18.5x18.5x2 Ceramic Patch Antenna (Standard)

1. Explanation of Product Number

H	2	P	1	3	D	A	B	A	C	0	1	0	0
				(1)	(2)		(3)	(4)	(5)	(6)			



Product Code:

(1) Product Categories:

3: ceramic patch antenna

(2) Dimensions and Polarization:

DA: 18.5x18.5x02(mm)/right hand circular polarization

(3) Material:

B: MA-PF

(4) Working Frequency:

A: 1575.42MHz

(5) Ground Plane Dimensions:

C: 50x50(mm)

(6) Antenna Series:

01: serial number

Tolerances (Unless otherwise specified) **X : ± 1 X.X : ± 0.1 X.XX : ± 0.01** **Angle : ± Hole Dia. : ±**		Unictron Technologies Corp.	Unictron Technologies Corporation Website:www.unictron.com
Scale :	**Unit：mm**	**2010-08-04**	
Prepared By : Meiping	**Checked By : Chinling**	THIS SPECIFICATION IS THE PROPERTY OF UNICTRON TECHNOLOGIES CORPORATION AND SHALL NOT BE REPRODUCED OR USED IN ALL CIRCUMSTANCES WITHOUT WRITTEN PERMISSION	
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2. Features

*Stable and reliable in performances
*Low temperature coefficient of frequency
*Compact size
*RoHS compliance

3. Applications

*Navigation systems or position tracking systems
*Hand-held devices when GPS function is needed, e.g., PDA, Smart phone, PND.

4. Description

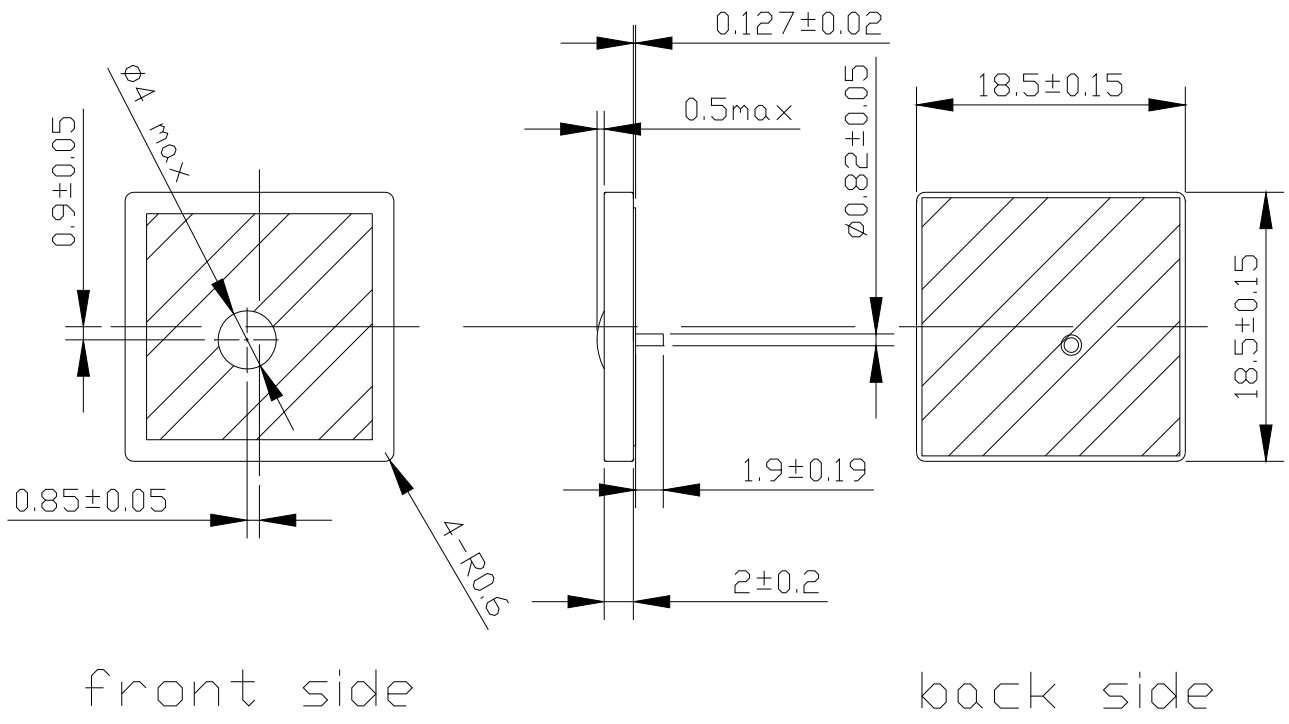
Unictron's patch antenna series are ceramic antennas specially designed for GPS application. This ceramic patch antenna has excellent stability and sensitivity through the use of high performance proprietary ceramic materials and processes.

