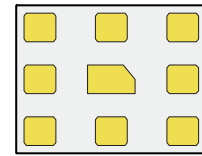


# ACFM-2021

## UMTS Band 25 – Band 1/4 Rx Antenna Diplexer

### Product Brief



### 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 diplexer/diplexer PCB footprints.

### Features

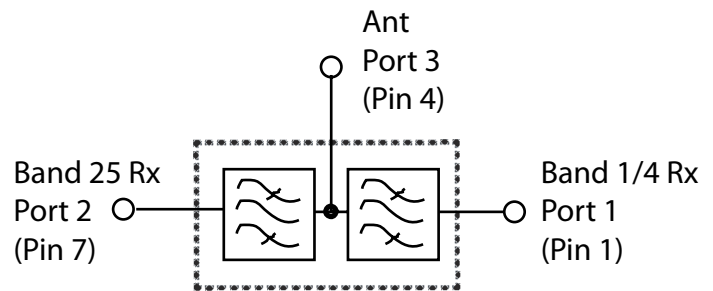
- Miniature size
  - 1.4 mm × 1.8 mm size
  - 0.80 mm maximum height
  - Standard 1.4 mm × 1.8 mm PCB footprint

- All ports 50 Ω, 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.

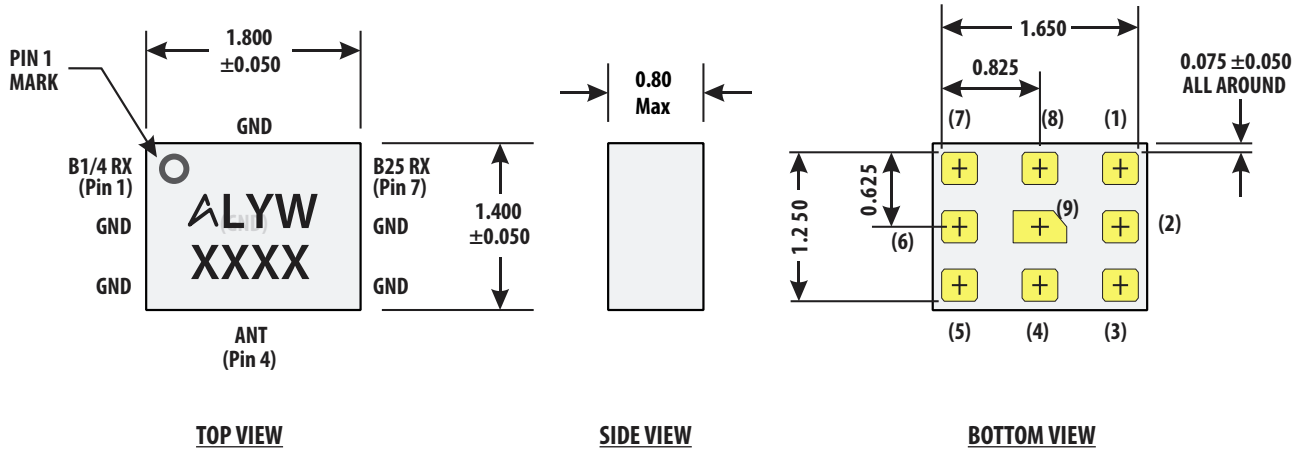
### Functional Block Diagram



### 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

## Package Dimensions and Marking Specification

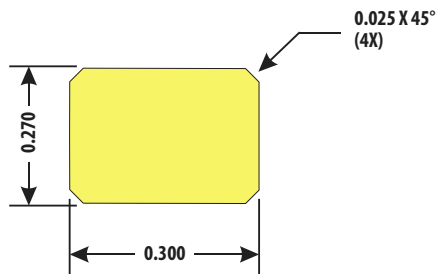


**Unless Otherwise Specified:**

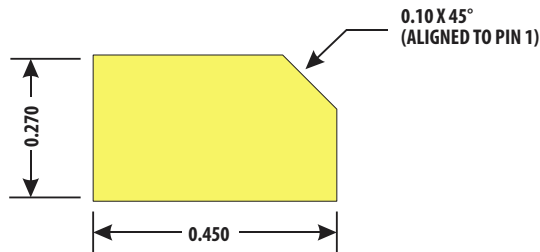
1. Dimensions in millimeters
2. Dimensions are nominal
3. Tolerance:  
X.XX ± 0.05 mm  
X.XXX ± 0.025 mm
4. Angles 45°
5. Contact areas are gold plated

**Package Marking:**

"A" = Avago Technologies  
 L = ACFM-2021  
 Y = Year, last digit  
 W = Work Week (Refer to Appendix A)  
 XXXX = Lot Number



**PAD 1-8 DETAIL**



**CENTER PAD 9 DETAIL**

## 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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