MVSILICON

Inverted F Antenna Specification

MANUFACTURE : SHANGHAI MOUNTAIN VIEW SILICON CO,. LTD

PRODUCT NAME : MV_BP10xx PCB Antenna

DATE : 2019-10-30

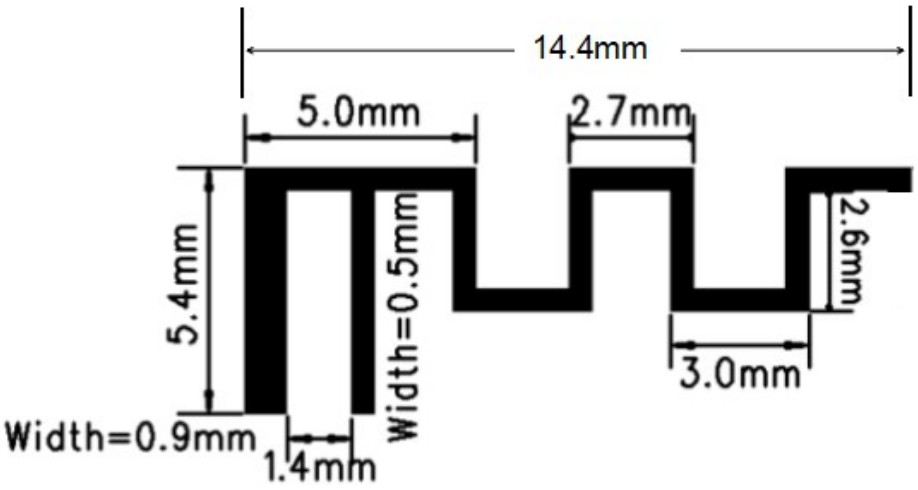
1. Antenna describe

Antenna plate：Inverted F Antenna

Frequency range：2.4GHz-2.48GHz

ITEM Name	Inverted F Antenna Specification
Model Name	2.4GHz Antenna
Polarization	Horizontal and Vertical
Azimuth Beam Pattem	Omni-directional
Impedance	50 Ohm
Antenna Lengh	14.4mm
Gain(Max)	2.81dBi

2. Antenna Photo& Lengh（mm）



Actual Size

3. Gain

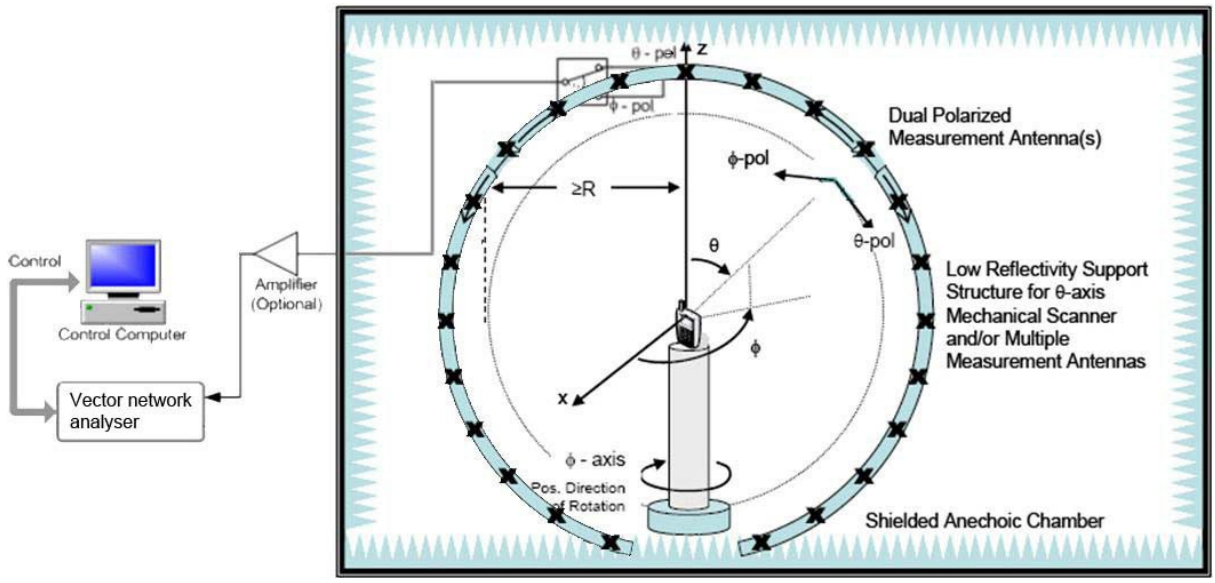
Frequency	Gain（dBi）
2400MHz	2.81
2410MHz	2.74
2420MHz	2.70
2430MHz	2.73
2440MHz	1.01
2450MHz	1.26
2460MHz	1.50
2470MHz	1.49
2480MHz	1.42
2490MHz	0.36
2500MHz	0.33

