

DW9256

133MHZ SAW Filter

Replaces January 2000 version, DS4026-2.0

DS4026-2.1 July 2002

The DW9256 has been designed specifically for the Personal Communications market, as an IF filter with a centre frequency of 133MHz. The filter utilises Dynex Semiconductor's low loss Transversal filter technology based on a Quartz substrate for excellent temperature stability.

A minimum 3dB passband of $\pm 75 \text{kHz}$ is combined with a high shape factor to give good adjacent channel rejection.

The device is available in a surface mount, ceramic leadless chip carrier, suited to high volume automated assembly systems.

FEATURES

- 133MHz Centre Frequency (fo)
- Low Insertion Loss (7dB maximum)
- 3dB Passband ±75kHz (minimum)
- Quartz Temperature Stability
- Low Profile Ceramic LCC Package

GND INPUT 14 15 INPUT RETURN GND 13 16 GND GND 12 17 **OUTPUT RETURN GND** 11 18 GND 10 OUTPUT GND 9 2 GND GND 8 GND GND GND 4 GND GND 6 5 DW9256 LCS₁₈

Fig.1 Pin connections

ABSOLUTE MAXIMUM RATINGS

DC Voltage VDC 0V Input Power Max. PIN 10dBm

NOMINAL IMPEDANCE

 $\begin{array}{ll} \text{Input:} & 520\Omega \text{ // } 20\text{pF} \\ \text{Output:} & 200\Omega \text{ // } 30\text{pF} \end{array}$

50Ω TEST BOARD COMPONENTS

Input: Series Ind. 180nH, Shunt Ind. 100nH, Shunt Cap. 2.2pF

Output: Shunt Ind. 68nH, Series Ind. 82nH

Components: Coilcraft 1008CS Inductors : Murata 0805 Capacitors

ORDERING INFORMATION

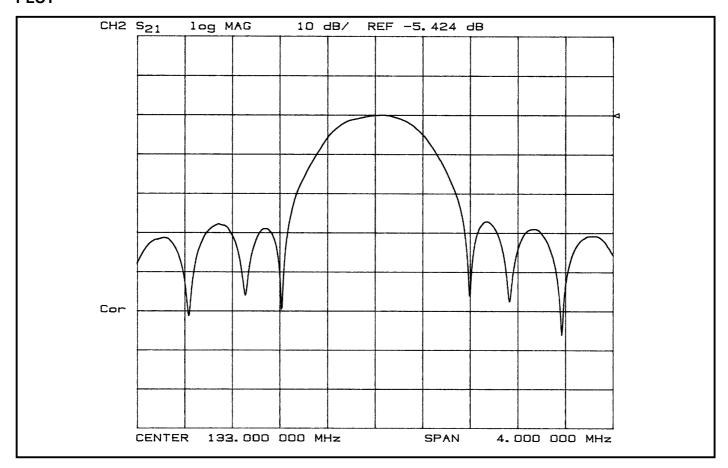
Order as: DW9256



ELECTRICAL CHARACTERISTICS @ 25°C

Parameter	Min	Тур	Max	Units
Centre Frequency	-	133	-	MHz
1dB Bandwidth	±75	±170	-	kHz
3dB Bandwidth	±75	±300		kHz
Insertion Loss	4	5	7	dB
Amplitude Ripple	-	0.5	2	dB
Group Delay Ripple	-	150	1000	ns
Stopband Rejection: fo ± 400 - 600 kHz fo ± 600 - 800 kHz fo ± 800 - 1500 kHz fo - 1500 kHz - 50 MHz fo + 1500 kHz + 200 MHz Operating Temperature Range	3 10 20 30 30 -20	5 15 30 35 35	- - - - - +80	dB dB dB dB dB

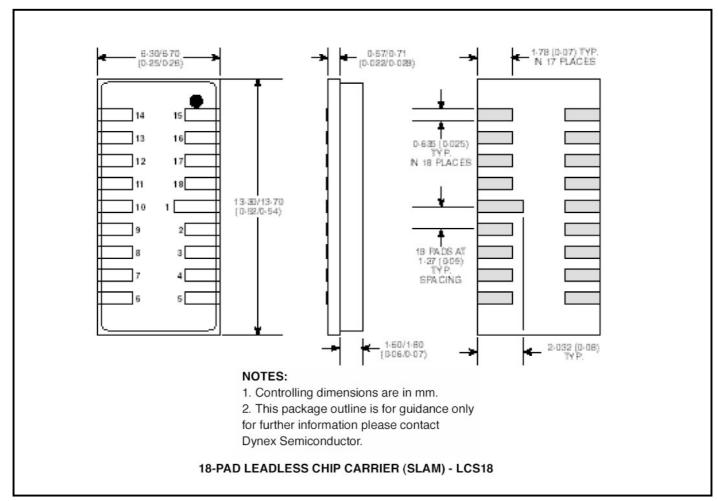
PLOT





PACKAGE DETAILS

Dimensions are shown thus: mm (in). DO NOT SCALE. For further package information, please contact Customer Services.







http://www.dynexsemi.com

e-mail: space_comms@dynexsemi.com

HEADQUARTERS OPERATIONS

DYNEX SEMICONDUCTOR LTD

Doddington Road, Lincoln. Lincolnshire. LN6 3LF. United Kingdom.

Tel: +44-(0)1522-500500 Fax: +44-(0)1522-500550 CUSTOMER SERVICE

Tel: +44 (0)1522 502753 / 502901. Fax: +44 (0)1522 500020

SALES OFFICE

Tel: +44 (0)1522 502724. Fax: +44 (0)1522 502777

These offices are supported by Representatives and Distributors in many countries world-wide. © Dynex Semiconductor 2002 TECHNICAL DOCUMENTATION – NOT FOR RESALE. PRODUCED IN UNITED KINGDOM

Datasheet Annotations:

Dynex Semiconductor annotate datasheets in the top right hard corner of the front page, to indicate product status. The annotations are as follows:-

Target Information: This is the most tentative form of information and represents a very preliminary specification. No actual design work on the product has been started.

Preliminary Information: The product is in design and development. The datasheet represents the product as it is understood but details may change.

Advance Information: The product design is complete and final characterisation for volume production is well in hand.

No Annotation: The product parameters are fixed and the product is available to datasheet specification.

This publication is issued to provide information only which (unless agreed by the Company in writing) may not be used, applied or reproduced for any purpose nor form part of any order or contract nor to be regarded as a representation relating to the products or services concerned. No warranty or guarantee express or implied is made regarding the capability, performance or suitability of any product or service. The Company reserves the right to alter without prior notice the specification, design or price of any product or service. Information concerning possible methods of use is provided as a guide only and does not constitute any guarantee that such methods of use will be satisfactory in a specific piece of equipment. It is the user's responsibility to fully determine the performance and suitability of any equipment using such information and to ensure that any publication or data used is up to date and has not been superseded. These products are not suitable for use in any medical products whose failure to perform may result in significant injury or death to the user. All products and materials are sold and services provided subject to the Company's conditions of sale, which are available on request.

All brand names and product names used in this publication are trademarks, registered trademarks or trade names of their respective owners