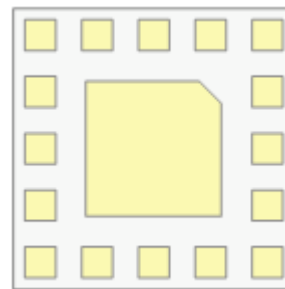


Product Brief



Description

The Avago Technologies' ACFM-W1G7 is an antenna triplexer that combines filters for Mid and High Cellular, GNSS, and Wi-Fi bands into a single, miniature package.

The ACFM-W1G7 features a single antenna connection, eliminating the need for antenna switching. All ports are matched to 50 ohms.

The ACFM-W1G7 is designed with Avago Technologies' Film Bulk Acoustic Resonator (FBAR) technology. The ACFM-W1G7 also utilizes Avago Technologies' innovative Microcap bonded-wafer, chip scale packaging technology. This process allows the filters to be assembled in a module with a footprint of only 2.5 mm × 2.5 mm with a maximum height of 0.80 mm.

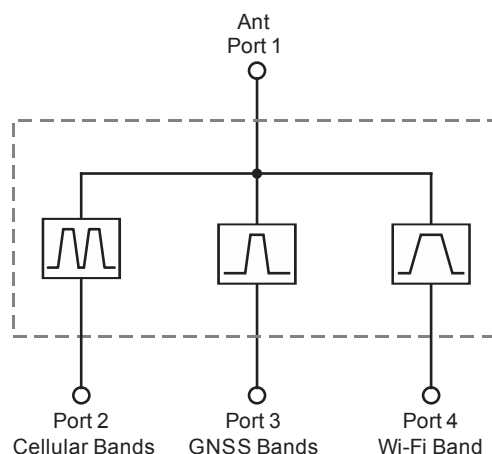
The ACFM-W1G7 enhances performance with low Insertion Loss, high dynamic range, and high rejection of interfering signals.

The excellent power handling capability of Avago Technologies' FBAR bulk-mode resonators supports the power levels used in mobile communications devices while adding virtually no distortion.

Features

- Single antenna
- All ports matched to 50 ohms
- Miniature size
 - 2.5 mm × 2.5 mm footprint
 - 0.80 mm maximum height
- +33 dBm power rating
- Environmental
 - RoHS 6 compliant
 - Halogen free
 - TBBPA free

Functional Block Diagram



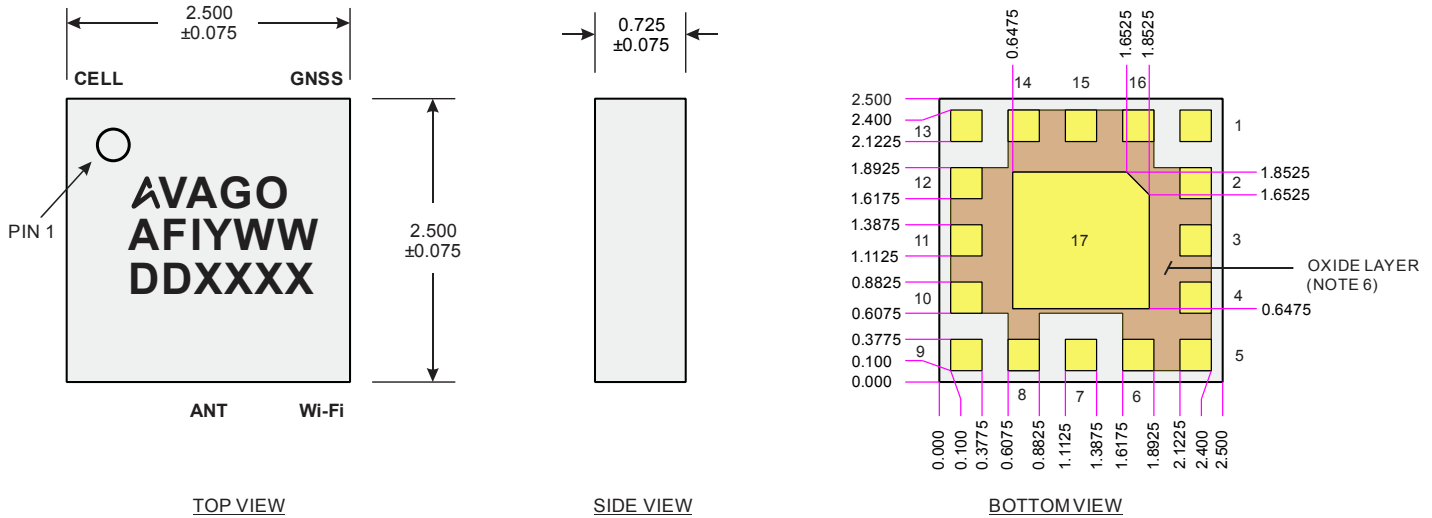
Specifications

- Performance guaranteed -20°C to +85°C
- Cellular bands, 1427.9 MHz to 1510.9 MHz
 - Insertion loss: 3.8 dB, max
- Cellular bands, 1710 MHz to 2170 MHz, 2300 MHz to 2370 MHz
 - Insertion loss: 2.8 dB, max
- Cellular band, 2500 MHz to 2570 MHz
 - Insertion loss: 4.5 dB, max
- Cellular band, 2570 MHz to 2690 MHz
 - Insertion loss: 2.0 dB, max
- GNSS bands, 1559 MHz to 1606 MHz
 - Insertion loss: 4.7 dB, max
- Wi-Fi band, 2402.5 MHz to 2481.5 MHz
 - Insertion loss: 4.5 dB, max

Applications

Smartphones, tablets, and mobile/portable communications devices utilizing GNSS and Wi-Fi with cellular bands.

Figure 1 Package Outline and Drawing



Notes:

1. Dimensions in millimeters
2. Tolerance, unless otherwise noted:
XXX ± 0.05 mm
XXXX ± 0.025 mm
3. Dimensions nominal unless otherwise noted
4. Angles 45° nominal
5. Contact areas are gold plated
6. Ground pads on bottom metal are defined by a thin ($< 1\mu\text{m}$) oxide layer which acts as a solder stop

Marking:

AVAGO = Avago Technologies
A = ACFM-W1G7
FI = Assembly Information
Y = Year
WW = Work Week
DD = Date Code
XXXX = Assembly Lot

Pin Connections:

1 = Cell Bands
7 = Ant
9 = Wi-Fi
13 = GNSS
ALL OTHERS = GND

For product information and a complete list of distributors, please go to our web site: www.broadcom.com.

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