

## Direction-Finding Performance of a Ka-Band ESM Receiver

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Although development of Electronic Warfare (EW) receivers has begun to address the need to detect millimeter wave radars, very little ESM performance data have been provided to the system engineering community. This has partially been a result of the sensitivity of some millimeter wave applications. This paper provides a sample of direction-finding (DF) measurements derived from tests carried out on an advanced development model (ADM) millimeter wave (28-40 GHz) ESM receiver using an outdoor test range. DF accuracies of 5-6° rms are demonstrated as being readily attainable Ku-band using conventional amplitude comparison monopulse techniques [1-3] combined with high probability-of-intercept and large instantaneous dynamic range.

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