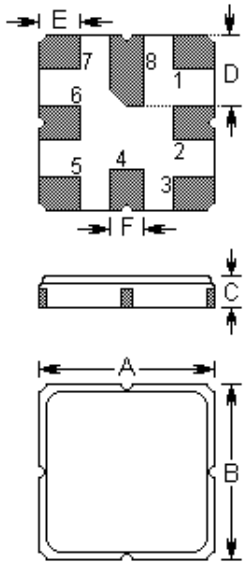
The **NDF9049** is a low-loss, compact, and economical surface-acoustic-wave (**SAW**) RF filter in a surface-mount ceramic **QCC8D** case with **1216.0** MHz center frequency for dual conversion. Matching network is required for operation at 200Ω.

------**Preliminary Release**

1. Package Dimension (QCC8D)



Pin	Configuration
1	Input
2	Input
5	Output
6	Output
3, 7	To be grounded
4, 8	Case Ground

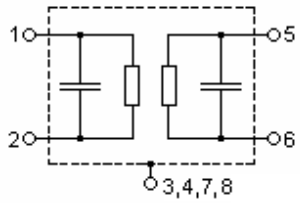
Sign	Data (unit: mm)	Sign	Data (unit: mm)
A	3.00	D	1.20
B	3.00	E	0.75
C	1.10	F	0.60

2. Marking

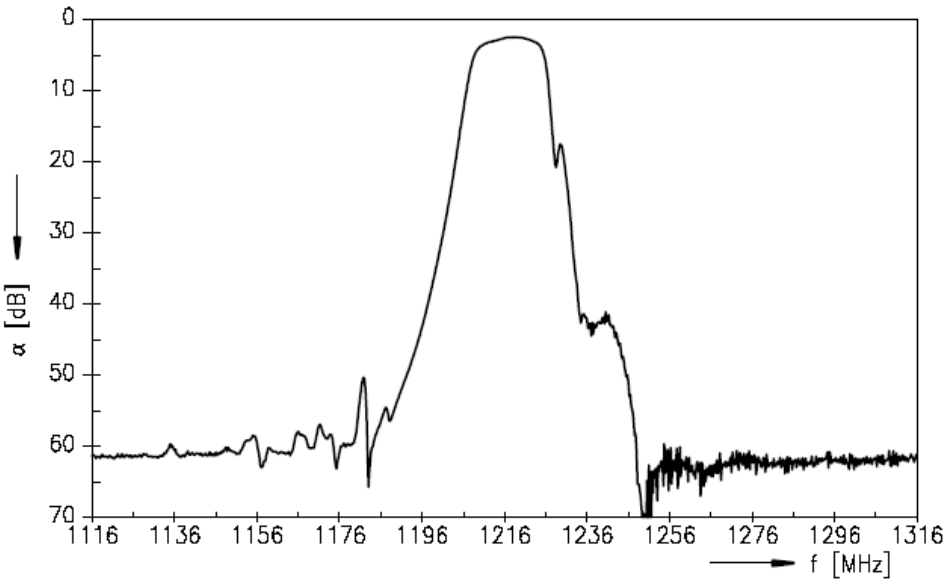
NDF9049

Laser Marking

3. Equivalent LC Model



4. Typical Frequency Response



5. Performance

5-1. Maximum ratings

Rating		Value	Unit
Source Power	P_S	0	dBm
DC Voltage	V_{DC}	0	V
Storage Temperature Range	T_{stg}	-40 to +85	℃
Operable Temperature Range	T_A	-40 to +85	℃

5-2. Electronic characteristics

Operating temperature range: T = 35 ℃ …. +75 ℃
Terminating source impedance: Z_S = 200 Ω
Terminating load impedance: Z_L = 200 Ω

Characteristic		Min.	Typ.	Max.	Unit
Center frequency	f_C	—	1216.00	—	MHz
Maximum insertion attenuation	*IL*				
1212,00 ... 1220,00 MHz		—	3.2	4.2	dB
Amplitude ripple in passband (p-p)	*Δα*				
1212,00 ... 1220,00 MHz		—	0.7	1.2	dB
Amplitude ripple in any 6 MHz window (p-p)	*Δα*				
1212,00 ... 1220,00 MHz		—	0.7	1.2	dB
Pass bandwidth					
α_{rel} ≤ 3dB	B_{3dB}	12.1	17.3	—	MHz
α_{rel} ≤ 12dB	B_{12dB}	16.6	21.8		MHz
Absolute Attenuation	*α*				
500.00 ... f_C - 91.00 MHz		55.0	59.0	—	dB
f_C - 91.00 ... f_C - 85.00 MHz		55.0	59.0	—	dB
f_C - 76.00 ... f_C - 68.00 MHz		54.0	58.0	—	dB
f_C - 88.00 MHz		55.0	59.0	—	dB
f_C - 72.00 MHz		54.0	59.0	—	dB
f_C - 44.00 MHz		48.0	56.0	—	dB
f_C - 36.00 MHz		45.0	49.0	—	dB
f_C + 40.00 ... 2000.00 MHz		54.0	58.0	—	dB
Group delay ripple (p-p)					
1212,00 ... 1220,00 MHz		—	10	—	ns

ⓘCAUTION: Electrostatic Sensitive Device. Observe precautions for handling!