A01a An Impulsive Flare Accompanied by a Cusp-Like Structure

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We report microwave and hard X-ray observations of an impulsive M2 class flare that occurred on 1999 September 17 at N13, W64. Since SXT images of this flare in the decay phase show that the flare region was rather complex and essentially composed of a bright loop and a cusp-like structure (possibly an arcade), we can learn whether electron acceleration was associated with the cusp-like structure or not.

Some of main results are as follows.

- 1. HXT images show a flaring loop and its footpoints.
- 2. Major emission at 34 GHz came from the whole hard X-ray loop (HXR loop), and from the region including and above it at 17 GHz.
- 3. There were two other weak sources at 17 GHz. One was located far from the 17 GHz major source and had a similar time profile to that of the major source with a small delay. The other was located near and above the 17 GHz major source, and emitted short-duration bursts that had almost no correlation with the major burst. Since it seems to be located below the cusp-like region, it probably had no relation to this structure.

These results suggest that high-energy electrons were not confined in the HXR loop, and their acceleration site was closely related to the HXR loop, but that they were not accelerated around the cusp region.