

# ACMD-6107

## LTE Band 7 Duplexer



### Product Brief



#### Description

The Avago ACMD-6107 is a highly miniaturized duplexer designed for use in LTE Band 7 (2500 – 2570 MHz UL, 2620 – 2690 MHz DL) handsets and mobile data terminals.

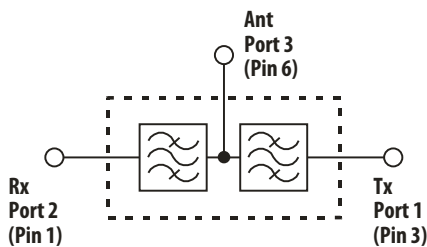
Low Insertion Loss in the Tx channel minimizes current drain from the power amplifier, while low Rx channel Insertion Loss improves receiver sensitivity.

The ACMD-6107 enhances the sensitivity and dynamic range of handset receivers by providing high isolation of the transmitted signal from the receiver input and high rejection of transmit-generated noise in the receive band.

The ACMD-6107 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 output power levels used in mobile communications applications, while adding virtually no distortion.

The ACMD-6107 also utilizes 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 of only 1.6 x 2.0 mm and maximum height of 0.90 mm. The ACMD-6107 is compatible with standard 1.6 x 2.0 mm duplexer PCB footprints.

#### Functional Block Diagram



#### Features

- Miniature Size
  - 1.6 x 2.0 mm size
  - 0.90 mm max height
  - Standard 1.6 x 2.0 mm PCB footprint
- High Isolation
- High Power Rating
  - 33 dBm Abs Max Tx Power
- Environmental
  - RoHS Compliant
  - Halogen free
  - TBBPA Free

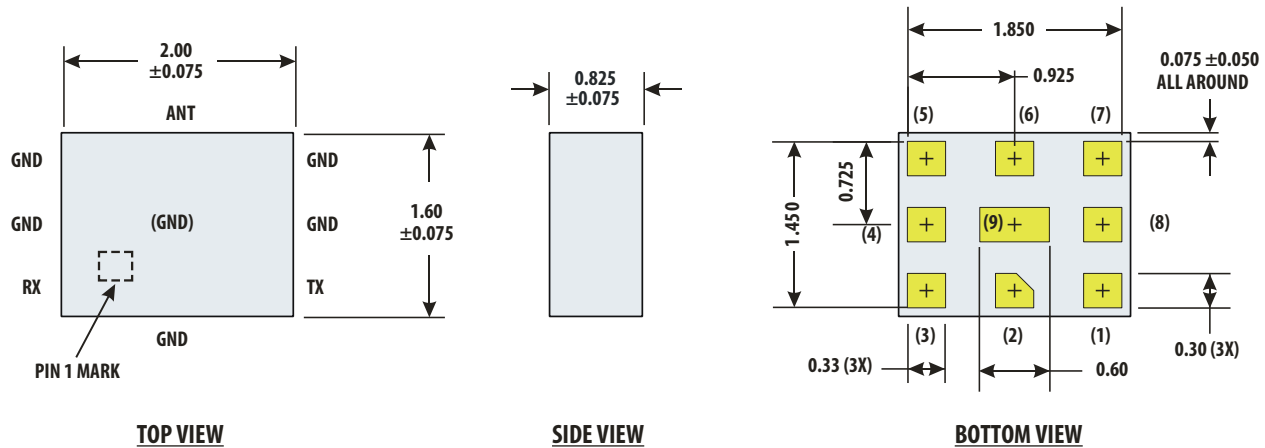
#### Specifications

- Rx Band Performance, 2620-2690 MHz, – 20 to +85°C
  - Insertion Loss: 2.5 dB Max
  - Rx Noise Blocking: 48 dB Min
- Tx Band Performance, 2500-2570 MHz, – 20 to +85°C
  - Insertion Loss: 3.0 dB Max
  - Tx Interferer Blocking: 54 dB Min

#### Applications

LTE Handsets or data terminals operating in the Band 7 frequency range.

## Package Outline



### Notes:

1. Dimensions in millimeters
2. Tolerance: X.XX  $\pm 0.05$  mm  
X.XXX  $\pm 0.025$  mm
3. Dimensions nominal unless otherwise noted
4. Angles 45° nominal
5. Contact areas are gold plated

### Pin Connections:

- |               |     |
|---------------|-----|
| 1             | Rx  |
| 2, 4, 5, 7, 9 | Gnd |
| 3             | Tx  |
| 6             | Ant |
| 8             | Gnd |

Figure 1. Package Outline Drawing.

## Ordering Information

| Part Number   | No. of Devices | Container                     |
|---------------|----------------|-------------------------------|
| ACMD-6107-BLK | 100            | Tape Strip or Anti-static Bag |
| ACMD-6107-TR1 | 3000           | 178 mm (7-inch) Reel          |

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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