

*Not first, but best !!!*

# UDC-2400MAP Setting Manual

UTSOL co., LTD.



## Warning

### Information to User

This equipment has been tested and found to comply with the limits for a Class B digital device, Pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio Frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### FCC WARNING:

This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

### FCC compliance Information

This device complies with part 15 of FCC Rules.

Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received.

Including interference that may cause undesired operation.

## **UDC-2400MAP Specification**

<b>No.</b>	<b>Items</b>	<b>Specifications</b>
2-1	CASE-	ABS
2-2	PCB	FR4 T=1.2mm
2-3	Connector-Wafer	15001WR-08 1.5mm Pitch - 8Pin
2-4	Connector-Wafer	15001WR-06 1.5mm Pitch - 6Pin
	Connector-Wafer	20037WR-02 2.0mm Pitch – 2Pin
2-5	Antenna	PCB Pattern Antenna
2-6	Operating Temperature	-20°C ~ +50°C
2-7	Operating Humidity	< 50°C 95%RH
2-8	Operating Indicator Light	Blue, Red LED 3216(Back fire Type)
2-9	Weight	Under 130g ( the stand exclusion )
2-10	Dimension	Under 74 x 114 x 27.5mm(W x H x D)

## **UDC-2400MAP Function**

<b>No.</b>	<b>Items</b>	<b>Specifications</b>
3-1	Communication Frequency	RF RX 2.4GHz
3-2	Sensor	X-Band Doppler Sensor
3-3	Power Consumption	Under 2W (DC 24V -> Under70mA )
3-4	Input	Motion Detect Signal
3-5	Output	RF TX, RS232C TX, PWM Signal(For LED Control)
3-6	RF Sensitivity	15 ~ 30m (360°)
3-7	Input Operating Voltage	The normal voltage : DC 12~48V Adapter available( 12, 48V )

## Contents

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5. Setting procedure at site
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# 1

## What is Setting

### **What is Setting:**

**You can set the dimmer factors by the communication**

**-Install the basic application**

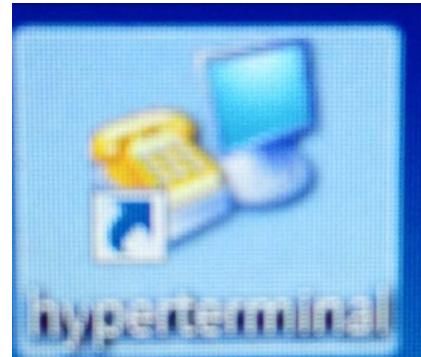
**-Pc operation system: Window xp**

**-Hyper Terminal: UART communication utility**

**-Usb2Uart driver: uart to usb communication utility**

# 2

## Compositions



UART Communication utility  
(Hyper terminal)