5. Electrical Specifications (50x50(mm) ground plane)

Characteristics		Specifications	Unit
Outline Dimensions		18.5×18.5×2	mm
Ground Plane		50×50	mm
Center Frequency*		1578±2	MHz
Bandwidth (under -10dB return loss)		7min.	MHz
VSWR		1.5 max.	
Impedance		50	Ω
Polarization		RHCP	
Gain	@Zenith	+1.0(typical)	dBic
	@10°Elevation	-5.5 (typical)	
Axial Ratio		3 (typical)	dB
Temperature Coefficient of Frequency		0±20 max (@ -20℃~80℃)	ppm/℃

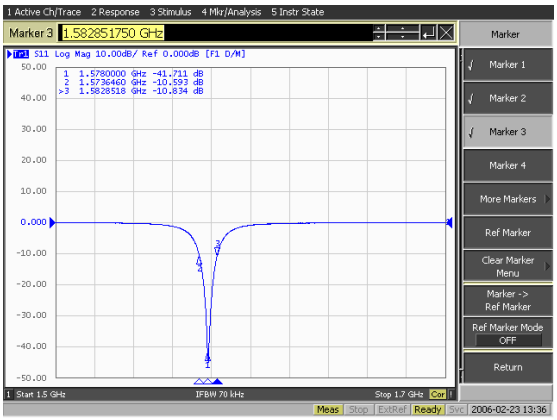
*Center frequency will be offset to working frequency according to the conditions of user's ground plane and radome.

6. Antenna Dimensions (unit: mm)

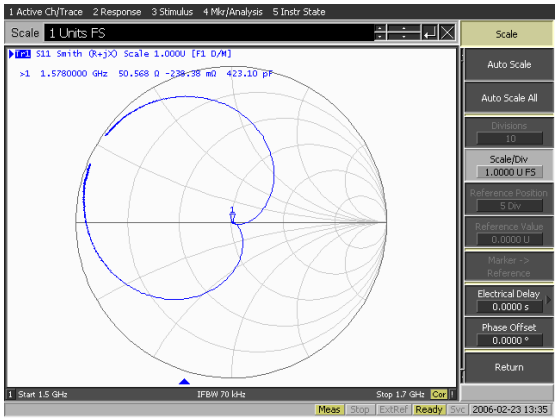


7. Electrical Characteristics (50x50(mm) ground plane)

Return Loss(S_{11})

