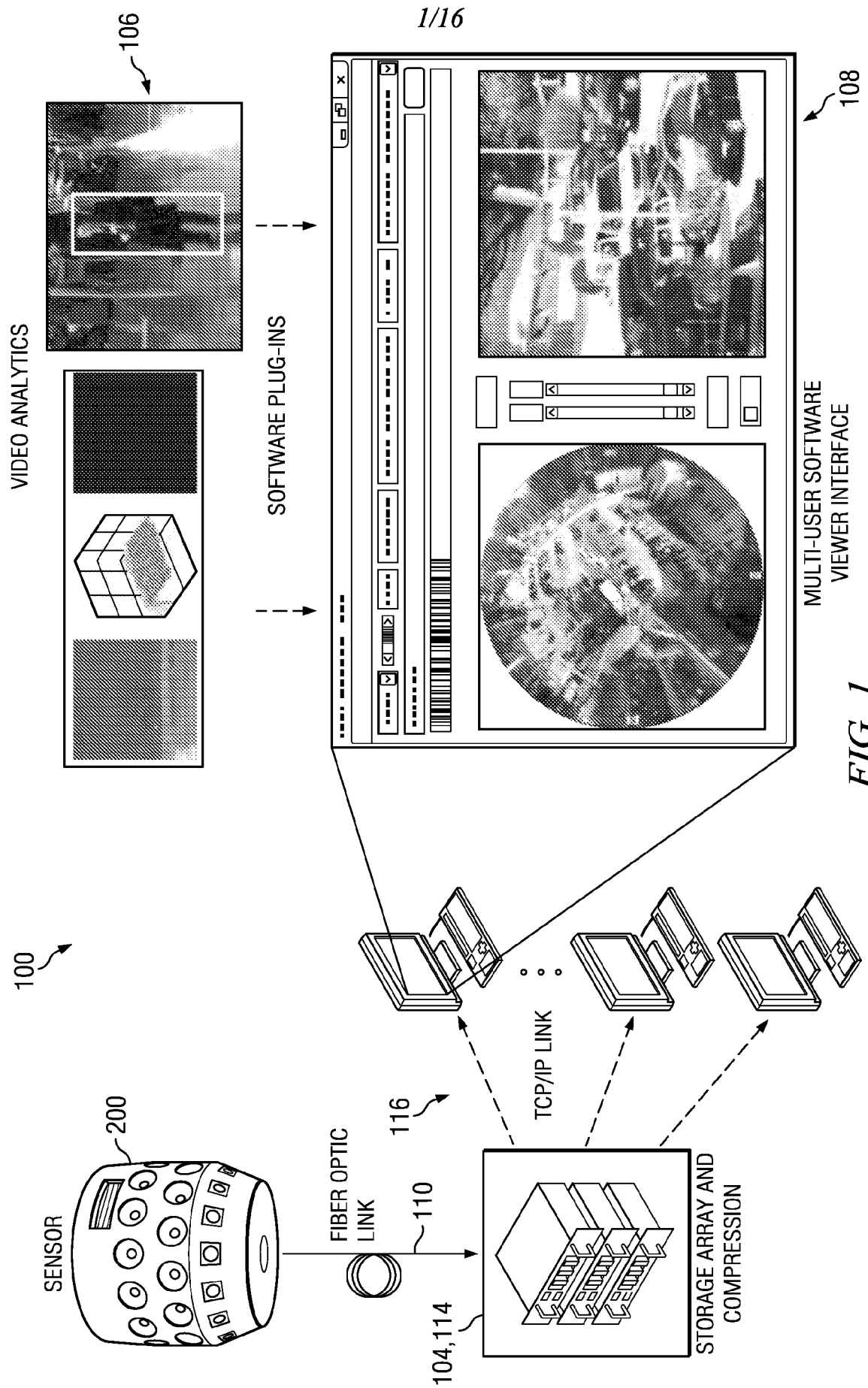




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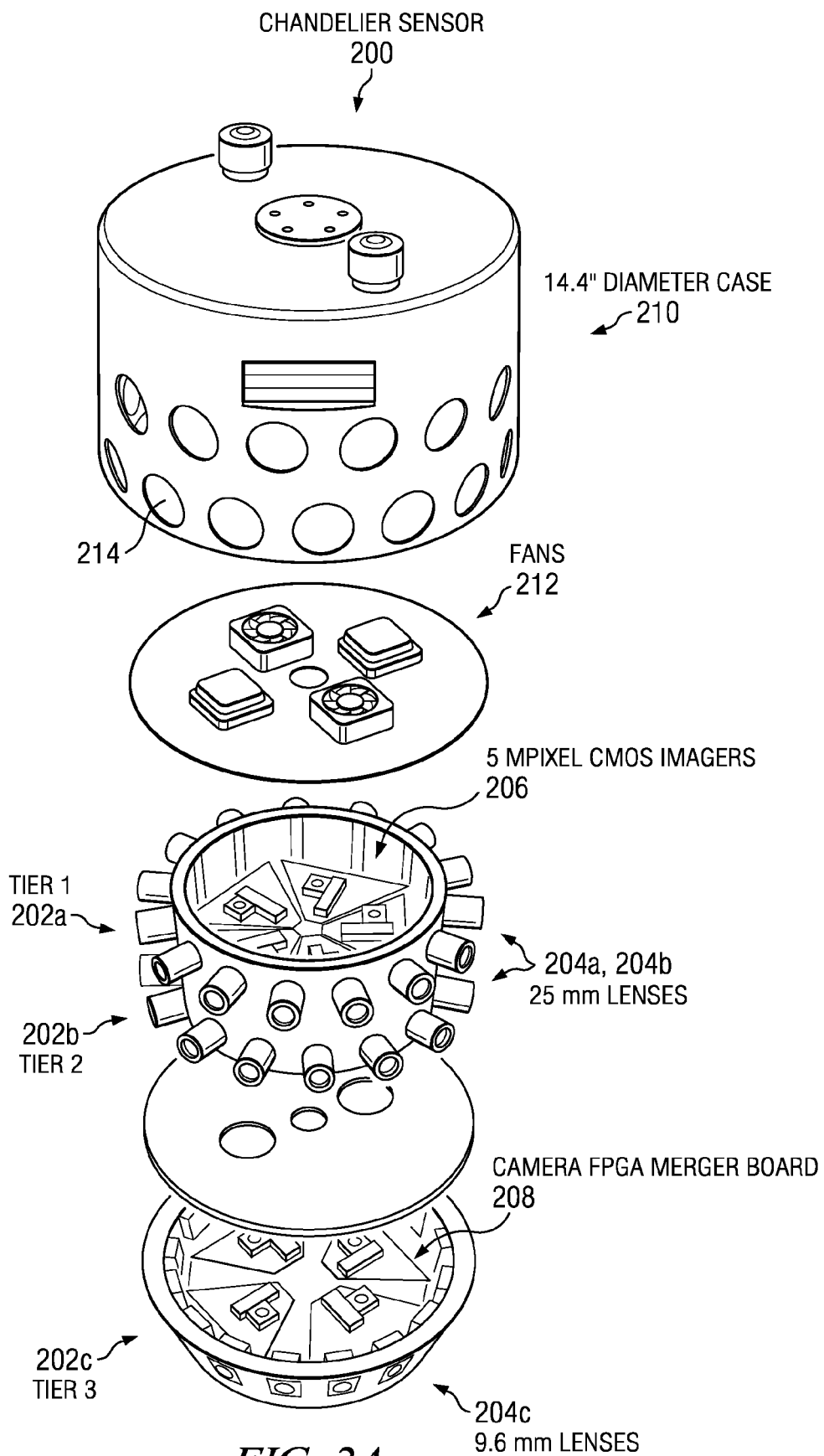


