

## RN-24 Class 1 “SuperModule”

### FEATURES-Embedded Firmware Stacks

- Bluetooth Version 2.0 compliant. (also compatible with 1.2 /1.1 )
- Embedded stacks support Serial Port Profile, no host or processor stacks required.
- Simple ACSII command interface, over local UART and remote from any Bluetooth client.
- Master and Slave modes, auto connect mode, connect on RX data (trigger) modes.
- “instant” cable replacement feature for creating quick wireless links.

### FEATURES – Hardware

- Accepts Wide range DC power input , 4Vdc to 24Vdc.
- Serial Port signals on both TTL and RS232 levels.
- UART baud rate speeds: 1200bps up to 921.6Kbps
- Sustained data rates of 240-300 kbps.
- Status LEDs.
- 330ft standard range class1, or longer depending on Antenna selection.
- Low power consumption (40mA connected,, <10mA idle mode)
- Small-form factor 24 Pin DIP radio modem package (0.1” pitch X 0.9” socket width)

### FEATURES-Optional Applications

- 9 General Purpose Input/Output Pins (4ma source/sink) controlled via remote commands
- 2 Channel 8 Bit AD converter (5Hz, 0- 1.8VDC )
- 2 MOSFET software switched outputs provides VOUT=VIN at up to 500mA continuous

## SPECIFICATIONS

Item	Specifications
Frequency	2402 ~ 2480MHz
Modulation	FHSS/GFSK
Channel intervals	1MHz
Number of channels	79CH
Power supply voltage	3.3Vdc ± 0.1V and 10mVp -p max. noise Or 4-24VDC unregulated .
Current consumption	50mA worst case peak
Transmission rate (over the air)	721k-3Mbps
Receive sensitivity	-80dBm typ.
Output level Class1	12dBm max.
Dimensions	
	With Antenna

## RN-24S DIP Module

### PIN DEFINITIONS

#### ● RN-24S (With Antenna)



*Note:* SPI is for internal use only.  
 Part is not 5Vdc tolerant.  
 Reset is active high; pulse >5msec  
 Use a 10K $\Omega$  series resistor on input  
 PIO Sink Current is 4mA max.  
 Unused pins can float.

	Pin Name	Function	
1	RESET	Optional input	Active LOW
2	GND	GND	
3	VCC	3.3V power IN	
4		NC-factory test	
5		NC-factory test	
6		NC-factory test	
7		NC-factory test	
8	CTS	TTL input	
9	TX	TTL output	
10	RTS	TTL output	
11	RX	TTL input	
12	VIN	4-24VDC input	
13	UART_RX	RS-232 level	
14	UART_TX	RS-232 level	
15	UART_RTS	RS-232 level	
16	UART_CTS	RS-232 level	
17	GPIO -7	Default baudrate	USER-GPIO
18	GPIO -6	Master mode	USER-GPIO
19	GPIO -4	Factory Reset	USER-GPIO
20	GPIO -3	Instant cable mode	USER-GPIO
21	GPIO -2	Connection status	USER-GPIO
22	NC		
23	NC		
24	GND	GND	
25	GPIO -11		USER-GPIO
26	NC		
27	NC		
28	GPIO -10		USER-GPIO
29	NC		
30	NC		
31	NC		
32	GND	GND	

#### ● RN-24E (Without Antenna, SMA end launch jack)

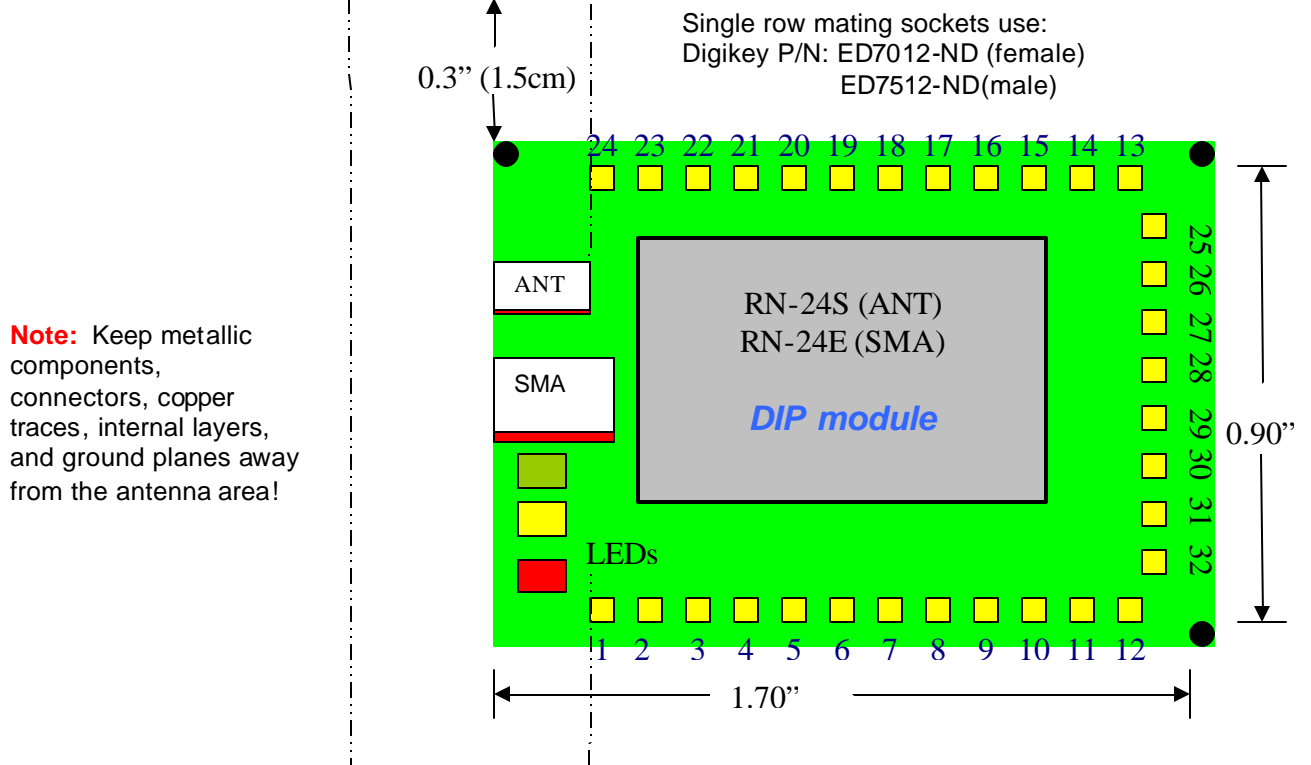


## RN-24DIP Module

### STANDARD PIN DIMENSIONS

- RN-24S (With Antenna) or E (without Antenna)

#### 24 Pin DIP (Through-hole) 0.1" Pitch and 0.9" Wide Socket



### ORDERING INFORMATION

PART NUMBERS:           RN-24S with CHIP ANT  
                                   RN-24E with SMA jack

MATCHING Antennae:    RN-SMA-S       1" short stubby  
                                   RN-SMA-RA     2" Right angle  
                                   RN-SMA-4      4" swivel high performance.