

The DW9282 is a 110.592MHz SAW filter which has been designed for the first IF section in Digital European Cordless Telephones (DECT).

The filter design has resulted in an insertion loss of 12dB (max.), low group delay ripple of 100ns (typ.), with quartz temperature stability.

The DW9282 is available in a 9mm x 7mm outline surface mount package to ensure optimum PCB usage for designers of DECT radios.

#### FEATURES

- Low Group Delay Ripple
- Low Insertion Loss
- Quartz Temperature Stability
- Balanced or Unbalanced Drive
- Low Profile Surface Mount Package

#### ABSOLUTE MAXIMUM RATINGS

DC voltage  $V_{IN}$  0V  
 Maximum input power  $P_{IN}$  10dBm

#### NOMINAL IMPEDANCE

Input: 1420 //9·7pF  
 Output: 1470 //9·3pF

#### 50 TEST BOARD COMPONENTS

Input (balanced): Series capacitor 8pF, shunt inductor 180nH  
 Output: Shunt inductor 180nH, series capacitor 3·7pF  
**Components** Inductors: Coilcraft 1008CS  
 Capacitors: Murata 0805

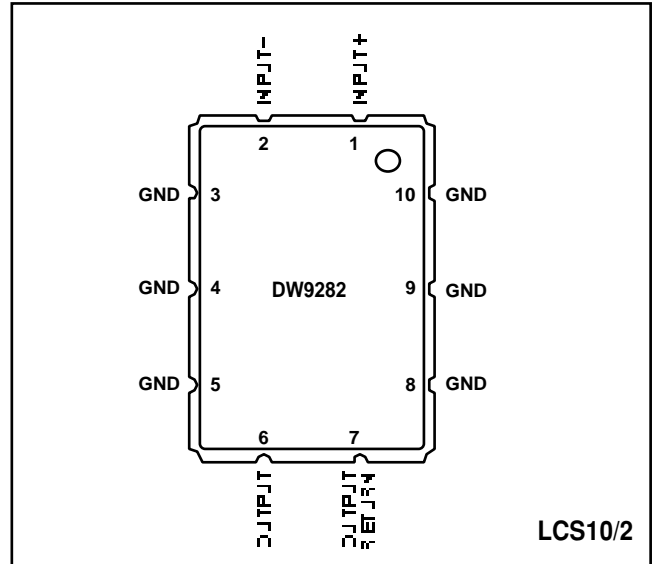


Fig. 1 Pin connections - top view

#### ORDERING INFORMATION

**DW9282**

#### ELECTRICAL CHARACTERISTICS AT 25°C

| Characteristic              | Value   |         |         | Units |
|-----------------------------|---------|---------|---------|-------|
|                             | Min.    | Typ.    | Max.    |       |
| Centre frequency            | 110·557 | 110·592 | 110·627 | MHz   |
| 3dB bandwidth               | 1000    | 1080    |         | kHz   |
| Insertion loss              |         | 10      | 12      | dB    |
| Amplitude ripple            |         | 0·2     | 1       | dB    |
| Group delay ripple          |         | 100     | 400     | ns    |
| <b>Stopband Rejection</b>   |         |         |         |       |
| $f_c \pm 1·185\text{MHz}$   | 12      | 18      |         | dB    |
| $f_c \pm 1·223\text{MHz}$   | 13      | 19      |         | dB    |
| $f_c \pm 1·738\text{MHz}$   | 35      | 50      |         | dB    |
| $f_c \pm 1·960\text{MHz}$   | 45      | 50      |         | dB    |
| $f_c \pm 2·304\text{MHz}$   | 45      | 50      |         | dB    |
| $f_c \pm 4·608\text{MHz}$   | 45      | 50      |         | dB    |
| Operating temperature range | -10     |         | +60     | °C    |

