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Golledge Electronics Ltd
Eaglewood Park, ILMINSTER
Somerset, TA19 9DQ, UK

SAW Filter 918.60MHz — Model: TA1628A
Part No: MP07320 — Rev No: 1

A. MAXIMUM RATING:

Electrostatic **S**ensitive **D**evice

1. Input Power Level: 15dBm
2. DC Voltage: 6V
3. Operating Temperature: -30°C to +85°C
4. Storage Temperature: -40°C to +85°C

B. ELECTRICAL CHARACTERISTICS:

Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	918.6	-
3dB BW	MHz	-	5.0	-
Minimum insertion loss IL (min)				
Incl. loss of matching elements (Q = 82) *1)	dB	-	2.7	4.2
Exclude loss in matching elements *2)	dB	-	2.5	4.0
Passband (relative to IL min) *1)				
916.70 ~ 920.50MHz	dB	-	1.2	3.0
Attenuation (relative to IL min) *1)				
10.000 ~ 710.00MHz	dB	45	52	-
710.00 ~ 850.00MHz	dB	35	40	-
850.00 ~ 910.00MHz	dB	20	27	-
910.00 ~ 914.00MHz	dB	10	15	-
914.00 ~ 915.00MHz	dB	5	12	-
923.00 ~ 930.00MHz	dB	5	19	-
930.00 ~ 960.00MHz	dB	17	29	-
960.00 ~ 1000.0MHz	dB	28	35	-
1000.0 ~ 2500.0MHz	dB	30	41	-
Turnover To	Deg.C	-	70	-
Temperature coefficient (TCf)	ppm/c*2	-	0.047	-
Impedance at Fc, Input $Z_{IN} = R_{IN} // C_{IN}$ Z_S	Ω	62Ω // 1.35pF		
Impedance at Fc, Output $Z_{OUT} = R_{OUT} // C_{OUT}$ Z_L	Ω	58Ω // 1.44pF		

*1: The matching circuit is real by actual passive components.
0805 Coillcraft CS series chip conductor is used for inductor.
0402 muRata GRM series is used for capacitor.
*2: The matching circuit is ideal by simulation.

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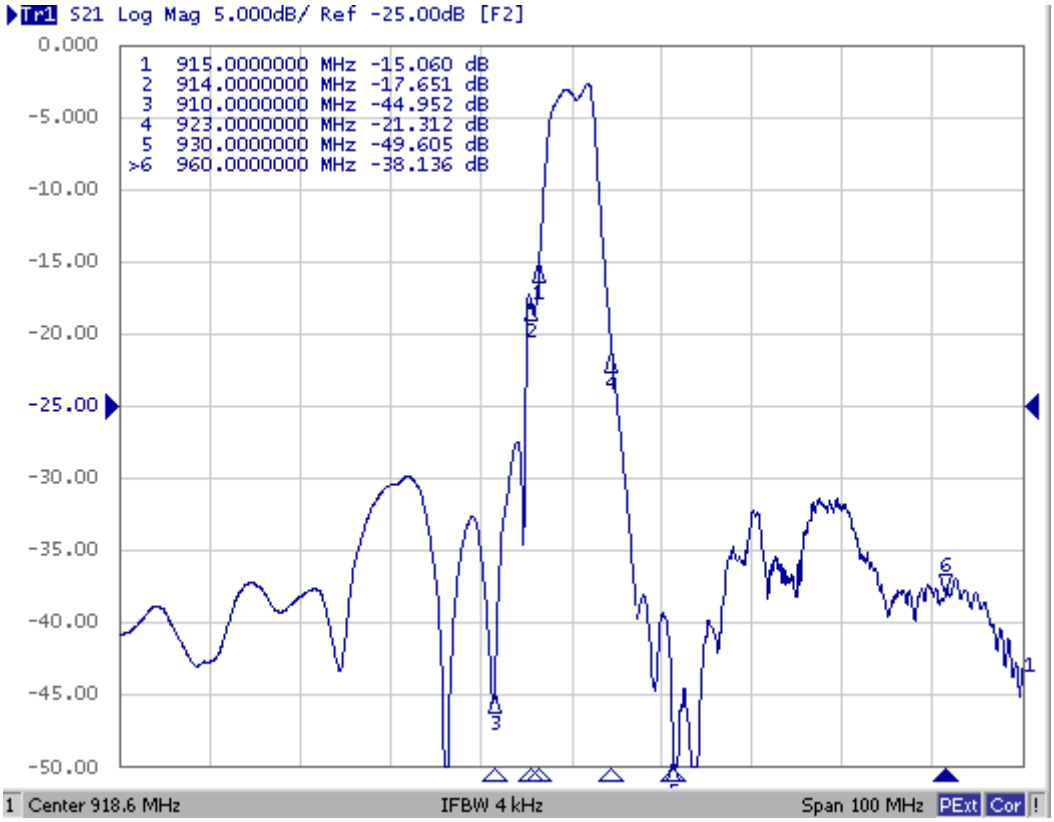
C. FREQUENCY CHARACTERISTICS:



