

Original Design Chip Antenna Data Sheet

- P/N : ODBWPTR5020 -

- Application Frequency	
	Band[MHz]
Bluetooth(2.4GHz WiFi) & 5GHz WiFi	Bluetooth : 2400 ~ 2485 & WiFi : 5150 ~ 5825

Partron Co. Ltd.

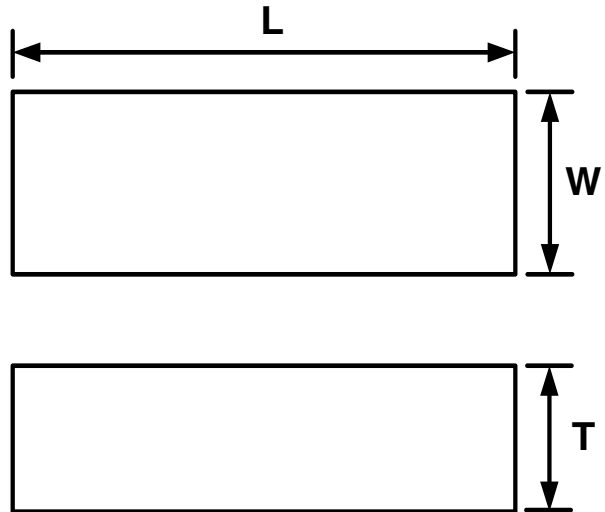
22-6, Seokwoo-ding, Hwaseong-si, Gyeonggi-do, 445-170, KOREA

Dielectric Chip Antenna

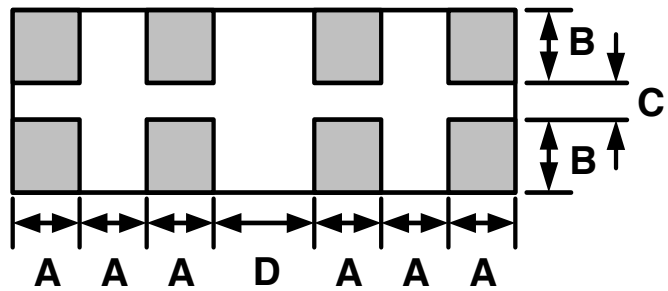


■ ODBWPTR5020 Dimension

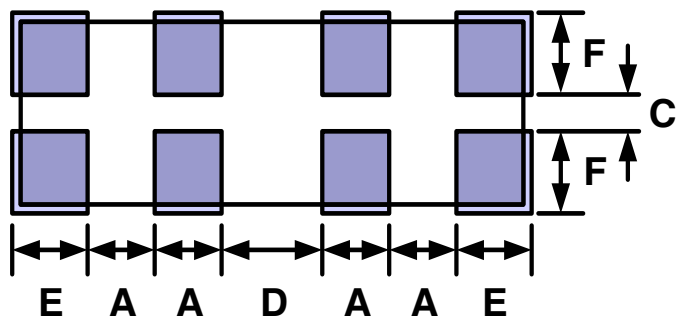
Chip Antenna Dimension



Chip Antenna
Soldering Pad Dimension



PCB
Soldering Land Dimension



Parameter	L	W	T	A	B	C	D	E	F
Value[mm]	5.0 ± 0.1	2.0 ± 0.1	1.2 ± 0.1	0.6	0.8	0.4	1.4	0.7	0.9

