

The logo for UpbeatTech, featuring the word "Upbeat" in orange and "Tech" in white, set against a dark blue background with faint, stylized circuit patterns and data-like elements.

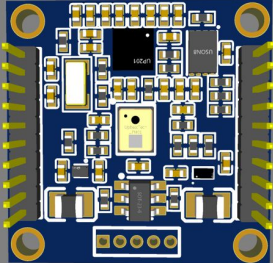
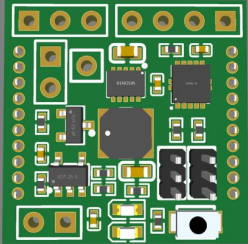
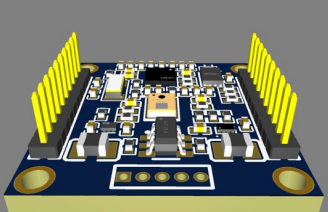
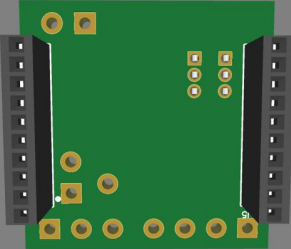
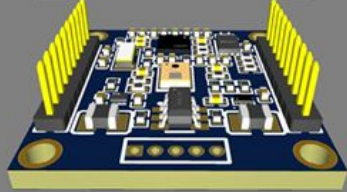
UpbeatTech

阿比特電子科技

Trina-Twins

July, 2026

Main Structure

	Main Board (VSB)	Extension Board	Combination
Top			
Side/Bottom			

Features

Small form factor with a rigid construction (20x20x14 mm)	On-board UP201 for DSP/FFT processing and AI inference, with Flash programming via UART
On-board UPM01D digital MEMS sensor	Extension board support for RS-485, USB, BLE, and other output interfaces
Analog MEMS sensor option	Dual 10-pin (1.27 mm pitch) headers for UART, SPI, and I ² C expansion boards
Component-free bottom side of the VSB	System status LEDs
Support additional MEMS sensor via cable connection	Reserved connector for external Reset button
Support for 9~28 V power input or a 3.7 V battery	

Trina-Twins Migration Advantages for Predictive Health Management (PHM)

PHM Requirements	Trina-Twins Solution
Vibration Sensing	On-board MEMS UPM01D
Real-Time Analysis	UP201 DSP with FFT and AI inference
Data Output & Communication	UART / SPI / I ² C; Expansion board supports RS485, USB, and BLE
Edge Deployment	Compact rigid VSB for direct installation at measurement points

Key Value:

Brings sensing and AI analytics to the edge by enabling direct deployment of intelligent vibration sensing nodes near industrial equipment.

THANK YOU!

UpbeatTech

Learning the Best of You