FIG. 2A

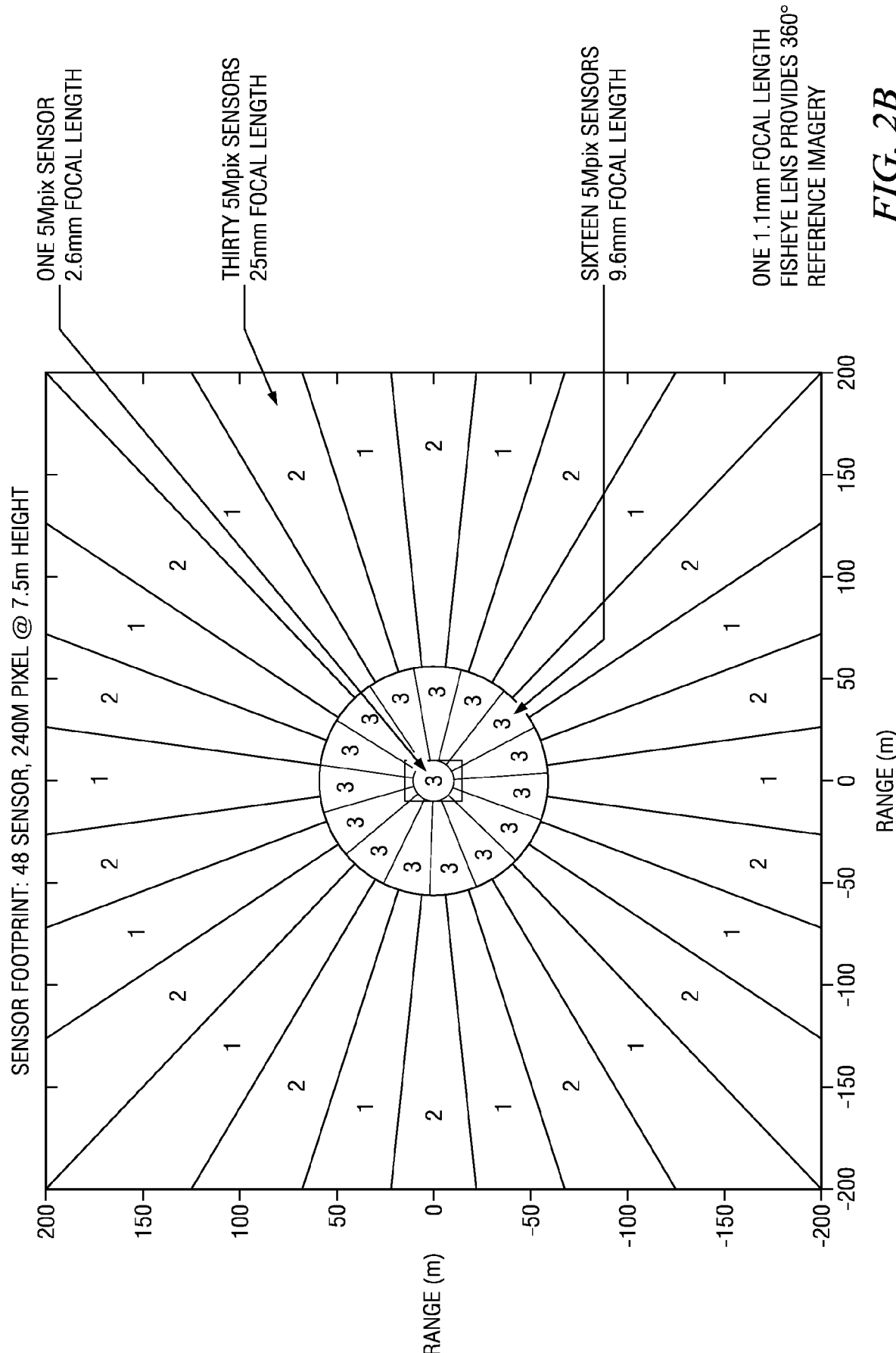


FIG. 2B

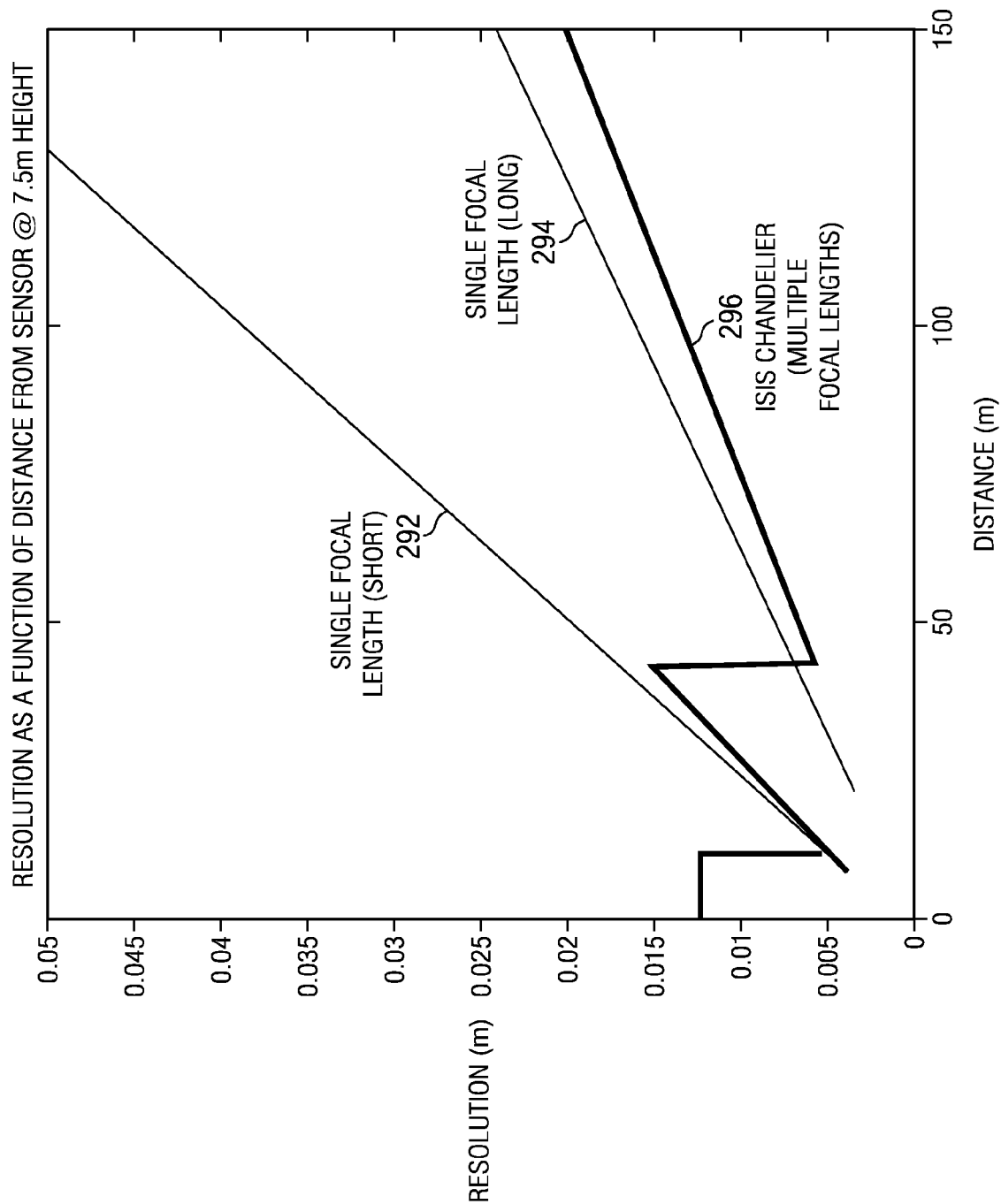


FIG. 2C

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