

## DESCRIPTION

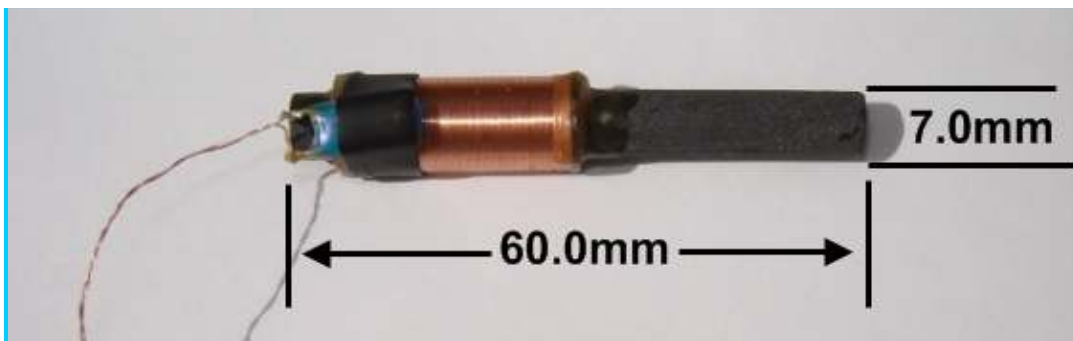
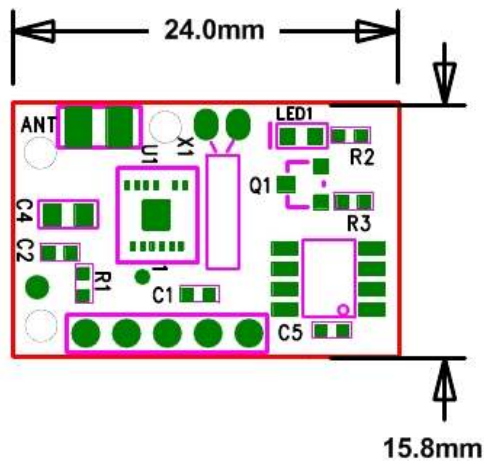
**SYM-RFT-XX** Modules complete with matched ferrite antenna, form a complete and integrated system for receiving encoded time data from national broadcasts: USA (WWVB, 60 KHz), UK (MSF, 60KHz) and Germany (DCF, 77.5KHz).

## Module Features

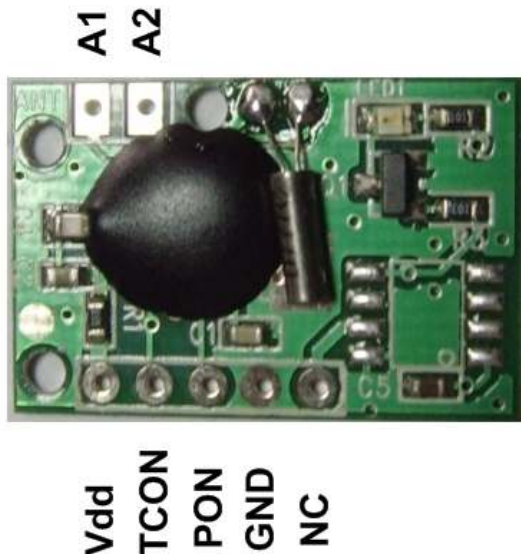
The modules feature:

- On-board indicator LED to help alignment and testing during code development
- Output in convenient inverted format
- No pull-up resistor required – output feeds directly into microcontroller
- Standby mode with very low (ca. 0.5uA) current consumption
- Operating voltage from 3.0 – 5.0V

## DIMENSIONS



## PINOUT DETAILS



Pin Designation	Function
A1	Antenna input 1
A2	Antenna inout 2
Vdd	Power supply for the module
TCON	Serial output pin in inverted format
PON	Power-On. Connect to GND to power on module
GND	Ground connection for the module
NC	No Connection. Leave open, do not ground

## TECHNICAL DATA

### Electrical Characteristics

Parameter	Min	Typ	Max	Unit
Supply voltage range	3.0	-	5.0	V
Supply Current	-	3	10	mA
Standby Current (PON = Vdd)	-	0.5	-	uA
PON Input level low	-	-	0.15Vcc	V
PON Input level high	0.85Vcc	-	-	V
Set up time after PON	-	0.5	2	s

Vcc = 3V, input signal frequency 60Khz, carrier voltage 100% reduction to 30%.  
 Tamb = 25 C.

## Absolute Maximum Ratings

Parameter	Value	Unit
Supply voltage	5.5	V
Ambient temperature range	-20 to +70	°C
Storage temperature range	-55 to +125	°C

## PART NUMBERING

**SYM-RFT-60**      60 KHz, WWVB and MSF  
**SYM-RFT-77**      77.5KHz, DCF

## RELATED PRODUCTS

**SYM-RFT-60-LP** Low Power 60 KHz Time receiver module.  
- Supply Voltage 1.2 – 5.0V  
- Operating current @ 3.0V: <100uA  
- Optimised for high volume, low power applications

**SYM-RFT-77-LP** Low Power 77.5KHz Time receiver module  
- Supply Voltage 1.2 – 5.0V  
- Operating current @ 3.0V: <100uA  
- Optimised for high volume, low power applications