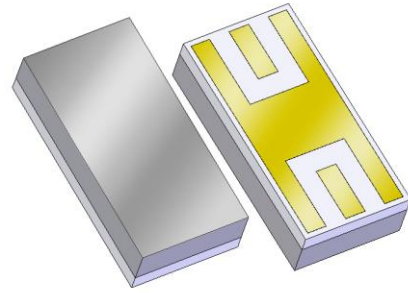


General Description

The 880273 is a dual-use GPS L1 BAW bandpass filter in a small hermetic package. The filter's 30 MHz bandwidth allows reception of both M-code and Y-code signals. It is optimized for low insertion loss and high rejection.

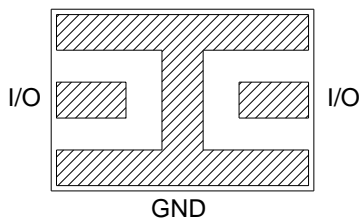


CSP: 3.26 X 1.60 X 0.84 mm

Product Features

- Usable bandwidth 30 MHz
- Single-ended operation
- Ceramic Chip-Scale Package (CSP)
- Hermetically sealed
- Small Package: 3.26 x 1.60 x 0.84 mm

Functional Block Diagram



Bottom View

Applications

- Civil and Defense GPS Receivers
- L-Band

Pin Configuration - Single Ended

Pin No.	Label
I/O	Input / Output
GND	Ground

Ordering Information

Part No.	Description
880273	1575 MHz BAW Filter
880273-EVB	Evaluation board

Absolute Maximum Ratings

Parameter	Rating
Storage Temperature ⁽¹⁾	-55 to +100 °C
Operable Temperature ⁽²⁾	-40 to +85 °C
RF Input Power	TBD

Notes:

1. Operation of this device outside the parameter ranges given may cause permanent damage.
2. Specifications are not guaranteed over all operable conditions

Electrical Specifications ⁽¹⁾

Test conditions unless otherwise noted: ⁽²⁾ Temp = -40 to +85 °C

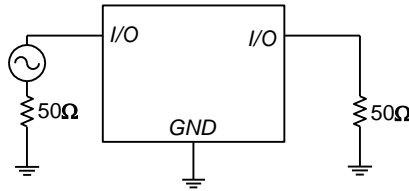
Parameter ⁽³⁾	Conditions	Min	Typical ⁽⁴⁾	Max	Units
10 dB Center Frequency		1570	1575	1580	MHz
Insertion Loss	@ Fo	-	2.35	3.75	dB
3 dB Bandwidth ⁽⁵⁾		40	45	-	MHz
40 dB Bandwidth ⁽⁵⁾		-	120	140	MHz
Amplitude Variation ⁽⁶⁾	1565 – 1585 MHz	-	1.2	2	dB
Input / Output VSWR	@ Fo	-	1.8:1	2.2:1	
Source Impedance ⁽⁷⁾	Single-ended	-	50	-	Ω
Load Impedance ⁽⁷⁾	Single-ended	-	50	-	Ω

Notes:

1. All specifications are based on the Qorvo schematics for the reference designs shown on page 3.
2. In production, devices will be tested at room temperature to a guard banded 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. Referenced to the insertion loss at the center frequency
6. Measured as maximum peak to adjacent valley amplitude variation over frequency range
7. This is the optimum impedance in-order to achieve the performance shown

