[Pilot Sample stage]

PRIVACY MASK OF VK-S274 SERIES

[REV. 1.0]

This manual applies following models:

<NTSC>	*VK-S274*	
<PAL>	*VK-S274E*	*(NOT COMPLETED)*
<EIA>	*VK-K274*	*(NOT COMPLETED)*
<CCIR>	*VK-K274E*	*(NOT COMPLETED)*

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[Note] ■ is difference of data between VK-S454 series and VK-S274 series.

- PRIVACY MASK SPECIFICATION

1. Function Specification:

a) Setting:

Send the position data (A, B) and the width data (C, D) via RS232C to set the masking zone.

i) Center position data:

Signed 256-formalized assume data for the display screen (747 [H] x 240 [V]).

ii) Width data:

Non-signed 256-formalized assume data for the display screen (747 [H] x 240[V]).

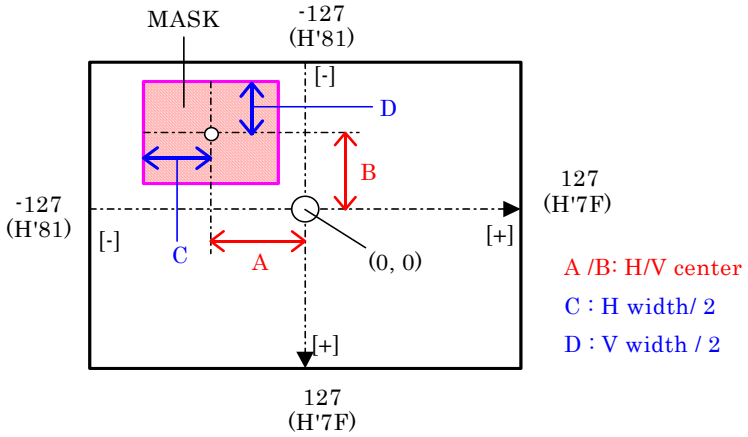


Fig. 1 Coordinate axis for Privacy Mask

b) Decomposability for the masking setting (Display screen):

[H Decomposability]: 2.918 pixels
[V Decomposability]: 0.937 H

c) Masking zone display:

Masking ON/OFF and Gray Scale gradation can be set.
And it will be No display (Standby),if H/V width data=0.

d) Number of masking zone:

Maximum 2 position /zone.

e) Interlocking control with Zooming.

Compensate the masking zone size data according to the zooming (Optical/Digital) ratio.

2. Interlocking control with Panning and Tilting:

a) Pan / Tilt angle:

Center of Pan/Tilt angle is set at the center of the Video display screen <fig. 2 (x, y) > and this center angle data (x, y) will be memorized for each masking setting.
Set the absolute position angle data during Pan/Tilt operation.
(Set reference position as optionally)

b) Pan/Tilt movement amount:

Movement Amount (MA) can be calculated as follow:

MA = tan[d] x f value

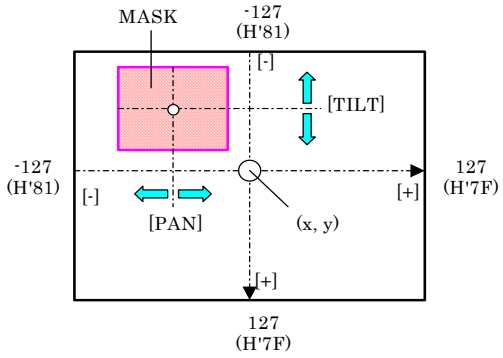
[d]= (Current angle [P] -> Initial setting angle [Q]) < Refer to fig. 4 >

Note: In case of [d] > 60 degree: Set limit as [d]=60degree < refer to fig. 3 >

Therefore, In order to maintain the interlocking the masking zone movement with Pan/Tilt Movement the angle data should be updated during Pan/Tilt operation.