Unless Specified tolerances are ± 0.05 mm

Dielectric Chip Antenna

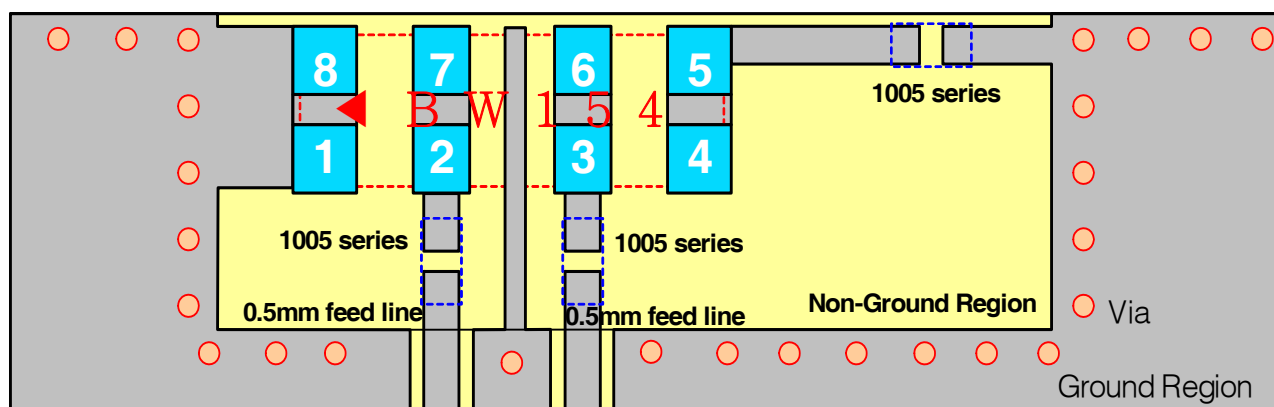


Antenna Marking System



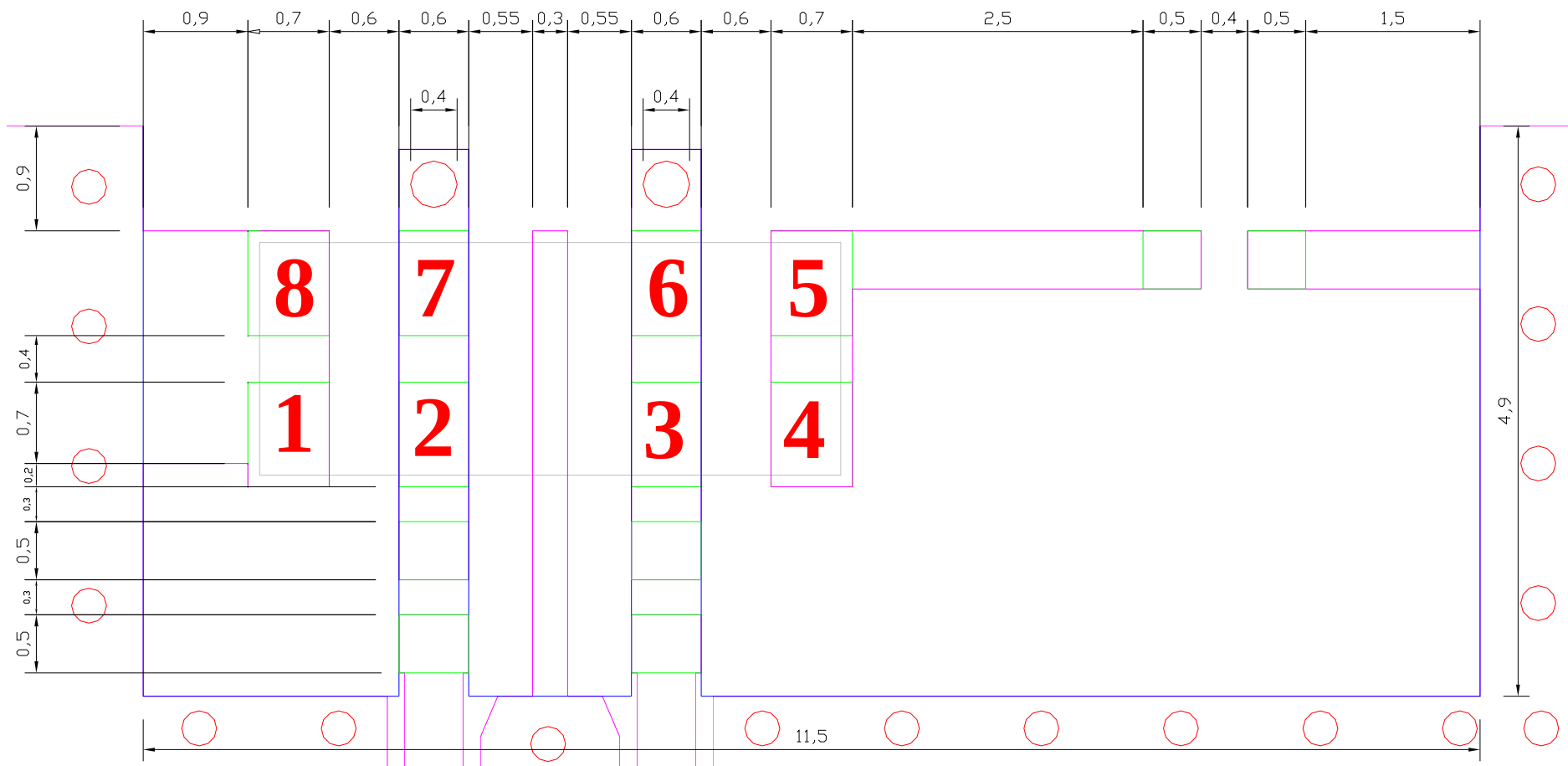
ITEM	DESCRIPTION										
① Input Signal	Input Signal										
② Serial	Bluetooth(2.4GHz WiFi) Band and 5GHz WiFi Band										
③ Year	Ex) 1 - 2011, 2 - 2012, ⋯⋯ , 9 - 2019, ⋯⋯										
④ Month	1		2		3		4		5		6
	January		February		March		April		May		June
	7		8		9		A		B		C
	July		August		September		October		November		December
⑤ Date	1	2	3	4	5	6	7	8	9	A	B
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th
	C	D	E	F	G	H	I	J	K	L	M
	12th	13th	14th	15th	16th	17th	18th	19th	20th	21th	22th
	N	O	P	Q	R	S	T	U	V		
	23th	24th	25th	26th	27th	28th	29th	30th	31th		

