

*Using breakthrough technology,  
we aim for products that will create new markets.*

**New Product News**

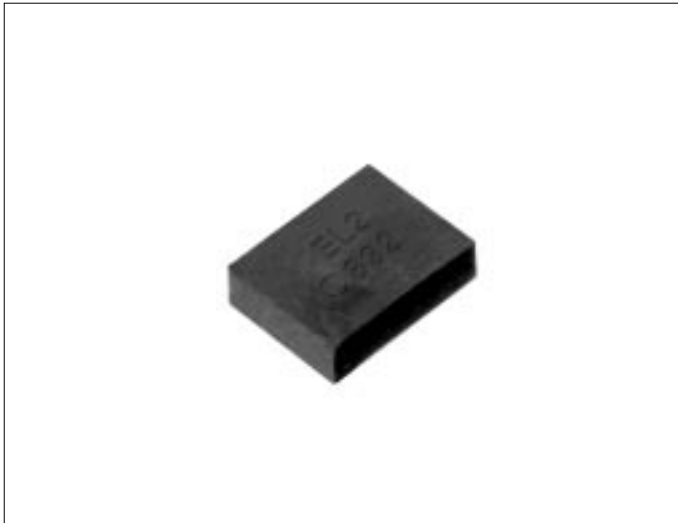
**Radio Frequency Products**

**SAW Filters**

Wide range of products

Industry/Field: **Mobile communications**

**1.8×1.4 mm sized dual SAW filters**



**• Development Target:**

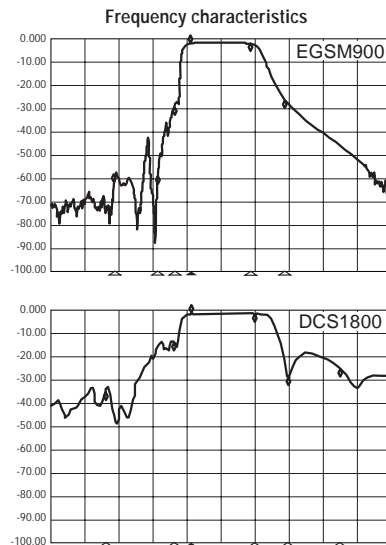
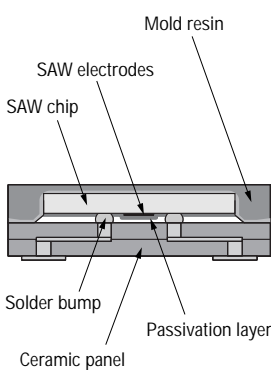
Dual SAW filters with small size and high performance are supplied to GSM, CDMA and WCDMA mobile phones.

**• Features:**

- 1** Design area on RF circuit board can be reduced with small package of 1.8×1.4 mm.
- 2** Low insertion losses of the filters contribute to improve mobile phone performance.
- 3** Wide product line-up in 1.8×1.4 mm size, most suitable products can be chosen for RF circuit.

• Number of industrial property rights : 8

**• Construction:**

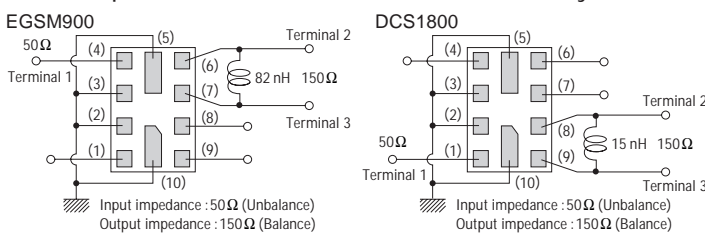


**• Characteristics/specifications:**

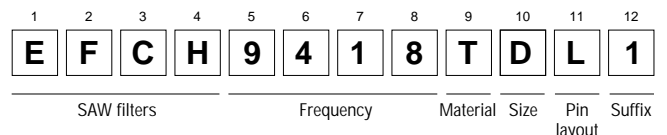
Part No.	EGSM900 Filter				DCS1800 Filter					
	Frequency (MHz)	Specifications			Unit	Frequency (MHz)	Specifications			Unit
Filter pass band		Min.	Typ.	Max.			Min.	Typ.	Max.	
Filter pass band		925 to 960			MHz		1805 to 1880			MHz
Insertion loss	925 to 960		2.0	2.5	dB	1805 to 1880		1.6	2.5	dB
Ripple	925 to 960		0.7	1.5	dB	1805 to 1880		0.6	1.8	dB
Amplitude balance	925 to 960	-1.2	+0.68	+1.2	dB	1805 to 1880	-1.5	+0.68	+1.5	dB
Phase balance	925 to 960	-10	+4.8	+10	deg.	1805 to 1880	-15	+10.2	+15	deg.
Attenuations	Att1	DC to 880	45	58	dB	0.1 to 1705	30	35		dB
	Att2	880 to 905	30	43	dB	1705 to 1785	12	14		dB
	Att3	905 to 915	20	29	dB	1920 to 1980	12	18		dB
	Att4	980 to 3360	23	26	dB	1980 to 2500	20	25		dB
	Att5	3360 to 6000	30	49	dB	2500 to 3840	20	29		dB
	Att6					3840 to 6000	25	41		dB
VSWR	Input	925 to 960	1.6	2.0		1805 to 1880	1.6	2.2		
	Output	925 to 960	1.6	2.0		1805 to 1880	1.6	2.2		
Impedance	Input		50		Ω		50			Ω
	Output		150/82nH		Ω		150/15nH			Ω

**• Applications/usage examples:**

• Mobile phones for GSM, CDMA and WCDMA systems



**• Explanation of part numbers:**



Filter combination	Frequency	Pin layout
GSM850 EGSM900	8894	J
DCS1800 PCS1900	1819	K
GSM850 PCS1900	8819	L
EGSM900 DCS1800	9418	L