

APPARATUS FOR SEPARATING A DIGITAL COMPOSITE
VIDEO SIGNAL INTO COMPONENTS

ABSTRACT OF THE DISCLOSURE

A digital filter (20, 30) separates an M-bit (12) chrominance component (C12) from an N-bit (8) digital composite video signal (CV) supplied thereto, M (12) being greater than N (8) due to arithmetic operations (24,44,46,50) required for the separation. The separated M bit chrominance component is reduced to N-bits and subtracted from the composite video signal to provide a separated luminance component. For bit reduction, the separated chrominance component (C12) is subjected to symmetrical rounding (100A or 100B and 104) and limiting (104). Advantageously, symmetrical rounding of the chrominance component provides reduces a tendency for the luminance component to exhibit contouring when displayed.

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Figure 1