

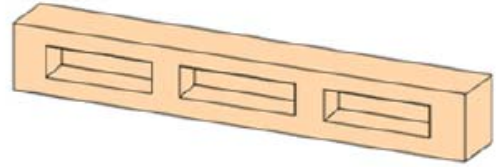
4G Chip Antenna: ANT4005B4G0006K00

Application:

698~2690MHz 4G Antenna, Navigation, etc...

Features

high reliability, ultra Impact, Omni-directional...



Part number

ANT 4005 R 4G00 06K 00
 (1) (2) (3) (4) (5)

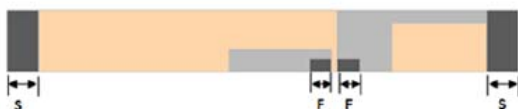
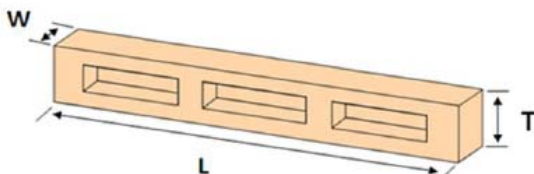
(1) Size Code	40x5mm
(2) Packing	Tape and reel
(3) Frequency	698~2690MHz
(4) Packing Number	0.6K
(5) Code	00 Type

Electrical Specification

Working Frequency	698-960 /1710-2690 GHz
Bandwidth	260/980 MHz(Typ.)
V.S.W.R	3.0 (Max)
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Peak Gain	3.2/4.0 dBi (Typ.)
Impedance	50 Ohm
Operating Temperature	- 40~105 °C
Maximum Power	1W
Termination	Ag (Environmentally-Friendly Leadless)
Resistance to Soldering Heats	260°C , 5sec.

The specification is defined on EVB.

