

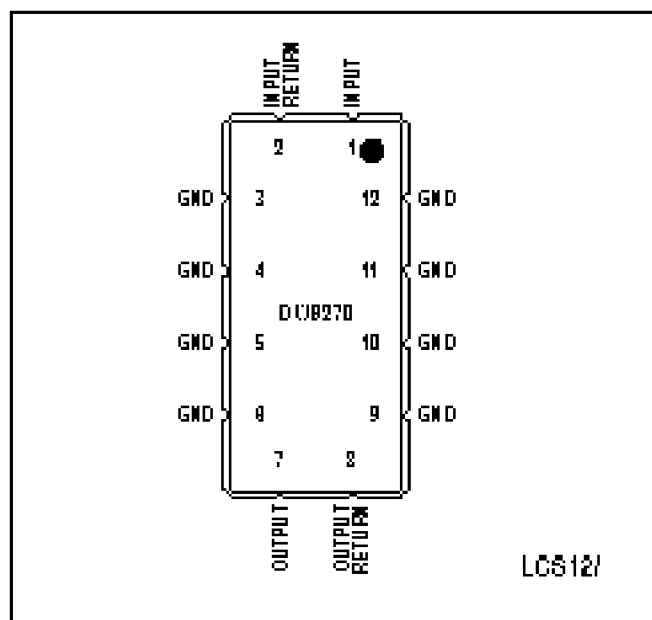
The DW9270 has been designed specifically for the Digital Wireless Communications market, as an IF filter with a centre frequency of 240MHz. The filter utilises Mitel Semiconductor's low loss (8.5dB typical), Transversal filter technology based on a Quartz substrate for excellent temperature stability.

With a typical 3dB passband of 1MHz, and an adjacent channel rejection of 12dB (min.) the device exhibits excellent close-in and ultimate rejection, which combined with a Group Delay Ripple of 200ns (max.) makes the DW9270 an ideal IF filter for Digital Wireless Communications systems.

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

### FEATURES

- 240MHz Centre Frequency ( $f_0$ )
- Low Insertion Loss (10dB max.)
- 3dB Passband 1.05MHz (typ.)
- Quartz Temperature Stability
- Low Profile Ceramic LCC Package



### ABSOLUTE MAXIMUM RATINGS

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

### NOMINAL IMPEDANCE

Input:	255Ω // 14pF
Output:	400Ω // 11.5pF

### 50Ω TEST BOARD COMPONENTS

Input:	Shunt Cap. 27pF, Series Ind. 47nH, Shunt Cap. 1.5pF
Output:	Shunt Cap. 1.5pF, Series Ind. 47nH, Shunt Cap. 30pF

Components: Coilcraft 1008CS Inductors : Murata 0805 Capacitors

### PACKAGE

13.5mm x 6.5mm : 12 Lead SMD

### OPERATION

Balanced or Unbalanced configuration available.

