



FEATURES

- .35 - 50 GHz Frequency Coverage
- Band Pass or Band Reject Filter Types
- USB Interface
- Ethernet Interface
- LabVIEW Compatible

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 350 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. Units are LabVIEW compatible and are CE certified.

APPLICATIONS

- Test Equipment
- Test Sets
- Production Test



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 °C to +60 °C Non-operating -40 °C to +71 °C
Shock -	Functional, 30 G per MIL-PRF-28800F table 2, class 3 Transit drop, per MIL-PRF-28800F table 13, class 3
Vibration -	Bench Handling, per MIL-PRF-28800F para 4.5.5.4.3, class 3
Humidity -	Random 5-500 Hz per MIL-PRF-28800F table 2, class 3 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 Manual, 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	Internal Filter Model
MLBFP-40520	0.5 to 2.0	Bandpass	4	9.2	20	N/A	0	MLFP-40520
MLBFP-40540	0.5 to 4.0	Bandpass	4	9.2	15	N/A	0	MLFP-40540
MLBFP-41002	1.0 to 2.0	Bandpass	4	6.2	20	N/A	0	MLFP-41002
MLBFP-41004	1.0 to 4.0	Bandpass	4	6.2	20	N/A	0	MLFP-41004
MLBFP-42004	2.0 to 4.0	Bandpass	4	7.2	40	N/A	+5	MLFP-42004
MLBFP-42006	2.0 to 6.0	Bandpass	4	7.2	40	N/A	+5	MLFP-42006
MLBFP-42008	2.0 to 8.0	Bandpass	4	7.2	40	N/A	+5	MLFP-42008
MLBFP-42012	2.0 to 12.4	Bandpass	4	7.2	40	N/A	+5	MLFP-42012
MLBFP-42018	2.0 to 18.0	Bandpass	4	7.2	40	N/A	+5	MLFP-42018
MLBFP-42020	2.0 to 20.0	Bandpass	4	7.2	40	N/A	+10	MLFP-42020
MLBFP-42026	2.0 to 26.5	Bandpass	4	7.2	25	N/A	+10	MLFP-42026
MLBFP-44008	4.0 to 8.0	Bandpass	4	7.2	40	N/A	+10	MLFP-44008
MLBFP-46012	6.0 to 12.4	Bandpass	4	7.2	100	N/A	+10	MLFP-46012
MLBFP-46018	6.0 to 18.0	Bandpass	4	7.2	100	N/A	+10	MLFP-46018
MLBFP-46020	6.0 to 20.0	Bandpass	4	7.2	100	N/A	+10	MLFP-46020
MLBFP-48012	8.0 to 12.4	Bandpass	4	7.2	200	N/A	+10	MLFP-48012
MLBFP-48018	8.0 to 18.0	Bandpass	4	7.2	400	N/A	+10	MLFP-48018
MLBFP-48020	8.0 to 20.0	Bandpass	4	7.2	400	N/A	+10	MLFP-48020
MLBFP-41218	12.0 to 18.0	Bandpass	4	7.2	400	N/A	+10	MLFP-41218

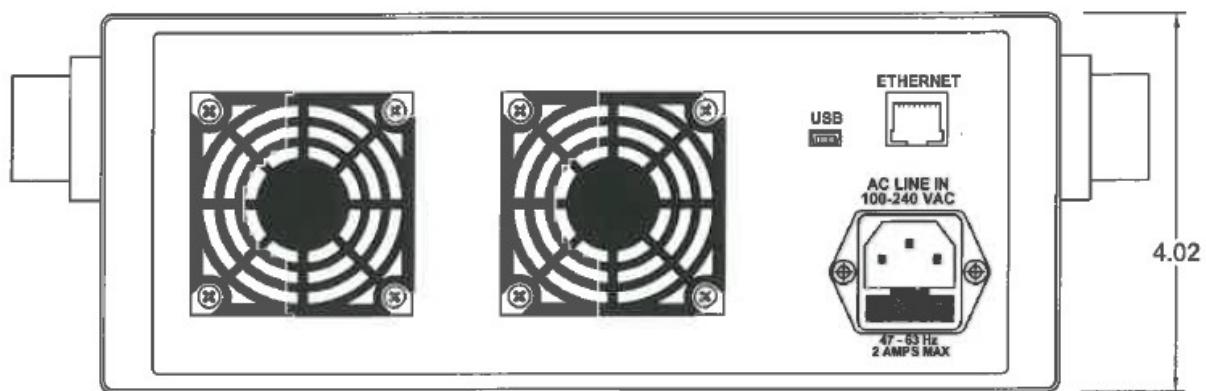
MLBF-Series Bench Test Filter Model Numbers

