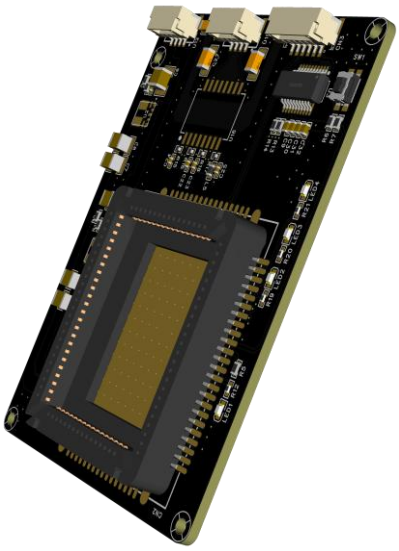
NX-pMDDL2450

Microhard PMDDL2450 Radio Module Carrier

2S–6S Input | Galvanic Isolation | −40 °C to +85 °C | 4× M2 Mounting | **Made in India**

Product Image



PMDDL2450 Carrier Board

General Description

The NX-pMDDL2450 Carrier Board is a high-performance host platform designed specifically for the Microhard PMDDL2450 digital data link radio module. It provides all power conditioning, interface connectivity, and mechanical integration required to deploy the PMDDL2450 in demanding UAV, robotics, and industrial IoT applications.

Featuring a wide-range 2S–6S LiPo/Li-Ion compatible power input with a high-efficiency, low-EMI, low-noise synchronous buck converter, the board delivers clean, stable power to the radio module under all operating conditions. Ethernet interfaces are galvanically isolated, protecting the system and the radio from ground loops and transient damage. The compact form factor with four M2 mounting positions enables easy integration into airframes and enclosures.

Key Features

- ✓ Wide-range 2S–6S input (7.4 V – 25.2 V nominal)
- ✓ High-efficiency synchronous buck converter
- ✓ Low EMI / low-noise design
- ✓ Excellent thermal / heat dissipation
- ✓ 2× UART interfaces
- ✓ 1× Ethernet interface (galvanically isolated)
- ✓ CONFIG button for radio configuration
- ✓ CPU LED + RSSI1 / RSSI2 / RSSI3 indicator LEDs

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Electrical Specifications

Parameter	Value / Description
Input Voltage Range	7.4 V – 25.2 V (2S–6S LiPo/Li-Ion)
Input Connector	4-pos JST-GH 1.25 mm pitch
Buck Converter Type	High-efficiency synchronous step-down
EMI Performance	Low EMI, low-noise output
Thermal Management	Excellent heat dissipation; thermal pad design
Ethernet Interface	1× 100 Mbps, galvanically isolated
UART Interfaces	2× UART
Status Indicators	CPU LED, RSSI1, RSSI2, RSSI3
User Controls	1× CONFIG push-button
Mounting	4× M2 mounting positions

Environmental Specifications

Parameter	Specification
Operating Temperature	−40 °F (−40 °C) to +185 °F (+85 °C)
Storage Temperature	−55 °C to +125 °C (recommended)
Operating Humidity	5% to 95% RH, non-condensing
Vibration	Suitable for UAV / industrial environments

Status Indicators & Controls

Designator	Label	Function
LED1	CPU LED	Radio module CPU activity / heartbeat indicator
LED2 (R19/LED2)	RSSI 1	Received Signal Strength Indicator — Level 1 (lowest)
LED3 (R20/LED3)	RSSI 2	Received Signal Strength Indicator — Level 2 (medium)
LED4 (R21/LED4)	RSSI 3	Received Signal Strength Indicator — Level 3 (strongest)
SW1	CONFIG	CONFIG button — enters radio configuration mode

Mechanical Information

The carrier board provides four M2 mounting holes positioned at the board corners to allow secure integration into airframes, enclosures, and payload bays. Standoffs should be used to provide adequate clearance for bottom-side components.

Mounting Type	4× M2 threaded / clearance holes
Recommended Standoff	M2 × 5 mm nylon or aluminum
PCB Finish	ENIG (Electroless Nickel Immersion Gold)
PCB Color	Black solder mask
Connector Type (all)	JST-GH 1.25 mm pitch

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Ordering Information

Part Number	Description	Status
NX04-01	PMDDL2450 Carrier Board	Production

Custom boards and bulk pricing available on request.

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