

PEGATRON 和碩聯合科技

NuRa 4K Antenna Report (ER2)

2023-05-08

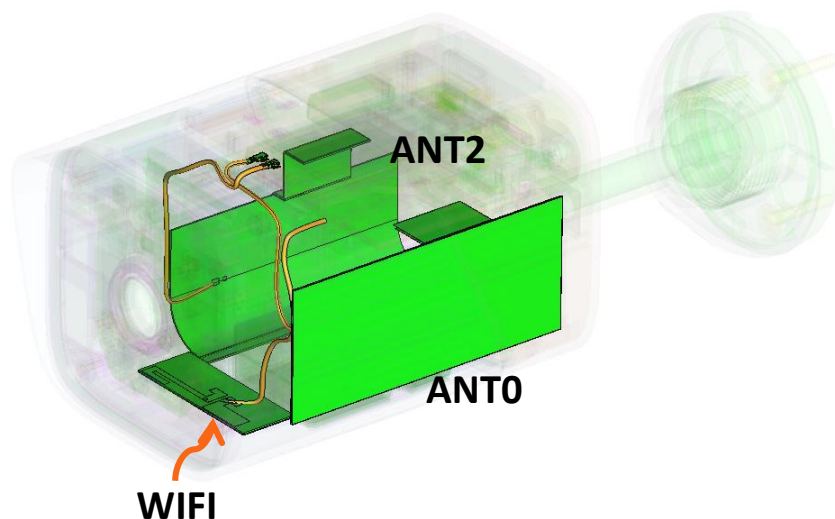


Nura 4K Vander information

Manufacturer	Address	Model Name	Peak Gain
WANSIH ELECTRONIC CO.,LTD.	3-5F 72 Wu Kong 6th Rd., WUGU DIST., NEW TAIPEI INDUSTRIAL PARK, NEW TAIPEI CITY 24891, TAIWAN (R.O.C.)	NURA4K	n48 : 3.96 dB n77 : 3.17 dB WIFI 2G : 3.53 dB WIFI 5G : 3.03 dB

Antenna Placement and Support Band (NA)

Top View :

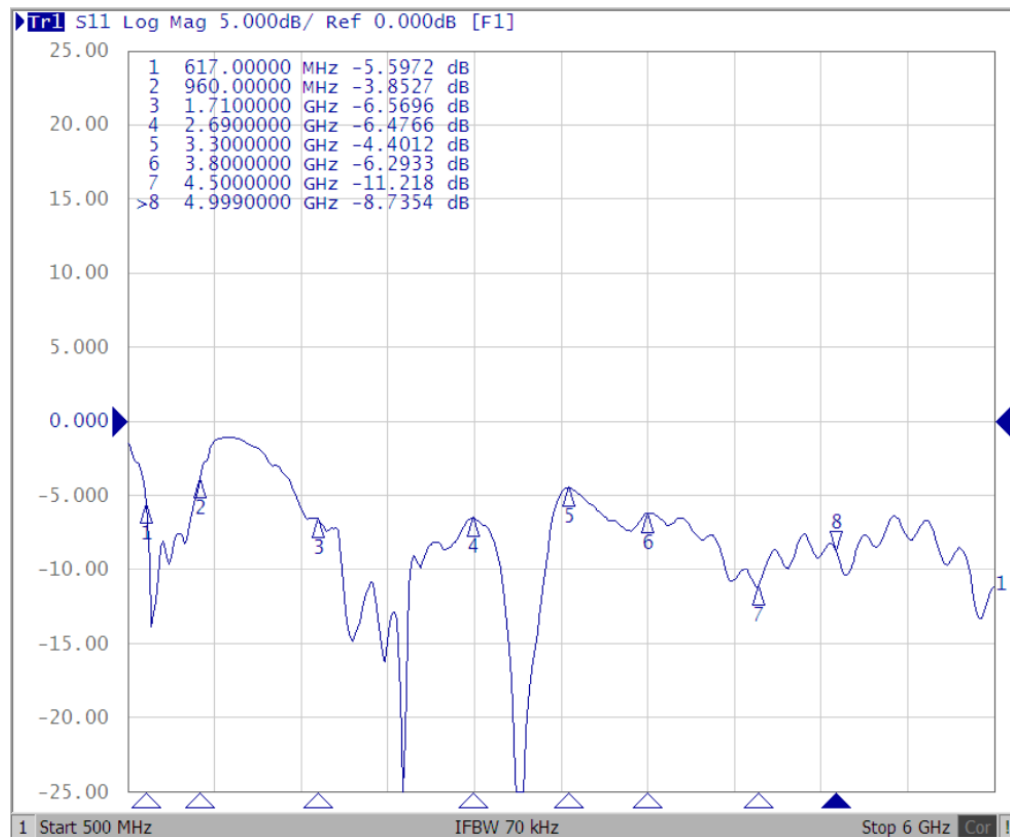


Support Band:

