MICRO LAMBDA WIRELESS, INC.

MLBF-SERIES
BENCH TEST FILTERS
500 MHz - 50 GHz

FEATURES

- .5 - 50 GHz Frequency Coverage
- Band Pass or Band Reject Filter Types
- USB Interface
- Ethernet Interface

APPLICATIONS

Test Equipment
Test Sets
Production Test

DESCRIPTION

The **MLBF-Series** Bench test filters are ideal for production test sets, laboratory tests and test equipment racks where filtering of microwave signals is essential. These bench top filter assemblies provide either Bandpass or Bandreject (notch) filter types depending on application. Frequency coverage is dependent on which production filter type is chosen. Frequency coverage for Bandpass models range from 500 MHz to 50 GHz while the Bandreject models cover 500 MHz to 20 GHz. Each bench top filter assembly consists of a YIG-Tuned filter chosen by the user, Heat sink, compensated driver, power supply, cooling fans, keyboard, display, USB interface, Ethernet interface and a manual tuning knob. Components are housed in a 10" wide, 4" height, 13" deep enclosure with mounting feet and handle.

GENERAL SPECIFICATIONS

Input Voltage:	88 - 264 VAC @ 2 amps max, 47 to 63 Hz, Externally fused, Front panel push button on / off.
Display:	The 2 line x 16 digit display of the bench test filter shows the current center frequency setting on the top display line, the bottom display line is blank. A cursor is positioned under one of the digits on line 1. This cursor can be positioned using the < or > arrow keys. Entering a new frequency via the keypad will display numbers as they are entered on line 2. The new frequency is selected by pressing the MHz key on the keypad. If a resolution less than a MHz is to be set, the decimal point must be used.
Keypad:	The bench test filter provides a 16 key data entry keypad for simple operation. Pressing the > or < key will move the cursor to the right or left. Pressing the + key will increase the cursor position while the - key will decrease the cursor position. Frequency numbers and decimal point as needed are input via the keypad. The MHz key is also used as the enter data key.
Rotary Knob:	The bench test filter provides a tuning knob. Rotating the knob clockwise increases the frequency while rotating counter clockwise decreases the frequency. The knob is also used to enter and to exit the settings menu by simply pressing the knob.
USB Interface:	USB 2.0 compliant, USB-Mini-B connector. Operating systems supported: Windows XP 32 bit (All versions), Windows Vista; 32 and 64 bit (All versions), Widows 7; 32 and 64 bit (All versions). HID USB client mode interface, using Microsoft Windows Operating System native drivers. USB PC control interface software provided (Windows GUI).
Ethernet Interface:	Ethernet interface: 10/100 Mbit, RJ45 connector. TCP/IP protocols supported: HTTP, UDP socket and Telnet. DHCP and Fixed IP modes. Web interface access using most standard internet browsers (IE, Firefox). UDP PC control interface software provided (Windows GUI)

GENERAL SPECIFICATIONS

Environmental Specifications:

Temperature -	Operating 0 ℃ to +60 ℃
	Non-operating -40 ℃ to +71 ℃
Shock -	Functional, 30 G per MIL-PRF-28800F table 2, class 3
	Transit drop, per MIL-PRF-28800F table 13, class 3
	Bench Handling, per MIL-PRF-28800F para 4.5.5.4.3, class 3
Vibration -	Random 5-500 Hz per MIL-PRF-28800F table 2, class 3
Humidity -	5 to 95% per MIL-PRF-28800F table 2, class 3

Dimensions and Weight: Width - 10” Height - 4” Depth - 13”
Weight - 9 lbs.

RF Connectors: 500 MHz to 30 GHz - SMA - F
Above 30 GHz to 50 GHz - K - Conn
50 GHz Option - V - Conn

Included Accessories: Standard 120 VAC U.S. Power Cord, 6’ CAT 5 Ethernet Cable, 6’ USB-A to USB Mini-B Cable, User Manuel, PC Control Software on CD-ROM and a Quick Start Guide.

