

MASTR II[®] MAINTENANCE MANUAL

138-174 MHz DUAL FRONT END (WITH NOISE BLANKER)

OPTION 9201 (matching IF Freq.)

(Non-NB version is LBI-30024)

OPTION 9202 (non-matching IF Freq.)

Maintenance Manual LBI30023 B
(DF1110, THIS SHEET ONLY)
(Supersedes LBI4776)

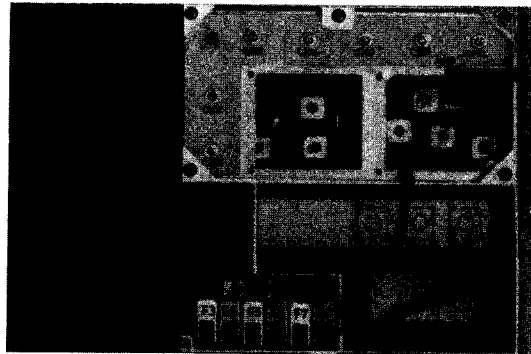


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DESCRIPTION AND MAINTENANCE	LBI30112 (DF1110)
RF AMPLIFIER ASSEMBLY AND MIXER/IF/BLANKER BOARD	LBI4982 (DF1107)
OSCILLATOR/MULTIPLIER BOARD	LBI4984 (DF1106)
RF STEERING SWITCH, MIXER/IF SWITCH/2ND CONVERTER	LBI30038 (DF1110)

**DUAL FRONT END 138-174 MHz
(WITH NOISE BLANKER)**

SPECIFICATIONS***SENSITIVITY**

DFE	12-dB SINAD	0.20 μ V
	20-dB Quieting Method	0.275 μ V

RECEIVER

Sensitivity degraded not more than 1 dB
from standard Receiver Specifications

SELECTIVITY

EIA Two-Signal Method	-100 dB
20 dB Quieting Method	-100 dB

INTERMODULATION (EIA)

-75 dB

SPURIOUS RESPONSE

-95 dB

MODULATION ACCEPTANCE ± 7 kHz (narrow-band)**FREQUENCY STABILITY**

5C-ICOM with EC-ICOM	$\pm 0.0005\%$ (-40°C to $+70^{\circ}\text{C}$)
5C-ICOM or EC-ICOM	$\pm 0.0002\%$ (0°C to $+55^{\circ}\text{C}$)
2C-ICOMS	$\pm 0.0002\%$ (-40°C to $+70^{\circ}\text{C}$)

**MAXIMUM FREQUENCY SEPARATION
(Multi-Frequency Units)**Full Specifications3 dB Degradation

138-155 MHz	.900 MHz	1.60 MHz
150.8-174 MHz	1.0 MHz	1.80 MHz

RF INPUT IMPEDANCE

50 ohms

CURRENT DRAIN (TYPICAL)

Non-matching IF's - 100 mA
Matching IF's - 75 mA

* These specifications are intended primarily for the use of the serviceman. Refer to the appropriate Specification Sheet for the complete specifications.

COMBINATION NOMENCLATURE

1st Digit	2nd Digit	3rd Digit	4th Digit
Frequency Capability	Options	Frequency Range	Oscillator Stability
A 1-Freq.	N Noise Blanker	56 138-155 MHz	A ± 5 PPM ($\pm 0.0005\%$)
D 2-Freq.		66 150.8-174 MHz	B ± 2 PPM ($\pm 0.0002\%$)
E 3-Freq.			
F 4-Freq.			
G 5-Freq.			
H 6-Freq.			
J 7-Freq.			

WARNING

Although the highest DC voltage in the MASTR II receiver is +12 Volts DC, high current may be drawn under short circuit conditions. These currents can possibly heat metal objects such as tools, rings, watchbands, etc., enough to cause burns. Be careful when working near energized circuits.

High-level RF energy in the transmitter Power Amplifier assembly can cause RF burns. KEEP AWAY FROM THESE CIRCUITS WHEN THE TRANSMITTER IS ENERGIZED!