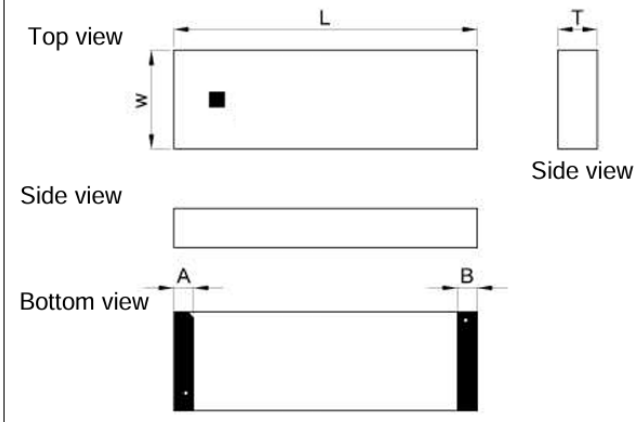
RCA-VA4-1204-W-002

ELECTRICAL SPECIFICATION

PARAMETERS		VALUE	UNIT
Working Frequency		433.000	MHz
Gain, typ		2.0	dBi
Return Loss, max		-10	dB
VSWR, max		2.0	-
Polarization		Linear	-
Azimuth Beamwidth		Omni-directional	-
Impedance		50	Ω
Rated Power, max		1	W
Operating Temperature Range		-40 ~ +85	˚C
Storage Temperature Range		-40 ~ +85	˚C
Storage Condition before Soldering (Included packaging material)	Storage Temperature Range	+5 ~ +40	°C
	Relative Humidity	30 ~ 70	%

MECHANICAL SPECIFICATION

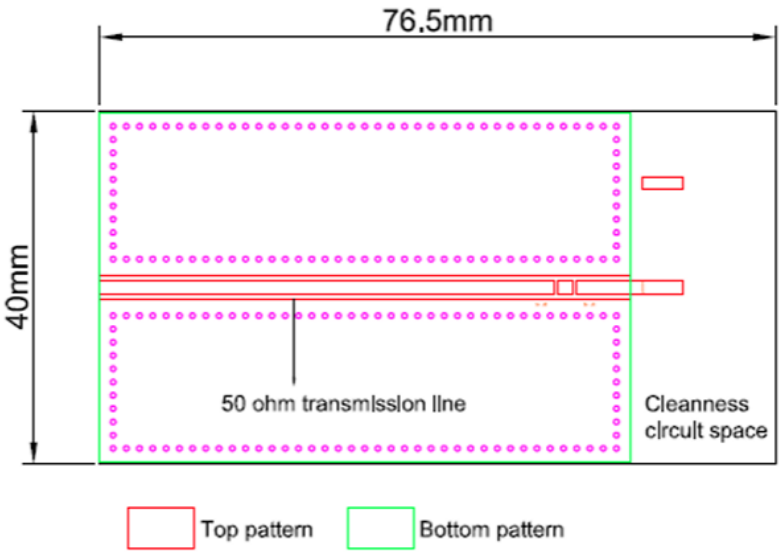
Figure	Symbol	Dimension (mm)
	L	12.30 ± 0.25
	W	4.00 ± 0.25
	T	1.60 ± 0.15
	A	0.8 ± 0.15
	B	0.8 ±0.10

CONSTRUCTION

Top view

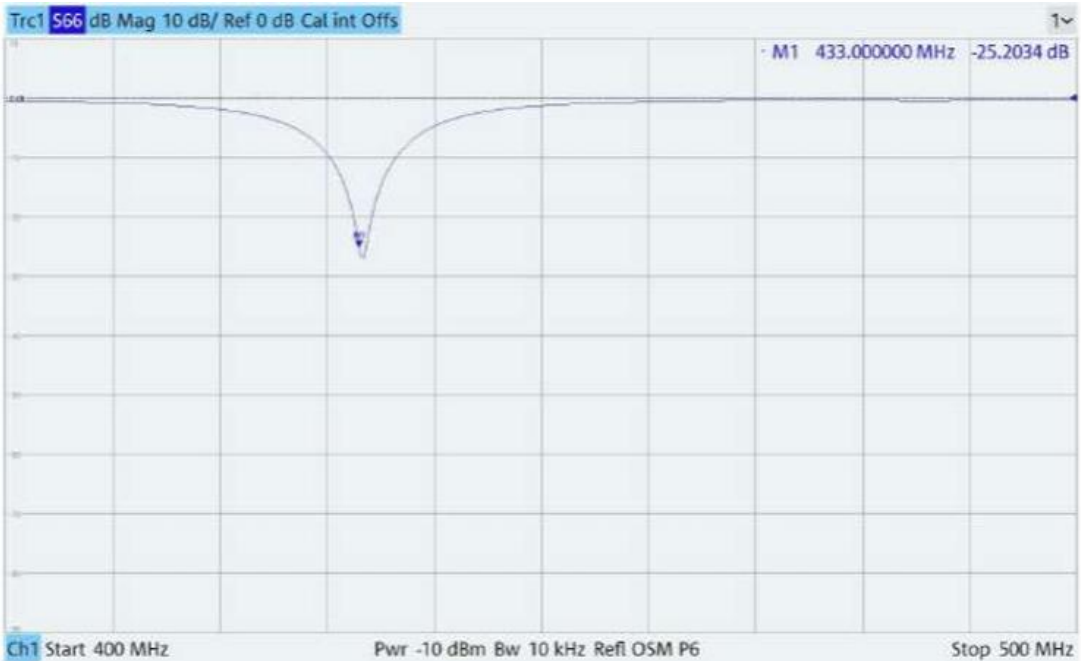
PIN	Connection
P1	Feed termination
P2	Solder termination