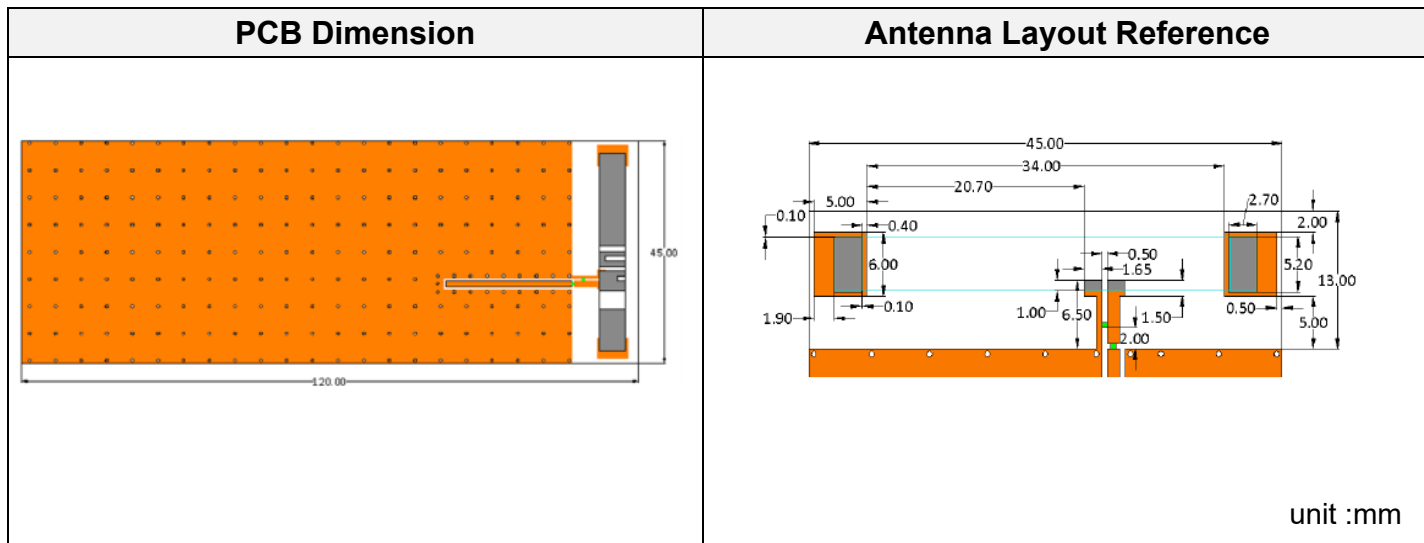
Dimension and Terminal Configuration



Dimension (mm)	
L	40.0±0.5
W	5.0±0.30
T	6.0±0.30
S	2.4±0.2
F	1.6±0.2

No.	Terminal Name
F	Feeding point
S	Soldering Point

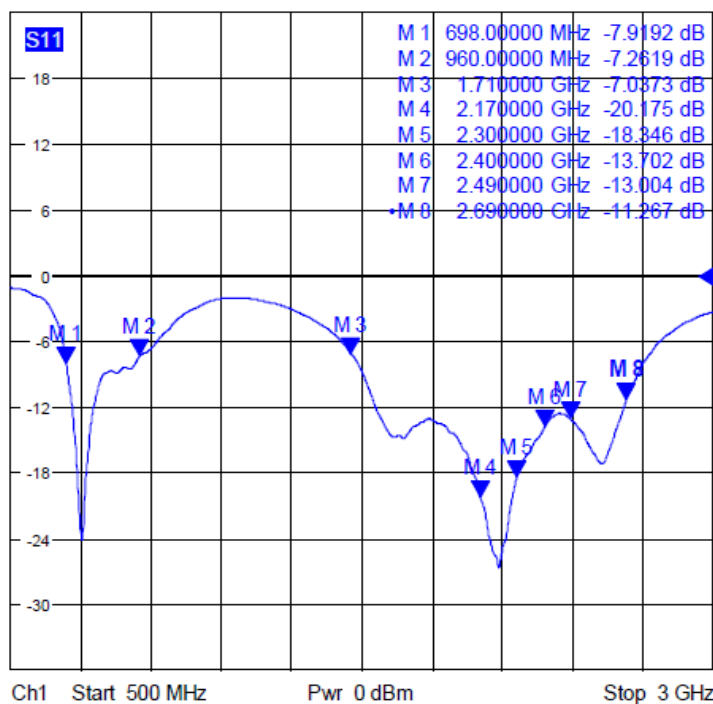
Evaluation Board Reference - Regular Layout