Model No.	Frequency Range GHz	Type	Stages	Ins Loss dB	3 dB BW MHz	40 dB BW MHz	Input Limiting Level dBm	Internal Filter Model
MLBFP-42040K	2.0 to 40.0	Bandpass	4	8.7	25	N/A	+10	MLFP-42040
MLBFP-43030	3.0 to 30.0	Bandpass	4	8.2	30	N/A	+10	MLFP-43030
MLBFP-43040K	3.0 to 40.0	Bandpass	4	8.2	30	N/A	+10	MLFP-43040
MLBFP-43044K	3.0 to 44.0	Bandpass	4	8.2	30	N/A	+10	MLFP-43044
MLBFP-43050V	3.0 to 50.0	Bandpass	4	8.2	30	N/A	+10	MLFP-43050
MLBFP-47040K	7.0 to 40.0	Bandpass	4	6.2	35	N/A	+10	MLFP-47040
MLBFP-48040K	8.0 to 40.0	Bandpass	4	7.2	250	N/A	0	MLFP-48040
MLBFP-41840K	18.0 to 40.0	Bandpass	4	6.2	50	N/A	+10	MLFP-41840
MLBFP-60520	0.5 to 2.0	Bandpass	6	11.2	20	N/A	0	MLFP-60520
MLBFP-62008	2.0 to 8.0	Bandpass	6	7.2	40	N/A	+5	MLFP-62008
MLBFP-62018	2.0 to 18.0	Bandpass	6	8.2	50	N/A	+10	MLFP-62018
MLBFP-62026	2.0 to 26.5	Bandpass	6	9.2	30	N/A	+10	MLFP-62026
MLBFP-64008	4.0 to 8.0	Bandpass	6	6.2	50	N/A	+10	MLFP-64008
MLBFP-66018	6.0 to 18.0	Bandpass	6	7.2	100	N/A	+10	MLFP-66018
MLBFP-68018	8.0 to 18.0	Bandpass	6	8.2	500	N/A	+10	MLFP-68018
MLBFP-72008	2.0 to 8.0	Bandpass	7	8.2	50	N/A	+10	MLFP-72008
MLBFP-72018	2.0 to 18.0	Bandpass	7	8.2	40	N/A	+10	MLFP-72018
MLBFP-72026	2.0 to 26.5	Bandpass	7	10.2	30	N/A	+10	MLFP-72026
MLBFP-76018	6.0 to 18.0	Bandpass	7	8.2	500	N/A	+13	MLFP-76018
MLBFP-78020	8.0 to 20.0	Bandpass	7	7.2	500	N/A	+13	MLFP-78020
MLBFR-0502	0.5 to 2.0	Bandreject	12	3.2	100	5	0	MLFR-0502
MLBFR-0204	2.0 to 4.0	Bandreject	10	2.7	125	15	+10	MLFR-0204
MLBFR-0208	2.0 to 8.0	Bandreject	10	2.7	150	15	+10	MLFR-0208
MLBFR-0212	2.0 to 12.0	Bandreject	10	2.7	150	10	+10	MLFR-0212
MLBFR-0218	2.0 to 18.0	Bandreject	16	3.2	150	10	+10	MLFR-0218
MLBFR-0220	2.0 to 20.0	Bandreject	16	3.2	150	5	+10	MLFR-0220
MLBFR-0408	4.0 to 8.0	Bandreject	10	2.7	150	20	+10	MLFR-0408
MLBFR-160418	4.0 to 18.0	Bandreject	16	3.2	150	30	+10	MLFR-160418
MLBFR-0618	6.0 to 18.0	Bandreject	10	2.95	150	25	+10	MLFR-0618
MLBFR-160618	6.0 to 18.0	Bandreject	16	3.2	150	40	+10	MLFR-160618
MLBFR-0812	8.0 to 12.4	Bandreject	12	2.7	150	25	+13	MLFR-0812
MLBFR-160818	8.0 to 18.0	Bandreject	16	3.2	150	50	+10	MLFR-160818
MLBFR-1218	12.0 to 18.0	Bandreject	12	2.7	150	25	+13	MLFR-1218