		LTE (TDD/FDD)	5G NR SUB-6
ORAN		UHB : 48	UHB : 48, 77
	Freq. (MHz)	Band support (L,M,H B_TRX0,TRX1 or DRX,RX2,RX3)	
ANT0 (PIFA)	617 ~ 960	LB TRX	
	1710 ~ 2200	MB TX0/PRX	
	2300 ~ 2700	High TX0/PRX	
	3300 ~ 5000	UHB TX1/DRX	
ANT2 (PIFA)	1710 ~ 2200	MB TX1/DRX_MIMO	
	2300 ~ 2700	HB TX1/DRX_MIMO	
	3300 ~ 5000	UHB TX0/PRX	
WIFI (Dipole)	2400 ~ 2500	TRX0	
	5150 ~ 5850	TRX0	

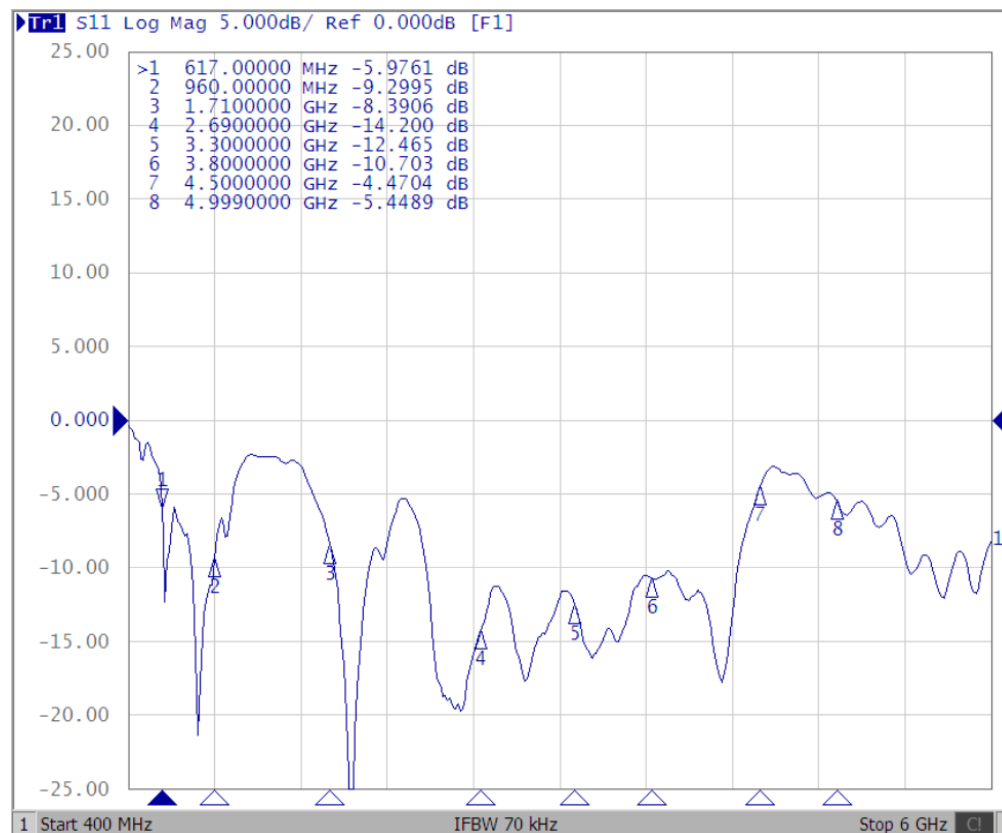
Return Loss (1/2)