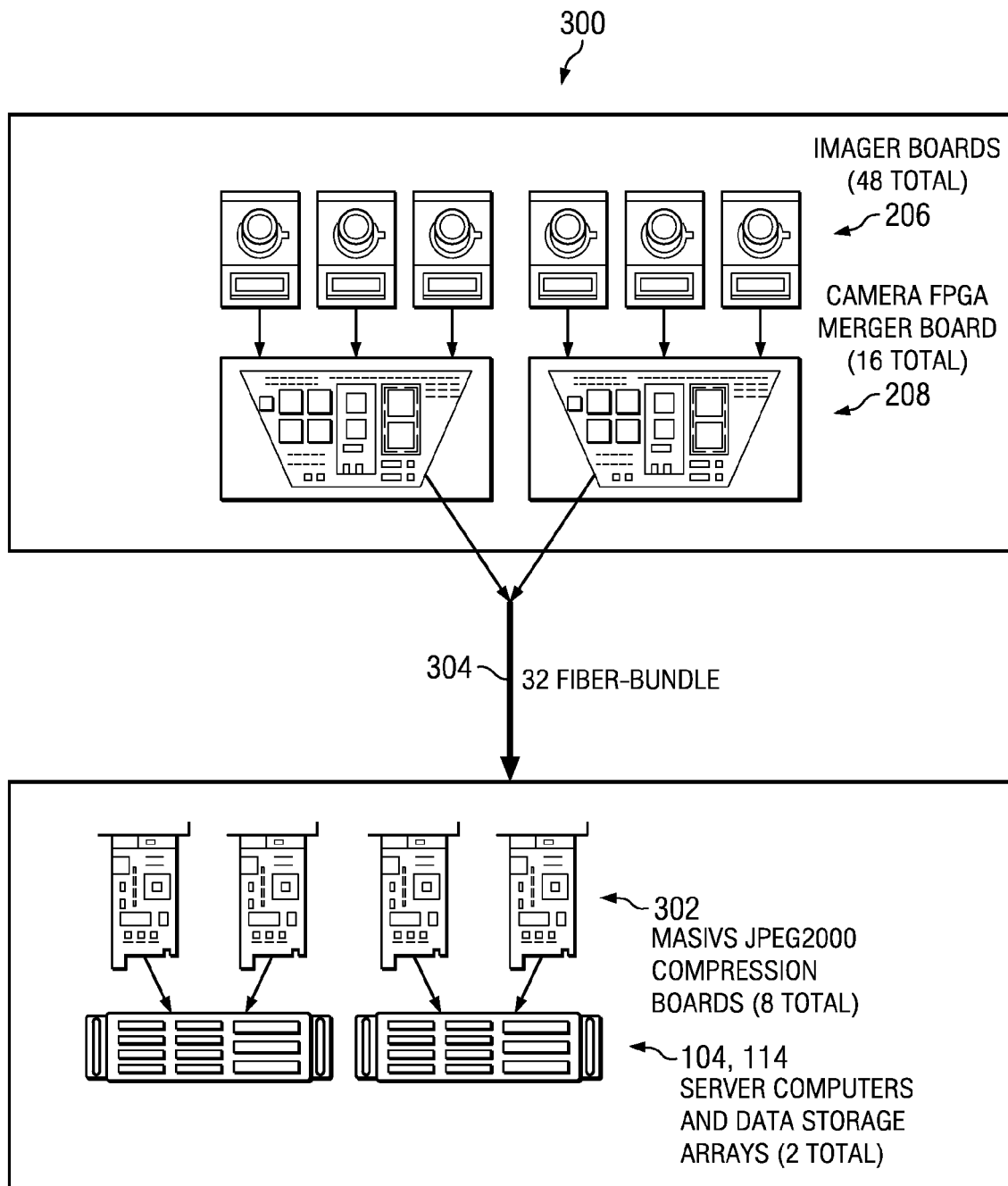


FIG. 3A

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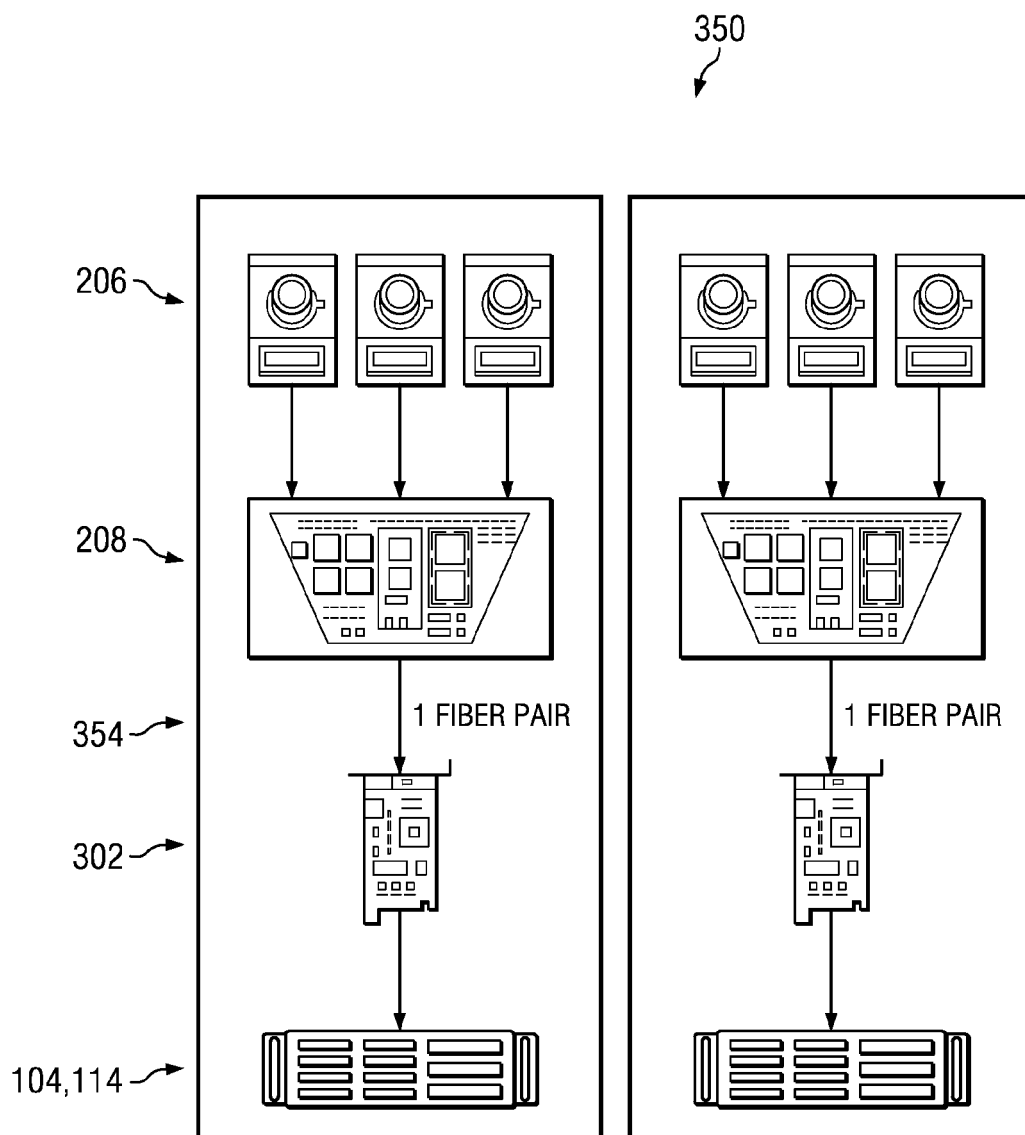