Install the cp2104 driver to pc  
Connect usb cable to pc

3

## How to connect Setting Header

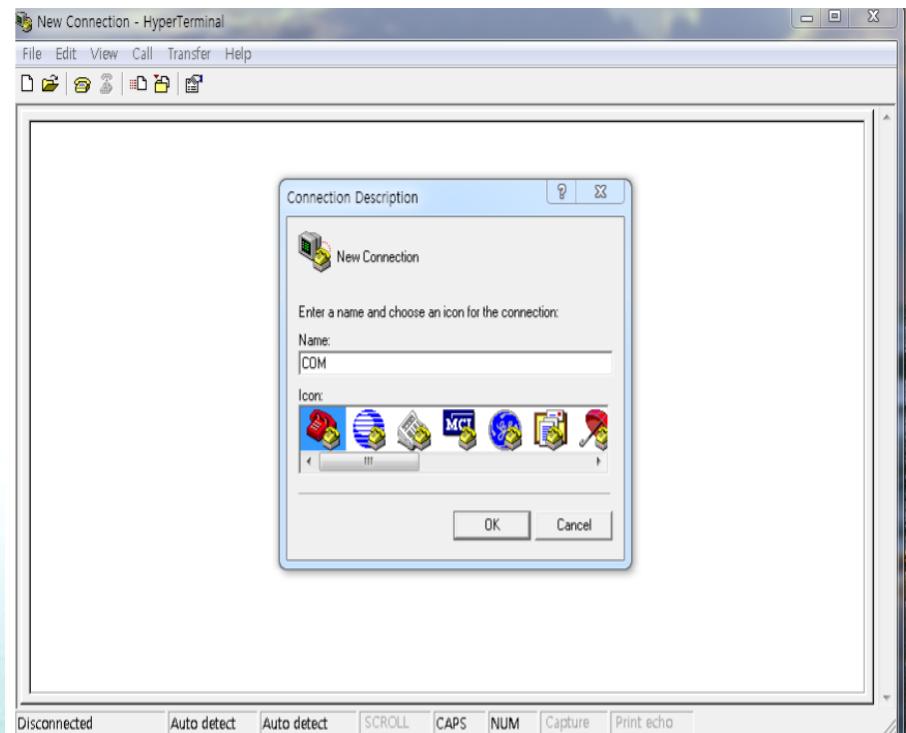
.Connect usb cable to pc usb port



# 3

## How to connect Setting Header

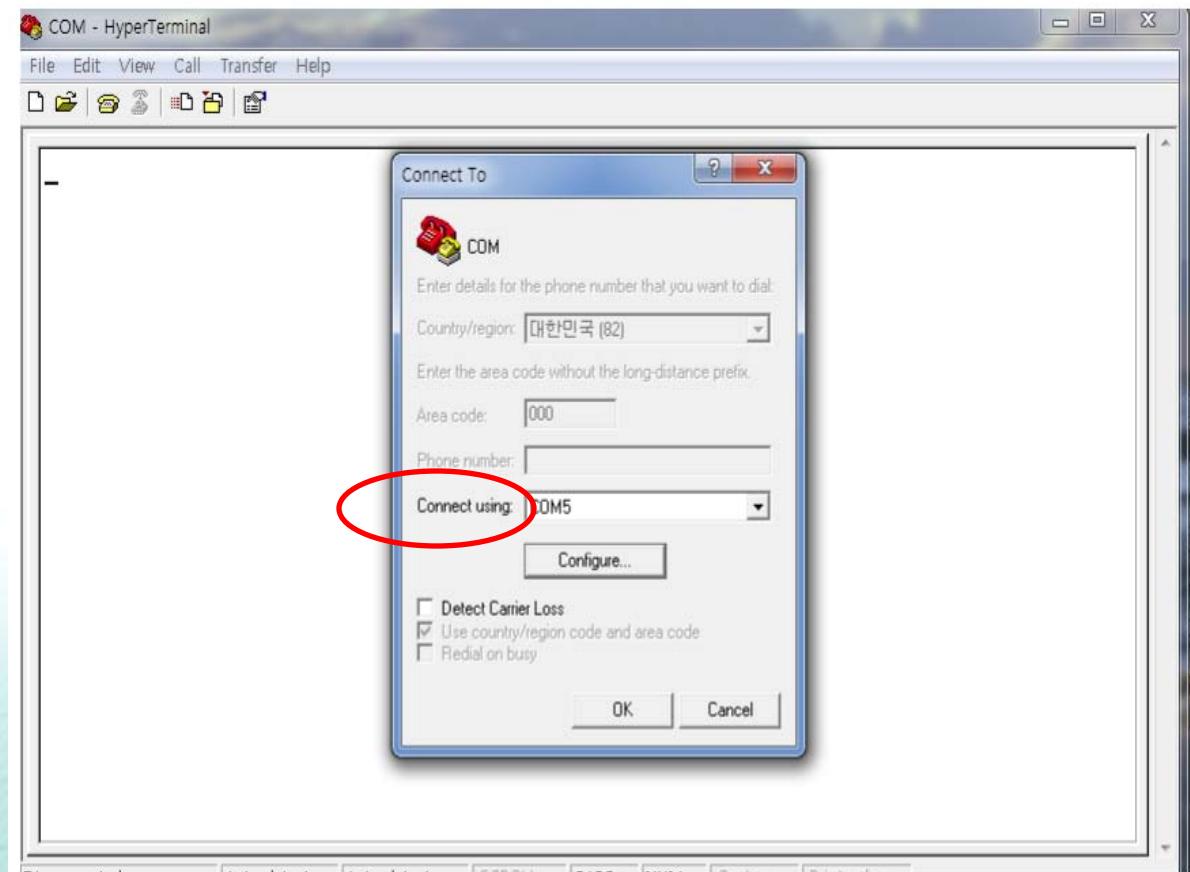
- .After connect setting header to pc, run the hyper terminal .
- .See hyper terminal display
- .Input your temporary name for port
- .Press Ok