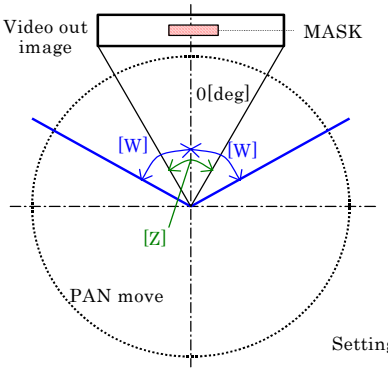
c) Pan/Tilt angle decomposability:

Set every 1/8 degree (H'000～H'B40).



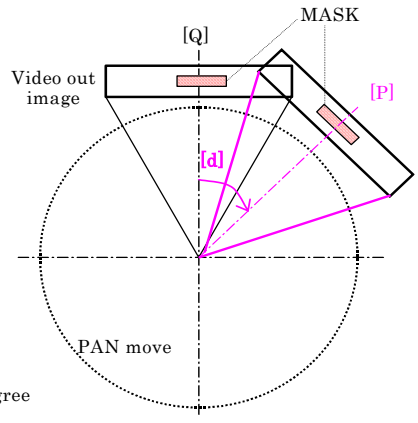
x : Video out center Angle/Degree[H]
y : Video out center Angle/Degree[V]

fig. 2



[Z] : View Angle
[W] : Calculation range = 60 deg

fig. 3



Setting degree

[Q] : Mask setting position (degree)
[P] : Now degree (current angle)
[d] : PAN moved degree (new angle)

fig. 4

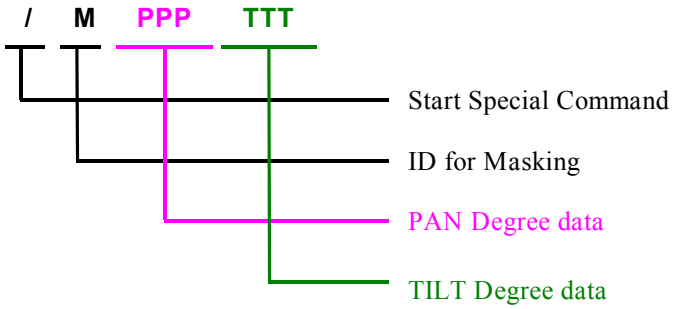
3. New communication command format for the Privacy Masking:

a) Center position and width data command:

Use conventional command format for setting.

b) Pan/Tilt communication command:

Since the absolute angle date is used for setting, the angle data should be updated every field during Pan/Tilt operation and use the following new command format to maintain the movement of the interlocking masking zone with Pan/Tilt operation.



4. Additional new command:

a) New command list:

		Format	Command	Note
Masking On / Off switch		Current	Refer to i)	Common to Mask 1 & 2
Mask gradation setting		Current	Refer to ii)	Common to Mask 1 & 2
Mask 1	H Center position	Current	Refer to iii)	
	H width data	Current	Refer to iii)	
	V Center position	Current	Refer to iii)	
	V width data	Current	Refer to iii)	
	Mask setting Switch	Current	Refer to iii)	Use Initial Mask setting
	H Mask setting angle	Current	Refer to v)	1/16 degree notch angle data
	V Mask setting angle	Current	Refer to v)	1/16 degree notch angle data
Mask 2	H Center position	Current	Refer to iv)	
	H width data	Current	Refer to iv)	
	V Center position	Current	Refer to iv)	
	V width data	Current	Refer to iv)	
	Mask setting Switch	Current	Refer to iv)	Use Initial Mask setting
	H Mask setting angle	Current	Refer to v)	1/16 degree notch angle data
	V Mask setting angle	Current	Refer to v)	1/16 degree notch angle data
Panning data		New	Refer to vi)	Write only, Common to Mask 1 & 2.. 1/8 degree notch angle data
Tilting data		New	Refer to vi)	Write only, Common to Mark 1 & 2. 1/8 degree notch angle data

i) Switch the Privacy Mask ON/OFF

:RF9000
:WF900X_1X_0
X_1X_0=00 ; OFF
X_1X_0=03 ; ON [default]

ii) Privacy Mask shade setting

:RF90100
:WF901X_1X_0
(X_1X_0=00 - 0F ; 16 step)
H'00 ; Black
H'08 ; Gray [default]
H'0F ; White

iii) Set the Privacy Mask position - MASK1

[New data set] :WF90EX_1X_0
H'01 ; New data set
Become H'00 after the data processing.
H'00 ; Mask data modify