FIG. 3B

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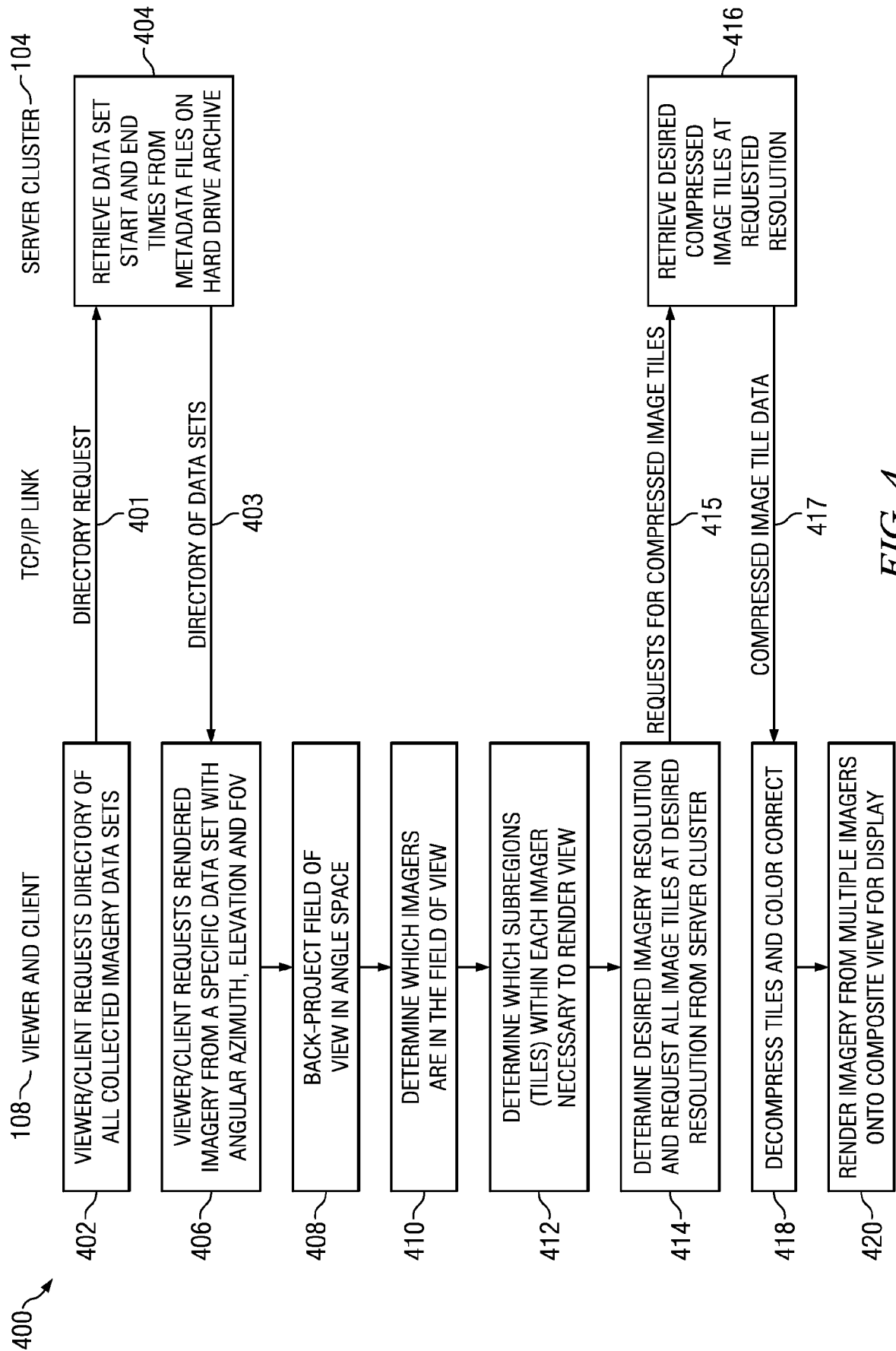


FIG. 4

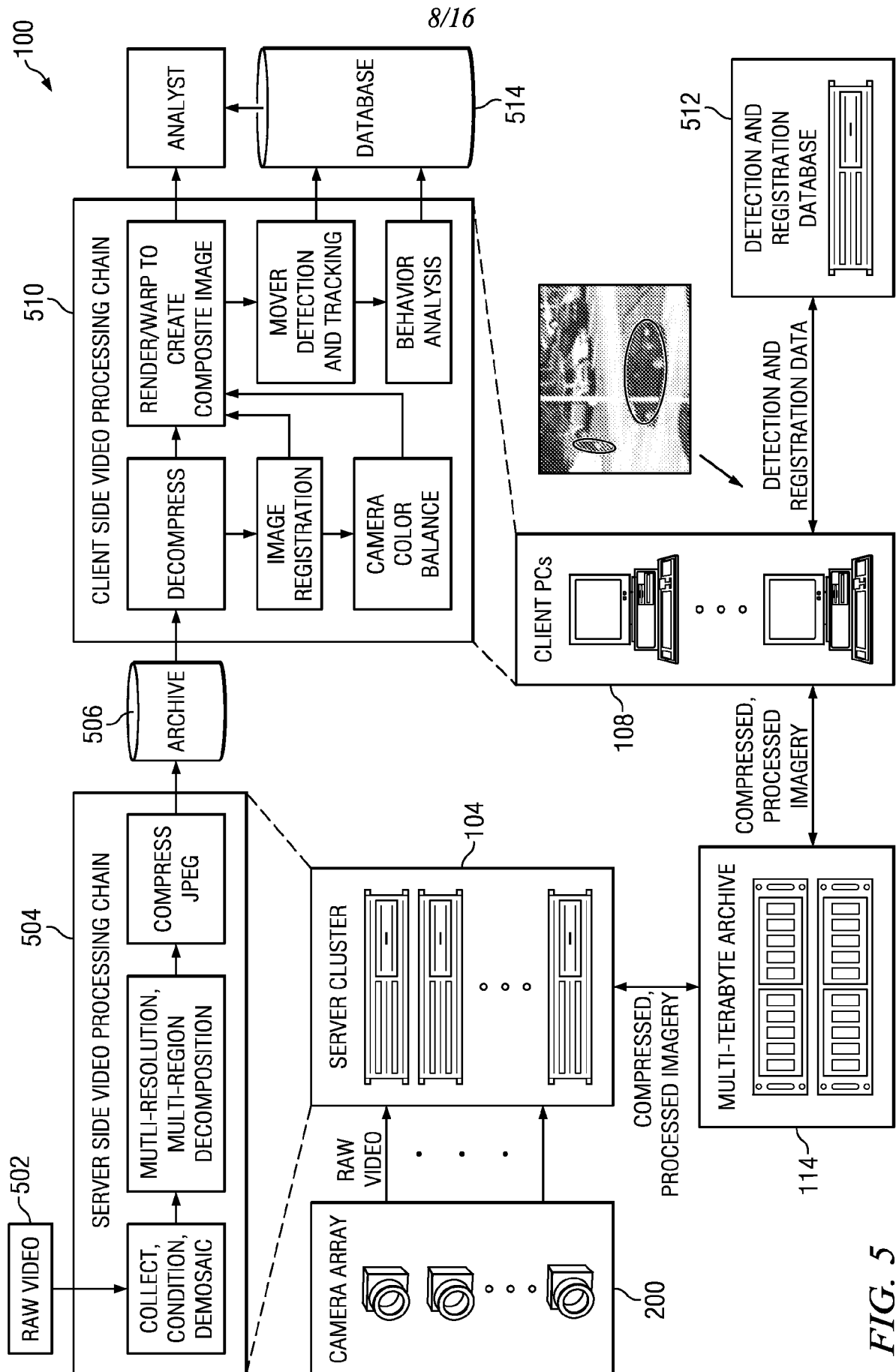
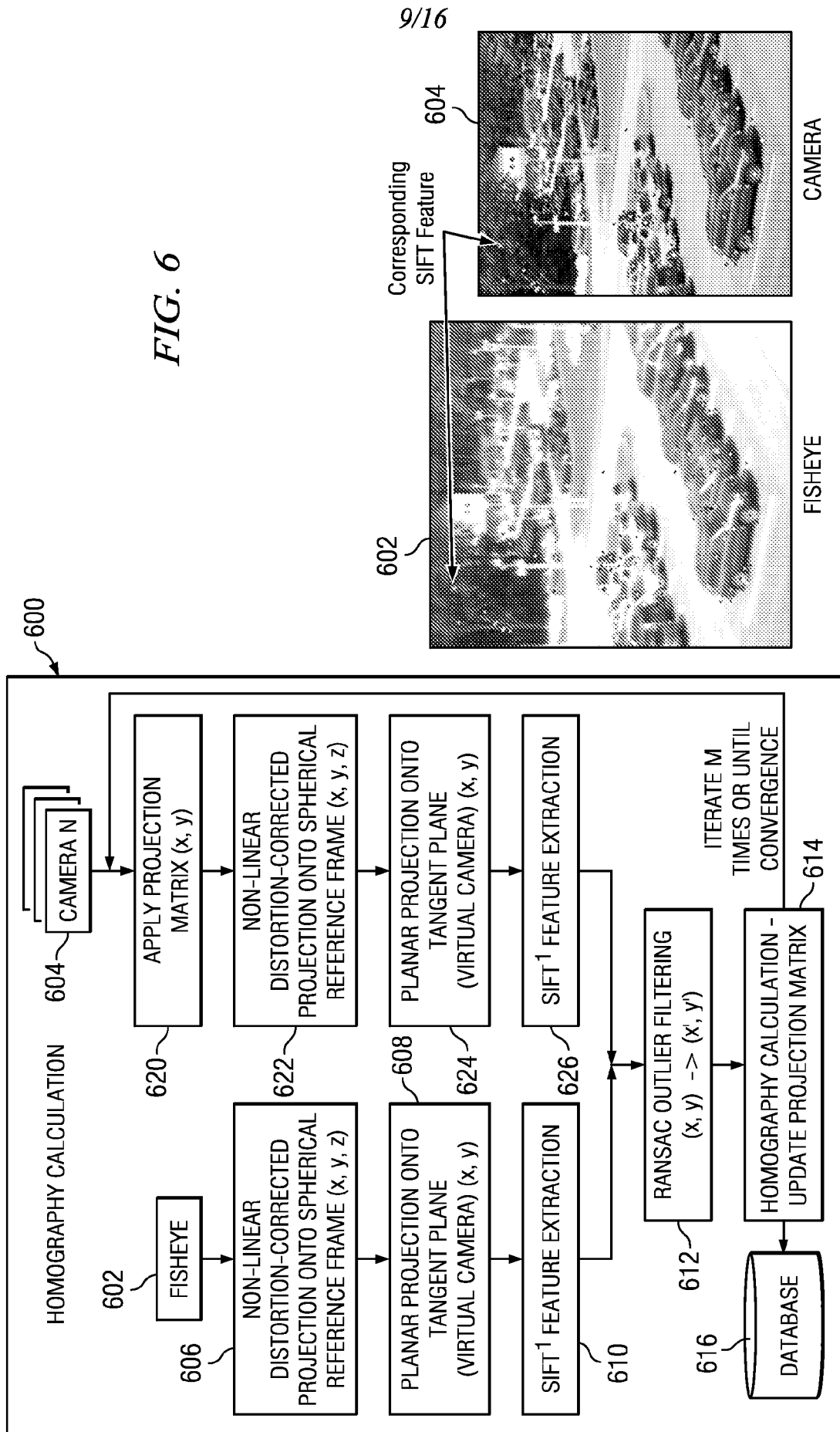


