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# FM RDS TMC receiver    FM9 RDS/TMC USB Receiver Traffic Box for PC

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*final specification*

## TrafficBox FM9 RDS/TMC USB Receiver

### INTRODUCTION

FM9 RDS/TMC USB Receiver is designed for easy integration of TMC functionality in your PC / PND.

GNS software development kit, containing complete API functions for various O/S is available for the TMC software integration. GNS API is implemented in most portable dynamic navigation software products on the market, so units using FM9 will work without further software development.



### FEATURES

- tiny FM-RDS receiver for add-on purposes with PC / PND – systems
- single 5V supply (USB)
- USB interface (driver on CD)
- universal RAW RDS output
- hardware options on demand
- host computer software-API available for TMC application integration

### APPLICATIONS

- dynamic navigation on PC / PND
- RDS TMC monitoring equipment application software available
- GNS software development kit containing complete API functions for various O/S available
- software options on demand

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## ELECTRICAL SPECIFICATION

absolute maximum ratings		
ambient temperature	storage	- 40..+100°C
	operational	- 20..+85°C
power supply voltage	5V DC	

quick reference data		
Device	FM RDS TMC accessory for PC / PND	
Weight (w/o antenna)	27 g	
Size (module)	46.0*20.0*16.0 mm	
ambient temperature	Non condensing	-20°C...+85°C
power supply , power requirements	Operation	5V DC / 50 mA
Type	Digital-Synthesizer tuner, integrated R(B)DS processor	
AF output level	na	
Sensitivity	approx. 3 $\mu$ V (S+N)/N=26dB	
Frequency range	87.5 .. 108.0 MHz (japanese or US bands on request)	
tuning speed	approx. 2.3 sec band to band	
Antenna connector	2.5mm 3 pole phone connector	

electrical data					
	min	typ	max	unit	note
supply voltage	4.5	5	5.5	V	
supply current	-	50	-	mA	
low level input voltage		-	0.8	V	@USB jack
high level input voltage	2.0	-		V	@USB jack
low level output voltage		-	0.6	V	@USB jack I <sub>OL</sub> =8.5mA
			0.1		@USB jack I <sub>OL</sub> =10uA
			1		@USB jack I <sub>OL</sub> =25mA
high level output voltage	2.6			V	@USB jack I <sub>OL</sub> =-3mA
	3.2				@USB jack I <sub>OL</sub> =-10uA
		2.5		V	@USB jack I <sub>OL</sub> =-10mA
baud rate	38000	38400	38800	bit /sec	
serial settings		8N1noP			
DC input voltage RFin	-	-	6	V	
RFininput resistance	-	Approx. 2K	-	$\Omega$	
RFininput capacitance	2.5	4	6	pF	

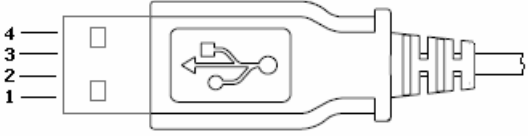
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## HARDWARE RELEASE

The FM9 RDS/TMC USB Receiver has a USB interface. data connection is provided about a cable with USB type-A plug to the PC / PND. Via this cable the PC / PND also power supplies the FM9 device.

## PINOUT USB

Direction	description	drawing
input/ output	USB type A plug provides power supply from PC /PND to the FM9 (5V DC / 50mA) Provides serial data connection between FM9 and PC / PND Pinout USB: 1. +5V 2. D- 3. D+ 4. GND	

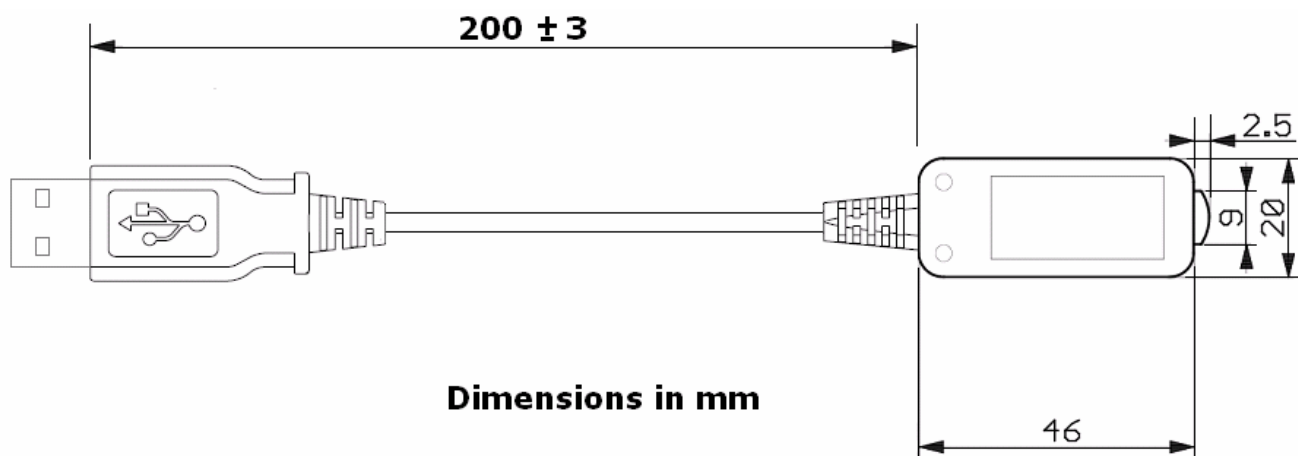
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## MECHANICAL DRAWING



## ORDERING INFORMATION

4037735104150	FM9 RDS/TMC USB Receiver Traffic Box for PC / PND. USB data interface, USB plug type-A, wire antenna, Driver CD, Bulk packaging.
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