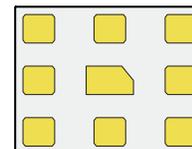


ACFM-2021

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

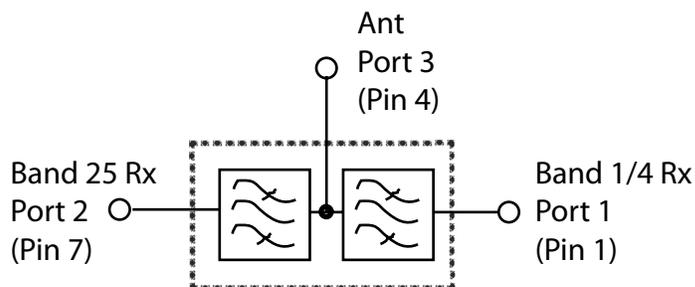
- Miniature size
 - 1.4 mm × 1.8 mm size
 - 0.80 mm maximum height
 - Standard 1.4 mm × 1.8 mm PCB footprint

- 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.

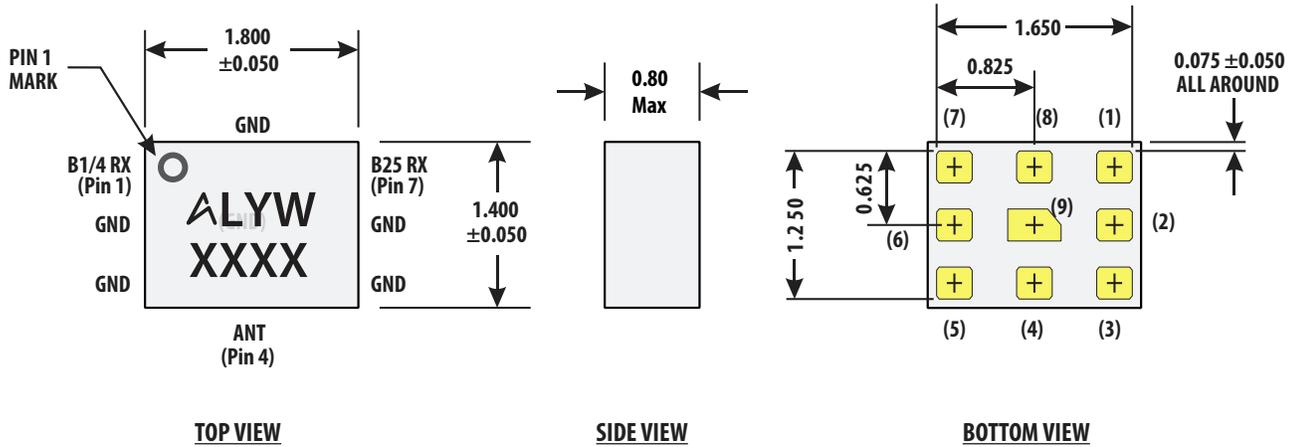
Functional Block Diagram



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

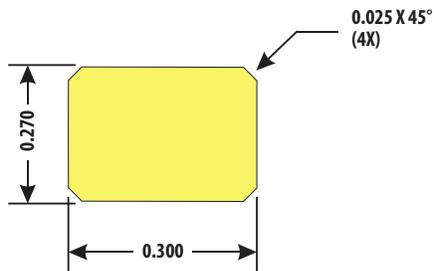


Unless Otherwise Specified:

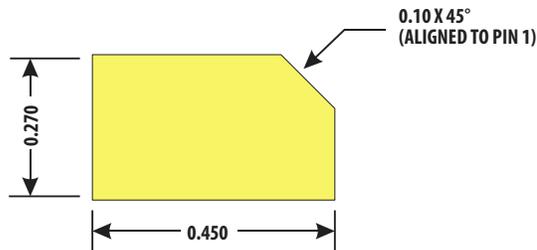
1. Dimensions in millimeters
2. Dimensions are nominal
3. Tolerance:
X.XX ± 0.05 mm
X.XXX ± 0.025 mm
4. Angles 45°
5. Contact areas are gold plated

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

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

www.avagotech.com

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