FIG. 5

FIG. 6



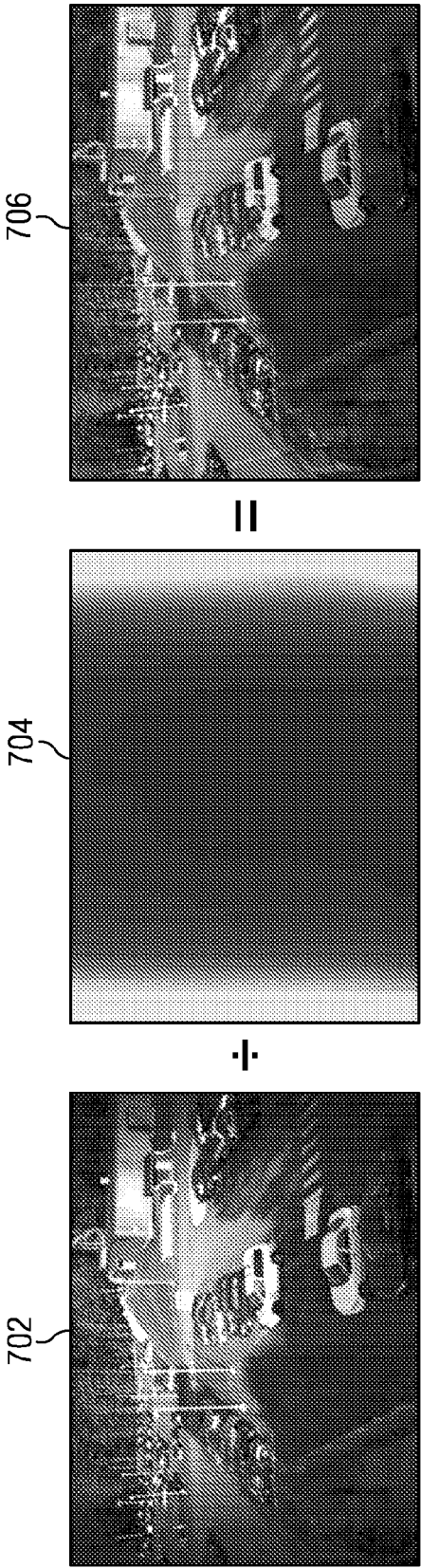


FIG. 7

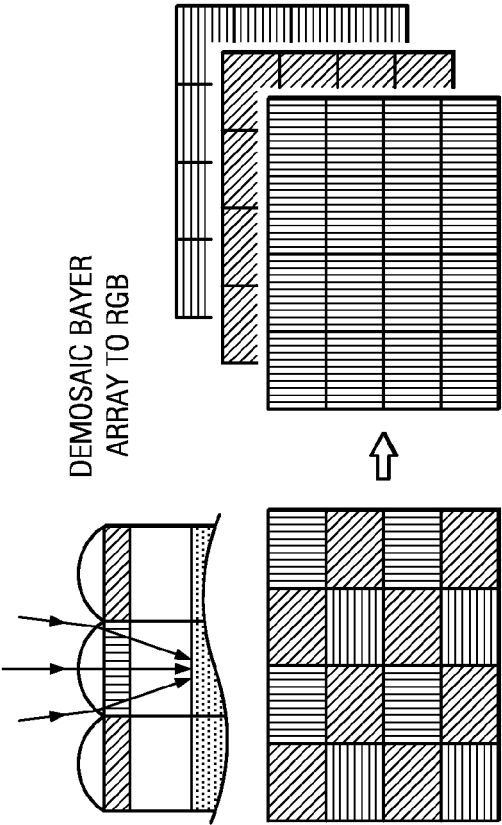
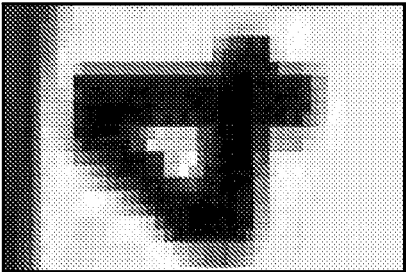
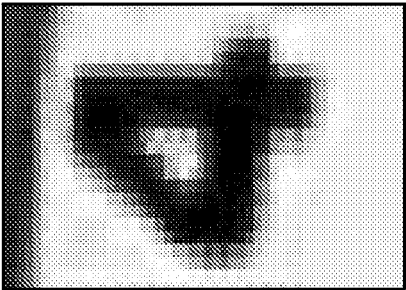


