PmEth

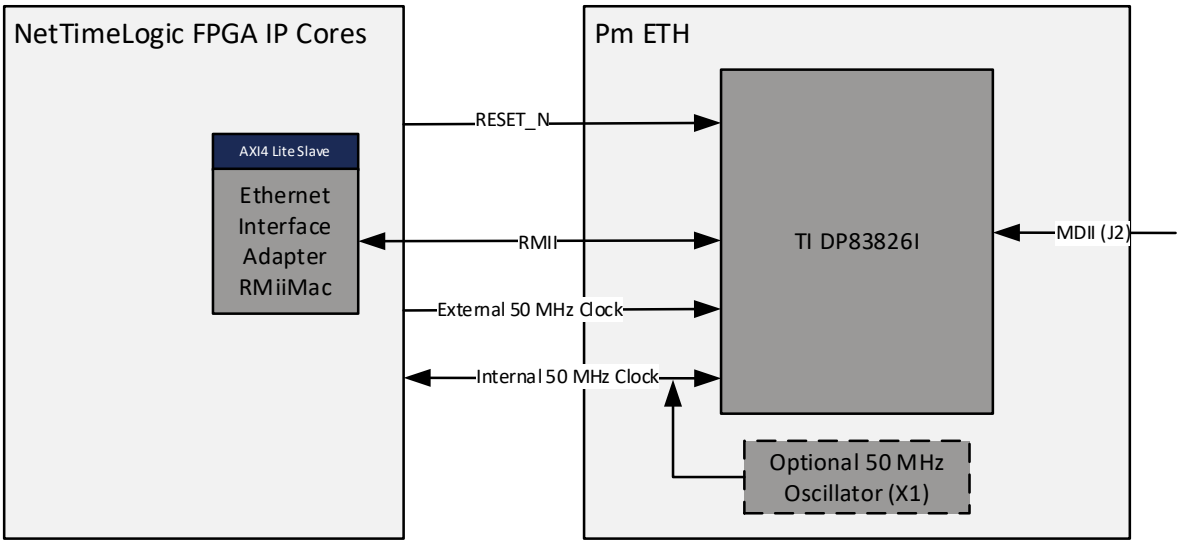
This Pmod™ compatible module features an integrated PHY and RJ45 connector, providing up to 100Mbit/s Ethernet connectivity. Designed for easy integration, it connects directly to systems with a Pmod™ connectors, enabling rapid networking capabilities.

Key Features:

- Up to 100Mbit/s Ethernet Connectivity via RMII interface
- RJ45 Connector
- Plug-and-Play: PHY is preconfigured via strapping pins
- Compact Design
- Versatile Applications
- Optionally configurable via strapping pins (solder option)

Module:

Block Diagram:



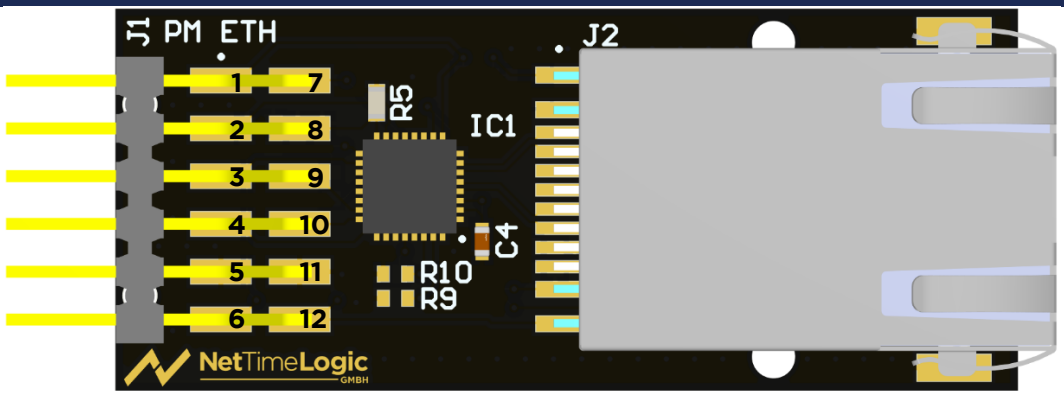
Specification:

PHY	Texas Instruments DP83826I

ETH Connector	RJ45 (8P8C)
	• Green LED: Link status and activity
	• Orange LED: Link speed
	  o On: Link is 100 M
	  o Off: Link is 10 M

Config	Soldered strapping configuration (default): R5 (1.5 kOhm) assembled: Full-Duplex R9 (1.5 kOhm) not assembled: 100 M R10 (1.5 kOhm) not assembled: AN ON R4 (0 Ohm) not assembled: 50MHz PHY from external
Power	~45mA @ 3.3V

Pmod™ Pins and Module Overview:



Pin	Signal	Direction	Description
		Header J1 (Pmod™)	
1	EXT/INT CLK	EXT: In INT: Out	Clock for the PHY (Pin 9) • External: If PmEth does not use the oscillator (X1) (default) • Internal: If PmEth use the oscillator (X1)
2	RX D1	Out	RMII Reception Data 1 Pin of the PHY (Pin 15)
3	CRS DV	Out	RMII Carrier and Receive Data Valid indicator of the PHY (Pin 18)
4	TX D1	In	RMII Transmission Data 1 Pin of the PHY (Pin 25)
5	GND		GND connection to the carrier board
6	VCC		3.3V supply from the carrier board
7	RESET_N	In	RESET_N to the RESET Pin of the PHY (Pin 32)
8	RX D0	Out	RMII Reception Data 0 Pin of the PHY (Pin 16)
9	TX EN	In	RMII Transmission Enable of the PHY (Pin 23)
10	TX D0	In	RMII Transmission Data 0 Pin of the PHY (Pin 24)
11	GND		GND connection to the carrier board
12	VCC		3.3V supply from the carrier board
		RJ45	
J2	RJ45	In/Out	RJ45 (8P8C) connector for Ethernet connectivity up to 100 Mbit/s

NetTimeLogic GmbH
Synchronization Solutions

Strassburgstrasse 10
8004 Zürich
Switzerland

contact@nettimelogic.com
www.nettimelogic.com
www.aionyx.ch