

## MLSL PERFORMANCE SPECIFICATIONS

(Operating Case Temperature: 0° to +60° C Baseplate) (Note 4)

Model No.	MLSL-0609	MLSL-0710	MLSL-0811	MLSL-0912
<b>RF Specifications</b>				
Output Frequency (Note 1)	6-9 GHz	7-10 GHz	8-11 GHz	9-12 GHz
Output Power Min. (Note 2)	+10 dBm	+10 dBm	+10 dBm	+10 dBm
Po Variation Over Temp./Freq.	+/-2 dB	+/-2 dB	+/-2 dB	+/- 2 dB
Step Size, Min. (Note 3)	500 kHz	500 kHz	500 kHz	500 kHz
Switching Speed, 100 Mhz step	100 mS, Typ.	100 mS, Typ.	100 mS, Typ.	100 mS, Typ.
Output Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms
Load VSWR	2.0:1	2.0:1	2.0:1	2.0:1
Harmonics	-15 dBc	-15 dBc	-15 dBc	-15 dBc
Spurious > 10 kHz	-70 dBc	-70 dBc	-70 dBc	-70 dBc
Phase Noise @ 100 Hz Offset, Typ.	-53 dBc/Hz	-53 dBc/Hz	-53 dBc/Hz	-53 dBc/Hz
@ 1 kHz Offset, Typ.	-60 dBc/Hz	-60 dBc/Hz	-60 dBc/Hz	-60 dBc/Hz
@ 10 kHz Offset	-94 dBc/Hz	-93 dBc/Hz	-89 dBc/Hz	-87 dBc/Hz
@ 100 kHz Offset	-118 dBc/Hz	-117 dBc/Hz	-110 dBc/Hz	-110 dBc/Hz
@ 1 MHz Offset	-140 dBc/Hz	-139 dBc/Hz	-133 dBc/Hz	-133 dBc/Hz
<b>External Ref. Osc. - Fixed Freq.</b> (Standard)	10 MHz	10 MHz	10 MHz	10 MHz
<b>External Ref. Osc. Input Power</b>	0 +/- 3 dBm	0 +/- 3 dBm	0 +/- 3 dBm	0 +/- 3 dBm
<b>External Ref. Osc. - Fixed Freq.</b> (Optional)	1-50 MHz	1-50 MHz	1-50 MHz	1-50 MHz
<b>Supply Voltage &amp; Current</b>				
+15 Vdc (+5%,-2%), Max	400 mA	420 mA	450 mA	450 mA
+5 Vdc (+5%,-2%), Max	100 mA	100 mA	100 mA	100 mA
<b>Supply Voltage Ripple</b> (Pk-Pk from 2 kHz to 3 MHz)				
	10 mV	10 mV	10 mV	10 mV
<b>Digital Control Format</b>	3-Line Serial	3-Line Serial	3-Line Serial	3-Line Serial
<b>Phase Lock Alarm</b>	High=Locked	High=Locked	High=Locked	High=Locked
<b>Connections</b>				
Reference Input	SMA-F	SMA-F	SMA-F	SMA-F
RF Output	SMA-F	SMA-F	SMA-F	SMA-F
Control/Alarm/Supply	DB9	DB9	DB9	DB9
<b>Case Style</b>				
Horizontal H-Option	151-002	151-002	151-002	151-002
Vertical V-Option	151-003	151-003	151-003	151-003

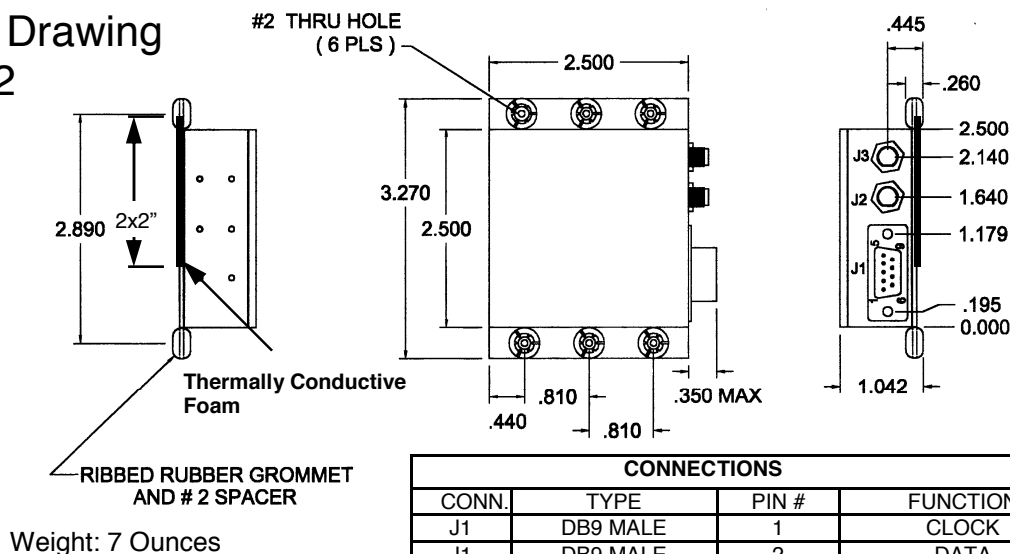
Notes: 1) Units can be set to a customer selected fixed frequency. No control interface is required.

2) Higher output power available on special order.

3) Smaller step size available.

4) Special operating temperature range available.

## Outline Drawing 151-002



### CONNECTIONS

CONN.	TYPE	PIN #	FUNCTION
J1	DB9 MALE	1	CLOCK
J1	DB9 MALE	2	DATA
J1	DB9 MALE	3	ENABLE
J1	DB9 MALE	4	LOCK ALARM
J1	DB9 MALE	5	N/C
J1	DB9 MALE	6	+15 Vdc
J1	DB9 MALE	7	+5 Vdc
J1	DB9 MALE	8	COMMON
J1	DB9 MALE	9	LOGIC COMMON
J2	SMA FEMALE	1	REF. IN (OPT)
J3	SMA FEMALE	1	RF OUT