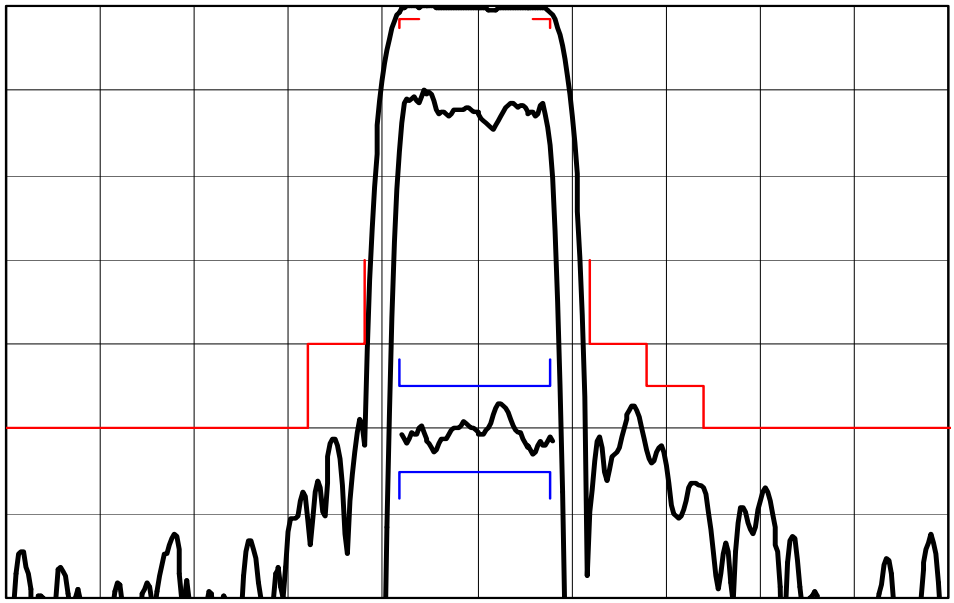
69.99 MHz SAW Filter
0.8 MHz Bandwidth
Part Number SF0070CD03108S

DESCRIPTION

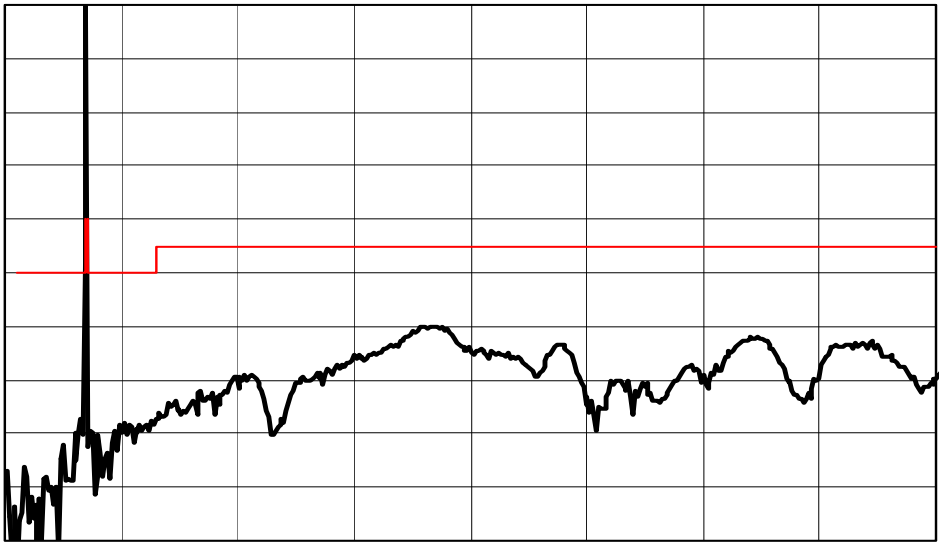
- 69.99 MHz SAW bandpass filter with 0.8 MHz bandwidth.
- 73.3 x 20 mm DIP package.
- RoHS compliant.

TYPICAL PERFORMANCE



Horizontal:	Frequency :	0.5	MHz/div
Vertical from Top:	Relative Magnitude :	10	dB/div
	Relative magnitude :	1	dB/div
	Phase Linearity :	6	deg/div

Wideband Response (0- 800 MHz, 10 dB/div)