Electrical Characteristics

Return Loss

Return Loss&VSWR

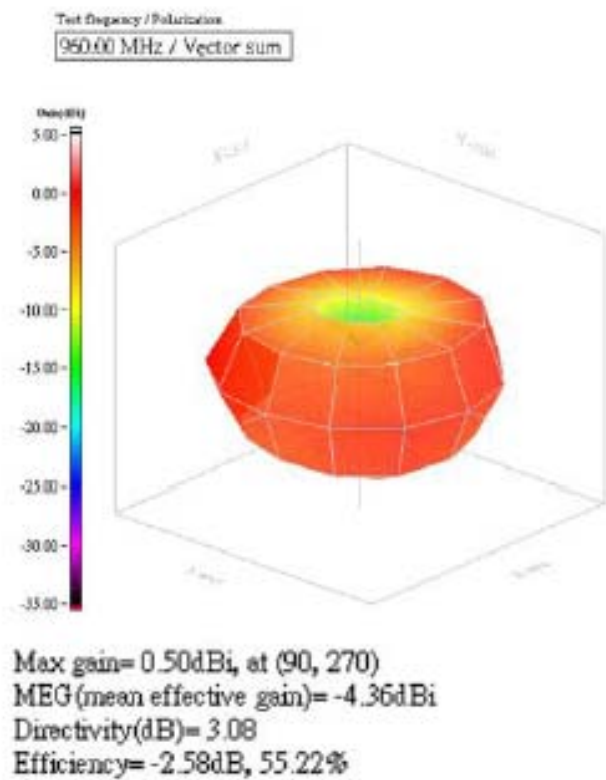
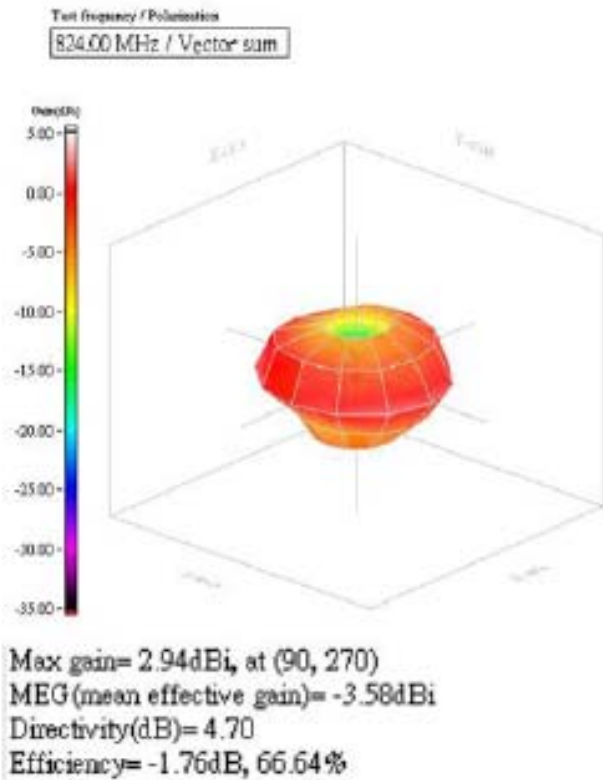
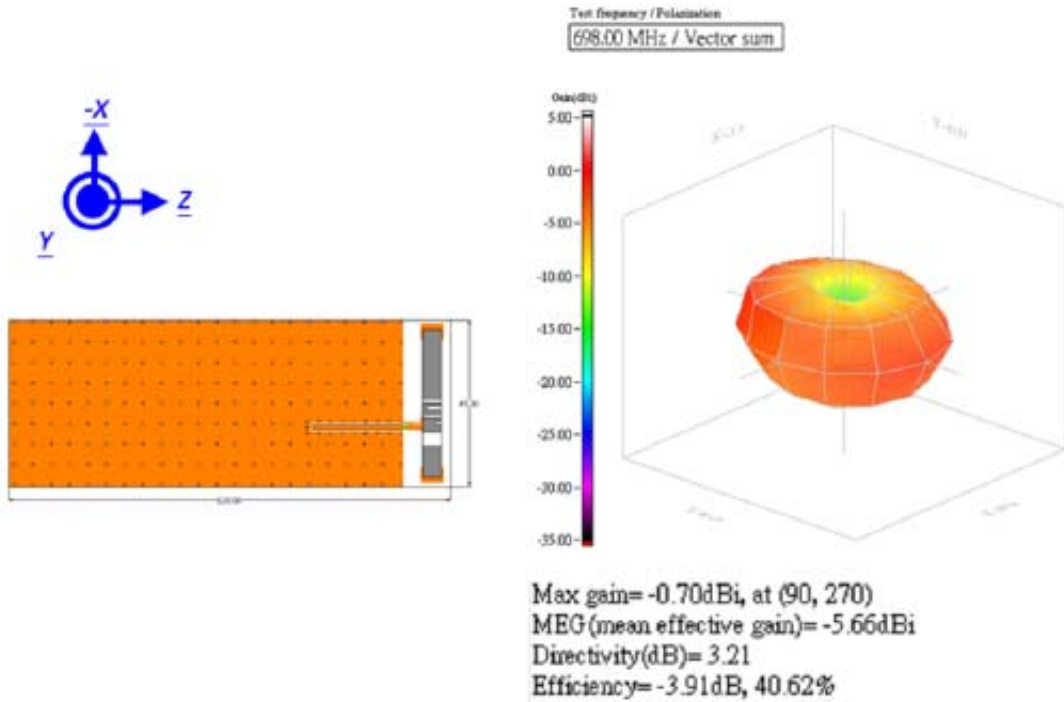


Frequency (MHz)	S11 (dB)
698	-7.91
960	-7.26
1710	-7.03
2170	-20.17
2300	-18.34
2400	-13.70
2490	-13.00
2690	-11.26