➤ Ant 0 S11



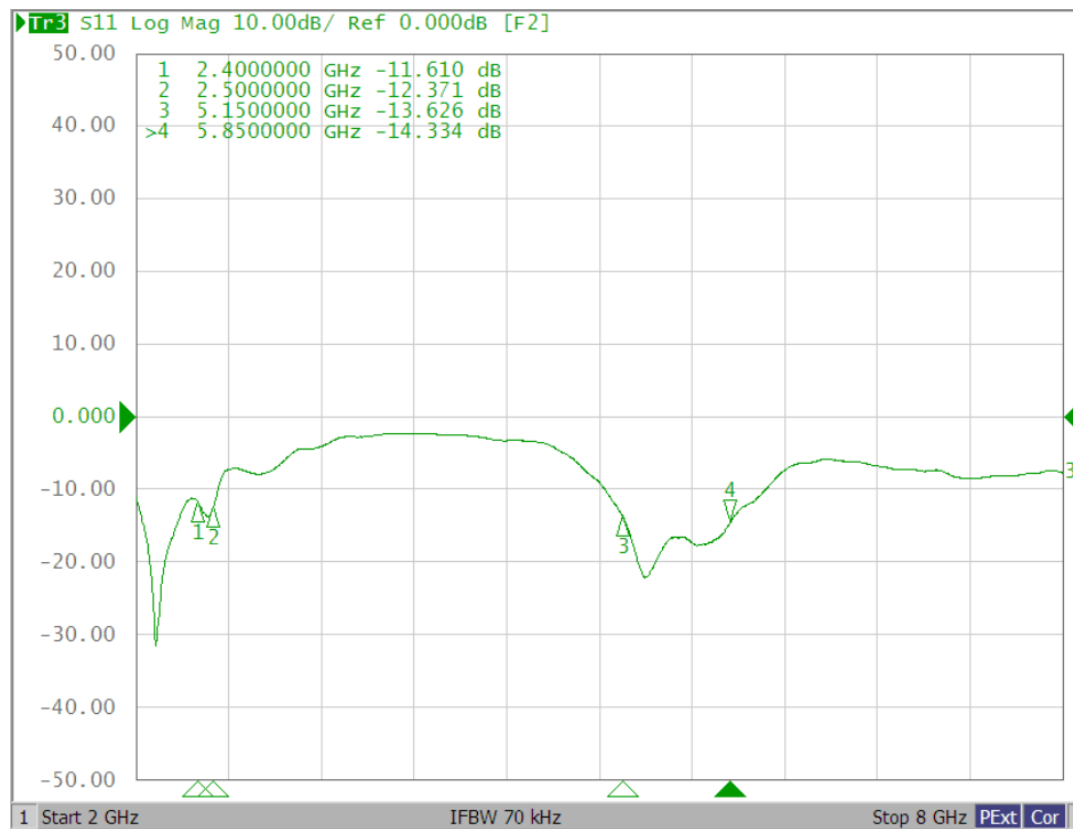
Return Loss (2/2)

➤ Ant 2 S11



Return Loss (2/2)

➤ Ant Wi-Fi S11



UHB Gain

Gain	BAND		FREQ	ANT0(Tx1)	ANT2(Tx0)
UHB	n48	TDD	3550	1.98	3.96
			3625	2.32	3.77
			3699	2.96	2.66
	n77	TDD	3300	0.07	3.11
			3750	3.13	2.47
			4200	2.59	3.17

Unit : dB

UHB Efficiency

EFF.	BAND		FREQ	ANT0(Tx1)	ANT2(Tx0)
UHB	n48	TDD	3550	-3.56	-1.46
			3625	-2.99	-1.55
			3699	-2.73	-1.63
	n77	TDD	3300	-6.09	-1.98
			3750	-2.68	-1.72
			4200	-3.14	-1.86

