

HT-LFCN-490+

- Low insertion loss.
- Good rejection.
- LTCC Construction.
- temperature stable.
- Small size.

- Harmonic rejection.
- VHF/UHF transmitters/receivers.
- Lab use.

RF IN	1
RF OUT	3
GROUND	2,4

Figure 1.1 illustrates the dimensions of a rectangular plate, showing three views: Top View, Side View, and Front View.

Top View: Shows the plate's width (A) and height (B). It also shows a central rectangular area with dimensions D (width) and E (height). The central area is labeled "INDEX AREA (ON TOP)". The surrounding area is labeled "PAD SHAPE MAY VARY".

Side View: Shows the plate's profile with dimensions B (height) and C (thickness).

Front View: Shows the plate's profile with dimensions D (width) and E (height).

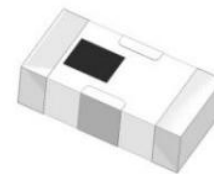
Additional labels include "ALPHA-NUMERIC MARKINGS MAY APPEAR (ON TOP)" and "F TYP".

PCB Land Pattern

Labels and dimensions in the diagram:

- $\varnothing N$: Diameter of the plated through hole.
- PLATED THRU HOLE ON GROUND PAD: Text indicating the nature of the hole.
- J TYP: Dimension for the distance from the hole center to the edge of the pad.
- P TYP MAX: Maximum dimension for the distance from the hole center to the edge of the pad.
- L: Dimension for the distance from the hole center to the edge of the pad.
- M: Dimension for the distance from the hole center to the edge of the pad.
- K: Dimension for the distance from the hole center to the edge of the pad.
- H: Dimension for the distance from the hole center to the edge of the pad.
- G: Dimension for the distance from the hole center to the edge of the pad.

Outline Dimensions : inch
mm



50 Ω
DC to 490MHz

Parameter		Frequency (MHz)	Min.	Typ.	Max.	Units
Passband	Insertion Loss	DC-490	—	—	1.2	dB
	Freq. Cut-Off	650	—	3.0	—	dB
	VSWR	DC-490	—	1.2	—	: 1
Stop Band	Rejection Loss	800	20	—	—	dB
		880-2500	—	40	—	
		6000	—	20	—	
	VSWR	800-6000	—	20	—	: 1

FREQUENCY (Mhz)	INSERTION LOSS (dB)	Return Loss (dB)
1.00	0.02	1.03
100.00	0.15	1.02
490.00	0.64	1.05
650.00	3.77	2.23
780.00	38.23	16.69
790.00	47.62	18.40
810.00	46.51	20.67
880.00	49.85	28.61
1050.00	44.36	48.17
1485.00	49.36	87.91
2065.00	41.56	88.01
2500.00	45.56	92.36
4000.00	33.18	77.49
5500.00	25.21	51.77
6000.00	22.23	39.98

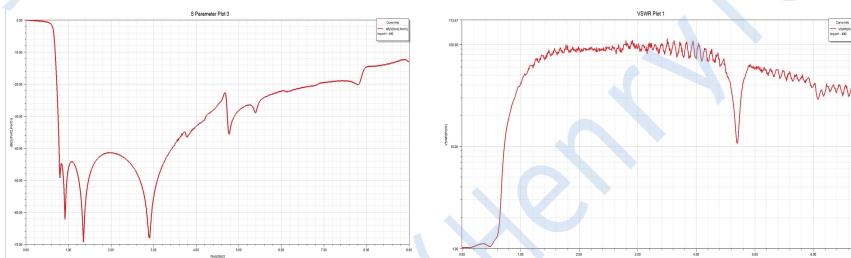


Figure 1: Dimensions of the coplanar waveguide. The diagram shows a top-down view of a coplanar waveguide (CPW) structure on a substrate. The central signal trace is labeled "PIN 1". The substrate is light blue, and the conductive regions are red. Dimensions are given in inches. Key dimensions include: .021 TYP (width of the central trace), .028 TYP (width of the side traces), .024 TYP (width of the gap between side traces), .098 (width of the central trace), .072 TYP (width of the side traces), #.015 PTH, 8 PL. (plating thickness), .038 TRACE WIDTH, & .013 GAP, 2 PL. (plating thickness), and .019, 2 PL. (plating thickness). A label "DUT PACKAGE" points to the central trace area.

NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS R04350B WITH THICKNESS .020" $\pm$.0015".
COPPER: 1/2 OZ. EACH SIDE.
FOR OTHER MATERIALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED.

2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

 DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

 DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Operating Temperature	-55°C to +125°C
Storage Temperature	-55°C to +125°C
RF Power Input*	8.5W at 25°C

*Permanent damage may occur if any of these limits are exceeded