

MK project Area 1 Camera specifications Documentation EN Blueprint

R3

Made for : Daifuku (Thailand) Ltd., Meiji (Thailand) Co.,Ltd.
By : TOMAS TECH CO.,LTD.



TOMAS TECH

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Revision History

Date	Version	File name	Details
21/Nov/2022	R1	MK project Area 1 Camera specifications Documentation EN Blueprint	First edition
01/Mar/2023	R2	MK project Area 1 Camera specifications Documentation EN Blueprint	Second edition 
02/Sep/2023	R3	MK project Area 1 Camera specifications Documentation EN Blueprint	Third edition 

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2. Overall configuration diagram
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6. Sign off

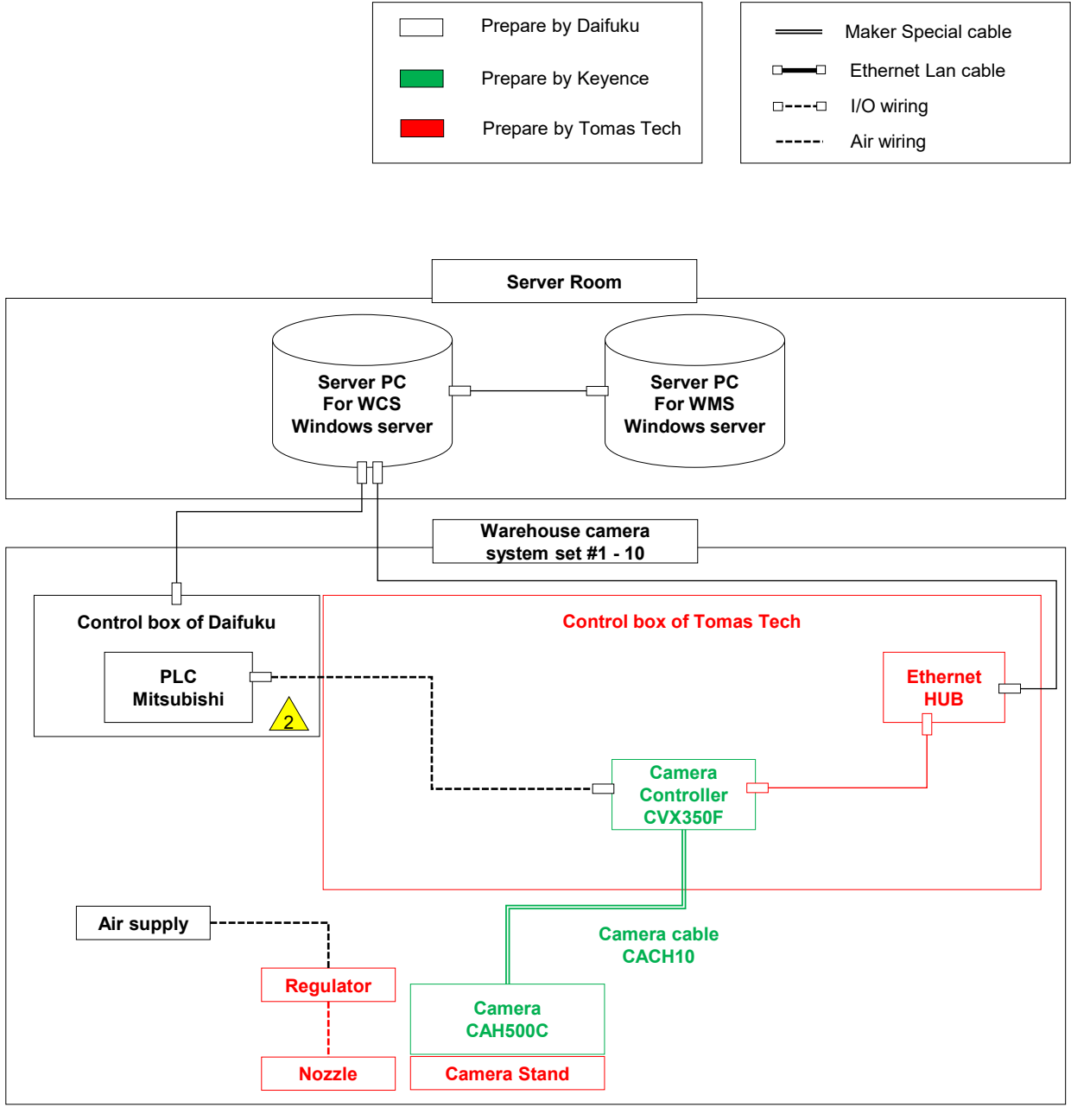
1. Overview

A Keyence camera takes a picture of a package being transported on a conveyor. Each information is stored on Daifuku's server via Ethernet.

2. Overall configuration diagram

Overall configuration diagram image #1-#10 (Hardware configuration)

