

- ◆ Combines PCS and AWS1-3/WCS
- ◆ Quad Diplexer available for 4x4 MIMO applications
- ◆ Guaranteed Low PIM
- ◆ 30 dB Input Isolation
- ◆ Minimal RF Insertion Loss
- ◆ 50 W/port Avg. Power
- ◆ RoHS compliant
- ◆ NEX10 & 4.3-10 Connectors



BK-747T



Model Number	Diplexer Type	Connector	Weight, lb. (kg)
<b>BK-747E</b>	Dual	4.3-10(f)	3.5 (1.6)
<b>BK-747EW</b>	Quad-Stack	4.3-10(f)	7.1 (3.2)
<b>BK-747EX</b>	Quad side-side	4.3-10(f)	7.1 (3.2)
<b>BK-747T</b>	Dual	NEX10(f)	3.5 (1.6)
<b>BK-747TW</b>	Quad-Stack	NEX10(f)	7.1 (3.2)
<b>BK-747TX</b>	Quad side-side	NEX10(f)	7.1 (3.2)

Microlab BK-747 is a dual Diplexer which allows combining and separation of the signals in the PCS band 1850 - 1995 MHz with the AWS-WCS bands 1695 - 1780 MHz and 2110 - 2360 MHz for 2x2 MIMO applications. To minimize band inter-reaction, the inputs are well isolated and have minimal insertion loss over the respective frequency bands.

The Diplexer has been designed using passive, proprietary techniques which minimizes cost and size. Additionally, it ensures minimal loss and very high reliability at input power up to 50W.

Dual diplexer mounting configurations for 4x4 MIMO applications are available by adding "W"(Stack) or "X"(side-side) to the part number.

#### Frequency Bands:

Port 1/4 - COM1/2: 1695-1780 & 2110-2360 MHz

Port 2/3 - COM1/2: 1850 - 1995 MHz

Power Rating: 50W avg.

Group Delay: 15 ns max.

Isolation: >30 dB, in each band

Return Loss: >19 dB

Passband Loss: 0.3 dB typ, 0.45 dB max.

PIM: -161 dBc, (-118 dBm) typ.

-153 dBc (-110 dBm) min.

(Test with 2x 1900MHz, +43 dBm tones @ ambient)

Impedance: 50Ω nominal

Environment: -40°C to +65°C, IP67

Ground Lug: M6 Screw

Finish: Connectors: Triplate

Housing: Grey color coating

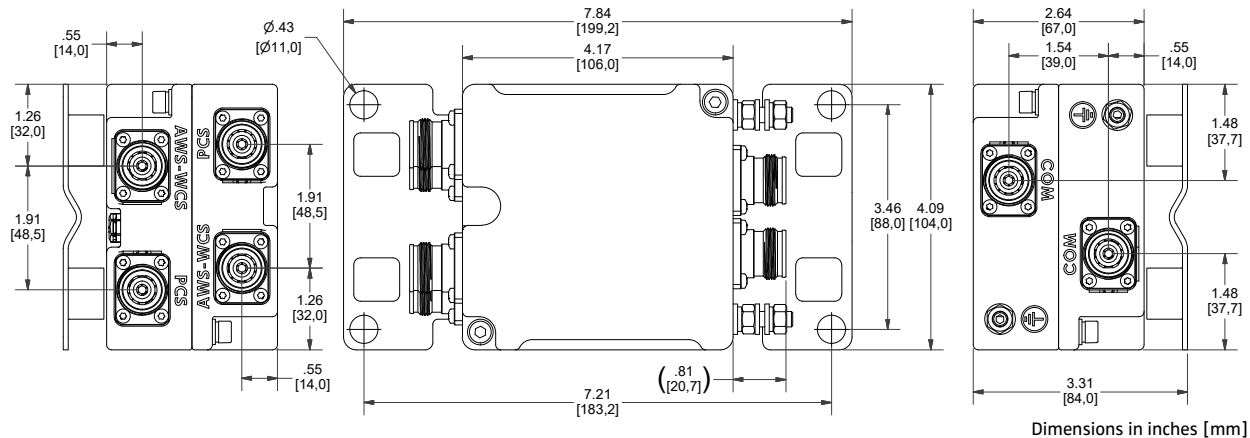
#### Dimensions:

BK-747E/T: 4.17 x 4.09 x 2.64 inches  
[106.0 x 104.0 x 67.0 mm]

BK-747EW/TW: 4.17 x 4.09 x 5.71 inches  
[106.0 x 104.0 x 145.0 mm]