4. Return Loss/VSWR/Input Impedance

Frequency	Return Loss (dB)	VSWR	Input Impedance(Ω）
2400MHz	-7.23	2.53	25.37
2400MHz	-6.47	2.80	17.99
2450MHz	-6.22	2.90	17.18
2480MHz	-5.18	3.44	15.55
2500MHz	-4.56	3.89	15.48

Annex A Photographs

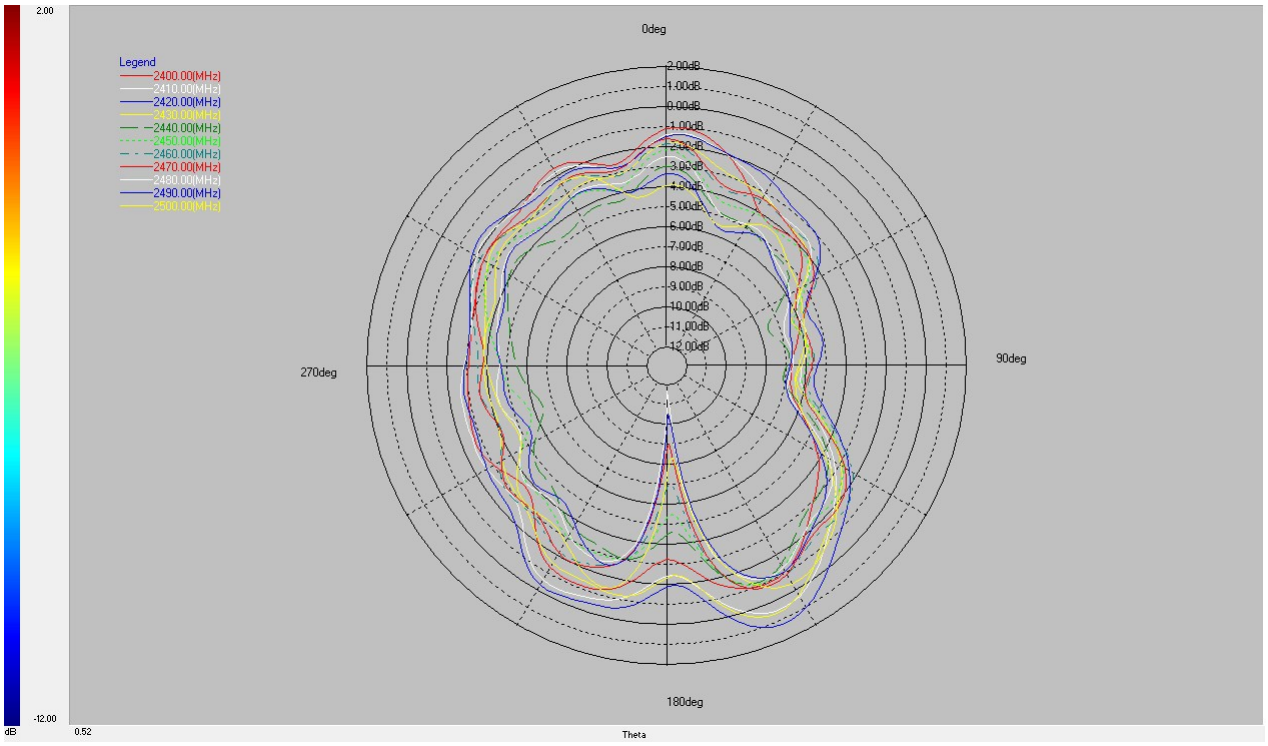
1. Test Setup



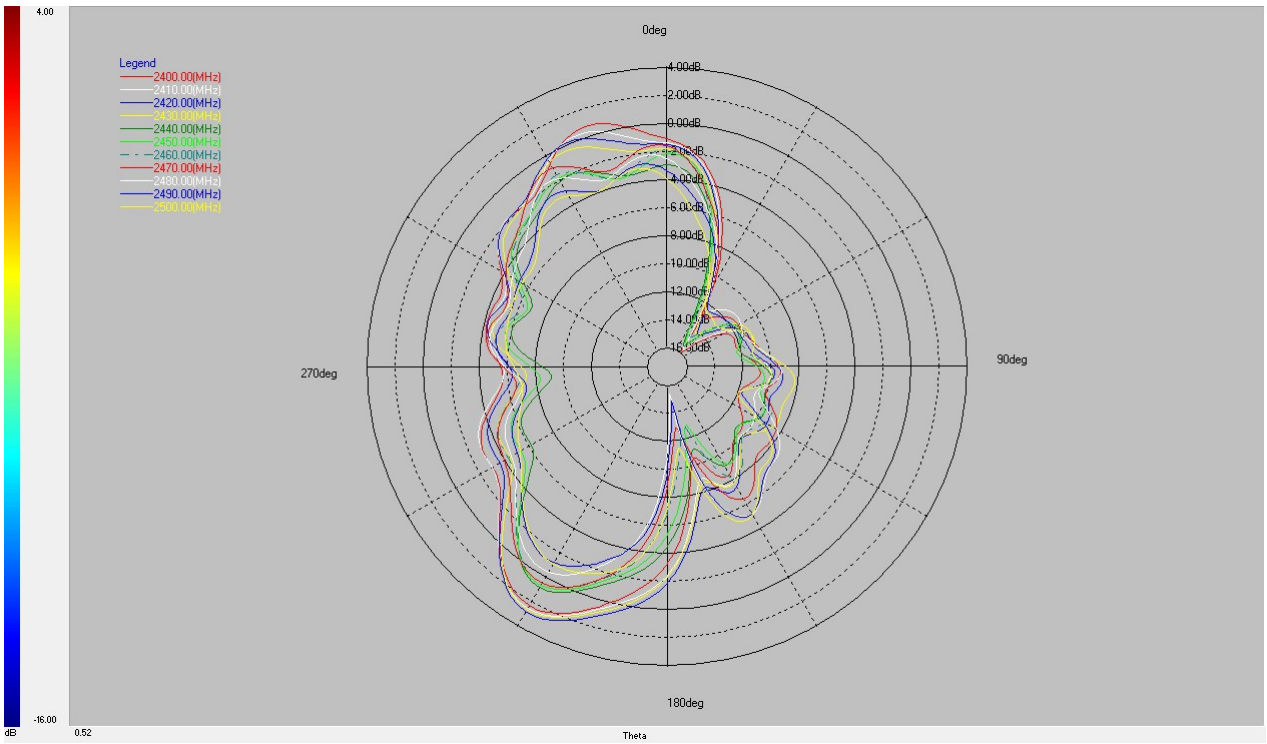
Annex B Figures

1. 2D Radiation Pattern

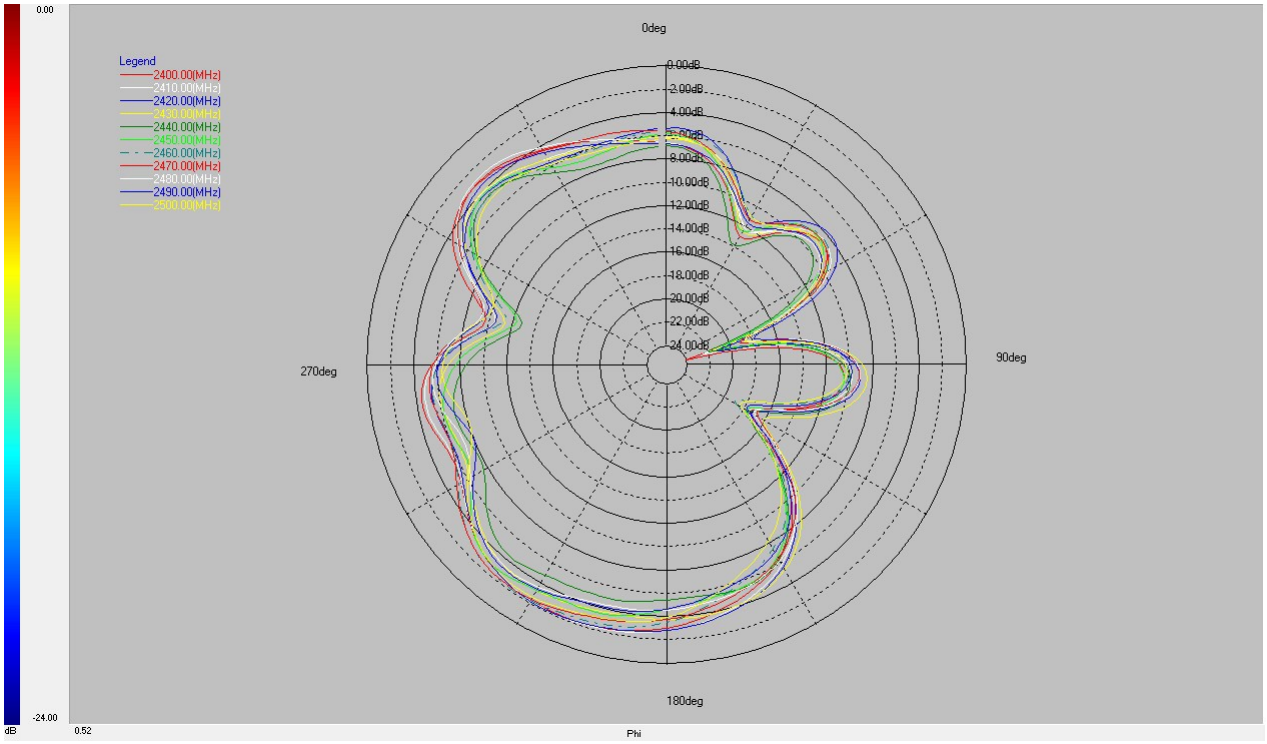
Phi=0°



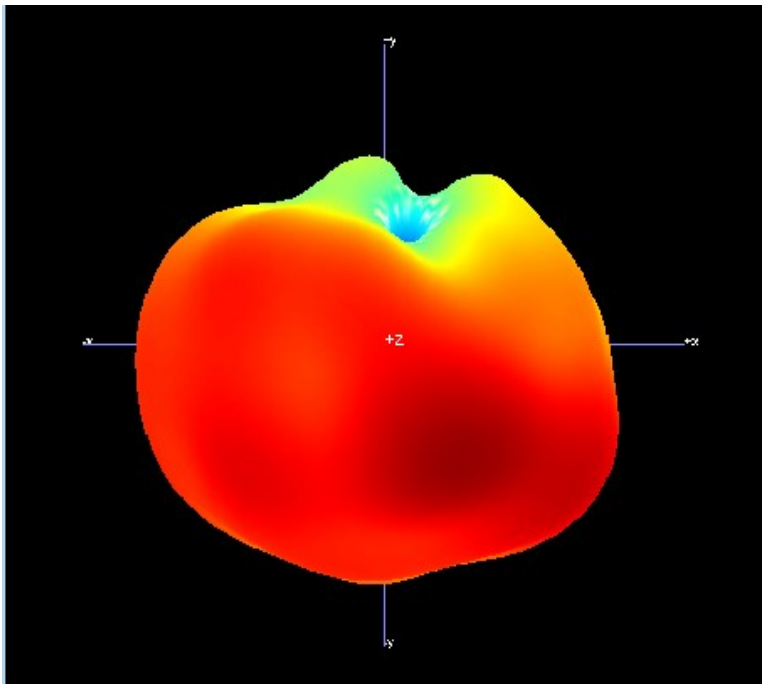