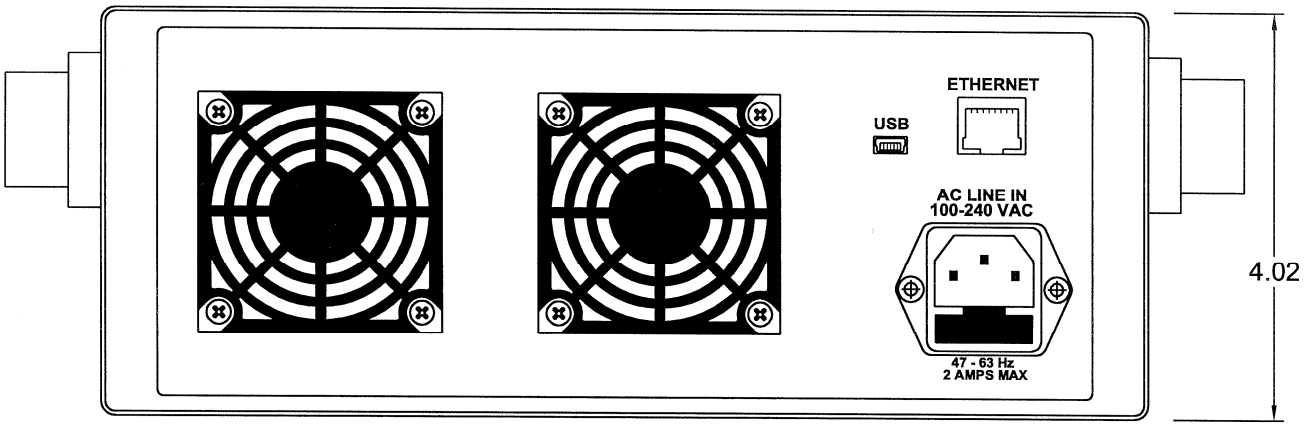
MLBF-Series Bench Test Filter Model Numbers

