

Siemens Matsushita Components

SAW Components Low Loss Filter for Mobile Communication

B4144 1842,50 MHz

Ceramic package **DCC6C**

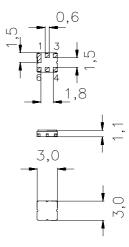
Data Sheet

Features

- Low-loss RF filter for mobile telephone PCN system, receive path
- High selectivity
- Usable passband: 75 MHz
- No matching network required for operation at 50 Ω
- Ceramic Package for Surface Mounted Technology (SMT)

Terminals

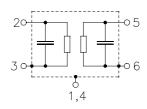
• Ni, gold-plated



Dimensions in mm, approx. weight 0,037 g

Pin configuration

2	Input
3	Input - ground
5	Output
6	Output - ground
1, 4	To be grounded



		Marking and Package according to	Packing according to		
B4144	B39182-B4144-U410	C61157-A7-A67	F61074-V8088-Z000		

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	Т	- 20 / + 80	°C	
Storage temperature range	T _{stg}	– 40 / + 85	°C	
DC voltage	V _{DC}	0	V	
Input power max.				source and load impedance 50 Ω
1710 1785 MHz	P _{IN}	5	dBm	peak power of GSM signal,
				duty cycle 1:8
elsewhere		0	dBm	continuous wave

Preliminary format of data sheet. Terms of delivery and rights to change design reserved. Page 1 of 4



S+M Siemens Matsushita Components

SAW Components Low Loss Filter for Mobile Communication

Data Sheet

Characteristics

Operating temperature range:	Т	= 25 +- 2°C
Terminating source impedance:	Z_{S}	= 50 Ω
Terminating load impedance:	Z_{L}	= 50 Ω

					min.	typ.	max.	
Center frequency				f _C	_	1842,5		MHz
Maximum insertion att	tenuatio	on		α_{max}				
	1805,0	1880,0	MHz		—	3,0	3,5	dB
Amplitude ripple (p-p)				Δα				
	1805,0	1880,0	MHz			1,3	1,8	dB
Input VSWR								
	1805,0	1880,0	MHz			2,5	2,8	
Output VSWR								
	1805,0	1880,0	MHz		—	2,5	2,8	
Attenuation				α				
	,	800,0	MHz		20,0	21,0	—	dB
	800,0	1500,0	MHz		19,0	20,0	—	dB
	1500,0	1705,0	MHz		20,0	21,0	—	dB
	1705,0	1760,0	MHz		20,0	25,0	—	dB
	1760,0	1785,0	MHz		12,0	22,0	—	dB
	1920,0	1980,0	MHz		20,0	25,0	—	dB
	1980,0	3120,0	MHz		20,0	22,0	—	dB
:	3120,0	5000,0	MHz		20,0	25,0	_	dB
Ę	5000,0	6000,0	MHz		10,0	20,0		dB



S+M Siemens Matsushita Components

SAW Components Low Loss Filter for Mobile Communication

Data Sheet

Characteristics

Operating temperature range:	Т	= -20 to +80°C
Terminating source impedance:	Z_{S}	= 50 Ω
Terminating load impedance:	Z_{L}	= 50 Ω

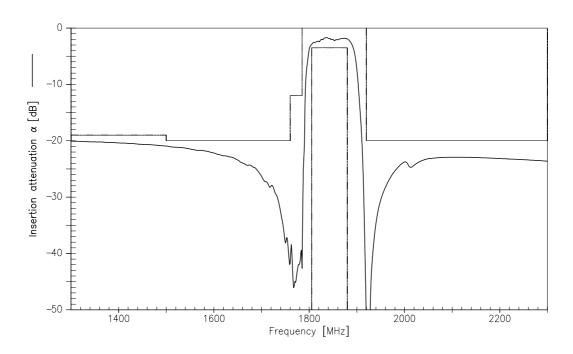
∠L	= 50 Ω				
		min.	typ.	max.	
	f _c	—	1842,5		MHz
	α_{max}				
MHz		—	3,6	3,9	dB
	Δα				
MHz		—	1,9	2,2	dB
MHz		—	2,5	2,8	
MHz		_	2,5	2,8	
	α				
MHz		20,0	21,0	—	dB
MHz		19,0	20,0	—	dB
MHz		20,0	21,0	—	dB
MHz		20,0	25,0	—	dB
MHz		8,0	16,0	—	dB
MHz		20,0	25,0	—	dB
MHz		20,0	22,0	—	dB
MHz		20,0	25,0	—	dB
MHz		10,0	20,0		dB
	MHz MHz MHz MHz MHz MHz MHz MHz MHz MHz	f _c MHz αmax MHz Mata	min. f_c min. f_c — MHz α_{max} — MHz — $\Delta \alpha$ — MHz — — $\Delta \alpha$ — MHz 20,0 MHz 20,0 MHz 20,0 MHz 20,0 MHz 20,0 MHz 20,0 MHz 20,0 MHz 20,0 MHz 20,0	min. typ. f_c — 1842,5 MHz α_{max} — 3,6 MHz $-$ 3,6 MHz — 1,9 MHz — 2,5 MHz — 2,5 MHz — 2,5 MHz — 2,5 MHz 20,0 21,0 MHz 19,0 20,0 MHz 20,0 21,0 MHz 20,0 25,0 MHz 8,0 16,0 MHz 20,0 25,0 MHz 20,0 25,0 MHz 20,0 25,0	min.typ.max. f_c -1842,5- MHz α_{max} -3,63,9 MHz $\Delta \alpha$ -1,92,2 MHz -1,92,2 MHz -2,52,8 MHz -2,52,8 MHz -2,021,0 MHz 19,020,0- MHz 20,021,0- MHz 8,016,0- MHz 8,016,0- MHz 20,025,0- MHz 20



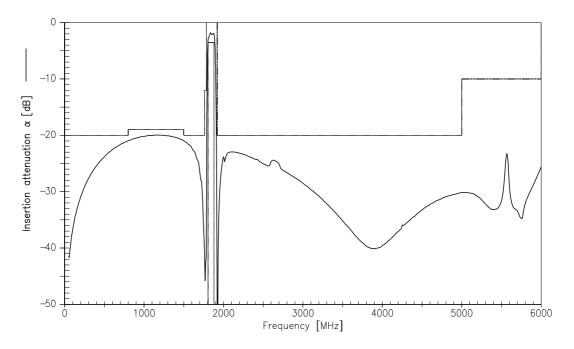
SAW Components Low Loss Filter for Mobile Communication

Data Sheet

Transfer function (spec for 25°C)



Transfer function (wideband)



Preliminary format of data sheet. Terms of delivery and rights to change design reserved. Page 4 of 4

OFW EM EU Aug 25, 1999