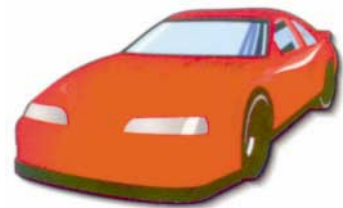



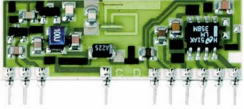

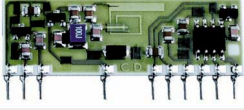


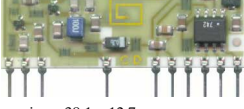


remote control and  
security systems

hybrids







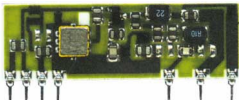

*telecontrolli*

## AM Super Regenerative Receivers

MODEL	DESCRIPTION	Vdc Is	Sensitivity	Frequency (XXX)	-3dB BW	Turn on Time	
<b>RR1-XXX</b> Fixed Frequency Super Regenerative Radio Receiver	Custom-specified working frequency range: 200 to 450 MHz	5V 2.5mA	-103 dBm	315 418 433.92 MHz	+/- 2 MHz	< 1.2 sec	 Dimensions: 38.1 x 12.7 mm
<b>RR3-XXX</b> Laser Trimmed Inductor Super Regenerative Radio Receiver	Frequency tuning by laser trimmed coil <b>I-ETS 300-220 Compliance</b> <b>FCC 15/C Compliance</b>	5V 2.5mA	-103 dBm	315 418 433.92 MHz	+/- 2 MHz	< 1.2 sec	 Dimensions: 38.1 x 12.7 mm
<b>RR4-XXX</b> Cascode Input Stage Super Regenerative Radio Receiver	Frequency tuning by laser trimmed coil Low level of emitted spectrum <b>I-ETS 300-220 Compliance</b>	5V 2.5mA	-105 dBm	315 418 433.92 MHz	+/- 1.5 MHz	< 2 sec	 Dimensions: 38.1 x 12.7 mm
<b>RR6-XXX</b> Very Low Consumption Super Regenerative Radio Receiver	Frequency tuning by laser trimmed coil Very low current consumption Fast turn on time <b>I-ETS 300-220 Compliance</b>	5V 0.5mA	-95 dBm	315 418 433.92 MHz	+/- 1.5 MHz	< 150 msec	 Dimensions: 38.1 x 12.7 mm
<b>RR8-XXX</b> 3V Supply Voltage Super Regenerative Radio Receiver	Frequency tuning by laser trimmed coil Very low current consumption 3V supply voltage <b>I-ETS 300-220 Compliance</b>	3V 0.5mA	-90 dBm	315 418 433.92 MHz	+/- 1.5 MHz	< 150 msec	 Dimensions: 38.1 x 12.7 mm
<b>RR10-XXX</b> Narrow Bandwidth Super Regenerative Radio Receiver	Frequency tuning by laser trimmed coil Low current consumption Narrow bandwidth <b>I-ETS 300-220 Compliance</b>	5V 1.2mA	-102 dBm	315 418 433.92 MHz	+/- 1.2 MHz	< 1.2 sec	 Dimensions: 38.1 x 12.7 mm
<b>RR11-XXX</b> Very Low Consumption Super Regenerative Radio Receiver	Frequency tuning by laser trimmed coil Very low current consumption Fast turn on time	5V 0.3mA	-95 dBm	315 418 433.92 MHz	+/- 1.5 MHz	< 150 msec	 Dimensions: 38.1 x 12.7 mm
<b>RR13-868</b> 868.35 MHz Super Regenerative Radio Receiver	Frequency tuning by laser trimmed capacitor Very low current consumption Fast turn on time	5V 0.5mA	-90 dBm	868.35 MHz	+/- 2 MHz	< 150 msec	 Dimensions: 33.02 x 12.7 mm
<b>RR15-XXX</b> Super Regen. Radio Receiver - Front End SAW Filter - Shielded	RX with saw front-end filter to reduce RF Bandwidth EMI immunity improved by a metal shield <b>I-ETS 300-220 Compliance</b>	5V 4.0mA	-102 dBm	433.92 MHz	+/- 250 KHz		 Dimensions: 40.64 x 19.1 mm

Note:

The RR.. receivers family can be utilized with all transmitters of RT.. serie.