TEST BOARD

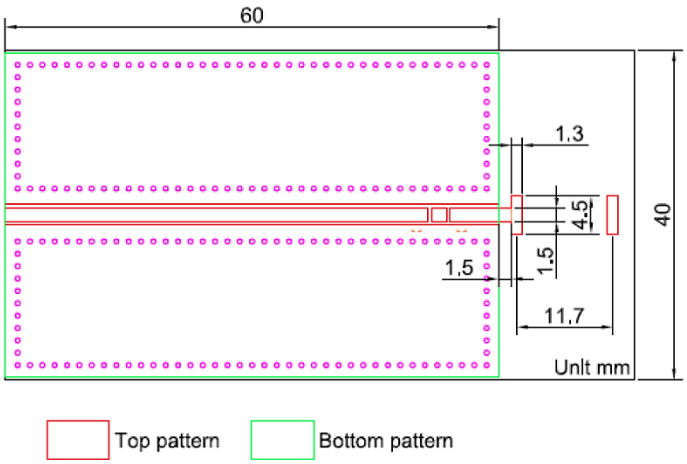


FREQUENCY CHARACTERISTICS

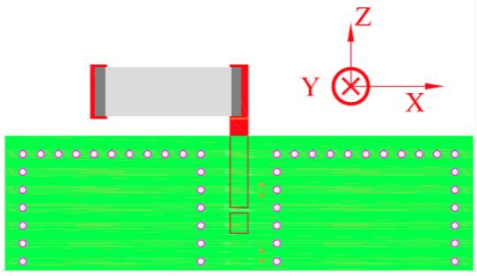
RETURN LOSS

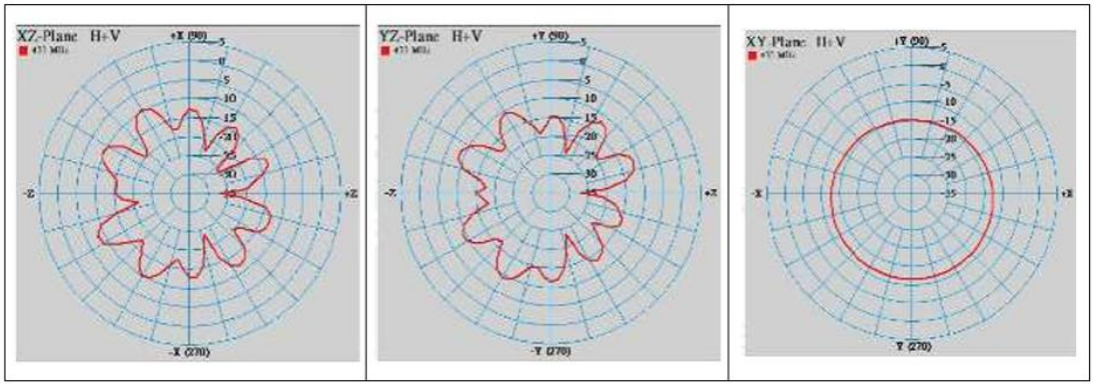


SOLDER LAND PATTERN DESIGN



RADIATION PATTERN





	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
433	-8.11	-13.77	-8.26	-13.56	-11.46	-12.84

ENVIRONMENTAL

PARAMETER	VALUE
RoHS	Compliant
REACH SVHC	Compliant
HALOGEN-FREE	Compliant

APPROVAL

RALTRON	
DRAWN BY:	AR, March 23, 2026
APPROVED BY:	CP, March 23, 2026
REVISION:	A, Initial Release