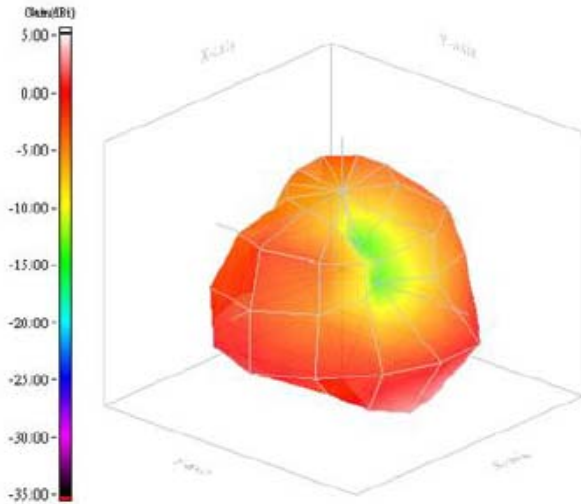
Fig.4 Return loss

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Efficiency

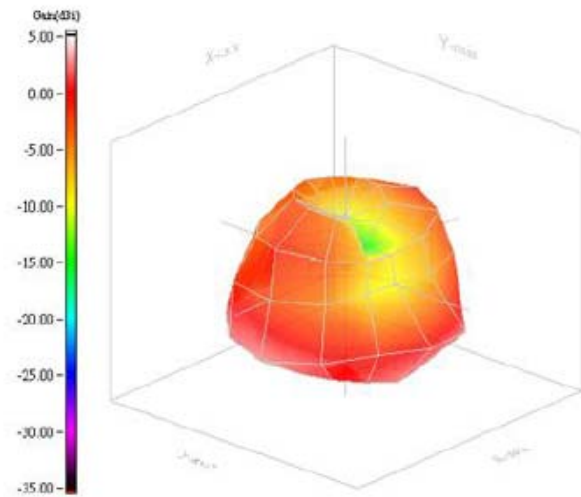


Test frequency / Polarization
1710.00 MHz / Vector



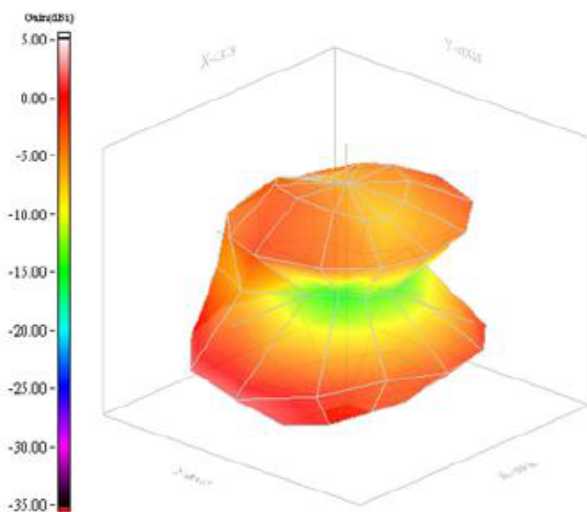
Max gain= 2.98dBi, at (150, 120)
MEG(mean effective gain)=- 2.79dBi
Directivity(dB)= 5.60
Efficiency= -2.62dB, 54.70%

Test frequency / Polarization
1910.00 MHz / Vector



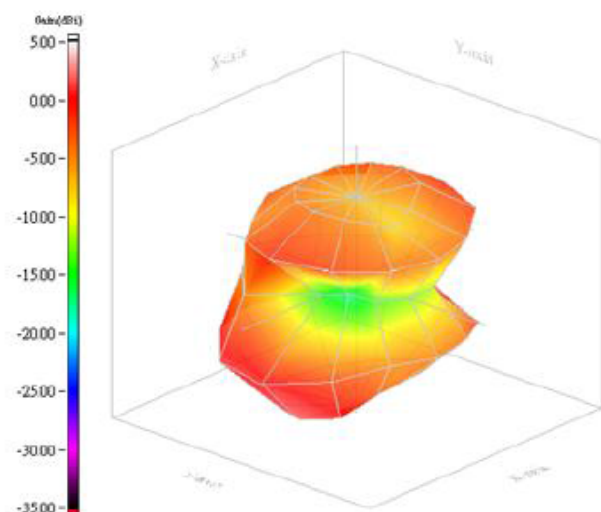
Max gain= 3.65dBi, at (120, 210)
MEG(mean effective gain)=- 1.67dBi
Directivity(dB)= 4.87
Efficiency= -1.22dB, 75.50%

Test frequency / Polarization
2170.00 MHz / Vector



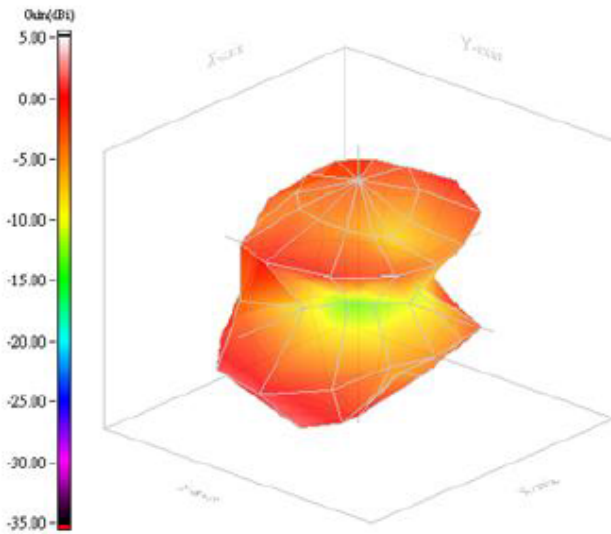
Max gain= 3.02dBi, at (120, 240)
MEG(mean effective gain)=- 2.78dBi
Directivity(dB)= 5.83
Efficiency= -2.81dB, 52.34%