Phi=90°



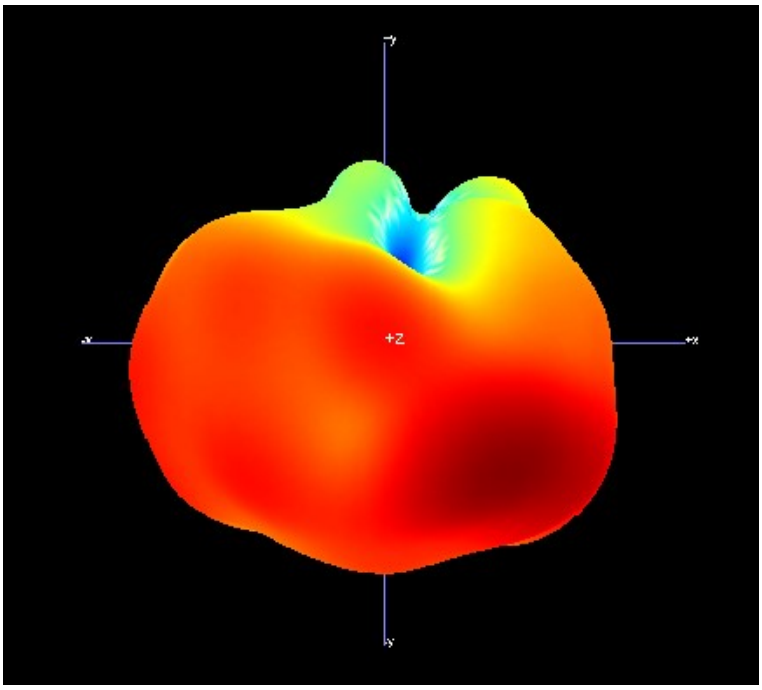
Theta=90°



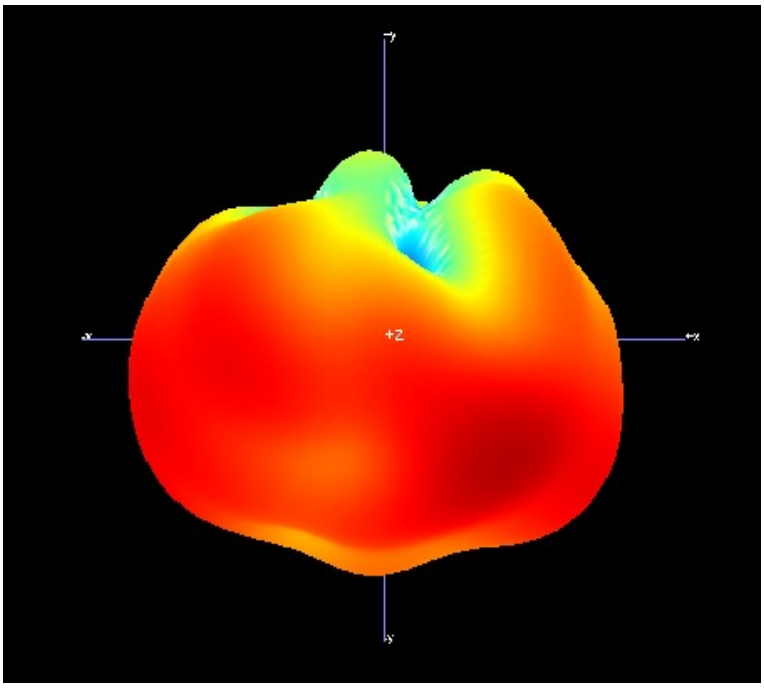
2. 3D Radiation Pattern



2400MHz

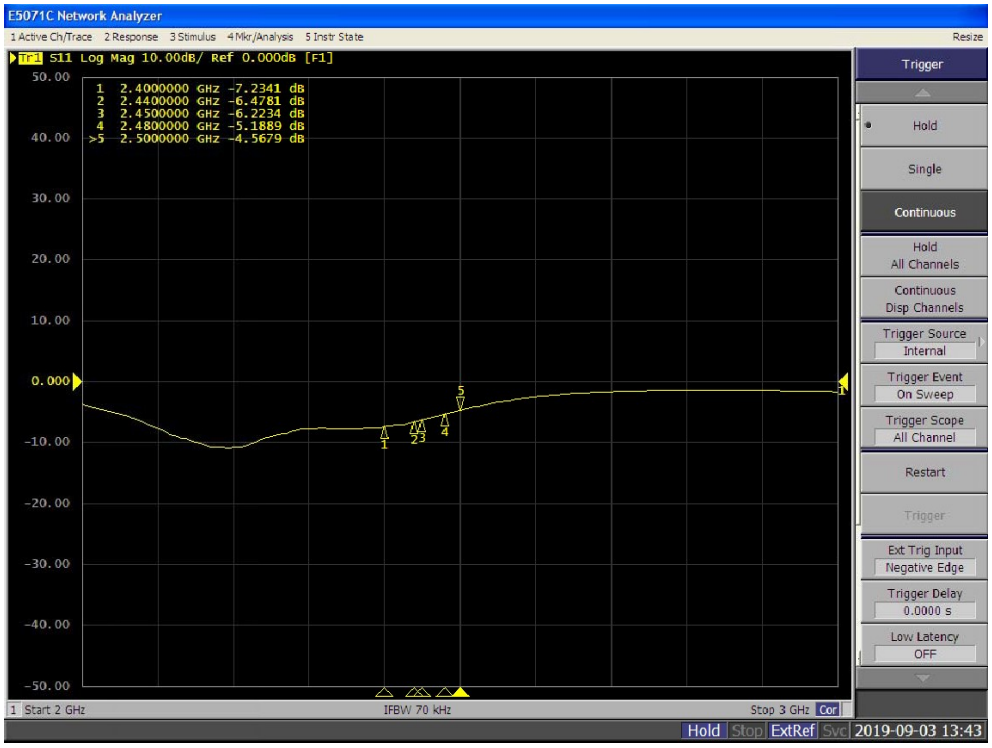


2450MHz

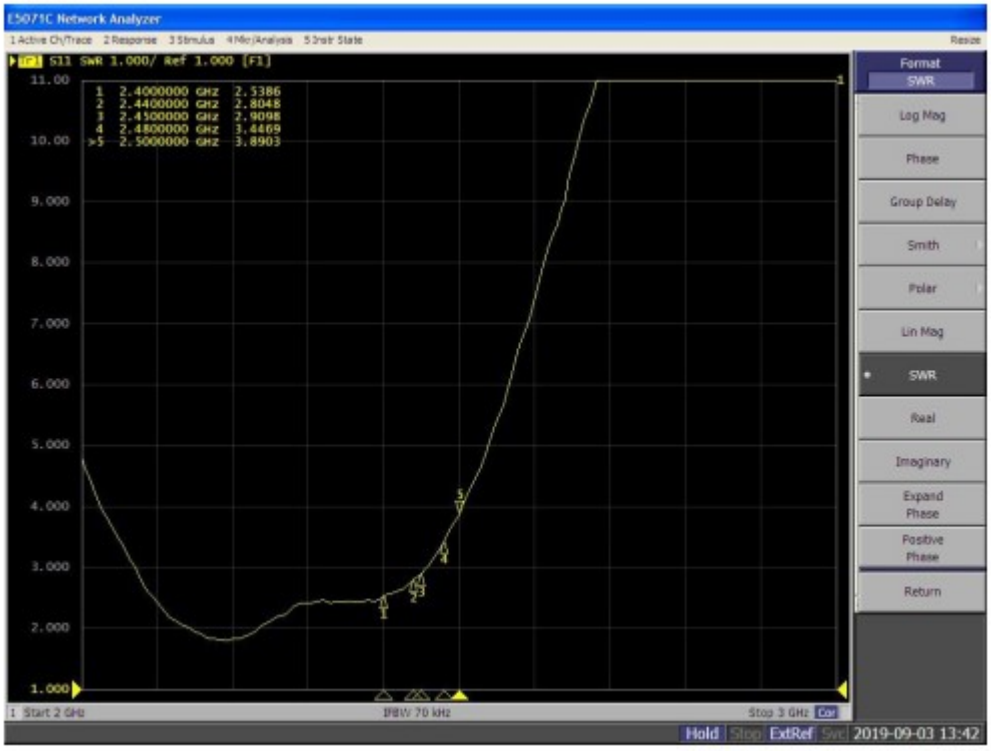


2500MH

3. Return Loss



4. VSWR


E5071C Network Analyzer
S11 SWR 1.000/ Ref 1.000 [F1]
1 2.4000000 GHz 2.5386
2 2.4400000 GHz 2.8048
3 2.4500000 GHz 2.9098
4 2.4800000 GHz 3.4469
>5 2.5000000 GHz 3.8903
11.00
10.00
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
1 Start 2 GHz
IFBW 70 kHz
Stop 3 GHz
Format
SWR
Log Mag
Phase
Group Delay
Smith
Polar
Lin Mag
SWR
Real
Imaginary
Expand Phase
Positive Phase
Return
Hold
ExtRef
2019-09-03 13:42

END