[H center] :WF904X_1X_0
(X_1X_0=81 (nega) - 00 (center) - 7F (plus))

[V center] :WF905X_1X_0
(X_1X_0=81 (nega) - 00 (center) - 7F (plus))

[H size] :WF906X_1X_0
(X_1X_0=00 - 8F ; 144 step)

[V size] :WF907X_1X_0
(X_1X_0=00 - 8F ; 144 step)

iv) Set the Privacy Mask position - MASK2

[New data set] :WF90FX_1X_0
H'01 ; New data set
Become H'00 after the data processing
H'00 ; Mask data modify

[H center] :WF908X_1X_0
(X_1X_0=81 (nega) - 00 (center) - 7F (plus))

[V center] :WF909X_1X_0
(X_1X_0=81 (nega) - 00 (center) - 7F (plus))

[H size] :WF90AX_1X_0
(X_1X_0=00 - 8F ; 144 step)

[V size] :WF90BX_1X_0
(X_1X_0=00 - 8F ; 144 step)

v) Read the setting degree data of MASK1 / MASK2

:rF9140000 ; Mask 1 H degree data
(data range ; H'00000 - H'1680,
; 0.0625 degree/step)

:rF9160000 ; Mask 1 V degree data
(data range ; H'00000 - H'1680,
; 0.0625 degree/step)

:rF9180000 ; Mask 2 H degree data
(data range ; H'00000 - H'1680,
; 0.0625 degree/step)

:rF91A0000 ; Mask 2 V degree data
(data range ; H'00000 - H'1680,
; 0.0625 degree/step)

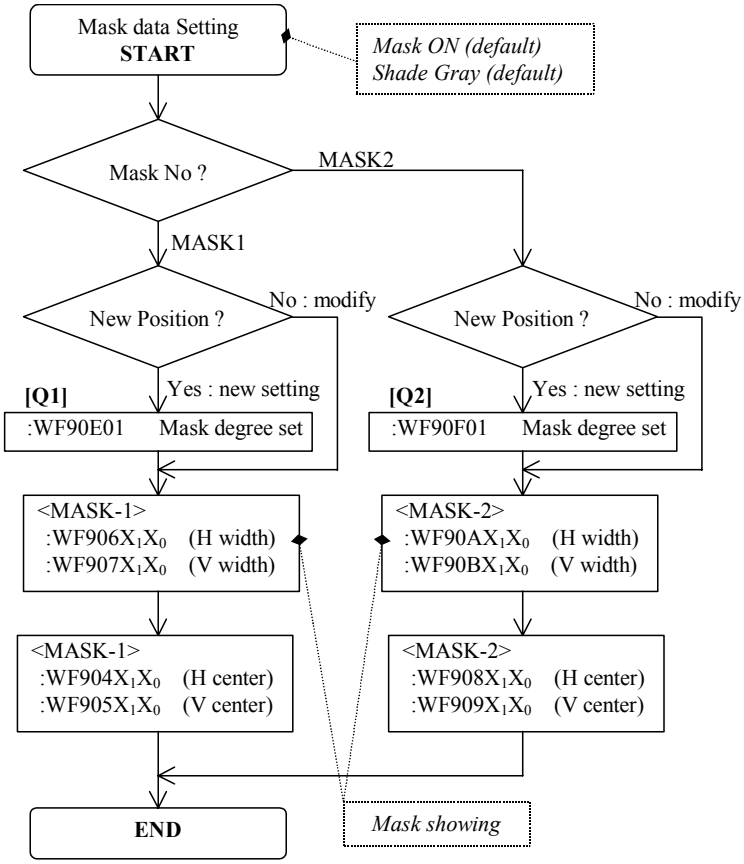
vi) Degree data (Pan / Tilt)

