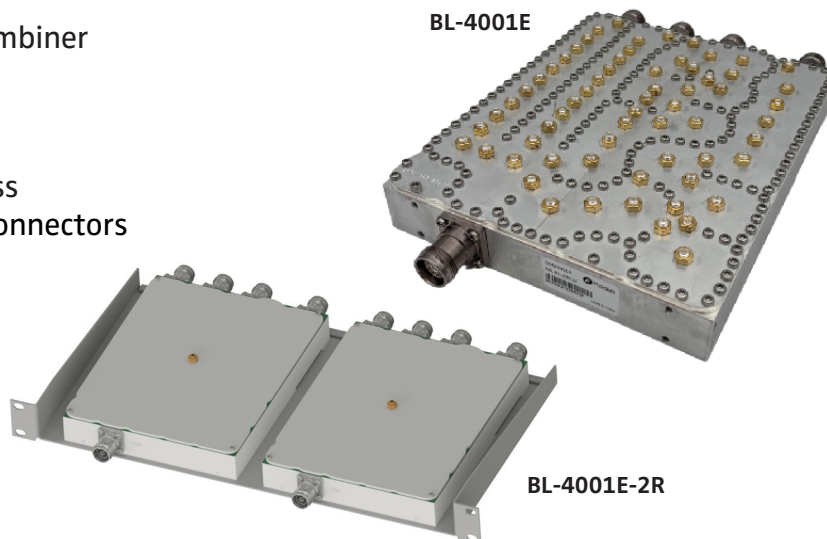


- ◆ PCS & AWS Duplexer Combiner
- ◆ 65 dB Tx/Rx Isolation
- ◆ 40 W/port avg power
- ◆ Guaranteed Low PIM
- ◆ Minimal RF Insertion Loss
- ◆ 4.3-10 4-holes flange Connectors
- ◆ RoHS compliant



Model No.	Configuration	Wt. nom. lb [kg]
BL-4001E	Single	4.6 [2.1]
BL-4001E-2R	Twin Rackmount	11 [5.0]

Microlab Model BL-4001E Duplexer Combiner allows the combination and separation of PCS Tx/Rx and AWS Tx/Rx. This device allows for a low loss solution to not only Separate/Combine Tx/Rx from the same bands but also different bands (PCS & AWS). To minimize band interaction, the inputs are well isolated and have minimal insertion loss over their respective frequency bands. Attention to mechanical design ensures guaranteed low passive intermodulation.

Frequency Bands:

Port 1:	2110-2200 MHz (TX)
Port 2:	1695-1780 MHz (RX)
Port 3:	1930-1995 MHz (TX)
Port 4:	1850-1915 MHz (RX)

Isolation: See below table

Return Loss: 20 dB typ., 18 dB min.

Passband Loss:

P1, P2:	0.2 dB typ. (1 dB max.)
P3, P4:	0.4 dB typ. (1.2 dB max.)

Group Delay (typ.):

Port 1	15ns
Port 2:	23ns
Port 3:	73ns
Port 4:	67ns

DC Pass: Grounded

Input Power Rating:

Combining:	40 W/input avg., Peak 800kW
Splitting:	80 W avg.

Impedance: 50Ω nom.

PIM: -161dBc min (-118dBm)
(Test with 2x tones at +43dBm)

Environment: -10 to +55°C, Indoor

Dimensions: 177.5 x 226 x 40 mm (BL-4001E)

6.99 x 8.9 x 1.58 in (BL-4001E)

