



## 2.4 GHz Stamp User's Manual

## Part Number 9100-0160-01 Revision 1.0

Date: October 4, 2006



Prepared by: Axonn LLC 19349 N 12<sup>th</sup> Street Covington, LA 70433 PH: (985) 893-1048





## **Table of Contents**

1.	2.4 GHz Stamp Product Description			
2.	Typical Integration			
3.	Product Specifications			
	3.1 Specifications			
	3.2 Pin Diagram			
	3.3 Pin Descriptions			
4.	Air Interface			
	4.1 Frequency			
	4.2 Power			
	4.3 Timing			
5.	Serial User Interface			
	5.1 Message Protocol			
	5.2 Tips			
	5.3 Timing			
	5.4 Digital I/O.			
6.	Mounting Guidelines			
7.	Power Supply Requirements			
8.	Environmental Specifications			
9.	Regulatory Approvals			



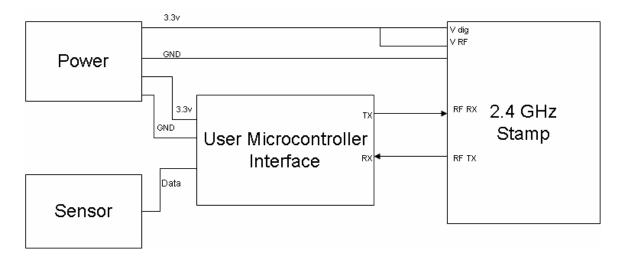


### 1. 2.4 GHz Stamp Product Description

To be completed

### 2. Typical Integration

Below is a block diagram of how a normal system using a 2.4 GHz Stamp would be designed.



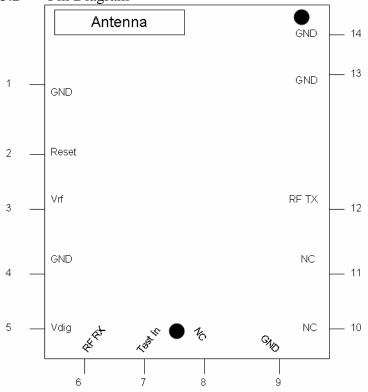
### 3. Product Specifications

## 3.1 Specifications

**TBC** 



3.2 Pin Diagram



3.3 Pin Descriptions

5.5 Till Descriptions				
Pin	Pin Name	Electrical Spec	Note	
1	GND		Tie directly to host ground plane.	
2	Reset	DO NOT CONNECT	For use with serial programming	
3	VRF	3.3V +/-5%	Powers the 2.4 GHz transceiver	
4	GND			
5	VDIG	3.3V +/-5%	Powers digital circuitry	
6	RF RX	3.3V TTL Output	Data Input	
		Logic 0: <0.6V	To be transmitted over 2.4 GHz radio	
		Logic 1: >0.8*Vdig	2400 baud	
7	Test In	DO NOT CONNECT	For use with serial programming	
8	NC			
9	GND			
10	NC			
11	NC			
12	RF TX	3.3V TTL Input	Data output	
		Logic 0: <0.6V	Information received over 2.4 GHz radio	
		Logic 1: >0.8*Vdig	2400 Baud	
13	GND			
14	GND			





Approximate Current Consumption (through Vdig and Vrf combined):

Maximum: 25mA Sleep mode: 1-2µA

#### 4. Air Interface

TBC

4.1 Frequency

TBC

4.2 Power

**TBC** 

4.3 Timing

**TBC** 

#### 5. Serial User Interface

**TBC** 

5.1 Message Protocol

TBC

5.2 Tips

TBC

5.3 Timing

TBC

5.4 Digital I/O

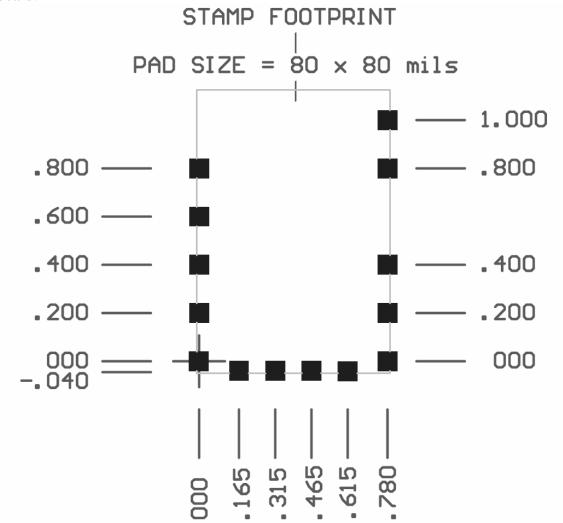
TBC





#### **6.** Mounting Guidelines

The figure below shows the recommended footprint for mounting the Stamp on its host board.



# 7. Power Supply Requirements

TBC

# 8. Environmental Specifications

**TBC** 





### 9. Regulatory Approvals

#### FCC ID: L2V-STAMP IC:3989A-STAMP

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS.

(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

The FCC requires the following notification for the device in compliance with 47CFR 15.105 for this Class B digital device. Full product test reports are available from Axonn upon request.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

WARNING: Changes or modifications not expressly approved by Axonn may render the device non-compliant to FCC and other regulatory body standards for operation and may void the user's authority to operate the equipment.

Accessory items that can be readily obtained from multiple retail outlets are not considered to be special accessories and are not to be marketed with the equipment. Only those accessory items provided by Axonn have been tested to ensure operation consistent with the regulatory standards that the device is required to perform.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This ClassB digital apparatus complies with Canadian ICES-003.

This device will operate in accordance to the standards set forth by the CE Mark Directives and standards R&TTE: (EN 300 328), RFI: (EN61000-4-3:1996 + A1:1998 + A2:2000), ESD: (EN61000-4-2: 1995 + A1:1998)

NOTICE: This equipment complies with the FCC RF Exposure Limits. A minimum of 20 centimeters (8 inches) separation between the device and the user and all other persons should be maintained.