

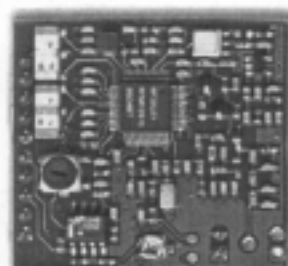
FM SINGLE-CHANNEL TRANSCEIVER HALF-DUPLEX 910 MHz

DESCRIPTION

The RT14 is a single-channel, single-board FM transceiver featuring very small dimensions, one antenna with on-board antenna switch.

The output power guarantees a licence-exempt use in the North American 902-928MHz ISM band.

The RT14 with its good price to performance ratio is the right solution for a great number of market needs related to RF wireless communications.

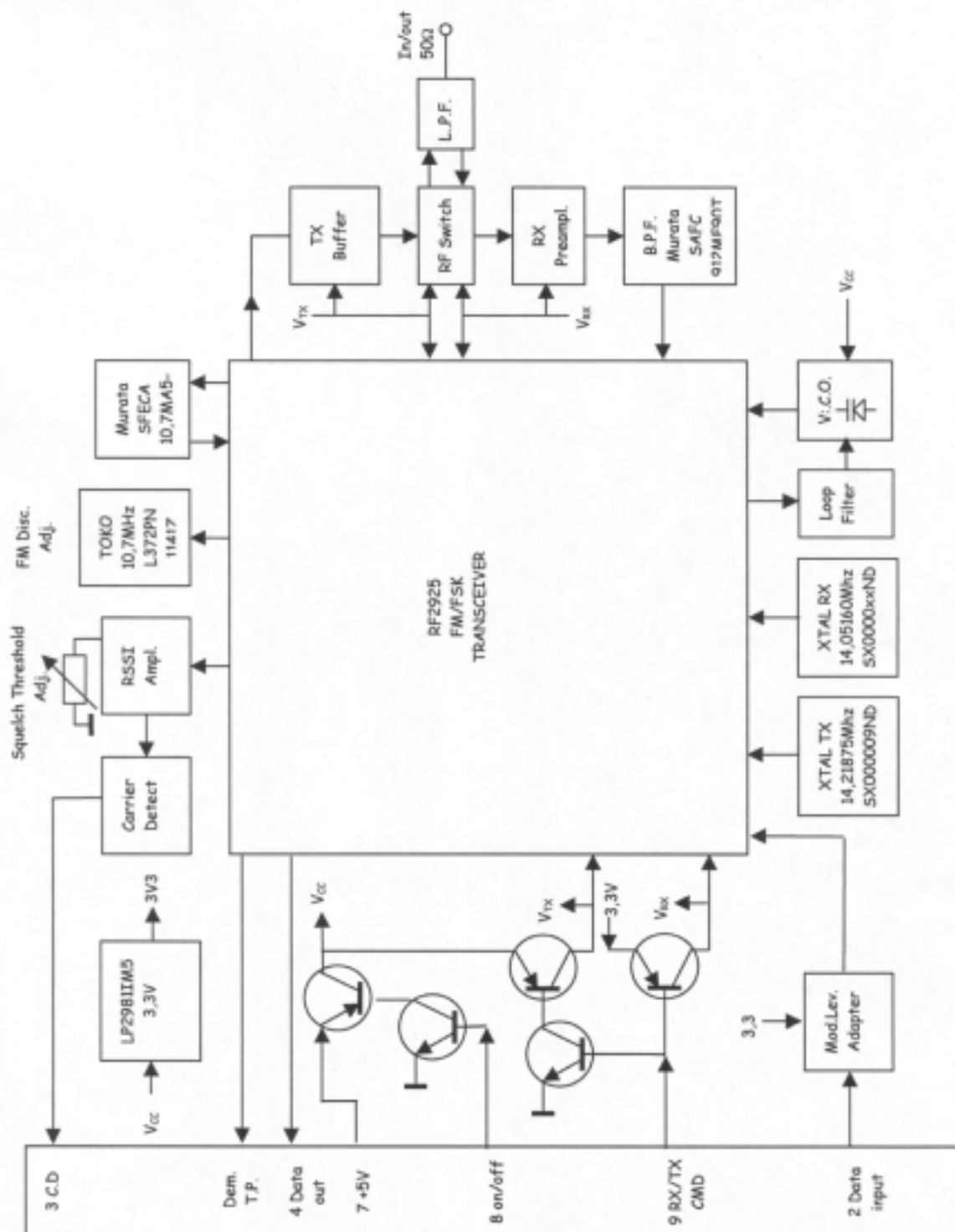


APPLICATION

- X Building automation
- X Computer networking
- X Telemetry
- X Security system

- Bar code readers X
- Hand held, portable computer terminals X
- Remote industrial process monitoring X
- Portable electro-medical appliances X

BLOCK DIAGRAM



This document contains information intended to help the evaluation of this product. Telital Automotive reserves the right to change or discontinue work on this proposed product without notice. Products supplied may not correspond to those pictured in this brochure. All rights reserved. Reproduction and disclosures are forbidden.

MAXIMUM RATINGS

PARAMETER	MIN	TYP	MAX	UNIT
Operating supply range	4.75	5	5.25	V
Operating temperature	-20		+55	°C
Storage temperature	-40		+100	°C
Supply current TX		27	35	mA
RX		20	25	mA
Turn on time		20	30	mS
RX to TX and TX to RX time		1	2	mS
Modulating signal	digital			

PERFORMANCE DATA

Temperature: +25°C
Supply voltage: +5V

TX

PARAMETER	MIN	TYP	MAX	UNIT
Power out on 50Ω	+1	+3	+5	dBm
TX frequency*	910,000			MHz
Frequency accuracy	-10		+10	kHz
FM deviation (+/-)	40	50	60	kHz
Modulation response	10		45	kHz
Data bit/rate***	19.2		45	Kbps

RX

PARAMETER	MIN	TYP	MAX	UNIT
RX frequency*	910,000			MHz
RX sensitivity**	-100			dBm
Carrier detect threshold	-90	-95		
Carrier detect hysteresis	5		10	dB
1st LO frequency	899,300			MHz
1st LO freq. accuracy	-10		+10	kHz
IF	10,7			MHz
IF bandwidth	220	280	330	kHz
AFout level peak-to-peak	300	-	600	mVpp
AF bandwidth @ 3dB	1		45	kHz
Data bit rate***	19.2		38.4	Kbps
Image frequency rejection	30			dB
Rated input impedance		50		Ω
Delay for carrier detect			3	mS
Delay for data valid			2	mS

* for other central frequency, in the range 905MHz to 915MHz, is available for 2000pcs minimum order quantity

** for S/N 12dB@ 1kHz sin. modulation and +/-50kHz deviation

*** valid for RZ coding. Coding Manchester is advisable at maximum 45 Kbps