



IF Filters for Basestations

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39730B3863U210		2006-12-01	2007-02-28	2007-05-31

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SAW Components

Data Sheet B3863

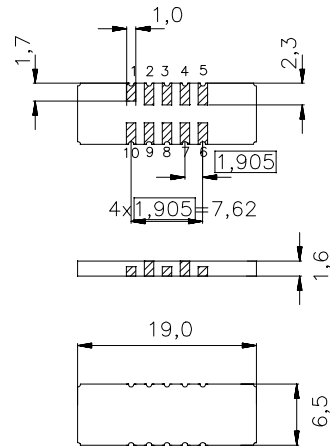


Data Sheet
Features

- Low-loss IF filter for CDMA base station
- Temperature stable
- Ceramic SMD package
- Unbalanced or balanced operation

Terminals

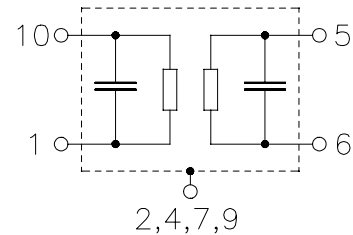
- Gold plated

Ceramic package DCC18


Dimensions in mm, approx. weight 0,8 g

Pin configuration

1	Input or balanced input
10	Input ground or balanced input
6	Output or balanced output
5	Output ground or balanced output
3, 8	Ground
2, 4, 7, 9	Case ground



Type	Ordering code	Marking and Package according to	Packing according to
B3863	B39730-B3863-U210	C61157-A7-A54	F61074-V8081-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	-40 / +85	°C	
Storage temperature range	T_{stg}	-40 / +85	°C	
DC voltage	V_{DC}	0	V	
Source power	P_s	0	dBm	


SAW Components
B3863
Low-Loss Filter
72,9746 MHz
Data Sheet
Characteristics

Operating temperature range: $T = -40$ to $+85$ °C
 Terminating source impedance: $Z_S = 50 \Omega$ and matching network
 Terminating load impedance: $Z_L = 50 \Omega$ and matching network

		min.	typ.	max.	
Nominal frequency	f_N	—	72,9746	—	MHz
Minimum insertion attenuation	α_N	—	22,0	24,0	dB
2,5 dB bandwidth	$\alpha_{rel} \leq 2,5$ dB $B_{2,5dB}$	2,48	2,54	—	MHz
Amplitude ripple (p-p)	$f_N \pm 1,05$ MHz $\Delta\alpha$	—	1,7	2,2	dB
Integrated phase error (rms)	$f_N \pm 1,24$ MHz $\Delta\phi$	—	3,4	4,0	deg
Phase linearity (p-p)	$f_N \pm 1,24$ MHz $\Delta\phi$	—	15,5	18,0	deg
Group delay ripple (p-p)	$f_N \pm 1,05$ MHz $\Delta\tau$	—	650	800	ns
Return loss	$f_N \pm 1,05$ MHz	—	10	—	dB
Relative attenuation (relative to α_N)	α_{rel}				
	0 MHz ... $f_N - 6,0$ MHz	45	60	—	dB
	$f_N \pm 1,505$ MHz ... $f_N \pm 1,875$ MHz	25 ¹⁾	28	—	dB
	$f_N \pm 1,875$ MHz ... $f_N \pm 2,305$ MHz	30	45	—	dB
	$f_N \pm 2,305$ MHz ... $f_N \pm 2,675$ MHz	35	41	—	dB
	$f_N \pm 2,675$ MHz ... $f_N \pm 4,0$ MHz	37	40	—	dB
	$f_N \pm 4,0$ MHz ... $f_N \pm 6,0$ MHz	40	44	—	dB
	$f_N + 6,0$ MHz ... 150 MHz	45	60	—	dB
Input 3rd-order intercept point	$IIP3$	40	—	—	dBm
Temperature coefficient of frequency ²⁾	TC_f	—	-0,036	—	ppm/K ²
Turnover temperature	T_0	—	30,0	—	°C