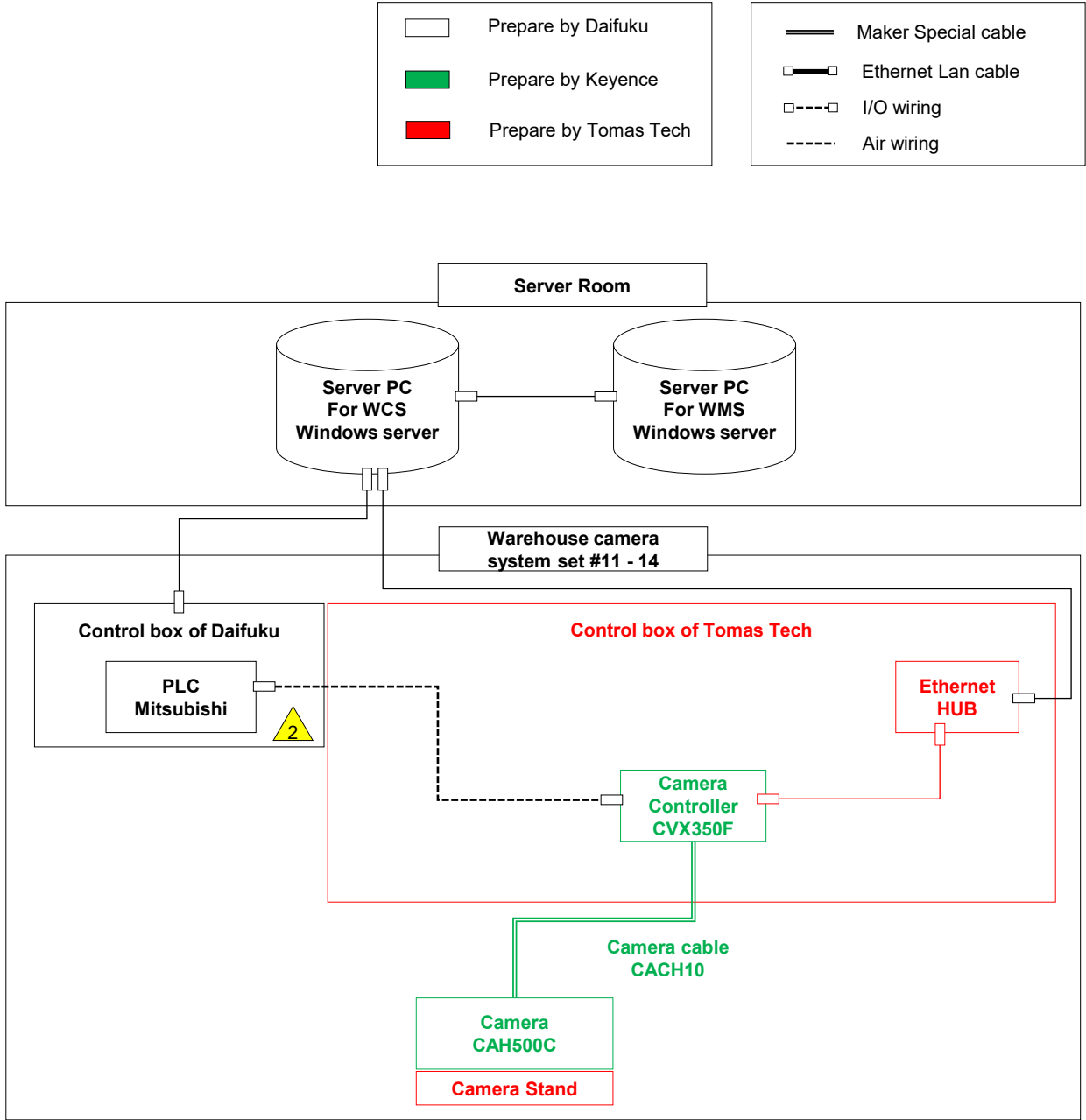
#	Item	Qty	IP adress	Preparation By
1	Server PC for WMS Windows server	1		Daifuku
2	Server PC for WCS Windows server	1		Daifuku
3	PLC Mitsubishi	1		Daifuku
4	Camera Controller CVX350F	14		Keyence
5	Camera CAH500C	14		Keyence
6	Camera cable CACH10	14		Keyence
7	Control box of Daifuku	1		Daifuku
8	Camera Stand	14		Tomas
9	Ethernet HUB	14		Tomas
10	Control box of Tomas Tech	14		Tomas
11	Air nozzle 1/4M TF-F 42-16-010 PPS	10		Tomas
12	Air regulator AWM20-01BE-1	10		Tomas
13				
14				



2. Overall configuration diagram

Overall configuration diagram image #11-#14 (Hardware configuration)

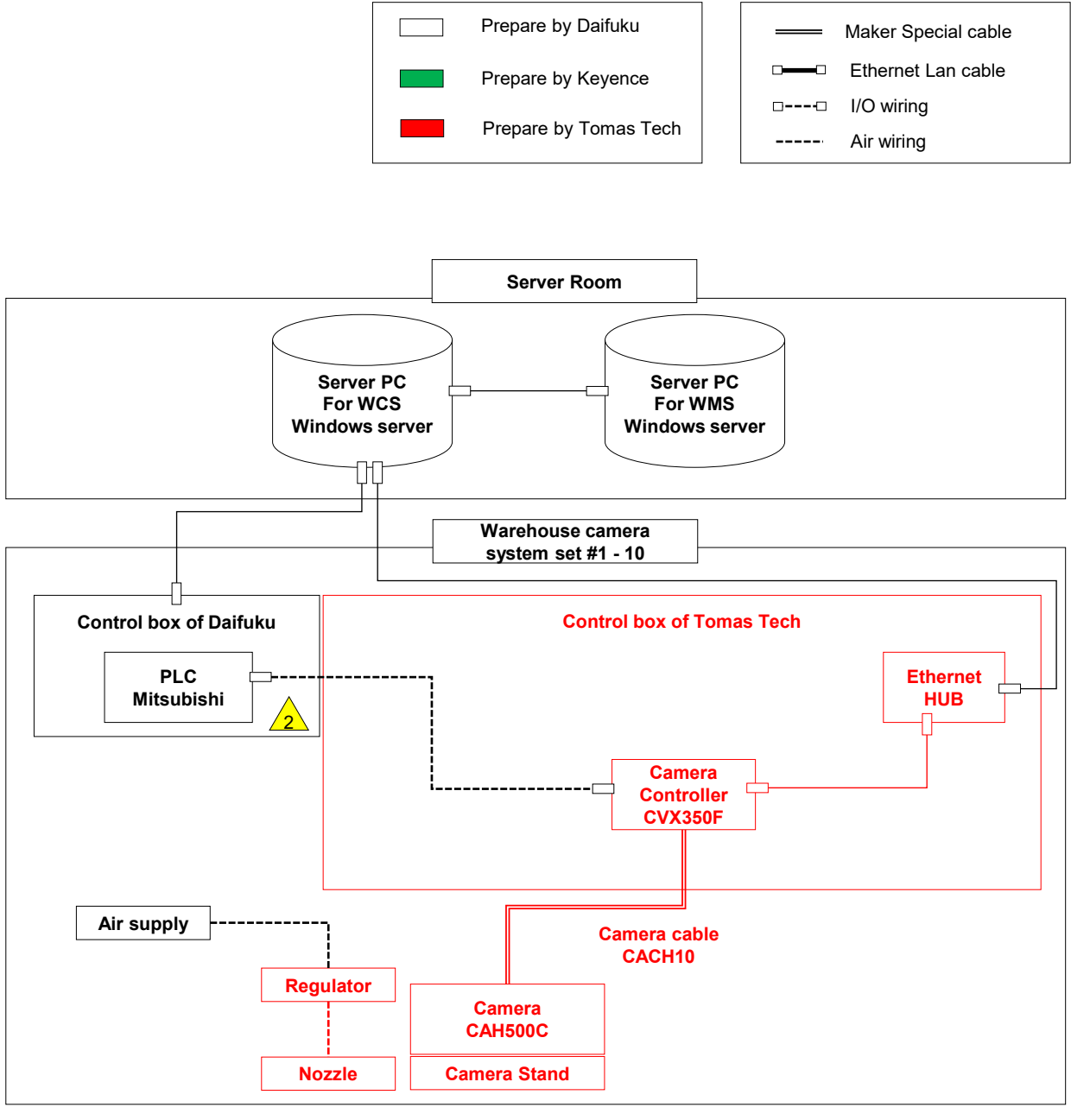
#	Item	Qty	IP adress	Preparation By
1	Server PC for WMS Windows server	1		Daifuku
2	Server PC for WCS Windows server	1		Daifuku
3	PLC Mitsubishi	1		Daifuku
4	Camera Controller CVX350F	14		Keyence
5	Camera CAH500C	14		Keyence
6	Camera cable CACH10	14		Keyence
7	Control box of Daifuku	1		Daifuku
8	Camera Stand	14		Tomas
9	Ethernet HUB	14		Tomas
10	Control box of Tomas Tech	14		Tomas
11				
12				
13				
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2. Overall configuration diagram

