Molding Power Inductor



Mini Molding Power Inductor



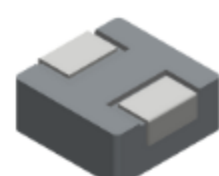
Multilayer Varistor



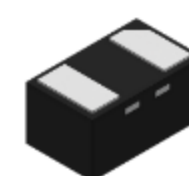
ESD Suppressor



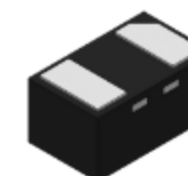
Metal Molding Power Inductor



Metal Molding Power Inductor



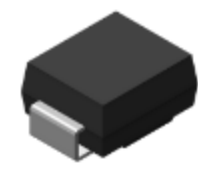
TVS Diode (Single, Array)



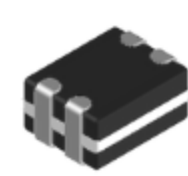
TVS Diode (Single)



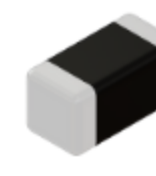
TVS Diode (Single)



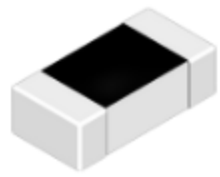
Power TVS Diode



Common Mode Choke



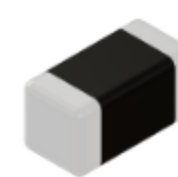
Chip Bead



ESD Suppressor



Multilayer Varistor



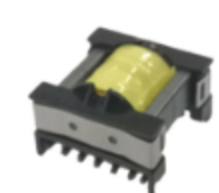
Chip Bead



Chip RF Inductor



Multilayer Varistor



Power Transformer



Chip Bead

Designed for High-Speed, Complex Systems

● Reliable ● Integrated ● High Performance



RF Antenna Connectivity



ESD Protection
Electrostatic Discharge



Impedance Match
Reduce Reflection



EMI Filter
Noise Suppression



Power Inductor
Power Efficiency

PSA

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