

Abstracts

An 18-40 GHz Phase Locked Downconverter Subsystem

A. Stajcer. "An 18-40 GHz Phase Locked Downconverter Subsystem." 1991 MTT-S International Microwave Symposium Digest 91.1 (1991 Vol. I [MWSYM]): 225-228.

A high performance frequency conversion module (FCM) has been developed for ground based EW system applications. The FCM unit is built using integrated finline and hybrid MIC techniques to achieve a low noise high performance millimetre-wave front-end without the use of a mm-wave LNA. The FCM unit channellizes the 18 to 40 GHz into three bands and downconverts each band to a common 8-18 GHz IF. The FCM design includes a novel wideband mm-wave limiter and mm-wave L.O. for each of the bands. A noise figure of <13 dB was achieved in all three bands with a 50 dB dynamic range.

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