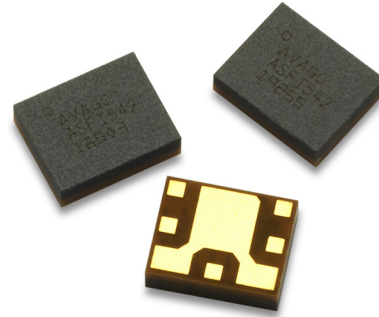


Product Brief



Description

The Avago Technologies ACFM-2113 is a quadplexer that combines Band 1 and Band 3 duplexers into a single, miniature package. Band 4 duplexer is co-banded.

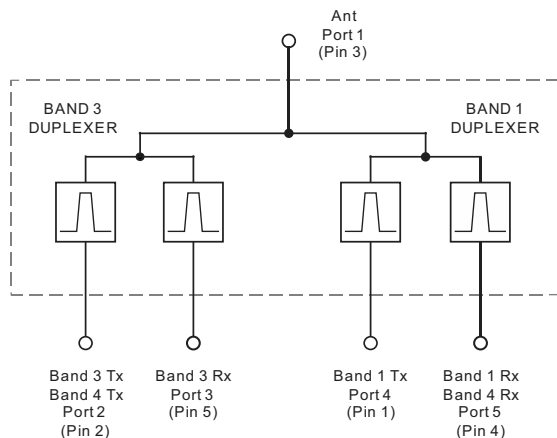
The ACFM-2113 features a single antenna connection, eliminating the need for antenna switching. High isolation between bands enables the use of carrier aggregation.

The ACFM-2113 is designed with Avago Technologies Film Bulk Acoustic Resonator (FBAR) technology. The ACFM-2113 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 x 2.5 mm with a maximum height of 0.80 mm.

Low Tx insertion loss of the ACFM-2113 reduces power amplifier current, extending battery life. The ACFM-2113 enhances receiver sensitivity and dynamic range with low Rx insertion loss and high rejection of Tx signals at the Rx ports.

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

Functional Block Diagram



Features

- Single antenna
- High cross band isolation
 - Enables carrier aggregation
- Band 4 co-banding
- Miniature size
 - 2 x 2.5 mm footprint
 - 0.80 mm max height
- High power rating
 - +31 dBm max Tx power
- Environmental
 - RoHS 6 compliant
 - Halogen free
 - TBBPA free

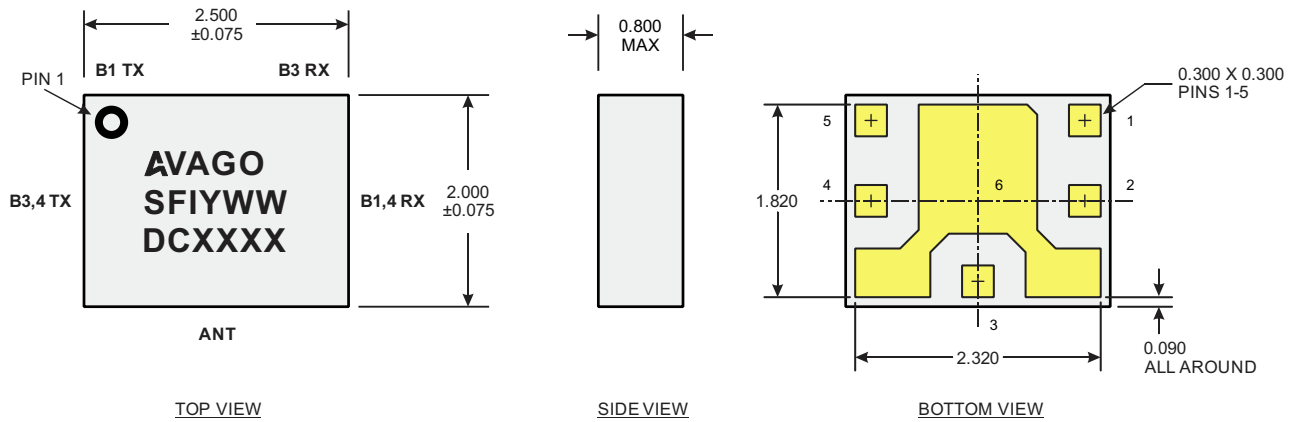
Specifications

- Performance guaranteed -30 °C to +85 °C
- Band 1 Duplexer Rx
 - Insertion loss: 2.6 dB max
 - Noise blocking: 55 dB min
- Band 1 Duplexer Tx
 - Insertion loss: 2.7 dB max
 - Interferer blocking: 55 dB min
- Band 3 Duplexer Rx
 - Insertion loss: 4.0 dB max
 - Noise blocking: 55 dB min
- Band 3 Duplexer Tx
 - Insertion loss: 4.0 dB max
 - Interferer blocking: 55 dB min
- Band 4 Duplexer Rx
 - Insertion loss: 2.5 dB max
 - Noise blocking: 55 dB min
- Band 4 Duplexer Tx
 - Insertion loss: 2.4 dB max
 - Interferer blocking: 55 dB min

Applications

Smartphones, tablets, and mobile/portable communications devices operating in Bands 1 and 3 with option to co-band Band 4.

Package Outline Drawing and Marking



Notes, unless otherwise specified:

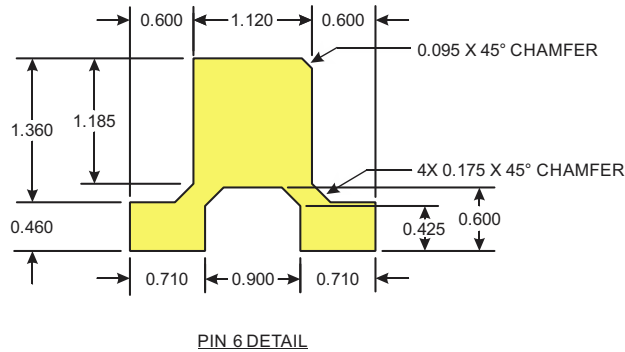
1. Dimensions in millimeters
2. Tolerance:
 XXX ± 0.05 mm
 XXXX ± 0.025 mm
3. Dimensions are nominal
4. Angles 45° nominal
5. Bottom metal pad surface finish is Electrolytic Gold

Pin Connections:

- 1 = Band 1 Tx
- 2 = Band 3, 4 Tx
- 3 = ANT
- 4 = Band 1, 4 Rx
- 5 = Band 3 Rx
- 6 = GND

Marking:

"A" = Avago Technologies
 S = ACFM-2113
 FI = Assembly Information
 Y = Year (last digit)
 WW = Work Week
 DC = Date Code
 XXXX = Production Lot



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