

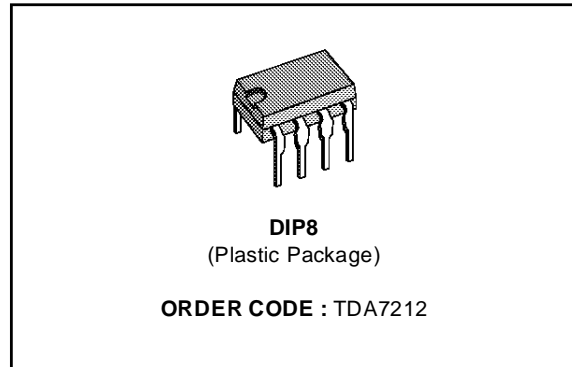
LOW VOLTAGE FM XTAL CONTROLLED FRONT-END

ADVANCE DATA

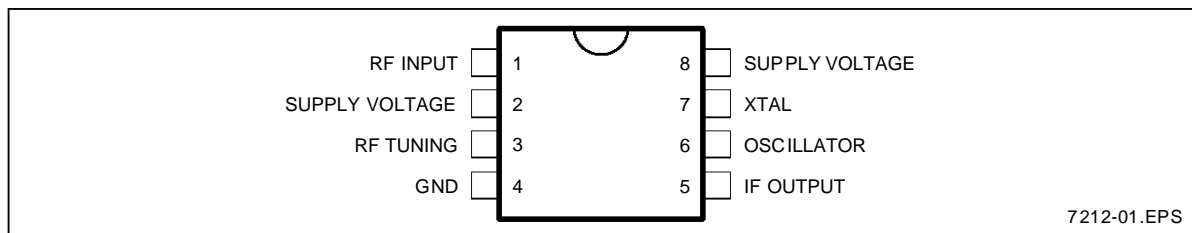
- RF PREAMPLIFIER
- BALANCED MIXER
- XTAL CONTROLLED OSCILLATOR (fundamental and overtone)
- LOW OSCILLATOR RADIATION
- HIGH SIGNAL HANDLING

DESCRIPTION

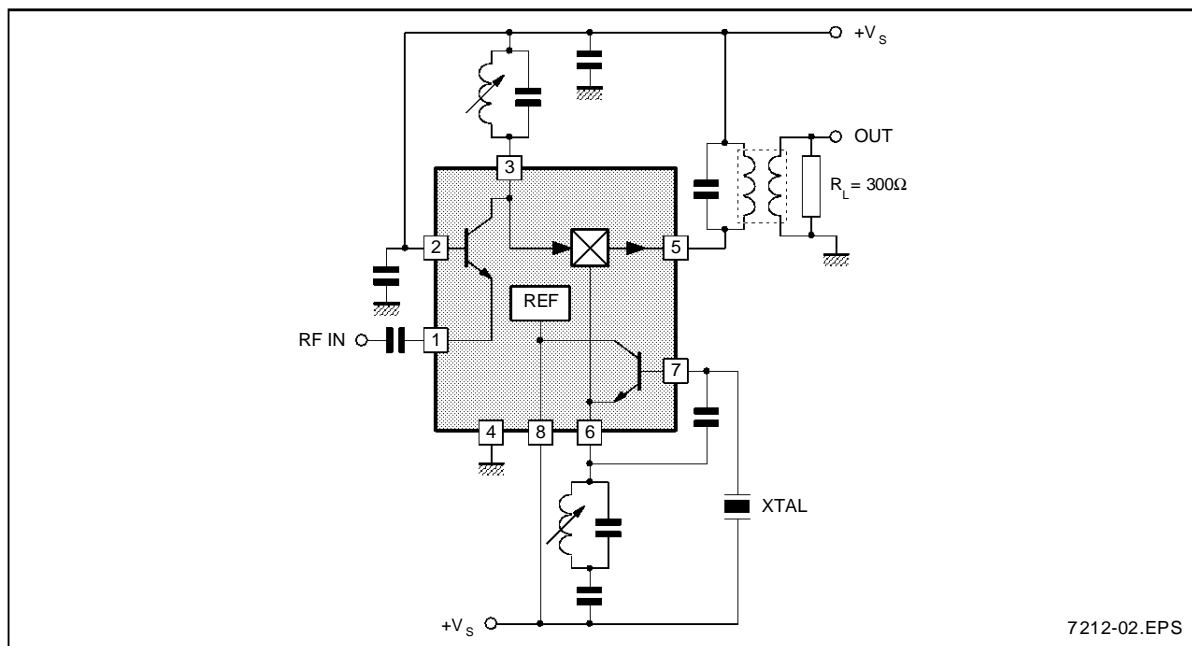
The TDA7212 is a monolithic integrated circuit in a 8 pin minidip package designed for general purpose XTAL controlled FM front-end up to 140MHz.