Antenna PAD Information



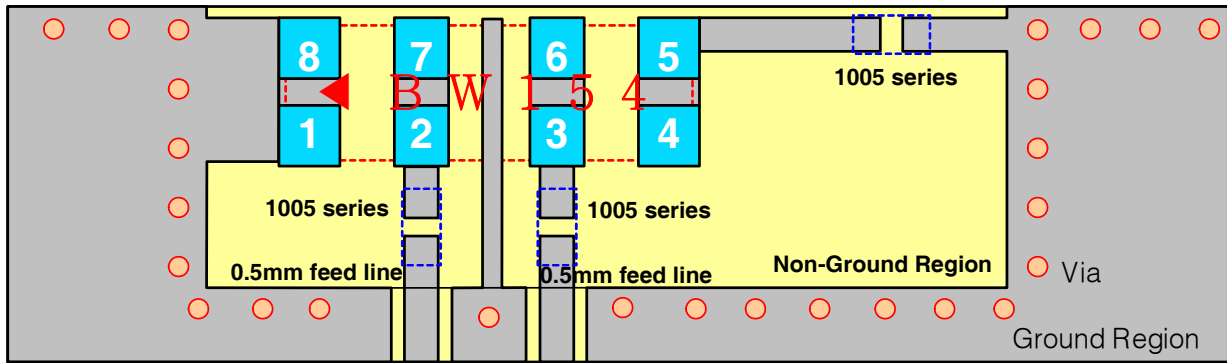
Dielectric Chip Antenna

■ AutoCAD Drawing of Reference PCB Design for ODBWPTR5020 Product

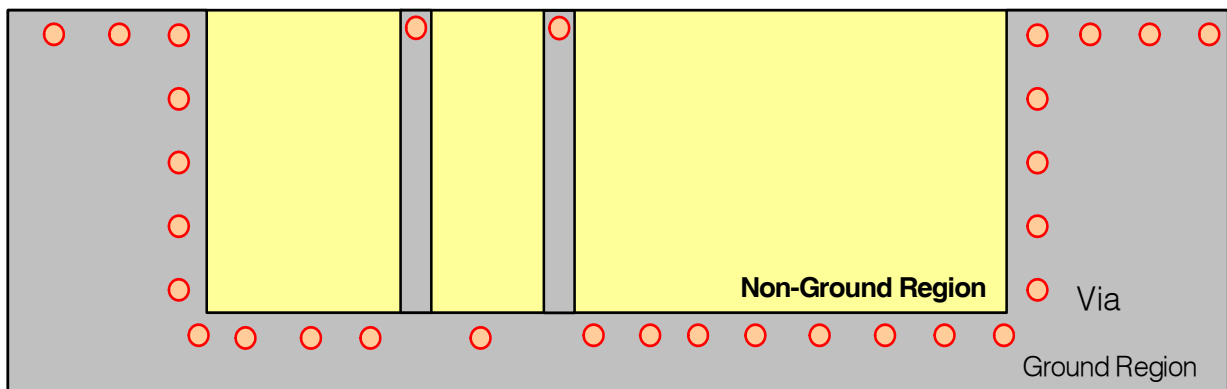


Dielectric Chip Antenna

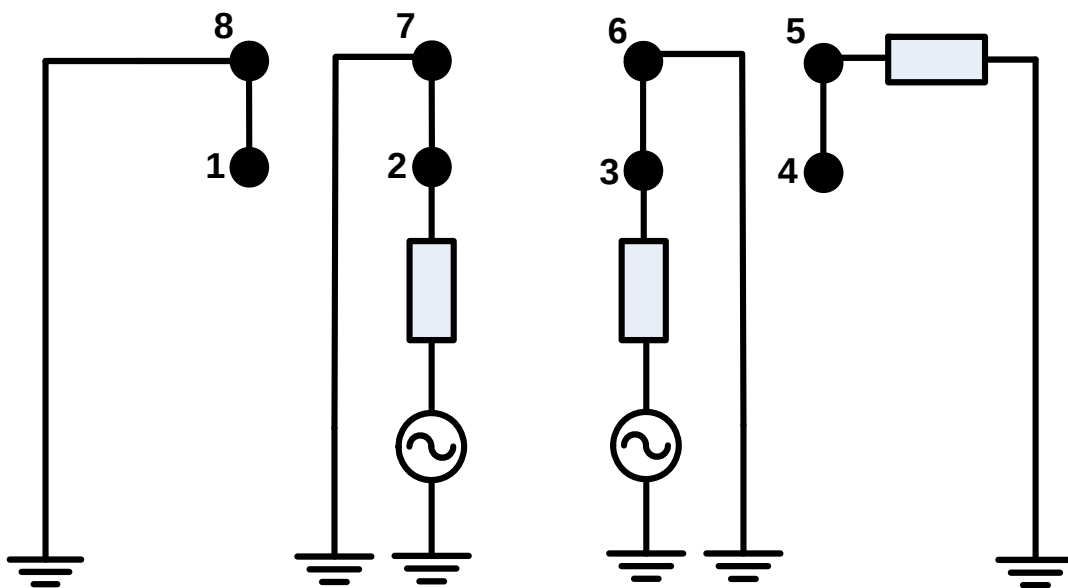
■ FEEDING METHOD (unit : mm, tolerance : ± 0.05)



<Top View>



<Bottom View>



< Equivalent Circuit >

Dielectric Chip Antenna



■ Matching Value

Band (MHz)	Dual Feeding	Single Feeding
Matching Value (Default)		
PCB Artwork (Example)		

■ Temperature condition

	온도범위	단위
사용온도	-40 ~ +110	℃
보관온도	-40 ~ + 70	℃

- 온도조건 Test 조건

	항목	온도범위
사용온도	저온	-75 ℃에서 24시간 정상동작
	고온	+150 ℃에서 24시간 정상동작
보관온도	저온	-75 ℃에서 1000 hr 방치 시 정상동작
	고온	+85 ℃에서 1000 hr 방치 시 정상동작

* 고온 방치 시 포장재 보관온도 문제로 85 ℃ 이상 불가함.