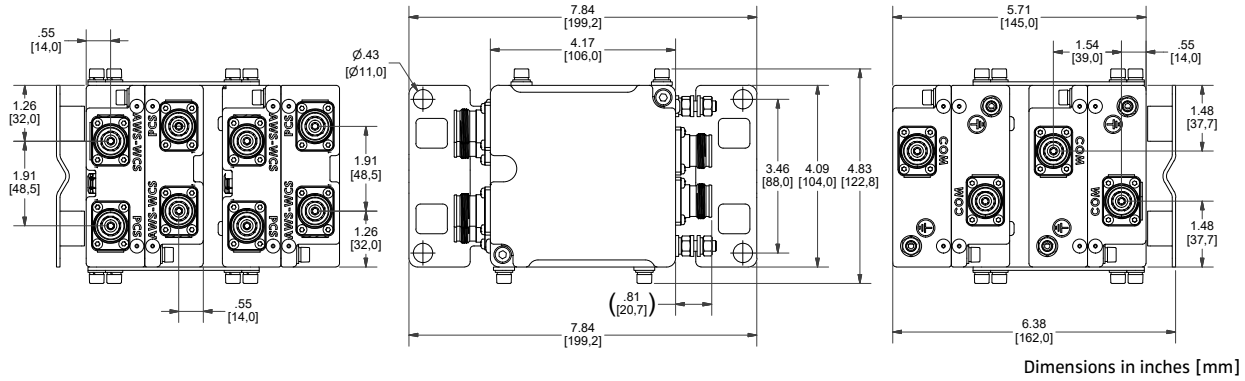
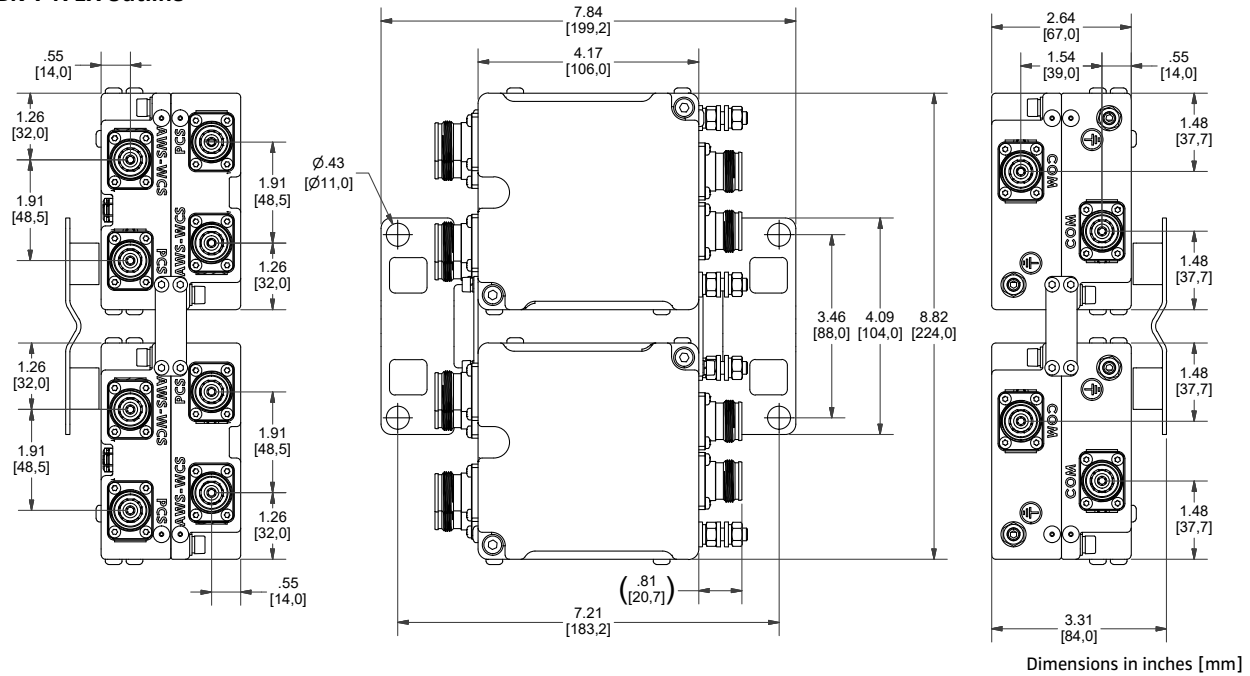
BK-747EX/TX: 4.17 x 8.82 x 2.64 inches  
[106.0 x 224.0 x 67.0 mm]

#### BK-747E Outline



Note: Specifications are subject to change without prior notification.

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**BK-747EW Outline**

**BK-747EX Outline**


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