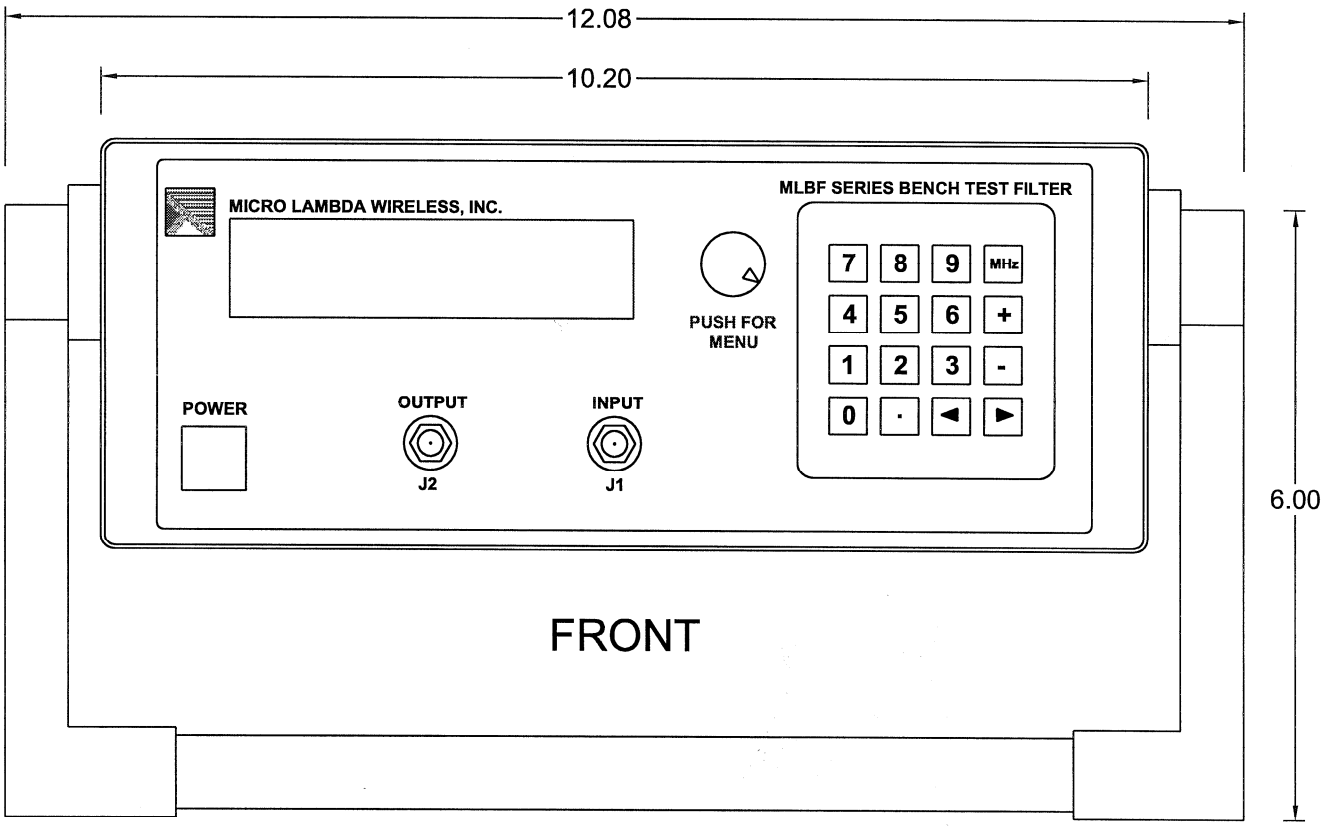
Model No.	Frequency Range GHz	Type	Stages	Ins Loss dB	3 dB BW MHz	40 dB BW MHz	Input Limiting Level dBm	Max Input Level No Damage dBm
MLBFP-40520	0.5 to 2.0	Bandpass	4	9.2	20	N/A	0	+28
MLBFP-40540	0.5 to 4.0	Bandpass	4	9.2	15	N/A	0	+28
MLBFP-41002	1.0 to 2.0	Bandpass	4	6.2	20	N/A	0	+28
MLBFP-41004	1.0 to 4.0	Bandpass	4	6.2	20	N/A	0	+28
MLBFP-42004	2.0 to 4.0	Bandpass	4	7.2	40	N/A	+5	+28
MLBFP-42006	2.0 to 6.0	Bandpass	4	7.2	40	N/A	+5	+28
MLBFP-42008	2.0 to 8.0	Bandpass	4	7.2	40	N/A	+5	+30
MLBFP-42012	2.0 to 12.4	Bandpass	4	8.2	40	N/A	+5	+30
MLBFP-42018	2.0 to 18.0	Bandpass	4	7.2	40	N/A	+5	+30
MLBFP-42020	2.0 to 20.0	Bandpass	4	7.2	40	N/A	+10	+30
MLBFP-42026	2.0 to 26.5	Bandpass	4	7.2	25	N/A	+10	+30
MLBFP-44008	4.0 to 8.0	Bandpass	4	7.2	40	N/A	+10	+30
MLBFP-46012	6.0 to 12.4	Bandpass	4	7.2	100	N/A	+10	+30
MLBFP-46018	6.0 to 18.0	Bandpass	4	7.2	100	N/A	+10	+30
MLBFP-46020	6.0 to 20.0	Bandpass	4	7.2	100	N/A	+10	+30
MLBFP-48012	8.0 to 12.4	Bandpass	4	7.2	200	N/A	+10	+30
MLBFP-48018	8.0 to 18.0	Bandpass	4	7.2	400	N/A	+10	+30
MLBFP-48020	8.0 to 20.0	Bandpass	4	7.2	400	N/A	+10	+30
MLBFP-41218	12.0 to 18.0	Bandpass	4	7.2	400	N/A	+10	+30

