

Abstracts

A 12-GHz Low-Cost Earth Terminal for Direct TV Reception from Broadcast Satellites (Dec. 1977 [T-MTT])

R.J. Douville. "A 12-GHz Low-Cost Earth Terminal for Direct TV Reception from Broadcast Satellites (Dec. 1977 [T-MTT])." 1977 Transactions on Microwave Theory and Techniques 25.12 (Dec. 1977 [T-MTT] (1977 Symposium Issue)): 1000-1008.

A low-cost 12-GHz receiver for TV reception from high-power broadcast satellites is described. System designs using 0.6- and 1.2-m parabolic dishes with high-efficiency Cassegrain and prime-focus feed configurations have been studied. The front end consists of an MIC image-enhanced mixer, 1.2-GHz low-noise amplifier, and a Gunn diode LO. The signal is then fed to an indoor unit which has been designed using both surface acoustic wave (SAW) and lumped element 70-MHz bandpass filters and demodulators. Audio and video receiver outputs are fed directly to the baseband circuitry of a standard receiver.

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