Overall configuration diagram image #1-#10 (Installation configuration)

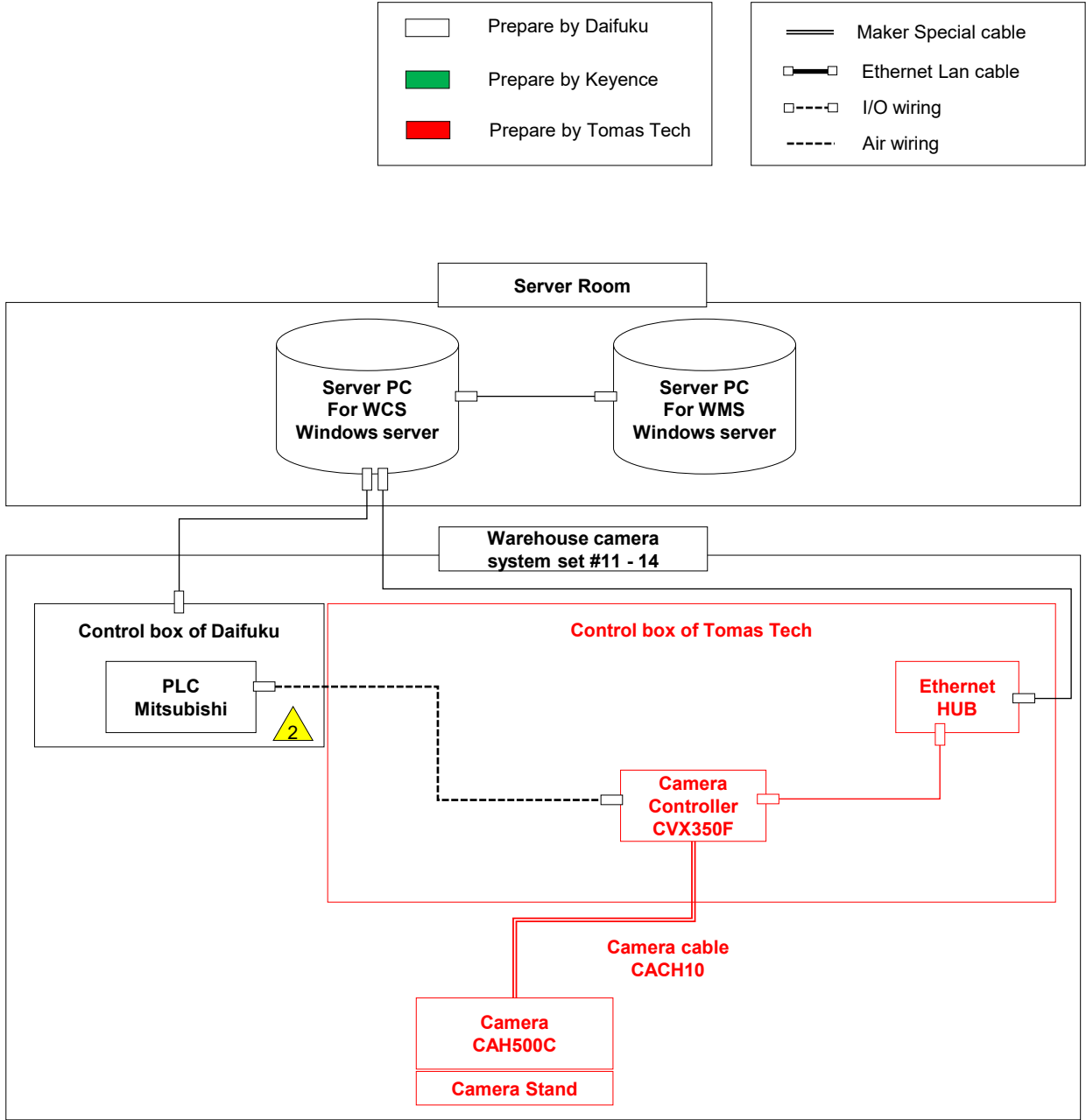
#	Item	Qty	IP adress	Preparation By
1	Server PC for WMS Windows server	1		Daifuku
2	Server PC for WCS Windows server	1		Daifuku
3	PLC Mitsubishi	1		Daifuku
4	Camera Controller CVX350F	14		Keyence
5	Camera CAH500C	14		Keyence
6	Camera cable CACH10	14		Keyence
7	Control box of Daifuku	1		Daifuku
8	Camera Stand	14		Tomas
9	Ethernet HUB	14		Tomas
10	Control box of Tomas Tech	14		Tomas
11	Air nozzle 1/4M TF-F 42-16-010 PPS	10		Tomas
12	Air regulator AWM20-01BE-1	10		Tomas
13				
14				



2. Overall configuration diagram

Overall configuration diagram image #11-#14 (Installation configuration)