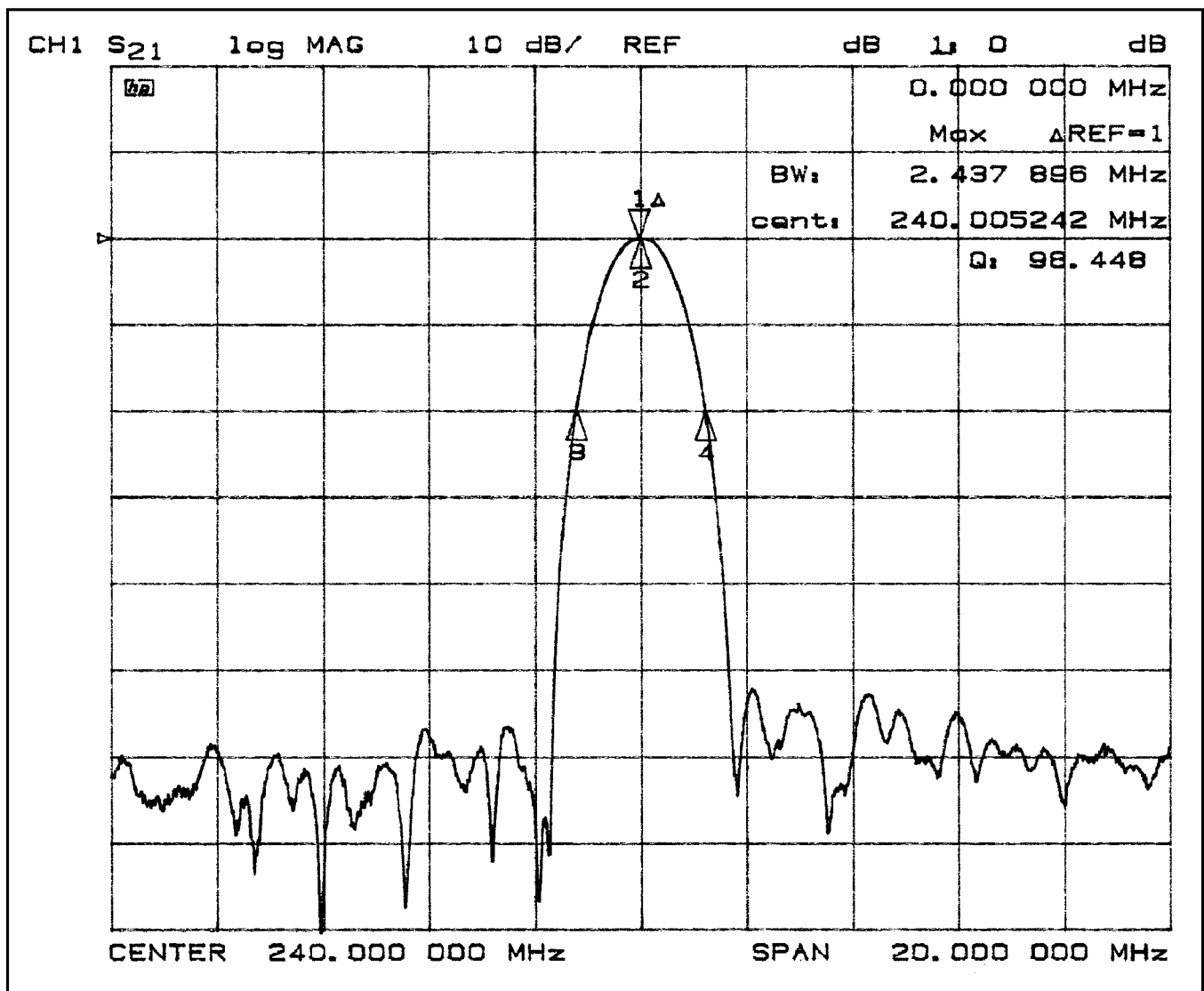
### ORDER INFORMATION

DW9270

## DW9270

### ELECTRICAL CHARACTERISTICS @ 25 °C

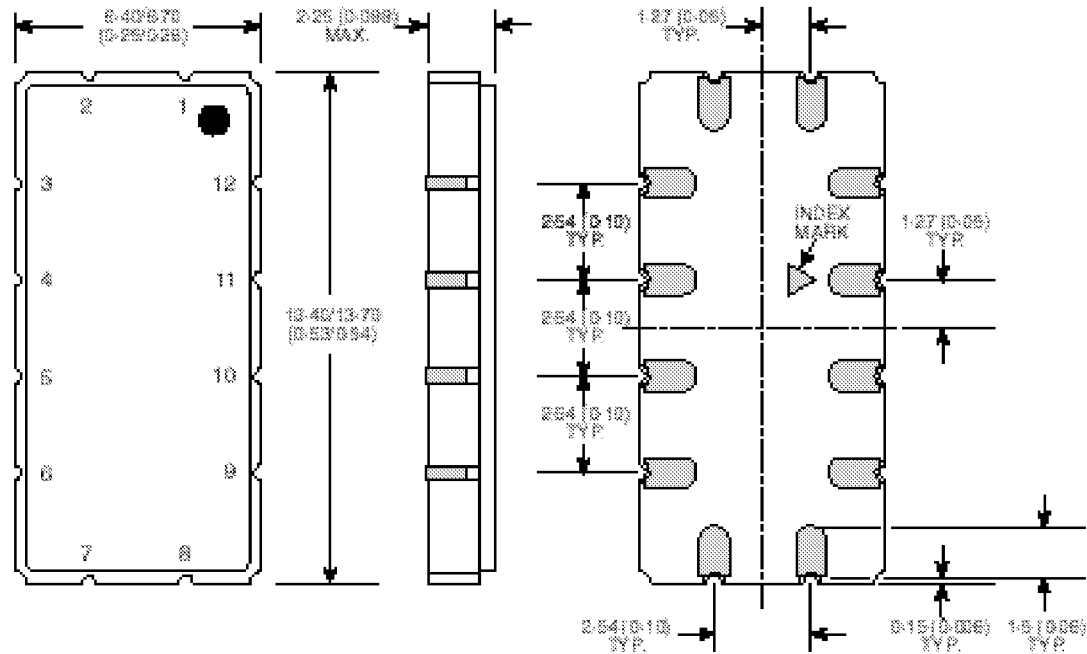
Parameter	Min	Typ	Max	Units
Centre Frequency	239.96	240	240.40	MHz
3dB Bandwidth	1000	1050		kHz
Insertion Loss	-	8.5	10	dB
Amplitude Ripple	-	0.2	1	dB
Group Delay Ripple	-	50	200	ns
Stopband Rejection				
$f_c \pm 1.0$ MHz	11.0	13	-	dB
$f_c \pm 1.75 - 2.5$ MHz	44	55	-	dB
$f_c \pm 2.50 - 3.50$ MHz	48	55	-	dB
$f_c \pm 3.50 - 50.0$ MHz	50	60	-	dB
Operating Temperature Range	-20	-	+60	°C



## DW9270

### PACKAGE DETAILS

Dimensions are shown thus: mm (in). For further package information, please contact your local Customer Service Centre.



#### NOTES

1. Controlling dimensions are millimetres.
2. This package outline diagram is for guidance only. Please contact your Mitel Semiconductor Customer Service Centre for further information.

### 12-PAD LEADLESS CHIP CARRIER (SEAM SEAL) - LCS12/1



#### HEADQUARTERS OPERATIONS

##### MITEL SEMICONDUCTOR

Cheney Manor, Swindon,  