Dielectric Chip Antenna

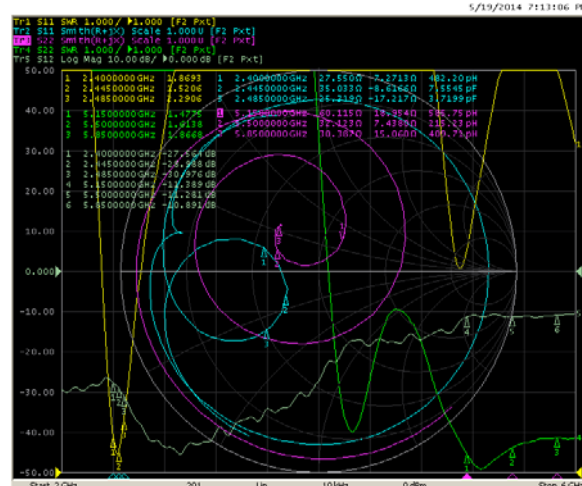


- Dual Feeding 3D Passive Gain For BT&WiFi

Gain & VSWR

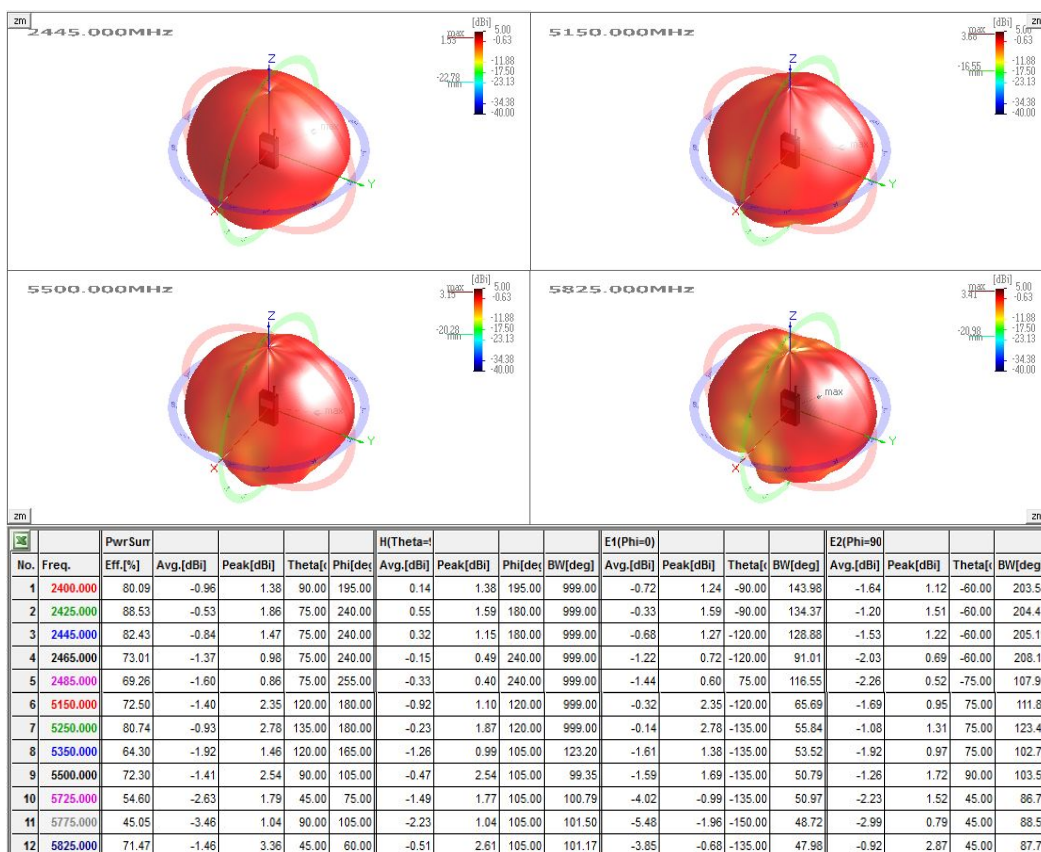
	Peak [dBi]	Average [dBi]	Efficiency [%]
2400MHz	1.38	-0.96	80.09
2445MHz	1.47	-0.84	82.43
2485MHz	0.86	-1.60	69.26
5150MHz	2.35	-1.40	72.50
5500MHz	2.54	-1.41	72.30
5825MHz	3.36	-1.46	71.47

Dual Feeding VSWR



3D Radiation Pattern

Dual Feeding 3D Passive BT/WiFi



Dielectric Chip Antenna

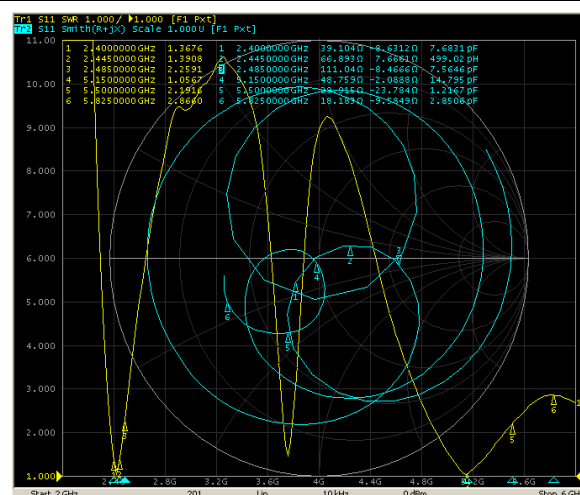


- Single Feeding 3D Passive Gain For **BT&WiFi**

Gain & VSWR

	Peak [dBi]	Average [dBi]	Efficiency [%]
2400MHz	2.19	-1.01	79.20
2445MHz	1.69	-1.40	72.49
2485MHz	1.58	-1.55	70.02
5150MHz	3.20	-0.91	81.04
5500MHz	1.55	-2.37	57.96
5825MHz	1.52	-3.23	47.54

Single Feeding #1 VSWR



3D Radiation Pattern

Single Feeding 3D Passive BT/WiFi

