

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China







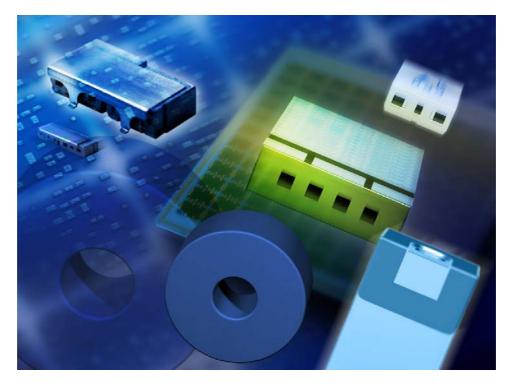


Filter

### 4-Pole Filter XM Radio

F4052

**Design Goal** 



#### **Features**

- SMD filter consisting of coupled resonators with stepped impedances
- MgTiO<sub>3</sub> CaTiO<sub>3</sub> ( $\varepsilon_r$  = 21/  $TC_f$  =0±10 ppm/K) with a coating of copper (10 $\mu$ m) and tin (>5 $\mu$ m)
- Excellent reflow solderability, no migration effect due to copper/tin metallization
- ESD insensitivity and ESD protecting due to filter characteristics

#### Index

- Page 2 Component drawing
  - Recommended footprint
- Page 3 Characteristics
  - Maximum ratings
  - Typical passband characteristic
- Page 4 Processing information
  - Soldering requirements
  - Delivery mode

IOOUE DATE	22.22.24	100115	D1	DUDU IOUED	0.414/4/4/0.77	5405	474
ISSUE DATE	20.08.04	ISSUE	PI	PUBLISHER	SAW MWC PD	PAGE	1/4



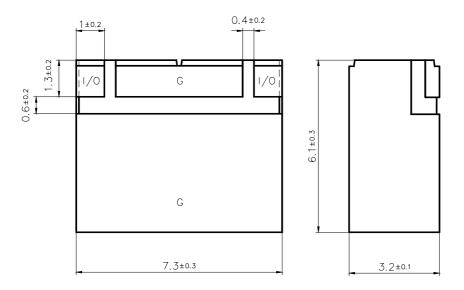
Filter

## 4-Pole Filter XM Radio

F4052

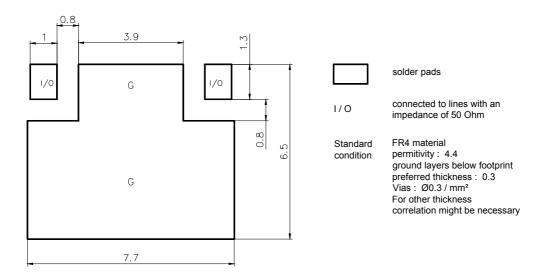
**Design Goal** 

### **Component drawing**



View from below onto the solder terminals and view from beside

## **Recommended footprint**



ISSUE DATE	20.08.04	ISSUE	P1	PUBLISHER	SAW MWC PD	PAGE	2/4	
------------	----------	-------	----	-----------	------------	------	-----	--



Filter

# 4-Pole Filter XM Radio

F4052

**Design Goal** 

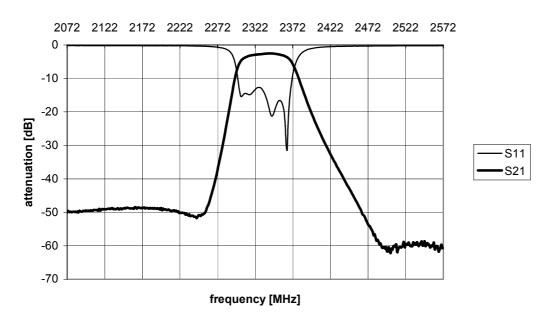
### **Characteristics**

			min.	typ.	max.	
Center frequency		$f_{C}$	-	2338.755	-	MHz
Insertion loss		$\alpha_{\text{IL}}$		2.2	2.5	dB
Passband		В	5.5			MHz
Amplitude ripple (peak - peak)		$\Delta \alpha$		0.2	0.5	dB
Standing wave ratio		SWR		1.4	2.0	
Group delay in Passband				15	40	
Impedance		Z		50		Ω
Attenuation	at 2198.755 (f <sub>c</sub> -140MHz)	α	45	49		dB
	at 2478.755 (f <sub>c</sub> +140MHz)		50	54		dB

## **Maximum ratings**

EC climatic category (IEC 68-1)		- 40/+ 90/56	
Operating temperature	$T_{op}$	-20 / +80	°C

### Typical passband characteristic



ISSUE DATE
------------



Filter

### 4-Pole Filter XM Radio

F4052

**Design Goal** 

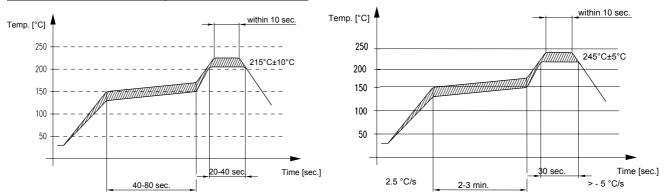
### **Processing information**

Wettability acc. to IEC 68-2-58: ≥ 75% (after aging)

#### **Soldering Requirements**

	Profile for eutectic SnPb solder paste	Profile for leadfree solder paste	
Soldering type	reflow	reflow	
Maximum soldering temperature (measuring point on top surface of the component)		260 (max. 2 sec.) 250 (max. 10 sec.)	°C °C

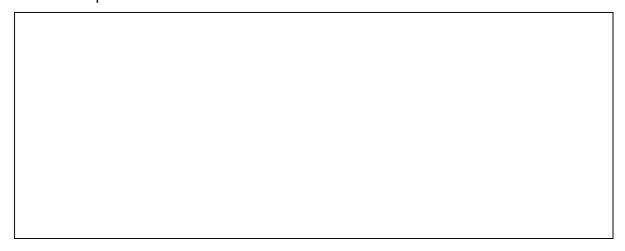
### Recommended soldering conditions (infrared):



### **Delivery mode**

• Blister tape acc. to IEC 286-3, polyester, grey

• Pieces/tape: t.b.d.



Note: This document is PRELIMINARY. All specifications are subject to change and are not guaranteed.

© EPCOS AG 2001. All Rights Reserved. Reproduction, publication and dissemination of this data sheet, enclosures hereto and the information contained therein without EPCOS' prior express consent is prohibited.

The information contained in this data sheet describes the type of component and shall not be considered as guaranteed characteristics. Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

ISSUE DATE	20.08.04	ISSUE	P1	PUBLISHER	SAW MWC PD	PAGE	4/4
------------	----------	-------	----	-----------	------------	------	-----