Wiltshire SN2 2QW, United Kingdom.  
Tel: (01793) 518000  
Fax: (01793) 518411

##### MITEL SEMICONDUCTOR

1500 Green Hills Road,  
Scotts Valley, California 95066-4922  
United States of America.  
Tel (408) 438 2900  
Fax: (408) 438 5576/6231

Internet: <http://www.gpsemi.com>

#### CUSTOMER SERVICE CENTRES

- **FRANCE & BENELUX** Les Ulis Cedex Tel: (1) 69 18 90 00 Fax: (1) 64 46 06 07
- **GERMANY** Munich Tel: (089) 419508-20 Fax: (089) 419508-55
- **ITALY** Milan Tel: (02) 6607151 Fax: (02) 66040993
- **JAPAN** Tokyo Tel: (03) 5276-5501 Fax: (03) 5276-5510
- **KOREA** Seoul Tel: (2) 5668141 Fax: (2) 5697933
- **NORTH AMERICA** Scotts Valley, USA Tel: (408) 438 2900 Fax: (408) 438 5576/6231
- **SOUTH EAST ASIA** Singapore Tel: (65) 3827708 Fax: (65) 3828872
- **SWEDEN** Stockholm Tel: 46 8 702 97 70 Fax: 46 8 640 47 36
- **TAIWAN, ROC** Taipei Tel: 886 2 25461260 Fax: 886 2 27190260
- **UK, EIRE, DENMARK, FINLAND & NORWAY**  
Swindon Tel: (01793) 726666 Fax: (01793) 518582

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