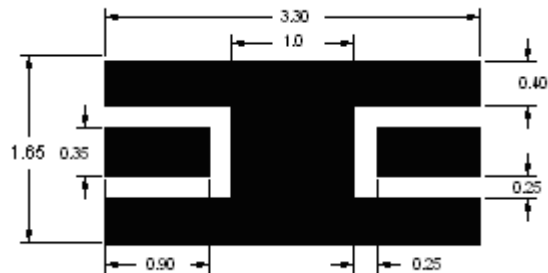
Matching Schematics

50 Ω
Single-ended
Input



50 Ω
Single-ended
Output

PCB Mounting Pattern

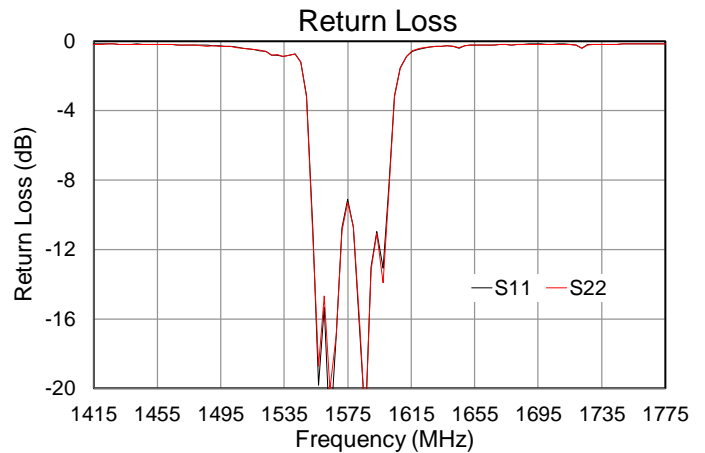
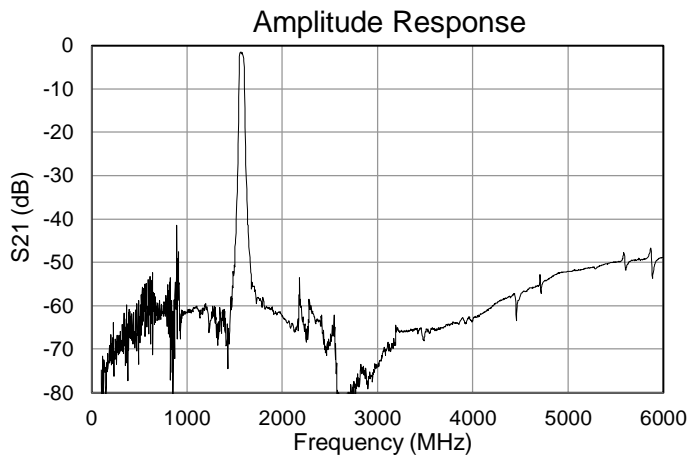
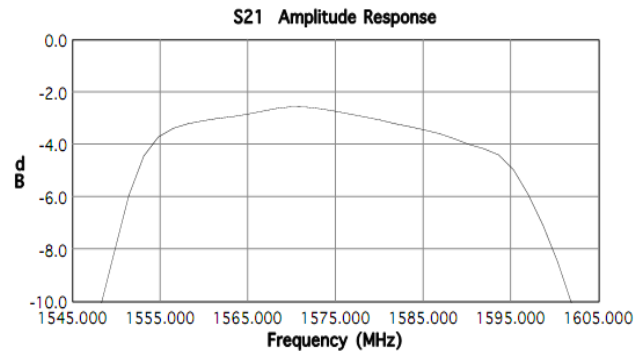
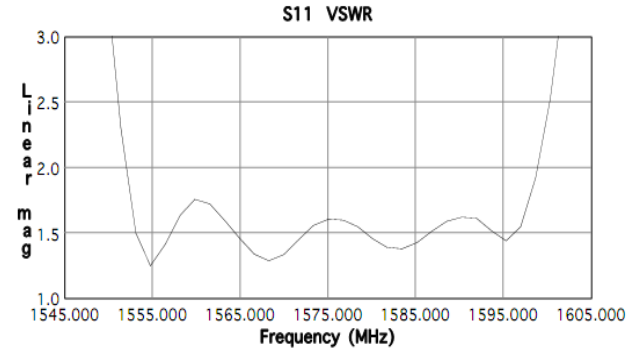
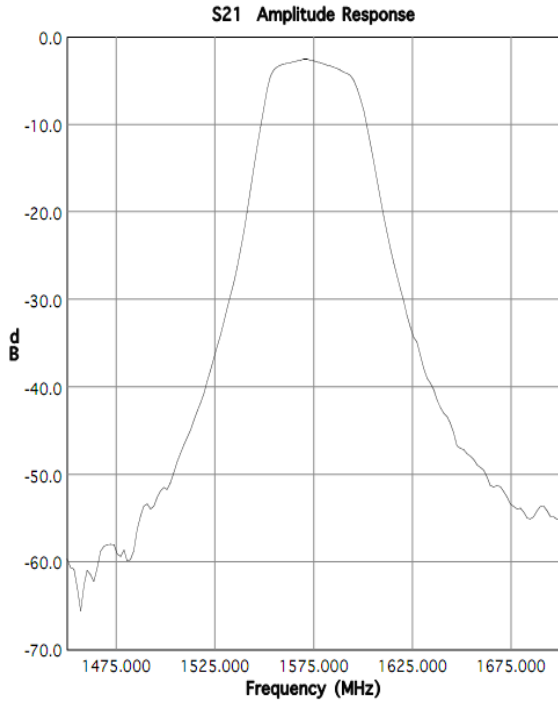


