

## Diplexer Filter, BK-80/90 series

Cellular/PCS Diplexer for North America 806 - 940, 1850 - 1990 MHz, 7-16 mm

- ♦ Integrates Wireless Bands
- Designed for Outdoor Co-Siting
- ♦ 50 dB Input Isolation
- 250 W/port Avg. Power
- Minimal RF Insertion Loss
- Rugged, Reliable
- RoHS Compliant
- ♦ Low Passive IM., PIM
- ♦ DC Block options



BK-80/90 series is a Diplexer designed for the North American market which allows combination and separation of the signals in 806 - 894 MHz and the 1850 - 1990 MHz wireless bands. To minimize band inter-reaction, the inputs are well isolated and have minimal insertion loss over their respective frequency bands. The design ensures low passive IM.

The Diplexer has been designed using passive, proprietary techniques which minimizes cost and size. At the same time it ensures minimal loss and very high reliability at input powers up to 250W per input.

Through holes are provided for simple mounting to a surface or cable tray. Spacers are available for single and also dual unit mounting for up and down link applications. Options for exterior mounting and alternative DC paths are shown. (8/08)

Frequency Bands:

Port 1: 806 to 940 MHz Port 2: 1,850 to 1,990 MHz

 $\begin{array}{lll} & \text{Port 3:} & \text{Common} \\ \text{P1:P2 Isolation:} & > 50 \text{ dB in band} \\ \text{VSWR, all ports:} & 1.22:1 \text{ max.} \\ \text{Passband Loss, dB:} & <0.25, \text{ all ports} \\ \text{Input Power Rating:} & 250\text{W/input avg.} \\ \text{Impedance:} & 50\Omega \text{ nominal} \\ \end{array}$ 

Intermod. (PIM): <-150 dBc\* tested with two +43dBm (20W) tones

Environment: -40°to +60°C, IP68

0 - 7500 ft AMSL

Connectors: 7-16 (f) DIN long necks
Ground: 3/8" Stud and lock nut
DC Block Option: Any path (2 kV DC max)

Finish: Connectors: Silver or triplate

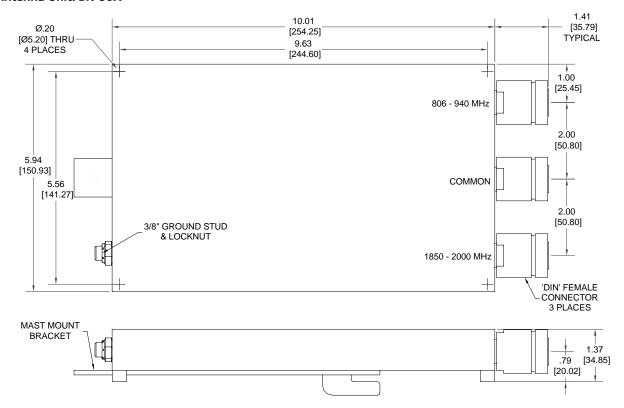
Housing: Paint/Conversion coating Weight, nominal: 5 lbs (2.3 kg) no bracket

\*Available to <-155 dBc to special order

Microlab Number	Customer Options	Housing Type Body	DC Path to 800 MHz Band	DC Path to 1900 MHz Band	Included Accessories
BK-80XA	XA	Antenna Unit	Pass	Pass	Antenna Bracket see page 3
BK-80XB	XB	Antenna Unit	Block	Pass	
BK-80XC	XC	Antenna Unit	Pass	Block	
BK-90XA	XA	Tower Base Unit	Pass	Pass	Bracket attached
BK-90XB	XB	Tower Base Unit	Block	Pass	
BK-90XC	XC	Tower Base Unit	Pass	Block	
Options:					
BK-90X-402	Mounting Hardware Outdoor (Ice Bridge)				
BK-90X-403		Mounting Hardware Indoor (Ladder Rack)			see page 3



## Antenna Unit: BK-80X



## **Tower Base Unit: BK-90X**