FIG. 8

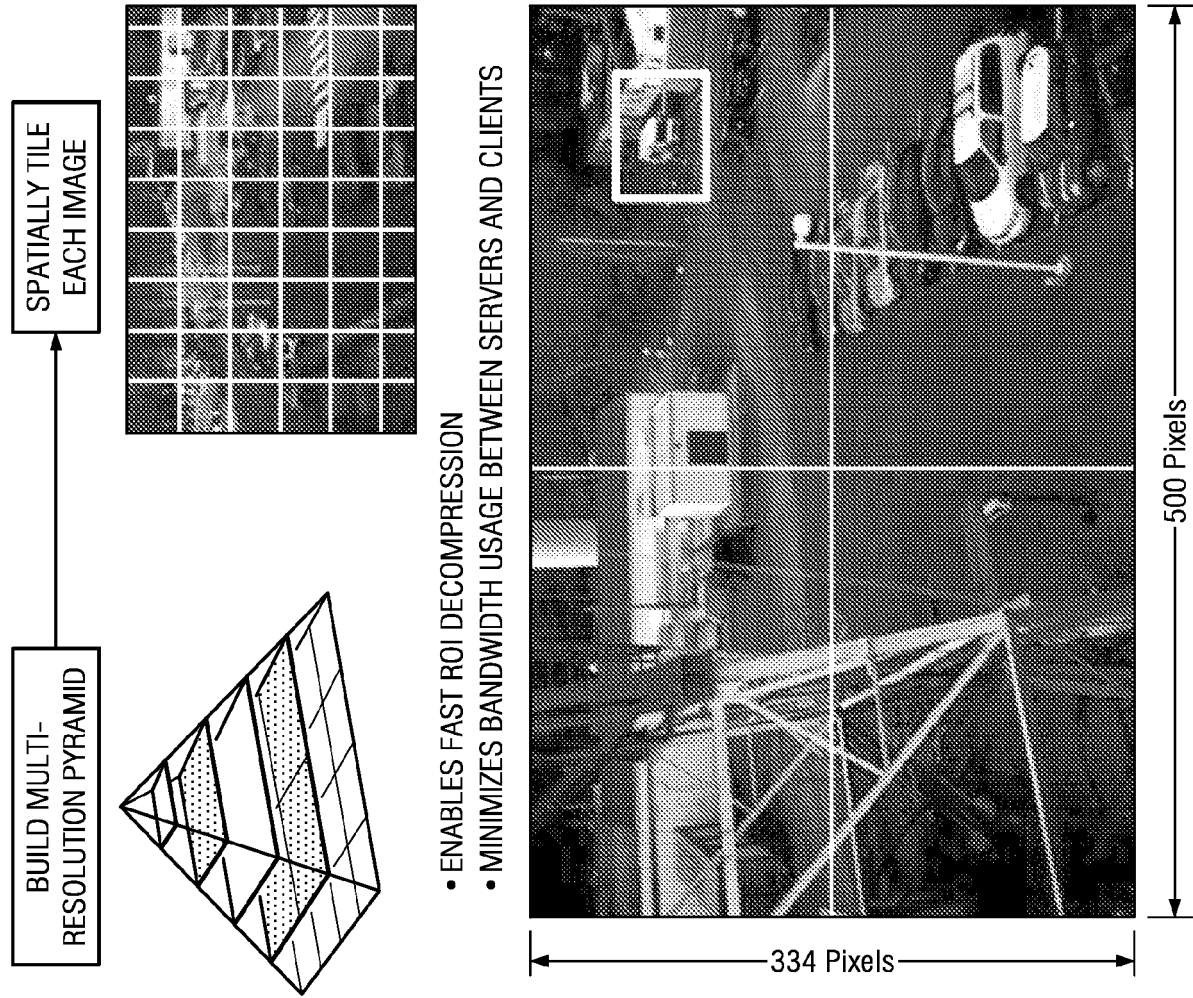


GRADIENT APPROACH



NON-GRADIENT APPROACH

FIG. 9



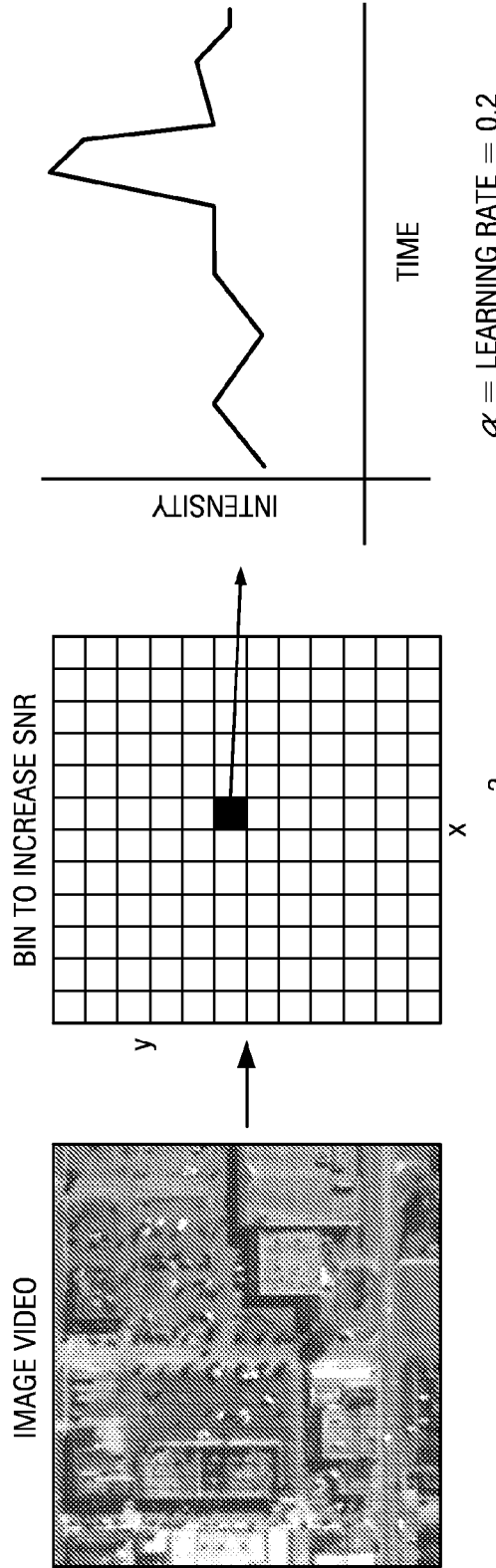
EXAMPLE CASE

	MB/s
RAW DATA ¹ @ 4fps	128
MULTI-RES	2
MULTI-RESOLUTION + MUTLI-REGION	0.5

¹RAW DATA IS ~4000x2700 COLOR PIXELS

FIG. 10

ADAPTIVE STATISTICAL BACKGROUND MODELING

ONLINE COMPUTATION OF MEAN (M) AND VARIANCE (σ^2)

$$M_t(x, y) = \alpha I_t(x, y) + (1 - \alpha) M_{t-1}(x, y)$$

$$\sigma_t^2(x, y) = \alpha \sigma_{t-1}^2(x, y) + (1 - \alpha) (I_t(x, y) - M_t(x, y))^2$$