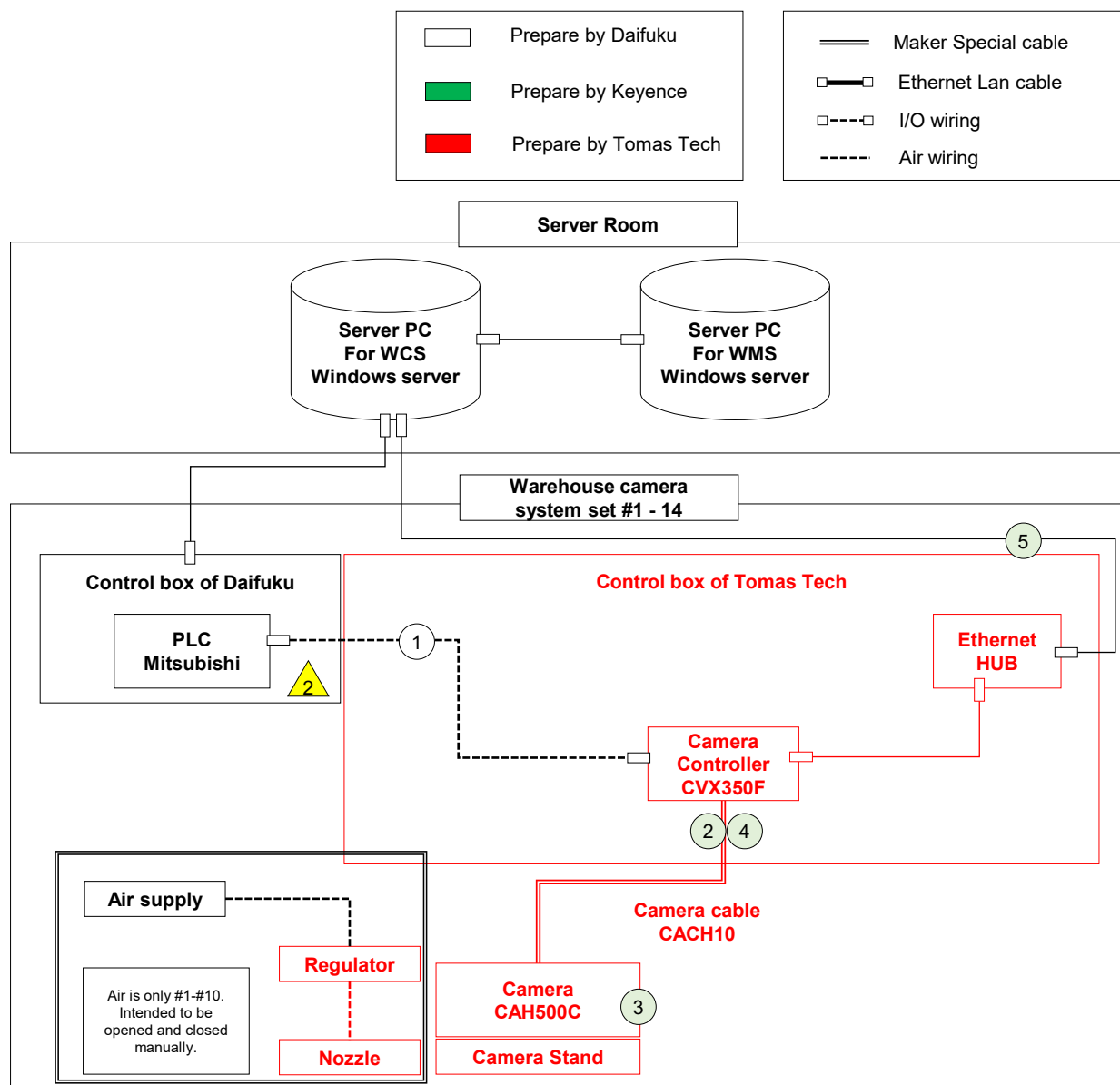
#	Item	Qty	IP adress	Preparation By
1	Server PC for WMS Windows server	1		Daifuku
2	Server PC for WCS Windows server	1		Daifuku
3	PLC Mitsubishi	1		Daifuku
4	Camera Controller CVX350F	14		Keyence
5	Camera CAH500C	14		Keyence
6	Camera cable CACH10	14		Keyence
7	Control box of Daifuku	1		Daifuku
8	Camera Stand	14		Tomas
9	Ethernet HUB	14		Tomas
10	Control box of Tomas Tech	14		Tomas
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3. System functional specifications

System processing list

3



① Send trigger signal from FCC PLC Mitsubishi to Camera controller (FCC Mitsubishi PLC → Camera controller)
Communication method: I/O

② Send the shooting signal from Camera Controller CVX350F to Camera CAH500C (Camera Controller CVX350F → Camera Controller CAH500C)

Communication method: Keyence CV communication

③ Shooting

④ Send image data from Camera CAH500C to Camera Controller CVX350F (Camera Controller CVX350F → Camera Controller CVX350F)