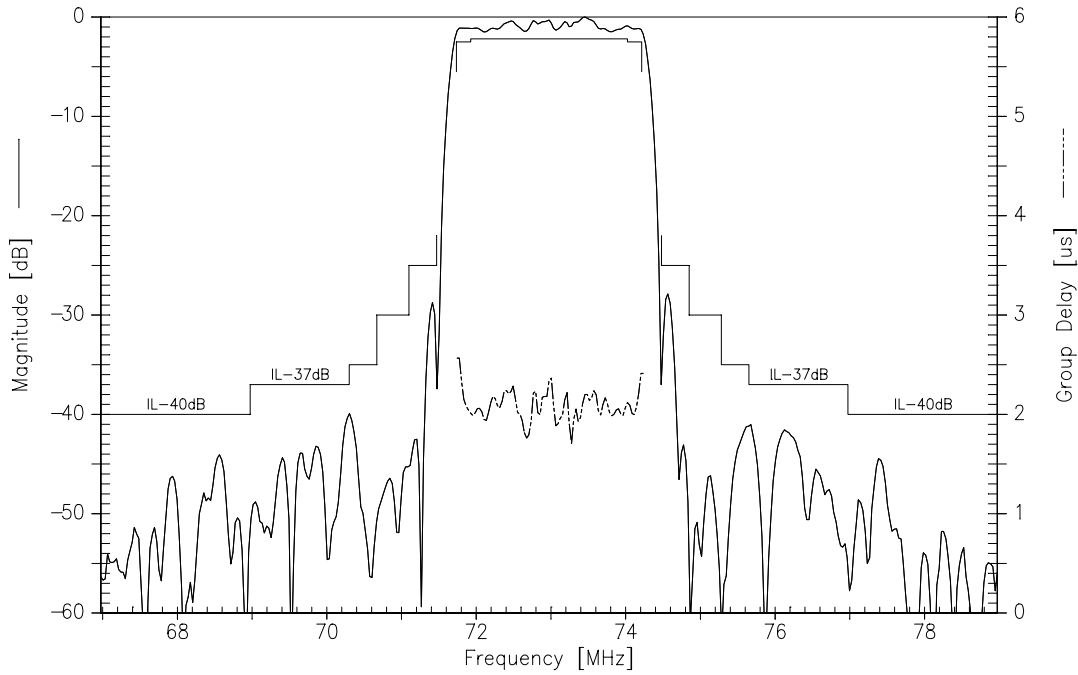
¹⁾ 26 dB for temperatures greater than -25 °C