Notes:

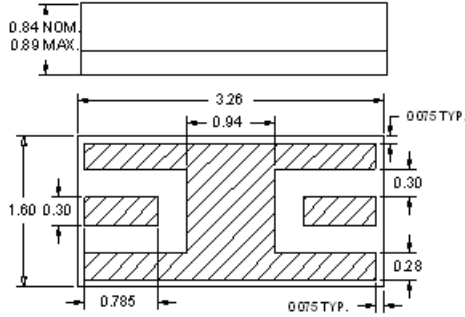
1. All dimensions are in millimeters. Angles are in degrees.
2. This drawing specifies the mounting pattern used on the Qorvo evaluation board for this product. Some modification may be necessary to suit end user assembly materials and processes.

Typical Performance

Test conditions unless otherwise stated: Temp. = 25 °C



Package Information, Marking and Dimensions

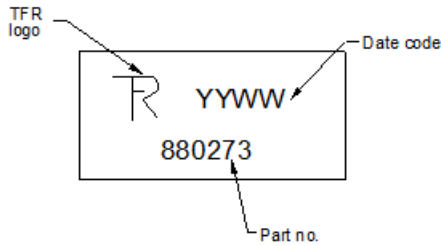


Package Style: CSP
 Dimensions: 3.26 x 1.60 x 0.84 mm

Body: *Sapphire*
 Package: *Alumina*
 Terminations: *Au* plating 0.5 – 1.0 μ m, over a 2-6 μ m *Ni* plating

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

The date code consists of, YY = last 2 digits of the year, and WW = 2 digits of worked week



Tape and Reel Information

Tape and reel available upon request (EIA-481)

Handling Precautions

Parameter	Rating	Standard
ESD – Human Body Model (HBM)	Class 2	ANSI/ ESD / JEDEC JS-001
ESD – Charged Device Model (CDM)	Class C3	ANSI/ ESD / JEDEC JS-002
MSL – Moisture Sensitivity Level	Level 1	IPC/JEDEC J-STD-020



Caution!
ESD-Sensitive Device

Solderability

Compatible with both lead-free (260°C max. reflow temp.) and tin/lead (245°C max. reflow temp.) soldering processes. Solder profiles available upon request.

Refer to [Soldering Profile](#) for recommended guidelines

RoHS Compliance

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:

- Lead Free
- Halogen Free (Chlorine, Bromine)
- Antimony Free
- TBBP-A (C₁₅H₁₂Br₄O₂) Free
- PFOS Free
- SVHC Free
- Qorvo Green

Contact Information

For the latest specifications, additional product information, worldwide sales and distribution locations:

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Email: customer.support@qorvo.com

For technical questions and application information: **Email:** appsupport@qorvo.com

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