



Directive Systems & Engineering

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PRELIMINARY INFORMATION

2.35-2.48 GHz Loop Yagi (Rear Mount), Model DSE1227LYRMK

SPECIFICATIONS

Frequency range:	2.35 to 2.48 GHz	Gain:	$\cong 18.5$ dBi
Number of elements:	27	3 dB Beamwidth	
Boom length:	48 inches	(E plane):	$\cong 20^\circ$
Boom diameter:	0.5 inches	F/B ratio:	≥ 20 dB
Mast diameter:	1 1/2 in. max	Maximum Power:	400 W average
Weight: (assembled)	1 pound assembled	Stacking distance:	15 inches vertical
Connector:	Type-N female		16 in. horizontal

PARTS LIST

Quantity	Description	Quantity	Description
1	drilled boom	1 pkg	4-40 stainless steel screws, nuts, lock washers, 8-32 hardware
2	reflectors 1&2		
1	driven element		
5	directors 1-5	1	small $\frac{3}{4}$ x 1 $\frac{3}{4}$ " boom to mast bracket
5	directors 6-10		
4	directors 11-14	1	U-bolt with nuts & saddle
4	directors 15-18	1	Cable assembly w/connector

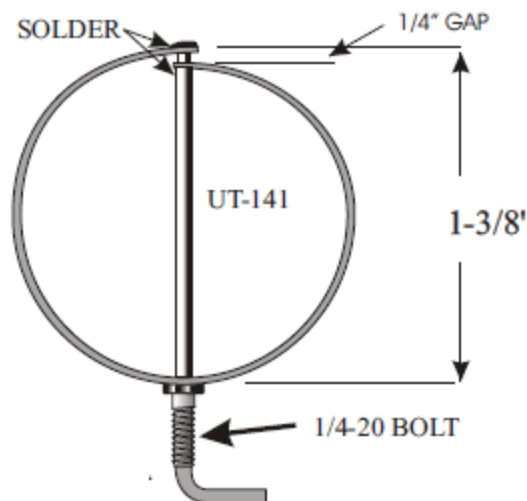


ASSEMBLY INSTRUCTIONS

- 1) Attach loops to the boom with 4-40 x 3/4" screws, lock washers and nuts in proper sequence. Loops go on the side of the boom marked "TOP" or "X". When tightening the nuts on the parasitic elements, be careful not to torque them too tightly. Snug down the nuts, align the elements and use a screwdriver for the final tightening. A 1/4" nut driver is almost mandatory for this job! Attach the driven element with the 1/4-20 stainless steel nut. If only a single antenna is being built, it does not matter which way the loop is oriented. If antennas are to be stacked, see "Instructions for Stacking Loop Yagis."
- 2) Attach the boom-to-mast angle bracket and 8-32 x 1" hardware on the rear of the boom. Install U-bolt in the mast plate.
- 3) Install the connector-cable assembly through the hole in the driven element mounting bolt and solder the coax ends to the ends of the loop. Solder the inner conductor first. Bend the connector bracket rearward and secure it to the boom with a 3/4" machine screw in the hole between the two reflectors. (Refer to the diagram on page 2) Attach the feedline and tape it to the mast. Seal all connections with silicone RTV or equivalent.
- 4) The SWR should be 1.5:1 or better from 2250 -2350 MHz. Additional tweaking can be accomplished by adjusting the distance between the driven element and R1 or by adjusting the shape of the driven element.

ASSEMBLY TIPS:

Mount all of the loops in order beginning with the reflectors which are the two holes behind the large hole for the driven element. Use 4-40 X 1" screws. Insert the screws through the loops from the inside so they stick out the bottom of the boom. Install a #4 lock washer and nut. Use of a 1/4" nut driver is highly suggested! Do not tighten too much as to cause the loops to skew. Mount all the loops in order leaving the driven element until last. Mount the driven element and tighten the 7/16" nut BUT DO NOT CRUSH THE BOOM! The feed coaxial cable (0.141 inch semi rigid) goes through the mounting bolt and is soldered to the open ends of the element. For best match, the driven element should be approximately 1.375 inches high; this makes it wider than it is tall. This shape can be adjusted for best match. You can also bend R1 or D1 towards the driven element or away to affect the match. This antenna is based on work done by G3JVL.



Directive Systems Warranty Policy

All Directive Systems antennas are built with the finest materials available. We take great pride in building a quality product that will give years of good service and performance. If there is a defect in materials or workmanship within 90 days of purchase, Directive Systems will repair or replace, free of charge, the defective part. **DO NOT RETURN ANYTHING WITHOUT PRIOR AUTHORIZATION FROM DIRECTIVE SYSTEMS.** Please contact us either by phone or email describing the problem and we will work to resolve it. If, after examining a new antenna you received, you are not satisfied, contact us immediately for return authorization and refund. **ANY ANTENNA THAT HAS BEEN MODIFIED WILL BE SUBJECT TO A RESTOCKING CHARGE. IF AN ANTENNA IS SO MODIFIED AS TO MAKE IT UNUSABLE, DIRECTIVE SYSTEMS RESERVES THE RIGHT TO REFUSE TO ACCEPT THE ANTENNA FOR RETURN.**