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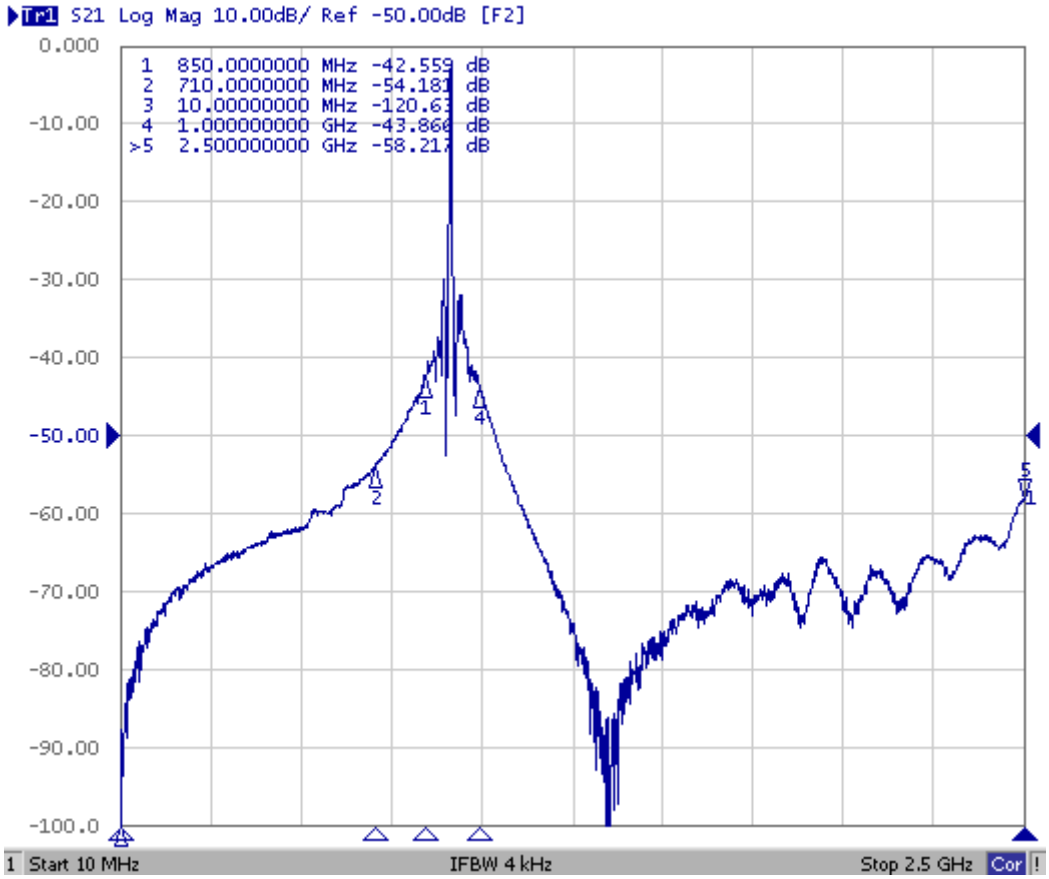