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SPECIFICATION

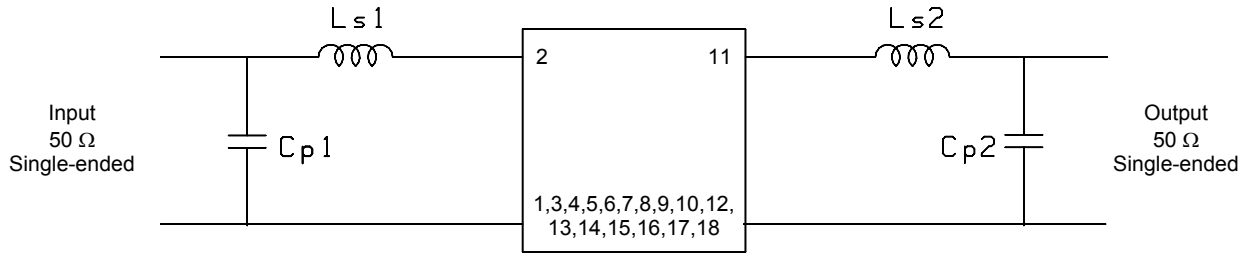
Parameter	Min	Typ	Max	Units
Center Frequency [1]	69.94	69.99	70.04	MHz
Insertion Loss [2]	-	17.5	19	dB
1.5 dB Bandwidth [3]	0.8	0.84	-	MHz
40 dB Bandwidth [3]	-	1.15	1.2	MHz
Amplitude Ripple [4, 5]	-	0.4	1.0	dB p-p
Absolute Delay	-	8.82	-	µs
Phase Linearity [4]	-	3.5	6	deg p-p
Rejection, 10 MHz to 69.09 MHz [3]	50	56	-	dB
Rejection, 70.89 MHz to 71.19 MHz [3]	45	51	-	dB
Rejection, 71.19 MHz to 130 MHz [3]	50	57	-	dB
Rejection, 130 MHz to 800 MHz [3]	45	56	-	dB
Input Return Loss [4, 6]	10	15	-	dB
Output Return Loss [4, 6]	10	15	-	dB
Source and Load Impedance	-	50	-	Ω
Ambient Temperature	-	25	-	˚C

Notes:
1. Average of lower and upper 3dB points (3dB is relative to the insertion loss).
2. Measured at the point in the passband where the loss is a minimum.
3. All stated dB levels are relative to the insertion loss.
4. Over 0.8 MHz bandwidth.
5. Defined as maximum level – minimum level over the given bandwidth, excluding the band edges.
6. When matched externally, as shown below.

MAXIMUM RATINGS

Parameter	Min	Max	Units
Storage Temperature Range	-40	85	˚C
Operating Temperature Range	-40	85	˚C
Input Power Level	-	20	dBm

MATCHING CIRCUIT

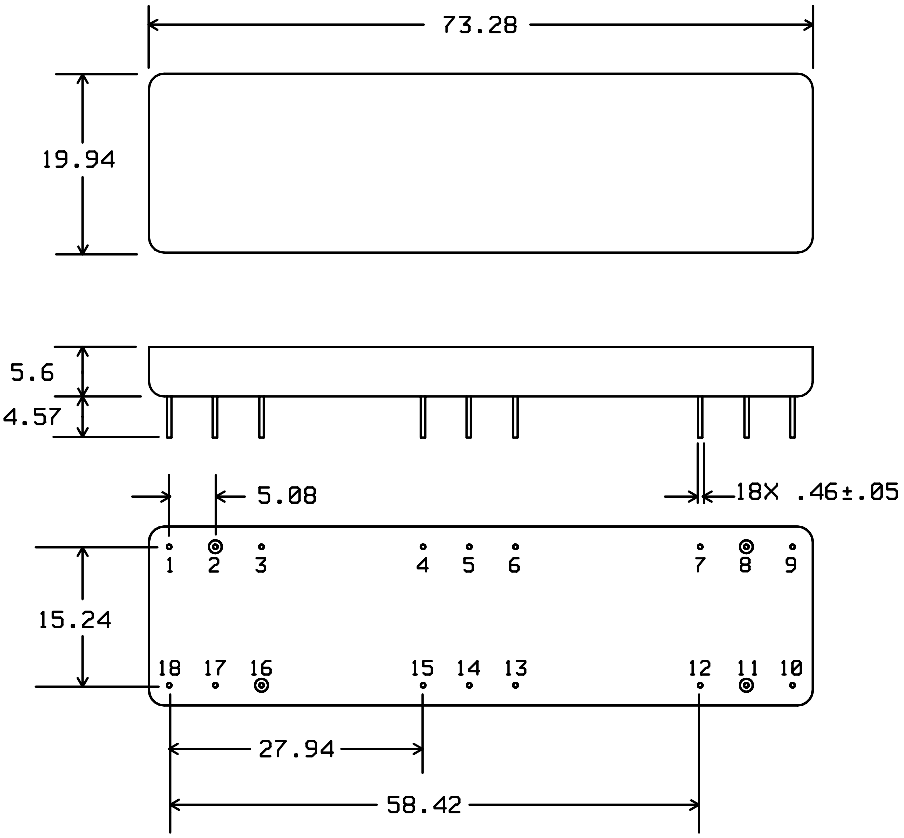


Typical component values:
(Minimum inductor Q = 40)

Ls1 = 150 nH Ls2 = 150 nH
Cp1 = 100 pF Cp2 = 120 pF

Notes:
1. Required component tolerances: inductors +/-2%, capacitors +/-5%.
2. Component values shown are for guidance only and may change depending on board layout.

PACKAGE OUTLINE



Units: mm

Tolerances are ±0.15 mm except for the overall length and width, which are nominal values.

Pad Configuration:

Input:	2
Output:	11
Ground:	All other pins

ISO 9001
Registered

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