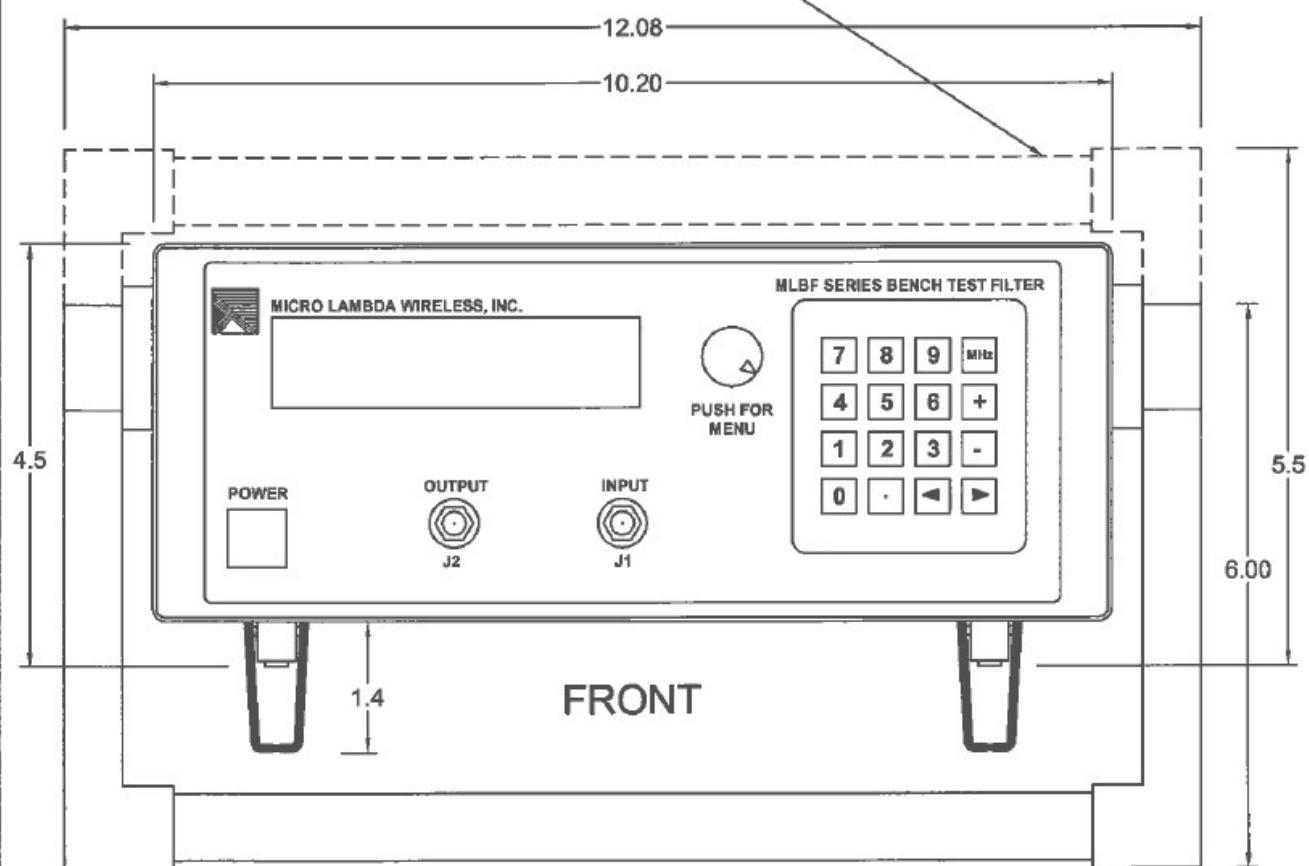
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MLBFN-0305	0.35 to 0.52	Bandreject		3.7	175	4@30dB	0	MLUN-0305
MLBFN-0502	0.5 to 2.0	Bandreject		3.2	80	5@40Db	+5	MLUN-0502
MLBFN-0206	2.0 to 6.0	Bandreject		3.2	120	17	+10	MLUN-0206
MLBFN-0208	2.0 to 8.0	Bandreject		3.2	125	15	+10	MLUN-0208
MLBFN-0218	2.0 to 18.0	Bandreject		3.7	175	5	+10	MLUN-0218
MLBFN-0220	2.0 to 20.0	Bandreject		3.7	175	5	+10	MLUN-0220
MLBFN-0618	6.0 to 18.0	Bandreject		3.5	175	35	+10	MLUN-0618
MLBFN-0818	8.0 to 18.0	Bandreject		3.5	175	35	+10	MLUN-0818

REAR



IF HANDLE UP FLUSH TO TOP COVER



NOTE:

- DEPTH WITHOUT HANDLE IS 13.00"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCE ARE :

FRACTIONS DECIMALS ANGLES
± 0.005 ± 0.005 ± 0.010

MATERIAL

FINISH

DO NOT SCALE DRAWING

CONTRACT NO.

APPROVALS

DRAWN

MANUF.

G.A.

N.NGUYEN

4/05/15

DS

DATE

4/05/16



MICRO LAMBDA WIRELESS, INC.

MLBF SERIES BENCH TEST FILTER

SIZE
0RN63

CAGE No.

DWG. NO.

99 - 0191 - 001

REV.
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