Communication method: Keyence CV communication

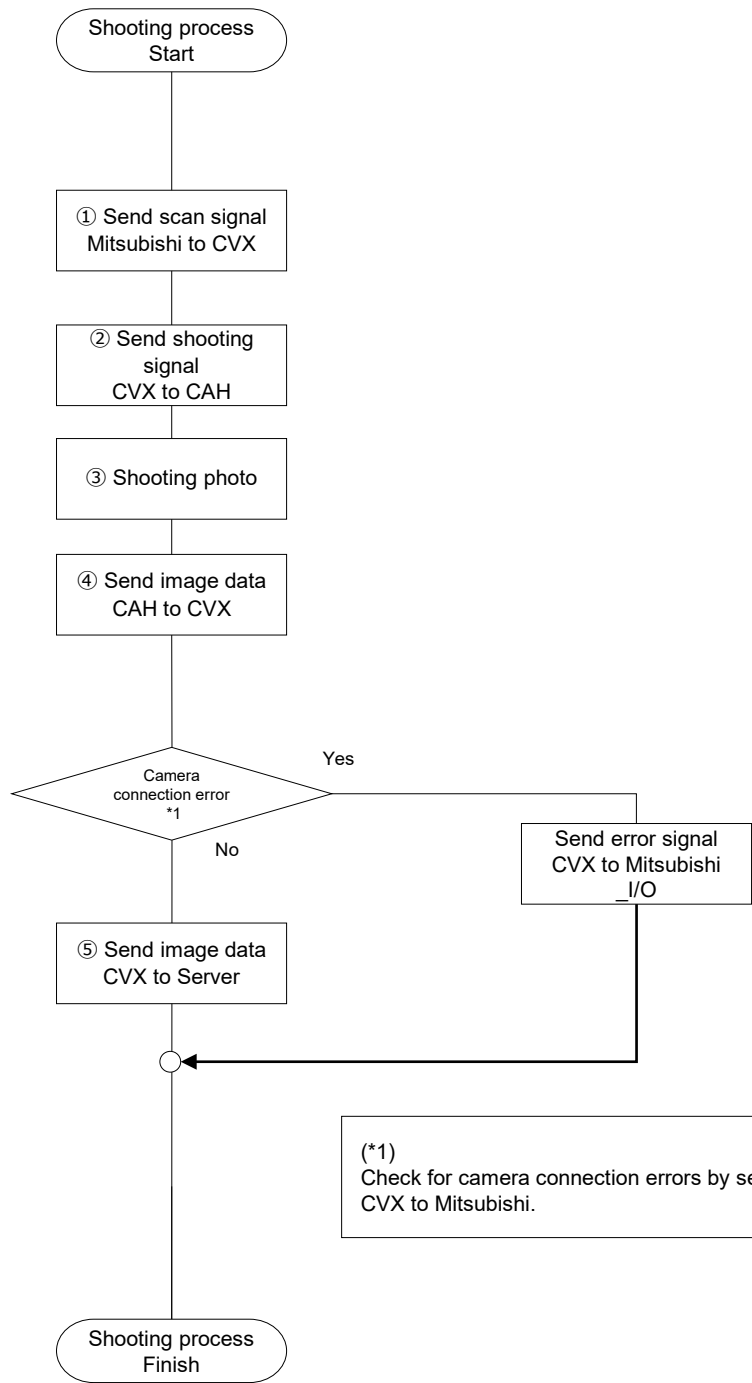
⑤ Send image data from Camera Controller CVX350F to Server PC for WCS Windows server

(Camera Controller CVX350F → Server PC for WCS Windows server) Communication method: FTP