Unit : dB

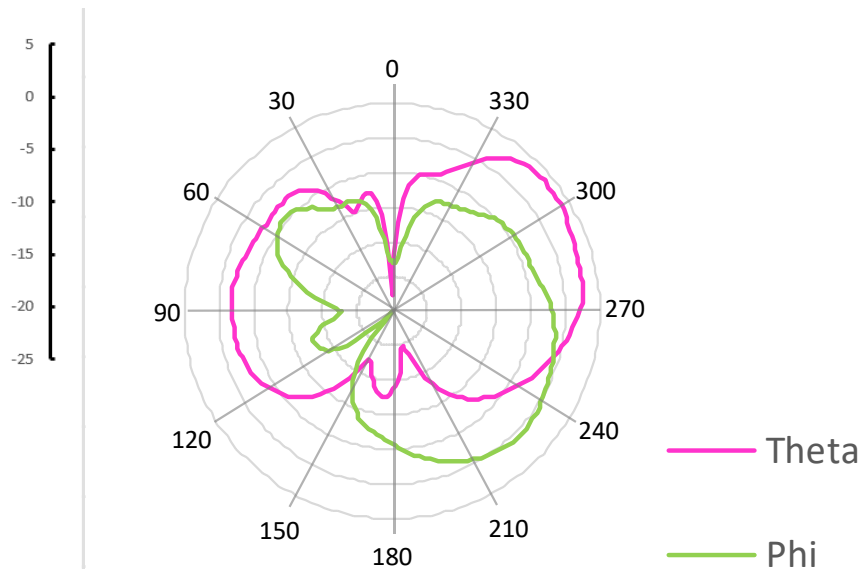
WIFI Gain / Efficiency

Frequency (MHz)	WIFI(dB) Gain	WIFI(dB) EFF.
2400	3.53	-3.06
2450	3.08	-2.73
2500	2.27	-3.12
5150	0.95	-3.10
5350	2.29	-2.46
5470	3.03	-2.20
5725	2.34	-2.49
5850	2.37	-2.52

