



# FR W326

SAW Resonator - Remote Control  
*Specification (Rev-1)*

|                            |     |
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March 15<sup>th</sup>, 2005

| Electrical Parameters                                        | Unit                      | Minimum | Typical   | Maximum  |
|--------------------------------------------------------------|---------------------------|---------|-----------|----------|
| Center Frequency ( $f_c$ )                                   | MHz                       | 433.845 | -         | 433.995  |
| Tolerance from 433.92 MHz ( $\Delta f_c$ )                   | kHz                       | -       | -         | $\pm 75$ |
| Insertion Loss (IL)                                          | dB                        | -       | 1.5       | 2        |
| Quality Factor                                               |                           |         |           |          |
| Unloaded Q ( $Q_u$ )                                         |                           | -       | 12.500    | -        |
| 50 $\Omega$ Loaded Q ( $Q_l$ )                               |                           | -       | 2.000     | -        |
| Temperature Stability                                        |                           |         |           |          |
| Turnover Temperature ( $T_0$ )                               | $^{\circ}\text{C}$        | 25      | 40        | 55       |
| Turnover Frequency ( $f_0$ )                                 | kHz                       | -       | $f_c$     | 2.5      |
| Frequency Temperature Coefficient (FTC)                      | ppm/ $^{\circ}\text{C}^2$ | -       | 0.037     | -        |
| Frequency Aging Absolute Value during the First Year $ f_A $ | ppm/yr                    | -       | $\leq 10$ |          |
| DC Insulation Resistance Between any Two Pins                | M $\Omega$                | 1.0     | -         | -        |
| RF Equivalent RLC Model                                      |                           |         |           |          |
| Motional Resistance ( $R_M$ )                                | $\Omega$                  | -       | 19        | 29       |
| Motional Inductance ( $L_M$ )                                | $\mu\text{H}$             | -       | 120.311   | -        |
| Motional Capacitance ( $C_M$ )                               | FF                        |         | 2.1240    | -        |
| Pin 1 to Pin 2 Static Capacitance ( $C_O$ )                  | pF                        | 1.8     | 2.1       | 2.4      |
| Pin Out                                                      |                           |         |           |          |
| Input                                                        | 1                         | Output  | 2         |          |
| Ground                                                       | 3                         |         |           |          |

### Maximum Ratings

| Rating                          | Unit       | Value              |
|---------------------------------|------------|--------------------|
| Operating Temperature Range     | -40 to +85 | $^{\circ}\text{C}$ |
| DC Voltage Between Any Two pins | $\pm 30$   | $V_{DC}$           |
| CW RF Power Dissipation         | + 10       | dBm                |

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### PACKAGE DRAWING