²⁾ Temperature dependence of f_c : $f_c(T_A) = f_c(T_0)(1 + TC_f(T_A - T_0)^2)$

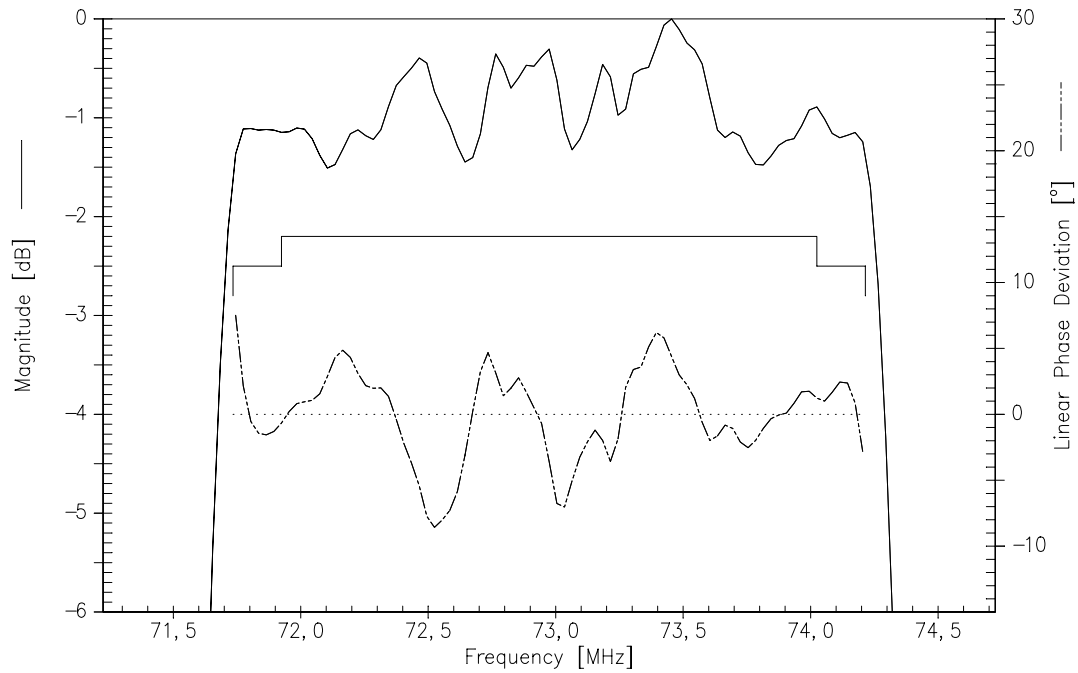


Data Sheet

Normalized frequency response



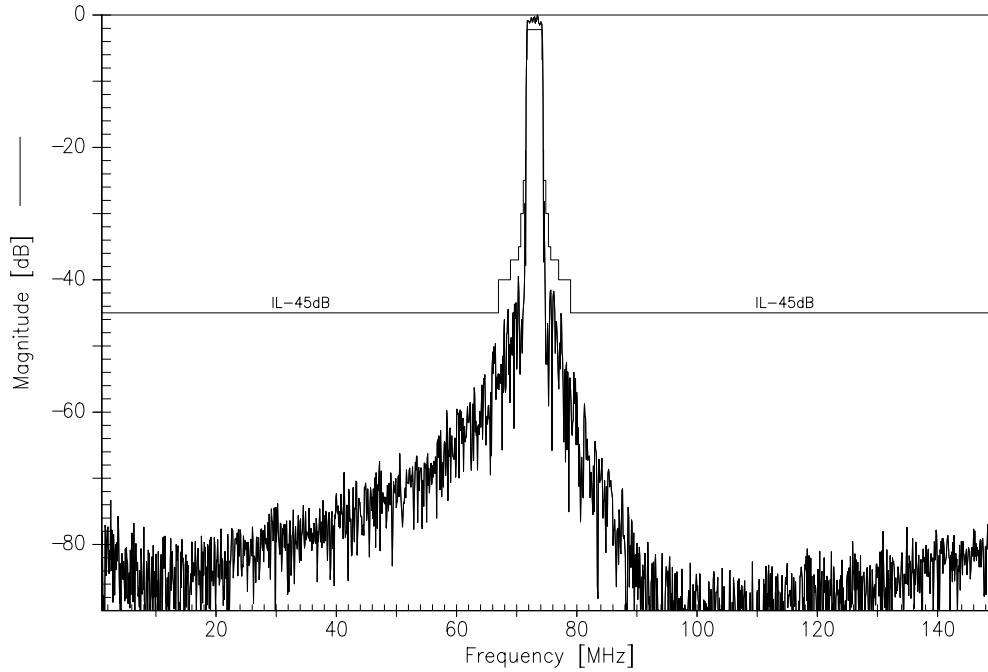
Normalized frequency response (passband)



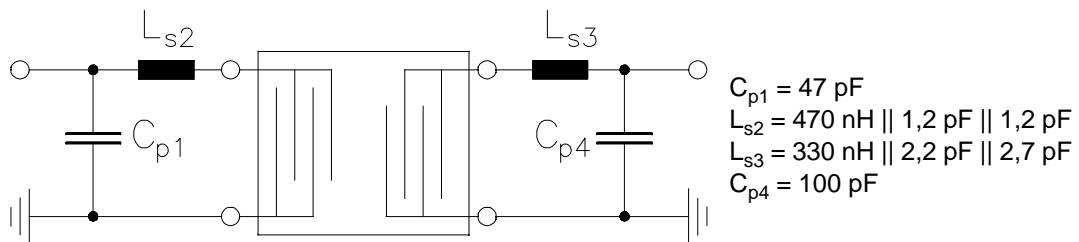


Data Sheet

Normalized frequency response (wideband)



Test Matching Network to 50Ω (element values depend on PCB layout)





SAW Components

B3863

Low-Loss Filter

72,9746 MHz

Data Sheet

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