Unit : dB

5G sub6 2D Pattern

➤ n48 3550 MHz Tx0

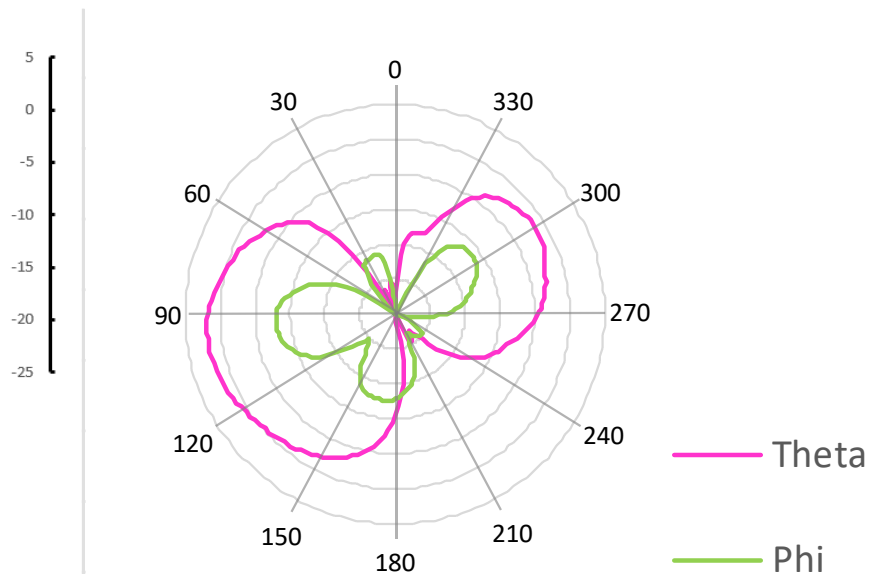


Peak Gain	Theta	Phi
3550 MHz	3.96	0.78

Unit : dB

5G sub6 2D Pattern

➤ n48 3550 MHz Tx1

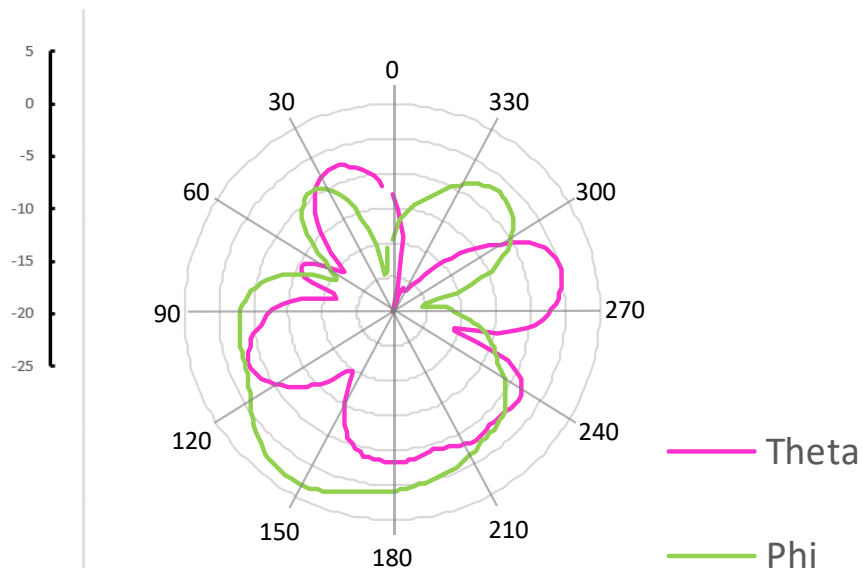


Peak Gain	Theta	Phi
3550 MHz	1.98	-7.9

Unit : dB

5G sub6 2D Pattern

➤ n77 4200 MHz Tx0

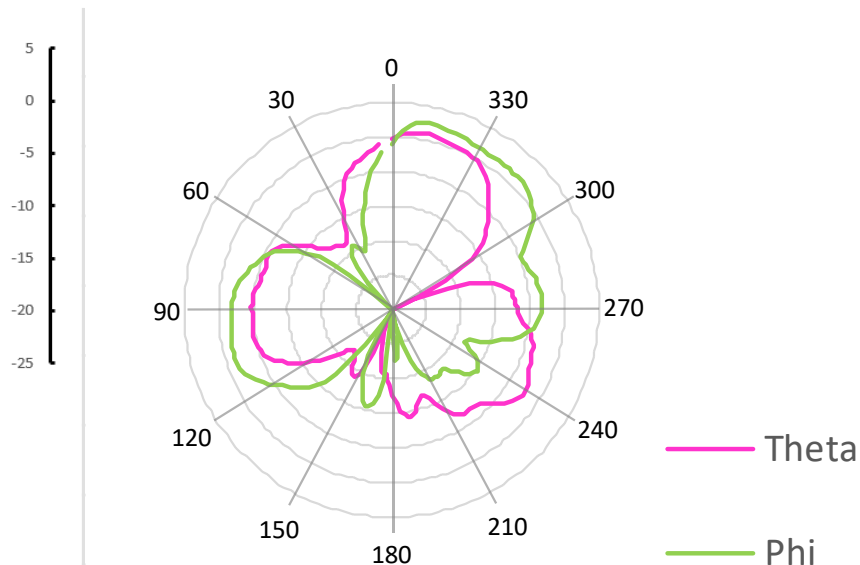


Peak Gain	Theta	Phi
4200 MHz	0.12	3.17

Unit : dB

5G sub6 2D Pattern

➤ n77 4200 MHz Tx1

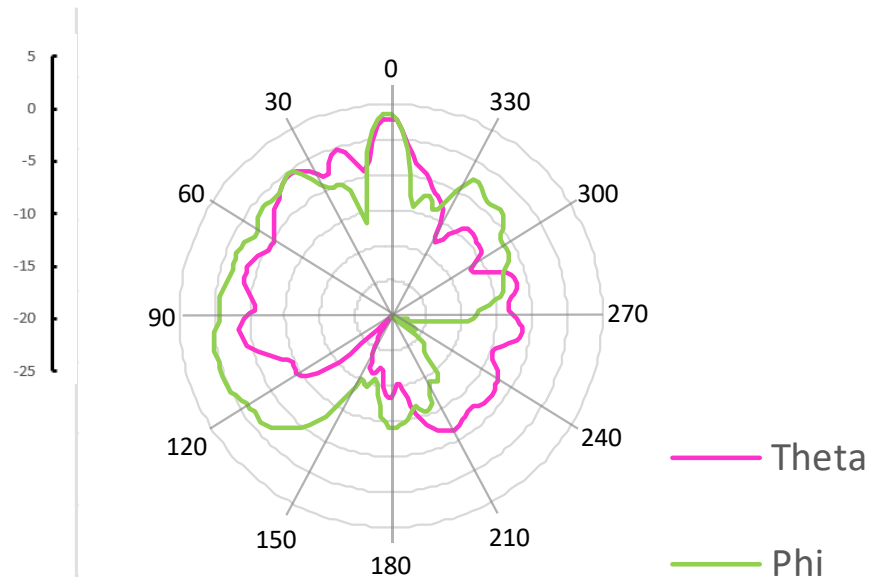


Peak Gain	Theta	Phi
4200 MHz	0.92	2.59

Unit : dB

Wi-Fi 2D Pattern

➤ 2400 MHz

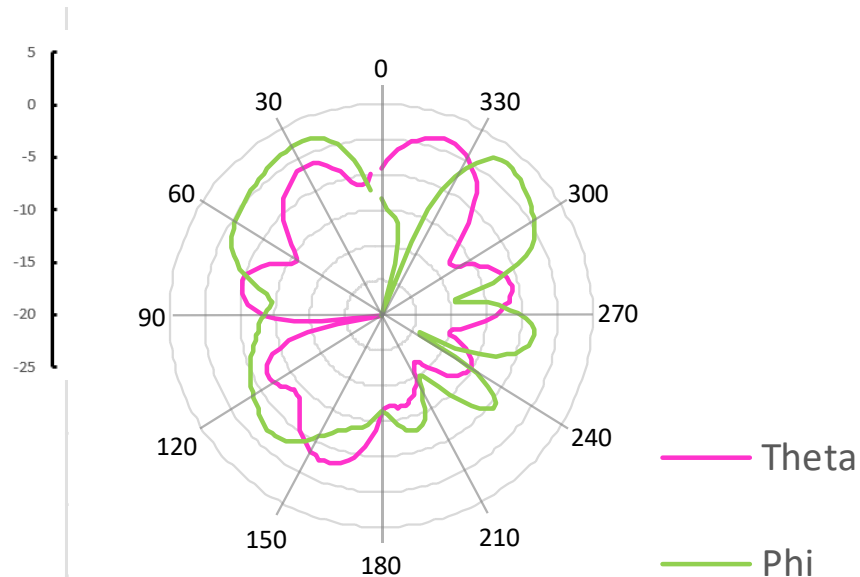


Peak Gain	Theta	Phi
2400 MHz	3	3.53

Unit : dB

Wi-Fi 2D Pattern

➤ 5470 MHz

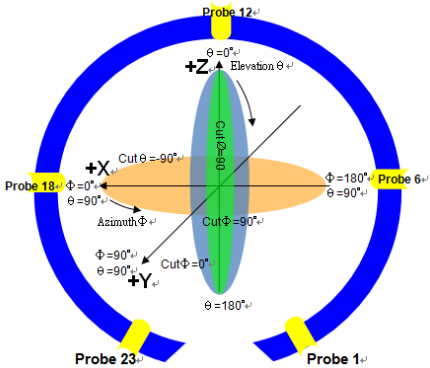
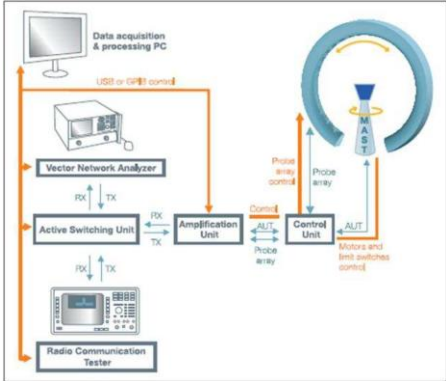


Peak Gain	Theta	Phi
5470 MHz	1.6	3.03

Unit : dB

Antenna Vendor Info & Measurement Setup

- Antenna Vendor: Pegatron
- Test Date: 20230503
- Test Engineer :Pan Li
- Measurement Setup:
 - Reflection Coefficient Measurement:
 1. Network Analyzer (Keysight Agilent E5071C)
 2. Setup:
 - calibrate the Network Analyzer by one port calibration using 85033E calibration kit.
 - connect the antenna under test to the Network Analyzer.
 - measure the S11 (return loss)& S12(isolation)
 - Pattern & Gain measurement:
 1. Satimo chamber (SG24)
 2. Satimo program (wave studio)
 3. system overview :
 - Test Item
 1. Antenna passive test 400MHz~6GHz



Description	Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
OTA Chamber	Satimo	SG24	MVG/HKG0147S	2022/12/15	2023/12/15
Network Analyzer	Keysight	E5071C	MY46212481	2023/1/10	2024/1/10