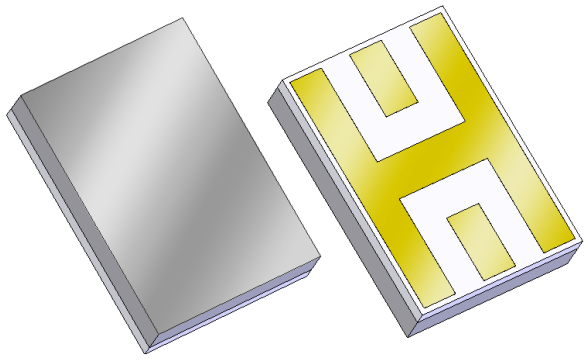
880368

1280 MHz BAW Filter

Applications

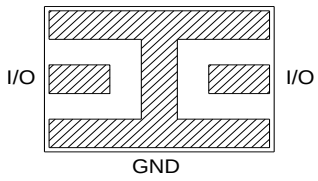
- L-Band
- For high-selectivity applications



Product Features

- Usable bandwidth 19 MHz
- Low loss
- High selectivity
- Single-ended operation
- Ceramic chip-scale Package (CSP)
- Small Size
- Hermetic **RoHS** compliant, **Pb**-free

Functional Block Diagram



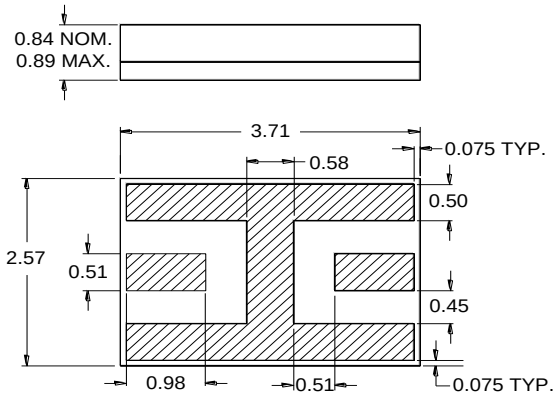
Overall width, length, and thickness are the only critical dimensions.
All other dimensions are for reference only.

Dimensions shown are nominal in millimeters
All tolerances are ±0.13mm except overall
length and width ±0.25mm

Body: *Sapphire*
Package: *Alumina*
Terminations: *Au* plating 0.5 - 2.5µm, over a 2.0 – 6.0 µm *Ni* plating

Pin Configuration

Pin # SE-Balanced	Description
I/O	Input/Output
GND	Ground



Ordering Information

Part No.	Description
880368	packaged part
880368 Eval Board	evaluation board

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Specifications

Electrical Specifications [1]

Specified Temperature Range: [2] -40 to +85 ºC

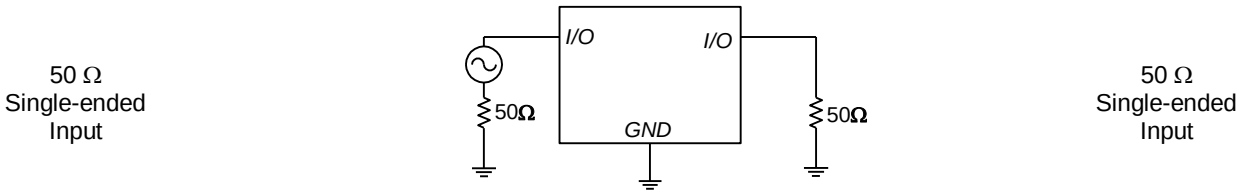
Parameter [3]	Conditions	Min	Typical [4]	Max	Units
Center Frequency		-	1280	-	MHz
Maximum Insertion Loss	@ 1280 MHz	-	4.0	4.5	dB
3dB Bandwidth	Reference loss at 1280 MHz	19	23	-	MHz
40dB Lower Frequency Edge		1249	1260	-	MHz
40dB Upper Frequency Edge		-	1300	1311	MHz
VSWR	@ 1280 MHz	-	1.5	2.0	-
Source Impedance (single-ended) [5]		-	50	-	Ω
Load Impedance (single-ended) [5]		-	50	-	Ω