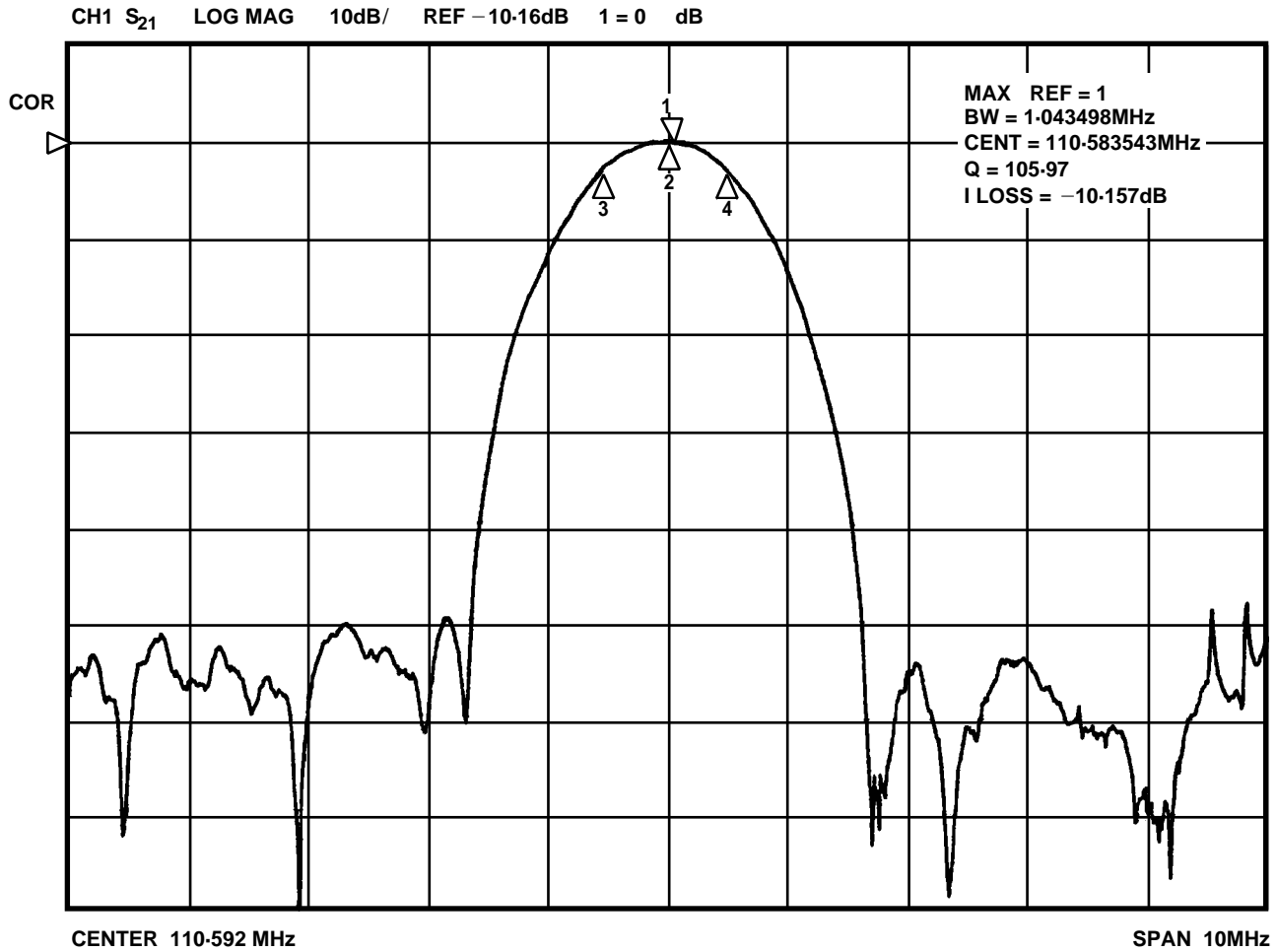
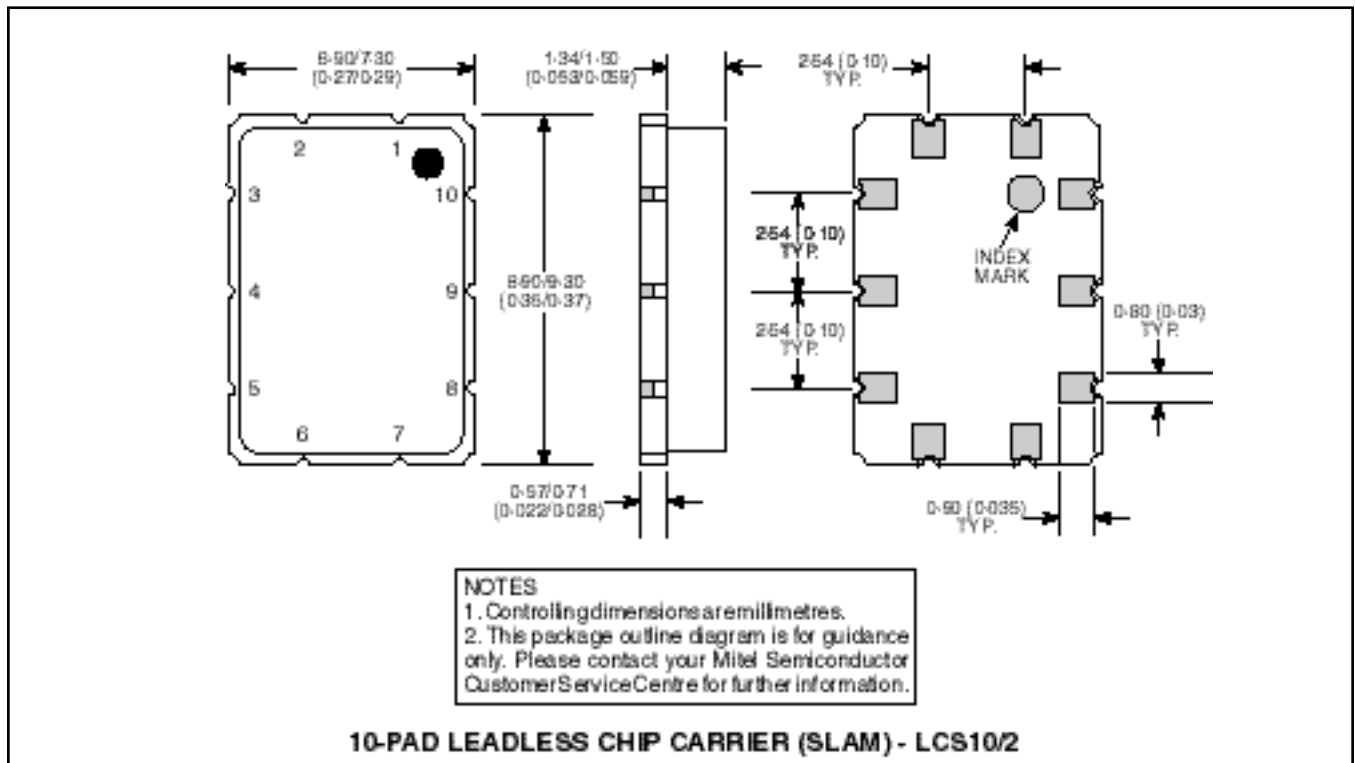


Fig. 2 DW9282 response



## PACKAGE DETAILS

Dimensions are shown thus: mm (in).



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