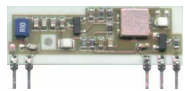
AM Radio Transmitters							
MODEL	DESCRIPTION	Vdc	Is	Frequency (XXX)	Po	Data Rate	
<b>RT1-XXX</b> Integrated Antenna Radio Transmitter Module	Thick Film RF transmitter module with LC oscillator and integrated antenna.  Frequency tuning by antenna laser trimming process	9 - 14 V	3 mA	418 433.92 MHz	-10 dBm	9.6 Kbit/s	 Dimensions: 19.0 x 7.6 mm
<b>RT2-XXX</b> Radio Transmitter Module with SAW Resonator Inegrated Antenna	Very small thick film RF transmitter module with SAW controlled oscillator and integrated antenna.	4 - 14 V	3 mA	418 433.92 MHz	-20 dBm	9.6 Kbit/s	 Dimensions: 17.8 x 10.2 mm
<b>RT4-XXX</b> Radio Transmitter Module with SAW Resonator and External Antenna	Very small thick film DIL RF transmitter module with SAW controlled oscillator and external antenna.  <b>I-ETS 300-220 Compliance</b>	2 - 14 V	4 mA	315 418 433.92 MHz	+7 dBm	9.6 Kbit/s	 Dimensions: 17.8 x 10.2 mm
<b>RT5-XXX</b> Radio Transmitter Module with SAW Resonator and External Antenna	Very small thick film SIL RF transmitter module with SAW controlled oscillator and external antenna.  <b>I-ETS 300-220 Compliance</b>	2 - 14 V	4 mA	315 418 433.92 MHz	+7 dBm	9.6 Kbit/s	 Dimensions: 17.8 x 11.4 mm
<b>RT6-XXX</b> Radio Transmitter Module with SAW Resonator and External Antenna	Thick film SIL RF transmitter module with SAW controlled oscillator and external antenna.	3 - 14 V	7 mA	315 418 433.92 MHz	+7 dBm	9.6 Kbit/s	 Dimensions: 38.1 x 12.2 mm
<b>RT8-868</b> Radio Transmitter Module with SAW Resonator and External Antenna	Thick film SIL RF transmitter module with SAW controlled oscillator and external antenna.	3 - 14 V	12 mA	868.35 MHz	+7 dBm	9.6 Kbit/s	 Dimensions: 35.6 x 11.4 mm

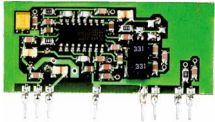
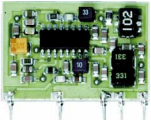

Note:

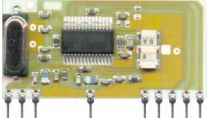
RT1 transmitter can be utilized with all receivers of RR.. serie.


RT2 .. RT6 transmitters family can be utilized with all receivers of RR.. , RRS.. and RRQ.. series.

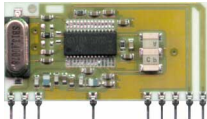
RT8 transmitter can be utilized with RR13 receiver.


FM Radio Transmitters							
MODEL	DESCRIPTION	Vdc	Is	Frequency (XXX)	Po	Data Rate	
<b>RTF2-XXX</b> FSK Radio Transmitter Module with SAW Resonator	Thick film RF transmitter module with SAW controlled oscillator and external antenna.  <b>I-ETS 300-220 Compliance</b>	3 - 14 V	15 mA	315 433.92 MHz	+7 dBm	9.6 Kbit/s	 Dimensions: 38.1 x 12.7 mm
<b>RTF6-XXX</b> FSK Radio Transmitter Module with SAW Resonator	Very small thick film RF transmitter module with SAW controlled oscillator and integrated antenna.	3 - 14 V	15 mA	315 433.92 MHz	+7 dBm	9.6 Kbit/s	 Dimensions: 30.48 x 10.16 mm

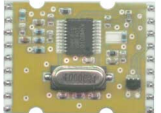
AM Superhet Receivers - SAW Controlled							
MODEL	DESCRIPTION	Vdc Is	Sensitivity	Frequency (XXX)	-3dB BW	Data Rate	
<b>RRS1-XXX</b> AM Superhet Receiver with SAW Front End Filter	Superhet data receiver with SAW front end filter SAW controlled oscillator  <b>I-ETS 300-220 Compliance</b>	5V 3.7mA	-100 dBm	315 418 433.92 MHz	+/- 200 KHz	4.8 Kbit/s	 Dimensions: 45.7 x 19.0 mm
<b>RRS2-XXX</b> AM Superhet Receiver	Low cost AM superhet data receiver with LC front end filter  SAW controlled oscillator	5V 3.7mA	-102 dBm	315 418 433.92 MHz	+/- 400 KHz	4.8 Kbit/s	 Dimensions: 30.5 x 20.3 mm
<b>RRS3-XXX</b> AM Superhet Receiver with preAmp Front End Filter	High sensitivity AM superhet data receiver. SAW controlled oscillator  <b>I-ETS 300-220 Compliance</b> <b>FCC 15/C Compliance</b>	5V 5mA	-106 dBm	315 418 433.92 MHz	+/- 400 KHz	4.8 Kbit/s	 Dimensions: 38.1 x 14.5 mm

AM Superhet Receivers - Crystal Controlled							
MODEL	DESCRIPTION	Vdc Is	Sensitivity	Frequency (XXX)	-3dB BW	Data Rate	
<b>RRQ1-XXX</b> <b>RRQ2-XXX</b> AM Superhet Receiver	AM Superhet data receiver with PLL and crystal oscillator RRQ2 model: squelch circuit integrated <b>I-ETS 300-220 Compliance</b> <b>FCC 15/C Compliance</b>	5V 5mA	-107 -107 -102 dBm	315 433.92 868.35 MHz	+/- 200 KHz	4.8 Kbit/s	 Dimensions: 38.1 x 18.3 mm