Notes:
1. All specifications are based on the TriQuint schematic for the main reference design shown on page 3
2. In production, devices will be tested at room temperature to a guardbanded specification to ensure electrical compliance over temperature
3. Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
4. Typical values are based on average measurements at room temperature
5. This is the optimum impedance in order to achieve the performance shown

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Reference Design

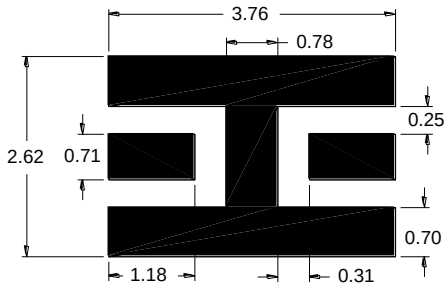
Schematic



PC Board

Refer to **PCB Layout** for more information.

Mounting Configuration

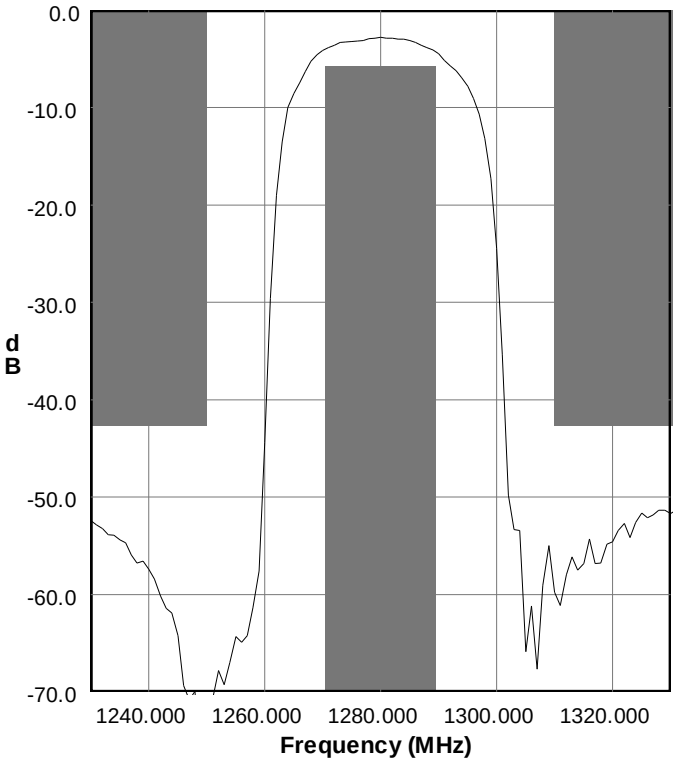


Notes:
1. All dimensions are in millimeters.
2. This footprint represents a recommendation only.

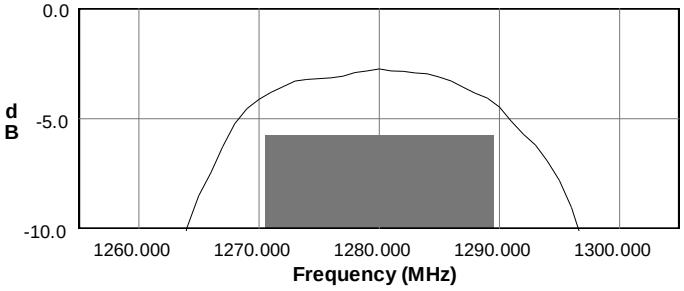
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Typical Performance (at room temperature)