MLBF-Series Bench Test Filter Model Numbers

Model No.	Frequency Range GHz	Type	Stages	Ins Loss dB	3 dB BW MHz	40 dB BW MHz	Input Limiting Level dBm	Max Input Level No Damage dBm
MLBFP-43030	3.0 to 30.0	Bandpass	4	7.2	30	N/A	+10	+30
MLBFP-43030K	3.0 to 30.0	Bandpass	4	7.2	30	N/A	+10	+30
MLBFP-43040	3.0 to 40.0	Bandpass	4	7.2	30	N/A	+10	+30
MLBFP-43044	3.0 to 44.0	Bandpass	4	8.2	30	N/A	+10	+30
MLBFP-43050K	3.0 to 50.0	Bandpass	4	10.2	30	N/A	+10	+30
MLBFP-43050V	3.0 to 50.0	Bandpass	4	10.2	30	N/A	+10	+30
MLBFP-47040	7.0 to 40.0	Bandpass	4	6.2	35	N/A	+10	+30
MLBFP-41840	18.0 to 40.0	Bandpass	4	6.2	50	N/A	+10	+30
MLBFP-60520	0.5 to 2.0	Bandpass	6	9.2	20	N/A	0	+28
MLBFP-62008	2.0 to 8.0	Bandpass	6	7.2	40	N/A	+5	+28
MLBFP-62018	2.0 to 18.0	Bandpass	6	8.2	50	N/A	+10	+30
MLBFP-62026	2.0 to 26.5	Bandpass	6	9.2	30	N/A	+10	+30
MLBFP-64008	4.0 to 8.0	Bandpass	6	6.2	50	N/A	+10	+28
MLBFP-66018	6.0 to 18.0	Bandpass	6	7.2	100	N/A	+10	+30
MLBFP-68018	8.0 to 18.0	Bandpass	6	8.2	500	N/A	+10	+30
MLBFP-72018	2.0 to 18.0	Bandpass	7	8.2	40	N/A	+10	+30
MLBFP-72026	2.0 to 26.5	Bandpass	7	10.2	30	N/A	+10	+30
MLBFP-76018	6.0 to 18.0	Bandpass	7	8.7	500	N/A	+13	+30
MLBFP-78020	8.0 to 20.0	Bandpass	7	7.7	500	N/A	+13	+30
MLBFR-0502	0.5 to 2.0	Bandreject	12	3.2	100	5	0	+28
MLBFR-0204	2.0 to 4.0	Bandreject	10	2.7	125	15	+10	+30
MLBFR-0208	2.0 to 8.0	Bandreject	10	2.7	150	15	+10	+28
MLBFR-0212	2.0 to 12.0	Bandreject	10	2.7	150	10	+10	+28
MLBFR-0218	2.0 to 18.0	Bandreject	16	3.7	150	10	+10	+28
MLBFR-0220	2.0 to 20.0	Bandreject	16	3.7	150	5	+10	+28
MLBFR-0408	4.0 to 8.0	Bandreject	10	2.7	150	20	+10	+30
MLBFR-160418	4.0 to 18.0	Bandreject	16	2.95	150	30	+10	+28
MLBFR-0618	6.0 to 18.0	Bandreject	10	2.95	150	25	+10	+28
MLBFR-160618	6.0 to 18.0	Bandreject	16	2.95	150	40	+10	+28
MLBFR-0812	8.0 to 12.4	Bandreject	12	2.7	150	25	+13	+30
MLBFR-160818	8.0 to 18.0	Bandreject	16	2.95	150	50	+10	+28
MLBFR-1218	12.0 to 18.0	Bandreject	12	2.7	150	25	+13	+30

REAR





FRONT

NOTE:

- DEPTH WITHOUT HANDLE IS 13.00"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCE ARE : FRACTIONS ± DECIMALS .xx ±.02 .xxx ±.010 ANGLES ±	CONTRACT NO.		MICRO LAMBDA WIRELESS, INC.
	APPROVALS	DATE	
MATERIAL	DRAWN N.NGUYEN	9/8/10	
	ENGR. DS	9/9/10	MLBF SERIES BENCH TEST FILTER
FINISH	MANUF.		
DO NOT SCALE DRAWING	Q.A.		SIZE / CAGE No 0RN63 / DWG. NO. 191 - 001 / REV.