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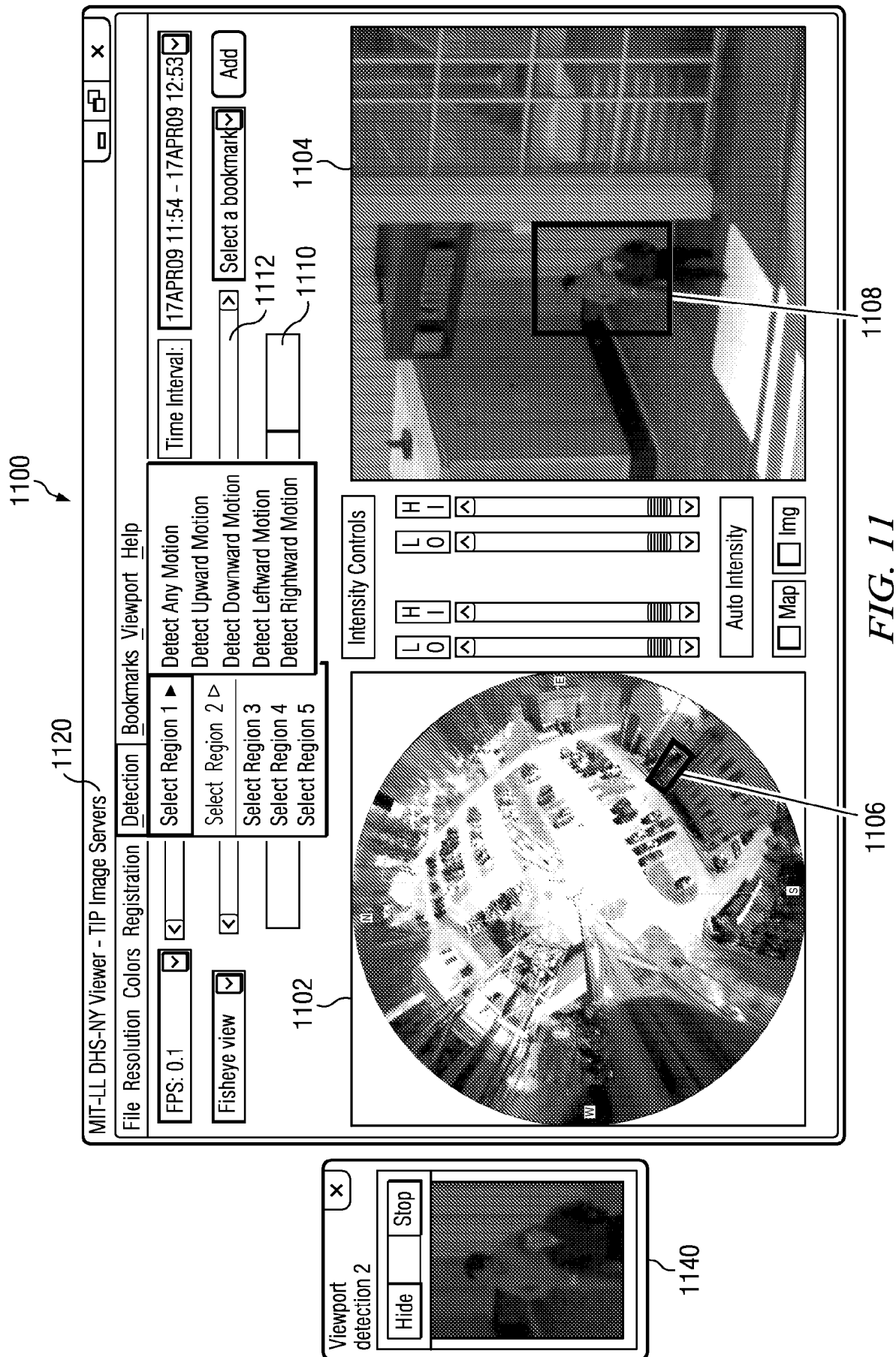


FIG. 11

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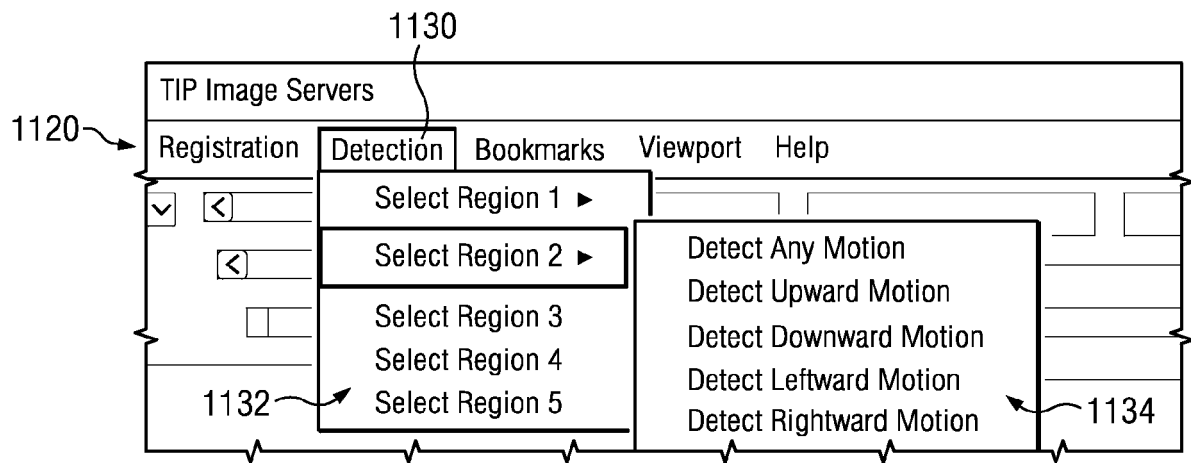