# 3

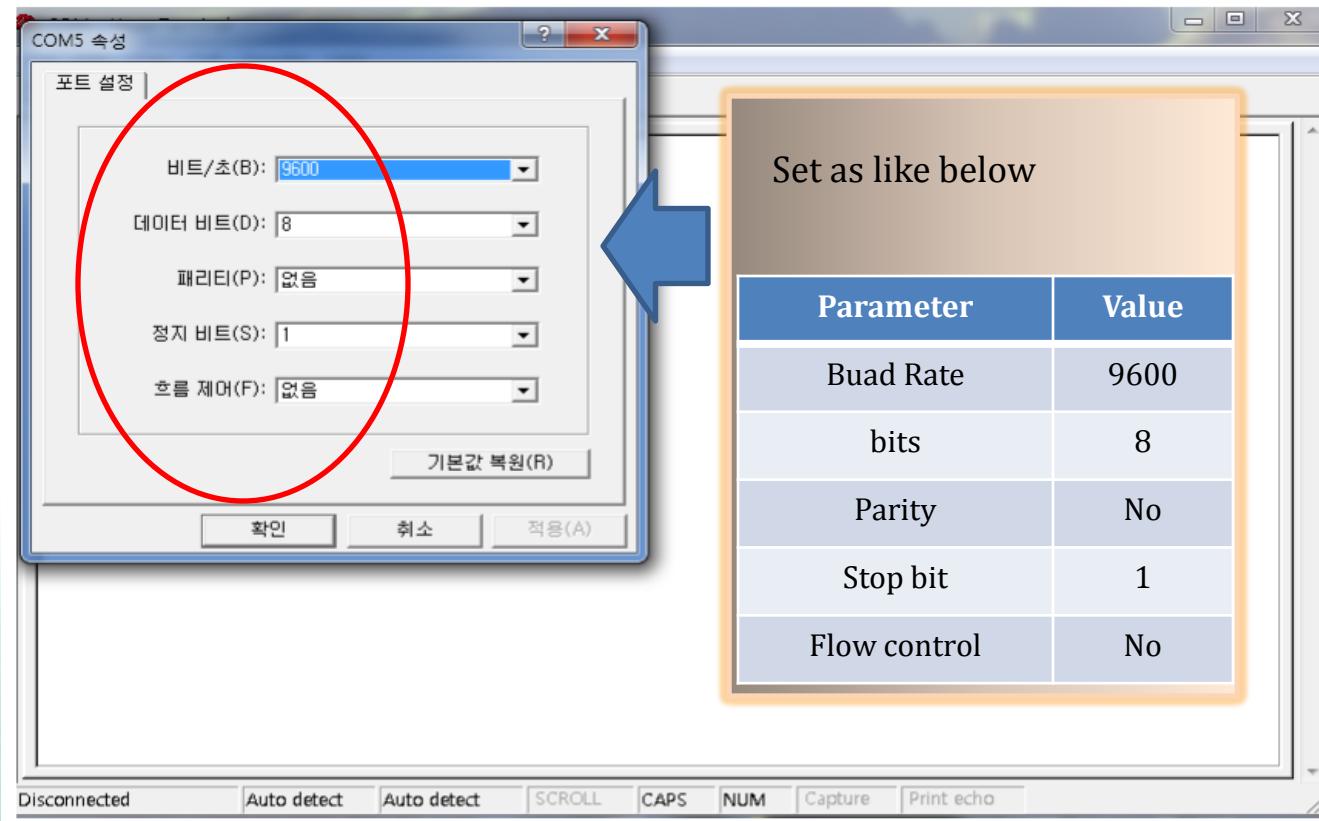
## How to connect Setting Header

- . Find the connecting port in connect using category
- . In configure, next page continue