Test frequency / Polarization
2300.00 MHz / Vector



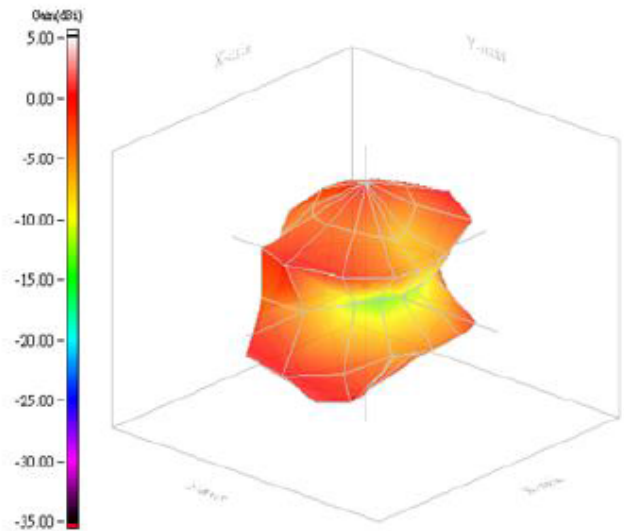
Max gain= 3.29dBi, at (120, 240)
MEG(mean effective gain)=- 2.05dBi
Directivity(dB)= 5.67
Efficiency= -2.38dB, 57.75%

Test frequency / Polarization
2350.00 MHz / Vector



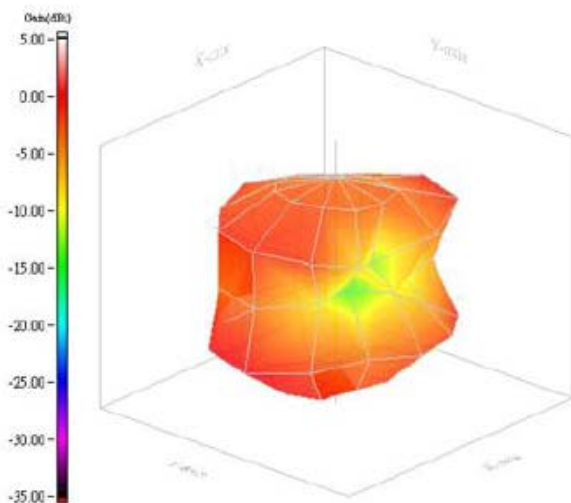
Max gain= 3.76dBi, at (150, 240)
MEG(mean effective gain)=-1.37dBi
Directivity(dB)= 5.74
Efficiency= -1.98dB, 63.35%

Test frequency / Polarization
2400.00 MHz / Vector



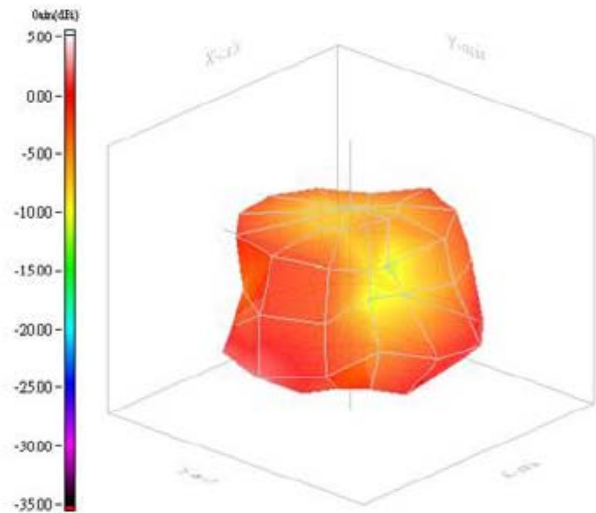
Max gain= 3.98dBi, at (150, 240)
MEG(mean effective gain)=-1.31dBi
Directivity(dB)= 6.00
Efficiency= -2.02dB, 62.84%

