

## Description

The Avago ACFM-2021 is a highly miniaturized diplexer designed to allow a common antenna to be used for simultaneous reception in Band 4 (2110 MHz to 2170 MHz) and Band 25 (1930 MHz to 1995 MHz). This diplexer also enables co-banding between UMTS Bands 1 and 4.

In addition to maintaining high isolation between Band 1/4 and Band 25 Rx signals, the ACFM-2021 also provides high rejection of nearby interferers to minimize the opportunity for intermodulation products.

Low insertion loss in the Rx pass bands maximizes receiver sensitivity.

The ACFM-2021 is designed with Avago Technologies' innovative film bulk acoustic resonator (FBAR) technology, which makes possible ultra-small, high-Q filters at a fraction of their usual size. The excellent power handling capability of FBAR bulk-mode resonators supports the high linearity needed in mobile communications applications.

The ACFM-2021 also uses Avago Technologies' advanced microcap bonded-wafer, chip scale packaging technology. This process allows the filters to be assembled into a molded chip-on-board module with an overall size that is compatible with standard 1.4 mm × 1.8 mm duplexer/diplexer PCB footprints.

## Features

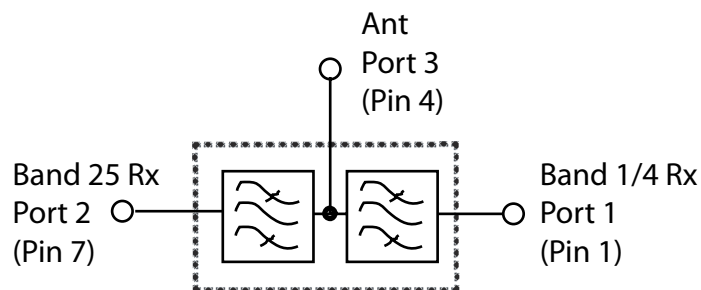
- Miniature size
  - 1.4 mm × 1.8 mm size
  - 0.80 mm maximum height
  - Standard 1.4 mm × 1.8 mm PCB footprint

- All ports 50  $\Omega$ , no external matching needed
- Allows co-banding between UMTS Bands 1 and 4
- Environmental
  - RoHS compliant
  - Halogen free
  - TBBPA free

## Applications

Smartphones, tablets, and mobile/portable communications devices simultaneously receiving UMTS Bands 1/4 and Band 25.

## Functional Block Diagram



## Ordering Information

Part Number	Number of Devices	Container
ACFM-2021-BLK	100	Tape strip or anti-static bag
ACFM-2021-TR1	3000	178 mm (7-inch) reel



## Pin Description

Pin	Connection
1	Bands 1/4 Rx
4	Ant
7	Band 25 Rx
2, 3, 5, 6, 8, 9	GND

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

[www.avagotech.com](http://www.avagotech.com)

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