PIN CONNECTIONS



BLOCK DIAGRAM



TDA7212

ABSOLUTE MAXIMUM RATINGS

| Symbol | Parameter | Value | Unit |
|----------------|---|-----------|------------------|
| V_S | Supply Voltage | 7 | V |
| P_{tot} | Total Power Dissipation at $T_{amb} < 70^\circ\text{C}$ | 400 | mW |
| T_{oper} | Operating Temperature | -20, +85 | $^\circ\text{C}$ |
| T_{stg}, T_j | Storage and Junction Temperature | -40, +150 | $^\circ\text{C}$ |

7212-01.TBL

THERMAL DATA

| Symbol | Parameter | Value | Unit |
|---------------|-------------------------------------|----------|---------------------------|
| $R_{th(j-a)}$ | Junction-ambient Thermal Resistance | Max. 200 | $^\circ\text{C}/\text{W}$ |

7212-02.TBL

ELECTRICAL CHARACTERISTICS

($V_S = 3\text{V}$, $T_{amb} = 25^\circ\text{C}$ unless otherwise specified - Refer to the Test Circuit)

| Symbol | Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
|-----------|----------------------------------|--|------|------|------|-------------------|
| V_S | Supply Voltage | | | 3 | 6 | V |
| I_S | Supply Current | | | 3 | | mA |
| V_{osc} | Local Oscillator Voltage (Pin 6) | | | 200 | | mV _{RMS} |
| G | Voltage Gain | $f = 49\text{MHz}$, $R_{IN} = 75\Omega$, $R_{OUT} = 300\Omega$ | | 40 | | dB |
| V_{off} | Local Oscillator Stop Voltage | | | 1.2 | | V |

