

HT-LFCG-630+

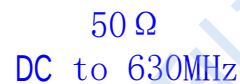
- Low insertion loss.
- Good rejection.
- LTCC Construction.
- temperature stable.
- Small size.

- Test and measurement
- Telecommunications & broadband wireless applications
- Harmonic Rejection
- VHF/UHF transmitters / receivers

RF IN	8
RF OUT	4
GROUND	1,2,3,5,6,7

A schematic diagram of a three-layered structure. The top layer consists of three rectangular blocks, each with a width labeled 'L TYP'. The distance between the center of the first and second blocks is labeled 'G TYP'. The thickness of the top layer is labeled 'M TYP'. Below the top layer is a middle layer, and below that is a bottom layer. The total thickness of the middle and bottom layers is labeled 'K'. The bottom layer contains three rectangular blocks, each with a width labeled 'L'. The distance between the center of the first and second blocks in the bottom layer is labeled 'G TYP'. The total width of the structure is labeled 'L'.

A	B	C	D	E	F	G
.079	.049	.037	.014	.012	.012	.026
2.01	1.24	0.94	0.36	0.30	0.30	0.66
H	J	K	L	M		wt
.025	.134	.104	.014	.039		grams
0.64	3.40	2.64	0.36	0.99		.008



Parameter		Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC - 630	—	1.6	2.1	dB
	Freq. Cut-Off	780	—	3.0	—	dB
	Return Loss	DC - 630	—	14	—	dB
Stop Band	Rejection Loss	1050 - 1500	20	50	—	dB
		1500 - 3800	35	48	—	dB
		3800 - 8500	—	15	—	dB

The plot shows the insertion loss of the device across a frequency range from 0 to 8500 MHz. The y-axis represents Insertion Loss in dB, ranging from 0 to 90. The x-axis represents Frequency in MHz, ranging from 0 to 8500. The curve shows a sharp drop in loss at 1700 MHz, a broad resonance dip around 3400 MHz, and a sharp dip at 5100 MHz.

a. The specifications are tested at $25^{\circ}\text{C}\pm 5^{\circ}\text{C}$, relative humidity 55~75%.
b. Other quality and characteristic not specify in this datasheet.

Figure 1: Typical PCB layout for the device. The diagram shows a top-down view of a PCB with a central component footprint. Key features include: a central rectangular area labeled 'PACKAGE' with a dashed outline; a central square area labeled 'PIN 1' with a solid outline; a central square area labeled 'IN' with a solid outline; a central square area labeled 'OUT' with a solid outline; a central square area labeled 'COPLANAR WAVEGUIDE' with a solid outline; a central square area labeled '.012 2 PL.' with a solid outline; a central square area labeled '.022 TRACE WIDTH & .014 GAP, 2 PL. (SEE NOTE BELOW)' with a solid outline; and a central square area labeled 'Ø.013 PTH FOR GROUND' with a solid outline.

NOTES:

1. COPLANAR WAVEGUIDE IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .010" $\pm$.001". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH AND GAP WIDTH 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 +100°C
Storage Temperature	-55°C to +100°C
RF Power Input*	3.5W at 25°C

*Passband rating, derate linearly to 1W at 125°C ambient. Permanent damage may occur if any of these limits are exceeded.