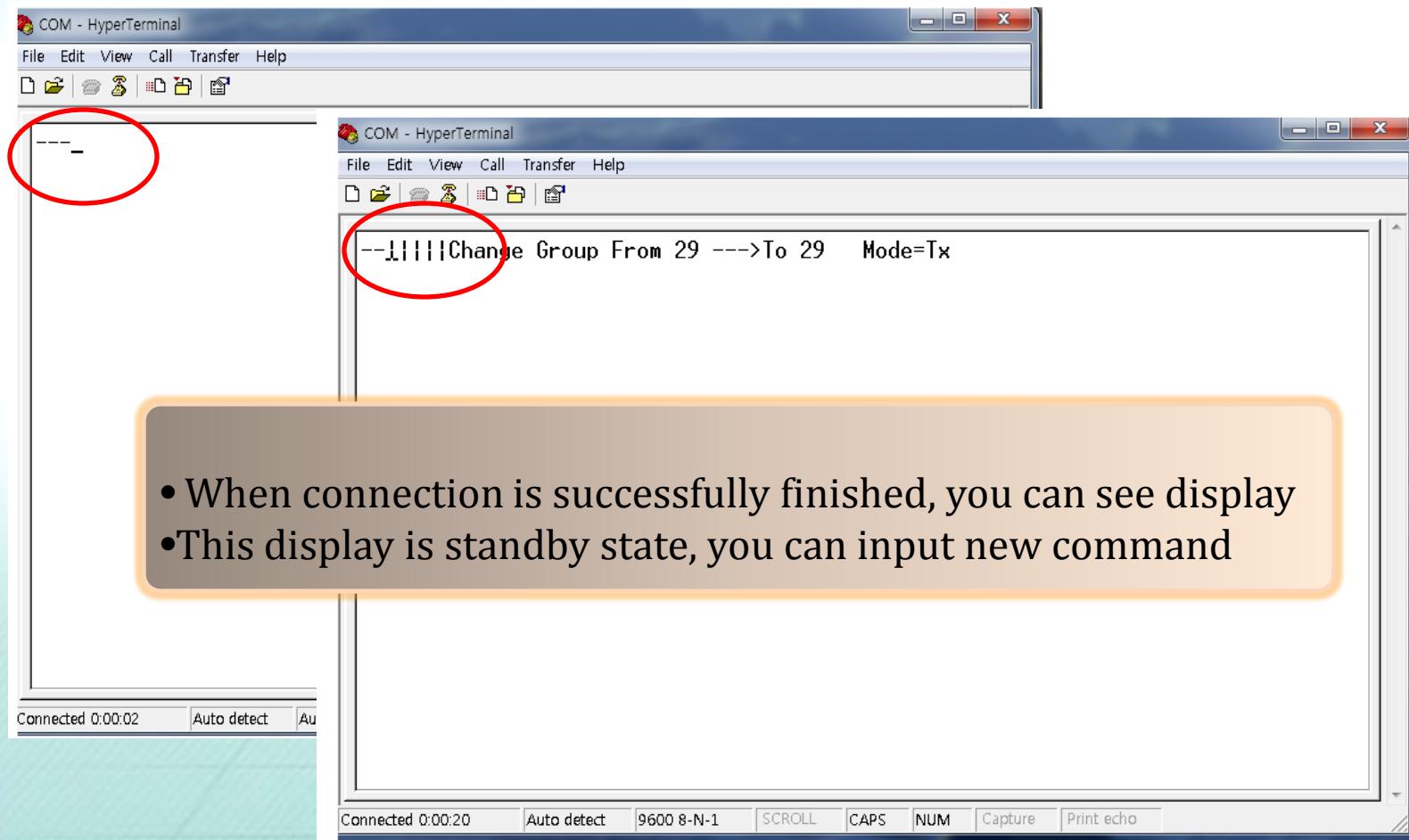
3

## How to connect Setting Header



# 3

## How to connect Setting Header



- When connection is successfully finished, you can see display
- This display is standby state, you can input new command

# 4

## Command of Setting

‘o’ or ‘O’:(Oigin) Meaning may be all same value in the site.

‘f’ or ‘F’:(Find) Meaning find the group id.

‘g’ or ‘G’:(Group) Meaning set what group to go change.

‘i’ or ‘I’:(input) Meaning input new role to dimmer and set new factors.

‘t’ or ‘T’:(Test) Meaning test the setting status in site after all dimmer set.

# 4

## Command of Setting

### 1.1 Command 'O'

Item	Value	explain
RF_DIM_HIGH	99	<b>High (0~99)</b>
RF_DIM_LOW	5	<b>Low(0~99)</b>
RF_DIM_TIME	10	<b>Dim time(sec)</b>
RF_DIM_TYPE	1	<b>Type: 0, 1</b>

- . High: There is moving, Lamp is max brightness value,
- . Low: There is no moving, Lamp is min brightness value after Dim time
- . Type : 0 → immediately go from max to min,  
1 → slow go from max to min.

## 1. 2 How to input 'O' command

- 1) If you press 'o' or 'O' in standby state.
- 2) you can input parameters, step by step.
- 3) when you finished to input one parameter, then press space bar, you can go to next parameter.
