

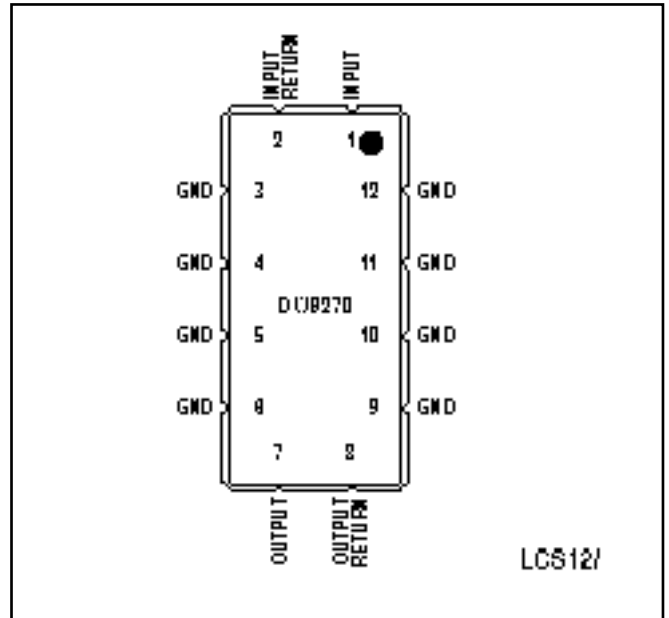
The DW9270 has been designed specifically for the Digital Wireless Communications market, as an IF filter with a centre frequency of 240MHz. The filter utilises Mitel Semiconductor's low loss (8.5dB typical), Transversal filter technology based on a Quartz substrate for excellent temperature stability.

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 (fo)
- 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: 255 // 14pF
 Output: 400 // 11.5pF

50 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.