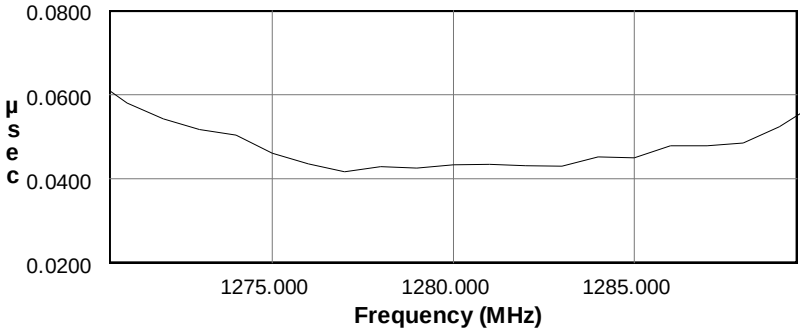
S21 Amplitude Response



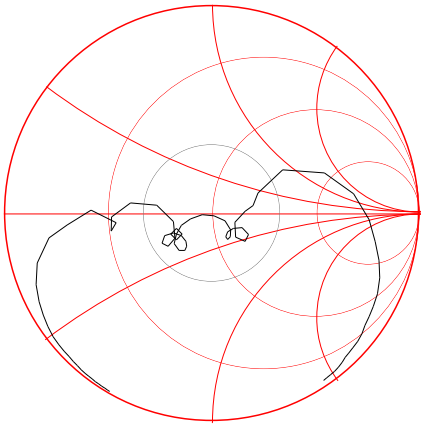
S21 Amplitude Response



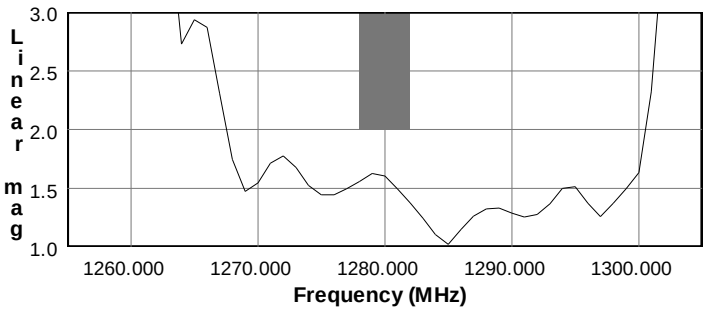
S21 Group Delay Response



S11 Smith Chart



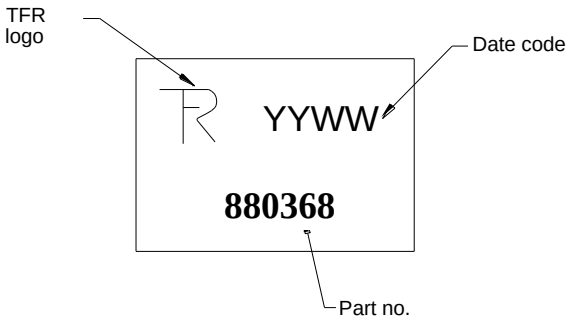
S11 VSWR



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Mechanical Information

Marking



The date code consists of: YY = last digit of year,
WW = 2 digit week

Tape and Reel Information

Tape and Reel available upon request
EIA-481

Tinning available per J-STD-001

Absolute Maximum Ratings

Parameter	Rating
Operating Temperature	-40 to +85 °C
Storage Temperature	-55 to +100 °C
Maximum Input Power	+23 dBm

Operation of this device outside the parameter ranges given above may cause permanent damage.

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Product Compliance Information

ESD Information



Caution! ESD-Sensitive Device

Value: Passes ≥ 8000 V min.
Test: Human Body Model (HBM)
Standard: JEDEC Standard JESD22-A114

Value: Passes ≥ 1600 V min.
Test: Machine Model (MM)
Standard: JEDEC Standard JESD22-A115

Refer to **ESD Sensitivity** for data

Solderability

Compatible with the latest version of J-STD-020, lead free solder, 260°C

Refer to **Soldering Profile** for recommended guidelines.

This part is compliant with EU 2002/95/EC RoHS directive (Restrictions on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment).

This product also has the following attributes:

- Halogen Free (Chlorine, Bromine)
- Antimony Free
- TBBP-A ($C_{15}H_{12}Br_4O_2$) Free
- PFOS Free
- SVHC Free

Contact Information

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Email: info-defense@tqs.com

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