3. System functional specifications

System flowchart for shooting process

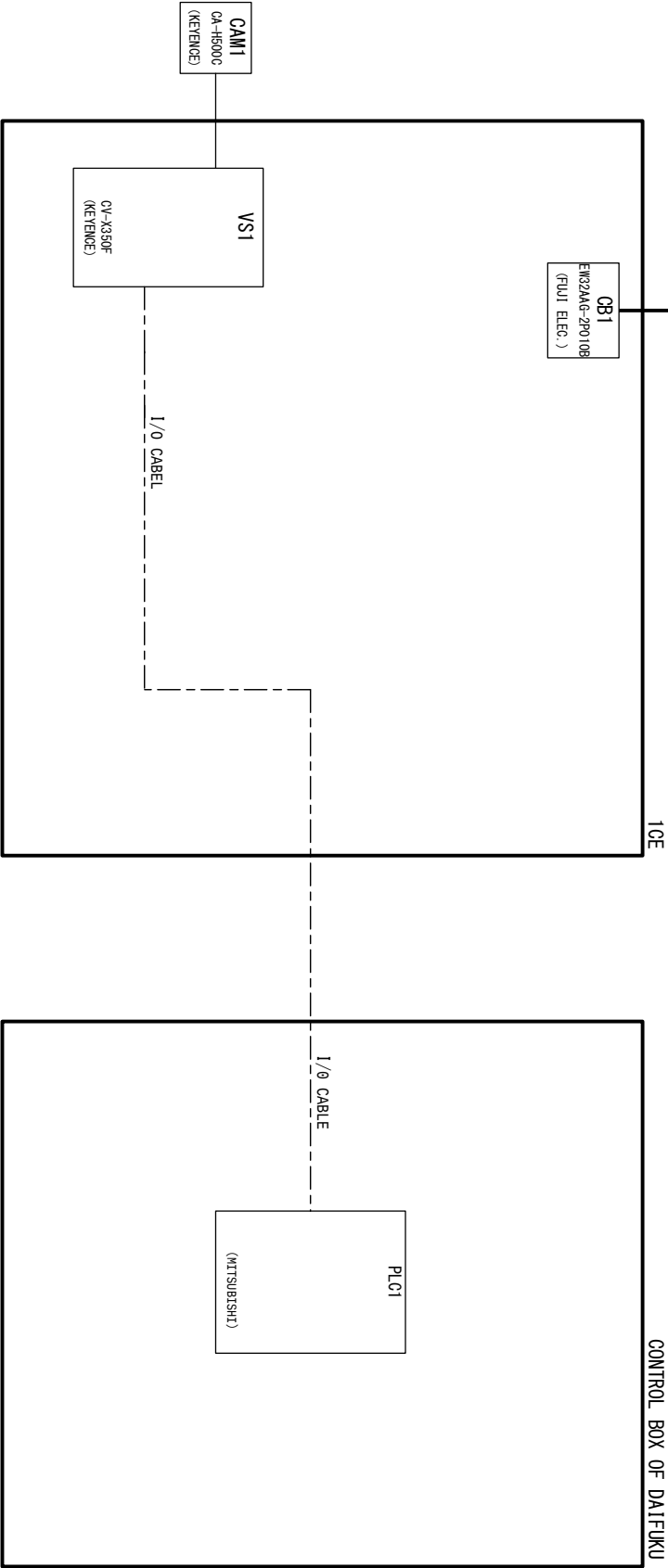
3



4. Drawing

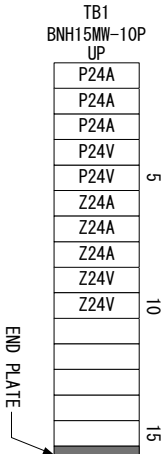
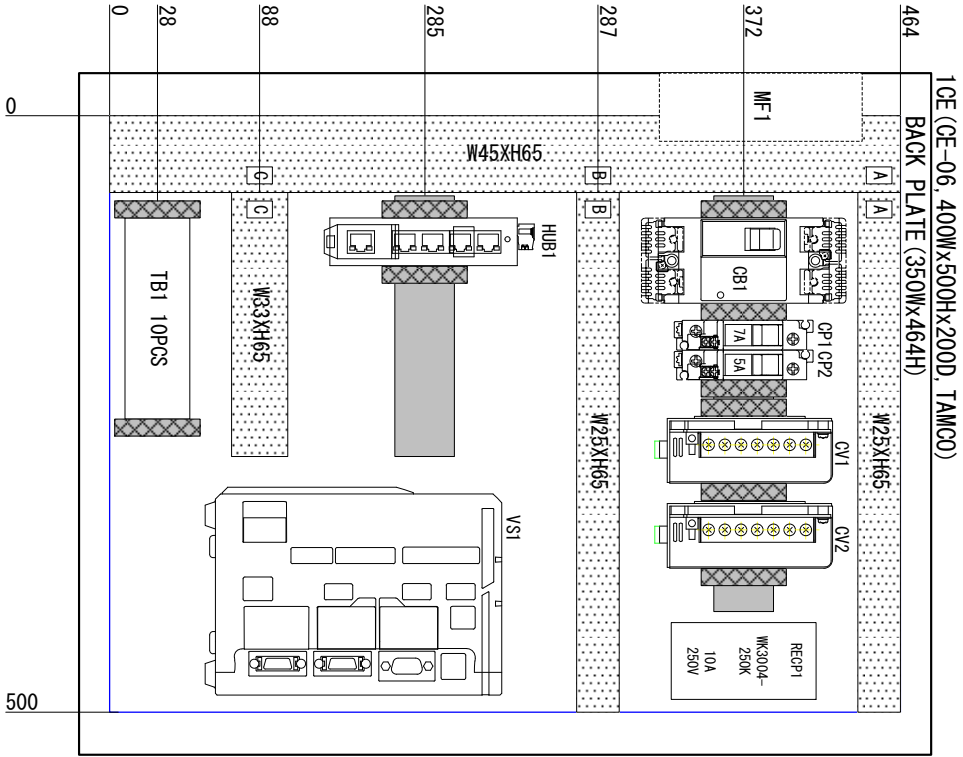
POWER SPECIFICATION	AC_ 220 _V_ 50 _Hz
SPEC. FRAME BREAKER	_____ 32 _____A
RATE CAPACITY	_____ 10 _____A

1Ø AC220V, 50HZ



ASSY NO.		
TRACK TIME		_____S
PLC		-
USE TOOL	VS1	CV-X SERIES TERMINAL
	NAME	MODEL
SUPPLIES LIFE		LIFE

PART NAME						PART NO.						ASP	SHEET
SYSTEM BLOCK DIAGRAM						TOMAS TECH CO., LTD.						CODE	1
APPROVED	CHECKED	CHECKED	DESIGNED	DRAWN		MKP112022-AA-0000-TMT						Z	1
			10/2022	10/2022		MKP112022-EE-5000-TMT							1
			SUWACHET	SUWACHET		REMARK						SCALE	
						MK PROJECT AREA 1 CAMERA UNIT							



PART NAME					PART NO.					ASP	SHEET
ICE LAYOUT					TOMAS TECH CO., LTD.					CODE	1 / 2
APPROVED	CHECKED	CHECKED	DESIGNED	DRAWN	REMARK					Z	SCALE
			10/2022	10/2022	MK P112022-AA-0000-TMT						
			SUWACHET	SUWACHET	MK P112022-EE-8000-TMT						
					MK PROJECT AREA 1 CAMERA UNIT						

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31						
30						
29						
28		PFP-100N	DIN RAIL	3	OMRON	
27		BMS3	DIN RAIL STAND OFF	2	IDEC	
26		BMW7	MARK STRIP	2	IDEC	
25		BMW3	MARK STRIP END	2	IDEC	
24						
23		BNC230	UPPER DUST COVER	1	IDEC	
22						
21						
20		BMH15MW	TERMINAL	10	IDEC	
19	TB1	BNE15W	END PLATE	1	IDEC	
18						
17						
16						
15						
14		PFP-M	STOPPER	8	OMRON	
13		BNL6	STOPPER	2	IDEC	
12		BNJ26FMPN10	JUMPER	5	IDEC	
11						
10		W25XH65	WIRE DUCT	1	PIYA	
9		W33XH65	WIRE DUCT	1	PIYA	
8		W45XH65	WIRE DUCT	1	PIYA	
7						
6						
5						
4						
3						
2						
1						
MARK	BRANCHED PART NO.	NOMINAL CODE	PART NAME	Q'TY UNIT	MAKER	NOTE

156						
155						
154						
153						
152						
151						
150						
149	ICE	CE-06	CONTROL BOX	1	TEMCO	
148						
147						
146						
145						
144						
143	RECP1	WK3004-250K	RECEPTACLE	1	PANASONIC	
142						
141						
140	VS1	CV-X350F	VISION CONTROLLER	1	KEYENCE	
139						
138						
134	HUB1	SFNB 5TX	SWITCHING HUB	1	PHOENIX	
133						
132	CP2	CP30FM-1P005	CIRCUIT PROTECTOR	1	FUJI ELEC.	
131	CP1	CP30FM-1P007	CIRCUIT PROTECTOR	1	FUJI ELEC.	
130						
129		EW32AAG-2P010B	CIRCUIT BREAKER	1	FUJI ELEC.	
128	CB1	BW9BTAA-S2	COVER BREAKER	1	FUJI ELEC.	
127						
126						
125						
124		PMF12	FILTER	1	PRIMUS	
123	MF1	PMV12. 00 220VAC/50Hz	MOTOR FAN KIT	1	PRIMUS	
122						
121						
120	CV2	S8FS-G150240D	POWER SUPPLY	1	OMRON	
119	CV1	S8FS-G050240D	POWER SUPPLY	1	OMRON	
118						
117						
116						
115						
114						
113						
112						
111						
MARK	BRANCHED PART NO.	NOMINAL CODE	PART NAME	Q'TY UNIT	MAKER	NOTE

PART NAME

TOMAS TECH CO., LTD.