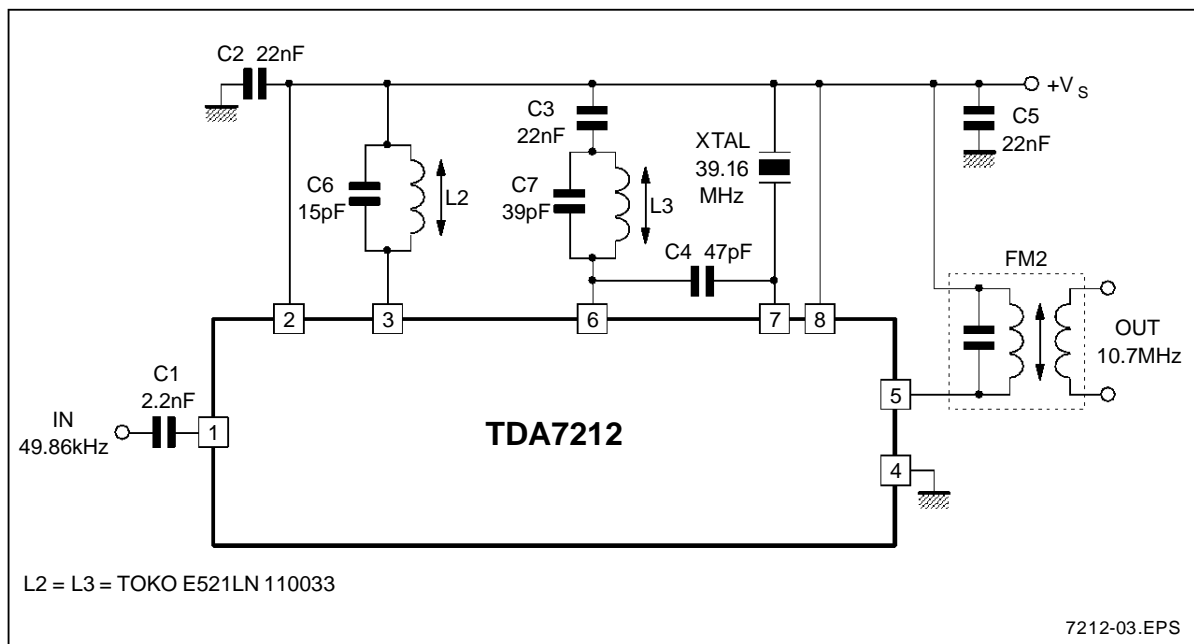
7212-03.TBL

TYPICAL DC VOLTAGES (Refer to the Test Circuit)

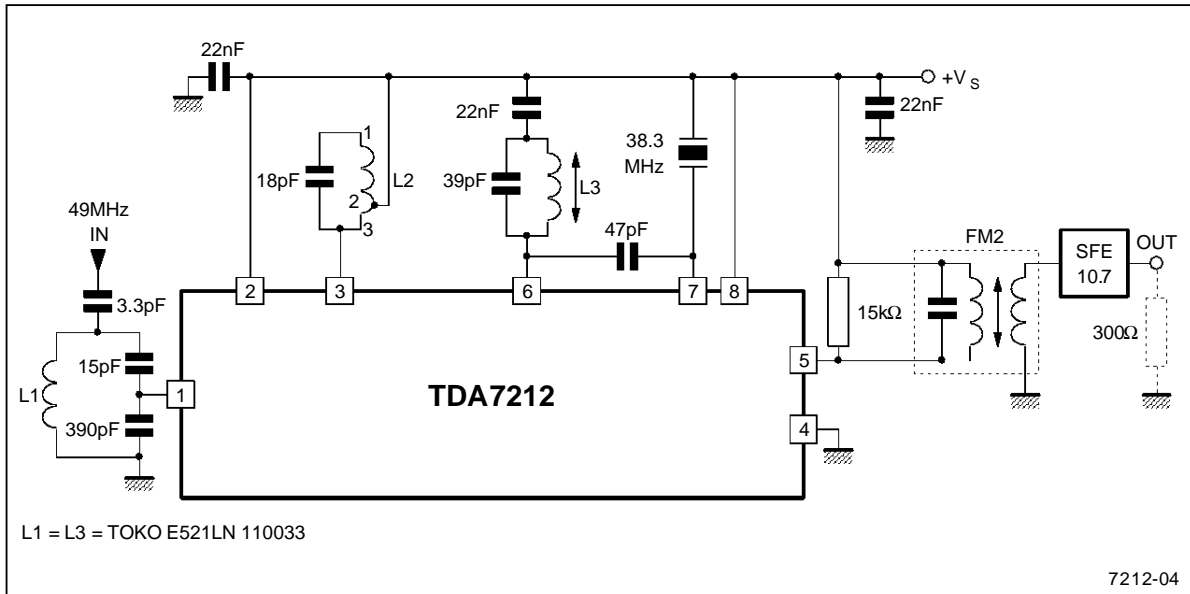
| Pins | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------|-----|---|---|---|---|-----|-----|---|
| (V) | 2.3 | 3 | 3 | 0 | 3 | 2.1 | 2.9 | 3 |