Test frequency / Polarization
2490.00 MHz / Vector

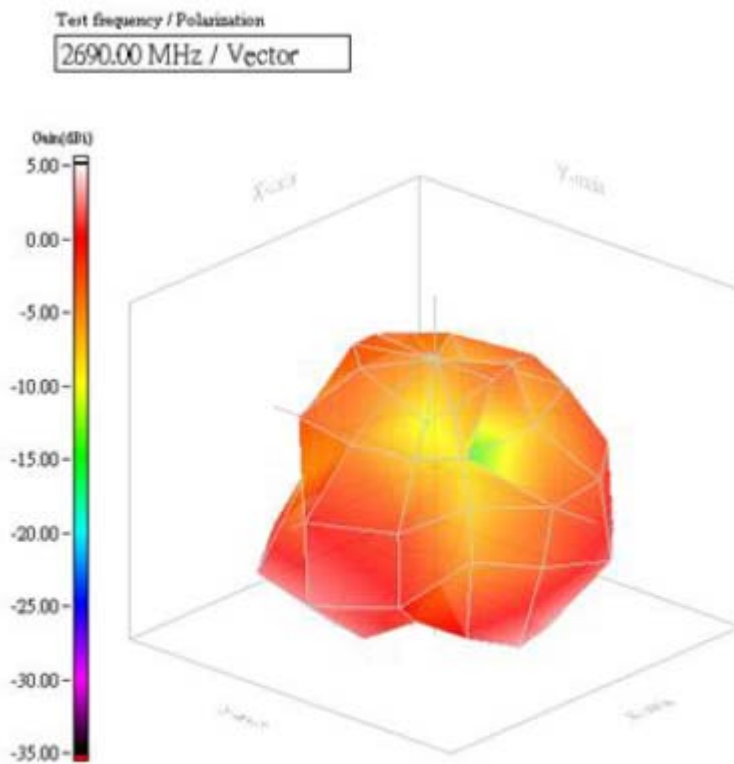


Max gain= 3.22dBi, at (150, 240)
MEG(mean effective gain)=-2.71dBi
Directivity(dB)= 5.65
Efficiency= -2.43dB, 57.15%

Test frequency / Polarization
2595.00 MHz / Vector



Max gain= 3.35dBi, at (120, 180)
MEG(mean effective gain)=-3.23dBi
Directivity(dB)= 5.46
Efficiency= -2.11dB, 61.56%

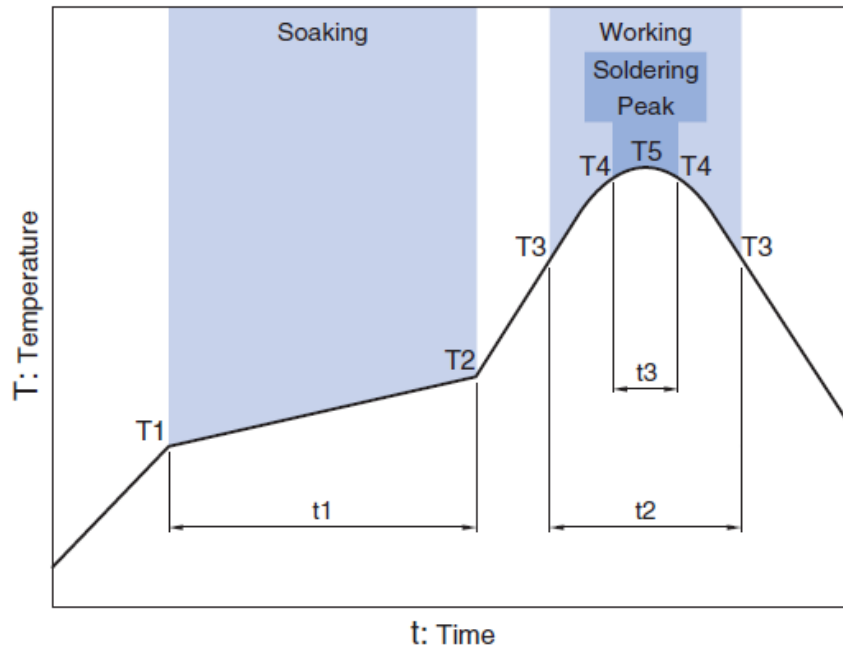


Max gain= 3.19dBi, at (150, 120)
MEG (mean effective gain)= -2.45dBi
Directivity(dB)= 5.04
Efficiency= -1.85dB, 65.27%

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Recommended Reflow Profile

Pb free solder



Soaking		Working		Soldering		Peak	
Temp.	Time	Temp.	Time	Temp.	Time	Temp.	
T1	T2	t1	T3	t2	T4	t3	T5
150°C	180°C	60 to 120sec	230°C	more than 30sec	247 to 253°C	within 10sec	260°C Max.

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