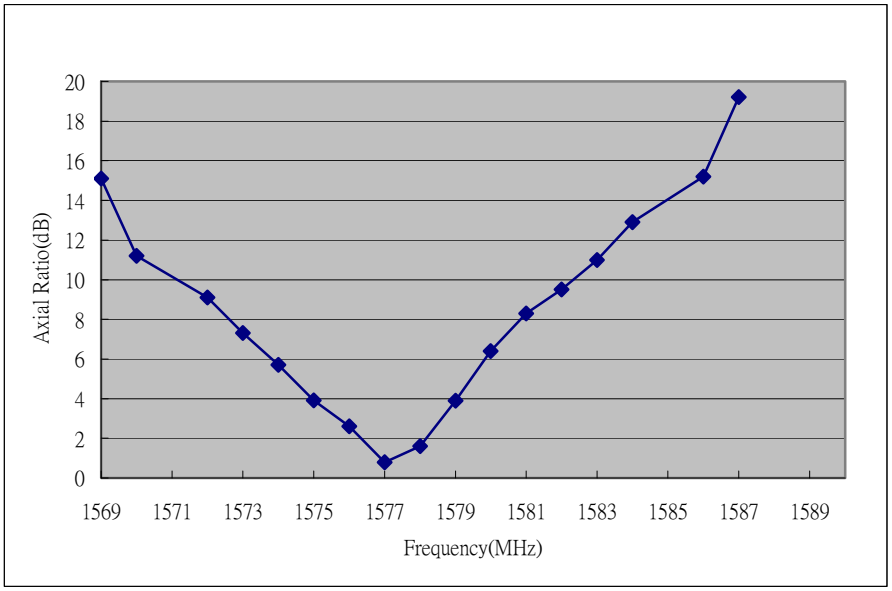


Smith Chart

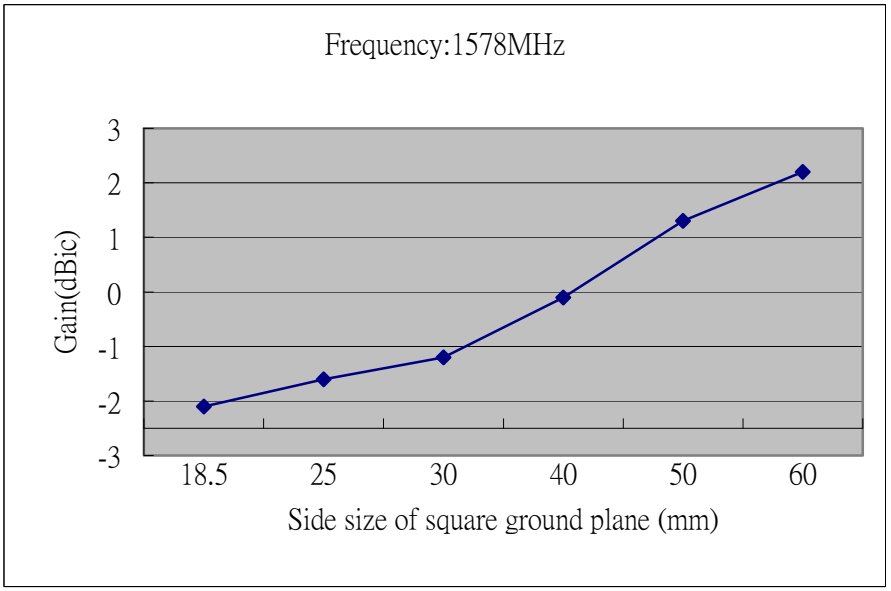


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8. Axial Ratio (50x50(mm) ground plane)



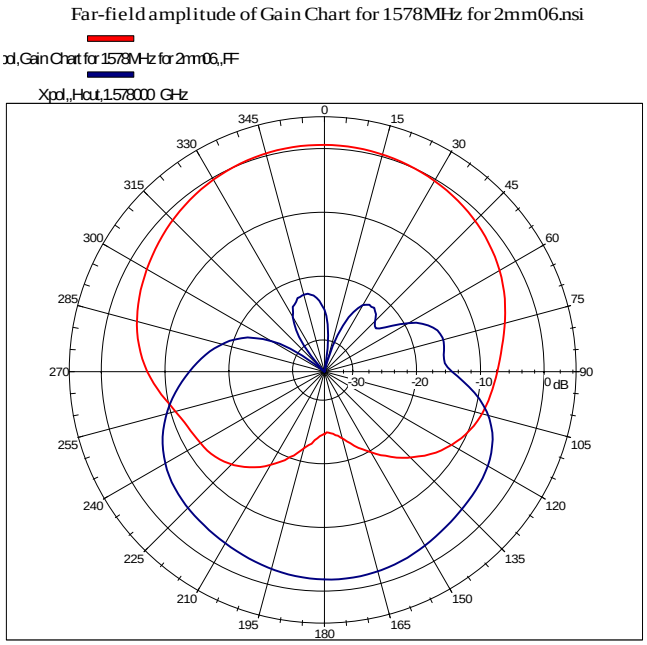
9. Gain vs. Ground Plane Size



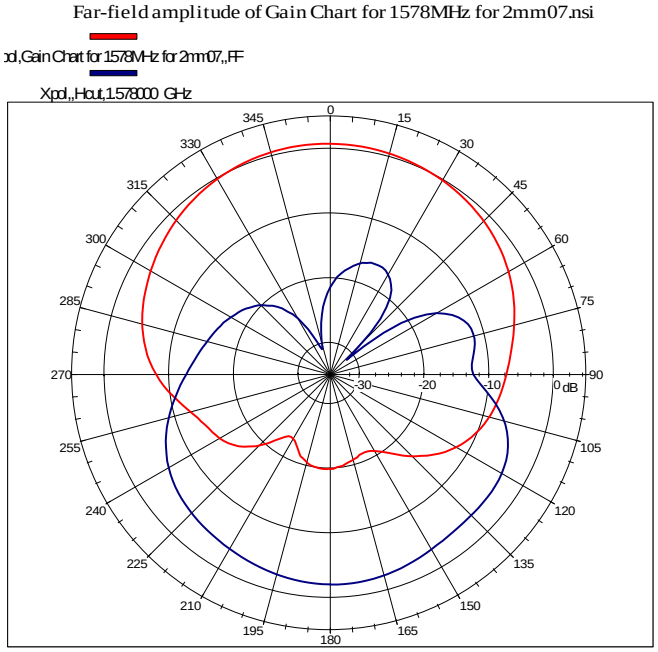
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10. Radiation Pattern (50x50(mm) ground plane)

0^0



90^0



Right hand circular polarized signal f_0=1578MHz

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