DESIGNED
10/2022
SUNAGHET

DRAWN
10/2022
SUNAGHET

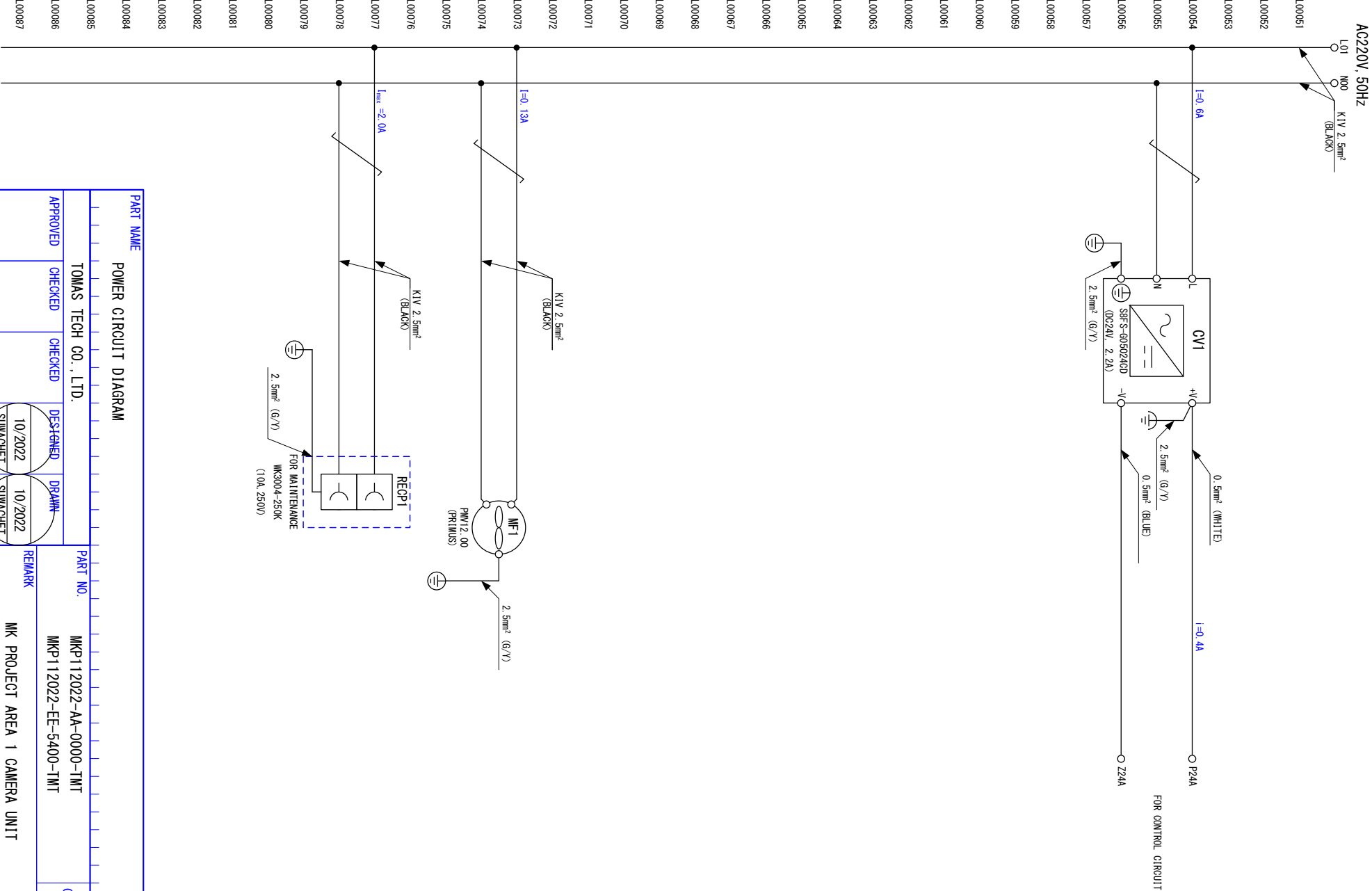
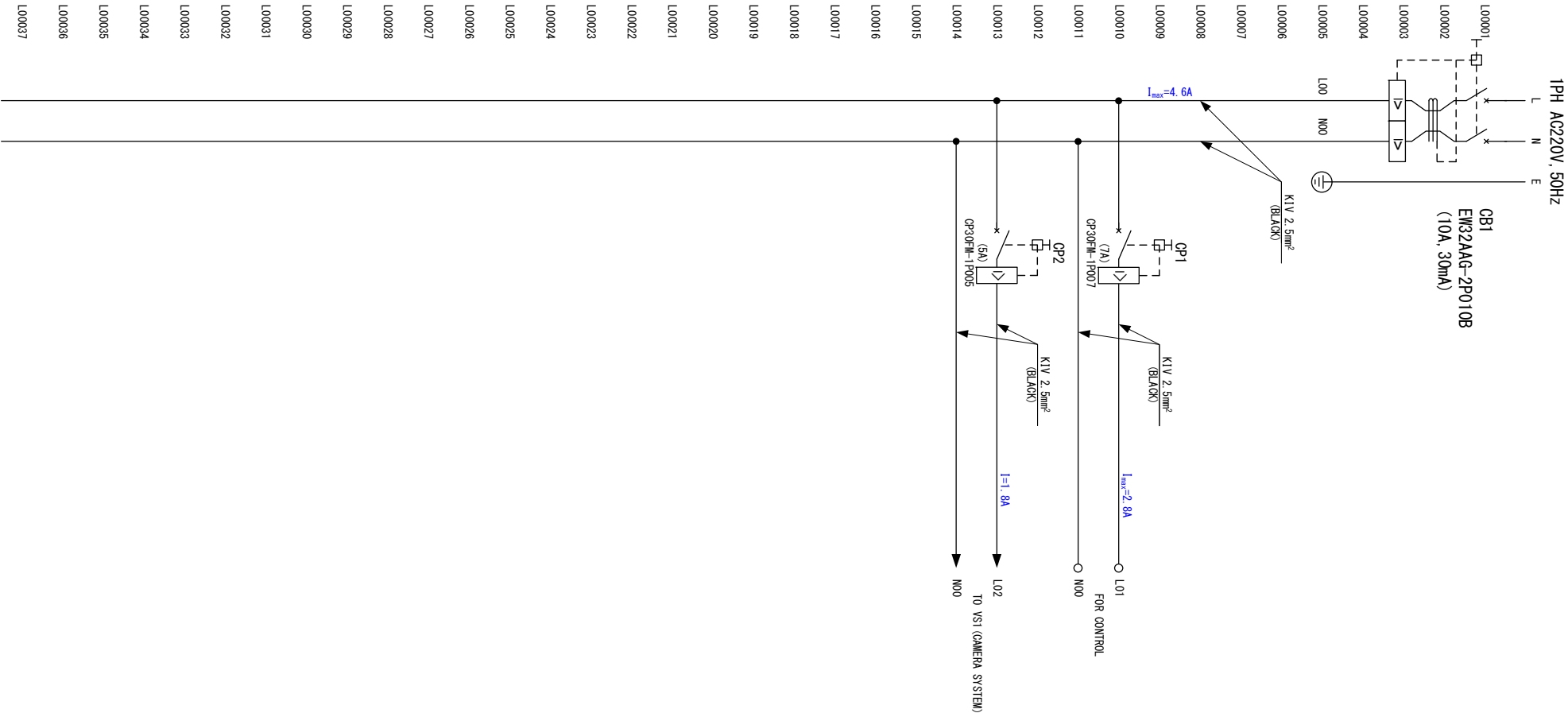
PART NO.
MKP112022-AA-0000-TMT
MKP112022-EE-8000-TMT