- 4) All finished to input, go to standby state automatically/

```
| RF_DIM_HIGH = 99
| RF_DIM_LOW = 5
| RF_DIM_TIME = 10
| RF_DIM_TYPE = 1
```

## 2.1 Command 'F'

Use to find what group id is set to target Dimmer.

Find success

Current Dimmer Group id

Find Group OK!!!! id= 2

|||||Change Group From 2 --->To 2 Mode=Tx

## 2. 2 How to input 'F' command

- . Attach the setting header to Dimmer as possible as near.
- . **In standby state, press 'f' or 'F', Finally rf setting header issue the result**

```
-----  
-fFor Default Search, press space bar=Tx  
Tx.Gid=12
```

## 3.1 Command 'G'

- Set the new group id to be changed

Change\_GROUPID = 9



New group id to be changed

```
RF_PRIV_ID    = 1
RF_RX_TX      = Tx
RF_GROUPID    = 2
RF_DIM_HIGH   = 50
RF_DIM_LOW    = 1
RF_DIM_TIME   = 10
RF_DIM_TYPE   = 1
Change_GID    = 9
Sub_GROUPID   = 3
|-Change Group From 2 --->To 9    Mode=Tx
```

## 3. 2 How to input 'G' Command

- .Press 'g' or 'G' , group number and space bar in standby state.
- . Setting header display as like below that is now ready to change the group id 2 to 9.

```
RF_PRIV_ID = 1
RF_RX_TX = Tx
RF_GROUPID = 2
RF_DIM_HIGH = 50
RF_DIM_LOW = 1
RF_DIM_TIME = 10
RF_DIM_TYPE = 1
Change_GID = 9
Sub_GROUPID = 3
|_Change Group From 2 -->To 9 Mode=Tx
```