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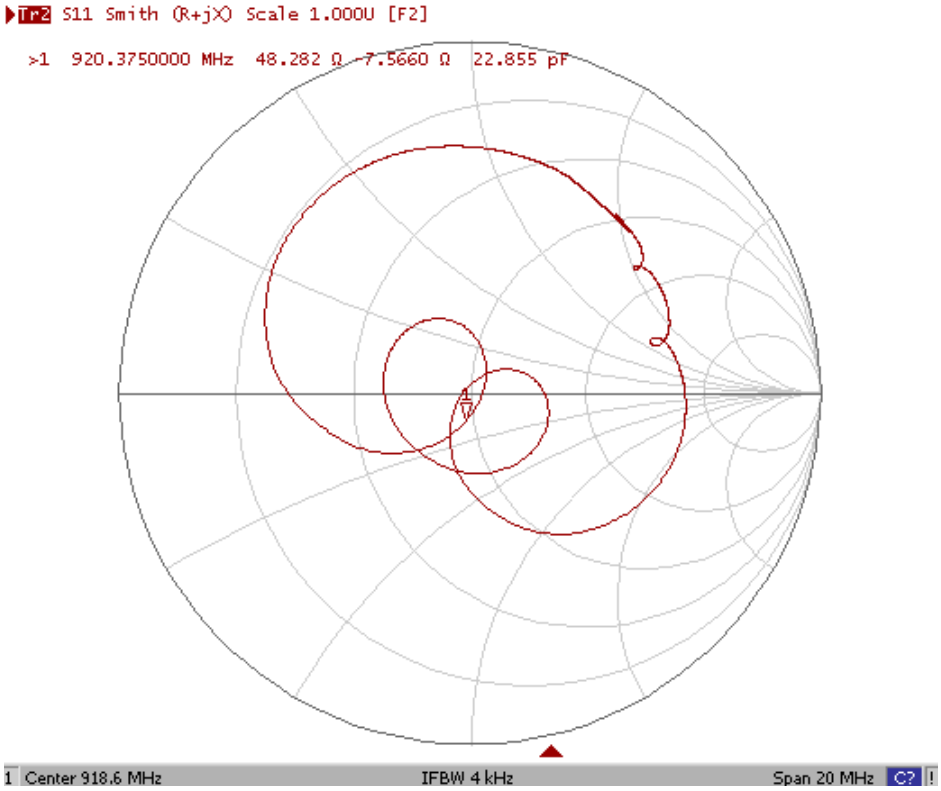
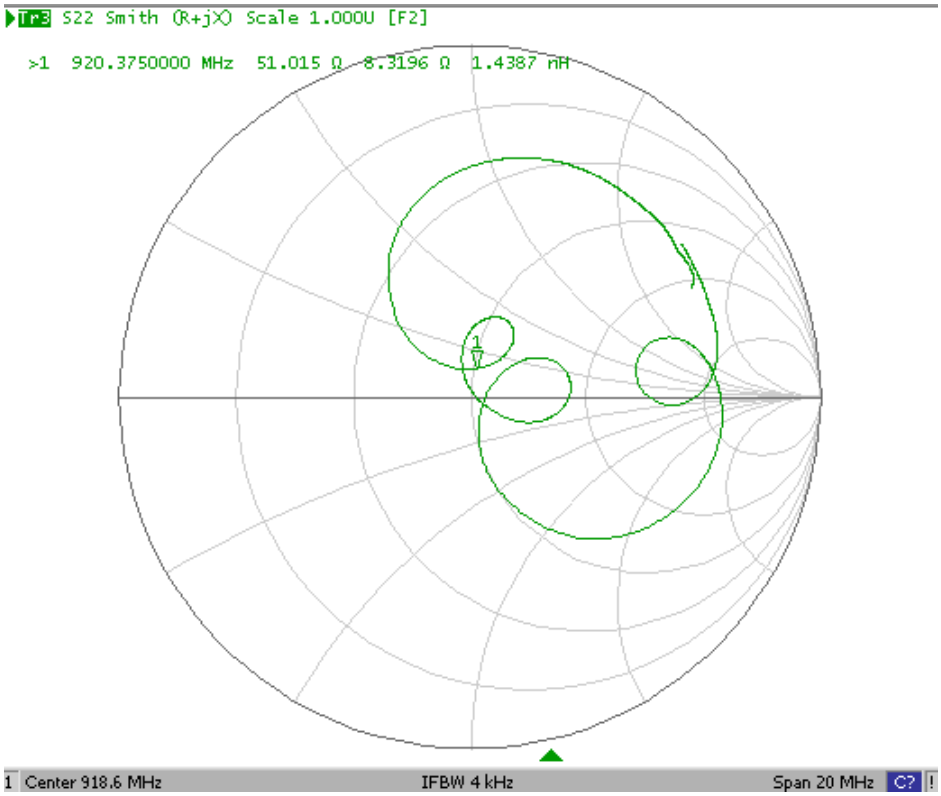
Smith Chart S11:



Smith Chart S22:



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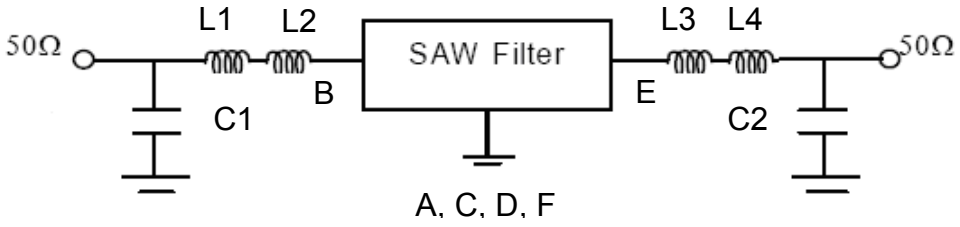
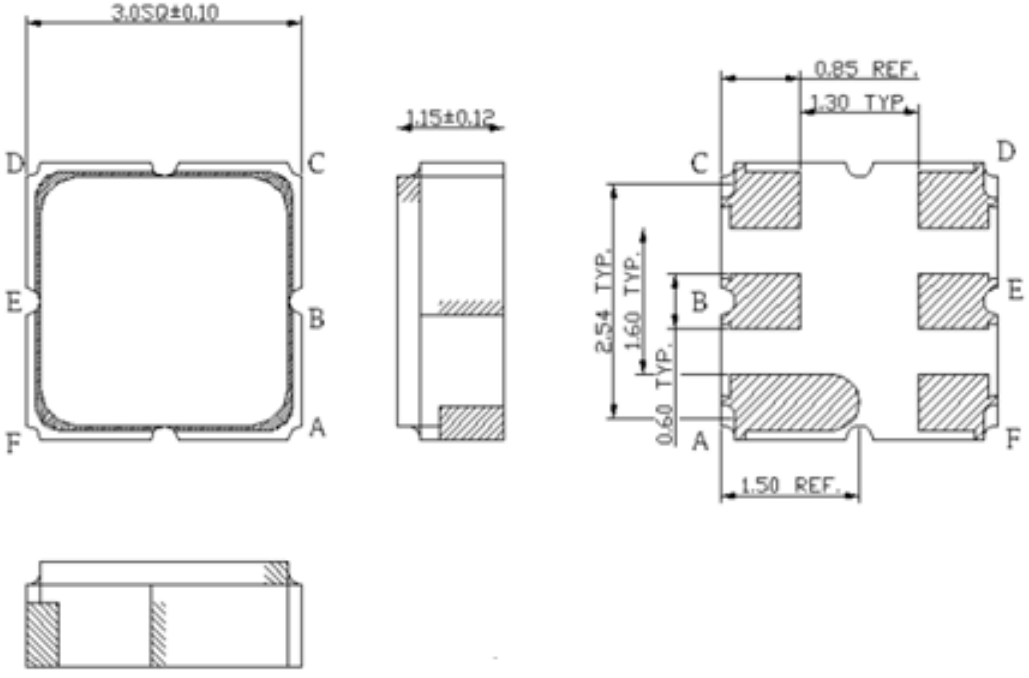
D. MEASUREMENT CIRCUIT:

The matching circuit is real by actual passive components.



L1: 10nH, L2: 8.2nH, L3: 8.2nH, L4: 10nH
L1+L2=18.2nH, L3+L4=18.2nH
C1: 4.7pF, C2: 4.0pF

E. OUTLINE DRAWING:



A: Input ground (recommended) or Input
B: Input (recommended) or Input ground
D: Output ground (recommended) or Output
E: Output (recommended) or Output ground
C, F: Case Ground
Unit: mm
*3) The recommended pin configuration offers better suppression of electrical crosstalk.

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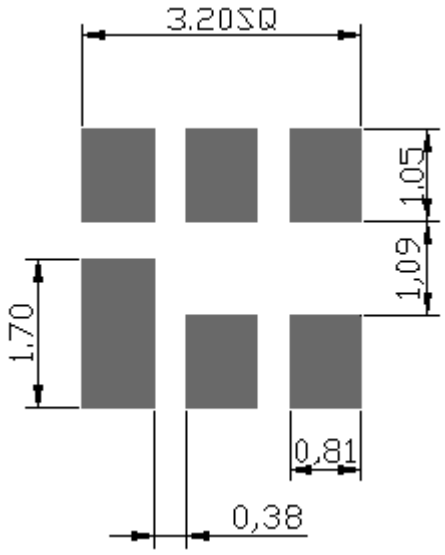
F. PCB FOOTPRINT:



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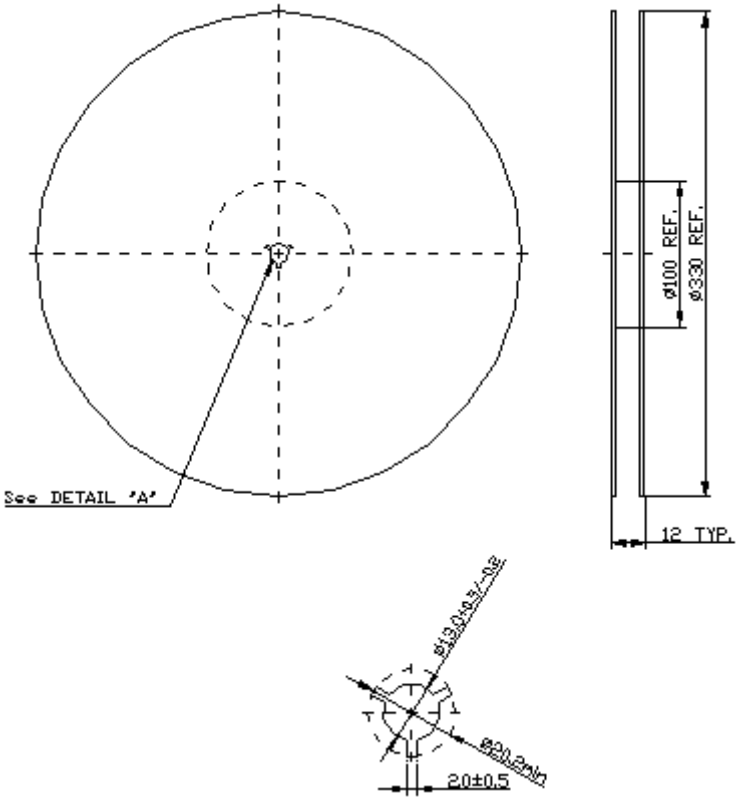
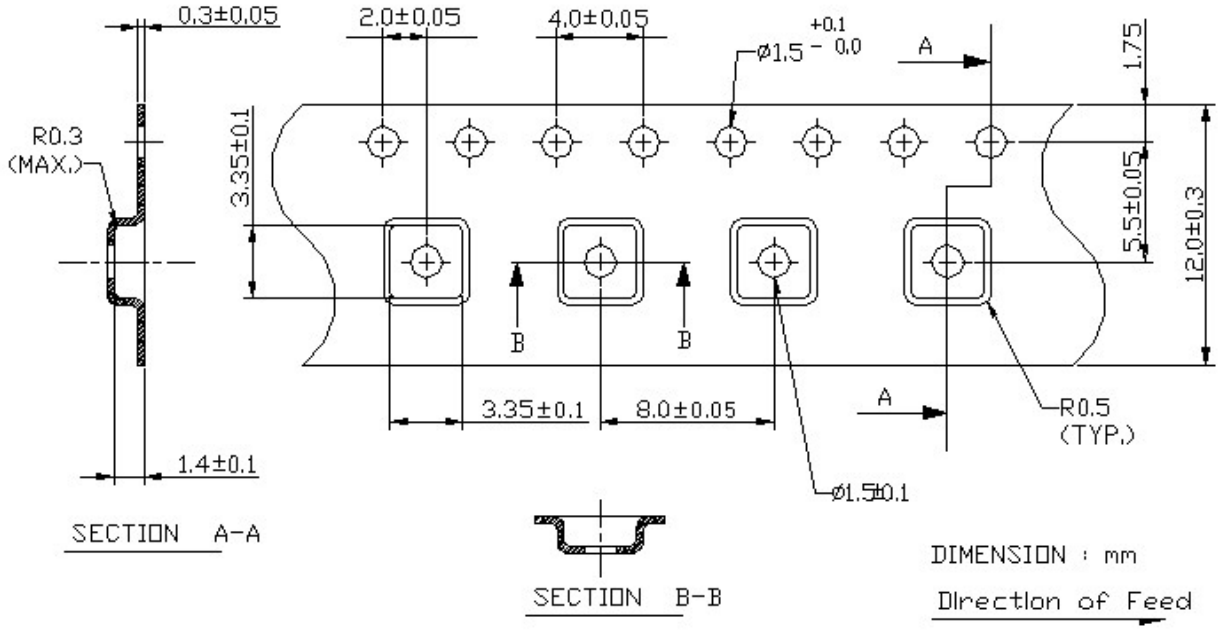
G. PACKING:

1. Reel Dimension (Please refer to FR-75D10 for packing quantity)



2. Tape Dimension



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H. RECOMMENDED REFLOW PROFILE: