

RF Filters for Cellular Phones

Series/Type: B7721

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39941B7721C910	B39941B9401K610	2007-09-21	2007-12-31	2008-03-31

For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of our worldwide sales network are presented at www.epcos.com/sales.

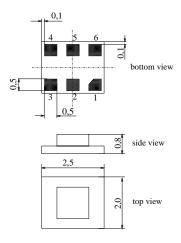


SAW Components		B7721
Low-Loss Filter for M	obile Communication	942,5 MHz
Data Sheet	<u>smd</u>	

Features Low-loss RF filter for mobile telephone EGSM system, receive path

- Low amplitude ripple
- Usable passband 35 MHz
- Unbalanced to balanced operation
- Excellent symmetry
- Impedance transformation from 50 Ω to 200 Ω
- Suitable for GPRS class 1 to 12
- Ceramic package for Surface Mounted Technology (SMT)
- Pb-free

Chip sized SAW package DCS6K

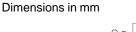


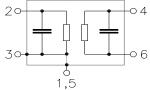
Terminals

Ni, gold-plated

Pin configuration

2	Input, unbalanced
4, 6	Balanced outputs
1, 3, 5	To be grounded
1, 5	Case ground





Туре	Ordering code	Marking and Package according to	Packing according to
B7721	B39941-B7721-C910	C61157-A7-A97	F61074-V8153-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	Т	- 25 / + 85	°C	
Storage temperature range	T _{stg}	- 40 / + 85	°C	
DC voltage	V _{DC}	5	V	
ESD voltage	V _{ESD}	100	V	
Input power at	P _{IN}	15	dBm	peak power of GSM signal,
GSM850, GSM900				duty cycle 4:8
GSM1800 and GSM1900				
Tx bands				

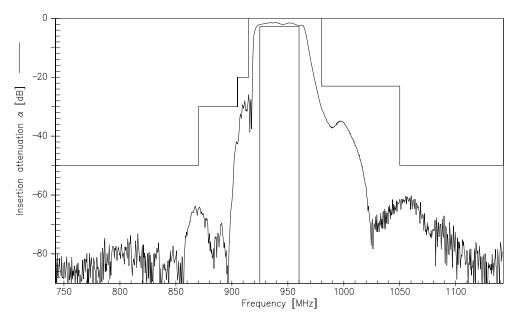
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SAW Components B77					B7721
Low-Loss Filter for Mobile Commu			942	,5 MHz	
Data Sheet					
Characteristics					
Operating temperature range:	T = 25				
Terminating source impedance:	$Z_{\rm S} = 50$				
Terminating load impedance:	$Z_{L} = 200$)Ω ∥68 nH			
		min.	typ.	max.	
Center frequency	f _C	—	942,5		MHz
Maximum insertion attenuation	α_{max}				
925,0 960,0	MHz ^{wmax}	_	2,4	2,8	dB
,,-			,	, -	
Amplitude ripple (p-p)	Δα				
925,0 960,0	MHz	-	1,1	1,5	dB
Input VSWR 925,0 960,0	MHz	_	2,2	2,4	
323,0 300,0			2,2	2,7	
Output VSWR					
925,0 960,0	MHz	_	2,0	2,4	
Output phase balance $\phi(S_{31}) - \phi(S_{21})$		_		_	1.
925,0 960,0	MHz	-5		5	degree
Output amplitude balance (S ₃₁ /S ₂₁)					
925,0 960,0	MHz	-0,5		0,5	dB
		,			
Diff. to common mode suppression	S _{sc12}				
925,0 960,0		20	38	—	dB
824,0 995,0		20	29		dB
1648,0 1990,0 3296,0 3980,0		20 20	50 31	_	dB dB
3296,0 3960,0 Attenuation	α	20	31		
0,0 880,0	MHz	50	64	_	dB
880,0 905,0	MHz	30	39	_	dB
905,0 915,0	MHz	20	26	—	dB
980,01050,0	MHz	23	30	-	dB
1050,01850,0	MHz	50	70	-	dB
1850,01920,0 1920,0	MHz MHz	50	72 64		dB
1920,02880,0 2880,04000,0	MHz MHz	50 40	64 66		dB dB
4000,06000,0	MHz	40	66	_	dB

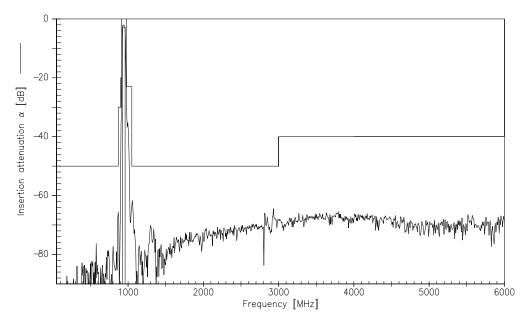
SAW Components							B7721
Low-Loss Filter for Mobile	n			942	,5 MHz		
Data Sheet							
Characteristics							
Operating temperature range: Terminating source impedance: Terminating load impedance:		Z_{S}	= 50 Ω	o +80 °C Ω 68 nH			
reminating load impedance.		ΖL	= 200 \$			I	1
Center frequency			f _C	min.	typ. 942,5	max.	MHz
Center nequency			.0		0.2,0		
Maximum insertion attenuation 925,0	n 960,0	MHz	$lpha_{max}$	_	2,4	3,0	dB
Amplitude ripple (p-p) 925,0	960,0	MHz	Δα	_	1,1	1,7	dB
Input VSWR							
925,0	960,0	MHz			2,2	2,4	
Output VSWR							
925,0	960,0	MHz		—	2,0	2,4	
Output phase balance $\phi(S_{31})-\phi$	(S ₂₁)						
	960,0	MHz		-5	—	5	degree
Output amplitude balance (S31	/S ₂₁)						
	960,0	MHz		-0,5	—	0,5	dB
Diff. to common mode suppres	ssion		S_{sc12}				
	960,0	MHz	0012	20	38	—	dB
	995,0			20	29	—	dB
	1990,0			20	50	—	dB
	3980,0	MHz		20	31	—	dB
Attenuation	000.0	N 41 1_	α	50	04		
	880,0	MHz		50 30	64 27		dB dB
	905,0 915,0	MHz MHz		30 20	37 26		dB dB
	915,0	MHz		20	20 29		dB
	1850,0	MHz		50	29 70		dB
	1920,0	MHz		50	70		dB
	2880,0	MHz		50	64		dB
	4000,0	MHz		40	66		dB
-	6000,0	MHz		40	66		dB



Transfer function (measurement)



Transfer function (wideband measurement)



Oct 25, 2002

	ÉPCOS	
SAW Components		B7721
Low-Loss Filter for Me	obile Communication	942,5 MHz
Data Sheet		

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