

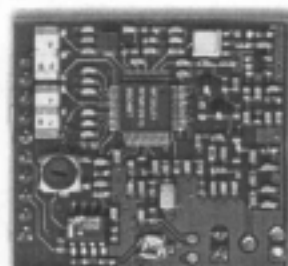
**FM SINGLE-CHANNEL TRANSCEIVER
HALF-DUPLEX
910 MHz**

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.

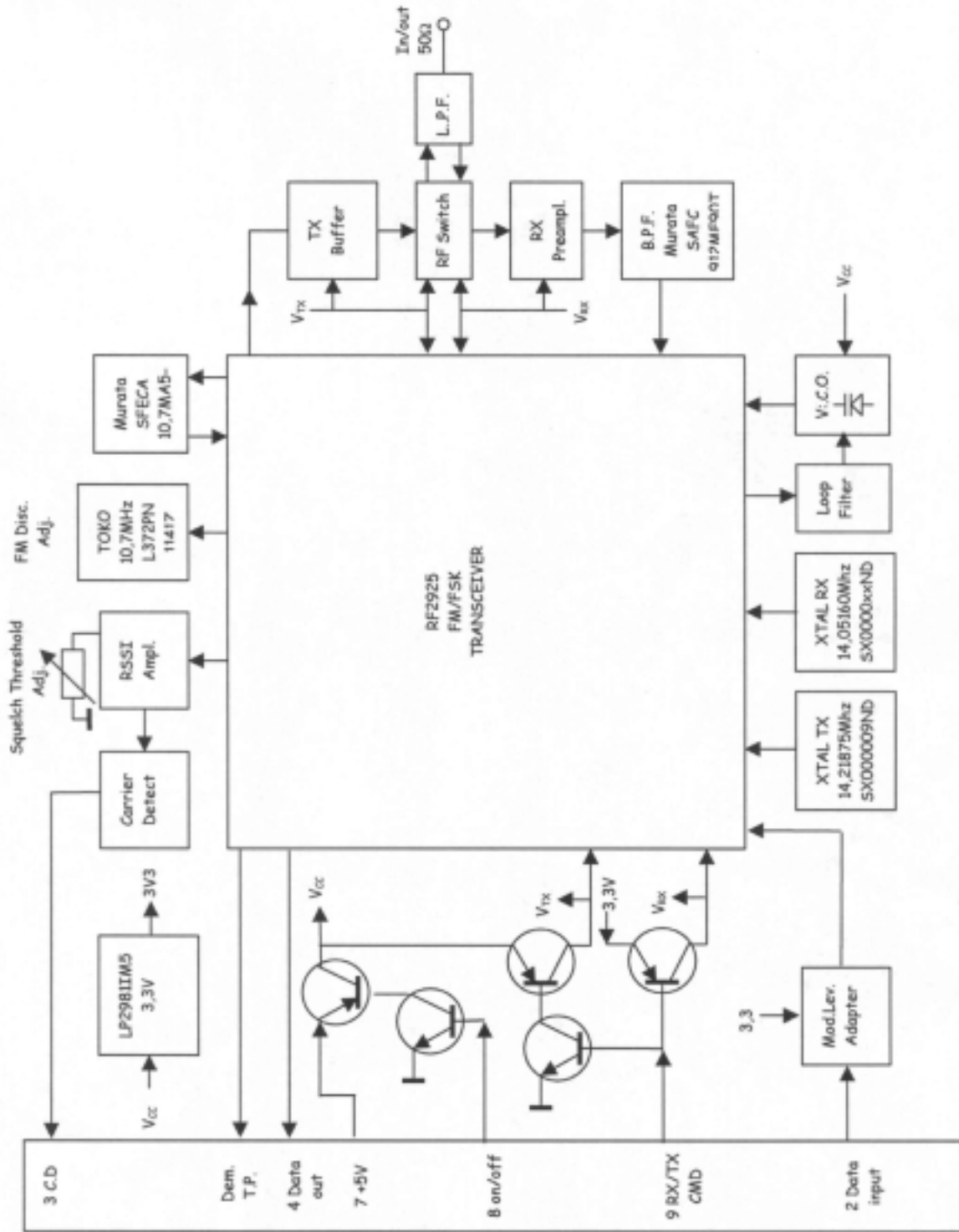
The RT14 with its good price to performance ratio is the right solution for a great number of market needs related to RF wireless communications.



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



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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