/M$X_2X_1X_0Y_2Y_1Y_0$ [special write command]
$X_2X_1X_0$; PAN degree
$Y_2Y_1Y_0$; TILT degree
($X_2X_1X_0$ / $Y_2Y_1Y_0$ 000 - B40 ; 0.125 degree/step)

5. Flow Chart:

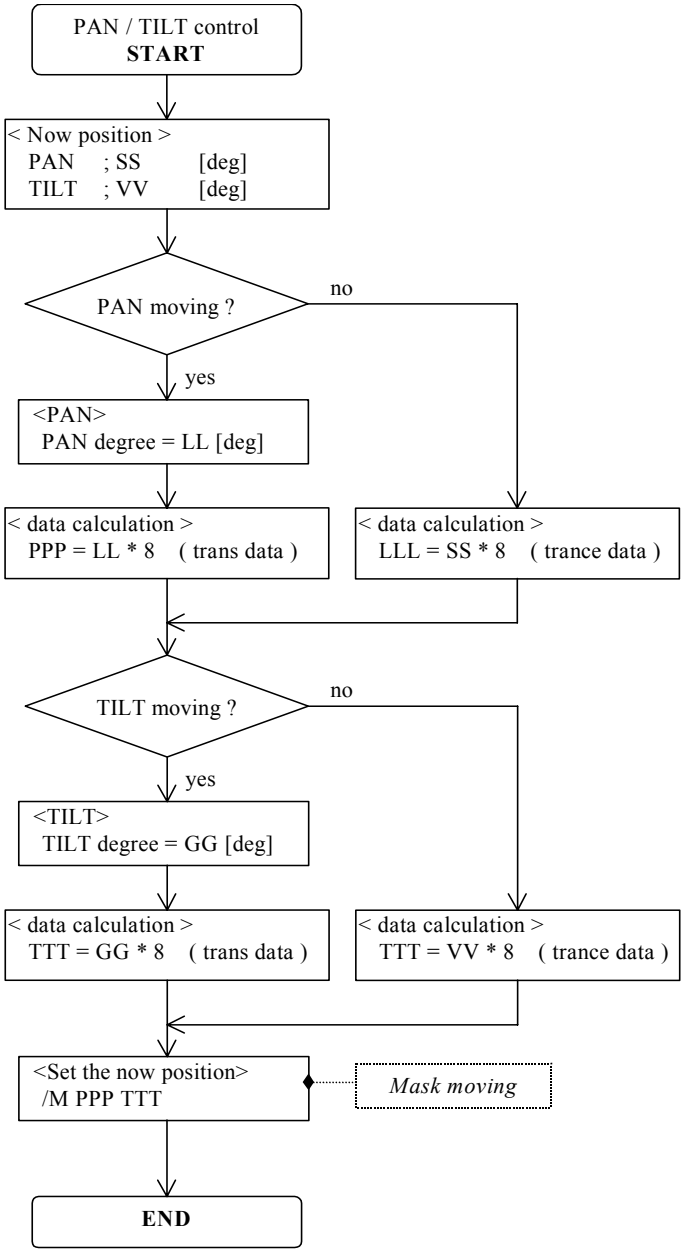
a) Center position, Width data setting:

Follow the flow chart below for the center position and width data setting.
Masking setting angle data will be memorized when [Q1][Q2] are sending.



b) PAN / TILT Angle data setting:

Refer to the flow chart below for the PAN / TILT angle setting:



• APPENDIX

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2001/07/13 * Pilot sample Version (VK-S274)