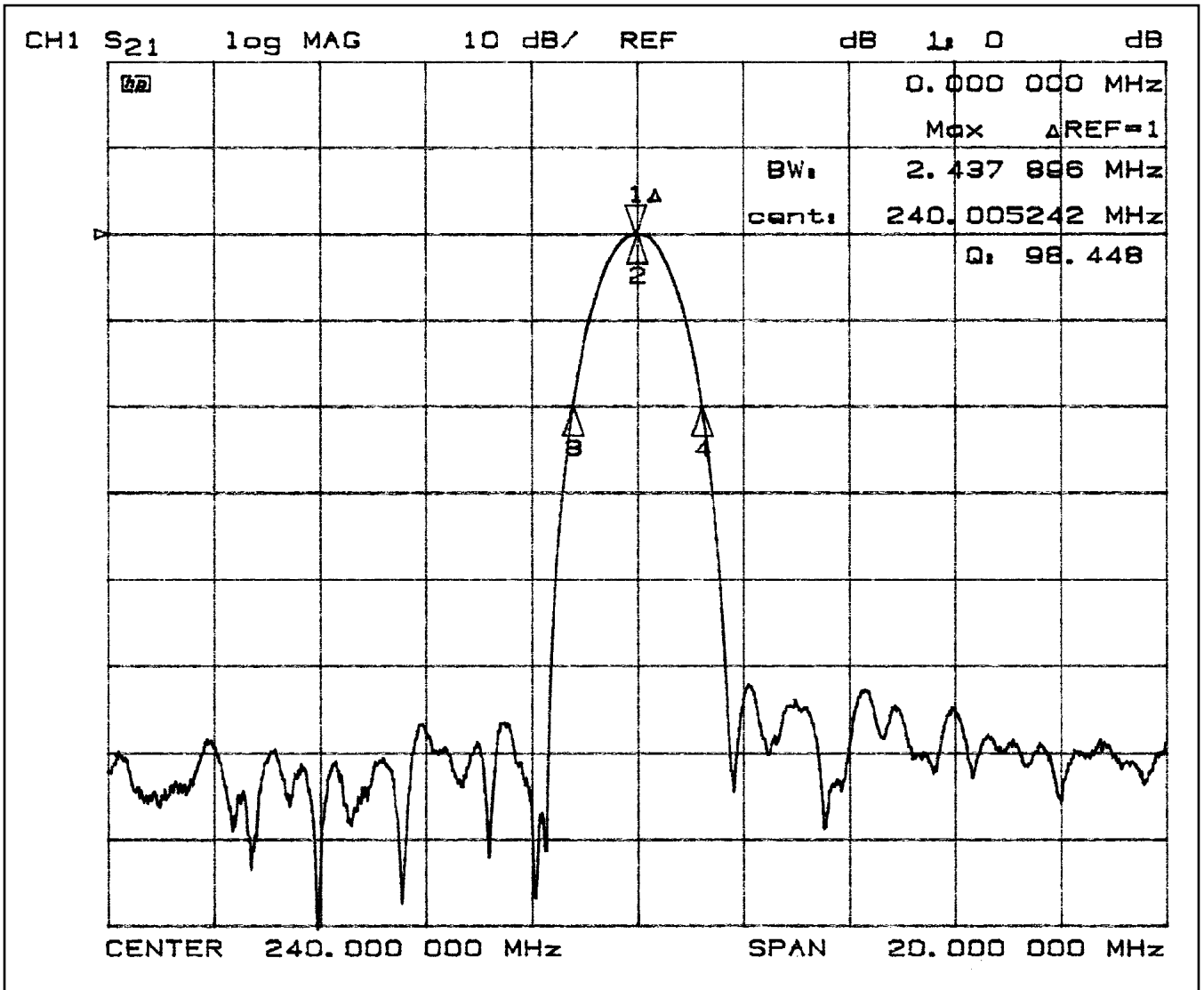
ORDER INFORMATION

DW9270

DW9270

ELECTRICAL CHARACTERISTICS @ 25°C

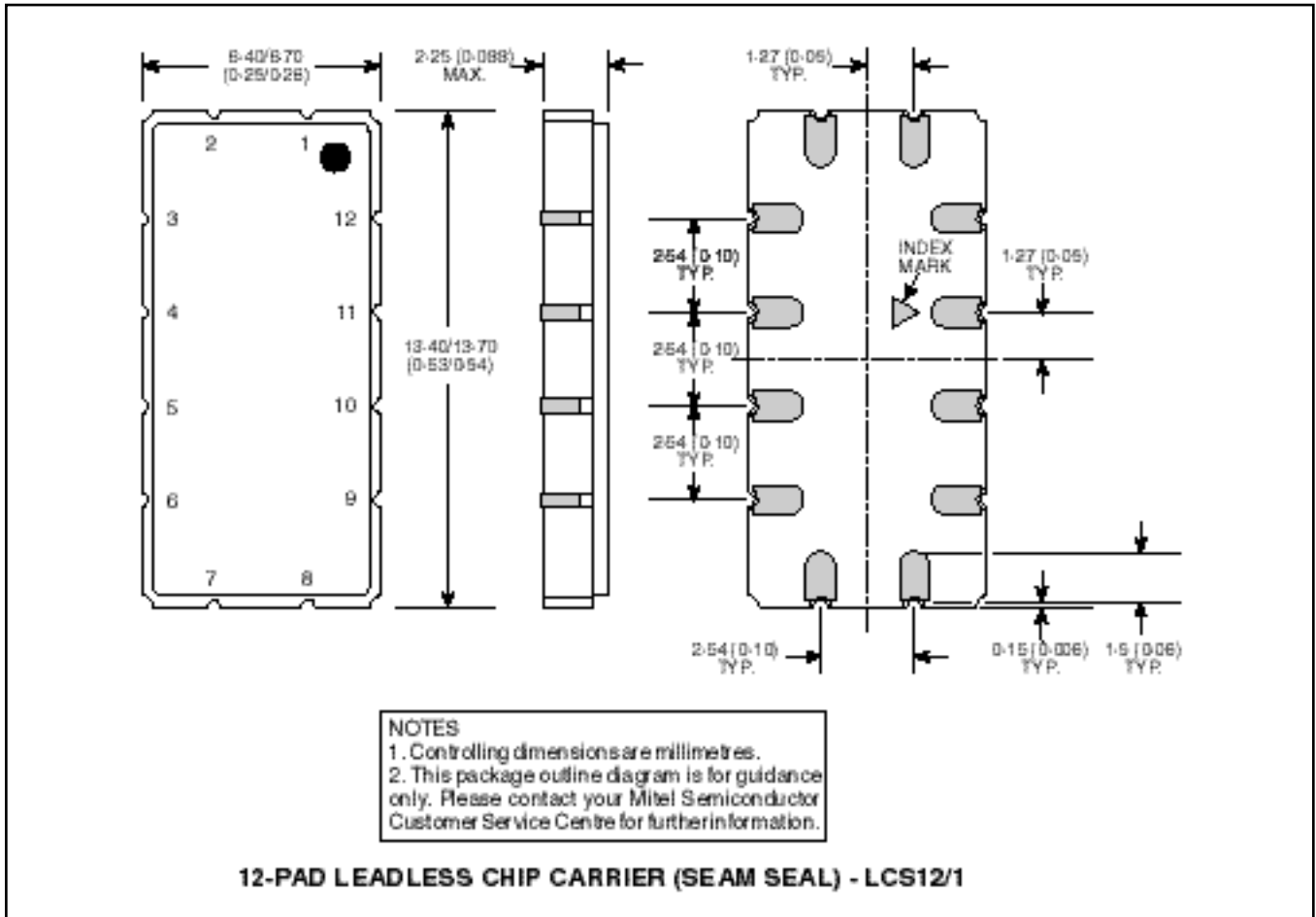
Parameter	Min	Typ	Max	Units
Centre Frequency	239.96	240	240.40	MHz
3dB Bandwidth	1000	1050		kHz
Insertion Loss	-	8.5	10	dB
Amplitude Ripple	-	0.2	1	dB
Group Delay Ripple	-	50	200	ns
Stopband Rejection				
$f_c \pm 1.0$ MHz	11.0	13	-	dB
$f_c \pm 1.75 - 2.5$ MHz	44	55	-	dB
$f_c \pm 2.50 - 3.50$ MHz	48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



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© Mitel Corporation 1998 Publication No. DS4024 Issue No. 1.6 November 1995

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