ASP
CODE
Z

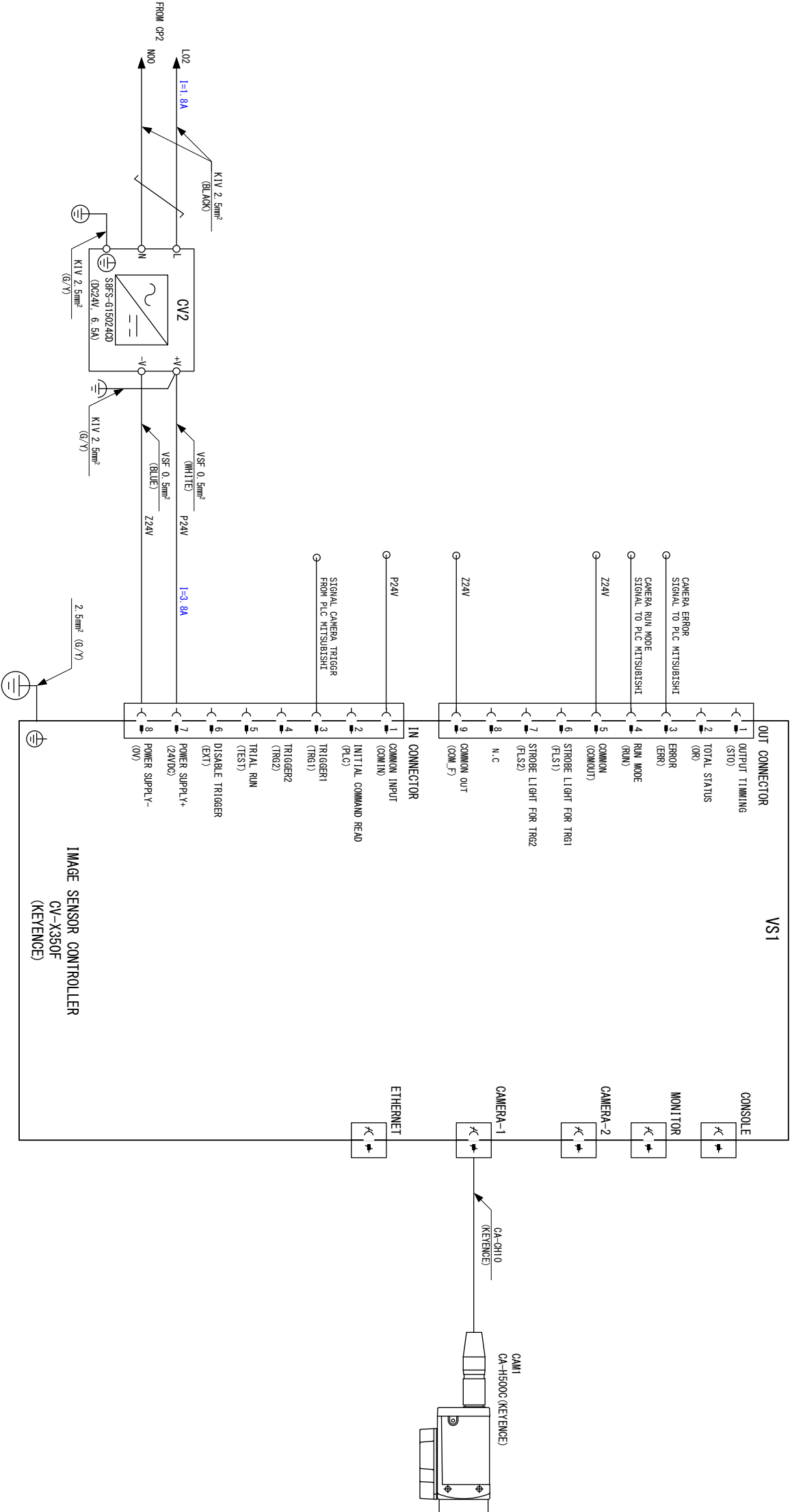
SHEET
2 / 2

REMARK
MK PROJECT AREA 1 CAMERA UNIT

SCALE
—



PART NAME				PART NO.			
POWER CIRCUIT DIAGRAM				MKP112022-AA-0000-TMT			
APPROVED	CHECKED	CHECKED	DESIGNED	MKP112022-EE-5400-TMT			
			SUWACHET	10/2022			
			SUWACHET	10/2022			
REMARK				MK PROJECT AREA 1 CAMERA UNIT			
				ASP CODE	1/3	SHEET	
						SCALE	



L02101
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L02126
L02127
L02128
L02129
L02130
L02131
L02132
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L02135
L02136
L02137

PART NAME									
CONTROL CIRCUIT DIAGRAM (MASTER ON CIRCUIT 11)									
TOMAS TECH CO., LTD.					PART NO.				
APPROVED	CHECKED	CHECKED	DESIGNED		DRAWN				
			10/2022		10/2022				
			SUNAGHET		SUNAGHET				
REMARK							ASP CODE	SHEET	
MK PROJECT AREA 1 CAMERA UNIT							Z	3 / 3	
							SCALE	—	

5. Q&A

#	Date	Question	By	Date	Answer	By

6. Sign off

We hereby acknowledge and agree the above-mentioned blueprint requirements.
Any changes required after the sign off for this blueprint will be addressed through the change request process.

Daifuku (Thailand) Ltd.

Sign: _____

Name: _____

Title: _____

Date: _____

Meiji (Thailand) Co.,Ltd.

Sign: _____

Name: _____

Title: _____

Date: _____

TOMAS TECH CO.,LTD.

Sign: _____

Name: _____

Title: _____

Date: _____

END OF BLUEPRINT##