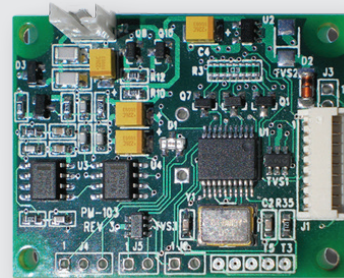# PM-104
FLEAPOWER™ OEM
PROXIMITY MODULE

LOCKSETS   VENDING   CUSTOM READERS   TERMINALS

Pyramid Series Proximity®

Frequency: 125 kHz
Read Range: Up to 3 inches (76 mm)

MAXSecure™
Integrated High-Security Technology

Warranty
Lifetime Warranty

ONE YEAR

Wiegand
Output Interface

001

FleaPower™
Battery Powered

PM-104 FLEAPOWER™ OEM PROXIMITY MODULE

Optimized for ultra-low power applications, such as those powered by a battery, the PM-104 fleaPower™ OEM Proximity Module is a member of Farpointe's *Pyramid Series* Proximity® line of 125-kHz proximity devices for access control. Making use of Farpointe's proven digital radio frequency identification (RFID) IP, the PM-104 allows Farpointe partners to embed a small, ultra-low-power proximity reader into their electro or mechanical solutions.

The PM-104's compact design allows it to be embedded in tight places. Physical size is 1.7 W × 1.3 H × 0.41 D (at coil connector) inches (43.2 × 33 × 10.4 mm). The PM-104 is typically capable of delivering non-contact read ranges up to 3 inches (76 mm). It may operate from 3.3 to 12 VDC at a typical maximum current draw of 20 mA, and with a typical sleep mode current draw as low as 5 µA. Standard output format includes open collector Wiegand, with other custom outputs available.

The Pyramid Series line includes a comprehensive selection of proximity access cards and tags that may be used interchangeably, including the PSC-1 Standard Light Proximity Card, the PSI-4 Image Technology Proximity Card, the PSM-2 Multi-Technology Proximity Card, and the PSK-3 Proximity Key Ring Tag.

Specifications	PM-104
Technology	Proximity
Frequency	125 kHz
Mounting	Four holes, one at each corner for simple installation
Dimensions	1.7" W × 1.3" H × 0.41" D (43.2 mm × 33 mm × 10.4 mm)
Voltage[1]	3.3 – 12 VDC, 5 VDC typical
Current (average)	25 µA typical maximum, 5 µA typical during sleep mode
	20 mA typical maximum for 100 mSec during card read
	200 mA-hrs per year typical given 35,000 card reads per year
Operating Temperature	–22° F to +149° F (–30° C to +65° C)
Card Read Time	150 mSec typical
Read Range (typical)[2]	Up to 3 inches (76 mm)
Audio Tone	Supports optional external beeper
LED	Supports optional external four-state LED
Interface	Wiegand (26-bit industry standard & custom). Other custom output available.
	Output formats are open collector and include a card present line
Compliance	Designed to comply with FCC requirements. OEM is responsible for regulatory and safety approvals.
Warranty	12 months
Technologies Supported	PM-104: *Pyramid Series* Proximity® Cards and Tags[3]
	PM-104-H: Pyramid + certain HID® 125-kHz Proximity protocols[4]
	PM-104-A: Pyramid + certain AWID 125-kHz Proximity protocols[5]
	PM-104-H-A: Pyramid + certain HID® 125-kHz Proximity protocols + certain AWID 125-kHz Proximity protocols

NOTES:

1. Linear power supplies are recommended for best operation.
2. Dependent upon credential used, coil size utilized, module power setting and installation environment.
3. Examples may include, and may not be limited to, PSC-1, PSI-4, PSM-2, and PSK-3.
4. Examples may include, and may not be limited to, ProxCard II®, ISOProx® II, and ProxKey® II.
5. Examples may include, and may not be limited to, CS Prox Card, GR Graphic Card, GRMAG Graphic Mag-Strip Card, PW Prox Wafer, and KT Key Tag.

Pin-Outs:

Connector One – Part: Amp 173981-2 (Male)

PIN	Description
P1-1	COIL A
P1-2	COIL B

Coil:

Recommended Inductance: 700 uH
(Contact Farpointe for more detail).

Connector Two – Part: Molex 53048-910 (Male)

PIN	Description
P2-1	+VDC
P2-2	Ground
P2-3	Beeper Control (Active Low)
P2-4	HOLD Input
P2-5	Card Present Output
P2-6	DATA 0 Output
P2-7	DATA 1 Output
P2-8	Green LED Control (5VDC to 12VDC = ON)
P2-9	Red LED Control (5VDC to 12VDC = ON)

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