Housing Finish: Silver Plated aluminum

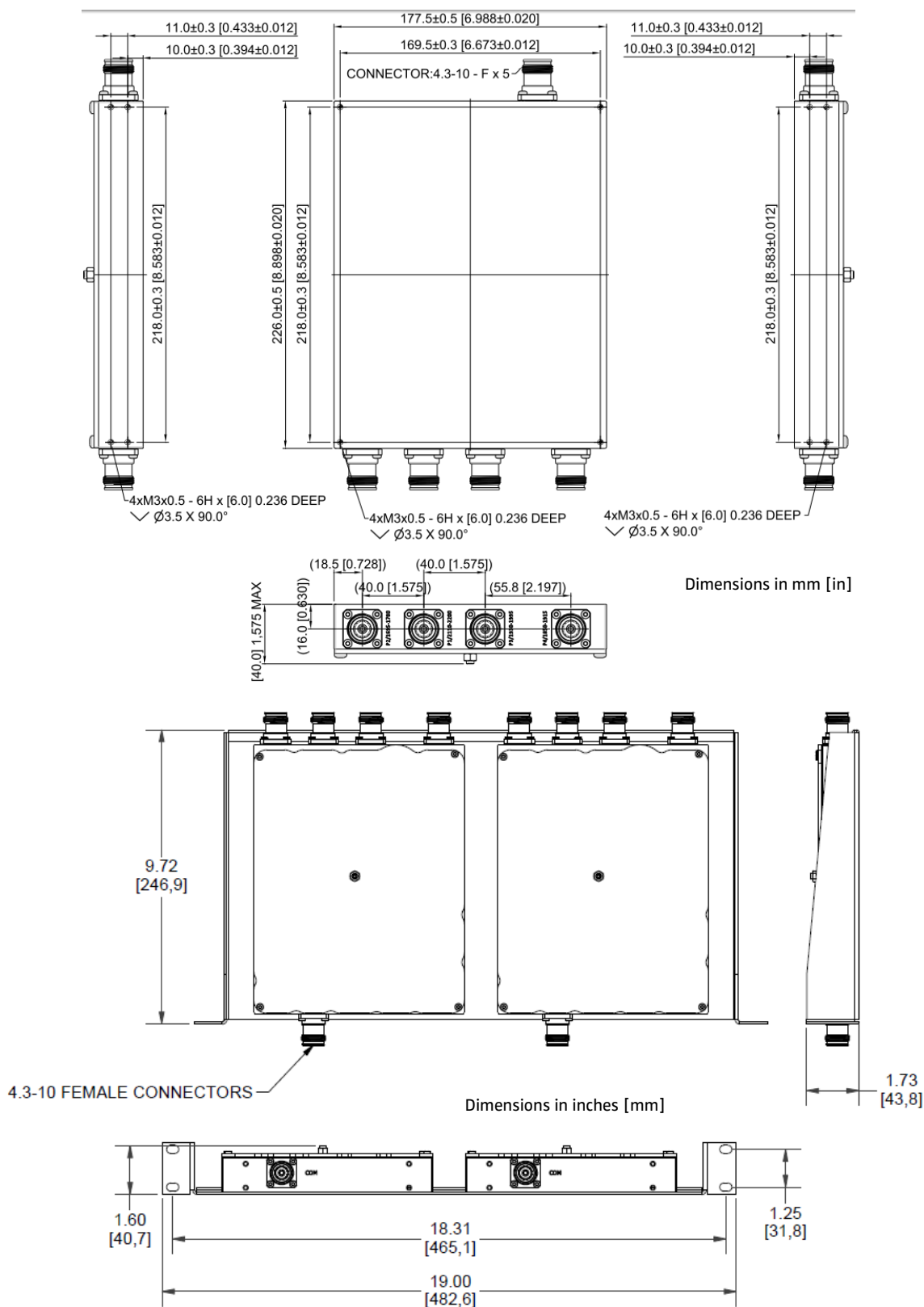
Connectors: 4.3-10 (f), 4-hole Flange Triplate

Passband	Isolation (dB)			
	Port 1 (2110-2200 MHz)	Port 2 (1695-1780 MHz)	Port 3 (1930-1995 MHz)	Port 4 (1850-1915 MHz)
2110-2200 MHz	NA	65dB min	40dB min	65dB min
1695-1780 MHz	65dB min	NA	65dB min	40dB min
1930-1995 MHz	40dB min	65dB min	NA	65dB min
1850-1915 MHz	65dB min	40dB min	65dB min	NA

Note: Specifications are subject to change without prior notification.

25AUG2025

BL-4001E Outline



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