7212-04.TBL

TEST CIRCUIT



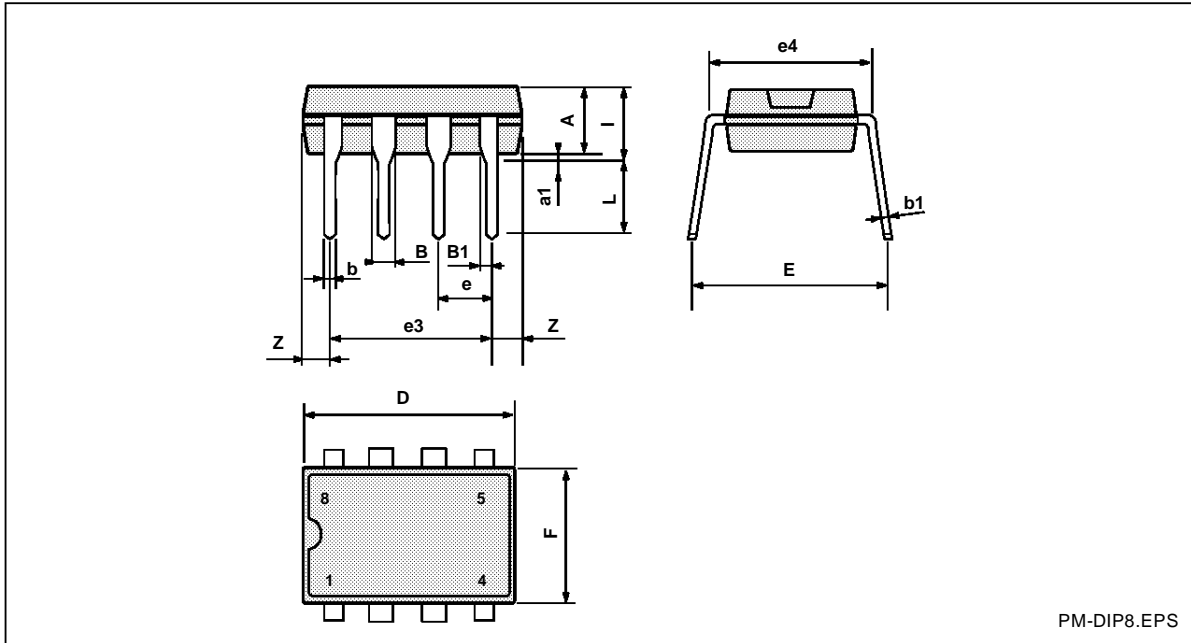
FRONT-END CORDLESS APPLICATION



NB. : In this application it is advisable to decrease the gain of the front-end through a tapping on the L2 coil (3 turns of 12). So it can be obtained: better selectivity, improved intermodulation performance, better matching with the following block that are IC's designed for double conversion radio receivers.

TDA7212

PACKAGE MECHANICAL DATA
8 PINS - PLASTIC DIP



| Dimensions | Millimeters | | | Inches | | |
|------------|-------------|------|-------|--------|-------|-------|
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | | 3.32 | | | 0.131 | |
| a1 | 0.51 | | | 0.020 | | |
| B | 1.15 | | 1.65 | 0.045 | | 0.065 |
| b | 0.356 | | 0.55 | 0.014 | | 0.022 |
| b1 | 0.204 | | 0.304 | 0.008 | | 0.012 |
| D | | | 10.92 | | | 0.430 |
| E | 7.95 | | 9.75 | 0.313 | | 0.384 |
| e | | 2.54 | | | 0.100 | |
| e3 | | 7.62 | | | 0.300 | |
| e4 | | 7.62 | | | 0.300 | |
| F | | | 6.6 | | | 0.260 |
| i | | | 5.08 | | | 0.200 |
| L | 3.18 | | 3.81 | 0.125 | | 0.150 |
| Z | | | 1.52 | | | 0.060 |

DIP8.TBL

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