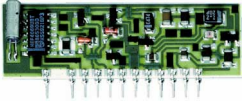


AM Radio Transmitters - Crystal Controlled							
MODEL	DESCRIPTION	Vdc	Is	Frequency (XXX)	Po	Data Rate	
<b>RTQ1-XXX</b> Radio Transmitter Module with Crystal Oscillator and	Very small thick film DIL RF transmitter module with crystal oscillator and external antenna. <b>I-ETS 300-220 Compliance</b>	2.1 - 4 V	7 mA	315 433.92 868.35 MHz	+5 +5 +1 dBm	9.6 Kbit/s	 Dimensions: 20.32 x 11.43 mm

FM Superhet Receivers - Crystal Controlled							
MODEL	DESCRIPTION	Vdc Is	Sensitivity	Frequency (XXX)	-3dB BW	Data Rate	
<b>RRFQ1-XXX</b> FSK Superhet Receiver	FSK Superhet data receiver with PLL and crystal oscillator Available Frequency: 315, 433.9, 868.35 MHz <b>I-ETS 300-220 Compliance</b>	5V 5.7mA	-102 dBm	315 433.92 868.35 MHz	+/- 200 KHz	4.8 Kbit/s	 Dimensions: 38.1 x 18.3 mm

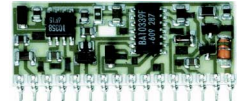

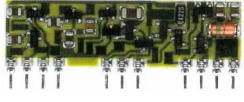
FM Radio Transmitters - Crystal Controlled							
MODEL	DESCRIPTION	Vdc	Is	Frequency (XXX)	Po	Data Rate	
<b>RTFQ1-XXX</b> FSK Radio Transmitter Module with Crystal Oscillator and External Antenna	Very small thick film SIL RF transmitter module with SAW controlled oscillator and external antenna	2.1 - 4 V	7 mA	315 433.92 868.35 MHz	+5 +5 +1 dBm	9.6 Kbit/s	 Dimensions: 20.32 x 11.43 mm

FM Radio Transceivers - Crystal Controlled							
MODEL	DESCRIPTION	Vdc	Is	Frequency (XXX)	Sens / Po	Data Rate	
<b>RXQ1-433.9</b> Dual Band FM Transceiver	Half duplex radio transceiver module with two RF channels selectable by external pin.	2.7 - 5.25 V	12 (RX) 26 (TX) mA	433.92 434.33 MHz	-100 / +5 dBm	20 Kbit/s	 Dimensions: 30.48 x 22.86 mm

## Ultrasonic Transmitter / Receivers

MODEL	DESCRIPTION	Vdc	Is	Frequency	Gain	Out sink current	
<b>UTR1</b> Ultrasonic Transmitter Receiver	Thick Film hybrid circuit that allows to realize an ultrasonic detector adding few external components.	9 - 16 V	9 mA	40 KHz	50 dB	100 mA	 Dimensions: 48.3 x 15.2 mm
<b>UTR2</b> Ultrasonic Transmitter Receiver	Thick Film hybrid circuit that allows to realize an ultrasonic detector adding few external components.	9 - 16 V	15 mA	40 KHz	50 dB	20 mA	 Dimensions: 38.8 x 17.0 mm
<b>UTR3</b> Ultrasonic Transmitter Receiver	Thick Film hybrid circuit that allows to realize an ultrasonic detector adding few external components.	9 - 16 5 V	2 3 mA	40 KHz	50 dB	1 mA	 Dimensions: 38.8 x 17.0 mm

## Infrared Devices

MODEL	DESCRIPTION	Vdc	Is	Amplifier bandwidth	Gain	Out sink current	
<b>PID1</b> Passive Infrared Detector	Thick Film hybrid circuit that allows to realize a passive infrared detector adding few external components.	9 - 16 V	5 mA	1 - 10 Hz	70 dB	20 mA	 Dimensions: 40.6 x 15.2 mm
<b>IRT1</b> Infrared Pulse Transmitter	Thick Film hybrid circuit that allows to realize an infrared barrier when utilized with an infrared pulse detector (IRD1).	9 V	35 mA		pulse frequency 400 Hz		 Dimensions: 12.7 x 16.9 mm
<b>IRD1</b> Infrared Pulse Detector	Thick Film hybrid circuit that allows to realize an infrared barrier when utilized with an infrared pulse transmitter (IRT1).	12 / 24 V	3 mA		pulse frequency 400 Hz	20 mA	 Dimensions: 38.1 x 10.9 mm

SF-v11



### HEAD OFFICE & PLANT

Via Naz. delle Puglie, 177  
80026 CASORIA (NA), Italy  
Tel: +39 081 759.90.33  
Fax: +39 081 759.64.94  
customer.service.tc@ipmgroup.com

### SALE OFFICE

Via Pirelli, 32  
20124 MILANO, Italy  
Tel: +39 02 67.11.681  
Fax: +39 02 67.11.682.28  
telecontrolli.mi@ipmgroup.com