FIG. 12

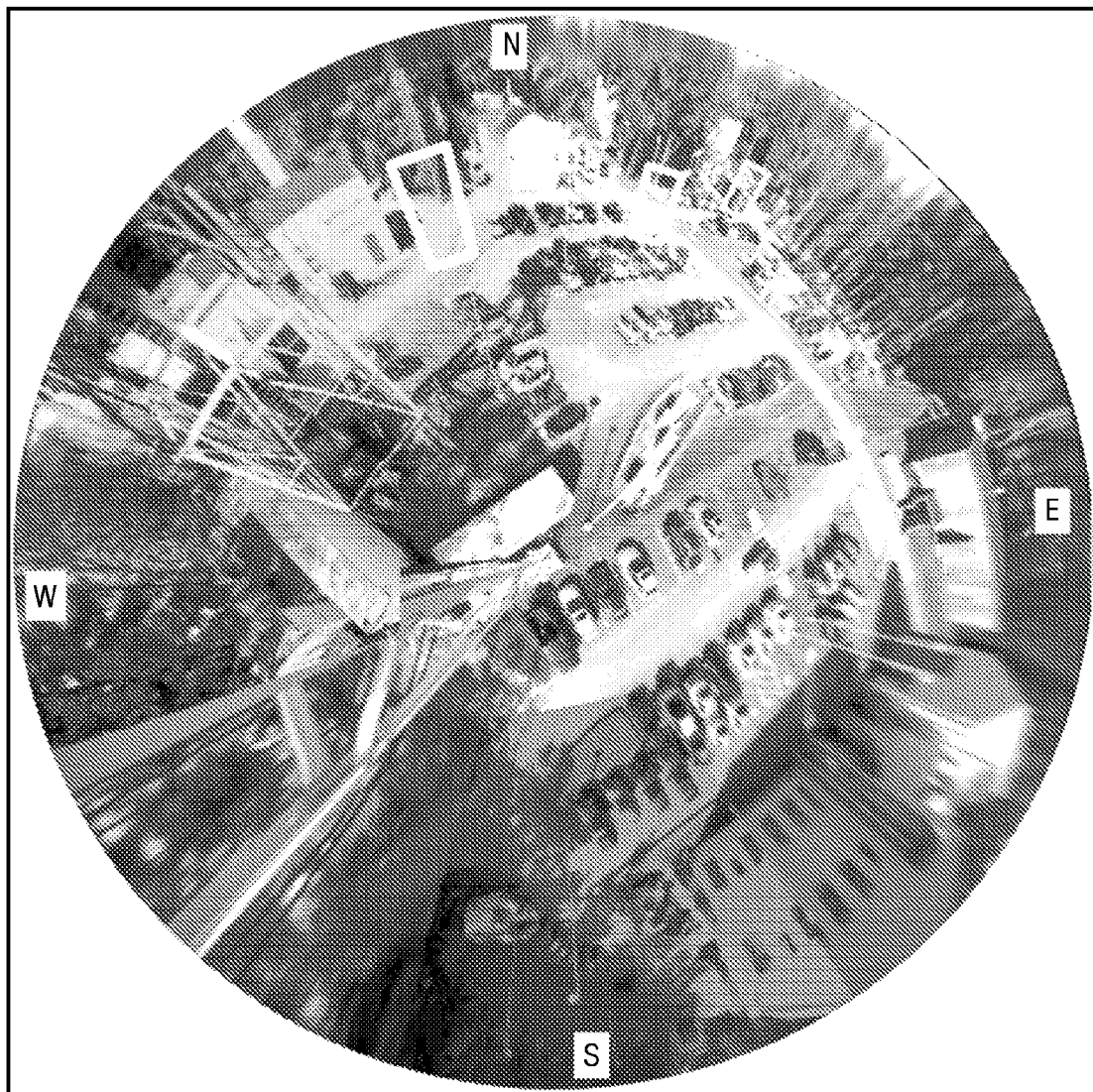
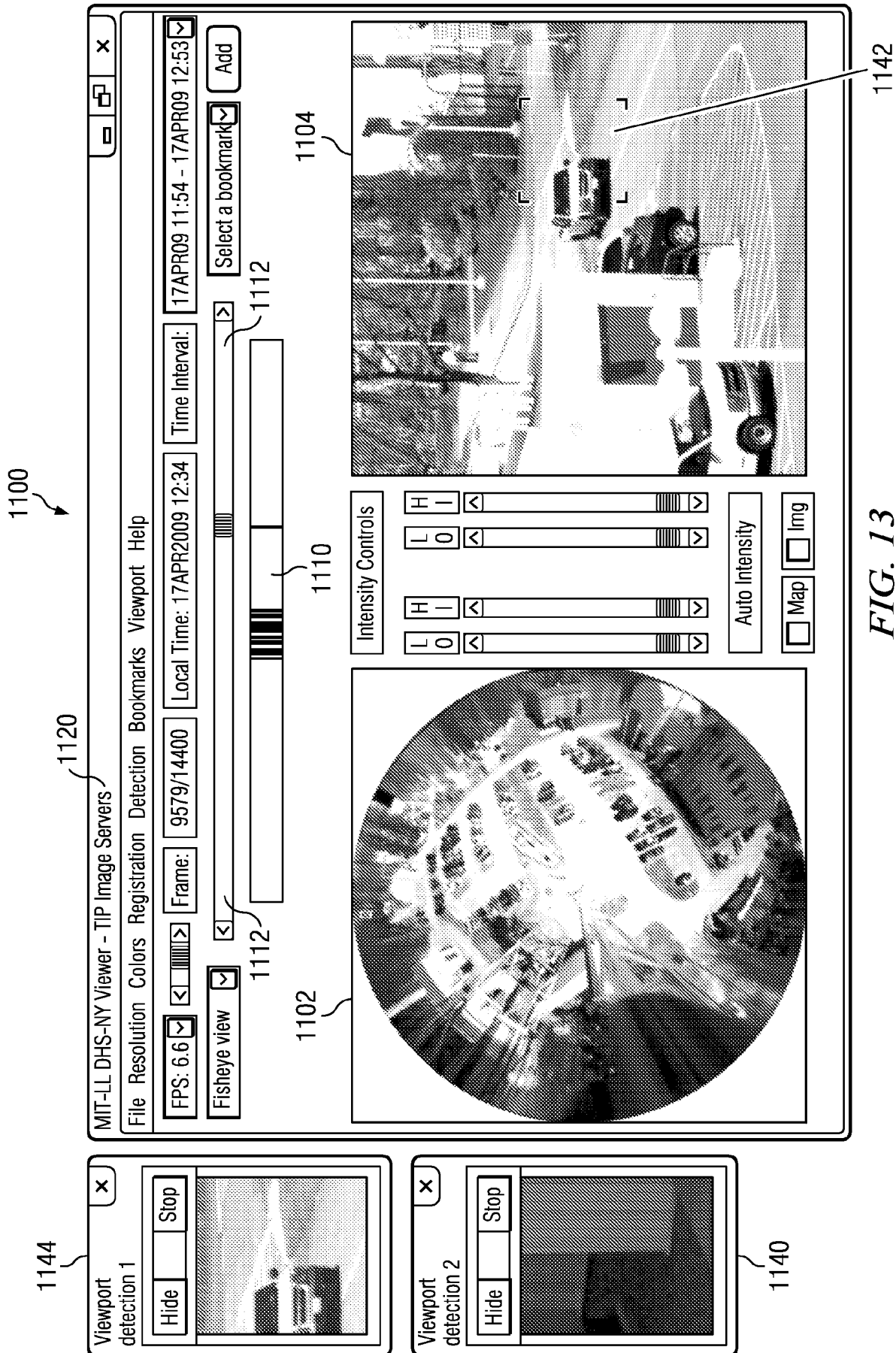


FIG. 15

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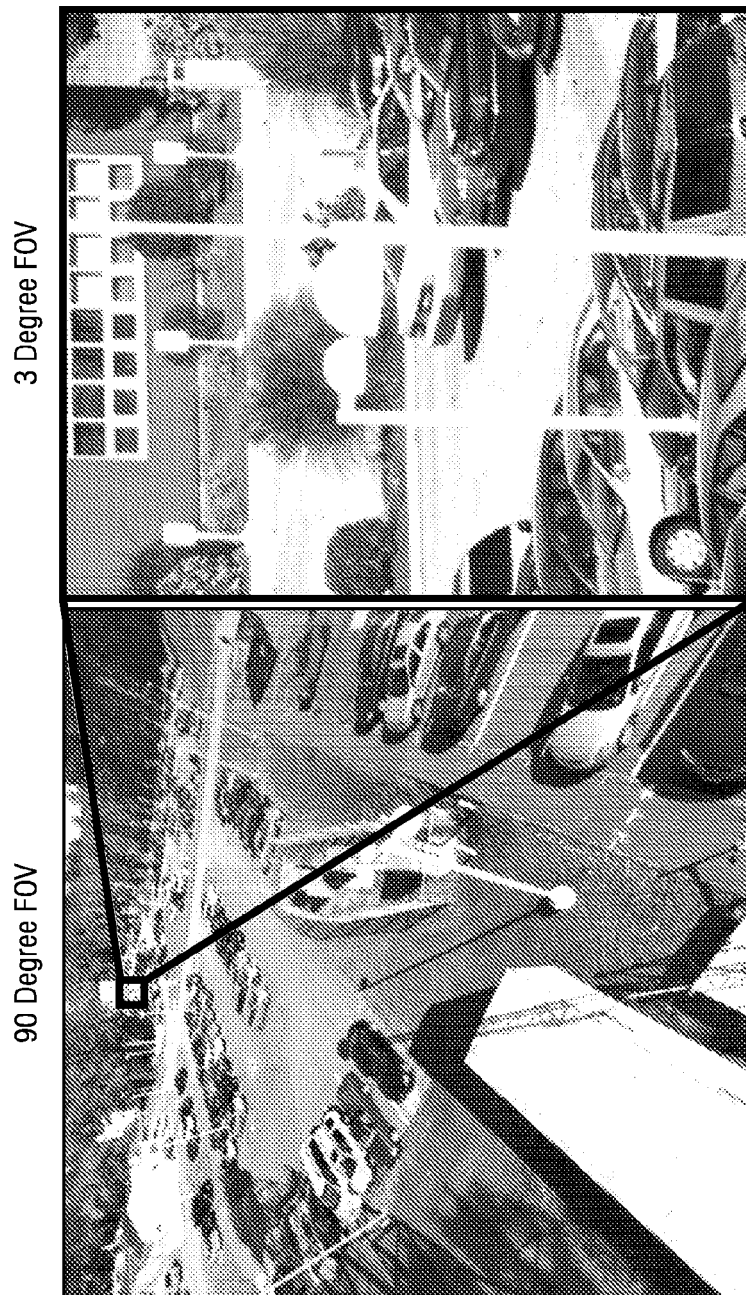


FIG. 14