## 4. Command 'I'

- . Press 'i' in the standby state, then display as like below.
- . Select one role to dimmer and input the number
- . Press space bar, then all parameters set to target dimmer now(all before commands set to setting header temporary)

```
rx=0, tx=1, srx=2, msrx=3 RF_RX_TX? =
```

```
RF_PRIV_ID = 1
RF_RX_TX = Tx
RF_GROUPID = 2
RF_DIM_HIGH = 50
RF_DIM_LOW = 1
RF_DIM_TIME = 10
RF_DIM_TYPE = 1
Change_GID = 9
Sub_GROUPID = 3
TxWait COMMAND_SETTING_ACK
```

role	value	Description
rx	0	Rx Only
tx	1	Tx(in Group, Master)
srx	2	Report sensor signal to Tx
msrx	3	t.b.d

## 4. 2 How to input 'I' Command

- in standby state, press 'I', then setting header display the screen to select dimmer role.
- then select the one role number, input the number and press space bar.
- Finally the target dimmer is changed the new parameters.
- This is mean that all before commands set the parameters to setting header temporary and ready to send the parameters to target dimmers.
- Finally the 'I' command can send the parameters from setting header to target dimmers.

```
RF_PRIV_ID    = 1
RF_RX_TX      = Tx
RF_GROUP_ID   = 2
RF_DIM_HIGH   = 50
RF_DIM_LOW    = 1
RF_DIM_TIME   = 10
RF_DIM_TYPE   = 1
Change_GID    = 9
Sub_GROUPID   = 3
TxWait COMMAND_SETTING_ACK
```

## 4

## Command 't' or 'T'

### . How to test group

- This is useful to test group when all dimmers are set to one site.
- This command transfer the default parameters to Tx of the to be tested group area
- In standby state, press 't', then display communication test mode, dimming test mode.
- If press 1, all same group id dimmers go to low level, so you can identify the dimmers position and can check the region.
- If you like to change some dimmer position, you have to change the dimmer group id
- If you finish the group test, press 'I' and role to tx(1), all parameters can be return to original.

Press Communication Test = 1, Dimming Test = 2

-----  
**Communication Test OK!!!!**  
-----

## 4

## Command 't' or 'T'

### . How to test Dimming

- This is useful to test dimming operation when all dimmers are set to one site.
- This command transfer the default parameters to Tx of the to be tested dimming operation
- In standby state, press 't', then display communication test mode, dimming test mode.
- If press 2, dim time is set 3sec that is easily see the sensor operation when there is no moving in 3sec
- Even though there is no moving after 3sec, dimming operation is not started, you have to check the sensor operation or setting status of dimmers.
- If you finish the group test, press 'I' and role to tx(1), all parameters can be return to original.

Press Communication Test = 1, Dimming Test = 2

-----  
**Communication Test OK!!!!**  
-----

# 5

## Setting procedure at site

1. Execute 'o' command to set the setting header for the group parameter.
2. Execute 'g' command to set the setting header for the group.
3. Execute 'f' command to fine the dimmer group id.
4. First Execute 'I' for all Rx dimmers in same group.
5. Second Execute 'I' for all SRx dimmers in same group.
6. Finally Execute 'I' for Tx and check blink led of Rxs and SRxs.
7. Execute the group test, if you like change group for some dimmers, change the group id for the dimmers.
8. Execute the dimming test, if there are some problems, you check the dimmers setting parameters.

# 6

## Important points

1. When attach the setting header to dimmer to be set, the other dimmer that is not set should be away from dimmer more than 3m or should be power off. And attach the setting header to target dimmer to be set as possible as closer.
2. When command 'f', 'I' or 't' is correctly finished, the target dimmer re-start from power on that mean the lamp off and go to on again. If when 'f', 'I' or 't' commands are transferred to target dimmer, the other lamp that is attached the other dimmer seems like to re-start, maybe the other dimmer received 'f', 'I', or 't' command from setting header also. Please watch carefully the other lamps behavior

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# Thank You !

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