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(54) Title: ULTRA-LOW COST HIGH PERFORMANCE SATELLITE APERTURE

(57) Abstract: An antenna system of a satellite may consist of an antenna receiver that is coupled to a plurality of flexible couplings. The couplings may each be affixed to one or more antenna elements. The couplings may be deployed in space in an uncontrolled manner. Additionally, the spacing between the couplings, and in turn the antenna elements, may be spaced in an uncontrolled manner. The antenna elements may have no pointing requirements. The antenna system may receive training signals and associate an antenna element to a time of arrival based on the training signal. Upon receiving a data signal, the antenna system may apply coefficients determined from the association of the antenna element to the time of arrival to the data signal to discover wanted signal coherence among the antenna elements.

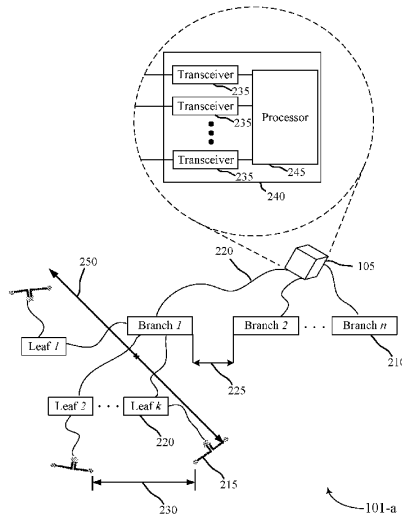


FIG. 2

[Continued on next page]

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